

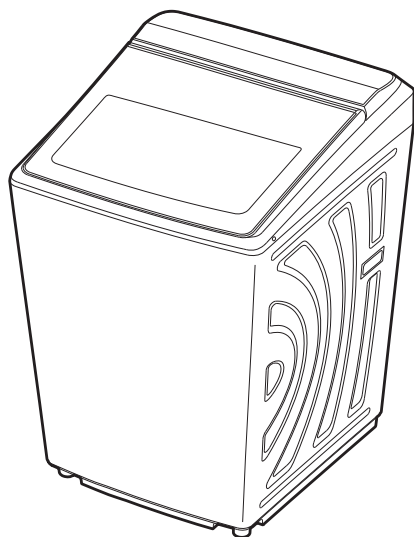
# Panasonic®

## Operating & Installation Instructions Washing Machine

Model No.

### NA-FS20V5SR

(Household Use)



**ECONAVI**

Thank you for purchasing this Panasonic product. Please read these instructions carefully before using this product, and save this manual for future use. This product is intended for household use and is not intended for commercial use.

### Contents

Safety Precautions .....	2
Name of Parts / Accessories .....	4

Before Use

Washing .....	6
Cycle Guide .....	8
Auto Tub Hygiene .....	14
Getting the Laundry Ready .....	14

Basic  
Operations

Washing Delicate Clothes .....	15
Washing Comforter .....	16
Wash/Rinse/Spin Cycles Individually .....	17
Super Dry .....	18
Door Lock .....	18
About Detergent .....	19
Clean and Maintenance .....	21
Installation .....	23

Advanced  
Operations

Troubleshooting .....	25
Error Code .....	27
Specifications .....	28

Reference





W9901-S2V50SR

# Safety Precautions

These must be observed.

The following information describes the precautions that must be observed to prevent human injury or damage to property.

- The following expressions are used to describe and classify the degree of injury or damage that occurs with incorrect use.

 <b>WARNING</b> This indicates "content that involves a risk of serious injury or death".	 <b>CAUTION</b> This indicates "content that involves a risk of injury or damage to property".
---	--

- The following symbols describe content to be observed. (The following symbols are examples.)


 This indicates "content that must NOT be performed".	 This indicates "content that MUST be performed".
---	--

To prevent fire, electric shock, or injury



## WARNING

Appliance

**Do not allow a child to peer over the tub.** (This may cause the child to fall into the tub and drown or suffer injury.)

- Do not place a stool or similar objects near the washing machine.

**Never disassemble, repair or remodel the washing machine.** (This may cause fire or abnormal operation that may result in injury.)


- If copper tracks or the fuse on the control board should melt, do not try to repair the disconnected tracks or wires by reconnecting them.

**Do not place any burning objects near the washing machine.** (This may cause fire.)

- Cigarettes, candles, etc.


**Do not apply water directly to the washing machine (particularly the control panel) or place it in a wet or humid location.** (This may cause electric shock or fire.)  
**When opening the lid, do not place your fingers in the hinge mechanism.** (This may cause injury.)  
**Do not subject the glass lid to impact.** (If it should break, stop the use of the washing machine immediately.)

Installation





- Do not obstruct the openings of the bottom face with carpet, etc.
- New hose-sets supplied with the appliance are to be used and old hose-sets should not be reused.

Appliance


**This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.**  
**Children should be supervised to ensure that they do not play with the appliance.**

Tub

**When unloading the laundry or other objects in the tub, do not touch them until the tub stops completely.** (Even when the tub is rotating slowly, there is a danger of injury when your hand becomes entangled with the clothes.)

**If the tub does not stop within 15 seconds after you have opened the lid during the spin cycle, stop the use of the washing machine immediately.** (Contact the service center for service and repair.)

During use

**Never place any flammable substances or clothing, etc. saturated with such substances in the tub or bring them near the washing machine.** (This may cause an explosion or fire.)

- Kerosene, gasoline, benzine, thinner, alcohol, etc.

**When using hot water, do not touch the hot parts.** (This may cause a burn.)

- Water supply hose, water drain hose, etc.
- Do not open the lid.

**To prevent water leaks, personal injuries or other damages**



## WARNING

### Tub



#### **Do not do the following:**

(This may cause fire or electric shock.)

- Do not scratch, modify, bend forcibly, twist, pull, place heavy items upon, bundle or place near hot devices.
- Do not connect or disconnect the power plug with a wet hand.
- Do not pull the power cord to disconnect the power plug.
- When the power cord or plug is damaged or the electrical outlet is loose, do not use the washing machine. (If the power cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified person to avoid a hazard.)



#### **Observe the following:**

(It may lead to fire or electric shock as a result.)

- Use a single electrical outlet with a voltage that match the ratings of your washing machine. (Sharing an electrical outlet with other devices may cause fire due to overheating.)
- Securely insert the power plug into the electrical outlet.
- Wipe the power plug with a dry cloth on a regular basis. (If dust collects on the power plug, humidity, etc. may impair insulation and cause fire.)
- When the washing machine is not to be used for a long period of time or when performing maintenance, be sure to disconnect the power plug.

### Responses to emergencies



#### **In case of any machine error or failure, stop using it immediately and disconnect the power cord.**

(Or this may lead to smoke, fire, and electric shock.)

Errors or failures you may encounter:

- Your machine failed to operate after turned on.
- The plug is covered by dust or moisture.
- There is noise generated by your machine when in use.
- There is smell of burning generated by your machine when in use.

(Please call service center for immediate checkup and repair.)

Operating Instruction can be download in the following website:

<https://www.panasonic.com/middleeast/en/>



## CAUTION



#### **Do not wash, rinse or spin waterproof**

**sheets or clothes.** (This may cause violent shaking and falling during the spin cycle.

Damage to the washing machine, wall, floor, laundry or other objects may result. Water leaks may also occur.)

- Raincoats, sauna suits, wet suits, diaper covers, sleeping bags, ski wear, bicycle covers or similar articles, tarpaulins, etc.

#### **Do not perform the following:**

- Do not put your hand or foot under the washing machine. (A rotating mechanism under the washing machine may cause injury.)
- Do not climb on the washing machine or place heavy objects on top of it. (This may deform or damage the washing machine. Injury may result.)
- Do not directly fill the tub with hot water of 50 °C or higher or connect the washing machine to a water heater. (This may deform or damage the plastic parts. A short circuit or electric shock may result.)



#### **Please observe the following rules:**

(or you may experience water leakage.)

- Check the tube connections by turning on the water faucets before use.
- Disconnect power plug and stop water supply after use.
- For tub with water contained in it for more than 24 hours, replace the water with fresh ones before laundering with the machine again.



**This appliance is intended to be used in household.**

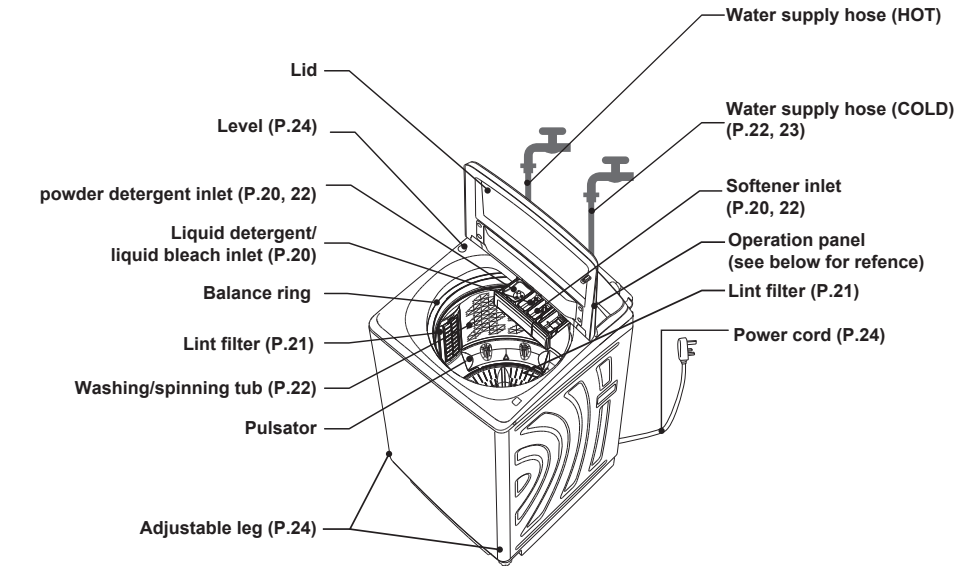
**This appliance is not intended to be used in applications such as:**

- staff kitchen areas in shops, offices and other working environments;
- farm houses;
- by clients in hotels, motels and other residential type environments;
- bed and breakfast type environments;
- areas for communal use in blocks of flats or in laundrettes.
- Maximum mass of dry cloth in kilograms, specified. Please see page 28.
- Pressure of water faucet, Please see page 28.


### Restart function

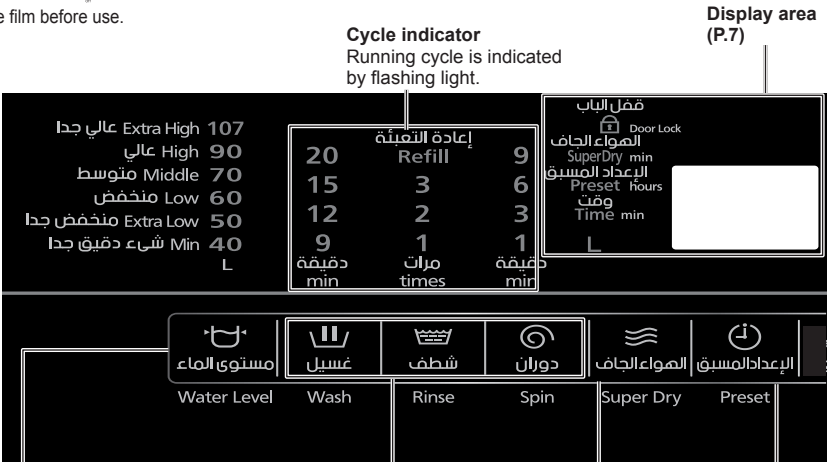
In case of power failure during washing operation: When power is on again, press power On key, the "Running" light flashes for 3 seconds before the original operation resume from where it is interrupted.

# Name of Parts / Accessories



## Operation panel

- \* In case foreign matter, water, or detergent is attached to the control panel, please power off the machine before wiping the panel clean or you may encounter system error.
- \* Please touch center of key texts to operate the machine. (Do not use rubber gloved hands, fingernails, and pens to tap the touch screen.)
- \* Once a desired cycle is set, press Start/Pause to lock keys from invalid behavior due to non-intentional tapping. To change settings, press Start/Pause key before making any change.
- \* To change a reservation setup,  power and set up again.
- \* Peel off the protective film before use.



**Water level (P.7, 19)**  
Setting can be changed according to your preference.  
**Press the [Water Level] key repeatedly until the desired water level indicator lights up.**

**Wash/rinse/spin (P.7, 17)**  
You may also select custom cycle.  
**Tap the touch control panel until indicator of desire cycle lights up.**

**Super dry (P.18)**  
**Preset (P.7)**

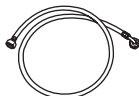


## Accessories

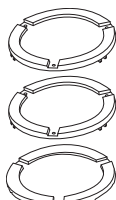
1 Water supply  
hose for COLD  
(Blue line)



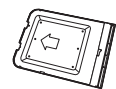
1 Water supply  
hose for HOT  
(Red line)



3 sets of  
Balancing plate



1 Bottom cover



## Child Lock

### ■ How to set/cancel the mode

#### Before you begin

- Close the lid.
- Turn on the washing machine.

#### **Press and hold the "Child Lock" key for more than 5 seconds.**

- When the Child Lock is set, you will hear two short beeps and the Child Lock lamp will light up.
- When the Child Lock is canceled, you will hear two short beeps twice and the Child Lock lamp will turn off.

#### Note

- When Child Lock is being set, "CL" is shown for 2 seconds in the display area each time you turn on the washing machine.
- To prevent accidents of children, this function disables door opening even if the power is turned off or after the operation has finished.

Before Use

### Program (P.8,12)

Select desired cycle based on weight and type and grade of stains of clothing.

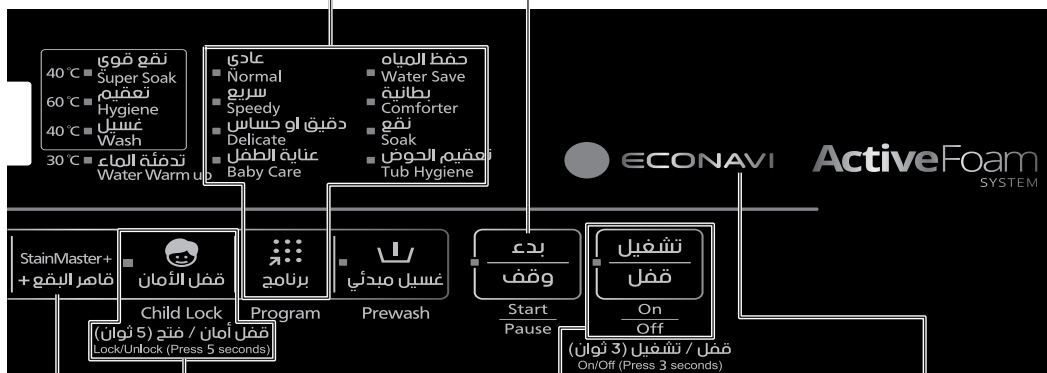
Press "Program" or "Prewash" key until the indicator left to desired cycle lights up.

### Start/Pause

Press to start.

Press to pause cycle operation from running.

Press again to resume cycle operation.



StainMaster+  
(P.10)

Child Lock  
(P.5)

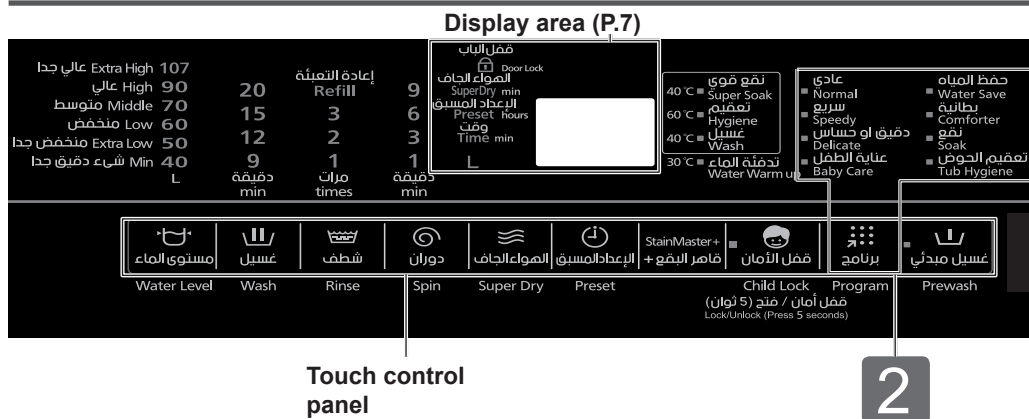
### Power switch

Power on and off.

- Auto power off once the laundering process is completed.
- If the "Start" key is not pressed 10 minutes after power on, the machine power off automatically.
- After the "Power off" key is pressed, you have to wait 2~3 seconds to press the "Power on" key.

ECONAVI  
(P.13)

# Washing



## Before you begin

- Place clothing in tub before opening the faucet.

**1** Press  key.

**2** Press Program key to select cycle. (P.8)

- Select wash/rinse/spin cycle (P.7)
- Set up completion time of washing (P.7, the reserve function)

**3** Press Start/Pause key.

- The washing machine will measure the laundry load by churning the laundry without any water before displaying water level.

- Select water level (P.7)

**4** Add detergent in liquid / powder detergent inlet varying with water level displayed.

- Add softener in softener inlet as required.

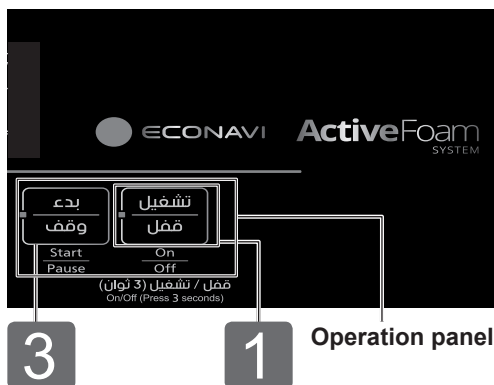
- About detergent (P.19)

**5** Close the lid.

Auto Tub Hygiene run at final drying cycle. (P.14)

The laundering operation is completed once your machine beeps (P.13).

Close the faucet and remove laundries.



## About display area

Super Dry (min)	Press "Super Dry" key and the supper drying time displays. (P.18)
Preset (number of hours later)	Press "Preset" key and the cleaning completion time displays. (See left hand side for reference)
Time (time in minutes)	Display remaining time in minutes during operation.
L	The water level is displayed when a cycle starts. (P.19)

### Note

- "2H" displays in case remaining time is greater than 99 minutes, "3H" display incase remaining time is greater than 180 minutes and so forth.

## Reserve function

You can select the finish time of a cycle 2–24 hours from the current time.

**After performing Step 2 on page 6, press the [Preset] key and select the finish time (hours).**

- The time is shown in the display area.
- The time increases by an hour each time you press the key.

### ■ Check the set details

**Press the [Preset] key when using the reserve function.**

- Settings of cycle, wash/rinse/spin, water level and completion time display.

### ■ Cancel/change reserve function

**Press "on / off" key to power off the washing machine and repeat from step 1 given in page 6.**

### Note

- Indicator of reserve, water level, ECONAVI lights up for 2 minutes, only the reserve indicator remains on afterwards.
- Do not use soap powder or strip.
- The finish time can exceed the programed time due to the water feeding and draining condition.
- This function is not available for all cycles. (P.8)

## Custom settings

You may change settings of wash/rinse/spin and water level.

**Set the water temperature for main wash fill**

### Water temperature

Super soak:	Approx. 40 °C
Hygiene:	Approx. 60 °C
Wash:	Approx. 40 °C
Water warm up:	Approx. 30 °C

Selecting "Hot" or "Warm" water temperature, stain will be cleaned easier.

After performing Step 2 on page 6, press the "Stain Master +" button repeatedly until the lamp of the desired water temperature lights up.

### ■ Set up wash/rinse/spin cycle

**Run steps 1-2 on page 6, then press "wash", "rinse", and "spin" key until indicator of desired cycle lights up respectively.**

### • Change settings of wash/rinse/spin cycle after laundering started

Press "Start / Pause" key to pause cycle operation, change settings, and press "Start / Pause" key to resume operation.















### ■ Set up water level

**Run steps 1-3 on page 6, then press "Water level" key until indicator of desired water level lights up respectively.**


### Note

- This setting is not available for all cycles. (P.8)

# Cycle Guide

Cycles	Suitable clothes and examples	Water level (L)	Wash (min)	
		NA-FS20V5SR Y		
<b>Normal</b> Daily washing.	Cotton, linen and cotton blend items    T-shirts Underwear Towels	107 ↳ 50	20 ↳ 12	
<b>Speedy</b> Washing in shorter time.	Moderate dirty or fewer cloths   Underwear Towels	107 ↳ 50	9	
<b>Delicate</b> Be careful when washing delicate and stylish clothes.	Wool clothes, silk underwear, etc.   Sweaters lace or clothes with embroidery	60	9	
<b>Baby Care</b>	Clothes for sensitive skin e.g.	107 ↳ 50	20 ↳ 12	
<b>Water Save</b>	Washing consumes less energy and water    T-shirts Underwear Towels	107 ↳ 50	20 ↳ 12	
<b>Comforter</b>	100% synthetic fiber made single size blanket   Woolen blankets Bed sheets	107	12	
<b>Soak</b>	Uses a bit more time to wash   Shirt T-Shirt	107 ↳ 50	20 ↳ 12	
<b>Tub Hygiene</b>	Preventing mildew and odor in the washing tank	107	9	

Standard settings					Remarks
	Maximum Amount	Rinse (time)	Spin (min)	Required time (approx. min)	
	20 kg	2	6	85 ↓ 65	
	10 kg (recommended)	2 (Refill)	6 ↓ 3	66 ↓ 49	<ul style="list-style-type: none"> <li>You cannot customize the wash/rinse/spin cycle.</li> <li>Fixed in "Refill" for rinsing.</li> <li>You cannot select drying only. For drying only, select settings of standard cycle.</li> </ul>
	3 kg	2	1	68	<ul style="list-style-type: none"> <li>You cannot customize the wash/rinse/spin cycle.</li> <li>Reserve function is unavailable.</li> <li>Without auto tub hygiene.</li> <li>You cannot select drying only.</li> </ul>
	20 kg	2 (Refill)	6	2H ↓ 70	
	20 kg	2	6	77 ↓ 56	
	8 kg (recommended)	2 (Refill)	6	2H	<ul style="list-style-type: none"> <li>Fixed in "Feed water" for rinsing.</li> <li>Default water level is 107 L.</li> </ul>
	20 kg	2	6	2H	
	Empty Tub	3 (Refill)	3	Approx 4H	<ul style="list-style-type: none"> <li>Soak time about 3 hours.</li> </ul>

Program	Examples of suitable clothes			Maximum Amount	
		Water Amount (L)	Water Temperature (Approx. °C)		
<b>30 °C Water warm up</b> For winter days when water is very cold	Cotton, hemp, blend fabric  T shirt Underwear Towel	107 ~ 50	30 °C	7 kg	
<b>40 °C Wash</b>	Anti-odor laundry	107 ~ 50	40 °C	20 kg	
<b>60 °C Hygiene</b>	Anti-microbial	107 ~ 50	60 °C	20 kg	
<b>40 °C Super Soak</b>	Hard Stain Removal	90 ~ 50	40 °C	2 kg	
<b>Hot water Tub Hygiene</b>	Preventing black mildew and odor in the washing tank	107	30 °C	Empty Tub	

## Descriptions

- Time display may change after sensing water temperature.
- Temperature setting may not be reached due to factors such as washing time, quantity, water temperature, etc.
- Upper limit of quantity: Super Soak: 2 kg or less (U15 alert will occur if upper limit is exceeded) (P.27)
- Some programs are not adjustable for 30 °C Hot Water (Normal, Tub Hygiene can be set for approx. 30 °C water temperature).
- It is no longer Hot Water after Rinse.
- Soak lights up after setting up, 60 °C Hygiene, 40 °C Wash, 40 °C Supper Soak or Hot water Tub Hygiene.
- The cap of a Hot Water Series Vertical Washing Machine is not of watertight design, water temperature may differ based on temperatures of the external air and the water; the heated water will reach up to 50 °C - 60 °C (test conditions are at room temperature 20 °C - 25 °C).

					Remarks
	Wash (Min.)	Rinse (Cycle)	Spin (Min.)	Time Required (Approx.)	
	20 12	2	6	Approx. 80 64	<ul style="list-style-type: none"> <li>• Suitable for cold winter days.</li> <li>• Soaking Indicator lights up after start; soaking time is about 39 minutes.</li> </ul>
	9	2	6	Approx. 4H	<ul style="list-style-type: none"> <li>• Effect of odor removal differs depending on various kind and intensity of odors.</li> <li>• Do not use chloric bleachers for timed laundry (or else prolonged placement may lead to metal corrosion or malfunctioning.)</li> <li>• Separate color clothes from white ones.</li> <li>• Automatic Tank Cleansing is disabled.</li> <li>• Soaking Indicator lights up after start; soaking time is about 160 minutes.</li> </ul>
	9	2	6	Approx. 4H	<ul style="list-style-type: none"> <li>• Please wash white clothes only. (Do not use this program for clothes not resistant to high temperature.)</li> <li>• Suggested for 4 kg or less.</li> <li>• Water is heated up by heater when laundry is less, washing time require 4 hours.</li> </ul>
	9	2	6	Approx. 4H	<ul style="list-style-type: none"> <li>• Hot soaking program uses high concentration detergent in 40 °C hot water, soaking the clothes for 2 hours for thorough removal of stains out of fibers.</li> <li>• Effect of stain removal differs depending on types of stains on the clothes and the detergent used.</li> <li>• Yellowish coloration resulting from sunlight exposure cannot be removed.</li> <li>• Check recommended wash temperature of your items.</li> <li>• Separate color clothes from white ones.</li> <li>• Auto Tub Hygiene is disabled.</li> </ul>
	Approx. 9 min.	3 (Refill)	3	Approx. 4H	<ul style="list-style-type: none"> <li>• Soaking time about 82 min.</li> </ul>

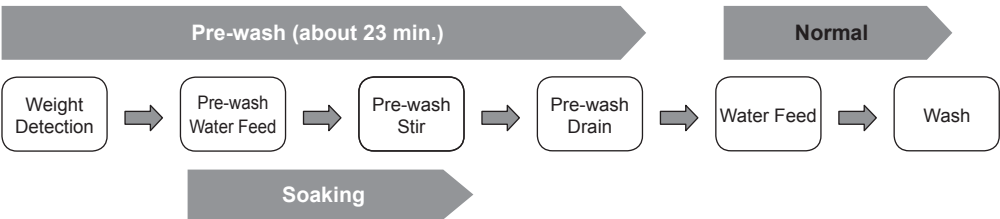
# Prewash Program Operation (removal of water soluble stains)

Program	Standard Setting						Remarks
	Water Amount (L)	Maximum Amount	Wash (Min.)	Rinse (Cycle)	Spin (Min.)	Time Required (Approx.)	
<b>Pre-Wash</b> Daily Laundry	90 ↓ 50	10 kg	20 ↓ 12	2	6	About 2 hours	● Best performance of pre-wash is for 6 kg of clothes.

※ Duration of Pre-wash Process is about 23 minutes.




## What is Pre-wash

Sweat odors, dirt, and soluble stains in the clothes are decomposed preliminarily.



Pre-wash achieves preliminary removal of stains (pollution prevention) and meets environmental requirements.

## Indicator status

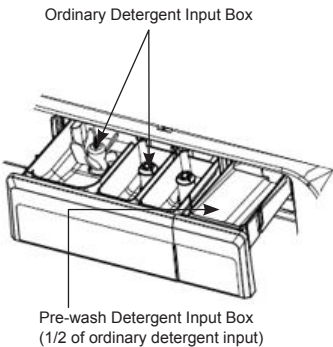
-  Blinking: Pre-wash in operation.
-  Constant Lighting: Pre-wash Button pressed.
-  Indicator out: Pre-wash not set or Pre-wash ended.

## Pre-wash Setting



## Note

- During Pre-wash, water is fed from automatic water feed piping on the side of tub; small amount of water dripping along the tub wall is normal.
- Optimal effect for Pre-wash is obtained with clothes weighing 6 kg; excessive clothes may affect the cleaning effect. (P.16 for type of clothes.)
- To prevent damaging clothes, U15 Alert will appear if weight of clothes exceeds 10 kg; please reduce clothes and re-set Pre-wash Program.
- Adding Detergent for Pre-Wash: Inject detergent into Ordinary Detergent Box; add additional detergent in Pre-Wash Detergent Box to increase cleaning capability. (Feed of Pre-Wash detergent is half of that for normal wash.) (P. 19).
- After setting for Pre-wash, pressing "Program" or "Super Dry" bottom will cancel the program automatically.







# Cycle Guide (continued)


## ECONAVI

The washing machine detects weight and water temperature of cloths and determines water level and time for washing in "Normal" or "Soak" cycle.

### Indicator description

 **Flashing:** the indicator flashes from the beginning of cloth weight detection to the end of ECONAVI determination.

 **Lights on:** the ECONAVI energy saving cycle is running. After the energy saving cycle is determined applicable, the indicator stays on until end of the cycle.

 **Lights off:** the ECONAVI energy saving cycle is not running. The ECONAVI energy saving cycle is not running due to poor conditions.

### Note

- The ECONAVI energy saving cycle may not run due to conditions given below:
    - There is water left in the washing machine tub before any operation cycle starts.
    - A custom wash, rinse, or spin cycle is selected.
- The washing cycle remains intact when the ECONAVI function is unavailable.

- Cycle setting will be memorized after laundering operation only for cycles of Normal, Speedy, Delicate, Baby care.
  - Each cycle may set up water level automatically or according to desired washing methods. (P. 7)
  - Water feeding and draining time is included in time requirements. This time may vary with water pressure, draining condition, and weight of cloths.
  - Amount of foam may vary with load. For load greater than 7 kg (water level at 70 L) foam generated by churning may appear less than expected. This is normal.
- "Tub hygiene" cycle (P.22)

## About switching cycles

You cannot change cycle after pressing the "Start" key. To change cycle, Turn off and on the washing machine once, then set up new cycle.

- Wash stages: load detection → Refill → wash → replenish water → wash
- Rinse stages: draining → intermittent spinning → spinning → braking → cascade rinse  
(Refill + intermittent Spinning) → Spinning → Braking twice → Refill → rinse
- Spin stages: draining → intermittent spinning → spinning → braking

## Beeps after washing cycle ended

The washing machine beeps after washing cycle ended. You may disable this "cycle ends" beeping.

### To enable/disable the "cycle ends" beeping

#### In power off status:

**Press and hold both "Start/Pause" and "On / Off" key at the same time for at least 6 seconds.**

You will hear two short beeps after the "cycle ends" beeping is disabled.

You will hear two short beeps twice after the "cycle ends" beeping is enabled.

# Auto Tub Hygiene

## Auto tub hygiene function

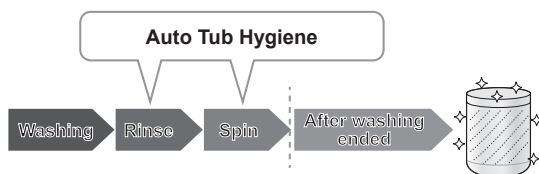
Remove soap scum and dirt grease hidden in tub with auto tub hygiene during laundering to prevent black mold from breeding.

All cycles are accompanied with the smart auto tub hygiene function except Delicate.

Run smart auto tub hygiene at the last spinning step.

### Note

- The smart auto tub hygiene cycle will not run if only "Spinning" cycle is selected.
- The smart auto tub hygiene may fail to clean completely due to type and level of stains. You may have to run the "Tub hygiene" cycle with tub exclusive detergent to remove black mold or odor. (P.22)



## Getting the Laundry Ready

Before washing, look at the care label to check if the clothes can be washed in a washing machine.

### ■ Sort the clothes

- Wash the following clothes separately
  - Colored clothes or clothes that fade easily
  - Towels and other clothes that produce lint
- Place delicate underwear and smaller items in a washing net
  - Bras and stockings
  - Clothes with lace parts or lingerie

### ■ Pre-wash partially-soiled clothes

- Stains on collars, sleeves
  - Apply collars and sleeves exclusive detergent for before washing
- Spotty stains
  - Apply detergent for spotty stains or oxygen based bleach before washing
- Muddy dirt
  - Apply detergent for partial stains or bath soap, and wring with your hands before washing

### ■ Items cannot wash with washing machine

- Cushion, pillow, etc. with cotton, sponge or beads used (Damage or malfunction may occur.)

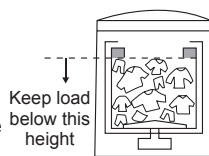


### ■ Check the clothes

- Button and zipper cloths
- Tie up string and other similar items
- Turn clothes that can easily cause pilling inside out
- Remove metallic pieces, coins and other similar items
- Clean off pet hair, human hair, sand and other foreign objects with a brush

### ■ Order for loading clothes in the tub

- Load bulky and floating clothes first After the tub has been filled up with water, pause and press down the clothes from the top so that the clothes absorb sufficient water.
- In case of heavy loading, press clothes atop downward below the balance ring. Do not overload the washing machine with clothes above rated capacity; otherwise, the laundry and washing machine may get damaged.



# Washing Delicate Clothes

Be careful when washing delicate and stylish clothes. (This differs from the chemical solvent-based dry cleaning.)

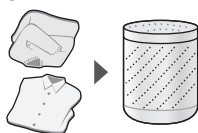
- You may wash clothes of weight up to 3 kg or less.
- Please wash them with neutral liquid detergent (for wool and silk washing).

## Before you begin

- Load clothes in the tub, close the lid, open the water faucets and power on the washing machine.

### To load delicate clothes

#### ■ Load clothes in neat and flat stacks



#### ■ Please prepare clothes as described below in advance

- Turn clothes that attract lint inside out.
- Apply detergent without fluorescing to grease, dust and dirt on collars, sleeves and other similar parts, and remove them with soft brush.
- Tie pleats with string.
- Wrap up dark-colored buttons.

► Do follow steps given in "Getting the Laundry Ready" (P.14)

## 1 Press Program key, select "Delicate" cycle.

- Change water level (P.4)  
Range of water level options: 50 L~60 L

## 2 Press Start/Pause key.

## 3 Add liquid detergent in the liquid detergent/powder detergent inlet according to water level, close the lid.

- About detergent (P.19)
- The washing machine beeps after the washing cycle ended.

## Note

- Do not use bleaches.
- Remove clothes immediately and air them, as they may get wrinkled or colored if left in tub for too long.

### How to dry delicate clothes

#### ■ Clothes that might get wrinkled (shirts, blouses, trousers, etc.)

Dry on hangers



Wrap a towel around to suit the shoulder width



(Do not hang dry knitwear.)

#### ■ Knitwear

- With rough stitching  
→ Dry flat
- Other types of knitwear  
→ Dry on pole

#### ■ To prevent discoloration and wrinkles

- Dry light-colored clothes, white clothes, wool or synthetic clothes in the shade.
- Carefully pat out any wrinkles of knitwear or new synthetic materials with your palm, and pull into shape before drying.

# Washing Comforter

You can wash single size blankets made of 100% synthetic fiber with this washing machine.

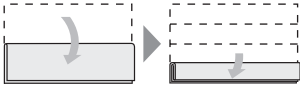
- Recommended washing volume: 8 kg or less. (make sure the blanket does not exceed the bottom of Balance Ring).
- Liquid detergent is recommended. Powder detergent need to be dissolved before use (please refer to P.20).

## Before you begin

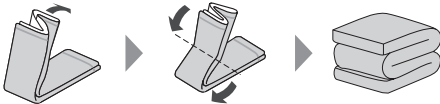
- Home dry care net is necessary, to prevent damage of blanket.
- Install the home dry care net in the tub (P.13) before loading the tiger blanket.
- Load blankets in the tub, close the lid, open the water faucets and power on the washing machine.
- If the blanket is heavily stained, please consider to wash 1 or 2 more times.
- If the Home Dry Care net is not installed, wash time will be shorten. (Total wash time 68 min).

### To load blankets

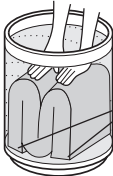
① Fold the long side 4 times.



② Fold it into shape of letter "M".



③ Place blankets in tub, press them downward gently, make sure any part of the blanket does not exceed the bottom of Balance Ring.



## 1 Press Program key, select Blanket cycle.

- Change water level (P.4)  
Range of water level options: 70 L~ upper limit
- Set up washing end time (P.7)





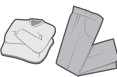
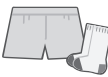
## 2 Press Start/Pause key.

## 3 Add detergent according to water level and close the lid.

- About detergent (P.19)
- Blankets do not absorb water easily. After the tub has been filled up, pause and press down the blanket from the top.
- The washing machine beeps after the washing cycle ended.

## Approximate weight of clothes

### Approximate weight apiece (which varies with substance)

600 g	Jackets		300 g	Towel (100% cotton)	
500 g	Bed linens (100% cotton) Pajamas (100% cotton)		200 g	Shirts (blended fabrics)	
400 g	Sweaters Skirts (synthetic) Pants		50 g	Socks (blended fabrics) Men's underwear (100% cotton)	

# Wash/Rinse/Spin Cycles Individually

You may combine cycles as desired, e.g. "wash & rinse" and "spin". (These cycles are not remembered.)

## Before you begin

- Load clothes in the tub, close the lid; open the water faucets and power on the washing machine.

### 1 In "Normal" cycle mode:

**Press "Wash", "Rinse" or "Spin" key, select desired cycle.**

- Set up washing end time (P.7)

### 2 Press Start/Pause key.

- Change water level (P.4)
- About detergent (P.19)
- The washing machine beeps after the washing cycle ended.

## Set up operation

Set up	Used for	Operation key	Remarks
Washing only	• Reuse water left in tub.	<div>Washing<span> </span><span> </span><span> </span></div>	• Washing water left in tub.
Wash and rinse	• Reuse water of rinse	<div>Washing<span> </span>Rinse<span> </span><span> </span></div>	• Rinse water left in tub.
Wash and Spin	• Washing clothes with laundry starch	<div>Washing<span> </span><span> </span>Spin</div>	
Rinse only	• Rinse clothes after wash	<div><span> </span>Rinse<span> </span><span> </span></div>	• Rinse water left in tub.
Rinse and Spin	• Rinse and spinning clothes after wash.	<div><span> </span>Rinse<span> </span>Spin</div>	
Spin only	• Spinning clothes after wash • Drain water in tub.	<div><span> </span><span> </span>Spin</div>	

## Note

- For cycles beginning with "Rinse" or "Spin", the cycle begins with draining in case there is water left in tub; otherwise, it begins with spinning cycle.
- After starched, remove starch left in tub with clean water. (Select "Normal" cycle, set water level to 70 L or more, and run the cycle without any cloth in tub.)


### To set up water current strengthening function

You may set up current strengthening function to get more powerful water current for washing.

#### ■ How to enable this function

During water feeding in wash cycle and with closed lid

**Press and hold "Wash" key for at least 3 seconds**

- The washing machine beeps twice after the current strengthening function is set.
- You don't need to set up the wash current strengthening function again as it will be remembered by the washing machine.LED display 


## Note

- You may change current strength settings for all cycles except the delicate cloth/tub hygiene ones.

#### ■ How to disable this function

During water feeding in wash cycle and with closed lid.

**Press and hold "Wash" key for at least 3 seconds**

- The washing machine beeps quadruple after the current strengthening function is unset.  
LED display 

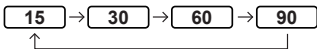
# Super Dry

The “Super Dry” cycle removes the moisture remaining in clothes using a current of air created by the rotation of the tub. You can reduce the drying time with this cycle (This drying does not heat the air.) This cycle is designed specifically for synthetic clothes (up to 5 kg)

### Before you begin

- Spread and place dried clothes evenly in tub, close lid, power on the washing machine.

### 1 Press Super Dry key, select super dry time in unit of hour.



- Press to change super dry time.

### 2 Press Start/Pause key.

- The washing machine beeps after the air spin cycle ended.


#### Note

- This function is controlled by a timer which ends the cycle regardless of dryness of cloths. You may run the cycle again if the laundries are not dry enough.
- Dryness of clothes varies with their weight, type, temperature, and humidity.
- This function is not aimed at drying your clothes and may not replace services provided by dryer.



## Door Lock

### The Door Will Lock During Operation

The “Door Lock” light will turn on during a wash cycle. The door cannot be opened during this time.

- The door will be locked and cannot be opened while the washing machine is running.
- If the  button is pressed during operation, the washing machine will stop running, make a “clicking” sound, and release the door lock.


#### Note




- Please do not unplug the power. The door lock will not be released even if the power is turned off.
- If the door lock has not been released, please do not force to open the door. This can cause damage to the door and door lock.
- If the door lock does not lock during a wash cycle, please immediately discontinue use and contact the service repair center.
- In the two situations below, even pressing  or  will not unlock the door.

### Using the Child Lock

To avoid accidents involving children, the door can be prevented from opening even if the wash cycle is complete or the power is turned off. (P. 5)

### The Door Will Lock When the Water Temperature Is High

If the water tank reaches a high temperature during operation, the  will light up. During this time, the door cannot be opened even if the wash cycle is paused or the power is turned off. To quickly open the door:

 Pause →  Turn power off →  Turn power on → Perform a “Spin” cycle (to lower the water temperature in the tank)

- Please remember to restart the operation as the wash cycle is incomplete.


# About Detergent

## Dosage guide (detergent/softener)

The water level indicator lights up

107 > 98  
90 > 80  
70 > 65  
60 > 55  
50 > 45  
40

Water level (L)	Load of clothes (kg)	Detergent		Softener (ml)	
		Powder (spoon/g)	Liquid (ml)	Ordinary	Condensed
		(20 g for every 30 L of water)	(20 ml for every 30 L of water)	(20 ml for every 30 L of water)	(6.6 ml for every 30 L of water)
107	12~20	2.0 / 100	100	100	32
98	10~12	1.8 / 90	90	90	30
90	9~11	1.6 / 80	80	80	⋮
80	8~10	1.5 / 75	75	⋮	28
70	7~9	1.4 / 70	70	70	⋮
65	6~8	1.2 / 60	60	⋮	25
60	5~7	1.1 / 55	55	⋮	⋮
55	4~6	0.9 / 45	45	55	18
50	3~5	0.8 / 40	40	40	14
45	2~4	0.6 / 30	30	⋮	⋮
40	1~2			30	10

- Some detergents and softeners come with their own user guidelines. Please read them carefully in advance.
- When the water level is extra high,  code will display.

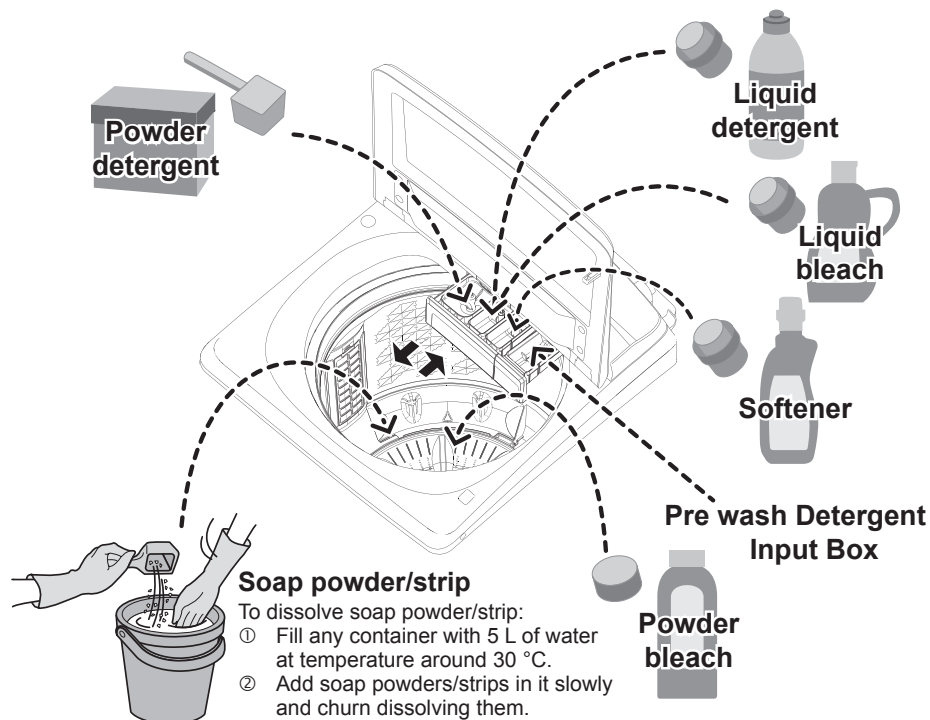
# About Detergent

## 1 Load clothes, press Start/Pause key.

- Displays water and detergent level according to load. (P.19)

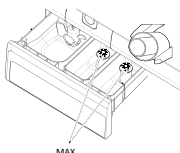
## 2 Add detergent according to water level and existing detergent.

(See diagram below for detergent adding location)



### Note

- Please read user guideline and precautions of detergent, bleach, soap powder/strip carefully beforehand.
- Please select detergent of less foam.
- Please keep liquid/powder detergent inlet dry. Break up caked or solidified powders before adding them in container, otherwise they may remain undissolved.
- Keep level of liquid detergent and softener below the "MAX" mark or they may overflow immediately.
- You may add liquid detergent through either liquid/powder detergent or liquid detergent/bleach inlet. For better effect, the former inlet is recommended.
- Contain powder bleach with white clothes before adding in washing machine tub when reserve



function is used. Otherwise, you may fade other clothes.

### Softener:

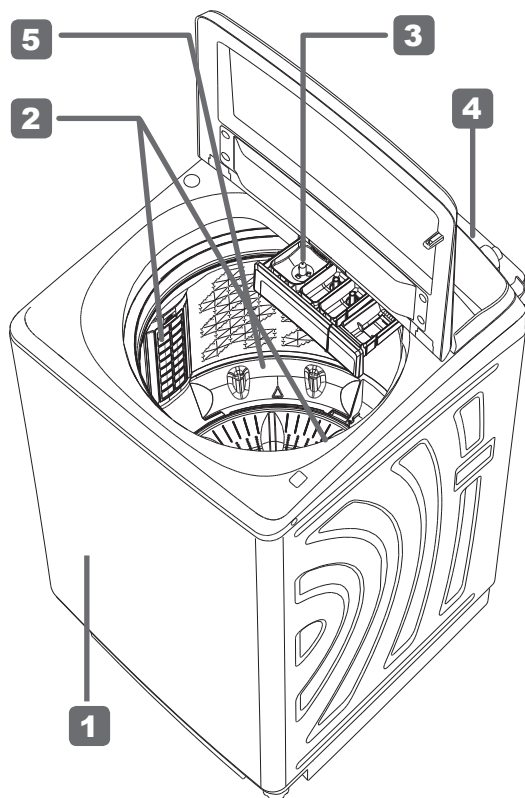
- Final round of the rinse cycle will add softener automatically.
- Softener tends to solidify after exposed to air for more than 12 hours. Try avoid using it this way.

### Soap powder/strip:

- Dissolve soap powder/strip in water before use, otherwise it may cake and stick to clothes.
- Rinse cloths thoroughly after washing with soap powder/strip, otherwise they may be tinted yellow or left with soap odor.
- Do not over or direct add cold water, as partially dissolved soap or soap scums attached to water pipe or in washing machine tub may float out and stain your clothes.



# Clean and Maintenance



1

## Machine body

### Wipe it with soft cloth.

Clean it with kitchen detergent in case it is very dirty. (Do not use abrasive cleaners, thinner, benzene, alcohol, kerosene or apply water directly to the washing machine.)

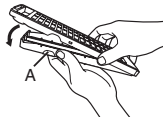
2

## Lint removal

(after each washing cycle)

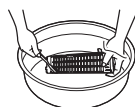
### ■ Lint filter

- ① Hold top of the filter to detach it.



- ② Remove lint contained in it.

- If lint is stubborn, clean the filter.



- ③ Replace it back.



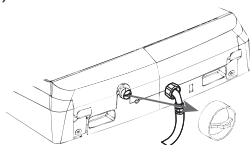
### 3 Liquid/powder detergent and softener inlet box

Remove and clean the box.

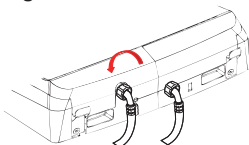


### 4 Water feeding valve filters (When water pressure is low)

- **Disconnect the water supply valve filter, and clean the water supply filters with a toothbrush.**  
(Disassembling the filter is not recommended.)
- **In a very bad situation (paste like substance contained in water) and where the toothbrush fails to clean the valve filter, please remove the filter and clean it with tools.**  
(Tip: Please use flat head needle-nose pliers to keep the filter from broken which may lead to filtering failure and water feeding valve damage.)



- **To remove water feeding hose:**  
Please follow steps below strictly or you may get water spilled out.
  - ① **Close the lid and turn off the water faucets.**
  - ② **Press "On / Off" key to turn the washing machine on.**
  - ③ **Press "Start / Pause" key.**
  - ④ **Press "On / Off" key a few seconds later to turn the washing machine off.**
  - ⑤ **Remove water feeding hose from the washing machine.**



- Connect the water feeding hose to the washing machine after it is cleaned. (P.23)

#### Note

- Replace water feeding valve filter in its original place after cleaning it or the washing machine may fail to filter foreign matter and get the valve damaged.

### 5 Prevent mould and odour

#### ■ Drying the tub

Empty the tub.

- ① **Close lid, press "On / Off" key to turn on the washing machine.**
- ② **Press "Super Dry" key, select "0.5hr".**
- ③ **Press "Start / Pause" key.**

#### ■ Clean it with "Tub Hygiene" cycle

The "Tub Hygiene" cycle cleans the tub by repeating steps of 4-minutes soaking and 1-minute churning. This may take 4 hours. Clean the tub with tub specific detergent to prevent mold breeding in tub after long-term use. (Please clean the tub once per 3-6 months.)

Empty the tub.

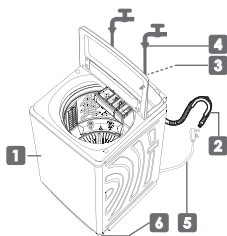
- ① **Open water faucet, press "On / Off" key, power on the washing machine.**
- ② **Press "Program" key, select "Tub hygiene" cycle.**
  - The "Tub hygiene" indicator lights up.
  - Operations of tub hygiene cycle (unchangeable):

Water level: High	Rinse: Triple with feeding water
Soak: 78 minutes	Spin: 3 minutes
Wash: 3 minutes	
- ③ **Press "Start / Pause" key.**
- ④ **Add tub specific detergent in tub, close the lid.**

#### Note

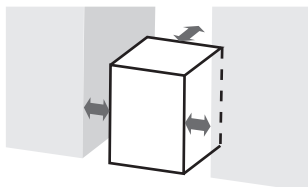
- Please use tub specific detergent.
- Remove lint filter box and lint in the lint filter after cleaning the tub with specific detergent. Wipe clean soap scum, if any.
- You cannot reserve "Tub Hygiene" cycle.

# Installation



## 1 Check up the installation site.

- **Do not install the washing machine at the following location:**
  - Near a heat source (gas stove, water heater, etc.)
    - At least 1.5 meters away.
    - Near heaters (including above, in front of, and beside them). Do not stack combustibles.
  - Location with water or high humidity (e.g. bathroom)
  - Location exposed to wind, rain or direct sunlight (e.g. terrace)
  - Location with temperatures close to freezing point
  - Location with uneven or unstable floor
  - Location with slippery floor, e.g. tiled ground
- **Keep a clearance of at least 10 cm between the washing machine and wall to keep noise down.**

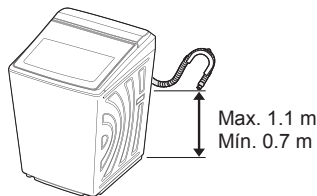


- Do not block the opening on the bottom with an object, such as a carpet.

## 2 Install the water drain hose.

Install the end of the water drain hose at a height of 0.7 m to 1.1 m.

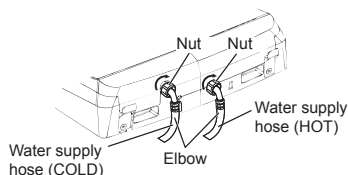
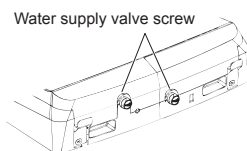
- Install so that the end of the water drain hose will not be soaked in water.



## 3 Connect the water supply hoses to the washing machine.

- 1 Press the end of the supplied water supply hose (blue line) with an elbow straight against the water supply valve

screw on the back of the washing machine indicated as “COLD”, and tighten the nut clockwise with your hand.

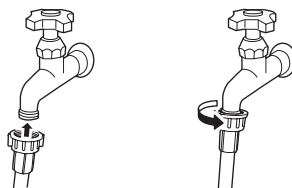


- 2 Likewise, connect the supplied water supply hose (red line) to the water supply valve screw on the back of the washing machine indicated as “HOT”.

- Check whether or not the elbows are unsteady or loose.

## 4 Connect the water supply hoses to water faucets.

- 1 Press the other end of the water supply hose connected to the washing machine straight against the cold water faucet, and tighten the nut clockwise with your hand.



- 2 Likewise, connect the other end of the water supply hose (white) connected to the washing machine to the hot water faucet.

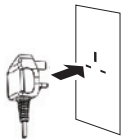
- Turn on the water faucets to check that water leaks from neither the water supply valves of the washing machine nor the water faucets.

## 5

### Connect power cord and ground wire to your washing machine.

- If there is a ground terminal:

Plug the power cord into a 3-prong AC outlet.

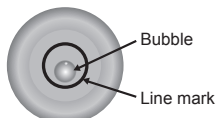


## 6

### Check if the washing machine is level.

When the installation is complete, look at level of the washing machine to check if it is leveled.

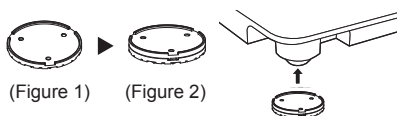
- If the bubble is inside the circle mark at the center of the level, the washing machine is leveled.
- The washing machine may wash and spin poorly if the bubble is touching the mark line. Level the washing machine to center the bubble in marked area when it is not so.



- Use the included level adjustment disk  
Install level adjustment disk to legs of the washing machine you want to adjust height.

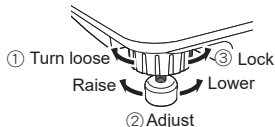
Raise 3 mm: with one disk as shown in Figure 1

Raise 8 mm: with two disks stacked as shown in Figure 2



Rubber adjustable plate must put at the bottom.

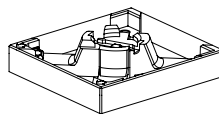
- Use **adjustable leg** (located at front right corner of bottom of the washing machine)



## 7

### After installation

Please remove bottom cushion (EPS), before using the washing machine.



#### Note

- Prevent water leak:
  - Please use included new water feeding tube connector, water feeding tube, and drainpipe. Do not use the old tube kit.
  - Turn tight each knob and screw.
  - Do not bend water feeding tube by force, it may crack.
- Do not move the washing machine in tilt or upside down position or its components may get damaged.
- Do not the washing machine backward as there is safety switches located at left side of its rear.
- Test run the washing machine after installation to check for any water leak.

# Troubleshooting

Before requesting service, make the following checks. If the problem persists, consult the service center for instructions.

	Problem	Check points	Page
Wash Machine	The washing machine fails to start.	<ul style="list-style-type: none"> <li>Is there power outage?</li> <li>Is "On / Off" key pressed?</li> <li>Is power plug connected correctly?</li> <li>Is fuse broken or main switch disconnected?</li> </ul>	– – – –
	Keys pressed and failed to response.	<ul style="list-style-type: none"> <li>The "Water level" key is available only in water feeding and washing cycle. The "Wash", "Rinse", and "Spin" key is available only after pressing the "Start / Pause" key before water feeding and washing cycle is ended. You may have to power off and on the washing machine once after settings are changed.</li> </ul>	7
	Abnormal noise and vibration.	<ul style="list-style-type: none"> <li>Do not place the washing machine on floor uneven or unstable.</li> <li>Is it imbalanced with clothes? →Press "Start / Pause" key, balance load, resume the suspended cycle.</li> </ul>	24 –
Wash cycle	No water supplied. Water pressure too low.	<ul style="list-style-type: none"> <li>Is faucet opened?</li> <li>Is running water cut or its pressure too low?</li> <li>Is water feeding valve filter jammed by dirt? →Clean the water feeding valve filter.</li> </ul>	- - 22
	Water level too high in terms of load.	<ul style="list-style-type: none"> <li>Water level may get too high by placing soaked cloths in tub or the tub if left with water before cycle getting started. →Press "Water level" key to change water level.</li> </ul>	7
	Water level too low in terms of load.	<ul style="list-style-type: none"> <li>Light clothes of synthetic or blended fibers may get water level lower. →Press "Water level" key to change water level.</li> </ul>	7
Rinse cycle	No water feeding when rinse cycle is started.	<ul style="list-style-type: none"> <li>The washing machine starts feeding water after drying cycle in case the tub contains no water.</li> <li>It drains first if there is water left in tub.</li> </ul>	– –
Spin cycle	The washing machine starts rinsing during Spining cycle.	<ul style="list-style-type: none"> <li>The washing machine may auto balance load with rinsing. →Place load in balance.</li> </ul>	–

# Troubleshooting

	Problem	Check points	Page
Super dry cycle	Not dry enough.	<ul style="list-style-type: none"> <li>Is the washing machine loaded with load heavier than 5 kg or with clothes of non-synthetic fiber?</li> <li>Are clothes squeezed dry manually? If so, water removed may be less than expected.</li> <li>Is Super dry time set too short?</li> <li>The Super dry function is controlled by a timer which ends the cycle regardless dryness of cloths. → Run the Super dry cycle again if the laundry remains damp.</li> </ul>	18
	Synthetic powder detergent dissolves partially.	<ul style="list-style-type: none"> <li>Is synthetic powder detergent fed in tub directly? → Please feed through powder detergent inlet.</li> </ul>	20
Detergent	Looks like no foam at all.	<ul style="list-style-type: none"> <li>Is synthetic powder detergent fed in powder detergent inlet?</li> <li>Is too little detergent fed?</li> <li>Are too many or dirty clothes loaded?</li> <li>You may end up with very little foam on account of detergent type (e.g. low foam detergent) or serve, water quality, temperature, and level.</li> </ul>	20 19 – –
	Too much foam.	<ul style="list-style-type: none"> <li>You may end up with very much foam on account of detergent type (e.g. neutral liquid detergent) or serve, water quality, temperature, and level. → Shed detergent serve.</li> </ul>	19
	When there is no running water supply.	<ul style="list-style-type: none"> <li>Resumed running water right after an water cut may get muddy. → Remove water feeding tube, drain muddy water from faucet directly.</li> </ul>	22
Others	Unable to open the door	<ul style="list-style-type: none"> <li>When the tank has reached a high temperature.</li> <li>When the door lock is set.</li> <li>When the child lock is set.</li> <li>If the door still does not open after checking all the above situations, please contact the service repair center.</li> </ul>	18

# Error Code

**Check the following if the washing machine keeps on beeping and show message "U" and a number alternately.**

If the problem persists, consult the service center for instructions.

Indication	Check points	Page
<b>U11</b> Unable to drain	<ul style="list-style-type: none"> <li>Check the water drain pipe for any of following problems:               <ul style="list-style-type: none"> <li>Is drainpipe crushed?</li> <li>Is the end of the water drainpipe immersed in water?</li> <li>Is the pipe raised somewhere more than 1.1 m?</li> <li>Is the pipe extended more than 2 meters?</li> <li>Is the pipe jammed somewhere?</li> </ul> </li> <li>→ Troubleshoot this problem before opening and closing the lid to restart the washing machine.</li> </ul>	23
<b>U12</b> The lid is open	<ul style="list-style-type: none"> <li>Is the lid open?</li> <li>→ Close the lid</li> </ul>	—
<b>U13</b> Unable to spin/ Super dry	<ul style="list-style-type: none"> <li>Are the clothes out of balance?</li> <li>→ Balance the load and close the lid.</li> <li>Is the washing machine wobbling or placed on an uneven surface?</li> <li>→ Level the washing machine with adjustable leg, opening and closing the lid to restart the washing machine.</li> </ul>	— 23-24
<b>U14</b> Unable to supply water	<ul style="list-style-type: none"> <li>Check for any of the following problems:               <ul style="list-style-type: none"> <li>Are the water faucets turned on?</li> <li>Is the water supply cut off?</li> <li>Is the water supply valve filter jammed?</li> </ul> </li> <li>→ Troubleshoot this problem before opening and closing the lid to restart the washing machine.</li> </ul>	22
<b>U15</b> When there are too many clothes	<ul style="list-style-type: none"> <li>The possibility of having too many clothes</li> <li>- please check whether this are too many clother</li> <li>Turn off the power; Sekct the desired cycle, restart the operation.</li> </ul>	12 10

**In case letter "H" and a number displays alternately, then the washing machine requires maintenance services.**

Indication	Check points
<b>H00</b>	<ul style="list-style-type: none"> <li>Turn off the tap just to be safe. Please note down the 2-digit number after letter "H", disconnect the power plug, and call any service center nearby.</li> </ul>

Precautions

- Do not over add detergent (The washing machine may fail to rinse thoroughly of foam may overflow and wet the floor.)
  - Do not place matter on top of the washing machine. (The former may fall off due to vibration and lead to failures.)
  - Do not place TV set, radio, or other electronic devices nearby. (Image may get distorted and noise get heard.)
  - Do not place magnet or any magnetic matters close to top of the washing machine. (This may lead to maloperation.)
  - Wipe off detergent or softener contacting the washing machine (especially the lid or operation panel) with damp cloth. (Failure to do so may result in printed text being peeled off, plastic components damaged, metal components corroded, or may lead to failure.)
- Be careful when using liquid detergent concentration. Plastic components stained with liquid detergent concentration may get broken.
- Do not drape the washing machine with PVC cover. (This may damage surface of the washing machine.)
  - Do not spray the washing machine with insecticide, hair care products, fragrances, or other similar liquid. (This may damage the washing machine or lead to failure.)
  - This product is subject to performance inspection before delivery. Tubs left with water is normal.
  - Stainless steel casing of some models are made of stainless steel SUS430 which is magnetic (i.e. attracts magnet). Stainless steel casing may suffer furring or spot rust corrosion in its gaps due to external environment factors including: iron contained water and corrosive media (e.g. external metal debris).
- Solution: Furring stays atop surface of stainless steel instead of rooting in. Wipe it off with water wet scouring pads.

Specifications

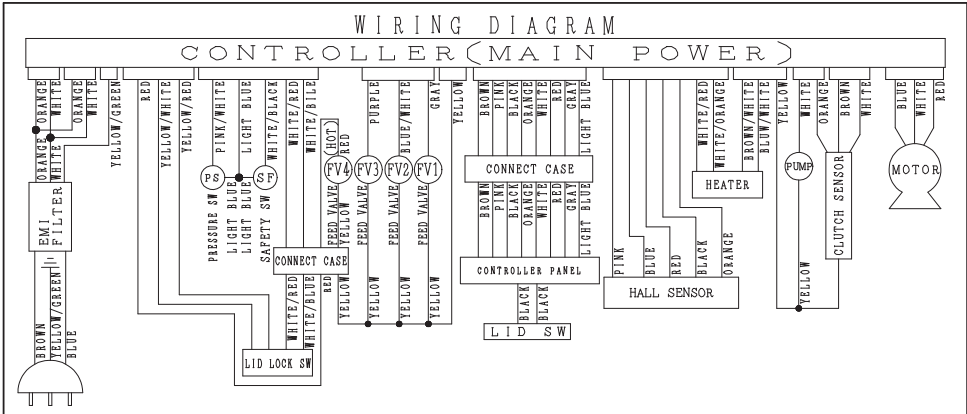
Model	Power source	Rated power consumption (Wash/Spin)	Dimensions (WxDxH)	Mass	Maximum capacity of wash/spin load	Presure of water faucet	Annual Energy Consumption	Annual Water Consumption
NA-FS20V5SRY	AC 220 V, 60 Hz	550 W/290 W	679 mm X 752 mm X 1072 mm	60 kg	20 kg	0.02 MPa to 1 MPa (0.2 kgf/cm <sup>2</sup> to 10 kgf/cm <sup>2</sup> )	636 kWh	65120 Liters

Check the washing machine for the following after long term of use.

Is the washing machine suffering these symptoms?

- Power cord or plug overheats.
- Burning or stinking smell, abnormal vibration or noise during running.
- Failure to end spinning in normal manner.
- Leaking (water feed tube, drainpipe).
- Get modest electric shock when touching the washing machine.
- Other errors and failures.

If you encounter any of these symptoms, power off the washing machine, unplug the power cord, and call Panasonic service centers near to you for inspection or maintenance services to prevent the situation from worsening.



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