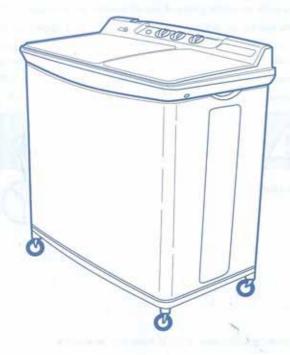
# INSTRUCTION MANUAL HITACHI TWIN-TUB WASHER



# Model PS-99BSP

Thank you for purchasing the Hitachi Twin-Tub Washer Please carefully read this Instruction Manual to ensure correct use of the machine.

After reading through this manual, please keep it together with warranty in a safe place for future reference.



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# **Features**

# **High Speed Spinning**

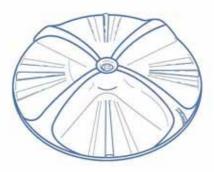


You can load the basket with laundry and unload it from the basket with ease.



# Large-sized Pulsator

This large pulsator enables laundry load of up to 8kg to be washed.



# Safety Precautions

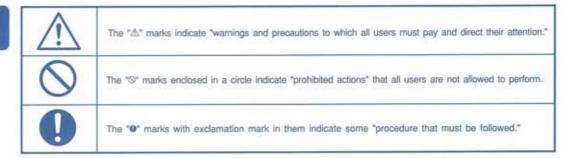
## The safety precautions described herein are

classified into the following two categories, "Warning" and "Caution", in order to express a degree of seriousness and urgency of possible injury and damage which may result from misuse and improper use of the washer due to failure to observe the individual instructions :

WARNING	Warning(s) is used to indicate the "presence of a hazard which may cause severe personal injury or death if its instructions are not strictly observed."
CAUTION	Caution(s) is used to indicate the "presence of a hazard which may cause personal injury or property damage if its instructions are not correctly followed."

\* After reading through the manual, be sure to keep it in a safe place where any users can always visibly recognize and refer to it with ease.

**Examples of Warning Pictographs:** 



- a) The appliance is not intended for use by young children or infirm persons without supervision.
- b) Young children should be supervised to ensure they do not play with the appliance.
- c) If appliance is supplied from a cord extension socket or an electric portable outlet device, the cord extension set or electric portable outlet device must be positioned so that is not subject to splashing or ingress of moisture.
- d) The appliance is to be connected to the mains using new hose-sets and old hose-sets should not be reused.
- e) If the supply cord is damaged, it must be replaced by the manufacturer or the manufacturer's agent or similarly qualified person in order to avoid a hazard.



# WARNING



Persons other than repair technician must not disassemble, repair or modify the unit.



Use a single socket rated at 10A or more.



· If you use the outlet into which other power plug is inserted, the outlet may cause fire resulting from abnormal heat.



When the prong (s) of power plug or the base of the prong (s) is soiled with dirt or dust, wipe it off with a clean cloth.

. Doing so may result in fire or malfunctioning, which may



Be sure to apply the specified voltage to the unit.



Otherwise, fire may result.

cause injury.

· Failure to do so may cause an electric shock or fire.

# Safety Precautions (continued from the previous page)



# WARNING



If the spin dryer basket does not stop within 15 seconds after opening its lid during the spin cycle, immediately stop using the machine and contact an authorized service dealer to request repair.



· Failure to do so may result in Injury.



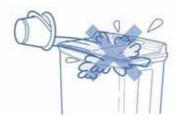
Be sure to pull out the power plug from the socket when maintaining the unit. Do not pull out the plug from the socket with wet hands.



Failure to do so may result in electric shock or injury.



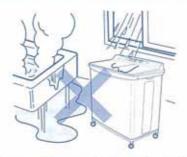
When carrying out maintenance on the unit, avoid applying water directly onto any unit section.



This may cause a short circuit or electric shock.



Do not install the washer in a bathroom or outdoors where it is exposed to wind and rain or high humidity.



An electric shock, fire, malfunction and deformation may result.



Never put any of the following things into the washing tub or spin dryer basket: kerosene, gasoline, benzene, alcohol, thinners, or clothes wet with any of these substances.





An explosion may occur or a fire can break out.



Never touch the laundry in the spin dryer basket until it comes to a full stop.



 Even slow spinning of the basket may cause the laundry to get caught in your hands or fingers, which may cause injury.
 Particular care is required in this regard when children are involved.



Do not allow infants to look into the washing tub and spin dryer basket, and do not place a stand in the proximity of the washing machine.



 This may result in your child falling into the tub or basket, possibly resulting in injury.



# WARNING



Do not damage, break, process, forcibly bend or pull, distort or bind the power cord. Do not place any heavy objects on it, or allow the power cord to get caught in any objects.



Do not use the unit when the power cord or power plug is damaged, or the plug insertion in the socket is loose.

. If the power supply plug is damaged, it must only be replaced by a repair shop appointed by the manufacturer or its service



This may damage the power cord, resulting in fire or electric shock.

agents in order to avoid a hazard. . Doing so may result in

electric shock, or fire.



# CAUTION



Be sure to hold the insulated body of the power plug, not the cord, when pulling out the power plug.





Do not place your hand into the washing machine while it is in operation.

· Failure to do so may cause an electric shock or short, resulting in fire.

· Even slow spinning of the washing tub may cause the laundry to get caught in your hands or fingers, which may cause injury.



(Be sure to "turn OFF the timer" first if you should put your hand into it.)



Use the hot water of 50°C or below whenever using warm water for washing.

· Doing otherwise will cause deformation or damage to the plastic parts, which may result in electric shock or electricity leak.



Do not step on the washing machine or place any heavy objects on it.

. This may cause the washing machine to be deformed or damaged, leading to injury.



Be sure to keep the power plug unplugged when not using the unit for an extended period.



Do not place your hand or foot underneath the washing

machine while it is in use.



· Failure to do so may deteriorate the unit's insulation performance, which may cause an electric shock or fire resulting from electricity leak.







Place the inner cover (for spinning operation) in the spin dryer basket correctly when you spin-dry laundry



of the washer or abnormal vibrations may be generated, resulting in personal injury or damage to the washer, well, floor and clothes.

· Otherwise, the laundry may jump out





· Otherwise, the laundry may pop out of the basket, resulting in injury.

# **Precautions for Proper Use**

Keep the washer away from heat sources or flame, including a lighted candle, mosquito coil, clgarette, heater, kerosene stove, etc.



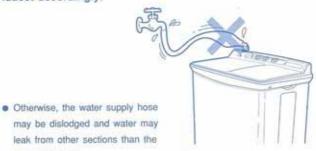
 Doing otherwise will cause deformation or damage to the washer and fire accident. When maintaining the washer

Do not use benzene, thinner, cleanser, wax, slightly alkaline detergent to wipe the unit, and never scrub it with a scrub brush.



 Doing otherwise will cause deformation or damage to the plastic parts and paint-finished surfaces.

If you find that water pressure is too high, close the faucet accordingly.



Close the washer lid, if necessary, when washing water splashes



. This is a preventive measure to avoid moistening the floor.

When dewdrops are deposited on the unit:

If the difference between the ambient temperature and water temperature is too high, as in summer, the floor may get wet due to dewdrops deposited on the outer surface of the washing tub.



Take proper care after using the washing machine Be sure to pull out the power plug from the socket.

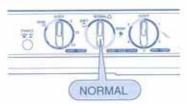


This is to prevent a fire accident.

When freezing may occur:

water inlet port.

Drain the water left in the washing tub, then set the Wash Mode/ Drain to the "NORMAL" position.



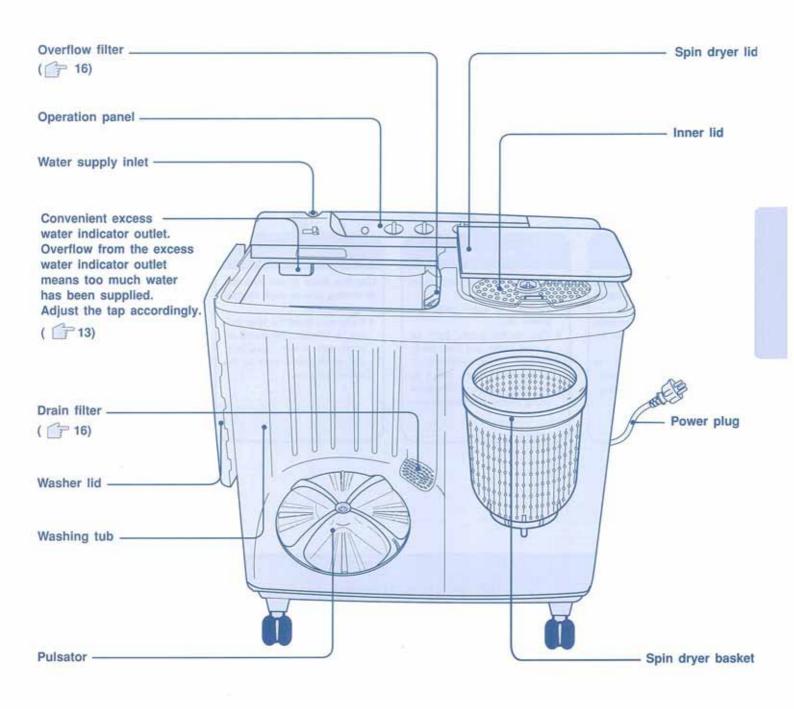
 Should freezing occur, pour approx. 2L (liters) or warm water of about 40°C into the washing tub and leave it as it is for a while.
 Then, use the washer after you can rotate the pulsator manually. The opening must not be obstructed by carpeting when the washing machine is installed on a carpet floor.

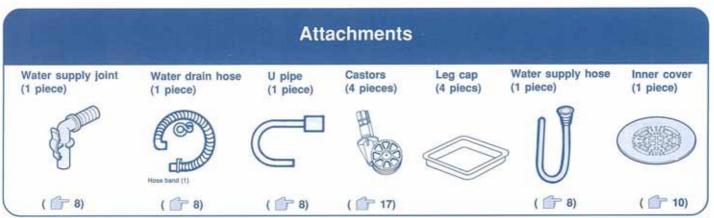
Avoid machine-washing and spin-drying shoes and the like.

. Otherwise, it may result in damage to the washer or cause an accident.

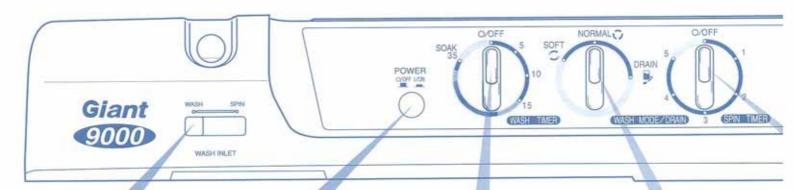


# **Component Names and Functions**





# Parts Description and Functions of the Operation Panel



### Water inlet selector

With this selector, you can choose to supply water to washing tub or spin dryer basket.

- If you set it to the "SPIN" position, "Preliminary spinning" will be activated.
- If "Preliminary spinning" is performed, it will take less time for you to perform "Main rinsing".

## Power switch

- Pressing the power switch once turns the power on.
   Pressing it again turns the
- This switch works both as a main switch and drain pump switch. After washing is completed, please set it to the OFF position. Otherwise pump motor continues to run.

## Wash timer

Use this timer to set washing or rinsing time to your desired length of time.

 If you want to set the timer to 2 min. or less, turn the control be yond the 5-min. position, and sthen turn it back to the desired position.

## Wash Mode/Drain

Use this selector to select either "Water Current or Wash Mode (NORMAL or SOFT)" or "Drain".

# **Washing Procedures**

# Preparation

"See "Installation" (on page 17).

- 1. Pull down the water drain hose.
- Connect the water supply joint with a water supply hose. Insert the water supply joint into the water supply inlet.
- Connect the power supply plug to the power outlet.
- Before washing, see "Hints for Effective Washing".



# Water Pressure

0.03-0.8 MPa (0.3-8kgf/Cm2)

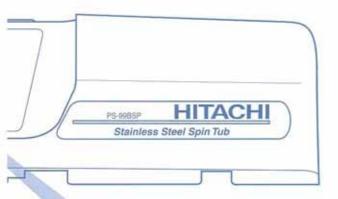


# D

# Washing

- Set the power switch to on.
- Select the Wash Mode (or water current).
- Dissolve detergent well in water.
- Fill the washing tub with water.
- Use the Wash Timer to set washing time to your desired length of time.

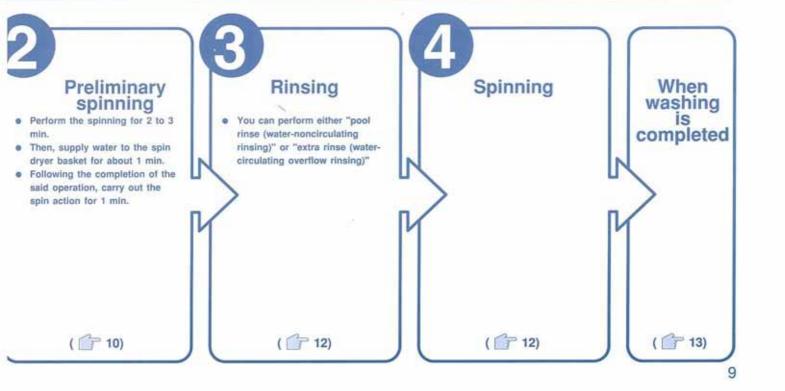




## Spin times

irn this selector to your desired ngth of time when you spin-dry undry.

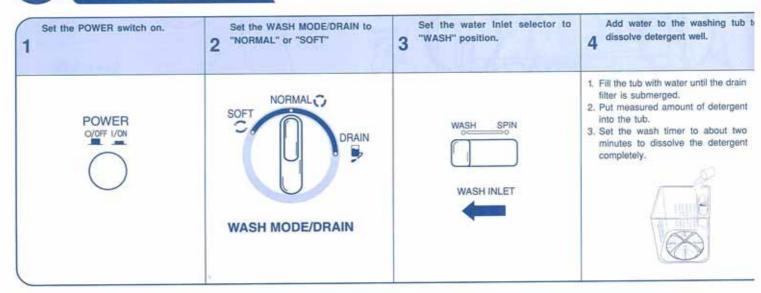
If you want to set the timer to 1 min, or less, turn the selector beyond the 2-min, position, and then turn it back to the desired position.



# Washing Procedures (continued from the previous page)

# 0

# Washing



# 2

# Preliminary spinning

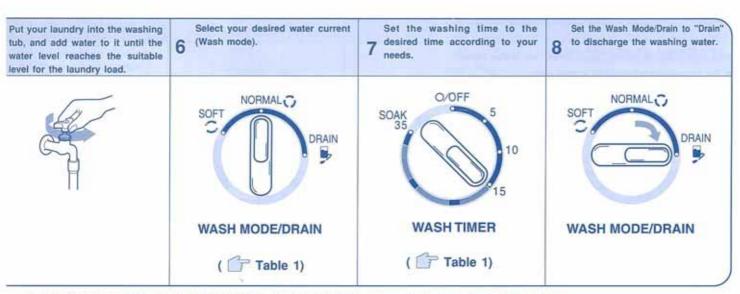
1 Open the Spin dryer lid and Inner lid.	Close the Inner lid and Spin dryer lid.	Set the spin timer to 2 to 3 min. fir 3 then perform the spinning action
Put the laundry into the spin dryer basket evenly, and set the Introduction of the balancer.	Spin dryer lid  Inner lid	5 5 5 5 5 5 5 5 5 5 5 5 5 5

# Reference Guide for Washing

Table 1 Wash Mode/Drain and Washing Time

Types of Laundry	Washing Time	Wash Mode/ Drain	Wash water Temperature	
Full load (Linen, cotton, etc.)	Soak 35 min.	NORMAL	WARM (40°C)	
Extremely soiled and bulky laundry	10 to 15 min.			
Linen, cotton, etc. (Small to medium load)	8 to 10 min.	NORMAL	COLD	
Ordinary clothes (underwear, etc.)	7 min.	HORMAL		
Slightly stained synthetic fiber	2 to 5 min.			
Delicate clothes, including 100% woel garments, wool- blended yarn labric and thin synthetic fiber with a tag indicating "HandWashing".	2 to 5 min.	SOFT	WARM (25°C-30°C)	

- The standard amount of laundry to wash applies to the case where the laundry made of those fabrics and textiles that are specified by JIS (Japan Industrial Standard) are washed.
   However, the amount may vary according to types, sizes and thickness of laundry.
- For ordinary type of clothes, about 80% of the standard amount can be washed effectively.



Before rinsing, be sure to perform preliminary spinning to remove as much as soapy water possible. In addition to that, preliminary spinning enables you to reduce more time and water for rinsing if you perform the steps 4 to 6.

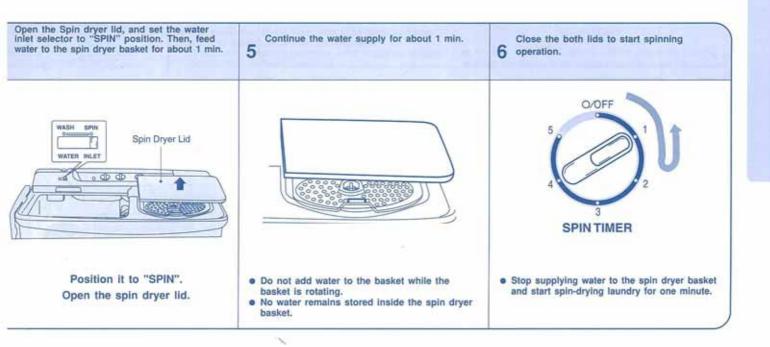


Table 3

Water level and

detergent quantity

### Type of Laundry Type of Material Weight/ 1 Piece Blended yarn tabric Socks (pair) Approx. 50g 100% cotton Approx. 130g White shirts Biended yarn tabric Approx. 200g Approx. 300g Bath towe 100% cotton Pajama (a suit) 100% cotton Approx. 500g 100% cotton Approx. 500g Towel bedguit (thin) 100% catton Approx: 500g Working clothes (a suit) Blended yarn fabric Approx: 800g

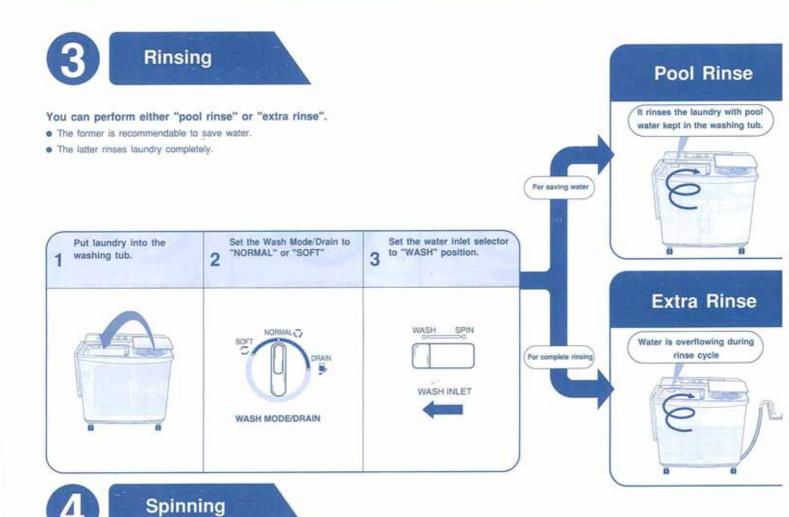
Table 2 Weight of Laundry

Maximum mass of Dry cloth (Wash/Spin) 8.0kg.	Water level	Water amount	Detergent quantity	Detergent quantity (for 30 I of water	
			25g (concentrated)	40g (normal)	
9	Max	72 1	60g	96g	
	3	70 1	58g	93g	
	2	55 1	46g	73g	
	1	40 1	33g	53g	

Please use the detergent as specified on the

instruction tag of laundry you wish to wash.

# Washing Procedures (continued from the previous page)



Put the laundry into the spin dryer basket and start spin-drying it. (Follow the same procedures as the steps 1 to 3 for Preliminary spinning.)

# Never put your hands into the spin dryer basket when it is spinning and until it comes to a full stop. Should you do so, clothes can get caught in your fingers and you may get injured. Especially, keep children away from the washer whenever it is in operation.

If the spin dryer basket does not stop within fifteen seconds after you open the spin dryer lid, immediately stop using the washer, and ask for repairs.

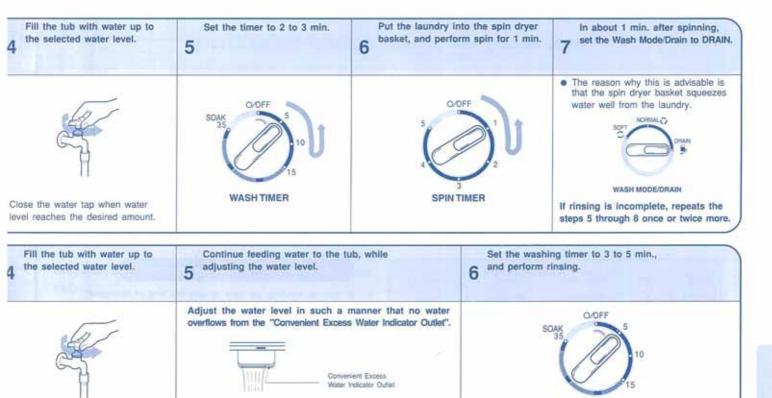
Otherwise, you may get injured.

## Recommendable spinning time:

Laundry	Spinning time		
Linen (cotton, towel, etc.)	3 to 5 min.		
Underwear (cotton)	2 to 4 min.		
Shirt (blended yarn fabric)	1 to 2 min.		
Thin clothes (chemical fibers)	1 min.		

# **Hints for Rinsing**

- If you wish to remove bubbles after each rinsing process, perform extra rinsing (water-circulation overflow rinsing) in Soft Mode (water current) at the final stage of the rinsing for one minute or so. This helps you reduce bubbles remaining floated on the rinse water.
- It saves water to wash clothes in the same water that was used for rinsing.



The water level during extra rinse cycle becomes higher

The reason is that the overflows outlet is located at higher

than the water level limit for washing cycle.

position than the water level limit is.

# When washing is completed.

1. Pull the power plug from the socket.

Close the water tap when water

level reaches the desired amount.

# Be sure to pull out the power plug from the socket when maintaining the unit. Do not pull out the plug from the socket with wet hands. • Failure to do so may result in electric shock or injury. CAUTION Be sure to hold the insulated body of power plug, not the cord, when pulling out the power plug. • Failure to do so may cause an electric shock or short, resulting in fire.

# **Hints for Rinsing**

- Put small-sized laundry, such as socks and handkerchiefs, in the bottom area of the spin dryer basket to prevent them from popping out of the basket.
- If the washer makes any abnormal noise during the spin cycle, stop the spinning operation and spread the laundry uniformly inside the basket once again.
- For easy draining, be sure to drain the washing water remaining in the washing tub after the spin cycle is completed.

■ To pick out laundry which has fallen between the basket and tub:

WASHTIMER

Set it to 7 min. if you did not perform preliminary spinning.

When the rinsing is completed, close the water tap.

- 1. Remove the power plug from the power outlet.
- Remove the spin dryer hatch.
- \* Insert a flat-blade screwdriver between the inside of the brim and the spin dryer basket, and push the brim outward to pry off the hooks.
- 3. Pick up the laundry.
- \* You may tilt the spin dryer basket for easy pickup.
- 4. Be sure to place back the spin dryer hatch in its original position.
- Push in the hatch firmly until the hooks at the front is engaged securely.

# **Various Washing Modes**

# When washing wool garments and other delicate laundry

# Recommendable water level for amount of laundry.

Water level	2	3
Amount of laundry	1.5 kg or less	2.0 kg

## Recommendable washing cycles.

Water	Wash	Preliminary spinning	Extra rinsing	Spinning
Soft	2 min.	30 sec. or less	2 min.	30 sec. or less

## How to dry the laundry.

Let the laundry dry by laying it flat on such objects as a bath tub cover to ensure that it retains its shap



## Precaution

Do not machine-wash the following clothes and articles:

- Those items that come only with a "Dry Cleaning" label but not with a "Hand Washing" lable.
- Animal hair materials (such as cashmere, angora and mohair) excluding wool.
- · Special knit items such as lace.

## Helpful hints for effective washing

- Prior to washing, be sure to use the kind of detergent specified by the symbol attached to clothes to be washed and dissolve it well in water, It is recommendable to use lukewarm water at about 30 for washing wool garments and knit wear.
- Turn the laundry inside out and place it in commercially available washing net, so that soapy water can immerse into it well.
- For heavily stained laundry, it is recommendable to soak it in soapy water beforehand (about 5 min.) for better washing results.

## When washing blanket

## Machine-washable blankets are as follows:

- Those blankets that are labeled with "Hand Washing"
- Single-sized blanket made of 100% chemical fibers (3.0kg or less in weight per piece)

## Precaution

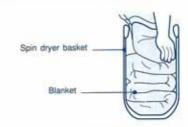
- Some electric blankets are not machine-washable. Therefore, when washing a "machine-washable electric blanket", observe its instruction manual.
- Use the washing net when you wash the electric blanket.

# Recommendable washing cycle

Amount of Water level	nount of Water level Water current	R	Recommendable washing course					
	water current	Washing	Spin time	Pool rinse	Spin	Extra rinse	Spin	
2.8 kg or less	3	Standard	5 min	1 min	2 min.	1 min	2 min	3 min.

## Request

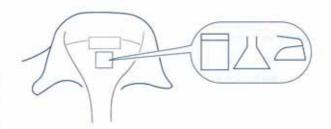
- Be sure to use synthetic detergent and dissolve it well in washing water in advance.
- If a blanket resurfaces while the washing is in operation, push it under the water.
- When you move the laundry into the spin dryer basket, squeeze lightly water out of it
  and put it in the basket in the manner as shown in the right illustration.



# **Hints for Effective Washing**

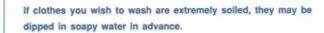
Observe the "Instructions" given on the tag attached to the clothes.







Put a bulky laundry, such as sheets or jeans, first into the washing tub.







 This aims at moving the entire laundry more easily inside the washing tub while the washing is in progress.

Put those laundry items that are likely to easily damaged into a commercially available washing net before washing. Be sure to remove sharp edged objects and foreign materials (hair pin, coin, etc.) from the pockets of laundry before washing.

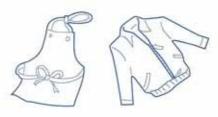




. This is to avoid damaging the washing tub and clothes, or obstructing the drain pipe.

Secure strings and close fasteners.



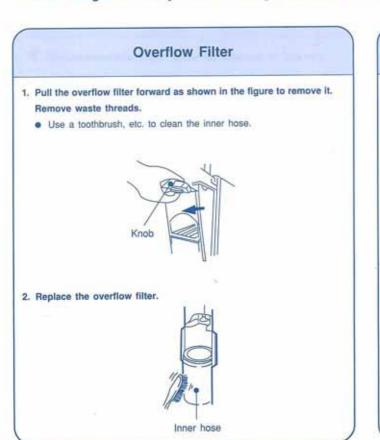


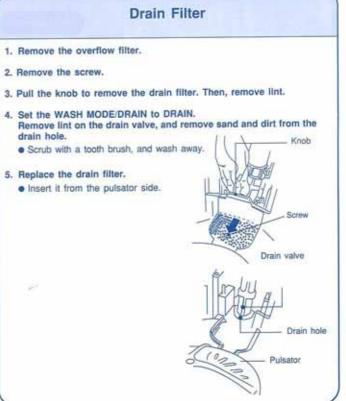


This aims at preventing damage to the clothes and fasteners.

# Cleaning the Machine

Wipe dust and dirt away from the washer's unit with a soft and clean cloth dampened with a small amount of water. When using a chemically treated cleaning cloth, observe its instructions.





# Installation

When using the washer for the first time, you may find water remaining in the drain hose. It was used for the factory performance test. It does not imply any malfunction.

Dust may also settle on the unit when you unpack your washer.

However, this results from the storage of washer at warehouses.

# Installing the washer

Place the washer on a dry, well-ventilated, level floor.

## Precaution

Avoid a place where the washer can be exposed to direct sunlight,
 Otherwise, the components of washer may be deformed or discolored.

## Installation of Castors

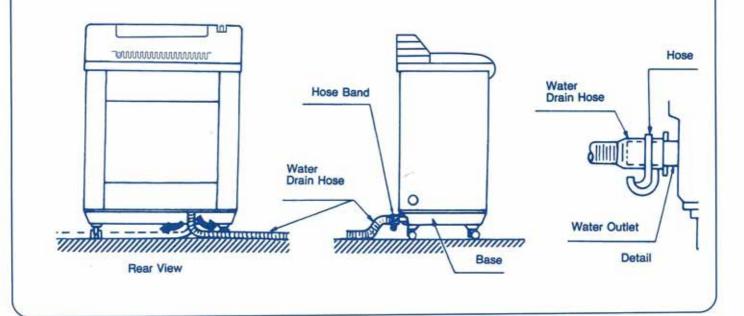
4 castors of the washer are taken off and packed in the washer for only transporting ease.
 Before installing, push them in on the base.



# Installation (continued from the previous page)

## About the Drain Hose

- The drain hose is packed in the washer Before operating, insert the water drain hose on the water outlet and fix it with the hose band to avoid water leakage.
- · Set the washer in a dry place.
- · Set on horizontal and flat surface.



# **Before Calling for Service**

If any abnormality is found, check the following before asking for service:

Trouble	Check point	Trouble	Check point		
Washer does not function at all.	<ul> <li>Is the fuse is blown or circuit breaker switched off?</li> <li>Is poor connection between the power supply plug and outlet made?</li> <li>Is any water remaining in pulsator frozen?</li> <li>6</li> </ul>	Incomplete spinning	Is laundry spread evenly inside the spin drye basket?  Is the drain port is closed with laundry falling our of the tub or basket?  Are there bubbles all around the spin dryer basket?  Is the water drain hose raised in the halfway? Is the hose extended for more than 2 meters?		
Laundry will not move smoothly.	Is excessive amount of laundry put in the washing tub?	Washing water leaks from the hose.	Is the drain valve or drain outlet clogged with lint, dirt, or mud?     16		
The spin dryer basket will not function.	<ul> <li>Is the spin dryer lid closed completely?</li> <li>Are there any clothes (socks, etc.) that fell out of the spin dryer basket and clung to the axis?</li> <li>12</li> </ul>	Incomplete draining	Is the drain filter or overflow filter clogged with lint?  16 Is the drain hose crushed or damaged?		

## For inquiries and advice for repair:

For any question or advice on repair about your washer, please get in touch with the dealer from whom you purchased it or one of "our customer support centers" as described in the separate copy.

## When you ask for service

## In-field services

Refer to the "Before Calling for Service" for troubleshooting any trouble. If you think that the trouble still cannot be cured, stop using the washer, pull out the power plug from the power outlet, and contact the distributor from whom you bought it for checks and repairs.

## During the warranty period:

Please show your warranty to a qualified service dealer when the dealer repairs your washer. Then, the dealer makes any needed repair according to the terms and conditions as stipulated in the warranty.

## Required information for after-sales services, checks and repairs

Product's name	Electric Washing Machine	Your Address	Please describe any easy-to-see building, signs, etc. in your neighborhood as well.
Model Type	PS-99BSP	Your Name	
Date of Purchase		Your Telephone No.	
Trouble & Problem	Please specify it in detail as much as possible.	Request date for service	

## When warranty expires:

If your washer can become available for normal operation after it is repaired, the repair service will be available upon request.

Check to see if

any of the follow-

ing conditions or

other abnormali-

ties exist:

# Maintenance with tender care



## Please check your washer for possible malfunction when it is used for an extended period of time!

- The spin dryer basket is difficult to stop.
- . There are water leaks (hose, washing tub, joint, etc.)
- There is smell of burning or strange noise and vibration when the washer is in operation.
- If you touch the washer, you receive an electric shock.
- The washer rattles or is installed on an inclined surface.
- When you turn on the switch, the washer sometimes does not operate.
- Timer sometimes stops functioning halfway.
- The power cord or plug is heated excessively.
- Other failure and malfunction are found in the washer.

Stop using the washer in the aforementioned cases or abnormalities exist, be sure to immediately switch off the power switch to prevent an accident and damage, and ask the dealer to inspect

and repair the washer.

# **Specifications**

Product	Electric Washing Machine (Hitachi's Twin-Tub Washer)		Max 72 I	Weight	Approx. 33 kg	
		Standard Amount	(3) 70 1		W.W. 22011	
Power Source	See below of spec	of Washing Water	(2) 55 1	Rated Time	Washing : 30 min. Max 35 min. (with soak)	
Washing System	Whirl Water Current		(1) 40 I		Spinning: 10 min.	
Outer Dimension		922 (W) x 509 (D) x 934 (H) mm		Power Consumption	Washing Cycle: See on name pla	
		10000		Ognompuon	Spinning Cycle: See on name pl	

Model	PS-99BSP SAA			
Туре	Twin Tub Washer			
Rated Voltage	240V~			
Rated Frequency	50Hz			
Castor (4 Sets)	With			

Customer's Note: Please write down the necessary information on your washer for

future reference.

This note is helpful for you to ask a dealer for service in the future.

			_		
DI	ace	of.	Pitt	wha	188

Phone No.

Date of Purchase:

