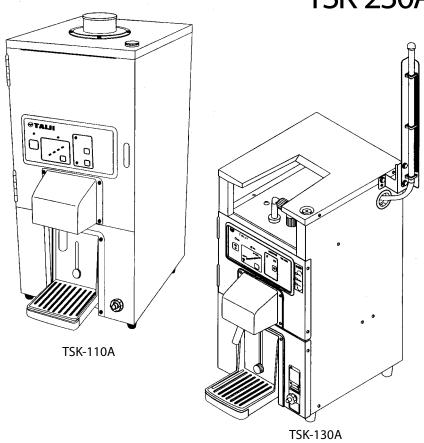
Operating Instructions

Sake Warmer Dispenser

TSK-110A TSK-210A TSK-220A TSK-420A TSK-130A TSK-230A



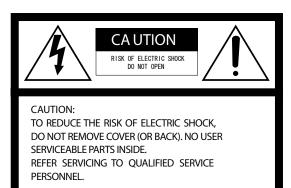


Contents

Introduction	1	After Use	12
Use	1	After-Sales Service	14
Names of Parts	2	Specifications	15
Inspection and Preparation Before Use	4		
Instructions for Usa	7		

Caution:

Before attempting to connect or operate this product, please read the label on the bottom.





SA 1965

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

The serial number of this product may be found on the bottom of the unit.

You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No.	
Serial No.	

WARNING:

TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOIS TURE.

Introduction

- * To use your new purchase correctly and safely, you are advised to carefully read this manual and fully understand it before use.
- * Keep the manual at hand for quick reference after reading it.
- * Be sure to receive your warranty of the product.
- * The manual covers mainly safety precautions, the names of parts, instructions for use, after-sale service, and product specifications.
- * Failure to observe the precautions given in this manual may result in physical injuries. Exercise care not to use your new product in a manner which does not conform to the instructions given herein.

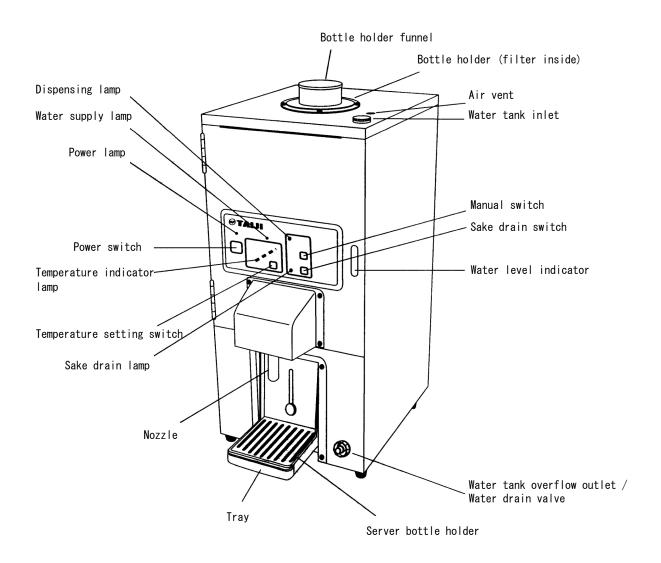
Use

This product is a sake warmer exclusively for indoor use. It is intended to make Japanese sake tasty, controlled to a favorite temperature.

It should not be used for other purposes.

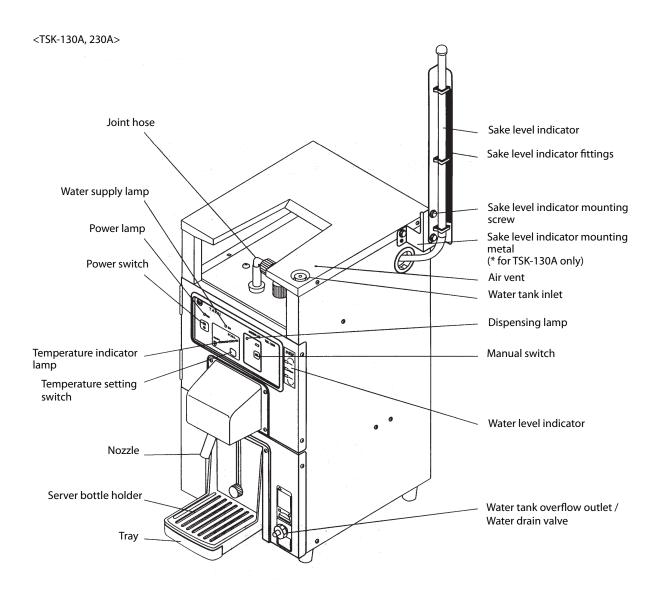
Names of Parts

<TSK-110A, 210A, 220A, 420A>



■ Accessories

	Cap	Funne I	Silicone tubing
TSK-110A	2	1	1
TSK-210A	3	1	1
TSK-220A	3	1	1
TSK-420A	6	1	1



■ Accessories

						Sake level	Sake level		
	Funnel	Silicone Tubing	Stopcock	Sake level indicator	Sake level indicator fittings	indicator mounting metal	indicator	Cleaning brush	Joint cap
TSK-130A	1	1	1	1	1	1	4	1	1
TSK-230A	1	1	1	1	1	-	2	1	1

Inspection and Preparations Before Use

1. Check the instruction manual, and the accessories.

2. Choose a place for the sake warmer dispenser.

- * A level, stable place.
- * A well-ventilated place.
- * A place away from heat sources, such as a gas burner and cooking range, and free from exposure to direct sunlight. (Keep the dispenser at least 50 cm away from them.)
- * A place not so humid, not exposed to water.

3. Use an independent outlet.

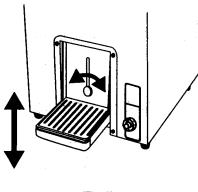
Be sure to plug the power cable to an electrical outlet of 110 - 120V AC 15 A minimum or 220 - 240 V AC 7.5 A minimum, to which nothing else is connected.

4. Adjust the server bottle holder.

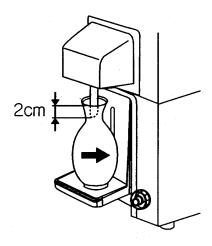
Loosen the server bottle holder screw, place your server bottle in the holder, adjust the server bottle holder up or down so that the nozzle end will be about 2 cm in the server bottle.

(The machine automatically stops discharging the sake when the nozzle end touches the sake in the server bottle.)

* The nozzle may not work depending on the server bottle shape. Check it in advance.



<Fig. 1>



<Fig. 2>

If you have a model TSK-110A, 210A, 220A, or 420A, go to step 5.

If you have a model TSK-130A, or 230A, go to steps 6 and 7.

5. Clean the sake warmer heat exchanger pipe . (Fig. 3)

This product is already cleaned inside before shipment. When you are going to use it for the first time or after a long period of non-use, clean it according to the procedures specified below.

- 1) Push the power cord plug into a wall outlet.
- 2) Press the power switch to energize the machine.
- 3) Take out the bottle holder funnel.
- 4) Feed water (approx. 70° C) to the bottle holder to a degree not to cause overflow.
- 5) Press the manual button and take water from the nozzle. Water should be drained completely.
- 6) Put the bottle holder funnel on the bottle holder.

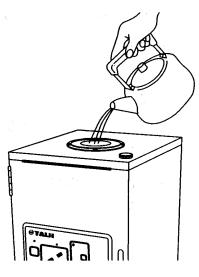


Caution

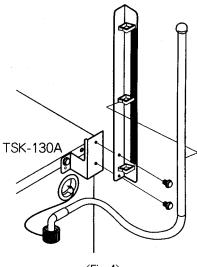
• Hot water comes out of the nozzle while the inside is cleaned. Pay attention to a possible accident of scalding, etc.

6. Sake level indicator setting

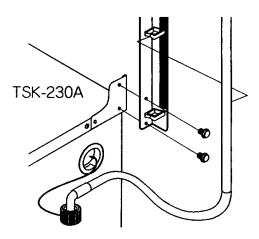
- TSK-130A (Fig. 4) (Fig. 6)
- Fix the accessory sake level indicator mounting metal to the main body, using the accessory mounting screws.
- Fix the sake level indicator fittings to the mounting metal, using the accessory mounting screws. Then fit the sake level indicator.
- * The sake level indicator can be mounted either on the right or left of the main body.
- 3) Remove the cap that is attached to the sake level indicator connection port.
- 4) Insert the joint part of the sake level indicator into the hole located on the side surface of the main body, and screw it in the connection port. Leakage of sake will occur if this screw-in process is awkwardly followed.
 - TSK-230A (Fig. 5) (Fig. 6)
- Fix the sake level indicator fittings perpendicularly to the main body, using the accessory mounting screws.
 - * The sake level indicator can be mounted either on right or left of the main body.



<Fig. 3>



<Fig. 4>



<Fig. 5>

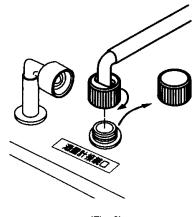
- 2) Fit the sake level indicator in the fittings.
- 3) Remove the cap that is attached to the sake level indicator connection port.
- 4) Insert the joint part of the sake level indicator into the hole located on the side surface of the main body, and screw it in the connection port. Leakage of sake will occur if this screw-in process is awkwardly followed.

7. Clean the sake warmer heat exchanger pipe.

This product is already cleaned inside before shipment. When you are going to use it for the first time or after a long period of non-use, clean it according to "Daily maintenance" in the section of "After use" herein.



• Hot water comes out of the nozzle while the inside is cleaned. Pay attention to a possible accident of scalding, etc.



<Fig. 6>

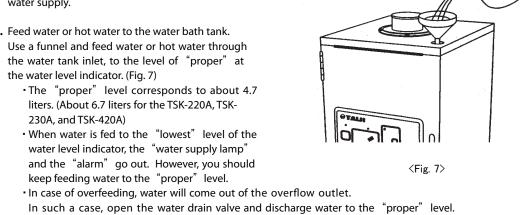
Instructions for Use

- 1. Push the power cord plug into a wall outlet.
- 2. Press the power switch.

When the "power switch" is pressed, the "power lamp" is lit and the electric power begins to be fed. At the same time, the "water supply lamp" is lit and an alarm keeps sounding to indicate the "need for water supply."

3. Feed water or hot water to the water bath tank. the water tank inlet, to the level of "proper" at the water level indicator. (Fig. 7)



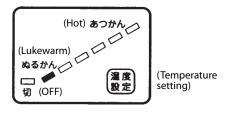




- Never feed any liquid other than water or hot water.
- 4. Adjust the sake warming temperature.
 - 1) When the "temperature setting switch" is pressed once, the temperature setting mode is assumed. Initial setting is at [OFF].
 - The setting indication and the sake warming temperature are as specified below. However, they can change under various conditions, and they should be used as a guideline.

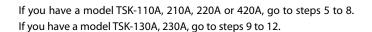
Lukewarm Approx. 45° C Hot Approx. 65° C

2) Each time the "temperature setting switch" is pressed once, the temperature indicator lamp moves up from one after another along the diagonal line. (Fig. 8)



<Fig. 8>

- 3) If the switch is not pressed and such a condition is kept unchanged for 5 seconds, the mode is automatically switched over to the "temperature display mode" and the temperature in the tank is then displayed. (Fig.9)
- Until the preset temperature is attained, the lamp flashes to indicate the present temperature.
- 5) When the preset temperature is attained, all the lamp up to the preset temperature are lit. (As a guideline, when the HOT temperature is preset, this temperature is attained in about 20 minutes for the TSK-110A, TSK-130A, and TSK-210A, and in about 35 minutes for the TSK-220A, TSK-230A, and TSK-420A.)



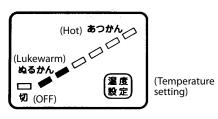
- 5. Attach the accessory cap to an uncapped 1.8-liter sake bottle. (Fig. 10)

 Uncap a 1.8-liter sake bottle, and attach an accessory cap to the bottle in its place.
- **6.** Confirm that the nozzle has been pulled toward you, and insert a 1.8-liter sake bottle in the bottle holder funnel.
- 7. Dispense the warmed sake.
 - Fit the nozzle (sake outlet) into the mouth of your sake server bottle, lightly push the bottle until the nozzle is straight down, and place the server bottle on the server bottle holder. (Fig.11)
 The dispensing lamp flashes and the warmed sake begins to come out.
 - Sake dispensing time is approximately 16 seconds for 180 ml of hot sake.
 - •When the server bottle is filled with the required volume of sake, the dispensing operation stops automatically and the dispensing lamp goes out.
 - You can pick up the server bottle in the reverse procedure. Take out the bottle while making its posture slantwise.
 - If you want to dispense the warmed sake manually, press the "manual switch." (Fig. 12) While the switch is kept pressed, the sake comes out.

The warmed sake is dispensed even when the nozzle is positioned slantwise.

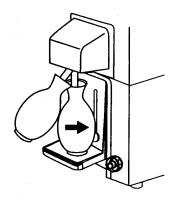


• Sake from the nozzle is hot. Be careful for handling.

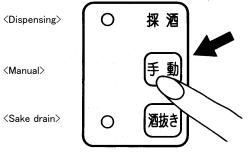


<Fig. 9>



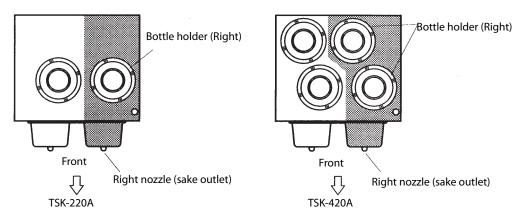


<Fig. 11>



<Fig. 12>

• The relationship of the bottle holding position and the nozzle (sake outlet) between the TSK-220A and TSK-420A is classified into the right and left as illustrated below.

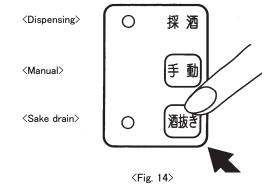


<Fig. 13 As seen from above>

8. Sake draining function

This machine has a function of draining the remaining sake in the heat exchanger pipe.

- Provide for a proper container that contains more than 150ml.
- 2) Keep pressing the sake drain button for approximately 2 seconds. (Fig. 14)
 - A "peep" sound is heard and the sake drain mode is assumed.
 - (The sake drain lamp flashes at that time.)
- Set the container on the server bottle holder and throw the nozzle down. This is the start of dispensing.
- 4) Sake is drained.
 - (Note: If the container is too small, the nozzle sensor will be actuated and the sake in the pipe may fail to be drained completely.)
 - When all the sake in the pipe has come out, the sake drain lamp is lit.
 - If any sake is still remaining in the pipe, the sake drain lamp flashes.



If the sake drain lamp flashes and the sake in the pipe cannot be drained completely, try to pull the nozzle once toward you, set the container, and throw down the nozzle again. Then the sake is drained and the sake drain lamp is lit.

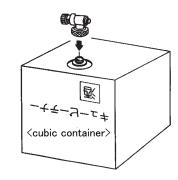
* If sake dispensing is performed automatically or manually after the sake drain lamp has been lit, this sake drain lamp will then go out.

Note: The sake drain lamp may be kept unlit even though the heat exchanger pipe is empty. This is, however, of no problem.

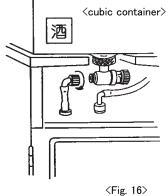
9. Set the cubic container.

- Remove the cap from the mouth of the cubic container and confirm that the knob of the accessory stopcock is set at "CLOSE." Then screw it in. Sake will leak out if this screw-in process is awkwardly followed. (Fig. 15)
- When setting the cubic container on the sake warmer, set the container so that its mouth is positioned downward and toward you and the sake outlet of the stopcock is positioned to the left. (Fig. 16)
- 3) Screw the joint into the sake outlet of the stopcock.

 This joint is connected to the warmer main body. (Fig. 16)
- 4) Before you begin to dispense, confirm that the stopcock, joint hose, and the sake level indicator are firmly mounted. Also examine that the nozzle is pulled toward you.
- 5) Turn the knob of the stopcock to the right and adjust it to the "OPEN" position. (Fig. 17)



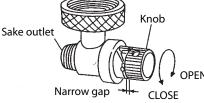
<Fig. 15>



Stopcock is "OPEN"





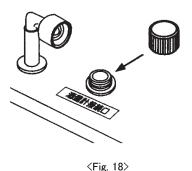


10. Sake level indicator

1) Note that the sake level indicator does not indicate the correct position when the stopcock is set at "CLOSE."

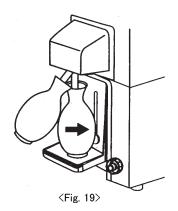
<Fig. 17>

- 2) The sake level indicator may indicate some variations during sake dispensing or under other conditions. It gives a rough standard when you want to know the contents of sake in the cubic container.
- 3) When replacing the cubic container, air in the pipe may come out of the sake level indicator. This is not a problem. A normal state is recovered when sake dispensing is started.
- 4) When you do not use the sake level indicator, never remove the joint cap from the connection port of the sake level indicator. Sake will overflow, if this cap is removed.
 - If this cap is removed, connect the sake meter or screw the joint cap firmly into the connection port of the sake meter once more again. (Fig. 18)
- 5) Carefully keep the joint cap at hand.



11. Dispense the warmed sake.

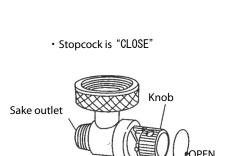
- 1) Fit the nozzle (sake outlet) into the mouth of your sake server bottle, lightly push the bottle until the nozzle is straight down, and place the server bottle on the server bottle holder. (Fig. 19)
 - The dispensing lamp flashes and the warmed sake begins to come out.
 - Sake dispensing time is approximately 11 to 16 seconds for 180ml of hot sake.
 - When the server bottle is filled with the required volume of sake, the dispensing operation stops automatically and the dispensing lamp goes out.
- 2) You can pick up the server bottle in the reverse procedure. Take out the bottle while making its posture slantwise.
- 3) If you want to dispense the warmed sake manually, press the "manual switch." While the switch is kept pressed, the sake comes out.
 - •The warmed sake is dispensed even when the nozzle is positioned slantwise.



12. Draining the remaining sake from the main body

- 1) Turn the knob of the stopcock to the left and adjust it to the "CLOSE" position. (Fig. 20) (If this operation is omitted, sake in the Cubitaner is also discharged.)
- 2) Turn on the power switch and lightly push the nozzle until it is straight down and drain all the sake from the main body through the nozzle.(Fig. 19)
- 3) If the sake meter is not connected, lightly push the nozzle until it is straight down and loosen the joint part between the stopcock and the joint hose. Otherwise, loosen the joint cap at the connection port of the sake meter.
 - · After the sake has been completely drained, screw in the loose joint part to recover its former condition.
 - If the sake warmer is not used for more than one calendar day, drain the remaining sake from the main body without fail and clean the inner sake passage. (In regard to cleaning, refer to <After use>.)

The drained sake should be used for cooking and so on.



<Fig. 20>

Narrow gap

Caution

· Hot sake comes out shortly after use. Pay attention to a possible accident of scalding.

After Use

<TSK-110A, 210A, 220A, 420A>

- 1. Daily maintenance (cleaning of sake passage)
 - 1) Pull out the 1.8-liter sake bottle and drain the internal sake, without fail.
 - To drain sake, press the "manual switch" and wait until the sake stops coming out.
 - 2) Remove the bottle holder funnel.
 - Feed water (approx. 70° C) to the bottle holder to a degree not to cause overflow. Throw the nozzle down or press the "manual switch."
 - Do not use any detergent.
 - 3) Hot water comes out of the nozzle and the pipe inside is cleansed.
 - Repeat the above-mentioned steps of 2) and 3) three times or so.
 - 4) Turn off the power switch.
 - 5) Pull out the power cord plug from the wall outlet.
- 2. Fix the bottle holder funnel and the filter at least twice a week.

Pull out the dust removal filter upwards. Neatly wash the bottle holder funnel with hot water. Remove dust from the filter net. Clean the filter in hot water well and carefully wipe it off. Set the filter on the bottle holder so that the filter knob is positioned upward.

3. Fix the bottle cap at least twice a week.

Remove it from the 1.8-liter sake bottle and clean it with water at 70° C approximately.

4. Water in the water bath tank should be replaced once a month.

At that time, turn off the power switch without fail and open the water drain valve to drain water.

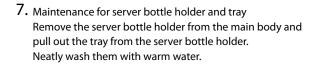
5. Care of the Machine

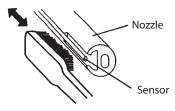
Wipe the machine with a dry cloth. If it is hard to clean it, wipe it with a cloth dipped in a neutral detergent solution or soap and water, then wipe it well with a dry cloth.

The front of the machine is made of resin, so do not use paint thinner or other volatile fluids or alkaline detergents.

6. Fix the nozzle at least twice a month. (Fig. 21)

Put a tooth brush in water and use it to wipe off contamination from the sensor electrode located at the nozzle tip.





<Fig. 21>

<TSK-130A, 230A>

- 1. Daily maintenance (cleaning of sake passage)
- (1) Remove the used cubic container in the following procedure:
 - Leave the power switch turned ON.
 - 1) Turn the knob of the stopcock to the left and adjust it to the "CLOSE" position. Throw the nozzle (sake outlet) down to drain the sake remaining inside. For the TSK-230A, it is necessary to throw both nozzles down to drain sake.
 - 2) After the nozzle has been thrown down, remove the joint part between the stopcock and the joint hose. For a machine that has no sake level indicator, the inner sake cannot be drained unless this work is finished first.
 - 3) When the inner sake has been drained out, return the nozzle and remove the cubic container from the main body.
 - 4) Remove the stopcock from the cubic container.
- (2) Put about 2 liters of water (70° C or below) in a cubic container intended for cleaning (an empty cubic container). After mounting the stopcock, set it on the main body and connect the stopcock to the joint hose.
 - Never use any detergent.
- (3) Provide for a container for cleaning somewhat large. Turn the knob of the stopcock to the right and adjust it to the "OPEN" position. Throw the nozzle down or press the "manual switch."
- (4) Water comes out of the nozzle and the pipe inside is cleaned.
- (5) After cleaning, remove the cubic container for cleaning in the procedure of (1) above and press the "power switch" to turn off the machine.
 - The drained sake should be used for cooking and so on. After cleaning, however, some water drops may remain inside. When you dispense sake next time, drain some at the beginning and then use the dispensed sake.
- 2. You should fix the sake level indicator diligently.

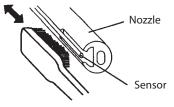
 Remove the sake level indicator from the main body and then the cap off the upper part of the sake level indicator.

 Using an accessory cleaning brush, clean inside of the pipe.
- Water in the water bath tank should be replaced once a month.At that time, turn off the power switch without fail and open the water drain valve to drain water.
- 4. Care of the Machine

Wipe the machine with a dry cloth. If it is hard to clean it, wipe it with a cloth dipped in a neutral detergent solution or soap and water, then wipe it well with a dry cloth.

The front of the machine is made of resin, so do not use paint thinner or other volatile fluids or alkaline detergents.

- 5. Fix the nozzle at least twice a month. (Fig. 22)
 Put a tooth brush in water and use it to wipe off contamination from the sensor electrode located at the nozzle tip.
- 6. Maintenance for server bottle holder and tray Remove the server bottle holder from the main body and pull out the tray from the server bottle holder. Neatly wash them with warm water.



<Fig. 22>

After -Sales Service

Before Calling a Service Person

Before calling a service person, carefully read this manual and check the following.

Trouble	Check
Sake is not warmed.	 Is the power cord plug fully pushed into the wall outlet? Is the sake warming temperature set at OFF?
Sake is dispensed, but too little.	 Use the manual button to operate until sake comes out smoothly. This can often occur when a 1.8-liter sake bottle is replaced. It is caused because air in the pipe is pushed out. Check whether the nozzle area is contaminated. If contaminated, neatly clean the electrode part (metallic rod) in the nozzle by the use of a tooth brush.
Temperature does not rise.	 Is the water bath tank full with water at the level of water level indicator? Feed water or warm water through the water tank inlet. Considered to be a problem in the temperature sensor. In this case, the replacement of sensor is required.
Temperature rises too high.	 Is the sake warming temperature set at a favorite level? Considered to be a problem in the temperature sensor. In this case, the replacement of sensor is required.

Disassembly Prohibited

Very special techniques are required for repairing.
Users are absolutely prohibited to carry out overhaul and fixing.

Specifications

* The specifications and part of the appearance are subject to change for improvement without notice.

	TSK-110A	TSK-220A		
Heating method	Electrical (indirect heating)	Electrical (indirect heating)		
Sake feeder	One 1.8-liter bottle (replaceable)	Two 1.8-liter bottles (replaceable)		
	Water bath tank, Approx. 4.7 liters	Water bath tank, Approx. 6.7 liters		
Weight	Approx. 9.7kg	Approx. 12.2kg		
Dimensions	W 250 x D 375 x H 595 mm	W 330 x D 375 x H 595 mm		
Power cord	Rubber sheathed cord, 2m	Rubber sheathed cord, 2m		
Accessories	Server bottle holder, 1 pc.	Server bottle holders, 2 pcs.		
	Bottle holder funnel, 1 pc.	Bottle holder funnel, 1 pc.		
	Caps (bottle plugs), 2 pcs.	Caps (bottle plugs), 3 pcs.		
	Silicone tubing, 1 pc.	Silicone tubing, 1 pc.		
	TSK-210A	TSK-420A		
Heating method	Electrical (indirect heating)	Electrical (indirect heating)		
Sake feeder	Two 1.8-liter bottle (replaceable)	Four 1.8-liter bottles (replaceable)		
	Water bath tank, Approx. 4.7 liters	Water bath tank, Approx. 6.7 liters		
Weight	Approx. 9.8kg	Approx. 12.5kg		
Dimensions	W 250 x D 375 x H 595 mm	W 330 x D 375 x H 595 mm		
Power cord	Rubber sheathed cord, 2m	Rubber sheathed cord, 2m		
Accessories	Bottle holder funnel, 1 pc.	Bottle holder funnel, 1 pc.		
	Caps (bottle plugs), 2 pcs.	Caps (bottle plugs), 6 pcs.		
	Silicone tubing, 1 pc.	Silicone tubing, 1 pc.		
	TSK-130A	TSK-230A		
Heating method	Electrical (indirect heating)	Electrical (indirect heating)		
Sake feeder	Cubic container, 5 to 18 liters	Cubic container, 5 to 18 liters		
	Water bath tank, Approx. 4.7 liters	Water bath tank, Approx. 6.7 liters		
Weight	Approx. 9.3kg	Approx. 12.1kg		
Dimensions	W 250 x D 375 x H 515 mm	W 330 x D 375 x H 890 mm		
	With Sake indicator mounted:	With Sake indicator mounted:		
	W 310 x D 375 x H 850 mm	W 357 x D 375 x H 850 mm		
Power cord	Rubber sheathed cord,	Rubber sheathed cord,		
	2m in effective length	2m in effective length		
Accessories	Bottle holder funnel, 1 pc.	Bottle holder funnel, 1 pc.		
	Silicone tubing, 1 pc.	Silicone tubing, 1 pc.		
	Stopcock, 1 pc.	Stopcock, 1 pc.		
	Sake indicator, 1 pc.	Sake indicator, 1 pc.		
	Sake indicator fittings, 1 lot	Sake indicator fittings, 1 lot		
	Sake indicator mounting metal, 1 pc.	Sake indicator mounting screws, 2 pcs.		
	Sake indicator mounting screws, 4 pcs.	Cleaning brush, 1 pc.		
		Joint cap, 1 pc.		
	Cleaning brush, 1 pc.	Joint cap, 1 pc.		

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