



DISHWASHER

HW-600A
HW-600A-1

INSTRUCTION MANUAL

FOR END USER

HOSHIZAKI (SUZHOU) CO., LTD.

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L1J030103 (060421)

WARNING

Only qualified service technicians should install, service and maintain the product. No installation, service or maintenance should be undertaken until the technician has thoroughly read this Instruction Manual. Likewise, the owner/manager should not proceed to operate the product until the installer has instructed them on its proper operation. Failure to install, operate, and maintain the equipment in accordance with this manual may adversely affect safety, performance, component life, and warranty coverage.

IMPORTANT

This manual should be read carefully before the product is installed and operated. Only qualified service technicians should install, service, and maintain the product. Read the warnings contained in this booklet carefully as they give important information regarding safety. Please retain this booklet for any further reference that may be necessary. This manual is not applicable to persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.

| CONTENTS | PAGE |
|--|-------------|
| 1. CONSTRUCTION ----- | 1 |
| [a] GENERAL ----- | 1 |
| [b] OPERATION PANEL----- | 2 |
| [c] ACCESSORIES ----- | 3 |
| [d] OPTIONS----- | 3 |
| 2. CHECKS BEFORE OPERATION----- | 4 |
| [a] CHECKS AFTER INSTALLATION----- | 4 |
| [b] WATER REQUIREMENTS----- | 4 |
| [c] CHECKS BEFORE OPERATION----- | 5 |
| 3. CHECKING DETERGENT TANK AND RINSE AID TANK----- | 6 |
| 4. PREPARING THE WASH COMPARTMENT----- | 6 |
| [a] AUTO FILL ----- | 7 |
| 5. LOADING ----- | 8 |
| [a] PREWASH ----- | 8 |
| [b] LOADING DISHES----- | 8 |
| [c] LOADING RACK----- | 9 |
| 6. WASH AND RINSE----- | 9 |
| [a] OPERATING TEMPERATURES----- | 9 |
| [b] MODE SETTING ----- | 9 |

| | |
|---|----|
| 7. UNLOADING----- | 10 |
| 8. INSUFFICIENT WASHING RESULTS----- | 11 |
| 9. SHUTDOWN----- | 12 |
| 10. INTERRUPTION----- | 13 |
| 11. STANDBY/CLEANING BUTTON----- | 14 |
| 12. INTERNAL BOOSTER TANK ENERGY SAVING CONTROL----- | 14 |
| 13. ALERT FUNCTION----- | 14 |
| 14. LOW TEMPERATURE LOCK FUNCTION----- | 14 |
| 15. DAILY MAINTENANCE----- | 15 |
| 16. SELF-CLEANING----- | 17 |
| 17. WEEKLY MAINTENANCE----- | 18 |
| [a] HEATER----- | 18 |
| [b] EXTERIOR----- | 18 |
| [c] WASH COMPARTMENT----- | 18 |
| 18. MONTHLY INSPECTION----- | 18 |
| [a] WATER SUPPLY LINE----- | 18 |
| [b] DRAIN HOSE (WASH TANK)----- | 19 |
| [c] POWER SUPPLY CORD----- | 19 |
| 19. TROUBLESHOOTING----- | 19 |
| [a] TROUBLES REQUIRING IMMEDIATE SERVICE CALL----- | 19 |
| [b] TROUBLES REQUIRING CHECK BY USER----- | 19 |
| [c] TROUBLES WITHOUT ERROR CODE INDICATION----- | 20 |
| 20. LONG STORAGE, RELOCATION, DISPOSAL, TRANSFER----- | 21 |
| 21. WARRANTY----- | 22 |
| 22. SPECIFICATIONS----- | 23 |

Important Safety Information

Throughout this manual, notices appear to bring your attention to situations which could result in death, serious injury, or damage to the unit.

⚠ WARNING Indicates a hazardous situation which could result in death or serious injury.

NOTICE Indicates a situation which could result in damage to the unit.

IMPORTANT Indicates important information about the use and care of the unit.

⚠ WARNING

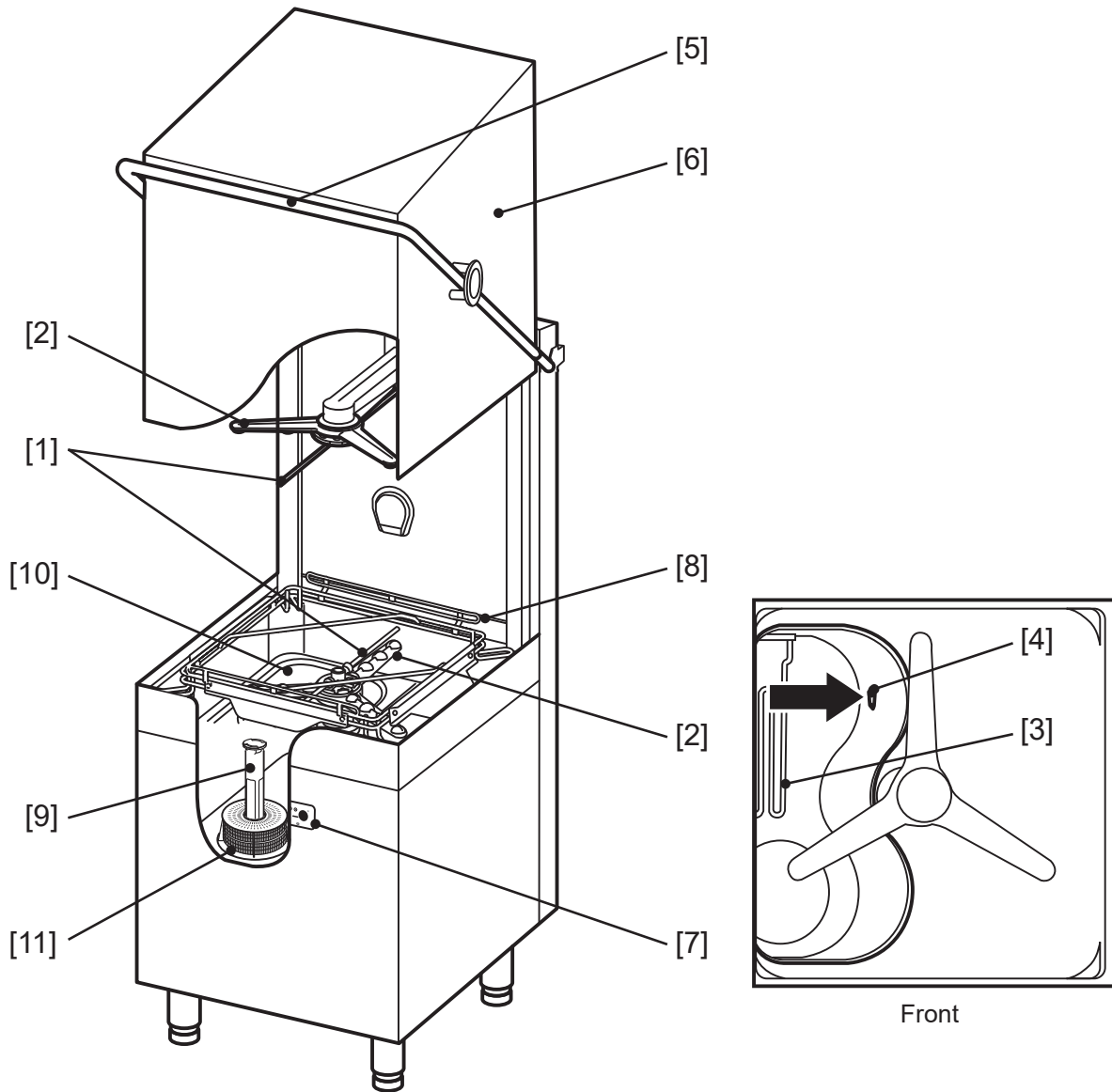
This product should be destined only to the use for which it has been expressly conceived. Any other use should be considered improper and therefore dangerous. The manufacturer cannot be held responsible for injury or damage resulting from improper, incorrect, and unreasonable use.

To reduce the risk of death, electric shock, serious injury, or fire, follow basic precautions including the following:

- Electrical connection must be hard-wired and must meet national and local electrical code requirements. Failure to meet these code requirements could result in death, electric shock, serious injury, fire, or severe damage to equipment.
- This unit requires independent power supplies for the dishwasher and for the booster tank. See the nameplate for proper voltage and breaker/fuse sizes. Failure to use proper breakers or fuses can result in tripped breakers, blown fuses, or damage to existing wiring. This could lead to heat generation or fire.
- It is recommended to install a proper breaker or fuse in this unit.
- **THIS UNIT MUST BE EARTHED.** Failure to properly earth this unit could result in death or serious injury.
- This unit should be disassembled or repaired only by qualified service personnel to reduce the risk of electric shock, injury, or fire.
- Do not make any alterations to the unit. Alterations could result in electric shock, injury, fire, or damage to the unit.

1. CONSTRUCTION

[a] GENERAL



[1] Upper Rinse Spray Arm, Lower Rinse Spray Arm
Rotates and sprays rinse water onto dishes to rinse off detergent.

[2] Upper Wash Spray Arm, Lower Wash Spray Arm
Rotates and sprays wash water onto dishes to remove stains.

[3] Heater
Keeps wash water at a proper temperature.

[4] Water Level Pressure Switch Sensing Hole

[5] Handle

[6] Door

[7] Operation Panel
See “[b] OPERATION PANEL”.

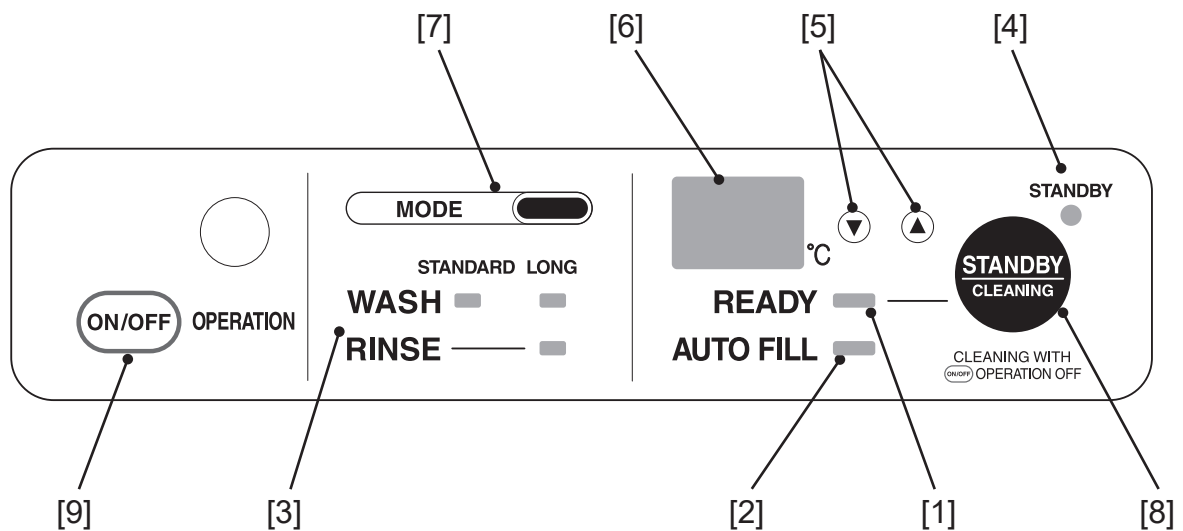
[8] Rack Support Frame

[9] Drain Pipe
Pull out to drain.

[10] Strainer
Separates wash water and scraps.

[11] Filter
Prevents scraps from being drawn into the pump.

[b] OPERATION PANEL



[1] “READY” Lamp
Lights up when the auto fill cycle completes and the dishwasher is ready to wash.

[2] “AUTO FILL” Lamp
Flashes during the auto fill cycle, and goes off at the end of the cycle.

[3] Mode Lamps
Light up to indicate the selected operation mode, and flash during operation.

[4] Standby Lamp

Lights up when the dishwasher is in the standby mode. The unit will not start even when the door is closed with this lamp on. See "11. STANDBY/CLEANING BUTTON".

[5] Up Button, Down Button

▲ Indicates the total number of operation in six digits by two digits each time.

Example: 123,456 times are indicated by  12 → 34 → 56

▼ Press to indicate rinse water temperature instead of wash water temperature while the dishwasher is on standby.

Service personnel also use these buttons to change the controller settings.

[6] Display

Indicates wash water temperature in wash cycle, rinse water temperature in rinse cycle, and error codes in case of trouble. See "19. TROUBLESHOOTING".

[7] "MODE" Button

Press to change the selected operation mode. See "6. WASH AND RINSE".

[8] "STANDBY/CLEANING" Button

Press to make the dishwasher inoperable even when the door is closed. See "11. STANDBY/CLEANING BUTTON".

Press and hold to start self-cleaning with the "ON/OFF" button off. See "16. SELF-CLEANING".

[9] "ON/OFF" Button

Turns on/off the power for operation.

[c] ACCESSORIES

Instruction manual x 1

Installation manual x 1

Maintenance sheet x 1

Glass rack x 1

Open rack x 1

Plate rack x 1

* The racks may not be provided as accessories depending on destinations.

[d] OPTIONS

Detergent inlet x 1

Inlet hose x 1

Remote kit x 1

2. CHECKS BEFORE OPERATION

WARNING

1. To prevent possible water leak, electric shock or fire, the installation must be carried out by qualified personnel.
2. To use a gas water heater, thoroughly read its instruction manual. Ensure adequate air intake and exhaust systems and exhaust hoods in accordance with applicable laws for the type and capacity of the heater to prevent dangerous conditions due to lack of oxygen and toxic gas generation.

[a] CHECKS AFTER INSTALLATION


- * In the presence of the installer, check for proper installation according to the installation manual provided.
- * Receive the installation manual from the installer, and keep it for later reference.

[b] WATER REQUIREMENTS

- * Proper water quality can improve warewashing performance by reducing spotting, lowering chemical supply costs, improving productivity and extending equipment life. Local water conditions vary. The recommended proper water treatment for effective and efficient use of this equipment will also vary depending on the local water conditions. Ask your municipal water supplier for details about local water specifics prior to installation.
- * Recommended water hardness is not more than 100 mg/L. Water hardness above 100 mg/L should be treated by a water softener or in-line treatment. Water treatment has been shown to reduce costs associated with machine cleaning, reduce the need for deliming the dishwasher, reduce detergent usage and reduce corrosion of metallic surfaces in the internal booster tank and dishwasher. Failures resulted from use of water outside the required water conditions are not covered by warranty.
- * Sediment, silica, chlorides or other dissolved solids may lead to a recommendation for particulate filtration or reverse osmosis treatment.
- * If an inspection of the dishwasher or internal booster tank reveals lime build-up after the equipment has been in service, in-line water treatment should be considered, and, if recommended, should be installed and used as directed. Contact an authorized Hoshizaki service company for specific recommendations.

[c] CHECKS BEFORE OPERATION

* Ambient temperature should be within 5 to 35°C. Operation of the unit for extended periods outside of this normal temperature range may affect performance.

| | |
|--|--|
|  WARNING | |
| To avoid the risk of corrosion, clogging and health problems, be sure to use potable water. | |

* To prevent water leaks resulting in damage to the surrounding property, keep the water supply temperature, pressure and flow rate within the values listed below. If the water pressure is too high, a pressure reducing valve must be installed according to the water heater's instruction manual.

| | |
|--------------------------|-------------|
| Water Supply Temperature | Max 50°C |
| Minimum Flow Pressure | 100kPa |
| Maximum Inlet Pressure | 600kPa |
| Water Supply Flow Rate | Min 4 L/min |

* The power supply voltage and capacity must be as specified below.

| | | | | |
|--|--------------|----------------|------------|------------|
| Product Code (See "22. SPECIFICATIONS") | J030-D002 | J030-D006 | | |
| | J030-D003 | J030-D007 | | |
| | J030-D004 | J030-D009 | | |
| | J030-D012 | J030-D016 | | |
| | J030-D013 | J030-D017 | | |
| | J030-D014 | J030-D019 | | |
| | Power Supply | 3 phase 4-wire | | |
| Power Supply Voltage | 380V | 380V | 400V | 415V |
| Voltage Variation | 358 - 403V | 358 - 403V | 376 - 424V | 390 - 432V |
| Maximum Breaker/Fuse Size | 40A | 30A | | |
| Minimum Circuit Ampacity | 40A | 30A | | |

* The wash compartment has been cleaned before shipping. But clean it again before starting up the unit, and check for proper installation of each part. See "15. DAILY MAINTENANCE".

* Check the electrical, water, and drain connections before starting up the unit. See "18. MONTHLY INSPECTION".

* Always use a dishwasher detergent instead of a neutral detergent for kitchen use. (Some dishwasher detergents are not suitable. Contact an authorized Hoshizaki service company for further details.)

3. CHECKING DETERGENT TANK AND RINSE AID TANK

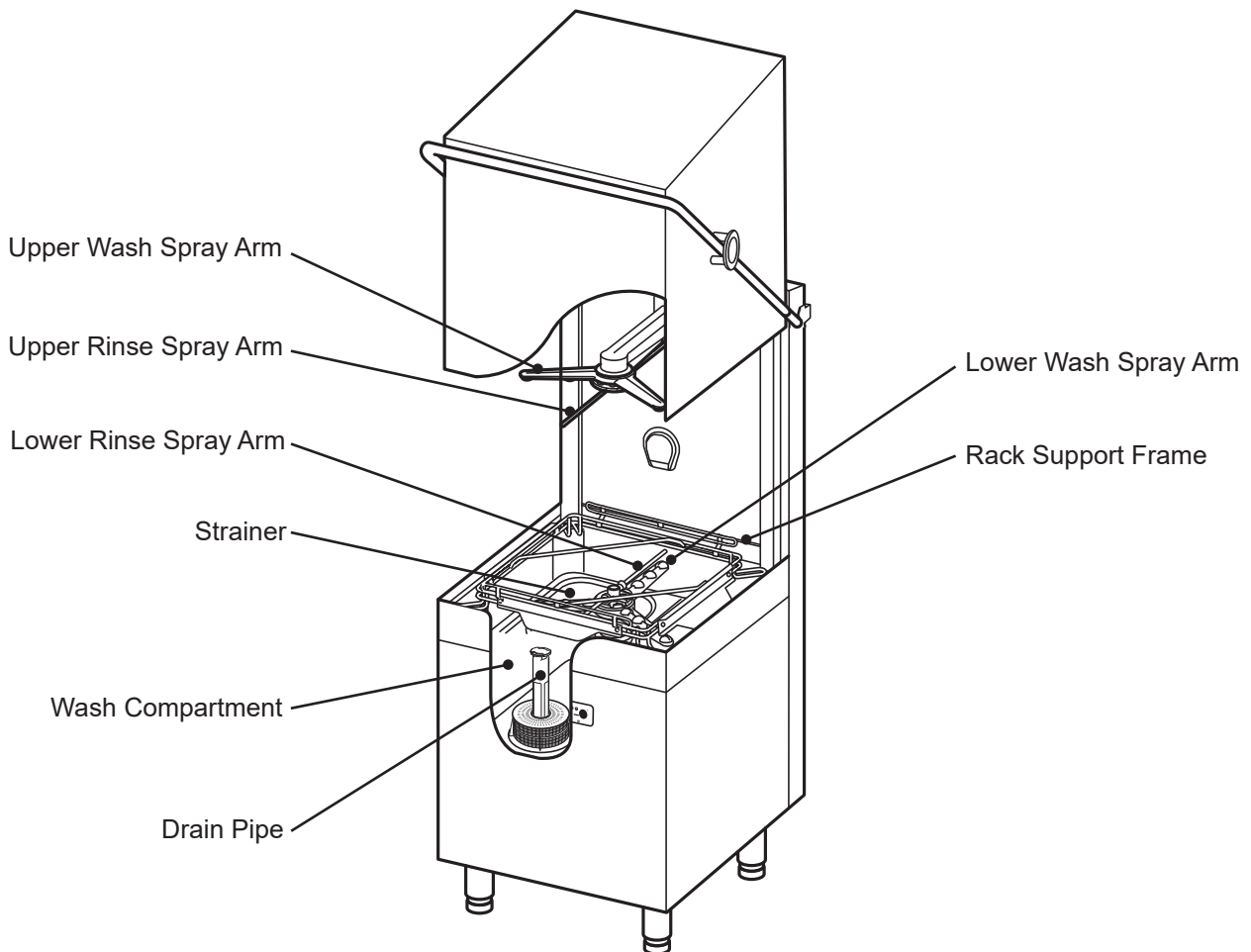
* Follow the instructions of the detergent and rinse aid suppliers to check the detergent tank and rinse aid tank safely.

IMPORTANT

Be sure to read the warning and caution labels attached to the detergent tank and rinse aid tank.

4. PREPARING THE WASH COMPARTMENT

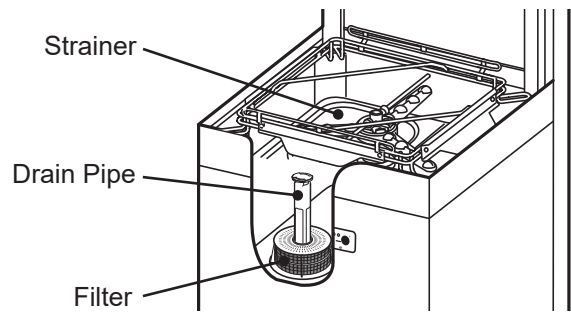
* Check that the wash compartment has been cleaned with all the parts in place. If not, clean the wash compartment according to "15. DAILY MAINTENANCE", and install the parts following the instructions below.



- 1) Check that the strainer, filter and drain pipe are in place.

IMPORTANT

Make sure that the drain pipe is securely inserted in the drain outlet.



- 2) Open the water supply line shut-off valve.
- 3) Turn on the main power supply.
- 4) Press the "ON/OFF" button. The display lights up. (If the door is closed, the auto fill cycle begins.)

[a] AUTO FILL

The auto fill cycle refers to automatically repeated starts and stops of the unit to fill the wash tank with enough hot water for washing. The unit starts and stops about 12 times. Then, the dishwasher is ready for washing. The auto fill cycle starts when the water temperature in the internal booster tank reaches 60°C.

- 1) Close the door. The "AUTO FILL" lamp flashes, and the auto fill cycle starts.
- 2) After the auto fill cycle completes, the unit stops, the "READY" lamp lights up ("AUTO FILL" lamp goes off), and the buzzer sounds.

IMPORTANT

If the dishwasher has been drained out to prevent freezing, close the drain valve before opening the water supply line shut-off valve. With the drain valve left open, hot water will be wasted.

A schematic diagram showing the plumbing connections for a dishwasher. A vertical pipe enters the dishwasher from the top, labeled 'Water Supply Line Shut-off Valve'. Below this, a 'Water Supply Valve' is shown with an arrow pointing towards the dishwasher. At the bottom, a 'Drain Valve' is connected to the drain line. The entire dishwasher unit is labeled 'Dishwasher'.

5. LOADING

[a] PREWASH

- 1) Remove any leftovers (e.g. meat, fish, vegetables), chopsticks, toothpicks, straws, paper products and plastics from the dishes. Never use steel wool on ware to be loaded into the dishwasher.

NOTICE

Do not put these scraps in the dishwasher, as this may cause reduction in wash performance or failure.

- 2) To remove heavy soils such as baked gratin and steamed egg or rice, soak the dishes in hot water before loading them in the dishwasher.

IMPORTANT

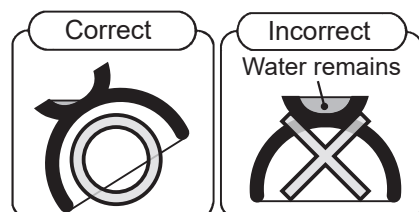
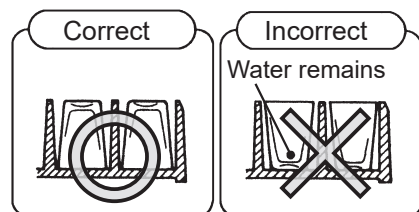
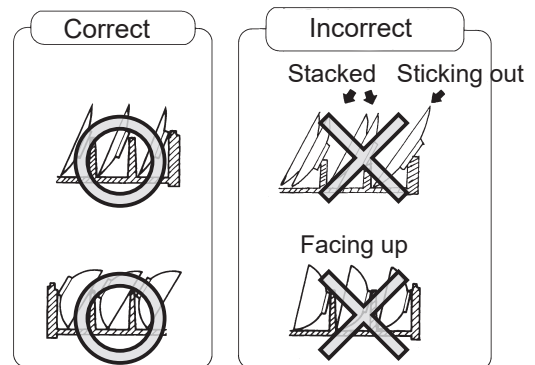
1. Do not allow a large amount of neutral detergent in the dishwasher.
2. Use a suitable rack for dishes.

[b] LOADING DISHES

- 1) Place the rack on the dishtable.
- 2) Keep the dishes within the rack, otherwise they may be damaged.
- 3) Do not stack the dishes, otherwise they cannot be washed properly.
- 4) Load glasses upside down into the glassware rack, otherwise they cannot be washed properly and rinsed thoroughly or they may touch each other and be damaged.

Dishes or cups with a deep bottom rim cannot be rinsed thoroughly with wash water left inside the rim. Load them as shown below.

If the above loading is not practical, the rinse cycle time must be extended. Contact an authorized Hoshizaki service company for further details.



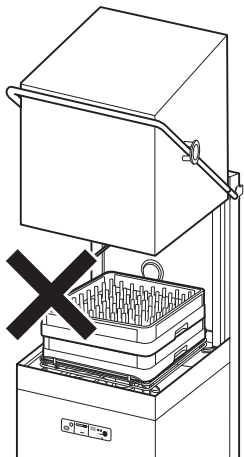
- 5) The door opening is about 445 mm high. Keep the loaded rack lower than this height. Do not force large items into the dishwasher, otherwise they may be damaged or block the spray arms.

[c] LOADING RACK

- 1) Slowly open the door.
- 2) Push the rack into the center of the dishwasher until it touches the rack guide at the back. Otherwise, the rack and dishes may get caught on the back of the door, resulting in damaging the wash and rinse spray arms and dishes.

NOTICE

Do not stack racks. Otherwise, this will cause reduction in wash performance or failure.



6. WASH AND RINSE

[a] OPERATING TEMPERATURES

The recommended operating temperatures are as follows:

| Wash Temperature | | Rinse Temperature | |
|------------------|---------|-------------------|---------|
| Minimum | Maximum | Minimum | Maximum |
| 50°C | 60°C | 75°C | 85°C |

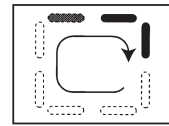
[b] MODE SETTING

| Mode | Cycle Time | Washing Capacity (230 mm DIA dishes) |
|-----------------------------|-------------------|---|
| Standard mode: Normal soils | About 60 seconds | 60 racks (1080 dishes/hour) |
| Long mode: Heavy soils | About 122 seconds | 30 racks (540 dishes/hour) |
| Rinse mode: Rinse only | About 6 seconds | |

- 1) Press the “MODE” button until the desired mode is selected and its lamp lights up.
- 2) Slowly close the door. The selected mode lamp flashes (“READY” lamp goes off), and washing operation (wash and rinse) starts.
- 3) When the washing operation completes, the “READY” lamp lights up (mode lamp goes off), and the buzzer sounds.

IMPORTANT

1. To change the duration of each mode, contact an authorized Hoshizaki service company.
2. If the display has changed from temperature indication to circling indication, the dishwasher is waiting for water supply. In a wash cycle, the unit will automatically extend the wash cycle and start a rinse cycle after completion of water supply. In the rinse mode, the unit will wait for the water supply cycle to complete and start a rinse cycle.
3. In case washing operation is interrupted by power failure or other reasons, restart the washing operation from the beginning or select the rinse mode to rinse off any detergent remaining on the dishes.



7. UNLOADING

- 1) Slowly open the door.
- 2) Slide the rack onto the dishtable.

⚠ WARNING

1. To prevent the risk of burns, do not touch the hot water (60 to 80°C) inside the wash tank directly.
2. When opening the door, be careful not to burn yourself with dripping hot water.
3. To prevent possible burns, handle the rack, dishes, and interior parts (around 80°C) with care after washing.

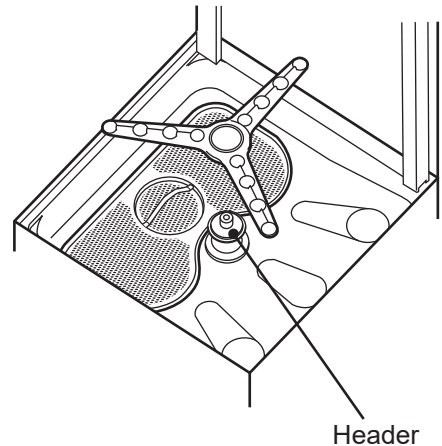
IMPORTANT

When carrying a loaded rack, use both hands to keep it level.

8. INSUFFICIENT WASHING RESULTS

If washing results seem insufficient, check for the following possible causes:

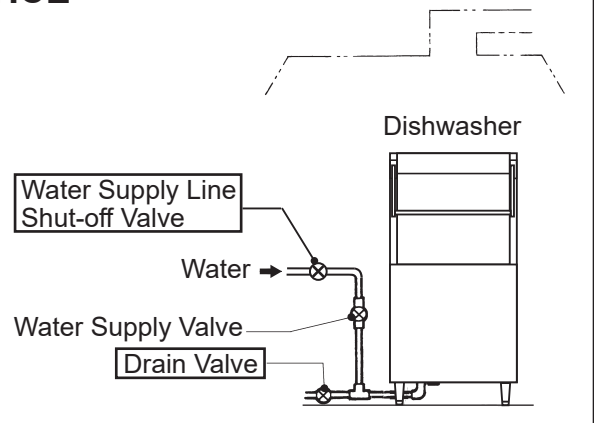
- * Small items such as chopsticks and spoons or part of the dishes stick out of the rack to block the spray arms. Remove the projecting items.
- * The dishes are packed and stacked in the rack. Reload the dishes. See “5. [b] LOADING DISHES”.
- * The strainer or filter is clogged. Clean them. See “15. DAILY MAINTENANCE”.
- * The spray arm nozzles are clogged. Clean them. See “15. DAILY MAINTENANCE”.
- * The upper and lower headers (spray arm shafts) are clogged with small objects such as toothpicks. Clean them.
- * The detergent tank is out of detergent. Replace it with a new tank. See “3. CHECKING DETERGENT TANK AND RINSE AID TANK”.
- * Wash water is not clean. Press the “ON/OFF” button, check that the display goes off, and pull out the drain pipe to drain the wash water. Reinsert the drain pipe, then press the “ON/OFF” button to supply fresh wash water.
- * The wash or rinse water temperature becomes too low in some conditions. Wait until the proper temperature is reached.
- * The dishes are heavily soiled. Preclean before loading the dishes.
- * Iron or tannin content in wash water turns the dishes yellowish or faintly black. Soak the dishes in a plastic bucket containing hot water and commercial bleach.
- * White spots left on clear glassware can be caused by different reasons. Consult with an authorized Hoshizaki service company or the detergent supplier.
- * Adjustments of the wash and rinse cycle times, hot water temperature, and detergent concentration may be required depending on the water quality, dish types and materials, and soil conditions.



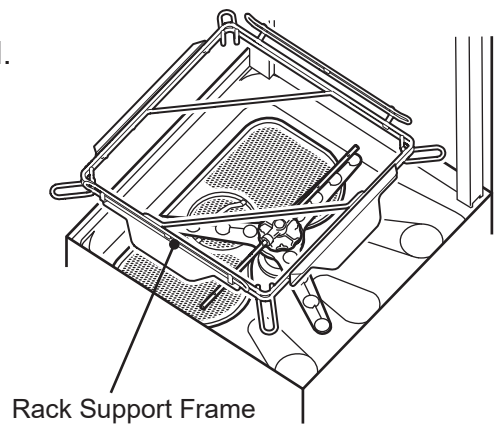
9. SHUTDOWN

NOTICE

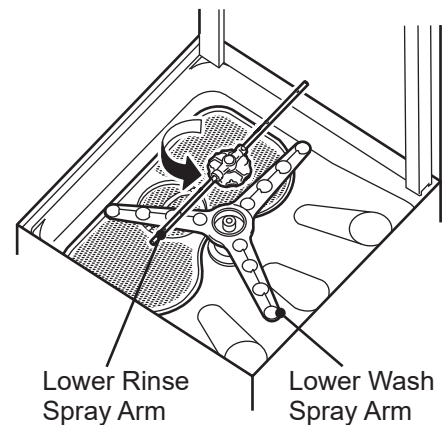
If there is a possibility that the ambient temperature may fall below 0°C and freeze the unit, be sure to drain the unit. The water supply line could be damaged and leak water, resulting in damage to the surrounding property.



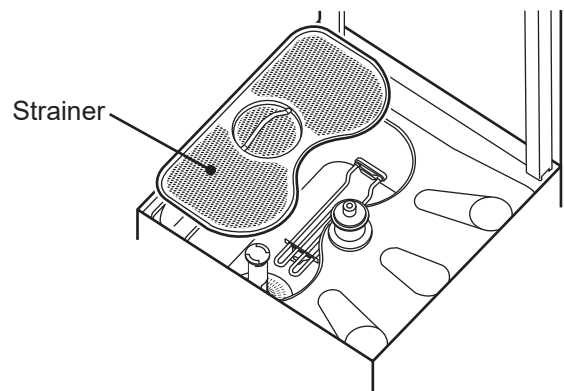
- 1) Press the "ON/OFF" button on the operation panel.
The display and lamps go off.
- 2) Turn off the main power supply.
- 3) Close the water supply line shut-off valve.
- 4) Open the door and remove the rack support frame.



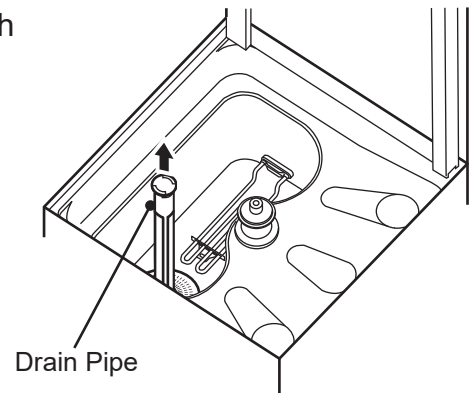
- 5) Turn and loosen the lower spray arm nut in the direction of the arrow. Lift up the lower rinse spray arm and remove the lower wash spray arm.



- 6) Remove the strainer.



7) Pull out the drain pipe to drain water from the wash tank.

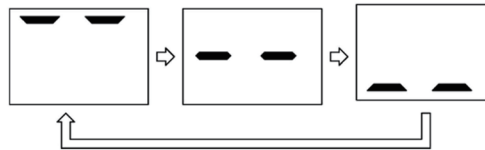


⚠ WARNING

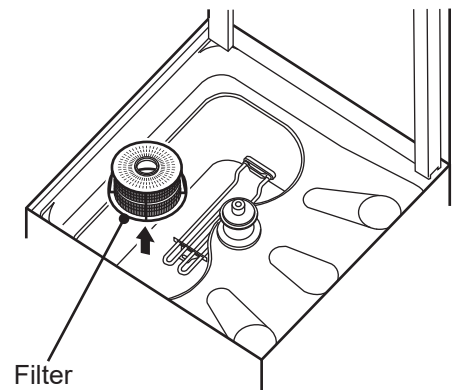
When pulling out the drain pipe, be careful not to touch the wash water. It may cause burns or skin irritation. Turn the drain pipe if it is hard to pull out.

IMPORTANT

For the drain pump model, when the power supply (display) is on, press and hold the “ON/OFF” button for 3 seconds after pulling out the drain pipe. The drain pump starts to fully drain the wash tank. The display shows as follows during the full drain flush cycle. The operation panel goes off at the end of the cycle. Then, turn off the main power supply.



8) Remove the filter.



10. INTERRUPTION

⚠ WARNING

To prevent hot water from splashing and causing burns, do not open the door while the unit is running. Wait until the buzzer sounds 1 second after the unit stops.

To interrupt washing operation, press the “ON/OFF” button on the operation panel. The display and lamps go off, and the unit stops.
To resume operation, press the “ON/OFF” button.

11. STANDBY/CLEANING BUTTON

To keep wash water hot while the dishwasher is left idle, press the “STANDBY/CLEANING” button and close the door. Wash water will cool more quickly if the door is left open.

- 1) Press the “STANDBY/CLEANING” button on the operation panel. The standby lamp lights up (“READY” lamp goes off). The unit will not start even when the door is opened or closed.
- 2) To resume operation, press the “STANDBY/CLEANING” button on the operation panel. The “READY” lamp lights up (standby lamp goes off). Now the dishwasher is ready to wash.

IMPORTANT

The “STANDBY/CLEANING” button function is not available during washing operation. Press it while the “READY” lamp is on.

12. INTERNAL BOOSTER TANK ENERGY SAVING CONTROL

When the dishwasher is left idle for a while, the internal booster tank water temperature can be temporarily set lower to save energy. For further details, consult with an authorized Hoshizaki service company.

13. ALERT FUNCTION

To keep water in the wash tank clean, this unit is provided with functions to beep and flash “Ch” (= Change) in the display when wash water should be changed and to continue this alert until the wash water tank is refilled (factory default: OFF). For further details, consult with an authorized Hoshizaki service company.

14. LOW TEMPERATURE LOCK FUNCTION

Continuous washing operation may lower the wash and rinse water temperatures, resulting in poor washing performance. To prevent performance reduction, the unit can be set to lock the wash and rinse cycles at low temperatures (factory default: OFF). For further details, consult with an authorized Hoshizaki service company.

15. DAILY MAINTENANCE

IMPORTANT

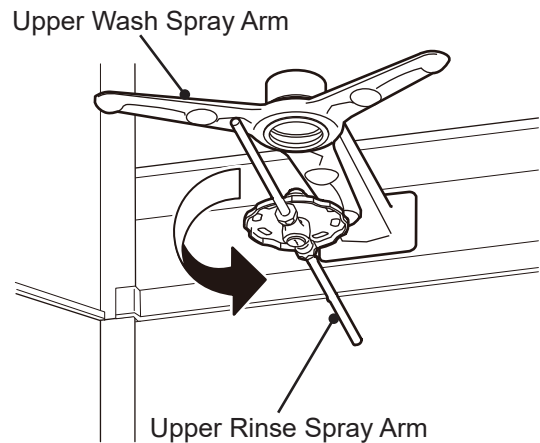
Be sure to clean the dishwasher after closing time every day. It is difficult to remove heavy soils left overnight. In high temperature conditions, food scraps will rot and affect sanitary operation.

- 1) Take out scraps from the removed strainer, filter and drain pipe, and wash them clean with a scourer.

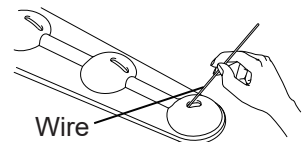
IMPORTANT

To prevent damage, do not hit the strainer, filter and drain pipe on the sink to drop scraps or to empty these parts.

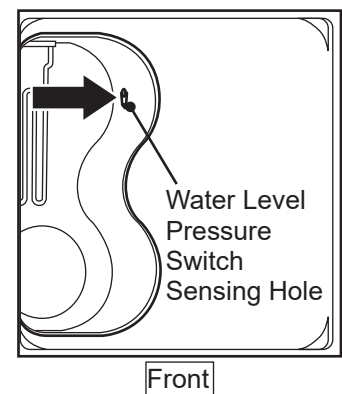
- 2) Turn and loosen the upper spray arm nut in the direction of the arrow. Support the upper rinse spray arm, and remove it together with the upper wash spray arm.



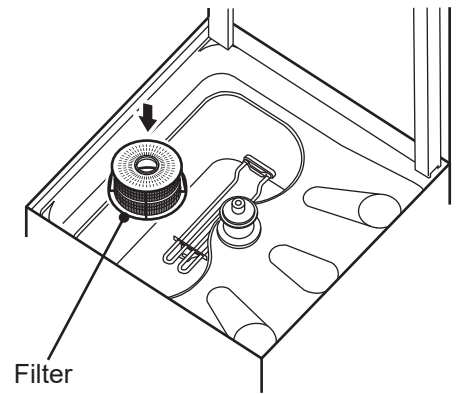
- 3) If the wash spray arm and rinse spray arm nozzles are clogged, use a wire or brush to unclog and wash them clean. Clean the lower wash spray arm and lower rinse spray arm removed for draining.



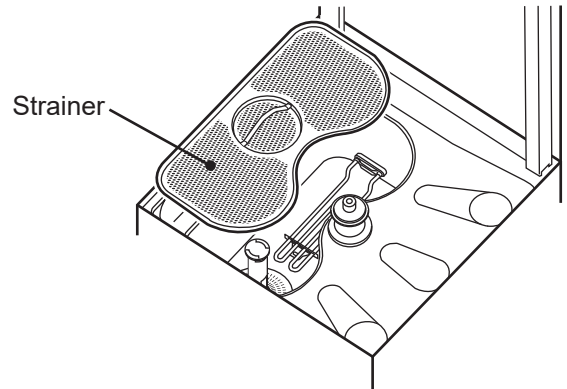
- 4) Check the water level pressure switch hole. If it is clogged, clean to prevent possible malfunction.



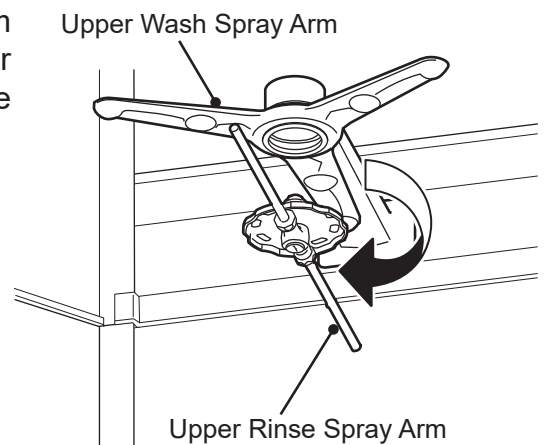
- 5) Replace the filter in its correct position.
- 6) Insert the drain pipe securely into the drain outlet.



- 7) Replace the strainer in its correct position.

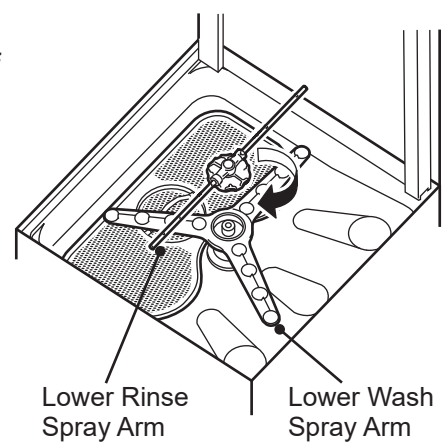


- 8) Use one hand to hold the upper wash spray arm on the upper spray arm shaft, and use the other hand to tighten the upper spray arm nut in the direction of the arrow.

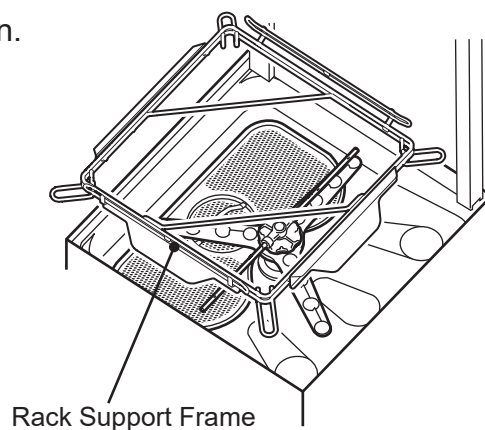


- 9) Place the lower wash spray arm on the lower header, and tighten the lower spray arm nut in the direction of the arrow.

- 10) Check that the wash spray arms and rinse spray arms can be turned easily by hand.



- 11) Replace the rack support frame in its correct position.



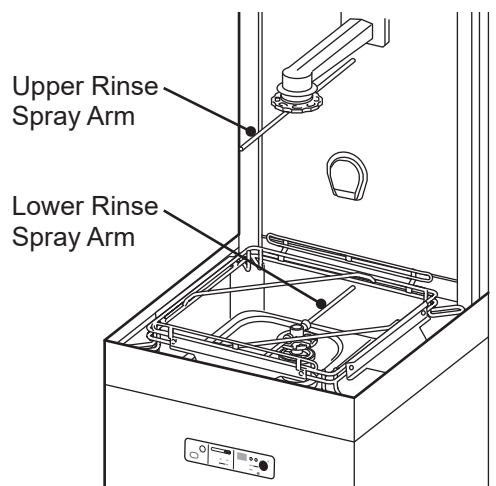
16. SELF-CLEANING

The self-cleaning function is to rinse the wash compartment with hot water. Use this function after step 4) of "15. DAILY MAINTENANCE".

NOTICE

If a portion control detergent feeder other than concentration sensitive type is used, turn off the power to the detergent feeder. Otherwise the detergent may be supplied during the self-cleaning cycle. After the cycle completes, turn the detergent feeder back on. If this is not practical, consult with an authorized Hoshizaki service company.

- 1) Open the water supply line shut-off valve and turn on the main power supply.
- 2) Pull out the drain pipe.
- 3) Install the upper and lower rinse spray arms only.
- 4) With the door open, press and hold the "STANDBY/CLEANING" button for 3 seconds. "SC" appears in the display.
- 5) Close the door. "SC" and the "AUTO FILL" lamp start flashing, and the self-cleaning cycle begins. The buzzer sounds and the operation panel turns off when the cycle ends. Turn off the main power supply and close the water supply line shut-off valve.



- 6) Open the door, and remove the upper and lower rinse spray arms. Go on to step 5) of "15. DAILY MAINTENANCE".

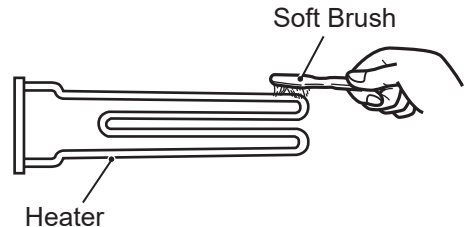
17. WEEKLY MAINTENANCE

[a] HEATER

⚠ WARNING

To prevent burns, wait for 10 minutes after draining the unit to clean the interior.

Remove any scraps from the heater, and use a soft brush to wash off residue.

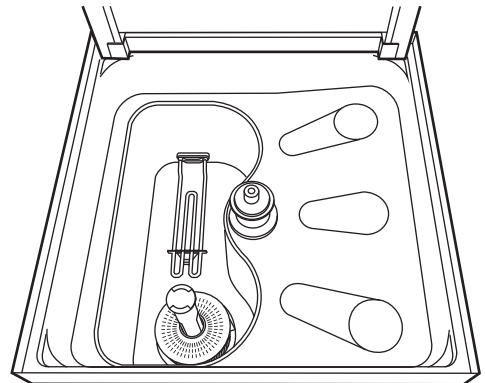


[b] EXTERIOR

- 1) Wipe the exterior with a soft cloth.
- 2) Use a damp cloth containing a neutral cleaner to wipe off dirt. Then wipe away the residue with a clean cloth.

[c] WASH COMPARTMENT

- 1) Remove the rack support frame, lower spray arms and strainer.
- 2) Remove any scraps from the wash tank.



18. MONTHLY INSPECTION

[a] WATER SUPPLY LINE

Check the water supply line for damage, deformation, or water leak marks (stains). If any of these conditions are found, contact an authorized Hoshizaki service company.

Recommendation of safety inspection by service personnel

Even if there is no problem with its use, a product out of warranty may have a risk of electric shock, fire, or water leak due to insulation degradation or aging of the electrical parts. Ask an authorized Hoshizaki service company for the following inspections (charged):

- * Dust and dirt build-up or water leak inside the unit
- * Aging conditions of the unit and its components
- * Scale, silica, lime or other foreign matter in the water circuit

[b] DRAIN HOSE (WASH TANK)

Check the drain hose once a month for deterioration (e.g. deformation, hardening). It must be replaced about every two years depending on the installation conditions such as hose routing and drain water temperature.

[c] POWER SUPPLY CORD

Check that the power supply cord is not under pressure or tension or in contact with corners, edges or hot surfaces of surrounding equipment.

IMPORTANT

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or a similarly qualified person in order to avoid a hazard.

19. TROUBLESHOOTING

IMPORTANT

If something seems wrong with the unit, check for possible causes according to the following instructions. If the problem still exists, immediately contact an authorized Hoshizaki service company.
When contacting a service company, let them know the model name, serial number, date of installation (see warranty card) and type of trouble (e.g. error code).

[a] TROUBLES REQUIRING IMMEDIATE SERVICE CALL

When one of the following error codes flashes in the display, press the “ON/OFF” button to stop the dishwasher, and immediately contact an authorized Hoshizaki service company.

| Error Code | Problem |
|------------|---|
| o2, o4 | Booster tank water level pressure switch, water valve |
| o3 | Booster tank water level pressure switch, hose |
| H1 - H4 | Thermistors |
| H6 | Control board |

[b] TROUBLES REQUIRING CHECK BY USER

When one of the following error codes flashes in the display, check for possible causes. After the problem has been resolved, press the “ON/OFF” button on the operation panel to

resume operation. The error code disappears, and the buzzer stops.

If the error code appears again, move the power switch (ELCB) to the “OFF” position, and immediately contact an authorized Hoshizaki service company.

| Error Code | Problem | Possible Cause |
|------------|--|---|
| A1 | Auto fill | Drain pipe disconnected |
| | | Dirty sensing hole of water level pressure switch |
| A2 | Water supply | Water failure |
| | | Water supply valve closed |
| | | Water supply line shut-off valve closed |
| A3 | Low wash water level with unit running or idling | Drain pipe disconnected |
| | | Strainer out of position |
| | | Dirty sensing hole of water level pressure switch |
| A5 | Drain error | Drain pipe not disconnected |
| | | Dirty sensing hole of water level pressure switch |

[c] TROUBLES WITHOUT ERROR CODE INDICATION

| Problem | Possible Cause | Remedy |
|--|-----------------------|--|
| Unit fails to operate | “ON/OFF” button off | Check that the display on the operation panel is off and the main power supply is on. Press the “ON/OFF” button. If the display and “READY” lamp light up, the unit is ready. If the auto fill cycle is not complete, the unit will start water supply and then enter the ready mode. In the ready mode, operation can be started by opening and closing the door. |
| | Power failure | If the main power supply and “ON/OFF” button are on but the display does not light up, check for power failure. In case of power failure, turn off the main power supply and wait. When the power resumes, start up the unit according to sections 3 - 6. If the power does not resume on the same day, shut down the unit according to section 9. |
| | Main power supply off | Turn on the main power supply. If it switches off again, immediately contact an authorized Hoshizaki service company. |
| Unit is not operable by opening/closing door | Standby lamp on | The unit is not operable by opening/closing the door while the standby lamp on the operation panel is on. To cancel the standby mode and resume operation, follow the instructions in section 11. If the standby mode cannot be cancelled, or the unit is still inoperable, move the power switch (ELCB) to the “OFF” position, and immediately contact an authorized Hoshizaki service company. |

| | | |
|--------------------------------|-------------------------------|---|
| Abnormal noise (vapor lock) | Bubbling compartment | When a detergent other than dishwasher detergents is used, or a large amount of neutral detergent for kitchen use is mixed in from prewash, the wash compartment bubbles heavily, resulting in insufficient washing due to wash pump vapor lock. In this case, replace the detergent with a dishwasher detergent, and refill the wash tank. |
| | Filter clogged | Vapor lock also occurs when the filter at the pump suction inlet is dirty or clogged. Clean the filter according to step 1) of section 15. |
| | Wash tank water level too low | Improper insertion of the drain pipe causes wash water leakage and lowers the wash tank water level, resulting in vapor lock. Insert the drain pipe securely according to step 6) of section 15. |

20. LONG STORAGE, RELOCATION, DISPOSAL, TRANSFER

When preparing the unit for long storage, shut down and clean the unit according to sections 9 and 15 - 17. Turn off the main power supply.

If something seems wrong when restarting the unit after long storage, turn off the power supply, and immediately contact an authorized Hoshizaki service company.

⚠ WARNING

1. When restarting the unit after long storage, contact an authorized Hoshizaki service company. To prevent electric shock, do not restart the unit by yourself.
2. In case of relocation, contact an authorized Hoshizaki service company. Improper installation may cause water leak, electric shock or fire.
3. When disposing of the unit, contact an authorized Hoshizaki service company. Leaving the unit may violate laws or cause an unexpected accident.

NOTICE

When selling or transferring this product, tape this instruction manual and the installation manual to the exterior to provide the new owner with information on safe and proper use of the product.

21. WARRANTY

Hoshizaki warrants to the original owner/user that all Hoshizaki branded products shall be free of defects in material and/or workmanship for the duration of the “warranty period”. The warranty shall be effective for one year from the date of installation.

Hoshizaki’s liability under the terms of the warranty are limited and shall exclude routine servicing, cleaning, essential maintenance and/or repairs occasioned by misuse and installations not in accordance with Hoshizaki guidelines.

Warranty repairs should be completed by an approved Hoshizaki dealer or service agency using genuine Hoshizaki components.

To obtain full details of your warranty and approved service agency, please contact your dealer/supplier, or the nearest Hoshizaki Service office:

Hoshizaki Thailand
TEL: +66 2 005 9980
FAX: +66 2 516 2646

Western Refrigeration
TEL: +91 22 6716 1201
FAX: +91 22 6716 1294

Hoshizaki Indonesia
TEL: +62 21 2937 5551/2
FAX: +62 21 2937 5553

Hoshizaki Hong Kong
TEL: +852 2866 2108
FAX: +852 2866 2109

Hoshizaki Philippines
TEL: +63 2 839 2860
FAX: +63 2 851 2784

Hoshizaki Vietnam
TEL: +84 28 5417 3853
sales@hoshizaki.com.vn (sales)
service@hoshizaki.com.vn (technical support)

Hoshizaki Singapore
TEL: +65 6225 2612
FAX: +65 6225 3219

22. SPECIFICATIONS

| | | | |
|------------------------------------|---------------------|---|--|
| Model | | HW-600A | |
| Product Code | | J030-D002 | J030-D003 |
| Destination | | Thailand, Indonesia, Vietnam | Hong Kong |
| Power Supply | | 3 phase 4-wire | |
| Frequency | | 50Hz | |
| Voltage | | 380V | |
| Electric Consumption | Wash tank heater | 3kW | |
| | Booster tank heater | 12kW | |
| | Pump motor | 850W | |
| Dimensions | | 615mm(W) x 718mm(D) x 1485mm(H) [1955mm(H) with door open] | |
| Weight | | 105kg | |
| Standard Cycle Time | | 60 seconds (Wash 48 sec, dwell 5 sec, rinse 6 sec, dwell 1 sec) | 64 seconds (Wash 48 sec, dwell 5 sec, rinse 10 sec, dwell 1 sec) |
| Tank Capacity | | Wash tank: 24L Booster tank: 7.6L (Effective capacity: 4.4L) | |
| Rinse Water Volume | | 2L/cycle *Adjustable up to 4L/cycle | 3.4L/cycle *Adjustable up to 4L/cycle |
| Water Supply and Drain Connections | | Water supply joint: G3/4 Wash tank drain hose joint: 45 x 39mm DIA (Drain pump model: 28 x 21.5mm DIA) | |
| Operating Conditions | | Ambient temperature: 5 - 35°C Voltage variation: ±6% Water supply pressure: 100 - 600kPa Water supply flow rate: 4L/min or more Water hardness: 100mg/L or less Water supply temperature: 50°C or less | |

| | | | | |
|------------------------------------|---------------------|---|---------------------------|--------------------|
| Model | | HW-600A | | |
| Product Code | | J030-D004 | J030-D006 J030-D009 | J030-D007 |
| Destination | | Philippines | India, less than 30A area | Less than 30A area |
| Power Supply | | 3 phase 4-wire | | |
| Frequency | | 60Hz | 50Hz | 60Hz |
| Voltage | | 380V | 380 / 400 / 415V | |
| Electric Consumption | Wash tank heater | 3kW | 1.7 / 1.9 / 2.0kW | |
| | Booster tank heater | 12kW | 9.3 / 10.2 / 11.1kW | |
| | Pump motor | 950W | 850 / 870 / 890W | 950 / 960 / 980W |
| Dimensions | | 615mm(W) x 718mm(D) x 1485mm(H) [1955mm(H) with door open] | | |
| Weight | | 105kg | | |
| Standard Cycle Time | | 60 seconds (Wash 48 sec, dwell 5 sec, rinse 6 sec, dwell 1 sec) | | |
| Tank Capacity | | Wash tank: 24L Booster tank: 7.6L (Effective capacity: 4.4L) | | |
| Rinse Water Volume | | 2L/cycle *Adjustable up to 4L/cycle | | |
| Water Supply and Drain Connections | | Water supply joint: G3/4 Wash tank drain hose joint: 45 x 39mm DIA (Drain pump model: 28 x 21.5mm DIA) | | |
| Operating Conditions | | Ambient temperature: 5 - 35°C Voltage variation: ±6% Water supply pressure: 100 - 600kPa Water supply flow rate: 4L/min or more Water hardness: 100mg/L or less Water supply temperature: 50°C or less | | |

| | | |
|------------------------------------|---|--|
| Model | HW-600A-1 | HW-600A |
| Product Code | J030-D012 | J030-D013 |
| Destination | Thailand, Indonesia, Vietnam | Hong Kong |
| Power Supply | 3 phase 4-wire | |
| Frequency | 50Hz | |
| Voltage | 380V | |
| Electric Consumption | Wash tank heater | 2kW |
| | Booster tank heater | 12kW |
| | Pump motor | 850W |
| Dimensions | 615mm(W) x 718mm(D) x 1485mm(H) [1955mm(H) with door open] | |
| Weight | 105kg | |
| Standard Cycle Time | 60 seconds (Wash 48 sec, dwell 5 sec, rinse 6 sec, dwell 1 sec) | 64 seconds (Wash 48 sec, dwell 5 sec, rinse 10 sec, dwell 1 sec) |
| Tank Capacity | Wash tank: 24L Booster tank: 7.6L (Effective capacity: 4.4L) | |
| Rinse Water Volume | 2L/cycle *Adjustable up to 4L/cycle | 3.4L/cycle *Adjustable up to 4L/cycle |
| Water Supply and Drain Connections | Water supply joint: G3/4 Wash tank drain hose joint: 45 x 39mm DIA (Drain pump model: 28 x 21.5mm DIA) | |
| Operating Conditions | Ambient temperature: 5 - 35°C Voltage variation: ±6% Water supply pressure: 100 - 600kPa Water supply flow rate: 4L/min or more Water hardness: 100mg/L or less Water supply temperature: 50°C or less | |

| | | | | |
|------------------------------------|---------------------|---|---------------------------|--------------------|
| Model | | HW-600A-1 | | |
| Product Code | | J030-D014 | J030-D016 J030-D019 | J030-D017 |
| Destination | | Philippines | India, less than 30A area | Less than 30A area |
| Power Supply | | 3 phase 4-wire | | |
| Frequency | | 60Hz | 50Hz | 60Hz |
| Voltage | | 380V | 380 / 400 / 415V | |
| Electric Consumption | Wash tank heater | 2kW | 1.7 / 1.9 / 2.0kW | |
| | Booster tank heater | 12kW | 9.3 / 10.2 / 11.1kW | |
| | Pump motor | 950W | 850 / 870 / 890W | 950 / 960 / 980W |
| Dimensions | | 615mm(W) x 718mm(D) x 1485mm(H) [1955mm(H) with door open] | | |
| Weight | | 105kg | | |
| Standard Cycle Time | | 60 seconds (Wash 48 sec, dwell 5 sec, rinse 6 sec, dwell 1 sec) | | |
| Tank Capacity | | Wash tank: 24L Booster tank: 7.6L (Effective capacity: 4.4L) | | |
| Rinse Water Volume | | 2L/cycle *Adjustable up to 4L/cycle | | |
| Water Supply and Drain Connections | | Water supply joint: G3/4 Wash tank drain hose joint: 45 x 39mm DIA (Drain pump model: 28 x 21.5mm DIA) | | |
| Operating Conditions | | Ambient temperature: 5 - 35°C Voltage variation: ±6% Water supply pressure: 100 - 600kPa Water supply flow rate: 4L/min or more Water hardness: 100mg/L or less Water supply temperature: 50°C or less | | |