



DISH ASHER
MODEL NUMBER SERIES
D BI 1-1 S D BI 1-1 BL D BI 1-1 H

INS RUC ION MANUAL

Read these instructions carefully before using your appliance, and keep it carefully.
If you follow the instructions, your appliance will provide you with many years of good service.

Customer Care

Thank you for purchasing a Forno product. Please read the entire instruction manual before operating your new appliance for the first time. Whether you are an occasional user or an expert, it will be beneficial to familiarize yourself with the safety practices, features, operation and care recommendations of your appliance.

Both the model and serial number are listed inside the product. For warranty purposes, you will also need the date of purchase .

Product Information

Model Number : _____

Serial Number : _____

Date of Purchase : _____

Purchase Address And Phone : _____

Service Information

Use these numbers in any correspondence or services calls concerning your product.

If you received a damaged product, immediately contact Forno.

To save time and money, before you call for serviced, check the troubleshooting guide. It listed the causes of minor operation problems that you can correct yourself.



“Need some quick help? Simply scan the qr code and get access to our fast support form. We’re always here to assist you with any questions or concerns you may have. So, don’t hesitate to reach out!”

Services in Canada and Untied States

Keep the instruction manual handy to answer your questions. If you don’t understand something or need more assistance, please visit our website for fast support. Please provide us your name, number, address, serial number of the product that troubleshooting, proof of purchase, and a short description of the issue. A customer service representative will contact you as soon as possible. All warranty work needs to be authorized by FORNO customer service. All our authorized service providers are carefully selected and rigorously trained by us.

Warranty

What this limited warranty covers:

The Warranty coverage provided by Forno Appliances in this statement applies exclusively to the original Forno appliance ("Product") sold to the consumer ("Purchaser") by an authorized Forno dealer/distributor/retailer, purchased and installed in the United States or Canada, and which has always remained within the original country of purchase (the United States or Canada). Warranty coverage is activated on the date of the Product's original retail purchase and has a duration of two (2) years.

Warranty coverage is non-transferable. In the event of replacement of parts or of the entire product, the replacement Product (or parts) shall assume the remaining original Warranty activated with the original retail purchase document. This Warranty shall not be extended with respect to such replacement. Forno Appliances will repair or replace any component/part which fails or proves defective due to materials and/or workmanship within 2 years of the date of the original retail purchase and under conditions of ordinary residential, non-commercial use. Repair or replacement will be free of charge, including labor at standard rates and shipping expenses. Purchaser is responsible for making the Product reasonably accessible for service. Repair service must be performed by a Forno Authorized Service company during normal working hours.

IMPORTANT

Retain proof of original purchase to establish warranty period. Forno's liability on any claim of any kind, with respect to the goods and/or services provided, shall in no event exceed the value of the goods or service or part there of which has given rise to the claim.

30-Day Cosmetic Warranty

The Purchaser must inspect the product at the time of delivery. Forno warrants that the Product is free from manufacturing defects in materials and workmanship for a period of thirty (30) days from date of the original retail purchase of the Product.

This coverage includes:

- Paint blemishes
- Chips
- Macroscopic finish defects

Cosmetic warranty does NOT cover:

- > issues resulting from incorrect transport, handling and/or installation (e.g.: dents, broken, warped or deformed structures or components, cracked or otherwise damaged glass components);
- > slight color variations on painted/enamelled components;
- > differences caused by natural or artificial lighting, location or other analogous factors;
- > stains/corrosion/discoloration caused by external substances and/or environmental factors;
- > labor costs, display, floor, B-stock, out- of-box, "as is" appliances and demo units.

How to receive service

To receive warranty services, the Purchaser must contact the Forno Support department in order to determine the problem and the required service procedures. Troubleshooting with a customer service representative will be necessary before moving forward with the service. Model number, serial number and date of original retail purchase will be requested.

Warranty Exclusions: What Is Not Covered

- > Use of the Product in any non-residential, commercial application.
- > Use of the Product for anything other than its intended purpose.
- > Repair services provided by anyone other than a Forno Authorized Service agency.
- > Damages or repair services to correct services provided by unauthorized parties or the use of unauthorized parts.
- > Installation not in accordance with local/state/city/county fire codes, electrical codes, gas codes, plumbing codes, building codes, laws or regulations.
- > Defects or damage due to improper storage of the Product.
- > Defects, damage or missing parts on products sold out of the original factory packaging or from displays.
- > Service calls or repairs to correct an incorrect installation of the Product and/or related accessories.
- > Replacement of parts/service calls to connect, convert or otherwise repair the electrical wiring and/or gas line in order to properly use the product.
- > Replacement of parts/service calls to provide instructions and information on the use of the Product.
- > Replacement of parts/service calls to correct issues arising from the product being used in a manner other than what is normal and customary for residential use.
- > Replacement of parts/service calls due to wear and tear of components such as seals, knobs, pan supports, shelving, cutlery baskets, buttons, touch displays, scratched or broken ceramic-glass tops.
- > Replacement of parts/service calls for lack of/improper maintenance, including but not limited to: build up of residues, stains, scratches, discoloration, corrosion.
- > Defects and damages arising from accidents, alteration, misuse, abuse or improper installation.
- > Defects and damages arising from Product transport, logistics and handling. Inspection of the product must be made at time of delivery. Following receipt and inspection, the selling dealer/delivery company must be notified of any issues arising from handling, transport and logistics.
- > Defects and damages arising from external forces beyond the control of Forno Appliances, including but not limited to wind, rain, sand, fires, floods, mudslides, freezing temperatures, excessive moisture or extended exposure to humidity, power surges, lightning, structural failures surrounding the appliance and other acts of God.
- > Products whose serial number has been altered/damaged/tampered with. In no case shall Forno be held liable or responsible for damage to surrounding property, including furniture, cabinetry, flooring, panels, and other structures surrounding the Product. Forno is neither liable nor responsible for the Product if it is located in a remote area or an area where certified trained technicians are not reasonably available. Purchaser must bear any transportation and delivery costs of the Product to the nearest Authorized Service Center or the additional travel expenses of a certified trained technician

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE LISTED AND DESCRIBED ABOVE, AND NO WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE THAT SHALL APPLY AFTER THE EXPRESS WARRANTY PERIODS STATED ABOVE, AND NO OTHER EXPRESS WARRANTY OR GUARANTEE GIVEN BY ANY PERSON, FIRM OR CORPORATION WITH RESPECT TO THIS PRODUCT SHALL BE BINDING ON FORNO. FORNO SHALL NOT BE LIABLE FOR LOSS OF REVENUE OR PROFITS, FAILURE TO REALIZE SAVINGS OR OTHER BENEFITS, TIME AWAY FROM WORK, MEALS, LOSS OF FOOD OR BEVERAGES, TRAVELING OR HOTEL EXPENSES, EXPENSES TO RENT OR PURCHASE APPLIANCES, REMODELING/CONSTRUCTION EXPENSES IN EXCESS OF DIRECT DAMAGES WHICH ARE UNDENIABLY CAUSED EXCLUSIVELY BY FORNO OR ANY OTHER SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES CAUSED BY THE USE, MISUSE OR INABILITY TO USE THIS PRODUCT, REGARDLESS OF THE LEGAL THEORY ON WHICH THE CLAIM IS BASED, AND EVEN IF FORNO HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOR SHALL RECOVERY OF ANY KIND AGAINST FORNO BE GREATER IN AMOUNT THAN THE PURCHASE PRICE OF THE PRODUCT SOLD BY FORNO AND CAUSING THE ALLEGED DAMAGE. WITHOUT PREJUDICE TO THE FOREGOING, PURCHASER ASSUMES ALL RISK AND LIABILITY FOR LOSS, DAMAGE OR INJURY TO PURCHASER AND PURCHASER'S PROPERTY AND TO OTHERS AND THEIR PROPERTY ARISING FROM THE USE, MISUSE, OR INABILITY TO USE THIS PRODUCT SOLD BY FORNO THAT IS NOT A DIRECT RESULT OF NEGLIGENCE ON THE PART OF FORNO THIS LIMITED WARRANTY SHALL NOT EXTEND TO ANYONE OTHER THAN THE ORIGINAL PURCHASER OF THIS PRODUCT, IS NON-TRANSFERABLE, AND STATES YOUR EXCLUSIVE REMEDY.

Important safety instruction



WARNING: This product can expose you to chemicals including [Lead, Lead and lead compounds, Bisphenol A], which is [are] known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information go to www.P65Warnings.ca.gov.

WARNING

For your safety, the information in this manual must be followed to minimize the risk of fire or explosion, electric shock, and to prevent property damage, personal injury.

Proper installation

Please install your dishwasher properly follow the installation guide.

- Water supply temperature should be 120°F or 149°F.
- Dispose of the discarded appliance and packing material properly.
- The dishwasher must be grounded, or it can result in a risk of electric shock.
- If there is any damage of the Dishwasher, please contact to your Dealer, not to attempt to repair or replace any part by yourself.

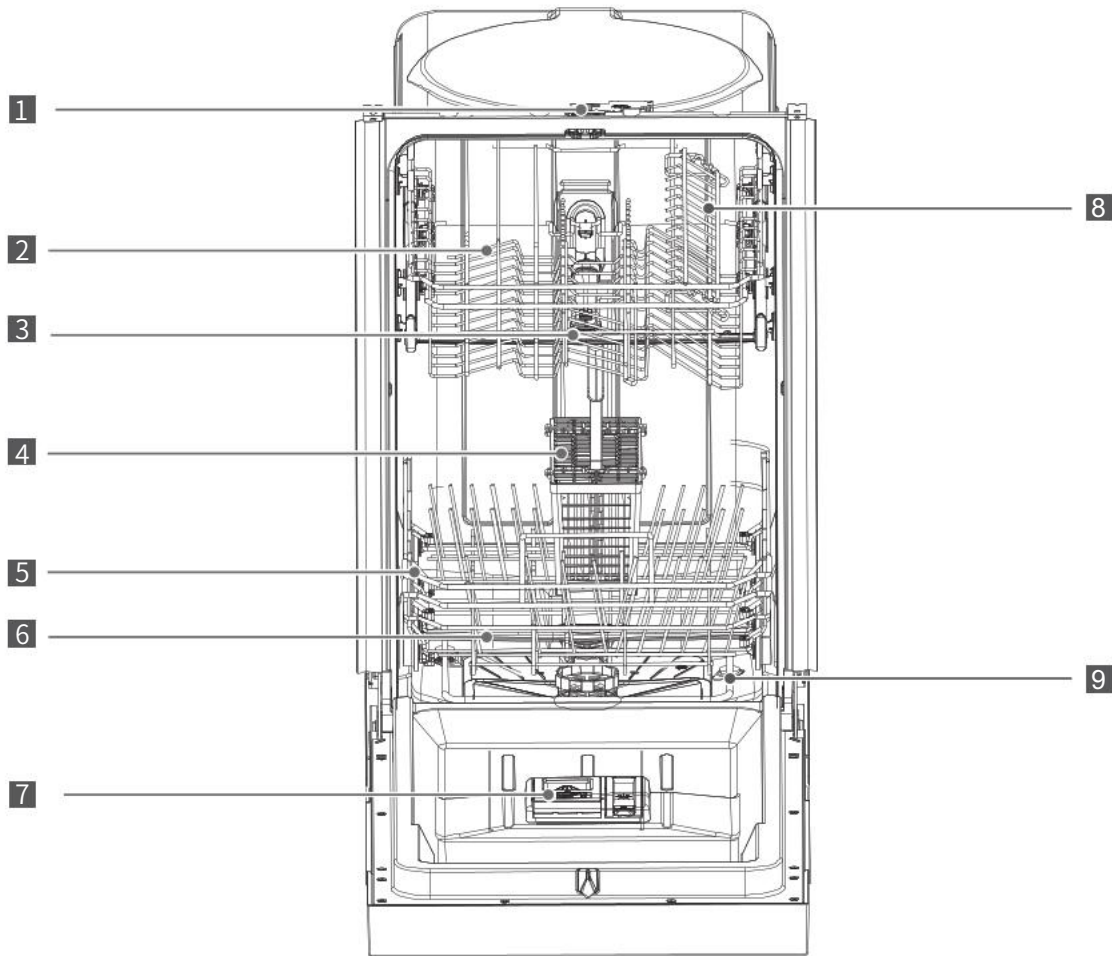
Basic precaution before use

- Read all instructions before using the dishwasher.
- The manual does not cover every possible condition and situation that may occur.
- Use the dishwasher only for intended function as described in this manual.
- When loading items to be washed:
 - Load sharp items and knives so that they are not likely to damage the door seal and tub.
 - Load sharp items and knives with the handles up to reduce the risk of cut-type injury.
- Do not wash plastic items unless marked dishwasher safe or the equivalent, if not marked, check with manufacture for recommendation, items that are not dishwasher safe may melt and create a potential fire hazard.
- If the dishwasher drains into a food disposer, make sure disposer is completely empty before running dishwasher.
- Do not tamper with control.
- Do not operate your dishwasher unless all enclosure panels are in the properly place.
- Do not touch the heating element during or immediately after use, especially if the sanitize option has been selected.
- Do not let children abuse, sit or stand on door or racks of a dishwasher.
- Under certain conditions, hydrogen gas may be produced in a hot water system that has not been used for two weeks or more. Hydrogen gas is explosive. If the hot water system has not been used for such a period, before using dishwasher, turn on all hot water faucets and let water flow from each for several minutes. This will release any accumulated hydrogen gas. Hydrogen gas is flammable. Do not smoke or use an open flame during this time.
- Do not store or use combustible materials, gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Use only detergents or rinse agents recommended for use in a dishwasher and keep them out of the reach of children.
- Keep young children and infants away from dishwasher when it is operating.
- Do not use the dishwasher if it has a damaged power line or plug, and do not plug the dishwasher into a damaged outlet, failure to observe these instructions may result in electrical shock.
- Remove the door to the washing compartment when removing an old dishwasher from service or discarding it.

FEATURES OF YOUR NEW DISHWASHER

Specification

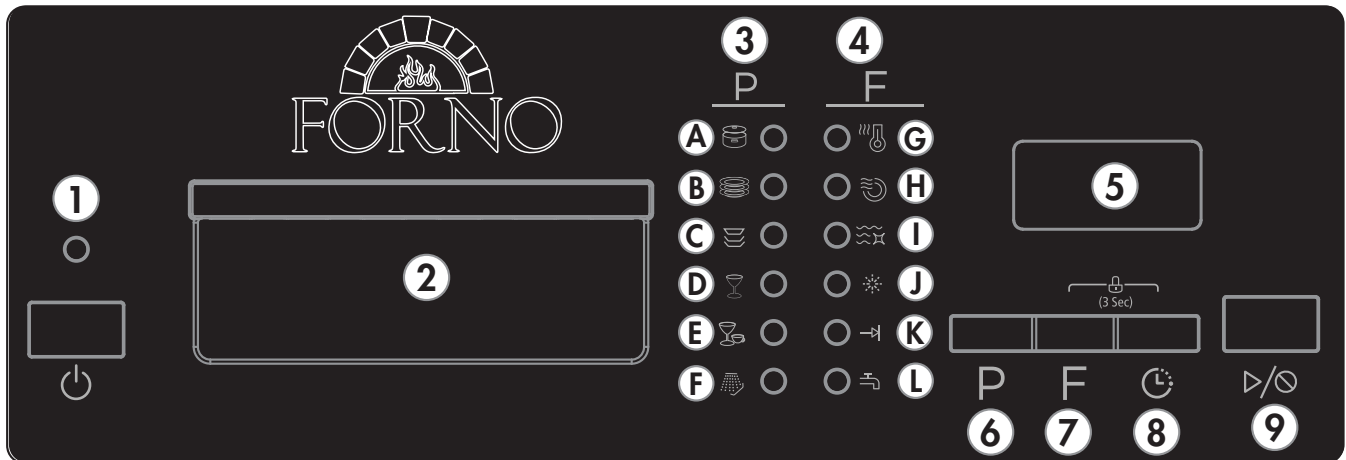
Capacity	8 place settings
Dimension	17.6 x 22.6 x 32.4 inches (W x D x H)
Power Supply	120volts, 60Hz
Rated power usage	Wash motor 100W Heater 700W
Water Feed Pressure	5.8 ~ 145 psi (0.04 ~ 1MPa)



- 1** Lock
- 2** Upper Basket
- 3** Upper Spray Arm
- 4** Cutlery Basket
- 5** Lower Basket
- 6** Lower Spray Arm
- 7** Rinse Aid Dispenser
- 8** Cup Shelf
- 9** Heating Element

OPERATING T E D I S W A S E R

CONTROL PANEL



1. Power button: Use to turn the appliance on or off.
2. Handle
3. Programs: The light will illuminate to show which program has been selected.
 - A: Heavywash
 - B: Normal wash
 - C: ECO wash
 - D: Glass wash
 - E: Rapid wash
 - F: Rinse
4. Features: The light will illuminate to show which features have been selected.
 - G: High temp wash - water temperature will be maintained at 60°C (140°F)
 - H: Heated dry - the heater will operate during the drying cycle.
 - I: Sanitize - water temperature will be maintained at 69°C (156°F)
 - J: Rinse aid indicator light - light will illuminate when the rinse aid dispenser is empty
 - K: Cycle end indicator light - light will illuminate when the program is finished
 - L: Faucet warning indicator light - light will illuminate when the appliance is not receiving enough water; turn on the nearby water faucet to correct the water flow
5. Display screen: Shows the remaining running time in the current program.
6. Program button: Press to select the desired program.
7. Features button: Press to select the desired features.
8. Timed delay button: Press to set the desired time delay.
9. Start/Cancel button: Press to start the desired program. Press to cancel a program which it is in operation.

OPERATING T E D I S W A S E R

Status Window

: - :
If the Delay Start option is selected, the number of delay start hours shows in the status window.

: - :
After the machine starts operation, the remaining time of the selected cycle will be shown in the window.

Error Indication

In certain situations, which are critical to the machines function and safe operation, the control will shut down and indicate an errorcode

See Error codes on page .

If Error codes are displayed, contact the dealer or a serviceman. They will be able to provide assistance in troubleshooting the problem and or locate authorized service technician if needed.

NOTE

The remaining time could suddenly increase or drop several minutes. This means the Smart Sensor has checked the soil level and determined if additional water fills are needed or if water fills can be deleted.

Cycle Chart

Program	Description of cycle	Water (L G)	Cycle time (min)
Heavy	Pre Wash	. L . G	
	Main Wash F		
	Rinse F		
	Rinse with Sani . F		
	Drying		
NORMAL	Pre Wash	. . L . . G	
	Main Wash - F		
	Rinse . - F		
	Rinse with Sani . F		
	Drying		
Energy	Pre Wash	. L . G	
	Main Wash - F		
	Rinse - F		
	Rinse with Sani . F		
	Drying		
Glass	Pre Wash	. L . G	
	Main Wash . - F		
	Rinse - F		
	Drying		
Quick	Pre Wash	. L . G	
	Main Wash F		
	Rinse F		
Rinse	Pre Wash	. L . G	
	Main Wash		

PREPARING AND LOADING DISHES

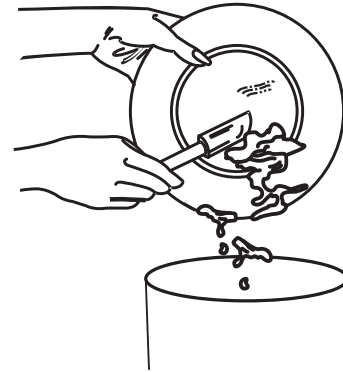
Dish Preparation

Scrape away large pieces of food, bones, pits, toothpicks, etc. The continuously filtered wash system will remove the remaining food particles. Burned-on food should be loosened before loading. Empty liquids from glasses and cups. Food such as mustard, mayonnaise, vinegar, lemon juice and tomato based products may cause discoloration of stainless steel and plastics if allowed to sit for a long period of time. Unless the dishwasher is to be operated at once it is best to rinse off these food soils. If the dishwasher drains into a food disposal, be sure the disposal is completely empty before starting dishwasher.

Loading the Upper Basket

The upper basket is designed for cups, glasses, small plates, bowls and plastic items marked dishwasher safe etc.

For best results, place the bowls, cups, glasses, sauce pans with soiled surface facing down or toward the center. Tilt slightly for better drainage.



Loading the Bottom Basket

The bottom basket is designed to load plates, soup bowls, plates, saucers and cookware. The adjustable basket space will allow you to load items with a maximum height of 12 inches.

The fold-down tines in the bottom basket make it easy to load those extra large and hard-to-fit items. The tines may be left up for normal use or folded down for more flexible loading. Fold down for more space to load large pots or pans.



Make sure the loaded dishes do not interfere with the rotation of the middle spray arm, which is located at the bottom of the upper basket. Check this by rotating the middle spray arm by hand.



Large items should be placed along the edge so they do not interfere with the middle spray arm rotation, and make sure they not prevent the detergent dispenser from opening. Large items should be turned so that the inside faces downward, and make sure these items do not interfere with the lower spray arm rotation.

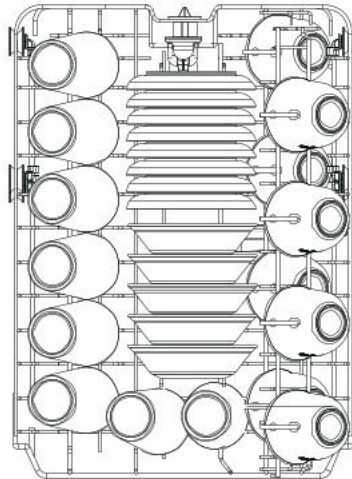
PREPARING AND LOADING DISHES

Loading the Lower Basket

The lower basket has been especially designed for dinner dishes, soup bowls, plates, pots, lids, and casserole dishes.

Load large items such as pans and pots into the dishwasher so their open sides face downwards. We recommend loading cups, stemware, and small plates into the upper basket.

See the recommended loading patterns below.



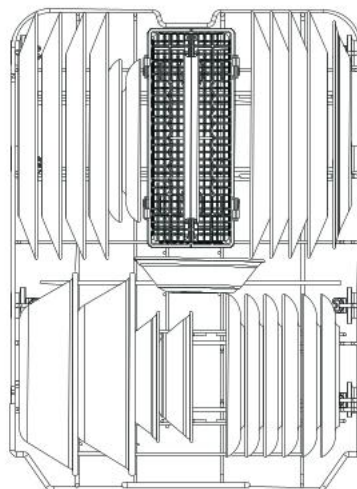
place setting

Loading the Upper Basket

The upper basket has been designed for small plates, mugs, glasses, and plastic items marked dishwasher safe. Load your plates into the dishwasher in two half rows, so that the front of each plate faces the back of the plate in front of it, and the open sides of the plates at the center of the dishwasher face each other. See the illustrations below.

Make sure the loaded dishes do not interfere with the rotation of the nozzle which is located at the bottom of the upper basket. Check this by rotating the nozzle by hand.

When loading dishes, pull the upper basket out sufficiently so you can load it without striking the counter



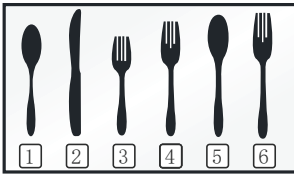
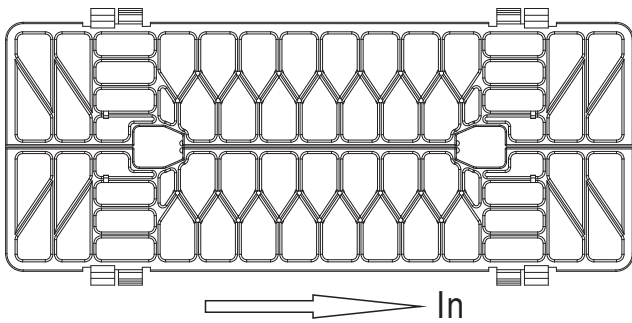
place setting

PREPARING AND LOADING DISHES

Loading the Silverware Basket

The silverware basket can be divided into three separate modules that can be used in both upper and lower racks.

- .Spoons
- .Knives
- .Salad forks
- .Forks
- .Large spoons
- . Large forks



WARNING

- .Do not let item extend through bottom.
- .Be sure nothing protrudes through bottom of the basket or rack to block the lower spray arm

Adding A Dish

To add or remove items after wash cycle starts:

- . Open door slightly and wait a few seconds until wash action stops before completely opening.
- .Add the item.
- . Close the door firmly to latch within 5 secs, then cycle will automatically resume.



AUTION

TO AVOID BURN INJURY : Slightly open door and wait until spray arms and wash action stop. Hot water may splash out of dishwasher. Failure to do so may result in injury.

Filling the Rinse Aid Dispenser

Rinse aid greatly improves drying and reduces water spots and filming. Without rinse aid your dishes and dishwasher interior will have excessive moisture.

The **Speed Dry** option will not perform as well without rinse aid. The rinse aid dispenser, located next to the detergent cup, automatically releases a measured amount of rinse aid during the last rinse.

If the rinse aid is low, the Rinse Aid light is illuminated at the beginning and end of the cycle indicating that it is time to refill.

PREPARING AND LOADING DISHES

Filling the Rinse Aid Dispenser



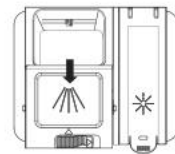
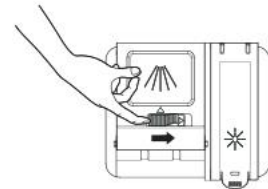
Our dishwasher is designed to use a liquid rinse aid. The use of rinse greatly improves drying performance after the final rinse. Do not use a solid or bar-type rinse aid. Under normal conditions, the rinse aid will last approximately one month. It is best to keep it full, but do not over fill.

Filling the detergent dispenser

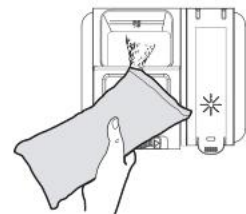
- Open the detergent dispenser cap by pushing the detergent dispenser release catch.



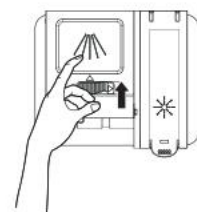
The flap is always open at the end of a dishwashing cycle.



- Add the recommended amount of detergent to the main wash detergent compartment.



- Close the flap and then press it down.



PREPARING AND LOADING DISHES

Filling the rinse aid reservoir

Your dishwasher has been designed to use liquid rinse aid only.

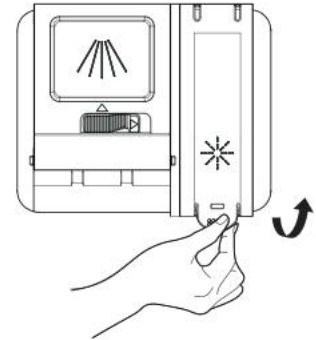
Using a powdered rinse aid will clog the reservoir opening and cause the dishwasher to malfunction.

Rinse aid improves the drying performance of the dishwasher.



Do not add regular detergent to the rinse aid reservoir.

1. Remove the rinse aid reservoir cap by rotating it counterclockwise.



2. Fill the rinse aid reservoir with rinse aid.

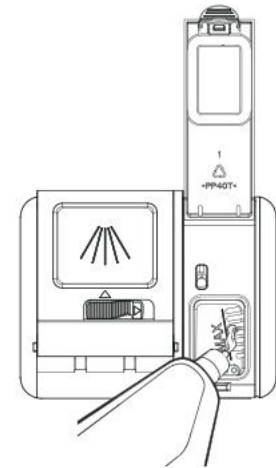


Use the viewing port when filling the rinse aid reservoir.

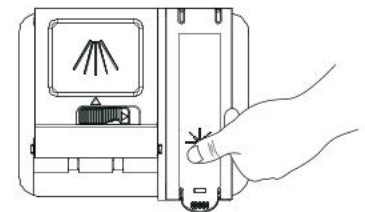


Do not fill the reservoir above the full level indicator.

Excess rinse aid can overflow during the wash cycle.



3. Close the rinse aid reservoir cap by rotating it clockwise.



are & Cleaning

Keeping your dishwasher clean improves its performance, reduces unnecessary repairs, and lengthens its life.

LEANING THE EXTERIOR

It's best to clean spills on the outside of your dishwasher as they occur. Use a soft, damp cloth on the control panel to gently wipe away spills and dust. Do not use benzene, wax, thinner, chlorine bleach, or alcohol. These materials may discolor the inner walls and cause stains. Do not clean the dishwasher by sprinkling water over it and avoid letting water come into contact with any of the electrical parts.



If your dishwasher has a stainless steel door panel, you can clean it with a stainless steel cleaner for Home Appliances or a similar product using a clean, soft cloth.

LEANING THE INTERIOR

Clean the interior of your dishwasher periodically to remove any dirt or food particles. Wipe the inside of the dishwasher and the inner part of the door with a wet dishcloth. We recommend filling the detergent dispenser with dish detergent, and then running the dishwasher empty periodically using either the Normal or Express cycle with the sanitize option. This will keep your dishwasher clean.

If white spots and odor are still present in your dishwasher, run the Normal cycle with the dishwasher empty and without detergent until it flushes. Then, interrupt the cycle and put an 8-ounce cup of white vinegar into the lower basket. Close the dishwasher and let the cycle finish.

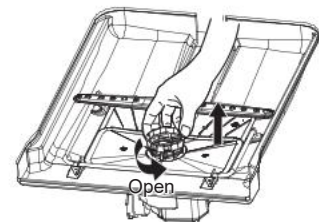


Do not remove the tub front seal—the long rubber seal enclosing the opening of the dishwasher.

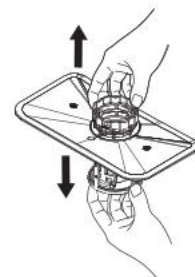


Do not touch the HEATING ELEMENT during or immediately after use.

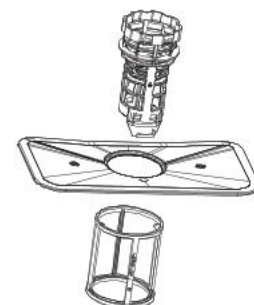
- Turn off the dishwasher.



- Rotate the filter insert counterclockwise to unfasten and then detach the filter insert.



- Remove the fine filter—flat, rectangular.




Care & Cleaning

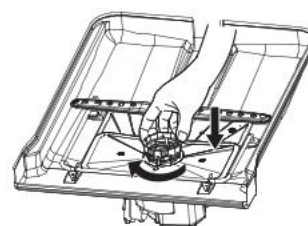
4. Remove any dirt or other remains from the filters, and then rinse them under running water.



5. Reassemble the filters in the reverse order of the disassembly, replace the filter insert, and rotate clockwise to the close arrow.

 If the filter insert is not closed properly, its performance will be decreased.

CAUTION

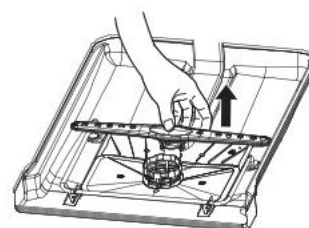


CLEANING THE NOZZLES

If your dishwasher does not seem to be cleaning adequately or the nozzles seem clogged, you can clean each of the nozzles. When removing the nozzles, take care as they may break.

Lower nozzle

1. Check whether the nozzle holes are clogged by food particles.
2. If cleaning is needed, remove the nozzle by pulling it upwards.
3. Clean the nozzle, and then push it back into place.
4. Check whether the nozzle is engaged correctly by rotating it by hand.



Troubleshooting

Problem	Possible cause	Solution
Dishwasher won't start	Dishwasher won't start	Shut the door completely make sure it is latched
	Power supply or power line is not connected	Check and connect the power supply
	Delay Start option has been selected	Refer to Delay Start section in this manual to reset
	Child Lock activated selected models	Deactivate the child lock, refer to child lock section in this manual
Dishwasher beeps at the end of the cycle	It indicates the wash cycle finished, the dishwasher will beep	
Rinse Aid light on	Rinse detergent deficient	Add rinse aid
Dishwasher operates too long	The dishwasher is connected to cold water	Check the dishwasher, make sure it is properly connected to the hot water supply
	The cycle time will vary due to the soil	When heavy soil is detected, the auto, normal, pots & pans cycle will automatically increase the cycle time
	The sanitize option is selected	When sanitize option is selected, the cycle time will be increase to meet the sanitized temperature request
Dishes are not clean enough	Water pressure is temporarily low	Use your dishwasher when the water pressure is normal
	The inlet water temperature is low	Make sure the dishwasher is connected to the hot water supply Try not use your dishwasher when hot water is being used elsewhere in the house
	Dishes are loaded too close together Improper use of detergent	Load the dishes again as the manual Add detergent depending on the water hardness and the cycle you chose. Use fresh detergent
	The selected cycle is not suitable for food soil condition	Choose another cycle for longer washing time
	Spray arms are blocked by some items	Make sure the spray arm can rotate freely
Dishes not drying enough	Detergent dispenser is empty	Fill rinse aid dispenser or increase the amount of rinse aid.
	Improper loading of dishes	Load the dishes again as the manual instructs.
	The cycle you chose did not include the drying	Choose the proper cycle with drying
Spots and filming on dishes	Water hardness is too high	For extremely hard water install a water softener
	Improper loading of dishes	Load the dishes again as the manual indicates
	Old rinse aid is used	Use fresh rinse aid
	Rinse dispenser empty	Add rinse aid to the dispenser
Etching	Using too much detergent	Use less detergent if you have soft water
	The inlet water temperature exceeds 120 °F	Lower the inlet water temperature

Troubleshooting

Problem	Possible cause	Solution
Detergent left in dispenser cup	Detergent may be too old	Use fresh detergent
	Spray arm is blocked	Load the dishes, making sure the spray arms are not blocked
Detergent dispenser will not shut	Improper operation of the detergent cover	Add the detergent and rinse aid as indicated by the manual
Water remains in the dishwasher	Previous cycle has not finished or has been interrupted	Select the proper cycle explained in the manual
Dishwasher does not drain properly	Drain is clogged	Check the air gap if you have one. Make sure the disposal is empty if the dishwasher is connected to the disposal.
	Drain hose is kinked	Make sure the drain hose is properly connected to the sink
Suds in the tub	Improper detergent is used	Make sure to use only the automatic dishwasher detergent
Dishwasher leaks	Excessive suds caused by using the improper detergent	Make sure to use only the proper dishwasher detergent
	Dishwasher is not level	Level the dishwasher
Black or gray marks on dishes	Aluminum utensils have rubbed against dishes	Rearrange the dishes Make sure the inlet water is no less than
Stained tub interior	coffee and tea soil	Using an approved spot cleaner to remove the soil
	Reddish stain	Some tomato-based foods will cause this, use of the rinse only cycle right after loading this will decrease the staining
Noises	Detergent cup opening Drain pump sound	This is normal
	A hard object has entered the wash module. When the object is ground up, the sound should stop	If the noise persists after a complete cycle, call for service.
Dishwasher won't fill	Water valve is turn off	Check if the water valve is turn on
	Door latch may not be properly seated	Make sure the door is closed

Error Codes

When some malfunctions come on, the appliance will display error codes to warn you:

Codes	Meanings	Possible Causes
E1	Longer inlet time.	Faucets is not opened, or water intake is restricted, or water pressure is too low.
E4	Overflow.	Some element of dishwasher leaks .
E3	Not reaching required temperature.	Malfunction of heating element.



WARNING

- If overflow occurs, turn off the main water supply before calling a service.
- If there is water in the base pan because of an overfill or small leak, the water should be removed before restarting the dishwasher.







INSTALLATION INSTRUCTIONS

SAFETY INSTRUCTIONS

Throughout this manual, you'll see Warning and Caution notes. These warnings, cautions, and the important safety instructions that follow do not cover all possible conditions and situations that may occur. It's your responsibility to use common sense, caution, and care when installing, maintaining, and operating the dishwasher.

Important Safety Instructions

What the icons and signs in this installation guide mean:

 WARNING	Hazards or unsafe practices that may result in severe personal injury or death.
 CAUTION	Hazards or unsafe practices that may result in personal injury or property damage.
 CAUTION	To reduce the risk of fire, explosion, electric shock, or personal injury when using the dishwasher, follow these basic safety precautions:
	Follow directions explicitly.
	Make sure the machine is grounded to prevent electric shock.
	Call the service center for help.

These warning signs are here to prevent injury to you and others.

Please follow them explicitly.

After reading this section, keep it in a safe place for future reference.

-  Read all instructions before using the appliance.

Install and store the dishwasher inside, away from exposure to weather.



Do not install the dishwasher near electrical components. Keep the dishwasher away from open flames.

Do not install the dishwasher on a carpet as this is a fire hazard.

Do not install the dishwasher in a location where the water may freeze (where the temperature falls below 32°F(0°C). Frozen water in the hoses or pipes may damage the dishwasher.

As with all equipment using electricity, water and moving parts, potential hazards exist. To safely operate this appliance, become familiar with its operation and exercise care when using it.

The dishwasher must be properly grounded. Never connect it to an ungrounded outlet.

Prior to removal of original dishwasher and the installation of your new unit, make sure to switch off your circuit breaker. Do not connect the dishwasher until you have completed the installation. Connecting the power cable is the last step when installing the dishwasher.



All wiring and grounding must be done in accordance with the electrical code applicable to the region.

GROUNDING INSTRUCTIONS

For a permanently connected appliance:

This appliance must be connected to grounded metal, a permanent wiring system, or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the appliance.

The dishwasher is very heavy. Do not attempt to move or carry a dishwasher alone. Two or more people are needed to move a dishwasher and avoid potential injuries.



CAUTION

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



CAUTION

Do not touch the power cable with wet hands.



CAUTION

Do not connect another appliance to the same power outlet as the dishwasher.

Make sure to use a new water supply line. Old lines are susceptible to breakage because they become hardened and may cause property damage due to a water leakage.

The dishwasher must be connected to a hot water supply with a temperature between 120 °F(49°C) and 131 °F(55°C). This temperature range provides the best washing result and shortest cycle time. Temperature should not exceed 131 °F(55°C) to prevent damage to dishes.

Ensure that the water supplied to the dishwasher does not freeze. Frozen water can damage the hoses, valves, pump, or other components.

For a full list of safety information, please refer to the User Manual.

Before Installing The Dishwasher



WARNING

WARNING



Tip-Over Hazard

- Do not use the dishwasher until it is correctly installed.
- Do not push down on the door when it is open.
- Do not place excessive weight on the open door.



Electric Shock Hazard

Failure to follow these instructions can result in death, fire, or electric shock:

- Electrically ground the dishwasher
- Connect the ground wire to the green ground connector in the junction box.
- Do not use an extension cord.

To reduce the risk of electric shock, fire, or injury to persons, the installer must ensure that dishwasher is completely enclosed at the time of installation.

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5 PREPARING THE DISHWASHER ENCLOSURE

- 5 Product dimensions
- 5 Enclosure dimensions

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6 INSTALLING THE DISHWASHER

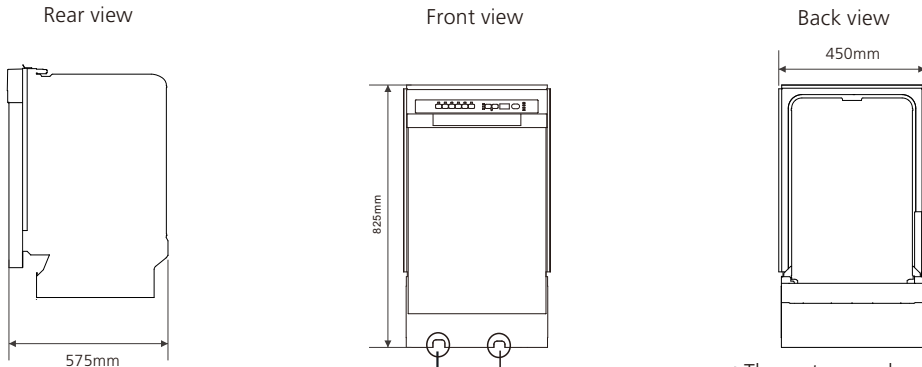
- 6 STEP 1 Check the parts and tools
- 8 STEP 2 Select the best location for the dishwasher
- 9 STEP 3 Check water supply requirements and cautions
- 10 STEP 4 Check the electrical requirements and cautions
- 11 STEP 5 Unpacking and inspecting the dishwasher
- 13 STEP 6 Preparing the dishwasher
- 14 STEP 7 Placing the dishwasher and connecting the hot water supply line
- 15 STEP 8 Leveling the dishwasher
- 16 STEP 9 Securing the dishwasher
- 17 STEP 10 Connecting the drain hose
- 20 STEP 11 Wiring connections
- 21 STEP 12 Completing the installation

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22 SPECIFICATIONS


PREPARING THE DISHWASHER ENCLOSURE

Product Dimensions



The water supply line, power cable and drain hose should go through this space behind the dishwasher. Then, the power cable run in channels under the dishwasher to connections in the Front.

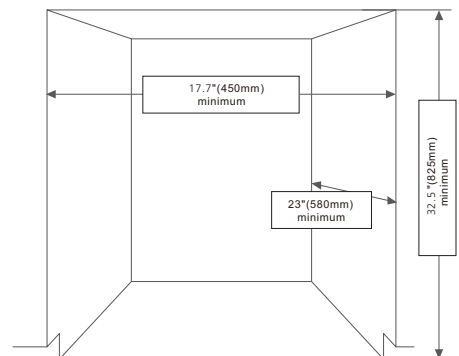
Enclosure Dimensions

-  This dishwasher is designed to be enclosed on the top and on both sides by a standard residential kitchen cabinet unit.

The installation enclosure must be clean and free of any obstructions.

The enclosure must be at least 17.7 inches wide 23 inches deep and 32.5 inches high.

For the front door of the dishwasher to be flush with the leading edge of the counter top, the counter top must be at least 23 inches deep.



INSTALLING THE DISHWASHER

Be sure that you or your installer follow these instructions closely so that the new dishwasher works properly and that you're not at risk of injury when washing dishes.

Step 1 Check The Parts And Tools

Before starting on the installation, prepare all the necessary tools and parts required to install the dishwasher. This will save installation time and simplify the installation process.

Parts Required

Provided with the dishwasher. Check when you unbox the dishwasher in Step 5.



Installation brackets
X2



ST3.5*9 X2
(For the installation
bracket)



ST3.9*13 X2
(for the kick plate)



ST4*14 X2
(For installation
Brackets)



Kick plate



Condensation strip



Adjustment cap X2



Cable Tie
(for the drain hose)

Not provided



Twist on wire
connector



Strain relief



Electrical tape &
Standard duct tape



Power cable



Hot water supply line



90° Elbow



Tube fittings



Teflon tape or sealing
compound




Air gap



Rubber connector



Hose clamp

 For the hot water supply line ? We strongly recommend using copper tubing with a compression fitting or a flexible stainless steel braided hot water supply line.

 Do not use plastic tubing. Plastic tubing can deteriorate over time and cause a leak inside the tube fitting.

Tools required



Electric drill



Safety glasses



Gloves



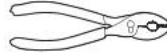
Flashlight



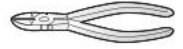
Adjustable wrench



Wire stripper



Pliers



Nipper



Tape measure



Pencil



Phillips screwdriver



Flat screwdriver



Tubing cutter



Cutting knife



Hole saw



Level



Torx t20



Hex L-wrench

INSTALLING THE DISHWASHER

- New installation**
If the dishwasher is a new installation, most of the installation work must be done before the dishwasher is moved into place.
- Replacement**
If the dishwasher is replacing an old dishwasher, you must check the existing dishwasher connections for compatibility with the new dishwasher. Replace the existing connections as necessary.

Step 2 Select The Best Location For The Dishwasher

The following criteria are important to ensure the best location for the dishwasher:

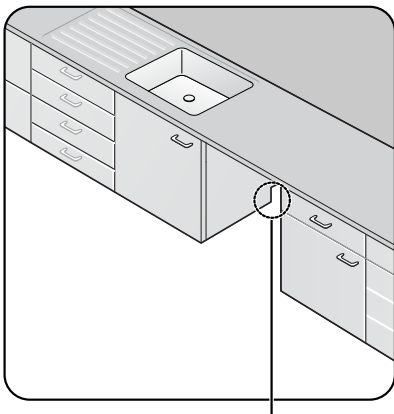
- The location must have a solid floor that is able to support the weight of the dishwasher.
 - The location must be near a sink with easy access to the water supply, drain, and electrical outlet.
- For the drain to operate properly, the dishwasher should be installed within 9.8 ft (3 m) of the sink.
 - The location must let you load your dishes into the dishwasher easily.
 - The location must have sufficient space for the dishwasher door to open easily and provide enough space between the dishwasher and the cabinet sides (at least 0.1 in (2 mm)).
 - If the dishwasher is installed in a corner, ensure that the side of the dishwasher is more than 2 in (50 mm) from the wall or cabinet to its right or left.
 - The wall at the back must be free of obstructions.

If this is a new installation, follow these steps:

1. Using a hole saw, cut a hole into the side of the cabinet that hold the sink as shown in Figure 1-1 below.
2. If the base inside the sink cabinet is raised above the kitchen floor and is higher than the connections on the dishwasher, make a hole in the base inside the cabinet and in the cabinet side as shown in Figure 1-2.

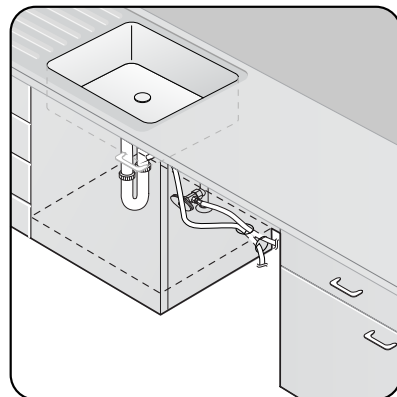
- Depending on where your electrical outlet is, you may need to cut a hole in the opposite cabinet side.

<Figure 1-1>



The hole for the water supply line, drain hose and power cables.

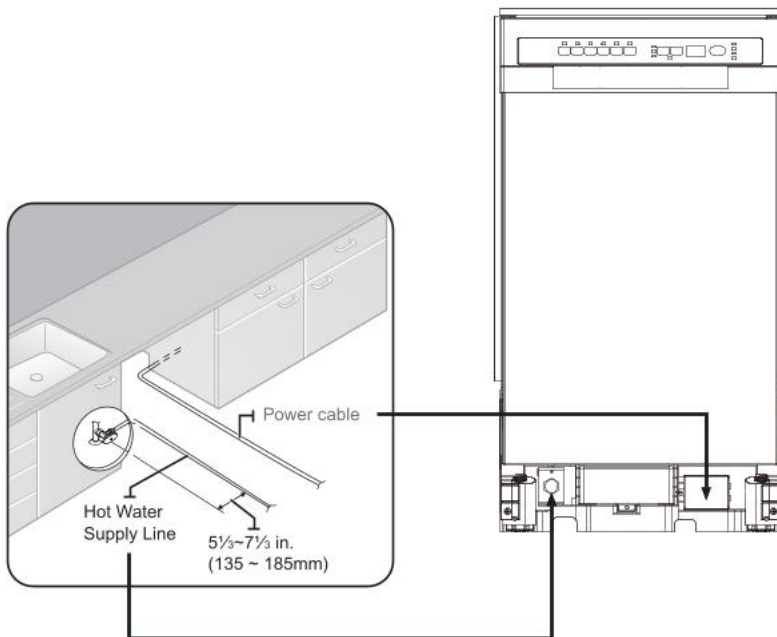
<Figure 1-2>



STEP 3 CHECK WATER SUPPLY REQUIREMENTS AND CAUTIONS

- The hot water supply line pressure must be between 0.04-1MPa.
- Adjust the water heater to deliver water between 120 °F(49°C)~131 °F(55°C).
- The dishwasher must be connected to a hot water supply between 120 °F(49°C)~131 °F(55°C). This temperature range provides the best washing result and shortest cycle time. Temperature should not exceed 131 °F(55°C) to prevent damage to dishes.
- Ensure that the water supply valve is turned off before connecting the hot water supply line to the dishwasher.
- Seal the hot water supply line connections using teflon tape or sealing compound to stop any water leakage.
- When you install the dishwasher, ensure there is nothing on the drain hose and be careful not to tear it during the installation process.

<Figure 2>



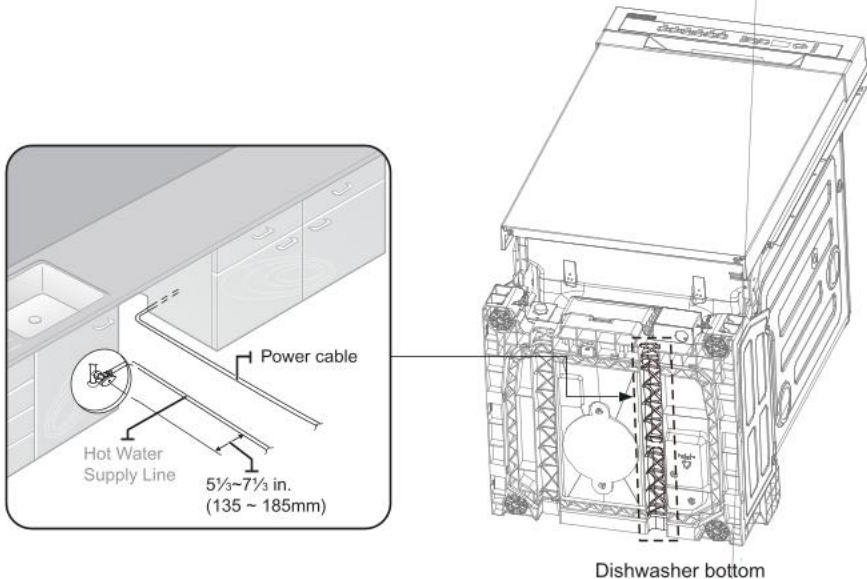
INSTALLING THE DISHWASHER

Step 4 Check The Electrical Requirements And Cautions

The electrical requirements for the dishwasher are as follows:

- In the United States, install in accordance with the National Electric Code/State and Municipal codes and/or local codes.
- In Canada, install in accordance with the Canadian Electric Code C22.1-latest edition/Provincial and Municipal codes and/or local codes.
- For cable direct connections.
- Use flexible, armored or non-metallic sheathed, copper wire with a grounding wire that meets the wiring requirements for your local codes and ordinances.
- Use the strain relief method provided with the wiring junction box or install a U.L.-listed/CSA-certified clamp connector to the wiring junction box. If using conduit, use a U.L.-listed/CSA-certified conduit connector.

<Figure 3>

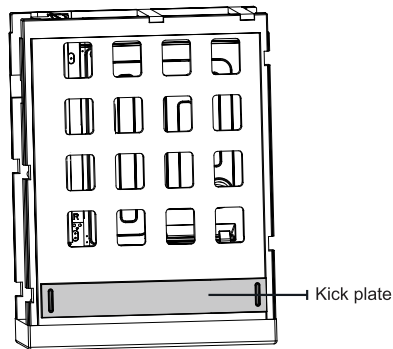


Step 5 Unpacking And Inspecting The Dishwasher

Unbox the dishwasher in an open area free of obstruction both around the carton and overhead. We recommend that you retain the carton and all of the packing materials until the dishwasher is fully installed and operational to ensure you have removed all the product's components from the carton prior to disposal.

Unboxing

1. Unbuckle or cut the four straps securing the carton top.
2. Lift the top of the telescoping carton clear of the carton tray and the contents, and then turn it over and place it on the floor.
3. Put the straps and all of the packing materials from around the dishwasher inside the carton top, inspecting them for any signs of damage.
4. Locate and set aside the dishwasher's kick plate. The Kick plate is attached to packing material of the dishwasher.



5. Lift the dishwasher from the carton tray, and then place it on the floor. Put the tray into the carton top.
6. Remove the bag that protects the dishwasher during shipping.



ALWAYS LIFT THE Dishwasher TO MOVE IT. Sliding it over rough surfaces can damage the dishwasher's feet and sliding the feet over finished surfaces can, in some cases, damage that finish or the underlying surface.

7. There is also packing inside the dishwasher that you may want to leave in place until the dishwasher is installed.
8. **DO not**, under any circumstances, remove the sound-absorbent padding that surrounds the exterior of the tub of the dishwasher.

Inspecting

Mechanical

1. Check the plastic base assembly to ensure that it is intact
2. Check the dishwasher's feet to ensure they are in place and can be adjusted so you can level and secure the dishwasher.
3. Check all the visible components on the bottom of the dishwasher to ensure they are intact and secure.
4. Check the door latch, the operation of the hinges, and confirm the door is properly secured to the dishwasher.

INSTALLING THE DISHWASHER

Plumbing

1. Check the hot water connection on the front left-side of the base of the dishwasher. The mounting plate should be secured to the front of the base, the threads inside the connection should be smooth and shiny, and the area should be clean and free of any debris.
2. Check the plastic Brake and Sensor cases to ensure these assemblies are not cracked and that all connections are secure.
3. Check the drain hose for any holes or deformities that could allow a water leak during draining.

Electrical

1. Confirm the junction box cover is secured to the junction box on the front right-side of the base of the dishwasher.
2. Confirm the electrical box was not damaged during shipping and that it is secured to the base of the dishwasher.


Appearance

1. Confirm there are no dents or scratches on the front of the dishwasher
2. Check the edges of the doors for any roughness or cracking
3. Check the control panel to ensure it is clear and unscratched, and that all the control markers are in their proper places.

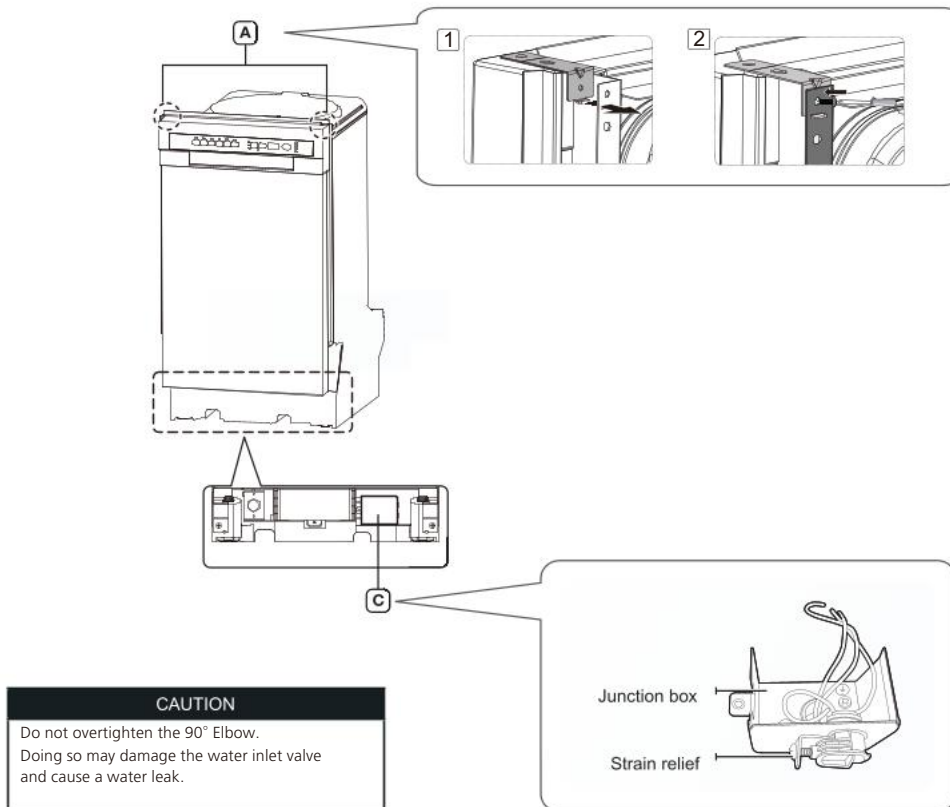
Parts

1. Confirm you have all the parts listed in Step 1 on page 6.

Step 6 Preparing The Dishwasher

1. Ensure that the circuit breaker and water supply valve are turned off before proceeding with the following steps.
 Before you move or lay down the dishwasher for installation, make sure to adjust the height of the legs so the legs are as short as possible. This prevents the legs from breaking. Level the dishwasher by adjusting the height of the legs after you have the dishwasher in place.
2. Make sure there are no kinks and that the hose is not bent at any extreme angles that could constrict the flow of water.
3. Remove the junction box cover located at the bottom front right of the dishwasher using a screwdriver, and then install the strain relief (Figure 4 - C). Make sure to keep the junction box cover you removed. It is used in Step 11, Wiring Connections.
4. If the countertop is made of wood or a material that is not damaged by drilling, attach the two Installation brackets that were supplied with the dishwasher using the supplied screws (Figure 4 - A). They will be used in Step 9. Securing the Dishwasher.


<Figure 4>



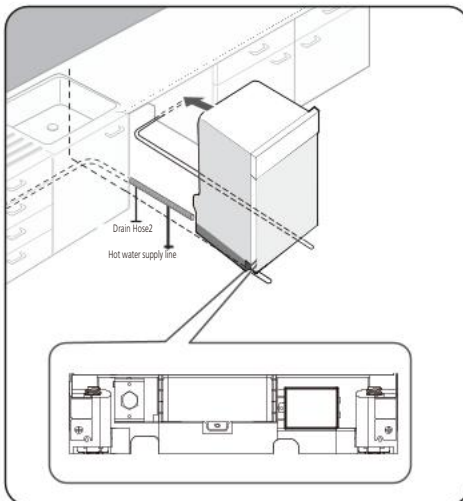
INSTALLING THE DISHWASHER

Step 7 placing The Dishwasher And Connecting The Hot Water Supply Line

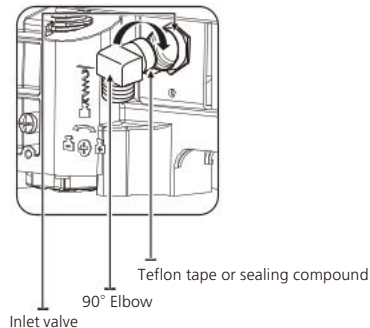
1. Adjust the three leveling legs at the bottom of the dishwasher after measuring the height of the cabinet opening from under the countertop to the floor. (See Step 8, Leveling the Dishwasher.)
2. Locate the hot water supply line and the power cable.
3. Place the dishwasher so that the power cable is in the right channel of the base of the dishwasher. Use standard duct tape or cable ties to secure the electrical cable to their adjacent channels in the base. This can prevent the electrical cable from being squeezed when you push the dishwasher into place.
4. Pull the drain hose through the hole in the sink cabinet side wall. Keep it free of kinks.
5. Make sure the hot water supply line is not twisted, and then connect the hot water supply line to the elbow joint.
6. Slide the dishwasher carefully into the installation space. If possible, gently pull any excess lengths of water supply line, drain hose, or power cable back as you move the dishwasher. Get a second or third person to help you do this if necessary.

 **CAUTION** Do not place the dishwasher on the water supply line, drain hose, or power cable. Also, make sure they are not folded or twisted.

<Figure 6>

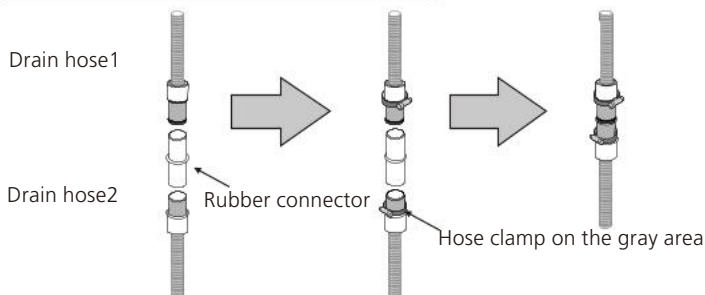


<Figure 7>



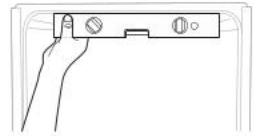
CAUTION

Do not overtighten the 90° Elbow. Doing so may damage the water inlet valve and cause a water leak.



Step 8 Leveling The Dishwasher

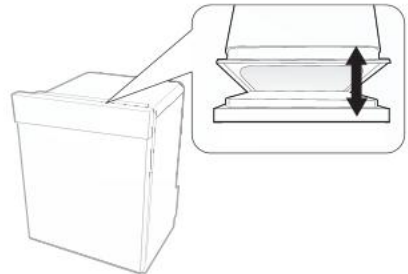
1. Open the door and place the level against the top of the tub on the inside and check if the the dishwasher is level.If it is not level, rotate the leveling legs at the bottom front of the dishwasher until the dishwasher is level.See the first note below for instructions on adusting the height of the front legs.



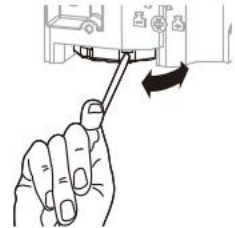
2. Use the level to check if the dishwasher is level front to back, as shown in the figure to the right.If the dishwasher is not level front to back, adjust the height of the rear leg until the dishwasher is level.See the second note below for instructions on adusting the the rear leg.



3. Open the door of the dishwasher and check if both the tub and door clearances are correct.If not, rotate the leveling legs on the bottom front of the dishwasher.You can also check this by placing a level against an inside front vertical surface of the tub.



- ⚠ If the leveling legs are rotated to the right (counter clockwise), they are lossened and the front of the dishwasher is raised. And the maximum height be raised is about 50mm. If they are rotated to the left (clockwise), they are tightened and the front of the dishwasher is lowered.



Before you move the dishwasher for installation, make sure to adjust the height of the legs so the legs are as short as possible. This prevents the legs from breaking. Level the dishwasher by adjusting the height of the legs after you have the dishwasher in place.


When you prepare to move the dishwasher for installation, you should put your hand under the basement, this prevents your hand from injuring.



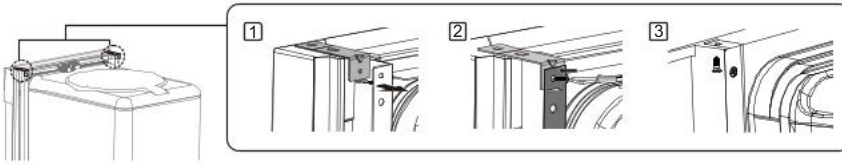
INSTALLING THE DISHWASHER

Step 9 Securing The Dishwasher

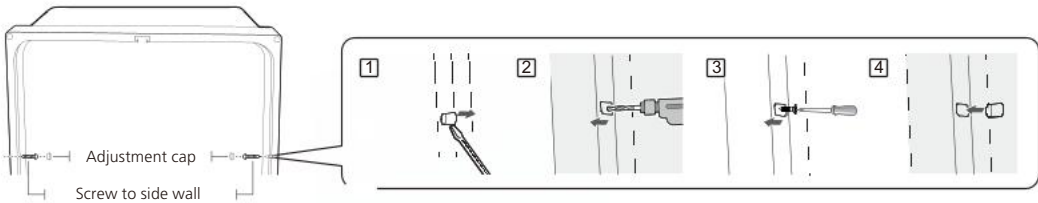
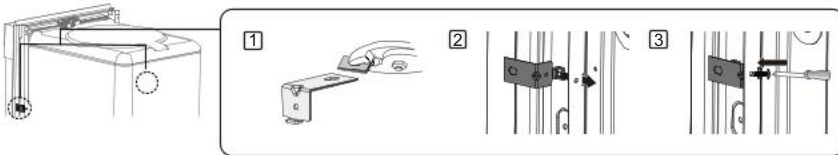
You must fix the dishwasher to the countertop or cabinet side walls for additional stability and safety.

1. If the countertop is made of wood or the material will not be damaged by drilling, follow the instructions in 2-1 below.
If the countertop is made of granite, marble, or any other material that can be damaged by drilling, follow the instructions in 2-2 below.
 - 2-1. Put a large towel into the bottom of the dishwasher to prevent wood shavings or a dropped screw from falling into the dishwasher.
Carefully drill screw holes into the counter top bottom by passing the drill bit through a screw hole in each bracket, and then drilling into the counter top bottom beneath.
Make sure the hole you drill is smaller than the diameter of the screw.
Firstly, put the installation bracket into the slot of the side plane and tighten to the dishwasher with screw ST3.5*9. Secondly, insert the provided screws into the brackets, and then tighten to secure the dishwasher to the counter top.
 - 2-2. Put a large towel into the bottom of the dishwasher to prevent wood shavings or a dropped screw from falling into the dishwasher. Remove the adjustment cap with the tip of a screwdriver. The caps are just inside the tub near the middle of the tub on both sides(Figure 9 on the next page).
Drill a hole into the sides of the kitchen cabinet on both sides by carefully passing a drill bit through the screw holes exposed by the removal of the spacer caps, and then drilling into the cabinet side beneath.
Make sure the hole you drill is smaller than the diameter of the screw.
Also make sure the drill bit does not strike the sides of the spacer cap holes. Firstly, put the installation bracket into the slot of the side plane and tighten to the dishwasher with screw ST3.5*9. Secondly, insert the provided screws into the holes, and then tighten to secure the dishwasher to the cabinet. Make sure the tub is not distorted by pressure from the screws.
If the tub is distorted, loosen the screws a little.
Replace the tub spacer caps.
-  • The screws or tub spacer cap may fall into the dishwasher while you are working with the door open. Cover the interior of the dishwasher with a towel to prevent any screws from falling into the dishwasher. If any foreign items such as a screw get into the dishwasher, it may cause noise, an abnormal operation, damage, or a malfunction.
 - Use a magnetic screwdriver to help prevent screws from falling into the dishwasher.
 - If a foreign item such as a screw gets into the dishwasher and you are unable to remove it. the dishwasher needs to be disassembled. Contact a qualified service technician for this.

<Figure 8>



<Figure 9>

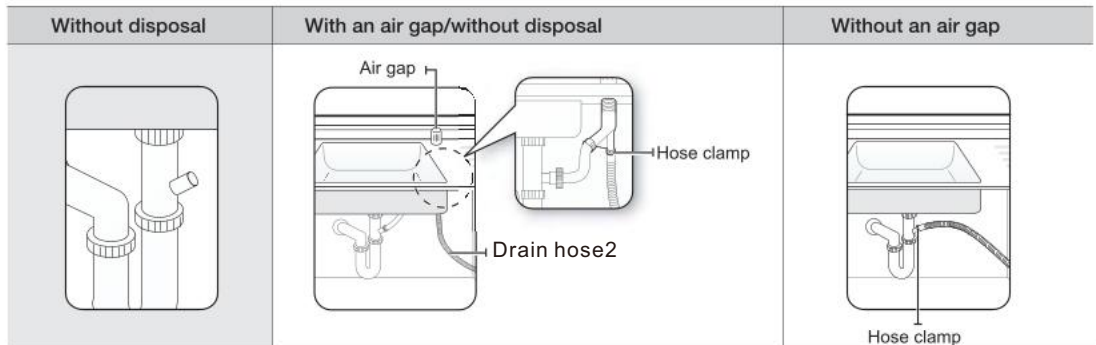


Step 10 Connecting The Drain Hose

1. Check the parts on the sink to which the drain hose will be connected.
2. There are several ways to insert the drain hose into the drain hose connector of the sink, as shown in the following figures. You must connect the drain hose in accordance with the water pipe installation regulations in your region.

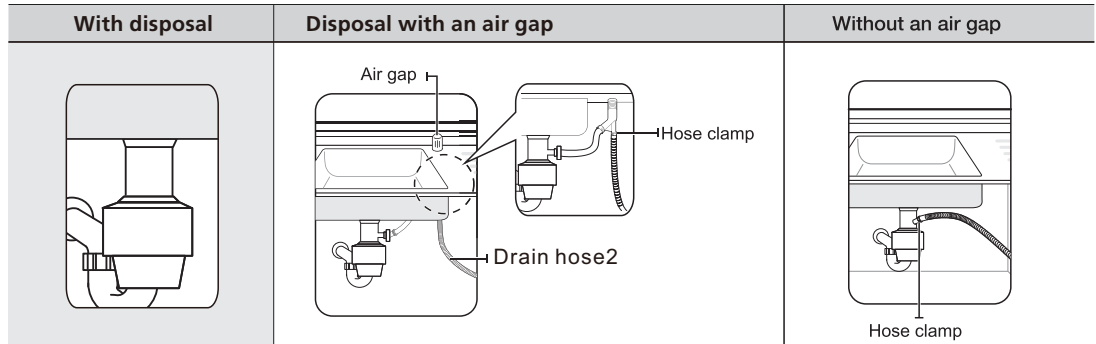
<Figure 10>


Case 1. Without disposal



INSTALLING THE DISHWASHER

Case 2. With disposal

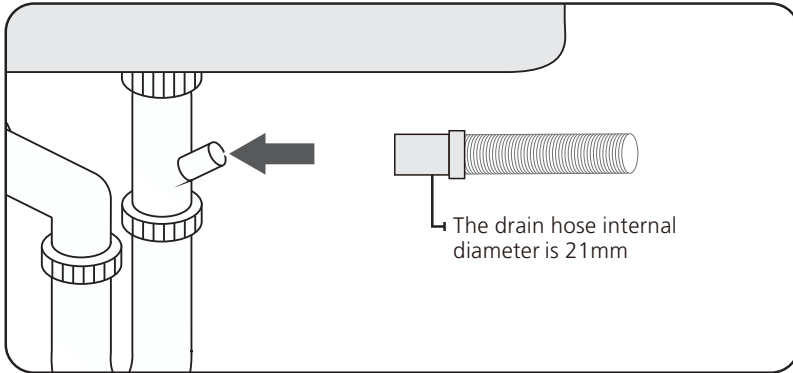


3. Check the size of the sink's drain hose connector (21mm- as shown in Figure 11 below). If the end of the drain hose does not fit onto the drain hose connector of the sink, use an adaptor purchasable at a plumbing/hardware supply store.
 4. Slide a hose clamp over the end of the drain hose. Attach the drain hose to the sink connector, slide the hose clamp to the end of the hose, and then tighten the hose clamp.
Note : You must use a hose clamp. Failure to do so may cause water leakage.
 5. If there is no air gap, make sure to hang the middle of the drain hose well above the sink cabinet base to prevent backflow (see Figure 13 on the next page).
 6. When drilling a hole for the drain hose on the cabinet wall, take caution not to damage the drain hose by sharp edges of the hole. On wooden walls, use sand paper to soften the edges. On metal walls, use insulation tape or duct tape to cover the sharp edges around the hole.
 7. Take caution not to damage the drain hose when installing the dishwasher on the floor, wall, or cabinet.
-  To prevent leaks or drainage problems, make sure the drain hose is not damaged, kinked, or twisted.
8. Do not cut the wrinkled area of the drain hose to fit the size. When arranging the drain hose, take caution not to contact on sharp edges of the cabinet or under-sink.

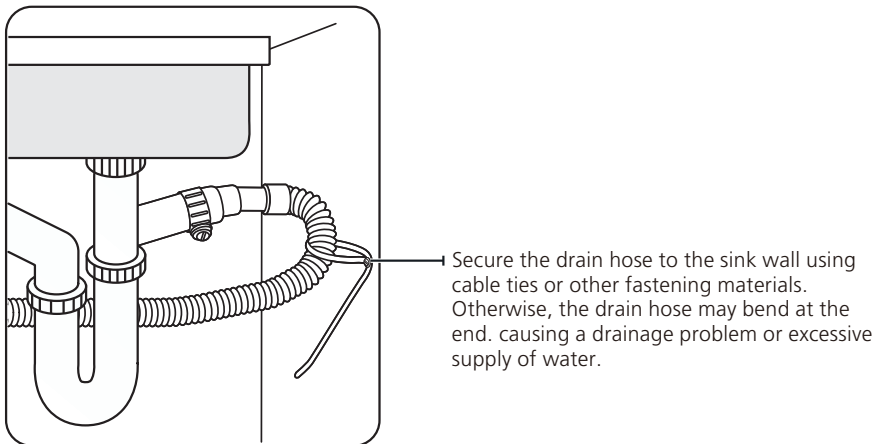


- Be careful when cutting off the end of the drain hose as there is a risk of injury. Clean around the sink's drain connection so that it does not damage the hose. Check for any foreign items in the drain hose and remove them.
- When arranging the drain hose, make sure the drain hose is not cut, torn, or broken by any sharp edges of the floor, the product itself, or the cabinet. A damaged drain hose causes a leak.

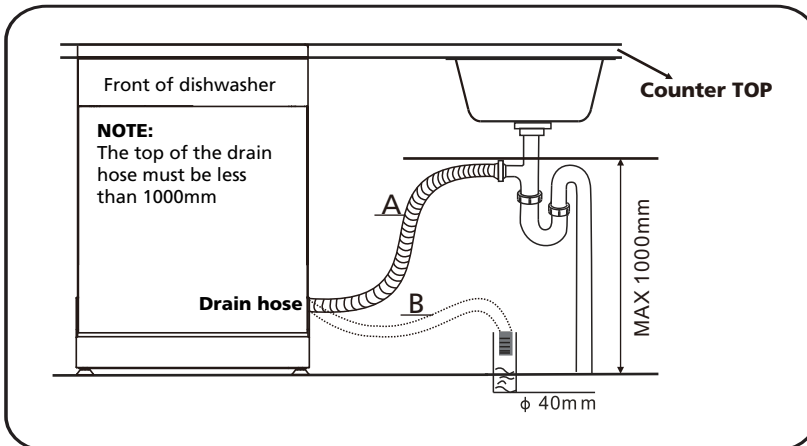
<Figure 11>



<Figure 12>



<Figure 13>

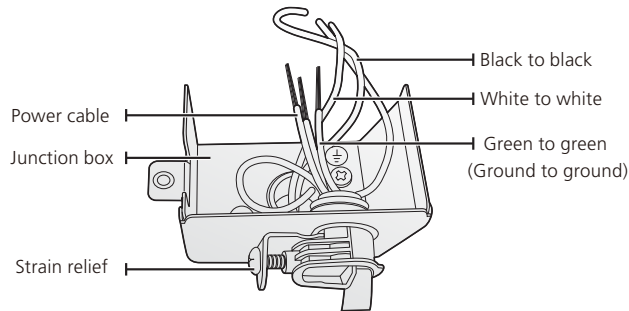


INSTALLING THE DISHWASHER

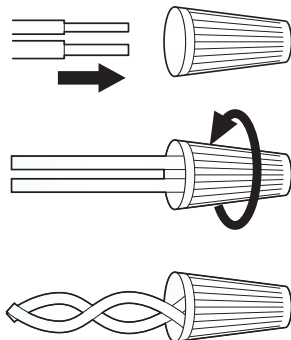
Step 11 Wiring Connections

1. Before connecting the power cable to the dishwasher, make sure the circuit breaker is off.
2. In the junction box located at the front bottom right of the dishwasher, find the three power wires from the dishwasher including the grounding line.
3. Pass the power cable through the strain relief, and then into the junction box (Figure 14).
4. Connect the black wire of the dishwasher to the black wire of the power cable by inserting both into a wire nut and then rotating the wire connector as shown in Figure 15.
Connect the white wire to the white wire and the green to the green in the same manner.
5. Recheck each wire to ensure it is connected correctly and securely.
Each colored wire should be connected to the corresponding wire of the same color.
White should be connected to white, black to black, and green to green.
6. Replace the junction box cover on the dishwasher.

<Figure 14>



<Figure 15>



WARNING

Electrical Shock Hazard

To avoid electrical shock, do not work on an energized circuit. Doing so could result in serious injury or death. Only qualified electricians should perform electrical work. Do not attempt any work on the dishwasher electric supply circuit until you are certain the circuit is de-energized.

WARNING

Fire Hazard

To avoid a fire hazard, make sure electrical work is properly installed. Only qualified electricians should perform electrical work.





Recheck each wire to ensure it is connected correctly and securely.

Each colored wire should be connected to the corresponding wire of the same color.

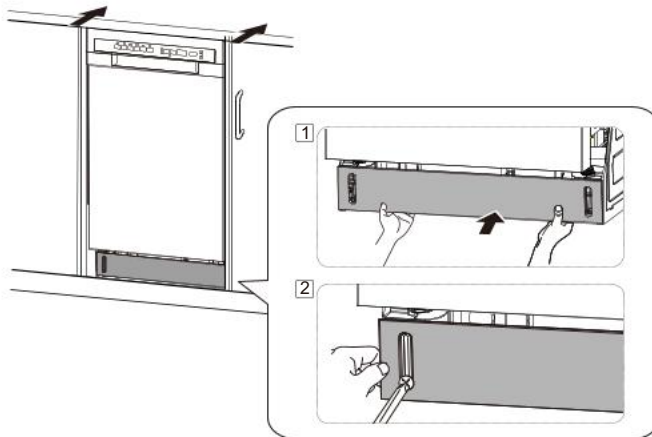
Step 12 Completing The Installation

1. Open the door and remove all foam, paper packaging, and unnecessary parts.
2. Turn on the circuit breaker you turned off before you began the installation.
3. Open the water supply valve to supply water to the dishwasher.
4. Turn on the dishwasher, and then select and run a cycle.

 Check if the power turns on correctly and if there is any water leakage while the dishwasher is operating. If no errors occur while it is operating, turn off the dishwasher, and then go to Step 5 below.
If an error has occurred, turn off the dishwasher, close the water supply valve, and then refer to the user manual or contact local service center.

 **CAUTION** Make sure to check for water leakage on both ends of the water supply line and drain hose connector.

5. Confirm that the kick plate gasket is on the bottom of the kick plate. To install the kick plate with screw ST3.9*13, refer to the figure below.



SPECIFICATIONS

Power supply	120 V 60 Hz
Water pressure	0.04 - 1 MPa
Dimensions (Width x Depth xHeight)	450mm x 580mm x 825mm
Nominal inlet water temperature	120 °F(49°C)



Specifications are subject to change without notice for quality improvement purposes.
The actual appearance of the dishwasher may differ from the illustrations in this manual.