

Dishwasher: SDW4523MS INSTALLATION MANUAL

BEFORE YOU BEGIN READ THESE INSTRUCTIONS COMPLETELY AND CAREFULLY.

IMPORTANT - Observe all governing codes and ordinances.

- 1 Note to Installer Be sure to leave these instructions for the consumer's and local inspector's use.
- 2 Note to Consumer Keep these instructions with your Owner's Manual for future reference.
- 3 Skill Level Installation of this dishwasher requires basic mechanical and electrical skills. Proper installation is the responsibility of the installer. Product failure due to improper installation is not covered under the SHARP Consumer Limited Warranty.
- **4** Completion Time 1 to 3 Hours. New installations require more time than replacement installations.

IMPORTANT: Installation must allow for removal of the dishwasher in case of future service requirements.

If you received a damaged dishwasher, immediately contact your dealer or builder.

FOR YOUR SAFETY: Read and observe all cautions and warnings in this instruction manual. Always wear proper safety gear during installation process, including gloves and safety glasses or goggles.

AWARNING

SUFFOCATION HAZARD

Before disposing of the old dishwasher, remove the door or lid from the appliance. Failure to follow this instruction can result in death or brain damage if a child gets trapped inside the old appliance.

ELECTRICAL SHOCK HAZARD



To reduce the risk of electric shock, fire or injury to persons, the installer must ensure the installed dishwasher is completely enclosed and reduce the likelihood of damage to the power cord.

STATE OF CALIFORNIA PROPOSITION 65 WARNINGS:

AWARNING To view State of California Proposition 65 warnings related to cancer and reproductive harm, see:

www.P65Warnings.ca.gov

READ CAREFULLY. SAVE THESE INSTRUCTIONS.

If you have an installation problem, contact your dealer or installer. You are responsible for providing adequate electrical, exhausting and other connecting facilities.

MATERIALS AND TOOLS

PARTS SUPPLIED

NAME & DESCRIPTIONS	QTY.	PARTS
Top brackets	2	
Ø 4 x 14 screws (For top brachets)	2	000
ST3.5 x 16 (For side mounting holes)	2	OLOMO DE LA COMPANSION
Kick plate bolt M4 x 10	4	00000
Kick plate bracket	2	
Kick plate	1	
Plastic caps	2	
Kick plate nut	4	
Food Bolts	3	

MATERIALS REQUIRED

NAME & DESCRIPTIONS	PARTS
3/4" FHT x 3/8" OD compression 90° elbow (if not included in hose kit)	
Thread Seal Tape	
Strain Relief	
UL Listed Wire Nuts	
Electrical Cable or Power Cord, if applicable	
³ /8" Braided Dishwasher Supply Hose or Copper Tubing Wire line (³ /8" min.)	

MATERIALS FOR NEW INSTALLATIONS ONLY

NAME & DESCRIPTIONS	PARTS
Air Gap for Drain Hose, if required	
Waste Tee for House Plumbing, if applicable	
Screw Type Hose Clamps	
Hand Shut-off Valve	
Coupler for Extending Drain Line, if applicable	

TOOLS REQUIRED

NAME & DESCRIPTIONS	PARTS
Phillips-head Screwdriver	
Flat-bladed Screwdriver	
5/16" and ¹ /4" Nutdriver	
Level	
Flashlight	
6" Adjustable Wrench	0
Measuring Tape	
Carpenters Square	
Safety Glasses	
Bucket	9
Gloves	

MATERIALS AND TOOLS

FOR NEW INSTALLATIONS ONLY

NAME & DESCRIPTIONS	PARTS
Tubing Cutter	
Drill and Appropriate Bits	No. of the last of
Hole Saw Set	

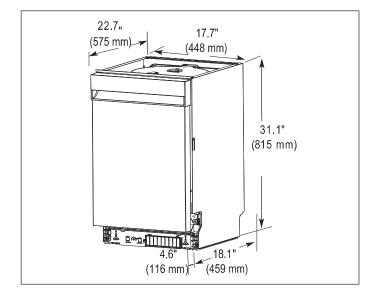
LOCATION REQUIREMENTS

IMPORTANT:

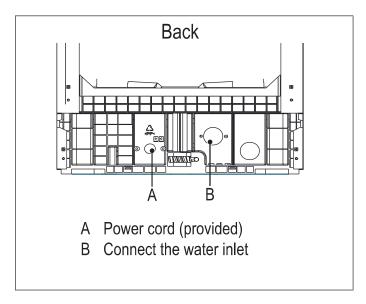
- Do not run drain lines, water lines or electrical wiring where they can interfere with or contact dishwasher motors or legs.
- The installation location must provide clearance between motors and flooring. Motors must not touch the floor.
- The installation opening must have a level floor. If the floor is not level (for example, if the floor at the front of the opening is higher than the floor at the rear), use shims to level the dishwasher.
- Do not install the dishwasher over carpeted flooring.
- The dishwasher must be fully enclosed on the top, sides and back. Do not allow any part of the enclosure to rest on or be supported by the dishwasher.
- The dishwasher must be installed so that the drain hose is no more than 9.8 ft in length for proper drainage.

PRODUCT PROFILE

PRODUCT DIMENSIONS



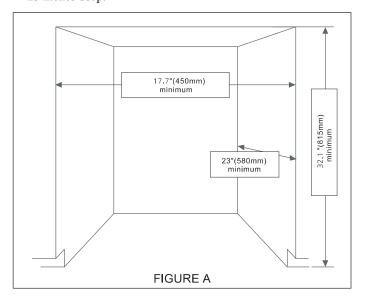
KEY CONNECTION POINTS



INSTALLATION PREPARATION

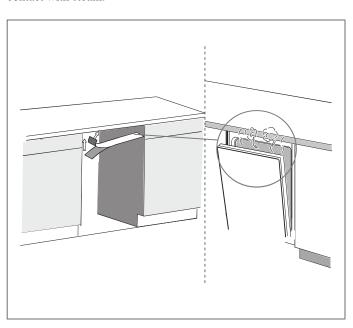
CABINET DIMENSIONS

- 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 32.1 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.



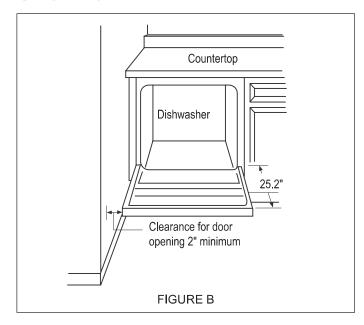
ANTI STEAM STICKER

Please stick the anti steam sticker on the cabinet (directly above the dishwasher door). Used to prevent cabinets from coming into direct contact with steam.



CLEARANCES

When installed in a corner, allow 2" minimum clearance between dishwasher and adjacent cabinets, walls or other appliances. Allow 25.2" minimum clearance from the front of the dishwasher for door opening. See Figure B.



WATER SUPPLY REQUIREMENTS

- Water pressure from the hot water supply line must be between 20-120 psi (138-862 kPa).
- Water heater that is adjusted to a water temperature of 120°F to 150°F (49°C to 65.5°C).
- It is strongly recommended that a hand shut-off valve be installed in an accessible location, such as under the sink.

DRAIN REQUIREMENTS

- Follow local codes and ordinances.
- The drain hose must not be longer than 9.8 feet in length.
- Do not connect drain lines from other devices to the dishwasher drain hose.
- The dishwasher must be connected to waste line with an air gap (not supplied) or 32" minimum high drain loop (depending on local codes and ordinances) to prevent back flow into the dishwasher.
- Air gap must be used if waste tee or disposer connection is less than 18" above the floor to prevent siphoning.

INSTALLATION PREPARATION

DRAIN PREPARATION

The type of drain installation depends on answers to the following questions:

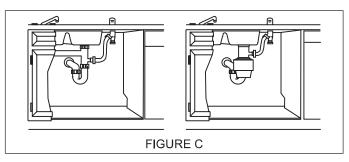
- Do local codes or ordinances require an air gap?
- Will waste tee or disposer connection be less than 18" above the floor?
- Will installation have a drain loop less than 32" above the floor?

If the answer to ANY of the 3 questions above is YES, Method 1 MUST be used. Otherwise, either Method 1 or Method 2 may be used.

ACAUTION An air gap MUST BE USED if the drain hose is connected to waste tee or disposer lower than 18" above the floor.

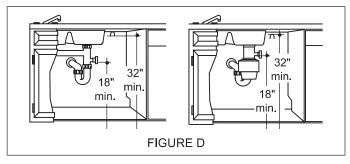
Failure to provide the proper drain connection height with air gap or 32" minimum high drain loop will result in improper draining of the dishwasher. Figure C or Figure D.

METHOD 1 – AIR GAP WITH WASTE TEE OR DISPOSER



METHOD 2 – HIGH DRAIN WITH WASTE TEE OR DISPOSER

Provide a method to attach drain hose to underside of countertop.



Install waste tee or disposer and air gap according to manufacturer's instructions.

ELECTRICAL REQUIREMENTS

AWARNING

ELECTRICAL SHOCK HAZARD



- Installation and service must be performed by a qualified installer or service agency.
- Always disconnect the power before servicing this unit.
- This appliance must be properly grounded.
- Failure to do so could result in death, fire or electrical shock.



FOR PERSONAL SAFETY: Remove house fuse or open circuit breaker before beginning installation. Do not use an extension cord or adapter plug with this appliance.



To ensure electrical safety, installation of an Earth Leakage Circuit Breaker (ELCB) is recommended to prevent electrical shocks and other electrical hazards

IMPORTANT

 The dishwasher must be supplied with 120 volt, 60 Hz. power supply and connected to a dedicated, properly grounded branch circuit, protected by a 15 or 20 ampere circuit breaker or time delay fuse.

GROUNDING INSTRUCTIONS

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

DIRECT WIRE CONNECTIONS

Use flexible, armored or nonmetallic sheathed, copper wire with grounding wire that meets the wiring requirements for your local codes and ordinances.

CABINET PREPARATION

- The wiring may enter the opening from either side, rear or the floor within the shaded area.
- Cut a 1 ¹/2" maximum diameter hole to allow the electrical cable. The hole must be free of sharp edges. If the cabinet wall is metal, the hole edge must be covered with a bushing.
- Cable direct connections may pass through the same hole as the drain hose and hot water line, if convenient. If cabinet wall is metal, the hole edge must be covered with a bushing.

NOTE: Power cords with plug must pass through a separate hole.

STEP 1: UNPACK DISHWASHER

IMPORTANT: If you received a damaged dishwasher, immediately contact Sharp Customer Service at 1-800-BE-SHARP

AWARNING

SUFFOCATION HAZARD

- To avoid danger of suffocation, keep plastic bag and other packing material away from babies and children. Do not use this bag in cribs, carriages and playpens. The plastic bag could block nose and mouth and prevent breathing. This bag is not a toy.
- Before you throw away your old appliance, remove the door or lid so that children cannot hide or get trapped inside your old appliance.
- Failure to follow these instructions can result in death or brain damage.
- 1 With the help of two or more people, open the dishwasher door slowly while one person presses down on the top of the dishwasher. Remove the lower dish rack and all packing material.
- **2** Locate the literature package and read the User Manual for operating instructions.
- **3** Close the dishwasher door until latched and stand the dishwasher upright.
- **4** Properly dispose of/recycle all packing material.

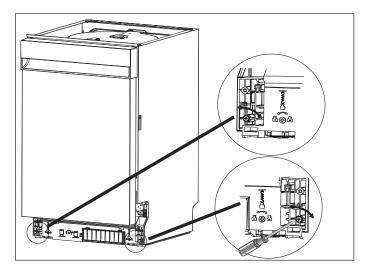
STEP 2: CHECK DOOR BALANCE

With another person holding the dishwasher to prevent it from tipping, open the door slowly.

- If the door drops too freely, increase the spring tension.
- If the door closes, decrease the spring tension.

TO ADJUST THE SPRING TENSION

- 1 Adjust the spring tension of the door by rotating the two screws at at the bottom as shown in the diagram.
 - **NOTE:** Adjust both springs (left side and right side) to the same tension.
- **2** Retest the door. Continue moving the spring hooks higher or lower until the door is balanced.

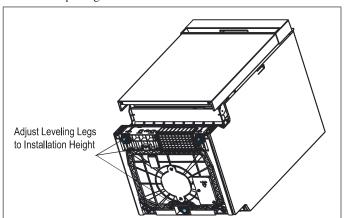


STEP 3: ADJUST LEVELING LEGS

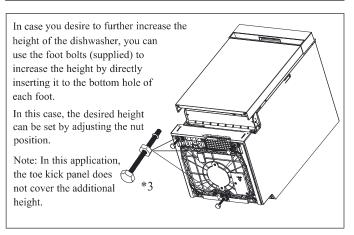
- 1 Move the dishwasher close to the installation location and lay it on its back.
- **2** Measure the height of the opening from the underside of countertop to floor (lowest point).
- **3** Extend the leveling legs from the base of the dishwasher by the length indicated in the following chart. Take into account any built-up flooring which may need to be added to the rear foot adjustment.

NOTES:

- If the floor was raised in for the front of the dishwasher, account for this difference when adjusting the rear leveling leg.
- Final leveling leg adjustments will be made following installation into the opening.



LEVELING LEG ADJUSTMENT			
la l	Opening Height	Front Legs	Back Legs
	311/4"	0	0
	311/2"	0	1/4"
	313/4"	1/4"	1/2"
	32"	1/2"	3/4"
	32"	3/4"	1"
	321/4"	1"	11/4"



STEP 4A: VERIFY EXISTING UTILITY CONNECTIONS

WATER CONNECTION

 Check that the water line reaches to the rear-right side of opening where the water connection will be made.

ELECTRICAL CONNECTION

• Check that the direct wire cable extends a minimum of 6" beyond the rear-left side of the opening.

STEP 4B: PREPARE UTILITY CONNECTIONS (IF NEEDED)

PREPARE TO CONNECT POWER SUPPLY

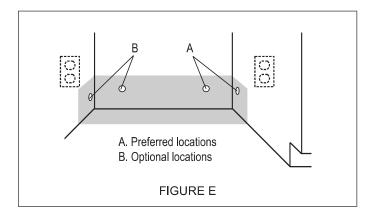
A hole is drilled into the right side of the cabinet, and the rough edges of the hole must be smoothed or covered. For wood cabinets, sand the edge of the hole until smooth. For metal cabinets, cover the edge of the hole with a grommet (not provided).

AWARNING

ELECTRICAL SHOCK HAZARD



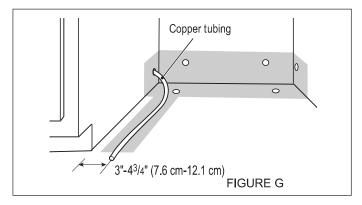
- Disconnect electrical power at the fuse box or circuit breaker box before installing dishwasher.
- Failure to do so can result in death or electrical shock.



- 1 Drill a 1 ³/₄" (4.45 cm) hole into the right side cabinet, or the right side of the back wall or floor of the opening. See Figure E for preferred and optional locations.
 - **NOTE:** Wiring the dishwasher will be easier if the wire is routed into the opening from the right side.
- **2** Smooth or cover rough edges of the hole that the wiring will pass through.

PREPARE TO CONNECT WATER LINE

- 1 Drill a ¹/2" (1.3 cm) hole in the cabinet side, rear or floor. See Figure G for preferred and optional locations.
- **2** Attach copper tubing to the manual shutoff valve.
- 3 Slowly feed the copper tubing through the hole into the opening. Continue feeding the tubing until there is enough length to connect to the inlet (front-left side of the dishwasher) yet remain within the required boundary.



- 4 Slowly turn water shutoff valve to ON position. Flush water into a shallow pan to get rid of particles that may clog the inlet valve.
- **5** Turn shutoff valve to OFF position.

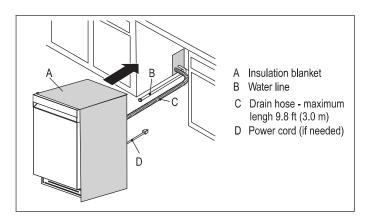
NOTE: The hose can be taped to the floor to secure while dishwasher is moved into place.

STEP 5: CONNECT DRAIN HOSE

CONNECT DRAIN HOSE TO HOME PLUMBING

The drain hose will be connected to the house drain system after the dishwasher is installed in the opening.

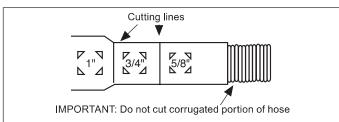
- 1 Drill a 1¹/2" (3.8 cm) hole in cabinet wall or floor on the side of the opening closest to the sink.
- **2** Grasp the sides of the dishwasher at the edges of the door panel, and place the dishwasher in front of the opening.
- 3 Insert the drain hose into the hole in the cabinet wall.



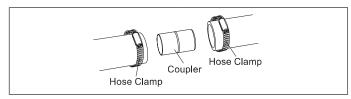
CONNECT DRAIN LINE

FOLLOW ALL LOCAL CODES AND ORDINANCES.

The drain hose molded end will fit 5/8", 3/4" or 1" diameter connections on the air gap, waste tee or disposer. Cut on the marked line as required for your installation.



• If a longer drain hose is required, add up to 42" of length for a total of 9.8 feet to the factory installed hose. Use 5/8" or 7/8" inside diameter hose and a coupler to connect the two hose ends. Secure the connection with hose clamps.



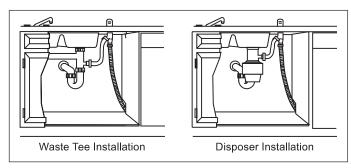
• Secure the drain hose to the air gap, waste tee or disposer with clamps.

NOTE: TOTAL DRAIN HOSE LENGTH MUST NOT EXCEED 9.8 FEET FOR PROPER DRAIN OPERATION.

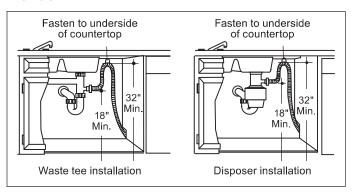
DRAIN LINE INSTALLATION

• Connect drain line to air gap, waste tee or disposer using either previously determined method.

METHOD 1 – AIR GAP WITH WASTE TEE OR DISPOSER

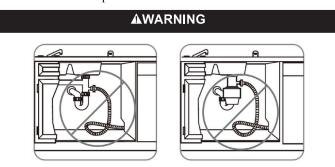


METHOD 2 – HIGH DRAIN LOOP WITH WASTE TEE OR DISPOSER



IMPORTANT: When connecting drain line to disposer, make sure that the drain plug has been removed. DISHWASHER WILL NOT DRAIN IF PLUG IS LEFT IN PLACE.

TIP: Avoid unnecessary service call charges. Always be sure disposer drain plug has been removed before attaching dishwasher drain hose to the disposer.

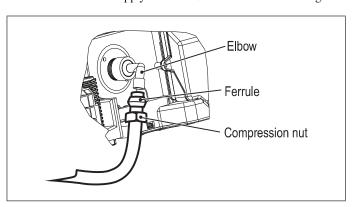


Do not connect the drain hose to the sink drain waste tee or garbage disposal without looping the drain hose underneath the sink with a high drain loop. Doing so will cause the dishwasher to not drain properly, which may allow drain water to back up in the dishwasher tub or result in an E1 error code.

STEP 6: CONNECT TO WATER SUPPLY

IMPORTANT: Handle and reposition the copper tubing gently; it bends and kinks easily.

1 Connect the water supply line to the 90° elbow. Do not overtighten.



- 2 Route the water supply to the rear-right side of the base.

 To minimize the noise caused by vibration when using the dishwasher, make sure the supply line does not touch the dishwasher base, frame or motor. Make sure the dishwasher is not resting on and/or pinching the supply line.
- **3** Tighten the compression nut until snug. Do not overtighten.

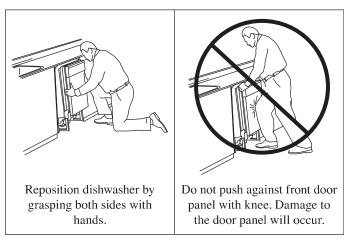
STEP 7: SLIDE DISHWASHER PARTIALLY INTO CABINET

AWARNING

TIP OVER HAZARD

- Do not use dishwasher until completely installed.
- Do not push down on open door.
- Doing so can result in serious injury or cuts.
- 1 Position power supply.
 - If dishwasher has a power supply cord, insert power supply cord into the hole cut into the cabinet.
 - If using a direct-wire connection, check that the wiring is on the front-right side of opening.
- **2** Make sure the drain hose is not kinked under the dishwasher and there is no interference with the water line and wiring or any other component.
- **3** Slowly move the dishwasher into the opening a few inches at a time. As you proceed, pull the drain hose, water supply hose and cord through the opening under the sink or cabinet. Stop pushing when the dishwasher is a few inches in front of the adjacent cabinetry.

NOTE: Do not push against the front of the panel or on the console, as this will cause denting.



4 Push dishwasher completely into the opening so that the front corners of the dishwasher door are flush with the cabinet doors.

NOTE: It is all right if the dishwasher fits tightly into cabinet opening. Do not remove the insulation blanket, as it reduces the sound level.

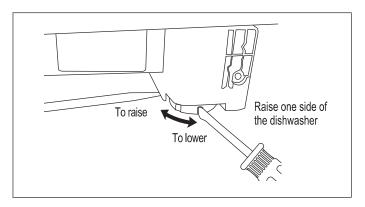
STEP 8: LEVEL DISHWASHER

IMPORTANT: The dishwasher must be level for proper dish rack operation and wash performance.

1 Level the dishwasher so its front panel is aligned with the adjacent cabinet doors.

NOTE: With some installations, it may be easier to adjust the front leg using a flat blade screwdriver.

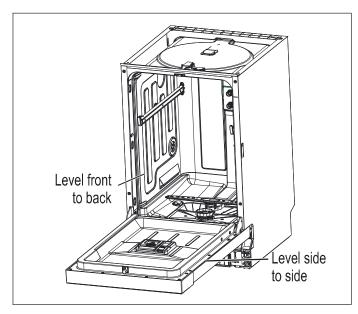
- To lower Turn the leveling leg counterclockwise.
- To raise Turn the leveling leg clockwise.



- **2** Check that the leveling legs are firmly against the floor.
- 3 Close and latch the door then place level against the front panel. Check that dishwasher is plumb. If needed, adjust leveling leg or add shims until dishwasher is plumb.

NOTE: Shims must be securely attached to floor to prevent their movement when the dishwasher is operated.

- 4 Repeat for other side of dishwasher.
- **5** Place level on door and rack track inside the tub as shown. Check that dishwasher is level from side to side, and from back to front. If the dishwasher is not level, adjust front legs up or down until dishwasher is level.



NOTE: Pull lower rack out about halfway. If the rack rolls forward or back into the dishwasher, the dishwasher must be leveled again.

STEP 9: SECURE DISHWASHER

IMPORTANT: The dishwasher must be secured to adjacent cabinets to keep it from tipping when the door is opened.

Follow the instructions to install mounting brackets in the manner required for your installation method. You will secure the dishwasher after it is connected to the utilities and moved into the opening.

AWARNING

EXCESSIVE WEIGHT HAZARD

- Use two or more people to move and install dishwasher.
- Failure to do so can result in back or other injury.

INSTALLATION TO ADJACENT CABINETS

There are 2 options for securing the dishwasher. If the countertop is made of wood or a material that can safely be drilled into, you can use option 1 or option 2 below. If the countertop is granite, marble, or a material that cannot be drilled, use option 2 below.

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 can be drilled, follow the instructions in 2-1 below. If the countertop is made of granite, marble, or any other material that cannot be drilled, 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 3.5*9. Secondly, insert the provided screws into the brackets, and then tighten to secure the dishwasher to the counter top.(Refer to Option 1 on the next page.)

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 an both sides(Option 2 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

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 3.5*9.

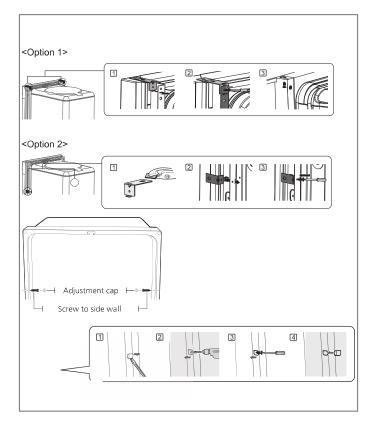
Secondly, insert the provided screws into the holes, and then tighten to secure the dishwasher to the cabinet. Make sure the tub is not distorted by pressure from the screws.

If the tub is distorted, loosen the screws a little.

Replace the tub spacer caps.

NOTE:

- 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.



STEP 10: PRE-TEST CHECKLIST

Review this list after installing your dishwasher to avoid charges for a service call that is not covered by your warranty.

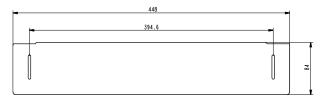
- Be sure power is OFF.
- · Open door and remove all foam and paper packaging.
- Locate the Owner's Manual in the literature package.
- Read the Owner's Manual for operating instructions.
- Check door opening and closing. If door does not open and close freely or tends to fall, check spring adjustments. See Step 1.
- Be sure wiring is secure under the dishwasher, not pinched or in contact with door springs or other components. See Step 7.
- Check door alignment with tub. If door hits tub, level dishwasher. See Step 8.
- Pull lower rack out, about halfway. Make sure it does not roll back or forward on the door. If the rack moves, adjust leveling legs. See Step 8.
- Check door alignment with cabinet. If door hits cabinet, reposition or relevel dishwasher. See Step 8.
- Verify water supply and drain lines are not kinked or in contact with other components. Contact with motor or dishwasher frame could cause noise. See Step 7.
- Turn on the sink hot water faucet and verify water temperature.
 Incoming water temperature must be between 120°F and 150°F.
 A minimum of 120°F temperature is required for best wash performance.
- Add 2 liters of water to the bottom of the dishwasher to lubricate the pump seal.
- Turn on water supply. Check for leaks. Tighten connections if needed.
- Remove protective film if present from the control panel and door.

STEP 11: DISHWASHER WET TEST

- Turn on power supply (or plug power cord into outlet, if equipped).
- Turn on the dishwasher (please refer to the Operation Manual for instructions).
- Close door, select RINSE ONLY cycle and press START/ CANCEL.
- Be sure water enters the dishwasher. If water does not enter the dishwasher, ensure water and power are turned on.
- Check for leaks under the dishwasher. If a leak is found, turn
 off power supply, then tighten connections. Restore power after
 leak is corrected.
- Check for leaks around the door. A leak around the door could be caused by the door rubbing or hitting against adjacent cabinetry. Reposition the dishwasher if necessary. See Step 8.
- When the dishwasher is draining, check the drain lines. If leaks are found, turn off power at the breaker and correct plumbing as necessary. Restore power after corrections are made. See Step 5.
- Open dishwasher door and make sure most of the water has drained. If not, check that disposer plug has been removed and/ or air gap is not plugged and check drain line for kinking.
- Run the dishwasher through another fill and drain cycle. Check for leaks and correct if required.

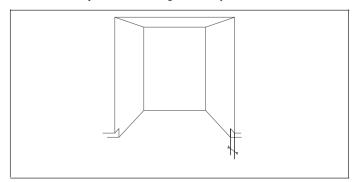
STEP 12: PLACE KICK PLATE

1 The accessories needed.



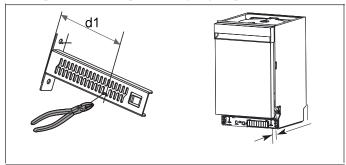
Kick plate bolt M4 x 10	4	0000
Kick plate bracket	2	
Kick plate	1	
Kick plate nut	4	0000

2 Measure the depth of the skirting board of your cabinet.

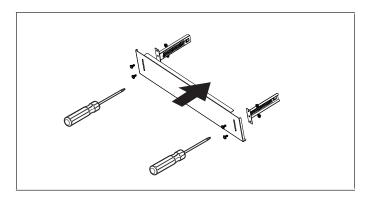


3 While inserting the brackets into the kick plate hole, measure the dimension of the desired kick plate location (d1) and identify the corresponding teeth.

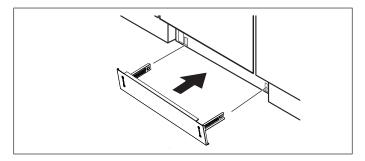
The teeth on the bracket can be bent with pliers to limit the position and prevent the kick plate from going deeper.



4 Use 4 bolts and 4 nuts to secure the bracket to the kick plate. Please adjust the cabinet to the appropriate height.



5 Insert the bracket into the corresponding hole on the dishwasher chassis. If you still need to adjust the height position, please remove it and reassemble it.





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