DISHWASHER Installation Instructions



LAVE-VAISSELLE Instructions d'installation

# LAVADORA DE PLATOS Instrucciones de instalación



SHI66A, SHU33A, SHU43C, SHU53A, SHU66C, SHU43E, SHU53E, SHU66E, SHV46C, SHV66A, SHX33A, SHX46A, SHX46B, SHX56B, SHY56A, SHY66C



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IMPORTANT: Before you begin, read these instructions completely and carefully. INSTALLER: Please leave this manual with owner for future reference. OWNER: Save these installation instructions for local electrical inspector's use and for future reference.

# INTRODUCTION

### THESE INSTALLATION INSTRUCTIONS ARE INTENDED FOR USE BY QUALIFIED INSTALLERS.

### In addition to these instructions the dishwasher shall be installed:

- In the United States, in accordance with the National Electric Code/State and Municipal codes and/or local codes.
- In Canada, in accordance with the Canadian Electric Code C22.1 -latest edition/Provincial and Municipal codes and/or local codes.

**Please read these installation instructions completely and carefully.** They will save you time and effort and help to ensure optimum dishwasher performance.

**Be sure to observe all listed warnings and cautions.** (Look for the triangles with exclamation marks inside.)



## IMPORTANT

- **NEW INSTALLATION** If the dishwasher is a new installation, most of the work must be done *before the dishwasher is moved into place*.
- **REPLACEMENT** If the dishwasher is replacing another dishwasher, the connections for the dishwasher being replaced **must be checked for compatibility** with the new dishwasher and replaced as necessary.



### **INSPECT THE DISHWASHER**

After unpacking the dishwasher and prior to installation, thoroughly inspect the dishwasher for possible freight or cosmetic damage. Report any damage immediately. Cosmetic defects must be reported within 5 days of installation.

**NOTE:** Please **do not discard any bags or items** that come with the original package until after the entire installation has been completed!

# **TOOLS & MATERIALS NEEDED**



# MATERIALS SUPPLIED

### **Accessory Parts Supplied**

Accessory Parts for your model dishwasher will come in one or more plastic bags. Check to make sure that the parts supplied for your model are all there. See Figure 3. If any parts are missing contact your dealer immediately.

#### DISHWASHER INSTALLATION KIT (Clear Bag)

- **D.** Toe Panel Screws (8mm) (2)
- E. Mounting Brackets (1L & 1R)
- F. Mounting Bracket Screws (2)
- **G.** Rubber Connection Hose (1) and Drain Hose Clamps (2)

#### SHY66 & SHX56 Models

- Dishwasher Installation Kit (1) and
- (Green Bag) w/ the following:
  - L. J-Box Cover (1)
  - M. J-Box Screw (8mm) (1)
  - **N.** Toe Panel Screw (4x16) (2)

#### **SHV and SHI Models**

- Dishwasher Installation Kit and
- Outer Door Installation Kit (**Blue bag**):
  - J. SHI/SHV Panel Installation Template
  - **C.** Cap (2 Blk)
  - K. Wood Screws (2)
  - I. Mounting Door Brackets(2 plastic) w/Screws (4) and; Mounting Door Brackets (2 metal) w/Screws (4)
  - H. Spring Tension Screw (2)

#### **Manual Bag**

All Dishwashers come with a manual bag. The following contents are located in every bag:

- Use & Care Manual
  - Installation Instructions
    P. Tall Item Sprinkler (1)

SHY66 & SHX56 models have an additional part:

**Q.** Cotton Insulation Strip (1)

Note: Pictures are not to scale.



# **CHOOSING A LOCATION**



### **Choosing the Location**

Select a location as close to the sink as possible for ready access to water and drain lines.

Most of the installation work is done *before* the dishwasher is moved into place.

Any built-in dishwasher must be fully enclosed on the top, both sides and back. Therefore the cabinet space below your counter is probably the best location.

For proper operation and appearance of the dishwasher, the cabinet opening should be square and have dimensions as shown in Figure 5.





Figure 5

If the dishwasher is to be installed in a corner, make sure there is adequate clearance to open the door. See Figure 6.



# **PLUMBING PREPARATION**



#### **Drain Hose**

The dishwasher comes with a seven (7) foot drain hose.

• A 1.25" access hole must be made to allow the drain hose to be run to the drain connection location.

#### Hot Water Supply

- The hot water line to the dishwasher must provide between 5 120 psi (0.3-8.27 bars) water pressure.
- The hot water heater should be set to deliver 140°F (60°C) water temperature to the dishwasher.<sup>1</sup>
- A 3/8" minimum O.D. copper tubing inlet line is recommended.
- All solder connections must be made before water line is connected to the dishwasher's inlet water valve. Do not solder within 6 inches (152.4 mm) of the dishwasher's inlet water valve.
- Drill a 1" (25.4 mm) diameter access hole in the cabinet for the water supply line (Figure 9A).
- Run the line to the approximate fill valve location, as shown in Figure 9A.

It is recommended that a shut-off valve (not supplied) be installed in the hot water supply line in a readily accessible location, see Figure 9.



To protect against possible rupture of the fill valve, water lines leading to the dishwasher, as well as water lines in the dishwasher MUST be protected against freezing. If the valve or water line freezes, flooding may occur. Such ruptures are not covered by the warranty.

## IMPORTANT

If no air gap is used and the drain line is run into a sink or disposer, the drain line must be elevated to a point higher than the highest water level of the sink to prevent back siphoning into the dishwasher.

**NOTE:** If connection to an air gap is required by local code, air gap kits are available from local plumbing sources. Install the air gap according to the manufacturer's instructions.



Figure 7

1. In order to reduce running time, Bosch recommends 140° F water inlet temperature. Your dishwasher will perform equally as well at 120° F water temperature, but the run time will be extended.

# **ELECTRICAL PREPARATION**



### **Electrical Supply**

The customer has the responsibility to ensure that the dishwasher installation is in compliance with all national and local electrical codes and ordinances. The dishwasher shall be installed by a qualified electrician and properly grounded. The electrical supply for which the dishwasher is designed is 120V, 60 Hz, AC, connected to a dishwasher-dedicated electrical circuit with a fuse or breaker rated for 15 amps. If the dishwasher is connected with a food disposer, a 20 amp (and no higher) fuse or circuitbreaker may be used. No other appliances or outlets should be connected to the dishwasher supply circuit. Electrical supply conductors shall be copper only and shall be minimum #16 AWG. Wire connectors proper for the size and number of wires used to connect the dishwasher to the supply circuit shall be used. Do not use all-plastic wire connectors. Strip power supply wires approximately  $\frac{1}{2}$  inch. Do not pre-twist wire before applying wire connector. After installing wire connectors, gently tug wires to check the integrity of the connector. Place all wires and connectors into the power supply box, and reinstall cover with the screw provided in the installation package.

- Cut a 1" (25.4mm) diameter hole in the cabinet (in area of Figure 9 B). For wood cabinets, sand the hole until smooth. For metal cabinets, cover the edge with a grommet.
- Run flexible cable (as codes permit) from junction through hole in cabinet. Cable should extend 30" (762 mm) from back wall.



Figure 8

#### **Electrical Rating**

		120 <sup>9</sup>		
Volts	Hertz	Amperes	Watts	
120	60	15	1,450 (max)	

Table 1

Openings for electrical lines must be installed in the marked areas as shown in Figures 8 and 9 to avoid interference with the dishwasher frame or other components.



# PLACING THE DISHWASHER

### **Placing the Dishwasher**

The profile strips on the sides of the dishwasher allow the dishwasher to fit into a cabinet opening with a width of 23-5/8" (600 mm) to 24-1/8" (613 mm). Before sliding the dishwasher into the cabinet opening:

- Straighten the hot water supply line and the electrical cable (see Figure 11).
- Level & Align (initial adjustments).
- Guide the *drain hose* carefully (avoiding kinks in hose) as the dishwasher is slid into the cabinet opening.
- Make final leveling adjustments (see FINAL STEPS Section).
- To maintain the dishwasher position and alignment, first determine which type of mounting your dishwasher needs:

Top Mount is used for all types of countertops that *will not* be damaged by drilling.

• For a top mount, position the brackets flat on each of the top corners of the dishwasher as shown in Figure 10A.

Side Mount is used when there is a granite, marble or other hard natural surface counter top that could be damaged by drilling.

- For a side mount, bend the brackets, then position them as shown in Figure 10B.
- Drive Mounting Screws (see Figure 3) through the holes in the brackets. See Figure 10A or 10B.
- Connect the drain hose, hot water supply line and electrical connections as described in the following sections.



## IMPORTANT

If you wish to change the front panel of the dishwasher this must be done before sliding the dishwasher into place.

**\*Note:** Additional accessory door panels can not be used with SHU 9900 models.



# **DRAIN HOSE CONNECTION**



Be sure to follow your national and local codes at all times.

#### **Drain Hose**

- Before beginning, turn off the water supply!
- The access hole for the drain hose should be 1.25" (32 mm) diameter.
- Use the hose clamps and rubber connection hose (Figure 3) to connect the drain hose to the sink, disposer or air gap (Figure 14).

Openings for drain lines must be installed in the marked areas as shown in Figures 8 and 9 to avoid interference with the dishwasher frame or other components.



Failure to provide the proper drain connection height, 20" (508mm) above floor level with high loop or air gap, will result in improper draining of the dishwasher. Improper draining may cause damage to the dishwasher.



# HOT WATER CONNECTION



### Connecting the Hot Water Supply Line

- If using a solder joint instead of a compression fitting, be sure to make all solder connections before connecting the water line to the dishwasher.
- Make sure there are no sharp bends or kinks in the water line which might restrict water flow.
- When connecting threaded pipe use pipe thread compound or Teflon tape to seal the connection.
- Before connecting the copper hot water supply line to the dishwasher, it should be flushed with hot water to clear any foreign material.
- Apply Teflon tape or other pipe sealant to 90° elbow fitting and connect directly to water inlet valve\*.
- Turn on the water supply to check for leaks after making connections.



Figure 15



\* Water inlet valve located at the bottom left front of the dishwasher.

Openings for water lines must be installed in the marked areas as shown in Figures 8 and 9 to avoid interference with the dishwasher frame or other components.





# **ELECTRICAL SUPPLY CONNECTION**



### **Connecting Electrical Supply**

Be sure to follow all local and national electrical codes and ordinances.

- Install strain relief or conduit connector into opening on power supply box.
- Strip the insulated wires, being extremely careful not to strip too much insulation.
- Insert and securely fasten into strain relief, two-conductor supply cable with ground.
- Twist wire connectors *tightly* onto the wires, ensuring that no bare wiring is exposed (from insulated wires).
- Press wires back into J-box
- Securely fasten the J-box cover or toe panel (depending on model) with screw(s) provided from accessories package.
- \* Junction box located at the bottom right front of the dishwasher base.

### **Grounding Instructions**

This appliance must be connected to a grounded metal 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 dishwasher. The dishwasher must be properly grounded before operating. Make sure that the dishwasher is connected to a suitable ground in compliance with the NATIONAL ELECTRICAL CODE, in the United States, or the CANADIAN ELECTRIC CODE C22.1latest edition, in Canada as well as any provincial/state or municipal or local codes that apply.



#### ELECTRICAL SHOCK HAZARD

- DISCONNECT ELECTRICAL POWER AT THE CIRCUIT BREAKER BOX OR FUSE BOX BEFORE INSTALLING THE DISHWASHER.
- ELECTRICALLY GROUND DISH-WASHER.
- USE COPPER CONDUCTORS ONLY. FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.

Correct Connection in Junction Box



Figure 17

#### **Incorrect Connection in Junction Box**



Figure 18

# DOOR PANEL INSTALLATION

### Accessory Panel Installation SHU Models

If you have an SHU model and have ordered an accessory panel kit it must be installed prior to sliding the dishwasher into place. Dimensions of panel size that may be used is shown in Figure 19.

### Panel Installation, SHV Models

If you have an SHV model, a fully integrated model, you will have additional mounting hardware and a folded template sheet with installation instructions comprised of pictograms.

Refer to the folded template sheet for information on how to mount the panel. Please note that one side of the template shows how to mount a one piece panel and the other side of the template shows how to mount a two piece panel. Be sure of what type installation you want before proceeding with the installation.

Refer to Figure 20 and Table 3 for guidelines on custom door panel selections.

After deciding if the extension pieces will be used or not refer to the pictograms printed on the template for proper method of mounting your custom door.

### Panel Installation, SHI Models

If you have an SHI model, an integrated model, you will have additional mounting hardware and a folded template sheet with installation instructions comprised of pictograms. In North America the stainless steel models of the integrated series (SHI series), have a control panel that is 5-5/16" (135 mm) tall. The stainless steel model comes with two extension pieces, referred to as the standard and long extension piece in Table 2: the standard piece is used for drawer heights up to 6" (152mm); the long extension piece is used for drawer heights greater than 6" (152mm) but 6-7/16" (164mm) or less. These stainless steel extension pieces are not installed in the control panel. In the stainless steel models, the two extension pieces are shipped loose and must be inserted as shown in pictogram 5 on the template sheet.

The purpose of the extension piece is to allow the increase of the control panel height to try to match the horizontal drawer line of the cabinets. If your drawers are taller than the "C" dimension shown on Table 2, it is recommended that the extension either be slid in as far as it will go, or removed and the door made to fit directly below the control panel.

# **DOOR PANEL INSTALLATION**







Figure 19

IMPORTANT Do NOT Drill Completely through your custom door panel.



MODEL	EXTENSION "A" MAXMIN.		"B"	"C"
	STANDARD	LONG	D	MAXMIN.
SHI66C05UC	11/16 - 5/16" (18-8mm)	1 1/8 - 11/16" (29 - 18mm)	5 5/16 (135 mm)	6 7/16 - 5 5/8 (164 - 143 mm)

Table 2









\***Note:** Do not exceed 30 5/16" (770mm) for the overall front panel length.

# FINAL ADJUSTMENTS

### Door Tension Adjustment (only in SHI and SHV models)

After installation of the dishwasher, open and close the door several times to make sure that it does so with ease. If the door closes too quickly or if the door falls open, the spring tension needs to be adjusted.

#### To Adjust the Spring Tension

- Obtain Spring Tension Screws (2) out of the SHI/SHV parts bag (see Figure 3).
- Insert the screws in the right and left sides and adjust spring tension as shown (see Figure 22).



Figure 22

### Leveling the Dishwasher

#### **Raising the Rear**

The rear leveling leg is adjusted by turning the center screw at the front of the dishwasher.

#### **Raising the Front**

The front leveling legs are adjusted by rotating the leveling legs on the front left and right sides of the dishwasher.

• Use a screwdriver and tap the end lightly with a hammer to turn the legs (see Figure 23).

**Note:** If additional height is needed: Shims may be added under the leveler feet.



Figure 23

# BASE AND TOE PANEL



# **TOE PANEL AND HANDLE**

### **Regular Toe Panel Installation (for models** other than SHY66 & SHX56)

- Obtain Toe Panel Screws from the Dishwasher Installation Kit bag (see Figure 3).
- Insert screws through the Toe Panel.
- With a Torx screwdriver, fasten screws Figure 28 and toe panel into dishwasher base.



# FINAL CHECKLIST

### **Final Checklist**

Check Electrical Requirements.

Be sure you have correct electrical supply and recommended grounding method.

Turn on the hot water shut-off valve and electrical supply. Incoming water temperature should be 120°F-140°F (49°C-60°C).

Operate the dishwasher through one cycle and check for plumbing leaks.

If the dishwasher does not operate properly, refer to the **SELF- HELP**, **CUSTOMER SERVICE** and **WARRANTY** sections in the Use and Care Manual.

### **Customer Service Information**

If service becomes necessary, contact your dealer or installer or an authorized service center. Do not attempt to repair the appliance yourself. Any work performed by unauthorized personnel may void the warranty. If problem persists, take the following steps (in the order listed below) until the problem is corrected to your satisfaction.

**1.** Contact your installer or the Bosch Authorized Service Contractor in your area.

2. E-mail us from the Customer Service section of our web site, **www.boschappliances.com**.

3. Write to us at the address below:

#### BSH Home Appliances, Corp. 5551 McFadden Avenue Huntington Beach, CA 92649

#### 4. Call us at: 1-800/944-2904.

Please be sure to include (if writing), or have available (if calling), the following information:

- Model Number
- Serial Number
- Date of Original Purchase
- Date Problem Originated
- Explanation of Problem

Also, if writing, please be sure to include a daytime phone number.

(You will find the model number and serial number information on the label located on the right-hand side of the inner door of the dishwasher).

#### LEAVE INSTALLATION INSTRUCTIONS AND USE & CARE MANUAL WITH OWNER.

www.boschappliances.com

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