# Installation Instructions Junction Box Cover

Within this user bag, you will find a junction box cover and a #10 hex head screw used to attach the junction box cover to the bottom bracket or front brace (depending on the model). The #10 hex-head screw is packaged in a small bag within the user bag. Use these parts when making electrical connections.

#### **Supplied Parts:**



#10 Hex-Head Screw 1/2" Long



Junction Box Cover



THE JUNCTION BOX COVER AND SCREW MUST BE USED DURING THE ELECTRICAL CONNECTION STEPS TO AVOID THE RISK OF FIRE OR ELECTRIC SHOCK. SEE INSTALLATION INSTRUCTIONS.

# Built-In Dishwasher

If you have questions, call 800-GECARES or visit our website at: www.GEAppliances.com

# **BEFORE YOU BEGIN**

Read these instructions completely and carefully.

- **IMPORTANT** Observe all governing codes and ordinances.
- **Note to Installer** Be sure to leave these instructions for the consumer's and local inspector's use.
- **Note to Consumer** Keep these instructions with your Owner's Manual for future reference.
- 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 GE Appliance Warranty.
- **Completion Time 1 to 3 Hours.** New installations require more time than replacement installations.

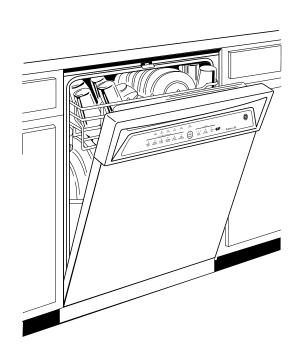
• **IMPORTANT** — The dishwasher MUST be installed to allow for future removal from the enclosure if service is required.

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

**Optional Accessories** – See the Owner's Manual for available custom panel kits.

# FOR YOUR SAFETY

Read and observe all CAUTIONS and WARNINGS shown throughout these instructions. While performing installations described in this booklet, gloves, safety glasses or goggles should be worn.



READ CAREFULLY.
KEEP THESE INSTRUCTIONS.

# **Installation Preparation**

#### **Trim Pieces PARTS SUPPLIED:** (some models) ☐ Two #8 Phillips flat head wood screws, 5/8" long to secure dishwasher to underside of countertop or to side of cabinetry. (Taped to top or side of dishwasher.) ☐ Side and top trim pieces 2 Wood Screws 4, #8 Pan head Phillips Screws Side Mounting Brackets ☐ 2 Side mounting brackets with 4 mounting screws 3/8" long for side mounting (some models) (for non-wood countertops) on some models (some models) **MATERIALS YOU WILL NEED:** ☐ Ferrule, compression nut and 90° Elbow (3/8"NPT external thread on one end, opposite end sized to fit water supply) Wire Nuts (3) Hand ☐ Thread seal tape Shut-Off 90° Elbow. ☐ UL Listed wire nuts (3) Thread Valve Ferrule and Seal Tape Compression Nut **Materials For New Installations Only:**

Waste Tee

Hot Water line

Coupler

**Electrical Cable** 

(or Power Cord, if applicable)

☐ Air gap for drain hose, if required

☐ Screw type hose clamps

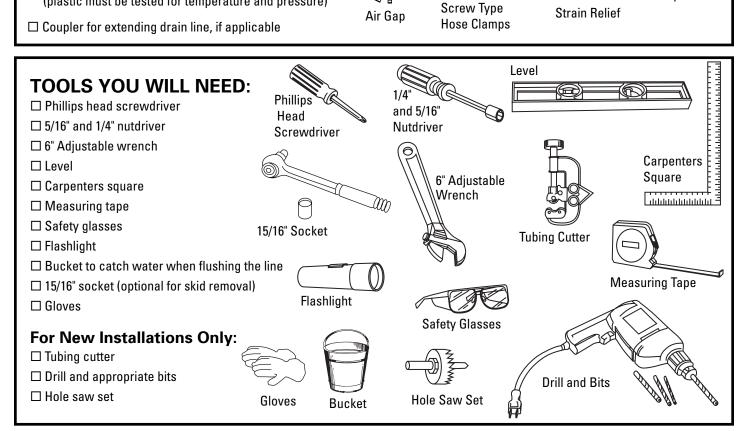
☐ Waste tee for house plumbing, if applicable

☐ Electrical cable or power cord, if applicable

☐ Water line 3/8" min. copper or 1/2" min. plastic

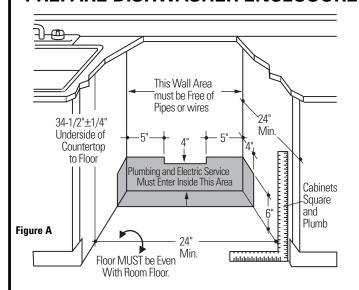
(plastic must be tested for temperature and pressure)

☐ Strain relief for electrical connection.☐ Hand shut-off valve (recommended)



# **Installation Preparation**

#### PREPARE DISHWASHER ENCLOSURE



• The rough cabinet opening must be at least 24" deep, 24" wide and approximately 34-1/2" high from floor to underside of the countertop.

- The dishwasher must be installed so that drain hose is no more than 10 feet in length for proper drainage.
- The dishwasher must be fully enclosed on the top, sides and back, and must not support any part of the enclosure.

CLEARANCES: When installed into a corner, allow 2" min. clearance between dishwasher and adjacent cabinet, wall or other appliances. Allow 28-3/8" min. clearance from the front of the dishwasher for door opening. Figure B

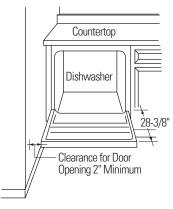


Figure B

#### **DRAIN REQUIREMENTS**

- Follow local codes and ordinances.
- Do not exceed 10 feet distance to drain.

**Note:** This dishwasher is equipped with a high drain loop. There is no minimum height required for drain hose routing. However, 18" minimum from floor to center of waste tee or disposer inlet is required. See Figure D.

#### **DETERMINE DRAIN METHOD**

The type of drain installation depends on the following question.

☐ Do local codes or ordinances require an air gap?

☐ Is waste tee less than 18" above floor?

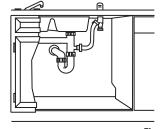
If the answer to either question is YES, Method 1 MUST be used.

• If the answers are NO, either method may be used.

#### **CABINET PREPARATION**

• Drill a 1-1/2" dia. hole in the cabinet wall within the shaded areas shown in Figure A for the drain hose connection. The hole should be smooth with no sharp edges.

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



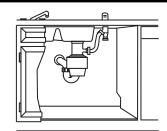
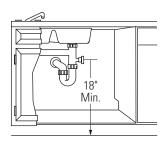


Figure C

Method 1 – Air Gap with Waste Tee or Disposer

An air gap must be used when required by local codes and ordinances. The air gap must be installed according to manufacturers instructions.



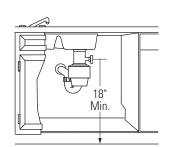


Figure D

Method 2 – Built-in "High Drain Loop" with Waste Tee or Disposer

Remove

Hopper

Plug

# **Installation Preparation**

#### PREPARE ELECTRICAL WIRING



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.

#### **Electrical Requirements**

- This appliance must be supplied with 120V, 60 Hz., and connected to an individual properly grounded branch circuit, protected by a 15 or 20 ampere circuit breaker or time delay fuse.
- Wiring must be 2 wire with ground and rated for 75°C (176°F).
- If the electrical supply does not meet the above requirements, call a licensed electrician before proceeding.

#### **Grounding Instructions-Cable Direct**

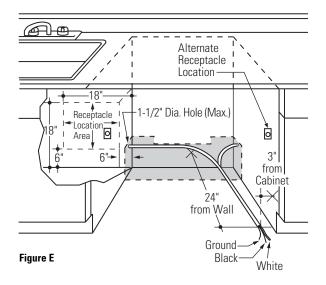
This appliance must be connected to a grounded metal, permanent wiring system, or an equipment grounding conductor must be run with the circuit conductors and be connected to the equipment grounding terminal or lead on the appliance.

#### **Grounding Instructions-Power Cord Models**

This appliance must be grounded. In the event of a malfunction or breakdown, grounding will reduce the risk of electric shock by providing a path of least resistance for electric current. This appliance is equipped with a cord having an equipment grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is installed and grounded in accordance with all local codes and ordinances.



The improper connection of the equipment grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service representative if you are in doubt that the appliance is properly grounded. For models equipped



with power cord: Do not modify the plug provided with the appliance; if it will not fit the outlet, have a proper outlet installed by a qualified technician.

#### **Cabinet Preparation & Wire Routing**

- The wiring may enter the opening from either side, rear or the floor within the shaded area.
- Cut a 1-1/2" max. dia. hole to admit the electrical cable. 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.

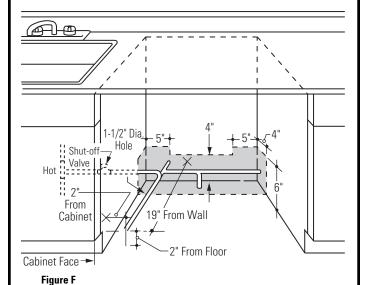
#### **Electrical Connection to Dishwasher**

Electrical connection is on the right front of dishwasher.

- For cable direct connections the cable must be routed as shown in Figure E. Cable must extend a minimum of 24" from the rear wall.
- For power cord connections, install a 3-prong grounding type receptacle in the sink cabinet rear wall, 6" min. or 18" max. from the opening, 6" to 18" above the floor.

#### PREPARE HOT WATER LINE

- The line may enter from either side, rear or floor within the shaded area shown in Figure F.
- The line may pass through the same hole as the electrical cable and drain hose. Or, cut an additional 1-1/2" dia. hole to accommodate the water line. If power cord with plug is used, water line must not pass through power cord hole.



#### Water Line Connection

- Turn off the water supply.
- Install a hand shut-off valve in an accessible location, such as under the sink. (Optional, but strongly recommended and may be required by local codes.)
- Water connection is on the left side of the dishwasher.
  Install the hot water inlet line, using no less than 3/8"
  O.D. copper tubing. Route the line as shown in Figure F and extend forward at least 19" from rear wall.
- Adjust water heater for 120°F to 150°F temperature.
- Flush water line to clean out debris.
- The hot water supply line pressure must be 20-120 PSI.

# A

#### **CAUTION**

Do not remove wood base until you are ready to install the dishwasher. The dishwasher will tip over when the door is opened.

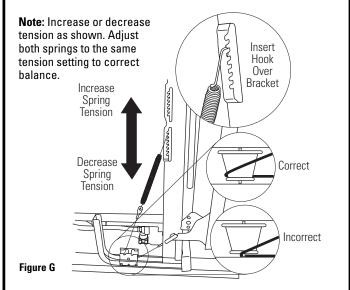
## **Before You Begin**

Locate and set aside the 2 Phillips head countertop mounting screws wrapped with yellow tape and stuck to the top or side of the dishwasher.

## STEP 1 CHECK DOOR BALANCE

With dishwasher on wood skid, check the door balance by opening and closing the door.

• If door drops open when released, increase spring tension. If door closes when released, decrease tension.

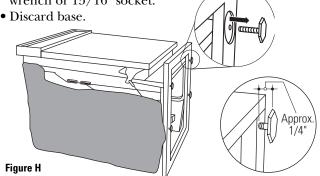


**TIP:** If door spring adjustment is necessary, check door opening and closing. If door does not open easily or falls too quickly, check spring cable routing. The cable is held in place by "shoulders" on the pulley. Check to be sure cable has not slipped over the pulley shoulders.

## STEP 2 REMOVE WOOD BASE, INSTALL LEVELING LEGS

# **IMPORTANT** - Do not kick off wood base! Damage will occur.

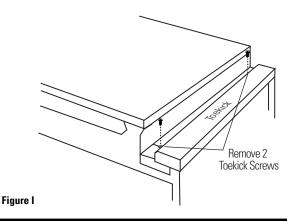
- Move the dishwasher close to the installation location and lay it on its back.
- Remove the four leveling legs on the underside of the wood base with an adjustable wrench or 15/16" socket.



• Screw leveling legs back into the dishwasher frame, approximately 1/4" from frame as shown.

## **STEP 3 REMOVE TOEKICK**

• Remove the two toekick screws.

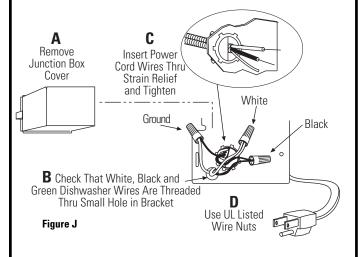


### STEP 4 INSTALL POWER CORD

Skip this step if dishwasher will be direct wired or has a factory installed power cord.

The power cord and connections must comply with the National Electrical Code, Section 422 and/or local codes and ordinances.

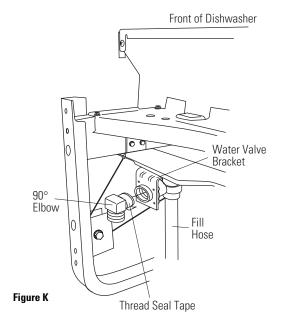
• Maximum power cord length is 6 feet.



- Connect incoming power cord white (or ribbed) to dishwasher white, black (or smooth) to black and ground to dishwasher green wire. Use UL listed wire nuts of appropriate size.
- Replace junction box cover. Be sure wires are not pinched under the cover.

# **STEP 5** INSTALL 90° ELBOW

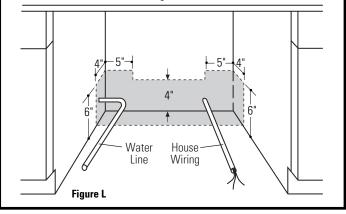
- Wrap 90° elbow with thread seal tape.
- Install a 90° elbow onto the water valve.



- Do not over tighten 90° elbow, water valve bracket could bend or water valve fitting could break.
- Position the end of the elbow to face the rear of the dishwasher.

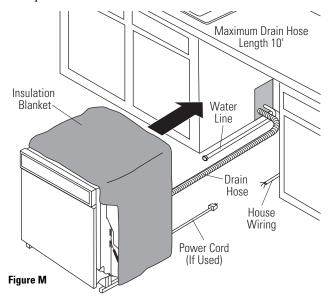
# STEP 6 POSITION WATER LINE AND HOUSE WIRING

• Position water supply line and house wiring on the floor of the opening to avoid interference with base of dishwasher and components under dishwasher.



# STEP 7 INSERT DRAIN HOSE THROUGH CABINET

• Upright the dishwasher and position in front of the opening. Insert drain hose into cabinet wall hole. If a power cord is used, guide the end through a separate hole.



**TIP:** Position water line and house wiring on the floor to avoid interference with base of dishwasher.

# STEP 8 SLIDE DISHWASHER PARTIALLY INTO CABINET

DO NOT PUSH AGAINST FRONT PANEL WITH KNEES. DAMAGE WILL OCCUR.

• Slide dishwasher into the opening a few inches at a time.

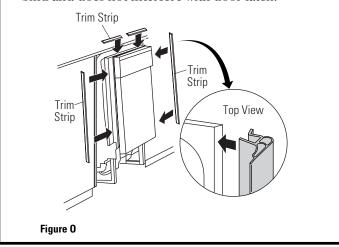


- As you proceed, pull the drain hose through the opening under the sink. Stop pushing when the dishwasher is a few inches forward of adjacent cabinetry.
- Make sure drain hose is not kinked under the dishwasher and there is no interference with the water line and wiring or any other component.

### **STEP 9 INSTALL TRIM PIECES**

Skip this step if trim is not supplied with the dishwasher.

- Locate trim strips inside dishwasher.
- Press trim onto the tub flange on each side. Start with the top edge, pressing on as you move towards the bottom.
- Press the two top trim pieces on each side of the latch.
- Open and close the door to check that trim does not bind and does not interfere with door latch.



# STEP 10 PUSH DISHWASHER INTO FINAL POSITION

Note: If stone countertops are used, see Step 12 before pushing the dishwasher into the opening.

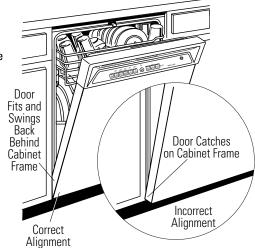


Figure P

**TIP:** Check tub insulation blanket, if equipped. It should be positioned so it is not "bunched up" or interfering with door springs. Check by opening and closing door.

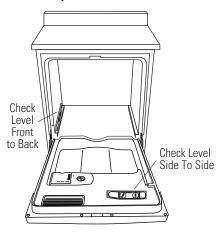
- Push dishwasher into the cabinet. The edges of the dishwasher door should be behind the cabinet frame and evenly aligned with the front face of cabinet doors.
- Carefully open and close the door to ensure the door panel is not catching or rubbing on the cabinet frame.

## STEP 11 LEVEL DISHWASHER

**IMPORTANT** – Dishwasher must be level for proper dish rack operation and wash performance.

 Place level on door and rack track inside the tub as shown to check that the dishwasher is level.

Figure Q



• Level the dishwasher by adjusting the four leveling legs individually.

• If adjustment to the right rear leveling leg is required, loosen junction box bracket screw (through the access hole) and rotate bracket clockwise.

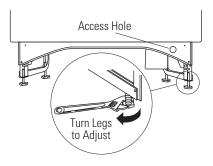


Figure R

**TIP:** Pull lower rack out, about halfway. Check to be sure the rack does not roll forward or back into dishwasher. If the rack rolls either direction, the dishwasher must be leveled again.

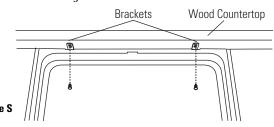
• If door hits tub, the dishwasher is not installed correctly. Adjust leveling legs to align door to tub.

# STEP 12 POSITION DISHWASHER, SECURE TO CABINET

The dishwasher must be secured to the countertop or the cabinet sides. When countertops are made of wood, use Method 1. Some models are supplied with side mounting brackets for use when countertops are granite or other materials that will not accept screws. Use Method 2 to secure dishwasher at the sides.

#### Method 1 Secure dishwasher to wood countertop

• Position dishwasher so that the door lines up with the front face of adjacent cabinet.



**IMPORTANT:** Check to be sure the dishwasher is centered in the opening and there is no interference with adjacent cabinets when opening or closing the door.

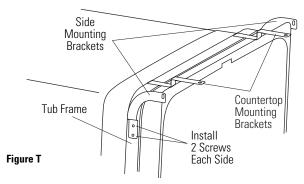
• Fasten the dishwasher to the underside of the countertop with the 2 Phillips screws provided.

#### Method 2

#### For Models supplied with side mounting brackets

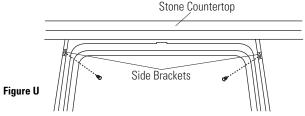
• Pull dishwasher out of the opening just enough to access the tub frame.

• Fasten a side mounting bracket to each side of the tub with the #8 pan head screws provided.



• Position dishwasher so that the door lines up with the front face of adjacent cabinet.

**IMPORTANT:** Check to be sure the dishwasher is centered in the opening and there is no interference with adjacent cabinets when opening or closing the door.



• Fasten the brackets to cabinet sides using the 2 Phillips head countertop screws.

**IMPORTANT:** Drive screws straight and flush. Protruding screw heads will scratch the top or sides of the control panel and can interfere with door closing.

# **STEP 13 CONNECT WATER SUPPLY**

Connect water supply line to 90° elbow.

- Slide compression nut, then ferrule over end of water line.
- Insert water line into 90° elbow.
- Slide ferrule against elbow and secure with compression nut.

**IMPORTANT:** Check to be sure that door spring does not rub or contact the fill hose or water supply line. Test by opening and closing the door. Re-route the lines if necessary.

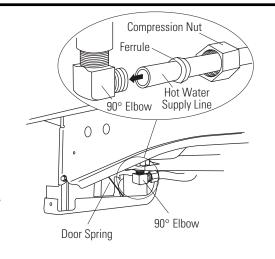
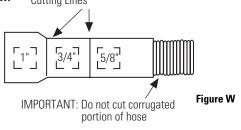


Figure V

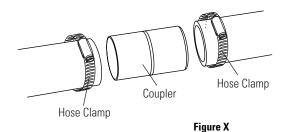
# **STEP 14 CONNECT DRAIN LINE**

#### 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. Cutting Lines



• If a longer drain hose is required, add up to 42" of length for a total of 10 ft. length 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 10 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

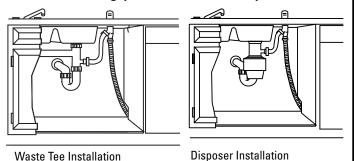
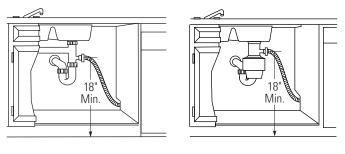


Figure Y

# Method 2 – Built-in "High drain loop" with waste tee or disposer

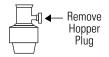


Waste Tee Installation

**Disposer Installation** 

Figure Z

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

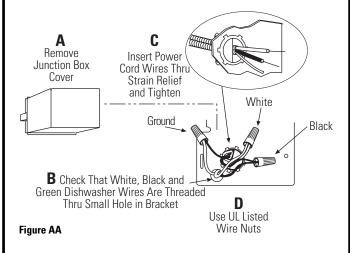


# STEP 15 CONNECT POWER SUPPLY

Skip this step if equipped with power cord Verify that power is turned off at the source.

(If a power cord with plug is used, proceed to Step 16.)

- Remove junction box cover.
- Secure house wiring to the back of the junction box with a strain relief.
- Locate the three dishwasher wires, (white, black and green) with stripped ends. Insert dishwasher wires through the small hole in the junction box. Use wire nuts to connect incoming ground to green, white to white and black to black.
- Replace junction box cover. Check to be sure that wires are not pinched under the cover.





If house wiring is not 2-wire with ground, a ground must be provided by the installer. When house wiring is aluminum, be sure to use UL Listed anti-oxidant compound and aluminum-to-copper connectors

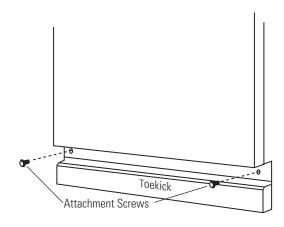
STEP 16 PRE-TEST CHECK LIST Review this list after installing your dishwasher to avoid charges for a service call that is not covered by your warranty.
$\square$ Check to be sure power is OFF.
☐ Open door and remove all foam and paper packaging.
☐ Locate the Owner's Manual in the literature package.
☐ 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 cable routing. See Step 1.
☐ Check to be sure that wiring is secure under the dishwasher, not pinched or in contact with door springs or other components. See Step 10.
☐ Check door alignment with tub. If door hits tub, level dishwasher. See Step 11.
☐ Pull lower rack out, about half way. Check to be sure it does not roll back or forward on the door. I the rack moves, adjust leveling legs. See Step 11.
☐ Check door alignment with cabinet. If door hits cabinet, reposition dishwasher. See Step 12.
☐ Check that door spring does not contact water line fill hose, wiring or other components. See Step 13.
☐ Verify water supply and drain lines are not kinked or in contact with other components. Contact with motor or dishwasher frame could cause noise.
☐ Turn on the sink hot water faucet and verify water temperature. Incoming water temperature must be between 120°F and 150°F. 120°F min. temperature is required for best wash performance. See "Prepare Hot Water Line," page 4.
☐ Add 2 quarts 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 17 DISHWASHER WET TEST**

- ☐ Turn on power supply (or plug power cord into outlet, if equipped).
- □ Latch door.
- ☐ Push "Rinse Only" button.
- ☐ Push start/reset pad once.
- ☐ Check to be sure that water enters the dishwasher. If water does not enter the dishwasher, check to be sure that water and power is turned on.
- ☐ Check for leaks under the dishwasher. If leak is found, turn power supply off, then tighten connections. Restore power after leak is corrected.
- ☐ Check for leaks around the door. A leak around the door could be caused by door rubbing or hitting against adjacent cabinetry. Reposition the dishwasher if necessary. See Step 12.
- ☐ The dishwasher will drain and turn off about 5 minutes after it was started. Check drain lines. If leaks are found, turn power off at the breaker, correct as necessary. Restore power after corrections are made. See Step 14.
- ☐ 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. See Step 14.
- ☐ Press Start/Reset pad once again and run dishwasher through another "Rinse Only" cycle. Check for leaks and correct if required.

## **STEP 18 REPLACE TOEKICK**

• Place toekick against the legs of the dishwasher.



#### **FigureBB**

- Align the toekick with the bottom edge and make sure it is against the floor.
- Insert and tighten the two toekick attachment screws. The toekick should stay in contact with the floor.

**TIP:** Make sure toekick is against floor to minimize noise.

# STEP 19 LITERATURE

• Be sure to leave complete literature package and installation instructions with the consumer.