Installation Instructions

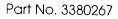
Undercounter Dishwasher

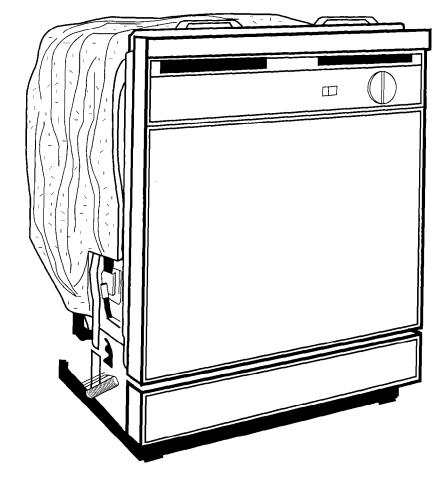
Direct wire or Power supply cord models

IMPORTANT: Read and save these instructions.

IMPORTANT:

 Installer: Leave Installation Instructions with homeowner.
 Homeowner: Keep Installation Instructions for future reference.
 Save Installation Instructions for local electrical inspector's use.





Before you start...



Keep cardboard shipping base or plywood under dishwasher until it is installed, or slide dishwasher onto cardboard or hardboard before moving it across the floor.

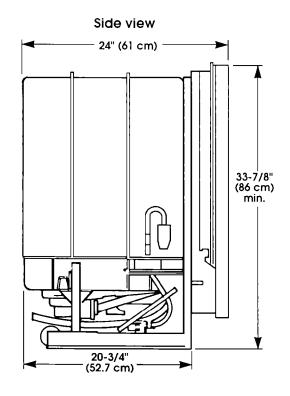
The cardboard or hardboard will help protect floor covering when dishwasher is moved across the floor during installation.

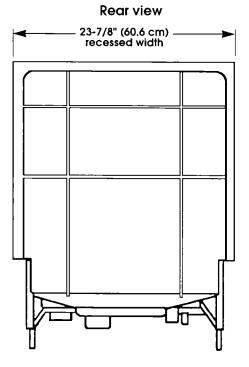
Important: Observe all governing codes and ordinances.

It is your responsibility to:

- comply with the installation specifications and dimensions.
- properly install dishwasher.
- make sure you have everything necessary for proper installation.
- contact a qualified installer to insure that the electrical and plumbing installations meet all national and local codes and ordinances.

Product dimensions





Built-in opening requirements





Electrical Shock Hazard

Electrical wiring, water supply line, and drain line must not contact any exposed terminals of the dishwasher wiring.

Cabinet opening must completely enclose sides, top and back of dishwasher.

Failure to follow these instructions can result in death, or electrical shock.

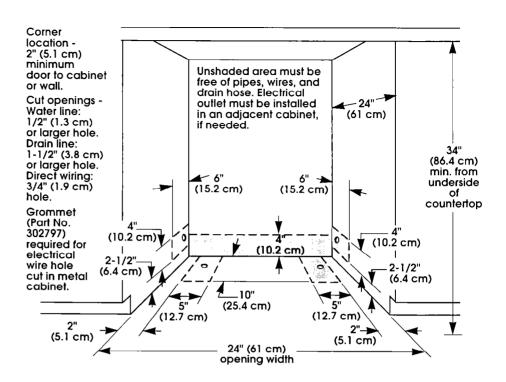
Do Not run water or drain lines or electrical wiring where they can cross in front of or contact dishwasher motor or legs.

Do Not install dishwasher over carpeted flooring.

Do Not kink the power supply wire between the dishwasher and cabinet.

Protect dishwasher and water lines leading to dishwasher against freezing. Damage from freezing is not covered by the warranty.

Proper electrical, drain and water supply lines must be available or must be installed, as specified, within the shaded area. See "Electrical requirements," "Water requirements," and "Drain requirements" sections.



Important: Observe all governing codes and ordinances.

It is recommended that the electrical, drain and water supply lines be located as close to the rear wall as possible.

Check the location where the dishwasher will be installed. The location must provide:

- easy access to water, electricity and drainage lines.
- convenient loading the best location is to the left or right of the kitchen sink.
- square opening for proper dishwasher operation and appearance.
- cabinet front that is perpendicular to the floor.
- protection so that the water inlet valve and drain cannot freeze.
- 1/4" (0.64 cm) minimum clearance between the motor and the flooring to prevent the motor from overheating.

For installations where the dishwasher will be left unused and subject to freezing temperatures, see the "Storing Your Dishwasher" or "Moving or winterizing your dishwasher" section of the dishwasher Use and Care Guide.

Parts supplied for installation:

- 2 drain hose clamps
- 2 No.-10 x 1/2" Phillips-head screws
 drain hose

Remove parts from bag. Check that all parts were supplied.

Tools and materials required for installation:

- electric drill
- Phillips screwdriver
- 2 adjustable wrenches
- flat-blade screwdriver
- measuring tape
- pliers
- pipe wrench
- keyhole saw
- 90° elbow with 3/8" N.P.T. external threads on one end. The size of the other end must fit your water supply line.
- tubing cutter
- pipe-joint compound
- wire stripper and utility knife
- 5/16" and 1/4" nut driver or hex socket
- 3 twist-on wire connectors for 16-gauge wire
- gloves
- safety glasses

Electrical requirements

AWARNING



Electrical Shock Hazard Electrically ground dishwasher. Connect ground wire to green ground connector in terminal box. Do not use an extension cord. Failure to do so can result in death, fire. or electrical shock.

Check with a qualified electrician if you are not sure dishwasher is

properly grounded. It is the customer's responsibility:

To contact a qualified electrician.

To assure that the electrical installation is adequate and in conformance with all national and local codes and ordinances.

A 120-volt, 60-Hz, AC-only, 15-ampere, fused electrical supply is required. A time-delay fuse or circuit breaker is recommended. It is recommended that a separate circuit serving only this dishwasher be provided.

The dishwasher must be connected with copper wire only, in accordance with all national and local codes and ordinances.

Grounding instructions

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

Do not ground to a gas pipe.

Do not connect dishwasher to electrical supply until dishwasher is permanently grounded.

Do not have a fuse in the neutral or ground circuit.

Wiring methods



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.

Pick one method to follow depending on your dishwasher and local codes.

A. Direct wire method (cable connecting dishwasher to a junction box)

If your dishwasher model is not equipped with a power supply cord go to Step 1.

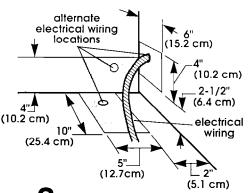
If a power supply cord is attached to dishwasher but dishwasher must be directly wired to meet local codes...

The power supply cord must be removed and dishwasher wired directly. To direct wire this product, order kit #4317979. Electrical connections must be contained within the terminal box and meet all national and all local codes and ordinances.

IF THE POWER SUPPLY CORD IS REMOVED, THE DISHWASHER MUST BE CONNECTED WITH COPPER WIRE ONLY.

■ Put on gloves and safety glasses.

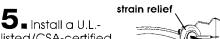
2 Disconnect electrical power supply.



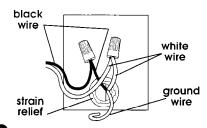
3. Cut a 3/4" (1.9 cm) hole for the direct wiring to pass through. Right side is easiest location. If the hole is cut in a wood cabinet, the hole should be sanded until smooth. If the hole is cut in a metal cabinet, the hole **must** be covered by a grommet (Part No. 302797) available from your local dealer or parts supplier. Run flexible, armored or non-metallic sheathed, No. 14-2 cable (with ground wire) from fused disconnect, circuit breaker or junction box through the 3/4" (1.9 cm) cabinet hole to the dishwasher location. The cable must extend 24" (61 cm) from the back wall into cabinet opening.



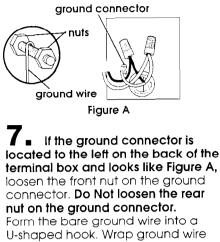
dishwasher terminal box cover.



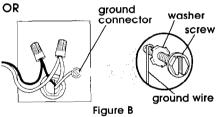
listed/CSA-certified strain relief to the junction box. If using conduit, use a U.L.listed/CSA-certified conduit connector. Wire sizes must conform with the rating of the dishwasher.



6. Connect the white wire from the power supply wire to the white wire in the terminal box with a twiston wire connector. Connect the black wire from the power supply wire to the black wire in the terminal box with a twist-on wire connector.



U-shaped hook. Wrap ground wire hook clockwise around ground connector and between the rear and front nuts. Securely tighten the front nut over the ground wire. Tighten strain relief or conduit connector screws.



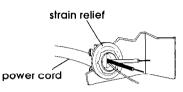
If the ground connector is located in the center on the back of the terminal box and looks like Figure B, loosen the front screw on the ground wire into a U-shaped hook. Wrap ground wire hook clockwise around ground connector and under the washer. Securely tighten the screw. Tighten strain relief or conduit connector screws.



B Power supply cord method (connecting dishwasher to outlet).

Local codes may permit the use of a U.L.-listed/CSA-certified, threeconductor, power supply cord terminated with a three-prong, ground-type plug.

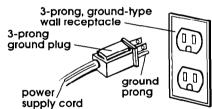
Some models are already equipped with a power supply cord. If a power supply cord is not supplied, Power Supply Cord Kit (Part No. 4317824) is available at your local dealer or parts supplier. Follow the instructions packaged with the power supply cord kit. If the kit is not available locally, the power supply cord used must be a U.L.-listed/CSA-certified, three-conductor, 16-gauge cord that meets all local codes and ordinances. The length of the power supply cord must not exceed six feet (1.8 m). It must be routed so it does not touch the dishwasher motor or the lower portion of the dishwasher tub.



A strain relief, available at your local dealer or parts supplier, or a similar part must be used to secure the power supply cord to the dishwasher terminal box.

Follow direct wire instructions for disconnecting wires inside the terminal box.

Recommended ground method



For your personal safety, this dishwasher must be grounded. To minimize possible shock hazard, the power supply cord must be plugged into a mating 3-prong ground-type wall receptacle, grounded in accordance with all national and local codes and ordinances.

If a mating wall receptacle is not available, it is the personal responsibility and obligation of the customer to have a properly grounded 3-prong wall receptacle installed by a qualified electrician. The receptacle should be installed on the rear or side wall of the cabinet next to dishwasher opening.

Water requirements

All solder connections must be made before the water line is connected to the dishwasher to prevent damage to inlet valve.

Do Not solder within 6 inches (15 cm) of the inlet valve. The plastic part of the inlet valve could be damaged.

The hot water line to the dishwasher must provide between 15-120 psi (103-827 kPa) water pressure.

The hot water heater should be set to deliver 120°F (49°C) water temperature to the dishwasher for best results.

Use 3/8" (9.5 mm) O.D. copper tubing or 1/2" plastic tubing minimum inlet line. Dishwasher inlet valve has 3/8" internal pipe thread.

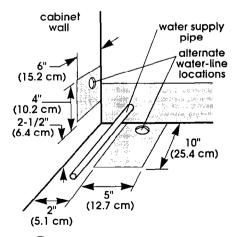
Water line connection

A WARNING

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 Disconnect the electrical power supply. Put on gloves and safety glasses.



2. Cut a 1/2" (1.3 cm) minimum hole in cabinet rear wall or floor for water line.

3. Rough in water line through the 1/2" (1.3 cm) minimum hole to dishwasher cabinet opening.

4 Install a shutoff valve in the water line where it can be easily used.



5. Flush water line into a bucket to get rid of any particles that may clog the inlet valve. Turn the shutoff valve to "OFF" position.

6 Check that there are no sharp bends or kinks in the water line that may restrict the water flow.

Drain requirements

The drain hose must connect to the house plumbing at a minimum of 20 inches (50.8 cm) above the floor. This will prevent backflow or water siphoning out of dishwasher during operation.

If the drain hose is routed to a connection point less than 20 inches (50.8 cm) above the floor, the drain hose must form a loop 20 inches (50.8 cm) above the floor. An air gap must be used in the high drain loop.

Do Not kink drain hose and copper tubing.

Do Not use drain hose or fittings that are less than 1/2 inches (1.3 cm) I.D.

The drain hose should be 1/2" (1.3 cm) minimum I.D.

flexible hose and no



longer than 20 feet (6 m). Flexible hose must be resistant to heat and detergent. Flexible hose is available through your local plumbing, hardware and automotive supply stores.

If connection to an air gap is

required, an Air Gap Kit (Part No. 300096) is available from your local parts dealer. If another brand air gap is used, it should be checked to make sure it allows for the same water flow.

Install air gap according to kit instructions.

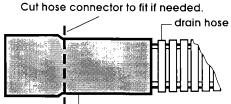
If connecting to a disposer, remove disposer knockout or plug before connecting drain line. Connect the air gap to a waste tee or disposer using a rubber connector. Most disposers have 7/8" connectors, or special connectors are available from local plumbing supply sources.

Drain connection

 \blacksquare Cut a 1-1/2" (3.8 cm) hole in cabinet wall for the drain hose.

Important:

Remove the disposer knockout plug before connecting the drain hose.

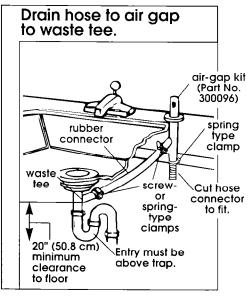


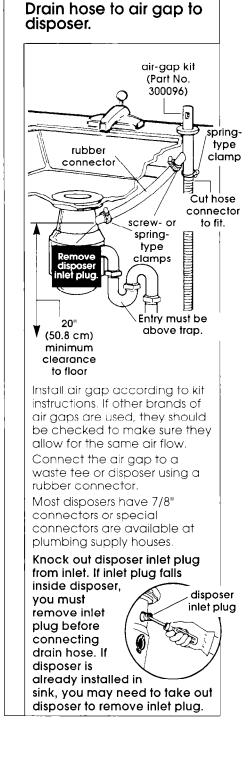
drain hose connector

2. Attach drain hose to an air gap, waste tee or waste disposer. See "Recommended methods," and "Alternate methods." If connecting drain hose to an air gap or waste tee, cut end of drain hose as shown. Do Not cut drain hose when connecting to a 7/8" disposer connector. Do Not cut ribbed section to shorten drain hose. Secure drain hose with screw- or spring-type clamp provided.

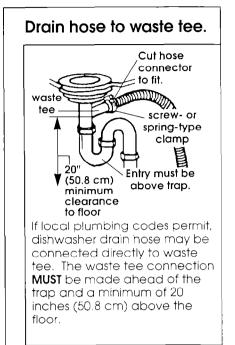
3. Rough in drain line to cabinet opening through 1-1/2" (3.8 cm) hole in cabinet wall.

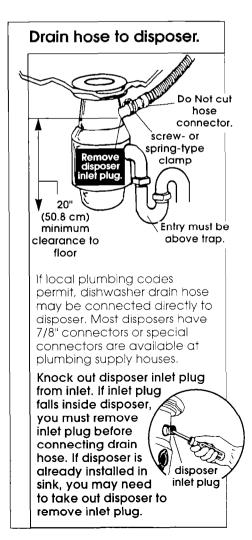
Recommended methods:





Alternate methods:





Installation steps

With dishwasher in kitchen.

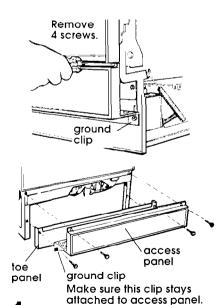


Electrical Shock Hazard Disconnect electrical power at the fuse box or circuit breaker box before installing dishwasher. Make sure that the water supply line, drain hose, and wiring do not touch any exposed terminals of the dishwasher wiring.

Failure to do so can result in death or electrical shock.

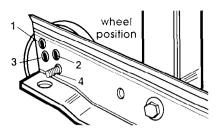
Keep cardboard shipping base or plywood under dishwasher until it is installed, or slide dishwasher onto cardboard or hardboard before moving it across the floor.

The cardboard or hardboard will help protect floor covering when dishwasher is moved across the floor during installation.



Remove the 4 screws attaching access panel and toe panel to dishwasher using a 1/4" hex socket, nut driver or Phillips screwdriver. Remove access panel and toe panel. Make sure that around clip stays attached to access panel. Set panels aside on

a protective surface.



Min. Cutout Height	Wheel Position (See Illustration)	Number Of Turns To Adjust Levelers
34" (86.4 cm)	1	9
34-1/8" (86.7 cm)	2	6
34-5/16" (87.2 cm)	3	3
34-1/2" (87.6 cm)	4	0

For additional height:

- 1. Add shims under the wheels.
- 2. Turn front levelers. Each turn changes height by approximately 1/16" (0.16 cmĭ.

Z Measure height of cabinet opening from the front edge of the underside of cabinet opening to floor. Check chart for that height opening. Put the wheels in the required position.

Loosen and then turn front levelers the number of times indicated in the chart. The dishwasher should be installed as level as possible from front to back.

To prevent damage to floor covering, tilt dishwasher backwards on wheels when moving across floor.

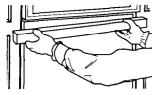
J_Latch dishwasher door. Push collai dishwasher into place, sliding drain hose



through hole cut in cabinet opening.

tub

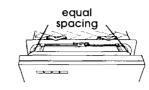
Do not kink power supply cable between dishwasher and cabinet. If dishwasher is equipped with a tub collar and does not fit in cabinet opening or cabinet opening is less than 24 inches (61 cm) wide, partially pull dishwasher out of cabinet. Start at one side of dishwasher and pull tub collar off of dishwasher. Completely remove tub collar and save. Push dishwasher back into cabinet opening.



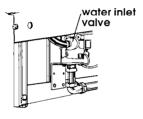
4. Check that front leveling legs are firmly against the floor. Align dishwasher door with cabinet doors, so that spacing is the same on both sides.



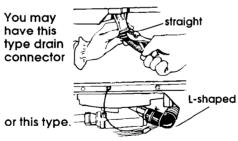
Secure dishwasher to countertop with two No. 10 x 1/2" Phillips-head screws from parts bag.



• Open dishwasher door approximately 3" (8 cm) and check for equal spacing between inner door and tub sides. If necessary, loosen screws that fasten dishwasher to countertop and shift tub. Tighten screws. Remove newspaper or towel from bottom of dishwasher.



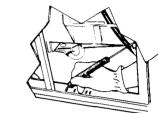
O Connect water pipe or tubing directly to water inlet valve. Do Not allow pipe or tubing to cross in front of or contact dishwasher motor or legs. Turn water supply on and check for leaks.



9. Put spring-type drain hose clamp over connector. Push drain hose onto connector. Use pliers to open clamp over drain hose and connector. Check that drain hose is secure.

If screw-type clamp is used instead of spring-type clamp, use a 5/16" nut driver to tighten drain hose securely to connector.

To minimize noise and vibration, route drain hose to avoid contact with door springs, motor, water line, cabinet or flooring. Do Not run drain hose over top of tub. **10.** If color panel is to be changed or custom panels installed, change panels now. See "To change door panel color" and "To change access panel color" sections, Pages 9-12.



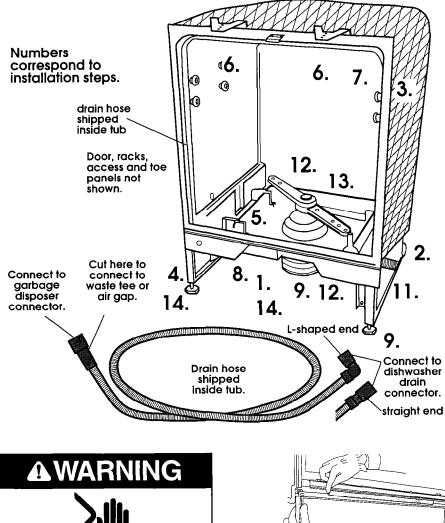
Check dishwasher door for proper operation. Door should close easily without slamming and should not fall open or shut from its own weight. If necessary, close door and adjust both door springs by moving end of springs to different slots in the dishwasher base.



Electrically ground dishwasher. Connect ground wire to green ground connector in terminal box. Do not use an extension cord. Failure to do so can result in death, fire, or electrical shock.

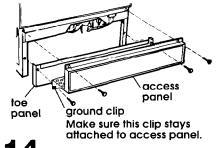
12. Make electrical connection. See "Wiring methods," Page 4. CHECK ELECTRICAL REQUIREMENTS. BE SURE YOU HAVE THE CORRECT ELECTRICAL SUPPLY AND RECOMMENDED GROUND METHOD. Check that all parts have been installed, and that no steps were skipped. Check that no screws have fallen into the tub. Reinstall rack in dishwasher. Turn on electrical and water supplies.

13. Take a few minutes to read the Use and Care Guide to fully understand your new dishwasher. Start dishwasher and allow it to complete a full wash cycle. Check that dishwasher is working properly and that there are no leaks. When dishwasher stops, open door and check for proper draining.

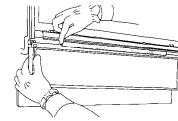


Electrical Shock Hazard Reinstall ground clip over edge of access panel.

Attach toe panel, access panel and ground clip tightly to dishwasher leg. Failure to do so may result in death or electrical shock.



4. Reattach the toe panel and access panel. Check that ground clip is attached to the access panel. The bottom edge of toe panel must be positioned to contact floor.



15. If dishwasher is equipped with a flexible insulating strip at the bottom of the door, check that the flexible insulating strip overlaps the upper edge of the access panel before attaching access panel.

You have just finished installing your new undercounter dishwasher. Keep Installation Instructions available for easy reference.

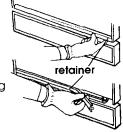
To change door panel color

Note: The opposite side of the door color panel is a different color.

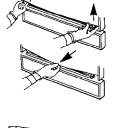
WARNING

Injury Hazard Wear gloves and handle panels carefully. Cut metal edges are sharp and may cause serious injury.

Insert finger under one end of retainer and pull towards you in a peeling action. Set retainer aside.

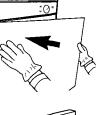


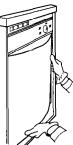
Lift door panel(s) at outer edges. Use one hand to bow bottom of panel(s). Remove panel(s). Do Not remove spacer.



3. Insert one side of door panel(s), with desired color facing out, into one side of door frame.

4. Bow door panel(s) and insert other side of door panel(s) into door frame.

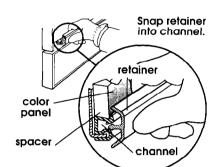


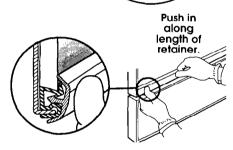




control console

Push in on door panel(s) near the top and slide panel(s) and spacer up inside bottom of control console, allowing panel(s) to rest on channel at bottom of door.





D• Snap one end of retainer into channel as shown. Push inward while sliding thumb along full length of retainer.

To change access color panel

(For models so equipped)

Injury Hazard Wear gloves and handle panels carefully.

Cut metal edges are sharp and may cause serious injury.

Push up with thumbs on each end of access panel top trim to unsnap trim.

Remove top trim and set it aside.

Carefully slide color access panel upwards and



3 With desired color facing out, bow access panel and



insert it into access panel frame. Slide panel down into groove along bottom of access panel frame.





down and slide into place. Snap front of trim down to cover top edge of access panel.

Parts that must be custom made

Maximum custom door panel weight is 4 pound (1.8 kg).

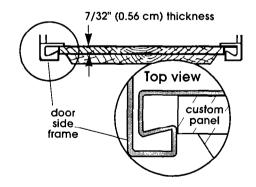
Dishwasher door panel and access panel (if model is so equipped) can be customized to match wood cabinets. A standard, 1/4"* wood panel can be used as is for customizing the door and access panels. It is recommended that a cabinetmaker cut the customized panel pieces because of the precise dimensions needed.

- Cut wood panels so that wood grain matches direction of grain in cabinets.
- File or sand edges of wood panels.
- Dishwasher is subject to some humidity. Apply moisture-resistant sealer to both sides and edges of wood panels.
- * 7/32" (0.56 cm) actual thickness.

Custom door and access panels

The custom door panel must not weigh more than 4 pounds (1.8 kg).

Cut door panel accurately for a snug fit between door side frames. Note: Custom door panel fits between, Not inside frame.



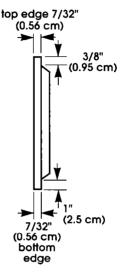
Custom panel dimensions

Note: This panel is narrower than access panel.

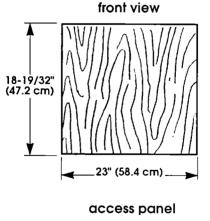
File or sand edges of wood panel to avoid slivers.

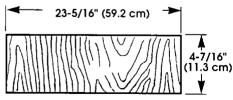






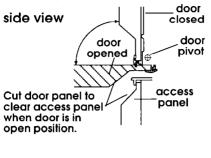
door panel

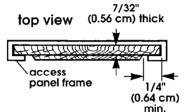




All edges routed to 7/32" (0.56 cm) thickness. Note: This panel is wider than the door panel.

Routing custom panels





Custom door panel more than 7/32" (0.56 cm) thick: Route top and bottom to 7/32" (0.56 cm) thickness.

Custom access panel more than 7/32" (0.56 cm) thick: Route all four sides to 7/32" (0.56 cm) thickness.

Custom panels less than 7/32" (0.56 cm) thick: Install spacers behind panels.

To install customized wood panels in door and access panel

• Cut wood door and access panels using specified dimensions. Make sure wood grain direction matches cabinet wood grain.

2. File or sand edges of wood panels to avoid slivers.

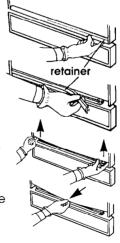
Dishwasher is subject to some humidity. Cover both sides and edges of wood panels with moisture-resistant sealer.

AWARNING

Injury Hazard Wear gloves and handle panels carefully. Cut metal edges are sharp and

may cause serious injury.

3. Insert finger under one end of retainer and pull towards you in a peeling action. Set retainer aside.



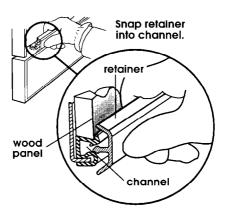
4. Lift door panel(s) at outer edges. Use one hand to bow bottom of panel(s). Remove panel(s) and spacer. Save panel(s) and spacer for future use.

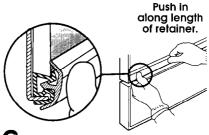




not inside, door frame

5. Insert top of wood door panel between sides of door frame about 3" (7.5 cm) below console. Rotate wood door panel down against dishwasher door. Slide top edge of wood door panel under bottom edge of console. Press lower portion of wood door panel in place between sides of door frame, allowing wood door panel to rest on channel at bottom

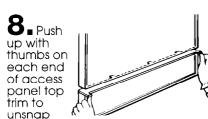




• Snap one end of retainer into channel as shown. Push inward while sliding thumb along full length of retainer.



• Check door for proper operation. Door should close easily without slamming and open with its own weight. If necessary, close door and adjust both door springs by moving spring ends to different holes in base.



trim. Remove top trim and set it aside.

9. Carefully slide color access panel and

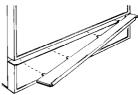
spacer upwards



and remove. Save color access panel and spacer for future use.

10. Insert wood access panel into access panel frame. Slide panel down into groove along bottom of access panel frame. It may be necessary to remove the two screws securing top of access panel to dishwasher frame and tilt access panel forward to install some wood panels.

11 Line up edges of top trim with sides of access panel frame. Tilt back of trim

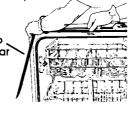


down and slide into place. Snap front of trim down to cover top edge of wood access panel. On models equipped with tub collar

To replace tub collar...

If dishwasher is moved and the new cabinet opening is 24 inches (61 cm) or more, follow Installation Instructions until dishwasher is to be centered and leveled in cabinet opening. Align center of tub collar with latch area at the top of the dishwasher tub. Snap tub collar evenly over top and side edges of dishwasher tub. Check that tub collar is securely

attached to dishwasher. Continue to install your dishwasher using the Installation Instructions.



If the dishwasher is not operating properly...

Check these points:

- Is the door closed tightly and latched securely?
- Has the cycle been set correctly to start the dishwasher?
- Is the water supply turned on?
- Has the electrical power been connected?
- Has the circuit breaker been tripped or the house fuse blown?
- Has electrical power been interrupted?

Note: If the motor is stopped because of overload, it will automatically reset itself within a few minutes. If after checking these points the dishwasher still does not run or complete a cycle, call for service.

If you need assistance...

Call your dealer or authorized repair service.

When you call, you will need the dishwasher model number and serial number. Both numbers can be found on the model/serial rating plate behind the dishwasher door on the front frame.