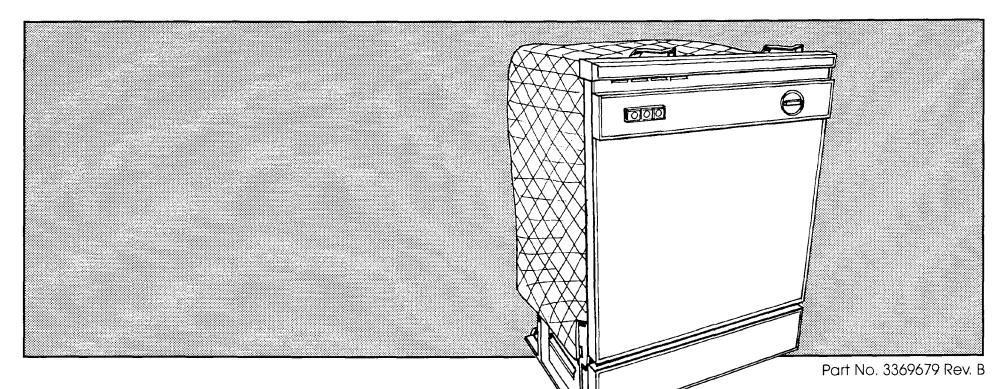
# Installation Instructions



## IMPORTANT: Read and save these instructions.

#### **IMPORTANT:**

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

## Undercounter Dishwasher

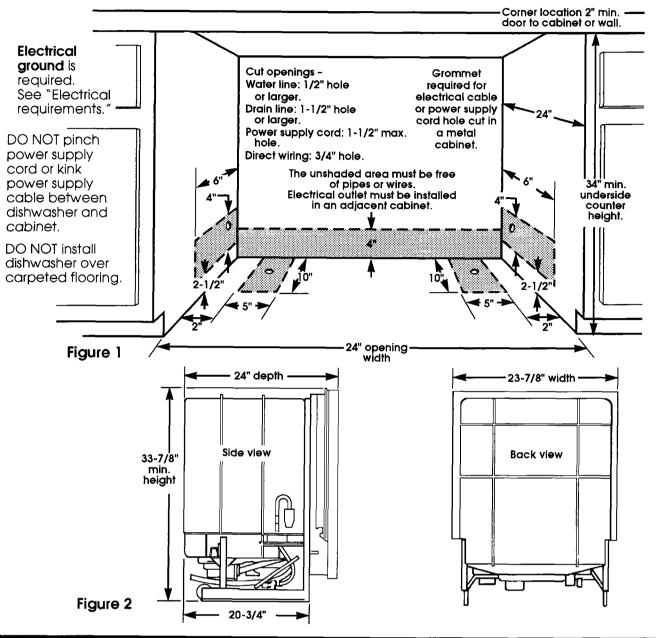
## Before you start...

Proper installation is your responsibility. Make sure you have everything necessary for correct installation. It is the personal responsibility and obligation of the customer to contact a qualified installer to assure that electrical and plumbing installations meet all national and local codes and ordinances.

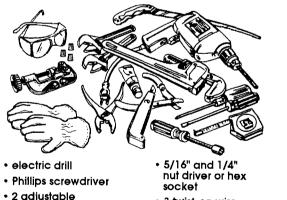
Proper electrical, drain and water supply lines must be available or must be installed as specified within shaded area. Wiring should not cross in front of motor or dishwasher legs. See Electrical, Water and Drain requirements.

#### **IMPORTANT: Observe all governing** codes and ordinances.

Read and follow the "Electrical requirements", "Water requirements" and "Drain requirements" sections before installing dishwasher.



## Tools and materials needed for installation:



## **Electrical** requirements

WARNING

**Electrical Shock Hazard** 

- Electrical ground is required on this appliance.
- Do Not ground to gas pipe.
- Do Not modify the power supply cord plug. If it does not fit the outlet. have a proper outlet installed by a qualified electrician.
- Do Not use an extension cord with this appliance.
- Do Not have a fuse in the neutral or grounding circuit. A fuse in the neutral or grounding circuit could result in an electrical shock.

Check location where dishwasher will be installed. The location should provide:

- Easy access to water, electricity and drainage lines.
- Convenient loading the best position is left or right of kitchen sink.
- Opening that is square for proper dishwasher operation and appearance.
- Cabinet front that is perpendicular to floor.
- 1/4" minimum clearance between motor and flooring to prevent motor from overheating.

## CAUTION

**Property Damage** Protect dishwasher and water lines against freezing.

Failure to do so can cause water damage.

## WARNING

**Electrical Shock Hazard** 

- It is the personal responsibility and obligation of the customer to contact a qualified electrician to assure that the electrical installation is adequate and in conformance with the National Electrical Code, ANSI/NFPA 70 — latest edition\* and all local codes and ordinances.
- Electrical wiring and components must not contact any plumbing material or drain hose.
- Cabinet opening must completely enclose sides, top and back of dishwasher. A side panel kit is available from your dealer for installing your dishwasher at the end of a cabinet.

Failure to follow these instructions could result in death or serious injury.

#### Personal Injury

Avoid opening dishwasher door before dishwasher is installed. Dishwasher, before it is installed, may tip over when door is opened. Failure to follow this instruction may result in personal injury.

Copies of the standards listed may be obtained from: \*National Fire Protection Association

Batterymarch Park Quincy, Massachusetts 02269

## Wiring methods

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

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

## WARNING

**Electrical Shock Hazard** Disconnect electrical power at the service panel (fuse box or circuit breaker box).

Failure to do so could result in death or serious injury.

- wrenches
- pliers
- measuring tape
- flat-blade screwdriver
- pipe wrench
- keyhole saw
- tubing cutter
- pipe-joint compound
- wire stripper and utility knife

## 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.

- 3 fwist-on wire connectors for 16-gauge wire
- 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. (not shown) • aloves
- safety glasses
- Check with a qualified electrician if you are in doubt as to whether the appliance is properly grounded. Failure to follow these instructions could result in death or serious injury.

If codes permit and a separate grounding wire is used, it is recommended that a aualified electrician determine that the grounding path is adequate.

A 120-volt, 60-Hz, AC-only, 15- or 20-ampere, fused electrical supply is required. Time-delay fuse or circuit breaker is recommended. It is recommended that a separate circuit serving only this appliance be provided.

The dishwasher must be connected with copper wire only.

#### Recommended grounding method -

#### 1. Disconnect power supply.

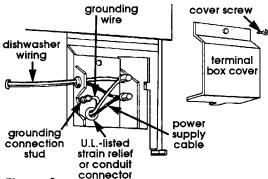
2. Run flexible, armored or non-metallic sheathed, copper cable (with grounding wire) from fused disconnect, circuit breaker or junction box through the 3/4" cabinet hole to the dishwasher location. The cable must extend 24 inches from the back wall.

The hole cut through a wood cabinet should be sanded until smooth.

The hole cut through a metal cabinet must be covered with a grommet (Part No. 302797), available at your local dealer or parts supplier.

A U.L.-listed strain relief or conduit connector must be installed at each end of the power supply cable (at the dishwasher and at the junction box). Wire sizes (COPPER WIRE ONLY) must conform with the rating of the dishwasher.

### Panel A



#### Figure 3

3. Remove the dishwasher terminal box cover. Connect the white and black wires of the power supply cable to the white and black leads in the terminal box with twist-on wire connectors. (See Figure 3.)

4. Loosen the front nut on the grounding connection stud located on the back of the terminal box. **Do** Not loosen the rear nut



#### on the grounding connection stud.

Form the bare grounding wire into a U-shaped hook. Wrap the grounding wire hook around the grounding connection stud between the two nuts on the stud. Securely tighten the front nut over the grounding wire. 5. Check that strain relief or conduit connector screws are tight. Replace

terminal box cover.

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

Local codes may permit the use of a U.L.-listed, flexible, three-conductor, power supply cord terminated with a three-prong, grounding-type plug. It is recommended that the power supply cord kit (Part No. 4317824), available at your local dealer or parts supplier, be used. Follow the instructions packaged with the power supply cord kit. If the cord kit is not available locally, the flexible power supply cord used must be a U.L.-listed, three-conductor, 16gauge cord that meets the National Electrical Code, ANSI/NFPA 70 — latest edition (\*, See Panel A) and all local codes and ordinances. The length of the power supply cord must not exceed six feet. It must be routed so it does not touch the dishwasher motor or the lower portion of the dishwasher tub. A strain relief (Part No. 596171), available at your local dealer or parts supplier, or a similar part must be used to secure the flexible power supply cord to the dishwasher frame or terminal box. The power supply cord must be plugged into a mating, 3-prong, grounding-type wall receptacle, arounded in accordance with the National Electrical Code ANSI/NFPA 70 — latest edition, (\*, See Panel A) and all local codes and ordinances.

### **Recommended grounding**

method 3-prong, grounding-

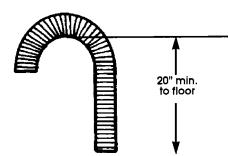
type wall receptacle

## Water requirements

The hot water line to the dishwasher must provide between 15-120 psi water pressure. The hot water heater should be set to deliver 120°F water temperature to the dishwasher for best results.

Use 3/8" minimum O.D. copper tubing or 1/2" minimum plastic tubing inlet line. Dishwasher inlet valve has 3/8" N.P.T. internal pipe thread.

## Drain requirements



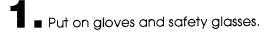
The drain hose MUST have a high drain loop, 20 inches minimum ABOVE FLOOR, to prevent backflow or water siphoning out of dishwasher during operation.

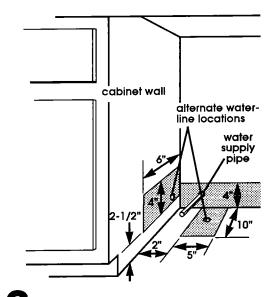
NOTE: An air gap MUST BE USED in the high drain loop if the drain hose is connected to house plumbing lower than 20 inches above the floor.

Drain hose, supplied, meets AHAM DW-1 test standards. Cut 1-1/2" hole in cabinet wall for drain hose. Additional drain line (a minimum of 1/2" I.D. and no longer than 20 feet) can be used if needed.

## Now start...

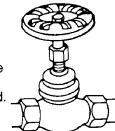
With dishwasher in kitchen.





#### Rough in water line to the dishwasher cabinet opening using one of the routing methods shown. Cut 1/2" or larger hole in cabinet wall for water line.

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



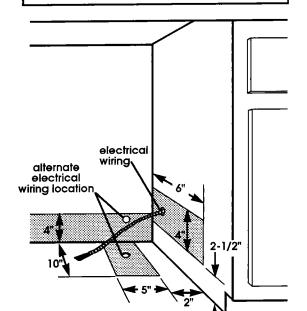
Flush water

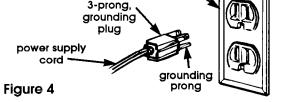
line into a bucket to get rid of any particles that may clog inlet valve. Turn shutoff valve to the "OFF" position.

## WARNING

**Electrical Shock Hazard** Disconnect electrical power at the service panel (fuse box or circuit breaker box).

Failure to do so could result in death or serious injury.





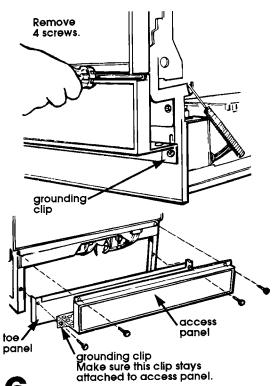
For your personal safety, this appliance must be grounded. To minimize possible shock hazard, the power supply cord must be plugged into a mating 3-prong grounding-type wall receptacle, grounded in accordance with National Electrical Code, ANSI/NFPA 70 - latest edition (\*, See Panel A) and all local codes and ordinances. See Figure 4. 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 aualified electrician. The receptacle should be installed on the rear or side wall of the cabinet next to dishwasher opening.

#### Panel B

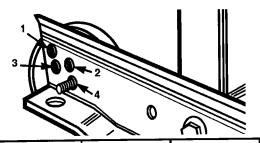
Cut a 1-1/2" maximum hole for power supply cord or a 3/4" hole for direct wiring in the cabinet or floor for the electrical wiring to pass through. If this hole is cut in a wood cabinet, sand the hole until it is smooth. If the hole is cut in a metal cabinet, the hole **must** be covered by a grommet (Part No. 302797), available at your local dealer or parts supplier.

If a power supply cord is used, install wall receptacle on rear or side wall of a cabinet next to dishwasher opening.

If power supply cable is used, install a 3/4" U.L.-listed strain relief or conduit connector to connect the flexible armored or non-metallic sheathed, copper cable (with grounding wire) to the fused disconnect, circuit breaker or junction box. Run the cable through the hole in the cabinet opening. The cable should extend 24 inches from the back wall.



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 grounding clip stays attached to access panel. Set panels aside on a protective surface.



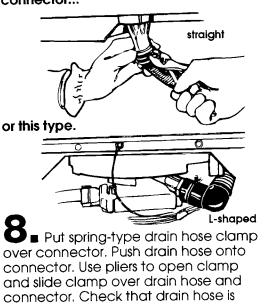
Min. Cutout Height	Wheel Position (See Illustration)	Number Of Turns To Adjust Levelers
34"	1	9
34-1/8"	2	6
34-5/16"	3	3
34-1/2"	4	0

For additional height:

 Add shims under the wheels.
Turn front levelers (each turn is approximately 1/16" in height).

**7** 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.

## You may have this type drain connector...



Floor Damage Tilt dishwasher backwards on wheels when moving across floor. Failure to do so may cause damage to floor covering.

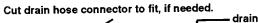
**9** Latch dishwasher door. Push dishwasher into place, sliding drain hose through hole cut in cabinet opening.

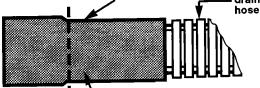
Do not pinch power supply cord or kink power supply cable between dishwasher and cabinet.

**10.** 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.

**1** Connect drain hose to an air gap or waste tee using one of the recommended or alternate methods.





drain hose connector

If connecting drain hose to an air gap or waste tee, cut end of drain hose as shown.

Secure drain hose with screw-type or spring-type hose clamp (clamp type varies with dishwasher models).

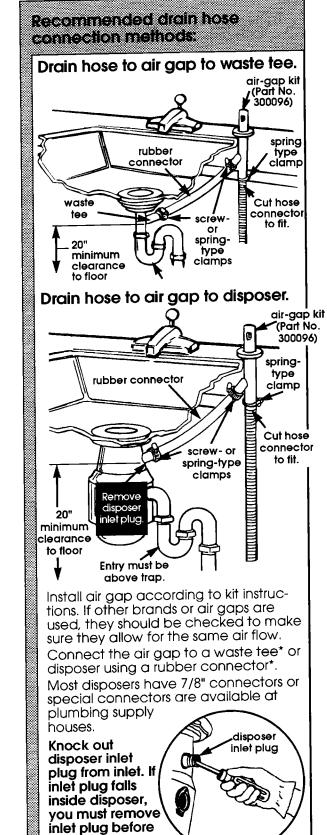
If spring-type clamp does not fit smaller section of drain hose connector, a smaller clamp will be needed. (Smaller clamps are available at local plumbing supply distributors.)

If connecting drain hose to a 7/8" disposer connector, DO NOT cut end of drain hose.

Knock out plug from disposer inlet. Secure drain hose with screw-type or

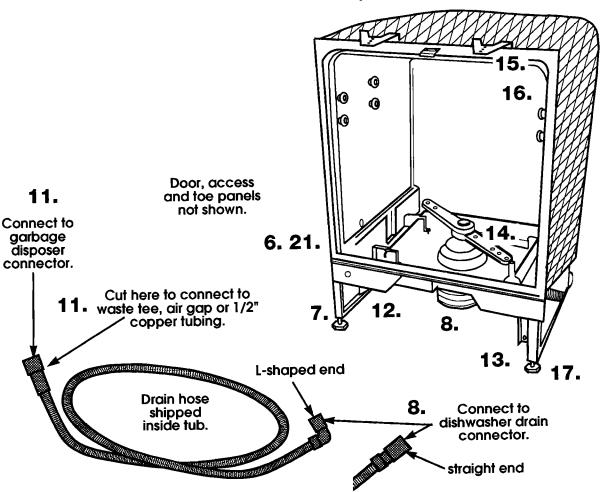
spring-type hose clamp, (clamp type varies with dishwasher models). DO NOT cut ribbed section to shorten

drain hose.



connecting drain hose. If disposer is already installed in sink, you may need to take out disposer to remove inlet plug.

#### Numbers correspond to steps.

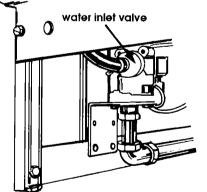


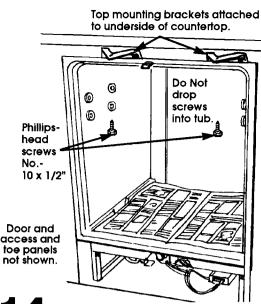
secure.

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.







• Open dishwasher door and remove all shipping materials. Remove bottom rack. Place a newspaper, large sheet of paper or a towel over bottom of dishwasher to prevent screws or other items from dropping into the pump area when securing dishwasher to countertop.

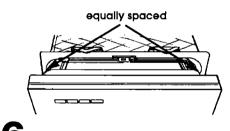
## 

Personal Injury Hazard

- The dishwasher must be secured to the countertop to keep it from tipping when door is open.
- Do Not drop screws in dishwasher tub. If screws should fall into pump area, pump and motor damage may occur.

Failure to follow these instructions may result in personal injury or product damage.

**15**. Secure dishwasher to countertop with two, No.-10 x 1/2" Phillips-head screws from parts bag. You **MUST** secure dishwasher to keep it from tipping forward when door is opened or closed. **Do Not drop screws in dishwasher tub.** Remove paper or towel from bottom of dishwasher.



3 inches 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.



# **19.** Check that all parts have been installed and no steps were skipped. Check that you have all the tools you started with.

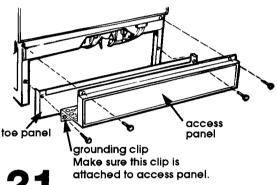
20. Turn on electrical supply. Start dishwasher and allow it to complete a cycle. Check that dishwasher is working properly and that there are no water leaks.

## 🔒 WARNING

**Electrical Shock Hazard** 

- Reinstall grounding clip over edge of access panel.
- Attach toe panel, access panel and grounding clip tightly to dishwasher leg.

Failure to follow these instructions may result in death or serious injury.



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

**22** If changing color of door and access panel or installing custom panels, follow the "To change door panel color" and "To change access panel color" instructions, Panel E and back cover.

#### Congratulations!

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

**12.** Connect water pipe or tubing directly to water inlet valve. Do Not run pipe or tubing across front of motor or dishwasher legs. Turn on water supply and check for leaks.

**13.** Check electrical requirements. Be sure you have correct electrical supply and recommended grounding method. See Panels A and B for proper connection.

17. 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.

**18** Take a few minutes to read the Use and Care Guide to fully understand your new dishwasher.

## To change door panel color

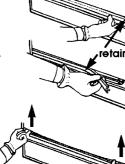
NOTE: The opposite side of the door color panel is a different color.

## WARNING

**Personal Injury Hazard** Wear gloves and handle panels carefully.

Cut metal edges may cause personal injury or damage to other materials.

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



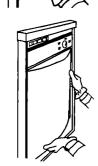
door panels at outer edges. Use one hand to bow bottom of panel. Remove panel(s). Do Not remove spacer.

Lift

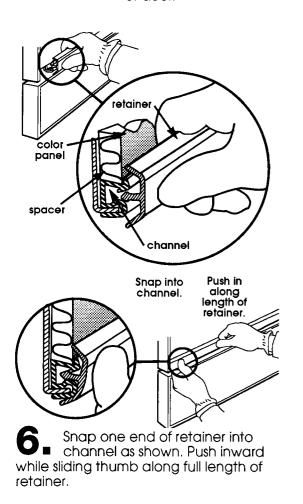
Insert one side of door panel(s), with desired color facing out, into one side of door frame.

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

chảnnei



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.



## To change access color panel

(For models so equipped)

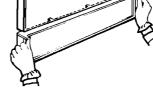


**Personal Injury Hazard** Wear gloves and handle panels

carefully.

Cut metal edges may cause personal injury or damage to other materials.





unsnap trim. Remove top trim and set it aside.

## Carefully

slide color access panel upwards and remove. Do Not remove spacer.

With desired color facing out, bow access panel and insert into access panel



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

■ Line up edges of top trim with sides of access panel



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

## To install customized wood panels in door and access panel

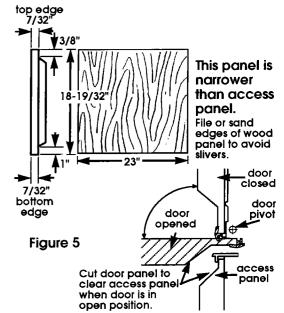
Dishwasher door panel and access panel (if model is so equipped) can be customized to match wood cabinets. A standard 1/4" (7/32" actual thickness) wood panel can be used as is for customizing the door and access panels.

A door panel thicker than 7/32", requires routing the top and bottom to a 7/32" thickness.

An access panel thicker than 7/32" requires routing all four edges to a 7/32".

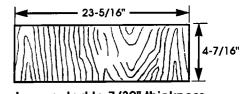
It is recommended that a cabinetmaker cut the customized panels because of the precise cuts required. (See Figures 5 and 6.)

## Wood door panel

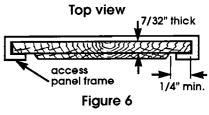


Heavy-duty door springs must be used if custom door panel weighs more than 4 pounds. Heavy-duty Door Springs Kit, Part No. 4318050, is available from your local dealer or parts supplier. Maximum door weight is 8 pounds.

#### Wood access panel This panel is wider than door panel.



All edges routed to 7/32" thickness.



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

File or sand edges of wood panels to avoid slivers.

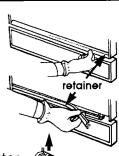
Dishwasher is subject to some humidity. Cover both sides and edges of wood panels with moisture-resistant sealer.

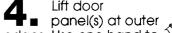
## WARNING

**Personal Injury Hazard** Wear gloves and handle panels carefully.

Cut metal edges may cause personal injury or damage to other materials.





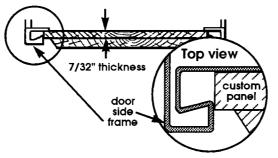






access panel.

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



edges. Use one hand to 🔾 bow bottom of panel(s). Remove panel(s) and spacer. Save panel(s) and spacer for future use.

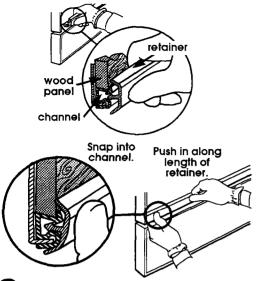
insert betweer sides



top of panel under control console



Insert top of wood door panel between sides of door frame about 3" 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 of door.



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

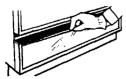
 Check door for proper operation. Door should close easily without slamming and open with its own weight. If necessary, close door and adjust both door springs by moving spring ends to different hoes in base.

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 and spacer upwards and



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

Insert wood access panel into access panel frame. Slide panel down into aroove 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.

#### 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.

## 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 turned on?
- Has a house fuse blown or circuit breaker tripped?
- Has electrical power been interrupted?

Note: If the motor has 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...

Check your Use and Care Guide for a toil-free number to call or call the dealer from whom you purchased this appliance. When you call, you will need the dishwasher model number and serial number. Both numbers are located on the serial/rating plate located behind the door on the front frame of the dishwasher opening.



Printed on recycled paper. 10% post consumer waste/ 50% recovered materials.

Printed in U.S.A.