# Installation Instructions



# Undercounter Dishwasher

### IMPORTANT

Installer: Leave Installation Instructions with the appliance. Save Installation Instructions for local electrical inspector's use.

# Before you start...

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

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

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

Take care not to damage power cord during installation or removal of dishwasher. 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.
- Square opening for proper dishwasher operation
- and appearance Cabinet front that is perpendicular to floor.
- Protection so that water inlet valve and drain cannot freeze.
- ¼" minimum clearance between motor and flooring to prevent motor overheating.



### Electrical requirements

### AWARNING

Electrical Shock Hazard Electrical ground is required on

- this appliance. Check with a qualified electrician if you are in doubt as to whether the appliance is
- properly grounded. Improper connection of the equipment-grounding conductor can result in fire, electrical shock, or other personal injury.
- Disconnect the power supply at the junction box.
- Do Not connect appliance to electrical supply until appliance is permanently grounded.
- Do Not use an extension cord with this appliance.
- This appliance must be connected to a grounded, metallic, permanent wiring system or a grounding conductor should be connected to the grounding terminal or wire lead on the appliance.

Do Not use a fuse in the neutral. Failure to follow these instructions could result in a fire, electrical shock or other personal injury

A 120-volt, 60-Hz, AC only, 15- or 20ampere, 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

It is the personal responsibility and obligation of the customer to contact a qualified electrician to assure the electrical installation is adequate and in conformance with the National Electrical Code ANSI/NFPA 70-latest edition, and local codes and ordinances.

The dishwasher must be connected with copper wire only.

# 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)

Recommended grounding method

1. Disconnect the power supply.

- AWARNING Electrical Shock Hazard
- Electrical wiring and components must Not contact any plumbing material or drain hose
- Cabinet opening must completely enclose sides, top and back of dishwasher to prevent personal injury from exposed wiring. Failure to do so could result in fire, electrical shock, or other personal injury from exposed wiring.

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Personal Injury/Product Damage Avoid opening dishwasher door before dishwasher is installed. Dishwasher may tip over when door is opened, resulting in personal injury or product damage.

## Tools needed for installation:



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

A U.L.-listed strain relief 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



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. Connect the green, grounding wire of the power supply cable to the grounding connection screw located nside the terminal box. (See Figure 3.) 5. Replace terminal box cover.

### Alternate grounding method

If the recommended grounding method is impossible - connect a separate, green, grounding wire (No. 16 minimum) from grounding connection screw located inside the terminal box to a grounded, copper, cold water pipe." (See Figure 5.)

#### THIS, HOWEVER, IS NOT RECOMMENDED

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

Do Not ground to a gas supply pipe or hot water pipe.

"Grounded, cold water pipe must have metal continuity to electrical ground and nol be interrupted by plastic, rubber or other insulating connectors such as hoses, fiftings, washers or gaskets (including water metar or pump) Any insulating, electrical connector should be jumped with a length of No-4 copper wire securely clamped to bare metal at both ends. (See Figure 5.)

#### В. 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 cord kit, Part No. 675456, available from your Roper dealer or parts supplier, be used. If the cord kit is not available locally, the flexible cord used must be a U.L.-listed, three-conductor, 16-gauge cord that meets the National Electrical Code ANSI/NFPA 70-latest edition, and all local codes and ordinances. The length of the cord must not exceed six feet. It must be routed so that it does not touch the dishwasher motor or the lower portion of the dishwasher tub. A prommet (Part No. 302797) **must** cover the hole cut in a metal cabinet for the flexible cord. The flexible cord must be plugged into a mating, three-prong, grounding-type wall receptacle, grounded in accordance with the National Electrical Code ANSI/NFPA 70-latest edition, and all local codes and ordinances. Follow instructions packaged with the flexible cord.

#### **Recommended grounding** method

### AWARNING

- Electrical Shock Hazard Electrical ground is required on
- this appliance. Improper connection of the equipment-grounding conductor can result in a risk of electrical
- shock. Check with a qualified electrician
  If you are in doubt as to whether the appliance is properly grounded. Do Not modify or remove the power supply cord plug. If plug 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. Failure to follow these Instructions could result in a fire, electrical shock or other personal injury.

Dishwashers equipped with a power supply cord have a 3-prong, grounding plug. The power supply cord must be plugged into a mating, 3-prong, grounding-type receptacle, grounded in accordance with the National Electrical Code ANSI/NFPA 70-latest edition, and all 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 (See Figure 4.)



1. Have a 3-prong, grounding-type, wall receptacle available or installed by a qualified electrician on the rear wall of one cabinet next to dishwasher opening. (See Figure 1, Panel A.)



2. For added personal safety, use clamp and green-colored, copper grounding wire. Connect the grounding wire (#16 minimum) from the external grounding connector screw inside the terminal box to a

grounded, cold water pipe." (See Figure 5.)

Do Not connect to electrical supply until appliance is permanently arounded. Do Not ground to a gas supply pipe

on pipe

#### or hot water pipe.

\*Grounded, cold water pipe must have metal continuity to electrical ground and not be interrupted by plastic, rubber or other electrical insulating connectors such as hoses. Ifflings, washer or gaskets (including water meter or pump). Any electrical insulating connector should be jumped, as shown, with a length of No. 4 wire securely clamped to bare metal at both ends.

### Temporary grounding method



ar supply cord

Figure 6

If changing and properly grounding the electrical supply is impossible, and where local codes permit (consult your electrical inspector), a temporary adapter may be plugged into the 2prong, wall receptacle to mate with the 3-prong, power supply cord. (See Figure 6.)

If this is done, you **must** connect a separate copper grounding wire from the external grounding connector screw inside the terminal box to the grounded, cold water pipe." (See Figure 5.)

Do Not connect to electrical supply until appliance is permanently arounded.

Do Not ground to a gas supply pipe or hot water pipe.

### If power cord cannot be used...

When local codes do not permit use of a power cord with an undercounter dishwasher, the power cord must be removed and dishwasher wired directly. IF THE POWER SUPPLY CORD IS REMOVED, THE DISHWASHER MUST BE CONNECTED WITH COPPER WIRE ONLY.



### 1. Disconnect the power supply.

- 2. Remove terminal box cover.
- 3. Remove wire connectors from the power cord wires and grounding wire screw. (See Figure 7.)
- Disconnect the strain relief (behind the terminal box) from the dishwasher leg.
- 5. Remove power cord and strain relief from terminal box hole.
- 6. See "A. Direct wire method," Panel A, for further instructions.

# Water requirements sound shield ¥a" pipe thread let valve Figure 8

The hot water line to the dishwasher must provide between 15-120 PSI water pressure. The hot water heater should be set to deliver 140°F water temperature to the dishwasher for best results.

Use ¾" O.D. copper tubing or ½" plastic tubing minimum inlet line. Dishwasher inlet valve has 3/6" internal pipe thread.

1. Rough in water line before installing dishwasher using one of the routing methods shown in Figure 8. Cut a %" or larger hole in cabinet, rear wall or floor for pipe.



2. Install a shutoff valve in the water line where it can be easy to access.

3. Flush water line into a bucket to get rid of any particles that may clog inlet valve

# Drain requirements

Some models are not equipped with a drain hose. A drain hose that meets AHAM DW-1 test standards must be securely clamped to the pump's drain outlet. Drain hoses are available through your Roper dealer. Drain hose, when supplied, meets AHAM DW-1 test standards.

#### Drain line connection to house plumbing must be minimum 20" above floor to prevent siphoning.

Cut 11/2" 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.

# Pick one method



Install air gap (Part No. 300096); according to kit instructions, in the drain line before line connects to household plumbing. If other brands of air gaps are used, they should be checked to make sure they allow for the same water flow.

Connect the air gap to a waste tee (Part No. 675149)\* or disposer using a rubber connector (Part No. 674381): Most disposers have 7/11" connectors or special connectors are available at plumbing supply houses. **Be sure to** remove the disposer plug before connecting the drain hose.



Figure 13 Most disposers have 1/8" connectors or special connectors are available at plumbing supply houses. **Be sure to** remove the disposer plug before connecting the drain hose.

All parts are available through your Roper dealer

## Inserting Dishwasher in Opening



Shut off water line valve. Check that electric supply is off.

If color of door and access panel are to be changed or custom panels installed, change the panels now. See Panel E for detailed instructions

### **ACAUTION** Personal Injury/Product Damage

Avoid opening dishwasher door before dishwasher is installed. Dishwasher may tip over when



Numbers correspond to steps.

leveling screw

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# The dishwasher is shipped to be installed in 34" cabinet opening. Measure height of cabinet opening from underside of countertop to floor. Check chart for that height

opening. Put the wheels in the required position and turn front levelers the number of times indicated.

MIN. CUTOUT HEIGHT	WHEEL POSITION (See Illustration)	NUMBER OF TURNS TO PREADJUST LEVELERS
34"	1	0
341/4"	2	4
341/2"	3	4
34%"	4	10
34%"	5	10

### Floor Damage

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



Untape drain hose. Close and latch alshwasher door. Push dlshwasher into place, sliding drain hose and power cord (if available) through holes cut in cabinet wall. Align dishwasher door with cabinet front, not doors, so that spacing is the same on both sides and top to bottom. Center dishwasher in cabinet opening. Check that front leveling legs are firmly against the floor.

The carton and skid should have been removed from the dishwasher as described in the instructions on the carton. If you have removed the carton without removing the skid from the dishwasher:

- a. Place two foam shipping pieces behind dishwasher. Firmly grasp the body of the dishwasher and gently lay it on its back on the foam shipping pieces.
- b. Use a ¼" socket wrench or screwdriver to remove the screws holding the skid to the bottom of the dishwasher.
- c. Stand dishwasher upright.





Loosen, do not remove, the 4 screws attaching access panel to dishwasher using a 1/4" socket wrench or Phillips screwdriver. Remove access panel and set aside



Connect water pipe or tubing directly to water inlet valve. Do Not run pipe or tubing across front of motor or dish-washer legs. Pierce a ½" diameter hole through the sound shield (sound shield is not available on all models) for water line. See Figure 8, Panel B. Turn on water supply and check for leaks.

Open door approximately 3" 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.



Check door for proper operation. Door should close easily without slamming and open with its own weight. If necessary, close door and adjust door spring with pliers.

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

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



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door is opened or closed. Do Not drop screws in dishwasher tub. If screws

should fall into the pump, pump and motor failure may occur. Remove

paper from bottom of dishwasher.

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



Replace the access panel.



PANEL D

### To Change Door And Access Panel Color

(For models so equipped)

### **ACAUTION**

Personal Injury Hazard Handle metal edges of panels carefully. Cut metal edges may cause personal Injury or damage to other materials.



Remove two screws securing one of the side trim pieces. Slide trim downward until upper edge is free of console or end cap. Lift off trim piece.

# 2.

Slide out color panel(s) and corrugated spacer. Select panel color you wish to have showing and place on top of panels.



Slide color panel(s) and spacer into the lower door trim and the groove on underside of console. Gently push on panel surface to fit panel under side trim edge.



Slide the side trim piece against the console or end cap. Align side trim and mounting holes in door frame. Secure trim to door with screws.



Loosen the upper access panel screws and pull access panel outward. Remove and save three screws securing the top trim. Remove top trim.



Pull out desired color panel and place in front of other panels and corrugated spacer with desired color facing out.



Replace top trim with three screws. Move access panel back into position and tighten upper access panel screws.

## Installing Customized Wood Door Panels

Dishwasher door panel and access panel can be customized to match wood cabinets.



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

Remove side trim piece as described in Step 1, "To change access and door panel color."

# ACAUTION

Personal Injury Hazard Handle metal edges of panels carsefully. Cut metal edges may cause personal injury or damage to other materials.



**5** Install custom panel and one color panel (color panel must be used) as described in Steps 3 and 4, "To change access and front panel color."

Repeat Steps 1 and 2 of this section for cutting custom panels for the access panel. Use specified dimensions shown.

Remove top trim piece from access panel as described in Step 5, "To change door and access panel color."

**8** Remove corrugated spacer and all color panels and save for future use.

Install custom panel and one color panel (color panel must be used) as described in Steps 6 and 7. "To change door and access panel color."

# 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?
- 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.

