



# DISHWASHER USER INSTRUCTIONS

THANK YOU for purchasing this high-quality product. If you should experience a problem not covered in TROUBLESHOOTING, please visit our website at [www.whirlpool.com](http://www.whirlpool.com) for additional information. If you still need assistance, call us at 1-800-253-1301. In Canada, visit our website at [www.whirlpool.ca](http://www.whirlpool.ca) or call us at 1-800-807-6777.

You will need your model and serial number located near the door on the right-hand or left-hand side of the dishwasher interior.

Para obtener acceso a "Instrucciones para el usuario de la lavavajillas" en español, o para obtener información adicional acerca de su producto, visite : [www.whirlpool.com](http://www.whirlpool.com)

Tenga listo su número de modelo completo. Puede encontrar su número de modelo y de serie en la etiqueta ubicada cerca de la puerta al lado derecho o izquierdo del interior de la lavavajillas.

## Table of Contents

DISHWASHER SAFETY .....	1
QUICK STEPS .....	3
DISHWASHER USE.....	3
CYCLE AND OPTION DESCRIPTIONS .....	5
DISHWASHER FEATURES .....	7
DISHWASHER CARE .....	8
TROUBLESHOOTING .....	9
NOTES.....	11
WARRANTY .....	12

## Dishwasher Safety

### Your safety and the safety of others are very important.

We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages.



This is the safety alert symbol.

This symbol alerts you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and either the word "DANGER" or "WARNING."

These words mean:

**⚠ DANGER**

You can be killed or seriously injured if you don't immediately follow instructions.

**⚠ WARNING**

You can be killed or seriously injured if you don't follow instructions.

All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

## IMPORTANT SAFETY INSTRUCTIONS

**WARNING:** When using the dishwasher, follow basic precautions, including the following:

- Read all instructions before using the dishwasher.
- Use the dishwasher only for its intended function.
- Use only detergents or rinse agents recommended for use in a dishwasher, and keep them out of the reach of children.
- When loading items to be washed:
  - 1) Locate sharp items so that they are not likely to damage the door seal; and
  - 2) Load sharp knives with the handles up to reduce the risk of cut-type injuries.
- Do not wash plastic items unless they are marked “dishwasher safe” or the equivalent. For plastic items not so marked, check the manufacturer’s recommendations.
- Do not touch the heating element during or immediately after use.
- Do not operate the dishwasher unless all enclosure panels are properly in place.
- Do not tamper with controls.
- Do not abuse, sit on, or stand on the door, lid, or dish racks of the dishwasher.
- To reduce the risk of injury, do not allow children to play in or on the dishwasher.
- Under certain conditions, hydrogen gas may be produced in a hot water system that has not been used for two weeks or more. **HYDROGEN GAS IS EXPLOSIVE.** If the hot water system has not been used for such a period, before using the dishwasher turn on all hot water faucets and let the water flow from each for several minutes. This will release any accumulated hydrogen gas. As the gas is flammable, do not smoke or use an open flame during this time.
- Remove the door or lid to the washing compartment when removing an old dishwasher from service or discarding it.

**SAVE THESE INSTRUCTIONS**

## GROUNDING INSTRUCTIONS

■ **For a grounded, cord-connected dishwasher:**

The dishwasher 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. The dishwasher 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.

**WARNING:** 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 whether the dishwasher is properly grounded. Do not modify the plug provided with the dishwasher; if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

■ **For a permanently connected dishwasher:**

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

**SAVE THESE INSTRUCTIONS**



## **! WARNING**

### **Tip Over Hazard**

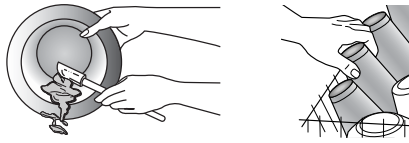
**Do not use dishwasher until completely installed.**

**Do not push down on open door.**

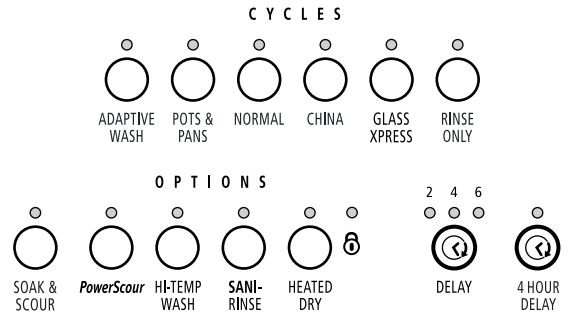
**Doing so can result in serious injury or cuts.**

## Quick Steps

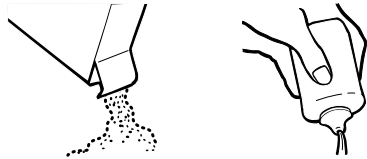
### 1 Prepare and load dishwasher.



### 3 Select a cycle and option.



### 2 Add detergent for cleaning and rinse aid for drying.



### 4 Start dishwasher.

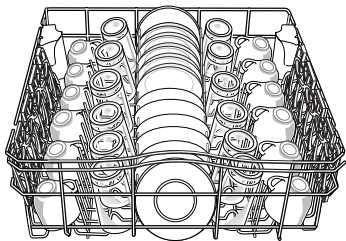


## Dishwasher Use

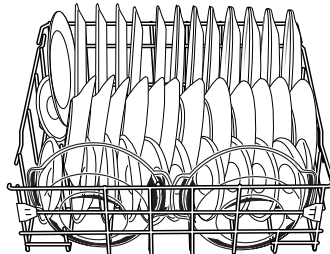
### STEP 1

#### Prepare and Load the Dishwasher

**IMPORTANT:** Remove leftover food, bones, toothpicks and other hard items from the dishes. Remove labels from containers before washing.

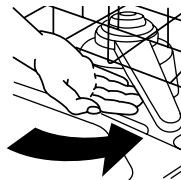


Upper rack



Lower rack

- Make sure nothing keeps spray arm(s) from spinning freely. It is important for the water spray to reach all soiled surfaces.
- Make sure that when the dishwasher door is closed no items are blocking the detergent dispenser.
- Items should be loaded with soiled surfaces facing down and inward to the spray as shown. This will improve cleaning and drying results.
- Avoid overlapping items like bowls or plates that may trap food.



- Place plastics, small plates and glasses in the upper rack. Wash only plastic items marked “dishwasher safe.”
- To avoid thumping/clattering noises during operation: Load dishes so they do not touch one another. Make sure lightweight load items are secured in the racks.
- When loading silverware, always place sharp items pointing down and avoid “nesting” as shown.

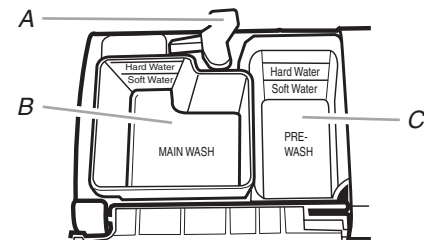


### STEP 2

#### Add Detergent

**NOTE:** If you do not plan to run a wash cycle soon, run a rinse cycle. Do not use detergent.

- Use automatic dishwasher detergent only. Add powder, liquid or tablet detergent just before starting a cycle.
- Fresh automatic dishwasher detergent results in better cleaning. Store tightly closed detergent container in a cool, dry place.



A. Cover latch  
B. Main Wash section  
C. Pre-Wash section

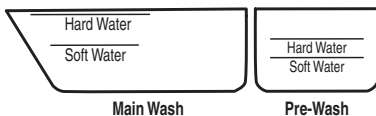
- The amount of detergent to use depends on:  
How much soil remains on the items - Heavily soiled loads require more detergent.  
The hardness of the water - If you use too little in hard water, dishes won't be clean. If you use too much in soft water, glassware will etch.

Soft to Medium Water (0-6 grains per U.S. gallon)  
[typical water softener water and some city water]

Medium to Hard Water (7-12 grains per U.S. gallon)  
[well water and some city water]

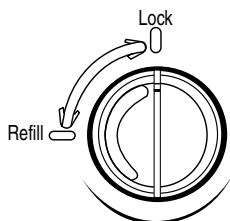
- Depending on your water hardness, fill the Main Wash section of the dispenser as shown. Fill the Pre-Wash section to the level shown, if needed.

**NOTE:** Fill amounts shown are for standard powdered detergent. Follow instructions on the package when using other dishwasher detergent.

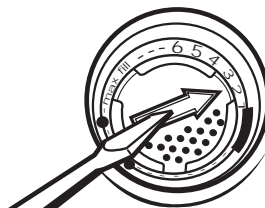


### Add Rinse Aid

- Your dishwasher is designed to use rinse aid for good drying performance. Without rinse aid your dishes and dishwasher interior will have excessive moisture. The heat dry option will not perform as well without rinse aid.
- Rinse aid keeps water from forming droplets that can dry as spots or streaks. They also improve drying by allowing water to drain off of the dishes after the final rinse.
- Rinse aid helps to reduce excess moisture on the dish racks and interior of your dishwasher.
- Check the rinse aid indicator. Add rinse aid when indicator drops to "Add" level.
- To add rinse aid, turn the dispenser cap to "Refill" and lift off. Pour rinse aid into the opening until the indicator level is at "Full." Replace the dispenser cap and turn to "Lock." Make sure cap is fully locked.



¼ turn to lock



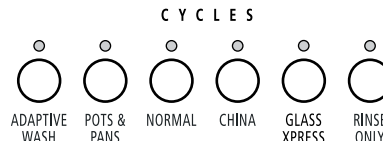
**NOTE:** For most water conditions, the factory setting of 2 will give good results. If you have hard water or notice rings or spots, try a higher setting. Turn the arrow adjuster inside the dispenser by either using your fingers or inserting a flat-blade screwdriver into the center of the arrow and turning.

## STEP 3

### Select a Cycle (cycles vary by model)

See "Cycle and Option Descriptions" charts in the following section.

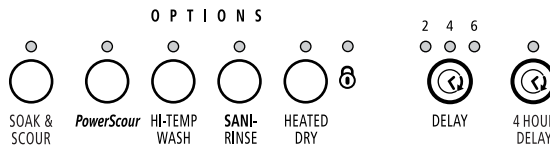
Heavier cycles and options affect cycle length. Some cycles and options will take up to 3½ hours to complete.



### Select Options (options vary by model)

See "Cycle and Option Descriptions" charts in the following section.

You can customize your cycles by pressing the options desired.



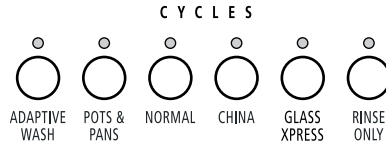
## STEP 4

### Start or Resume a Cycle

- Run hot water at the sink nearest your dishwasher until the water is hot. Turn off water. For best dishwashing results, water should be 120°F (49°C) as it enters the dishwasher.
- Push door firmly closed. The door latches automatically. Select the wash cycle and options desired OR press START/RESUME to repeat the same cycle and options as in the previous wash cycle.
- You can add an item anytime before the main wash starts. Open the door slowly and add the item. Close the door firmly within 3 seconds. Press START/RESUME.



## Cycle and Option Descriptions









This information covers several different models. Your dishwasher may not have all the cycles and options described.

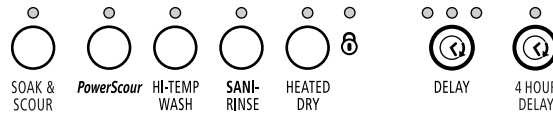
You can customize your cycle by selecting an option.

See option selections. If you change your mind, press the option again to turn off the option, or select a different option. You can change an option anytime before the selected option begins.









\*Maximum wash times depend on water temperature, heavy soil condition, dish load size and options selected.

<b>CYCLE SELECTIONS</b>					
CYCLES	DISH LOAD TYPES	DESCRIPTIONS	WASH TIME (HH:MM)		
			Cycle Minimum	Cycle + Options Minimum	*Maximum
 ADAPTIVE WASH	Use for all day-to-day soil types when washing full to partial dish loads.	This cycle compensates for the size of the dish load by adding time and heat. During the wash, the wash action will repeatedly pause for several seconds.	1:19	1:27	3:30
 POTS & PANS	Use for hard-to-clean, heavily soiled pots, pans, casseroles, and regular tableware.	During the wash, the wash action will repeatedly pause for several seconds.	1:37	1:39	3:30
 NORMAL	Use for loads with normal amounts of food soil.	The energy-usage label is based on this cycle. During the wash, the wash action will repeatedly pause for several seconds.	1:04	1:24	3:30
 CHINA	Use for lightly soiled items or china and crystal.	During the wash, the wash action will repeatedly pause for several seconds.	1:08	1:21	2:51
 GLASS XPRESS	Use to quickly wash prerinsed glasses or dish loads.	This cycle does not dry.	0:30	none	none
 RINSE ONLY	Use for rinsing dishes, glasses, and silverware that will not be washed right away.	This cycle does not dry. Do not use detergent.	0:03	none	none







**IMPORTANT:** The sensor in your dishwasher monitors the soil level. Cycle time and/or water usage can vary as the sensor adjusts the cycle for the best wash performance. If the incoming water is less than the recommended temperature or food soils are heavy, the cycle will automatically compensate by adding time, heat and water as needed.



**OPTION SELECTIONS**

OPTIONS	DISH LOAD TYPES	DESCRIPTIONS	USE WITH:
	Loads containing tough, baked-on food needing to be presoaked.	Use to presoak your dishes for 4 hours in your dishwasher instead of presoaking them in the sink.	Adaptive Wash, Pots & Pans or Normal cycle
	Pans, casseroles, etc. with tough food soil.	Activates the POWERSCOUR™ spray jets and provides intensified water spray to the back of the lower level rack. May add heat and time to the cycle.	Adaptive Wash, Pots & Pans or Normal cycle
	Loads containing tough, baked-on food.	Increases the target water temperature during the wash portions of the cycle. Adds heat, wash time and water to the cycle.	Adaptive Wash, Pots & Pans or Normal cycle
	To sanitize your dishes and glassware in accordance with NSF/ANSI Standard 184 for Residential Dishwashers.	Raises the water temperature in the final rinse to approximately 155°F (68°C). This high temperature rinse sanitizes your dishes and glassware in accordance with NSF/ANSI Standard 184 for Residential Dishwashers. Certified residential dishwashers are not intended for licensed food establishments. The Sanitize or Sani Rinse option adds heat and time to the cycle.	Adaptive Wash, Pots & Pans or Normal cycle. Only these sanitization cycles have been designed to meet the NSF/ANSI requirements.
	For best drying results, dry dishes with heat.	Turn OFF when loads contain plastic dinnerware that may be sensitive to high temperatures. This option with the use of rinse aid will provide the best drying performance.	Available with any cycle except Rinse Only.
	To run your dishwasher at a later time or during off-peak hours.	Delays the start of a cycle up to 6 hours. Select a wash cycle and options. Press Delay until reaching the desired hours for the delay to start. Press START/RESUME. Close the door firmly.	All cycles, except Rinse Only
	To run your dishwasher at a later time or during off-peak hours.	Delays the start of a cycle up to 4 hours. Select a wash cycle and options. Press Delay until reaching the desired hours for the delay to start. Press START/RESUME. Close the door firmly.	All cycles, except Rinse Only and Glass Xpress
<b>Control Lock</b> 	To avoid unintended use of your dishwasher, or cycle and option changes during a cycle.	To turn on Lock, press and hold Heat Dry for at least 4 seconds. To turn off Lock, press and hold Heat Dry for at least 4 seconds. When Control Lock is lit, all buttons are disabled. If you press any pad while your dishwasher is locked, the light flashes 3 times. The dishwasher door can be opened while the controls are locked.	Anytime

## CONTROLS AND CYCLE STATUS

CONTROL	PURPOSE	COMMENTS
	To start or resume a wash cycle	If the door is opened during a cycle or the power is interrupted, the START/RESUME indicator flashes. The cycle will not resume until the door is closed and START/RESUME is pressed.
	To cancel wash cycle	Close the door firmly. The dishwasher starts a 2-minute drain (if needed). Let the dishwasher drain completely.
Washing 	To follow the progress of your dishwasher cycle	The "Washing" indicator glows at the start of the first fill of any cycle (except Rinse Only) and remains on until the end of the main wash cycle.
Drying 	To follow the progress of your dishwasher cycle	The "Drying" indicator glows during the drying portion of each cycle (except Glass Xpress and Rinse Only).
Clean  Sanitized 	To follow the progress of your dishwasher cycle	The "Clean" indicator glows when a cycle is finished. If you select the Sani Rinse option, when the Sani Rinse cycle is finished, the "Sanitized" indicator glows. If your dishwasher did not properly sanitize your dishes, the light flashes at the end of the cycle. This can happen if the cycle is interrupted, or the water could not be heated to the required temperature. The light goes off when you open and close the door or press CANCEL.

## Dishwasher Features

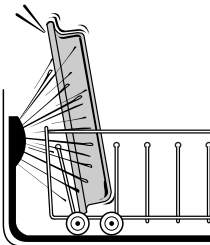
Your Whirlpool dishwasher may have some or all of these features.

### POWERSCOUR™ Wash Area

The POWERSCOUR™ wash area is located at the back of the lower level rack.

**NOTE:** You must select the POWERSCOUR™ wash option to use this feature. Make sure items do not interfere with the water feed tube, spray arms, or POWERSCOUR™ spray jets.

- Load pans, casserole dishes, etc. in the back of the lower dish rack with the soiled surfaces facing the POWERSCOUR™ spray jets.
- Only one row of items may face the POWERSCOUR™ spray jets. Stacking, overlapping or nesting items will keep the POWERSCOUR™ spray jets from contacting all of the surfaces.



### To open the ANYWARE™ PLUS silverware basket:

Unlock the latch.

**NOTE:** Be sure the cover is completely latched before pulling out the bottom rack and before closing the dishwasher door.

### To remove the basket from the door:

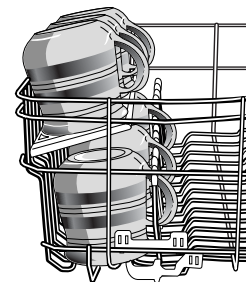
1. Grasp the silverware basket by the handle. Slide it toward the top of the door.
2. Lift the basket off the holding buttons.

### To replace the basket in the door:

1. Set the silverware basket on the holding buttons.
2. Slide the basket toward the bottom of the door until it locks into place.

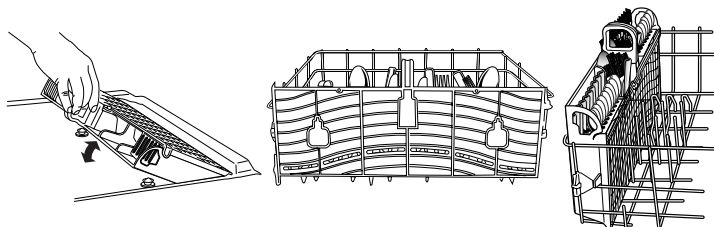
### Cup shelves

Fold down the extra shelf on the left-hand or right-hand side of the top rack to hold additional cups, stemware or long items such as utensils and spatulas.



### ANYWARE™ PLUS silverware basket

The ANYWARE™ PLUS silverware basket can be hung on the door, the bottom rack, or placed inside the bottom rack.



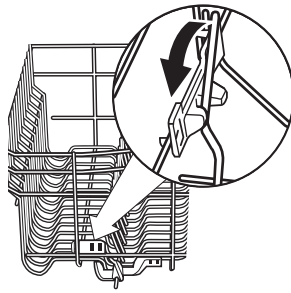


### Fold-down Tines

The row of tines on the left-hand and right-hand sides of the mid-level rack can be adjusted to make room for a variety of dishes.

#### To adjust the fold-down tines:

1. Grasp the tip of the tine that is in the tine holder.
2. Gently push the tine out of the holder.
3. Lay the tines down, toward the center of the rack.

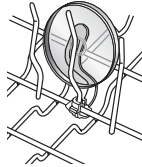


### Light Item Clips

The light item clips hold lightweight plastic items such as cups, lids, or bowls in place during washing.

#### To move a clip:

1. Pull the clip up and off the tine.
2. Reposition the clip on another tine.

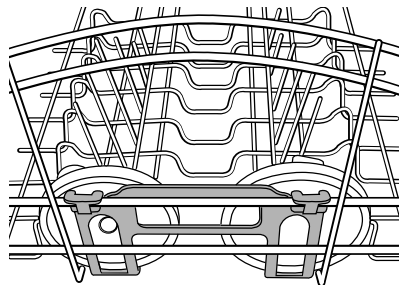


### Side clip

The side clip holds lightweight plastic items such as cups, lids, or bowls in place during washing.

#### To move a clip

1. Pull the clip up and off horizontal rack wire.
2. Reposition the clip on another horizontal rack wire.

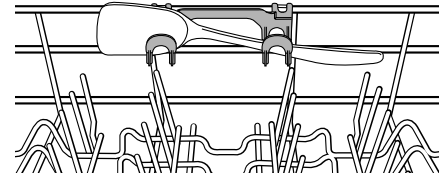


### Utensil clip

The utensil clip holds specialty cooking items (wooden spoons, spatulas, and similar items).

#### To move a clip

1. Pull the clip up and off horizontal rack wire.
2. Reposition the clip on another horizontal rack wire.



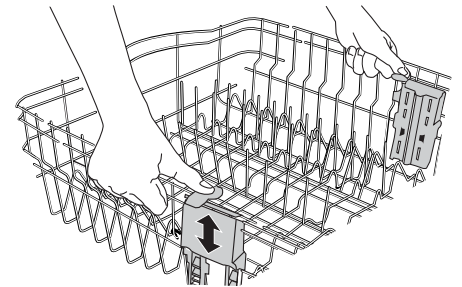
### EZ-2-Lift™ Top Rack

You can raise or lower the top rack to fit tall items in either the top or bottom rack. Adjusters are located on each side of the top rack. Raise the top rack to accommodate items up to 9" (22 cm) in the top rack and 13" (33 cm) in the bottom rack, or lower the top rack to accommodate items up to 11" (28 cm) in both the top and bottom racks.

To raise the rack, press both rack adjusters and lift the rack until it is in the Up position and is level.

To lower the rack, press both rack adjusters and slide the rack back to its lower position.

**NOTE:** The top rack must be level.

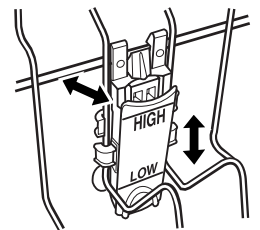


### Adjustable 2-position Top Rack

You can raise or lower the top rack to fit tall items in either the top or bottom rack. Adjusters are located on each side of the top rack. Raise the top rack to accommodate items up to 9" (22 cm) in the top rack and 13" (33 cm) in the bottom rack, or lower the top rack to accommodate items up to 11" (28 cm) in both the top and bottom racks.

To raise or lower the rack, hold the top rack with one hand near the adjuster and use the other hand to pull out the top of the adjuster. Raise or lower the rack to one of the preset positions.

**NOTE:** The top rack must be level.



## Dishwasher Care

### Cleaning the Dishwasher

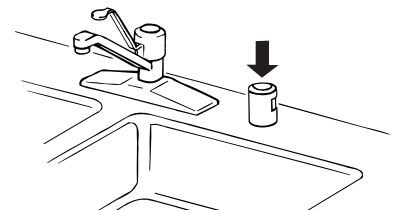
Clean the exterior of the dishwasher with a soft, damp cloth and mild detergent. If your dishwasher has a stainless steel exterior, a stainless steel cleaner is recommended - Stainless Steel Cleaner and Polish Part Number 31464.

Clean the interior of the dishwasher, with a paste of powdered dishwasher detergent and water or use liquid dishwasher detergent on a damp sponge to clean the cooled-down interior.

A white vinegar rinse may remove white spots and film. Vinegar is an acid, and using it too often could damage your dishwasher.

Put 2 cups (500 mL) white vinegar in a glass or dishwasher-safe measuring cup on the bottom rack. Run the dishwasher through a complete washing cycle using an air-dry or an energy-saving dry option. Do not use detergent. Vinegar will mix with the wash water.

If you have a drain air gap, check and clean it if the dishwasher isn't draining well.



### Storing the Dishwasher

If you will not be using the dishwasher during the summer months, turn off the water and power supply to the dishwasher. In the winter, if the dishwasher could be exposed to near freezing temperatures or is left in a seasonal dwelling such as a second home or vacation home, avoid water damage by having your dishwasher winterized by authorized service personnel.



---

## Troubleshooting

First try the solutions suggested here or visit our website and reference FAQs (Frequently Asked Questions) to possibly avoid the cost of a service call.

In the U.S.A., [www.whirlpool.com](http://www.whirlpool.com) In Canada, [www.whirlpool.ca](http://www.whirlpool.ca)

---

### Dishwasher is not operating properly

#### ■ Dishwasher does not run or stops during a cycle

Is the door closed tightly and latched?

Is the right cycle selected?

Is there power to the dishwasher? Has a household fuse blown, or has a circuit breaker tripped? Replace the fuse or reset the circuit breaker. If the problem continues, call an electrician.

Has the motor stopped due to an overload? The motor automatically resets itself within a few minutes. If it does not restart, call for service.

Is the water shutoff valve (if installed) turned on?

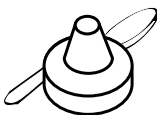
It is normal for certain cycles to repeatedly pause for several seconds during the main wash.

#### ■ Clean light is flashing

Call for service.

#### ■ Dishwasher will not fill

Is the overflow protection float able to move up and down freely? Press down to release.



#### ■ Dishwasher seems to run too long

The dishwasher can run up to 3½ hours depending on soil level, water temperature, cycles and options.

Is the water supplied to the dishwasher hot enough? The dishwasher runs longer while heating water.

Is the dishwasher cycle time within the cycle times? See cycle sections wash times. A delay automatically occurs in some wash and rinse cycles until the water reaches the proper temperature.

This dishwasher is equipped with an optical sensor wash that detects water temperature, soil and detergent amount. Wash cycles are adjusted based on what is sensed.

**IMPORTANT:** The very first wash cycle after installation in your home will be adjusted to include an additional 2 rinses. This cycle must not be interrupted for proper sensor adjustment. If this adjustment cycle is canceled or stopped before the Clean light comes on at the end of the cycle, the next wash cycle will repeat this sensor adjustment.

#### ■ Water remains in the dishwasher

Is the cycle complete?

#### ■ Detergent remains in the covered section of the dispenser

Is the cycle complete?

Is the detergent lump-free? Replace detergent if necessary.

Is the dispenser door blocked by dishes or cookware when the dishwasher door is closed?

#### ■ White residue on the front of the access panel

Was too much detergent used?

Is the brand of detergent making excess foam? Try a different brand to reduce foaming and eliminate buildup.

#### ■ Odor in the dishwasher

Are dishes washed only every 2 or 3 days? Run a rinse cycle once or twice a day until you have a full load.

Does the dishwasher have a new plastic smell? Run a vinegar rinse as described in "Dishwasher Care."

#### ■ Condensation on the kitchen counter (built-in models)

Is the dishwasher aligned with the countertop? Moisture from the vent in the dishwasher console can form on the counter. Refer to the Installation Instructions for more information.

---

### Dishes do not dry completely

#### ■ Dishes do not dry completely

Did you use a rinse aid? Your dishwasher is designed to use rinse aid for good drying performance. Without rinse aid your dishes and dishwasher interior will have excessive moisture. The heat dry option will not perform as well without rinse aid.

#### ■ Dishes are not dry

Did you load your dishwasher to allow proper water drainage? Do not overload. Use a liquid rinse aid to speed drying.

Are the plastics wet? Plastics often need towel drying.

Is the rinse aid dispenser empty?

Did you use an air-dry or energy-saving dry option? Use a heated drying option for dryer dishes.

#### ■ Excess moisture on racks and dishwasher interior

Check the rinse aid indicator to see that there is rinse aid in the dispenser.

---

### Spots and stains on dishes

#### ■ Spotting and filming on dishes

Is your water hard, or is there a high mineral content in your water? Conditioning the final rinse water with a liquid rinse aid helps eliminate spotting and filming. Keep the rinse aid dispenser filled. Always use a high-temp option. If your water hardness is 13 grains or above, it is strongly recommended that you install a home water softener. If you do not wish to drink softened water, have the softener installed onto your hot water supply.

Is the water temperature too low? For best dishwashing results, water should be 120°F (49°C) as it enters the dishwasher.

Did you use the correct amount of effective detergent? Use recommended dishwasher detergents only. Do not use less than 1 tbs (15 g) per load. Detergent must be fresh to be effective. Heavy soil and/or hard water generally require extra detergent.

Is the home water pressure high enough for proper dishwasher filling? Home water pressure should be 20 to 120 psi (138 to 828 kPa) for proper dishwasher fill. If you have questions about your water pressure, call a licensed, qualified plumber.

**NOTE:** To remove spots and film from glassware, remove all silverware and metal items and run a vinegar rinse as described in "Dishwasher Care."

■ **Silica film or etching (silica film is a milky, rainbow-colored deposit; etching is a cloudy film)**

Sometimes there is a water/chemical reaction with certain types of glassware. This is usually caused by some combination of soft or softened water, alkaline washing solutions, insufficient rinsing, overloading the dishwasher, and the heat of drying. It might not be possible to avoid the problem, except by hand washing.

To slow this process use a minimum amount of detergent but not less than 1 tbs (15 g) per load. Use a liquid rinse aid and underload the dishwasher to allow thorough rinsing. Silica film and etching are permanent and cannot be removed. Do not use heated drying.

■ **White spots on cookware with nonstick finish**

Has the dishwasher detergent removed cookware seasoning? Reseason cookware after washing it in the dishwasher.

■ **Brown stains on dishes and dishwasher interior**

Does your water have high iron content? Rewash dishes using 1-3 tsp (5-15 mL) of citric acid crystals added to the covered section of the detergent dispenser. Do not use detergent. Follow with a Normal wash cycle with detergent. If treatment is needed more often than every other month, the installation of an iron removal unit is suggested.

■ **Black or gray marks on dishes**

Are aluminum items rubbing dishes during washing? Disposable aluminum items can break down in the dishwasher and cause marking. Hand wash these items. Remove aluminum markings by using a mild abrasive cleaner.

■ **Orange stains on plastic dishes or dishwasher interior**

Are large amounts of tomato-based foods on dishes placed in the dishwasher? It may be necessary to use a stain removal product to remove stains from your dishwasher. Stains will not affect dishwasher performance.

---

## Noises

■ **Grinding, grating, crunching or buzzing sounds**

A hard object has entered the wash module (on some models). When the object is ground up, the sound should stop. If the noise persists after a complete cycle, call for service.

---

## Dishes are not completely clean

■ **Food soil left on the dishes**

Is the dishwasher loaded correctly?

Did you choose the cycle that describes the most difficult soil in your dishwasher? If you have some items with heavier soils, use a heavier cycle.

Is the water temperature too low? For best dishwashing results, water should be 120°F (49°C) as it enters the dishwasher.

Did you use the correct amount of fresh detergent? Use recommended dishwasher detergents only. Do not use less than 1 tbs (15 g) per load. Detergent must be fresh to be effective. Heavy soil and/or hard water generally require extra detergent.

Is detergent caked in dispenser? Use fresh detergent only. Do not allow detergent to sit for several hours in a wet dispenser. Clean dispenser when caked detergent is present.

Is the pump or spray arm clogged by labels from bottles and cans?

Is the home water pressure high enough for proper dishwasher filling? Home water pressure should be 20 to 120 psi (138 to 828 kPa) for proper dishwasher fill. If you have questions about your water pressure, call a licensed, qualified plumber.

Are high suds slowing the wash arm? Do not use soap or laundry detergents. Use recommended dishwasher detergents only.

---

## Dishes are damaged during a cycle

■ **Chipping of dishes**

Did you load the dishwasher properly? Load the dishes and glasses so they are stable and do not strike together from washing action. Minimize chipping by moving the rack in and out slowly.

**NOTE:** Antiques, feather-edged crystal, and similar types of china and glassware might be too delicate for automatic dishwashing. Wash by hand.

