

OPERATING INSTRUCTIONS

QUICK START

1. LOAD THE DISHES

Scrape the dishes free of excess food, bones, and any other hard, non-soluble residue. Pull each rack out and load the dishes as described in this manual.

2. MEASURE THE DETERGENT

Using the guidelines in this manual, fill the detergent cup with the recommended amount of detergent and close the lid. If a prewash is desired, the recess on top of the lid should also be filled with detergent.

3. TURN ON THE DISHWASHER

To turn on the display panel, press the Power button.

4. CHECK THE RINSE AID

The Rinse Aid indicator light will illuminate if the level of rinse aid in the dishwasher is low. Add rinse aid if the level is low to maintain the effectiveness of the dry cycle.

5. SELECT THE CYCLE AND OPTIONS

Select the cycle and options that best fit the load by referring to the Cycle Selection Chart. The display will show the estimated time for the cycle and options selected.

6. CLOSE THE DOOR

The dishwasher will start automatically, after a slight delay, when the door is closed and latched. During the cycle, the display will indicate the estimated time remaining for the cycle and options selected. If the door is opened during the cycle, the dishwasher will stop. When the door is closed, the cycle will resume from the point where it was stopped.

7. END OF CYCLE

When the cycle is complete, a chime will sound and the display will show "END." After a short time, the display and controls will shut off for safety and energy conservation.

CAUTION

Empty the lower rack first and then the upper rack. This will avoid water from dripping from the upper rack onto dishes in the lower rack.

WARNING

In general, it is not advisable to open the door while the dishwasher is in operation. If the door is opened, a safety device stops the dishwasher. Care should be taken when opening the door immediately following the cycle, as steam may escape.

AUTO-OFF

The dishwasher will automatically turn off if a cycle is not selected or if the door is not closed within four minutes.

LOADING THE LOWER RACK

⚠ CAUTION

NON-DISHWASHER SAFE ITEMS

The combination of high water temperature and dishwasher detergents may damage certain items. LG does not recommend washing the following items in the dishwasher:

- Hand painted silver or gold leaf dishes
- Wood or bone handled utensils
- Iron or other rust prone utensils
- Plastic items that are not dishwasher safe

When in doubt, check the manufacturers' recommendations.

The extra tall tub allows loading of dishes, pans, or other utensils up to 14 inches high.

The lower rack is recommended for dinner plates, soup bowls, dishes, pots, pans, lids, and grill trays. Plates should be positioned vertically and facing the center of the rack. Pots, pans, and large bowls must be turned so that the inside faces downward. The silverware basket may be used in either the lower or upper rack.

The lower rack should not be used for small items such as cups, wine glasses, or small plates. These items should be loaded in the upper rack.

For models with steam, load heavily soiled or stained dishes in the front left side of the lower rack with the dirty side facing down. This is the area that the steam enters the dishwasher. The use of hot steam maximizes the dishwasher's cleaning performance.

LOADING 10 PLACE SETTINGS



LOADING 12 PLACE SETTINGS



RACK LOADING TIPS

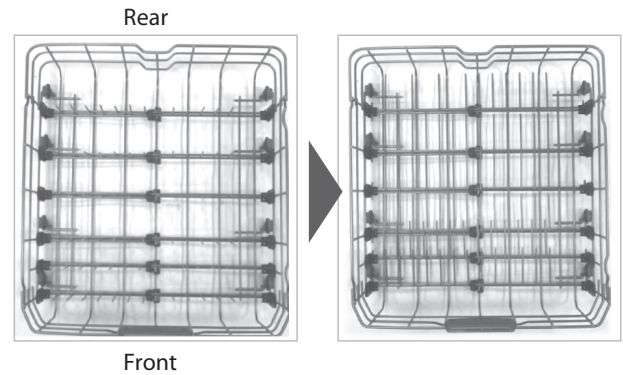
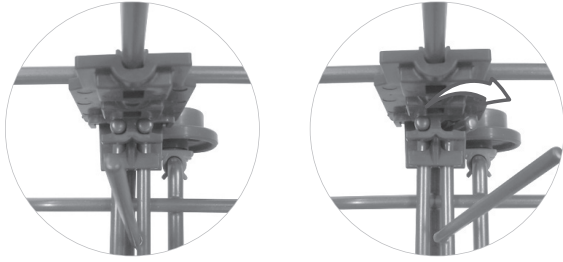
- Load plates, soup bowls etc. between the tines.
- Load cookie sheets, cake pans and other large items on the sides or back of the rack. Loading these items in the front of the dishwasher can prevent the water spray from reaching the detergent dispenser.
- Make sure that pot handles and other large items do not stop the rotation of the spray arms.

! NOTE

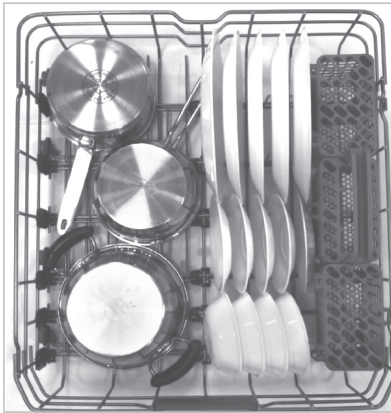
Make sure that large items do not interfere with the rotation of the spray arms, and do not prevent the detergent dispenser from opening.

FOLDING DOWN THE LOWER TINES

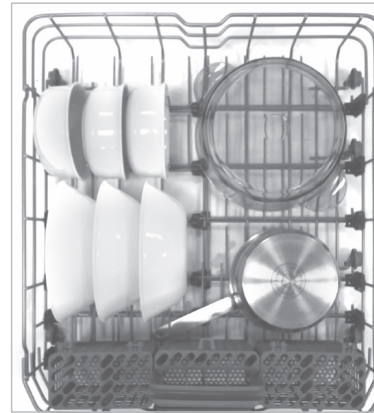
The tines are adjustable to fit dishes of various sizes.



LOADING DISHES & POTS

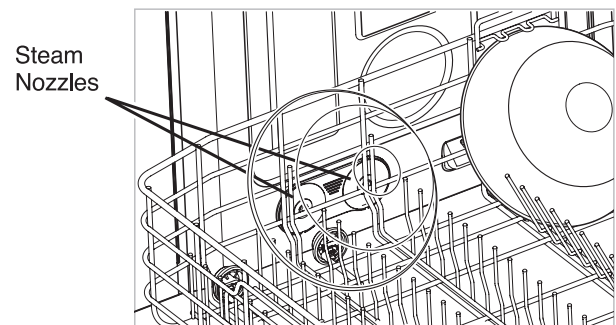


LOADING POTS & BOWLS



DIFFICULT TO REMOVE FOOD ON DISHES

Load items with difficult to remove or baked-on food near the steam spray arms, towards the left side of the lower rack, facing down. The dishes will benefit from the direct steam spray and the lower spray arm wash action.



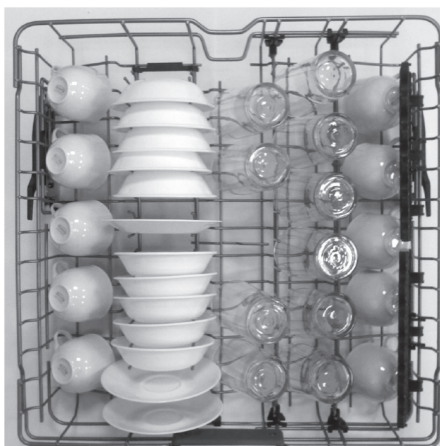
LOADING THE UPPER RACK

Use the upper rack for small or delicate items such as small plates, cups, saucers, glasses, and dishwasher-safe plastic items. Cups, glasses, and bowls must be positioned upside down. Extra cups or cooking utensils can be laid on the fold down cup racks, which may also provide support for long stemmed glasses. Make sure items do not interfere with the rotation of the spray arms above and below the upper rack.

! NOTE

When loading larger items in the upper rack, such as wine glasses or taller cups, it may be necessary to remove the cutlery rack.

LOADING 10 PLACE SETTINGS



LOADING 12 PLACE SETTINGS

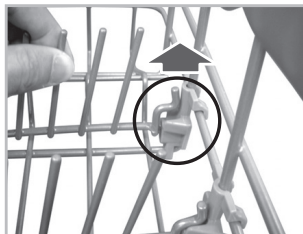


UPPER RACK LOADING TIPS:

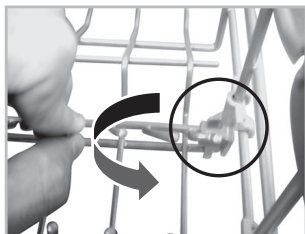
- Place cups and glasses in the rows between the rack tines. Placing them over the rack tines can lead to breakage and water spots.
- To avoid chipping, do not let stem ware touch other items.
- Place items so that the open end faces down for cleaning and drying.
- Do not stack items on top of each other.

FOLDING DOWN THE UPPER TINES

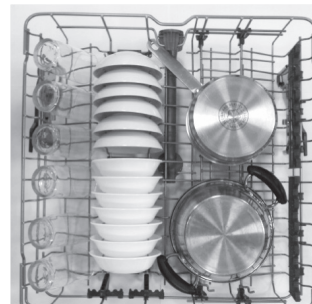
Pull up the tine



Rotate the tine



Fold tines down to fit larger dishes; pull tines back up to fit smaller dishes.

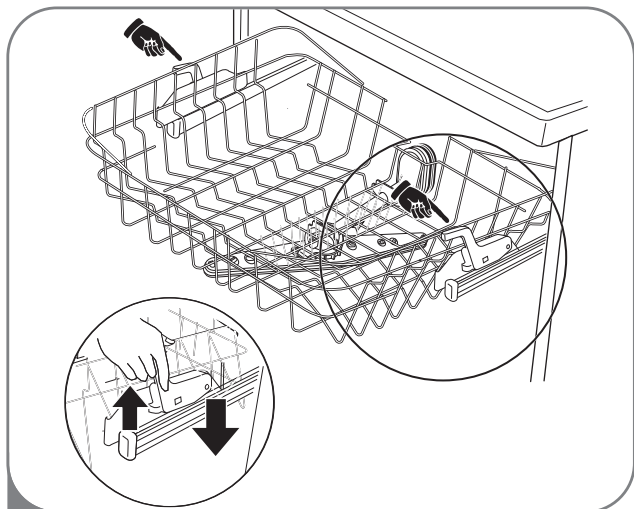


HEIGHT ADJUSTABLE UPPER RACK

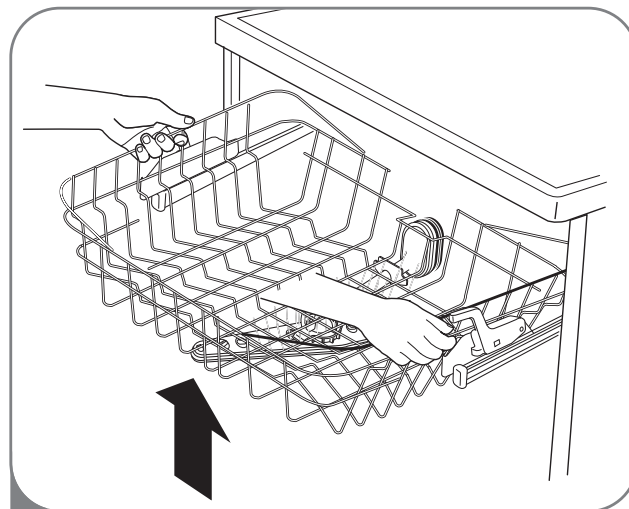
The upper rack adjusts up and down. Adjust the upper rack up to allow tall and oversized items of up to 14 inches high in the lower rack. Adjust the upper rack down to allow placement of large dishes of up to 12 inches high in the upper rack. The upper rack comes in the upper position.

! NOTE

After adjusting, make sure that dishes in the upper and lower racks do not interfere with the rotation of the spray arm. Do not adjust the rack while it is loaded with dishes.

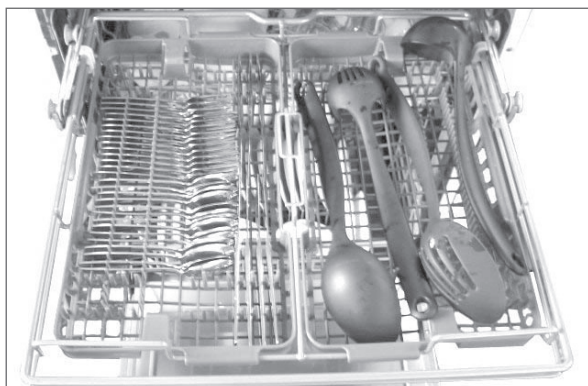


- 1** To lower the rack:
Hold the rack at the center of each side to support its weight. Then, lift the lever on each side to release the rack and lower it to the lower position.

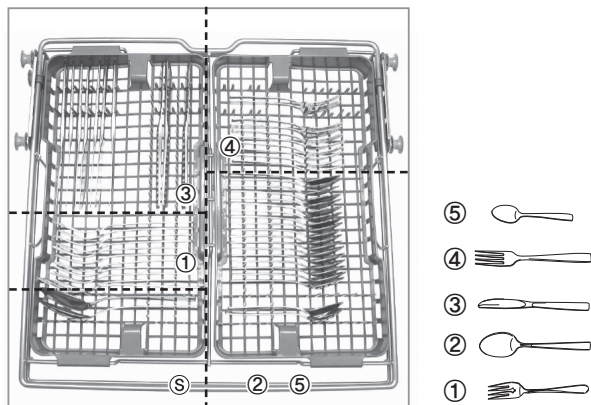


- 2** To raise the rack:
Simply lift the rack at the center of each side (see illustration) until the rack locks into place in the upper position. It is not necessary to lift the lock levers to raise the rack.

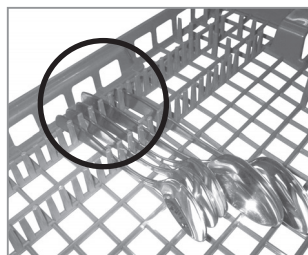
LOADING THE CUTLERY RACK



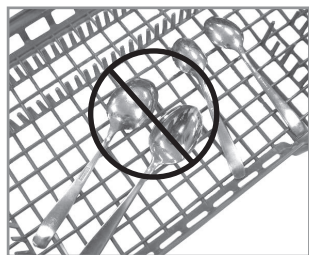
The cutlery rack is best suited for flatware and most cooking or serving utensils. Heavily soiled utensils or items with baked on foods should be placed in the middle rack or spoon basket for best performance. The separators on the cutlery racks help keep flatware separated to avoid damage and improve cleaning.



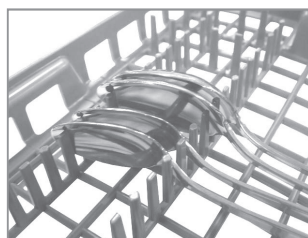
Sample 10-place setting.



Right



Wrong

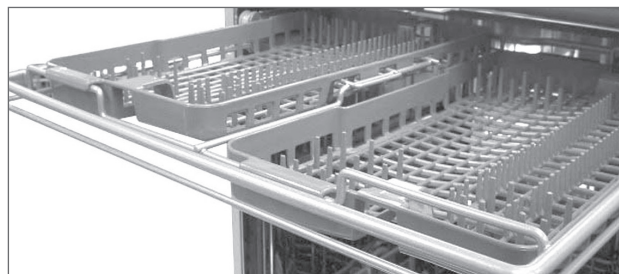


Alternate

If the handles of your flatware are too thick, then reverse the pieces so that the handles face the other direction, as shown in the bottom figure.

HEIGHT ADJUSTABLE TRAY

Each side tray can be adjusted independently to a high or low position to accommodate different sizes of utensils or cutlery. Remove dishes before adjusting the tray.



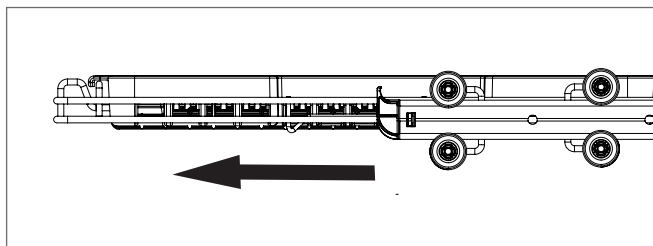
Each tray is adjusted by lifting it out and rotating it front to back.

Removing the Cutlery Rack

The entire cutlery rack can be removed if more space is needed on the upper rack for larger items.

NOTE

Always remove the cutlery from the rack before removing the rack.



Pull the rack out to the end of the rails. Then, lift the front of the rack so that the rollers clear the stop on the end of the rail. The rack can now be slid forward and removed from the rails.

WARNING

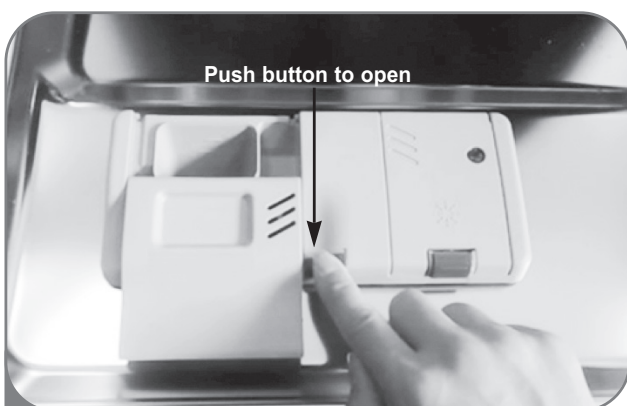
Be careful when loading and unloading sharp edged items. Load sharp knives with the blade down to reduce the risk of injury.

ADDING DETERGENT TO THE DISPENSER

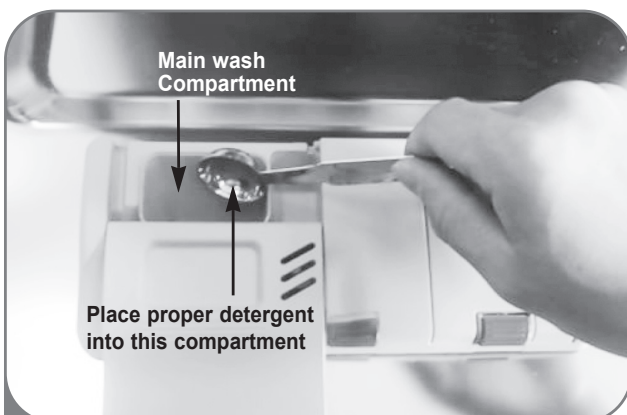
- Only use detergent intended for automatic dishwashers.
- Detergent must be put into the detergent compartment before starting any cycle, except the Rinse Only cycle.
- Use less detergent if the dishes are only lightly soiled. Using excess detergent can leave a film on dishes and in the dishwasher resulting in poor wash performance.
- The amount of detergent needed depends on the cycle, load size, and soil level of dishes.

! NOTE

Remove the label on the dispenser prior to running the dishwasher.



- 1 If the lid is closed, press the lever on the bottom side of the lid to open the dispenser.

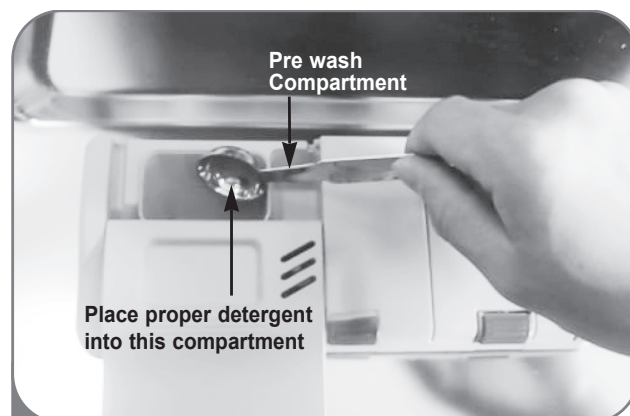


- 2 Add dish washing detergent to the main wash compartment until the level is between the lines marked 20 and 30. Fill to the 30 line for hard water or heavily soiled loads. Fill to the 20 line for soft water or lightly soiled loads.

Close the lid firmly until it clicks.

! NOTE

DO NOT add detergent when the Rinse Only cycle is selected.



- 3 If a prewash is desired, fill the recessed prewash compartment area in the lid with detergent.

! NOTE


Too much detergent can leave a film on dishes and in the dishwasher, resulting in poor wash performance. Do not use detergent tablets for shorter wash cycles. The tablet may not dissolve completely, causing detergent residue on dishes and inefficient cleaning. Using a wash booster will help remove spots, residue, and the white film caused by hard water. It will not help remove excess detergent residue.

! CAUTION

DETERGENT INFORMATION

Use only detergent intended for automatic dishwashers. Incorrect detergent may cause the dishwasher to fill with suds during operation. Excess sudsing may reduce wash performance and may cause the dishwasher to leak. DO NOT use hand dish washing detergent in this dishwasher.

ADDING RINSE AID TO THE DISPENSER

 The Low Rinse Aid indicator will appear in the display when more rinse aid is needed.

Only use liquid rinse aid in this dishwasher. The use of rinse aid is recommended to prevent water droplet spots on dishes and to enhance the drying performance.

! NOTE

Only use liquid rinse aid in the dishwasher.



1 Push button to open lid.

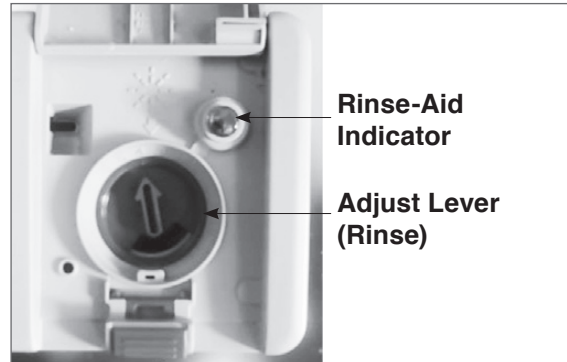


2 Add a liquid rinse aid to the maximum fill level. When filling the rinse aid dispenser, aim the rinse aid at the arrow. Make sure that the rinse aid is settled in the dispenser while filling.



3 Close the lid to lock the dispenser. Rinse aid will be dispensed automatically during the final rinse cycle.

RINSE AID DISPENSER ADJUSTMENT



The rinse aid dispenser is set to level 4, which should provide the best performance under most conditions. Adjust the setting higher if you have hard water and notice calcium buildup on your dishes.


If you notice film on your dishes, use a lower setting. Setting the rinse aid control too low will contribute to spotting and streaking of dishes and poor drying performance. Setting the control too high can cause foaming, which will cause poor wash performance.

To adjust the rinse aid dispenser setting, remove the cap and adjust the rinse aid lever to the desired setting. Point the arrow to the left for a lower setting, right for a higher setting.

REFILLING THE RINSE AID

The regularity of the dispenser needing to be refilled depends on how often dishes are washed and the rinse aid setting used. If the rinse aid level is low, the Rinse Aid light on the control panel will illuminate.

RINSE AID FILLING TIPS:

-  The Low Rinse Aid indicator will appear in the display when more rinse aid is needed.
- Do not overfill the rinse aid dispenser.
- Clean up any spilled rinse aid to prevent sudsing.

CARE & CLEANING

For best results, it is important to periodically check and care for the spray arms.

⚠ WARNING

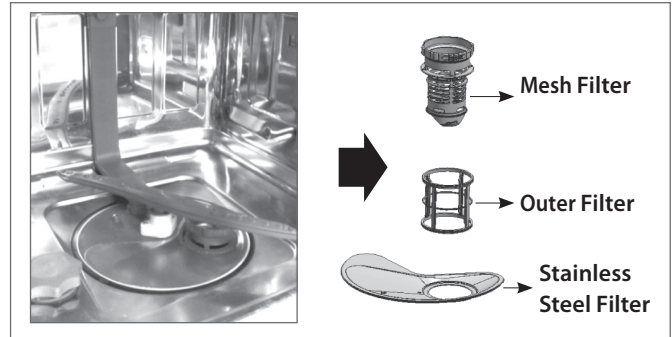
To prevent injury during care and maintenance/cleaning, wear gloves and/or protective clothing.

CLEANING THE FILTERS

1. Remove the lower rack first.
2. Turn the mesh filter counterclockwise.
3. Take out the mesh filter, Stainless Steel Filter and outer filter.
4. Clean them if necessary.
5. Replace them in the reverse order.

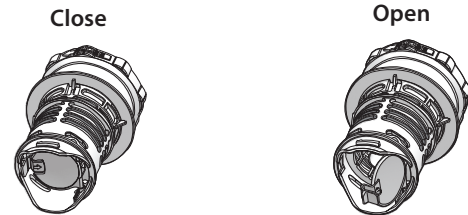
! NOTE

- For best wash performance, clean the filter after each load. If food debris remains in the filter, it may cause odor.
- Before starting a cycle, make sure that the filter is assembled correctly. If the filter is not assembled correctly, you may experience poor cleaning results.
- If you have hard water, it is recommended to clean this filter at least once a month.



All three filters should be cleaned according to the chart recommendations below. Clean the filters using non-abrasive materials and warm running water. A soft brush may be required to get hard to remove soil.

! NOTE



- The lower cover of the mesh filter can be opened for convenient cleaning.
- Close the lower cover before reassembling the filter.

Recommended filter cleaning chart:

Number of Loads Per Week	If you wash dishes before loading	If you scrape and rinse dishes before loading	If you only scrape dishes before loading	If you do not scrape or rinse dishes before loading
1-3	Every 6 months	Once a year	Four times a year	Once a month
4-7	Every 6 months	Once a year	Four times a year	Twice a month (every 15 days)
8-12	Every 6 months	Every 6 months	Every 1.5 months	Every week
13-14	Every 6 months	Every 6 months	Every 1.5 months	Twice a week

! NOTE

Check the drain air gap or in-sink disposer if your dishwasher is not draining well.

The drain air gap and disposer are external plumbing devices that are not part of your dishwasher.

The warranty provided with your dishwasher does not cover service costs directly associated with the cleaning or repair of external plumbing, including the drain air gap and disposer.

CLEANING THE INTERIOR

- Clean the interior of your dishwasher periodically with a soft, damp cloth or sponge to remove food and dirt particles.
- To remove white spots and odor from inside the dishwasher, run an empty cycle with detergent or run an empty cycle with one cup of white vinegar in a dishwasher safe glass or bowl placed on the upper rack. (Vinegar is an acid and with constant use it could damage your appliance.)

CLEANING THE LOWER SPRAY ARM



- Make sure that the water jet holes are not blocked by food particles.
- When cleaning is necessary, remove the lower spray arm by pulling up.
- After cleaning the lower spray arm, replace it by pushing down until it clips into place. Be sure that the spray arm is able to turn freely.

CLEANING THE UPPER SPRAY ARM



- Pull the upper rack forward. Make sure that the water jet holes are not blocked by food particles.
- When cleaning is necessary, remove the upper spray arm by turning the nut on the bottom of the spray arm 1/8 turn counterclockwise and pulling down.

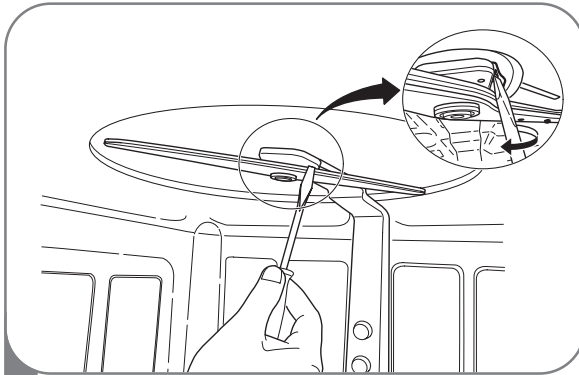
CLEANING THE EXTERIOR

- In most cases, the exterior of your dishwasher can be cleaned with a soft damp cloth or sponge, then dried with a soft cloth. If your dishwasher has a stainless steel exterior, a stainless steel cleaner is recommended.

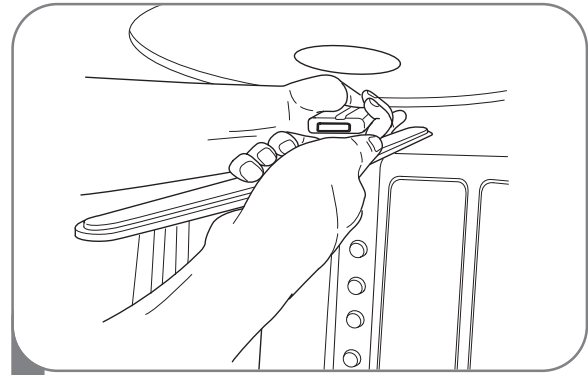


- After cleaning the upper spray arm, press it up into place. Turn the nut 1/8 turn clockwise to make sure that the nut locks back into place.

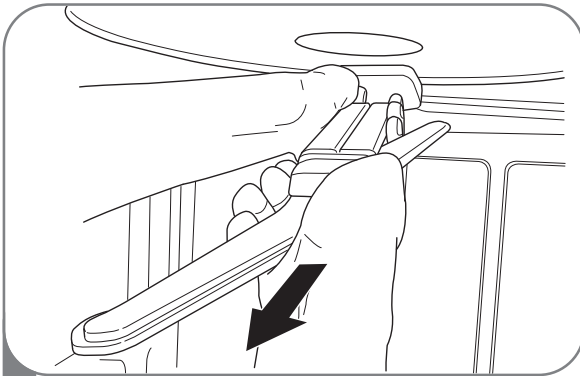
CLEANING THE TOP SPRAY ARM



- 1** Make sure that the water jet holes are not blocked by food particles. When cleaning is necessary, use a screwdriver to release the retainer clip from the bracket that holds the top spray arm assembly to the tub.



- 3** After cleaning the top spray arm, replace it. Slide it back into place and make sure the retainer clip engages.



- 2** Pull the spray arm out.

SEASONAL MAINTENANCE AND STORAGE

- If you will be absent for an extended period of time during warmer months, it is recommended that you close the water valve and unplug the power cord, or turn off the circuit breaker. Clean the filter, tub and dispenser to prevent odors.
- If you will be absent for an extended period of time during colder months, and there is a possibility of freezing temperatures, it is recommended that you winterize the water supply lines and the dishwasher itself. Winterization must be performed by experienced service personnel.

CLOGGED DRAIN AIR GAP

- Check the drain air gap when your dishwasher is not draining well.
- The drain air gap is an external plumbing device that is not part of the dishwasher.
- The warranty provided with the dishwasher does not cover service costs directly associated with the cleaning or repair of the external drain air gap.

FAQs

COMMON PRODUCT QUESTIONS

Is a rinse aid required to be used?

Rinse aid is strongly recommended to enhance the drying performance of the dishwasher. In order to be more energy efficient, the hybrid drying system does not utilize a heating element in order to assist in drying, so a rinse aid plays an integral role in the dry process. If a rinse aid is not used, water may remain on the dishes and the tub. Rinse aid will help to ensure that the majority of the water has been sheeted off of the dishes at the end of the rinse and that the load is ready for the dry cycle.

What can be done if my dishes have a cloudy, white film on them after a wash?

The cloudy film is usually caused by minerals in the water reacting with the dishwasher detergent. First, be certain not to use too much detergent. Refer to the owner's manual for recommended detergent amounts by cycle. Add an Extra Rinse to the cycle. Add an Extra Rinse, or run a Steam Power or Power Scrub cycle. LG Dishwashers use less water than traditional dishwashers, so adding an Extra Rinse will aid in rinsing the film away. If the water supply is hard, it may be necessary to add a performance booster that addresses the hard water condition.

What is the Sanitary option and how is it activated?

When selected, the Sanitary option increases the temperature of the heated rinse to approximately 161 °F (72 °C). The normal heated rinse temperature varies from cycle to cycle. Depending on the model, activate the Sanitary option as follows: either press the Sanitary button, press the Option button repeatedly, or press the Rinse button repeatedly until the Sanitary light shows in the display.

What steps can I take to improve drying results?

Dry performance is directly affected by the amount of heat that remains in the tub after the heated rinse is performed. If your dishwasher is far away from your home's hot water heater, it may be necessary to run the hot water tap in the sink before starting a wash cycle, to ensure that cool water is purged from the hot water lines. This will ensure your dishwasher has a consistent supply of hot water from start to finish. Using the Sanitary Rinse setting will also aid in keeping the inner drum temperature and dishes hotter before drying begins.

LG dishwashers are designed to be used in conjunction with a rinse aid. Using a rinse aid will maximize the amount of water that has already been sheeted away from the dishes before the dry cycle begins. If a rinse aid is used and the performance still needs a boost, adjust the amount of rinse aid used by the indicator on the rinse aid cap. 4 is the default setting, but if necessary, set the level to 5 so more rinse aid will be used.

Allow the dishwasher to completely finish the dry cycle before opening the door. If the door is opened mid dry cycle, the heat

that is necessary for the hybrid dry system to work will escape out. This will cause all of the dishes inside to remain wet once the cycle finishes.

What is the hybrid drying system?

The dishwasher does not rely on a heating element for the drying process; instead, it relies on the heat that is retained by the dishes and the tub during the wash and rinse cycles to turn the moisture in the tub into humidity. Warm, moist air in the dishwasher is then pulled into a condensing duct in the door by a fan. The air then cools, which causes the humidity to condense. Room temperature air is also drawn into the duct to help the air cool down faster. When this moisture condenses into a liquid, it is drained out.

! NOTE

Rinse aid is required to enhance the drying performance. If no rinse aid is used, water may remain on the dishes and the tub.

Why is there a whistling sound?

It is important to determine how long the noise occurs and when it happens (what part of the cycle). When water is drawn into the dishwasher, a whistling noise can be heard. This is normal. If the water pressure is too high, it will be louder so it may be necessary to adjust the water valve to lower the pressure if the noise is too loud.

What is Steam Dual?

Steam Dual is an option that can be utilized during wash cycles. This option enables you to fully customize the wash cycle intensity for the upper and lower racks, independently, in the same load. For example, by selecting a soft spray for the upper rack and strong spray for the lower rack, you can wash delicate stemware in the upper rack while washing pots and pans in the lower rack.

What kind of dishes can be placed in the dishwasher?

Ensure that the dishes you place in the dishwasher are dishwasher safe. Plastic dishware will not dry as effectively as glass and metal dishware. Plastic items do not retain heat as well as glass and metal dishware. Plastic cups and dishes may require some hand drying before being put away at the end of the cycle.

Can I perform a drain only cycle?

The dishwasher does not have a drain only function; however, the dishwasher will drain on its own for the first 45 seconds of a new cycle. To drain standing water, select a wash cycle and let it run for only 45 seconds. Then, turn the unit off and let it reset. Repeat as necessary.

How long does the clean indicator stay lit after the cycle is complete?

The clean light indicator on the dishwasher will stay lit for 4 minutes before turning off. You can, however, program the dishwasher so that the clean light stays on until the dishwasher door opens.

Why does my dishwasher continuously beep if I open the door during a cycle or right after the cycle has finished?

This is normal. The dishwasher is letting you know that the interior temperatures of the unit are hot and to use caution when placing your hands inside. Once the unit has cooled down, the beeping will stop.

PRODUCT FEATURES AND OPERATION**What is the benefit of steam?**

Steam allows for thorough cleaning of baked on foods while using less water than other power scrub methods. Steam also allows for enhanced cleaning performance when cleaning fine china and stemware items on a delicate cycle. Steam particles are smaller and more active so their penetrating power is more effective. Steam also increases the interior temperature of the dishwasher, which helps in melting oily or waxy substances, like lipstick along the rim of a glass.

What is Child Lock and how is it activated?

Child Lock is a feature that will prevent the controls from being changed during the cycle. It does not prevent the door from being opened or the unit from being powered off. To activate or deactivate, press the Spray and Rinse buttons simultaneously for 3 seconds.

Why is "PF" showing up on the display?

PF is not an error code indicating a malfunction. PF indicates that there was a power failure. This function protects the dishwasher in the event that the power goes out or the power to the unit is disrupted. When power is returned and a button is pushed, this will display for 10 seconds and then go away.

INSTALLATION**Can I add an extension to the drain hose?**

If an extension drain hose is required, use 5/8" or 7/8" inside diameter, 2-3 ft. length hose and a coupler for connecting the two hose ends.