EDGESTAR[®] 18" Built-In Dishwasher



BIDW1802SS / BIDW1802WH BIDW1802BL

Installation Manual

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IMPORTANT SAFETY INFORMATION

Read all instructions carefully prior to use. For your safety, the information detailed in this manual should be followed. Improper use and/or handling can cause serious damage to the appliance and/or to the user including but not limited to fire, explosion, and/or electric shock, resulting in personal injury, or death. This dishwasher is intended for domestic use only; any other use may invalidate the warranty.

Use this appliance only for its intended purpose as described in this Owner's Manual.

Electrical Safety

- The dishwasher must be connected to a grounded permanent electrical system by a licensed plumber.
- Improper connection of the equipment-grounding conductor can result in a risk of electric shock.
- Do not, under any circumstances, cut or remove the third (ground) prong from the power cord.
- Check with a qualified electrician or service representative if you are in doubt whether the appliance is properly grounded.
- Use only the correct power supply with appropriate amperage. Do not exceed the suggested power ratings.
- To minimize the possibility of electric shock, disconnect this appliance from the power supply before attempting any maintenance.
- Turning the dishwasher OFF does not disconnect the appliance from the power supply.
- Use a power supply that cannot be turned off by a wall switch or pull chain.
- Do not start or stop the dishwasher by switching the circuit breaker's power on and off.
- Never plug or unplug the dishwasher with wet hands.
- Always turn the unit off and disconnect it from the power supply before cleaning or maintenance.
- If the power cord is damaged, it must be replaced by the manufacturer, a service agent, or a qualified technician.
- Keep the unit and control panel dry; do not spray water directly on the control panel to avoid electric shock.



<u>Caution</u>: Hydrogen gas is flammable. Under certain conditions, hydrogen gas may be produced in a water heater that has not been used for more than two weeks. To prevent the possibility of damage and/or injury, turn on all hot water faucets and allow them to run for several minutes. Do this before using any electrical appliance connected to the hot water system. This simple procedure will release any built-up hydrogen gas. Since hydrogen gas is flammable, do not smoke, use an open flame, or use any appliance during this process.

General Safety

- Installation, maintenance and repair should be performed by a qualified installer. Work by unqualified persons could be dangerous and may void the warranty.
- This dishwasher should be properly installed and placed in a location in accordance with the Installation Instructions prior to operation.
- Do not attempt to repair or replace any part of your dishwasher unless it is specifically recommended in this manual.
- All other service maintenance should be completed by a qualified technician.
- Use this appliance only for its intended purpose as described in this Owner's Manual.
- This dishwasher must be installed indoors.
- This appliance is not intended for use by children.
- Do not allow children to play with, on, or inside this or any appliance.
- Close supervision is necessary if this appliance is used near children.
- Use caution when opening or closing the door to avoid injury.
- Use only powder, tabs, liquid detergents, or rinse agents recommended for use in a dishwasher and keep them out of the reach of children.
- Using a detergent that is not specifically designed for dishwashers may have an undesired result such as excessive suds.
- To avoid damage to the door seal, place sharp items strategically.
- Load sharp knives handle-side up to reduce the risk of injury.
- Do not wash plastic unless it is marked as dishwasher safe. For plastic items not marked as dishwasher safe, refer to the manufacturer's recommendations.
- Do not operate your dishwasher unless everything enclosed is securely in place.
- Do not tamper with controls.
- Do not sit or stand on the door or dish rack of the dishwasher.
- The door should remain closed. Left in the down position, the door presents a tripping hazard.
- Do not discard the dishwasher without removing the door.
- Do not store or use combustible materials such as gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Contents washed in Sanitize or Hi Temp mode may be hot to the touch. Use care before handling.
- Do not wash non-dishware items such as furnace filters, paint brushes, etc. in your dishwasher. Discoloration, staining, and/or other damage to dishwasher may result.
- Do not touch the heating element during or immediately after use.



<u>Note</u>: This installation manual is provided for reference use only. Specifications may change without prior notice. Refer to the product label on the back of your dishwasher for the latest technical information.

<u>/!</u>

Warning: Tip-Over Hazard

- Do not use the dishwasher until it is properly installed
- Do not push down on the door when it is open.
- Do not place excessive weight on the open door.



Warning: Electric Shock Hazard

Failure to follow these instructions can result if death, fire or electric shock:

- Electrically ground the dishwasher
- Connect the ground wire to the green ground connector in the junction box.
- Do not use an extension cord.
- Ensure the dishwasher is completely enclosed after installing.



Table of Contents

IMPORTANT SAFETY INFORMATION	I
TABLE OF CONTENTS	IV
UNPACKING THE DISHWASHER	1
INSTALLATION REQUIREMENTS	1
Enclosure Dimensions Product Dimensions Water and Electrical Connections Water Requirements Electrical Requirements Grounding Instructions – Cable Direct	2
INSTALLING THE DISHWASHER	4
Step 1: Prepare All Parts and Tools Step 2: Select the Best Location for the Dishwasher Step 3: Prepare the Dishwasher Enclosure (New Installations) Step 4: Verify Water Supply Requirements	
TROUBLESHOOTING	16
Troubleshooting Continued Error Codes	
SPECIFICATIONS	19

Unpacking the Dishwasher

- Use at least two people to move and install the dishwasher to prevent injuries.
- Always lift the dishwasher to move it as sliding it can damage it's base and feet, or floor surfaces.
- Carefully remove the packaging materials and inspect the dishwasher for damage. If the dishwasher is damaged immediately contact the dealer that sold you the product. We recommend that you retain the carton and all packing materials in case you ever need to move or ship the appliance in the future.
- Remove any shipping labels or tape from your dishwasher before using. Do not use sharp instruments, rubbing alcohol, flammable fluids, or abrasive cleaners to remove labels or tape. These products can damage the surface of your dishwasher.
- Check to make sure all provided installation accessories are included. If any parts are missing, please contact customer service. Make sure to locate and set aside the dishwasher's kick plate. The kick plate is attached to the packing material of the dishwasher.
- Put the dishwasher on a level and flat surface that is able to support its entire weight.
- Do not remove the sound-absorbent padding that surrounds the exterior of the of the tub of the dishwasher.

Installation Requirements

The dishwasher has been designed for built-in installation. Please review these instructions for enclosure, water, and electrical requirements.

Enclosure Dimensions

The dishwasher is designed to be enclosed on the top and both sides by a standard residential kitchen cabinet unit.

- The enclosure must be at least 17 3/4 inches wide, 23 inches deep and 32 1/2 inches high.
- For the front door to be flush with the leading edge of the counter top, the counter top must be at least 23 inches deep.
- The dishwasher should be installed within 10 feet of the sink for the drain to work properly.



Product Dimensions



Water and Electrical Connections



Water Requirements

Make sure to use a new water supply line when installing the dishwasher. Old water lines are susceptible to leaks. Ensure the water supplied to the dishwasher does not freeze. Frozen water can damage water lines, valves, pumps, and other components.

Water Pressure

For best results, incoming water pressure should be between 6 and 145 pounds per square inch (psi).

Water Temperature

For best results, the water temperature must be at least 120°F (49°C). To prevent damage to the dishwasher contents, the temperature of the incoming water supply should not exceed 149°F (65°C).



- For the water supply line it is strongly recommended to use copper tubing with a compression fitting or a flexible, stainless steel braided line.
- Do not use plastic tubing as it can deteriorate over time and leak.

Electrical Requirements

Read all safety precautions listed at the beginning of this manual. It is recommended that you use receptacles that cannot be turned off by a switch or pull chain.

- The dishwasher must be supplied with 120V, 60Hz, and connected to an individual properly grounded branch circuit, protected by 15 or 20 amp circuit breaker.
- Wiring must be 2-wire with ground.
- If the electrical supply does not meet the above requirements, call a licensed electrician before proceeding.

Grounding Instructions – Cable Direct

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



Caution:

- Remove house fuse or turn off circuit breaker before beginning installation.
- Improper connection of the equipment grounding conductor can result in risk of electric shock.
- Check with a qualified electrician if you are in doubt that the appliance is properly grounded.
- Do not use an extension cord or an adapter plug with this appliance.

Installing the Dishwasher

If this is a new installation, most of the installation work must be done before the dishwasher is moved into place. If this is a replacement, you must check existing dishwasher connections for compatibility with the new dishwasher. Replace the existing connections as necessary.

Step 1: Prepare All Parts and Tools

Before starting the installation, prepare all the necessary parts and tools required to install the dishwasher. This will save installation time and simplify the installation process.

Parts Required

The following parts <u>are provided</u> with the dishwasher. Contact customer service if any of these parts are missing:



The following parts <u>are not provided</u> and necessary to complete a new installation. Parts for replacement installations may vary depending on your existing configuration:



* Requires a 3/8" universal dishwasher elbow fitting to connect to the washing machine. The other end needs to match the water line. Universal dishwasher kits that include the elbow and water line are sold at most major home supply, hardware and plumbing stores.

Tools Required



Step 2: Select the Best Location for the Dishwasher

The following criteria are important to ensure the best location for the dishwasher:

- The location must have a solid floor that is able to support the weight of a loaded dishwasher.
- The location must be near a sink with easy access to the water supply, drain and electrical outlet.
- For the drain to operate properly, the dishwasher must be installed within 10 feet of the sink.
- The location must have sufficient space for the dishwasher door to open easily and provide enough space (at least .1 in or 2mm) between the dishwasher and cabinet sides.
- If the dishwasher is installed in a corner, ensure that the side of the dishwasher is more than 2" (50mm) from the wall to allow the door to open and close freely.

Step 3: Prepare the Dishwasher Enclosure (New Installations)

If the cabinet bottom is flush with the floor, use a hole saw to cut a hole into the side of the cabinet that holds the sink as shown if Figure 1-1.

If the bottom inside the cabinet that holds the sink is raised above the kitchen floor and is higher than the connections on the dishwasher, cut a hole in the base inside the cabinet AND a hole in the cabinet side as shown in Figure 1-2.





The hole for the water supply line, drain hose and power cables.

Depending on where the electrical outlet is, a hole may also need to be cut in the opposite cabinet side.



Step 4: Verify Water Supply Requirements

- The water supply line pressure must be between 6 and 145 PSI.
- The water temperature must be between 120°F (49°C) and 149°F (65°C). This temperature range provides the best washing results and shortest cycle times. Water temperature should not exceed 149°F (65°C) to prevent damage to dishes and dishwasher.
- Ensure the water supply valve is turned off before connecting the water supply line to the dishwasher
- Seal the water supply line connections using Teflon taper or sealing compound to stop any water leakage.
- When installing the dishwasher, ensure there is nothing crushing or kinking the drain hose and be careful not to tear or damage it during the installation process.

Step 5: Verify Electrical Requirements

- The dishwasher must be supplied with 120V, 60Hz, and connected to an individual properly grounded branch circuit, protected by 15 or 20 amp circuit breaker.
- In the United States, install in accordance with the National Electric Code/State and Municipal Codes and/or Local Codes
- Use flexible, armored or non-metallic sheathed, copper wire with a grounding wire that meets the wiring requirements for codes and ordinances.
- Use the strain relief method provided with the wiring junction box or install a UL listed / CSA certified clamp connector to the wiring junction box. If using conduit, use a UL or CSA certified conduit connector.

Step 6: Prepare the Dishwasher

- Ensure the circuit breaker and water supply valve are turned off before proceeding with the following steps.
- 1. Make sure to adjust the height of the leveling legs so they are short as possible to prevent the legs from breaking while moving the dishwasher to its installation location. Adjust the final height of the legs just before moving it into place. See Step 7: Level the Dishwasher.
- 2. Make sure there are no kinks or extreme bends in the drain hose that could restrict water flow.
- 3. If the countertop is made of wood or a material that is not damaged by drilling, attach the two installation brackets that were supplied with the dishwasher using the supplied screws (Figure 2-A.) They will be used in Step 9: Secure the Dishwasher.
- 4. Remove the junction box cover (located at the bottom front right of the dishwasher) using a screwdriver and install the strain relief (Figure 2-B.) Set the cover aside. It will be used again in Step 11: Connect the Wiring.



Step 7: Level the Dishwasher

Rotate the leveling legs counter clockwise to raise the dishwasher. It can be raised a maximum of 50mm. Rotate the leveling legs clockwise to lower the dishwasher.



1. Open the door and place a level against the top of the tub on the inside and check if the dishwasher is level. If the dishwasher is not level, rotate the leveling legs at the bottom front of the dishwasher until the dishwasher is level.



2. Use the level to check whether the dishwasher is level front to back by placing the level against an inside vertical surface of the tub. If the dishwasher is not level, adjust the height of the rear legs until the dishwasher is level.



3. Open the door of the dishwasher and check if both the tub and door clearances from the counter top are correct. If not, adjust the leveling legs to assure the proper clearances. Make sure the dishwasher remains level after any clearance adjustments are made.



Step 8: Place the Dishwasher and Connect the Water Supply Line

- 1. Ensure the dishwasher is level and has the proper clearance per the steps in the previous section
- 2. Locate the water supply line and the power cable.
- 3. Place the dishwasher so that the power cable is in the right base channel. Use standard duct tape or cable ties to secure the cable in the channel. This will prevent the electrical cable from being twisted or coming out of the channel when the dishwasher is slid into place.
- 4. Pull the drain hose through the hole in the sink cabinet side wall. Keep it free of kinks. Use a rubber connector and hose clamps to connect an additional drain hose if the one provided is not long enough.



5. Using Teflon tape or sealing compound, connect the 90° elbow (3/8" NPT male) to the water inlet valve on the left bottom front of the dishwasher. The 90° elbow must be facing downward after connected otherwise the water supply line will become kinked when attaching the kick plate. Do not overtighten the 90° elbow or it may damage the water inlet valve and cause a water leak.



- 6. Connect the water supply line to the 90° elbow and secure it in the left base channel with duct tape or cable ties. Make sure the water supply line is not twisted or kinked.
- 7. Slide the dishwasher carefully into the installation space. If possible, gently pull any excess lengths of water supply line, drain hose and power cable back as you move it into place. Ensure the water supply line and power cable remain in their respective channels and do not get kinked or twisted, and that the dishwasher base does not pinch or crush them.



Step 9: Secure the Dishwasher

The dishwasher must be secured to the countertop or cabinet walls for additional stability and safety.



 Cover the bottom of the dishwasher with a towel to prevent wood shavings or dropped parts from falling into the dishwasher. Any foreign items, such as a screw, that fall into the dishwasher may cause noise, malfunctions or damage.

If the countertop is made of wood or a material that will not be damaged by drilling:

- 1. Put each installation bracket into the slot on the top of the side frames.
- 2. Secure the brackets to the frame with screws ST3.5*9.
- 3. Carefully drill screw holes into the bottom of the countertop by passing a drill bit through a screw hole in each of the brackets. Make sure the holes drilled are slightly smaller than the diameter of screws ST4*14. Secure the dishwasher to the bottom of the countertop by tightening screws ST4*14 into the predrilled holes.



If the countertop is made of granite, marble or any other material that can be damaged by drilling:

- 1. Using a pair of pliers, break off the end of each installation bracket.
- 2. Put each installation bracket into the slot on the side frame.
- 3. Secure each bracket to the frame with screws ST3.5*9.



- 4. Open the door and carefully remove the two adjustment caps located just inside the tub near the middle on both sides of the dishwasher.
- 5. Drill a hole into both sides of the kitchen cabinet by carefully passing a drill bit through the holes exposed by the removal of the adjustment caps and through the hole in the installation brackets. Make sure the holes drilled are slightly smaller than the diameter of screws ST4*14.

- Secure the dishwasher to the cabinet by tightening screws ST4*14 into the predrilled holes. Make sure the tub is not distorted by overtightening the screws. Slightly loosen the screws if the tub gets distorted.
- 7. Replace the adjustment caps.



Step 10: Connect the Drain Hose

There are several ways to connect the drain hose to the sink drain as shown in the following examples. The drain hose must be connected according to local regulations.

Example 1 – Without a disposal



Example 2 – With a disposal



The drain hose connection has an internal diameter of 13/16" (21mm). If the end of the drain hose does not fit onto the sink connection, use an adapter purchased at a plumbing or hardware supply store. A hose clamp must be used to prevent water leaks.



Secure the drain hose to the sink cabinet wall to prevent the hose from bending at the connection. If the hose gets bent or kinked it may cause a drainage problem.



The top of the drain hose must not exceed 39" (990mm) above the bottom of the dishwasher or drainage and backflow issue may result. Alternatively, the drain hose may be connected to a floor drain.



Step 11: Connect the Wiring

- 1. Before connecting the power cable to the dishwasher, make sure the circuit breaker is off.
- 2. In the junction box located at the front right bottom of the dishwasher, located the three power wires for the dishwasher including the ground wire.
- 3. Pass the power cable through the strain relief connector and into the junction box.



4. Connect the black wire of the dishwasher to the black wire of the power cable using a wire nut.





- 5. Connect the two white wires and the two green wires in the same manner.
- 6. Recheck each set of wires to ensure they a connected correctly and securely.
- 7. Replace the junction box cover



- To avoid electrical shock, do not work on an energized circuit. Doing so could result in serious injury or death. Do not attempt to work on the dishwasher until the circuit breaker has been turned off.
- Only a qualified electrician should perform electrical work.
- To avoid a fire hazard, make sure electrical connections are properly installed by a qualified electrician.

Step 12: Complete the Installation

- 1. Open the door and remove all foam, paper packaging, and unnecessary parts.
- 2. Open the water supply valve to provide water to the dishwasher. Check for water leaks on both ends of the water supply line and drain hose connector.
- 3. Turn on the circuit breaker to provide power to the dishwasher. Make sure dishwasher powers on correctly and run a wash cycle. Continue checking for leaks and make sure the cycle runs without any errors. If an error does occur turn off the dishwasher, close the water supply valve and refer to the user manual or contact customer service.
- 4. If the dishwasher runs the wash cycle without error attach the kick plate with screws ST3.9*13.



Troubleshooting

Issue	Possible Cause	Solution
Dishwasher does not start	Fuse is blown or circuit breaker is tripped	Replace fuse or reset circuit breaker. Remove any other appliances sharing the same circuit with the dishwasher.
	Power Supply is not turned on	Ensure the dishwasher is turned on and the door is closed securely. Make sure the power cord is properly plugged into the wall socket.
	Dishwasher door is not properly closed	Close dishwasher, ensuring that the door latches.
Water not pumped from	Kink in drain hose	Check drain hose.
dishwater	Filter clogged	Check coarse filter.
	Kitchen sink clogged	Ensure kitchen sink is draining well. If sink is not draining, refer to a plumber.
Suds in tub	Improper detergent	Use only the specified detergent. If improper detergent was used, open the dishwasher allowing suds to evaporate. Add 1 gallon of cold water to the tub. Close and latch the door. Start the "RINSE" wash cycle to drain the water. Repeat if necessary.
	Spilled rinse aid	Always clean up rinse aid spills immediately.
Stained tub interior	Detergent used contained colorant	Do not use detergents with colorants.
White film on dishwasher interior surface	Hard water minerals	While wearing rubber gloves, use a damp sponge to clean the interior with dishwasher detergent. Never use any other cleaner to clean dishwasher.
Rust stains appear on cutlery	Items are not non- corrosive	Do not place non-dishwasher safe items in dishwasher.
Knocking noise inside of dishwasher	The spray arm is knocking against an item in the dish rack	Pause the wash cycle and rearrange the items which are obstructing the movement of the spray arm.
Rattling noise inside of dishwasher	Item is not securely placed in dish rack	Pause the wash cycle and secure the items in the dish rack.
Knocking noise in water pipes	Pipe cross-section may problems	Contact a plumber. This is not related to the dishwasher.
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Follow the troubleshooting guide below to resolve common issues:

Troubleshooting Continued

Issue	Possible Cause	Solution
Black or gray marks on dishes	Utensils may have rubbed against dishes	Use a mild abrasive cleaner to eliminate marks. Load carefully.
Detergent left in dispenser cup	Dishes are blocking detergent cups	Re-load dishwasher according to instructions in this manual.
Dishes are not cleaned	Dishes were not loaded properly	See notes on loading the dishwasher.
	The wash cycle was not powerful enough	Select a more intensive wash cycle.
	Not enough detergent was dispensed	Use more or change brand of detergent.
	Items are blocking the path of the spray arms	Rearrange the items so the spray arms can fully rotate.
	The filter combination in the base of the dishwasher is not clean or is installed incorrectly	Clean and install the filter combination correctly.
Cloudiness on glassware	Combination of too much detergent with soft water	Use less detergent and/or select the shortest wash cycle to clean glassware.
	The filter may be dusty or blocked	Clean the filter and replace it if needed.
The dishes are not dry	Improper Loading	Re-load dishwasher according to instructions.
	Not enough rinse aid	Refill and/or increase the amount of rinse aid.
	Dishes are removed too soon	Do not remove dishes from dishwasher immediately.
	Wrong cycle selected	Short cycles have lower cleaning performance. Choose a more intensive cycle.
	Cutlery has a low- quality coating	Dishwasher is not suitable for low- quality coating.

Error Codes

Under certain conditions warning or malfunction codes will be shown on the Status Display.

Error Code	Meaning	Possible Causes
E1	Long water inlet time	The water supply may not be opened or the water pressure may be too low. The water inlet may also be restricted or kinked.
E3	Not reaching required temperature	Possible heating element malfunction.
E4	Overflow	Dishwasher may be leaking.
LSb	Rinse aid warning	Dishwasher is empty or low on liquid rinse aid. Refill rinse aid dispenser.



Warning:

- If overflow occurs, turn off the main water supply before calling service.
- If there is water in the base pan because of an overfill or small leak, the water should be removed before restarting the dishwasher.

Specifications

Description of product	18" Built-In Dishwasher
Model	BIDW1802SS, BIDW1802W, BIDW1802BL
Color	Stainless Steel, White, Black
Number of Place Settings	8
Maximum Diameter of Place Settings	11"
Voltage/Frequency	120V AC/60Hz
Input Power	Wash motor 100W, Heater 700W
Delay Start	1-24 Hour
Unit Dimensions H x W x D	32 1/2" x 17 5/8" x 22 7/16"
Net Weight	52.9 lbs.
Nominal Inlet Water Temperature	120°F
Water Pressure	6 – 145 PSI