

SERVICE MANUAL

EdgeStar 18" Built-In Dishwasher

MODEL:

BIDW1801SS

BIDW1801BL

BIDW1801W

**CAUTION: READ ALL SAFETY PRECAUTIONS IN
THIS MANUAL BEFORE SERVICING THE UNIT**

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SAFETY PRECAUTIONS

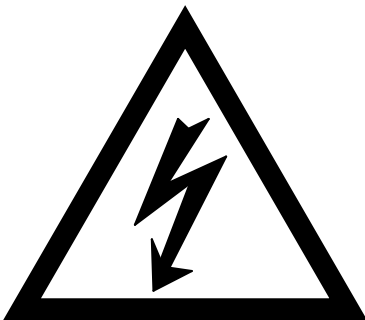
WARNING: This manual and the information contained herein is intended for use by certified technicians. The manufacturer or seller is not responsible for the interpretation or misuse of the information provided, nor does it assume any liability in connection with its use.

The safeguards and warnings indicated in this manual do not cover all possible conditions which may occur. Common sense, caution, and care must be exercised.

- To prevent electric shock, always unplug an appliance from the power supply before attempting any service.
- Disconnect the power cord by grasping the plug, not the cord.
- Do not bypass, cut, or remove the grounding plug.
- Prevent water from spilling onto electric elements or the machine parts.
- Always refer to the rating label on the appliance for rated current and voltage.
- Always check line voltage and amperage.
- Always use exact replacement parts.
- Any attempt to repair a major appliance may result in personal injury and property damage.

Electrical Safety

- Do not exceed the power outlet ratings.
- It is recommended that the unit be connected to its own circuit.
- A standard electrical supply (120V, 60Hz), that is properly grounded in accordance with the National Electrical Code and all state and local codes and ordinances is required.
- Do not use outlets that can be turned off by a switch or pull chain.
- Always turn the unit off and unplug it from the outlet when cleaning.
- Unplug the unit if it is not going to be used for an extended period of time.
- Do not operate the unit with a power plug missing the ground plug, a damaged cord, or a loose socket.
- Be sure the appliance is properly grounded.
- Do not bypass, cut, or remove the grounding plug.
- If the power cord is damaged, it must be replaced by the manufacturer or a qualified technician.
- Do not use extension cords or power strips with this unit. You may need to contact an electrician if it is necessary to use a longer cord or if you do not have a properly grounded outlet. Do not modify the power cord's length or share the outlet with other appliances.
- Do not start or stop the unit by switching the electrical circuit's power on and off.
- Immediately unplug the unit if it makes strange sounds, emits an odor or smoke and contact customer service.
- Do not remove any part of the casing unless instructed by an authorized technician.
- Before the appliance is removed from service or discarded, remove the door and cut off the power cord.



! WARNING

A black and white warning symbol showing a hand with a lightning bolt striking it, indicating an electrical shock hazard.

Electrical Shock Hazard
Connect to a grounded 3 prong outlet with an individual 12 amp branch circuit protected by a 12 amp circuit breaker. Connect to individual branch circuit.
Do not remove ground prong.
Do not use an adapter.
Do not use an extension cord.
Failure to follow these instructions can result in electrical shock, fire, or death.

General Safety

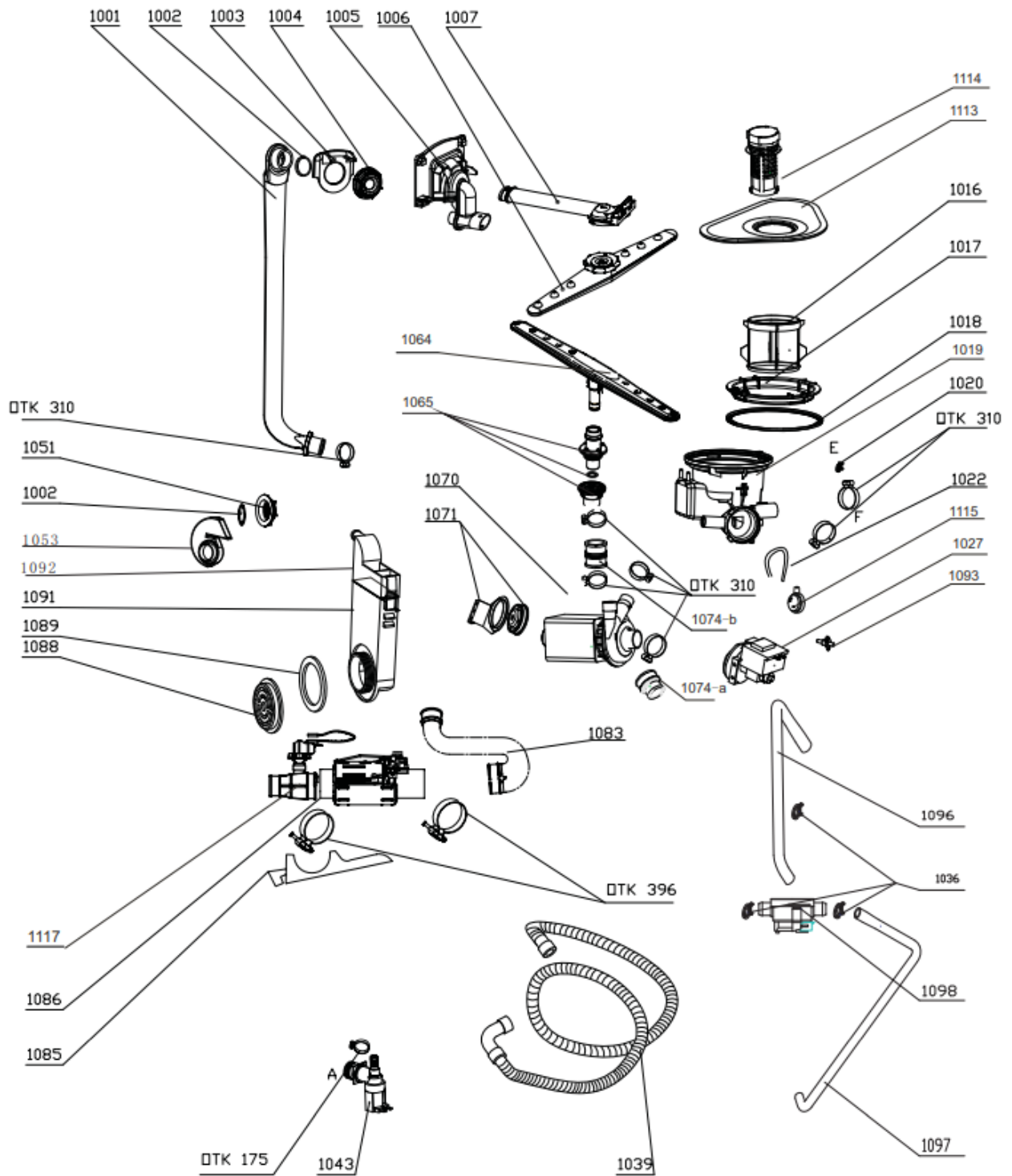
- Always unplug an appliance from the power supply before attempting any service. Disconnect the power cord by grasping the plug, not the cord.
- Do not allow children or pets to play on or in the appliance.
- This machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the machine by a person responsible for their safety.
- Do not install or store this appliance where it will be exposed to the weather.
- Disconnect from the power socket before cleaning or maintenance.
- If the plug (power cord) is damaged, it must be replaced by the manufacturer or an authorized service representative.
- This machine shall be repaired only by an authorized service representative. Only genuine replacement parts should be used.
- If connected to a circuit protected by fuses, use time-delay fuses with this appliance.
- Please do not close the door with excessive force. If it is found difficult to close the door, please check for obstruction.
- When you plan to dispose of this unit in the future, please comply with the local waste disposal regulations. Remove the door so that children and pets will not be trapped in the unit.

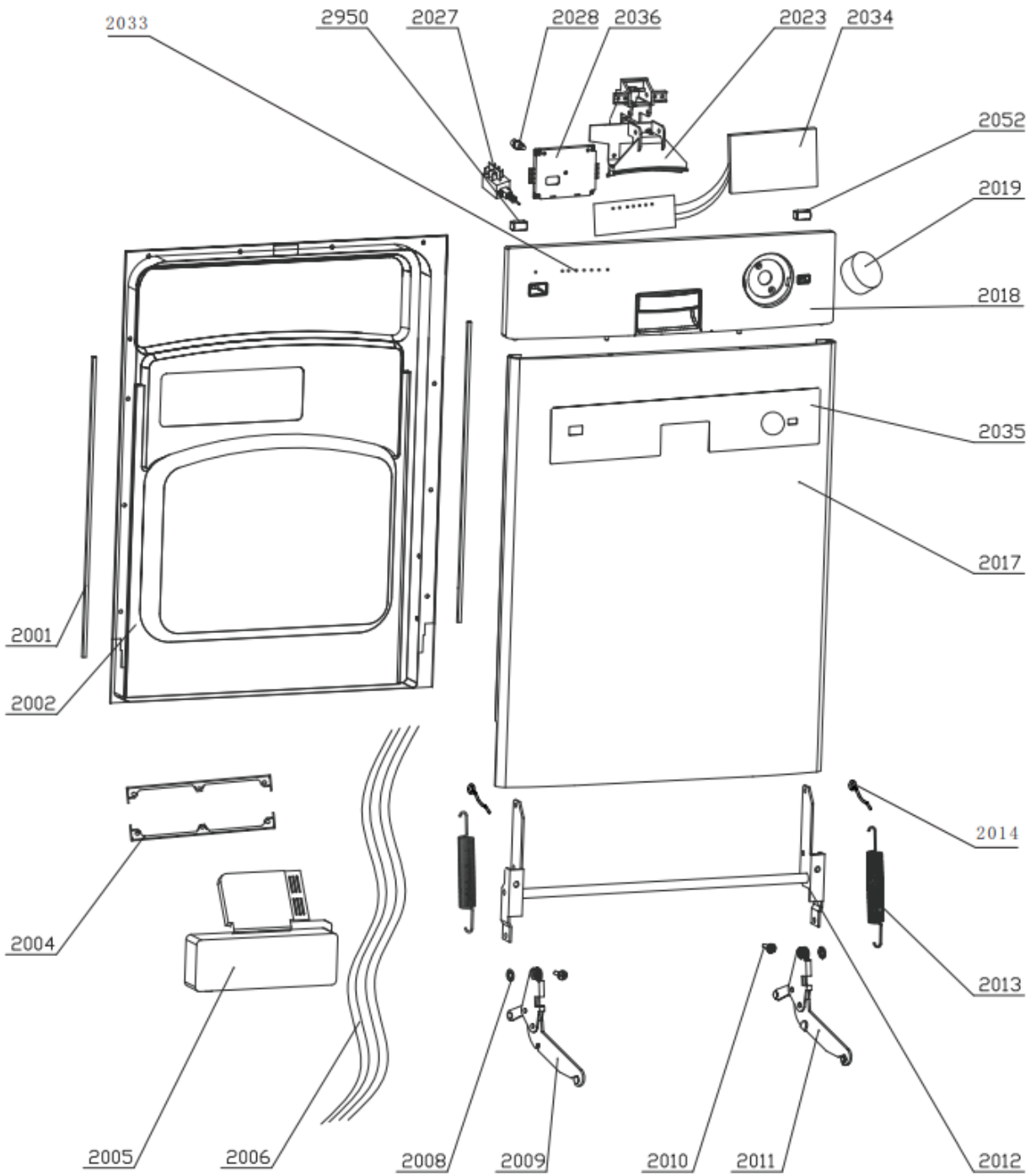
Specifications

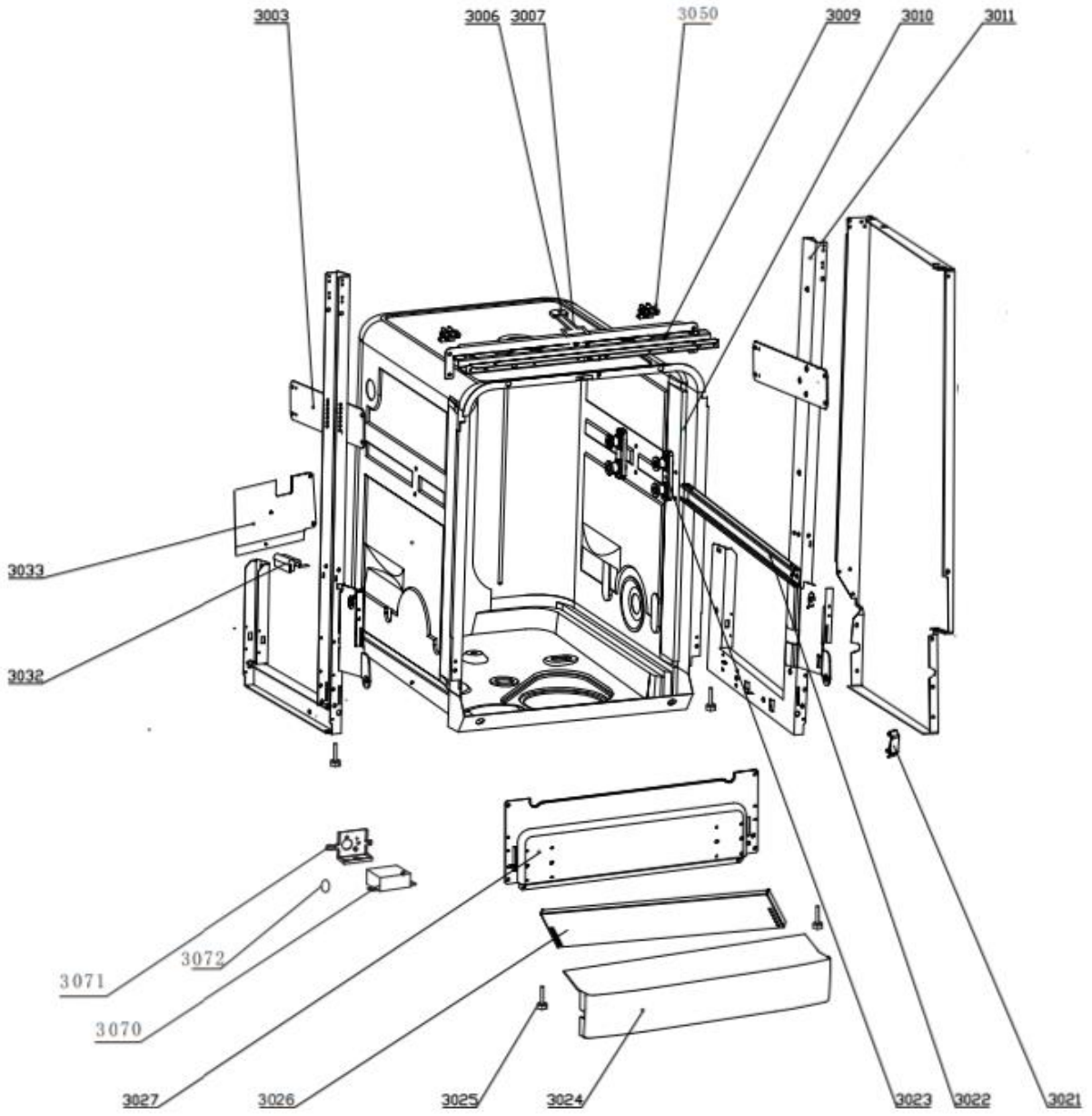
Description of product	Built-In Dishwasher
Model	BIDW1801SS, BIDW1801W, BIDW1801BL
Capacity	8 Standard Place Settings
Voltage/Frequency	120V, 60Hz
Power	1130 Watts
Current	1.0 Amps
Heater Current	8.2 Amps
Water Pressure and Temperature	Pressure: 0.04MPa-1.0MPa Temperature: 120°F (49°C)
Color	BIDW1801SS: Stainless Steel BIDW1801W: White BIDW1801BL: Black
Dimensions W x D x H	18" x 22" x 32.5"
Net Weight	BIDW1801SS: 57.3 lbs. BIDW1801W: 55 lbs. BIDW1801BL: 55 lbs.

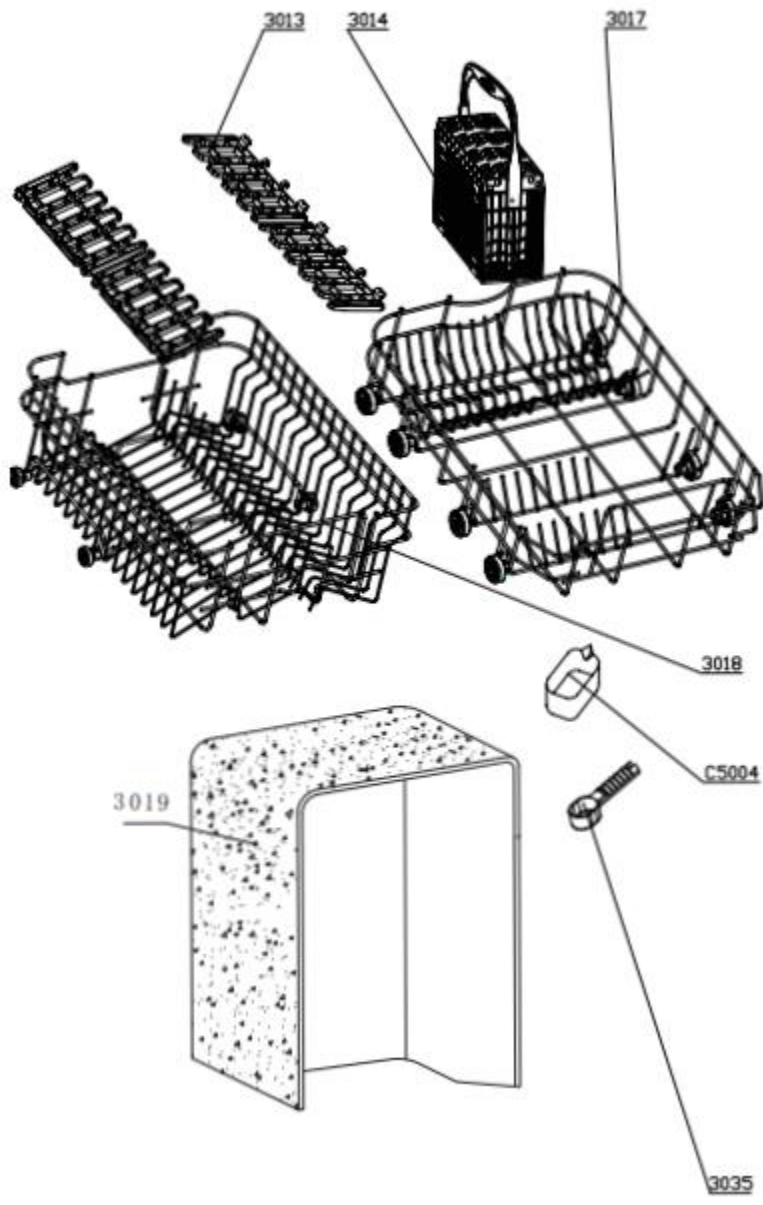
Parts Breakdown

Exploded Views of BIDW1801









Parts List for BIDW1801SS and BIDW1801BL

NO.	Part No.	Description	Qty.
1001	12176000009438	external pipe	1
1002	12676000000852	o ring	3
1003	12176000009626	guide casing	1
1004	12176000009516	external pipe nut	1
1005	12176000009047	water dispenser assembly	1
1006	12176000009074	Upper sprayer	1
1007	12176000009272	Upper sprayer pipe	1
1016	12176000003663	micro filter	1
1017	12176000009579	sump nut	1
1018	12676000000881	sump gasket	1
1019	12176000009299	sump	1
1022	12676000000626	pvc pipe	1
1027	11001011000013	Permanent magnet synchronous pump	1
1036	12976000000332	Clamp 14.5x1.8	1
1039	12676000000970	drain hose	1
1043	17476000001190	inlet valve	1
1051	12176000014047	air breaker nut	1
1053	12176000003929	Air inlet	1
1064	12276000000251	lower sprayer assembly	1
1065	12176000008659	lower sprayer connection assembly	1
1070	11001010000083	induction pump	1
1071	12276000006148	washing motor support	1
1074-a	12676000000691	Connect hose	1
1074-b	12676000000698	Connect hose	1
1083	12676000000636	bend connect hose of heating elements	1
1085	12176000010466	heating element support	1
1086	17476000001535	Heating elements	1
1088	12176000009570	Water inlet nut	1
1089	12676000000887	seals	1
1091	12176000003933	water inlet assembly	1
1092	12176000003542	Water inlet cover	1
1093	17176000000311	Sensing device	1
1096	12676000000178	outlet hose of air breaker	1
1097	12676000000129	inlet hose of air breaker	1
1098	17476000001553	flowmeter	1
1113	12176000003654	plane filter	1
1114	12176000009646	filter handle	1
1115	17476000001206	pressure switch	1
1117	17476000001210	water pressure switch assembly	1
2001	12176000002480	door edge guard piece	2
2002	12276000005211	inner door assembly	1
2004	12276000001459	dispenser bracket	2
2005	17476000001490	dispenser	1
2006	17476000000477	wiring harness	1
2008	12276000001393	Ring $\Phi 6$	4

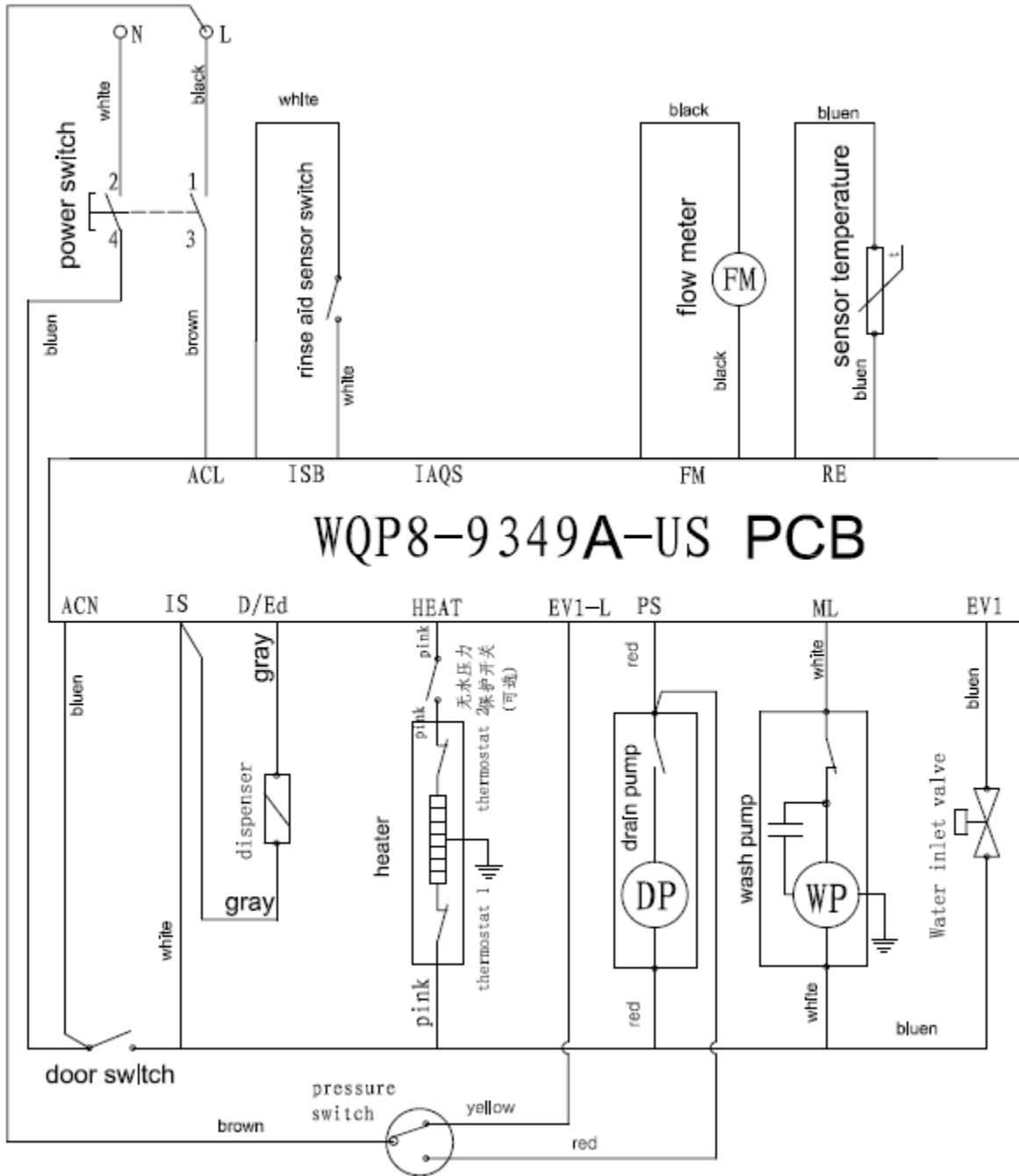
NO.	Part No.	Description	Qty.
2009	12276000001785	left hinge assembly	1
2010	12976000001076	pin	2
2011	12276000001783	right hinge assembly	1
2012	12276000001749	door frame assembly	1
2013	12976000000130	door spring	2
2014	12976000001077	Door spring bolt	2
2017	12276000006344	Stainless Steel outer door	1
2017	12276000006478	Black outer door	1
2018	12176000005528	control panel	1
2019	12176000004528	knob	1
2023	12176000008995	doorknob assembly	1
2027	17476000001230	power switch	1
2028	17476000001107	Red pilot lamp	1
2033	12176000004268	Indicator cover	6
2034	17176000012543	PCB	1
2036	12176000003716	Control board box	1
2950	12176000001672	key	1
2952	12176000001669	button	1
3003	12276000001696	left strengthen shank assembly	1
3006+3007	12176000008482	door clamp	1
3009	12276000001623	upper front crosspiece assembly	1
3010	12676000000779	seal	1
3011	12276000001682	right strengthen shank assembly	1
3013	12176000002534	cup rack	2
3014	12176000019436	Cutlery basket	1
3017	12976000001510	lower basket assembly	1
3018	12976000001633	Upper basket	1
3019	12676000000479	sound-proof felt	1
3021	12176000008605	rail block	2
3022	12276000001352	rail	2
3023	12176000013102	rail support assembly	4
3024	12276000005386	baseboard	1
3025	12976000001212	foot	4
3026	12276000005349	active plate	1
3027	12276000010107	Lower front cross piece	1
3032	12676000000996	Tank band bracing block	2
3033	12276000001617	lower rear crosspiece	1
3035	12176000002633	measurable spoon	1
3050	12176000008481	top board hook	2
3070	12276000001795	junction box a	1
3071	12276000001799	junction box b	1
3072	12676000000861	junction box gasket	1
C5004	12176000003731	rinsing agent cup	1
OTK 175	12976000000316	OTK 175 Clamp	3
OTK 310	12976000000330	OTK 310 Clamp	5
OTK 396	12976000000327	OTK 396 Clamp	2

Parts List for BIDW1801W

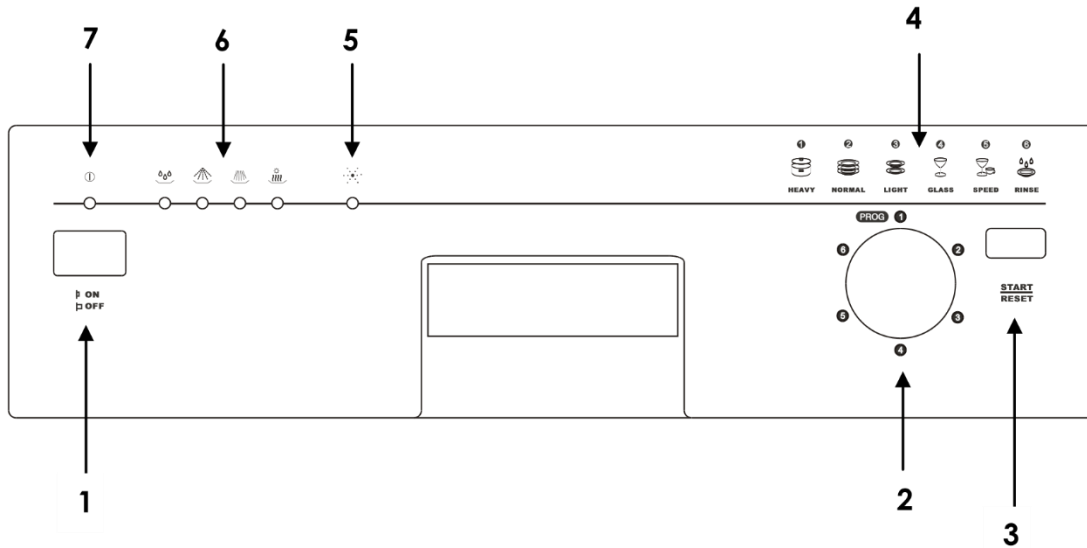
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1022	1267600000626	pvc pipe	1
1027	11001011000013	Permanent magnet synchronous pump	1
1036	1297600000332	Clamp 14.5x1.8	1
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1113	12176000003654	plane filter	1
1114	12176000009646	filter handle	1
1115	17476000001206	pressure switch	1
1117	17476000001210	water pressure switch assembly	1
2001	12176000002457	door edge guard piece	2
2002	12276000005211	inner door assembly	1
2004	12276000001459	dispenser bracket	2
2005	17476000001490	dispenser	1
2006	17476000000477	wiring harness	1
2008	12276000001393	Ring Φ 6	4
2009	12276000001785	left hinge assembly	1





NO.	Part No.	Description	Qty.
2010	12976000001076	pin	2
2011	12276000001783	right hinge assembly	1
2012	12276000001749	door frame assembly	1
2013	12976000000130	door spring	2
2014	12976000001077	Door spring bolt	2
2017	12276000006282	White outer door	1
2018	12176000005619	control panel	1
2019	12176000004555	knob	1
2023	12176000009003	doorknob assembly	1
2027	17476000001230	power switch	1
2028	17476000001107	Red pilot lamp	1
2033	12176000004268	Indicator cover	6
2034	17176000012543	PCB	1
2036	12176000003716	Control board box	1
2950	12176000000151	key	1
2952	12176000000379	key	1
3003	12276000001696	left strengthen shank assembly	1
3006+3007	12176000008482	door clamp	1
3009	12276000001553	upper front crosspiece assembly	1
3010	12676000000779	seal	1
3011	12276000001682	right strengthen shank assembly	1
3013	12176000002534	cup rack	2
3014	12176000019436	Cutlery basket	1
3017	12976000001510	lower basket assembly	1
3018	12976000001633	Upper basket	1
3019	12676000000479	sound-proof felt	1
3021	12176000008605	rail block	2
3022	12276000001352	rail	2
3023	12176000013102	rail support assembly	4
3024	12276000005354	baseboard	1
3025	12976000001212	foot	4
3026	12276000005376	active plate	1
3027	12276000010107	Lower front cross piece	1
3032	12676000000996	Tank band bracing block	2
3033	12276000001617	lower rear crosspiece	1
3035	12176000002633	measurable spoon	1
3050	12176000008448	top board hook	2
3070	12276000001795	junction box a	1
3071	12276000001799	junction box b	1
3072	12676000000861	junction box gasket	1
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OTK 310	12976000000330	OTK 310 Clamp	5
OTK 396	12976000000327	OTK 396 Clamp	2

Wiring Diagram



Control Panel



1. ON/OFF Button: Turns on/off the power supply.
2. Program Selector: Rotate the knob to select the desired wash cycle.
3. Start/Pause Button: Press to start, pause and restart the dishwasher.
4. Program Knob Reference: Indicates what cycle is selected by the Program Selector.
5. Rinse Aid Warning Light: Turns on when the dispenser needs to be refilled.
6. Washing Phase Indicator: Indicates the phase of the wash cycle. Pre-wash  Wash 
Rinse  Dry 
7. Power Light: Lights up when Power ON/OFF button is pressed and power is ON.









Troubleshooting



Basic Precautions

1. Make sure the unit is connected to a 115 Volt, 60Hz. AC only 15 amp electrical supply and is properly grounded to protect against electrical shock.
2. Make sure the power cord is not damaged.

Error Codes and Symptoms

Code or Symptom	Meaning	Possible Causes	Solution
The Dry  light flashes	Water inlet malfunction	No water in	Connect the water pipe and open the water supply
		Water pipe bent or kinked	Straighten water pipe
		Inlet valve failure	Replace valve
		Low water pressure	Make sure the water pressure is $\geq 0.04\text{MPa}$
		Blocked inlet pipe or inlet valve	Remove the inlet pipe or inlet valve and remove blockage
		Control board malfunction	Replace control board
The Rinse  and Dry  light flash	Heater not reaching required temperature	Low voltage	Make sure the voltage is 115V
		Pressure switch malfunction	Replace switch
		Heater malfunction	Replace heater
		Control board malfunction	Replace control board
The Wash  and Rinse  light flash	Temperature Sensor Failure	Open circuit or sensor malfunction	Repair open circuit or replace sensor
The Wash  Rinse and  Dry  light flash	Temperature Sensor Failure	Short circuit or sensor malfunction	Repair short circuit or replace sensor
The dishwasher works when the door is open		Door switch damage	Replace door switch
		Control board malfunction	Replace control board
Water siphon malfunction		Drain pipe opening is too low	Set the opening to a suitable height

Test program

- 1) To Start: Close the door and press start/reset button, then press the Power button and the machine will enter the test program. Every control LED will light and blink with the frequency of 1Hz. Press the start/reset button again and the wash process lights will blink from left to right.
- 2) During the test program the machine can skip to the next step by pressing the start/reset button except during the water inlet step.
- 3) During the test program press the start/reset button or open the door and the machine will stop (all the wash process lights will stay on.) When the start/reset button is pressed again or the door is closed the machine will continue automatically.
- 4) During the test program all ten error tests must be validated.
- 5) Once testing is over, all the lights turn off and a tone will sound.

NO	Process	parameter
1	Inlet water	3.0L
2	wash +dispense	60s
3	Wash+ heat	57°C
4	drain	30s
5	Inlet water	3L
6	wash	120S
7	pause	5s
8	wash	60s
9	drain	30s
10	end	It will stop after tone

Replacing System Components

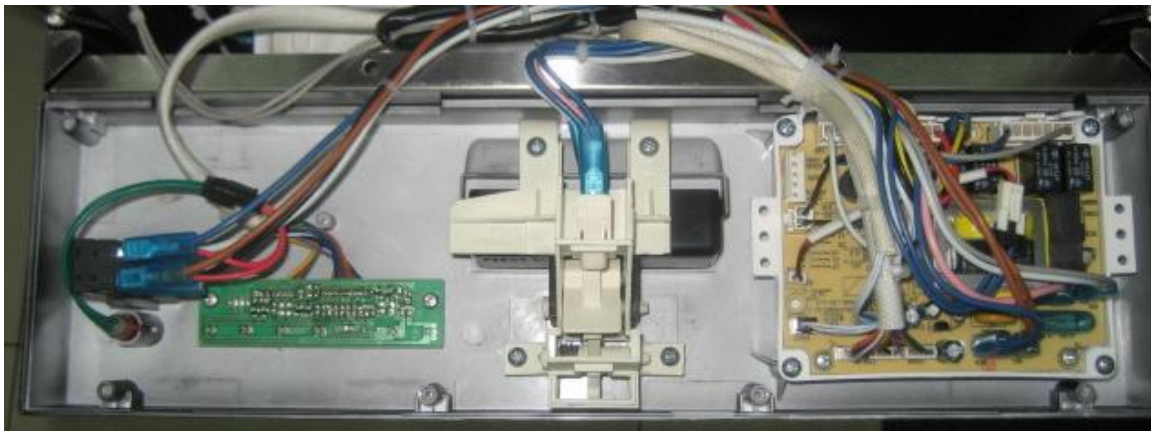


Warning:

Always turn off the electrical power supply before servicing any electrical component or replacing any parts. All voltage checks should be made with a voltmeter having a full scale range of 130 volts or higher. After service is completed, be sure all grounding and electrical circuits are connected and secure, and all access panels are in place.

Control panel

The control panel allows the user to select the various cleaning cycles and operate the dishwasher. All electrical elements in the dishwasher are controlled by the control panel.

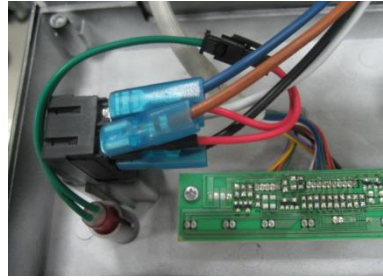


Removal and Replacement

1. Disconnect the electrical supply from the dishwasher.
2. Open the dishwasher door.
3. Remove the 6 screws that connect the control panel cover to the dishwasher door.
4. Close the dishwasher door.
5. Release the door latch and allow the control panel cover to hang against the dishwasher door.
6. Remove electronic controller out from the control panel.
7. Disconnect the wire terminals from electronic controller.
8. Replace new controller and reverse procedures to complete installation.

Power switch

The Power Switch is used to turn on / off the power to the unit. When checking or replacing the Power Supply, ensure that the 4 wire terminals are properly and securely connected in order to avoid a power disruption or short circuit.



Door switch

The latch and switch assembly are located on the door assembly behind the control panel cover. The dishwasher will not operate until the door is closed, the latch engages the door catch (holding the door firmly against the seal).

Note: There are two terminals on the door switch which make contact when the door is closed.



Dispenser

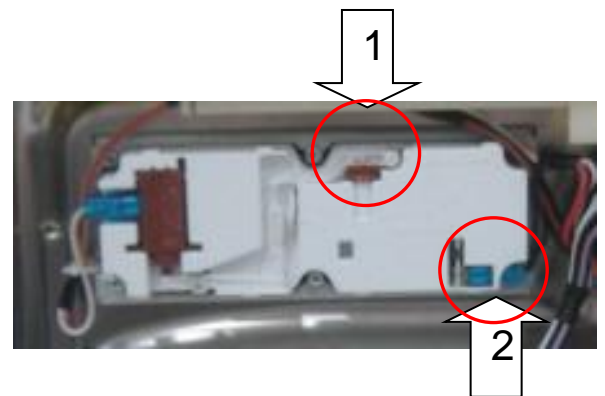
The dispenser automatically dispenses both the detergent and the rinse agent at the appropriate times

When activated for the second time in a cycle, the lever lifts the connecting rod by the notch, lifting the rinse dispenser plunger (1) and releasing the rinse agent. When deactivated, the lever returns to its original starting position.

The magnetic sensor(2) is connected to rinse aid warning light at control panel by wires. When the indicator lights up, the rinse aid volume is low and you need to add rinse aid.

To replace the dispenser, follow the below procedures:

1. Remove the 6 screws that secure the dispenser in place
2. Disconnect the terminals and remove dispenser
3. Reinstall replacement part by reversing above steps



Water Inlet Valve

The flow of water is controlled by a rubber flow washer capable of maintaining a flow of $4\pm 5\%$ liters per minute with incoming water pressure of 0.04-1MPa. If the water inlet valve needs to be replaced, please follow the below procedures:

1. Disconnect power
2. Remove the top panel, rear panel, left /right side panel, baseboard and bottom board
3. Disconnect the 2 terminals from the water inlet valve
4. Remove the 3 screws and pull the valve
5. Remove the clamp and inlet hose from the water valve
6. Replace the water inlet valve
7. Reverse the above procedure to install.

Drain Pump

A check valve flapper on the drain pump prevents the dirty water from re-entering the sump. If the drain pump needs to be replaced, please follow the below procedures:

1. Disconnect power
2. Remove the bottom board and pull the 2 terminals from the drain pump
3. Remove 2 screws and disconnect drain pump from sump
4. Replace the drain pump
5. Reverse the above procedure to install

Motor Pump Assembly

This dishwasher model uses a capacitor start induction motor. If the motor pump needs to be replaced, please follow the below procedures:

1. Disconnect power.
2. Remove the bottom board and pull the 2 terminals from the drain pump;
3. Remove 2 screws and disconnect drain pump from sump;
4. Replace the drain pump
5. Reverse the above procedure to install replacement part.



Pressure Switch

The Pressure Switch is installed on the pump hose and external pipe. There is a micro switch connected to the hot water pipe. If there is no water supply, or if the water pressure is too low, the Pressure Switch will cut off the power to prevent damage to the unit.

If the Pressure Switch needs to be replaced, please follow the below procedures:

1. Disconnect power
2. Remove the bottom board and disconnect the 2 terminals from the Pressure Switch
3. Remove clamp and disconnect Pressure Switch from rubber hose
4. Replace the Pressure Switch
5. Reverse the above procedure to complete repair



Heating Element

The Heating Element maintains water temperature during the wash and rinse cycles. If the Pressure Switch is determined to be functioning properly and the Heating Element is still not functioning, the Heating Element may need to be replaced.

If the Heating Element needs to be replaced, please follow the below procedures:

1. Disconnect power and open the dishwasher door
2. Remove the upper and lower dishwasher baskets
3. Remove the bottom board and disconnect 2 terminals
4. Remove the rubber covers from the heating element
5. Remove the screw and remove heating element
6. Reverse the above procedure to install new heating element

DATE	REVISION NOTES
02/06/2018	INITIAL DOCUMENT
05/31/2018	MINOR EDITS
01/11/2019	TEXT AND FORMATTING EDITS