

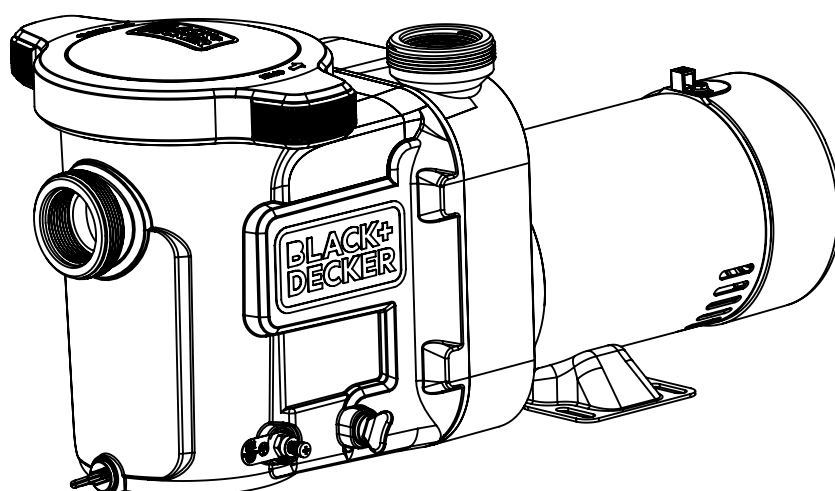
BLACK+ DECKER®

ABOVE GROUND POOL PUMPS INSTRUCTION MANUAL

CATALOG NUMBERS

BDXBTXL100S/BDXBTXL100T

BDXBTXL210S/BDXBTXL210T



Please read before returning this product for any reason.

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EQUIPMENT INFORMATION RECORD

DATE OF INSTALLATION _____

INSTALLER INFORMATION _____

INITIAL PRESSURE GAUGE READING (WITH CLEAR FILTER) _____

PUMP MODEL HORSEPOWER _____

NOTES: _____

Definitions: Safety Alert Symbols and Words

This instruction manual uses the following safety alert symbols and words to alert you to hazardous situations and your risk of personal injury or property damage.

⚠ DANGER: Indicates an imminently hazardous situation which, if not avoided, **will** result in **death or serious injury**.

⚠ WARNING: Indicates a potentially hazardous situation which, if not avoided, **could** result in **death or serious injury**.

⚠ CAUTION: Indicates a potentially hazardous situation which, if not avoided, **may** result in **minor or moderate injury**.

⚠ (Used without word) Indicates a safety related message.

NOTICE: Indicates a practice **not related to personal injury** which, if not avoided, **may** result in **property damage**.

1. Important Safety Instructions

When using an electrical appliances, basic precautions should always be followed, including the following: READ ALL INSTRUCTIONS BEFORE USING THE APPLIANCE.

⚠ WARNING: Read all safety warnings and all instructions. Failure to follow the warnings and instructions listed below may result in electric shock, fire and/or serious injury.

⚠ WARNING: To reduce the risk of injury, do not permit children to use or climb on this product.

⚠ WARNING: Improper installation will create an electric hazard which could result in death or serious injury to pool users, installers, or others due to electrical shock, and may also cause damage to property.

⚠ WARNING: Risk of Electric Shock.

1. This pump is for use with 115V nominal, and in pool pump applications ONLY. Connection to the wrong voltage, or use in other application may cause damage to equipment or personal injury.
2. Always disconnect power to the pool pump at the circuit breaker before servicing the pump. Failure to do so could result in death or serious injury to serviceman, pool users, or others due to electric shock.
3. All electrical wiring MUST be in conformance with all applicable local codes, regulations, and the National Electric Code ® (NEC®).
4. In accordance with the National Electric Code® (NEC®), this unit must be connected only to a supply circuit that is protected by a ground-fault circuit-interrupter (GFCI).
5. To reduce the risk of electrical shock, replace any damaged cord immediately.

⚠ WARNING: RISK OF ENTRAPMENT HAZARD.

Pool and spa pumps produce high levels of suction, which can pose extreme danger if a person comes in close proximity to an open pool or spa drain or if a drain cover is loose, cracked, broken or missing:



Hair Entrapment - Hair can be entangled in suction outlet cover.



Body Suction Entrapment - A differential pressure applied to a large portion of the body or limbs can result in an entrapment.



Disembowelment - A negative pressure applied directly to the intestines through an unprotected suction outlet sump or suction outlet cover which is damaged, broken, cracked, missing, or unsecured can result in evisceration/disembowelment.



Mechanical Entrapment - There is potential for jewelry, swimsuits, hair decorations, fingers, toes, or knuckles to be caught in an opening of a suction outlet cover resulting in mechanical entrapment.

⚠ WARNING:

1. When outlets are small enough to be blocked by a person, a minimum of two functioning suction outlets per pump must be installed. Suction outlets in the same plane (i.e. floor or wall), must be installed a minimum of three feet (3') [0.91 meter] apart, as measured from near point to near point.
2. Dual suction fittings shall be placed in such locations and distances to avoid "dual blockage" by a user.
3. Dual suction fittings shall not be located on seating areas or on the backrest for such seating areas.
4. Failure to keep suction outlet components clear of debris, such as leaves, dirt, hair, paper and other material can result in an increased potential for suction entrapment.
5. Installation of a vacuum release or vent system, which relieves entrapping suction, is recommended.

⚠ WARNING: RISK OF PRESSURE HAZARD.

1. When pressure testing a system with water, air is often trapped in the system during the filling process. This air will compress when the system is pressurized. Should the system fail, this trapped air can propel debris at a high speed and cause injury. Every effort to remove trapped air must be taken, including opening the bleed valve on the filter and loosening the pump basket lid while filling the pump.
2. Trapped air in the system can cause the filter lid to be blown off, which can result in death, serious injury, or property damage. Be sure all air is properly purged out of the system before operating.
3. DO NOT USE COMPRESSED AIR TO PRESSURE TEST OR CHECK FOR LEAKS.

NOTICE: Do not start pump dry! Running the pump dry for any length of time will cause severe damage for the pump and will void the warranty.

SAVE THESE INSTRUCTIONS

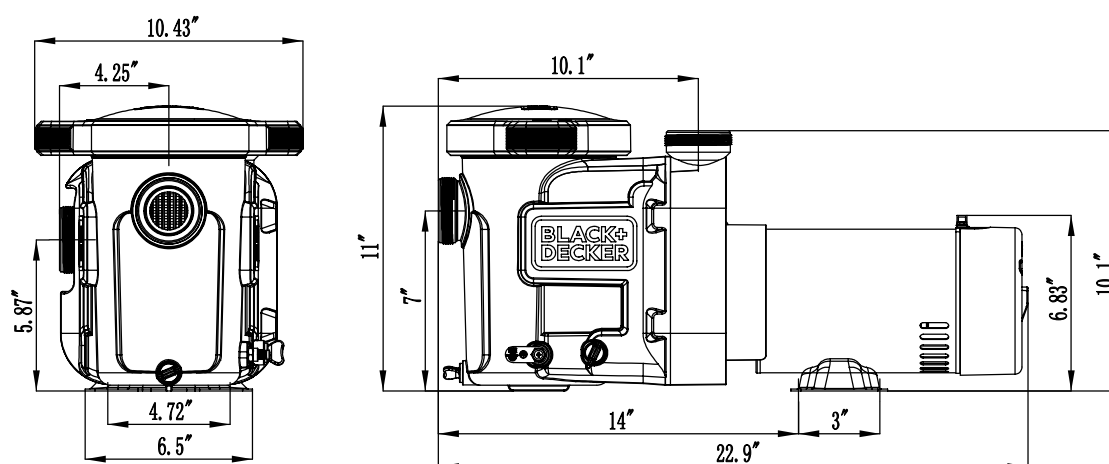
2. General Information

2.1 Introduction

This manual contains information for the proper installation and operation of the Black&Decker Single& Two speed pump family. The instructions in this manual **MUST** be followed precisely. Black&Decker Single &Two Speed Pumps can be run up to 3450 RPM.

2.2 Pump dimension

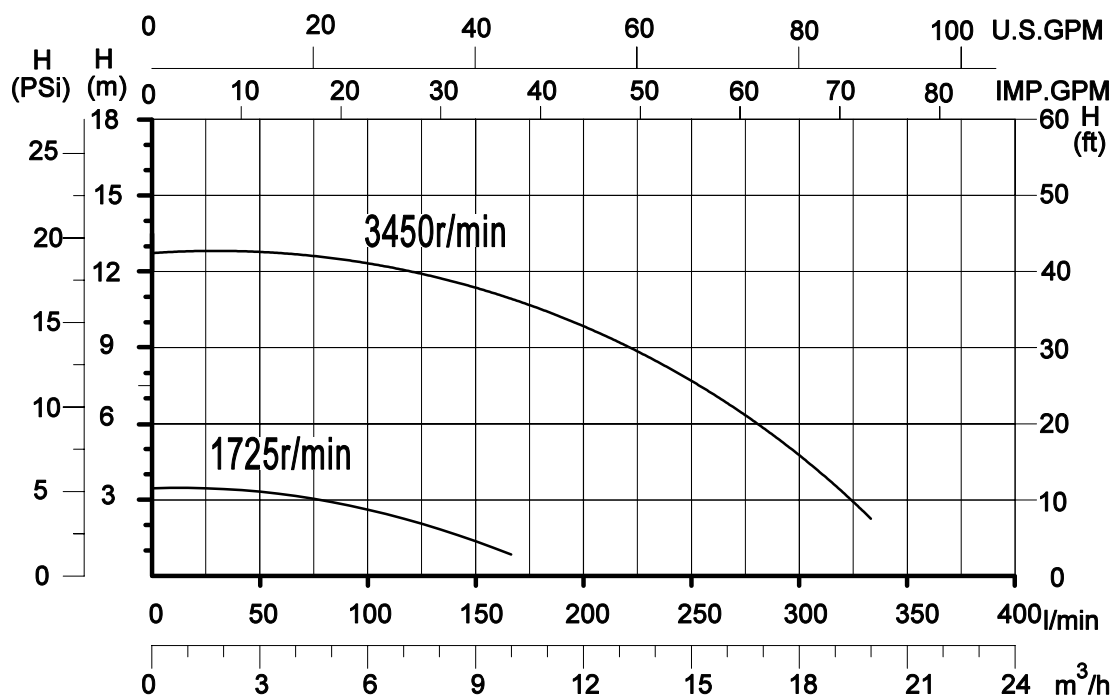
Note: When installing a pump, leave a minimum of one (1) foot (30 cm) of clearance above the pump for removal of the strainer basket.



2.3 Product Specifications

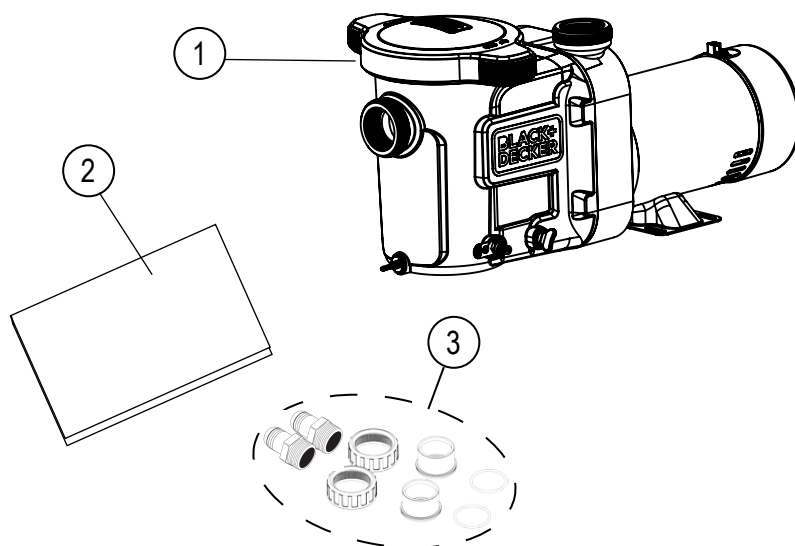
Model No.	HP	Voltage	Input Frequency	Max Watts	Amps	Speed Range	Union Size	Weight
BDXBTXL100S BDXBTXL100T	1.0	115 VAC	60HZ	950 W	8.5	3450	1.5" x 1.5"	12.4Kg(27.3lb)
BDXBTXL210S BDXBTXL210T				950W	8.5/3	3450/1725		13.2Kg(29.1lb)

2.4 Pump Performance Curves



2.5 Product Contents

ITEM	DESCRIPTION
1	Pump
2	Installation and Operation Manual
3	O-Ring (2)
	Union Nut (2)
	Tailpiece 1.5" (2)
	Hose Adapters (2)



3. Installation and Wiring

3.1 Preparation Guide

Upon receipt of the pump, check the carton for damage. Open the carton and check the pump for concealed damage, such as cracks, dents or a bent base. If damage is found, contact the shipper or distributor where the pump was purchased.

Inspect the contents of the carton and verify that all parts are included. See Section 2.5, Product Contents.

3.2 Pump location

1. Locate the pump on a level surface as close to the pool as practical. Consult local codes for minimum distances between pool and pump if applicable.

2. The connection plumbing (hose or rigid pipe) should be direct and as free from turns and bends as possible. Take care not to kink flexible hose. Elbows and other fittings greatly increase friction losses.

3. Place pump on a solid foundation / base which provides a rigid and vibration free support.

4. Protect the pump against flooding and excess moisture. Protect the motor from foreign objects clogging the air circulation around the motor.

⚠ WARNING: NEVER use gasoline or other flammable liquids or vapors in the vicinity of this pump. DO NOT store pool chemicals near this pump. DO NOT remove any safety labels such as CAUTION/DANGER/WARNING from this pump. Keep labels in good condition and replace any damaged labels.

3.3 Plumbing

When connecting pipework to pump with threaded ports, it is recommended that thread seal tape be used. Hard-plumbed pipes must have proper solvent-weld connections. Flexible hose connections must be tightened properly. If the suction line is not sealed correctly, the pump will not prime properly and will pump small volumes of water or none at all.

Piping - Flexible Hose, PVC, or Reinforced Hose are all acceptable piping methods.

Before starting the pump for the first time, remove the clear lid. (Turn lid ring counter-clockwise to remove.) Fill strainer tank with water until it is level with the suction inlet. Replace lid with locking ring. Hand-tighten the lid to make an air-tight seal. DO NOT use any tools to tighten the lid.

To avoid pump strain, support suction and outlet independently. Place supports near pump. To avoid strain left by a gap at last connection, start all piping at pump and run pipe AWAY from pump.

For pump outlet use 1-1/2" PVC pipe or reinforced hose. For pump suction on ALL models, use 1-1/2" reinforced hose. Increase size if a long run is needed. For pipe larger than port, use reducing fitting in strainer port.

NEVER use suction pipe SMALLER than pump suction connections. Suction pipe inlet must be lower than pump inlet port.

Use the fewest number of fittings as possible. Each additional fitting has the effect of moving the equipment farther away from the water.

3.4 Electrical

- Install all equipment in accordance with the National Electrical code and all applicable local codes and ordinances.
- A means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

WARNING



RISK OF ELECTRICAL SHOCK OR ELECTROCUTION. The Variable Speed Pump must be installed by a licensed or certified electrician or a qualified service professional in accordance with the National Electrical Code and all applicable local codes and ordinances. Improper installation will create an electrical hazard which could result in death or serious injury to users, installers, or others due to electrical shock, and may also cause damage to property.

Always disconnect power to the pump at the circuit breaker before servicing the pump. Failure to do so could result in death or serious injury to service people, pool users or others due to electric shock and/or property damage.

Read all servicing instructions before working on the pump.

⚠WARNING: Ground and bond pump before connecting to electrical power supply. Failure to ground and bond pump can cause serious or fatal electrical shock hazard. Do NOT ground to a gas supply line. To avoid dangerous or fatal electrical shock, turn OFF power to pump before working on electrical connections. Fire Hazard - match supply voltage to pump nameplate voltage. Insure that the electrical supply available agrees with the pump's voltage, phase, and cycle, and that the wire size is adequate for the amps rating and distance from the power source. Use copper conductors only.

3.5 Electrical Specs

Voltage: 115VAC, 60Hz, Single Phase

Use copper conductors only. For indoor & outdoor use. Connect pump to a 15 amp branch circuit in accordance with local codes, regulations, and the National Electric Code (NEC). A disconnecting means located at least 5 ft. from the inside wall of the pool, spa, or hot tub must be provided.

3.6 Voltage

Voltage at pump MUST NOT be more than 10% above or below nameplate rated voltage, or components may overheat, causing overload tripping and reduced component life. If voltage is less than 90% (104VAC) or more than 110% (126VAC) of rated voltage (115VAC) when pump is running at full load, consult the power company.

3.7 Grounding and Bonding

Install, ground, bond, and wire pump in accordance with local or National Electrical Code requirements.

Permanently ground pump. Use green ground terminal provided under access plate; use size and type wire required by code. Connect ground terminal to electrical service ground.

Bond the motor using the provided external lug.

Bond pump to pool structure. Bonding will connect all metal parts within and around the pool with a continuous wire. Bonding reduces the risk of a current passing between bonded metal objects, which could potentially cause electrical shock if grounded or shorted. Reference NEC codes for all wiring standards including, but not limited to, grounding, bonding and general wiring procedures.

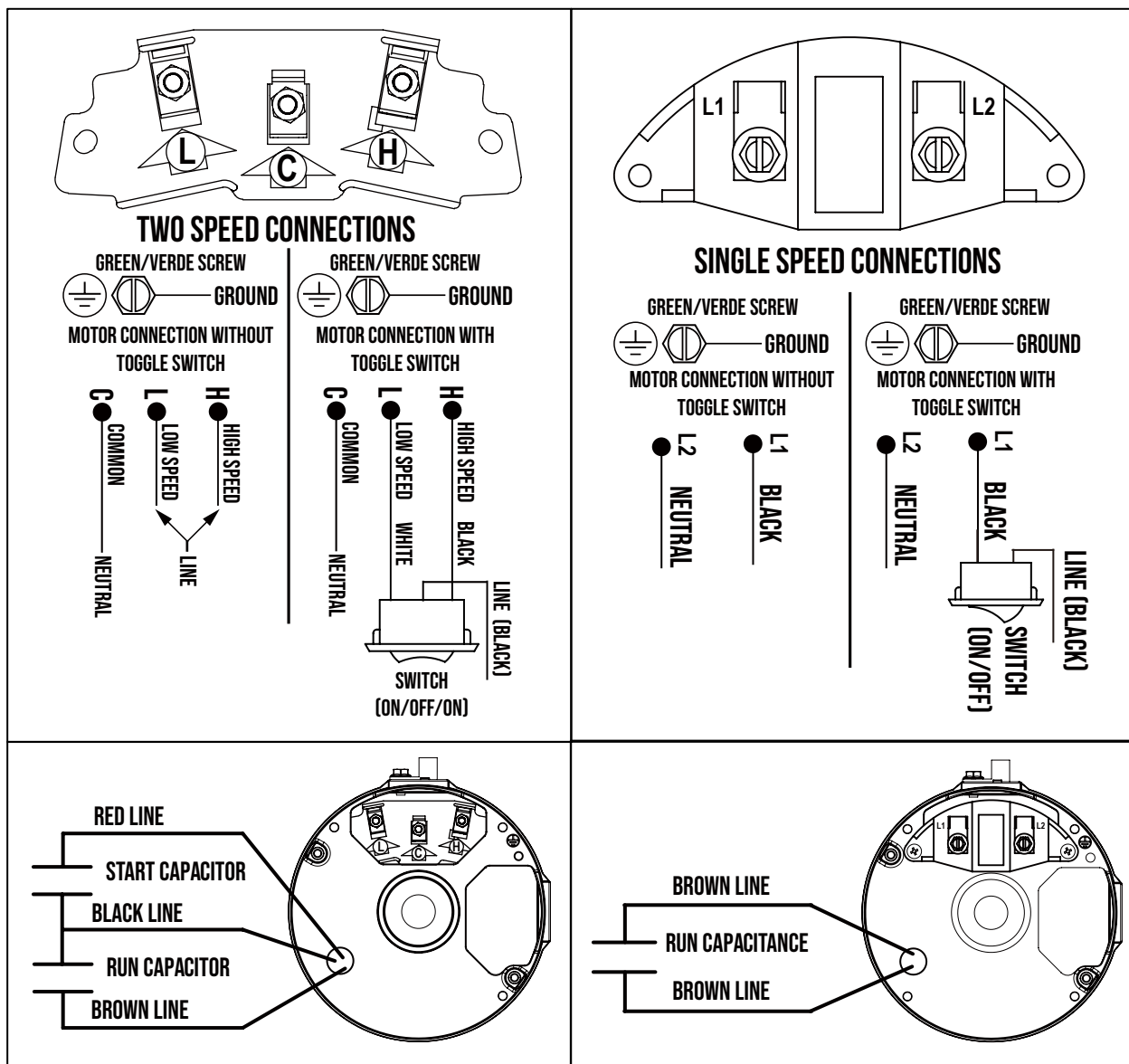
The motor frame must be grounded to a reliable grounding point using a solid copper conductor, No. 8 AWG or larger. In Canada, No. 6 AWG or larger must be used. If the pump is installed within five (5) feet of the inside walls of the swimming pool, spa, or hot tub.

3.8 Wiring

⚠ WARNING—All electrical wiring **MUST** conform to local codes, regulations, and National Electric Code (NEC)

Pump **MUST** be permanently connected to circuit. If other lights or appliances are also on the same circuit, be sure to add their amp loads before calculating wire and circuit breaker sizes. Use the circuit breaker as the master On-Off switch.

3.9 Two Speed / Single Speed Connections



4. Maintenance

This pump requires little or no service other than reasonable care and periodic cleaning of the strainer basket. DO NOT strike basket to clean. When cleaning the basket inspect the lid o-ring for damage and replace if necessary.

Pumps have self-lubricating motor bearings and shaft seals. No lubrication is necessary.

Keep motor clean. Insure motor air vents are free from obstruction to avoid damage. Do NOT use water to hose off motor.

Occasionally, shaft seals must be replaced, due to wear or damage. Replace with genuine seal assembly kit.

The mechanical seal may become worn or loose over the course of time, depending on the running time and water quality. If water continually leaks out, a new mechanical seal should be fitted. After long periods of no operation (seasonal storage, etc.), the pump must be checked for ease of rotation while it is switched off.

5. Storage / Winterization

NOTICE—The pump must be protected when freezing temperatures are expected. Allowing the pump to freeze will cause severe damage and void the warranty.

⚠ WARNING—To avoid dangerous or fatal electrical shock hazard, turn OFF power to motor before draining pump. Failure to disconnect power may result in serious personal injury or death.

Drain all water from pump and piping when expecting freezing temperatures or when storing pump for a long time (see instructions below). Gravity drain system as far as possible.

Keep motor dry and covered during storage. To avoid condensation/corrosion problems, do NOT cover or wrap pump with plastic film or bags.

5.1 Storing Pump For Winterization

1. Drain water level below all inlets to the pool.
2. Remove drain plugs and strainer cover from strainer housing. (See “Parts Diagram” in section 7 of this manual for pump component locations.)
3. Disconnect pump from mounting pad, wiring (after power has been turned OFF), and piping.
4. Once the pump is fully drained of water, re-install the strainer cover and drain plugs. Store pump in a dry area.

6. Troubleshooting

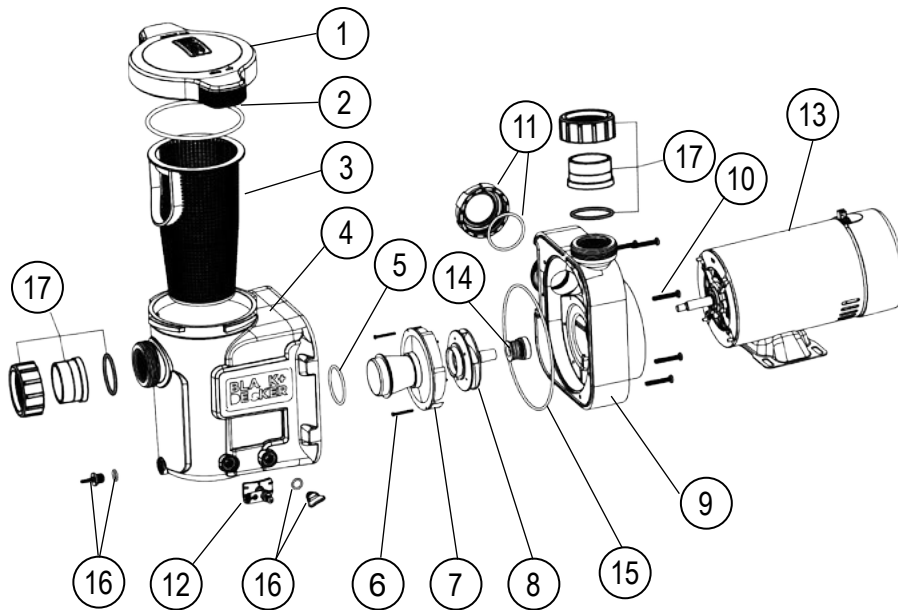


Diagnosing certain symptoms may require close interaction with, or in close proximity to, components that are energized with electricity. Contact with electricity can cause death, personal injury, or property damage. When trouble shooting the pump, diagnostics involving electricity should be cared for by a licensed professional.

Problem	Possible Cause	Corrective Action
Pump failure.	Air leak, too much air.	Make sure see through lid and gasket are clean and tightened. Tighten all hoses and pipes on the suction side of the pump.
	Not enough water.	Make sure strainer tank is full of water.
	Closed Valves or Blocked Lines	Open all valves in system. Clean skimmer and strainer basket. Check for blockage in impeller.
Motor Does Not Run	No Power to Motor	Check that all power switches are on. Be sure fuse or circuit breaker is properly set. Check Motor Wiring at terminals. Check Timer set.
	Pump Jammed	With power off, turn motor shaft. It should spin freely. If not disassemble and repair.
Low Flow	Dirty Filter	Backwash filter. Clean filter. Clean Skimmer basket. Clean pump basket.
Motor Runs Hot	They are equipped with a thermal overload protector which will turn the motor off if there is an overload or high temperature problem. Excessive heat can be caused by :	
	Poor Ventilation	Do not enclose motor, be sure to have a proper air space around motor.
	Installed in direct sun	Shield motor from direct sun.

7. Replacement Parts

Figure 8-1



Ref. No.	Part No.	Description	Qty.
1	BDXBTVAR-1	Strainer cover Kit	1
2	BDXBTVAR-2	Cover O-ring	1
3	BDXBTVAR-3	Basket	1
4	BDXBTAGVAR-4	Strainer Housing	1
5	BDXBTAGVAR-5	Diffuser O-ring	1
6	BDXBTAGVAR-6	Diffuser Screws(2pcs)	1
7	BDXBTAGVAR-7	Diffuser	1
8	BDXBTAGVAR-8	Impeller	1
9	BDXBTAGVAR-9	Pump Housing	1
10	BDXBTAGVAR-10	Housing Bolt Kit(8pcs)	1
11	BDXBTAGVAR-11	Cap Plug with O-ring	1
12	BDXBTAGVAR-12	Bonding Device	1
13A	BDXBTXL-1-1	1.0hp Single Speed Motor For BDXBTXL100S	1
13B	BDXBTXL-1-2	1.0hp Single Speed Motor For BDXBTXL100T	1
13C	BDXBTXL-2-1	1.0hp Two Speed Motor For BDXBTXL210S	1
13D	BDXBTXL-2-2	1.0hp Two Speed Motor For BDXBTXL210T	1
14	BDXBTAGVAR-14	Seal Assembly	1
15	BDXBTAGVAR-15	Strainer Housing O-ring	1
16	BDXBTVAR-20	Drain Plug with O-ring 2pcs	1
17	BDXBTAGVAR-17	Union Connector Kit(Tailpiece1.5")	1

8. Limited Warranty

Service Information

The Pump Service Center is staffed with trained personnel to provide customers with efficient and reliable pool service. Whether you need technical advice, repair, or genuine factory replacement parts, contact the Pump Service Center. Call: (516) 796-2425 or visit service@blackanddecker-pool.com or warranty@blackanddecker-pool.com

Blue Torrent Pool Products Limited Warranty

Limited Five-Year Warranty

Blue Torrent Pool products warrants this product to be free from defects in material or workmanship for a period of five (5) years following the date of purchase. The motor is covered for a period of two (2) years and labor related to warranty claims will be covered for a period of one (1) year.

This limited warranty does not cover failures due to abuse, accidental damage or when repairs have been made or attempted by anyone other than The Authorized Pump Service Centers.

A defective product meeting the guarantee conditions set forth herein will be replaced or repaired at no charge in either of two ways:

The first, which will result in exchanges only, is to return the product to the retailer from whom it was purchased (provided that the store is a participating retailer). Returns should be made within the time period of the retailer's policy for exchanges. Proof of purchase may be required.

Please check with the retailer for its specific return policy regarding time limits for returns or exchanges.

The second option is to take or send the product (prepaid) to the authorized Pump Service Center for repair or replacement at Blue Torrents Option option. Proof of purchase may be required.

Pump Service Center
(516)796-2425
1075 Hicksville Road
Seaford, NY 11783 USA
service@blackanddecker-pool.com
warranty@blackanddecker-pool.com

This limited warranty constitutes the entire warranty. No other warranties apply, expressed or implied. This warranty gives you specific legal rights and you may have other rights which vary from state to state. Should you have any questions, contact the manager of the Pump Service Center.

LATIN AMERICA: This warranty does not apply to products sold in Latin America. For products sold in Latin America, check country specific warranty information contained in the packaging, call the local company or see the website for such information.

FREE WARNING LABEL REPLACEMENT: If your warning labels become illegible or are missing, call (516) 796-2425 for a free replacement.

Manufactured by Blue Torrent Pool Products

444 E 81ST ST

NEW YORK, NY 10028-5859

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