



B9Creations

B9Clean

USER MANUAL

B9Clean XL Operating Manual

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For reference, write the following information from the Product Information Label located on the back of your new device here:

Model # _____ Serial # _____

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B9Clean XL General Information

B9Clean XL is a 3D print cleaning system supplied by B9Creations, LLC, Rapid City, SD, USA.



For proper cleaning of 3D printed articles, this unit utilizes isopropyl alcohol. Isopropyl alcohol is utilized to maintain part geometry, properly and sufficiently clean parts, and leave no known harmful residue on 3D printed articles. Design considerations have been implemented to significantly reduce the possibility of spills and vapors.

In harmony with the inherent implemented design precautions, the OPERATOR MUST:

- Fully read and understand these Instructions For Safe Use
- Handle and store isopropyl alcohol with extreme care, adhering to standard laboratory and statutory standards, practices and laws
- Operate the B9Clean XL at a safe distance from all open flames, sparks, and heat sources
- NEVER operate the B9Clean XL with the top cover removed or not properly seated
- NEVER operate the B9Clean XL in an unsafe manner
- Operate the B9Clean XL ONLY according to the intended use

These working instructions apply to:

Type of machine	Description
B9Clean XL	Enclosed isopropyl alcohol agitator for cleansing resin-based 3D printed parts of excess uncured resin

The **B9Clean XL** is an easily operated, laboratory-grade 3D print cleaning unit to be used in accordance with the manufacturer's instructions, cleaning 3D printed parts that are cured from resin and within the supported part size range.

The **B9Clean XL** has an integrated controller installed inside the base casing. The firmware required for all the operations is pre-installed and ready for use. The provided AC/DC power supply (Golden Profit GPE024C-120200-Z) has been tested and is considered part of the cleaning equipment.

1.1 Declaration of CE Conformity

B9Clean XL is a 3D print cleaning unit designed, manufactured, and certified according to the following directives, regulations and standards:










- **RoHS**
- **FCC**
- **LOW VOLTAGE DIRECTIVE 2014/35/EU**
 - EN61010-1
- **ELECTROMAGNETIC COMPATIBILITY DIRECTIVE 2014/30/EU**
 - EN55014-1
 - EN55014-2

We, B9Creations, LLC, herewith declare that a.m. device fulfills the basic safety requirements of mentioned standards, regulations and directives. In any case of non-authorized modification, abnormal use, or misuse

of this device or document B9Creations, LLC, is not liable for any injury that may occur.

1 Instructions for Safe Use

1.1 Explanation of Symbols

Symbol	Accompanying word(s)	Explanation
	CAUTION	This symbol indicates safety-relevant paragraphs and sections in these working instructions.
	NOTE	This symbol indicates information within the working instructions that optimizes the use of the unit.
	WARNING	This symbol warns of the dangers of electric voltage. Failure to comply with safety guidelines and procedures can result in electrical shock that may lead to injury or death.
	FLAMMABLE	This symbol warns of the dangers of flammable compounds. Failure to comply with safety guidelines and procedures can result in combustion that may lead to injury or death.
	DISCONNECT FROM MAINS	This symbol indicates danger of electric shock when unit enclosure is opened. Unplug the unit before opening it.
	READ/REFER TO USER MANUAL	This symbol directs the operator or service agent to read the User Manual for the equipment to find important information.
	DC POWER	This symbol indicates the equipment utilizes DC Power.
	DC JACK POLARIZED	This symbol indicates that the DC power input jack for the equipment is polarized. In particular, the DC power input jack's outer conductor is the "negative" conductor and the inner conductor is the "positive" conductor.
	START BUTTON	This symbol indicates start of programmable clean cycle.

2.2

Transport Damage

Upon receipt of the equipment, check the unit for transport damage. If damage is found to either the equipment or its shipping container, accept the unit with caution. Report the potential damages to the shipper and B9Creations, LLC, (support@b9c.com) within 24 hours after receiving the unit.



CAUTION

Do not work with a damaged unit under any circumstances.

2.3 Operator's Obligations

In addition to complying with the statutory regulations specified by the manufacturer, the operator must ensure the statutory obligations are observed and implemented at the work place, i.e. the operator must train personnel and comply with industrial safety legislation and any other regulations or laws in force.

For working at and with the unit, the operator must draw up written instructions in an understandable form and give these to the employees in their own language. These instructions must be based on the **B9Clean XL User Manual** and shall be written considering the work to be performed.

The **B9Clean XL** is intended to be used strictly in a laboratory setting where personnel operating the equipment are held to a high standard of process control and safety procedure.

2.4 Operations and Maintenance Log Book

B9Creations, LLC recommends the operator keeps a log book for the **B9Clean XL**. All tests on the equipment, necessary or suggested compliance testing, and essential works (e.g. repair work, modifications) should be documented in this book.

2.5 Safety Information

Safety concerning the protection of persons, the environment, and the material to be processed mainly depends on the behavior of the persons operating the unit.



WARNING

No modifications of this equipment are allowed.



CAUTION

Prior to operation, read the B9Clean XL User Manual carefully. Adhere to the information provided to avoid errors, equipment damage, and injury to the operator.

In addition to the information in these work instructions, relevant national laws and guidelines must be observed for setting up and operating this unit (technical connection requirements of the electrical supply companies, etc.).



CAUTION

The connecting power supply cable and plug must be checked for damage prior to operation. If any damage exists, the unit must not be connected to the mains. A damaged mains power supply may only be replaced by a mains power supply of the same type.

Failure to comply increases risk of electrical shock and serious harm of operator or third parties.



FLAMMABLE

Isopropyl alcohol, the intended cleaning solvent, is highly flammable in both liquid and vapor states. The operating environment must be free of open flame, sparks, or excessive heat.

Failure to comply increases risk of combustion and serious harm of operator or third parties.



CAUTION

Isopropyl alcohol, the intended cleaning solvent, can be damaging to the human body through ingestion, inhalation, and bodily contact. Read and adhere to the safety information detailed on the isopropyl alcohol container's label or contact the organization responsible for your local hazardous materials regulations for more information.

Recommended safety equipment:

- Eye protection
- Suitable gloves
- Clothing that covers exposed skin
- Fire extinguisher
- Ventilation hood



WARNING

To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.



WARNING



DISCONNECT FROM MAINS

Maintenance and repair of the electrical equipment of the device must only be performed by B9Creations, LLC, in the "safe" condition (voltage cleared, and device unplugged from mains). Service agents must observe the safety instructions when performing service to the electrical equipment. Removal of protective enclosure components for ANY purpose voids equipment warranty.



CAUTION

Proper function and safety of the device are only guaranteed if the required tests, maintenance, and repair work have been performed by B9Creations, LLC.



NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the User Manual, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in an individual installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that of the receiver.
- Consult the dealer or an experienced radio/TV technician for help.

If this equipment is receiving interference that affects the **B9Clean XL**, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the unit or emitting equipment.
- Increase the separation between the cleaning device and emitting equipment.

- Connect the unit into an outlet on a circuit different from that of the emitting equipment.
- Isolate the unit and emitting equipment from each other, setting up in separate rooms if possible.

3 Intended Use and Proper Operation

3.1 Intended Use

The **B9Clean XL** is an automated cleaning system that utilizes an agitated, contained volume of isopropyl alcohol (isopropanol) to clean excess uncured 3D printing liquid material from 3D printed parts (“parts”). Cleaning of parts and unit use shall be done by trained professionals in 3D printing laboratory environments.

The unit is not suitable nor intended for any purpose other than cleaning in these stated industries or recreations.

3.2 Proper Operation



CAUTION

The unit is suitable to be set up and operated in clean laboratory environments. The unit has been designed for continuous operation.

- Only 3D printed parts made of cured resin shall be washed in the **B9Clean XL**. Cleaning anything that is not a resin-based, 3D-printed part will void the warranty.
- Do not excessively clean a 3D printed part by continuing to expose it to isopropyl alcohol past the point of removing the uncured resin. Over exposure may lead to structural degradation by weakening the part’s cured resin.
- Ensure that the outer container, inner container, inner container plug, hanging arm, Build Table, and lid are all secured in their proper positions before starting a cleaning cycle.



NOTE

Isopropyl alcohol is the only solvent suitable to be used in the **B9Clean XL**. Using any other substance as the solvent will void the warranty.



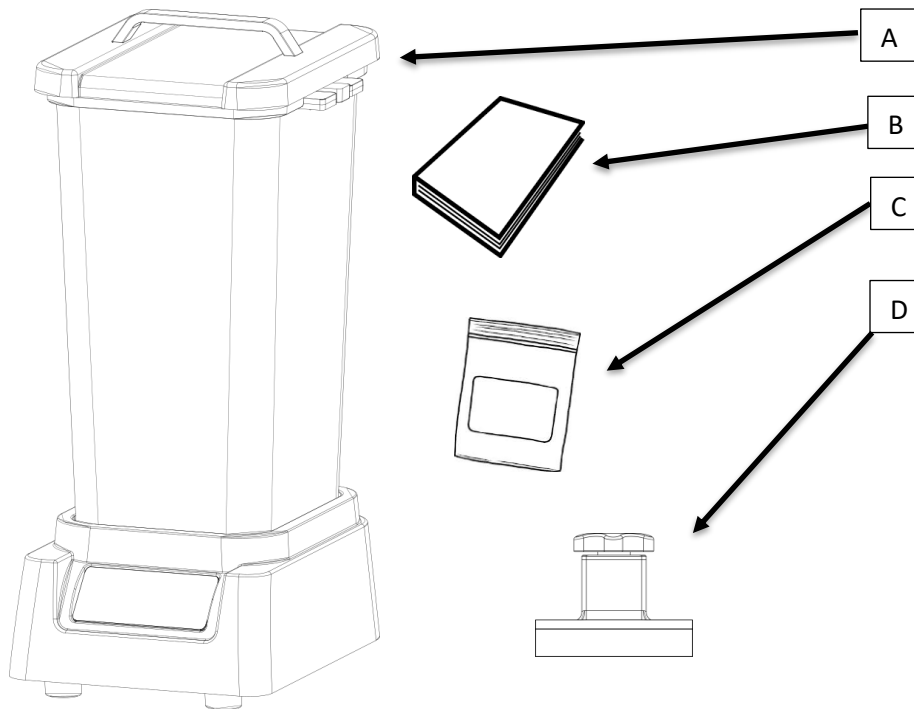
NOTE

Do not modify the firmware if not authorized by B9Creations, LLC.

4 Scope of Delivery

Check that all components are in good condition upon delivery of the unit. If items are missing or damaged, contact your supplier.

4.1 Scope of Delivery



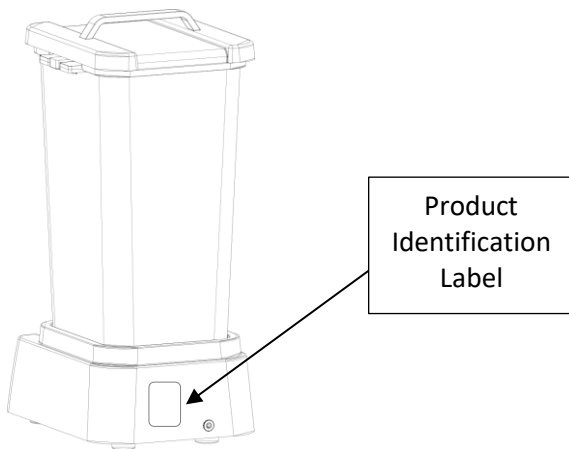
***Build Table included for B9 Core Series owners only.**

- A. B9Clean XL Unit
- B. Quick Start Guide
- C. Accessory Kit
- D. Build Table *included for B9 Core Series owners only.

5 Identification and Interface

5.1 Product Identification

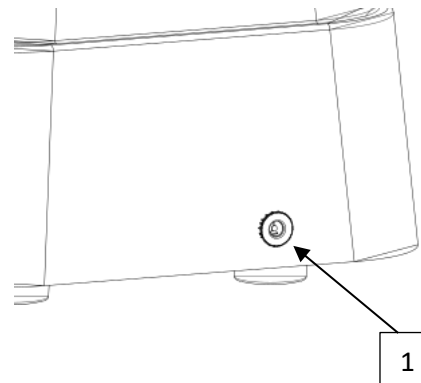
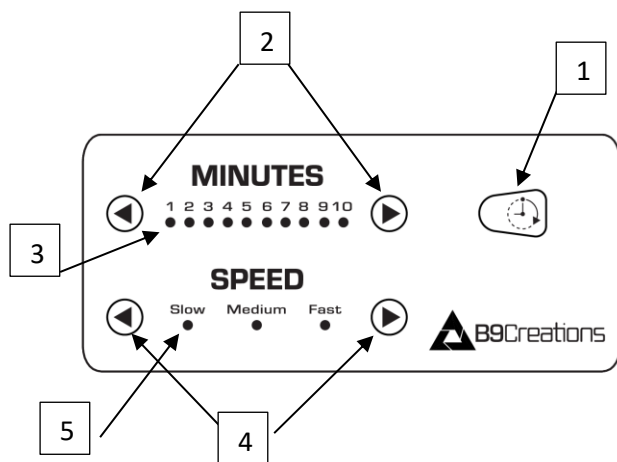
Manufacturer and electrical specification information (Product Identification Label) can be found on the back of the base. An example of this label is shown in section [10.3](#) of this User Manual.



NOTE

If requesting technical assistance, always take note concerning the model number and serial number of the unit.

5.2 Control Interface



Base Front

1. Start/Stop button
2. Cleaning duration control buttons
3. Cleaning duration indicator lights
4. Stir speed control buttons
5. Stir speed indicator lights

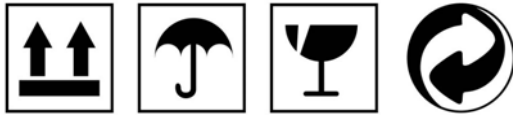
Base Back

1. DC Power Inlet (Barrel Jack)

6 Transport and Installation

6.1 Transport

- Transport the unit oriented properly to prevent damage.
- Maximum stacking level of units for shipment – 3 Levels.
- Do not stack additional items or shipments on top of units.
- Protect from rain.
- Mechanical shock must be avoided.
- Storage and Transport temperature should not be less than 0 °C (32 °F) or more than 40 °C (104 °F)
- Storage and Transport relative humidity maximum shall be less than 80%.



- For dimensions and weight refer to Section [10.1](#).



NOTE

Keep the shipping packaging in case you need to ship the unit for technical assistance.

6.2 Hardware Setup

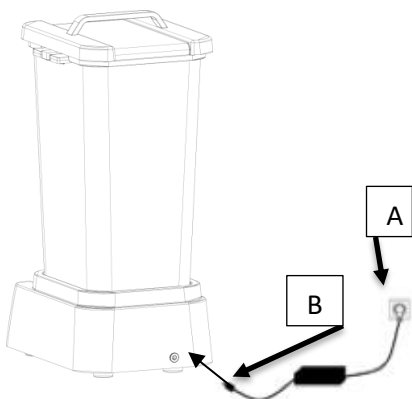
- The unit must be placed on a solid, rigid, level and skid-proof surface (laboratory desks, racks) so that a horizontal, safe, vibration-free position is ensured.
- The unit shall be placed in a location that is dry. It shall not encounter liquid or fluid leaks.
- The unit shall be installed in a low dust environment. When not in use, the containers shall be placed properly in the base and the lid shall be secured.
- The room temperature should not be less than 15 °C (59 °F) or more than 35 °C (97 °F). The humidity should be less than 80%.
- The support surface shall be stationary (no castors) and must have a load bearing capacity of at least 40 kg/88 lbs.



CAUTION

- Take care not to pinch your fingers when placing the unit on the table.
- A footprint area (w x d: 750 x 750 mm, or 30" x 30") is required.
- The unit needs to be positioned on the support table in a manner that allows access to the mains socket for disconnection from mains if needed.
- Do not turn the unit on prior to temperature and humidity acclimatization.

To properly set up the hardware, connect the **B9Clean XL** to an AC power socket (A) using **ONLY** the power supply and cord provided with the **B9Clean XL**. **Mains: 100-240 VAC, 50/60 Hz with protective earth.** Connect to mains with protective earth in accordance with local power supply specifications.



Insert the barrel connector of the provided power supply into the barrel jack in the **B9Clean XL** base (B).



NOTE

As with most electronic equipment, it is recommended that the operator supplies adequate surge protection.



CAUTION

- Do not use any type of extension cord other than a surge protection cord.
- Do not directly connect the unit to any type of emergency backup generator that is not connected to mains power.



NOTE

If additional hardware is installed, it could cause malfunctions to the system. Do not install any other additional hardware if not authorized by B9Creations, LLC.

7 Operation



CAUTION

Read the safety information in Section [2](#) before attempting to operate the B9Clean XL.

7.1 Turning the unit “ON” and “OFF”

The B9Clean XL is always on when it is plugged into a power socket. To turn the unit off, disconnect it from Mains.

7.2 Filling with isopropyl alcohol

Place the outer container in the base and remove the lid and inner container.

Isopropyl alcohol is stored solely in the outer container. Do not manually fill the inner container with isopropyl alcohol. The unit will regulate when the inner container is filled during the cleaning cycle.

The amount of isopropyl alcohol that shall be loaded in the outer container is dependent on the 3D printed parts to be cleaned during the next cleaning cycle. The outer container has two fill lines that correspond to two possible volumes: 1.3 liters and 2.0 liters.

If the height of the parts to be cleaned is less than 70 millimeters, fill the outer container to the 1.3-liter fill line.

If the height of the parts to be cleaned is 70 millimeters or greater, fill the outer container to the 2.0-liter fill line.



CAUTION

Take care to ensure that no isopropyl alcohol spills from the outer container at any time. Stray isopropyl alcohol may damage the B9Clean XL's electronics or surrounding materials.



FLAMMABLE

Isopropyl alcohol is highly flammable in both liquid and vapor states.

Read the safety information in Section [2.5](#) before handling isopropyl alcohol.



CAUTION

Failure to load the outer container with the correct amount of isopropyl alcohol based on 3D printed part height can result in damage to the cleaned parts.

If not enough isopropyl alcohol is loaded, the parts will not be fully submerged and the top of part will not be cleaned.

If too much isopropyl alcohol is loaded, the inner container will not completely drain of isopropyl alcohol when the cleaning cycle ends. The 3D printed parts may then be left to soak in the undrained isopropyl alcohol, potentially weakening the cured resin of the parts.



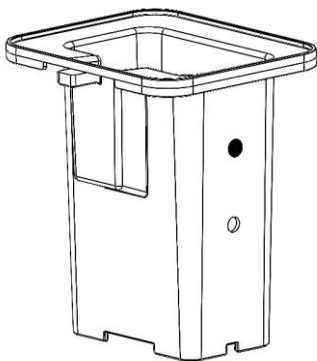
NOTE

The isopropyl alcohol in the outer container can be used for multiple cleaning cycles, but the cleansing effectiveness of a reused batch of isopropyl alcohol may decrease with each cleaning cycle it is used depending upon material used and part geometry. 50 prints is the average amount of prints per isopropyl alcohol refill in regular use.



Note

Never install both drain plugs during operation.

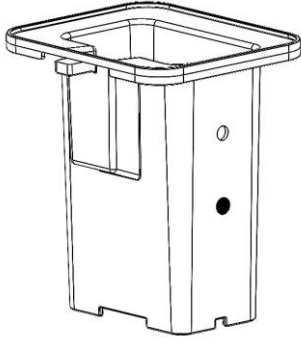


7.3 Positioning the inner container drain plug.

The back of the inner container has two drain holes. The B9Clean's drain plug shall be snugly inserted into one of the two holes before starting the cleaning cycle.

If the height of the part to be cleaned is less than 70 millimeters place the plug in the inner container's top hole.

If the height of the parts to be cleaned is 70 millimeters or greater, place the plug in the inner container's bottom hole.



7.4 Placing the parts in the inner container

3D printed parts made of cured resin may be cleaned by placing the parts in the inner container. Parts can be cleaned while still attached to the Build Table or while resting in the part tray.

If any parts to be cleaned are still attached to the Build Table, ensure that the hanging arm is secured to the lid and the Build Table is snugly tightened to the hanging arm. Use the regular hanging arm if the height of the parts is 70 millimeters or greater. Use the extended hanging arm if the height of the parts is less than 70 millimeters.

If any part to be cleaned is not attached to the Build Table, this part shall rest in the part tray.

If all parts to be cleaned are still attached to the Build Table, the part tray shall be removed.



CAUTION

Only 3D printed parts made of cured resin shall be washed in the B9Clean XL. Cleaning anything that is not a resin-based, 3D printed part will void the warranty.

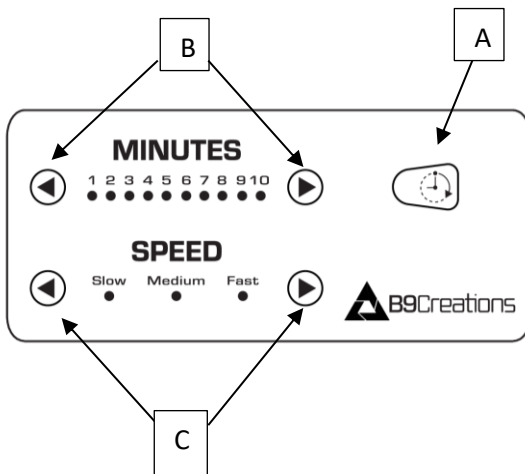
7.5 Configuring the cleaning cycle settings

The Start/Stop button (A) starts or stops a cleaning cycle and is located on the right side of the control interface. A cleaning cycle is characterized by the 3D printed parts in the inner container being submerged in isopropyl alcohol that is stirred at a specified speed for a specified duration.

The duration of the cleaning cycle is measured in minutes and controlled by the top set of buttons and indicator lights (B) on the left side of the control interface.

The speed at which the isopropyl alcohol is stirred is controlled by the bottom set of buttons and indicator lights (C) on the left side of the control interface.

Use the buttons on either side of the duration and speed indicator lights to configure the cleaning cycle settings as desired.



7.6 Starting the cleaning cycle

Before starting the cleaning cycle, ensure the following conditions are met.

The outer container, inner container, inner container plug, hanging arm, Build Table, and lid are all secured in their proper positions.

The isopropyl alcohol fill level, inner container plug, and hanging arm are correct for the height of the 3D printed parts to be cleaned.

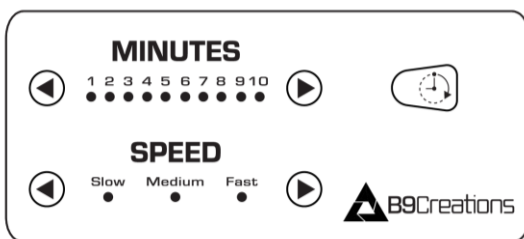
The magnetic stirring bar is placed in the bottom of the inner container.

The part tray is inside the inner container only if any one of the 3D printed parts to be cleaned is not attached to the Build Table. The control interface's indicator lights show the desired settings.

Press the Start/Stop button to begin the cleaning cycle. The cleaning cycle will run using the duration and spin speed set on the control interface, reversing the direction of the spin every minute.

To alter the duration or spin speed while the cleaning cycle is in progress, change the desired settings on the control interface.

To end the cleaning cycle immediately without waiting for the duration to pass, press the Start/Stop button.





NOTE

Upon starting the cleaning cycle, the unit will pump isopropyl alcohol from the outer container up into the inner container to submerge the loaded 3D printed parts.

7.7 Starting the Cleaning Cycle



NOTE Isopropyl alcohol should be periodically exchanged. Resin color discoloration can discolor prints.

7.7.1 After the printer has finished printing, remove the build table and resin vat from the printer. Confirm that the B9Clean XL outer container is filled with isopropyl alcohol to the level which corresponds to the print height requirement. If the isopropyl alcohol is discolored from use, replace the Isopropanol alcohol.

7.7.2 Place the Build Table into the B9Clean XL Build Table Hanger and secure with the lock knob and place the lid into the B9Clean XL chamber.

7.7.3 Select the desired number of minutes for clean. Recommended clean is 10 minutes based on part geometry. Some prints may require more than one wash. Do not continuously wash a part for more than 1 hour as continuous and prolonged submersion in isopropyl can damage the print.

7.7.4 Press the start button to begin the cleaning cycle.

7.7.5 Remove the B9Clean XL lid and build table.

7.7.6 Blow dry the print directly after the wash has ended to prevent the isopropyl from drying onto the print.

7.7.7 Inspect fine details to assure all liquid resin has been removed. Run the print through another wash cycle or use the spray bottle with isopropyl alcohol to remove any remaining liquid resin.



NOTE

Some geometries will prevent the isopropyl from reaching all the liquid resin. These geometries will hold the air that gets trapped when the isopropyl rises to the print. To completely clean the print, remove the print from the Build Table and place it on the basket in the B9Clean XL and start another wash cycle.

7.7.8 Ensure the printed part is dry and free of surface resin. It is recommended to use compressed air to dry pieces prior to Curing if necessary.

7.8 B9Clean XL Cleaning Procedure

7.8.1 Unplug the barrel jack from the back of the unit.

7.8.2 Remove container assembly from the base.

7.8.3 Inspect base for any resin. Clean with a cloth and isopropyl alcohol.

7.8.4 Remove Lid and Inner Assembly container and set aside.

7.8.5 Remove all Isopropanol alcohol from the container.

7.8.6 Clean the inner and outer container surfaces with a clean cloth and isopropanol alcohol.

7.8.7 Inspect inner container bottom gasket to assure it is not damaged, replace if necessary.

7.8.8 Do not discard the stir bar and the drain plugs.

8. Safety

8.1 DO NOT USE Acetone in the B9Clean XL

8.2 Isopropyl Alcohol Draining

To ensure that the 3D printed parts loaded in the B9Clean XL do not soak in isopropyl alcohol longer than

the specified cleaning cycle duration, the unit will automatically drain the inner container of isopropyl alcohol in the following situations.

- A cleaning cycle completes
- The Start/Stop button is pressed during a cleaning cycle
- The B9Clean XL loses power

8.2 Isopropyl Alcohol Containment

When a cleaning cycle is not in progress, all isopropyl alcohol loaded in the **B9Clean XL** is stored in the outer container. The inner container creates a seal when placed inside the outer container, isolating the isopropyl alcohol from outside interference or contamination.



FLAMMABLE

Though the B9Clean XL's design reduces risk by sealing the isopropyl alcohol in the outer container, isopropyl alcohol is still highly flammable in both liquid and vapor states.

Read the safety information in Section [2.5](#) before handling isopropyl alcohol.

9 Maintenance, Care and Cleaning

9.1.1 Unit Cleaning

The components of the unit that come into contact with isopropyl alcohol can be cleaned with water to remove uncured resin residue.



NOTE

Ensure that all water completely dries before operating the B9Clean XL.

9.1.2 Build Table Cleaning

Remove the Build Table from the hanging arm before attempting to remove a 3D printed part from the Build Table.



NOTE

Do not use metal scrapers or metal tools which can scratch the Build Table to remove a 3D printed part.

9.2 Isopropyl Alcohol

9.2.1 Replacement

The isopropyl alcohol in the outer container can be used for multiple cleaning cycles, but the cleansing effectiveness of a reused batch of isopropyl alcohol will decrease with each cleaning cycle it is used depending upon the resin used and part geometry. 50 prints is the amount of prints per isopropyl alcohol refill in regular use.

9.2.2 Disposal

Isopropyl alcohol is classified as a hazardous waste in many countries and may require special disposal. Contact the organization responsible for your local hazardous materials regulations for more information.

9.3 Non-Repairable Items

There are no replaceable electronic parts or replaceable wear parts on the **B9Clean XL**. All parts are rated for long life. The **B9Clean XL** is designed for an estimated operation time of 20,000 hours of intended use. Items in need of replacement must be replaced by B9Creations, LLC, service staff unless included in the Replacement Pack available for purchase at shop.b9c.com.

10 Technical Data

10.1 B9Clean XL Technical Specifications

Maximum 3D printed part size (W x D x H)	108.5 x 63.5 x 127 mm (4.25" x 2.5" x 5.125")
Size (W x H x D)	199 x 263 x 474 mm (7.8" x 10.4" x 18.7")
Weight	3.7 kg (8 lbs.)
Mains Input	100-240 VAC, 50/60 Hz, 1.4-0.7A
Rated power	12VDC, 2A
Mains plugs included	AU, EU, UK, US
Required table area	300 mm x 300 mm
Package size (W x H x D)	300 x 365 x 570 mm (11.8" x 14.4" x 22.4")
Package weight	5 kg (11 lbs.)
Agitation method	Magnetic stirrer
Cleaning solvent volume	1.3 L (44 fl. oz.) for part height less than 70 mm 2.0 L (68 fl. oz.) for part height 70 mm or greater

10.2 Operating conditions

Use	Only indoors
Temperature range	18 °C to 28 °C (64 °F to 82 °F)
Relative humidity	less than 80%
Installation altitude	up to 2000 m above sea level



See Section [2.1](#) for Symbol Definition

11 Troubleshooting Guide

If an error develops in the function or operability of the **B9Clean XL**, confirm that all possible remedies for the error have been performed prior to contacting B9Creations, LLC, support. If an error is encountered, follow each “Possible Cause” and “Remedy” in order of listing in the table.

	Error description	Possible Causes	Remedy
1	The indicator lights on the control interface are not lit.	The power adapter is not plugged into the back of the B9Clean XL base.	Plug the power adapter that shipped with the unit into the back of the B9Clean XL base and then plug the opposite end of the adapter into a functioning mains outlet.
		The power adapter is not plugged into mains outlet.	
		There is no power to mains outlet.	Inspect in-house electrical fuses or breaker switch

		The power adapter is defective.	Contact B9Creations.
			If none of the above solves the problem, contact B9Creations, LLC, support.
2	After starting a cleaning cycle, isopropyl alcohol is not being pumped into the inner container.	The outer container is inserted into the base backwards.	Rotate the outer container so its pump tube is near the front of the B9Clean XL base.
		The inner container is inserted into the outer container backwards.	Press the Start/Stop button to stop the cleaning cycle and wait for the isopropyl alcohol to drain from the inner container. Rotate the inner container so its pump tube opening is near the front of the B9Clean XL base and restart the cleaning cycle.
			If none of the above solves the problem, contact B9Creations, LLC, support.
3	During a cleaning cycle, the isopropyl alcohol in the inner container is not being agitated.	The magnetic stirring bar is not placed in the bottom of the inner container.	Press the Start/Stop button to stop the cleaning cycle and wait for the isopropyl alcohol to drain from the inner container. Place the magnetic stirring bar in the bottom of the inner container and restart the cleaning cycle.
			If none of the above solves the problem, contact B9Creations, LLC, support.
4	During a cleaning cycle, the isopropyl alcohol in the inner container is not completely submerging the 3D printed parts.	There is not enough isopropyl alcohol loaded into the outer container.	See section 7 to determine how to set up the B9Clean XL based on the height of the 3D printed parts being cleaned.
		The inner container drain plug is in the wrong position.	

		The height of 3D printed parts exceeds the maximum allowed height of 127 millimeters (5.125”).	Refrain from using the B9Clean XL to clean parts that exceed the maximum height allowance.
			If none of the above solves the problem, contact B9Creations, LLC, support.
5	After a cleaning cycle finishes, the inner container is not completely drained of isopropyl alcohol.	There is too much isopropyl alcohol loaded into the outer container.	See section 7 to determine how to set up the B9Clean XL based on the height of the 3D printed parts being cleaned.
			If none of the above solves the problem, contact B9Creations, LLC, support.
6	After a cleaning cycle finishes, the 3D printed parts are not completely clean of uncured resin.	The isopropyl alcohol in the outer container needs to be changed.	Properly dispose of the old isopropyl alcohol and load the outer container with a fresh batch.
		The cleaning cycle duration or spin speed settings are too low.	Increase the duration and spin speed settings to find the optimal values for a particular 3D printed part.
		The 3D printed parts being cleaned have too much uncured resin to be completely cleaned by a single cleaning cycle using the maximum duration and spin speed settings.	Manually wipe noticeably excess uncured resin from the 3D printed parts before attempting to clean them using the B9Clean XL .
			Run the under-cleaned 3D printed parts through multiple cleaning cycles.
			Manually increase the duration of an in-progress cleaning cycle by adding minutes to the duration after some number of minutes have passed.
		The isopropyl alcohol in the inner container is not completely submerging the 3D printed parts.	See Error 4 in this table.
			If none of the above solves the problem, contact B9Creations, LLC, support.

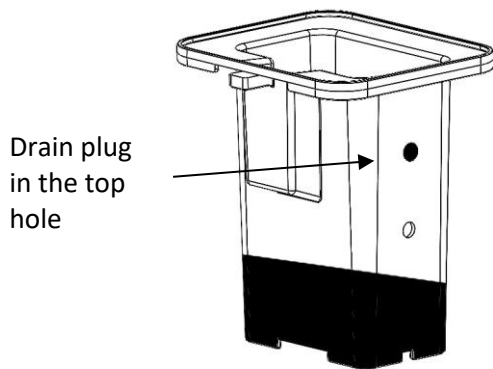
12 Service

Internet connection is required for Remote Support. For information regarding support of your **B9Clean XL**, visit our website at www.B9C.com/Support.

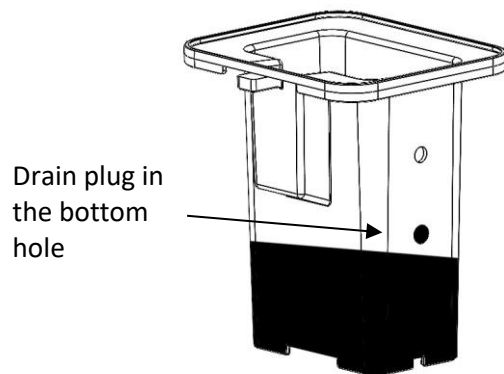
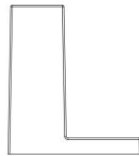
We appreciate your comments, feedback, and suggestions.

For service personnel, component part lists, and descriptions contact B9Creations, LLC for details.

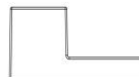
13 Quick Reference



Part height less than 70 millimeters (mm)
Outer container filled to 1.3 liters
Inner container with drain plug in top hole
Extended build table hanger



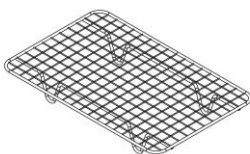
Part height 70 millimeters (mm) or greater
Outer container filled to 2.0 liters
Inner container with drain plug in bottom hole
Normal build table hanger



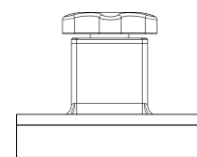
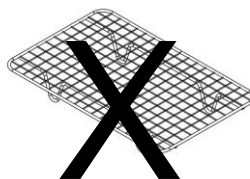
14 Tips

16.1 The magnetic stirring bar must be placed in the bottom of the inner container before starting a cleaning cycle.

If any one of the parts to be cleaned is not attached to the Build Table, the part tray must be inserted into the inner container.



If all parts to be cleaned are attached to the Build Table, the part tray must be removed.



16.2 The duration and spin speed of a cleaning cycle can be adjusted while the cleaning cycle is in progress.

16.3 The isopropyl alcohol should be replaced with a fresh batch if the current batch appears dirty or is not cleaning parts effectively.

15 Document History

Edition	Date	Comments
released	031319	Updates by EH
revision	071922	Updates by DB