

# THE G-LITE TABLETOP GRINDER User Manual

GreenBroz.com

# TABLE OF CONTENTS

Safety Information3
Introduction4
Machine Parts Identifier5
Technical Specifications7
Installation6
Control Box Installation6
Grinding Medium & Blades Installation & Details7
Hopper Installation & Details8
Removable Accessories Installation & Details9
Machine Operation & Details10
Shut Down12
Cleaning and Sanitation13
Grinding Blades Assembly14
Grinding Medium Assembly15
Troubleshooting16
Maintenance18
Warranty Registration19

## SAFETY INFORMATION

#### **Dress Code**

- 1. No open-toed shoes or high heels allowed. To provide secure footing, choose shoes with softer soles and stable platforms. Wearing appropriate footwear will help protect feet from falling components.
- 2. No loose clothing allowed. This includes but is not limited to ties, scarves and loose-sleeved shirts.
- 3. Remove all jewelry that could be caught in moving machinery. This includes rings and loose bracelets. Remove necklaces and the like, if not securely restrained.
- 4. Restrain all hair, including beards, that has potential for entanglement with moving machinery.

**NEVER** supply power to the machine if it is without any of its covers or hopper. **NEVER** put hands or arms near the machine during operation.



#### **BURN HAZARD**

The motors and other moving parts or guards may heat up during operation. Give the machine time to cool before cleaning or servicing.

**CAUTION** 



#### 

#### HAZARDOUS VOLTAGE

Use precautions when plugging and unplugging the machine and components from any power sources.



#### 

#### ROTATING MECHANICAL PARTS

Rotating machine parts have the potential to cause severe injury or death. All components must be fully secured before operation and are essential for protecting operators. Never place hands or head near the machine during operation.

## INTRODUCTION

The G Lite Tabletop Cannabis Grinder is utilized in your post-harvest processing of hemp and cannabis. The G Lite destems and grinds, it is the first machine of its kind that gives users complete control of their finished product with perfect consistency. The G's low RPM grinding preserves trichomes and separates stems from material simultaneously.

The G Lite is consists mainly of a grinding assembly. It includes speed controls which allow users to customize the size of the grind, get a consistent mill, and speed up downstream processes. The assembly comes with the 1/8" screen size. The other screen sizes -- 5/32" and 3/16"-- are available for purchase. Functions can be manipulated and adapted further by utilizing the machine's angle control.

The G Lite's surgical stainless-steel construction discourages microbial growth and makes it easy for users to break down and pressure wash the entire unit, minimizing downtime. The machine has the smallest footprint of any grinder in its class. It can easily be transported to wherever it's needed.

Variable	Effects	Option #1	Option #2
Speed of the blades:	Machine Torque RPMs Number of stems in your biomass Throughput per hour	The SLOWER the grinding equates to higher torque and increased stem removal. Slower RPMs allow buds more time to align with the face of the blade, keeping them intact. HOWEVER, there would be less throughput.	The FASTER the grinder rotates, the less torque it has, and the more often it will cease (keep in mind, ceasing is not an issue as long as the machine is not ceased up for an extended period). The higher RPM gives the buds less time to align with the grinding blades and, in turn, will break more stems, putting them into the final product.
Humidity level of material	Number of stems in your biomass Grind consistency	INCREASING the humidity level of your biomass will DECREASE the number of stems in the final output. This is because dry stems snap and fall apart instead of bending and staying intact.	DECREASING the humidity level will INCREASE the number of stems in the final output. If your material turns into a paste, instead of being ground, it is too wet.
Angle of the grinding volume	Number of stems in your biomass Throughput per hour	INCREASING the angle of the machine (1, 3, 6 options) will DECREASE the number of stems in your final output. This is because the material will be ground for a smaller amount of time.	DECREASING the angle of the machine (1, 3, 6 options) will INCREASE the amount of stems in your final output. This is because the material will be ground for a longer period of time.

## MACHINE PARTS IDENTIFIER



- 1. Hopper Quickly detachable from the Grinding Blades Assembly for cleaning.
- 2. Grinding Blades Assembly Motor driven assembly that is fed by the hopper.
- **3. Grinding Medium Assembly –** Adjustable assembly for determining grind size. It is sandwiched between the blade and frame assemblies.
- 4. Perforated Metal Inserts Quickly replaceable for custom final product and easy cleanability.
- 5. Grinding Frame Everything gets fixed to this frame for operation via four studs.
- 6. Control Box Removable machine interface that the operator uses to control the machine.
- 7. Collection Tray

### **TECHNICAL SPECIFICATIONS**

Capacity: Grinds 7 Kg/hr (15 lbs/hr) Approx. Dimensions:

82cm (32") x 36cm (14") x 49cm (19") Weight: 34 Kg (75 lbs.) Voltage: 110V (220V upon request) Power:

1/15HP Sifting Motor

**Environmental Conditions:** 

0°C - 40°C (32°F - 100°F) 5% - 95% Relative Humidity 0m – 2000m Elevation (0ft – 6000ft) Cleaning specifications: Included in cleaning and sanitation section of manual. Construction: Made up of food safe materials Surgical 316 stainless steel Food safe HDPE & UHMW plastic

## INSTALLATION

## CONTROL BOX INSTALLATION



Do not plug this box into a power source until all cables have been fully fixed to their respective plugs and all assemblies and accessories are installed. Rotating equipment and pinch points can cause serious injury.

- The G-Lite's control box is a 15cm (6") x 20cm (8") x 25cm (10") electrical box that is required for the operation of the machine. The box is not designed to get wet, so it can be quickly removed for cleaning. No hardware or tools are required.
  - This box comes with both a control and power connection. The yellow control cable gets secured to the motor towards the back of the machine. Ensure the control cable is fully secured to the motor before connecting the power cable to a power source.

844.DRY.TRIM



info@greenbroz.com

greenbroz.com

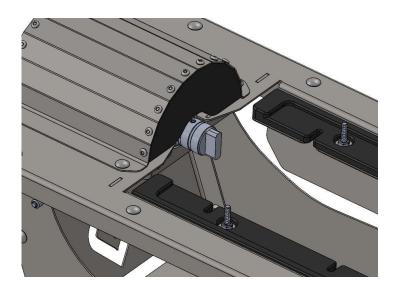
### **GRINDING MEDIUM & BLADES INSTALLATION & DETAILS**



There are motorized components on this machine that can cause severe injury. When installing or removing ANY components or assemblies, ensure an emergency stop is engaged and the machine is unplugged from any power source.



Before installing either assembly, ensure the motor shaft's stud is positioned vertically. If it is not, use an adjustable wrench to rotate the stud until it is correctly positioned, as shown below.

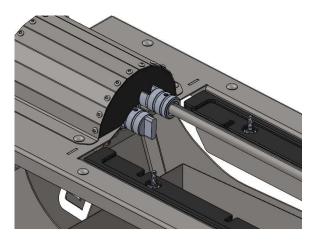


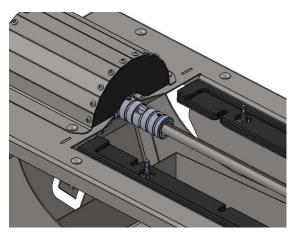
### **GRINDING MEDIUM & BLADES INSTALLATION & DETAILS**

The Grinding Medium Assembly is placed onto the Grinding Frame's studs first and is what the operator uses to control the size of the output material. The operator must choose what hole sizing they want to use. The characteristics of each of the hole sizes are outlined below. When physically installing the assembly, ensure the open end is orientated towards the motor side of the Grinding Frame, shown on the previous page.

- The 1/8" diameter hole size is the best at filtering unwanted material out of the output, however, it has the lowest throughput of the three choices.
- The 5/32" diameter hole size is in the middle ground compared to the other sizes.
- The 3/16" diameter hole size is not ideal for filtering unwanted material from the output however, it has the highest throughput of the three choices.

The Grinding Blades Assembly is the motorized portion of the Grinder and is what moves the material through the machine. This assembly also gets placed onto the four studs on the grinding frame and on top of the grinding medium. If the shafts do not align, the blades can be spun by hand to move the slot into place. The shafts are shown isolated below to help illustrate this process. Use (4) 1/4-20 wing nuts to secure to frame.





### HOPPER INSTALLATION & DETAILS



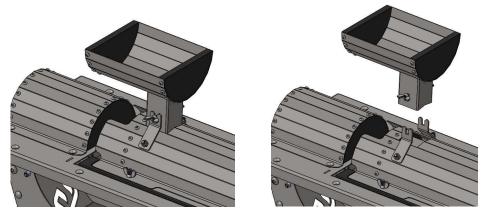
There are motorized components on this machine that can cause severe injury. When installing or removing ANY components or assemblies, ensure an emergency stop is engaged and the machine is unplugged from any power source.

844.DRY.TRIM

info@greenbroz.com

### HOPPER INSTALLATION & DETAILS

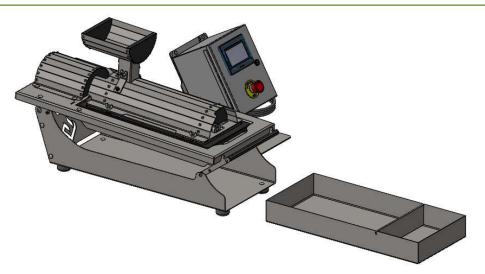
The hopper is fixed to the Grinding Blades assembly via two ¼-20 carriage bolts and wing nuts for quick and toolless installation. This is a vital piece of the machine. It allows the operator to keep their hands away from the motorized blades when not utilizing the Rise Conveyor for feeding (highly recommended). Simply loosen the wing nuts on the bolts and slide the hopper onto the brackets on either side of the opening. Ensure to slide the carriage bolts between the slot of the brackets. Re-tighten the wing nuts. The bottom of the hopper walls should be flush with the top of the Grinding Blades assembly, as shown below.



### **REMOVEABLE ACCESSORIES INSTALLATION & DETAILS**



There are motorized components on this machine that can cause severe injury. When installing or removing ANY components or assemblies, ensure an emergency stop is engaged and the machine is unplugged from any power source.



The material catch slides into the area beneath the main frame with the small section facing outwards. This is used to catch the ground material and the front sectioned off portion is for catch stems. The divider is removable for to catch the ground material and the front sectioned off portion is for catch stems. The divider is removable for to catch the ground material and the front sectioned off portion is for catch stems. The divider is removable for catch stems.

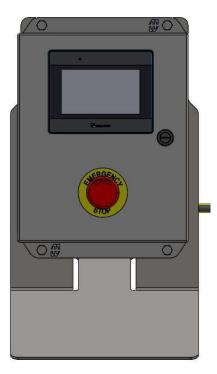
## MACHINE OPERATION & DETAILS



10

This machine has rotating parts and pinch points that can cause serious injury. When powering the machine, ensure that all guards, assemblies, and accessories have been properly installed. Absolutely no loose hair, clothes, jewelry, or accessories permitted when operating.

To begin using your machine, plug the power cord into a power source. This should only be done once the operator is ready to begin grinding and all guards, assemblies, and accessories have been properly installed. Below is a diagram of the control box and what each of the inputs control. The red emergency stop button on the front of the box can be pressed at any time to immediately cut all power to the machine in case of an emergency.



Upon start up, the operator may need to just touch the screen to wake up the software. After that, the main menu will be showing on the screen, as seen below. To get to the operation menu, simply tap start grinding. From there you will be presented with the second screen (see the next page).

### MACHINE OPERATION & DETAILS



From here, you can begin operating your G-lite. The "start" and "stop" buttons are there for controlling the grinding motor and the "clear jam" button is used for anytime the motor ceases up. This button will reverse the motor for a pre-set amount of time and then continue forward again. The amount of time that the motor reverses for should be kept as short as possible. The only intended use is to just slightly loosen the material in the grinding volume before returning to grinding. The variable that controls the clear jam function is in the settings page. It is recommended to keep the variable around 2 seconds long. If the machine spins in the reverse direction for too long, the material will be pushed out the front and not be processed.



11

## MACHINE OPERATION & DETAILS

The front of the machine is equipped with level control that consists of three angles, 1 degree, 3 degrees, and 6 degrees. Using these pre-set angles, the operator is able to control how long the material spends inside of the machine. At a shallow angle the material will spend more time being ground. The opposite is true for the machine being set at a steeper angle. Ideally, there should only be stems and seeds falling out of the front of the machine into the stem catch. If your desired material is coming from the front of the machine, the material needs to spend more time being ground. If at the top setting and desired material is still spilling into the stem catch area, the operator can rerun the material as needed.

### SHUT DOWN

- Stop the grinding motor using the HMI on the control box. Ensure the slotted drive is vertical.
- Press the emergency stop and ensure that it stays compressed. Operator should have to twist the e-stop to disengage it.
- Unplug the machine from the power source
- Disconnect the communication cables
- Allow to cool

The machine is now ready for disassembly and cleaning.

## **CLEANING AND SANITATION**



There are motorized components on this machine that can cause severe injury. When installing or removing ANY components or assemblies, ensure that the machine has an active emergency stop and is unplugged from any power source.

#### **Required Tools:**

None

#### **Recommended Cleaning Products:**

Isopropyl Alcohol Resin Clear (food safe cleaning agent) Soap and Water High Pressure Power Washer Rough Anti-Microbial Sponge Non-Metallic Grout Brush Non-Metallic Scraper Microfiber Cloth (or Similar)

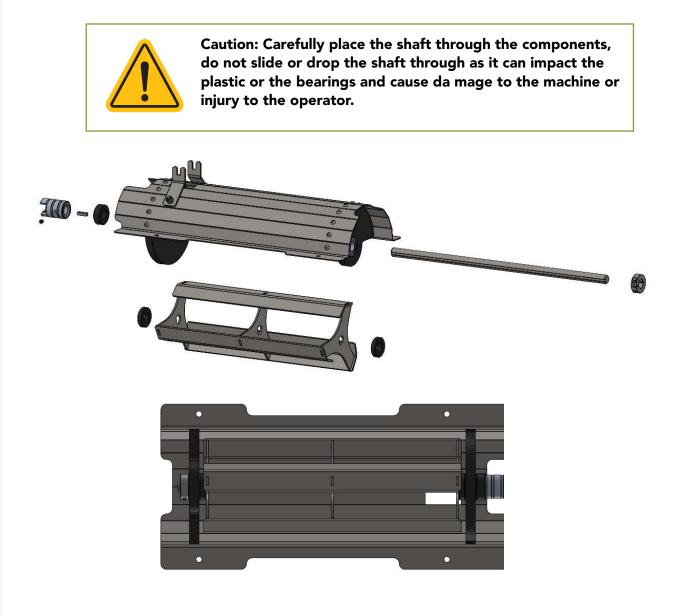
Avoid the plastic components, electrical components, bearings, seals, and any other surfaces or materials that could be damaged by harsh chemicals or close proximity of high-pressure water.

#### **Grinding Blades Assembly**

14

If desired, this assembly can be fully disassembled by removing one of the shaft collars with a 3/16" hex key and sliding the shaft out. Take note of the orientation of the blades with the assembly. The HDPE walls have food-safe bearings press-fit into them and are held in with friction, do not remove them. The black 3/8" thick spacers go on the inside of the housing, between the black plastic walls and the blades. The thicker black spacer goes between the blade coupler and the bearing OUTSIDE of the grinding volume. After reassembling, the shaft collar and blade coupler should hold the assembly tight, and the shaft should be flush with the shaft collar at the back of the grinding volume. For more details see pictures below, the bottom perspective of assembly shows the spacers installed and the shaft flush with the corresponding shaft collar.

• Once taken apart, the stainless portions of this assembly are IP69K rated for quick and easy cleaning. The bearings, plastic spacers, and plastic walls are IP67 rated.



#### **Grinding Medium Assembly**

If desired, the perforated metal portion of this assembly can be removed. It is held in place with tension and can be taken out without tools by squeezing it at the long edges and releasing it from the bottom of the frame. When reinstalling the perforated metal, place the end of the perforated metal against the closed wall of the frame top while rotating and placing one of the covered edges against the lip of the frame. Then, just push the other covered edge down until it snaps into the frame.

• This assembly is pure 316 stainless steel and is IP69K rated for quick and easy cleaning.



Caution: Do not crease or overbend the perforated piece or fitment issues may occur. The exposed ends of the perforated metal may be sharp.



## TROUBLESHOOTING

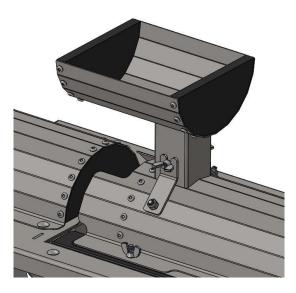


There are motorized components on this machine that can cause severe injury. When doing any type of troubleshooting, ensure that the machine has an active emergency stop and is unplugged from any power source. If possible, always remove the component from the machine for adjustment.

### **Hopper Not Sitting Correctly**

If the operator is noticing excessive material escaping between the Hopper and the top of the grinding volume, it is likely that the Hopper, or Hopper Brackets, are misaligned. With the tight tolerances used, misalignment may happen during cleaning or transportation.

- Tools Required: 7/16" Wrench & Soft Hammer
- The Hopper Brackets are not parallel with the grinding volume.
  - Double check the bottom of the Hopper Brackets are parallel with the bend lines on the Grinding Blades housing. If they are not, remove the hopper, loosen the nuts, and lightly tap them until they are parallel. Retighten the nuts.

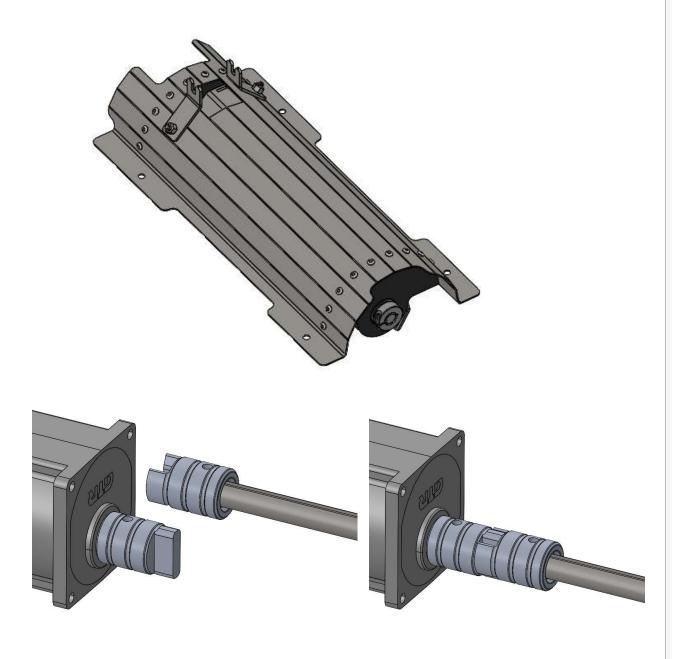


### Misalignment of Shaft Tab and Slot After Deep Cleaning

If the operator is having difficulty installing the Grinding Blades assembly because the shafts tab and slot are not aligning, it is likely that the shaft collars were not placed in the correct position after deep cleaning. It is recommended that only one shaft collar is removed during deep cleaning to keep the position of the assembly precise.

## TROUBLESHOOTING

- Tools Required: 4mm Hex Key & Soft Hammer
- The shaft of the grinding assembly is not flush with the back shaft collar.
  - To adjust the positions of the shaft, loosen the collar using a 4mm Hex Key. Next, softly tap the shaft with a soft hammer until it is flush with the back shaft collar. Without allowing the shaft collars to migrate, retighten it and reinstall the assembly for operation.



## MAINTENANCE



There are motorized components on this machine that can cause severe injury. When doing any type of troubleshooting, ensure that the machine has an active emergency stop and is unplugged from any power source. If possible, always remove the component from the machine for adjustment.

### **Required Tools:**

• Hex Key: 4mm

### **Checking Bearings and Bearing Housings**

There are bearings used on the grinding assembly. Whenever this assembly is uninstalled from the machine for cleaning or swapping accessories, the health of the bearings should be reviewed. There should be no noise coming from any of the bearings during operation. Even if there is no noise, it is recommended to check the bearings by hand periodically. Check them by feeling for any rough areas or spots of higher resistance while rotating them with your fingers.

- Grinding Assembly
  - Tools Required: 4mm hex key
  - There are two 1-inch food-safe bearings press-fit into the walls of the grinding assembly. The shaft of this assembly should be able to be rotated by hand, allowing the blades to spin freely. If there is resistance, the shaft should be uninstalled and each of the bearings checked by hand.



**SCAN QR Code** to view the GreenBroz Academy

## WARRANTY REGISTRATION

#### GO TO GREENBROZ.COM TO REGISTER.

Click on the product registration page to register GreenBroz products. You must register within 30 days of product receipt date to activate your warranty.



UNLESS SUBPOENAED, ALL INFORMATION OBTAINED BY GREENBROZ INC. WILL BE KEPT PRIVATE AND SECURE. GREENBROZ INC. WILL NOT SHARE OR DISTRIBUTE YOUR INFORMATION WITHOUT CONSENT.

## LIMITED WARRANTY

**Products covered:** This limited warranty is limited to products manufactured by GreenBroz, Inc. (the "products") and provides that such product is free from defects in material and workmanship.

Length of warranty: The length of this warranty shall be 36 months from the product receipt date.

**To Qualify for this warranty:** The product must be purchased from GreenBroz, Inc., or a dealer authorized by GreenBroz, Inc., to sell the products. This warranty only applies to the first retail purchaser and is not transferable to subsequent owners.

What GreenBroz will repair or replace under warranty: GreenBroz, Inc. will repair or replace, at its option, any part that is proved to be defective in material or workmanship under normal use during the applicable warranty period. Warranty repairs and replacements will be made without charge for parts or labor. Anything replaced under warranty becomes the property of GreenBroz, Inc. All parts replaced under warranty will be considered as part of the original product and any warranty on those parts will expire coincidently with the original product warranty. This limited warranty does not cover normal wear and tear including, but not limited to trim blades, brush assembly, sweeper bar, hub assembly, tabletop tray, forward-reverse switch, blade tension screw.

To obtain Warranty Service: Contact GreenBroz, Inc. for a return authorization and instructions for warranty.

**Exclusions:** 1. Any damage or deterioration resulting from neglect of periodic maintenance as specified in any product owner's manual or any improper repair or maintenance; 2. Neglect, unauthorized alteration, modifications, misuse, incorporation of use of unsuitable attachments or parts; 3. Damage caused by dirt, pressure or steam cleaning the product, salt water, corrosion, rust, varnish, abrasives, and moisture; or 4. Any product that has ever been declared a total loss or sold for salvage by a financial institution or insurer.; 5. Damage caused by an independent third party that is not the registered owner.

**Disclaimer of Consequential Damage and Limitations of Implied Warranties:** This limited warranty is in lieu of all other expressed or implied warranties, including any warranty of FITNESS FOR A PARTICULAR PURPOSE OR USE and any implied warranty of MERCHANTABILITY otherwise applicable to this product. GreenBroz, Inc. disclaims any responsibility for loss of time or use of the product, transportation, commercial loss, or any other incidental or consequential damage, including lost profits. There are no warranties extended other than as provided herein. This limited warranty may be modified only by GreenBroz, Inc.



844.DRY.TRIM

info@greenbroz.com

greenbroz.com