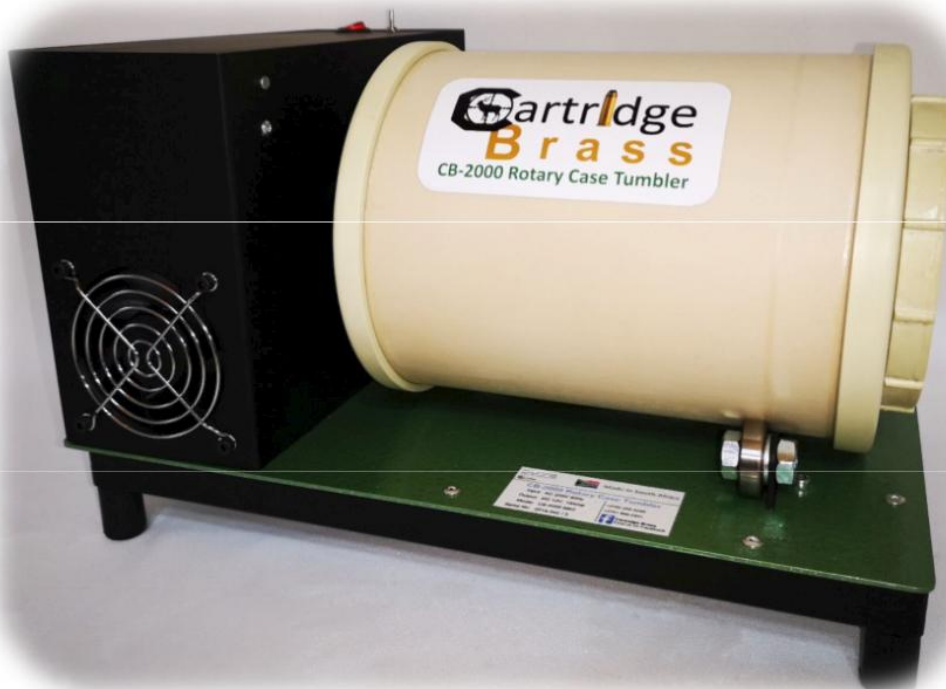


## CB-2000 Mk2 Rotary Case Tumbler Owner's Manual



Due to continuous product improvement, the appearance of the actual unit could differ from what is shown

Congratulations on the purchase of your new **Cartridge Brass CB-2000 Mk2 Rotary Case Tumbler**. Designed and manufactured in South Africa from off-the-shelf components, the **CB-2000 Mk2** is intended to be a low cost, yet very efficient and durable system for the cost-effective cleaning of firearm cases, inside and out.

We trust that you will receive many years of satisfactory service from this piece of equipment.

### **Warranty**

The **CB-2000 Mk2** is warranted against defects in material and workmanship for a period of 18-months from date of invoice. If you believe the **CB-2000 Mk2** you have purchased has a defect in material or workmanship or has failed during normal use within the warranty period, please contact the outlet from which it was bought for assistance. If product repair or replacement is necessary, the Customer will be solely responsible for all shipping charges, freight, insurance and proper packaging to prevent breakage in transit, whether the product is covered by this warranty or not. All shipments of repaired or replaced products by **DUYS Arms and Ammunition (Pty) Ltd** will be for the account of the customer.

The **CB-2000 Mk2** is not intended for industrial use. Please retain the original invoice as proof of purchase.



### **Warranty Limitations**

This warranty does not apply to defects resulting from any Customer actions, such as mishandling, improper interfacing, operation outside of design limits, misapplication, improper repair, or unauthorized modification. No other warranties are expressed or implied. **DUYS Arms and Ammunition (Pty) Ltd** liability shall be limited to the actual purchase price of any defective unit or units of equipment to which a claim is made and shall in no event include the Customer's manufacturing costs, lost profits or goodwill, or any other direct, indirect, special, incidental or consequential damages whether based on contract, tort or other legal theory. **DUYS Arms and Ammunition (Pty) Ltd** shall not be liable for normal manufacturing defects or customary variances from specifications.

### **Warning**

- The **CB-2000 Mk2** consists of a 220 Volt AC and 12 Volt DC circuit. Any damage to the electrical system, wiring, plug, switches etc. should be regarded as dangerous and the equipment be returned to the place of purchase for inspection and repair. Failure to do so could result in injury or death.
- Except for the inside of the rotary drum, the equipment is not waterproof and should never be submerged in any liquid. In the event of accidental liquid spillage or leaks, the power should be switched off immediately and the unit be disconnected from the electricity supply.
- The chemicals used to clean the cases are of a mild nature and under normal circumstances they will not irritate the skin. They will however cause discomfort when in contact with the eyes or broken skin. In this case, rinse well with clean, cold running water for 5 – 10 minutes. If the irritation continues, seek medical advice.
- Never tumble live ammunition or cases with live primers.
- Avoid contamination of the case / chemical mixture with substances such as steel, iron, paper, sand and other items not intended for cleaning.
- Do not turn the unit upside down while the drum is installed, either full or empty.
- Do not move or carry the unit while it is in operation.
- Never force the drum or hold onto it while it is rotating, except for the purpose of installation or removal.
- When the unit is not in use, please unplug the power cord from the main supply.



### **CB-2000 Mk2 Packing List**

The following items are in the box.

1 x **CB-2000 Mk2** Machine Base.

1 x **CB-2000 Mk2** Rotary Drum.

2 x 1kg Stainless Steel Media

1 x 50ml Clean Green.

1 x 10g Tartaric Acid.

1 x Owner's Manual.

### **General Operating Instructions**

When unpacking the unit, the drum could be moist on the inside. This is due to function and quality testing after assembly. Your unit was tested with a full load of 9mm Luger cases, running for at least 2-hours.

The unit is equipped with 220 Volt AC to 12V DC power supply with a fitted 3-Pin South African power plug on a 1m power cord. Once plugged in, the unit is ready for use.



The Switchbox consists of two switches. **Switch A** has a built-in **RED LAMP** serving as a power indicator. **Switch A** will illuminate indicating power is on and will enable the electrical system. The cooling fan will start. **Switch B** is an **ON-OFF-ON** switch and is used to control the drive motor. When switched in the direction of the **GREEN ARROW** this switch will enable the motor and it will rotate in the anti-clockwise direction. This is the direction used for tumbling. When switched to the centre position the motor is in the **OFF** position.

To install the drum align the three studs on the motor with the slots in the plate on the rear of the drum. These slots have slightly larger holes on one end where the studs should enter. Once located, manually turn the drum slightly in the -clockwise direction to ensure proper latching. **Switch A** can now be turned on and **Switch B** moved in the direction of the **GREEN ARROW** to start the cleaning operation.

To remove the drum, position **Switch B** to the centre position to bring the drum to a complete halt. The drum should now be manually rotated in the anti-clockwise direction until the studs align with the holes in the plate on the rear of the drum. The drum can now be removed from the machine.

### **Drum Capacity**

The **CB-2000 Mk2** is a rotary stainless steel pin tumbler capable of cleaning up to 2.0 kg of a large variety of handgun and rifle cases. **Table 1** below gives an indication of its loading capacity. Overloading of the drum will result in reduced cleaning capability.



Table 1 – Drum Capacity (CB-2000 Mk2)		
Calibre (Examples)	Maximum Weight	Maximum Case Count
9mm Luger, 38 Special, 40 S&W, 357 Mag 44 RemMag, 38 Auto, 32 Auto, 45 ACP	2.0 kg	+/- 550
223 Rem, 222 Rem, 22 Hornet, 7.62 x 39	2.0 kg	+/- 280
243 Win, 308 Win, 22-250 Rem, 25-06 Rem 7 x 57 Mauser, 303 Brit	2.0 kg	+/- 160
30-06 Spring, 300 WinMag, 7mm RemMag	2.0 kg	+/- 130
416 Rigby, 458 WinMag, 458 Lott 375 H&H, 300 WbyMag, 338 Lapua	2.0 kg	+/- 80

**Drum Loading**

When loading the drum, the following ingredients are added to ensure proper cleaning. Please see **Table 2** below. **Never use ingredients such as car polish, engine cleaner, degreaser, hand cleaner, other forms of grid etc. as these could damage the cases and/or tumbler.**

Table 2 – CB-2000 Mk2 Drum Contents	
Ingredients	Quantity
Brass Cases	2.0 kg
Stainless Steel Pins	2.0 kg
Cleen Green	20 ml
Tartaric Acid	1 gram
Cold Water	700 - 1000ml
Tumble Time	120 min



*An indication of the volume of water to use.*

Water used may be from the tap, but in areas where water quality is suspect, please use filtered or distilled water to ensure optimum cleaning. **Do not use excessively hot water.** Maximum water temperature should not exceed 35°C. Hot water will cause pressure build-up inside the drum which could damage the unit. The volume of water is determined by the number of cases to be cleaned. Add enough water to just cover the cases.

It is important not to add too much tartaric acid, as it will cause the cases to become brownish. The Cleen Green can be replaced by dishwashing liquid, but this produces lots of foam which is difficult to manage, and experimentation has shown that Cleen Green tends to clean better.



Once all ingredients are added to the drum, it is advisable to wet the seal face of the drum and the red seal in the lid with a little bit of the water mixture inside the drum using your finger. This helps to ensure a watertight seal. After the lid is screwed on tight, the drum can be placed upside down on a flat surface for a minute or two to ensure it does not leak. If no leak is present, the drum can be placed in the tumbler as described earlier. If the drum is leaking, unscrew the cap and make sure there is no obstruction preventing a watertight seal. Total tumble time is around 2 hours. **More than 2 hours will NOT damage the cases.**

#### **Post Tumble Case Handling**

Once the tumble cycle is done, the drum can be removed from the tumbler and opened. The bulk of the dirty water and foam can be poured down the drain, taking care not to pour the pins down the drain as well.

Once the bulk of the water and foam is out, a strainer or sieve can be used to pour the contents of the drum into. The strainer should be placed inside another container to catch the liquid and pins. Upon shaking of the strainer or sieve, the pins will fall through and the cases will remain in the strainer. Alternatively, the contents can be poured into a large bucket half filled with clean water and the cases separated by hand.

**Care should be taken to ensure all stainless pins are removed from the cases as these could cause damage to the reloading dies.**

After separation, it is good practice to rinse the cases twice with clean, cold water. Not rinsing well will cause stains and spots after drying.

After rinsing, the cases can be dried by shaking them in a clean towel and using a hairdryer or placing them outside in the sun.

Depending on how dirty the cases are and how many of them were loaded in the tumbler, some residue (small black stains) could remain inside of the primer pockets. These are typically not an issue, but if needed, a second tumble cycle should be sufficient to remove all propellant residue from the primer pockets. The cases can however be loaded and fired without removing this residue. Once fired, the residue will typically be removed during the subsequent tumbling cycle.

Cleen Green can be purchased from most supermarkets, hardware stores and motor vehicle spares outlets and Tartaric Acid from any supermarket in the baking section.

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