Cole-Parmer®

BM-200 Mixer/Mill

Rock and Mineral Grinder for Spectroscopy Applications

Quick Start Guide

For 115V/230V (04576-27)



How To Operate Mixer/Mill

- Set up the mill in a well ventilated, unconfined space. The unit should be operated on a flat, hard, stable benchtop due to the vigorous motion and vibration generated during operation.
- Tilt the cabinet and remove the two red bolts on the bottom. They hold the floating baseplate to the cabinet for shipping.
- Remove the foam protector around the clamp assembly inside the unit before turning the unit on.



- **Step 1**. Connect the power supply to the back of unit. Power On the BM-200 Mixer/Mill. Upon start-up, Cole-Parmer will appear briefly on the display screen followed by RATE and TIME.
- Step 2. Lift the Lid by the Lid Handle. Place a vial holder in the clamp. The holder must be inserted in the Clamp with the proper orientation, as shown in Figure 1 and 2). Add 0.3 1.0 g of sample to vial and place in holder. Push the Holder Cover down and close the clamp arm by pushing it down then pressing the Locking Tab inwards until it clasps the clamp arm. Stretch the safety ring around the clamp arm knob to secure the vial in holder. To remove vial (or holder), unclasp the safety ring and Locking Tab from the clamp arm and extend the arm to the open position.

Step 3. Close the lid.

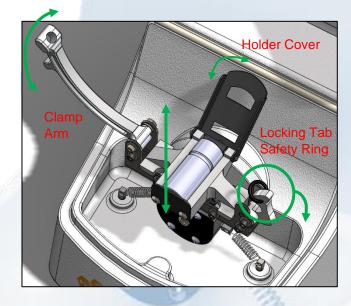


Figure 1 - Inserting (Removing) Vial Holder

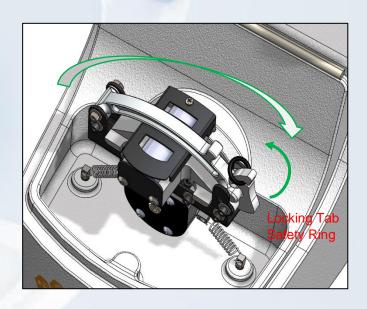


Figure 2 – Locking the Vial in the Clamp

Changing the Run Parameters

- Caution: Never run the BM-200 Mixer/Mill with the clamp arm unfastened and not properly secured.

 Damage and leakage will result.
- **Step 4.** To set a programmed run use the plus (+) and minus (-) buttons to adjust the runtime. Press the plus (+) button to increase the time in 5-second increments or press the minus button (-) to decrease the time in 5-second increments. Maximum runtime is 5.00 minutes.
- **Step 5.** To set the rate use the plus (+) and minus (-) buttons to adjust the run speed. Press the plus (+) and minus (-) arrows to set the rate at the following fixed speeds to 750 rpm, 2000 rpm, 3000 rpm, or 3500 rpm.
 - Note: most samples are completely ground in 20 to 40 seconds at 3000 rpm. Tough samples may require a run speed of 3500 rpm. A lower speed of 750 rpm is good for mixing.
- **Step 6**. Push the RUN button to begin a programmed run. The timer counts down in 1-second increments, showing the time left in the run. When the timer reaches zero and the motor shuts off, the timer will display RUN COMPLETE. The safety interlock switch prevents the unit from running if lid is open.
- **Step 7**. To have the mill pause during a run and retain the timer setting, push the PAUSE button. The motor will shut off and PAUSED will appear on the display. To resume the run, close lid and push RUN; the timer will briefly display the exact number of seconds left in the run and then continue to count down in 1-second increments. To abort the run, push STOP; RUN COMPLETE will be displayed.

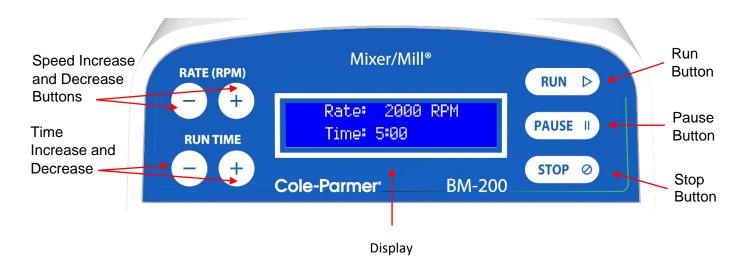


Figure 3 - Control Panel

Our Application Specialists at Cole-Parmer are here to help with advice on accessories and grinding protocols.

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