



Rotary Lab Sieve Sifter

The 4312 Rotary Lab Sifter with Digital Timer is designed to accept up to ten 8" (203mm) diameter by 2" (50.8mm) high or six 12" (305mm) by 3" (76.2mm) high standard test sieves with cover. The Rotary Lab Sifter incorporates an internal switch in the door for operator safety. This feature stops the rotating of the sieves if the door is opened.

## Assembly

The frame is fully assembled with the main box sitting on the cross pieces of the frame. Remove bolts holding unit to the shipping box. Remove one cross piece mounting bolt and loosen the other (on same side). See Figure 1.

Swing frame side out approximately 6 inches.

Remove main box.

**NOTE:** Handle with care so as to not to damage the line cord coming out of the bottom.

Re-install frame side.

Remove retaining pads from top of the frame sides.

Carefully lift box and place the support pinions in the grooves on the frame sides. Replace the retaining pads and secure with bolts.

Connect to suitable power supply and your Rotary Lab Sifter is ready for use.

## Electrical Supply

### Safety

While the test is in operation do not remove any covers or attempt to adjust any part of the machine. Ensure all moving parts are thoroughly secured before attempting any maintenance. Ensure all appropriate measures are taken to protect the operator from excessive noise.

### Electrical safety

**Warning:** Before removing any covers or performing maintenance repair and service, isolate from the electrical supply by removing the main plug. Where the main supply is required during these activities, only competent persons should perform the work.

Check that the power supply is compatible with the requirements stated on the label and connect in accordance with IEE regulations or to local requirements. This machine may be operated through a standard 13 amp socket outlet when fitted with an appropriate 3 pin plug.

Important: This equipment must be correctly grounded.

## Operation

Open the door to expose the sieve stack area.

**Note:** The door is protected by a microswitch which, if allowed to act correctly, will prevent the Rotary Lab Sifter from starting with the door open. It is possible to override this switch for setting purposes but this is not recommended for normal use. Select '12' or '8' on the front panel. This automatically selects the

correct springs required to apply the best 'Tapping' force to the sieves. Ensure the turntable is in the correct position for the size of sieve used. See Figure 2. Place the sieves on the turntable and tilt the box back to the pre-set 45° angle. Close the door and the display should appear on the digital timer.

### **Timer Features:**

Large Red LED display 1/2-inch height

- Audio indicator
- UP/DOWN Buttons for easy adjustment of time and mode options
- Mode button allows the setting of time scale
- Modes:

0001-9999 SSSS Time in seconds

0001-9999 MMMM Time in minutes

00:01-99:59 MMSS Time in minutes and seconds

00:01-99:59 HHMM Time in hours and minutes

- Timing method: Interval count down
- Supply Voltages Supported: 100-265 VAC 50/60 Hz
- Output Voltages and Currents:  
100-250 VAC 50/60 Hz 20 Amps Inductive/Resistive

White wires - Neutral

Black wire - Hot

### **Timer Instructions:**

To change the time setting on the Timer, press the up arrow key or the down arrow key. The first digit on the right hand side should start to flash in half second intervals. Press the up arrow key or the down arrow key to adjust the digit to desired value. To enter the current digit and move to the next digit press the start key. Once the last digit on the left is entered, the timer is ready to start.

To get into the adjust mode state, press and hold both the UP and the DOWN arrow keys at the same time until the current mode is displayed. When in this state the display will show the current mode letters, H for hours, M for minutes, and S for seconds. Once the mode letters are being displayed, press the UP key, or the DOWN key, to change between modes. Press the START key to accept new mode.

Mode Letter:

A-MMSS B-HHMM C-SSSS D-MMMM

To run press START key Once running, pressing the START key again will pause the timer with the current amount of time remaining on screen. When allowed to time out, the timer will display DONE. Press any key to continue. The Setting and the Mode values are saved automatically and restored on power up.

**Note:** If the door is opened during operation the sifter will automatically shut off. When the door is shut the initial set time will reappear on the screen and is ready to run again. If the sifter is stopped in the middle of a test, the timer will not restart where it left off.

### Hammer Removal

If the total number of sieves is less than 10, it is recommended that unused hammers are removed. To do this, locate the spring on the hammer assembly. See Figure 3.

Unhitch the spring and remove the hammer assembly. The split nylon bearing can be replaced during this operation if wear is observed. Do not lubricate this bearing. After testing, remove all loose particles and clean dirt from rollers.

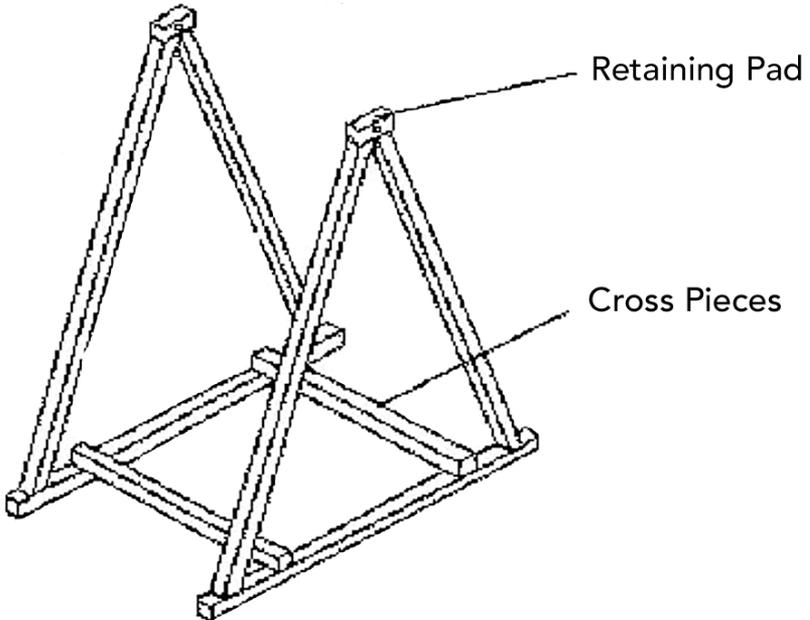


Figure 1

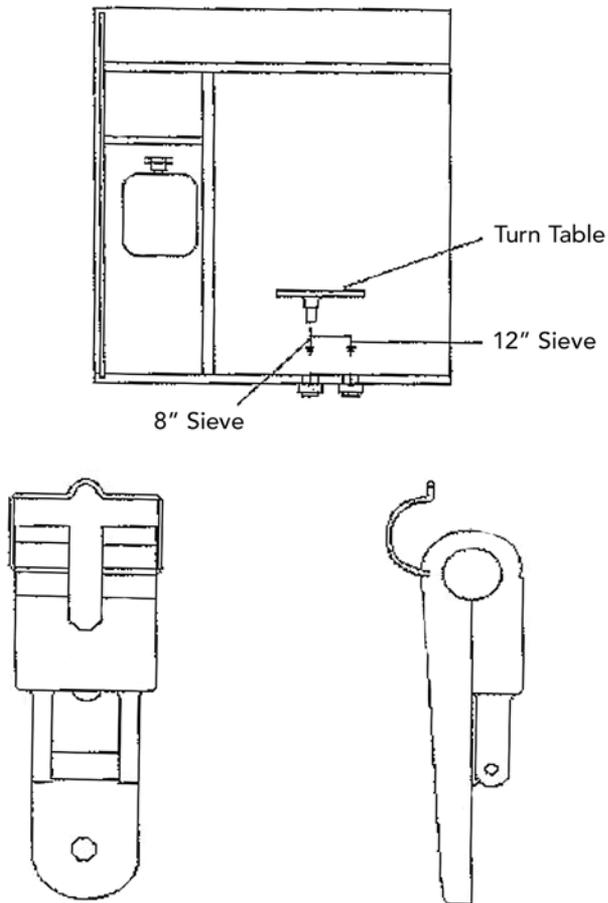


Figure 2

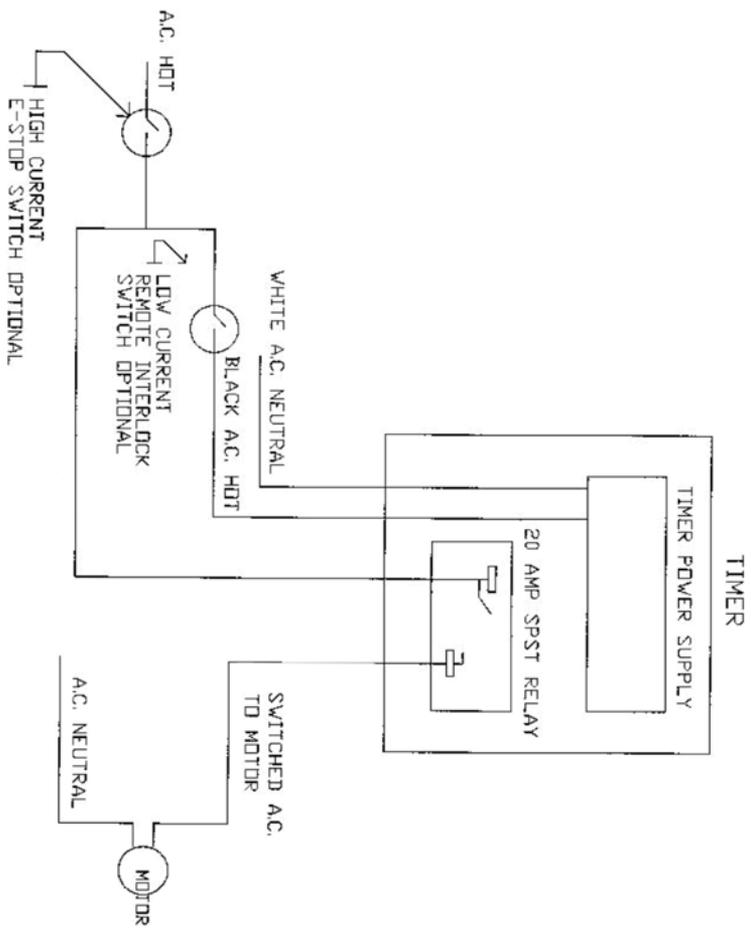


Figure 3



## Warranty

Humboldt Mfg. Co. warrants its products to be free from defects in material or workmanship. The exclusive remedy for this warranty is Humboldt Mfg. Co., factory replacement of any part or parts of such product, for the warranty of this product please refer to Humboldt Mfg. Co. catalog on Terms and Conditions of Sale. The purchaser is responsible for the transportation charges. Humboldt Mfg. Co. shall not be responsible under this warranty if the goods have been improperly maintained, installed, operated or the goods have been altered or modified so as to adversely affect the operation, use performance or durability or so as to change their intended use. The Humboldt Mfg. Co. liability under the warranty contained in this clause is limited to the repair or replacement of defective goods and making good, defective workmanship.

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