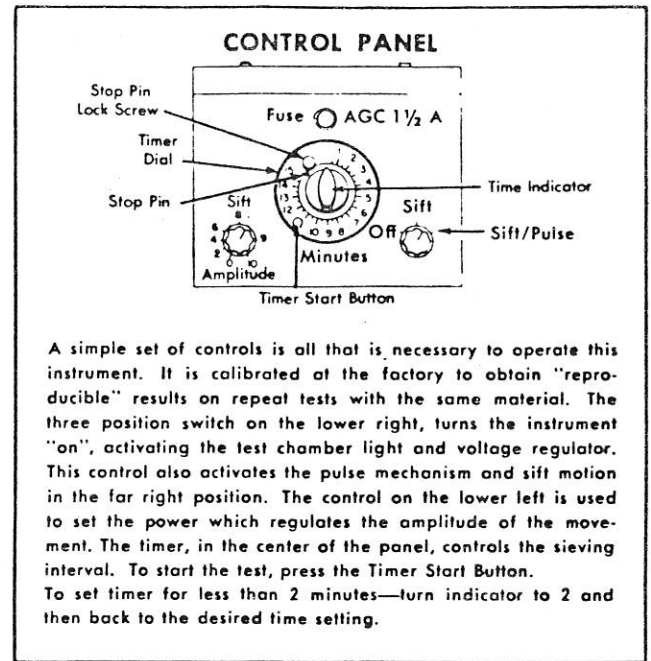
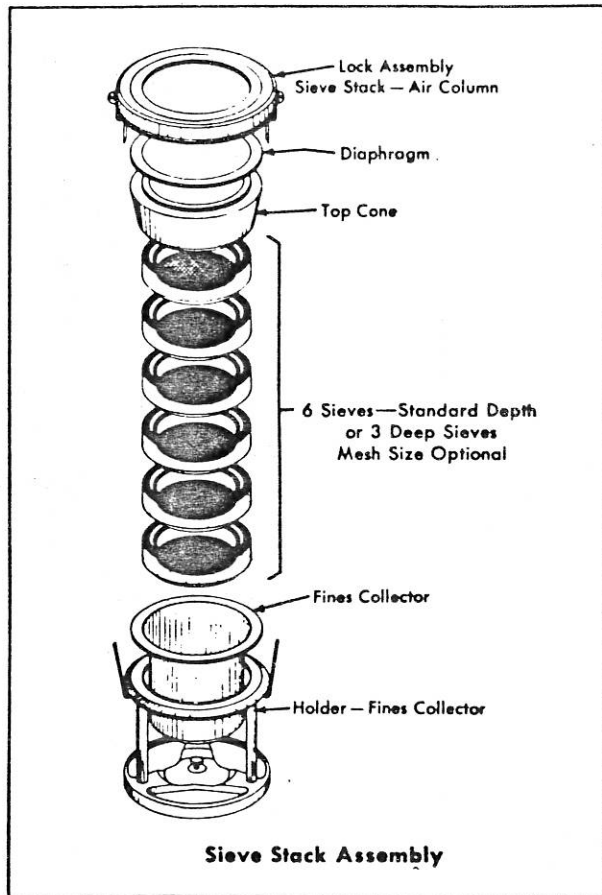


# Model L3P Instrument for Particle Size Analysis



A simple set of controls is all that is necessary to operate this instrument. It is calibrated at the factory to obtain "reproducible" results on repeat tests with the same material. The three position switch on the lower right, turns the instrument "on", activating the test chamber light and voltage regulator. This control also activates the pulse mechanism and sift motion in the far right position. The control on the lower left is used to set the power which regulates the amplitude of the movement. The timer, in the center of the panel, controls the sieving interval. To start the test, press the Timer Start Button. To set timer for less than 2 minutes—turn indicator to 2 and then back to the desired time setting.

## POWER REQUIREMENTS

Power Input..... 120 Volts, 60 Hertz  
 110 Volts, 50 Hertz  
 Approximate Power Consumption..... 100 Watts



## ATM CORPORATION

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# INSTRUCTIONS MODEL L3P ATM CORPORATION SONIC SIFTER

**1.** To prepare the sieve stack for a test, insert a fines collector into the holder. Fasten the round plate into the holder at the bottom by slipping the key hole over the fastener head.

**2.** Nest up any combination of sieves and spacers to produce a total height equal to six (6) standard sieves or three (3) deep sieves.

**NOTE:** For accurate analysis, it is recommended that particles from eight hundred forty (840) microns through one hundred eighty (180) microns be separated first, and from one hundred eighty (180) microns through thirty-eight (38) microns and smaller sizes be done separately. This is to reduce unnecessary dusting.

It is advisable to assemble all spacers at the top of the stack leaving the sieves at the bottom closest to the fines collector holder.

**3.** Set the cone upon the top sieve.

**4.** Place the powder sample on the top sieve. When sieving material larger than 37 microns, do not exceed 20 grams by weight or 7 cubic centimeters by volume. When sieving material smaller than 37 microns, do not exceed 10 grams by weight or 4 cubic centimeters by volume. In fact, a one gram sample may be the best "starting point" for some material.

**5.** Place the diaphragm (with ring protrusion down) on the cone.

**6.** Slip the column lock over the stack and press downward on the top ring to latch the bars in place.

**8.** Position the sieve stack assembly on the instrument table. Make sure that the stack is nested snugly within the centering pins.

**9.** Close the air column: insert the thumb and forefinger into the openings between the lowest sieve or spacer and the column lock bars and push outward on both bars. The bars will release, producing a spring loaded ring seal to the air column drive chamber.

**10.** Close the door. Loosen the stop pin lock screw and set the timer indicator to the number of minutes required. Lock adjustable stop pin adjacent to the clockwise side of the indicator pointer. The timer is now set for a repeatable time cycle. Push the Timer Start button on the timer dial to start sieving interval.

**11.** While observing the sample material on the top sieve, turn the amplitude control clockwise until the largest particle of the sample appears to roll about the surface of the sieve.

**12.** The mechanical pulse action is used only in those cases where the analyst notices that either "blinding" or particle agglomeration is occurring.

**13.** After the sieving interval is completed, open the door, lock the stack and remove it from the test chamber.

**14.** Open the sifter sieve stack. The diaphragm is the first surface to be cleaned for analysis, the cone next, followed by each sieve in turn, and the fines collector last.

**NOTE:** Fines collector and diaphragm should be kept at room temperature in a dark place out of