
0317

OPERATING INSTRUCTIONS

San Andreas Sieve Shaker

December 2012



0317 - San Andreas Shaker

UNPACKING

The 0317 San Andreas Sieve Shaker was thoroughly tested before shipment. When packed, it was in perfect working order. Unpack with care being sure to remove all packing material. Follow the instructions carefully in order to assure long, trouble-free service.

Any damage found upon receipt should be reported immediately to the transport carrier for claim. It is important to save the shipping container and all evidence to support your claim. Be sure to read all operating instructions thoroughly before operating the unit.

CAUTIONS & WARNINGS

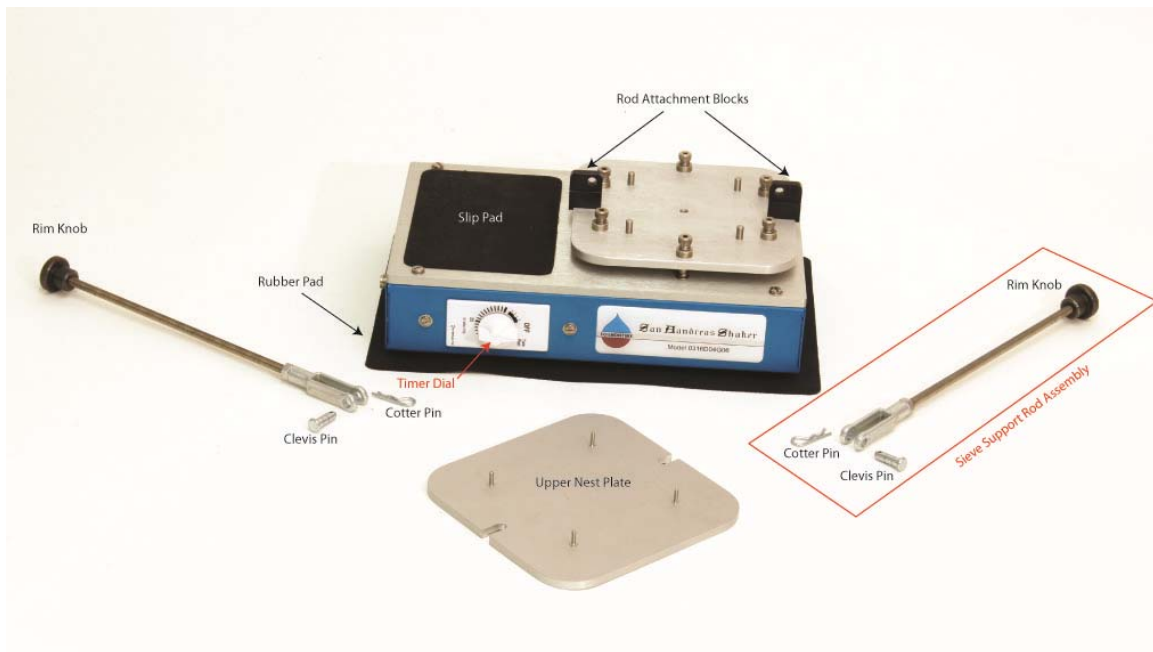
In order to avoid damage to the device and injury, use only those tools included in the Model 0317. When completely full, the water container is relatively heavy and additional weight should be accounted for. In order to prevent damage to scale or other parts of the system, make sure that the table is placed on a suitable hard surface. Do not use larger volume water containers or replacement containers other than those supplied with your unit.

WARRANTY & LIABILITY

Soilmoisture Equipment Corp. (SEC) warrants all products manufactured by SEC to be free from defects in materials and workmanship under normal use and service for twelve (12) months from the date of invoice provided the section below has been met. Soilmoisture Equipment Corp. (SEC) is not liable for any damages, actual or inferred, caused by misuse or improper handling of its products. SEC products are designed to be used solely as described in these product operating instructions by a prudent individual under normal operating conditions in applications intended for use by this product.



ACQUAINT YOURSELF WITH THE PARTS



GENERAL SPECIFICATIONS

Shaker Power Supply

Input: 100-240V, AC, 50-60Hz, 0.6A

Output: 12V, DC, 1.5A

Shaker Specifications

Weight: 3 kg (6.6 lb)

Length: 30 cm (11 inches)

Height: 6.36 cm (2.5 inches)

Width: 18 cm (7 inches)

Sieve Set Specifications

Material: Stainless Steel; Brass also available

Diameter: 10 cm (4 inches)

Standard Screen Size Numbers: 10, 20, 40, 60, 120, 200

THEORY OF OPERATION

Soil Sieve Analysis is a procedure to quantify the sizes and types of particles present in a particular soil sample as well as their relative frequency of occurrence. The analysis can be performed on inorganic materials, such as gravels or aggregate mixtures as well.

Soil is composed of various sized particles and composition. A soil sample is first oven dried and all clumps of soil are broken up into smaller pieces before they are placed in the top sieve. A soil sample is placed in the top sieve, and the entire set of testing sieves (largest on the top, smallest on the bottom) is vibrated or shaken. Each sieve has successfully smaller sized openings. The sieve permits particles smaller than the opening to fall through and retains the larger particles on the sieve.

The soil is then classified according to the particle size. Particles that pass through a given sieve are said to be passing that sieve size. Particles that fail to pass through a given sieve are said to be retained on that sieve. Then the material retained on each screen is weighed.

The results of sieve analysis are generally expressed in terms of the percentage of the total weight of soil that passed through different sieves.

The results of a sieve analysis can tell geologists and engineers much about the composition of a sample and how a particular soil or other mixture will behave in civil engineering and construction settings.

GENERAL APPLICATIONS

The 0317 San Andreas Sieve Shaker is designed as a versatile and portable sieving system. It can be used for sieving soil samples, gravel, sand and other types of granules and powders. It operates on 12V DC power and has adapters for car and standard wall outlets.



ASSEMBLY AND USE OF THE SAN ANDREAS SIEVE SHAKER

Place the black Rubber Pad on a level surface, and then place the Shaker Unit on the Pad. The Rubber Pad prevents the Shaker from moving if placed on a smooth surface when in operation and vibrating.

Attach both Sieve Support Rods to the Rod Attachment Blocks using the Clevis and Cotter Pins. Insert the Clevis Pin first then secure with the Cotter Pin (see Fig. 2).



Fig. 2

With both Rods securely attached, Place the Sieve Stack with the Sieve Set Lid in place on the Shaker (Fig. 3).

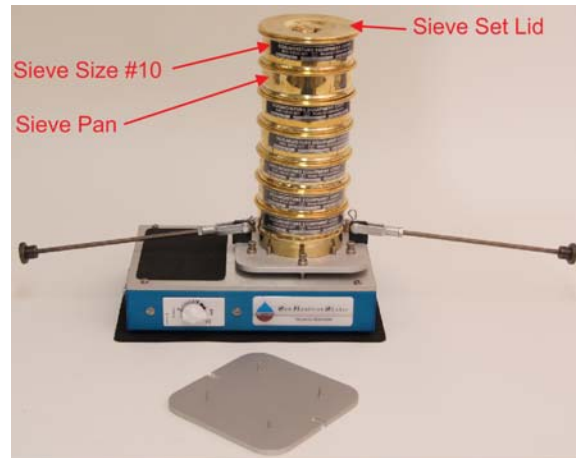


Fig. 3

Place the Upper Nest Plate on top of the Sieve Set and swing the Rods up so that the Rim Knobs fit in the side slots of the Plate; tighten both Rim Knobs so the stack is secured (Fig. 4)



Fig. 4

The San Andreas Sieve Shaker is a 12 VDC device. It can be powered either using the included car lighter plug or standard wall plug using the Universal Power Adapter, also included.

To turn on the unit, turn the Timer Knob to the desired time interval. NOTE: that the Shaker will turn on immediately (Fig. 5). Wait for the sieving process to finish.



Fig. 5

Remove the Upper Nest Plate and Sieve Lid and verify if the sample has been completely sieved. If not, repeat the sieving process. After sieving is complete, there will be a portion of sample in each Sieve.

For more information on the use of the San Andreas Sieve Shaker Kit, please refer to the 0318K1, “*San Andreas Soil Particle Analysis System*” Operating Instructions.

REPLACEMENT PARTS LIST

PART #	DESCRIPTION
0316D04-1000-01	Upper Nest Plate
0316D04-1000-03	Base Plate
0316D04-1000-04	Drive Shaft
0316D04-1000-05	Motor Mount Bracket
0316D04-1000-06	Aluminum Sheet Metal Enclosure
0316D04-1000-07	Rod Attachment Block
0316D04-1000-08	Slip Pad
0316D04-1000-09	Sleeve Bearing
0316D04-1000-10	Gear Motor
0316D04-1000-11	Rubber Bottom Pad
0316D04-1000-12	¼-28 Thread Rod Cut to 9.00 inches long
0316D04-1000K1	Sleeve Support Rod Assembly
0316D04-2000	Lower Nest Plate Assembly

ACCESSORIES

PART #	DESCRIPTION
0315D04B	4-inch Soil Sieve Set, Brass (Stainless Steel also available)
0316D04	San Andreas Sieve Shaker, only

COMPLETE KITS AVAILABLE

PART #	DESCRIPTION
0317K1	San Andreas Shaker and Digital Scale Kit
0318	Stoke's Kit
0318K1	San Andreas Soil Particle Analysis System



**With dealers throughout the world,
you have convenience of purchase and assurance
of after sales service.**

