The Advanced™ Micro-Osmometer Sample Handling Highlights

This Sampler is designed for use with the 133800 and TECH500 Micro-Sample Test Kits, and the Osmo1, OsmoTECH, Model 3320, and Model 3300 Micro-Osmometers. The use of any other means of sample introduction in this instrument is not recommended. Do not use this sampler for any other laboratory procedure.

Calibration

Your 20 µL Sampler has been carefully calibrated at our factory and is ready to use. Should you wish to recalibrate the Sampler, follow steps 1, 5, 6, and 7 of the plunger replacement procedure (over).

Operation

Sampler Tip Installation:

Slide one sample tip over plunger wire and mount firmly on the sampler body. Be sure the sample tip is straight and seated firmly.

Sampling:

Depress the plunger knob and insert the sample tip into the sample at least 1/4" or 6 mm below the fluid surface. Gently release the plunger to draw 20 µL of sample into the sample tip and remove the sampler from the sample.

Visually inspect the sample in the sample tip. If there are any large voids or bubbles, the sample must be expelled and another sample drawn.

Wipe all excess sample from the outside of the sample tip with a clean, no-lint, non-ionic paper tissue to remove any clinging droplets.

Holding the sampler by the body (not the plunger knob), insert the sampler into the instrument’s operating cradle. Gently push the end of the cradle to insert the sampler tip fully into the sample port. Testing will automatically begin when cradle reaches the end of its travel. Do not attempt to eject the sample into the sample port.

Do not remove the sampler until the test has been completed. The sample osmolality is measured inside the sample tip.
Use a fresh sample tip for each sample. Clean sample chamber promptly after test.

Sample Tip Removal:

To dispose of the used sample tip, press down hard enough on the plunger knob to dislodge the tip, or apply a slight bending force using the thumb and forefinger where the tip is pressed onto the sampler. Remove it from the plunger wire and discard.

Blot the plunger wire with a lint-free tissue to avoid contaminating the next sample. Be careful not to dislodge the teflon plunger tip.

Between runs, rinse the plunger tip with water or alcohol and wipe dry.

Check the sample size with the calibration key periodically.

Replace the sampler plunger wire with each new test kit (500 samples). A replacement plunger wire is included with each kit.

See your instrument’s User Guide for detailed operating instructions and illustrations.

PLUNGER WIRE REPLACEMENT

Replace the plunger wire on the sampler every 500 tests (each package of sample tips):

1. Unscrew the calibration gauge and key (see figure 1). Rotate the shaft until the calibration setscrew appears beneath the access hole in the side of the sampler body. Use the calibration key to loosen the setscrew.

2. Carefully remove the old sampler plunger wire. If it contains a plastic sleeve, save and install it on the new plunger.

3. Slip a new sampler plunger wire into a new sample tip so the teflon plunger tip protrudes about 1/16” or 1.6 mm (see figure 2).

   NOTE: If the new sampler plunger wire will not fit into the new sample tip without using excessive force, see step 9.

4. Insert the plunger wire into the sampler body and secure the sample tip in place.

5. Using the calibration gauge and key, push the plunger into the sampler as far as it will go (see figure 3).

6. Tighten the calibration setscrew with the calibration gauge.

7. Screw the calibration gauge and key back into the top of the sampler.

8. The Sampler is now calibrated and ready to use.

9. If the sample tip does not assemble over the new sampler plunger wire without using excessive force, place the wire end into the back end (large diameter) of the sample tip (see figure 4). Install the plunger wire and tighten. Move the sample tip in a back-and-forth motion over the plunger wire until the fit is acceptable. Remove both parts and assemble per step 3.