TIPS ON THE CARE AND USE OF VP 472 96 WELL MICROPLATE INDEXING SYSTEM

The Microplate Indexer includes:

1. A bottom, stationary frame that fits around the source plate.
2. A top frame that slides across the bottom frame, secured in three positions by spring clips aligning to grooves in the top and bottom plates.
3. Four pairs of guide pins on the top frame.

Set Up:

1. Place the 96 Well source plate on a level surface.
2. Place the VP 472 96 Well Microplate Indexer on top of the source plate with the large guide pins oriented on the left. The source plate should fit securely inside the bottom frame of the Microplate Indexer. See USAGE NOTE: below for details on fitting your plate to the Microplate Indexer.
3. Slide the top plate of the microplate indexer to the left until the spring clip is in the far-left position.

Use:

1. Hold the Replicator in the proper orientation to the microplate indexer: **Look at the guide holes on the bottom side of the Replicator. Hold the Replicator with the large guide hole on the left and the small guide hole on the right.**
2. Starting with the pair of guide pins oriented over rows A-B and columns 1-4 of the source plate, lower the Replicator onto the guide pins until it is resting on the spring-loaded stand-off pegs of the Replicator.
3. Press firmly down on the top of the Replicator with both hands.
4. **SLOWLY** raise the Replicator pins out of the source liquid, remove the Replicator from microplate indexer and place it on the appropriate guide pins of the VP 470 Glass Slide Indexing System.

5. After spotting samples on duplicate glass slides, wash the pins in the VP 475 Wash and Blot Station or suitable wash chambers (e.g., tip lid boxes).

6. Lower the Replicator onto the second set of guide pins over rows C-D and columns 1-4 of the source plate until it is resting on the spring-loaded stand-off pegs of the Replicator.

7. Transfer samples to glass slide as described above.

8. After picking up samples from the third and fourth sets of guide pins on the microplate indexer, slide the top plate of the microplate indexer to the right until the spring clip is aligned in the middle position. **CAUTION!** Do NOT move the top plate while the Replicator is on the guide pins of the microplate indexer as this will damage the Replicator pins.

9. Pick up samples from rows A-B, columns 5-8 with the first set of guide pins.

10. Continue transferring samples to the glass slide, washing and moving to the next set of guide pins on the microplate indexer until all four sets of guide pins have been used.

11. Slide the top plate of the microplate indexer to the right until the spring clip is aligned in the far-right position.

12. Pick up and transfer samples from guide pins sets 1-4 as described above.

Usage Note:

The VP 472 96 Well Microplate Indexer has been calibrated to fit the SBS Standards for microplates, such as the Nunc 96 Well TC plate (Nunc P/N: 167008). The pins stop 0.25 mm above the bottom of these wells. Your 96 well plate or PCR plate maybe different, so it is prudent to test it first. Depending on the volume of your samples, please test your plate, loaded with dye (the same volume as the samples to be spotted, before spotting your samples onto glass slides with the Glass Slide Arrayer System. Load an equivalent volume of loading dye or food coloring into each well, pick up samples on the Replicator pins from each of the twelve positions on the microplate indexer. Gently touch the pins onto lint free blotting paper or membrane for each position in the microplate indexer. Check that each of the pins has picked up samples from the wells and transferred them to the membrane. If the pins are not touching the volume of liquid in the wells, place a few sheets of the paper, cut to fit (~8 x 12 cm) under the plate, and test again until all eight pins of the Replicator have transferred sample from all twelve positions of the microplate indexer.

If the source plate does not fit securely in the microplate indexer, place individual pieces of tape on all four inside edges of the base frame until the plate is secure in the frame.

Customizing Microplate Indexer to Non-Standard Microplates

The VP 472 Microplate indexer will accommodate all Standard height 96 well microplates that conform to the Society of Biomolecular Screening Standards. Several of the 96 well polypropylene PCR plates are smaller (length and width) than the SBS Standard and need to be shimmed for the correct (centered) registration. It is important to spot size uniformity to have the Replicator pins in the center of the wells. The best way to shim the inside of the Microplate Indexer is to place 5 cm lengths of tape on the inside edges of the Indexer. Always place the tape in tandem to opposing edges to keep the plate centered. Keep building up the tape until the plate just fits inside with out touching the tape.

Several brands of 96 well polypropylene PCR plates are so tall the VP 478 pins won't touch the bottom of the wells. For customers who need to make arrays from the dregs of these tall wells, we have a longer pin. The FP1S6NT pin has a 28 mm exposed pin length and will reach the bottom of any PCR well. Also, with these tall PCR plates you will need pegs to elevate the microplate indexer over the tall PCR plate. Contact us for the height of peg necessary for your PCR plate.

Care:

After each day's use, the entire unit should be wiped down as described below with bleach, distilled water, and a final alcohol rinse. Do not submerge the microplate indexing unit.

Disinfecting:

The entire VP 472 96 Well Microplate Indexing System (microplate indexer) can be disinfected by carefully wiping with 5% bleach, distilled water then alcohol. Always remove any bleach residue from the unit after disinfecting (disinfecting is optional depending upon application).

The guide pins on the microplate indexer should be treated with a light coating of silicone grease occasionally.