V&P SCIENTIFIC, INC.
Innovators in Liquid Handling, Arraying and Mixing

TECHNICAL NOTE 81

CARE AND USE OF MAGNETIC BEAD BUBBLE PADDLE STIRRER

1. Place the VP 767-2 motor assembly on to your robot deck and attach it so the notches in the bubble paddles and the depressions in the reservoir are aligned to the pipette tips.

2. The VP 758-3 Bubble Paddle Reservoir can be cleaned with detergents and rinsed with distilled water and or ethanol/isopropanol. It can also be sterilized by autoclaving if necessary. These operations should be done while the reservoir unit is assembled (drive shaft and Bal Seal in place). Although it is possible to pull the drive shaft out of the bearings and out of the Bal Seal we do not recommend that you do this as you increase the risk of damaging the Bal Seal.

3. To attach the VP 758-3 Reservoir to the VP 767-2 motor, turn the drive shaft so the wheel spokes align with the slots in the motor wheel coupler on the VP 767-2 and slip the drive shaft wheel into the wheel slot on the motor (it helps to lift up on the drive shaft end of the reservoir as you are pushing forward). Once the coupler is engaged press down on the rear of the Reservoir and it will "snap" into position

4. To remove the VP 758-3 Reservoir from the VP 767-2 motor, lift up on the rear of the Reservoir and pull out.

5. **Do not operate dry as this will wear out the seal. Always operate with liquid.** Operate at speeds and liquid levels that do not aerosolize the liquid. At lower liquid levels you will want to use slower speeds. To lengthen the life of the seal, operate at the lowest possible speed that keeps your particles in suspension. Also operate only when necessary as this will prolong the life of the seal. The maximum speed is 1,500 RPM and is set at the factory.

6. The reservoir can also be disinfected by soaking in a 10% bleach solution for 5 minutes followed by sterile water rinses and an additional rinse in alcohol.

7. **Do not use the speed controller to stop the stirrer; use the on/off switch.**

8. Replacement Bal Seal and bearings VP 758-3S are available in the rare event the Bal Seal begins to leak. To remove sealed bearing unit from the reservoir, remove the screw at the bottom of the reservoir and pull out the sealed bearing unit. It is secured in the reservoir by a friction fit from two O rings. The set screw at the top of the sealed bearing unit should **NOT** be removed.

9. Clean the bearing hole and apply a thin coat of silicone grease. Hand press a new VP 758-3S into the reservoir. Line up the slot on the drive shaft with the end of the bubble paddle. Insert and tighten screw at bottom of reservoir to lock the sealed bearing unit in place.

10. Send the leaky sealed bearing unit to V&P for repair and replacement.

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