

# DRUMMOND #590 DIGITAL MICRODISPENSER

Pat. No. 4250755 and other Pat. Pending

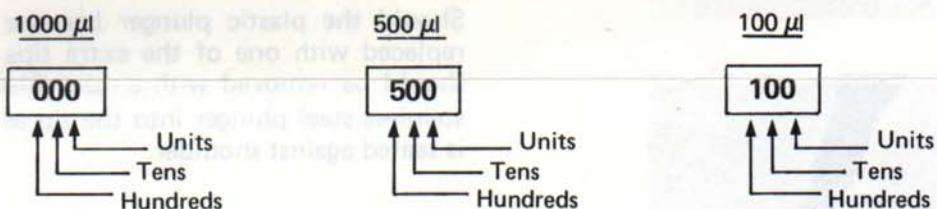
Thank you . . . for purchasing the new #590 Drummond Digital Microdispenser. This instruction sheet will help you operate and maintain your microdispenser. Sample deliveries with a  $\pm 1\%$  full scale volumetric tolerance are assured through the use of Drummond Custom Molded Precision Plastic Bores.

CATALOG NO.	OVERALL CAPACITY	RECOMMENDED RANGE	REPLACEMENT BORE CAT. NO.	PLUNGER TIP
3-000-590	1000 $\mu\text{l}$	100-1000 $\mu\text{l}$	3-000-590-G	Plastic



## A PRESETTING SAMPLE DELIVERY

At the maximum setting, the digital readout will be 000. To obtain less than full scale deliveries turn the Plunger Cap clockwise until the correct sample appears in the window. Remember the unit will deliver in one microliter increments. To prevent the plunger from moving during use, engage the positive lock. (Caution: do not attempt to change setting while lock is in place.)



**THE MICRODISPENSER PLUNGER WILL SLIDE FREELY IN THE BORE ONCE IT IS WET.**

## B SAMPLE COLLECTION

Depress the plunger fully, immerse the tip into the solution and release the plunger slowly. The exterior of the bore should be wiped free of any excess sample with a wiper, being careful to avoid drawing any sample from the end of the bore.

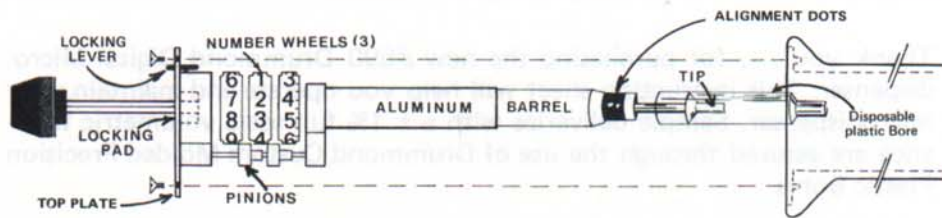
## C DELIVERY

Expel the sample by depressing the plunger completely. Touch the tip of the bore to the side of the receiving vessel or swirl the tip in diluent to remove entire sample.

## D STORAGE

For best results, store your microdispenser with a new unused bore, or without a bore.





### E REPLACEMENT OF PLASTIC BORE

To replace plastic bore, rotate bore to disengage the eccentric, then pull bore straight off unit. To install new bore, first align white dots on eccentric and barrel, then slide on bore. Second, press plunger cap until it stops against top plate; hold firmly. Third, to lock bore onto unit, rotate with gentle pressure inward. To assure bore is properly located, release plunger cap, then depress it until it seats against top plate. Microdispenser is now ready for use.

### F PLUNGER TIP REPLACEMENT

Should the plastic plunger become worn or loose it can be easily be replaced with one of the extra tips included with the unit. The old tip should be removed with a razor blade as shown in the photo. Insert the stainless steel plunger into the tip as shown and press firmly until the tip is seated against shoulder.



### G CALIBRATION

After bore is replaced per E, press plunger cap until it stops against top plate. Tip should then be seated against bottom of bore. Final check can be made by rotating plunger cap clockwise until unit is at minimum stroke 000. Then slowly rotate past 000 until tip bottoms on bore.

**After bottoming out, your window reading should now read between -995 & -990**

### IN CASE OF DIFFICULTY . . .

Please do not hesitate to call us concerning any difficulties that may arise. We maintain a complete supply of parts to keep your microdispensers in service.



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