“ The 15 Questions ”

Sutter Micropipette Pullers are expected to have great accuracy with a high yield of reproducible micropipettes. If your P-97 or P-1000 Sutter Pipette Puller is not stable, approximately 95% percentage of the variability you are seeing might be due to unstable parameter settings, poor alignment of the filament over the air-jet and around the glass, a poorly shaped filament, or friction in the pulleys (wheels) guiding the cable. Please provide the following details so we can determine if any of these concerns are a source of the variability you are experiencing.

1) Circle the MODEL of the Puller: P-97 / P-1000 and list the SERIAL NO. _____
What is the approximate AGE of the puller?_____(years)

2) What SHAPE of filament (heating element) is in the puller? Circle one: Box or Trough

3) What is the WIDTH or ITEM # of the filament? Circle below or list here _____
FB255B (2.5mm box) FB330B (3mm box) FB245B (4.5mm box) FT330B (3mm trough)

4) What is the RAMP TEST VALUE of your filament tested with your glass? _____

5) What is the ITEM NUMBER of your GLASS? _____

6) What is the Outer Diameter (OD =_____) and Inner Diameter (ID =_____) of the glass are you using?

7) What are your APPLICATIONS? Circle below and/or list here:_____
Slice Patch, Whole Cell Patch, Dissociated Patch, Microinjection & type (_____)
Extracellular Recording or Intracellular Recording?

8) What RESISTANCE (1–300 MΩ) and/or TIP SIZE (20nm to 300μm) do you aim for? _____

9) List your PARAMETER SETTINGS: (and circle air mode, time or delay)
Heat_____ Pull_____ Velocity_____ Time / Delay_____ Pressure_____

10) Are you using a one-line program? YES or NO

11) LOOPS: If you are using a one-line program, how many times does it loop? _____
Please check Line 2 to make sure it is empty.

12) If it is a multi-line program, provide all lines of the program on a separate page.

13) Send IMAGES of the filament installed in the puller (top view and a side view from left looking right)
Images with and without the glass positioned within the filament is helpful.

14) Are the upper PULLEYS (wheels that guides the cables) Black or Silver? Push the puller bars all the way outward, lifting the cable off the wheels, and spin the pulleys quickly with your index finger.
Do they; spin freely? (Yes / No), spin multiple times around? (Yes / No) spin with resistance? (Yes / No)

15) Remove the front panel screws, drop down the front panel (like a toaster oven) and test the pulleys mounted inside/center below the base plate. Please report the condition of the *inside* pulleys:

_____

Answering ALL questions will rapidly accelerate our ability to trouble shoot and resolve problems. If we determined the puller has an electronic and/or mechanical issue not easily addressed on-site, we recommend you return the puller to the Sutter Factory for a REPAIR or a REFURBISH.

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