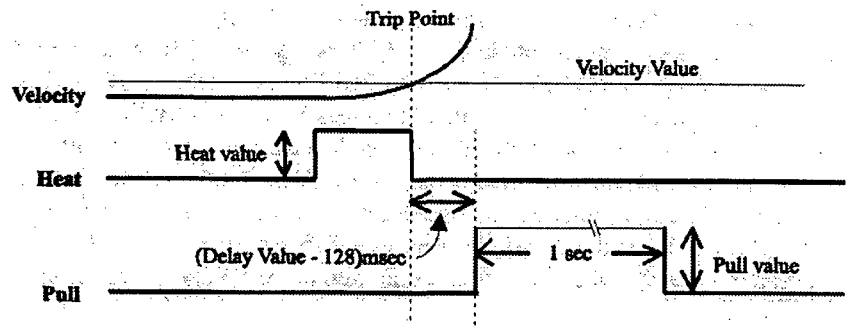
TO PULL 1.0 mm OD GLASS:
TILT MICROMETER ← 737

FOR 1.5 mm OD GLASS:
TILT MICROMETER ← 727

Laser Puller Programs

Hints for pulling:

- Avoid programs that require the glass to be drawn down to a very small diameter before the start of the last pull.
- Use thick-walled glass when practical, as it is much more tolerant of uneven heating.
- When using thin-walled galss for patch pipettes try to stick to two line programs. Use a low HEAT, particularly in the first line.
- Expect that changing the outside diameter of thin-walled tubing will have strong effects on the quality of patch pipettes produced.
- For quartz, decreasing HEAT and lengthening DELAY will reduce thinning of the tubing near the tip by making the heating more uniform.



FILAMENT#	Scan Length (mm)
0	1
1	1.5
2	1.9
3	4.5
4	6.5
5	8

Approx Heat Range

borosilicate	aluminosilicate	quartz
250-500	375-600	550-950

Press <CLR> and then <0> to access software control functions:

Function #	Function Name	Description
1	Ramp Test	Run the Ramp Test
2	Write-Protect	Set write-protection: W = OFF, WP = ON
3	Reset Time and Date	Set the clock
4	Memory Test	Test the integrity of the RAM
5	Copy a Program	Make a copy of a program

Prgm #	Date	Glass: ID/OD	Owner	HEAT	FIL	VEL	DEL	PULL	Notes
1	/ /								
2	/ /								
3	/ /								
4	/ /								
5	/ /								
6	/ /								
7	/ /								
8	/ /								
9	/ /								
10	/ /								
11	/ /								
12	/ /								
13	/ /								
14	/ /								
15	/ /								
16	/ /								
17	/ /								
18	/ /								
19	/ /								
20	/ /								
21	/ /								
22	/ /								
23	/ /								

Prgm #	Date	Glass: ID/OD	Owner	HEAT	FIL	VEL	DEL	PULL	Notes
24	/ /								
25	/ /								
26	/ /								
27	/ /								
28	/ /								
29	/ /								
30	7/10/01	07 / 1mm Quartz	Nozomi	710	2	60	145	175	45MΩ micropipette (RCE3M) A little too flexible for dna
31	/ /								
32	/ /								
33	/ /								
34	/ /								
35	/ /								
36	/ /								
37	/ /								
38	/ /								
39	/ /								
40	/ /								
41	/ /								
42	/ /								
43	/ /								
44	/ /								
45	/ /								
46	/ /								

Prgm #	Date	Glass: ID/OD	Owner	HEAT	FIL	VEL	DEL	PULL	Notes
47	/ /								
48	/ /								
49	/ /								
50	/ /								
51	/ /								
52	/ /								
53	/ /								
54	/ /								
55	/ /								
56	/ /								
57	/ /								
58	/ /								
59	/ /								
60	/ /								
61	/ /								
62	/ /								
63	/ /								
64	/ /								
65	/ /								
66	/ /								
67	/ /								
68	/ /								
69	/ /								

Prgm #	Date	Glass: ID/OD	Owner	HEAT	FIL	VEL	DEL	PULL	Notes
70	/ /								
71	/ /								
72	/ /								
73	/ /								
74	/ /								
75	/ /								
76	/ /								
77	/ /								
78	/ /								
79	/ /								
80	7/16/01	QUARTZ 1.0/0.7	NOZOMI	710 720	5 4	52 50	122 128	80 60	~1-4 MΩ (3M KCl), IN VIVO PIPETTES (MEDIUM TAPER)
81	/ /								
82	/ /								
83	/ /								
84	/ /								
85	/ /								
86	/ /								
87	/ /								
88	/ /								
89	/ /								
90	/ /								
91	/ /								
92	/ /								

Prgm #	Date	Glass: ID/OD	Owner	HEAT	FIL	VEL	DEL	PULL	Notes
93	/ /								
94	/ /								
95	/ /								
96	/ /								
97	/ /								
98	/ /								
99	/ /								