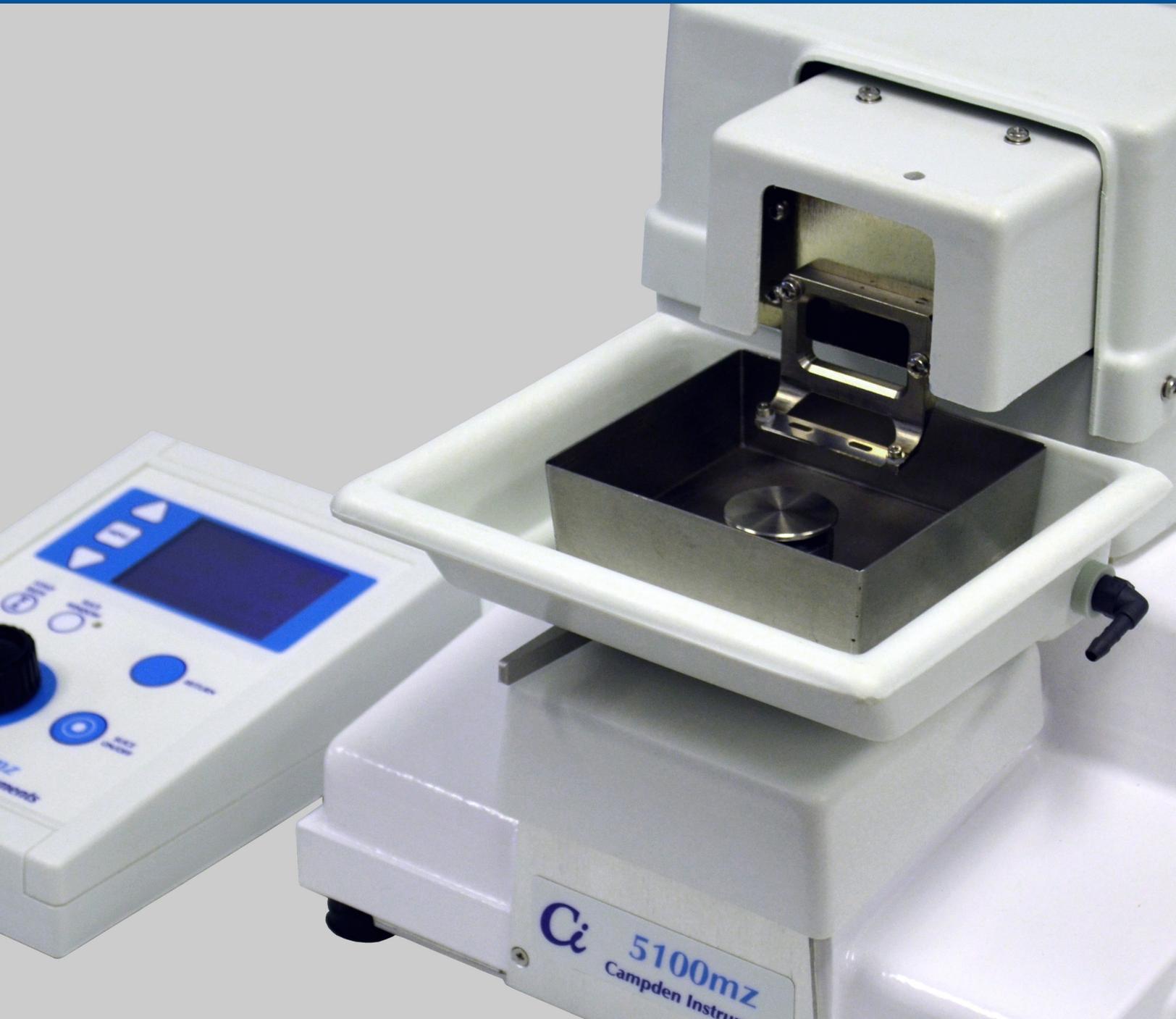


Vibrating Microtomes

Ci Campden
Instruments

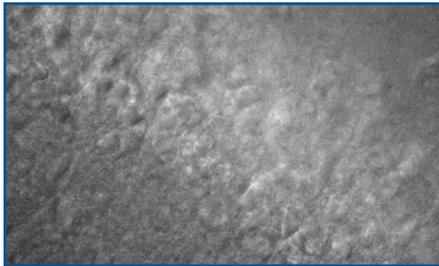


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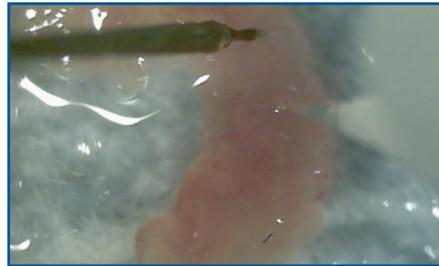
7000SMZ-2

The culmination of over 30 years of tissue slicer research and development, the Campden Vibrating Microtome 7000smz-2 provides an optimal slice surface, perfect for techniques such as visual patch-clamp recording or high resolution imaging.

- Minimal Z-axis deflection (less than 1 μm) at all speeds and amplitudes
- Tissue sample is automatically retracted before blade returns to start point
- The full range of adjustable parameters for the expert user with 8 Customizable User profiles
- Manual, Semi or Fully automatic operation
- Leaf spring vibratory mechanism for optimal longevity and accuracy



Mouse Hippocampus



Rat Heart



Rat Calyx of Held



5100MZ & 5100MZ-PLUS

New budget microtome is perfect for techniques such as histology, organotypic slice culture and low resolution imaging.

- Shares many features with the flagship 7000smz series
- Mechanism Z axis error of less than 10 μm
- Manual or Semi automatic operation
- Control handset allows full remote control

The 5100mz-Plus is designed for techniques requiring viable slices for longer durations such as electrophysiological field recordings or ISME's.

- Optimal Z-axis deflection 2 μm

SPECIFICATIONS

	7000smz-2	5100mz-Plus	5100mz
Optimal Z-Axis Deflection	Sub- μm ($\pm 0.1 \mu\text{m}$)	$2.0 \mu\text{m} \pm 0.1$	$\approx 5\text{-}8 \mu\text{m}$
Opti-cal Vertical (Z-axis) Calibration Device*	Included as standard	Included as standard	Optional Accessory
Blade Oscillation Frequency Range	50-120 Hz	50-80 Hz	50-80 Hz
Blade Oscillation Amplitude	Minimum: 0.5 mm (nominal) Maximum: 2.5 mm (nominal)	Minimum: 0.5 mm (nominal) Maximum: 1.5 mm (nominal)	Minimum: 0.5 mm (nominal) Maximum: 1.5 mm (nominal)
Amplitude Step Size	0.25 mm (nominal)	0.5 mm (nominal)	0.5 mm (nominal)
Advance Speed Resolution During Slicing	0.01 mm/sec	0.1 mm/sec	0.1 mm/sec
Specimen Retraction as Blade Retracts	Yes	Yes	Yes
Max Specimen Size	33x50x19	33x50x19	33x50x19
Memory to Store Section Thickness	Yes	Yes	Yes
Multiple User Settings	8 different	8 different	8 different
Operating Modes	Manual, semi-automated Slice Window or fully automated Profile Repeat	Manual or semi-automated Slice Window	Manual or semi-automated Slice Window
Cooling Options	Ice bath or optional Model 7610A Tissue Bath Cooler		
Dimensions (not including accessories or controls)	16.5" x 15.7" x 10.6" 420 x 400 x 270 mm	13.7" x 17.7 x 13.7" 350 x 450 x 350 mm	13.7" x 17.7 x 13.7" 350 x 450 x 350 mm
Accessories	Magnifier, Cold Light, and Microscope, Tissue Bath Cooler, Stainless Steel or Ceramic Blades	Integrated Cold Light and Magnifier, Tissue Bath Cooler, Stainless Steel or Ceramic Blades	Integrated Cold Light and Magnifier, -Plus Upgrade Kit, Tissue Bath Cooler, Stainless Steel or Ceramic Blades

* Campden's 'Opti-cal' is calibrated with metrology equipment traceable to National Standards

Full comparative specifications available on request.

RESEARCH

Studies of visual patching and extracellular recording of neurological, heart, kidney and lung tissue have been published using our Vibrating Microtomes for over 30 years. More published research is available upon request.

Ankri L, Husson Z, Pietrajtis K, Proville R, Léna C, Yarom Y, Dieudonné S & Uusisaari MY (2015). A novel inhibitory nucleo-cortical circuit controls cerebellar Golgi cell activity. *eLife*; DOI: 10.7554/eLife.06262.

Perbellini F, Liu AKL, Watson SA, Bardi I, Rothery SM & Terracciano CM (2017). Free-of-Acrylamide SDS-based Tissue Clearing (FASTClear) for three dimensional visualization of myocardial tissue. *Sci Rep* **7**, 5188.

Pilati N, Linley DM, Selvaskandan H, Uchitel O, Hennig MH, Kopp-Scheinflug C & Forsythe ID (2016). Acoustic trauma slows AMPA receptor-mediated EPSCs in the auditory brainstem, reducing GluA4 subunit expression as a mechanism to rescue binaural function. *J Physiol* **594**, 3683–3703.

Contact Us for a Quotation or More Information

Worldwide Office

3700 Sagamore Pkwy N
Lafayette, IN 47904
USA

Phone: (765) 423-1505
Fax: (765) 423-4111
Toll Free: (800) 428-7545 (US Only)

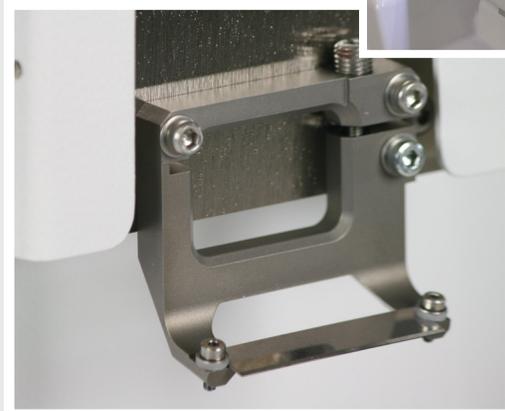
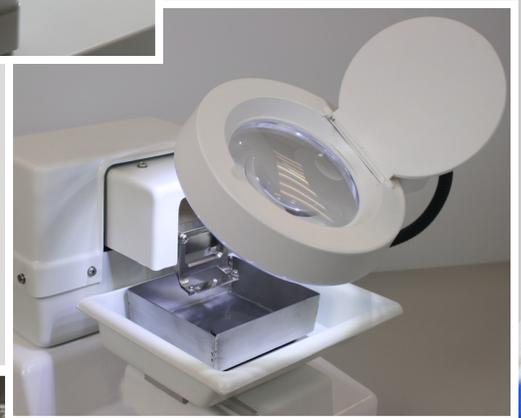
sales@lafayetteinstrument.com
www.lafayetteneuroscience.com

European Office

P.O. Box 8148
Loughborough,
Leics. LE12 7XT
England

Tel: +44 1509 814790
Fax: +44 1509 817701

eusales@lafayetteinstrument.com
www.campdeninstruments.com



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