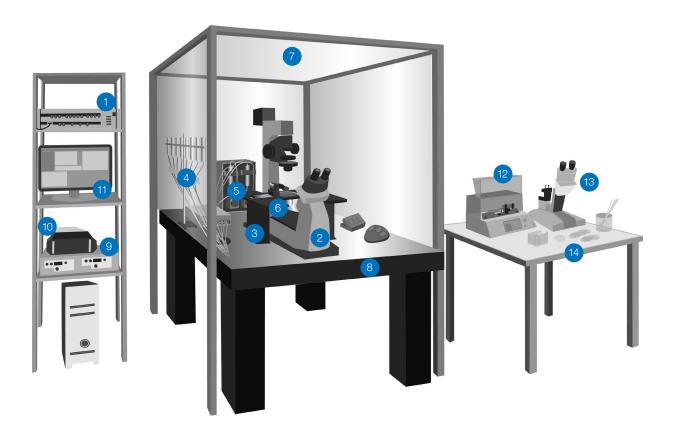
## Patch Clamp Setup



- Get your complete patch clamp setup from a single source
- Any component from amplifiers to accessories
- Well-known brands and products
- Profound expertise and on-site technical support and installation







RECOMMENDATIONS			
	Product	What We Recommend	
1	Amplifier Measures changes in membrane potential or currents resulting from ion-flux through ion channels.	HEKA EPC 10 USB Amplifier with built-in data acquisition LIH 8+8, completely software controlled HEKA EPC 800 USB Amplifier can be paired with different data acquisitions; with front panel control	
2	Data Acquisition Software Powerful software to control the amplifiers, record and analyze data is a critical tool to produce solid results. We offer you an extensive and flexible software package together with our amplifiers.  DAQ converts analog signals into digital signals. We offer solutions for whole-cell, single- channel, bilayer, loose patch, intracellular voltage recordings and amperometry.	HEKA PATCHMASTER NEXT  Multi-channel data acquisition software and amplifier control  HEKA FITMASTER  Analysis software  HEKA SMARTLUX  Imaging software for simultaneous imaging and electrophysiological recordings supporting high-end low light cameras  HEKA LIH 8+8  Data acquisition, can be paired with different amplifiers	
3	Microscope Optical tools to scale up your sample. In cooperation with Zeiss and other microscope manufacturers, we offer the best solution for your project. For slices, fluorescence, optogenetics, and many more.	INVERTED OLYMPUS MICROSCOPE IX73  UPRIGHT OLYMPUS MICROSCOPE BX51  SENSAPEX UM-SCOPE  Our patch rigs are also compatible with microscopes from Zeiss, Nikon, and Leica. Please talk to your sales representative for further options.	

RECOMMENDATIONS			
	Product	What We Recommend	
4	Table An anti-vibration table is required to compensate vibrations which can disrupt your recordings. Even small vibrations in picometer range can break down your seal.	TMC CLEANBENCH™ KINETIC SYSTEMS LABMATE	
5	Faraday cage The cage around your patch clamp rig shields noise from interference sources in order to get a perfect signal-to-noise ratio.	TMC CLEANBENCH™ FARADAY CAGE KINETIC SYSTEMS LABMATE	
6	Imaging/Recording Chambers and Stage Adapters Series 20 Imaging and Recording Chambers are designed for electrophysiological recording and/or optical imaging. Applications include patch clamp, oocyte clamp, and other physiological measurements on cell cultures and tissue preparations.	WARNER CHAMBERS: RC-26G and PM-1 platform for cultures RC-27L and PM-6 platform for slice recording There are many other chamber options available on the Warner website. Stage Adapters allow the Warner family of products to fit your microscope stage. Adapters available for almost every upright or inverted stage.	
7	Temperature control To run your experiments at a constant temperature or to perform temperature-dependent recordings, we offer reliable solutions to control temperature in both the perfused solution and bath chamber.	WARNER DUAL CHANNEL TEMPERATURE CONTROLLER (TC-344C) WARNER IN-LINE SOLUTION HEATER (SH-27B) PM SERIES MAGNETIC HEATED PLATFORMS WARNER DUAL CHANNEL BIPOLAR TEMPERATURE CONTROLLER (CL-200A) WARNER IN-LINE HEATER/COOLER (SC-20) LIQUID COOLING SYSTEM (LCS-1 HEAT EXCHANGER)	
8	Perfusion and Fluid Control A perfusion system allows a fast and complete exchange of solution. Pumps and vacuum systems complete your perfusion or temperature control system.	WARNER SIX OR EIGHT CHANNEL PERFUSION VALVE CONTROL SYSTEM (VCS-6/VCS-8) WARNER DWV WORKSTATION VACUUM SYSTEM MCS PPS2 PERISTALTIC PERFUSION SYSTEM	
9	Stage The hybrid stage offers plenty of space for all your tools like micromanipulators, bath perfusion, etc. It can be operated manually or motorized.	WARNER HYBRID STAGE This fixed platform with microscope translation table is available for inverted and upright microscopes from all common brands	
10	Micromanipulator Patch clamp manipulators are highly precise instruments. They move your patch pipette with nanometer precision.	SENSAPEX UM MICROMANIPULATOR SUTTER TRIO™ AND MP-285	

RECOMMENDATIONS			
	Product	What We Recommend	
11	Stimulus generator Two independent channels for voltage or current controlled stimulation.	MCS 2-CHANNEL STIMULUS GENERATOR (STG4002)	
12	Puller The right pipette for your needs is essential for your successful recordings and reliable data. We offer pullers for conventional glass or quartz, for injection or patch clamp.	WARNER PROGRAMMABLE PIPETTE PULLER (PMP-102) SUTTER P-1000 AND P-2000 G OR F	
13	Microforge-grinding, beveler For polishing, shaping, tipping, bending, beveling, and grinding your micropipettes, we have an all-in-one option: the MFG-5. For sharping only, we offer bevelers as well.	WARNER MICROFORGE-GRINDING CENTER (MFG-5) SUTTER BEVELER (BV-10)	
14	Capillary/coverslips/ accessories Source all of the required accessories for your patch clamp project from us.	WARNER COVERSLIP/COVERGLASS WARNER SLICES ANCHORS KITS (HARPS) WARNER CAPILLARY GLASS	







multichannelsystems.com • heka.com • warneronline.com

us-sales@smart-ephys.com • sales@smart-ephys.com • apac-sales@smart-ephys.com

Americas (+1) 833 668 8632 • Europe, Middle East, Africa (+49) 7121 909 2525 • Asia Pacific (+86) 21 6226 0239