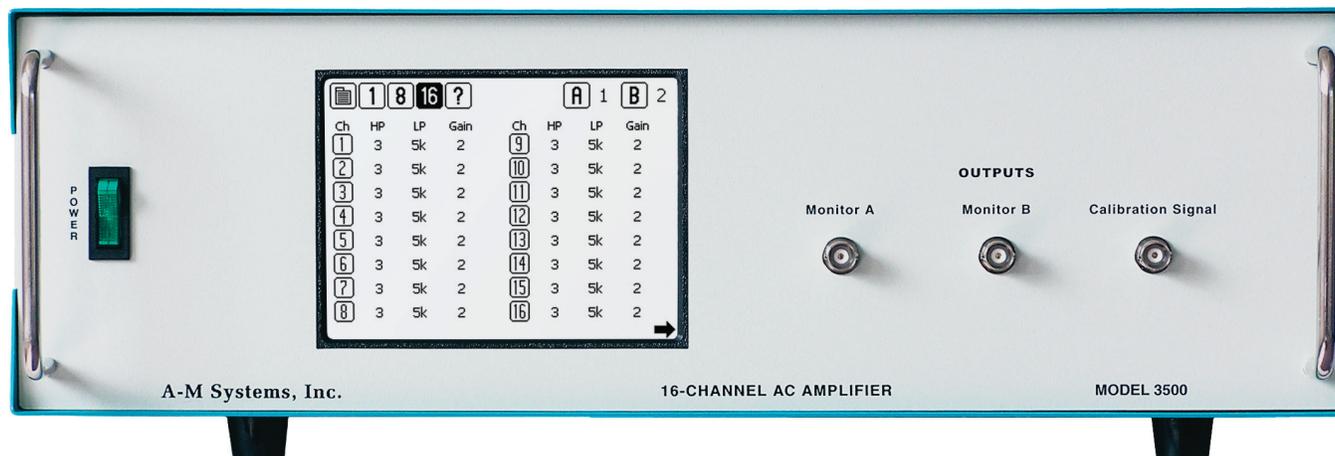


Model 3500

16-Channel Extracellular AC Amplifier



The Model 3500 16-Channel Extracellular Amplifier is designed for extracellular neurophysiological recordings using low impedance (<1.5 megohm) electrodes, and is therefore suitable for use with suction, nerve cuff, hook, surface, and simple metal electrodes. The instrument contains 16 independent amplifiers in a single enclosure allowing the researcher to record from multiple electrodes simultaneously.

Each channel of the Model 3600 can be referenced to its own negative reference, a 17th reference channel, or ground. Gain, high-pass, low-pass, and line frequency (notch) filtering are completely independent for every channel. All channel settings can be accessed via the easy-to-use front panel touch screen interface or via an application loaded on a Windows-based computer (*see reverse for additional details*). In addition, users can quickly monitor on an external oscilloscope the activity on any two channels.

Two stimulation inputs are also provided, allowing for recording or stimulating through the same electrode. Simply connect your stimulation signal source to the input and set the MODE switch to STIM; this eliminates the need to disconnect the electrode inputs from the amplifier. 16 one meter long input cables are included with the amplifier.

Common applications for the Model 3500 16-Channel Extracellular Amplifier include, but are not limited to:

- EEG / EMG / EKG / ERG recordings
- Evoked Potentials
- Multiple-Unit Recordings
- Long-term Potentiation

The Model 3500 16-Channel Extracellular Amplifier is designed for research grade recording quality; its straightforward interface also makes it ideal for teaching applications.

- 16 amplifiers in one instrument
- True differential recording on all 16 channels
- Ten gain stages up to x20,000
- Eight high-pass filter settings
- Eight low-pass filter settings
- Notch filter for power line frequency
- Controlled via front-panel touch screen or free Windows-based program
- Easy access output monitors
- Can pass stimulation current to electrodes
- Includes 16 one-meter long input cables
- 16 individual output BNCs plus one ganged output connector
- Includes rack mount hardware
- 3-year warranty

Model 3500

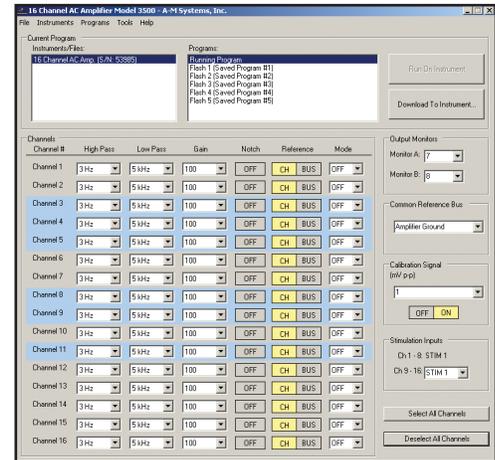
16-Channel Extracellular AC Amplifier



Software

In addition to the easy-to-use touchscreen interface on the Model 3500's front panel, the instrument can also be controlled by a free Windows-based application. This program controls all aspects of the amplifier, including channel settings and program names. It can read the current settings of the instrument, as well as load programs previously stored on the instrument or on the host computer. Multiple Model 3500's can be controlled by a single application. Note-logging capabilities are included, allowing researchers to make time-stamped notations about their experiment as they collect data.

Windows® is a registered trademark of Microsoft Corporation in the United States and other countries.



Specifications

Gain*	10, 20, 50, 100, 200, 500, 1000, 2000, 5000, 10000, 20000
High Pass Filter*	0.3, 1.0, 3.0, 10, 30, 100, 300, and 500 Hz; -40 dB / decade
Low Pass Filter*	0.1, 0.3, 0.5, 1.0, 3.0, 5.0, 10.0, and 20.0 kHz; -40 dB / decade
Notch Filter	>-35 dB at 50 or 60 Hz.
Noise:	2.0 microvolt rms typical (10 Hz to 10,000 Hz)
Other Features	Controlled via computer, TTL, or front-panel touchscreen Two front panel output monitors 16 rear panel output BNCs (one per channel) and ganged output connector

* Can customize these values for an additional fee. Contact A-M Systems or your distributor for information

References

- Adesnik H and Scanziani M. (2010) Lateral competition for cortical space by layer-specific horizontal circuits. *Nature* 464:1155-1160
- Molle M, et al. (2006) Hippocampal Sharp Wave-Ripples Linked to Slow Oscillations in Rat Slow-Wave Sleep *J Neurophysiology* 96:62-70
- Deban SM and Schilling N (2009) Activity of trunk muscles during aquatic and terrestrial locomotion in *Ambystoma maculatum*. *J Experimental Biology* 212:2949-2959

Ordering Information

For use on 220 V / 50 Hz power systems: Product #950005 (Country-specific power cords are not supplied.)
For use on 110 V / 60 Hz power systems: Product #950000

All units include a product manual and rack mounts.

Distributed By:

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