

SDR SCIENTIFIC

EQUIPMENT • SUPPORT • RESULTS



Coulbourn Instruments proudly introduces our new Animal Acoustic Startle Response System. Our new design promises easier calibration and offers greater flexibility, facilitating our researchers to generate more reliable and faster results.

Unique features of our Animal Acoustic Startle System include:

- Improved accuracy with new, integrated design featuring built-in microphones within the acoustical chambers for automated SPL calibration. It is no longer necessary to use an external SPL meter, making stimulus calibration faster and easier.
- Superior reliability and assurance that the specific stimulus is delivered to each chamber through our four independent tone and white noise signal outputs. With these multiple outputs the impact of speaker variation between chambers is eliminated.
- Greater flexibility with the four independent signal sources as the controller can run up to four different protocols simultaneously, the only commercially available system that offers this capability.
- Easier system to use with our exclusive auto stimulus calibration procedure – simply press one button and walk away, after a few minutes every chamber is independently calibrated for all stimuli in the experiment.

ACOUSTICAL CHAMBERS

Coulbourn Instruments' Animal Acoustic Startle System includes a sound attenuating chamber that will accommodate a single animal within an animal holder, a load-cell response sensing platform and interface with our newly designed controller. The total audio throughput capability is the most robust in the industry, ensuring accurate execution of any protocol. The sound output of the startle audio transducer is up to 128 dB with either

20 Hz to 20 KHz white noise or with program selectable tone frequencies from 10 Hz to 25.5 KHz. There is minimal animal handling – simply place the subject in the appropriate sized holder and on the response sensor platform in the chamber.

STARTLE CONTROL AND DATA ACQUISITION

Our Animal Acoustic Startle System provides a completely automated platform for such applications as habituation, pre-pulse, inhibition and fear-potentiated startle.



The computer based system has a user-friendly interface, allowing protocols to be easily configured and protocols to be saved. Each chamber is provided with two stimulus options, a fan control output, and a house light. Simply click on the device to be activated and enter the characteristics of the stimulus to be presented.

Raw data can be saved, if user selected, in addition to scored data and is needed to review response waveforms. Adaptation periods can be noted in the protocol configuration.

Coulbourn's Animal Acoustic Startle Software is Windows XP or Windows 7 compatible and interfaces through a single USB port.

STARTLE SENSOR PLATFORMS

Coulbourn's Animal Acoustic Startle System utilizes strain gauge load cells for measuring startle response. Easily calibrated with static weights, this technique eliminates problems associated with other methodologies commonly used in other commercially available startle systems.



The animal is placed in a holder on top of this platform. The load cell measures the actual force change associated with each movement independent of the total mass on the platform, provided that the dynamic weight of the sensor is not exceeded. The weight of the subject, holder, and expected response force should be considered in total when selecting the correct response platform. Contact your Sales and Application Specialist for further information and assistance with configuring a complete system to meet your research objectives.

ANIMAL HOLDERS



A range of small animal holders are available to accommodate research subjects of various weights. Animal holders can be purchased either with or without shock floor options, thus expanding the system's flexibility.

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