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TSD108A AND SS17LA PHYSIOLOGICAL SOUNDS TRANSDUCER (CONTACT MICROPHONE)

The TSD108A and SS17LA are contact acoustical transducers. The sensing element is a piezo-electric ceramic disk that's bonded to the interior of a plastic circular housing. The housing acts to focus intercepted surface pressure waves onto the piezo-electric ceramic disk to enhance both sensitivity and signal to noise ratio.

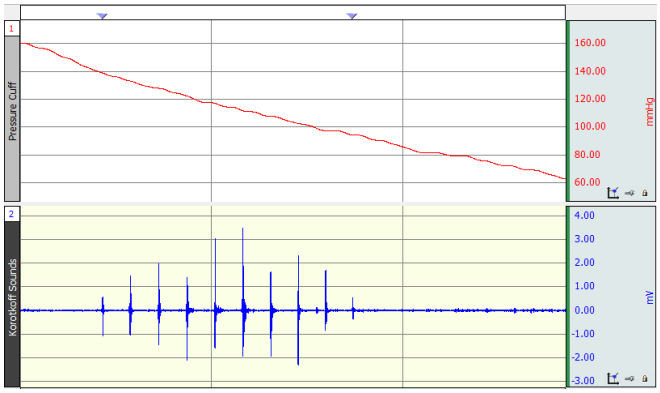
The TSD108A interfaces with the DA100C general-purpose transducer amplifier to measure a wide array of physiological sounds and pressure waves. Suggested filter settings: 10HzLP OFF, LP 300Hz, HP 0.05Hz. The microphone is susceptible to power line interference so the output should be run through a comb band stop filter. This can be set up as a calculation channel or performed through a transformation after the data are acquired.

To listen to physiological sounds as they are recorded, open MP160 > Set Up Data Acquisition and choose Sound Feedback.

The SS17LA connects to a single input channel of the BSL System MP3X unit or MP45 to measure a wide array of physiological sounds and pressure waves. To listen to physiological sounds, as they are recorded, connect an audio amplifier or pair of headphones to the MP3X output.

The TSD108A and SS17LA can

- Measure heart sounds or Korotkoff sounds. For heart (including valve) sounds, the TSD108A can be secured to the respective torso location proximal to the source. When the TSD108A/SS17LA signal is recording sounds from the Brachial artery, simultaneously with the TSD120 (TSD108A) or SS19LB (SS17LA) blood pressure cuff signal, the Korotkoff sounds vividly mark the systolic and diastolic blood pressure.
- Record the sounds associated with rubbing or grinding. (e.g., Bruxism).
- Measure glottal activity and specifically record the production of both voiced and unvoiced sounds. To measure vocal cord behavior, the TSD108A/SS17LA is placed adjacent to the larynx.
- Record the specific acoustical signature associated with the contraction of muscle fibers (place adjacent to striated muscle).



Cuff blood pressure vs. Korotkoff sounds

TSD108A/SS17LA SPECIFICATIONS

Output Range:	2 µV – 200 mV
Noise:	2 µV rms (1 Hz – 1250 Hz)
Bandwidth:	1 Hz – 1250 Hz
Operating Temperature:	-40 to +85 °C
Dimensions:	26 mm diameter x 10 mm high
Interface:	

- **TSD108A:** Three (3) 2 mm pin plugs ($Vsig^+$, $Vsig^-$, GND) to DA100C
- **SS17LA:** CH input on MP3X or MP45

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Cable Length: 3 meters

NOTE: The earlier-model TSD108 and SS17L contact microphones were discontinued in May of 2020.