



BIOPAC Systems, Inc.

42 Aero Camino
Goleta, CA 93117
Ph (805) 685-0066
Fax (805) 685-0067
www.biopac.com
info@biopac.com

SS30L Electronic Stethoscope

Heart Sounds & Korotkoff Sounds

The SS30L Electronic Stethoscope will allow you to record and listen to [heart sounds](#) and [Korotkoff sounds](#). The Electronic Stethoscope has a microphone built into the tubing that connects to the Biopac Student Lab. The microphone will record the sounds heard through the stethoscope and simultaneously display them. This allows students to become familiar with the standard procedure for listening to blood pressure signals and heart sounds. They also become familiar with the look of the electrical signal and learn how to analyze the data.

SS30L Specifications

- Stethoscope length from Y to contact point: 57 cm
- Stethoscope length from Y to ears: 21 cm
- Microphone Bandwidth: 20-300 Hz
- Microphone Cable Length: 2 meters

Equipment

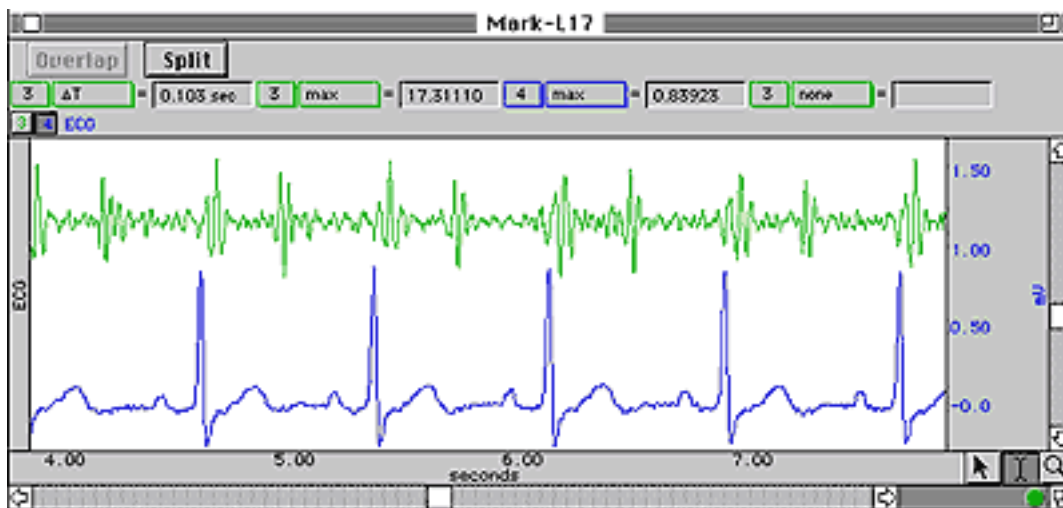
- SS30L Electronic Stethoscope
- MP30 Biopac Student Lab System

Hardware Setup

Connect the SS30L to an input channel (CH) on the MP30 unit.

Software Setup for the Biopac Student Lab *PRO*

Heart Sounds



A typical heart sounds recording made using the SS30L Electronic Stethoscope. The top channel shows the heart sounds and the second channel is the subject's ECG.

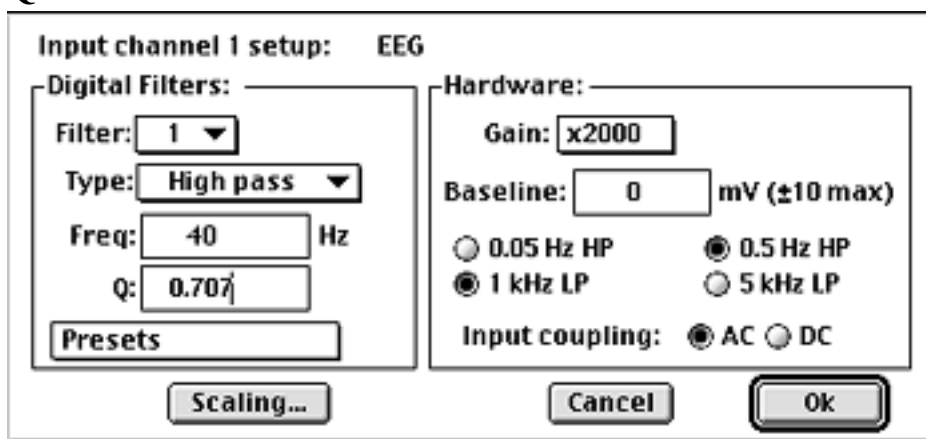
From the **MP30** menu select **Setup channels** and click on the **Setup** button. Select the **Presets** option and a pull down menu will appear. From the pull down menu select **EEG**. The EEG Preset is used because it is an AC coupled amplifier. The amplifier will require some additional filtering. The following filters should be added.

Filter: 1

Type: High Pass

Freq: 40Hz

Q: 0.707

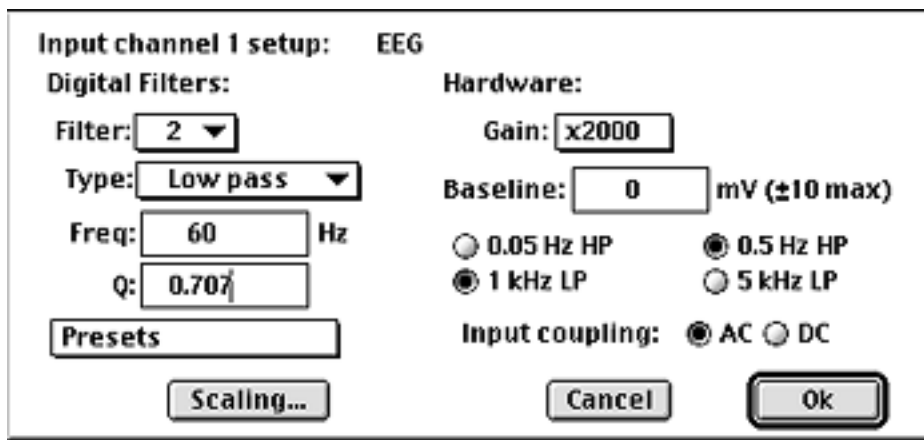


Filter: 2

Type: Low Pass

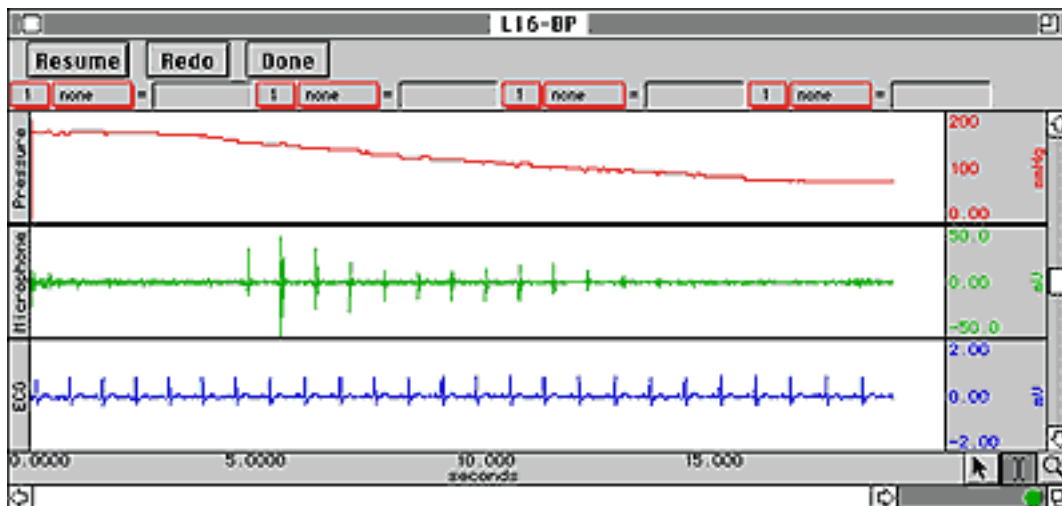
Freq: 60Hz

Q: 0.707



Filter: 3
Type: None

Korotkoff Sounds



A typical blood pressure recording made using the SS19L Blood Pressure Cuff and the SS30L Electronic Stethoscope. The top channel is the cuff pressure, the middle channel is the Korotkoff sounds recording and the bottom channel shows the subject's ECG.

From the **MP30** menu select **Setup channels** and click on the **Setup** button. Select the **Presets** option and a pull down menu will appear. From the pull down menu select **EEG**. The EEG Preset is used because it is an AC coupled amplifier. The amplifier will require some additional filtering. The following filters should be added.

Filter: 1
Type: High Pass
Freq: 50Hz
Q: 0.707

Input channel 1 setup: EEG

Digital Filters:

Filter: ▼

Type: ▼

Freq: Hz

Q:

Hardware:

Gain:

Baseline: mV (± 10 max)

0.05 Hz HP 0.5 Hz HP

1 kHz LP 5 kHz LP

Input coupling: AC DC

Filter: 2
Type: Low Pass
Freq: 100Hz
Q: 0.707

Input channel 1 setup: EEG

Digital Filters:

Filter: ▼

Type: ▼

Freq: Hz

Q:

Hardware:

Gain:

Baseline: mV (± 10 max)

0.05 Hz HP 0.5 Hz HP

1 kHz LP 5 kHz LP

Input coupling: AC DC

Filter: 3
Type: None

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