


















Biopac Student Lab



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### MP41 Data Acquisition Unit Control

-  Safety Rated
-  Off (preserves battery power)
-  On
-  Eyes: EOG Electrooculogram
-  Heart: ECG Electrocardiogram
-  Arm: EMG high Electromyogram
-  Hand: EMG low Electromyogram
-  Brain: EEG Electroencephalogram
-  Transducer: optional accessory mode
-  Dial: selector knob
-  LED indicator
  -  Flashing green light:
    - 1-sec green light = power check*
    - Flash while pressed = System Check or MP41 check*
    - Always flashing = replace battery (will not flash if battery is dead)*
  -  No light: operational (depends on dial position)
  -  No light while the Check Pad is pressed: battery may be inserted improperly or dead. Check the battery connections and if necessary, replace the battery with a fresh alkaline battery.
-  Check pad: output check pad; also performs baseline reset

### 40EL Lead Set

The 40EL Lead Set connector fits the end of the MP41 unit and can be screwed into secure placement. The lead set has three (3) clip connectors for attachment to EL500 series disposable electrodes.

BSL Lessons connections use:

- Red** – positive
- White** – Negative
- Black** – Ground



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*includes  
9 V battery  
and belt clip*

## **MP41 Data Acquisition Unit Specifications**

**Measurements:** ECG, EEG, EOG, EMG (high level) , EMG (low level)

### **ECG, EOG settings:**

Maximum signal input 12 mV (pk-pk)

Hardware filter range: 0.05 Hz to 500Hz (before software filtering)

S/N ratio: 73 dB (before software filtering)

Noise: 0.2 uV rms (0.05 Hz-35 HzLPN)

### **EMG (low gain) settings:**

Maximum signal input 12 mV (pk-pk)

Hardware filter range: 5 Hz to 500 Hz (before software filtering)

S/N ratio: 73 dB (before software filtering)

Noise: 0.2 uV rms ( 5Hz-35 HzLPN)

### **EMG (high gain) settings:**

Maximum signal input 3 mV (pk-pk)

Hardware filter range: 5 Hz to 500 Hz (before software filtering)

S/N ratio: 73 dB (before software filtering)

Noise: 0.2 uV rms (5 Hz-35 HzLPN)

### **EEG setting:**

Maximum signal input 600 uV (pk-pk)

Hardware filter range: 0.5 Hz to 500 Hz (before software filtering)

S/N ratio: 73 dB (before software filtering)

Noise: 0.2 uV rms (0.5 Hz-35 HzLPN)

**Output:** Amplitude Modulated Carrier of 4.096 kHz

**Connector:** USB

**Cable length:** 3.6 meters

**Dimensions:** 14 cm long x 8 cm wide x 2.2 cm high

**Weight:** 132 grams