Brotech Electronics

Stethoscope Acoustic Performance Setup and Startup



Application Screen

Controller



Connection diagram



Setup Notes:

- <u>**9VDC to Controller and SPL Meter:</u>** AC adapter → 9VDC DC Inline Switch → 9VDC Splitter → 9VDC Extension Cable → 9VDC Cable to Meter Adapter → meter 9VDC port (SPL meter diagram detail 12)</u>
- <u>SPL Meter to Controller RS232:</u> 3.5mm (1/8") Male Mini Plug to Male Mini Plug (Monaural Audio Cable), connected between Controller SPL Meter port and Meter RS232 port (SPL meter diagram detail 16)

USB: A/B cable, Controller to computer USB port

Stethoscope: One ear tip connects to the SPL meter using the tip adapter; one ear tip is plugged with the included plug

SPL Meter Diagram



Software Application:

Software and Manuals: The software can be downloaded from the Brotech Website or can be found on the original USB drive that shipped with the product. Also found online and on the drive are the User Manual and Getting Started guide. The software is tested and known to run on Windows 10 operating system.

Operating Note:

<u>USB</u>: Disconnect the USB cable when not using the controller.

Power On: Power on the 9VDC first, and then connect the USB cable

Communication, Choose Port: After connecting the hardware and powering on, before any data can be collected, or any measurements made the custom hardware communications port must be selected and initialized. On the application, use the Choose Port tab to select the COM port associated with the custom hardware. It's impossible to know exactly which port, COM1 through COMn, is the correct port, and this needs to be discovered through trial and error. Once discovered, it will always be the same port unless other serial ports are connected to the computer beforehand, adding ports and changing the ordering. If the computer does not connect to the Controller, the attempt will timeout at 8 seconds. If it fails to connect, check the connections, ensure that everything is powered-on and try it again.

Communications Port Selection



Extech Sound Pressure Level Meter:

!*!* After power-on, set the meter capture rate to SLOW by toggling the F/S button on the meter

!*!* The meter has an automatic power off feature and will power off after 20 minutes even if being used. To override this function, follow these steps:

- 1. From a power OFF condition, press and hold the ON/OFF and MAX HOLD keys simultaneously.
- 2. When 'n' appears on the display, release the MAX HOLD and then the ON/OFF key.
- 3. The Auto Power Off feature is now disabled. The Auto Power Off feature is re-activated the next time the meter is powered down, so when powering on again, this power-on procedure must be performed again.

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