

DIYers' Jig for Speaker Workshop

Inputs

- Dual 4mm banana socket: Input from amplifier (can be replaced with a different input connector on request)
- Mono RCA socket: Input from microphone preamplifier (when making acoustic frequency response measurements) or output of crossover or other device (when making electrical response measurements)
- Dual 4mm banana socket: Plug-in reference resistor mounted on banana plug (may be replaced with a permanently wired internal reference resistor for users who do not want to choose the value of the reference resistor)



Outputs

- Stereo 3.5mm jack for connecting with stereo cable to PC soundcard line input (can be replaced with a different connector on request)
- Dual banana socket (4mm): to device under test (DUT)

Controls

- 5-position rotary switch
 - *Position a*: Measure input impedance of soundcard + voltage divider
 - *Position b*: Measure channel difference
 - *Position c*: Measure DUT
 - *Position d*: Calibrate reference and series resistances with known precision resistor of value 5.22R, $\pm 0.5\%$
 - *Position e*: Calibrate reference and series resistances with known precision resistor of value 25.55R, $\pm 0.1\%$
- 2-position toggle switch
 - *Position a*: Disconnect microphone preamp and conduct impedance measurements on DUT
 - *Position b*: Connect microphone preamp for acoustic response measurements or crossover etc. for electrical response measurements (rotary switch becomes non-operational)

Noteworthy Features

- 1/10 voltage dividers and protection zeners built-in to limit signal to soundcard to about 0.6 volts peak.
- Soundcard input impedance measurements automatically include the effect of the voltage divider – no *post facto* adjustments or manual corrections required
- Very high precision resistors used for calibration of reference and series resistances (± 0.1 and $\pm 0.5\%$) and for measurement of input impedance ($\pm 0.1\%$)
- High quality switches, with contact resistance ratings of less than 20milliohms

Jig Price: Please call or email.

Note: This jig is fabricated in response to orders and may not be available on-demand. A lead time of 2-4 weeks should be expected.