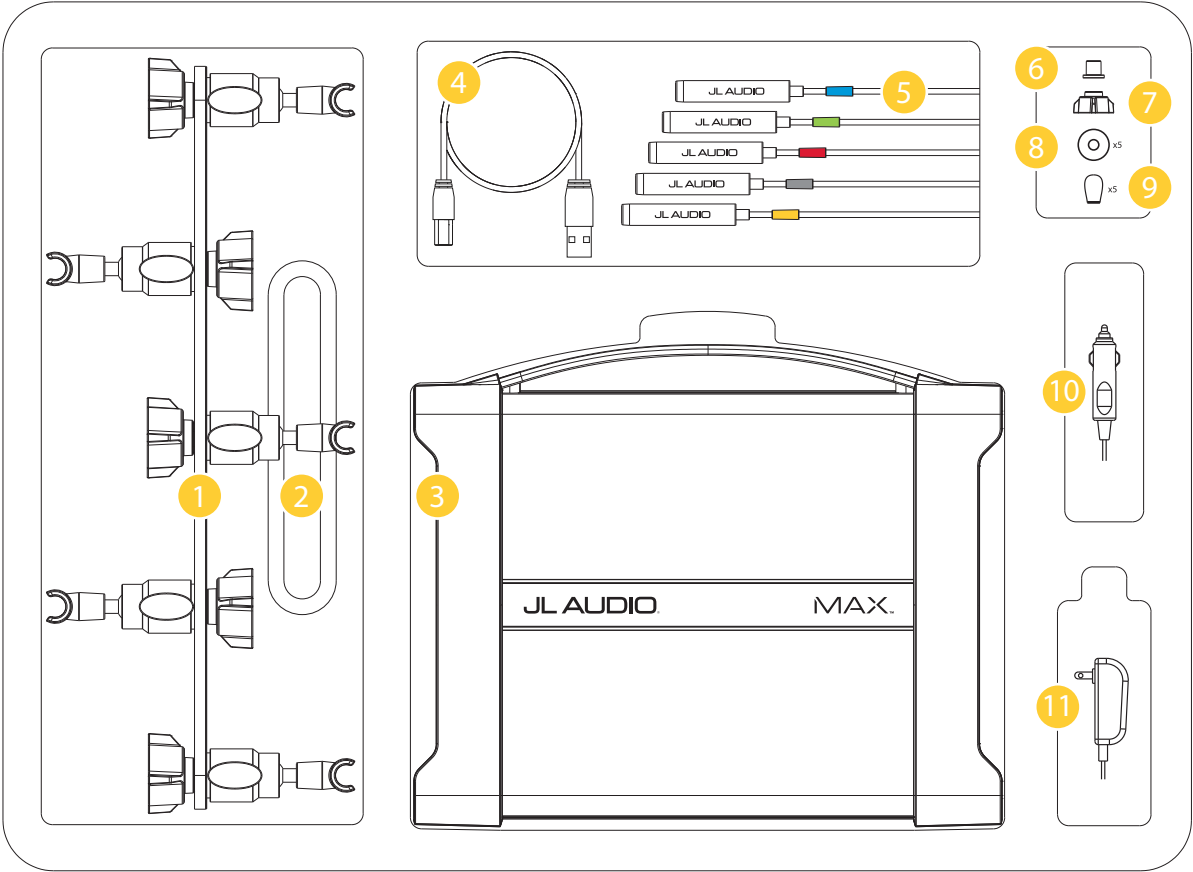


MAX™: Audio Measurement System
Connection Guide

Connection		Functional Description	Technical Notes
1	High-Level Inputs	For probing speaker level signals from source unit and amplifier outputs. Safe for probing Class D outputs.	Fully differential inputs accept up to 80 volts AC peak (pins 2 or 3 to GND). Safe up to 50 volts DC to GND. Full Size XLR jacks.
2	Microphone Inputs	Use with JL Audio MAX™ microphones (only) to acquire acoustical data.	Max SPL: 133 dB (710mV) = 0 dBFS Mic Sensitivity: 7.6 mV/Pa, Mini XLR jacks.
3	Reference Input	For connection of an external analog reference signal to measure transfer function. Disabled by default in favor of internal loopback reference.	Differential input accepts up to 7 V (peak). RCA-type jack
4	Analog Outputs	DAC Outputs (Test Signals)	Can be used to pass any computer-sourced audio signals via MAX's onboard DAC.
		Monitor Out	Can be used to monitor the audio signals present at High-Level Inputs 1 & 2.
		Impedance Measurement	For measurement of speaker impedance using TüN software. Connect speaker as shown at right.
5	Digital I/O	Input	For connection of compatible digital audio signals from a source.
		Output	For output of digital audio signals generated by TüN™ Software. Signals are the same as those output from the DAC outputs.
6	Device Connection	USB Hub	Allows connection of VXi/MVi amplifiers or computer peripherals sharing the MAX's main USB connection to the computer.
		To PC / Mac	For connection to a Windows® PC or Apple® computer for control using TüN™ Software.
		LED indicator	Indicates the status of USB communication with host computer and TüN software.
7			Connect to the audio system ground or vehicle chassis ground (optional, use when needed)
8	RESET	Button A	Press and hold button A for seven seconds to reset the hardware to factory default settings.
		Button A & B	Press buttons A and B simultaneously, then release to enter Device Firmware Upgrade (DFU) Mode
		Button B	Press and release button B once to reboot
9		Power Supply	DC power input jack
		Power switch	Operating voltage: 12 VDC (1A typical, 2A with peripherals connected to USB Hub) I = ON (Green LED) O = OFF



- 1 **Microphone Array**
Microphone Holder Assemblies (5)
Microphone Array Bar

2 **Microphone Array Extension**

3 **MAX™ Hardware Interface**

4 **USB A/B Cable**

5 **MAX™ Measurement Microphones (5)**
- 6 **Microphone Calibration Adaptor**

7 **Microphone Array Extension Thumbscrew**
Accepts 5/8"-27 and 1/4"-20 male threads

8 **Extra Washers (5)**

9 **Foam Microphone Tips (5)**

10 **12V DC Power Cable**

11 **AC Power Adaptor** (not available in all markets)

Accepts 5/8"-27 and 1/4"-20 male threads

(not included)

The rear panel of the 100 Series oscilloscope features the following ports and connectors:

- High-Level Inputs:** Two BNC connectors labeled 1 and 2.
- Microphone Inputs:** Two 3.5mm TRS connectors labeled MIC-1 and MIC-2.
- External "AUX" Measurement Microphone Only:** A 3.5mm TRS connector labeled AUX-1.
- Reference Input:** A BNC connector labeled REF.
- Analog Outputs:** Two BNC connectors labeled CH-A and CH-B.
- Digital I/O (GPIO) (Optional):** A 4-pin header labeled I/O.
- Device Connection USB:** A USB Type-C port.
- Power Supply:** A DC input jack labeled +5VDC.
- Other connectors:** A USB Type-A port, a 3.5mm TRS connector labeled AUX-2, and a 3.5mm TRS connector labeled AUX-3.

[illegible]