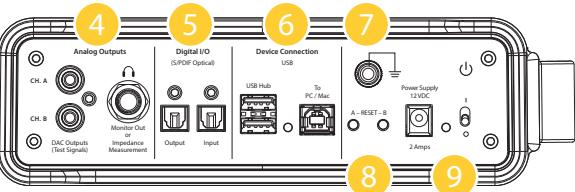
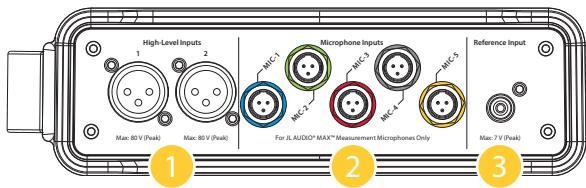
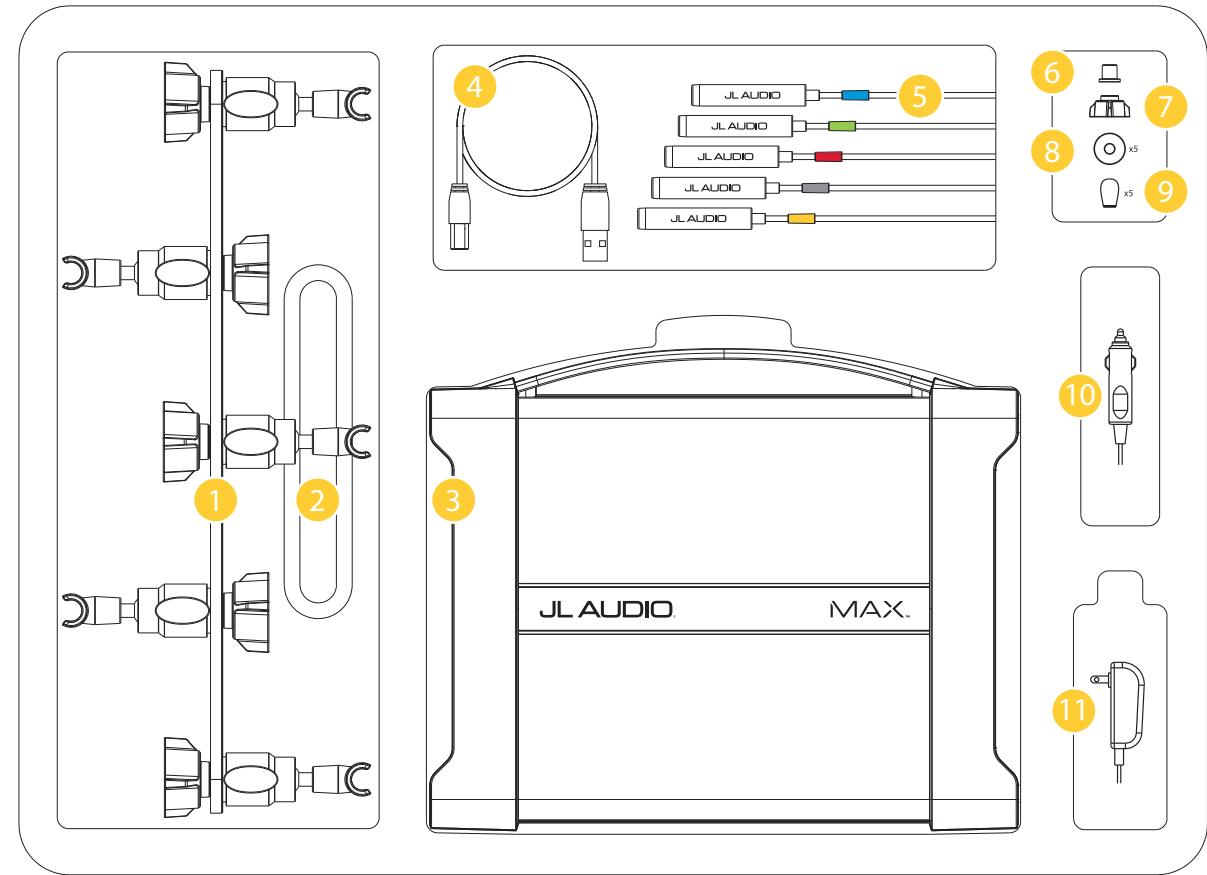


MAX™ Connections



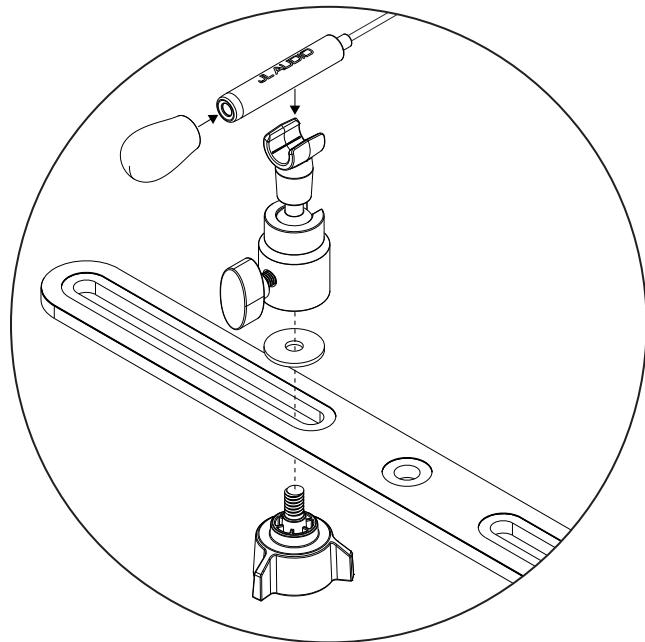
MAX™: Audio Measurement System Connection Guide

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. 2-channel unbalanced outputs (4 Vrms @ 0 dBFS) RCA-type jacks
	Monitor Out	Can be used to monitor the audio signals present at High-Level Inputs 1 & 2. >60 dB of adjustable level control via TüN™ software. 1/4" (6.35 mm) TRS headphone jack
	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. Accepts Linear PCM, 2.0-channel. S/PDIF digital audio signals with sample rates up to 192kHz. Toslink optical connection
	Output	For output of digital audio signals generated by TüN™ Software. Signals are the same as those output from the DAC outputs. Outputs Linear PCM, 2.0-channel S/PDIF signals from TüN™ with sample rates up to 96kHz. Hardware limit is 192 kHz. Toslink optical connection
6 Device Connection	USB Hub	Allows connection of VXi/MVi amplifiers or computer peripherals sharing the MAX's main USB connection to the computer. Up to 500 mA to power computer peripherals. NOT intended for charging mobile devices. Dual USB A ports
	To PC / Mac	For connection to a Windows® PC or Apple® computer for control using TüN™ Software. USB LED alternates Green/Blue to indicate active communication with TüN™ Software. USB Type B connector.
	LED indicator	Indicates the status of USB communication with host computer and TüN software. Off: no connection with a host computer Green: connected to host computer Blue/Green: communicating with TüN software
7		Connect to the audio system ground or vehicle chassis ground (optional, use when needed) Intended to reduce potential noise between the audio system and MAX™/TüN™ measurements
8 RESET	Button A	Press and hold button A for seven seconds to reset the hardware to factory default settings. USB LED illuminates Pink for one second
	Button A & B	Press buttons A and B simultaneously, then release to enter Device Firmware Upgrade (DFU) Mode Power switch LED changes from Green to Blue
	Button B	Press and release button B once to reboot Equivalent to an on/off power cycle.
9	Power Supply	DC power input jack Operating voltage: 12 VDC (1A typical, 2A with peripherals connected to USB Hub)
		● = ON (Green LED) ○ = OFF



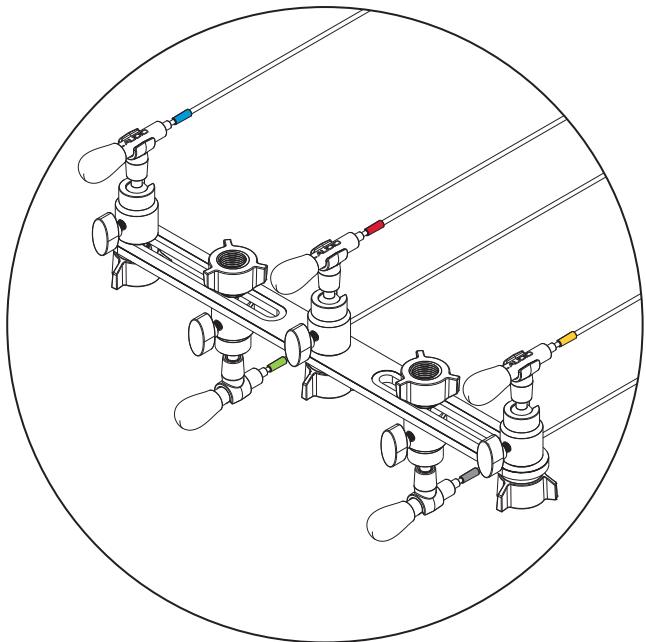
- 1 **Microphone Array**
Microphone Holder Assemblies (5)
Microphone Array Bar
- 2 **Microphone Array Extension**
- 3 **MAX™ Hardware Interface**
- 4 **USB A/B Cable**
- 5 **MAX™ Measurement Microphones (5)**
- 6 **Microphone Calibration Adaptor**
- 7 **Microphone Array Extension Thumbscrew**
Accepts 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)**

MAX™ Microphone Holder Assembly

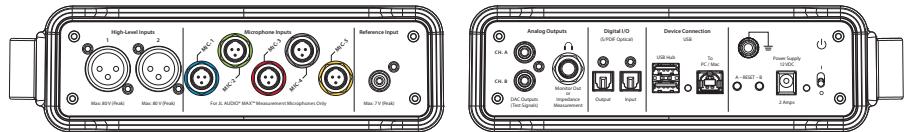


MAX™ Microphone Array

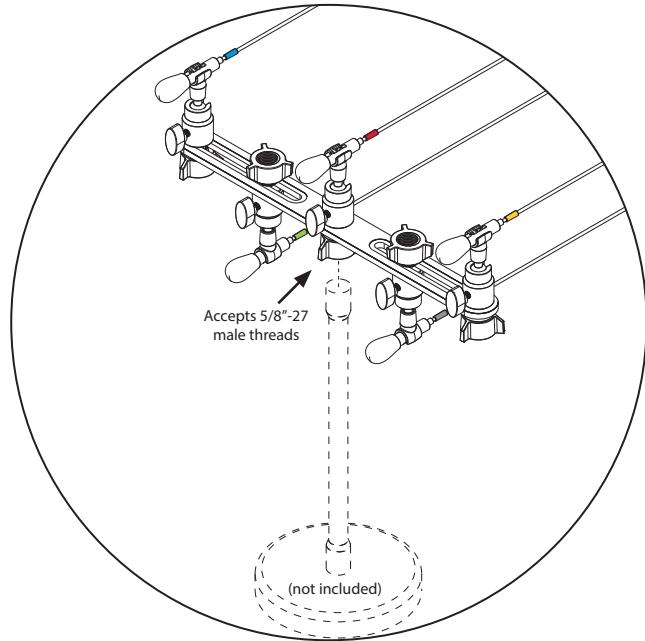
Recommended microphone arrangement for spatial averaging with the Reference Mic (red) in the center position



MAX™ Connections - Notes



Optional Stand Mounting



Optional Stand Mounting - Offset

