

## USA 1310



The USA 1310, a member of QSC's world-wide best-selling line of amplifiers, is now even *better*. The USA Series now offers even more value and performance: Neutrik Combo input connectors (1/4" and XLR), selectable limiters, variable low-frequency filters, and even more power in a new rugged, all-steel chassis. Other standard features include comprehensive amplifier and load protection, ample heat sinks,

clip indicators, mono-bridging switch, and active balanced inputs. The USA 900 is ideal for live sound specialists, system installers, and other professionals who demand QSC's legendary reliability and audio quality.

*QSC Audio Products—the leader in amplifier technology.*

1000 watts per channel at 2 ohms

655 watts per channel at 4 ohms

Built-in limiting (defeatable) for speaker protection

Selectable high-pass filter (30 Hz, 50 Hz, or out)

Active balanced inputs

Neutrik "Combo"™ input connectors accommodate both 1/4" TRS and XLR

Barrier strip inputs

"Touch-proof" binding post outputs

Two-speed fan cooling

LED clip indicators

Patented Output Averaging™ short circuit protection

Stereo, bridged mono, or parallel operation

QSC reliability and audio performance

Made in USA

3-year warranty PLUS optional 3-year extended warranty

LOAD	20Hz-20kHz, 0.1% THD (typical)	1kHz, 1% THD (typical)
Stereo (W/Ch)		
8Ω	375 watts	400 watts
4Ω		655 watts
2Ω		1000 watts
Mono-Bridged		
16Ω	750 watts	800 watts
8Ω		1310 watts



1675 MacArthur Boulevard  
Costa Mesa, California 92626-1468 USA  
Phone: 714/754-6175 Fax: 714/754-6174

## OUTPUT POWER (per channel, typical)

8 ohms, 20 Hz to 20 kHz,	0.1%	THD, 375 watts
8 ohms, 1 kHz,	1%	THD, 400 watts
4 ohms, 1 kHz,	1%	THD, 655 watts
2 ohms, 1 kHz,	1%	THD, 1000 watts

## OUTPUT POWER (bridged mono)

16 ohms, 1 kHz,	1%	THD, 750 watts
8 ohms, 1 kHz,	1%	THD 1310 watts

## DISTORTION:

SMPTE-IM, less than 0.025%

## FREQUENCY RESPONSE:

20 Hz to 20 kHz, +0/-1 dB, 1 watt

## DAMPING FACTOR:

Greater than 200

## DYNAMIC HEADROOM: 2 dB at 8 ohms

## NOISE: 106 dB below rated output (A weighted)

## SENSITIVITY: 1.12 Vrms for rated power (8 ohms)

## VOLTAGE GAIN: 50 (34 dB)

## INPUT IMPEDANCE: 10K unbalanced, 20K balanced

## CONTROLS:

- Front: AC Switch, AC Circuit Breaker
- Back: Stereo/Bridge Switch/Ch 1 and Ch 2 Gain Knobs  
8 Position DIP Switch for Filter & Limiter

## INDICATORS:

- PWR-ON: Green LED
- CLIP: Red LED, 1 per channel

## CONNECTORS: (each channel)

- Input: Barrier strip and Neutrik "Combo" 1/4" TRS and XLR, tip positive
- Speakers: "Touch proof" binding posts

## COOLING: Two-speed fan, rear-to-front air flow.

## AMPLIFIER PROTECTION:

Full short circuit, open circuit, ultrasonic, and RF protection. Stable into reactive or mismatched loads.

## LOAD PROTECTION:

On/off muting and DC-fault protection.

## OUTPUT CIRCUIT TYPE:

Complementary linear outputs.

## POWER REQUIREMENTS: 100,120, 240 Vac, 50-60 Hz

## POWER CONSUMPTION:

Normal Operation: 4 ohms per channel: less than 12 amps, 120 Vac (1440 VA)

## DIMENSIONS:

- 19.0" (48.3 cm) rack mounting
- 7.0" (17.8 cm) tall (4 spaces)
- 10.8" (27.4 cm) deep

## WEIGHT: 54 lbs (24.5 kg) net, 57 lbs (25.9 kg) shipping

<sup>†</sup>Output Averaging™ short circuit protection (US Patent 4,321,554)  
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

## ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The power amplifier shall contain all solid-state circuitry, using complementary silicon semiconductors. The amplifier shall operate from 50-60 Hz AC power, with voltages of 100, 120, or 240 Vac. The amplifier shall operate from a normal household AC outlet, drawing less than 1440 VA when driven with random program material at 1/8 rated power into four ohm loads. The amplifier shall be supplied with a single molded AC cord having an appropriate AC plug for the intended operating voltage.



The amplifier shall contain two independent channels. Each channel shall have independent protective circuitry against open circuit, short circuit, or reactive loads, and the remaining channel shall continue to operate if one channel fails. A muting circuit shall provide three seconds of muting after turn-on, and shall mute within 1/4 second after turn-off or loss of power, to protect the load against turn-on or turn-off thumps. Self resetting thermal shutdown shall protect the circuitry against temperatures in excess of 90°C, and a front panel resettable circuit breaker or fuse shall protect against AC overloads.

Each channel of the amplifier shall typically be capable of meeting the following performance criteria, with both channels driven simultaneously, unless otherwise stated: Output power, 8 ohms per channel, 20 Hz-20 kHz, less than 0.1% distortion, at least 375 watts rms per channel. Output power, 4 ohms per channel, 1 kHz, less than 1% distortion, at least 655 watts rms per channel.

Frequency response shall be 20 Hz-20 kHz + 0, - 1 dB at 1 watt output. SMPTE IM distortion shall be less than 0.025% at rated power, 8 ohms, and less than 0.05% at rated power, 4 ohms. IHF damping factor shall be at least 200. Signal to noise, below rated output, shall be at least 106 dB (A weighted). Dynamic headroom at 8 ohms shall be at least 2 dB. The voltage gain shall be 34 dB at full gain. The input sensitivity for rated 8 ohm power shall be 1.12 Vrms. Input impedance shall be 20 kilohms balanced and unbalanced noninverting, 10 kilohms unbalanced inverting. Balanced, bridging input circuit shall be standard, and the amplifier shall meet all performance criteria in the balanced or unbalanced mode. The amplifier shall have built-in fan cooling, with automatic two-speed operation. Air flow shall be from the back to front. Each channel shall have the following controls, indicators, and connectors: Rear mounted gain control calibrated in dB. Clipping indicator, responding proportionally to any distortion in excess of 0.1%. Balanced/unbalanced input jack of the Neutrik "Combo" (combined 1/4" TRS and XLR). Balanced input of the barrier strip screw terminal type. Speaker terminals of the "touch proof" binding post type. In addition, the chassis shall feature a rear mounted mono-bridging switch, front mounted AC switch and circuit breaker or fuse in some export locations, and built-in rack mounting ears. The chassis shall mount in a 19" rack, occupying 4 rack spaces (7.0"). Chassis depth behind the rails shall be 10.8" plus 1 in allowance for the binding posts. Weight shall be 54 lb. The amplifier shall be the QSC Model USA 1310.