SERIES THREE AMPLIFIERS FROM QSC

MODEL 3800

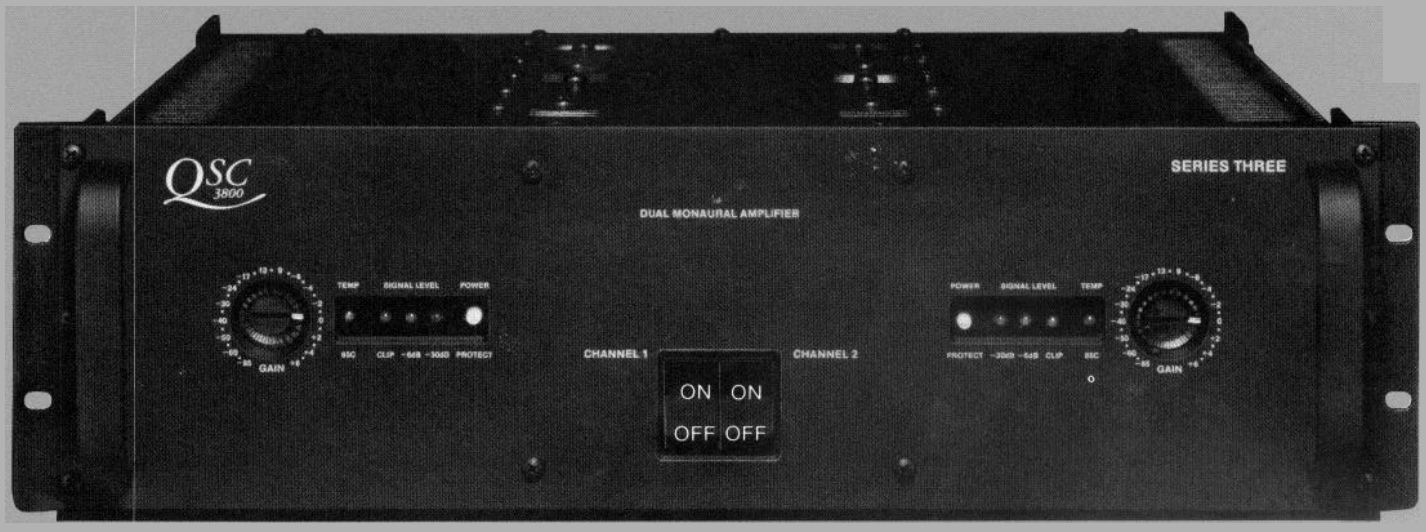
Series Three has been designed to be the most advanced amplifier line available. It was conceived, engineered, and refined with input from many leading pro audio system designers, operators, and users. It's a combination of advanced features not found elsewhere. Low profile chassis, front-removable channel modules, detented and recessed gain controls, true dual-mono configuration, high efficiency low heat output circuit, and the latest in high-performance/high quality components.

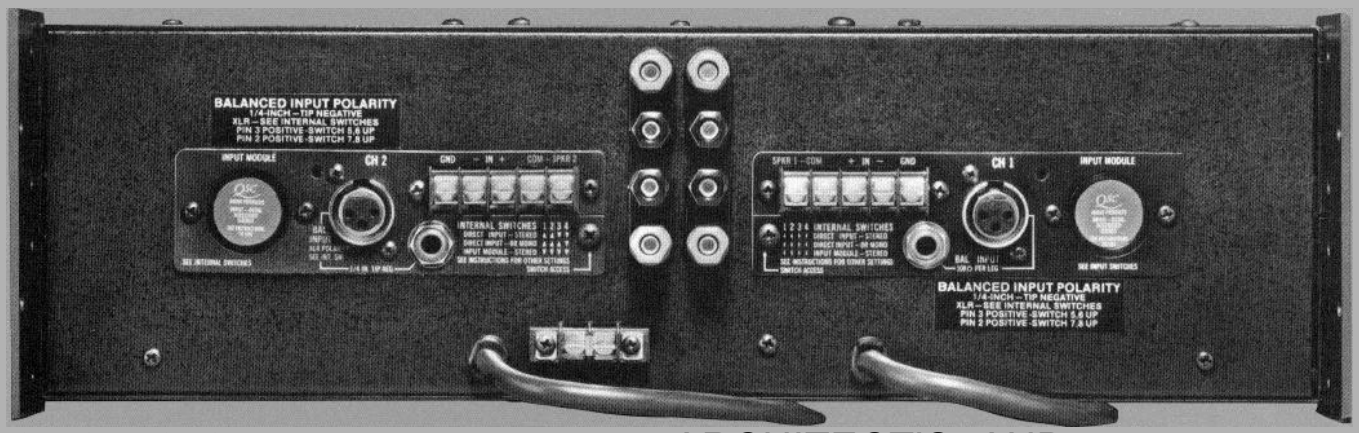
The Model 3800 is an ultra high-power amplifier designed explicitly for the most demanding and heavily loaded professional applications. As such, it makes a perfect match with today's new high power handling speakers. The Model 3800 is a high current version of our Model 3500 but with a larger power supply, more output devices, and 50% more heatsink area. It's capable of delivering tremendous amounts of power at low impedances.

The Model 3800 has an extremely conservative and rugged output section consisting of 20 Large SOA (Safe Operating Area), high-speed, MESA output devices per channel (40 total). This abundant use of costly output devices combined with our patented OUTPUT AVERAGING™ short-circuit protection assure years of trouble-free service even under the most abusive conditions.

FEATURES

- Low Profile Chassis.
- 375 watts per channel at 8 ohms.
- 600 watts per channel at 4 ohms.
- 850 watts per channel at 2 ohms.
- Dual-Mono Configuration.
- High-Efficiency Output Circuit.
- Passive Cooling.
- Front-Removable Channel Modules.
- Recessed Front Controls.
- Precision 31-Step Gain Controls.
- Complete LED Monitoring.
- Octal Input Socket.
- Active Balanced Inputs.
- 1/4" RTS, XLR, and Barrier Inputs.
- Dual Binding Post Outputs per Channel.
- Three-Year Warranty





SPECIFICATIONS

MODEL 3800

OUTPUT POWER (per channel)				
Continuous Average Output Power			Bridged-mono operation.	
both channels driven			16 ohms, 20–20kHz, 0.1% THD	720
8 ohms, 20–20kHz, 0.1% THD		375	1 kHz, 1% THD	880
1 kHz, 1% THD		440	8 ohms, 20–20kHz, 0.1% THD	1,200
4 ohms, 20–20kHz, 0.1% THD		600	1 kHz, 1% THD	1,500
1 kHz, 1% THD		750	4 ohms, 20–20kHz, 0.2% THD	1,700
2 ohms, 20–20kHz, 0.2% THD		850	1 kHz, 1% THD	2,200
1 kHz, 1% THD		1,100		

DISTORTION (8 ohms)	THD: 20–20kHz at rated power shall be less than 0.1% SMPTE-IMD: less than 0.025% at rated power
FREQUENCY RESPONSE	20–20kHz, ±0.1dB 8–300kHz, +0/-3dB
DAMPING FACTOR	Greater than 200
DYNAMIC HEADROOM	2dB at 4 ohms
NOISE	-100dB 20–20kHz at rated power
SENSITIVITY	1V RMS for rated power at 8 ohms
INPUT IMPEDANCE	20K balanced or 10K unbalanced
CONTROLS	Front: Recessed detented gain control, AC switch/circuit breaker far each channel. Rear: Mono-bridging and input accessory module switches.
INDICATORS (per channel)	Bicolor LED indicating DC power, OK/Protect mode, LED clip indicator, -30dB and -6dB signal level indicators, flashing overtemp indicator.
COOLING	Passive-combined with high-efficiency output stage for 50% reduction in dissipated heat. Unique circuit configuration provides direct-metal mounting of output devices to minimize short-term thermal excursions of power transistors. Fan-assisted cooling recommended for high duty cvcles at 2 ohms.
AMPLIFIER PROTECTION	Indefinite short-circuit* open-circuit, over-temp, ultrasonic and RF protection. Stable into reactive and mismatched loads. Inputs protected from overload *Output Averaging™ Short Circuit Protection (US Patent 4,321,554)
LOAD PROTECTION	Individual channel output relays provide DC Fault, 3 second delayed turn-on (transient protection), and excessive low-frequency protection. Instant turn-off, pop suppression and power interrupt protect is also provided.
OUTPUT TYPE	Full complementary two-level high efficiency
OUTPUT DEVICES (total)	40
POWER SUPPLIES	A complete separate power supply for each channel including AC switch/circuit breaker and AC cord.
POWER REQUIREMENTS	120, 220, or 240V 50–60 Hz, 13A (each channel)
DIMENSIONS	Faceplate 19"x5.25" Depth 17.9" (with rear supports) 15.9" (chassis only)
WEIGHT	75 lb. (Net) 83 lb. (Shipping)

Specifications subject to change without notice.

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The amplifier shall contain all solid-state circuitry, using complementary silicon transistors and integrated circuits It shall be capable of operating from 120, 220 or 240V 50–60Hz AC mains with internally selectable jumpers.

The amplifier shall contain two fully independent channels, with separate AC breaker/switches, power transformers, and protective systems. Each channel shall have independent protective circuitry against open-circuit, short-circuit or mismatched loads; independent thermal warning and shutdown circuits, and independent load protection circuits for turn on/off transients including momentary AC dropouts and DC faults within or preceding the amplifier All protective circuits except AC circuit breaker shall be self-resetting. The remaining channel shall continue to operate, in stereo or bridged-mono mode.

Each channel of the amplifier shall be capable of meeting the following performance criteria, with both channels driven simultaneously.

Output power into 8 ohms 375 watts, 20–20kHz, less than 0.1% THD.

Output power into 4 ohms 600 watts, 20–20kHz, less than 0.1% THD.

Output power into 2 ohms 850 watts, 20–20kHz, less than 0.2% THD.

Frequency response shall be 20–20kHz, with less than 0.1 dB deviation.

The voltage gain shall be 34.5dB at full Gain.

The power gain (into 8 ohms) shall be 65.5 dB at full gain.

The input sensitivity for rated 8-ohm power shall be 1V RMS.

Balanced bridging input circuitry shall be standard, and the amplifier shall meet all performance criteria in the balanced or unbalanced mode.

Input impedance shall be 20k ohms balanced, or 10k ohms unbalanced.

Noise level shall be at least 100dB below rated power, at full Gain.

IHF damping factor shall exceed 200.

The amplifier shall be passively cooled, with no fans or moving parts.

Each channel shall have the following controls, functions, and indicators:

- 31-detent Gain control, with 1 dB steps over the highest 14dB of adjustment range, with accuracy within 1 dB;
- Green/Red LED for power/protect indication;
- Yellow LED signal presence indicators with thresholds 6dB and 30dB below rated power.
- Red LED clipping indicator for output clipping greater than 0.1%;
- Flashing red LED indicator for heat sink temperatures within 10°C of thermal shutdown.
- Balanced/Unbalanced input jacks of the ¼ inch RTS, female XLR, and barrier strip screw terminal types;
- Speaker connectors comprising two sets of 5-way bindlng posts on ¾-inch centers and barrier strip screw terminals.
- Octal socket with DC power for passive and active input accessories.
- 8-way microswitches for octal socket bypass, mono-bridged mode, channel cross-connection, and XLR input polarity.

Each channel shall be front-removable with the amplifier mounted in a rack and without disconnecting the input/output cables. All active components, except AC power transformer, AC breaker/switch, and input/output connectors, shall be mounted on the removable channel module. Module connectors shall be flexible to withstand shocks and vibration for long term integrity.

The chassis shall feature permanently attached AC cords, and a ground-lift barrier strip shall permit separation of audio ground from chassis/AC ground.

The chassis shall have front and rear rack supports, and shall occupy 3 rack spaces (5.25") Chassis depth, including rear supports, shall be 17.9". Weight shall be 75 lb.

The power amplifier shall be the QSC Audio Products Model 3800.

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