PSA-2

Crown has proven throughout the years to be a company that top sound professionals rely and stake their reputations on. The PSA-2, a high-technology stereo amplifer, is another example of Crown's dedication to providing pure sonic quality and indestructibility for professional sound reinforcement.

This premium Crown amplifier can deliver an unprecedented 915 watts in bridged mono mode into 8 ohms at 0.1% THD. Stereo power is over 460 watts per channel into 4 ohms or 275 watts into 8 ohms. The PSA-2 delivers highly reliable, clean power to a demanding market.

Patented Crown circuitry allows extreme voltage swings without putting output transistors in series, thus lower distortion and greater reliability. The Output Device Emulator Protection circuit (ODEP™) simulates the output transistors, and detects and compensates for overheating and overload.The efficient heat sinking and forced-air cooling system prevent overheating to protect your investment.

A two-position switch selects stereo, or parallel mono modes.

Legendary Crown performance reaches to new peaks—the PSA-2.

Specifications

Feature Summary

Ultimate Protection: On-board analog computers compare the operating condition of the output transistors to their *safe operating area* (SOA) and limit the drive level to them if their SOA is exceeded.

Distortion Indicator: Advanced IOC® (Input/Output Comparator) alerts the user in the unlikely event that distortion of any kind exceeds 0.05%.

Exceptionally Low Distortion: Advanced *Multi-mode*® AB+B design results in exceptionally low distortion.

Bridge-Mono Mode: Bridge-Mono mode is provided for double output voltage.

Efficient Cooling: Two-speed forced-air cooling with high-efficiency coolers prolong component life.

No-Fault Warranty: A 3-year standard "No-Fault" warranty[1] which may be extended for an additional three years. Includes round-trip shipping.

Performance

Note: The following performance measurements were made in Stereo mode with both channels driven into an 8 ohm load.

Frequency Response: ±0.1 dB from 20 Hz to 20 kHz at 1 watt. +0, –1.5 dB from DC (0 Hz) to 80 kHz.

Phase Response: +0°, –15° from DC (0 Hz) to 20 kHz at 1 watt.

Signal to Noise Ratio: 115 dB (A-weighted) at full output.

Total Harmonic Distortion (THD): <0.002% from 20 Hz to 1 kHz and increasing linearly to 0.05% at 20 kHz at 220 W.

Intermodulation Distortion (IMD): <0.01% from 0.25 W to 220 W.

Slew Rate: >30 V per microsecond.

Damping Factor: >700 from DC (0 Hz) to 400 Hz.

Power

Output Power

Note: Maximum average power at 1 kHz with 0.1% THD.

Stereo: 700 W per channel into 2 ohms. 460 W into 4 ohms. 275 W into 8 ohms.

Bridge-Mono: 915 W into 8 ohms.

Load Impedance: Rated for 16, 8, 4, 2 ohm use. Safe with all types of loads, even reactive ones.

Required AC Mains: 50-400 Hz AC with selectable transformer taps for 100, 120, 200, 220 and 240 V (±10%) operation.

AC Line Connector: Standard three-wire grounded connector.

Controls

Power: A two-position rotary switch, located on the front panel, turns the amplifier on and off.

Level: A signal level control for each channel, located on the front panel.

Stereo-Mono: A two-position switch, located on the back panel, selects between Stereo and Bridge-Mono modes of operation.

Low Freq Protect: A two-position switch, located on the back panel, activates subsonic protection circuitry.

Delay: A two-position switch, located on the back panel, activates a 4-second turn-on delay to protect loudspeakers from unwanted transients.

Indicators

On: An amber indicator which shows the unit has been turned on.

Standby: Normally off, these yellow indicators turn on if a channel is placed in STANDBY mode.

Signal: These green indicators flash synchronously with the input signal to show its presence.

IOC: Normally off, these red indicators flash in the rare event the output waveform differs from that of the input by 0.05% or more.

Input/Output

Input Connector: Unbalanced ¼-inch phone jack for each channel.

Input Impedance: Nominally 25 K ohms.

Input Sensitivity: 2.1 V for rated power into 8 ohms.

Output Connector: Color coded binding posts (banana jacks).

Output Impedance: <12 milliohms in series with <1.2 microhenries.

Chassis Ground: Two-terminal barrier block with shorting strap.

Accessory: Rear internal plug accepts optional input modules.

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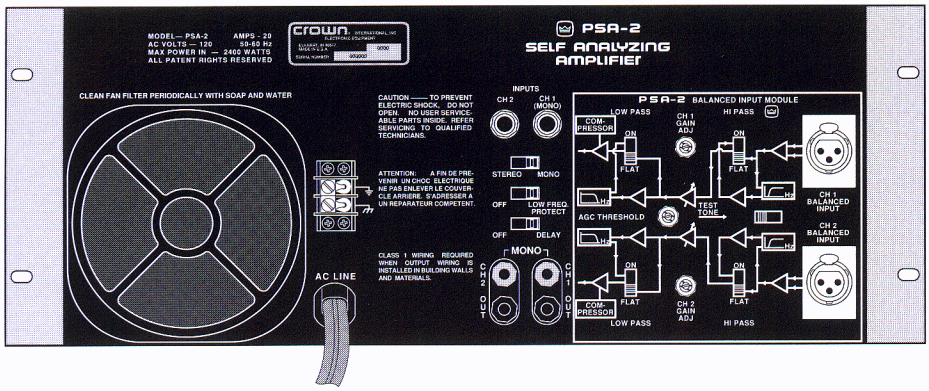

Configuration & Load (ohms)		FTC Continuous Average Power at 0.1% THD (See note 1)		Max Average Power at 0.1% THD (See note 2)	1 Cycle Tone Burst Watts at <0.05% THD (See note 3)	40 mS Tone Burst Watts at <0.05% THD (See note 4)	EIA Watts at 1% THD (See note 5)
		20Hz-20kHz	1 kHz	1 kHz	1 kHz	1 kHz	1 kHz
Stereo (both channels powered)	2		580	700	840	740	650
	4	380	425	460	640	470	470
	8	265	260	275	335	280	285
	16	150	150	150	170	155	160
Bridge-Mono (balanced output)	4		1,210				
	8	760	850	915	1,260	950	920
	16	520	520	545	670	565	565

1. Continuous power in the context of Federal Trade Commission testing is understood to be a minimum of five minutes of operation. Harmonic distortion is measured as the RMS sum total as a percentage of the fundamental output voltage. This distortion specification applies for all wattages greater than 0.25 watts.
2. A 1 kHz sine wave is presented to the amplifier and the output monitored for non-linear distortion. The level is increased until the THD reaches 0.1%. At this level the average power per channel is reported.
3. A single cycle of sine wave is presented to the amplifier and monitored for non-linear distortion. The average power during the burst is reported. Speakers must be able to withstand this level if they are to be safely used with this amplifier.
4. A 40 millisecond burst or two cycles of sine wave (whichever is of greater duration) is used and the power computed as the average power during the burst. The duty cycle of this test is 10 percent. This power level is a measure of how loud an amplifier is as percieved by the hearing process.
5. EIA standard RS-490 (both channels driven)

Specifications, continued

Construction

All aluminum construction for maximum heat conduction and minimum weight with specially designed "flow-through" ventilation top, front and side panels. Satinized aluminum front panel with grey suede Lexan insert and black painted aluminum chassis covers.

Dimensions: 19 in. (48.3 cm) wide, 7 in. (17.8 cm) tall, 14.75 in. (37.5 cm) deep behind front mounting surface.

Weight: 57 lbs (25.9 kg).

Mounting: Standard EIA 310 front-panel rack mounting.

[1]Please contact a Crown representative for full details.

Optional Balanced Input Specifications

Controls: Channel 1 and Channel 2 input gain adjust with the AGC Threshold, is accessible from the rear of the Balanced Input Module.

Hum and Noise: –85 dB equivalent input noise 20 kHz and 15 kHz, 600 ohm source, gain set at unity.

Frequency Response: Flat ±2 dB, 20Hz to 20 kHz.

High and Low Pass Filters: 3-pole Butterworth 18 dB/octave; 50 Hz and 15 kHz standard frequencies.

Compressor Action: Range of compression restricted to 13 dB by design (wider range would aggravate feedback in live performance). Threshold adjustable from overload level of main amplifier to 12 dB lower.

Balanced Input Voltage Gain: Variable 0-10 (0-20 dB).

Test Tone: Switch activated wide spectrum 50 pulses per second.

Common Mode Rejections: 70 dB, 5 Hz to 3 kHz; 55 dB, 20 kHz

Crown's 3-Year No-Fault Amplifier Warranty And 3+3 No-Fault Extended Warranty

Crown International now offers a 3-Year No-Fault Warranty for every new Crown amplifier—an industry standard. With this unprecedented No-Fault protection, your new Crown amplifier is warranted to meet or exceed original specifications for the first three years of ownership. During this time, if your amplifier fails *for any reason* or does not perform to original specifications, it will be repaired or replaced at our expense. This includes parts, labor and round-trip shipping, even a shipping carton should you need one. About the only things not covered by this warranty are those losses normally covered by insurance and intentional abuse. And the coverage is transferable should you ever decide to sell your amp.

That's not all; for a modest fee, Crown will extend that protection for an additional three years with our 3+3 No-Fault Extended Warranty. Now that's commitment.

See your Crown dealer for full warranty disclosure and details on the No-Fault and 3+3 No-Fault Extended Warranty.

Architect's Specifications

The power amplifier, being of two channels, shall deliver a minimum of 265 watts into 8 ohms with both channels operating, or 380 watts into loads of 4 ohms each with both channels operating. When strapped into mono, it shall be capable of delivering 520 watts into a 16 ohm load or 760 watts into 8 ohm loads. The amplifier's outputs shall have internal protection against possible shorted, mismatched and open circuits. The circuitry shall incorporate voltage amplifiers whose slew rate is controlled to protect the overall amplifier whose slew rate is controlled to protect the overall amplifier against RF burnout. The power amplifier shall provide (in stereo mode operation) a voltage gain of 20 ±2% or 26 ±.2 dB at maximum gain, have an input sensitivity of 2.1 volts 220 watts into 8 ohms and be capable of driving any load safely—including completely reactive loads. Hum and noise shall be 115 dB below rated output from 20 Hz to 20 kHz. Intermodulation distortion shall be less than 0.01% from 0.25 watts to 265 watts into 8 ohms (per channel). The dimensions shall allow for standard 19" (48.26 cm) EIA rack mounting. It shall be 7" (17.78 cm) high and 14¾" (37.46 cm) deep from the mounting surface. It shall weigh 57 pounds (25.9 Kg) net. The power requirements shall be 50-400 Hz AC with adjustable taps for 100 to 240 V ±10%. At idle the amplifier shall draw 90 watts or less. The amplifier shall be a class AB and be of frequency response (±.1 dB) from 20 Hz to 20 kHz, at 1 watt into 8 ohms. The power amplifier shall be a Crown PSA-2.

crown®

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