DIGITAL CINEMA PROCESSOR

DOLBY CP500

If you want superb sound, the most advanced technology, and unmatched flexibility—plus the prestige and instant name recognition of the Dolby logo up on your marquee—the Dolby CP500 belongs in your theatre. It is the ideal single-solution processor for any theatre committed to quality presentation, yet it is surprisingly cost effective. With built-in Dolby Digital and analog processing, it costs less than an analog processor and separate digital adapter.

Best of both worlds

The CP500, unlike other digital cinema processors, takes advantage of the best of analog as well as digital technologies. Processes such as third-octave speaker equalization and 2:4 matrix decoding that genuinely benefit from it are digitally implemented in the CP500. Other processes, such as Dolby decoding for A-type and SR soundtracks, can only be approximated by digital technology, and so are implemented with high-performance analog circuitry. The result is uncompromised performance on *all* soundtracks—analog as well as digital.

Easy to install, use, maintain

Graphic displays and built-in test instrumentation make the CP500 far easier to align and calibrate than conventional processors, and no external PC is required for setup.

an easy-to-read LCD screen and uncomplicated front panel simplify booth operations. Format selection is particularly simple, thanks to software that can be readily programmed to accommodate any existing or likely future format. Built-in diagnostics enable theatre staff to verify performance of the complete theatre sound system.

Easy to update

As improvements to the CP500's digital control and processing software are developed, the latest revisions can be easily downloaded from a PC. Moreover, updates to the audio coding used for Dolby Digital soundtracks, which are included from time to time right on Dolby Digital release prints, download automatically into the CP500 the first time such a print is played in the cinema.

Options available for the CP500 include internal time-aligned Linkwitz-Riley crossover networks for the cinema's screen speakers that both simplify booth installation and cost less than equivalent freestanding crossovers.

Unmatched support

With the CP500, you get more than a superb processor; you also get the unrivaled support of Dolby Laboratories. Hundreds of technicians worldwide have been factory trained in the installation and maintenance of Dolby equipment. Emergency technical assistance is available on call, as is backup from the most experienced distributor network in the industry. The CP500 is the only digital cinema processor backed by a 20 year history of making films sound better.

SPECIFICATIONS

Construction
Rack-mount chassis frame with plug-in modules accessible behind hinged front panel.

Signal Inputs
a. Optical (9-pin D-type connectors): Balanced inputs for two projectors with stereo solar cells. Digitally controlled gain and slit loss adjustments.

b. Magnetic/Aux (25-pin D-type connector): Six inputs for external magnetic preamplifier or auxiliary source, 300 mV operating level. Requires optional Cat. No. 685 A/D converter.

c. Non-sync (RCA-type phono jacks): Two stereo inputs, 50K Ohm input impedance, 50 mV to 2.5 V sensitivity.

d. Microphone (9-pin D-type connector): Balanced input for mic or multiplexer for B-chain alignment, unbalanced input for house announcement mic.

e. Digital reader inputs (25-pin D-type connectors): Inputs for two Dolby Digital soundheads.

Signal Outputs
Output impedance, 47 Ohm. Load, >600 Ohms. Maximum output, +20 dBu. Typical operating level, -10 dBu. Operating range, 25 mV to .7 V. Hearing Impaired output: Center-weighted sum of L, R, C. Output impedance, 47 Ohms; output level, 200 mV (fixed).
Phoenix screw terminal connectors.

Noise Reduction
Two channels each, Dolby A-type and Dolby SR. Accomodates up to six channels of A-type for 70 mm magnetic.

Loudspeaker Equalization
L,C,R: 27-band digital 1/3-octave; digitally controlled bass and treble.
Ls, Rs: digital 9-band, full octave.
SW: Digital parametric with 12dB cut capability.

Remote Connections
Connections for Dolby Cat. No. 689 remote fader/format selector.

Automation
Direct mode, eight-contact closures to ground to select formats.
Sequential mode, single-contact closure to ground to sequence pre-programmed formats. 25-pin D-type connector.

Distortion
Typically 0.05 % in Dolby SR mode (output -10 dBu , input 10dB over Dolby level).

Dynamic Range
Typically 92 dB with fader set to 7.

Dimensions
4 U rack mount chassis. Faceplate, 178 mm h. x 493 mm w. (7 x 9"). Maximum projection behind mounting surface is 360 mm (14.17"). Maximum projection in front of mounting plate is 32 mm (1.23"). Weight. 11.7 kgs (26 lbs) Max.

Power Requirements
100 - 240 VAC, 50-60 Hz Auto Sensing,120 Watts. Single 1-1/4" or 5 X 20 mm slow blow fuse according to local safety requirements.
This product is lited by Underwriters Laboratories and bears the mark [UL].

Operating Conditions
0 - 40° C, 20-80 % humidity, non-condensing.

Configurations:
CP500D (standard): Dolby A-type, Dolby SR, Dolby Digital optical playback.

CP500SR: Dolby A-type, Dolby SR optical playback.

CP500/70: Dolby A-type, Dolby SR, Dolby Digitial optical plus Dolby 70 mm magnetic playback.

Optional crossover (all configurations)
Cat. No. 683 with Linkwitz-Riley filter characteristic for bi-amplifying screen speakers. Adjustable time alignment delay for woofers.

Dolby®

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