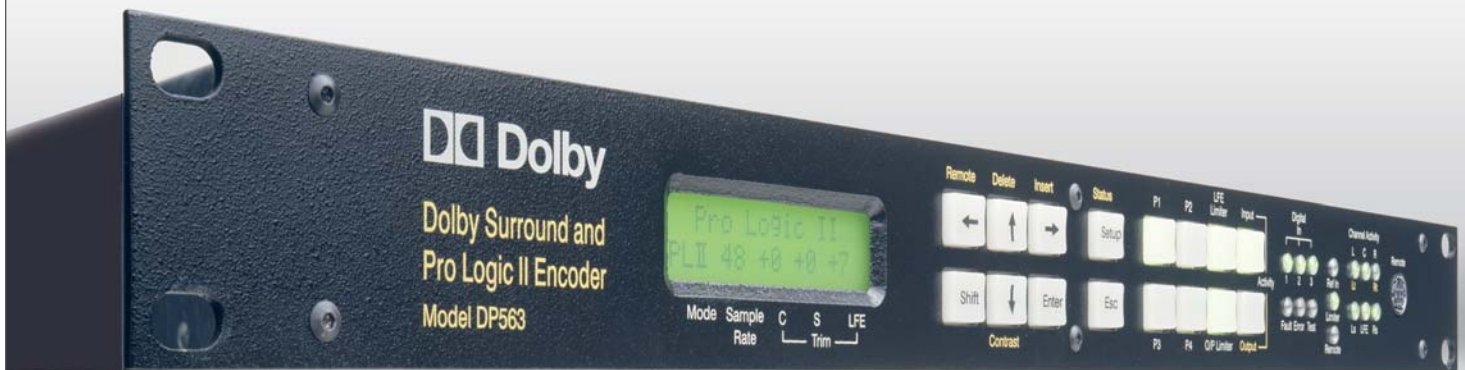




DP563 Dolby Surround and Pro Logic II Encoder



The DP563 Dolby Surround and Pro Logic II Encoder lets you create surround programming for distribution via all analog and digital stereo media.

The all-digital Dolby® DP563 encodes discrete four- or five-channel surround mixes into Left total/Right total (Lt/Rt) stereo for delivery via two-channel television and radio broadcasts, PC and console games, CDs, and VHS tapes. Lt/Rt encoded stereo content provides thrilling surround sound on millions of home theater systems equipped with Dolby Pro Logic® or Pro Logic II decoding, while remaining fully compatible with stereo and mono playback.

The DP563 provides two surround encoding algorithms. The original Dolby Surround algorithm encodes Lt/Rt stereo with full range Left, Center, and Right channels, plus a limited-range Surround channel, as intended originally for four-channel Dolby Pro Logic playback. The Dolby Pro Logic II algorithm encodes Lt/Rt stereo with five full-range channels—Left, Center, Right, Left Surround, and Right Surround—for the most natural and involving surround experience that can be delivered via stereo media.

One Mix Serves All Needs

With its six digital input channels, the DP563 can create Dolby Surround or Dolby Pro Logic II encoded stereo directly from any discrete 5.1 mix, so that producers of 5.1 content for DTV can easily create a separate mix for distribution via stereo services. With Dolby E 5.1 content, metadata authored during production can enable the DP563 to create an Lt/Rt stereo mix exactly as specified by the producers.

The Dolby DP564 Multichannel Audio Decoder is an ideal companion to the DP563, letting you monitor your surround encoded mix for compatibility with mono and stereo playback, as well as decoding it to verify multichannel Dolby Pro Logic and Dolby Pro Logic II playback. The DP564 also provides comprehensive functions for setting up and controlling the monitoring environment.

DP563 Dolby Surround and Pro Logic II Encoder

DP563 Front Panel



Display and Controls

Two-line, 16-character LCD with control keys

Presets

Four user-definable configurations

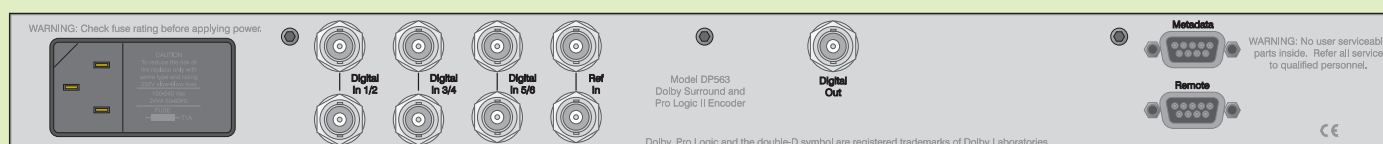
Status LEDs

Indicate status of digital inputs, channel activity, reference input status, fault, and error

RS-232 Serial Port

8-pin female mini-DIN connector for software upgrades

DP563 Rear Panel



Digital Audio Inputs

Main audio inputs: three BNC female connectors with loop-through, unbalanced, 75 Ω , signal levels per AES-3ID-1995 (SMPTE 276M), external 75 Ω termination required
Reference input: BNC female connector with loop-through, unbalanced, 75 Ω , signal levels per AES-3ID-1995 (SMPTE 276M), external 75 Ω termination required

System will lock either to the first digital audio input (Dig In 1/2) or the reference input (system will not operate without an external clock)

Digital Audio Output (Lt, Rt)

BNC female connector, unbalanced, 75 Ω , signal levels per AES-3ID-1995 (SMPTE 276M)

RS-485 Serial Remote Control Input Port

9-pin female D-connector for software upgrades

Metadata Input Port

9-pin female D-connector, RS-485 (SMPTE 207M), compatible with metadata output of Dolby DP572 and DP570

Surround Encoding Algorithms

Dolby Pro Logic II
Dolby Surround

Audio Sampling Rates

32, 44.056, 44.1, 47.952, and 48 kHz

Frequency Response

L, C, R Channels: Lower limit <20 Hz, upper limit varies with sampling rate, ± 0.1 dB

Ls, Rs Channels (for Dolby Surround): 100 Hz to 7 kHz, ± 2 dB

Ls, Rs Channels (for Dolby Pro Logic II): Lower limit 100 Hz, upper limit varies with sampling rate ± 2 dB

LFE Channel (low-frequency effects): <20–120 Hz, ± 1 dB

Total Harmonic Distortion

<0.001% 20 Hz to upper response limit (measured with Audio Precision® System One)

Jitter

Conforms to AES3-1992 Amendment 1-1997

Dynamic Range

>110 dB

Delay

Input-to-output: User-adjustable, minimum to 100 ms in increments of 1 ms or 1 video field
Minimum delay value dependent on sample rate
Minimum delay <2 ms for all supported sample rates

Input Word Length

24 bits (20 bits when internal sample-rate converter is enabled)

Output Word Length

Adjustable from 16 to 24 bits

System Reference Level

Default: 20 dB below digital full-scale, user-adjustable

Test Tone Generator

1 kHz (nominal) at system reference level

Power Requirements

90–264 VAC, 50–60 Hz, auto-sensing, 25 W maximum, designed to operate from a centrally switched power source

Dimensions and Weight

1-U rackmount: 44 × 483 × 305 mm (1.75 × 19 × 12 inches)
Net: 3.9 kg (8.5 lb)

Environmental Conditions

Operating: 0°C–50°C (32°F–122°F), natural convection cooling, 20%–90% relative humidity (noncondensing)

Nonoperating: –20°C to 70°C (–4°F to 158°F)

Regulatory Notices

North America: This unit complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules, and Industry Canada ICES-003 requirements. It is UL Listed

for the US and Canada.

Europe: This unit complies with the requirements of Low Voltage Directive 73/23/EEC and EMC Directive 89/336/EEC and carries the CE marking accordingly.

Warranty

One-year limited, parts and labor; see disclaimer. Specifications subject to change without notice.

Disclaimer of Warranties

Equipment manufactured by Dolby Laboratories is warranted against defects in materials and workmanship for a period of one year from the date of purchase. There are no other express or implied warranties and no warranty of merchantability or fitness for a particular purpose, or of noninfringement of third-party rights (including, but not limited to, copyright and patent rights).

Limitation of Liability

It is understood and agreed that Dolby Laboratories' liability, whether in contract, in tort, under any warranty, in negligence, or otherwise shall not exceed the cost of repair or replacement of the defective components or accused infringing devices, and under no circumstances shall Dolby Laboratories be liable for incidental, special, direct, indirect, or consequential damages (including, but not limited to, damage to software or recorded audio or visual material), cost of defense, or loss of use, revenue, or profit, even if Dolby Laboratories or its agents have been advised, orally or in writing, of the possibility of such damages.

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