



EX-DU4 Dolby Surround EX Decoder

 **Dolby**
SURROUND DECODER UNIT
MODEL EX-DU4



The Dolby EX-DU4 enables monitoring of Dolby Digital Surround EX soundtracks in recording, mixing, postproduction, and DVD-authoring facilities.

The EX-DU4 decodes the Back Surround information that is matrix encoded onto the Lst and Rst channels of Dolby® Digital Surround EX™ soundtracks. Its inputs connect to the analog Ls and Rs outputs of an existing Dolby Digital 5.1 decoder such as the Dolby DP562. Alternatively, for new facilities, the Dolby DP564 Multichannel Audio Decoder provides both Dolby Digital and Dolby Digital Surround EX decoding.

The EX-DU4 provides four analog outputs: Left Surround (Ls), Back Surround Left (Bsl), Back Surround Right (Bsr), and Right Surround (Rs). Delivering the Back Surround channel via two outputs (Bsl and Bsr) facilitates switching between regular Dolby Digital 5.1 playback and Dolby Digital Surround EX playback in studios equipped with four surround speakers.

A companion encoder unit, Dolby EX-EU4, is available for matrix encoding discrete Ls, Bs, and Rs channels to Lst and Rst for inclusion in 5.1 mixes intended for Dolby Digital Surround EX release. The DP569 Multichannel Dolby Digital Encoder is then used to encode the mix into a Dolby Digital Surround EX bitstream.

EX-DU4 Dolby Surround EX Decoder

EX-DU4 Front Panel



Controls and Indicators

Screwdriver-adjustable trimpots for adjusting input and output levels; signal-presence LEDs for Ls, Bsl, Rs, Bsr decoder outputs; four-segment LED meters for Lst and Rst input-level calibration; pink noise generator switch; pushbuttons for selecting surround modes and BS trim

EX-DU4 Rear Panel



Analog Audio Inputs

Two female XLR connectors for Lst and Rst; balanced floating transformerless inputs
Input gain adjustment range: 300 mV (−8.2 dBr) to 2 V_{RMS} (+8.2 dBr)
0 dBr: 0.775 V_{RMS}
Input impedance: >10 kΩ
Maximum common mode voltage 4 V_{RMS}, 5.8 V peak

Analog Audio Outputs

Four male XLR connectors for Ls, Bsl, Bsr, and Rs; balanced floating transformerless outputs
Output gain adjustment range: 250 mV (−9.8 dBr) to 2.5 V (+10.2 dBr)
Output impedance: 25Ω
Maximum output voltage: +26 dBr into balanced 600Ω load, less into lower impedances; +20 dBr into unbalanced 600Ω load

External Facilities Connection

25-pin female D-connector enables remote control of surround mode select buttons

Overall Frequency Response

20 Hz–20 kHz, ±1 dB

S/N Ratio (referenced to Dolby level)

>80 dB (Left, Center, Right) CCIR/ARM weighted

Total Harmonic Distortion

<0.25% into balanced loads 600Ω or greater at any output level up to 12.5 V_{RMS}

0.1% typical at 1 kHz (at Dolby level) with input and output adjusted for +4 dBr

Power Requirements

230 V version: 200–240 VAC, 50/60 Hz, 20 mm T250 mA fuse

Multivoltage version:

100–120 VAC, 50/60 Hz, one 1.25 inch

500 mA slow-blow fuse

200–240 VAC, 50/60 Hz, one 20 mm

T250 mA fuse

Power consumption (all versions) 20 W

Designed for operation from a centrally switched power source

Dimensions and Weight

1-U rackmount, 44 × 260 mm (1.75 × 10.25 inches); maximum projection in front of mounting surface 22 mm (0.875 inches)
Net: 4.6 kg (10.2 lb)

Environmental Conditions

0°–40°C (32°–104°F)

Regulatory Notice

The 230 V-only version 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

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