

STUDER
PROFESSIONAL AUDIO EQUIPMENT



D741

Professional CD Recorder

Professional CD Recorder



STUDER has been involved in CD research and development for more than twelve years. The new D741 CD Recorder extends and completes the CD product line consisting until now of the D730, D731, D731 QC, and D732 CD Players. CD technology is well established in the broadcast and studio domains, and no other medium is more wide-spread than the CD in both the consumer and the professional area.

Fields of application

Due to the drastical price drop of blank CD-Rs the new D741 CD Recorder is very attractive for numerous applications; it is useful for:

- Music compilations for broadcasting stations
- Mastering CDs for direct recording of the glass master in CD production
- Demo and promotion CDs for musicians or radio stations
- Jingles or station IDs for radio stations
- Compilations for use in theatres and museums
- Audio and data backup
- Small-quantity CD and CD-ROM production.

- All important functions can be operated directly at the front with simple «one key» commands
- CD is illuminated and visible when the CD tray is closed
- Label field for clear marking of different units
- Separate level controls for left and right channels.

BLUE BOOK (ENHANCED MUSIC CD)
WHITE BOOK (VIDEO CD)
PHOTO CD

- Standard SCSI protocol allows writing the different CD formats with the common CD formatting softwares
- Multi-Session format.

Compatibility

Countless CD standards may cause confusion; the STUDER D741 is compatible with a wide range of standards:

- ORANGE BOOK (CD-R)
- RED BOOK (CD-Audio)
- YELLOW BOOK (CD-ROM)
- GREEN BOOK (CD-I)

Professional interfaces

For communication with all kinds of analog and digital equipment, the D741 is featuring comprehensive interfaces:

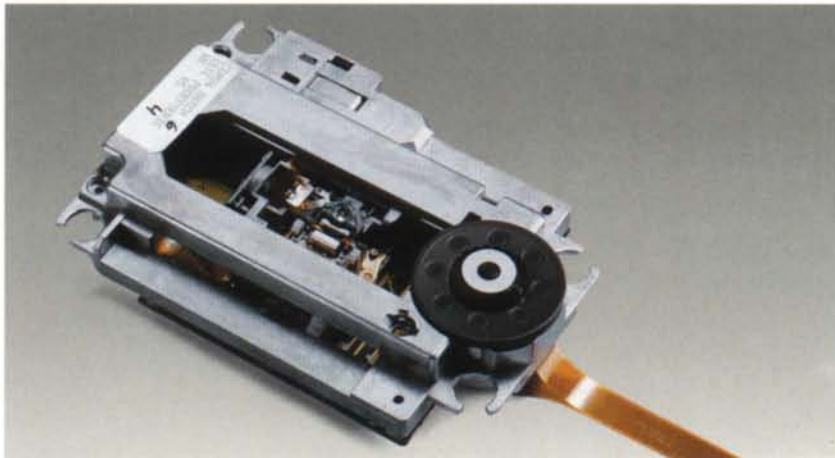
- SCSI interface with quadruple speed playback and double speed recording

Ease of use

The approved operating philosophy of the STUDER CDS series simplifies operation and increases reliability. Important features are:

- Clear arrangement of the generously-sized operating elements
- Built-in monitor speaker
- Easily readable FTD/LED display





- Digital inputs and outputs AES/EBU and SPDIF
- Analog inputs and outputs (balanced)
- Adjustable headphones output
- Remote control interfaces.

Technology

- CD-Rs can be written in «track at once» and «disc at once» modes. CD-Rs can be recorded without interruption and without the uncorrectable E32 error, which is ideal for producing mastering CDs.
- Subcode from CD, DAT, DCC and MD can be used for processing track information.

- Digital sampling frequency converter.
- Direct double-speed copying from the new STUDER D424 MO Recorder or from workstations via SCSI.
- Direct double-speed copying of CD-Audio from D741 to D741 via SCSI.
- Analog inputs with calibrated settings.

...and more:

Outstanding possibilities make the STUDER D741 your preferred choice:

- Track and Index IDs can be set manually or automatically
- Analog:** Track ID is set at the start of the modulation (threshold adjustable)
- Digital:** Subcode information from CD, DAT, DCC, and MD is processed
- Adjustable delay buffer for correct modulation start at the beginning of a new track
- Adjustable, automatic fade-in and fade-out
- Pause between the tracks can be defined
- ISRC and UPC/EAN code programmable for automated processing of the copyright accounts
- Selectable copy bit defines whether the recording can be duplicated digitally with consumer equipment
- Delta-Sigma A/D converter with 64 times oversampling (18 bit) and 5th-order Noise Shaper for taking full advantage of the 16-bit word length
- Writing sensitivity of different CD-R brands is compensated by individual calibration of the laser power
- By measuring the reflectivity during recording the laser power is dynamically controlled in order to get optimum performance even if the CD is not ideal.



The Professional CD Recorder STUDER D741 is manufactured in Switzerland.



Technical Specifications (Preliminary)

Conversion technology:	A/D: Delta-Sigma converter with 64 times oversampling (18 bit) and 5th-order Noise Shaper	Out-band suppression:	A/D/A > 60 dB (> 25 kHz)
	D/A: Digital filter with 8 times oversampling (20 bit), bit-stream converter, and 3rd-order Noise Shaper	Dynamic range:	A/D > 90 dB (20 Hz ... 20 kHz)
Input (balanced, XLR):	+15 dBu, ± 0.1 dB, $R_i > 10$ k Ohms		D/A > 90 dB (1 kHz)
	max. sensitivity (UNCAL) +10 dB	Linearity deviation:	A/D/A > 86 dB (1 kHz)
Output (balanced, XLR):	+17 dBu with 600 Ohms load, $R_o < 200$ Ohms		A/D < 1.5 dB (-90 dB)
Frequency response:	A/D = 20 Hz ... 20 kHz, $< \pm 0.15$ dB		D/A < 4 dB (-90 dB)
	D/A = 20 Hz ... 20 kHz, $< \pm 0.2$ dB	Channel separation:	A/D/A < 5.5 dB (90 dB)
	A/D/A = 20 Hz ... 20 kHz, $< \pm 0.5$ dB	Sampling rate on digital inputs:	A/D/A > 90 dB (1 kHz)
Channel balance:	A/D/A = 20 Hz ... 20 kHz, $< \pm 0.25$ dB		32 ... 50 kHz;
Phase error:	A/D = $< \pm 3.85^\circ$ (20 Hz ... 20 kHz)		without sampling rate converter:
	D/A = $< \pm 0.6^\circ$ (20 Hz ... 20 kHz)		44.1 kHz ± 150 ppm
	A/D/A = $< \pm 4.85^\circ$ (20 Hz ... 20 kHz)	Finalize:	Double speed
Distortion:	A/D = $< 0.005\%$ (1 kHz) (THD + Noise)	Track change threshold:	-70 ... -30 dB, in steps of 0.5 dB
	D/A = $< 0.006\%$ (20 Hz ... 20 kHz)	Delay buffer:	0 ... 3 seconds, in steps of 50 ms
	A/D/A = $< 0.008\%$ (20 Hz ... 20 kHz)	Fade-in / -out:	0 ... 10 seconds, in steps of 1 s
Signal/noise ratio:	A / D > 92 dB unweighted, full scale recording	Pause between tracks:	2 ... 5 seconds, in steps of 0.5 s
	D/A > 100 dB unweighted, digital silence	Mains voltage:	115 V / 230 V selectable, 50 / 60 Hz
	A/D/A > 90 dB unweighted, full scale recording	Power consumption:	< 35 W
		Dimensions:	482 x 368 x 88 cm (WxDxH), (19" / 2U)
		Weight:	8 kg
		Order-No.:	60.060.69741

Subject to change.

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H A Harman International Company

STUDER Professional Audio AG, Althardstrasse 30, CH-8105 Regensdorf-Zurich Switzerland,
Telephone +41 1 870 75 11, Telefax +41 1 840 47 37

Direct-Subsidiaries: Austria: +43 1 866 54-0
France: +33 1 45 14 47 86
Germany: +49 30 72 39 34-0
U.K.: +44 1 707 66 50 00

Canada: +1 416 510 13 47
Japan: +81 3 34 65 22 11
Singapore: +65 481 56 88
USA: +1 615 391 33 99