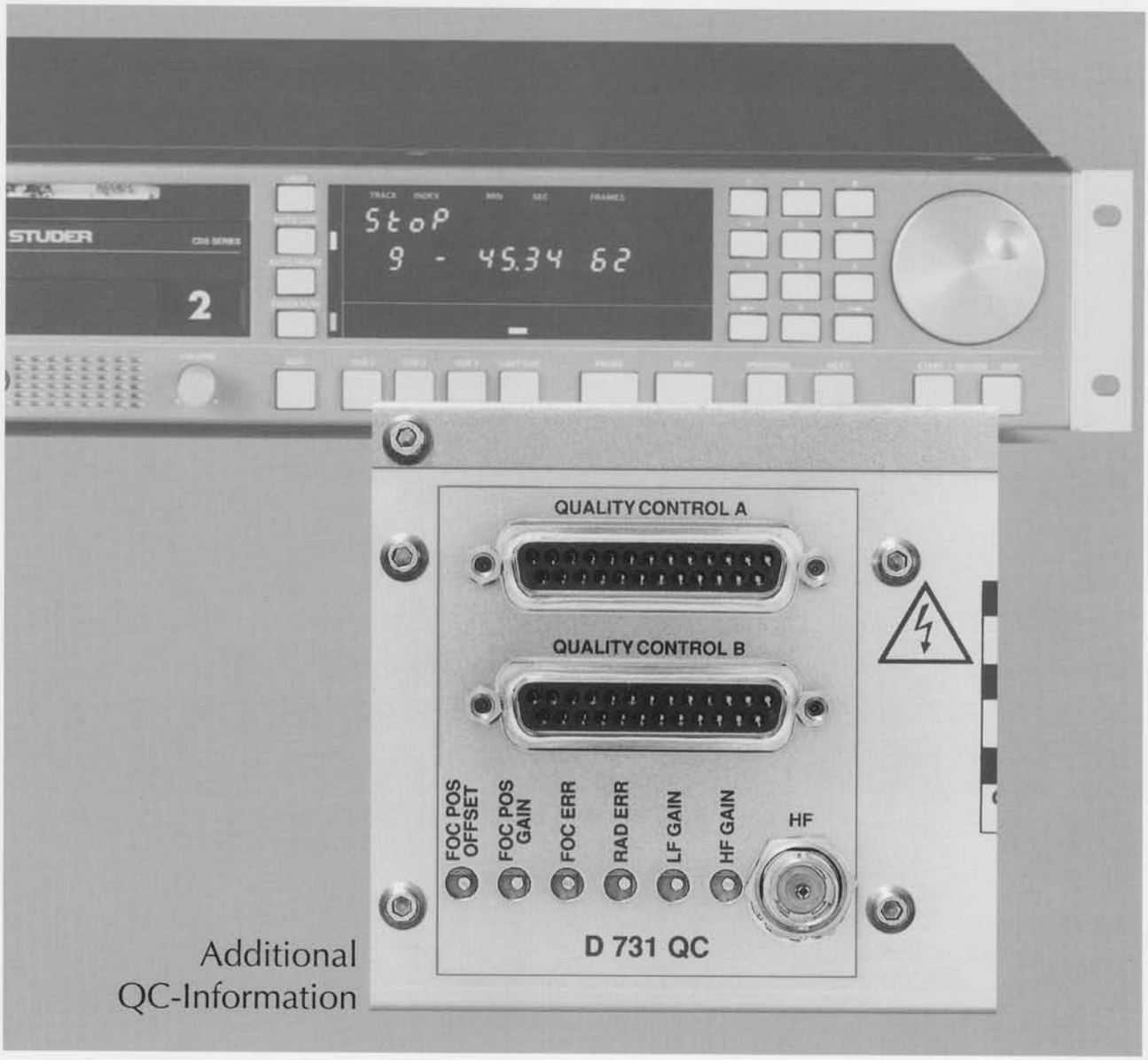
STUDER
PROFESSIONAL AUDIO EQUIPMENT



Additional
QC-Information

D731 QC
Professional Quality Control CD Player

STUDER D731 QC - Professional Quality Control CD Player

The comeback of a legend

Audio quality control equipment has a long tradition at STUDER's. Particularly the former CD-Player A725 QC has up till now acquired best references worldwide for CD quality testing.
The introduction of the CD-R in broadcasting applications also created the need for an inspection CD-Player, which is able to play partially recorded CD-Rs.
Based on the high quality D731 CD-Player, STUDER has developed the QC-version, the D731 QC. Like to the D731, the QC-version includes the same operating features, moreover it offers additional interfacing for the external QC-evaluation electronics with error flags, which are compatible to the A725 QC.

The CD-Formats which can be checked by the D731 QC are:

- **CD-AUDIO**
- **CD-ROM**
- **CD-I**
- **CD-ROM-XA**
- **CD-I-READY**
- **CD-I-BRIDGE**
- **PHOTO-CD**
- **VIDEO-CD**
- **CD-R** (recorded part in the first session of the program area)

The D731 QC integrates two decoder circuits, which makes it possible to measure the «Sony» and the «Philips» error flags simultaneously. The following error flags and signals can be checked externally:

Digital error flags:
E 11 - E 21 - E 31 - BLER -
E 12 - E 22 - E 32 - BURST
Analog servo signals:
- FOCUS POSITION SIGNAL
- FOCUS ERROR SIGNAL
- RADIAL ERROR SIGNAL

In addition to the A725 QC features, the focussing and radial servo signals are also accessible. The HF signal (EFM) from the CD drive is picked off before the AC coupling and the frequency compensation circuit of the optics. This HF signal is routed to a BNC connector, which makes it possible to measure I3 - I11 - Itop - asymmetry and jitter.

Wherever CDs and CD-Rs are of great importance, the professional STUDER CD Player D731 QC is the answer to your questions about quality control.

Pin	Signal	Designation	Utilization
1	GND	Signal ground	
14	A0	SAA7310-FIFO address line A0	
2	A1	SAA7310-FIFO address line A1	
15	A2	SAA7310-FIFO address line A2	
3	A3	SAA7310-FIFO address line A3	
16	A4	SAA7310-FIFO address line A4	
4	A5	SAA7310-FIFO address line A5	
17	GND	Signal ground	External evaluation of the "PHILIPS" error flags
5	D1	SAA7310-FIFO Data line D1	
18	D2	SAA7310-FIFO Data line D2	
6	D3	SAA7310-FIFO Data line D3	
19	D4	SAA7310-FIFO Data line D4	
7	RAS	SAA7310-FIFO Row access line	
20	CAS	SAA7310-FIFO Column access line	
8	R_W	SAA7310-FIFO Read/write line	
21	GND	Signal ground	
9	MUTE	Active low when D731 is muted	
22	EFAB	SAA7310 Uncorrectable flag from IIS	
10	REDIG	Polarity signal of radial error	
23	TL	Track loss signal	
11	AM	Additional Mute (not used)	
24	GND	Signal ground	
12	TACHO	Triple rotation frequency	
25	OSC	Wobble sine-wave (fed into the radial control circuit)	
13	GND	Signal ground	

Pin assignement of D-sub connector «QUALITY CONTROL A»

Pin	Signal	Designation	Utilization
1	GND	Signal ground	
14	C1F1	C1 error flags	
2	C1F2	C1 error flags	
15	C2F1	C2 error flags	External evaluation of the "SONY"-error flags
3	C2F2	C2 error flags	
16	GND	Signal ground	
4	RFCK	Clock signal (on the negative edge the CxFx flags are valid)	
17	GND	Signal ground	
5	MUTE	Active low when D731 is muted	
18	GND	Signal ground	
6	WSAB	SAA7310 Word clock from IIS	
19	CLAB	SAA7310 Bit clock from IIS	External evaluation of the CD audio/ROM information
7	DAAB	SAA7310 Data from IIS	
20	GND	Signal ground	
8	EFAB	SAA7310 Uncorrectable flag from IIS	
21	SCAB	SAA7310 Subcode clock	
9	SDAB	SAA7310 Subcode data	External evaluation of the CD subcode
22	SWAB	SAA7310 Subcode word-clock	
10	GND	Signal ground	
23	RADERR	Radial error signal	
11	GND	Signal ground	External evaluation of the analog servo error signals
24	FOCERR	Focus error signal	
12	GND	Signal ground	
25	FOCPOS	Focus position signal	
13	GND	Signal ground	

Pin assignement of D-sub connector «QUALITY CONTROL B»

Ordering information

STUDER D731 QC: 60.060.69752

Subject to change.
STUDER is a registered trade mark of STUDER PROFESSIONAL AUDIO AG
Printed in Switzerland 10.26.1801 (Ed. 0694)
Copyright by
STUDER PROFESSIONAL AUDIO AG

STUDER
PROFESSIONAL AUDIO EQUIPMENT

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

Subsidiaries: **Canada:** +1 416 510 13 47 **Germany:** +49 30 723 934 0
Japan: +81 3 34 65 22 11 **Singapore:** +65 481 56 8

H A Harman International Company