STUDER INTERNATIONAL AG

TI 66/81

PROFESSIONAL AUDIO EQUIPMENT CH-8105 Regensdorf Switzerland Phone 01 840 29 60 Telex 58489 stui ch

A80 - VU NEW LINE OUTPUT AMPLIFIERS

Considerable advertisement has been made by our competitors promoting the advantages of transformerless line output amplifiers. We have now developped and are manufacturing such a device for the A80-VU Tape Recorders; ordering No: 1.080.773.00.

However, transformerless equipped tape recorders are not always required, so we are therefore equipping the A80-VU machines with the transformerless amplifiers on request only.

Most of the leading recording studios, especially in USA will no doubt take advantage of this new feature (Ref: 1.080.773.00) whereas the European Broadcast organisations will surely be interested by the new low distortion line output amplifier with transformer. (Ref: 1.080.774.00) replacing the existing type 1.080.806.00.

Also of interest to note is that NO EXTRA price will be charged for either version and that the actual prices are shown in the July 1981 Studer price list.

As usual, the solution we adopt is a Studer one, i.e.: a design without compromise which is second to none of today's available transformerless line output amplifiers. Have a look at the specs, and note that it is actively balanced and fully AC floating with electronic instant protection of output transistors. In addition it is worth to note that absolutely no adjustments nor modifications have to be performed to convert

a machine with conventional transformer line amplifiers into a transformerless one. Just plug one P.C.B. out, and plug-in the new one, that's all.

Anyway, we think that it is worth and fair to fully inform you of the advantages and disadvantages of both systems:

Parameter (line output amplifiers)	. Trans former	Transfor- merless
- Frequency response	2	3
- Intermodulation, IMD	2	3
- Harmonic distortion, THD	2	3
- Transient intermodulation,TIM	3	2
- Phase modulation distortion �MD	1	3
- Phase response	3	3
- Radiated stray-field	2	3
- Common mode rejection		
Ratio CMRR	3	2
- Safety	3	2
- Common mode rejection range	3	2

NB: 3 : very good

2: average

1: poor

Features of the STUDER transformerless output plug-in circuit (REF. No: 1.080.773.00) for A80-VU tape recorders.

- Output system : actively balanced and floating

- Internal impedance : Zi ≤ 30 Ohm

- Max. output level : $V_M > 24$ dBm / 600 Ohm

(Balanced) $V_M > 20 \text{ dBm} / 200 \text{ Ohm}$

- Max. output level : $V_M > 18 \text{ dBm} / 600 \text{ Ohm}$

(Unbalanced)

- Frequency response: 14 Hz to 50 kHz; +0, -1dB /600 Ohm

- S/N with shorted input:

ASA-A RMS: -98 dB

Typical value

IEC 468 peak: -85 dB

Ref: +6 dBm/600 0hm

- Output protection : special circuit with TRIAC

Mount: can be installe in A80-VU audio units within 30 seconds without modifications nor adjustments.

- Ordering code No : 1.080.773.00

- List Price: SFr 135.--

Features of the NEW STUDER line output amplifier with improved low distortion transformer (1.080.774.00) circuitry for A80-VU tape recorders.

- Output system : balanced and floating , 500 V insulation

- Internal impedance : Zi ≤ 30 Ohm

- Max. output level: $V_M > 24 \text{ dBm} / 600 \text{ Ohm}$

(Balanced) $V_{M} \ge 20 \text{ dBm} / 200 \text{ Ohm}$

- Max. output level: $V_M > 24 \text{ dBm} / 600 \text{ Ohm}$

(Unbalanced)

- Frequency response : 16 Hz - 22 kHz; $^{\pm}$ 0.5 dB / 600 Ohm

- S/N with shorted input:

ASA-A RMS: -98 dB Typical value Ref:+6 dBm/600 Ohm

- Output protection : yes, diodes

Mount: can be installed in A80-VU audio units within 30 seconds and without modifications nor adjustments

- Ordering code No: 1.080.774.00

- List Price: SFr 88.--