

# STUDER

PROFESSIONAL AUDIO EQUIPMENT

## Service Information

SI 77/83 d/e

A810 Modifications

A 810 Modifikationen1.) Metall-Kopfträgerabdeckung

Durch einfaches Austauschen der Plastikabdeckungen können alle Geräte auf metallische Kopfträgerabdeckung umgerüstet werden.

Metall-Kopfträgerabdeckung kpl.  
1.810.185.00

2.) Bandschere 1.020.888.00

Die Bandschere lässt sich in allen Seriegeräten (ab Serie-Nr. 1000) mit Metall-Kopfträger einbauen.

Der vorherige Umbau auf Metallkopfträger (siehe oben) ist unbedingt erforderlich.

3.) Markiervorrichtungen 1.810.400.00

Die Markiervorrichtung lässt sich bei allen Geräten mit Metall-Kopfträger einbauen.

Geräte mit Plastik-Kopfträgerabdeckplatten müssen zuerst auf Metall-Kopfträger umgebaut werden.

Achtung:

Vor dem Hochklappen des VU-Panels muss die Markiervorrichtung ausgesteckt werden!

4.) Bestimmte LCD-Displays lassen sich schlecht ablesen.

C1 ändert von 10 pF auf 68 pF.

(59.99.01~~27~~)

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5.) Varispeed-panel 1.810.330.81

Funktioniert der Varispeed Einschub beim nachträglichen Einbau im VU-Panel-Aufbau (extern Panel) nicht, muss ein zusätzlicher Draht im Bus-Anschlussprint 1.810.701.00 (Geräte intern) eingelötet werden. (Siehe beiliegendes Schema).

A 810 Modification1.) Metallic headblock coverplates

For conversion to new metallic headblockcovers just exchange the plastic ones with metallic ones.

Metallic headblockcover cpl.  
1.810.185.00

2.) Tape cutting scissors 1.020.185.00

It is possible to mount the tape cutting scissors to all serial tape recorders (from serial-no.1000) which have got a metallic headblock cover.

It is really necessary to convert the headblockcover to the metallic version (see above).

3.) Tape marker 1.810.400.00

It is possible to mount the tape marker to all tape recorders with metallic headblock cover plates.

Tape recorders with plastic headcovers must first be converted to metallic head block covers.

Attention:

Remove the tape marker before you open the VU-panel lid!

4.) On some LCD-Displays it is difficult to read the numbers. Change

C1 from 10 pF to 68 pF.

(59.99.0127)

5.) Varispeed-panel 1.810.330.81

Does the speed variation not work after adding the varispeed panel into the extern VU meter panel, solder an additional link into the busconnector PCB 1.810.701.00 (situated in the tape recorder) according to the circuit diagram.

- |  |   |
|--|---|
| <p>6.) IC DM 74 LS 123 von National arbeitet nicht richtig auf dem Tape-deckcontroller 1.810.750.00 sowie auf dem Busconverter 1.810.754.00. Es wird deshalb empfohlen in diesen speziellen Fällen, einen IC eines andern Herstellers zu verwenden.</p>          | <p>6.) The IC DM 74 LS 123 from National doesn't work satisfactory in the following two PCBs, tape deck controller 1.810.750.00 and bus converter 1.810.754.00. We recommend therefore, that in those cases an IC of another manufacturer should be used.</p> |
| <p>7.) <u>Stabilisator 1.810.770.00</u><br/>Die TTL-Ausgänge der IC 4 und IC 5 werden weniger belastet, um frühzeitigen IC-Ausfällen entgegen zu wirken.<br/>R 38 und R42 werden von 1 k<math>\Omega</math> auf 10 k<math>\Omega</math> erhöht (57.11.4103).</p> | <p>7.) <u>Stabilizer 1.810.770.00</u><br/>Lower the load on the TTL outputs of the IC 4 and IC 5 to prevent an early failure of these two ICs. Change R38 and R42 from 1 k<math>\Omega</math> to 10 k<math>\Omega</math> (57.11.4103).</p>                    |
| <p>8.) <u>Command unit 1.810.300.00</u><br/>Die Leitungen T-RW, TADR<sub>X</sub>/Y/Z auf dem Print 1.810.734.00 müssen mit je 180 pF abgeblockt werden, um ein allfälliges Flackern der LCD-Anzeige zu verhindern.<br/>Abblockkondensator 180 pF 59.99.0192.</p> | <p>8.) <u>Command unit 1.810.300.00</u><br/>Terminate the 4-lines T-RW and TADR<sub>X</sub>/Y/Z on the PCB 1.810.734.00 with a 180 pF HF capacitor, to prevent that the LCD display flickers.<br/>HF-capacitor 180 pF 59.99.0192.</p>                         |
| <p>9.) <u>Tape deck controller 1.810.750.00</u><br/>Verlängerung der Zeit für den Reset-Puls.<br/>C11 wird von 2,2<math>\mu</math>F auf 33<math>\mu</math>F (59.42.1330) erhöht.<br/>zG</p>  | <p>9.) <u>Tape deck controller 1.810.750.00</u><br/>Increase the reset puls duration<br/>Increase C11 from 2,2<math>\mu</math>F to 33<math>\mu</math>F 59.42.1330.</p>  |
| <p>10.) <u>Read Write Unit 1.820.721.00</u><br/>Verbesserung der Stabilität des Line-Inputs, wenn kein Input-Signal vorhanden ist oder der Input offen bleibt.<br/>R45 100 k<math>\Omega</math> wird 33 k<math>\Omega</math> 57.11.4333</p>                      | <p>10.) <u>Read Write Unit 1.820.721.00</u><br/>Better stabilization of the line-input, if there is no input signal or if the input is open.<br/>Change R45 from 100 k<math>\Omega</math> to 33 k<math>\Omega</math> 57.11.4333</p>                           |
| <p>11.) Bitte korrigieren Sie die Steckerbelegung der parallelen und der seriellen Fernsteuerung gemäss beiliegenden Blättern in Ihrer provisorischen Bedienungsanleitung Sektion 2/8-10</p>   | <p>11.) Please correct the pin-layout of the parallel and the serial remote control plug in your preliminary operating instruction section 2/8-10 according the supplied corrigenda.</p>  |

12.) HF-Abstand-Verbesserung

Es empfiehlt sich auch die Cannon Ein- und Ausgangszuleitungen doppelseitig zu erden. (Speziell in der Nähe eines HF-Senders).

Dazu die Cannon-Anschlussfelder ausbauen und auf dem Anschlussprint 1.820.749.00 Zinnbrücken erstellen (Siehe Schema).

13.) A810 Time code recorders

Häufige Time code drop-outs in Play-mode.

Ursache: Nicht korrekt eingestellte Schaltschwelle auf dem Time code read/write unit 1.820.721.00. Stellen Sie Maschinen, welche Probleme bereiten, neu ein.

Einstellvorgang

- Band mit Time Code (707nWb/m) in Play-mode abspielen.
- Mit Oscilloscope an TP 1 messen.
- Mit Regler R29 auf 3,5V peak/peak einstellen. Tol  $\pm$  0,2 Volt.

14.) Sind bei einer Zeitcode-Maschine die beiden Audio-Kanäle und ebenso der Zeitcode-Kanal in ready-Position, kann beim Einstieg in Aufnahme ein scharfer Klicks im Audiokanal aufgezeichnet werden. Folgende Modifikation muss deshalb durchgeführt werden:

1. Ueber R42 (10M $\Omega$ ) Diode 1N4448 löten.
2. Ueber Q3 einen Kondensator 3,3 nF löten. (Siehe Schema).

15.a) Bitte beachten Sie, dass auf der DIL-Schalter-Programmiertabelle die Drop-in und die Drop-out Positionen verwechselt wurden.

b) Mit der neuen Software 13/83 besteht die Auto-mute-Möglichkeit. Um diese Funktion zu aktivieren wurde der DIL-Schalter 4 auf dem Peripherie-Controller verwendet. (Siehe Beilage)

Neue, korrigierte Aufkleber können unter der Bestellnummer 1.810.090.59 bezogen werden.

12.) Increasing of RF-Ratio

We recommend to earth the cannon input and output wires on both ends. (Specially in areas close to an HF transmitter).

Remove the cannon connectorfields and make a solder dot link on the connector PCB 1.820.749.00 as shown in the circuit diagram.

13.) A810 Time code recorders

Frequent Time code drop-outs in play-mode.

Cause: Incorrectly adjusted triggerlevel on "Time code read/write unit 1.820.721.00.

Readjust on machines which cause problems.

Adjustment procedure

- Play back tape with recorded time code (707nWb/m)
- Connect oscilloscope to TP 1.
- Adjust with potentiometer R 29 to 3,5 Volt peak/peak tol  $\pm$  0,2 Volt.

14.) If by a time code tape recorder both audio channels and the time code channel are in ready position, it's possible that a sharp clicks could be recorded on the audio track. To prevent this the following modification should be done:

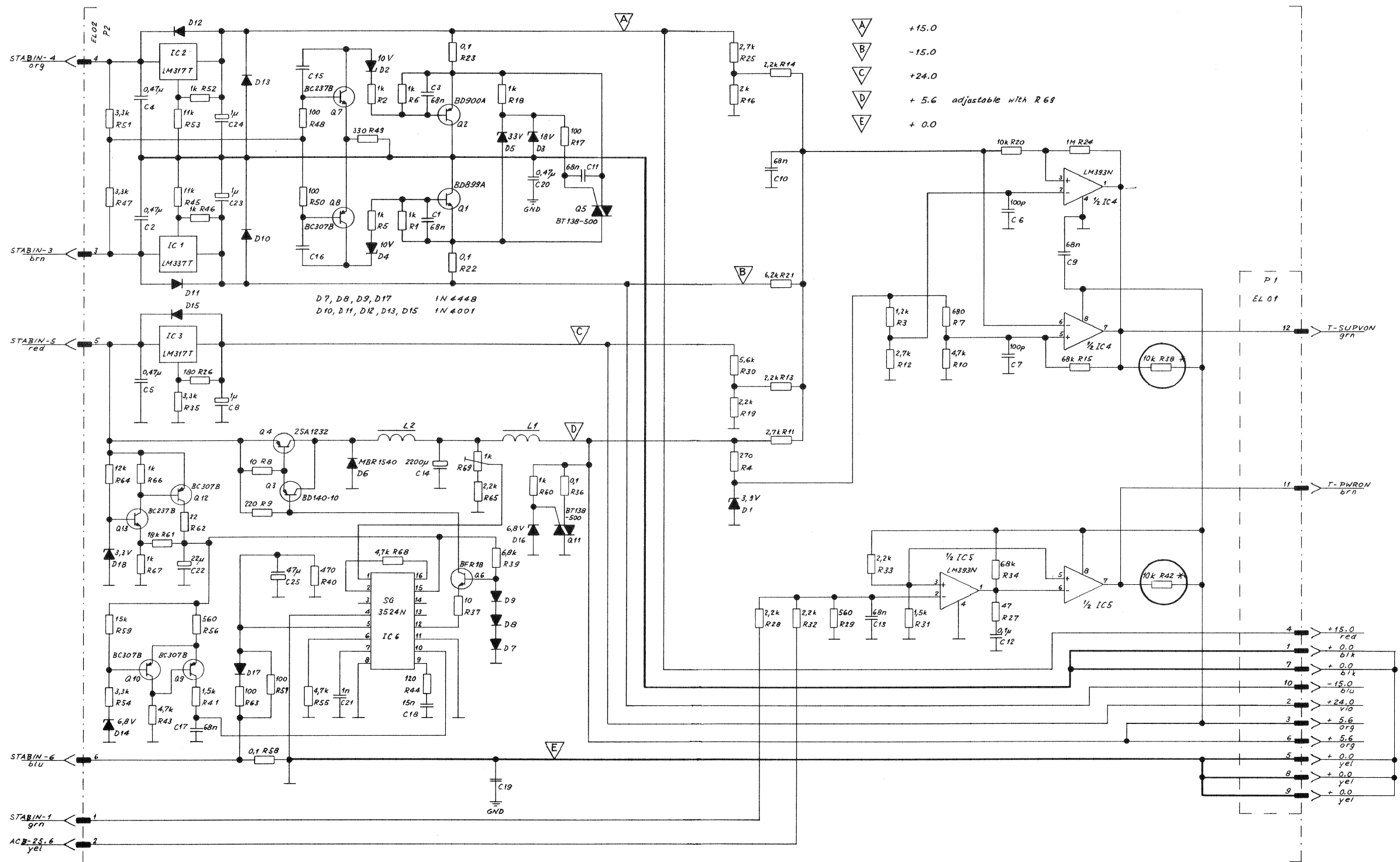
1. Solder a diode 1N4448 across R42 (10M $\Omega$ ).
2. Solder a capacitor 3,3 nF across FET Q3.

15.a) Please note that on the DIL-switch-programmingtable the Drop-in and Drop-out positions are exchanged.

b) In condition with the new Software 13/83 is the auto-mute-function possible. To activate this function, DIL-switch 4 on the peripherie Controller must be in "on"-position.

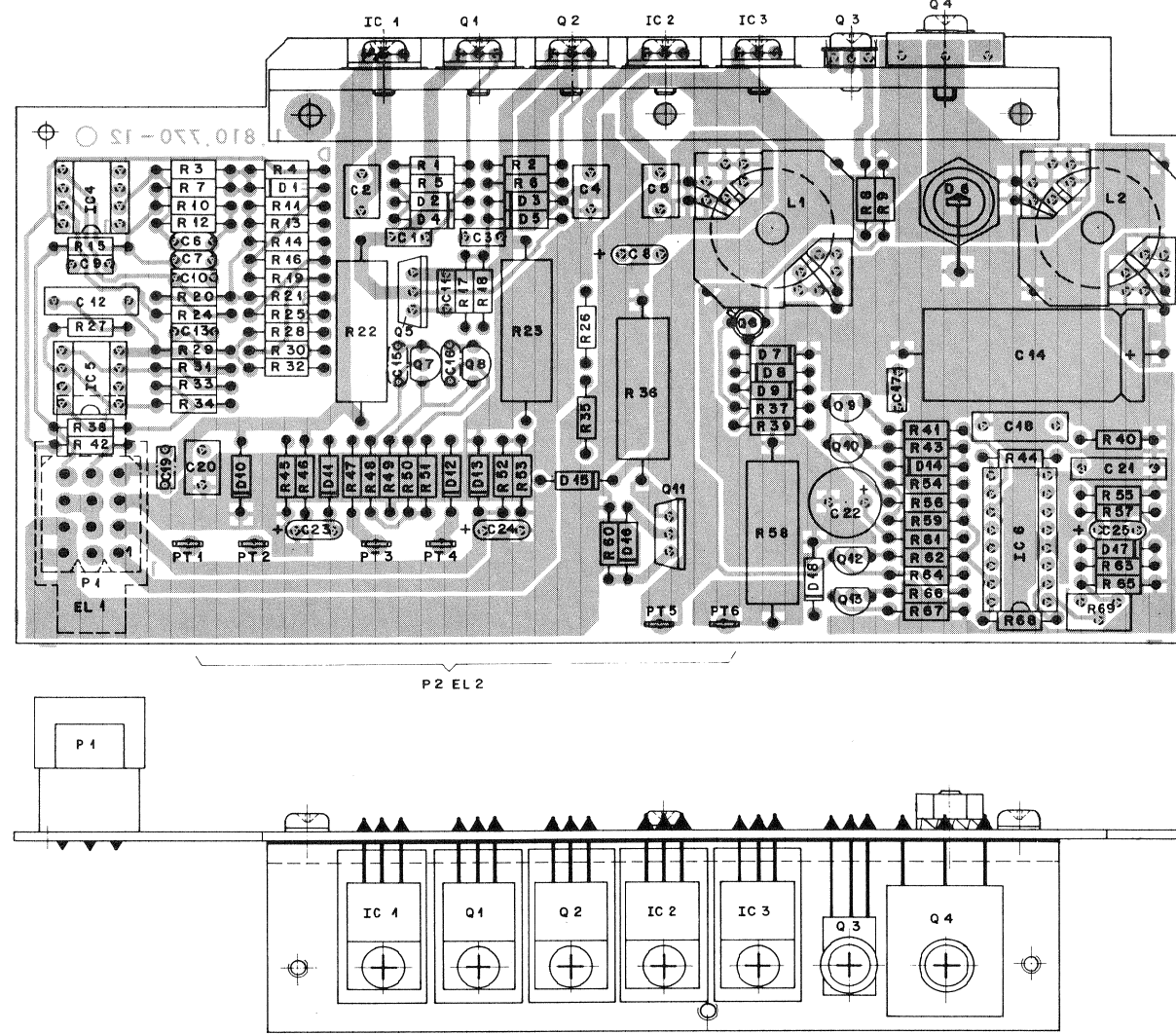
New, corrected programming stickers might get ordered under the following part no. 1.810.090.59.

STABILIZER PCB 1.810.770-00 GR7



★ HAS BEEN MODIFIED

STABILIZER PCB 1.810.770-00 GR7



IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
C..0001	59.99.0205	48 nF		Ce	
C..0002	59.06.5474	0.47 uF	5%	Ce	
C..0003	59.99.0205	48 nF		Ce	
C..0004	59.06.5474	0.47 uF	5%	Ce	
C..0005	59.06.5474	0.47 uF	5%	Ce	
C..0006	59.34.4101	100 pF		Ce	
C..0007	59.34.4101	100 pF		Ce	
C..0008	59.26.9109	1 uF	40V, Sal	Ph	
C..0009	59.99.0205	48 nF		Ce	
C..0010	59.99.0205	48 nF		Ce	
C..0011	59.99.0205	48 nF		Ce	
C..0012	59.02.2104	0.1 uF		Ce	
C..0013	59.99.0205	48 nF	5%	Ce	
C..0014	59.25.1222	2200 uF		6V, El	
C..0015		not used			
C..0016		not used			
C..0017	59.99.0205	48 nF	5%	Ce	
C..0018	59.11.3153	15 nF			
C..0019		not used			
C..0020	59.06.5474	0.47 uF	5%		
C..0021	59.11.6102	1 nF	5%		
C..0022	59.22.8220	22 uF		40V, El	
C..0023	59.26.9109	1 uF		25V, Sal	Ph
C..0024	59.26.9109	1 uF		25V, Sal	Ph
C..0025	59.26.0470	47 uF	20%, 3V, Sal	Ph	
D..0001	50.04.1101	3.9 V Z	BZ183C 3.9, BZX55C 3.9, ZPD 3.9	ITT,Ses	
D..0002	50.04.1114	10 V Z	BZ183C 10, BZX55C 10, ZPD 10	ITT,Ses	
D..0003	50.04.1122	18 V Z	BZ183C 18, BZX55C 18, ZPD 18	ITT,Ses	
D..0004	50.04.1114	10 V Z	BZ183C 10, BZX55C 10, ZPD 10	ITT,Ses	
D..0005	50.04.1127	33 V Z	BZ183C 33, BZX55C 33, ZPD 33	ITT,Ses	
D..0006	50.04.0511	MBR1540	VSR1540, S1554	ITT,Ph,Ses	
D..0007	50.04.0125	1N4448		ITT,Ph,Ses+Tr	
D..0008	50.04.0125	1N4448		ITT,Ph,Ses+Tr	
D..0009	50.04.0125	1N4448		ITT,Ph,Ses+Tr	
D..0010	50.04.0122	1N4001	1N4002, 1N4003, 1N4004	ITT,Tf,Mot,GI	
D..0011	50.04.0122	1N4001	1N4002, 1N4003, 1N4004	ITT,Tf,Mot,GI	

IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
R..0039	57.11.4682	6.8 kOhm	5%		
R..0040	57.11.4471	470 Ohm	5%		
R..0041	57.11.4152	1.5 kOhm	5%		
(00) R..0042	57.11.4102	1 kOhm	5%		
(01) R..0042	57.11.4103	10 kOhm	5%		
R..0043	57.11.4672	4.7 kOhm	5%		
R..0044	57.11.4121	120 Ohm	5%		
R..0045	57.11.3113	11 kOhm	1%		
R..0046	57.11.3102	1 kOhm	1%		
R..0047	57.11.4332	3.3 kOhm	5%		
R..0048	57.11.4101	100 Ohm	5%		
R..0049	57.11.4331	330 Ohm	5%		
R..0050	57.11.4101	100 Ohm	5%		
R..0051	57.11.4332	3.3 kOhm	5%		
R..0052	57.11.3102	1 kOhm	1%		
R..0053	57.11.3113	11 kOhm	1%		
R..0054	57.11.4332	3.3 kOhm	5%		
R..0055	57.11.4472	4.7 kOhm	5%		
R..0056	57.11.4561	560 Ohm	5%		
R..0057	57.11.4101	100 Ohm	5%		
R..0058	57.56.5108	0.1 Ohm	10%, 4W		
R..0059	57.11.4153	15 kOhm	5%		
R..0060	57.11.4102	1 kOhm	5%		
R..0061	57.11.4183	18 kOhm	5%		
R..0062	57.11.4220	22 Ohm	5%		
R..0063	57.11.4101	100 Ohm	5%		
R..0064	57.11.4123	12 kOhm	5%		
R..0065	57.11.4222	2.2 kOhm	5%		
R..0066	57.11.4102	1 kOhm	5%		
R..0067	57.11.4102	1 kOhm	5%		
R..0068	57.11.4672	4.7 kOhm	5%		
R..0069	58.01.7102	1 kOhm	10%, 0.25W, see note 2		

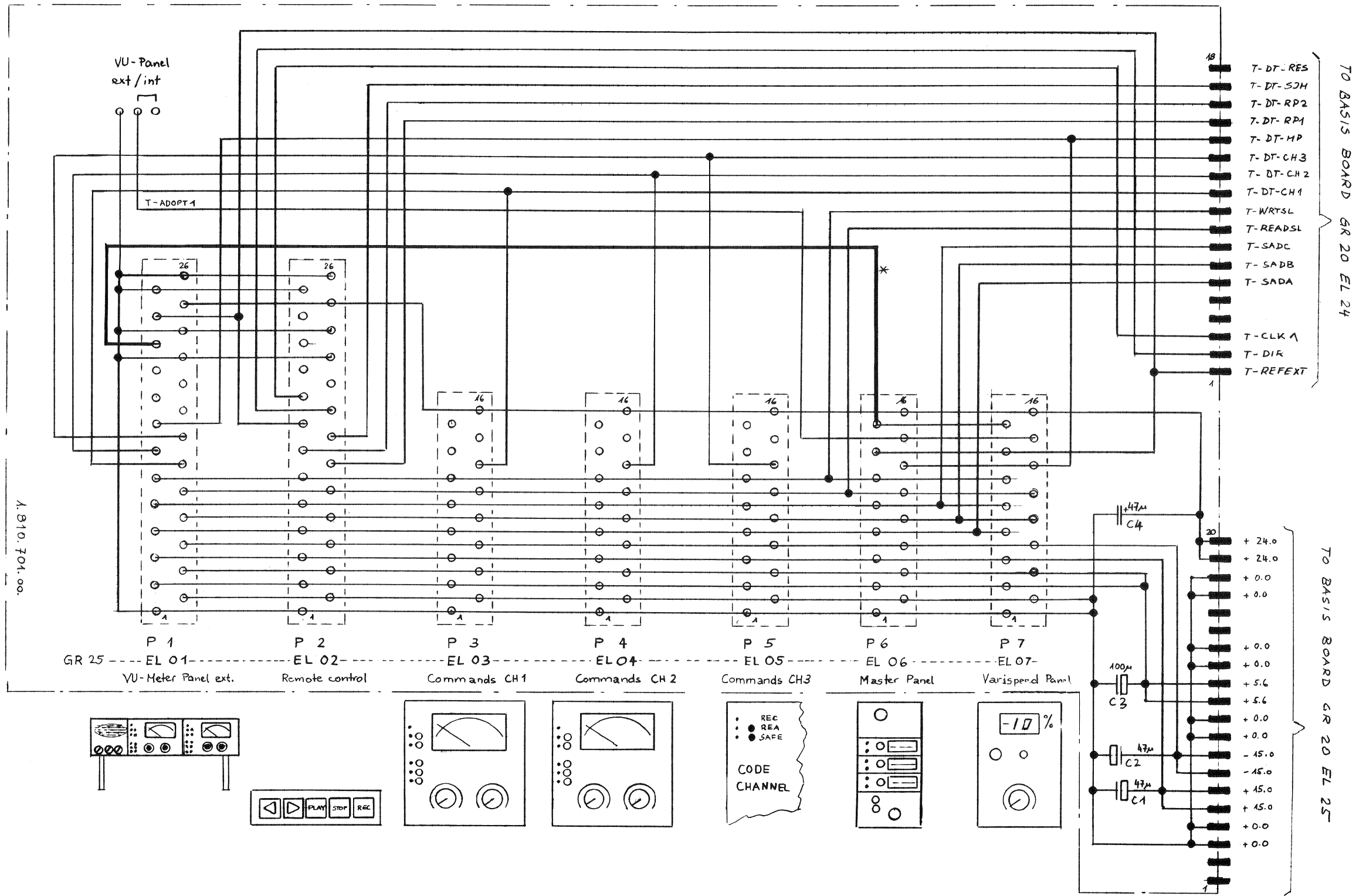
IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
D..0012	50.04.0122	1N4001	1N4002, 1N4003, 1N4004	ITT,Tf,Mot,GI	
D..0013	50.04.0122	1N4001	1N4002, 1N4003, 1N4004	ITT,Tf,Mot,GI	
D..0014	50.04.1102	6.8 V Z	BZX83C 6.8, BZX55C 6.8, ZPD 6.8	ITT,Ses	
D..0015	50.04.0122	1N4001	1N4002, 1N4003, 1N4004	ITT,Tf,Mot,GI	
D..0016	50.04.1102	6.8 V Z	BZX83C 6.8, BZX55C 6.8, ZPD 6.8	ITT,Ses	
D..0017	50.04.0125	1N4448		ITT,Ph,Ses+Tr	
D..0018	50.04.1107	3.3 V Z	BZX83C 3.3, BZX55C 3.3, ZPD 3.3	ITT,Ses	
IC.0001	50.10.0105	LM337T	LM337C	neg. Voltage Regulator	NS,TI
IC.0002	50.10.0104	LM317T	LM317C	pos. Voltage Regulator	NS,Mot,TI
IC.0003	50.10.0104	LM317T	LM317C	pos. Voltage Regulator	NS,Mot,TI
IC.0004	50.05.0283	LM393N			TI,NS
IC.0005	50.05.0283	LM393N		Voltage Regulator	TI,NS
IC.0006	50.05.0279	SG3524N			TI,SG
L..0001	1.022-217-00			HF-Coil, 5A, RMB	St
L..0002	1.022-217-00			HF-Coil, 5A, RMB	St
P..0001	54.02.0466		12 cont.	case-nr. 54.02.0408, see note 1	
P..0002	54.02.0320		6 cont.		
Q..0001	50.03.0512	BDW93B			Mot,SGS
Q..0002	50.03.0513	BDW94S			Mot,SGS
Q..0003	50.03.0452	0140-10			Ph,Sie+Tf
Q..0004	50.03.0518	25A1232	25A1141		NEC
Q..0005	50.99.0180	T24000	SC1460, BT138-500		PCA,GE,Ph
Q..0006	50.03.0434	BR118			SGS
Q..0007	50.03.0436	BC237B	BC547B,BC550B	ITT,Sie+Mot,Ph,Tf,TT,NEC	
Q..0008	50.03.0515	BC307B	BC251B,BC557B,BC560B	Mot,Ph,ITT,Tf,TT,NEC	
Q..0009	50.03.0515	BC307B	BC251B,BC557B,BC560B	Mot,Ph,ITT,Tf,TT,NEC	
Q..0010	50.03.0515	BC307B	BC251B,BC557B,BC560B	Mot,Ph,ITT,Tf,TT,NEC	
Q..0011	50.99.0106	T24000	SC1460, BT138-500	PCA,GE,Ph	
Q..0012	50.03.0515	BC307B	BC251B,BC557B,BC560B	Mot,Ph,ITT,Tf,TT,NEC	
Q..0013	50.03.0436	BC237B	BC547B,BC550B	ITT,Sie+Mot,Ph,Tf,TT,NEC	
R..0001	57.11.4102	1 kOhm	5%		
R..0002	57.11.4102	1 kOhm	5%		

(01) 83/01/26 Reducing of comparator sink current below 4 mA.  
Ce=Ceramic, El=Electrolytic, Sal=Solid Aluminium  
Note 1: Pin, Molex-nr. 02-06-8103  
Case, Molex-nr. 03-06-2121  
Note 2: Potentiometer, linear, Bourne-nr. 3386 H-1-102  
E 4 x 102  
Manufacturer: GE=General Electric, GI=General Instruments,  
ITT=Intermetal, Mot=Motorola, NEC=Nippon Electric Corp.,  
NS=National Semiconductor, Ph=Philips,  
PCA=Radio Corporation of America, Ses=Sesocom,  
SG=Silicon General, SGS=SGS/Ates, St=Siemens,  
St=Siemens, St=Studer, Tf=Telefunken,  
TI=Texas Instruments, Tr=Transiron, Var=Varo

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STUDER 83/01/26 PB STABILIZER 1.810.770.00 PAGE 5

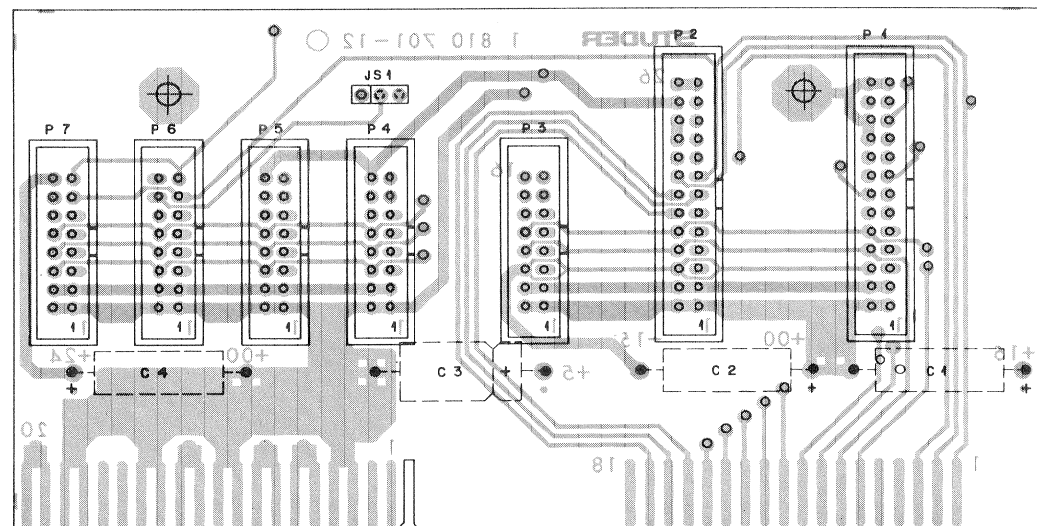
IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
R..0003	57.11.4122	1.2 kOhm	5%		
R..0004	57.11.4271	270 Ohm	5%		
R..0005	57.11.4102	1 kOhm	5%		
R..0006	57.11.4102	1 kOhm	5%		
R..0007	57.11.4681	680 Ohm	5%		
R..0008	57.11.4100	10 Ohm	5%		
R..0009	57.11.4221	220 Ohm	5%		
R..0010	57.11.4672	4.7 kOhm	5%		
R..0011	57.11.4272	2.7 kOhm	5%		
R..0012	57.11.4272	2.7 kOhm	5%		
R..0013	57.11.4222	2.2 kOhm	5%		
R..0014	57.11.4222	2.2 kOhm	5%		
R..0015	57.11.4683	68 kOhm	5%		
R..0016	57.11.3202	2 kOhm	5%		
R..0017	57.11.4101	100 Ohm	5%		
R..0018	57.11.4102	1 kOhm	5%		
R..0019	57.11.4222	2.2 kOhm	5%		
R..0020	57.11.4103	10 kOhm	5%		
R..0021	57.11.3622	6.2 kOhm	5%		
R..0022	57.56.5108	0.1 Ohm	10%, 4W		
R..0023	57.56.5108	0.1 Ohm	10%, 4W		
R..0024	57.11.4105	1 MOhm	5%		
R..0025	57.11.4272	2.7 kOhm	5%		
R..0026	57.11.4181	180 Ohm	2%		
R..0027	57.11.4470	47 Ohm	5%		
R..0028	57.11.4222	2.2 kOhm	5%		
R..0029	57.11.4561	560 Ohm	5%		
R..0030	57.11.4562	5.6 kOhm	5%		
R..0031	57.11.4152	1.5 kOhm	5%		
R..0032	57.11.4222	2.2 kOhm	5%		
R..0033	57.11.4222	2.2 kOhm	5%		
R..0034	57.11.4683	68 kOhm	5%		
R..0035	57.11.3132	3.3 kOhm	1%		
R..0036	57.56.5108	0.1 Ohm	10%, 4W		
R..0037	57.11.4100	10 Ohm	5%		
(00) R..0038	57.11.4102	1 kOhm	5%		
(01) R..0038	57.11.4103	10 kOhm	5%		

BUS CONNECTOR PCB 1.810.701-00 GR25



\* HAS BEEN MODIFIED

BUS CONNECTOR PCB 1.810.701-00 GR25



PLUGGED INTO BASIS PCB 1.810.700-00

GR20 EL25

GR20 EL24

IND.	PDS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
C..0001	59.25.4470		47 uF	-10%, 25V, E1	
C..0002	59.25.4470		47 uF	-10%, 25V, E1	
C..0003	59.25.3101		100 uF	-10%, 16V, E1	
C..0004	59.25.4470		47 uF	-10%, 25V, E1	
JS.0001				See note 1	
P..0001	54.14.2003	24 cont.		Yamaichi Nr. FAP-26-0854	
P..0002	54.14.2003	24 cont.		Yamaichi Nr. FAP-26-0854	
P..0003	54.14.2002	16 cont.		Yamaichi Nr. FAP-16-0854	
P..0004	54.14.2002	16 cont.		Yamaichi Nr. FAP-16-0854	
P..0005	54.14.2002	16 cont.		Yamaichi Nr. FAP-16-0854	
P..0006	54.14.2002	16 cont.		Yamaichi Nr. FAP-16-0854	
P..0007	54.14.2002	16 cont.		Yamaichi Nr. FAP-16-0854	

Note 1 - Contact pin: Studer 54.01.0020, Berg 75 160-102-36  
 Bridget Studer 54.01.0021, Philips 2422 024 88003

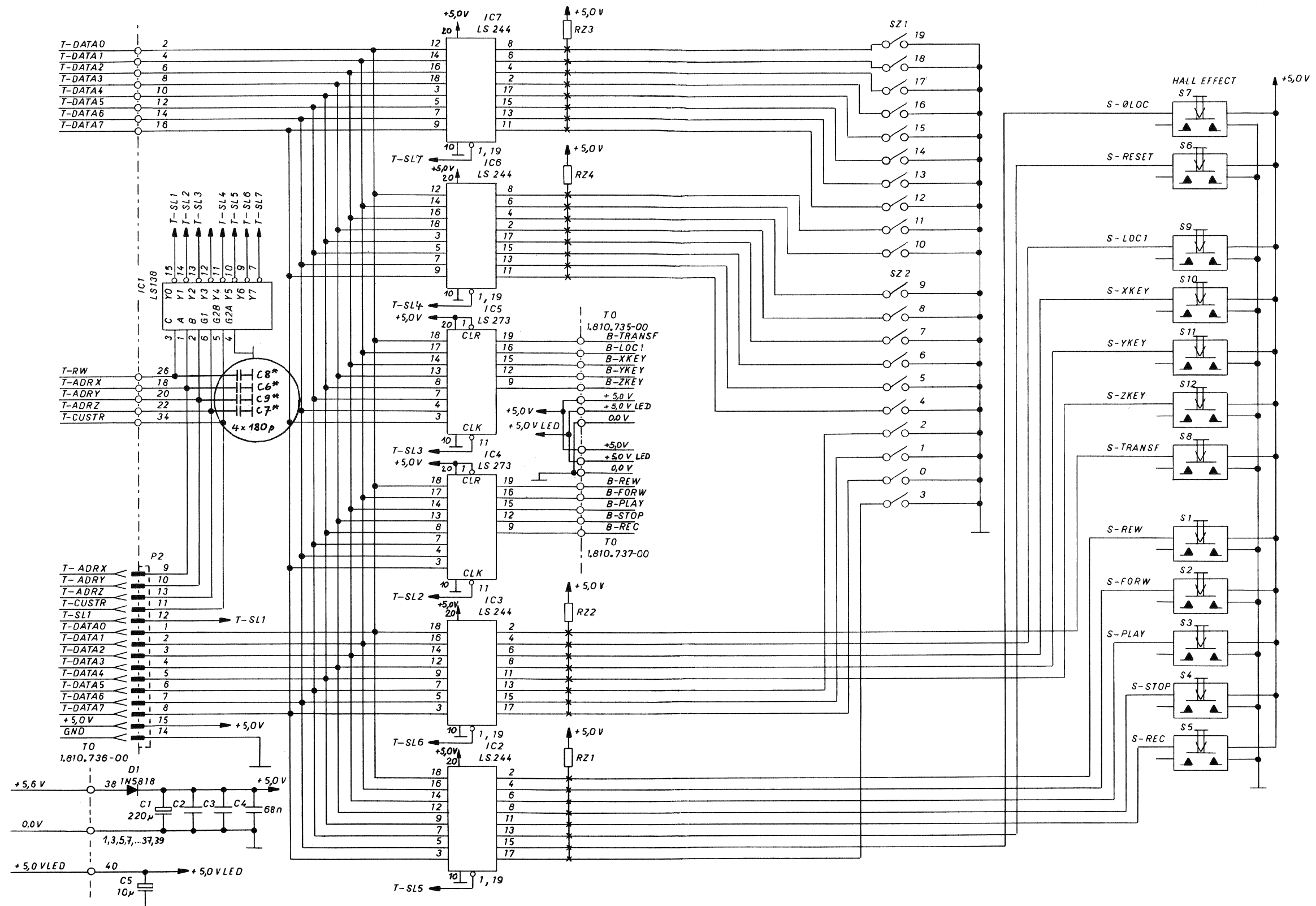
E1=Electrolytic capacitor

ORIG 01/08/21

STUDER 01/08/21 PST BUS CONNECTOR BOARD 1.810.701.00 PAGE 1



COMMAND UNIT PCB 1.810.734-00 GR21 (LCD) "ESE"

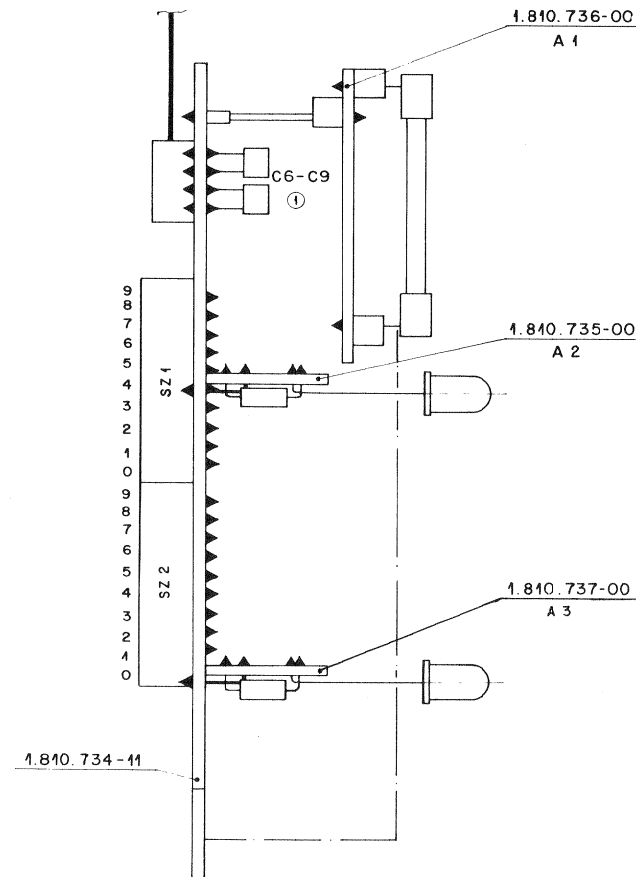
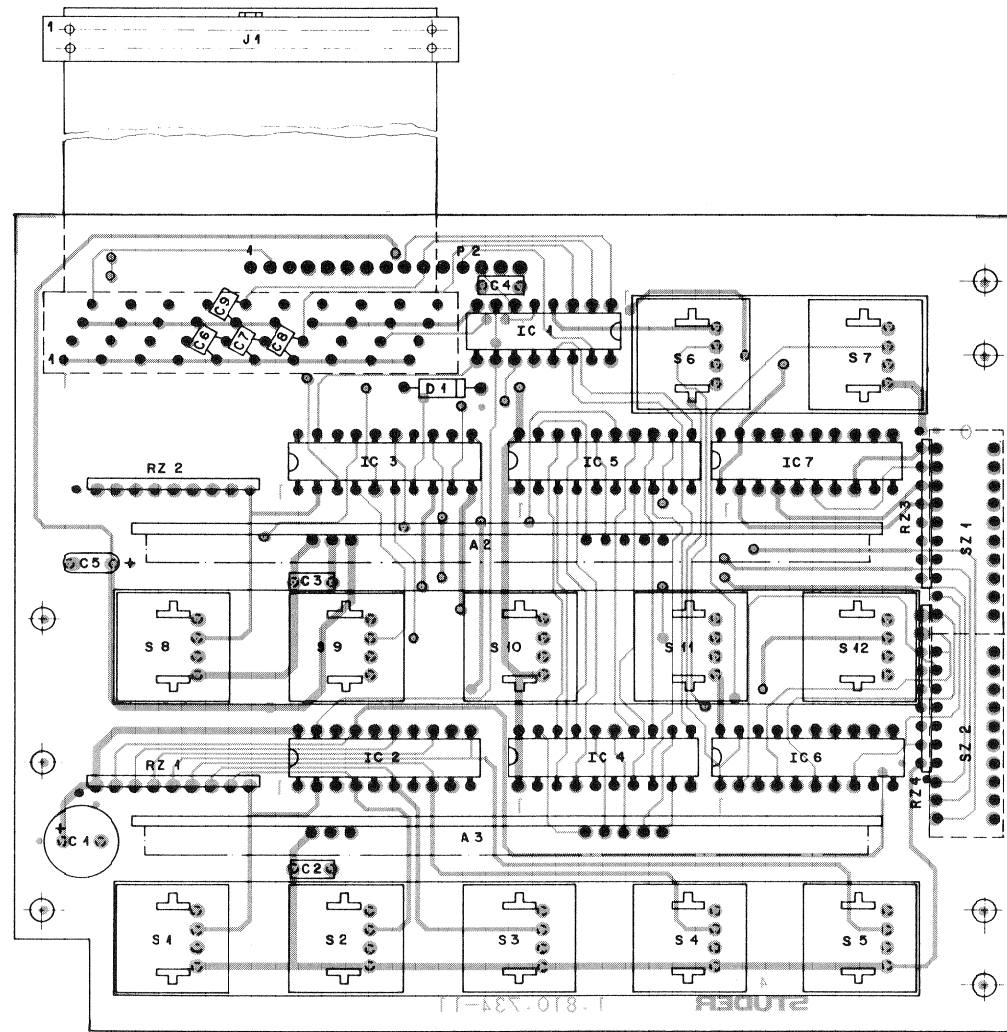


TO BE USED ONLY TOGETHER WITH MPU A810 PCB 1.810.752-00

★ HAS BEEN MODIFIED

LED DRIVER PCB (BASIC FUNCTIONS) 1.810.737-00  
LED DRIVER PCB (EXTENDED FUNCTIONS) 1.810.735-00 SEE SECTION 5/61

COMMAND UNIT PCB 1.810.734-00 GR21 (LCD) "ESE"



IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
A..0001		1.810.736-00		DISPLAY UNIT A810	
A..0002		1.810.735-00		LED DRIVER ( ext. Fct.) A810	
A..0003		1.810.737-00		LED DRIVER ( basic fct.) A810	
C..0001		59.22.2221	220 uF	-10%, 6.3V, E1	
C..0002		59.99.0205	68 nF		Ce
C..0003		59.99.0205	68 nF		Ce
C..0004		59.99.0205	68 nF		Ce
C..0005		59.26.2100	10 uF	-20%, 16V, Sal	Ph
(01) C..0006		59.99.0192	180 pF	10%	Ce
(01) C..0007		59.99.0192	180 pF	10%	Ce
(01) C..0008		59.99.0192	180 pF	10%	Ce
(01) C..0009		59.99.0192	180 pF	10%	Ce
D..0001		50.04.0512	1N5818	1N5819	Mot
IC..0001		50.06.0138	SN74LS138N		AMI, TI
IC..0002		50.06.0244	74LS244	SN74LS244N	AMI, MM, Mot, TI
IC..0003		50.06.0244	74LS244	SN74LS244N	AMI, MM, Mot, TI
IC..0004		50.06.0273	N74LS273N	SN74LS273N	Sig, TI
IC..0005		50.06.0273	N74LS273N	SN74LS273N	Sig, TI
IC..0006		50.06.0244	74LS244	SN74LS244N	AMI, MM, Mot, TI
IC..0007		50.06.0244	74LS244	SN74LS244N	AMI, MM, Mot, TI
J..0001		54.14.5023	40 cont.	See note 1	
P..0002				15 pieces Studer Nr. 1.010.019.54	
RZ..0001		1.010.014.57		Network 8 * 10 kOhm, 10%	
RZ..0002		1.010.014.57		Network 8 * 10 kOhm, 10%	
RZ..0003		1.010.014.57		Network 8 * 10 kOhm, 10%	
RZ..0004		1.010.014.57		Network 8 * 10 kOhm, 10%	
S..0001		55.03.0260		Switch Sigma Nr. MCFH 2 T	
S..0002		55.03.0260		Switch Sigma Nr. MCFH 2 T	
S..0003		55.03.0260		Switch Sigma Nr. MCFH 2 T	
S..0004		55.03.0260		Switch Sigma Nr. MCFH 2 T	

STUDER 83/03/02 PB COMMAND UNIT A810 1.810.734-00 PAGE 1

IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
S..0005		55.03.0260		Switch Sigma Nr. MCFH 2 T	
S..0006		55.03.0260		Switch Sigma Nr. MCFH 2 T	
S..0007		55.03.0260		Switch Sigma Nr. MCFH 2 T	
S..0008		55.03.0260		Switch Sigma Nr. MCFH 2 T	
S..0009		55.03.0260		Switch Sigma Nr. MCFH 2 T	
S..0010		55.03.0260		Switch Sigma Nr. MCFH 2 T	
S..0011		55.03.0260		Switch Sigma Nr. MCFH 2 T	
S..0012		55.03.0260		Switch Sigma Nr. MCFH 2 T	
SZ..0001		55.01.0170		Switch Dual in line SAE Nr. 1010-692	
SZ..0002		55.01.0170		Switch Dual in line SAE Nr. 1010-692	

(01) 83/03/02 improved suppression of interfeerency on address lines.

Note 1 - Yanachi Nr. FAS-40-17; Burndy Nr. FRS-40 BD-7P  
Connection cable Studer Nr. 1.810.747-00

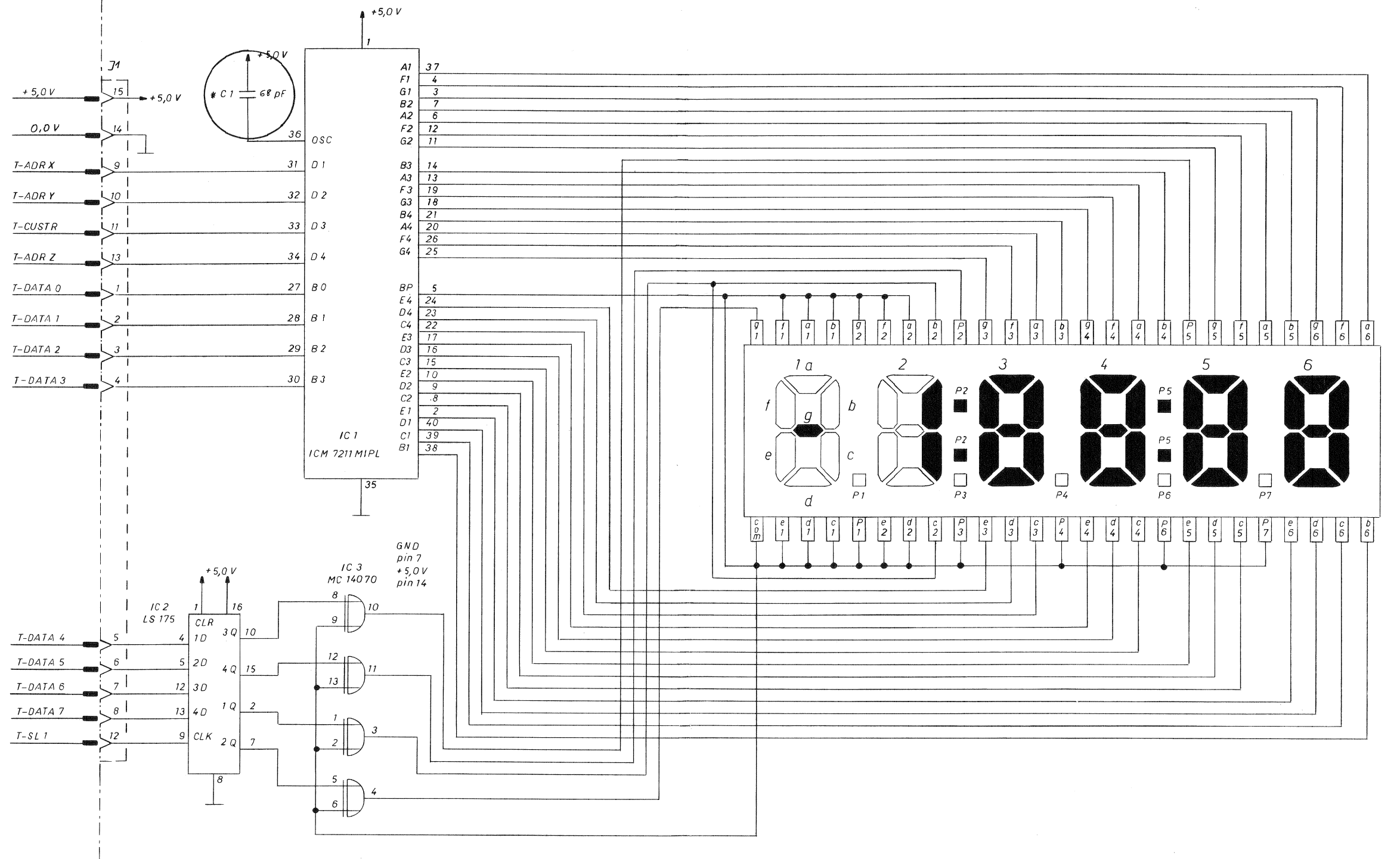
Ce=Ceramic, El=Electrolytic, Sal=Solid aluminium,

MANUFACTURER: AMI=American Microsystem Inc.,  
MM=Monolithic Memories Inc., Mot=Motorola, Ph=Philips,  
Sig=Signetics

ORIG 81/10/19 (01) 83/03/02

STUDER 83/03/02 PB COMMAND UNIT A810 1.810.734-00 PAGE 2

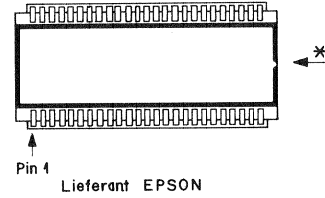
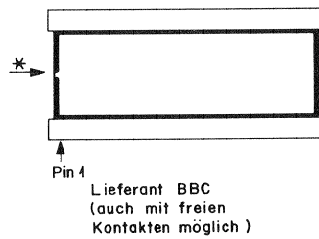
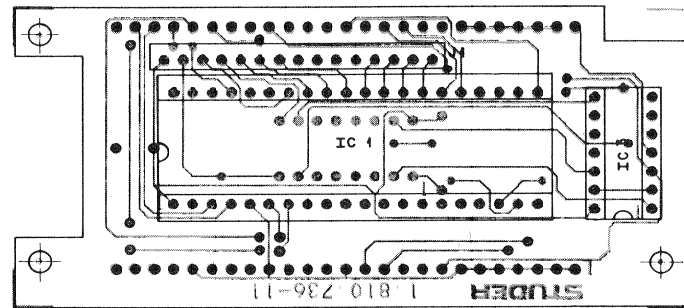
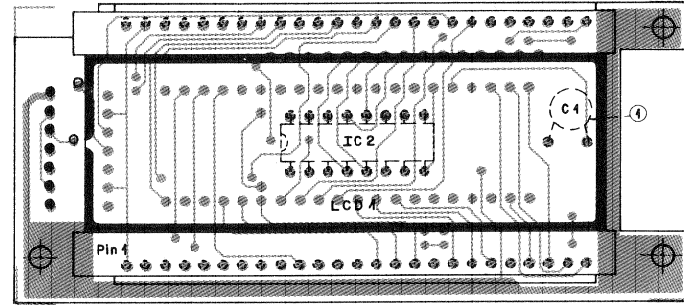
DISPLAY PCB 1.810.736-00 GR21 EL2 (LCD) "ESE"



PLUGGED ONTO COMMAND UNIT PCB 1.810.734-00  
OR COMMAND UNIT PCB 1.810.767-00

★ HAS BEEN MODIFIED

DISPLAY PCB 1.810.736-00 GR21 EL2 (LCD) "ESE"



\* Kerbe beachten

IND.	POS.ND.	PART ND.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
(00)	C..0001	59.32-0100	10 pF	20%, Ce	
(01)	C..0001	59.99-0217	68 pF	20%, Ce	
	IC..0001	50.07-0005	C022105E	1CM7211MPL	Is,RCA
	IC..0002	50.06-0175	N74LS175N	SNT4LS175N	Sig,TI
	IC..0003	50.07-0070	MC14070BCP	4070BPC	Fc,Mot
	J..0001			See note 2	
	LCD0001	73.01-0123		See note 1	

(01) 83/01/20 improved LCD display contrast by reducing the ac voltage frequency ( C 1 68 pF instead of 10 pF )

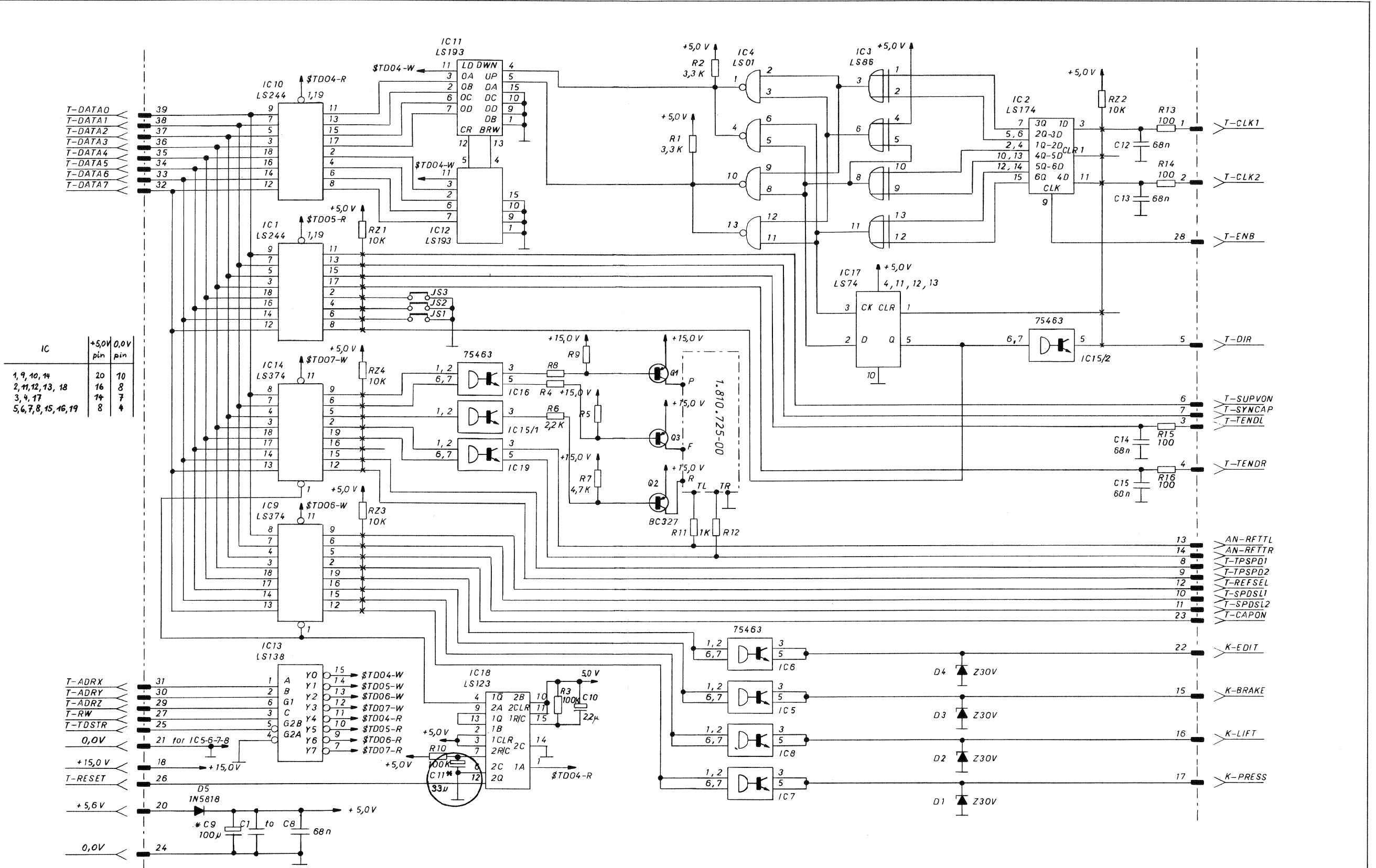
Note 1 - Liquid Crystal Display  
 Videlec (BBC) Nr. LC 703060-301 15/12  
 Toshiba Nr. F 2019A-32 P1  
 Epson Nr. LD-H 7918 A2

Note 2 - 2 pieces Studer Nr. 53-03-0212, or  
 2 pieces Precimation Nr. P-115 B 02

Ce=Ceramic  
 MANUFACTURER: Fc=Fairchild, Is=Intersil, Mot=Motorola  
 RCA=Radio Corporation of America, Sig=Signetics,  
 TI=Texas Instruments.

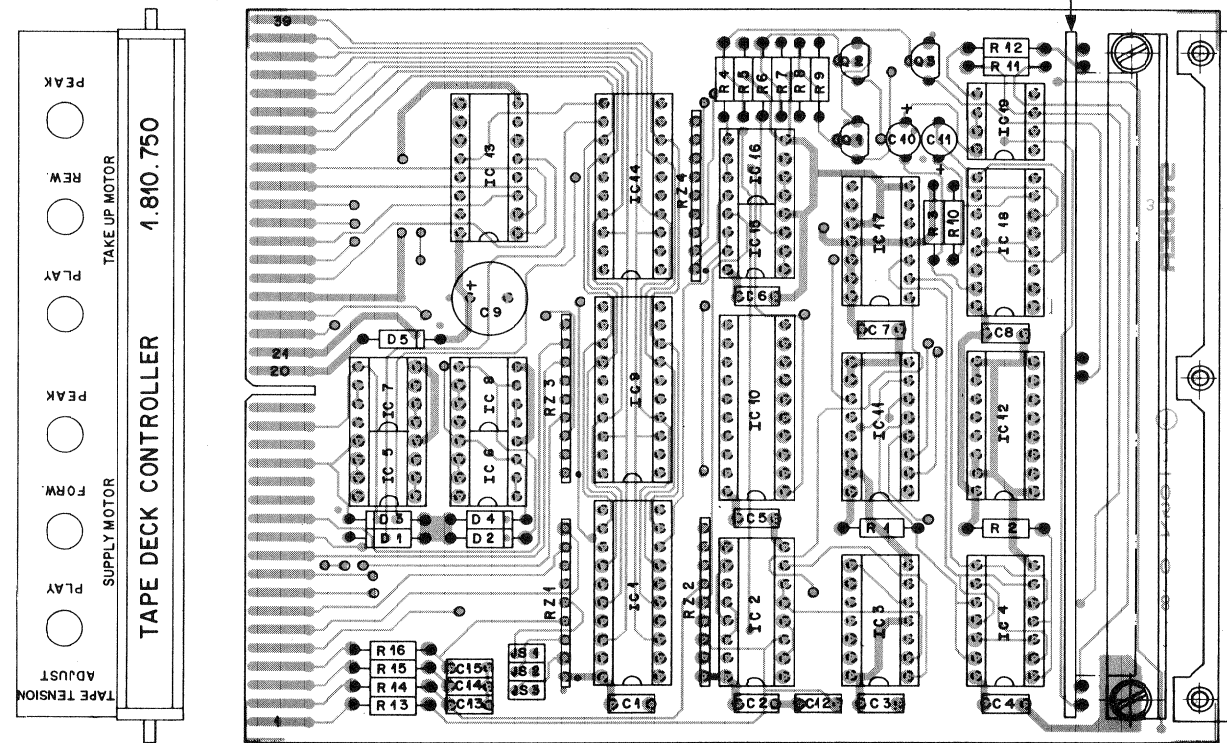
ORIG 81/10/19 (01) 83/01/20  
 S T U D E R 83/01/20 PHM DISPLAY UNIT A810 1.810.736.00 PAGE 1

TAPE DECK CONTROLLER PCB 1.810.750-00 GR20 EL2



★ HAS BEEN MODIFIED

TAPE DECK CONTROLLER PCB 1.810.750-00 GR20 EL2



TAPE TENSION ADJUST  
PCB 1.810.725-00

IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
C..0001		59.99.0205	68 nF	Ce	
C..0002		59.99.0205	68 nF	Ce	
C..0003		59.99.0205	68 nF	Ce	
C..0004		59.99.0205	68 nF	Ce	
C..0005		59.99.0205	68 nF	Ce	
C..0006		59.99.0205	68 nF	Ce	
C..0007		59.99.0205	68 nF	Ce	
C..0008		59.99.0205	68 nF	Ce	
(00) C..0009		59.22.3101	100 uF	10%, 10V, E1	
(01) C..0009		59.22.5101	100 uF	10%, 25V, E1	
C..0010		59.26.5229	2.2 uF	20%, 25V, Sa1	Ph
(02) C..0011		59.26.5229	2.2 uF	20%, 25V, Sa1	Ph
C..0011		59.26.1330	33 uF	20%, 10V, Sa1	
C..0012		59.99.0205	68 nF	Ce	
C..0013		59.99.0205	68 nF	Ce	
C..0014		59.99.0205	68 nF	Ce	
C..0015		59.99.0205	68 nF	Ce	
D..0001		50.04.1125	30 V Z	ZPD 30	ITT
D..0002		50.04.1125	30 V Z	ZPD 30	ITT
D..0003		50.04.1125	30 V Z	ZPD 30	ITT
D..0004		50.04.1125	30 V Z	ZPD 30	ITT
D..0005		50.04.0512	1N5818	1N5819	Mot
IC.0001		50.06.0244	74LS244	SN74LS244N	ANI,MM,Mot,TI
IC.0002		50.06.0174	N74LS174N	SN74LS174N	Sig,TI
IC.0003		50.06.0086	N74LS 86N	SN74LS 86N	Sig,TI
IC.0004		50.06.0001	N74LS 01N	SN74LS 01N	Sig,TI
IC.0005		50.05.0203	SN75463PS	N75463JG, SN55463JG, D53613N	NS,TI
IC.0006		50.05.0203	SN75463PS	N75463JG, SN55463JG, D53613N	NS,TI
IC.0007		50.05.0203	SN75463PS	N75463JG, SN55463JG, D53613N	NS,TI
IC.0008		50.05.0203	SN75463PS	N75463JG, SN55463JG, D53613N	NS,TI
IC.0009		50.06.0374	DM74LS374	SN74LS374N	NS,TI
IC.0010		50.06.0244	74LS244	SN74LS244N	ANI,MM,Mot,TI
IC.0011		50.06.0193	N74LS193N	SN74LS193N	Sig,TI
IC.0012		50.06.0193	N74LS193N	SN74LS193N	Sig,TI
IC.0013		50.06.0138	SN74LS138N		ANI,TI

S T U D E R 83/03/03 PB TAPE DECK CONTROLLER 1.810.750.00 PAGE 1

IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
IC.0014		50.06.0374	DM74LS374	SN74LS374N	NS,TI
IC.0015		50.05.0203	SN75463PS	N75463JG, SN55463JG, D53613N	NS,TI
IC.0016		50.05.0203	SN75463PS	N75463JG, SN55463JG, D53613N	NS,TI
IC.0017		50.06.0074	N74LS 74N	SN74LS 74N	Sig,TI
IC.0018		50.06.0123	SN74LS123N		TI
IC.0019		50.05.0203	SN75463PS	N75463JG, SN55463JG, D53613N	NS,TI
JS.0001				See note 1	
JS.0002				See note 1	
JS.0003				See note 1	
Q..0001		50.03.0351	BC327-25		ITT,NEC,Ph,Sie,Tf
Q..0002		50.03.0351	BC327-25		ITT,NEC,Ph,Sie,Tf
Q..0003		50.03.0351	BC327-25		ITT,NEC,Ph,Sie,Tf
R..0001		57.11.4332	3.3 kOhm		
R..0002		57.11.4332	3.3 kOhm		
R..0003		57.11.4104	100 kOhm		
R..0004		57.11.4222	2.2 kOhm		
R..0005		57.11.4472	4.7 kOhm		
R..0006		57.11.4222	2.2 kOhm		
R..0007		57.11.4472	4.7 kOhm		
R..0008		57.11.4222	2.2 kOhm		
R..0009		57.11.4472	4.7 kOhm		
R..0010		57.11.4104	100 kOhm		
R..0011		57.11.4302	1 kOhm		
R..0012		57.11.4102	1 kOhm		
R..0013		57.11.4101	100 Ohm		
R..0014		57.11.4101	100 Ohm		
R..0015		57.11.4101	100 Ohm		
R..0016		57.11.4101	100 Ohm		
RZ.0001		1.010.014.57		Network 8 # 10 kOhm	
RZ.0002		1.010.014.57		Network 8 # 10 kOhm	
RZ.0003		1.010.014.57		Network 8 # 10 kOhm	
RZ.0004		1.010.014.57		Network 8 # 10 kOhm	

S T U D E R 83/03/03 PB TAPE DECK CONTROLLER 1.810.750.00 PAGE 2

IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
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(01) 82/09/10 improved reliability of C 9 (higher nom. voltage)  
(02) 83/03/03 prolongation of reset time.

Note 1 - Contact pin: Studer 54.01.0020, Berg 75 160-102-36  
Bridge: Studer 54.01.0021, Philips 2422 024 88003

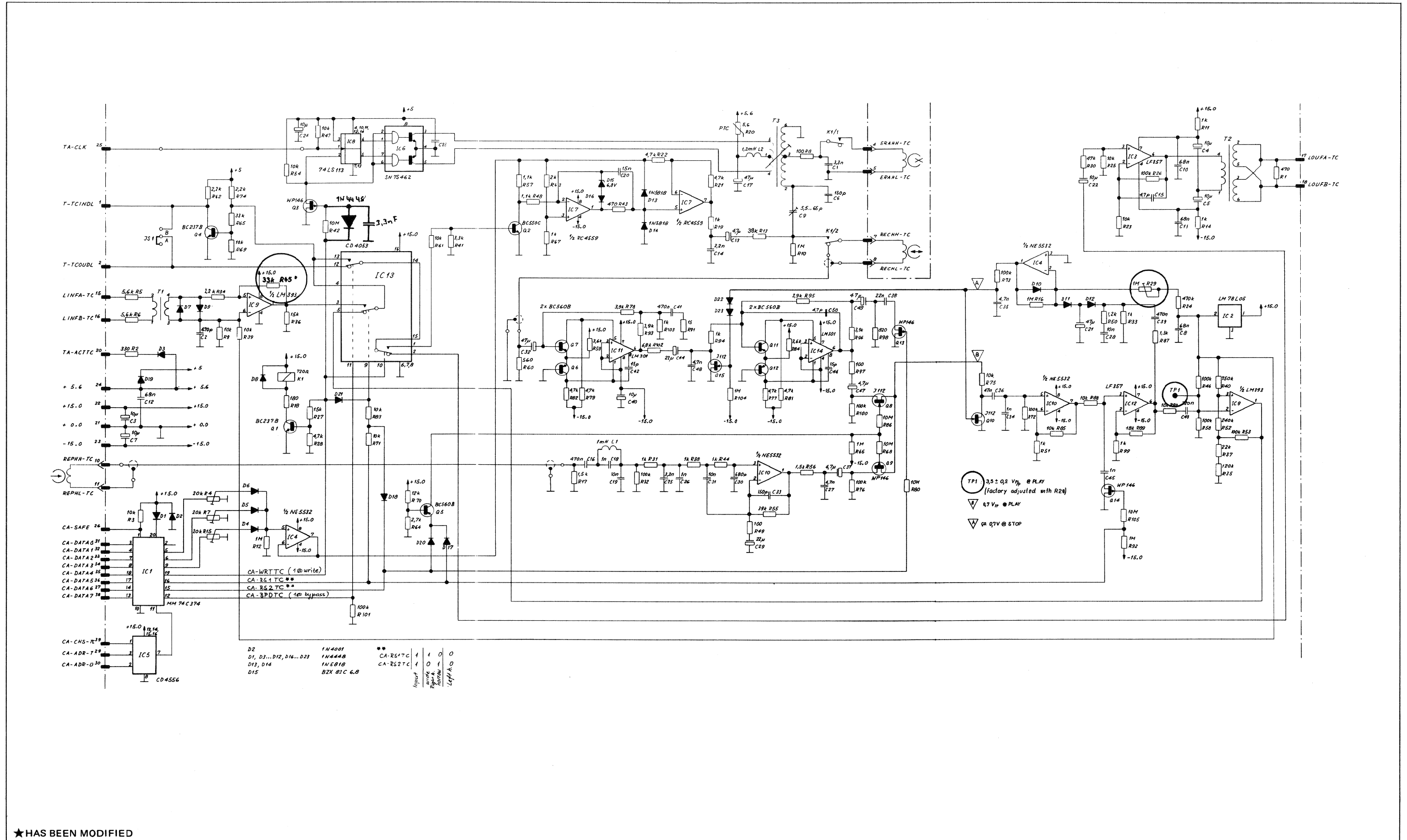
Ce=Ceramic, El=Electrolytic, Sa=Solid aluminium

MANUFACTURER: ANI=American Microsystem Inc., ITT=Intermetall,  
MM=Monolithic Memories Inc., Mot=Motorola,  
NEC=Nippon Electric Corp., NS=National Semiconductors,  
Ph=Philips, Sie=Siemens, Sig=Signetics, Tf=Telefunken,  
TI=Texas Instruments

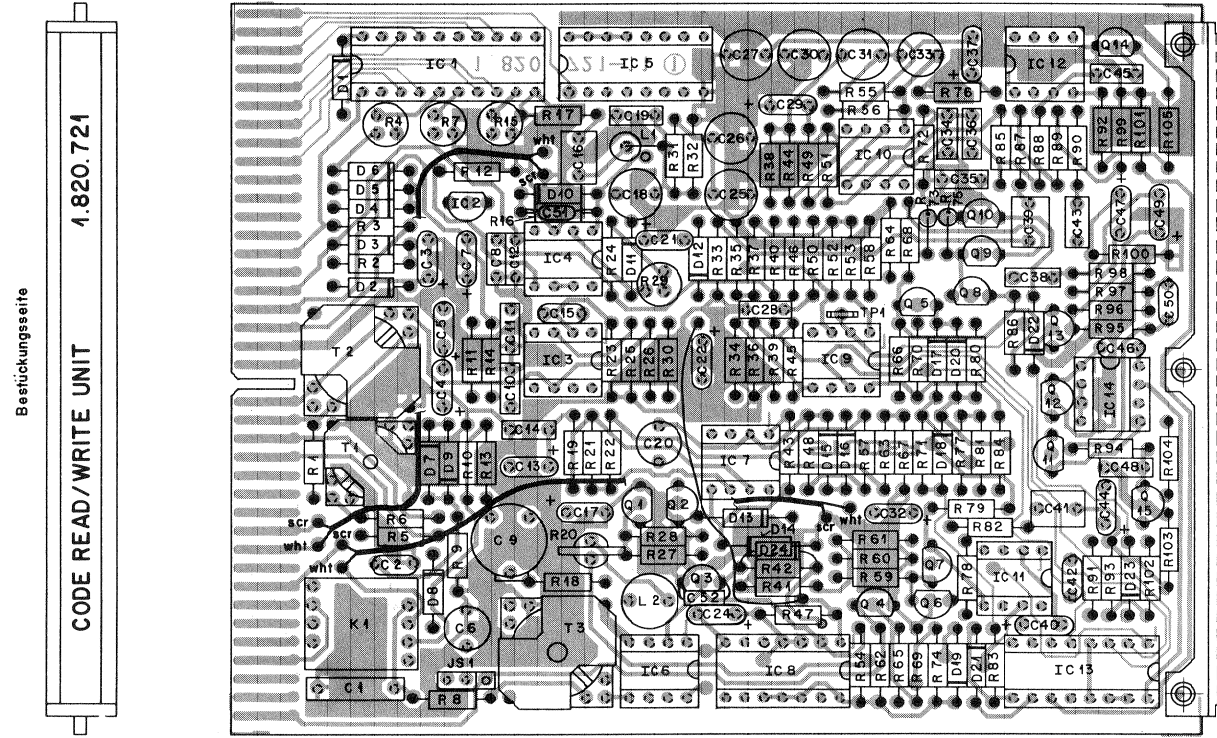
ORIG 82/03/18 (01) 82/09/10 (02) 83/03/03

S T U D E R 83/03/03 PB TAPE DECK CONTROLLER 1.810.750.00 PAGE 3

TIME CODE READ/WRITE UNIT PCB 1.820.721-00 GR20 EL6 "ESE"



TIME CODE READ/WRITE UNIT PCB 1.820.721-00 GR20 EL6 "ESE"

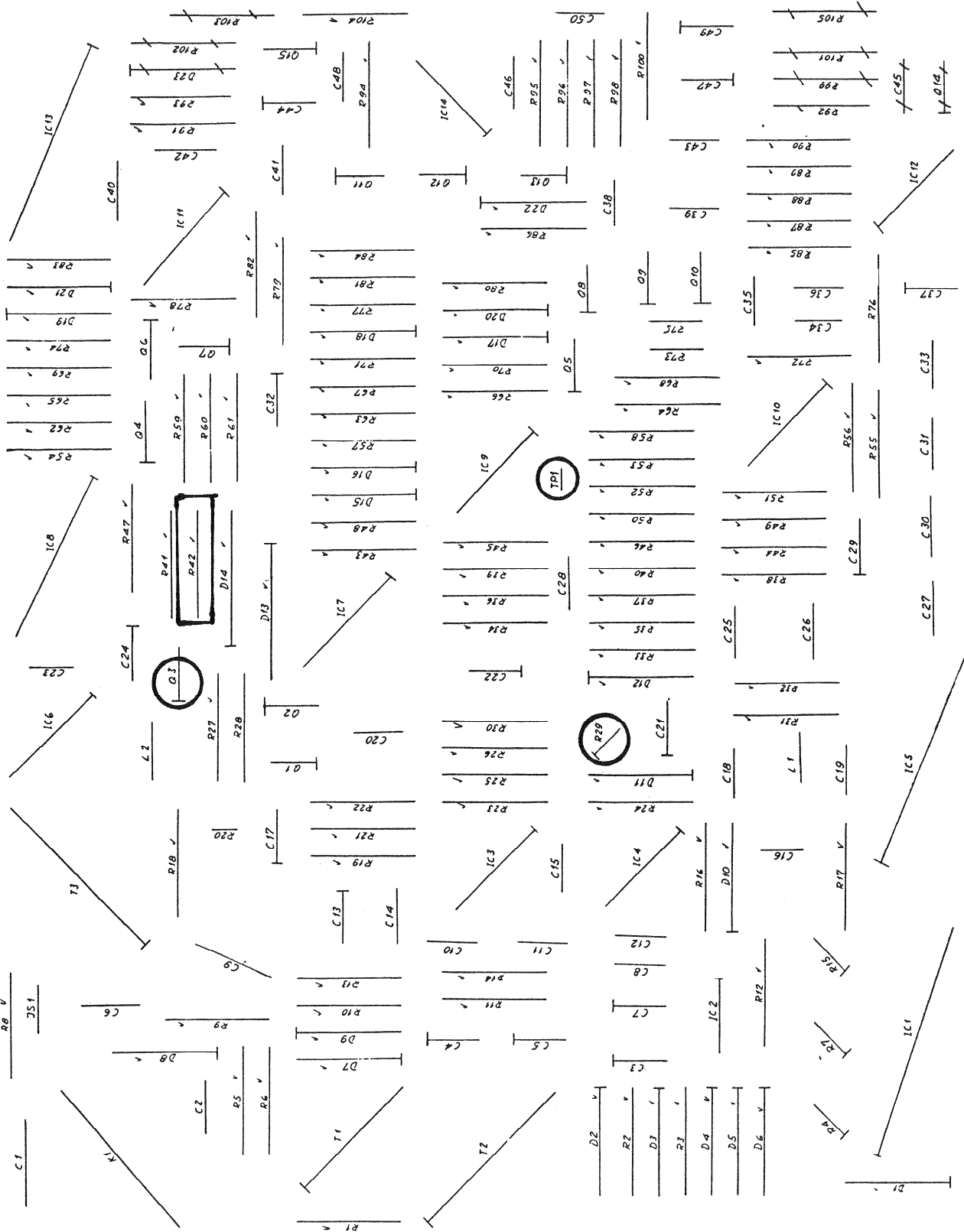


IND.	POS.ND.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.ND.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
C..0038		59.06.0223	22 nF	10%		R..0030		57.11.3107	1 kOhm	1%	
C..0039		59.06.0474	470 nF	10%		R..0031		57.11.4103	10 kOhm	2%	
C..0040		59.26.2100	10 uF	-20%, 16V, Sal	Ph	R..0032		57.11.3754	750 kOhm	1%	
C..0041		59.06.0474	470 nF	10%		R..0041		57.11.4337	3.3 kOhm	2%	
C..0042		59.34.1150	15 pF	20%		R..0042		57.11.0126	10 kOhm	10%	
C..0043		59.06.0224	220 nF	10%	Co	R..0043		57.11.4471	470 Ohm	2%	
C..0044		59.26.1220	22 uF	-20%, 10V, Sal	Ph	R..0044		57.11.3107	1 kOhm	1%	
C..0045		59.06.0102	1 nF	10%		R..0045		57.11.4103	10 kOhm	2%	
C..0046		59.34.1150	15 pF	20%	Co	R..0046		57.11.3104	100 kOhm	1%	
C..0047		59.26.5479	4.7 uF	-20%, 25V, Sal	Ph	R..0047		57.11.3302	3.3 kOhm	2%	
C..0048		59.06.0472	4.7 nF	10%		R..0048		57.11.3112	1.1 kOhm	1%	
C..0049		59.26.0470	4.7 uF	-20%, 6.3V, Sal	Ph	R..0049		57.11.4101	100 Ohm	2%	
C..0050		59.34.0479	4.7 pF	20%	Co	R..0050		57.11.4122	1.2 kOhm	2%	
D..0001		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0051		57.11.4102	1 kOhm	2%	
D..0002		50.04.0122	1N4001	1N4002, 1N4003, 1N4004	ITT,Ph,Mot	R..0052		57.11.3754	250 Ohm	1%	
D..0003		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0053		57.11.3104	100 kOhm	1%	
D..0004		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0054		57.11.4103	10 kOhm	2%	
D..0005		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0055		57.11.4393	39 kOhm	2%	
D..0006		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0056		57.11.4152	1.5 kOhm	2%	
D..0007		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0057		57.11.3112	1.1 kOhm	1%	
D..0008		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0058		57.11.3104	100 kOhm	1%	
D..0009		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0059		57.11.3302	3.3 kOhm	1%	
D..0010		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0060		57.11.561	560 Ohm	2%	
D..0011		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0061		57.11.4103	10 kOhm	2%	
D..0012		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0062		57.11.4122	2.2 kOhm	2%	
D..0013		50.04.3512	1N5818	1N5819	MoT	R..0063		57.11.3202	2 kOhm	1%	
D..0014		50.04.0512	1N5818	1N5819	MoT	R..0064		57.11.272	2.7 kOhm	2%	
D..0015		50.04.0125	1N4448	1N4449, 1N4450, 1N4451, 1N4452, 1N4453, 1N4454, 1N4455, 1N4456, 1N4457, 1N4458, 1N4459, 1N4460, 1N4461, 1N4462, 1N4463, 1N4464, 1N4465, 1N4466, 1N4467, 1N4468, 1N4469, 1N4470, 1N4471, 1N4472, 1N4473, 1N4474, 1N4475, 1N4476, 1N4477, 1N4478, 1N4479, 1N4480, 1N4481, 1N4482, 1N4483, 1N4484, 1N4485, 1N4486, 1N4487, 1N4488, 1N4489, 1N4490, 1N4491, 1N4492, 1N4493, 1N4494, 1N4495, 1N4496, 1N4497, 1N4498, 1N4499, 1N4500	ITT,Ph,Ses,TT	R..0065		57.11.4103	10 kOhm	2%	
D..0016		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0066		57.11.4103	10 kOhm	2%	
D..0017		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0067		57.11.3102	1 kOhm	1%	
D..0018		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0068		57.11.4103	10 kOhm	10%	
D..0019		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0069		57.11.4103	10 kOhm	2%	
D..0020		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0070		57.11.4123	12 kOhm	2%	
D..0021		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0071		57.11.4103	10 kOhm	2%	
D..0022		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0072		57.11.4104	100 kOhm	2%	
D..0023		50.04.0125	1N4448		ITT,Ph,Ses,TT	R..0073		57.11.4104	100 kOhm	2%	

IND.	POS.ND.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.ND.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
IC..0001		50.07.0003	74181	74181	NS	R..0074		57.11.4222	2.2 kOhm	2%	
IC..0002		50.10.0107	LM741	LM741	NS	R..0075		57.11.4103	10 kOhm	2%	
IC..0003		50.09.0102	LM339	LM339	NS	R..0076		57.11.4104	100 kOhm	2%	
IC..0004		50.09.0105	LM339	LM339	NS	R..0077		57.11.4472	4.7 kOhm	2%	
IC..0005		50.07.0004	74181	74181	NS	R..0078		57.11.4472	4.7 kOhm	2%	
IC..0006		50.05.0227	74181	74181	NS	R..0079		57.11.4472	4.7 kOhm	2%	
IC..0007		50.07.0107	74181	74181	NS	R..0080		57.11.6106	10 kOhm	10%	
IC..0008		50.11.0113	74181	74181	NS	R..0081		57.11.4472	4.7 kOhm	2%	
IC..0009		50.05.0283	74181	74181	NS	R..0082		57.11.4472	4.7 kOhm	2%	
IC..0010		50.09.0105	LM339	LM339	NS	R..0083		57.11.4103	10 kOhm	2%	
IC..0011		50.05.0105	74181	74181	NS	R..0084		57.11.4103	10 kOhm	2%	
IC..0012		50.09.0102	LM339	LM339	NS	R..0085		57.11.4103	10 kOhm	2%	
IC..0013		50.07.0015	74181	74181	NS	R..0086		57.11.6106	10 kOhm	10%	
IC..0014		50.05.0105	74181	74181	NS	R..0087		57.11.3102	1 kOhm	2%	
IC..0015		50.05.0105	74181	74181	NS	R..0088		57.11.4103	10 kOhm	2%	
J5..0001		56.04.0171	5M 01012		ITT	R..0089		57.11.4103	10 kOhm	2%	
L..0001		02.01.0128	1 mH	1 mH		R..0090		57.11.4103	10 kOhm	2%	
L..0002		02.02.2122	1.2 mH	1.2 mH		R..0091		57.11.4150	15 Ohm	2%	
U..0001		50.03.0435	9C237	9C237	ITT,MoT,Ph,Ses,TF	R..0092		57.11.4103	10 kOhm	2%	
U..0002		50.03.0497	9C590	9C590	ITT,MoT,Ph,Ses,TF	R..0093		57.11.4103	10 kOhm	2%	
U..0003		50.03.0329	91228E	91228E	MoT,Ph,Ses,TF	R..0094		57.11.3821	820 Ohm	1%	
U..0004		50.03.0496	9C560B	9C560B	MoT,Ph,Ses,TF	R..0095		57.11.4102	1 kOhm	2%	
U..0005		50.03.0495	9C560B	9C560B	MoT,Ph,Ses,TF	R..0096		57.11.4104	100 kOhm	2%	
U..0006		50.03.0496	9C560B	9C560B	MoT,Ph,Ses,TF	R..0097		57.11.4101	100 Ohm	2%	
U..0007		50.03.0350	J112F-18	J112A, TM0062	NS,MoT	R..0098		57.11.4102	1 kOhm	2%	
U..0008		50.03.0350	J112F-18	J112A, TM0062	NS,MoT	R..0099		57.11.4105	1 MOhm	2%	
U..0009		50.03.0329	91228E	91228E	MoT,Ph,Ses,TF	R..0100		57.11.4104	100 kOhm	2%	
U..0010		50.03.0350	J112F-18	J112A, TM0062	NS,MoT	R..0101		57.11.4104	100 kOhm	2%	
U..0011		50.03.0496	9C560B	9C560B	MoT,Ph,Ses,TF	R..0102		57.11.4102	6.8 kOhm	2%	
U..0012		50.03.0496	9C560B	9C560B	MoT,Ph,Ses,TF	R..0103		57.11.4102	1 kOhm	2%	
U..0013		50.03.0329	91228E	91228E	MoT,Ph,Ses,TF	R..0104		57.11.4105	1 MOhm	2%	
U..0014		50.03.0329	91228E	91228E	MoT,Ph,Ses,TF	R..0105		57.11.6106	10 MOhm	10%	
U..0015		50.03.0350	J112F-18	J112A, TM0062	NS,MoT	T..0001		1.822.215.00		Input transformer, 1 : 1	St
						T..0002		1.822.215.00		Time code output transformer	St
						T..0003		1.022.271.00		Time code HF transformer	St

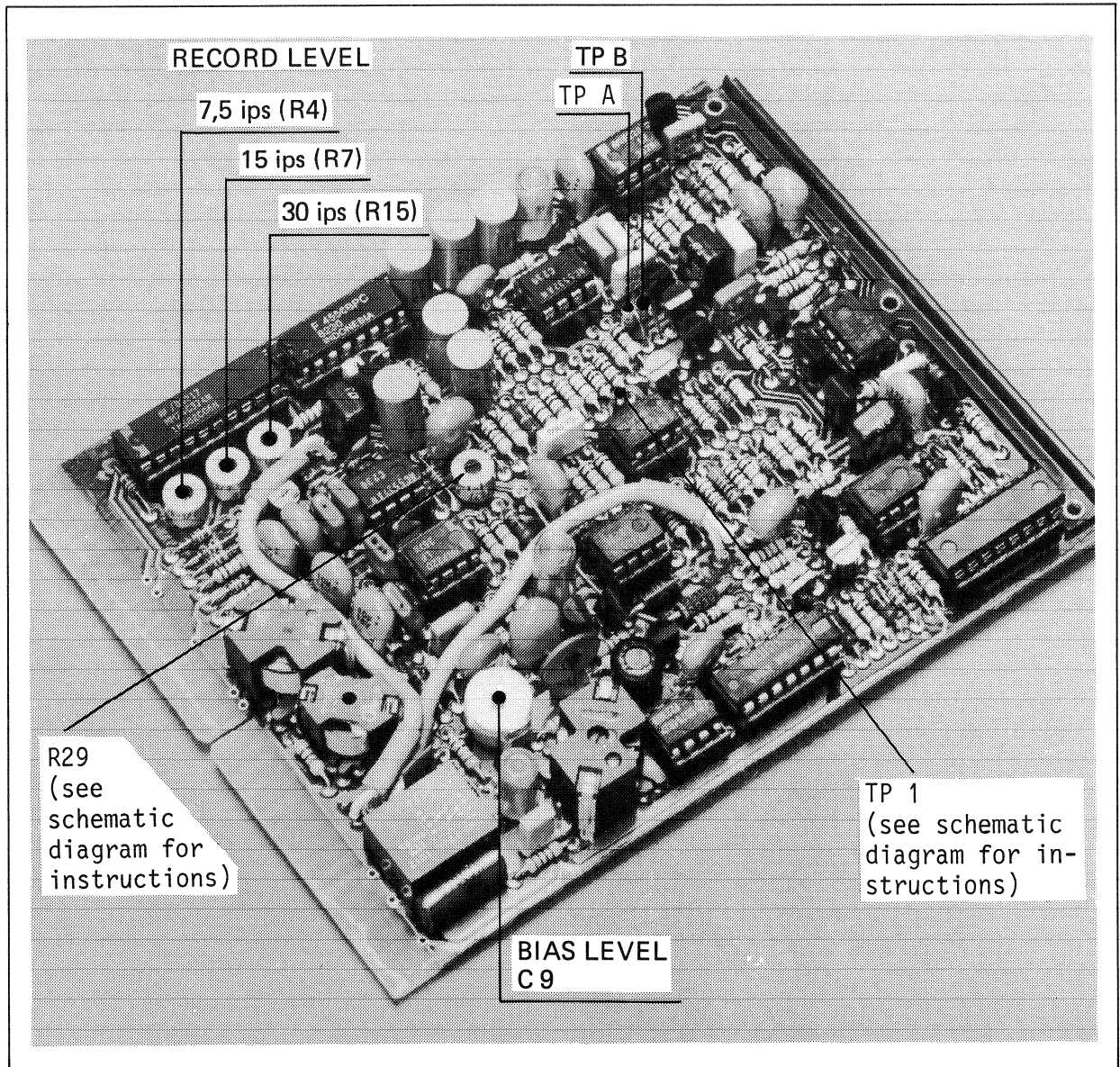
IND.	POS.ND.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
C..0001		59.11.4332	3.3 nF	5%	
C..0002		59.14.5411	470 pF	20%	
C..0003		59.26.2100	10 uF	-20%, 16V, Sal	Ph
C..0004		59.26.2100	10 uF	-20%, 16V, Sal	Ph
C..0005		59.26.2100	10 uF	-20%, 16V, Sal	Ph
C..0006		59.05.2151	150 pF	2.5%	
C..0007		59.26.2100	10 uF	-20%, 16V, Sal	Ph
C..0008		59.99.0205	68 nF	-20%	
C..0009		59.18.0102	65 pF	Trimmer capacitor, Philips nr 2722 505 01001	
C..0010		59.99.0205	68 nF	-20%	Co
C..0011		59.99.0205	68 nF	-20%	Co
C..0012		59.99.0205	68 nF	-20%	Co
C..0013		59.26.5479	4.7 uF	-20%, 25V, Sal	Ph
C..0014		59.06.0222	2.2 nF	10%	
C..0015		59.34.0479	4.7 pF	20%	Co
C..0016		59.06.0474	470 nF	10%	
C..0017		59.26.0470	4.7 uF	-20%, 6.3V, Sal	Ph
C..0018		59.05.1102	1 nF	1%	
C..0019		59.36.0103	10 nF	10%	
C..0020		59.05.2153	15 nF	2.5%	
C..0021		59.26.0470	4.7 uF	-20%, 6.3V, Sal	Ph
C..0022		59.26.2100	10 uF	-20%, 16V, Sal	Ph
C..0023			not used		
C..0024		59.26.2100	10 uF	-20%, 16V, Sal	Ph
C..0025		59.05.1132	3.3 nF	1%	
C..0026		59.05.1102	1 nF	1%	
C..0027		59.05.1472	4.7 nF	1%	
C..0028		59.06.0103	10 nF	10%	
C..0029		59.26.1220	22 uF	-20%, 10V, Sal	Ph
C..0030		59.05.1981	680 pF	1%	
C..0031		59.05.1103	10 nF	1%	
C..0032		59.26.0470	4.7 uF	-20%, 6.3V, Sal	Ph
C..0033		59.05.2151	150 pF	2.5%	
C..0034		59.06.0102	1 nF	10%	
C..0035		59.06.0472	4.7 nF	10%	
C..0036		59.06.0473	4.7 nF		

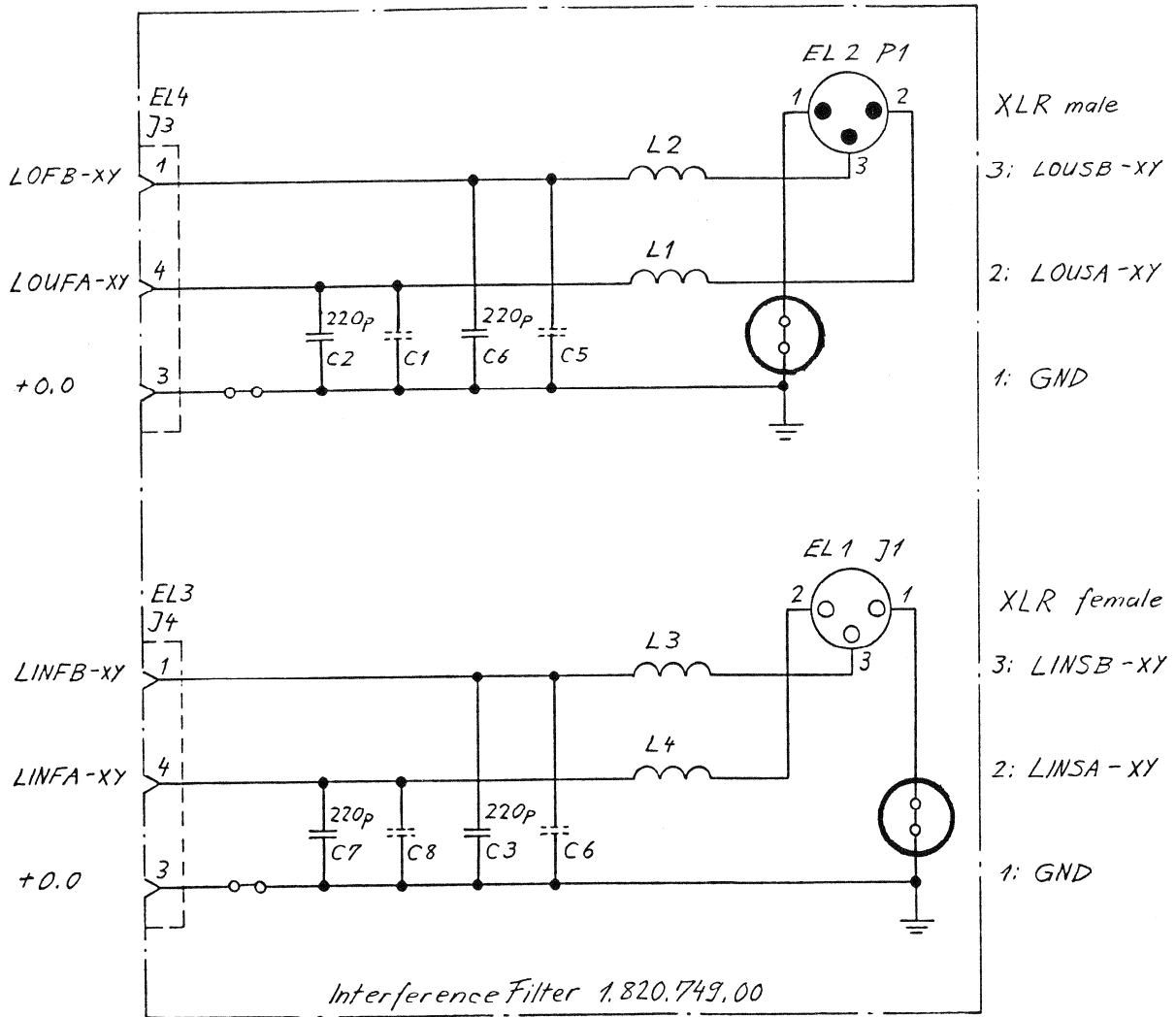




zugehörige Unterlagen: LÖTLISTE Bestückungsliste	Fremdabtoleranz: ±	Maßstab:	Ausgabe 11.10.82 Buchegger			
			Datum	Gez.	Gepr.	Ges. Index
ersatz für:	Ersetzt durch:	Kopie Nr.:	Nummer: 1.820.721.11			
STUDER REGENSDORF ZÜRICH		Bezeichnung: Timecode Read/Write Unit Bestückungsplan				

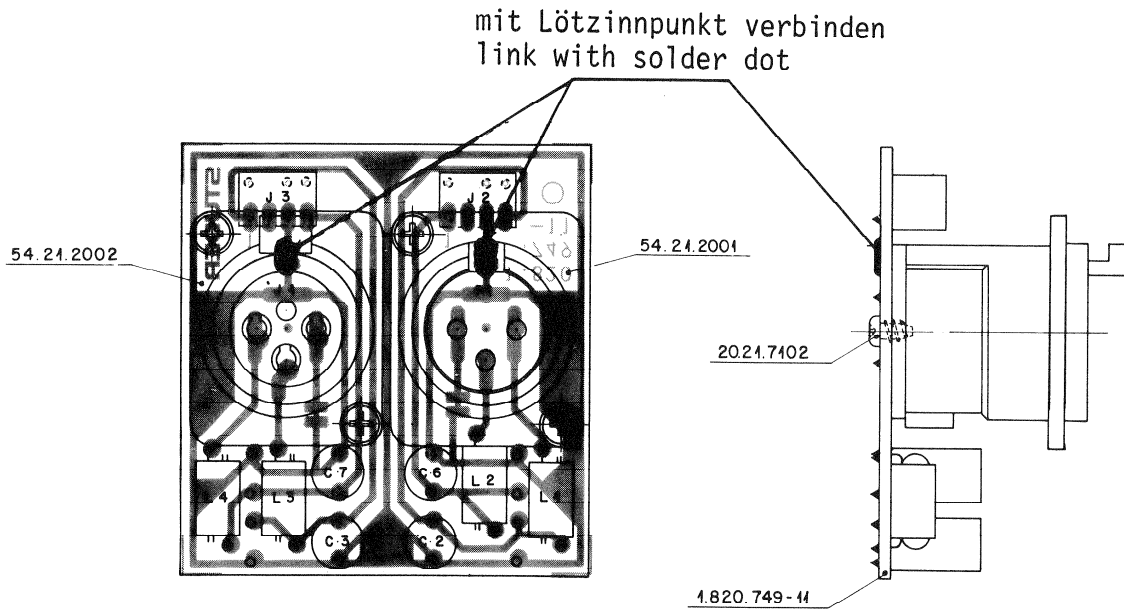
1.820.721-00





03.08.82	Imped L5	A 810 Audio Section	CH 1/CH 2 / TC	GR 35/36/37
STUDER	Interference Filter	SC	1.820.749-00	PAGE 1 OF 1

INTERFERENCE FILTER PCB 1.820.749-00 GR35/36/37



IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
C...	001		not used		
C...	002	59.05.1221	220 pF	630V, PP	ERD,NSF
C...	003	59.05.1221	220 pF	630V, PP	ERD,NSF
C...	004		not used		
C...	005		not used		
C...	006	59.05.1221	220 pF	630V, PP	ERD,NSF
C...	007	59.05.1221	220 pF	630V, PP	ERD,NSF
C...	008		not used		
J...	001	54.21.2002		XLR socket, Neutrik Nr. NC 3FD-V	
J...	003	54.01.0298	4 cont.	AMP Nr. 163.681-2	
J...	004	54.01.0298	4 cont.	AMP Nr. 163.681-2	
L...	001	62.01.0115		Interference-Coil, Philips Nr 4312 020 36700	
L...	002	62.01.0115		Interference-Coil, Philips Nr 4312 020 36700	
L...	003	62.01.0115		Interference-Coil, Philips Nr 4312 020 36700	
L...	004	62.01.0115		Interference-Coil, Philips Nr 4312 020 36700	
P...	001	54.21.2001		XLR plug, Neutrik Nr. NC 3MD-V	

PP=Polypropylen

MANUFACTURER: ERD=E. Roederstein, NSF=AEG-Telefunken-NSF,

ORIG 82/08/03

S T U D E R 82/08/03 GAE

INTERFERENCE FILTER

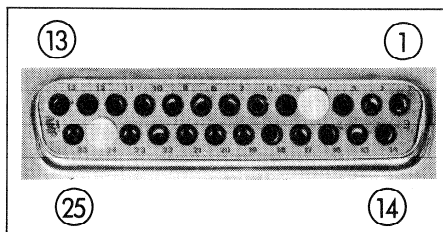
1.820.749-00 PAGE 1

## 2.4.5

## Fernsteuerstecker

Ein 25-poliger Steckanschluss (Subminiatur, Typ D) erlaubt den Anschluss der parallelen Fernsteuerung mit folgenden Moeglichkeiten:

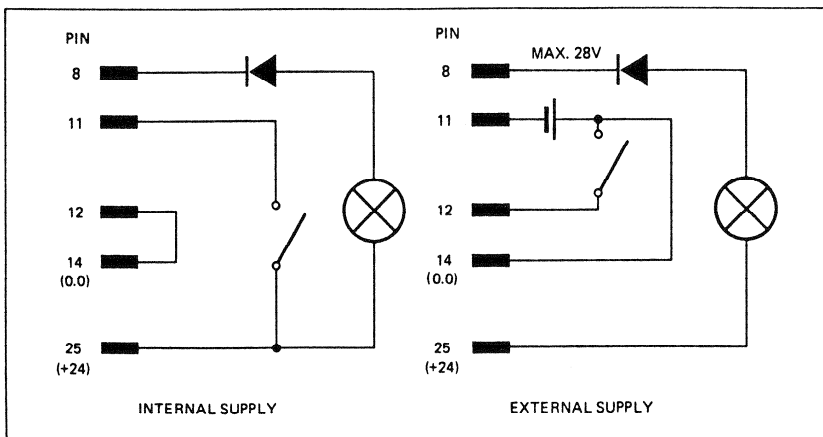
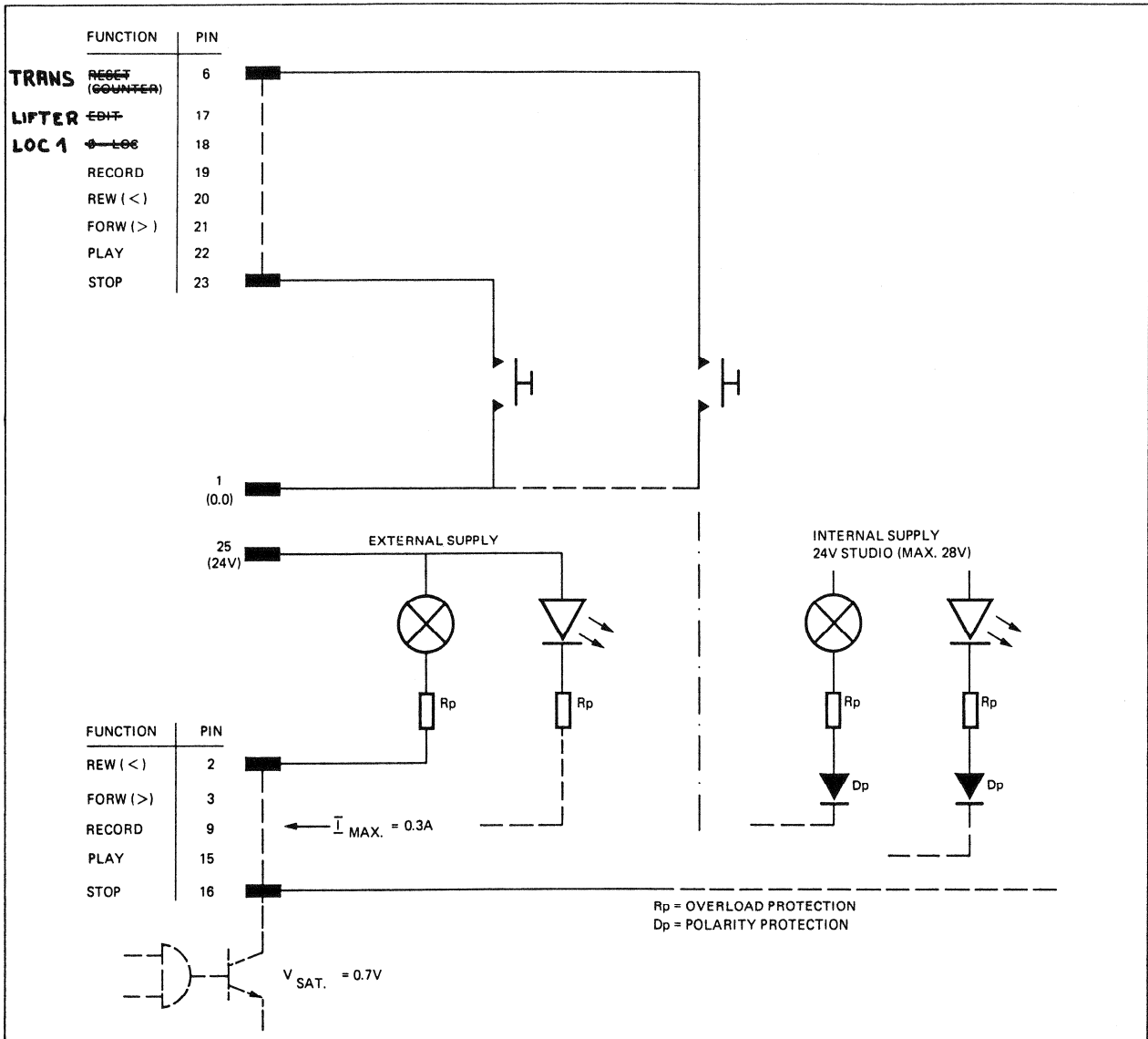
- Fernsteuerung der Laufwerkfunktionen mit Rueckmeldung
- Vari-Speed-Steuerung
- Reglerstartsteuerung fuer Wiedergabe
- Rueckstellung des Bandzaehlers



Best. Nr. für Stecker: 20.020.303.06  
Order Nr. for remote plug: 20.020.303.06

Signalnamen Fernsteuerstecker (parallel, weiblich):

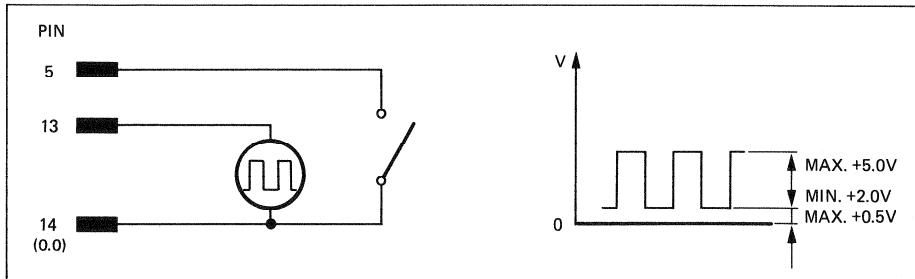
- 01 + 0.0
- 02 BR-REW
- 03 BR-FORW
- 04 KEY
- 05 SR-VRSPD
- 06 SR-TRANS
- 07 TO-CLK
- 08 BR-FAD
- 09 BR-REC
- 10 TO-DIR
- 11 FAD1
- 12 FAD2
- 13 T-REFEXT
- 14 + 0.0
- 15 BR-PLAY
- 16 SR-LIFTER
- 17 SR-LOC1
- 18 SR-OLOC
- 19 SR-REC
- 20 SR-REW
- 21 SR-FORW
- 22 SR-PLAY
- 23 SR-STOP
- 24 KEY
- 25 + 24.0



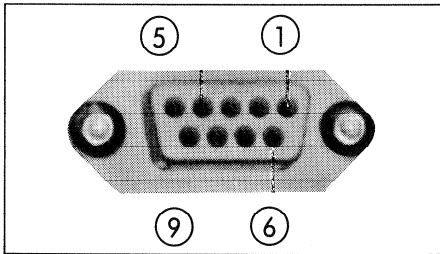
FADER START CIRCUIT

**Achtung:**

Bei Verwendung von Gluehlampen als Rueckmeldelampen darf deren Einschaltstrom 0,3 A nicht uebersteigen!



Der serielle Fernsteuerstecker (9-polig, Subminiatur, Typ D) erlaubt den Anschluss an den STUDER-Bus oder an ein Terminal mit RS 232-Schnittstelle.  
Jmschaltung siehe Kapitel 4.9.



Signalnamen Fernsteuerstecker (seriell, weiblich):

- 01 SHIELD
- 02 SNDATA
- 03 RCCOMM
- 04 STUBUS 1
- 05 NC
- 06 STUBUS 2
- 07 SNCOMM
- 08 RCVDATA
- 09 GND

nschlüsse für Datensicherung/ Connections for Data Save:

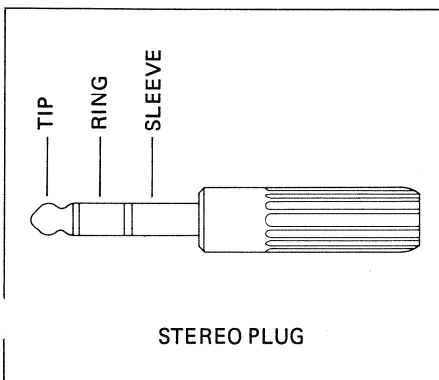
1, 4, 6

RS 232-Anschlüsse:

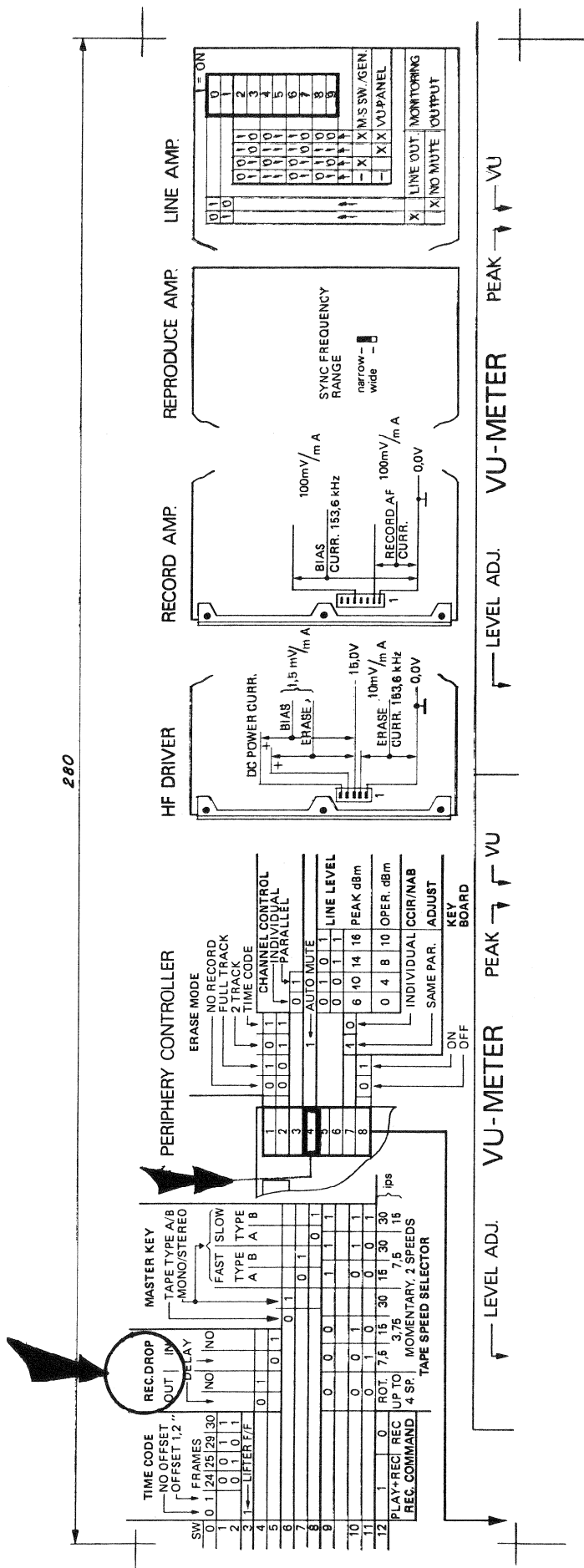
2, 3, 7, 8, 9

**2.4.6****Kopfhoerer-Anschluss**

TIP = links  
RING = rechts  
SLEEVE = Masse



280



SW	TIME CODE	NO OFFSET	OFFSET 1.2	2	3	4	5	6	7	8	9	10	11	12
0	NO OFFSET	0	1	2	3	4	5	6	7	8	9	10	11	12
1	FAST TYPE	0	1	2	3	4	5	6	7	8	9	10	11	12
2	SLOW TYPE	0	1	2	3	4	5	6	7	8	9	10	11	12
3	A	0	1	2	3	4	5	6	7	8	9	10	11	12
4	B	0	1	2	3	4	5	6	7	8	9	10	11	12
5	LIFTER/F	0	1	2	3	4	5	6	7	8	9	10	11	12
6	NO RECORD	0	1	2	3	4	5	6	7	8	9	10	11	12
7	FULL TRACK	0	1	2	3	4	5	6	7	8	9	10	11	12
8	2 TIME CODE	0	1	2	3	4	5	6	7	8	9	10	11	12
9	INDIVIDUAL	0	1	2	3	4	5	6	7	8	9	10	11	12
10	PARALLEL	0	1	2	3	4	5	6	7	8	9	10	11	12
11	AUTO MUTE	0	1	2	3	4	5	6	7	8	9	10	11	12
12	LINE LEVEL	0	1	2	3	4	5	6	7	8	9	10	11	12
	PEAK	0	1	2	3	4	5	6	7	8	9	10	11	12
	OPER. dBm	0	1	2	3	4	5	6	7	8	9	10	11	12
	INDIVIDUAL CCR/NAB	0	1	2	3	4	5	6	7	8	9	10	11	12
	SAME PAR. ADJUST	0	1	2	3	4	5	6	7	8	9	10	11	12
	KEY BOARD	0	1	2	3	4	5	6	7	8	9	10	11	12
	ON	0	1	2	3	4	5	6	7	8	9	10	11	12
	OFF	0	1	2	3	4	5	6	7	8	9	10	11	12
	REC. COMMAND	0	1	2	3	4	5	6	7	8	9	10	11	12
	4 SP. MOMENTARY 2 SPEEDS	0	1	2	3	4	5	6	7	8	9	10	11	12
	TAPE SPEED SELECTOR	0	1	2	3	4	5	6	7	8	9	10	11	12
	IPS	0	1	2	3	4	5	6	7	8	9	10	11	12
	ROT	0	1	2	3	4	5	6	7	8	9	10	11	12
	7.5	0	1	2	3	4	5	6	7	8	9	10	11	12
	3.75	0	1	2	3	4	5	6	7	8	9	10	11	12
	15	0	1	2	3	4	5	6	7	8	9	10	11	12
	7.5	0	1	2	3	4	5	6	7	8	9	10	11	12
	30	0	1	2	3	4	5	6	7	8	9	10	11	12
	15	0	1	2	3	4	5	6	7	8	9	10	11	12
	7.5	0	1	2	3	4	5	6	7	8	9	10	11	12
	30	0	1	2	3	4	5	6	7	8	9	10	11	12
	15	0	1	2	3	4	5	6	7	8	9	10	11	12