COMMON GROUP UNIT

1.990.250.70

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R...601	. . 0	not used	
	R...602	. . 0	not used	
	R...603	. . 0	not used	
	R...605	. . 0	not used	
	R...606	. . 0	not used	
	R...607	57.11.3274	270 kOhm 1% 0.25W	
	R...608	57.11.3102	1 kOhm 5% 0.25W	
	R...609	57.11.5106	10 MOhm 10% 0.25W	
	R...610	57.11.6226	22 MOhm 10% 0.25W	
	R...611	57.11.3562	5.6 kOhm 1% 0.25W	
	R...612	57.11.3333	33 kOhm 5% 0.25W	
	R...613	57.11.3432	4.3 kOhm 1% 0.25W	
	R...614	57.11.3333	33 kOhm 5% 0.25W	
	R...615	57.11.3512	5.1 kOhm 1% 0.25W	
	R...616	57.11.3105	1 MOhm 5% 0.25W	
	R...617	57.11.3105	1 MOhm 5% 0.25W	
	R...618	57.11.3105	1 MOhm 5% 0.25W	
02	R...618	57.11.3104	100 kOhm 5% 0.25W	
	R...619	57.11.3105	1 MOhm 5% 0.25W	
02	R...619	57.11.3104	100 kOhm 5% 0.25W	
	R...620	57.92.7013	0.75 Ohm I hold = 0.5A , I trip = 1A R-PTC	
	R...621	57.92.7013	0.75 Ohm I hold = 0.5A , I trip = 1A R-PTC	
	R...622	57.11.3151	150 Ohm 1% 0.25W	
	R...623	57.92.7013	0.75 Ohm I hold = 0.5A , I trip = 1A R-PTC	
	R...624	57.11.3102	1 kOhm 5% 0.25W	
	R...625	57.11.3330	33 Ohm 5% 0.25W	
	R...626	57.92.7013	0.75 Ohm I hold = 0.5A , I trip = 1A R-PTC	
	R...627	57.11.3222	2.2 kOhm 5% 0.25W	
	R...628	57.11.3272	2.7 kOhm 5% 0.25W	
	R...629	57.11.3104	100 kOhm 5% 0.25W	
	R...630	57.11.3681	680 Ohm 5% 0.25W	
	R...631	57.11.3104	100 kOhm 5% 0.25W	
	R...632	57.11.3104	100 kOhm 5% 0.25W	
	R...633	57.11.3202	2 kOhm 5% 0.25W	
	R...634	57.11.3222	2.2 kOhm 5% 0.25W	
	R...635	57.11.3101	100 Ohm 5% 0.25W	
	R...636	57.11.3151	150 Ohm 5% 0.25W	
	R...637	57.11.3470	47 Ohm 5% 0.25W	
	R...638	57.11.3689	6.8 Ohm 5% 0.25W	
	R...639	57.11.3689	6.8 Ohm 5% 0.25W	
	R...640	57.11.3101	100 Ohm 5% 0.25W	
	R...641	57.11.3151	150 Ohm 5% 0.25W	
	R...642	57.11.3330	33 Ohm 5% 0.25W	
	R...643	57.11.3330	33 Ohm 5% 0.25W	
	R...644	57.11.3151	150 Ohm 5% 0.25W	
	R...645	57.11.3101	100 Ohm 5% 0.25W	
	R...647	57.11.3109	1 Ohm 5% 0.25W	
	R...648	57.11.3109	1 Ohm 5% 0.25W	
	R...649	57.11.3109	1 Ohm 5% 0.25W	
	R...650	57.11.3273	27 kOhm 1% 0.25W	
	R...651	57.11.3513	51 kOhm 1% 0.25W	
	R...652	57.11.3243	24 kOhm 1% 0.25W	
	R...653	57.11.3513	51 kOhm 1% 0.25W	
	R...801	57.11.3102	1 kOhm 5% 0.25W	
	R...802	57.11.3102	1 kOhm 5% 0.25W	
	R...803	57.11.3102	1 kOhm 5% 0.25W	
02	R...803	57.11.3101	100 Ohm 5% 0.25W	
	R...805	57.11.3223	22 kOhm 5% 0.25W	
	R...806	57.11.3334	330 kOhm 5% 0.25W	
	R...807	57.11.3334	330 kOhm 5% 0.25W	
	R...808	57.11.3104	100 kOhm 5% 0.25W	
	R...809	. . 0	not used	
	R...810	. . 0	not used	
	R...813	. . 0	not used	
	R...814	. . 0	not used	
	R...815	. . 0	not used	
	R...816	. . 0	not used	
	R...817	. . 0	not used	
	R...818	. . 0	not used	
	R...819	. . 0	not used	
	R...820	. . 0	not used	
	R...821	. . 0	not used	
	R...822	. . 0	not used	
	R...823	. . 0	not used	
	R...824	. . 0	not used	
	R...825	. . 0	not used	
	R...826	. . 0	not used	
	R...827	. . 0	not used	
	R...828	. . 0	not used	
	R...829	. . 0	not used	
	R...830	. . 0	not used	
	R...831	. . 0	not used	
	R...832	. . 0	not used	
	R...833	. . 0	not used	
	R...834	. . 0	not used	
	R...835	57.11.5106	10 MOhm 10% 0.25W	
	R...836	57.11.3330	33 Ohm 5% 0.25W	
	R...840	. .	100 kOhm 20% lin.	see R 173
	R...841	. .	100 kOhm 20% lin.	see R 176
	R...842	. .	100 kOhm 20% lin.	see R 179
	R...843	. .	100 kOhm 20% lin.	see R 170
	R...844	. . 0	NOT USED	
	R...845	. . 0	NOT USED	
	R...846	. . 0	NOT USED	
	R...847	. . 0	NOT USED	
	R...849	. . 0	not used	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R...852	. . 0	NOT USED	
	R...853	. . 0	NOT USED	
	R...854	. . 0	NOT USED	
	R...855	. . 0	NOT USED	
	R...856	. . 0	not used	
	R...857	. . 0	NOT USED	
	R...858	. . 0	NOT USED	
	R...859	. . 0	not used	
	R...860	57.11.3102	1 kOhm 5% 0.25W	
	R...861	57.11.3102	1 kOhm 5% 0.25W	
	R...862	57.11.3102	1 kOhm 5% 0.25W	
	R...863	. . 0	not used	
	R...864	57.11.3333	33 kOhm 5% 0.25W	
	R...865	57.11.3333	33 kOhm 5% 0.25W	
	R...866	57.11.3333	33 kOhm 5% 0.25W	
	RZ....2	. . 0	not used	
	RZ....3	. . 0	not used	
	RZ....7	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ....8	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ....9	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...10	57.88.2224	220 kOhm 2% SIP 8 (4*)	
	RZ...11	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...13	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...14	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...15	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...16	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...17	. . 0	not used	
	RZ...18	. . 0	not used	
	RZ...19	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...20	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...21	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...22	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...23	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...24	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...25	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...26	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...27	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...28	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...29	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...30	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...31	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...32	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...33	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...34	57.88.2224	220 kOhm 2% SIP 8 (4*)	
	RZ...35	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ...36	57.88.2101	100 Ohm 2% SIP 8 (4*)	
	RZ..307	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ..308	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ..309	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ..310	57.88.2224	220 kOhm 2% SIP 8 (4*)	
	RZ..311	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ..331	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ..332	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ..333	57.88.2682	6.8 kOhm 2% SIP 8 (4*)	
	RZ..334	57.88.2224	220 kOhm 2% SIP 8 (4*)	
	RZ..801	57.88.2102	1 kOhm SIP 8 (4*)	
J2	RZ..801	57.88.2101	100 Ohm SIP 8 (4*)	
	RZ..802	57.88.2102	1 kOhm SIP 8 (4*)	
02	RZ..802	57.88.2101	100 Ohm SIP 8 (4*)	
	RZ..803	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..804	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..805	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..806	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..807	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..808	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..809	. . 0	not used	
	RZ..810	. . 0	not used	
	RZ..811	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..812	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..813	. . 0	not used	
	RZ..814	. . 0	not used	
	RZ..815	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..816	. . 0	not used	
	RZ..817	. . 0	not used	
	RZ..818	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..819	57.88.2104	100 kOhm SIP 8 (4*)	
	RZ..821	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..822	. . 0	not used	
	RZ..824	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..825	57.88.2102	1 kOhm SIP 8 (4*)	
	RZ..826	57.88.2102	1 kOhm SIP 8 (4*)	
	RZ..827	57.88.2102	1 kOhm SIP 8 (4*)	
	RZ..828	57.88.2102	1 kOhm SIP 8 (4*)	
	RZ..829	57.88.2102	1 kOhm SIP 8 (4*)	
	RZ..830	57.88.2102	1 kOhm SIP 8 (4*)	
	RZ..831	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..832	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..833	57.88.2104	100 kOhm SIP 8 (4*)	
	RZ..834	57.88.2104	100 kOhm SIP 8 (4*)	
	RZ..835	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..836	57.88.2104	100 kOhm SIP 8 (4*)	
	RZ..837	57.88.2104	100 kOhm SIP 8 (4*)	
	RZ..838	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..839	57.88.2104	100 kOhm SIP 8 (4*)	
	RZ..840	57.88.2104	100 kOhm SIP 8 (4*)	

COMMON GROUP UNIT

1.990.250.70

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	RZ..841	57.88.4104	100 kOhm	SIP 9	(8*)	H8
	RZ..842	57.88.2104	100 kOhm	SIP 8	(4*)	H8
	RZ..843	57.88.2104	100 kOhm	SIP 8	(4*)	H8
	RZ..844	57.88.4104	100 kOhm	SIP 9	(8*)	I8
	RZ..845	57.88.2104	100 kOhm	SIP 8	(4*)	I8
	RZ..846	57.88.2104	100 kOhm	SIP 8	(4*)	K8
	RZ..847	57.88.4104	100 kOhm	SIP 9	(8*)	I9
	RZ..848	57.88.2104	100 kOhm	SIP 8	(4*)	I9
	RZ..849	57.88.2104	100 kOhm	SIP 8	(4*)	K9
	RZ..850	57.88.4104	100 kOhm	SIP 9	(8*)	K9
	RZ..851	. . 0	not used			K9
	RZ..852	. . 0	not used			L9
	RZ..853	57.88.4104	100 kOhm	SIP 9	(8*)	K8
	RZ..854	57.88.2104	100 kOhm	SIP 8	(4*)	K8
	RZ..855	. . 0	not used			L8
	RZ..858	57.88.4104	100 kOhm	SIP 9	(8*)	D7
	RZ..859	57.88.2104	100 kOhm	SIP 8	(4*)	B7
	RZ..860	57.88.2104	100 kOhm	SIP 8	(4*)	B7
	RZ..861	57.88.4104	100 kOhm	SIP 9	(8*)	E8
	RZ..862	57.88.2104	100 kOhm	SIP 8	(4*)	E8
	RZ..863	57.88.2104	100 kOhm	SIP 8	(4*)	E8
	RZ..864	57.88.4104	100 kOhm	SIP 9	(8*)	E9
	RZ..865	57.88.2104	100 kOhm	SIP 8	(4*)	E9
	RZ..866	57.88.2104	100 kOhm	SIP 8	(4*)	E9
	RZ..867	57.88.4104	100 kOhm	SIP 9	(8*)	F9
	RZ..868	57.88.2104	100 kOhm	SIP 8	(4*)	F9
	RZ..869	57.88.2104	100 kOhm	SIP 8	(4*)	F9
	RZ..870	57.88.4104	100 kOhm	SIP 9	(8*)	F8
	RZ..871	57.88.2104	100 kOhm	SIP 8	(4*)	F8
	RZ..872	57.88.2104	100 kOhm	SIP 8	(4*)	F8
	T.....1	. . 0	not used			N2
	T...301	. . 0	not used			NO
	W.....1	1.010.330.64	wire	3.5mm, alternate to R 849 (option 2)		N7
	W.....2	1.010.330.64	wire	3.5mm, replaces R 856 (pin 1&2 shorted)		H7
	W.....3	1.010.329.64	wire	2.5mm, replaces R 859 (pin 1&2 shorted)		I7
	W.....5	. . 0	not used			M2
	W.....6	. . 0	not used			M3
	W.....7	. . 0	not used			L4
	W.....9	. . 0	not used			M2
	W....10	. . 0	not used			M2
	W....11	57.11.3000	0 Ohm	0-Ohm Input to processing		M4
	W....12	57.11.3000	0 Ohm	0-Ohm Input to processing		M4
	W....16	. . 0	NOT USED			C1
	W....18	1.010.329.64	wire	2.5mm, bypass spread		D3
	W....19	1.010.329.64	wire	2.5mm, bypass spread		C3
	W....20	. . 0	NOT USED			B4
	W....21	. . 0	not used			G2
	W....22	. . 0	not used			N8
	W....23	. . 0	not used			N7
	W....24	. . 0	not used			N7
	W....25	. . 0	not used			N7
	W....26	. . 0	not used			N7
	W...110	. . 0	NOT USED			
	W...111	. . 0	NOT USED			

Optionen: Siehe Optionenliste!

Die files heissen #990250S,T

Mit NOT USED bezeichnete Elemente erscheinen z.T. in uebergeordneter BG.
Mit not used bezeichnete Elemente kommen in Groups nicht vor.

Die Koordinaten bei Manuf. beziehen sich auf Bestueckplan

CE=Ceramic, CF=Carbon Film, EL=Electrolytic, MF=Metal Film,
PE=Polyester, PP=Polypropylen, PS=Polystyrol

MANUFACTURER: ADI=Aanalog Devices Inc., Bu=Burndy, El=Elco, Ex=Exar,
Fc=Fairchild, Fe=Ferranti, GI=General Instrument, Ha=Harting
HP=Hewlett Packard, ITT=Intermetall, Mot=Motorola, Nat=National
(Matsushita), NS=National Semiconductors, Ph=Philips,
PMI=Precision Monolitics Inc., Ra=Raytheon, RCA=Radio Corp. of
America, SDS=SDS-Relais, Sie=Siemens, Six=Siliconix, St=Studer
Tho=Thomson, To=Toshiba, TI=Texas Instrument, Ya=Yamaichi

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HISTORY:
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01.10.90 - Stand RAI-Pult

13.11.90 - Eliminierung digitaler Stoerungen
- AUX-Klirr (0V generiert 1)
- PF-Headroom

21.11.90 - Poslst Bereinigung

08.01.91 - Anwahl-Elektronik (Q und shelv/bell Umschaltung) fuer
nachtraeglich bestueckt.
- Verbesserung Rauschabstand vom Insert Send

30.01.91 - Poslst Bereinigung (NOT USED/not used) ==> ZAB

12.02.91 (01) HF-Entstoerung C 619, C 827 dazu
Produktions-Bereinigung MP 25, 1 Stk entfaellt
DC-Knacksen: C 35 und C 335 dazu

10.09.91 (02) INT 5 (Overload) gleich wie Mono: wechseln von 1M auf 100k
- R 618, R 619 werden neu 100 kOhm (57.11.3104)
Seriewiderstaende in TCL, TXD, TSTB, D00 usw. von 1k auf 100
- RZ 801, RZ 802 werden neu 100 Ohm (57.88.2101)
- R 803 wird neu 100 Ohm (57.11.3101)

1.990.250.70 COMMON GROUP UNIT AB 91/01/3000

1.990.250.70 COMMON GROUP UNIT AB 91/02/1201

1.990.250.70 COMMON GROUP UNIT ABB91/09/1002

END

Pin location list **1.990.250**

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ALSO USED FOR      -GROUP UNIT MONO + EQ     MCH / B  1.990.250 / 260
                   -GROUP UNIT MONO          MCH / B  1.990.255 / 265
                   -GROUP UNIT STEREO + EQ   MCH / B  1.990.270 / 280
                   -GROUP UNIT STEREO        MCH / B  1.990.275 / 285
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P	NO	NAME	REMARK	B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC
P6	01A	OVA BAL/PAN1	GROUND SIGN BAL (PAN 1)	O
P6	01B	B-L/PAN1-IN	BAL LEFT IN (PAN 1 IN)	O
P6	02A	B/PAN1-OUT-L	BAL OUT LEFT (PAN 1 OUT LEFT)	O
P6	02B	B/PAN1-OUT-R	BAL OUT RIGHT (PAN 1 OUT RIGHT)	O
P6	03A	-	NC (GROUND SIGN PAN 2)	O
P6	03B	B-R/PAN2-IN	BAL RIGHT IN (PAN 2 IN)	O
P6	04A	B-Rb-IN	BAL IN RIGHT b	I,O
P6	04B	C-OUT	BAL COMMON OUT	O
P6	05A	FILM-OUT-L	OPTIONAL OUTPUT LEFT	O
P6	05B	FILM-OUT-R	OPTIONAL OUTPUT RIGHT	O
P6	06A		N.C.	O
P6	06B		N.C.	O
P6	07A	+ 15V	+ SUPPLY TO FADER UNIT	O
P6	07B	- 15V	- SUPPLY TO FADER UNIT	O
P6	08A	A OUT 0	DC INPUT ; FROM MCU ANALOG OUT 0	O
P6	08B	A OUT 1	DC INPUT ; FROM MCU ANALOG OUT 1	O
P6	09A	A IN 4	DC OUTPUT ; TO MCU ANALOG IN 4	O
P6	09B	A OUT 5	DC INPUT ; FROM MCU ANALOG OUT 5	O
P6	10A	RCL	RECEIVE CLOCK	O
P6	10B	RSTB	RECEIVE STROBE	O
P6	11A	INT 4	INTERUPT 4	O
P6	11B	RXD 3	RECEIVE DATA 3	O
P6	12A	INT 5	INTERUPT 5	O
P6	12B	TSTB 2	TRANSMIT STROBE 2	O
P6	13A	TSTB 3	TRANSMIT STROBE 3	O
P6	13B	TSTB 4	TRANSMIT STROBE 4	O
P6	14A	TSTB 5	TRANSMIT STROBE 5	O
P6	14B	DO 1	DATA OUT 1 (TRANSMIT STROBE 8)	O
P6	15A	TXD	TRANSMIT DATA	O
P6	15B	TCL	TRANSMIT CLOCK	O
P6	16A	DO 0	DATA OUT 0 (ENABLE)	O
P6	16B	UREF	+ 5V REFERENCE	O
P7	01A	OV-B	GROUND AUDIO (PIN)	O
P7	01B	CHASSIS	METAL FRAME	B
P7	02A	-	RES	O
P7	02B	-	RES	O
P7	03A	-	RES LEFT	B
P7	03B	-	RES RIGHT	B
P7	04A	-	N.C.	B,I
P7	04B	-	N.C.	B,I
P7	05A	B-PFL/SOLO-L	PFL/SOLO LEFT ; 0-OHM BUS	B,I
P7	05B	B-PFL/SOLO-R	PFL/SOLO RIGHT ; 0-OHM BUS	B,I
P7	06A	B-A-L	MASTER A LEFT ; 0-OHM BUS	B,I
P7	06B	B-A-R	MASTER A RIGHT ; 0-OHM BUS	B,I
P7	07A	B-B-L	MASTER B LEFT ; 0-OHM BUS	B,I
P7	07B	B-B-R	MASTER B RIGHT ; 0-OHM BUS	B,I
P7	08A	B-C-L	MASTER C LEFT ; 0-OHM BUS	B,I

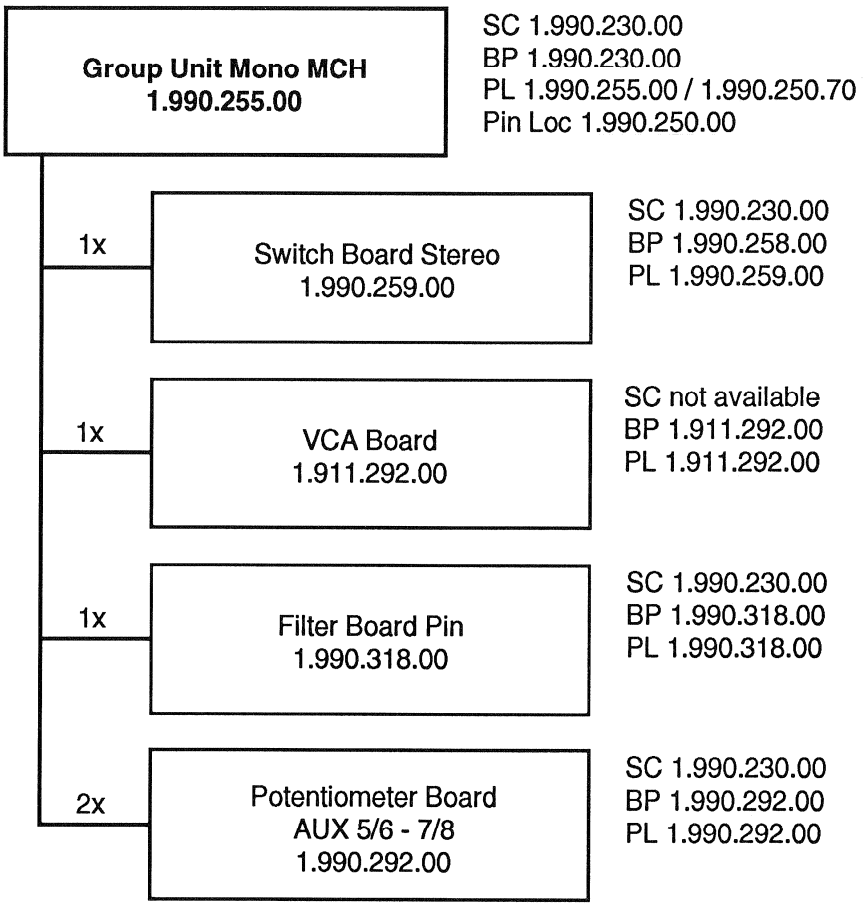
Pin location list **1.990.250**

P7	08B	B-C-R	MASTER C RIGHT	; 0-OHM BUS	B,I		
P7	09A	B-D-L	MASTER D LEFT	; 0-OHM BUS	B,I		
P7	09B	B-D-R	MASTER D RIGHT	; 0-OHM BUS	B,I		
P7	10A	-	N.C.		B,I		
P7	10B	-	N.C.		B,I		
P7	11A	-	N.C.		B,I		
P7	11B	-	N.C.		B,I		
P7	12A	-	N.C.		B,I		
P7	12B	-	N.C.		B,I		
P7	13A	-	N.C.		B,I		
P7	13B	-	N.C.		B,I		
P7	14	0V-REF	0V REFERENCE		B	X	X
P7	15A	B-AUX-1	AUX 1	; 0-OHM BUS	B,I		
P7	15B	B-AUX-2	AUX 2	; 0-OHM BUS	B,I		
P7	16A	B-AUX-3	AUX 3	; 0-OHM BUS	B,I		
P7	16B	B-AUX-4	AUX 4	; 0-OHM BUS	B,I		
P7	17A	B-AUX-5	AUX 5	; 0-OHM BUS	B,I		
P7	17B	B-AUX-6	AUX 6	; 0-OHM BUS	B,I		
P7	18A	B-AUX-7	AUX 7	; 0-OHM BUS	B,I		
P7	18B	B-AUX-8	AUX 8	; 0-OHM BUS	B,I		
P7	19A	B-AUX-9	AUX 9	; 0-OHM BUS	B,I		
P7	19B	B-AUX-10	AUX 10	; 0-OHM BUS	B,I		
P7	20A	B-AUX-11	AUX 11	; 0-OHM BUS	B,I		
P7	20B	B-AUX-12	AUX 12	; 0-OHM BUS	B,I		
P7	21A	B-AUX-13	AUX 13	; 0-OHM BUS	B,I		
P7	21B	B-AUX-14	AUX 14	; 0-OHM BUS	B,I		
P7	22A	B-AUX-15	AUX 15	; 0-OHM BUS	B,I		
P7	22B	B-AUX-16	AUX 16	; 0-OHM BUS	B,I		
P7	23A	0V GEN 1	GROUND AUDIO GENERATED 1		O		
P7	23B	GR-L-IN	GROUP 0-OHM INPUT LEFT		O		
P7	24A	0V GEN 2	GROUND AUDIO GENERATED 2		O		
P7	24B	GR-L-0V-IN	GROUP 0-OHM INPUT LEFT GROUND		O		
P7	25A	0V GEN 3	GROUND AUDIO GENERATED 3		O		
P7	25B	GR-R-IN	GROUP 0-OHM INPUT RIGHT		O		
P7	26A	0V GEN 4	GROUND AUDIO GENERATED 4		O		
P7	26B	GR-R-0V-IN	GROUP 0-OHM INPUT RIGHT GROUND		O		
P7	27	0V-A	GROUND AUDIO		B	X	X
P7	28	- 15.5V	- SUPPLY		B	X	X
P7	29	+ 15.5V	+ SUPPLY		B	X	X
P7	30	0V-L	GROUND SIGN (LOGIC)		B	X	X
P7	31	+ 5.5V	+ SUPPLY		B	X	X
P7	32	+3..4V LED	LED SUPPLY VARIABLE +3...4V		B	X	X
P9	01A	-	N.C.		O		
P9	01B	-	N.C.		O		
P9	02A	-	N.C.		O		
P9	02B	-	N.C.		O		
P9	03A	-	N.C.		O		
P9	03B	-	N.C.		O		
P9	04A	-	N.C.		O		
P9	04B	-	N.C.		O		
P9	05A	-	N.C.		O		
P9	05B	-	N.C.		O		
P9	06A	-	N.C.		O		
P9	06B	-	N.C.		O		
P9	07A	-	N.C.		O		
P9	07B	-	N.C.		O		
P9	08A	-	N.C.		O		
P9	08B	-	RES		O		
P9	09A	-	N.C.		O		
P9	09B	-	N.C.		O		
P9	10A	DIR-OUT-L-a	DIRECT OUT LEFT a		S,O		

Pin location list **1.990.250**

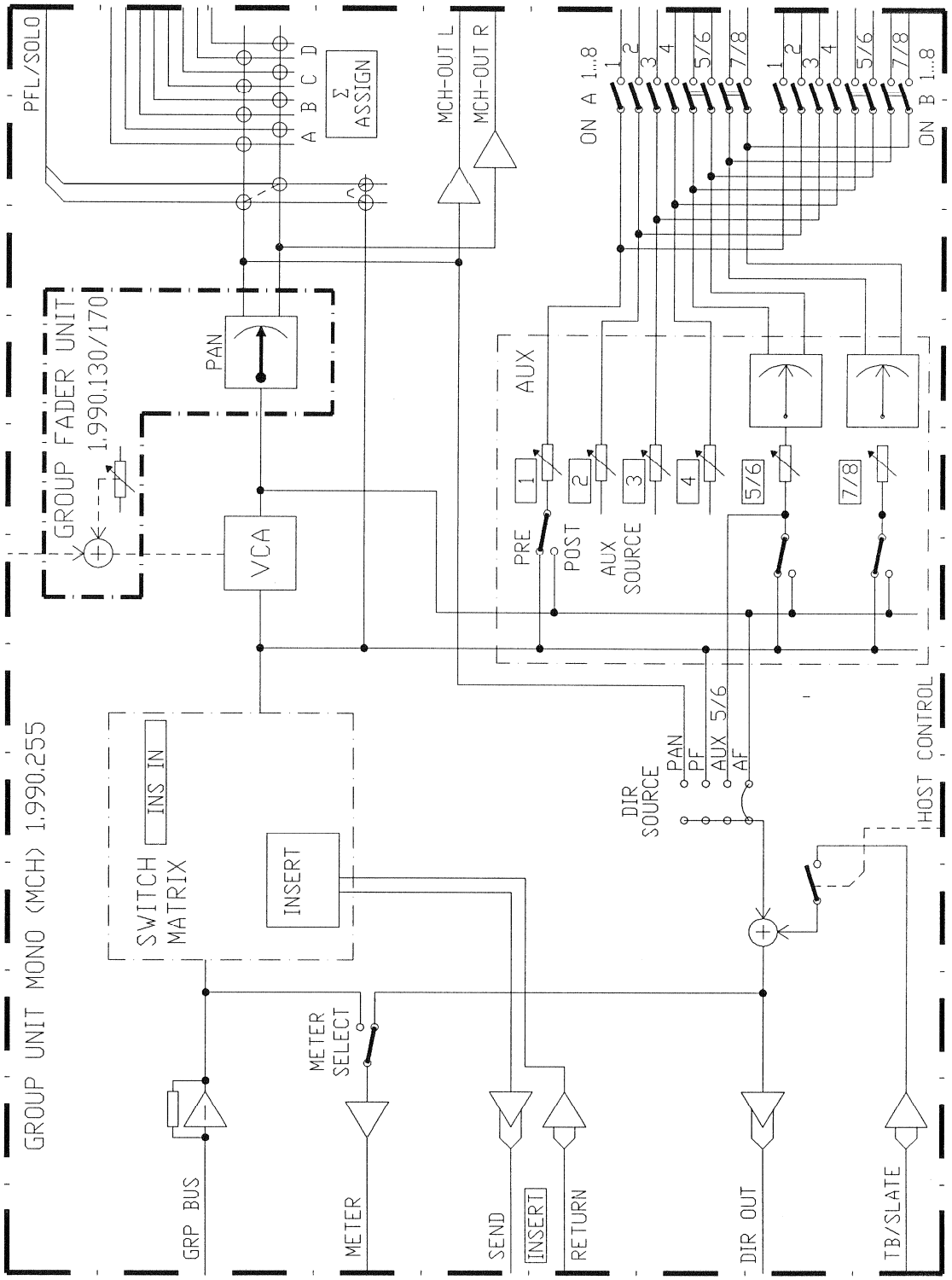
P9	10B	DIR-OUT-L-b	DIRECT OUT LEFT b	S,O
P9	11A	DIR-OUT-R-a	DIRECT OUT RIGHT a	S,O
P9	11B	DIR-OUT-R-b	DIRECT OUT RIGHT b	S,O
P9	12A	METER-L	METER LEFT	AS,O
P9	12B	METER-L-OV	METER L GROUND AUDIO GENERATED	O
P9	13A	METER-R-OV	METER R GROUND AUDIO GENERATED	O
P9	13B	METER-R	METER RIGHT	AS,O
P9	14A	MCH-OUT-L-a	TO EURO 32CH BUS SELECTOR LEFT a	S,O
P9	14B	MCH-OUT-L-b	TO EURO 32CH BUS S. LEFT b (GROUND)	S,O
P9	15A	MCH-OUT-R-a	TO EURO 32CH BUS SELECTOR RIGHT a	S,O
P9	15B	MCH-OUT-R-b	TO EURO 32CH BUS S. RIGHT b (GROUND)	S,O
P9	16A	PF-OUT-L	PRE FADER OUT LEFT	AS,O
P9	16B	PF-OUT-R	PRE FADER OUT RIGHT	AS,O
P9	17A	AF-OUT-L	AFTER FADER OUT LEFT	AS,O
P9	17B	AF-OUT-R	AFTER FADER OUT RIGHT	AS,O
P9	18A	-	N.C.	O
P9	18B	AF/PF-OUT-OV	AF/PF OUT GROUND	O
P9	19A	-	N.C.	S,O
P9	19B	-	N.C.	AS,O
P9	20A	-	N.C.	O
P9	20B	-	N.C.	S,O
P9	21A	-	N.C.	S,O
P9	21B	-	N.C.	O
P9	22A	-	N.C.	O
P9	22B	-	N.C.	O
P9	23A	-	N.C.	O
P9	23B	-	N.C.	O
P9	24A	TB/SLATE-a	TALK BACK / SLATE INPUT a	S,B
P9	24B	-	N.C.	B
P9	25A	-	N.C.	B
P9	25B	TB/SLATE-b	TALK BACK / SLATE INPUT b	S,B
P9	26A	-	N.C.	B
P9	26B	-	N.C.	B
P9	27A	-	N.C.	B
P9	27B	-	N.C.	B
P9	28A	INS-OV	INSERT GROUND	O
P9	28B	-	N.C.	B
P9	29A	INS-SEND-L-a	SYM INSERT LEFT OUTPUT a	S,O
P9	29B	INS-SEND-L-b	SYM INSERT LEFT OUTPUT b	S,O
P9	30A	INS-RET -L-a	SYM INSERT LEFT INPUT a	S,O
P9	30B	INS-RET -L-b	SYM INSERT LEFT INPUT b	S,O
P9	31A	INS-SEND-R-a	SYM INSERT RIGHT OUTPUT a	S,O
P9	31B	INS-SEND-R-b	SYM INSERT RIGHT OUTPUT b	S,O
P9	32A	INS-RET -R-a	SYM INSERT RIGHT INPUT a	S,O
P9	32B	INS-RET -R-b	SYM INSERT RIGHT INPUT b	S,O

Group Unit Mono MCH 1.990.255.00



SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

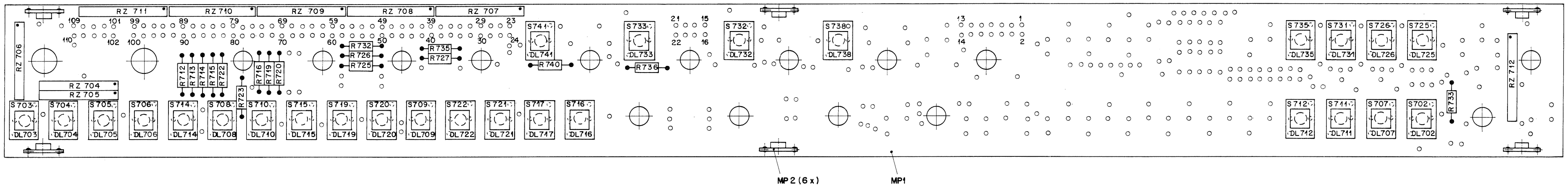
GROUP UNIT MONO MCH 1.990.255.00



GROUP UNIT MONO 1.990.255.00

```
Ad  ..POS..  ...REF.No...     DESCRIPTION.............................MANUFACTURER


    A.....2  1.990.259.00             SWITCH BOARD GROUP                    St

    A....14  1.990.292.00             5 POT. 10MM BOARD                     St B6
    A....15  1.990.292.00             5 POT. 10MM BOARD                     St B6
    A....16  1.990.318.00             FILTER BOARD PIN                      St N3

    A....70  1.990.250.70             GROUP UNIT VORMONTIERT       ,A       St
    IC...75      .  .   0   not used                                 see option 1 H1

    IC..835      .  .   0   not used                                 see option 2 G8

    MP...28    21.01.2352      6 pcs   S-Schr. M3*4
    MP...29    24.16.3023      2 pcs   Wellensicherung 2.3
    MP...30    42.01.0203      2 pcs   Drehknopf gr, D 10/4

    MP...31    42.01.0228      4 pcs   Knebelknopf gr, D 10/4
    MP...32    42.01.0250      1 pcs   Deckel h'gr, D 10
    MP...33    42.01.0251      1 pcs   Deckel d'gr, D 10
    MP...34    42.01.0253      1 pcs   Deckel   rt, D 10
    MP...35    42.01.0254      1 pcs   Deckel   bl, D 10
    MP...36    42.01.0255      1 pcs   Deckel   gb, D 10
    MP...37    42.01.0256      1 pcs   Deckel   gn, D 10
    MP...38  1.010.022.21      2 pcs   Linsenschr. spez M3*8
    MP...40  1.912.000.03      2 pcs   Drehring D 6.2/13

    MP...41  1.990.200.03      1 pcs   Schirmblech Input
    MP...42  1.990.210.02      1 pcs   Traeger Input
    MP...44  1.990.255.01      1 pcs   Frontschild Input (1.990265.01 -> BG 265!)
    MP...46  1.010.108.64      1 pcs   gelber Draht 28 mm connects PF L&PF R     F2

    R...182      .  .       4.7 kOhm    10%  +log.comb.withR183/483/844/846      B6
    R...183      .  .        10 kOhm    10%  +log.see R 182 1.010.034.58 on A 14 B6
    R...186      .  .       4.7 kOhm    10%  +log.comb.withR187/487/845/847      A6
    R...187      .  .        10 kOhm    10%  +log.see R 186 1.010.034.58 on A 15 A6

    R...203      .  .   0   not used                                 see option 2 N6

    R...436      .  .   0   not used    remove R 436    in MONO GROUPS          H3

    R...483      .  .        10 kOhm    10%  neg.log. see R 182                 B6
    R...487      .  .        10 kOhm    10%  neg.log. see R 186                 A6

    R...844      .  .       100 kOhm    20%  lin.     see R 182                 B7
    R...845      .  .       100 kOhm    20%  lin.     see R 186                 A6
    R...846      .  .       100 kOhm    20%  lin.     see R 182                 B6
    R...847      .  .       100 kOhm    20%  lin.     see R 186                 A7

    W....16  1.010.330.64     wire       3.5mm, Group Mono Pan                 C1
    W....19      .  .   0   not used    remove W 19     in MONO GROUPS          C3
    W....20    57.11.3000      0  Ohm   Group AUX Mono Pan                     B4

 >> POSLST 1.990.255 gilt auch fuer BG 1.990.265.xx ( B - Version ) <<

       >-----------------------------------------<
       | Die files zu dieser POSLST heissen  #990255A,B |
       >-----------------------------------------<

Die posliste 1.990.250.70 ist in den files #990250S,T

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

OPTIONS :  SEE OPTIONLIST 1.990.230.00
********

option 1 :.....multichannel out
option 2 :.....output trim

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

Die Koordinaten bei Manuf. beziehen sich auf Bestueckplan

CE=Ceramic, CF=Carbon Film, EL=Electrolytic, MF=Metal Film,
PE=Polyester, PP=Polypropylen, PS=Polystyrol

MANUFACTURER: ADI=Aanalog Devices Inc., Bu=Burndy, El=Elco, Ex=Exar,
              Fc=Fairchild, Fe=Ferranti, GI=General Instrument, Ha=Harting,
              HP=Hewlett Packard, ITT=Intermetall, Mot=Motorola, Nat=National
              (Matsushita), NS=National Semiconductors, Ph=Philips,
              PMI=Precision Monolitics Inc., Ra=Raytheon, RCA=Radio Corp. of
              America, SDS=SDS-Relais, Sie=Siemens, Six=Siliconix, St=Studer,
              Tho=Thomson, To=Toshiba, TI=Texas Instrument, Ya=Yamaichi

            1.990.255.00  GROUP UNIT MONO              AB 91/01/3000

 END
```

SWITCH BOARD GROUP 1.990.258.00 / 1.990.259.00



*

VALID FOR	NR. UNIT	NR. POS. LIST
SWITCH BOARD GROUP + EQ	1.990.258-00	1.990.258-00
SWITCH BOARD GROUP	1.990.259-00	1.990.259-00

Änderung				
				③
				②
				①
Ausgabe	10.4.90			⓪
	Datum	Gez.	Gepr. Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH | Benennung: SWITCH BOARD GROUP | Nummer: 1.990.258-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	DL..701	. . 0	not used	
	DL..702	. .	red see S702	
	DL..703	. .	yel see S703	
	DL..704	. .	grn see S704	
	DL..705	. .	yel see S705	
	DL..706	. .	grn see S706	
	DL..707	. .	red see S707	
	DL..708	. .	grn see S708	
	DL..709	. .	yel see S709	
	DL..710	. .	yel see S710	
	DL..711	. .	red see S711	
	DL..712	. .	red see S712	
	DL..713	. . 0	not used	
	DL..714	. .	yel see S714	
	DL..715	. .	grn see S715	
	DL..716	. .	red see S716	
	DL..717	. .	red see S717	
	DL..718	. . 0	not used	
	DL..719	. .	yel see S719	
	DL..720	. .	grn see S720	
	DL..721	. .	yel see S721	
	DL..722	. .	grn see S722	
	DL..723	. . 0	not used	
	DL..724	. . 0	not used	
	DL..725	. .	red see S725	
	DL..726	. .	red see S726	
	DL..727	. . 0	not used	
	DL..728	. . 0	not used	
	DL..729	. . 0	not used	
	DL..730	. . 0	not used	
	DL..731	. .	red see S731	
	DL..732	. .	grn see S732	
	DL..733	. .	grn see S733	
	DL..734	. . 0	not used	
	DL..735	. .	red see S735	
	DL..736	. . 0	not used	
	DL..737	. . 0	not used	
	DL..738	. .	grn see S738	
	DL..739	. . 0	not used	
	DL..740	. . 0	not used	
	DL..741	. .	grn see S741	
	DL..742	. . 0	not used	
	DL..743	. . 0	not used	
	DL..744	. . 0	not used	
	DL..745	. . 0	not used	
	DL..746	. . 0	not used	
	DLZ.701	. . 0	not used	
	DLZ.702	. . 0	not used	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	MP..701	1.990.219.11	1 pcs Input Mono PCB	
	MP..702	1.990.100.05	6 pcs Querprinthalter	
	MP..703	. . 0	not used	
	MP..704	1.990.258.04	1 pcs Nr.Etikette 5*20	
	Q...701	. . 0	not used	
	Q...702	. . 0	not used	
	Q...703	. . 0	not used	
	Q...704	. . 0	not used	
	R...701	. . 0	not used	
	R...702	. . 0	not used	
	R...703	. . 0	not used	
	R...704	. . 0	not used	
	R...705	. . 0	not used	
	R...706	. . 0	not used	
	R...707	. . 0	not used	
	R...708	. . 0	not used	
	R...709	. . 0	not used	
	R...710	. . 0	not used	
	R...711	. . 0	not used	
	R...712	57.11.3101	100 Ohm 5% 0.25W	
	R...713	57.11.3101	100 Ohm 5% 0.25W	
	R...714	57.11.3101	100 Ohm 5% 0.25W	
	R...715	57.11.3101	100 Ohm 5% 0.25W	
	R...716	57.11.3101	100 Ohm 5% 0.25W	
	R...717	. . 0	not used	
	R...718	. . 0	not used	
	R...719	57.11.3101	100 Ohm 5% 0.25W	
	R...720	57.11.3101	100 Ohm 5% 0.25W	
	R...721	. . 0	not used	
	R...722	57.11.3101	100 Ohm 5% 0.25W	
	R...723	57.11.3101	100 Ohm 5% 0.25W	
	R...724	. . 0	not used	
	R...725	57.11.3101	100 Ohm 5% 0.25W	
	R...726	57.11.3101	100 Ohm 5% 0.25W	
	R...727	57.11.3101	100 Ohm 5% 0.25W	
	R...728	. . 0	not used	
	R...729	. . 0	not used	
	R...730	. . 0	not used	
	R...731	. . 0	not used	
	R...732	57.11.3101	100 Ohm 5% 0.25W	
	R...733	57.11.3101	100 Ohm 5% 0.25W	
	R...734	. . 0	not used	
	R...735	57.11.3101	100 Ohm 5% 0.25W	
	R...736	57.11.3101	100 Ohm 5% 0.25W	
	R...737	. . 0	not used	
	R...738	. . 0	not used	
	R...739	. . 0	not used	
	R...740	57.11.3101	100 Ohm 5% 0.25W	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R...741	. . 0	not used	
	R...742	. . 0	not used	
	R...743	. . 0	not used	
	RZ..701	. . 0	not used	
	RZ..702	. . 0	not used	
	RZ..703	. . 0	not used	
	RZ..704	57.88.2101	100 Ohm SIP 8 (4*)	
	RZ..705	57.88.2101	100 Ohm SIP 8 (4*)	
	RZ..706	57.88.2101	100 Ohm SIP 8 (4*)	
	RZ..707	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..708	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..709	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..710	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..711	57.88.4104	100 kOhm SIP 9 (8*)	
	RZ..712	57.88.4104	100 kOhm SIP 9 (8*)	
	S...701	. . 0	not used	
	S...702	55.15.0602	1 * A red/trans.	
	S...703	55.15.0644	1 * A yel/yel	
	S...704	55.15.0605	1 * A grn/trans.	
	S...705	55.15.0604	1 * A yel/trans.	
	S...706	55.15.0605	1 * A grn/trans.	
	S...707	55.15.0602	1 * A red/trans.	
	S...708	55.15.0605	1 * A grn/trans.	
	S...709	55.15.0604	1 * A yel/trans.	
	S...710	55.15.0604	1 * A yel/trans.	
	S...711	55.15.0602	1 * A red/trans.	
	S...712	55.15.0602	1 * A red/trans.	
	S...713	. . 0	not used	
	S...714	55.15.0604	1 * A yel/trans.	
	S...715	55.15.0605	1 * A grn/trans.	
	S...716	55.15.0622	1 * A red/red	
	S...717	55.15.0622	1 * A red/red	
	S...718	. . 0	not used	
	S...719	55.15.0604	1 * A yel/trans.	
	S...720	55.15.0605	1 * A grn/trans.	
	S...721	55.15.0604	1 * A yel/trans.	
	S...722	55.15.0605	1 * A grn/trans.	
	S...723	. . 0	not used	
	S...724	. . 0	not used	
	S...725	55.15.0602	1 * A red/trans.	
	S...726	55.15.0602	1 * A red/trans.	
	S...727	. . 0	not used	
	S...728	. . 0	not used	
	S...729	. . 0	not used	
	S...730	. . 0	not used	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	S...731	55.15.0602	1 * A red/trans.	
	S...732	55.15.0605	1 * A grn/trans.	
	S...733	55.15.0605	1 * A grn/trans.	
	S...734	. . 0	not used	
	S...735	55.15.0602	1 * A red/trans.	
	S...736	. . 0	not used	
	S...737	. . 0	not used	
	S...738	55.15.0605	1 * A grn/trans.	
	S...739	. . 0	not used	
	S...740	. . 0	not used	
	S...741	55.15.0605	1 * A grn/trans.	
	S...742	. . 0	not used	
	S...743	. . 0	not used	
	W...701	. . 0	not used	
	W...702	. . 0	not used	
	W...703	. . 0	not used	
	W...704	. . 0	not used	

CE=Ceramic, CF=Carbon Film, EL=Electrolytic, MF=Metal Film,
PE=Polyester, PP=Polypropylen, PS=Polystyrol

MANUFACTURER: Bu=Burndy, Ex=Exar, Fc=Fairchild, GI=General Instrument
HP=Hewlett Packard, ITT=Intermetall, Mot=Motorola, Nat=National
{Matsushita}, NS=National Semiconductors, Ph=Philips,
Ra=Raytheon, Sig=Signetics, Six=Siliconix, St=Studer,
TI=Texas Instrument

1.990.258.00 SWITCH BOARD GROUP + EQ TA 90/04/0200

SWITCH BOARD GROUP 1.990.259.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	DL..701	. . 0	not used	
	DL..702	. .	red	see S702
	DL..703	. .	yel	see S703
	DL..704	. .	grn	see S704
	DL..705	. .	yel	see S705
	DL..706	. .	grn	see S706
	DL..707	. .	red	see S707
	DL..708	. .	grn	see S708
	DL..709	. .	yel	see S709
	DL..710	. .	yel	see S710
	DL..711	. .	red	see S711
	DL..712	. .	red	see S712
	DL..713	. . 0	not used	
	DL..714	. .	yel	see S714
	DL..715	. .	grn	see S715
	DL..716	. . 0	not used	
	DL..717	. .	red	see S717
	DL..718	. . 0	not used	
	DL..719	. .	yel	see S719
	DL..720	. .	grn	see S720
	DL..721	. .	yel	see S721
	DL..722	. .	grn	see S722
	DL..723	. . 0	not used	
	DL..724	. . 0	not used	
	DL..725	. .	red	see S725
	DL..726	. .	red	see S726
	DL..727	. . 0	not used	
	DL..728	. . 0	not used	
	DL..729	. . 0	not used	
	DL..730	. . 0	not used	
	DL..731	. .	red	see S731
	DL..732	. . 0	not used	
	DL..733	. . 0	not used	
	DL..734	. . 0	not used	
	DL..735	. .	red	see S735
	DL..736	. . 0	not used	
	DL..737	. . 0	not used	
	DL..738	. . 0	not used	
	DL..739	. . 0	not used	
	DL..740	. . 0	not used	
	DL..741	. . 0	not used	
	DL..742	. . 0	not used	
	DL..743	. . 0	not used	
	DL..744	. . 0	not used	
	DL..745	. . 0	not used	
	DL..746	. . 0	not used	
	DLZ.701	. . 0	not used	
	DLZ.701	. . 0	not used	
	MP..701	1.990.219.11	1 pcs	Input Mono PCB
	MP..702	1.990.100.05	6 pcs	Querprinthalter
	MP..703	. . . 0	not used	
	MP..704	1.990.259.04	1 pcs	Nr.Etikette 5*20
	Q...701	. . 0	not used	
	Q...702	. . 0	not used	
	Q...703	. . 0	not used	
	Q...704	. . 0	not used	
	R...701	. . 0	not used	
	R...702	. . 0	not used	
	R...703	. . 0	not used	
	R...704	. . 0	not used	
	R...705	. . 0	not used	
	R...706	. . 0	not used	
	R...707	. . 0	not used	
	R...708	. . 0	not used	
	R...709	. . 0	not used	
	R...710	. . 0	not used	
	R...711	. . . 0	not used	
	R...712	57.11.3101	100 Ohm 5% 0.25W	
	R...713	57.11.3101	100 Ohm 5% 0.25W	
	R...714	57.11.3101	100 Ohm 5% 0.25W	
	R...715	57.11.3101	100 Ohm 5% 0.25W	
	R...716	57.11.3101	100 Ohm 5% 0.25W	
	R...717	. . . 0	not used	
	R...718	. . . 0	not used	
	R...719	. . . 0	not used	
	R...720	57.11.3101	100 Ohm 5% 0.25W	
	R...721	. . . 0	not used	
	R...722	57.11.3101	100 Ohm 5% 0.25W	
	R...723	57.11.3101	100 Ohm 5% 0.25W	
	R...724	. . . 0	not used	
	R...725	57.11.3101	100 Ohm 5% 0.25W	
	R...726	57.11.3101	100 Ohm 5% 0.25W	
	R...727	. . . 0	not used	
	R...728	. . . 0	not used	
	R...729	. . . 0	not used	
	R...730	. . . 0	not used	
	R...731	. . . 0	not used	
	R...732	57.11.3101	100 Ohm 5% 0.25W	
	R...733	57.11.3101	100 Ohm 5% 0.25W	
	R...734	. . . 0	not used	
	R...735	. . . 0	not used	
	R...736	. . . 0	not used	
	R...737	. . . 0	not used	
	R...738	. . . 0	not used	
	R...739	. . . 0	not used	
	R...740	. . . 0	not used	
	R...741	. . . 0	not used	
	R...742	. . . 0	not used	
	R...743	. . . 0	not used	
	RZ..701	. . . 0	not used	
	RZ..702	. . . 0	not used	
	RZ..703	. . . 0	not used	
	RZ..704	57.88.2101	100 Ohm	SIP 8 (4*)
	RZ..705	57.88.2101	100 Ohm	SIP 8 (4*)
	RZ..706	57.88.2101	100 Ohm	SIP 8 (4*)
	RZ..707	57.88.4104	100 kOhm	SIP 9 (8*)
	RZ..708	57.88.4104	100 kOhm	SIP 9 (8*)
	RZ..709	57.88.4104	100 kOhm	SIP 9 (8*)
	RZ..710	57.88.4104	100 kOhm	SIP 9 (8*)
	RZ..711	57.88.4104	100 kOhm	SIP 9 (8*)
	RZ..712	57.88.4104	100 kOhm	SIP 9 (8*)
	S...701	. . . 0	not used	
	S...702	55.15.0602	1 * A	red/trans.
	S...703	55.15.0644	1 * A	yel/yel
	S...704	55.15.0605	1 * A	grn/trans.
	S...705	55.15.0604	1 * A	yel/trans.
	S...706	55.15.0605	1 * A	grn/trans.
	S...707	55.15.0602	1 * A	red/trans.
	S...708	55.15.0605	1 * A	grn/trans.
	S...709	55.15.0604	1 * A	yel/trans.
	S...710	55.15.0604	1 * A	yel/trans.
	S...711	55.15.0602	1 * A	red/trans.
	S...712	55.15.0602	1 * A	red/trans.
	S...713	. . . 0	not used	
	S...714	55.15.0604	1 * A	yel/trans.
	S...715	55.15.0605	1 * A	grn/trans.
	S...716	 0	not used	
	S...717	55.15.0622	1 * A	red/red
	S...718	. . . 0	not used	
	S...719	55.15.0604	1 * A	yel/trans.
	S...720	55.15.0605	1 * A	grn/trans.
	S...721	55.15.0604	1 * A	yel/trans.
	S...722	55.15.0605	1 * A	grn/trans.
	S...723	. . . 0	not used	
	S...724	. . . 0	not used	
	S...725	55.15.0602	1 * A	red/trans.
	S...726	55.15.0602	1 * A	red/trans.
	S...727	. . . 0	not used	
	S...728	. . . 0	not used	
	S...729	. . . 0	not used	
	S...730	. . . 0	not used	
	S...731	55.15.0602	1 * A	red/trans.
	S...732	. . . 0	not used	
	S...733	. . . 0	not used	
	S...734	. . . 0	not used	
	S...735	55.15.0602	1 * A	red/trans.
	S...736	. . . 0	not used	
	S...737	. . . 0	not used	
	S...738	. . . 0	not used	
	S...739	. . . 0	not used	
	S...740	. . . 0	not used	
	S...741	. . . 0	not used	
	S...742	. . . 0	not used	
	S...743	. . . 0	not used	
	W...701	. . . 0	not used	
	W...702	. . . 0	not used	
	W...703	. . . 0	not used	
	W...704	. . . 0	not used	

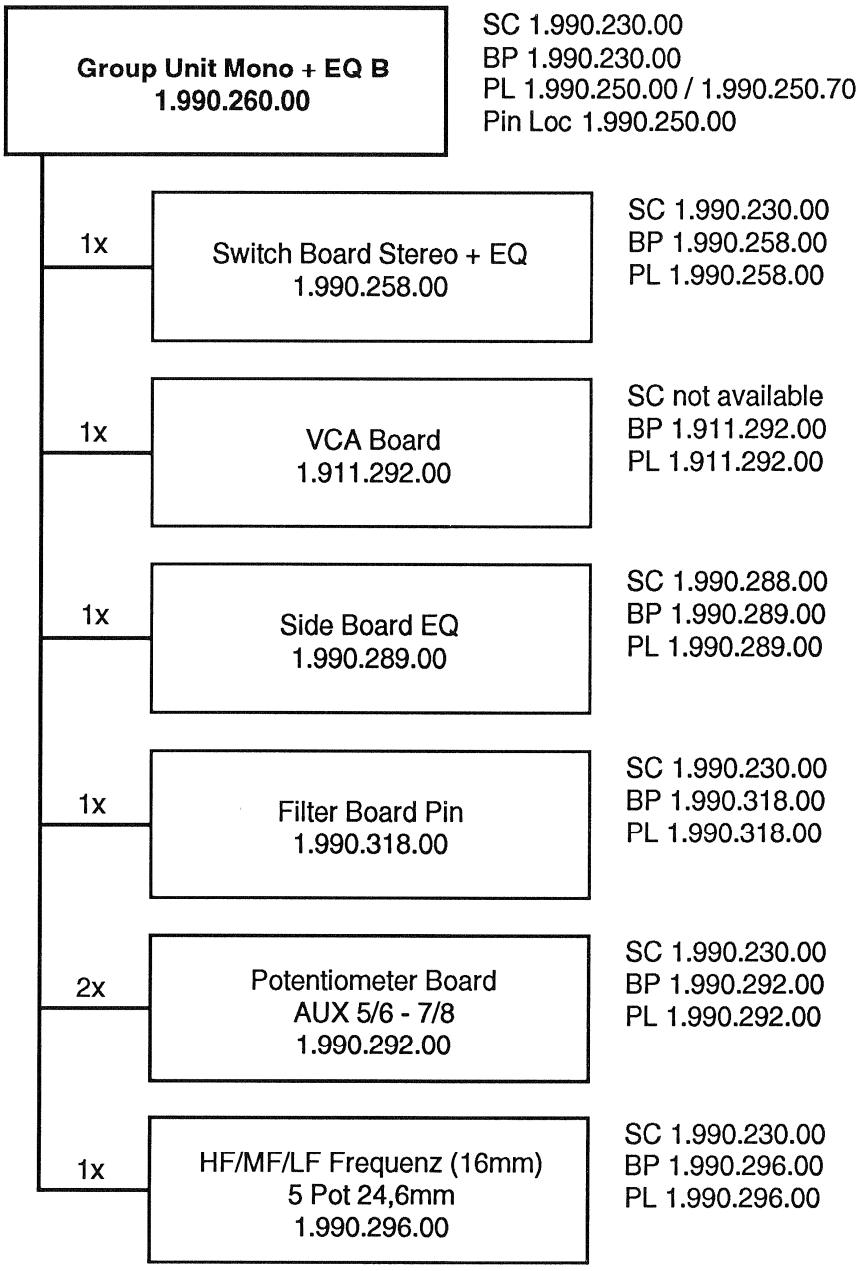
CE=Ceramic, CF=Carbon Film, EL=Electrolytic, MF=Metal Film,
PE=Polyester, PP=Polypropylen, PS=Polystyrol

MANUFACTURER: Bu=Burndy, Ex=Exar, Fc=Fairchild, GI=General Instrument
HP=Hewlett Packard, ITT=Intermetall, Mot=Motorola, Nat=National
(Matsushita), NS=National Semiconductors, Ph=Philips,
Ra=Raytheon, Sig=Signetics, Six=Siliconix, St=Studer,
TI=Texas Instrument

1.990.259.00 SWITCH BOARD GROUP TA 90/04/0200

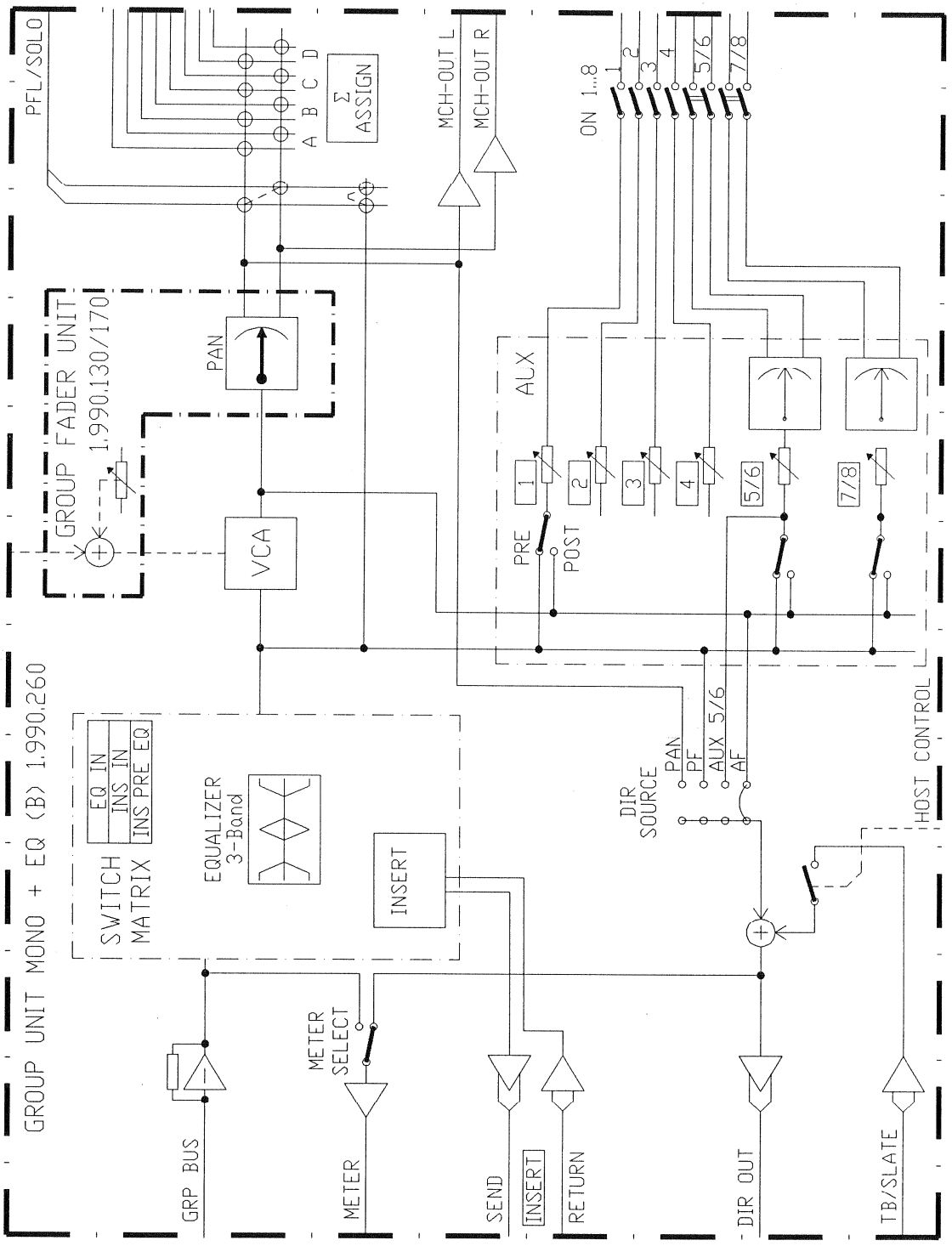
END

Group Unit Mono + EQ B 1.990.260.00

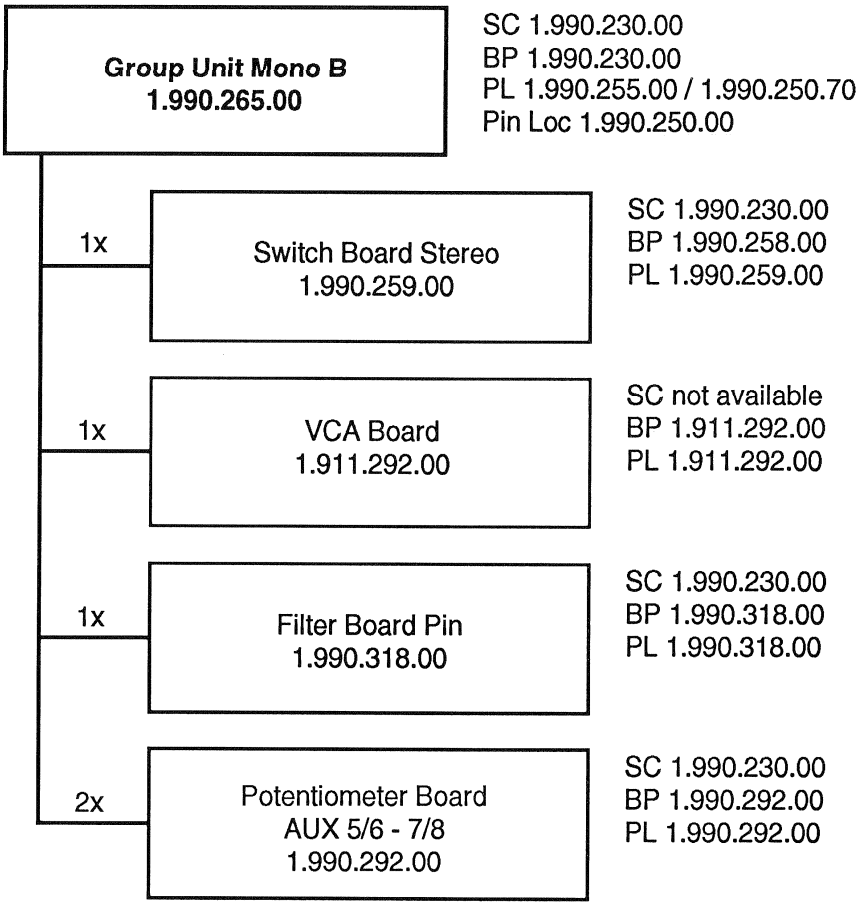


SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

GROUP UNIT MONO+EQ B 1.990.260.00



Group Unit Mono B 1.990.265.00



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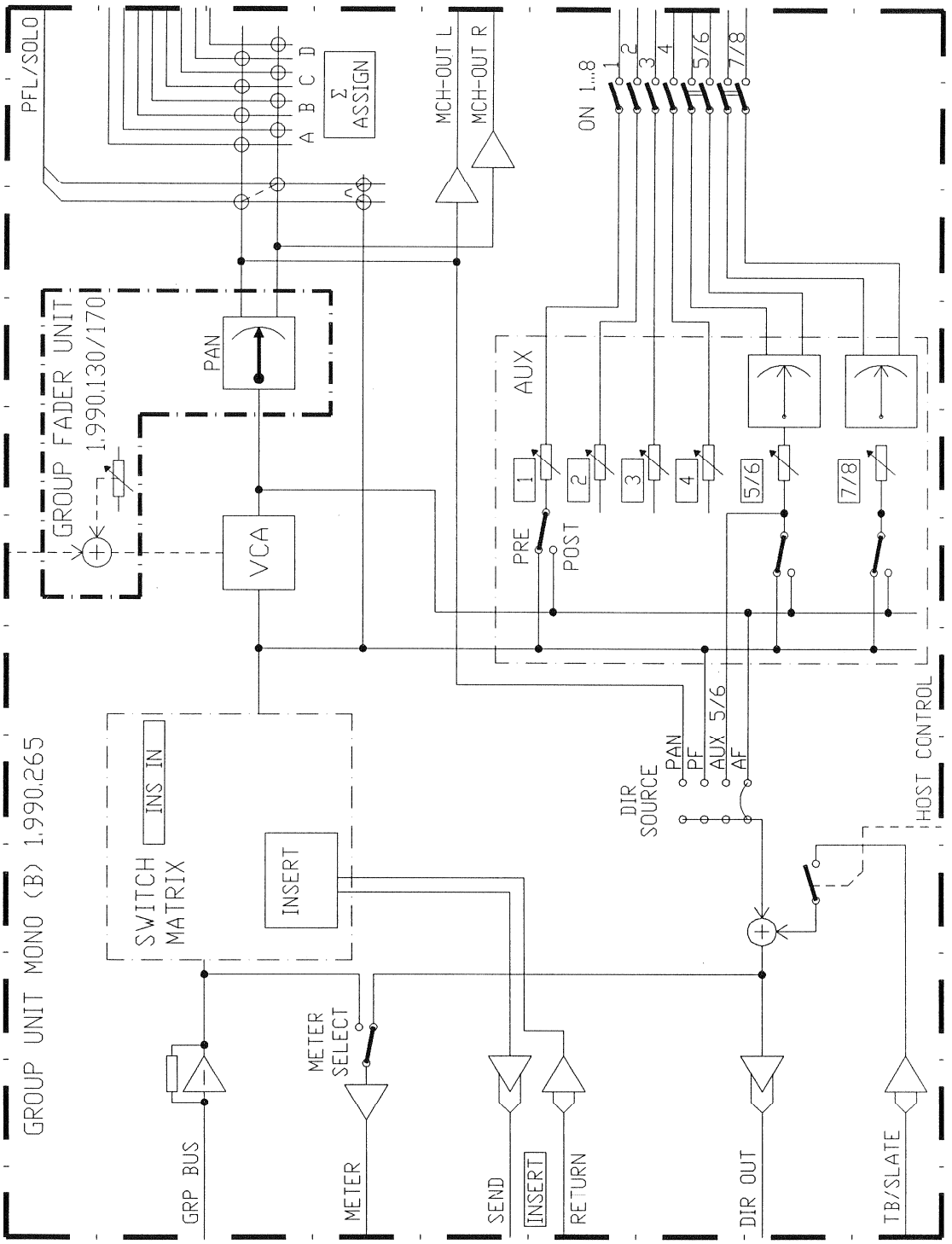
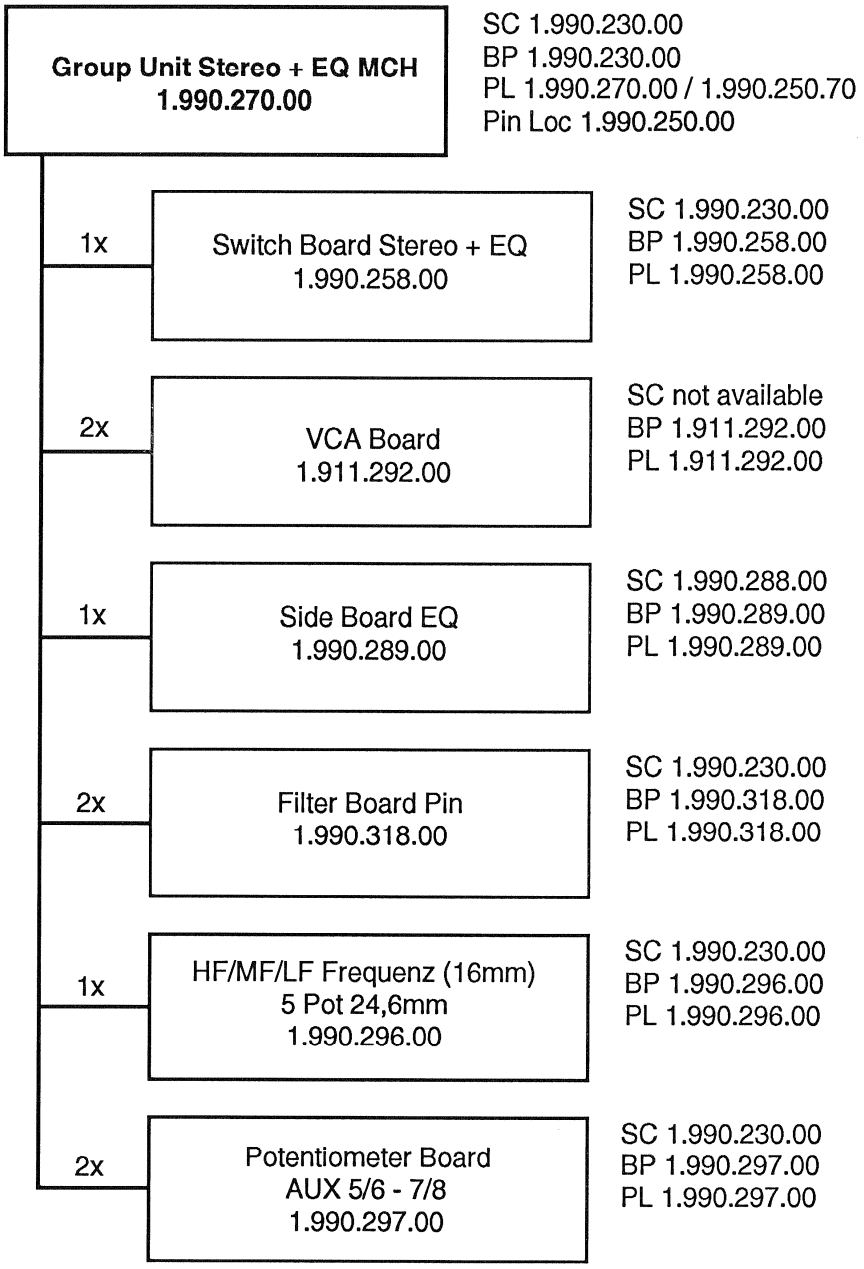
GROUP UNIT MONO B 1.990.265.00

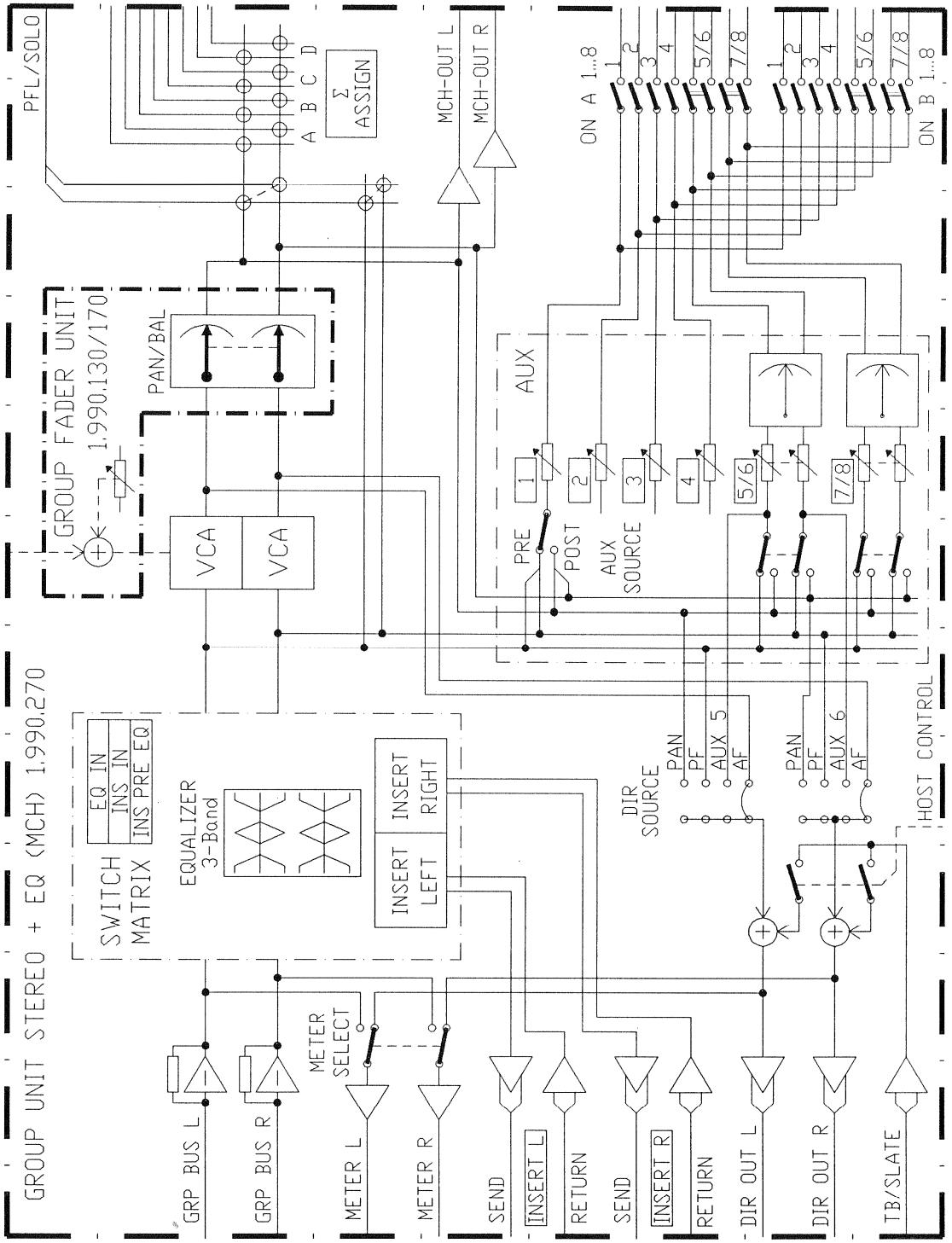


Group Unit Stereo + EQ MCH 1.990.270.00



SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

GROUP UNIT STEREO+EQ MCH 1.990.270.00



GROUP UNIT STEREO + EQ 1.990.270.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	A.....2	1.990.258.00	SWITCH BOARD GROUP +EQ	St
	A.....7	1.990.296.00	3*5 POT. 24.6MM BOARD	St
	A....11	1.990.250.94	KL GROUP UNIT	St
	A....12	*1.990.289.00*	*SIDE BOARD EQ ,A*	*St*
	A....14	1.990.297.00	6 POT. 10MM BOARD	St B6
	A....15	1.990.297.00	6 POT. 10MM BOARD	St A6
	A....16	1.990.318.00	FILTER BOARD PIN	St N3
	A....70	1.990.250.70	GROUP UNIT VORMONTIERT ,A	St
	A...301	1.911.292.00	VCA	St G3
	A...316	1.990.318.00	FILTER BOARD PIN	St N4
	C....77	. .	4700 pF 59.05.2472 on 1.990.296	
	C....93	. .	100 uF 59.22.3101 on 1.990.296	
	C...377	. .	4700 pF 59.05.2472 on 1.990.296	
	C...393	. .	100 uF 59.22.3101 on 1.990.296	
	IC...13	50.07.0015	CD4053 3 * 2 channel analog mux/demux Ph,Mot,RCA I4	
	IC...15	50.07.0015	CD4053 3 * 2 channel analog mux/demux Ph,Mot,RCA G4	
	IC...16	50.07.0015	CD4053 3 * 2 channel analog mux/demux Ph,Mot,RCA F4	
	IC...19	50.09.0117	MC33078P dual op. amp. low noise Mot F3	
	IC...25	50.07.0015	CD4053 3 * 2 channel analog mux/demux Ph,Mot,RCA H4	
	IC...34	50.09.0117	MC33078P dual op. amp. low noise Mot B4	
	IC...69	50.07.0015	CD4053 3 * 2 channel analog mux/demux Ph,Mot,RCA M6	
	IC...75	. . 0	not used see option 1 H1	
	IC..311	50.09.0117	MC33078P dual op. amp. low noise Mot M5	
	IC..317	50.09.0117	MC33078P dual op. amp. low noise Mot K3	
	IC..318	50.09.0101	TL072 dual op. amp. FET TI K3	
	IC..328	50.09.0106	5532AN dual op. amp. low noise Sig,Ra H3	
	IC..329	50.09.0117	MC33078P dual op. amp. low noise Mot E3	
	IC..370	50.09.0117	MC33078P dual op. amp. low noise Mot N5	
	IC..372	50.09.0106	5532AN dual op. amp. low noise Sig,Ra K1	
	IC..813	50.07.0049	4049 hex inverting buffer CMOS Ph,To D8	
	IC..814	50.07.0049	4049 hex inverting buffer CMOS Ph,To E9	
	IC..835	50.07.0051	CD4051 8-channel analog mux/demux Ph,Mot,RCA G8	
	IC..836	50.07.0051	CD4051 8-channel analog mux/demux Ph,Mot,RCA G9	
	MP...17	1.010.100.58	3 pcs Masseblech zu Preh-Pot Type 12	
	MP...18	22.99.0137	3 pcs 6-Kt. Mutter M7*0.75	
	MP...19	23.99.0122	3 pcs U-Scheibe D 7.1/12*0.5	
	MP...21	1.990.200.05	3 pcs Poti-Achsverlaengerung	
	MP...23	1.010.111.65	1 pcs Schrumpfschlauch	
	MP...24	1.010.109.64	1 pcs gelber Draht l = 38mm	
	MP...26	21.01.0279	5 pcs Z-Schr. M2.5*6	
	MP...27	24.16.1025	5 pcs Rippenscheibe D 2.7 / 5	
01	MP...27	24.16.1025	8 pcs Rippenscheibe D 2.7 / 5	
	MP...28	21.01.2352	6 pcs S-Schr. M3*4	
	MP...29	24.16.3023	2 pcs Wellensicherung 2.3	
	MP...30	42.01.0203	2 pcs Drehknopf gr, D 10/4	
	MP...31	42.01.0228	10 pcs Knebelknopf gr. D 10/4	
	MP...32	42.01.0250	4 pcs Deckel h'gr, D 10	
	MP...33	42.01.0251	4 pcs Deckel d'gr, D 10	
	MP...34	42.01.0253	1 pcs Deckel rt, D 10	
	MP...35	42.01.0254	1 pcs Deckel bl, D 10	
	MP...36	42.01.0255	1 pcs Deckel gb, D 10	
	MP...37	42.01.0256	1 pcs Deckel gn, D 10	
	MP...38	1.010.022.21	2 pcs Linsenschr. spez M3*8	
	MP...39	1.010.221.27	1 pcs Mutterbolzen M2.5*10.5	
	MP...40	1.912.000.03	2 pcs Drehring D 6.2/13	
	MP...41	1.990.200.03	1 pcs Schirmblech Input	
	MP...42	1.990.210.02	1 pcs Traeger Input	
	MP...44	1.990.250.01	1 pcs Frontschild Input (1.990260.01 -> BG 280!)	
	MP...45	1.990.289.02	1 pcs Isolation Side Board	
01	MP...47	1.990.289.01	1 pcs Schirmblech SIDE BOARD	
01	MP...48	1.010.208.27	3 pcs Mutterbolzen M2.5x14mm	
	P....21	. .	26 pol 1/20" 54.14.2003 on 1.990.296	
	P....22	. .	26 pol 1/20" 54.14.2003 on 1.990.296	
	R...102	1.010.107.58	4.7 kOhm 10% lin. comb.with R402/857 St G7	
	R...104	1.010.107.58	4.7 kOhm 10% lin. comb.with R404/853 St F7	
	R...106	1.010.107.58	4.7 kOhm 10% lin. comb.with R406/855 St E7	
	R...109	. .	100 kOhm 10% neg.log. 1.010.030.58 on 1.990.296	
	R...110	. .	100 kOhm 10% neg.log. see R 109 on 1.990.296	
	R...111	. .	3.9 kOhm 57.11.3392 on 1.990.296	
	R...112	. .	1 MOhm 57.11.3105 on 1.990.296	
	R...113	. .	4.7 kOhm 57.11.3472 on 1.990.296	
	R...114	. .	100 kOhm 10% neg.log. 1.010.030.58 on 1.990.296	
	R...115	. .	100 kOhm 10% neg.log. see R 114 on 1.990.296	
	R...116	. .	100 kOhm 10% neg.log. 1.010.030.58 on 1.990.296	
	R...117	. .	100 kOhm 10% neg.log. see R 116 on 1.990.296	
	R...118	. .	4.7 kOhm 57.11.3472 on 1.990.296	
	R...182	. .	4.7 kOhm 10% +log.comb.withR183/482/483/844/846 B6	
	R...183	. .	10 kOhm 10% +log.see R 182 1.010.035.58 on A 14 B6	
	R...186	. .	4.7 kOhm 10% +log.comb.withR187/486/487/845/847 A6	
	R...187	. .	10 kOhm 10% +log.see R 186 1.010.035.58 on A 15 A6	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R...203	. . 0	not used see option 2 N6	
	R...402	. .	4.7 kOhm 10% lin. see R 102 G6	
	R...404	. .	4.7 kOhm 10% lin. see R 104 F6	
	R...406	. .	4.7 kOhm 10% lin. see R 106 E6	
	R...409	. .	100 kOhm 10% neg.log. see R 109 on 1.990.296	
	R...410	. .	100 kOhm 10% neg.log. see R 109 on 1.990.296	
	R...411	. .	3.9 kOhm 57.11.3392 on 1.990.296	
	R...412	. .	1 MOhm 57.11.3105 on 1.990.296	
	R...413	. .	4.7 kOhm 57.11.3472 on 1.990.296	
	R...414	. .	100 kOhm 10% neg.log. see R 114 on 1.990.296	
	R...415	. .	100 kOhm 10% neg.log. see R 114 on 1.990.296	
	R...416	. .	100 kOhm 10% neg.log. see R 116 on 1.990.296	
	R...417	. .	100 kOhm 10% neg.log. see R 116 on 1.990.296	
	R...418	. .	4.7 kOhm 57.11.3472 on 1.990.296	
	R...447	57.11.3823	82 kOhm 1% 0.25W F3	
	R...482	. .	4.7 kOhm 10% pos.log. see R 182 B5	
	R...483	. .	10 kOhm 10% neg.log. see R 182 B6	
	R...486	. .	4.7 kOhm 10% pos.log. see R 186 A5	
	R...487	. .	10 kOhm 10% neg.log. see R 186 A6	
	R...844	. .	100 kOhm 20% lin. see R 182 B7	
	R...845	. .	100 kOhm 20% lin. see R 186 A6	
	R...846	. .	100 kOhm 20% lin. see R 182 B6	
	R...847	. .	100 kOhm 20% lin. see R 186 A7	
	R...852	. .	100 kOhm 20% lin. see R 114 on 1.990.296	
	R...853	. .	100 kOhm 20% lin. see R 104 F7	
	R...854	. .	100 kOhm 20% lin. see R 116 on 1.990.296	
	R...855	. .	100 kOhm 20% lin. see R 106 E7	
	R...857	. .	100 kOhm 20% lin. see R 102 G7	
	R...858	. .	100 kOhm 20% lin. see R 109 on 1.990.296	
	W...110	. .	0 Ohm 57.11.3000 on 1.990.296	
	W...111	. .	0 Ohm 57.11.3000 on 1.990.296	

>> POSLST 1.990.270 gilt auch fuer BG 1.990.280.xx (B - Version) <<

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      >-----------------------------------------<
      | Die files zu dieser POSLST heissen  #990270A,B |
      >-----------------------------------------<

Die posliste 1.990.250.70 ist in den files #990250S,T

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OPTIONS :  SEE OPTIONLIST 1.990.230.00
********

option 1 :.....multichannel out
option 2 :.....output trim

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
HISTORY
*******
09.01.91   -  Verbesserung Rauschabstand vom Insert Send

30.01.91   -  Poslisten-Bereinigung ==> ZAB

12.02.91 (01) Erleichterung Fertigung und Pruefung (Schirmblech und
              Mutterbolzen zu EQ werden erst am Schluss montiert)

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

Die Koordinaten bei Manuf. beziehen sich auf Bestueckplan

CE=Ceramic, CF=Carbon Film, EL=Electrolytic, MF=Metal Film,
PE=Polyester, PP=Polypropylen, PS=Polystyrol

MANUFACTURER: ADI=Aanalog Devices Inc., Bu=Burndy, El=Elco, Ex=Exar,
              Fc=Fairchild, Fe=Ferranti, GI=General Instrument, Ha=Har
              HP=Hewlett Packard, ITT=Intermetall, Mot=Motorola, Nat=N
              (Matsushita), NS=National Semiconductors, Ph=Philips,
              PMI=Precision Monolitics Inc., Ra=Raytheon, RCA=Radio Co
              America, SDS=SDS-Relais, Sie=Siemens, Six=Siliconix, St=
              Tho=Thomson, To=Toshiba, TI=Texas Instrument, Ya=Yamaich

            1.990.270.00  GROUP UNIT STEREO + EQ        AB 91/01/3000

            1.990.270.00  GROUP UNIT STEREO + EQ        AB 91/02/1201
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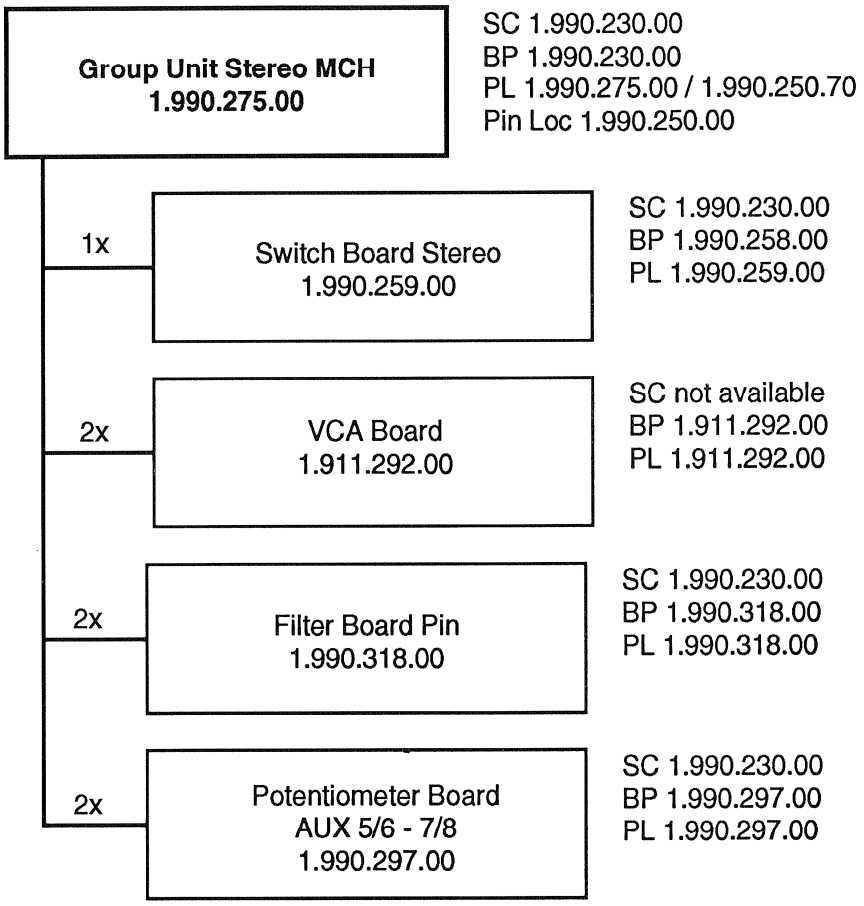
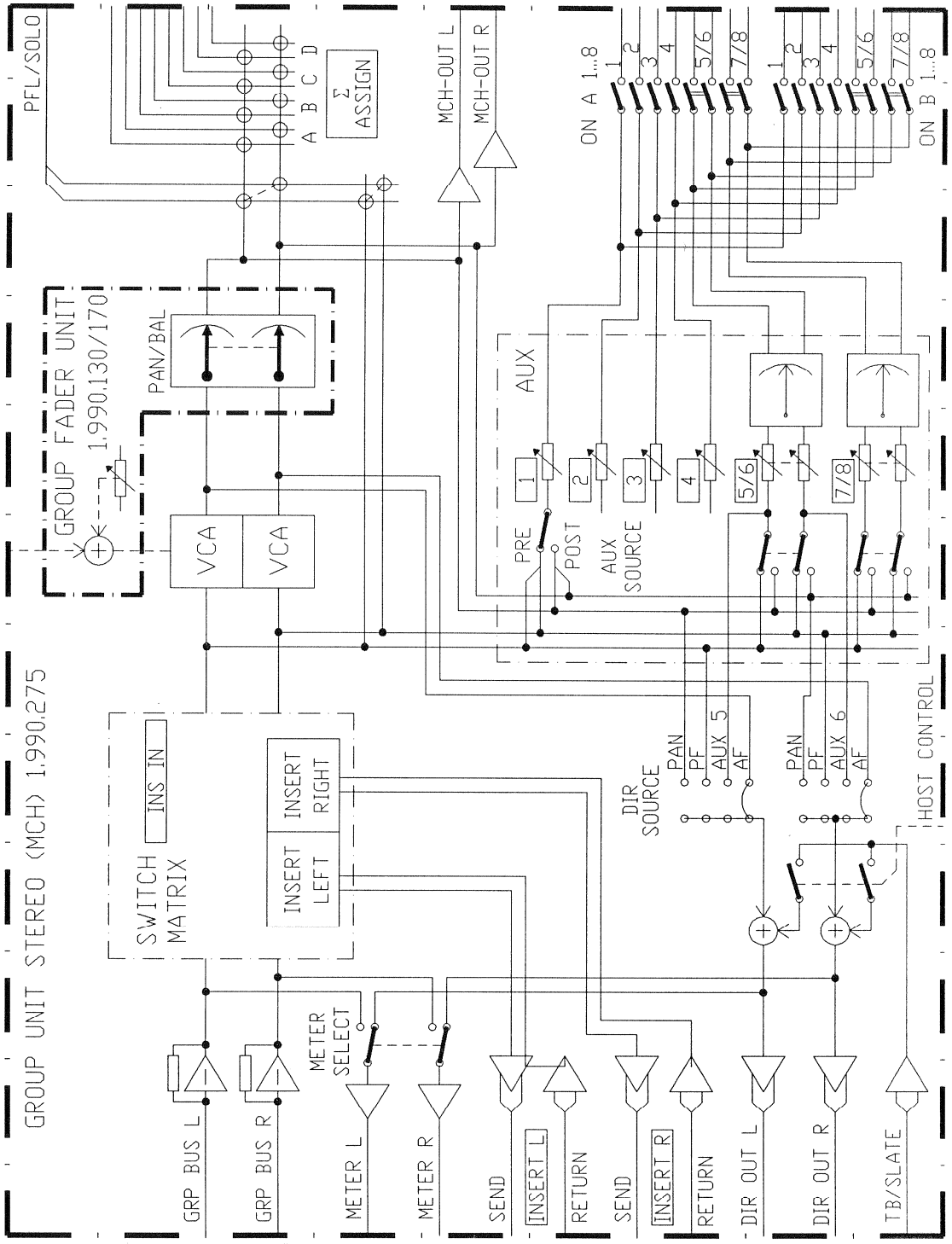
Group Unit Stereo MCH 1.990.275.00



SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

GROUP UNIT STEREO MCH 1.990.275.00



GROUP UNIT STEREO 1.990.275.00

Ad ..POS..	...REF.No...		DESCRIPTION	MANUFACTURER
A.....2	1.990.259.00		SWITCH BOARD GROUP	St
A....11	1.990.250.94		KL GROUP UNIT	St
A....14	1.990.297.00		6 POT. 10MM BOARD	St B6
A....15	1.990.297.00		6 POT. 10MM BOARD	St A6
A....16	1.990.318.00		FILTER BOARD PIN	St N3
A....70	1.990.250.70		GROUP UNIT VORMONTIERT ,A	St
A...301	1.911.292.00		VCA	St G3
A...316	1.990.318.00		FILTER BOARD PIN	St N4
IC...13	50.07.0015	CD4053	3 * 2 channel analog mux/demux	Ph,Mot,RCA I4
IC...25	50.07.0015	CD4053	3 * 2 channel analog mux/demux	Ph,Mot,RCA H4
IC...34	50.09.0117	MC33078P	dual op. amp. low noise	Mot B4
IC...69	50.07.0015	CD4053	3 * 2 channel analog mux/demux	Ph,Mot,RCA M6
IC...75	. . 0	not used		see option 1 H1
IC..311	50.09.0117	MC33078P	dual op. amp. low noise	Mot M5
IC..317	50.09.0117	MC33078P	dual op. amp. low noise	Mot K3
IC..318	50.09.0101	TL072	dual op. amp. FET	TI K3
IC..328	50.09.0106	5532AN	dual op. amp. low noise	Sig,Ra H3
IC..329	50.09.0117	MC33078P	dual op. amp. low noise	Mot E3
IC..370	50.09.0117	MC33078P	dual op. amp. low noise	Mot N5
IC..372	50.09.0106	5532AN	dual op. amp. low noise	Sig,Ra K1
IC..835	. . 0	not used		see option 2 G8
MP...23	1.010.111.65	1 pcs	Schrumpfschlauch	
MP...24	1.010.109.64	1 pcs	gelber Draht l = 38mm	
MP...28	21.01.2352	6 pcs	S-Schr. M3*4	
MP...29	24.16.3023	2 pcs	Wellensicherung 2.3	
MP...30	42.01.0203	2 pcs	Drehknopf gr, D 10/4	
MP...31	42.01.0228	4 pcs	Knebelknopf gr, D 10/4	
MP...32	42.01.0250	1 pcs	Deckel h'gr, D 10	
MP...33	42.01.0251	1 pcs	Deckel d'gr, D 10	
MP...34	42.01.0253	1 pcs	Deckel rt, D 10	
MP...35	42.01.0254	1 pcs	Deckel bl, D 10	
MP...36	42.01.0255	1 pcs	Deckel gb, D 10	
MP...37	42.01.0256	1 pcs	Deckel gn, D 10	
MP...38	1.010.022.21	2 pcs	Linsenschr. spez M3*8	
MP...40	1.912.000.03	2 pcs	Drehring D 6.2/13	
MP...41	1.990.200.03	1 pcs	Schirmblech Input	
MP...42	1.990.210.02	1 pcs	Traeger Input	
MP...44	1.990.255.01	1 pcs	Frontschild Input (1.990265.01 -> BG 285!)	
R...182	. .	4.7 kOhm	10% +log.comb.withR183/482/483/844/846	B6
R...183	. .	10 kOhm	10% +log.see R 182 1.010.035.58 on A 14	B6
R...186	. .	4.7 kOhm	10% +log.comb.withR187/486/487/845/847	A6
R...187	. .	10 kOhm	10% +log.see R 186 1.010.035.58 on A 15	A6
R...203	. . 0	not used		see option 2 N6
R...447	57.11.3823	82 kOhm	1% 0.25W	F3
R...482	. .	4.7 kOhm	10% pos.log. see R 182	B5
R...483	. .	10 kOhm	10% neg.log. see R 182	B6
R...486	. .	4.7 kOhm	10% pos.log. see R 186	A5
R...487	. .	10 kOhm	10% neg.log. see R 186	A6
R...844	. .	100 kOhm	20% lin. see R 182	B7
R...845	. .	100 kOhm	20% lin. see R 186	A6
R...846	. .	100 kOhm	20% lin. see R 182	B6
R...847	. .	100 kOhm	20% lin. see R 186	A7

>> POSLST 1.990.275 gilt auch fuer BG 1.990.285.xx (B - Version) <<

>---<
| Die files zu dieser POSLST heissen #990275A,B |
>---<

Die posliste 1.990.250.70 ist in den files #990250S,T

* *

OPTIONS : SEE OPTIONLIST 1.990.230.00
****

option 1 :......multichannel out
option 2 :......output trim

* *

HISTORY
****

09.01.91 - Verbesserung Rauschabstand vom Insert Send

30.01.91 - Poslisten-Bereinigung ==> ZAB

* *

Die Koordinaten bei Manuf. beziehen sich auf Bestueckplan

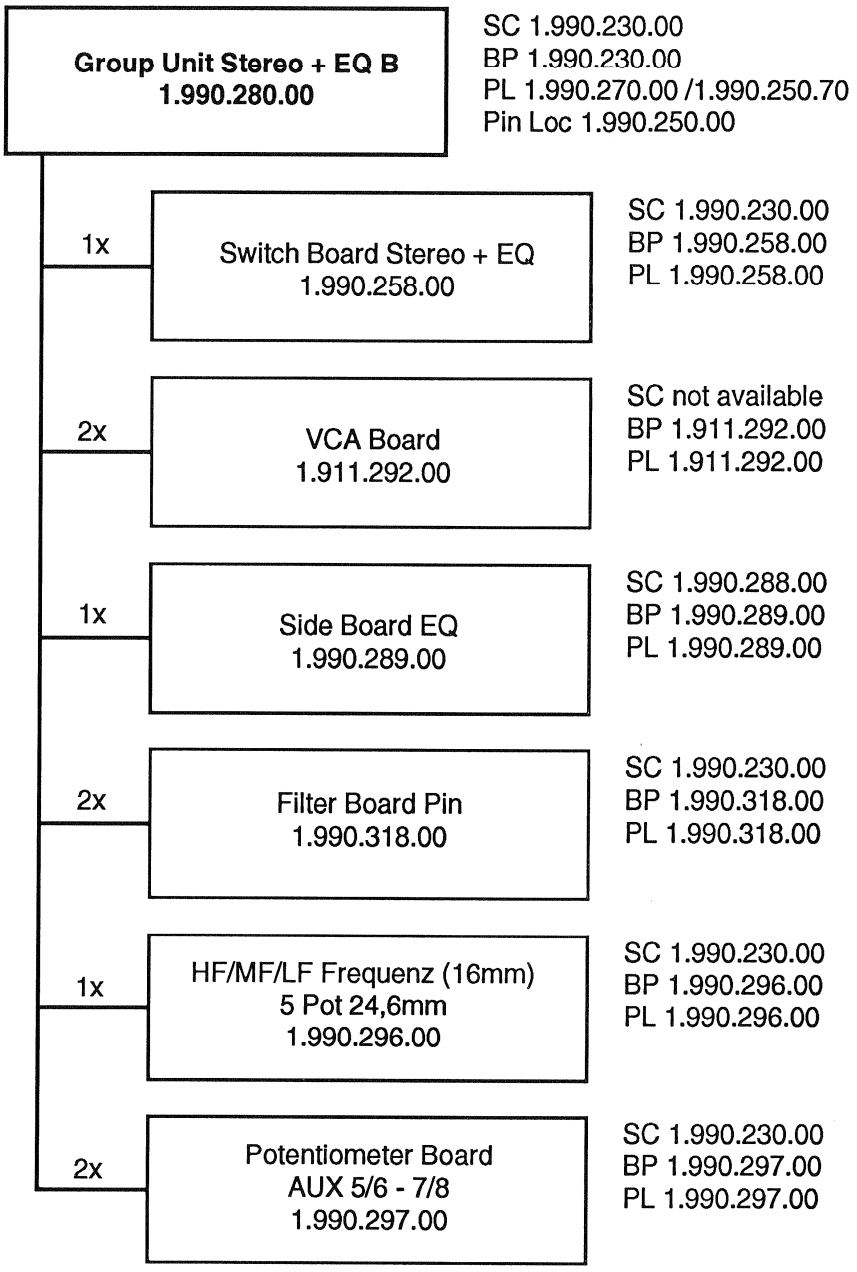
CE=Ceramic, CF=Carbon Film, EL=Electrolytic, MF=Metal Film,
PE=Polyester, PP=Polypropylen, PS=Polystyrol

MANUFACTURER: ADI=Aanalog Devices Inc., Bu=Burndy, El=Elco, Ex=Exar,
Fc=Fairchild, Fe=Ferranti, GI=General Instrument, Ha=Har
HP=Hewlett Packard, ITT=Intermetall, Mot=Motorola, Nat=N
{Matsushita}, NS=National Semiconductors, Ph=Philips,
PMI=Precision Monolitics Inc., Ra=Raytheon, RCA=Radio Co
America, SDS=SDS-Relais, Sie=Siemens, Six=Siliconix, St=
Tho=Thomson, To=Toshiba, TI=Texas Instrument, Ya=Yamaich

1.990.275.00 GROUP UNIT STEREO AB 91/01/3000

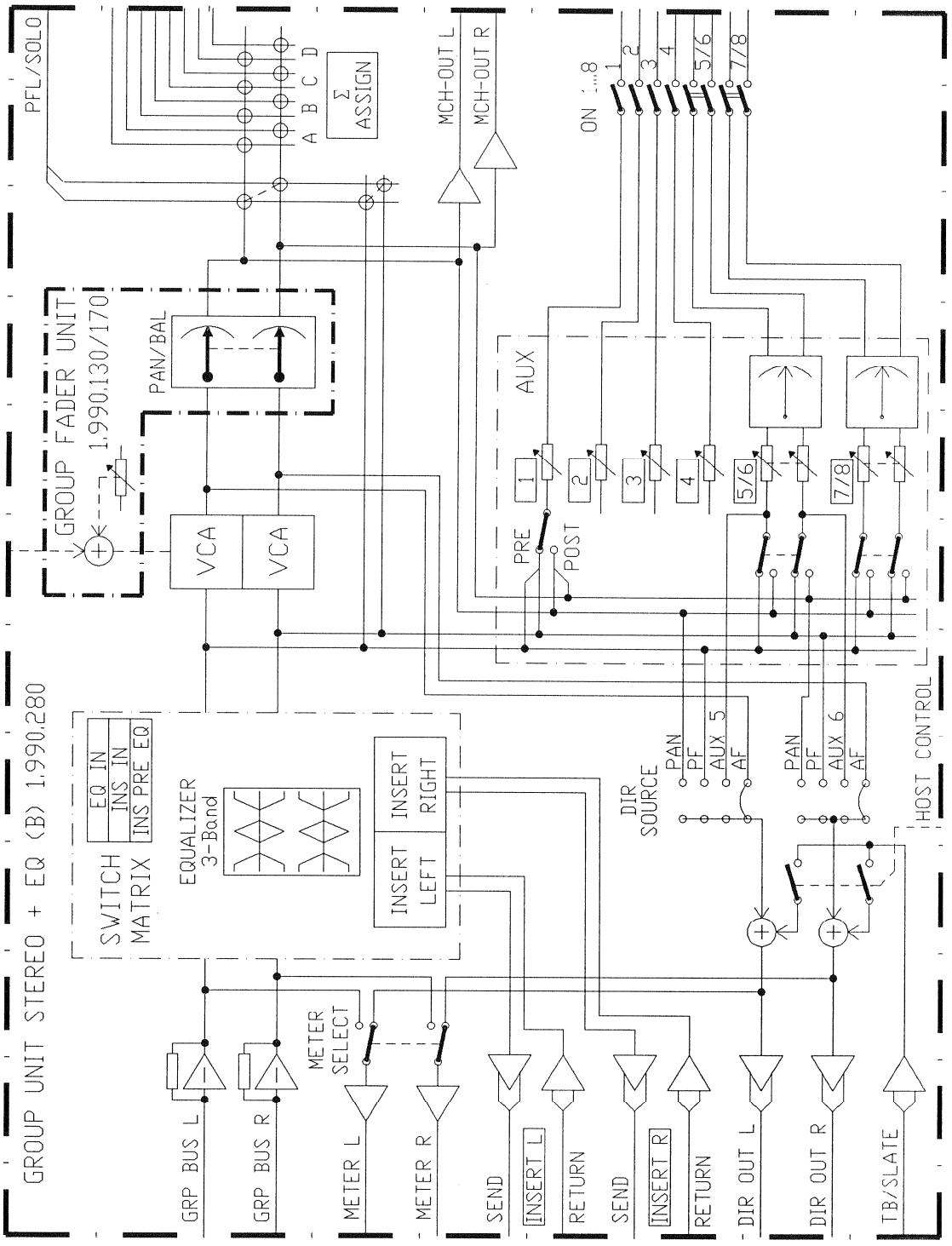
END

Group Unit Stereo + EQ B 1.990.280.00

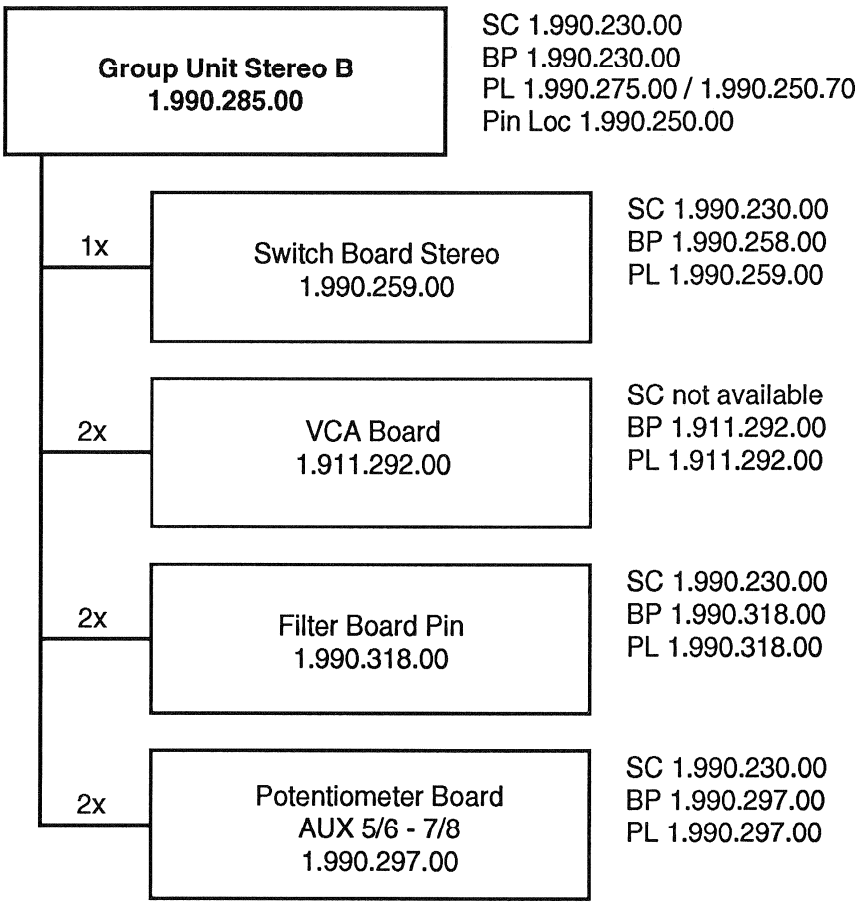


SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

GROUP UNIT STEREO+EQ B 1.990.280.00

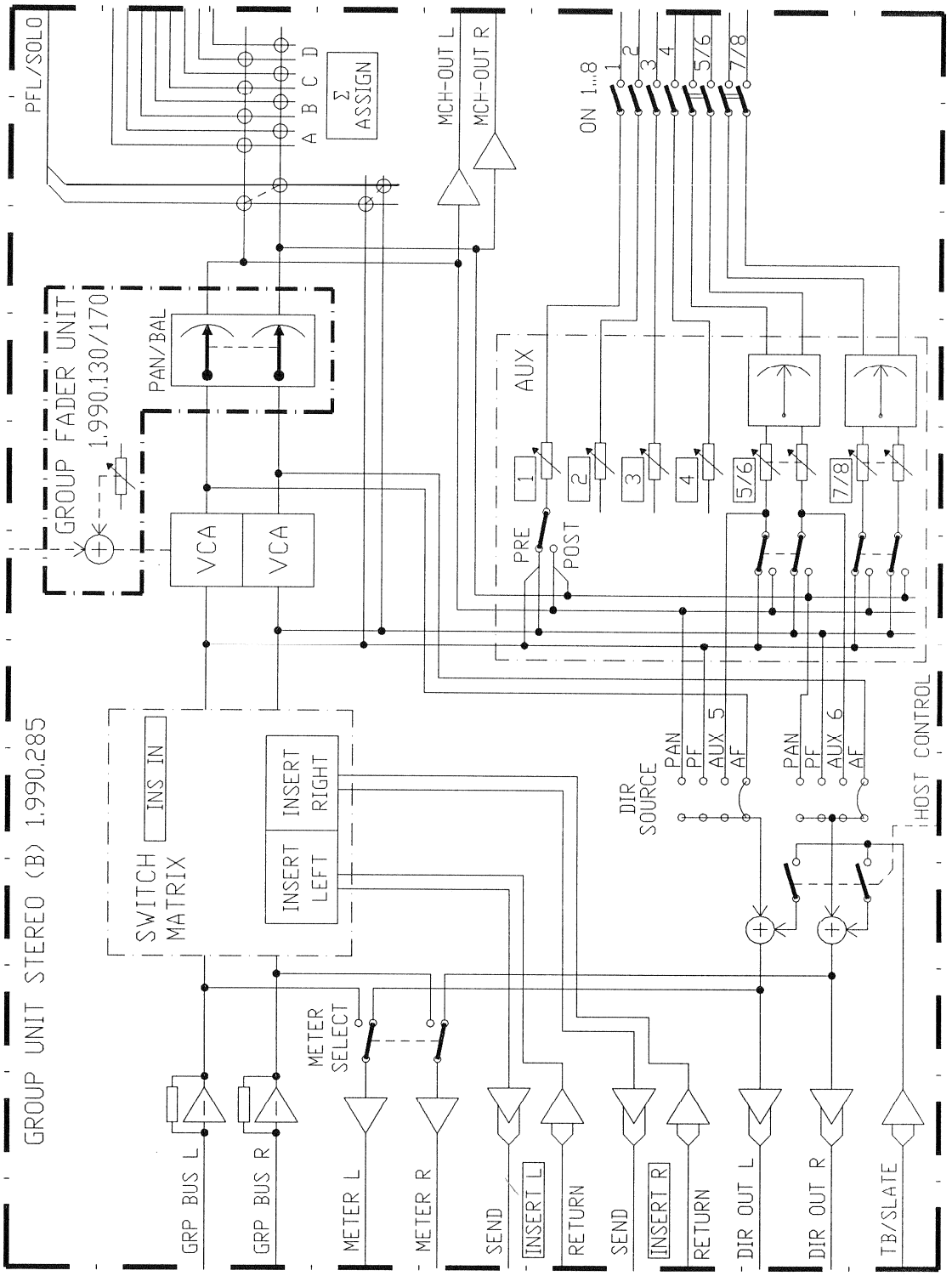


Group Unit Stereo B 1.990.285.00

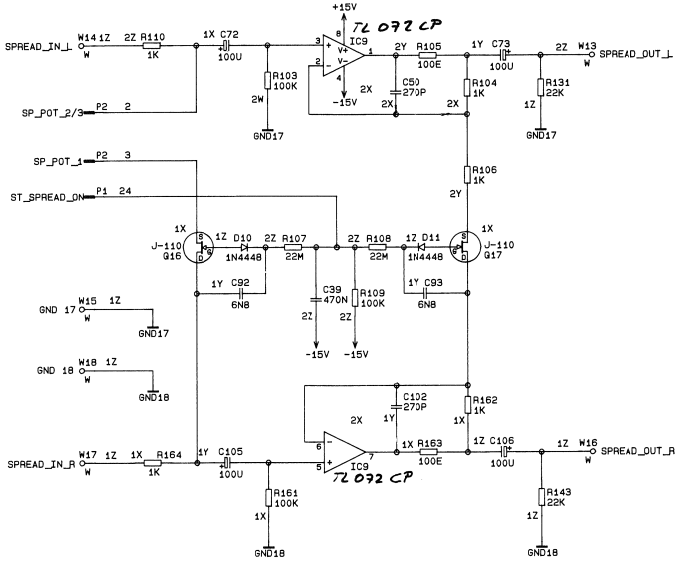


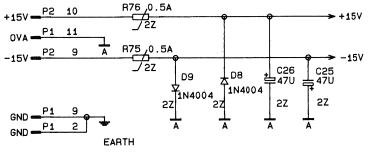
SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

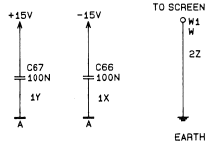
GROUP UNIT STEREO B 1.990.285.00

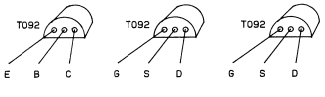


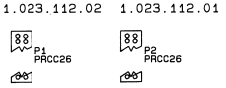
SIDE BOARD EQ+MIC. AMP. 1.990.288.00







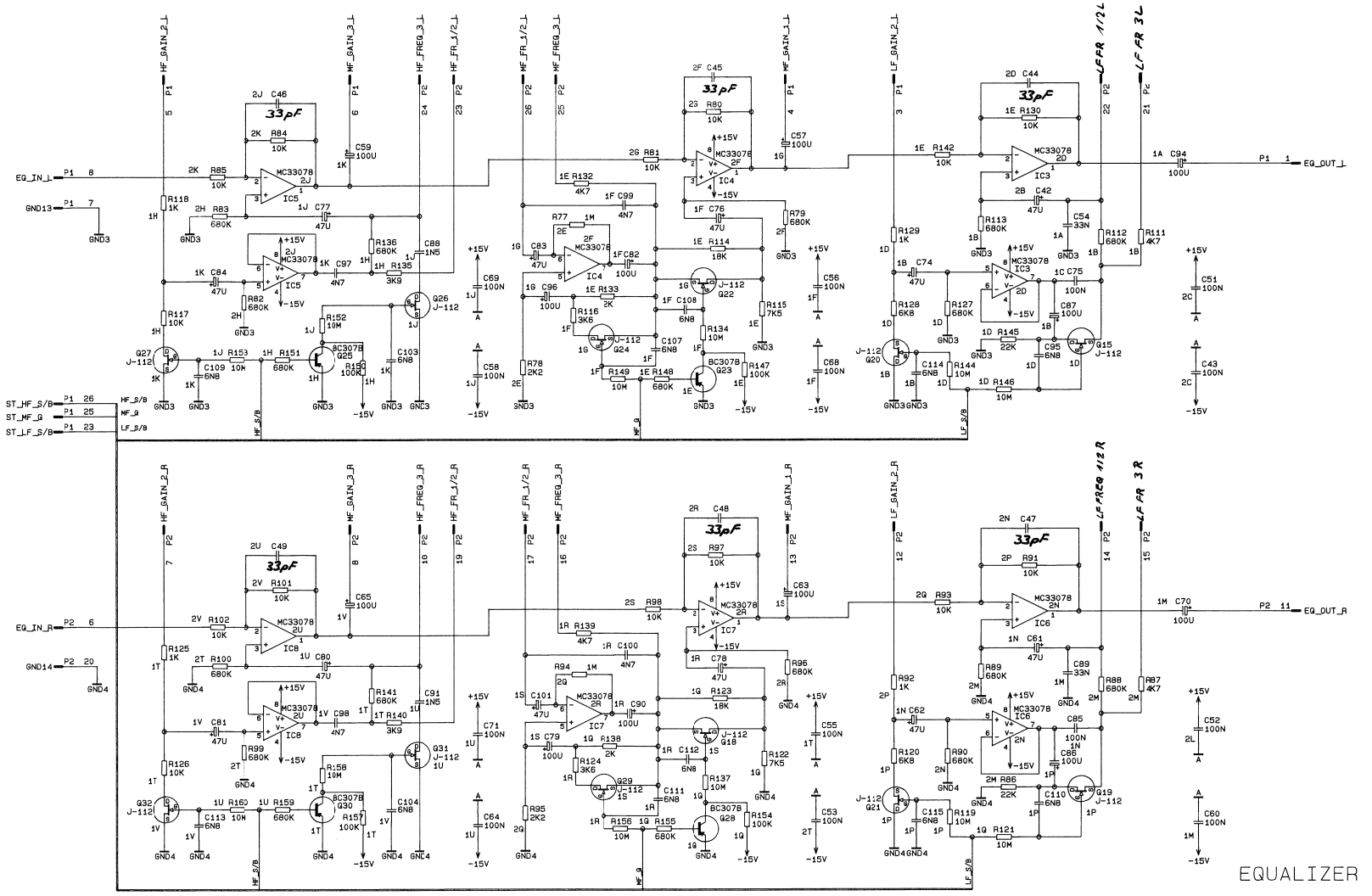




SPREAD

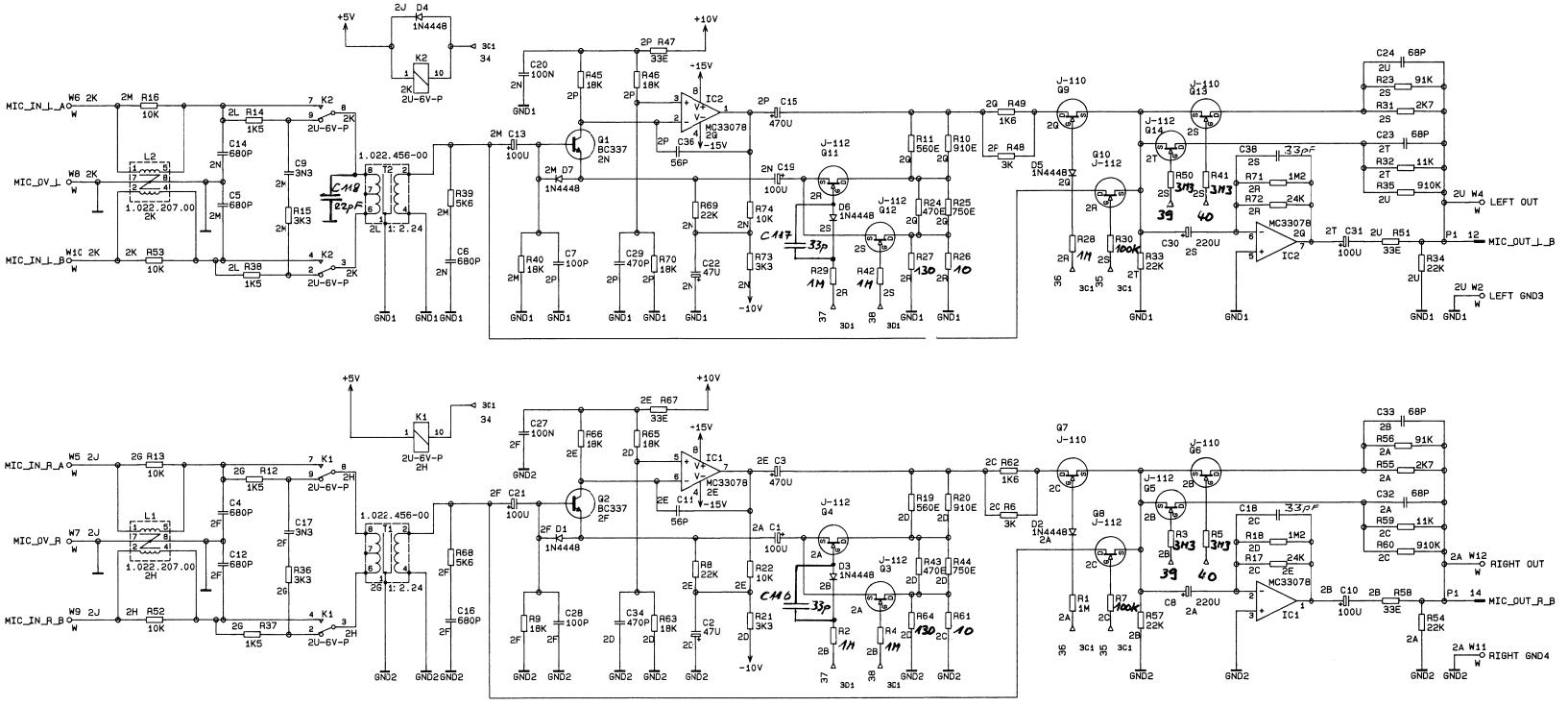
⓪ 24.04.90 SCA	① 11.07.90 SCA	② 16.09.90 SCA	③ 15.1.91 SCA	④ 12.2.91 SCA
	MIXING CONSOLE 990			PAGE 1 OF 3
STUDER	SIDE BOARD EQ+MIC.AMP.		SC	1.990.288-00

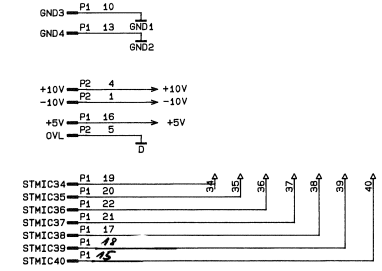
SIDE BOARD EQ+MIC. AMP. 1.990.288.00

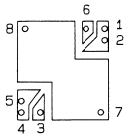


⓪ 24.04.90 SCA	① 11.07.90 SCA	② 16.09.90 SCA	③ 15.1.91 SCA	④ 12.2.91 SCA
	MIXING CONSOLE 990			PAGE 2 OF 3
STUDER	SIDE BOARD EQ+MIC.AMP.		SC	1.990.288-00

SIDE BOARD EQ+MIC. AMP. 1.990.288.00







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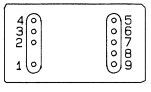
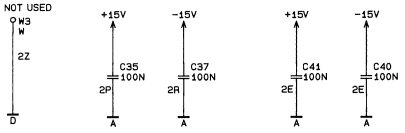


1.022.456.00

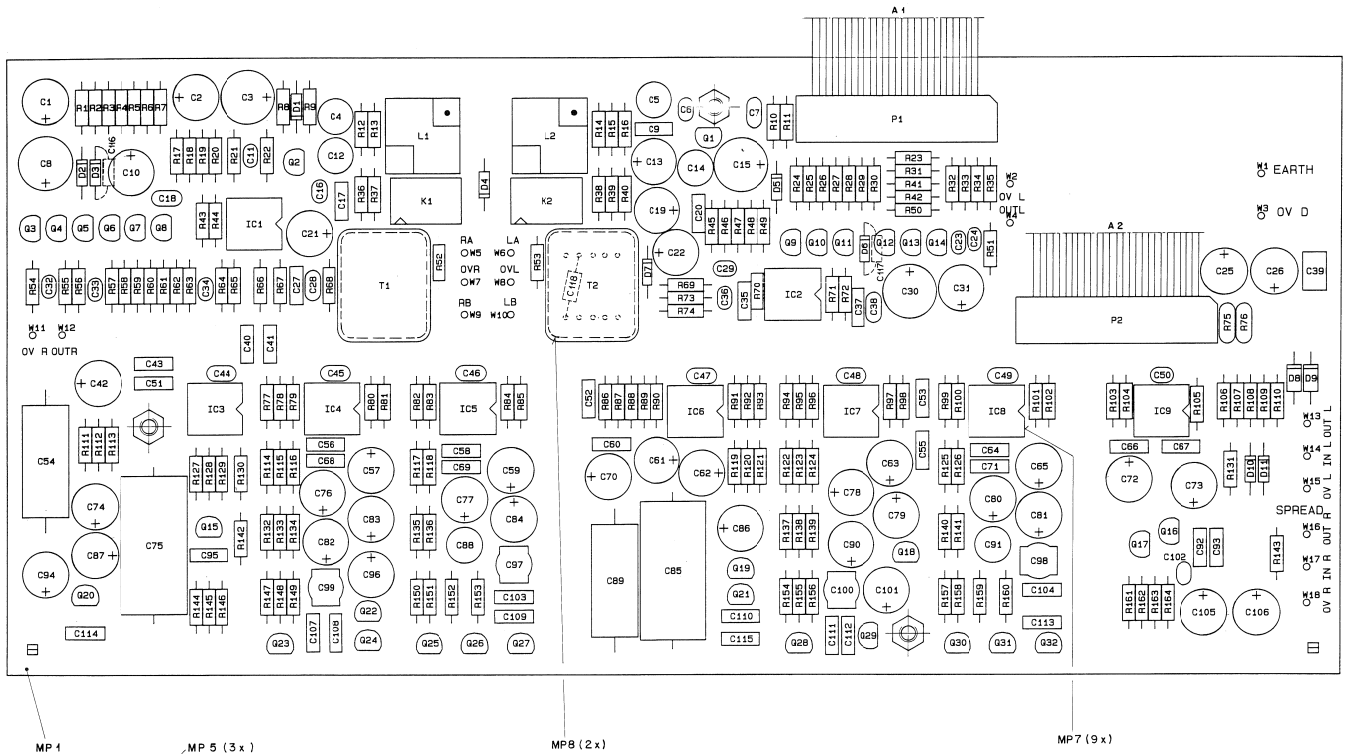


MIC. AMPLIFIER

⓪ 24.04.90 SCA	① 11.07.90 SCA	② 14.09.90 SCA	③ 15.1.91 SCA	④ 12.2.91 SCA
	MIXING CONSOLE 990			PAGE 3 OF 3
STUDER	SIDE BOARD EQ+MIC. AMP.		SC	1.990.288-00

SIDE BOARD EQ+MIC. AMP. ESE

1.990.288.00



Änderung				
	12.2.91			3
	14.9.90			2
Ausgabe	27.3.90			0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung	SIDE BOARD EQ + MIC. AMP. ESE	Nummer	1.990.288-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	A.....1	1.023.112.01	26-wire RIBBON CABLE 0,06 m (einseitige Zugsentl.)	
	A.....2	1.023.112.02	26-wire RIBBON CABLE 0,10 m (einseitige Zugsentl.)	
	C.....1	59.22.4101	100 u 16 V, 20%,	
	C.....2	59.22.4470	47 u 16 V, 20%,	
	C.....3	59.22.2471	470 u 6.3 V, 20%,	
	C.....4	59.05.1681	680 p 630 V, 1%,	
	C.....5	59.05.1681	680 p 630 V, 1%,	
	C.....6	59.32.2681	680 p 50 V, 10%,	
	C.....7	59.32.1101	100 p 400 V, 10%,	
	C.....8	59.22.4221	220 u 16 V, 20%,	
	C.....9	59.06.0332	3.3 n 63 V, 10%,	
	C....10	59.22.4101	100 u 16 V, 20%,	
	C....11	59.34.4560	56 p 63 V, 5%,	N750
	C....12	59.05.1681	680 p 630 V, 1%,	
	C....13	59.22.4101	100 u 16 V, 20%,	
	C....14	59.05.1681	680 p 630 V, 1%,	
	C....15	59.22.2471	470 u 6.3 V, 20%,	
	C....16	59.32.2681	680 p 50 V, 10%,	
	C....17	59.06.0332	3.3 n 63 V, 10%,	
	C....18	59.32.1101	100 p 400 V, 10%,	
01	C....18	59.34.2330	33 p 63 V, 5%,	
	C....19	59.22.4101	100 u 16 V, 20%,	
	C....20	59.06.0104	100 n 63 V, 10%,	
	C....21	59.22.4101	100 u 16 V, 20%,	
	C....22	59.22.4470	47 u 16 V, 20%,	
	C....23	59.34.4680	68 p 63 V, 5%,	N750
	C....24	59.34.4680	68 p 63 V, 5%,	N750
	C....25	59.22.4470	47 u 16 V, 20%,	
	C....26	59.22.4470	47 u 16 V, 20%,	
	C....27	59.06.0104	100 n 63 V, 10%,	
	C....28	59.32.1101	100 p 400 V, 10%,	
	C....29	59.32.4471	470 p 50 V, 20%,	
	C....30	59.22.4221	220 u 16 V, 20%,	
	C....31	59.22.4101	100 u 16 V, 20%,	
	C....32	59.34.4680	68 p 63 V, 5%,	N750
	C....33	59.34.4680	68 p 63 V, 5%,	N750
	C....34	59.32.4471	470 p 50 V, 20%,	
	C....35	59.06.0104	100 n 63 V, 10%,	
	C....36	59.34.4560	56 p 63 V, 5%,	N750
	C....37	59.06.0104	100 n 63 V, 10%,	
	C....38	59.32.1101	100 p 400 V, 10%,	
01	C....38	59.34.2330	33 p 63 V, 5%,	
	C....39	59.06.0474	470 n 63 V, 10%,	
	C....40	59.06.0104	100 n 63 V, 10%,	
	C....41	59.06.0104	100 n 63 V, 10%,	
	C....42	59.22.4470	47 u 16 V, 20%,	
	C....43	59.06.0104	100 n 63 V, 10%,	
	C....44	59.32.1151	150 p 400 V, 10%,	
01	C....44	59.34.2330	33 p 63 V, 5%,	
	C....45	59.32.1151	150 p 400 V, 10%,	
01	C....45	59.34.2330	33 p 63 V, 5%,	
	C....46	59.32.1151	150 p 400 V, 10%,	
01	C....46	59.34.2330	33 p 63 V, 5%,	
	C....47	59.32.1151	150 p 400 V, 10%,	
01	C....47	59.34.2330	33 p 63 V, 5%,	
	C....48	59.32.1151	150 p 400 V, 10%,	
01	C....48	59.34.2330	33 p 63 V, 5%,	
	C....49	59.32.1151	150 p 400 V, 10%,	
01	C....49	59.34.2330	33 p 63 V, 5%,	
	C....50	59.34.4271	270 p 63 V, 5%,	N750
	C....51	59.06.0104	100 n 63 V, 10%,	
	C....52	59.06.0104	100 n 63 V, 10%,	
	C....53	59.06.0104	100 n 63 V, 10%,	
	C....54	59.12.7333	33 n 63 V, 1%,	
	C....55	59.06.0104	100 n 63 V, 10%,	
	C....56	59.06.0104	100 n 63 V, 10%,	
	C....57	59.22.4101	100 u 16 V, 20%,	
	C....58	59.06.0104	100 n 63 V, 10%,	
	C....59	59.22.4101	100 u 16 V, 20%,	
	C....60	59.06.0104	100 n 63 V, 10%,	
	C....61	59.22.4470	47 u 16 V, 20%,	
	C....62	59.22.4470	47 u 16 V, 20%,	
	C....63	59.22.4101	100 u 16 V, 20%,	
	C....64	59.06.0104	100 n 63 V, 10%,	
	C....65	59.22.4101	100 u 16 V, 20%,	
	C....66	59.06.0104	100 n 63 V, 10%,	
	C....67	59.06.0104	100 n 63 V, 10%,	
	C....68	59.06.0104	100 n 63 V, 10%,	
	C....69	59.06.0104	100 n 63 V, 10%,	
	C....70	59.22.4101	100 u 16 V, 20%,	
	C....71	59.06.0104	100 n 63 V, 10%,	
	C....72	59.22.4101	100 u 16 V, 20%,	
	C....73	59.22.4101	100 u 16 V, 20%,	
	C....74	59.22.4470	47 u 16 V, 20%,	
	C....75	59.12.7104	100 n 63 V, 1%,	
	C....76	59.22.4470	47 u 16 V, 20%,	
	C....77	59.22.4470	47 u 16 V, 20%,	
	C....78	59.22.4470	47 u 16 V, 20%,	
	C....79	59.22.4101	100 u 16 V, 20%,	
	C....80	59.22.4470	47 u 16 V, 20%,	
	C....81	59.22.4470	47 u 16 V, 20%,	
	C....82	59.22.4101	100 u 16 V, 20%,	
	C....83	59.22.4470	47 u 16 V, 20%,	
	C....84	59.22.4470	47 u 16 V, 20%,	
	C....85	59.12.7104	100 n 63 V, 1%,	
	C....86	59.22.4101	100 u 16 V, 20%,	
	C....87	59.22.4101	100 u 16 V, 20%,	
	C....88	59.05.2152	1.5 n 160 V, 2.5%,	

SIDE BOARD EQ+MIC. AMP.

1.990.288.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C....89	59.12.7333	33 n 63 V, 1%,	
	C....90	59.22.4101	100 u 16 V, 20%,	
	C....91	59.05.2152	1.5 n 160 V, 2.5%,	
	C....92	59.06.0682	6.8 n 63 V, 10%,	
	C....93	59.06.0682	6.8 n 63 V, 10%,	
	C....94	59.22.4101	100 u 16 V, 20%,	
	C....95	59.06.0682	6.8 n 63 V, 10%,	
	C....96	59.22.4101	100 u 16 V, 20%,	
	C....97	59.05.2472	4.7 n 63 V, 2.5%,	
	C....98	59.05.2472	4.7 n 63 V, 2.5%,	
	C....99	59.05.2472	4.7 n 63 V, 2.5%,	
	C...100	59.05.2472	4.7 n 63 V, 2.5%,	
	C...101	59.22.4470	47 u 16 V, 20%,	
	C...102	59.34.4271	270 p 63 V, 5%,	N750
	C...103	59.06.0682	6.8 n 63 V, 10%,	
	C...104	59.06.0682	6.8 n 63 V, 10%,	
	C...105	59.22.4101	100 u 16 V, 20%,	
	C...106	59.22.4101	100 u 16 V, 20%,	
	C...107	59.06.0682	6.8 n 63 V, 10%,	
	C...108	59.06.0682	6.8 n 63 V, 10%,	
	C...109	59.06.0682	6.8 n 63 V, 10%,	
	C...110	59.06.0682	6.8 n 63 V, 10%,	
	C...111	59.06.0682	6.8 n 63 V, 10%,	
	C...112	59.06.0682	6.8 n 63 V, 10%,	
	C...113	59.06.0682	6.8 n 63 V, 10%,	
	C...114	59.06.0682	6.8 n 63 V, 10%,	
	C...115	59.06.0682	6.8 n 63 V, 10%,	
02	C...116	59.34.2330	33 pF 63 V, 5%	
02	C...117	59.34.2330	33 pF 63 V, 5%	
02	C...118	59.34.2220	22 pF 63 V, 5%	
	D.....1	50.04.0125	1N4448	
	D.....2	50.04.0125	1N4448	
	D.....3	50.04.0125	1N4448	
	D.....4	50.04.0125	1N4448	
	D.....5	50.04.0125	1N4448	
	D.....6	50.04.0125	1N4448	
	D.....7	50.04.0125	1N4448	
	D.....8	50.04.0105	1N4004	
	D.....9	50.04.0105	1N4004	
	D....10	50.04.0125	1N4448	
	D....11	50.04.0125	1N4448	
	IC....1	50.09.0117	MC33078 DIP08, DUAL LOW NOISE AMPLIFIER	
	IC....2	50.09.0117	MC33078 DIP08, DUAL LOW NOISE AMPLIFIER	
	IC....3	50.09.0117	MC33078 DIP08, DUAL LOW NOISE AMPLIFIER	
	IC....4	50.09.0117	MC33078 DIP08, DUAL LOW NOISE AMPLIFIER	
	IC....5	50.09.0117	MC33078 DIP08, DUAL LOW NOISE AMPLIFIER	
	IC....6	50.09.0117	MC33078 DIP08, DUAL LOW NOISE AMPLIFIER	
	IC....7	50.09.0117	MC33078 DIP08, DUAL LOW NOISE AMPLIFIER	
	IC....8	50.09.0117	MC33078 DIP08, DUAL LOW NOISE AMPLIFIER	
	IC....9	50.09.0117	MC33078 DIP08, DUAL LOW NOISE AMPLIFIER	
04	IC....9	50.09.0101	TL072 CP DIP08, DUAL FET-AMPLIFIER	
	K.....1	56.04.0195	2*U RELAIS 6 V	
	K.....2	56.04.0195	2*U RELAIS 6 V	
	L.....1	1.022.207.00	RM6-R/6 COMMON-MODE-REJECTION COIL	
	L.....2	1.022.207.00	RM6-R/6 COMMON-MODE-REJECTION COIL	
	P.....1	. .	not used see A1	
	P.....2	. .	not used see A2	
	Q.....1	50.03.0516	BC337 NPN, T092-1, MATCH	
	Q.....2	50.03.0516	BC337 NPN, T092-1, MATCH	
	Q.....3	50.03.0350	J-112 NFET, T092-5	
	Q.....4	50.03.0350	J-112 NFET, T092-5	
	Q.....5	50.03.0350	J-112 NFET, T092-5	
	Q.....6	50.03.1130	J-110 NFET, T092-5	
	Q.....7	50.03.1130	J-110 NFET, T092-5	
	Q.....8	50.03.0350	J-112 NFET, T092-5	
	Q.....9	50.03.1130	J-110 NFET, T092-5	
	Q....10	50.03.0350	J-112 NFET, T092-5	
	Q....11	50.03.0350	J-112 NFET, T092-5	
	Q....12	50.03.0350	J-112 NFET, T092-5	
	Q....13	50.03.1130	J-110 NFET, T092-5	
	Q....14	50.03.0350	J-112 NFET, T092-5	
	Q....15	50.03.0350	J-112 NFET, T092-5	
	Q....16	50.03.1130	J-110 NFET, T092-5	
	Q....17	50.03.1130	J-110 NFET, T092-5	
	Q....18	50.03.0350	J-112 NFET, T092-5	
	Q....19	50.03.0350	J-112 NFET, T092-5	
	Q....20	50.03.0350	J-112 NFET, T092-5	
	Q....21	50.03.0350	J-112 NFET, T092-5	
	Q....22	50.03.0350	J-112 NFET, T092-5	
	Q....23	50.03.0515	BC307B PNP, T092-1	
	Q....24	50.03.0350	J-112 NFET, T092-5	
	Q....25	50.03.0515	BC307B PNP, T092-1	
	Q....26	50.03.0350	J-112 NFET, T092-5	
	Q....27	50.03.0350	J-112 NFET, T092-5	
	Q....28	50.03.0515	BC307B PNP, T092-1	
	Q....29	50.03.0350	J-112 NFET, T092-5	
	Q....30	50.03.0515	BC307B PNP, T092-1	
	Q....31	50.03.0350	J-112 NFET, T092-5	
	Q....32	50.03.0350	J-112 NFET, T092-5	
	R.....1	57.11.3105	1 MOhm MF, 1%	
01	R.....1	57.11.3103	10 kOhm MF, 1%	
03	R.....1	57.11.3105	1 MOhm MF, 1%	
	R.....2	57.11.3105	1 MOhm MF, 1%	
01	R.....2	57.11.3103	10 kOhm MF, 1%	
03	R.....2	57.11.3105	1 MOhm MF, 1%	
	R.....3	57.11.3105	1 MOhm MF, 1%	
01	R.....3	57.11.3103	10 kOhm MF, 1%	
03	R.....3	57.11.5335	3.3 MOhm MF, 5%	
	R.....4	57.11.3105	1 MOhm MF, 1%	
01	R.....4	57.11.3103	10 kOhm MF, 1%	
03	R.....4	57.11.3105	1 MOhm MF, 1%	
	R.....5	57.11.3105	1 MOhm MF, 1%	
01	R.....5	57.11.3103	10 kOhm MF, 1%	
03	R.....5	57.11.5335	3.3 MOhm MF, 5%	
	R.....6	57.11.3302	3 kOhm MF, 1%	
	R.....7	57.11.3105	1 MOhm MF, 1%	
01	R.....7	57.11.3103	10 kOhm MF, 1%	
03	R.....7	57.11.3104	100 kOhm MF, 1%	
	R.....8	57.11.3223	22 kOhm MF, 1%	
	R.....9	57.11.3183	18 kOhm MF, 1%	
	R....10	57.11.3911	910 Ohm MF, 1%	
	R....11	57.11.3561	560 Ohm MF, 1%	
	R....12	57.11.3152	1.5 kOhm MF, 1%	
	R....13	57.11.3103	10 kOhm MF, 1%	
	R....14	57.11.3152	1.5 kOhm MF, 1%	
	R....15	57.11.3332	3.3 kOhm MF, 1%	
	R....16	57.11.3103	10 kOhm MF, 1%	
	R....17	57.11.3243	24 kOhm MF, 1%	
	R....18	57.11.5125	1.2 MOhm MF, 5%	
	R....19	57.11.3561	560 Ohm MF, 1%	
	R....20	57.11.3911	910 Ohm MF, 1%	
	R....21	57.11.3332	3.3 kOhm MF, 1%	
	R....22	57.11.3103	10 kOhm MF, 1%	
	R....23	57.11.3913	91 kOhm MF, 1%	
	R....24	57.11.3471	470 Ohm MF, 1%	
	R....25	57.11.3751	750 Ohm MF, 1%	
	R....26	57.11.3100	10 Ohm MF, 1%	
	R....27	57.11.3131	130 Ohm MF, 1%	
	R....28	57.11.3105	1 MOhm MF, 1%	
01	R....28	57.11.3103	10 kOhm MF, 1%	
03	R....28	57.11.3105	1 MOhm MF, 1%	
	R....29	57.11.3105	1 MOhm MF, 1%	
01	R....29	57.11.3103	10 kOhm MF, 1%	
03	R....29	57.11.3105	1 MOhm MF, 1%	
	R....30	57.11.3105	1 MOhm MF, 1%	
01	R....30	57.11.3103	10 kOhm MF, 1%	
03	R....30	57.11.3104	100 kOhm MF, 1%	
	R....31	57.11.3272	2.7 kOhm MF, 1%	
	R....32	57.11.3113	11 kOhm MF, 1%	
	R....33	57.11.3223	22 kOhm MF, 1%	
	R....34	57.11.3223	22 kOhm MF, 1%	
	R....35	57.11.3914	910 kOhm MF, 1%	
	R....36	57.11.3332	3.3 kOhm MF, 1%	
	R....37	57.11.3152	1.5 kOhm MF, 1%	
	R....38	57.11.3152	1.5 kOhm MF, 1%	
	R....39	57.11.3562	5.6 kOhm MF, 1%	
	R....40	57.11.3183	18 kOhm MF, 1%	
	R....41	57.11.3105	1 MOhm MF, 1%	
01	R....41	57.11.3103	10 kOhm MF, 1%	
03	R....41	57.11.5335	3.3 MOhm MF, 5%	
	R....42	57.11.3105	1 MOhm MF, 1%	
01	R....42	57.11.3103	10 kOhm MF, 1%	
03	R....42	57.11.3105	1 MOhm MF, 1%	
	R....43	57.11.3471	470 Ohm MF, 1%	
	R....44	57.11.3751	750 Ohm MF, 1%	
	R....45	57.11.3183	18 kOhm MF, 1%	
	R....46	57.11.3183	18 kOhm MF, 1%	
	R....47	57.11.3330	33 Ohm MF, 1%	
	R....48	57.11.3302	3 kOhm MF, 1%	
	R....49	57.11.3162	1.6 kOhm MF, 1%	
	R....50	57.11.3105	1 MOhm MF, 1%	
01	R....50	57.11.3103	10 kOhm MF, 1%	
03	R....50	57.11.5335	3.3 MOhm MF, 5%	
	R....51	57.11.3330	33 Ohm MF, 1%	
	R....52	57.11.3103	10 kOhm MF, 1%	
	R....53	57.11.3103	10 kOhm MF, 1%	
	R....54	57.11.3223	22 kOhm MF, 1%	
	R....55	57.11.3272	2.7 kOhm MF, 1%	
	R....56	57.11.3913	91 kOhm MF, 1%	
	R....57	57.11.3223	22 kOhm MF, 1%	
	R....58	57.11.3330	33 Ohm MF, 1%	
	R....59	57.11.3113	11 kOhm MF, 1%	
	R....60	57.11.3914	910 kOhm MF, 1%	
	R....61	57.11.3100	10 Ohm MF, 1%	
	R....62	57.11.3162	1.6 kOhm MF, 1%	
	R....63	57.11.3183	18 kOhm MF, 1%	
	R....64	57.11.3131	130 Ohm MF, 1%	
	R....65	57.11.3183	18 kOhm MF, 1%	
	R....66	57.11.3183	18 kOhm MF, 1%	
	R....67	57.11.3330	33 Ohm MF, 1%	
	R....68	57.11.3562	5.6 kOhm MF, 1%	
	R....69	57.11.3223	22 kOhm MF, 1%	
	R....70	57.11.3183	18 kOhm MF, 1%	
	R....71	57.11.5125	1.2 MOhm MF, 5%	
	R....72	57.11.3243	24 kOhm MF, 1%	
	R....73	57.11.3332	3.3 kOhm MF, 1%	
	R....74	57.11.3103	10 kOhm MF, 1%	
	R....75	57.92.7013	0.5 A 60V , POLY-PTC	
	R....76	57.92.7013	0.5 A 60V , POLY-PTC	
	R....77	57.11.3105	1 MOhm MF, 1%	
	R....78	57.11.3222	2.2 kOhm MF, 1%	
	R....79	57.11.3684	680 kOhm MF, 1%	
	R....80	57.11.3103	10 kOhm MF, 1%	

SIDE BOARD EQ+MIC. AMP. 1.990.288.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R....81	57.11.3103	10 kOhm MF, 1%	
	R....82	57.11.3684	680 kOhm MF, 1%	
	R....83	57.11.3684	680 kOhm MF, 1%	
	R....84	57.11.3103	10 kOhm MF, 1%	
	R....85	57.11.3103	10 kOhm MF, 1%	
	R....86	57.11.3223	22 kOhm MF, 1%	
	R....87	57.11.3472	4.7 kOhm MF, 1%	
	R....88	57.11.3684	680 kOhm MF, 1%	
	R....89	57.11.3684	680 kOhm MF, 1%	
	R....90	57.11.3684	680 kOhm MF, 1%	
	R....91	57.11.3103	10 kOhm MF, 1%	
	R....92	57.11.3102	1 kOhm MF, 1%	
	R....93	57.11.3103	10 kOhm MF, 1%	
	R....94	57.11.3105	1 MOhm MF, 1%	
	R....95	57.11.3222	2.2 kOhm MF, 1%	
	R....96	57.11.3684	680 kOhm MF, 1%	
	R....97	57.11.3103	10 kOhm MF, 1%	
	R....98	57.11.3103	10 kOhm MF, 1%	
	R....99	57.11.3684	680 kOhm MF, 1%	
	R...100	57.11.3684	680 kOhm MF, 1%	
	R...101	57.11.3103	10 kOhm MF, 1%	
	R...102	57.11.3103	10 kOhm MF, 1%	
	R...103	57.11.3104	100 kOhm MF, 1%	
	R...104	57.11.3102	1 kOhm MF, 1%	
	R...105	57.11.3101	100 Ohm MF, 1%	
	R...106	57.11.3102	1 kOhm MF, 1%	
	R...107	57.11.6226	22 MOhm MF, 10%	
	R...108	57.11.6226	22 MOhm MF, 10%	
	R...109	57.11.3104	100 kOhm MF, 1%	
	R...110	57.11.3102	1 kOhm MF, 1%	
	R...111	57.11.3472	4.7 kOhm MF, 1%	
	R...112	57.11.3684	680 kOhm MF, 1%	
	R...113	57.11.3684	680 kOhm MF, 1%	
	R...114	57.11.3183	18 kOhm MF, 1%	
	R...115	57.11.3752	7.5 kOhm MF, 1%	
	R...116	57.11.3362	3.6 kOhm MF, 1%	
	R...117	57.11.3103	10 kOhm MF, 1%	
	R...118	57.11.3102	1 kOhm MF, 1%	
	R...119	57.11.5106	10 MOhm MF, 5%	
	R...120	57.11.3682	6.8 kOhm MF, 1%	
	R...121	57.11.5106	10 MOhm MF, 5%	
	R...122	57.11.3752	7.5 kOhm MF, 1%	
	R...123	57.11.3183	18 kOhm MF, 1%	
	R...124	57.11.3362	3.6 kOhm MF, 1%	
	R...125	57.11.3102	1 kOhm MF, 1%	
	R...126	57.11.3103	10 kOhm MF, 1%	
	R...127	57.11.3684	680 kOhm MF, 1%	
	R...128	57.11.3682	6.8 kOhm MF, 1%	
	R...129	57.11.3102	1 kOhm MF, 1%	
	R...130	57.11.3103	10 kOhm MF, 1%	
	R...131	57.11.3223	22 kOhm MF, 1%	
	R...132	57.11.3472	4.7 kOhm MF, 1%	
	R...133	57.11.3202	2 kOhm MF, 1%	
	R...134	57.11.5106	10 MOhm MF, 5%	
	R...135	57.11.3392	3.9 kOhm MF, 1%	
	R...136	57.11.3684	680 kOhm MF, 1%	
	R...137	57.11.5106	10 MOhm MF, 5%	
	R...138	57.11.3202	2 kOhm MF, 1%	
	R...139	57.11.3472	4.7 kOhm MF, 1%	
	R...140	57.11.3392	3.9 kOhm MF, 1%	
	R...141	57.11.3684	680 kOhm MF, 1%	
	R...142	57.11.3103	10 kOhm MF, 1%	
	R...143	57.11.3223	22 kOhm MF, 1%	
	R...144	57.11.5106	10 MOhm MF, 5%	
	R...145	57.11.3223	22 kOhm MF, 1%	
	R...146	57.11.5106	10 MOhm MF, 5%	
	R...147	57.11.3104	100 kOhm MF, 1%	
	R...148	57.11.3684	680 kOhm MF, 1%	
	R...149	57.11.5106	10 MOhm MF, 5%	
	R...150	57.11.3104	100 kOhm MF, 1%	
	R...151	57.11.3684	680 kOhm MF, 1%	
	R...152	57.11.5106	10 MOhm MF, 5%	
	R...153	57.11.5106	10 MOhm MF, 5%	
	R...154	57.11.3104	100 kOhm MF, 1%	
	R...155	57.11.3684	680 kOhm MF, 1%	
	R...156	57.11.5106	10 MOhm MF, 5%	
	R...157	57.11.3104	100 kOhm MF, 1%	
	R...158	57.11.5106	10 MOhm MF, 5%	
	R...159	57.11.3684	680 kOhm MF, 1%	
	R...160	57.11.5106	10 MOhm MF, 5%	
	R...161	57.11.3104	100 kOhm MF, 1%	
	R...162	57.11.3102	1 kOhm MF, 1%	
	R...163	57.11.3101	100 Ohm MF, 1%	
	R...164	57.11.3102	1 kOhm MF, 1%	
	T.....1	1.022.456.00	1:2.24	INPUT TRAFO
	T.....2	1.022.456.00	1:2.24	INPUT TRAFO
	MP....1	1.990.289.11	1 pcs	SIDE BOARD PCB
	MP....2	1.990.289.01	1 pcs	Schirmblech SIDE BOARD
04	MP....2	. . 0	not used	see 1.990.230.00 ... 280.00
	MP....3	1.010.157.27	3 pcs	Distanzbolzen M2.5x13mm
	MP....4	1.010.208.27	3 pcs	Mutterbolzen M2.5x14mm
04	MP....4	. . 0	not used	see 1.990.230.00 ... 280.00
	MP....5	21.01.0279	3 pcs	Z-Schrauben M2.5x 6mm
	MP....6	24.16.1025	6 pcs	Rippenscheibe M2.5
04	MP....6	24.16.1025	3 pcs	Rippenscheibe M2.5
	MP....7	53.03.0166	9 pcs	IC-Socket 8-pin
	MP....8	1.022.400.03	2 pcs	Isolation Trafo

(01) 90/07/11 Verbesserung Frequenzgeng Mikrofonverstaerker
Verbesserung Frequenzgang Equalizer-Teil

(02) 90/09/14 Verbesserung Symetrie des Mikrofoneinganges

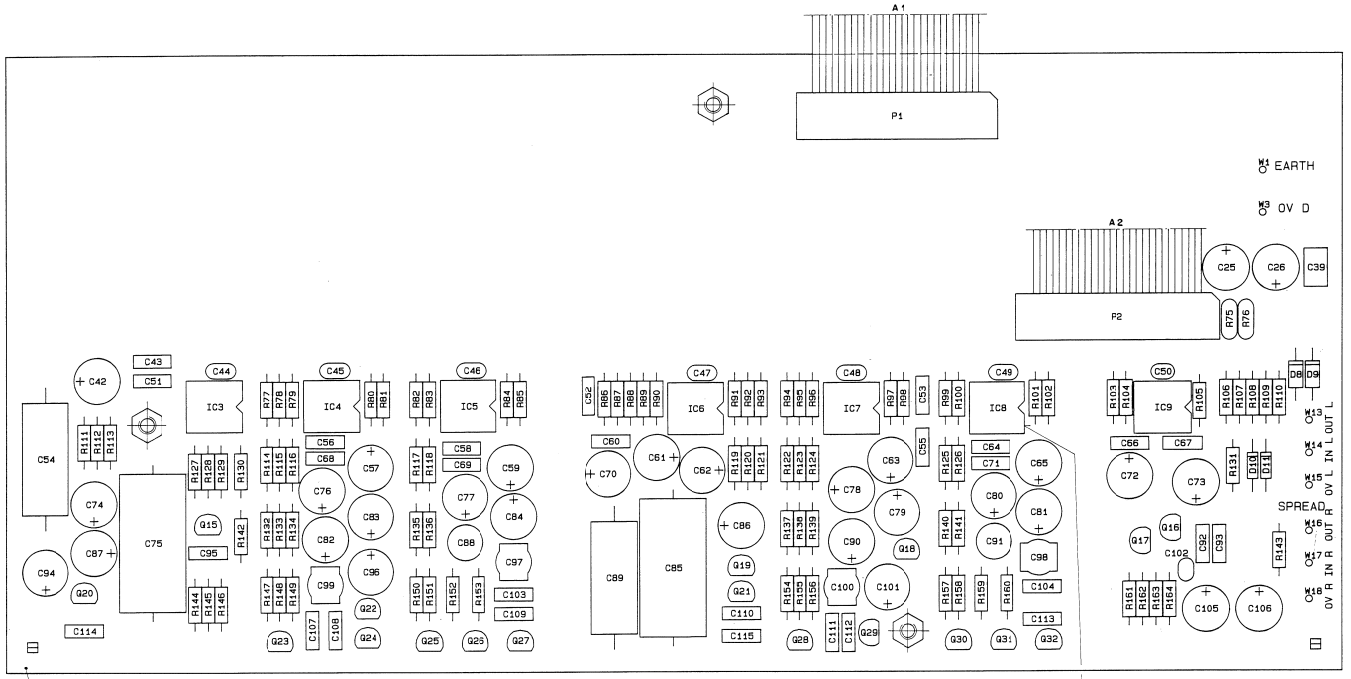
(03) 91/01/15 Abschwaechung des Knallens der FET's beim
Umschalten der Verstaerkung (Mikrofonstufe)

(04) 91/02/12 Am IC 9 wird HF demoduliert.Dieser Effekt
verschwindet mit dem FET OP-AMP TL 072.
Schirmblech,Mutterbolzen und Rippenscheiben
werden erst beim Einbau in der uebergeordneten
Baugruppe benoetigt, und sind neu in deren Posliste.

1.990.288.00	SIDE BOARD EQ+MIC.AMP.	SCA90/04/2400
1.990.288.00	SIDE BOARD EQ+MIC.AMP.	SCA90/07/1101
1.990.288.00	SIDE BOARD EQ+MIC.AMP.	SCA90/09/1402
1.990.288.00	SIDE BOARD EQ+MIC.AMP.	SCA91/01/1503
1.990.288.00	SIDE BOARD EQ+MIC.AMP.	SCA91/02/1204

SIDE BOARD EQ ESE

1.990.289.00



Änderung	12.2.91			③ ② ①
Ausgabe	27.3.90			⓪
	Datum	Gez.	Gepr.	Ges. Index
Kopie für:				
STUDER REGENSDORF ZÜRICH	Benennung: SIDE BOARD EQ ESE			Nummer: 1.990.289-00

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	A.....1	1.023.112.01	26-wire	RIBBON CABLE	0,06 m (einseitige Zugentl.)	
	A.....2	1.023.112.02	26-wire	RIBBON CABLE	0,10 m (einseitige Zugentl.)	
	C....25	59.22.4470	47 u	16 V,	20%,	
	C....26	59.22.4470	47 u	16 V,	20%,	
	C....39	59.06.0474	470 n	63 V,	10%,	
	C....42	59.22.4470	47 u	16 V,	20%,	
	C....43	59.06.0104	100 n	63 V,	10%,	
	C....44	59.32.1151	150 p	400 V,	10%,	
01	C....44	59.34.2330	33 p	63 V,	5%,	
	C....45	59.32.1151	150 p	400 V,	10%,	
01	C....45	59.34.2330	33 p	63 V,	5%,	
	C....46	59.32.1151	150 p	400 V,	10%,	
01	C....46	59.34.2330	33 p	63 V,	5%,	
	C....47	59.32.1151	150 p	400 V,	10%,	
01	C....47	59.34.2330	33 p	63 V,	5%,	
	C....48	59.32.1151	150 p	400 V,	10%,	
01	C....48	59.34.2330	33 p	63 V,	5%,	
	C....49	59.32.1151	150 p	400 V,	10%,	
01	C....49	59.34.2330	33 p	63 V,	5%,	
	C....50	59.34.4271	270 p	63 V,	5%,	N750
	C....51	59.06.0104	100 n	63 V,	10%,	
	C....52	59.06.0104	100 n	63 V,	10%,	
	C....53	59.06.0104	100 n	63 V,	10%,	
	C....54	59.12.7333	33 n	63 V,	1%,	
	C....55	59.06.0104	100 n	63 V,	10%,	
	C....56	59.06.0104	100 n	63 V,	10%,	
	C....57	59.22.4101	100 u	16 V,	20%,	
	C....58	59.06.0104	100 n	63 V,	10%,	
	C....59	59.22.4101	100 u	16 V,	20%,	
	C....60	59.06.0104	100 n	63 V,	10%,	
	C....61	59.22.4470	47 u	16 V,	20%,	
	C....62	59.22.4470	47 u	16 V,	20%,	
	C....63	59.22.4101	100 u	16 V,	20%,	
	C....64	59.06.0104	100 n	63 V,	10%,	
	C....65	59.22.4101	100 u	16 V,	20%,	
	C....66	59.06.0104	100 n	63 V,	10%,	
	C....67	59.06.0104	100 n	63 V,	10%,	
	C....68	59.06.0104	100 n	63 V,	10%,	
	C....69	59.06.0104	100 n	63 V,	10%,	
	C....70	59.22.4101	100 u	16 V,	20%,	
	C....71	59.06.0104	100 n	63 V,	10%,	
	C....72	59.22.4101	100 u	16 V,	20%,	
	C....73	59.22.4101	100 u	16 V,	20%,	
	C....74	59.22.4470	47 u	16 V,	20%,	
	C....75	59.12.7104	100 n	63 V,	1%,	
	C....76	59.22.4470	47 u	16 V,	20%,	
	C....77	59.22.4470	47 u	16 V,	20%,	
	C....78	59.22.4470	47 u	16 V,	20%,	
	C....79	59.22.4101	100 u	16 V,	20%,	
	C....80	59.22.4470	47 u	16 V,	20%,	
	C....81	59.22.4470	47 u	16 V,	20%,	
	C....82	59.22.4101	100 u	16 V,	20%,	
	C....83	59.22.4470	47 u	16 V,	20%,	
	C....84	59.22.4470	47 u	16 V,	20%,	
	C....85	59.12.7104	100 n	63 V,	1%,	
	C....86	59.22.4101	100 u	16 V,	20%,	
	C....87	59.22.4101	100 u	16 V,	20%,	
	C....88	59.05.2152	1.5 n	160 V,	2.5%,	
	C....89	59.12.7333	33 n	63 V,	1%,	
	C....90	59.22.4101	100 u	16 V,	20%,	
	C....91	59.05.2152	1.5 n	160 V,	2.5%,	
	C....92	59.06.0682	6.8 n	63 V,	10%,	
	C....93	59.06.0682	6.8 n	63 V,	10%,	
	C....94	59.22.4101	100 u	16 V,	20%,	
	C....95	59.06.0682	6.8 n	63 V,	10%,	
	C....96	59.22.4101	100 u	16 V,	20%,	
	C....97	59.05.2472	4.7 n	63 V,	2.5%,	
	C....98	59.05.2472	4.7 n	63 V,	2.5%,	
	C....99	59.05.2472	4.7 n	63 V,	2.5%,	
	C...100	59.05.2472	4.7 n	63 V,	2.5%,	
	C...101	59.22.4470	47 u	16 V,	20%,	
	C...102	59.34.4271	270 p	63 V,	5%,	N750
	C...103	59.06.0682	6.8 n	63 V,	10%,	
	C...104	59.06.0682	6.8 n	63 V,	10%,	
	C...105	59.22.4101	100 u	16 V,	20%,	
	C...106	59.22.4101	100 u	16 V,	20%,	
	C...107	59.06.0682	6.8 n	63 V,	10%,	
	C...108	59.06.0682	6.8 n	63 V,	10%,	
	C...109	59.06.0682	6.8 n	63 V,	10%,	
	C...110	59.06.0682	6.8 n	63 V,	10%,	
	C...111	59.06.0682	6.8 n	63 V,	10%,	
	C...112	59.06.0682	6.8 n	63 V,	10%,	
	C...113	59.06.0682	6.8 n	63 V,	10%,	
	C...114	59.06.0682	6.8 n	63 V,	10%,	
	C...115	59.06.0682	6.8 n	63 V,	10%,	
	D.....8	50.04.0105	1N4004			
	D.....9	50.04.0105	1N4004			
	D....10	50.04.0125	1N4448			
	D....11	50.04.0125	1N4448			
	IC....3	50.09.0117	MC33078	DIP08, DUAL LOW NOISE AMPLIFIER		
	IC....4	50.09.0117	MC33078	DIP08, DUAL LOW NOISE AMPLIFIER		
	IC....5	50.09.0117	MC33078	DIP08, DUAL LOW NOISE AMPLIFIER		
	IC....6	50.09.0117	MC33078	DIP08, DUAL LOW NOISE AMPLIFIER		
	IC....7	50.09.0117	MC33078	DIP08, DUAL LOW NOISE AMPLIFIER		

SIDE BOARD EQ

1.990.289.00

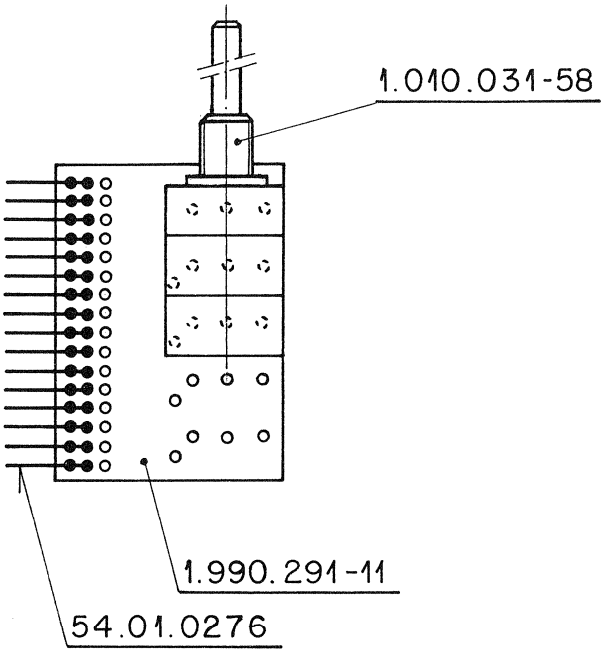
Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	IC....8	50.09.0117	MC33078	DIP08, DUAL LOW NOISE AMPLIFIER
	IC....9	50.09.0117	MC33078	DIP08, DUAL LOW NOISE AMPLIFIER
02	IC....9	50.09.0101	TL072 CP	DIP08, DUAL LOW NOISE AMPLIFIER
	P.....1	. .	not used	see A1
	P.....2	. .	not used	see A2
	Q....15	50.03.0350	J-112	NFET, TO92-5
	Q....16	50.03.1130	J-110	NFET, TO92-5
	Q....17	50.03.1130	J-110	NFET, TO92-5
	Q....18	50.03.0350	J-112	NFET, TO92-5
	Q....19	50.03.0350	J-112	NFET, TO92-5
	Q....20	50.03.0350	J-112	NFET, TO92-5
	Q....21	50.03.0350	J-112	NFET, TO92-5
	Q....22	50.03.0350	J-112	NFET, TO92-5
	Q....23	50.03.0515	BC307B	PNP, TO92-1
	Q....24	50.03.0350	J-112	NFET, TO92-5
	Q....25	50.03.0515	BC307B	PNP, TO92-1
	Q....26	50.03.0350	J-112	NFET, TO92-5
	Q....27	50.03.0350	J-112	NFET, TO92-5
	Q....28	50.03.0515	BC307B	PNP, TO92-1
	Q....29	50.03.0350	J-112	NFET, TO92-5
	Q....30	50.03.0515	BC307B	PNP, TO92-1
	Q....31	50.03.0350	J-112	NFET, TO92-5
	Q....32	50.03.0350	J-112	NFET, TO92-5
	R....75	57.92.7013	0.5 A	60V , POLY-PTC
	R....76	57.92.7013	0.5 A	60V , POLY-PTC
	R....77	57.11.3105	1 MOhm	MF, 1%
	R....78	57.11.3222	2.2 kOhm	MF, 1%
	R....79	57.11.3684	680 kOhm	MF, 1%
	R....80	57.11.3103	10 kOhm	MF, 1%
	R....81	57.11.3103	10 kOhm	MF, 1%
	R....82	57.11.3684	680 kOhm	MF, 1%
	R....83	57.11.3684	680 kOhm	MF, 1%
	R....84	57.11.3103	10 kOhm	MF, 1%
	R....85	57.11.3103	10 kOhm	MF, 1%
	R....86	57.11.3223	22 kOhm	MF, 1%
	R....87	57.11.3472	4.7 kOhm	MF, 1%
	R....88	57.11.3684	680 kOhm	MF, 1%
	R....89	57.11.3684	680 kOhm	MF, 1%
	R....90	57.11.3684	680 kOhm	MF, 1%
	R....91	57.11.3103	10 kOhm	MF, 1%
	R....92	57.11.3102	1 kOhm	MF, 1%
	R....93	57.11.3103	10 kOhm	MF, 1%
	R....94	57.11.3105	1 MOhm	MF, 1%
	R....95	57.11.3222	2.2 kOhm	MF, 1%
	R....96	57.11.3684	680 kOhm	MF, 1%
	R....97	57.11.3103	10 kOhm	MF, 1%
	R....98	57.11.3103	10 kOhm	MF, 1%
	R....99	57.11.3684	680 kOhm	MF, 1%
	R...100	57.11.3684	680 kOhm	MF, 1%
	R...101	57.11.3103	10 kOhm	MF, 1%
	R...102	57.11.3103	10 kOhm	MF, 1%
	R...103	57.11.3104	100 kOhm	MF, 1%
	R...104	57.11.3102	1 kOhm	MF, 1%
	R...105	57.11.3101	100 Ohm	MF, 1%
	R...106	57.11.3102	1 kOhm	MF, 1%
	R...107	57.11.6226	22 MOhm	MF, 10%
	R...108	57.11.6226	22 MOhm	MF, 10%
	R...109	57.11.3104	100 kOhm	MF, 1%
	R...110	57.11.3102	1 kOhm	MF, 1%
	R...111	57.11.3472	4.7 kOhm	MF, 1%
	R...112	57.11.3684	680 kOhm	MF, 1%
	R...113	57.11.3684	680 kOhm	MF, 1%
	R...114	57.11.3183	18 kOhm	MF, 1%
	R...115	57.11.3752	7.5 kOhm	MF, 1%
	R...116	57.11.3362	3.6 kOhm	MF, 1%
	R...117	57.11.3103	10 kOhm	MF, 1%
	R...118	57.11.3102	1 kOhm	MF, 1%
	R...119	57.11.5106	10 MOhm	MF, 5%
	R...120	57.11.3682	6.8 kOhm	MF, 1%
	R...121	57.11.5106	10 MOhm	MF, 5%
	R...122	57.11.3752	7.5 kOhm	MF, 1%
	R...123	57.11.3183	18 kOhm	MF, 1%
	R...124	57.11.3362	3.6 kOhm	MF, 1%
	R...125	57.11.3102	1 kOhm	MF, 1%
	R...126	57.11.3103	10 kOhm	MF, 1%
	R...127	57.11.3684	680 kOhm	MF, 1%
	R...128	57.11.3682	6.8 kOhm	MF, 1%
	R...129	57.11.3102	1 kOhm	MF, 1%
	R...130	57.11.3103	10 kOhm	MF, 1%
	R...131	57.11.3223	22 kOhm	MF, 1%
	R...132	57.11.3472	4.7 kOhm	MF, 1%
	R...133	57.11.3202	2 kOhm	MF, 1%
	R...134	57.11.5106	10 MOhm	MF, 5%
	R...135	57.11.3392	3.9 kOhm	MF, 1%
	R...136	57.11.3684	680 kOhm	MF, 1%
	R...137	57.11.5106	10 MOhm	MF, 5%
	R...138	57.11.3202	2 kOhm	MF, 1%
	R...139	57.11.3472	4.7 kOhm	MF, 1%
	R...140	57.11.3392	3.9 kOhm	MF, 1%
	R...141	57.11.3684	680 kOhm	MF, 1%
	R...142	57.11.3103	10 kOhm	MF, 1%
	R...143	57.11.3223	22 kOhm	MF, 1%
	R...144	57.11.5106	10 MOhm	MF, 5%
	R...145	57.11.3223	22 kOhm	MF, 1%
	R...146	57.11.5106	10 MOhm	MF, 5%
	R...147	57.11.3104	100 kOhm	MF, 1%
	R...148	57.11.3684	680 kOhm	MF, 1%
	R...149	57.11.5106	10 MOhm	MF, 5%
	R...150	57.11.3104	100 kOhm	MF, 1%
	R...151	57.11.3684	680 kOhm	MF, 1%
	R...152	57.11.5106	10 MOhm	MF, 5%
	R...153	57.11.5106	10 MOhm	MF, 5%
	R...154	57.11.3104	100 kOhm	MF, 1%
	R...155	57.11.3684	680 kOhm	MF, 1%
	R...156	57.11.5106	10 MOhm	MF, 5%
	R...157	57.11.3104	100 kOhm	MF, 1%
	R...158	57.11.5106	10 MOhm	MF, 5%
	R...159	57.11.3684	680 kOhm	MF, 1%
	R...160	57.11.5106	10 MOhm	MF, 5%
	R...161	57.11.3104	100 kOhm	MF, 1%
	R...162	57.11.3102	1 kOhm	MF, 1%
	R...163	57.11.3101	100 Ohm	MF, 1%
	R...164	57.11.3102	1 kOhm	MF, 1%
	MP....1	1.990.289.11	1 pcs	SIDE BOARD PCB
	MP....2	1.990.289.01	1 pcs	Schirmblech SIDE BOARD
02	MP....2	. . 0	not used	see 1.990.230.00 ... 280.00
	MP....3	1.010.157.27	3 pcs	Distanzbolzen M2.5x13mm
	MP....4	1.010.208.27	3 pcs	Mutterbolzen M2.5x14mm
02	MP....4	. . 0	not used	see 1.990.230.00 ... 280.00
	MP....5	21.01.0279	3 pcs	Z-Schrauben M2.5x 6mm
	MP....6	24.16.1025	6 pcs	Rippenscheibe M2.5
02	MP....6	24.16.1025	3 pcs	Rippenscheibe M2.5
	MP....7	53.03.0166	7 pcs	IC-Socket 8-pin

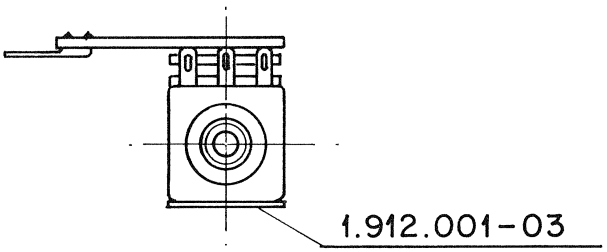
(01) 90/07/10 Verbesserung des Frequenzganges im EQ-Teil.

(02) 91/02/12 Im IC 9 wird HF demoduliert.Dieser Effekt verschwindet bei der Verwendung vom FET-OP TL 072CP. Schirmblech,Mutterbolzen und Rippenscheiben werden erst beim Einbau in die uebergeordnete Baugruppe benoetigt und sind neu in deren Posliste.

1.990.289.00	SIDE BOARD EQ	SCA90/04/2400
1.990.289.00	SIDE BOARD EQ	SCA90/07/1001
1.990.289.00	SIDE BOARD EQ	SCA91/02/1202

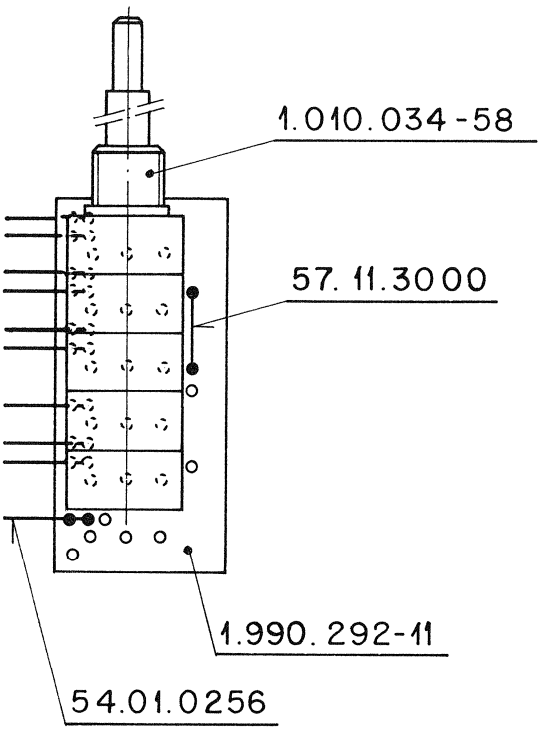
3 POT. 24,6mm BOARD **1.990.291.00**

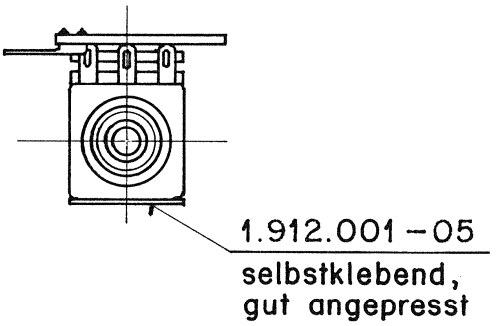




					Änderung	③ ② ①
					Ausgabe	⓪
		11.10.89			Datum	Index
			Gez.	Gepr.	Ges.	
		Kopie für:				
STUDER REGENSDORF ZÜRICH	Benennung: 3 POT. 24,6mm BOARD				Nummer: 1.990.291-00	

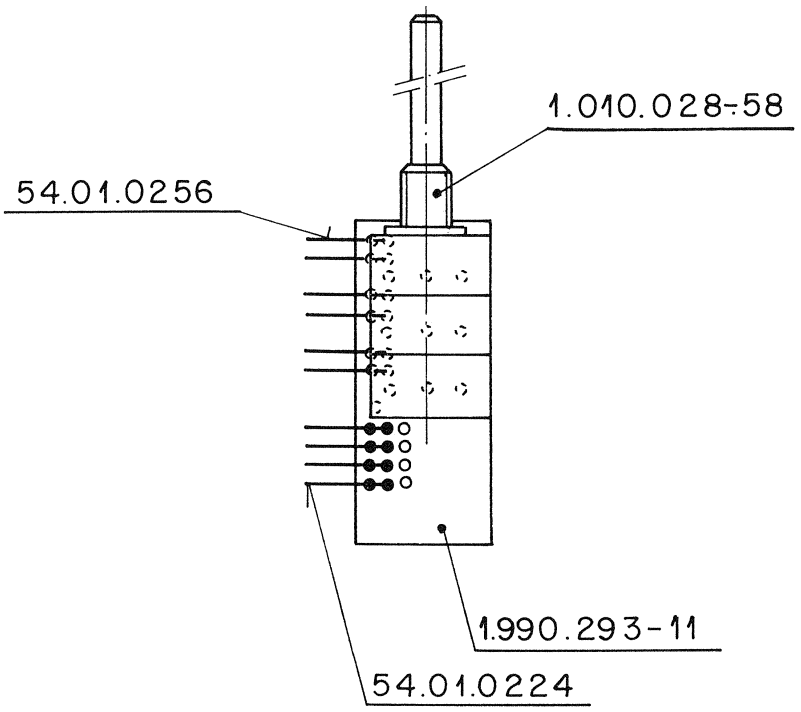
5 POT. 10mm BOARD **1.990.292.00**





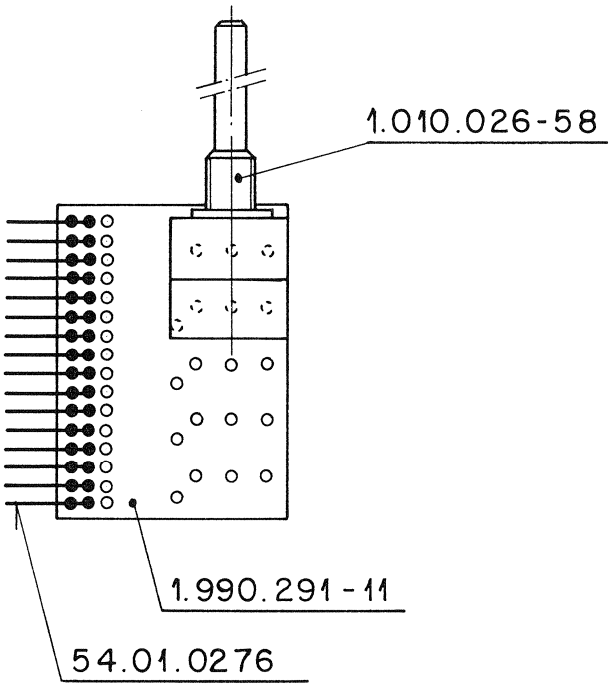
		Änderung				③ ② ①
		Ausgabe	11.10.89			⓪
			Datum	Gez.	Gepr.	Ges. Index
		Kopie für:				
STUDER REGENSDORF ZÜRICH	Benennung: 5 POT. 10 mm BOARD	Nummer:	1.990.292-00			

3 POT. 10mm BOARD **1.990.293.00**



Änderung							③ ② ①
Ausgabe	11.10.89						0
	Datum	Gez.	Gepr.	Ges.	Index		
Kopie für:							
STUDER REGENSDORF ZÜRICH	Benennung: 3 POT. 10mm BOARD				Nummer: 1.990.293-00		

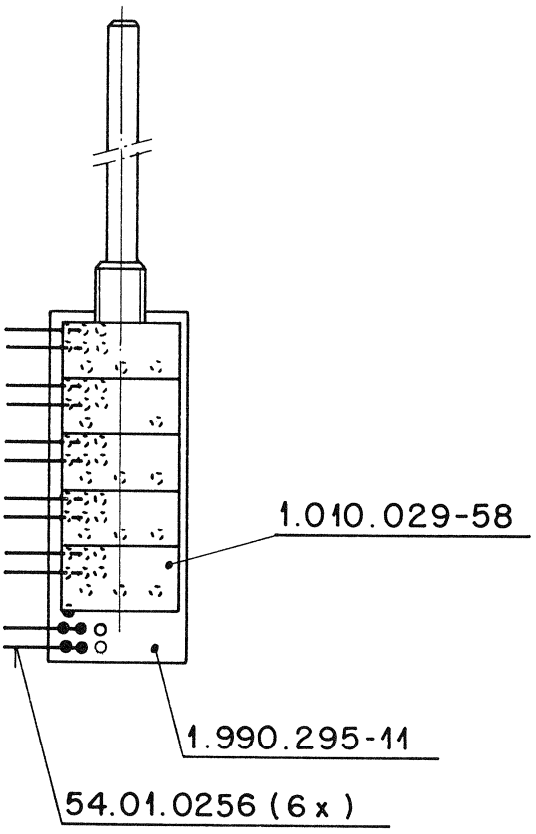
2 POT. 24,6mm BOARD 1.990.294.00



Änderung						③ ② ①
Ausgabe	11.10.89					⓪
	Datum	Gez.	Gepr.	Ges.	Index	
Kopie für:						

STUDER REGENSDORF ZÜRICH	Benennung: 2 POT. 24,6mm BOARD	Nummer: 1.990.294-00

5 POT. 10mm BOARD 1.990.295.00

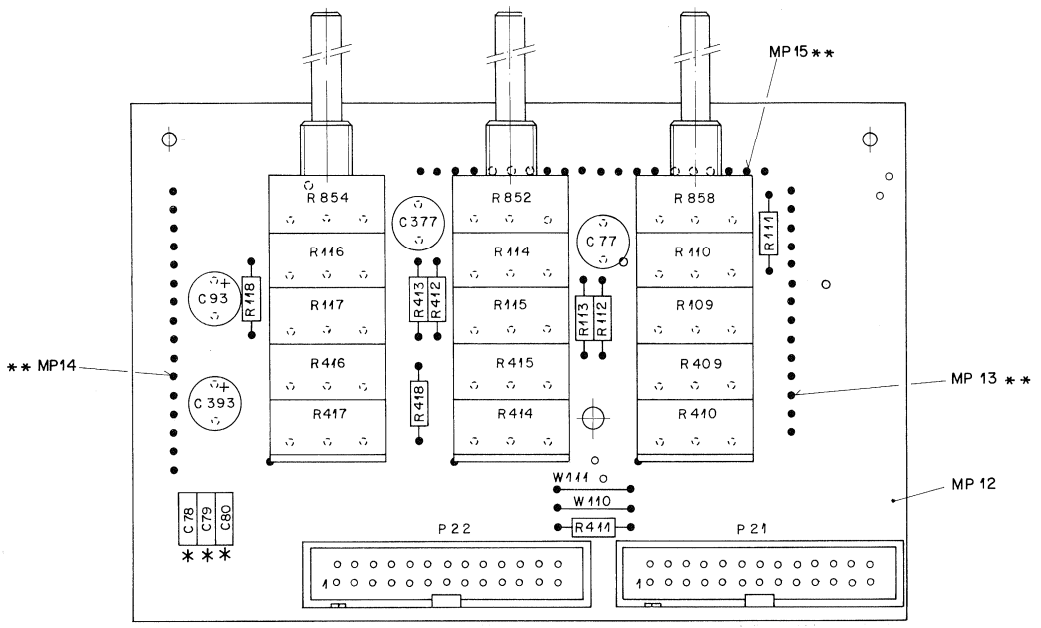


Änderung					
					3
					2
					1
Ausgabe	31.1.90				0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: 5 POT. 10mm BOARD	Nummer: 1.990.295-00

3 * 5 POT. 24,6mm BOARD 1.990.296.00



** MP13, MP14, MP15 auf Lötseite bestückt

* nicht bestückt

Ad	..POS..	...REF.No...	DESCRIPTION.....MANUFACTURER	
	C....77	59.05.2472	4700 pF 2.5%	
	C....78	. .	not used	
	C....79	. .	not used	
	C....80	. .	not used	
	C....93	59.22.3101	100 uF 10V EL	
	C...377	59.05.2472	4700 pF 2.5%	
	C...393	59.22.3101	100 uF 10V EL	
	MP...12	1.990.296.11	1 pcs 3*5 Pot PCB	St
01	MP...12	1.990.296.12	1 pcs 3*5 pot PCB	St
	MP...13	54.01.0324	1 pcs Cis connector 14 Pol	
	MP...14	54.01.0326	1 pcs Cis connector 16 Pol	
	MP...15	54.01.0330	1 pcs Cis connector 20 Pol	
	P....21	54.14.2003	26Pol 1/20 inch PCB flat-cabel connector	Bu,Ya
	P....22	54.14.2003	26Pol 1/20 inch Pcb flat-cabel connector	Bu,Ya
	R...109	1.010.030.58	100 kOhm 10% neg.log.comb.with R110/409/410/858	St
	R...110	. .	100 KOhm 10% neg.log. see R109	
	R...111	57.11.3392	3.9 kOhm	
	R...112	57.11.3105	1 MOhm	
	R...113	57.11.3472	4.7 kOhm	
	R...114	1.010.030.58	100 kOhm 10% neg.log.comb.with R115/414/415/852	St
	R...115	. .	100 KOhm 10% neg.log. see R114	
	R...116	1.010.030.58	100 kOhm 10% neg.log.comb.with R117/416/417/854	St
	R...117	. .	100 KOhm 10% neg.log. see R116	
	R...118	57.11.3472	4.7 kOhm	
	R...409	. .	100 KOhm 10% neg.log. see R109	
	R...410	. .	100 KOhm 10% neg.log. see R109	
	R...411	57.11.3392	3.9 kOhm	
	R...412	57.11.3105	1 MOhm	
	R...413	57.11.3472	4.7 kOhm	
	R...414	. .	100 KOhm 10% neg.log. see R114	
	R...415	. .	100 KOhm 10% neg.log. see R114	
	R...416	. .	100 KOhm 10% neg.log. see R116	
	R...417	. .	100 KOhm 10% neg.log. see R116	
	R...418	57.11.3472	4.7 kOhm	
	R...852	. .	100 kOhm 20% lin. comb.with R114/115/414/415	
	R...854	. .	100 kOhm 20% lin. comb.with R116/117/416/417	
	R...858	. .	100 kOhm 20% lin. comb.with R109/110/409/410	
	W...110	57.11.3000	0 Ohm	
	W...111	57.11.3000	0 Ohm	

(01) 90/05/30 MP 12 NEW VERSION OF PCB

EL=Electrolytic, PP=Polypropylen

MANUFACTURER:
****
Bu=Burndy, St=Studer, Ya=Yamaichi

1.990.296.00 3*5 POT. 24.6MM BOARD TA 90/02/0900

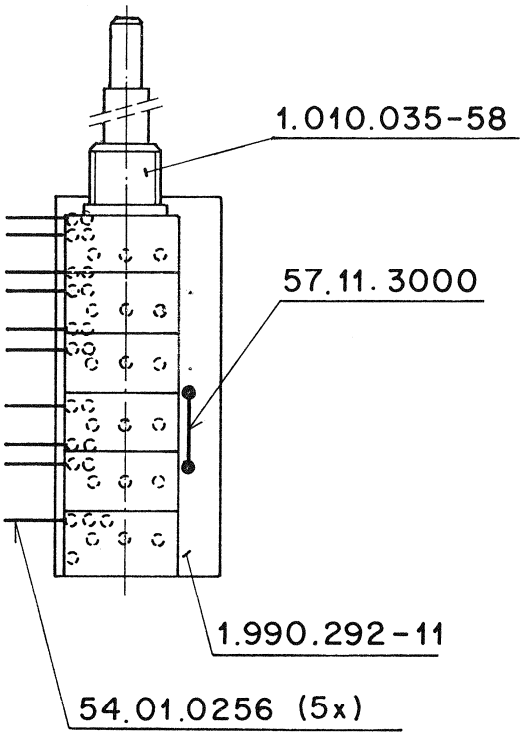
1.990.296.00 3*5 POT. 24.6MM BOARD TA 90/05/3001

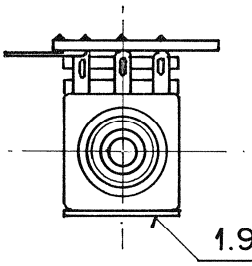
Änderung					
Ausgabe	Datum	Gez.	Gepr.	Ges.	Index
	6.2.90				0

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: 3 * 5 POT. 24.6 mm BOARD	Nummer: 1.990.296-00

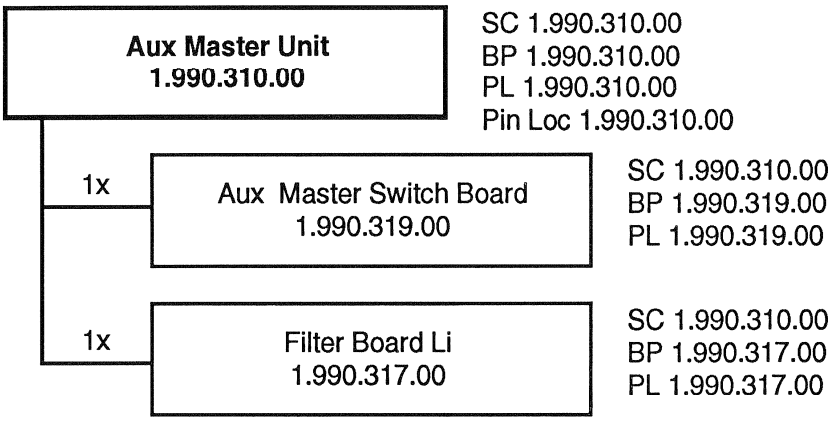
6 POT. 10mm BOARD **1.990.297.00**





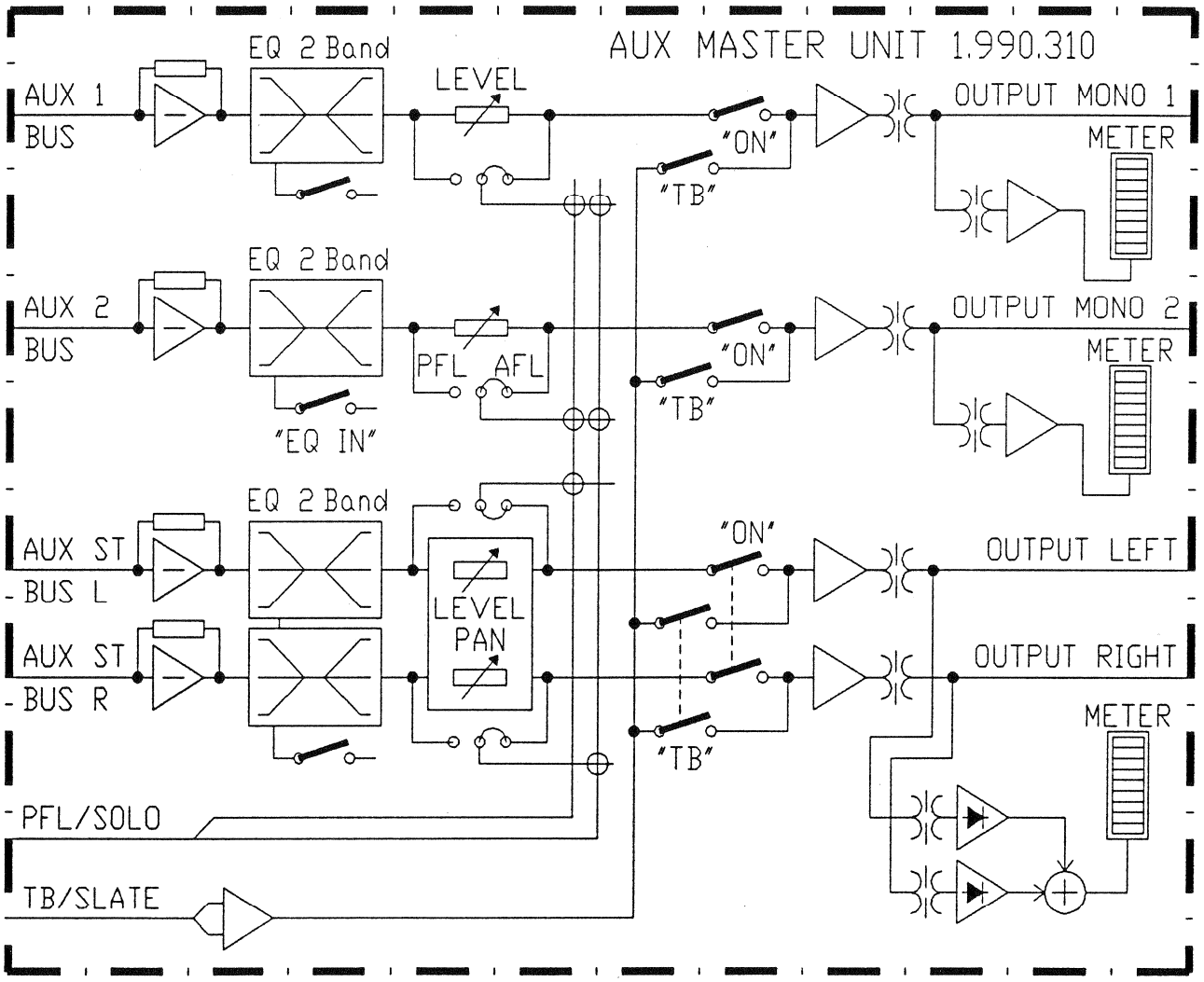
		Änderung				③ ② ①
		Ausgabe	6.2.90			⓪
			Datum	Gez.	Gepr.	Ges. Index
		Kopie für:				
STUDER REGENSDORF ZÜRICH	Benennung: 6 POT. 10mm BOARD	Nummer: 1.990.297-00				

Aux Master Unit 1.990.310.00

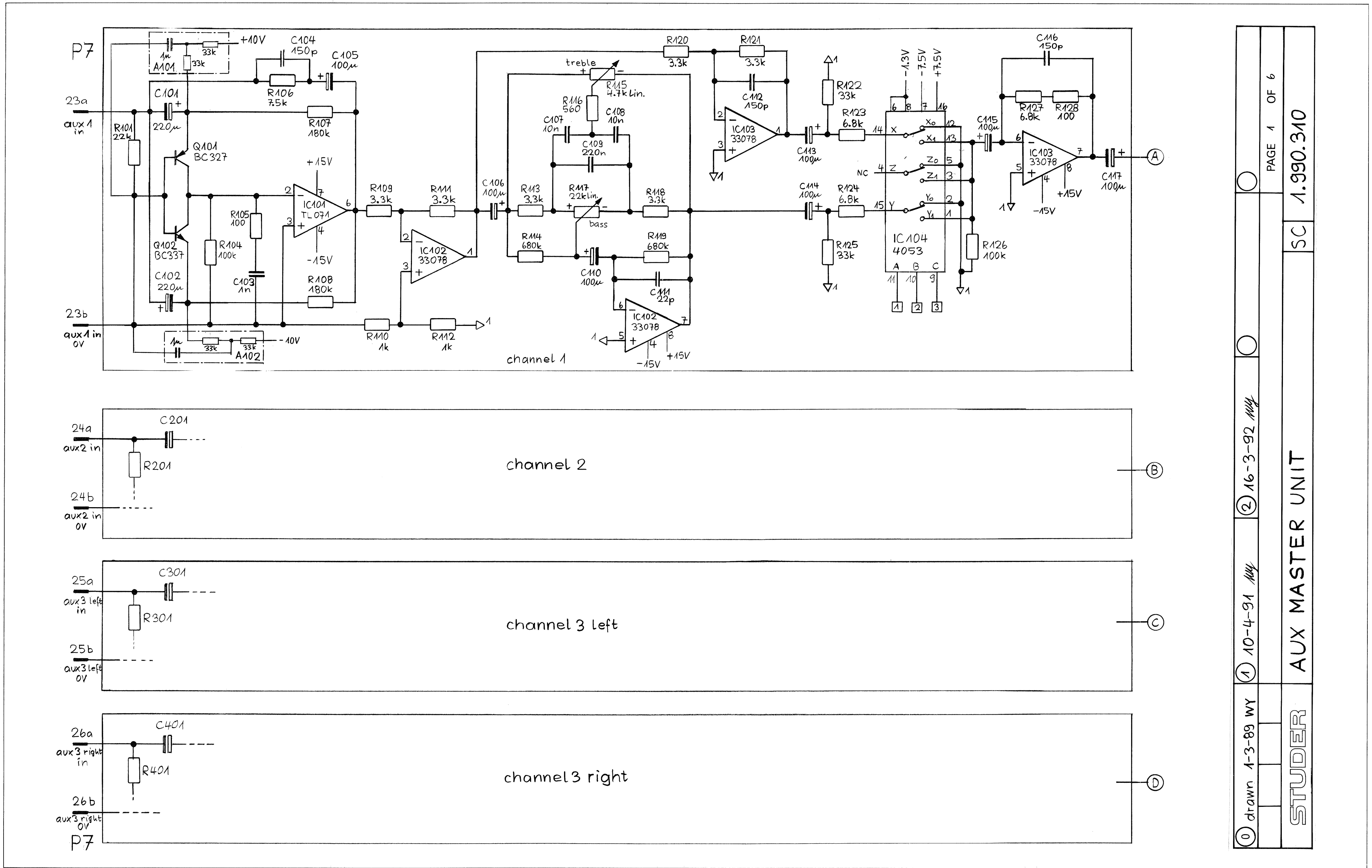


SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

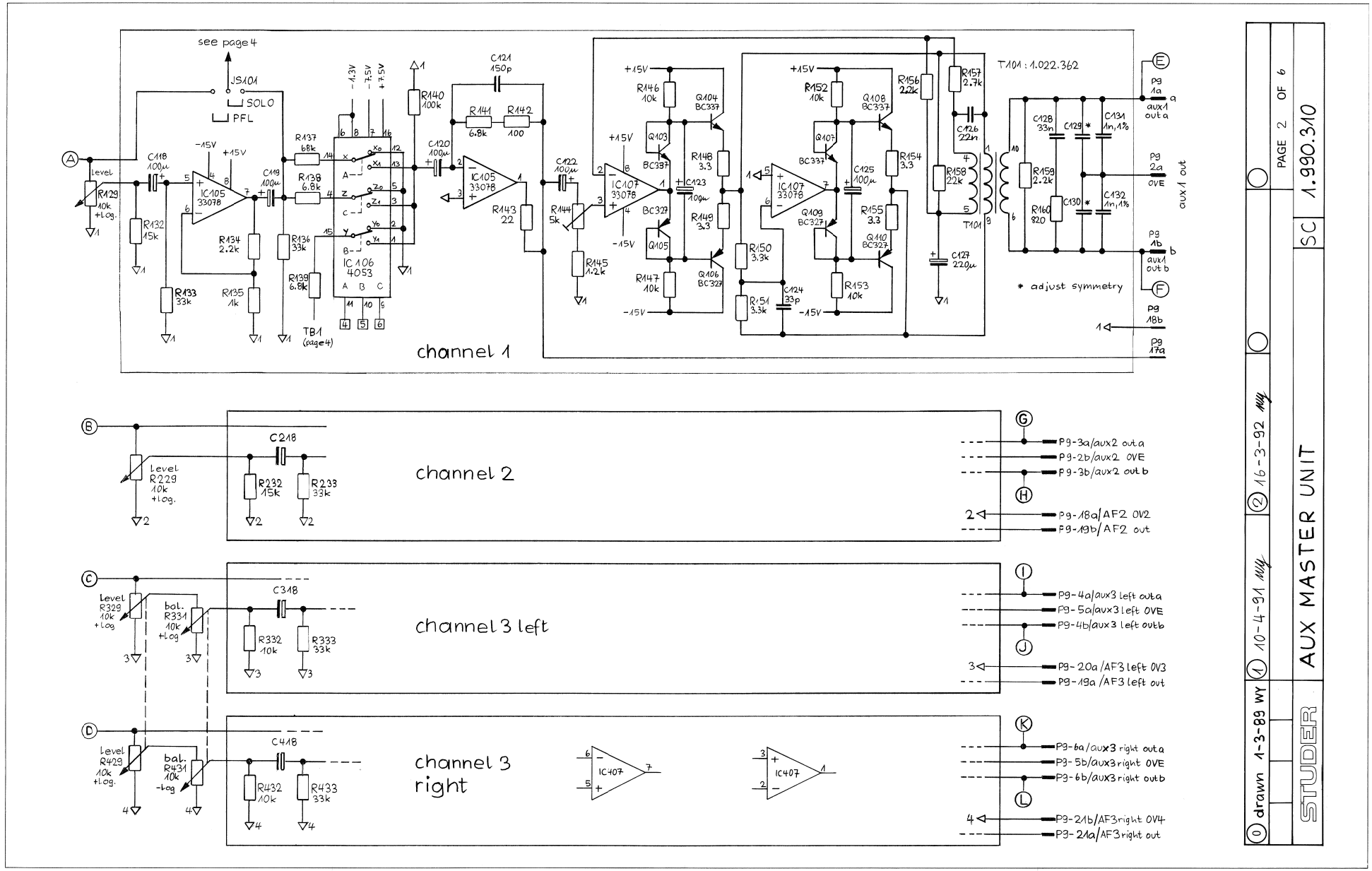
AUX MASTER UNIT 1.990.310.00



AUX MASTER UNIT 1.990.310.00

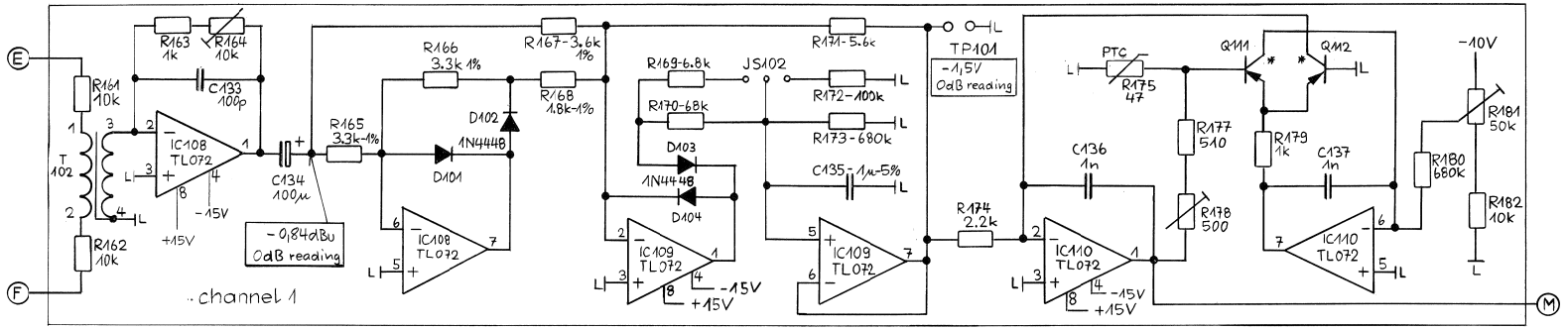


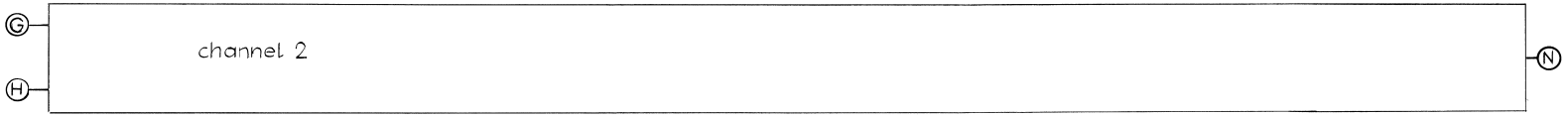
AUX MASTER UNIT 1.990.310.00

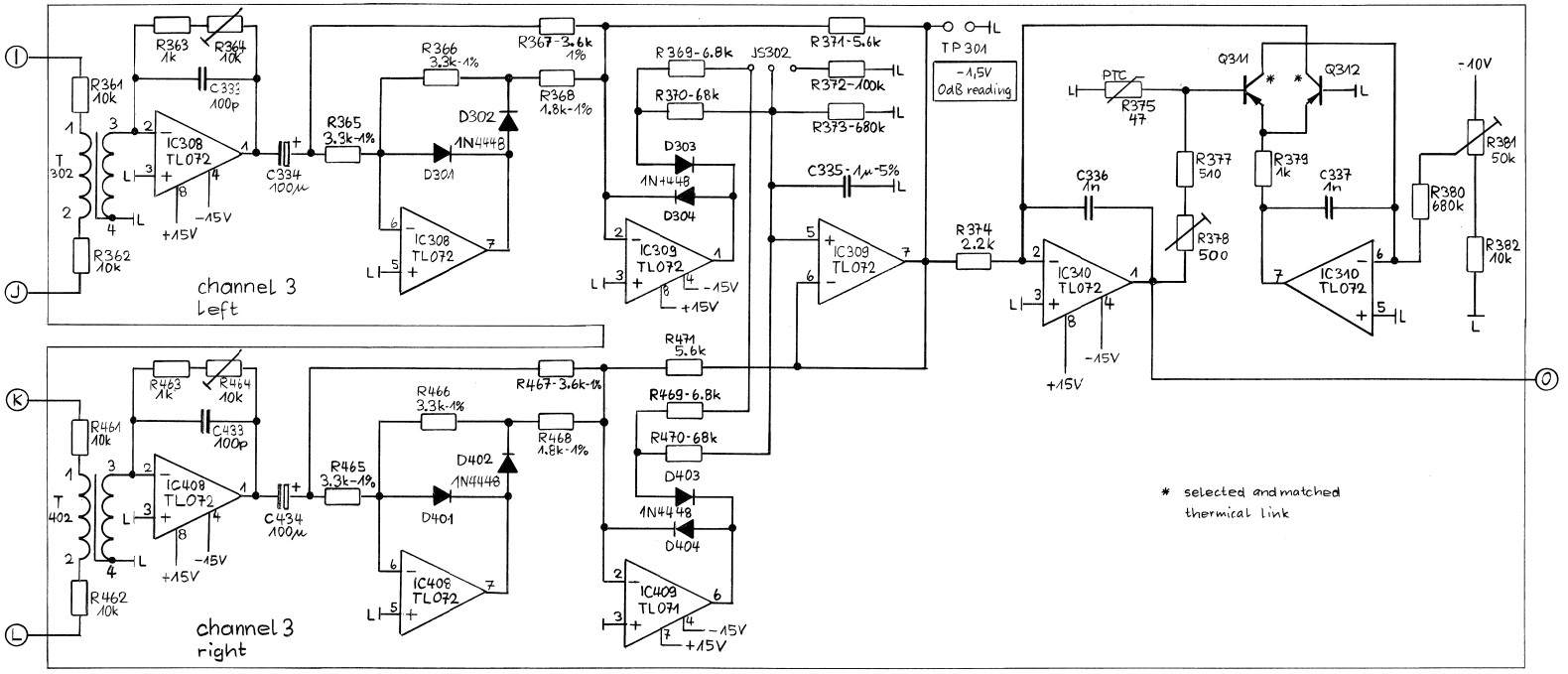


AUX MASTER UNIT

1.990.310.00





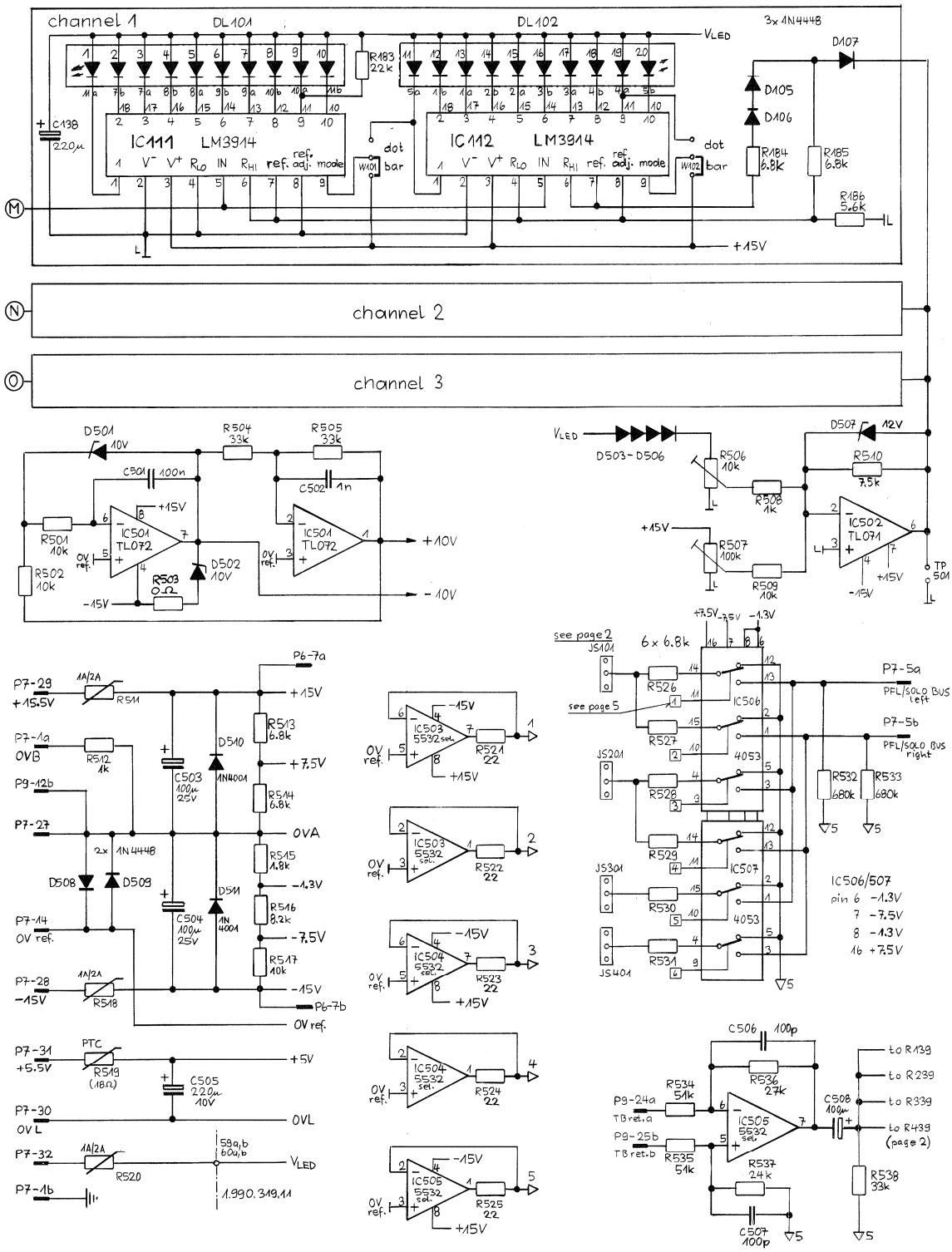


0	drawn 1-3-89 WY	1	10-4-91 WY	2	16-3-92 WY

STUDER AUX MASTER UNIT SC 1.990.310

AUX MASTER UNIT

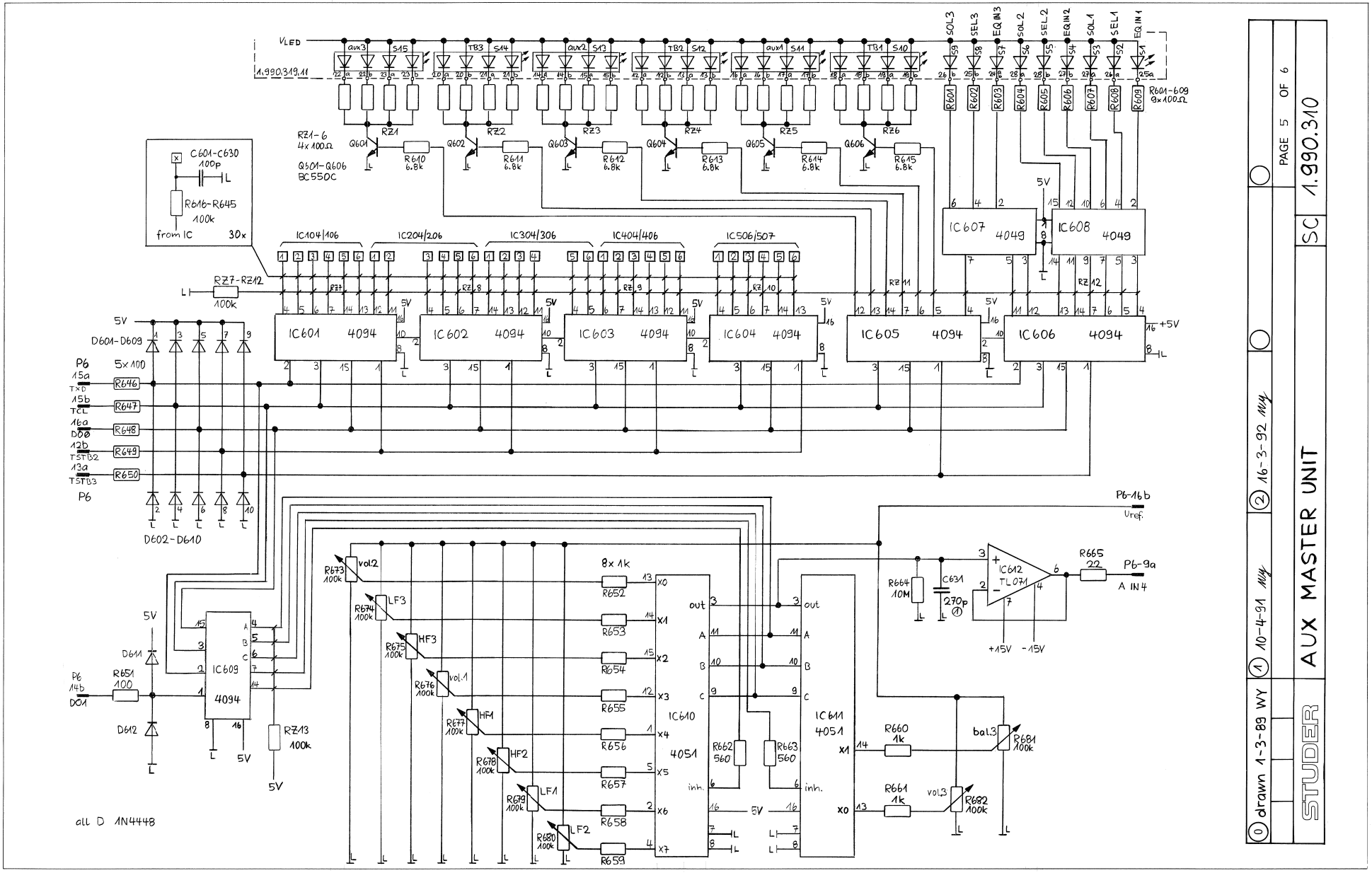
1.990.310.00

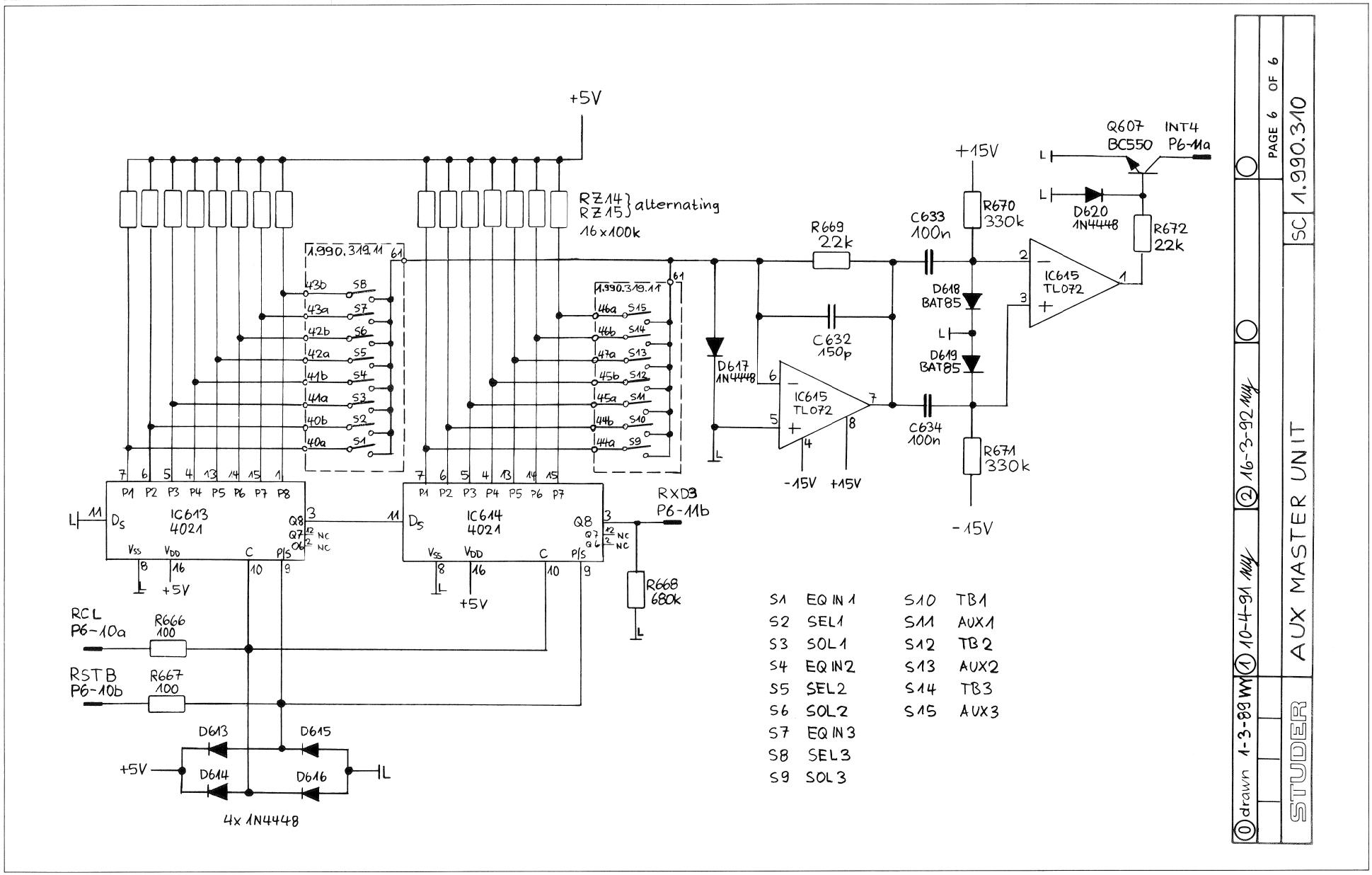


⓪ drawn 1-3-89 WY	① 10-4-91 wy	② 16-3-92 wy		
				PAGE 4 OF 6
STUDER	AUX MASTER UNIT		SC	1.990.310

AUX MASTER UNIT

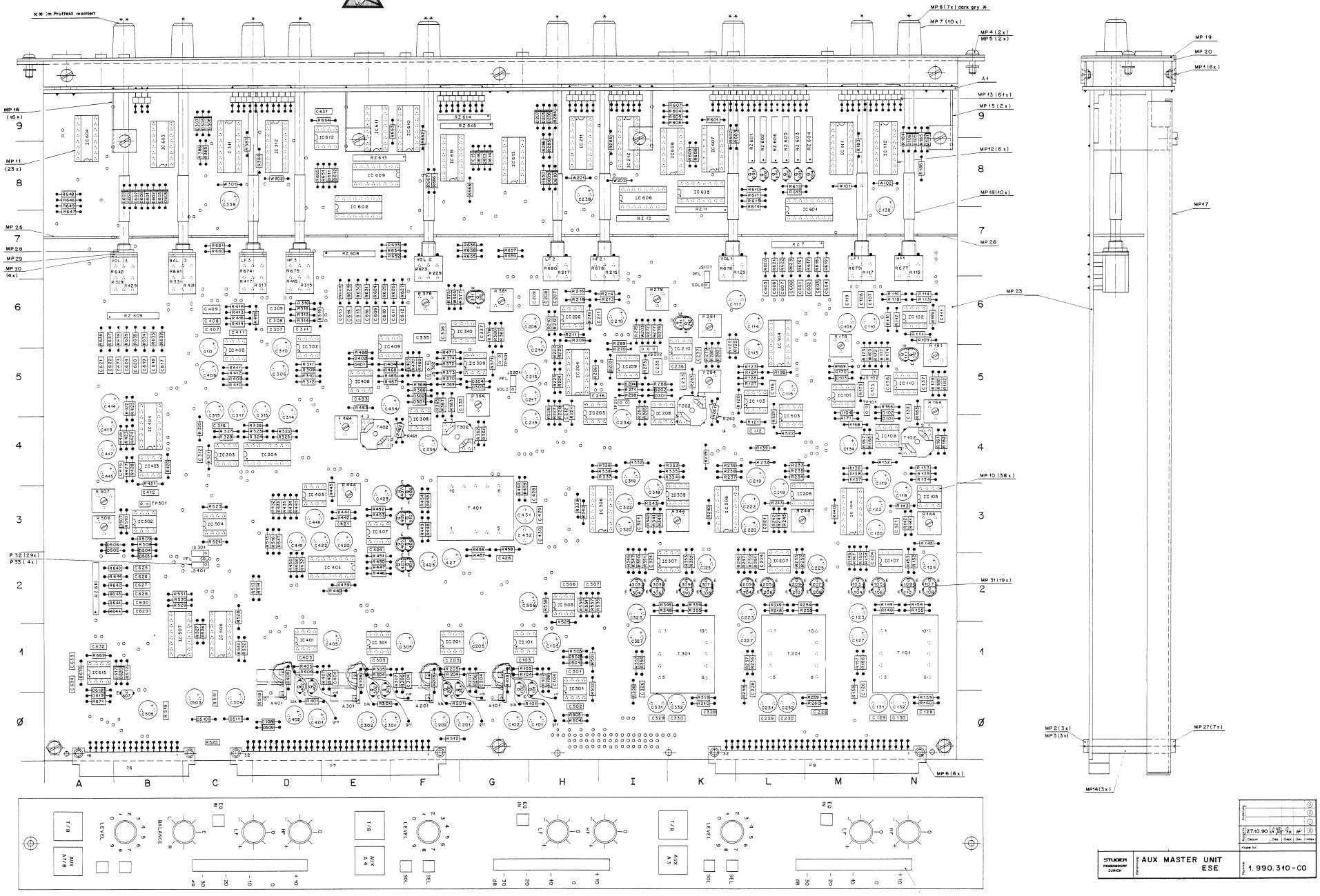
1.990.310.00




+5V
RZ14 } alternating
RZ15 }
16 x 100k
1.990.319.11
R669 22k
C633 100n
R670 330k
+15V
Q607 BC550
INT4 P6-11a
D620 1N4448
R672 22k
IC615 TL072
D618 BAT85
D619 BAT85
C632 150p
D617 1N4448
IC615 TL072
C634 100n
R671 330k
-15V +15V
-15V
IC613 4021
IC614 4021
RXD3 P6-11b
R668 680k
RCL P6-10a
R666 100
RSTB P6-10b
R667 100
D613
D615
D614
D616
4x 1N4448
S1 EQ IN 1
S2 SEL1
S3 SOL1
S4 EQ IN2
S5 SEL2
S6 SOL2
S7 EQ IN 3
S8 SEL3
S9 SOL 3
S10 TB1
S11 AUX1
S12 TB 2
S13 AUX2
S14 TB3
S15 AUX3
PAGE 6 OF 6
SC 1.990.310
16-3-92 MW
10-4-91 MW
1-3-88 WM
drawn
STUDER
AUX MASTER UNIT

AUX MASTER UNIT ESE

1.990.310.00



STUDER REGENSDORF ZÜRICH	Benennung	AUX MASTER UNIT ESE	Nummer 1.990.340-00

AUX MASTER UNIT

1.990.310.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	A.....1	1.990.319.00	aux master switch board	ST
	A...101	1.990.317.00	filterboard li	ST
	A...201	1.990.317.00	filterboard li	ST
	A...301	1.990.317.00	filterboard li	ST
	A...401	1.990.317.00	filterboard li	ST
	C...101	59.22.3221	220 uF 10V	EL
	C...102	59.22.3221	220 uF 10V	EL
	C...103	59.06.5102	1 nF 5%	PE
	C...104	59.34.4151	150 pF	CER
	C...105	59.22.4101	100 uF 16V	EL
	C...106	59.22.4101	100 uF 16V	EL
	C...107	59.06.5103	10 nF 5%	PE
	C...108	59.06.5103	10 nF 5%	PE
	C...109	59.06.5224	220 nF 5%	PE
	C...110	59.22.4101	100 uF 16V	EL
	C...111	59.34.2220	22 pF	CER
	C...112	59.34.4151	150 pF	CER
	C...113	59.22.4101	100 uF 16V	EL
	C...114	59.22.4101	100 uF 16V	EL
	C...115	59.22.4101	100 uF 16V	EL
	C...116	59.34.4151	150 pF	CER
	C...117	59.22.4101	100 uF 16V	EL
	C...118	59.22.4101	100 uF 16V	EL
	C...119	59.22.4101	100 uF 16V	EL
	C...120	59.22.4101	100 uF 16V	EL
	C...121	59.34.4151	150 pF	CER
	C...122	59.22.4101	100 uF 16V	EL
	C...123	59.22.4101	100 uF 16V	EL
	C...124	59.34.2330	33 pF	CER
	C...125	59.22.4101	100 uF 16V	EL
	C...126	59.06.0223	22 nF 10%	PE
	C...127	59.22.3221	220 uF 10V	EL
	C...128	59.06.0333	33 nF 10%	PE
	C...131	59.05.1102	1 nF 1%	PP
	C...132	59.05.1102	1 nF 1%	PP
	C...133	59.34.4101	100 pF	CER
	C...134	59.22.4101	100 uF 16V	EL
	C...135	59.06.5105	1 uF 5%	PE
	C...136	59.06.5102	1 nF	EL
	C...137	59.06.5102	1 nF	EL
	C...138	59.22.3221	220 uF 10V	EL
	C...201	59.22.3221	220 uF 10V	EL
	C...202	59.22.3221	220 uF 10V	EL
	C...203	59.06.5102	1 nF 5%	PE
	C...204	59.34.4151	150 pF	CER
	C...205	59.22.4101	100 uF 16V	EL
	C...206	59.22.4101	100 uF 16V	EL
	C...207	59.06.5103	10 nF 5%	PE
	C...208	59.06.5103	10 nF 5%	PE
	C...209	59.06.5224	220 nF 5%	PE
	C...210	59.22.4101	100 uF 16V	EL
	C...211	59.34.2220	22 pF	CER
	C...212	59.34.4151	150 pF	CER
	C...213	59.22.4101	100 uF 16V	EL
	C...214	59.22.4101	100 uF 16V	EL
	C...215	59.22.4101	100 uF 16V	EL
	C...216	59.34.4151	150 pF	CER
	C...217	59.22.4101	100 uF 16V	EL
	C...218	59.22.4101	100 uF 16V	EL
	C...219	59.22.4101	100 uF 16V	EL
	C...220	59.22.4101	100 uF 16V	EL
	C...221	59.34.4151	150 pF	CER
	C...222	59.22.4101	100 uF 16V	EL
	C...223	59.22.4101	100 uF 16V	EL
	C...224	59.34.2330	33 pF	CER
	C...225	59.22.4101	100 uF 16V	EL
	C...226	59.06.0223	22 nF 10%	PE
	C...227	59.22.3221	220 uF 10V	EL
	C...228	59.06.0333	33 nF 10%	PE
	C...231	59.05.1102	1 nF 1%	PP
	C...232	59.05.1102	1 nF 1%	PP
	C...233	59.34.4101	100 pF	CER
	C...234	59.22.4101	100 uF 16V	EL
	C...235	59.06.5105	1 uF 5%	PE
	C...236	59.06.5102	1 nF	EL
	C...237	59.06.5102	1 nF	EL
	C...238	59.22.3221	220 uF 10V	EL
	C...301	59.22.3221	220 uF 10V	EL
	C...302	59.22.3221	220 uF 10V	EL
	C...303	59.06.5102	1 nF 5%	PE
	C...304	59.34.4151	150 pF	CER
	C...305	59.22.4101	100 uF 16V	EL
	C...306	59.22.4101	100 uF 16V	EL
	C...307	59.06.5103	10 nF 5%	PE
	C...308	59.06.5103	10 nF 5%	PE
	C...309	59.06.5224	220 nF 5%	PE
	C...310	59.22.4101	100 uF 16V	EL
	C...311	59.34.2220	22 pF	CER
	C...312	59.34.4151	150 pF	CER
	C...313	59.22.4101	100 uF 16V	EL
	C...314	59.22.4101	100 uF 16V	EL
	C...315	59.22.4101	100 uF 16V	EL
	C...316	59.34.4151	150 pF	CER
	C...317	59.22.4101	100 uF 16V	EL
	C...318	59.22.4101	100 uF 16V	EL
	C...319	59.22.4101	100 uF 16V	EL
	C...320	59.22.4101	100 uF 16V	EL
	C...321	59.34.4151	150 pF	CER
	C...322	59.22.4101	100 uF 16V	EL
	C...323	59.22.4101	100 uF 16V	EL
	C...324	59.34.2330	33 pF	CER
	C...325	59.22.4101	100 uF 16V	EL
	C...326	59.06.0223	22 nF 10%	PE
	C...327	59.22.3221	220 uF 10V	EL
	C...328	59.06.0333	33 nF 10%	PE
	C...331	59.05.1102	1 nF 1%	PP
	C...332	59.05.1102	1 nF 1%	PP
	C...333	59.34.4101	100 pF	CER
	C...334	59.22.4101	100 uF 16V	EL
	C...335	59.06.5105	1 uF 5%	PE
	C...336	59.06.5102	1 nF	EL
	C...337	59.06.5102	1 nF	EL
	C...338	59.22.3221	220 uF 10V	EL
	C...401	59.22.3221	220 uF 10V	EL
	C...402	59.22.3221	220 uF 10V	EL
	C...403	59.06.5102	1 nF 5%	PE
	C...404	59.34.4151	150 pF	CER
	C...405	59.22.4101	100 uF 16V	EL
	C...406	59.22.4101	100 uF 16V	EL
	C...407	59.06.5103	10 nF 5%	PE
	C...408	59.06.5103	10 nF 5%	PE
	C...409	59.06.5224	220 nF 5%	PE
	C...410	59.22.4101	100 uF 16V	EL
	C...411	59.34.2220	22 pF	CER
	C...412	59.34.4151	150 pF	CER
	C...413	59.22.4101	100 uF 16V	EL
	C...414	59.22.4101	100 uF 16V	EL
	C...415	59.22.4101	100 uF 16V	EL
	C...416	59.34.4151	150 pF	CER
	C...417	59.22.4101	100 uF 16V	EL
	C...418	59.22.4101	100 uF 16V	EL
	C...419	59.22.4101	100 uF 16V	EL
	C...420	59.22.4101	100 uF 16V	EL
	C...421	59.34.4151	150 pF	CER
	C...422	59.22.4101	100 uF 16V	EL
	C...423	59.22.4101	100 uF 16V	EL
	C...424	59.34.2330	33 pF	CER
	C...425	59.22.4101	100 uF 16V	EL
	C...426	59.06.0223	22 nF 10%	PE
	C...427	59.22.3221	220 uF 10V	EL
	C...428	59.06.0333	33 nF 10%	PE
	C...431	59.05.1102	1 nF 1%	PP
	C...432	59.05.1102	1 nF 1%	PP
	C...433	59.34.4101	100 pF	CER
	C...434	59.22.4101	100 uF 16V	EL
	C...501	59.06.5104	100 nF	PE
	C...502	59.06.5102	1 nF	PE
	C...503	59.22.5101	100 uF 25V	EL
	C...504	59.22.5101	100 uF 25V	EL
	C...505	59.22.3221	220 uF 10V	EL
	C...506	59.34.4101	100 pF	CER
	C...507	59.34.4101	100 pF	CER
	C...508	59.22.4101	100 uF 16V	EL
	C...601	59.34.4101	100 pF	CER
	C...602	59.34.4101	100 pF	CER
	C...603	59.34.4101	100 pF	CER
	C...604	59.34.4101	100 pF	CER
	C...605	59.34.4101	100 pF	CER
	C...606	59.34.4101	100 pF	CER
	C...607	59.34.4101	100 pF	CER
	C...608	59.34.4101	100 pF	CER
	C...609	59.34.4101	100 pF	CER
	C...610	59.34.4101	100 pF	CER
	C...611	59.34.4101	100 pF	CER
	C...612	59.34.4101	100 pF	CER
	C...613	59.34.4101	100 pF	CER
	C...614	59.34.4101	100 pF	CER
	C...615	59.34.4101	100 pF	CER
	C...616	59.34.4101	100 pF	CER
	C...617	59.34.4101	100 pF	CER
	C...618	59.34.4101	100 pF	CER
	C...619	59.34.4101	100 pF	CER
	C...620	59.34.4101	100 pF	CER
	C...621	59.34.4101	100 pF	CER
	C...622	59.34.4101	100 pF	CER
	C...623	59.34.4101	100 pF	CER
	C...624	59.34.4101	100 pF	CER
	C...625	59.34.4101	100 pF	CER
	C...626	59.34.4101	100 pF	CER
	C...627	59.34.4101	100 pF	CER
	C...628	59.34.4101	100 pF	CER
	C...629	59.34.4101	100 pF	CER
	C...630	59.34.4101	100 pF	CER
	C...631	59.06.0103	10 nF	PE
01	C...631	59.34.4271	270 pF	CER
	C...632	59.34.4151	150 pF	CER
	C...633	59.06.5104	100 nF	PE
	C...634	59.06.5104	100 nF	PE

AUX MASTER UNIT

1.990.310.00

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	D...101	50.04.0125	1N4448		any
	D...102	50.04.0125	1N4448		any
	D...103	50.04.0125	1N4448		any
	D...104	50.04.0125	1N4448		any
	D...105	50.04.0125	1N4448		any
	D...106	50.04.0125	1N4448		any
	D...107	50.04.0125	1N4448		any
	D...201	50.04.0125	1N4448		any
	D...202	50.04.0125	1N4448		any
	D...203	50.04.0125	1N4448		any
	D...204	50.04.0125	1N4448		any
	D...205	50.04.0125	1N4448		any
	D...206	50.04.0125	1N4448		any
	D...207	50.04.0125	1N4448		any
	D...301	50.04.0125	1N4448		any
	D...302	50.04.0125	1N4448		any
	D...303	50.04.0125	1N4448		any
	D...304	50.04.0125	1N4448		any
	D...305	50.04.0125	1N4448		any
	D...306	50.04.0125	1N4448		any
	D...307	50.04.0125	1N4448		any
	D...401	50.04.0125	1N4448		any
	D...402	50.04.0125	1N4448		any
	D...403	50.04.0125	1N4448		any
	D...404	50.04.0125	1N4448		any
	D...501	50.04.1114		zener, 10V, 400mW	any
	D...502	50.04.1114		zener, 10V, 400mW	any
	D...503	50.04.0125	1N4448		any
	D...504	50.04.0125	1N4448		any
	D...505	50.04.0125	1N4448		any
	D...506	50.04.0125	1N4448		any
	D...507	50.04.1117		zener, 12V, 400mW	any
	D...508	50.04.0125	1N4448		any
	D...509	50.04.0125	1N4448		any
	D...510	50.04.0122	1N4001		any
	D...511	50.04.0122	1N4001		any
	D...601	50.04.0125	1N4448		any
	D...602	50.04.0125	1N4448		any
	D...603	50.04.0125	1N4448		any
	D...604	50.04.0125	1N4448		any
	D...605	50.04.0125	1N4448		any
	D...606	50.04.0125	1N4448		any
	D...607	50.04.0125	1N4448		any
	D...608	50.04.0125	1N4448		any
	D...609	50.04.0125	1N4448		any
	D...610	50.04.0125	1N4448		any
	D...611	50.04.0125	1N4448		any
	D...612	50.04.0125	1N4448		any
	D...613	50.04.0125	1N4448		any
	D...614	50.04.0125	1N4448		any
	D...615	50.04.0125	1N4448		any
	D...616	50.04.0125	1N4448		any
	D...617	50.04.0125	1N4448		any
	D...618	50.04.0127	BAT85	BAT42	any
	D...619	50.04.0127	BAT85	BAT42	any
	D...620	50.04.0125	1N4448		any
	IC..101	50.09.0103	TL071	single FET-op.amp.	TI
	IC..102	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..103	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..104	50.07.0015	CD4053	3*2-ch.analog mux/demux	1)
	IC..105	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..106	50.07.0015	CD4053	3*2-ch.analog mux/demux	1)
	IC..107	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..108	50.09.0101	TL072	dual FET-op.amp.	TI
	IC..109	50.09.0101	TL072	dual FET-op.amp.	TI
	IC..110	50.09.0101	TL072	dual FET-op.amp.	TI
	IC..111	50.11.0119	LM3914	display driver	NS
	IC..112	50.11.0119	LM3914	display driver	NS
	IC..201	50.09.0103	TL071	single FET-op.amp.	TI
	IC..202	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..203	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..204	50.07.0015	CD4053	3*2-ch.analog mux/demux	1)
	IC..205	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..206	50.07.0015	CD4053	3*2-ch.analog mux/demux	1)
	IC..207	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..208	50.09.0101	TL072	dual FET-op.amp.	TI
	IC..209	50.09.0101	TL072	dual FET-op.amp.	TI
	IC..210	50.09.0101	TL072	dual FET-op.amp.	TI
	IC..211	50.11.0119	LM3914	display driver	NS
	IC..212	50.11.0119	LM3914	display driver	NS
	IC..301	50.09.0103	TL071	single FET-op.amp.	TI
	IC..302	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..303	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..304	50.07.0015	CD4053	3*2-ch.analog mux/demux	1)
	IC..305	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..306	50.07.0015	CD4053	3*2-ch.analog mux/demux	1)
	IC..307	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..308	50.09.0101	TL072	dual FET-op.amp.	TI
	IC..309	50.09.0101	TL072	dual FET-op.amp.	TI
	IC..310	50.09.0101	TL072	dual FET-op.amp.	TI
	IC..311	50.11.0119	LM3914	display driver	NS
	IC..312	50.11.0119	LM3914	display driver	NS
	IC..401	50.09.0103	TL071	single FET-op.amp.	TI

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	IC..402	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..403	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..404	50.07.0015	CD4053	3*2-ch.analog mux/demux	1)
	IC..405	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..406	50.07.0015	CD4053	3*2-ch.analog mux/demux	1)
	IC..407	50.09.0117	MC330078P	dual op.amp.	Mot
	IC..408	50.09.0101	TL072	dual FET-op.amp.	TI
	IC..409	50.09.0103	TL071	single FET-op.amp.	TI
	IC..501	50.09.0101	TL072	dual FET-op.amp.	TI
	IC..502	50.09.0103	TL071	single FET-op.amp.	TI
	IC..503	1.010.051.50	NE5532A	dual op.amp. sel.	ST
	IC..504	1.010.051.50	NE5532A	dual op.amp. sel.	ST
	IC..505	1.010.051.50	NE5532A	dual op.amp. sel.	ST
	IC..506	50.07.0015	CD4053	3*2-ch.analog mux/demux	1)
	IC..507	50.07.0015	CD4053	3*2-ch.analog mux/demux	1)
	IC..601	50.07.0018	CD4094	shift and store bus register	2)
	IC..602	50.07.0018	CD4094	shift and store bus register	2)
	IC..603	50.07.0018	CD4094	shift and store bus register	2)
	IC..604	50.07.0018	CD4094	shift and store bus register	2)
	IC..605	50.07.0018	CD4094	shift and store bus register	2)
	IC..606	50.07.0018	CD4094	shift and store bus register	2)
	IC..607	50.07.0049	CD4049	hex inverting buffer CMOS	Ph,To
	IC..608	50.07.0049	CD4049	hex inverting buffer CMOS	Ph,To
	IC..609	50.07.0018	CD4094	shift and store bus register	2)
	IC..610	50.07.0051	CD4051	8-channel analog mux/demux	1)
	IC..611	50.07.0051	CD4051	8-channel analog mux/demux	1)
	IC..612	50.09.0103	TL071	single FET-op.amp.	TI
	IC..613	50.07.1021	CD4021	8-bit static shift register	2)
	IC..614	50.07.1021	CD4021	8-bit static shift register	2)
	IC..615	50.09.0101	TL072	dual FET-op.amp.	TI
	MP....1	21.01.2352	6 pcs	S-Schraube M3x4	
	MP....2	21.53.0354	3 pcs	Z-Schraube M3x6	
	MP....3	24.16.1030	3 pcs	Rippenscheibe 3.2 / 5.5	
	MP....4	24.16.3023	2 pcs	Wellensicherung 2.3	
	MP....5	1.010.022.21	2 pcs	Linsenschraube M3X8 IS spez sw	
	MP....6	28.99.0119	6 pcs	Rohrniete 2.5 0.15	
	MP....7	42.01.0228	10 pcs	Knebelknopf GR 10 / 4	
	MP....8	42.01.0250	7 pcs	Deckel HGR	
	MP...10	53.03.0166	38 pcs	IC-socket 8 pin	
	MP...11	53.03.0168	23 pcs	IC-socket 16 pin	
	MP...12	53.03.0175	6 pcs	IC-socket 18 pin	
	MP...13	54.11.0131	61 pcs	Steckerstifte 2-reihig, gebogen	
	MP...14	1.010.048.27	3 pcs	Mutterbolzen M3x32.5	
	MP...15	1.990.100.02	2 pcs	Querprintstutze links	
	MP...16	1.990.100.03	2 pcs	Querprintstutze rechts	
	MP...17	1.990.200.03	1 pcs	Schirmblech input	
	MP...18	1.990.200.05	10 pcs	Achsverlangerung 61mm pot 12	
	MP...19	1.990.310.01	1 pcs	Frontschild aux master	
	MP...20	1.990.310.02	1 pcs	Trager aux master	
	MP...22	1.990.310.05	3 pcs	Fenster aux master	
	MP...23	1.990.310.11	1 pcs	aux master PCB	
	MP...25	1.990.310.06	1 pcs	Abschirmung a/d links	
	MP...26	1.990.310.07	1 pcs	Abschirmung a/d rechts	
	MP...27	21.99.0117	7 pcs	Z-Schraube Nylon M3x6	
	MP...28	22.99.0137	4 pcs	6-kt-Mutter M7 0.75 PREH	
	MP...29	23.99.0122	4 pcs	U-Scheibe 7.1 12 0.5 PREH	
	MP...30	1.010.100.58	4 pcs	Masseblech zu PREH-Pot Typ 12	
	MP...31	50.20.2001	19 pcs	Clip 2*T092	
	MP...32	54.01.0020	29 pcs	Steckerstifte 1-reihig, gerade	
	MP...33	54.01.0021	4 pcs	J Brucke 2*0.63	
	P.....6	54.11.2013	2*16 pin	eurocard connector, male	
	P.....7	54.11.2004	2*32 pin	eurocard connector, male	
	P.....9	54.11.2004	2*32 pin	eurocard connector, male	
	Q...101	50.03.0625	BC327	PNP 800mA	
	Q...102	50.03.0516	BC337	NPN 800mA	
	Q...103	50.03.0516	BC337	NPN 800mA	
	Q...104	50.03.0516	BC337	NPN 800mA	
	Q...105	50.03.0625	BC327	PNP 800mA	
	Q...106	50.03.0625	BC327	PNP 800mA	
	Q...107	50.03.0516	BC337	NPN 800mA	
	Q...108	50.03.0516	BC337	NPN 800mA	
	Q...109	50.03.0625	BC327	PNP 800mA	
	Q...110	50.03.0625	BC327	PNP 800mA	
	Q...111	50.43.0600	BC560	PNP selected E6310	ST
	Q...112	50.43.0600	BC560	PNP selected E6310	ST
	Q...201	50.03.0625	BC327	PNP 800mA	
	Q...202	50.03.0516	BC337	NPN 800mA	
	Q...203	50.03.0516	BC337	NPN 800mA	
	Q...204	50.03.0516	BC337	NPN 800mA	
	Q...205	50.03.0625	BC327	PNP 800mA	
	Q...206	50.03.0625	BC327	PNP 800mA	
	Q...207	50.03.0516	BC337	NPN 800mA	
	Q...208	50.03.0516	BC337	NPN 800mA	
	Q...209	50.03.0625	BC327	PNP 800mA	
	Q...210	50.03.0625	BC327	PNP 800mA	
	Q...211	50.43.0600	BC560	PNP selected E6310	ST
	Q...212	50.43.0600	BC560	PNP selected E6310	ST
	Q...301	50.03.0625	BC327	PNP 800mA	
	Q...302	50.03.0516	BC337	NPN 800mA	
	Q...303	50.03.0516	BC337	NPN 800mA	
	Q...304	50.03.0516	BC337	NPN 800mA	
	Q...305	50.03.0625	BC327	PNP 800mA	
	Q...306	50.03.0625	BC327	PNP 800mA	
	Q...307	50.03.0516	BC337	NPN 800mA	

AUX MASTER UNIT

1.990.310.00

Ad	..POS..	...REF.No...	DESCRIPTION				MANUFACTURER
	Q...308	50.03.0516	BC337	NPN	800mA		
	Q...309	50.03.0625	BC327	PNP	800mA		
	Q...310	50.03.0625	BC327	PNP	800mA		
	Q...311	50.43.0600	BC560	PNP	selected E6310		ST
	Q...312	50.43.0600	BC560	PNP	selected E6310		ST
	Q...401	50.03.0625	BC327	PNP	800mA		
	Q...402	50.03.0516	BC337	NPN	800mA		
	Q...403	50.03.0516	BC337	NPN	800mA		
	Q...404	50.03.0516	BC337	NPN	800mA		
	Q...405	50.03.0625	BC327	PNP	800mA		
	Q...406	50.03.0625	BC327	PNP	800mA		
	Q...407	50.03.0516	BC337	NPN	800mA		
	Q...408	50.03.0516	BC337	NPN	800mA		
	Q...409	50.03.0625	BC327	PNP	800mA		
	Q...410	50.03.0625	BC327	PNP	800mA		
	Q...601	50.03.0407	BC550C	NPN	100mA hfe>300		Ph, Sie
	Q...602	50.03.0407	BC550C	NPN	100mA hfe>300		Ph, Sie
	Q...603	50.03.0407	BC550C	NPN	100mA hfe>300		Ph, Sie
	Q...604	50.03.0407	BC550C	NPN	100mA hfe>300		Ph, Sie
	Q...605	50.03.0407	BC550C	NPN	100mA hfe>300		Ph, Sie
	Q...606	50.03.0407	BC550C	NPN	100mA hfe>300		Ph, Sie
	Q...607	50.03.0407	BC550C	NPN	100mA hfe>300		Ph, Sie
	R...101	57.11.3223	22 kOhm				
	R...104	57.11.3104	100 kOhm				
	R...105	57.11.3101	100 Ohm				
	R...106	57.11.3752	7.5 kOhm	1%			
	R...107	57.11.3184	180 kOhm				
	R...108	57.11.3184	180 kOhm				
	R...109	57.11.3332	3.3 kOhm	1%			
	R...110	57.11.3102	1 kOhm	1%			
	R...111	57.11.3332	3.3 kOhm	1%			
	R...112	57.11.3102	1 kOhm	1%			
	R...113	57.11.3332	3.3 kOhm				
	R...114	57.11.3684	680 kOhm				
	R...115	1.010.108.58	4.7 kOhm	incl. R677 100k	HF1		ST
	R...116	57.11.3561	560 Ohm				
	R...117	1.010.105.58	22 kOhm	incl. R679 100k	LF1		ST
	R...118	57.11.3332	3.3 kOhm				
	R...119	57.11.3684	680 kOhm				
	R...120	57.11.3332	3.3 kOhm				
	R...121	57.11.3332	3.3 kOhm				
	R...122	57.11.3333	33 kOhm				
	R...123	57.11.3682	6.8 kOhm				
	R...124	57.11.3682	6.8 kOhm				
	R...125	57.11.3333	33 kOhm				
	R...126	57.11.3104	100 kOhm				
	R...127	57.11.3682	6.8 kOhm				
	R...128	57.11.3101	100 Ohm				
	R...129	1.010.106.58	10 kOhm	incl. R676 100k	VOL1		ST
	R...132	57.11.3153	15 kOhm				
	R...133	57.11.3333	33 kOhm				
	R...134	57.11.3222	2.2 kOhm				
	R...135	57.11.3102	1 kOhm				
	R...136	57.11.3333	33 kOhm				
	R...137	57.11.3683	68 kOhm				
	R...138	57.11.3682	6.8 kOhm				
	R...139	57.11.3682	6.8 kOhm				
	R...140	57.11.3104	100 kOhm				
	R...141	57.11.3682	6.8 kOhm				
	R...142	57.11.3101	100 Ohm				
	R...143	57.11.3220	22 Ohm				
	R...144	58.01.8502	5 kOhm	trimpot.			
	R...145	57.11.3122	1.2 kOhm				
	R...146	57.11.3103	10 kOhm				
	R...147	57.11.3103	10 kOhm				
	R...148	57.11.3339	3.3 Ohm				
	R...149	57.11.3339	3.3 Ohm				
	R...150	57.11.3332	3.3 kOhm				
	R...151	57.11.3332	3.3 kOhm				
	R...152	57.11.3103	10 kOhm				
	R...153	57.11.3103	10 kOhm				
	R...154	57.11.3339	3.3 Ohm				
	R...155	57.11.3339	3.3 Ohm				
	R...156	57.11.3222	2.2 kOhm				
	R...157	57.11.3272	2.7 kOhm				
	R...158	57.11.3223	22 kOhm				
	R...159	57.11.3222	2.2 kOhm				
	R...160	57.11.3821	820 Ohm				
	R...161	57.11.3103	10 kOhm	1%			
	R...162	57.11.3103	10 kOhm	1%			
	R...163	57.11.3102	1 kOhm				
	R...164	58.01.8103	10 kOhm	trimpot.			
	R...165	57.11.3332	3.3 kOhm	1%			
	R...166	57.11.3332	3.3 kOhm	1%			
	R...167	57.11.3362	3.6 kOhm	1%			
	R...168	57.11.3182	1.8 kOhm	1%			
	R...169	57.11.3682	6.8 kOhm				
	R...170	57.11.3683	68 kOhm				
	R...171	57.11.3562	5.6 kOhm	1%			
	R...172	57.11.3104	100 kOhm				
	R...173	57.11.3684	680 kOhm				
	R...174	57.11.3222	2.2 kOhm				
	R...175	57.99.0252	47 Ohm	Tk=+4500ppm			
	R...177	57.11.3511	510 Ohm				
	R...178	58.01.8501	500 Ohm	trimpot.			
	R...179	57.11.3102	1 kOhm				
	R...180	57.11.3684	680 kOhm				
	R...181	58.01.8503	50 kOhm	trimpot.			
	R...182	57.11.3103	10 kOhm				
	R...183	57.11.3223	22 kOhm				
	R...184	57.11.3682	6.8 kOhm				
	R...185	57.11.3682	6.8 kOhm				
	R...186	57.11.3562	5.6 kOhm				
	R...201	57.11.3223	22 kOhm				
	R...204	57.11.3104	100 kOhm				
	R...205	57.11.3101	100 Ohm				
	R...206	57.11.3752	7.5 kOhm	1%			
	R...207	57.11.3184	180 kOhm				
	R...208	57.11.3184	180 kOhm				
	R...209	57.11.3332	3.3 kOhm	1%			
	R...210	57.11.3102	1 kOhm	1%			
	R...211	57.11.3332	3.3 kOhm	1%			
	R...212	57.11.3102	1 kOhm	1%			
	R...213	57.11.3332	3.3 kOhm				
	R...214	57.11.3684	680 kOhm				
	R...215	1.010.108.58	4.7 kOhm	incl. R678 100k	HF2		ST
	R...216	57.11.3561	560 Ohm				
	R...217	1.010.105.58	22 kOhm	incl. R680 100k	LF2		ST
	R...218	57.11.3332	3.3 kOhm				
	R...219	57.11.3684	680 kOhm				
	R...220	57.11.3332	3.3 kOhm				
	R...221	57.11.3332	3.3 kOhm				
	R...222	57.11.3333	33 kOhm				
	R...223	57.11.3682	6.8 kOhm				
	R...224	57.11.3682	6.8 kOhm				
	R...225	57.11.3333	33 kOhm				
	R...226	57.11.3104	100 kOhm				
	R...227	57.11.3682	6.8 kOhm				
	R...228	57.11.3101	100 Ohm				
	R...229	1.010.106.58	10 kOhm	incl. R673 100k	level 2		ST
	R...232	57.11.3153	15 kOhm				
	R...233	57.11.3333	33 kOhm				
	R...234	57.11.3222	2.2 kOhm				
	R...235	57.11.3102	1 kOhm				
	R...236	57.11.3333	33 kOhm				
	R...237	57.11.3683	68 kOhm				
	R...238	57.11.3682	6.8 kOhm				
	R...239	57.11.3682	6.8 kOhm				
	R...240	57.11.3104	100 kOhm				
	R...241	57.11.3682	6.8 kOhm				
	R...242	57.11.3101	100 Ohm				
	R...243	57.11.3220	22 Ohm				
	R...244	58.01.8502	5 kOhm	trimpot.			
	R...245	57.11.3122	1.2 kOhm				
	R...246	57.11.3103	10 kOhm				
	R...247	57.11.3103	10 kOhm				
	R...248	57.11.3339	3.3 Ohm				
	R...249	57.11.3339	3.3 Ohm				
	R...250	57.11.3332	3.3 kOhm				
	R...251	57.11.3332	3.3 kOhm				
	R...252	57.11.3103	10 kOhm				
	R...253	57.11.3103	10 kOhm				
	R...254	57.11.3339	3.3 Ohm				
	R...255	57.11.3339	3.3 Ohm				
	R...256	57.11.3222	2.2 kOhm				
	R...257	57.11.3272	2.7 kOhm				
	R...258	57.11.3223	22 kOhm				
	R...259	57.11.3222	2.2 kOhm				
	R...260	57.11.3821	820 Ohm				
	R...261	57.11.3103	10 kOhm	1%	R261/R262 crossed		
	R...262	57.11.3103	10 kOhm	1%			
	R...263	57.11.3102	1 kOhm				
	R...264	58.01.8103	10 kOhm	trimpot.			
	R...265	57.11.3332	3.3 kOhm	1%			
	R...266	57.11.3332	3.3 kOhm	1%			
	R...267	57.11.3362	3.6 kOhm	1%			
	R...268	57.11.3182	1.8 kOhm	1%			
	R...269	57.11.3682	6.8 kOhm				
	R...270	57.11.3683	68 kOhm				
	R...271	57.11.3562	5.6 kOhm	1%			
	R...272	57.11.3104	100 kOhm				
	R...273	57.11.3684	680 kOhm				
	R...274	57.11.3222	2.2 kOhm				
	R...275	57.99.0252	47 Ohm	Tk=+4500ppm			
	R...277	57.11.3511	510 Ohm				
	R...278	58.01.8501	500 Ohm	trimpot.			
	R...279	57.11.3102	1 kOhm				
	R...280	57.11.3684	680 kOhm				
	R...281	58.01.8503	50 kOhm	trimpot.			
	R...282	57.11.3103	10 kOhm				
	R...283	57.11.3223	22 kOhm				
	R...284	57.11.3682	6.8 kOhm				
	R...285	57.11.3682	6.8 kOhm				
	R...286	57.11.3562	5.6 kOhm				
	R...301	57.11.3223	22 kOhm				
	R...304	57.11.3104	100 kOhm				
	R...305	57.11.3101	100 Ohm				
	R...306	57.11.3752	7.5 kOhm	1%			
	R...307	57.11.3184	180 kOhm				
	R...308	57.11.3184	180 kOhm				
	R...309	57.11.3332	3.3 kOhm	1%			
	R...310	57.11.3102	1 kOhm	1%			

AUX MASTER UNIT

1.990.310.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R...311	57.11.3332	3.3 kOhm 1%	
	R...312	57.11.3102	1 kOhm 1%	
	R...313	57.11.3332	3.3 kOhm	
	R...314	57.11.3684	680 kOhm	
	R...315	1.010.107.58	4.7 kOhm incl. R415, R675 HF3	ST
	R...316	57.11.3561	560 Ohm	
	R...317	1.010.104.58	22 kOhm incl. R417, R674 LF3	ST
	R...318	57.11.3332	3.3 kOhm	
	R...319	57.11.3684	680 kOhm	
	R...320	57.11.3332	3.3 kOhm	
	R...321	57.11.3332	3.3 kOhm	
	R...322	57.11.3333	33 kOhm	
	R...323	57.11.3682	6.8 kOhm	
	R...324	57.11.3682	6.8 kOhm	
	R...325	57.11.3333	33 kOhm	
	R...326	57.11.3104	100 kOhm	
	R...327	57.11.3682	6.8 kOhm	
	R...328	57.11.3101	100 Ohm	
	R...329	1.010.103.58	10 kOhm incl. R429, R682 level 3	ST
	R...331	1.010.102.58	10 kOhm incl. R431, R681 bal. 3	ST
	R...332	57.11.3103	10 kOhm	
	R...333	57.11.3333	33 kOhm	
	R...334	57.11.3222	2.2 kOhm	
	R...335	57.11.3102	1 kOhm	
	R...336	57.11.3333	33 kOhm	
	R...337	57.11.3683	68 kOhm	
	R...338	57.11.3682	6.8 kOhm	
	R...339	57.11.3682	6.8 kOhm	
	R...340	57.11.3104	100 kOhm	
	R...341	57.11.3682	6.8 kOhm	
	R...342	57.11.3101	100 Ohm	
	R...343	57.11.3220	22 Ohm	
	R...344	58.01.8502	5 kOhm trimpot.	
	R...345	57.11.3122	1.2 kOhm	
	R...346	57.11.3103	10 kOhm	
	R...347	57.11.3103	10 kOhm	
	R...348	57.11.3339	3.3 Ohm	
	R...349	57.11.3339	3.3 Ohm	
	R...350	57.11.3332	3.3 kOhm	
	R...351	57.11.3332	3.3 kOhm	
	R...352	57.11.3103	10 kOhm	
	R...353	57.11.3103	10 kOhm	
	R...354	57.11.3339	3.3 Ohm	
	R...355	57.11.3339	3.3 Ohm	
	R...356	57.11.3222	2.2 kOhm	
	R...357	57.11.3272	2.7 kOhm	
	R...358	57.11.3223	22 kOhm	
	R...359	57.11.3222	2.2 kOhm	
	R...360	57.11.3821	820 Ohm	
	R...361	57.11.3103	10 kOhm 1%	
	R...362	57.11.3103	10 kOhm 1%	
	R...363	57.11.3102	1 kOhm	
	R...364	58.01.8103	10 kOhm trimpot.	
	R...365	57.11.3332	3.3 kOhm 1%	
	R...366	57.11.3332	3.3 kOhm 1%	
	R...367	57.11.3362	3.6 kOhm 1%	
	R...368	57.11.3182	1.8 kOhm 1%	
	R...369	57.11.3682	6.8 kOhm	
	R...370	57.11.3683	68 kOhm	
	R...371	57.11.3562	5.6 kOhm 1%	
	R...372	57.11.3104	100 kOhm	
	R...373	57.11.3684	680 kOhm	
	R...374	57.11.3222	2.2 kOhm	
	R...375	57.99.0252	47 Ohm Tk=+4500ppm	
	R...377	57.11.3511	510 Ohm	
	R...378	58.01.8501	500 Ohm trimpot.	
	R...379	57.11.3102	1 kOhm	
	R...380	57.11.3684	680 kOhm	
	R...381	58.01.8503	50 kOhm trimpot.	
	R...382	57.11.3103	10 kOhm	
	R...383	57.11.3223	22 kOhm	
	R...384	57.11.3682	6.8 kOhm	
	R...385	57.11.3682	6.8 kOhm	
	R...386	57.11.3562	5.6 kOhm	
	R...401	57.11.3223	22 kOhm	
	R...404	57.11.3104	100 kOhm	
	R...405	57.11.3101	100 Ohm	
	R...406	57.11.3752	7.5 kOhm 1%	
	R...407	57.11.3184	180 kOhm	
	R...408	57.11.3184	180 kOhm	
	R...409	57.11.3332	3.3 kOhm 1%	
	R...410	57.11.3102	1 kOhm 1%	
	R...411	57.11.3332	3.3 kOhm 1%	
	R...412	57.11.3102	1 kOhm 1%	
	R...413	57.11.3332	3.3 kOhm	
	R...414	57.11.3684	680 kOhm	
	R...416	57.11.3561	560 Ohm	
	R...418	57.11.3332	3.3 kOhm	
	R...419	57.11.3684	680 kOhm	
	R...420	57.11.3332	3.3 kOhm	
	R...421	57.11.3332	3.3 kOhm	
	R...422	57.11.3333	33 kOhm	
	R...423	57.11.3682	6.8 kOhm	
	R...424	57.11.3682	6.8 kOhm	
	R...425	57.11.3333	33 kOhm	
	R...426	57.11.3104	100 kOhm	
	R...427	57.11.3682	6.8 kOhm	
	R...428	57.11.3101	100 Ohm	
	R...432	57.11.3103	10 kOhm	
	R...433	57.11.3333	33 kOhm	
	R...434	57.11.3222	2.2 kOhm	
	R...435	57.11.3102	1 kOhm	
	R...436	57.11.3333	33 kOhm	
	R...437	57.11.3683	68 kOhm	
	R...438	57.11.3682	6.8 kOhm	
	R...439	57.11.3682	6.8 kOhm	
	R...440	57.11.3104	100 kOhm	
	R...441	57.11.3682	6.8 kOhm	
	R...442	57.11.3101	100 Ohm	
	R...443	57.11.3220	22 Ohm	
	R...444	58.01.8502	5 kOhm trimpot.	
	R...445	57.11.3122	1.2 kOhm	
	R...446	57.11.3103	10 kOhm	
	R...447	57.11.3103	10 kOhm	
	R...448	57.11.3339	3.3 Ohm	
	R...449	57.11.3339	3.3 Ohm	
	R...450	57.11.3332	3.3 kOhm	
	R...451	57.11.3332	3.3 kOhm	
	R...452	57.11.3103	10 kOhm	
	R...453	57.11.3103	10 kOhm	
	R...454	57.11.3339	3.3 Ohm	
	R...455	57.11.3339	3.3 Ohm	
	R...456	57.11.3222	2.2 kOhm	
	R...457	57.11.3272	2.7 kOhm	
	R...458	57.11.3223	22 kOhm	
	R...459	57.11.3222	2.2 kOhm	
	R...460	57.11.3821	820 Ohm	
	R...461	57.11.3103	10 kOhm 1% R461/R462 crossed	
	R...462	57.11.3103	10 kOhm 1%	
	R...463	57.11.3102	1 kOhm	
	R...464	58.01.8103	10 kOhm trimpot.	
	R...465	57.11.3332	3.3 kOhm 1%	
	R...466	57.11.3332	3.3 kOhm 1%	
	R...467	57.11.3362	3.6 kOhm 1%	
	R...468	57.11.3182	1.8 kOhm 1%	
	R...469	57.11.3682	6.8 kOhm	
	R...470	57.11.3683	68 kOhm	
	R...471	57.11.3562	5.6 kOhm 1%	
	R...501	57.11.3103	10 kOhm	
	R...502	57.11.3103	10 kOhm	
	R...503	57.11.3101	100 Ohm	
02	R...503	57.11.3000	0 Ohm	
	R...504	57.11.3333	33 kOhm	
	R...505	57.11.3333	33 kOhm	
	R...506	58.01.8103	10 kOhm trimpot.	
	R...507	58.01.8104	100 kOhm trimpot.	
	R...508	57.11.3102	1 kOhm	
	R...509	57.11.3103	10 kOhm	
	R...510	57.11.3752	7.5 kOhm	
	R...511	57.92.7015	PTC, I-hold 1.1A	
	R...512	57.11.3102	1 kOhm	
	R...513	57.11.3682	6.8 kOhm	
	R...514	57.11.3682	6.8 kOhm	
	R...515	57.11.3182	1.8 kOhm	
	R...516	57.11.3822	8.2 kOhm	
	R...517	57.11.3103	10 kOhm	
	R...518	57.92.7015	PTC, I-hold 1.1A	
	R...519	57.92.1151	PTC, 150mA,18 Ohm	
	R...520	57.92.7015	PTC, I-hold 1.1A	
	R...521	57.11.3220	22 Ohm	
	R...522	57.11.3220	22 Ohm	
	R...523	57.11.3220	22 Ohm	
	R...524	57.11.3220	22 Ohm	
	R...525	57.11.3220	22 Ohm	
	R...526	57.11.3682	6.8 kOhm	
	R...527	57.11.3682	6.8 kOhm	
	R...528	57.11.3682	6.8 kOhm	
	R...529	57.11.3682	6.8 kOhm	
	R...530	57.11.3682	6.8 kOhm	
	R...531	57.11.3682	6.8 kOhm	
	R...532	57.11.3684	680 kOhm	
	R...533	57.11.3684	680 kOhm	
	R...534	57.11.3513	51 kOhm	
	R...535	57.11.3513	51 kOhm	
	R...536	57.11.3273	27 kOhm	
	R...537	57.11.3243	24 kOhm	
	R...538	57.11.3333	33 kOhm	
	R...601	57.11.3101	100 Ohm	
	R...602	57.11.3101	100 Ohm	
	R...603	57.11.3101	100 Ohm	
	R...604	57.11.3101	100 Ohm	
	R...605	57.11.3101	100 Ohm	
	R...606	57.11.3101	100 Ohm	
	R...607	57.11.3101	100 Ohm	
	R...608	57.11.3101	100 Ohm	
	R...609	57.11.3101	100 Ohm	
	R...610	57.11.3682	6.8 kOhm	
	R...611	57.11.3682	6.8 kOhm	
	R...612	57.11.3682	6.8 kOhm	
	R...613	57.11.3682	6.8 kOhm	
	R...614	57.11.3682	6.8 kOhm	
	R...615	57.11.3682	6.8 kOhm	

AUX MASTER UNIT

1.990.310.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R...616	57.11.3104	100 kOhm	
	R...617	57.11.3104	100 kOhm	
	R...618	57.11.3104	100 kOhm	
	R...619	57.11.3104	100 kOhm	
	R...620	57.11.3104	100 kOhm	
	R...621	57.11.3104	100 kOhm	
	R...622	57.11.3104	100 kOhm	
	R...623	57.11.3104	100 kOhm	
	R...624	57.11.3104	100 kOhm	
	R...625	57.11.3104	100 kOhm	
	R...626	57.11.3104	100 kOhm	
	R...627	57.11.3104	100 kOhm	
	R...628	57.11.3104	100 kOhm	
	R...629	57.11.3104	100 kOhm	
	R...630	57.11.3104	100 kOhm	
	R...631	57.11.3104	100 kOhm	
	R...632	57.11.3104	100 kOhm	
	R...633	57.11.3104	100 kOhm	
	R...634	57.11.3104	100 kOhm	
	R...635	57.11.3104	100 kOhm	
	R...636	57.11.3104	100 kOhm	
	R...637	57.11.3104	100 kOhm	
	R...638	57.11.3104	100 kOhm	
	R...639	57.11.3104	100 kOhm	
	R...640	57.11.3104	100 kOhm	
	R...641	57.11.3104	100 kOhm	
	R...642	57.11.3104	100 kOhm	
	R...643	57.11.3104	100 kOhm	
	R...644	57.11.3104	100 kOhm	
	R...645	57.11.3104	100 kOhm	
	R...646	57.11.3101	100 Ohm	
	R...647	57.11.3101	100 Ohm	
	R...648	57.11.3101	100 Ohm	
	R...649	57.11.3101	100 Ohm	
	R...650	57.11.3101	100 Ohm	
	R...651	57.11.3101	100 Ohm	
	R...652	57.11.3102	1 kOhm	
	R...653	57.11.3102	1 kOhm	
	R...654	57.11.3102	1 kOhm	
	R...655	57.11.3102	1 kOhm	
	R...656	57.11.3102	1 kOhm	
	R...657	57.11.3102	1 kOhm	
	R...658	57.11.3102	1 kOhm	
	R...659	57.11.3102	1 kOhm	
	R...660	57.11.3102	1 kOhm	
	R...661	57.11.3102	1 kOhm	
	R...662	57.11.3561	560 Ohm	
	R...663	57.11.3561	560 Ohm	
	R...664	57.11.5106	10 MOhm	
	R...665	57.11.3220	22 Ohm	
	R...666	57.11.3101	100 Ohm	
	R...667	57.11.3101	100 Ohm	
	R...668	57.11.3684	680 kOhm	
	R...669	57.11.3223	22 kOhm	
	R...670	57.11.3334	330 kOhm	
	R...671	57.11.3334	330 kOhm	
	R...672	57.11.3223	22 kOhm	
	RZ....1	57.88.2101	4*100 Ohm, 8 pin	
	RZ....2	57.88.2101	4*100 Ohm, 8 pin	
	RZ....3	57.88.2101	4*100 Ohm, 8 pin	
	RZ....4	57.88.2101	4*100 Ohm, 8 pin	
	RZ....5	57.88.2101	4*100 Ohm, 8 pin	
	RZ....6	57.88.2101	4*100 Ohm, 8 pin	
	RZ....7	57.88.4104	8*100 kOhm, 9 pin	
	RZ....8	57.88.4104	8*100 kOhm, 9 pin	
	RZ....9	57.88.4104	8*100 kOhm, 9 pin	
	RZ...10	57.88.4104	8*100 kOhm, 9 pin	
	RZ...11	57.88.4104	8*100 kOhm, 9 pin	
	RZ...12	57.88.4104	8*100 kOhm, 9 pin	
	RZ...13	57.88.4104	8*100 kOhm, 9 pin	
	RZ...14	57.88.4104	8*100 kOhm, 9 pin	
	RZ...15	57.88.4104	8*100 kOhm, 9 pin	
	T...101	1.022.362.00		ST
	T...102	1.022.218.00		ST
	T...201	1.022.362.00		ST
	T...202	1.022.218.00		ST
	T...301	1.022.362.00		ST
	T...302	1.022.218.00		ST
	T...401	1.022.362.00		ST
	T...402	1.022.218.00		ST
	W...101	57.11.3000	0 Ohm	
	W...102	57.11.3000	0 Ohm	
	W...103	57.11.3000	0 Ohm	
	W...201	57.11.3000	0 Ohm	
	W...202	57.11.3000	0 Ohm	
	W...203	57.11.3000	0 Ohm	
	W...301	57.11.3000	0 Ohm	
	W...302	57.11.3000	0 Ohm	
	W...303	57.11.3000	0 Ohm	

CER = ceramic, EL = electrolytic, PE = polyester, PP = polypropylen

MANUFACTURER
1) Ph, Mot, RCA
2) Ph, Mot, RCA
Mot=Motorola, NS=National Semiconductors, Ph=Philips, Ra=Raytheon,
RCA=Radio Corporation of America, Sie=Siemens, ST=Studer,
TI=Texas Instruments, To=Toshiba

HISTORY
01 91-04-10 C631 10nF replaced by 270pF
02 92-03-25 R503 100 Ohm replaced by 0 Ohm

1.990.310.00	AUX MASTER UNIT	WY 89/07/0700
1.990.310.00	AUX MASTER UNIT	WY 91/04/1001
1.990.310.00	AUX MASTER UNIT	WY 92/03/2502

END

Pin location list **1.990.310**

P	NO	NAME	REMARK	B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC
P6	01A	-	N.C.	O
P6	01B	-	N.C.	O
P6	02A	-	N.C.	O
P6	02B	-	N.C.	O
P6	03A	-	N.C.	O
P6	03B	-	N.C.	O
P6	04A	-	N.C.	O
P6	04B	-	N.C.	O
P6	05A	-	N.C.	O
P6	05B	-	N.C.	O
P6	06A	-	N.C.	O
P6	06B	-	N.C.	O
P6	07A	+ 15V	+ SUPPLY TO FADER UNIT	O
P6	07B	- 15V	- SUPPLY TO FADER UNIT	O
P6	08A	-	N.C.	O
P6	08B	-	N.C.	O
P6	09A	A IN 4	OUTPUT ; TO MCU ANALOG IN 4	O
P6	09B	-	N.C.	O
P6	10A	RCL	RECEIVE CLOCK	O
P6	10B	RSTB	RECEIVE STROBE	O
P6	11A	INT 4	INTERUPT 4	O
P6	11B	RXD 3	RECEIVE DATA 3	O
P6	12A	-	N.C.	O
P6	12B	TSTB 2	TRANSMIT STROBE 2	O
P6	13A	TSTB 3	TRANSMIT STROBE 3	O
P6	13B	-	N.C.	O
P6	14A	-	N.C.	O
P6	14B	DO 1	DATA OUT 1 (TRANSMIT STROBE 8)	O
P6	15A	TXD	TRANSMIT DATA	O
P6	15B	TCL	TRANSMIT CLOCK	O
P6	16A	DO 0	DATA OUT 0 (ENABLE)	O
P6	16B	UREF	+ 5V REFERENZ	O
P7	01A	0V-B	GROUND AUDIO (PIN)	
P7	01B	CHASSIS	METAL FRAME	B
P7	02A	-	RES	O
P7	02B	-	RES	O
P7	03A	-	RES	B
P7	03B	-	RES	B
P7	04A	-	N.C.	B
P7	04B	-	N.C.	B
P7	05A	B-PFL/SOLO-L	PFL/SOLO LEFT ; 0-OHM BUS	B,I
P7	05B	B-PFL/SOLO-R	PFL/SOLO RIGHT ; 0-OHM BUS	B,I
P7	06A	-	N.C.	B
P7	06B	-	N.C.	B
P7	07A	-	N.C.	B
P7	07B	-	N.C.	B
P7	08A	-	N.C.	B
P7	08B	-	N.C.	B
P7	09A	-	N.C.	B
P7	09B	-	N.C.	B
P7	10A	-	N.C.	B
P7	10B	-	N.C.	B
P7	11A	-	N.C.	B
P7	11B	-	N.C.	B
P7	12A	-	N.C.	B

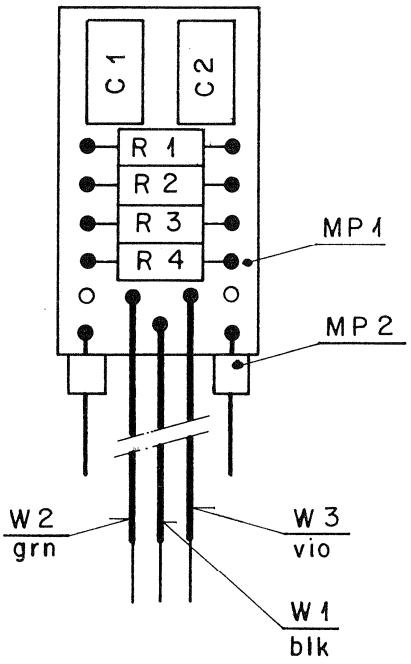
Pin location list **1.990.310**

P7	12B	-	N.C.	B	
P7	13A	-	N.C.	B	
P7	13B	-	N.C.	B	
P7	14	0V-REF	0V REFERENCE	B	X X
P7	15A	-	N.C.	B	
P7	15B	-	N.C.	B	
P7	16A	-	N.C.	B	
P7	16B	-	N.C.	B	
P7	17A	-	N.C.	B	
P7	17B	-	N.C.	B	
P7	18A	-	N.C.	B	
P7	18B	-	N.C.	B	
P7	19A	-	N.C.	B	
P7	19B	-	N.C.	B	
P7	20A	-	N.C.	B	
P7	20B	-	N.C.	B	
P7	21A	-	N.C.	B	
P7	21B	-	N.C.	B	
P7	22A	-	N.C.	B	
P7	22B	-	N.C.	B	
P7	23A	AUX-1-IN	AUX 1 INPUT ; FROM 0-OHM BUS	O,I	
P7	23B	AUX-1-0V-IN	AUX 1 INPUT GROUND	O	
P7	24A	AUX-2-IN	AUX 2 INPUT ; FROM 0-OHM BUS	O,I	
P7	24B	AUX-2-0V-IN	AUX 2 INPUT GROUND	O	
P7	25A	AUX-3-IN-L	AUX 3 INPUT LEFT ; FROM 0-OHM BUS	O,I	
P7	25B	AUX-3-0V-IN-L	AUX 3 INPUT GROUND LEFT	O	
P7	26A	AUX-4-IN-R	AUX 4 INPUT RIGHT ; FROM 0-OHM BUS	O,I	
P7	26B	AUX-4-0V-IN-R	AUX 4 INPUT GROUND RIGHT	O	
P7	27	0V-A	GROUND AUDIO	B	X X
P7	28	- 15.5V	- SUPPLY	B	X X
P7	29	+ 15.5V	+ SUPPLY	B	X X
P7	30	0V-L	GROUND SIGN (LOGIC)	B	X X
P7	31	+ 5.5V	+ SUPPLY	B	X X
P7	32	+3..4V LED	LED SUPPLY VARIABLE +3...4V	B	X X
P9	01A	AUX 1-OUT-a	AUX 1 OUTPUT a	S,O	
P9	01B	AUX 1-OUT-b	AUX 1 OUTPUT b	S,O	
P9	02A	AUX 1-0VE	AUX 1 GROUND EXTERN	O	
P9	02B	AUX 2-0VE	AUX 2 GROUND EXTERN	O	
P9	03A	AUX 2-OUT-a	AUX 2 OUTPUT a	S,O	
P9	03B	AUX 2-OUT-b	AUX 2 OUTPUT b	S,O	
P9	04A	AUX 3-L-a	AUX 3 LEFT a	S,O	
P9	04B	AUX 3-L-b	AUX 3 LEFT b	S,O	
P9	05A	AUX 3-L-0VE	AUX 3 LEFT GROUND EXTERN	O	
P9	05B	AUX 3-R-0VE	AUX 3 RIGHT GROUND EXTERN	O	
P9	06A	AUX 3-R-a	AUX 3 RIGHT a	S,O	
P9	06B	AUX 3-R-b	AUX 3 RIGHT b	S,O	
P9	07A	-	RES		
P9	07B	-	RES		
P9	08A	-	RES		
P9	08B	-	RES		
P9	09A	-	RES		
P9	09B	-	RES		
P9	10A	-	RES		
P9	10B	-	RES		
P9	11A	-	RES		
P9	11B	-	RES		
P9	12A	-	RES		
P9	12B	0V-A	GROUND AUDIO	B	
P9	13A	-	RES		
P9	13B	-	RES		
P9	14A	-	RES		

Pin location list **1.990.310**

P9	14B	–	RES			
P9	15A	–	RES			
P9	15B	–	RES			
P9	16A	–	RES			
P9	16B	–	RES			
P9	17A	AF 1-OUT	AFTER FADER 1 OUT			AS
P9	17B	–	RES			
P9	18A	AF 2-0V	AFTER FADER 2 GROUND			
P9	18B	AF 1-0V	AFTER FADER 1 GROUND			
P9	19A	AF 3-OUT-L	AFTER FADER 3 OUT	LEFT		AS
P9	19B	AF 2-OUT	AFTER FADER 2 OUT			AS
P9	20A	AF 3-0V-L	AFTER FADER 3 GROUND	LEFT		
P9	20B	–	RES			
P9	21A	AF 3-OUT-R	AFTER FADER 3 OUT	RIGHT		AS
P9	21B	AF 3-0V-R	AFTER FADER 3 GROUND	RIGHT		
P9	22A	–	RES			
P9	22B	–	RES			
P9	23A	–	N.C.			
P9	23B	–	N.C.			
P9	24A	TB/SLATE-a	TALK BACK / SLATE INPUT a			S
P9	24B	PHANTOM 48V	PHANTOM 48V BUS			
P9	25A	–	N.C.			
P9	25B	TB/SLATE-b	TALK BACK / SLATE INPUT b			S
P9	26A	–	N.C.			
P9	26B	–	N.C.			
P9	27A	–	N.C.			
P9	27B	–	N.C.			
P9	28A	–	RES			
P9	28B	–	RES			
P9	29A	–	RES			
P9	29B	–	RES			
P9	30A	–	RES			
P9	30B	–	RES			
P9	31A	–	RES			
P9	31B	–	RES			
P9	32A	–	RES			
P9	32B	–	RES			

FILTER BOARD LI 1.990.317.00



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Kopie für:

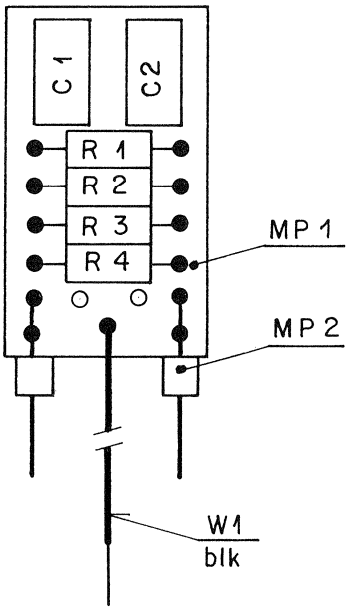
STUDER REGENSDORF ZÜRICH	Benennung: FILTER BOARD LI	Nummer: 1.990.317-00

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	C.....1	59.06.0105	1 uF	10%, 25V, PETP	
	C.....2	59.06.0105	1 uF	10%, 25V, PETP	
	MP....1	1.990.318.11	1 pcs	FILTER BOARD PCB	
	MP....2	54.11.0132	2 pcs	Kontakt 1-reihig Winkel	
	R.....1	57.11.3333	33 KOhm	1%, 0.25W, MF	
	R.....2	57.11.3333	33 KOhm	1%, 0.25W, MF	
	R.....3	57.11.3333	33 KOhm	1%, 0.25W, MF	
	R.....4	57.11.3333	33 KOhm	1%, 0.25W, MF	
	W.....1	1.010.200.64		Litze schwarz	
	W.....2	1.010.205.64		Litze gruen	
	W.....3	1.010.207.64		Litze violet	

MF=Metal Film

1.990.317.00 FILTER BOARD LI SP 90/09/1800

FILTER BOARD PIN 1.990.318.00



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Ausgabe	3.10.90	M. Ho	ak	W	0
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Kopie für:

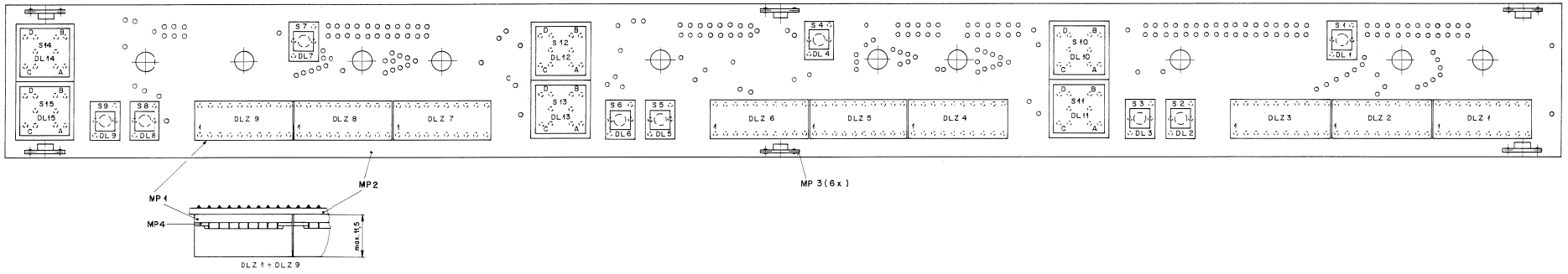
STUDER REGENSDORF ZÜRICH	Benennung: FILTER BOARD PIN	Nummer: 1.990.318-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	59.06.0105	1 uF 10%, 25V, PETP	
	C.....2	59.06.0105	1 uF 10%, 25V, PETP	
	MP....1	1.990.318.11	1 pcs FILTER BOARD PCB	
	MP....2	54.11.0131	2 pcs Kontakt 2-reihig Winkel	
	R.....1	57.11.3333	33 KOhm 1%, 0.25W, MF	
	R.....2	57.11.3333	33 KOhm 1%, 0.25W, MF	
	R.....3	57.11.3333	33 KOhm 1%, 0.25W, MF	
	R.....4	57.11.3333	33 KOhm 1%, 0.25W, MF	
	W.....1	1.010.200.64	Litze schwarz	

MF=Metal Film

1.990.318.00 FILTER BOARD PIN SP 90/09/1700

AUX MASTER SWITCH BOARD 1.990.319.00



Ad	..POS..	...REF.No...	DESCRIPTION.....MANUFACTURER	
	DLZ...1	50.04.2150	MV57164	10*D red
	DLZ...2	50.04.2161	HDSP4850	10*D green
	DLZ...3	50.04.2161	HDSP4850	10*D green
	DLZ...4	50.04.2150	MV57164	10*D red
	DLZ...5	50.04.2161	HDSP4850	10*D green
	DLZ...6	50.04.2161	HDSP4850	10*D green
	DLZ...7	50.04.2150	MV57164	10*D red
	DLZ...8	50.04.2161	HDSP4850	10*D green
	DLZ...9	50.04.2161	HDSP4850	10*D green
	S.....1	55.15.0622		non latching, red, LED red
	S.....2	55.15.0605		non latching, colourless, LED green
	S.....3	55.15.0604		non latching, colourless, LED yel
	S.....4	55.15.0622		non latching, red, LED red
	S.....5	55.15.0605		non latching, colourless, LED green
	S.....6	55.15.0604		non latching, colourless, LED yel
	S.....7	55.15.0622		non latching, red, LED red
	S.....8	55.15.0605		non latching, colourless, LED green
	S.....9	55.15.0604		non latching, colourless, LED yel
	S....10	55.15.0722		non latching, red, LED red
	S....11	55.15.0704		non latching, colourless, LED yel
	S....12	55.15.0722		non latching, red, LED red
	S....13	55.15.0704		non latching, colourless, LED yel
	S....14	55.15.0722		non latching, red, LED red
	S....15	55.15.0704		non latching, colourless, LED yel
	MP....1	53.99.0135	9 pcs	XIC DIL 20 pin, ultra low prof.
	MP....2	1.990.319.11	1 pcs	aux master switch PCB
	MP....3	1.990.100.05	6 pcs	Querprinthalter
	MP....4	1.990.319.01	18 pcs	Unterlage
	MP....5	1.990.319.04	0 pcs	Nr.Etikette
		1.990.319.00	AUX MASTER SWITCH BOARD	WF 89/08/2500

Änderung 3 2 1
Ausgabe 20.3.90 Datum Gez. Gepr. Ges. Index 3
Kopie für:

STUDER REGENSDORF ZÜRICH | Benennung: AUX MASTER SWITCH BOARD | Nummer: 1.990.319-00

Section 5 Inline Panel Units

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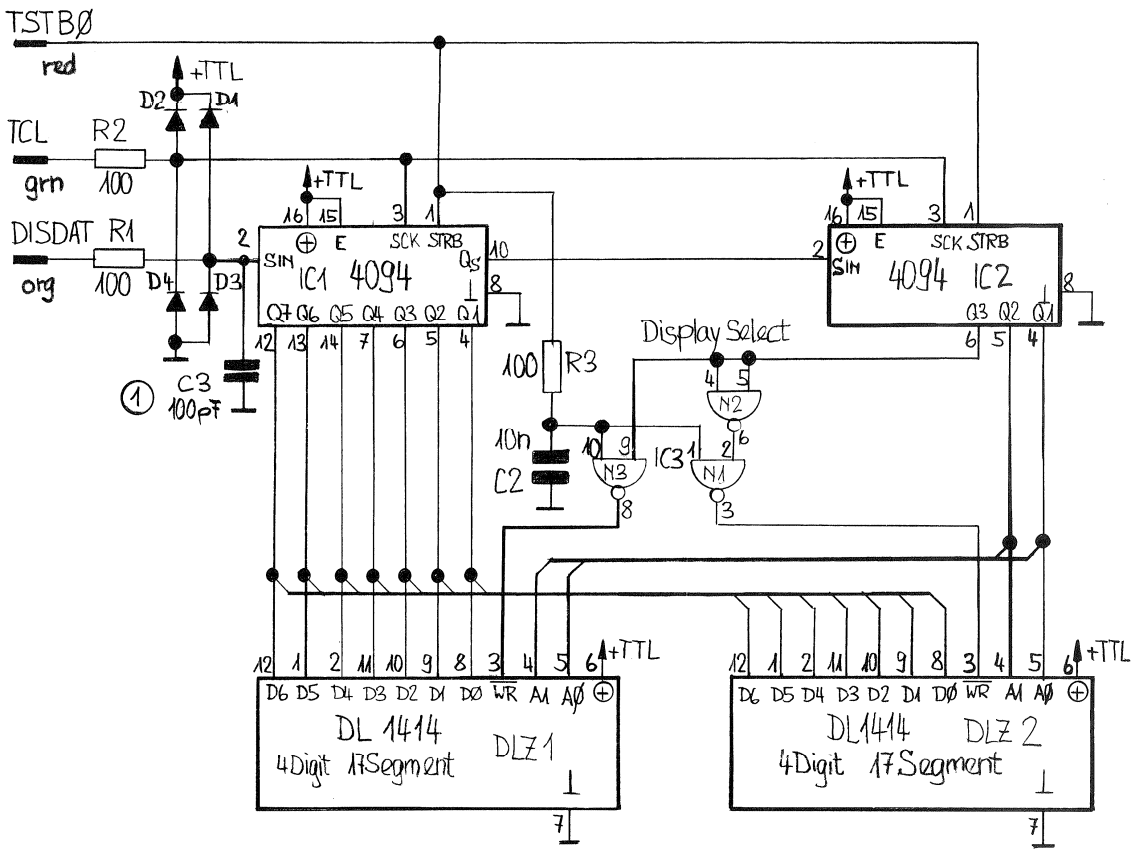
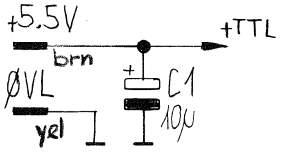
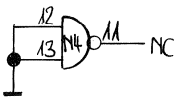
DISPLAY MODULE 1.990.090.00





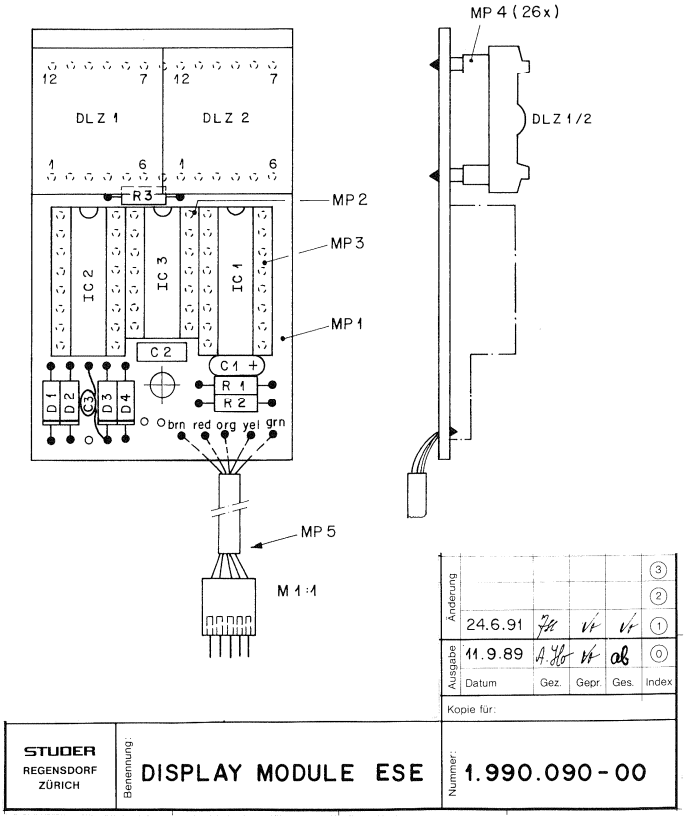


N1–N4 = 74HC00

IC 3

⓪ 04.1089 ab	① 24.06.91 ab	○ . .	○ . .	○ . .
				PAGE 1 OF 1
STUDER	DISPLAY MODULE			1.990.090-00

DISPLAY MODULE ESE 1.990.090.00



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					2
	24.6.91				1
Ausgabe	11.9.89				0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: DISPLAY MODULE ESE	Nummer: 1.990.090-00

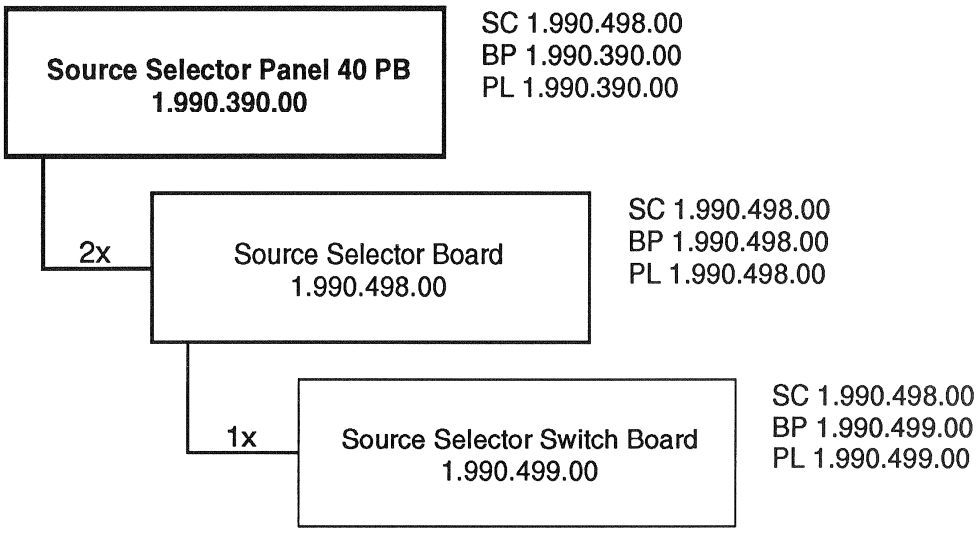
Ad	..POS..	...REF.No...	DESCRIPTION.....			.....MANUFACTURER
	C.....1	59.26.1100	10 uF	-20%	10V SAL	
	C.....2	59.06.0103	10 nF	10%	PE	
01	C.....3	59.34.4101	100 pF	10%	CER delay of serial-input	
	D.....1	50.04.0125	1N4448			any
	D.....2	50.04.0125	1N4448			any
	D.....3	50.04.0125	1N4448			any
	D.....4	50.04.0125	1N4448			any
	DLZ...1	73.01.0127	DL1414	4 Digit 17 Segm. Disp.		Sie,Lix
	DLZ...2	73.01.0127	DL1414	4 Digit 17 Segm. Disp.		Sie,Lix
	IC....1	50.07.0018	4094	Shift and store bus register		
	IC....2	50.07.0018	4094	Shift and store bus register		
	IC....3	50.17.1000	74HC00	Quad 2-Input NAND Gate		
	MP....1	1.990.090.11	1 pcs	Print		St
	MP....2	53.03.0167	1 pcs	IC-Socket 14 Pin		
	MP....3	53.03.0168	2 pcs	IC-Socket 16 Pin		
	MP....4	53.03.0218	26 pcs	IC-Socket Single line		
	MP....5	1.911.197.00	1 pcs	Kabel mit CIS-Stecker 130 mm		St
	R.....1	57.11.3101	100 Ohm	1% 0.25W		
	R.....2	57.11.3101	100 Ohm	1% 0.25W		
	R.....3	57.11.3101	100 Ohm	1% 0.25W		

(01) 24.06.91 Timing adjustment. C 3 (100pF) additional to serial-input

MANUFACTURER: Sie=Siemens, Lix=Litronix, St=Studer

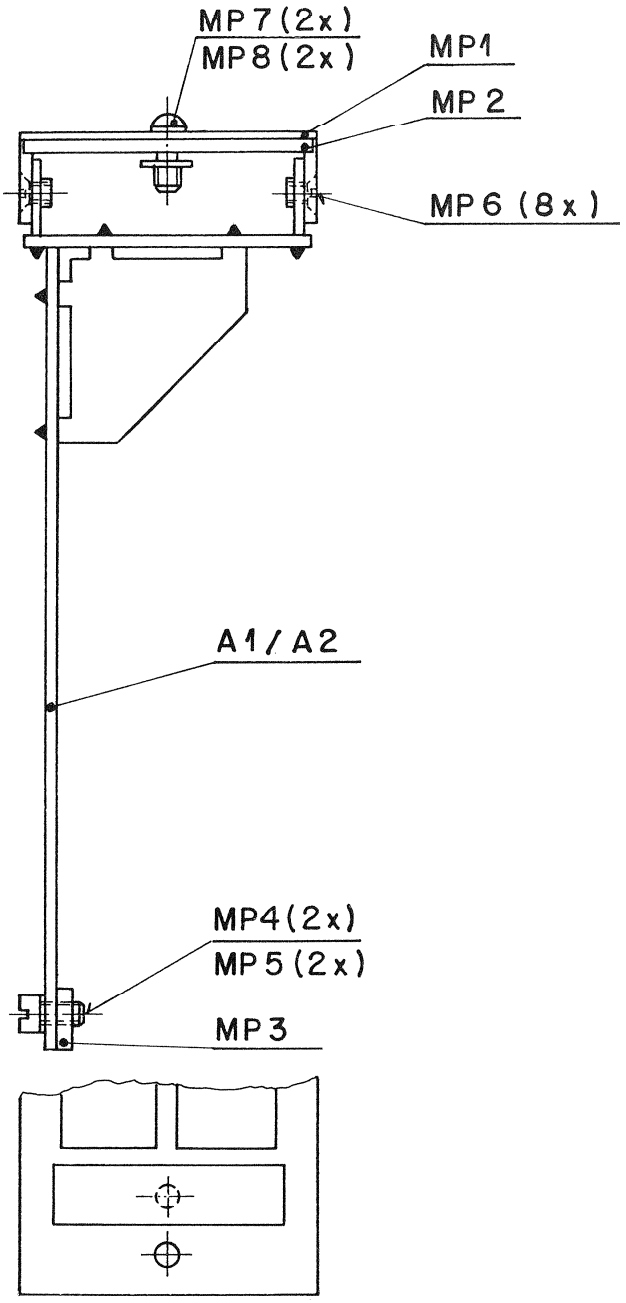
1.990.090.00	DISPLAY MODULE	AB 89/06/2100
1.990.090.00	DISPLAY MODULE	AB 91/06/2401

Source Selector Panel 40 PB 1.990.390.00



SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

SOURCE SELECTOR UNIT 1.990.390.00



Ad	..POS..	...REF.No...	DESCRIPTION.....MANUFACTURER
	A.....1	1.990.498.00	SOURCE SELECTOR
	A.....2	1.990.498.00	SOURCE SELECTOR
	MP....1	1.990.390.01	1 pcs Frontschild SOURCE SELECTOR 40 PB
	MP....2	1.990.390.02	1 pcs Traeger SOURCE SELECTOR 40 PB
	MP....3	1.990.390.03	1 pcs Printverbinder
	MP....4	21.53.0353	2 pcs Z-Schr. M3*5
	MP....5	24.16.1030	2 pcs Rippenscheibe zu M3
	MP....6	21.01.2352	8 pcs S-Schr. M3*4
	MP....7	1.010.022.21	2 pcs Linsenrundschr. IS M3*8
	MP....8	24.16.3023	2 pcs Wellensicherung 3mm
	MP....9	1.990.390.04	1 pcs Studer-Nr-Etikette 10*20

1.990.390.00 SOURCE SELECTOR UNIT 40 PB SCA89/07/0600

Änderung					
					3
					2
					1
Ausgabe	3.4.90		SCA		0
	Datum	Gez.	Gepr.	Ges.	Index

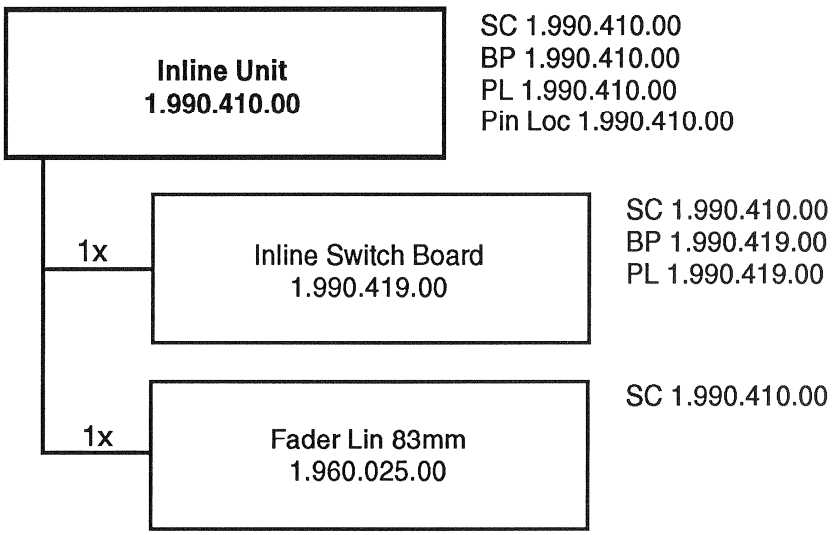
Kopie für:

STUDER REGENSDORF ZÜRICH

Benennung: SOURCE SELECTOR UNIT 40 PB

Nummer: 1.990.390-00

Inline Unit 1.990.410.00



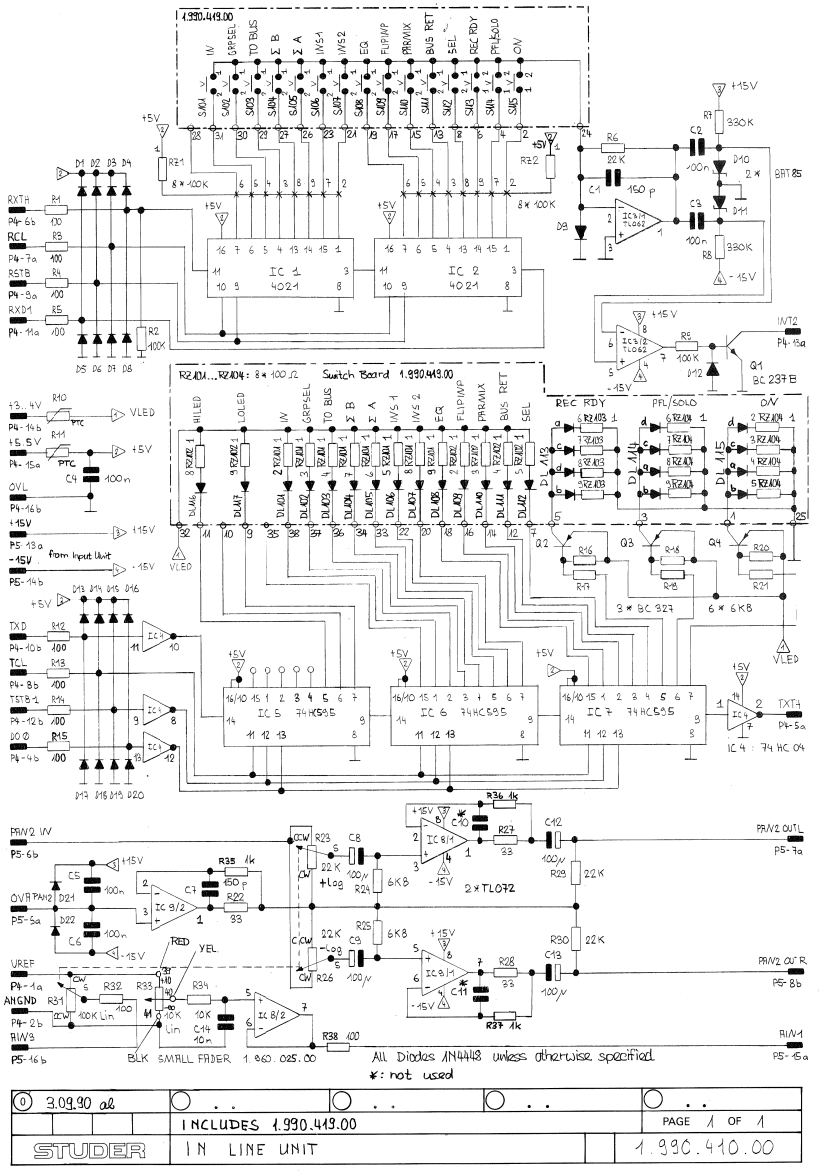
SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

Pin location list

1.990.410

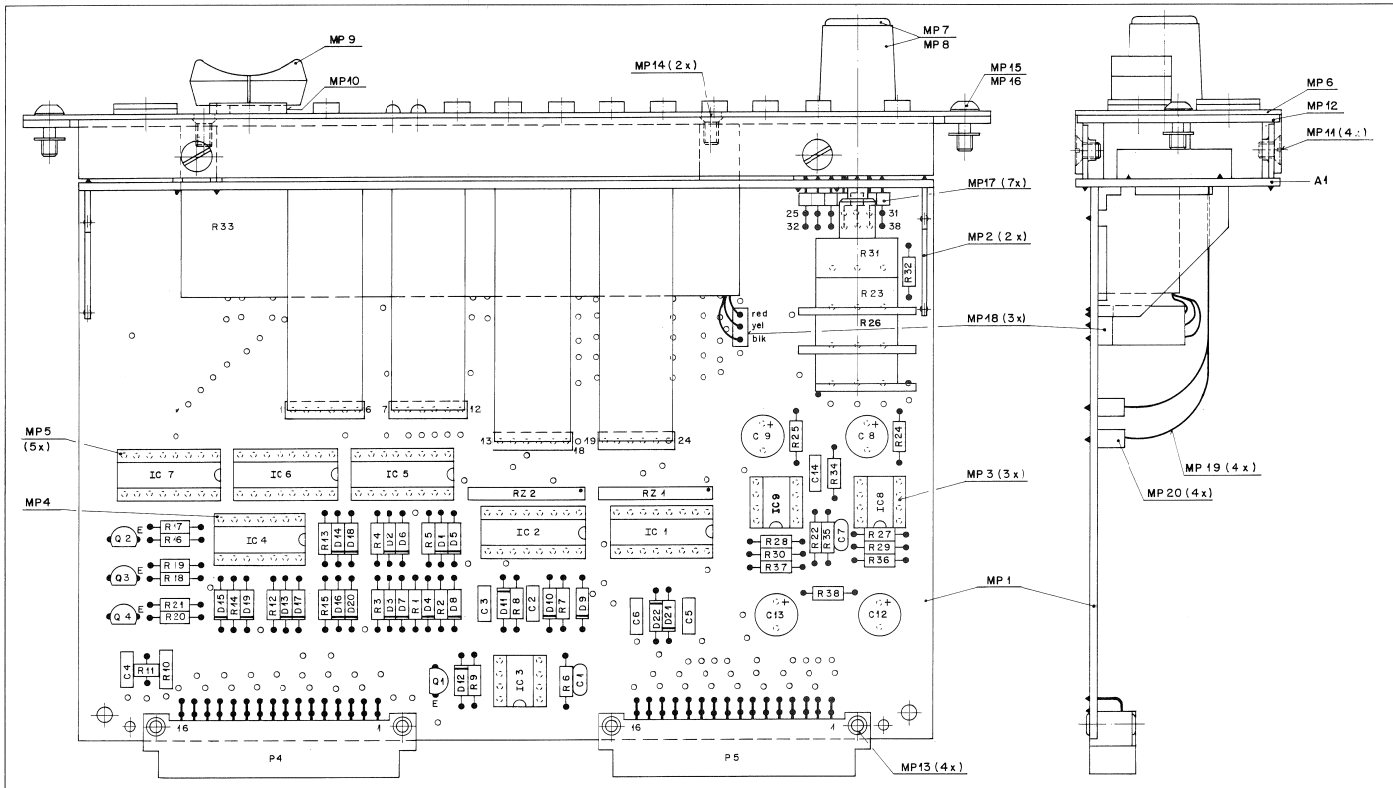
P	NO	NAME	REMARK	B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC
P4	01	UREF	+ 5V REFERENZ	B
P4	02	AN GND	ANALOG GROUND	B
P4	03	-	RES	
P4	04	DO 0	DATA OUT 0 (ENABLE)	
P4	05	TXTH	TRANSMIT DATA THROUGH	
P4	06	RXTH	RECEIVE DATA THROUGH	
P4	07	RCL	RECEIVE CLOCK	
P4	08	TCL	TRANSMIT CLOCK	
P4	09	RSTB	RECEIVE STROBE	
P4	10	TXD	TRANSMIT DATA	
P4	11	RXD 1	RECEIVE DATA 1	
P4	12	TSTB 1	TRANSMIT STROBE 1	
P4	13	INT 2	INTERUPT 2	
P4	14	+3..4V LED	LED SUPPLY VARIABLE +3...4V	B
P4	15	+ 5.5V	+ SUPPLY	B
P4	16	0V-L	GROUND SIGN (LOGIC)	B
P5	01	0VA PAN1	GROUND SIGN PAN 1	
P5	02	B-L/PAN1-IN	PAN 1 IN (BAL LEFT IN)	
P5	03	B-L/PAN1-IN	PAN 1 IN / OUTPUT (BAL LEFT IN)	
P5	04	-	RES	
P5	05	0VA PAN2	GROUND SIGN PAN 2	
P5	06	B-R/PAN2-IN	PAN 2 IN (BAL RIGHT IN)	
P5	07	PAN2-OUT-L	PAN 2 OUT LEFT	
P5	08	PAN2-OUT-R	PAN 2 OUT RIGHT	
P5	09	FILM-OUT-S	OPTIONAL OUTPUT	
P5	10	FILM-OUT-C	OPTIONAL OUTPUT	
P5	11	FILM-OUT-R	OPTIONAL OUTPUT	
P5	12	FILM-OUT-L	OPTIONAL OUTPUT	
P5	13	+ 15V	+ SUPPLY FROM INPUT UNIT	
P5	14	- 15V	- SUPPLY FROM INPUT UNIT	
P5	15	A IN 1	OUTPUT ; TO MCU ANALOG IN 1	
P5	16	A IN 3	OUTPUT ; TO MCU ANALOG IN 3	

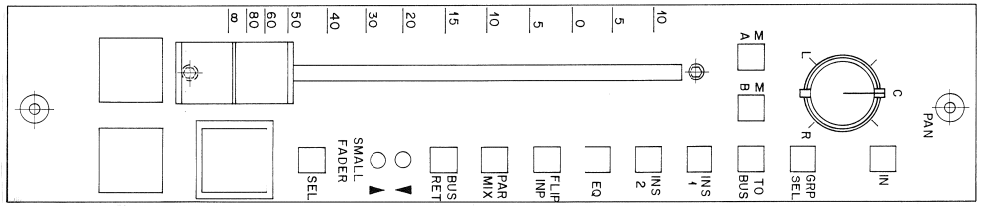
IN LINE UNIT 1.990.410.00



IN LINE MODULE ESE

1.990.410.00





Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	A.....1	1.990.419.00	IN-LINE SWITCH BOARD	
	C.....1	59.34.4151	150 pF CER	
	C.....2	59.06.0104	100 nF PE	
	C.....3	59.06.0104	100 nF PE	
	C.....4	59.06.0104	100 nF PE	
	C.....5	59.06.0104	100 nF PE	
	C.....6	59.06.0104	100 nF PE	
	C.....7	59.34.4151	150 pF CER	
	C.....8	59.22.4101	100 uF EL	
	C.....9	59.22.4101	100 uF EL	
	C.....10	59.34.4151	150 pF CER	
01	C.....10	. . 0	not used	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....11	59.34.4151	150 pF CER	
01	C.....11	. . 0	not used	
	C.....12	59.22.4101	100 uF EL	
	C.....13	59.22.4101	100 uF EL	
	C.....14	59.06.0103	10 nF PE	
	D.....1	50.04.0125	1N4448	
	D.....2	50.04.0125	1N4448	
	D.....3	50.04.0125	1N4448	
	D.....4	50.04.0125	1N4448	
	D.....5	50.04.0125	1N4448	
	D.....6	50.04.0125	1N4448	
	D.....7	50.04.0125	1N4448	
	D.....8	50.04.0125	1N4448	
	D.....9	50.04.0125	1N4448	
	D.....10	50.04.0127	BAT85 Schottky	
	D.....11	50.04.0127	BAT85 Schottky	
	D.....12	50.04.0125	1N4448	
	D.....13	50.04.0125	1N4448	
	D.....14	50.04.0125	1N4448	
	D.....15	50.04.0125	1N4448	
	D.....16	50.04.0125	1N4448	
	D.....17	50.04.0125	1N4448	
	D.....18	50.04.0125	1N4448	
	D.....19	50.04.0125	1N4448	
	D.....20	50.04.0125	1N4448	
	D.....21	50.04.0125	1N4448	
	D.....22	50.04.0125	1N4448	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	IC....1	50.07.1021	4021 8-bit static shift register	
	IC....2	50.07.1021	4021 8-bit static shift register	
	IC....3	50.09.0119	TL062 Dual Op Amp/ low power/ J-FET input	
	IC....4	50.17.1004	74HC 04 Hex inverter	
	IC....5	50.17.1595	74HC595 8-bit serial/para. shift register	
	IC....6	50.17.1595	74HC595 8-bit serial/para. shift register	
	IC....7	50.17.1595	74HC595 8-bit serial/para. shift register	
	IC....8	50.09.0117	MC33078 Dual Op Amp/ low noise	
01	IC....8	50.09.0121	TL072BCP Dual Op Amp/ low offset	
02	IC....8	50.09.0101	TL072 CP Dual FET-Op Amp/ low noise	SGS,TI
	IC....9	50.09.0117	MC33078 Dual Op Amp/ low noise	
01	IC....9	50.09.0121	TL072BCP Dual Op Amp/ low offset	
02	IC....9	50.09.0101	TL072 CP Dual FET-Op Amp/ low noise	SGS,TI
	MP....1	1.990.410.11	1 pcs IN-LINE PCB	St
	MP....2	1.990.100.01	2 pcs Querprintstuetze	St
	MP....3	53.03.0166	3 pcs IC-socket 8 pins	
	MP....4	53.03.0167	1 pcs IC-socket 14 pins	
	MP....5	53.03.0168	5 pcs IC-socket 16 pins	
	MP....6	1.990.410.01	1 pcs Frontschild IN-LINE	St
	MP....7	42.01.0233	1 pcs Potiknopf	
	MP....8	42.01.0257	1 pcs Deckel zu Potiknopf	
	MP....9	1.911.000.38	1 pcs Faderknopf	St
	MP...10	1.990.000.01	1 pcs Schutzkragen 12.5*12.5	St
	MP...11	21.01.2352	4 pcs S-Schr., Zn, M3*4	
	MP...12	1.990.410.02	1 pcs Traeger IN-LINE	St
	MP...13	28.99.0119	4 pcs Rohrniete	
	MP...14	1.010.022.21	2 pcs Linsenschr. spez. M3*8 sw fuer Faderbef.	St
	MP...15	21.99.0175	2 pcs S-Schr., SWOX, M3*6	
	MP...16	24.16.3023	2 pcs Wellensicherung 2.3	
	MP...17	54.11.0131	7 pcs Dual pin Stiftleiste (total 14 pins), Sn	
	MP...18	54.01.0020	3 pcs Stiftleiste fuer Faderanschluss, Au	
	MP...19	64.03.0505	4 pcs Flachkabel konfektioniert 6 polig	
	MP...20	54.10.3506	4 pcs Buchsenleiste zu Flachkabel 6 polig	
	P.....1	. . 0	not exist	
	P.....2	. . 0	not exist	
	P.....3	. . 0	not exist	
	P.....4	54.11.2007	1*16 pin Eurocard connector 1*16 pins	
	P.....5	54.11.2007	1*16 pin Eurocard connector 1*16 pins	
	Q.....1	50.03.0436	BC 237 B NPN Universal	
	Q.....2	50.03.0351	BC 327 PNP Standard, Ic>200mA, B>100	
	Q.....3	50.03.0351	BC 327 PNP Standard, Ic>200mA, B>100	
	Q.....4	50.03.0351	BC 327 PNP Standard, Ic>200mA, B>100	
	R.....1	57.11.3101	100 Ohm	
	R.....2	57.11.3104	100 kOhm	
	R.....3	57.11.3101	100 Ohm	
	R.....4	57.11.3101	100 Ohm	
	R.....5	57.11.3101	100 Ohm	
	R.....6	57.11.3223	22 kOhm	
	R.....7	57.11.3334	330 kOhm	
	R.....8	57.11.3334	330 kOhm	
	R.....9	57.11.3104	100 kOhm	
	R....10	57.92.7013	0.75 Ohm Ihold=0.5A R-PTC	
	R....11	57.99.0206	50 Ohm 0.5 W R-PTC	
	R....12	57.11.3101	100 Ohm	
	R....13	57.11.3101	100 Ohm	
	R....14	57.11.3101	100 Ohm	
	R....15	57.11.3101	100 Ohm	
	R....16	57.11.3682	6.8 kOhm	
	R....17	57.11.3682	6.8 kOhm	
	R....18	57.11.3682	6.8 kOhm	
	R....19	57.11.3682	6.8 kOhm	
	R....20	57.11.3682	6.8 kOhm	
	R....21	57.11.3682	6.8 kOhm	
	R....22	57.11.3330	33 Ohm	
	R....23	1.010.033.58	22 kOhm +log potentiometer, comb. with R 26/R 31	
	R....24	57.11.3682	6.8 kOhm	
	R....25	57.11.3682	6.8 kOhm	
	R....26	. .	22 kOhm -log potentiometer included in R23	
	R....27	57.11.3330	33 Ohm	
	R....28	57.11.3330	33 Ohm	
	R....29	57.11.3223	22 kOhm	
	R....30	57.11.3223	22 kOhm	
	R....31	. .	100 kOhm lin potentiometer included in R23	
	R....32	57.11.3101	100 Ohm	
	R....33	1.990.025.00	10 kOhm lin small fader	St
	R....34	57.11.3103	10 kOhm	
	R....35	57.11.3102	1 kOhm	
	R....36	57.11.3102	1 kOhm	
	R....37	57.11.3102	1 kOhm	
	R....38	57.11.3101	100 Ohm	
	RZ....1	57.88.4104	100 kOhm Resistor-network SIP 9, 8*100 k	
	RZ....2	57.88.4104	100 kOhm Resistor-network SIP 9, 8*100 k	
(01)		90/09/14	-Better Noise and Offset	
(02)		91/04/26	-Better Noise , IC 8, 9 : use only TL 072 !!	

PE=Polyester, EL=Electrolytic, CER=Ceramic

MANUFACTURER: MOT=Motorola, TI=Texas Instruments, St=Studer

1.990.410.00	IN-LINE UNIT	AB 90/04/2000
1.990.410.00	IN-LINE UNIT	AB 90/09/1401
1.990.410.00	IN-LINE UNIT	AB 91/04/2602

Änderung	Datum	Gez.	Gepr.	Ges.	Index
③					
②					
①	14.9.90	JH	W	W	
0	12.4.90				

Ausgabe

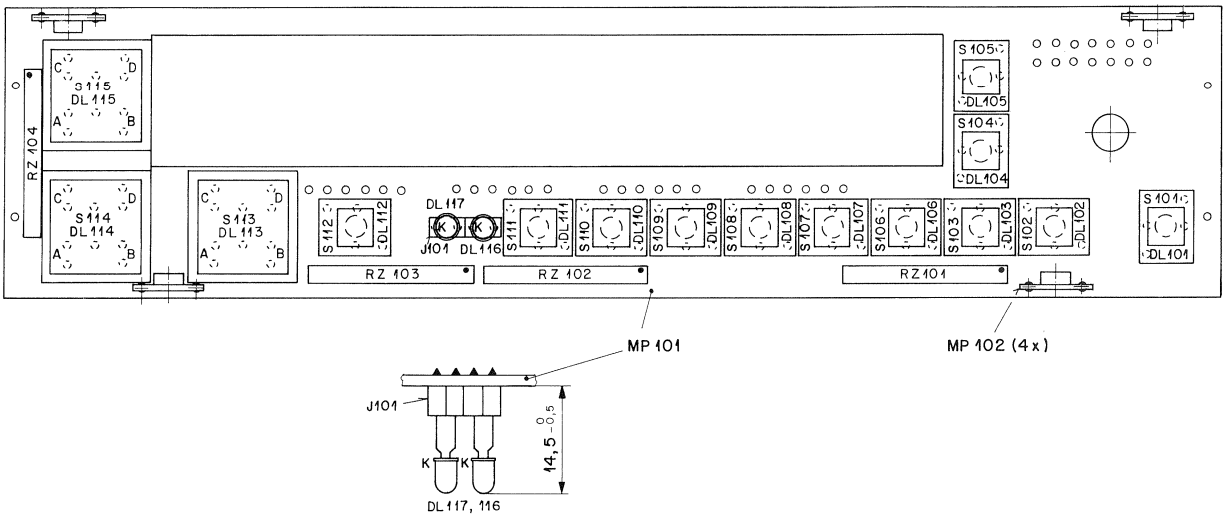
Kopie für:

STUDER REGENSDORF ZÜRICH

Benennung: IN-LINE MODULE ESE

Nummer: 1.990.410-00

IN LINE SWITCH BOARD 1.990.419.00



Änderung					
Ausgabe	20.3.90				
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

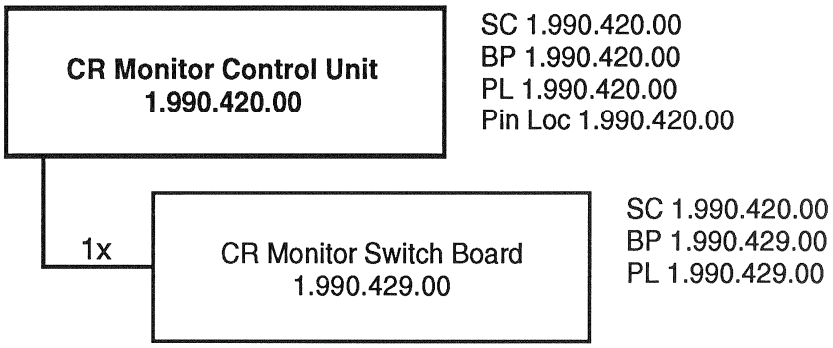
STUDER REGENSDORF ZÜRICH	Benennung: IN-LINE SWITCH BOARD	Nummer: 1.990.419-00

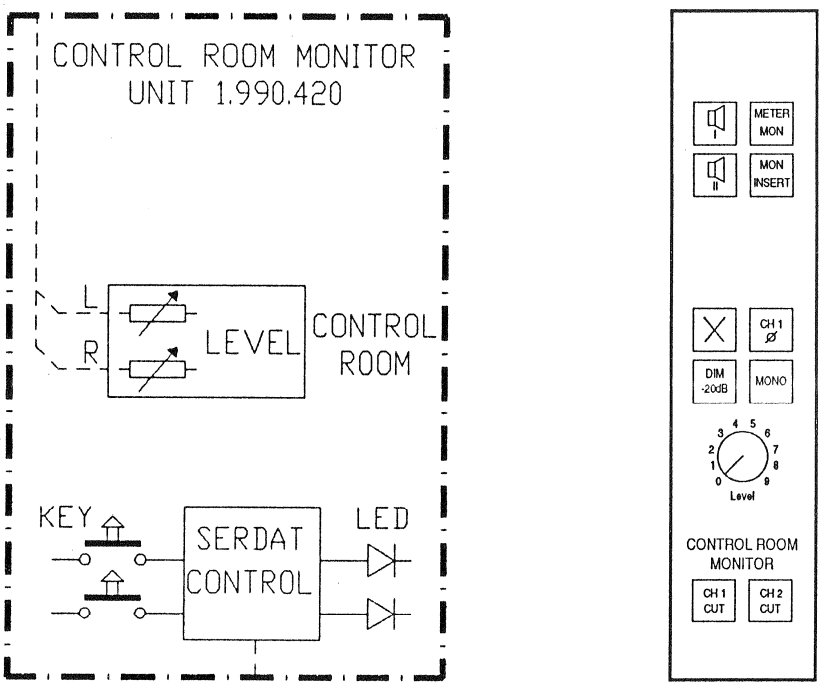
Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	DL..101	. . 0	not used see S 101	
	DL..102	. . 0	not used see S 102	
	DL..103	. . 0	not used see S 103	
	DL..104	. . 0	not used see S 104	
	DL..105	. . 0	not used see S 105	
	DL..106	. . 0	not used see S 106	
	DL..107	. . 0	not used see S 107	
	DL..108	. . 0	not used see S 108	
	DL..109	. . 0	not used see S 109	
	DL..110	. . 0	not used see S 110	
	DL..111	. . 0	not used see S 111	
	DL..112	. . 0	not used see S 112	
	DL..113	. . 0	not used see S 113	
	DL..114	. . 0	not used see S 114	
	DL..115	. . 0	not used see S 115	
	DL..116	50.04.2130	LY3360 LED 3.18mm gb	
	DL..117	50.04.2130	LY3360 LED 3.18mm gb	
	J...101	53.03.0231	LED-Socket	
	MP..101	1.990.419.11	1 pcs IN-LINE SWITCH PCB	St
	MP..102	1.990.100.05	4 pcs Querprinthalter	St
	RZ..101	57.88.4101	100 Ohm resistor-network SIP 9, 8*100 R	
	RZ..102	57.88.4101	100 Ohm resistor-network SIP 9, 8*100 R	
	RZ..103	57.88.4101	100 Ohm resistor-network SIP 9, 8*100 R	
	RZ..104	57.88.4101	100 Ohm resistor-network SIP 9, 8*100 R	
	S...101	55.15.0622	Switch, 5mm,rd/rd IN	
	S...102	55.15.0644	Switch, 5mm,ye/ye GRP SEL	
	S...103	55.15.0604	Switch, 5mm,ye/tr TO BUS	
	S...104	55.15.0604	Switch, 5mm,ye/tr SUM B	
	S...105	55.15.0604	Switch, 5mm,ye/tr SUM A	
	S...106	55.15.0605	Switch, 5mm,gn/tr INS 1	
	S...107	55.15.0605	Switch, 5mm,gn/tr INS 2	
	S...108	55.15.0605	Switch, 5mm,gn/tr EQ	
	S...109	55.15.0602	Switch, 5mm,rd/tr FLIP IN	
	S...110	55.15.0602	Switch, 5mm,rd/tr PAR MIX	
	S...111	55.15.0602	Switch, 5mm,rd/tr BUS RET	
	S...112	55.15.0605	Switch, 5mm,gn/tr SEL	
	S...113	55.15.0722	Switch,12mm,rd/rd RCD RDY	
	S...114	55.15.0705	Switch,12mm,gn/tr PFL/SOL	
	S...115	55.15.0704	Switch,12mm,ye/tr ON/OFF	

MANUFACTURER: St=Studer

1.990.419.00 IN-LINE SWITCH BOARD AB 89/09/2700

CR Monitor Control Unit 1.990.420.00





SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

Pin location list

1.990.420

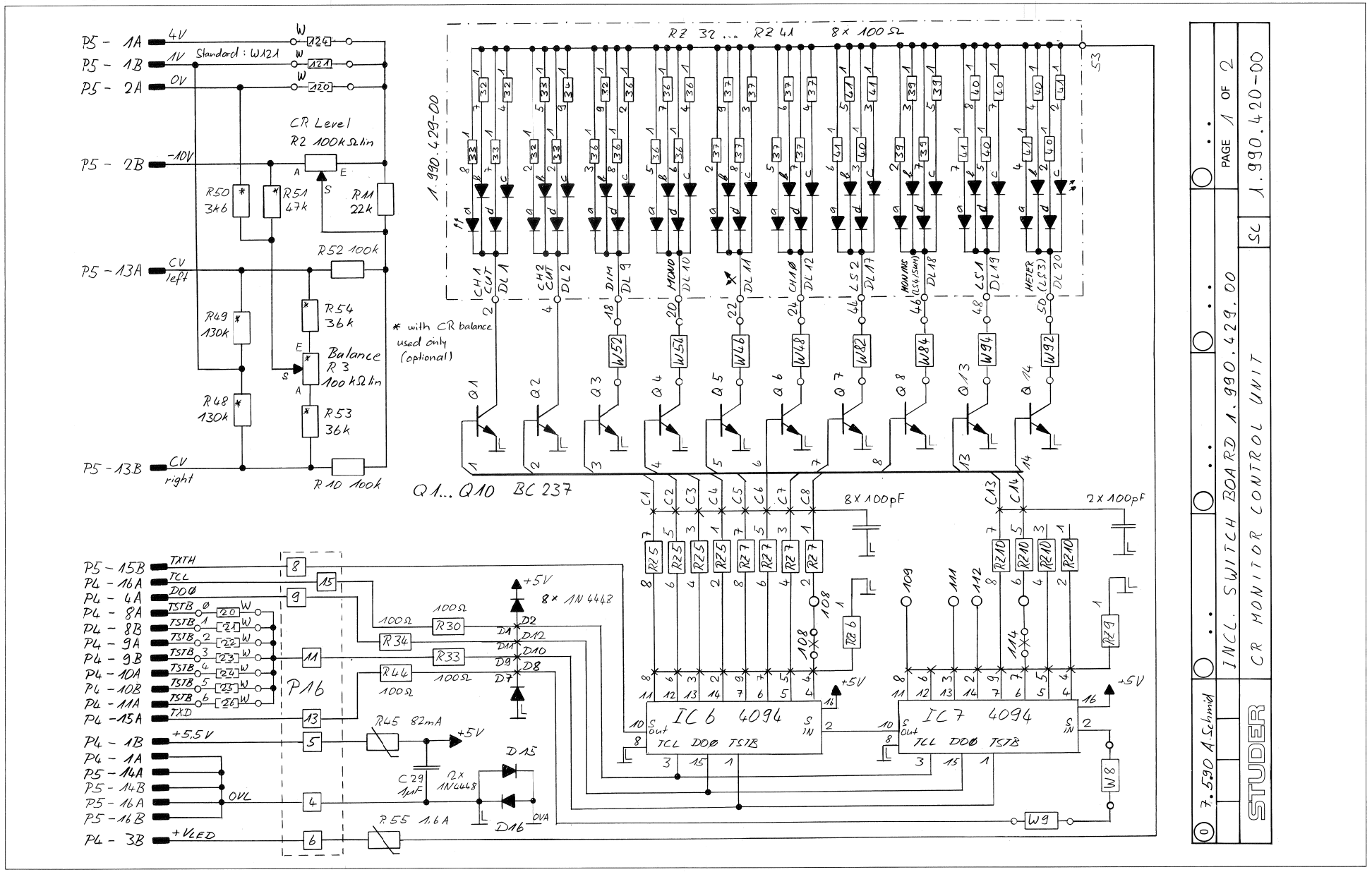
P	NO	NAME	REMARK	B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC
P4	01A	0V-L	GROUND SIGN (LOGIC)	B
P4	01B	+ 5.5V	+ SUPPLY	B
P4	02A	+ 15.5V	+ SUPPLY	B
P4	02B	0V-A	GROUND AUDIO	B
P4	03A	- 15.5V	- SUPPLY	B
P4	03B	+3..4V LED	LED SUPPLY VARIABLE +3...4V	B
P4	04A	DO 0	DATA OUT 0 (ENABLE)	
P4	04B	INT 0	INTERUPT 0	
P4	05A	INT 1	INTERUPT 1	
P4	05B	INT 2	INTERUPT 2	
P4	06A	INT 3	INTERUPT 3	
P4	06B	INT 4	INTERUPT 4	
P4	07A	INT 5	INTERUPT 5	
P4	07B	INT 6	INTERUPT 6	
P4	08A	TSTB 0	TRANSMIT STROBE 0	
P4	08B	TSTB 1	TRANSMIT STROBE 1	
P4	09A	TSTB 2	TRANSMIT STROBE 2	
P4	09B	TSTB 3	TRANSMIT STROBE 3	
P4	10A	TSTB 4	TRANSMIT STROBE 4	
P4	10B	TSTB 5	TRANSMIT STROBE 5	
P4	11A	TSTB 6	TRANSMIT STROBE 6	
P4	11B	RXD 0	RECEIVE DATA 0	
P4	12A	RXD 1	RECEIVE DATA 1	
P4	12B	RXD 2	RECEIVE DATA 2	
P4	13A	RXD 3	RECEIVE DATA 3	
P4	13B	RXD 4	RECEIVE DATA 4	
P4	14A	RXD 5	RECEIVE DATA 5	
P4	14B	RXD 6	RECEIVE DATA 6	
P4	15A	TXD	TRANSMIT DATA	
P4	15B	RSTB	RECEIVE STROBE	
P4	16A	TCL	TRANSMIT CLOCK	
P4	16B	RCL	RECEIVE CLOCK	

Pin location list

1.990.420

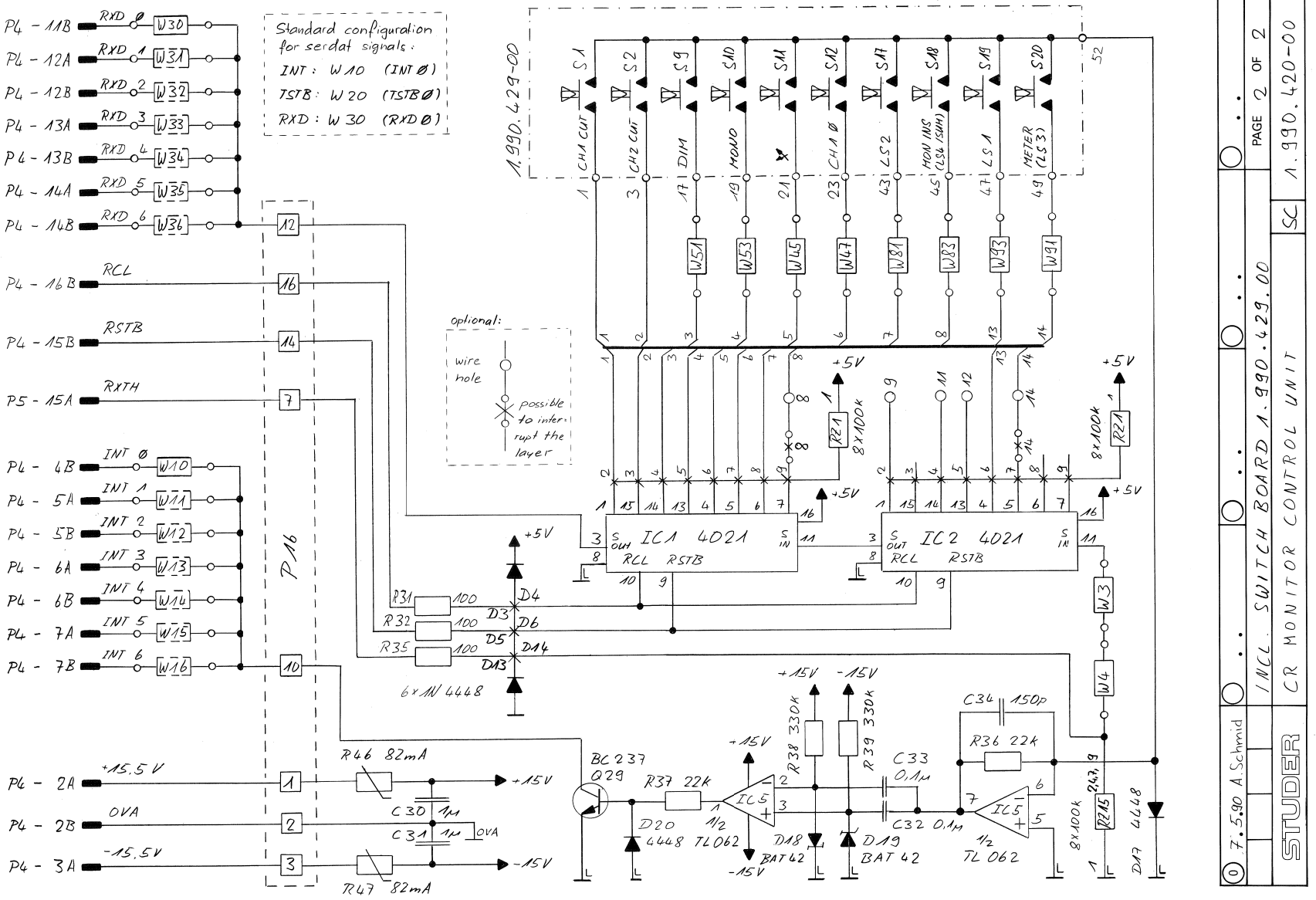
P5	01A	+4V	CONTROL VOLTAGE VCA		
P5	01B	+1V	CONTROL VOLTAGE VCA		
P5	02A	0V	CONTROL VOLTAGE VCA		
P5	02B	-10V	CONTROL VOLTAGE VCA		
P5	03A	-	N.C.		
P5	03B	-	N.C.		
P5	04A	-	N.C.		
P5	04B	-	N.C.		
P5	05A	-	N.C.		
P5	05B	-	N.C.		
P5	06A	-	N.C.		
P5	06B	-	N.C.		
P5	07A	-	N.C.		
P5	07B	-	N.C.		
P5	08A	-	N.C.		
P5	08B	-	N.C.		
P5	09A	-	N.C.		
P5	09B	-	N.C.		
P5	10A	-	N.C.		
P5	10B	-	N.C.		
P5	11A	-	N.C.		
P5	11B	-	N.C.		
P5	12A	-	N.C.		
P5	12B	-	N.C.		
P5	13A	CV-CR-L	CTRL.VOLTAGE CR LEVEL LEFT		
P5	13B	CV-CR-R	CTRL.VOLTAGE CR LEVEL RIGHT		
P5	14	0V-L	GROUND SIGN (LOGIC)	B	X X
P5	15A	RXTH	RECEIVE DATA THROUGH		
P5	15B	TXTH	TRANSMIT DATA THROUGH		
P5	16	0V-L	GROUND SIGN (LOGIC)	B	X X

CR MONITOR CONTROL UNIT 1.990.420.00



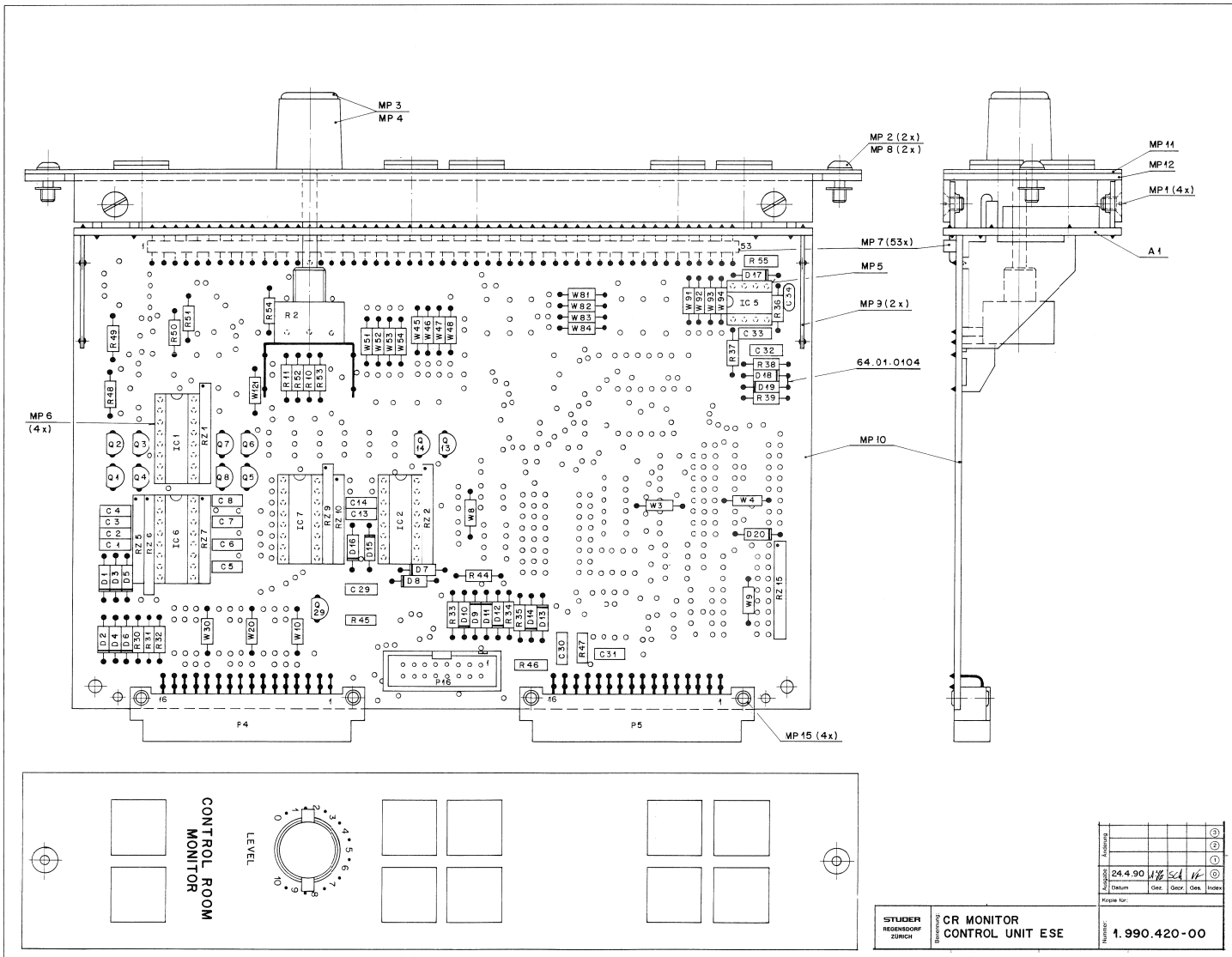
0	7.590 A.Schmid	INCL. SWITCH BOARD 1.990.429.00	PAGE 1 OF 2	
	STUDER	CR MONITOR CONTROL UNIT	SC	1.990.420-00

CR MONITOR CONTROL UNIT 1.990.420.00



CR MONITOR CONTROL UNIT ESE

1.990.420.00



Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	A.....1	1.990.429.00	CR MONITOR SWITCH BOARD	
	C.....1	59.34.4101	100 pF	CE
	C.....2	59.34.4101	100 pF	CE
	C.....3	59.34.4101	100 pF	CE
	C.....4	59.34.4101	100 pF	CE
	C.....5	59.34.4101	100 pF	CE
	C.....6	59.34.4101	100 pF	CE
	C.....7	59.34.4101	100 pF	CE
	C.....8	59.34.4101	100 pF	CE
	C....13	59.34.4101	100 pF	CE
	C....14	59.34.4101	100 pF	CE
	C....29	59.06.0104	100 nF	PE
	C....30	59.06.0104	100 nF	PE
	C....31	59.06.0104	100 nF	PE
	C....32	59.06.0104	100 nF	PE
	C....33	59.06.0104	100 nF	PE
	C....34	59.34.7151	150 pF	CE
	D.....1	50.04.0125	1N4448	
	D.....2	50.04.0125	1N4448	
	D.....3	50.04.0125	1N4448	
	D.....4	50.04.0125	1N4448	
	D.....5	50.04.0125	1N4448	
	D.....6	50.04.0125	1N4448	
	D.....7	50.04.0125	1N4448	
	D.....8	50.04.0125	1N4448	
	D.....9	50.04.0125	1N4448	
	D....10	50.04.0125	1N4448	
	D....11	50.04.0125	1N4448	
	D....12	50.04.0125	1N4448	
	D....13	50.04.0125	1N4448	
	D....14	50.04.0125	1N4448	
	D....15	50.04.0125	1N4448	
	D....16	50.04.0125	1N4448	
	D....17	50.04.0125	1N4448	
	D....18	50.04.0127	BAT 42	
	D....19	50.04.0127	BAT 42	
	D....20	50.04.0125	1N4448	
	IC....1	50.07.1021	CD4021	8-bit static shift register
	IC....2	50.07.1021	CD4021	8-bit static shift register
	IC....5	50.09.0119	TL 062	J FET dual op. amp.
	IC....6	50.07.0018	CD4094	shift and store bus register
	IC....7	50.07.0018	CD4094	shift and store bus register
	MP....1	21.01.2352	4 pcs	S-Schr. M3*4
	MP....2	24.16.3023	2 pcs	Wellensicherung 3mm
	MP....3	42.01.0233	1 pcs	Knebelknopf D15/4 grau
	MP....4	42.01.0257	1 pcs	Deckel hellgrau
	MP....5	53.03.0166	1 pcs	IC-Socket 8-pol
	MP....6	53.03.0168	4 pcs	IC-Socket 16-pol
	MP....7	54.11.0125	53 pcs	Stiftenleiste winkel
	MP....8	1.010.022.21	2 pcs	Linsenschraube IS M3*8
	MP....9	1.990.100.01	2 pcs	Querprintstuetze
	MP...10	1.990.420.11	1 pcs	CR-MONITOR PCB
	MP...11	1.990.420.01	1 pcs	Frontschild CR-MONITOR CONTROL
	MP...12	1.990.490.02	1 pcs	Traeger Source Selector
	MP...13	1.990.420.04	1 pcs	Studer-Nr-Etikette 10*20
	MP...14	43.01.0108	1 pcs	ESE-Schild
	MP...15	28.99.0119	4 pcs	Rohrniete D2.5*0.15*10
	Q.....1	50.03.0436	BC 237	
	Q.....2	50.03.0436	BC 237	
	Q.....3	50.03.0436	BC 237	
	Q.....4	50.03.0436	BC 237	
	Q.....5	50.03.0436	BC 237	
	Q.....6	50.03.0436	BC 237	
	Q.....7	50.03.0436	BC 237	
	Q.....8	50.03.0436	BC 237	
	Q....13	50.03.0436	BC 237	
	Q....14	50.03.0436	BC 237	
	Q....29	50.03.0436	BC 237	
	P.....1	. . . 0	not used	see MP
	P.....2	54.14.2002	16 pin	PCB ribbon connector
	P.....4	54.11.2013	2*16 pin	eurocard-connector
	P.....5	54.11.2013	2*16 pin	eurocard-connector
	R.....2	1.010.039.58	100 k	Poti 20% lin (only used without balance)
	R.....3	. . . 0	not used	used in balance version only (1.010.032-58)
	R....10	57.11.3104	100 kOhm	1% MF
	R....11	57.11.3223	22 kOhm	1% MF
	R....30	57.11.3101	100 Ohm	1% MF
	R....31	57.11.3101	100 Ohm	1% MF
	R....32	57.11.3101	100 Ohm	1% MF
	R....33	57.11.3101	100 Ohm	1% MF
	R....34	57.11.3101	100 Ohm	1% MF
	R....35	57.11.3101	100 Ohm	1% MF
	R....36	57.11.3223	22 kOhm	1% MF
	R....37	57.11.3223	22 kOhm	1% MF
	R....38	57.11.3334	330 kOhm	1% MF
	R....39	57.11.3334	330 kOhm	1% MF
	R....44	57.11.3101	100 Ohm	1% MF
	R....45	57.92.1820	82 mA	PTC 42 Ohm
	R....46	57.92.1820	82 mA	PTC 42 Ohm
	R....47	57.92.1820	82 mA	PTC 42 Ohm
	R....48	. . . 0	not used	used in balance version only (57113134)

Aenderung						3 2 1 0
Ausgabe	24.4.90					
	Datum	Gez.	Geor.	Ges.	Index	

Kopie für:

STUDER REGENSDORF ZÜRICH | Benennung: CR MONITOR CONTROL UNIT ESE | Nummer: 1.990.420-00

CR MONITOR CONTROL UNIT ESE

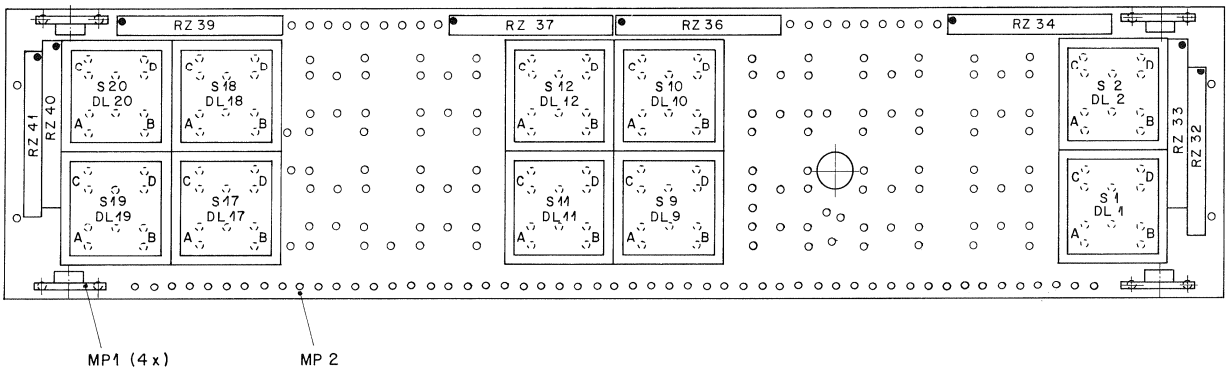
1.990.420.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R....49	. . 0	not used	used in balance version only (57113134)
	R....50	. . 0	not used	used in balance version only (57113362)
	R....51	. . 0	not used	used in balance version only (57113473)
	R....52	57.11.3104	100 kOhm 1% MF	
	R....53	. . 0	not used	used in balance version only (57113363)
	R....54	. . 0	not used	used in balance version only (57113363)
	R....55	57.92.7016	1.6 A	R-PTC 0.22 Ohm
	W.....3	57.11.3000	0 Ohm	wire bridge RXTH to IC 2
	W.....4	57.11.3000	0 Ohm	wire bridge RXTH to W 3
	W.....8	57.11.3000	0 Ohm	wire bridge TXD to IC 7
	W.....9	57.11.3000	0 Ohm	wire bridge TXD to W 8
	W....10	57.11.3000	0 Ohm	wire bridge SERDAT #0 (INT 0)
	W....11	. . 0	not used	wire bridge SERDAT #1 INT 1 57113000
	W....12	. . 0	not used	wire bridge SERDAT #2 INT 2 57113000
	W....13	. . 0	not used	wire bridge SERDAT #3 INT 3 57113000
	W....14	. . 0	not used	wire bridge SERDAT #4 INT 4 57113000
	W....15	. . 0	not used	wire bridge SERDAT #5 INT 5 57113000
	W....16	. . 0	not used	wire bridge SERDAT #6 INT 6 57113000
	W....20	57.11.3000	0 Ohm	wire bridge SERDAT #0 (TSTB 0)
	W....21	. . 0	not used	wire bridge SERDAT #1 TSTB 1 57113000
	W....22	. . 0	not used	wire bridge SERDAT #2 TSTB 2 57113000
	W....23	. . 0	not used	wire bridge SERDAT #3 TSTB 3 57113000
	W....24	. . 0	not used	wire bridge SERDAT #4 TSTB 4 57113000
	W....25	. . 0	not used	wire bridge SERDAT #5 TSTB 5 57113000
	W....26	. . 0	not used	wire bridge SERDAT #6 TSTB 6 57113000
	W....30	57.11.3000	0 Ohm	wire bridge SERDAT #0 (RXD 0)
	W....31	. . 0	not used	wire bridge SERDAT #1 RXD 1 57113000
	W....32	. . 0	not used	wire bridge SERDAT #2 RXD 2 57113000
	W....33	. . 0	not used	wire bridge SERDAT #3 RXD 3 57113000
	W....34	. . 0	not used	wire bridge SERDAT #4 RXD 4 57113000
	W....35	. . 0	not used	wire bridge SERDAT #5 RXD 5 57113000
	W....36	. . 0	not used	wire bridge SERDAT #6 RXD 6 57113000
	W....45	57.11.3000	0 Ohm	wire bridge
	W....46	57.11.3000	0 Ohm	wire bridge
	W....47	57.11.3000	0 Ohm	wire bridge
	W....48	57.11.3000	0 Ohm	wire bridge
	W....51	57.11.3000	0 Ohm	wire bridge
	W....52	57.11.3000	0 Ohm	wire bridge
	W....53	57.11.3000	0 Ohm	wire bridge
	W....54	57.11.3000	0 Ohm	wire bridge
	W....81	57.11.3000	0 Ohm	wire bridge
	W....82	57.11.3000	0 Ohm	wire bridge
	W....83	57.11.3000	0 Ohm	wire bridge
	W....84	57.11.3000	0 Ohm	wire bridge
	W....91	57.11.3000	0 Ohm	wire bridge
	W....92	57.11.3000	0 Ohm	wire bridge
	W....93	57.11.3000	0 Ohm	wire bridge
	W....94	57.11.3000	0 Ohm	wire bridge
	W...120	. . 0	not used	used only for CR LEVEL -100dB...+0dB
	W...121	57.11.3000	0 Ohm	wire bridge CR LEVEL -100dB...+10dB
	W...124	. . 0	not used	only used for CR LEVEL -100dB...+40dB
	RZ....1	57.88.4104	100 kOhm 2%	resistor-network
	RZ....2	57.88.4104	100 kOhm 2%	resistor-network
	RZ....5	57.88.2682	6.8 kOhm 2%	resistor-network
	RZ....6	57.88.4104	100 kOhm 2%	resistor-network
	RZ....7	57.88.2682	6.8 kOhm 2%	resistor-network
	RZ....9	57.88.4104	100 kOhm 2%	resistor-network
	RZ...10	57.88.2682	6.8 kOhm 2%	resistor-network
	RZ...15	57.88.4104	100 kOhm 2%	resistor-network

CE=Ceramic, PE=Polyester
MF=Metal Film

1.990.420.00 CR MONITOR CONTROL UNIT SCA90/12/0500

CR MONITOR SWITCH BOARD 1.990.429.00



Änderung					
					3
					2
					1
Ausgabe	6.3.90				0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: CR MONITOR SWITCH BOARD	Nummer: 1.990.429-00

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	DL....1	. . 0	not used	see S 01	
	DL....2	. . 0	not used	see S 02	
	DL....9	. . 0	not used	see S 09	
	DL...10	. . 0	not used	see S 10	
	DL...11	. . 0	not used	see S 11	
	DL...12	. . 0	not used	see S 12	
	DL...17	. . 0	not used	see S 17	
	DL...18	. . 0	not used	see S 18	
	DL...19	. . 0	not used	see S 19	
	DL...20	. . 0	not used	see S 20	
	MP....1	1.990.100.05	4 pcs	Querprinthalter	
	MP....2	1.990.429.11	1 pcs	CR MONITOR SWITCH PCB	
	MP....3	1.990.429.04	1 pcs	Nr-Etikette	
	S.....1	55.15.0702		Taste 1*A,12mm RT/Trans	CH I CUT
	S.....2	55.15.0702		Taste 1*A,12mm RT/Trans	CH II CUT
	S.....9	55.15.0722		Taste 1*A,12mm RT/RT	DIM - 20dB
	S....10	55.15.0705		Taste 1*A,12mm GN/Trans	MONO
	S....11	55.15.0705		Taste 1*A,12mm GN/Trans	Kanalvert.
	S....12	55.15.0705		Taste 1*A,12mm GN/Trans	CH I Phase
	S....17	55.15.0704		Taste 1*A,12mm GB/Trans	speaker ALT.
	S....18	55.15.0704		Taste 1*A,12mm GB/Trans	speaker MINI
	S....19	55.15.0704		Taste 1*A,12mm GB/Trans	speaker I
	S....20	55.15.0704		Taste 1*A,12mm GB/Trans	speaker II
	RZ...32	57.88.4101	100 Ohm	2% ,8*	
	RZ...33	57.88.4101	100 Ohm	2% ,8*	
	RZ...34	57.88.4101	100 Ohm	2% ,8*	
	RZ...36	57.88.4101	100 Ohm	2% ,8*	
	RZ...37	57.88.4101	100 Ohm	2% ,8*	
	RZ...39	57.88.4101	100 Ohm	2% ,8*	
	RZ...40	57.88.4101	100 Ohm	2% ,8*	
	RZ...41	57.88.4101	100 Ohm	2% ,8*	

CER=Ceramic, PE=Polyester
MF=Metal Film, PMG=Cermet

MANUFACTURER: Ex=Exar, NEC=Nippon Electric Corp., Ph=Philips, Ra=Raytheon,
Sig=Signetics, St=Studer.

1.990.429.00 CR MONITOR SWITCH BOARD SCA88/12/1600

Studio Monitor Control Unit 1.990.430.00

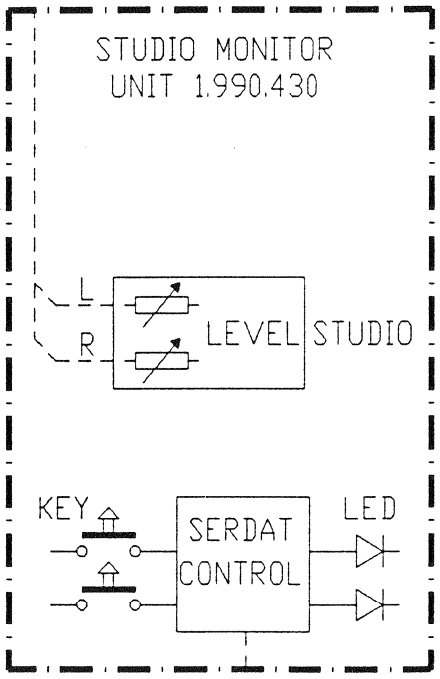
Studio Monitor Control Unit
1.990.430.00

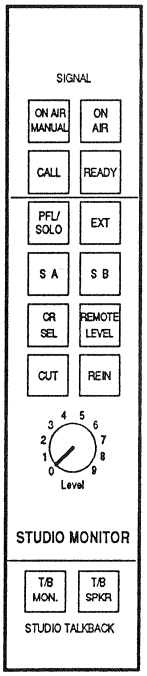
SC 1.990.430.00
BP 1.990.430.00
PL 1.990.430.00
Pin Loc 1.990.430.00

1x

Studio Monitor Switch Board
1.990.439.00

SC 1.990.430.00
BP 1.990.439.00
PL 1.990.439.00





SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

Pin location list

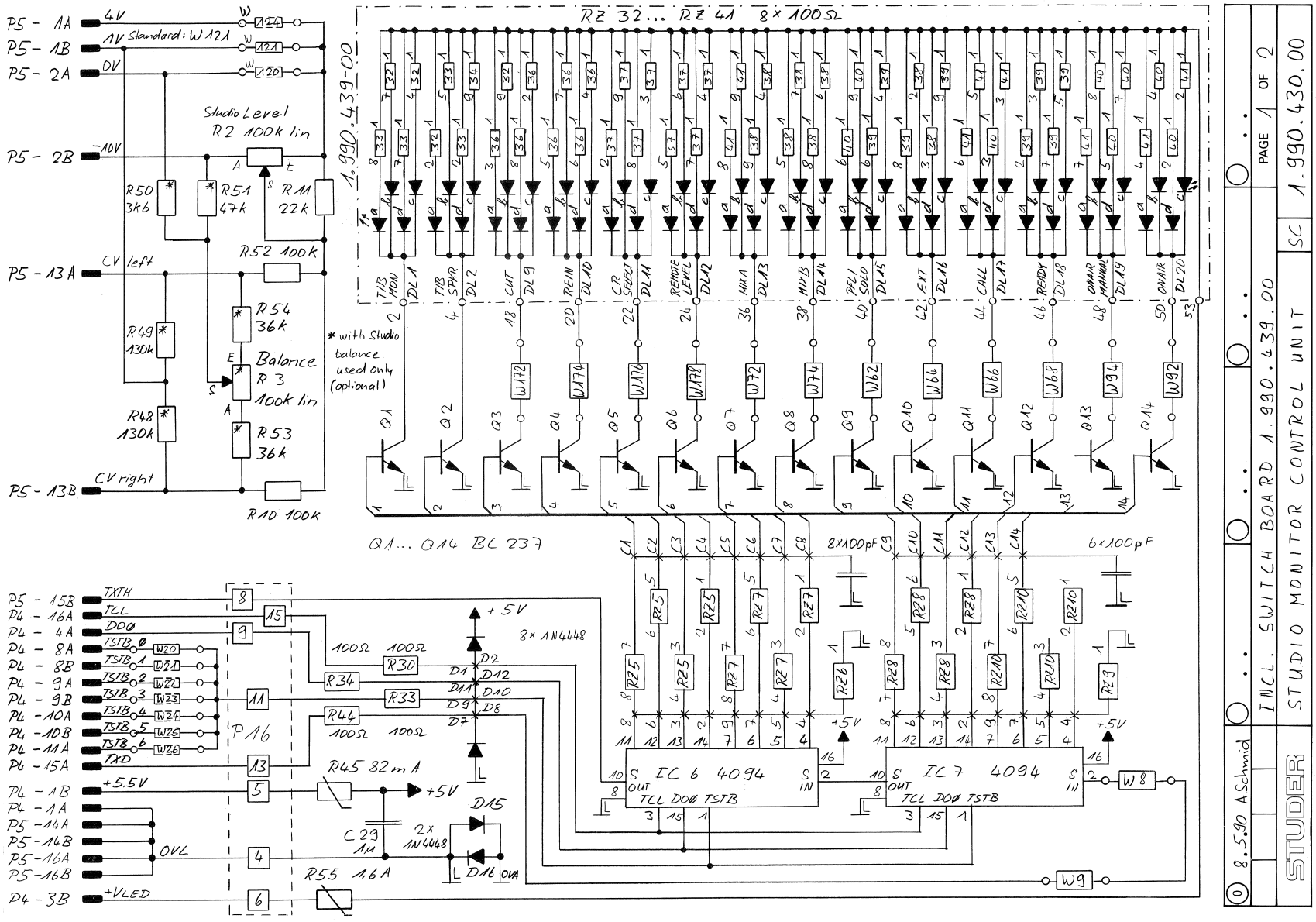
1.990.430

P	NO	NAME	REMARK	B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC
P4	01A	0V-L	GROUND SIGN (LOGIC)	B
P4	01B	+ 5.5V	+ SUPPLY	B
P4	02A	+ 15.5V	+ SUPPLY	B
P4	02B	0V-A	GROUND AUDIO	B
P4	03A	- 15.5V	- SUPPLY	B
P4	03B	+3..4V LED	LED SUPPLY VARIABLE +3...4V	B
P4	04A	DO 0	DATA OUT 0 (ENABLE)	
P4	04B	INT 0	INTERUPT 0	
P4	05A	INT 1	INTERUPT 1	
P4	05B	INT 2	INTERUPT 2	
P4	06A	INT 3	INTERUPT 3	
P4	06B	INT 4	INTERUPT 4	
P4	07A	INT 5	INTERUPT 5	
P4	07B	INT 6	INTERUPT 6	
P4	08A	TSTB 0	TRANSMIT STROBE 0	
P4	08B	TSTB 1	TRANSMIT STROBE 1	
P4	09A	TSTB 2	TRANSMIT STROBE 2	
P4	09B	TSTB 3	TRANSMIT STROBE 3	
P4	10A	TSTB 4	TRANSMIT STROBE 4	
P4	10B	TSTB 5	TRANSMIT STROBE 5	
P4	11A	TSTB 6	TRANSMIT STROBE 6	
P4	11B	RXD 0	RECEIVE DATA 0	
P4	12A	RXD 1	RECEIVE DATA 1	
P4	12B	RXD 2	RECEIVE DATA 2	
P4	13A	RXD 3	RECEIVE DATA 3	
P4	13B	RXD 4	RECEIVE DATA 4	
P4	14A	RXD 5	RECEIVE DATA 5	
P4	14B	RXD 6	RECEIVE DATA 6	
P4	15A	TXD	TRANSMIT DATA	
P4	15B	RSTB	RECEIVE STROBE	
P4	16A	TCL	TRANSMIT CLOCK	
P4	16B	RCL	RECEIVE CLOCK	

Pin location list **1.990.430**

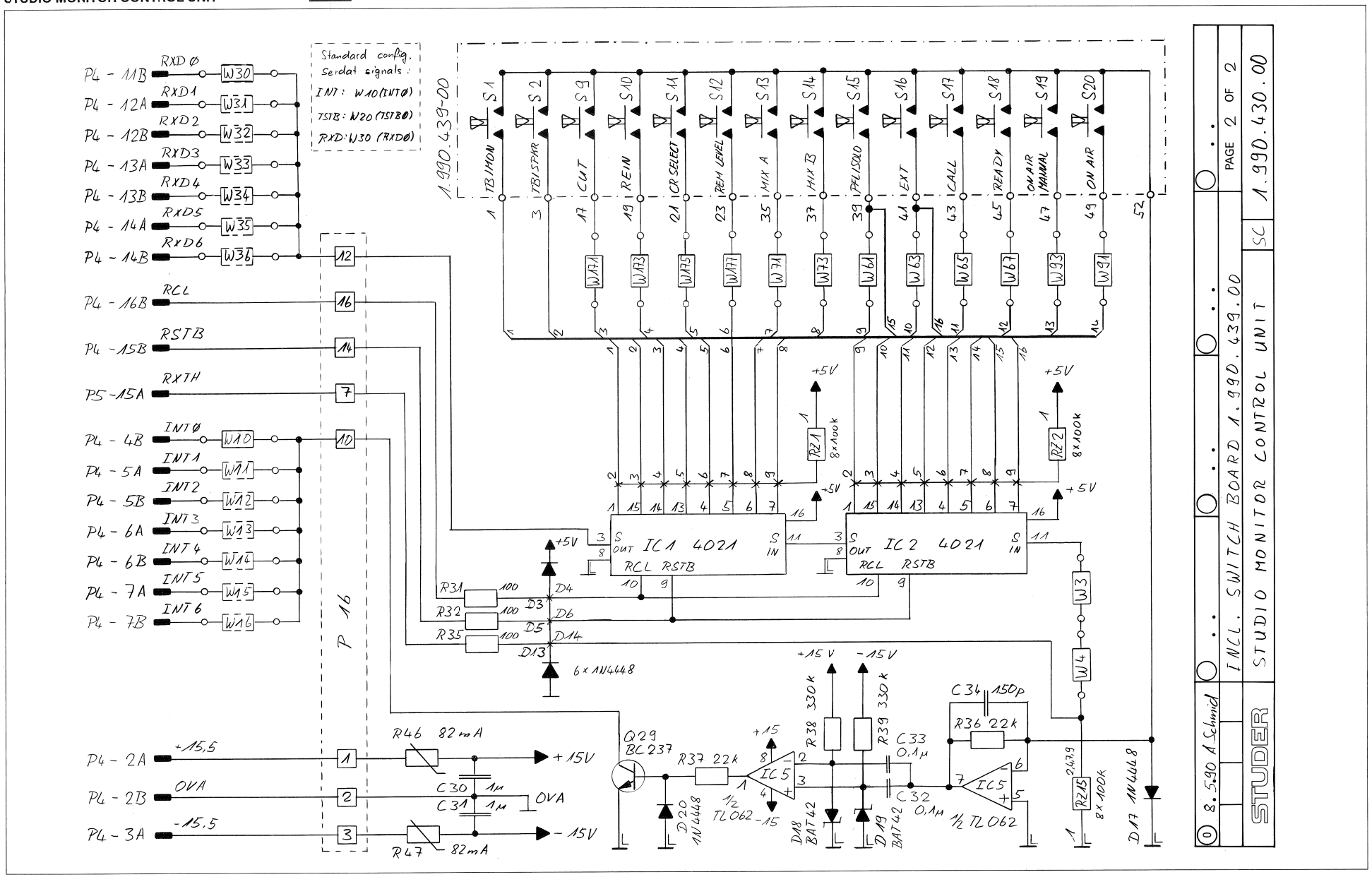
P5	01A	+4V	CONTROL VOLTAGE VCA			
P5	01B	+1V	CONTROL VOLTAGE VCA			
P5	02A	0V	CONTROL VOLTAGE VCA			
P5	02B	-10V	CONTROL VOLTAGE VCA			
P5	03A	--	N.C.			
P5	03B	-	N.C.			
P5	04A	-	N.C.			
P5	04B	-	N.C.			
P5	05A	-	N.C.			
P5	05B	-	N.C.			
P5	06A	-	N.C.			
P5	06B	-	N.C.			
P5	07A	-	N.C.			
P5	07B	-	N.C.			
P5	08A	-	N.C.			
P5	08B	-	N.C.			
P5	09A	-	N.C.			
P5	09B	-	N.C.			
P5	10A	-	N.C.			
P5	10B	-	N.C.			
P5	11A	-	N.C.			
P5	11B	-	N.C.			
P5	12A	-	N.C.			
P5	12B	-	N.C.			
P5	13A	CV-STUDIO-L	CTRL.VOLT.STUDIO LEVEL LEFT			
P5	13B	CV-STUDIO-R	CTRL.VOLT.STUDIO LEVEL RIGHT			
P5	14	0V-L	GROUND SIGN (LOGIC)	B	X	X
P5	15A	RXTH	RECEIVE DATA THROUGH			
P5	15B	TXTH	TRANSMIT DATA THROUGH			
P5	16	0V-L	GROUND SIGN (LOGIC)	B	X	X

STUDIO MONITOR CONTROL UNIT 1.990.430.00



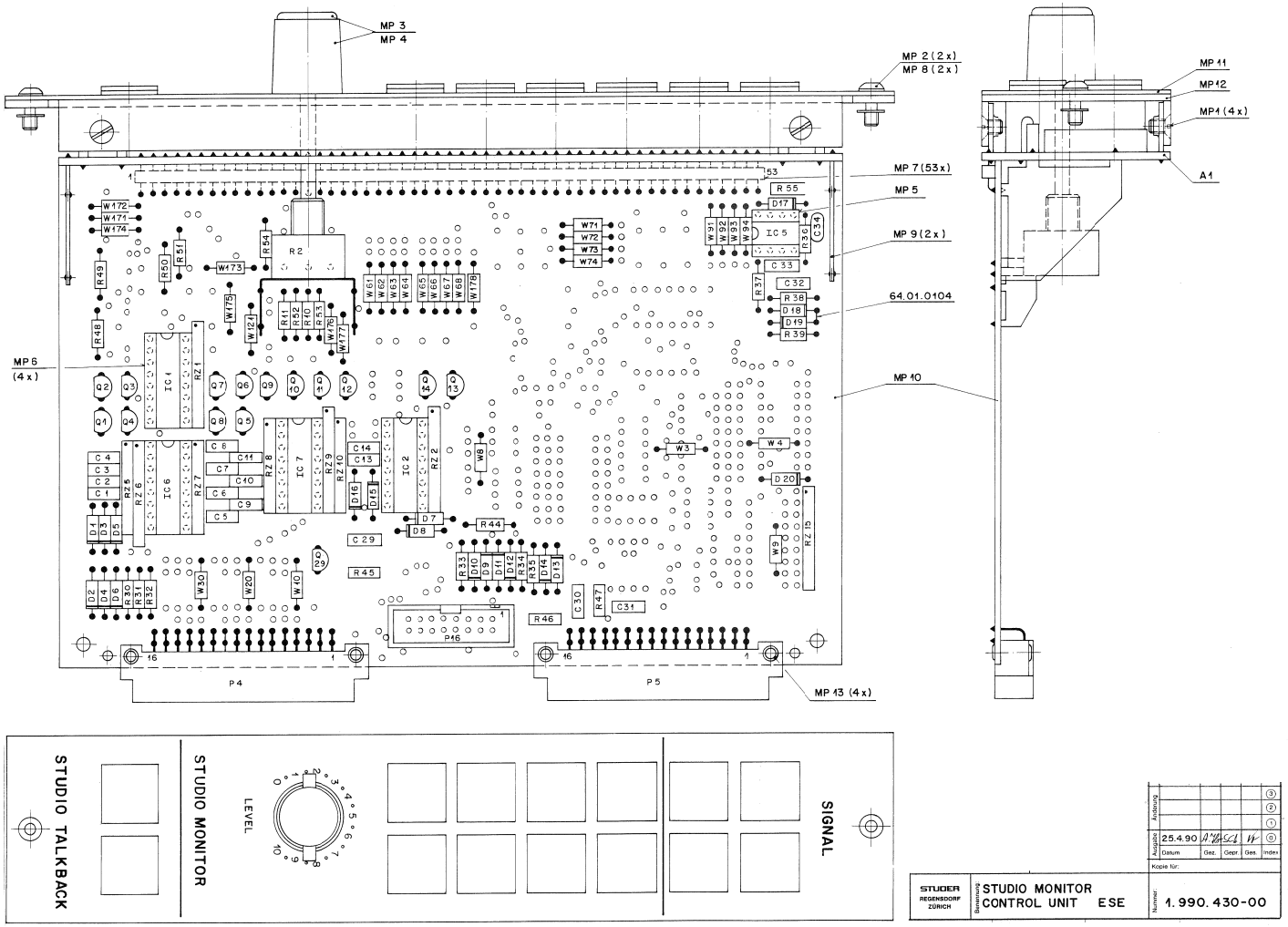
STUDIO MONITOR CONTROL UNIT

1.990.430.00



STUDIO MONITOR CONTROL UNIT ESE

1.990.430.00



Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
A	1	1.990.439.00	STUDIO MONITOR SWITCH BOARD		
C	1	59.34.4101	100 pF		CE
C	2	59.34.4101	100 pF		CE
C	3	59.34.4101	100 pF		CE
C	4	59.34.4101	100 pF		CE
C	5	59.34.4101	100 pF		CE
C	6	59.34.4101	100 pF		CE
C	7	59.34.4101	100 pF		CE
C	8	59.34.4101	100 pF		CE
C	9	59.34.4101	100 pF		CE
C	10	59.34.4101	100 pF		CE
C	11	59.34.4101	100 pF		CE
C	12	59.34.4101	100 pF		CE
C	13	59.34.4101	100 pF		CE
C	14	59.34.4101	100 pF		CE
C	29	59.06.0104	100 nF		PE
C	30	59.06.0104	100 nF		PE
C	31	59.06.0104	100 nF		PE
C	32	59.06.0104	100 nF		PE
C	33	59.06.0104	100 nF		PE
C	34	59.34.7151	150 pF		CE
D	1	50.04.0125	1N4448		
D	2	50.04.0125	1N4448		
D	3	50.04.0125	1N4448		
D	4	50.04.0125	1N4448		
D	5	50.04.0125	1N4448		
D	6	50.04.0125	1N4448		
D	7	50.04.0125	1N4448		
D	8	50.04.0125	1N4448		
D	9	50.04.0125	1N4448		
D	10	50.04.0125	1N4448		
D	11	50.04.0125	1N4448		
D	12	50.04.0125	1N4448		
D	13	50.04.0125	1N4448		
D	14	50.04.0125	1N4448		
D	15	50.04.0125	1N4448		
D	16	50.04.0125	1N4448		
D	17	50.04.0125	1N4448		
D	18	50.04.0127	BAT 42		
D	19	50.04.0127	BAT 42		
D	20	50.04.0125	1N4448		
IC	1	50.07.1021	CD4021		8-bit static shift register
IC	2	50.07.1021	CD4021		8-bit static shift register
IC	5	50.09.0119	TL 062		J FET dual op. amp.
IC	6	50.07.0018	CD4094		shift and store bus register
IC	7	50.07.0018	CD4094		shift and store bus register
MP	1	21.01.2352	4 pcs		S-Schr. M3*4
MP	2	24.16.3023	2 pcs		Wellensicherung 3mm
MP	3	42.01.0233	1 pcs		Knebelknopf D15/4 grau
MP	4	42.01.0257	1 pcs		Deckel hellgrau
MP	5	53.03.0166	1 pcs		IC-Socket 8-pol
MP	6	53.03.0168	4 pcs		IC-Socket 16-pol
MP	7	54.11.0125	53 pcs		Stiftenleiste winkel
MP	8	1.010.022.21	2 pcs		Linsenschraube IS M3*8
MP	9	1.990.100.01	2 pcs		Querprintstuetze
MP	10	1.990.420.11	1 pcs		CR-MONITOR PCB
MP	11	1.990.430.01	1 pcs		Frontschild STUDIO MONITOR CONTROL
MP	12	1.990.490.02	1 pcs		Traeger Source Selector
MP	13	28.99.0119	4 pcs		Rohrniete D 2.5*0.15*10
MP	14	43.01.0108	1 pcs		ESE-Schild
MP	15	1.990.430.04	1 pcs		Studer-Nr-Etikette 10*20
Q	1	50.03.0436	BC 237		
Q	2	50.03.0436	BC 237		
Q	3	50.03.0436	BC 237		
Q	4	50.03.0436	BC 237		
Q	5	50.03.0436	BC 237		
Q	6	50.03.0436	BC 237		
Q	7	50.03.0436	BC 237		
Q	8	50.03.0436	BC 237		
Q	9	50.03.0436	BC 237		
Q	10	50.03.0436	BC 237		
Q	11	50.03.0436	BC 237		
Q	12	50.03.0436	BC 237		
Q	13	50.03.0436	BC 237		
Q	14	50.03.0436	BC 237		
Q	29	50.03.0436	BC 237		
P	1	. . . 0	not used		see MP 7
P	2	54.14.2002	16 pin		PCB ribbon connector
P	4	54.11.2013	2*16 pin		eurocard-connector
P	5	54.11.2013	2*16 pin		eurocard-connector
R	2	1.010.039.58	100 k		Poti 20% lin (only used without balance)
R	3	. . . 0	not used		used in balance version only (1.010.032-58)
R	10	57.11.3104	100 kOhm	1%	MF
R	11	57.11.3223	22 kOhm	1%	MF
R	30	57.11.3101	100 Ohm	1%	MF
R	31	57.11.3101	100 Ohm	1%	MF
R	32	57.11.3101	100 Ohm	1%	MF
R	33	57.11.3101	100 Ohm	1%	MF
R	34	57.11.3101	100 Ohm	1%	MF
R	35	57.11.3101	100 Ohm	1%	MF
R	36	57.11.3223	22 kOhm	1%	MF
R	37	57.11.3223	22 kOhm	1%	MF

Änderung

Ausgabe 25.4.90 Datum Gez. Gepr. Ges. Index

Kopie für:

STUDER REGENSDORF ZÜRICH | Benennung: STUDIO MONITOR CONTROL UNIT ESE | Nummer: 1.990.430-00

STUDIO MONITOR CONTROL UNIT ESE

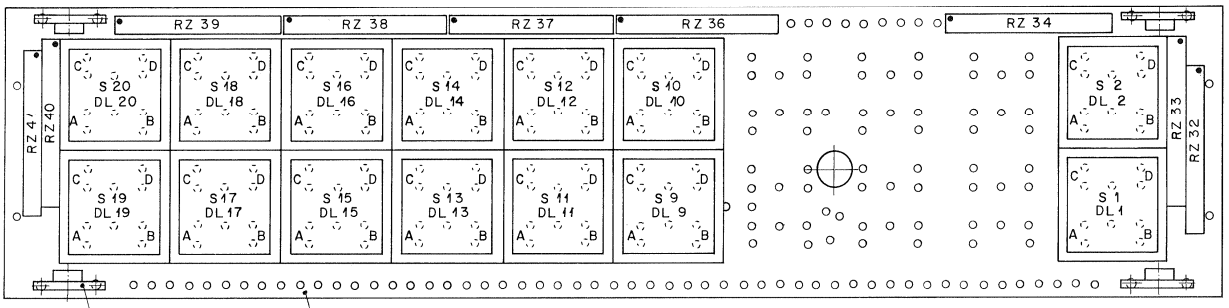
1.990.430.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R....38	57.11.3334	330 kOhm 1% MF	
	R....39	57.11.3334	330 kOhm 1% MF	
	R....44	57.11.3101	100 Ohm 1% MF	
	R....45	57.92.1820	82 mA PTC 42 Ohm	
	R....46	57.92.1820	82 mA PTC 42 Ohm	
	R....47	57.92.1820	82 mA PTC 42 Ohm	
	R....48	. . 0	not used used in balance version only (57113134)	
	R....49	. . 0	not used used in balance version only (57113134)	
	R....50	. . 0	not used used in balance version only (57113362)	
	R....51	. . 0	not used used in balance version only (57113473)	
	R....52	57.11.3104	100 kOhm 1% MF	
	R....53	. . 0	not used used in balance version only (57113363)	
	R....54	. . 0	not used used in balance version only (57113363)	
	R....55	57.92.7016	1.6 A R-PTC 0.22 Ohm	
	W.....3	57.11.3000	0 Ohm wire bridge RXTH to IC 2	
	W.....4	57.11.3000	0 Ohm wire bridge RXTH to W 3	
	W.....8	57.11.3000	0 Ohm wire bridge TXD to IC 7	
	W.....9	57.11.3000	0 Ohm wire bridge TXD to W 8	
	W....10	57.11.3000	0 Ohm wire bridge SERDAT #0 (INT 0)	
	W....11	. . 0	not used wire bridge SERDAT #1 INT 1 57113000	
	W....12	. . 0	not used wire bridge SERDAT #2 INT 2 57113000	
	W....13	. . 0	not used wire bridge SERDAT #3 INT 3 57113000	
	W....14	. . 0	not used wire bridge SERDAT #4 INT 4 57113000	
	W....15	. . 0	not used wire bridge SERDAT #5 INT 5 57113000	
	W....16	. . 0	not used wire bridge SERDAT #6 INT 6 57113000	
	W....20	57.11.3000	0 Ohm wire bridge SERDAT #0 (TSTB 0)	
	W....21	. . 0	not used wire bridge SERDAT #1 TSTB 1 57113000	
	W....22	. . 0	not used wire bridge SERDAT #2 TSTB 2 57113000	
	W....23	. . 0	not used wire bridge SERDAT #3 TSTB 3 57113000	
	W....24	. . 0	not used wire bridge SERDAT #4 TSTB 4 57113000	
	W....25	. . 0	not used wire bridge SERDAT #5 TSTB 5 57113000	
	W....26	. . 0	not used wire bridge SERDAT #6 TSTB 6 57113000	
	W....30	57.11.3000	0 Ohm wire bridge SERDAT #0 (RXD 0)	
	W....31	. . 0	not used wire bridge SERDAT #1 RXD 1 57113000	
	W....32	. . 0	not used wire bridge SERDAT #2 RXD 2 57113000	
	W....33	. . 0	not used wire bridge SERDAT #3 RXD 3 57113000	
	W....34	. . 0	not used wire bridge SERDAT #4 RXD 4 57113000	
	W....35	. . 0	not used wire bridge SERDAT #5 RXD 5 57113000	
	W....36	. . 0	not used wire bridge SERDAT #6 RXD 6 57113000	
	W....61	57.11.3000	0 Ohm wire bridge	
	W....62	57.11.3000	0 Ohm wire bridge	
	W....63	57.11.3000	0 Ohm wire bridge	
	W....64	57.11.3000	0 Ohm wire bridge	
	W....65	57.11.3000	0 Ohm wire bridge	
	W....66	57.11.3000	0 Ohm wire bridge	
	W....67	57.11.3000	0 Ohm wire bridge	
	W....68	57.11.3000	0 Ohm wire bridge	
	W....71	57.11.3000	0 Ohm wire bridge	
	W....72	57.11.3000	0 Ohm wire bridge	
	W....73	57.11.3000	0 Ohm wire bridge	
	W....74	57.11.3000	0 Ohm wire bridge	
	W....91	57.11.3000	0 Ohm wire bridge	
	W....92	57.11.3000	0 Ohm wire bridge	
	W....93	57.11.3000	0 Ohm wire bridge	
	W....94	57.11.3000	0 Ohm wire bridge	
	W...171	57.11.3000	0 Ohm wire bridge	
	W...172	57.11.3000	0 Ohm wire bridge	
	W...173	57.11.3000	0 Ohm wire bridge	
	W...174	57.11.3000	0 Ohm wire bridge	
	W...175	57.11.3000	0 Ohm wire bridge	
	W...176	57.11.3000	0 Ohm wire bridge	
	W...177	57.11.3000	0 Ohm wire bridge	
	W...178	57.11.3000	0 Ohm wire bridge	
	W...120	. . 0	not used used only for CR LEVEL -100dB...+0dB	
	W...121	57.11.3000	0 Ohm wire bridge CR LEVEL -100dB...+10dB	
	W...124	. . 0	not used only used for CR LEVEL -100dB...+40dB	
	RZ....1	57.88.4104	100 kOhm 2% resistor-network	
	RZ....2	57.88.4104	100 kOhm 2% resistor-network	
	RZ....5	57.88.2682	6.8 kOhm 2% resistor-network	
	RZ....6	57.88.4104	100 kOhm 2% resistor-network	
	RZ....7	57.88.2682	6.8 kOhm 2% resistor-network	
	RZ....8	57.88.2682	6.8 kOhm 2% resistor-network	
	RZ....9	57.88.4104	100 kOhm 2% resistor-network	
	RZ...10	57.88.2682	6.8 kOhm 2% resistor-network	
	RZ...15	57.88.4104	100 kOhm 2% resistor-network	

CE=Ceramic, PE=Polyester
MF=Metal Film

1.990.430.00 STUDIO MONITOR CONTROL UNIT SCA90/12/0500

STUDIO MONITOR SWITCH BOARD 1.990.439.00



Änderung					
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Ausgabe	6.3.90				0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: STUDIO MONITOR SWITCH BOARD	Nummer: 1.990.439-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	DL....1	. . 0	not used see S 01	
	DL....2	. . 0	not used see S 02	
	DL....9	. . 0	not used see S 09	
	DL...10	. . 0	not used see S 10	
	DL...11	. . 0	not used see S 11	
	DL...12	. . 0	not used see S 12	
	DL...13	. . 0	not used see S 13	
	DL...14	. . 0	not used see S 14	
	DL...15	. . 0	not used see S 15	
	DL...16	. . 0	not used see S 16	
	DL...17	. . 0	not used see S 17	
	DL...18	. . 0	not used see S 18	
	DL...19	. . 0	not used see S 19	
	DL...20	. . 0	not used see S 20	
	MP....1	1.990.100.05	4 pcs Querprinthalter	
	MP....2	1.990.429.11	1 pcs CR MONITOR SWITCH PCB	
	MP....3	1.990.439.04	1 pcs Nr-Etikette 5*20	
	S.....1	55.15.0722	Taste 1*A,12mm RT/RT T/B MON	
	S.....2	55.15.0722	Taste 1*A,12mm RT/RT T/B SPKR	
	S.....9	55.15.0702	Taste 1*A,12mm RT/Trans CUT	
	S....10	55.15.0705	Taste 1*A,12mm GN/Trans REIN	
	S....11	55.15.0704	Taste 1*A,12mm GB/Trans CR SELECT	
	S....12	55.15.0705	Taste 1*A,12mm GN/Trans REMOTE LEVEL	
	S....13	55.15.0704	Taste 1*A,12mm GB/Trans MIX A	
	S....14	55.15.0704	Taste 1*A,12mm GB/Trans MIX B	
	S....15	55.15.0704	Taste 1*A,12mm GB/Trans PFL/SOLO	
	S....16	55.15.0704	Taste 1*A,12mm GB/Trans EXT.	
	S....17	55.15.0704	Taste 1*A,12mm GB/Trans CALL	
	S....18	55.15.0705	Taste 1*A,12mm GN/Trans READY	
	S....19	55.15.0702	Taste 1*A,12mm RT/Trans ON AIR MANUAL	
	S....20	55.15.0722	Taste 1*A,12mm RT/RT ON AIR	
	RZ...32	57.88.4101	100 Ohm 2% ,8*	
	RZ...33	57.88.4101	100 Ohm 2% ,8*	
	RZ...34	57.88.4101	100 Ohm 2% ,8*	
	RZ...36	57.88.4101	100 Ohm 2% ,8*	
	RZ...37	57.88.4101	100 Ohm 2% ,8*	
	RZ...38	57.88.4101	100 Ohm 2% ,8*	
	RZ...39	57.88.4101	100 Ohm 2% ,8*	
	RZ...40	57.88.4101	100 Ohm 2% ,8*	
	RZ...41	57.88.4101	100 Ohm 2% ,8*	

CER=Ceramic, PE=Polyester
MF=Metal Film, PMG=Cermet

MANUFACTURER: Ex=Exar, NEC=Nippon Electric Corp., Ph=Philips,
Sig=Signetics, St=Studer.

1.990.439.00 STUDIO MONITOR SWITCH BOARD SCA89/07/0500

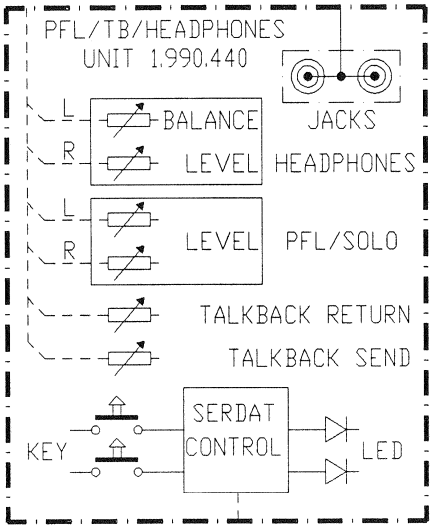
PFL/Talk Back/Headphone Unit 1.990.440.00

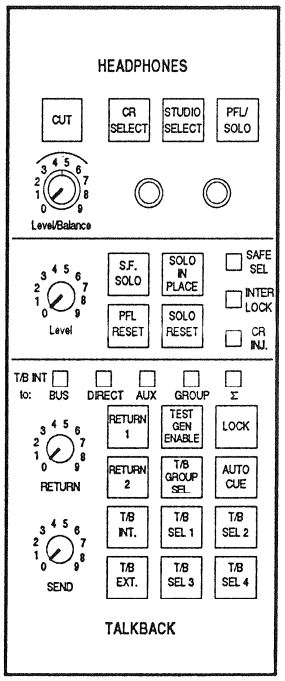
PFL/TB/Headphone Unit
1.990.440.00

SC 1.990.440.00
BP 1.990.440.00
PL 1.990.440.00
Pin Loc 1.990.440.00

1x — PFL/TB/Headphone Switch Board
1.990.449.00

SC 1.990.440.00
BP 1.990.449.00
PL 1.990.449.00





SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

Pin location list

1.990.440

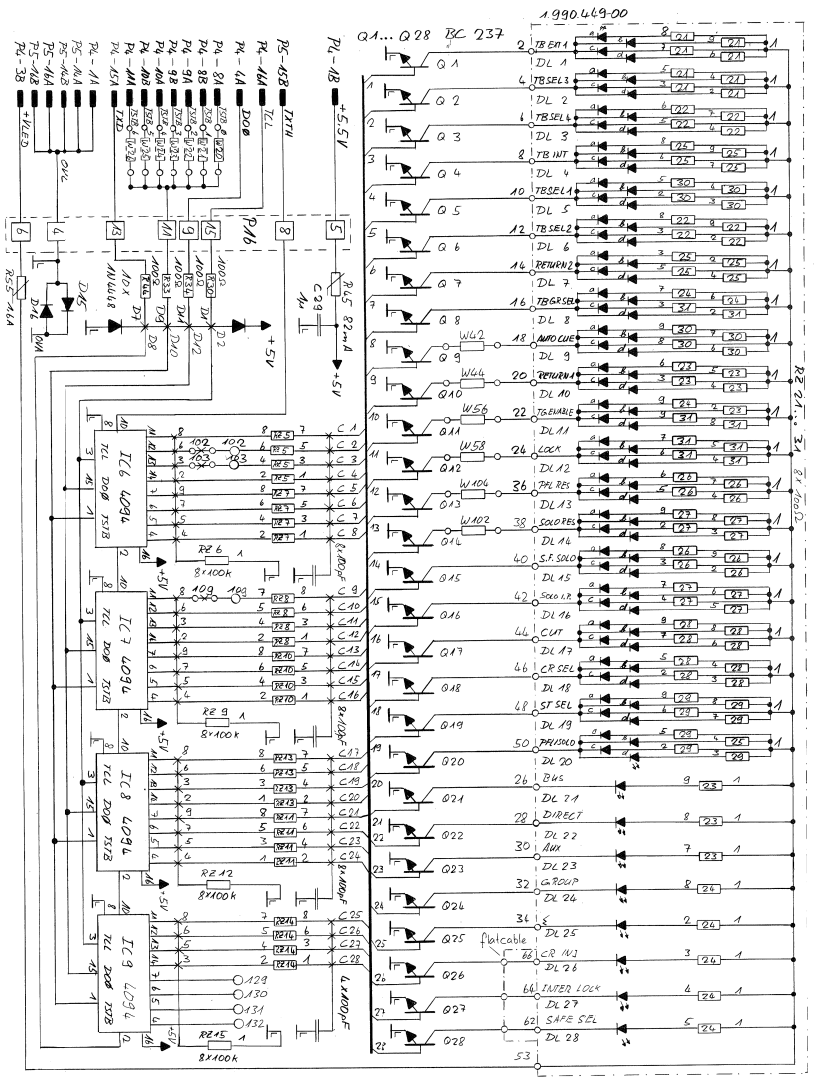
P	NO	NAME	REMARK	B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC
P4	01A	0V-L	GROUND SIGN (LOGIC)	B
P4	01B	+ 5.5V	+ SUPPLY	B
P4	02A	+ 15.5V	+ SUPPLY	B
P4	02B	0V-A	GROUND AUDIO	B
P4	03A	- 15.5V	- SUPPLY	B
P4	03B	+3..4V LED	LED SUPPLY VARIABLE +3...4V	B
P4	04A	DO 0	DATA OUT 0 (ENABLE)	
P4	04B	INT 0	INTERUPT 0	
P4	05A	INT 1	INTERUPT 1	
P4	05B	INT 2	INTERUPT 2	
P4	06A	INT 3	INTERUPT 3	
P4	06B	INT 4	INTERUPT 4	
P4	07A	INT 5	INTERUPT 5	
P4	07B	INT 6	INTERUPT 6	
P4	08A	TSTB 0	TRANSMIT STROBE 0	
P4	08B	TSTB 1	TRANSMIT STROBE 1	
P4	09A	TSTB 2	TRANSMIT STROBE 2	
P4	09B	TSTB 3	TRANSMIT STROBE 3	
P4	10A	TSTB 4	TRANSMIT STROBE 4	
P4	10B	TSTB 5	TRANSMIT STROBE 5	
P4	11A	TSTB 6	TRANSMIT STROBE 6	
P4	11B	RXD 0	RECEIVE DATA 0	
P4	12A	RXD 1	RECEIVE DATA 1	
P4	12B	RXD 2	RECEIVE DATA 2	
P4	13A	RXD 3	RECEIVE DATA 3	
P4	13B	RXD 4	RECEIVE DATA 4	
P4	14A	RXD 5	RECEIVE DATA 5	
P4	14B	RXD 6	RECEIVE DATA 6	
P4	15A	TXD	TRANSMIT DATA	
P4	15B	RSTB	RECEIVE STROBE	
P4	16A	TCL	TRANSMIT CLOCK	
P4	16B	RCL	RECEIVE CLOCK	

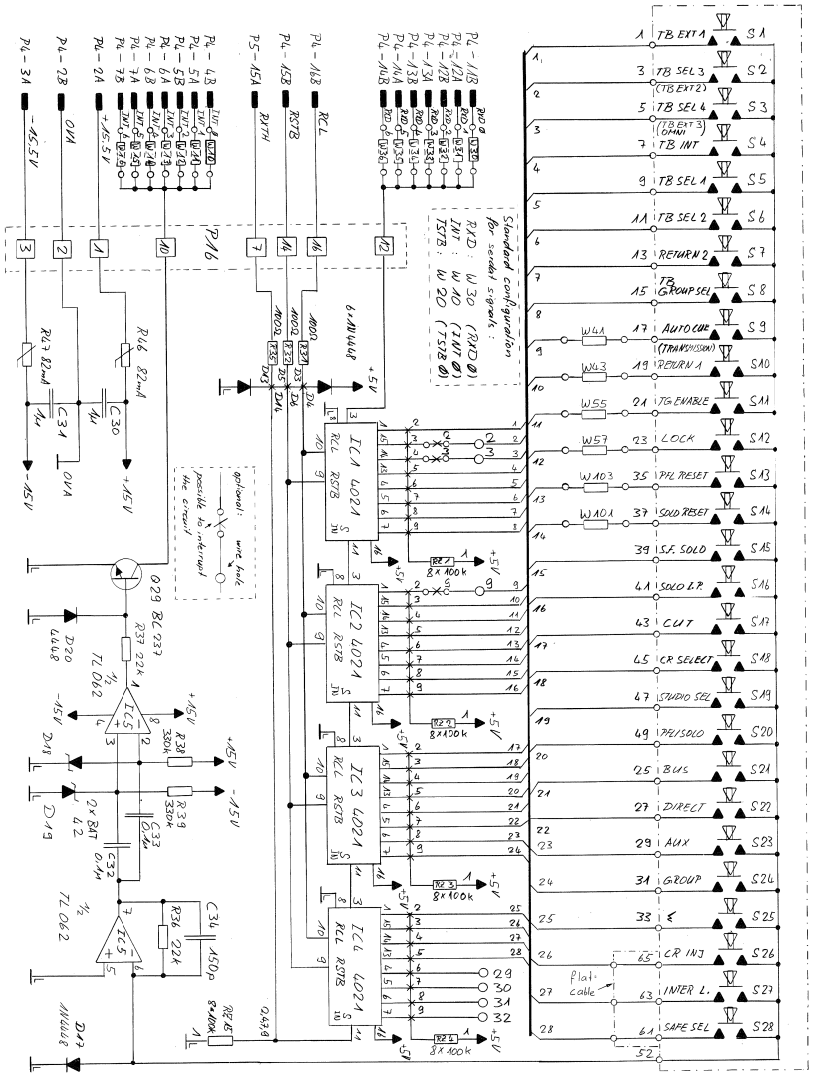
Pin location list **1.990.440**

P5	01A	+4V	CONTROL VOLTAGE VCA
P5	01B	+1V	CONTROL VOLTAGE VCA
P5	02A	0V	CONTROL VOLTAGE VCA
P5	02B	-10V	CONTROL VOLTAGE VCA
P5	03A	CV-PHONES-L	CONTROL VOLTAGE HEADPHONE L
P5	03B	CV-PHONES-R	CONTROL VOLTAGE HEADPHONE R
P5	04A	CV-PFL-L	CONTROL VOLTAGE PFL LEFT
P5	04B	CV-PFL-R	CONTROL VOLTAGE PFL RIGHT
P5	05A	-	N.C.
P5	05B	-	N.C.
P5	06A	-	N.C.
P5	06B	-	N.C.
P5	07A	-	N.C.
P5	07B	-	N.C.
P5	08A	-	N.C.
P5	08B	-	N.C.
P5	09A	PHO.IN -1-L	PHONE INPUT 1 LEFT
P5	09B	PHO.IN -1-R	PHONE INPUT 1 RIGHT
P5	10A	PHO.OUT-1-L	PHONE OUTPUT 1 LEFT
P5	10B	PHO.OUT-1-R	PHONE OUTPUT 1 RIGHT
P5	11A	PHONE 1 0V	GROUND SIGN PHONE 1
P5	11B	PHONE 2-0V	GROUND SIGN PHONE 2
P5	12A	PHO.IN-2-L	INPUT PHONE 2 LEFT
P5	12B	PHO.IN-2-R	INPUT PHONE 2 RIGHT
P5	13A	CV-SEND	CTRL.VOLTAGE SEND LEVEL
P5	13B	CV-RETURN	CTRL.VOLTAGE RETURN LEVEL
P5	14	0V-L	GROUND SIGN (LOGIC)
P5	15A	RXTH	RECEIVE DATA THROUGH
P5	15B	TXTH	TRANSMIT DATA THROUGH
P5	16	0V-L	GROUND SIGN (LOGIC)

PFL/TB/HEADPHONE UNIT

1.990.440.00



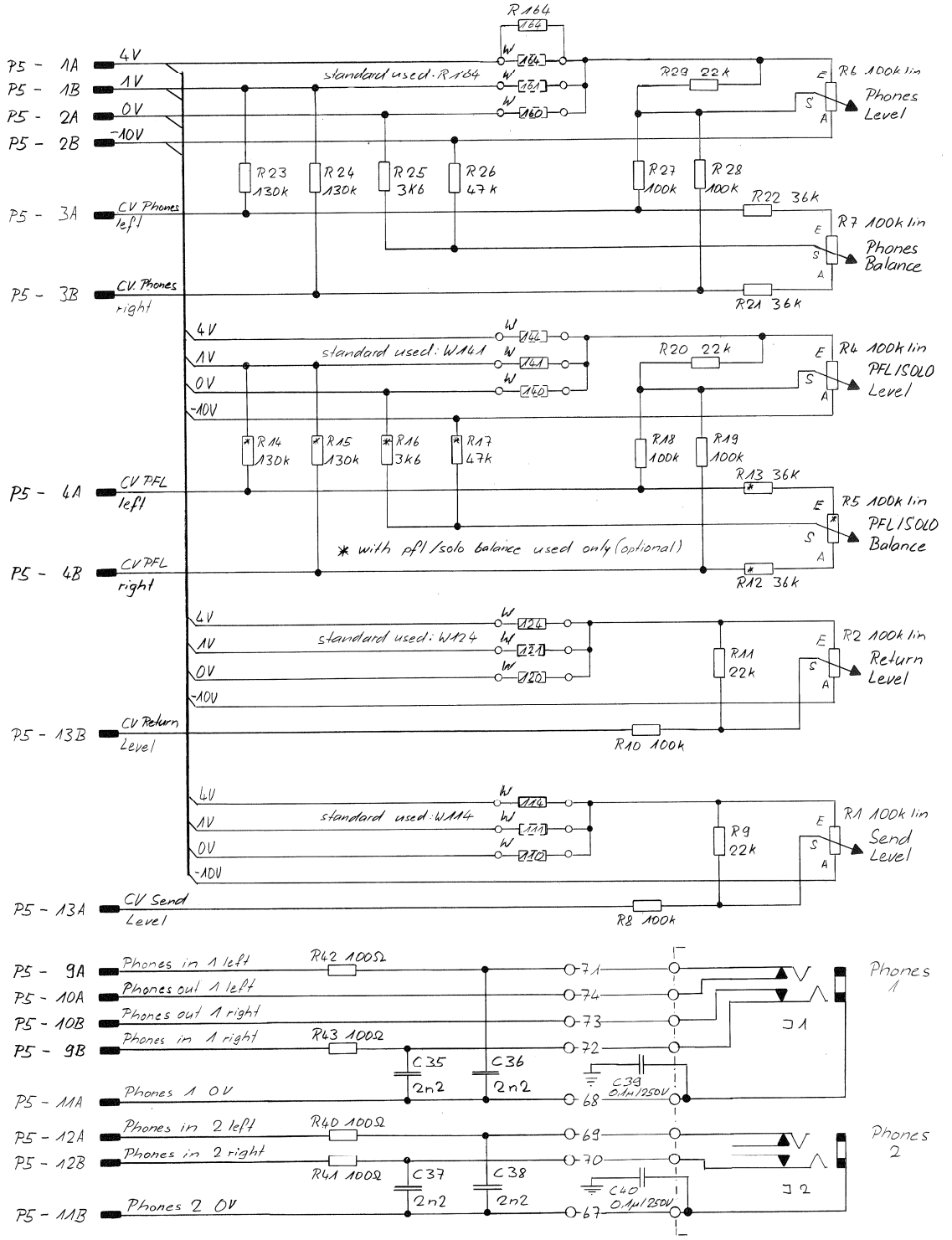


0 15.5.90 A.Schmid	. .	. .	. .	. .
	INCL. SWITCH BOARD 1.990.469.00			PAGE 1 OF 3
STUDER	PFL/TB/HEADPHONE UNIT		SC	1.990.440.00

0 15.5.90 A.Schmid	. .	. .	. .	. .
	INCL. SWITCH BOARD 1.990.469.00			PAGE 2 OF 3
STUDER	PFL/TB/HEADPHONE UNIT		SC	1.990.440.00

PFL/TB/HEADPHONE UNIT

1.990.440.00



0 19.4.90 A.Schmid	12.1290	. .	. .	. .
				PAGE 3 OF 3
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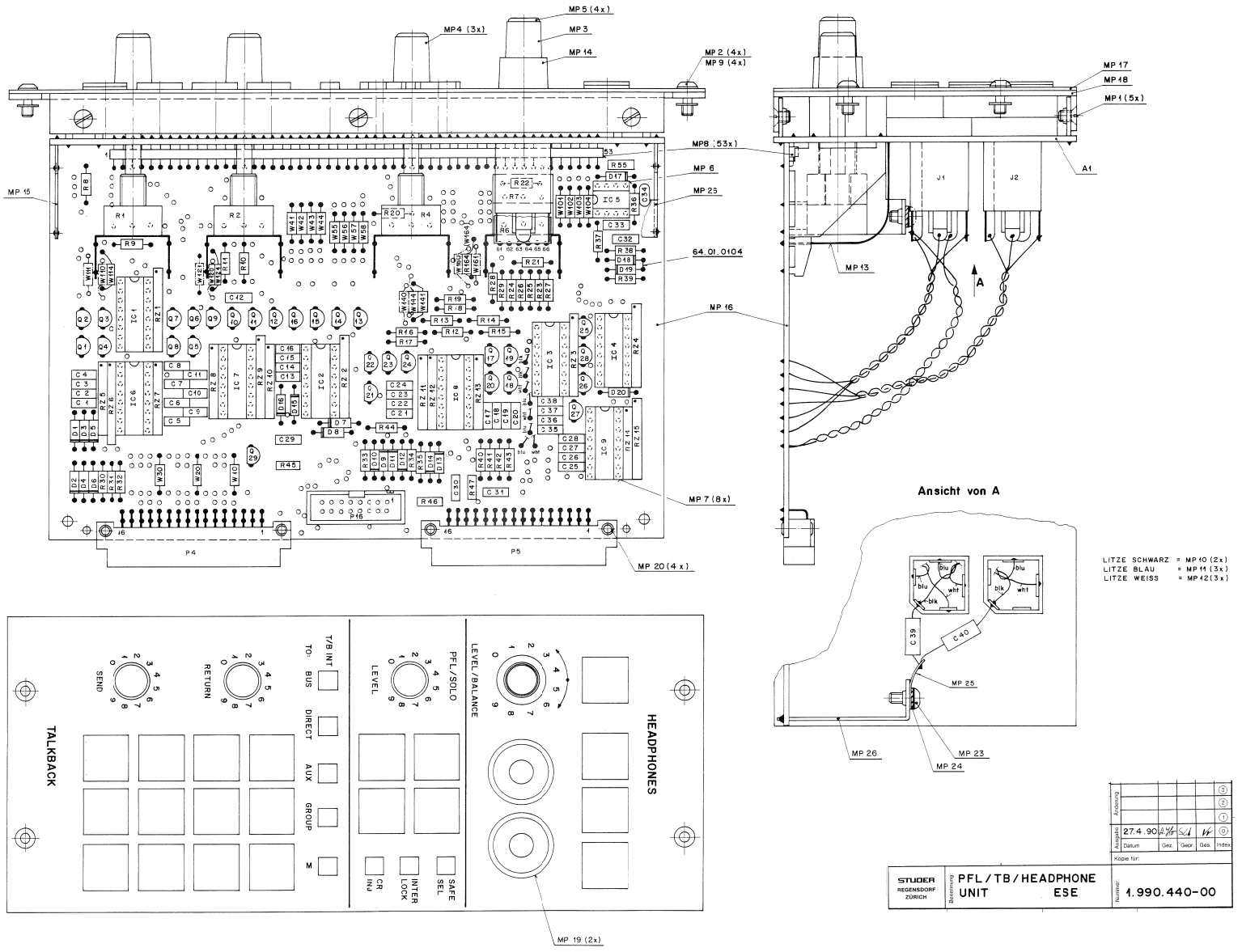
PFL/TB/HEADPHONE UNIT

1.990.440.00



Ausgabe	Änderung				
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27.4.90					0
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Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: PFL / TB / HEADPHONE UNIT ESE	Nummer: 1.990.440-00

PFL/TB/HEADPHONE UNIT ESE

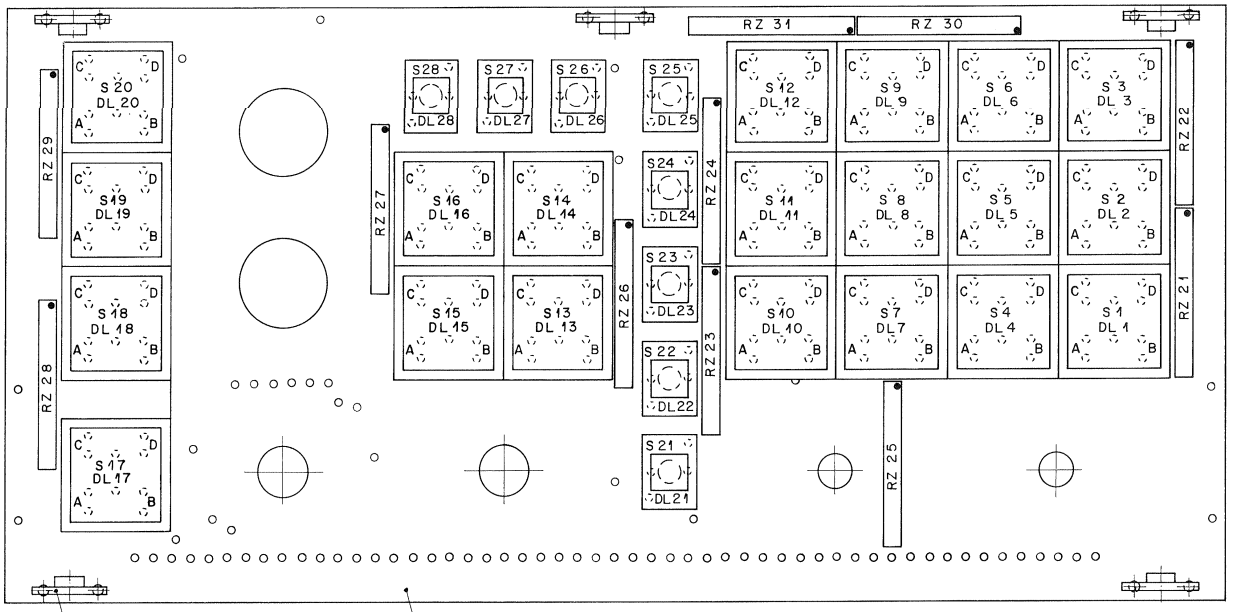
1.990.440.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	A.....1	1.990.449.00	PFL/TB/PHONES SWITCH BOARD	
	C.....1	59.34.4101	100 pF CE	
	C.....2	59.34.4101	100 pF CE	
	C.....3	59.34.4101	100 pF CE	
	C.....4	59.34.4101	100 pF CE	
	C.....5	59.34.4101	100 pF CE	
	C.....6	59.34.4101	100 pF CE	
	C.....7	59.34.4101	100 pF CE	
	C.....8	59.34.4101	100 pF CE	
	C.....9	59.34.4101	100 pF CE	
	C....10	59.34.4101	100 pF CE	
	C....11	59.34.4101	100 pF CE	
	C....12	59.34.4101	100 pF CE	
	C....13	59.34.4101	100 pF CE	
	C....14	59.34.4101	100 pF CE	
	C....15	59.34.4101	100 pF CE	
	C....16	59.34.4101	100 pF CE	
	C....17	59.34.4101	100 pF CE	
	C....18	59.34.4101	100 pF CE	
	C....19	59.34.4101	100 pF CE	
	C....20	59.34.4101	100 pF CE	
	C....21	59.34.4101	100 pF CE	
	C....22	59.34.4101	100 pF CE	
	C....23	59.34.4101	100 pF CE	
	C....24	59.34.4101	100 pF CE	
	C....25	59.34.4101	100 pF CE	
	C....26	59.34.4101	100 pF CE	
	C....27	59.34.4101	100 pF CE	
	C....28	59.34.4101	100 pF CE	
	C....29	59.06.0104	100 nF PE	
	C....30	59.06.0104	100 nF PE	
	C....31	59.06.0104	100 nF PE	
	C....32	59.06.0104	100 nF PE	
	C....33	59.06.0104	100 nF PE	
	C....34	59.34.7151	150 pF CE	
	C....35	59.06.0222	2.2 nF PE	
	C....36	59.06.0222	2.2 nF PE	
	C....37	59.06.0222	2.2 nF PE	
	C....38	59.06.0222	2.2 nF PE	
	C....39	59.03.2104	0.1 uF MPETP 10% 160/250V	
	C....40	59.03.2104	0.1 uF MPETP 10% 160/250V	
	D.....1	50.04.0125	1N4448	
	D.....2	50.04.0125	1N4448	
	D.....3	50.04.0125	1N4448	
	D.....4	50.04.0125	1N4448	
	D.....5	50.04.0125	1N4448	
	D.....6	50.04.0125	1N4448	
	D.....7	50.04.0125	1N4448	
	D.....8	50.04.0125	1N4448	
	D.....9	50.04.0125	1N4448	
	D....10	50.04.0125	1N4448	
	D....11	50.04.0125	1N4448	
	D....12	50.04.0125	1N4448	
	D....13	50.04.0125	1N4448	
	D....14	50.04.0125	1N4448	
	D....15	50.04.0125	1N4448	
	D....16	50.04.0125	1N4448	
	D....17	50.04.0125	1N4448	
	D....18	50.04.0127	BAT 42	
	D....19	50.04.0127	BAT 42	
	D....20	50.04.0125	1N4448	
	IC....1	50.07.1021	CD4021 8-bit static shift register	
	IC....2	50.07.1021	CD4021 8-bit static shift register	
	IC....3	50.07.1021	CD4021 8-bit static shift register	
	IC....4	50.07.1021	CD4021 8-bit static shift register	
	IC....5	50.09.0119	TL 062 J FET dual op. amp.	
	IC....6	50.07.0018	CD4094 shift and store bus register	
	IC....7	50.07.0018	CD4094 shift and store bus register	
	IC....8	50.07.0018	CD4094 shift and store bus register	
	IC....9	50.07.0018	CD4094 shift and store bus register	
	J.....1	54.24.0103	6.3 mm 3 pol-Klinke 6.3mm	
	J.....2	54.24.0103	6.3 mm 3 pol-Klinke 6.3mm	
	MP....1	21.01.2352	5 pcs S-Schr. M3*4	
	MP....2	24.16.3023	4 pcs Wellensicherung 3mm	
	MP....3	42.01.0203	1 pcs Knopf grau D 10/4	
	MP....4	42.01.0228	3 pcs Knebelknopf grau D 10/4	
	MP....5	42.01.0250	4 pcs Deckel flach hellgrau	
	MP....6	53.03.0166	1 pcs IC-Socket 8-pol	
	MP....7	53.03.0168	8 pcs IC-Socket 16-pol	
	MP....8	54.11.0125	53 pcs Stiftleiste winkel	
	MP....9	1.010.022.21	4 pcs Linsenrundschrauben M3*8 IS	
	MP...10	1.010.210.64	2 pcs Litze 120mm schwarz mit 1 Rastloetn.	
	MP...11	1.010.216.64	3 pcs Litze 120mm blau mit 1 Rastloetn.	
	MP...12	1.010.219.64	3 pcs Litze 120mm weiss mit 1 Rastloetn.	
	MP...13	64.03.0505	1 pcs Flachkabel konf. 22,5A-6 pol	
	MP...14	1.912.000.03	1 pcs Drehring D 6.2/13	
	MP...15	1.990.100.01	1 pcs Querprintstuetze	
	MP...16	1.990.420.11	1 pcs CR-MONITOR PCB	
	MP...17	1.990.440.01	1 pcs Frontschild PFL/TB/PHONES CONTRO.	
	MP...18	1.990.440.02	1 pcs Traeger PFL/TB/PHONES CONTROL	
	MP...19	1.990.440.03	2 pcs Fuehrungsbuchse Jack	
	MP...20	28.99.0119	4 pcs Rohrniete D 2.5*O.15*10	
	MP...21	43.01.0108	1 pcs ESE-Schild	
	MP...22	1.990.440.04	1 pcs Studer-Nr-Etikette	
	MP...23	21.51.8354	1 pcs LS-Schraube Innensechskant M3*6	
	MP...24	24.16.2030	1 pcs Faecherscheibe M3	
	MP...25	29.26.1022	1 pcs Loetoese M3	
	MP...26	1.990.100.03	1 pcs Querprintstuetze rechts	
	Q.....1	50.03.0436	BC 237	
	Q.....2	50.03.0436	BC 237	
	Q.....3	50.03.0436	BC 237	
	Q.....4	50.03.0436	BC 237	
	Q.....5	50.03.0436	BC 237	
	Q.....6	50.03.0436	BC 237	
	Q.....7	50.03.0436	BC 237	
	Q.....8	50.03.0436	BC 237	
	Q.....9	50.03.0436	BC 237	
	Q....10	50.03.0436	BC 237	
	Q....11	50.03.0436	BC 237	
	Q....12	50.03.0436	BC 237	
	Q....13	50.03.0436	BC 237	
	Q....14	50.03.0436	BC 237	
	Q....15	50.03.0436	BC 237	
	Q....16	50.03.0436	BC 237	
	Q....17	50.03.0436	BC 237	
	Q....18	50.03.0436	BC 237	
	Q....19	50.03.0436	BC 237	
	Q....20	50.03.0436	BC 237	
	Q....21	50.03.0436	BC 237	
	Q....22	50.03.0436	BC 237	
	Q....23	50.03.0436	BC 237	
	Q....24	50.03.0436	BC 237	
	Q....25	50.03.0436	BC 237	
	Q....26	50.03.0436	BC 237	
	Q....27	50.03.0436	BC 237	
	Q....28	50.03.0436	BC 237	
	Q....29	50.03.0436	BC 237	
	P.....1	. . 0	not used see MP 8	
	P.....2	54.14.2002	16 pin PC8 ribbon connector	
	P.....4	54.11.2013	2*16 pin eurocard-connector	
	P.....5	54.11.2013	2*16 pin eurocard-connector	
	R.....1	1.010.027.58	100 kOhm Poti 20% lin SEND LEVEL	
	R.....2	1.010.027.58	100 kOhm Poti 20% lin RETURN LEVEL	
	R.....4	1.010.027.58	100 kOhm Poti used only in version without balance	
	R.....5	. . 0	not used used only in balance version(1.010.032-58)	
	R.....6	1.010.032.58	100 kOhm Poti incl. R7 (100k lin) PHONES LEVEL/BAL	
	R.....7	. . 0	not used see R 6	
	R.....8	57.11.3104	100 kOhm 1% MF	
	R.....9	57.11.3223	22 kOhm 1% MF	
	R....10	57.11.3104	100 kOhm 1% MF	
	R....11	57.11.3223	22 kOhm 1% MF	
	R....12	. . 0	not used used only in balance version (57113363)	
	R....13	. . 0	not used used only in balance version (57113363)	
	R....14	. . 0	not used used only in balance version (57113134)	
	R....15	. . 0	not used used only in balance version (57113134)	
	R....16	. . 0	not used used only in balance version (57113362)	
	R....17	. . 0	not used used only in balance version (57113473)	
	R....18	57.11.3104	100 kOhm 1% MF	
	R....19	57.11.3104	100 kOhm 1% MF	
	R....20	57.11.3223	22 kOhm 1% MF	
	R....21	57.11.3363	36 kOhm 1% MF	
	R....22	57.11.3363	36 kOhm 1% MF	
	R....23	57.11.3134	130 kOhm 1% MF	
	R....24	57.11.3134	130 kOhm 1% MF	
	R....25	57.11.3362	3.6 kOhm 1% MF	
	R....26	57.11.3473	47 kOhm 1% MF	
	R....27	57.11.3104	100 kOhm 1% MF	
	R....28	57.11.3104	100 kOhm 1% MF	
	R....29	57.11.3223	22 kOhm 1% MF	
	R....30	57.11.3101	100 Ohm 1% MF	
	R....31	57.11.3101	100 Ohm 1% MF	
	R....32	57.11.3101	100 Ohm 1% MF	
	R....33	57.11.3101	100 Ohm 1% MF	
	R....34	57.11.3101	100 Ohm 1% MF	
	R....35	57.11.3101	100 Ohm 1% MF	
	R....36	57.11.3223	22 kOhm 1% MF	
	R....37	57.11.3223	22 kOhm 1% MF	
	R....38	57.11.3334	330 kOhm 1% MF	
	R....39	57.11.3334	330 kOhm 1% MF	
	R....40	57.11.3101	100 Ohm 1% MF	
	R....41	57.11.3101	100 Ohm 1% MF	
	R....42	57.11.3101	100 Ohm 1% MF	
	R....43	57.11.3101	100 Ohm 1% MF	
	R....44	57.11.3101	100 Ohm 1% MF	
	R....45	57.92.1820	82 mA PTC 42 Ohm	
	R....46	57.92.1820	82 mA PTC 42 Ohm	
	R....47	57.92.1820	82 mA PTC 42 Ohm	
	R....55	57.92.7016	1.60 A R-PTC 0.14 Ohm	
	R...164	57.11.3682	6.8 kOhm 1% MF PHONES LEVEL -100dB...+31dB	
	W....10	57.11.3000	0 Ohm wire bridge SERDAT #0 (INT 0)	
	W....11	. . 0	not used wire bridge SERDAT #1 INT 1 57113000	
	W....12	. . 0	not used wire bridge SERDAT #2 INT 2 57113000	
	W....13	. . 0	not used wire bridge SERDAT #3 INT 3 57113000	
	W....14	. . 0	not used wire bridge SERDAT #4 INT 4 57113000	
	W....15	. . 0	not used wire bridge SERDAT #5 INT 5 57113000	
	W....16	. . 0	not used wire bridge SERDAT #6 INT 6 57113000	
	W....20	57.11.3000	0 Ohm wire bridge SERDAT #0 (TSTB 0)	
	W....21	. . 0	not used wire bridge SERDAT #1 TSTB 1 57113000	
	W....22	. . 0	not used wire bridge SERDAT #2 TSTB 2 57113000	
	W....23	. . 0	not used wire bridge SERDAT #3 TSTB 3 57113000	
	W....24	. . 0	not used wire bridge SERDAT #4 TSTB 4 57113000	
	W....25	. . 0	not used wire bridge SERDAT #5 TSTB 5 57113000	
	W....26	. . 0	not used wire bridge SERDAT #6 TSTB 6 57113000	
	W....30	57.11.3000	0 Ohm wire bridge SERDAT #0 (RXD 0)	
	W....31	. . 0	not used wire bridge SERDAT #1 RXD 1 57113000	
	W....32	. . 0	not used wire bridge SERDAT #2 RXD 2 57113000	
	W....33	. . 0	not used wire bridge SERDAT #3 RXD 3 57113000	
	W....34	. . 0	not used wire bridge SERDAT #4 RXD 4 57113000	
	W....35	. . 0	not used wire bridge SERDAT #5 RXD 5 57113000	
	W....36	. . 0	not used wire bridge SERDAT #6 RXD 6 57113000	
	W....41	57.11.3000	0 Ohm Bridge	
	W....42	57.11.3000	0 Ohm Bridge	
	W....43	57.11.3000	0 Ohm Bridge	
	W....44	57.11.3000	0 Ohm Bridge	
	W....55	57.11.3000	0 Ohm Bridge	
	W....56	57.11.3000	0 Ohm Bridge	
	W....57	57.11.3000	0 Ohm Bridge	
	W....58	57.11.3000	0 Ohm Bridge	
	W...101	57.11.3000	0 Ohm Bridge	
	W...102	57.11.3000	0 Ohm Bridge	
	W...103	57.11.3000	0 Ohm Bridge	
	W...104	57.11.3000	0 Ohm Bridge	
	W...110	. . 0	not used used only for SEND LEVEL -100dB...+ 0dB	
	W...111	. . 0	not used used only for SEND LEVEL -100dB...+10dB	
	W...114	57.11.3000	0 Ohm wire bridge SEND LEVEL -100dB...+40dB	
	W...120	. . 0	not used used only for RETURN LEVEL -100dB...+ 0dB	
	W...121	. . 0	not used used only for RETURN LEVEL -100dB...+10dB	
	W...124	57.11.3000	0 Ohm wire bridge RETURN LEVEL -100dB...+40dB	
	W...140	. . 0	not used used only for PFL LEVEL -100dB...+ 0dB	
	W...141	57.11.3000	0 Ohm wire bridge PFL LEVEL -100dB...+10dB	
	W...144	. . 0	not used used only for PFL LEVEL -100dB...+40dB	
	W...160	. . 0	not used used only for PHONES LEVEL -100dB...+ 0dB	
	W...161	. . 0	not used used only for PHONES LEVEL -100dB...+10dB	
	W...164	. . 0	not used used only for PHONES LEVEL -100dB...+40dB	
	RZ....1	57.88.4104	100 kOhm 2% resistor-network	
	RZ....2	57.88.4104	100 kOhm 2% resistor-network	
	RZ....3	57.88.4104	100 kOhm 2% resistor-network	
	RZ....4	57.88.4104	100 kOhm 2% resistor-network	
	RZ....5	57.88.2682	6.8 kOhm 2% resistor-network	
	RZ....6	57.88.4104	100 kOhm 2% resistor-network	
	RZ....7	57.88.2682	6.8 kOhm 2% resistor-network	
	RZ....8	57.88.2682	6.8 kOhm 2% resistor-network	
	RZ....9	57.88.4104	100 kOhm 2% resistor-network	
	RZ...10	57.88.2682	6.8 kOhm 2% resistor-network	
	RZ...11	57.88.2682	6.8 kOhm 2% resistor-network	
	RZ...12	57.88.4104	100 kOhm 2% resistor-network	
	RZ...13	57.88.2682	6.8 kOhm 2% resistor-network	
	RZ...14	57.88.2682	6.8 kOhm 2% resistor-network	
	RZ...15	57.88.4104	100 kOhm 2% resistor-network	

CER=Ceramic, PE=Polyester
MF=Metal Film

1.990.440.00 PFL/TB/HEADPHONE UNIT SCA90/12/1200

PFL/TB/PHONES SWITCH BOARD 1.990.449.00



Änderung					
					3
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Ausgabe	7.3.90				0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: PFL/TB/PHONES SWITCH BOARD	Nummer: 1.990.449-00

Ad	..POS..	...REF.No...		DESCRIPTION	MANUFACTURER
	DL....1	. . 0	not used	see S 01	
	DL....2	. . 0	not used	see S 02	
	DL....3	. . 0	not used	see S 03	
	DL....4	. . 0	not used	see S 04	
	DL....5	. . 0	not used	see S 05	
	DL....6	. . 0	not used	see S 06	
	DL....7	. . 0	not used	see S 07	
	DL....8	. . 0	not used	see S 08	
	DL....9	. . 0	not used	see S 09	
	DL...10	. . 0	not used	see S 10	
	DL...11	. . 0	not used	see S 11	
	DL...12	. . 0	not used	see S 12	
	DL...13	. . 0	not used	see S 13	
	DL...14	. . 0	not used	see S 14	
	DL...15	. . 0	not used	see S 15	
	DL...16	. . 0	not used	see S 16	
	DL...17	. . 0	not used	see S 17	
	DL...18	. . 0	not used	see S 18	
	DL...19	. . 0	not used	see S 19	
	DL...20	. . 0	not used	see S 20	
	DL...21	. . 0	not used	see S 21	
	DL...22	. . 0	not used	see S 22	
	DL...23	. . 0	not used	see S 23	
	DL...24	. . 0	not used	see S 24	
	DL...25	. . 0	not used	see S 25	
	DL...26	. . 0	not used	see S 26	
	DL...27	. . 0	not used	see S 27	
	DL...28	. . 0	not used	see S 28	
	MP....1	1.990.100.05	5 pcs	Querprinthalter	
	MP....2	1.990.449.11	1 pcs	PFL/TB/PHONES SWITCH PCB	
	MP....3	1.990.449.04	1 pcs	Nr-Etikette	
	S.....1	55.15.0722		Taste 1*A,12mm RT/RT	T/B EXT 1
	S.....2	55.15.0702		Taste 1*A,12mm RT/Trans	T/B SEL.3
	S.....3	55.15.0702		Taste 1*A,12mm RT/Trans	T/B SEL.4
	S.....4	55.15.0722		Taste 1*A,12mm RT/RT	T/B INT
	S.....5	55.15.0702		Taste 1*A,12mm RT/Trans	T/B SEL.1
	S.....6	55.15.0702		Taste 1*A,12mm RT/Trans	T/B SEL.2
	S.....7	55.15.0705		Taste 1*A,12mm GN/Trans	RETURN 2
	S.....8	55.15.0705		Taste 1*A,12mm GN/Trans	T/B GRUOP SELECT
	S.....9	55.15.0704		Taste 1*A,12mm GB/Trans	AUTO CUE
	S....10	55.15.0705		Taste 1*A,12mm GN/Trans	RETURN 1

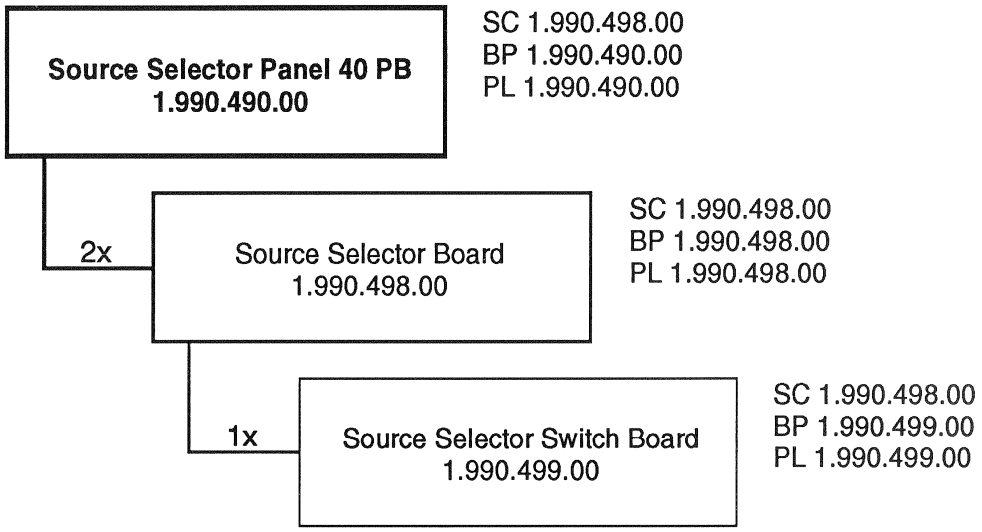
Ad	..POS..	...REF.No...		DESCRIPTION	MANUFACTURER
	S....11	55.15.0722		Taste 1*A,12mm RT/RT	TEST GEN ENABLE
	S....12	55.15.0704		Taste 1*A,12mm GB/Trans	LOCK
	S....13	55.15.0705		Taste 1*A,12mm GN/Trans	PFL RESET
	S....14	55.15.0704		Taste 1*A,12mm GB/Trans	SOLO RESET
	S....15	55.15.0704		Taste 1*A,12mm GB/Trans	S.F. SOLO
	S....16	55.15.0702		Taste 1*A,12mm RT/Trans	SOLO IN PLACE
	S....17	55.15.0702		Taste 1*A,12mm RT/Trans	CUT
	S....18	55.15.0704		Taste 1*A,12mm GB/Trans	CR SELECT
	S....19	55.15.0704		Taste 1*A,12mm GB/Trans	STUDIO SELECT
	S....20	55.15.0704		Taste 1*A,12mm GB/Trans	PFL/SOLO
	S....21	55.15.0604		Taste 1*A, 5mm GB/Trans	BUS
	S....22	55.15.0604		Taste 1*A, 5mm GB/Trans	DIRECT
	S....23	55.15.0604		Taste 1*A, 5mm GB/Trans	AUX
	S....24	55.15.0604		Taste 1*A, 5mm GB/Trans	GROUP
	S....25	55.15.0604		Taste 1*A, 5mm GB/Trans	Summe
	S....26	55.15.0602		Taste 1*A, 5mm RT/Trans	CR INJ
	S....27	55.15.0602		Taste 1*A, 5mm RT/Trans	INTER LOCK
	S....28	55.15.0605		Taste 1*A, 5mm GN/Trans	SAFE SELECT
	RZ...21	57.88.4101	100 Ohm	2% ,8*	
	RZ...22	57.88.4101	100 Ohm	2% ,8*	
	RZ...23	57.88.4101	100 Ohm	2% ,8*	
	RZ...24	57.88.4101	100 Ohm	2% ,8*	
	RZ...25	57.88.4101	100 Ohm	2% ,8*	
	RZ...26	57.88.4101	100 Ohm	2% ,8*	
	RZ...27	57.88.4101	100 Ohm	2% ,8*	
	RZ...28	57.88.4101	100 Ohm	2% ,8*	
	RZ...29	57.88.4101	100 Ohm	2% ,8*	
	RZ...30	57.88.4101	100 Ohm	2% ,8*	
	RZ...31	57.88.4101	100 Ohm	2% ,8*	

CER=Ceramic, PE=Polyester
MF=Metal Film, PMG=Cermet

MANUFACTURER: Ex=Exar, NEC=Nippon Electric Corp., Ph=Philips, Ra=Raytheon, Sig=Signetics, St=Studer.

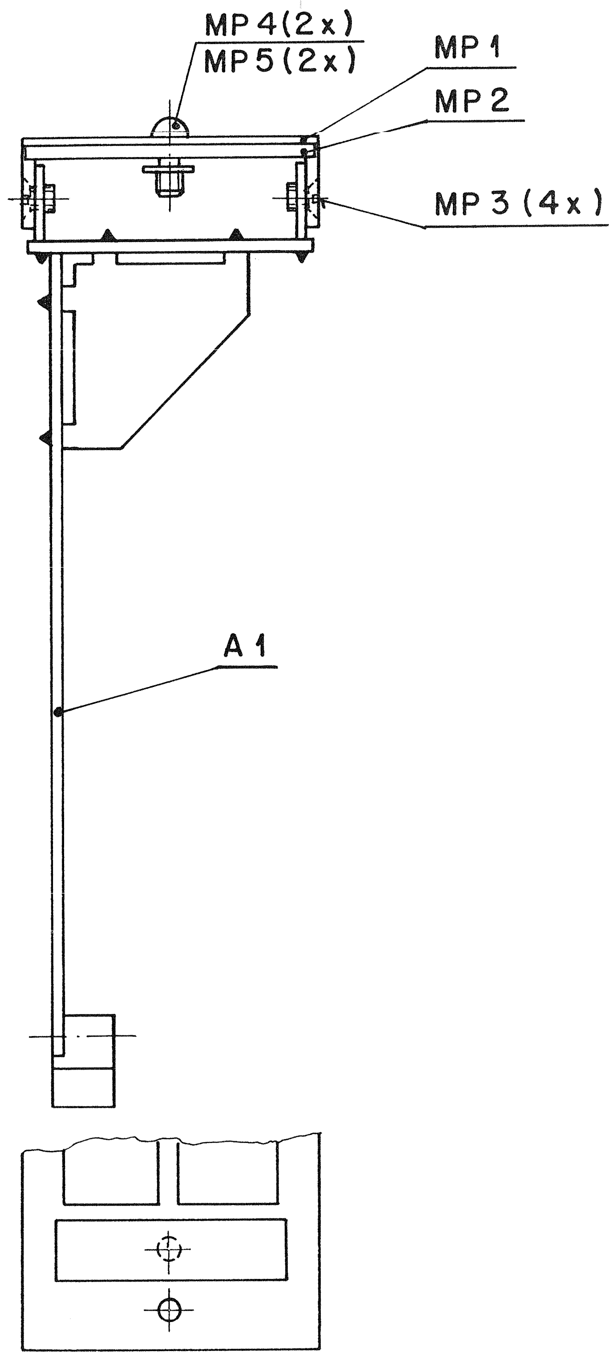
1.990.449.00 PFL/TB/PHONES SWITCH BOARD SCA88/12/1600

Source Selector Panel 20 PB 1.990.490.00



SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

SOURCE SELECTOR UNIT 1.990.490.00



Ad	..POS..	...REF.No...		DESCRIPTION............................MANUFACTURER
	A.....1	1.990.498.00		SOURCE SELECTOR
	MP....1	1.990.490.01	1 pcs	Frontschild SOURCE SELECTOR 20 PB
	MP....2	1.990.490.02	1 pcs	Traeger SOURCE SELECTOR
	MP....3	21.01.2352	4 pcs	S-Schr. M3*4
	MP....4	1.010.022.21	2 pcs	Linsenrundschr. IS M3*8
	MP....5	24.16.3023	2 pcs	Wellensicherung 3mm
	MP....6	1.990.490.04	1 pcs	Studer-Nr-Etikette 10*20

CER=Ceramic, PE=Polyester
MF=Metal Film, PMG=Cermet

MANUFACTURER: Ex=Exar, NEC=Nippon Electric Corp., Ph=Philips, Ra=Raytheon, Sig=Signetics, St=Studer.

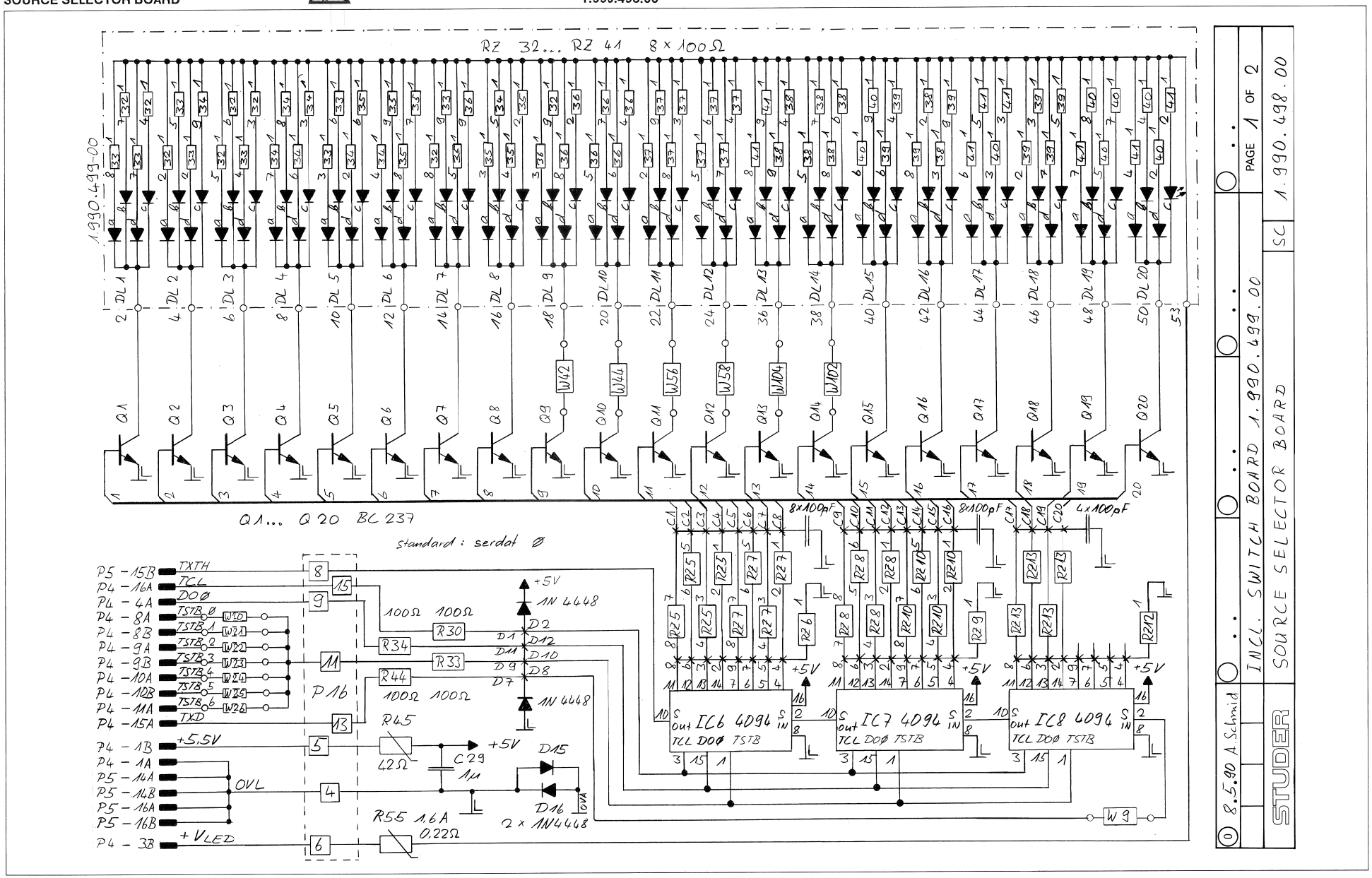
1.990.490.00 SOURCE SELECTOR UNIT 20 PB SCA88/11/3000

Änderung / Ausgabe	Datum	Gez.	Gepr.	Ges.	Index
					③
					②
					①
	3.4.90	A. Ho	SCA	Kt	⓪

Kopie für:

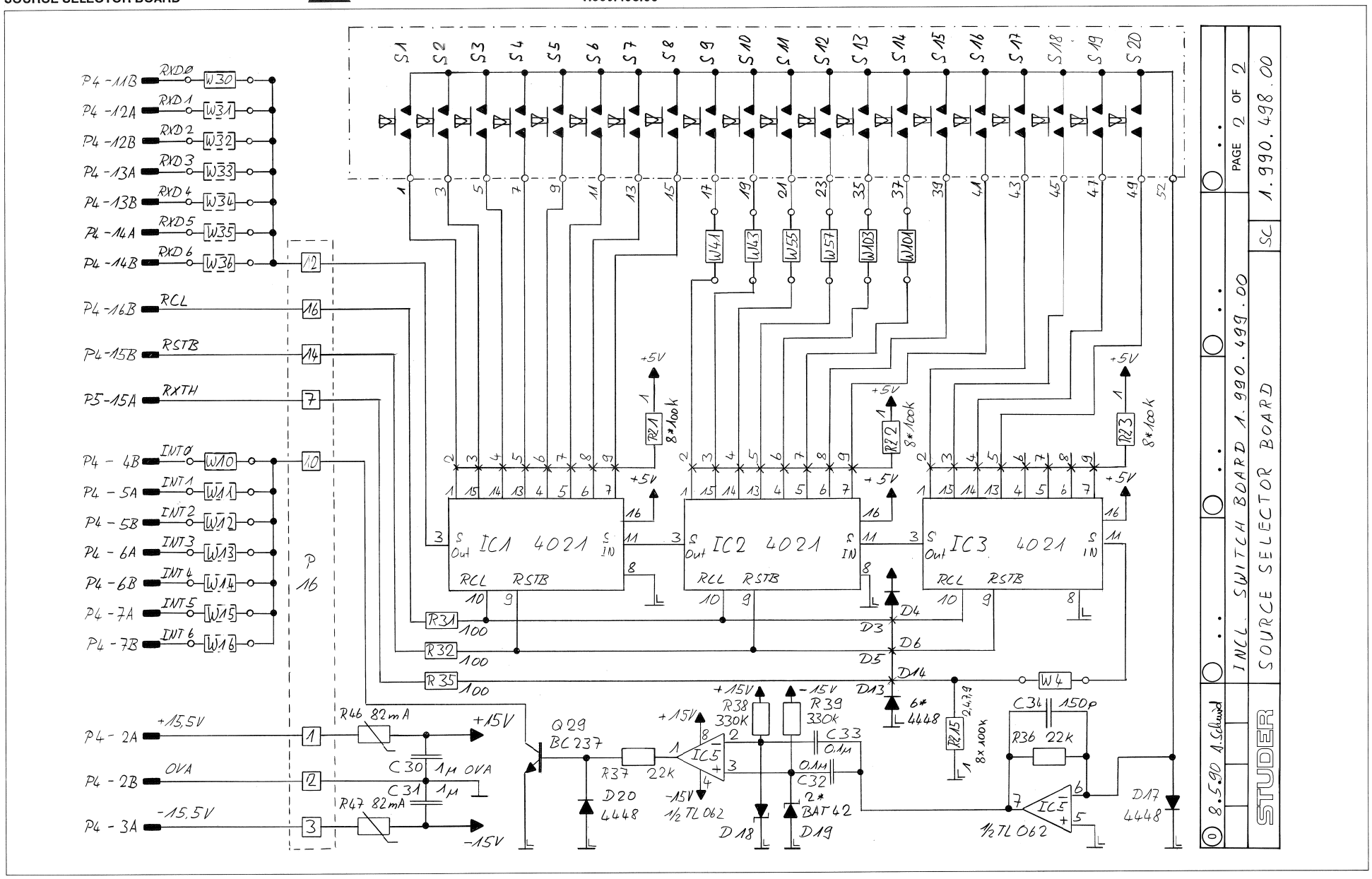
STUDER REGENSDORF ZÜRICH | Benennung: SOURCE SELECTOR UNIT 20 PB | Nummer: 1.990.490-00

SOURCE SELECTOR BOARD 1.990.498.00



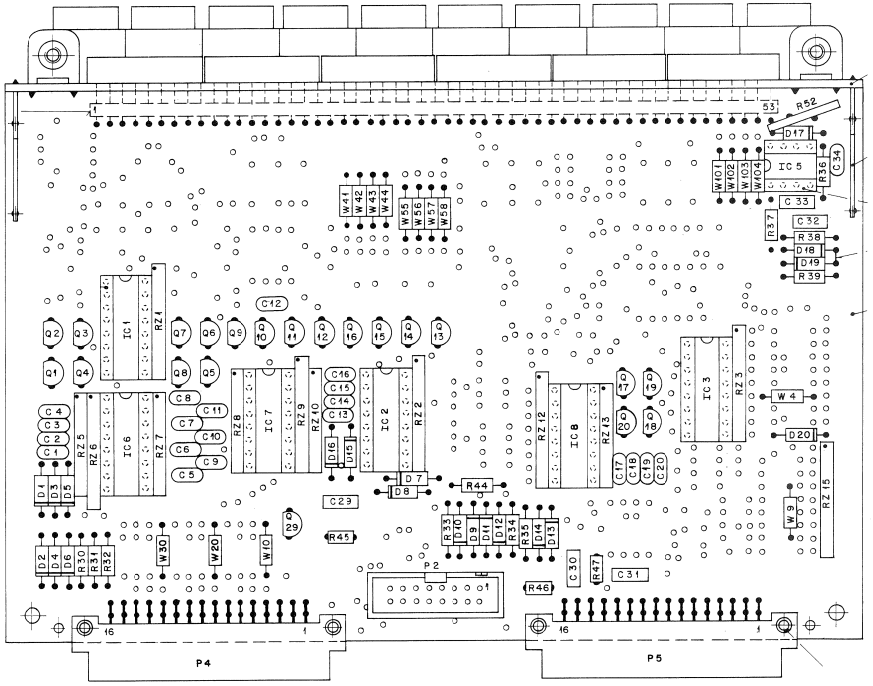
0	8.5.90	A Schmid			PAGE 1 OF 2	
			INCL. SWITCH BOARD 1.990.499.00			
			SOURCE SELECTOR BOARD	SC	1.990.498.00	
			STUDER			

SOURCE SELECTOR BOARD 1.990.498.00



SOURCE SELECTOR BOARD ESE

1.990.498.00



Änderung					3
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Ausgabe	2.4.90				0
	Datum	Gez.	Gepr.	Ges.	Index
Kopie für:					

STUDER REGENSDORF ZÜRICH	Benennung: SOURCE SELECTOR BOARD ESE	Nummer: 1.990.498-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
A	1	1.990.499.00	Source Selector Switch Board	
C	1	59.34.4101	100 pF	CE
C	2	59.34.4101	100 pF	CE
C	3	59.34.4101	100 pF	CE
C	4	59.34.4101	100 pF	CE
C	5	59.34.4101	100 pF	CE
C	6	59.34.4101	100 pF	CE
C	7	59.34.4101	100 pF	CE
C	8	59.34.4101	100 pF	CE
C	9	59.34.4101	100 pF	CE
C	10	59.34.4101	100 pF	CE
C	11	59.34.4101	100 pF	CE
C	12	59.34.4101	100 pF	CE
C	13	59.34.4101	100 pF	CE
C	14	59.34.4101	100 pF	CE
C	15	59.34.4101	100 pF	CE
C	16	59.34.4101	100 pF	CE
C	17	59.34.4101	100 pF	CE
C	18	59.34.4101	100 pF	CE
C	19	59.34.4101	100 pF	CE
C	20	59.34.4101	100 pF	CE
C	29	59.06.0104	100 nF	PE
C	30	59.06.0104	100 nF	PE
C	31	59.06.0104	100 nF	PE
C	32	59.06.0104	100 nF	PE
C	33	59.06.0104	100 nF	PE
C	34	59.34.7151	150 pF	CE
D	1	50.04.0125	1N4448	
D	2	50.04.0125	1N4448	
D	3	50.04.0125	1N4448	
D	4	50.04.0125	1N4448	
D	5	50.04.0125	1N4448	
D	6	50.04.0125	1N4448	
D	7	50.04.0125	1N4448	
D	8	50.04.0125	1N4448	
D	9	50.04.0123	1N4448	
D	10	50.04.0125	1N4448	
D	11	50.04.0125	1N4448	
D	12	50.04.0125	1N4448	
D	13	50.04.0125	1N4448	
D	14	50.04.0125	1N4448	
D	15	50.04.0125	1N4448	
D	16	50.04.0125	1N4448	
D	17	50.04.0125	1N4448	
D	18	50.04.0127	BAT 42	
D	19	50.04.0127	BAT 42	
D	20	50.04.0125	1N4448	
IC	1	50.07.1021	CD4021	8-bit static shift register
IC	2	50.07.1021	CD4021	8-bit static shift register
IC	3	50.07.1021	CD4021	8-bit static shift register
IC	5	50.09.0119	TL 062	J FET dual op. amp.
IC	6	50.07.0018	CD4094	shift and store bus register
IC	7	50.07.0018	CD4094	shift and store bus register
IC	8	50.07.0018	CD4094	shift and store bus register
MP	1	53.03.0166	1 pcs	IC-Socket 8-pin
MP	2	53.03.0168	6 pcs	IC-Socket 16-pin
MP	3	54.11.0125	53 pcs	Stiftleiste Winkel RM 2.54
MP	4	1.990.100.01	2 pcs	Querprintstuetze
MP	5	1.990.420.11	1 pcs	CR MONITOR PCB
MP	6	28.99.0119	4 pcs	Rohrniete 2.5*0.1510
MP	7	43.01.0108	1 pcs	ESE-Schild
MP	8	1.990.498.04	1 pcs	Nr-Etikette
Q	1	50.03.0436	BC237	uni npn
Q	2	50.03.0436	BC237	uni npn
Q	3	50.03.0436	BC237	uni npn
Q	4	50.03.0436	BC237	uni npn
Q	5	50.03.0436	BC237	uni npn
Q	6	50.03.0436	BC237	uni npn
Q	7	50.03.0436	BC237	uni npn
Q	8	50.03.0436	BC237	uni npn
Q	9	50.03.0436	BC237	uni npn
Q	10	50.03.0436	BC237	uni npn
Q	11	50.03.0436	BC237	uni npn
Q	12	50.03.0436	BC237	uni npn
Q	13	50.03.0436	BC237	uni npn
Q	14	50.03.0436	BC237	uni npn
Q	15	50.03.0436	BC237	uni npn
Q	16	50.03.0436	BC237	uni npn
Q	17	50.03.0436	BC237	uni npn
Q	18	50.03.0436	BC237	uni npn
Q	19	50.03.0436	BC237	uni npn
Q	20	50.03.0436	BC237	uni npn
Q	29	50.03.0436	BC237	uni npn
P	1	. . 0	not used	see MP
P	2	54.14.2002	16 pin	PCB ribbon-connector
P	4	54.11.2013	2*16 pin	eurocard-connector
P	5	54.11.2013	2*16 pin	eurocard-connector
R	30	57.11.3101	100 Ohm	1% MF
R	31	57.11.3101	100 Ohm	1% MF
R	32	57.11.3101	100 Ohm	1% MF
R	33	57.11.3101	100 Ohm	1% MF
R	34	57.11.3101	100 Ohm	1% MF
R	35	57.11.3101	100 Ohm	1% MF

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
R	36	57.11.3223	22 kOhm	1% MF
R	37	57.11.3223	22 kOhm	1% MF
R	38	57.11.3334	330 kOhm	1% MF
R	39	57.11.3334	330 kOhm	1% MF
R	44	57.11.3101	100 Ohm	1% MF
R	45	57.92.1820	82 mA	PTC 42 Ohm
R	46	57.92.1820	82 mA	PTC 42 Ohm
R	47	57.92.1820	82 mA	PTC 42 Ohm
R	55	57.92.7016	1.6 A	R-PTC 0.22 Ohm
W	4	57.11.3000	0 Ohm	Bridge
W	9	57.11.3000	0 Ohm	Bridge
W	10	57.11.3000	0 Ohm	Bridge SERDAT #0 (INT 0)
W	11	. . 0	not used	wire bridge SERDAT #1 INT 1 57113000
W	12	. . 0	not used	wire bridge SERDAT #2 INT 2 57113000
W	13	. . 0	not used	wire bridge SERDAT #3 INT 3 57113000
W	14	. . 0	not used	wire bridge SERDAT #4 INT 4 57113000
W	15	. . 0	not used	wire bridge SERDAT #5 INT 5 57113000
W	16	. . 0	not used	wire bridge SERDAT #6 INT 6 57113000
W	20	57.11.3000	0 Ohm	wire bridge SERDAT #0 (TSTB 0)
W	21	. . 0	not used	wire bridge SERDAT #1 TSTB 1 57113000
W	22	. . 0	not used	wire bridge SERDAT #2 TSTB 2 57113000
W	23	. . 0	not used	wire bridge SERDAT #3 TSTB 3 57113000
W	24	. . 0	not used	wire bridge SERDAT #4 TSTB 4 57113000
W	25	. . 0	not used	wire bridge SERDAT #5 TSTB 5 57113000
W	26	. . 0	not used	wire bridge SERDAT #6 TSTB 6 57113000
W	30	57.11.3000	0 Ohm	wire bridge SERDAT #0 (RXD 0)
W	31	. . 0	not used	wire bridge SERDAT #1 RXD 1 57113000
W	32	. . 0	not used	wire bridge SERDAT #2 RXD 2 57113000
W	33	. . 0	not used	wire bridge SERDAT #3 RXD 3 57113000
W	34	. . 0	not used	wire bridge SERDAT #4 RXD 4 57113000
W	35	. . 0	not used	wire bridge SERDAT #5 RXD 5 57113000
W	36	. . 0	not used	wire bridge SERDAT #6 RXD 6 57113000
W	41	57.11.3000	0 Ohm	Bridge
W	42	57.11.3000	0 Ohm	Bridge
W	43	57.11.3000	0 Ohm	Bridge
W	44	57.11.3000	0 Ohm	Bridge
W	55	57.11.3000	0 Ohm	Bridge
W	56	57.11.3000	0 Ohm	Bridge
W	57	57.11.3000	0 Ohm	Bridge
W	58	57.11.3000	0 Ohm	Bridge
W	101	57.11.3000	0 Ohm	Bridge
W	102	57.11.3000	0 Ohm	Bridge
W	103	57.11.3000	0 Ohm	Bridge
W	104	57.11.3000	0 Ohm	Bridge
RZ	1	57.88.4104	100 kOhm	2% resistor-network
RZ	2	57.88.4104	100 kOhm	2% resistor-network
RZ	3	57.88.4104	100 kOhm	2% resistor-network
RZ	5	57.88.2682	6.8 kOhm	2% resistor-network
RZ	6	57.88.4104	100 kOhm	2% resistor-network
RZ	7	57.88.2682	6.8 kOhm	2% resistor-network
RZ	8	57.88.2682	6.8 kOhm	2% resistor-network
RZ	9	57.88.4104	100 kOhm	2% resistor-network
RZ	10	57.88.2682	6.8 kOhm	2% resistor-network
RZ	12	57.88.4104	100 kOhm	2% resistor-network
RZ	13	57.88.2682	6.8 kOhm	2% resistor-network
RZ	15	57.88.4104	100 kOhm	2% resistor-network

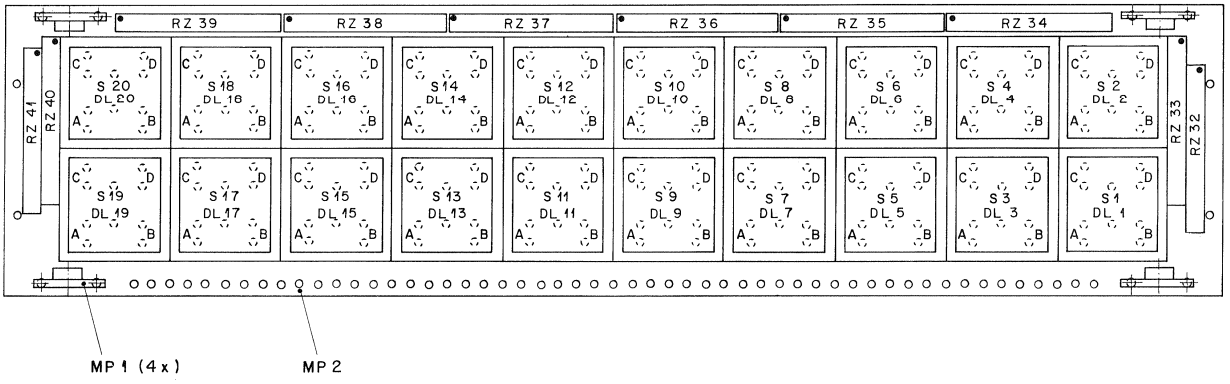
CER=Ceramic, PE=Polyester
MF=Metal Film, PMG=Cermet

MANUFACTURER: Ex=Exar, NEC=Nippon Electric Corp., Ph=Philips, Ra=Raytheon, Sig=Signetics, St=Studer.

1.990.498.00 SOURCE SELECTOR SCA90/04/2700

END

SOURCE SELECTOR SWITCH BOARD 1.990.499.00



Änderung					
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					2
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Ausgabe	6.3.90				0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: SOURCE SELECTOR SWITCH BOARD	Nummer: 1.990.499-00

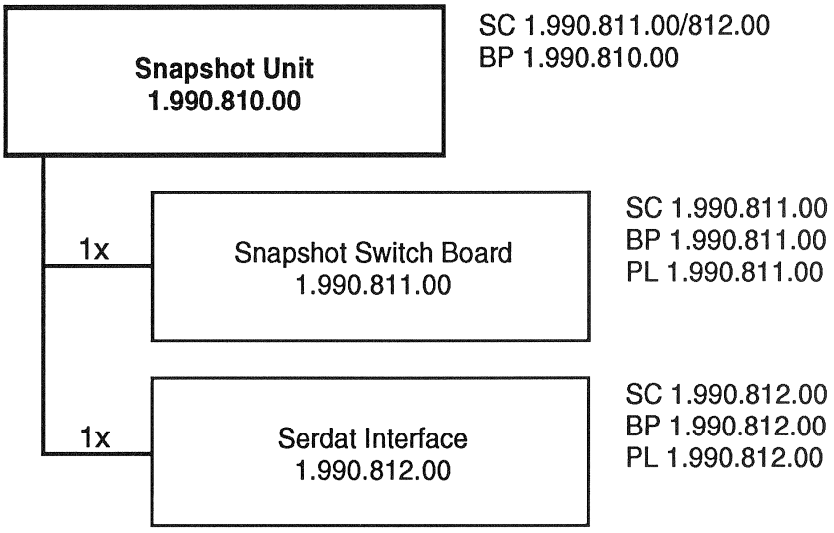
Ad	..POS..	...REF.No...		DESCRIPTION.....MANUFACTURER
	DL....1	. . 0	not used	see S 01
	DL....2	. . 0	not used	see S 02
	DL....3	. . 0	not used	see S 03
	DL....4	. . 0	not used	see S 04
	DL....5	. . 0	not used	see S 05
	DL....6	. . 0	not used	see S 06
	DL....7	. . 0	not used	see S 07
	DL....8	. . 0	not used	see S 08
	DL....9	. . 0	not used	see S 09
	DL...10	. . 0	not used	see S 10
	DL...11	. . 0	not used	see S 11
	DL...12	. . 0	not used	see S 12
	DL...13	. . 0	not used	see S 13
	DL...14	. . 0	not used	see S 14
	DL...15	. . 0	not used	see S 15
	DL...16	. . 0	not used	see S 16
	DL...17	. . 0	not used	see S 17
	DL...18	. . 0	not used	see S 18
	DL...19	. . 0	not used	see S 19
	DL...20	. . 0	not used	see S 20
	MP....1	1.990.429.11	1 pcs	CR MONITOR SWITCH PCB
	MP....2	1.990.100.05	4 pcs	Querprintstuetze
	MP....3	1.990.499.04	1 pcs	Nr-Etikette
	S.....1	55.15.0704		Taste 1*A,12mm gelb /trans
	S.....2	55.15.0704		Taste 1*A,12mm gelb /trans
	S.....3	55.15.0704		Taste 1*A,12mm gelb /trans
	S.....4	55.15.0704		Taste 1*A,12mm gelb /trans
	S.....5	55.15.0704		Taste 1*A,12mm gelb /trans
	S.....6	55.15.0704		Taste 1*A,12mm gelb /trans
	S.....7	55.15.0704		Taste 1*A,12mm gelb/trans
	S.....8	55.15.0704		Taste 1*A,12mm gelb/trans
	S.....9	55.15.0704		Taste 1*A,12mm gelb/trans
	S....10	55.15.0704		Taste 1*A,12mm gelb/trans
	S....11	55.15.0704		Taste 1*A,12mm gelb/trans
	S....12	55.15.0704		Taste 1*A,12mm gelb/trans
	S....13	55.15.0704		Taste 1*A,12mm gelb/trans
	S....14	55.15.0704		Taste 1*A,12mm gelb/trans
	S....15	55.15.0704		Taste 1*A,12mm gelb/trans
	S....16	55.15.0704		Taste 1*A,12mm gelb/trans
	S....17	55.15.0704		Taste 1*A,12mm gelb/trans
	S....18	55.15.0704		Taste 1*A,12mm gelb/trans
	S....19	55.15.0704		Taste 1*A,12mm gelb/trans
	S....20	55.15.0704		Taste 1*A,12mm gelb/trans
	RZ...32	57.88.4101	100 Ohm	2% ,8*
	RZ...33	57.88.4101	100 Ohm	2% ,8*
	RZ...34	57.88.4101	100 Ohm	2% ,8*
	RZ...35	57.88.4101	100 Ohm	2% ,8*
	RZ...36	57.88.4101	100 Ohm	2% ,8*
	RZ...37	57.88.4101	100 Ohm	2% ,8*
	RZ...38	57.88.4101	100 Ohm	2% ,8*
	RZ...39	57.88.4101	100 Ohm	2% ,8*
	RZ...40	57.88.4101	100 Ohm	2% ,8*
	RZ...41	57.88.4101	100 Ohm	2% ,8*

CER=Ceramic, PE=Polyester
MF=Metal Film, PMG=Cermet

MANUFACTURER: Ex=Exar, NEC=Nippon Electric Corp., Ph=Philips, Ra=Raytheon,
Sig=Signetics, St=Studer.

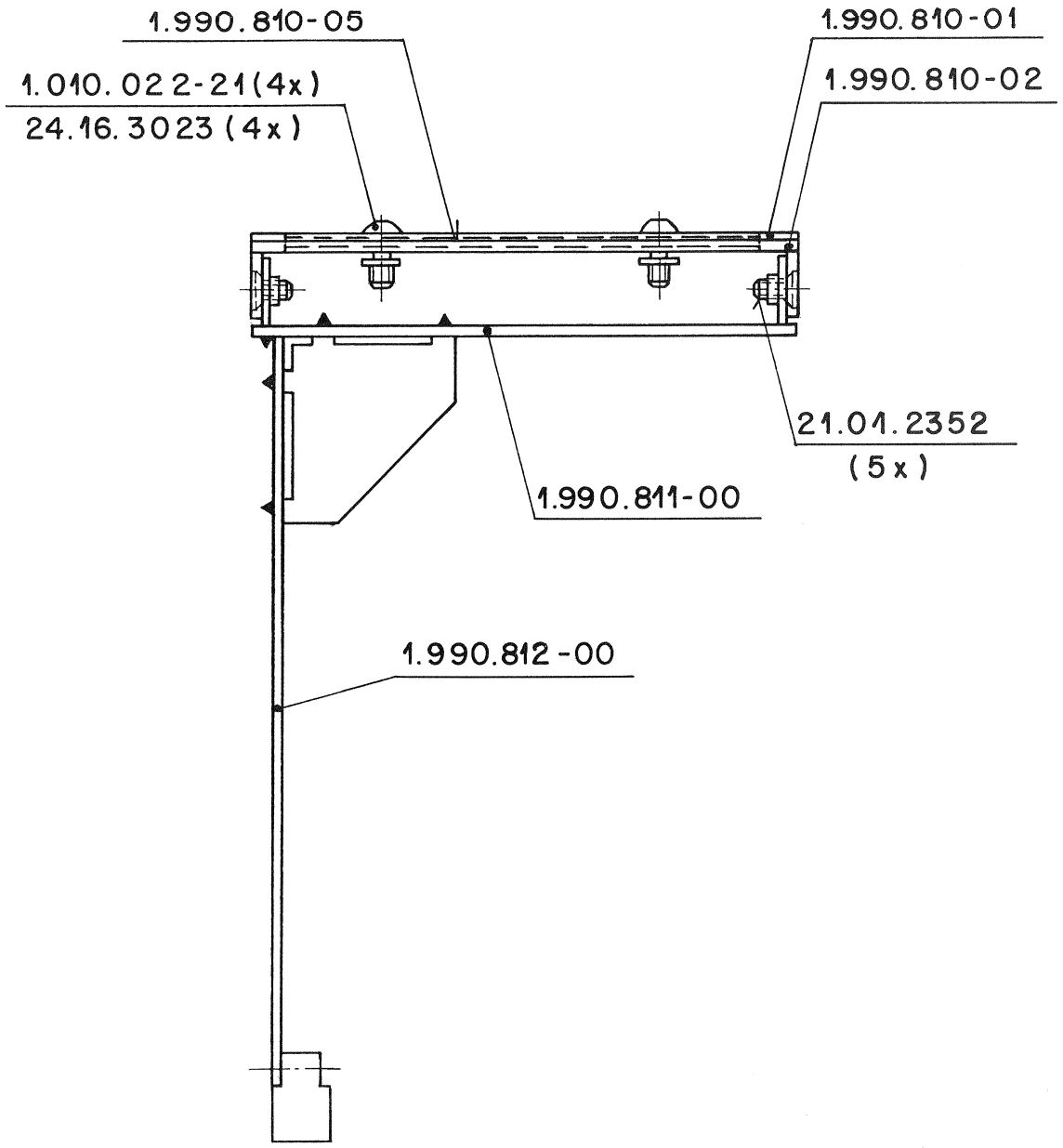
1.990.499.00 SOURCE SELECTOR SWITCH BOARD SCA88/12/1800

Snapshot Unit 1.990.810.00



SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

SNAPSHOT UNIT 1.990.810.00



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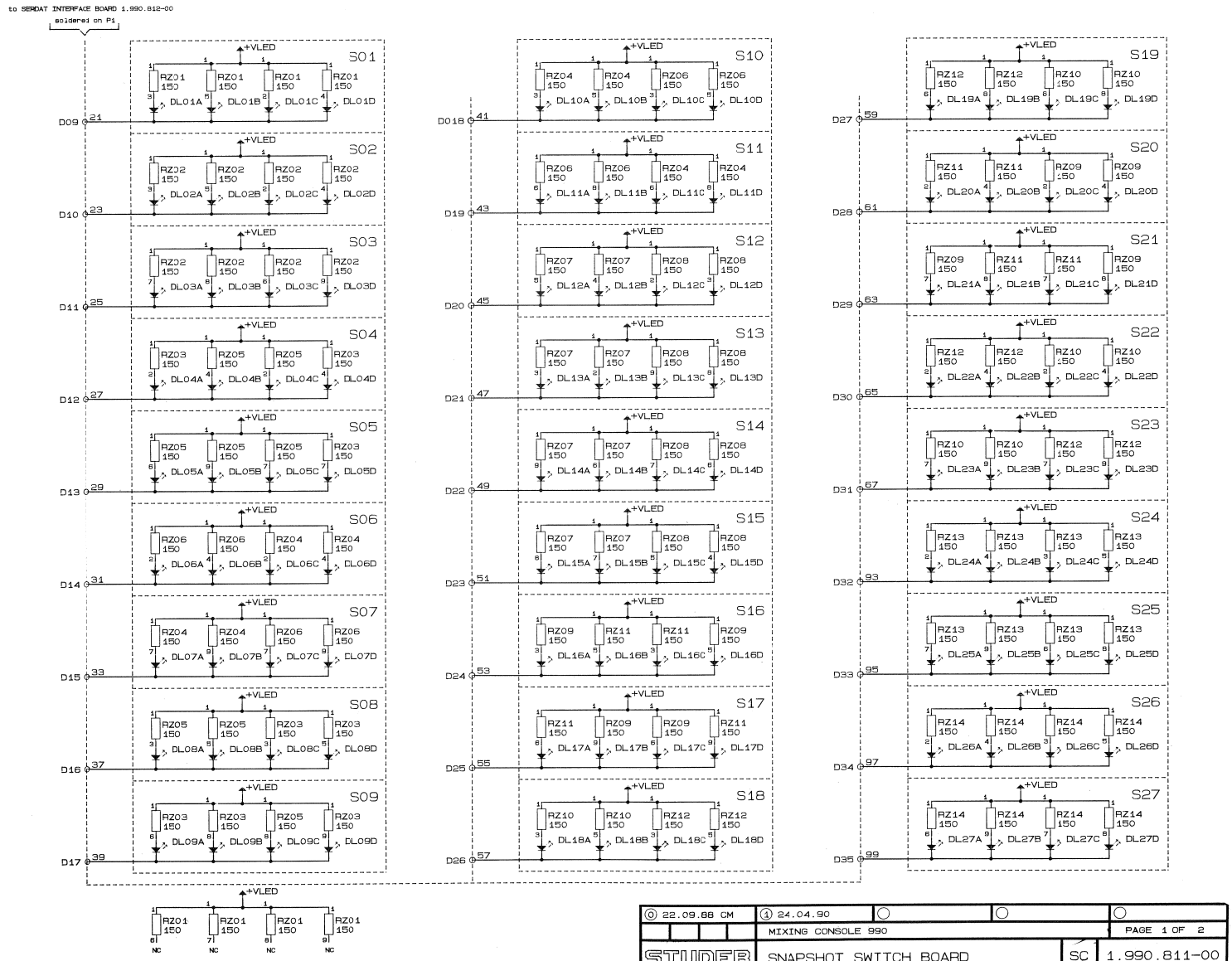
Ausgabe	8.3.90				0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

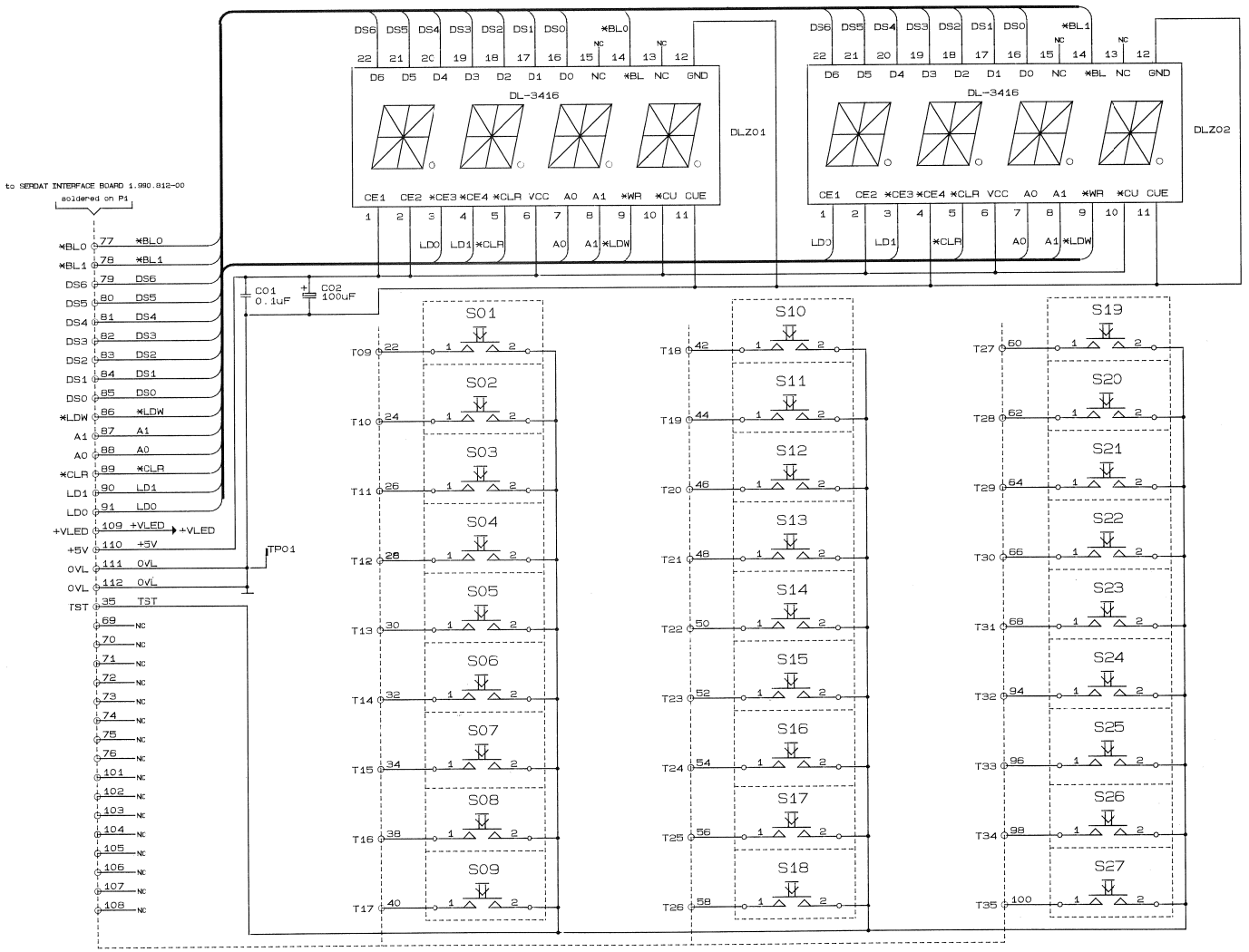
STUDER REGENSDORF ZÜRICH	Benennung: SNAPSHOT UNIT	Nummer: 1.990.810-00

SNAPSHOT SWITCH BOARD 1.990.811.00



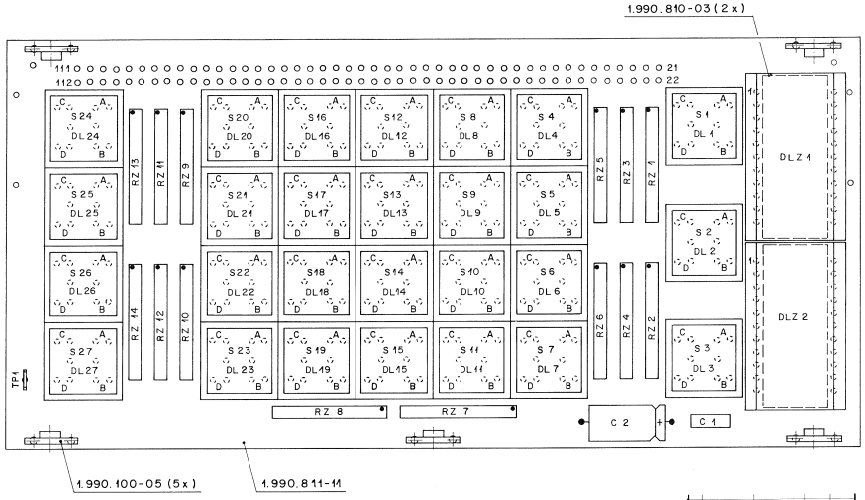
⓪ 22.09.88 CM	① 24.04.90	○	○	○
	MIXING CONSOLE 990			PAGE 1 OF 2
STUDER	SNAPSHOT SWITCH BOARD		SC	1.990.811-00

SNAPSHOT SWITCH BOARD 1.990.811.00



ⓒ 22.09.38 CM	① 24.04.90			
	MIXING CONSOLE 990			PAGE 2 OF 2
STUDER	SNAPSHOT SWITCH BOARD		SC	1.990.811-00

SNAPSHOT SWITCH BOARD 1.990.811.00



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Ausgabe	7.3.90				0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: SNAPSHOT SWITCH BOARD	Nummer: 1.990.811-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	59.06.0104	.1 u 10%, 63V , PETP	
	C.....2	59.25.3101	100 u -20%, 16V , EL	
	DL....1	. .	LED	see Note 1
	DL....1	. .	LED	see Note 1
	DL....1	. .	LED	see Note 1
	DL....1	. .	LED	see Note 1
	DL....2	. .	LED	see Note 1
	DL....2	. .	LED	see Note 1
	DL....2	. .	LED	see Note 1
	DL....2	. .	LED	see Note 1
	DL....3	. .	LED	see Note 1
	DL....3	. .	LED	see Note 1
	DL....3	. .	LED	see Note 1
	DL....3	. .	LED	see Note 1
	DL....4	. .	LED	see Note 1
	DL....4	. .	LED	see Note 1
	DL....4	. .	LED	see Note 1
	DL....4	. .	LED	see Note 1
	DL....5	. .	LED	see Note 1
	DL....5	. .	LED	see Note 1
	DL....5	. .	LED	see Note 1
	DL....5	. .	LED	see Note 1
	DL....6	. .	LED	see Note 1
	DL....6	. .	LED	see Note 1
	DL....6	. .	LED	see Note 1
	DL....6	. .	LED	see Note 1
	DL....7	. .	LED	see Note 1
	DL....7	. .	LED	see Note 1
	DL....7	. .	LED	see Note 1
	DL....7	. .	LED	see Note 1
	DL....8	. .	LED	see Note 1
	DL....8	. .	LED	see Note 1
	DL....8	. .	LED	see Note 1
	DL....8	. .	LED	see Note 1
	DL....9	. .	LED	see Note 1
	DL....9	. .	LED	see Note 1
	DL....9	. .	LED	see Note 1
	DL....9	. .	LED	see Note 1
	DL...10	. .	LED	see Note 1
	DL...10	. .	LED	see Note 1
	DL...10	. .	LED	see Note 1
	DL...10	. .	LED	see Note 1
	DL...11	. .	LED	see Note 1
	DL...11	. .	LED	see Note 1
	DL...11	. .	LED	see Note 1
	DL...11	. .	LED	see Note 1
	DL...12	. .	LED	see Note 1
	DL...12	. .	LED	see Note 1
	DL...12	. .	LED	see Note 1
	DL...12	. .	LED	see Note 1
	DL...13	. .	LED	see Note 1
	DL...13	. .	LED	see Note 1
	DL...13	. .	LED	see Note 1
	DL...13	. .	LED	see Note 1
	DL...14	. .	LED	see Note 1
	DL...14	. .	LED	see Note 1
	DL...14	. .	LED	see Note 1
	DL...14	. .	LED	see Note 1
	DL...15	. .	LED	see Note 1
	DL...15	. .	LED	see Note 1
	DL...15	. .	LED	see Note 1
	DL...15	. .	LED	see Note 1
	DL...16	. .	LED	see Note 1
	DL...16	. .	LED	see Note 1
	DL...16	. .	LED	see Note 1
	DL...16	. .	LED	see Note 1
	DL...17	. .	LED	see Note 1
	DL...17	. .	LED	see Note 1
	DL...17	. .	LED	see Note 1
	DL...17	. .	LED	see Note 1
	DL...18	. .	LED	see Note 1
	DL...18	. .	LED	see Note 1
	DL...18	. .	LED	see Note 1
	DL...18	. .	LED	see Note 1
	DL...19	. .	LED	see Note 1
	DL...19	. .	LED	see Note 1
	DL...19	. .	LED	see Note 1
	DL...19	. .	LED	see Note 1
	DL...20	. .	LED	see Note 1
	DL...20	. .	LED	see Note 1
	DL...20	. .	LED	see Note 1
	DL...20	. .	LED	see Note 1
	DL...21	. .	LED	see Note 1
	DL...21	. .	LED	see Note 1
	DL...21	. .	LED	see Note 1
	DL...21	. .	LED	see Note 1
	DL...22	. .	LED	see Note 1
	DL...22	. .	LED	see Note 1
	DL...22	. .	LED	see Note 1
	DL...22	. .	LED	see Note 1
	DL...23	. .	LED	see Note 1
	DL...23	. .	LED	see Note 1
	DL...23	. .	LED	see Note 1
	DL...23	. .	LED	see Note 1
	DL...24	. .	LED	see Note 1
	DL...24	. .	LED	see Note 1
	DL...24	. .	LED	see Note 1
	DL...24	. .	LED	see Note 1
	DL...25	. .	LED	see Note 1
	DL...25	. .	LED	see Note 1
	DL...25	. .	LED	see Note 1
	DL...25	. .	LED	see Note 1
	DL...26	. .	LED	see Note 1
	DL...26	. .	LED	see Note 1

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	DL...26	. .	LED	see Note 1
	DL...26	. .	LED	see Note 1
	DL...27	. .	LED	see Note 1
	DL...27	. .	LED	see Note 1
	DL...27	. .	LED	see Note 1
	DL...27	. .	LED	see Note 1
	DLZ...1	73.01.0250	DL 3416	4-Dig. 16-Seg. & Dec. Intelligent Displ. Sie
	DLZ...2	73.01.0250	DL 3416	4-Dig. 16-Seg. & Dec. Intelligent Displ. Sie
01	RZ....1	57.88.4151	8 * 150	2%, SIP 9
01	RZ....2	57.88.4151	8 * 150	2%, SIP 9
01	RZ....3	57.88.4151	8 * 150	2%, SIP 9
01	RZ....4	57.88.4151	8 * 150	2%, SIP 9
01	RZ....5	57.88.4151	8 * 150	2%, SIP 9
01	RZ....6	57.88.4151	8 * 150	2%, SIP 9
01	RZ....7	57.88.4151	8 * 150	2%, SIP 9
01	RZ....8	57.88.4151	8 * 150	2%, SIP 9
01	RZ....9	57.88.4151	8 * 150	2%, SIP 9
01	RZ...10	57.88.4151	8 * 150	2%, SIP 9
01	RZ...11	57.88.4151	8 * 150	2%, SIP 9
01	RZ...12	57.88.4151	8 * 150	2%, SIP 9
01	RZ...13	57.88.4151	8 * 150	2%, SIP 9
01	RZ...14	57.88.4151	8 * 150	2%, SIP 9
	S.....1	55.15.0702	1 * A	Momentary Key Switch; wht. cap/red LED ddm
	S.....2	55.15.0702	1 * A	Momentary Key Switch; wht. cap/red LED ddm
	S.....3	55.15.0702	1 * A	Momentary Key Switch; wht. cap/red LED ddm
	S.....4	55.15.0705	1 * A	Momentary Key Switch; wht. cap/grn. LED ddm
	S.....5	55.15.0702	1 * A	Momentary Key Switch; wht. cap/red LED ddm
	S.....6	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S.....7	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S.....8	55.15.0705	1 * A	Momentary Key Switch; wht. cap/grn. LED ddm
	S.....9	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S....10	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S....11	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S....12	55.15.0705	1 * A	Momentary Key Switch; wht. cap/grn. LED ddm
	S....13	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S....14	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S....15	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S....16	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S....17	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S....18	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S....19	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S....20	55.15.0702	1 * A	Momentary Key Switch; wht. cap/red LED ddm
	S....21	55.15.0702	1 * A	Momentary Key Switch; wht. cap/red LED ddm
	S....22	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S....23	55.15.0722	1 * A	Momentary Key Switch; red cap/red LED ddm
	S....24	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S....25	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S....26	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	S....27	55.15.0704	1 * A	Momentary Key Switch; wht. cap/yel. LED ddm
	TP....1	54.02.0320	6.3 * 0.8	Straight PCB Male Faston Connector.

Index (01): Due to insufficient brightness of the LED's, the value of (24.04.90) the series resistors was lowered from 330 Ohms (8 * 330, # 57.88.4331) to 150 Ohms (8 * 150, # 57.88.4151).

Note 1 : DL LED are parts of S devices. Inside each S device there are 4 pcs. DL LED numbered #A; #B; #C; #D; where # is the position number of the S device.
Example : DL 1A; DL 1B; DL 1C; DL 1D; are parts of S 1 device

Under each DLZ device lays 1 pc. support plate No. 1.990.810.03.

PETP=Polyester, EL=Electrolytic,

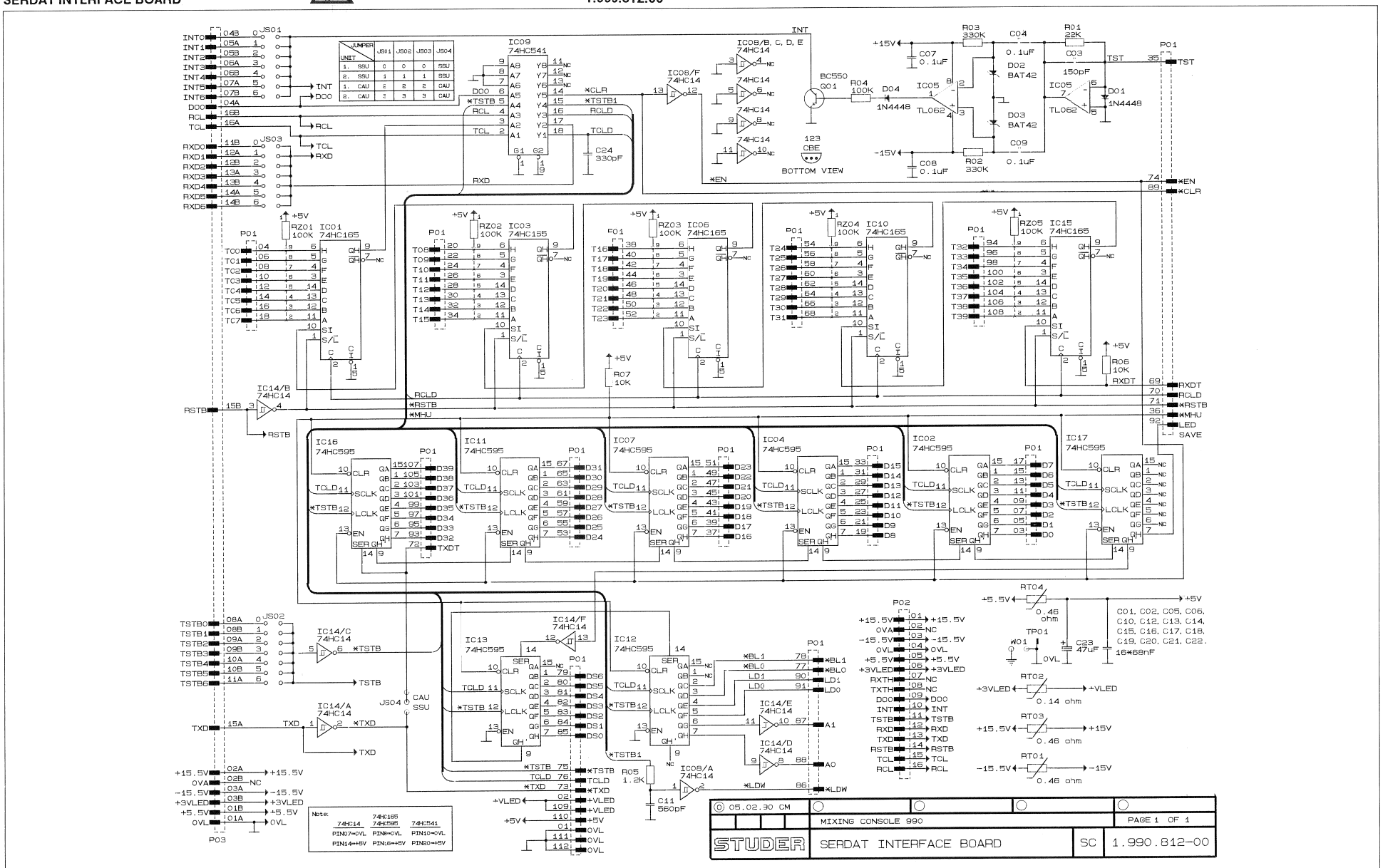
MANUFACTURERS :
ddm = Hopt & Schuler
Sie = Siemens

1.990.811-00 SNAPSHOT SWITCH BOARD CM90/04/2401

END
+

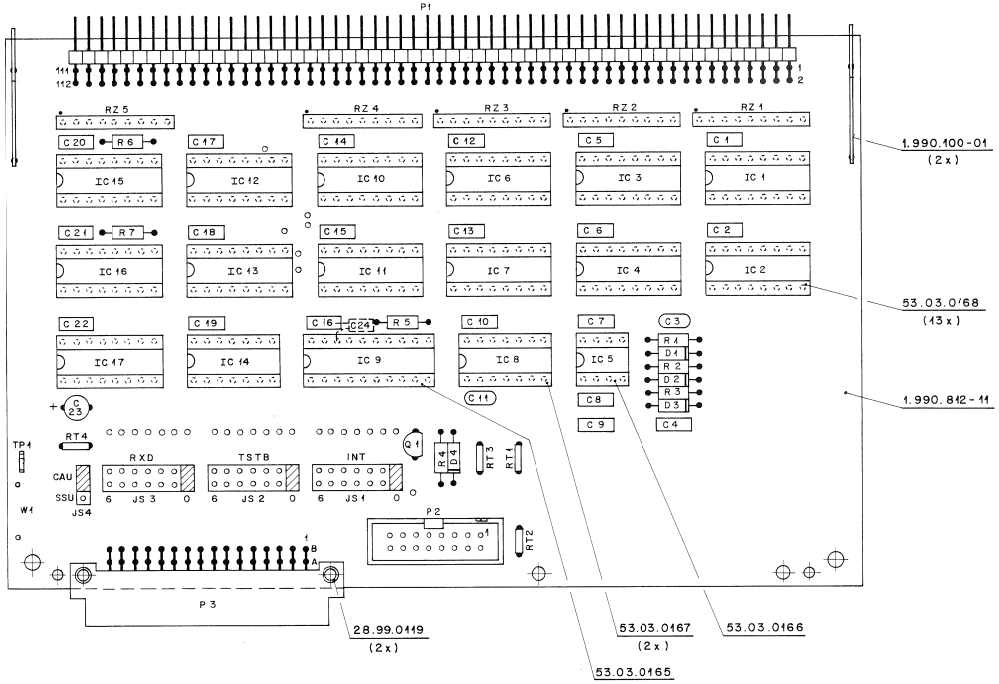
SERDAT INTERFACE BOARD

1.990.812.00



SERDAT INTERFACE BOARD ESE

1.990.812.00



Änderung					
Ausgabe	12.2.90				
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: SERDAT INTERFACE BOARD ESE	Nummer: 1.990.812-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	59.06.0683	.068 u 10%, 63V , PETP	
	C.....2	59.06.0683	.068 u 10%, 63V , PETP	
	C.....3	59.34.4151	150 p 5%, N750 , CER	
	C.....4	59.06.0104	.1 u 10%, 63V , PETP	
	C.....5	59.06.0683	.068 u 10%, 63V , PETP	
	C.....6	59.06.0683	.068 u 10%, 63V , PETP	
	C.....7	59.06.0104	.1 u 10%, 63V , PETP	
	C.....8	59.06.0104	.1 u 10%, 63V , PETP	
	C.....9	59.06.0104	.1 u 10%, 63V , PETP	
	C....10	59.06.0683	.068 u 10%, 63V , PETP	
	C....11	59.34.5561	560 p 5%,N1500 , CER	
	C....12	59.06.0683	.068 u 10%, 63V , PETP	
	C....13	59.06.0683	.068 u 10%, 63V , PETP	
	C....14	59.06.0683	.068 u 10%, 63V , PETP	
	C....15	59.06.0683	.068 u 10%, 63V , PETP	
	C....16	59.06.0683	.068 u 10%, 63V , PETP	
	C....17	59.06.0683	.068 u 10%, 63V , PETP	
	C....18	59.06.0683	.068 u 10%, 63V , PETP	
	C....19	59.06.0683	.068 u 10%, 63V , PETP	
	C....20	59.06.0683	.068 u 10%, 63V , PETP	
	C....21	59.06.0683	.068 u 10%, 63V , PETP	
	C....22	59.06.0683	.068 u 10%, 63V , PETP	
	C....23	59.22.3470	47 u -20%, 10V , EL	
01	C....24	59.32.4331	330 p 20%, 50V , CER	
	D.....1	50.04.0125	1N 4448 75 V, 150 mA, 4 nS, Si.	
	D.....2	50.04.0127	BAT 42 30 V, 100 mA, Schottky.	
	D.....3	50.04.0127	BAT 42 30 V, 100 mA, Schottky.	
	D.....4	50.04.0125	1N 4448 75 V, 150 mA, 4 nS, Si.	
	IC....1	50.17.1165	74 HC 165 8-Bit Paral. Inp./Serial Out. Shift Register	
	IC....2	50.17.1595	74 HC 595 8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	IC....3	50.17.1165	74 HC 165 8-Bit Paral. Inp./Serial Out. Shift Register	
	IC....4	50.17.1595	74 HC 595 8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	IC....5	50.09.0119	TL 062 CP Low Power JFET Operational Amplifier.	
	IC....6	50.17.1165	74 HC 165 8-Bit Paral. Inp./Serial Out. Shift Register	
	IC....7	50.17.1595	74 HC 595 8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	IC....8	50.17.1014	74 HC 14 Hex Schmitt-Trigger Inverter.	
	IC....9	50.17.1541	74 HC 541 Octal 3-St. Noninv. Buf./Line Drv./Line Recv	
	IC...10	50.17.1165	74 HC 165 8-Bit Paral. Inp./Serial Out. Shift Register	
	IC...11	50.17.1595	74 HC 595 8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	IC...12	50.17.1595	74 HC 595 8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	IC...13	50.17.1595	74 HC 595 8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	IC...14	50.17.1014	74 HC 14 Hex Schmitt-Trigger Inverter.	
	IC...15	50.17.1165	74 HC 165 8-Bit Paral. Inp./Serial Out. Shift Register	
	IC...16	50.17.1595	74 HC 595 8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	IC...17	50.17.1595	74 HC 595 8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	JS....1	54.01.0020	0.63*0.63 2 * 7 pcs. see Note 1.	
	JS....2	54.01.0020	0.63*0.63 2 * 7 pcs. see Note 1.	
	JS....3	54.01.0020	0.63*0.63 2 * 7 pcs. see Note 1.	
	JS....4	54.01.0020	0.63*0.63 1 * 3 pcs. see Note 2.	
	P.....1	54.11.0131	0.63*0.63 56 pcs. Right Angled Double Row Pin Header.	
	P.....2	54.14.2002	2*8 pins PCB Male Connector for Ribbon-Cable	
	P.....3	54.11.2013	2*16 pins BK Angled Male Eurocard-Connector.	
	Q.....1	50.03.0407	BC 550 C 45 V, 100 mA, NPN, Si.	
	R.....1	57.11.3223	22 k 1%, 0207 , MF	
	R.....2	57.11.3334	330 k 1%, 0207 , MF	
	R.....3	57.11.3334	330 k 1%, 0207 , MF	
	R.....4	57.11.3104	100 k 1%, 0207 , MF	
	R.....5	57.11.3122	1.2 k 1%, 0207 , MF	
	R.....6	57.11.3103	10 k 1%, 0207 , MF	
	R.....7	57.11.3103	10 k 1%, 0207 , MF	
	RT....1	57.92.7014	0.46 ohm / 0.650 A / 20 degr. C. PTC	
	RT....2	57.92.7016	0.14 ohm / 1.600 A / 20 degr. C. PTC	
	RT....3	57.92.7014	0.46 ohm / 0.650 A / 20 degr. C. PTC	
	RT....4	57.92.7014	0.46 ohm / 0.650 A / 20 degr. C. PTC	
	RZ....1	57.88.4101	8 * 100 k 2%, SIP 9	
	RZ....2	57.88.4101	8 * 100 k 2%, SIP 9	
	RZ....3	57.88.4101	8 * 100 k 2%, SIP 9	
	RZ....4	57.88.4101	8 * 100 k 2%, SIP 9	
	RZ....5	57.88.4101	8 * 100 k 2%, SIP 9	
	TP....1	54.02.0320	2.8 * 0.8 Straight PCB Male Faston-Connector.	
	W.....1	00.00.0000	not used	

Note 1: 1 pc. bridge connector # 54.01.0021 must be plugged into the dual row pin-header at the needed position numbered from 0 to 6.

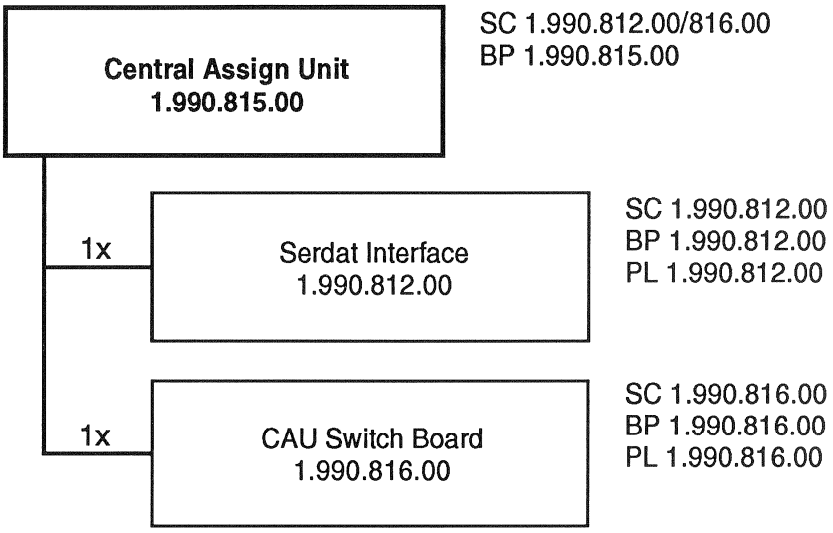
Note 2: 2-of-3 pins are bridged with bridge connector # 54.01.0021.

Index (01): C24 blocking capacitor (330 pF) is soldered on the print. (30.01.90)

CER=Ceramic, EL=Electrolytic, PETP=Polyester, MF=Metal Film.

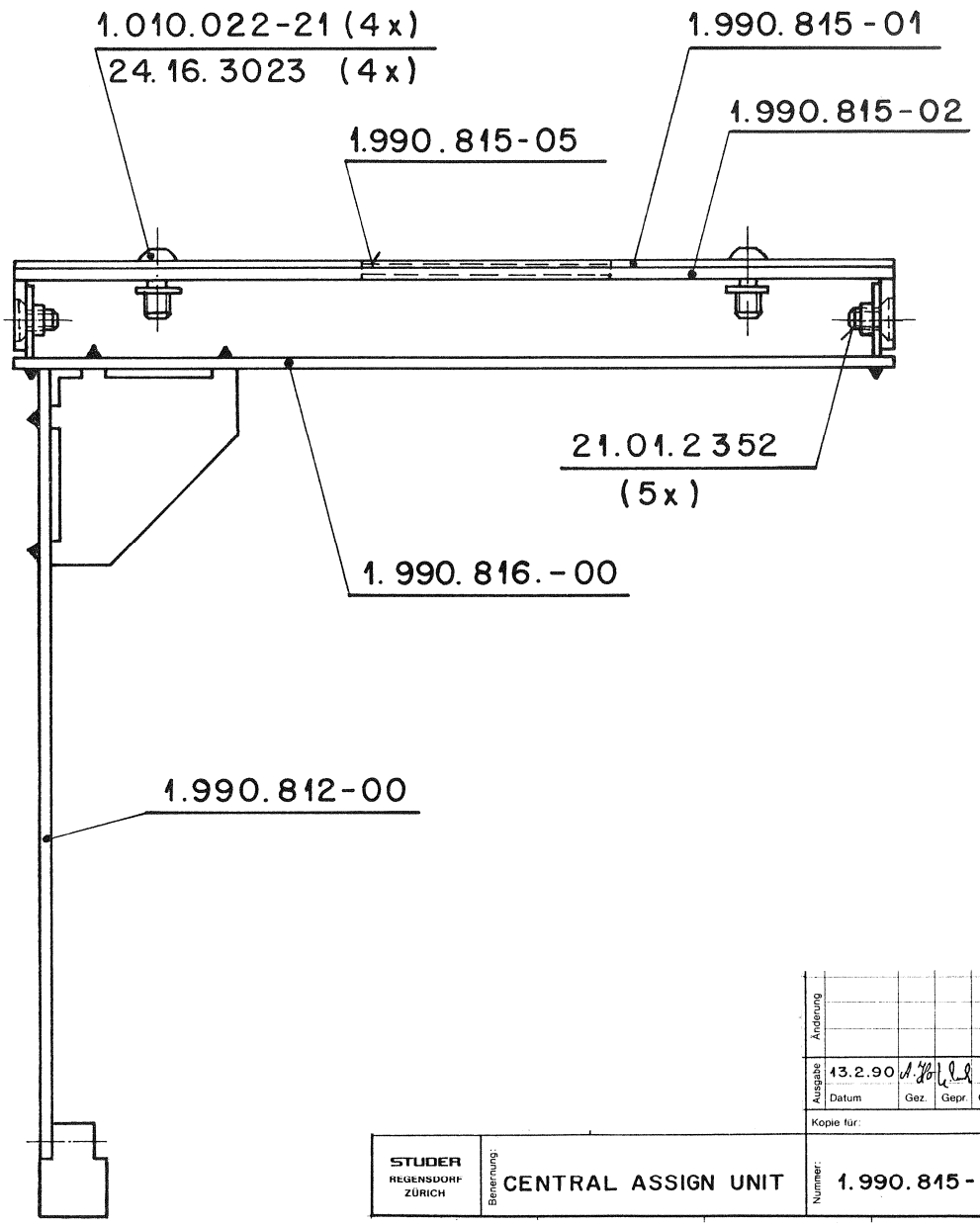
1.990.812-00 SERDAT INTERFACE BOARD CM90/01/3001

Central Assign Unit 1.990.815.00



SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

CENTRAL ASSIGN UNIT 1.990.815.00



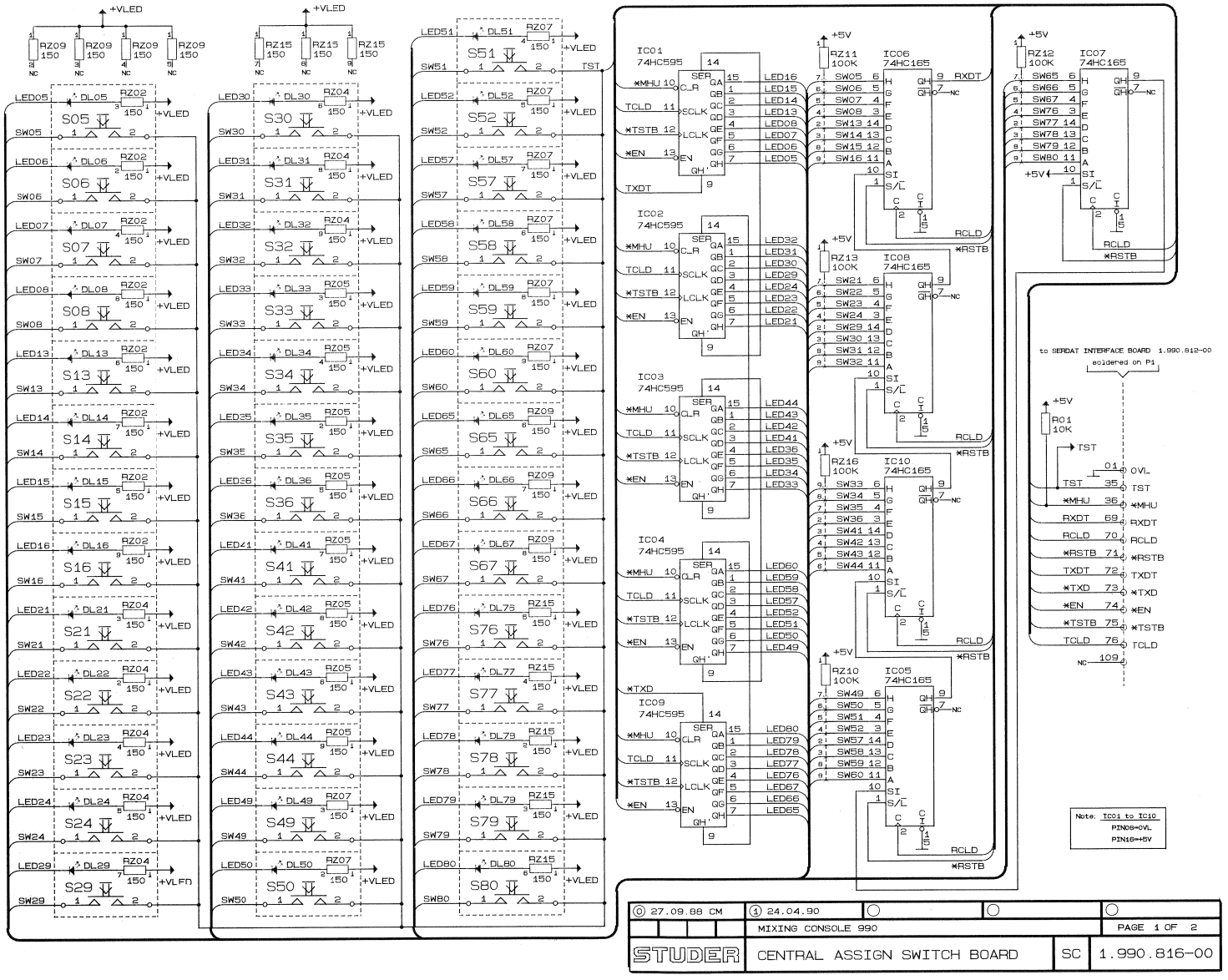
Änderung	Ausgabe	Datum	Gez.	Gepr.	Ges.	Index
						③
						②
						①
	13.2.90					⓪

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: CENTRAL ASSIGN UNIT	Nummer: 1.990.815-00

CENTRAL ASSIGN SWITCH BOARD

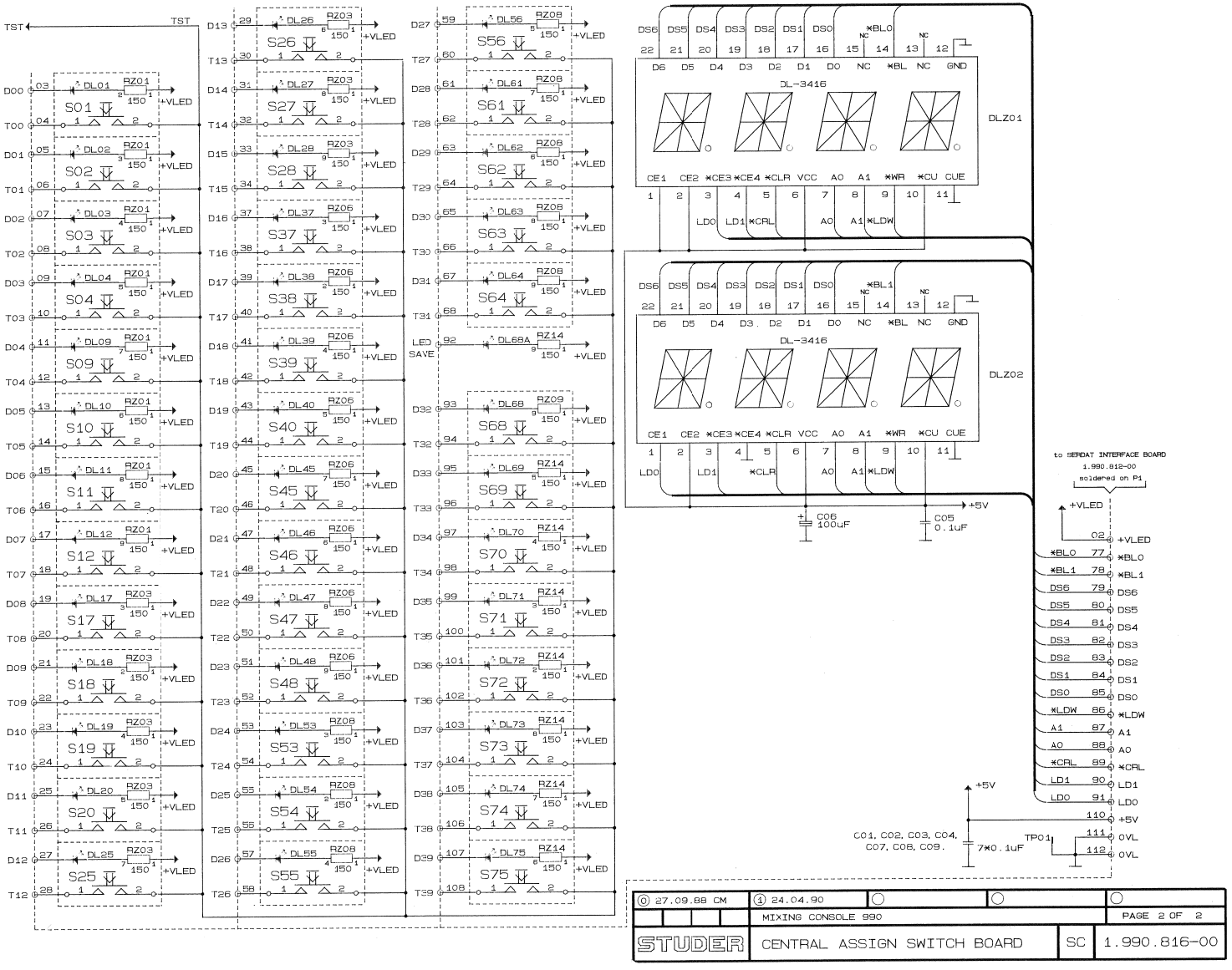
1.990.816.00



⓪ 27.09.88 CM	① 24.04.90			
	MIXING CONSOLE 990			PAGE 1 OF 2
STUDER	CENTRAL ASSIGN SWITCH BOARD		SC	1.990.816-00

CENTRAL ASSIGN SWITCH BOARD

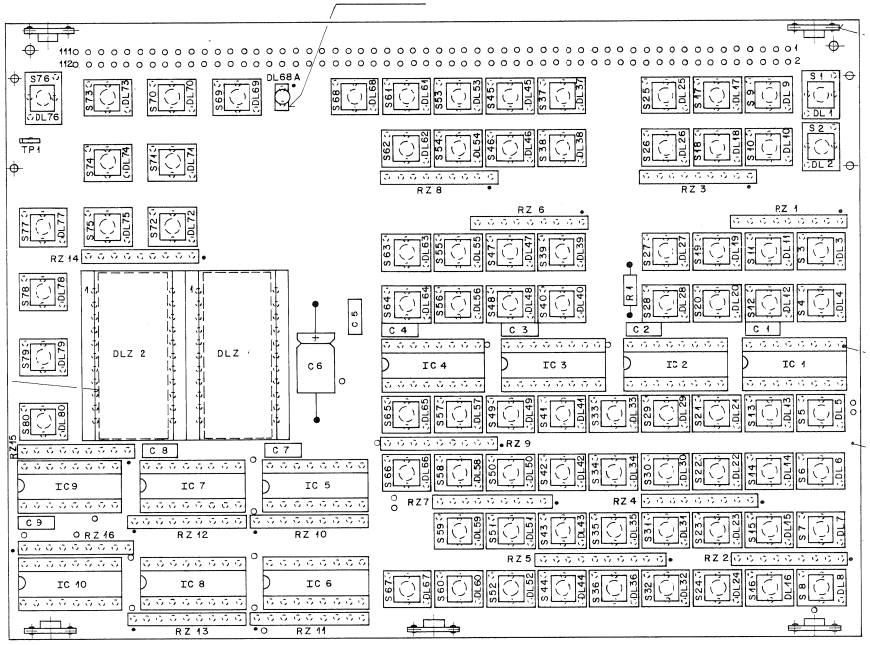
1.990.816.00

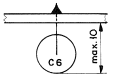


⓪ 27.09.88 CM	① 24.04.90			
	MIXING CONSOLE 990			PAGE 2 OF 2
STUDER	CENTRAL ASSIGN SWITCH BOARD		SC	1.990.816-00

CENTRAL ASSIGN SWITCH BOARD

1.990.816.00





Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	59.06.3104	.1 u 10%, 63V , PETP	
	C.....2	59.06.3104	.1 u 10%, 63V , PETP	
	C.....3	59.06.3104	.1 u 10%, 63V , PETP	
	C.....4	59.06.3104	.1 u 10%, 63V , PETP	
	C.....5	59.06.3104	.1 u 10%, 63V , PETP	
	C.....6	59.25.3101	100 u -20%, 16V , EL	
	C.....7	59.06.3104	.1 u 10%, 63V , PETP	
	C.....8	59.06.3104	.1 u 10%, 63V , PETP	
	C.....9	59.06.3104	.1 u 10%, 63V , PETP	
	DL....1	00.00.0000	LED	see Note 1
	DL....2	00.00.0000	LED	see Note 1
	DL....3	00.00.0000	LED	see Note 1
	DL....4	00.00.0000	LED	see Note 1
	DL....5	00.00.0000	LED	see Note 1
	DL....6	00.00.0000	LED	see Note 1
	DL....7	00.00.0000	LED	see Note 1
	DL....8	00.00.0000	LED	see Note 1
	DL....9	00.00.0000	LED	see Note 1
	DL...10	00.00.0000	LED	see Note 1
	DL...11	00.00.0000	LED	see Note 1
	DL...12	00.00.0000	LED	see Note 1
	DL...13	00.00.0000	LED	see Note 1
	DL...14	00.00.0000	LED	see Note 1
	DL...15	00.00.0000	LED	see Note 1
	DL...16	00.00.0000	LED	see Note 1
	DL...17	00.00.0000	LED	see Note 1
	DL...18	00.00.0000	LED	see Note 1
	DL...19	00.00.0000	LED	see Note 1
	DL...20	00.00.0000	LED	see Note 1
	DL...21	00.00.0000	LED	see Note 1
	DL...22	00.00.0000	LED	see Note 1
	DL...23	00.00.0000	LED	see Note 1
	DL...24	00.00.0000	LED	see Note 1
	DL...25	00.00.0000	LED	see Note 1
	DL...26	00.00.0000	LED	see Note 1
	DL...27	00.00.0000	LED	see Note 1
	DL...28	00.00.0000	LED	see Note 1
	DL...29	00.00.0000	LED	see Note 1
	DL...30	00.00.0000	LED	see Note 1

Änderung	Ausgabe	Datum	Gez.	Gepr.	Ges.	Index
		13.2.90				0

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: CENTRAL ASSIGN SWITCH BOARD ESE	Nummer:	1.990.816-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	DL...31	00.00.0000	LED	see Note 1
	DL...32	00.00.0000	LED	see Note 1
	DL...33	00.00.0000	LED	see Note 1
	DL...34	00.00.0000	LED	see Note 1
	DL...35	00.00.0000	LED	see Note 1
	DL...36	00.00.0000	LED	see Note 1
	DL...37	00.00.0000	LED	see Note 1
	DL...38	00.00.0000	LED	see Note 1
	DL...39	00.00.0000	LED	see Note 1
	DL...40	00.00.0000	LED	see Note 1
	DL...41	00.00.0000	LED	see Note 1
	DL...42	00.00.0000	LED	see Note 1
	DL...43	00.00.0000	LED	see Note 1
	DL...44	00.00.0000	LED	see Note 1
	DL...45	00.00.0000	LED	see Note 1
	DL...46	00.00.0000	LED	see Note 1
	DL...47	00.00.0000	LED	see Note 1
	DL...48	00.00.0000	LED	see Note 1
	DL...49	00.00.0000	LED	see Note 1
	DL...50	00.00.0000	LED	see Note 1
	DL...51	00.00.0000	LED	see Note 1
	DL...52	00.00.0000	LED	see Note 1
	DL...53	00.00.0000	LED	see Note 1
	DL...54	00.00.0000	LED	see Note 1
	DL...55	00.00.0000	LED	see Note 1
	DL...56	00.00.0000	LED	see Note 1
	DL...57	00.00.0000	LED	see Note 1
	DL...58	00.00.0000	LED	see Note 1
	DL...59	00.00.0000	LED	see Note 1
	DL...60	00.00.0000	LED	see Note 1
	DL...61	00.00.0000	LED	see Note 1
	DL...62	00.00.0000	LED	see Note 1
	DL...63	00.00.0000	LED	see Note 1
	DL...64	00.00.0000	LED	see Note 1
	DL...65	00.00.0000	LED	see Note 1
	DL...66	00.00.0000	LED	see Note 1
	DL...67	00.00.0000	LED	see Note 1
	DL...68	00.00.0000	LED	see Note 1
	DL...68	50.04.2129	LS 3160	Diffused Red. see Note 2 Sie.
	DL...69	00.00.0000	LED	see Note 1
	DL...70	00.00.0000	LED	see Note 1
	DL...71	00.00.0000	LED	see Note 1
	DL...72	00.00.0000	LED	see Note 1
	DL...73	00.00.0000	LED	see Note 1
	DL...74	00.00.0000	LED	see Note 1
	DL...75	00.00.0000	LED	see Note 1
	DL...76	00.00.0000	LED	see Note 1
	DL...77	00.00.0000	LED	see Note 1
	DL...78	00.00.0000	LED	see Note 1
	DL...79	00.00.0000	LED	see Note 1
	DL...80	00.00.0000	LED	see Note 1
	DLZ...1	73.01.0250	DL 3416	4-Dig. 16-Seg. + Dec. Intelligent Displ. Sie
	DLZ...2	73.01.0250	DL 3416	4-Dig. 16-Seg. + Dec. Intelligent Displ. Sie
	IC....1	50.17.1595	74 HC 595	8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg
	IC....2	50.17.1595	74 HC 595	8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg
	IC....3	50.17.1595	74 HC 595	8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg
	IC....4	50.17.1595	74 HC 595	8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg
	IC....5	50.17.1165	74 HC 165	8-Bit Paral. Inp./Serial Out. Shift Register
	IC....6	50.17.1165	74 HC 165	8-Bit Paral. Inp./Serial Out. Shift Register
	IC....7	50.17.1165	74 HC 165	8-Bit Paral. Inp./Serial Out. Shift Register
	IC....8	50.17.1165	74 HC 165	8-Bit Paral. Inp./Serial Out. Shift Register
	IC....9	50.17.1595	74 HC 595	8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg
	IC...10	50.17.1165	74 HC 165	8-Bit Paral. Inp./Serial Out. Shift Register
	R....1	57.11.3103	10 k	1%, 0207 , MF
01	RZ....1	57.88.4151	8 * 150	2%, SIP 9
01	RZ....2	57.88.4151	8 * 150	2%, SIP 9
01	RZ....3	57.88.4151	8 * 150	2%, SIP 9
01	RZ....4	57.88.4151	8 * 150	2%, SIP 9
01	RZ....5	57.88.4151	8 * 150	2%, SIP 9
01	RZ....6	57.88.4151	8 * 150	2%, SIP 9
01	RZ....7	57.88.4151	8 * 150	2%, SIP 9
01	RZ....8	57.88.4151	8 * 150	2%, SIP 9
01	RZ....9	57.88.4151	8 * 150	2%, SIP 9
	RZ...10	57.88.4104	8 * 100 k	2%, SIP 9
	RZ...11	57.88.4104	8 * 100 k	2%, SIP 9
	RZ...12	57.88.4104	8 * 100 k	2%, SIP 9
	RZ...13	57.88.4104	8 * 100 k	2%, SIP 9
01	RZ...14	57.88.4151	8 * 150	2%, SIP 9
01	RZ...15	57.88.4151	8 * 150	2%, SIP 9
	RZ...16	57.88.4104	8 * 100 k	2%, SIP 9
	S.....1	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S.....2	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S.....3	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S.....4	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S.....5	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S.....6	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S.....7	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S.....8	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S.....9	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....10	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	S....11	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....12	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....13	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....14	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....15	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....16	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....17	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....18	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....19	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....20	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....21	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....22	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....23	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....24	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....25	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....26	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....27	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....28	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....29	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....30	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....31	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....32	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....33	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....34	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....35	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....36	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....37	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....38	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....39	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....40	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....41	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....42	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....43	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....44	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....45	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....46	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....47	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....48	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....49	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....50	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....51	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....52	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....53	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....54	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....55	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....56	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....57	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....58	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....59	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....60	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....61	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....62	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....63	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....64	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....65	55.15.0644	1 * A	Momentary Key Switch, yel. cap/yel. LED ddm
	S....66	55.15.0644	1 * A	Momentary Key Switch, yel. cap/yel. LED ddm
	S....67	55.15.0622	1 * A	Momentary Key Switch, red cap/red LED ddm
	S....68	55.15.0604	1 * A	Momentary Key Switch, wht. cap/yel. LED ddm
	S....69	55.15.0602	1 * A	Momentary Key Switch, wht. cap/red LED ddm
	S....70	55.15.0644	1 * A	Momentary Key Switch, yel. cap/yel. LED ddm
	S....71	55.15.0644	1 * A	Momentary Key Switch, yel. cap/yel. LED ddm
	S....72	55.15.0644	1 * A	Momentary Key Switch, yel. cap/yel. LED ddm
	S....73	55.15.0602	1 * A	Momentary Key Switch, wht. cap/red LED ddm
	S....74	55.15.0602	1 * A	Momentary Key Switch, wht. cap/red LED ddm
	S....75	55.15.0602	1 * A	Momentary Key Switch, wht. cap/red LED ddm
	S....76	55.15.0622	1 * A	Momentary Key Switch, red cap/red LED ddm
	S....77	55.15.0605	1 * A	Momentary Key Switch, wht. cap/grn. LED ddm
	S....78	55.15.0605	1 * A	Momentary Key Switch, wht. cap/grn. LED ddm
	S....79	55.15.0605	1 * A	Momentary Key Switch, wht. cap/grn. LED ddm
	S....80	55.15.0605	1 * A	Momentary Key Switch, wht. cap/grn. LED ddm
	TP....1	54.02.0320	2.8 * 0.8	Straight PCB Male Faston-Connector.

Index (01): Due to insufficient brightness of the LED's, the value of (24.04.90) the series resistors was lowered from 330 Ohms (8 * 330, # 57.88.4331) to 150 Ohms (8 * 150, # 57.88.4151).

Note 1: DL LED is part of S device with the same position number. Example: DL 1 LED is part of S 1, etc.

Note 2: Device DL 68A is plugged into LED-socket No. 53.03.0230.

Under each DLZ device lays 1 pc. support plate No. 1.990.810.03.

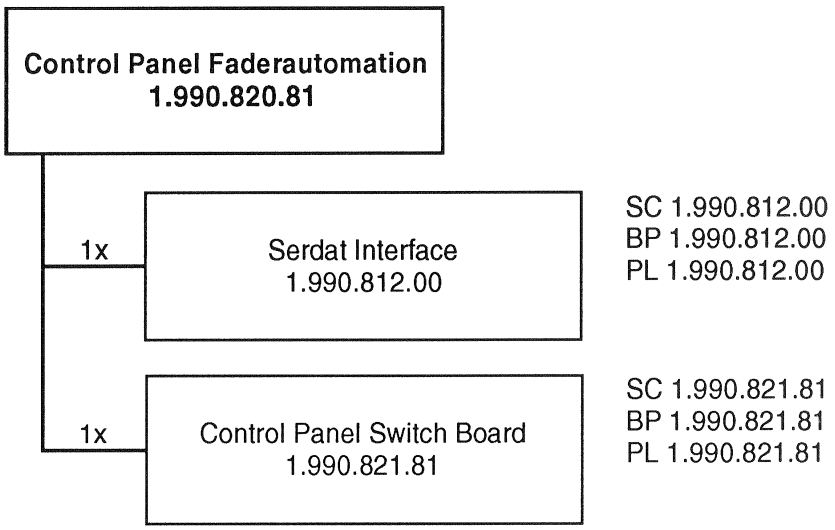
PETP=Polyester, EL=Electrolytic, MF=Metal Film.

MANUFACTURERS :

Sie = Siemens

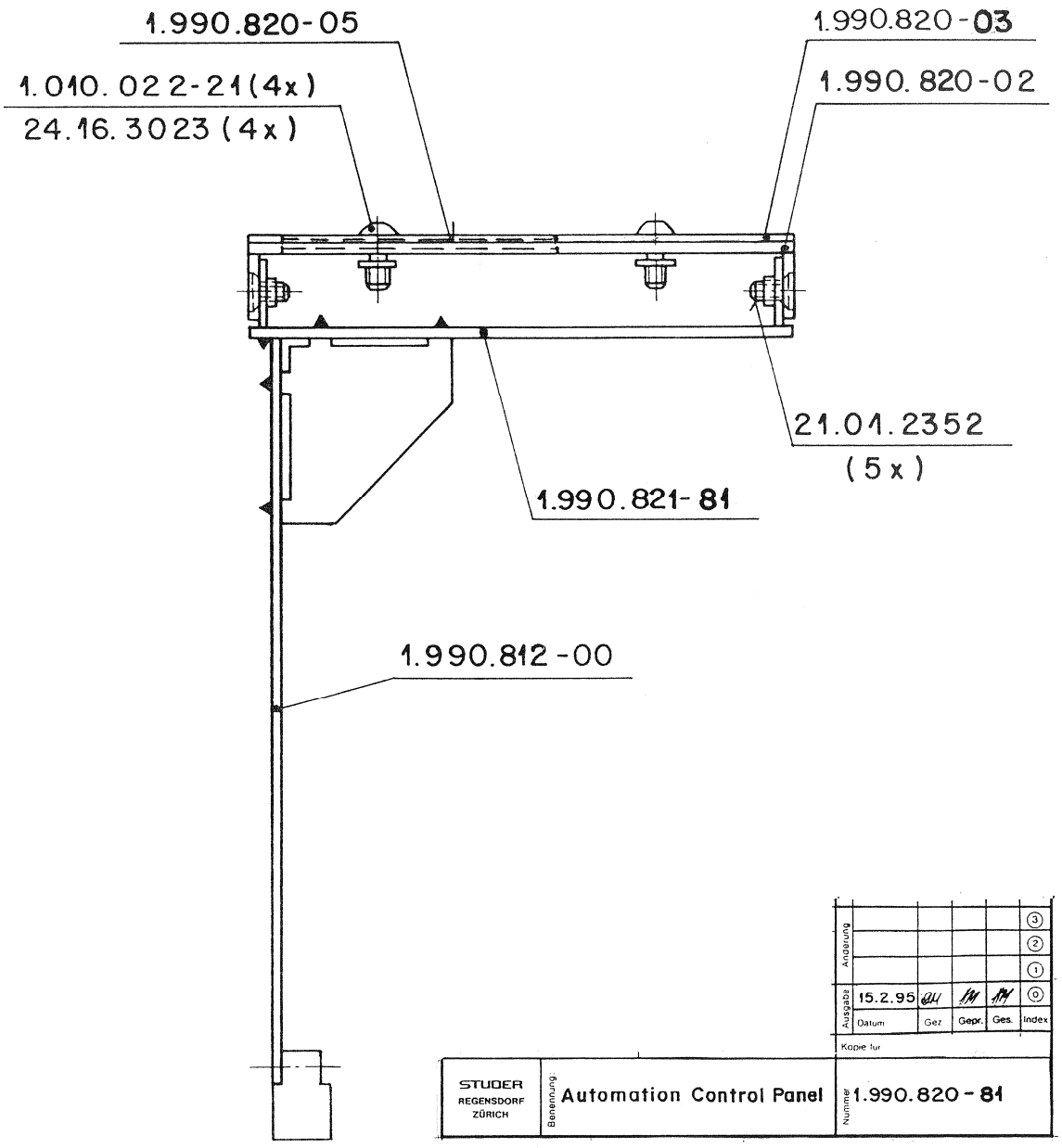
1.990.816-00 CENTRAL ASSIGN SWITCH BOARD CM90/04/2401

Control Panel Faderautomation 1.990.820.81



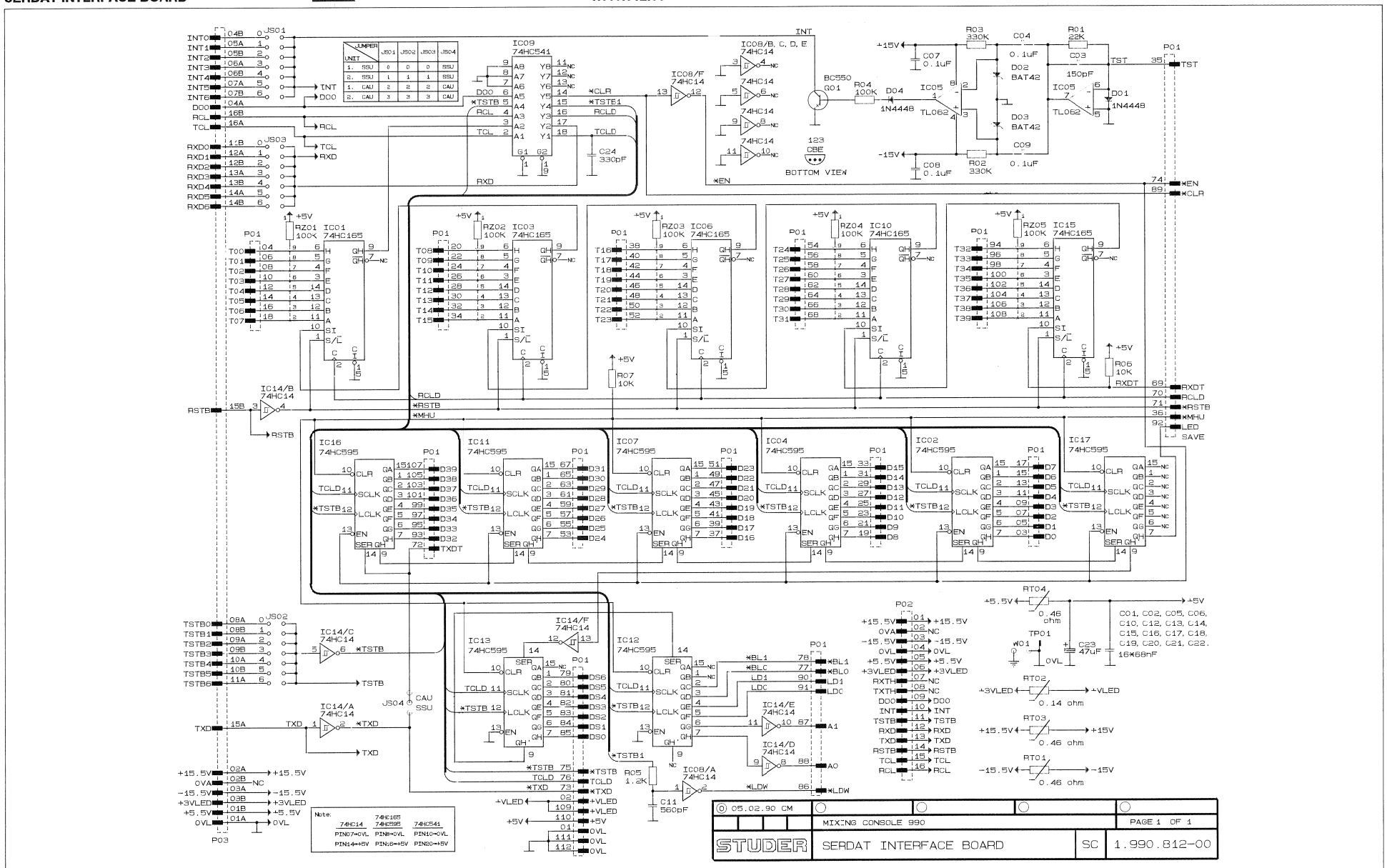
SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

AUTOMATION CONTROL PANEL 1.990.820.81



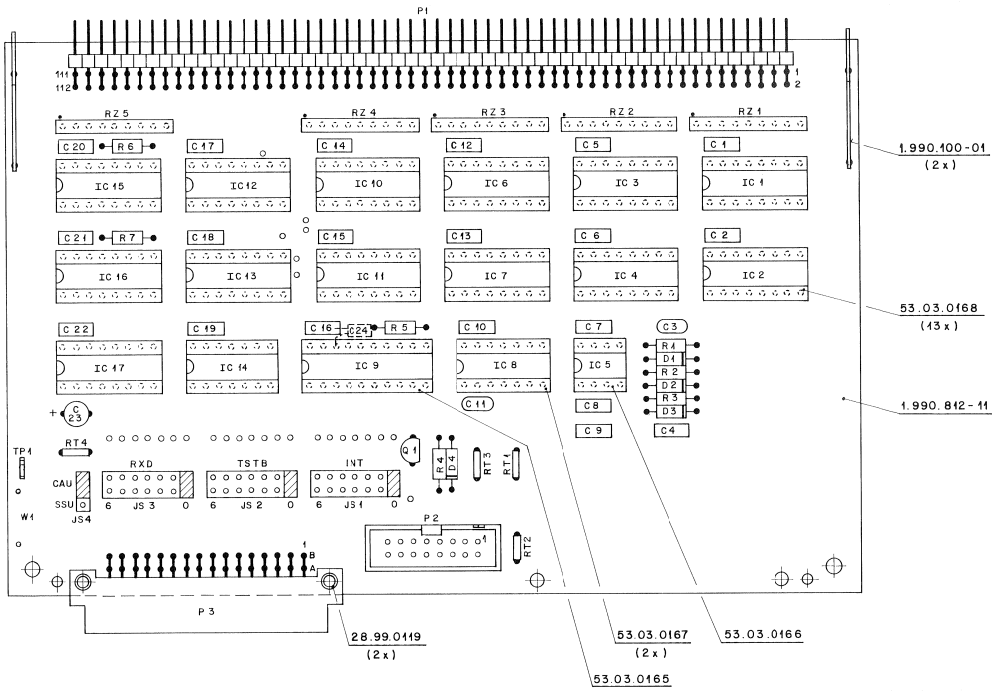
SERDAT INTERFACE BOARD

1.990.812.00



SERDAT INTERFACE BOARD

1.990.812.00



Änderung				③ ② ① ⓪
Ausgabe	12.2.90			
	Datum	Gez.	Gepr.	Ges.	Index
Kopie für:				

STUDER REGENSDORF ZÜRICH	Benennung: SERDAT INTERFACE BOARD ESE	Nummer: 1.990.812-00

Ad	..POS..	...REF.No...		DESCRIPTION	MANUFACTURER
	C.....1	59.06.0683	.068 u	10%, 63V , PETP	
	C.....2	59.06.0683	.068 u	10%, 63V , PETP	
	C.....3	59.34.4151	150 p	5%, N750 , CER	
	C.....4	59.06.0104	.1 u	10%, 63V , PETP	
	C.....5	59.06.0683	.068 u	10%, 63V , PETP	
	C.....6	59.06.0683	.068 u	10%, 63V , PETP	
	C.....7	59.06.0104	.1 u	10%, 63V , PETP	
	C.....8	59.06.0104	.1 u	10%, 63V , PETP	
	C.....9	59.06.0104	.1 u	10%, 63V , PETP	
	C....10	59.06.0683	.068 u	10%, 63V , PETP	
	C....11	59.34.5561	560 p	5%,N1500 , CER	
	C....12	59.06.0683	.068 u	10%, 63V , PETP	
	C....13	59.06.0683	.068 u	10%, 63V , PETP	
	C....14	59.06.0683	.068 u	10%, 63V , PETP	
	C....15	59.06.0683	.068 u	10%, 63V , PETP	
	C....16	59.06.0683	.068 u	10%, 63V , PETP	
	C....17	59.06.0683	.068 u	10%, 63V , PETP	
	C....18	59.06.0683	.068 u	10%, 63V , PETP	
	C....19	59.06.0683	.068 u	10%, 63V , PETP	
	C....20	59.06.0683	.068 u	10%, 63V , PETP	
	C....21	59.06.0683	.068 u	10%, 63V , PETP	
	C....22	59.06.0683	.068 u	10%, 63V , PETP	
	C....23	59.22.3470	47 u	-20%, 10V , EL	
01	C....24	59.32.4331	330 p	20%, 50V , CER	
	D.....1	50.04.0125	1N 4448	75 V, 150 mA, 4 nS, Si.	
	D.....2	50.04.0127	BAT 42	30 V, 100 mA, Schottky.	
	D.....3	50.04.0127	BAT 42	30 V, 100 mA, Schottky.	
	D.....4	50.04.0125	1N 4448	75 V, 150 mA, 4 nS, Si.	
	IC....1	50.17.1165	74 HC 165	8-Bit Paral. Inp./Serial Out. Shift Register	
	IC....2	50.17.1595	74 HC 595	8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	IC....3	50.17.1165	74 HC 165	8-Bit Paral. Inp./Serial Out. Shift Register	
	IC....4	50.17.1595	74 HC 595	8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	IC....5	50.09.0119	TL 062 CP	Low Power JFET Operational Amplifier.	
	IC....6	50.17.1165	74 HC 165	8-Bit Paral. Inp./Serial Out. Shift Register	
	IC....7	50.17.1595	74 HC 595	8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	IC....8	50.17.1014	74 HC 14	Hex Schmitt-Trigger Inverter.	
	IC....9	50.17.1541	74 HC 541	Octal 3-St. Noninv. Buf./Line Drv./Line Recv	
	IC...10	50.17.1165	74 HC 165	8-Bit Paral. Inp./Serial Out. Shift Register	
	IC...11	50.17.1595	74 HC 595	8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	IC...12	50.17.1595	74 HC 595	8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	IC...13	50.17.1595	74 HC 595	8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	IC...14	50.17.1014	74 HC 14	Hex Schmitt-Trigger Inverter.	
	IC...15	50.17.1165	74 HC 165	8-Bit Paral. Inp./Serial Out. Shift Register	
	IC...16	50.17.1595	74 HC 595	8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	IC...17	50.17.1595	74 HC 595	8-Bit S. Inp./Latch. 3-St. P. Out. Shift Reg	
	JS....1	54.01.0020	0.63*0.63	2 * 7 pcs. see Note 1.	
	JS....2	54.01.0020	0.63*0.63	2 * 7 pcs. see Note 1.	
	JS....3	54.01.0020	0.63*0.63	2 * 7 pcs. see Note 1.	
	JS....4	54.01.0020	0.63*0.63	1 * 3 pcs. see Note 2.	
	P.....1	54.11.0131	0.63*0.63	56 pcs. Right Angled Double Row Pin Header.	
	P.....2	54.14.2002		2*8 pins PCB Male Connector for Ribbon-Cable	
	P.....3	54.11.2013		2*16 pins BK Angled Male Eurocard-Connector.	
	Q.....1	50.03.0407	BC 550 C	45 V, 100 mA, NPN, Si.	
	R.....1	57.11.3223	22 k	1%, 0207 , MF	
	R.....2	57.11.3334	330 k	1%, 0207 , MF	
	R.....3	57.11.3334	330 k	1%, 0207 , MF	
	R.....4	57.11.3104	100 k	1%, 0207 , MF	
	R.....5	57.11.3122	1.2 k	1%, 0207 , MF	
	R.....6	57.11.3103	10 k	1%, 0207 , MF	
	R.....7	57.11.3103	10 k	1%, 0207 , MF	
	RT....1	57.92.7014		0.46 ohm / 0.650 A / 20 degr. C.	PTC
	RT....2	57.92.7016		0.14 ohm / 1.600 A / 20 degr. C.	PTC
	RT....3	57.92.7014		0.46 ohm / 0.650 A / 20 degr. C.	PTC
	RT....4	57.92.7014		0.46 ohm / 0.650 A / 20 degr. C.	PTC
	RZ....1	57.88.4101	8 * 100 k	2%, SIP 9	
	RZ....2	57.88.4101	8 * 100 k	2%, SIP 9	
	RZ....3	57.88.4101	8 * 100 k	2%, SIP 9	
	RZ....4	57.88.4101	8 * 100 k	2%, SIP 9	
	RZ....5	57.88.4101	8 * 100 k	2%, SIP 9	
	TP....1	54.02.0320	2.8 * 0.8	Straight PCB Male Faston-Connector.	
	W.....1	00.00.0000	not used		

Note 1: 1 pc. bridge connector # 54.01.0021 must be plugged into the dual row pin-header at the needed position numbered from 0 to 6.

Note 2: 2-of-3 pins are bridged with bridge connector # 54.01.0021.

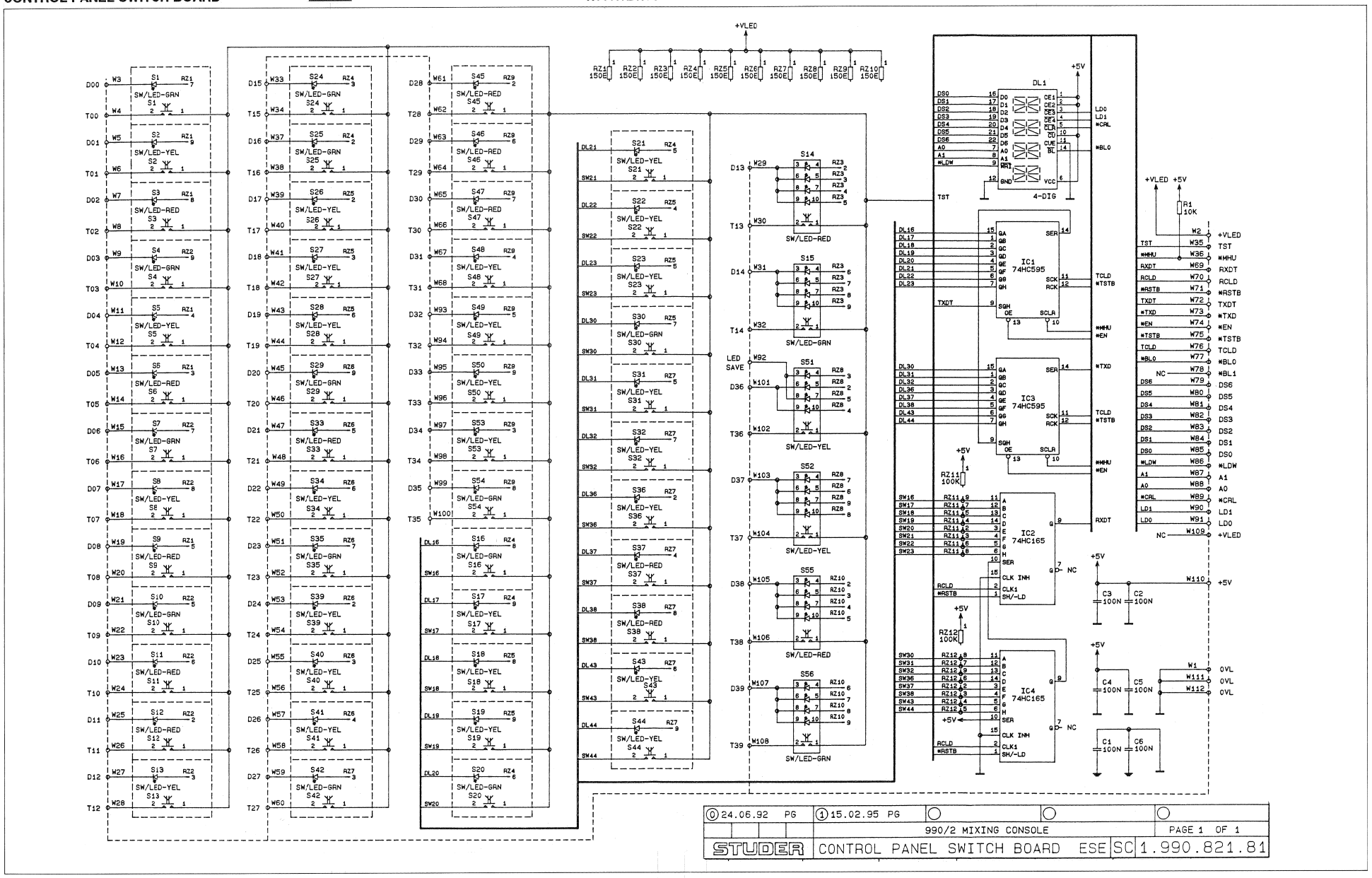
Index (01): C24 blocking capacitor (330 pF) is soldered on the print. (30.01.90)

CER=Ceramic, EL=Electrolytic, PETP=Polyester, MF=Metal Film.

1.990.812-00 SERDAT INTERFACE BOARD CM90/01/3001

CONTROL PANEL SWITCH BOARD

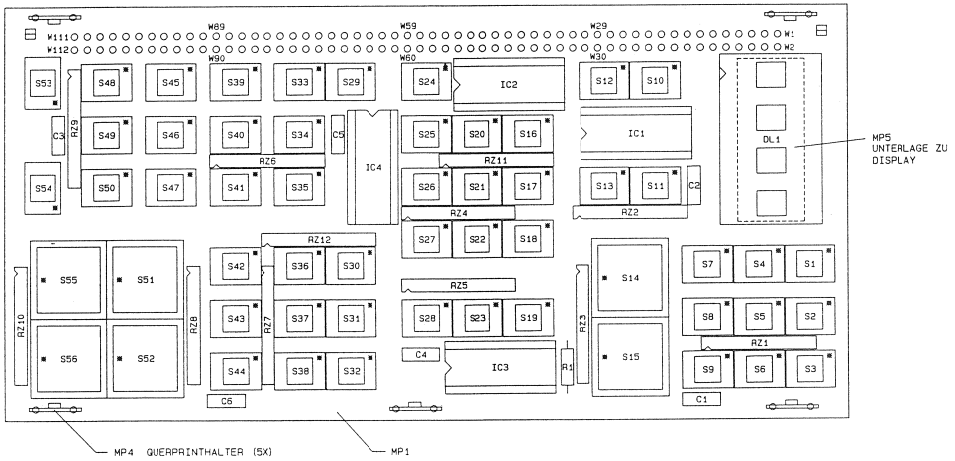
1.990.821.81



⓪ 24.06.92 PG	① 15.02.95 PG		
	990/2 MIXING CONSOLE		PAGE 1 OF 1
STUDER	CONTROL PANEL SWITCH BOARD	ESE SC	1.990.821.81

CONTROL PANEL SWITCH BOARD

1.990.821.81



MP2 + MP3 AUFGEKLEBT NACH FABRIKATIONSMUSTER

IND.	DATUM	GEZ.	GEPR.	GES.
⓪	15.01.95	PG		
	BLATT 1 VON 1			

STUDER	CONTROL PANEL SWITCH BOARD ESE	BP	1.990.821.81

Ad	..POS..	...REF.No...	DESCRIPTION.....MANUFACTURER
	C.....1	59.06.0104	100n 10 %, 63V
	C.....2	59.06.0104	100n 10 %, 63V
	C.....3	59.06.0104	100n 10 %, 63V
	C.....4	59.06.0104	100n 10 %, 63V
	C.....5	59.06.0104	100n 10 %, 63V
	C.....6	59.06.0104	100n 10 %, 63V
	DL....1	73.01.0250	4-DIG P35050, 17-SEG, LED
	IC....1	50.17.1595	74HC595 DIP16, 8 BIT SHIFT/OUT. REGISTER
	IC....2	50.17.1165	74HC165 DIP16, 8 BIT SI/PO SHIFT REGISTER
	IC....3	50.17.1595	74HC595 DIP16, 8 BIT SHIFT/OUT. REGISTER
	IC....4	50.17.1165	74HC165 DIP16, 8 BIT SI/PO SHIFT REGISTER
	MP....1	1.990.821.11	1 pcs EMPTY PCB
	MP....2	43.01.0108	1 pcs ESE STICKER
	MP....3	1.990.821.04	1 pcs NUMBER ETIQUETTE
	MP....4	1.990.100.05	5 pcs PRINTHOLDER
	MP....5	1.990.810.03	1 pcs FOUNDATION FOR DISPLAY
	R.....1	57.11.3103	10k 1 %, 0.6W, MF
	RZ....1	57.88.4151	150E 2 %, 0.125W, SIP09, 8 * 150E
	RZ....2	57.88.4151	150E 2 %, 0.125W, SIP09, 8 * 150E
	RZ....3	57.88.4151	150E 2 %, 0.125W, SIP09, 8 * 150E
	RZ....4	57.88.4151	150E 2 %, 0.125W, SIP09, 8 * 150E
	RZ....5	57.88.4151	150E 2 %, 0.125W, SIP09, 8 * 150E
	RZ....6	57.88.4151	150E 2 %, 0.125W, SIP09, 8 * 150E
	RZ....7	57.88.4151	150E 2 %, 0.125W, SIP09, 8 * 150E
	RZ....8	57.88.4151	150E 2 %, 0.125W, SIP09, 8 * 150E
	RZ....9	57.88.4151	150E 2 %, 0.125W, SIP09, 8 * 150E
	RZ...10	57.88.4151	150E 2 %, 0.125W, SIP09, 8 * 150E
	RZ...11	57.88.4104	100k 2 %, 0.125W, SIP09, 8 * 100K
	RZ...12	57.88.4104	100k 2 %, 0.125W, SIP09, 8 * 100K
	S.....1	55.15.0655	1*A PUSH BUTTON + LED GRN
01	S.....1	. . 0	not used
	S.....2	55.15.0644	1*A PUSH BUTTON + LED YEL
01	S.....2	. . 0	not used
	S.....3	55.15.0622	1*A PUSH BUTTON + LED RED
01	S.....3	. . 0	not used
	S.....4	55.15.0655	1*A PUSH BUTTON + LED GRN
01	S.....4	55.15.0604	1*A PUSH BUTTON + LED YEL
	S.....5	55.15.0644	1*A PUSH BUTTON + LED YEL
01	S.....5	. . 0	not used
	S.....6	55.15.0622	1*A PUSH BUTTON + LED RED
01	S.....6	55.15.0604	1*A PUSH BUTTON + LED YEL
	S.....7	55.15.0655	1*A PUSH BUTTON + LED GRN
01	S.....7	. . 0	not used
	S.....8	55.15.0644	1*A PUSH BUTTON + LED YEL
01	S.....8	. . 0	not used
	S.....9	55.15.0622	1*A PUSH BUTTON + LED RED
01	S.....9	. . 0	not used
	S....10	55.15.0605	1*A PUSH BUTTON + LED GRN
01	S....10	. . 0	not used
	S....11	55.15.0622	1*A PUSH BUTTON + LED RED
01	S....11	. . 0	not used
	S....12	55.15.0602	1*A PUSH BUTTON + LED RED
01	S....12	. . 0	not used
	S....13	55.15.0604	1*A PUSH BUTTON + LED YEL
01	S....13	. . 0	not used
	S....14	55.15.0702	1*A PUSH BUTTON + LED RED
01	S....14	55.15.0722	1*A PUSH BUTTON + LED RED
	S....15	55.15.0705	1*A PUSH BUTTON + LED GRN
01	S....15	55.15.0755	1*A PUSH BUTTON + LED GRN
	S....16	55.15.0655	1*A PUSH BUTTON + LED GRN
01	S....16	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....17	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....18	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....19	55.15.0644	1*A PUSH BUTTON + LED YEL
01	S....19	. . 0	not used
	S....20	55.15.0655	1*A PUSH BUTTON + LED GRN
01	S....20	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....21	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....22	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....23	55.15.0644	1*A PUSH BUTTON + LED YEL
01	S....23	. . 0	not used
	S....24	55.15.0605	1*A PUSH BUTTON + LED GRN
01	S....24	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....25	55.15.0655	1*A PUSH BUTTON + LED GRN
01	S....25	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....26	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....27	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....28	55.15.0644	1*A PUSH BUTTON + LED YEL
01	S....28	. . 0	not used
	S....29	55.15.0605	1*A PUSH BUTTON + LED GRN
01	S....29	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....30	55.15.0655	1*A PUSH BUTTON + LED GRN
01	S....30	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....31	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....32	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....33	55.15.0602	1*A PUSH BUTTON + LED RED
01	S....33	. . 0	not used
	S....34	55.15.0604	1*A PUSH BUTTON + LED YEL
01	S....34	. . 0	not used
	S....35	55.15.0605	1*A PUSH BUTTON + LED GRN
01	S....35	. . 0	not used
	S....36	55.15.0644	1*A PUSH BUTTON + LED YEL
01	S....36	. . 0	not used
	S....37	55.15.0622	1*A PUSH BUTTON + LED RED
01	S....37	. . 0	not used
	S....38	55.15.0602	1*A PUSH BUTTON + LED RED
01	S....38	. . 0	not used
	S....39	55.15.0644	1*A PUSH BUTTON + LED YEL
01	S....39	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....40	55.15.0644	1*A PUSH BUTTON + LED YEL
01	S....40	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....41	55.15.0644	1*A PUSH BUTTON + LED YEL
01	S....41	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....42	55.15.0605	1*A PUSH BUTTON + LED GRN
01	S....42	55.15.0604	1*A PUSH BUTTON + LED YEL
01	S....43	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....44	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....45	55.15.0602	1*A PUSH BUTTON + LED RED
01	S....45	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....46	55.15.0602	1*A PUSH BUTTON + LED RED
01	S....46	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....47	55.15.0602	1*A PUSH BUTTON + LED RED
01	S....47	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....48	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....49	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....50	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....51	55.15.0704	1*A PUSH BUTTON + LED YEL
	S....52	55.15.0704	1*A PUSH BUTTON + LED YEL
	S....53	55.15.0644	1*A PUSH BUTTON + LED YEL
01	S....53	. . 0	not used
	S....54	55.15.0655	1*A PUSH BUTTON + LED GRN
01	S....54	55.15.0604	1*A PUSH BUTTON + LED YEL
	S....55	55.15.0702	1*A PUSH BUTTON + LED RED
01	S....55	55.15.0722	1*A PUSH BUTTON + LED RED
	S....56	55.15.0705	1*A PUSH BUTTON + LED GRN
01	S....56	55.15.0755	1*A PUSH BUTTON + LED GRN
	XIC...1	53.03.0168	DIL16 SOCKET FOR IC1
	XIC...2	53.03.0168	DIL16 SOCKET FOR IC2
	XIC...3	53.03.0168	DIL16 SOCKET FOR IC3
	XIC...4	53.03.0168	DIL16 SOCKET FOR IC4
		1.990.821-00	AUTOMATION CONTROL PANEL PG 92/06/2400
		1.990.821-81	AUTOMATION CONTROL PANEL PG 95/02/1501

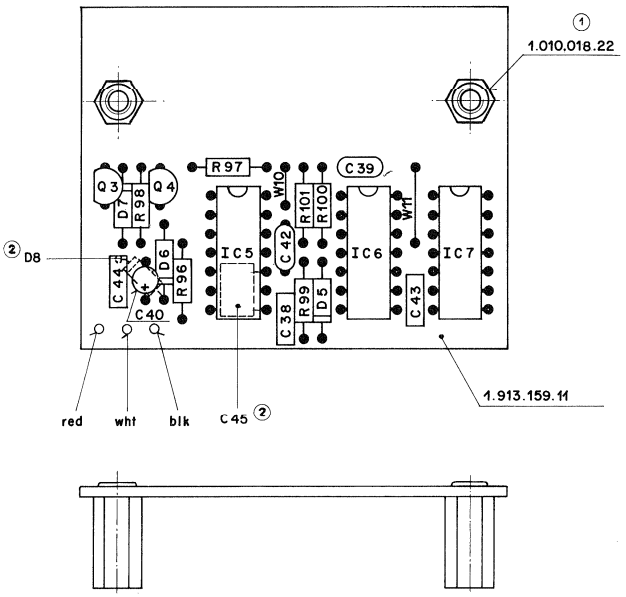
END

Section 6 Meter Panel and Top Panel Units

Table of Contents

DIGITAL NOISE GENERATOR

1.913.159.00



Änderung					
					3
	28.9.87				2
	27.8.86				1
Ausgabe	14.11.85				0
	Datum	Gez	Gepr	Ges.	Index

Kopie für

STUDER REGENSDORF ZÜRICH	Benennung	DIGITAL NOISE GENERATOR ESE	Nummer	1.913.159 – 00

Ad	..POS..	...REF.No...	DESCRIPTION				MANUFACTURER
	C....38	59.06.5102	1 nF	10%		PE	
	C....39	59.34.2470	47 pF	5%		CE	
	C....40	59.26.9109	1 uF	-20%		SAL	
01	C....40	59.22.3101	100 uF			EL	
	C....41	. .	not used				
	C....42	59.34.2470	47 pF	5%		CE	
	C....43	59.06.5104	100 nF	20%		PE	
	C....44	59.06.5104	100 nF	20%		PE	
01	C....45	59.06.0222	2.2 nF	20%		PE	
	D.....5	50.04.1108	Z 5.6V	400mW			
01	D.....5	50.04.1114	Z 10V	400mW			
	D.....6	50.04.0125	1N4448				any
	D.....7	50.04.0125	1N4448				any
01	D.....8	50.04.0125	1N4448				any
	IC....5	50.07.0070	CD4070	2-input EXOR			Fc,Mot
	IC....6	50.07.1006	CD4006	18 bit SHIFT-REGISTER			Fc,Mot
	IC....7	50.07.1006	CD4006	18 bit SHIFT-REGISTER			Fc,Mot
	MP....1	1.010.012.22	2 pcs	Nietmutter SW 6			
	MP....2	1.913.159.11	1 pcs	Print			
	Q.....3	50.03.0436	BC 237	NPN	IC>100mA, B>100		any
	Q.....4	50.03.0436	BC 237	NPN	IC>100mA, B>100		any
	R....94	. .	not exist				
	R....95	. .	not exist				
	R....96	57.11.4223	22 kOhm	2%	0.25W	MF	
	R....97	57.11.4103	10 kOhm	2%	0.25W	MF	
	R....98	57.11.4103	10 kOhm	2%	0.25W	MF	
	R....99	57.11.4105	1 MOhm	5%	0.25W	MF	
	R...100	57.11.4154	150 kOhm	2%	0.25W	MF	
	R...101	57.11.4103	10 kOhm	2%	0.25W	MF	
	W....10	. .					
	W....11	. .					

(01) 87/09/28 improved start oszillation after power-on

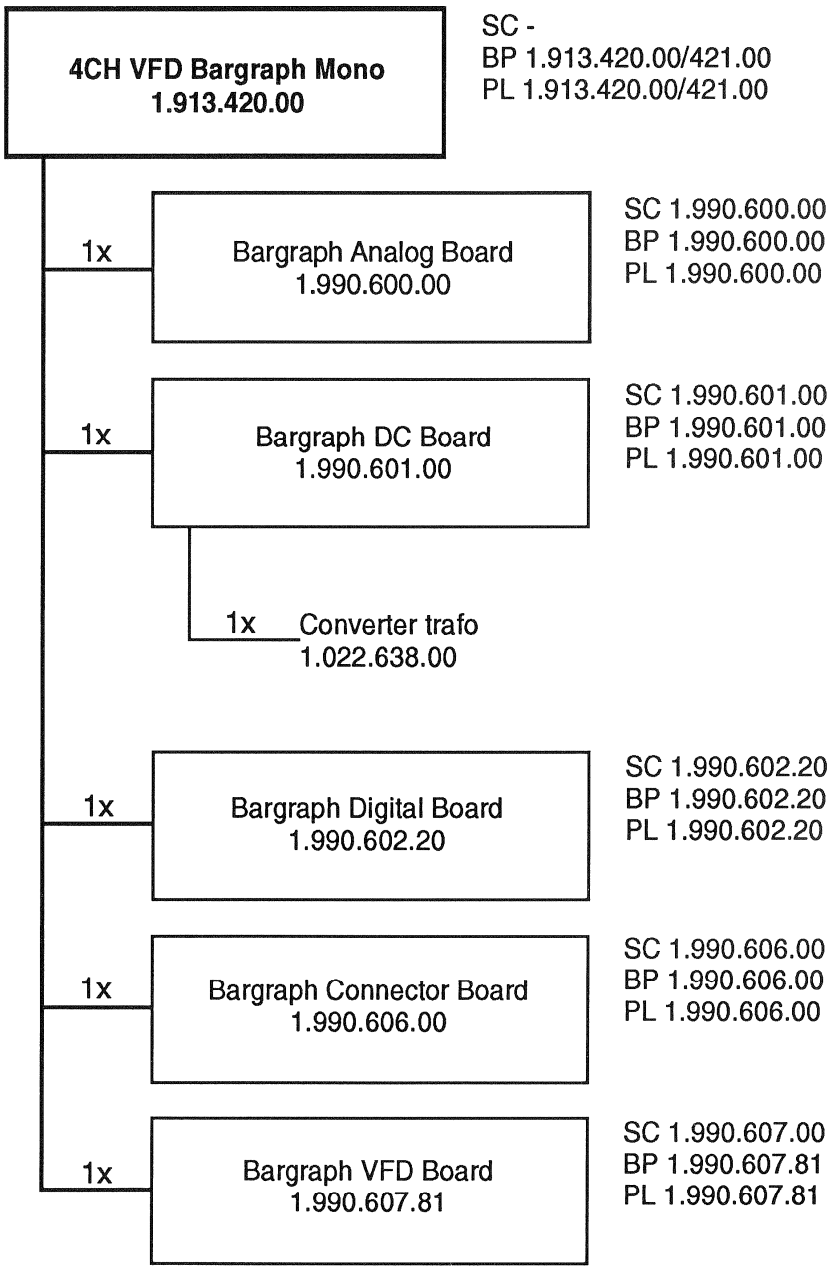
CE=Ceramic, CF=Carbon Film, EL=Electrolytic, MF=Metal Film,
PE=Polyester, PP=Polypropylen, PS=Polystyrol, SAL=Solid aluminium
lacquard

MANUFACTURER: Bu=Burndy, Ex=Exar, Fc=Fairchild, GI=General Instrument
HP=Hewlett Packard, ITT=Intermetall, Mot=Motorola,
NS=National Semiconductors, Ph=Philips, Ra=Raytheon,
Sig=Signetics, Six=Siliconix, St=Studer,
TI=Texas Instrument, CK=C&K

1.913.159.00 DIGITAL NOISE GENERATOR AE 85/11/1200

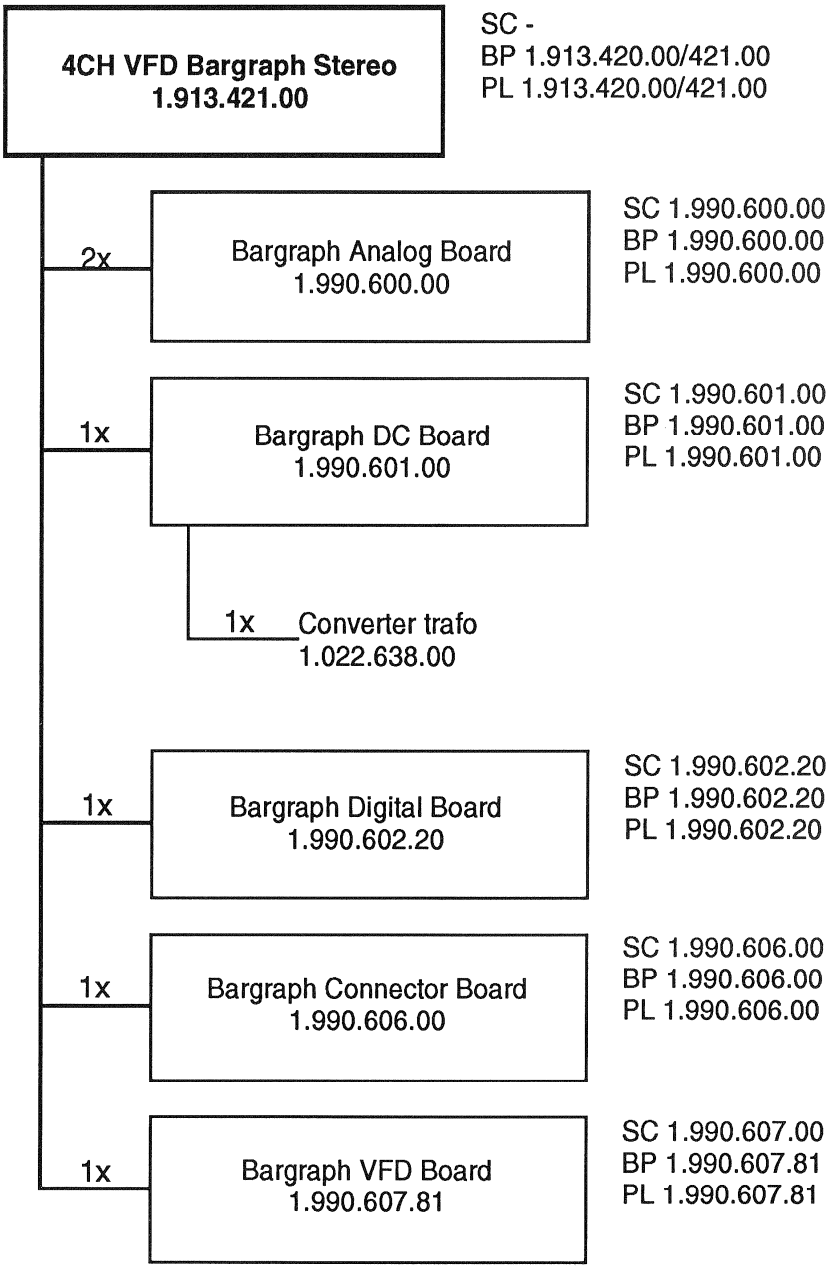
1.913.159.00 DIGITAL NOISE GENERATOR AE 87/09/2801

4CH VFD Bargraph Mono 1.913.420.00



SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

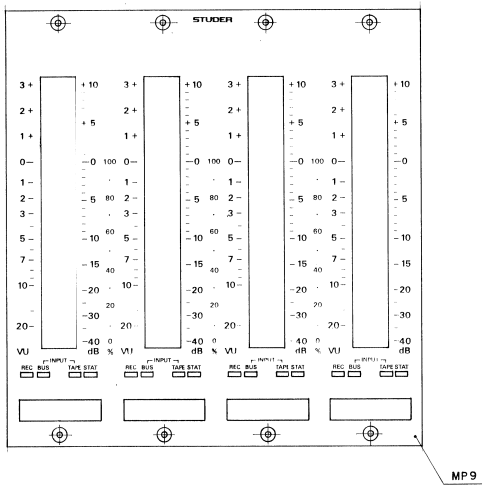
4CH VFD Bargraph Stereo 1.913.421.00

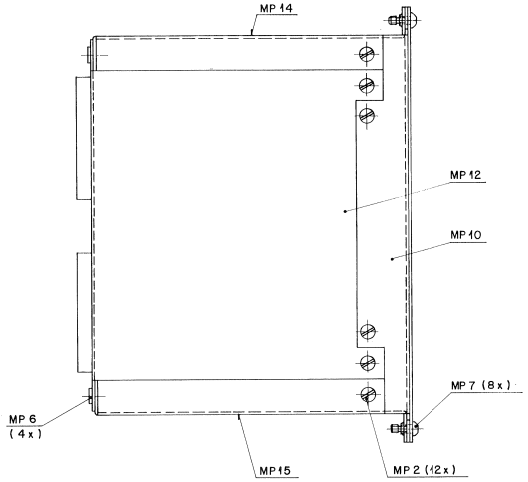


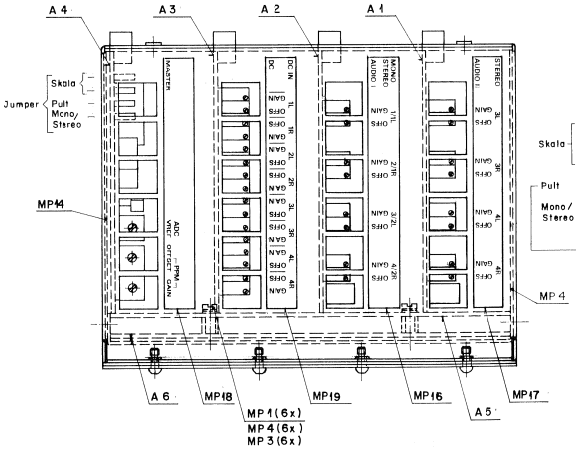
SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

4CH BAR-GRAPH STEREO

1.913.421.00







①

Anordnung der Jumper 54.01.0021 auf dem Digitalprint A 4

	1.913.420.00 Mono 990	1.913.421.00 Stereo 990	1.913.422.00 Mono N9	1.913.423.00 Stereo N9	1.913.424.00 Mono IEC	1.913.425.00 Stereo IEC	1.913.426.00 Mono EBU	1.913.427.00 Stereo EBU
Skala								
Pult								
Mono/ Stereo								

Bei Verwendung im Pult 990 diesen Jumper in der Pult - Endmontage entfernen.

Änderung					③
					②
	3.6.91			VOL	①
Ausgabe	21.6.90				⓪
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: 4 CH BAR-GRAPH STEREO	Nummer: 1.913.421-00

1.913.420.00

Ad	..POS..	...REF.No...		DESCRIPTION	MANUFACTURER
	A.....1	. . 0		not used	
	A.....2	1.990.600.00		Bar-Graph Analog Board	St
	A.....3	1.990.601.00		Bar-Graph DC Board	St
04	A.....4	1.990.602.21		Bar-Graph Digital Board	St
	A.....5	1.990.606.00		Bar-Graph Connector Board	St
02	A.....6	1.990.607.81		Bar-Graph VFD Board	St
	MP....1	21.01.0353	0006 pcs	Z-Schr. , ZN , M3 * 5	
	MP....2	21.01.2352	0012 pcs	S-Schr. , ZN , M3 * 4	
01	MP....3	23.01.1032	0006 pcs	U-Scheibe D 3.2/6 * 0.5	
01	MP....4	24.16.1030	0006 pcs	Rippenscheibe D 3.2/5.5	
	MP....5	. . 0		not exist . .	
	MP....6	28.31.0005	0004 pcs	Blindniete D 3.2 * 6.1	
	MP....7	1.010.022.21	0008 pcs	Linsenschraube IS spez. M3 * 8 sw	
	MP....8	1.010.080.43	0001 pcs	Software Version Schild	
	MP....9	1.913.420.01	0001 pcs	Frontschild VFD Bar-Graph	
	MP...10	1.913.420.02	0001 pcs	Traeger VFD Bar-Graph	
	MP...11	1.913.420.04	0000 pcs	Studer-Nr.-Etikette 10 * 20	
	MP...12	1.913.420.05	0001 pcs	Mantel VFD Bar-Graph	
	MP...13	. . 0		not exist . .	
	MP...14	1.913.420.08	0002 pcs	Isolation Mantel VFD Bar-Graph	
	MP...15	1.990.620.09	0002 pcs	Stirnmantel VFD Bar-Graph	
	MP...16	1.990.620.21	0001 pcs	Schild Potm. Beschr. AUDIO 1	
	MP...17	. . 0		not exist . .	
	MP...18	1.990.620.23	0001 pcs	Schild Potm. Beschr. MASTER	
	MP...19	1.990.620.24	0001 pcs	Schild Potm. Beschr. DC	
03	MP...20	54.01.0021	0003 pcs	Jumper Bruecke	

Index 1: U-Scheiben und Rippenscheiben dazu.

Index 2: Aenderung von 1.990.607.00 nach 1.990.607.81

Index 3: Uebertragung der Jumperbruecken von 1.990.602.20

Index 4: 1.990.602.21 neue SW

MANUFACTURER St=Studer

1.913.420.00	4CH BAR-GRAPH MONO (990)	VOL90/02/0600
1.913.420.00	4CH BAR-GRAPH MONO (990)	VOL90/05/0801
1.913.420.00	4CH BAR-GRAPH MONO (990)	VOL90/06/2702
1.913.420.00	4CH BAR-GRAPH MONO (990)	VOL91/06/2603
1.913.420.00	4CH BAR-GRAPH MONO (990)	FRI94/04/2804

1.913.421.00

Ad	..POS..	...REF.No...		DESCRIPTION	MANUFACTURER
	A.....1	1.990.600.00		Bar-Graph Analog Board	St
	A.....2	1.990.600.00		Bar-Graph Analog Board	St
	A.....3	1.990.601.00		Bar-Graph DC Board	St
04	A.....4	1.990.602.21		Bar-Graph Digital Board	St
	A.....5	1.990.606.00		Bar-Graph Connector Board	St
02	A.....6	1.990.607.81		Bar-Graph VFD Board	St
	MP....1	21.01.0353	0006 pcs	Z-Schr. , ZN , M3 * 5	
	MP....2	21.01.2352	0012 pcs	S-Schr. , ZN , M3 * 4	
01	MP....3	23.01.1032	0006 pcs	U-Scheibe D 3.2/6 * 0.5	
01	MP....4	24.16.1030	0006 pcs	Rippenscheibe D 3.2/5.5	
	MP....5	. . 0		not exist . .	
	MP....6	28.31.0005	0004 pcs	Blindniete D 3.2 * 6.1	
	MP....7	1.010.022.21	0008 pcs	Linsenschraube IS spez. M3 * 8 sw	
	MP....8	1.010.080.43	0001 pcs	Software Version Schild	
	MP....9	1.913.420.01	0001 pcs	Frontschild VFD Bar-Graph	
	MP...10	1.913.420.02	0001 pcs	Traeger VFD Bar-Graph	
	MP...11	1.913.421.04	0000 pcs	Studer-Nr.-Etikette 10 * 20	
	MP...12	1.913.420.05	0001 pcs	Mantel VFD Bar-Graph	
	MP...13	. . 0		not exist . .	
	MP...14	1.913.420.08	0002 pcs	Isolation Mantel VFD Bar-Graph	
	MP...15	1.990.620.09	0002 pcs	Stirnmantel VFD Bar-Graph	
	MP...16	1.990.620.21	0001 pcs	Schild Potm. Beschr. AUDIO 1	
	MP...17	1.990.620.22	0001 pcs	Schild Potm. Beschr. AUDIO 2	
	MP...18	1.990.620.23	0001 pcs	Schild Potm. Beschr. MASTER	
	MP...19	1.990.620.24	0001 pcs	Schild Potm. Beschr. DC	
03	MP...20	54.01.0021	0003 pcs	Jumper Bruecke	

Index 1: U-Scheiben und Rippenscheiben dazu.

Index 2: Aenderung von 1.990.607.00 nach 1.990.607.81

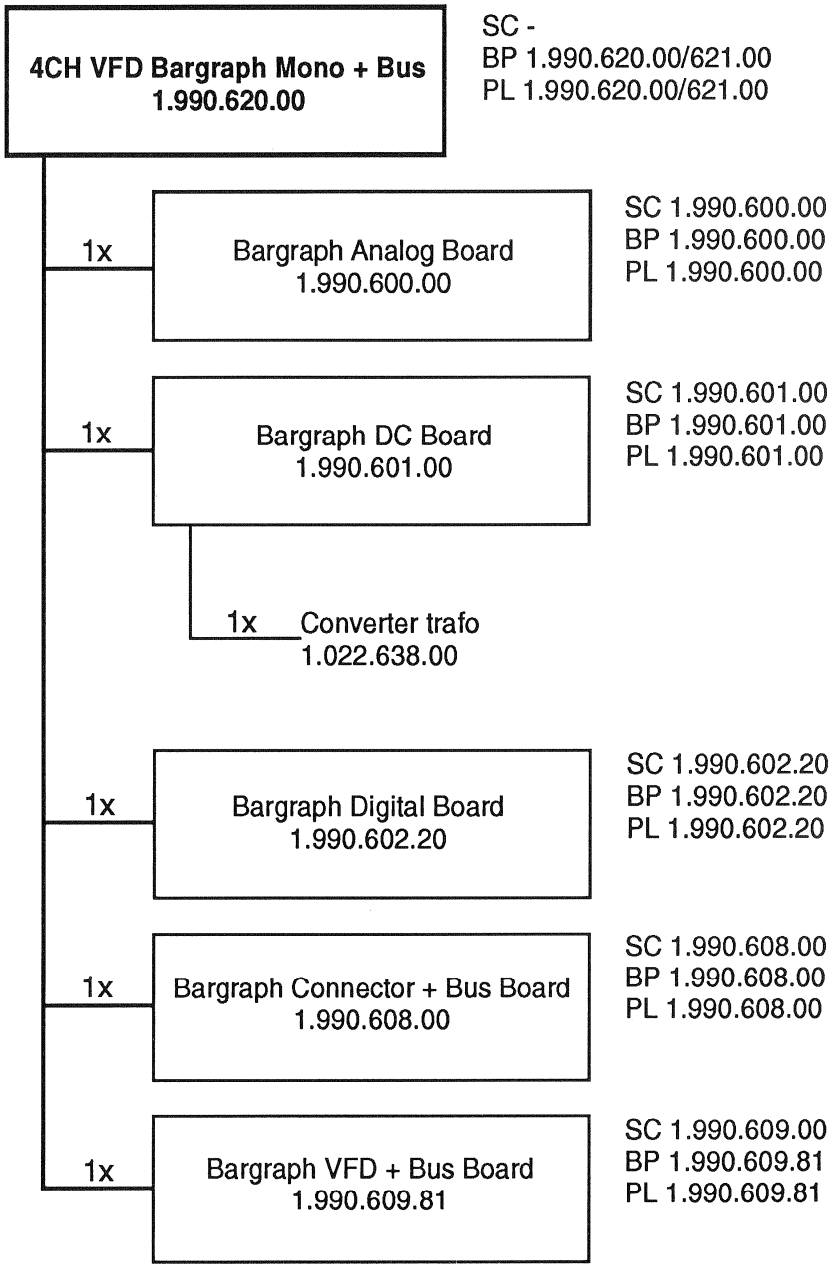
Index 3: Uebertragung der Jumperbruecken von 1.990.602.20

Index 4: 1.990.602.21 neue SW

MANUFACTURER St=Studer

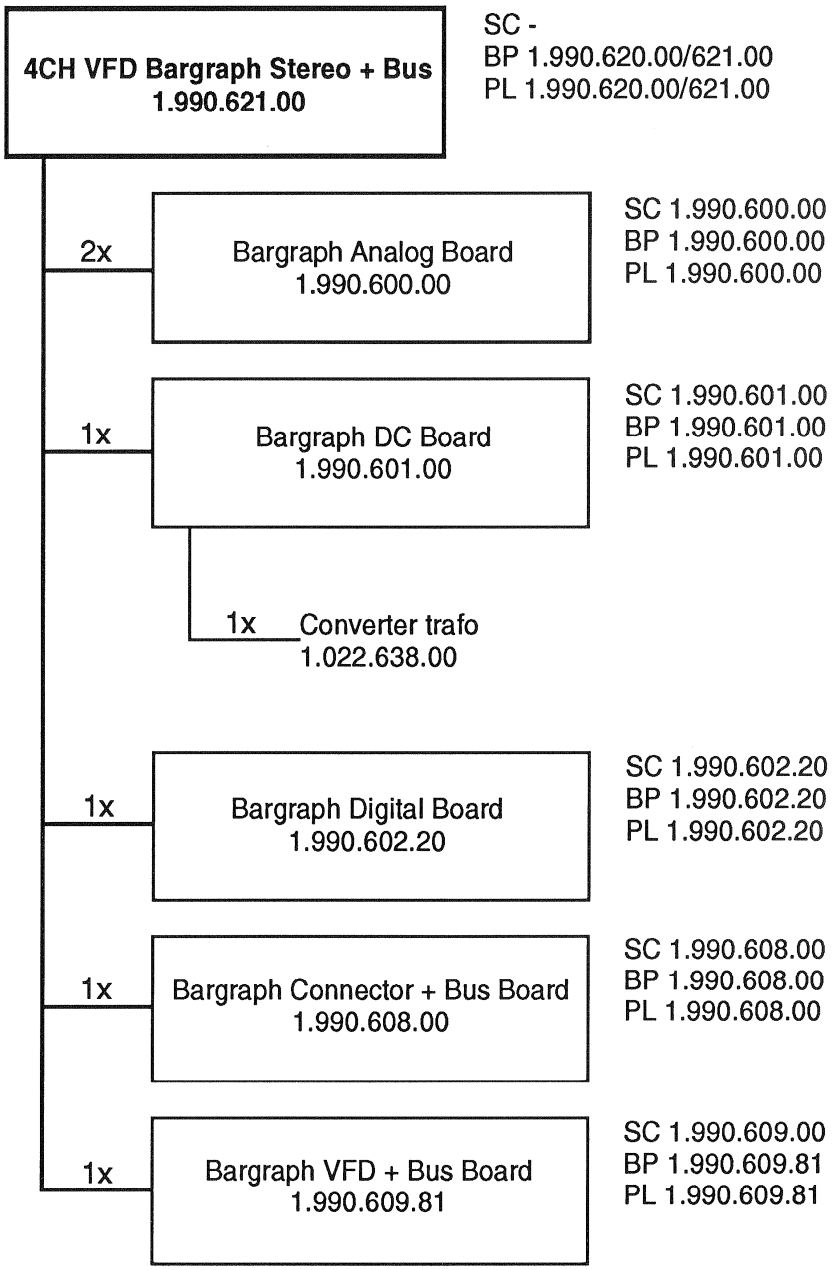
1.913.421.00	4CH BAR-GRAPH STEREO (990)	VOL90/02/0600
1.913.421.00	4CH BAR-GRAPH STEREO (990)	VOL90/05/0801
1.913.421.00	4CH BAR-GRAPH STEREO (990)	VOL90/06/2702
1.913.421.00	4CH BAR-GRAPH STEREO (990)	VOL91/06/2603
1.913.421.00	4CH BAR-GRAPH STEREO (990)	FRI94/04/2804

4CH VFD Bargraph Mono + Bus 1.990.620.00



SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

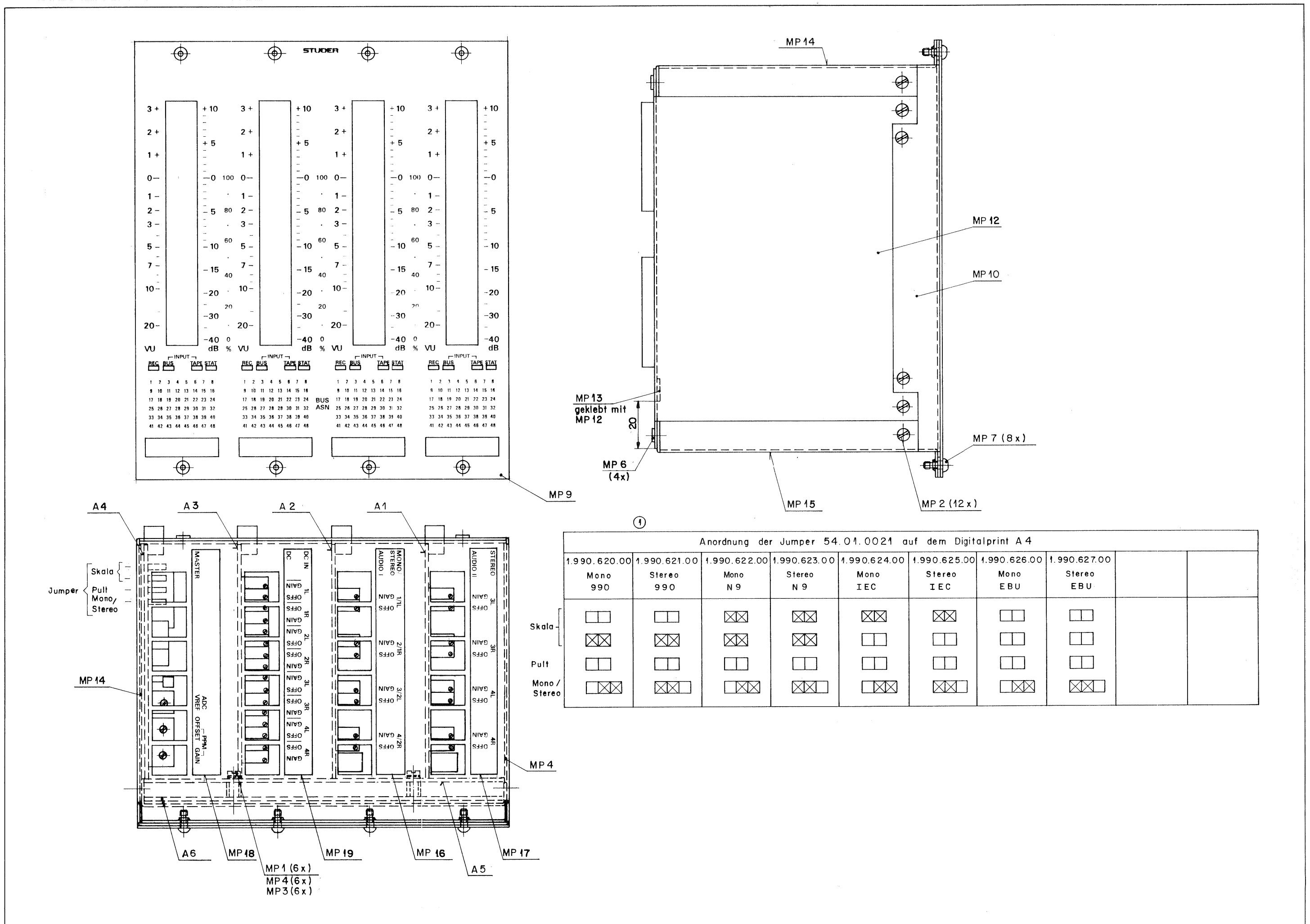
4CH VFD Bargraph Stereo + Bus 1.990.621.00



SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

4CH BAR-GRAPH STEREO + BUS

1.990.621.00



Änderung					③
					②
	3.6.91			VOL	①
Ausgabe	21.6.90				⓪
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH — Benennung: 4CH BAR-GRAPH STEREO + BUS — Nummer: 1.990.621-00

Ad	..POS..	...REF.No...		DESCRIPTION	MANUFACTURER
	A.....1	. . 0	not used		
	A.....2	1.990.600.00		Bar-Graph Analog Board	St
	A.....3	1.990.601.00		Bar-Graph DC Board	St
04	A.....4	1.990.602.21		Bar-Graph Digital Board	St
	A.....5	1.990.608.00		Bar-Graph Connector+Bus Board	St
02	A.....6	1.990.609.81		Bar-Graph VFD+Bus Board	St
	MP....1	21.01.0353	0006 pcs	Z-Schr. , ZN , M3 * 5	
	MP....2	21.01.2352	0012 pcs	S-Schr. , ZN , M3 * 4	
01	MP....3	23.01.1032	0006 pcs	U-Scheibe D 3.2/6 * 0.5	
01	MP....4	24.16.1030	0006 pcs	Rippenscheibe D 3.2/5.5	
	MP....5	. . 0		not exist	
	MP....6	28.31.0005	0004 pcs	Blindniete D 3.2 * 6.1	
	MP....7	1.010.022.21	0008 pcs	Linsenschraube IS spez. M3 * 8 sw	
	MP....8	1.010.080.43	0001 pcs	Software Version Schild	
	MP....9	1.990.620.01	0001 pcs	Frontschild 1 VFD Bar-Graph + Bus	
	MP...10	1.990.620.02	0001 pcs	Traeger VFD Bar-Graph + Bus	
	MP...11	1.990.620.04	0000 pcs	Studer-Nr.-Etikette 10 * 20	
	MP...12	1.990.620.05	0001 pcs	Mantel VFD Bar-Graph + Bus	
	MP...13	1.990.620.06	0001 pcs	Distanzstreifen	
	MP...14	1.990.620.08	0002 pcs	Isolation Mantel VFD Bar-Graph	
	MP...15	1.990.620.09	0002 pcs	Stirnmantel VFD Bar-Graph	
	MP...16	1.990.620.21	0001 pcs	Schild Potm. Beschr. AUDIO 1	
	MP...17	. . 0		not exist	
	MP...18	1.990.620.23	0001 pcs	Schild Potm. Beschr. MASTER	
	MP...19	1.990.620.24	0001 pcs	Schild Potm. Beschr. DC	
03	MP...20	54.01.0021	0002 pcs	Jumper Bruecke	

Index 1: U-Scheiben und Rippenscheiben dazu.

Index 2: Aenderung von 1.990.609.00 nach 1.990.609.81

Index 3: Uebertragung der Jumperbruecken von 1.990.602.20

Index 4: 1.990.602.21 neue SW

MANUFACTURER St=Studer

1.990.620.00 4CH BAR-GRAPH MONO+BUS (990) VOL90/02/0600

1.990.620.00 4CH BAR-GRAPH MONO+BUS (990) VOL90/05/0801

1.990.620.00 4CH BAR-GRAPH MONO+BUS (990) VOL90/06/2702

1.990.620.00 4CH BAR-GRAPH MONO+BUS (990) VOL91/06/2603

1.990.620.00 4CH BAR-GRAPH MONO+BUS (990) FRI94/04/2804

Ad	..POS..	...REF.No...		DESCRIPTION	MANUFACTURER
	A.....1	1.990.600.00		Bar-Graph Analog Board	St
	A.....2	1.990.600.00		Bar-Graph Analog Board	St
	A.....3	1.990.601.00		Bar-Graph DC Board	St
04	A.....4	1.990.602.21		Bar-Graph Digital Board	St
	A.....5	1.990.608.00		Bar-Graph Connector+Bus Board	St
02	A.....6	1.990.609.81		Bar-Graph VFD+Bus Board	St
	MP....1	21.01.0353	0006 pcs	Z-Schr. , ZN , M3 * 5	
	MP....2	21.01.2352	0012 pcs	S-Schr. , ZN , M3 * 4	
01	MP....3	23.01.1032	0006 pcs	U-Scheibe D 3.2/6 * 0.5	
01	MP....4	24.16.1030	0006 pcs	Rippenscheibe D 3.2/5.5	
	MP....5	. . 0		not exist	
	MP....6	28.31.0005	0004 pcs	Blindniete D 3.2 * 6.1	
	MP....7	1.010.022.21	0008 pcs	Linsenschraube IS spez. M3 * 8 sw	
	MP....8	1.010.080.43	0001 pcs	Software Version Schild	
	MP....9	1.990.620.01	0001 pcs	Frontschild 1 VFD Bar-Graph + Bus	
	MP...10	1.990.620.02	0001 pcs	Traeger VFD Bar-Graph + Bus	
	MP...11	1.990.621.04	0000 pcs	Studer-Nr.-Etikette 10 * 20	
	MP...12	1.990.620.05	0001 pcs	Mantel VFD Bar-Graph + Bus	
	MP...13	1.990.620.06	0001 pcs	Distanzstreifen	
	MP...14	1.990.620.08	0002 pcs	Isolation Mantel VFD Bar-Graph	
	MP...15	1.990.620.09	0002 pcs	Stirnmantel VFD Bar-Graph	
	MP...16	1.990.620.21	0001 pcs	Schild Potm. Beschr. AUDIO 1	
	MP...17	1.990.620.22	0001 pcs	Schild Potm. Beschr. AUDIO 2	
	MP...18	1.990.620.23	0001 pcs	Schild Potm. Beschr. MASTER	
	MP...19	1.990.620.24	0001 pcs	Schild Potm. Beschr. DC	
03	MP...20	54.01.0021	0002 pcs	Jumper Bruecke	

Index 1: U-Scheiben und Rippenscheiben dazu.

Index 2: Aenderung von 1.990.609.00 nach 1.990.609.81

Index 3: Uebertragung der Jumperbruecken von 1.990.602.20

Index 4: 1.990.602.21 neue SW

MANUFACTURER St=Studer

1.990.621.00 4CH BAR-GRAPH STEREO+BUS (990)VOL90/02/0600

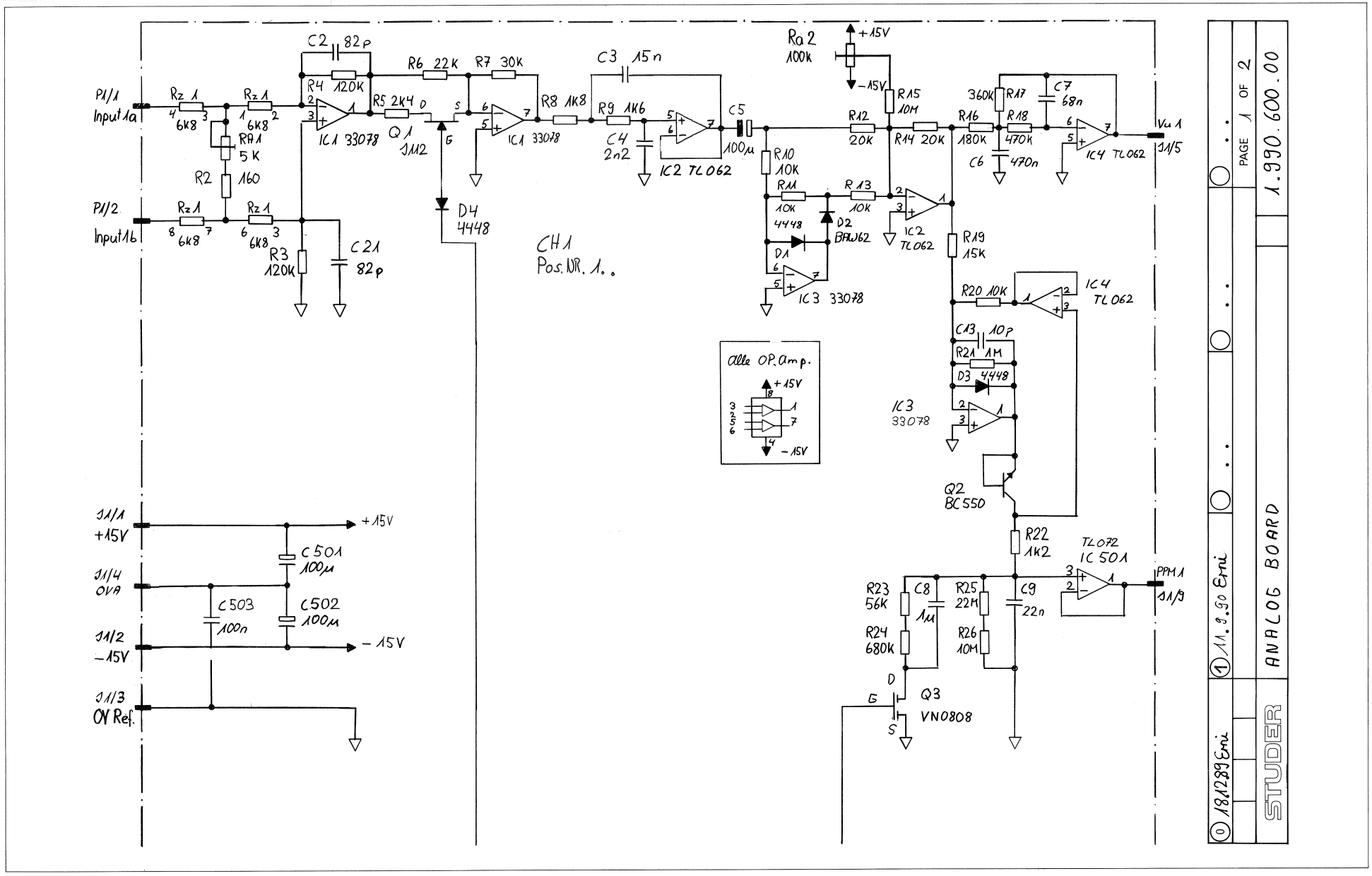
1.990.621.00 4CH BAR-GRAPH STEREO+BUS (990)VOL90/05/0801

1.990.621.00 4CH BAR-GRAPH STEREO+BUS (990)VOL90/06/2702

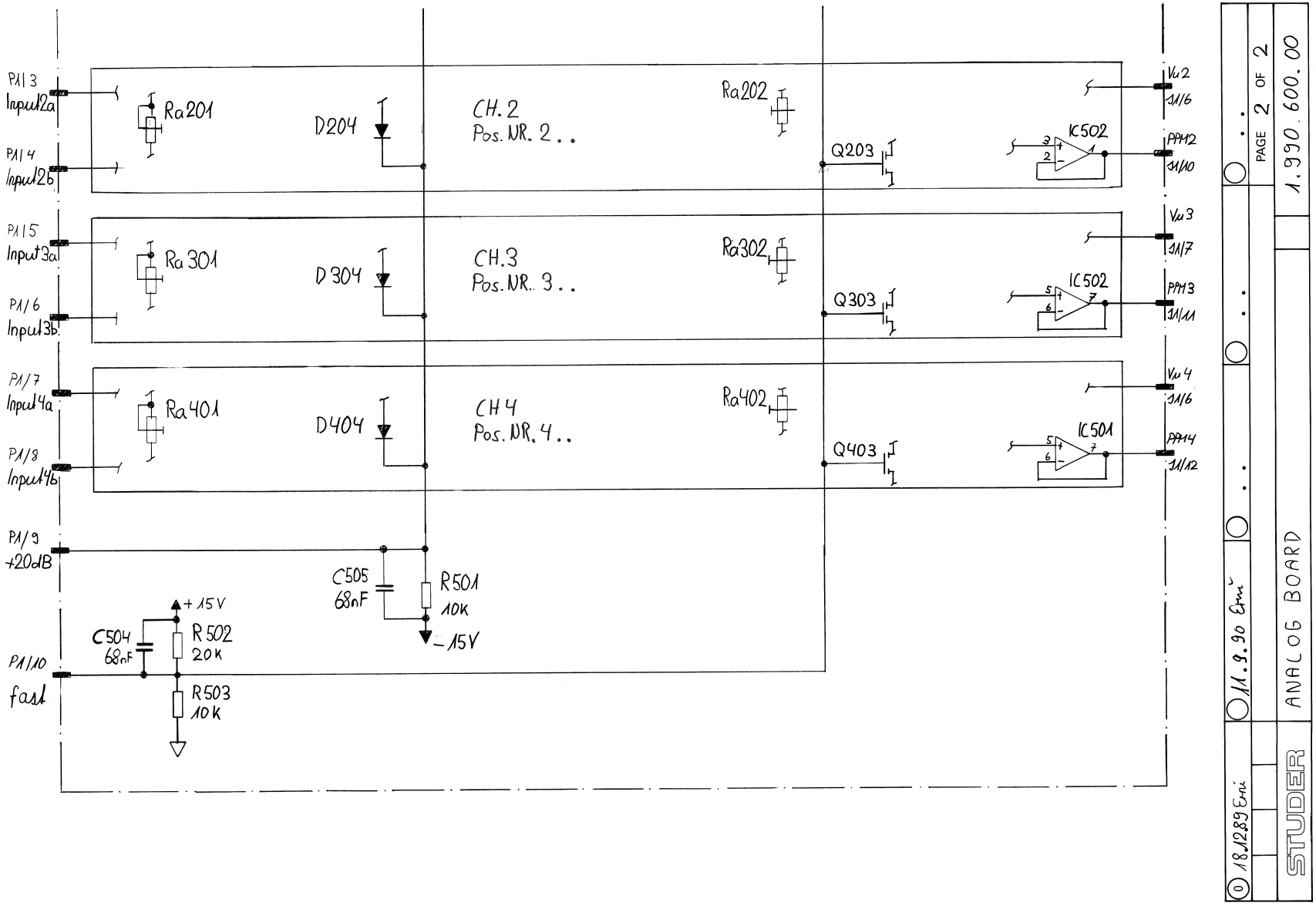
1.990.621.00 4CH BAR-GRAPH STEREO+BUS (990)VOL91/06/2603

1.990.621.00 4CH BAR-GRAPH STEREO+BUS (990)FRI94/04/2804

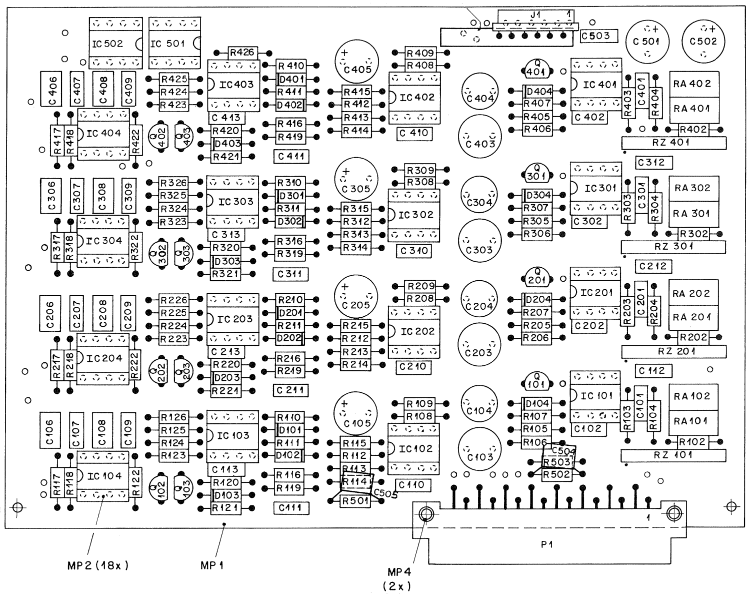
ANALOG BOARD 1.990.600.00



ANALOG BOARD 1.990.600.00



BAR-GRAPH ANALOG BOARD ESE 1.990.600.00



Datum	Gez.	Gepr.	Ges.	Index
11.9.90		Bo	Sz	1
13.90		Bo	Sz	0

Kopie für:

STUDER REGENSDORF ZÜRICH — Benennung: BARGRAPH ANALOG BOARD ESE — Nummer: 1.990.600-00

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	C...101	59.34.4820	82 pF	CER	
	C...102	59.34.4820	82 pF	CER	
	C...103	59.05.1153	15 nF	PE 1%	
	C...104	59.05.1222	2.2 nF	PE 1%	
	C...105	59.22.5101	100 uF	EL	
	C...106	59.06.5474	470 nF	PE 5%	
	C...107	59.06.5683	68 nF	PE 5%	
	C...108	59.06.5105	1 uF	PE 5%	
	C...109	59.06.5223	22 nF	PE 5%	
	C...110	59.06.5104	100 nF	PE 5%	
	C...111	59.06.5104	100 nF	PE 5%	
	C...112	59.06.5104	100 nF	PE 5%	
	C...113	59.34.1100	10 pF	CER	
	C...201	59.34.4820	82 pF	CER	
	C...202	59.34.4820	82 pF	CER	
	C...203	59.05.1153	15 nF	PE 1%	
	C...204	59.05.1222	2.2 nF	PE 1%	
	C...205	59.22.5101	100 uF	EL	
	C...206	59.06.5474	470 nF	PE 5%	
	C...207	59.06.5683	68 nF	PE 5%	
	C...208	59.06.5105	1 uF	PE 5%	
	C...209	59.06.5223	22 nF	PE 5%	
	C...210	59.06.5104	100 nF	PE 5%	
	C...211	59.06.5104	100 nF	PE 5%	
	C...212	59.06.5104	100 nF	PE 5%	
	C...213	59.34.1100	10 pF	CER	

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	C...301	59.34.4820	82 pF	CER	
	C...302	59.34.4820	82 pF	CER	
	C...303	59.05.1153	15 nF	PE 1%	
	C...304	59.05.1222	2.2 nF	PE 1%	
	C...305	59.22.5101	100 uF	EL	
	C...306	59.06.5474	470 nF	PE 5%	
	C...307	59.06.5683	68 nF	PE 5%	
	C...308	59.06.5105	1 uF	PE 5%	
	C...309	59.06.5223	22 nF	PE 5%	
	C...310	59.06.5104	100 nF	PE 5%	
	C...311	59.06.5104	100 nF	PE 5%	
	C...312	59.06.5104	100 nF	PE 5%	
	C...313	59.34.1100	10 pF	CER	
	C...401	59.34.4820	82 pF	CER	
	C...402	59.34.4820	82 pF	CER	
	C...403	59.05.1153	15 nF	PE 1%	
	C...404	59.05.1222	2.2 nF	PE 1%	
	C...405	59.22.5101	100 uF	EL	
	C...406	59.06.5474	470 nF	PE 5%	
	C...407	59.06.5683	68 nF	PE 5%	
	C...408	59.06.5105	1 uF	PE 5%	
	C...409	59.06.5223	22 nF	PE 5%	
	C...410	59.06.5104	100 nF	PE 5%	
	C...411	59.06.5104	100 nF	PE 5%	
	C...413	59.34.1100	10 pF	CER	
	C...501	59.22.5101	100 uF	EL	
	C...502	59.22.5101	100 uF	EL	
	C...503	59.06.5104	100 nF	PE 5%	
01	C...504	59.06.5683	68 nF	PE 5%	
01	C...505	59.06.5683	68 nF	PE 5%	
	D...101	50.04.0125	1N4448		
	D...102	50.04.0132	BAW 62		
	D...103	50.04.0125	1N4448		
	D...104	50.04.0125	1N4448		
	D...201	50.04.0125	1N4448		
	D...202	50.04.0132	BAW 62		
	D...203	50.04.0125	1N4448		
	D...204	50.04.0125	1N4448		

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	D...301	50.04.0125	1N4448		
	D...302	50.04.0132	BAW 62		
	D...303	50.04.0125	1N4448		
	D...304	50.04.0125	1N4448		
	D...401	50.04.0125	1N4448		
	D...402	50.04.0132	BAW 62		
	D...403	50.04.0125	1N4448		
	D...404	50.04.0125	1N4448		
	IC..101	50.09.0117	MC33078P	dual op. amp.	Motorola
	IC..102	50.09.0119	TL 062	dual op. amp.	Ti,Tho
	IC..103	50.09.0117	MC33078P	dual op. amp.	Motorola
	IC..104	50.09.0119	TL 062	dual op. amp.	Ti,Tho
	IC..201	50.09.0117	MC33078P	dual op. amp.	Motorola
	IC..202	50.09.0119	TL 062	dual op. amp.	Ti,Tho
	IC..203	50.09.0117	MC33078P	dual op. amp.	Motorola
	IC..204	50.09.0119	TL 062	dual op. amp.	Ti,Tho
	IC..301	50.09.0117	MC33078P	dual op. amp.	Motorola
	IC..302	50.09.0119	TL 062	dual op. amp.	Ti,Tho
	IC..303	50.09.0117	MC33078P	dual op. amp.	Motorola
	IC..304	50.09.0119	TL 062	dual op. amp.	Ti,Tho
	IC..401	50.09.0117	MC33078P	dual op. amp.	Motorola
	IC..402	50.09.0119	TL 062	dual op. amp.	Ti,Tho
	IC..403	50.09.0117	MC33078P	dual op. amp.	Motorola
	IC..404	50.09.0119	TL 062	dual op. amp.	Ti,Tho
	IC..501	50.09.0121	TL 072	dual op. amp.	Ti,Tho
	IC..502	50.09.0121	TL 072	dual op. amp.	Ti,Tho
	J.....1	54.14.5532		12 Pol. Micro Match (Stecker)	
	P.....1	54.11.2007		16 Pol. Euro (Stecker)	
	Q...101	50.03.0350	J 112	N-JFET	NS,Mot,Six
	Q...102	50.03.0497	BC 550	NPN	any
	Q...103	50.03.1505	VN0808	V-MosFET	Fe,Six
	Q...201	50.03.0350	J 112	N-JFET	NS,Mot,Six
	Q...202	50.03.0497	BC 550	NPN	any
	Q...203	50.03.1505	VN0808	V-MosFET	Fe,Six
	Q...301	50.03.0350	J 112	N-JFET	NS,Mot,Six
	Q...302	50.03.0497	BC 550	NPN	any
	Q...303	50.03.1505	VN0808	V-MosFET	Fe,Six
	Q...401	50.03.0350	J 112	N-JFET	NS,Mot,Six
	Q...402	50.03.0497	BC 550	NPN	any
	Q...403	50.03.1505	VN0808	V-MosFET	Fe,Six
	R...102	57.11.3161	160 Ohm	1% 0.25W MF	
	R...103	57.11.3124	120 KOhm	1% 0.25W MF	
	R...104	57.11.3124	120 kOhm	1% 0.25W MF	
	R...105	57.11.3242	2.4 kOhm	1% 0.25W MF	
	R...106	57.11.3223	22 kOhm	1% 0.25W MF	
	R...107	57.11.3303	30 kOhm	1% 0.25W MF	
	R...108	57.11.3132	1.3 kOhm	1% 0.25W MF	
	R...109	57.11.3162	1.6 kOhm	1% 0.25W MF	
	R...110	57.11.3103	10 kOhm	1% 0.25W MF	
	R...111	57.11.3103	10 kOhm	1% 0.25W MF	
	R...112	57.11.3203	20 kOhm	1% 0.25W MF	
	R...113	57.11.3103	10 kOhm	1% 0.25W MF	
	R...114	57.11.3203	20 kOhm	1% 0.25W MF	
	R...115	57.11.5106	10 MOhm	5% 0.25W MF	
	R...116	57.11.3184	180 kOhm	1% 0.25W MF	
	R...117	57.11.3364	360 kOhm	1% 0.25W MF	
	R...118	57.11.3474	470 kOhm	1% 0.25W MF	
	R...119	57.11.3153	15 kOhm	1% 0.25W MF	
	R...120	57.11.3103	10 kOhm	1% 0.25W MF	
	R...121	57.11.3105	1 MOhm	5% 0.25W MF	
	R...122	57.11.3122	1.2 kOhm	1% 0.25W MF	
	R...123	57.11.3563	56 kOhm	1% 0.25W MF	
	R...124	57.11.3684	680 kOhm	1% 0.25W MF	
	R...125	57.11.6226	22 MOhm	5% 0.25W MF	
	R...126	57.11.5106	10 MOhm	5% 0.25W MF	
	R...202	57.11.3161	160 Ohm	1% 0.25W MF	
	R...203	57.11.3124	120 KOhm	1% 0.25W MF	
	R...204	57.11.3124	120 kOhm	1% 0.25W MF	
	R...205	57.11.3242	2.4 kOhm	1% 0.25W MF	
	R...206	57.11.3223	22 kOhm	1% 0.25W MF	
	R...207	57.11.3303	30 kOhm	1% 0.25W MF	
	R...208	57.11.3132	1.3 kOhm	1% 0.25W MF	
	R...209	57.11.3162	1.6 kOhm	1% 0.25W MF	
	R...210	57.11.3103	10 kOhm	1% 0.25W MF	
	R...211	57.11.3103	10 kOhm	1% 0.25W MF	
	R...212	57.11.3203	20 kOhm	1% 0.25W MF	
	R...213	57.11.3103	10 kOhm	1% 0.25W MF	
	R...214	57.11.3203	20 kOhm	1% 0.25W MF	
	R...215	57.11.5106	10 MOhm	5% 0.25W MF	
	R...216	57.11.3184	180 kOhm	1% 0.25W MF	
	R...217	57.11.3364	360 kOhm	1% 0.25W MF	
	R...218	57.11.3474	470 kOhm	1% 0.25W MF	
	R...219	57.11.3153	15 kOhm	1% 0.25W MF	
	R...220	57.11.3103	10 kOhm	1% 0.25W MF	
	R...221	57.11.3105	1 MOhm	5% 0.25W MF	
	R...222	57.11.3122	1.2 kOhm	1% 0.25W MF	
	R...223	57.11.3563	56 kOhm	1% 0.25W MF	
	R...224	57.11.3684	680 kOhm	1% 0.25W MF	

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	R...225	57.11.6226	22 MOhm	5% 0.25W MF	
	R...226	57.11.5106	10 MOhm	5% 0.25W MF	
	R...302	57.11.3161	160 Ohm	1% 0.25W MF	
	R...303	57.11.3124	120 KOhm	1% 0.25W MF	
	R...304	57.11.3124	120 kOhm	1% 0.25W MF	
	R...305	57.11.3242	2.4 kOhm	1% 0.25W MF	
	R...306	57.11.3223	22 kOhm	1% 0.25W MF	
	R...307	57.11.3303	30 kOhm	1% 0.25W MF	
	R...308	57.11.3132	1.3 kOhm	1% 0.25W MF	
	R...309	57.11.3162	1.6 kOhm	1% 0.25W MF	
	R...310	57.11.3103	10 kOhm	1% 0.25W MF	
	R...311	57.11.3103	10 kOhm	1% 0.25W MF	
	R...312	57.11.3203	20 kOhm	1% 0.25W MF	
	R...313	57.11.3103	10 kOhm	1% 0.25W MF	
	R...314	57.11.3203	20 kOhm	1% 0.25W MF	
	R...315	57.11.5106	10 MOhm	5% 0.25W MF	
	R...316	57.11.3184	180 kOhm	1% 0.25W MF	
	R...317	57.11.3364	360 kOhm	1% 0.25W MF	
	R...318	57.11.3474	470 kOhm	1% 0.25W MF	
	R...319	57.11.3153	15 kOhm	1% 0.25W MF	
	R...320	57.11.3103	10 kOhm	1% 0.25W MF	
	R...321	57.11.3105	1 MOhm	5% 0.25W MF	
	R...322	57.11.3122	1.2 kOhm	1% 0.25W MF	
	R...323	57.11.3563	56 kOhm	1% 0.25W MF	
	R...324	57.11.3684	680 kOhm	1% 0.25W MF	
	R...325	57.11.6226	22 MOhm	5% 0.25W MF	
	R...326	57.11.5106	10 MOhm	5% 0.25W MF	
	R...402	57.11.3161	160 Ohm	1% 0.25W MF	
	R...403	57.11.3124	120 KOhm	1% 0.25W MF	
	R...404	57.11.3124	120 kOhm	1% 0.25W MF	
	R...405	57.11.3242	2.4 kOhm	1% 0.25W MF	
	R...406	57.11.3223	22 kOhm	1% 0.25W MF	
	R...407	57.11.3303	30 kOhm	1% 0.25W MF	
	R...408	57.11.3132	1.3 kOhm	1% 0.25W MF	
	R...409	57.11.3162	1.6 kOhm	1% 0.25W MF	
	R...410	57.11.3103	10 kOhm	1% 0.25W MF	
	R...411	57.11.3103	10 kOhm	1% 0.25W MF	
	R...412	57.11.3203	20 kOhm	1% 0.25W MF	
	R...413	57.11.3103	10 kOhm	1% 0.25W MF	
	R...414	57.11.3203	20 kOhm	1% 0.25W MF	
	R...415	57.11.5106	10 MOhm	5% 0.25W MF	
	R...416	57.11.3184	180 kOhm	1% 0.25W MF	
	R...417	57.11.3364	360 kOhm	1% 0.25W MF	
	R...418	57.11.3474	470 kOhm	1% 0.25W MF	
	R...419	57.11.3153	15 kOhm	1% 0.25W MF	
	R...420	57.11.3103	10 kOhm	1% 0.25W MF	
	R...421	57.11.3105	1 MOhm	5% 0.25W MF	
	R...422	57.11.3122	1.2 kOhm	1% 0.25W MF	
	R...423	57.11.3563	56 kOhm	1% 0.25W MF	
	R...424	57.11.3684	680 kOhm	1% 0.25W MF	
	R...425	57.11.6226	22 MOhm	5% 0.25W MF	
	R...426	57.11.5106	10 MOhm	5% 0.25W MF	
	R...501	57.11.3103	10 kOhm	1% 0.25W MF	
	R...502	57.11.3203	20 kOhm	1% 0.25W MF	
	R...503	57.11.3103	10 kOhm	1% 0.25W MF	
	RA..101	58.05.0502	5 kOhm	10% Cermet 22 Umdrehungen	
	RA..102	58.05.0104	100 kOhm	10% Cermet 22 Umdrehungen	
	RA..201	58.05.0502	5 kOhm	10% Cermet 22 Umdrehungen	
	RA..202	58.05.0104	100 kOhm	10% Cermet 22 Umdrehungen	
	RA..301	58.05.0502	5 kOhm	10% Cermet 22 Umdrehungen	
	RA..302	58.05.0104	100 kOhm	10% Cermet 22 Umdrehungen	
	RA..401	58.05.0502	5 kOhm	10% Cermet 22 Umdrehungen	
	RA..402	58.05.0104	100 kOhm	10% Cermet 22 Umdrehungen	
	RZ..101	57.88.2682	6.8 kOhm	5% resistor network	
	RZ..201	57.88.2682	6.8 kOhm	5% resistor network	
	RZ..301	57.88.2682	6.8 kOhm	5% resistor network	
	RZ..401	57.88.2682	6.8 kOhm	5% resistor network	
	MP....1	1.990.600.11	0001 pcs	Bar-Graph Analog PCB	Studer
	MP....2	53.03.0166	0018 pcs	IC-Socket, DIL 8	
	MP....3	43.01.0108	0001 pcs	Ese Schild	
	MP....4	28.99.0119	0002 pcs	Niete D2.5*9*0.15	
	MP....5	1.990.600.04	0000 pcs	Nummerettiket	
	MP....6	1.990.600.01	0001 pcs	Isolierunterlage Micro Match	

CER=Ceramic, EL =Elektrolyt
MF =Metal Film, PE =Polyesterfolien

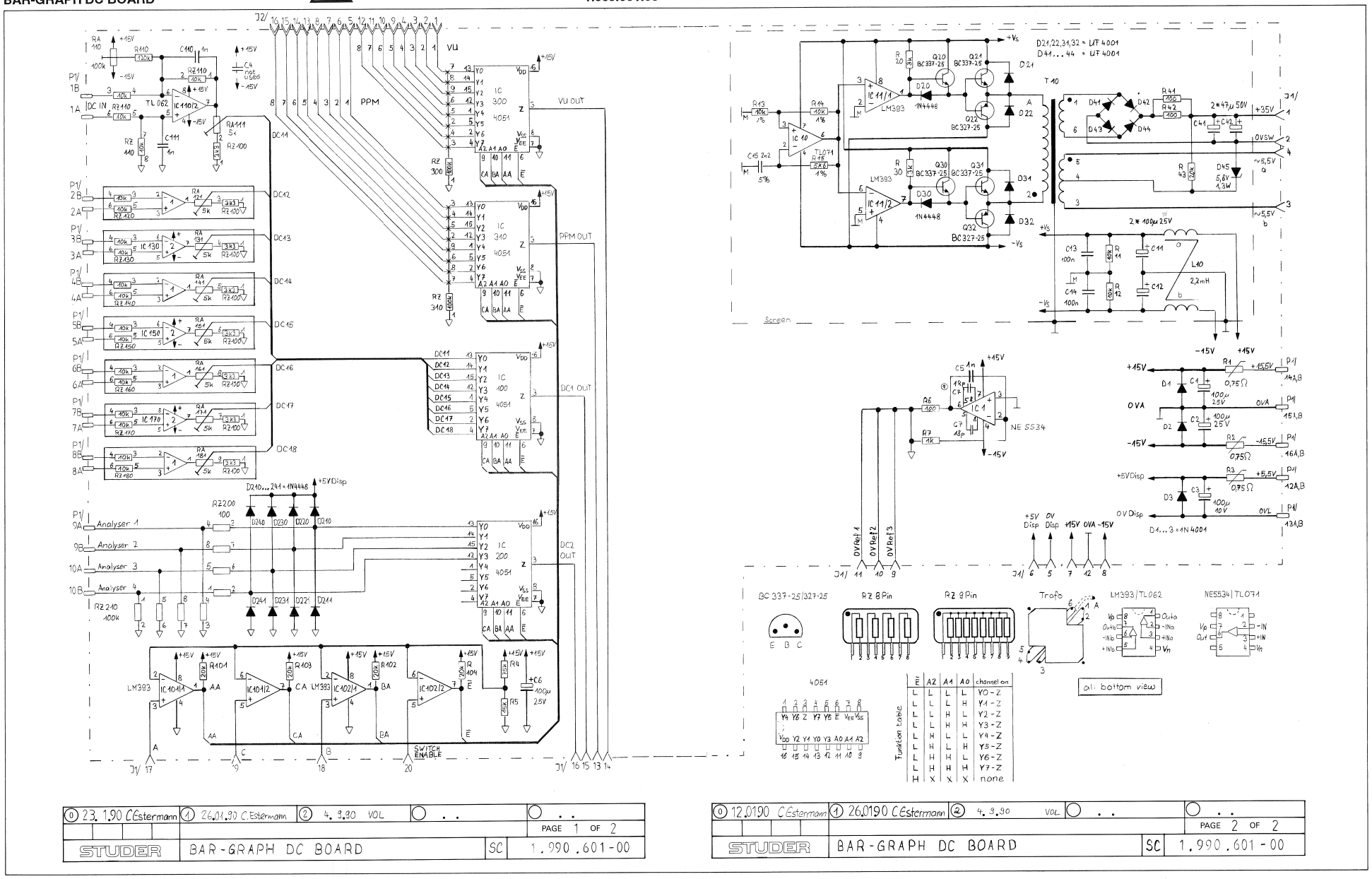
MANUFACTURER :
Fe =Ferranti
NE =Nippon Electronic Corp.
NS =National Semiconductors
Ra =Raytheon
Six=Siliconix
Tho=Thomson
Ti =Texas Instrument

1.990.600.00 BAR-GRAPH ANALOG BOARD SE 89/06/0600

1.990.600.00 BAR-GRAPH ANALOG BOARD SE 90/09/1101

BAR-GRAPH DC BOARD

1.990.601.00

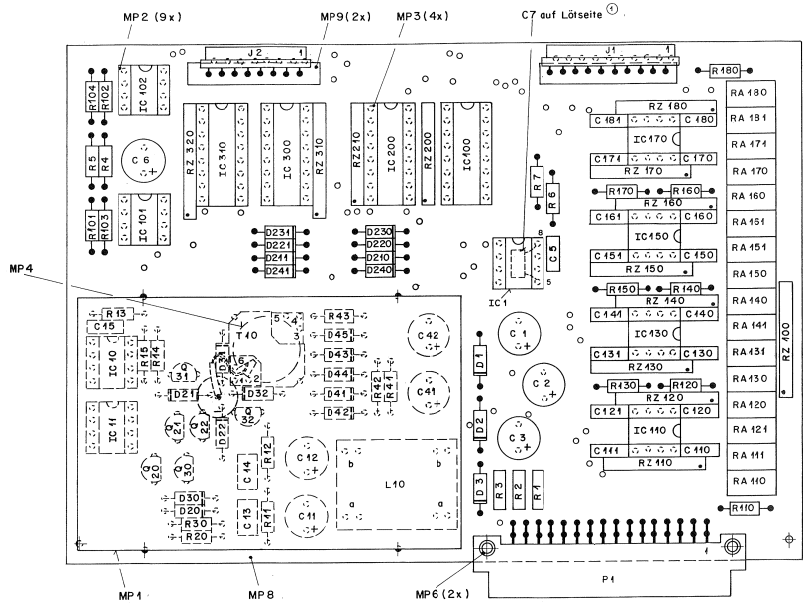


0 23.1.90 CEstermann	1 26.01.90 C.Estermann	2 4.3.90 VOL	. .	. .	
STUDER	BAR-GRAPH DC BOARD	SC	1.990.601-00	PAGE 1 OF 2	

0 12.0190 CEstermann	1 26.0190 CEstermann	2 4.3.90 VOL	. .	. .	
STUDER	BAR-GRAPH DC BOARD	SC	1.990.601-00	PAGE 2 OF 2	

BAR-GRAPH DC BOARD

1.990.601.00



Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	59.22.5101	100 uF 25V EL	
	C.....2	59.22.5101	100 uF 25V EL	
	C.....3	59.22.5101	100 uF 10V EL	
	C.....4	0	not used	
	C.....5	59.06.5102	1 nF 5% PE	
	C.....6	59.22.5101	100 uF 25V EL	
01	C.....7	59.34.1180	18 pF 5% CER (auf Loetseite: IC1 zw. Pin 5 & 8)	
02	C.....10	59.99.1721	220 uF 10V EL stehend	
	C.....11	59.22.5101	100 uF 25V EL	
	C.....12	59.22.5101	100 uF 25V EL	
	C.....13	59.06.0104	100 nF PE	
	C.....14	59.06.0104	100 nF PE	
	C.....15	59.06.5222	2.2 nF 5% PE	
	C.....41	59.22.8470	47 uF 50V EL	
	C.....42	59.22.8470	47 uF 50V EL	
	C...110	59.06.0102	1 nF PE	
	C...111	59.06.0102	1 nF PE	
	C...120	59.06.0102	1 nF PE	
	C...121	59.06.0102	1 nF PE	
	C...130	59.06.0102	1 nF PE	
	C...131	59.06.0102	1 nF PE	
	C...140	59.06.0102	1 nF PE	
	C...141	59.06.0102	1 nF PE	
	C...150	59.06.0102	1 nF PE	
	C...151	59.06.0102	1 nF PE	
	C...160	59.06.0102	1 nF PE	
	C...161	59.06.0102	1 nF PE	
	C...170	59.06.0102	1 nF PE	
	C...171	59.06.0102	1 nF PE	
	C...180	59.06.0102	1 nF PE	
	C...181	59.06.0102	1 nF PE	
	D.....1	50.04.0122	1N4001	any
	D.....2	50.04.0122	1N4001	any
	D.....3	50.04.0122	1N4001	any
	D....20	50.04.0125	1N4448	any
	D....21	50.04.0138	UF4004	any
	D....22	50.04.0138	UF4004	any
	D....30	50.04.0125	1N4448	any
	D....31	50.04.0138	UF4004	any
	D....32	50.04.0138	UF4004	any
	D....41	50.04.0138	UF4004	any
	D....42	50.04.0138	UF4004	any
	D....43	50.04.0138	UF4004	any
	D....44	50.04.0138	UF4004	any
	D....45	50.04.1504	Z 5.6V 1.3W	any
	D...210	50.04.0125	1N4448	any
	D...211	50.04.0125	1N4448	any
	D...220	50.04.0125	1N4448	any
	D...221	50.04.0125	1N4448	any
	D...230	50.04.0125	1N4448	any
	D...231	50.04.0125	1N4448	any
	D...240	50.04.0125	1N4448	any
	D...241	50.04.0125	1N4448	any
	IC....1	50.05.0243	NE 5534N single Op-Amp	Ex,Ra,Sig
	IC...10	50.09.0103	TL 071 single OP-Amp	TI
	IC...11	50.05.0283	LM 393 dual Comparator	Sig,Tho,TI
	IC..100	50.07.0051	4051 CMOS 8-Channel analog Mux	Ph,Mot,SGS
	IC..101	50.05.0283	LM 393 dual Comparator	Sig,Tho,TI
	IC..102	50.05.0283	LM 393 dual Comparator	Sig,Tho,TI
	IC..110	50.09.0119	TL 062 low power Op-Amp	SGS,Tho,TI
	IC..130	50.09.0119	TL 062 low power Op-Amp	SGS,Tho,TI
	IC..150	50.09.0119	TL 062 low power Op-Amp	SGS,Tho,TI
	IC..170	50.09.0119	TL 062 low power Op-Amp	SGS,Tho,TI
	IC..200	50.07.0051	4051 CMOS 8-Channel analog Mux	Ph,Mot,SGS
	IC..300	50.07.0051	4051 CMOS 8-Channel analog Mux	Ph,Mot,SGS
	IC..310	50.07.0051	4051 CMOS 8-Channel analog Mux	Ph,Mot,SGS
	J.....1	54.14.5540	Micro-Match, 20 pin	AMP
	J.....2	54.14.5536	Micro-Match, 16 pin	AMP
	L....10	62.03.0100	2.2 mH Toridial Choke 180mOhm	Sie
	P.....1	54.11.2013	Euroconnector, 2*16 pin	
	Q....20	50.03.0340	BC 337-25 NPN	any
	Q....21	50.03.0340	BC 337-25 NPN	any
	Q....22	50.03.0351	BC 327-25 PNP	any
	Q....30	50.03.0340	BC 337-25 NPN	any
	Q....31	50.03.0340	BC 337-25 NPN	any
	Q....32	50.03.0351	BC 327-25 PNP	any
	R.....1	57.92.7013	0.75 Ohm PTC 0.5A	
	R.....2	57.92.7013	0.75 Ohm PTC 0.5A	
	R.....3	57.92.7013	0.75 Ohm PTC 0.5A	
	R.....4	57.11.3753	75 kOhm	
	R.....5	57.11.3153	15 kOhm	
	R.....6	57.11.3101	100 Ohm	
	R.....7	57.11.3102	1 kOhm	
	R....11	57.11.3103	10 kOhm	
	R....12	57.11.3103	10 kOhm	
	R....13	57.11.3103	10 kOhm 1%	
	R....14	57.11.3103	10 kOhm 1%	
	R....15	57.11.3562	5.6 kOhm 1%	
	R....20	57.11.3302	3 kOhm	
	R....30	57.11.3302	3 kOhm	
	R....41	57.11.3101	100 Ohm	
	R....42	57.11.3101	100 Ohm	
	R....43	57.11.3203	20 kOhm	
	R...101	57.11.3203	20 kOhm	
	R...102	57.11.3203	20 kOhm	
	R...103	57.11.3203	20 kOhm	
	R...104	57.11.3203	20 kOhm	
	R...110	57.11.3124	120 kOhm	
	R...120	57.11.3124	120 kOhm	
	R...130	57.11.3124	120 kOhm	
	R...140	57.11.3124	120 kOhm	
	R...150	57.11.3124	120 kOhm	
	R...160	57.11.3124	120 kOhm	
	R...170	57.11.3124	120 kOhm	
	R...180	57.11.3124	120 kOhm	
	RA..110	58.05.0104	100 kOhm trim pot lin	
	RA..111	58.05.0502	5 kOhm trim pot lin	
	RA..120	58.05.0104	100 kOhm trim pot lin	
	RA..121	58.05.0502	5 kOhm trim pot lin	
	RA..130	58.05.0104	100 kOhm trim pot lin	
	RA..131	58.05.0502	5 kOhm trim pot lin	
	RA..140	58.05.0104	100 kOhm trim pot lin	
	RA..141	58.05.0502	5 kOhm trim pot lin	
	RA..150	58.05.0104	100 kOhm trim pot lin	
	RA..151	58.05.0502	5 kOhm trim pot lin	
	RA..160	58.05.0104	100 kOhm trim pot lin	
	RA..161	58.05.0502	5 kOhm trim pot lin	
	RA..170	58.05.0104	100 kOhm trim pot lin	
	RA..171	58.05.0502	5 kOhm trim pot lin	
	RA..180	58.05.0104	100 kOhm trim pot lin	
	RA..181	58.05.0502	5 kOhm trim pot lin	
	RZ..100	57.88.4332	3.3 kOhm 2% ,*8	
	RZ..110	57.88.2103	10 kOhm 2% ,*4	
	RZ..120	57.88.2103	10 kOhm 2% ,*4	
	RZ..130	57.88.2103	10 kOhm 2% ,*4	
	RZ..140	57.88.2103	10 kOhm 2% ,*4	
	RZ..150	57.88.2103	10 kOhm 2% ,*4	
	RZ..160	57.88.2103	10 kOhm 2% ,*4	
	RZ..170	57.88.2103	10 kOhm 2% ,*4	
	RZ..180	57.88.2103	10 kOhm 2% ,*4	
	RZ..200	57.88.2101	100 Ohm 2% ,*4	
	RZ..210	57.88.2104	100 kOhm 2% ,*4	
	RZ..300	57.88.4104	100 kOhm 2% ,*8	
	RZ..310	57.88.4104	100 kOhm 2% ,*8	
	T....10	1.022.638.00	10 mH Konvertertrafo VFD-Bargraph	St
	MP....1	1.913.117.01	1 pcs Abschirmhaube	
	MP....2	53.03.0166	9 pcs IC socket 8 pin	
	MP....3	53.03.0168	4 pcs IC socket 16 pin	
	MP....4	1.010.001.61	1 pcs Unterlage zu RM6	
	MP....5	43.01.0108	1 pcs ESE-Schild	
	MP....6	28.99.0119	2 pcs Rohrniete D2.5*9*0.15	
	MP....7	1.990.601.04	1 pcs Nr.-Etikette 5 * 20	
	MP....8	1.990.601.11	1 pcs Bargraph DC PCB	
	MP....9	1.990.600.01	2 pcs Isolierunterlage Micro Match	
02	MP...10	1.010.027.23	1 pcs Isolierscheibe 9/3,2x0,25 PTFE	
02	MP...11	1.010.101.65	1 pcs Schrumpfschlauch 1,2/0,6 x 9	

09.10.90 Index 1) New: C7 000000
30.11.92 Index 2) New: C10 DC isolation of T10

EL=Electrolytic, PE=Polyester

MANUFACTURER: AMP=AMP Incorporated, Ex=Exar, Ph=Philips, Mot=Motorola, Ra=Raytheon, Sie=Siemens, SGS=SGS/Ates, Sig=Signetics, St=Studer, Tho=Thomson, TI=Texas Instrument

1.990.601.00 BAR-GRAPH DC BOARD CE 90/02/0600

1.990.601.00 BAR-GRAPH DC BOARD FRI92/11/3002

END

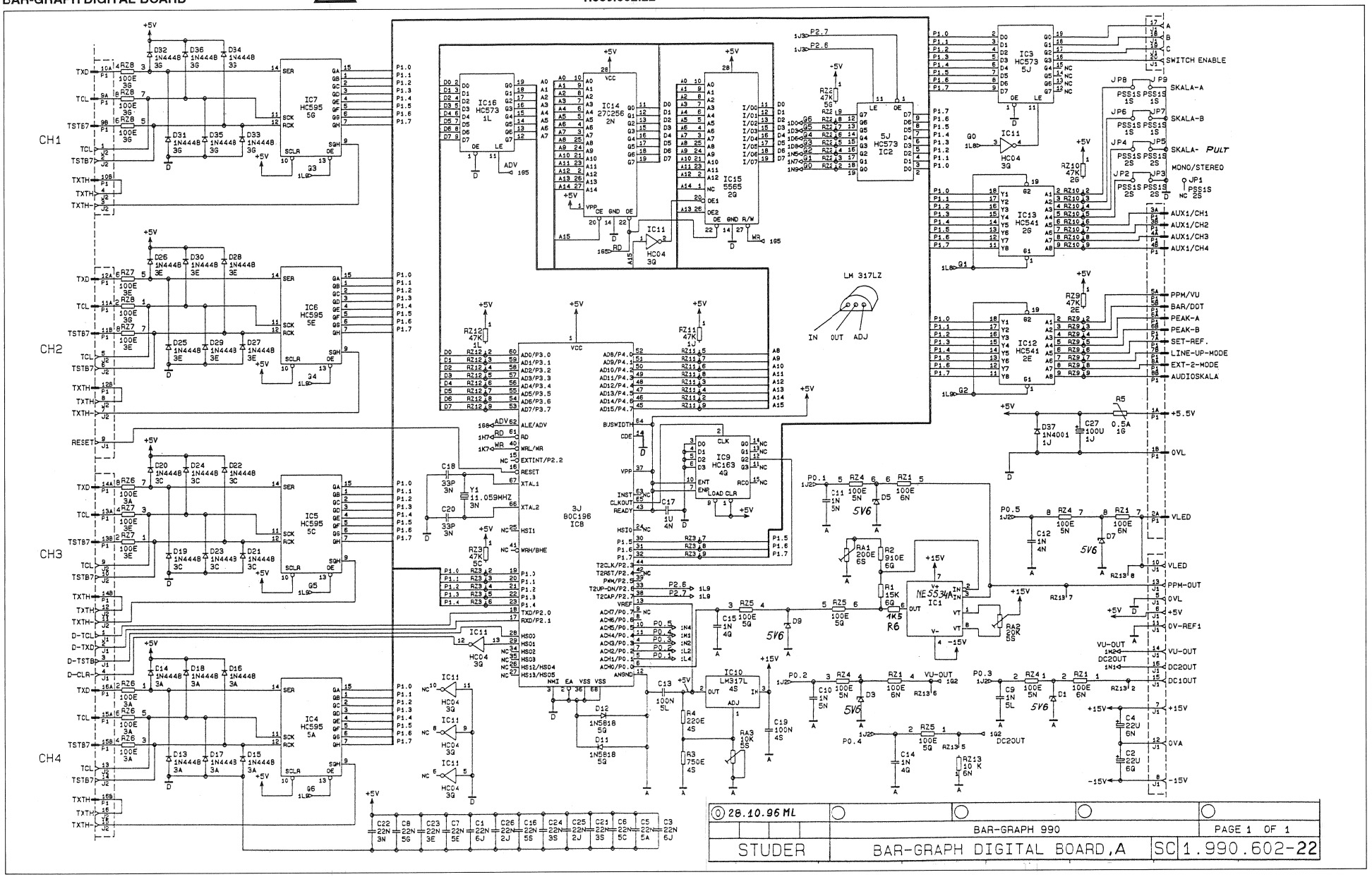
Änderung	Ausgabe	Datum	Gez.	Gepr.	Ges.	Index
30.11.92						③
9.10.90						②
	2.3.90					①
						⓪

Kopie für:

STUDER REGENSDORF ZÜRICH | Benennung: BAR-GRAPH DC BOARD ESE | Nummer: 1.990.601-00

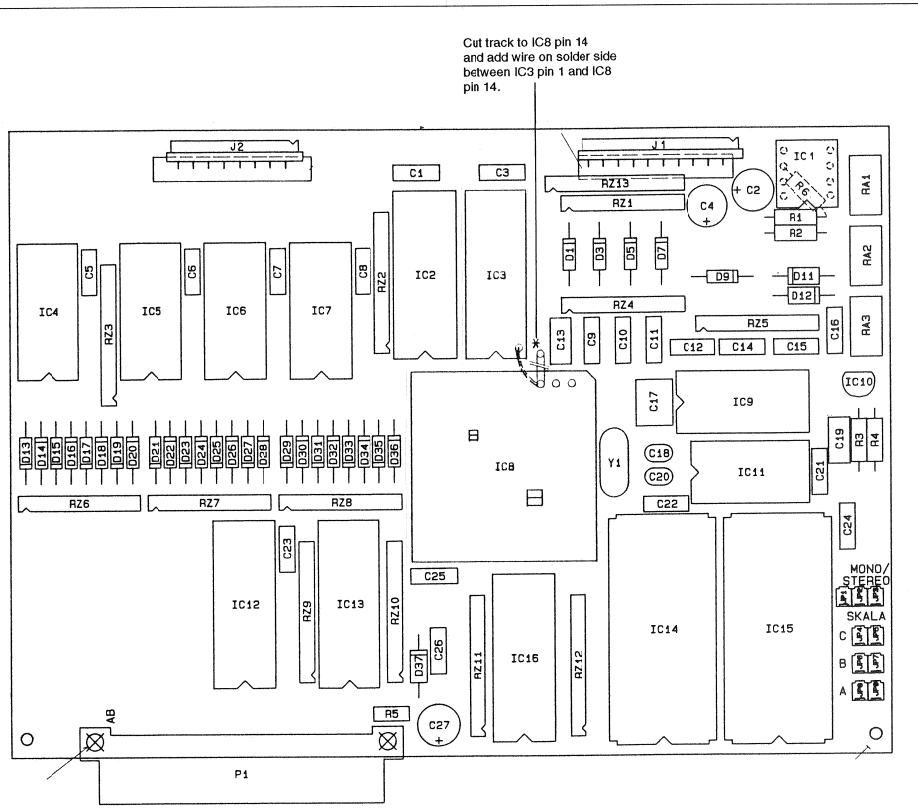
BAR-GRAPH DIGITAL BOARD

1.990.602.22



BAR-GRAPH DIGITAL BOARD

1.990.602.22



STUDER REGENSDORF ZÜRICH	Bezeichnung	Bargraph Digital Board ESE	Nummer 1.990.602 - 22

Änderung					
Ausgabe	11.12.96				
	Datum	Gez	Gepr	Ges	Index

Kopie für:

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.06.0223		22n	PETP, 63V, 10%, RM5
0	C 2	59.22.6220		22u	EL 35V, 20%, RM5
0	C 3	59.06.0223		22n	PETP, 63V, 10%, RM5
0	C 4	59.22.6220		22u	EL 35V, 20%, RM5
0	C 5	59.06.0223		22n	PETP, 63V, 10%, RM5
0	C 6	59.06.0223		22n	PETP, 63V, 10%, RM5
0	C 7	59.06.0223		22n	PETP, 63V, 10%, RM5
0	C 8	59.06.0223		22n	PETP, 63V, 10%, RM5
0	C 9	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 10	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 11	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 12	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 13	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 14	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 15	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 16	59.05.0223		22n	PETP, 63V, 10%, RM5
0	C 17	59.05.0105		1u0	PETP, 50V, 10%, RM5
0	C 18	59.34.2330		33p	CER 63V, 5%, N150
0	C 19	59.05.0104		100n	PETP, 63V, 10%, RM5
0	C 20	59.34.2330		33p	CER 63V, 5%, N150
0	C 21	59.03.0223		22n	PETP, 63V, 10%, RM5
0	C 22	59.05.0223		22n	PETP, 63V, 10%, RM5
0	C 23	59.05.0223		22n	PETP, 63V, 10%, RM5
0	C 24	59.05.0223		22n	PETP, 63V, 10%, RM5
0	C 25	59.05.0223		22n	PETP, 63V, 10%, RM5
0	C 26	59.05.0223		22n	PETP, 63V, 10%, RM5
0	C 27	59.22.3101		100u	EL 10V, 20%, RM5
0	D 1	50.04.1108		5V6	Zener, 5%, 0.5W, DO-35
0	D 2	not used			
0	D 3	50.04.1108		5V6	Zener, 5%, 0.5W, DO-35
0	D 4	not used			
0	D 5	50.04.1108		5V6	Zener, 5%, 0.5W, DO-35
0	D 6	not used			
0	D 7	50.04.1108		5V6	Zener, 5%, 0.5W, DO-35
0	D 8	not used			
0	D 9	50.04.1108		5V6	Zener, 5%, 0.5W, DO-35
0	D 10	not used			
0	D 11	50.04.0512		1N5818	D 1N 5818, 1N 5819,
0	D 12	50.04.0512		1N5818	D 1N 5818, 1N 5819,
0	D 13	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 14	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 15	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 16	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 17	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 18	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 19	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 20	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 21	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 22	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 23	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 24	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 25	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 26	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 27	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 28	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 29	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 30	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 31	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 32	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 33	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 34	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 35	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 36	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 37	50.04.0122		1N4001	1A, DO 41
0	IC 1	50.05.0244		NE5534AN	IC 5534 ANB, NE 5534 SAN, ,A
0	IC 2	50.17.1573		74HC573	IC ... 74 HC 573 ., ,A
0	IC 3	50.17.1573		74HC573	IC ... 74 HC 573 ., ,A
0	IC 4	50.17.1595		74HC595	IC ... 74 HC 595 ., ,A
0	IC 5	50.17.1595		74HC595	IC ... 74 HC 595 ., ,A
0	IC 6	50.17.1595		74HC595	IC ... 74 HC 595 ., ,A
0	IC 7	50.17.1595		74HC595	IC ... 74 HC 595 ., ,A
0	IC 8	50.63.0003		80C196	N 80 C 196 KB-16
0	IC 9	50.17.1163		74HC163	IC ... 74 HC 163 ., ,A
0	IC 10	50.10.0108		LM317L	IC LM 317 LZ,
0	IC 11	50.17.1004		74HC04	IC ... 74 HC 04 ., ,A
0	IC 12	50.17.1541		74HC541	IC ... 74 HC 541 ., ,A
0	IC 13	50.17.1541		74HC541	IC ... 74 HC 541 ., ,A
0	IC 14	50.14.2004		27C256	IC 27 C 256 - 25 ,A
					BAR-GRAPH 990 04/93 1.990.699.21
0	IC 15	50.14.0133		5565	IC HM 6264LP-15 ,A
0	IC 16	50.17.1573		74HC573	IC ... 74 HC 573 ., ,A
0	J 1	54.14.5540		20p	J PCB-BUCHSE WINKEL 20 P
0	J 2	54.14.5536		16p	J PCB-BUCHSE WINKEL 16 P

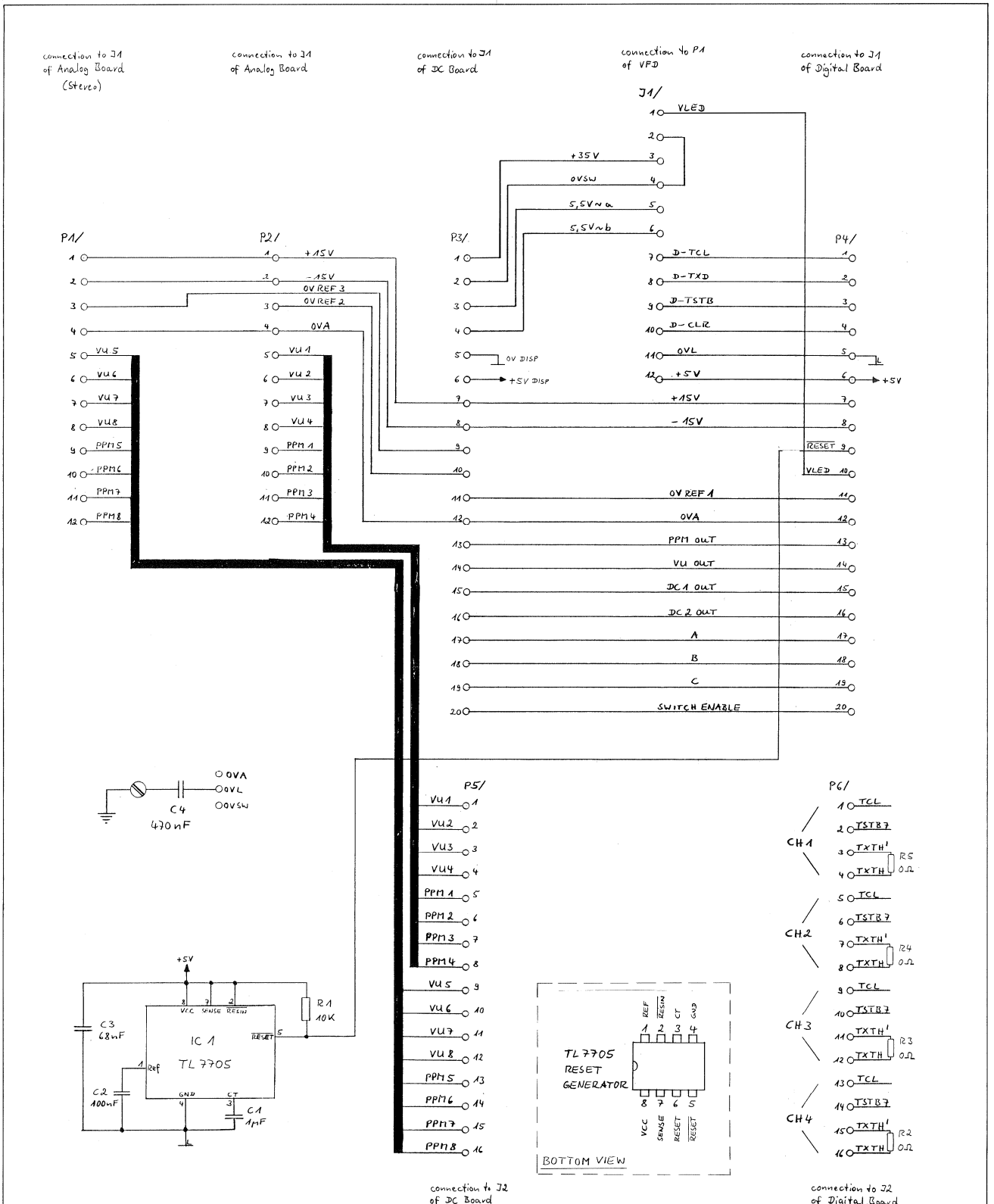
Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	MP 1	28.99.0119	2 pcs		ROHRNIETE D 2.5*0.15* 9
0	MP 2	43.01.0108		Label	ESE-WARNSCHILD
0	MP 3	1.101.001.22			TEXT-ETIK. 5*20 HARDWARE -22
0	MP 4	1.990.600.01			ISOLIERUNTERLAGE MICRO-MATCH
0	MP 5	1.990.602.04			NR.-ETIKETTE 5 * 20
0	MP 6	1.990.602.11			BARGRAPH DIGITAL PCB
0	MP 7	1.990.699.01			TEXT - ETIKETTE 10 * 20
0	MP 8	54.01.0020	9 pcs	1p	Pin 0.63*0.63
0	P 1	54.11.2013		32p	EU-BK 2*16p
0	R 1	57.11.3153		15k	MF, 1%, 0207
0	R 2	57.11.3911		910R	MF, 1%, 0207
0	R 3	57.11.3751		750R	MF, 1%, 0207
0	R 4	57.11.3221		220R	MF, 1%, 0207
0	R 5	57.92.7013		0.5A	POLY- PTC, 60V
0	R 6	57.11.3152		1k5	MF, 1%, 0207
0	RA 1	58.01.9201		200R	Cermet, 10%, 0.5W, vertical
0	RA 2	58.01.9203		20k	Cermet, 10%, 0.5W, vertical
0	RA 3	58.01.9103		10k	Cermet, 10%, 0.5W, vertical
0	RZ 1	57.88.2101		4*100R	2%, SIP 8
0	RZ 2	57.88.4473		8*47k	2%, SIP 9
0	RZ 3	57.88.4473		8*47k	2%, SIP 9
0	RZ 4	57.88.2101		4*100R	2%, SIP 8
0	RZ 5	57.88.2101		4*100R	2%, SIP 8
0	RZ 6	57.88.2101		4*100R	2%, SIP 8
0	RZ 7	57.88.2101		4*100R	2%, SIP 8
0	RZ 8	57.88.2101		4*100R	2%, SIP 8
0	RZ 9	57.88.4473		8*47k	2%, SIP 9
0	RZ 10	57.88.4473		8*47k	2%, SIP 9
0	RZ 11	57.88.4473		8*47k	2%, SIP 9
0	RZ 12	57.88.4473		8*47k	2%, SIP 9
0	RZ 13	57.88.4103		8*10k	2%, SIP 9
0	XIC 1	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 2	53.03.0165		20p	DIL 0.3", löt, gerade
0	XIC 3	53.03.0165		20p	DIL 0.3", löt, gerade
0	XIC 4	53.03.0168		16p	DIL 0.3", löt, gerade
0	XIC 5	53.03.0168		16p	DIL 0.3", löt, gerade
0	XIC 6	53.03.0168		16p	DIL 0.3", löt, gerade
0	XIC 7	53.03.0168		16p	DIL 0.3", löt, gerade
0	XIC 8	53.03.2268		PLCC68p	PLCC-Socket 68p
0	XIC 9	53.03.0168		16p	DIL 0.3", löt, gerade
0	XIC 11	53.03.0167		14p	DIL 0.3", löt, gerade
0	XIC 12	53.03.0165		20p	DIL 0.3", löt, gerade
0	XIC 13	53.03.0165		20p	DIL 0.3", löt, gerade
0	XIC 14	53.03.0173		28p	DIL 0.6", löt, gerade
0	XIC 15	53.03.0173		28p	DIL 0.6", löt, gerade
0	XIC 16	53.03.0165		20p	DIL 0.3", löt, gerade
0	Y 1	89.01.1004		11.059MHz	Y 11.059 MHZ, RW 43

End of List

Comments:

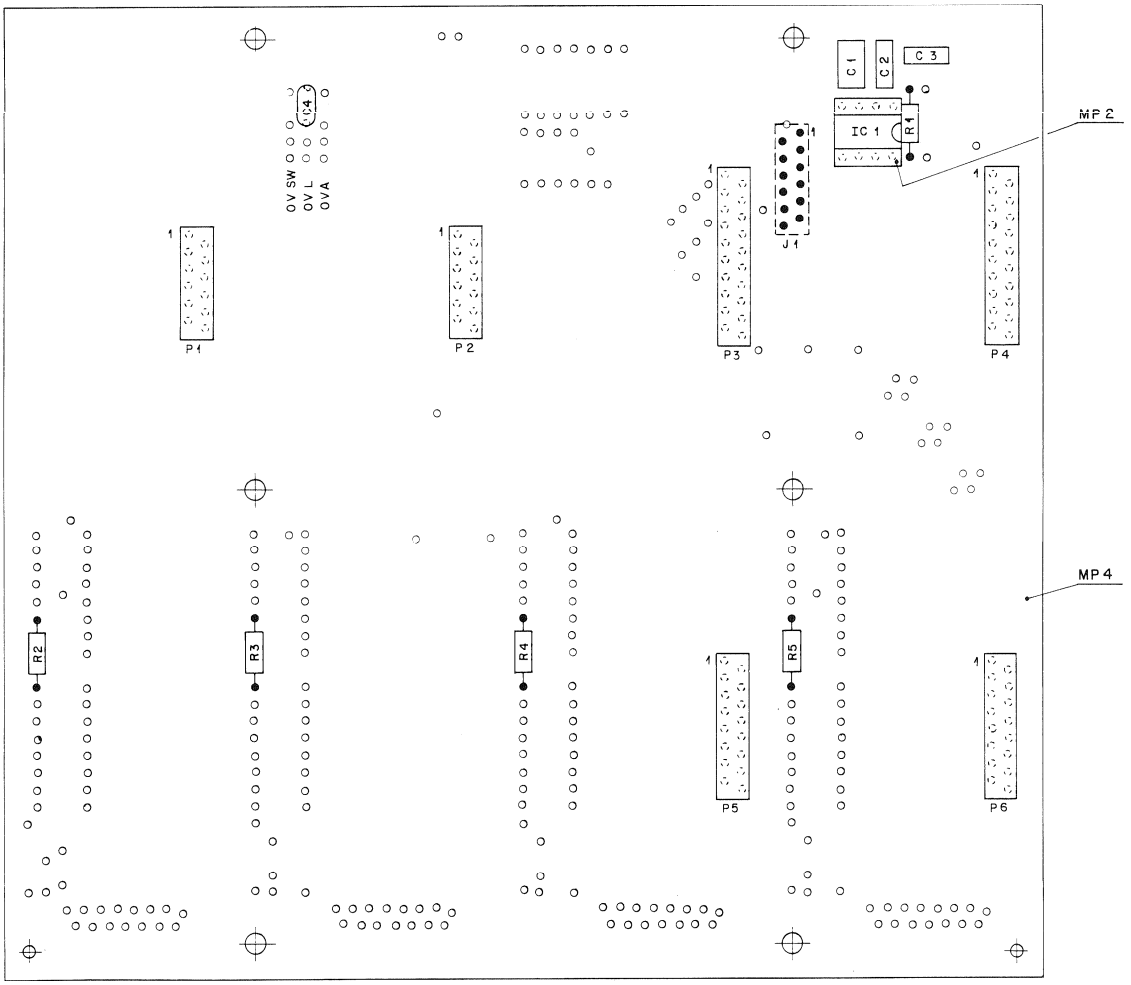
BAR-GRAPH CONNECTOR BOARD

1.990.606.00



0 6.12.89 VOL	1 9.10.90 VOL	. .	. .	. .
	BAR-GRAPH 990			PAGE 1 OF 1
STUDER	Bar-Graph Connector Board		SC	1.990.606.00

BAR-GRAPH CONNECTOR BOARD 1.990.606.00



Ersatz für:	Ersetzt durch:	Kopie für:
STUDER REGENSDORF ZÜRICH	Benennung: BARGRAPH CONNECTOR BOARD ESE	Nummer: 1.990.606-00

Änderung: ③ ② ①
Ausgabe: 8.6.90 VOL ⓪ (Datum, Gez., Gepr., Ges., Index)

Ad	..POS..	...REF.No...		DESCRIPTION	MANUFACTURER
	C.....1	59.06.0105	1 uF	10% PE	
	C.....2	59.06.0104	100 nF	10% PE	
	C.....3	59.06.0683	68 nF	10% PE	
	C.....4	59.32.1152	1.5 nF	CER 400V	
01	C.....4	59.06.0474	470 nF	10% PE	
	IC....1	50.11.0122	TL7705ACP	Reset generator	SGS,TI
	J.....1	54.14.5512		Micro-Match, 12 pin	AMP
	P.....1	54.14.5582		Micro-Match, 12 pin	AMP
	P.....2	54.14.5582		Micro-Match, 12 pin	AMP
	P.....3	54.14.5590		Micro-Match, 20 pin	AMP
	P.....4	54.14.5590		Micro-Match, 20 pin	AMP
	P.....5	54.14.5586		Micro-Match, 16 pin	AMP
	P.....6	54.14.5586		Micro-Match, 16 pin	AMP
	R.....1	57.11.3103	10 kOhm	1%	
	R.....2	57.11.3000	0 Ohm		
	R.....3	57.11.3000	0 Ohm		
	R.....4	57.11.3000	0 Ohm		
	R.....5	57.11.3000	0 Ohm		
	MP....1	43.01.0108	0001 pcs	ESE-Warnschild	
	MP....2	53.03.0166	0001 pcs	IC-Sockel, DIL 8	
	MP....3	1.990.606.04	0000 pcs	Nr.-Etikette 5 * 20	
	MP....4	1.990.608.11	0001 pcs	Bar-Graph Connector+Bus PCB	St

9.10.90 Index 1) Aenderung bei: C4

PE = polyester

MANUFACTURER AMP=AMP Incorporated, SGS=SGS/Thomson, St=Studer, TI=Texas Instruments

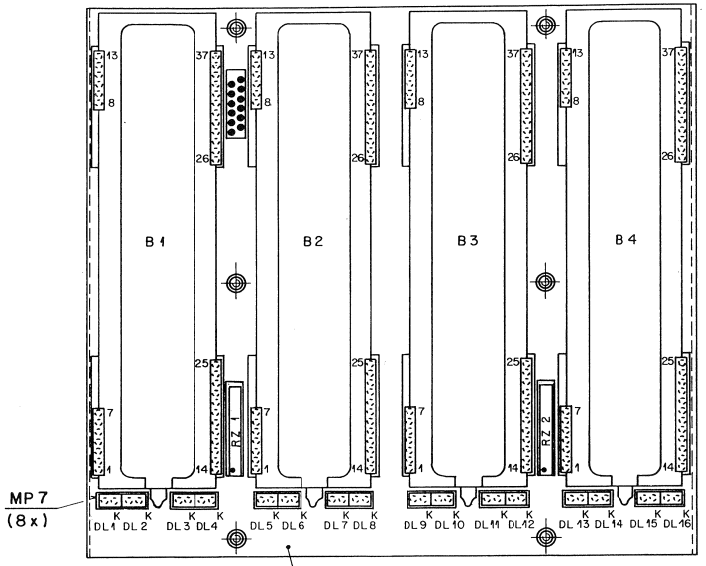
1.990.606.00 BAR-GRAPH CONNECTOR BOARD VOL90/02/0600

1.990.606.00 BAR-GRAPH CONNECTOR BOARD HOR90/10/0901

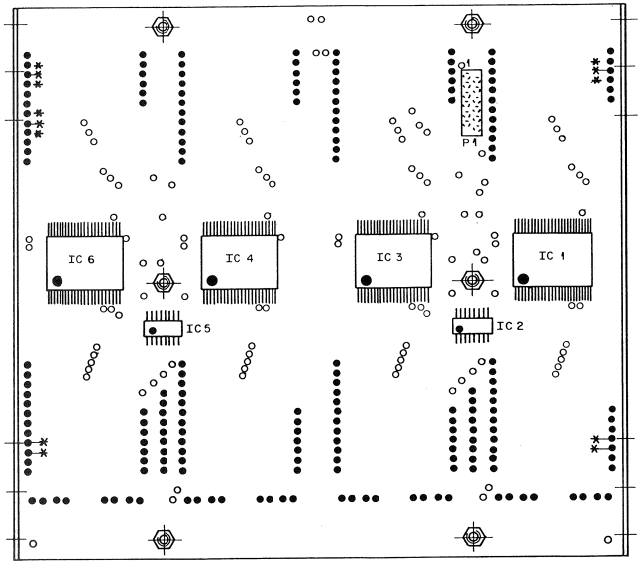
BAR-GRAPH VFD BOARD

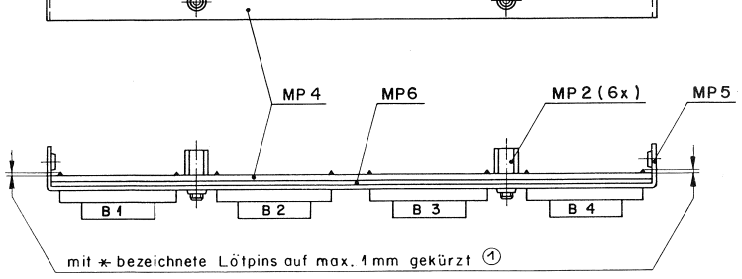
1.990.607.81

Bestückungsseite



Lötseite





Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
B	1	73.01.0300 FG202SA2	Fluorescent bargraph display	Itron
B	2	73.01.0300 FG202SA2	Fluorescent bargraph display	Itron
B	3	73.01.0300 FG202SA2	Fluorescent bargraph display	Itron
B	4	73.01.0300 FG202SA2	Fluorescent bargraph display	Itron
D	1	50.04.2119 MV57124A	LED,red	GI
D	2	50.04.2118 MV53124A	LED,yellow	GI
D	3	50.04.2146 MV54124A	LED,green	GI
D	4	50.04.2118 MV53124A	LED,yellow	GI
D	5	50.04.2119 MV57124A	LED,red	GI
D	6	50.04.2118 MV53124A	LED,yellow	GI
D	7	50.04.2146 MV54124A	LED,green	GI
D	8	50.04.2118 MV53124A	LED,yellow	GI
D	9	50.04.2119 MV57124A	LED,red	GI
D	10	50.04.2118 MV53124A	LED,yellow	GI
DL	11	50.04.2146 MV54124A	LED,green	GI
DL	12	50.04.2118 MV53124A	LED,yellow	GI
DL	13	50.04.2119 MV57124A	LED,red	GI
DL	14	50.04.2118 MV53124A	LED,yellow	GI
DL	15	50.04.2146 MV54124A	LED,green	GI
DL	16	50.04.2118 MV53124A	LED,yellow	GI
IC	1	50.62.0005 MSC1162GSK	VFD driver	OKI
IC	2	50.62.1595 74 HC 595	8 bit shift register (SMD)	NS,TI
IC	3	50.62.0005 MSC1162GSK	VFD driver	OKI
IC	4	50.62.0005 MSC1162GSK	VFD driver	OKI
IC	5	50.62.1595 74 HC 595	8 bit shift register (SMD)	NS,TI
IC	6	50.62.0005 MSC1162GSK	VFD driver	OKI
P	1	54.14.5582	Micro-Match, 12 pin	AMP
RZ	1	57.88.4101 100 Ohm	2% ,8*	
RZ	2	57.88.4101 100 Ohm	2% ,8*	
MP	1	43.01.0108 0001 pcs	ESE-Warnschild	
MP	2	1.010.123.27 0006 pcs	Gewindebolzen M3/M3 * 6.5	
MP	3	1.990.607.04 0000 pcs	Nr.-Etikette 5 * 20	
MP	4	1.990.607.12 0001 pcs	Bar-Graph VFD PCB	St
MP	5	1.913.420.03 0001 pcs	Chassis VFD Bar-Graph	
MP	6	1.913.420.07 0001 pcs	Isolation VFD-Bar-Graph	
MP	7	1.990.620.10 0008 pcs	Unterlage 2*LED VFD Bar-Graph	

MANUFACTURER AMP=AMP Incorporated, GI=General Instruments, NS=National Semiconductors, OKI=OKI Semiconductors, St=Studer, TI=Texas Instruments

1.990.607.81 BAR-GRAPH VFD BOARD VOL90/05/0900

Änderung					
					③
					②
4.9.92					①
Ausgabe	6.6.90			VAL	⓪
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

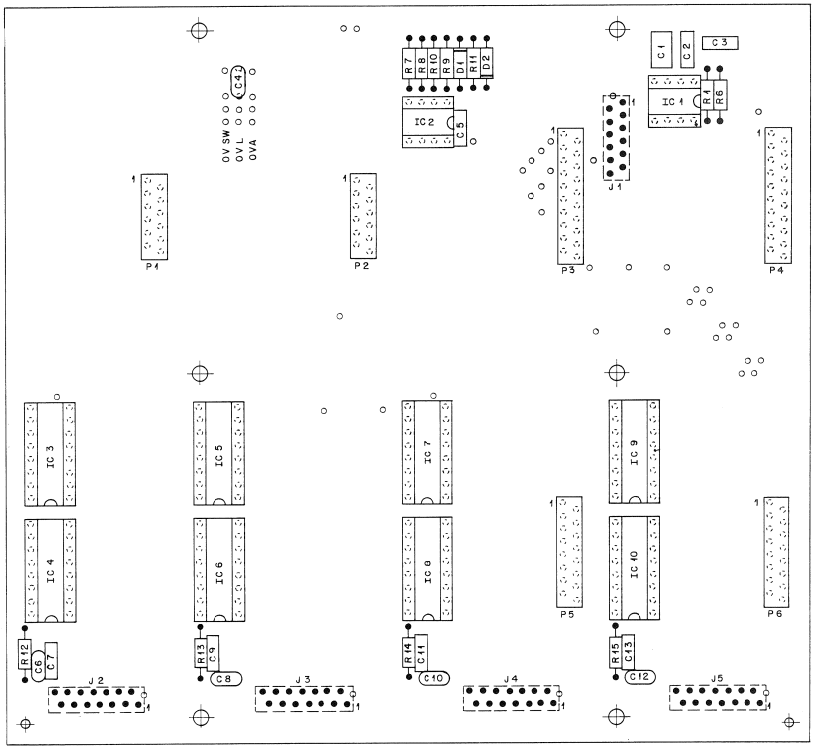
STUDER REGENSDORF ZÜRICH

Benennung: BAR-GRAPH VFD BOARD ESE

Nummer: 1.990.607-81

BAR-GRAPH CONNECTOR + BUS BOARD

1.990.608.00



Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	C.....1	59.06.0105	1 uF	10%	PE	
	C.....2	59.06.0104	100 nF	10%	PE	
	C.....3	59.06.0683	68 nF	10%	PE	
	C.....4	59.32.1152	1.5 nF		CER 400V	
01	C.....4	59.06.0474	470 nF	10%	PE	
	C.....5	59.06.0683	68 nF	10%	PE	
	C.....6	59.34.4101	100 pF	5%	CER	
	C.....7	59.06.0683	68 nF	10%	PE	
	C.....8	59.34.4101	100 pF	5%	CER	
	C.....9	59.06.0683	68 nF	10%	PE	
	C....10	59.34.4101	100 pF	5%	CER	
	C....11	59.06.0683	68 nF	10%	PE	
	C....12	59.34.4101	100 pF	5%	CER	
	C....13	59.06.0683	68 nF	10%	PE	
	D.....1	50.04.0125	1N4448			any
	D.....2	50.04.1504	BZX 85	5.6V		ITT,Mot,Phi,Tf,SGS
	IC....1	50.11.0122	TL7705ACP	Reset generator		SGS,TI
	IC....2	50.09.0103	TL 071 CP	Single FET op-amp		TI
	IC....3	50.17.1595	74 HC 595	8 bit shift register		NS,SGS,TI
	IC....4	50.17.1595	74 HC 595	8 bit shift register		NS,SGS,TI
	IC....5	50.17.1595	74 HC 595	8 bit shift register		NS,SGS,TI
	IC....6	50.17.1595	74 HC 595	8 bit shift register		NS,SGS,TI
	IC....7	50.17.1595	74 HC 595	8 bit shift register		NS,SGS,TI
	IC....8	50.17.1595	74 HC 595	8 bit shift register		NS,SGS,TI
	IC....9	50.17.1595	74 HC 595	8 bit shift register		NS,SGS,TI
	IC...10	50.17.1595	74 HC 595	8 bit shift register		NS,SGS,TI
	J.....1	54.14.5512		Micro-Match, 12 pin		AMP
	J.....2	54.14.5514		Micro-Match, 14 pin		AMP
	J.....3	54.14.5514		Micro-Match, 14 pin		AMP
	J.....4	54.14.5514		Micro-Match, 14 pin		AMP
	J.....5	54.14.5514		Micro-Match, 14 pin		AMP
	P.....1	54.14.5582		Micro-Match, 12 pin		AMP
	P.....2	54.14.5582		Micro-Match, 12 pin		AMP
	P.....3	54.14.5590		Micro-Match, 20 pin		AMP
	P.....4	54.14.5590		Micro-Match, 20 pin		AMP
	P.....5	54.14.5586		Micro-Match, 16 pin		AMP
	P.....6	54.14.5586		Micro-Match, 16 pin		AMP
	R.....1	57.11.3103	10 kOhm	1%		
	R.....2	. . 0	not used			
	R.....3	. . 0	not used			
	R.....4	. . 0	not used			
	R.....5	. . 0	not used			
	R.....6	57.11.3103	10 kOhm	1%		
	R.....7	57.11.3114	110 kOhm	1%		
	R.....8	57.11.3363	36 kOhm	1%		
	R.....9	57.11.3183	18 kOhm	1%		
	R....10	57.11.3513	51 kOhm	1%		
	R....11	57.11.3471	470 Ohm	1%		
	R....12	57.11.3101	100 Ohm	1%		
	R....13	57.11.3101	100 Ohm	1%		
	R....14	57.11.3101	100 Ohm	1%		
	R....15	57.11.3101	100 Ohm	1%		
	MP....1	43.01.0108	0001 pcs	ESE-Warnschild		
	MP....2	53.03.0166	0002 pcs	IC-Sockel, DIL 8		
	MP....3	53.03.0168	0008 pcs	IC-Sockel, DIL 16		
	MP....4	1.990.608.04	0000 pcs	Nr.-Etikette 5 * 20		
	MP....5	1.990.608.11	0001 pcs	Bar-Graph Connector+bus PCB		St

9.10.90 Index 1) Aenderung bei: C4

CER = ceramic, PE = polyester

MANUFACTURER AMP=AMP Incorporated, ITT=Intermetall
Mot=Motorola, NS=National Semiconductors
Phi=Philips, SGS=SGS/Thomson, St=Studer,
Tf=Telefunken, TI=Texas Instruments

1.990.608.00 BAR-GRAPH CONNECTOR+BUS BOARD VOL90/02/0600

1.990.608.00 BAR-GRAPH CONNECTOR+BUS BOARD HOR90/10/0901

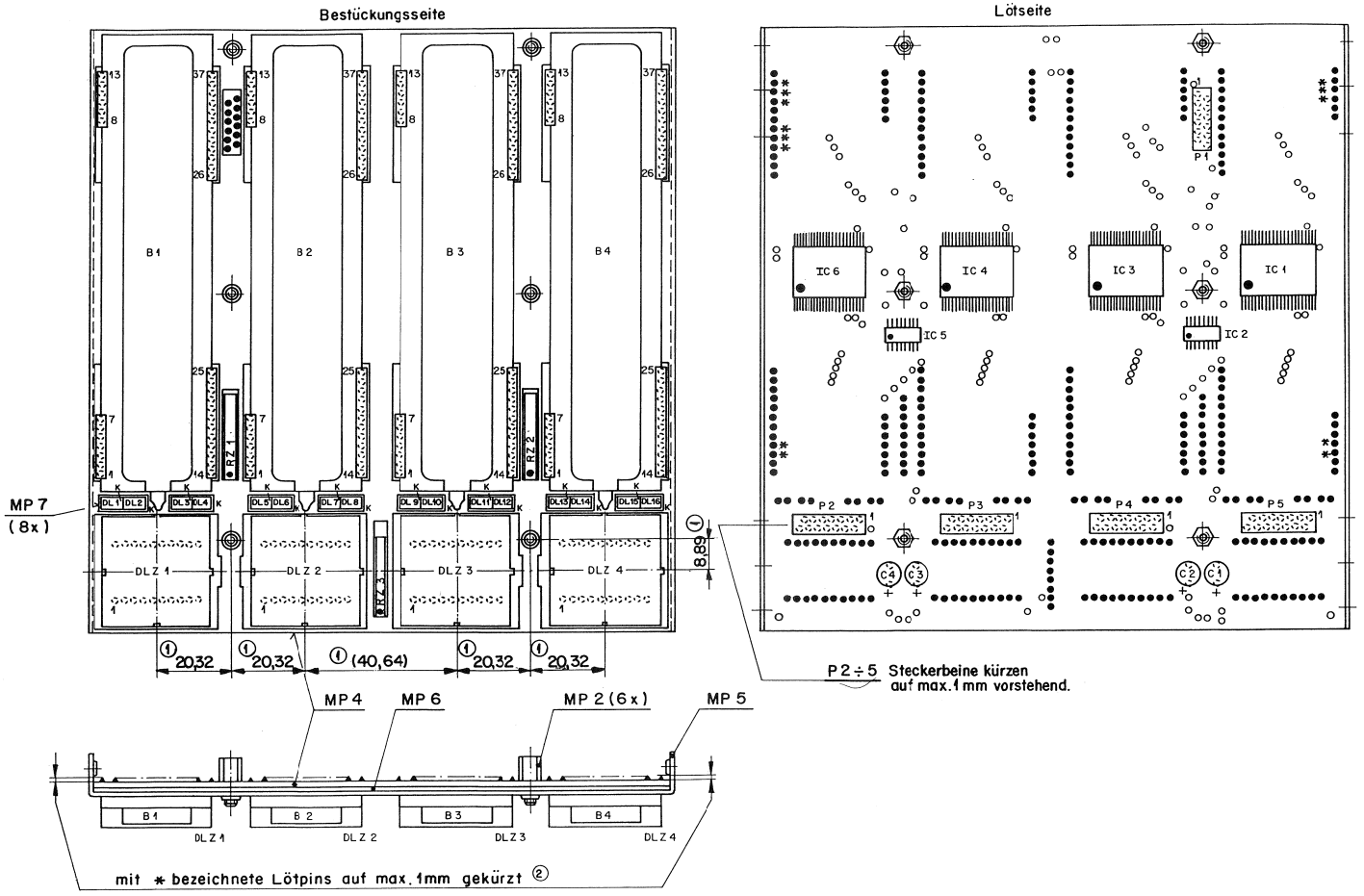
Änderung					
Ausgabe	8.6.90			Vac	0
	Datum	Bez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung	BARGRAPH CONNECTOR+ BUS BOARD ESE	Nummer:	1.990.608-00

BAR-GRAPH VFD + BUS BOARD

1.990.609.81



Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	B.....1	73.01.0300 FG202SA2	Fluorescent bargraph display	Itron
	B.....2	73.01.0300 FG202SA2	Fluorescent bargraph display	Itron
	B.....3	73.01.0300 FG202SA2	Fluorescent bargraph display	Itron
	B.....4	73.01.0300 FG202SA2	Fluorescent bargraph display	Itron
	C.....1	59.22.3101 100 uF	10V EL	
	C.....2	59.22.3101 100 uF	10V EL	
	C.....3	59.22.3101 100 uF	10V EL	
	C.....4	59.22.3101 100 uF	10V EL	
	DL....1	50.04.2119 MV57124A	LED,red	GI
	DL....2	50.04.2118 MV53124A	LED,yellow	GI
	DL....3	50.04.2146 MV54124A	LED,green	GI
	DL....4	50.04.2118 MV53124A	LED,yellow	GI
	DL....5	50.04.2119 MV57124A	LED,red	GI
	DL....6	50.04.2118 MV53124A	LED,yellow	GI
	DL....7	50.04.2146 MV54124A	LED,green	GI
	DL....8	50.04.2118 MV53124A	LED,yellow	GI
	DL....9	50.04.2119 MV57124A	LED,red	GI
	DL...10	50.04.2118 MV53124A	LED,yellow	GI
	DL...11	50.04.2146 MV54124A	LED,green	GI
	DL...12	50.04.2118 MV53124A	LED,yellow	GI
	DL...13	50.04.2119 MV57124A	LED,red	GI
	DL...14	50.04.2118 MV53124A	LED,yellow	GI
	DL...15	50.04.2146 MV54124A	LED,green	GI
	DL...16	50.04.2118 MV53124A	LED,yellow	GI
	DLZ...1	73.01.0400 PD 1165	8*8 dot matrix display	Sie
	DLZ...2	73.01.0400 PD 1165	8*8 dot matrix display	Sie
	DLZ...3	73.01.0400 PD 1165	8*8 dot matrix display	Sie
	DLZ...4	73.01.0400 PD 1165	8*8 dot matrix display	Sie
	IC....1	50.62.0005 MSC1162GSK	VFD driver	OKI
	IC....2	50.62.1595 74 HC 595	8 bit shift register (SMD)	NS,TI
	IC....3	50.62.0005 MSC1162GSK	VFD driver	OKI
	IC....4	50.62.0005 MSC1162GSK	VFD driver	OKI
	IC....5	50.62.1595 74 HC 595	8 bit shift register (SMD)	NS,TI
	IC....6	50.62.0005 MSC1162GSK	VFD driver	OKI
	P.....1	54.14.5582	Micro-Match, 12 pin	AMP
	P.....2	54.14.5584	Micro-Match, 14 pin	AMP
	P.....3	54.14.5584	Micro-Match, 14 pin	AMP
	P.....4	54.14.5584	Micro-Match, 14 pin	AMP
	P.....5	54.14.5584	Micro-Match, 14 pin	AMP
	RZ....1	57.88.4101 100 Ohm	2% ,8*	
	RZ....2	57.88.4101 100 Ohm	2% ,8*	
	RZ....3	57.88.2332 3.3 kOhm	2% ,4*	
	MP....1	43.01.0108 0001 pcs	ESE-Warnschild	
	MP....2	1.010.123.27 0006 pcs	Gewindebolzen M3/M3 * 6.5	
	MP....3	1.990.609.04 0000 pcs	Nr.-Etikette 5 * 20	
	MP....4	1.990.609.12 0001 pcs	Bar-Graph VFD+Bus PCB	St
	MP....5	1.990.620.03 0001 pcs	Chassis VFD Bar-Graph + Bus	
	MP....6	1.990.620.07 0001 pcs	Isolation VFD Bar-Graph + Bus	
	MP....7	1.990.620.10 0008 pcs	Unterlage 2*LED VFD Bar-Graph	

EL = electrolytic

MANUFACTURER AMP=AMP Incorporated, GI=General Instruments, NS=National Semiconductors, OKI=OKI Semiconductors, Sie=Siemens, St=Studer, TI=Texas Instruments

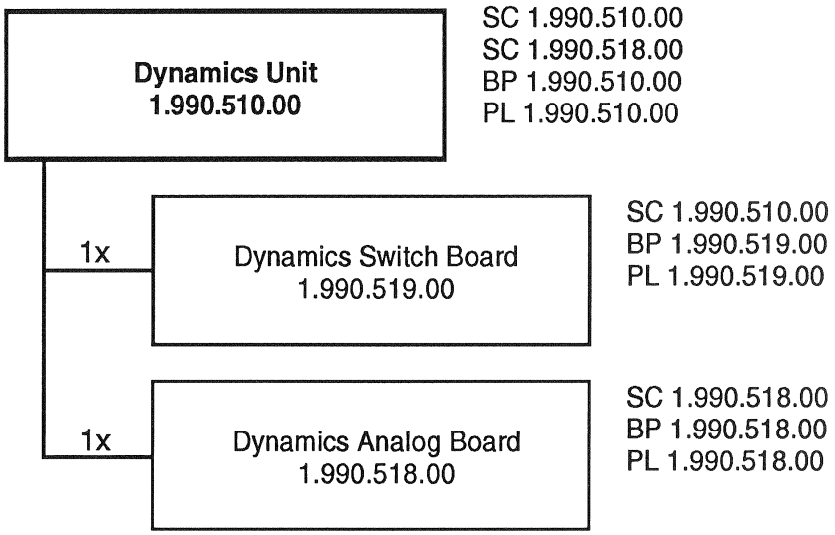
1.990.609.81 BAR-GRAPH VFD+BUS BOARD VOL90/05/0900

Ausgabe / Änderung	Datum	Gez.	Gepr.	Ges.	Index
Änderung	4.9.92	JK	W	W	③
Änderung	27.8.91	JK	W	W	②
Ausgabe	7.6.90	JK	VOL	VOL	①
					⓪

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung	Nummer
	BAR-GRAPH VFD+BUS BOARD ESE	1.990.609-81

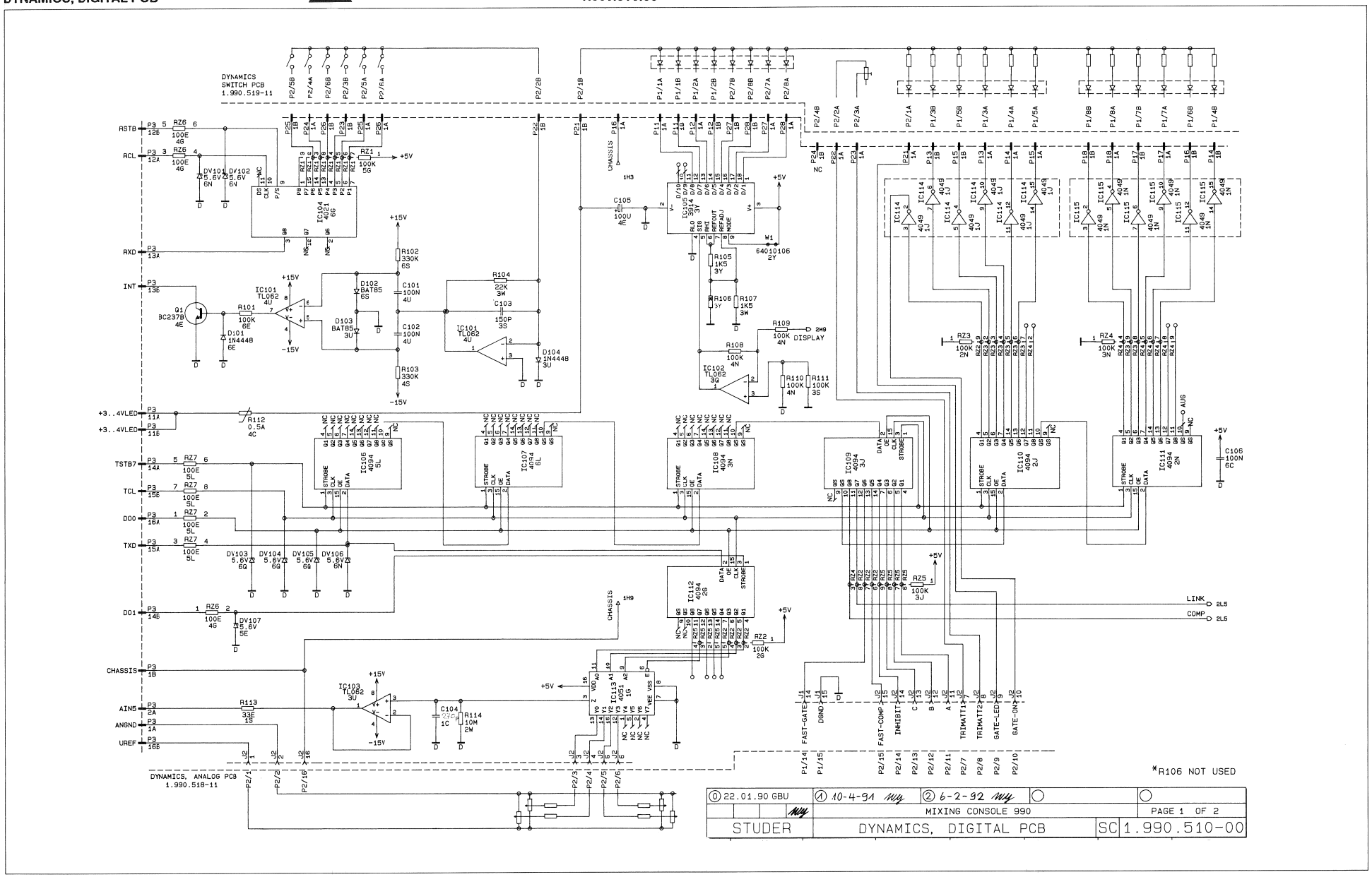
Dynamics Unit 1.990.510.00



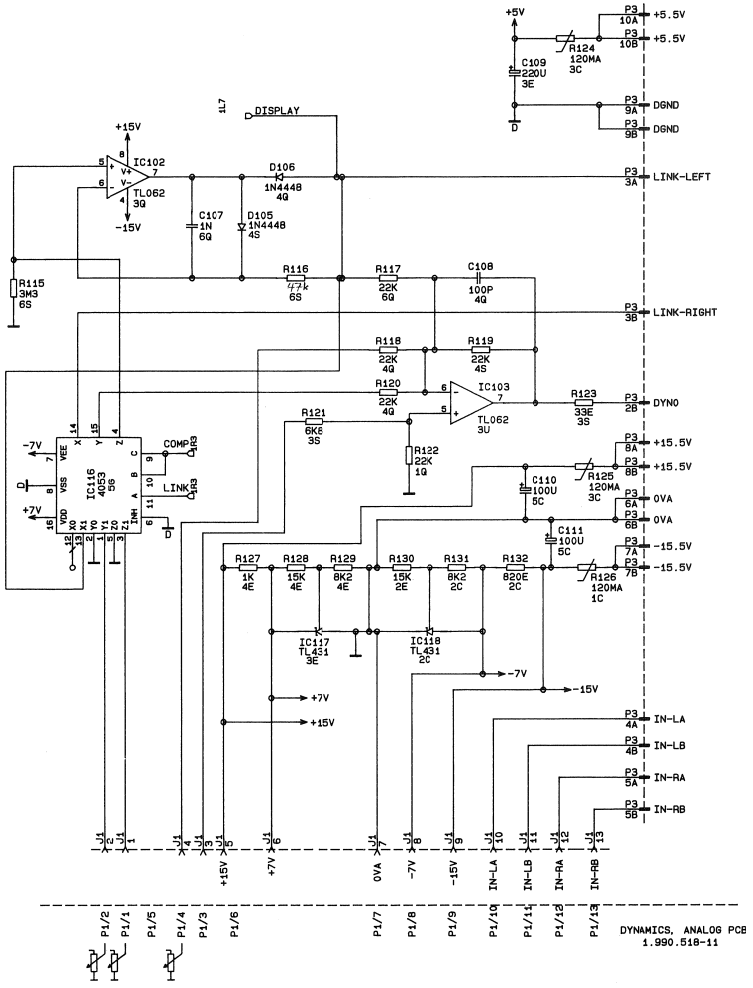
SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

DYNAMICS, DIGITAL PCB

1.990.510.00



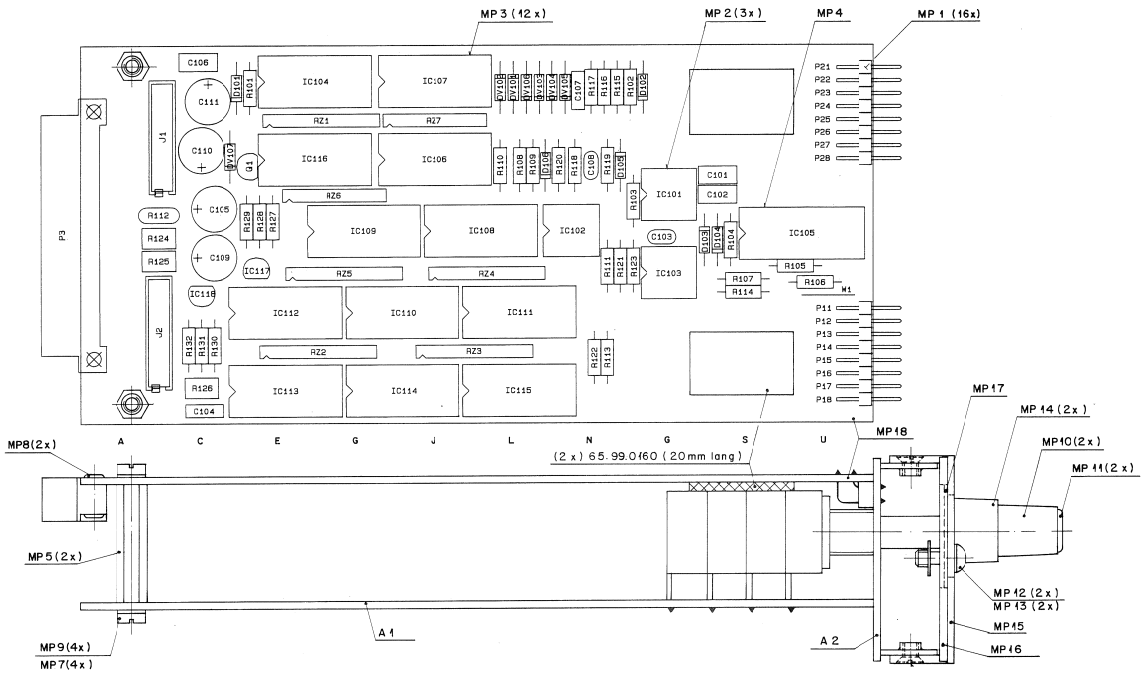
DYNAMICS, DIGITAL PCB 1.990.510.00



⓪ 22.01.90 GBU	① 10-4-91	② 6-2-92	
	MIXING CONSOLE 990		PAGE 2 OF 2
STUDER	DYNAMICS, DIGITAL PCB	SC	1.990.510-00

DYNAMICS UNIT LIM./COMP./GATE ESE

1.990.510.00



Änderung	Ausgabe	Datum	Gez.	Gepr.	Ges.	Index
③						
②						
①						
	3.4.90					0

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: DYNAMICS UNIT LIM./COMP./GATE ESE	Nummer: 1.990.510-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	A.....1	1.990.518.00	dynamics analog board	
	A.....2	1.990.519.00	dynamics switch board	
	C...101	59.06.0104	100 nF 10% PE	
	C...102	59.06.0104	100 nF 10% PE	
	C...103	59.34.4151	150 pF CER	
	C...104	59.06.0103	10 nF 10% PE	
01	C...104	59.34.4271	270 pF CER	
	C...105	59.22.5101	100 uF 25V EL	
	C...106	59.06.0104	100 nF 10% PE	
	C...107	59.06.0102	1 nF 10% PE	
	C...108	59.34.4101	100 pF CER	
	C...109	59.22.3221	220 uF 10V EL	
	C...110	59.22.5101	100 uF 25V EL	
	C...111	59.22.5101	100 uF 25V EL	
	D...101	50.04.0125	1N4448	any
	D...102	50.04.0127	BAT85 BAT42 schottky	Sie,Ph,SGS
	D...103	50.04.0127	BAT85 BAT42 schottky	Sie,Ph,SGS
	D...104	50.04.0125	1N4448	any
	D...105	50.04.0125	1N4448	any
	D...106	50.04.0125	1N4448	any
	DV..101	50.04.1103	5.6V Z-diode	any
	DV..102	50.04.1103	5.6V Z-diode	any
	DV..103	50.04.1103	5.6V Z-diode	any
	DV..104	50.04.1103	5.6V Z-diode	any
	DV..105	50.04.1103	5.6V Z-diode	any
	DV..106	50.04.1103	5.6V Z-diode	any
	DV..107	50.04.1103	5.6V Z-diode	any
	IC..101	50.09.0119	TL062 dual FET-op.amp.	TI,Mot,SGS
	IC..102	50.09.0119	TL062 dual FET-op.amp.	TI,Mot,SGS
	IC..103	50.09.0119	TL062 dual FET-op.amp.	TI,Mot,SGS
	IC..104	50.07.1021	CD4021 8-bit static shift register	Ph,Mot,RCA
	IC..105	50.11.0119	LM3914 display driver	NS
	IC..106	50.07.0018	CD4094 shift and store bus register	Ph,Mot,RCA
	IC..107	50.07.0018	CD4094 shift and store bus register	Ph,Mot,RCA
	IC..108	50.07.0018	CD4094 shift and store bus register	Ph,Mot,RCA
	IC..109	50.07.0018	CD4094 shift and store bus register	Ph,Mot,RCA
	IC..110	50.07.0018	CD4094 shift and store bus register	Ph,Mot,RCA

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	IC..111	50.07.0018	CD4094 shift and store bus register	Ph,Mot,RCA
	IC..112	50.07.0018	CD4094 shift and store bus register	Ph,Mot,RCA
	IC..113	50.07.0051	CD4051 8-channel analog mux/demux	Ph,Mot,RCA
	IC..114	50.07.0049	CD4049 hex inverting buffer CMOS	Ph,To
	IC..115	50.07.0049	CD4049 hex inverting buffer CMOS	Ph,To
	IC..116	50.07.0015	CD4053 3*2-ch.analog mux/demux	Ph,Mot,RCA
	IC..117	50.10.0106	TL431CLP	Mot,TI
	IC..118	50.10.0106	TL431CLP	Mot,TI
	J.....1	54.14.5516	micro-match, 16p	
	J.....2	54.14.5516	micro-match, 16p	
	MP....1	54.11.0131	16 pcs Steckerstifte 2-reihig, gebogen	
	MP....2	53.03.0166	3 pcs IC-socket 8 pin	
	MP....3	53.03.0168	12 pcs IC-socket 16 pin	
	MP....4	53.03.0175	1 pcs IC-socket 18 pin	
	MP....5	1.010.047.27	2 pcs Mutterbolzen M3x23	
	MP....6	21.01.2352	4 pcs S-Schraube M3x4	
	MP....7	24.16.1030	4 pcs Rippenscheibe 3.2/5.5	
	MP....8	28.99.0119	2 pcs Rohrniete	
	MP....9	21.01.0354	4 pcs Z-Schraube M3x6	
	MP...10	42.01.0203	2 pcs Drehknopf	
	MP...11	42.01.0251	2 pcs Deckel	
	MP...12	24.16.3023	2 pcs Wellensicherung	
	MP...13	1.010.022.21	2 pcs Linsenschraube M3x8 spez.	
	MP...14	1.912.000.03	2 pcs Drehring	
	MP...15	1.990.510.01	1 pcs Frontschild	
	MP...16	1.990.510.02	1 pcs Trager	
	MP...17	1.990.510.03	1 pcs Fenster	
	MP...18	1.990.510.11	1 pcs PCB	
	P.....3	54.11.2013	2*16 pin eurocard connector, male	
	Q.....1	50.03.0436	BC237B NPN TO92-1	
	R...101	57.11.3104	100 kOhm	
	R...102	57.11.3334	330 kOhm	
	R...103	57.11.3334	330 kOhm	
	R...104	57.11.3223	22 kOhm	
	R...105	57.11.3152	1.5 kOhm	
	R...106	- - -	not installed	
	R...107	57.11.3152	1.5 kOhm	
	R...108	57.11.3104	100 kOhm	
	R...109	57.11.3104	100 kOhm	
	R...110	57.11.3104	100 kOhm	
	R...111	57.11.3104	100 kOhm	
	R...112	57.92.7013	PTC 0.5A	Raychem
	R...113	57.11.3330	33 Ohm	
	R...114	57.11.5106	10 MOhm	
	R...115	57.11.5335	3.3 MOhm	
	R...116	57.11.3822	8.2 kOhm	
02	R...116	57.11.3473	47 kOhm	
	R...117	57.11.3223	22 kOhm	
	R...118	57.11.3223	22 kOhm	
	R...119	57.11.3223	22 kOhm	
	R...120	57.11.3223	22 kOhm	
	R...121	57.11.3682	6.8 kOhm	
	R...122	57.11.3223	22 kOhm	
	R...123	57.11.3330	33 kOhm	
	R...124	57.92.1121	PTC 120mA	Ph
	R...125	57.92.1121	PTC 120mA	Ph
	R...126	57.92.1121	PTC 120mA	Ph
	R...127	57.11.3102	1 kOhm	
	R...128	57.11.3153	15 kOhm	
	R...129	57.11.3822	8.2 kOhm	
	R...130	57.11.3153	15 kOhm	
	R...131	57.11.3822	8.2 kOhm	
	R...132	57.11.3821	820 Ohm	
	RZ....1	57.88.4104	8*100kOhm	
	RZ....2	57.88.4104	8*100kOhm	
	RZ....3	57.88.4104	8*100kOhm	
	RZ....4	57.88.4104	8*100kOhm	
	RZ....5	57.88.4104	8*100kOhm	
	RZ....6	57.88.2101	4*100 Ohm	
	RZ....7	57.88.2101	4*100 Ohm	
	W.....1	64.01.0106	wire bridge	

CER = ceramic, EL = electrolytic, PE = polyester

MANUFACTURER
Mot=Motorola, NS=National Semiconductors, Ph=Philips, Sie=Siemens,
SGS=SGS/Thomson, TI=Texas Instruments, To=Toshiba

HISTORY
01 91-04-10 C104 10nF replaced by 270pF
02 92-02-06 R116 8.2k replaced by 47k

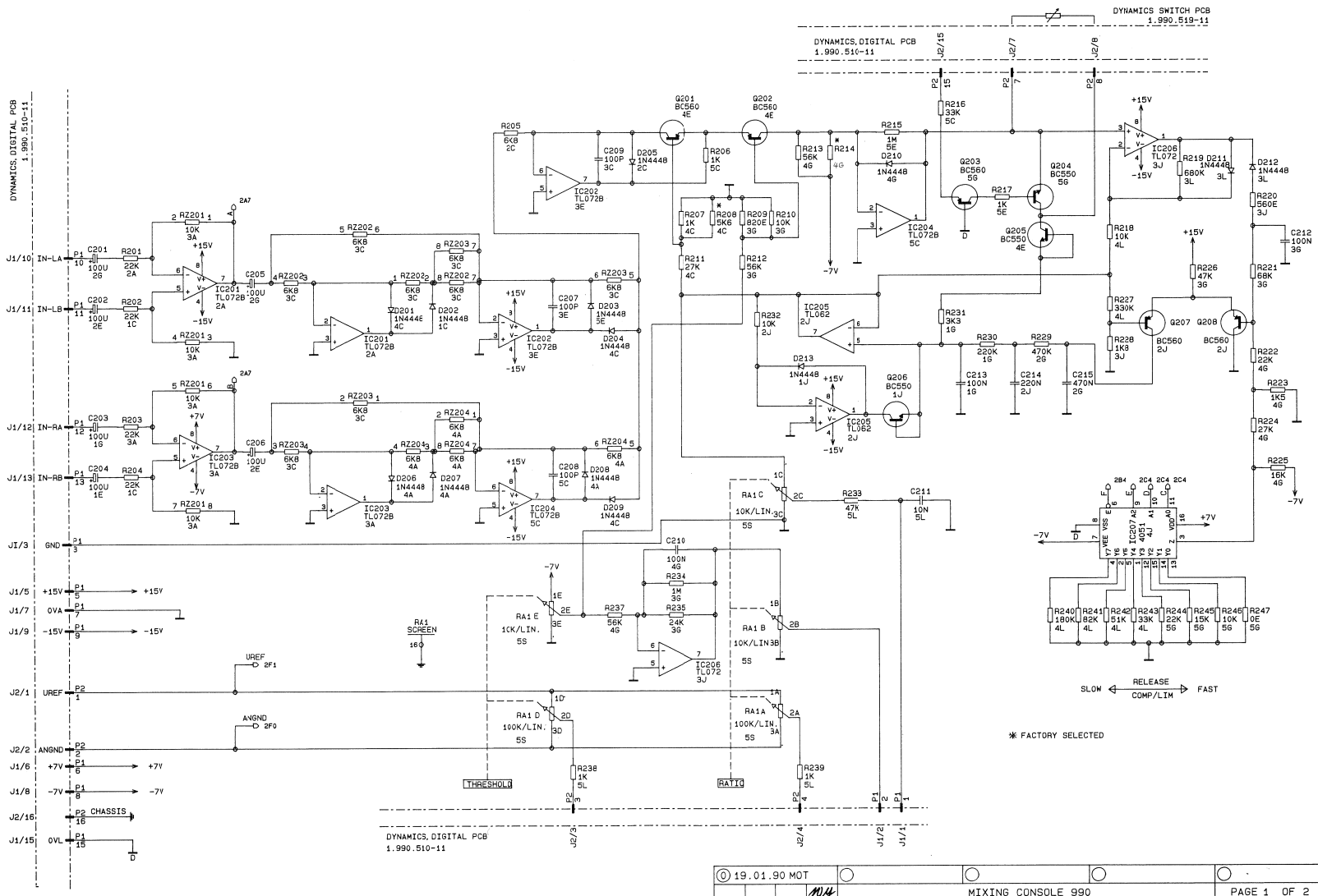
1.990.510.00 DYNAMICS DIGITAL BOARD WY 90/01/2500

1.990.510.00 DYNAMICS DIGITAL BOARD WY 91/04/1001

1.990.510.00 DYNAMICS DIGITAL BOARD WY 92/02/0602

DYNAMICS ANALOG PCB

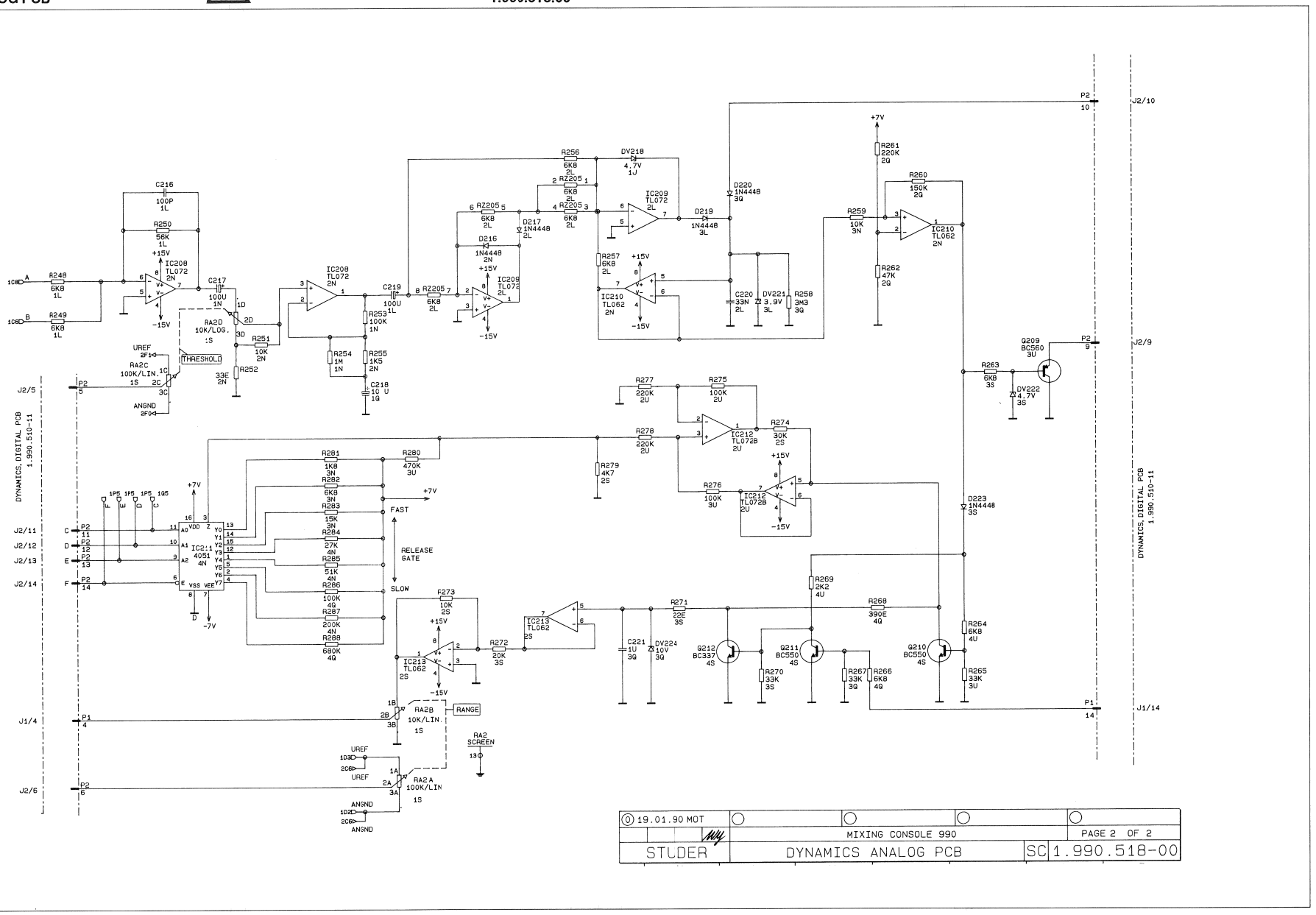
1.990.518.00



⓪ 19.01.90 MOT					
	MIXING CONSOLE 990				PAGE 1 OF 2
STUDER	DYNAMICS ANALOG PCB			SC	1.990.518-00

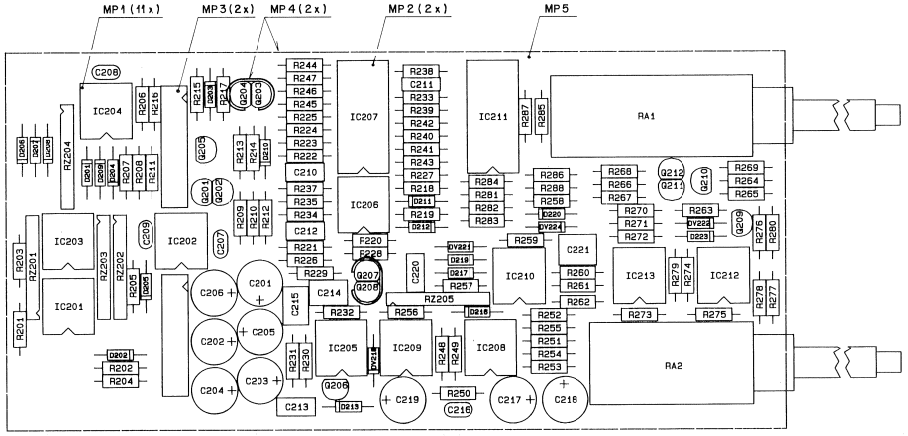
DYNAMICS ANALOG PCB

1.990.518.00



DYNAMICS ANALOG BOARD ESE

1.990.518.00



Änderung			③ ② ①
Ausgabe: 3.4.90	Gez.	Gepr.	Ges. Index ⓪
Kopie für:			
STUDER REGENSDORF ZÜRICH	Benennung: DYNAMICS ANALOG BOARD ESE		Nummer: 1.990.518-00

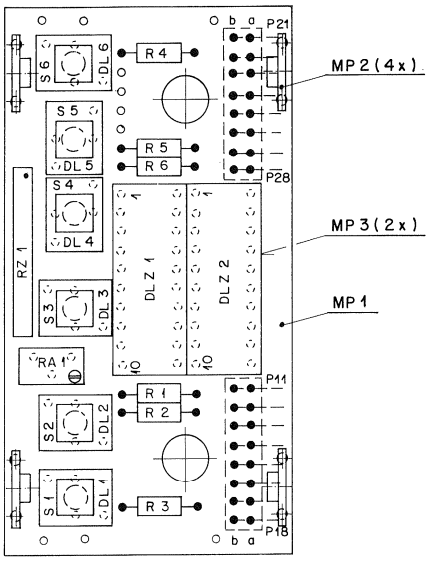
Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	C...201	59.22.5101	100 uF	25V	EL	
	C...202	59.22.5101	100 uF	25V	EL	
	C...203	59.22.5101	100 uF	25V	EL	
	C...204	59.22.5101	100 uF	25V	EL	
	C...205	59.22.5101	100 uF	25V	EL	
	C...206	59.22.5101	100 uF	25V	EL	
	C...207	59.34.4101	100 pF		CER	
	C...208	59.34.4101	100 pF		CER	
	C...209	59.34.4101	100 pF		CER	
	C...210	59.06.5104	100 nF	5%	PE	
	C...211	59.06.5103	10 nF	5%	PE	
	C...212	59.06.5104	100 nF	5%	PE	
	C...213	59.06.5104	100 nF	5%	PE	
	C...214	59.06.5224	220 nF	5%	PE	
	C...215	59.06.5474	470 nF	5%	PE	
	C...216	59.34.4101	100 pF		CER	
	C...217	59.22.5101	100 uF	25V	EL	
	C...218	59.22.8100	10 uF	63V	EL	
	C...219	59.22.5101	100 uF	25V	EL	
	C...220	59.06.5333	33 nF	5%	PE	
	C...221	59.06.5105	1 uF	5%	PE	
	D...201	50.04.0125	1N4448			any
	D...202	50.04.0125	1N4448			any
	D...203	50.04.0125	1N4448			any
	D...204	50.04.0125	1N4448			any
	D...205	50.04.0125	1N4448			any
	D...206	50.04.0125	1N4448			any
	D...207	50.04.0125	1N4448			any
	D...208	50.04.0125	1N4448			any
	D...209	50.04.0125	1N4448			any
	D...210	50.04.0125	1N4448			any
	D...211	50.04.0125	1N4448			any
	D...212	50.04.0125	1N4448			any
	D...213	50.04.0125	1N4448			any
	D...216	50.04.0125	1N4448			any
	D...217	50.04.0125	1N4448			any
	D...218	50.04.1123	4.7V	Z-diode		any
	D...219	50.04.0125	1N4448			any
	D...220	50.04.0125	1N4448			any
	D...221	50.04.1101	3.9V	Z-diode		any
	D...222	50.04.1123	4.7V	Z-diode		any
	D...223	50.04.0125	1N4448			any
	D...224	50.04.1114	10V	Z-diode		any
	IC..201	50.09.0121	TL072B	dual FET-op.amp.		Mot,TI
	IC..202	50.09.0121	TL072B	dual FET-op.amp.		Mot,TI
	IC..203	50.09.0121	TL072B	dual FET-op.amp.		Mot,TI
	IC..204	50.09.0121	TL072B	dual FET-op.amp.		Mot,TI
	IC..205	50.09.0115	TL062	dual FET-op.amp.		Mot,TI
	IC..206	50.09.0101	TL072	dual FET-op.amp.		Mot,TI
	IC..207	50.07.0051	CD4051	8-channel analog mux/demux		Ph,Mot,RCA
	IC..208	50.09.0101	TL072	dual FET-op.amp.		Mot,TI
	IC..209	50.09.0101	TL072	dual FET-op.amp.		Mot,TI
	IC..210	50.09.0115	TL062	dual FET-op.amp.		Mot,TI
	IC..211	50.07.0051	CD4051	8-channel analog mux/demux		Ph,Mot,RCA
	IC..212	50.09.0121	TL072B	dual FET-op.amp.		Mot,TI
	IC..213	50.09.0115	TL062	dual FET-op.amp.		Mot,TI
	MP....1	53.03.0166	11 pcs	IC-socket 8 pin		
	MP....2	53.03.0168	2 pcs	IC-socket 16 pin		
	MP....3	1.023.391.60	2 pcs	Verbindungskabel mit Stecker 16p		
	MP....4	50.20.2001	2 pcs	Clip		
	MP....5	1.990.518.11	1 pcs	PCB		
	Q...201	50.43.0600	BC560	PNP selected E6310		ST
	Q...202	50.43.0600	BC560	PNP selected E6310		ST
	Q...203	50.03.0600	BC560	PNP		
	Q...204	50.03.0497	BC550	NPN		
	Q...205	50.03.0497	BC550	NPN		
	Q...206	50.03.0497	BC550	NPN		
	Q...207	50.43.0600	BC560	PNP selected E6310		ST
	Q...208	50.43.0600	BC560	PNP selected E6310		ST
	Q...209	50.03.0600	BC560	PNP		
	Q...210	50.03.0497	BC550	NPN		
	Q...211	50.03.0497	BC550	NPN		
	Q...212	50.03.0516	BC337	NPN 800mA		
	R...201	57.11.3223	22 kOhm			
	R...202	57.11.3223	22 kOhm			
	R...203	57.11.3223	22 kOhm			
	R...204	57.11.3223	22 kOhm			
	R...205	57.11.3682	6.8 kOhm			
	R...206	57.11.3102	1 kOhm			
	R...207	57.11.3102	1 kOhm			
	R...208	57.11.3562	5.6 kOhm	(factory selected)		
	R...209	57.11.3821	820 Ohm			
	R...210	57.11.3103	10 kOhm			
	R...211	57.11.3273	27 kOhm			
	R...212	57.11.3563	56 kOhm			
	R...213	57.11.3563	56 kOhm			
	R...214	- . -		factory selected		
	R...215	57.11.3106	1 MOhm			
	R...216	57.11.3333	33 kOhm			
	R...217	57.11.3102	1 kOhm			
	R...218	57.11.3103	10 kOhm			
	R...219	57.11.3684	680 kOhm			
	R...220	57.11.3561	560 Ohm			
	R...221	57.11.3683	68 kOhm			
	R...222	57.11.3223	22 kOhm			
	R...223	57.11.3152	1.5 kOhm			
	R...224	57.11.3273	27 kOhm			
	R...225	57.11.3163	16 kOhm			
	R...226	57.11.3473	47 kOhm			
	R...227	57.11.3334	330 kOhm			
	R...228	57.11.3182	1.8 kOhm			
	R...229	57.11.3474	470 kOhm			
	R...230	57.11.3224	220 kOhm			
	R...231	57.11.3332	3.3 kOhm			
	R...232	57.11.3103	10 kOhm			
	R...233	57.11.3473	47 kOhm			
	R...234	- . -			not installed	
	R...235	57.11.3243	24 kOhm			
	R...237	57.11.3563	56 kOhm			
	R...238	57.11.3102	1 kOhm			
	R...239	57.11.3102	1 kOhm			
	R...240	57.11.3184	180 kOhm			
	R...241	57.11.3823	82 kOhm			
	R...242	57.11.3513	51 kOhm			
	R...243	57.11.3333	33 kOhm			
	R...244	57.11.3223	22 kOhm			
	R...245	57.11.3153	15 kOhm			
	R...246	57.11.3103	10 kOhm			
	R...247	57.11.3000	0 Ohm			
	R...248	57.11.3682	6.8 kOhm			
	R...249	57.11.3682	6.8 kOhm			
	R...250	57.11.3563	56 kOhm			
	R...251	57.11.3103	10 kOhm			
	R...252	57.11.3330	33 Ohm			
	R...253	57.11.3104	100 kOhm			
	R...254	- . -			not installed	
	R...255	57.11.3152	1.5 kOhm			
	R...256	57.11.3682	6.8 kOhm			
	R...257	57.11.3682	6.8 kOhm			
	R...258	57.11.5335	3.3 MOhm			
	R...259	57.11.3103	10 kOhm			
	R...260	57.11.3154	150 kOhm			
	R...261	57.11.3224	220 kOhm			
	R...262	57.11.3473	47 kOhm			
	R...263	57.11.3682	6.8 kOhm			
	R...264	57.11.3682	6.8 kOhm			
	R...265	57.11.3333	33 kOhm			
	R...266	57.11.3682	6.8 kOhm			
	R...267	57.11.3333	33 kOhm			
	R...268	57.11.3391	390 Ohm			
	R...269	57.11.3222	2.2 kOhm			
	R...270	57.11.3333	33 kOhm			
	R...271	57.11.3220	22 Ohm			
	R...272	57.11.3203	20 kOhm			
	R...273	57.11.3103	10 kOhm			
	R...274	57.11.3303	30 kOhm			
	R...275	57.11.3104	100 kOhm			
	R...276	57.11.3104	100 kOhm			
	R...277	57.11.3224	220 kOhm			
	R...278	57.11.3224	220 kOhm			
	R...279	57.11.3472	4.7 kOhm			
	R...280	57.11.3474	470 kOhm			
	R...281	57.11.3182	1.8 kOhm			
	R...282	57.11.3682	6.8 kOhm			
	R...283	57.11.3153	15 kOhm			
	R...284	57.11.3273	27 kOhm			
	R...285	57.11.3513	51 kOhm			
	R...286	57.11.3104	100 kOhm			
	R...287	57.11.3204	200 kOhm			
	R...288	57.11.3684	680 kOhm			
	RA....1	1.010.036.58				
	RA....2	1.010.037.58				
	RZ..201	57.88.2103	4*10kOhm			
	RZ..202	57.88.2682	4*6.8kOhm			
	RZ..203	57.88.2682	4*6.8kOhm			
	RZ..204	57.88.2682	4*6.8kOhm			
	RZ..205	57.88.2682	4*6.8kOhm			

CER = ceramic, EL =electrolytic, PE = polyester

MANUFACTURER
Mot=Motorola, Ph=Philips, ST=Studer, TI=Texas Instruments

1.990.518.00 DYNAMICS ANALOGUE BOARD WY 90/01/2500

DYNAMICS SWITCH BOARD 1.990.519.00



Änderung	Ausgabe	Datum	Gez.	Gepr.	Ges.	Index
	3.4.90					0

Kopie für

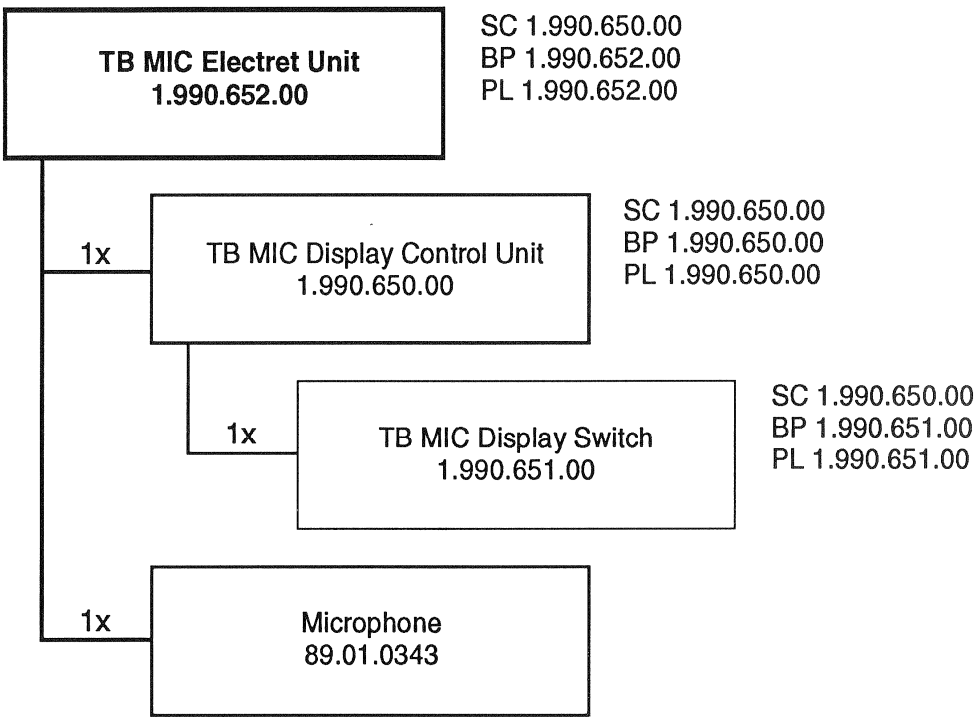
STUDER REGENSDORF ZÜRICH	Benennung	Nummer
	DYNAMICS SWITCH BOARD	1.990.519-00

Ad	..POS..	...REF.No...		DESCRIPTION.....	.....MANUFACTURER
	DLZ...1	50.04.2161		10*D green	MV54164 (GI) GI,HP
	DLZ...2	50.04.2150		10*D red	MV57164 (GI) GI,HP
	R.....1	57.11.3101	100 Ohm	0207 MF	
	R.....2	57.11.3101	100 Ohm	0207 MF	
	R.....3	57.11.3101	100 Ohm	0207 MF	
	R.....4	57.11.3101	100 Ohm	0207 MF	
	R.....5	57.11.3101	100 Ohm	0207 MF	
	R.....6	57.11.3101	100 Ohm	0207 MF	
	RA....1	58.05.1104	100 kOhm	adjustable	
	RZ....1	57.88.4101		SIP9 8*100 Ohm	
	S.....1	55.15.0622		red, LED red	
	S.....2	55.15.0604		colourless, LED yel	
	S.....3	55.15.0604		colourless, LED yel	
	S.....4	55.15.0602		colourless, LED red	
	S.....5	55.15.0604		colourless, LED yel	
	S.....6	55.15.0622		red, LED red	
	MP....1	1.990.519.11	1 pcs	PCB	
	MP....2	1.990.100.05	4 pcs	Querprinthalter	
	MP....3	53.99.0135	2 pcs	XIC DIL20P ultra low prof.	

MANUFACTURER: GI=General Instruments, HP=Hewlett-Packard

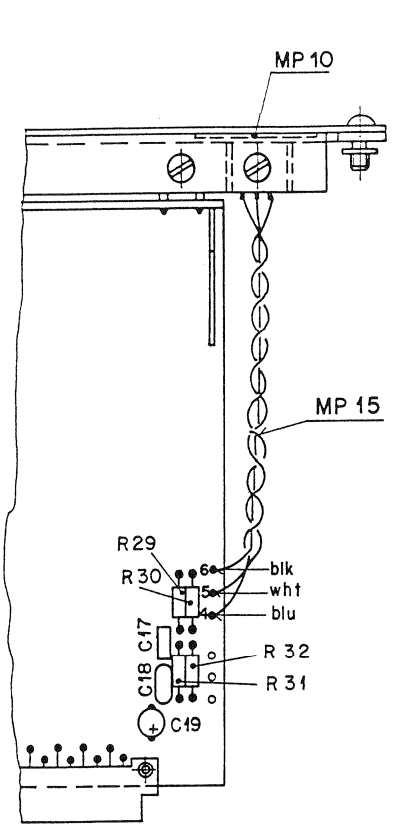
1.990.519.00 DYNAMICS SWITCH BOARD WY 90.01.1000

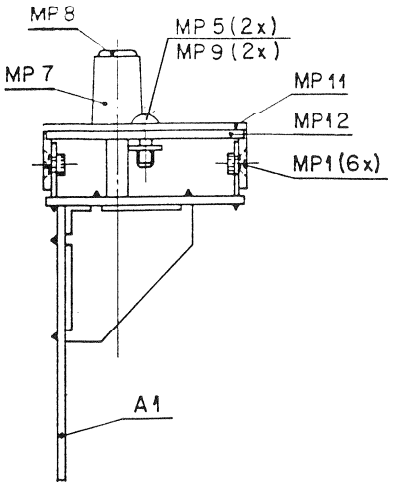
TB MIC Electret Display Control Unit 1.990.652.00

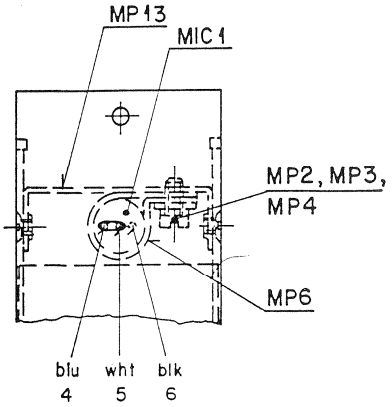


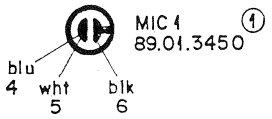
SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

EL MIC / DISPLAY CONTROL UNIT 1.990.652.00









Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	A.....1	1.990.650.00	TB MIC/DISPLAY CONTROL BOARD	St
	C....16	59.22.3101	100 uF 10V EL	
	C....16	. .	n.c.	
	C....17	59.06.0104	100 nF 10% PE	
	C....18	59.34.4221	220 pF 5% CER	
	C....19	59.22.5220	22 uF 25V EL	
	MIC...1	89.01.0343	EM 60 Electret Microphone	
01	MIC...1	89.01.3540	electret microphone	
	R....29	57.11.3103	10 kOhm 1%	
01	R....29	57.11.3182	1.8 kOhm 1%	
	R....30	57.11.3682	6.8 kOhm 1%	
01	R....30	57.11.3272	2.7 kOhm 1%	
	R....31	57.11.3103	10 kOhm 1%	
	R....32	57.11.3000	0 Ohm	
	MP....1	21.01.2352	0006 pcs S - Schr. , ZN , M3 * 4	
	MP....2	21.53.0354	0001 pcs Z - Schr. IS , ZN , M3 * 6	
	MP....3	23.01.3032	0001 pcs U - Scheibe D 3.2/9 * 0.8	
	MP....4	24.16.1030	0001 pcs Rippenscheibe D 3.2/5.5	
	MP....5	24.16.3023	0002 pcs Wellensicherung 2.3	
	MP....6	35.05.0314	0001 pcs Kabelbride D 9.5	
	MP....7	42.01.0228	0001 pcs Knebelknopf grau D10/ 4	
	MP....8	42.01.0250	0001 pcs Deckel hellgrau zu Knopf D10	
	MP....9	1.010.022.21	0002 pcs Linsenschraube IS spez. M3 * 8 SW	
	MP...10	1.169.500.02	0001 pcs Gewebe	
	MP...11	1.990.650.01	0001 pcs Frontschild TB MIC/DISPLAY CONTROL	
	MP...12	1.990.650.02	0001 pcs Traeger TB MIC/DISPLAY CONTROL	
	MP...13	1.990.650.03	0001 pcs Halteblech TB MIC/DISPLAY CONTROL	
	MP...14	1.990.652.04	0000 pcs Nr.-Etikette 5 * 20	
	MP...15	1.990.652.93	0001 pcs Litzenliste EL Mic/Display Control Unit	St

01 New electret microfone. EM 60 89.01.0343 will be replaced by 89.01.3450. New: two connections. C 16 delete, R26 1k8, R30 2k7.

MANUFACTURER St=Studer

1.990.652.00 EL MIC/DISPLAY CONTROL UNIT VOL90/02/2700

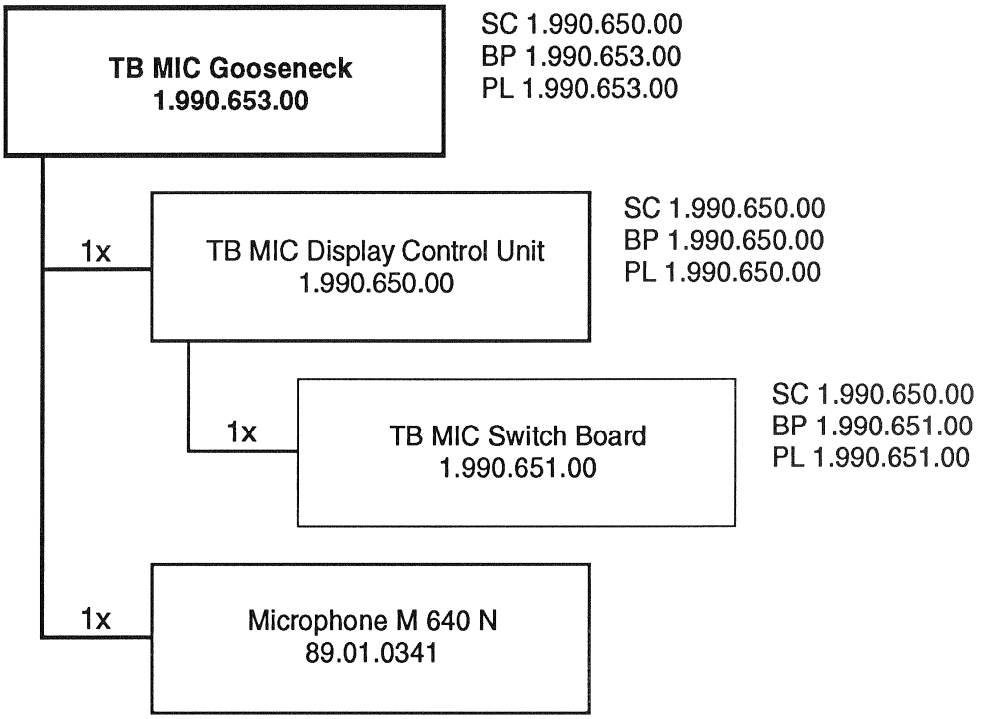
1.990.652.00 EL MIC/DISPLAY CONTROL UNIT FRI93/11/1601

Änderung					
					3
					2
	16.11.93	DM	HE	HE	1
Ausgabe	5.4.90	M.Y.	VOL	M	0
	Datum	Gez	Gepr	Ges	Index

Kopie für

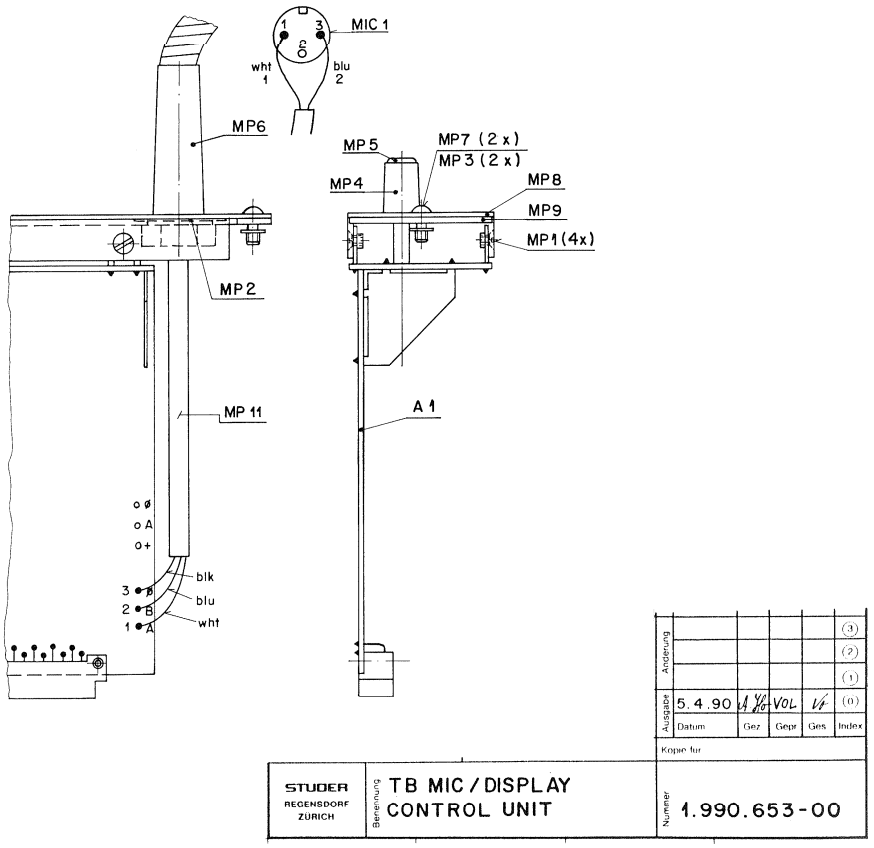
STUDER REGENSDORF ZÜRICH	Benennung	EL MIC / DISPLAY CONTROL UNIT	Nummer	1.990.652-00

TB MIC Gooseneck Display Control Unit 1.990.653.00



SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

TB MIC / DISPLAY CONTROL UNIT 1.990.653.00



Änderung					
					(3)
					(2)
					(1)
Ausgabe	5.4.90	M. Y.	VOL	V.	(0)
	Datum	Gez	Gepr	Ges	Index

Kopie für

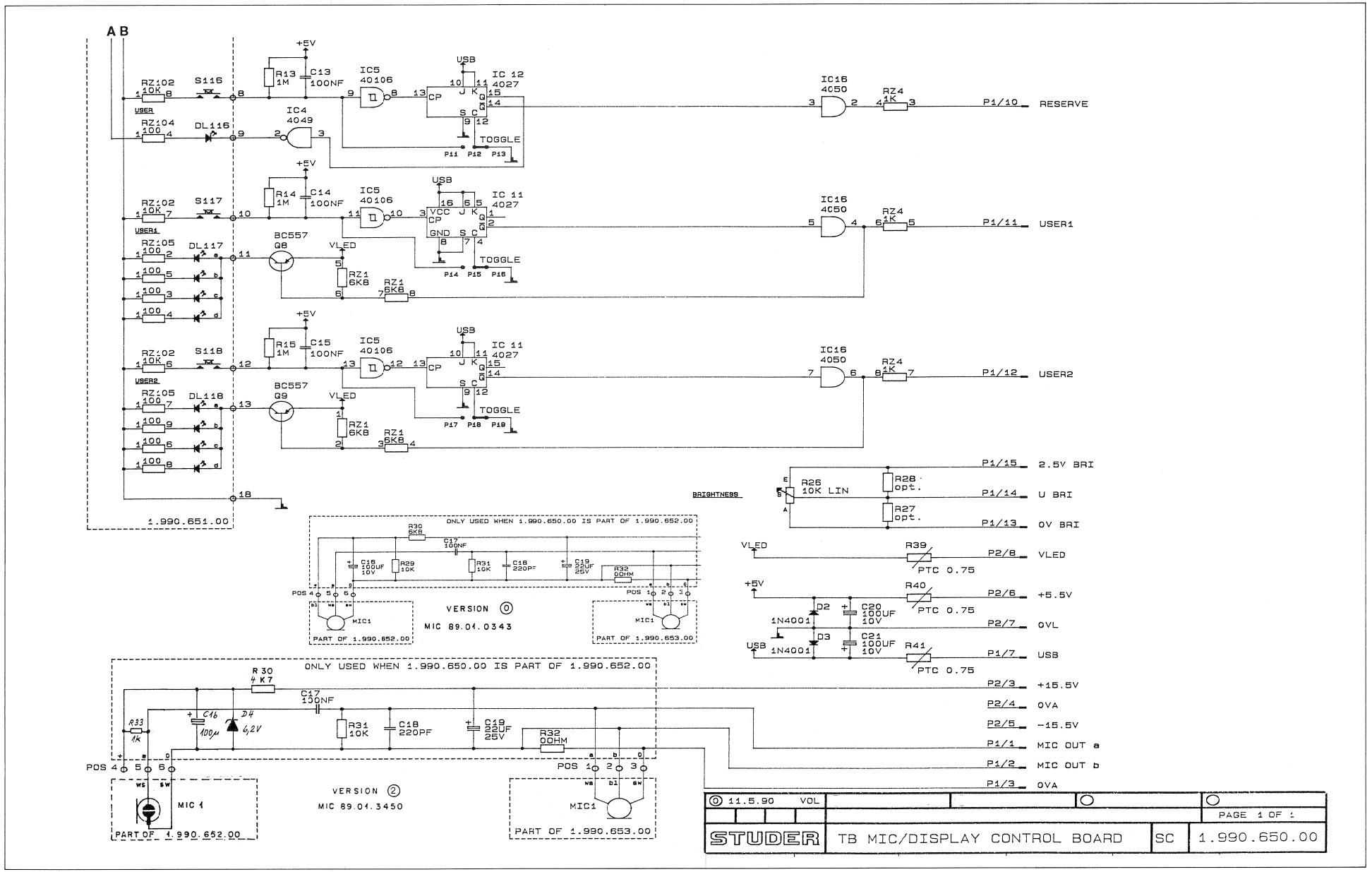
STUDER REGENSDORF ZÜRICH	Benennung: TB MIC / DISPLAY CONTROL UNIT	Nummer: 1.990.653-00

Ad	..POS..	...REF.No...		DESCRIPTION	MANUFACTURER
	A.....1	1.990.650.00		TB MIC/DISPLAY CONTROL BOARD	St
	MIC...1	89.01.0341	M 640 N	Talkback Microphone	Beyer
	MP....1	21.01.2352	0004 pcs	S - Schr. , ZN , M3 * 4	
	MP....2	23.99.0123	0001 pcs	U - Scheibe D 10.1/15 * 0.5 PREH	
	MP....3	24.16.3023	0002 pcs	Wellensicherung 2.3	
	MP....4	42.01.0228	0001 pcs	Knebelknopf grau D10/ 4	
	MP....5	42.01.0250	0001 pcs	Deckel hellgrau zu Knopf D10	
	MP....6	89.01.0342	0001 pcs	Schwanenhals SH11-200N HCR	Beyer
	MP....7	1.010.022.21	0002 pcs	Linsenschraube IS spez. M3 * 8 SW	
	MP....8	1.990.650.01	0001 pcs	Frontschild TB MIC/DISPLAY CONTROL	
	MP....9	1.990.650.02	0001 pcs	Traeger TB MIC/DISPLAY CONTROL	
	MP...10	1.990.653.04	0000 pcs	Nr.-Etikette 5 * 20	
	MP...11	1.990.653.94	0001 pcs	Kabelliste TB Mic/Display Control Unit	St

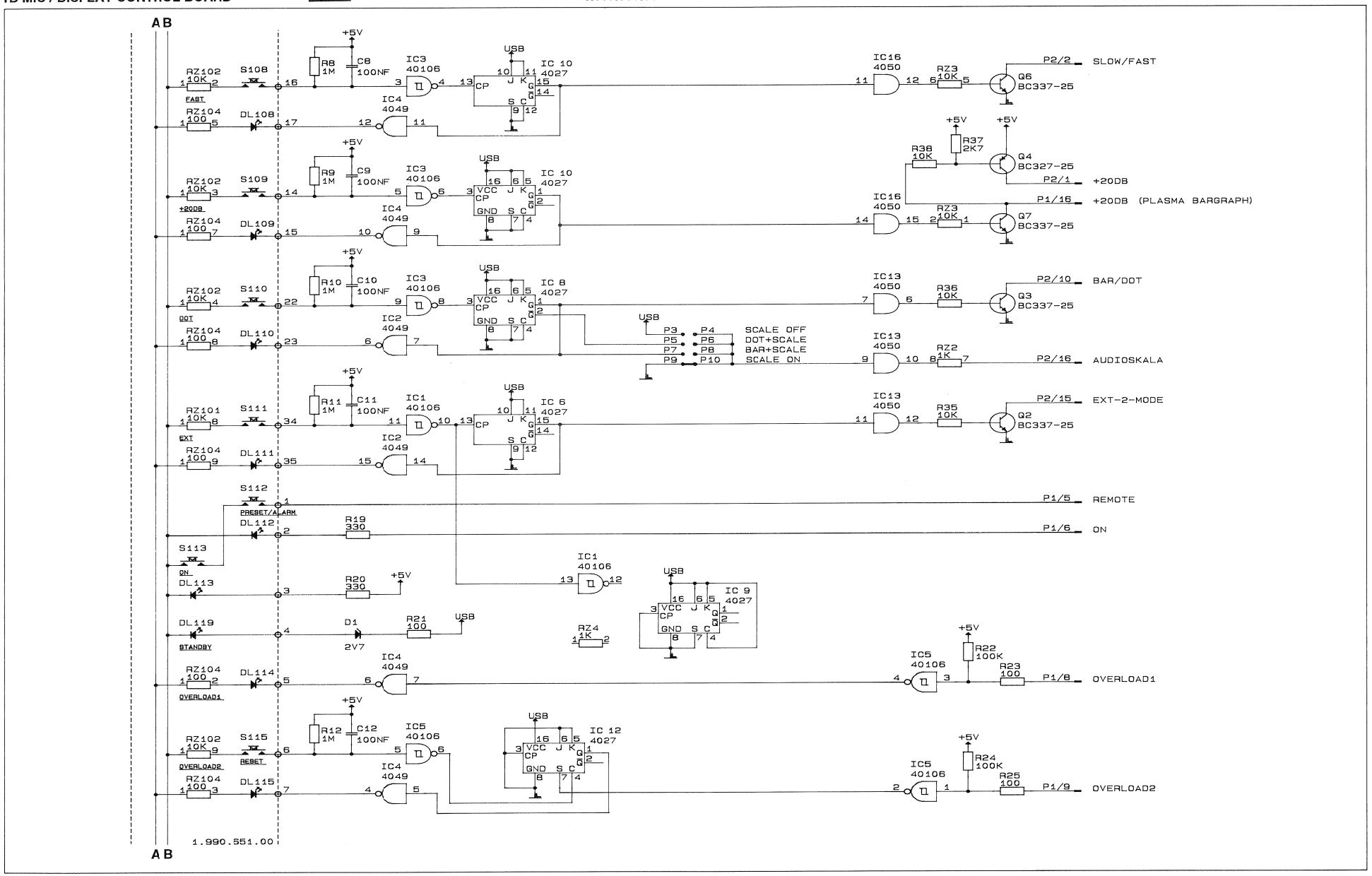
MANUFACTURER St=Studer

1.990.653.00 TB MIC/DISPLAY CONTROL UNIT VOL90/02/2700

TB MIC / DISPLAY CONTROL BOARD 1.990.650.00

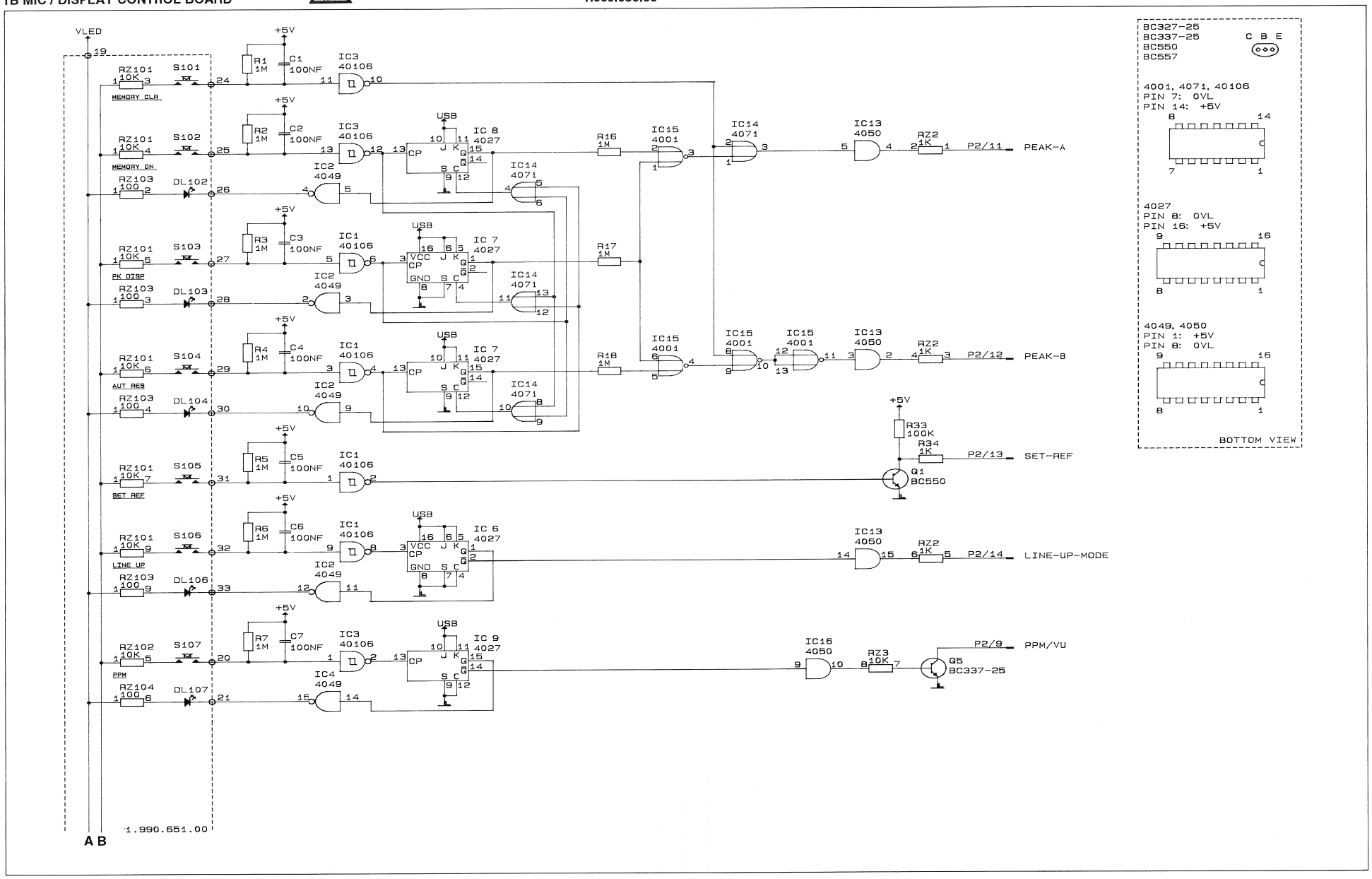


TB MIC / DISPLAY CONTROL BOARD 1.990.650.00



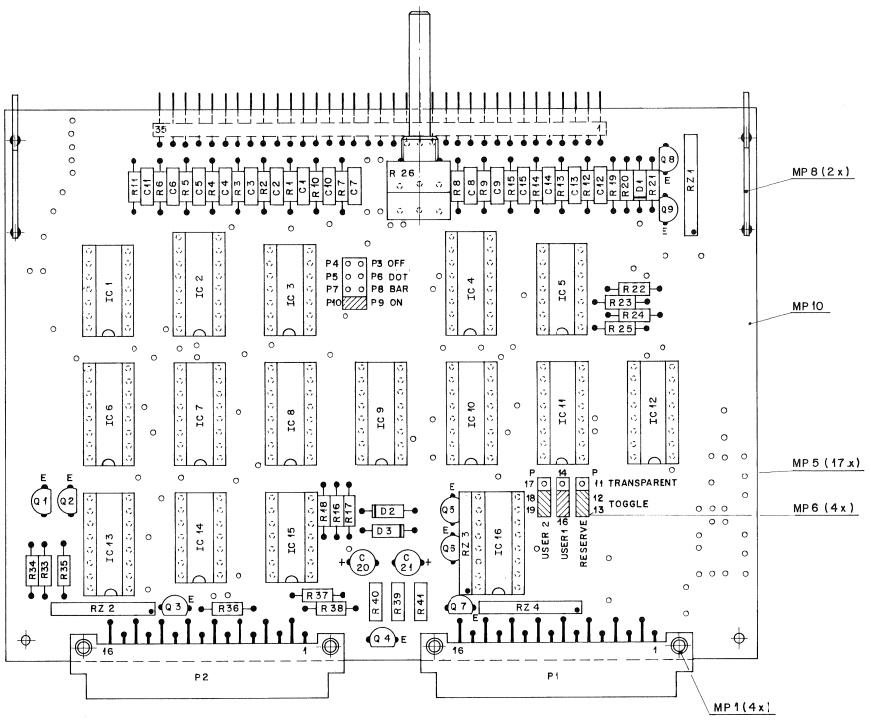
TB MIC / DISPLAY CONTROL BOARD

1.990.650.00



TB MIC/DISPLAY CONTROL BOARD

1.990.650.00



Ersatz für:	Ersetzt durch:	Kopie für:
STUDER REGENSDORF ZÜRICH	Benennung: TB MIC / DISPLAY CONTROL BOARD ESE	Nummer: 1.990.650-00

Änderung / Ausgabe: 4.4.90 VOL

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
A	1	1.990.651.00	TB MIC/DISPLAY SWITCH BOARD	St
C	1	59.06.0104	100 nF 10% PE	
C	2	59.06.0104	100 nF 10% PE	
C	3	59.06.0104	100 nF 10% PE	
C	4	59.06.0104	100 nF 10% PE	
C	5	59.06.0104	100 nF 10% PE	
C	6	59.06.0104	100 nF 10% PE	
C	7	59.06.0104	100 nF 10% PE	
C	8	59.06.0104	100 nF 10% PE	
C	9	59.06.0104	100 nF 10% PE	
C	10	59.06.0104	100 nF 10% PE	
C	11	59.06.0104	100 nF 10% PE	
C	12	59.06.0104	100 nF 10% PE	
C	13	59.06.0104	100 nF 10% PE	
C	14	59.06.0104	100 nF 10% PE	
C	15	59.06.0104	100 nF 10% PE	
C	16	. . 0	not used * see comment	
C	17	. . 0	not used * see comment	
C	18	. . 0	not used * see comment	
C	19	. . 0	not used * see comment	
C	20	59.22.3101	100 uF 10V EL	
C	21	59.22.3101	100 uF 10V EL	
D	1	50.04.1106	BZX55C 2.7V	any
D	2	50.04.0122	1N4001	any
D	3	50.04.0122	1N4001	any
IC	1	50.07.0014	40106 Hex Schmitt-Trigger Inverter	Mot,NS,Phi
IC	2	50.07.0049	4049 Hex Inverting Buffer	Phi,To
IC	3	50.07.0014	40106 Hex Schmitt-Trigger Inverter	Mot,NS,Phi
IC	4	50.07.0049	4049 Hex Inverting Buffer	Phi,To
IC	5	50.07.0014	40106 Hex Schmitt-Trigger Inverter	Mot,NS,Phi
IC	6	50.07.0027	4027 Dual Flip-Flop	Mot,Phi,RCA
IC	7	50.07.0027	4027 Dual Flip-Flop	Mot,Phi,RCA
IC	8	50.07.0027	4027 Dual Flip-Flop	Mot,Phi,RCA
IC	9	50.07.0027	4027 Dual Flip-Flop	Mot,Phi,RCA
IC	10	50.07.0027	4027 Dual Flip-Flop	Mot,Phi,RCA
IC	11	50.07.0027	4027 Dual Flip-Flop	Mot,Phi,RCA
IC	12	50.07.0027	4027 Dual Flip-Flop	Mot,Phi,RCA
IC	13	50.07.0050	4050 Hex Buffer	Mot,Phi,RCA
IC	14	50.07.0022	4071 Quad OR-Gate	Mot,RCA,SGS
IC	15	50.07.0006	4001 Quad NOR-Gate	Mot,NS,Phi
IC	16	50.07.0050	4050 Hex Buffer	Mot,Phi,RCA
P	1	54.11.2007	Eurocard connector, 16 pin	
P	2	54.11.2007	Eurocard connector, 16 pin	
Q	1	50.03.0497	BC 550	Sie
Q	2	50.03.0340	BC 337-25	ITT,Phi,Sie
Q	3	50.03.0340	BC 337-25	ITT,Phi,Sie
Q	4	50.03.0351	BC 327-25	ITT,Phi,Sie
Q	5	50.03.0340	BC 337-25	ITT,Phi,Sie
Q	6	50.03.0340	BC 337-25	ITT,Phi,Sie
Q	7	50.03.0340	BC 337-25	ITT,Phi,Sie
Q	8	50.03.0515	BC 557	ITT,Mot,Phi
Q	9	50.03.0515	BC 557	ITT,Mot,Phi
R	1	57.11.3105	1 MOhm 1%	
R	2	57.11.3105	1 MOhm 1%	
R	3	57.11.3105	1 MOhm 1%	
R	4	57.11.3105	1 MOhm 1%	
R	5	57.11.3105	1 MOhm 1%	
R	6	57.11.3105	1 MOhm 1%	
R	7	57.11.3105	1 MOhm 1%	
R	8	57.11.3105	1 MOhm 1%	
R	9	57.11.3105	1 MOhm 1%	
R	10	57.11.3105	1 MOhm 1%	
R	11	57.11.3105	1 MOhm 1%	
R	12	57.11.3105	1 MOhm 1%	
R	13	57.11.3105	1 MOhm 1%	
R	14	57.11.3105	1 MOhm 1%	
R	15	57.11.3105	1 MOhm 1%	
R	16	57.11.3105	1 MOhm 1%	
R	17	57.11.3105	1 MOhm 1%	
R	18	57.11.3105	1 MOhm 1%	
R	19	57.11.3331	330 Ohm 1%	
R	20	57.11.3331	330 Ohm 1%	
R	21	57.11.3101	100 Ohm 1%	
R	22	57.11.3104	100 kOhm 1%	
R	23	57.11.3101	100 Ohm 1%	
R	24	57.11.3104	100 kOhm 1%	
R	25	57.11.3101	100 Ohm 1%	
R	26	1.010.101.58	10 kOhm lin. (Tandem-Pot, 100kOhm not used)	
R	27	. . 0	not used	
R	28	. . 0	not used	
R	29	. . 0	not used * see comment	
R	30	. . 0	not used * see comment	
R	31	. . 0	not used * see comment	
R	32	. . 0	not used * see comment	
R	33	57.11.3104	100 kOhm 1%	
R	34	57.11.3102	1 kOhm 1%	
R	35	57.11.3103	10 kOhm 1%	
R	36	57.11.3103	10 kOhm 1%	
R	37	57.11.3272	2.7 kOhm 1%	
R	38	57.11.3103	10 kOhm 1%	
R	39	57.92.7013	.75 Ohm 0.5 A R-PTC	
R	40	57.92.7013	.75 Ohm 0.5 A R-PTC	
R	41	57.92.7013	.75 Ohm 0.5 A R-PTC	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
RZ	1	57.88.2682	6.8 kOhm 2% ,4*	
RZ	2	57.88.2102	1 kOhm 2% ,4*	
RZ	3	57.88.2103	10 kOhm 2% ,4*	
RZ	4	57.88.2102	1 kOhm 2% ,4*	
MP	1	28.99.0119	0004 pcs Rohrniete 2.5 * 9 * 0.15	
MP	2	43.01.0108	0001 pcs ESE - Warnschild	
MP	3	53.03.0167	0005 pcs IC-Sockel, DIL 14	
MP	4	53.03.0168	0011 pcs IC-Sockel, DIL 16	
MP	5	54.01.0020	0017 pcs Jumper Stift	
MP	6	54.01.0021	0004 pcs Jumper Bruecke	
MP	7	54.11.0125	0035 pcs Stiftenleiste, Winkel	
MP	8	1.990.100.01	0002 pcs Querprintstuetze	
MP	9	1.990.650.04	0000 pcs Nr.-Etikette 5 * 20	
MP	10	1.990.650.11	0001 pcs TB Mic/Display Control PCB	St

* comment: only used, when 1.990.650.00 is part of 1.990.652.00 (EL MIC/DISPLAY CONTROL UNIT)

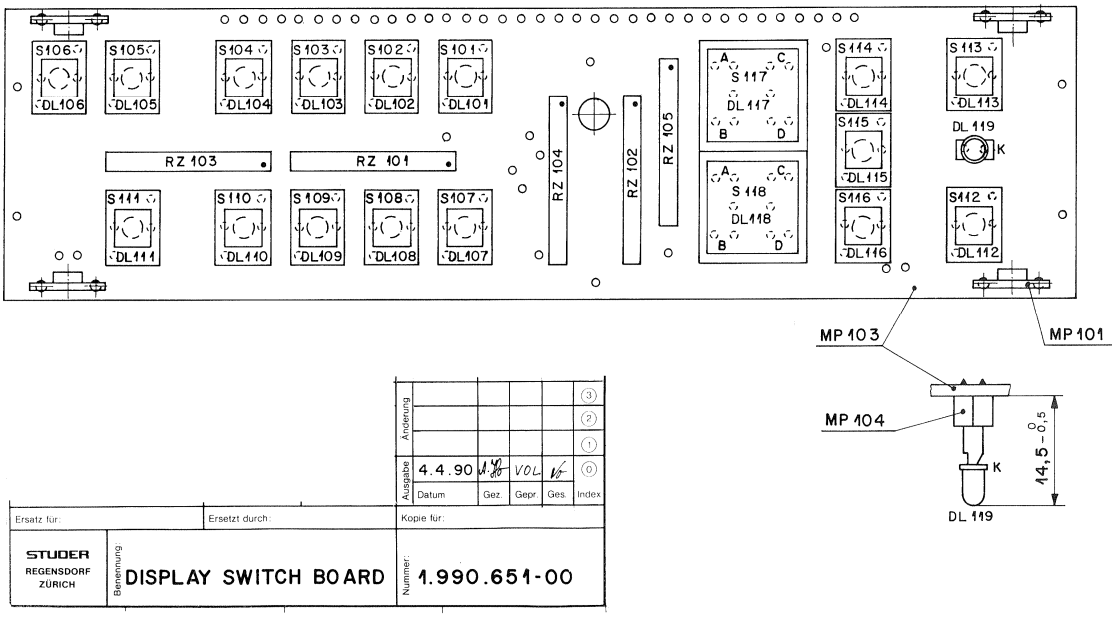
CER = ceramic, EL = electrolytic, PE = polyester

MANUFACTURER ITT=Intermetall, Mot=Motorola, NS=National Semiconductors, Phi=Philips, RCA=Radio Corporation of America, SGS=SGS/Thomson Sie=Siemens, St=Studer, To=Toshiba

1.990.650.00 TB MIC/DISPLAY CONTROL BOARD VOL90/02/0600

END

DISPLAY SWITCH BOARD 1.990.651.00



Änderung	Ausgabe	Datum	Gez.	Gepr.	Ges.	Index
						③
						②
						①
	4.4.90		VOL			⓪

Ersatz für:	Ersetzt durch:	Kopie für:
STUDER REGENSDORF ZÜRICH	Benennung: DISPLAY SWITCH BOARD	Nummer: 1.990.651-00

Ad	..POS..	...REF.No...	DESCRIPTION.....	.....MANUFACTURER
	DL..101	. . 0	not used see S101	
	DL..102	. . 0	not used see S102	
	DL..103	. . 0	not used see S103	
	DL..104	. . 0	not used see S104	
	DL..105	. . 0	not used see S105	
	DL..106	. . 0	not used see S106	
	DL..107	. . 0	not used see S107	
	DL..108	. . 0	not used see S108	
	DL..109	. . 0	not used see S109	
	DL..110	. . 0	not used see S110	
	DL..111	. . 0	not used see S111	
	DL..112	. . 0	not used see S112	
	DL..113	. . 0	not used see S113	
	DL..114	. . 0	not used see S114	
	DL..115	. . 0	not used see S115	
	DL..116	. . 0	not used see S116	
	DL..117	. . 0	not used see S117	
	DL..118	. . 0	not used see S118	
	DL..119	50.04.2130	LY 3360 -GK yellow	Sie
	RZ..101	57.88.4103	10 kOhm 2% ,8*	
	RZ..102	57.88.4103	10 kOhm 2% ,8*	
	RZ..103	57.88.4101	100 Ohm 2% ,8*	
	RZ..104	57.88.4101	100 Ohm 2% ,8*	
	RZ..105	57.88.4101	100 Ohm 2% ,8*	
	S...101	55.15.0605	1*A 5mm, gn/tr (CLEAR MEM)	
	S...102	55.15.0604	1*A 5mm, gb/tr (MEM ON)	
	S...103	55.15.0604	1*A 5mm, gb/tr (PEAK DISP)	
	S...104	55.15.0604	1*A 5mm, gb/tr (AUTO RESET)	
	S...105	55.15.0605	1*A 5mm, gn/tr (SET REF)	
	S...106	55.15.0604	1*A 5mm, gb/tr (LINE UP)	
	S...107	55.15.0604	1*A 5mm, gb/tr (PPM)	
	S...108	55.15.0605	1*A 5mm, gn/tr (FAST)	
	S...109	55.15.0602	1*A 5mm, rt/tr (+20DB)	
	S...110	55.15.0605	1*A 5mm, gn/tr (DOT)	
	S...111	55.15.0604	1*A 5mm, gb/tr (EXT)	
	S...112	55.15.0602	1*A 5mm, rt/tr (ON/ALARM)	
	S...113	55.15.0602	1*A 5mm, rt/tr (PRESET)	
	S...114	55.15.0604	1*A 5mm, gb/tr (OVERLOAD1)	
	S...115	55.15.0602	1*A 5mm, rt/tr (OVERLOAD2)	
	S...116	55.15.0604	1*A 5mm, gb/tr (RESERVE)	
	S...117	55.15.0704	1*A 12mm, gb/tr (USER1)	
	S...118	55.15.0702	1*A 12mm, rt/tr (USER2)	
	MP..101	53.03.0230	0001 pcs LED-Sockel Single Line, 2-pol.	
	MP..102	1.990.100.05	0004 pcs Querprinthalter	
	MP..103	1.990.651.04	0000 pcs Nr.- Etikette 5 * 20	
	MP..104	1.990.651.11	0001 pcs TB Mic/Display Switch PCB	St
MANUFACTURER		Sie=Siemens, St=Studer		

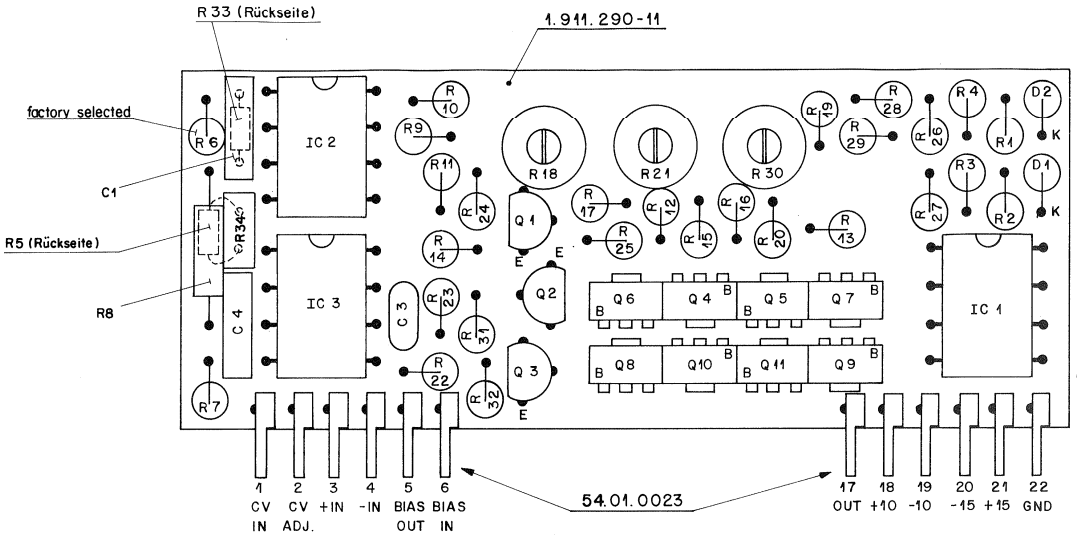
1.990.651.00 TB MIC/DISPLAY SWITCH BOARD VOL90/02/0600

Section 7 Units of the Euro Card Frame

Table of Contents

VCA BOARD TAPE 2

1.911.291.00



Änderung					
					3
					2
					1
Ausgabe	9.2.90				0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: VCA-Board Type 2 ESE	Nummer: 1.911.291-00

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	C.....1	59.06.0332	3.3 nF	5% PE	
	C.....3	59.99.0236	470 pF	20% CER	
	C.....4	59.06.0103	10 nF	20% PE	
	D.....1	50.04.1114	10 V	zener diode 400mW	any
	D.....2	50.04.1112	5.1 V	zener diode 400mW	any
	IC....1	50.09.0107	RC4559	dual op. amp.	Ra,TI
	IC....2	50.09.0101	TL072	dual op. amp. J-FET	Mot,TI
	IC....3	50.09.0101	TL072	dual op. amp. J-FET	Mot,TI
	Q.....1	1.010.037.50	BC 337	NPN selected	St
	Q.....2	1.010.036.50	BC 327	NPN selected	St
	Q.....3	1.010.037.50	BC 337	NPN selected	St
	Q.....4	50.60.0100	BCX 68	NPN selected	St
	Q.....5	50.60.0100	BCX 68	NPN selected	St
	Q.....6	50.60.1100	BCX 69	PNP selected	St
	Q.....7	50.60.1100	BCX 69	PNP selected	St
	Q.....8	50.60.0100	BCX 68	NPN selected	St
	Q.....9	50.60.0100	BCX 68	NPN selected	St
	Q....10	50.60.1100	BCX 69	PNP selected	St
	Q....11	50.60.1100	BCX 69	PNP selected	St
	R.....1	57.11.3103	10 kOhm	1%	
	R.....2	57.11.3103	10 kOhm	1%	
	R.....3	57.11.3203	20 kOhm	1%	
	R.....4	57.11.3103	10 kOhm		
	R.....5	57.11.3304	300 kOhm	1%	
	R.....6	57.11.9999		factory selected	
	R.....7	57.11.3103	10 kOhm		
	R.....8	57.11.3105	1 MOhm		
	R.....9	57.11.3203	20 kOhm	1%	
	R....10	57.11.3203	20 kOhm	1%	
	R....11	57.11.3222	2.2 kOhm	1%	
	R....12	57.11.3330	33 Ohm	1%	
	R....13	57.11.3100	10 Ohm	1%	
	R....14	57.11.3222	2.2 kOhm	1%	
	R....15	57.11.3330	33 Ohm	1%	
	R....16	57.11.3100	10 Ohm	1%	
	R....17	57.11.9999	105 Ohm	1%	
	R....18	58.11.6102	1 kOhm	variable resistor	
	R....19	57.11.3203	20 kOhm	1%	
	R....20	57.11.3203	20 kOhm	1%	
	R....21	58.11.6503	50 kOhm	variable resistor	
	R....22	57.11.3105	1 MOhm		
	R....23	57.11.5106	10 MOhm		
	R....24	57.11.3472	4.7 kOhm	1%	
	R....25	57.11.3622	6.2 kOhm	1%	
	R....26	57.11.3152	1.5 kOhm	1%	
	R....27	57.11.3152	1.5 kOhm	1%	
	R....28	57.11.3102	1 kOhm		
	R....29	57.11.3102	1 kOhm		
	R....30	58.11.6501	500 Ohm	variable resistor	
	R....31	57.11.3332	3.3 kOhm	1%	
	R....32	57.11.3332	3.3 kOhm	1%	
	R....33	57.11.3824	820 kOhm	1%	
	R....34	57.99.0220		NTC	St
	MP....1	1.911.290.11	1 pcs	PCB	St
	MP....2	54.01.0023	1 pcs	STIFTENLEISTE	

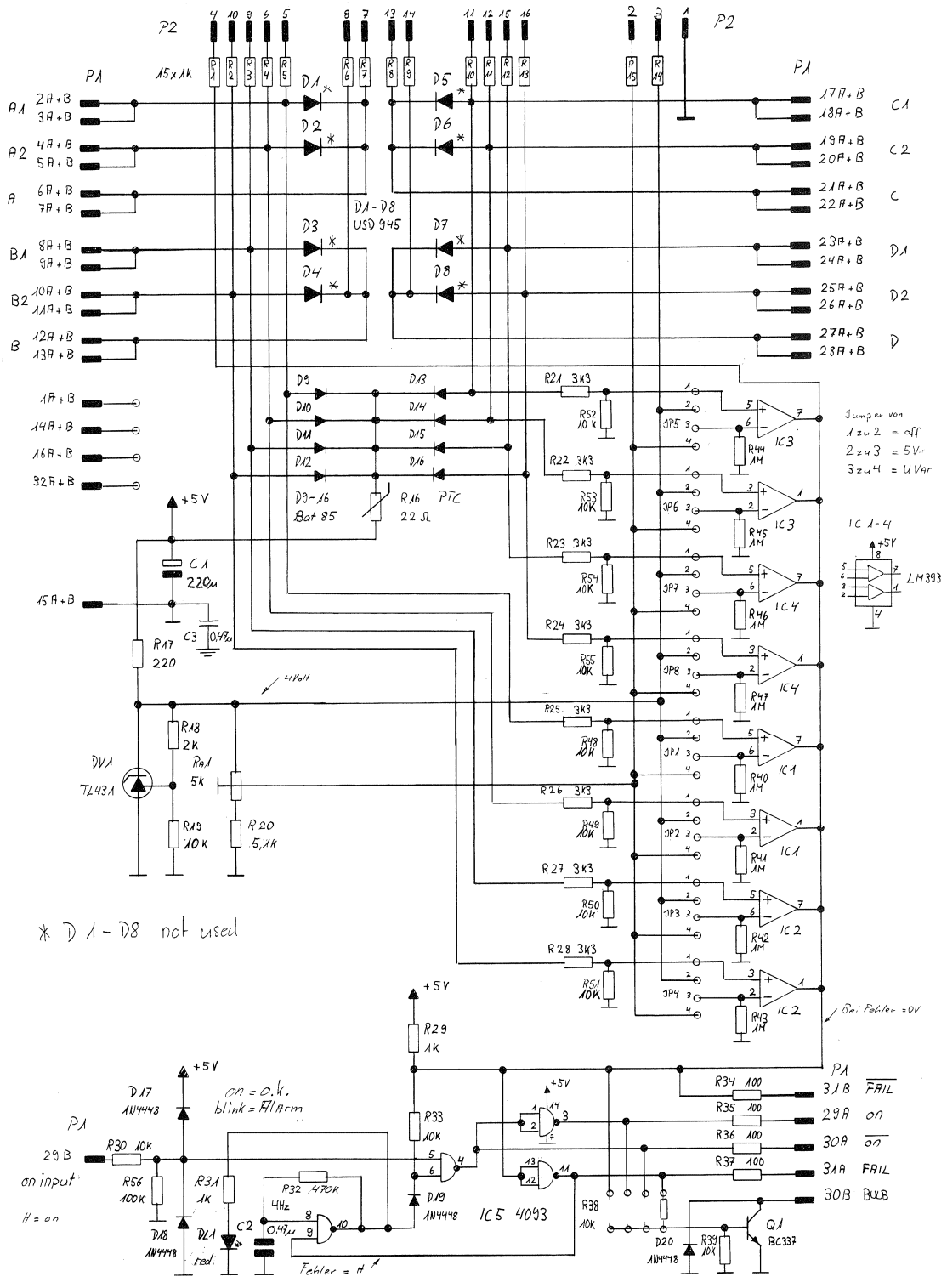
CER=ceramic, PE=polyester,

MANUFACTURER: Mot=Motorola, TI=Texas Instruments, St=Studer

1.911.291.00 VCA BOARD TYPE 2 WY 90.02.1000

DIODES/POWER ALARM 2 BOARD

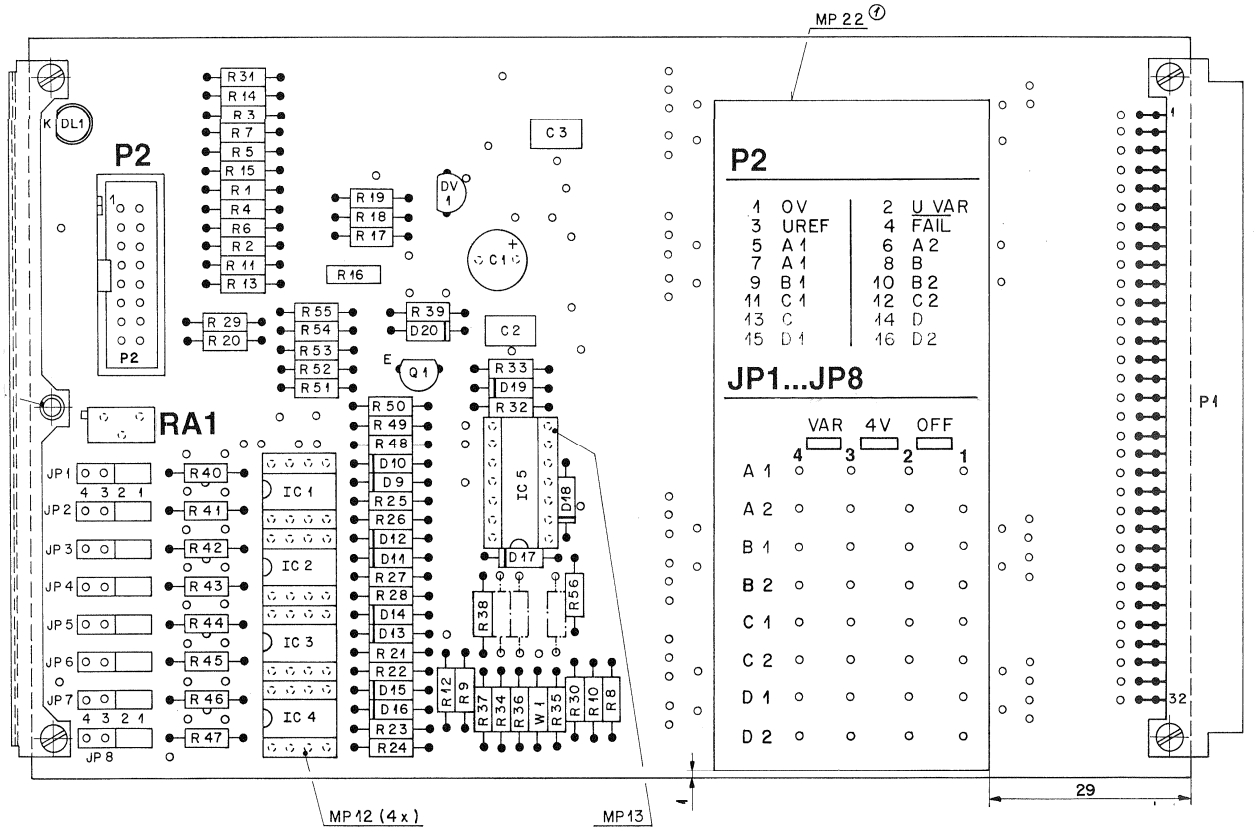
1.915.109.00

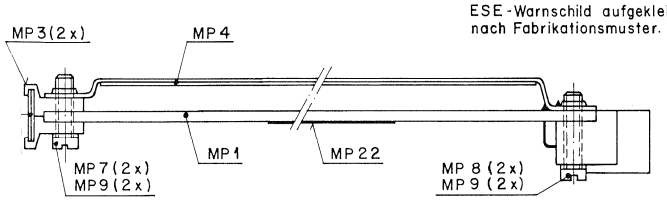


0 29.05.90 Emü	01 26.03.91 Emü	. .	. .	. .
				PAGE 1 OF 1
STUDER	DIODES/POWER ALARM 2 BOARD			1.915.109.00

DIODES/POWER ALARM 2 BOARD

1.915.109.00





ESE-Warnschild aufgeklebt nach Fabrikationsmuster.

Änderung					③
					②
	26.3.91				①
Ausgabe	30.11.90				⓪
	Datum	Gnz.	Gepr.	Ges.	Index
Kopie für:					

STUDER REGENSDORF ZÜRICH

Benennung: DIODES / POWER ALARM 2 BOARD ESE

Nummer: 1.915.109-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	59.22.4221	100 uF	EL 16V
01	C.....1	59.22.4221	220 uF	EL 16V
	C.....2	59.06.5474	470 nF	PE
	C.....3	59.06.5474	470 nF	PE
	D.....9	50.04.0127	BAT 85	
	D....10	50.04.0127	BAT 85	
	D....11	50.04.0127	BAT 85	
	D....12	50.04.0127	BAT 85	
	D....13	50.04.0127	BAT 85	
	D....14	50.04.0127	BAT 85	
	D....15	50.04.0127	BAT 85	
	D....16	50.04.0127	BAT 85	
	D....17	50.04.0125	1N4448	75V 100mA
	D....18	50.04.0125	1N4448	75V 100mA
	D....19	50.04.0125	1N4448	75V 100mA
	D....20	50.04.0125	1N4448	75V 100mA
	DL....1	50.04.2111	Led red	
	DV....1	50.10.0106	TL 431 ref	
	IC....1	50.05.0283	LM 393 dual voltage comparator	
	IC....2	50.05.0283	LM 393 dual voltage comparator	
	IC....3	50.05.0283	LM 393 dual voltage comparator	
	IC....4	50.05.0283	LM 393 dual voltage comparator	
	IC....5	50.07.0008	4093 quad 2 input nand	
	JJ....1	54.01.0021	8 pcs jumper jack	
	JP....1	54.01.0020	32 pcs jumper pin	
	P.....1	54.11.2004	2*32 pol eurostecker	
	P.....2	54.14.2002	16 pol Stecker	
	Q.....1	50.03.0340	BC 337 npn	800mA

DIODES/POWER ALARM 2 BOARD

1.915.109.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R.....1	57.11.3102	1 kOhm 1% 0.25W MF	
	R.....2	57.11.3102	1 kOhm 1% 0.25W MF	
	R.....3	57.11.3102	1 kOhm 1% 0.25W MF	
	R.....4	57.11.3102	1 kOhm 1% 0.25W MF	
	R.....5	57.11.3102	1 kOhm 1% 0.25W MF	
	R.....6	57.11.3102	1 kOhm 1% 0.25W MF	
	R.....7	57.11.3102	1 kOhm 1% 0.25W MF	
	R.....8	57.11.3102	1 kOhm 1% 0.25W MF	
	R.....9	57.11.3102	1 kOhm 1% 0.25W MF	
	R....10	57.11.3102	1 kOhm 1% 0.25W MF	
	R....11	57.11.3102	1 kOhm 1% 0.25W MF	
	R....12	57.11.3102	1 kOhm 1% 0.25W MF	
	R....13	57.11.3102	1 kOhm 1% 0.25W MF	
	R....14	57.11.3102	1 kOhm 1% 0.25W MF	
	R....15	57.11.3102	1 kOhm 1% 0.25W MF	
	R....16	57.92.1121	22 Ohm PTC	
	R....17	57.11.3221	220 Ohm 1% 0.25W MF	
	R....18	57.11.3202	2 kOhm 1% 0.25W MF	
	R....19	57.11.3332	3.3 kOhm 1% 0.25W MF	
01	R....19	57.11.3103	10 kOhm 1% 0.25W MF	
	R....20	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....21	57.11.3102	1 kOhm 1% 0.25W MF	
01	R....21	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R....22	57.11.3102	1 kOhm 1% 0.25W MF	
01	R....22	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R....23	57.11.3102	1 kOhm 1% 0.25W MF	
01	R....23	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R....24	57.11.3102	1 kOhm 1% 0.25W MF	
01	R....24	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R....25	57.11.3102	1 kOhm 1% 0.25W MF	
01	R....25	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R....26	57.11.3102	1 kOhm 1% 0.25W MF	
01	R....26	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R....27	57.11.3102	1 kOhm 1% 0.25W MF	
01	R....27	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R....28	57.11.3102	1 kOhm 1% 0.25W MF	
01	R....28	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R....29	57.11.3102	1 kOhm 1% 0.25W MF	
	R....30	57.11.3103	10 kOhm 1% 0.25W MF	
	R....31	57.11.3102	1 kOhm 1% 0.25W MF	
	R....32	57.11.3474	470 kOhm 1% 0.25W MF	
	R....33	57.11.3103	10 kOhm 1% 0.25W MF	
	R....34	57.11.3101	100 Ohm 1% 0.25W MF	
	R....35	57.11.3101	100 Ohm 1% 0.25W MF	
	R....36	57.11.3101	100 Ohm 1% 0.25W MF	
	R....37	57.11.3101	100 Ohm 1% 0.25W MF	
	R....38	57.11.3103	10 kOhm 1% 0.25W MF	
	R....39	57.11.3103	10 kOhm 1% 0.25W MF	
	R....40	57.11.3105	1 MOhm 1% 0.25W MF	
	R....41	57.11.3105	1 MOhm 1% 0.25W MF	
	R....42	57.11.3105	1 MOhm 1% 0.25W MF	
	R....43	57.11.3105	1 MOhm 1% 0.25W MF	
	R....44	57.11.3105	1 MOhm 1% 0.25W MF	
	R....45	57.11.3105	1 MOhm 1% 0.25W MF	
	R....46	57.11.3105	1 MOhm 1% 0.25W MF	
	R....47	57.11.3105	1 MOhm 1% 0.25W MF	
	R....48	57.11.3104	100 kOhm 1% 0.25W MF	
01	R....48	57.11.3103	10 kOhm 1% 0.25W MF	
	R....49	57.11.3104	100 kOhm 1% 0.25W MF	
01	R....49	57.11.3103	10 kOhm 1% 0.25W MF	
	R....50	57.11.3104	100 kOhm 1% 0.25W MF	
01	R....50	57.11.3103	10 kOhm 1% 0.25W MF	
	R....51	57.11.3104	100 kOhm 1% 0.25W MF	
01	R....51	57.11.3103	10 kOhm 1% 0.25W MF	
	R....52	57.11.3104	100 kOhm 1% 0.25W MF	
01	R....52	57.11.3103	10 kOhm 1% 0.25W MF	
	R....53	57.11.3104	100 kOhm 1% 0.25W MF	
01	R....53	57.11.3103	10 kOhm 1% 0.25W MF	
	R....54	57.11.3104	100 kOhm 1% 0.25W MF	
01	R....54	57.11.3103	10 kOhm 1% 0.25W MF	
	R....55	57.11.3104	100 kOhm 1% 0.25W MF	
01	R....55	57.11.3103	10 kOhm 1% 0.25W MF	
	R....56	57.11.3104	100 kOhm 1% 0.25W MF	
	RA....1	58.05.0502	5 kOhm trimmpoti	
	W.....1	57.11.3000	0 Ohm	
	MP....1	1.915.109.11	1 pcs Print	Studer
	MP....2	1.915.109.01	1 pcs Bez. Streifen 6.3*91	Studer
	MP....3	1.010.006.33	2 pcs Griffhaelften	Studer
	MP....4	1.010.090.49	1 pcs Abschirmblech	Studer
	MP....5	1.010.096.49	1 pcs Klarsicht Schild	
	MP....6	28.21.1380	1 pcs Rohrniete D2.5/6	
	MP....7	21.01.0280	2 pcs Z - Schraube M2.5*8	
	MP....8	21.01.0281	2 pcs Z - Schraube M2.5*10	
	MP....9	24.16.1025	4 pcs Rippenscheibe D2.7/5	
	MP...10	43.01.0108	1 pcs ESE-Warnschild	
	MP...11	. . 0	1 pcs	
	MP...12	53.03.0166	4 pcs IC-Sockel 8 Pin	
	MP...13	53.03.0167	1 pcs IC-Sockel 16 Pin	
	MP...22	1.915.109.02	1 pcs Klebschild fuer Jumper	

01 Behebung folgender Fehler:
Wenn die Karte kalt ist, wird ein Alarm ausgeloest.
Unterlagen anpassen.

CER=Ceramic, EL =Elektrolyt
MF =Metal Film, PE =Polyesterfolien

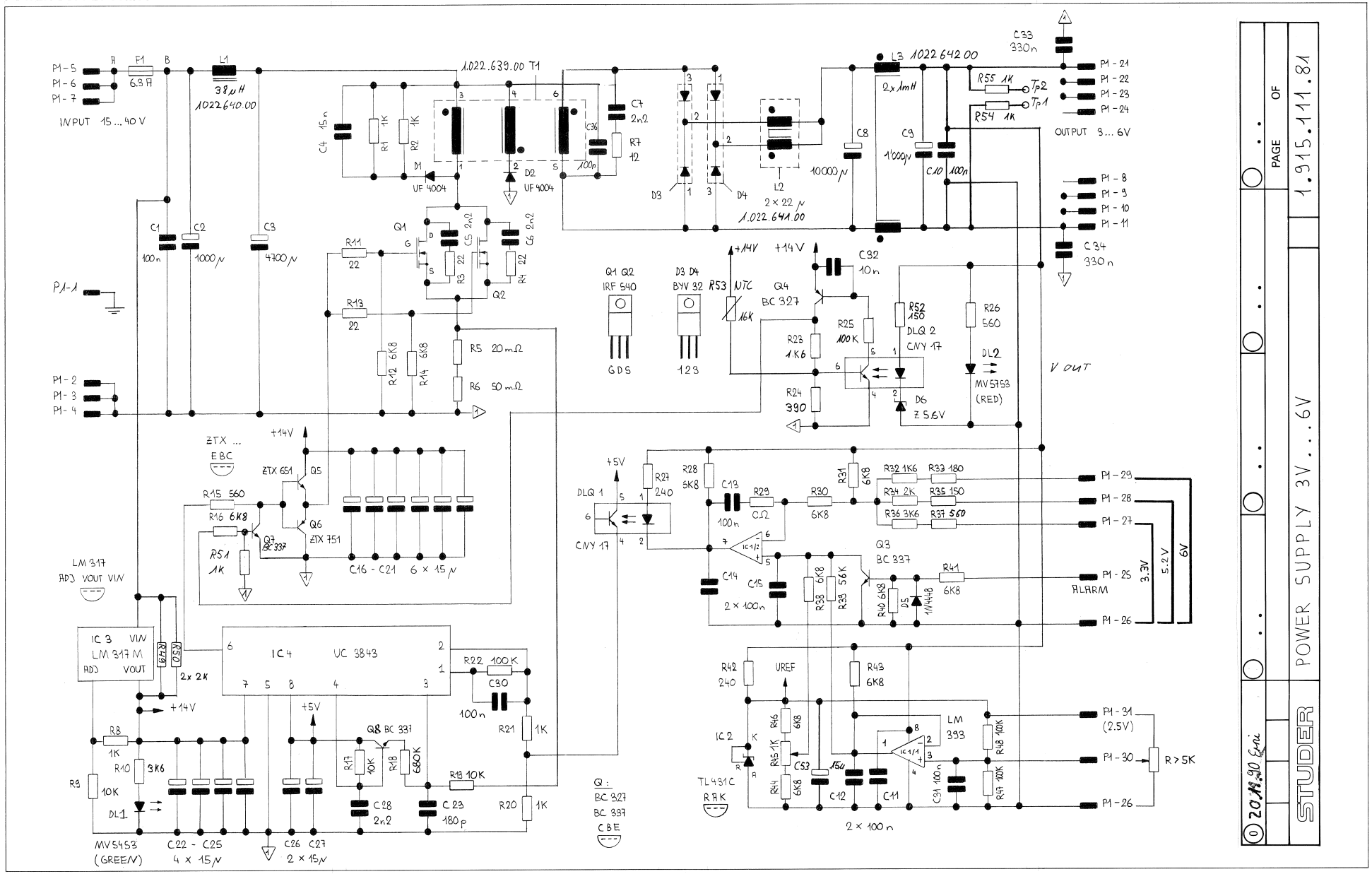
MANUFACTURER :

Fe =Ferranti
NE =Nippon Electronic Corp.
NS =National Semiconductors
Ra =Raytheon
Six=Siliconix
Tho=Thomson
Ti =Texas Instrument

1.915.109.00 DIODES/POWER ALARM 2 BOARD SE 90/03/1000

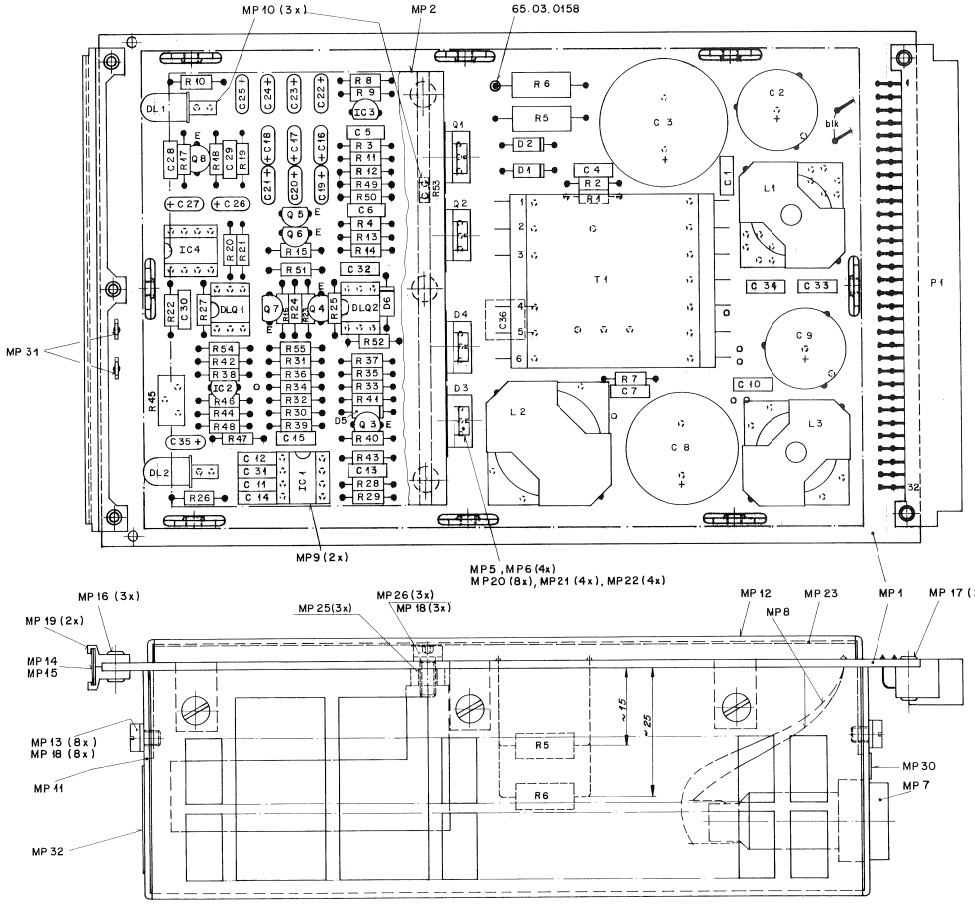
1.915.109.00 DIODES/POWER ALARM 2 BOARD SE 91/03/2601

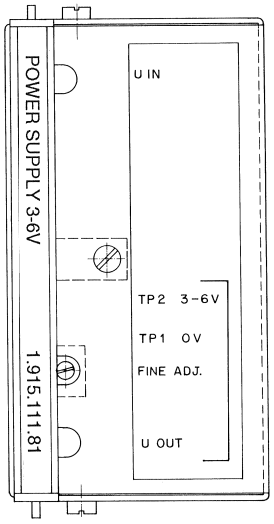
POWER SUPPLY 3V...6V 1.915.111.81



POWER SUPPLY LED 3-6V

1.915.111.81





Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	C.....1	59.06.0104	100 nF	PE	
	C.....2	59.22.6102	1000 uF	ALU 40V	
	C.....3	59.29.4472	4700 uF	EL 40V	
	C.....4	59.06.0153	15 nF	PE	
	C.....5	59.06.0222	2.2 nF	PE	
	C.....6	59.06.0222	2.2 nF	PE	
	C.....7	59.06.0222	2.2 nF	PE	
	C.....8	59.29.1103	10000 uF	EL 10V	
	C.....9	59.22.6102	1000 uF	ALU	
	C....10	59.06.0104	100 nF	PE	
	C....11	59.06.0104	100 nF	PE	
	C....12	59.06.0104	100 nF	PE	
	C....13	59.06.0104	100 nF	PE	
	C....14	59.06.0104	100 nF	PE	
	C....15	59.06.0104	100 nF	PE	
	C....16	59.26.2150	15 uF	ALU 16V dry	
	C....17	59.26.2150	15 uF	ALU 16V dry	
	C....18	59.26.2150	15 uF	ALU 16V dry	
	C....19	59.26.2150	15 uF	ALU 16V dry	
	C....20	59.26.2150	15 uF	ALU 16V dry	
	C....21	59.26.2150	15 uF	ALU 16V dry	
	C....22	59.26.2150	15 uF	ALU 16V dry	
	C....23	59.26.2150	15 uF	ALU 16V dry	
	C....24	59.26.2150	15 uF	ALU 16V dry	
	C....25	59.26.2150	15 uF	ALU 16V dry	
	C....26	59.26.2150	15 uF	ALU 16V dry	
	C....27	59.26.2150	15 uF	ALU 16V dry	
	C....28	59.06.0222	2.2 nF	PE	
	C....29	59.34.4181	180 pF	CER	
	C....30	59.06.0104	100 nF	PE	
	C....31	59.06.0104	100 nF	PE	
	C....32	59.06.0103	10 nF	PE	
	C....33	59.06.0334	330 nF	PE	
	C....34	59.06.0334	330 nF	PE	
	C....35	59.26.2150	15 uF	ALU 16V dry	
	C....36	59.06.0104	100 nF	PE	
	D.....1	50.04.0138	UF4004		
	D.....2	50.04.0138	UF4004		
	D.....3	50.04.0517	BYV 32	dual diode 2*10A	
	D.....4	50.04.0517	BYV 32	dual diode 2*10A	
	D.....5	50.04.0125	1N4448		
	D.....6	50.04.1108	Z 5.6V		
	DL....1	50.04.2113	MV5453	LED 5mm green	
	DL....2	50.04.2111	MV5753	LED 5mm red	
	DLQ...1	50.04.3200	CNY17	single optoisolator	GI
	DLQ...2	50.04.3200	CNY17	single optoisolator	GI
	F.....1	51.01.0125	6.3A	fuse	
	IC....1	50.05.0283	LM393	dual comparator	NS
	IC....2	50.10.0106	TL431C	shunt voltage regulator	TI
	IC....3	50.10.0108	LM317	series voltage regulator	NS
	IC....4	50.10.0113	UC3843	current mode PWM controller	UN
	L.....1	1.022.640.00	38 uH	5A	STUDER
	L.....2	1.022.641.00	22 uH	dual coil 2*5A	STUDER
	L.....3	1.022.642.00	1.6 mH	dual coil 2*10A	STUDER
	MP....1	1.915.111.12	1 pcs	Power Supply Led 3-6V PCB	STUDER
	MP....2	50.20.3005	1 pcs	heat-sink black 1.8 K/W	
	MP....3	. . 0	not used		
	MP....4	. . 0	not used		
	MP....5	50.20.0305	4 pcs	Glimmerscheibe	
	MP....6	50.20.0404	4 pcs	Isolierdurchfuerung	
	MP....7	53.03.0106	1 pcs	fuse holder 10A	
	MP....8	1.915.111.93	1 pcs	LL Power Supply Led 3-6V	
	MP....9	53.03.0166	2 pcs	IC-socket 8 pins	
	MP...10	1.010.012.50	3 pcs	LED-clip (2LED 1NTC)	
	MP...11	1.915.111.01	1 pcs	Abdeckhaube Bestueckseite	STUDER
	MP...12	1.915.111.02	1 pcs	Abdeckhaube Loetseite	STUDER
	MP...13	21.53.0352	8 pcs	Z Schraube IS M3*4 (Abdeckhaube)	
	MP...14	1.915.111.04	1 pcs	Bez.Streifen 6.3*91	
	MP...15	1.010.096.49	1 pcs	Klarsichtschild	
	MP...16	28.21.1380	3 pcs	Rohrniete D2.25*6.5	
	MP...17	28.99.0119	2 pcs	Rohrniete D 2.5*9	
	MP...18	24.16.1030	11 pcs	Rippenscheibe M3	
	MP...19	1.010.006.33	2 pcs	Griffhaelfte	
	MP...20	37.01.0101	8 pcs	Tellerfeder	
	MP...21	21.01.0356	4 pcs	Z Schraube M3*10 (Halbleiterm.)	
	MP...22	1.010.098.27	4 pcs	Distanzhuelse D 3.1/7*2.3	
	MP...23	1.915.111.03	1 pcs	Isolation 138*89 selbstklebend	
	MP...25	1.010.088.27	3 pcs	Distanzhuelse D 3.2/7 * 35	
	MP...26	21.53.0357	3 pcs	Z -Schraube M3*12	
	MP...27	0		not used	
	MP...28	65.03.0158	23 mm	Isolierschlauch (R6)	
	MP...30	1.010.123.51	1 pcs	Text-Etikette 5*20 (T 6.3A)	
	MP...31	54.02.0320	2 pcs	Flachstecker (Tp1 Tp2)	
	MP...32	1.915.111.05	1 pcs	Klebschild (Poti Led Tp)	
	P.....1	54.11.2004	32 pins	Eurocard connector	
	Q.....1	50.03.1509	IRF 540	power MOS-FET	GE
	Q.....2	50.03.1509	IRF 540	power MOS-FET	GE
	Q.....3	50.03.0340	BC 337	NPN standard	
	Q.....4	50.03.0351	BC 327	PNP standard	
	Q.....5	50.03.0523	ZTX 651	NPN 2A	
	Q.....6	50.03.0352	ZTX 751	PNP 2A	
	Q.....7	50.03.0340	BC 337	NPN standard	

Ersatz für: Ersetzt durch: Kopie für:

STUDER REGENSDORF ZÜRICH | Benennung: POWER SUPPLY LED 3-6V ESE | Nummer: 1.915.111-81

Änderung | Datum 20.11.90 | Gez. WM | Gepr. HP | Ges. SE | Index 0

POWER SUPPLY LED 3-6V

1.915.111.81

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	Q.....8	50.03.0340	BC 337	NPN standard	
	R.....1	57.11.3102	1 kOhm		
	R.....2	57.11.3102	1 kOhm		
	R.....3	57.11.3220	22 Ohm		
	R.....4	57.11.3220	22 Ohm		
	R.....5	57.56.2020	20 mOhm	3W small L (10nH)	
	R.....6	57.56.2050	50 mOhm	3W small L (10nH)	
	R.....7	57.11.3120	12 Ohm		
	R.....8	57.11.3102	1 kOhm	5%	
	R.....9	57.11.3103	10 kOhm	5%	
	R....10	57.11.3362	3.6 kOhm		
	R....11	57.11.3220	22 Ohm		
	R....12	57.11.3682	6.8 kOhm		
	R....13	57.11.3220	22 Ohm		
	R....14	57.11.3682	6.8 kOhm		
	R....15	57.11.3561	560 Ohm		
	R....16	57.11.3682	6.8 kOhm		
	R....17	57.11.3103	10 kOhm	5%	
	R....18	57.11.3684	680 kOhm	5%	
	R....19	57.11.3103	10 kOhm		
	R....20	57.11.3102	1 kOhm		
	R....21	57.11.3102	1 kOhm		
	R....22	57.11.3104	100 kOhm		
	R....23	57.11.3162	1.6 kOhm		
	R....24	57.11.3391	390 Ohm		
	R....25	57.11.3104	100 kOhm		
	R....26	57.11.3561	560 Ohm		
	R....27	57.11.3241	240 Ohm		
	R....28	57.11.3682	6.8 kOhm		
	R....29	57.11.3000	0 Ohm		
	R....30	57.11.3682	6.8 kOhm		
	R....31	57.11.3682	6.8 kOhm	1%	
	R....32	57.11.3162	1.6 kOhm	1%	
	R....33	57.11.3181	180 Ohm	1%	
	R....34	57.11.3202	2 kOhm	1%	
	R....35	57.11.3151	150 Ohm	1%	
	R....36	57.11.3362	3.6 kOhm	1%	
	R....37	57.11.3561	560 Ohm	1%	
	R....38	57.11.3682	6.8 kOhm	1%	
	R....39	57.11.3563	56 kOhm	1%	
	R....40	57.11.3682	6.8 kOhm		
	R....41	57.11.3682	6.8 kOhm		
	R....42	57.11.3241	240 Ohm		
	R....43	57.11.3682	6.8 kOhm		
	R....44	57.11.3682	6.8 kOhm	1%	
	R....45	58.01.9102	1 kOhm	trimmer	
	R....46	57.11.3682	6.8 kOhm	1%	
	R....47	57.11.3104	100 kOhm	1%	
	R....48	57.11.3104	100 kOhm	1%	
	R....49	57.11.3202	2 kOhm		
	R....50	57.11.3202	2 kOhm		
	R....51	57.11.3102	1 kOhm		
	R....52	57.11.3151	150 Ohm		
	R....53	57.99.0220	16 kOhm	NTC	
	R....54	57.11.3102	1 kOhm		
	R....55	57.11.3102	1 kOhm		
	T.....1	1.022.639.00		Schalttrafo Power Supply 3 - 6V	STUDER

PE=Polyester, EL=Electrolytic, ALU=Aluminium, CER=Ceramic

MANUFACTURER: NS=National Semiconductors, TI=Texas Instrument
GI=General Instruments, UN=Unitrod,
GE=General Electric,

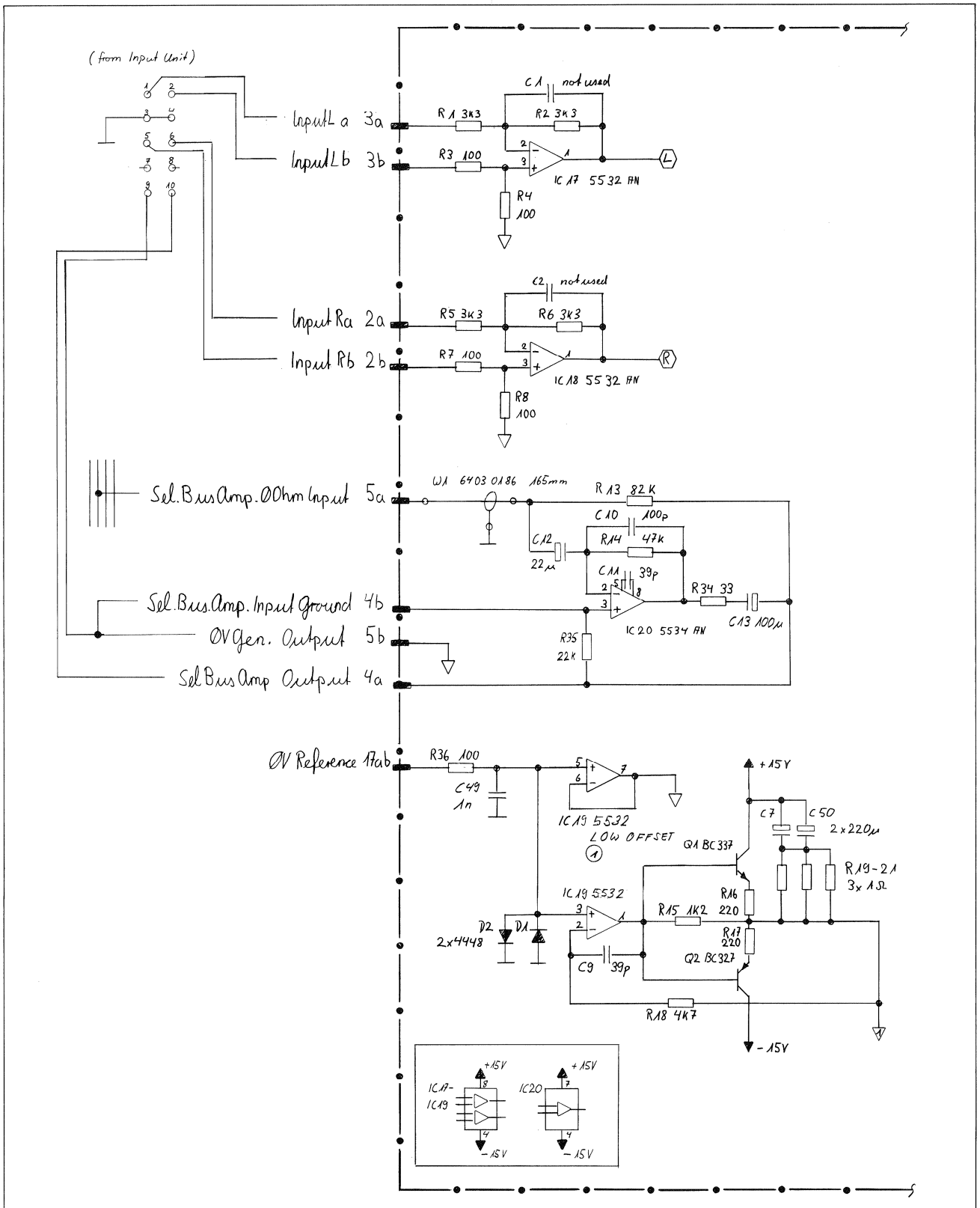
1.915.111.81 POWER SUPPLY LED 3-6V SE 92/01/2400

Pin location list 1.917.110

P	NO	NAME	REMARK		B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC	
P	01	0V-A	GROUND AUDIO		B	X X
P	02A	IN-R-a	INPUT RIGHT a		S	
P	02B	IN-R-b	INPUT RIGHT b		S	
P	03A	IN-L-a	INPUT LEFT a		S	
P	03B	IN-L-b	INPUT LEFT b		S	
P	04A	SEL-BUS-OUT-a	SELECT BUS AMP OUTPUT	(a)	AS,O	
P	04B	SEL-BUS-IN-0V	SELECT BUS AMP INPUT GROUND		O	
P	05A	SEL-BUS-IN -b	SELECT BUS AMP 0-OHM INPUT	(b)	AS,I,O	
P	05B	0V-GEN	0V GEN OUTPUT			
P	06A	B-29	29; 00HM BUS		B,I	
P	06B	B-31	31; 00HM BUS		B,I	
P	07A	B-25	25; 00HM BUS		B,I	
P	07B	B-27	27; 00HM BUS		B,I	
P	08A	B-21	21; 00HM BUS		B,I	
P	08B	B-23	23; 00HM BUS		B,I	
P	09A	B-17	17; 00HM BUS		B,I	
P	09B	B-19	19; 00HM BUS		B,I	
P	10A	B-13	13; 00HM BUS		B,I	
P	10B	B-15	15; 00HM BUS		B,I	
P	11A	B-09	09; 00HM BUS		B,I	
P	11B	B-11	11; 00HM BUS		B,I	
P	12A	B-05	05; 00HM BUS		B,I	
P	12B	B-07	07; 00HM BUS		B,I	
P	13A	B-01	01; 00HM BUS		B,I	
P	13B	B-03	03; 00HM BUS		B,I	
P	14	- 15.5V	- SUPPLY		B	X X
P	15	0V-A	GROUND AUDIO		B	X X
P	16	+ 15.5V	+ SUPPLY		B	X X
P	17	0V-REF	0V REFERENCE		B,I	
P	18A	B-04	04; 00HM BUS		B,I	
P	18B	B-02	02; 00HM BUS		B,I	
P	19A	B-08	04; 00HM BUS		B,I	
P	19B	B-06	06; 00HM BUS		B,I	
P	20A	B-12	12; 00HM BUS		B,I	
P	20B	B-10	10; 00HM BUS		B,I	
P	21A	B-16	16; 00HM BUS		B,I	
P	21B	B-14	14; 00HM BUS		B,I	
P	22A	B-20	20; 00HM BUS		B,I	
P	22B	B-18	18; 00HM BUS		B,I	
P	23A	B-24	24; 00HM BUS		B,I	
P	23B	B-22	22; 00HM BUS		B,I	
P	24A	B-28	28; 00HM BUS		B,I	
P	24B	B-26	26; 00HM BUS		B,I	
P	25A	B-32	32; 00HM BUS		B,I	
P	25B	B-30	30; 00HM BUS		B,I	
P	26A	-	RES BUS (0V-L ON BUS PCB)		B	
P	26B	-	RES BUS (0V-L ON BUS PCB)		B	
P	27A	-	RES BUS (0V-L ON BUS PCB)		B	
P	27B	-	RES BUS (0V-L ON BUS PCB)		B	
P	28	0V-L	GROUND SIGN (LOGIC)		B	X X
P	29A	DO 0	DATA OUT 0 (ENABLE)		B	
P	29B	TSTB 6	TRANSMIT STROBE 6			
P	30A	-	RES (0V-L ON BUS PCB)			
P	30B	TXTH	TRANSMIT DATA THROUGH			
P	31A	TXD	TRANSMIT DATA			
P	31B	TCL	TRANSMIT CLOCK			
P	32	+ 5.5V	+SUPPLY		B	X X

32CH BUS-SELECTOR

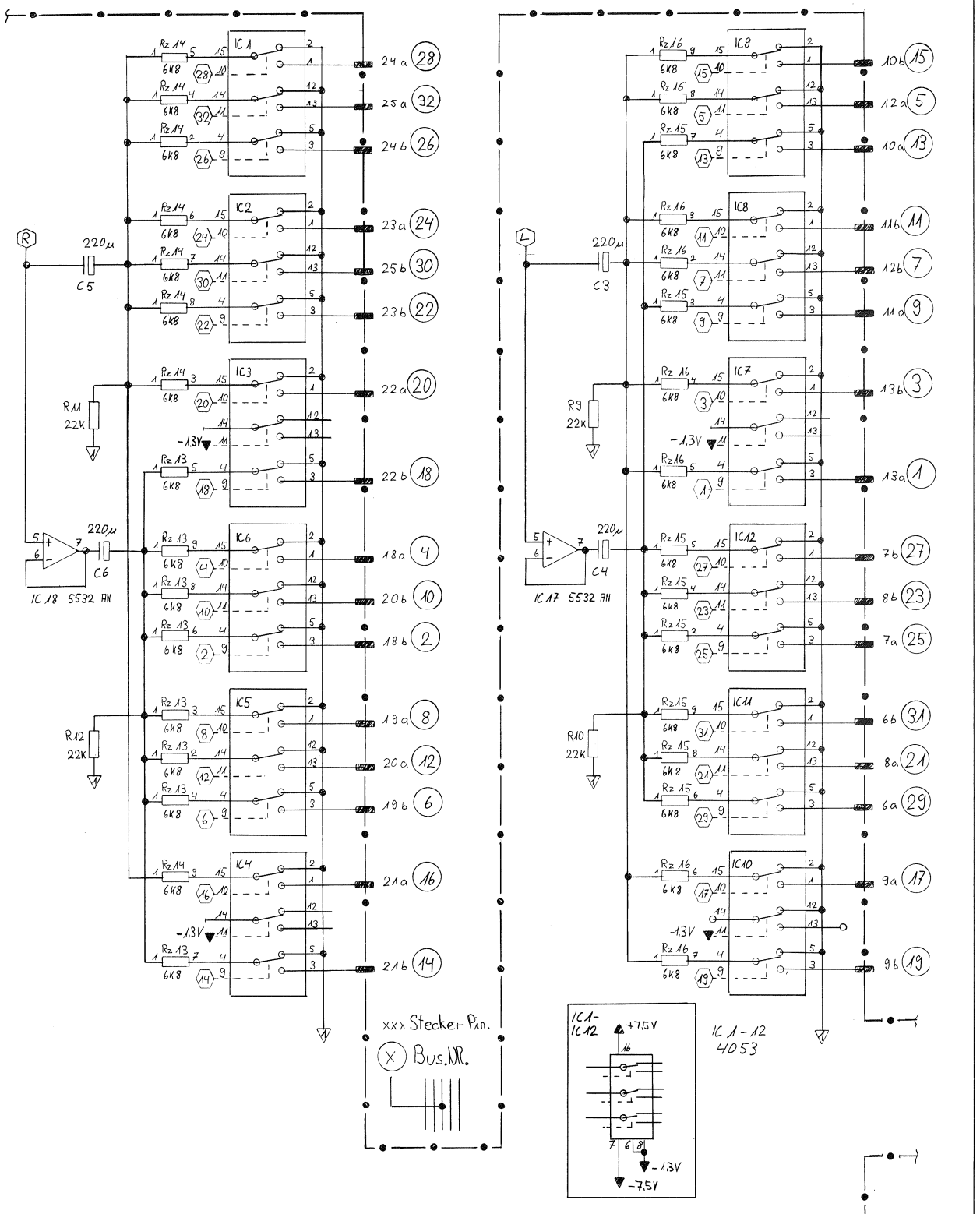
1.917.110.00



0 13.12.89 Emi	1 30.08.93 trigo	. .	. .	. .
				PAGE 1 OF 3
STUDER	32CH-BUS. SELECTOR			1.917.110.00

32CH BUS-SELECTOR

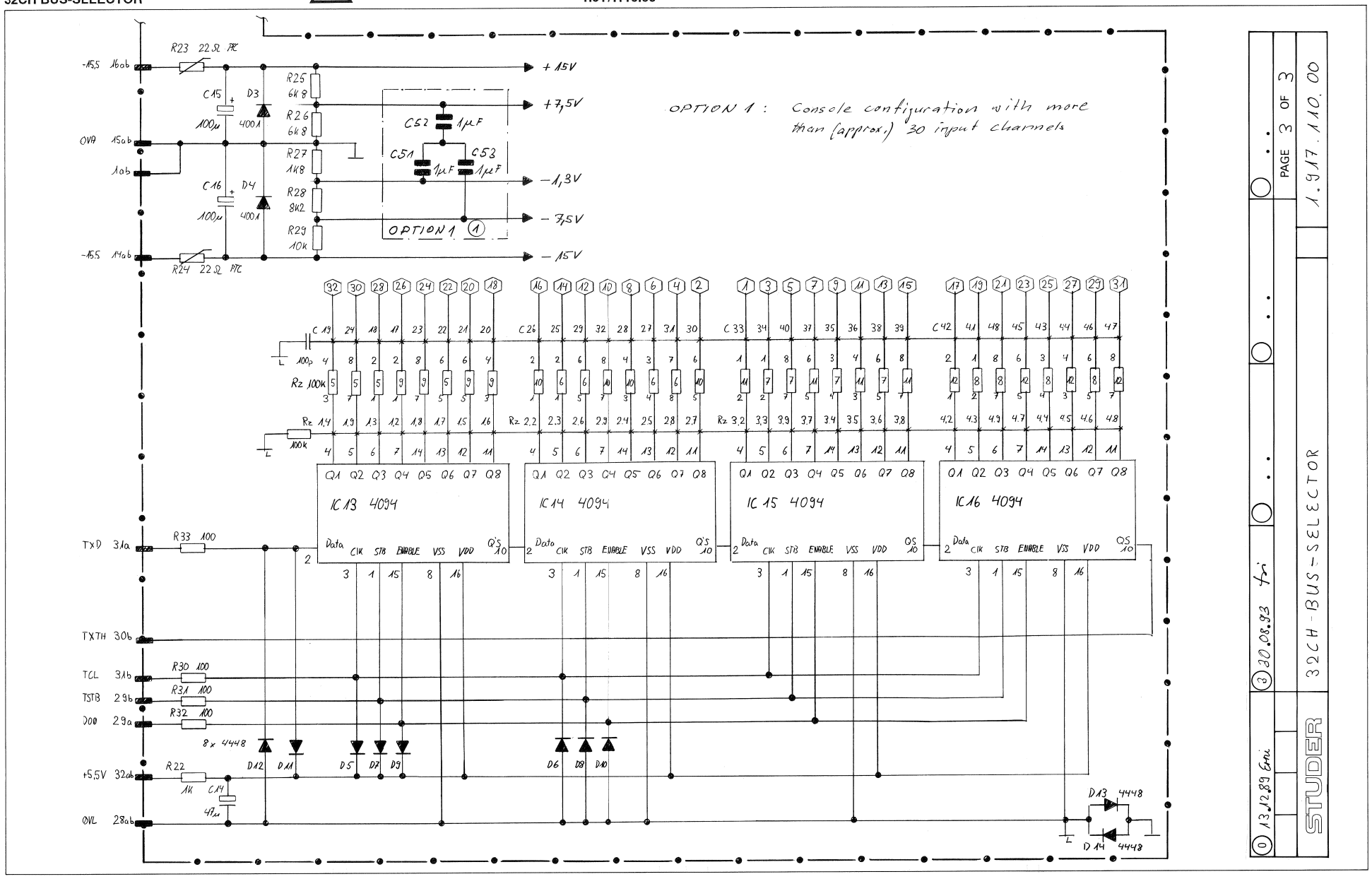
1.917.110.00



0 13.12.89 Emi	3 30.08.93	. .	. .	. .
				PAGE 2 OF 3
STUDER	32CH BUS-SELECTOR			1.917.110.00

32CH BUS-SELECTOR

1.917.110.00



32CH BUS-SELECTOR

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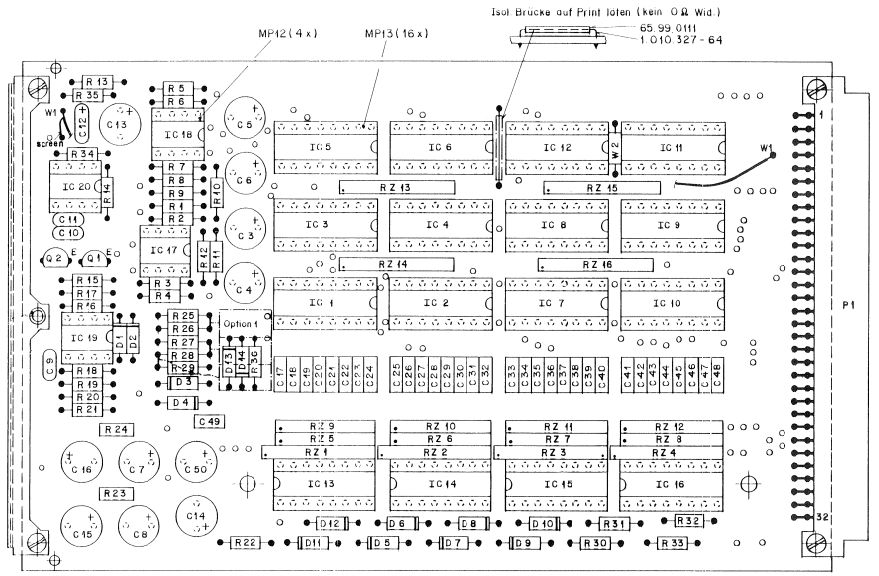
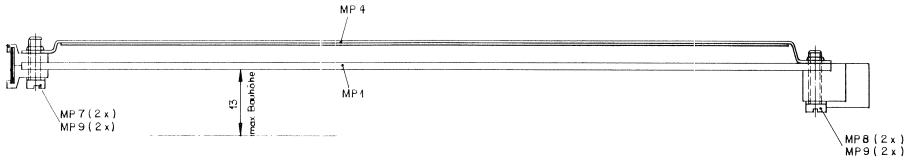
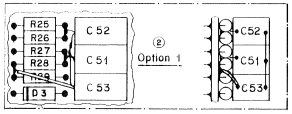






Änderung					
					3
30.8.93					2
28.10.91					1
Ausgabe	7.11.89				0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: 32 CH BUS SELECTOR	ESE	Nummer: 1.917.110-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	. .	not used	
	C.....2	. .	not used	
	C.....3	59.22.3221	220 uF EL 10V	
	C.....4	59.22.3221	220 uF EL 10V	
	C.....5	59.22.3221	220 uF EL 10V	
	C.....6	59.22.3221	220 uF EL 10V	
	C.....7	59.22.4221	220 uF EL 16V	
	C.....8	59.22.5101	100 uF EL 16V	
	C.....9	59.34.2390	39 pF CER	
	C....10	59.34.4101	100 pF CER	
	C....11	59.34.2390	39 pF CER	
	C....12	59.26.1220	22 uF SAL	
	C....13	59.22.5101	100 uF EL 25V	
	C....14	59.22.3221	220 uF EL 10V	
	C....15	59.22.5101	100 uF EL 25V	
	C....16	59.22.5101	100 uF EL 25V	
	C....17	59.34.4101	100 pF CER	
	C....18	59.34.4101	100 pF CER	
	C....19	59.34.4101	100 pF CER	
	C....20	59.34.4101	100 pF CER	
	C....21	59.34.4101	100 pF CER	
	C....22	59.34.4101	100 pF CER	
	C....23	59.34.4101	100 pF CER	
	C....24	59.34.4101	100 pF CER	
	C....25	59.34.4101	100 pF CER	
	C....26	59.34.4101	100 pF CER	
	C....27	59.34.4101	100 pF CER	
	C....28	59.34.4101	100 pF CER	
	C....29	59.34.4101	100 pF CER	
	C....30	59.34.4101	100 pF CER	
	C....31	59.34.4101	100 pF CER	
	C....32	59.34.4101	100 pF CER	
	C....33	59.34.4101	100 pF CER	
	C....34	59.34.4101	100 pF CER	
	C....35	59.34.4101	100 pF CER	
	C....36	59.34.4101	100 pF CER	
	C....37	59.34.4101	100 pF CER	
	C....38	59.34.4101	100 pF CER	
	C....39	59.34.4101	100 pF CER	
	C....40	59.34.4101	100 pF CER	
	C....41	59.34.4101	100 pF CER	
	C....42	59.34.4101	100 pF CER	
	C....43	59.34.4101	100 pF CER	
	C....44	59.34.4101	100 pF CER	
	C....45	59.34.4101	100 pF CER	
	C....46	59.34.4101	100 pF CER	
	C....47	59.34.4101	100 pF CER	
	C....48	59.34.4101	100 pF CER	
	C....49	59.06.0102	1 nF PE	
	C....50	59.22.4221	220 uF EL 16V	
03	C....51	. .	OPTION 1 1 uF 63V 10% PE RM 5mm 59.06.0105	
03	C....52	. .	OPTION 1 1 uF 63V 10% PE RM 5mm 59.06.0105	
03	C....53	. .	OPTION 1 1 uF 63V 10% PE RM 5mm 59.06.0105	
	D.....1	50.04.0125	1N4448	
	D.....2	50.04.0125	1N4448	
	D.....3	50.04.0122	1N4001	
	D.....4	50.04.0122	1N4001	
	D.....5	50.04.0125	1N4448	
	D.....6	50.04.0125	1N4448	
	D.....7	50.04.0125	1N4448	
	D.....8	50.04.0125	1N4448	
	D.....9	50.04.0125	1N4448	
	D....10	50.04.0125	1N4448	
	D....11	50.04.0125	1N4448	
	D....12	50.04.0125	1N4448	
	D....13	50.04.0125	1N4448	
	D....14	50.04.0125	1N4448	
	IC....1	50.07.0015	4053 tripple 2 ch. analog mux/demux	
	IC....2	50.07.0015	4053 tripple 2 ch. analog mux/demux	
	IC....3	50.07.0015	4053 tripple 2 ch. analog mux/demux	
	IC....4	50.07.0015	4053 tripple 2 ch. analog mux/demux	
	IC....5	50.07.0015	4053 tripple 2 ch. analog mux/demux	
	IC....6	50.07.0015	4053 tripple 2 ch. analog mux/demux	
	IC....7	50.07.0015	4053 tripple 2 ch. analog mux/demux	
	IC....8	50.07.0015	4053 tripple 2 ch. analog mux/demux	
	IC....9	50.07.0015	4053 tripple 2 ch. analog mux/demux	
	IC...10	50.07.0015	4053 tripple 2 ch. analog mux/demux	
	IC...11	50.07.0015	4053 tripple 2 ch. analog mux/demux	
	IC...12	50.07.0018	4094 shift and store bus register	
	IC...13	50.07.0018	4094 shift and store bus register	
	IC...14	50.07.0018	4094 shift and store bus register	
	IC...15	50.07.0018	4094 shift and store bus register	
	IC...16	50.07.0018	4094 shift and store bus register	
	IC...17	50.09.0106	NE5532AN cual op. amp.	
	IC...18	50.09.0106	NE5532AN cual op. amp.	
	IC...19	50.09.0117	MC 33078 cual op. amp.	
03	IC...19	1.010.051.50	NE5532AN cual op. amp low offset <1mV (STUDER)	
	IC...20	50.05.0244	NE5534AN single op.amp.	
	P.....1	54.11.2004	Euro. 2*32 contacts	
	Q.....1	50.03.0340	BC 337 800mA	
	Q.....2	50.03.0351	BC 327 800mA	
	R.....1	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R.....2	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R.....3	57.11.3101	100 Ohm 1% 0.25W MF	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R.....4	57.11.3101	100 Ohm 1% 0.25W MF	
	R.....5	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R.....6	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R.....7	57.11.3101	100 Ohm 1% 0.25W MF	
	R.....8	57.11.3101	100 Ohm 1% 0.25W MF	
	R.....9	57.11.3223	22 kOhm 1% 0.25W MF	
	R....10	57.11.3223	22 kOhm 1% 0.25W MF	
	R....11	57.11.3223	22 kOhm 1% 0.25W MF	
	R....12	57.11.3223	22 kOhm 1% 0.25W MF	
	R....13	57.11.3822	8.2 kOhm 1% 0.25W MF	
	R....14	57.11.3473	47 kOhm 1% 0.25W MF	
	R....15	57.11.3122	1.2 kOhm 1% 0.25W MF	
	R....16	57.11.3221	220 Ohm 1% 0.25W MF	
	R....17	57.11.3221	220 Ohm 1% 0.25W MF	
	R....18	57.11.3472	4.7 kOhm 1% 0.25W MF	
	R....19	57.11.3109	1 Ohm 1% 0.25W MF	
	R....20	57.11.3109	1 Ohm 1% 0.25W MF	
	R....21	57.11.3109	1 Ohm 1% 0.25W MF	
	R....22	57.11.3102	1 kOhm 1% 0.25W MF	
	R....23	57.92.1121	22 Ohm PTC	
	R....24	57.92.1121	22 Ohm PTC	
	R....25	57.11.3682	6.8 kOhm 1% 0.25W MF	
	R....26	57.11.3682	6.8 kOhm 1% 0.25W MF	
	R....27	57.11.3182	1.8 kOhm 1% 0.25W MF	
	R....28	57.11.3822	8.2 kOhm 1% 0.25W MF	
	R....29	57.11.3103	10 kOhm 1% 0.25W MF	
	R....30	57.11.3101	100 Ohm 1% 0.25W MF	
	R....31	57.11.3101	100 Ohm 1% 0.25W MF	
	R....32	57.11.3101	100 Ohm 1% 0.25W MF	
	R....33	57.11.3101	100 Ohm 1% 0.25W MF	
	R....34	57.11.3330	33 Ohm 1% 0.25W MF	
	R....35	57.11.3223	22 kOhm 1% 0.25W MF	
	R....36	57.11.3101	100 Ohm 1% 0.25W MF	
	RZ....1	57.88.4104	100 kOhm 2% resistor-network	
	RZ....2	57.88.4104	100 kOhm 2% resistor-network	
	RZ....3	57.88.4104	100 kOhm 2% resistor-network	
	RZ....4	57.88.4104	100 kOhm 2% resistor-network	
	RZ....5	57.88.2104	100 kOhm 2% resistor-network	
	RZ....6	57.88.2104	100 kOhm 2% resistor-network	
	RZ....7	57.88.2104	100 kOhm 2% resistor-network	
	RZ....8	57.88.2104	100 kOhm 2% resistor-network	
	RZ....9	57.88.2104	100 kOhm 2% resistor-network	
	RZ...10	57.88.2104	100 kOhm 2% resistor-network	
	RZ...11	57.88.2104	100 kOhm 2% resistor-network	
	RZ...12	57.88.2104	100 kOhm 2% resistor-network	
	RZ...13	57.88.2682	6.8 kOhm 2% resistor-network	
01	RZ...13	57.88.4682	6.8 kOhm 2% resistor-network	
	RZ...14	57.88.2682	6.8 kOhm 2% resistor-network	
01	RZ...14	57.88.4682	6.8 kOhm 2% resistor-network	
01	RZ...15	57.88.2682	6.8 kOhm 2% resistor-network	
01	RZ...15	57.88.4682	6.8 kOhm 2% resistor-network	
	RZ...16	57.88.2682	6.8 kOhm 2% resistor-network	
01	RZ...16	57.88.4682	6.8 kOhm 2% resistor-network	
	W.....1	64.03.0186	165 mm Kabel abgeschirmt	
02	W.....1	1.917.110.94	1 pcs Kl 32 CH BUS SELECTOR	
	W.....2	57.11.3000	0 Ohm	
	MP....1	1.917.110.11	1 pcs Print	Studer
	MP....2	1.917.110.01	1 pcs Bez. Streifen 6.3*91	Studer
	MP....3	1.010.006.33	2 pcs Griffhaelften	Studer
	MP....4	1.010.090.49	1 pcs Abschirmblech	Studer
	MP....5	1.010.096.49	1 pcs Klarsicht Schild	
	MP....6	28.21.1380	1 pcs Rohrniete D2.5/6	
	MP....7	21.01.0280	2 pcs Z - Schraube M2.5*8	
	MP....8	21.01.0281	2 pcs Z - Schraube M2.5*10	
	MP....9	24.16.1025	4 pcs Rippenscheibe D2.7/5	
	MP...10	43.01.0108	1 pcs ESE-Warnschild	
	MP...11	. .	.	
	MP...12	53.03.0166	4 pcs IC-Sockel 8 Pin	
	MP...13	53.03.0168	16 pcs IC-Sockel 16 Pin	

OPTION 1: Console configurations with more than (approx.) 30 input channels need additional DC supply filtering. (Index 3; C51, C52, C53)

Index 3: 0 Volt generator (IC19) with low offset < 1mV

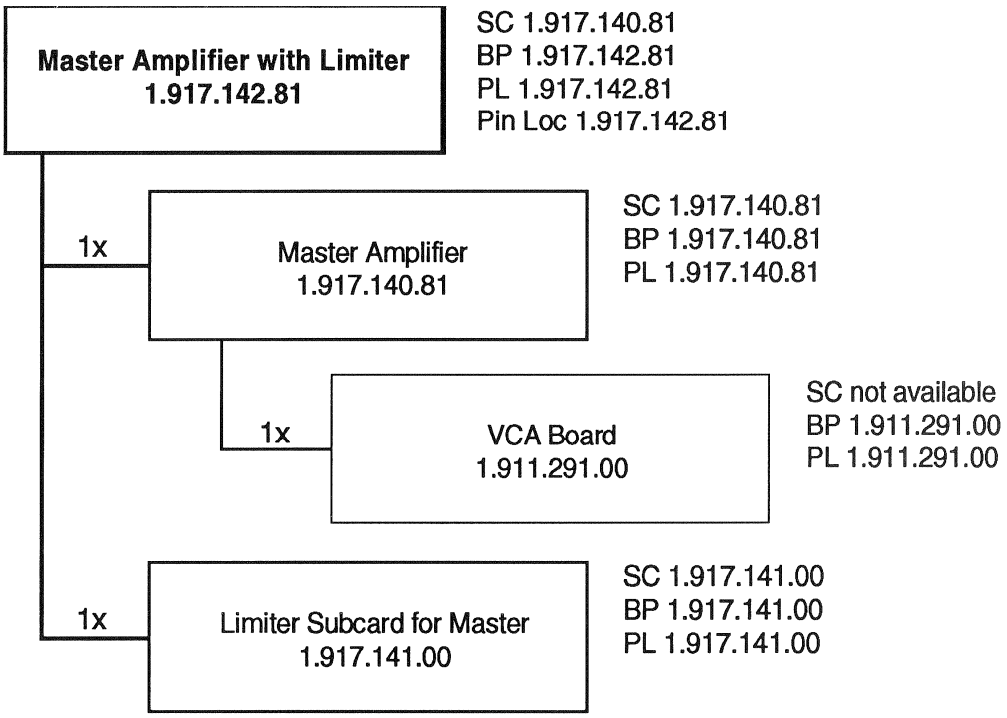
CER=ceramic, EL=electrolytic, PE=polyester

MANUFACTURER: Bu=Burndy, CK=C&K Components Inc, GI=General Instruments Mot=Motorola, NS=National Semiconductors, Ra=Raytheon, Ses=Sescosem, Sie=Siemens, Sig=Signetics, Six=Siliconix, TI=Texas Instruments

1.917.110.00	32 CH BUS SELECTOR	SE87/09/0900
1.917.110.00	32 CH BUS SELECTOR	SE90/02/0801
1.917.110.00	32 CH BUS SELECTOR	SE91/10/2802
1.917.110.00	32 CH BUS SELECTOR	FRI93/08/3003

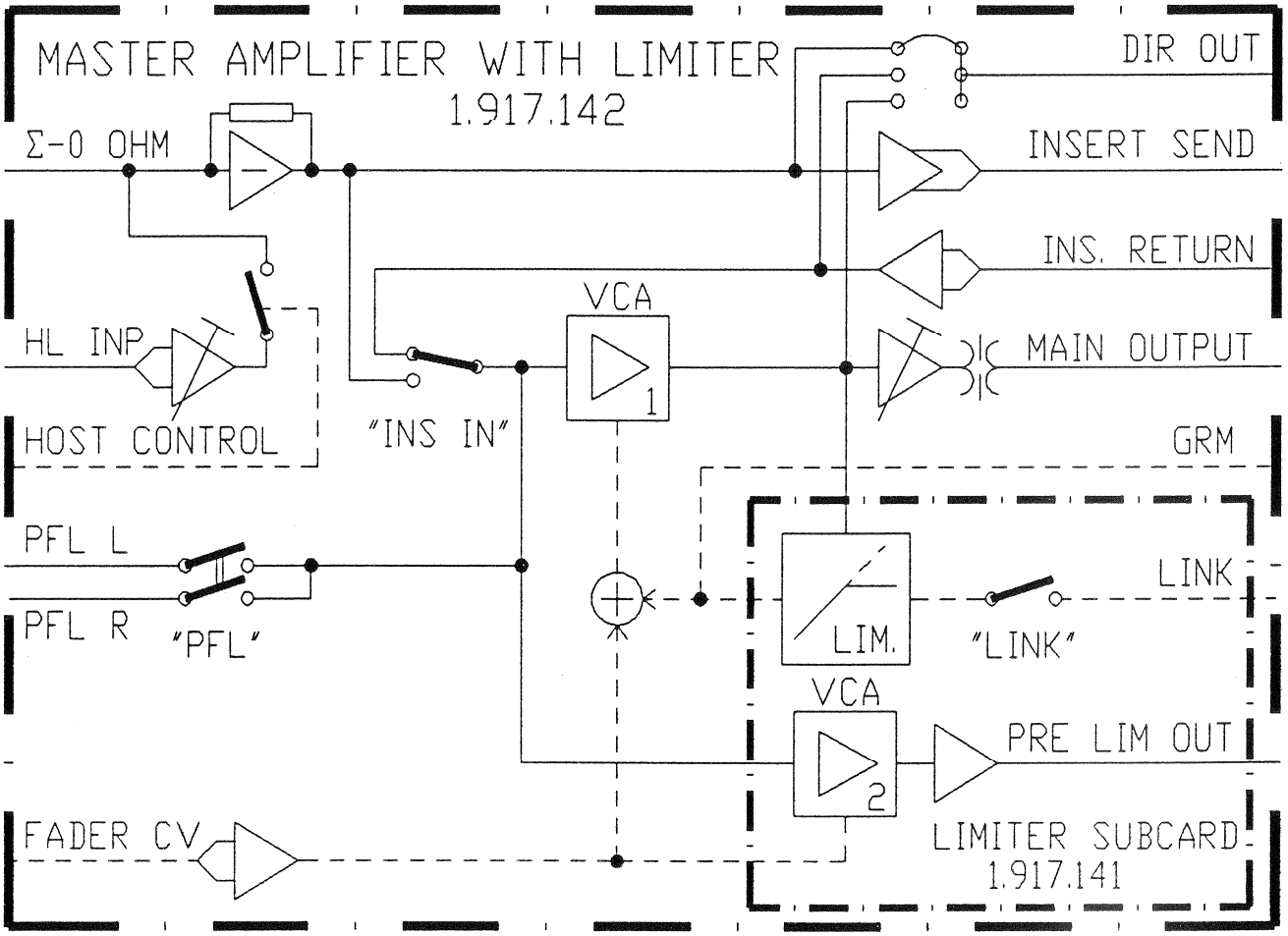
END

Master Amplifier with Limiter 1.917.142.81



SC: Schema Circuit Diagram
BP: Bestückungsplan PCB Layout
PL: Positionsliste Positional List

MASTER AMPLIFIER WITH LIMITER 1.917.142.81

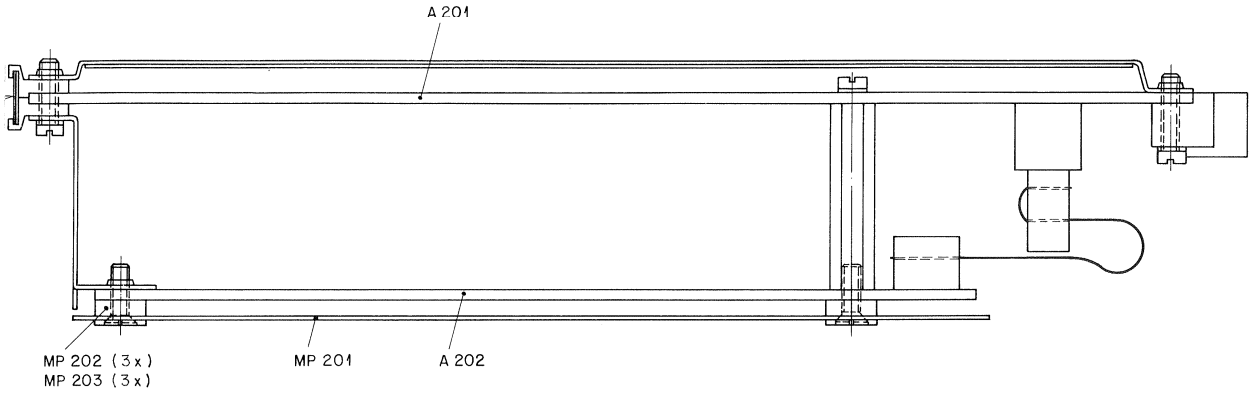


Pin location list

1.917.142

P	NO	NAME	REMARK	B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC
P1	01	OVA	(RES)	
P1	02	B-PFL-L	PFL LEFT ; O-OHM BUS	B,I
P1	03	B-PFL-R	PFL RIGHT ; O-OHM BUS	B,I
P1	04	OVA-PFL-IN	INPUT GROUND PFL	B
P1	05	OOHM-IN-b	MASTER O-OHM INPUT (b)	O,I
P1	06	OOHM-IN-OV	GROUND MASTER O-OHM INPUT	O
P1	07	CV IN +	CONTROL VOLTAGE VCA (+)	O
P1	08	CV IN -	CONTROL VOLTAGE VCA (-)	O
P1	09	LINK/GRM	LINK/GAIN REDUKTION METER	O
P1	10	INS-SEND-a	SYM INSERT OUTPUT a	S
P1	11	INS-SEND-b	SYM INSERT OUTPUT b	S
P1	12	INS-RET -a	SYM INSERT INPUT a	S
P1	13	INS-RET -b	SYM INSERT INPUT b	S
P1	14	- 15.5V	- SUPPLY	B
P1	15	OV-A	GROUND AUDIO	B
P1	16	+ 15.5V	+ SUPPLY	B
P1	17	M-OUT-a	MASTER OUTPUT a	S
P1	18	M-OUT-b	MASTER OUTPUT b	S
P1	19	OVE	GROUND EXTERN	B
P1	20	HL-IN-a	HIGH LEVEL INPUT a	S
P1	21	HL-IN-b	HIGH LEVEL INPUT b	S
P1	22	VCA2-OUT-a	VCA2 OUTPUT a (AUDIO)	S
P1	23	VCA2-OUT-b	VCA2 OUTPUT b (AUDIO)	S
P1	24	DIR-OUT-a	DIRECT OUT (a)	AS
P1	25	AUX	AUXILIARY INPUT/OUTPUT	AS
P1	26	DO 0	DATA OUT 0 (ENABLE)	O
P1	27	TXTH	TRANSMIT DATA THROUGH	O
P1	28	OV-L	GROUND SIGN (LOGIC)	B
P1	29	TSTB 7	TRANSMIT STROBE 7	O
P1	30	TCL	TRANSMIT CLOCK	O
P1	31	TXD	TRANSMIT DATA	O
P1	32	+ 5.5V	+ SUPPLY	B

MASTER AMP. WITH LIMITER 1.917.142.81



Änderung					
					3
					2
					1
Ausgabe	29.8.91	A.M.	V.		0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: MASTER AMP. WITH LIMITER	Nummer: 1.917.142-81

Ad	..POS..	...REF.No...		DESCRIPTION.....MANUFACTURER
	A...201	1.917.140.81		Master Amplifier St
	A...202	1.917.141.00		Limiter Subcard f.Master Ampl. St
	MP..201	1.917.142.03	0001 pcs	Isolation
	MP..202	1.917.142.02	0003 pcs	Isolierhuelse
	MP..203	21.01.2280	0003 pcs	S-Schr.,ZN,M2.5*8
	MP..204	1.917.142.04	0000 pcs	Bezeichnungsstreifen

NOTE 1: Option: Double VCA for better noise performance
IC108 50110140 DBX 2150 A
R 132 57113243 24 kOhm 1%
R 133 57113243 24 kOhm 1%

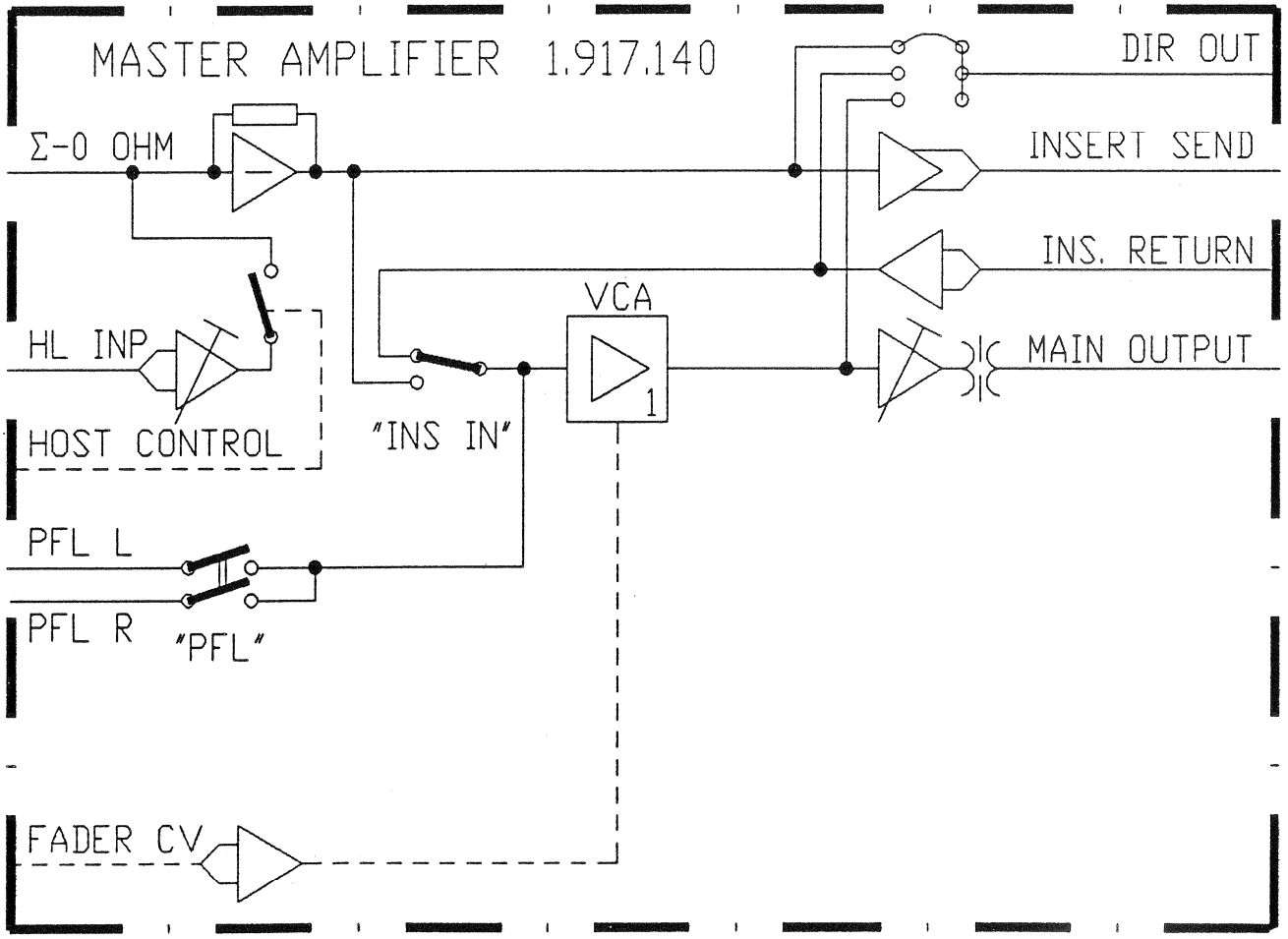
(-81) 91/10/21 A 201 has changed to -81

CER = ceramic, EL = electrolytic, PE = polyester, SAL = Solid Aluminium

MANUFACTURER dBx=dBx-Incorporation, Ex=Exar, ITT=Intermetall,
JRC=Japan Radio Corporation, Mot=Motorola,
NS=National Semiconductors, Ph=Philips, Ra=Raytheon,
RCA=Radio Corporation of America, Sie=Siemens,
Sig=Signetics, Six=Siliconix, St=Studer, Tf=Telefunken,
Tho=Thomson, TI=Texas Instruments

1.917.142.81 MASTER AMP.WITH LIMITER HOR91/10/2100

MASTER AMPLIFIER 1.917.140.81



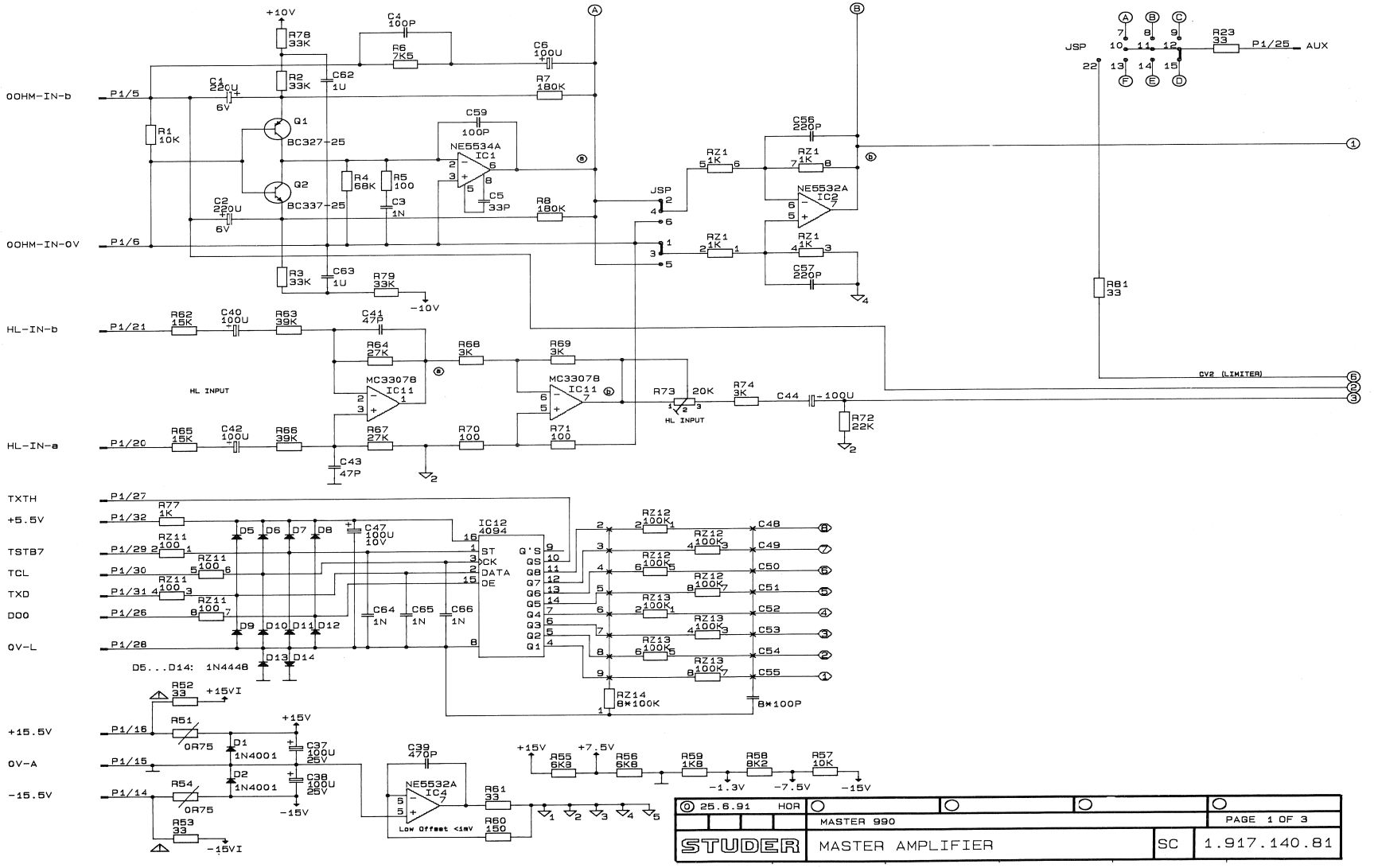
Pin location list

1.917.140

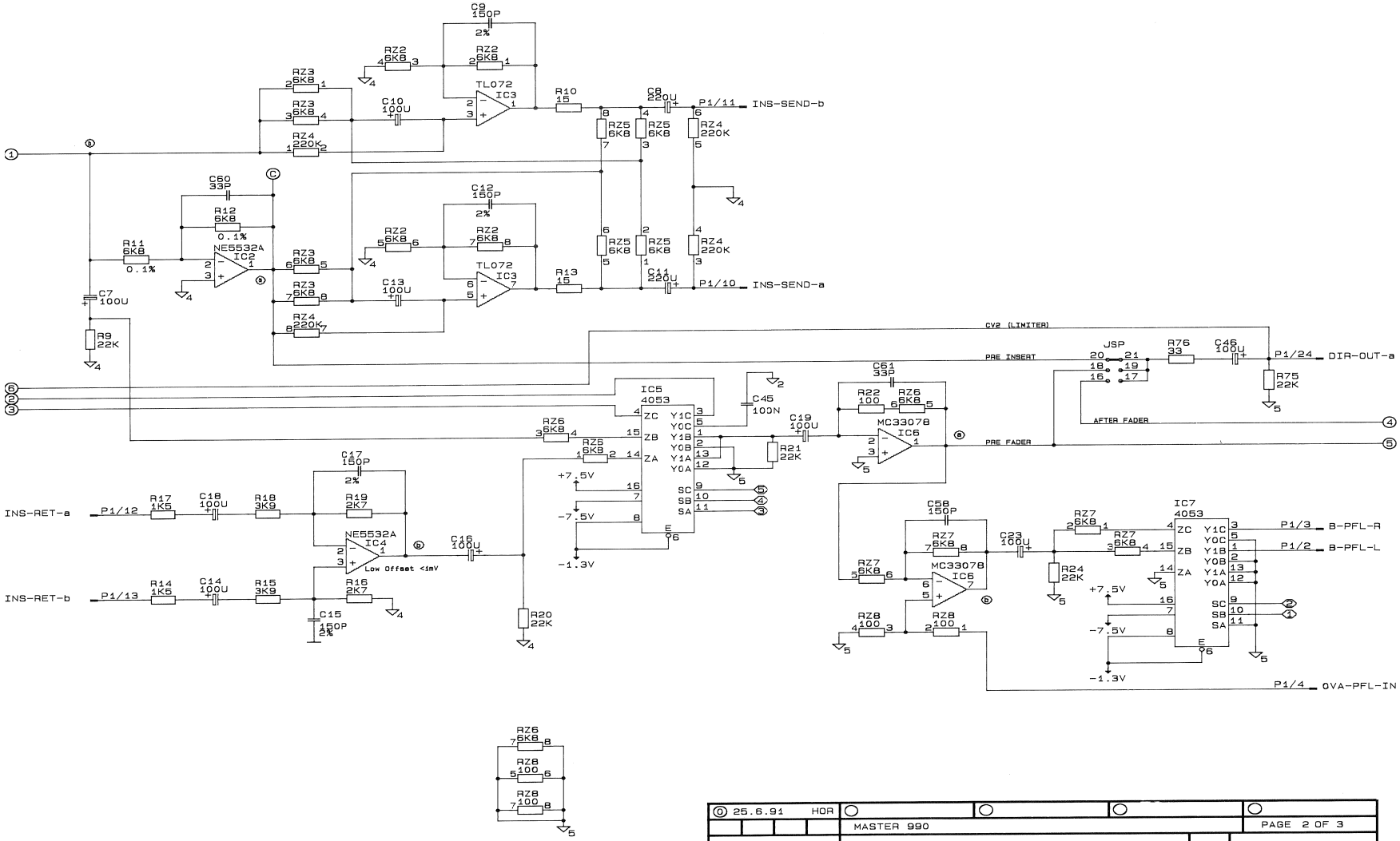
P	NO	NAME	REMARK	B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC
P1	01	OVA	(RES)	
P1	02	B-PFL-L	PFL LEFT ; 0-OHM BUS	B,I
P1	03	B-PFL-R	PFL RIGHT ; 0-OHM BUS	B,I
P1	04	OVA-PFL-IN	INPUT GROUND PFL	B
P1	05	OOHM-IN-b	MASTER 0-OHM INPUT (b)	O,I
P1	06	OOHM-IN-OV	GROUND MASTER 0-OHM INPUT	O
P1	07	CV IN +	CONTROL VOLTAGE VCA (+)	O
P1	08	CV IN -	CONTROL VOLTAGE VCA (-)	O
P1	09	-	RESERVED	
P1	10	INS-SEND-a	SYM INSERT OUTPUT a	S
P1	11	INS-SEND-b	SYM INSERT OUTPUT b	S
P1	12	INS-RET -a	SYM INSERT INPUT a	S
P1	13	INS-RET -b	SYM INSERT INPUT b	S
P1	14	- 15.5V	- SUPPLY	B
P1	15	OV-A	GROUND AUDIO	B
P1	16	+ 15.5V	+ SUPPLY	B
P1	17	M-OUT-a	MASTER OUTPUT a	S
P1	18	M-OUT-b	MASTER OUTPUT b	S
P1	19	OVE	GROUND EXTERN	B
P1	20	HL-IN-a	HIGH LEVEL INPUT a	S
P1	21	HL-IN-b	HIGH LEVEL INPUT b	S
P1	22	-	RESERVED	
P1	23	-	RESERVED	
P1	24	DIR-OUT-a	DIRECT OUT (a)	AS
P1	25	AUX	AUXILIARY INPUT/OUTPUT	AS
P1	26	DO 0	DATA OUT 0 (ENABLE)	O
P1	27	TXTH	TRANSMIT DATA THROUGH	O
P1	28	OV-L	GROUND SIGN (LOGIC)	B
P1	29	TSTB 7	TRANSMIT STROBE 7	O
P1	30	TCL	TRANSMIT CLOCK	O
P1	31	TXD	TRANSMIT DATA	O
P1	32	+ 5.5V	+ SUPPLY	B

MASTER AMPLIFIER

1.917.140.81



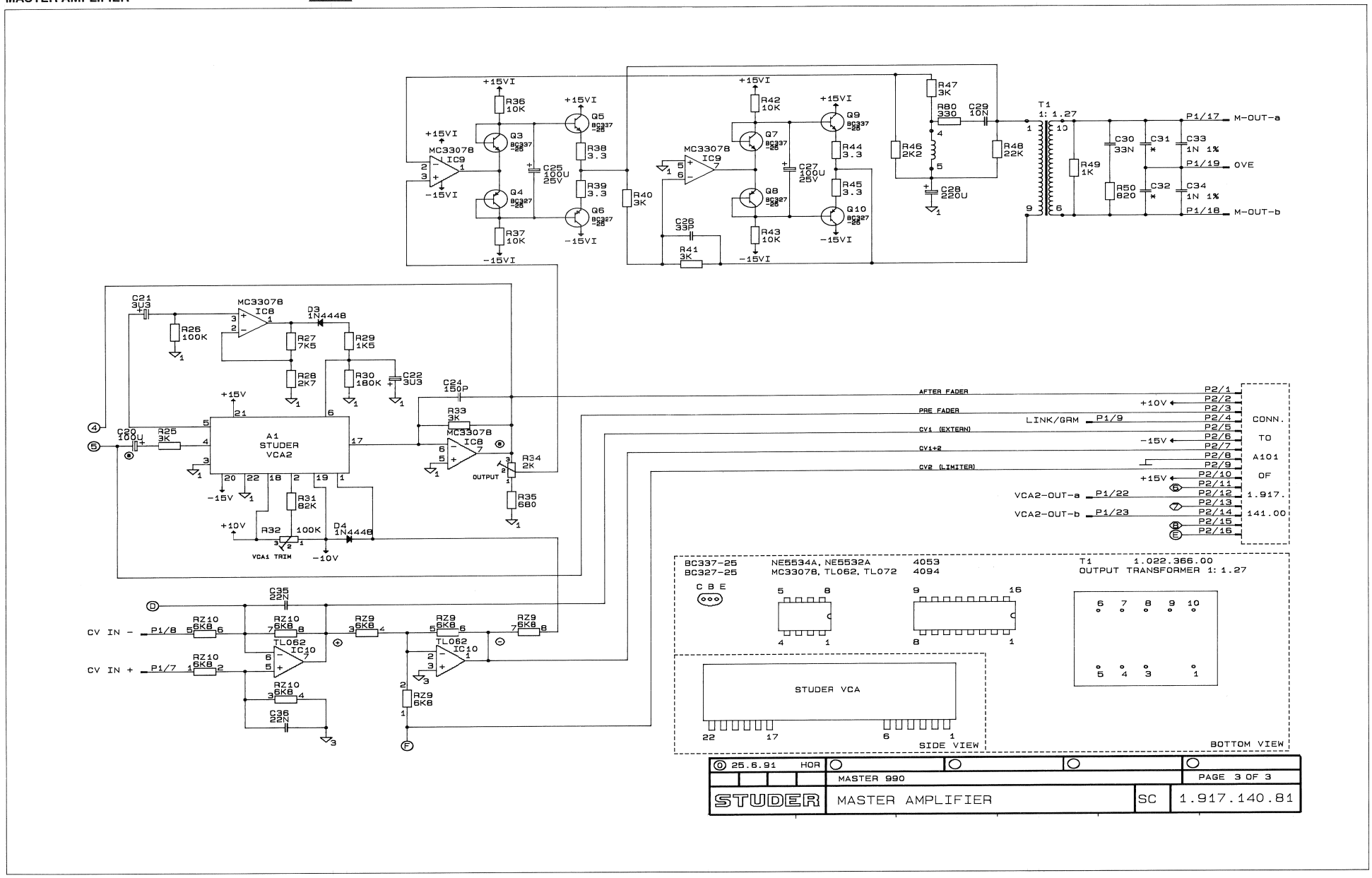
MASTER AMPLIFIER 1.917.140.81



25.6.91 HOR					
	MASTER 990				PAGE 2 OF 3
STUDER	MASTER AMPLIFIER			SC	1.917.140.81

MASTER AMPLIFIER

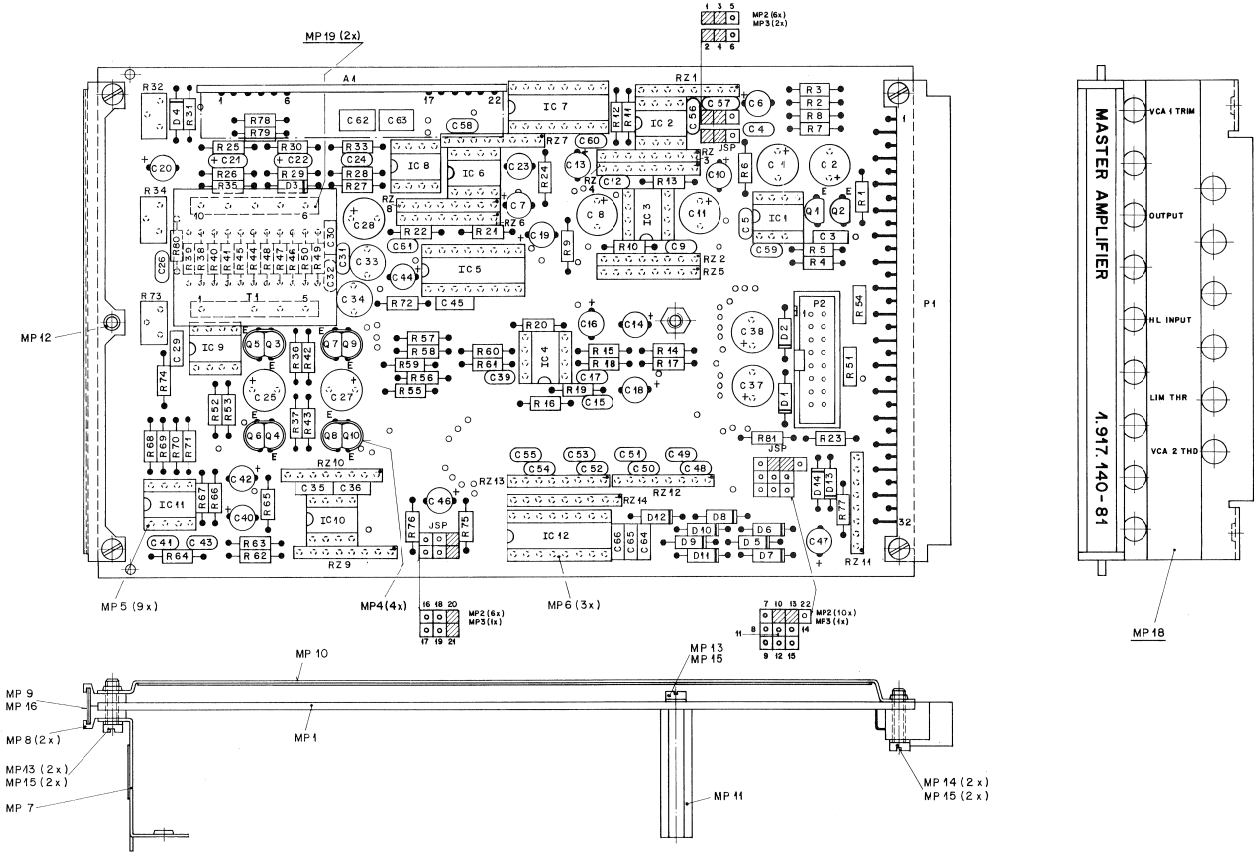
1.917.140.81



25.6.91 HOR			
	MASTER 990		PAGE 3 OF 3
STUDER	MASTER AMPLIFIER	SC	1.917.140.81

MASTER AMPLIFIER

1.917.140.81



Änderung					
Ausgabe	11.10.91				0
Datum	Gez.	Gepr.	Ges.	Index	

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: MASTER AMPLIFIER ESE	Nummer: 1.917.140-81

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
A	1	1.911.291.00	VCA Board Type 2			St
C	1	59.22.2221	220 uF	6V	EL	
C	2	59.22.2221	220 uF	6V	EL	
C	3	59.06.0102	1 nF	10%	PE	
C	4	59.34.2101	100 pF	5%	CER	
C	5	59.34.2330	33 pF	5%	CER	
C	6	59.22.3101	100 uF	10V	EL	
C	7	59.22.3101	100 uF	10V	EL	
C	8	59.22.2221	220 uF	6V	EL	
C	9	59.34.7151	150 pF	2%	CER	
C	10	59.22.3101	100 uF	10V	EL	
C	11	59.22.2221	220 uF	6V	EL	
C	12	59.34.7151	150 pF	2%	CER	
C	13	59.22.3101	100 uF	10V	EL	
C	14	59.22.3101	100 uF	10V	EL	
C	15	59.34.7151	150 pF	2%	CER	
C	16	59.22.3101	100 uF	10V	EL	
C	17	59.34.7151	150 pF	2%	CER	
C	18	59.22.3101	100 uF	10V	EL	
C	19	59.22.3101	100 uF	10V	EL	
C	20	59.22.3101	100 uF	10V	EL	
C	21	59.26.2339	3.3 uF	16V	SAL	
C	22	59.26.2339	3.3 uF	16V	SAL	
C	23	59.22.3101	100 uF	10V	EL	
C	24	59.34.2151	150 pF	5%	CER	
C	25	59.22.5101	100 uF	25V	EL	
C	26	59.34.2330	33 pF	5%	CER	
C	27	59.22.5101	100 uF	25V	EL	
C	28	59.22.2221	220 uF	6V	EL	
C	29	59.06.0103	10 nF	10%	PE	
C	30	59.06.0333	33 nF	10%	PE	
C	31	. . 0	not used			
C	32	59.34.4560	56 pF	5%	CER	
C	33	59.05.1102	1 nF	1%	PP	
C	34	59.05.1102	1 nF	1%	PP	
C	35	59.06.0223	22 nF	10%	PE	
C	36	59.06.0223	22 nF	10%	PE	
C	37	59.22.5101	100 uF	25V	EL	
C	38	59.22.5101	100 uF	25V	EL	
C	39	59.34.5471	470 pF	5%	CER	
C	40	59.22.3101	100 uF	10V	EL	
C	41	59.34.2470	47 pF	5%	CER	
C	42	59.22.3101	100 uF	10V	EL	
C	43	59.34.2470	47 pF	5%	CER	
C	44	59.22.3101	100 uF	10V	EL	
C	45	59.06.0104	100 nF	10%	PE	
C	46	59.22.3101	100 uF	10V	EL	
C	47	59.22.3101	100 uF	10V	EL	
C	48	59.34.2101	100 pF	5%	CER	
C	49	59.34.2101	100 pF	5%	CER	
C	50	59.34.2101	100 pF	5%	CER	
C	51	59.34.2101	100 pF	5%	CER	
C	52	59.34.2101	100 pF	5%	CER	
C	53	59.34.2101	100 pF	5%	CER	
C	54	59.34.2101	100 pF	5%	CER	
C	55	59.34.2101	100 pF	5%	CER	
C	56	59.34.4221	220 pF	5%	CER	
C	57	59.34.4221	220 pF	5%	CER	
C	58	59.34.7151	150 pF	2%	CER	
C	59	59.34.2101	100 pF	5%	CER	
C	60	59.34.2330	33 pF	5%	CER	
C	61	59.34.2330	33 pF	5%	CER	
C	62	59.06.0105	1 uF	10%	PE	
C	63	59.06.0105	1 uF	10%	PE	
C	64	59.32.4102	1 nF	20%	CER	
C	65	59.32.4102	1 nF	20%	CER	
C	66	59.32.4102	1 nF	20%	CER	
D	1	50.04.0122	1N4001			any
D	2	50.04.0122	1N4001			any
D	3	50.04.0125	1N4448			any
D	4	50.04.0125	1N4448			any
D	5	50.04.0125	1N4448			any
D	6	50.04.0125	1N4448			any
D	7	50.04.0125	1N4448			any
D	8	50.04.0125	1N4448			any
D	9	50.04.0125	1N4448			any
D	10	50.04.0125	1N4448			any
D	11	50.04.0125	1N4448			any
D	12	50.04.0125	1N4448			any
D	13	50.04.0125	1N4448			any
D	14	50.04.0125	1N4448			any
IC	1	50.05.0244	NE 5534 AN			Sig
IC	2	50.09.0106	NE 5532 AN			Sig,Ex,Ra
IC	3	50.09.0101	TL 072 CP			TI
IC	4	1.010.051.50	NE 5532 AN	Low Offset	+/- 1mV	St
IC	5	50.07.0015	CD 4053 BE			RCA,NS
IC	6	50.09.0117	MC 33078 P			Mot
IC	7	50.07.0015	CD 4053 BE			RCA,NS
IC	8	50.09.0117	MC 33078 P			Mot
IC	9	50.09.0117	MC 33078 P			Mot
IC	10	50.09.0119	TL 062 CP			TI,Tho
IC	11	50.09.0117	MC 33078 P			Mot
IC	12	50.07.0018	CD 4094 BE			RCA
MP	1	1.917.140.12	0001 pcs	Master PCB		St
MP	2	54.01.0020	0022 pcs	Jumper plug		

MASTER AMPLIFIER

1.917.140.81

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	MP....3	54.01.0021	0004 pcs Jumper bridge	
	MP....4	50.20.2001	0004 pcs Clip for 2*TO 92	
	MP....5	53.03.0166	0009 pcs IC-Socket, 8 pin	
	MP....6	53.03.0168	0003 pcs IC-Socket, 16 pin	
	MP....7	1.917.142.01	0001 pcs Halter	
	MP....8	1.010.006.33	0002 pcs Griffhaelfte	
	MP....9	1.010.096.49	0001 pcs Klarsichtschild	
	MP...10	1.010.090.49	0001 pcs Abschirmung komplett	
	MP...11	1.010.204.27	0001 pcs Mutterbolzen,M2.5*25	
	MP...12	28.21.1380	0001 pcs Rohrniete,D2.25*6.5	
01	MP...12	28.21.1390	1 pcs Rohrniete,D2.25*7.0	
	MP...13	21.01.0280	0003 pcs Z-Schr.,ZN,M2.5*8	
	MP...14	21.01.0281	0002 pcs Z-Schr.,ZN,M2.5*10	
	MP...15	24.16.1025	0005 pcs Rippenscheibe,D2.7/5	
	MP...16	1.917.140.01	0000 pcs Bezeichnungsstreifen	
	MP...17	43.01.0108	0001 pcs ESE-Warnschild	
	MP...18	1.917.140.02	0001 pcs Schild Potmeterbeschriftung	
	MP...19	1.911.323.01	0002 pcs Trafo-Unterlage	
	P.....1	54.01.0359	Eurocard connector, 32 pin	
	P.....2	54.14.2002	PCB connector for ribbon cable, 16 pin	
	Q.....1	50.03.0351	BC 327-25	ITT,Ph,Sie
	Q.....2	50.03.0340	BC 337-25	ITT,Ph,Sie
	Q.....3	50.03.0340	BC 337-25	ITT,Ph,Sie
	Q.....4	50.03.0351	BC 327-25	ITT,Ph,Sie
	Q.....5	50.03.0340	BC 337-25	ITT,Ph,Sie
	Q.....6	50.03.0351	BC 327-25	ITT,Ph,Sie
	Q.....7	50.03.0340	BC 337-25	ITT,Ph,Sie
	Q.....8	50.03.0351	BC 327-25	ITT,Ph,Sie
	Q.....9	50.03.0340	BC 337-25	ITT,Ph,Sie
	Q....10	50.03.0351	BC 327-25	ITT,Ph,Sie
	R.....1	57.11.3103	10 kOhm 1%	
	R.....2	57.11.3333	33 kOhm 1%	
	R.....3	57.11.3333	33 kOhm 1%	
	R.....4	57.11.3683	68 kOhm 1%	
	R.....5	57.11.3101	100 Ohm 1%	
	R.....6	57.11.3752	7.5 kOhm 1%	
	R.....7	57.11.3184	180 kOhm 1%	
	R.....8	57.11.3184	180 kOhm 1%	
	R.....9	57.11.3223	22 kOhm 1%	
	R....10	57.11.3150	15 Ohm 1%	
	R....11	57.99.0250	6.8 kOhm 0.1%	
	R....12	57.99.0250	6.8 kOhm 0.1%	
	R....13	57.11.3150	15 Ohm 1%	
	R....14	57.11.3152	1.5 kOhm 1%	
	R....15	57.11.3392	3.9 kOhm 1%	
	R....16	57.11.3272	2.7 kOhm 1%	
	R....17	57.11.3152	1.5 kOhm 1%	
	R....18	57.11.3392	3.9 kOhm 1%	
	R....19	57.11.3272	2.7 kOhm 1%	
	R....20	57.11.3223	22 kOhm 1%	
	R....21	57.11.3223	22 kOhm 1%	
	R....22	57.11.3101	100 Ohm 1%	
	R....23	57.11.3330	33 Ohm 1%	
	R....24	57.11.3223	22 kOhm 1%	
	R....25	57.11.3302	3 kOhm 1%	
	R....26	57.11.3104	100 kOhm 1%	
	R....27	57.11.3752	7.5 kOhm 1%	
	R....28	57.11.3272	2.7 kOhm 1%	
	R....29	57.11.3152	1.5 kOhm 1%	
	R....30	57.11.3184	180 kOhm 1%	
	R....31	57.11.3823	82 kOhm 1%	
	R....32	58.01.9104	100 kOhm 10% variable resistor	
	R....33	57.11.3302	3 kOhm 1%	
	R....34	58.01.9202	2 kOhm 10% variable resistor	
	R....35	57.11.3681	680 Ohm 1%	
	R....36	57.11.3103	10 kOhm 1%	
	R....37	57.11.3103	10 kOhm 1%	
	R....38	57.11.3339	3.3 Ohm 1%	
	R....39	57.11.3339	3.3 Ohm 1%	
	R....40	57.11.3302	3 kOhm 1%	
	R....41	57.11.3302	3 kOhm 1%	
	R....42	57.11.3103	10 kOhm 1%	
	R....43	57.11.3103	10 kOhm 1%	
	R....44	57.11.3339	3.3 Ohm 1%	
	R....45	57.11.3339	3.3 Ohm 1%	
	R....46	57.11.3222	2.2 kOhm 1%	
	R....47	57.11.3302	3 kOhm 1%	
	R....48	57.11.3223	22 kOhm 1%	
	R....49	57.11.3102	1 kOhm 1%	
	R....50	57.11.3821	820 Ohm 1%	
	R....51	57.92.7013	0.75 Ohm R-PTC, I-hold = 500 mA	
	R....52	57.19.0330	33 Ohm 5% fusible resistor	
	R....53	57.19.0330	33 Ohm 5% fusible resistor	
	R....54	57.92.7013	0.75 Ohm R-PTC, I-hold = 500 mA	
	R....55	57.11.3682	6.8 kOhm 1%	
	R....56	57.11.3682	6.8 kOhm 1%	
	R....57	57.11.3103	10 kOhm 1%	
	R....58	57.11.3822	8.2 kOhm 1%	
	R....59	57.11.3182	1.8 kOhm 1%	
	R....60	57.11.3151	150 Ohm 1%	
	R....61	57.11.3330	33 Ohm 1%	
	R....62	57.11.3153	15 kOhm 1%	
	R....63	57.11.3393	39 kOhm 1%	
	R....64	57.11.3273	27 kOhm 1%	
	R....65	57.11.3153	15 kOhm 1%	
	R....66	57.11.3393	39 kOhm 1%	
	R....67	57.11.3273	27 kOhm 1%	
	R....68	57.11.3302	3 kOhm 1%	
	R....69	57.11.3302	3 kOhm 1%	
	R....70	57.11.3101	100 Ohm 1%	
	R....71	57.11.3101	100 Ohm 1%	
	R....72	57.11.3223	22 kOhm 1%	
	R....73	58.01.9203	20 kOhm 10% variable resistor	
	R....74	57.11.3302	3 kOhm 1%	
	R....75	57.11.3223	22 kOhm 1%	
	R....76	57.11.3330	33 Ohm 1%	
	R....77	57.11.3102	1 kOhm 1%	
	R....78	57.11.3333	33 kOhm 1%	
	R....79	57.11.3333	33 kOhm 1%	
	R....80	57.11.3331	330 Ohm 1%	
	R....81	57.11.3330	33 Ohm 1%	
	RZ....1	57.88.2102	1 kOhm 2% ,4*	
	RZ....2	57.88.2682	6.8 kOhm 2% ,4*	
	RZ....3	57.88.2682	6.8 kOhm 2% ,4*	
	RZ....4	57.88.2224	220 kOhm 2% ,4*	
	RZ....5	57.88.2682	6.8 kOhm 2% ,4*	
	RZ....6	57.88.2682	6.8 kOhm 2% ,4*	
	RZ....7	57.88.2682	6.8 kOhm 2% ,4*	
	RZ....8	57.88.2101	100 Ohm 2% ,4*	
	RZ....9	57.88.2682	6.8 kOhm 2% ,4*	
	RZ...10	57.88.2682	6.8 kOhm 2% ,4*	
	RZ...11	57.88.2101	100 Ohm 2% ,4*	
	RZ...12	57.88.2104	100 kOhm 2% ,4*	
	RZ...13	57.88.2104	100 kOhm 2% ,4*	
	RZ...14	57.88.4104	100 kOhm 2% ,8*	
	T.....1	1.022.366.00	Output Transformer 1:1.27	St

HISTORY:

26.6.91 Aenderung der BG von -00 Index 2 auf -81:
A2,C29,C33,C34,C62,C63,C64,C65,C66,
MP1,MP2,MP19,R2,R3,R47,R78,R79,R80,R81,T1

28.8.91 ZT neues Bauteil: C32

29.2.92 ABB Index (01) Rohrniete neu 7.0 statt 6.5 mm

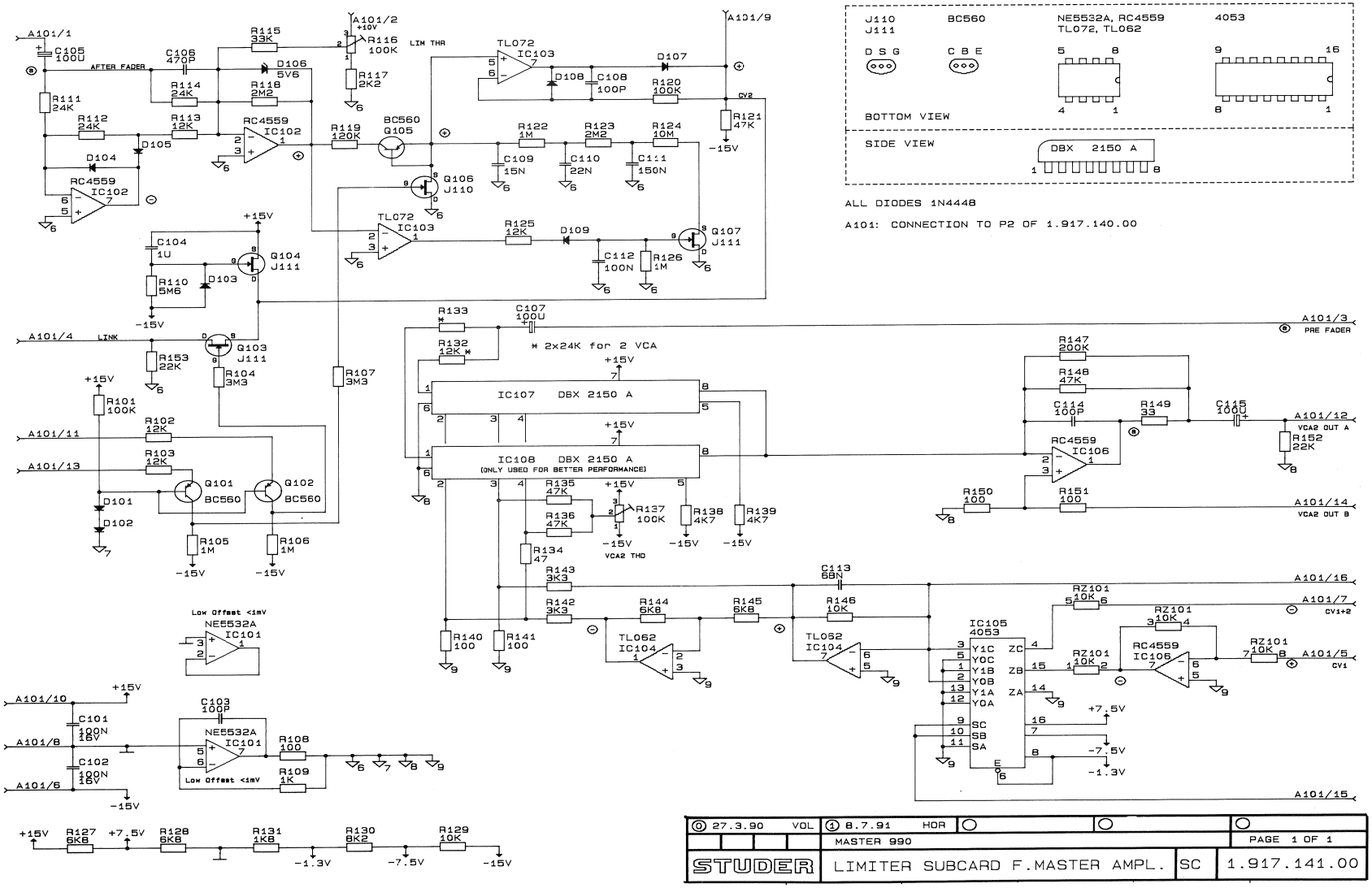
CER = ceramic, EL = electrolytic, PE = polyester, PP = polypropylen
PS = polystyrol, SAL = solid aluminium

MANUFACTURER Ex=Exar, ITT=Intermetall, JRC=Japan Radio Corporation,
Mot=Motorola,
NS=National Semiconductors, Ph=Philips, Ra=Raytheon,
RCA=Radio corporation of America, Sie=Siemens,
Sig=Signetics, St=Studer, Tho=Thomson,
TI=Texas Instruments

1.917.140.81 MASTER AMPLIFIER HOR91/06/2600

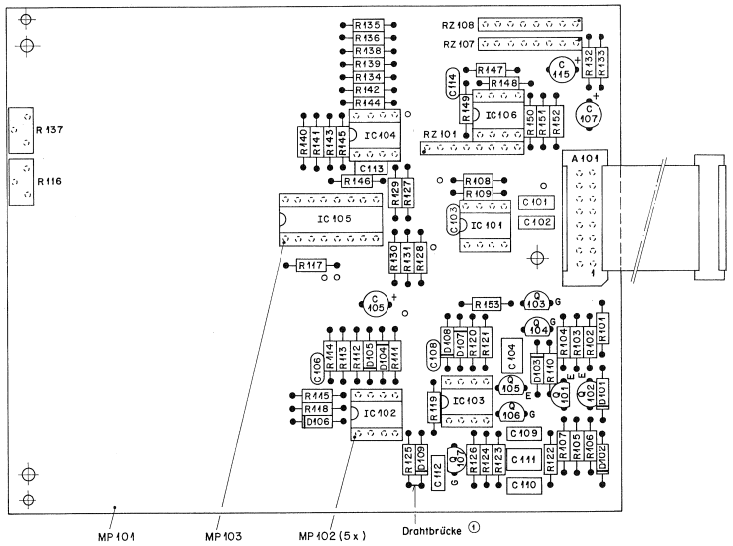
1.917.140.81 MASTER AMPLIFIER HOR92/02/2901

LIMITER SUBCARD F. MASTER AMPL. 1.917.141.00



0 27.3.90 VOL	1 8.7.91 HOR				
	MASTER 990				PAGE 1 OF 1
STUDER	LIMITER SUBCARD F.MASTER AMPL.			SC	1.917.141.00

LIMITER SUBCARD F. MASTER AMPL. 1.917.141.00



Änderung	25.9.90	PH	W	W	1
Ausgabe	26.10.89	W	W	W	0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH

Benennung: LIMITER SUBCARD F. MASTER AMPL. ESE

Nummer: 1.917.141-00

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	A...101	1.023.111.02	Flat cable, 16 pin, 0.085m			St
	C...101	59.06.0104	100 nF	10%	PE	
	C...102	59.06.0104	100 nF	10%	PE	
	C...103	59.34.2101	100 pF	5%	CER	
	C...104	59.06.0105	1 uF	10%	PE	
	C...105	59.22.3101	100 uF	10V	EL	
	C...106	59.34.5471	470 pF	5%	CER	
	C...107	59.22.3101	100 uF	10V	EL	
	C...108	59.34.2101	100 pF	5%	CER	
	C...109	59.06.0683	68 nF	10%	PE	
01	C...109	59.06.0153	15 nF	10%	PE	
	C...110	59.06.0104	100 nF	10%	PE	
01	C...110	59.06.0223	22 nF	10%	PE	
	C...111	59.06.0474	470 nF	10%	PE	
01	C...111	59.06.5154	150 nF	5%	PE	
	C...112	59.06.0104	100 nF	10%	PE	
	C...113	59.06.0683	68 nF	10%	PE	
	C...114	59.34.2101	100 pF	5%	CER	
	C...115	59.22.3101	100 uF	10V	EL	
	D...101	50.04.0125	1N4448			any
	D...102	50.04.0125	1N4448			any
	D...103	50.04.0125	1N4448			any
	D...104	50.04.0125	1N4448			any
	D...105	50.04.0125	1N4448			any
	D...106	50.04.1108	BZX55C	5.6V		ITT,Mot,Ph,Tf,Tho
	D...107	50.04.0125	1N4448			any
	D...108	50.04.0125	1N4448			any
	D...109	50.04.0125	1N4448			any
	IC..101	50.09.0106	NE 5532 N			Sig,Ex,Ra
	IC..102	50.09.0118	RC 4562 NB			Ra,JRC
	IC..103	50.09.0101	TL 072 CP			TI
	IC..104	50.09.0119	TL 062 CP			TI,Tho
	IC..105	50.07.0015	CD 4053 BE			RCA,NS
	IC..106	50.09.0118	RC 4562 NB			Ra,JRC
	IC..107	50.11.0140	DBX 2150 A			dBx
	IC..108	. . 0	not used	see note 1		
	MP..101	1.917.141.11	0001 pcs	Limiter Sub PCB		St
	MP..102	53.03.0166	0005 pcs	IC-Socket, 8 pin		
	MP..103	53.03.0168	0001 pcs	IC-Socket,16 pin		
	MP..104	1.917.141.04	0000 pcs	Nr.-Etikette		
	MP..105	43.01.0108	0001 pcs	ESE-Warnschild		
	Q...101	50.03.0496	BC 560			Sie
	Q...102	50.03.0496	BC 560			Sie
	Q...103	50.03.0216	J 111			Mot,NS,Six
	Q...104	50.03.0216	J 111			Mot,NS,Six
	Q...105	50.03.0496	BC 560			Sie
	Q...106	50.03.1130	J 110			Mot,NS,Six
	Q...107	50.03.0216	J 111			Mot,NS,Six
	R...101	57.11.3104	100 kOhm	1%		
	R...102	57.11.3123	12 kOhm	1%		
	R...103	57.11.3123	12 kOhm	1%		
	R...104	57.11.5335	3.3 MOhm	5%		
	R...105	57.11.3105	1 MOhm	1%		
	R...106	57.11.3105	1 MOhm	1%		
	R...107	57.11.5335	3.3 MOhm	5%		
	R...108	57.11.3101	100 Ohm	1%		
	R...109	57.11.3102	1 kOhm	1%		
	R...110	57.11.5565	5.6 MOhm	5%		
	R...111	57.11.3243	24 kOhm	1%		
	R...112	57.11.3243	24 kOhm	1%		
	R...113	57.11.3123	12 kOhm	1%		
	R...114	57.11.3243	24 kOhm	1%		
	R...115	57.11.3333	33 kOhm	1%		
	R...116	58.01.9104	100 kOhm	10%	variable resistor	
	R...117	57.11.3222	2.2 kOhm	1%		
	R...118	57.11.5225	2.2 MOhm	5%		
	R...119	57.11.3243	24 kOhm	1%		
01	R...119	57.11.3124	120 kOhm	1%		
	R...120	57.11.3104	100 kOhm	1%		
	R...121	57.11.3473	47 kOhm	1%		
	R...122	57.11.3274	270 kOhm	1%		
01	R...122	57.11.3105	1 MOhm	1%		
	R...123	57.11.3684	680 kOhm	1%		
01	R...123	57.11.5225	2.2 MOhm	5%		
	R...124	57.11.5335	3.3 MOhm	5%		
01	R...124	57.11.5106	10 MOhm	10%		
	R...125	57.11.3123	12 kOhm	1%		
	R...126	57.11.3105	1 MOhm	1%		
	R...127	57.11.3682	6.8 kOhm	1%		
	R...128	57.11.3682	6.8 kOhm	1%		
	R...129	57.11.3103	10 kOhm	1%		
	R...130	57.11.3822	8.2 kOhm	1%		
	R...131	57.11.3182	1.8 kOhm	1%		
	R...132	57.11.3123	12 kOhm	1%	see note 1	
	R...133	. . 0	not used		see note 1	
	R...134	57.11.3470	47 Ohm	1%		
	R...135	57.11.3473	47 kOhm	1%		
	R...136	57.11.3473	47 kOhm	1%		
	R...137	58.01.9104	100 kOhm	10%	variable resistor	
	R...138	57.11.3472	4.7 kOhm	1%		
	R...139	57.11.3472	4.7 kOhm	1%		
	R...140	57.11.3101	100 Ohm	1%		
	R...141	57.11.3101	100 Ohm	1%		
	R...142	57.11.3332	3.3 kOhm	1%		
	R...143	57.11.3332	3.3 kOhm	1%		
	R...144	57.11.3682	6.8 kOhm	1%		
	R...145	57.11.3682	6.8 kOhm	1%		
	R...146	57.11.3103	10 kOhm	1%		
	R...147	57.11.3204	200 kOhm	1%		
	R...148	57.11.3473	47 kOhm	1%		
	R...149	57.11.3330	33 Ohm	1%		
	R...150	57.11.3101	100 Ohm	1%		
	R...151	57.11.3101	100 Ohm	1%		
	R...152	57.11.3223	22 kOhm	1%		
	R...153	57.11.3223	22 kOhm	1%		
	RZ..101	57.88.2103	10 kOhm	2%	,4*	

NOTE 1: Option: Double VCA for better performance
IC108 50110140 DBX 2150 A
R 132 57113243 24 kOhm 1%
R 133 57113243 24 kOhm 1%

CER = ceramic, EL = electrolytic, PE = polyester

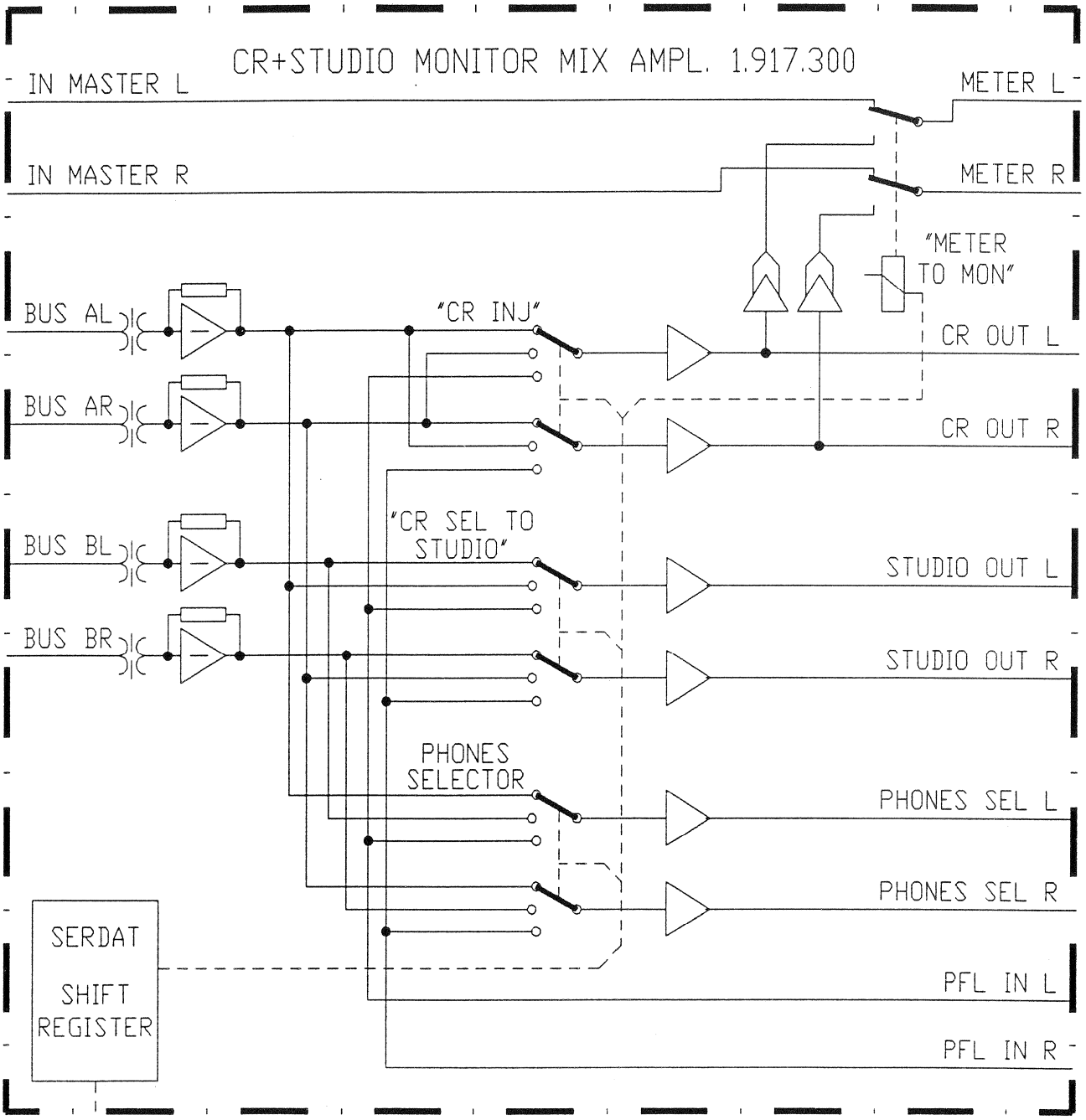
MANUFACTURER dBx=dBx-Incorporation, ITT=Intermetall, JRC=Japan Radio Corporation, Mot=Motorola, NS=National Semiconductors, Ph=Philips, Ra=Raytheon, RCA=Radio Corporation of America, Sie=Siemens, Six=Siliconix, St=Studer, Tf=Telefunken, Tho=Thomson, TI=Texas Instruments

1.917.141.00 LIMITER SUBCARD F.MASTER AMPL .VOL90/04/1700

1.917.141.00 LIMITER SUBCARD F.MASTER AMPL .VOL90/11/0801

END

CR+STUDIO MONITOR MIX AMPLIFIER 1.917.300.00



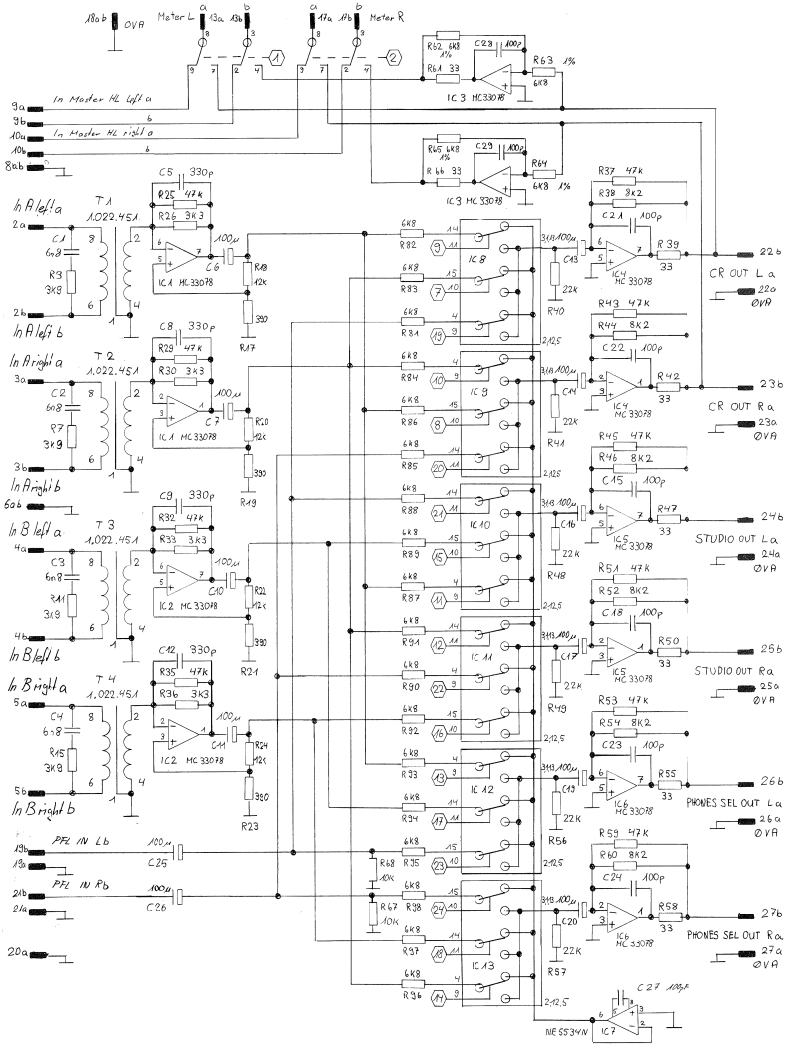
Pin location list

1.917.300

P	NO	NAME	REMARK	B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC		
P1	01	OV-A	GROUND AUDIO	B	X	X
P1	02A	IN A-L-a	0-OHM INPUT A LEFT a	S		
P1	02B	IN A-L-b	0-OHM INPUT A LEFT b	S		
P1	03A	IN A-R-a	0-OHM INPUT A RIGHT a	S		
P1	03B	IN A-R-b	0-OHM INPUT A RIGHT b	S		
P1	04A	IN B-L-a	0-OHM INPUT B LEFT a	S		
P1	04B	IN B-L-b	0-OHM INPUT B LEFT b	S		
P1	05A	IN B-R-a	0-OHM INPUT B RIGHT a	S		
P1	05B	IN B-R-b	0-OHM INPUT B RIGHT b	S		
P1	06	OV-A	GROUND AUDIO	B	X	X
P1	07A	-	RES			
P1	07B	-	RES			
P1	8	OV-A	GROUND AUDIO	B	X	X
P1	09A	M-HL-L-a	INPUT MASTER HL LEFT a	S		
P1	09B	M-HL-L-b	INPUT MASTER HL LEFT b	S		
P1	10A	M-HL-R-a	INPUT MASTER HL RIGHT a	S		
P1	10B	M-HL-R-b	INPUT MASTER HL RIGHT b	S		
P1	11A	-	N.C.			
P1	11B	-	N.C.			
P1	12A	-	N.C.			
P1	12B	-	N.C.			
P1	13A	METER-L-a	OUTPUT METER LEFT a	S		
P1	13B	METER-L-b	OUTPUT METER LEFT b	S		
P1	14	- 15.5V	- SUPPLY	B	X	X
P1	15	OV-A	GROUND AUDIO	B	X	X
P1	16	+ 15.5V	+ SUPPLY	B	X	X
P1	17A	METER-R-a	OUTPUT METER RIGHT a	S		
P1	17A	METER-R-b	OUTPUT METER RIGHT b	S		
P1	18	OV-A	GROUND AUDIO	B	X	X
P1	19A	OV-A	GROUND AUDIO			
P1	19B	PFL-IN-L-b	PFL INPUT LEFT (b)	AS,I		
P1	20A	OV-A	GROUND AUDIO	B		
P1	20B	-	N.C.			
P1	21A	OV-A	GROUND AUDIO			
P1	21B	PFL-IN-R-b	PFL INPUT RIGHT (b)	AS,I		
P1	22A	OV-A	GROUND AUDIO			
P1	22B	CR-OUT-L-a	CR OUTPUT LEFT (a)	AS		
P1	23A	OV-A	GROUND AUDIO			
P1	23B	CR-OUT-R-a	CR OUTPUT RIGHT (a)	AS		
P1	24A	OV-A	GROUND AUDIO			
P1	24B	S-OUT-L-a	STUDIO OUTPUT LEFT (a)	AS		
P1	25A	OV-A	GROUND AUDIO			
P1	25B	S-OUT-R-a	STUDIO OUTPUT RIGHT (a)	AS		
P1	26A	OV-A	GROUND AUDIO			
P1	26B	PHO-OUT-L-a	PHONE OUTPUT LEFT (a)	AS		
P1	27A	OV-A	GROUND AUDIO			
P1	27B	PHO-OUT-R-a	PHONE OUTPUT RIGHT (a)	AS		
P1	28	OV-L	GROUND SIGN (LOGIC)	B	X	X
P1	29A	DO 0	DATA OUT 0 (ENABLE)			
P1	29B	TSTB 5	TRANSMIT STROBE 5			
P1	30A	-	RES			
P1	30B	TXTH	TRANSMIT DATA THROUGH			
P1	31A	TXD	TRANSMIT DATA			
P1	31B	TCL	TRANSMIT CLOCK			
P1	32	+ 5.5V	+ SUPPLY	B	X	X

MONITOR MIX AMPLIFIER

1.917.300.00



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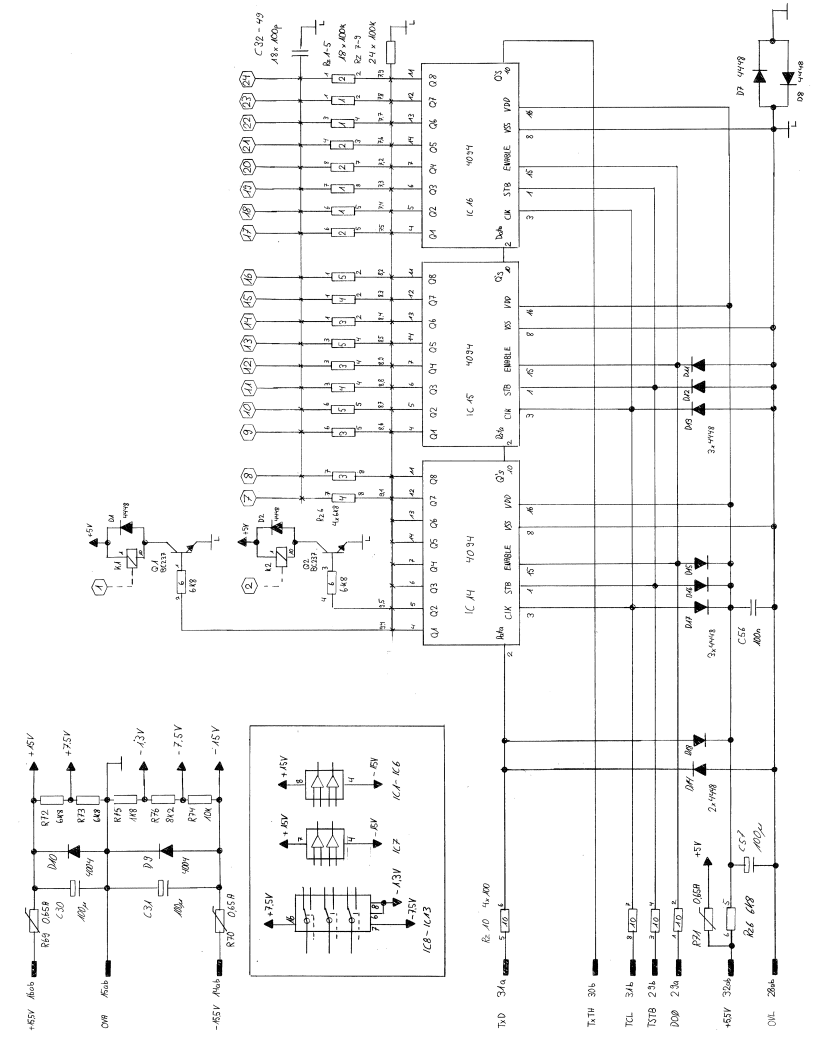
STUDER	MONITOR MIX AMPLIFIER.			1.917.300.00



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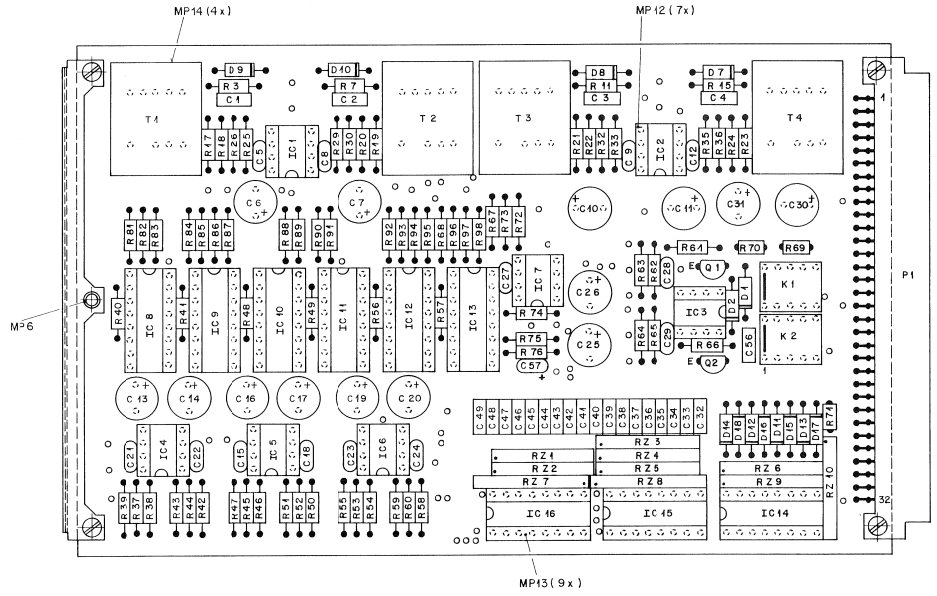
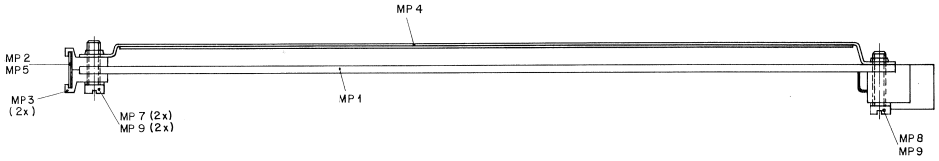
MONITOR MIX AMPLIFIER

1.917.300.00





Änderung					③
					②
	19.3.90				①
Ausgabe	27.10.89				⓪
	Datum	Gez.	Gepr.	Ges.	Index
Kopie für:					

STUDER REGENSDORF ZÜRICH	Benennung: MONITOR MIX. AMPLIFIER ESE	Nummer: 1.917.300-00

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	C.....1	59.06.0682	6,8 nF	10%,	63V , PE	
	C.....2	59.06.0682	6,8 nF	10%,	63V , PE	
	C.....3	59.06.0682	6,8 nF	10%,	63V , PE	
	C.....4	59.06.0682	6,8 nF	10%,	63V , PE	
	C.....5	59.34.4331	330 pF	5%,	63V , CER	
	C.....6	59.22.4101	100 uF	-20%,	10V , EL	
	C.....7	59.22.4101	100 uF	-20%,	10V , EL	
	C.....8	59.34.4331	330 pF	5%,	63V , CER	
	C.....9	59.34.4331	330 pF	5%,	63V , CER	
	C....10	59.22.4101	100 uF	-20%,	10V , EL	
	C....11	59.22.4101	100 uF	-20%,	10V , EL	
	C....12	59.34.4331	330 pF	5%,	63V , CER	
	C....13	59.22.4101	100 uF	-20%,	10V , EL	
	C....14	59.22.4101	100 uF	-20%,	10V , EL	
	C....15	59.34.4101	100 pF	5%,	63V , CER	
	C....16	59.22.4101	100 uF	-20%,	10V , EL	
	C....17	59.22.4101	100 uF	-20%,	10V , EL	
	C....18	59.34.4101	100 pF	5%,	63V , CER	
	C....19	59.22.4101	100 uF	-20%,	10V , EL	
	C....20	59.22.4101	100 uF	-20%,	10V , EL	
	C....21	59.34.4101	100 pF	5%,	63V , CER	
	C....22	59.34.4101	100 pF	5%,	63V , CER	
	C....23	59.34.4101	100 pF	5%,	63V , CER	
	C....24	59.34.4101	100 pF	5%,	63V , CER	
	C....25	59.22.4101	100 uF	-20%,	10V , EL	
	C....26	59.22.4101	100 uF	-20%,	10V , EL	
	C....27	59.34.4101	100 pF	5%,	63V , CER	
	C....28	59.34.4101	100 pF	5%,	63V , CER	
	C....29	59.34.4101	100 pF	5%,	63V , CER	
	C....30	59.22.5101	100 uF	-20%,	25V , EL	
	C....31	59.22.5101	100 uF	-20%,	25V , EL	
	C....32	59.34.4101	100 pF	5%,	63V , CER	
	C....33	59.34.4101	100 pF	5%,	63V , CER	
	C....34	59.34.4101	100 pF	5%,	63V , CER	
	C....35	59.34.4101	100 pF	5%,	63V , CER	
	C....36	59.34.4101	100 pF	5%,	63V , CER	
	C....37	59.34.4101	100 pF	5%,	63V , CER	
	C....38	59.34.4101	100 pF	5%,	63V , CER	
	C....39	59.34.4101	100 pF	5%,	63V , CER	
	C....40	59.34.4101	100 pF	5%,	63V , CER	
	C....41	59.34.4101	100 pF	5%,	63V , CER	
	C....42	59.34.4101	100 pF	5%,	63V , CER	
	C....43	59.34.4101	100 pF	5%,	63V , CER	
	C....44	59.34.4101	100 pF	5%,	63V , CER	
	C....45	59.34.4101	100 pF	5%,	63V , CER	
	C....46	59.34.4101	100 pF	5%,	63V , CER	
	C....47	59.34.4101	100 pF	5%,	63V , CER	
	C....48	59.34.4101	100 pF	5%,	63V , CER	
	C....49	59.34.4101	100 pF	5%,	63V , CER	
	C....56	59.06.0682	6,8 nF	10%,	63V , PE	
01	C....56	. .		not used		
	C....57	59.26.0680	68 uF	-20%,	6.3V SAL	
	D.....1	50.04.0125	1N 4448			any
	D.....2	50.04.0125	1N 4448			any
	D.....7	50.04.0125	1N 4448			any
	D.....8	50.04.0125	1N 4448			any
	D.....9	50.04.0105	1N 4004			any
	D....10	50.04.0105	1N 4004			any
	D....11	50.04.0125	1N 4448			any
	D....12	50.04.0125	1N 4448			any
	D....13	50.04.0125	1N 4448			any
	D....14	50.04.0125	1N 4448			any
	D....15	50.04.0125	1N 4448			any
	D....16	50.04.0125	1N 4448			any
	D....17	50.04.0125	1N 4448			any
	D....18	50.04.0125	1N 4448			any
	IC....1	50.09.0117	MC33078	Dual Op Amp		
	IC....2	50.09.0117	MC33078	Dual Op Amp		
	IC....3	50.09.0117	MC33078	Dual Op Amp		
	IC....4	50.09.0117	MC33078	Dual Op Amp		
	IC....5	50.09.0117	MC33078	Dual Op Amp		
	IC....6	50.09.0117	MC33078	Dual Op Amp		
	IC....7	50.05.0243	5534	single op.amp.		
	IC....8	50.07.0015	4053	Triple Analog-Switch		
	IC....9	50.07.0015	4053	Triple Analog-Switch		
	IC...10	50.07.0015	4053	Triple Analog-Switch		
	IC...11	50.07.0015	4053	Triple Analog-Switch		
	IC...12	50.07.0015	4053	Triple Analog-Switch		
	IC...13	50.07.0015	4053	Triple Analog-Switch		
	IC...14	50.07.0018	4094	Shift & store bus register		
	IC...15	50.07.0018	4094	Shift & store bus register		
	IC...16	50.07.0018	4094	Shift & store bus register		
	K.....1	56.04.0195		SDS Relais, Type TQ2- 6V		
	K.....2	56.04.0195		SDS Relais, Type TQ2- 6V		
	K.....3	. .				
	K.....4	. .				
	K.....5	. .				
	K.....6	. .				
	P.....1	54.11.2004	1 pcs	Euro, 2 * 32 contacts		
	Q.....1	50.03.0496	BC 237	NPN		any
01	Q.....1	50.03.0436	BC 237	NPN		
	Q.....2	50.03.0496	BC 237	NPN		any
01	Q.....2	50.03.0436	BC 237	NPN		
	Q.....3	. .				
	Q.....4	. .				

MONITOR MIX AMPLIFIER

1.917.300.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	Q.....5	. .		
	Q.....6	. .		
	R.....1	. .		
	R.....2	. .		
	R.....3	57.11.3392	3.9 kOhm 1%	
	R.....4	. .		
	R.....5	. .		
	R.....6	. .		
	R.....7	57.11.3392	3.9 kOhm 1%	
	R.....8	. .		
	R.....9	. .		
	R....10	. .		
	R....11	57.11.3392	3.9 kOhm 1%	
	R....12	. .		
	R....13	. .		
	R....14	. .		
	R....15	57.11.3392	3.9 kOhm 1%	
	R....16	. .		
	R....17	57.11.3391	390 Ohm 1%	
	R....18	57.11.3123	12 kOhm 1%	
	R....19	57.11.3391	390 Ohm 1%	
	R....20	57.11.3123	12 kOhm 1%	
	R....21	57.11.3391	390 Ohm 1%	
	R....22	57.11.3123	12 kOhm 1%	
	R....23	57.11.3391	390 Ohm 1%	
	R....24	57.11.3123	12 kOhm 1%	
	R....25	57.11.3473	47 kOhm 1%	
	R....26	57.11.3332	3.3 kOhm 1%	
	R....29	57.11.3473	47 kOhm 5%	
	R....30	57.11.3332	3.3 kOhm 1%	
	R....32	57.11.3473	47 kOhm 1%	
	R....33	57.11.3332	3.3 kOhm 1%	
	R....35	57.11.3473	47 kOhm 1%	
	R....36	57.11.3332	3.3 kOhm 1%	
	R....37	57.11.3473	47 kOhm 1%	
	R....38	57.11.3822	8.2 kOhm 1%	
	R....39	57.11.3330	33 Ohm 1%	
	R....40	57.11.3223	22 kOhm 1%	
	R....41	57.11.3223	22 kOhm 1%	
	R....42	57.11.3330	33 Ohm 1%	
	R....43	57.11.3473	47 kOhm 1%	
	R....44	57.11.3822	8.2 kOhm 1%	
	R....45	57.11.3473	47 kOhm 1%	
	R....46	57.11.3822	8.2 kOhm 1%	
	R....47	57.11.3330	33 Ohm 1%	
	R....48	57.11.3223	22 kOhm 1%	
	R....49	57.11.3223	22 kOhm 1%	
	R....50	57.11.3330	33 Ohm 1%	
	R....51	57.11.3473	47 kOhm 1%	
	R....52	57.11.3822	8.2 kOhm 1%	
	R....53	57.11.3473	47 kOhm 1%	
	R....54	57.11.3822	8.2 kOhm 1%	
	R....55	57.11.3330	33 Ohm 1%	
	R....56	57.11.3223	22 kOhm 1%	
	R....57	57.11.3223	22 kOhm 1%	
	R....58	57.11.3330	33 Ohm 1%	
	R....59	57.11.3473	47 kOhm 1%	
	R....60	57.11.3822	8.2 kOhm 1%	
	R....61	57.11.3330	33 Ohm 1%	
	R....62	57.11.3682	6.8 kOhm 1%	
	R....63	57.11.3682	6.8 kOhm 1%	
	R....64	57.11.3682	6.8 kOhm 1%	
	R....65	57.11.3682	6.8 kOhm 1%	
	R....66	57.11.3330	33 Ohm 1%	
	R....67	57.11.3103	10 kOhm 1%	
	R....68	57.11.3103	10 kOhm 1%	
	R....69	57.92.7014	PTC 650mA	
	R....70	57.92.7014	PTC 650mA	
	R....71	57.92.7014	PTC 650mA	
	R....72	57.11.3682	6.8 kOhm 1%	
	R....73	57.11.3682	6.8 kOhm 1%	
	R....74	57.11.3103	10 kOhm 1%	
	R....75	57.11.3182	1.8 kOhm 1%	
	R....76	57.11.3822	8.2 kOhm 1%	
	R....81	57.11.3682	6.8 kOhm 1%	
	R....82	57.11.3682	6.8 kOhm 1%	
	R....83	57.11.3682	6.8 kOhm 1%	
	R....84	57.11.3682	6.8 kOhm 1%	
	R....85	57.11.3682	6.8 kOhm 1%	
	R....86	57.11.3682	6.8 kOhm 1%	
	R....87	57.11.3682	6.8 kOhm 1%	
	R....88	57.11.3682	6.8 kOhm 1%	
	R....89	57.11.3682	6.8 kOhm 1%	
	R....90	57.11.3682	6.8 kOhm 1%	
	R....91	57.11.3682	6.8 kOhm 1%	
	R....92	57.11.3682	6.8 kOhm 1%	
	R....93	57.11.3682	6.8 kOhm 1%	
	R....94	57.11.3682	6.8 kOhm 1%	
	R....95	57.11.3682	6.8 kOhm 1%	
	R....96	57.11.3682	6.8 kOhm 1%	
	R....97	57.11.3682	6.8 kOhm 1%	
	R....98	57.11.3682	6.8 kOhm 1%	
	RZ....1	57.88.2104	100 kOhm 2%, 4 * 100k	
	RZ....2	57.88.2104	100 kOhm 2%, 4 * 100k	
	RZ....3	57.88.2104	100 kOhm 2%, 4 * 100k	
	RZ....4	57.88.2104	100 kOhm 2%, 4 * 100k	
	RZ....5	57.88.2104	100 kOhm 2%, 4 * 100k	
	RZ....6	57.88.2682	6.8 kOhm 2%, 4 * 6.8k	
	RZ....7	57.88.4104	100 kOhm 2%, 8 * 100k	
	RZ....8	57.88.4104	100 kOhm 2% 8 * 100k	
	RZ....9	57.88.4104	100 kOhm 2%, 8 * 100k	
01	RZ....9	57.88.2104	100 kOhm 2%, 4 * 100k	
	RZ...10	57.88.2101	100 Ohm 2%, 4 * 100	
	T.....1	1.022.451.00	INPUT TRAFO	STUDER
	T.....2	1.022.451.00	INPUT TRAFO	STUDER
	T.....3	1.022.451.00	INPUT TRAFO	STUDER
	T.....4	1.022.451.00	INPUT TRAFO	STUDER
	MP....1	1.917.300.11	1 pcs Print	Studer
	MP....2	1.917.300.01	1 pcs Bez. Streifen 6.3*91	Studer
	MP....3	1.010.006.33	2 pcs Griffhaelften	Studer
	MP....4	1.010.090.49	1 pcs Abschirmblech	Studer
	MP....5	1.010.096.49	1 pcs Klarsicht Schild	
	MP....6	28.21.1380	1 pcs Rohrniete D2.5/6	
	MP....7	21.01.0280	2 pcs Z - Schraube M2.5*8	
	MP....8	21.01.0281	2 pcs Z - Schraube M2.5*10	
	MP....9	24.16.1025	4 pcs Rippenscheibe D2.7/5	
	MP...10	43.01.0108	1 pcs ESE-Warnschild	
	MP...11	. .		
	MP...12	53.03.0166	7 pcs IC-Sockel 8 Pin	
	MP...13	53.03.0168	9 pcs IC-Sockel 16 Pin	
	MP...14	1.022.400.03	4 pcs Isolation zu Trafo	

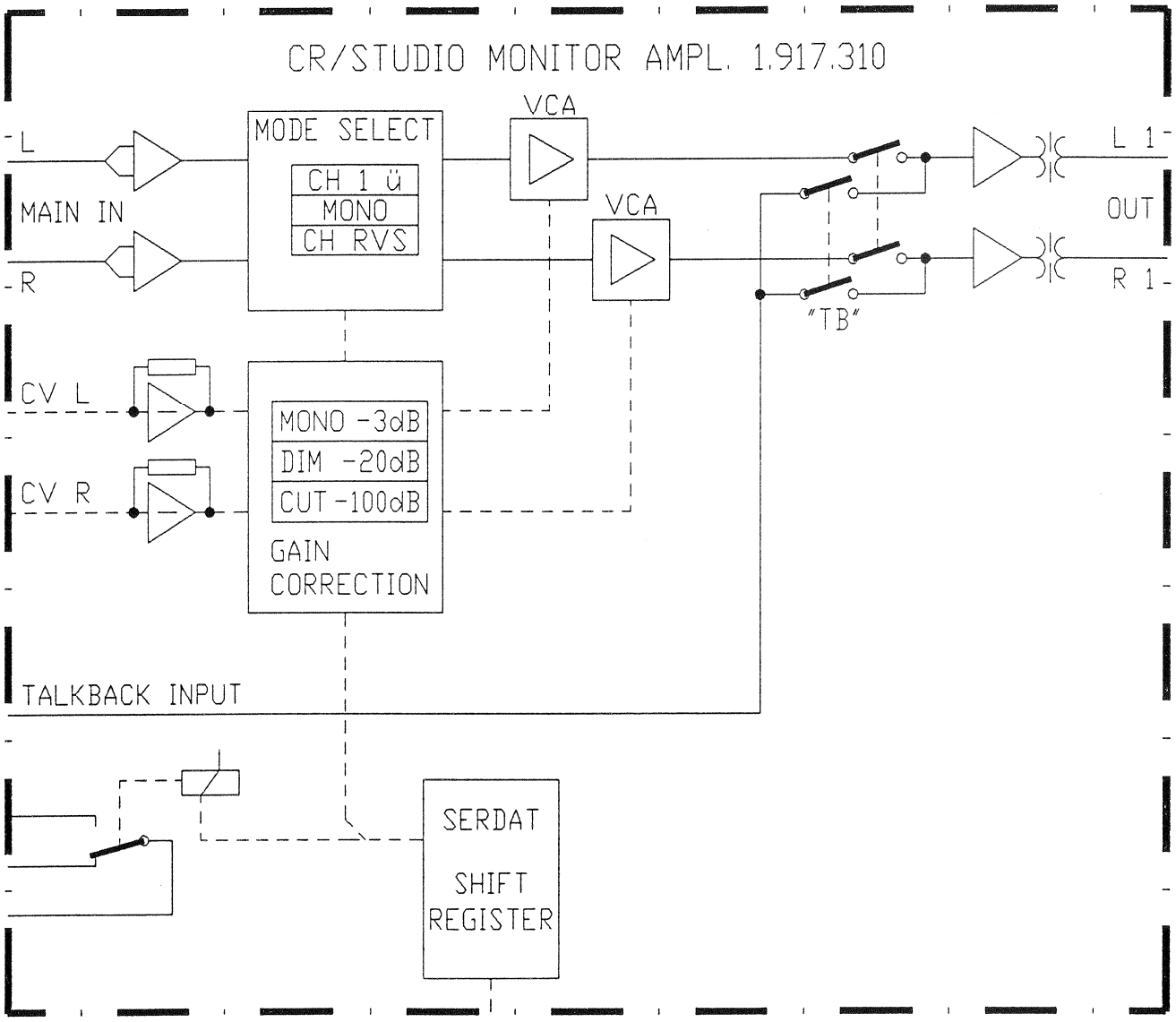
EL=Electrolytic, ElBip=Electrolytic Bipolar, PE=Polyester

MANUFACTURER: Fc=Fairchild, ITT=Intermetall, Ph=Philips,
Ses=Sescosem, Sie=Siemens, Tf=Telefunken.

1.917.300 00 MONITOR MIX AMPLIFIER SE 89/02/2000

1.917.300 00 MONITOR MIX AMPLIFIER SE 90/03/1901

CR / STUDIO MONITOR AMPLIFIER 1.917.310.00



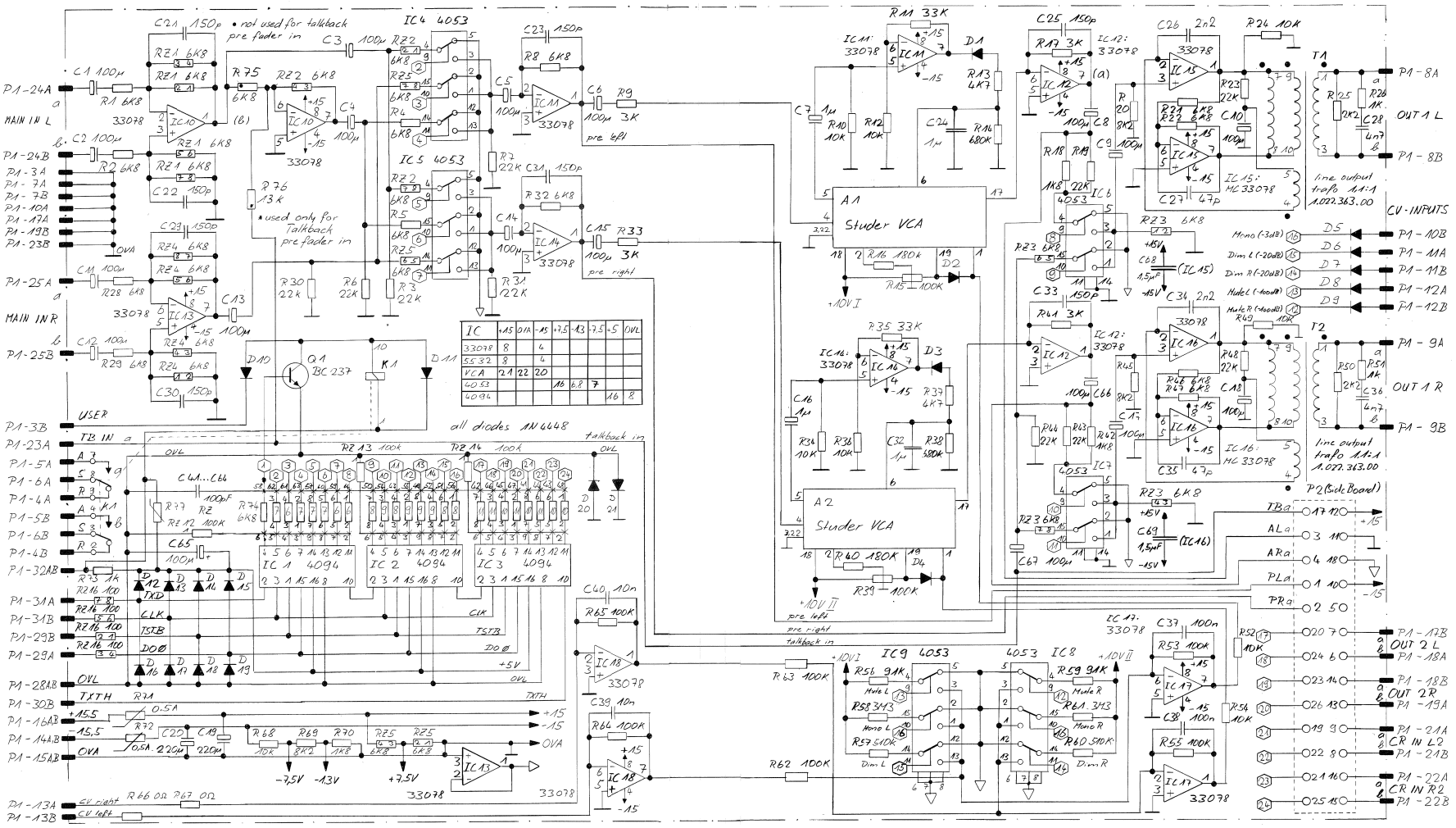
Pin location list

1.917.310

P	NO	NAME	REMARK	B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC		
P1	01A	-	RES			
P1	01B	-	RES			
P1	02A	-	RES			
P1	02B	-	RES			
P1	03A	0V-A	GROUND AUDIO			
P1	03B	D USER				
P1	04A	REL-A-r	RELAIS A ; r= BREAK CONTACT			
P1	04B	REL-B-r	RELAIS B ; r= BREAK CONTACT			
P1	05A	REL-A-a	RELAIS A ; a= MAKE CONTACT			
P1	05B	REL-B-a	RELAIS B ; a= MAKE CONTACT			
P1	06A	REL-A-s	RELAIS A ; s= CONTACT			
P1	06B	REL-B-s	RELAIS B ; s= CONTACT			
P1	07	0V-A	GROUND AUDIO	B	X	X
P1	08A	MON-OUT1-L-a	MONITOR OUTPUT 1 LEFT a	S		
P1	08B	MON-OUT1-L-b	MONITOR OUTPUT 1 LEFT b	S		
P1	09A	MON-OUT1-R-a	MONITOR OUTPUT 1 RIGHT a	S		
P1	09B	MON-OUT1-R-b	MONITOR OUTPUT 1 RIGHT b	S		
P1	10A	0V-A	GROUND AUDIO			
P1	10B	CV-MONO-D	CONTROL VOLTAGE MONO			
P1	11A	CV-DIM -D-L	CONTROL VOLTAGE -20dB LEFT			
P1	11B	CV-DIM -D-R	CONTROL VOLTAGE -20dB RIGHT			
P1	12A	CV-MUTE-D-L	CONTROL VOLTAGE MUTE LEFT			
P1	12B	CV-MUTE D-R	CONTROL VOLTAGE MUTE RIGHT			
P1	13A	CV-VCA-R	CONTROL VOLTAGE VCA RIGHT			
P1	13B	CV-VCA-L	CONTROL VOLTAGE VCA LEFT			
P1	14	- 15.5V	- SUPPLY	B	X	X
P1	15	0V-A	GROUND AUDIO	B	X	X
P1	16	+ 15.5V	+ SUPPLY	B	X	X
P1	17A	0V-A	GROUND AUDIO			
P1	17B	MON-OUT2-L-a	MONITOR OUTPUT 2 LEFT a	S		
P1	18A	MON-OUT2-L-b	MONITOR OUTPUT 2 LEFT b	S		
P1	18B	MON-OUT2-R-a	MONITOR OUTPUT 2 RIGHT a	S		
P1	19A	MON-OUT2-R-b	MONITOR OUTPUT 2 RIGHT b	S		
P1	19B	0V-A	GROUND AUDIO			
P1	20A	-	N.C.			
P1	20B	-	N.C.			
P1	21A	MON-IN2-L-a	MONITOR INPUT 2 LEFT a	S		
P1	21B	MON-IN2-L-b	MONITOR INPUT 2 LEFT b	S		
P1	22A	MON-IN2-R-a	MONITOR INPUT 2 RIGHT a	S		
P1	22B	MON-IN2-R-b	MONITOR INPUT 2 RIGHT b	S		
P1	23A	TB-IN-a	TALKBACK INPUT (a)	AS		
P1	23B	0V-A	GROUND AUDIO			
P1	24A	MON-IN1-L-a	MONITOR INPUT 1 LEFT a	S		
P1	24B	MON-IN1-L-b	MONITOR INPUT 1 LEFT b	S		
P1	25A	MON-IN1-R-a	MONITOR INPUT 1 RIGHT a	S		
P1	25B	MON-IN1-R-b	MONITOR INPUT 1 RIGHT b	S		
P1	26A	-	RES			
P1	26B	-	RES			
P1	27A	-	RES			
P1	27B	-	RES			
P1	28	0V-L	GROUND SIGN (LOGIC)	B	X	X
P1	29A	DO 0	DATA OUT 0 (ENABLE)			
P1	29B	TSTB 4	TRANSMIT STROBE 4			
P1	30A	-	RES			
P1	30B	TXTH	TRANSMIT DATA THROUGH			
P1	31A	TXD	TRANSMIT DATA			
P1	31B	TCL	TRANSMIT CLOCK			
P1	32	+ 5.5V	+ SUPPLY	B	X	X

CR/STUDIO MONITOR AMPLIFIER

1.917.310.00



⓪ 10. 4.90 A.Schmid	① 24.04.91 A.Schmid	② 07.02.92 Emi	. .
STUDER	CR/STUDIO-MONITOR AMPLIFIER	SC	1 917 310 00

PAGE 1 OF 2

⓪ 10. 4.90 A.Schmid	① 24.04.91 A.Schmid	② 07.02.92 Emi	. .
STUDER	CR/STUDIO-MONITOR AMPLIFIER	SC	1 917 310 00

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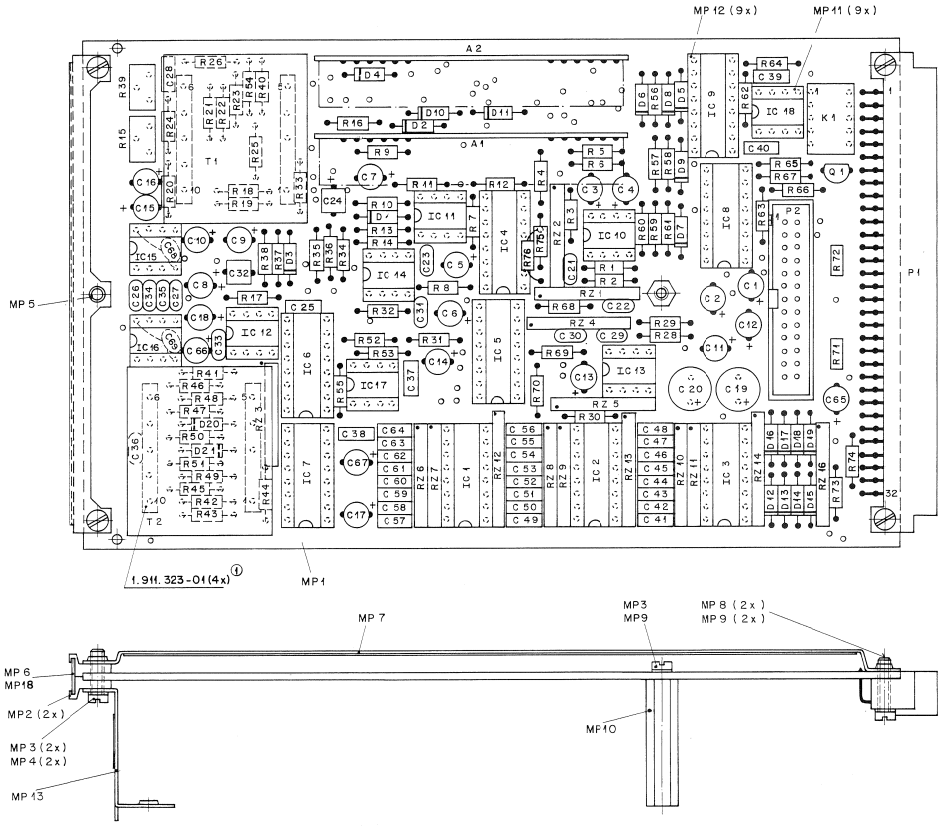
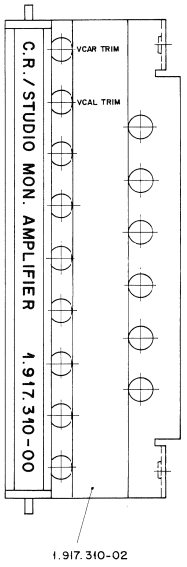
CR/STUDIO MONITOR AMPLIFIER

1.917.310.00





Änderung	Datum	Gez.	Gepr.	Ges.	Index
	24.4.91				③
	15.11.90				②
	22.9.89				①
Ausgabe					⓪

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: C.R/STUDIO MONITOR AMPLIFIER ESE	Nummer: 1.917.310-00

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	A.....1	1.911.291.00		VCA Board Type 2		St
	A.....2	1.911.291.00		VCA Board Type 2		St
	C.....1	59.22.3101	100 uF	EL	10V	
	C.....2	59.22.3101	100 uF	EL	10V	
	C.....3	59.22.3101	100 uF	EL	10V	
	C.....4	59.22.3101	100 uF	EL	10V	
	C.....5	59.22.3101	100 uF	EL	10V	
	C.....6	59.22.3101	100 uF	EL	10V	
	C.....7	59.22.8109	1 uF	EL	50V	
	C.....8	59.22.3101	100 uF	EL	10V	
	C.....9	59.22.3101	100 uF	EL	10V	
	C....10	59.22.3101	100 uF	EL	10V	
	C....11	59.22.3101	100 uF	EL	10V	
	C....12	59.22.3101	100 uF	EL	10V	
	C....13	59.22.3101	100 uF	EL	10V	
	C....14	59.22.3101	100 uF	EL	10V	
	C....15	59.22.3101	100 uF	EL	10V	
	C....16	59.22.8109	1 uF	EL	50V	
	C....17	59.22.3101	100 uF	EL	10V	
	C....18	59.22.3101	100 uF	EL	10V	
	C....19	59.22.4221	220 uF	EL	16V	
	C....20	59.22.4221	220 uF	EL	16V	
	C....21	59.34.7151	150 pF	CE		
	C....22	59.34.7151	150 pF	CE		
	C....23	59.34.7151	150 pF	CE		
	C....24	59.22.6100	10 uF	EL	35V	
02	C....24	59.06.0105	1 uF	PE		
	C....25	59.34.7151	150 pF	CE		
	C....26	59.34.2470	47 pF	CE		
03	C....26	59.06.0222	2.2 nF	PE		
	C....27	59.34.2470	47 pF	CE		
	C....28	59.06.0472	4.7 nF	PE		
	C....29	59.34.7151	150 pF	CE		
	C....30	59.34.7151	150 pF	CE		
	C....31	59.34.7151	150 pF	CE		
	C....32	59.22.6100	10 uF	EL	35V	
02	C....32	59.06.0105	1 uF	PE		
	C....33	59.34.7151	150 pF	CE		
	C....34	59.34.2470	47 pF	CE		
03	C....34	59.06.0222	2.2 nF	PE		
	C....35	59.34.2470	47 pF	CE		
	C....36	59.06.0472	4.7 nF	PE		
	C....37	59.06.0104	100 nF	PE		
	C....38	59.06.0104	100 nF	PE		
	C....39	59.06.0103	10 nF	PE		
	C....40	59.06.0103	10 nF	PE		
	C....41	59.34.4101	100 pF	CE		
	C....42	59.34.4101	100 pF	CE		
	C....43	59.34.4101	100 pF	CE		
	C....44	59.34.4101	100 pF	CE		
	C....45	59.34.4101	100 pF	CE		
	C....46	59.34.4101	100 pF	CE		
	C....47	59.34.4101	100 pF	CE		
	C....48	59.34.4101	100 pF	CE		
	C....49	59.34.4101	100 pF	CE		
	C....50	59.34.4101	100 pF	CE		
	C....51	59.34.4101	100 pF	CE		
	C....52	59.34.4101	100 pF	CE		
	C....53	59.34.4101	100 pF	CE		
	C....54	59.34.4101	100 pF	CE		
	C....55	59.34.4101	100 pF	CE		
	C....56	59.34.4101	100 pF	CE		
	C....57	59.34.4101	100 pF	CE		
	C....58	. . 0	not used			
	C....59	59.34.4101	100 pF	CE		
	C....60	59.34.4101	100 pF	CE		
	C....61	59.34.4101	100 pF	CE		
	C....62	59.34.4101	100 pF	CE		
	C....63	59.34.4101	100 pF	CE		
	C....64	59.34.4101	100 pF	CE		
	C....65	59.22.3101	100 uF	EL	10V	
	C....66	59.22.3101	100 uF	EL	10V	
	C....67	59.22.3101	100 uF	EL	10V	
02	C....68	59.32.4152	1.5 nF	CE		
02	C....69	59.32.4152	1.5 nF	CE		
	D.....1	50.04.0125	1N4448			
	D.....2	50.04.0125	1N4448			
	D.....3	50.04.0125	1N4448			
	D.....4	50.04.0125	1N4448			
	D.....5	50.04.0125	1N4448			
	D.....6	50.04.0125	1N4448			
	D.....7	50.04.0125	1N4448			
	D.....8	50.04.0125	1N4448			
	D.....9	50.04.0125	1N4448			
	D....10	50.04.0125	1N4448			
	D....11	50.04.0125	1N4448			
	D....12	50.04.0125	1N4448			
	D....13	50.04.0125	1N4448			
	D....14	50.04.0125	1N4448			
	D....15	50.04.0125	1N4448			
	D....16	50.04.0125	1N4448			
	D....17	50.04.0125	1N4448			
	D....18	50.04.0125	1N4448			
	D....19	50.04.0125	1N4448			
	D....20	50.04.0125	1N4448			
	D....21	50.04.0125	1N4448			

CR/STUDIO MONITOR AMPLIFIER ESE

1.917.310.00

Ad	..POS..	...REF.No...	DESCRIPTION	.....MANUFACTURER
	IC....1	50.07.0018	CD4094	shift and store busregister
	IC....2	50.07.0018	CD4094	shift and store busregister
	IC....3	50.07.0018	CD4094	shift and store busregister
	IC....4	50.07.0016	CD4063	triple 2 ch. analog mux/demux
	IC....5	50.07.0015	CD4053	triple 2 ch. analog mux/demux
	IC....6	50.07.0015	CD4053	triple 2 ch. analog mux/demux
	IC....7	50.07.0015	CD4053	triple 2 ch. analog mux/demux
	IC....8	50.07.0015	CD4053	triple 2 ch. analog mux/demux
	IC....9	50.07.0015	CD4053	triple 2 ch. analog mux/demux
	IC...10	50.09.0117	MC33078	dual op. amp.
	IC...11	50.09.0117	MC33078	dual op. amp.
	IC...12	50.09.0117	MC33078	dual op. amp.
	IC...13	50.09.0117	MC33078	dual op. amp.
	IC...14	50.09.0117	MC33078	dual op. amp.
	IC...15	50.09.0106	NE5532AN	dual op. amp.
01	IC...15	50.09.0117	MC33078	dual op. amp.
	IC...16	50.09.0106	NE5532AN	dual op. amp.
01	IC...16	50.09.0117	MC33078	dual op. amp.
	IC...17	50.09.0117	MC33078	dual op. amp.
	IC...18	50.09.0117	MC33078	dual op. amp.
	K.....1	56.04.0195	2*U	RELAIS 6V 2*U
	MP....1	1.917.310.11	1 pcs	PCB
	MP....2	1.010.006.33	2 pcs	Griffhaelfte
	MP....3	21.01.0280	3 pcs	Z-Schr.,ZN,M2.5*8
	MP....4	24.16.1025	2 pcs	Rippenscheibe D2.7/5
	MP....5	28.21.1380	1 pcs	Rohrniete,D2.25*6.5
04	MP....5	28.21.1390	1 pcs	Rohrniete,D2.25*7.0
	MP....6	1.010.096.49	1 pcs	Klarsichtschild
	MP....7	1.010.090.49	1 pcs	Abschirmung komplett
	MP....8	21.01.0281	2 pcs	Z-Schr.,ZN,M2.5*10
	MP....9	24.16.1025	3 pcs	Rippenscheibe D2.7/5
	MP...10	1.010.204.27	1 pcs	Mutterbolzen M2.5*25
	MP...11	53.03.0166	9 pcs	IC-Socket, 8-pin
	MP...12	53.03.0168	9 pcs	IC-Socket,16-pin
	MP...13	1.917.142.01	1 pcs	Halter
	MP...17	43.01.0108	1 pcs	ESE-Schild
	MP...18	1.917.310.01	1 pcs	Bezeichnungsstreifen 6.3*91
	Q.....1	50.03.0436	BC 237	UNI NPN 100 mA
	P.....1	54.11.2004	2*32 pin	eurocard-connector
	P.....2	54.14.2003	26 pin	PCB ribbon connector
	R.....1	57.11.3682	6.8 kOhm	1% MF
	R.....2	57.11.3682	6.8 kOhm	1% MF
	R.....3	57.11.3223	22 kOhm	1% MF
	R.....4	57.11.3682	6.8 kOhm	1% MF
	R.....5	57.11.3682	6.8 kOhm	1% MF
	R.....6	57.11.3223	22 kOhm	1% MF
	R.....7	57.11.3223	22 kOhm	1% MF
	R.....8	57.11.3682	6.8 kOhm	1% MF
	R.....9	57.11.3302	3.0 kOhm	1% MF
	R....10	57.11.3103	10 kOhm	1% MF
	R....11	57.11.3333	33 kOhm	1% MF
	R....12	57.11.3103	10 kOhm	1% MF
	R....13	57.11.3472	4.7 kOhm	1% MF
	R....14	57.11.3684	680 kOhm	1% MF
	R....15	58.01.9104	100 kOhm	trimpot
	R....16	57.11.3184	180 kOhm	1% MF
	R....17	57.11.3302	3.0 kOhm	1% MF
	R....18	57.11.3182	1.8 kOhm	1% MF
	R....19	57.11.3223	22 kOhm	1% MF
	R....20	57.11.3822	8.2 kOhm	1% MF
	R....21	57.11.3682	6.8 kOhm	1% MF
	R....22	57.11.3682	6.8 kOhm	1% MF
	R....23	57.11.3223	22 kOhm	1% MF
	R....24	57.11.3103	10 kOhm	1% MF
	R....25	57.11.3222	2.2 kOhm	1% MF
	R....26	57.11.3102	1.0 kOhm	1% MF
	R....28	57.11.3682	6.8 kOhm	1% MF
	R....29	57.11.3682	6.8 kOhm	1% MF
	R....30	57.11.3223	22 kOhm	1% MF
	R....31	57.11.3223	22 kOhm	1% MF
	R....32	57.11.3682	6.8 kOhm	1% MF
	R....33	57.11.3302	3.0 kOhm	1% MF
	R....34	57.11.3103	10 kOhm	1% MF
	R....35	57.11.3333	33 kOhm	1% MF
	R....36	57.11.3103	10 kOhm	1% MF
	R....37	57.11.3472	4.7 kOhm	1% MF
	R....38	57.11.3684	680 kOhm	1% MF
	R....39	58.01.9104	100 kOhm	trimpot
	R....40	57.11.3184	180 kOhm	1% MF
	R....41	57.11.3302	3.0 kOhm	1% MF
	R....42	57.11.3182	1.8 kOhm	1% MF
	R....43	57.11.3223	22 kOhm	1% MF
	R....44	57.11.3223	22 kOhm	1% MF
	R....45	57.11.3822	8.2 kOhm	1% MF
	R....46	57.11.3682	6.8 kOhm	1% MF
	R....47	57.11.3682	6.8 kOhm	1% MF
	R....48	57.11.3223	22 kOhm	1% MF
	R....49	57.11.3103	10 kOhm	1% MF
	R....50	57.11.3222	2.2 kOhm	1% MF
	R....51	57.11.3102	1 kOhm	1% MF
	R....52	57.11.3103	10 kOhm	1% MF
	R....53	57.11.3104	100 kOhm	1% MF
	R....54	57.11.3103	10 kOhm	1% MF

Ad	..POS..	...REF.No...	DESCRIPTION	.....MANUFACTURER
	R....55	57.11.3104	100 kOhm	1% MF
	R....56	57.11.3913	91 kOhm	1% MF
	R....57	57.11.3514	510 kOhm	1% MF
	R....58	57.11.5335	3.3 MOhm	1% MF
	R....59	57.11.3913	91 kOhm	1% MF
	R....60	57.11.3514	510 kOhm	1% MF
	R....61	57.11.5335	3.3 MOhm	1% MF
	R....62	57.11.3104	100 kOhm	1% MF
	R....63	57.11.3104	100 kOhm	1% MF
	R....64	57.11.3104	100 kOhm	1% MF
	R....65	57.11.3104	100 kOhm	1% MF
	R....66	57.11.3000	0 Ohm	Bridge
	R....67	57.11.3000	0 Ohm	Bridge
	R....68	57.11.3103	10 kOhm	1% MF
	R....69	57.11.3822	8.2 kOhm	1% MF
	R....70	57.11.3182	1.8 kOhm	1% MF
	R....71	57.92.7013	500 mA	R - PTC 0.5 Ohm
	R....72	57.92.7013	500 mA	R - PTC 0.5 Ohm
	R....73	57.11.3102	1.0 kOhm	1% MF 5V-R Version used only (see R77)
	R....74	57.11.3682	6.8 kOhm	1% MF
	R....75	57.11.3682	6.8 kOhm	1% MF TB AF used only (see R76)
	R....76	. . 0	not used	TB PF Version used only 57.11.3133(see R75)
	R....77	. . 0	not used	5V-PTC Version used only 57.92.1121(see R73)
	RZ....1	57.88.2682	6.8 kOhm	2% 4*1 network
	RZ....2	57.88.2682	6.8 kOhm	2% 4*1 network
	RZ....3	57.88.2682	6.8 kOhm	2% 4*1 network
	RZ....4	57.88.2682	6.8 kOhm	2% 4*1 network
	RZ....5	57.88.2682	6.8 kOhm	2% 4*1 network
	RZ....6	57.88.2104	100 kOhm	2% 4*1 network
	RZ....7	57.88.2104	100 kOhm	2% 4*1 network
	RZ....8	57.88.2104	100 kOhm	2% 4*1 network
	RZ....9	57.88.2104	100 kOhm	2% 4*1 network
	RZ...10	57.88.2104	100 kOhm	2% 4*1 network
	RZ...11	57.88.2104	100 kOhm	2% 4*1 network
	RZ...12	57.88.4104	100 kOhm	2% 8*1 network
	RZ...13	57.88.4104	100 kOhm	2% 8*1 network
	RZ...14	57.88.4104	100 kOhm	2% 8*1 network
	RZ...16	57.88.2101	100 Ohm	2% 4*1 network
05	T.....1	1.022.363.81		Line Output-Trafo
05	T.....2	1.022.363.81		Line Output-Trafo

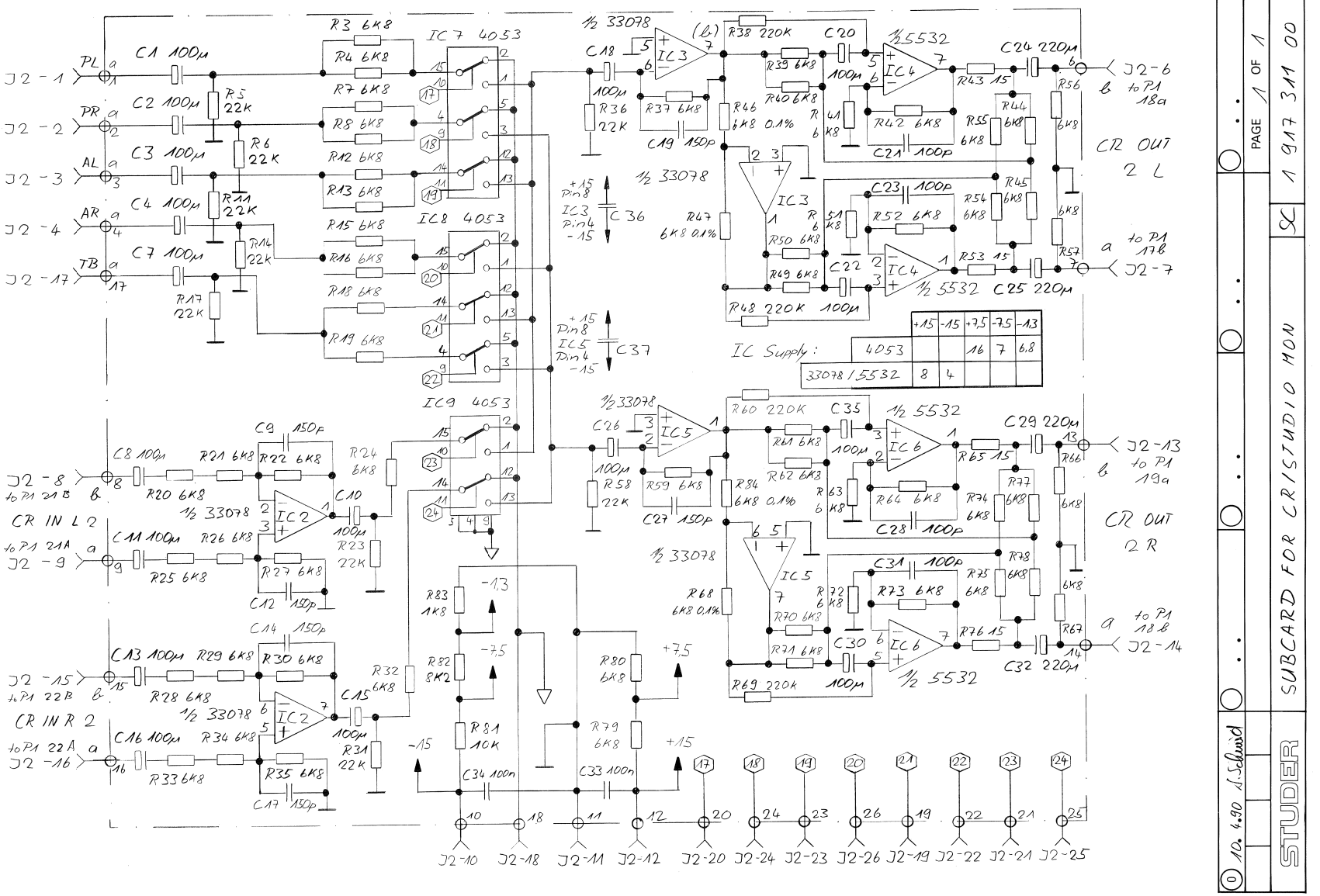
index (4) 29.02.92 Rohrniete neu 7.0 statt 6.5 mm
(5) 23.11.93 Trafo 1.022.363.81 Ri < 40 Ohm
CE = Ceramic, PE=Polyester

MANUFACTURER: St = STUDER

1.917.310.00	CR/STUDIO-MONITOR AMPLIFIER	SCA88/10/1000
1.917.310.00	CR/STUDIO-MONITOR AMPLIFIER	SCA90/12/1401
1.917.310.00	CR/STUDIO-MONITOR AMPLIFIER	SCA91/04/2402
1.917.310.00	CR/STUDIO-MONITOR AMPLIFIER	SE92/07/0203
1.917.310.00	CR/STUDIO-MONITOR AMPLIFIER	SE92/02/2904
1.917.310.00	CR/STUDIO-MONITOR AMPLIFIER	FRI93/11/2305

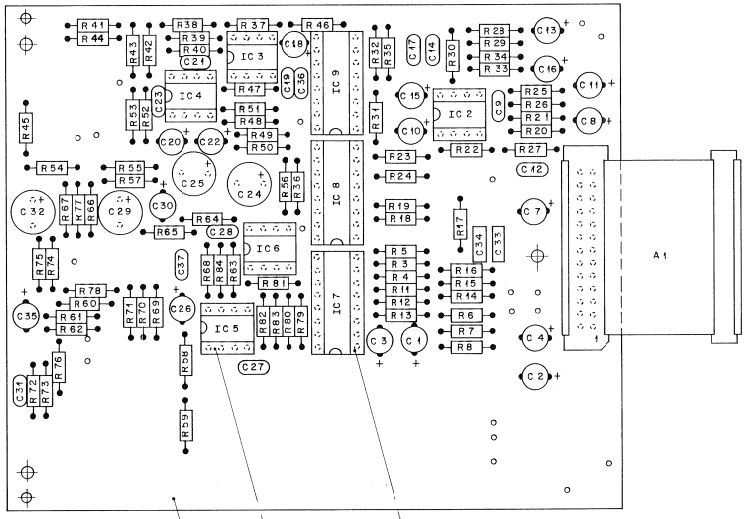
SUBCARD FOR CR/STUDIO MON

1.917.311.00



SUBCARD FOR CR/STUDIO MON

1.917.311.00



Änderung					
Ausgabe	21.9.89				
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: SUBCARD FOR C.R. STUDIO MON. ESE	Nummer: 1.917. 311-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
A	1	1.023.112.01	Flachkabel 26 Pol	ST
C	1	59.22.3101	100 uF EL 10V	
C	2	59.22.3101	100 uF EL 10V	
C	3	59.22.3101	100 uF EL 10V	
C	4	59.22.3101	100 uF EL 10V	
C	7	59.22.3101	100 uF EL 10V	
C	8	59.22.3101	100 uF EL 10V	
C	9	59.34.7151	150 pF CE 63V 2%	
C	10	59.22.3101	100 uF EL 10V	
C	11	59.22.3101	100 uF EL 10V	
C	12	59.34.7151	150 pF CE 63V 2%	
C	13	59.22.3101	100 uF EL 10V	
C	14	59.34.7151	150 pF CE 63V 2%	
C	15	59.22.3101	100 uF EL 10V	
C	16	59.22.3101	100 uF EL 10V	
C	17	59.34.7151	150 pF CE 63V 2%	
C	18	59.22.3101	100 uF EL 10V	
C	19	59.34.7151	150 pF CE 63V 2%	
C	20	59.22.3101	100 uF EL 10V	
C	21	59.34.4101	100 pF CE 63V 2%	
C	22	59.22.3101	100 uF EL 10V	
C	23	59.34.4101	100 pF CE 63V 2%	
C	24	59.22.4221	220 uF EL 16V	
C	25	59.22.4221	220 uF EL 16V	
C	26	59.22.3101	100 uF EL 10V	
C	27	59.34.7151	150 pF CE 63V 2%	
C	28	59.34.4101	100 pF CE 63V 2%	
C	29	59.22.4221	220 uF EL 16V	
C	30	59.22.3101	100 uF EL 10V	
C	31	59.34.4101	100 pF CE 63V 2%	
C	32	59.22.4221	220 uF EL 16V	
C	33	59.06.0104	100 nF PE 63V	
C	34	59.06.0104	100 nF PE 63V	
C	35	59.22.3101	100 uF EL 10V	
C	36	59.06.0103	10 nF PE 63V	
C	37	59.06.0103	10 nF PE 63V	
IC	2	50.09.0117	MC33078 dual op. amp.	
IC	3	50.09.0117	MC33078 dual op. amp.	
IC	4	50.09.0105	NE5532N dual op. amp.	
IC	5	50.09.0117	MC33078 dual op. amp.	
IC	6	50.09.0105	NE5532N dual op. amp.	
IC	7	50.07.0015	CD4053 triple 2 ch. analog mux/demux	
IC	8	50.07.0015	CD4053 triple 2 ch. analog mux/demux	
IC	9	50.07.0015	CD4053 triple 2 ch. analog mux/demux	
MP	1	1.917.311.11	1 pcs SUB-PCB for CR/Studio Monitor	
MP	2	53.03.0166	5 pcs IC-Socket 8-pin	
MP	3	53.03.0168	3 pcs IC-Socket 16-pin	
MP	4	43.01.0108	1 pcs ESE-Schild	
MP	5	1.917.311.04	1 pcs Nr-Etikette 5*20	
R	3	57.11.3682	6.8 kOhm 1% MF	
R	4	57.11.3682	6.8 kOhm 1% MF	
R	5	57.11.3223	22 kOhm 1% MF	
R	6	57.11.3223	22 kOhm 1% MF	
R	7	57.11.3682	6.8 kOhm 1% MF	
R	8	57.11.3682	6.8 kOhm 1% MF	
R	11	57.11.3223	22 kOhm 1% MF	
R	12	57.11.3682	6.8 kOhm 1% MF	
R	13	57.11.3682	6.8 kOhm 1% MF	
R	14	57.11.3223	22 kOhm 1% MF	
R	15	57.11.3682	6.8 kOhm 1% MF	
R	16	57.11.3682	6.8 kOhm 1% MF	
R	17	57.11.3223	22 kOhm 1% MF	
R	18	57.11.3682	6.8 kOhm 1% MF	
R	19	57.11.3682	6.8 kOhm 1% MF	
R	20	57.11.3682	6.8 kOhm 1% MF	
R	21	57.11.3682	6.8 kOhm 1% MF	
R	22	57.11.3682	6.8 kOhm 1% MF	
R	23	57.11.3223	22 kOhm 1% MF	
R	24	57.11.3682	6.8 kOhm 1% MF	
R	25	57.11.3682	6.8 kOhm 1% MF	
R	26	57.11.3682	6.8 kOhm 1% MF	
R	27	57.11.3682	6.8 kOhm 1% MF	
R	28	57.11.3682	6.8 kOhm 1% MF	
R	29	57.11.3682	6.8 kOhm 1% MF	
R	30	57.11.3682	6.8 kOhm 1% MF	
R	31	57.11.3223	22 kOhm 1% MF	
R	32	57.11.3682	6.8 kOhm 1% MF	
R	33	57.11.3682	6.8 kOhm 1% MF	
R	34	57.11.3682	6.8 kOhm 1% MF	
R	35	57.11.3682	6.8 kOhm 1% MF	
R	36	57.11.3223	22 kOhm 1% MF	
R	37	57.11.3682	6.8 kOhm 1% MF	
R	38	57.11.3224	220 kOhm 1% MF	
R	39	57.11.3682	6.8 kOhm 1% MF	
R	40	57.11.3682	6.8 kOhm 1% MF	
R	41	57.11.3682	6.8 kOhm 1% MF	
R	42	57.11.3682	6.8 kOhm 1% MF	
R	43	57.11.3150	15 Ohm 1% MF	
R	44	57.11.3682	6.8 kOhm 1% MF	
R	45	57.11.3682	6.8 kOhm 1% MF	
R	46	57.99.0250	6.8 kOhm 0.1%	
R	47	57.99.0250	6.8 kOhm 0.1%	
R	48	57.11.3224	220 kOhm 1% MF	
R	49	57.11.3682	6.8 kOhm 1% MF	
R	50	57.11.3682	6.8 kOhm 1% MF	
R	51	57.11.3682	6.8 kOhm 1% MF	
R	52	57.11.3682	6.8 kOhm 1% MF	
R	53	57.11.3150	15 Ohm 1% MF	
R	54	57.11.3682	6.8 kOhm 1% MF	
R	55	57.11.3682	6.8 kOhm 1% MF	
R	56	57.11.3682	6.8 kOhm 1% MF	
R	57	57.11.3682	6.8 kOhm 1% MF	
R	58	57.11.3223	22 kOhm 1% MF	
R	59	57.11.3682	6.8 kOhm 1% MF	
R	60	57.11.3224	220 kOhm 1% MF	
R	61	57.11.3682	6.8 kOhm 1% MF	
R	62	57.11.3682	6.8 kOhm 1% MF	
R	63	57.11.3682	6.8 kOhm 1% MF	
R	64	57.11.3682	6.8 kOhm 1% MF	
R	65	57.11.3150	15 Ohm 1% MF	
R	66	57.11.3682	6.8 kOhm 1% MF	
R	67	57.11.3682	6.8 kOhm 1% MF	
R	68	57.99.0250	6.8 kOhm 0.1%	
R	69	57.11.3224	220 kOhm 1% MF	
R	70	57.11.3682	6.8 kOhm 1% MF	
R	71	57.11.3682	6.8 kOhm 1% MF	
R	72	57.11.3682	6.8 kOhm 1% MF	
R	73	57.11.3682	6.8 kOhm 1% MF	
R	74	57.11.3682	6.8 kOhm 1% MF	
R	75	57.11.3682	6.8 kOhm 1% MF	
R	76	57.11.3150	15 Ohm 1% MF	
R	77	57.11.3682	6.8 kOhm 1% MF	
R	78	57.11.3682	6.8 kOhm 1% MF	
R	79	57.11.3682	6.8 kOhm 1% MF	
R	80	57.11.3682	6.8 kOhm 1% MF	
R	81	57.11.3103	10 kOhm 1% MF	
R	82	57.11.3822	8.2 kOhm 1% MF	
R	83	57.11.3182	1.8 kOhm 1% MF	
R	84	57.99.0250	6.8 kOhm 0.1%	
R	85	. . 0	not used	
R	86	. . 0	not used	

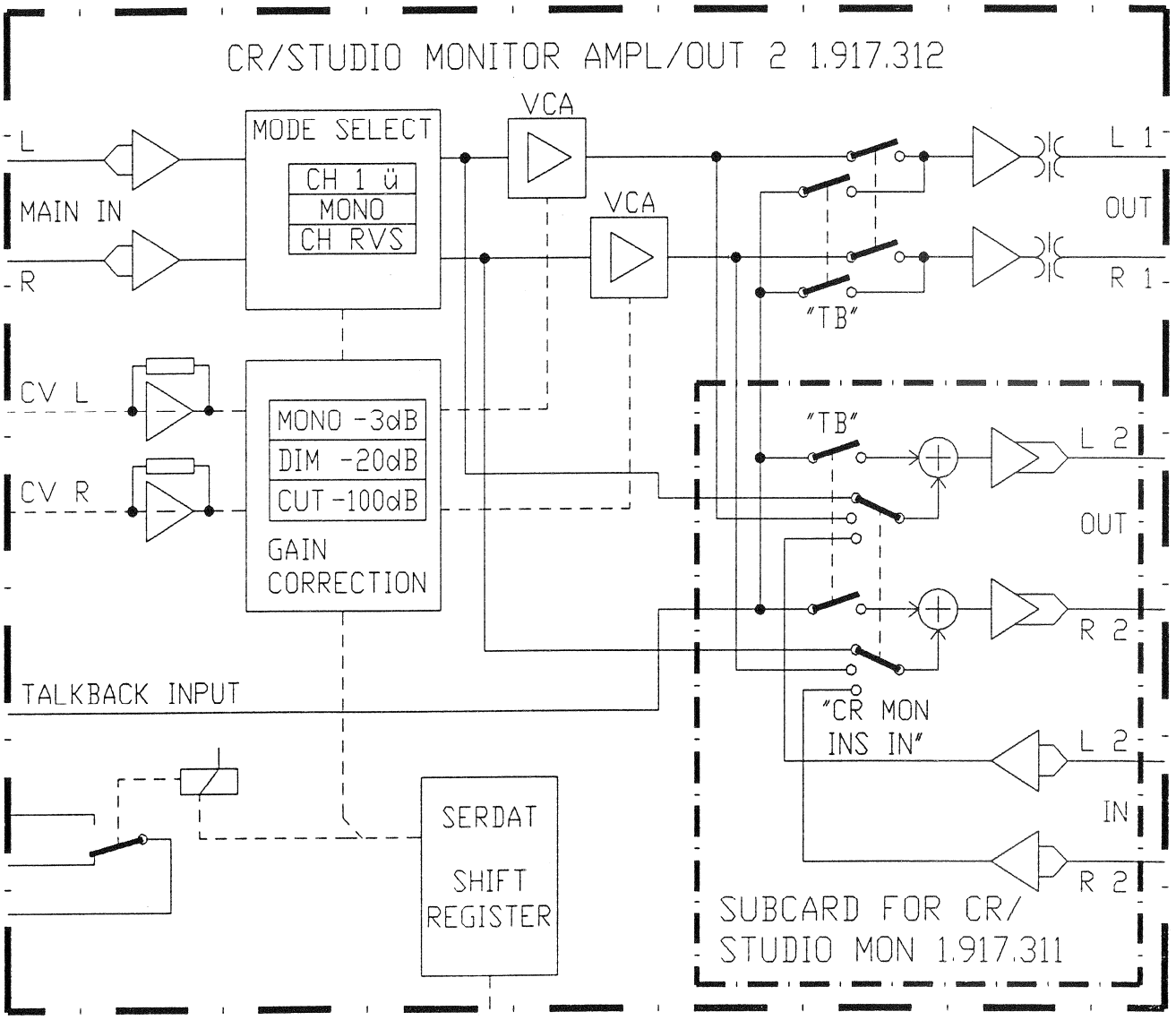
CER=Ceramic, PE=Polyester
MF=Metal Film, PMG=Cermet

MANUFACTURER: Ex=Exar, NEC=Nippon Electric Corp., Ph=Philips, Ra=Raytheon, Sig=Signetics, St=Studer.

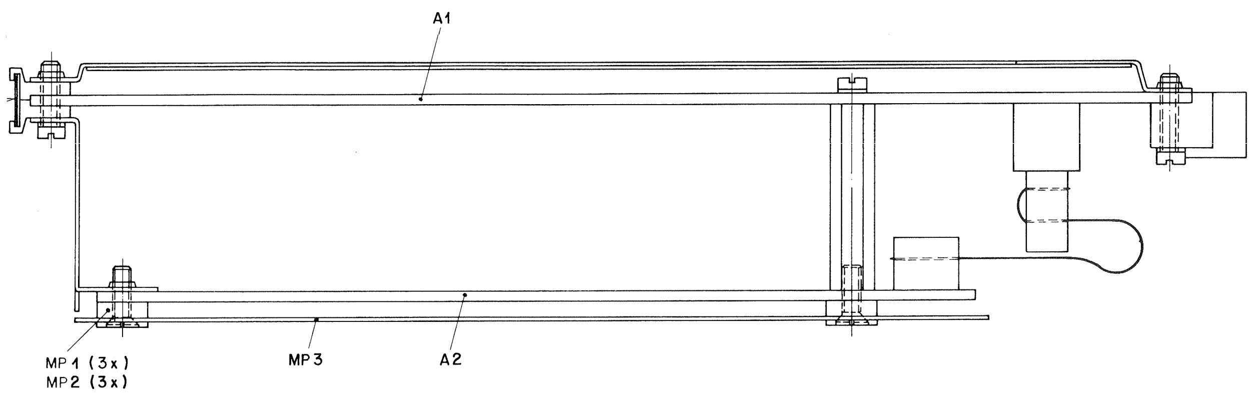
1.917.311.00 SUBCARD FOR C.R./STUDIO MON. SCA88/10/1000

END

CR / STUDIO MONITOR AMPLIFIER / OUT 1.917.312.00



CR / STUDIO MONITOR AMPLIFIER / OUT 2 1.917.312.00



Änderung					
					3
					2
					1
Ausgabe	30.1.90	A.Ho	Vb	SCA	0
	Datum	Gez	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: C.R./STUDIO MONITOR AMPL./OUT 2	Nummer: 1.917.312-00

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Ad  ..POS..  ...REF.No...    DESCRIPTION............................MANUFACTURER

    A.....1  1.917.310.00             CR/STUDIO MONITOR AMP. ,A
    A.....2  1.917.311.00             SUBCARD FOR CR/STUDIO MON. ,A

    MP....1    21.01.2279    3 pcs    S-SCHR. ,ZN,M2.5*6
01  MP....1    21.01.2280    3 pcs    S-SCHR. ,ZN,M2.5*8
    MP....2  1.917.142.02    3 pcs    Isolierhuelse
    MP....3  1.917.142.03    1 pcs    Isolation
    MP....4  1.917.312.01    1 pcs    Bezeichnungsstreifen 6,3 * 91

(01)   90/03/01   MP 1  Screws were too short

CER=Ceramic, PE=Polyester
MF=Metal Film, PMG=Cermet

MANUFACTURER: Ex=Exar, NEC=Nippon Electric Corp., Ph=Philips, Ra=Raytheon,
              Sig=Signetics, St=Studer.

             1.917.312.00  CR/STUDIO-MONITOR AMPL/OUT 2  SCA90/08/0100

             1.917.312.00  CR/STUDIO-MONITOR AMPL/OUT 2  SCA90/03/0101
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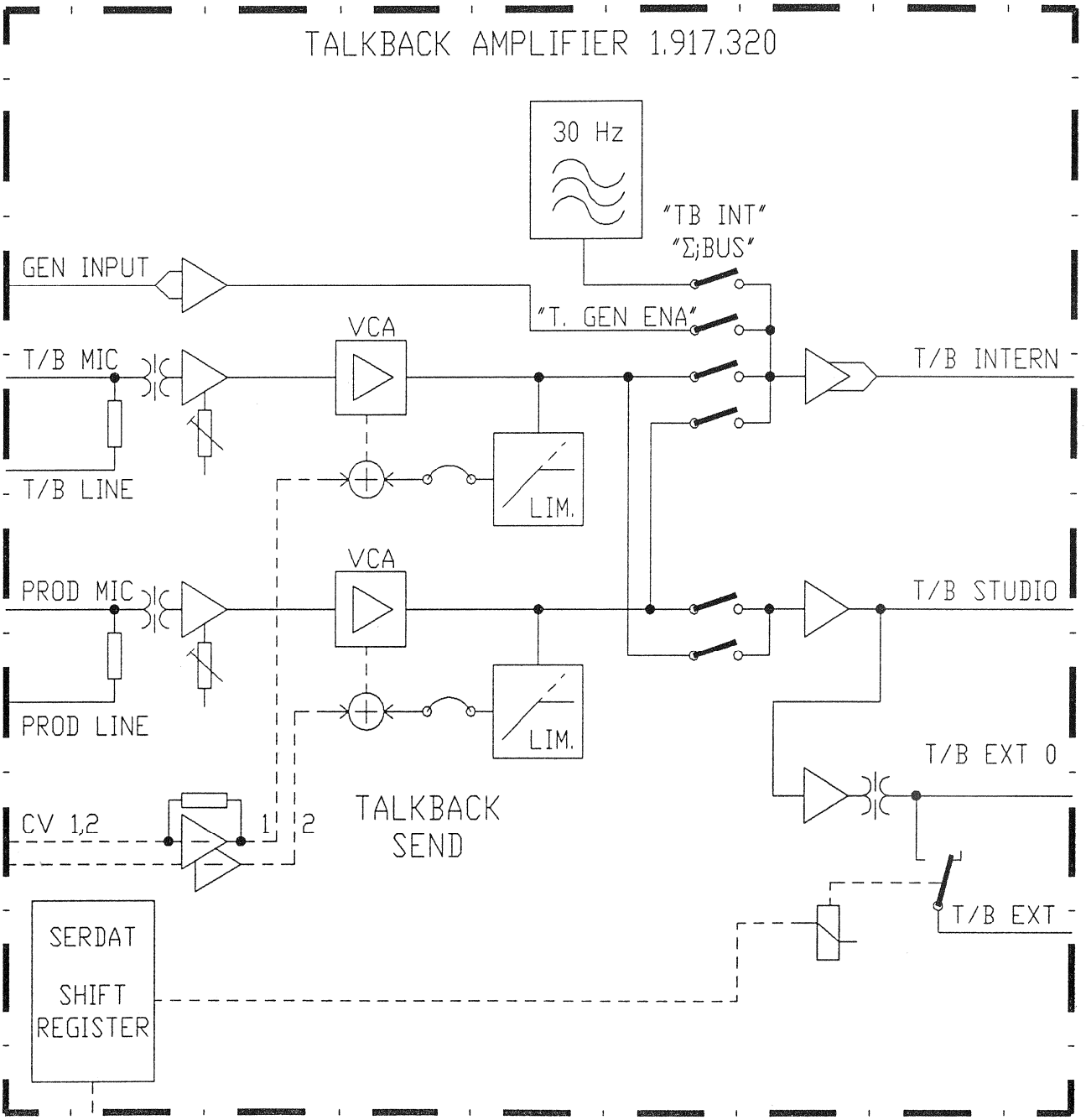
TALKBACK AMPLIFIER 1.917.320.00



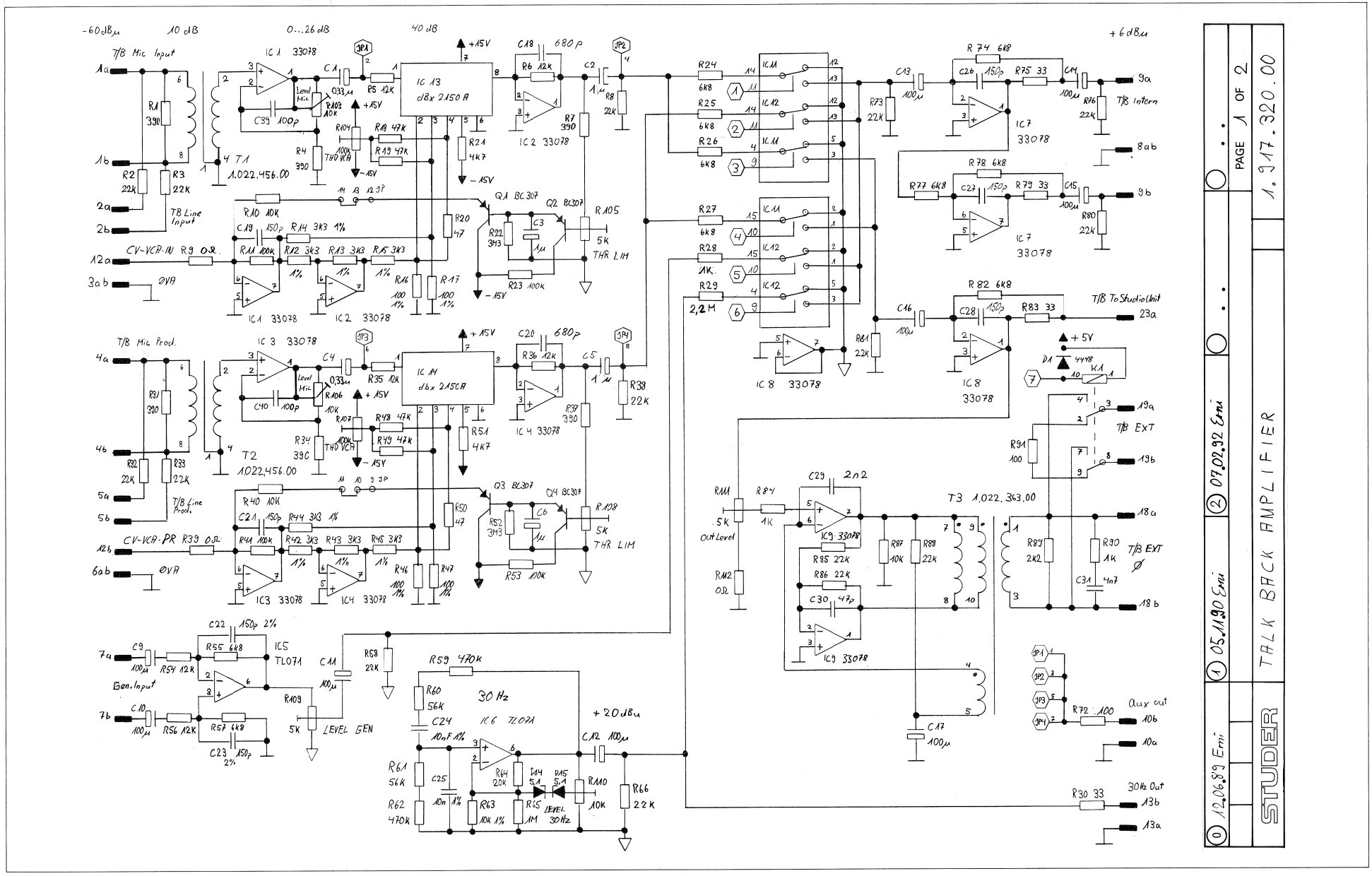
Pin location list

1.917.320

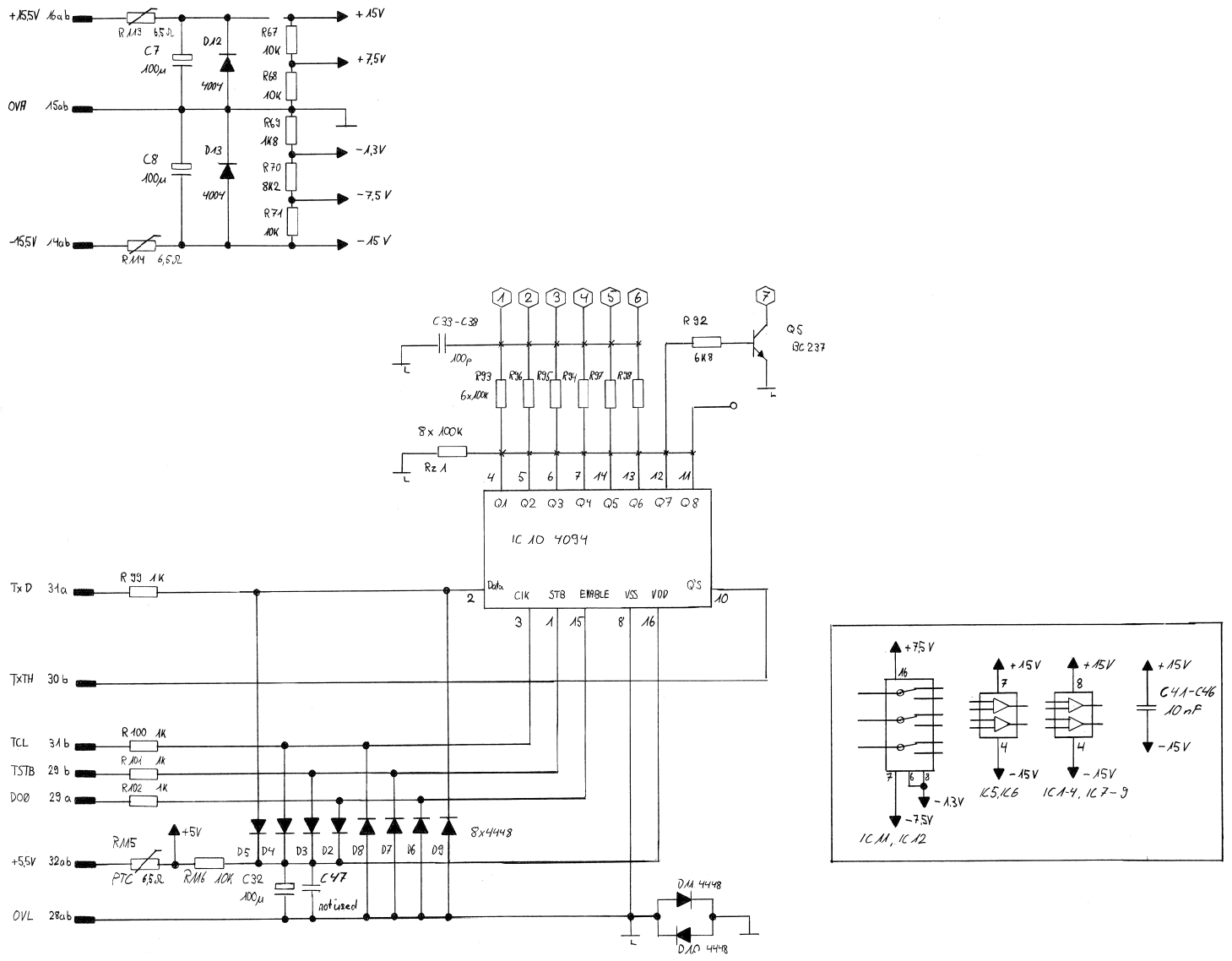
P	NO	NAME	REMARK	B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC		
P1	01A	TB-MIC -IN-a	TALKBACK MIC INPUT a	O,S		
P1	01B	TB-MIC -IN-b	TALKBACK MIC INPUT b	O,S		
P1	02A	TB-LINE-IN-a	TALKBACK LINE INPUT a	O,S		
P1	02B	TB-LINE-IN-b	TALKBACK LINE INPUT b	O,S		
P1	03	0V-A	GROUND AUDIO		X	X
P1	04A	TB-MIC -PR-a	TALKBACK MIC PRODUCER a	O,S		
P1	04B	TB-MIC -PR-b	TALKBACK MIC PRODUDER b	O,S		
P1	05A	TB-LINE-PR-a	TALKBACK LINE PRODUCER a	O,S		
P1	05B	TB-LINE-PR-b	TALKBACK LINE PRODUCER b	O,S		
P1	06	0V-A	GROUND AUDIO		X	X
P1	07A	OSZ-IN-a	OSZILATOR INPUT a	O,S		
P1	07B	OSZ-IN-b	OSZILATOR INPUT b	O,S		
P1	08	0V-A	GROUND AUDIO TALKBACK INTERN		X	X
P1	09A	TB-INT-a	OUTPUT ; TALKBACK INTERN a	O,S		
P1	09B	TB-INT-b	OUTPUT ; TALKBACK INTERN b	O,S		
P1	10A	0V-A	GROUND AUDIO		X	X
P1	10B	AUX-OUT	AUX OUTPUT	O,AS		
P1	11A	-	N.C.			
P1	11B	-	N.C.			
P1	12A	CV-VCA-IN	CONTROL VOLTAGE VCA INPUT			
P1	12B	CV-VCA-PR	CONTROL VOLTAGE VCA PRODUCER			
P1	13A	0V-A	GROUND AUDIO			
P1	13B	30HZ-OUT	30HZ OUTPUT	O,AS		
P1	14	- 15.5V	- SUPPLY	B	X	X
P1	15	0V-A	GROUND AUDIO	B	X	X
P1	16	+ 15.5V	+ SUPPLY	B	X	X
P1	17	0V-A	GROUND AUDIO		X	X
P1	18A	TB-EXT-0-a	OUTPUT ; TALKBACK EXTERN 0 a	O,S		
P1	18B	TB-EXT-0-b	OUTPUT ; TALKBACK EXTERN 0 b	O,S		
P1	19A	TB-EXT-1-a	OUTPUT ; TALKBACK EXTERN 1 a	O,S		
P1	19B	TB-EXT-1-b	OUTPUT ; TALKBACK EXTERN 1 b	O,S		
P1	20A	-	N.C.			
P1	20B	-	N.C.			
P1	21A	-	N.C.			
P1	21B	-	N.C.			
P1	22A	-	N.C.			
P1	22B	-	N.C.			
P1	23A	TB TO STUDIO	OUTPUT ; TALKBACK TO STUDIO	O,S		
P1	23B	-	N.C.			
P1	24A	-	N.C.			
P1	24B	-	N.C.			
P1	25A	-	N.C.			
P1	25B	-	N.C.			
P1	26A	-	N.C.			
P1	26B	-	N.C.			
P1	27A	-	N.C.			
P1	27B	-	N.C.			
P1	28	0V-L	GROUND SIGN (LOGIC)	B	X	X
P1	29A	DO 0	DATA OUT 0 (ENABLE)			
P1	29B	TSTB 4	TRANSMIT STROBE 4			
P1	30A	-	RES			
P1	30B	TXTH	TRANSMIT DATA THROUGH			
P1	31A	TXD	TRANSMIT DATA			
P1	31B	TCL	TRANSMIT CLOCK			
P1	32	+ 5.5V	+ SUPPLY	B	X	X

TALKBACK AMPLIFIER

1.917.320.00



TALKBACK AMPLIFIER ESE 1.917.320.00

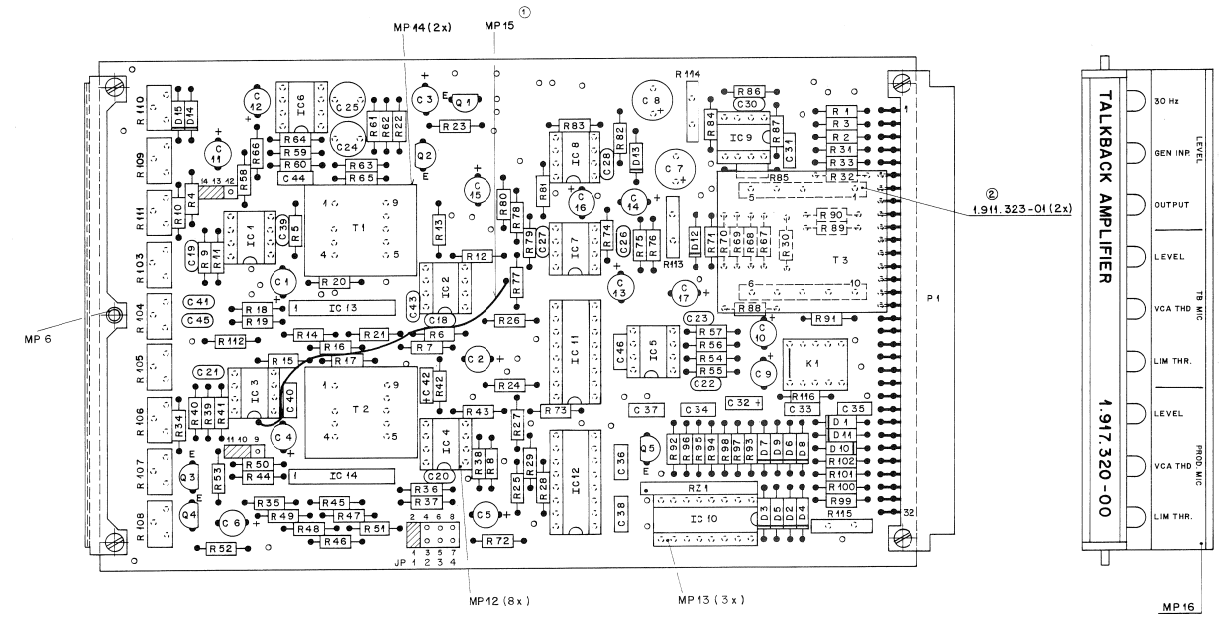


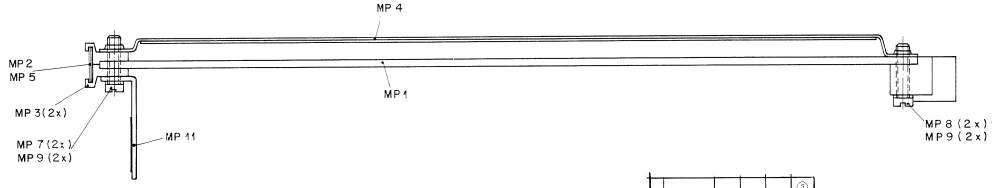
0 12.06.89 Emi | 1 05.11.90 Emi | 2 07.02.92 Emi | PAGE 2 OF 2

STUDER TALKBACK AMPLIFIER 1.917.320.00

TALKBACK AMPLIFIER

1.917.320.00





Änderung	15.11.90				3
	20.4.90				2
Ausgabe	31.10.89				1
Datum	Gez.	Gepr.	Ges.	Index	

Kopie für:

STUDER REGENSDORF ZÜRICH | Benennung: TALKBACK AMPLIFIER ESE | Nummer: 1.917.320-00

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	C....1	59.06.5334	0.33 uF		PE	
	C....2	59.06.5105	1 uF		PE	
	C....3	59.22.8109	1 uF		EL	
	C....4	59.06.5334	0.33 uF		PE	
	C....5	59.06.5105	1 uF		PE	
	C....6	59.22.8109	1 uF		EL	
	C....7	59.22.5101	100 uF	25V	EL	
	C....8	59.22.5101	100 uF	25V	EL	
	C....9	59.22.3101	100 uF	10V	EL	
	C....10	59.22.3101	100 uF	10V	EL	
	C....11	59.22.3101	100 uF	10V	EL	
	C....12	59.22.3101	100 uF	10V	EL	
	C....13	59.22.3101	100 uF	10V	EL	
	C....14	59.22.3101	100 uF	10V	EL	
	C....15	59.22.3101	100 uF	10V	EL	
	C....16	59.22.3101	100 uF	10V	EL	
	C....17	59.22.3101	100 uF	10V	EL	
	C....18	59.32.2681	680 pF		CER	
	C....19	59.34.7151	150 pF		CER	
	C....20	59.32.2681	680 pF		CER	
	C....21	59.34.7151	150 pF		CER	
	C....22	59.34.7151	150 pF		CER	
	C....23	59.34.7151	150 pF		CER	
	C....24	59.05.1103	10 nF	1%	PP	
	C....25	59.05.1103	10 nF	1%	PP	
	C....26	59.34.7151	150 pF		CER	
	C....27	59.34.7151	150 pF		CER	
	C....28	59.34.7151	150 pF		CER	
	C....29	- - -	not used			
04	C....29	59.06.0222	2.2 nF		PE	
	C....30	59.34.2470	47 pF		CER	
	C....31	59.06.0472	4.7 nF		PE	
	C....32	59.22.3101	100 uF		EL	
	C....33	59.06.0103	10 nF		PE	
01	C....33	59.34.4101	100 pF		CER	
	C....34	59.06.0103	10 nF		PE	
01	C....34	59.34.4101	100 pF		CER	
	C....35	59.06.0103	10 nF		PE	
01	C....35	59.34.4101	100 pF		CER	
	C....36	59.06.0103	10 nF		PE	
01	C....36	59.34.4101	100 pF		CER	
	C....37	59.06.0103	10 nF		PE	
01	C....37	59.34.4101	100 pF		CER	
	C....38	59.06.0103	10 nF		PE	
01	C....38	59.34.4101	100 pF		CER	
	C....39	59.34.1100	10 pF		CER	
01	C....39	59.34.4101	100 pF		CER	
	C....40	59.34.1100	10 pF		CER	
01	C....40	59.34.4101	100 pF		CER	
	C....41	59.06.0103	10 nF		PE	
	C....42	59.06.0103	10 nF		PE	
	C....43	59.06.0103	10 nF		PE	
	C....44	59.06.0103	10 nF		PE	
	C....45	59.06.0103	10 nF		PE	
	C....46	59.06.0103	10 nF		PE	
	C....47	59.06.0103	10 nF		PE	
01	C....47	- - -			not used	
	D....1	50.04.0125	1N4448			any
	D....2	50.04.0125	1N4448			any
	D....3	50.04.0125	1N4448			any
	D....4	50.04.0125	1N4448			any
	D....5	50.04.0125	1N4448			any
	D....6	50.04.0125	1N4448			any
	D....7	50.04.0125	1N4448			any
	D....8	50.04.0125	1N4448			any
	D....9	50.04.0125	1N4448			any
	D....10	50.04.0125	1N4448			any
	D....11	50.04.0125	1N4448			any
	D....12	50.04.0105	1N4004			any
	D....13	50.04.0105	1N4004			any
	D....14	50.04.1112	5.1 V	Zenerdiode		
	D....15	50.04.1112	5.1 V	Zenerdiode		
	IC....1	50.09.0117	MC33078P	dual op.amp.		Mo
	IC....2	50.09.0117	MC33078P	dual op.amp.		Mo
	IC....3	50.09.0117	MC33078P	dual op.amp.		Mo
	IC....4	50.09.0117	MC33078P	dual op.amp.		Mo
	IC....5	50.09.0103	TL 071	single op. amp.		Ra,Ne
	IC....6	50.09.0103	TL 071	single op. amp.		Ra,Ne
	IC....7	50.09.0117	MC33078P	dual op.amp.		Mo
	IC....8	50.09.0117	MC33078P	dual op.amp.		Mo
	IC....9	50.09.0105	NE5532N	dual op.amp.		Sig,Not,Six
03	IC....9	50.09.0117	MC33078P	dual op.amp.		Mo
	IC...10	50.07.0018	4094	shift and store bus register		
	IC...11	50.07.0015	4053	tripple 2-channel analog mux\demux		
	IC...12	50.07.0015	4053	tripple 2-channel analog mux\demux		
	IC...13	50.11.0140	dbx2150A	VCA		
	IC...14	50.11.0140	dbx2150A	VCA		
	JJ....1	54.01.0021		jumper jack		
	JJ....2	54.01.0021		jumper jack		
	JJ....3	54.01.0021		jumper jack		
	JP....1	54.01.0020		jumper plug		
	JP....2	54.01.0020		jumper plug		
	JP....3	54.01.0020		jumper plug		
	JP....4	54.01.0020		jumper plug		
	JP....5	54.01.0020		jumper plug		
	JP....6	54.01.0020		jumper plug		

TALKBACK AMPLIFIER ESE

1.917.320.00

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	JP....7	54.01.0020		jumper plug		
	JP....8	54.01.0020		jumper plug		
	JP....9	54.01.0020		jumper plug		
	JP...10	54.01.0020		jumper plug		
	JP...11	54.01.0020		jumper plug		
	JP...12	54.01.0020		jumper plug		
	JP...13	54.01.0020		jumper plug		
	JP...14	54.01.0020		jumper plug		
	K.....1	56.04.0195		SDS Relais	Type TQ2-6V	
	P.....1	54.11.2004	2*32pin	euroconnector		Bu
	Q.....1	50.03.0515	BC307	PNP	or equivalent	any
	Q.....2	50.03.0515	BC307	PNP	or equivalent	any
	Q.....3	50.03.0515	BC307	PNP	or equivalent	any
	Q.....4	50.03.0515	BC307	PNP	or equivalent	any
	Q.....5	50.03.0436	BC237	NPN	or equivalent	any
	R.....1	57.11.3391	390 Ohm			
	R.....2	57.11.3223	22 kOhm			
	R.....3	57.11.3223	22 kOhm			
	R.....4	57.11.3391	390 Ohm			
	R.....5	57.11.3123	12 kOhm			
	R.....6	57.11.3123	12 kOhm			
	R.....7	57.11.3391	390 Ohm			
	R.....8	57.11.3223	22 kOhm			
	R.....9	57.11.3104	100 kOhm			
02	R.....9	57.11.3000	0 Ohm			
	R....10	57.11.3103	10 kOhm			
	R....11	57.11.3104	100 kOhm			
	R....12	57.11.3332	3.3 kOhm	1%		
	R....13	57.11.3332	3.3 kOhm	1%		
	R....14	57.11.3332	3.3 kOhm	1%		
	R....15	57.11.3332	3.3 kOhm	1%		
	R....16	57.11.3101	100 Ohm	1%		
	R....17	57.11.3101	100 Ohm	1%		
	R....18	57.11.3473	47 kOhm			
	R....19	57.11.3473	47 kOhm			
	R....20	57.11.3470	47 Ohm			
	R....21	57.11.3472	4.7 kOhm			
	R....22	57.11.5335	3.3 MOhm			
	R....23	57.11.3104	100 kOhm			
	R....24	57.11.3682	6.8 kOhm			
	R....25	57.11.3682	6.8 kOhm			
	R....26	57.11.3682	6.8 kOhm			
	R....27	57.11.3682	6.8 kOhm			
	R....28	57.11.3222	2.2 kOhm			
01	R....28	57.11.3102	1 kOhm			
	R....29	57.11.3683	68 kOhm			
02	R....29	57.11.5225	2.2 MOhm			
	R....30	57.11.3330	33 Ohm			
	R....31	57.11.3391	390 Ohm			
	R....32	57.11.3223	22 kOhm			
	R....33	57.11.3223	22 kOhm			
	R....34	57.11.3391	390 Ohm			
	R....35	57.11.3123	12 kOhm			
	R....36	57.11.3123	12 kOhm			
	R....37	57.11.3391	390 Ohm			
	R....38	57.11.3223	22 kOhm			
	R....39	57.11.3104	100 kOhm			
02	R....39	57.11.3000	0 Ohm			
	R....40	57.11.3103	10 kOhm			
	R....41	57.11.3104	100 kOhm			
	R....42	57.11.3332	3.3 kOhm	1%		
	R....43	57.11.3332	3.3 kOhm	1%		
	R....44	57.11.3332	3.3 kOhm	1%		
	R....45	57.11.3332	3.3 kOhm	1%		
	R....46	57.11.3101	100 Ohm	1%		
	R....47	57.11.3101	100 Ohm	1%		
	R....48	57.11.3473	47 kOhm			
	R....49	57.11.3473	47 kOhm			
	R....50	57.11.3470	47 Ohm			
	R....51	57.11.3472	4.7 kOhm			
	R....52	57.11.5335	3.3 MOhm			
	R....53	57.11.3104	100 kOhm			
	R....54	57.11.3682	6.8 kOhm			
01	R....54	57.11.3123	12 kOhm			
	R....55	57.11.3682	6.8 kOhm			
	R....56	57.11.3682	6.8 kOhm			
01	R....56	57.11.3123	12 kOhm			
	R....57	57.11.3682	6.8 kOhm			
	R....58	57.11.3223	22 kOhm			
	R....59	57.11.3474	470 kOhm			
	R....60	57.11.3563	56 kOhm			
	R....61	57.11.3563	56 kOhm			
	R....62	57.11.3474	470 kOhm			
	R....63	57.11.3103	10 kOhm	1%		
	R....64	57.11.3203	20 kOhm	1%		
	R....65	57.11.3105	1 MOhm			
	R....66	57.11.3223	22 kOhm			
	R....67	57.11.3103	10 kOhm			
	R....68	57.11.3103	10 kOhm			
	R....69	57.11.3182	1.8 kOhm			
	R....70	57.11.3822	8.2 kOhm			
	R....71	57.11.3103	10 kOhm			
	R....72	57.11.3101	100 Ohm			
	R....73	57.11.3223	22 kOhm			
	R....74	57.11.3682	6.8 kOhm			
	R....75	57.11.3330	33 Ohm			
	R....76	57.11.3223	22 kOhm			
	R....77	57.11.3682	6.8 kOhm			
	R....78	57.11.3682	6.8 kOhm			
	R....79	57.11.3330	33 Ohm			
	R....80	57.11.3223	22 kOhm			
	R....81	57.11.3223	22 kOhm			
	R....82	57.11.3682	6.8 kOhm			
	R....83	57.11.3330	33 Ohm			
	R....84	57.11.3102	1 kOhm			
	R....85	57.11.3223	22 kOhm			
	R....86	57.11.3223	22 kOhm			
	R....87	57.11.3103	10 kOhm			
	R....88	57.11.3223	22 kOhm			
	R....89	57.11.3222	2.2 kOhm			
	R....90	57.11.3102	1 kOhm			
	R....91	57.11.3101	100 Ohm			
	R....92	57.11.3682	6.8 kOhm			
	R....93	57.11.3104	100 kOhm			
	R....94	57.11.3104	100 kOhm			
	R....95	57.11.3104	100 kOhm			
	R....96	57.11.3104	100 kOhm			
	R....97	57.11.3104	100 kOhm			
	R....98	57.11.3104	100 kOhm			
	R....99	57.11.3101	100 Ohm			
	R...100	57.11.3101	100 Ohm			
	R...101	57.11.3101	100 Ohm			
	R...102	57.11.3101	100 Ohm			
	R...103	58.01.9103	10 kOhm	trimpotm.		
01	R...103	58.01.7103	10 kOhm	trimpotm.	CCW	
	R...104	58.01.9104	100 kOhm	trimpotm.		
	R...105	58.01.9502	5 kOhm	trimpotm.		
	R...106	58.01.9103	10 kOhm	trimpotm.		
01	R...106	58.01.7103	10 kOhm	trimpotm.	CCW	
	R...107	58.01.9104	100 kOhm	trimpotm.		
	R...108	58.01.9502	5 kOhm	trimpotm.		
	R...109	58.01.9502	5 kOhm	trimpotm.		
	R...110	58.01.9103	10 kOhm	trimpotm.		
	R...111	57.11.3103	10 kOhm			
01	R...111	58.01.9502	5 kOhm	trimpotm.		
	R...112	57.11.3000	0 Ohm			
	R...113	57.92.1271		PTC, 270mA, ca. 6.5 Ohm		
	R...114	57.92.1271		PTC, 270mA, ca. 6.5 Ohm		
	R...115	57.92.1271		PTC, 270mA, ca. 6.5 Ohm		
	R...116	57.11.3103	10 kOhm			
01	RZ....1	57.88.4104	100 kOhm	8*100kOhm		
	T.....1	1.022.456.00		input trafo 1:2.24		STUDER
	T.....2	1.022.456.00		input trafo 1:2.24		STUDER
06	T.....3	1.022.363.81		trafo		STUDER
	MP....1	1.917.320.11	1 pcs	Print		Studer
	MP....2	1.917.320.01	1 pcs	Bez. Streifen 6.3*91		Studer
	MP....3	1.010.006.33	2 pcs	Griffhaelften		Studer
	MP....4	1.010.090.49	1 pcs	Abschirmblech		Studer
	MP....5	1.010.096.49	1 pcs	Klarsicht Schild		
	MP....6	28.21.1380	1 pcs	Rohrniete D2.5/6		
05	MP....6	28.21.1390	1 pcs	Rohrniete D 2.25 * 7.0		
	MP....7	21.01.0280	2 pcs	Z - Schraube M2.5*8		
	MP....8	21.01.0281	2 pcs	Z - Schraube M2.5*10		
	MP....9	24.16.1025	4 pcs	Rippenscheibe D2.7/5		
	MP...10	43.01.0108	1 pcs	ESE-Warnschild		
	MP...11	1.915.001.02	1 pcs	Winkel fuer Poti		Studer
	MP...12	53.03.0166	9 pcs	IC-Sockel 8 Pin		
	MP...13	53.03.0168	3 pcs	IC-Sockel 16 Pin		
	MP...14	1.022.400.03	2 pcs	Isolation zu Trafo		Studer
01	MP...15	1.010.112.64	1 pcs	Draht isoliert 68mm		
01	MP...16	1.917.320.02	1 pcs	Schild Potmeterbeschriftung		Studer

01)Seriebereinigung
02)Pegelbereich des 30HZ Gen. korr. und Regelbereich T/B vergroessert.
03)Ein-Ausschaltknallen verbessert.
04)Trafostufe angepasst
05)Rohrniete neu 7.0 statt 6.5 mm
06)Trafo 1.022.363.81 Ri < 40 Ohm

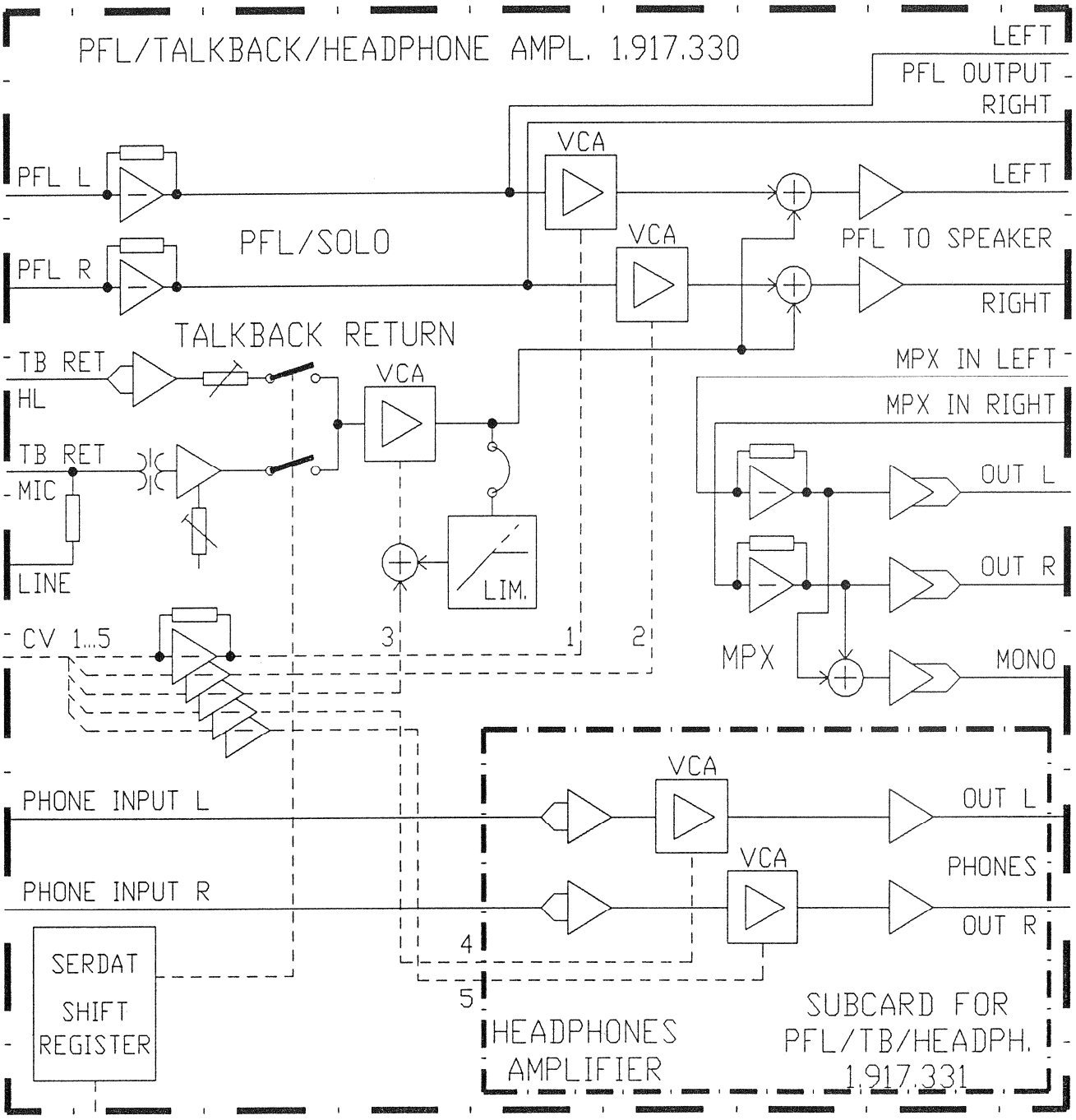
CER=ceramic, EL=electrolytic, PE=polyester, PP=polypropylen

MANUFACTURER: Bu=Burndy, GI=General Instruments
Mot=Motorola, NS=National Semiconductors, Ra=Raytheon,
Sie=Siemens, Sig=Signetics, Six=Siliconix,
TI=Texas Instruments

1.917.320.00	TALKBACK AMPLIFIER	SE88/06/0900
1.917.320.00	TALKBACK AMPLIFIER	SE90/04/2001
1.917.320.00	TALKBACK AMPLIFIER	SE90/11/0502
1.917.320.00	TALKBACK AMPLIFIER	SE91/01/0903
1.917.320.00	TALKBACK AMPLIFIER	SE92/07/0204
1.917.320.00	TALKBACK AMPLIFIER	SE92/02/2905
1.917.320.00	TALKBACK AMPLIFIER	FRI93/11/2306

END

PFL / TALKBACK HEADPHONE AMPLIFIER 1.917.330.81



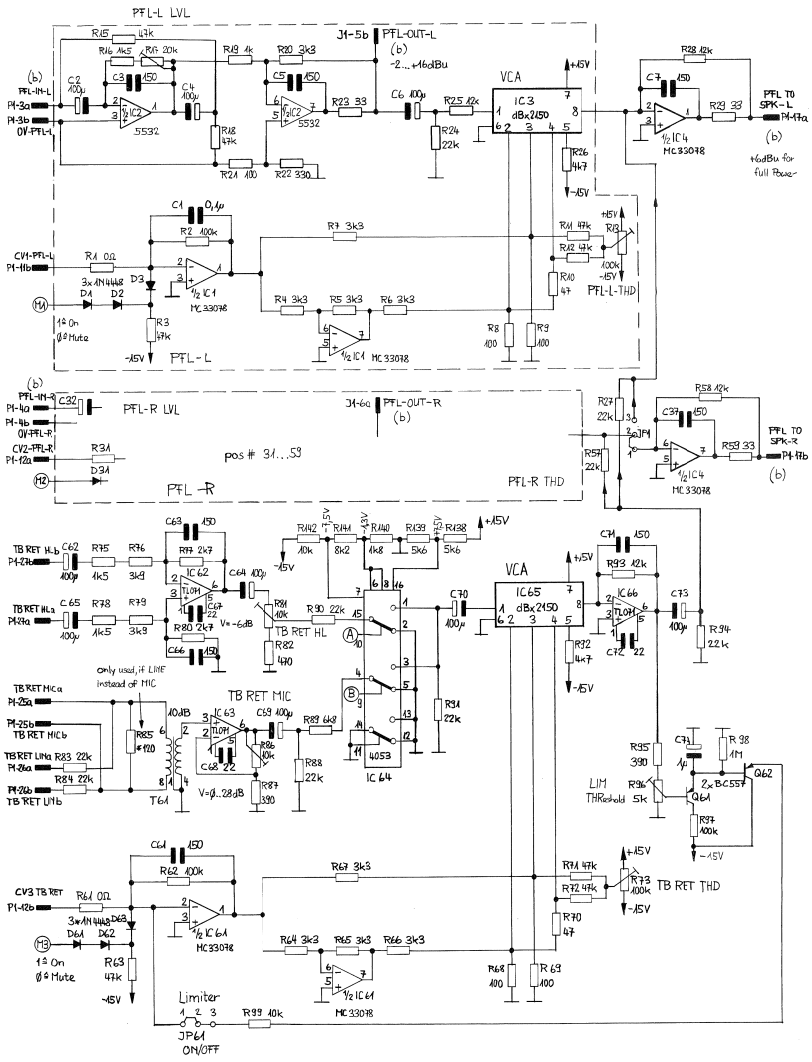
Pin location list

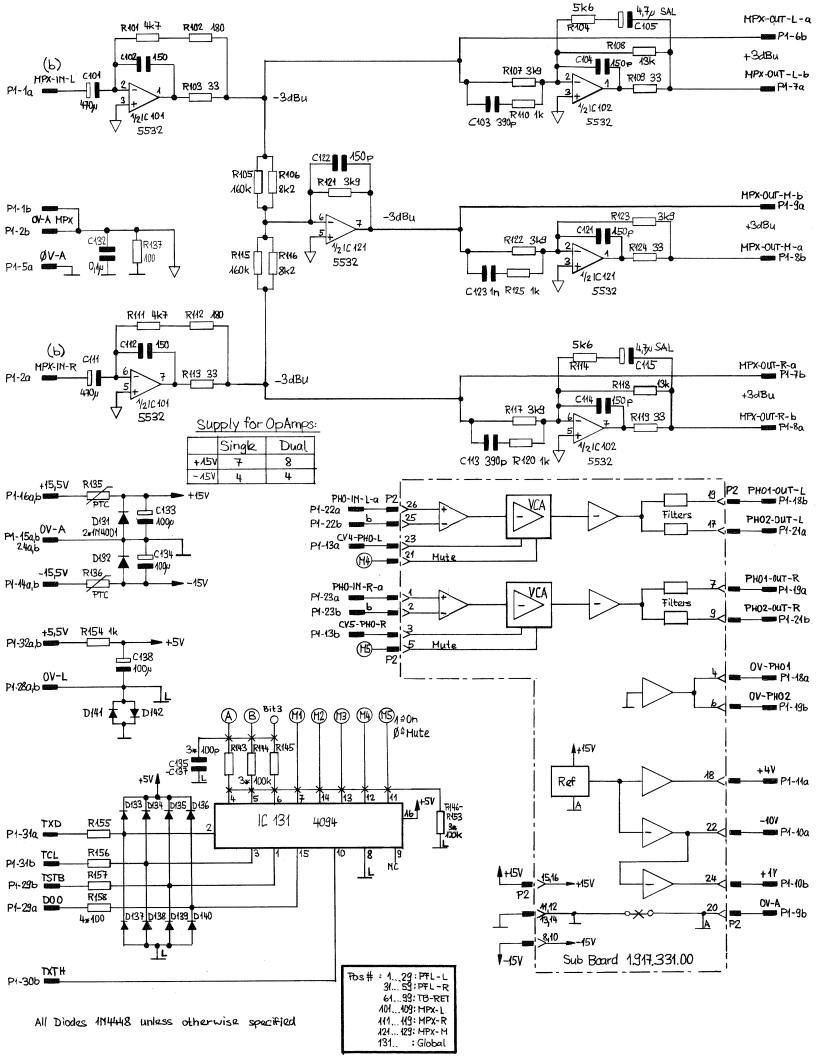
1.917.330

P	NO	NAME	REMARK	B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC		
P1	01A	MPX-IN-L	MULTIPLEX INPUT LEFT	O,AS		
P1	01B	0V-A MPX	GROUND AUDIO MPX	O		
P1	02A	MPX-IN-R	MULTIPLEX INPUT RIGHT	O,AS		
P1	02B	0V-A MPX	GROUND AUDIO MPX	O		
P1	03A	PFL-IN-L	PFL INPUT LEFT	O,AS		
P1	03B	0V PFL-L	GROUND AUDIO PFL LEFT	O		
P1	04A	PFL-IN-R	PFL INPUT RIGHT	O,AS		
P1	04B	0V PFL-R	GROUND AUDIO PFL RIGHT	O		
P1	05A	0V-A	GROUND AUDIO			
P1	05B	PFL-OUT-L	PFL OUTPUT LEFT	O,AS		
P1	06A	PFL-OUT-R	PFL OUTPUT RIGHT	O,AS		
P1	06B	MPX-OUT-L-a	MULTIPLEX OUTPUT LEFT a	O,S		
P1	07A	MPX-OUT-L-b	MULTIPLEX OUTPUT LEFT b	O,S		
P1	07B	MPX-OUT-R-a	MULTIPLEX OUTPUT RIGHT a	O,S		
P1	08A	MPX-OUT-R-b	MULTIPLEX OUTPUT RIGHT b	O,S		
P1	08B	MPX-OUT-M-a	MULTIPLEX OUTPUT MASTER a	O,S		
P1	09A	MPX-OUT-M-b	MULTIPLEX OUTPUT MASTER b	O,S		
P1	09B	0V-A	GROUND AUDIO			
P1	10A	-10V	CONTROL VOLTAGE VCA			
P1	10B	+1V	CONTROL VOLTAGE VCA			
P1	11A	+4V	CONTROL VOLTAGE VCA			
P1	11B	CV 1-PFL-L	CTRL.VOLTAGE VCA 1 PFL LEFT			
P1	12A	CV 2-PFL-R	CTRL.VOLTAGE VCA 2 PFL RIGHT			
P1	12B	CV 3-TB RET	CTRL.VOLTAGE VCA 3 TB RETURN			
P1	13A	CV 4-PHO-L	CTRL.VOLTAGE VCA 4 PHONE L			
P1	13B	CV 5-PHO-R	CTRL.VOLTAGE VCA 5 PHONE R			
P1	14	- 15.5V	- SUPPLY	B	X	X
P1	15	0V-A	GROUND AUDIO	B	X	X
P1	16	+ 15.5V	+ SUPPLY	B	X	X
P1	17A	PFL TO SPK-L	PFL TO SPEAKER LEFT	O,AS		
P1	17B	PFL TO SPK-R	PFL TO SPEAKER RIGHT	O,AS		
P1	18A	0V-PHO1	GROUND AUDIO PHONE 1	O		
P1	18B	PHO1-OUT-L	PHONE 1 OUTPUT LEFT	O,AS		
P1	19A	PHO1-OUT-R	PHONE 1 OUTPUT RIGHT	O,AS		
P1	19B	0V PHO2	GROUND AUDIO PHONE 2	O		
P1	20A	-	RES			
P1	20B	-	RES			
P1	21A	PHO2-OUT-L	PHONE 2 OUTPUT LEFT	O,AS		
P1	21B	PHO2-OUT-R	PHONE 2 OUTPUT RIGHT	O,AS		
P1	22A	PHO-IN-L-a	PHONE INPUT LEFT a	O,S		
P1	22B	PHO-IN-L-b	PHONE INPUT LEFT b	O,S		
P1	23A	PHO-IN-R-a	PHONE INPUT RIGHT a	O,S		
P1	23B	PHO-IN-R-b	PHONE INPUT RIGHT b	O,S		
P1	24	0V-A	GROUND AUDIO	B	X	X
P1	25A	TB RET MIC-a	TALKBACK RETURN MIC a	O,S		
P1	25B	TB RET MIC-b	TALKBACK RETURN MIC b	O,S		
P1	26A	TB RET LIN-a	TALKBACK RETURN LINE a	O,S		
P1	26B	TB RET LIN-b	TALKBACK RETURN LINE b	O,S		
P1	27A	TB RET HL-a	TALKBACK RETURN HIGH LEVEL a	O,S		
P1	27B	TB RET HL-b	TALKBACK RETURN HIGH LEVEL b	O,S		
P1	28	0V-L	GROUND SIGN (LOGIC)	B	X	X
P1	29A	DO 0	DATA OUT 0 (ENABLE)			
P1	29B	TSTB	TRANSMIT STROBE			
P1	30A	-	RES			
P1	30B	TXTH	TRANSMIT DATA THROUGH			
P1	31A	TXD	TRANSMIT DATA			
P1	31B	TCL	TRANSMIT CLOCK			
P1	32	+ 5.5V	+ SUPPLY	B	X	X

PFL/TB/HEADPHONE AMPLIFIER

1.917.330.81



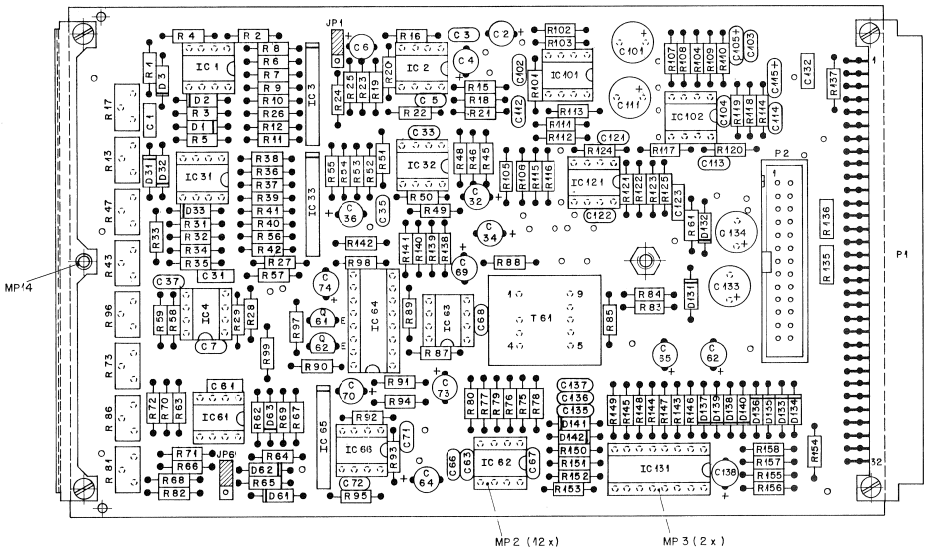


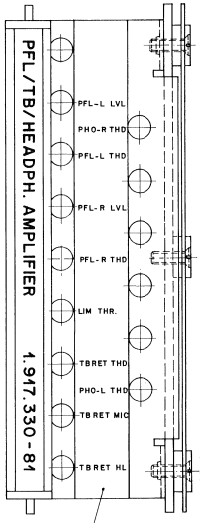
0 23.10.91 alb	. .	. .	. .	. .
				PAGE 1 OF 2
STUDER	PFL/TB/HEADPH. AMPLIFIER	SC	1.917.330-81	

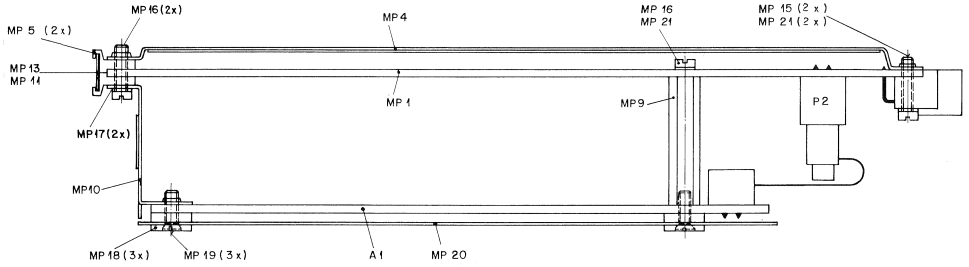
0 23.10.91 alb	. .	. .	. .	. .
				PAGE 2 OF 2
STUDER	PFL/TB/HEADPH. AMPLIFIER		1.917.330-81	

PFL/TB/HEADPHONE AMPLIFIER

1.917.330.81







Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	A.....1	1.917.331.00	SUBCARD FOR PFL/TB/HEADPH.	
	C.....1	59.06.0104	0.1 uF PE, 10%, 63V	
	C.....2	59.22.3101	100 uF EL, -20%, 10V	
	C.....3	59.34.7151	150 pF CER, 10%	
	C.....4	59.22.3101	100 uF EL, -20%, 10V	
	C.....5	59.34.7151	150 pF CER, 10%	
	C.....6	59.22.3101	100 uF EL, -20%, 10V	
	C.....7	59.34.7151	150 pF CER, 10%	
	C.....8	. . 0	not used	
	C....30	. . 0	not used	
	C....31	59.06.0104	0.1 uF PE, 10%, 63V	
	C....32	59.22.3101	100 uF EL, -20%, 10V	
	C....33	59.34.7151	150 pF CER, 10%	
	C....34	59.22.3101	100 uF EL, -20%, 10V	
	C....35	59.34.7151	150 pF CER, 10%	
	C....36	59.22.3101	100 uF EL, -20%, 10V	
	C....37	59.34.7151	150 pF CER, 10%	
	C....38	. . 0	not used	
	C....60	. . 0	not used	
	C....61	59.34.7151	150 pF CER, 10%	
	C....62	59.22.3101	100 uF EL, -20%, 10V	
	C....63	59.34.7151	150 pF CER, 2%	
	C....64	59.22.3101	100 uF EL, -20%, 10V	
	C....65	59.22.3101	100 uF EL, -20%, 10V	
	C....66	59.34.7151	150 pF CER, 2%	
	C....67	59.34.2223	22 pF CER, 10%	
	C....68	59.34.2223	22 pF CER, 10%	
	C....69	59.22.3101	100 uF EL, -20%, 10V	
	C....70	59.22.3101	100 uF EL, -20%, 10V	
	C....71	59.34.7151	150 pF CER, 10%	
	C....72	59.34.2223	22 pF CER, 10%	
	C....73	59.22.3101	100 uF EL, -20%, 10V	
	C....74	59.22.8109	1 uF EL, -20%, 16V	
	C....75	. . 0	not used	
	C...100	. . 0	not used	
	C...101	59.22.3471	470 uF EL, -20%, 10V	
	C...102	59.34.7151	150 pF CER, 2%	
	C...103	59.34.5391	390 pF CER, 5%	
	C...104	59.34.7151	150 pF CER, 2%	
	C...105	59.26.1479	4.7 uF SAL,20%	
	C...110	. . 0	not used	
	C...111	59.22.3471	470 uF EL, -20%, 10V	
	C...112	59.34.7151	150 pF CER, 2%	
	C...113	59.34.5391	390 pF CER, 5%	
	C...114	59.34.7151	150 pF CER, 2%	
	C...115	59.26.1479	4.7 uF SAL,20%	
	C...120	. . 0	not used	
	C...121	59.34.7151	150 pF CER, 2%	
	C...122	59.34.7151	150 pF CER, 2%	
	C...123	59.32.4102	1 nF CER, 10%	
	C...130	. . 0	not used	
	C...131	. . 0	not used	
	C...132	59.06.0104	0.1 uF PE, 10%, 63V	
	C...133	59.22.5101	100 uF EL, -20%, 25V	
	C...134	59.22.5101	100 uF EL, -20%, 25V	
	C...135	59.34.4101	100 pF CER, 10%	
	C...136	59.34.4101	100 pF CER, 10%	
	C...137	59.34.4101	100 pF CER, 10%	
	C...138	59.22.3101	100 uF EL, -20%, 10V	
	D.....1	50.04.0125	1N4448	any
	D.....2	50.04.0125	1N4448	any
	D.....3	50.04.0125	1N4448	any
	D....31	50.04.0125	1N4448	any
	D....32	50.04.0125	1N4448	any
	D....33	50.04.0125	1N4448	any
	D....61	50.04.0125	1N4448	any
	D....62	50.04.0125	1N4448	any
	D....63	50.04.0125	1N4448	any
	D....131	50.04.0122	1N4001	any
	D...132	50.04.0122	1N4001	any
	D...133	50.04.0125	1N4448	any
	D...134	50.04.0125	1N4448	any
	D...135	50.04.0125	1N4448	any
	D...136	50.04.0125	1N4448	any
	D...137	50.04.0125	1N4448	any
	D...138	50.04.0125	1N4448	any
	D...139	50.04.0125	1N4448	any
	D...140	50.04.0125	1N4448	any
	D...141	50.04.0125	1N4448	any
	D...142	50.04.0125	1N4448	any
	IC....1	50.09.0117	MC33078 Dual Op Amp	
	IC....2	50.09.0105	NE5532N Dual Op Amp	
	IC....3	50.11.0140	dbx2150 VCA	
	IC....4	50.09.0117	MC33078 Dual Op Amp	
	IC....31	50.09.0117	MC33078 Dual Op Amp	
	IC....32	50.09.0105	NE5532N Dual Op Amp	
	IC....33	50.11.0140	dbx2150 VCA	
	IC....61	50.09.0117	MC33078 Dual Op Amp	
	IC....62	50.09.0103	TL 071 Single FET-Op Amp	
	IC....63	50.09.0103	TL 071 Single FET-Op Amp	
	IC....64	50.07.0015	4053 Triple Analog Switch	
	IC....65	50.11.0140	dbx2150 VCA	
	IC....66	50.09.0103	TL 071 Single FET-Op Amp	
	IC..101	50.09.0105	NE5532N Dual Op Amp	
	IC..102	50.09.0105	NE5532N Dual Op Amp	
	IC..121	50.09.0105	NE5532N Dual Op Amp	
	IC..131	50.07.0018	4094 Shift and store bus register	
	JP....1	. . 0	see MP 6 PFL Mono/Stereo	
	JP...61	. . 0	see MP 7 TB-RET-Limiter: On/Off	
	JS....1	54.01.0021	Jumper Jumper for JP 1	
	JS...61	54.01.0021	Jumper Jumper for JP 61	
	MP....1	1.917.330.12	1 pcs Print	St
	MP....2	53.03.0166	12 pcs IC-Socket 8 pin	
	MP....3	53.03.0168	2 pcs IC-Socket 16 pin	
	MP....4	1.010.090.49	1 pcs Abschirmblech	St
	MP....5	1.010.006.33	2 pcs Griffhaelften	St
	MP....6	54.01.0020	3 pcs Stiftleiste see also JP1	
	MP....7	54.01.0020	3 pcs Stiftleiste see alsoJP61	
	MP....8	. . 0	not used	
	MP....9	1.010.204.27	1 pcs Mutterbolzen M2.5*25	St
	MP...10	1.917.142.01	1 pcs Halter	St
	MP...11	1.917.330.01	1 pcs Bez. Streifen 6.3*91	St
	MP...12	43.01.0108	1 pcs ESE-Warnschild	
	MP...13	1.010.096.49	1 pcs Klarsichtschild	
	MP...14	28.21.1380	1 pcs Rohrniete D2.25*6.5	
01	MP...14	28.21.1390	1 pcs Rohrniete D2.25*7.0	
	MP...15	21.01.0281	2 pcs Z-Schr. ZN,M2.5*10	
	MP...16	21.01.0280	3 pcs Z-Schr. ZN,M2.5*8	
	MP...17	24.16.1025	2 pcs Rippenscheibe, D2.75/5	
	MP...18	1.917.142.02	3 pcs Isolierhuelse	
	MP...19	21.01.2280	3 pcs S-Schr. ZN,M2.5*8	
	MP...20	1.917.142.03	1 pcs Isolation	
	MP...21	24.16.1025	3 pcs Rippenscheibe, D2.75/5	
	P.....1	54.11.2004	Euro, 2*32 contacts	
	P.....2	54.14.2003	26 pin PCB Ribbon Connector	
	Q....61	50.03.0515	BC557 PNP	
	Q....62	50.03.0515	BC557 PNP	

Änderung					
					3
					2
					1
Ausgabe	3.7.91				0
Datum		Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: PFL/TB/HEADPH. AMPLIFIER ESE	Nummer:	1.917.330-81

PFL/TB/HEADPHONE AMPLIFIER ESE 1.917.330.81

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R.....1	57.11.3000	0 Ohm	Wiring Bridge
	R.....2	57.11.3104	100 kOhm 1 %	
	R.....3	57.11.3473	47 kOhm 10 %	
	R.....4	57.11.3332	3.3 kOhm 1 %	
	R.....5	57.11.3332	3.3 kOhm 1 %	
	R.....6	57.11.3332	3.3 kOhm 1 %	
	R.....7	57.11.3332	3.3 kOhm 1 %	
	R.....8	57.11.3101	100 Ohm 1 %	
	R.....9	57.11.3101	100 Ohm 1 %	
	R....10	57.11.3470	47 Ohm 10 %	
	R....11	57.11.3473	47 kOhm 10 %	
	R....12	57.11.3473	47 kOhm 10 %	
	R....13	58.01.9104	100 kOhm 10 %, variable resistor	
	R....14	. . 0	not used	
	R....15	57.11.3473	47 kOhm 10 %	
	R....16	57.11.3152	1.5 kOhm 10 %	
	R....17	58.01.9203	20 kOhm 10 %, variable resistor	
	R....18	57.11.3473	47 kOhm 10 %	
	R....19	57.11.3102	1.0 kOhm 1 %	
	R....20	57.11.3332	3.3 kOhm 1 %	
	R....21	57.11.3101	100 Ohm 1 %	
	R....22	57.11.3331	330 Ohm 1 %	
	R....23	57.11.3330	33 Ohm 10 %	
	R....24	57.11.3223	22 kOhm 10 %	
	R....25	57.11.3123	12 kOhm 1 %	
	R....26	57.11.3472	4.7 kOhm 10 %	
	R....27	57.11.3223	22 kOhm 1 %	
	R....28	57.11.3123	12 kOhm 1 %	
	R....29	57.11.3330	33 Ohm 10 %	
	R....30	. . 0	not used	
	R....31	57.11.3000	0 Ohm	Wiring Bridge
	R....32	57.11.3104	100 kOhm 1 %	
	R....33	57.11.3473	47 kOhm 10 %	
	R....34	57.11.3332	3.3 kOhm 1 %	
	R....35	57.11.3332	3.3 kOhm 1 %	
	R....36	57.11.3332	3.3 kOhm 1 %	
	R....37	57.11.3332	3.3 kOhm 1 %	
	R....38	57.11.3101	100 Ohm 1 %	
	R....39	57.11.3101	100 Ohm 1 %	
	R....40	57.11.3470	47 Ohm 10 %	
	R....41	57.11.3473	47 kOhm 10 %	
	R....42	57.11.3473	47 kOhm 10 %	
	R....43	58.01.9104	100 kOhm 10 %, variable resistor	
	R....44	. . 0	not used	
	R....45	57.11.3473	47 kOhm 10 %	
	R....46	57.11.3152	1.5 kOhm 10 %	
	R....47	58.01.9203	20 kOhm 10 %, variable resistor	
	R....48	57.11.3473	47 kOhm 10 %	
	R....49	57.11.3102	1.0 kOhm 1 %	
	R....50	57.11.3332	3.3 kOhm 1 %	
	R....51	57.11.3101	100 Ohm 1 %	
	R....52	57.11.3331	330 Ohm 1 %	
	R....53	57.11.3330	33 Ohm 10 %	
	R....54	57.11.3223	22 kOhm 10 %	
	R....55	57.11.3123	12 kOhm 1 %	
	R....56	57.11.3472	4.7 kOhm 10 %	
	R....57	57.11.3223	22 kOhm 1 %	
	R....58	57.11.3123	12 kOhm 1 %	
	R....59	57.11.3330	33 Ohm 10 %	
	R....60	. . 0	not used	
	R....61	57.11.3000	0 Ohm	Wiring Bridge
	R....62	57.11.3104	100 kOhm 1 %	
	R....63	57.11.3473	47 kOhm 10 %	
	R....64	57.11.3332	3.3 kOhm 1 %	
	R....65	57.11.3332	3.3 kOhm 1 %	
	R....66	57.11.3332	3.3 kOhm 1 %	
	R....67	57.11.3332	3.3 kOhm 1 %	
	R....68	57.11.3101	100 Ohm 1 %	
	R....69	57.11.3101	100 Ohm 1 %	
	R....70	57.11.3470	47 Ohm 10 %	
	R....71	57.11.3473	47 kOhm 10 %	
	R....72	57.11.3473	47 kOhm 10 %	
	R....73	58.01.9104	100 kOhm 10 %, variable resistor	
	R....74	. . 0	not used	
	R....75	57.11.3152	1.5 kOhm 1 %	
	R....76	57.11.3392	3.9 kOhm 1 %	
	R....77	57.11.3272	2.7 kOhm 1 %	
	R....78	57.11.3152	1.5 kOhm 1 %	
	R....79	57.11.3392	3.9 kOhm 1 %	
	R....80	57.11.3272	2.7 kOhm 1 %	
	R....81	58.01.9103	10 kOhm 10 %, variable resistor	
	R....82	57.11.3471	470 Ohm 1 %	
	R....83	57.11.3223	22 kOhm 1 %	
	R....84	57.11.3223	22 kOhm 1 %	
	R....85	. . 0	not used	1200hm only with TB-RET-LINE(+6dbu==>-45dBu)
	R....86	58.01.9103	10 kOhm 10 %, variable resistor	
	R....87	57.11.3391	390 Ohm 1 %	
	R....88	57.11.3223	22 kOhm 10 %	
	R....89	57.11.3682	6.8 kOhm 1 %	
	R....90	57.11.3223	22 kOhm 1 %	
	R....91	57.11.3223	22 kOhm 10 %	
	R....92	57.11.3472	4.7 kOhm 10 %	
	R....93	57.11.3123	12 kOhm 1 %	
	R....94	57.11.3223	22 kOhm 10 %	
	R....95	57.11.3391	390 Ohm 10 %	
	R....96	58.01.9502	5 kOhm 10 %, variable resistor	
	R....97	57.11.3104	100 kOhm 10 %	
	R....98	57.11.3105	1 MOhm 10 %	
	R....99	57.11.3103	10 kOhm 10 %	
	R...100	. . 0	not used	
	R...101	57.11.3472	4.7 kOhm 1 %	
	R...102	57.11.3181	180 Ohm 1 %	
	R...103	57.11.3330	33 Ohm 10 %	
	R...104	57.11.3562	5.6 kOhm 1 %	
	R...105	57.11.3164	160 kOhm 1 %	
	R...106	57.11.3822	8.2 kOhm 1 %	
	R...107	57.11.3392	3.9 kOhm 1 %	
	R...108	57.11.3133	13 kOhm 1 %	
	R...109	57.11.3330	33 Ohm 10 %	
	R...110	57.11.3102	1 kOhm 1 %	
	R...111	57.11.3472	4.7 kOhm 1 %	
	R...112	57.11.3181	180 Ohm 1 %	
	R...113	57.11.3330	33 Ohm 10 %	
	R...114	57.11.3562	5.6 kOhm 1 %	
	R...115	57.11.3164	160 kOhm 1 %	
	R...116	57.11.3822	8.2 kOhm 1 %	
	R...117	57.11.3392	3.9 kOhm 1 %	
	R...118	57.11.3133	13 kOhm 1 %	
	R...119	57.11.3330	33 Ohm 10 %	
	R...120	57.11.3102	1 kOhm 1 %	
	R...121	57.11.3392	3.9 kOhm 1 %	
	R...122	57.11.3392	3.9 kOhm 1 %	
	R...123	57.11.3392	3.9 kOhm 1 %	
	R...124	57.11.3330	33 Ohm 10 %	
	R...125	57.11.3102	1 kOhm 1 %	
	R...126	. . 0	not used	
	R...127	. . 0	not used	
	R...128	. . 0	not used	
	R...129	. . 0	not used	
	R...130	. . 0	not used	
	R...131	. . 0	not used	
	R...132	. . 0	not used	
	R...133	. . 0	not used	
	R...134	. . 0	not used	
	R...135	57.92.7013	0.5 Ohm	PTC, 0.5 A
	R...136	57.92.7013	0.5 Ohm	PTC, 0.5 A
	R...137	57.11.3101	100 Ohm 10 %	
	R...138	57.11.3562	5.6 kOhm 1 %	
	R...139	57.11.3562	5.6 kOhm 1 %	
	R...140	57.11.3182	1.8 kOhm 1 %	
	R...141	57.11.3822	8.2 kOhm 1 %	
	R...142	57.11.3103	10 kOhm 1 %	
	R...143	57.11.3104	100 kOhm 10 %	
	R...144	57.11.3104	100 kOhm 10 %	
	R...145	57.11.3104	100 kOhm 10 %	
	R...146	57.11.3104	100 kOhm 10 %	
	R...147	57.11.3104	100 kOhm 10 %	
	R...148	57.11.3104	100 kOhm 10 %	
	R...149	57.11.3104	100 kOhm 10 %	
	R...150	57.11.3104	100 kOhm 10 %	
	R...151	57.11.3104	100 kOhm 10 %	
	R...152	57.11.3104	100 kOhm 10 %	
	R...153	57.11.3104	100 kOhm 10 %	
	R...154	57.11.3102	1 kOhm 10 %	
	R...155	57.11.3101	100 Ohm 10 %	
	R...156	57.11.3101	100 Ohm 10 %	
	R...157	57.11.3101	100 Ohm 10 %	
	R...158	57.11.3101	100 Ohm 10 %	
	T....61	1.022.417.00	1:3.16	MIC INPUT TRAFO 10dB St

PFL-L : Pos No 1...29
PFL-R : Pos No 31...59
TB-RET : Pos No 61...99
MPX-L : Pos No 101.. 109
MPX-R : Pos No 111...119
MPX-M : Pos No 121...129
Global : Pos No 131...

Index (1) 29.02.92 ABB Rohrniete neu 7.0 statt 6.5 mm

CER=Ceramic, EL=Electrolytic, PE=Polyester,
SAL=Solid Aluminum lacquered

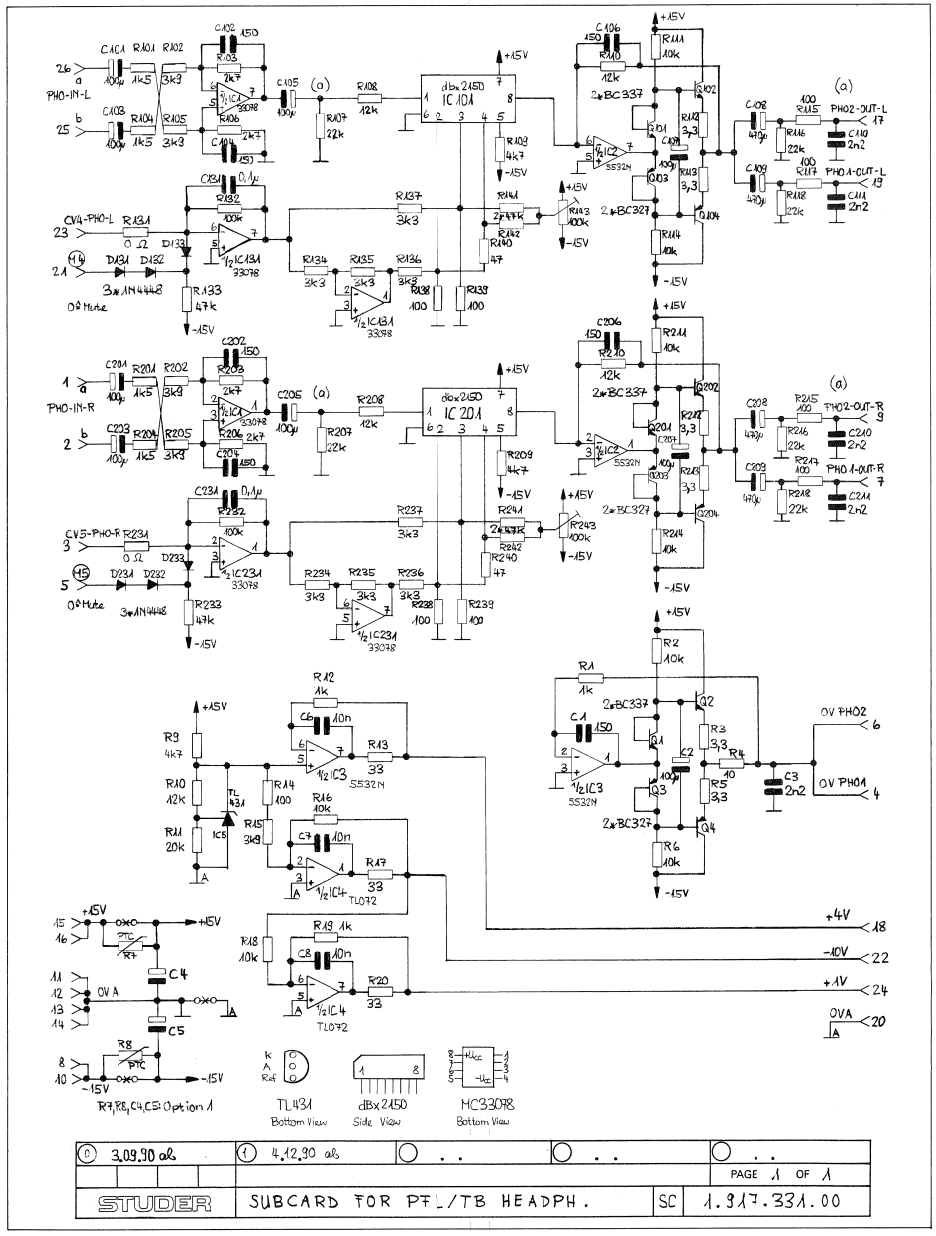
MANUFACTURER: TI=Texas Instrument, St=Studer

1.917.330.81 PFL/TB/HEADPH. AMPLIFIER ABB91/10/2200

1.917.330.81 PFL/TB/HEADPH. AMPLIFIER ABB92/02/2901

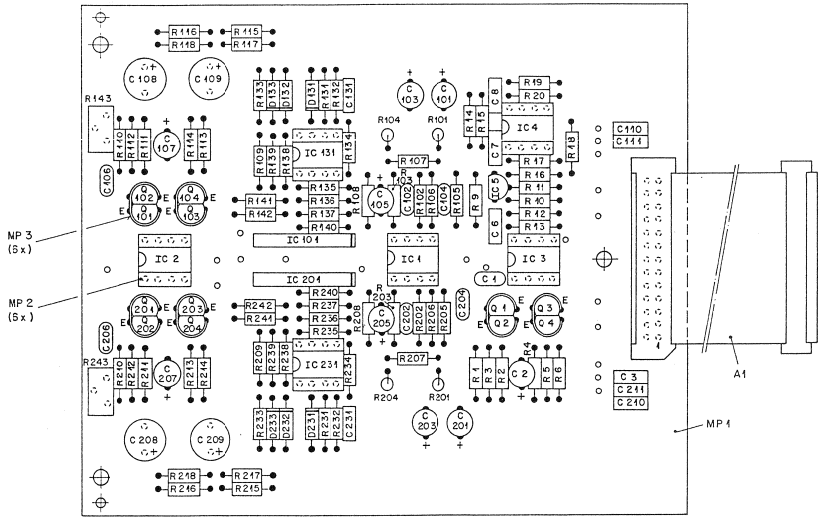
SUBCARD FOR PFL / TB HEADPHONE

1.917.331.00



SUBCARD FOR PFL / TB HEADPHONE

1.917.331.00



Änderung					
					3
					2
17.9.90	JH	W	W		1
2.11.89	W	W	W	ab	0
Ausgabe	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung	SUBCARD FOR PFL/TB HEADPH. ESE	Nummer: 1.917.331-00

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	A.....1	1.023.112.01	Flachkabel konf. 26-pol			
	C.....1	59.34.7151	150 pF	CER, 10%		
	C.....2	59.22.3101	100 uF	EL, -20%, 10V		
	C.....3	59.06.0222	2.2 nF	PE, 10%, 63V		
	C.....4		100 uF	EL, -20%, 25V	59.22.5101	Option 1
	C.....5		100 uF	EL, -20%, 25V	59.22.5101	Option 1
	C.....6	59.06.0103	10 nF	PE, 10%, 63V		
	C.....7	59.06.0103	10 nF	PE, 10%, 63V		
	C.....8	59.06.0103	10 nF	PE, 10%, 63V		
	C...101	59.22.3101	100 uF	EL, -20%, 10V		
	C...102	59.34.7151	150 pF	CER, 2%		
	C...103	59.22.3101	100 uF	EL, -20%, 10V		
	C...104	59.34.7151	150 pF	CER, 2%		
	C...105	59.22.3101	100 uF	EL, -20%, 10V		
	C...106	59.34.7151	150 pF	CER, 10%		
	C...107	59.22.3101	100 uF	EL, -20%, 10V		
	C...108	59.22.3471	470 uF	EL, -20%, 10V		
	C...109	59.22.3471	470 uF	EL, -20%, 10V		
	C...110	59.06.0222	2.2 nF	PE, 10%, 63V		
	C...111	59.06.0222	2.2 nF	PE, 10%, 63V		
	C...131	59.06.0104	0.1 uF	PE, 10%, 63V		
	C...201	59.22.3101	100 uF	EL, -20%, 10V		
	C...202	59.34.7151	150 pF	CER, 2%		
	C...203	59.22.3101	100 uF	EL, -20%, 10V		
	C...204	59.34.7151	150 pF	CER, 2%		
	C...205	59.22.3101	100 uF	EL, -20%, 10V		
	C...206	59.34.7151	150 pF	CER, 10%		
	C...207	59.22.3101	100 uF	EL, -20%, 10V		
	C...208	59.22.3471	470 uF	EL, -20%, 10V		
	C...209	59.22.3471	470 uF	EL, -20%, 10V		
	C...210	59.06.0222	2.2 nF	PE, 10%, 63V		
	C...211	59.06.0222	2.2 nF	PE, 10%, 63V		
	C...231	59.06.0104	0.1 uF	PE, 10%, 63V		
	D...131	50.04.0125	1N4448			any
	D...132	50.04.0125	1N4448			any
	D...133	50.04.0125	1N4448			any
	D...231	50.04.0125	1N4448			any
	D...232	50.04.0125	1N4448			any
	D...233	50.04.0125	1N4448			any
	IC....1	50.09.0117	MC33078	Dual Op Amp		
	IC....2	50.09.0117	MC33078	Dual Op Amp		
01	IC....2	50.09.0105	NE5532N	Dual Op Amp		
	IC....3	50.09.0117	MC33078	Dual Op Amp		
01	IC....3	50.09.0105	NE5532N	Dual Op Amp		
	IC....4	50.09.0117	MC33078	Dual Op Amp		
01	IC....4	50.09.0101	TL 072	Dual FET-Op Amp		
	IC....5	50.10.0106	TL431C	Shun: Regulator		
	IC..101	50.11.0140	dbx2150	VCA		
	IC..131	50.09.0117	MC33078	Dual Op Amp		
	IC..201	50.11.0140	dbx2150	VCA		
	IC..231	50.09.0117	MC33078	Dual Op Amp		
	MP....1	1.917.331.11	1 pcs	Prin:		
	MP....2	53.03.0166	6 pcs	IC-Socket 8 pin		
	MP....3	50.20.2001	6 pcs	Transistor-Clip		
	Q.....1	50.03.0516	BC 337	NPN		any
	Q.....2	50.03.0516	BC 337	NPN		any
	Q.....3	50.03.0625	BC 327	PNP		any
	Q.....4	50.03.0625	BC 327	PNP		any
	Q...101	50.03.0516	BC 337	NPN		any
	Q...102	50.03.0516	BC 337	NPN		any
	Q...103	50.03.0625	BC 327	PNP		any
	Q...104	50.03.0625	BC 327	PNP		any
	Q...201	50.03.0516	BC 337	NPN		any
	Q...202	50.03.0516	BC 337	NPN		any
	Q...203	50.03.0625	BC 327	PNP		any
	Q...204	50.03.0625	BC 327	PNP		any
	R.....1	57.11.3102	1 kOhm	10 %		
	R.....2	57.11.3103	10 kOhm	10 %		
	R.....3	57.11.3339	3.3 Ohm	10 %		
	R.....4	57.11.3100	10 Ohm	10 %		
	R.....5	57.11.3339	3.3 Ohm	10 %		
	R.....6	57.11.3103	10 kOhm	10 %		
	R.....7		0.5 Ohm	PTC, 0.5 A	57.92.7013	Option 1
	R.....8		0.5 Ohm	PTC, 0.5 A	57.92.7013	Option 1
	R.....9	57.11.3472	4.7 kOhm	2 %		
	R....10	57.11.3123	12 kOhm	2 %		
	R....11	57.11.3203	20 kOhm	2 %		
	R....12	57.11.3102	1 kOhm	2 %		
	R....13	57.11.3330	33 Ohm	10 %		
	R....14	57.11.3101	100 Ohm	2 %		
	R....15	57.11.3392	3.9 kOhm	2 %		
	R....16	57.11.3103	10 kOhm	2 %		
	R....17	57.11.3330	33 Ohm	10 %		
	R....18	57.11.3103	10 kOhm	2 %		
	R....19	57.11.3102	1 kOhm	2 %		
	R....20	57.11.3330	33 Ohm	10 %		

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R...101	57.11.3152	1.5 kOhm 2 %	
	R...102	57.11.3392	3.9 kOhm 2 %	
	R...103	57.11.3272	2.7 kOhm 2 %	
	R...104	57.11.3152	1.5 kOhm 2 %	
	R...105	57.11.3392	3.9 kOhm 2 %	
	R...106	57.11.3272	2.7 kOhm 2 %	
	R...107	57.11.3223	22 kOhm 10 %	
	R...108	57.11.3123	12 kOhm 2 %	
	R...109	57.11.3472	4.7 kOhm 10 %	
	R...110	57.11.3123	12 kOhm 2 %	
	R...111	57.11.3103	10 kOhm 10 %	
	R...112	57.11.3339	3.3 Ohm 10 %	
	R...113	57.11.3339	3.3 Ohm 10 %	
	R...114	57.11.3103	10 kOhm 10 %	
	R...115	57.11.3101	100 Ohm 10 %	
	R...116	57.11.3223	22 kOhm 10 %	
	R...117	57.11.3101	100 Ohm 10 %	
	R...118	57.11.3223	22 kOhm 10 %	
	R...131	57.11.3000	0 Ohm	Wiring Bridge
	R...132	57.11.3104	100 kOhm 1 %	
	R...133	57.11.3473	47 kOhm 10 %	
	R...134	57.11.3332	3.3 kOhm 1 %	
	R...135	57.11.3332	3.3 kOhm 1 %	
	R...136	57.11.3332	3.3 kOhm 1 %	
	R...137	57.11.3332	3.3 kOhm 1 %	
	R...138	57.11.3101	100 Ohm 1 %	
	R...139	57.11.3101	100 Ohm 1 %	
	R...140	57.11.3470	47 Ohm 10 %	
	R...141	57.11.3473	47 kOhm 10 %	
	R...142	57.11.3473	47 kOhm 10 %	
	R...143	58.01.9104	100 kOhm 10 %, variable resistor	
	R...201	57.11.3152	1.5 kOhm 2 %	
	R...202	57.11.3392	3.9 kOhm 2 %	
	R...203	57.11.3272	2.7 kOhm 2 %	
	R...204	57.11.3152	1.5 kOhm 2 %	
	R...205	57.11.3392	3.9 kOhm 2 %	
	R...206	57.11.3272	2.7 kOhm 2 %	
	R...207	57.11.3223	22 kOhm 10 %	
	R...208	57.11.3123	12 kOhm 2 %	
	R...209	57.11.3472	4.7 kOhm 10 %	
	R...210	57.11.3123	12 kOhm 2 %	
	R...211	57.11.3103	10 kOhm 10 %	
	R...212	57.11.3339	3.3 Ohm 10 %	
	R...213	57.11.3339	3.3 Ohm 10 %	
	R...214	57.11.3103	10 kOhm 10 %	
	R...215	57.11.3101	100 Ohm 10 %	
	R...216	57.11.3223	22 kOhm 10 %	
	R...217	57.11.3101	100 Ohm 10 %	
	R...218	57.11.3223	22 kOhm 10 %	
	R...231	57.11.3000	0 Ohm	Wiring Bridge
	R...232	57.11.3104	100 kOhm 1 %	
	R...233	57.11.3473	47 kOhm 10 %	
	R...234	57.11.3332	3.3 kOhm 1 %	
	R...235	57.11.3332	3.3 kOhm 1 %	
	R...236	57.11.3332	3.3 kOhm 1 %	
	R...237	57.11.3332	3.3 kOhm 1 %	
	R...238	57.11.3101	100 Ohm 1 %	
	R...239	57.11.3101	100 Ohm 1 %	
	R...240	57.11.3470	47 Ohm 10 %	
	R...241	57.11.3473	47 kOhm 10 %	
	R...242	57.11.3473	47 kOhm 10 %	
	R...243	58.01.9104	100 kOhm 10 %, variable resistor	

(01) 90/12/04 Better output performance. IC 2,3,4 changed

Option 1 : for standalone headphone-amplifier

Global or both: Pos No 1...
Left channel : Pos No 101...
Right channel : Pos No 201...

CER=Ceramic, EL=Electrolytic, PE=Polyester

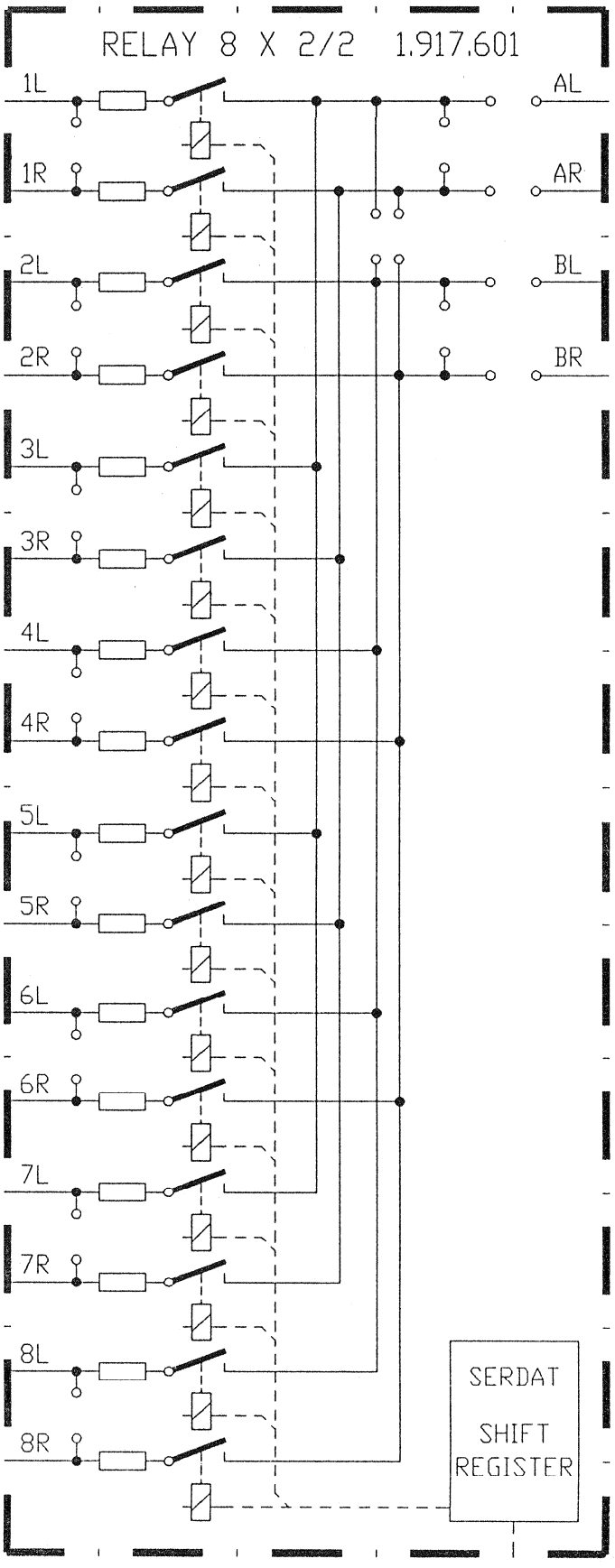
MANUFACTURER: TI=Texas Instrument, St=Studer

1.917.331.00 SUBCARD FOR PFL/TB/HEADPH. AB 89/09/2900

1.917.331.00 SUBCARD FOR PFL/TB/HEADPH. AB 90/12/0401

END

MONITOR RELAYS UNIT 8x2/2 1.917.601.00

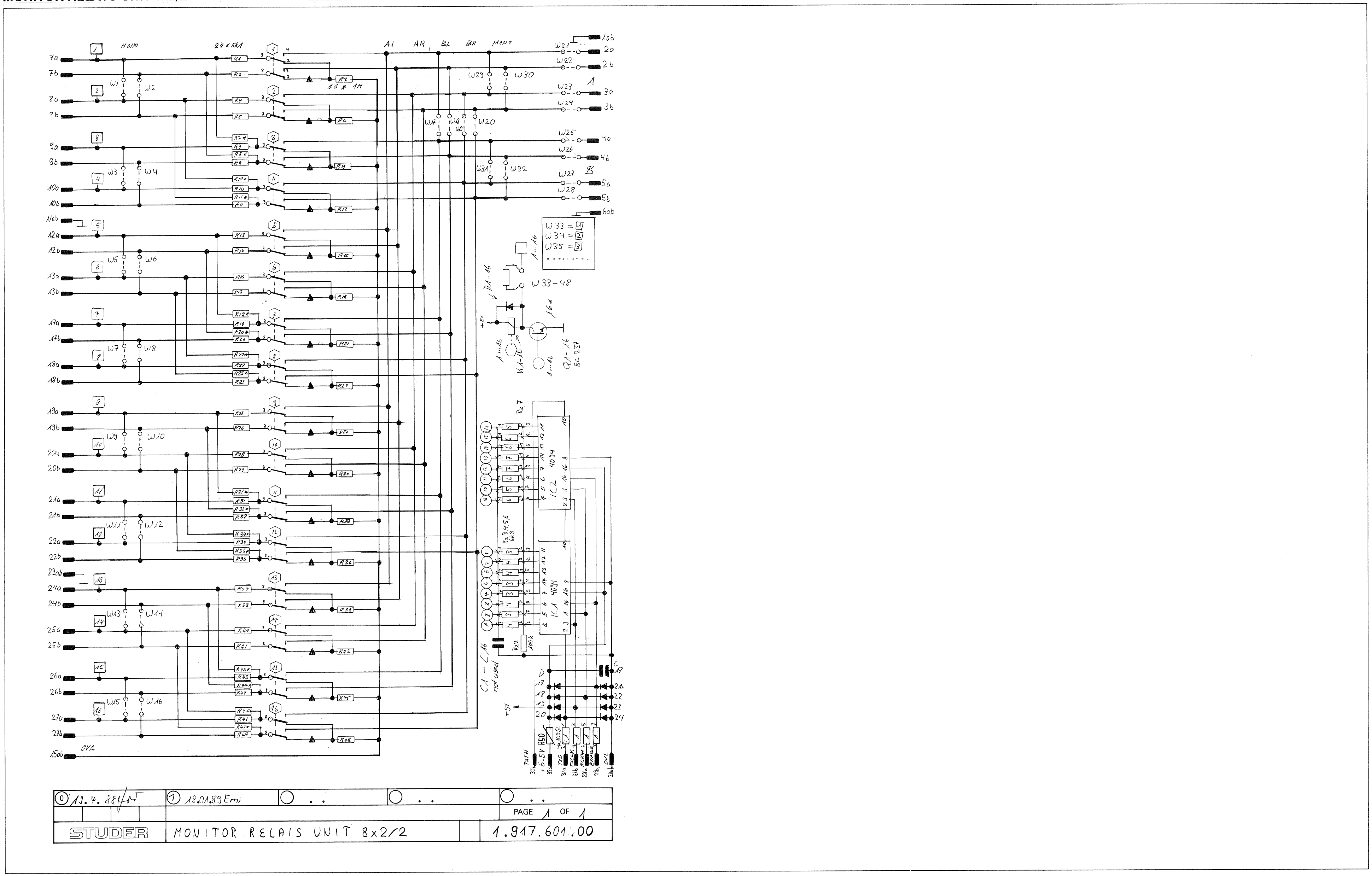


Pin location list **1.917.601**

P	NO	NAME	REMARK	B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC		
P1	01	0V-A	GROUND AUDIO		X	X
P1	02A	BUS A-L-a	OUTPUT A LEFT a ; 0-OHM BUS	B,S		
P1	02B	BUS A-L-b	OUTPUT A LEFT b ; 0-OHM BUS	B,S		
P1	03A	BUS A-R-a	OUTPUT A RIGHT a ; 0-OHM BUS	B,S		
P1	03B	BUS A-R-b	OUTPUT A RIGHT b ; 0-OHM BUS	B,S		
P1	04A	BUS B-L-a	OUTPUT B LEFT a ; 0-OHM BUS	B,S		
P1	04B	BUS B-L-b	OUTPUT B LEFT b ; 0-OHM BUS	B,S		
P1	05A	BUS B-R-a	OUTPUT B RIGHT a ; 0-OHM BUS	B,S		
P1	05B	BUS B-R-b	OUTPUT B RIGHT b ; 0-OHM BUS	B,S		
P1	06	0V-A	GROUND AUDIO		X	X
P1	07A	IN 1-L-a	INPUT 1 LEFT a ; RELAIS 1	O,S		
P1	07B	IN 1-L-b	INPUT 1 LEFT b ; RELAIS 1	O,S		
P1	08A	IN 1-R-a	INPUT 1 RIGHT a ; RELAIS 2	O,S		
P1	08B	IN 1-R-b	INPUT 1 RIGHT b ; RELAIS 2	O,S		
P1	09A	IN 2-L-a	INPUT 2 LEFT a ; RELAIS 3	O,S		
P1	09B	IN 2-L-b	INPUT 2 LEFT b ; RELAIS 3	O,S		
P1	10A	IN 2-R-a	INPUT 2 RIGHT a ; RELAIS 4	O,S		
P1	10B	IN 2-R-b	INPUT 2 RIGHT b ; RELAIS 4	O,S		
P1	11	0V-A	GROUND AUDIO		X	X
P1	12A	IN 3-L-a	INPUT 3 LEFT a ; RELAIS 5	O,S		
P1	12B	IN 3-L-b	INPUT 3 LEFT b ; RELAIS 5	O,S		
P1	13A	IN 3-R-a	INPUT 3 RIGHT a ; RELAIS 6	O,S		
P1	13B	IN 3-R-b	INPUT 3 RIGHT b ; RELAIS 6	O,S		
P1	14	- 15.5V	- SUPPLY	B	X	X
P1	15	0V-A	GROUND AUDIO	B	X	X
P1	16	+ 15.5V	+ SUPPLY	B	X	X
P1	17A	IN 4-L-a	INPUT 4 LEFT a ; RELAIS 7	O,S		
P1	17B	IN 4-L-b	INPUT 4 LEFT b ; RELAIS 7	O,S		
P1	18A	IN 4-R-a	INPUT 4 RIGHT a ; RELAIS 8	O,S		
P1	18B	IN 4-R-b	INPUT 4 RIGHT b ; RELAIS 8	O,S		
P1	19A	IN 5-L-a	INPUT 5 LEFT a ; RELAIS 9	O,S		
P1	19B	IN 5-L-b	INPUT 5 LEFT b ; RELASI 9	O,S		
P1	20A	IN 5-R-a	INPUT 5 RIGHT a ; RELAIS 10	O,S		
P1	20B	IN 5-R-b	INPUT 5 RIGHT b ; RELAIS 10	O,S		
P1	21A	IN 6-L-a	INPUT 6 LEFT a ; RELAIS 11	O,S		
P1	21B	IN 6-L-b	INPUT 6 LEFT b ; RELASI 11	O,S		
P1	22A	IN 6-R-a	INPUT 6 RIGHT a ; RELAIS 12	O,S		
P1	22B	IN 6-R-b	INPUT 6 RIGHT b ; RELAIS 12	O,S		
P1	23	0V-A	GROUND AUDIO		X	X
P1	24A	IN 7-L-a	INPUT 7 LEFT a ; RELAIS 13	O,S		
P1	24B	IN 7-L-b	INPUT 7 LEFT b ; RELAIS 13	O,S		
P1	25A	IN 7-R-a	INPUT 7 RIGHT a ; RELAIS 14	O,S		
P1	25B	IN 7-R-b	INPUT 7 RIGHT b ; RELAIS 14	O,S		
P1	26A	IN 8-L-a	INPUT 8 LEFT a ; RELAIS 15	O,S		
P1	26B	IN 8-L-b	INPUT 8 LEFT b ; RELAIS 15	O,S		
P1	27A	IN 8-R-a	INPUT 8 RIGHT a ; RELAIS 16	O,S		
P1	27B	IN 8-R-b	INPUT 8 RIGHT b ; RELAIS 16	O,S		
P1	28	0V-L	GROUND SIGN (LOGIC)	B	X	X
P1	29A	DO 0	DATA OUT 0 (ENABLE)			
P1	29B	TSTB 5	TRANSMIT STROBE 5			
P1	30A	-	RES			
P1	30B	TXTH	TRANSMIT DATA THROUGH			
P1	31A	TXD	TRANSMIT DATA			
P1	31B	TCL	TRANSMIT CLOCK			
P1	32	+ 5.5V	+ SUPPLY	B	X	X

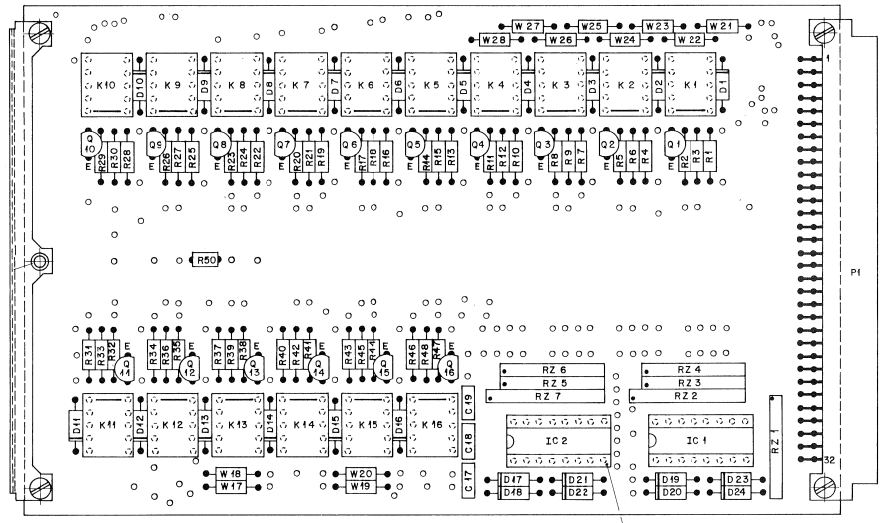
MONITOR RELAYS UNIT 8x2/2

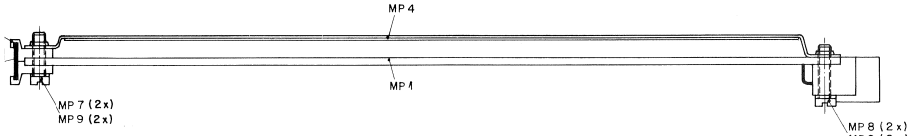
1.917.601.00



MONITOR RELAYS 8x2/2

1.917.601.00





Änderung							③
							②
							①
Ausgabe	1.11.89						⓪
	Datum	Gez.	Gepr.	Ges.	Index		
Kopie für:							

STUDER REGENSDORF ZÜRICH	MONITOR RELAYS 8 x 2 / 2 ESE	1.917.601-00

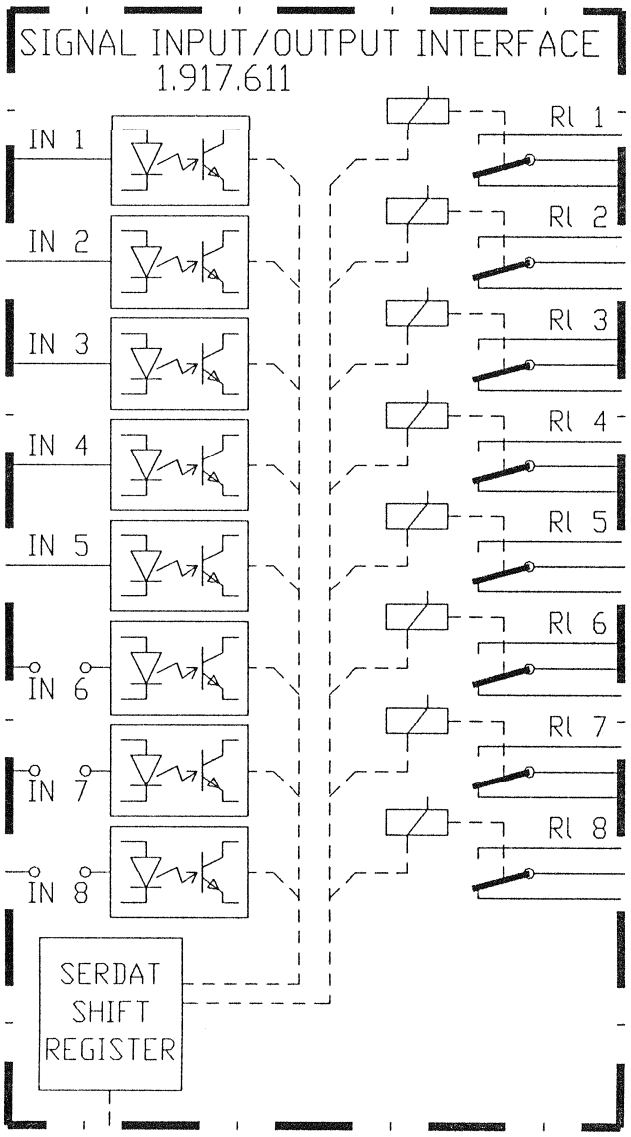
Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	. .		
	C.....2	. .		
	C.....3	. .		
	C.....4	. .		
	C.....5	. .		
	C.....6	. .		
	C.....7	. .		
	C.....8	. .		
	C.....9	. .		
	C.....10	. .		
	C.....11	. .		
	C.....12	. .		
	C.....13	. .		
	C.....14	. .		
	C.....15	. .		
	C.....16	. .		
	C.....17	59.06.5103	10 nF 5% PE	
	C.....18	59.06.5103	10 nF 5% PE	
	C.....19	59.06.5103	10 nF 5% PE	
	D.....1	50.04.0125	1N4448 100mA / 75V	
	D.....2	50.04.0125	1N4448 100mA / 75V	
	D.....3	50.04.0125	1N4448 100mA / 75V	
	D.....4	50.04.0125	1N4448 100mA / 75V	
	D.....5	50.04.0125	1N4448 100mA / 75V	
	D.....6	50.04.0125	1N4448 100mA / 75V	
	D.....7	50.04.0125	1N4448 100mA / 75V	
	D.....8	50.04.0125	1N4448 100mA / 75V	
	D.....9	50.04.0125	1N4448 100mA / 75V	
	D....10	50.04.0125	1N4448 100mA / 75V	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	D....11	50.04.0125	1N4448 100mA / 75V	
	D....12	50.04.0125	1N4448 100mA / 75V	
	D....13	50.04.0125	1N4448 100mA / 75V	
	D....14	50.04.0125	1N4448 100mA / 75V	
	D....15	50.04.0125	1N4448 100mA / 75V	
	D....16	50.04.0125	1N4448 100mA / 75V	
	D....17	50.04.0125	1N4448 100mA / 75V	
	D....18	50.04.0125	1N4448 100mA / 75V	
	D....19	50.04.0125	1N4448 100mA / 75V	
	D....20	50.04.0125	1N4448 100mA / 75V	
	D....21	50.04.0125	1N4448 100mA / 75V	
	D....22	50.04.0125	1N4448 100mA / 75V	
	D....23	50.04.0125	1N4448 100mA / 75V	
	D....24	50.04.0125	1N4448 100mA / 75V	
	F.....1	. .	not used T 630mA /250V 5*20mm(51010115)	
	IC....1	50.07.0018	4094 Shift and store bus register	
	IC....2	50.07.0018	4094 Shift and store bus register	
	K.....1	56.04.0195	SDS Relais, Type TQ2-6V	
	K.....2	56.04.0195	SDS Relais, Type TQ2-6V	
	K.....3	56.04.0195	SDS Relais, Type TQ2-6V	
	K.....4	56.04.0195	SDS Relais, Type TQ2-6V	
	K.....5	56.04.0195	SDS Relais, Type TQ2-6V	
	K.....6	56.04.0195	SDS Relais, Type TQ2-6V	
	K.....7	56.04.0195	SDS Relais, Type TQ2-6V	
	K.....8	56.04.0195	SDS Relais, Type TQ2-6V	
	K.....9	56.04.0195	SDS Relais, Type TQ2-6V	
	K....10	56.04.0195	SDS Relais, Type TQ2-6V	
	K....11	56.04.0195	SDS Relais, Type TQ2-6V	
	K....12	56.04.0195	SDS Relais, Type TQ2-6V	
	K....13	56.04.0195	SDS Relais, Type TQ2-6V	
	K....14	56.04.0195	SDS Relais, Type TQ2-6V	
	K....15	56.04.0195	SDS Relais, Type TQ2-6V	
	K....16	56.04.0195	SDS Relais, Type TQ2-6V	
	P.....1	54.11.2004	Euro.2*32 contacts	
	Q.....1	50.03.0436	BC 237 npn 100mA	
	Q.....2	50.03.0436	BC 237 npn 100mA	
	Q.....3	50.03.0436	BC 237 npn 100mA	
	Q.....4	50.03.0436	BC 237 npn 100mA	
	Q.....5	50.03.0436	BC 237 npn 100mA	
	Q.....6	50.03.0436	BC 237 npn 100mA	
	Q.....7	50.03.0436	BC 237 npn 100mA	
	Q.....8	50.03.0436	BC 237 npn 100mA	
	Q.....9	50.03.0436	BC 237 npn 100mA	
	Q....10	50.03.0436	BC 237 npn 100mA	
	Q....11	50.03.0436	BC 237 npn 100mA	
	Q....12	50.03.0436	BC 237 npn 100mA	
	Q....13	50.03.0436	BC 237 npn 100mA	
	Q....14	50.03.0436	BC 237 npn 100mA	
	Q....15	50.03.0436	BC 237 npn 100mA	
	Q....16	50.03.0436	BC 237 npn 100mA	
	R.....1	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R.....2	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R.....3	57.11.3105	1 MOhm 5% 0.25W MF	
	R.....4	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R.....5	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R.....6	57.11.3105	1 MOhm 5% 0.25W MF	
	R.....7	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R.....8	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R.....9	57.11.3105	1 MOhm 5% 0.25W MF	
	R....10	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....11	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....12	57.11.3105	1 MOhm 5% 0.25W MF	
	R....13	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....14	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....15	57.11.3105	1 MOhm 5% 0.25W MF	
	R....16	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....17	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....18	57.11.3105	1 MOhm 5% 0.25W MF	
	R....19	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....20	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....21	57.11.3105	1 MOhm 5% 0.25W MF	
	R....22	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....23	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....24	57.11.3105	1 MOhm 5% 0.25W MF	
	R....25	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....26	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....27	57.11.3105	1 MOhm 5% 0.25W MF	
	R....28	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....29	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....30	57.11.3105	1 MOhm 5% 0.25W MF	
	R....31	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....32	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....33	57.11.3105	1 MOhm 5% 0.25W MF	
	R....34	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....35	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....36	57.11.3105	1 MOhm 5% 0.25W MF	
	R....37	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....38	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....39	57.11.3105	1 MOhm 5% 0.25W MF	
	R....40	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....41	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....42	57.11.3105	1 MOhm 5% 0.25W MF	
	R....43	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....44	57.11.3512	5.1 kOhm 1% 0.25W MF	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R....45	57.11.3105	1 MOhm 5% 0.25W MF	
	R....46	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....47	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R....48	57.11.3105	1 MOhm 5% 0.25W MF	
	R....50	57.92.7014	PTC 0.650mA	
	RZ....1	57.88.2101	100 Ohm 2% resistor networks	
	RZ....2	57.88.4104	100 kOhm 2% resistor networks	
	RZ....3	57.88.2682	6.8 kOhm 2% resistor networks	
	RZ....4	57.88.2682	6.8 kOhm 2% resistor networks	
	RZ....5	57.88.2682	6.8 kOhm 2% resistor networks	
	RZ....6	57.88.2682	6.8 kOhm 2% resistor networks	
	RZ....7	57.88.4104	100 kOhm 2% resistor networks	
	W.....1	57.11.3000	0 Ohm not used (nur fuer mono)	
	W.....2	57.11.3000	0 Ohm "	
	W.....3	57.11.3000	0 Ohm "	
	W.....4	57.11.3000	0 Ohm "	
	W.....5	57.11.3000	0 Ohm "	
	W.....6	57.11.3000	0 Ohm "	
	W.....7	57.11.3000	0 Ohm "	
	W.....8	57.11.3000	0 Ohm "	
	W.....9	57.11.3000	0 Ohm "	
	W....10	57.11.3000	0 Ohm "	
	W....11	57.11.3000	0 Ohm "	
	W....12	57.11.3000	0 Ohm "	
	W....13	57.11.3000	0 Ohm "	
	W....14	57.11.3000	0 Ohm "	
	W....15	57.11.3000	0 Ohm "	
	W....16	57.11.3000	0 Ohm "	
	W....17	57.11.3000	0 Ohm "	
	W....18	57.11.3000	0 Ohm "	
	W....19	57.11.3000	0 Ohm "	
	W....20	57.11.3000	0 Ohm "	
	W....21	57.11.3000	0 Ohm	
	W....22	57.11.3000	0 Ohm	
	W....23	57.11.3000	0 Ohm	
	W....24	57.11.3000	0 Ohm	
	W....25	57.11.3000	0 Ohm	
	W....26	57.11.3000	0 Ohm	
	W....27	57.11.3000	0 Ohm	
	W....28	57.11.3000	0 Ohm	
	W....29	57.11.3000	0 Ohm not used	
	W....30	57.11.3000	0 Ohm not used	
	W....31	57.11.3000	0 Ohm not used	
	W....32	57.11.3000	0 Ohm not used	
	W....33	57.11.3000	0 Ohm not used	Col. 1
	W....34	57.11.3000	0 Ohm not used	Col. 2
	W....35	57.11.3000	0 Ohm not used	Col. 3
	W....36	57.11.3000	0 Ohm not used	Col. 4
	W....37	57.11.3000	0 Ohm not used	Col. 5
	W....38	57.11.3000	0 Ohm not used	Col. 6
	W....39	57.11.3000	0 Ohm not used	Col. 7
	W....40	57.11.3000	0 Ohm not used	Col. 8
	W....41	57.11.3000	0 Ohm not used	Col. 9
	W....42	57.11.3000	0 Ohm not used	Col.10
	W....43	57.11.3000	0 Ohm not used	Col.11
	W....44	57.11.3000	0 Ohm not used	Col.12
	W....45	57.11.3000	0 Ohm not used	Col.13
	W....46	57.11.3000	0 Ohm not used	Col.14
	W....47	57.11.3000	0 Ohm not used	Col.15
	W....48	57.11.3000	0 Ohm not used	Col.16
	MP....1	1.917.601.11	1 pcs Print	Studer
	MP....2	1.917.601.01	1 pcs Bez. Streifen 6.3*91	Studer
	MP....3	1.010.006.33	2 pcs Griffhaelften	Studer
	MP....4	1.010.090.49	1 pcs Abschirmblech	Studer
	MP....5	1.010.096.49	1 pcs Klarsicht Schild	
	MP....6	28.21.1380	1 pcs Rohrniete D2.5/6	
	MP....7	21.01.0280	2 pcs Z - Schraube M2.5*8	
	MP....8	21.01.0281	2 pcs Z - Schraube M2.5*10	
	MP....9	24.16.1025	4 pcs Rippenscheibe D2.7/5	
	MP...10	43.01.0108	1 pcs ESE-Warnschild	
	MP...11	. .		
	MP...12	. .		
	MP...13	53.03.0168	2 pcs IC-Sockel 16 Pin	

1.917.601.00 MONITOR RELAYS 8*2/2 SE 88/11/1100

SIGNAL INPUT/OUTPUT INTERFACE 1.917.611.00



Pin location list **1.917.611**

```
          1.1 = RELAIS 1 , CONTACT 1
          a   = MAKE   CONTACT ; ARBEITSKONTAKT
          r   = BREAK  CONTACT ; RUHEKONTAKT
          s   = SWITCH CONTACT ; SCHALTKONTAKT
```

P	NO	NAME	REMARK	B=BUS O=CONNECTION S=SYMMETRIC I=INVERS AS=ASYMMETRIC		
P1	01A	1.1-a	RELAIS 1.1	A		
P1	01B	1.1-s	RELAIS 1.1	A		
P1	02A	1.2-a/1.1-r	RELAIS 1.2 / RELAIS 1.1	A		
P1	02B	1.2-s	RELAIS 1.2	A		
P1	03A	2.2-a/2.1-r	RELAIS 2.2 / RELAIS 2.1	A		
P1	03B	2.2-s	RELAIS 2.2	A		
P1	04A	2.1-a	RELAIS 2.1	B		
P1	04B	2.1-s	RELAIS 2.1	B		
P1	05A	3.2-a/3.1-r	RELAIS 3.2 / RELAIS 3.1	B		
P1	05B	3.2-s	RELAIS 3.2	B		
P1	06A	3.1-a	RELAIS 3.1	B		
P1	06B	3.1-s	RELAIS 3.1	B		
P1	07A	4.2-a/4.1-r	RELAIS 4.2 / RELAIS 4.1	C		
P1	07B	4.2-s	RELAIS 4.2	C		
P1	08A	4.1-a	RELAIS 4.1	C		
P1	08B	4.1-s	RELAIS 4.1	C		
P1	09A	5.1-a	RELAIS 5.1	C		
P1	09B	5.1-s	RELAIS 5.1	C		
P1	10A	5.2-a/5.1-r	RELAIS 5.2 / RELAIS 5.1	D		
P1	10B	5.2-s	RELAIS 5.2	D		
P1	11A	6.1-a	RELAIS 6.1	D		
P1	11B	6.1-s	RELAIS 6.1	D		
P1	12A	6.2-a/6.1-r	RELAIS 6.2 / RELAIS 6.1	D		
P1	12B	6.2-s	RELAIS 6.2	D		
P1	13A	7.2-a	RELAIS 7.2	E		
P1	13B	7.2-r	RELAIS 7.2	E		
P1	14	- 15.5V	- SUPPLY		B	X X
P1	15	0V-A	GROUND AUDIO		B	X X
P1	16	+ 15.5V	+ SUPPLY		B	X X
P1	17A	7.2-s	RELAIS 7.2	E		
P1	17B	8.2-s	RELAIS 8.2	E		
P1	18A	8.2-a	RELAIS 8.2	F		
P1	18B	8.2-r	RELAIS 8.2	F		
P1	19A	IN 8+ / 7.1-a	OPTO IN 8+ / RELAIS 7.1	F		
P1	19B	IN 8- / 7.1-r	OPTO IN 8- / RELAIS 7.1	F		
P1	20A	IN 7+ / 7.1-s	OPTO IN 7+ / RELAIS 7.1	F		
P1	20B	IN 7- / 8.1-a	OPTO IN 7- / RELAIS 8.1	F		
P1	21A	IN 6+ / 8.1-r	OPTO IN 6+ / RELAIS 8.1	F		
P1	21B	IN 6- / 8.1-s	OPTO IN 6- / RELAIS 8.1	F		
P1	22A	IN 5+	OPTO IN 5+	G		
P1	22B	IN 5-	OPTO IN 5-	G		
P1	23A	IN 4+	OPTO IN 4+	G		
P1	23B	IN 4-	OPTO IN 4-	G		
P1	24A	IN 3+	OPTO IN 3+	G		
P1	24B	IN 3-	OPTO IN 3-	G		
P1	25A	IN 2+	OPTO IN 2+	H		

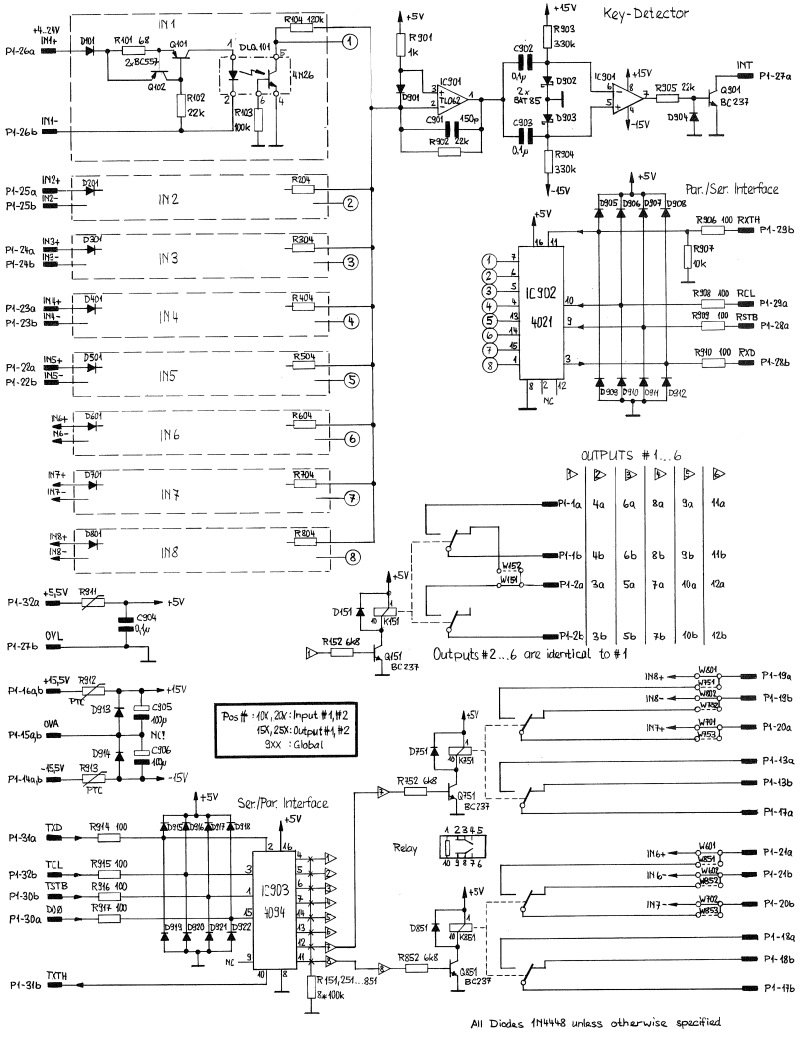
Pin location list

1.917.611

P1	25B	IN 2-	OPTO IN 2-	H		
P1	26A	IN 1+	OPTO IN 1+	H		
P1	26B	IN 1-	OPTO IN 1-	H		
P1	27A	INT	INTERUPT			
P1	27B	0V-L	GROUND SIGN (LOGIC)		B	X X
P1	28A	RSTB	RECEIVE STROBE			
P1	28B	RXD	RECEIVE DATA			
P1	29A	RCL	RECEIVE CLOCK			
P1	29B	RXTH	RECEIVE DATA THROUGH			
P1	30A	DO 0	DATA OUT 0 (ENABLE)			
P1	30B	TSTB	TRANSMIT STROBE			
P1	31A	TXD	TRANSMIT DATA			
P1	31B	TXTH	TRANSMIT DATA THROUGH			
P1	32A	+ 5.5V	+ SUPPLY		B	
P1	32B	TCL	TRANSMIT CLOCK			

SIGNAL INPUT/OUTPUT INTERFACE

1.917.611.00



SIGNAL INPUT/OUTPUT INTERFACE

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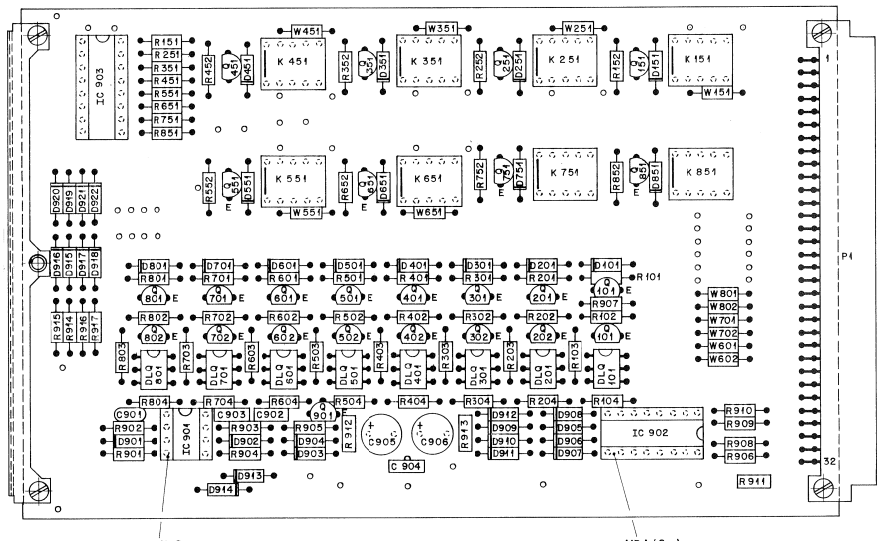

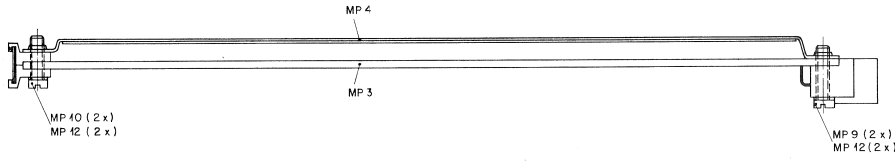

STUDER REGENSDORF ZÜRICH	Benennung: SIGNAL I/O INTERFACE ESE	Nummer: 1.917.611-00	

Änderung | Ausgabe: 1.11.89 | Datum | Gez. | Gepr. | Ges. | Index | Kopie für:

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C...901	59.34.2151	150 pF CER, 10%	
	C...902	59.06.0104	100 nF PE, 10%	
	C...903	59.06.0104	100 nF PE, 10%	
	C...904	59.06.0104	100 nF PE, 10%	
	C...905	59.22.5101	100 uF EL, -20%, 25V	
	C...906	59.22.5101	100 uF EL, -20%, 25V	
	D...101	50.04.0125	1N4448	any
	D...151	50.04.0125	1N4448	any
	D...201	50.04.0125	1N4448	any
	D...251	50.04.0125	1N4448	any
	D...301	50.04.0125	1N4448	any
	D...351	50.04.0125	1N4448	any
	D...401	50.04.0125	1N4448	any
	D...451	50.04.0125	1N4448	any

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	D...501	50.04.0125	1N4448	any
	D...551	50.04.0125	1N4448	any
	D...601	50.04.0125	1N4448	any
	D...651	50.04.0125	1N4448	any
	D...701	50.04.0125	1N4448	any
	D...751	50.04.0125	1N4448	any
	D...801	50.04.0125	1N4448	any
	D...851	50.04.0125	1N4448	any
	D...901	50.04.0125	1N4448	any
	D...902	50.04.0127	BAT85 schottky	any
	D...903	50.04.0127	BAT85 schottky	any
	D...904	50.04.0125	1N4448	any
	D...905	50.04.0125	1N4448	any
	D...906	50.04.0125	1N4448	any
	D...907	50.04.0125	1N4448	any
	D...908	50.04.0125	1N4448	any
	D...909	50.04.0125	1N4448	any
	D...910	50.04.0125	1N4448	any
	D...911	50.04.0125	1N4448	any
	D...912	50.04.0125	1N4448	any
	D...913	50.04.0125	1N4448	any
	D...914	50.04.0125	1N4448	any
	D...915	50.04.0125	1N4448	any
	D...916	50.04.0125	1N4448	any
	D...917	50.04.0125	1N4448	any
	D...918	50.04.0125	1N4448	any
	D...919	50.04.0125	1N4448	any
	D...920	50.04.0125	1N4448	any
	D...921	50.04.0125	1N4448	any
	D...922	50.04.0125	1N4448	any

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	DLQ.101	50.99.0126	4N26 Opto-Coupler	
	DLQ.201	50.99.0126	4N26 Opto-Coupler	
	DLQ.301	50.99.0126	4N26 Opto-Coupler	
	DLQ.401	50.99.0126	4N26 Opto-Coupler	
	DLQ.501	50.99.0126	4N26 Opto-Coupler	
	DLQ.601	50.99.0126	4N26 Opto-Coupler	
	DLQ.701	50.99.0126	4N26 Opto-Coupler	
	DLQ.801	50.99.0126	4N26 Opto-Coupler	
	IC..901	50.09.0119	TL062 Dual Op Amp	
	IC..902	50.07.1021	4021 Shift register PI/SO	
	IC..903	50.07.0018	4094 Shift and store bus register	
	K...151	56.04.0155	SDS Relais, Type TQ2-6V	
	K...251	56.04.0155	SDS Relais, Type TQ2-6V	
	K...351	56.04.0155	SDS Relais, Type TQ2-6V	
	K...451	56.04.0155	SDS Relais, Type TQ2-6V	
	K...551	56.04.0155	SDS Relais, Type TQ2-6V	
	K...651	56.04.0155	SDS Relais, Type TQ2-6V	
	K...751	56.04.0155	SDS Relais, Type TQ2-6V	
	K...851	56.04.0155	SDS Relais, Type TQ2-6V	
	MP....1	53.03.0168	2 pcs IC-Sockets 16 Pin	
	MP....2	53.03.0166	1 pcs IC-Socket 8 Pin	
	MP....3	1.917.611.1	1 pcs Print	St
	MP....4	1.010.090.49	1 pcs Absch. komplett	St
	MP....5	1.010.006.33	2 pcs Griffhaelften	St
	MP....6	43.01.0108	1 pcs ESE Warnschild	
	MP....7	1.917.611.01	1 pcs Bez. Streifen 6.3*91	St
	MP....8	28.21.1380	1 pcs Rohrniete,D2.25*6.5	
	MP....9	21.01.0281	2 pcs Z Schr. ZN M2.5*10	
	MP...10	21.01.0280	2 pcs Z Schr. ZN M2.5*8	
	MP...11	1.010.096.49	1 pcs Klarsichtschild	St
	MP...12	24.16.1025	4 pcs Rippenscheibe, D2.75/5	
	P.....1	54.11.2004	Euro, 2*32 contacts	
	Q...101	50.03.0515	BC557 PNP	any
	Q...102	50.03.0515	BC557 PNP	any
	Q...151	50.03.0436	BC237 NPN	any
	Q...201	50.03.0515	BC557 PNP	any
	Q...202	50.03.0515	BC557 PNP	any
	Q...251	50.03.0436	BC237 NPN	any
	Q...301	50.03.0515	BC557 PNP	any
	Q...302	50.03.0515	BC557 PNP	any
	Q...351	50.03.0436	BC237 NPN	any
	Q...401	50.03.0515	BC557 PNP	any
	Q...402	50.03.0515	BC557 PNP	any
	Q...451	50.03.0436	BC237 NPN	any
	Q...501	50.03.0515	BC557 PNP	any
	Q...502	50.03.0515	BC557 PNP	any
	Q...551	50.03.0436	BC237 NPN	any
	Q...601	50.03.0515	BC557 PNP	any
	Q...602	50.03.0515	BC557 PNP	any
	Q...651	50.03.0436	BC237 NPN	any
	Q...701	50.03.0515	BC557 PNP	any
	Q...702	50.03.0515	BC557 PNP	any
	Q...751	50.03.0436	BC237 NPN	any
	Q...801	50.03.0515	BC557 PNP	any
	Q...802	50.03.0515	BC557 PNP	any
	Q...851	50.03.0436	BC237 NPN	any
	Q...901	50.03.0436	BC237 NPN	any
	R...101	57.11.3680	68 Ohm	
	R...102	57.11.3223	22 kOhm	
	R...103	57.11.3104	100 kOhm	
	R...104	57.11.3124	120 kOhm	
	R...151	57.11.3104	100 kOhm	
	R...152	57.11.3682	6.8 kOhm	
	R...201	57.11.3680	68 Ohm	
	R...202	57.11.3223	22 kOhm	
	R...203	57.11.3104	100 kOhm	
	R...204	57.11.3124	120 kOhm	
	R...251	57.11.3104	100 kOhm	
	R...252	57.11.3682	6.8 kOhm	
	R...301	57.11.3680	68 Ohm	
	R...302	57.11.3223	22 kOhm	
	R...303	57.11.3104	100 kOhm	
	R...304	57.11.3124	120 kOhm	
	R...351	57.11.3104	100 kOhm	
	R...352	57.11.3682	6.8 kOhm	
	R...401	57.11.3680	68 Ohm	
	R...402	57.11.3223	22 kOhm	
	R...403	57.11.3104	100 kOhm	
	R...404	57.11.3124	120 kOhm	
	R...451	57.11.3104	100 kOhm	
	R...452	57.11.3682	6.8 kOhm	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R...501	57.11.3680	68 Ohm	
	R...502	57.11.3223	22 kOhm	
	R...503	57.11.3104	100 kOhm	
	R...504	57.11.3124	120 kOhm	
	R...551	57.11.3104	100 kOhm	
	R...552	57.11.3682	6.8 kOhm	
	R...601	57.11.3680	68 Ohm	
	R...602	57.11.3223	22 kOhm	
	R...603	57.11.3104	100 kOhm	
	R...604	57.11.3124	120 kOhm	
	R...651	57.11.3104	100 kOhm	
	R...652	57.11.3682	6.8 kOhm	
	R...701	57.11.3680	68 Ohm	
	R...702	57.11.3223	22 kOhm	
	R...703	57.11.3104	100 kOhm	
	R...704	57.11.3124	120 kOhm	
	R...751	57.11.3104	100 kOhm	
	R...752	57.11.3682	6.8 kOhm	
	R...801	57.11.3680	68 Ohm	
	R...802	57.11.3223	22 kOhm	
	R...803	57.11.3104	100 kOhm	
	R...804	57.11.3124	120 kOhm	
	R...851	57.11.3104	100 kOhm	
	R...852	57.11.3682	6.8 kOhm	
	R...901	57.11.3102	1 kOhm	
	R...902	57.11.3223	22 kOhm	
	R...903	57.11.3334	330 kOhm	
	R...904	57.11.3334	330 kOhm	
	R...905	57.11.3223	22 kOhm	
	R...906	57.11.3101	100 Ohm	
	R...907	57.11.3103	10 kOhm	
	R...908	57.11.3101	100 Ohm	
	R...909	57.11.3101	100 Ohm	
	R...910	57.11.3101	100 Ohm	
	R...911	57.92.7013	0.75 Ohm Ihold=0.5A	PTC
	R...912	57.92.7013	0.75 Ohm Ihold=0.5A	PTC
	R...913	57.92.7013	0.75 Ohm Ihold=0.5A	PTC
	R...914	57.11.3101	100 Ohm	
	R...915	57.11.3101	100 Ohm	
	R...916	57.11.3101	100 Ohm	
	R...917	57.11.3101	100 Ohm	
	W...151	57.11.3000	Wiring Bridge	
	W...152	. . . 0	not used Wiring Bridge	
	W...251	57.11.3000	Wiring Bridge	
	W...252	. . . 0	not used Wiring Bridge	
	W...351	57.11.3000	Wiring Bridge	
	W...352	. . . 0	not used Wiring Bridge	
	W...451	57.11.3000	Wiring Bridge	
	W...452	. . . 0	not used Wiring Bridge	
	W...551	57.11.3000	Wiring Bridge	
	W...552	. . . 0	not used Wiring Bridge	
	W...601	57.11.3000	Wiring Bridge	
	W...602	57.11.3000	Wiring Bridge	
	W...651	57.11.3000	Wiring Bridge	
	W...652	. . . 0	not used Wiring Bridge	
	W...701	57.11.3000	Wiring Bridge	
	W...702	57.11.3000	Wiring Bridge	
	W...751	. . . 0	not used Wiring Bridge	
	W...752	. . . 0	not used Wiring Bridge	
	W...753	. . . 0	not used Wiring Bridge	
	W...801	57.11.3000	Wiring Bridge	
	W...802	57.11.3000	Wiring Bridge	
	W...851	. . . 0	not used Wiring Bridge	
	W...852	. . . 0	not used Wiring Bridge	
	W...853	. . . 0	not used Wiring Bridge	

Input 1, 2,... : Pos No 10X, 20X,...
Output 1, 2,... : Pos No 15X, 25X,...
Global parts : Pos No 9XX

CER=Ceramic, EL=Electrolytic, PE=Polyester

MANUFACTURER: TI=Texas Instrument, St=Studer

1.917.611.00 SIGNAL INPUT/OUTPUT INTERFACE AB 89/11/0600

Section 8 19" Rack Mount Power Supply

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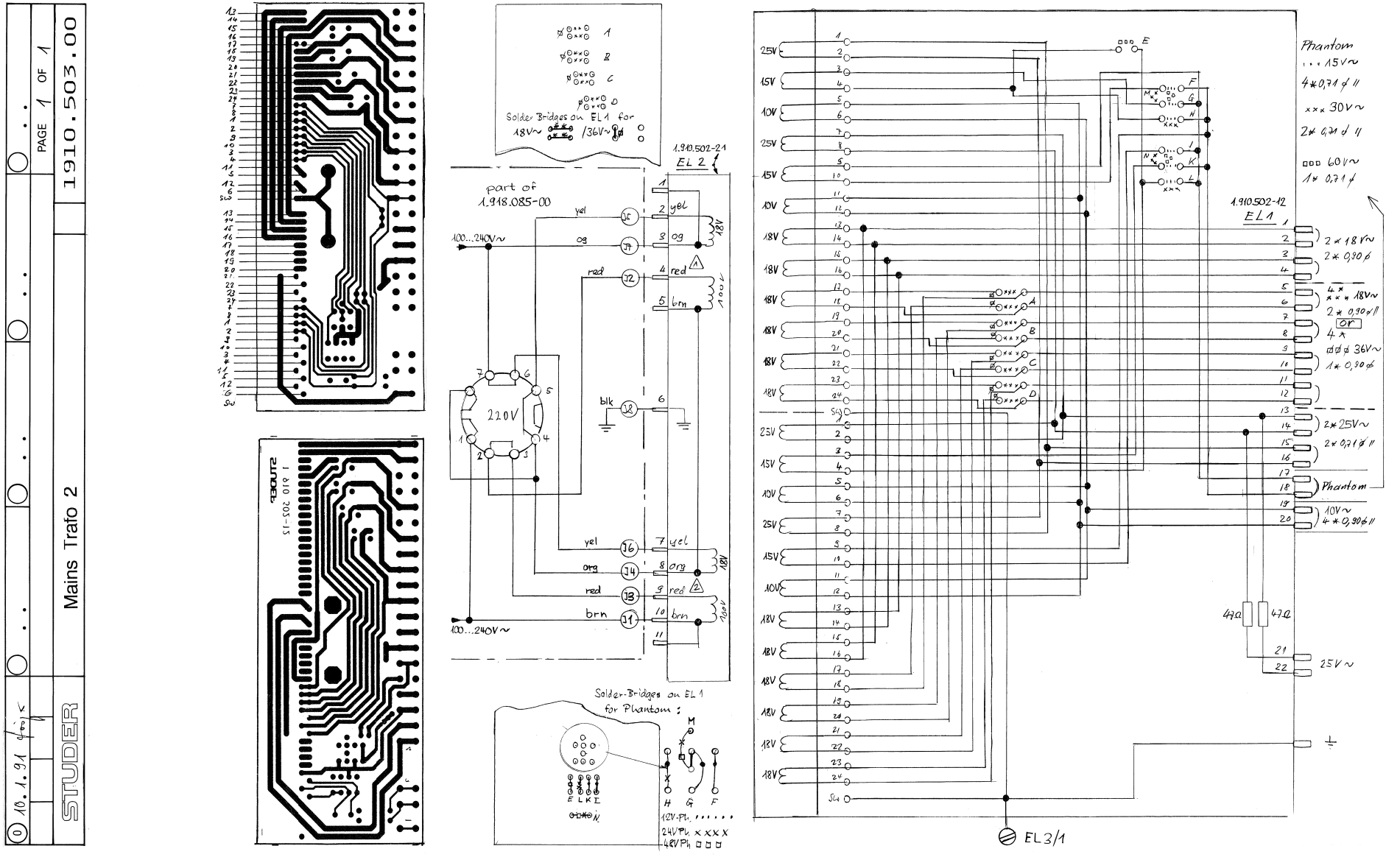
MAINS TRAFO 2 1.910.503



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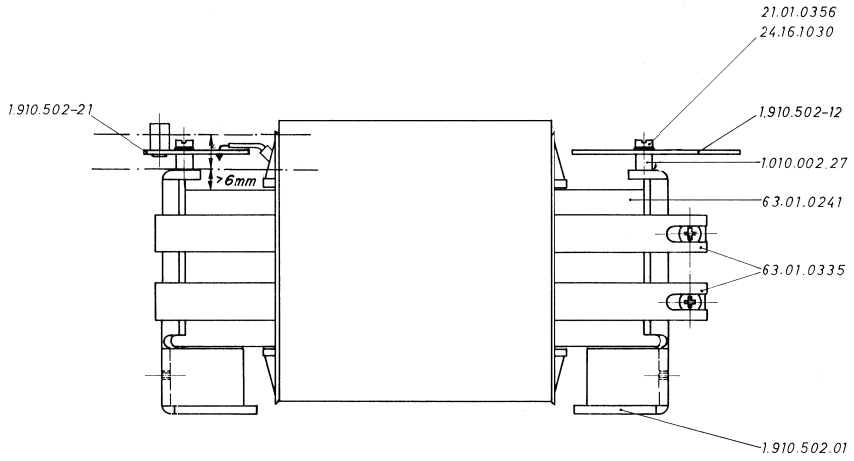
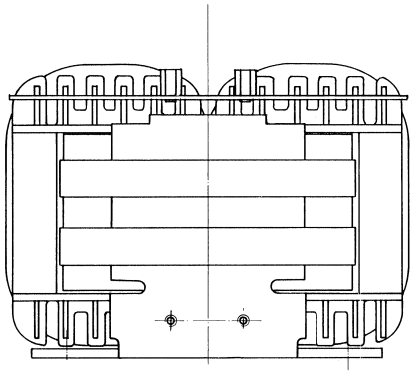
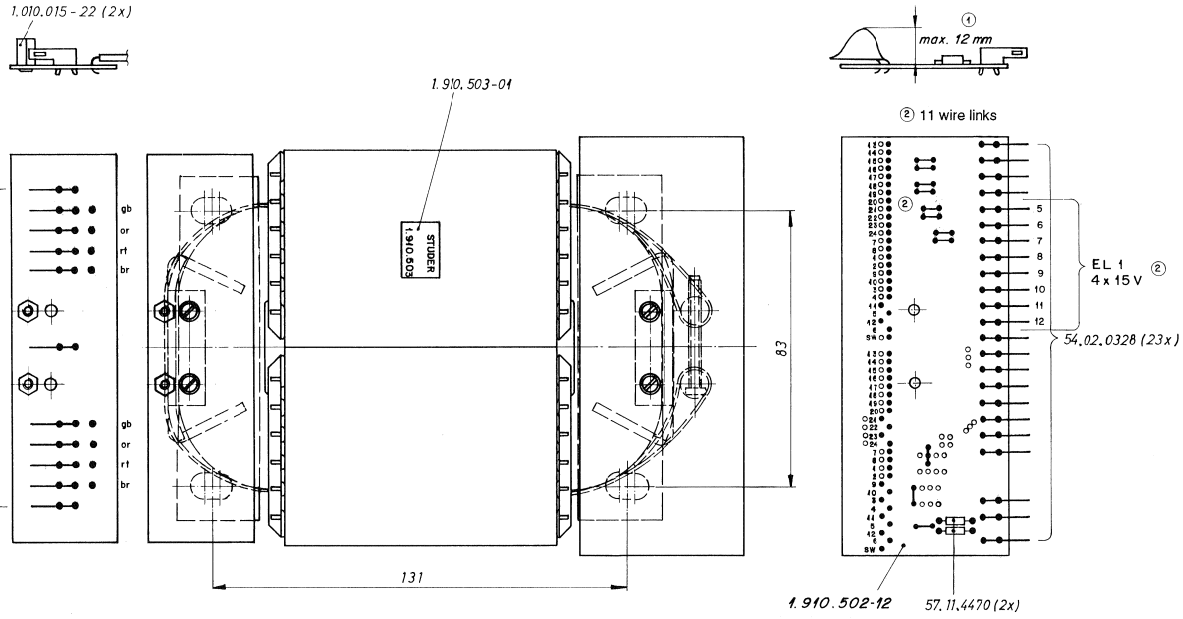






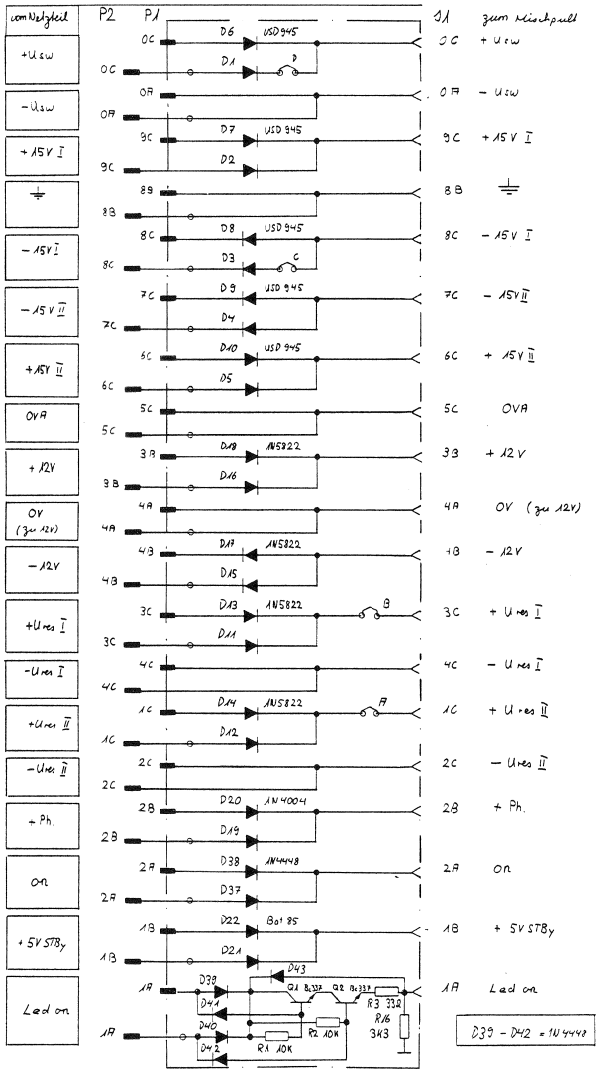
Änderung					
					③
	11.2.92	FH	W	W	②
	21.3.89	FH	W	W	①
Ausgabe	5.10.82	A.Ho	W	W	⓪
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

Benennung: Mains Trafo 2

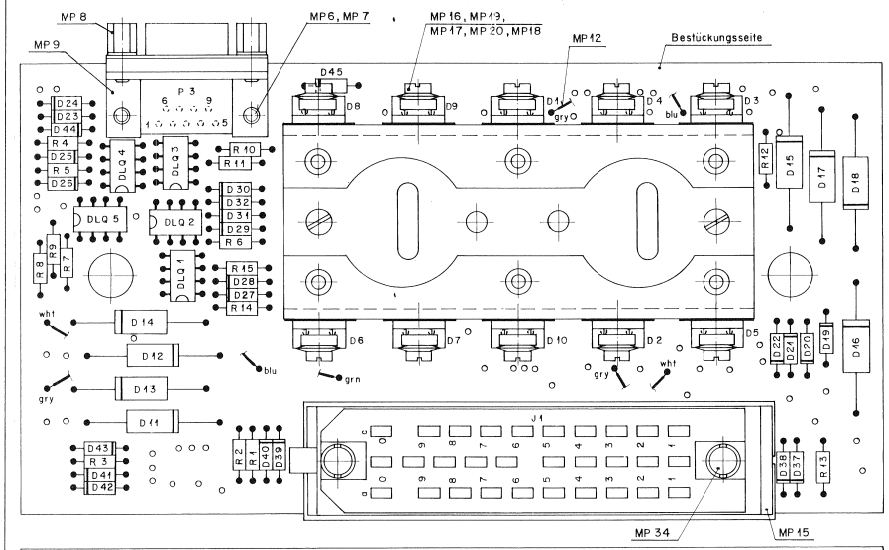
Nummer: 1.910.503

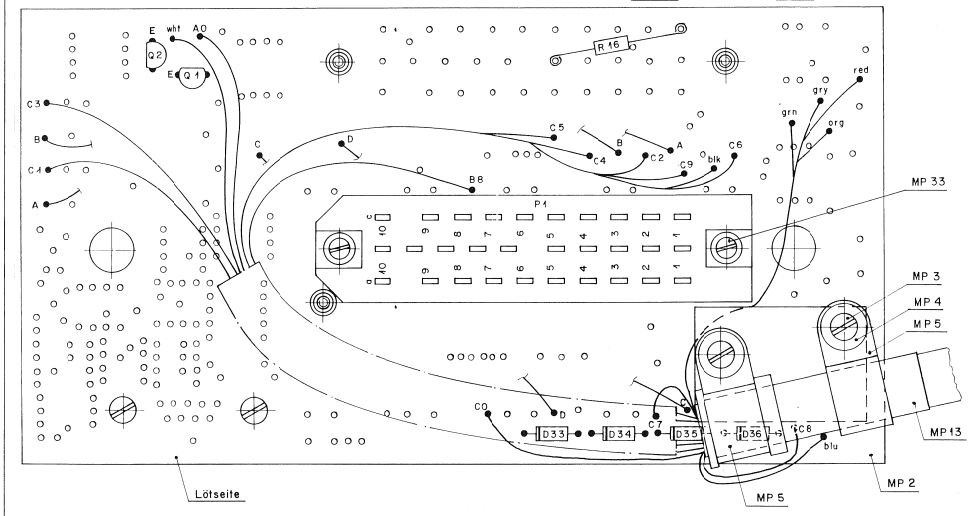
CHANGE-OVER BOARD 1.918.075.00

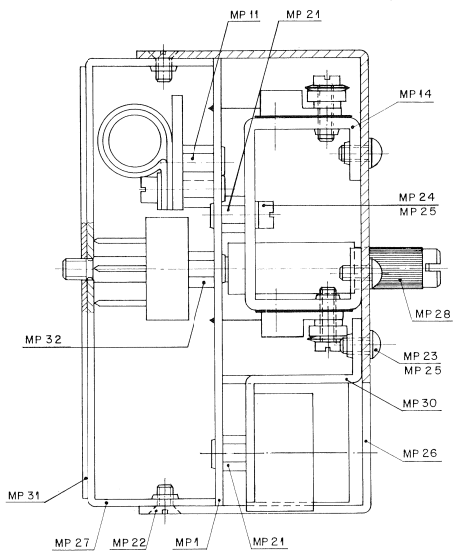


0 29.09.91 Eni	. .	. .	. .	. .
				PAGE 1 OF 1
STUDER	CHANGE-OVER BOARD			1.918.075.00

CHANGE-OVER BOARD 1.918.075.00







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Ausgabe	14.2.91					(0)
Datum	Gez.	Gepr.	Ges.	Index		

Kopie für:

STUDER REGENSDORF ZÜRICH | Benennung: CHANGE-OVER BOARD | Nummer: 1.918.075-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	D....1	50.04.0516	USD 945	45V 16 A
	D....2	50.04.0516	USD 945	45V 16 A
	D....3	50.04.0516	USD 945	45V 16 A
	D....4	50.04.0516	USD 945	45V 16 A
	D....5	50.04.0516	USD 945	45V 16 A
	D....6	50.04.0516	USD 945	45V 16 A
	D....7	50.04.0516	USD 945	45V 16 A
	D....8	50.04.0516	USD 945	45V 16 A
	D....9	50.04.0516	USD 945	45V 16 A
	D....10	50.04.0516	USD 945	45V 16 A
	D....11	50.04.0519	1N5822	30V 3 A schottky
	D....12	50.04.0519	1N5822	30V 3 A schottky
	D....13	50.04.0519	1N5822	30V 3 A schottky
	D....14	50.04.0519	1N5822	30V 3 A schottky
	D....15	50.04.0519	1N5822	30V 3 A schottky
	D....16	50.04.0519	1N5822	30V 3 A schottky
	D....17	50.04.0519	1N5822	30V 3 A schottky
	D....18	50.04.0519	1N5822	30V 3 A schottky
	D....19	50.04.0103	1N4004	400V 1 A
	D....20	50.04.0103	1N4004	400V 1 A
	D....21	50.04.0127	BAT 85	
	D....22	50.04.0127	BAT 85	
	D....23	. . 0	not used	
	D....24	. . 0	not used	
	D....25	. . 0	not used	
	D....26	. . 0	not used	
	D....27	. . 0	not used	
	D....28	. . 0	not used	
	D....29	. . 0	not used	
	D....30	. . 0	not used	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	D....31	. . 0	not used	
	D....32	. . 0	not used	
	D....33	. . 0	not used	
	D....34	. . 0	not used	
	D....35	. . 0	not used	
	D....36	. . 0	not used	
	D....37	50.04.0125	1N4448 (darf nicht bat 85 sein)	
	D....38	50.04.0125	1N4448 (darf nicht bat 85 sein)	
	D....39	50.04.0125	1N4448 75V 100mA	
	D....40	50.04.0125	1N4448 75V 100mA	
	D....41	50.04.0125	1N4448 75V 100mA	
	D....42	50.04.0125	1N4448 75V 100mA	
	D....43	50.04.0125	1N4448 75V 100mA	
	D....44	. . 0	not used	
	D....45	. . 0	not used	
	DLQ...1	. . 0	not used DLQ1 - DLQ5 not used	
	MP....1	1.918.075.11	1 pcs CHANGE OVER PCB	STUDER
	MP....2	1.918.075.05	1 pcs Halteblech (Platte Zugentlastung)	STUDER
	MP....3	21.53.0356	2 pcs Z-Schraube M3*10	
	MP....4	23.01.1032	2 pcs U scheibe	
	MP....5	35.05.0315	2 pcs Kabelbriede D 11.1	
	MP....6	. .	0 pcs Schraube M3*8	
	MP....7	. .	0 pcs Rippenscheibe	
	MP....8	. .	0 pcs Sechskantbolzen	
	MP....9	. .	0 pcs Befestigung 9 Pol Stecker	STUDER
	MP...11	1.010.017.22	2 pcs Loetnietmutter 6mm (Zugentlastung)	
	MP...12	1.918.075.93	1 pcs Litzen Liste CHANGE OVER BOARD	
	MP...13	1.918.076.00	1 pcs CHANGE OVER CABLE	STUDER
	MP...14	1.915.106.03	1 pcs Kuehlbuegel	STUDER
	MP...15	54.14.7002	1 pcs Riegelwanne zu Buchsenleiste	
	MP...16	21.53.0356	10 pcs Z-Schraube M3*10 (diode mon)	
	MP...17	1.010.098.27	10 pcs Distanshuelse (" ")	
	MP...18	50.20.0305	10 pcs Glimmerscheibe (" ")	
	MP...19	37.01.0101	20 pcs Tellerfeder (" ")	
	MP...20	50.20.0404	10 pcs Durchfuerung (" ")	
	MP...21	1.010.014.22	4 pcs Loetnietmutter 4.5mm	
	MP...22	1.010.045.21	4 pcs S-Schr IS sw M 3*6	
	MP...23	1.010.025.21	6 pcs Linsenschraube M 3*6	
	MP...24	21.53.0354	2 pcs Schraube M3*6 (Kuelbuegel)	
	MP...25	24.16.1030	8 pcs Rippenscheibe (Kuelbuegel) D 3.2/5.5	
	MP...26	1.918.075.01	1 pcs Abdeckung	STUDER
	MP...27	1.918.075.02	1 pcs Chassis	STUDER
	MP...28	1.918.075.03	2 pcs Befestigungsschraube	STUDER
	MP...29	1.918.075.04	0 pcs Studer-Nr.-Etikette 10*20	STUDER
	MP...30	1.918.075.06	1 pcs Blende	STUDER
	MP...31	1.918.075.07	1 pcs Unterlage	STUDER
	MP...32	1.010.016.22	2 pcs Loetnietmutter 5mm	
	MP...33	54.14.7020	2 pcs Pass Stift	
	MP...34	54.14.7023	2 pcs Pass Buchse	
	J.....1	54.14.1032	1 pcs 30 pol Stecker Buchsenleiste Print	
	P.....1	54.14.1022	1 pcs 30 pol Stecker Messerleiste Print	
	P.....2	. .	30 pol Stecker 1.918.076.00	
	P.....3	. . 0	not used (9 pol Stecker M)	
	Q.....1	50.03.0340	BC337 npn standard	
	Q.....2	50.03.0340	BC337 npn standard	
	R.....1	57.11.3103	10 kOhm 1% 0.25W MF	
	R.....2	57.11.3103	10 kOhm 1% 0.25W MF	
	R.....3	57.11.3330	33 Ohm 1% 0.25W MF	
	R.....4	. . 0	not used R4 - R15 not used	
	R....16	57.11.3332	3.3kOhm 1% 0.25W MF	

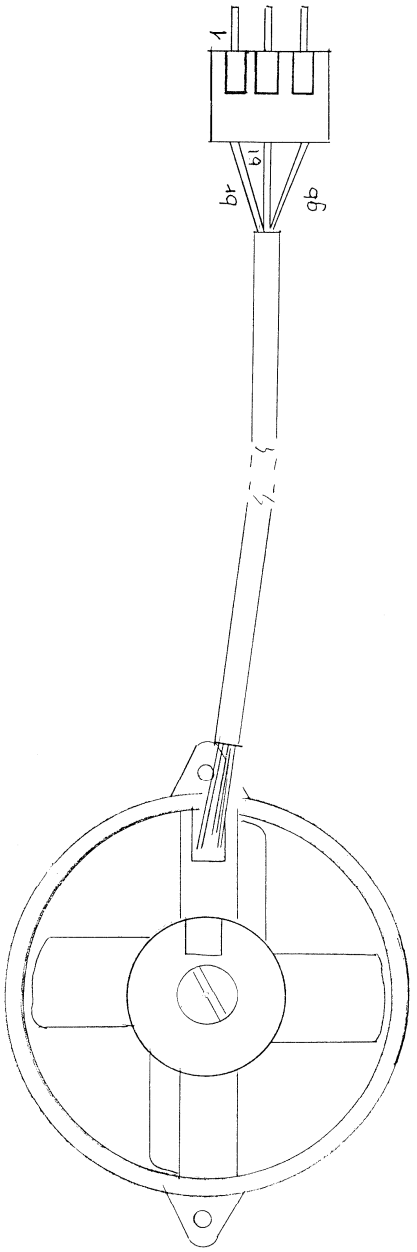
Mit Spannungsueberwachung bitte #918075i ausdrucken.

CER=Ceramic, EL =Elektrolyt
MF =Metal Film, PE =Polyesterfolien

MANUFACTURER :
Fe =Ferranti
NE =Nippon Electronic Corp.
NS =National Semiconductors
Ra =Raytheon
Six=Siliconix
Tho=Thomson
Ti =Texas Instrument

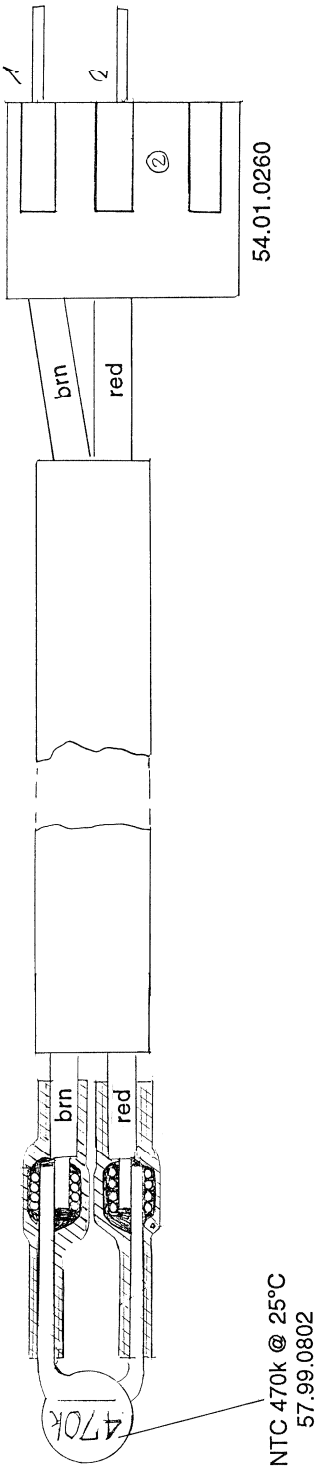
1.918.075.00 CHANGE-OVER BOARD SE 90/12/0400

VENTILATOR 1.918.078.00



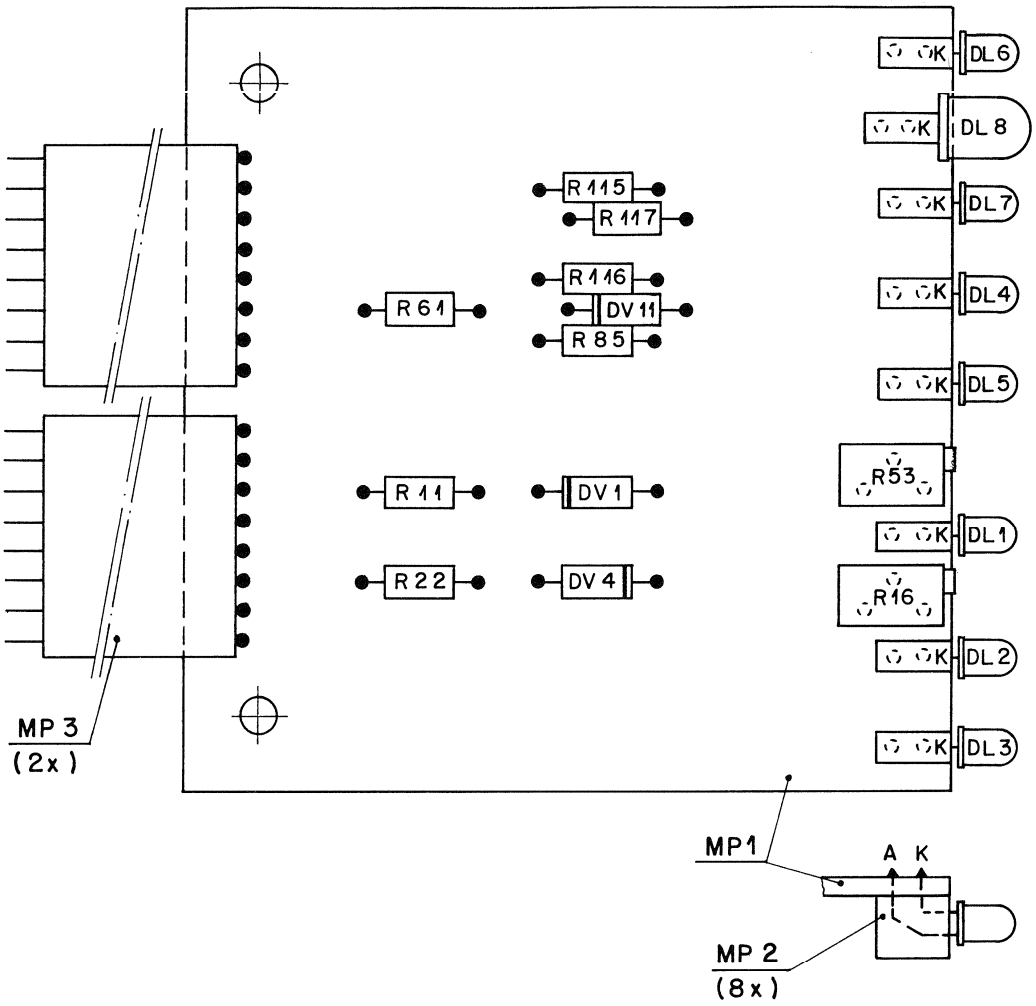
⓪ 9.1.90 frie.	① 15.11.90 al	○ . .	○ . .	○ . .
				PAGE 1 OF 1
STUDER	VENTILATOR			1.918.078.00

NTC-SENSOR **1.918.079.00**



0 13.12.89 fm	1 12.3.90 fm	2 15.11.90 ab	3 23.09.91 fm	. .
				PAGE 1 OF 1
STUDER	NTC – SENSOR			1.918.079.00

LED BOARD 1.918.082.00



Ad	..POS..	...REF.No...	DESCRIPTION.....	.MANUFACTURER
	DL....1	50.04.2130	LY3360 LED 3.18mm gb	Sie
	DL....2	50.04.2130	LY3360 LED 3.18mm gb	Sie
	DL....3	50.04.2129	LS3360 LED 3.18mm rt	Sie
	DL....4	50.04.2130	LY3360 LED 3.18mm gb	Sie
	DL....5	50.04.2130	LY3360 LED 3.18mm gb	Sie
	DL....6	50.04.2129	LS3360 LED 3.18mm rt	Sie
	DL....7	50.04.2129	LS3360 LED 3.18mm rt	Sie
	DL....8	50.04.2111	MV5753 rt/dif 5.6mm	GI
	DV....1	50.04.1103	Z 7.5V 500 mW	any
	DV....4	50.04.1103	Z 7.5V 500 mW	any
	DV...11	50.04.1106	Z 2.7V 500 mW	any
	R....11	57.11.3821	820 Ohm	
	R....16	58.05.0501	500 Ohm 22-turn Trim. +/- 12V	
	R....22	57.11.3821	820 Ohm	
	R....53	58.05.0501	500 Ohm 22-turn Trim. Phantom	
	R....61	57.11.3151	150 Ohm	
	R....85	57.11.3471	470 Ohm	
	R...115	57.11.3102	1 kOhm	
	R...116	57.11.3102	1 kOhm	
	R...117	57.11.3102	1 kOhm	
	MP....1	1.918.082.11	1 pcs LED Board PCB	St
	MP....2	1.010.012.50	8 pcs Led Holder	St
	MP....3	64.03.0502	2 pcs Flat Cable	

GI = Generel Instruments, SIE = Siemens, St=Studer

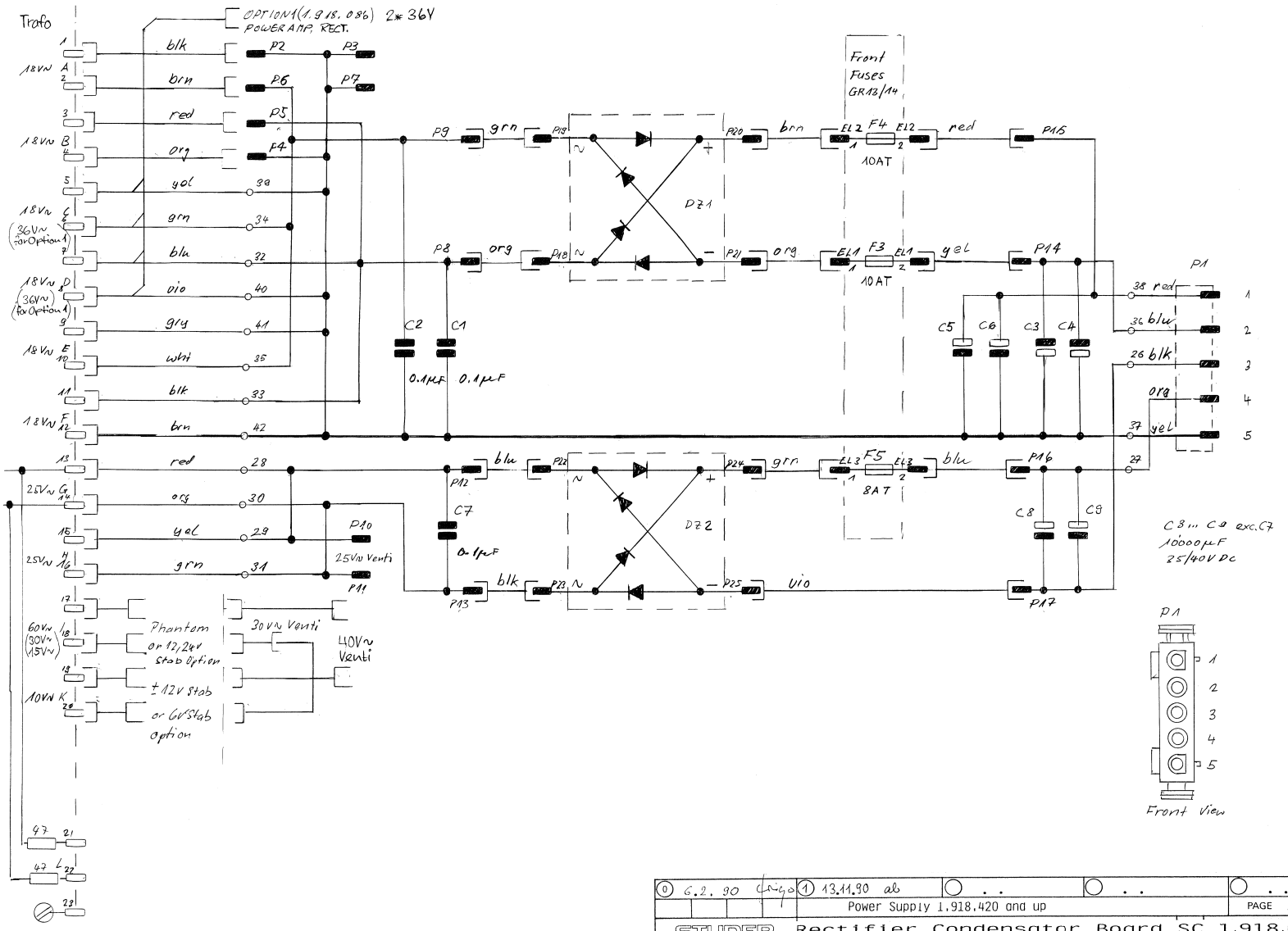
1.918.082.00 LED BOARD FRI89/10/2400

Änderung					
					③
					②
					①
Ausgabe	17.4.90				⓪
	Datum	Gez	Gepr	Ges	Index

Kopie für

STUDER REGENSDORF ZÜRICH | Benennung: LED BOARD | Nummer: 1.918.082-00

RECTIFIER/CONDENSATOR BOARD 1.918.083.00



0 6.2.90	1 13.11.90 ab	. .	. .	. .
	Power Supply 1.918.420 and up			PAGE 1 OF 1
STUDER	Rectifier Condensator Board SC 1.918.083.00			