

STUDER

PROFESSIONAL AUDIO EQUIPMENT

Service Information

Appendix to A820 MCH Service Manual:

Schematic, Layout, Parts List
for various PCBs

SI 134/89 D/E 10.85.7100

This Service Information contains technical information (schematic, layout, parts list) for the following PCBs of the STUDER A820 MCH Tape Recorder:

1.820.702.81	Basis Board Audio Control
1.820.715.83	Line Amplifier Trafoless
1.820.718.82	Communications Controller
1.820.802.00	Basis Board Audio Control II
1.820.806.00	Basis Board NRS SR/A
1.820.813.81	HF-Driver
1.820.820.81	Time Code Line Amplifier
1.820.821.00	Time Code Read Unit
1.820.823.00	Tape Deck Counter Timer II
1.820.824.00	Internal Controller SR/A
1.820.825.00	Generator Unit II
1.820.826.00	Test Generator Board
1.820.831.00	Pinch Roller Gate
1.820.873.00	Stabilizer +/- 15V / + 24V
1.820.875.82	Spooling Motor Drive Amplifier
1.820.867.00	Metering Board (included in 1.820.824.00)

Please file them under the corresponding schematics sections in the A820 MCH Service Manual.

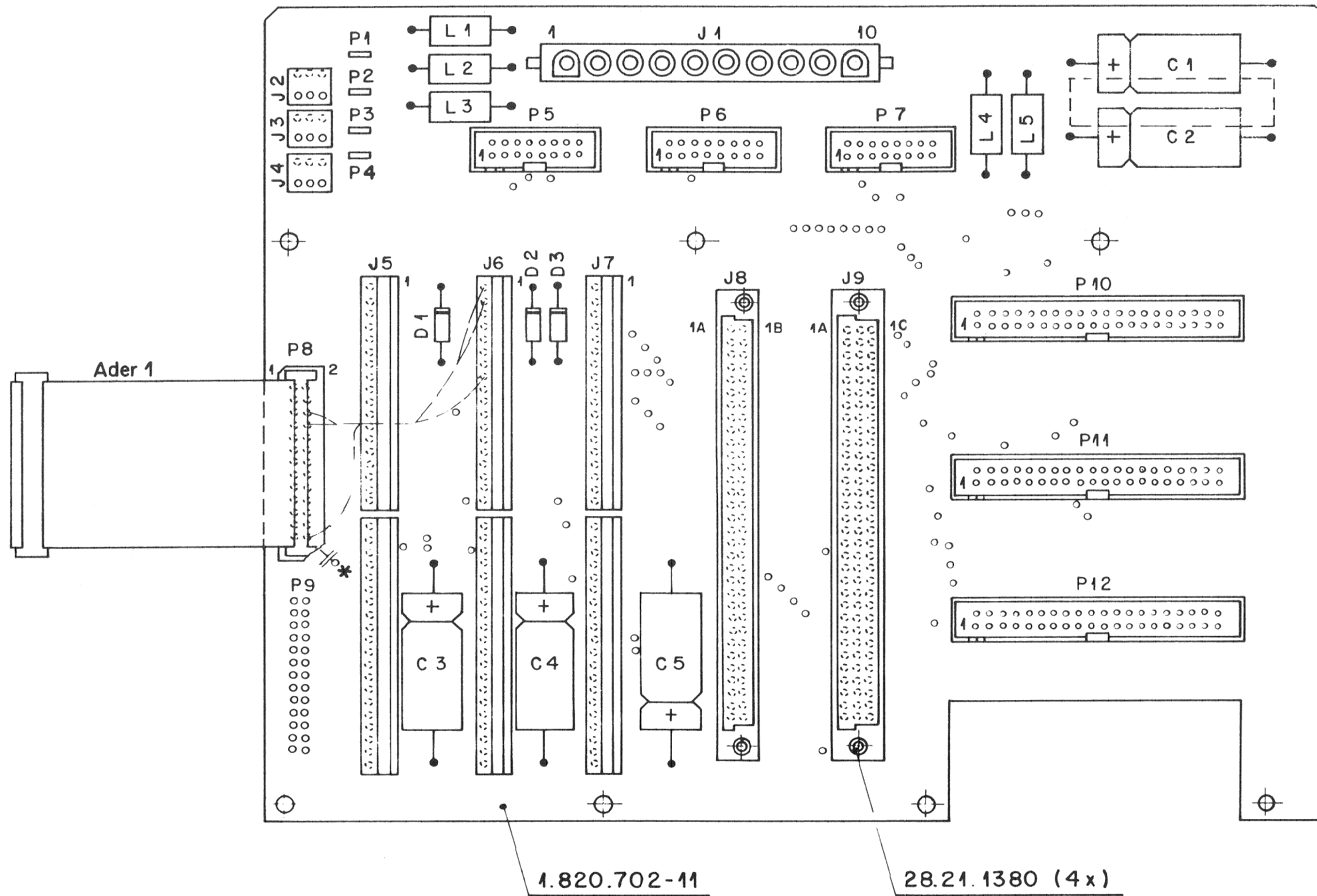
Diese Service Information enthält technische Dokumentation (Schema, Bestückungsplan, Stückliste) zu den folgenden Printkarten der STUDER A820 MCH Bandmaschine:

1.820.702.81	Basis Board Audio Control
1.820.715.83	Line Amplifier Trafoless
1.820.718.82	Communications Controller
1.820.802.00	Basis Board Audio Control II
1.820.806.00	Basis Board NRS SR/A
1.820.813.81	HF-Driver
1.820.820.81	Time Code Line Amplifier
1.820.821.00	Time Code Read Unit
1.820.823.00	Tape Deck Counter Timer II
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1.820.873.00	Stabilizer +/- 15V / + 24V
1.820.875.82	Spooling Motor Drive Amplifier
1.820.867.00	Metering Board (included in 1.820.824.00)

Bitte legen Sie diese in den entsprechenden Schema-Sektionen im A820 MCH Service Manual ab.

STUDER A820 MCH

BASIS BOARD AUDIO CONTROL 1.820.702.81



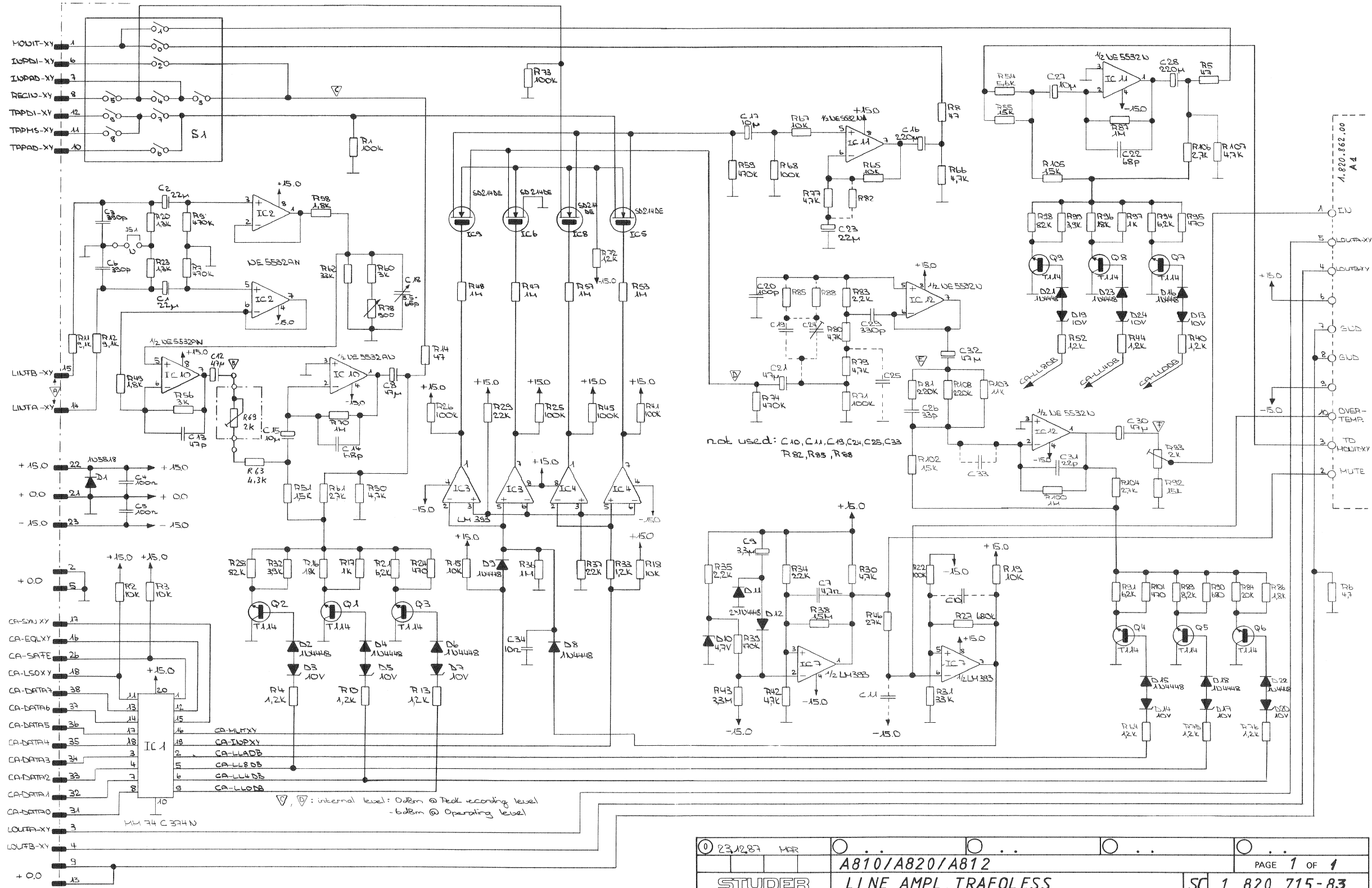
IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
C.....1		59.25.1471	470 uF	-20% 16 V E1	
C.....2		59.25.1471	470 uF	-20% 16 V E1	
C.....3		59.25.1102	1000 uF	-20% 6.3 V E1	
C.....4		59.25.1471	470 uF	-20% 16 V E1	
C.....5		59.25.1471	470 uF	-20% 16 V E1	
U.....1		50.74.0122	1N 4001	... 1N 4004	GI,ITT,Mot
U.....2		50.04.1503	7.5 V Z	BZX 85 C 7V5, BZV ...	ITT,Mot,Ph,Tf+No
U.....3		50.74.0122	1N 4001	... 1N 4004	GI,ITT,Mot
J.....1		54.75.0010	10 cont.	AMP nr. 82485-3	
J.....2		54.31.0287	3 cont.	AMP nr. 163.680-1	
J.....3		54.31.0287	3 cont.	AMP nr. 163.680-1	
J.....4		54.31.0287	3 cont.	AMP nr. 163.680-1	
J.....5				see note 1	
J.....6				see note 1	
J.....7				see note 1	
J.....8		54.11.2005		see note 2	
J.....9		54.11.2024		see note 3	
L.....1		52.31.0115		HF-coil, Philips nr. 4312 020 36700	
L.....2		52.31.0115		HF-coil, Philips nr. 4312 020 36700	
L.....3		52.31.0115		HF-coil, Philips nr. 4312 020 36700	
L.....4		52.31.0115		HF-coil, Philips nr. 4312 020 36700	
L.....5		52.31.0115		HF-coil, Philips nr. 4312 020 36700	
P.....1		54.32.0320			
P.....2		54.02.0320			
P.....3		54.02.0320			
P.....4		54.02.0320			
P.....5		54.14.2002		see note 4	
P.....6		54.14.2002		see note 4	
P.....7		54.14.2002		see note 4	
P.....8				see note 5	
P.....9				see note 5	
P.....10			not used		
P.....11		54.14.2004		see note 6	
P.....12		54.14.2004		see note 6	

IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
Note 1 - 2 connectors:					
			18 contacts,	Studer Nr. 54.10.2015	
			20 contacts,	Burdny Nr. GCSB 18 5U 19 V1 K9	
				Studer Nr. 54.10.2026	
				Burdny Nr. GCSB 20 5D V1 K9	
Note 2 - connector:					
			2 x 32 contacts,	Erni Nr. 9722-543-416	
				Harding Nr. 0902 184 6824	
				Souriau Nr. 8609-266-61-24-765-000 E1	
Note 3 - connector:					
			2 x 32 contacts,	Erni Nr. 9722-543-441	
				Harding Nr. 0903 196 6824	
				Burdny Nr. P1 96 B 30 R00 A80 Z 1	
				Souriau Nr. 8609-396-61-24-765-000 E1	
Note 4 - connector:					
			16 contacts,	Yamachi Nr. FAP-16-08-4055	
				Burdny Nr. BPH 9 B 16 B00 G5	
				JM Nr. T610-6002 VZ	
Note 5 - connection cable:					
				Studer Nr. 1.023.112-01	
Note 6 - connector:					
			40 contacts,	Yamachi Nr. FAP-40-08-4055	
				Burdny Nr. BPH 9 B 40 B00 G5	
				JM Nr. T640-6002 VZ	

⊖=electrolytic
 S T U D E R (03) 47/09/08 80 BASISBOARD AUDIO CONTROL MCH PL 1.820.702.81

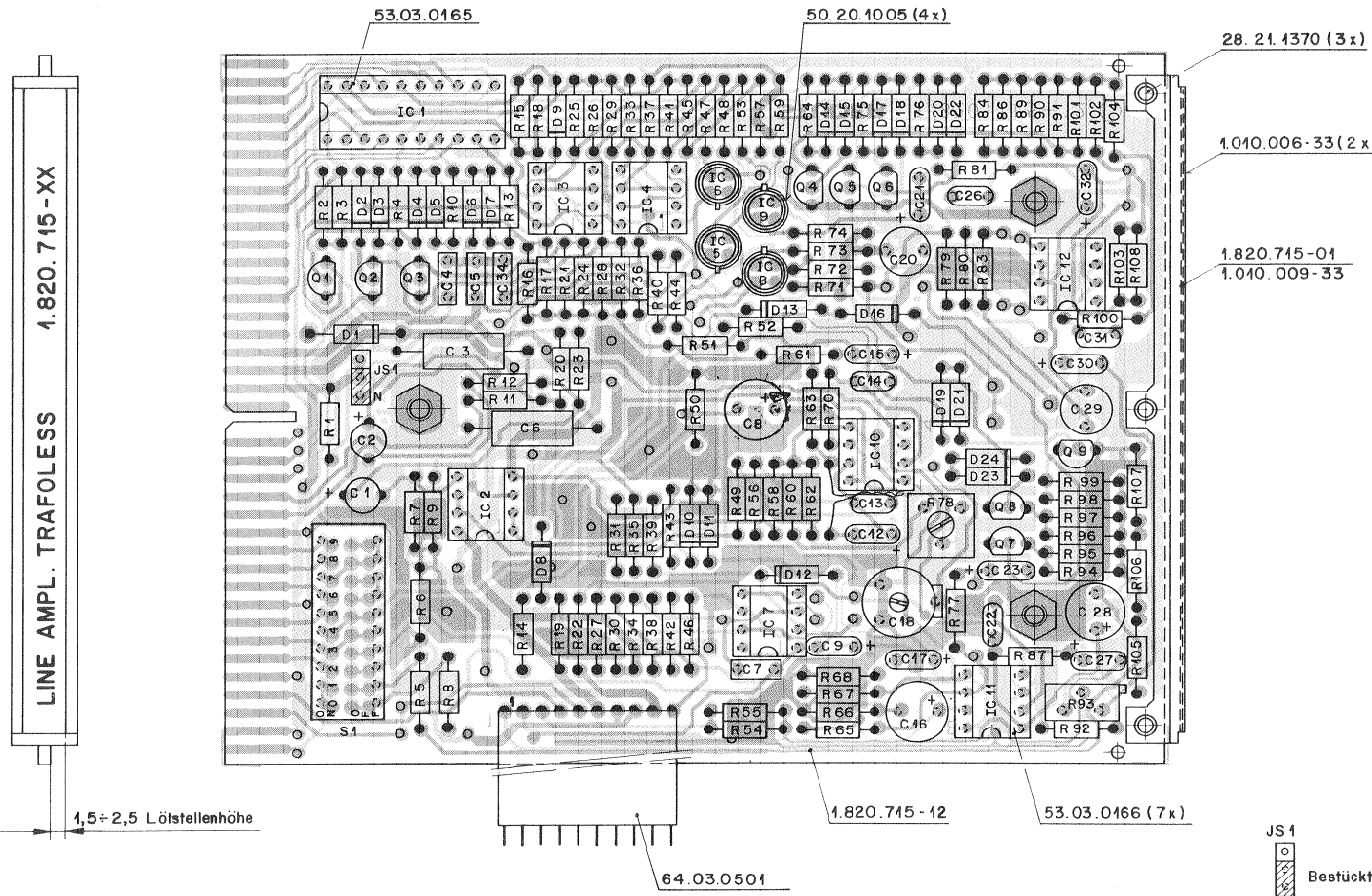
IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
MANUFACTURER: GI=General Instruments, ITT=Intermetall, Mot=Motorola, Ph=Philips, Tf=Telefunken, Tho=Thomson CSF.					

LINE AMPLIFIER TRAFOLESS 1.820.715.83



23.12.87	MR	A810/A820/A812	PAGE 1 OF 1
STUDER		LINE AMPL. TRAFOLESS	SC 1.820.715-83

LINE AMPLIFIER TRAFOLESS 1.820.715.83

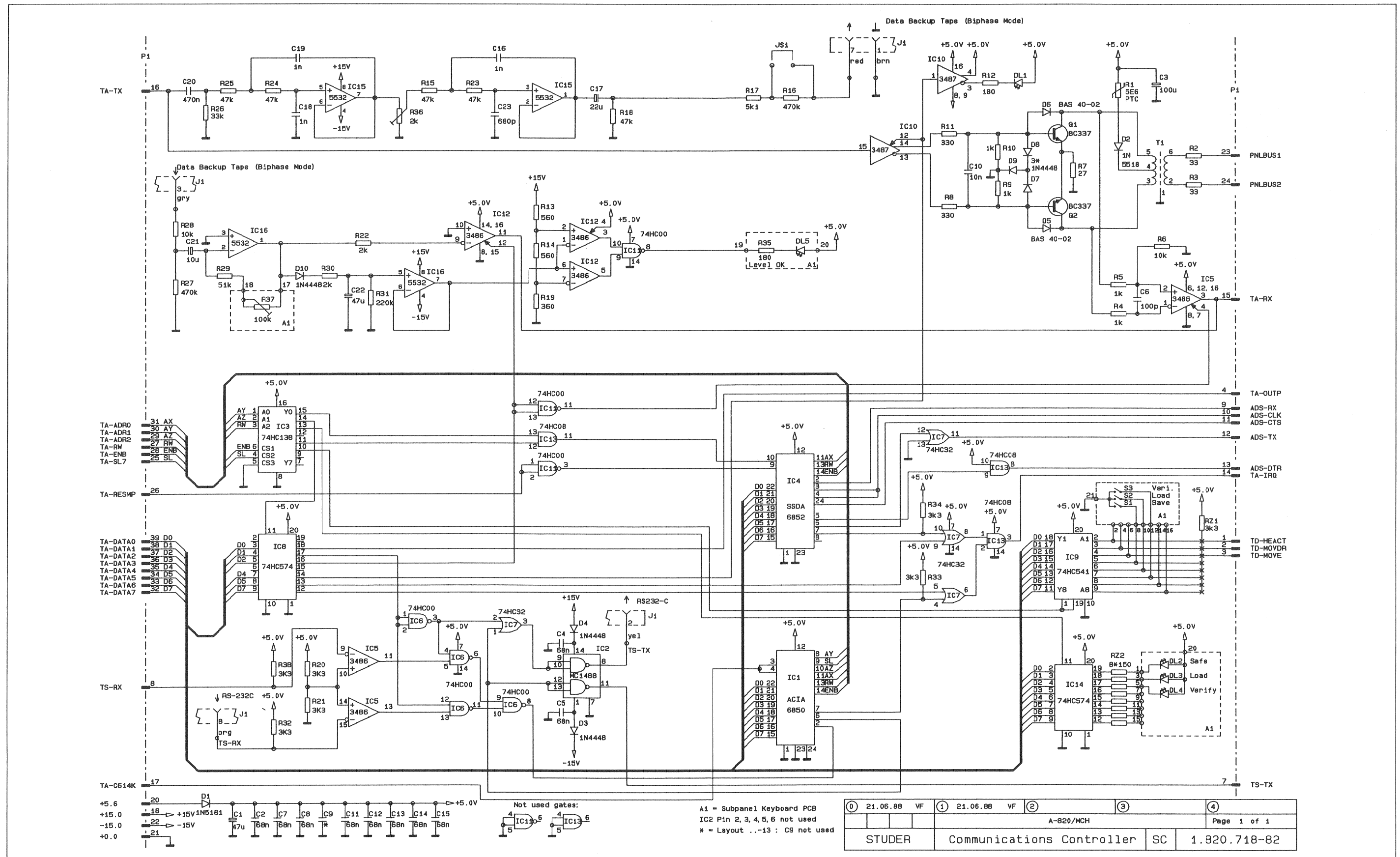


IND.	POS.ND.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
R....26		57-11-4104	100 kOhm	5%	
R....27		57-11-4684	680 kOhm	5%	
R....28		57-11-4223	82 kOhm	5%	
R....29		57-11-4223	22 kOhm	5%	
R....30		57-11-4472	4.7 kOhm	5%	
R....31		57-11-4333	33 kOhm	5%	
R....32		57-11-3192	3.9 kOhm	1%	
R....33		57-11-4122	1.2 kOhm	5%	
R....34		57-11-4223	22 kOhm	5%	
R....35		57-11-4222	2.2 kOhm	5%	
R....36		411-4105	1 MOhm	5%	
R....37		57-11-4223	22 kOhm	5%	
R....38		57-11-5155	1.5 MOhm	5%	
R....39		57-11-4474	470 kOhm	5%	
R....40		57-11-4122	1.2 kOhm	5%	
R....41		57-11-4104	100 kOhm	5%	
R....42		57-11-4472	4.7 kOhm	5%	
R....43		57-11-5155	3.3 kOhm	5%	
R....44		57-11-4122	1.2 kOhm	5%	
R....45		57-11-4125	100 kOhm	5%	
R....46		57-11-4273	27 kOhm	5%	
R....47		57-11-4105	1 MOhm	5%	
R....48		57-11-4125	1 MOhm	5%	
R....49		57-11-3182	1.8 kOhm	1%	
R....50		57-11-4472	4.7 kOhm	5%	
R....51		57-11-3152	1.5 kOhm	1%	
R....52		57-11-4122	1.2 kOhm	5%	
R....53		57-11-4105	1 MOhm	5%	
R....54		57-11-3162	5.6 kOhm	5%	
R....55		57-11-4153	15 kOhm	2%	
R....56		57-11-3102	3 kOhm	1%	
R....57		57-11-4105	1 MOhm	5%	
R....58		57-11-3182	1.8 kOhm	1%	
R....59		57-11-4474	470 kOhm	5%	
R....60		57-11-3102	3 kOhm	1%	
R....61		57-11-3272	2.7 kOhm	1%	
R....62		57-11-4333	33 kOhm	2%	
R....63		57-11-3432	4.3 kOhm	2%	
R....64		57-11-4122	1.2 kOhm	5%	
R....65		57-11-4103	10 kOhm	2%	
R....66		57-11-4472	4.7 kOhm	5%	
R....67		57-11-4105	1 MOhm	5%	
R....68		57-11-4104	100 kOhm	5%	
R....69		58-05-1202	2 kOhm	see note 5	
R....70		57-11-4105	1 MOhm	5%	
R....71		57-11-4104	100 kOhm	5%	
R....72		57-11-4122	1.2 kOhm	5%	
R....73		57-11-4105	100 kOhm	5%	
R....74		57-11-4474	470 kOhm	5%	
R....75		57-11-4122	1.2 kOhm	5%	
R....76		57-11-4122	1.2 kOhm	5%	
R....77		57-11-4472	4.7 kOhm	5%	
R....78		58-01-8501	500 Ohm	see note 3	
R....79		57-11-4472	4.7 kOhm	5%	
R....80		57-11-4472	4.7 kOhm	5%	
R....81		57-11-4224	220 kOhm	2%	
R....82			not used		
R....83		57-11-4222	2.2 kOhm	5%	
R....84		57-11-3203	20 kOhm	5%	
R....85			not used		
R....86		57-11-3182	1.8 kOhm	1%	
R....87		57-11-4105	1 MOhm	5%	
R....88			not used		
R....89		57-11-4422	8.2 kOhm	5%	
R....90		57-11-3681	680 Ohm	1%	
R....91		57-11-3622	6.2 kOhm	5%	
R....92		57-11-4153	15 kOhm	5%	
R....93		58-05-0202	2 kOhm	see note 4	
R....94		57-11-3622	6.2 kOhm	5%	
R....95		57-11-3471	470 Ohm	1%	
R....96		57-11-4183	18 kOhm	5%	
R....97		57-11-3102	1 kOhm	1%	
R....98		57-11-4123	82 kOhm	5%	
R....99		57-11-3192	3.9 kOhm	1%	
R....100		57-11-4105	1 MOhm	5%	
R....101		57-11-3471	470 Ohm	1%	
R....102		57-11-3152	1.5 kOhm	1%	
R....103		57-11-3113	11 kOhm	1%	
R....104		57-11-3272	2.7 kOhm	1%	
R....105		57-11-3152	1.5 kOhm	1%	
R....106		57-11-3272	2.7 kOhm	1%	
R....107		57-11-4472	4.7 kOhm	5%	
R....108		57-11-4224	220 kOhm	5%	
S....1		55-01-0170	SAE-Nr. 1010-692		

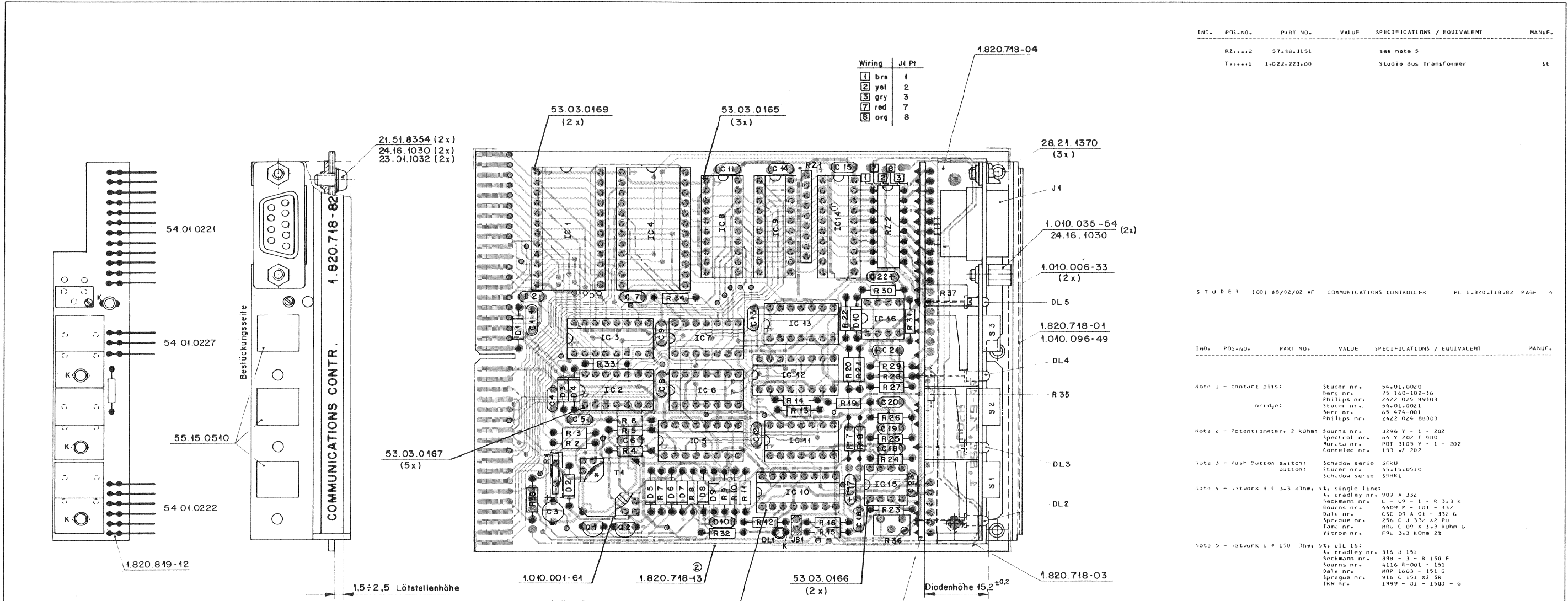
IND.	POS.ND.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.ND.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.ND.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
A....1	1.820.862-00			Line Output Amplifier	St	U....1	50-04-0512	1N5818		Not	JS....1	54-01-0020	3 cont.	Philips Nr. 2422 025 89303	see note 1		
C....1	59-22-6220	22 uF	35V EL			U....2	50-04-0125	1N6448	5%	ITT+PhySes	U....1	1-010-034-50			see note 2		
C....2	59-22-6220	22 uF	35V EL			U....3	50-04-1114	10V I	5%	ITT+PhySes	U....2	1-010-034-50			see note 2		
C....3	59-12-7391	390 pF	1%	PS		U....4	50-04-0125	1N6448	5%	ITT+PhySes	U....3	1-010-034-50			see note 2		
C....4	59-06-0104	100 nF	20%	PETP		U....5	50-04-1114	10V I	5%	ITT+PhySes	U....4	1-010-034-50			see note 2		
C....5	59-06-0104	100 nF	20%	PETP		U....6	50-04-0125	1N6448	5%	ITT+PhySes	U....5	1-010-034-50			see note 2		
C....6	59-12-7391	390 pF	1%	PS		U....7	50-04-1114	10V I	5%	ITT+PhySes	U....6	1-010-034-50			see note 2		
C....7	59-06-0472	4.7 nF	20%	PETP		U....8	50-04-0125	1N6448	5%	ITT+PhySes	U....7	1-010-034-50			see note 2		
C....8	59-24-5670	47 uF	20%	10V EL		U....9	50-04-0125	1N6448	5%	ITT+PhySes	U....8	1-010-034-50			see note 2		
C....9	59-26-2339	3.3 uF	16 V SAL			U....10	50-04-1114	10V I	5%	ITT+PhySes	U....9	1-010-034-50			see note 2		
C....10		not used				U....11	50-04-0125	1N6448	5%	ITT+PhySes	U....10	1-010-034-50			see note 2		
C....11		not used				U....12	50-04-1114	10V I	5%	ITT+PhySes	U....11	1-010-034-50			see note 2		
C....12	59-26-0470	47 uF		SAL	Ph	U....13	50-04-1114	10V I	5%	ITT+PhySes	R....1	57-11-4104	100 kOhm	5%			
C....13	59-34-2670	47 pF		Co		U....14	50-04-1114	10V I	5%	ITT+PhySes	R....2	57-11-4103	10 kOhm	5%			
C....14	59-34-2680	68 pF	5%	N150 Co		U....15	50-04-0125	1N6448	5%	ITT+PhySes	R....3	57-11-4103	10 kOhm	5%			
C....15	59-26-2100	10 uF	20%	16V SAL	Ph	U....16	50-04-0125	1N6448	5%	ITT+PhySes	R....4	57-11-4122	1.2 kOhm	5%			
C....16	59-22-2221	220 uF	-10%	6V EL		U....17	50-04-1114	10V I	5%	ITT+PhySes	R....5	57-11-4670	47 Ohm	5%			
C....17	59-26-2100	10 uF	20%	10V SAL	Ph	U....18	50-04-0125	1N6448	5%	ITT+PhySes	R....6	57-11-4679	4.7 Ohm	5%			
C....18	59-18-0102	5.5-65pF			Ph	U....19	50-04-1114	10V I	5%	ITT+PhySes	R....7	57-11-4474	470 kOhm	5%			
C....19		not used				U....20	50-04-1114	10V I	5%	ITT+PhySes	R....8	57-11-4670	47 Ohm	5%			
C....20	59-05-1101	100 pF		EL		U....21	50-04-0125	1N6448	5%	ITT+PhySes	R....9	57-11-4674	470 kOhm	5%			
C....21	59-26-0470	47 uF	20%	6.3V SAL	Ph	U....22	50-04-0125	1N6448	5%	ITT+PhySes	R....10	57-11-4122	1.2 kOhm	5%			
C....22	59-34-2680	68 pF	5%	N150 Co		U....23	50-04-0125	1N6448	5%	ITT+PhySes	R....11	57-11-3712	9.1 kOhm	1%			
C....23	59-26-1220	22 uF	20%	10V SAL	Ph	U....24	50-04-1114	10V I	5%	ITT+PhySes	R....12	57-11-3712	9.1 kOhm	1%			
C....24		not used				IC....1	50-07-0003	M47C3749		NS	R....13	57-11-4122	1.2 kOhm	5%			
C....25		not used				IC....2	50-09-0105	NE5532AN	KX5532AN, 5532ANb	Sig+Ex+Ro	R....14	57-11-4670	47 Ohm	5%			
C....26	59-34-2330	33 pF		Co		IC....3	50-05-0283	LM393N		TI+NS	R....15	57-11-4103	10 kOhm	5%			
C....27	59-26-2100	10 uF	20%	10V SAL	Ph	IC....4	50-05-0283	LM393N		TI+NS	R....16	57-11-4103	10 kOhm	5%			
C....28	59-22-2221	220 uF	-10%	6V EL		IC....5	50-11-0106	SU 214 DE	RSO 214	Ph+Six	R....17	57-11-3102	1 kOhm	1%			
C....29	59-25-1311	330 pF		PP		IC....6	50-11-0106	SU 214 DE	RSO 214	Ph+Six	R....18	57-11-4103	10 kOhm	5%			
C....30	59-26-0470	47 uF	20%	6.3V SAL	Ph	IC....7	50-05-0283	LM393N		TI+NS	R....19	57-11-4103	10 kOhm	5%			
C....31	59-34-2220	22 pF		Co		IC....8	50-11-0106	SU 214 DE	RSO 214	Ph+Six	R....20	57-11-3132	1.3 kOhm	1%			
C....32	59-26-0470	47 uF	20%	6.3V SAL	Ph	IC....9	50-11-0106	SU 214 DE	RSO 214	Ph+Six	R....21	57-11-3622	6.2 kOhm	1%			
C....33		not used				IC....10	50-09-0105	NE5532AN	KX5532AN, 5532ANb	Sig+Ex+Ro	R....22	57-11-4104	100 kOhm	5%			
C....34	59-06-5103	10 nF	5%	6.3V PETP		IC....11	50-09-0105	NE5532AN	KX5532AN, 5532ANb	Sig+Ex+Ro	R....23	57-11-3132	1.3 kOhm	1%			
						IC....12	50-09-0105	NE5532AN	KX5532AN, 5532ANb	Sig+Ex+Ro	R....24	57-11-3471	470 Ohm	1%			
											R....25	57-11-4104	100 kOhm	5%			

STUDER A820 MCH

COMMUNICATIONS CONTROLLER 1.820.718.82



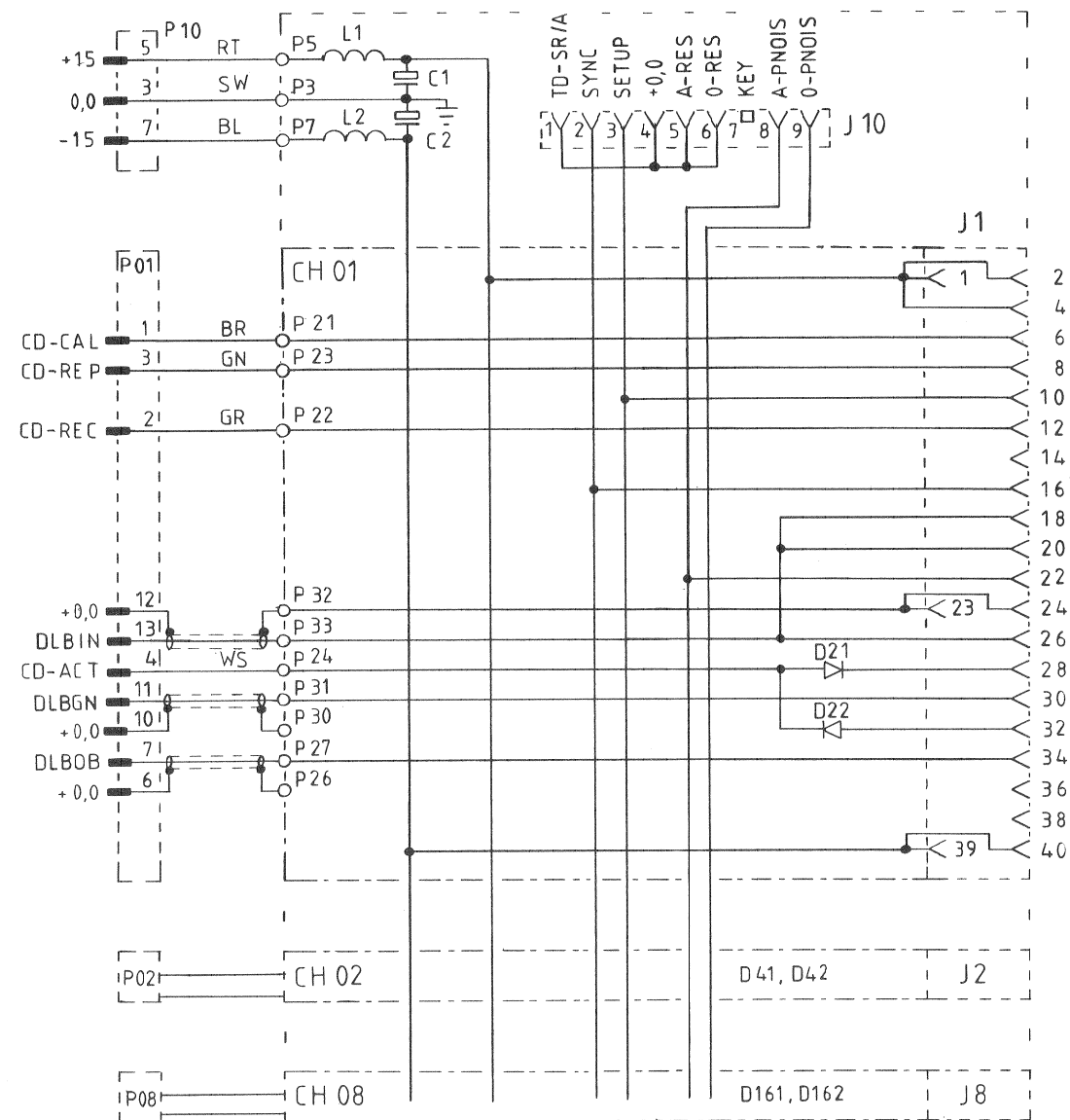
COMMUNICATIONS CONTROLLER 1.820.718.82



IND.	POS.ND.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.ND.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.ND.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.ND.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	
C.....1	59.26.0570	47 uF	20%, 6.3V			UL.....3	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	R.....8	57.11.3331	330 Ohm	2%			RZ....2	57.80.3151		see note 5			
C.....2	59.06.0583	68 nF	10%			UL.....4	50.94.2130	LY3160-GK	Q 62703 - Q 1308		St	R.....9	57.11.3102	1 kOhm	2%			T.....1	1.022.223-00		Studio Bus Transformer		St	
C.....3	59.22.3101	100 uF	20%, 10V			UL.....5	50.94.2130	LY3160-GK	Q 62703 - Q 1308		St	R.....10	57.11.3102	1 kOhm	2%									
C.....4	59.06.0583	68 nF	10%			IC.....1	50.10.0101	MC 68450 P	S 68A50		AMI, Mot	R.....11	57.11.3331	330 Ohm	2%									
C.....5	59.06.0583	68 nF	10%			IC.....2	50.15.0105	MC 1988 P			Mot	R.....12	57.11.3101	180 Ohm	2%									
C.....6	59.34.0101	100 pF	5%			IC.....3	50.17.0138	74 HC 138	74 HC 138		Ph+Mot+NS+RCL+T+TI+SGS	R.....13	57.11.3501	560 Ohm	2%									
C.....7	59.06.0583	68 nF	10%			IC.....4	50.10.0114	MC 68452 P	HU 68A52 P, S 68A52 P		AMI, Hi, Mot	R.....14	57.11.3501	560 Ohm	2%									
C.....8	59.06.0583	68 nF	10%			IC.....5	50.10.0114	MC 68452 P	HU 68A52 P, S 68A52 P		AMI, Hi, Mot	R.....15	57.11.3673	47 kOhm	2%									
C.....9	59.06.0583	68 nF	10%			IC.....6	50.10.0114	MC 68452 P	HU 68A52 P, S 68A52 P		AMI, Hi, Mot	R.....16	57.11.3674	470 kOhm	2%									
C.....10	59.06.0103	10 nF	10%			IC.....7	50.17.0100	74 HC 00	74 HC 00		Ph+Mot+NS+RCL+T+TI+SGS	R.....17	57.11.3512	5.1 kOhm	2%									
C.....11	59.06.0583	68 nF	10%			IC.....8	50.17.0132	74 HC 32	74 HC 32		Ph+Mot+NS+RCL+T+TI+SGS	R.....18	57.11.3673	47 kOhm	2%									
C.....12	59.06.0583	68 nF	10%			IC.....9	50.17.0132	74 HC 32	74 HC 32		Ph+Mot+NS+RCL+T+TI+SGS	R.....19	57.11.3674	470 kOhm	2%									
C.....13	59.06.0583	68 nF	10%			IC.....10	50.17.0132	74 HC 32	74 HC 32		Ph+Mot+NS+RCL+T+TI+SGS	R.....20	57.11.3332	3.3 kOhm	2%									
C.....14	59.06.0583	68 nF	10%			IC.....11	50.15.0105	MC 3487 P	DS 3487 N		Mot+NS	R.....21	57.11.3332	3.3 kOhm	2%									
C.....15	59.06.0583	68 nF	10%			IC.....12	50.17.0100	74 HC 00	74 HC 00		Ph+Mot+NS+RCL+T+TI+SGS	R.....22	57.11.3202	2 kOhm	1%									
C.....16	59.06.0102	1 nF	10%			IC.....13	50.15.0104	MC 3486 P	DS 3486 N		Ph+Mot+NS+RCL+T+TI+SGS	R.....23	57.11.3673	47 kOhm	2%									
C.....17	59.26.1220	22 uF	20%, 10V			IC.....14	50.17.0100	74 HC 00	74 HC 00		Ph+Mot+NS+RCL+T+TI+SGS	R.....24	57.11.3673	47 kOhm	2%									
C.....18	59.06.05102	1 nF	5%			IC.....15	50.17.0132	74 HC 32	74 HC 32		Ph+Mot+NS+RCL+T+TI+SGS	R.....25	57.11.3674	470 kOhm	2%									
C.....19	59.06.05102	1 nF	5%			IC.....16	50.17.0132	74 HC 32	74 HC 32		Ph+Mot+NS+RCL+T+TI+SGS	R.....26	57.11.3332	3.3 kOhm	2%									
C.....20	59.06.0474	470 nF	10%			J.....1	9 Pol Chassis GRIP D-Typ				See note 1	R.....27	57.11.3674	470 kOhm	2%									
C.....21	59.26.0103	10 uF	20%, 10V			J.....2					see note 1	R.....28	57.11.3103	10 kOhm	2%									
C.....22	59.26.1479	4.7 uF	20%, 10V			J.....3					see note 1	R.....29	57.11.3513	51 kOhm	1%									
C.....23	59.32.2581	680 pF	10%			J.....4					see note 1	R.....30	57.11.3202	2 kOhm	1%									
D.....1	50.74.0512	1N 5819	1N 5819		Not	J.....5					see note 1	R.....31	57.11.3204	270 kOhm	2%									
D.....2	50.74.0512	1N 5818	1N 5818		Not	J.....6					see note 1	R.....32	57.11.3332	3.3 kOhm	2%									
D.....3	50.74.0125	1N 4448	1N 4448		FC+ITT+Ph+Sep+IFF	J.....7					see note 1	R.....33	57.11.3332	3.3 kOhm	2%									
D.....4	50.74.0125	1N 4448	1N 4448		FC+ITT+Ph+Sep+IFF	J.....8					see note 1	R.....34	57.11.3332	3.3 kOhm	2%									
D.....5	50.74.0127	8A1 42	BAT 85+ BAS 40-02		Ph+Stie+Tho	J.....9					see note 1	R.....35	57.11.3101	180 Ohm	2%									
D.....6	50.74.0127	8A1 42	BAT 85+ BAS 40-02		Ph+Stie+Tho	J.....10					see note 1	R.....36	57.11.3101	180 Ohm	2%									
D.....7	50.74.0125	1N 4448	1N 4448		FC+ITT+Ph+Sep+IFF	J.....11					see note 1	R.....37	57.11.3101	180 Ohm	2%									
D.....8	50.74.0125	1N 4448	1N 4448		FC+ITT+Ph+Sep+IFF	J.....12					see note 1	R.....38	57.11.3101	180 Ohm	2%									
D.....9	50.74.0125	1N 4448	1N 4448		FC+ITT+Ph+Sep+IFF	J.....13					see note 1	R.....39	57.11.3101	180 Ohm	2%									
D.....10	50.74.0125	1N 4448	1N 4448		FC+ITT+Ph+Sep+IFF	J.....14					see note 1	R.....40	57.11.3101	180 Ohm	2%									
UL.....1	50.74.2129	LY3160-HL	Q 62703 - Q 1308		St	K.....1	57.99.0209	5.6 Ohm	PIE-Resistor, Philips nr. 3322 662 91005			S.....1	57.15.0501		see note 3									
UL.....2	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....2	57.11.3330	33 Ohm	2%			S.....2	57.15.0501		see note 3									
UL.....3	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....3	57.11.3102	1 kOhm	2%			S.....3	57.15.0501		see note 3									
UL.....4	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....4	57.11.3103	1 kOhm	2%			S.....4	57.15.0501		see note 3									
UL.....5	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....5	57.11.3102	1 kOhm	2%			S.....5	57.15.0501		see note 3									
UL.....6	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....6	57.11.3103	1 kOhm	2%			S.....6	57.15.0501		see note 3									
UL.....7	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....7	57.11.3102	1 kOhm	2%			S.....7	57.15.0501		see note 3									
UL.....8	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....8	57.11.3103	1 kOhm	2%			S.....8	57.15.0501		see note 3									
UL.....9	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....9	57.11.3102	1 kOhm	2%			S.....9	57.15.0501		see note 3									
UL.....10	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....10	57.11.3103	1 kOhm	2%			S.....10	57.15.0501		see note 3									
UL.....11	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....11	57.11.3102	1 kOhm	2%			S.....11	57.15.0501		see note 3									
UL.....12	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....12	57.11.3103	1 kOhm	2%			S.....12	57.15.0501		see note 3									
UL.....13	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....13	57.11.3102	1 kOhm	2%			S.....13	57.15.0501		see note 3									
UL.....14	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....14	57.11.3103	1 kOhm	2%			S.....14	57.15.0501		see note 3									
UL.....15	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....15	57.11.3102	1 kOhm	2%			S.....15	57.15.0501		see note 3									
UL.....16	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....16	57.11.3103	1 kOhm	2%			S.....16	57.15.0501		see note 3									
UL.....17	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....17	57.11.3102	1 kOhm	2%			S.....17	57.15.0501		see note 3									
UL.....18	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....18	57.11.3103	1 kOhm	2%			S.....18	57.15.0501		see note 3									
UL.....19	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....19	57.11.3102	1 kOhm	2%			S.....19	57.15.0501		see note 3									
UL.....20	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....20	57.11.3103	1 kOhm	2%			S.....20	57.15.0501		see note 3									
UL.....21	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....21	57.11.3102	1 kOhm	2%			S.....21	57.15.0501		see note 3									
UL.....22	50.74.2130	LY3160-GK	Q 62703 - Q 1308		St	K.....22	57																	

STUDER A820 MCH

BASIS BOARD NRS SR/A 1.820.806.00



NOTE: Reference Numbers of Components are in groups of 20.
ex: Ch 1, D21; Ch2, D41; CH3, D61; etc.

IND.	POS. NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
C.....1		59.22.5101	100 uF	-20%, 25V, E1	
C.....2		59.22.5101	100 uF	-20%, 25V, E1	
D.....21		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....22		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....41		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....42		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....61		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....62		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....81		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....82		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....101		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....102		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....121		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....122		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....141		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....142		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....161		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
D.....162		50.04.0125	1N 4448		Fc=ITT+PhvSes+Tf
J.....1				see note 1	
J.....2				see note 1	
J.....3				see note 1	
J.....4				see note 1	
J.....5				see note 1	
J.....6				see note 1	
J.....7				see note 1	
J.....8				see note 1	
J.....10				see note 2	
L.....1		62.03.0015	72 uH	Filter coil, 2 A, 0.068 Ohm	
L.....2		62.03.0015	72 uH	Filter coil, 2 A, 0.068 Ohm	

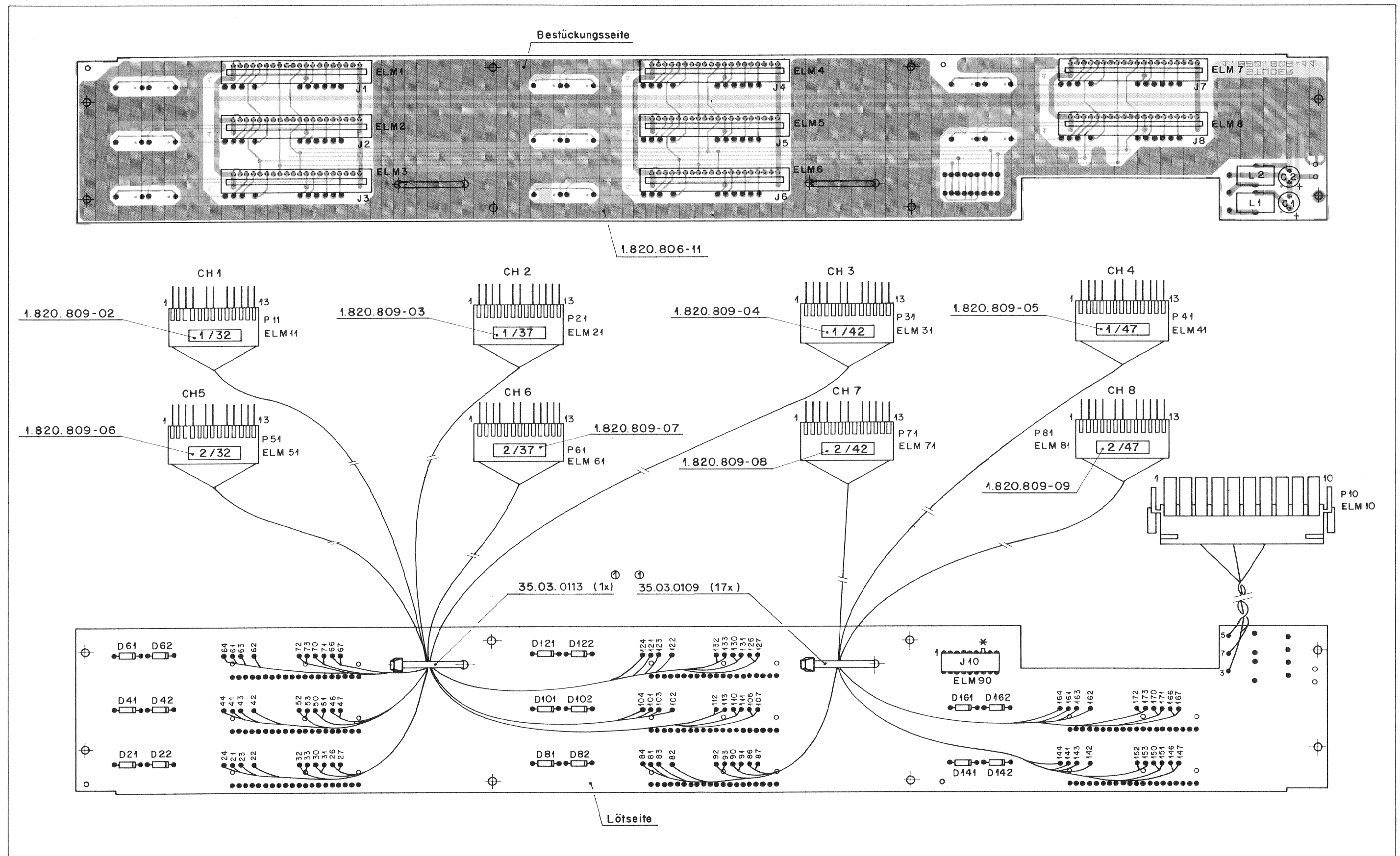
Note 1 - Connector, 1 → 20 contacts, RM 2.54;
Studer nr. 94.094.0206
EJAC nr. 345-020-521-101

Note 2 - Connector, CIS → contacts;
Studer nr. 94.014.0212
AMP nr. 163-083-7

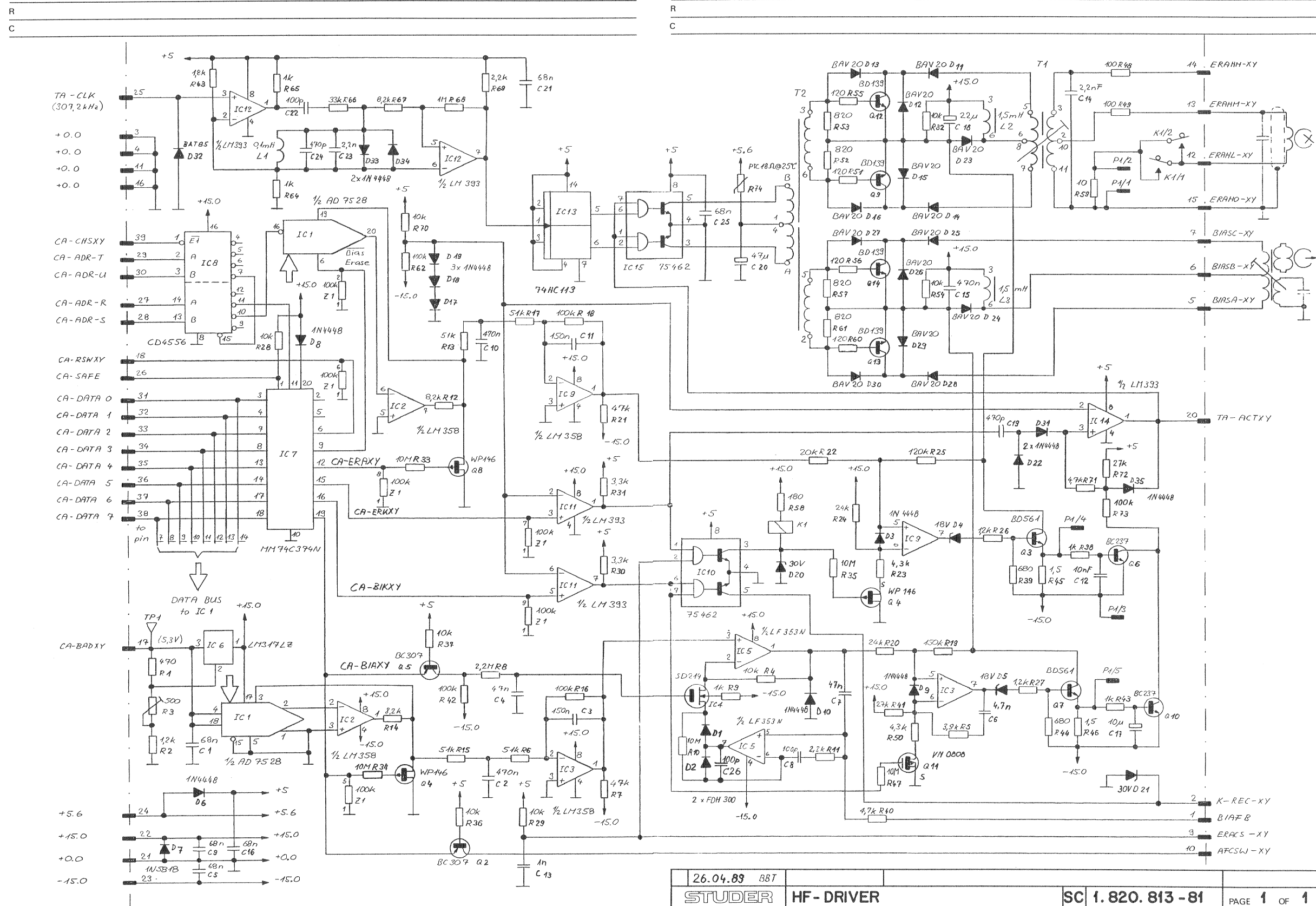
E1=Electrolytic

MANUFACTURER: Fc=Fairchild; ITT=Intermetall; Ph=Philips;
Ses=Secosson; Si=Siemens; Tf=Telefunken.

3.4.88	VF				
A 820 MCH		PAGE 1 OF 1			
STUDER	Basis Board NRS SR/A		SC	1,820,806-00	



HF-DRIVER 1.820.813.81



26.04.89	BBT		
STUDER	HF-DRIVER	SC 1.820.813-81	PAGE 1 OF 1

HF-DRIVER 1.820.813.81

HF-DRIVER 1.820.813.81

Bestückungsseite (Component Side)

1.820.813-00

1.010.002-61

43.01.0108

53.03.0165 (2 x)

53.03.0168

53.03.0166 (9 x)

C26 (Lötseite)

28.21.1370 (3 x)

1.820.813-01

1.010.008-33

1.010.006-33 (2 x)

1.010.001-61 (3 x)

1.5 ± 2.5

Lötstellenhöhe (Solder Pad Height)

max. 17

Bestückungshöhe (Component Height)

1.820.813-11

53.03.0167

1.010.127-65

37.01.0101 (4 x)

21.53.0354 (2 x)

gebördelt

Q3, Q7

50.20.0340 (2 x)

21.53.2354

1.010.029-50

IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	
C.....1	59.06.0683	68 nF	20x	PETP		
C.....2	59.06.0674	470 nF	5x	PETP		
C.....3	59.06.0154	150 nF	5x	PETP		
C.....4	59.06.0473	47 nF	5x	PETP		
C.....5	59.06.0683	68 nF	20x	PETP		
C.....6	59.06.0683	68 nF	10x	Cer		
C.....7	59.06.0473	47 nF	5x	PETP		
C.....8	59.06.0683	68 nF	100 pF	10x	Cer	
C.....9	59.06.0683	68 nF	20x	PETP		
C.....10	59.06.0474	470 nF	5x	PETP		
C.....11	59.06.0154	150 nF	5x	PETP		
C.....12	59.06.0103	10 nF	10x	PETP		
C.....13	59.06.0102	1 nF	20x	Cer		
C.....14	59.06.0222	2.2 nF	1x	PP		
C.....15	59.06.0474	470 nF	5x	PETP		
C.....16	59.06.0683	68 nF	20x	PETP		
C.....17	59.06.02100	12 uF	20x	10V, Sal	PhyKi	
C.....18	59.06.02100	22 uF	20x	60V, E1		
C.....19	59.06.0471	470 pF	5x	Cer		
C.....20	59.06.0470	47 uF	20x	6.3V, Sal	PhyKi	
C.....21	59.06.0683	68 nF	20x	PETP		
C.....22	59.06.0471	470 pF	5x	Cer		
C.....23	59.06.0222	2.2 nF	2.5x	PP		
C.....24	59.06.0471	470 pF	2.5x	PP		
C.....25	59.06.0683	68 nF	20x	PETP		
C.....26	59.06.0101	100 pF	5x	Cer		
D.....1	50.04.0134	IN3595HD	FDM300		Fc	
D.....2	50.04.0134	IN3595HD	FDM300		Fc	
D.....3	50.04.0125	IN4448			Fc, ITT+PhySes+Tf	
D.....4	50.04.1122	18 V Z	BZ55C 18		ITT+Mot+PhyTf+Tho	
D.....5	50.04.1122	18 V Z	BZ55C 18		ITT+Mot+PhyTf+Tho	
D.....6	50.04.0125	IN4448			Fc, ITT+PhySes+Tf	
D.....7	50.04.0125	IN4448	1.5-819		Mot	
D.....8	50.04.0125	IN4448			Fc, ITT+PhySes+Tf	
D.....9	50.04.0125	IN4448			Fc, ITT+PhySes+Tf	
D.....10	50.04.0125	IN4448			Fc, ITT+PhySes+Tf	

STUDER (00) 89/05/22 Bst HF - DRIVER PL 1.820.813.81 PAGE 1

IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
D.....11	50.04.0133	BAV20			ITT+Ph
D.....12	50.04.0133	BAV20			ITT+Ph
D.....13	50.04.0133	BAV20			ITT+Ph
D.....14	50.04.0133	BAV20			ITT+Ph
D.....15	50.04.0133	BAV20			ITT+Ph
D.....16	50.04.0133	BAV20			ITT+Ph
D.....17	50.04.0125	IN4448			Fc, ITT+PhySes+Tf
D.....18	50.04.0125	IN4448			Fc, ITT+PhySes+Tf
D.....19	50.04.0125	IN4448			Fc, ITT+PhySes+Tf
D.....20	50.04.1125	30 V Z	BZ55C 30		ITT+Mot+PhyTf+Tho
D.....21	50.04.1125	30 V Z	BZ55C 30		ITT+Mot+PhyTf+Tho
D.....22	50.04.0125	IN4448			Fc, ITT+PhySes+Tf
D.....23	50.04.0133	BAV20			ITT+Ph
D.....24	50.04.0133	BAV20			ITT+Ph
D.....25	50.04.0133	BAV20			ITT+Ph
D.....26	50.04.0133	BAV20			ITT+Ph
D.....27	50.04.0133	BAV20			ITT+Ph
D.....28	50.04.0133	BAV20			ITT+Ph
D.....29	50.04.0133	BAV20			ITT+Ph
D.....30	50.04.0133	BAV20			ITT+Ph
D.....31	50.04.0125	IN4448			Fc, ITT+PhySes+Tf
D.....32	50.04.0125	BAI 42	BAI 85, BAS 40-02		Fc, ITT+PhySes+Tf
D.....33	50.04.0125	IN4448			Fc, ITT+PhySes+Tf
D.....34	50.04.0125	IN4448			Fc, ITT+PhySes+Tf
D.....35	50.04.0125	IN4448			Fc, ITT+PhySes+Tf

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IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
I.....1	53.07.0026	AD7528JN	MP 7528 JN		ADI+MPS
I.....2	50.05.0286	LM358N	LM358N		Mot+NS+SGS+Tf
I.....3	50.05.0286	LM358N	LM358P		Mot+NS+SGS+Tf
I.....4	50.11.0106	SD 214-DE	BSD 214		Phy+Six
I.....5	50.09.0101	TL 072 CP	TOR 0353 DP		Tho+IT
I.....6	50.10.0108	LM 317 L2			Mot+NS
I.....7	50.07.0003	MM46374N			NS
I.....8	50.07.0004	CD4558BE	...4558... MC14558BCP		Mot+Phy+RC+Tf
I.....9	50.05.0286	LM358N	LM358P		Mot+NS+SGS+Tf
I.....10	50.05.0227	SN75462P	SN75462G, SN75472P		NS+Tho+IT
I.....11	53.05.0283	LM 393 N	LM 393 DP, LM 393 P		NS+Tho+IT

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IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
I.....12	50.05.0283	LM 393 N	LM 393 DP, LM 393 P		NS+Tho+IT
I.....13	50.11.1113	74 HC 113	74 HC 113		Mot+NS+Phy+RC+SGS+Tf+Io
I.....14	50.05.0283	LM 393 N	LM 393 DP, LM 393 P		NS+Tho+IT
I.....15	50.05.0227	SN75462P	SN75462G, SN75472N		IT
K.....1	56.04.0171	SM D1012			ITT
L.....1	1.022.197.00	1.5 mH			St
L.....2	1.022.197.00	1.5 mH			St
L.....3	62.02.3101	100 uH	TDX nr. EL 0606 SKI - 101 K		St
P.....1	54.12.0005	5 cont.	AMP Mini Match System, Nr. 164 713-5AMP		St
Q.....1	50.03.0329	HP146	U pinch-off C 4.0 V		Six
Q.....2	50.03.0915	BC 251 B	BC 307 B, BC 557 B		ITT+Mot+Ph
Q.....3	50.03.0915	BC 251 B	BC 307 B, BC 557 B		ITT+Mot+Ph
Q.....4	50.03.0329	HP146	U pinch-off C 4.0 V		Mot+Ph+Mem
Q.....5	50.03.0915	BC 251 B	BC 307 B, BC 557 B		ITT+Mot+Ph
Q.....6	50.03.0915	BC 251 B	BC 307 B, BC 557 B		ITT+Mot+Ph
Q.....7	50.03.0329	HP146	U pinch-off C 4.0 V		Mot+Ph
Q.....8	50.03.0329	HP146	U pinch-off C 4.0 V		Six
Q.....9	50.03.0915	BC 251 B	BC 307 B, BC 557 B		Mot+Ph+SGS+Tf+Io
Q.....10	50.03.0915	BC 251 B	BC 307 B, BC 557 B		ITT+Mot+Ph+Sie
Q.....11	50.03.1505	VN D808 MTR	VN D808 MTR, ZVN Q108 A		ITT+Mot+Ph+Sie
Q.....12	50.03.0915	BC 251 B	BC 307 B, BC 557 B		ITT+Mot+Ph+Sie
Q.....13	50.03.0915	BC 251 B	BC 307 B, BC 557 B		Mot+Ph+SGS+Tf+Io
Q.....14	50.03.0915	BC 251 B	BC 307 B, BC 557 B		Mot+Ph+SGS+Tf+Io

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IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
R.....13	57.11.5106	10 MOhm	10x		10x
R.....14	57.11.4222	2.2 KOhm	5x		5x
R.....15	57.11.4922	8.2 KOhm	5x		5x
R.....16	57.11.3513	51 KOhm	2x		2x
R.....17	57.11.4922	8.2 KOhm	5x		5x
R.....18	57.11.4102	1.8 KOhm	5x		5x
R.....19	57.11.3513	51 KOhm	2x		2x
R.....20	57.11.4104	100 KOhm	2x		2x
R.....21	57.11.3513	51 KOhm	2x		2x
R.....22	57.11.4104	100 KOhm	2x		2x
R.....23	57.11.3513	51 KOhm	2x		2x
R.....24	57.11.4104	100 KOhm	2x		2x
R.....25	57.11.4122	1.2 KOhm	5x		5x
R.....26	57.11.4122	1.2 KOhm	5x		5x
R.....27	57.11.4122	1.2 KOhm	5x		5x
R.....28	57.11.4103	10 KOhm	5x		5x
R.....29	57.11.4103	10 KOhm	5x		5x
R.....30	57.11.4332	3.3 KOhm	5x		5x
R.....31	57.11.4332	3.3 KOhm	5x		5x
R.....32	57.11.4103	10 KOhm	10x		10x
R.....33	57.11.5106	10 MOhm	10x		10x
R.....34	57.11.5106	10 MOhm	10x		10x
R.....35	57.11.5106	10 MOhm	10x		10x
R.....36	57.11.4103	10 KOhm	10x		10x
R.....37	57.11.4103	10 KOhm	10x		10x
R.....38	57.11.4102	1 KOhm	2x		2x
R.....39	57.11.4681	580 Ohm	5x		5x
R.....40	57.11.4472	4.7 KOhm	2x		2x
R.....41	57.11.4273	27 KOhm	2x		2x
R.....42	57.11.4105	100 KOhm	10x		10x
R.....43	57.11.4102	1 KOhm	2x		2x
R.....44	57.11.4681	580 Ohm	2x		2x
R.....45	57.11.4159	1.5 Ohm	2x		2x

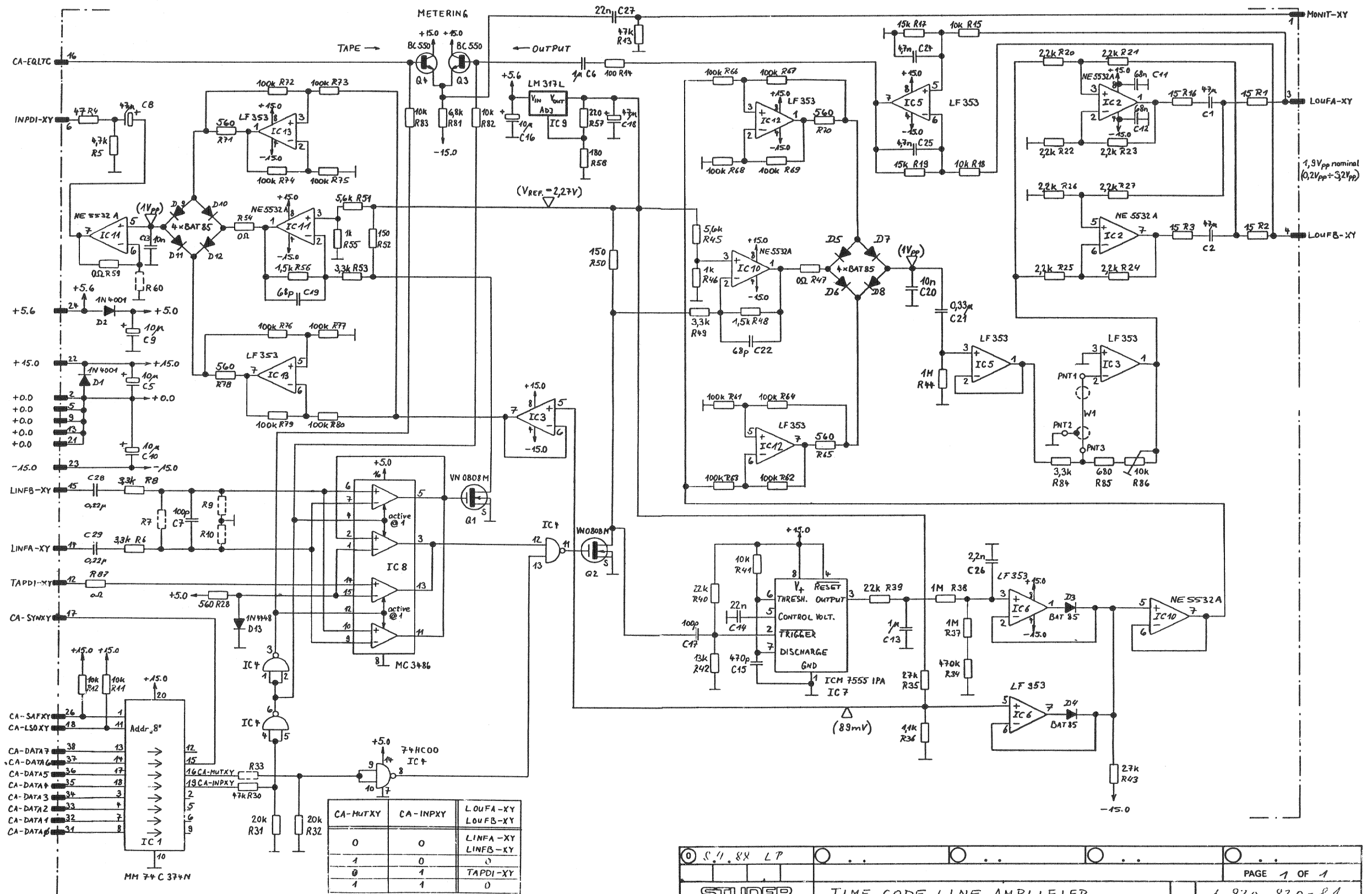
STUDER (00) 89/05/22 Bst HF - DRIVER PL 1.820.813.81 PAGE 5

STUDER (00) 89/05/22 Bst HF - DRIVER PL 1.820.813.81 PAGE 6

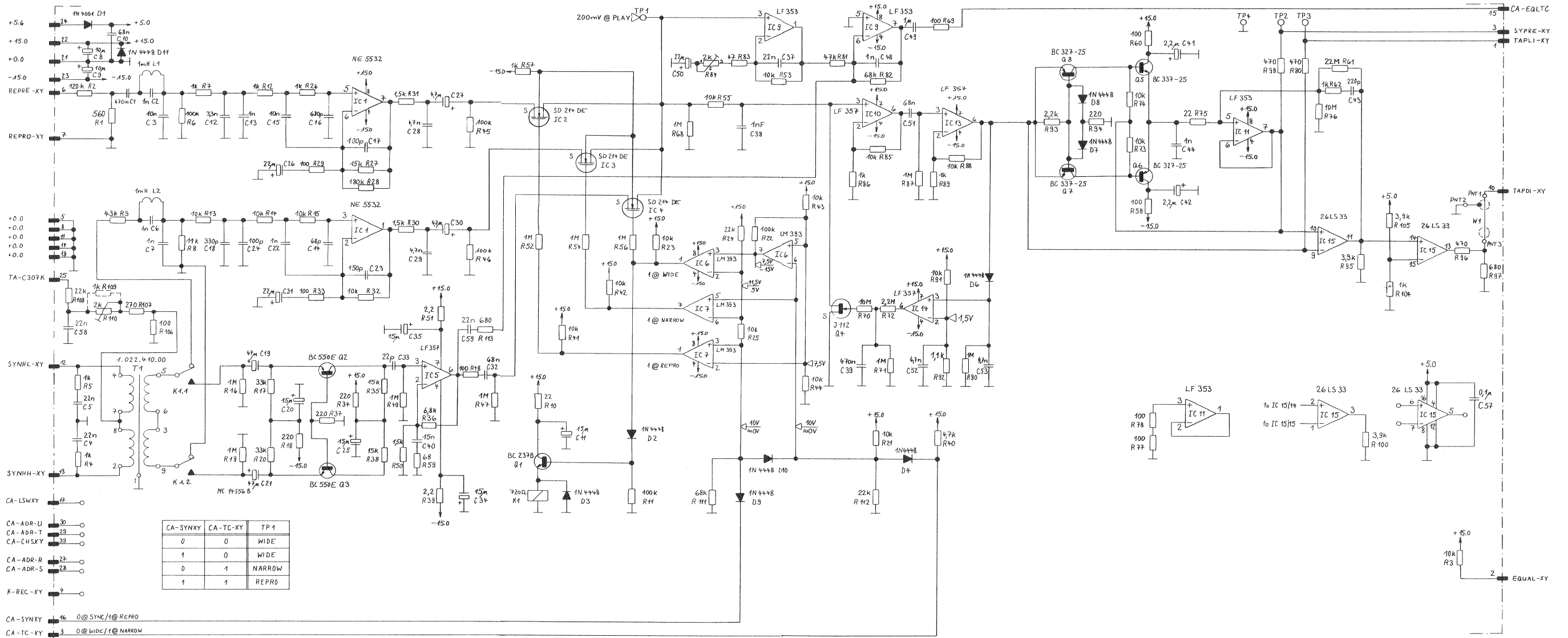
DRIG 06/11/20 (01) 07/04/07 (00) 09/05/22

STUDER (00) 89/05/22 Bst HF - DRIVER PL 1.820.813.81 PAGE 6

TIME CODE LINE AMPLIFIER 1.820.820.81



TIME CODE READ UNIT 1.820.821.00



TIME CODE READ UNIT 1.820.821.00

Bestückungsselle
1.820.821-00
1.022.400-03

53.03.0166 (9x) 1.820.821-11 53.03.0168

28.21.1370 (3x)

1.010.006-33 (2x)

1.010.010-33
1.820.821-04

Bestückungsselle
1.820.821-00
1.022.400-03

1,5±2,5 Lötstellenhöhe Schirmfolie bündig mit Mantel
max. Bestückungshöhe
sreen (Schirm)
conductor (Ader)

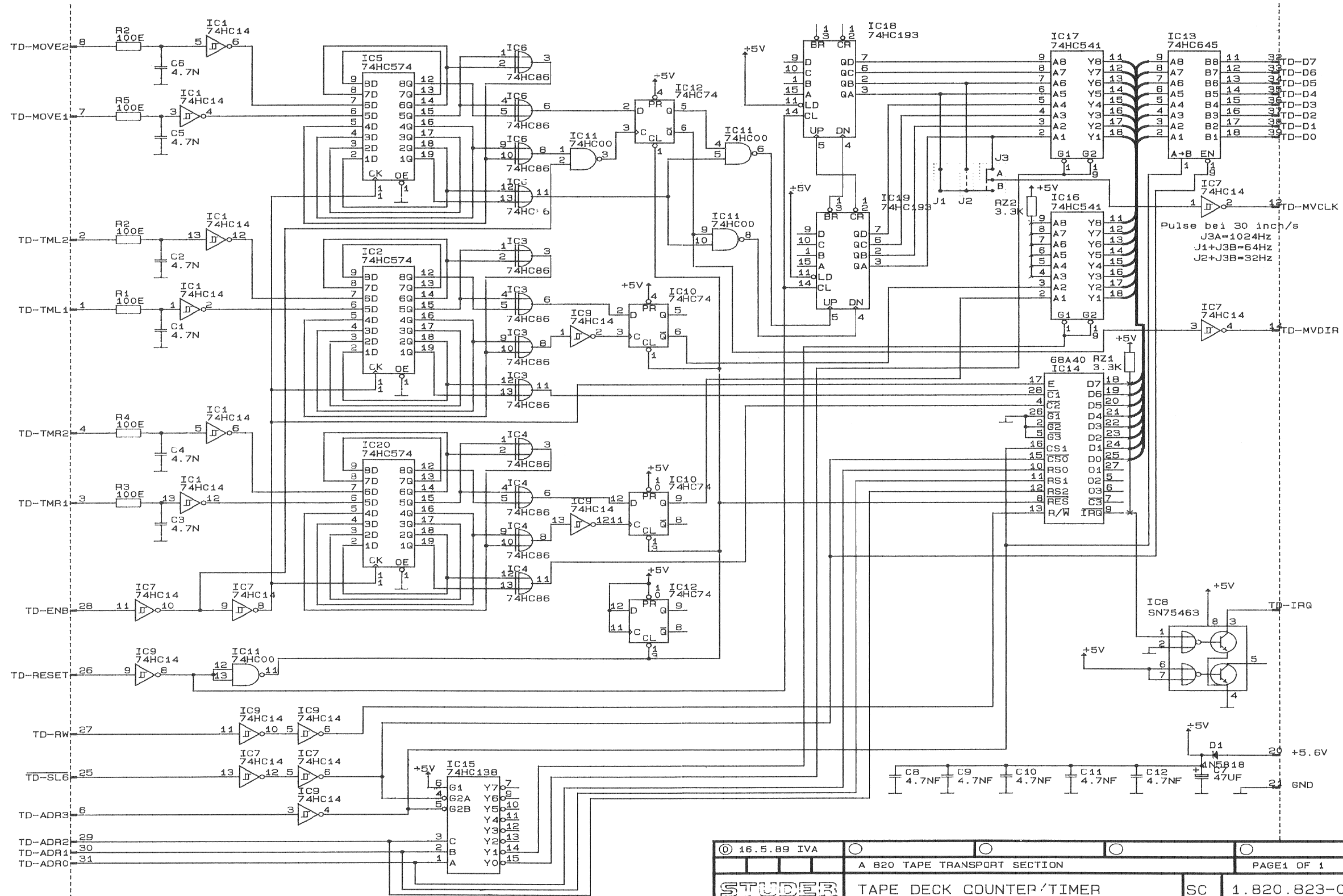
64.03.0186
Abschneidelänge 140
Toleranzen: ±1,0

IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
C....38	99.05-5102	1 nF	5% ± 63V ± PETP		
C....39	99.05-0474	470 nF	10% ± 63V ± PETP		
C....40	99.05-3153	15 nF	5% ± 63V ± PETP		
C....41	99.05-5229	2.2 uF	20% ± 25V ± SaI		
C....42	99.05-5229	2.2 uF	20% ± 25V ± SaI		
C....43	99.05-2221	220 pF	5% ± 63V ± Cer		
C....44	99.05-5102	1 nF	5% ± 63V ± PETP		
C....45		not used			
C....46		not used			
C....47		not used			
C....48	99.05-5102	1 nF	5% ± 63V ± PETP		
C....49	99.05-0105	1 uF	10% ± 50V ± PETP		
C....50	99.05-1220	22 uF	20% ± 10V ± SaI		
C....51	99.05-0683	68 nF	10% ± 63V ± PETP		
C....52	99.05-0472	4.7 nF	10% ± 63V ± PETP		
C....53	99.05-0672	4.7 nF	10% ± 63V ± PETP		
C....54		not used			
C....55		not used			
C....56		not used			
C....57	99.05-0104	100 nF	10% ± 63V ± PETP		
C....58	99.05-0223	22 nF	10% ± 63V ± PETP		
C....59	99.05-0223	22 nF	10% ± 63V ± PETP		
C....60		not used			
C....61	99.05-0122	1N 4001	(-4004)		
C....62	99.05-0125	1N 4448			
C....63	99.05-0125	1N 4448			
C....64	99.05-0125	1N 4448			
C....65	99.05-0125	1N 4448			
C....66	99.05-0125	1N 4448			
C....67	99.05-0125	1N 4448			
C....68	99.05-0125	1N 4448			
C....69	99.05-0125	1N 4448			
C....70	99.05-0125	1N 4448			
C....71	99.05-0125	1N 4448			
C....72	99.05-0125	1N 4448			
C....73	99.05-0125	1N 4448			
C....74	99.05-0125	1N 4448			
C....75	99.05-0125	1N 4448			
C....76		not used			
C....77	99.05-0106	NE532AN	XS532AN, 5532ANB		
C....78	99.05-0106	SD 2140E	BSD 214		

S T U D E R (00) 87/10/31 30 TIME CODE READ UNIT PL 1.820.821.00 PAGE 2

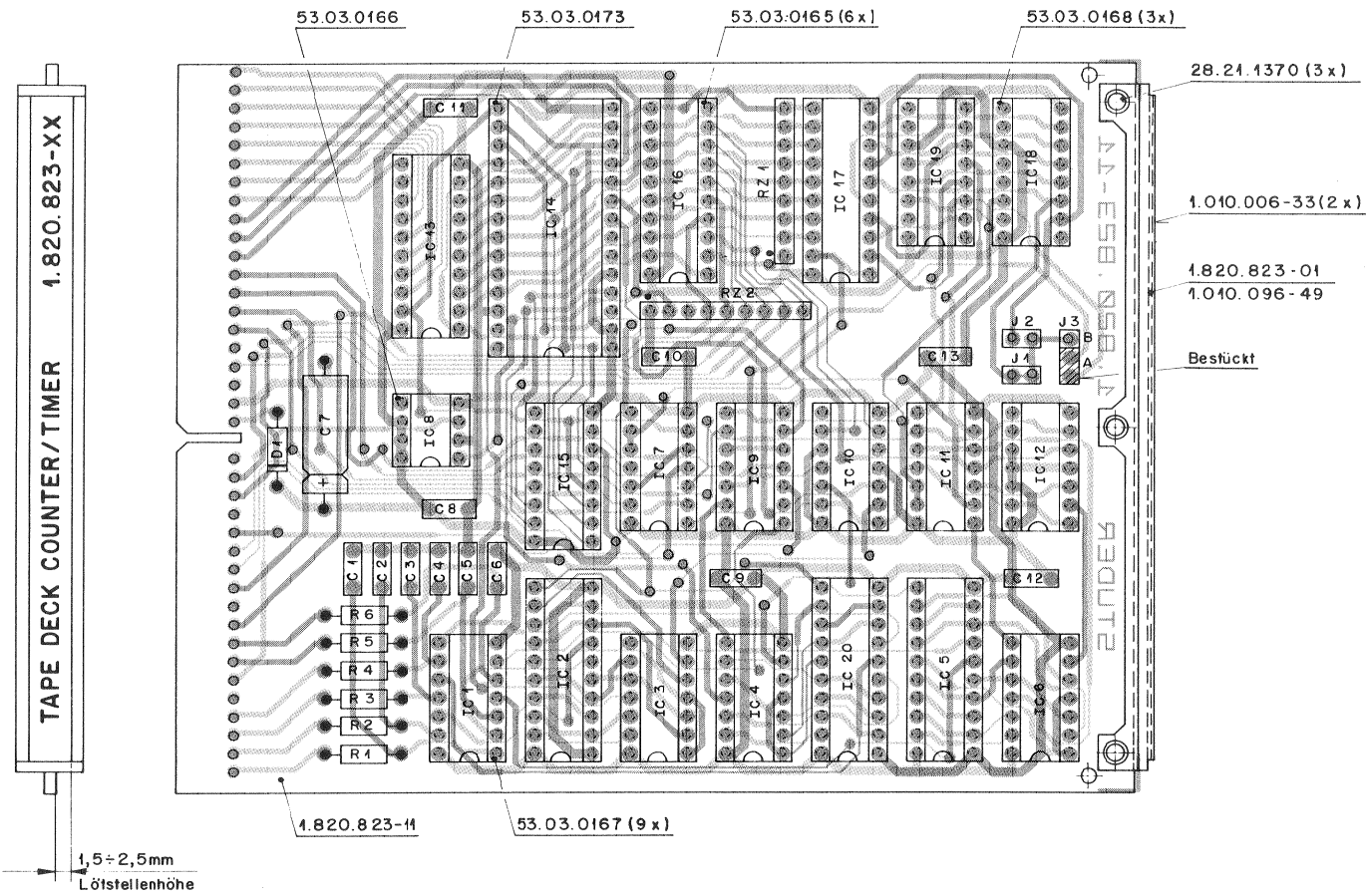
STUDER A820 MCH

TD COUNTER TIMER 1.820.823.00



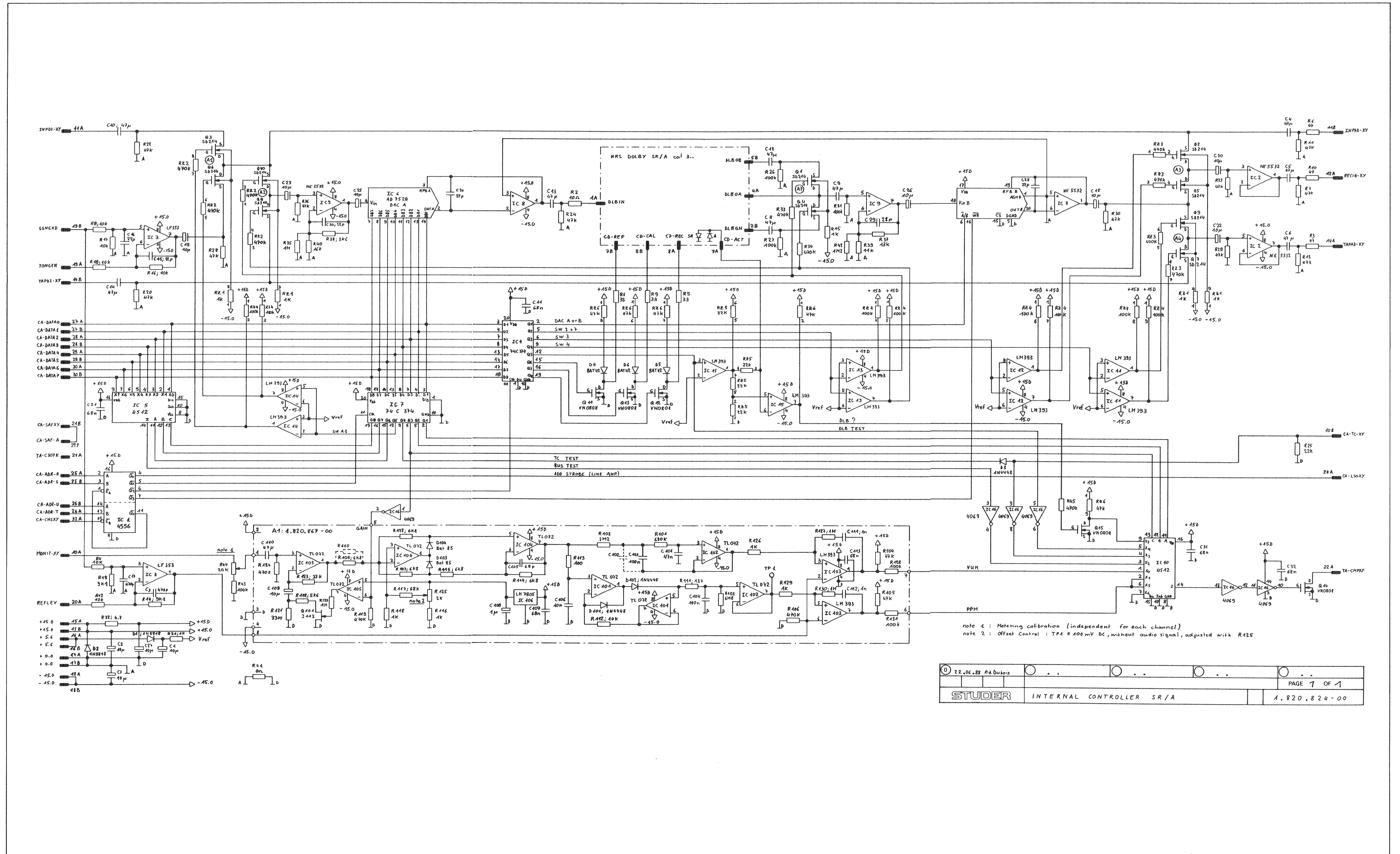
© 16.5.89 IVA			
A 820 TAPE TRANSPORT SECTION		PAGE 1 OF 1	
STUDER TAPE DECK COUNTER/TIMER		SC	1.820.823-00

TD COUNTER TIMER 1.820.823.00

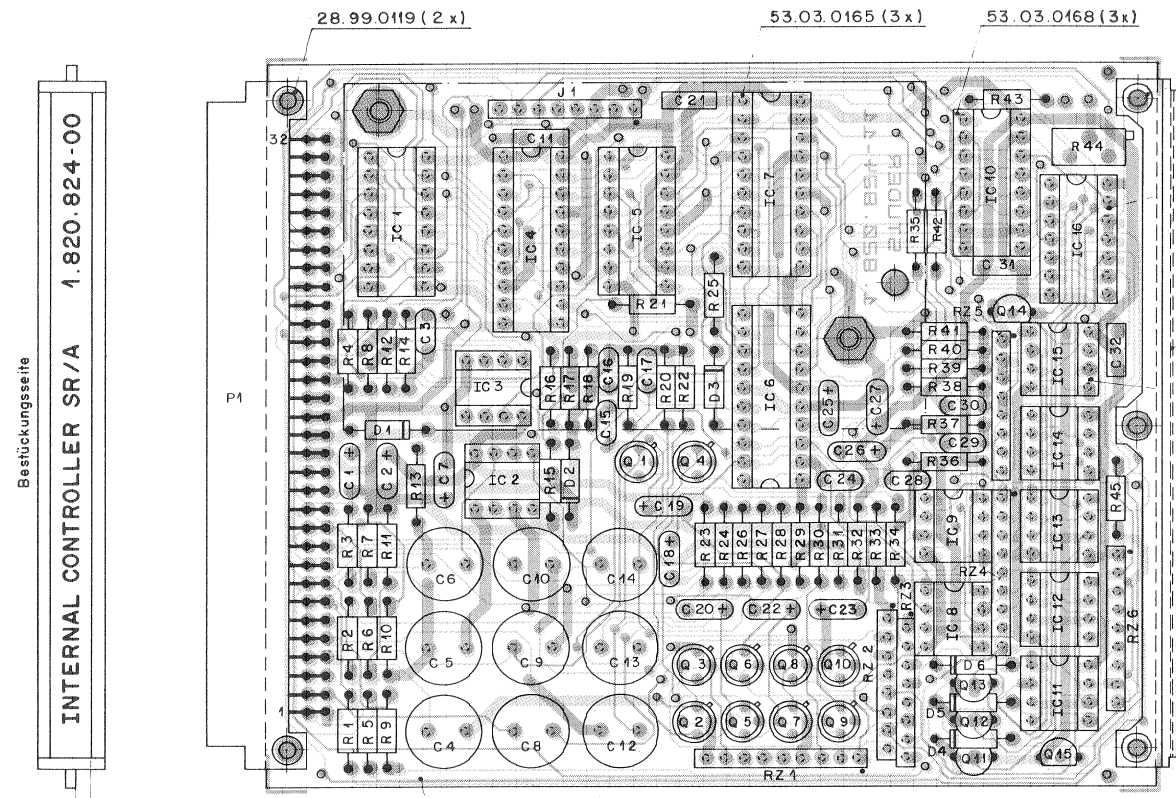


IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
D.....1	50.04.0512	1N 5818	1N 5818		Mot	J.....1			note used		
C.....1	59.06.0472	4.7 nF	10%, 63V, PETP		J.....2			note used			
C.....2	59.06.0472	4.7 nF	10%, 63V, PETP		J.....3			see note 1			
C.....3	59.06.0472	4.7 nF	10%, 63V, PETP		R.....1	57.11.3101	100 Ohm	1%			
C.....4	59.06.0472	4.7 nF	10%, 63V, PETP		R.....2	57.11.3101	100 Ohm	1%			
C.....5	59.06.0472	4.7 nF	10%, 63V, PETP		R.....3	57.11.3101	100 Ohm	1%			
C.....6	59.06.0472	4.7 nF	10%, 63V, PETP		R.....4	57.11.3101	100 Ohm	1%			
C.....7	59.25.3670	4.7 nF	10%, 63V, PETP		R.....5	57.11.3101	100 Ohm	1%			
C.....8	59.06.0583	68 nF	10%, 63V, PETP		R.....6	57.11.3101	100 Ohm	1%			
C.....9	59.06.0583	68 nF	10%, 63V, PETP		RZ.....1	57.88.4332		Network, 8 0 3-3 kOhm, 5%, single line			
C.....10	59.06.0583	68 nF	10%, 63V, PETP		RZ.....2	57.88.4332		Network, 8 0 3-3 kOhm, 5%, single line			
C.....11	59.06.0583	68 nF	10%, 63V, PETP								
C.....12	59.06.0583	68 nF	10%, 63V, PETP								
C.....13	59.06.0583	68 nF	10%, 63V, PETP								
IC.....1	50.17.1014	74 HC 14	-- 74 HC 14 --	Mot+NS+Ph+RCA+Ti+To							
IC.....2	50.17.1574	74 HC 574	-- 74 HC 574 --	Mot+NS+Ph+RCA+SGS+Ti+To							
IC.....3	50.17.1086	74 HC 86	-- 74 HC 86 --	Mot+NS+Ph+RCA+SGS+Ti+To							
IC.....4	50.17.1086	74 HC 86	-- 74 HC 86 --	Mot+NS+Ph+RCA+SGS+Ti+To							
IC.....5	50.17.1574	74 HC 574	-- 74 HC 574 --	Mot+NS+Ph+RCA+SGS+Ti+To							
IC.....6	50.17.1086	74 HC 86	-- 74 HC 86 --	Mot+NS+Ph+RCA+SGS+Ti+To							
IC.....7	50.17.1014	74 HC 14	-- 74 HC 14 --	Mot+NS+Ph+RCA+Ti+To							
IC.....8	50.09.0203	SN 75463 P	SN 75463 JG, SN 55463 JG, DS 3613 N	NS+TI							
IC.....9	50.17.1014	74 HC 14	-- 74 HC 14 --	Mot+NS+Ph+RCA+Ti+To							
IC.....10	50.17.1074	74 HC 74	-- 74 HC 74 --	Mot+NS+Ph+RCA+SGS+Ti+To							
IC.....11	50.17.1000	74 HC 00	-- 74 HC 00 --	Mot+NS+Ph+RCA+SGS+Ti+To							
IC.....12	50.17.1074	74 HC 74	-- 74 HC 74 --	Mot+NS+Ph+RCA+SGS+Ti+To							
IC.....13	50.17.1045	74 HC 645	-- 74 HC 645 --	Mot+NS+Ph+RCA+SGS+Ti+To							
IC.....14	50.16.0113	HC 68A 40P	HD 68A 40P	Hi+Mot							
IC.....15	50.17.1138	74 HC 138	-- 74 HC 138 --	Mot+NS+Ph+RCA+SGS+Ti+To							
IC.....16	50.17.1541	74 HC 541	-- 74 HC 541 --	Mot+NS+Ph+RCA+SGS+Ti+To							
IC.....17	50.17.1541	74 HC 541	-- 74 HC 541 --	Mot+NS+Ph+RCA+SGS+Ti+To							
IC.....18	50.17.1193	74 HC 193	-- 74 HC 193 --	Mot+NS+Ph+RCA+SGS+Ti+To							
IC.....19	50.17.1193	74 HC 193	-- 74 HC 193 --	Mot+NS+Ph+RCA+SGS+Ti+To							
IC.....20	50.17.1574	74 HC 574	-- 74 HC 574 --	Mot+NS+Ph+RCA+SGS+Ti+To							

INTERNAL CONTROLLER SR/A 1.820.824.00

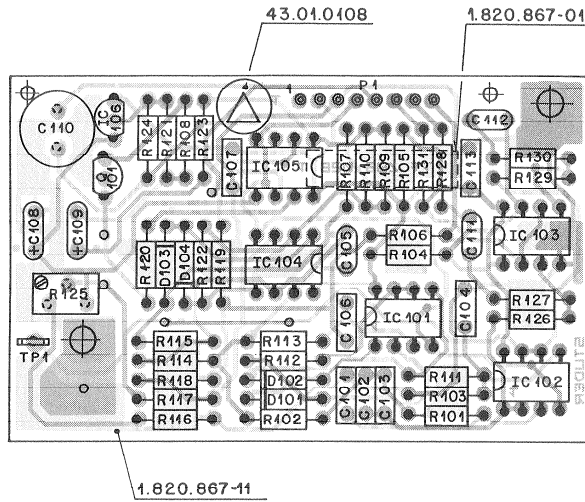


INTERNAL CONTROLLER SR/A 1.820.824.00



IND.	POS.NO.	PART NO.	WALJE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.NO.	PART NO.	WALJE	SPECIFICATIONS / EQUIVALENT	MANUF.
A....1		1.820.867.00		Metering board	St	A....33		57.11.3474	470 kOhm	2%	
C....1		59.26.2100	10 uF	20%	16 V SaI	A....34		57.11.3474	470 kOhm	2%	
C....2		59.26.2100	10 uF	20%	16 V SaI	A....35		57.11.3105	1 kOhm	2%	
C....3		59.32.4471	470 pF	20%	50 V Cer	A....36		57.11.3473	47 kOhm	2%	
C....4		59.99.0401	47 uF	20%	16 V EIBip	A....37		57.11.3133	13 kOhm	1%	
C....5		59.99.0401	47 uF	20%	16 V EIBip	A....38		57.11.3752	1.5 kOhm	1%	
C....6		59.99.0401	47 uF	20%	16 V EIBip	A....39		57.11.3113	11 kOhm	1%	
C....7		59.26.2100	10 uF	20%	16 V SaI	A....40		57.11.3133	13 kOhm	1%	
C....8		59.99.0401	47 uF	20%	16 V EIBip	A....41		57.11.4003			wire bridge or 0 Ohm resistor
C....9		59.99.0401	47 uF	20%	16 V EIBip	A....42		57.11.3125	1.2 kOhm		
C....10		59.99.0401	47 uF	20%	16 V EIBip	A....43		57.11.3104	100 kOhm	2%	
C....11		59.70.0803	08 nF	10%	PETP	A....44		59.05.0203			see note 2
C....12		59.99.0401	47 uF	20%	16 V EIBip	A....45		57.11.3474	470 kOhm	2%	
C....13		59.99.0401	47 uF	20%	16 V EIBip	AZ....1		57.88.4102			8 ± 1 kOhm; see note 3
C....14		59.99.0401	47 uF	20%	16 V EIBip	AZ....2		57.88.2474			4 ± 470 kOhm; see note 4
C....15		59.34.2220	22 pF	5%	Cer	AZ....3		57.88.2474			4 ± 470 kOhm; see note 4
C....16		59.34.2220	22 pF	5%	Cer	AZ....4		57.88.4104			4 ± 100 kOhm; see note 5
C....17		59.34.4471	470 pF	20%	50 V Cer	AZ....5		57.88.2223			4 ± 22 kOhm; see note 6
C....18		59.26.2100	10 uF	20%	16 V SaI	AZ....6		57.88.4473			8 ± 47 kOhm; see note 7
C....19		59.26.2100	10 uF	20%	16 V SaI						
C....20		59.26.2100	10 uF	20%	16 V SaI						
C....21		59.70.0803	08 nF	10%	PETP						
C....22		59.26.2100	10 uF	20%	16 V SaI						
C....23		59.26.2100	10 uF	20%	16 V SaI						
C....24		59.34.2220	22 pF	5%	Cer						
C....25		59.26.2100	10 uF	20%	16 V SaI						
C....26		59.26.2100	10 uF	20%	16 V SaI						
C....27		59.26.2100	10 uF	20%	16 V SaI						
C....28		59.34.2220	22 pF	5%	Cer						
C....29		59.34.2220	22 pF	5%	Cer						
C....30		59.34.2220	22 pF	5%	Cer						
C....31		59.30.0803	08 nF	10%	PETP						
C....32		59.30.0803	08 nF	10%	PETP						
U....1		50.34.0512	IN5818	IN5819	Mot						
U....2		50.34.0512	IN5818	IN5819	Mot						

METERING BOARD 1.820.867.00

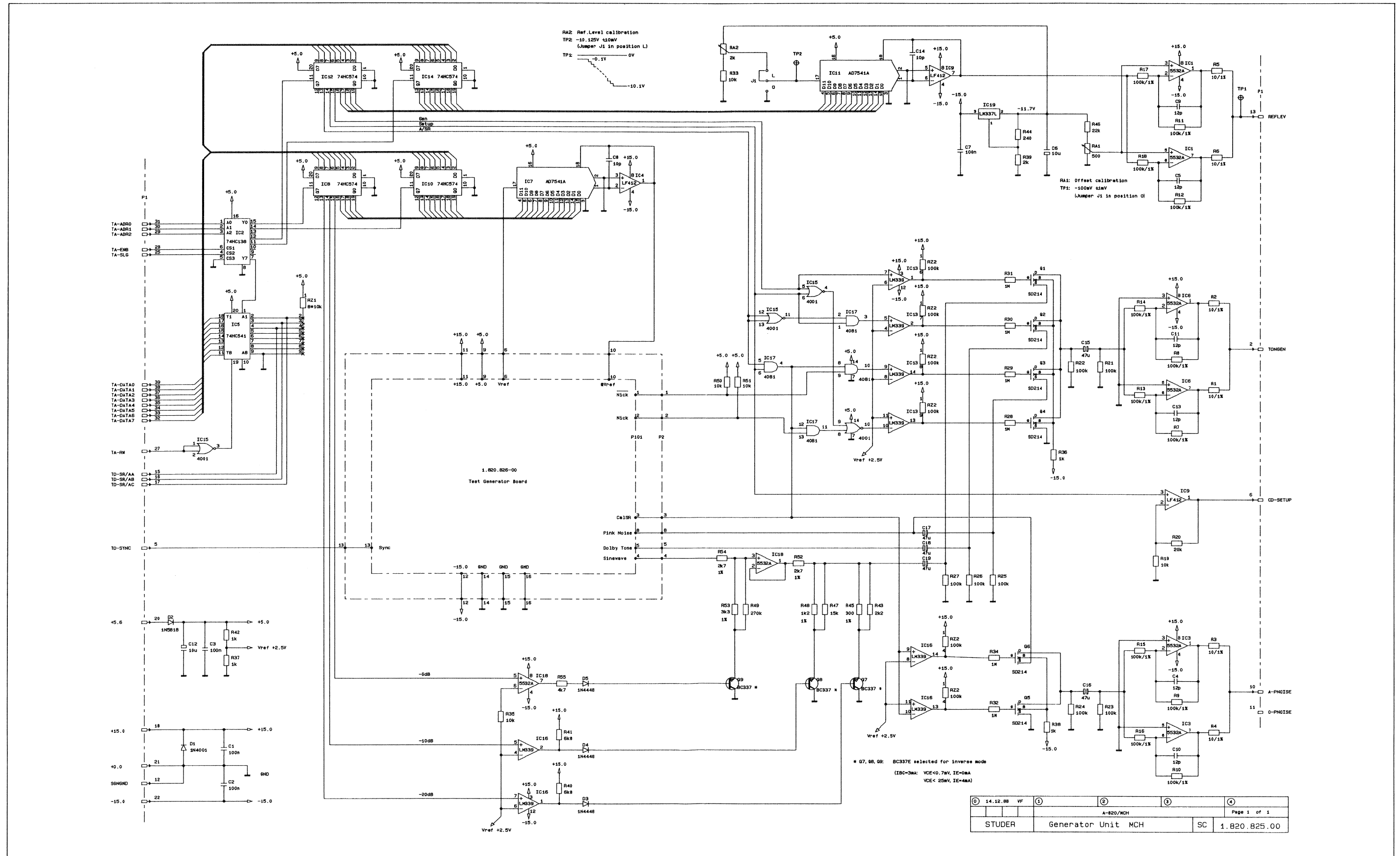


IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.				
C...	101	59.06.5473	47 nF	5% 63 V _e PETP		Note 1 - Potentiometers 2 k Ω : Bourns nr. 3296 Y - 1 - 202 Contelec nr. 183 WZ 202 Murata nr. PDI 3105 Y - 1 - 202 Spectrol nr. 64 Y 202 T 000									
C...	102	59.06.5104	not used			Cer-Ceramics; ElBip=Electrolytic bipolar; PETP=Polyesterfilm; Sal=Solid aluminium.									
C...	103	59.06.5104	100 nF	5% 63 V _e PETP		MANUFACTURER: Fc=Fairchild; ITT=Intermetall; Mot=Motorola; NS=National Semiconductors; Ph=Philips; Sie=Siemens; Tf=Telefunken; Tho=Thomson CSF; TI=Texas Instruments; Ses=Secosem.									
C...	104	59.06.5104	100 nF	5% 63 V _e PETP											
C...	105	59.34.4680	68 pF	5% N750 Cer											
C...	106	59.36.0103	10 nF	5% 63 V _e PETP											
C...	107	59.06.0683	68 nF	10% 63 V _e PETP											
C...	108	59.26.9109	1 uF	20% 40 V _e Sal											
C...	109	59.26.2100	10 uF	20% 16 V _e Sal											
C...	110	59.99.0401	47 uF	20% 16 V _e El, bipolar											
C...	111	59.06.0102	1 nF	5% 63 V _e PETP											
C...	112	59.06.0102	1 nF	5% 63 V _e PETP											
C...	113	59.36.0683	68 nF	10% 63 V _e PETP											
U...	121	50.04.0125	1N 4448		Fc=ITT+Ph+Ses; ITT										
U...	122	50.04.0125	1N 4448		Fc=ITT+Ph+Ses; Tf										
U...	103	50.04.0127	BAT 42	BAT 85, BAS 40-02	Ph; Sie; Tho										
U...	104	50.04.0127	BAT 42	BAT 85, BAS 40-02	Ph; Sie; Tho										
IC...	101	50.09.0101	TL 072 CP	T08 0353 DP	TI; Tho										
IC...	102	50.09.0101	TL 072 CP	T08 0353 DP	TI; Tho										
IC...	103	50.35.0283	LM 393 N	LM 393 P, LM 393 DP	Ns; TI; Tho										
IC...	104	50.09.0101	TL 072 CP	T08 0353 DP	TI; Tho										
IC...	105	50.09.0101	TL 072 CP	T08 0353 DP	TI; Tho										
IC...	106	50.10.0107	LM78L05ACZ	uA 78 L 05 AMC	Ns; Fc										
TP...	101	54.02.0320		Testpoint											
W...	101	50.03.0350	J112		Mot										
R...	101	57.11.4684	680 k Ω m	2%											
R...	102	57.11.5225	2.2 M Ω m	5%											
R...	103	57.11.5685	6.8 M Ω m	5%											
R...	104	57.11.4473	47 k Ω m	2%											
R...	105	57.11.4473	47 k Ω m	2%											
R...	106	57.11.4474	470 k Ω m	2%											
R...	107	57.11.4682	6.8 k Ω m	2%											
DRIG 87/03/18															
S T U D E R (00) 87/03/18 HUE METERING BOARD				PL 1.820.867.00 PAGE 1				S T U D E R (00) 87/03/18 HUE METERING BOARD				PL 1.820.867.00 PAGE 3			

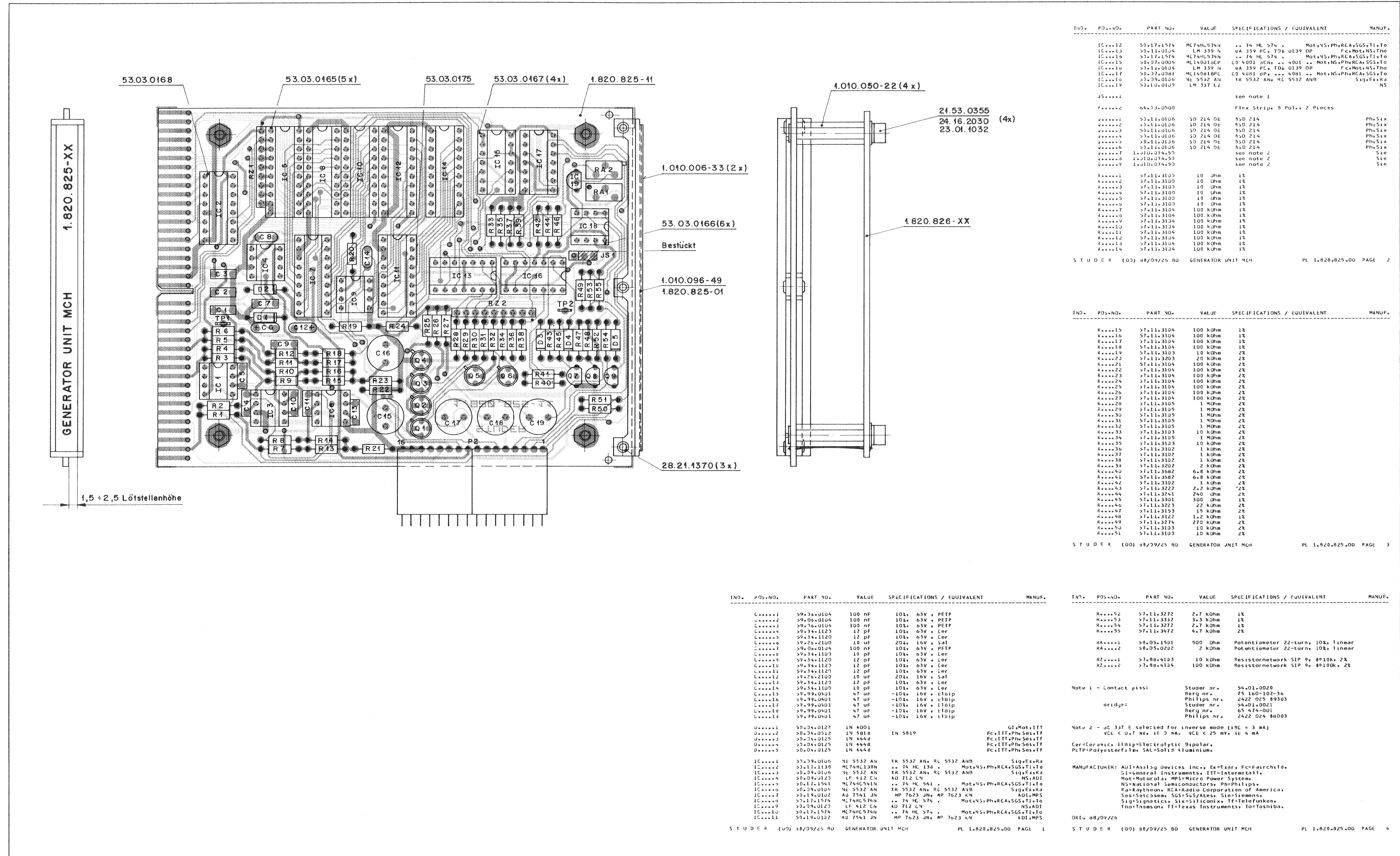
IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
R...	108	57.11.4562	5.6 k Ω m	2%	
R...	109	57.11.4682	6.8 k Ω m	2%	
X...	110		not used		
R...	111	57.11.3133	13 k Ω m	1%	
R...	112	57.11.4103	10 k Ω m	2%	
R...	113	57.11.4101	100 Ω m	2%	
R...	114	57.11.4682	6.8 k Ω m	2%	
R...	115	57.11.4682	6.8 k Ω m	2%	
R...	116	57.11.4102	1 k Ω m	2%	
R...	117	57.11.4683	68 k Ω m	2%	
R...	118	57.11.4102	1 k Ω m	2%	
R...	119	57.11.4474	470 k Ω m	2%	
R...	120	57.11.4105	1 M Ω m	2%	
R...	121	57.11.4334	330 k Ω m	2%	
R...	122	57.11.4382	6.8 k Ω m	2%	
R...	123	57.11.4333	33 k Ω m	2%	
R...	124	57.11.4474	470 k Ω m	2%	
X...	125	58.05.1202	2 k Ω m	see note 1	
R...	126	57.11.4102	1 k Ω m	2%	
R...	127	57.11.4105	1 M Ω m	2%	
R...	128	57.11.4104	100 k Ω m	2%	
R...	129	57.11.4102	1 k Ω m	2%	
R...	130	57.11.4105	1 M Ω m	2%	
R...	131	57.11.4104	100 k Ω m	2%	

STUDER A820 MCH

GENERATOR UNIT 1.820.825.00



GENERATOR UNIT 1.820.825.00



IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
IC...12	53.17.1574	MC74HC574N	.. 74 HC 574	Mot+NS+Ph+RCA+SGS+Ti+To	
IC...13	53.11.0114	LM 339 N	.. 339 PC + TO 0139 DP	Fc+Mot+NS+To	
IC...14	53.17.1574	MC74HC574N	.. 74 HC 574	Mot+NS+Ph+RCA+SGS+Ti+To	
IC...15	50.07.0005	MC14011UCP	CD 4001 UCN .. 4001	Mot+NS+Ph+RCA+SGS+Ti+To	
IC...16	53.11.0114	LM 339 N	.. 339 PC + TO 0139 DP	Fc+Mot+NS+To	
IC...17	50.37.0081	MC14011BPC	CD 4001 UPV .. 4001	Mot+NS+Ph+RCA+SGS+Ti+To	
IC...18	53.09.0106	NE 5532 AN	.. 5532 AN	SignEx+Ra	
IC...19	53.11.0119	LM 337 LZ	.. 337 LZ	NS	

IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
JS...1	64.73.0500			see note 1	
F...2	64.73.0500			Flex Strip 8 Pol., 2 Pieces	
A...1	57.11.3104	SD 214 DE	10 Ohm	1%	PhSix
A...2	57.11.3104	SD 214 DE	10 Ohm	1%	PhSix
A...3	57.11.3104	SD 214 DE	10 Ohm	1%	PhSix
A...4	57.11.3104	SD 214 DE	10 Ohm	1%	PhSix
A...5	57.11.3104	SD 214 DE	10 Ohm	1%	PhSix
A...6	57.11.3104	SD 214 DE	10 Ohm	1%	PhSix
A...7	57.11.3104	SD 214 DE	10 Ohm	1%	PhSix
A...8	57.11.3104	SD 214 DE	10 Ohm	1%	PhSix
A...9	57.11.3104	SD 214 DE	10 Ohm	1%	PhSix
A...10	57.11.3104	SD 214 DE	10 Ohm	1%	PhSix
A...11	57.11.3104	SD 214 DE	10 Ohm	1%	PhSix
A...12	57.11.3104	SD 214 DE	10 Ohm	1%	PhSix
A...13	57.11.3104	SD 214 DE	10 Ohm	1%	PhSix
A...14	57.11.3104	SD 214 DE	10 Ohm	1%	PhSix

STUDER (00) 88/09/25 BD GENERATOR UNIT MCH PL 1.820.825.00 PAGE 2

IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
R...15	57.11.3104	100 kOhm	1%		
R...16	57.11.3104	100 kOhm	1%		
R...17	57.11.3104	100 kOhm	1%		
R...18	57.11.3104	100 kOhm	1%		
R...19	57.11.3103	10 kOhm	2%		
R...20	57.11.3203	20 kOhm	2%		
R...21	57.11.3104	100 kOhm	2%		
R...22	57.11.3104	100 kOhm	2%		
R...23	57.11.3104	100 kOhm	2%		
R...24	57.11.3104	100 kOhm	2%		
R...25	57.11.3104	100 kOhm	2%		
R...26	57.11.3104	100 kOhm	2%		
R...27	57.11.3104	100 kOhm	2%		
R...28	57.11.3105	1 kOhm	2%		
R...29	57.11.3105	1 kOhm	2%		
R...30	57.11.3105	1 kOhm	2%		
R...31	57.11.3105	1 kOhm	2%		
R...32	57.11.3105	1 kOhm	2%		
R...33	57.11.3103	10 kOhm	2%		
R...34	57.11.3105	1 kOhm	2%		
R...35	57.11.3103	10 kOhm	2%		
R...36	57.11.3102	1 kOhm	2%		
R...37	57.11.3102	1 kOhm	2%		
R...38	57.11.3102	1 kOhm	2%		
R...39	57.11.3202	2 kOhm	2%		
R...40	57.11.3082	6.8 kOhm	2%		
R...41	57.11.3082	6.8 kOhm	2%		
R...42	57.11.3102	1 kOhm	2%		
R...43	57.11.3222	2.2 kOhm	2%		
R...44	57.11.3291	240 Ohm	2%		
R...45	57.11.3301	300 Ohm	1%		
R...46	57.11.3223	22 kOhm	2%		
R...47	57.11.3103	15 kOhm	2%		
R...48	57.11.3122	1.2 kOhm	1%		
R...49	57.11.3274	270 kOhm	2%		
R...50	57.11.3103	10 kOhm	2%		
R...51	57.11.3103	10 kOhm	2%		

STUDER (00) 88/09/25 BD GENERATOR UNIT MCH PL 1.820.825.00 PAGE 3

IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
C...1	59.09.0104	100 nF	10%, 63V + PETP		
C...2	59.09.0104	100 nF	10%, 63V + PETP		
C...3	59.34.1123	12 pF	10%, 63V + Cer		
C...4	59.34.1120	12 pF	10%, 63V + Cer		
C...5	59.25.2100	10 uF	20%, 16V + SAL		
C...6	59.09.0104	100 nF	10%, 63V + PETP		
C...7	59.34.1109	10 pF	10%, 63V + Cer		
C...8	59.34.1120	12 pF	10%, 63V + Cer		
C...9	59.34.1120	12 pF	10%, 63V + Cer		
C...10	59.34.1120	12 pF	10%, 63V + Cer		
C...11	59.34.1120	12 pF	10%, 63V + Cer		
C...12	59.25.2100	10 uF	20%, 16V + SAL		
C...13	59.34.1120	12 pF	10%, 63V + Cer		
C...14	59.34.1109	10 pF	10%, 63V + Cer		
C...15	59.99.0001	47 uF	-10%, 16V + ElBip		
C...16	59.99.0001	47 uF	-10%, 16V + ElBip		
C...17	59.99.0001	47 uF	-10%, 16V + ElBip		
C...18	59.99.0001	47 uF	-10%, 16V + ElBip		
C...19	59.99.0001	47 uF	-10%, 16V + ElBip		
U...1	50.04.0122	LN 4001		GI+Mot+ITT	
U...2	50.04.0512	LN 5018		Fc+ITT+Ph+SeS+Tf	
U...3	50.04.0125	LN 4448		Fc+ITT+Ph+SeS+Tf	
U...4	50.04.0125	LN 4448		Fc+ITT+Ph+SeS+Tf	
U...5	50.04.0125	LN 4448		Fc+ITT+Ph+SeS+Tf	
IC...1	53.09.0106	NE 5532 AN	TK 5532 AN, RL 5532 ANB	SignEx+Ra	
IC...2	53.11.1139	MC74HC138N	.. 74 HC 138	Mot+NS+Ph+RCA+SGS+Ti+To	
IC...3	50.09.0106	NE 5532 AN	TK 5532 AN, RL 5532 ANB	SignEx+Ra	
IC...4	50.09.0123	LF 412 CN	AD 712 CN	NS+ADI	
IC...5	50.11.1541	MC74HC541N	.. 74 HC 541	Mot+NS+Ph+RCA+SGS+Ti+To	
IC...6	50.09.0106	NE 5532 AN	TK 5532 AN, RL 5532 ANB	SignEx+Ra	
IC...7	50.19.0102	AD 7541 JN	MP 7o23 JN, MP 7o23 AN	ADI+MPS	
IC...8	53.17.1574	MC74HC574N	.. 74 HC 574	Mot+NS+Ph+RCA+SGS+Ti+To	
IC...9	50.09.0123	LF 412 CN	AD 712 CN	NS+ADI	
IC...10	50.11.1574	MC74HC574N	.. 74 HC 574	Mot+NS+Ph+RCA+SGS+Ti+To	
IC...11	50.19.0102	AD 7541 JN	MP 7o23 JN, MP 7o23 AN	ADI+MPS	

STUDER (00) 88/09/25 BD GENERATOR UNIT MCH PL 1.820.825.00 PAGE 1

IND.	POS.-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
R...52	57.11.3272	2.7 kOhm	1%		
R...53	57.11.3332	3.3 kOhm	1%		
R...54	57.11.3272	2.7 kOhm	1%		
R...55	57.11.3472	4.7 kOhm	2%		
RA...1	58.05.1501	500 Ohm		Potentiometer 22-turn, 10%, linear	
RA...2	58.05.0202	2 kOhm		Potentiometer 22-turn, 10%, linear	
RZ...1	57.88.4103	10 kOhm		Resistor network SIP 9, 8010k, 2%	
RZ...2	57.88.4104	100 kOhm		Resistor network SIP 9, 8010k, 2%	

Note 1 - Contact pins: Studer nr. 54-01-0020
Berg nr. 75 160-102-30
Philips nr. 2422 025 89303
Studer nr. 54-01-0021
Berg nr. 65 474-001
Philips nr. 2422 024 88003

Note 2 - uC 337 E selected for inverse mode (IBC = 3 mA)
VCE < 0.7 mA; IE 3 mA. VCE < 25 mV; IE 4 mA

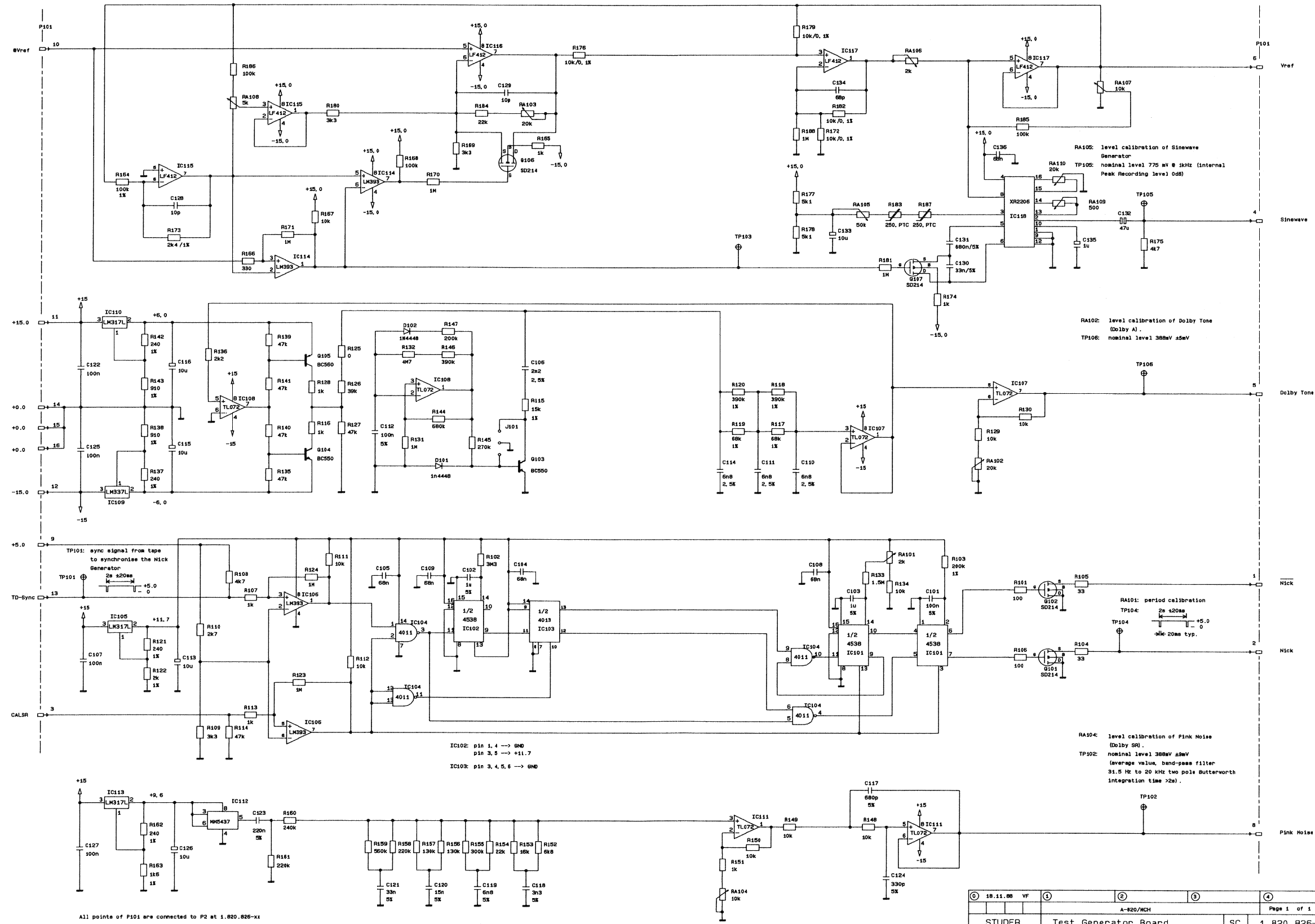
Cer=Ceramic; ElBip=Electrolytic Bipolar;
PLT=Polyesterfilm; SAL=Solid Aluminium.

MANUFACTURER: ADI=Analog Devices Inc.; Ex=Exar; Fc=Fairchild;
GI=General Instruments; ITT=International;
Mot=Motorola; MPS=Micro Power Systems;
NS=National Semiconductors; Ph=Philips;
Ra=Raytheon; RCA=Radio Corporation of America;
SeS=Siemens; SGS=SGS/Atelco; Sig=Siemens;
Sign=Signetics; Six=Siliconix; Tf=Telefunken;
Tn=Tomson; Ti=Texas Instruments; To=Toshiba.

DRIG 88/09/26

STUDER (00) 88/09/25 BD GENERATOR UNIT MCH PL 1.820.825.00 PAGE 4

TEST GENERATOR BOARD 1.820.826.00



①	18.11.86	VF	②		③		④	
A-820/MCH								Page 1 of 1
STUDER	Test Generator Board			SC	1.820.826-00			

TEST GENERATOR BOARD 1.820.826.00

Table with columns: IND., POS.ND., PART NO., VALUE, SPECIFICATIONS / EQUIVALENT, MANUF. (Page 1)

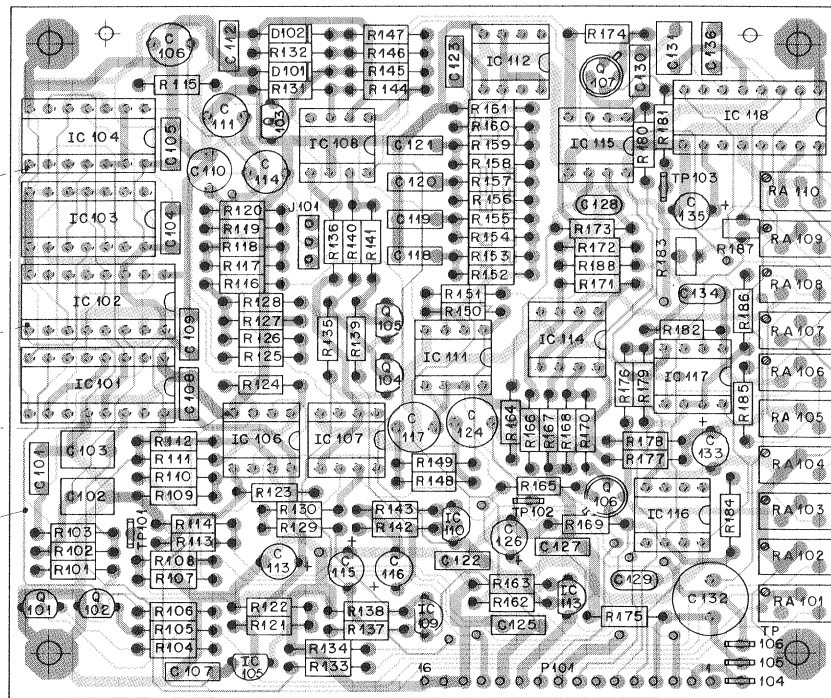
S T U D E R (01) 88/11/30 BD TEST GENERATOR BOARD PL 1.820.826.00 PAGE 1

Table with columns: IND., POS.ND., PART NO., VALUE, SPECIFICATIONS / EQUIVALENT, MANUF. (Page 2)

S T U D E R (01) 88/11/30 BD TEST GENERATOR BOARD PL 1.820.826.00 PAGE 2

Table with columns: IND., POS.ND., PART NO., VALUE, SPECIFICATIONS / EQUIVALENT, MANUF. (Page 3)

S T U D E R (01) 88/11/30 BD TEST GENERATOR BOARD PL 1.820.826.00 PAGE 3



53.03.0167 (2x)

53.03.0168 (3x)

53.03.0166 (9x)

1.820.826-12

Note 1 - Contact pins: Studer nr. 54-01.0020, Berg nr. 75-160-102-16, Philips nr. 2422 025 89303

bridge (test use only): Studer nr. 54-01.0021, Berg nr. 65-474-001, Philips nr. 2422 024 89003

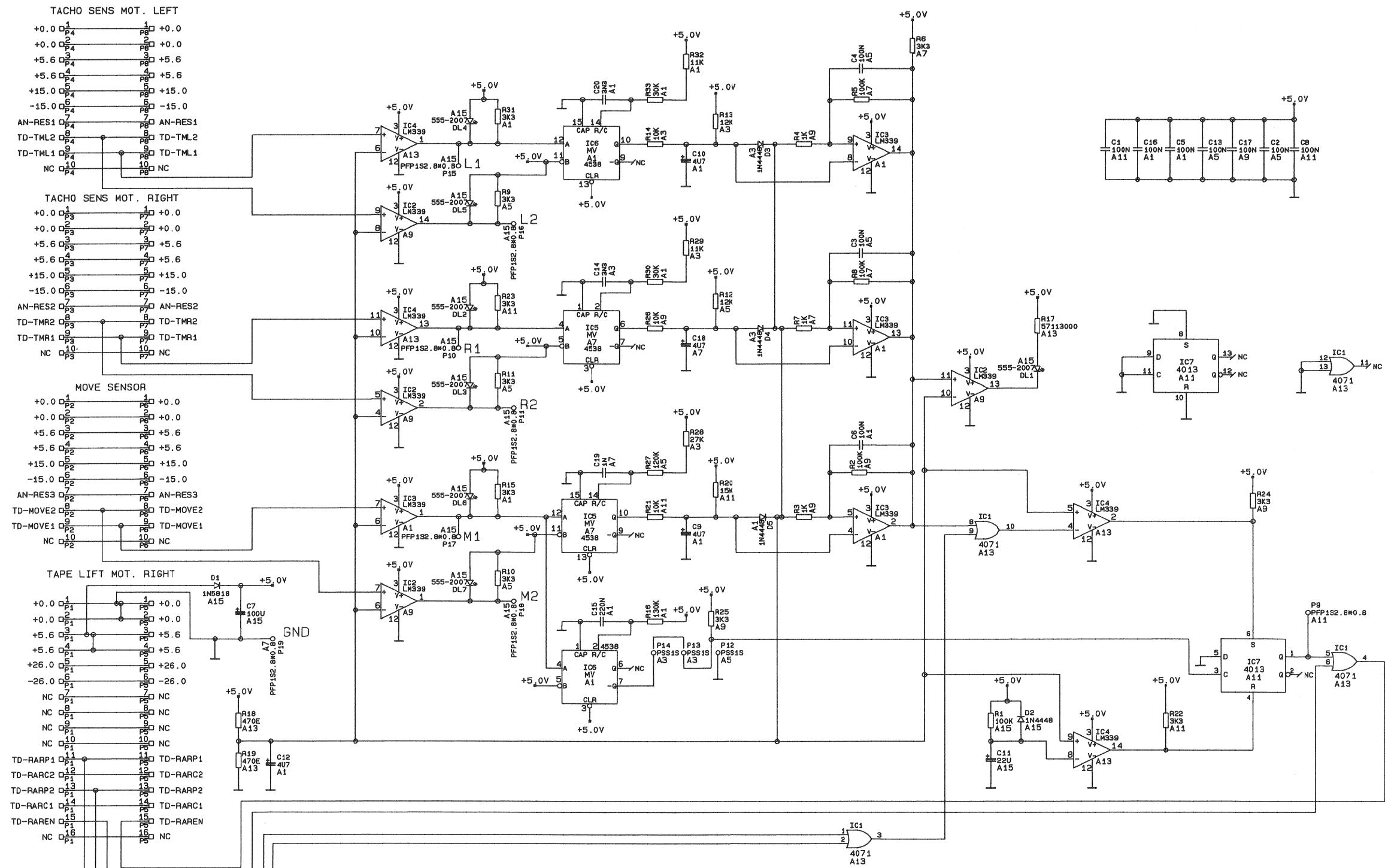
Cer=Ceramic, El=Electrolytic, P=PP=Polyesterfilm, PP=Polypropylen.

MANUFACTURERS: AJI=Analog Devices Inc., Ex=Exar, Fc=Fairchild, Fo=Formant, ITT=Intermetall, Mo=Motorola, NS=National Semiconductor, Ph=Philips, RA=Radio Corporation of America, S=Secosem, Ss=Si/Si/Atos, Ss=Siemens, Si=Siliconix, SSS=Solid State Scientific, Tf=Telefunken, Th=Thomson, TI=Texas Instruments.

DRIG 88/09/15 (01) 88/11/30 S T U D E R (01) 88/11/30 BD TEST GENERATOR BOARD PL 1.820.826.00 PAGE 6

STUDER A820 MCH

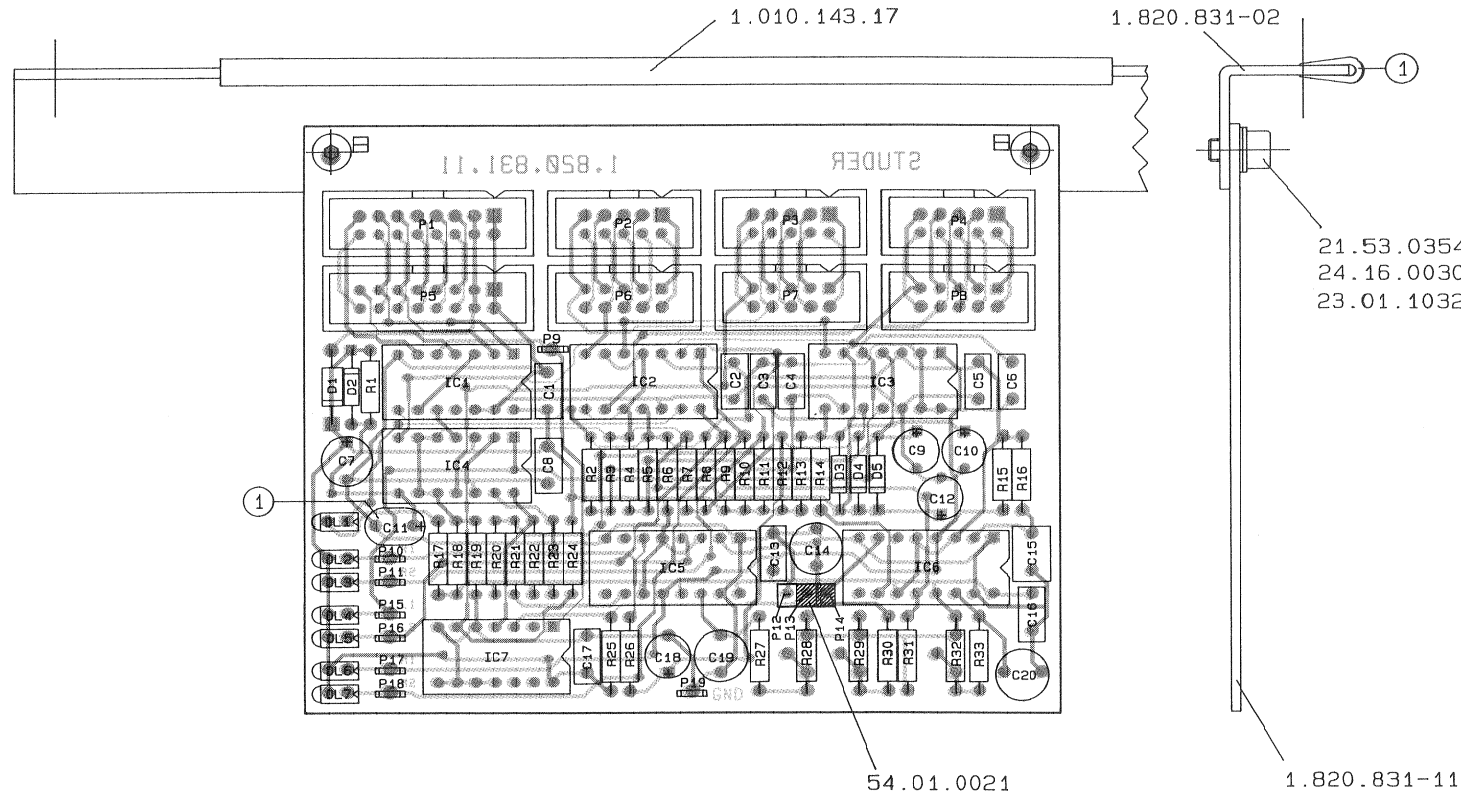
PINCH ROLLER GATE 1.820.831.00



- P4 PRCS10
- P3 PRCS10
- P2 PRCS10
- P8 PRCS10
- P7 PRCS10
- P6 PRCS10
- P1 PRCS16
- P5 PRCS16

17.01.89 PZ/HAR	01.03.89 HAR	
A820 MCH		
STUDER	PINCH ROLLER GATE	PAGE 1 OF 1
SC 1.820.831.00		

PINCH ROLLER GATE 1.820.831.00



IND.	POS-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
IC	2	50-11-0104	LH 339	T08 0139 DP	Mot, NS, SuS
IC	3	50-11-0104	LH 339	T08 0139 DP	Mot, NS, SuS
IC	4	50-11-0104	LH 339	T08 0139 DP	Mot, NS, SuS
IC	5	50-07-1538	MC 14538BCP	HEF 4538 BP	Mot, Ph
IC	6	50-07-1538	MC 14538BCP	HEF 4538 BP	Mot, Ph
IC	7	50-07-0013	MC 14013BCP	HEF 4013 BP, CD 4013 BE	Mot, Ph, RCA, SuS
P	1	54-14-2002	16 cont.	see note 1	
P	2	54-14-2001	10 cont.	see note 2	
P	3	54-14-2001	10 cont.	see note 2	
P	4	54-14-2001	10 cont.	see note 2	
P	5	54-14-2002	16 cont.	see note 1	
P	6	54-14-2001	10 cont.	see note 2	
P	7	54-14-2001	10 cont.	see note 2	
P	8	54-14-2001	10 cont.	see note 2	
P	9	54-02-0320	Flat-pin	Testpoint	
P	10	54-02-0320	Flat-pin	Testpoint	
P	11	54-02-0320	Flat-pin	Testpoint	
P	12	54-01-0020	Pin-strip	see note 3	
P	13	54-01-0020	Pin-strip	see note 3	
P	14	54-01-0020	Pin-strip	see note 3	
P	15	54-02-0320	Flat-pin	Testpoint	
P	16	54-02-0320	Flat-pin	Testpoint	
P	17	54-02-0320	Flat-pin	Testpoint	
P	18	54-02-0320	Flat-pin	Testpoint	
P	19	54-02-0320	Flat-pin	Testpoint	
R	1	57-11-3104	100 kOhm	2%	
R	2	57-11-3104	100 kOhm	2%	
R	3	57-11-3102	1 kOhm	2%	
R	4	57-11-3102	1 kOhm	2%	
R	5	57-11-3104	100 kOhm	2%	
R	6	57-11-3332	3-3 kOhm	2%	
R	7	57-11-3102	1 kOhm	2%	
R	8	57-11-3104	100 kOhm	2%	
R	9	57-11-3332	3-3 kOhm	2%	
R	10	57-11-3332	3-3 kOhm	2%	

S T U D E R (01) 89/02/09 50 PINCH ROLLER GATE PL 1.820.831.00 PAGE 2

IND.	POS-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
R	11	57-11-3332	3-3 kOhm	2%	
R	12	57-11-3123	12 kOhm	1%	
R	13	57-11-3123	12 kOhm	1%	
R	14	57-11-3103	10 kOhm	1%	
R	15	57-11-3332	3-3 kOhm	2%	
R	16	57-11-3134	130 kOhm	2%	
R	17	57-11-3000	0 Ohm		
R	18	57-11-3471	470 Ohm	1%	
R	19	57-11-3471	470 Ohm	1%	
R	20	57-11-3153	15 kOhm	1%	
R	21	57-11-3103	10 kOhm	1%	
R	22	57-11-3332	3-3 kOhm	2%	
R	23	57-11-3332	3-3 kOhm	2%	
R	24	57-11-3332	3-3 kOhm	2%	
R	25	57-11-3332	3-3 kOhm	2%	
R	26	57-11-3103	10 kOhm	1%	
R	27	57-11-3124	120 kOhm	1%	
R	28	57-11-3273	27 kOhm	1%	
R	29	57-11-3113	11 kOhm	1%	
R	30	57-11-3303	30 kOhm	1%	
R	31	57-11-3332	3-3 kOhm	2%	
R	32	57-11-3113	11 kOhm	1%	
R	33	57-11-3303	30 kOhm	1%	

S T U D E R (01) 89/02/09 80 PINCH ROLLER GATE PL 1.820.831.00 PAGE 3

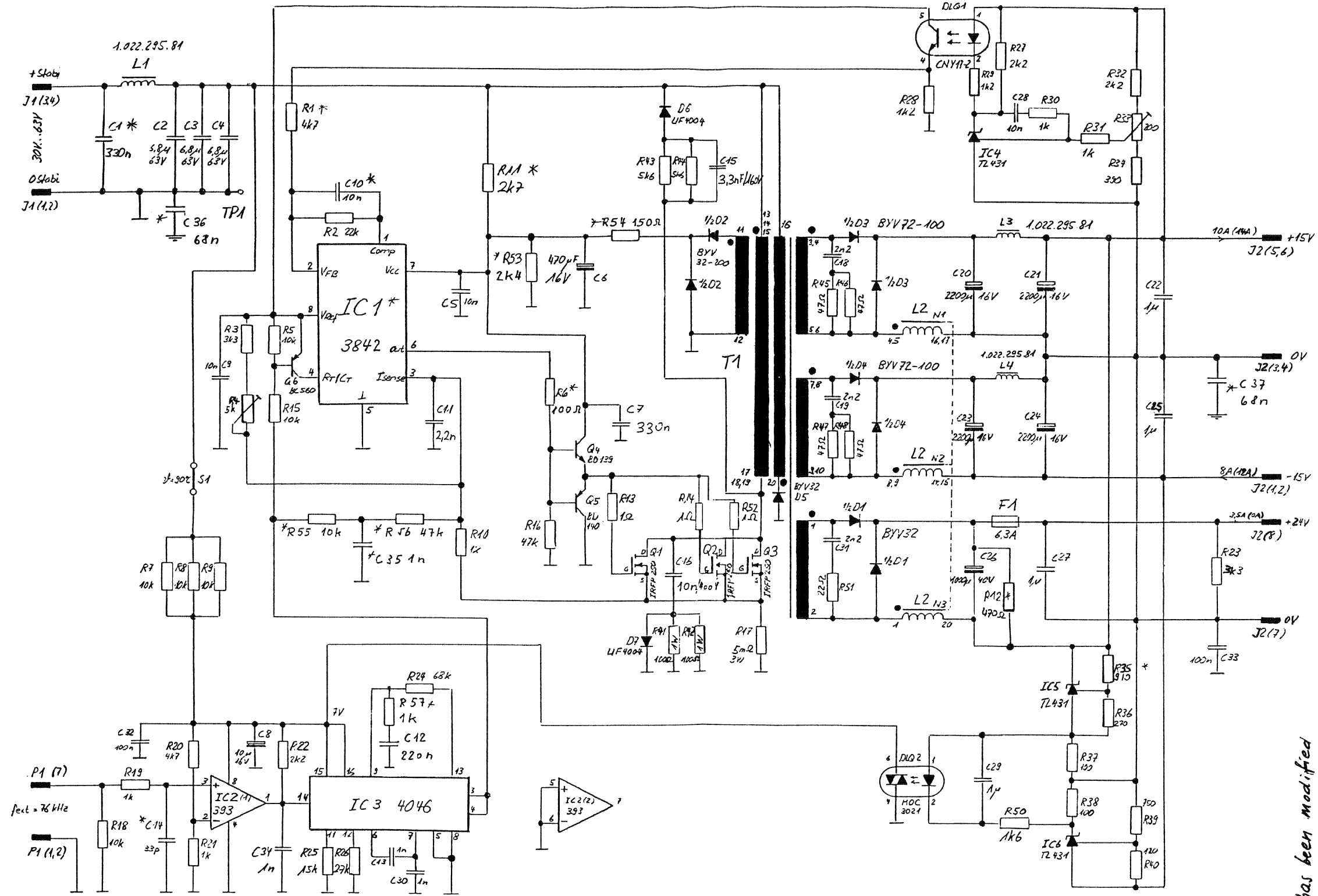
IND.	POS-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
C	1	59-04-0104	100 nF	10%, 63V, PETP	
C	2	59-04-0104	100 nF	10%, 63V, PETP	
C	3		not used		
C	4		not used		
C	5	59-04-0104	100 nF	10%, 63V, PETP	
C	6		not used		
C	7	59-22-3101	100 uF	20%, 25V, EI	
C	8	59-04-0104	100 nF	10%, 63V, PETP	
C	9	59-22-8479	4.7 uF	20%, 63V, EI	
C	10	59-22-8479	4.7 uF	20%, 63V, EI	
C	11	59-04-0224	220 nF	10%, 63V, PETP	
C	12	59-26-1220	22 uF	20%, 10V, Sal	
C	13	59-22-8479	4.7 uF	20%, 63V, EI	
C	14	59-04-0104	100 nF	10%, 63V, PETP	
C	15	59-05-1332	3.3 nF	1%, 160V, PP	
C	16	59-04-0224	220 nF	10%, 63V, PETP	
C	17	59-04-0104	100 nF	10%, 63V, PETP	
C	18	59-22-8479	4.7 uF	20%, 63V, EI	
C	19	59-05-1102	1 nF	1%, 160V, PP	
C	20	59-05-1332	3.3 nF	1%, 160V, PP	
D	1	50-04-0512	1N 5818	1N 5819	Mot
D	2	50-04-0125	1N 4448		Fc=ITT+Ph+Sem+Tf
D	3	50-04-0125	1N 4448		Fc=ITT+Ph+Sem+Tf
D	4	50-04-0125	1N 4448		Fc=ITT+Ph+Sem+Tf
D	5	50-04-0125	1N 4448		Fc=ITT+Ph+Sem+Tf
DL	1	50-04-2107	555-2007	LED, red, dif.	D1
DL	2	50-04-2107	555-2007	LED, red, dif.	D1
DL	3	50-04-2107	555-2007	LED, red, dif.	D1
DL	4	50-04-2107	555-2007	LED, red, dif.	D1
DL	5	50-04-2107	555-2007	LED, red, dif.	D1
DL	6	50-04-2107	555-2007	LED, red, dif.	D1
DL	7	50-04-2107	555-2007	LED, red, dif.	D1

S T U D E R (01) 89/02/09 80 PINCH ROLLER GATE PL 1.820.831.00 PAGE 4

IND.	POS-NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
(01) 09-02-89 Improved reset timing after power up.					
Note 1 - Connector:					
		16 contacts:	Yamaichi nr.	FAP-16-08-40 55	
			Burndy nr.	BPH 9 B 10 B 00 GS	
			3M nr.	7610-8002 V2	
			Panduit nr.	057-016-113	
Note 2 - Connector:					
		10 contacts:	Yamaichi nr.	FAP-10-08-40 55	
			Burndy nr.	BPH 9 B 10 B 00 GS	
			3M nr.	7610-8002 V2	
			Panduit nr.	057-010-113	
Note 3 - Jumper switch:					
		contact pins:	Berg nr.	77 311-102-36	
		bridge:	Philips nr.	2422 062 43241	
			Studier nr.	54-01-0021	
			Berg nr.	65 474-001	
			Philips nr.	2422 024 88003	
MANUFACTURER: D=Dialco, Fc=Fairchild, ITT=Intermetall, Mot=Motorola, NS=National Semiconductors, Ph=Philips, RCA=RCA Corporation, Sem=Semiconductors, SGS=SGS/Ates, Sie=Siemens, Tf=Telefunken.					

S T U D E R (01) 89/02/09 80 PINCH ROLLER GATE PL 1.820.831.00 PAGE 4

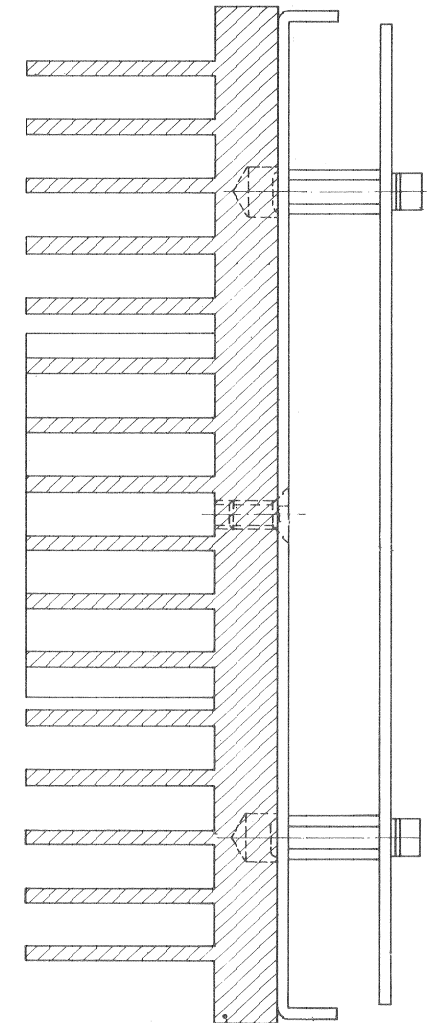
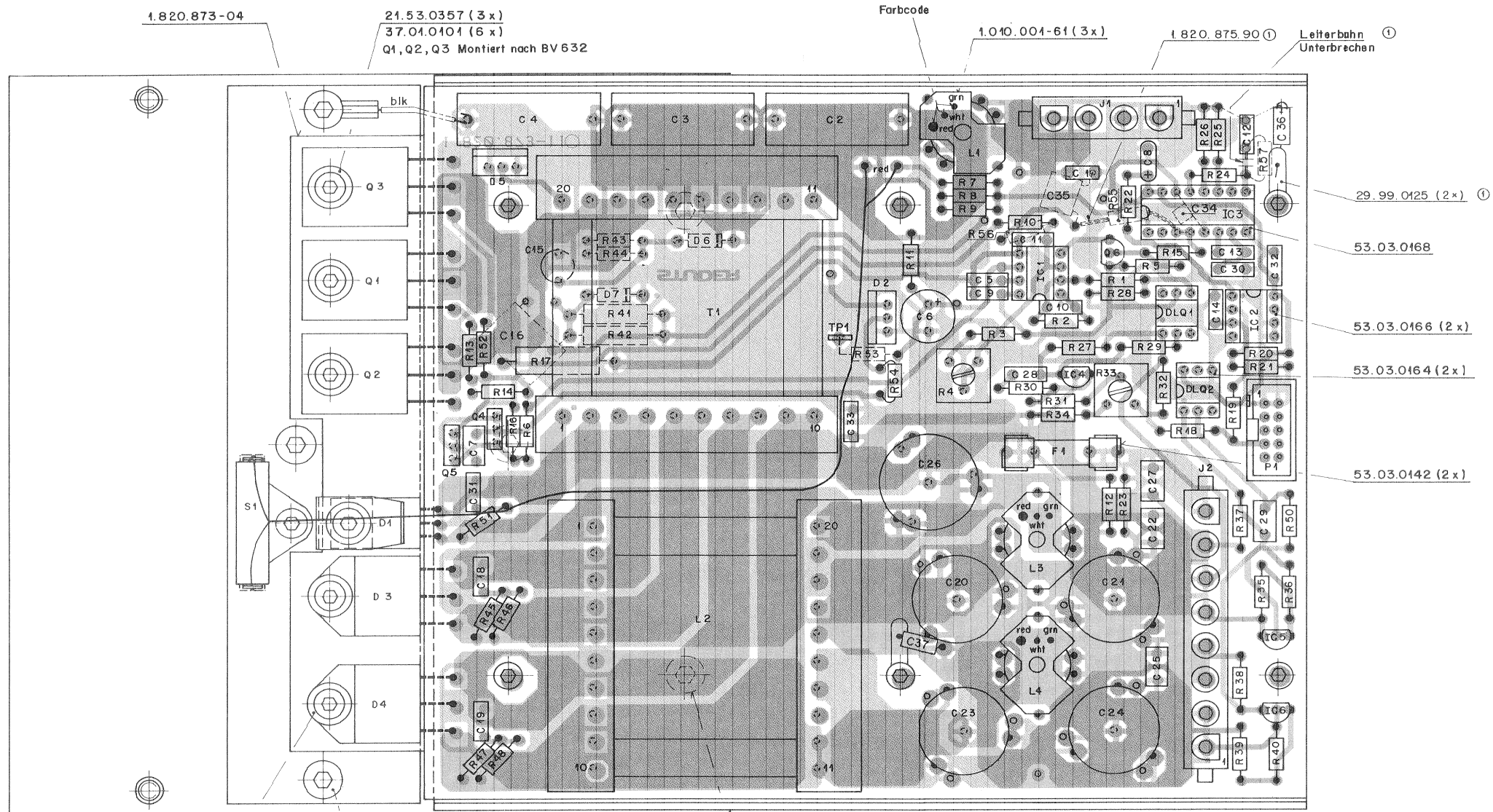
STABILIZER +/- 15V 1.820.873.00



* has been modified

0 21.4.88 G.Kochhammer	1.820.873.00	PAGE 1 OF 1
STUDER		Stabilizer +15V; -15V ; +24V
		① G.P.P. G.V.

STABILIZER +/- 15V 1.820.873.00

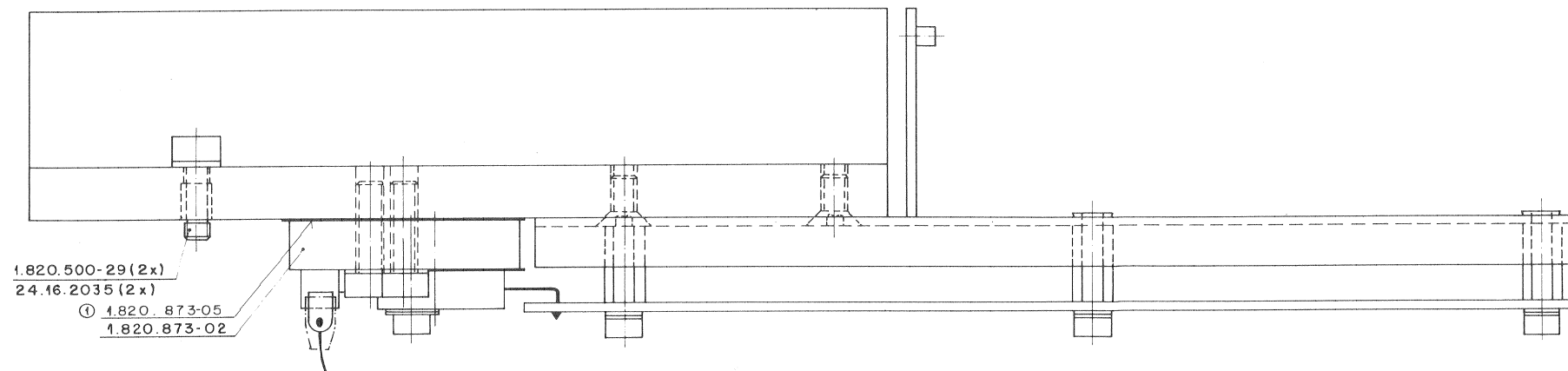


21.53.0355 (2 x)
37.01.0104 (4 x)
50.20.0404 (2 x)
D3, D4 Montiert nach BV 632

21.53.0472 (2 x) ①
24.16.1040 (2 x)
23.01.1043 (2 x)
1.820.873-06 (2 x)

21.51.2454 (2 x)

29.99.0125 (2 x) ①
53.03.0168
53.03.0166 (2 x)
53.03.0164 (2 x)
53.03.0142 (2 x)



1.820.500-29 (2 x)
24.16.2035 (2 x)
① 1.820.873-05
1.820.873-02

STABILIZER +/- 15V 1.820.873.00

Table with columns: IND., POS.-NO., PART NO., VALUE, SPECIFICATIONS / EQUIVALENT, MANUF., IND., POS.-NO., PART NO., VALUE, SPECIFICATIONS / EQUIVALENT, MANUF. Includes part numbers like 59-22-8100, 59-36-0334, 59-31-5685 and values like 10 uF, 330 nF, 6.8 uF.

S T U D E R (02) 89/04/07 90 STABILIZER +15V, -15V, PL 1.820.873.00 PAGE 1 S T U D E R (02) 89/04/07 90 STABILIZER +15V, -15V, PL 1.820.873.00 PAGE 4

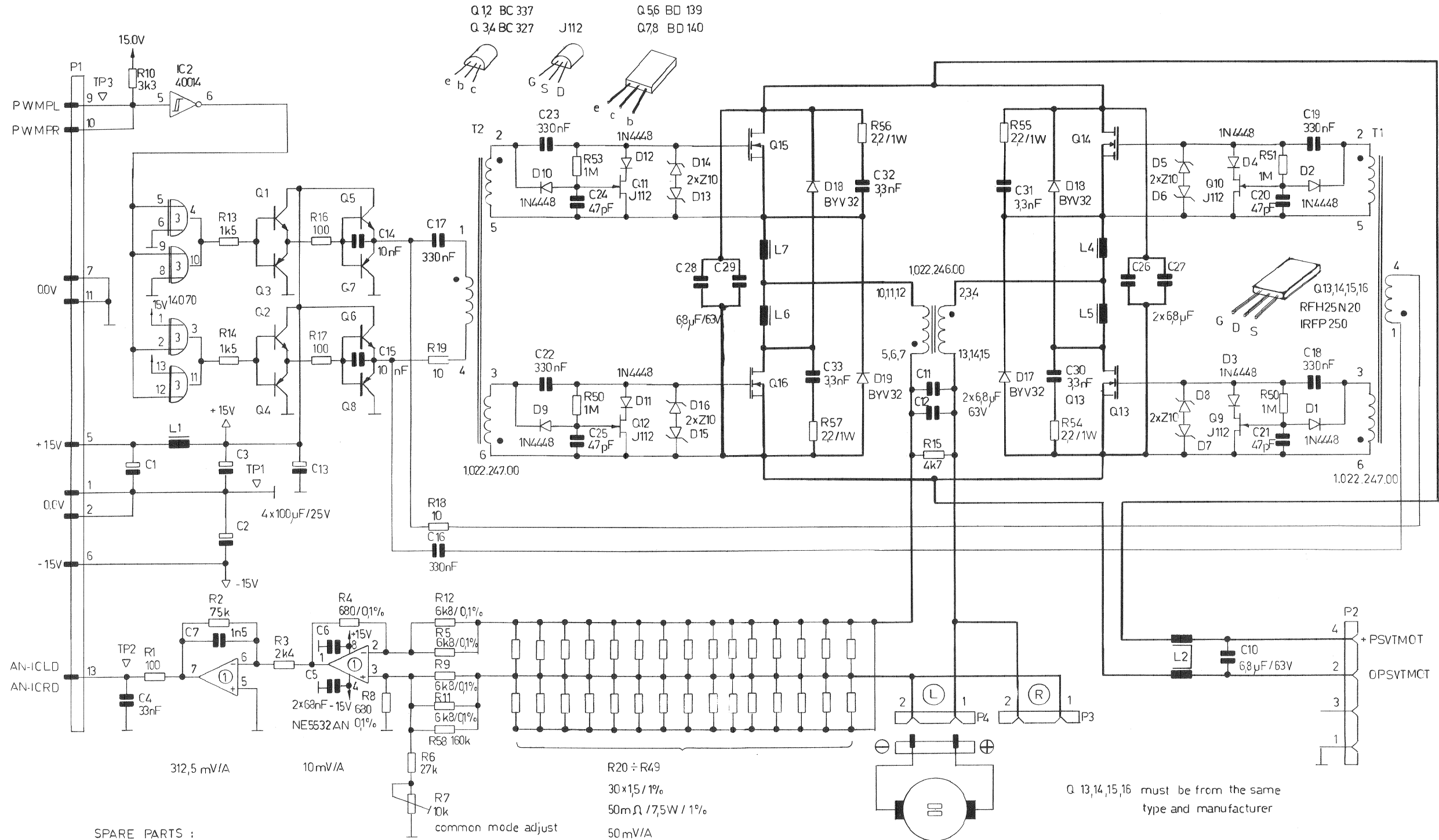
Table with columns: IND., POS.-NO., PART NO., VALUE, SPECIFICATIONS / EQUIVALENT, MANUF., IND., POS.-NO., PART NO., VALUE, SPECIFICATIONS / EQUIVALENT, MANUF. Includes components like capacitors (50.04-0517), diodes (D1-J-1), resistors (L-1-1), and fuses (F-1-1).

S T U D E R (02) 89/04/07 90 STABILIZER +15V, -15V, PL 1.820.873.00 PAGE 2 S T U D E R (02) 89/04/07 90 STABILIZER +15V, -15V, PL 1.820.873.00 PAGE 5

Table with columns: IND., POS.-NO., PART NO., VALUE, SPECIFICATIONS / EQUIVALENT, MANUF., IND., POS.-NO., PART NO., VALUE, SPECIFICATIONS / EQUIVALENT, MANUF. Includes components like capacitors (J-1-1), diodes (J-1-2), and various other electronic components.

S T U D E R (02) 89/04/07 90 STABILIZER +15V, -15V, PL 1.820.873.00 PAGE 3 S T U D E R (02) 89/04/07 90 STABILIZER +15V, -15V, PL 1.820.873.00 PAGE 6

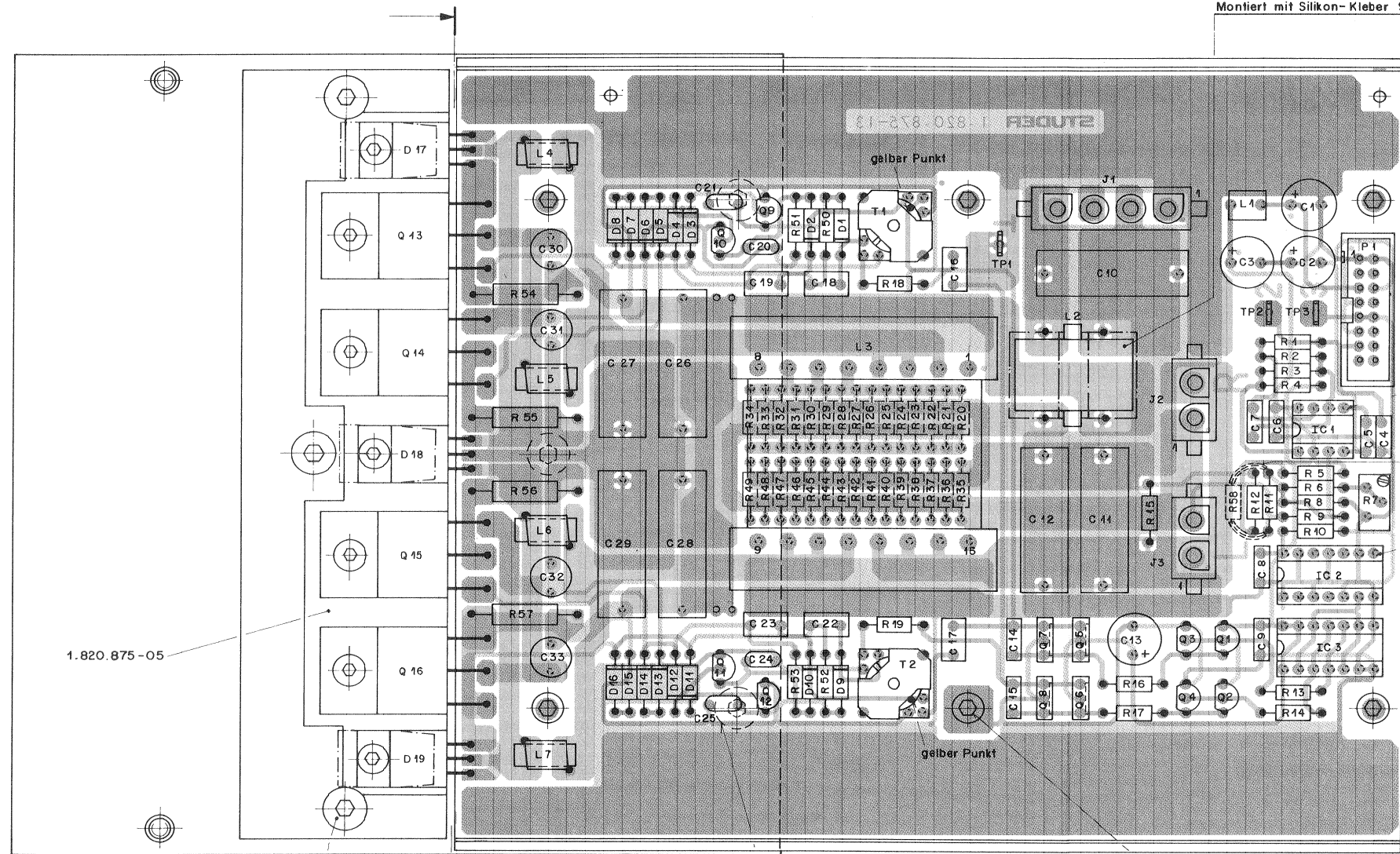
SPOOLING MOTOR DRIVE AMPLIFIER 1.820.875.82



28.03.87	ZOLLER
STUDER					PAGE 1 OF 1
SPOOLING MOTOR DRIVE AMPLIFIER				SC	1.820.875.82

SPOOLING MOTOR DRIVE AMPLIFIER 1.820.875.82

Montiert mit Silikon-Kleber 99.01.0577 nach BV 640



1.820.875-05

24.53.0472 (3x)
24.16.1040 (3x)

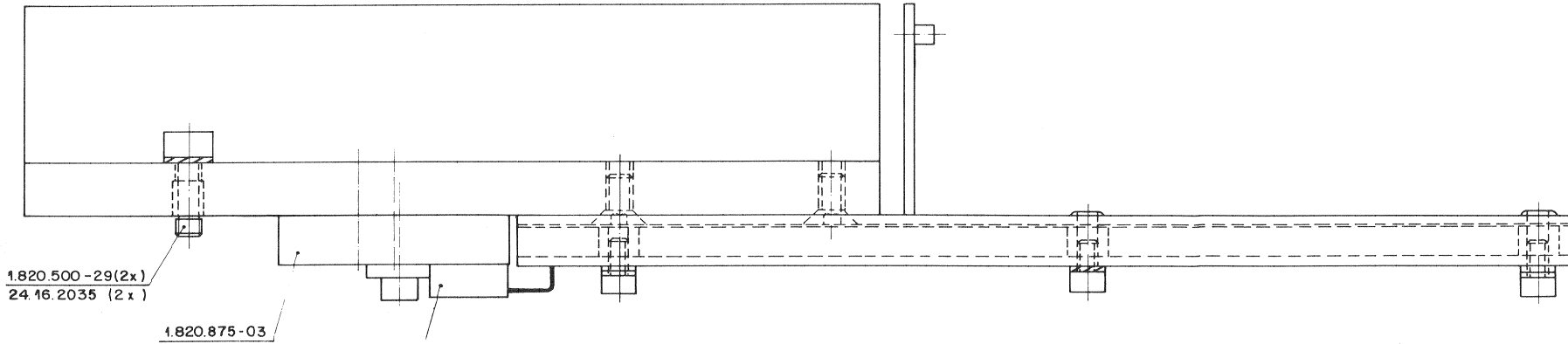
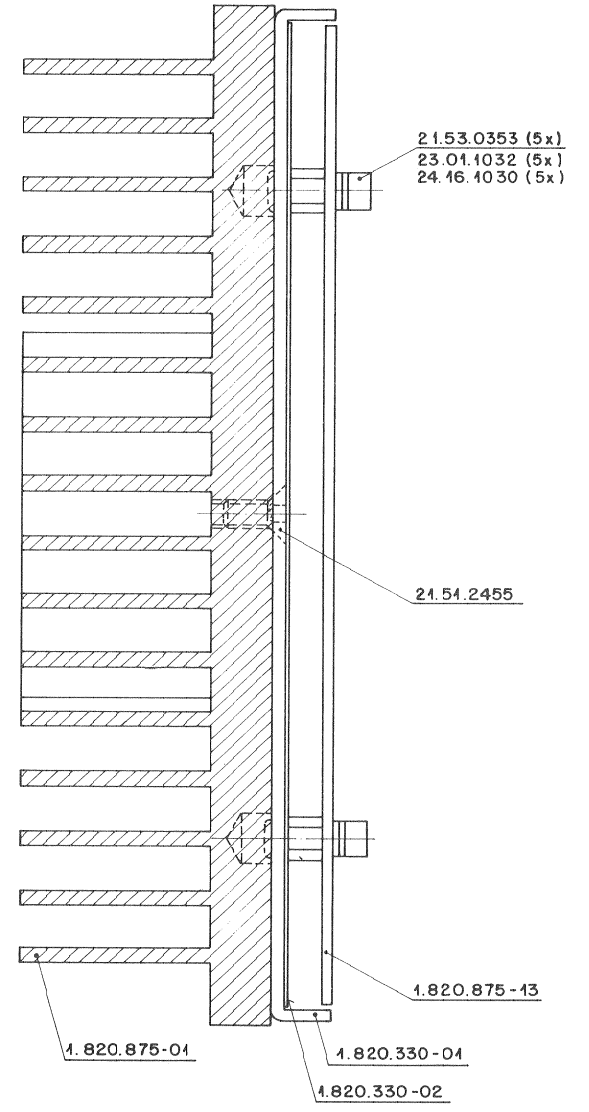
21.51.2454 (2x)

21.53.0353
24.16.2030

53.03.0166

1.820.875-90 (2x)

53.03.0167



SPOOLING MOTOR DRIVE AMPLIFIER 1.820.875.82

IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
C.....1	59.22.5101	100 uF	20%	25V, EL		R.....23	57.11.3159	1.5 uhm	1%		
C.....2	59.22.5101	100 uF	20%	25V, E1		R.....24	57.11.3159	1.5 uhm	1%		
C.....3	59.22.5101	100 uF	20%	25V, E1		R.....25	57.11.3159	1.5 uhm	1%		
C.....4	59.06.0333	33 nF	10%	63V, PETP		R.....26	57.11.3159	1.5 uhm	1%		
C.....5	59.06.0583	68 nF	10%	63V, PETP		R.....27	57.11.3159	1.5 uhm	1%		
C.....6	59.06.0583	68 nF	10%	63V, PETP		R.....28	57.11.3159	1.5 uhm	1%		
C.....7	59.06.0152	1.5 nF	10%	63V, PETP		R.....29	57.11.3159	1.5 uhm	1%		
C.....8	59.06.0583	68 nF	10%	63V, PETP		R.....30	57.11.3159	1.5 uhm	1%		
C.....9	59.06.0583	68 nF	10%	63V, PETP		R.....31	57.11.3159	1.5 uhm	1%		
C.....10	59.06.0583	68 nF	10%	63V, PETP		R.....32	57.11.3159	1.5 uhm	1%		
C.....11	59.06.0268	6.8 uF	10%	63V, PETP		R.....33	57.11.3159	1.5 uhm	1%		
C.....12	59.06.0268	6.8 uF	10%	63V, PETP		R.....34	57.11.3159	1.5 uhm	1%		
C.....13	59.22.5101	100 uF	20%	25V, E1		R.....35	57.11.3159	1.5 uhm	1%		
C.....14	59.06.0103	10 nF	10%	63V, PETP		R.....36	57.11.3159	1.5 uhm	1%		
C.....15	59.06.0103	10 nF	10%	63V, PETP		R.....37	57.11.3159	1.5 uhm	1%		
C.....16	59.06.0334	330 nF	10%	63V, PETP		R.....38	57.11.3159	1.5 uhm	1%		
C.....17	59.06.0334	330 nF	10%	63V, PETP		R.....39	57.11.3159	1.5 uhm	1%		
C.....18	59.06.0334	330 nF	10%	63V, PETP		R.....40	57.11.3159	1.5 uhm	1%		
C.....19	59.06.0334	330 nF	10%	63V, PETP		R.....41	57.11.3159	1.5 uhm	1%		
C.....20	59.06.2470	47 pF	5%	N150, CER		R.....42	57.11.3159	1.5 uhm	1%		
C.....21	59.06.2470	47 pF	5%	N150, CER		R.....43	57.11.3159	1.5 uhm	1%		
C.....22	59.06.0334	330 nF	10%	63V, PETP		R.....44	57.11.3159	1.5 uhm	1%		
C.....23	59.06.0334	330 nF	10%	63V, PETP		R.....45	57.11.3159	1.5 uhm	1%		
C.....24	59.06.2470	47 pF	5%	N150, CER		R.....46	57.11.3159	1.5 uhm	1%		
C.....25	59.06.2470	47 pF	5%	N150, CER		R.....47	57.11.3159	1.5 uhm	1%		
C.....26	59.06.0268	6.8 uF	10%	63V, PETP		R.....48	57.11.3159	1.5 uhm	1%		
C.....27	59.06.0268	6.8 uF	10%	63V, PETP		R.....49	57.11.3159	1.5 uhm	1%		
C.....28	59.06.0268	6.8 uF	10%	63V, PETP		R.....50	57.11.3159	1.5 uhm	1%		
C.....29	59.06.0268	6.8 uF	10%	63V, PETP		R.....51	57.11.3105	1.0 MOhm	5%		
C.....30	59.47.2332	3.3 nF	5%	160V, PP		R.....52	57.11.3105	1.0 MOhm	5%		
C.....31	59.47.2332	3.3 nF	5%	160V, PP		R.....53	57.11.3105	1.0 MOhm	5%		
C.....32	59.47.2332	3.3 nF	5%	160V, PP		R.....54	57.13.4229	2.2 Ohm	5%		
C.....33	59.47.2332	3.3 nF	5%	160V, PP		R.....55	57.13.4229	2.2 Ohm	5%		
U.....1	50.04.0125	1N 4448			Fc+ITT+Ph+SeS+Tf	R.....56	57.13.4229	2.2 Ohm	5%		
U.....2	50.04.0125	1N 4448			Fc+ITT+Ph+SeS+Tf	R.....57	57.13.4229	2.2 Ohm	5%		
U.....3	50.04.0125	1N 4448			Fc+ITT+Ph+SeS+Tf	R.....58	57.11.3106	100 kohm	1%		

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IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
D.....4	50.04.0125	1N 4448			Fc+ITT+Ph+SeS+Tf	T.....1	1.022.247.00			Impulse transformer	St
D.....5	50.04.1216	2 10V	1.3W		ITT+Mot+Ph+Tf+Tho	T.....2	1.022.247.00			Impulse transformer	St
D.....6	50.04.1216	2 10V	1.3W		ITT+Mot+Ph+Tf+Tho	TP.....1	54.02.0320			Test point	
D.....7	50.04.1216	2 10V	1.3W		ITT+Mot+Ph+Tf+Tho	TP.....2	54.02.0320			Test point	
D.....8	50.04.1216	2 10V	1.3W		ITT+Mot+Ph+Tf+Tho	TP.....3	54.02.0320			Test point	
D.....9	50.04.0125	1N 4448			Fc+ITT+Ph+SeS+Tf						
D.....10	50.04.0125	1N 4448			Fc+ITT+Ph+SeS+Tf						
D.....11	50.04.0125	1N 4448			Fc+ITT+Ph+SeS+Tf						
D.....12	50.04.0125	1N 4448			Fc+ITT+Ph+SeS+Tf						
D.....13	50.04.1216	2 10V	1.3W		ITT+Mot+Ph+Tf+Tho						
D.....14	50.04.1216	2 10V	1.3W		ITT+Mot+Ph+Tf+Tho						
D.....15	50.04.1216	2 10V	1.3W		ITT+Mot+Ph+Tf+Tho						
D.....16	50.04.1216	2 10V	1.3W		ITT+Mot+Ph+Tf+Tho						
D.....17	50.04.0517	5V 32			Mot+Ph						
D.....18	50.04.0517	5V 32			Mot+Ph						
D.....19	50.04.0517	5V 32			Mot+Ph						
I.....1	50.19.0106	NE 5532AN		EX, SIG		Note 1 - Connector	4 contacts:				
I.....2	50.07.0014	MC40106GP		EX, SIG				AMP nr.	820848-3		
I.....3	50.07.0070	MC14070GP		EX, SIG				AMP nr.	820848-1		
J.....1	54.25.0004	4 PDL 16A		see note 1		Note 2 - Connector	2 contacts:				
J.....2	54.25.0002	2 PDL 16A		see note 2				AMP nr.	826946-3		
J.....3	54.25.0002	2 PDL 16A		see note 2		Note 3 - Connector	16 contacts:				
L.....1	62.02.3101	100 uH		Filter coil	TDK			Yamaichi nr.	FAP-16-08-4055		
L.....2	62.02.3101	100 uH		Filter coil	Tokin			Surdy nr.	6PH 9 816 000 GS		
L.....3	1.322.246.00	1 uH		Choke coil	St			3M nr.	7616-6002 VZ		
L.....4	52.99.0113	1 uH		Filter coil	Vo	Note 4 - All power transistors must be from the same type and manufacturer.					
L.....5	52.99.0113	1 uH		Filter coil	Vo	Manufacturer:					
L.....6	52.99.0113	1 uH		Filter coil	Vo	Ex=Exar, Fc=Fairchild, IR=International Rectifier,					
L.....7	52.99.0113	1 uH		Filter coil	Vo	ITT=Intermetel, Mot=Motorola, NS=National Semicon-					
P.....1	54.14.2002	16 cont.		see note 3		ductors, Ph=Phillips (incl. Valvo), RCA=Radio Corporation					
Q.....1	50.03.0351	8C 327-25			ITT+Ph+Sie	of America, Ses=Sesocem, S6S=S6S/Ates, Sig=Signetics,					
Q.....2	50.03.0351	8C 327-25			ITT+Ph+Sie	Sis=Siemens, St=Studer, Tf=Telefunken, Tho=Thomson,					
Q.....3	50.03.0451	BD 139			Mot+Ph+SGS+Tf+To	To=Toshiba, Vo=Vogt & Co.					
Q.....4	50.03.0451	BD 139			Mot+Ph+SGS+Tf+To						
Q.....5	50.03.0452	BD 140			Mot+Ph+SGS+Tf+To						
Q.....6	50.03.0452	BD 140			Mot+Ph+SGS+Tf+To						
Q.....7	50.03.0452	BD 140			Mot+Ph+SGS+Tf+To						
Q.....8	50.03.0350	J 112			Mot						
Q.....9	50.03.0350	J 112			Mot						
Q.....10	50.03.0350	J 112			Mot						
Q.....11	50.03.0350	J 112			Mot						
Q.....12	50.03.1608	KFH 25N20		see note 4	IR						
Q.....13	50.03.1608	KFH 25N20		see note 4	IR						
Q.....14	50.03.1608	KFH 25N20		see note 4	IR						
Q.....15	50.03.1608	KFH 25N20		see note 4	IR						
Q.....16	50.03.1608	KFH 25N20		see note 4	IR						
R.....1	57.11.3101	100 uhm		5%							
R.....2	57.11.3753	75 kohm		1%							
R.....3	57.11.3242	2.4 kohm		1%							
R.....4	57.99.0199	680 uhm		0.1%							
R.....5	57.99.0250	6.8 kohm		0.1%							
R.....6	57.11.3273	27 kohm		1%							
R.....7	59.05.1103	10 kohm		10%							
R.....8	57.99.0199	680 uhm		0.1%							
R.....9	57.99.0250	6.8 kohm		0.1%							
R.....10	57.11.3332	3.3 kohm		5%							
R.....11	57.99.0250	6.8 kohm		0.1%							
R.....12	57.99.0250	6.8 kohm		0.1%							
R.....13	57.11.3152	1.5 kohm		5%							
R.....14	57.11.3152	1.5 kohm		5%							
R.....15	57.11.3472	4.7 kohm		5%							
R.....16	57.11.3101	100 uhm		1%							
R.....17	57.11.3101	100 uhm		5%							
R.....18	57.11.3100	10 Ohm		5%							
R.....19	57.11.3100	10 Ohm		5%							
R.....20	57.11.3159	1.5 uhm		1%							
R.....21	57.11.3159	1.5 uhm		1%							
R.....22	57.11.3159	1.5 uhm		1%							

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IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
Q.....3	50.03.0351	8C 327-25			ITT+Ph+Sie
Q.....4	50.03.0351	8C 327-25			ITT+Ph+Sie
Q.....5	50.03.0451	BD 139			Mot+Ph+SGS+Tf+To
Q.....6	50.03.0451	BD 139			Mot+Ph+SGS+Tf+To
Q.....7	50.03.0452	BD 140			Mot+Ph+SGS+Tf+To
Q.....8	50.03.0452	BD 140			Mot+Ph+SGS+Tf+To
Q.....9	50.03.0350	J 112			Mot
Q.....10	50.03.0350	J 112			Mot
Q.....11	50.03.0350	J 112			Mot
Q.....12	50.03.0350	J 112			Mot
Q.....13	50.03.1608	KFH 25N20		see note 4	IR
Q.....14	50.03.1608	KFH 25N20		see note 4	IR
Q.....15	50.03.1608	KFH 25N20		see note 4	IR
Q.....16	50.03.1608	KFH 25N20		see note 4	IR
R.....1	57.11.3101	100 uhm		5%	
R.....2	57.11.3753	75 kohm		1%	
R.....3	57.11.3242	2.4 kohm		1%	
R.....4	57.99.0199	680 uhm		0.1%	
R.....5	57.99.0250	6.8 kohm		0.1%	
R.....6	57.11.3273	27 kohm		1%	
R.....7	59.05.1103	10 kohm		10%	
R.....8	57.99.0199	680 uhm		0.1%	
R.....9	57.99.0250	6.8 kohm		0.1%	
R.....10	57.11.3332	3.3 kohm		5%	
R.....11	57.99.0250	6.8 kohm		0.1%	
R.....12	57.99.0250	6.8 kohm		0.1%	
R.....13	57.11.3152	1.5 kohm		5%	
R.....14	57.11.3152	1.5 kohm		5%	
R.....15	57.11.3472	4.7 kohm		5%	
R.....16	57.11.3101	100 uhm		1%	
R.....17	57.11.3101	100 uhm		5%	
R.....18	57.11.3100	10 Ohm		5%	
R.....19	57.11.3100	10 Ohm		5%	
R.....20	57.11.3159	1.5 uhm		1%	
R.....21	57.11.3159	1.5 uhm		1%	
R.....22	57.11.3159	1.5 uhm			