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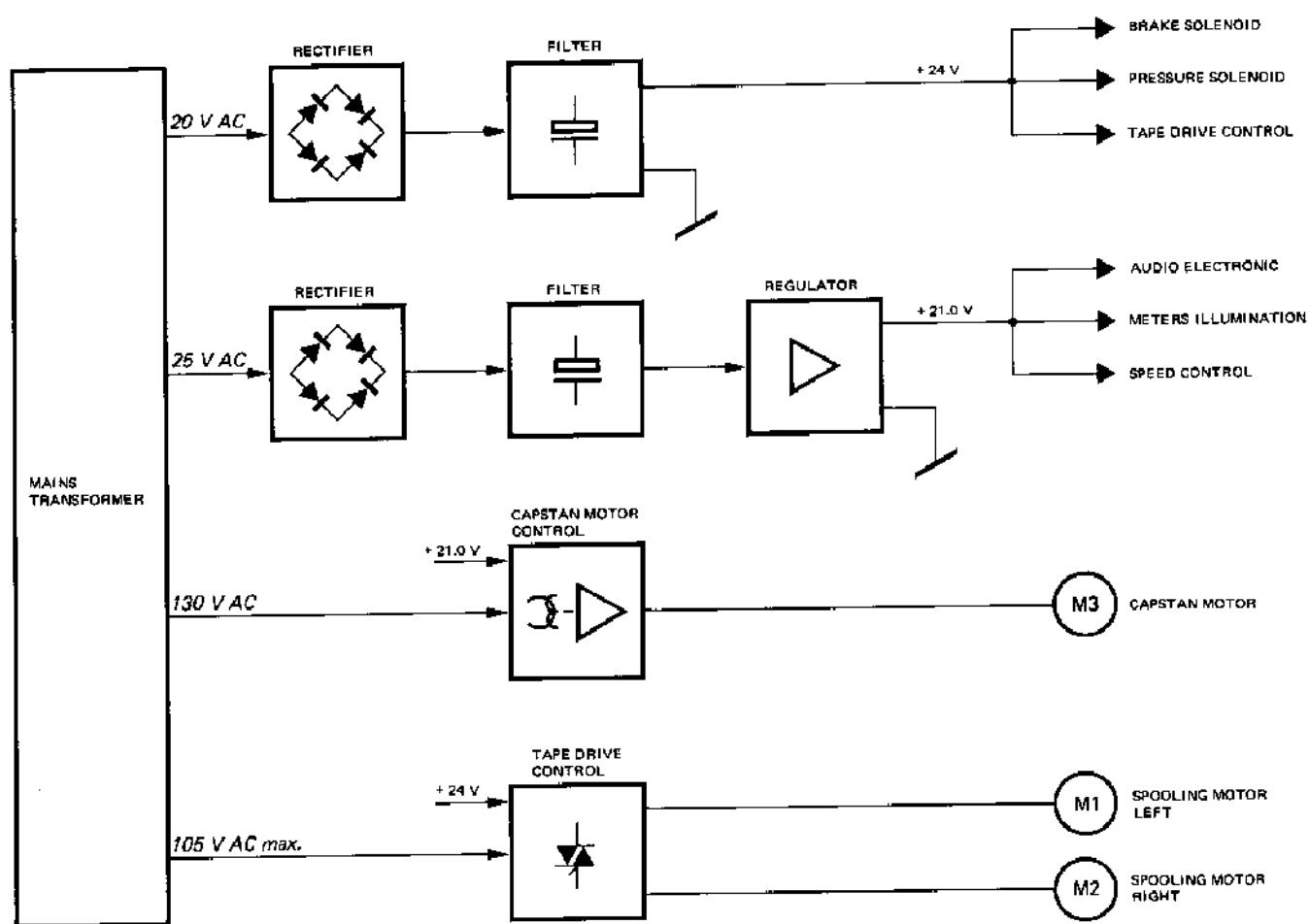
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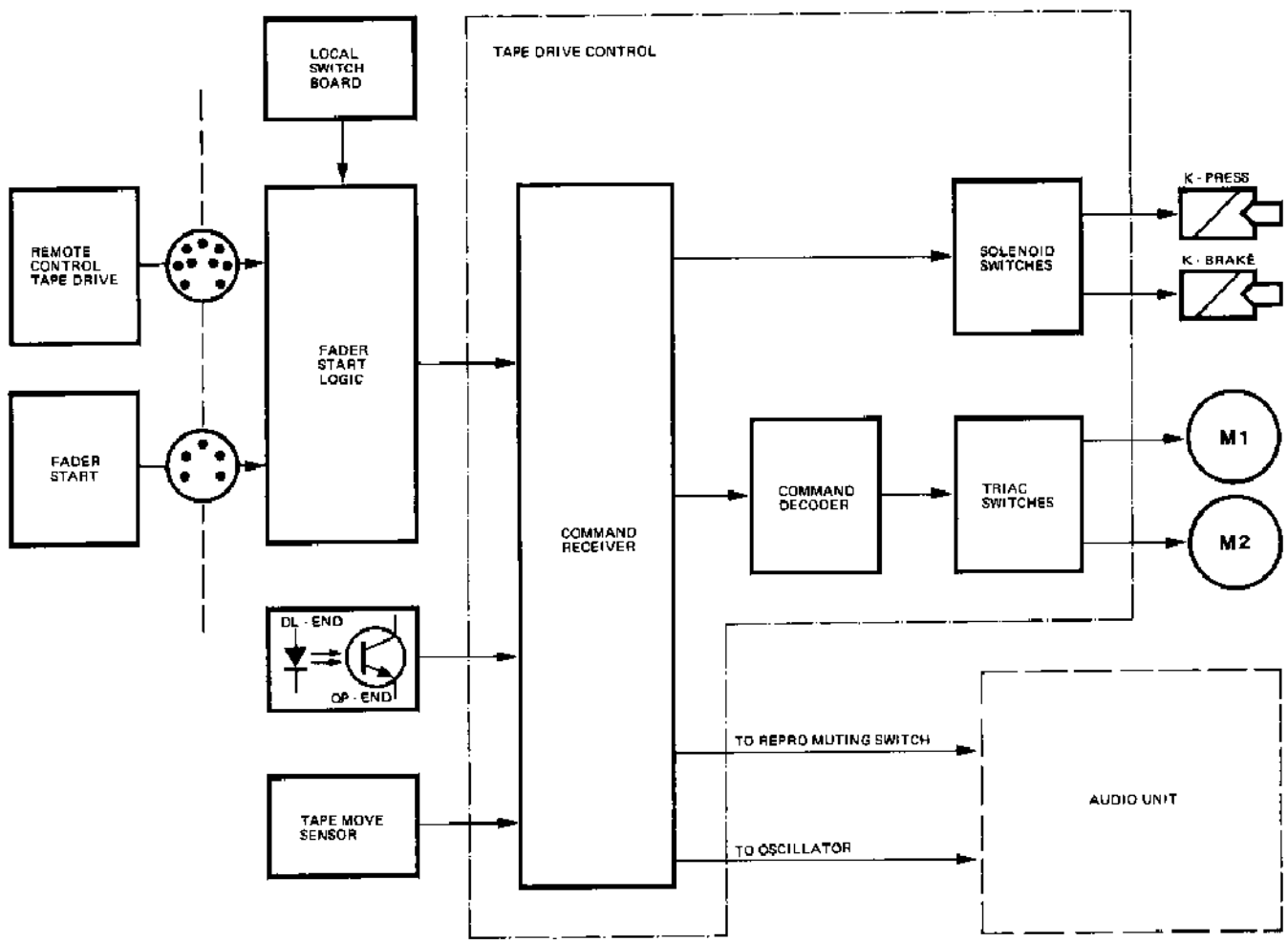
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BLOCK DIAGRAM / POWER SUPPLY AND TAPE DRIVE CONTROL

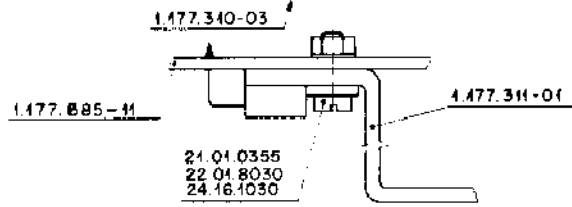
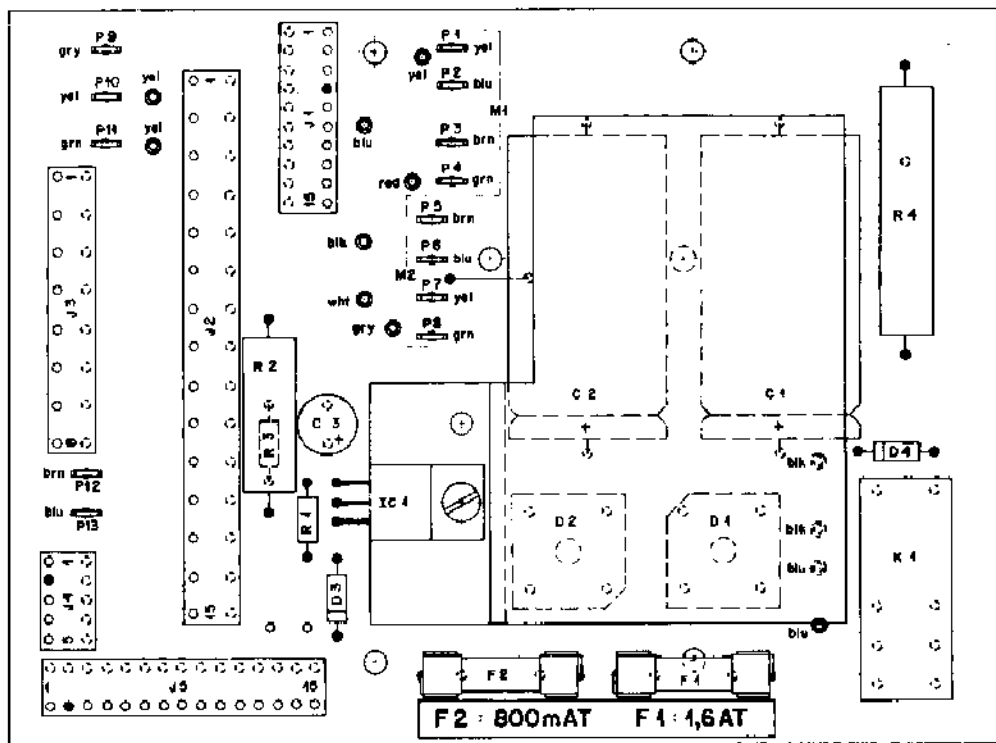


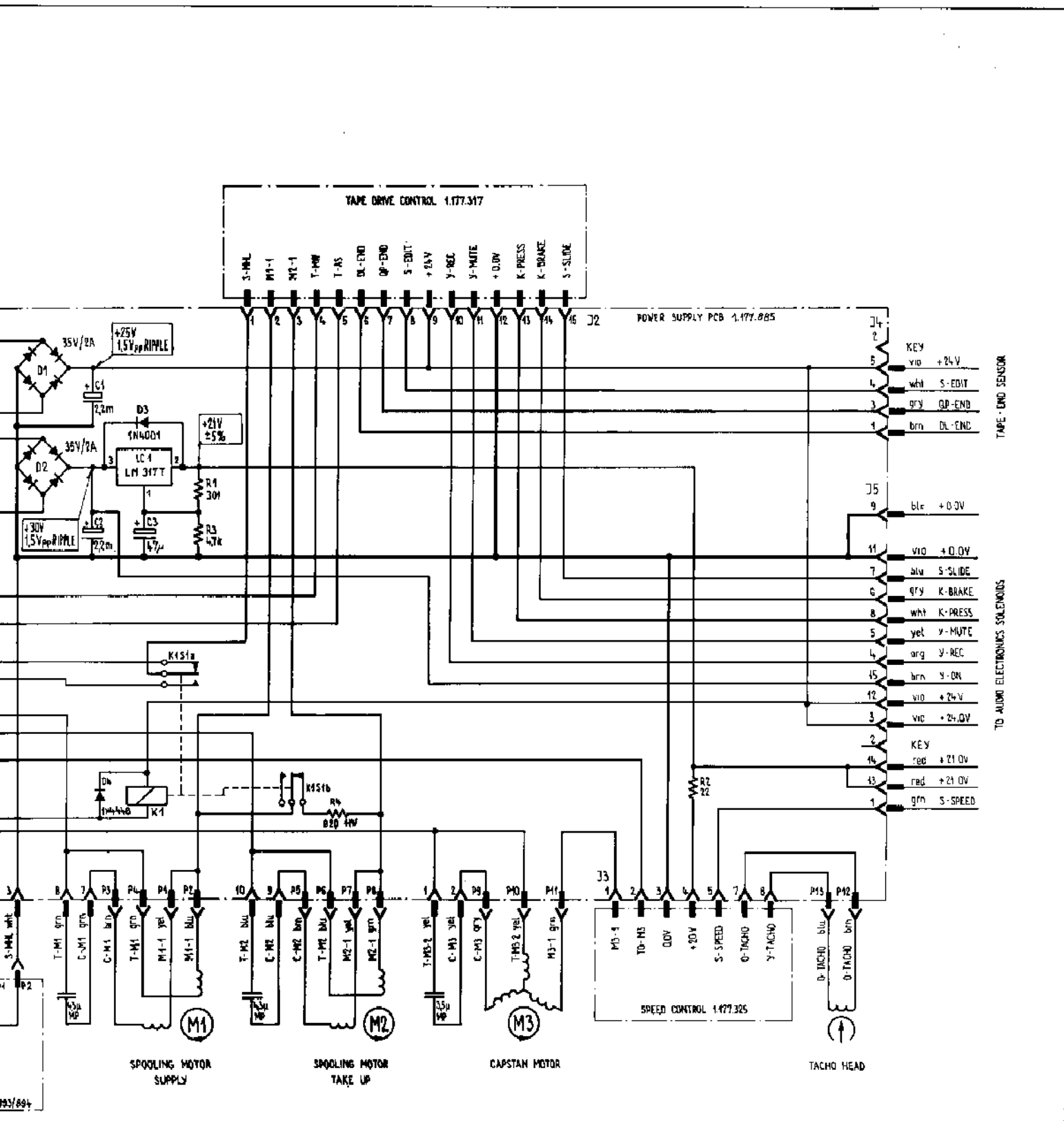


POWER SUPPLY PCB 1.177.885

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C1	59.25.5222	2200 μ F	-10% 25V	EL
C2	59.25.5222	2200 μ F	-10% 25V	EL
C3	59.22.5970	47 μ F	-10% 35V	EL
D1	70.01.0230	35V 12A	Bridge Rect.	SI
D2	70.01.0230	35V 12A	Bridge Rect.	SI
D3	50.04.0172	1N4001		SI
D4	50.04.0125	1N4048		SI
F1	51.01.0118	1.6AT	5X20 Slow Blow	
F2	51.01.0116	500 mA T	5X20 Slow Blow	
IC1	50.10.0104	LM317T	V Reg.	
J1	54.01.0280	10-Pol	Socket Strip	
J2	54.01.0535	15-Pol		
J3	54.01.0546	8-Pol		
J4	54.01.0288	5-Pol		
J5	54.01.0278	15-Pol		
K1	56.01.0116	24V	Relais	
Pl...13	54.02.0320	28X0.8	AMP Flat Pin	
R1	57.38.3010	20J	1% 0.25W	
R2	57.56.5220	22	10% 4W	
R3	57.11.4672	4.7K	5% 0.33W	
R4	57.57.4821	820	5% 1/2W	

STUDER		26.9.1980	W. G. H. H.
IMP	DATE	NAME	
Power Supply	1.177.885.00	PAGE 1 of 1	





TAPE DRIVE CONTROL PCB 1.177.317

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C 01	59.32.1101	100 μ	-20% 3V TA	
C 02	59.22.6470	47 μ	-10% 40V EL	
C 03	59.32.3103	10 n	-20% 40V CER	
C 04	59.32.3103	10 n		
C 05	59.30.4339	3.3 μ	35V TA	
C 06	59.32.3103	10 n	40V CER	
C 07	59.30.4100	10 μ	-20% 16V TA	
C 08	59.30.4339	3.3 μ	-20% 35V TA	
C 09	59.32.3103	10 n	-20% 40V CER	
C 10	59.32.3103	10 n		
C 11	59.32.3103	10 n		
C 12	59.30.2470	47 μ	-20% 6.3V TA	
C 13	59.30.6339	3.3 μ	-20% 35V TA	
C 14	59.30.6339	3.3 μ		
C 15	59.30.6339	3.3 μ		
C 16	59.30.6339	3.3 μ		
C 17	59.30.6339	3.3 μ		
C 18	59.30.6339	3.3 μ		
C 19	59.22.3101	100 μ	-10% 10V EL	
D 01	50.04.0122	1M4001		
D 02	50.04.0119	2 1/2		
D 03	50.04.0122	1M4001	5% 15V 400mW	any
D 04	50.04.0125	1M4448		
D 05	50.04.1106	2 2.7	5% 2.7V 400mW	any
D 06	50.04.0125	1M4448		
D 07	50.04.0125	1M4448		
D 08	50.04.0125	1M4448		
D 09	50.04.1108	2 5.6	5% 5.6V 400mW	any
D 10	50.04.0125	1M4448		
DIQ 1	50.99.0126	4 N 28	Ic/I _{sc} min 10% TIL 118	O, TI
IC 01	50.06.0000	SN74LS00	LS-TTL	any
IC 02	1.177.317-51	32 x 8	Procs TRI-State	J,M,I
IC 03	50.06.0279	SN74LS279	LS-TTL	any
IC 04	50.06.0002	SN74LS02	LS-TTL	any
J 01	54.01.0288	5-Pole	Socket-Strip AMP	
J 02	54.01.0242	10-Pole	Socket-Strip AMP	
J 03	54.01.0241	8-Pole	Socket-Strip AMP	
P 01	54.01.0481	15-Pole	Pin-Strip AMP	

G = Opteron I = Intersil
 TI = Texas Instr.
 S = Signetics
 M = MML

IND 12.9.78 DATE 12.7.78 FOL/gv Lu./gv

STUDER Tape Drive Control MK II 1.177.317 PAGE 1 of 3

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R 31	57.11.4123	12 k	5% .25W CP	
R 32	57.11.4473	47 k		
R 33	57.11.4391	390		
R 34	57.11.4222	2.2 k		
R 35	57.11.4392	680		
R 36	57.11.4392	3.9 k		
R 37	57.11.4123	12 k		
R 38	57.11.4392	2.9 k		
R 39	57.11.4681	680		
R 40	57.11.4392	3.9 k		
R 41	57.11.4681	680		
R 42	57.11.4392	3.9 k		
R 43	57.11.4392	3.9 k		
R 44	57.11.4681	680		
R 45	57.11.4123	12 k		
R 46	57.11.4123	12 k		
R 47	57.99.0210	100	10% 5W WW	
R 48	57.11.4861	56 k	10% 5W WW	

CF = Carbon Film
 WW = Wire Wound

IND 13.0.79 DATE 12.2.78 FOL/gv Lu./gv

STUDER Tape Drive Control MK II 1.177.317 PAGE 2 of 3

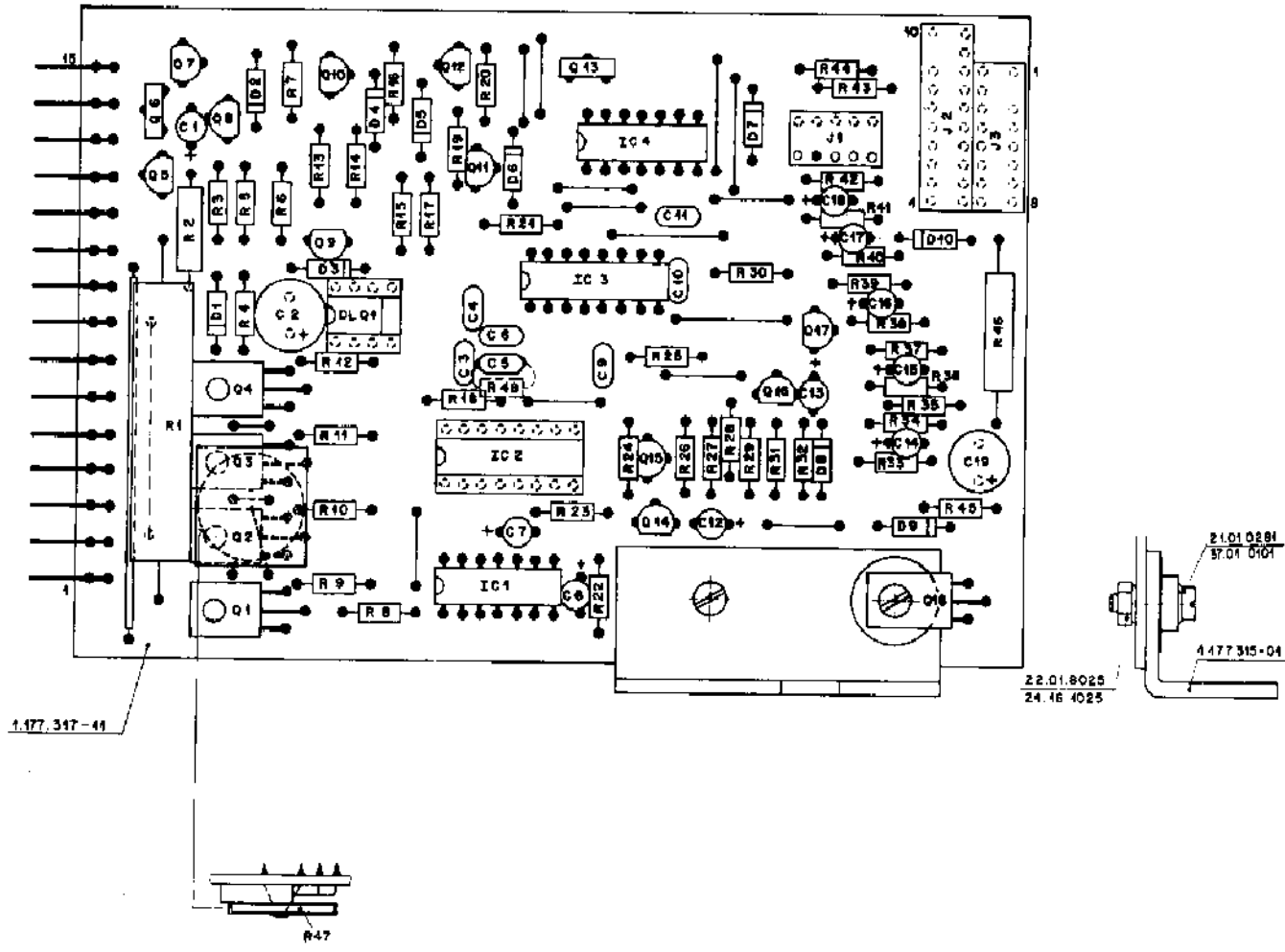
POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
Q 01	50.99.0119	2N5073B	TRIAC 400V/3A	No
Q 02	50.99.0119	2N5073B	Igt 3mA	
Q 03	50.99.0119	2N5073B		
Q 04	50.99.0119	2N5073B		
Q 05	50.03.0436	BC107B		
Q 06	50.03.0478	BD 135	medium power NPN 2SC 496-Q	any
Q 07	50.03.0436	BC107B	NPN	any
Q 08	50.03.0436	BC107B	NPN	any
Q 09	50.03.0436	BC107B	NPN	any
Q 10	50.03.0436	BC107B	NPN	any
Q 11	50.03.0436	BC107B	NPN	any
Q 12	50.03.0436	BC107B	NPN	any
Q 13	50.03.0478	BD 135	medium power NPN 2SC 496-Q	any
Q 14	50.03.0436	BC107B	NPN	any
Q 15	50.03.0436	BC107B	NPN	any
Q 16	50.03.0436	BC107B	NPN	any
Q 17	50.03.0436	BC107B	NPN	any
Q 18	50.03.0478	BD 135	medium power NPN 2SC 496-Q	any
R 01	57.57.4821	820		
R 02	57.42.4312	3.3 k	5% 5W WW	
R 03	57.11.4104	100 k	5% .33W CF	
R 04	57.11.4472	4.7 k	5% .25W CP	
R 05	57.11.4133	15 k		
R 06	57.11.4472	4.7 k		
R 07	57.11.4223	22 k		
R 08	57.11.4181	180		
R 09	57.11.4471	470		
R 10	57.11.4471	470		
R 11	57.11.4471	470		
R 12	57.11.4122	1.2 k		
R 13	57.11.4272	2.7 k		
R 14	57.11.4122	1.2 k		
R 15	57.11.4332	3.3 k		
R 16	57.11.4333	33 k		
R 17	57.11.4121	120		
R 18	57.11.4471	470		
R 19	57.11.4223	22 k		
R 20	57.11.4121	120		
R 21	57.11.4471	470		
R 22	57.11.4392	3.9 k		
R 23	57.11.4822	8.2 k		
R 24	57.11.4223	22 k		
R 25	57.11.4331	330		
R 26	57.11.4922	8.2 k		
R 27	57.11.4223	22 k		
R 28	57.11.4223	22 k		
R 29	57.11.4101	100		
R 30	57.11.4561	560		

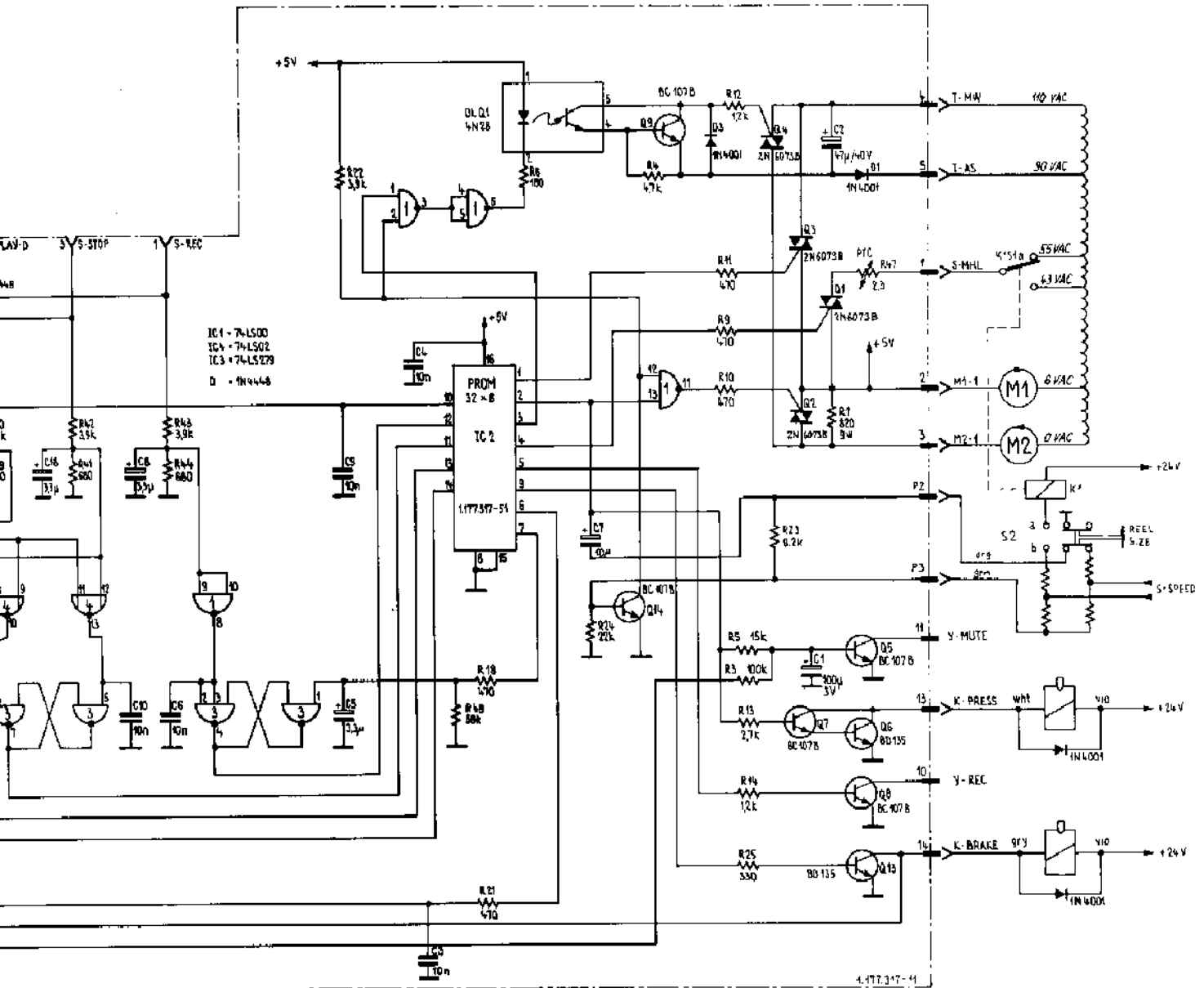
No - Motorola

CF = Carbon Film
 WW = Wire Wound

IND 13.9.78 DATE 12.7.78 FOL/gv Lu./gv

STUDER Tape Drive Control MK II 1.177.317 PAGE 2 of 3





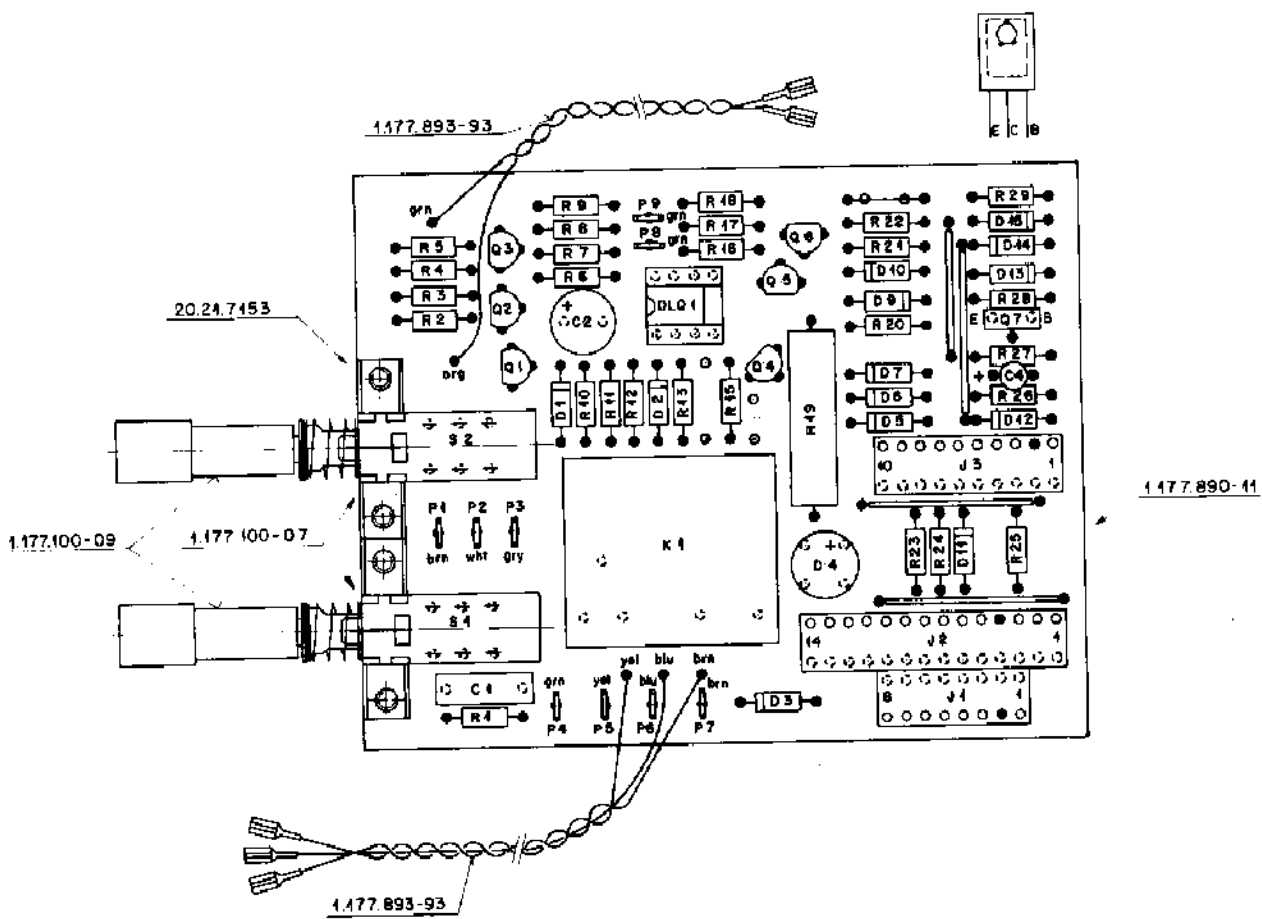
FADER START LOGIC PCB 1.177.893/894

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C1	58.31.1224	0.22µF	20% 100V	
C2	58.22.6220	22µF	-40% 40V EL	
C3				
C4	58.36.5100	10µF	20% 35V TA	
D1	50.04.0125	1N4448		
D2	"	"		
D3	"	"		
D4	70.01.0222	BYA99150	35V 2EA	
D5	50.04.0125	1N4448		
D6	"	"		
D7	"	"		
D8	"	"		
D9	50.04.0125	1N4448		
D10	"	"		
D11	"	"		
D12	"	"		
D13	"	"		
D14	"	"		
D15	"	"		
D6a	50.93.0126	4N28		
J1	54.01.0289	8PcL	AMP CIS	
J2	54.01.0280	10PcL	AMP CIS	
J3	54.01.0292	14PcL	AMP CIS	
K1	56.89.0116		Relais	
PL19	54.01.0320	2.8X0.6	AMP Flat Pin	
Q1	50.03.0515	BC 560B	PNP	BC 177B
Q2	50.03.0436	BC 550B	NPN	BC 108C
Q3	50.03.0436	BC 550B	NPN	BC 108C
Q4	50.03.0436	BC 550B	NPN	BC 108C
Q5	50.03.0515	BC 560B	PNP	BC 177B
Q6	50.03.0515	BC 560B	PNP	BC 177B
Q7	50.03.0510	BD 136-16	PNP	BC 177B

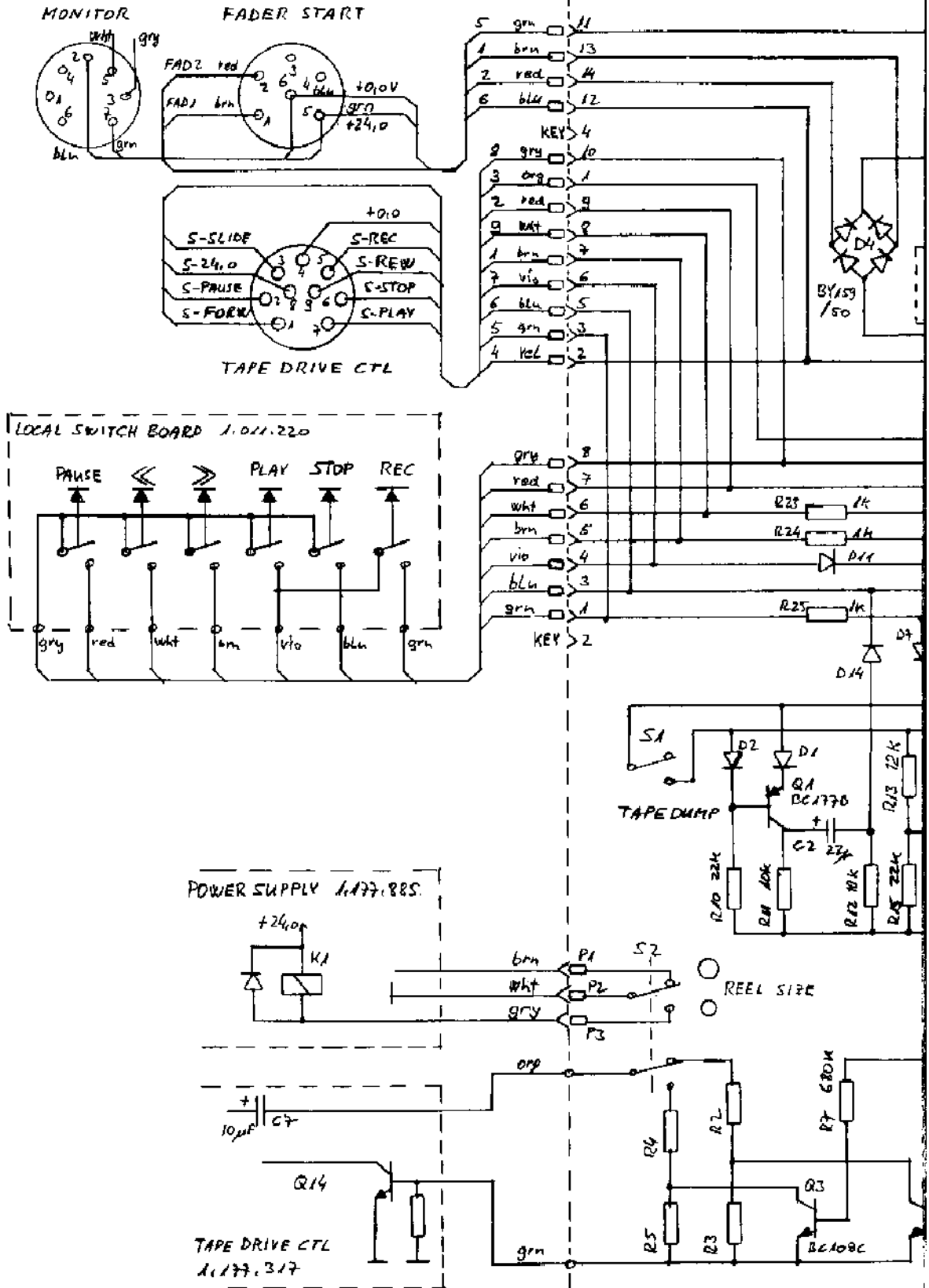
POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C1	58.31.1224	0.22µF	20% 100V	
C2	58.22.6220	22µF	-40% 40V EL	
C3				
C4	58.36.5100	10µF	20% 35V TA	
D1	50.04.0125	1N4448		
D2	"	"		
D3	"	"		
D4	70.01.0222	BYA99150	35V 2EA	
D5	50.04.0125	1N4448		
D6	"	"		
D7	"	"		
D8	"	"		
D9	50.04.0125	1N4448		
D10	"	"		
D11	"	"		
D12	"	"		
D13	"	"		
D14	"	"		
D15	"	"		
D6a	50.93.0126	4N28		
J1	54.01.0289	8PcL	AMP CIS	
J2	54.01.0290	10PcL	AMP CIS	
J3	54.01.0292	14PcL	AMP CIS	
K1	56.89.0116		Relais	
PL19	54.02.0320	2.8X0.6	AMP Flat Pin	
Q1	50.03.0515	BC 560B	PNP	BC 177B
Q2	50.03.0436	BC 550B	NPN	BC 108C
Q3	50.03.0436	BC 550B	NPN	BC 108C
Q4	50.03.0436	BC 550B	NPN	BC 108C
Q5	50.03.0515	BC 560B	PNP	BC 177B
Q6	50.03.0515	BC 560B	PNP	BC 177B
Q7	50.03.0510	BD 136-16	PNP	BC 177B

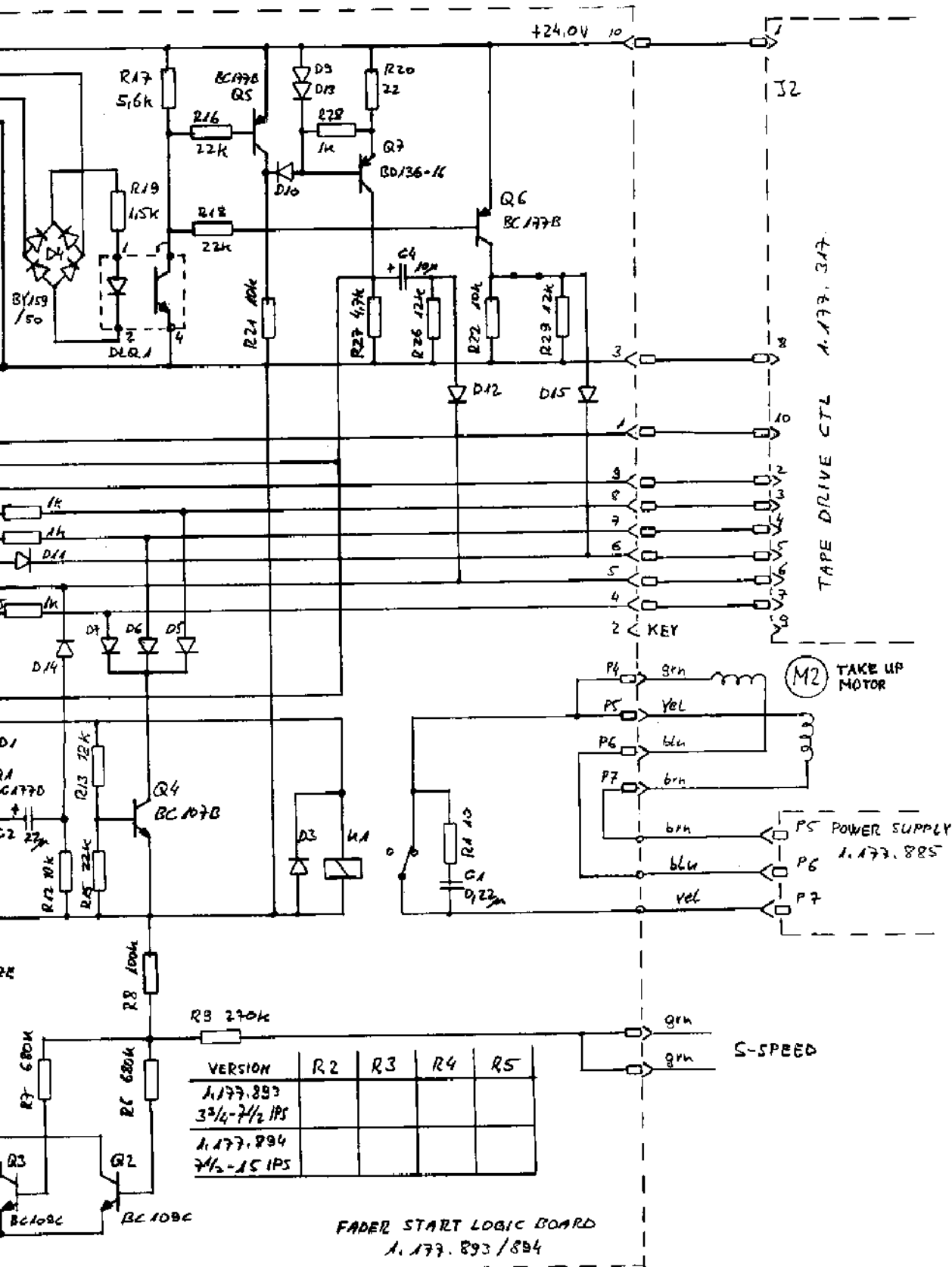
POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R1	57.11.4100	10		
R2	57.11.4223	32k		
R3	57.11.4472	47k		
R4	57.11.4220	22k		
R5	57.11.4470	47k		
R6	57.11.4684	680k		
R7	57.11.4684	680k		
R8	57.11.4104	100k		
R9	57.11.4274	220k		
R10	57.11.4223	22k		
R11	57.11.4103	10k		
R12	57.11.4103	10k		
R13	57.11.4123	12k		
R14				
R15	57.11.4223	22k		
R16	57.11.4223	22k		
R17	57.11.4562	5.6k		
R18	57.11.4223	22k		
R19	57.56.5152	1.5k	10% 4W	
R20	57.11.4220	22		
R21	57.11.4103	10k		
R22	57.11.4102	10k		
R23	57.11.4102	1k		
R24	57.11.4102	1k		
R25	57.11.4102	1k		
R26	57.11.4123	12k		
R27	57.11.4472	47k		
R28	57.11.4102	1k		
R29	57.11.4123	12k		
S1	1.177.100.07			
S2	1.177.100.07			

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R1	57.11.4100	10		
R2	57.11.4322	32k		
R3	57.11.4472	47k		
R4	57.11.4220	22k		
R5	57.11.4222	22k		
R6	57.11.4684	680k		
R7	57.11.4684	680k		
R8	57.11.4104	100k		
R9	57.11.4274	220k		
R10	57.11.4223	22k		
R11	57.11.4103	10k		
R12	57.11.4103	10k		
R13	57.11.4123	12k		
R14				
R15	57.11.4223	22k		
R16	57.11.4223	22k		
R17	57.11.4562	5.6k		
R18	57.11.4223	22k		
R19	57.56.5152	1.5k	10% 4W	
R20	57.11.4120	22		
R21	57.11.4103	10k		
R22	57.11.4102	10k		
R23	57.11.4102	1k		
R24	57.11.4102	1k		
R25	57.11.4102	1k		
R26	57.11.4123	12k		
R27	57.11.4472	47k		
R28	57.11.4102	1k		
R29	57.11.4123	12k		
S1	1.177.100.07			
S2	1.177.100.07			



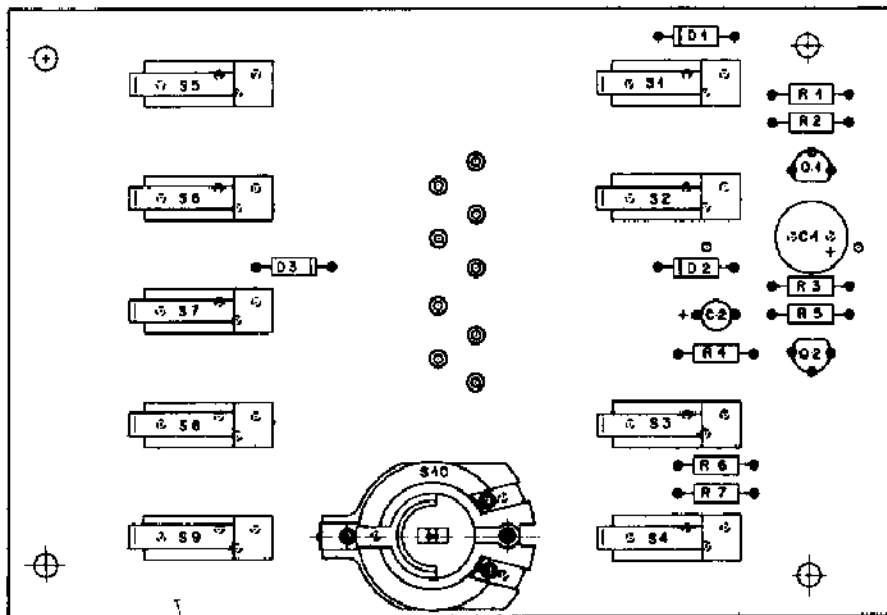
FADER START LOGIC PCB 1.177.893/894



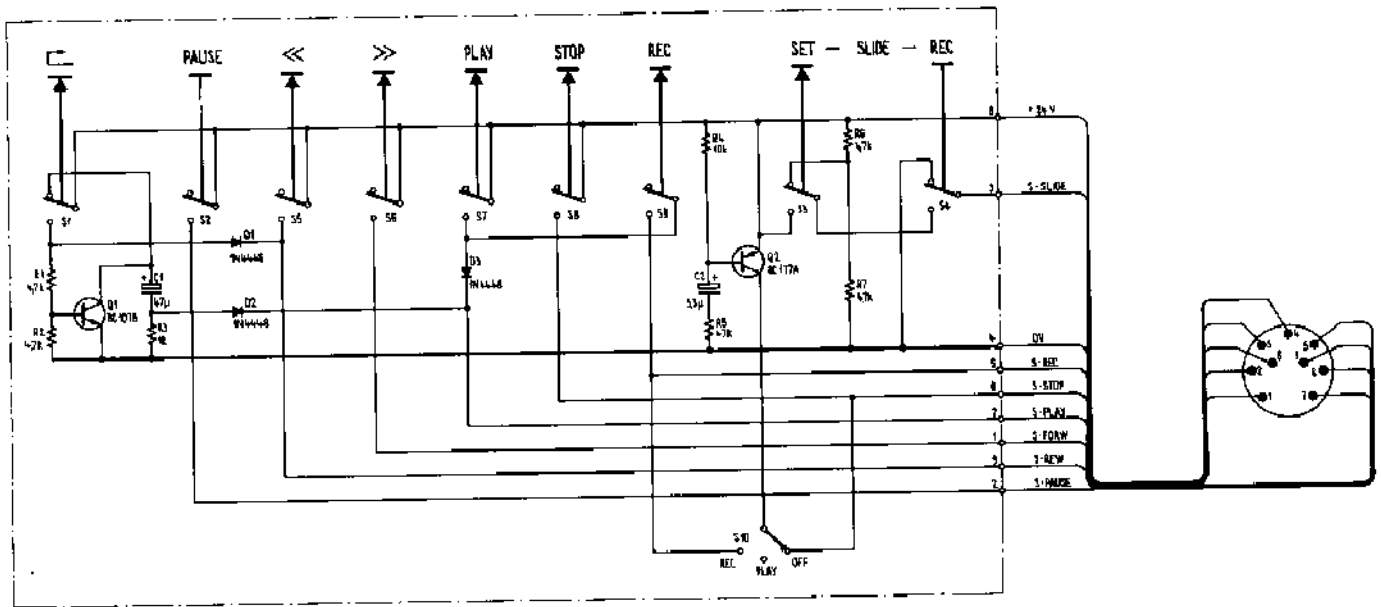


TAPE DRIVE REMOTE CONTROL PCB 1.128.041

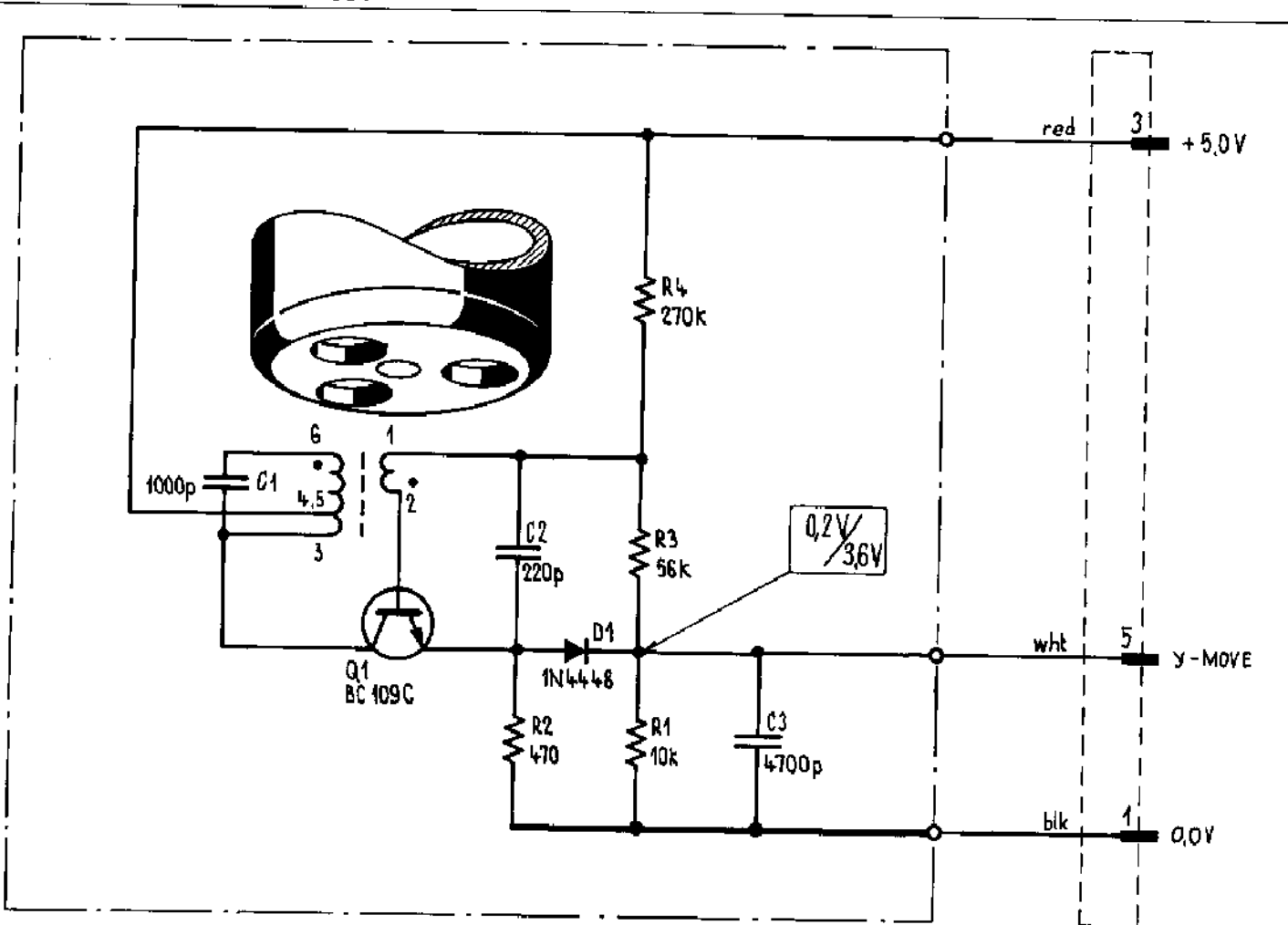
POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C 01	59.22.6470	47 U	-10% 40V EL	
C 02	59.30.6339	3,3 V	-20% 25V TA	
D 01-3	50.06.0125	1 N 4548		SE
Q 01	50.03.0426	PC 107 P		NPN
Q 02	50.03.0317	PC 177 A		PNP
R 01	57.41.4472	4,7 K	5% .25W COGH	
R 02	57.41.4472	4,7 K		
R 03	57.41.4103	1 K		
R 04	57.41.4103	10 K		(1)
R 05-07	57.41.4472	47 K		
S 01-09	55.99.0138	1 X U	MICFORM AG	
S 10	55.99.0142	3 X U	Dreh UMTR	
DIB 5.4.78 DIB 28.1.77 IND DATE NAME 1.128.041				PAGE 1 of 1



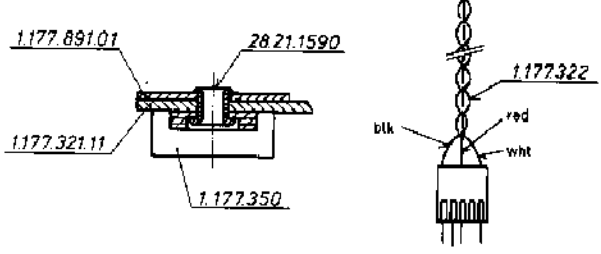
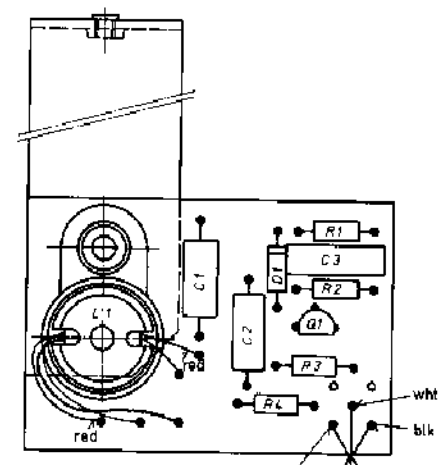
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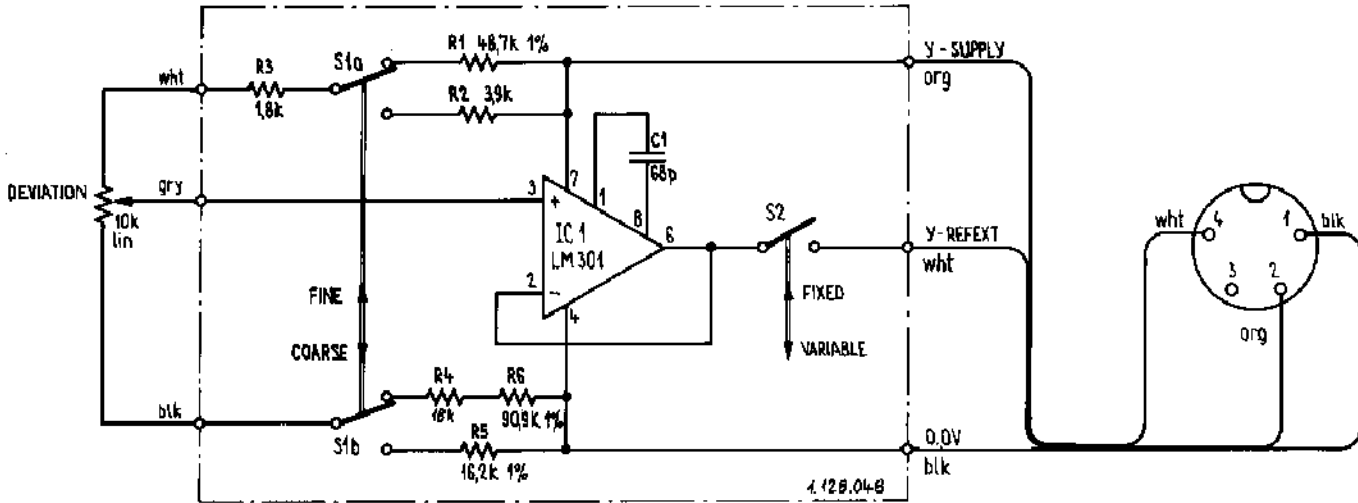
TAPE MOVE SENSOR PCB 1.177.891



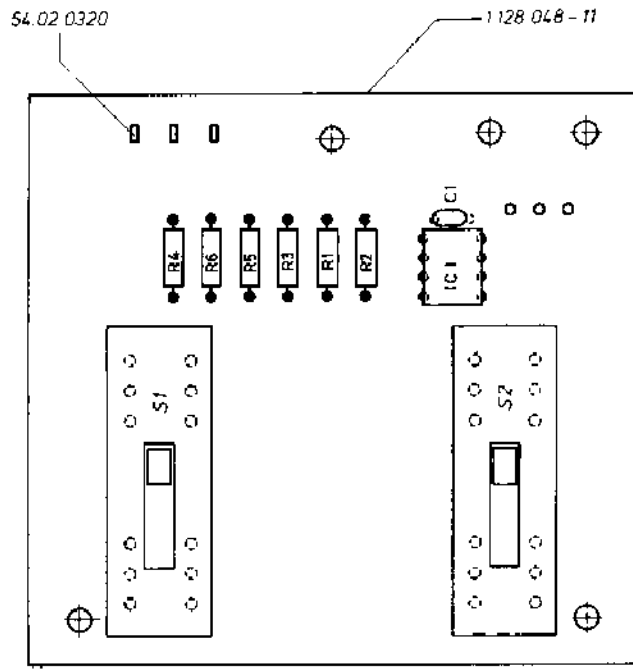
POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT	MFR
C 01	59.04.7102	1000 P	5% 63V EF		
C 02	59.04.8221	220 P	5% 160V P6		
C 03	59.31.4473	4700 P	20% 160V 2E7F		
D 01	56.04.0125	1 N 4448			BRV
L 01	1.177.350				S
Q 01	50.03.0439	BC 109 C			BRV
R 01	57.41.4103	10 k	5% .25W CF		
R 02	57.41.4471	470			
R 03	57.41.4561	56 k			
R 04	57.41.4274	270 k			



VARIABLE SPEED CONTROL PCB 1.128.048



POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C 01	59.32.1680	68 P	10% 500V ... KBR	
IC 1	80.05.0144	LM 301 AN	LIN	
R 01	57.39.4872	48,7 K	25W 1% NF	(1)
R 04	57.41.9272	2,9 K	5% CSCH	(1)
R 03	57.41.4261	1,8 K	5% CSCH	(1)
R 04	57.41.4263	18 K	5% CSCH	(1)
R 05	57.39.1622	16,2 K	1% NF	(1)
R 06	57.39.9092	90,9 K	1% NF	(1)
S 01	1.128.021.03		Schiebeschalter	
S 02	1.128.021.03		Schiebeschalter	
STUDEA Capetannachsteusprint 1.128.048 PAGE 1 of 1				



CAPSTAN SPEED CONTROL PCB 1.177.325

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C 01	59.99.0450	0.47 U	±10% 150V MF	
C 02	59.31.4104	0.1 U	5% 250V MPBTP	
C 03	59.32.3472	4700 F	±20% 40V CER	
C 04	59.22.5470	47 U	10% 25V EL	
C 05	59.22.5470	47 U	10% 25V EL	
C 06	59.31.4104	0.1 U	5% 250V MPBTP	
C 07	59.31.4103	0.01 U	20% 160V PBTP	
C 08	59.12.8162	1600 F	1% 125V FS	
C 09	59.11.4472	4700 F	±2.5% 160V FC	
C 10	59.31.4472	4700 F	±20% 160V PBTP	
C 11	59.32.3472	4700 F	±20% 40V CER	
C 12	59.30.4100	10 U	±20% 16V TA	
C 13	59.30.6109	1 U	±20% 35V TA	
C 14	59.31.4103	0.01 U	±20% 160V PBTP	
C 15	59.30.4100	10 U	±20% 16V TA	
C 16	59.32.3472	4700 F	±20% 40V CER	
C 17	59.32.3472	4700 F	±20% 40V CER	
C 18	59.30.4100	10 U	±20% 16V TA	
C 19	59.30.4100	10 U	±20% 16V TA	
C 20	59.31.1224	0.22 U	±20% 100V MPBTP	
C 21	59.30.6109	1 U	±20% 35V TA	
C 22	59.31.4473	0.047U	±20% 250V MPBTP	
C 23	59.32.0220	22 F	±20% 500V CER	
C 24	59.32.0220	22 F	±20% 500V CER	
D 01	50.04.0125	B 250 CBDO		
D 02	50.04.0125	1 N 4448		ADY
D 03	50.04.0125	1 N 4448		ADY
D 04	50.04.0125	1 N 4448		ADY
D 05	50.04.0125	1 N 4448		ADY
D 06	50.04.0125	1 N 4448		ADY
D 07	50.04.0125	1 N 4448		ADY
D 08	50.04.0125	1 N 4448		ADY
D 09	50.04.0125	1 N 4448		ADY
IC 01	50.05.0150	NE 555	Timer	MC1455P S.M.
IC 02	50.05.0237	TBA 251	WA 739 equiv.	SN76131N F.A.T.
P 01	54.01.0282	B - Pole	Pin Strip	AMP
P 2-3	54.02.0320	AD AD		ADY
Q 01	50.03.0436	BC 107 B		NPN
Q 02	50.03.0477	MJ 411	NPN Power	RCA 411 M.RCA
Q 03	50.03.0436	BC 107 B		NPN
Q 04	50.03.0436	BC 107 B		NPN
Q 05	50.03.0318	BC 178 B		NPN

M = Motorola MP = metallized paper
 S = Rigidflex PS = polystyrene
 A = Atoms
 P = Philips Instr. Parts - polyester
 F = Fairchild MPBTP = metallized polyester

15.6.78 DMK
 1.4.77 Hartmann

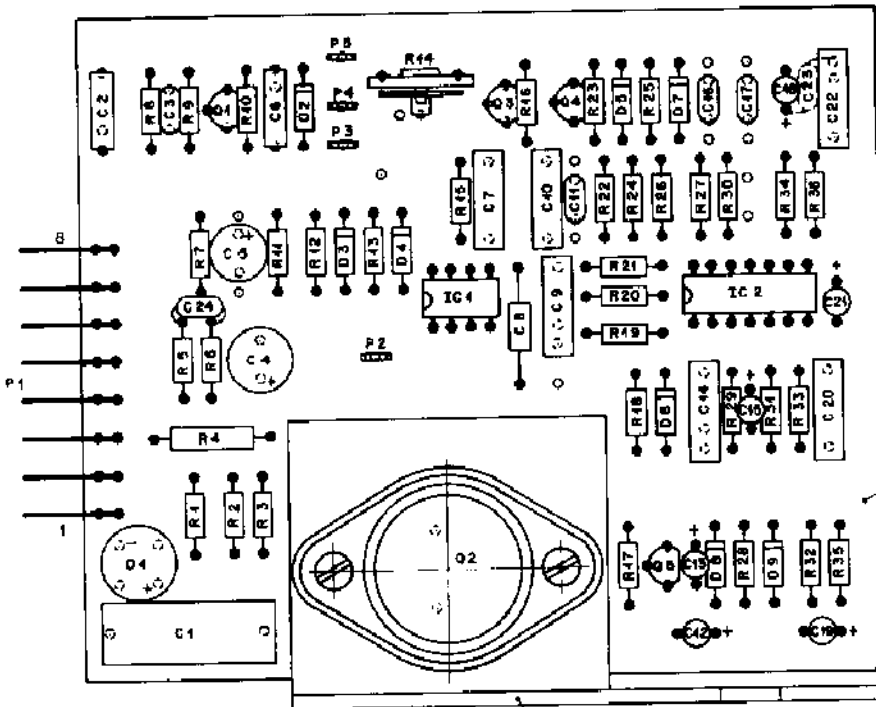
IND DATE NAME
 1.177.325
 STUDER Capstan Speed Control 1.177.325 PAGE 1 of 2

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R 01	57.41.4473	47 K	5% .25W CF	
R 02	57.41.4473	47 K	5% .25W CF	
R 03	57.41.4681	68 K	5% .25W CF	
R 04	57.42.4100	10	5% .33W CF	
R 05	57.41.4222	2.2 K	5% .25W CF	
R 06	57.41.4102	1 K		
R 07	57.41.4821	820		
R 08	57.41.4103	10 K		
R 09	57.41.4223	22 K		
R 10	57.41.4472	4.7 K		
R 11	57.41.4223	22 K		
R 12	57.41.4103	10 K		
R 13	57.41.4103	10 K		
R 14	58.59.0126	10 E	10% 500ppm/°C BCP	
R 15	57.99.0179	68.6K	1% 50ppm MF	
R 16	57.41.4223	22 K	5% .25W CF	
R 17	57.41.4152	1.5 K		
R 18	57.41.4102	1 K		
R 19	57.41.4103	10 K		
R 20	57.41.4221	220		
R 21	57.41.4472	4.7 K		
R 22	57.41.4332	3.3 K		
R 23	57.41.4223	22 K		
R 24	57.41.4223	22 K		
R 25	57.41.4223	22 K		
R 26	57.41.4332	3.3 K		
R 27	57.41.4472	4.7 K		
R 28	57.41.4472	4.7 K		
R 29	57.41.4330	33		
R 30	57.41.4103	10 K		
R 31	57.41.4682	6.8 K		
R 32	57.41.4222	2.2 K		
R 33	57.41.4105	1 M		
R 34	57.41.4103	10 K		
R 35	57.41.4222	2.2 K		
R 36	57.41.4103	10 K		

CF = Carbon Film
 BCP = Rot. carbon Film
 MF = Metal Film

15.6.78 DMK
 1.4.77 Hartmann

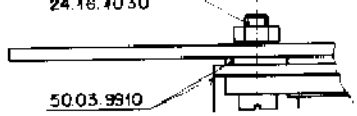
IND DATE NAME
 1.177.325
 STUDER Capstan Speed Control 1.177.325 PAGE 2 of 2



1.177.325-11

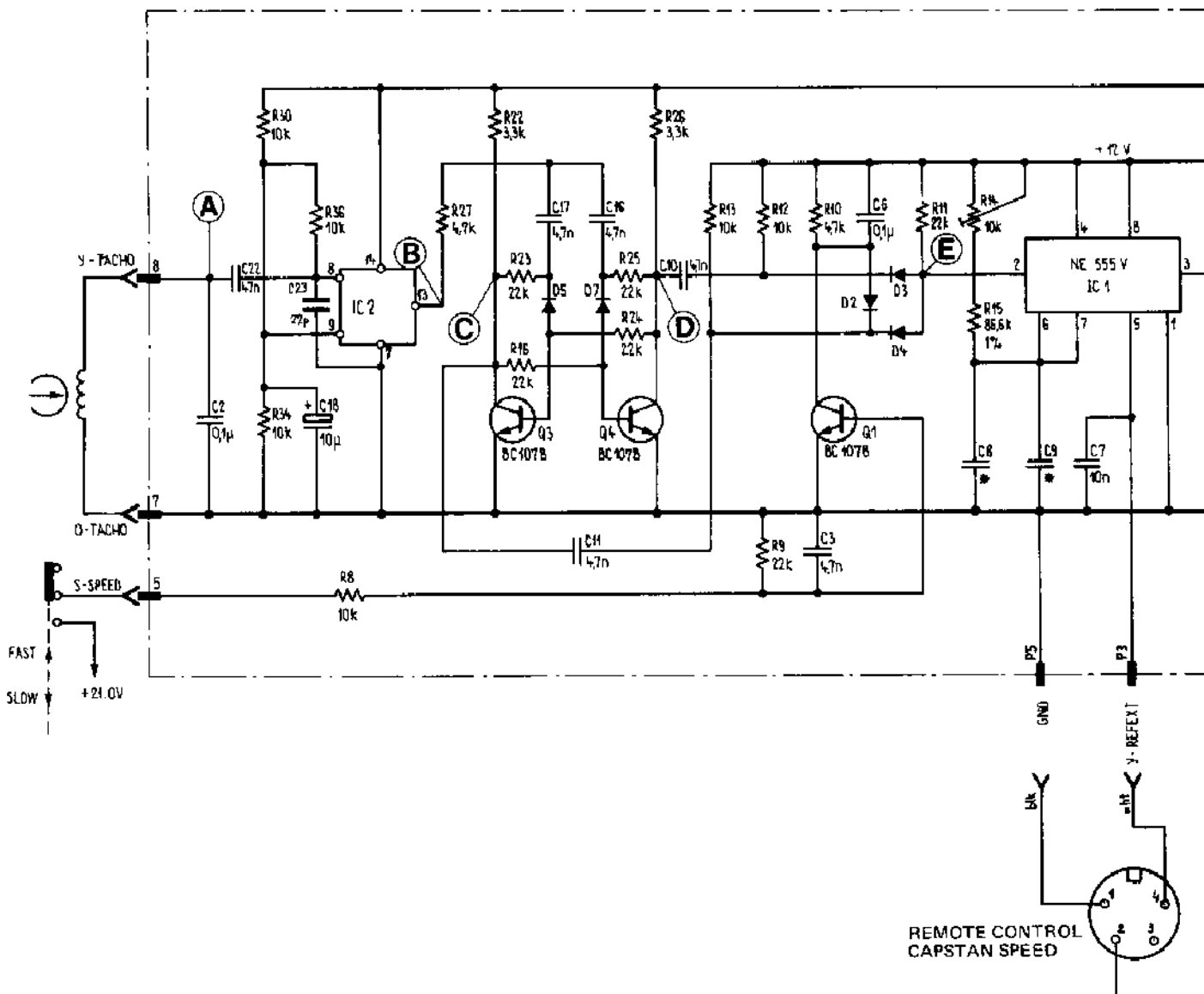
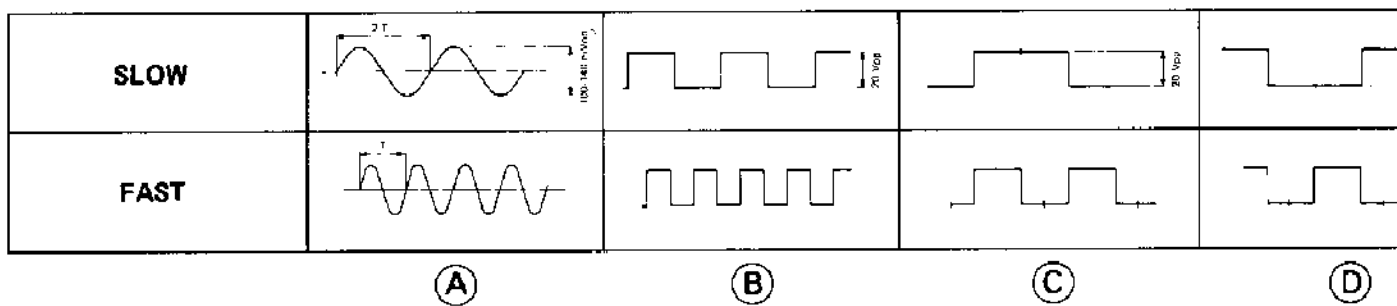
1.177.325-01

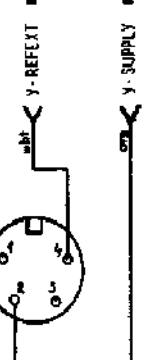
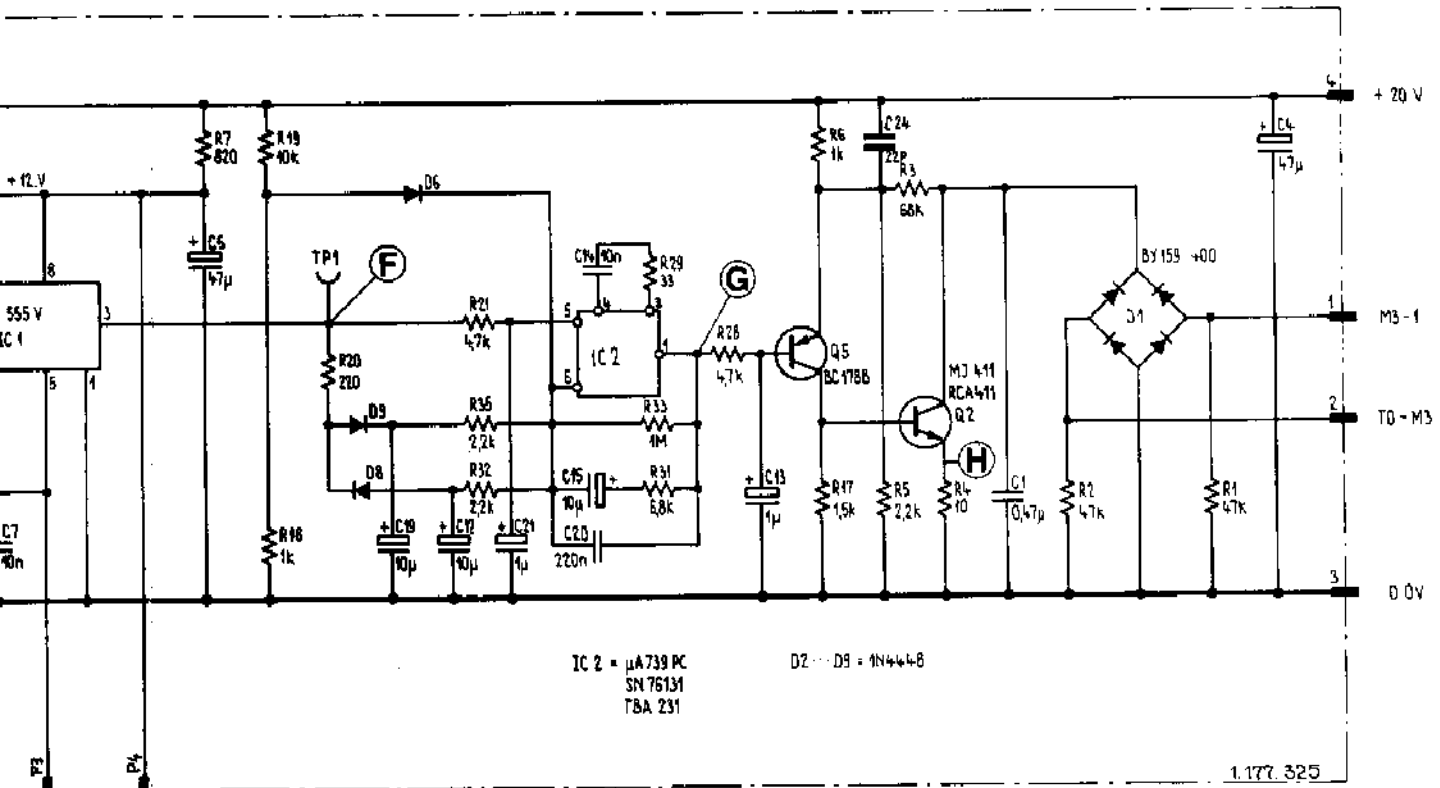
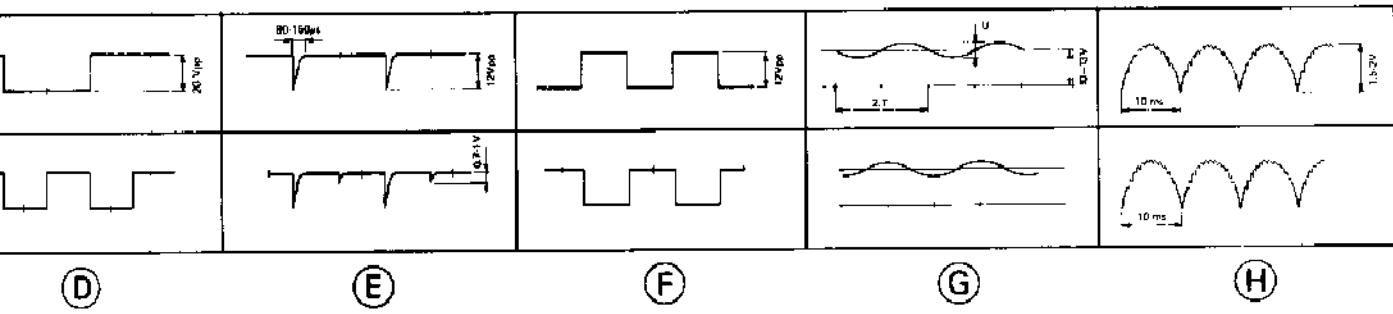
21.01.0355
 22.01.8030
 24.16.4030



50.03.9910

CAPSTAN SPEED CONTROL PCB 1.177.325

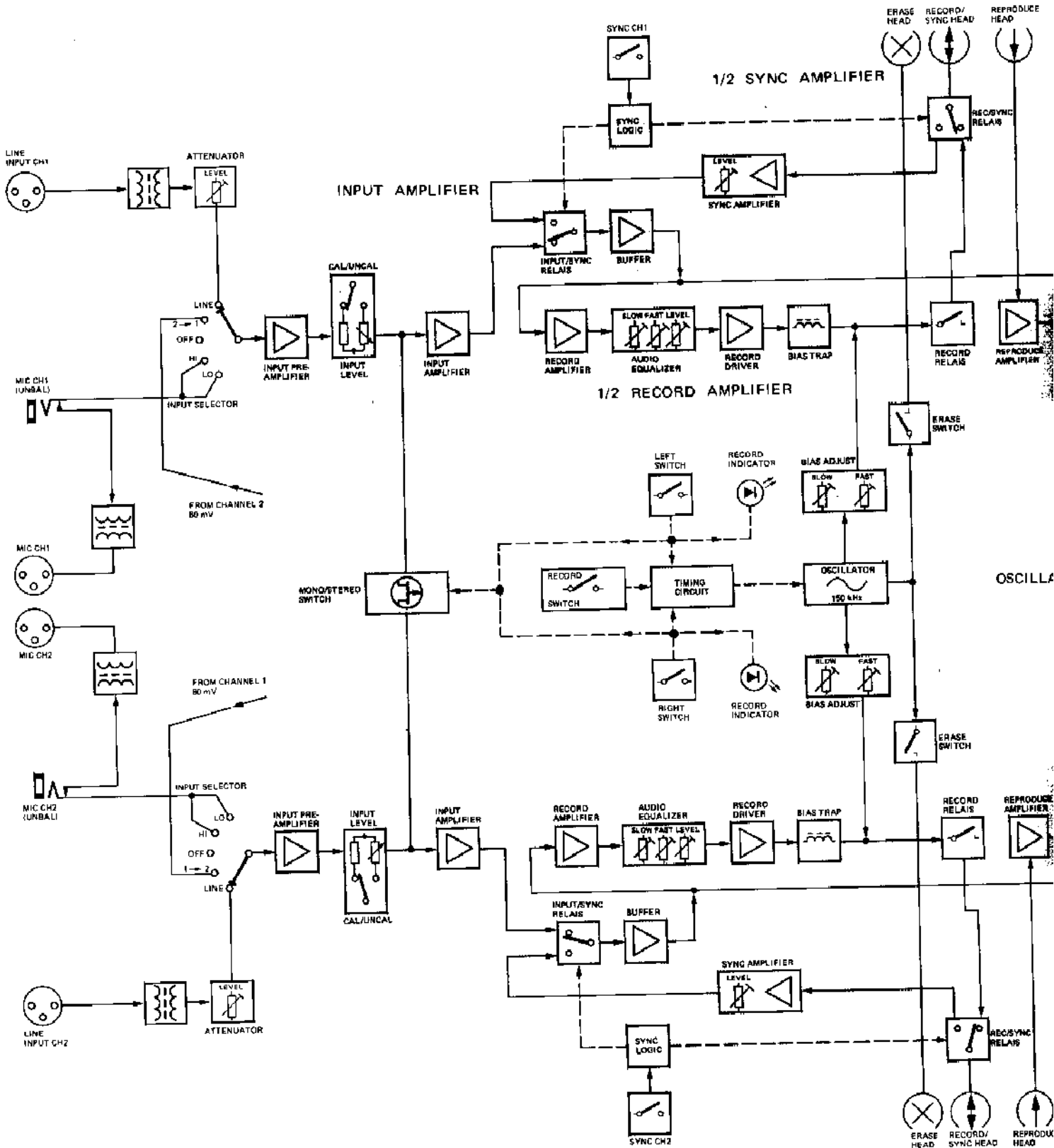


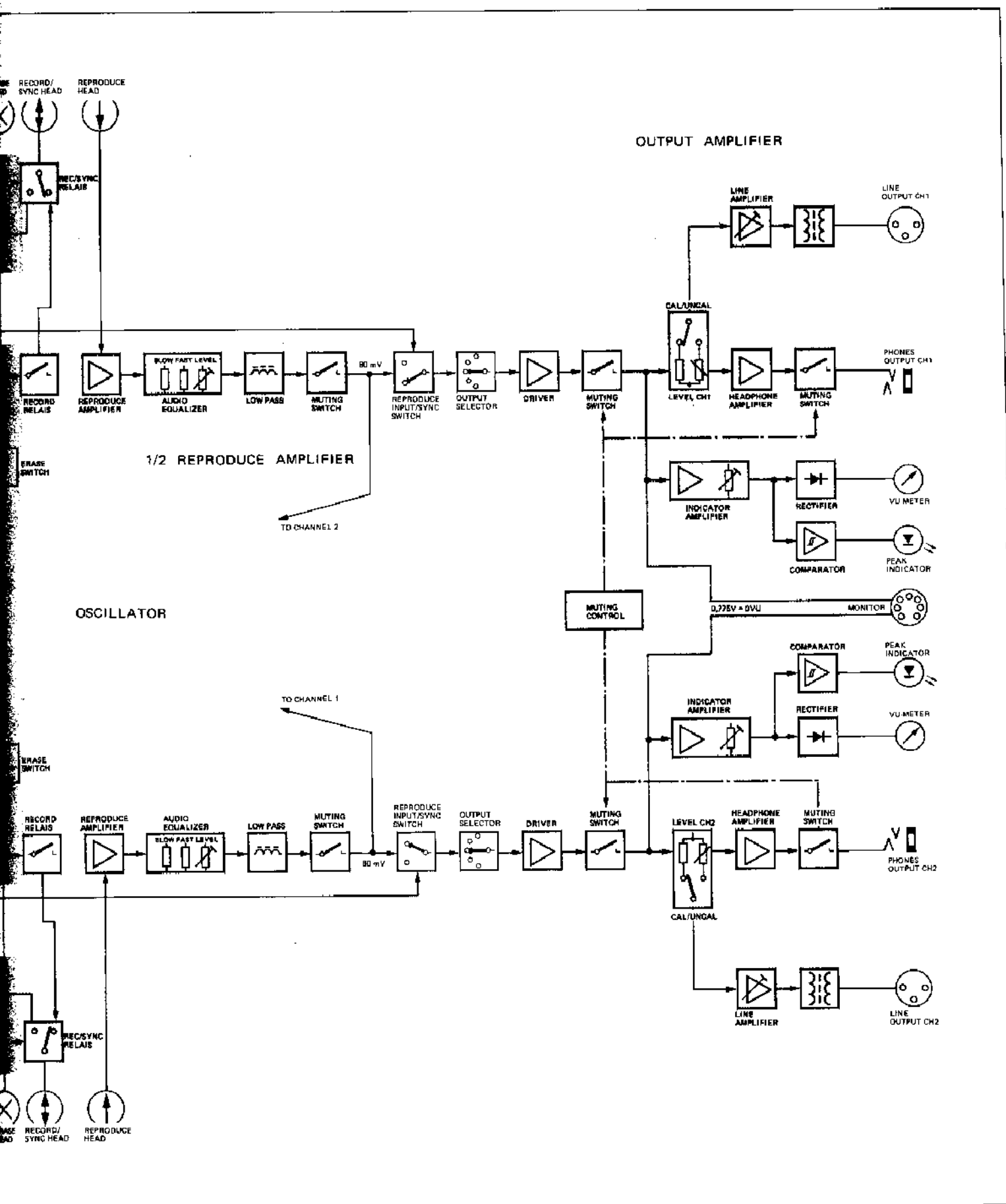


SPEED	CAPSTAN SHAFT ø	G-MOTOR NO.	SPEED CONTROL	C8	C9
7 1/2" - 15"	9.06 mm	1.021.320	1.177.325	1.6 nF	4.7 nF
3 3/4" - 7 1/2"	4.51 mm	1.021.900	1.177.325	1.6 nF	4.7 nF

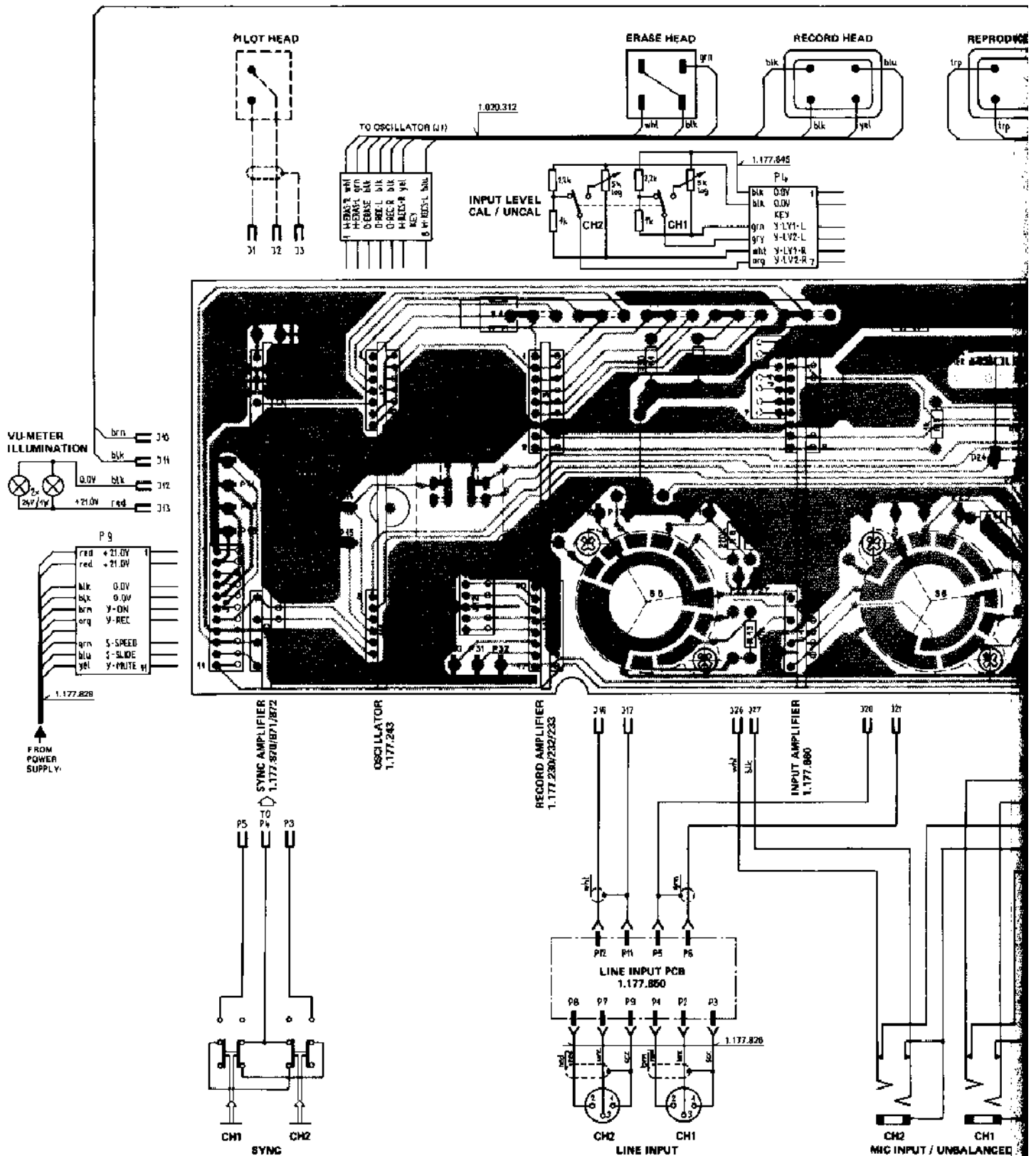
SPEED CONTROL	T	U
1.177.325	625 µs	1 V _{pp}

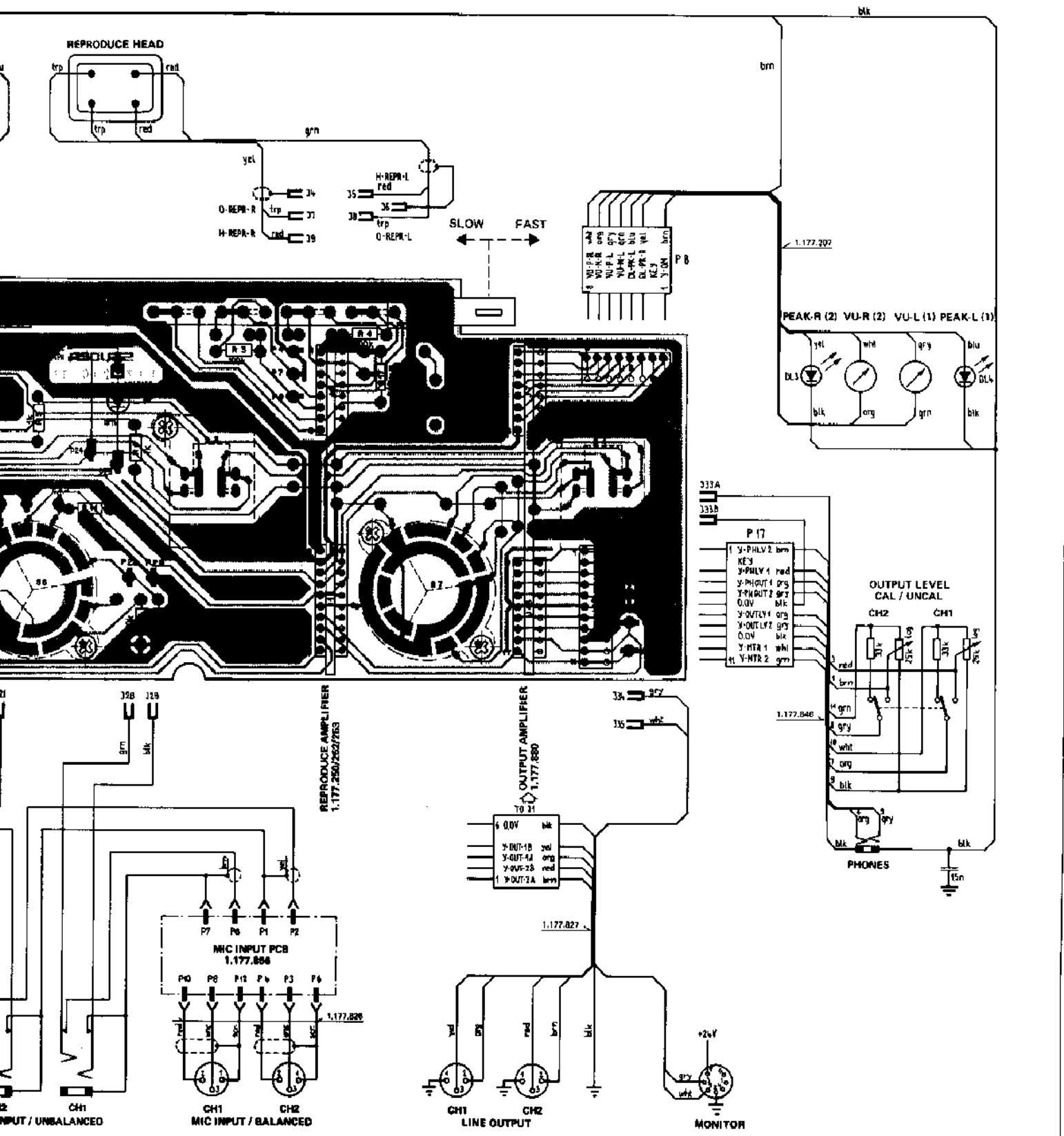
BLOCK DIAGRM / AUDIO





AUDIO INTERCONNECTION BOARD 1.177.835





LINE INPUT PCB 1.177.850

PCB NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C1				
C2	59.12.9681	680pF	1% PS	
C3	59.12.9681	680pF	1% PS	
C4				
C5	59.12.9681	680pF	1% PS	
C6	59.12.9631	680pF	1% PS	
① P1,12	54.01.0320	2.5 X 0.5	AMP FLAT PIN	
R1	57.39.1651	1.65K	1% HF	
R2	57.39.1651	1.65K	1% HF	
R3				
R4				
R5				
R6	57.11.4561	560		
R7	57.11.4331	330		
R8	58.19.0102	1K	TRIM	
R9	57.39.1651	1.65K	1% HF	
R10	57.39.1651	1.65K	1% HF	
R11				
R12				
R13				
R14	57.11.4561	560		
R15	57.11.4331	330		
R16	58.19.0102	1K	TRIM	
S1	54.01.0021	2 X 0.63	JUMPER	
S2	54.01.0021	2 X 0.63	JUMPER	
T1	1.022.405.00	1:1	LINE TRAF0	ST
T2	1.022.405.00	1:1	LINE TRAF0	ST

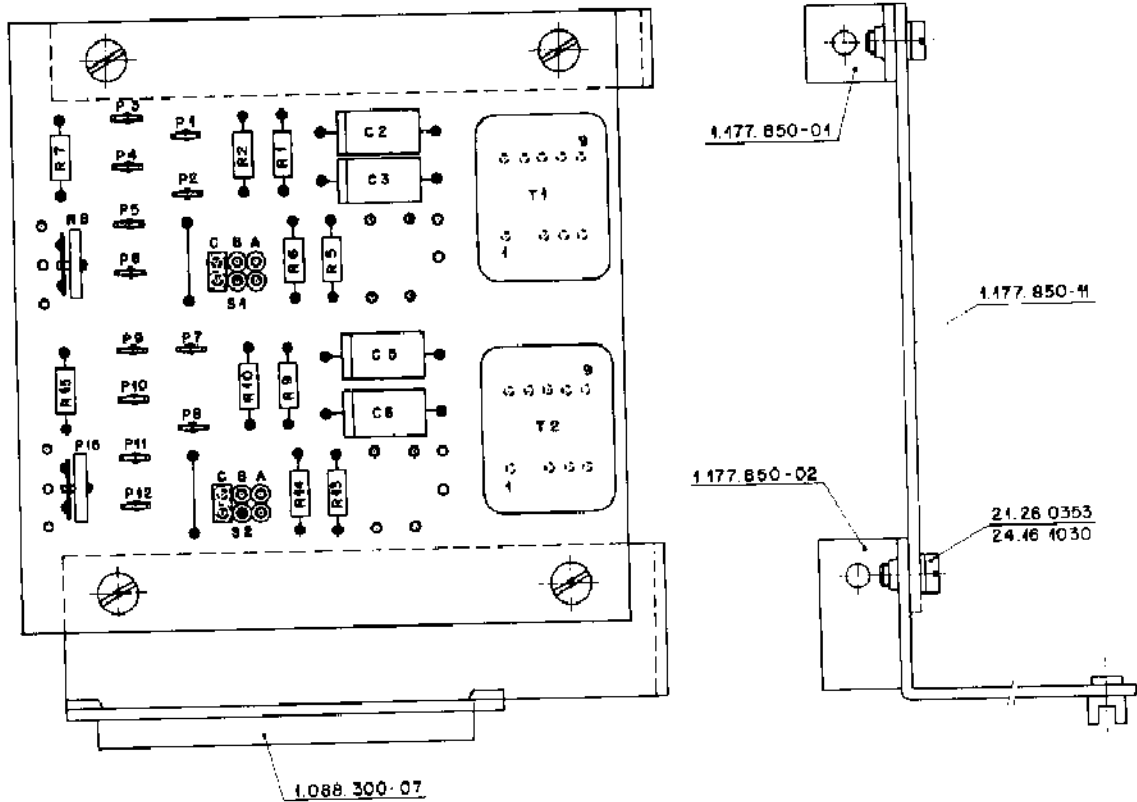
ST-STUDER

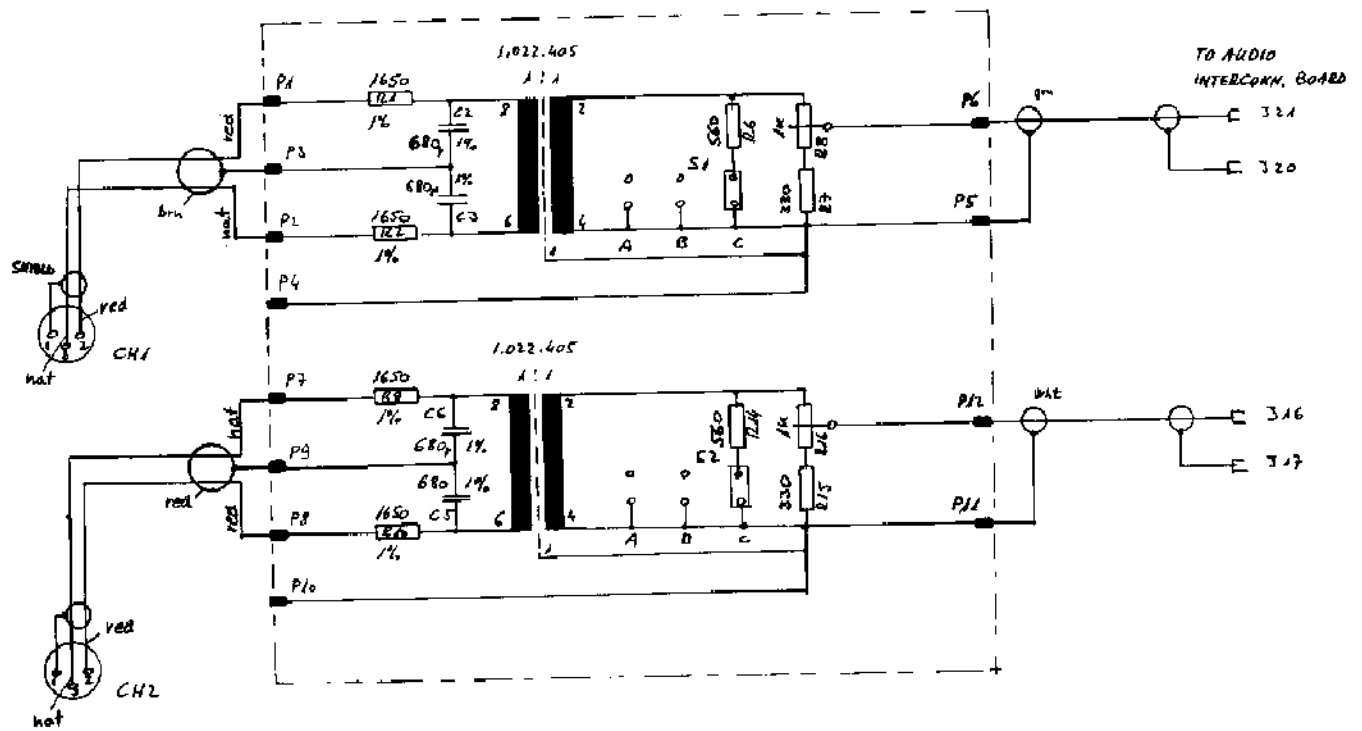
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30.10.80
24.9.80

IND DATE NAME

STUDER Line Input PCB 1.177.850 PAGE 1 of 1

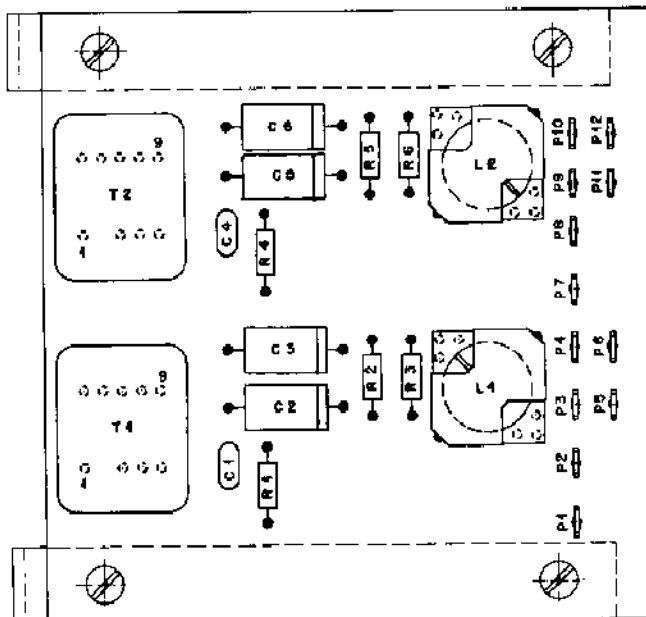




MIC INPUT PCB 1.177.856

PAGE NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C1	58.34.4274	280pF	CER	
C2	58.42.9102	1000pF	1% FS	
C3	58.42.9102	1000pF		
C4	58.34.4274	270pF	CER	
C5	58.42.9102	1000pF	1% FS	
C6	58.42.9102	1000pF		
L1	1.022.169.00	2X233uH	HF ASM. COIL	ST
L2	1.022.169.00	2X233uH		ST
PL1, L1	54.02.022.0	2.8x0.8	AMP FLAT PLY	
R1	57.44.423	12k		
R2	57.33.4103	10k	1%	
R3	57.33.4103	10k		
R4	57.44.423	12k		
R5	57.33.4103	10k	1%	
R6	57.33.4103	10k		
T1	1.022.400.00	1:4	MICRO TRAFD	ST
T2	1.022.400.00	1:4		ST

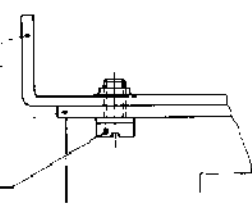
STUDER		IND	DATE	NAME
Mic Input PCB		1.177.856		PAGE 1/1

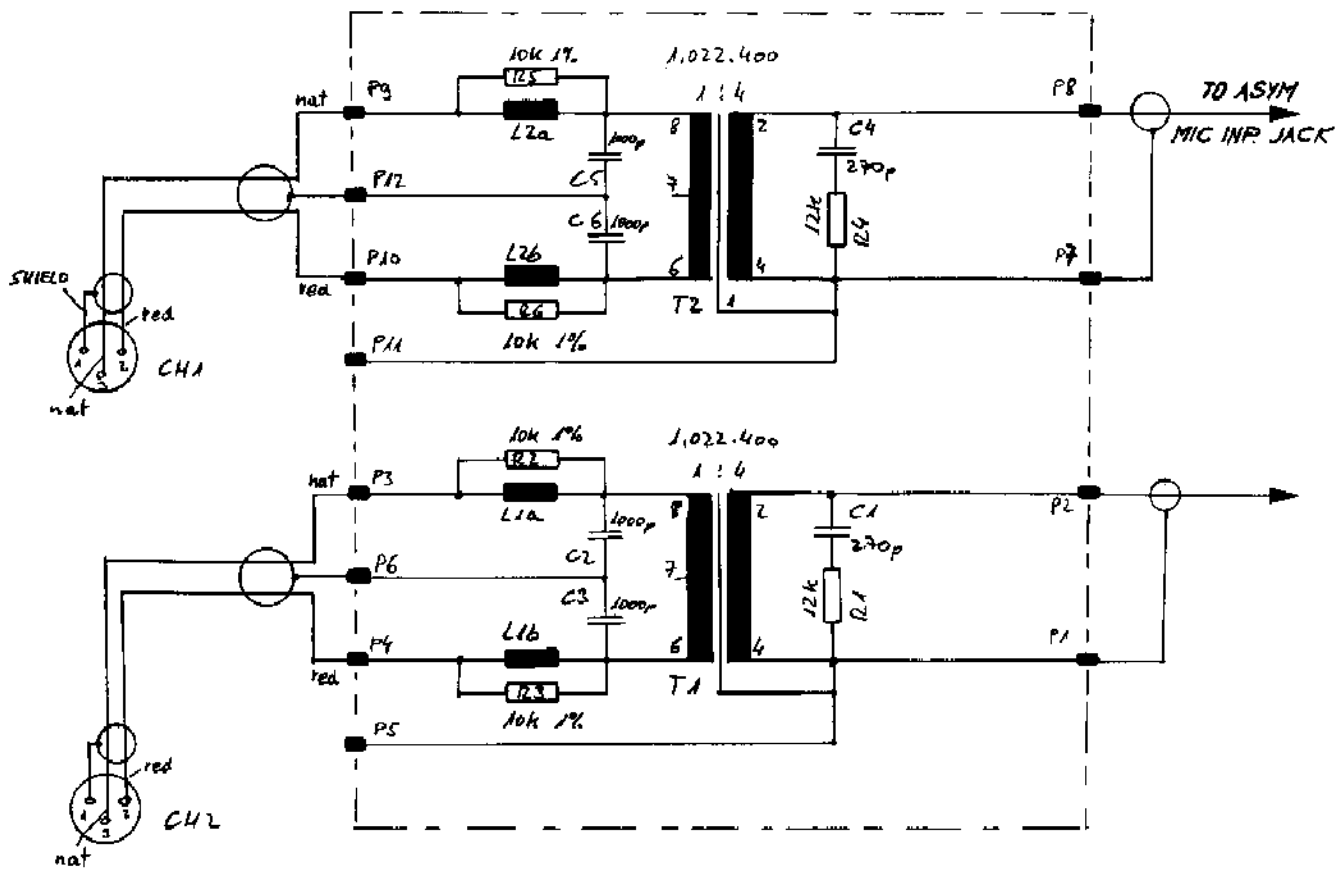


1.177.850-01

1.177.856-11

21.26.0353
24.16.4030





INPUT AMPLIFIER PCB 1.177.860

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C 1	58.30.4100	10nF	-20% 16V TA	
C 2	58.30.4100	10nF	-20% 16V TA	
C 3	58.30.4333	33nF	-20% 50V CER	
C 4	58.32.1152	1500nF	-20% 50V CER	
C 5	58.32.0470	47nF	-20% 50V CER	
C 6	58.25.4221	220nF	-10% 25V EL	
C 7	58.25.3121	125nF	-10% 25V EL	
C 8	58.32.1104	0.1nF	20% 100V MPTP	
C 9	58.22.5030	47nF	20% 25V EL	
C 10	58.22.0470	47nF	-20% 50V CER	
C 11	58.30.4100	10nF	-20% 16V TA	
C 12	58.30.4100	10nF	-20% 16V TA	
C 13	58.30.4100	10nF	-20% 16V TA	
C 14	58.30.4100	10nF	-20% 16V TA	
C 15	58.25.2121	125nF	-10% 25V EL	
C 16	58.30.4100	10nF	-20% 16V TA	
C 17	58.30.4100	10nF	-20% 16V TA	
C 18	58.30.4333	33nF	-20% 50V CER	
C 19	58.22.0470	47nF	-20% 50V CER	
C 20	58.32.1152	1500nF	-20% 50V CER	
C 21	58.30.4100	10nF	-20% 16V TA	
C 22				
C 23	58.30.4100	10nF	-20% 16V TA	
C 24	58.22.0470	47nF	-20% 50V CER	
C 25	58.22.5470	47nF	20% 25V EL	
C 26	58.30.4100	10nF	-20% 16V TA	
C 27	58.30.4100	10nF	-20% 16V TA	
D 1	50.04.0125	1N4448		
D 2	50.04.0125	1N4448		
IC 1	50.08.0106	NE552A		
IC 2	50.05.0265	RC4558		
K 1	56.02.1001		Relais	
K 2	56.02.1001			
P 1	54.01.0220	9 Pol	Pin-Strip	AMP
P 2	54.01.0470	4 Pol	Pin-Strip	AMP
P 3	54.02.0320	23x0.2	Flat Pin	AMP

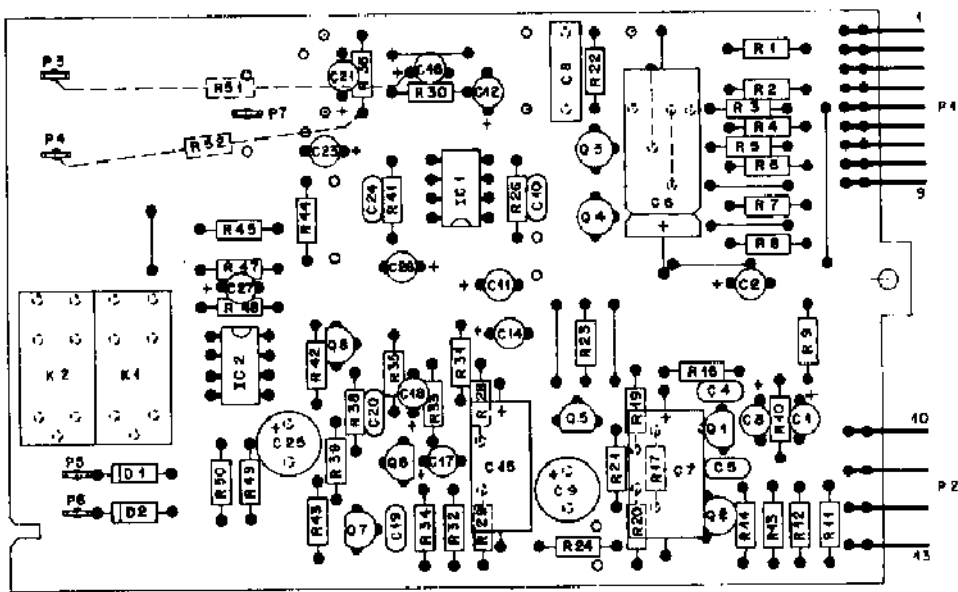
IND	DATE	Wkst/Name

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R 33				
R 34	57.11.4221	220		
R 35	57.11.4682	6.8k		
R 40				
R 41	57.11.4223	22k		
R 42	57.11.4333	33k		
R 43	57.11.4680	6.8		
R 44	57.11.4472	4.7k		
R 45	57.11.4472	4.7k		
R 46				
R 47	57.11.4473	4.7k		
R 48	57.11.4473	4.7k		
R 49	57.11.4473	4.7k		
R 50	57.11.4473	4.7k		
R 51	57.11.4104	100k		
R 52	57.11.4104	100k		

IND	DATE	Wkst/Name

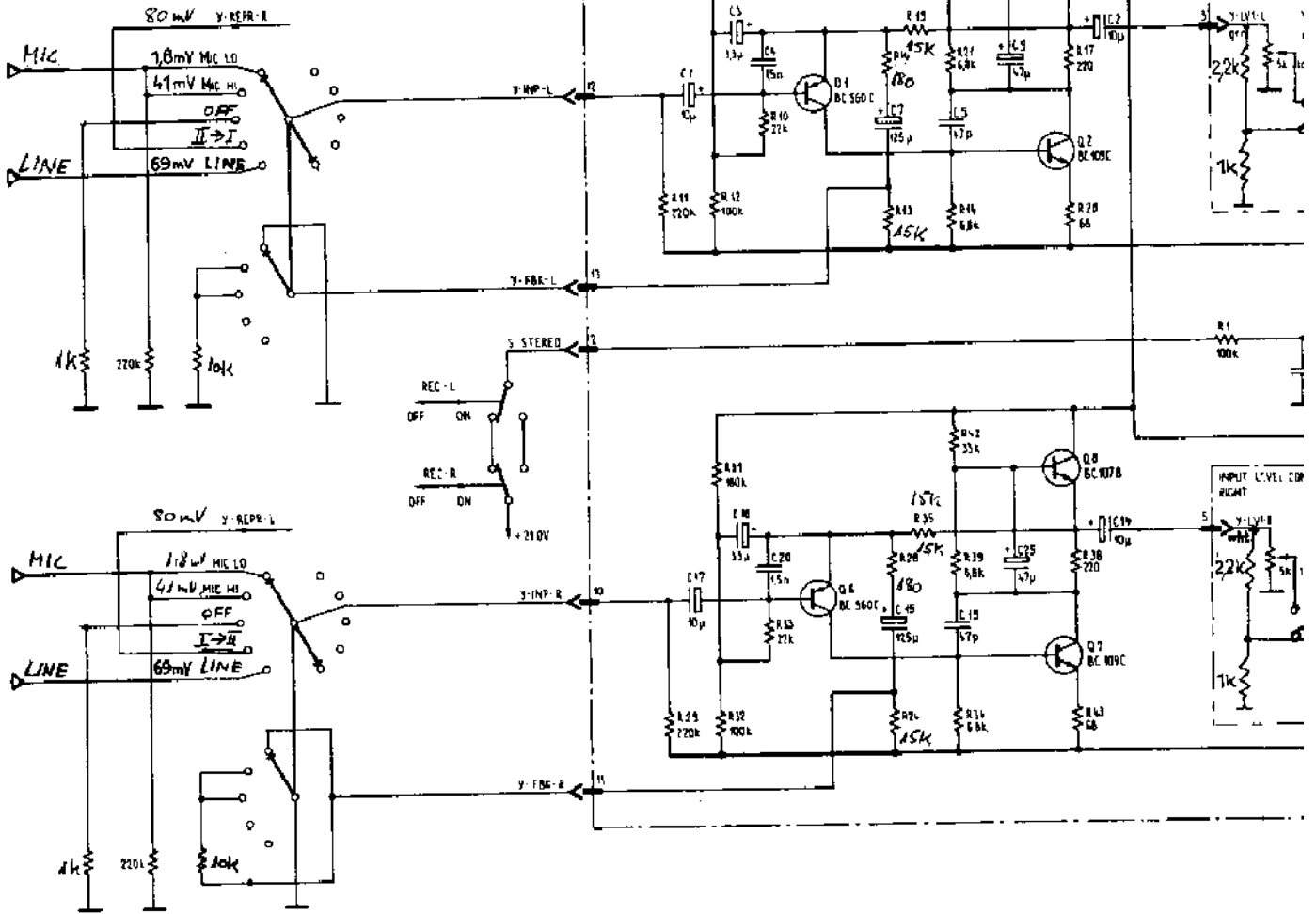
POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
Q 1	50.03.0484	BC 560C	NPN	
Q 2	50.03.0487	BC 550B	NPN	BC 103C
Q 3	50.03.0320	P 422BE	P-GH 3-FET	
Q 4	50.03.0320	P 422BE	P-GH 3-FET	
Q 5	50.03.0436	BC 550B	NPN	BC 103E
Q 6	50.03.0486	BC 560C	NPN	
Q 7	50.03.0484	BC 550B	NPN	BC 103C
Q 8	50.03.0436	BC 550B	NPN	BC 103E
R 1	57.11.4104	100k		
R 2	57.11.4403	10k		
R 3	57.11.4103	10k		
R 4	57.11.4102	10k		
R 5	57.11.4103	10k		
R 6	57.11.4470	4.7		
R 7	57.11.4472	4.7k		
R 8	57.11.4472	4.7k		
R 9	57.11.4104	100k		
R 10	57.11.4223	22k		
R 11	57.11.4224	220k		
R 12	57.11.4104	100k		
R 13	57.11.4453	15k		
R 14	57.11.4482	6.8k		
R 15				
R 16	57.11.4181	100		
R 17	57.11.4221	220		
R 18				
R 19	57.11.4152	15k		
R 20	57.11.4680	6.8		
R 21	57.11.4482	6.8k		
R 22	57.11.4105	10k		
R 23	57.11.4333	33k		
R 24	57.11.4153	15k		
R 25				
R 26	57.11.4223	22k		
R 27				
R 28	57.11.4454	150		
R 29	57.11.4224	220k		
R 30	57.11.4104	100k		
R 31	57.11.4180	180k		
R 32	57.11.4104	100k		
R 33	57.11.4722	22k		
R 34	57.11.4682	6.8k		
R 35	57.11.4453	15k		
R 36	57.11.4104	100k		

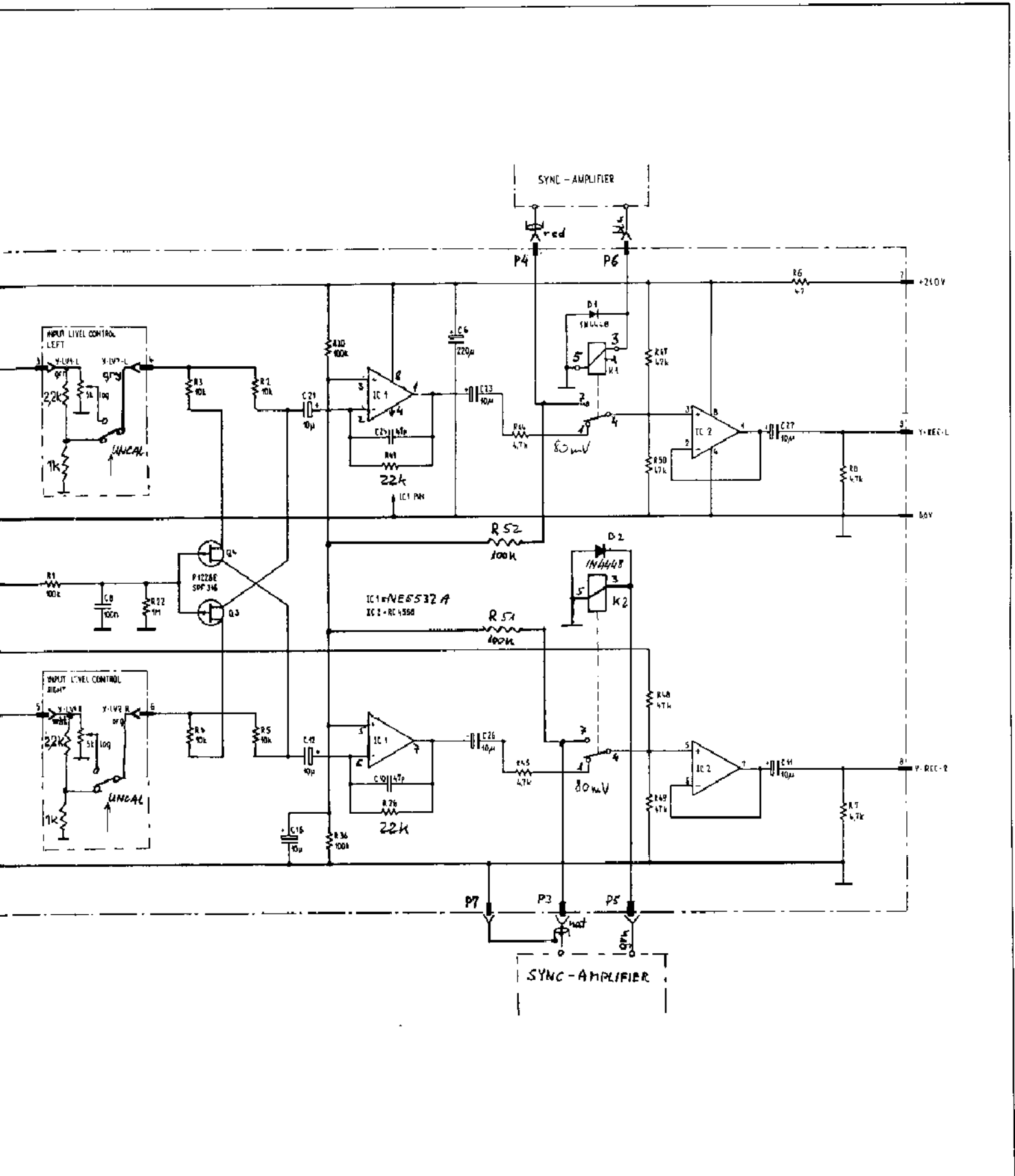
IND	DATE	Wkst/Name



INPUT AMPLIFIER PCB 1.177.860

INPUT SIGNAL FOR TEST OUTPUT
[= 200 μV]





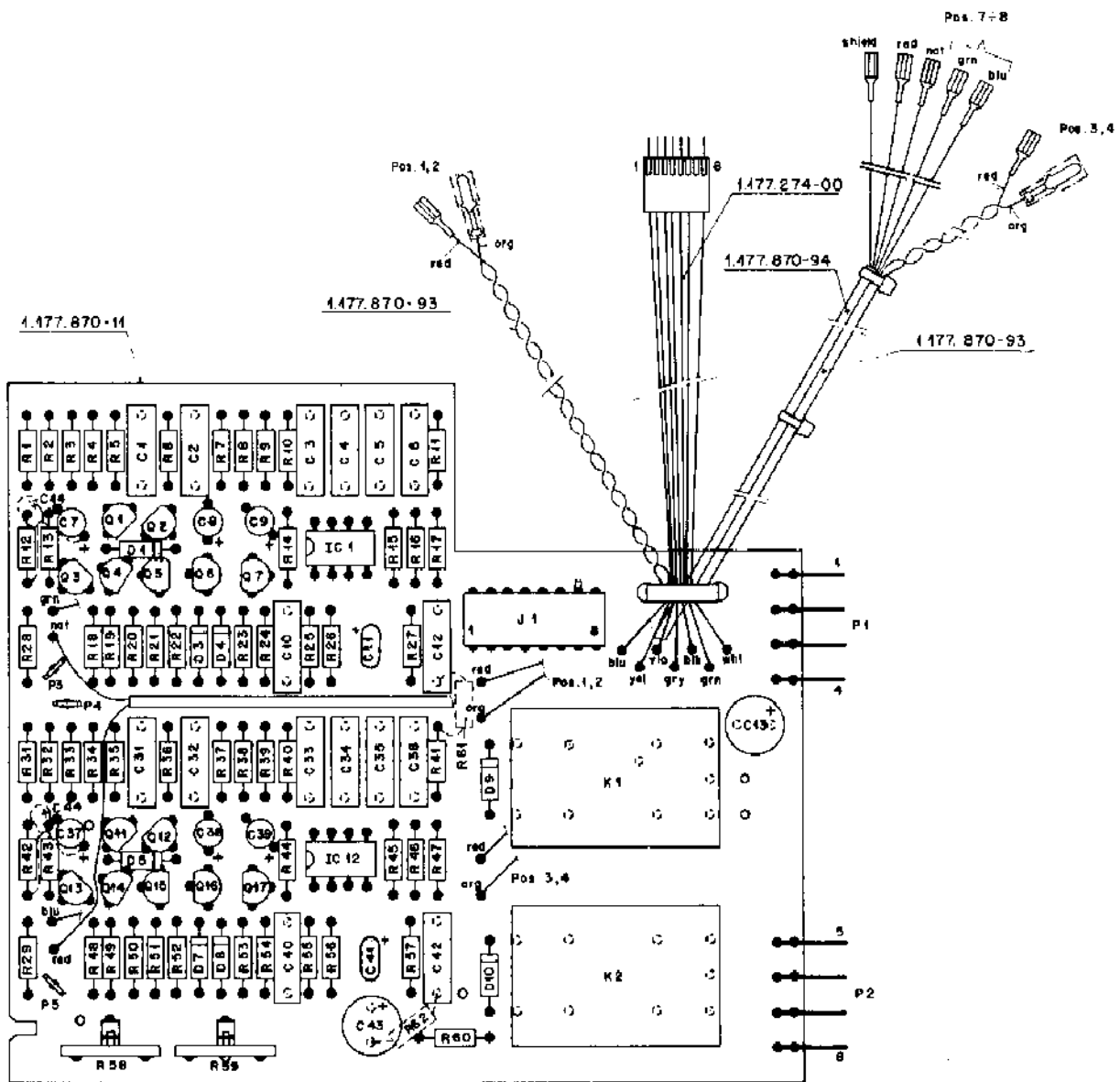
SYNC AMPLIFIER PCB (NAB 3.75 - 7.5 ips) 1.177.870

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C1	59.31.5476	0.47µF	20% 40V NPETP	
C2	59.31.6332	3.3µF	5% 400V PC	
C3	59.31.3562	5.6µF	5% 400V PC	
C4	59.31.3102	1µF	20% 400V NPETP	
C5	59.31.4483	18µF	5% 250V NPETP	
C6	59.31.9643	6.8µF	10% 400V NPETP	
C7	59.30.4100	10µF	-20% 35V TR	
C8	59.30.6678	0.47µF	-20% 35V TR	
C9	59.30.6259	3.3µF	-20% 35V TR	
C10	59.31.1104	100µF	20% 40V NPETP	
C11	59.26.5478	0.2µF	-20% 25V SKL	
C12	59.31.0334	0.33µF	20% 63V NPETP	
C13	59.22.5470	4.7µF	-10% 25V EL	
C14	59.30.6109	1µF	-20% 35V TR	
C31	59.31.5474	0.47µF	20% 63V NPETP	
C32	59.31.6332	3.3µF	5% 400V PC	
C33	59.31.3562	5.6µF	5% 400V PC	
C34	59.31.3102	1µF	20% 400V NPETP	
C35	59.31.4483	18µF	5% 250V NPETP	
C36	59.31.9642	6.8µF	10% 400V NPETP	
C37	59.30.4100	10µF	-20% 35V TR	
C38	59.30.6678	0.47µF	-20% 35V TR	
C39	59.30.6259	3.3µF	-20% 35V TR	
C40	59.31.1104	100µF	20% 40V NPETP	
C41	59.26.5478	0.2µF	20% 25V SKL	
C42	59.31.0334	0.33µF	20% 63V NPETP	
C43	59.22.5470	4.7µF	-10% 25V EL	
C44	59.30.6109	1µF	-20% 35V TR	
DR	50.04.0125	114448		SI
DR...	50.04.0125	114448		SI
DR...	50.04.0126	114448		SI
IC 1	50.05.0245	AC 4558	DUAL OP. AMP	
IC 2	50.05.0245	AC 4558	DUAL OP. AMP	
J1	59.01.0306	8 PCL	AMP CIS	
M1	56.04.0140	12V	Reels 2x1	
M2	56.04.0140	12V	Reels 2x1	

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R24	57.11.4333	33K		
R25	57.11.4332	39K		
R26	57.11.4101	100		
R27	57.11.4474	470K		
R28	57.11.4101	100		
R29	57.11.4101	100		
R30				
R31	57.11.4153	15K		
R32	57.11.4103	10K		
R33	57.11.4333	33K		
R34	57.11.4333	33K		
R35	57.11.4105	11K		
R36	57.11.4334	330K		
R37	57.11.4472	47K		
R38	57.11.4103	10K		
R39	57.11.4103	10K		
R40	57.11.4564	560K		
R41	57.11.4474	470K		
R42	57.11.4103	10K		
R43	57.11.4103	10K		
R44	57.11.4452	45K		
R45	57.11.4472	47K		
R46	57.11.4102	10K		
R47	57.11.4102	10K		
R48	57.11.4474	47K		
R49	57.11.4474	47K		
R50	57.11.4473	47K		
R51	57.11.4473	47K		
R52	57.11.4104	100K		
R53	57.11.4103	10K		
R54	57.11.4333	33K		
R55	57.11.4332	33K		
R56	57.11.4101	100		
R57	57.11.4474	470K		
R58	58.19.0102	1K		
R59	58.19.0102	1K		
R60	57.11.4272	2.7K		
R61	57.11.4452	45K		
R62	57.11.4452	45K		

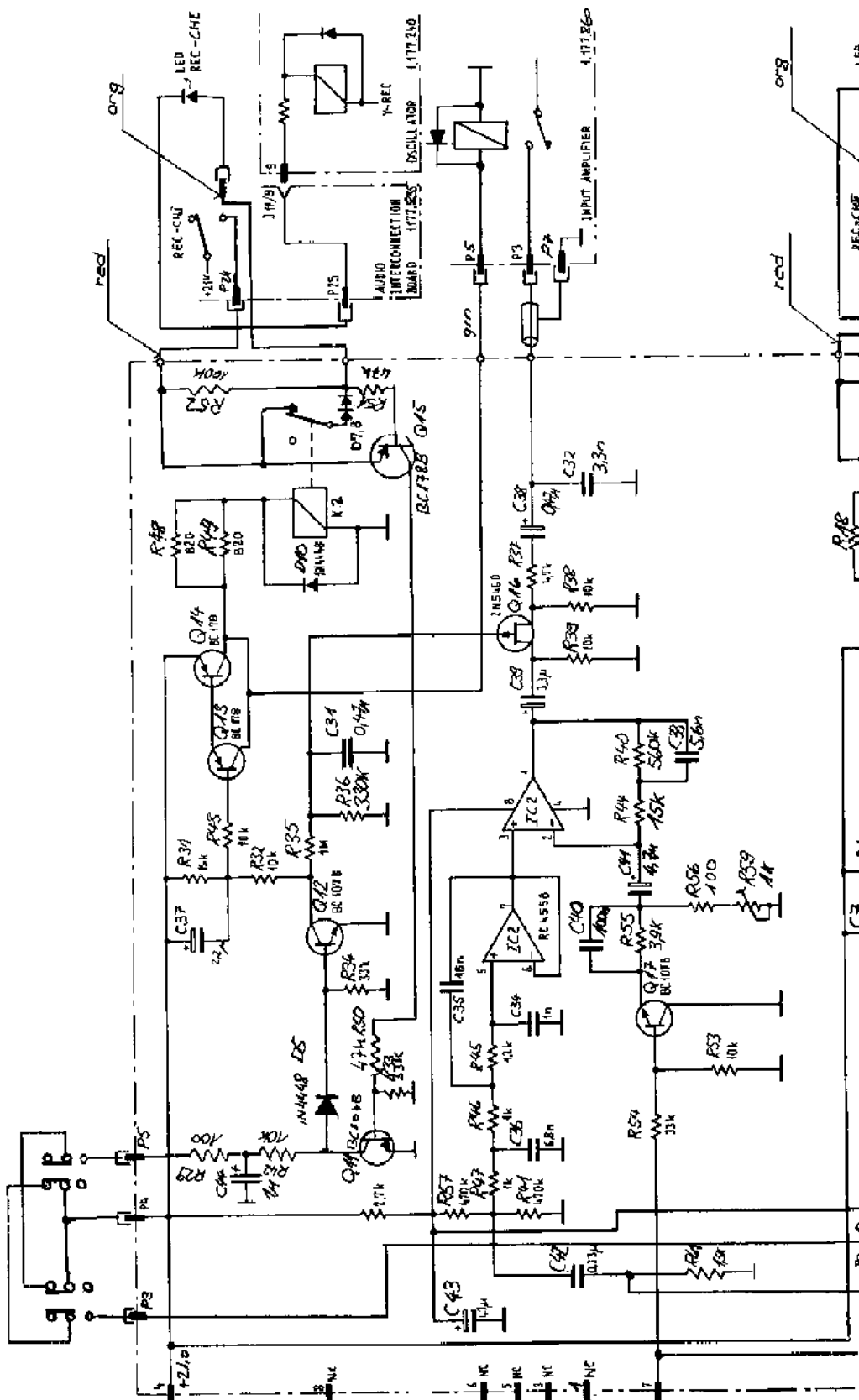
POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R1	59.01.0470	4 PCL	PIN-STRIP	12K
R2	59.01.0470	4 PCL	PIN-STRIP	12K
R3..5	59.02.0370	3.8V OR	FLAT- PIN	12K
Q1	50.03.0436	BC 550B	NPV	BC 107B
Q2	50.03.0436	BC 550B	NPV	BC 107B
Q3	50.03.0545	BC 560B	PNP	BC 178B
Q4	50.03.0545	BC 560B	PNP	BC 178B
Q5	50.03.0545	BC 560B	PNP	BC 178B
Q6	50.03.0842	2N 5460	P-CH FET	
Q7	50.03.0436	BC 550B	NPV	BC 107B
Q11	50.03.0436	BC 550B	NPV	BC 107B
Q12	50.03.0436	BC 550B	NPV	BC 107B
Q13	50.03.0545	BC 560B	PNP	BC 178B
Q14	50.03.0545	BC 560B	PNP	BC 178B
Q15	50.03.0545	BC 560B	PNP	BC 178B
Q16	50.03.0842	2N 5460	P-CH FET	
Q17	50.03.0436	BC 550B	NPV	BC 107B
R1	57.11.4153	15K		
R2	57.11.4103	10K		
R3	57.11.4333	33K		
R4	57.11.4333	33K		
R5	57.11.4105	11K		
R6	57.11.4334	330K		
R7	57.11.4472	47K		
R8	57.11.4103	10K		
R9	57.11.4103	10K		
R10	57.11.4564	560K		
R11	57.11.4474	470K		
R12	57.11.4103	10K		
R13	57.11.4103	10K		
R14	57.11.4153	15K		
R15	57.11.4472	47K		
R16	57.11.4102	10K		
R17	57.11.4102	10K		
R18	57.11.4474	47K		
R19	57.11.4474	47K		
R20	57.11.4473	47K		
R21	57.11.4473	47K		
R22	57.11.4104	100K		
R23	57.11.4103	10K		

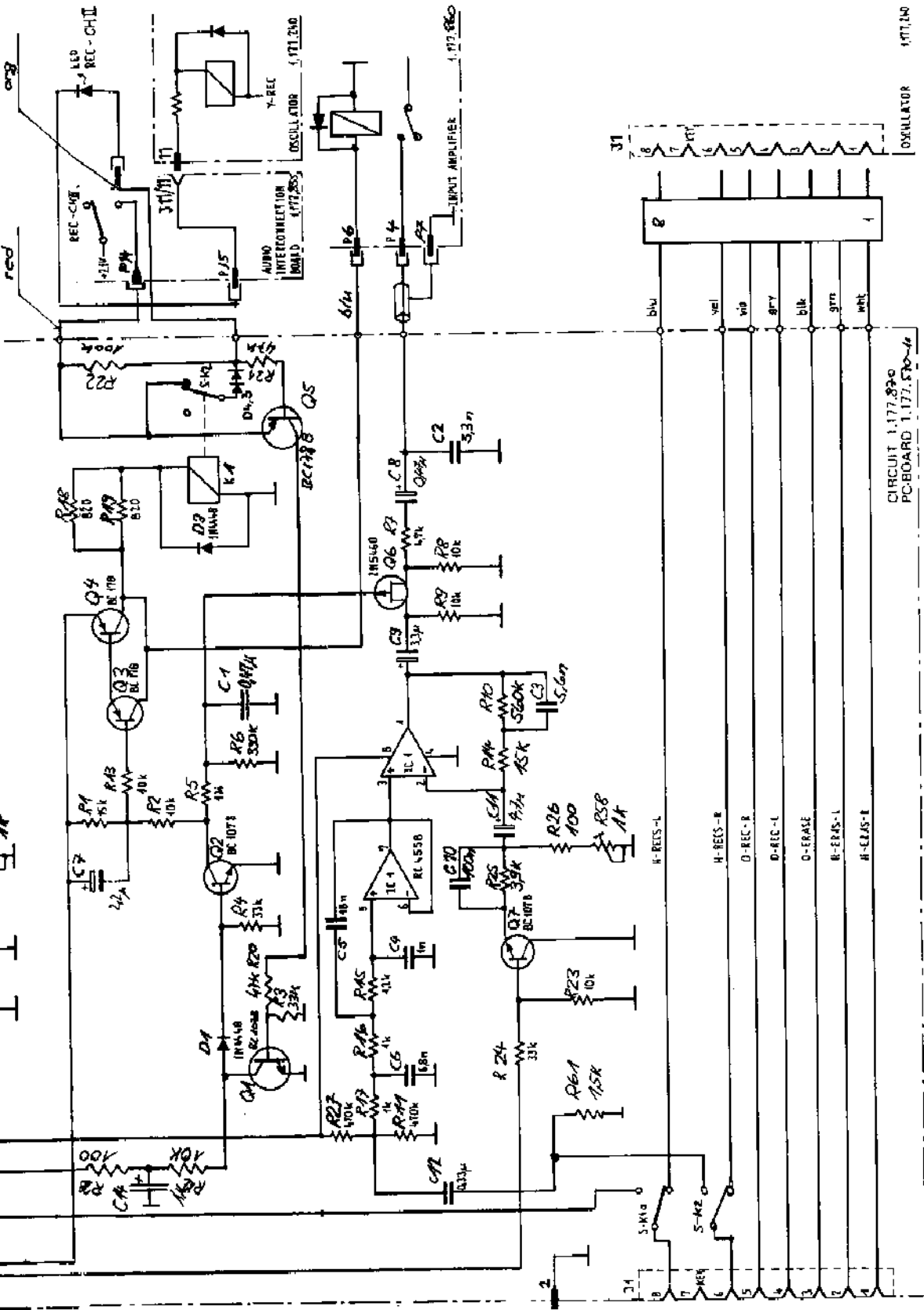
POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R24	57.11.4333	33K		
R25	57.11.4332	39K		
R26	57.11.4101	100		
R27	57.11.4474	470K		
R28	57.11.4101	100		
R29	57.11.4101	100		
R30				
R31	57.11.4153	15K		
R32	57.11.4103	10K		
R33	57.11.4333	33K		
R34	57.11.4333	33K		
R35	57.11.4105	11K		
R36	57.11.4334	330K		
R37	57.11.4472	47K		
R38	57.11.4103	10K		
R39	57.11.4103	10K		
R40	57.11.4564	560K		
R41	57.11.4474	470K		
R42	57.11.4103	10K		
R43	57.11.4103	10K		
R44	57.11.4452	45K		
R45	57.11.4472	47K		
R46	57.11.4102	10K		
R47	57.11.4102	10K		
R48	57.11.4474	47K		
R49	57.11.4474	47K		
R50	57.11.4473	47K		
R51	57.11.4473	47K		
R52	57.11.4104	100K		
R53	57.11.4103	10K		
R54	57.11.4333	33K		
R55	57.11.4332	33K		
R56	57.11.4101	100		
R57	57.11.4474	470K		
R58	58.19.0102	1K		
R59	58.19.0102	1K		
R60	57.11.4272	2.7K		
R61	57.11.4452	45K		
R62	57.11.4452	45K		



SYNC AMPLIFIER PCB (NAB 3.75 - 7.5 ips) 1.177.870

Sync
CH2
CH1





CIRCUIT 1.177.890
PCBOARD 1.177.890-4

1177.240

OSCILLATOR

1 2 3 4 5 6 7 8

blu

yel

vio

gry

blk

grn

wht

H-REES-L

H-REES-R

O-REC-R

O-REC-L

O-ERASE

H-ERAS-L


H-ERAS-R

H-ERAS-E


1177.240

SYNC AMPLIFIER PCB (NAB 7.5 - 15 ips) 1.177.871


POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C 1	59.21.5474	0.47µF	20% 63V MPMP	
C 2	59.11.6222	22µF	5% 400V PC	
C 3	59.11.3562	56µF	5% 160V PC	
C 4	59.21.3102	1µF	20% 400V PETP	
C 5	59.12.4433	18µF	5% 250V MPETP	
C 6	59.31.9682	6.8µF	10% 160V PETP	
C 7	59.30.4100	10µF	-20% 16V TA	
C 8	59.30.6498	0.47µF	-20% 35V TA	
C 9	59.30.6338	3.3µF	-20% 35V TA	
C 10	59.20.6498	4.7µF	±20% 25V SMC	
C 12	59.31.0324	0.33µF	20% 63V MPETP	
C 13	59.22.5470	0.33µF	-20% 35V TL	
C 14	59.30.6108	1µF	-20% 35V TA	
C 21	59.31.6474	0.47µF	20% 63V MPETP	
C 22	59.11.6222	22µF	5% 400V PC	
C 23	59.11.3562	56µF	5% 160V PC	
C 24	59.21.3102	1µF	20% 400V PETP	
C 25	59.12.4433	18µF	5% 250V MPETP	
C 26	59.31.9682	6.8µF	10% 160V PETP	
C 27	59.30.4100	10µF	-20% 16V TA	
C 28	59.30.6498	0.47µF	-20% 35V TA	
C 29	59.30.6338	3.3µF	-20% 35V TA	
C 40				
C 41	59.26.5474	4.7µF	20% 25V SMC	
C 42	59.31.0324	0.33µF	20% 63V MPETP	
C 43	59.22.5470	0.33µF	-20% 35V TL	
C 44	59.30.6108	1µF	-20% 35V TA	
D1, 10	50.04.0125	1N4448		SI
IC 1	50.05.0245	RC4558	DUAL OP AMP	
IC 2	50.05.0245	RC4558	DUAL OP AMP	
J 1	54.01.0306	R206	AMP CIS	
K 1	56.04.0140	12V	Relais 2x4	
K 2	56.04.0140	12V	Relais 2x4	

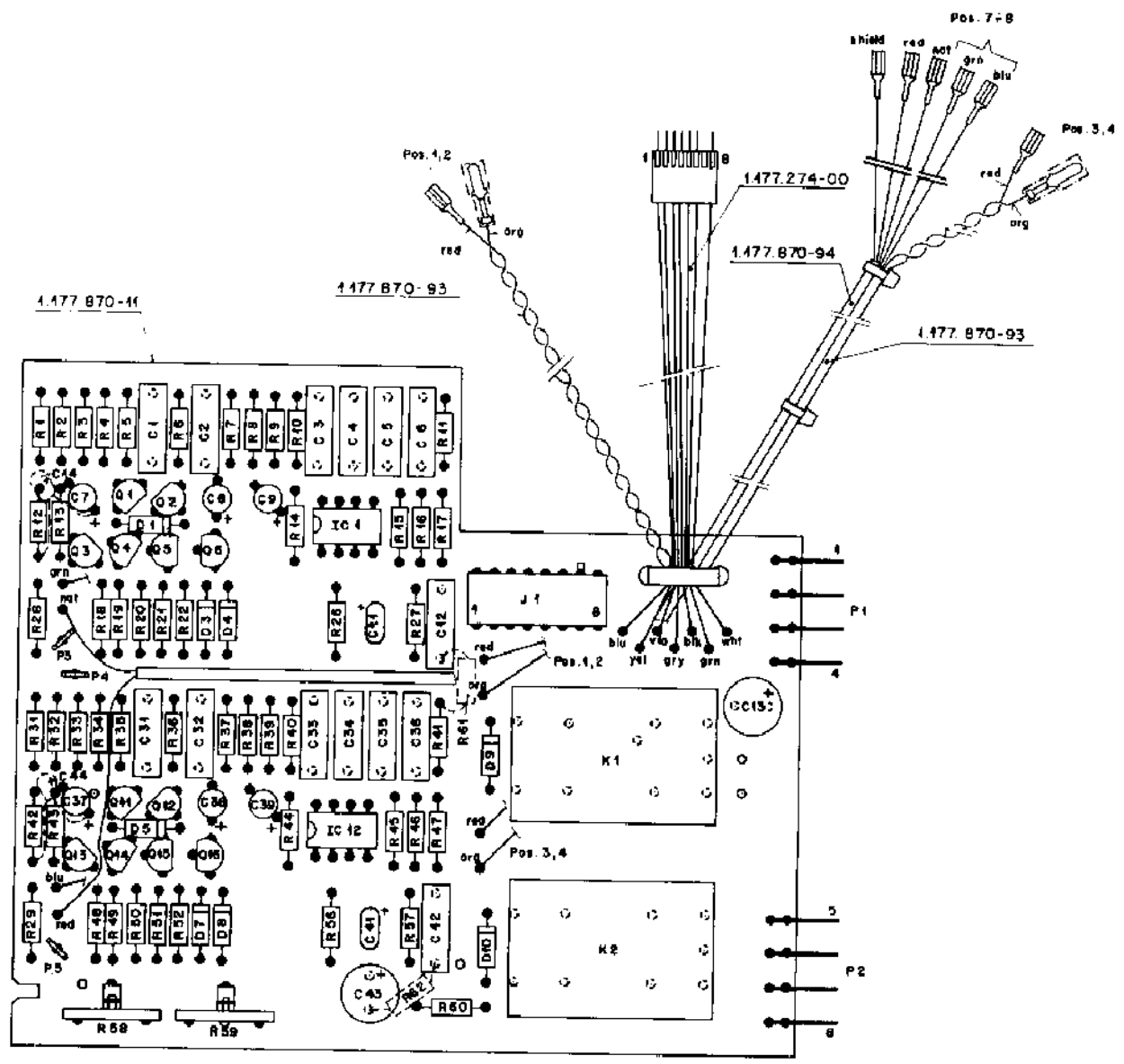

 70, 10, 80 Wood Hole
 IND DATE NAME
STUDER Sync. Amplifier 12/28 NAB 1.177.871 PAGE 1 of 3

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R24				
R25				
R26	59.11.4101	100		
R27	59.11.4474	470k		
R28	59.11.4101	100		
R29	59.11.4101	100		
R30				
R31	59.11.4153	15K		
R32	59.11.4103	10K		
R33	59.11.4332	33K		
R34	59.11.4332	33K		
R35	59.11.4105	1K		
R36	59.11.4324	320k		
R37	59.11.4472	47K		
R38	59.11.4107	10K		
R39	59.11.4105	10K		
R40	59.11.4564	560k		
R41	59.11.4474	470k		
R42	59.11.4103	10K		
R43	59.11.4103	10K		
R44	59.11.4103	10K		
R45	59.11.4122	12K		
R46	59.11.4101	1K		
R47	59.11.4101	1K		
R48	59.11.4521	820		
R49	59.11.4821	820		
R50	59.11.4472	47K		
R51	59.11.4472	47K		
R52	59.11.4104	100k		
R53				
R54				
R55				
R56	59.11.4101	100		
R57	59.11.4474	470k		
R58	56.10.0107	1K		
R59	56.10.0107	1K		
R60	59.11.4272	27K		
R61	59.11.4152	15K		
R62	59.11.4152	15K		

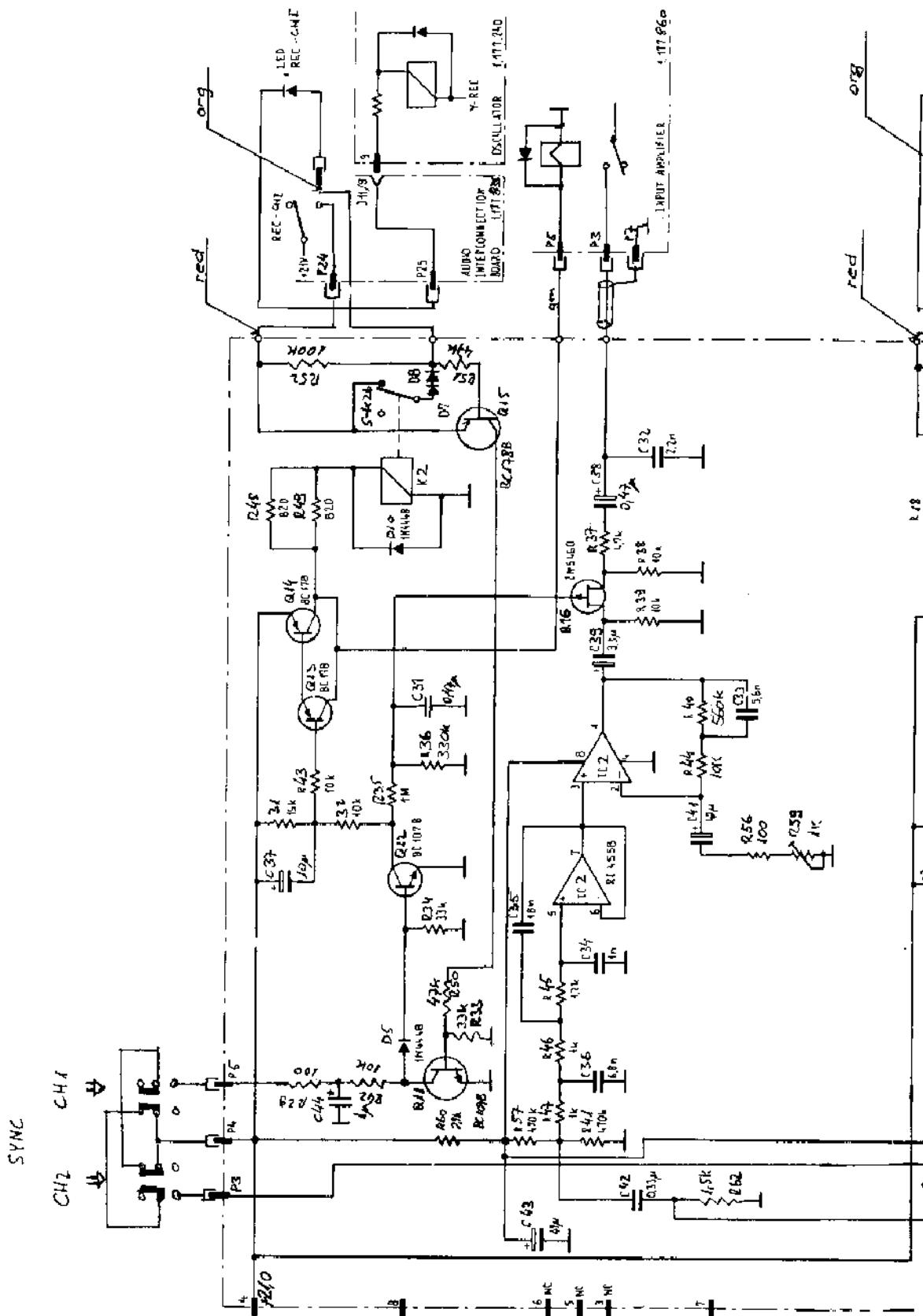

 70, 10, 80 Wood Hole
 IND DATE NAME
STUDER Sync. Amplifier 12/28 NAB 1.177.871 PAGE 3 of 3

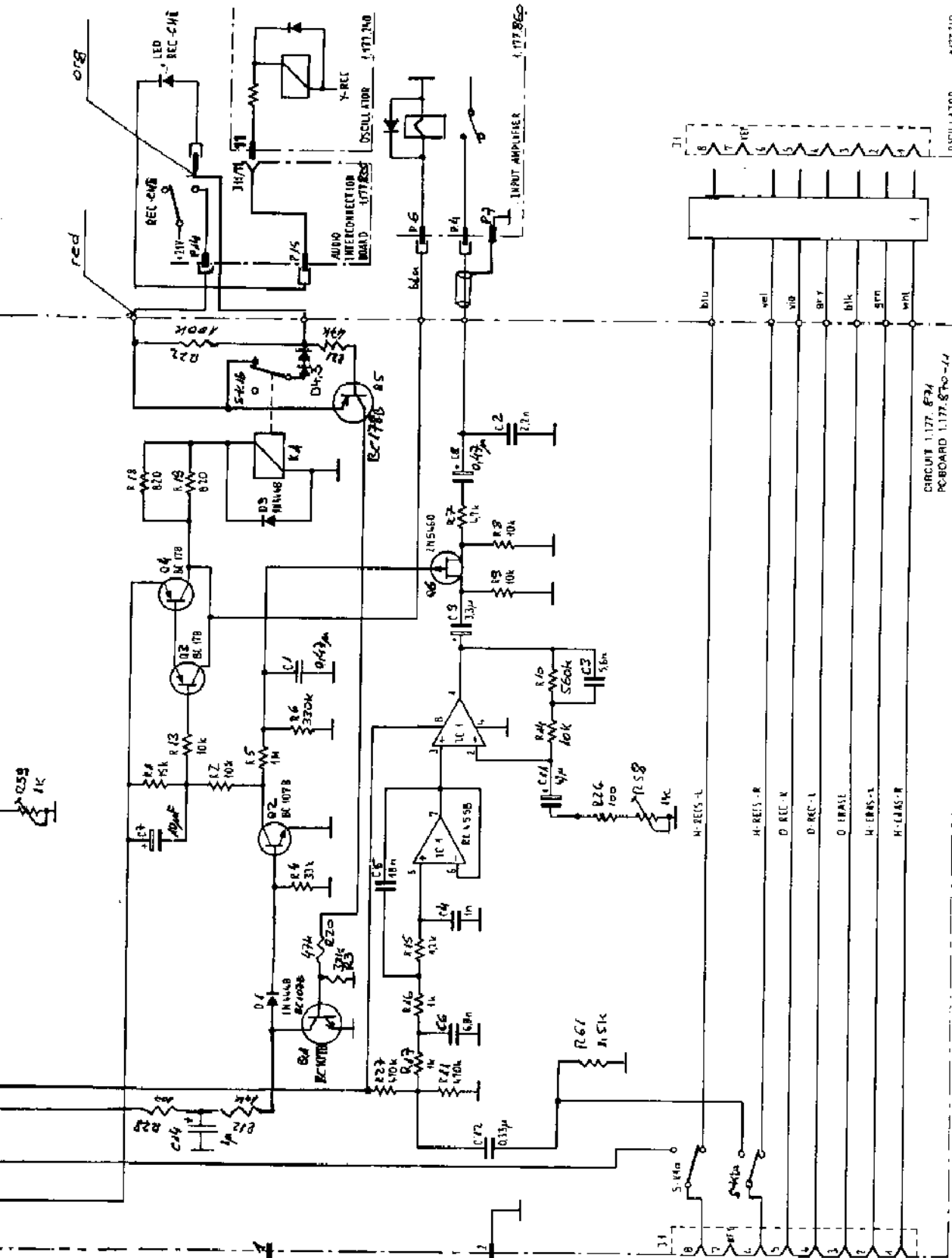
POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
P 1	54.01.0470	4P04	PIN-STRIP	AMP
P 2	54.01.0470	4P04	PIN-STRIP	AMP
P 3, 5	54.02.0320	2.8x0.5	FLAT-PIN	AMP
Q 1	50.03.0436	BC550B	NPN	BC107B
Q 2	50.03.0436	BC550C	NPN	BC107B
Q 3	50.03.0515	BC560B	PNP	BC177B
Q 4	50.03.0515	BC560B	PNP	BC177B
Q 5	50.03.0515	BC560B	PNP	BC177B
Q 6	50.03.0312	2N5460	P-CH FET	BC177B
Q 7				
Q 11	50.03.0436	BC550B	NPN	BC107B
Q 12	50.03.0436	BC550B	NPN	BC107B
Q 13	50.03.0515	BC560B	PNP	BC177B
Q 14	50.03.0515	BC560B	PNP	BC177B
Q 15	50.03.0515	BC560B	PNP	BC177B
Q 16	50.03.0312	2N5460	P-CH FET	BC177B
Q 17				
R 1	59.11.4153	15K		
R 2	59.11.4103	10K		
R 3	59.11.4332	33K		
R 4	59.11.4332	33K		
R 5	59.11.4105	1K		
R 6	59.11.4324	320K		
R 7	59.11.4472	47K		
R 8	59.11.4103	10K		
R 9	59.11.4103	10K		
R 10	59.11.4564	560K		
R 11	59.11.4474	470k		
R 12	59.11.4103	10K		
R 13	59.11.4103	10K		
R 14	59.11.4103	10K		
R 15	59.11.4122	12K		
R 16	59.11.4101	1K		
R 17	59.11.4101	1K		
R 18	59.11.4521	820		
R 19	59.11.4821	820		
R 20	59.11.4472	47K		
R 21	59.11.4472	47K		
R 22	59.11.4104	100k		
R 23				


 70, 10, 80 Wood Hole
 IND DATE NAME
STUDER Sync. Amplifier 12/28 NAB 1.177.871 PAGE 2 of 3



SYNC AMPLIFIER PCB (NAB 7.5 - 15 ips) 1.177.871





CIRCUIT 1.177. 874
PC BOARD 1.177. 870-77

4177410

SYNC AMPLIFIER PCB (IEC 7.5 - 15 ips) 1.177.872

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C1	59 31 34 74	0.47µF	20% 63V MPEP	
C2	59 31 62 22	3.2µF	5% 400V PC	
C3	59 31 35 62	5µF	5% 160V PC	
C4	59 31 31 02	1µF	20% 400V PETP	
C5	59 31 44 83	4.7µF	5% 250V MPEP	
C6	59 31 96 82	4.7µF	10% 160V MPEP	
C7	59 30 04 00	10µF	-20% 16V TR	
C8	59 30 66 78	0.27µF	-20% 35V TR	
C9	59 30 61 33	5.1µF	-20% 35V TR	
C10	59 31 69 33	47µF	10% 100V MPEP	
C11	59 31 58 79	4.7µF	-20% 25V SIK	
C12	59 31 03 34	0.33µF	20% 63V MPEP	
C13	59 30 58 70	4.7µF	-10% 25V EL	
C14	59 30 61 08	1µF	-20% 35V TR	
C31	59 31 58 74	0.47µF	20% 63V MPEP	
C32	59 31 62 22	3.2µF	5% 400V PC	
C33	59 31 35 62	5µF	5% 160V PC	
C34	59 31 31 02	1µF	20% 400V PETP	
C35	59 31 44 83	4.7µF	5% 250V MPEP	
C36	59 31 96 82	4.7µF	10% 160V MPEP	
C37	59 30 04 00	10µF	-20% 16V TR	
C38	59 30 66 78	0.27µF	-20% 35V TR	
C39	59 30 61 33	5.1µF	-20% 35V TR	
C40	59 31 69 33	47µF	10% 100V MPEP	
C41	59 31 58 79	4.7µF	-20% 25V SIK	
C42	59 31 03 34	0.33µF	20% 63V MPEP	
C43	59 30 58 70	4.7µF	-10% 25V EL	
C44	59 30 61 08	1µF	-20% 35V TR	
D1	50 04 01 24	1N4004		SI
D2...5	50 04 01 25	1N4004		SI
D7...10	50 04 01 26	1N4004		SI
R1	50 05 02 45	RC 4554	DUAL OP AMP	
R2	50 05 02 45	RC 4554	DUAL OP AMP	
J1	54 01 03 06	8 PDL	AMP CTS	
X1	56 04 04 40	72V	Relais 2-U	
X2	56 04 04 40	72V	Relais 2-U	

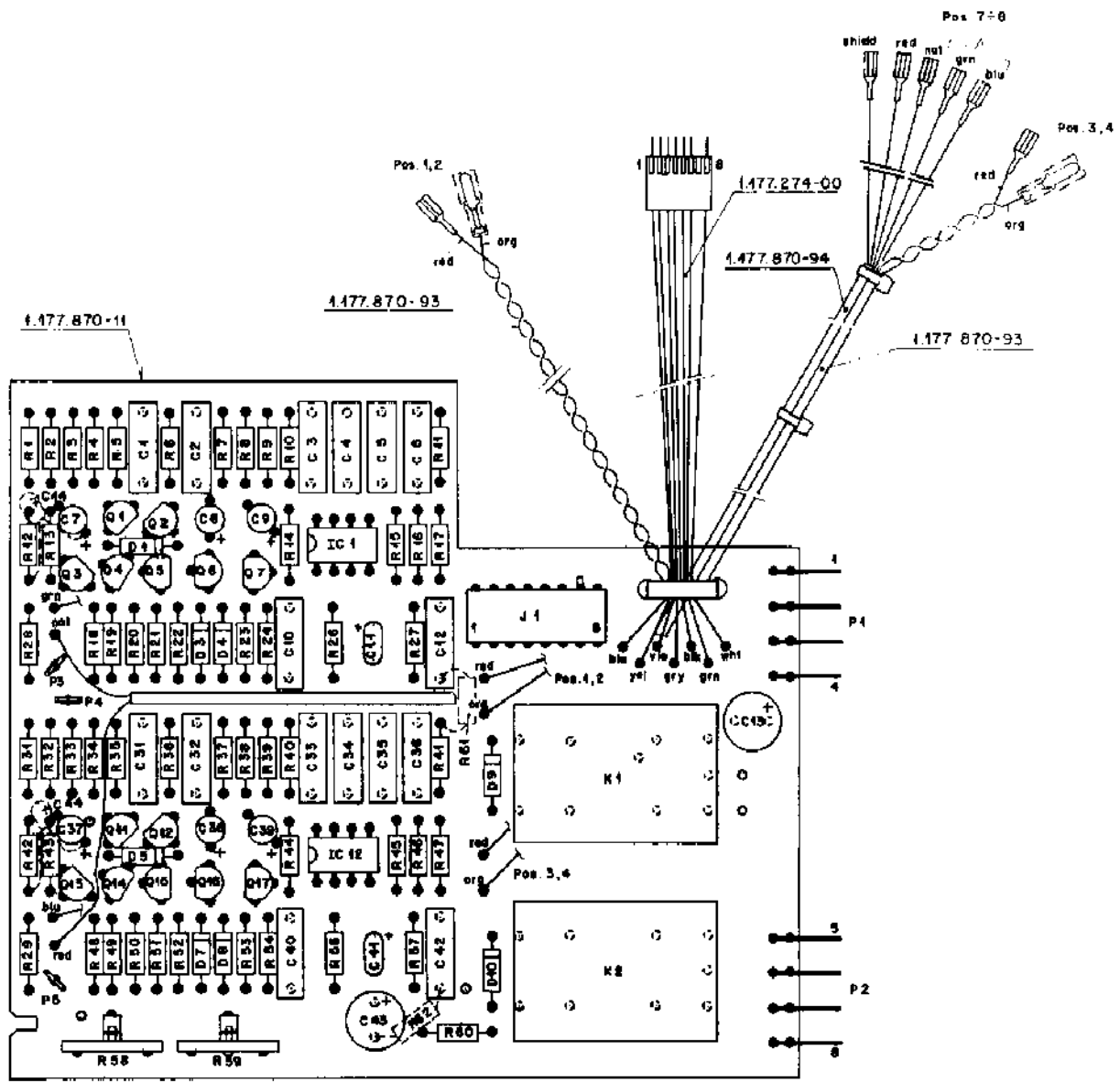
STUDER Sync. Amplifier 1988 COIR A.177.872 PAGE 1 of 3

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R24	57 31 43 33	33K		
R25				
R26	57 31 44 01	100		
R27	57 31 66 74	470K		
R28	57 31 61 04	100		
R29	57 31 61 04	100		
R30				
R31	57 31 44 55	10K		
R32	57 31 44 03	10K		
R33	57 31 66 33	33K		
R34	57 31 66 33	33K		
R35	57 31 44 03	10K		
R36	57 31 44 03	10K		
R37	57 31 44 03	10K		
R38	57 31 44 03	10K		
R39	57 31 44 03	10K		
R40	57 31 44 03	10K		
R41	57 31 44 03	10K		
R42	57 31 44 03	10K		
R43	57 31 44 03	10K		
R44	57 31 44 03	10K		
R45	57 31 44 03	10K		
R46	57 31 44 03	10K		
R47	57 31 44 03	10K		
R48	57 31 44 03	10K		
R49	57 31 44 03	10K		
R50	57 31 44 03	10K		
R51	57 31 44 03	10K		
R52	57 31 44 03	10K		
R53	57 31 44 03	10K		
R54	57 31 44 03	10K		
R55	57 31 44 03	10K		
R56	57 31 44 03	10K		
R57	57 31 44 03	10K		
R58	57 31 44 03	10K		
R59	57 31 44 03	10K		
R60	57 31 44 03	10K		
R61	57 31 44 03	10K		
R62	57 31 44 03	10K		

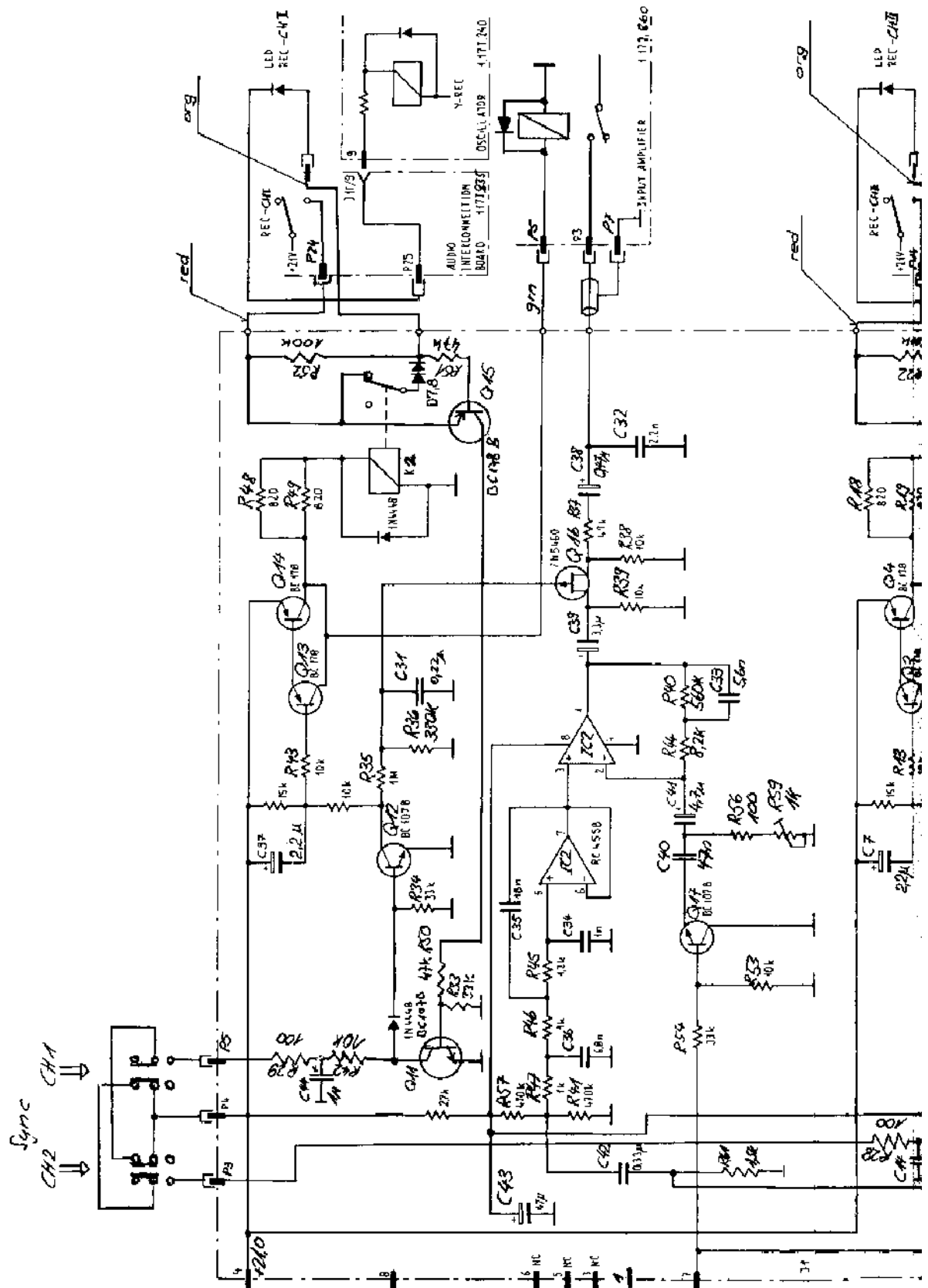
STUDER Sync. Amplifier 1988 COIR A.177.872 PAGE 3 of 3

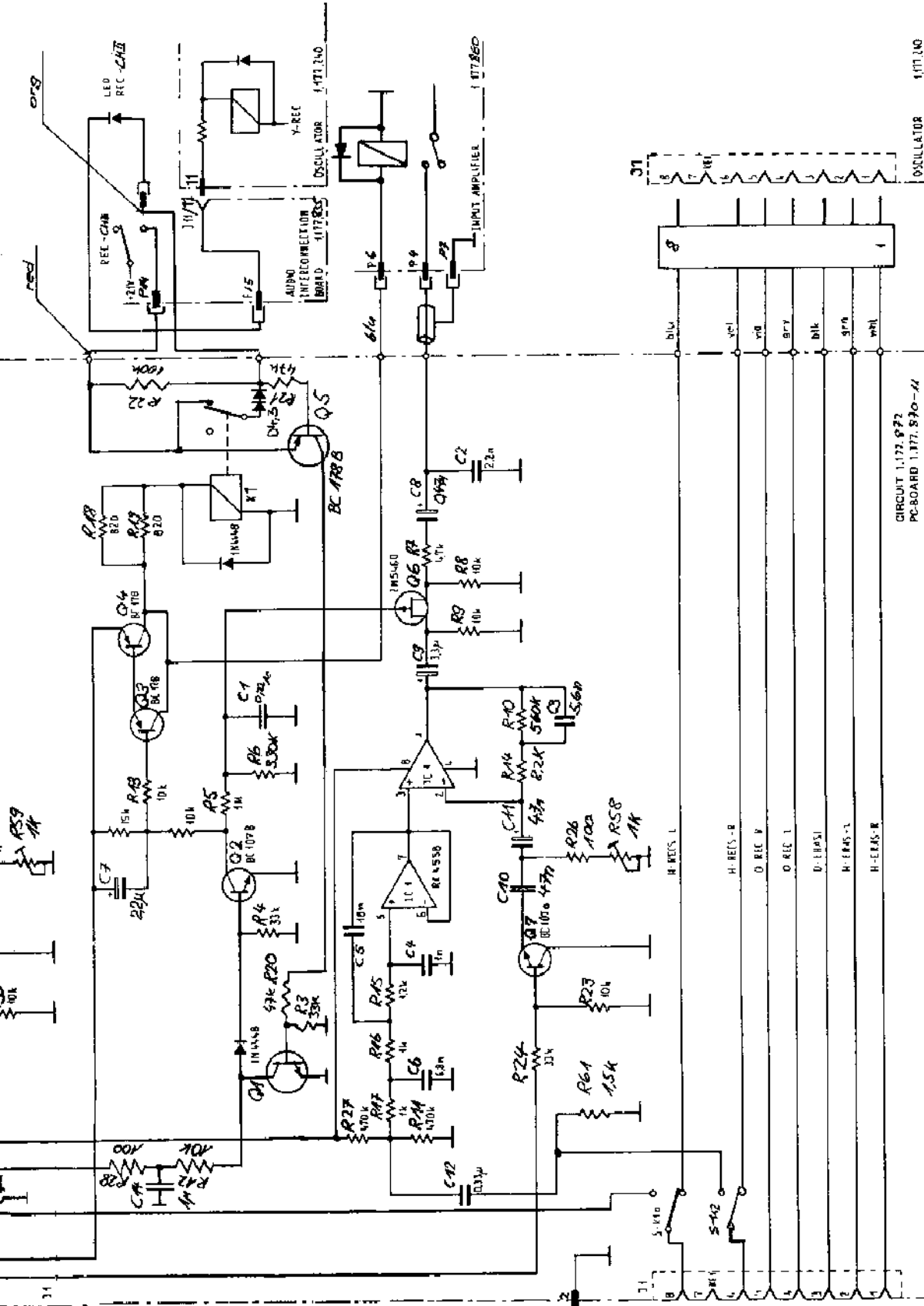
POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R1	59 02 02 20	4 PDL	AMP STRIP	AMP
R2	59 04 08 20	4 PDL	AMP STRIP	AMP
R3...5	59 02 02 20	2.0 X 4P	TRIP PIN	AMP
C1	50 03 04 36	RC 550B	NPN	BC 107B
C2	50 03 04 36	RC 550B	NPN	BC 107B
C3	50 03 05 45	RC 580B	PNP	BC 178B
C4	50 03 05 45	RC 580B	PNP	BC 178B
C5	50 03 05 45	RC 580B	PNP	BC 178B
C6	50 03 03 42	2N 5440	P-CH FET	
C7	50 03 04 36	RC 550B	NPN	BC 107B
C11	50 03 04 36	RC 550B	NPN	BC 107B
C12	50 03 04 36	RC 550B	NPN	BC 107B
C13	50 03 05 45	RC 580B	PNP	BC 178B
C14	50 03 05 45	RC 580B	PNP	BC 178B
C15	50 03 05 45	RC 580B	PNP	BC 178B
C16	50 03 03 42	2N 5440	P-CH FET	
C17	50 03 04 36	RC 550B	NPN	BC 107B
R1	57 31 44 53	15K		
R2	57 31 44 03	10K		
R3	57 31 43 33	33K		
R4	57 31 43 33	33K		
R5	57 31 44 05	10K		
R6	57 31 43 74	330K		
R7	57 31 66 74	4.7K		
R8	57 31 44 03	10K		
R9	57 31 44 03	10K		
R10	57 31 44 03	10K		
R11	57 31 44 03	10K		
R12	57 31 44 03	10K		
R13	57 31 44 03	10K		
R14	57 31 44 03	10K		
R15	57 31 44 03	10K		
R16	57 31 44 03	10K		
R17	57 31 44 03	10K		
R18	57 31 44 03	10K		
R19	57 31 44 03	10K		
R20	57 31 44 03	10K		
R21	57 31 44 03	10K		
R22	57 31 44 03	10K		
R23	57 31 44 03	10K		

STUDER Sync. Amplifier 1988 COIR A.177.872 PAGE 2 of 3



SYNC AMPLIFIER PCB (IEC 7.5 - 15 ips) 1.177.872





CIRCUIT 1.177.572
PC-BOARD 1.177.570-11

RECORD AMPLIFIER PCB (NAB 3.75 - 7.5 ips) 1.177.230

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT	MFR
C 01	59.11.6272	2700P	5% 400V PC		
C 02	59.11.6272	2700P	5% 400V PC		
C 03	59.11.6272	2700P	5% 400V PC		
C 04	59.11.6272	2700P	5% 400V PC		
C 05	59.32.3101	100 U	10% 12 V EL		
C 06	59.32.0220	22 P	20% 500V CER		
C 07	59.31.6104	0.1 U	10% 100V MPPTF		
C 08	59.30.6339	3.3 U	20% 35 V TA		
C 09	59.30.6339	3.3 U	20% 35 V TA		
C 10	59.30.6339	3.3 U	20% 35 V TA		
C 11	59.30.6109	1 U	20% 35 V TA		
C 12	59.30.6339	3.3 U	20% 35 V TA		
C 13	59.99.0257	0.033U	10% 160V PBTTF		
C 14	59.30.1470	47 U	20% 3 V TA		
C 15	59.31.9103	0.01U	10% 100V PBTTF		
C 16	59.11.6471	470 P	5% 400V PC		
C 17	59.11.6332	3300P	5% 400V PC		
C 18	59.32.3101	100 V	10% 12 V EL		
C 19	59.32.0220	22 P	20% 500V CER		
C 20	59.31.6104	0.1 U	10% 100 MPPTF		
C 21	59.30.6339	3.3 U	20% 35 V TA		
C 22	59.30.6109	1 U	20% 35 V TA		
C 23	59.30.6339	3.3 U	20% 35 V TA		
C 24	59.99.0257	0.033U	10% 160V PBTTF		
C 25	59.30.1470	47 U	20% 3 V TA		
C 26	59.31.9103	0.01U	10% 100V PBTTF		
C 27	59.11.6471	470 P	5% 400V PC		
C 28	59.11.6332	3300P	5% 400V PC		
L 01	1.177.231.00				S
L 02	62.02.1222	2.2 KH	5%		
L 03	1.177.231.00				S
L 04	62.02.1222	2.2 KH	5%		
F 01	54.01.0220	9 - Polis	Pin-Strip	AMP	
F 02	54.01.0270	8 - Polis	Pin-Strip	AMP	
Q 01	50.03.0436	BC 109 C		NPN	any
Q 02	50.03.0436	BC 107 B		NPN	any
Q 03	50.03.0436	BC 107 B		NPN	any
Q 04	50.03.0436	BC 107 B		NPN	any
Q 05	50.03.0436	BC 109 C		NPN	any
Q 06	50.03.0436	BC 107 B		NPN	any

PC = Polycarbonate S - Studer
 MPPTF=Metallized Polyester
 PBTTF=Polyester
 CER=Ceramic

IND DATE NAME
 7.4.77 Harburg/g

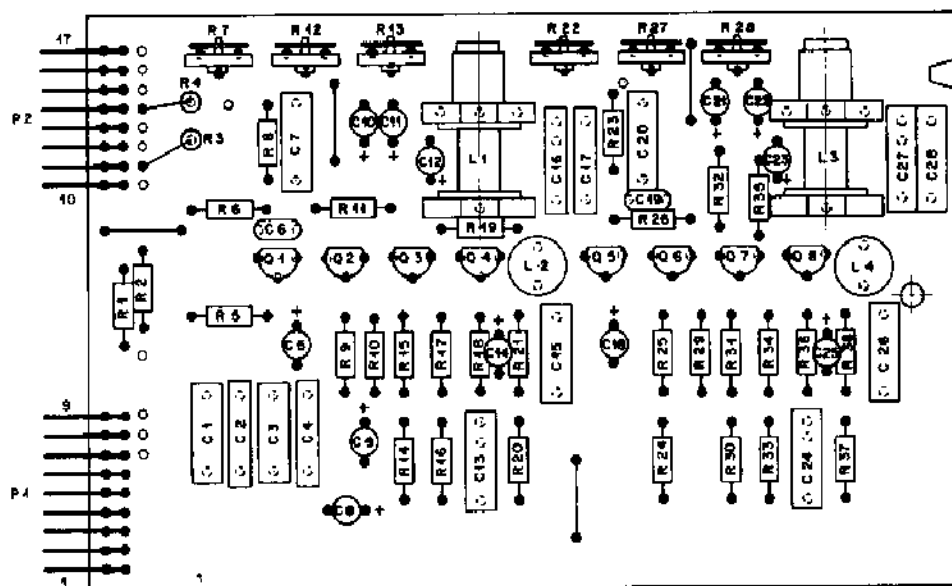
STUDER Record Amplifier 1.177.230 PAGE 1 of 2

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT	MFR
Q 07	50.03.0436	BC 107 B		NPN	any
Q 08	50.03.0436	BC 107 B		NPN	any
R 01	57.11.4102	10 k	5% .25W CF		
R 02	57.11.4103	10 k	5% .25W CF		
R 03	57.11.4123	12 k	5% .12W CF		
R 04	57.11.4123	12 k	5% .12W CF		
R 05	57.41.4821	820	5% .25W CF		
R 06	57.41.4332	3.3 k	5% .25W CF		
R 07	58.02.4223	22 k	10% .1 W CF		
R 08	57.41.4563	56 k	5% .25W CF		
R 09	57.41.4104	100 k			
R 10	57.41.4154	150 k			
R 11	57.41.4563	56 k			
R 12	58.02.4223	22 k	10% .1 W CF		
R 13	58.02.4223	22 k	10% .1 W CF		
R 14	57.41.4472	4.7 k	5% .25W CF		
R 15	57.41.4682	6.8 k			
R 16	57.41.4681	680			
R 17	57.41.4224	220 k			
R 18	57.41.4221	220			
R 19	57.41.4102	10 k			
R 20	57.41.4324	220 k			
R 21	57.41.4104	100 k			
R 22	58.02.4223	22 k	10% .1 W CF		
R 23	57.41.4563	56 k	5% .25W CF		
R 24	57.41.4821	820			
R 25	57.41.4104	100 k			
R 26	57.41.4332	3.3 k			
R 27	58.02.4223	22 k	10% .1 W CF		
R 28	58.02.4223	22 k	10% .1 W CF		
R 29	57.41.4154	150 k	5% .25W CF		
R 30	57.41.4472	4.7 k			
R 31	57.41.4682	6.8 k			
R 32	57.41.4563	56 k			
R 33	57.41.4581	580			
R 34	57.41.4224	220 k			
R 35	57.41.4102	10 k			
R 36	57.41.4221	220			
R 37	57.41.4224	220 k			
R 38	57.41.4104	100 k			

CF=Carbon Film

IND DATE NAME
 7.4.77 Harburg/g

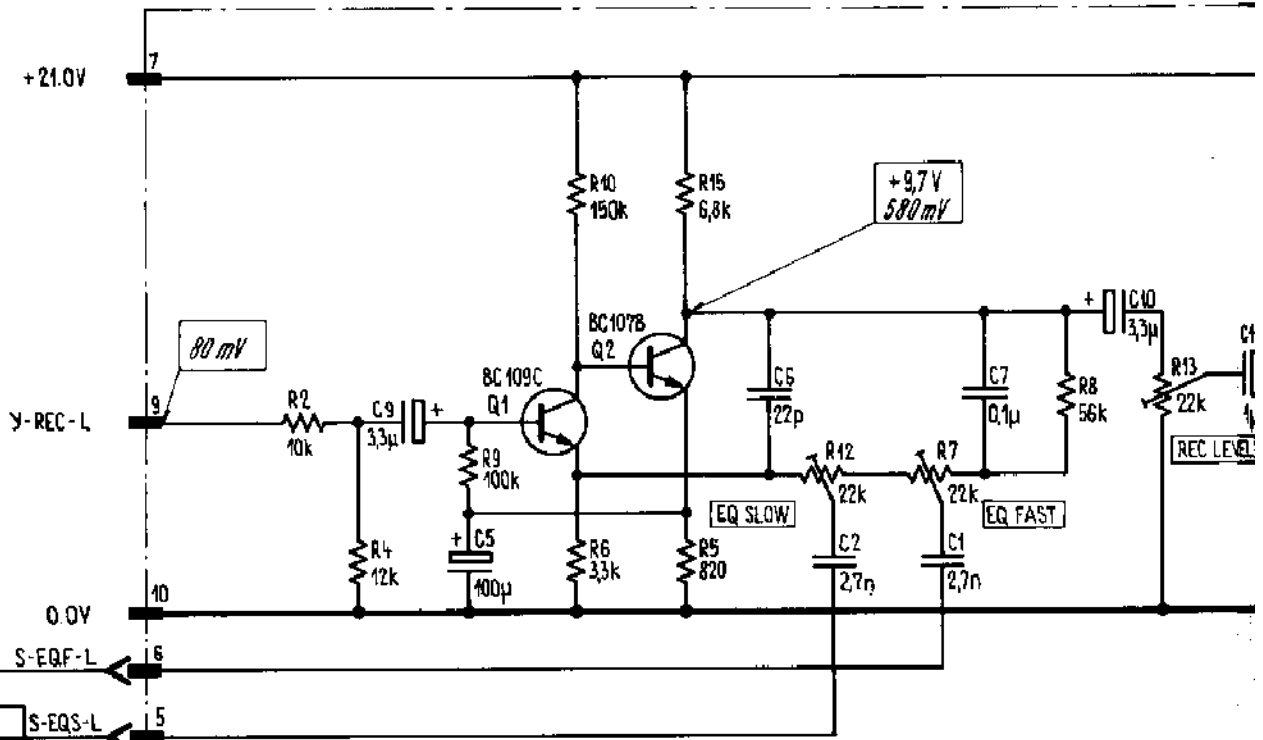
STUDER Record Amplifier 1.177.230 PAGE 2 of 2



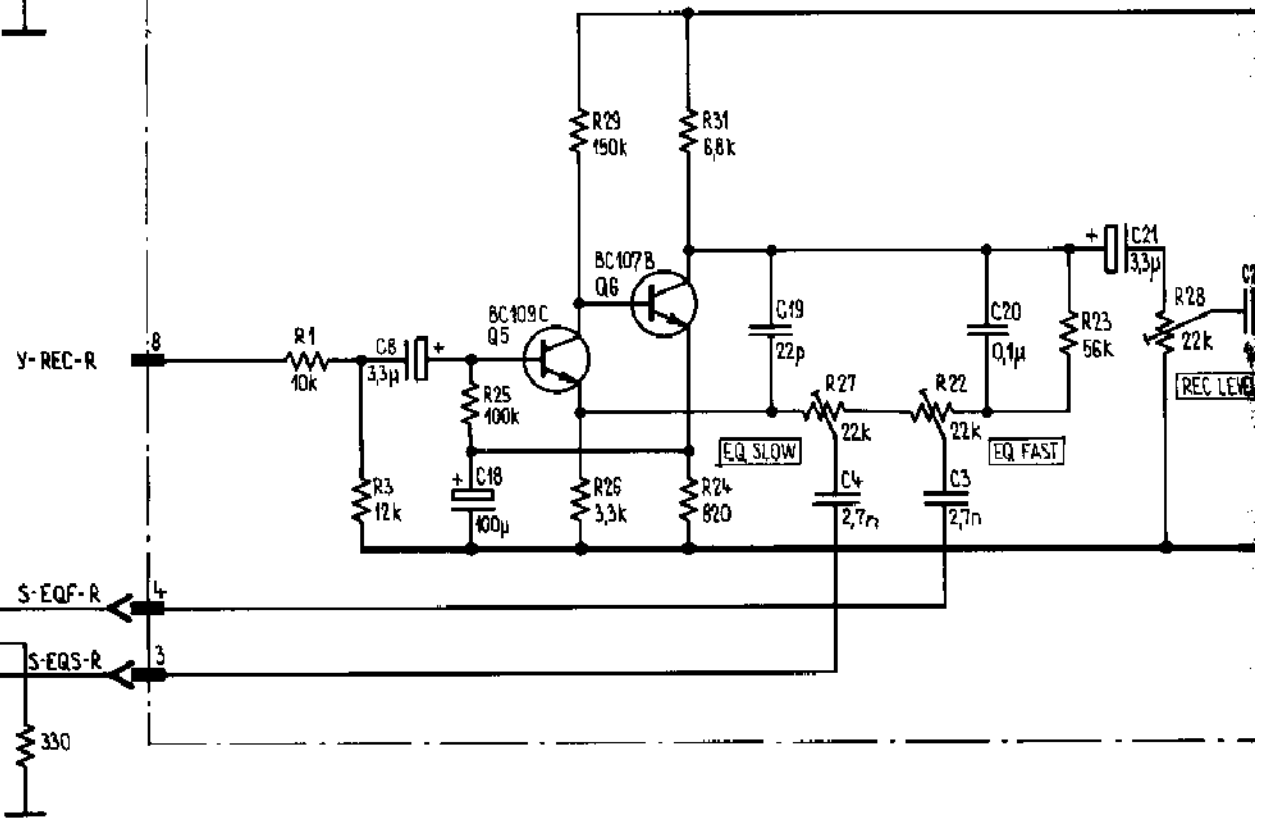
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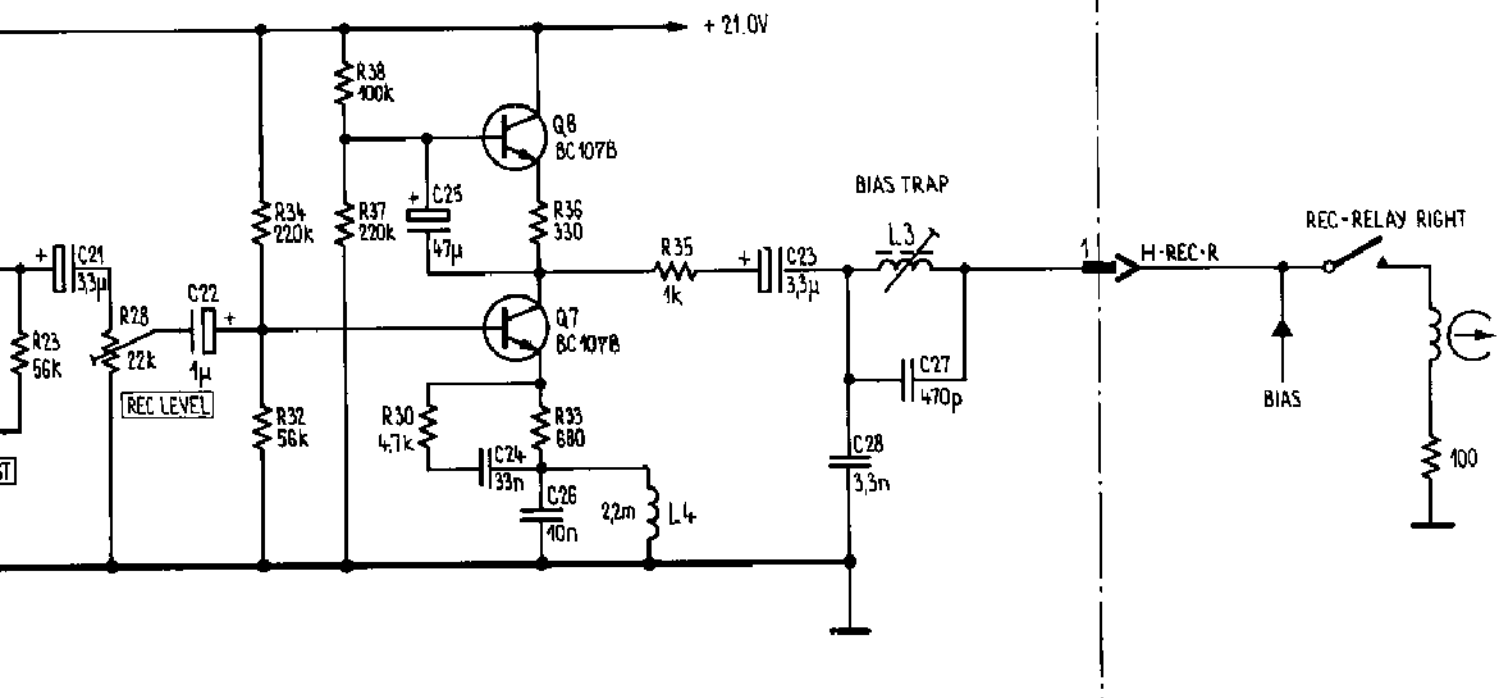
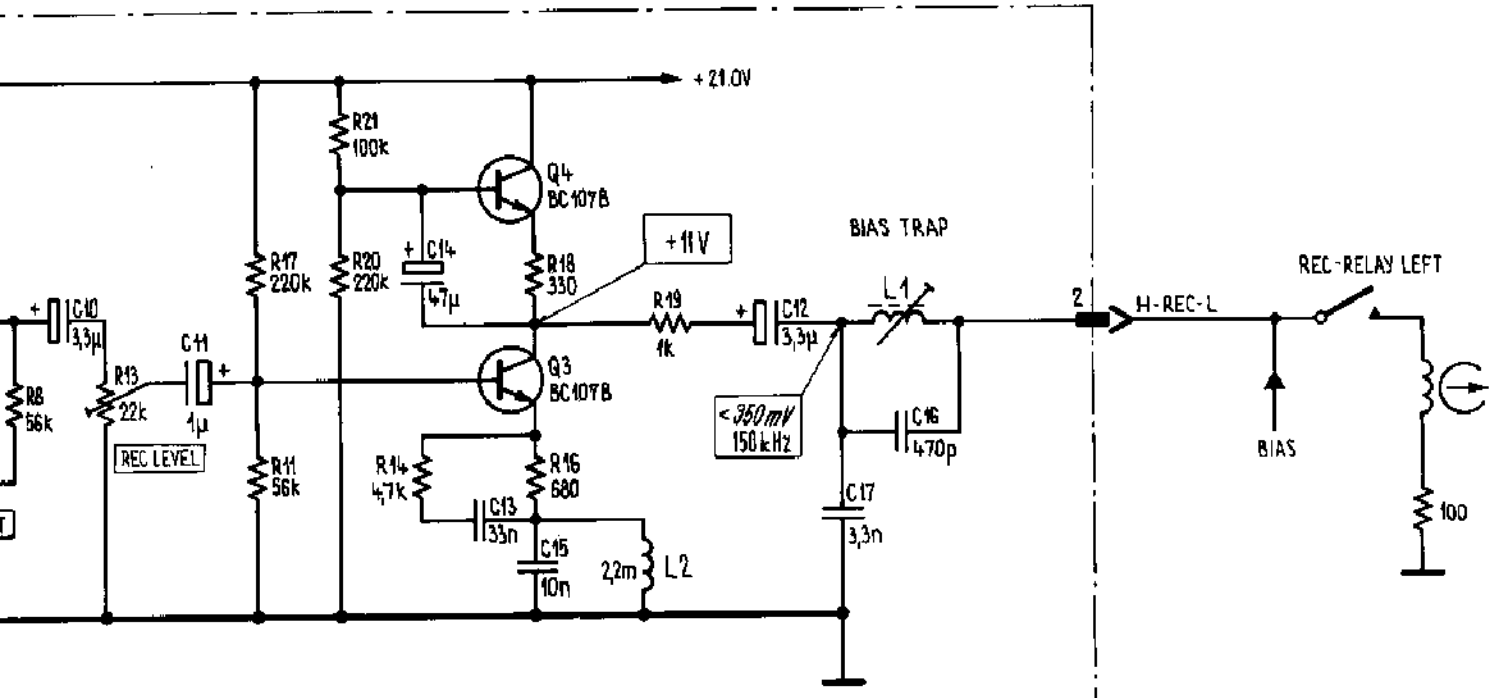
RECORD AMPLIFIER PCB (NAB 3.75 - 7.5 ips) 1.177.230

LEFT



RIGHT

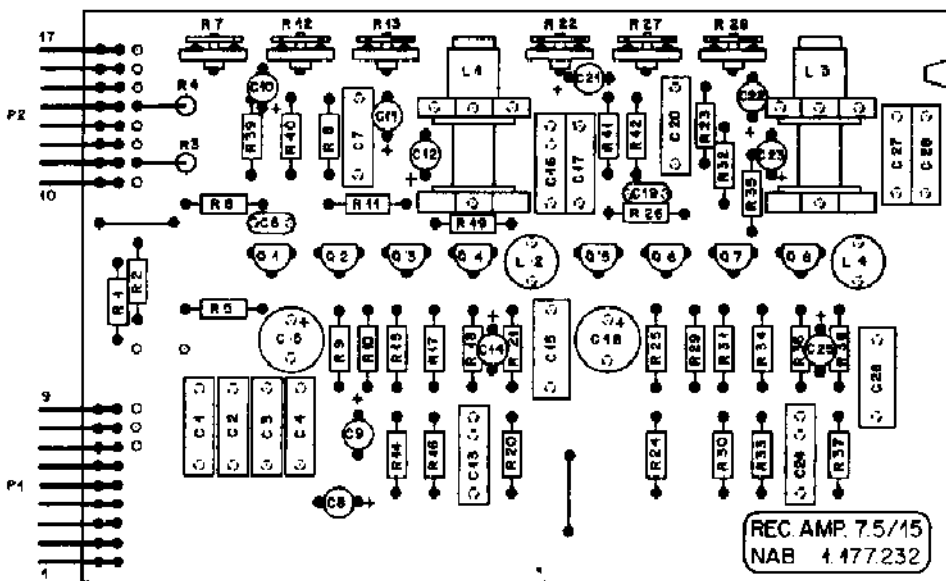




RECORD AMPLIFIER PCB (NAB 7.5 - 16 ips) 1.177.232

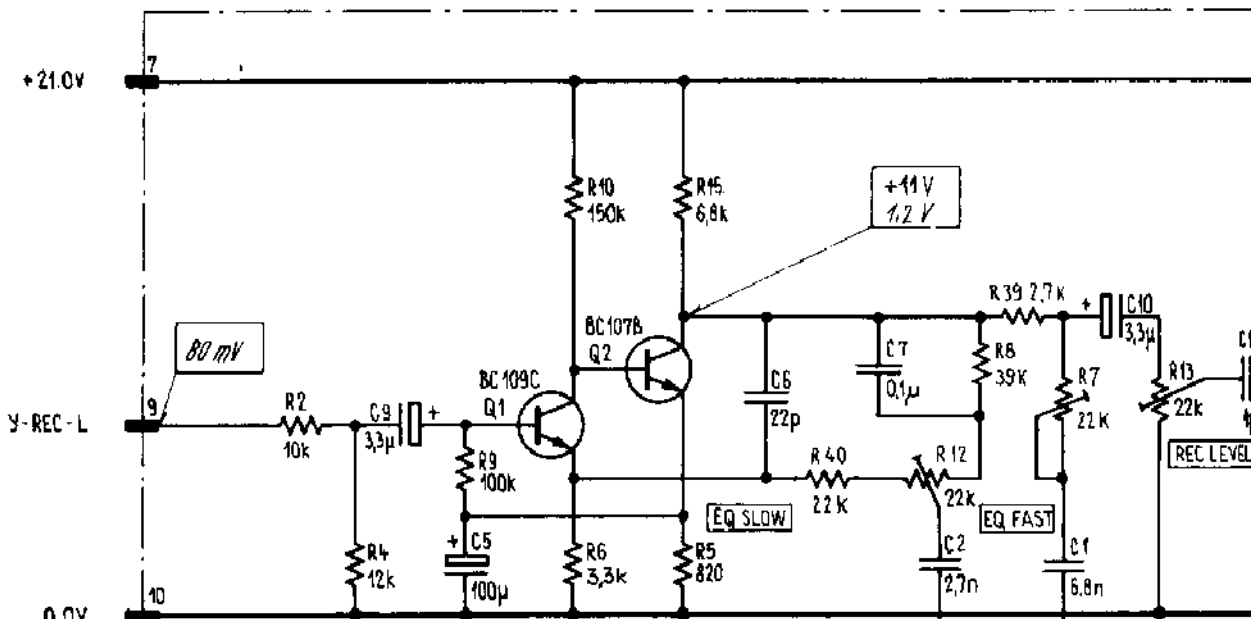
POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT	MFR
C 01	59.11.3882	6800P	5% 400V	PC	
C 02	59.11.6272	2700P	5% 400V	PC	
C 03	59.11.3882	6800P	5% 400V	PC	
C 04	59.11.6272	2700P	5% 400V	PC	
C 05	59.22.3101	100 U	10% 12 V	EL	
C 06	59.32.0220	22 P	20% 500V	CR	
C 07	59.31.6104	0.1 U	10% 100V	MFSTP	
C 08	59.30.6333	3.3 U	20% 35 V	TA	
C 09	59.30.6333	3.3 U	20% 35 V	TA	
C 10	59.30.6333	3.3 U	20% 35 V	TA	
C 11	59.30.6109	1 U	20% 35 V	TA	
C 12	59.30.6333	3.3 U	20% 35 V	TA	
C 13	59.11.3882	6800P	5% 400V	PC	
C 14	59.30.1470	47 U	20% 3 V	TA	
C 15	59.11.2103	0.01U	10% 100V	BFTF	
C 16	59.11.6471	470 P	5% 400V	PC	
C 17	59.11.6332	3300P	5% 400V	PC	
C 18	59.22.3101	100 U	10% 12 V	EL	
C 19	59.32.0220	22 P	20% 500V	CR	
C 20	59.31.6104	0.1 u	10% 100	MFSTP	
C 21	59.30.6333	3.3 U	20% 35 V	TA	
C 22	59.30.6109	1 U	20% 35 V	TA	
C 23	59.30.6333	3.3 U	20% 35 V	TA	
C 24	59.11.3882	6800P	5% 400V	PC	
C 25	59.30.1470	47 U	20% 3 V	TA	
C 26	59.11.9103	0.01U	10% 100V	BFTF	
C 27	59.11.6471	470 P	5% 400V	PC	
C 28	59.11.6332	3300P	5% 400V	PC	
L 01	1.177.231.00				S
L 02	62.02.1222	2.2 mH	5%		S
L 03	1.177.231.00				S
L 04	62.02.1222	2.2 mH	5%		S
F 01	54.01.0220	9 - Pole	Pin-Strip	AMP	
F 02	54.01.0220	8 - Pole	Pin-Strip	AMP	
Q 01	50.03.0438	BC 107 C		MPN	any
Q 02	50.03.0438	BC 107 A		MPN	any
Q 03	50.03.0438	BC 107 B		MPN	any
Q 04	50.03.0438	BC 107 B		MPN	any
Q 05	50.03.0438	BC 107 C		MPN	any
Q 06	50.03.0438	BC 107 B		MPN	any
PC = Polycarbonate A = Studer					
MDF = Metallized Polyimide					
PTH = Polyimide					
CR = Ceramic					
IND DATE NAME					
C 19.4.78 Fol./gv					
STUDER Record Amplifier NAB 7/2-15 1.177.232-00 PAGE 1 of 2					

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT	MFR
Q 07	50.03.0438	BC 107 B		MPN	any
Q 08	50.03.0438	BC 107 B		MPN	any
R 01	57.11.4103	10 k	5% .25W	CF	
R 02	57.11.4103	10 k	5% .25W	CF	
R 03	57.11.4123	12 k	5% .12W	CF	
R 04	57.11.4123	12 k	5% .12W	CF	
R 05	57.41.4021	820	5% .35W	CF	
R 06	57.41.4332	3.3 k	5% .25W	CF	
R 07	58.02.4223	22 k	10% .1 W	FCF	
R 08	57.41.4333	3.3 k	5% .25W	CF	
R 09	57.41.4104	100 k			
R 10	57.41.4154	150 k			
R 11	57.41.4563	56 k			
R 12	58.02.4223	22 k	10% .1 W	FCF	
R 13	58.02.4223	22 k	10% .1 W	FCF	
R 14	57.41.4102	1 k	5% .25W	CF	
R 15	57.41.4682	5.6 k			
R 16	57.41.4661	660			
R 17	57.41.4224	220 k			
R 18	57.41.4321	330			
R 19	57.41.4102	1 k			
R 20	57.41.4224	220 k			
R 21	57.41.4104	100 k			
R 22	58.02.4223	22 k	10% .1 W	FCF	
R 23	57.41.4193	39 k	5% .25W	CF	
R 24	57.41.4021	820			
R 25	57.41.4104	100 k			
R 26	57.41.4332	3.3 k			
R 27	58.02.4223	22 k	10% .1 W	CF	
R 28	58.02.4223	22 k	10% .1 W	CF	
R 29	57.41.4154	150 k	5% .25W	CF	
R 30	57.41.4102	1 k			
R 31	57.41.4682	6.8 k			
R 32	57.41.4563	56 k			
R 33	57.41.4681	680			
R 34	57.41.4224	220 k			
R 35	57.41.4102	1 k			
R 36	57.41.4331	330			
R 37	57.41.4224	220 k			
R 38	57.41.4104	100 k			
R 39	57.41.4222	2.7 k			
R 40	57.41.4223	22 k			
R 41	57.41.4272	2.7 k			
R 42	57.41.4225	22 k			
G = Carbon Film					
IND DATE NAME					
C 19.4.78 Fol./gv					
STUDER Record Amplifier NAB 7/2-15 1.177.232-00 PAGE 2 of 2					

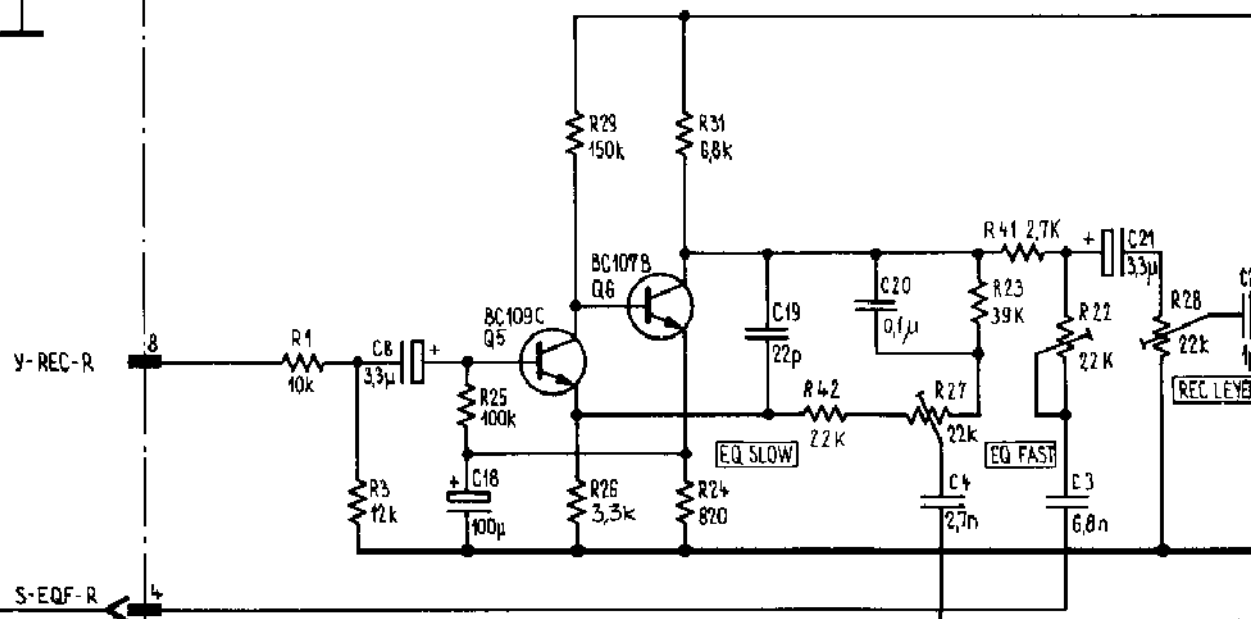


RECORD AMPLIFIER PCB (NAB 7.5 - 15 ips) 1.177.232

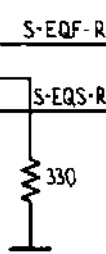
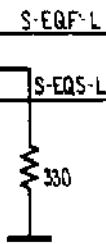
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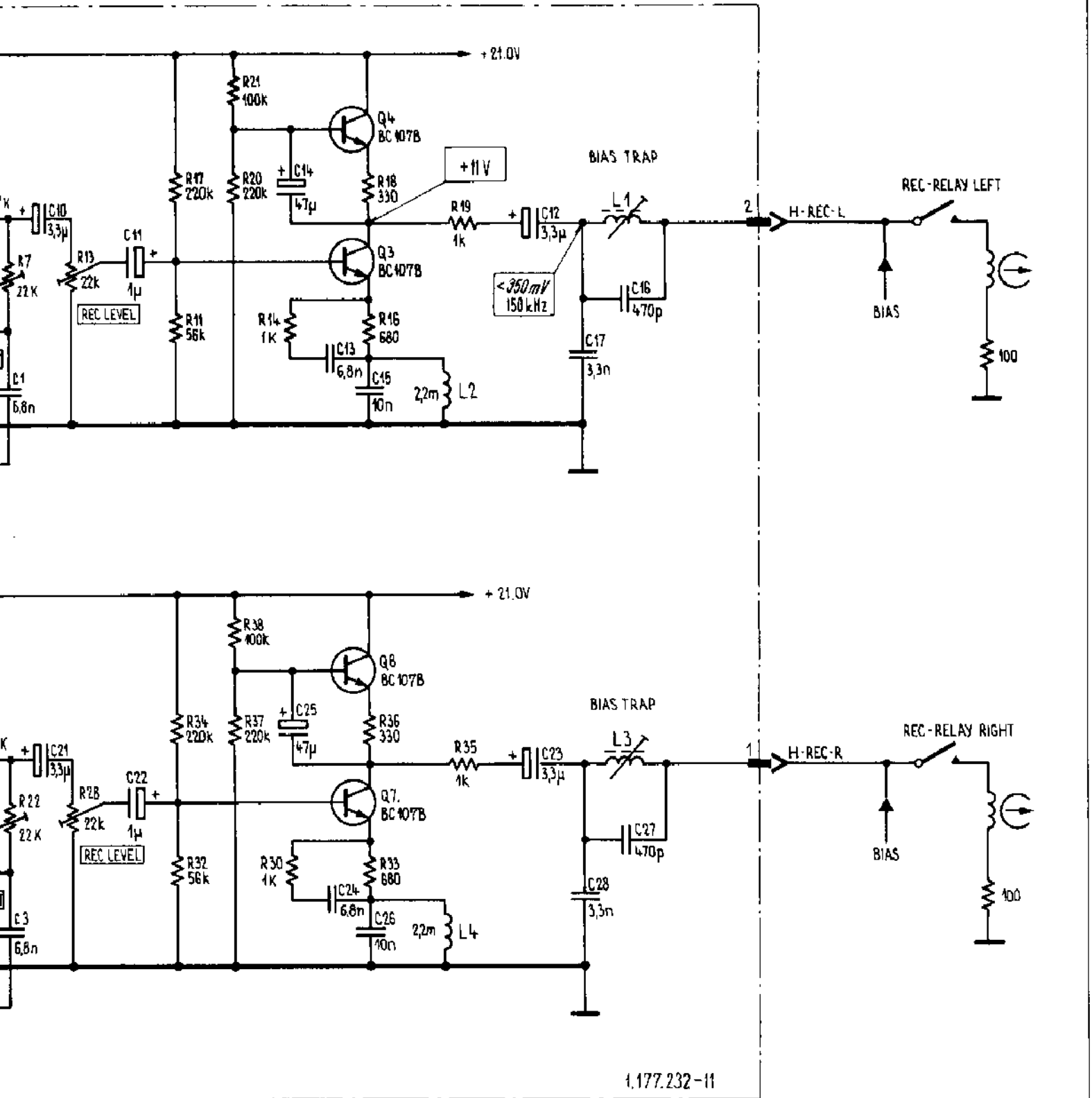


RIGHT



FAST
SLOW





RECORD AMPLIFIER PCB (IEC 7.5 - 15 ips) 1.177.233

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C 01	59.11.6272	2700P	5% 400V	PC
C 02	59.11.6272	2700P		
C 03	59.11.6272	2700P		
C 04	59.11.6272	2700P		
C 05	59.22.3101	100 U	10% 12V	BL
C 06	59.32.0220	22 P	20% 500V	CBR
C 07				
C 08	59.30.6339	3.3 V	20% 35V	TA
C 09	59.30.6339	3.3 U		
C 10	59.30.6339	3.3 U		
C 11	59.30.6109	1 U		
C 12	59.30.6339	3.3 V		
C 13				
C 14	59.30.1470	47 U	20% 3V	TA
C 15	59.31.9103	0.01U	10% 100V	PETP
C 16	59.11.6471	470 F	5% 400V	PC
C 17	59.11.6332	3300P	5% 400V	PC
C 18	59.22.3101	100 U	10% 12V	BL
C 19	59.32.0220	22 P	20% 500V	CBR
C 20				
C 21	59.30.6339	3.3 U	20% 35V	TA
C 22	59.30.6109	1 U		
C 23	59.30.6339	3.3 U		
C 24				
C 25	59.30.1470	47 U	20% 3V	TA
C 16	59.31.9103	0.01U	10% 100V	PETP
C 27	59.11.6471	470 F	5% 400V	PC
C 28	59.11.6332	3300P	5% 400V	PC
L 01	1.177.231.00			S
L 02	62.02.1222	2.2 mH	5%	S
L 03	1.177.231.00			S
L 04	62.02.1222	2.2 mH	5%	
P 01	54.01.0230	9-Pole	Pin-Strip	AMP
P 02	54.01.0270	9-Pole	Pin-Strip	AMP
Q 01	50.03.0436	BC 109 C		NPN any
Q 02	50.03.0436	BC 107 B		NPN any
Q 03	50.03.0436	BC 107 B		NPN any
Q 04	50.03.0436	BC 107 B		NPN any
Q 05	50.03.0439	BC 109 C		NPN any
Q 06	50.03.0436	BC 107 B		NPN any
Q 07	50.03.0436	BC 107 B		NPN any
Q 08	50.03.0436	BC 107 B		NPN any

PC = Polycarbonate S = STUDER
 PETP = Polyester
 CBR = Ceramic

IND	DATE	NAME
	19.4.78	Fol./gw

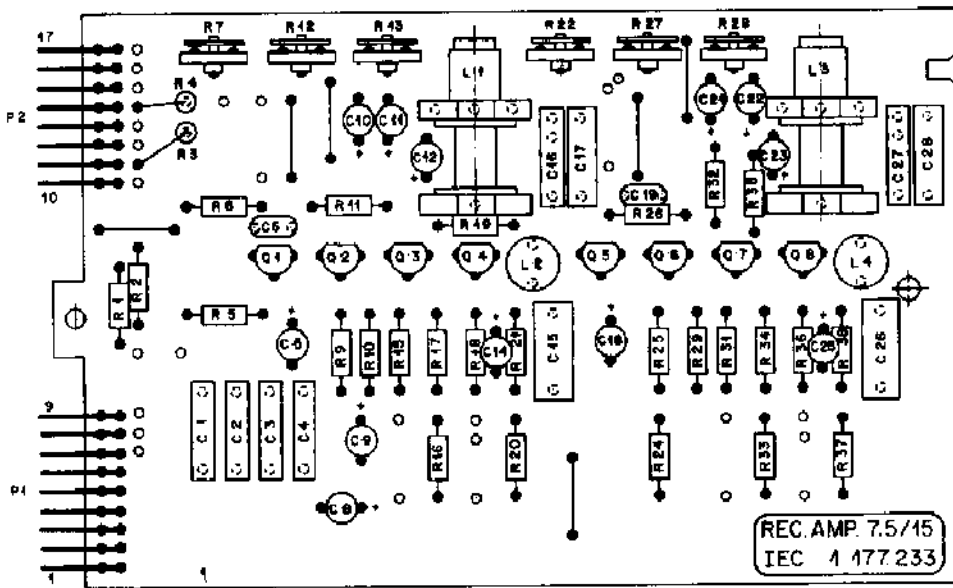
STUDER Record Amplifier CCIR 7/2-15 1.177.233-00 PAGE 2 of 2

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R 01	57.11.4103	10 k	5% .25W	CF
R 02	57.11.4103	10 k	.12W	
R 03	57.11.4123	12 k		
R 04	57.11.4123	12 k		
R 05	57.41.4821	820	5% .25W	CF
R 06	57.41.4152	1.5 k		
R 07	58.02.4223	22 k	10% .1 W	CF
R 08				
R 09	57.41.4104	100 k	5% .25W	CF
R 10	57.41.4154	150 k		
R 11	57.41.4563	56 k		
R 12	58.02.4223	22 k	10% .1 W	CF
R 13	58.02.4223	22 k		
R 14				
R 15	57.41.4682	6.8 k	5% .25W	CF
R 16	57.41.4681	680		
R 17	57.41.4224	220 k		
R 18	57.41.4331	330		
R 19	57.41.4102	1 k		
R 20	57.41.4224	220 k		
R 21	57.41.4104	100 k		
R 22	58.02.4223	22 k	10% .1 W	CF
R 23				
R 24	57.41.4821	820	5% .25W	CF
R 25	57.41.4104	100 k		
R 26	57.41.4152	1.5 k		
R 27	58.02.4223	22 k	10% .1 W	CF
R 28	58.02.4223	22 k		
R 29	57.41.4154	150 k	5% .25W	CF
R 30				
R 31	57.41.4682	6.8 k		
R 32	57.41.4563	56 k		
R 33	57.41.4681	680		
R 34	57.41.4224	220 k		
R 35	57.41.4102	1 k		
R 36	57.41.4331	330		
R 37	57.41.4224	220 k		
R 38	57.41.4104	100 k		

CF = Carbon Film

IND	DATE	NAME
	19.4.78	Fol./gw

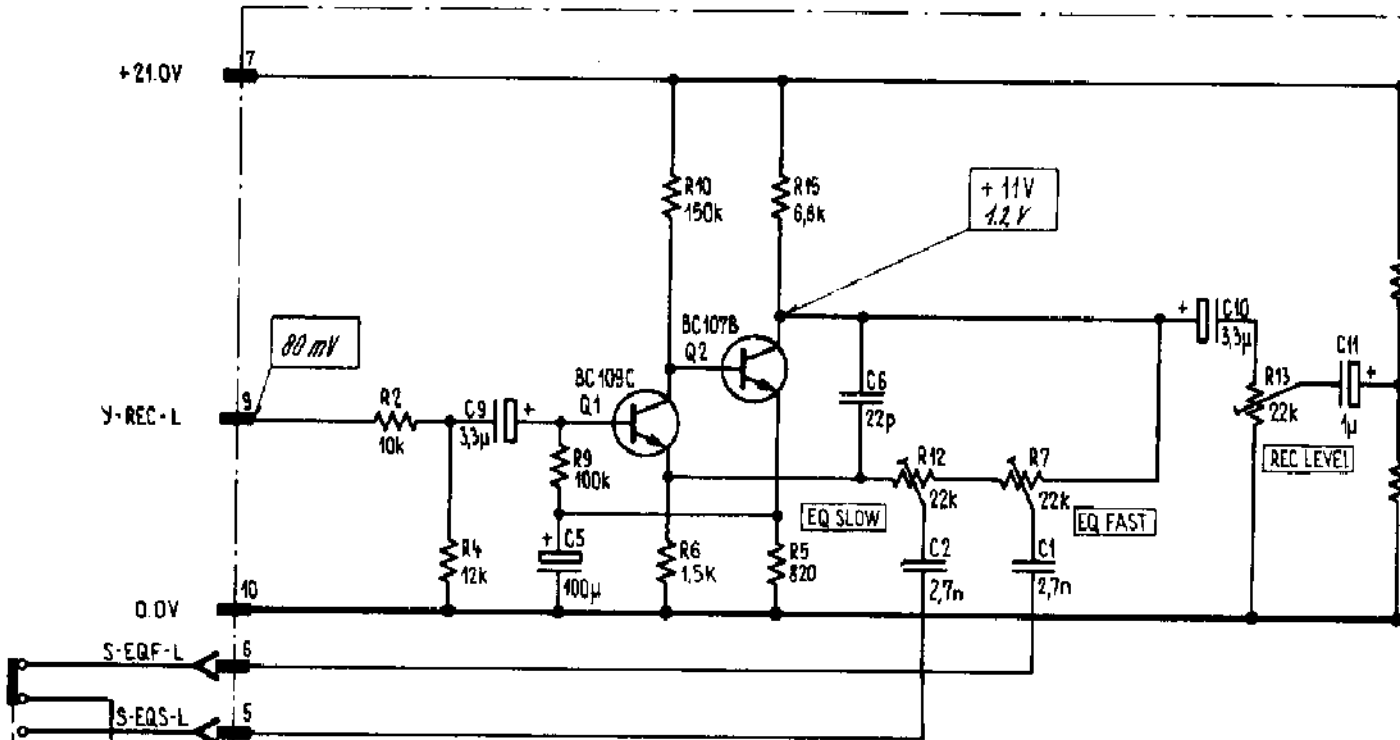
STUDER Record Amplifier CCIR 7/2-15 1.177.233-00 PAGE 2 of 2



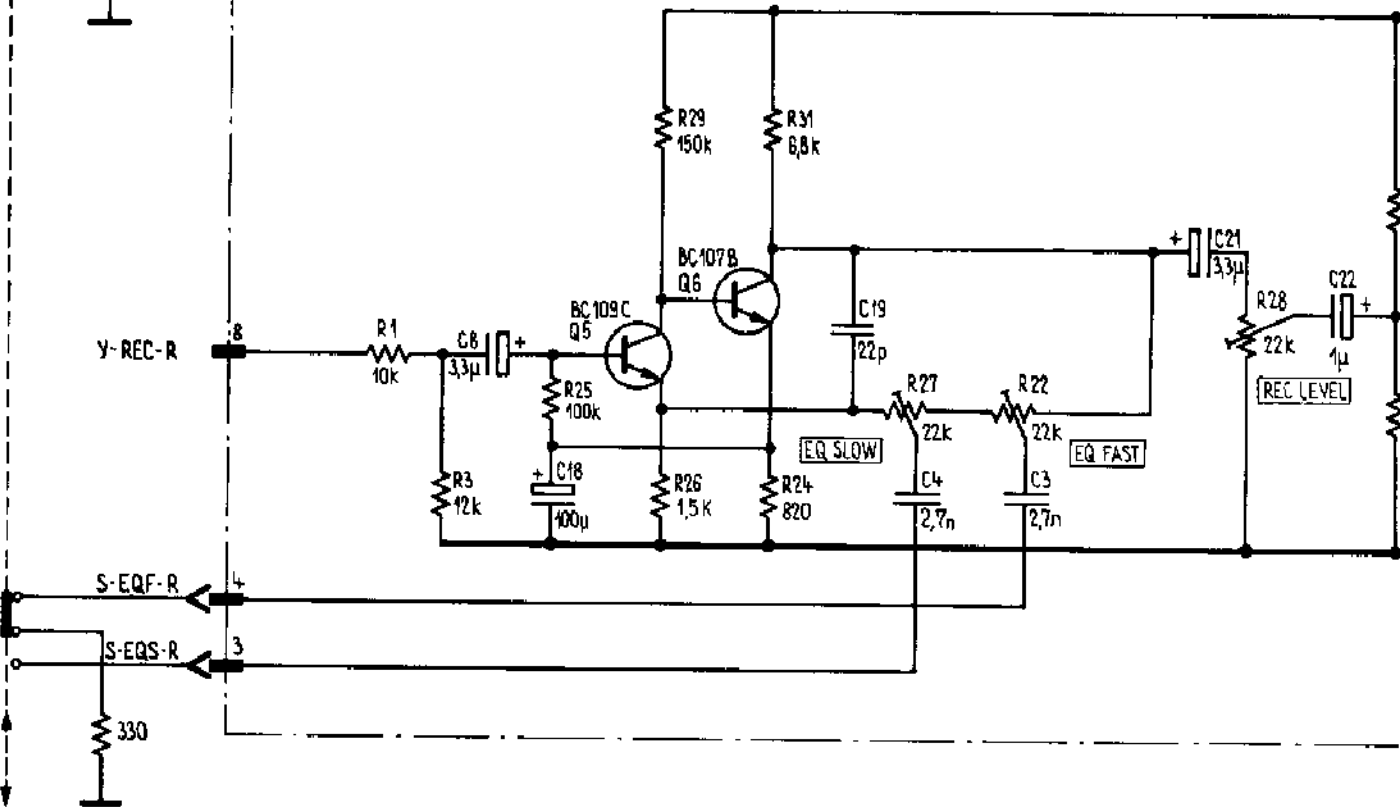
4.477. 230 - 41

RECORD AMPLIFIER PCB (IEC 7.5 - 15 ips) 1.177.233

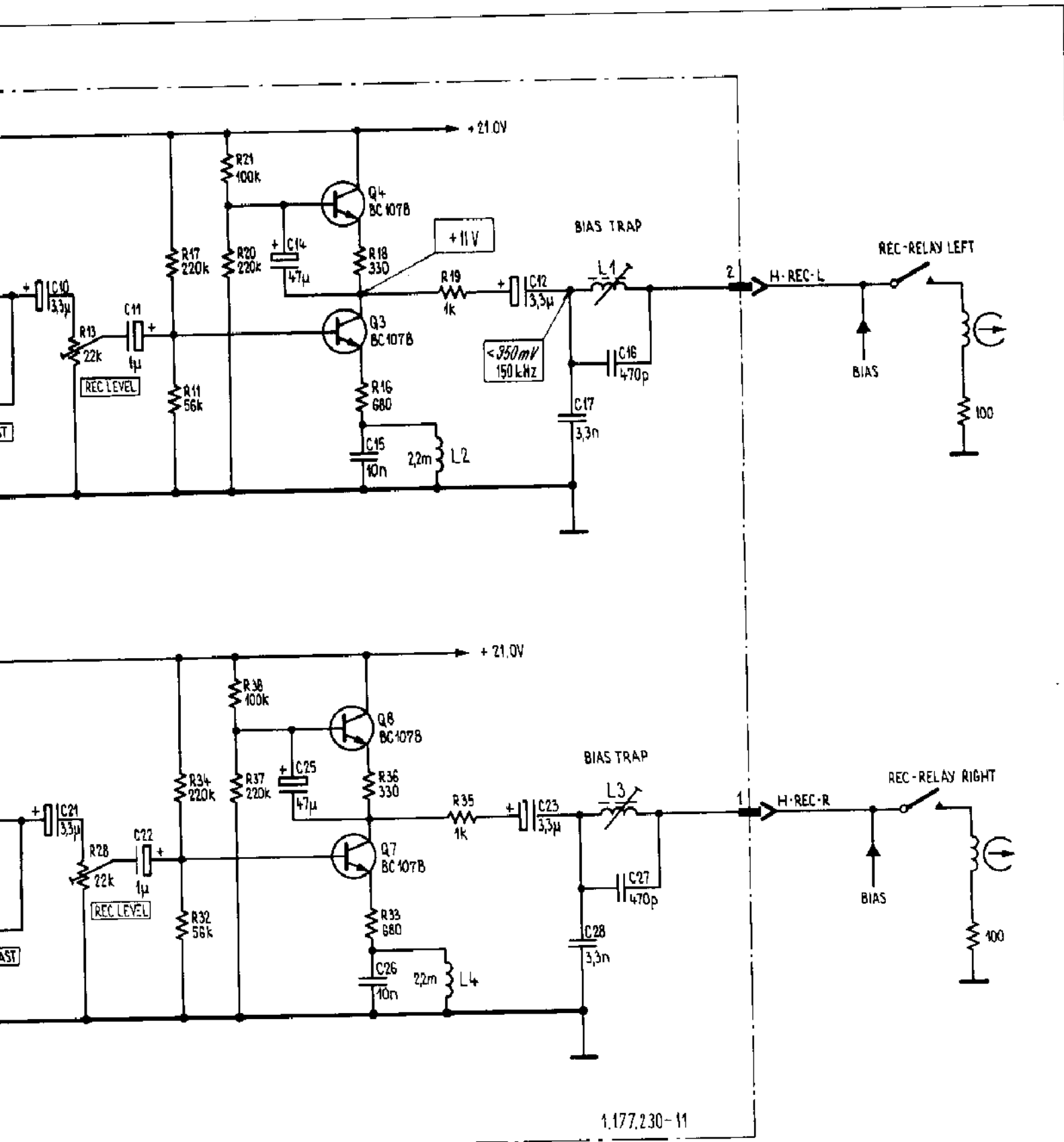
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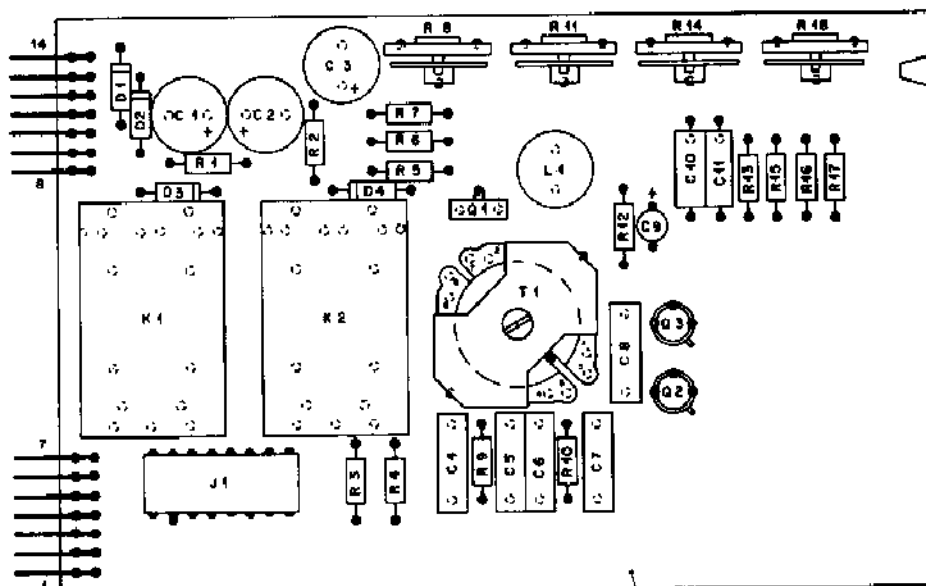


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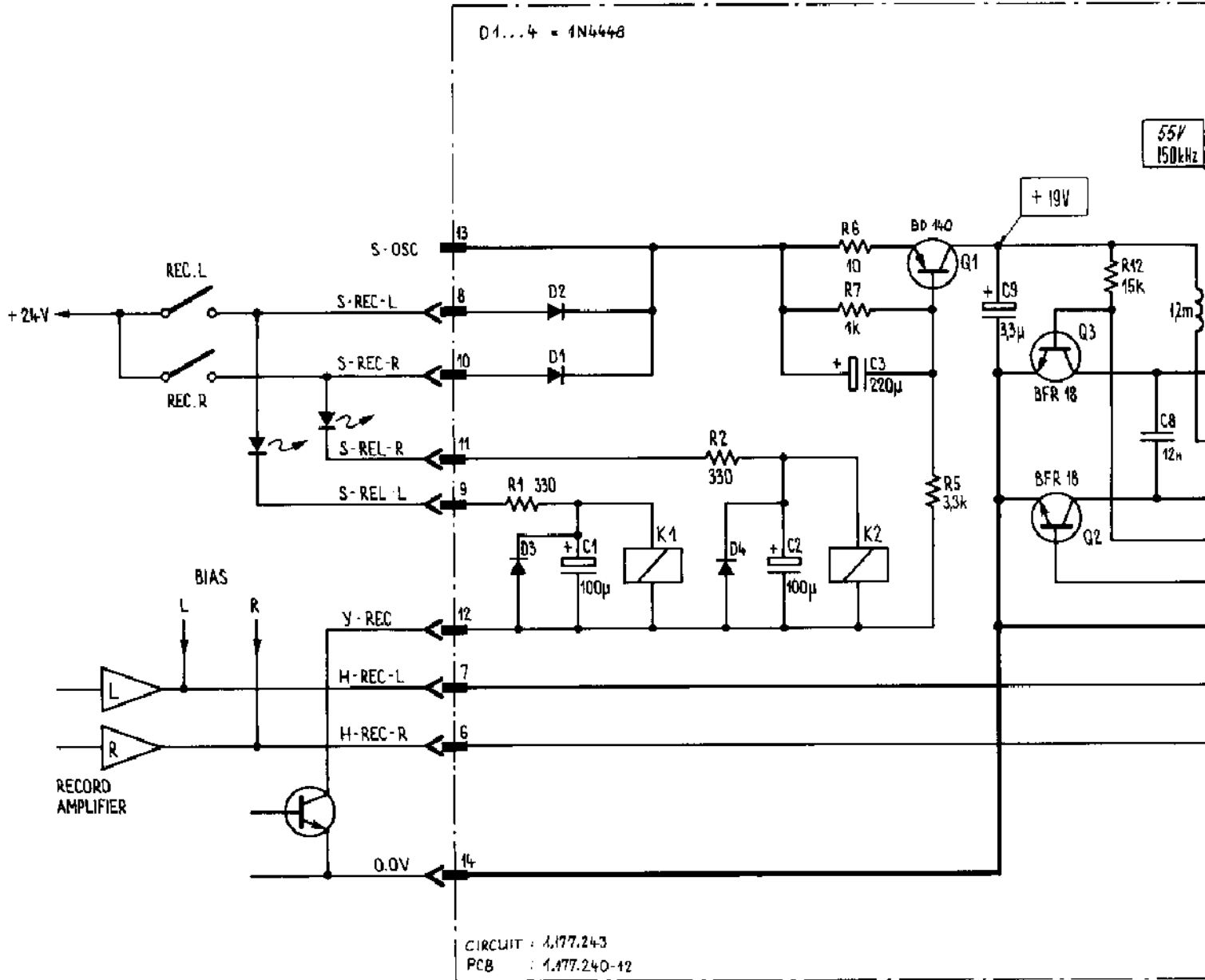
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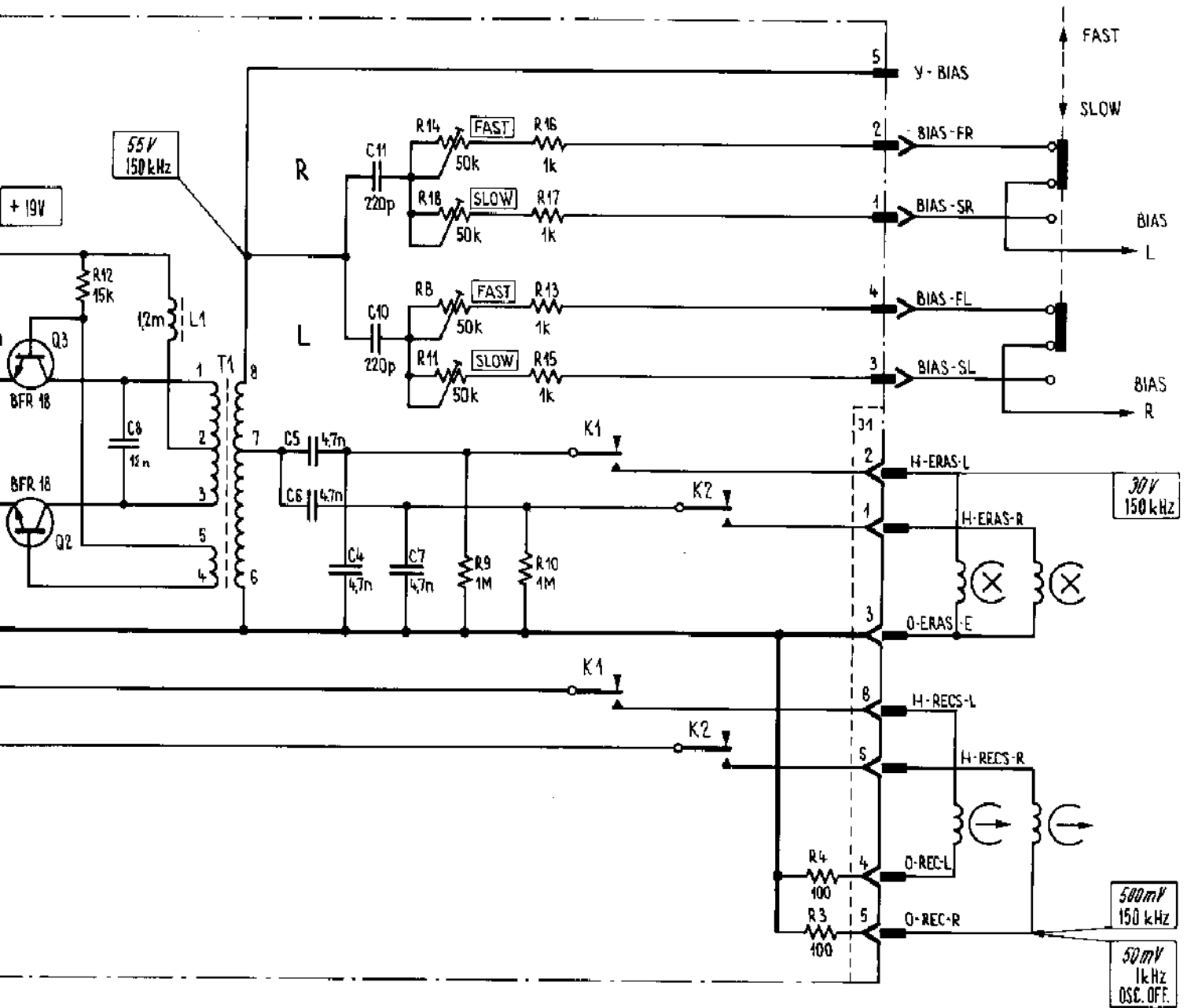




1177 240-12

OSCILLATOR 1.177.243





REPRODUCE AMPLIFIER PCB (NAB 3.75 - 7.5 ips) 1.177.250

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C 01	59.25.0162	1600U	10K 3 V EL	
C 02	59.30.8339	3.3 U	20K 35 V TA	
C 03	59.22.6220	22 U	10K 40 V EL	
C 04	59.11.6221	220 P	5K 400V PC	
C 05	59.25.0162	1600 U	10K 3V EL	
C 06	59.32.0101	100 P	20K 500V CER	
C 07	59.24.8320	22 U	10K 40 V EL	
C 08	59.32.0101	100 P	20K 50 V CER	
C 09	59.30.8339	3.3 U	20K 35 V TA	
C 10	59.99.0259	2700 P	10K 50 V PTFE	
C 11	59.30.4339	3.3 U	20K 35 V TA	
C 12	59.11.3103	0.01U	5K 160V DC	
C 13	59.30.1101	100 U	20K 3 V TA	
C 14	59.11.8561	560 P	5K 400V PC	
C 15	59.32.0101	100 P	20K 500V CER	
C 16	59.30.8339	3.3 U	20K 35V TA	
C 17	59.11.6221	220 P	5K 400V PC	
C 18	59.32.0101	100 P	20K 500V CER	
C 19	59.30.8339	3.3 U	20K 35 V TA	
C 20	59.99.0259	2700P	10K 400V PTFE	
C 21	59.25.4101	100 U	10K 25 V EL	
C 22	59.30.1101	100 U	20K 3 V TA	
C 23	59.30.8339	3.3 U	20K 35 V TA	
C 24	59.11.8561	560 P	5K 400V PC	
C 25	59.11.3101	0.01U	5K 160V DC	
L 01	62.02.1222	2.2 mH	5K	
L 02	62.02.1222	2.2 mH	5K	
P 01	54.01.0270	8 - Pole	Pin-Strip AMP	
P 02	54.01.0271	10 - Pole	Pin-Strip AMP	
Q 01	50.03.0439	BC 109 C	NPN	any
Q 02	50.03.0407	BC 109 C	NPN	
Q 03	50.03.0436	BC 107 B	NPN	
Q 04	50.03.0407	BC 109 C	NPN	
Q 05	50.03.0436	BC 107 B	NPN	
Q 06	50.03.0436	BC 107 B	NPN	
Q 07	50.03.0439	BC 109 C	NPN	
Q 08	50.03.0436	BC 107 B	NPN	
Q 09	50.03.0436	BC 107 B	NPN	
Q 10	50.03.0407	BC 109 C	NPN	
Q 11	50.03.0407	BC 109 C	NPN	

PC = Polycarbonate
 PTFE=Polyester

31.10.77
 18.9.77
 12.4.77

IND DATE NAME

STUDER Reproduce - Amplifier 1.177.250 PAGE 1 of 3

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R 44	57.41.4391	390	5K .25W CF	
R 45	57.41.4102	1 k		
R 46	57.41.4102	1 k		

CF = Carbon Film

31.10.77
 18.9.77
 12.4.77

IND DATE NAME

STUDER Reproduce - Amplifier 1.177.250 PAGE 3 of 3

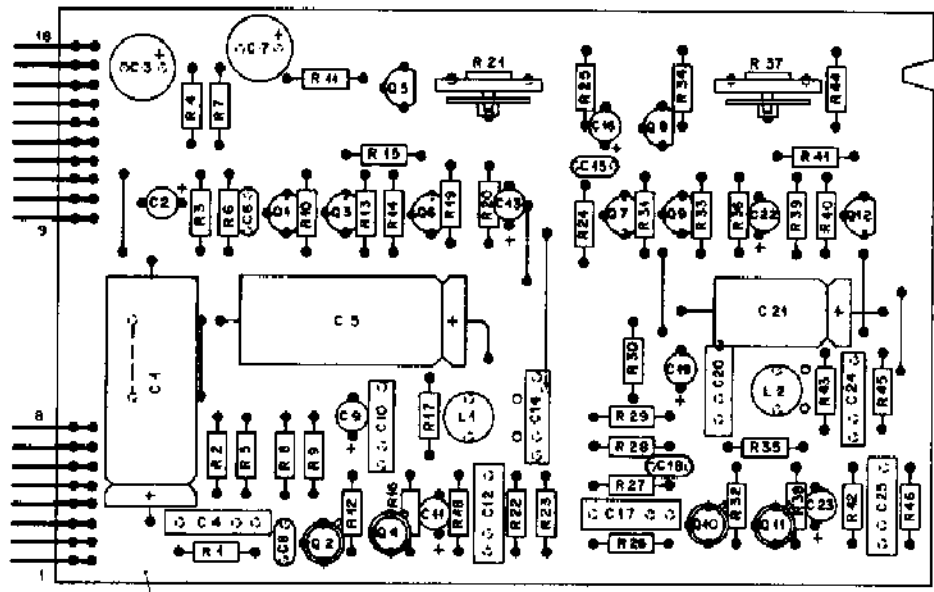
POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
Q 12	50.03.0436	BC 107 B	NPN	any
R 01	57.41.4224	220 k	5K .25W CF	
R 02	57.41.4331	330		
R 03	57.41.4154	150 k		
R 04	57.41.4682	68 k		
R 05	57.41.4102	1 k		
R 06	57.41.4102	1 k		
R 07	57.41.4391	390		
R 08	57.41.4680	68		
R 09	57.41.4392	3.9 k		
R 10	57.41.4470	47		
R 11	57.41.4123	12 k		
R 12	57.11.4104	100 k		
R 13	57.41.4154	150 k		
R 14	57.41.4680	68		
R 15	57.41.4102	1 k		
R 16	57.11.4123	12 k		
R 17	57.41.4472	4.7 k		
R 18	57.41.4104	100 k		
R 19	57.41.4154	15 k		
R 20	57.41.4182	1.8 k		
R 21	58.19.0203	20 k	20K .15W lin.PCF	
R 22	57.41.4334	330 k	5K .25W CF	
R 23	57.41.4102	1 k		
R 24	57.41.4154	150 k		
R 25	57.41.4102	1 k		
R 26	57.41.4102	1 k		
R 27	57.41.4224	220 k		
R 28	57.41.4331	330		
R 29	57.41.4680	68		
R 30	57.41.4292	3.9 k		
R 31	57.41.4470	47		
R 32	57.11.4104	100 k		
R 33	57.41.4154	150 k		
R 34	57.41.4123	12 k		
R 35	57.41.4104	100 k		
R 36	57.41.4680	68		
R 37	58.19.0203	20 k	20K .15W lin.PCF	
R 38	57.11.4123	12 k	5K .25W CF	
R 39	57.41.4182	1.8 k		
R 40	57.41.4153	15 k		
R 41	57.41.4102	1 k		
R 42	57.41.4354	330 k		
R 43	57.41.4472	4.7 k		

CF = Carbon Film
 PCF = Pot. Carbon Film

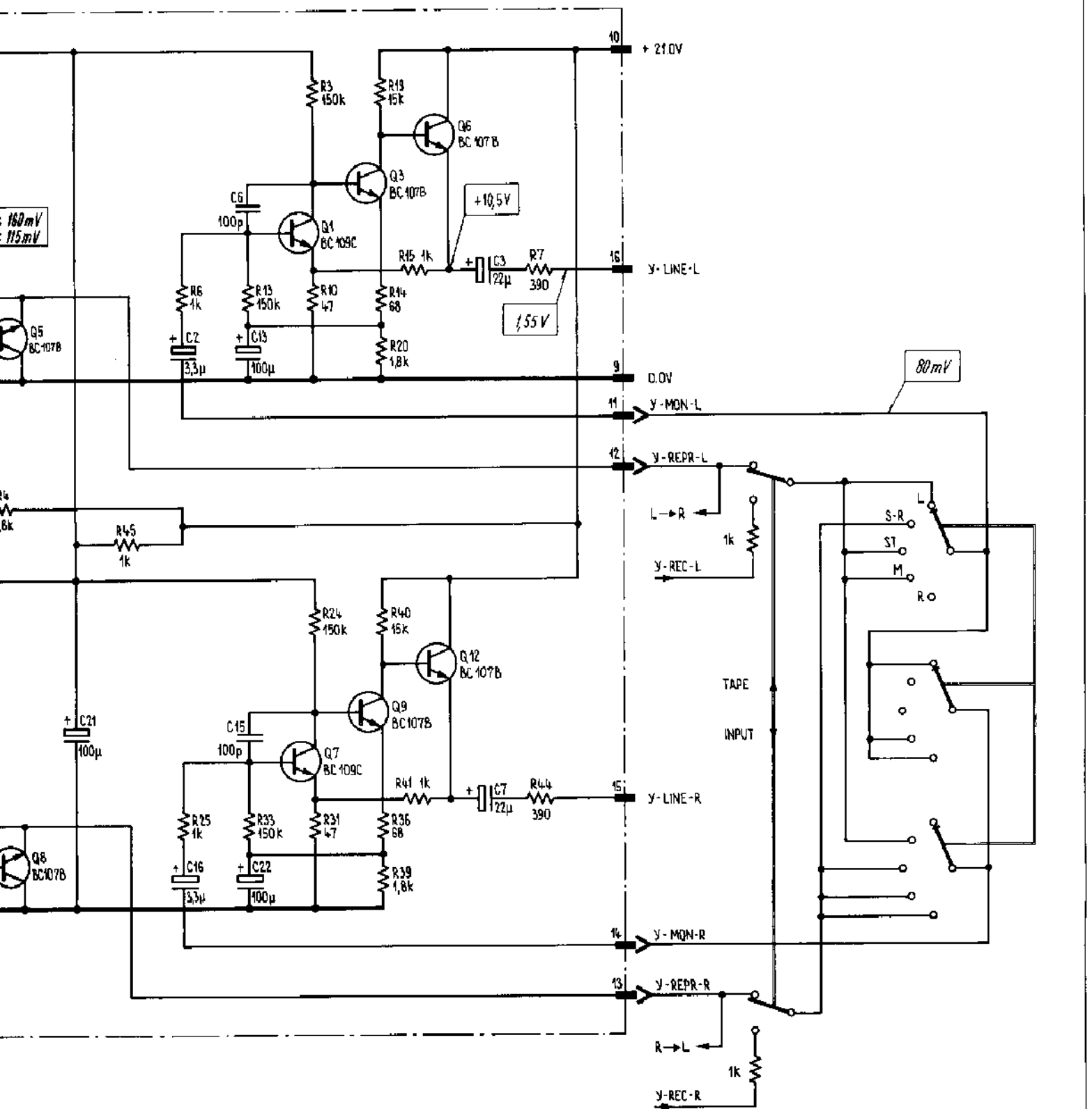
31.10.77
 18.9.77
 12.4.77

IND DATE NAME

STUDER Reproduce - Amplifier 1.177.250 PAGE 2 of 3



1.477.250-12



REPRODUCE AMPLIFIER PCB (NAB 7.5 - 15 ips) 1.177.252

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C 01	59.25.0162	1600V	10% 3V	EL
C 02	59.30.6339	3.30	20% 35V	TA
C 03	59.22.6220	220	10% 40V	EL
C 04	59.11.6221	220P	5% 400V	PC
C 05	59.25.0162	1600V	10% 3V	EL
C 06	59.32.0101	100P	20% 500V	CER
C 07	59.22.6220	220	10% 40V	EL
C 08	59.32.0101	100P	20% 500V	CER
C 09	59.30.6339	3.30	20% 35V	TA
C 10	59.99.0259	2700P	10% 50V	PETP
C 11	59.30.6339	3.30	20% 35V	TA
C 12	59.11.3102	0.010	5% 160V	PC
C 13	59.30.1101	100V	20% 3V	TA
C 14	59.11.6561	560P	5% 400V	PC
C 15	59.32.0101	100P	20% 500V	CER
C 16	59.30.6339	3.30	20% 35V	TA
C 17	59.11.6221	220P	5% 400V	PC
C 18	59.32.0101	100P	20% 500V	CER
C 19	59.30.6339	3.30	20% 35V	TA
C 20	59.99.0259	2700P	10% 400V	PETP
C 21	59.25.0101	100V	10% 25V	EL
C 22	59.30.1101	100V	20% 3V	TA
C 23	59.30.6339	3.30	20% 35V	TA
C 24	59.11.6561	560P	5% 400V	PC
C 25	59.11.3101	0.010	5% 160V	PC
L 01	62.02.1222	2.2 mH	5%	
L 02	62.02.1222	2.2 mH	5%	
P 01	54.01.0270	8-Pole	Pin-Strip	AMP
P 02	54.01.0271	10-Pole	Pin-Strip	AMP
Q 01	50.03.0439	BC109C		NPN
Q 02	50.03.0407	BC109C	TO18	NPN
Q 03	50.03.0436	BC107B		NPN
Q 04	50.03.0407	BC109C	TO18	NPN
Q 05	50.03.0436	BC107B		NPN
Q 06	50.03.0436	BC107B		NPN
Q 07	50.03.0436	BC109C		NPN
Q 08	50.03.0436	BC107B		NPN
Q 09	50.03.0436	BC107B		NPN
Q 10	50.03.0407	BC109C	TO18	NPN
Q 11	50.03.0407	BC109C	TO18	NPN
Q 12	50.03.0436	BC107B		NPN

EL - Electrolytic
 PC - Polycarbonate
 TA - Tantalum
 CER - Ceramic
 PETP - Polyester

IND 3.7.78
 DATE
 Mfr./SY NAME

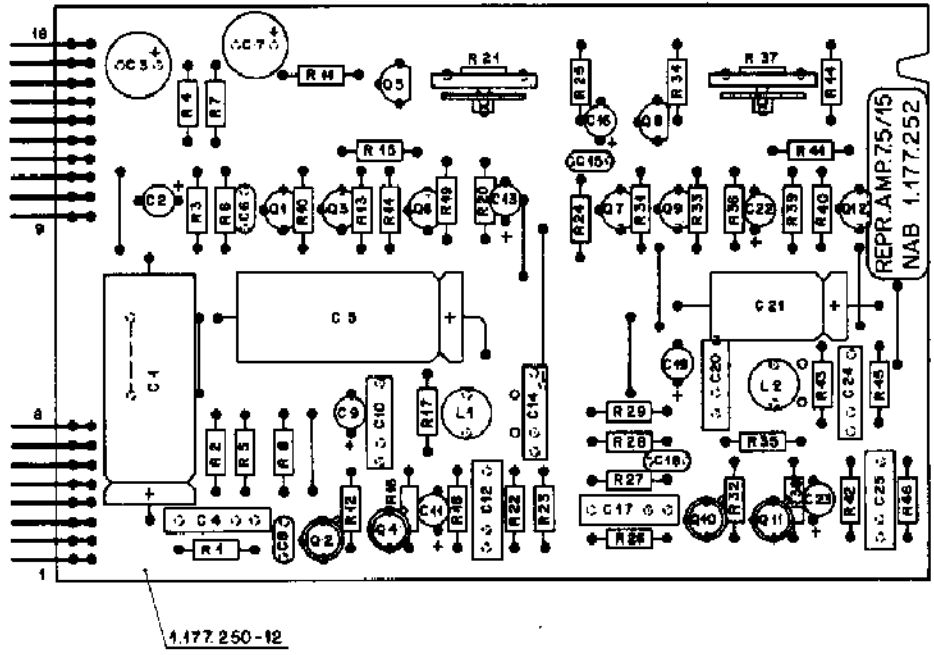
STUDER Reproduce-Amplifier 7/2-15NAB 1.177.252 **PAGE 1 of 2**

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R 01	57.41.4563	56 k	5% .25W	CF
R 02	57.41.4311	330		
R 03	57.41.4154	150 k		
R 04	57.41.4682	6.8 k		
R 05	57.41.4102	1 k		
R 06	57.41.4102	1 k		
R 07	57.41.4391	390		
R 08	57.41.4680	68		
R 10	57.41.4470	47		
R 11	57.41.4123	12 k		
R 12	57.11.4104	100 k		
R 13	57.41.4154	150 k		
R 14	57.41.4680	68		
R 15	57.41.4102	1 k		
R 16	57.11.4123	12 k		
R 17	57.41.4472	4.7 k		
R 18	57.41.4104	100 k		
R 19	57.41.4153	15 k		
R 20	57.41.4182	1.8 k		
R 21	58.19.0203	20 k	20% .15W 1in. PCF	
R 22	57.41.4274	270 k	5% .25W	CF
R 23	57.41.4102	1 k		
R 24	57.41.4154	150 k		
R 25	57.41.4102	1 k		
R 26	57.41.4102	1 k		
R 27	57.41.4563	56 k		
R 28	57.41.4331	330		
R 29	57.41.4680	68		
R 31	57.41.4470	47		
R 32	57.11.4104	100 k		
R 33	57.41.4154	150 k		
R 34	57.41.4123	12 k		
R 35	57.41.4104	100 k		
R 36	57.41.4680	68		
R 37	58.19.0203	20 k	20% .15W 1in. PCF	
R 38	57.11.4123	12 k	5% .25W	CF
R 39	57.41.4102	1.0 k		
R 40	57.41.4153	15 k		
R 41	57.41.4102	1 k		
R 42	57.41.4274	270 k		
R 43	57.41.4472	4.7 k		
R 44	57.41.4391	390		
R 45	57.41.4102	1 k		
R 46	57.41.4102	1 k		

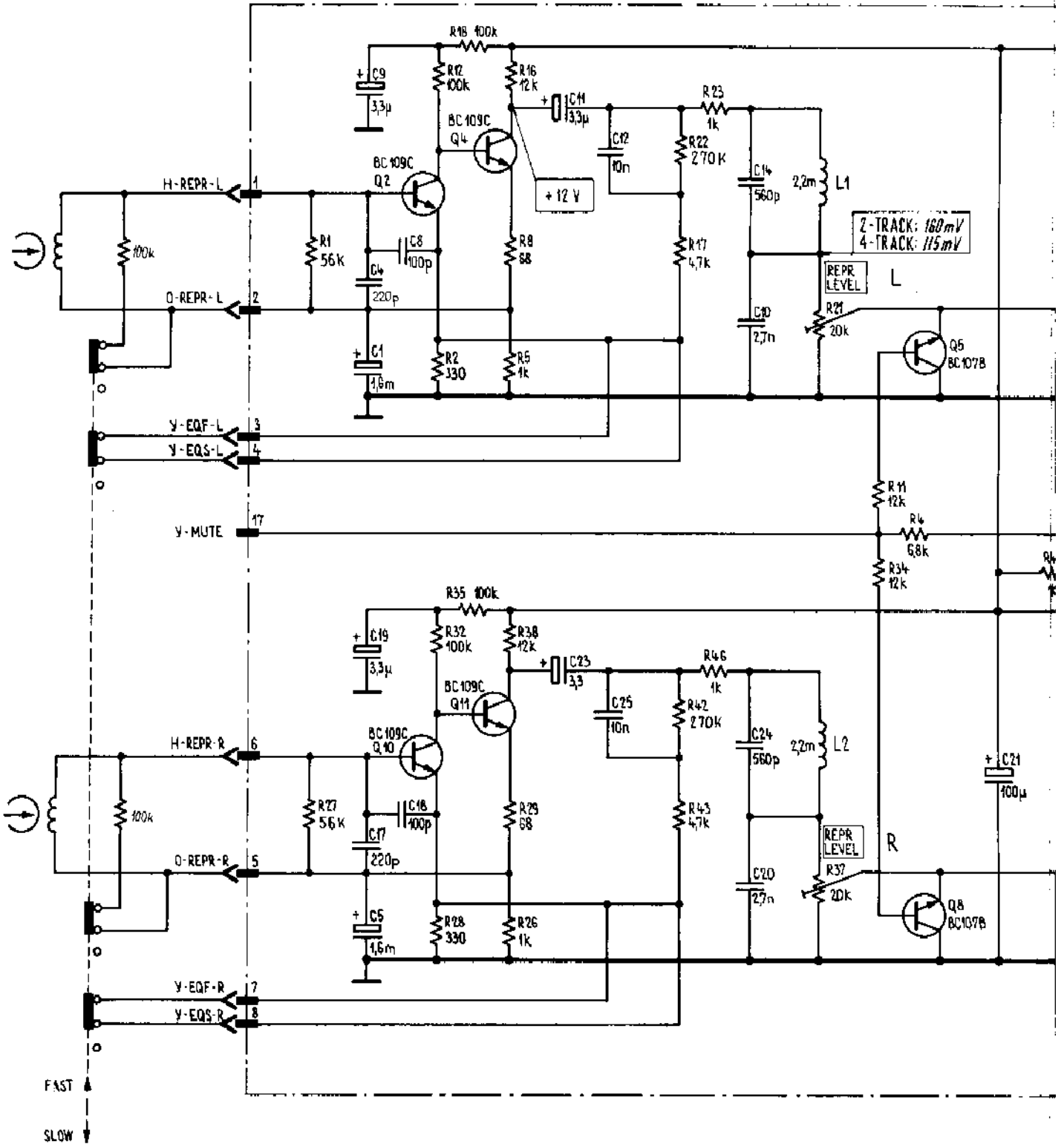
CF - Carbon Film
 PCF - Pot. Carbon Film

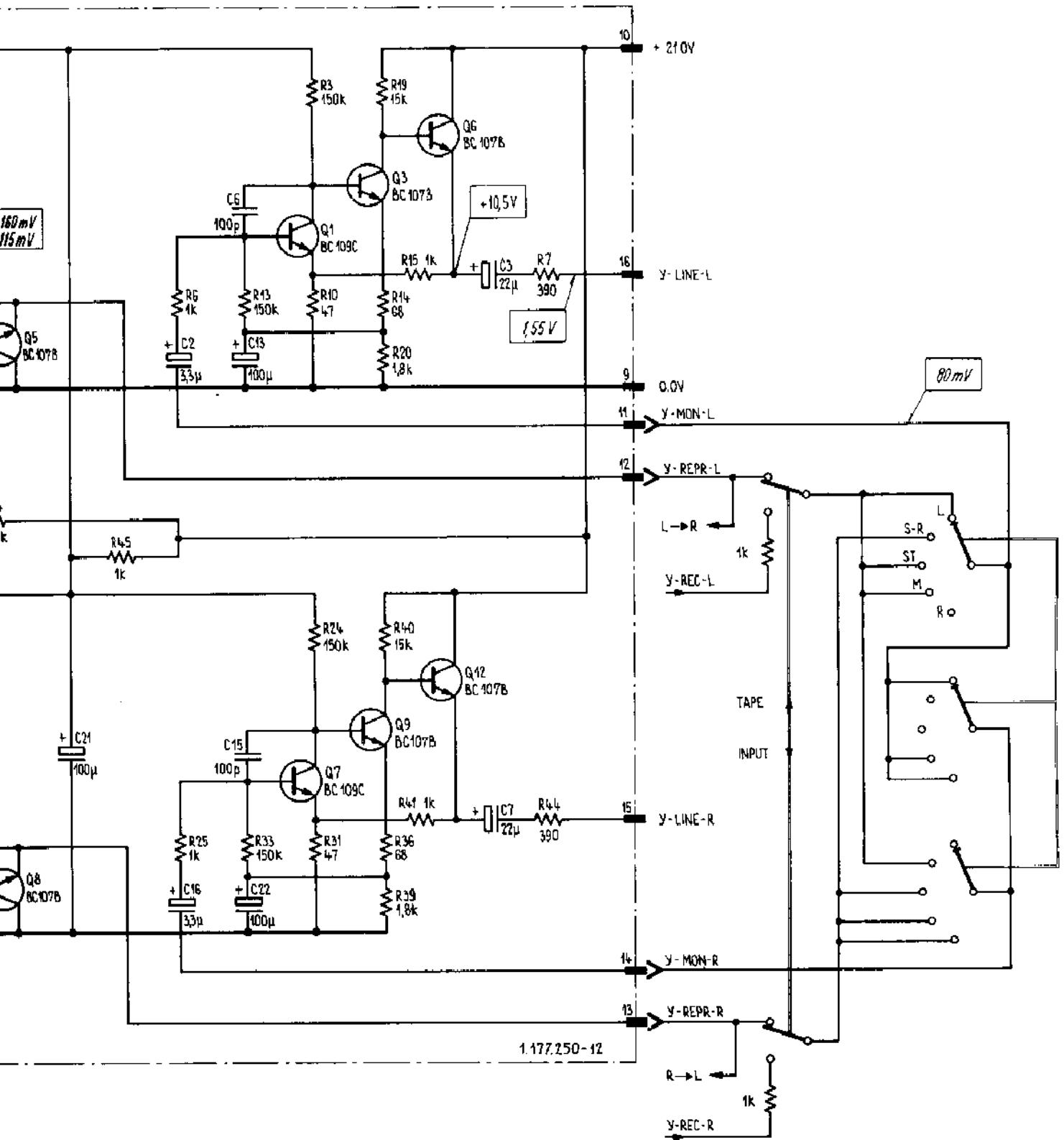
IND 3.7.78
 DATE
 Mfr./SY NAME

STUDER Reproduce-Amplifier 7/2-15NAB 1.177.252 **PAGE 2 of 2**



REPRODUCE AMPLIFIER PCB (NAB 7.5 - 15 ips) 1.177.252





REPRODUCE AMPLIFIER PCB (IEC 7.5 - 15 ips) 1.177.253

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C 01	59.25.0162	1600U	10% 3V XL	
C 02	59.30.6339	3.3U	20% 35V TA	
C 03	59.22.6220	22U	10% 40V XL	
C 04	59.11.6221	220F	5% 400V FC	
C 05	59.25.0162	1600U	10% 3V XL	
C 06	59.32.0101	100F	20% 500V CBR	
C 07	59.22.6220	22U	10% 40V XL	
C 08	59.32.0101	100F	20% 500V CBR	
C 09	59.30.6339	3.3U	20% 35V TA	
C 10	59.99.0259	2700F	10% 50V PETP	
C 11	59.30.6339	3.3U	20% 35V TA	
C 12	59.11.3103	0.01U	5% 160V FC	
C 13	59.30.1101	100U	20% 3V TA	
C 14	59.11.6561	560F	5% 400V FC	
C 15	59.32.0101	100F	20% 500V CBR	
C 16	59.30.6339	3.3U	20% 35V TA	
C 17	59.11.6221	220F	5% 400V FC	
C 18	59.32.0101	100F	20% 500V CBR	
C 19	59.30.6339	3.3U	20% 35V TA	
C 20	59.99.0259	2700F	10% 400V PETP	
C 21	59.25.4101	100F	10% 35V XL	
C 22	59.30.1101	100U	20% 3V TA	
C 23	59.30.6339	3.3U	20% 35V TA	
C 24	59.11.6561	560F	5% 400V FC	
C 25	59.11.3101	0.01U	5% 160V FC	
L 01	62.02.1222	2.2 mH	5%	
L 02	62.02.1222	2.2 mH	5%	
F 01	54.01.0270	8-Pole	Pin-Strip	AMP
F 02	54.01.0271	10-Pole	Pin-Strip	AMP
Q 01	50.03.0439	BC109C		NPN any
Q 02	50.03.0407	BC109C	TOL8	NPN
Q 03	50.03.0436	BC107B		NPN
Q 04	50.03.0407	BC109C	TOL8	NPN
Q 05	50.03.0436	BC107B		NPN
Q 06	50.03.0436	BC107B		NPN
Q 07	50.03.0439	BC109C		NPN
Q 08	50.03.0436	BC107B		NPN
Q 09	50.03.0436	BC107B		NPN
Q 10	50.03.0407	BC109C	TOL8	NPN
Q 11	50.03.0407	BC109C	TOL8	NPN
Q 12	50.03.0436	BC107B		NPN

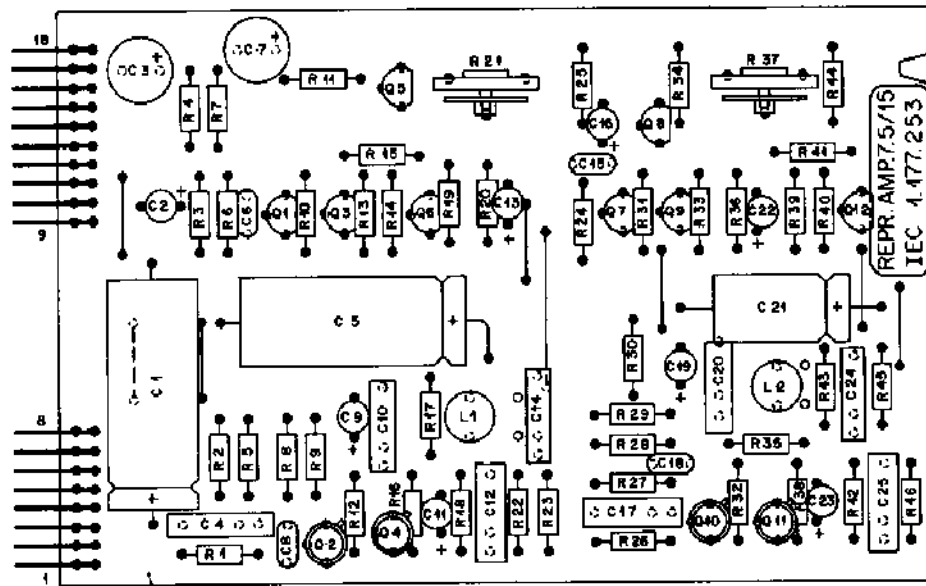
EL = Electrolytic
 FC = Polycarbonate
 TA = Tantalum
 CER = Ceramic
 PETP = Polyester

STUDER	Reproduce-Amplifier 7/2-15CC1R	1.177.253	PAGE 1 of 2
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POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R 01	57.41.4553	56 k	5% .25W CF	
R 02	57.41.4111	330		
R 03	57.41.4154	150 k		
R 04	57.41.4682	6.8 k		
R 05	57.41.4102	1 k		
R 06	57.41.4102	1 k		
R 07	57.41.4391	390		
R 08	57.41.4680	68		
R 09	57.41.4272	2.7 k		
R 10	57.41.4470	47		
R 11	57.41.4123	12 k		
R 12	57.11.4104	100 k		
R 13	57.41.4154	150 k		
R 14	57.41.4680	68		
R 15	57.41.4102	1 k		
R 16	57.11.4123	12 k		
R 17	57.41.4532	3.3 k		
R 18	57.41.4104	100 k		
R 19	57.41.4153	15 k		
R 20	57.41.4182	1.8 k		
R 21	58.19.0203	20 k	20% .15W1in.PCF	
R 22	57.41.4474	470 k	5% .25W CF	
R 23	57.41.4102	1 k		
R 24	57.41.4154	150 k		
R 25	57.41.4102	1 k		
R 26	57.41.4102	1 k		
R 27	57.41.4563	56 k		
R 28	57.41.4331	330		
R 29	57.41.4680	68		
R 30	57.41.4272	2.7 k		
R 31	57.41.4470	47		
R 32	57.11.4104	100 k		
R 33	57.41.4154	150 k		
R 34	57.41.4123	12 k		
R 35	57.41.4104	100 k		
R 36	57.41.4680	68		
R 37	58.19.0203	20 k	20% .15W1in.PCF	
R 38	57.11.4123	12 k	5% .25W CF	
R 39	57.41.4182	1.8 k		
R 40	57.41.4153	15 k		
R 41	57.41.4102	1 k		
R 42	57.41.4474	470 k		
R 43	57.41.4332	3.3 k		
R 44	57.41.4391	390		
R 45	57.41.4102	1 k		
R 46	57.41.4102	1 k		

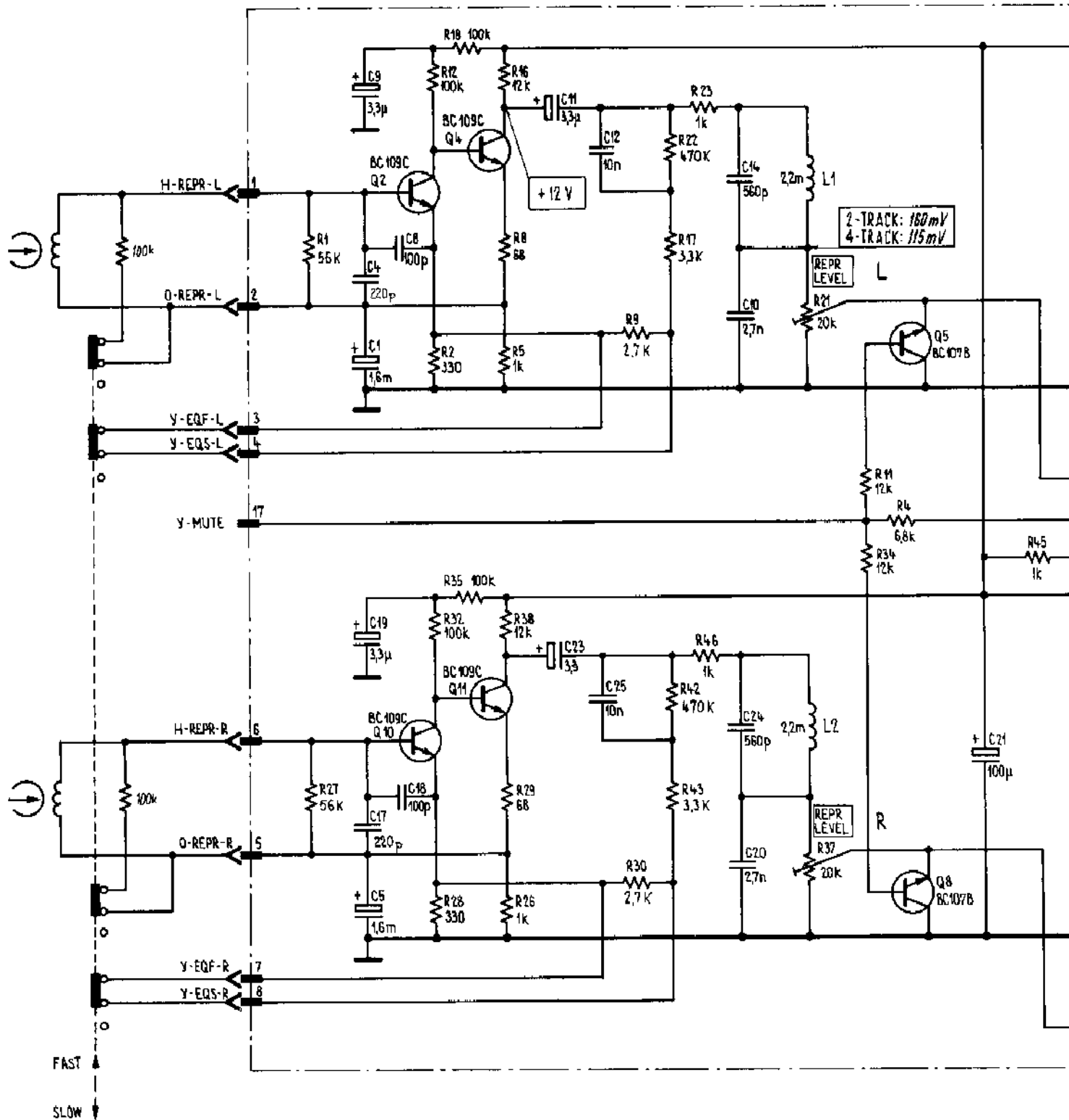
CF = Carbon Film
 PCF = Pot. Carbon Film

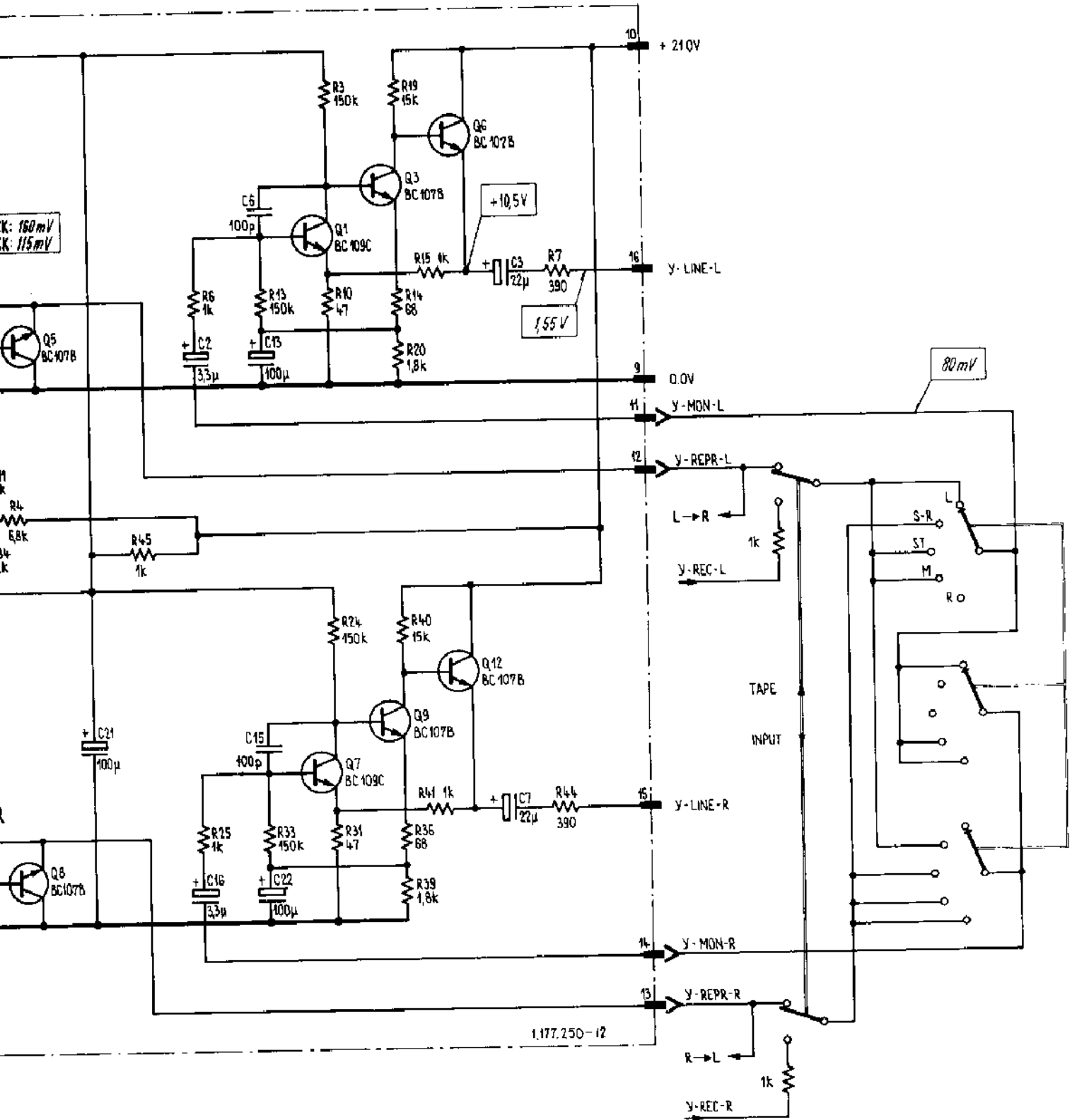
STUDER	Reproduce-Amplifier 7/2-15CC1R	1.177.253	PAGE 2 of 2
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1.477.250-12

REPRODUCE AMPLIFIER PCB (IEC 7.5 - 15 ips) 1.177.253





OUTPUT AMPLIFIER PCB 1.177.880

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
C 1	59.25.2222	2200pF	-10% 16V EL	
C 2	59.25.2222	2200pF	-10% 16V EL	
C 3	59.22.5101	1000pF	-10% 25V EL	
C 4	59.30.4220	220pF	-20% 16V TA	
C 5	59.31.0220	220pF	-20% 16V TA	
C 6	59.31.0220	220pF	-20% 16V TA	
C 7	59.30.4220	220pF	-20% 16V TA	
C 8	59.30.4220	220pF	-20% 16V TA	
C 9	59.30.4100	1000pF	-20% 16V TA	
C 10	59.30.4100	1000pF	-20% 16V TA	
C 11	59.32.0101	220pF	-20% 16V TA	
C 12	59.32.0101	220pF	-20% 16V TA	
C 13	59.30.4333	330pF	-20% 16V TA	
C 14	59.22.5101	1000pF	-10% 25V EL	
C 15	59.31.0220	220pF	-20% 16V TA	
C 16	59.31.0401	1000pF	-20% 16V TA	
C 17	59.30.4333	330pF	-20% 16V TA	
C 18	59.21.1004	1000pF	-20% 16V TA	
C 19	59.30.4220	220pF	-20% 16V TA	
C 20	59.25.2220	220pF	-10% 16V EL	
C 21	59.22.4101	1000pF	-10% 16V EL	
C 22	59.22.4101	1000pF	-10% 16V EL	
C 23	59.32.1330	330pF	-20% 16V TA	
C 24	59.31.1330	330pF	-20% 16V TA	
C 25	59.30.4333	330pF	-20% 16V TA	
C 26	59.30.4333	330pF	-20% 16V TA	
C 27	59.30.4333	330pF	-20% 16V TA	
C 28	59.30.4333	330pF	-20% 16V TA	
C 29	59.30.4333	330pF	-20% 16V TA	
C 30	59.30.4100	1000pF	-20% 16V TA	
C 31	59.30.4333	330pF	-20% 16V TA	
C 32	59.30.4333	330pF	-20% 16V TA	
D 1	50.06.0953	AA 116		
D 2	"	"		
D 3	"	"		
D 4	"	"		
D 5	50.06.0115	JN4445		
D 6	"	"		
D 7	"	"		
D 8	50.06.1108	20V	5% 0.4W DR	

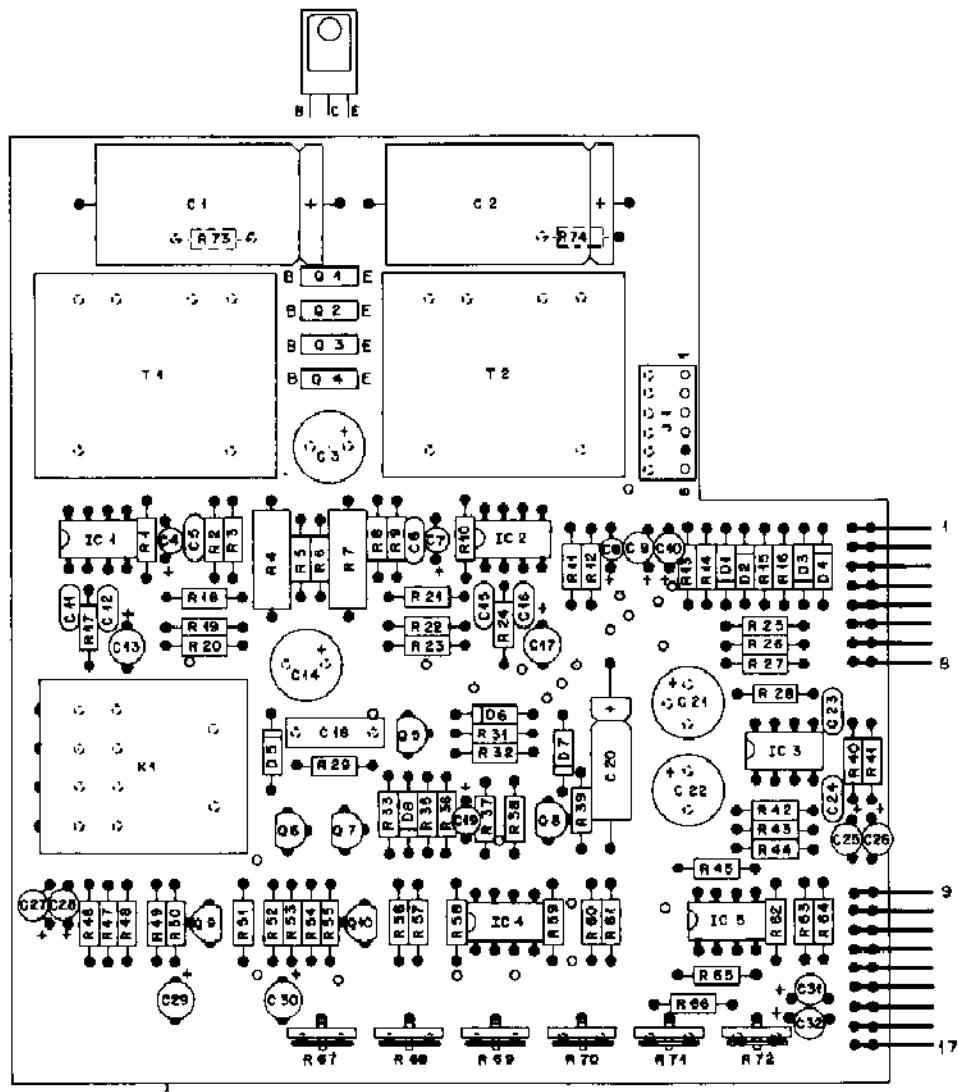
POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
J 1	59.01.0216	6 P01	AHP CIS	
K 1	58.04.0124	P24	Relais	
P 1	59.04.0270	8P01	AHP CIS	
P 2	59.01.0220	8P01	AHP CIS	
Q 1	50.03.0510	BD 126-16	PNP	
Q 2	50.03.0485	BD 135-16	NPN	
Q 3	50.03.0510	DA 136-16	PNP	
Q 4	50.03.0485	CD 135-16	NPN	
Q 5	50.03.0515	BC 550 B	NPN	BC 107 B
Q 6	50.03.0436	BC 550 B	NPN	BC 107 B
Q 7	50.03.0436	BC 550 B	NPN	BC 107 B
Q 8	50.03.0436	BC 550 B	NPN	BC 107 B
Q 9	50.03.0436	BC 550 B	NPN	BC 107 B
Q 10	50.03.0436	BC 550 B	NPN	BC 107 B
R 1	57.11.4103	10k		
R 2	57.11.4323	22k		
R 3	57.11.4189	1k		
R 4	57.11.4471	470k	5% 0.5W	
R 5	57.11.4100	10		
R 6	57.11.4100	10		
R 7	57.11.4471	470k	5% 0.5W	
R 8	57.11.4189	1k		
R 9	57.11.4323	22k		
R 10	57.11.4103	10k		
R 11	57.11.4153	15k		
R 12	57.11.4153	15k		
R 13	57.11.4172	2.2k		
R 14	57.11.4292	2.2k		
R 15	57.11.4292	2.2k		
R 16	57.11.4272	2.7k		
R 17	57.11.4103	10k		
R 18	57.11.4323	22k		
R 19	57.11.4100	10k		
R 20	57.11.4102	10k		
R 21	57.11.4272	2.2k		
R 22	57.11.4102	10k		
R 23	57.11.4102	10k		
R 24	57.11.4102	10k		

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R 25	50.05.0144	LA 301AN		
R 26	50.05.0144	LA 301AN		
R 27	50.05.0245	RC 4558P		
R 28	50.05.0245	RC 4558P		
R 29	50.05.0245	RC 4558P		

POS NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT MFR
R 25	57.11.4221	220		
R 26	57.11.4221	220		
R 27	57.11.4471	470k		
R 28	57.11.4106	100k		
R 29	57.11.4104	100k		
R 30	57.11.4251	250		
R 31	57.11.4254	250k		
R 32	57.11.4222	22k		
R 33	57.11.4222	22k		
R 34	57.11.4104	100k		
R 35	57.11.4104	100k		
R 36	57.11.4472	470k		
R 37	57.11.4474	470k		
R 38	57.11.4472	470k		
R 39	57.11.4103	10k		
R 40	57.11.4293	29k		
R 41	57.11.4273	27k		
R 42	57.11.4104	100k		
R 43	57.11.4472	470k		
R 44	57.11.4192	19k		
R 45	57.11.4471	470k		
R 46	57.11.4292	29k		
R 47	57.11.4323	32k		
R 48	57.11.4813	82k		
R 49	57.11.4102	10k		
R 50	57.11.4471	470k		
R 51	57.11.4273	27k		
R 52	57.11.4323	32k		
R 53	57.11.4823	82k		
R 54	57.11.4102	10k		
R 55	57.11.4471	470k		
R 56	57.11.4323	32k		
R 57	57.11.4193	19k		
R 58	57.11.4472	470k		
R 59	57.11.4643	46k		
R 60	57.11.4323	32k		
R 61	57.11.4182	18k		
R 62	57.11.4153	15k		
R 63	57.11.4221	220		
R 64	57.11.4221	220		
R 65	57.11.4153	15k		
R 66	57.11.4471	470k		
R 67	58.02.4221	220k		
R 68	58.02.4221	220k		
R 69	58.02.4106	100k		
R 70	58.02.4206	100k		

PDR NO	PART NO	VALUE	SPECIFICATIONS	EQUIVALENT	MFR
R74	58.02.422A	22M			
R72	58.02.4223	2.2k			
R73	57.11.447A	470			
R74	57.11.447A	470			
T1	1.022.351.00	1:2.7	Transformer		ST
T2	1.022.351.00	1:2.7	Transformer		ST

STUDER		5. 11. 1970 7. 11. 1970 24. 8. 1970	S. K. Kato S. K. Kato S. K. Kato
IND	DATE	NAME	PAGE
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