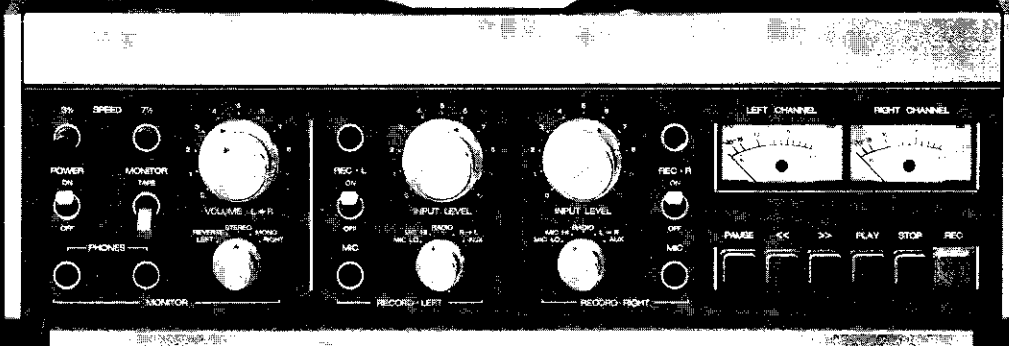
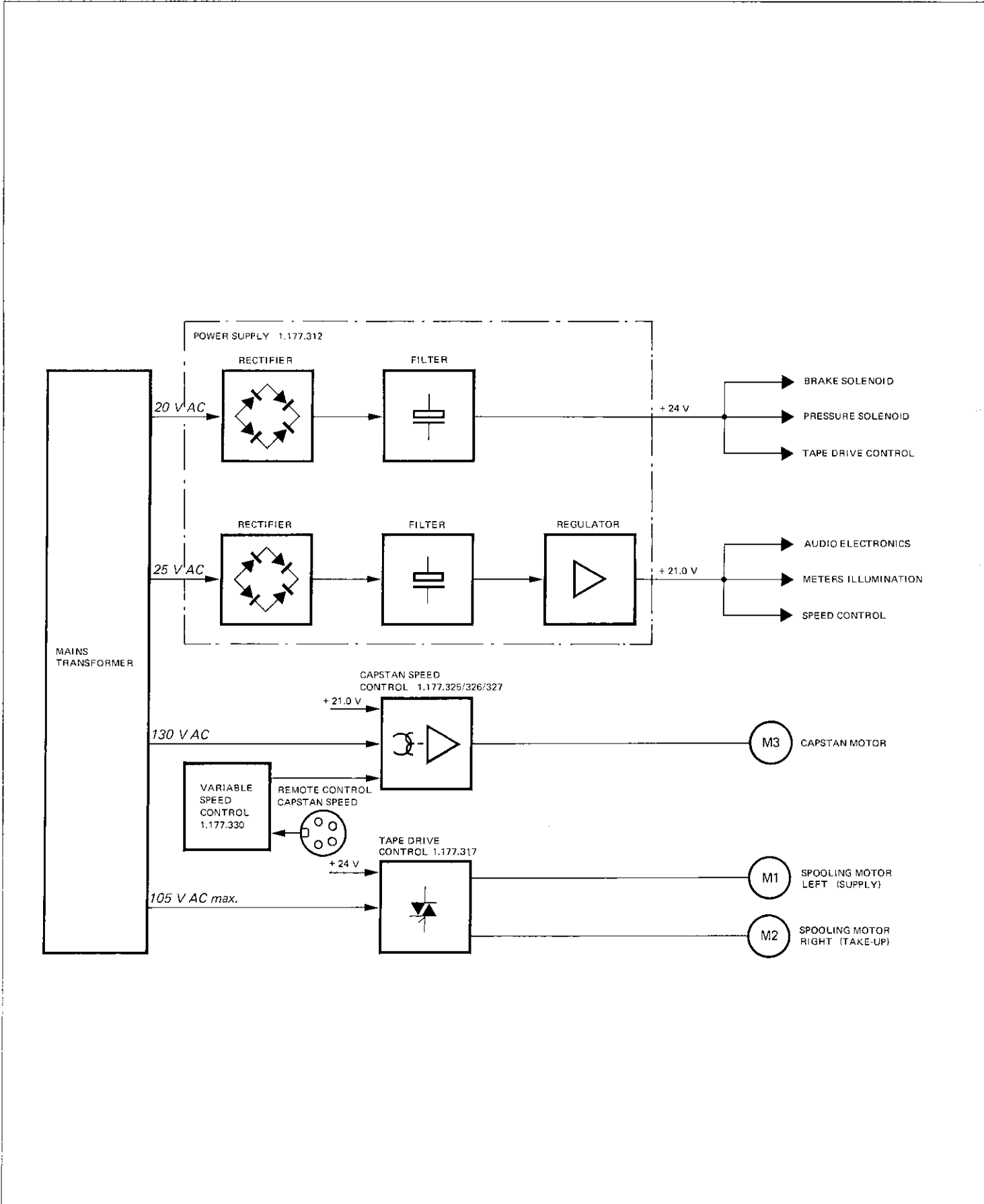
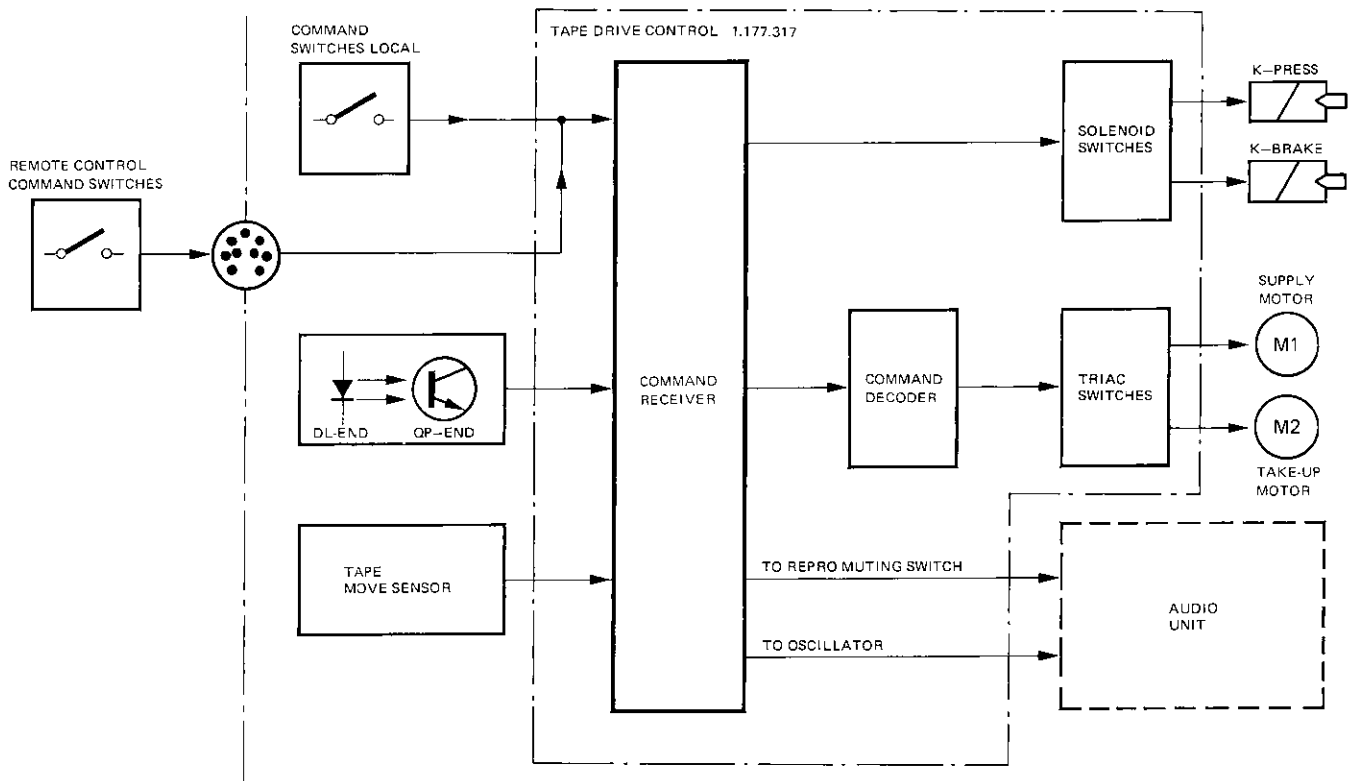


SERVICEANLEITUNG
SERVICE INSTRUCTIONS
INSTRUCTIONS DE SERVICE

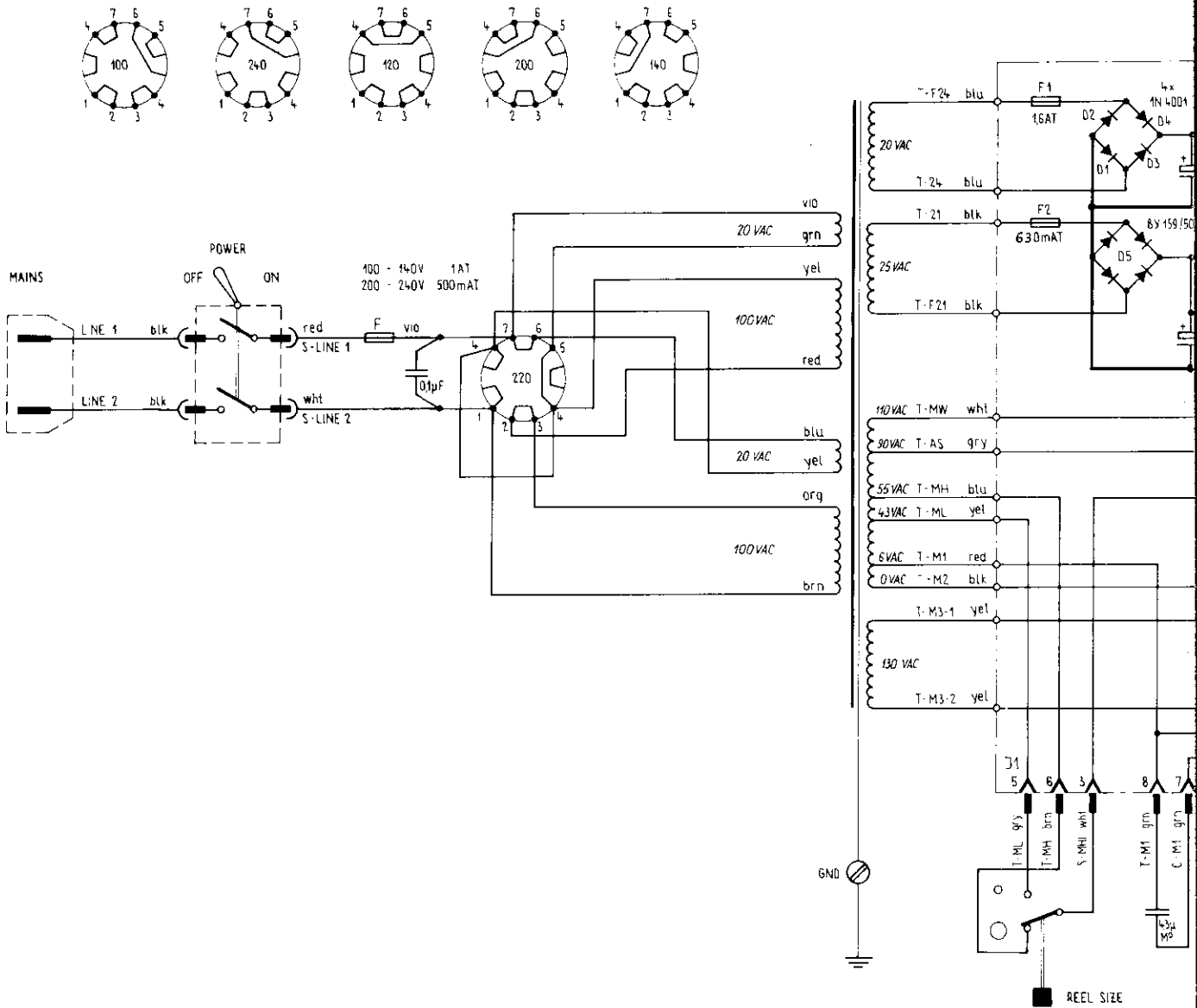


BLOCK DIAGRAM / POWER SUPPLY AND TAPE DRIVE CONTROL

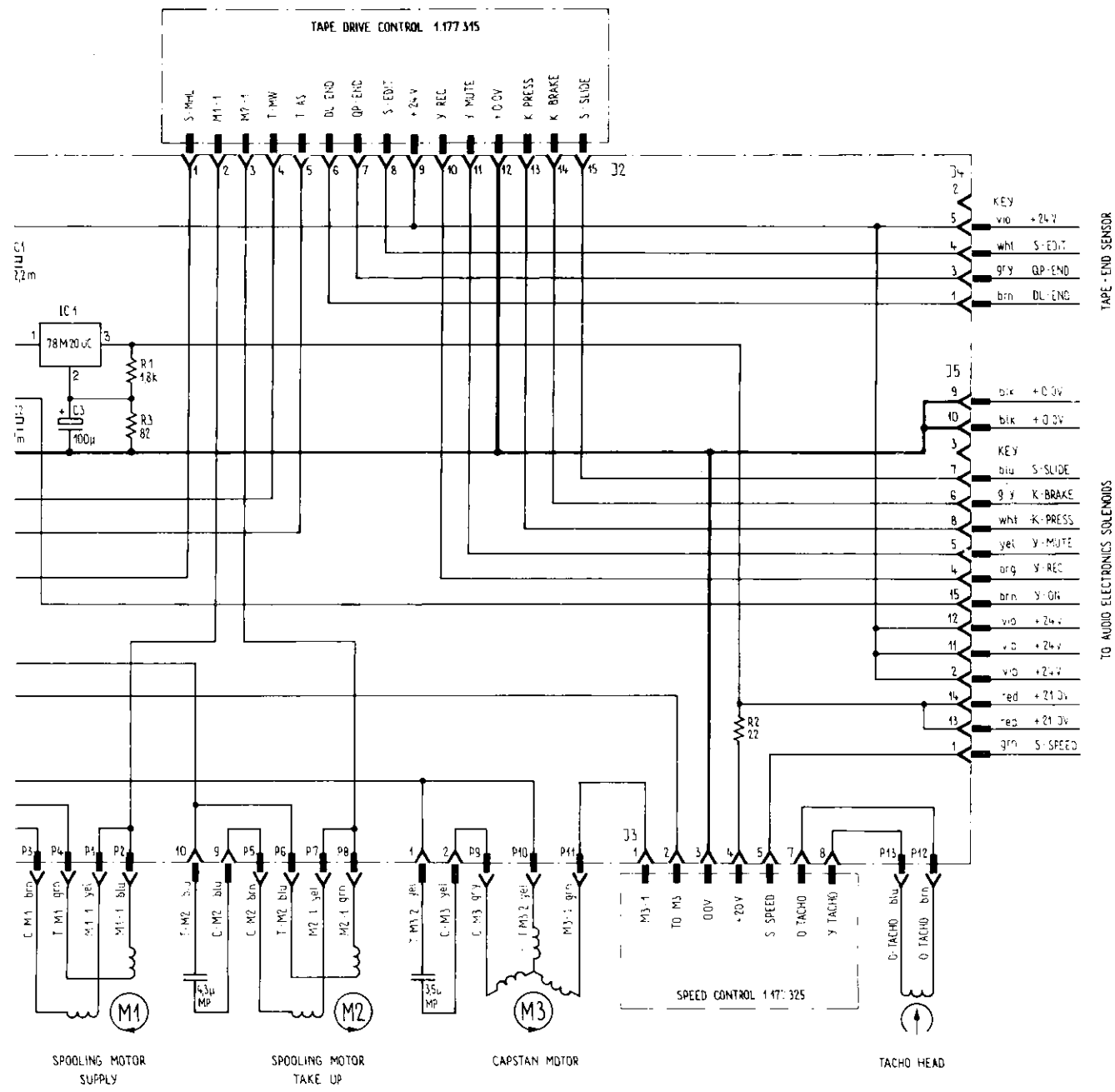




POWER SUPPLY PCB 1.177.310

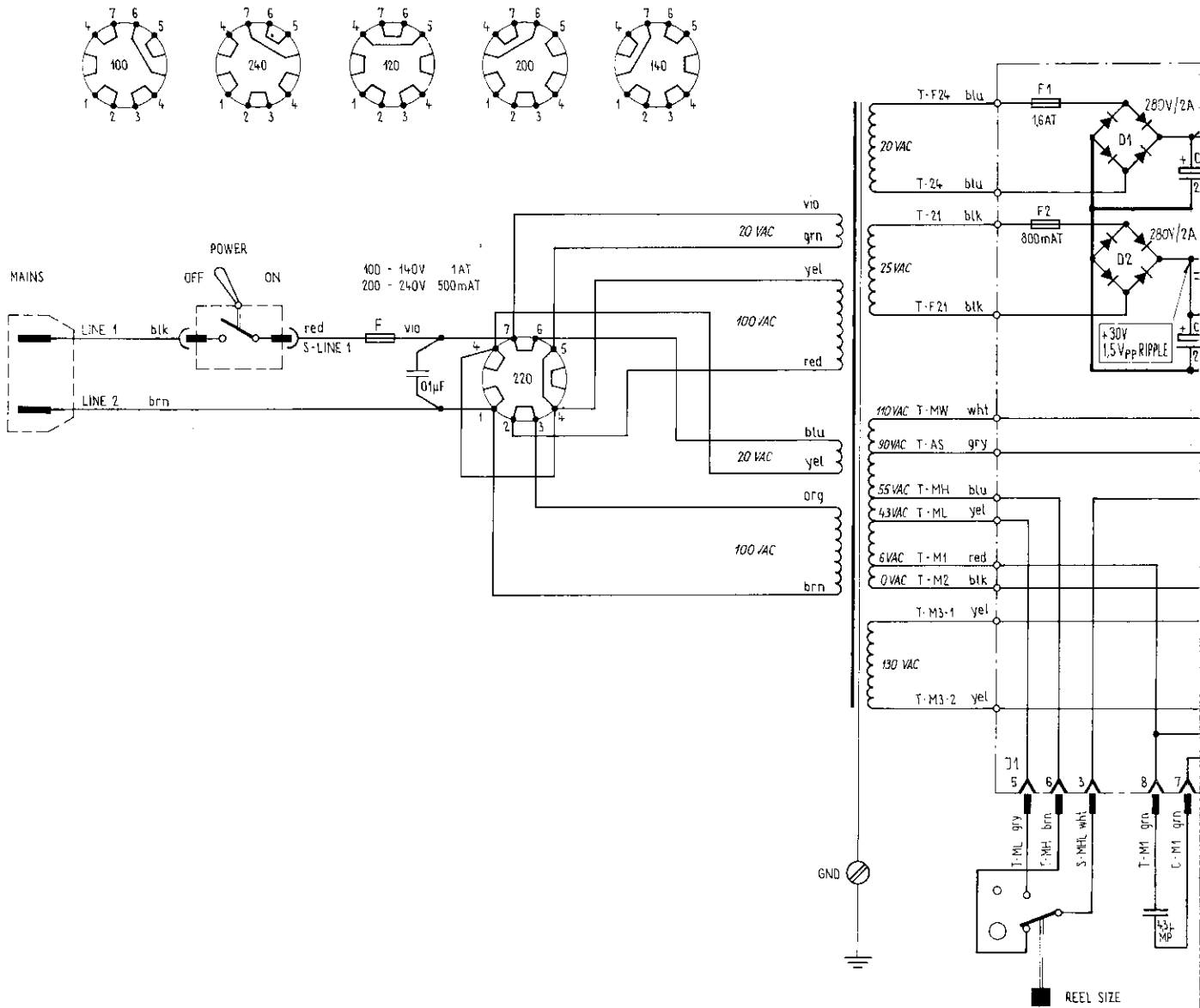


VALID UP TO SERIAL NUMBER 10149

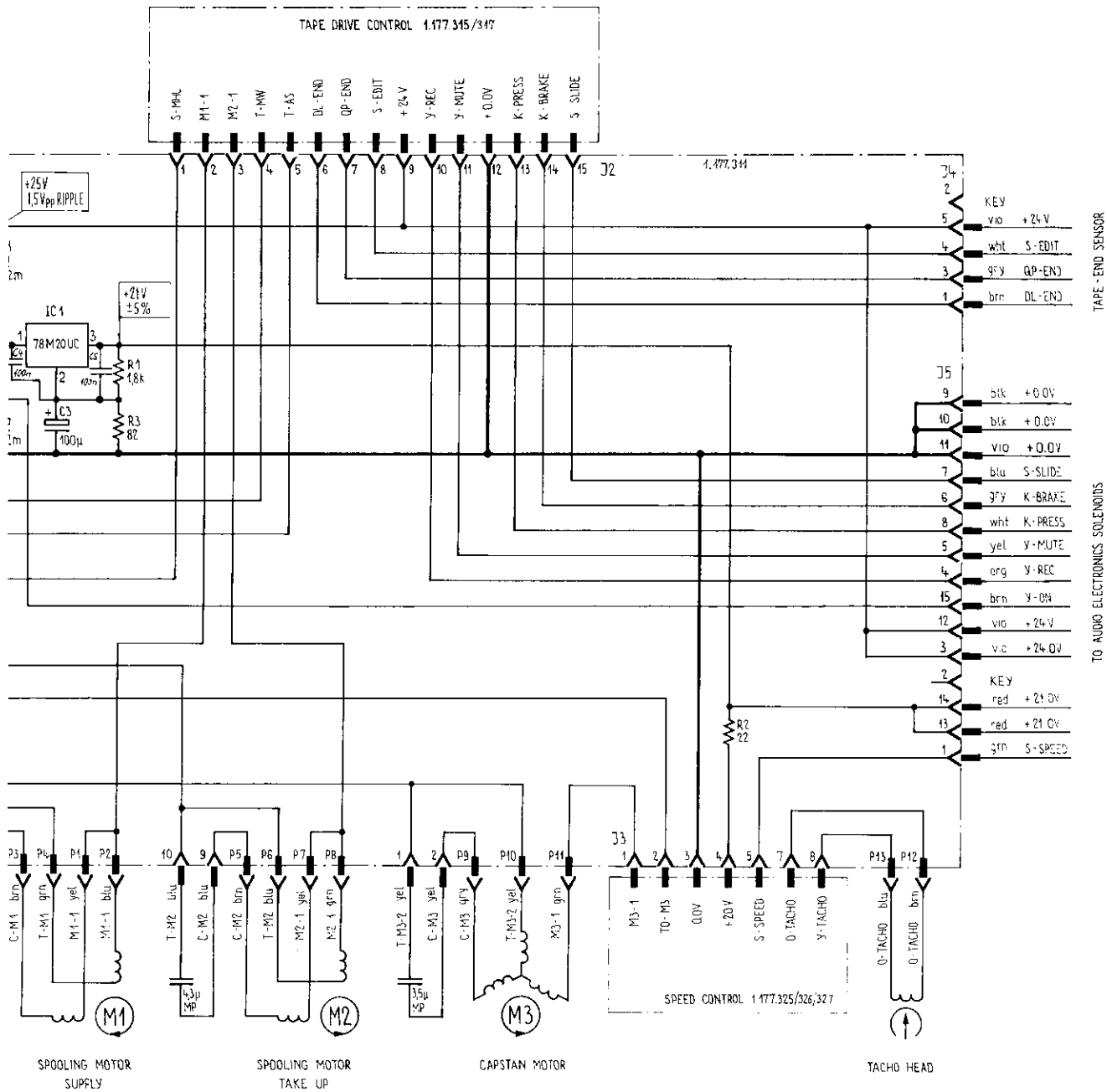


SEE SERVICE INFORMATION
48.6 : BY CHANGE OF 1.177.311

POWER SUPPLY PCB 1.177.311

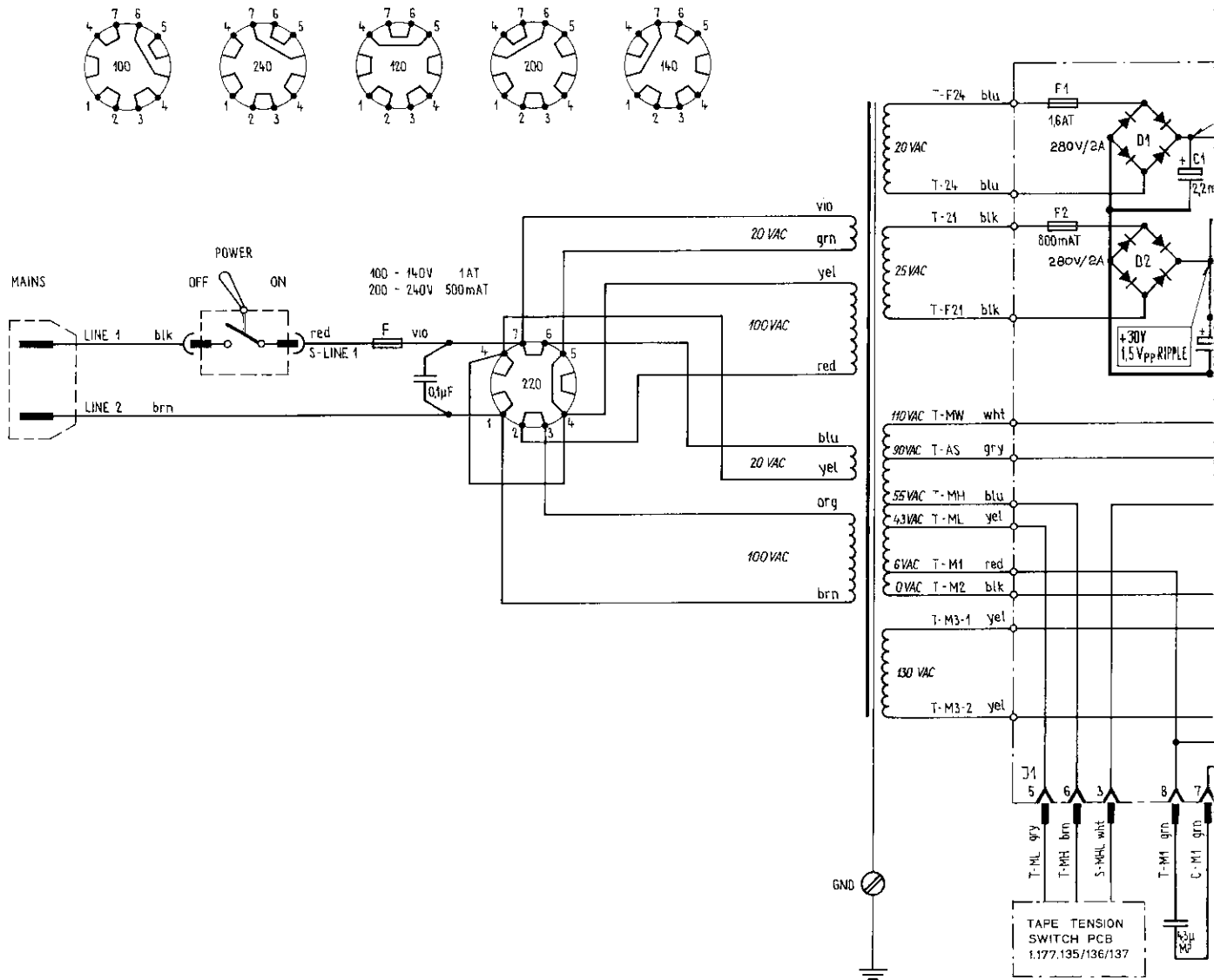


VALID FROM SERIAL NUMBER 10150 TO 107301

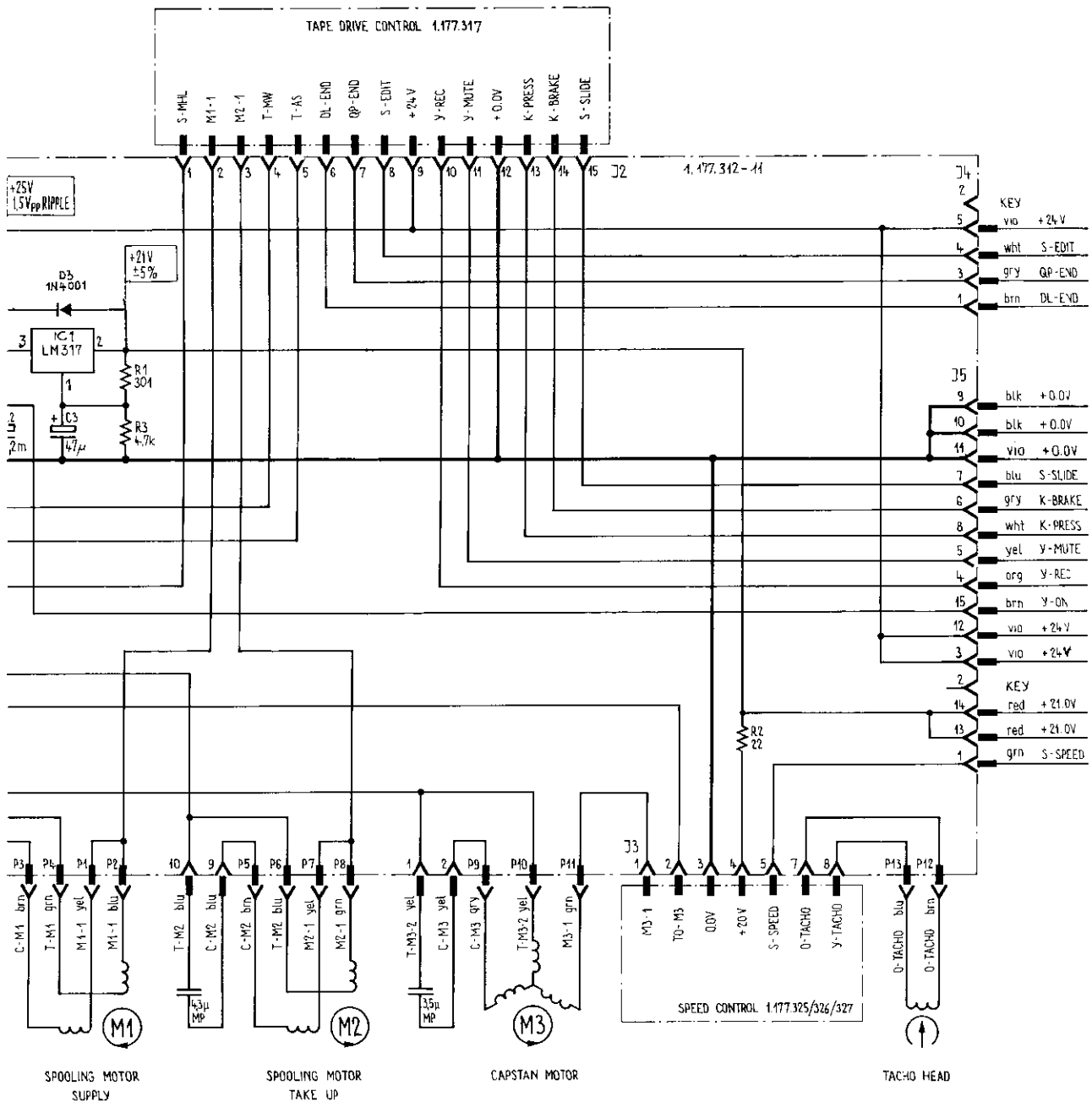


SEE SERVICE INFORMATION
 57.6 : C4, C5

POWER SUPPLY PCB 1.177.312

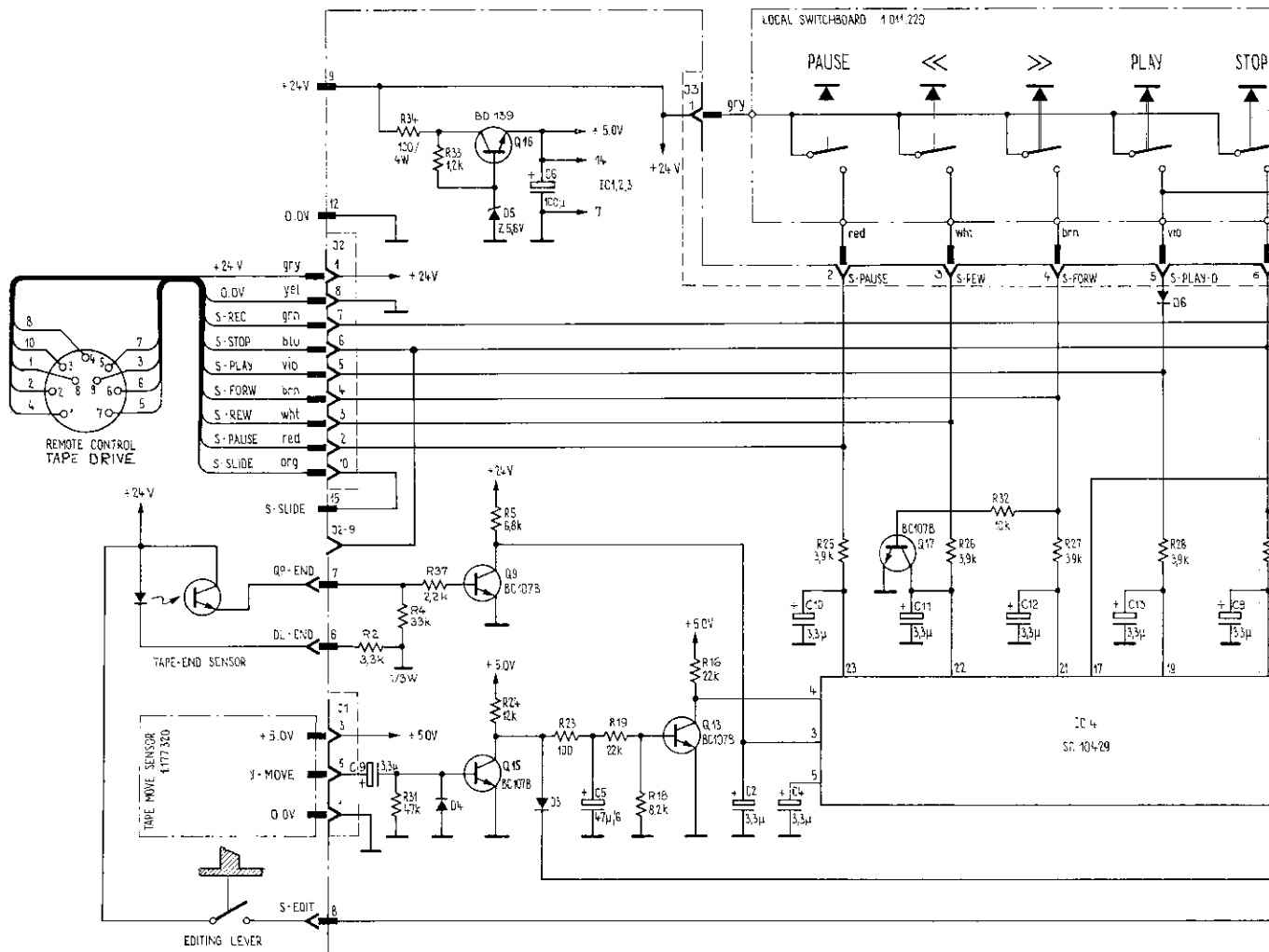


VALID FROM SERIAL NUMBER 107302

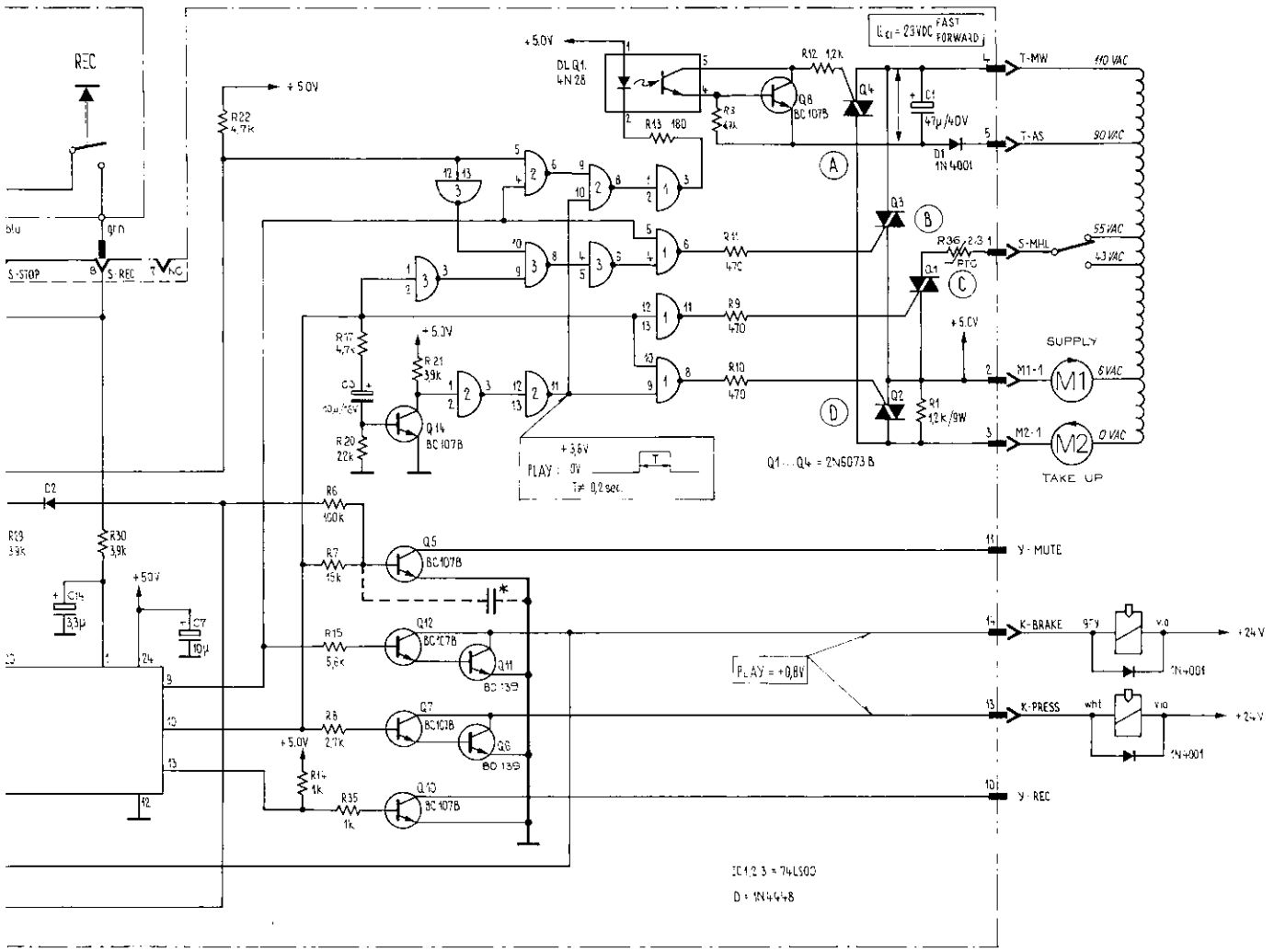


TAPE DRIVE CONTROL PCB 1.177.315

REVISED EDITION



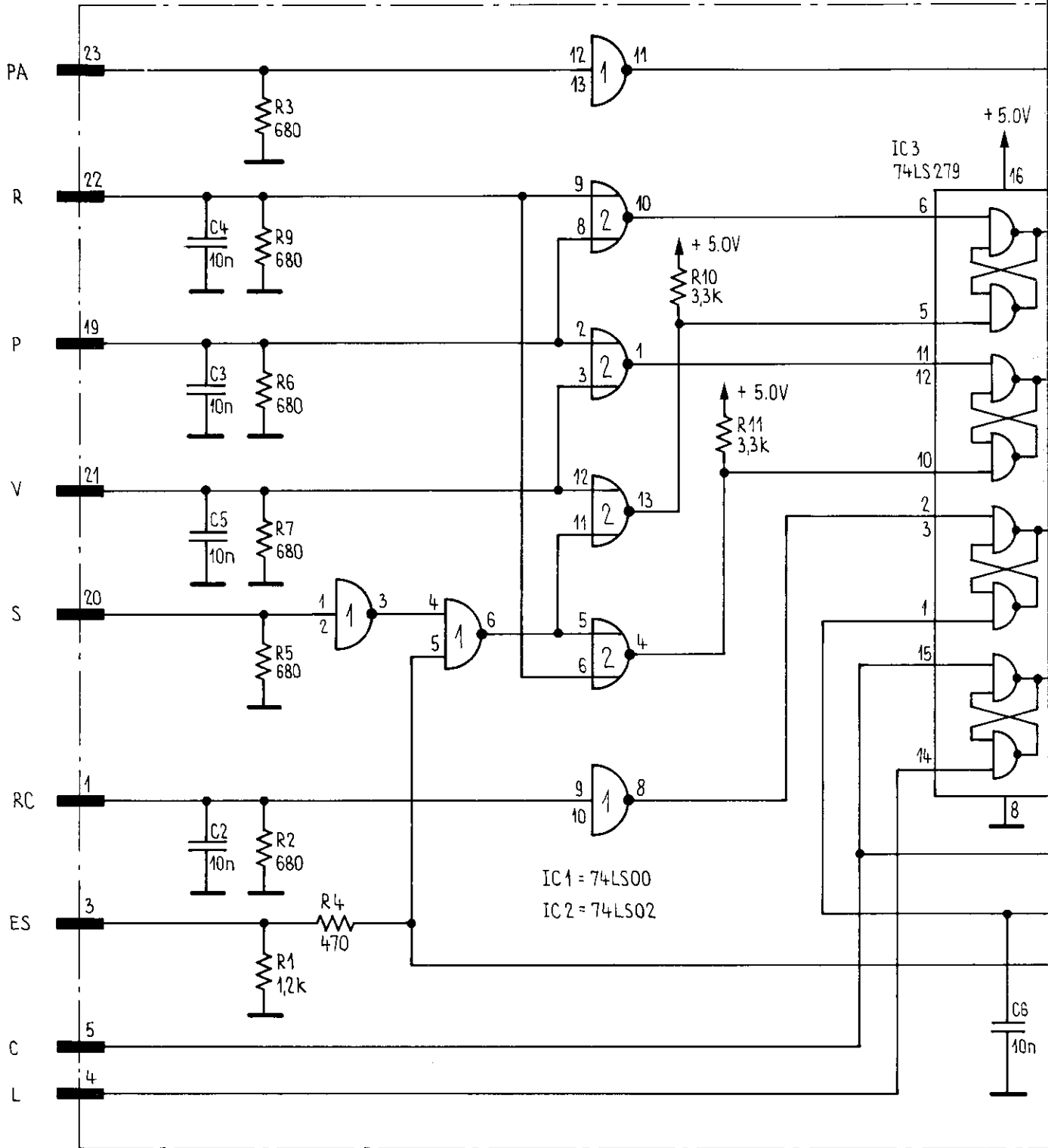
VALID UP TO SERIAL NUMBER 52699



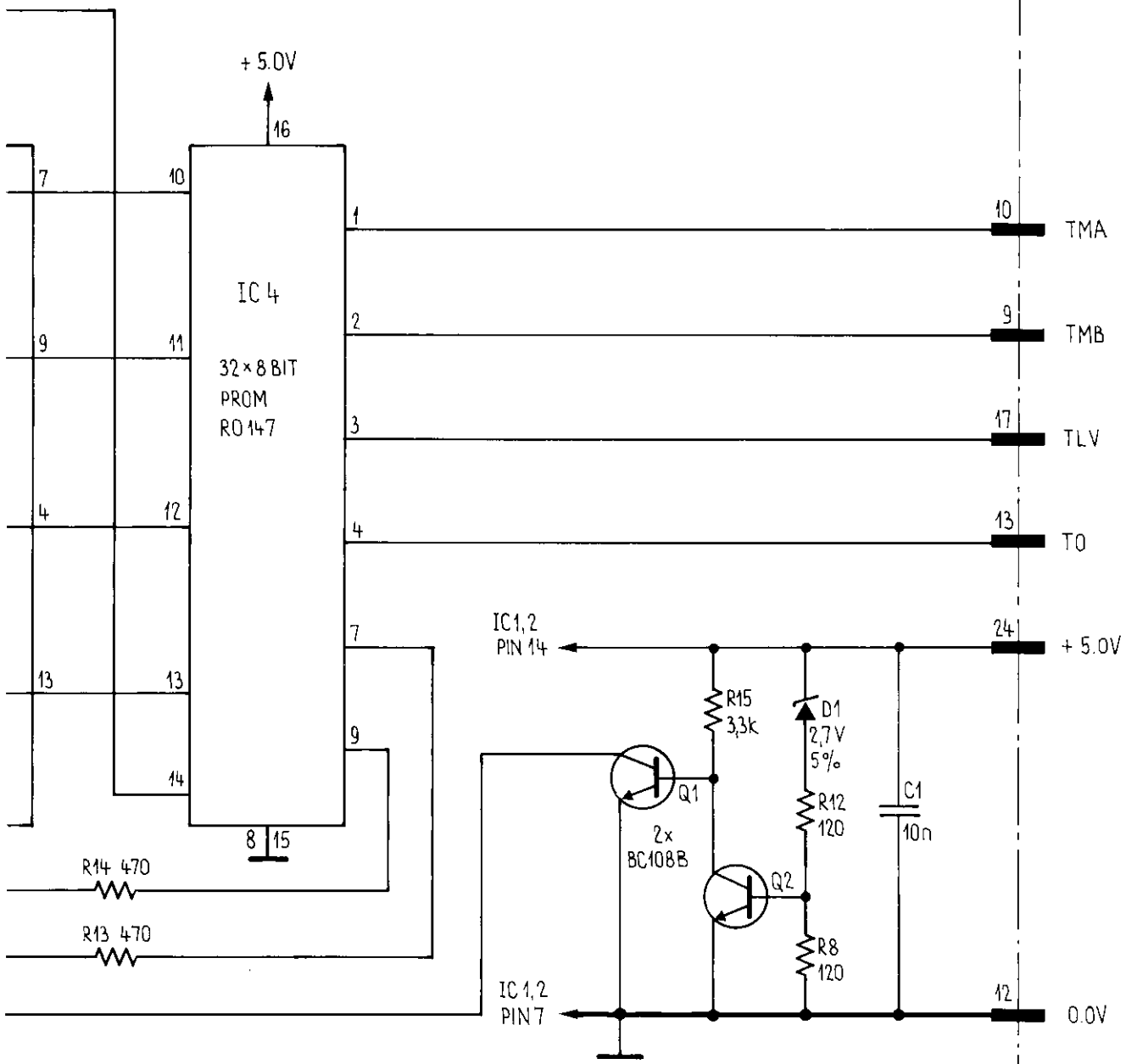
IC4 MAY BE REPLACED BY THE SUBSTITUTION LOGIC PC-BOARD 1.177.316

SEE SERVICE INFORMATION
 48.9 : C*
 52.6 : R2

SUBSTITUTION LOGIC PCB 1.177.316

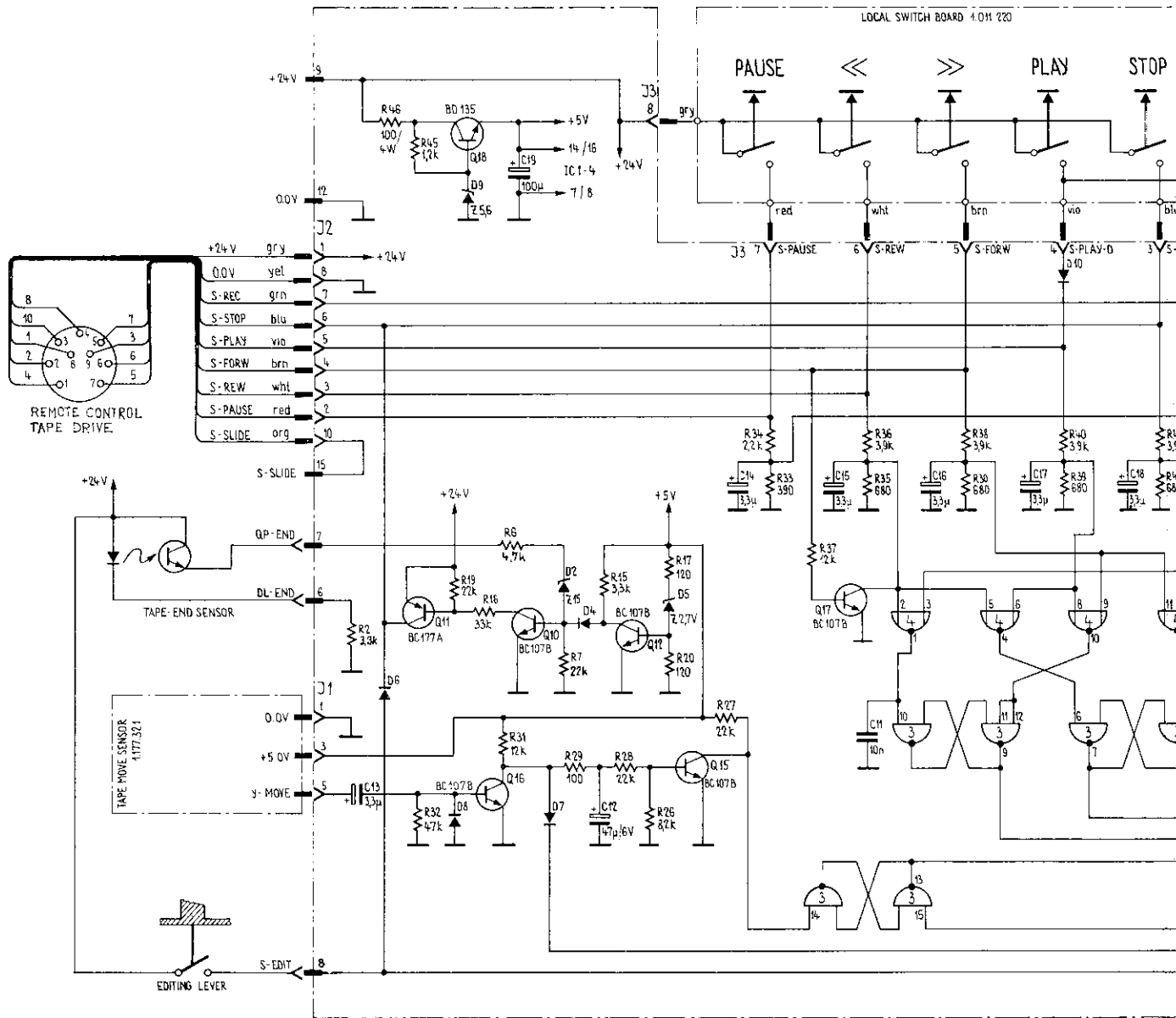


IC4 (TAPE DRIVE CONTROL PCB 1.177.315) MAY BE REPLACED BY THE SUBSTITUTION LOGIC PC-BOARD 1.177.316



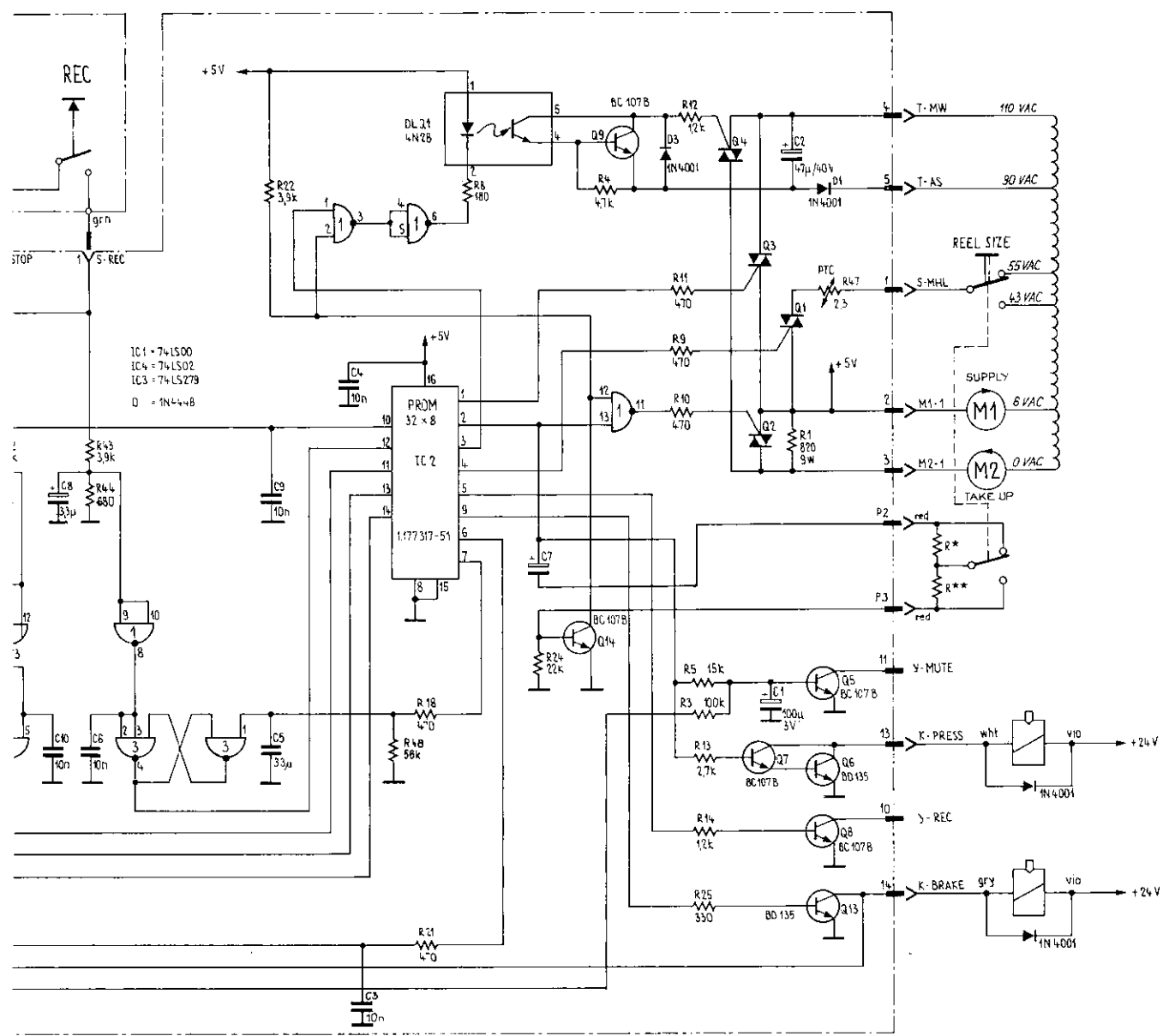
4,477,316

TAPE DRIVE CONTROL PCB 1.177.317 (B77 MKI)



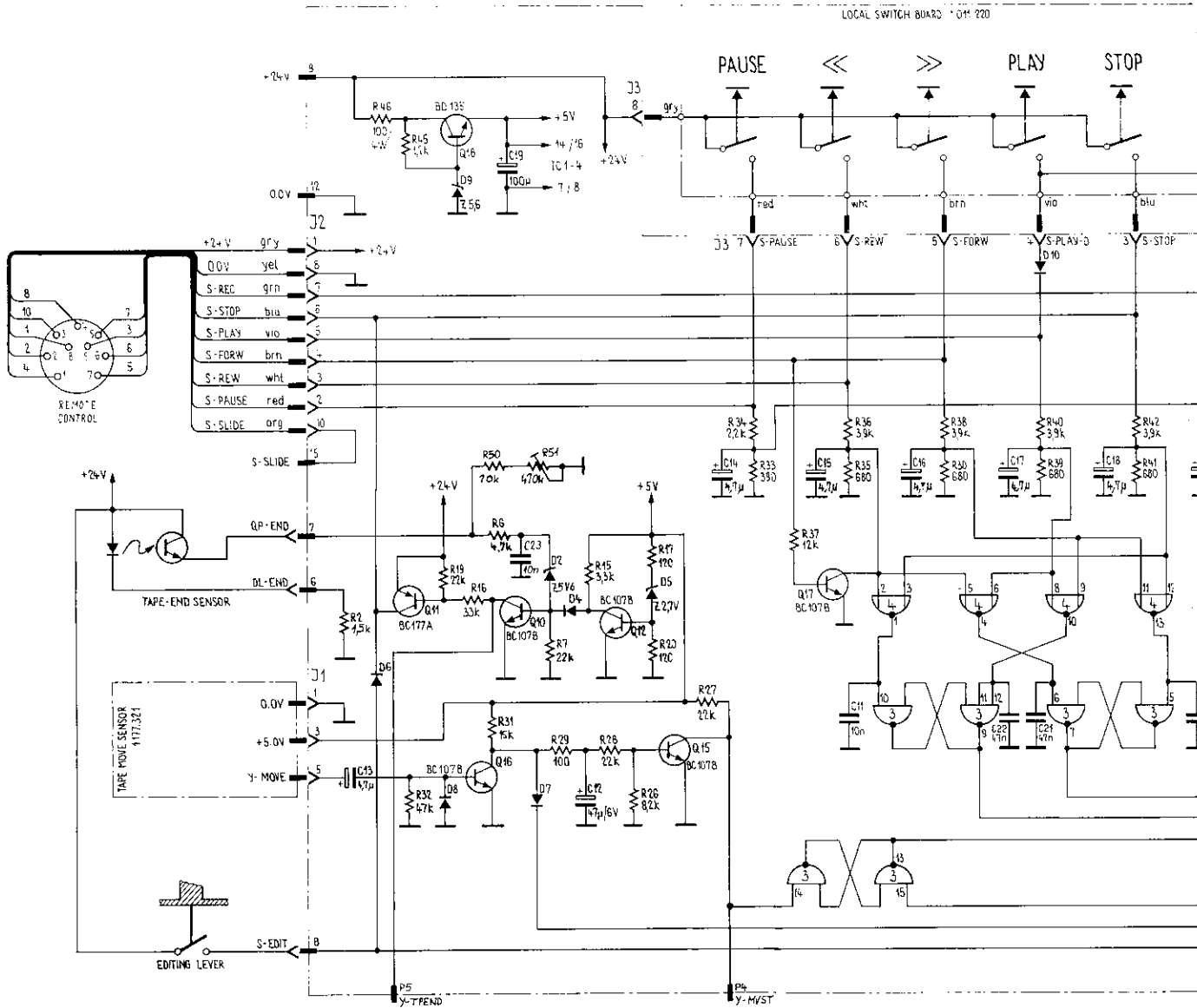
VERSION	REEL SIZE SWITCH	R*	R**
B77 LS/SLS	1.177.145	470 Ω	470 Ω
B77 STD	1.177.146	470 Ω	8.2 k
B77 HS	1.177.147	3.9 k	8.2 k

VALID FROM SERIAL NUMBER 53522 TO 52699

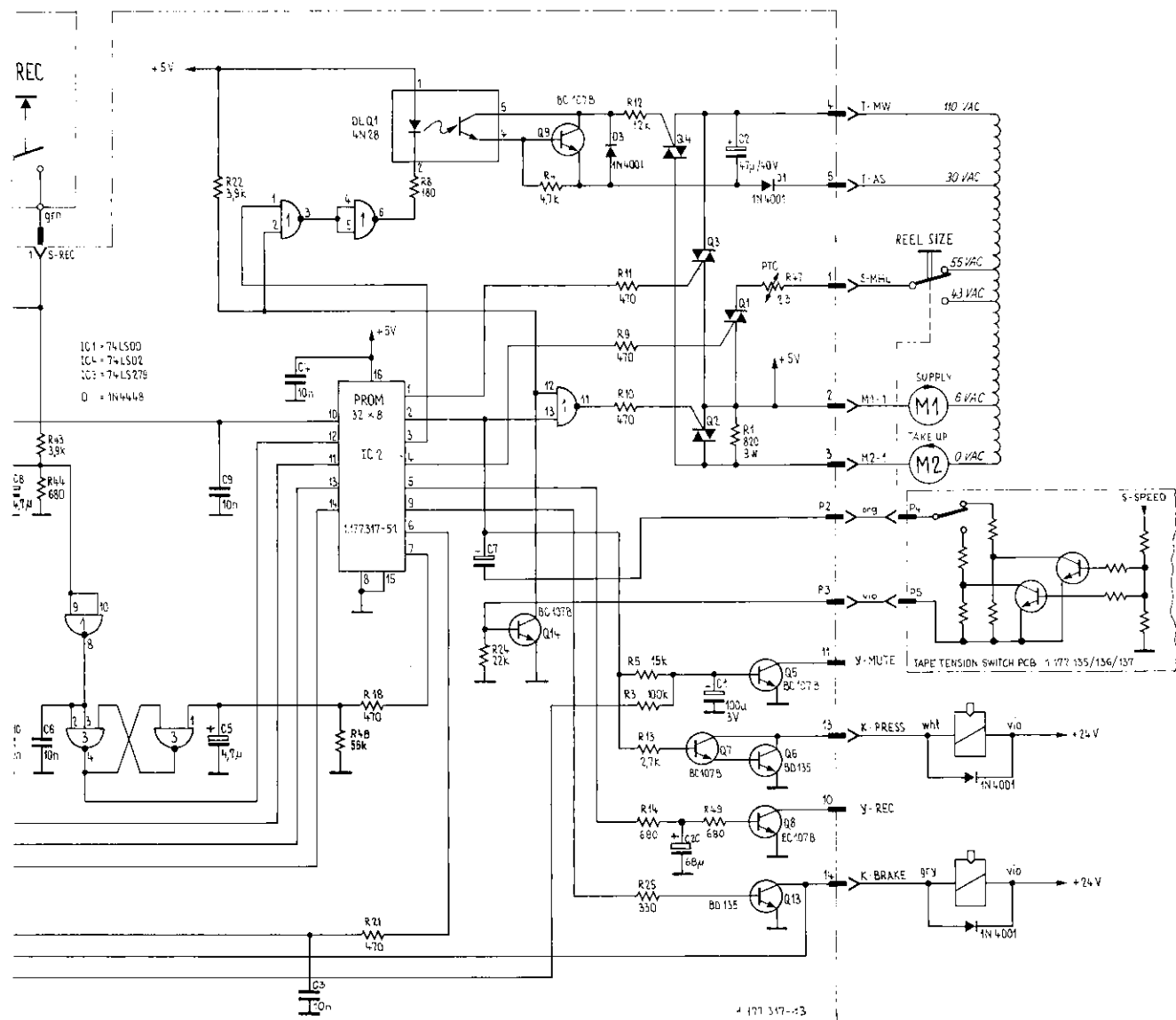


TAPE DRIVE CONTROL PCB 1.177.317-81 (B77 MKII)

- VERSION 1.177.317-00:
 C23 = NOT EQUIPPED
 D02 = Z15V
 P05 = NOT EQUIPPED
 R02 = 3,3k
 R50 = NOT EQUIPPED
 R51 = NOT EQUIPPED
 PCB = 1.177.317-12

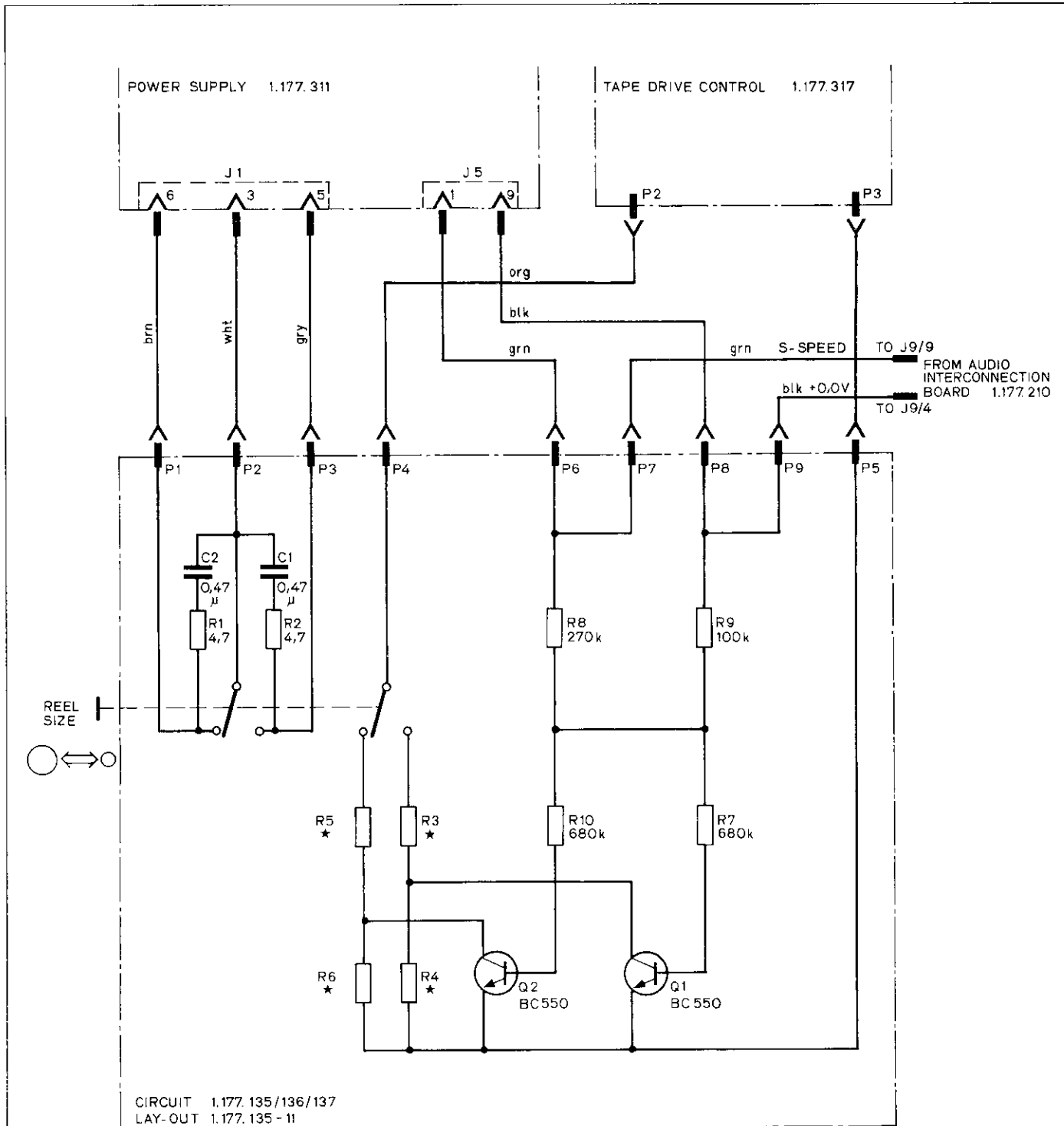


VALID FROM SERIAL NUMBER 100001



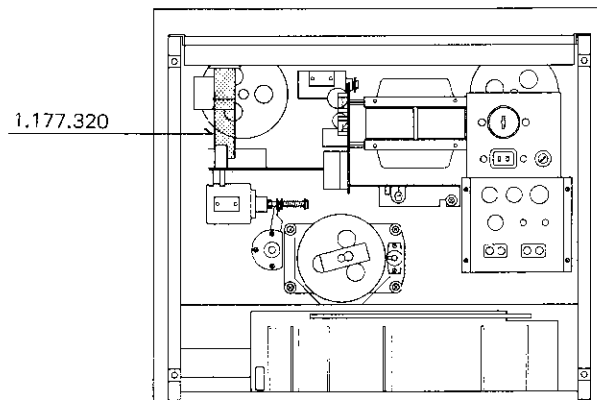
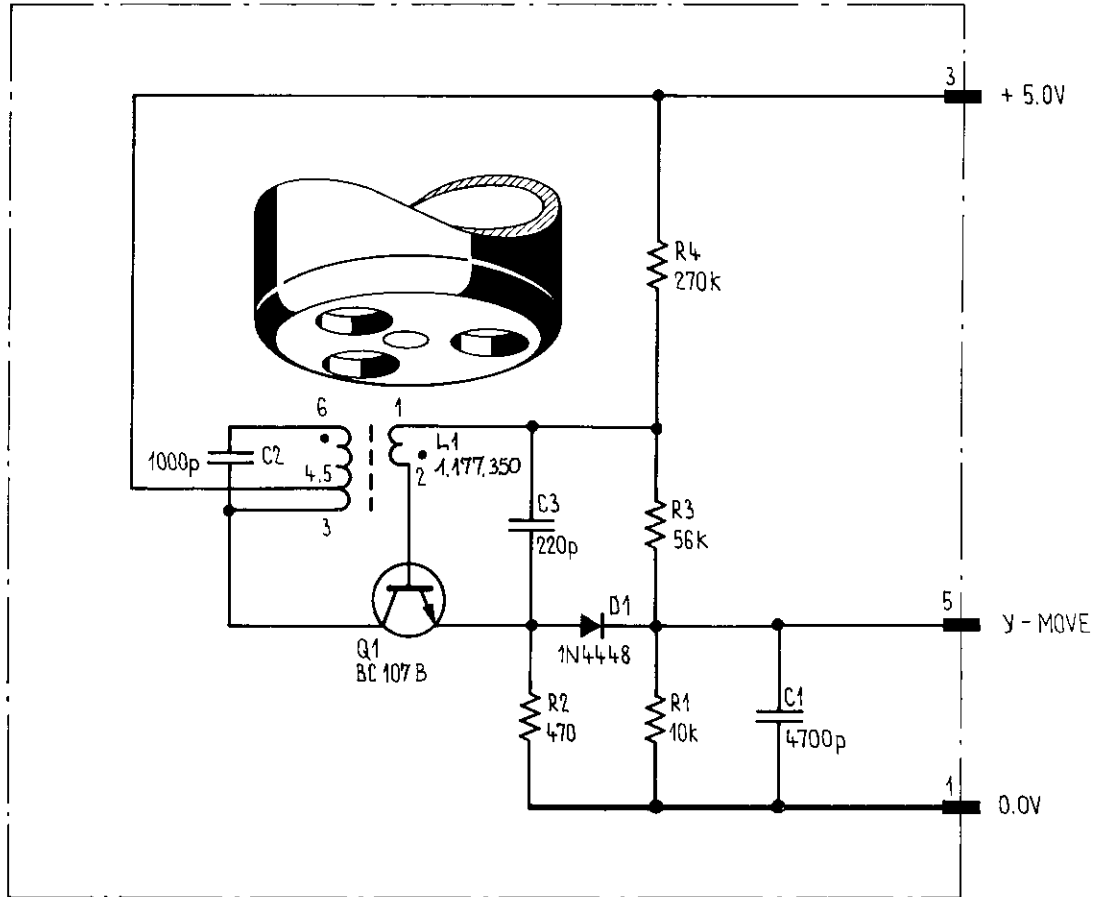
SEE SERVICE INFORMATION
 67.9/67.10/69.7 : TAPE END SWITCH
 57.9 : C5 (TIMER MODE)
 63.5 : RECORD CLICK
 68.5 : C21, C22

TAPE TENSION SWITCH PCB 1.177.135/136/137



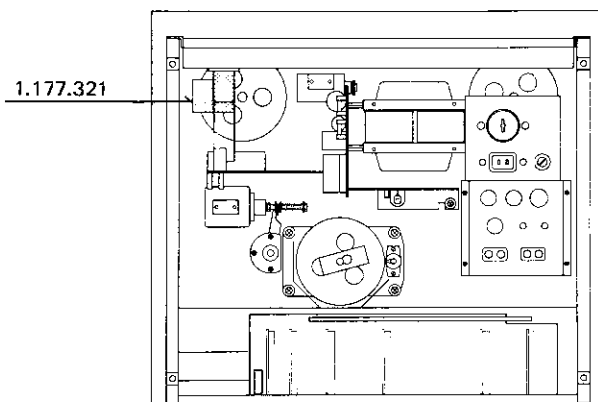
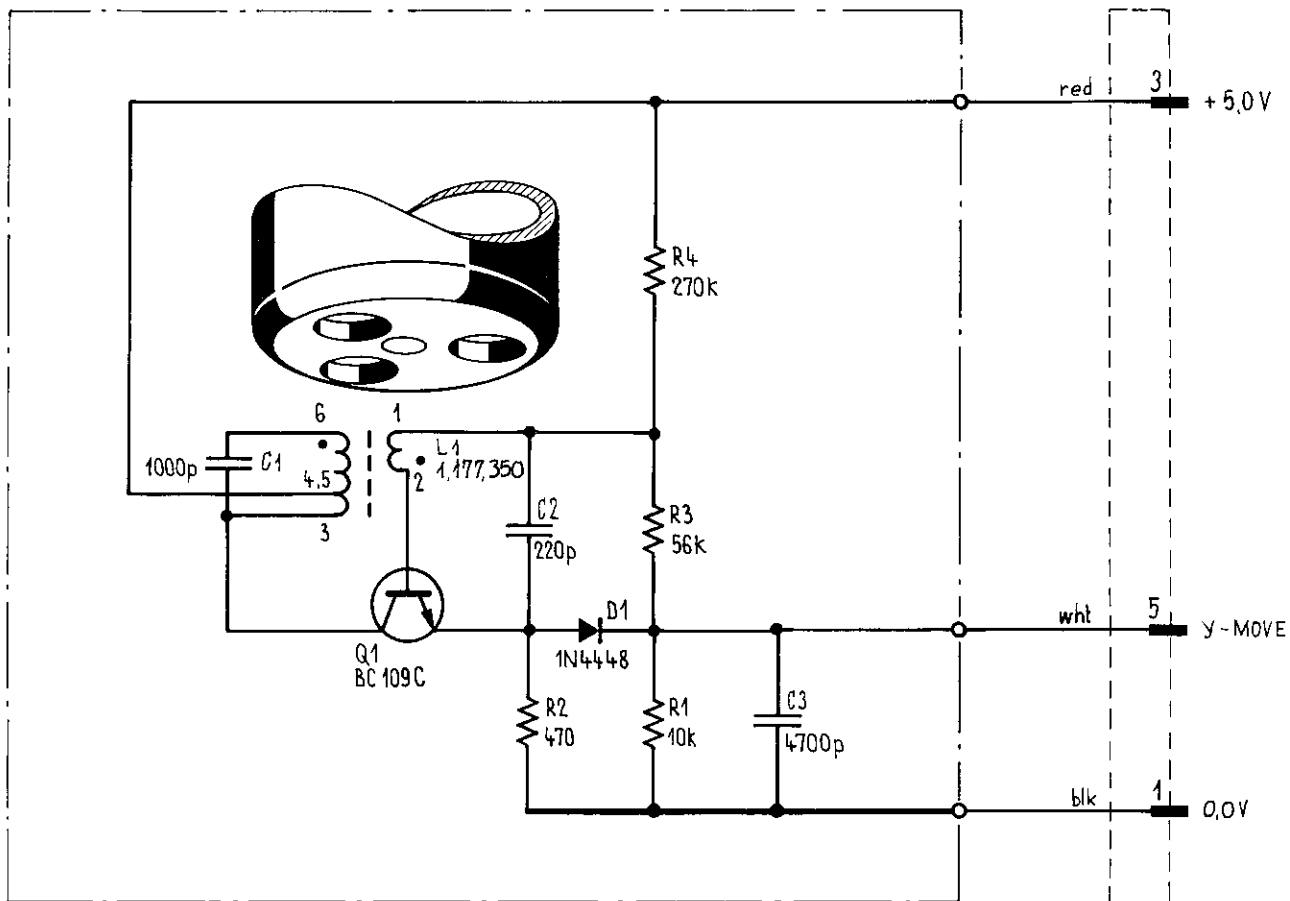
SPEED RANGE	*R3	*R4	*R5	*R6
1.177.135.00 7/8 - 3 3/4"	220R	180R	220R	180R
1.177.136.00 3 3/4 - 7 1/2"	220R	470R	3,9k	3,9k
1.177.137.00 7 1/2 - 15"	1,2k	2,7k	3,9k	3,9k

TAPE MOVE SENSOR PCB 1.177.320

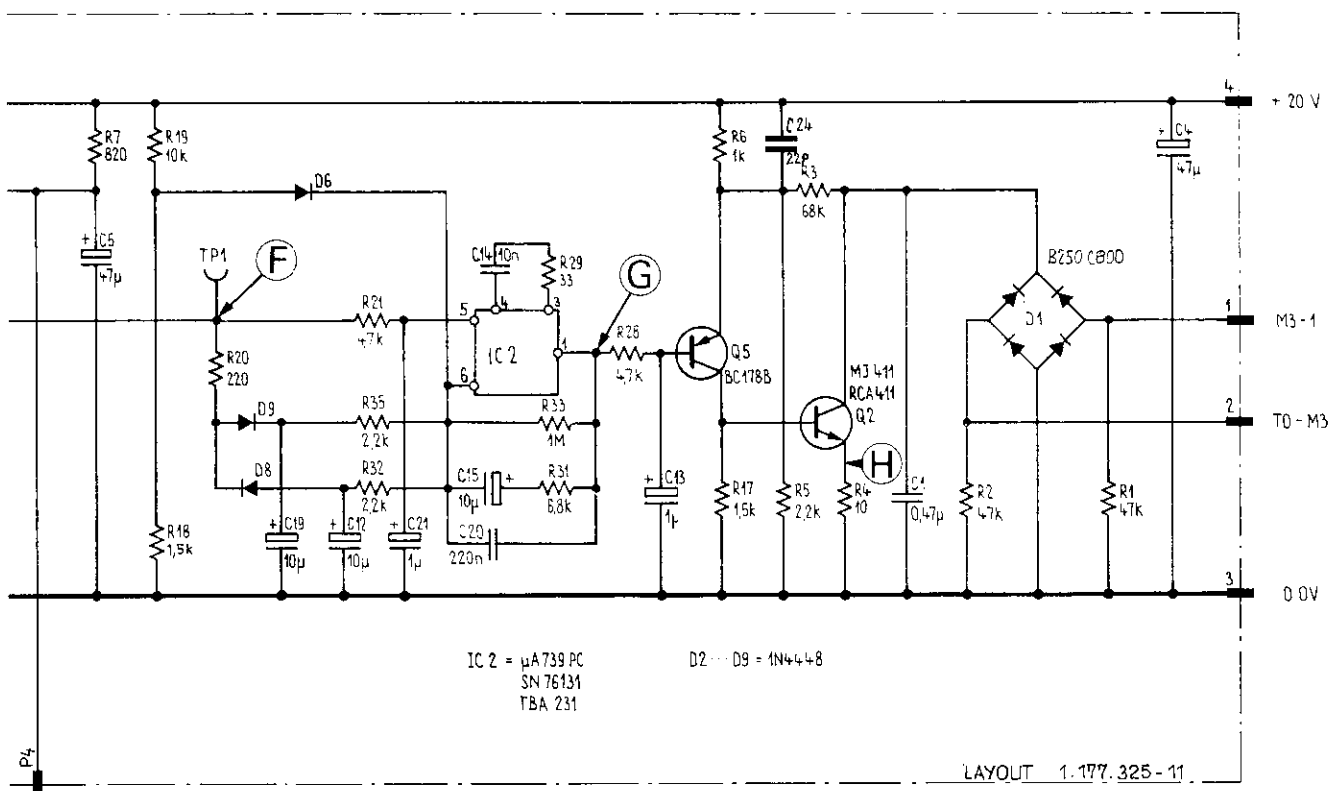
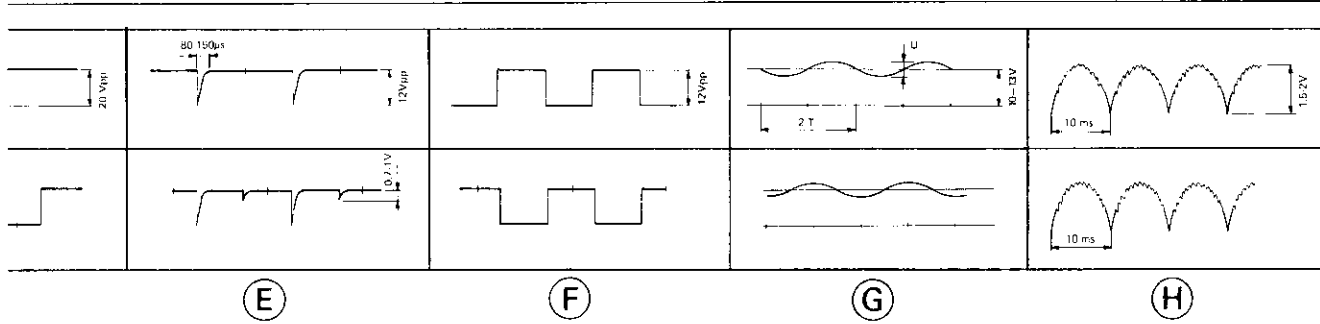


VALID ONLY UP TO SERIAL NUMBER 24029

TAPE MOVE SENSOR PCB 1.177.321



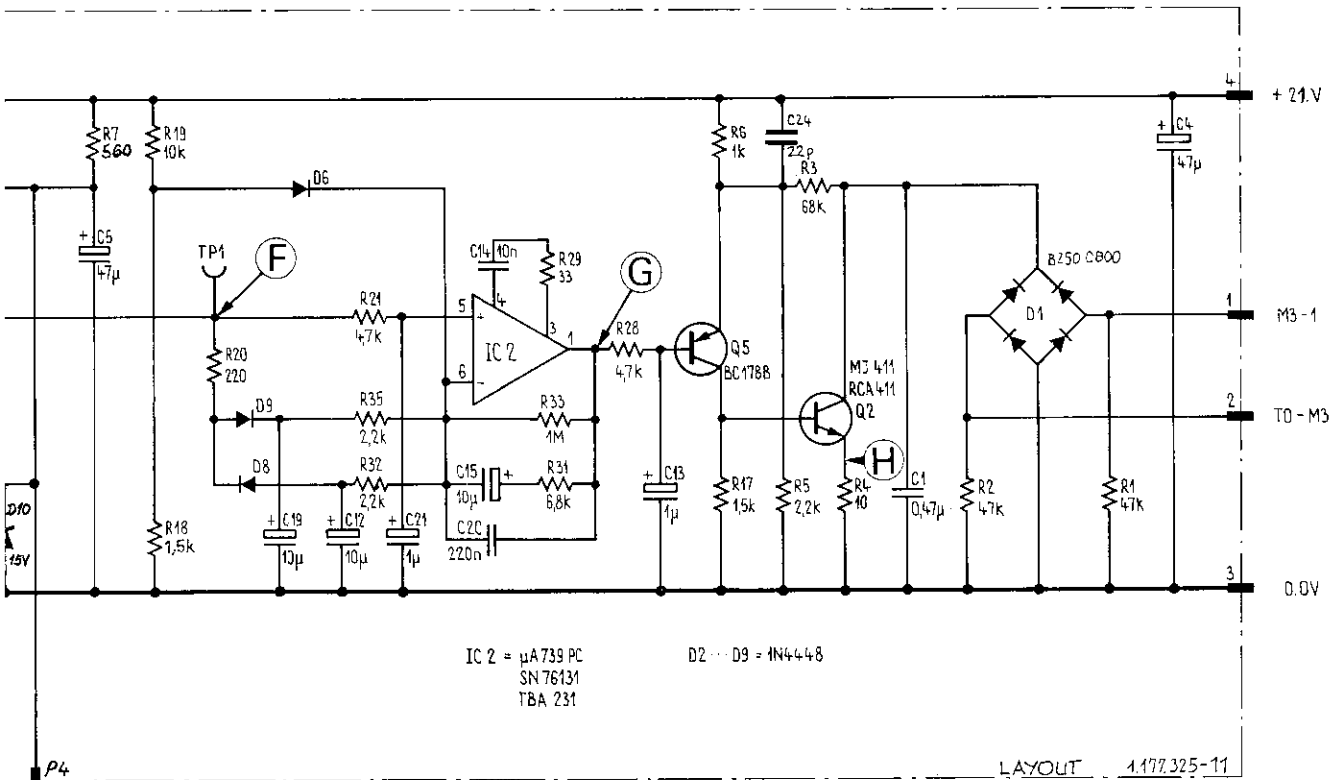
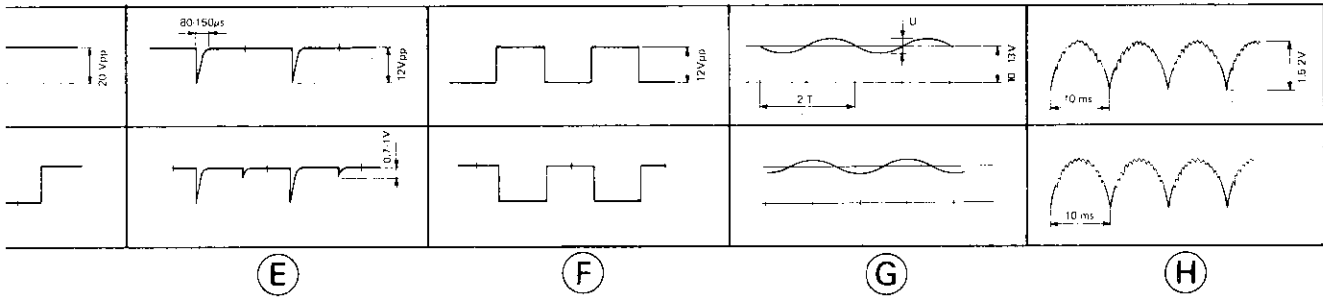
VALID FROM SERIAL NUMBER 24030



SEE SERVICE INFORMATION
63.9 : CAPSTAN START

SPEED CONTROL	T	U
1.177.325	625 μ s	1 Vpp
1.177.326	833 μ s	2.5 Vpp
1.177.327	1666 μ s	3 Vpp

TYPE	SPEED	CAPSTAN SHAFT ϕ	C-MOTOR NO.	SPEED CONTROL	C8 \star	C9 \star
HS	7 1/2" - 15"	9.06 mm	1.021.320	1.177.325	1.6 nF	4.7 nF
STD	3 3/4" - 7 1/2"	4.51 mm	1.021.300	1.177.325	1.6 nF	4.7 nF
LS	1 7/8" - 3 3/4"	3.00 mm	1.021.304	1.177.326	1.6 nF	6.8 nF
SLS	15/16" - 1 7/8"	3.00 mm	1.021.304	1.177.327	5.6 nF	10 nF



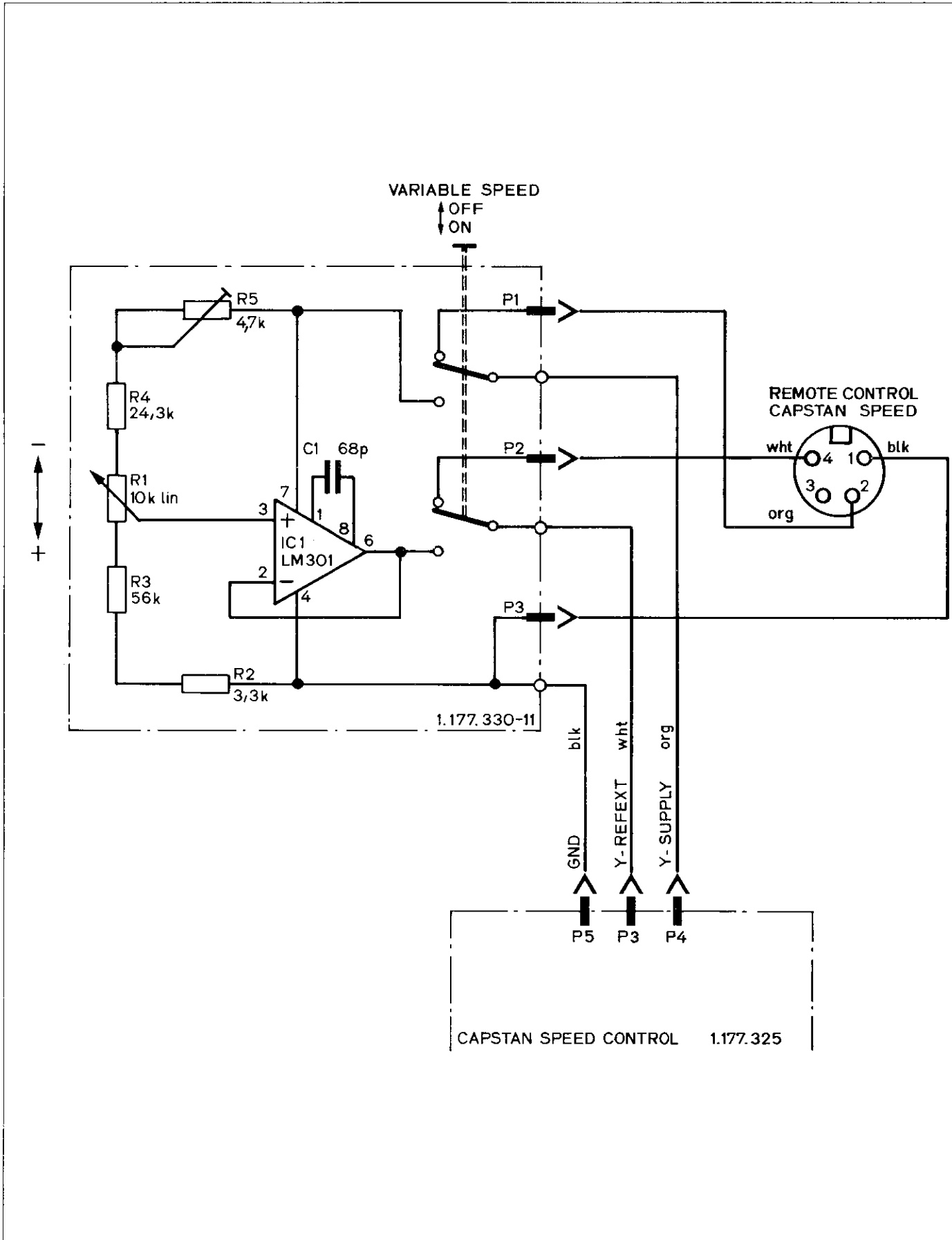
VERSION 1.177.325-00/326-00/327-00
D10 = NOT EQUIPPED
R 7 = 820 Ω

SPEED CONTROL	T	U
1.177.325	625 μ s	1 Vpp
1.177.326	833 μ s	2.5 Vpp
1.177.327	1666 μ s	3 Vpp

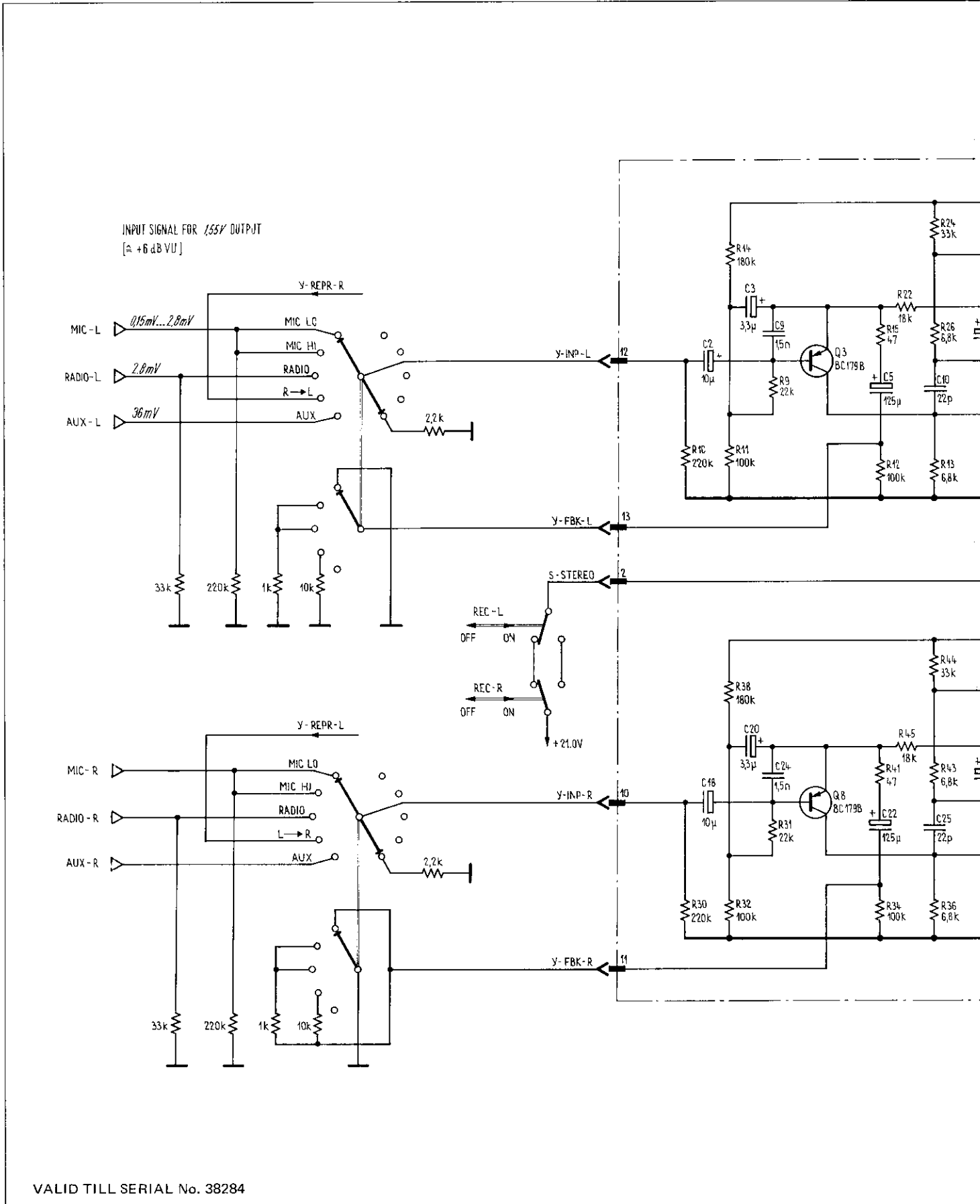
SEE SERVICE INFORMATION
63.9 : CAPSTAN START

TYPE	SPEED	CAPSTAN SHAFT ϕ	C-MOTOR NO.	SPEED CONTROL	C8 \star	C9 \star
HS	7 1/2" - 15"	9.06 mm	1.021.320	1.177.325	1.6 nF	4.7 nF
STD	3 3/4" - 7 1/2"	4.51 mm	1.021.300	1.177.325	1.6 nF	4.7 nF
LS	1 7/8" - 3 3/4"	3.00 mm	1.021.304	1.177.326	1.6 nF	6.8 nF
SLS	15/16" - 1 7/8"	3.00 mm	1.021.304	1.177.327	5.6 nF	10 nF

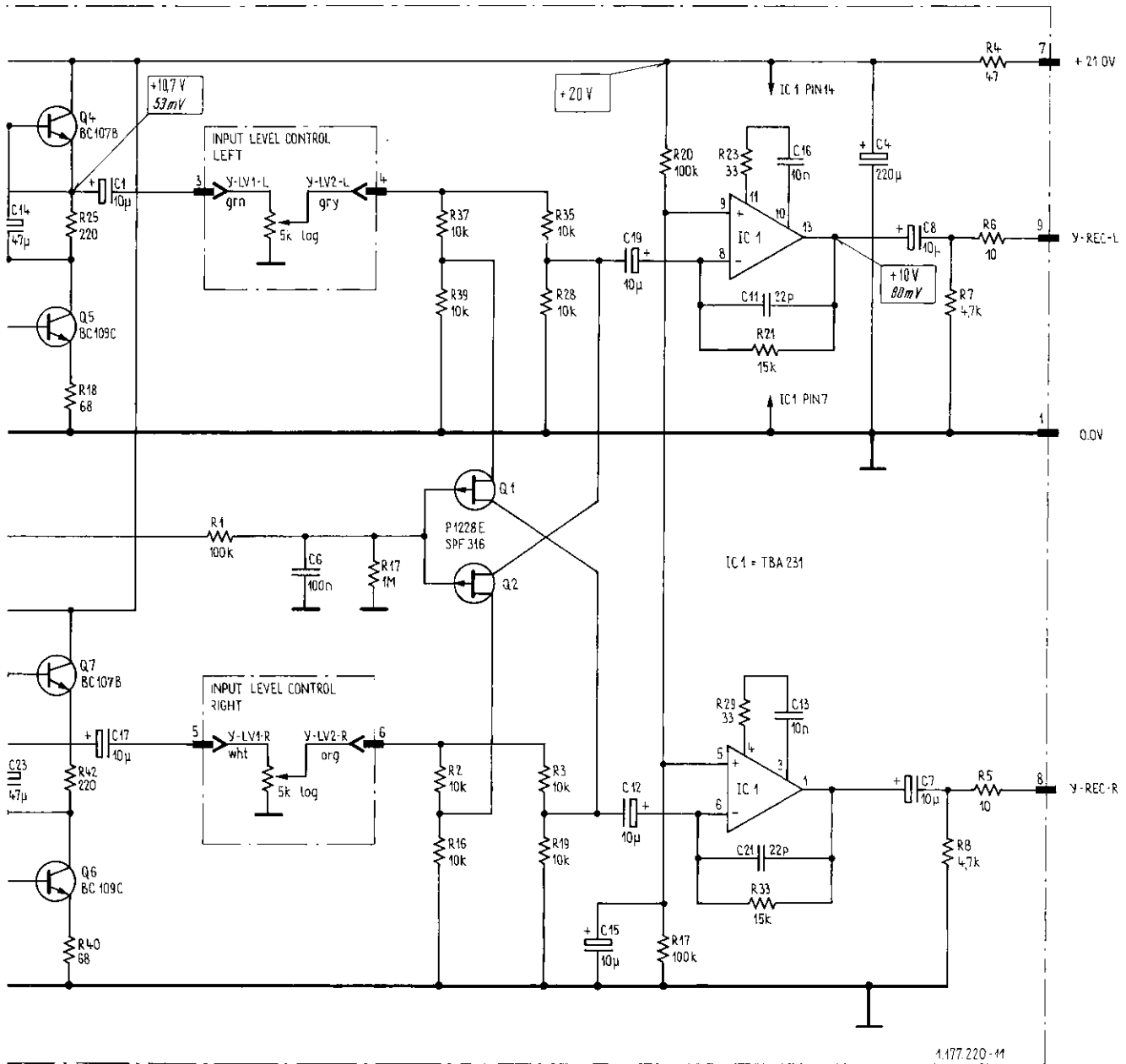
VARIABLE SPEED CONTROL PCB 1.177.330



INPUT AMPLIFIER PCB 1.177.220

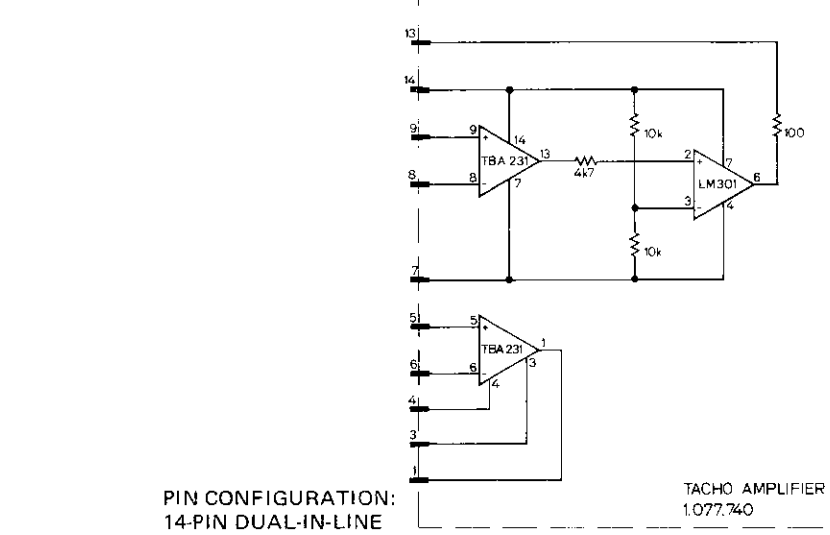
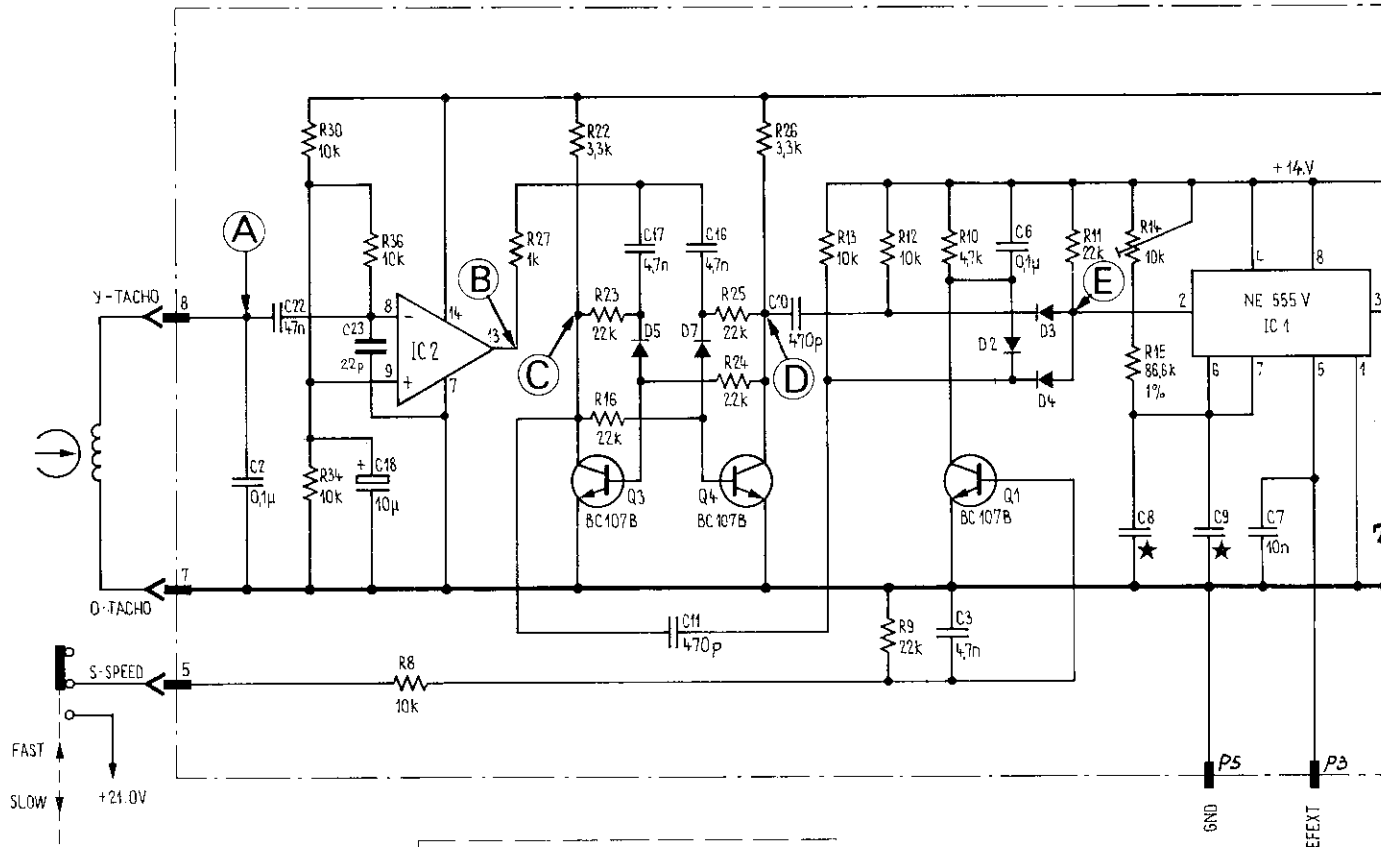
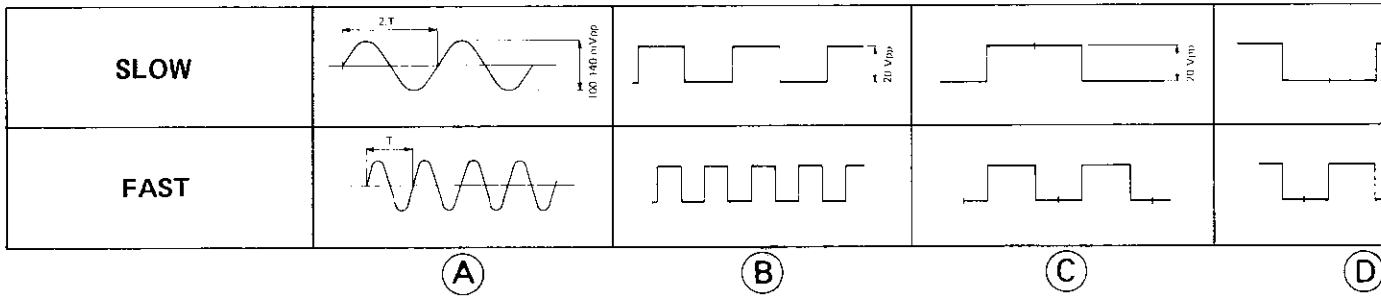


VALID TILL SERIAL No. 38284

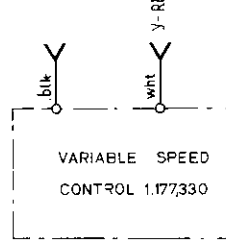


SEE SERVICE INFORMATION
51.3 : C10,11,21,25 (OSCILLATION)

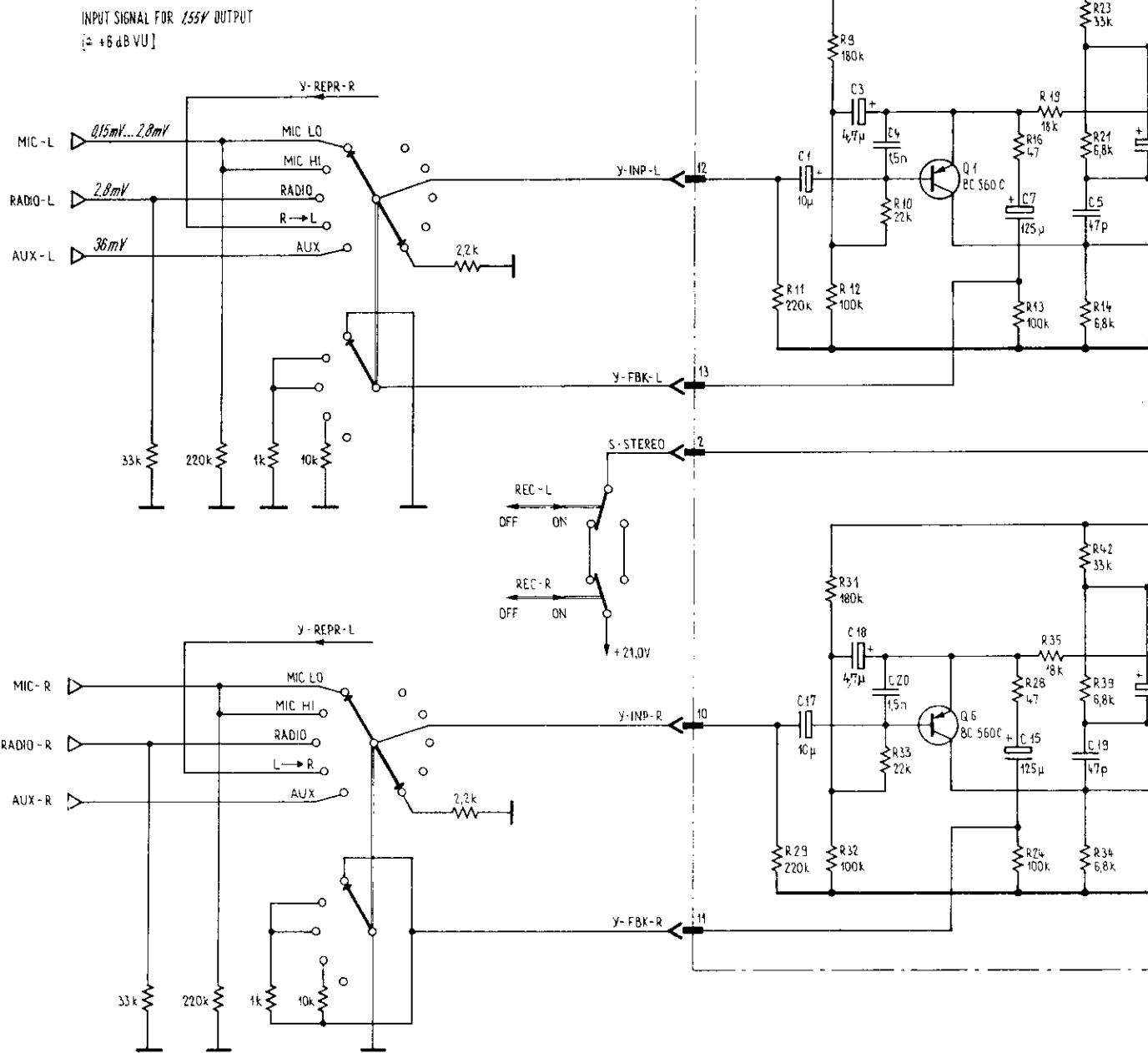
CAPSTAN SPEED CONTROL PCB 1.177.325-00/-81/326/327 (B77 MKII)



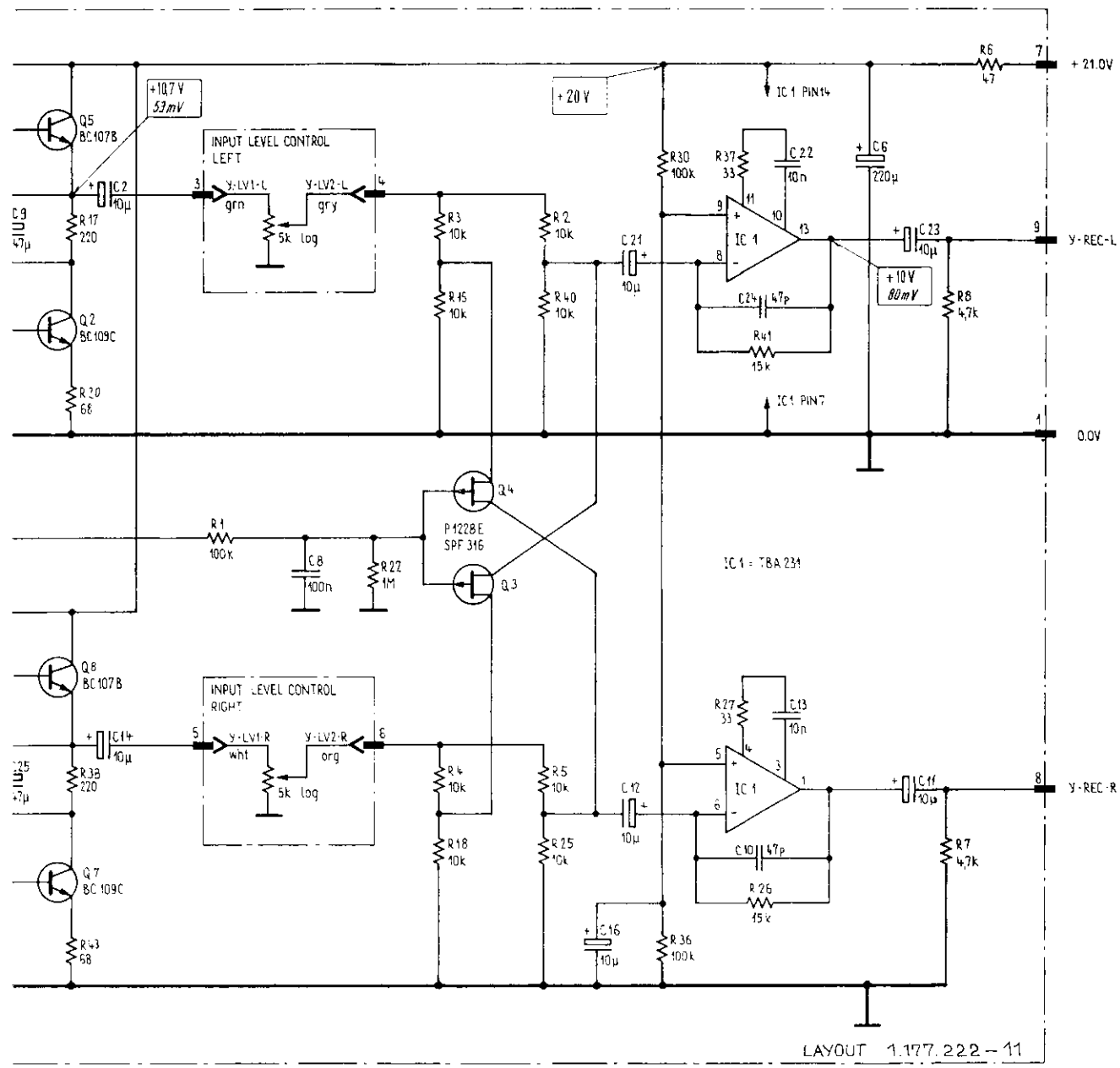
VERSION 1.177.327:
INSTEAD OF THE
REMOVED IC2 THE
SUB-ASSY TACHO
AMPLIFIER 1.077.740
IS PLUGGED INTO
THE IC2 SOCKET



INPUT AMPLIFIER PCB 1.177.221

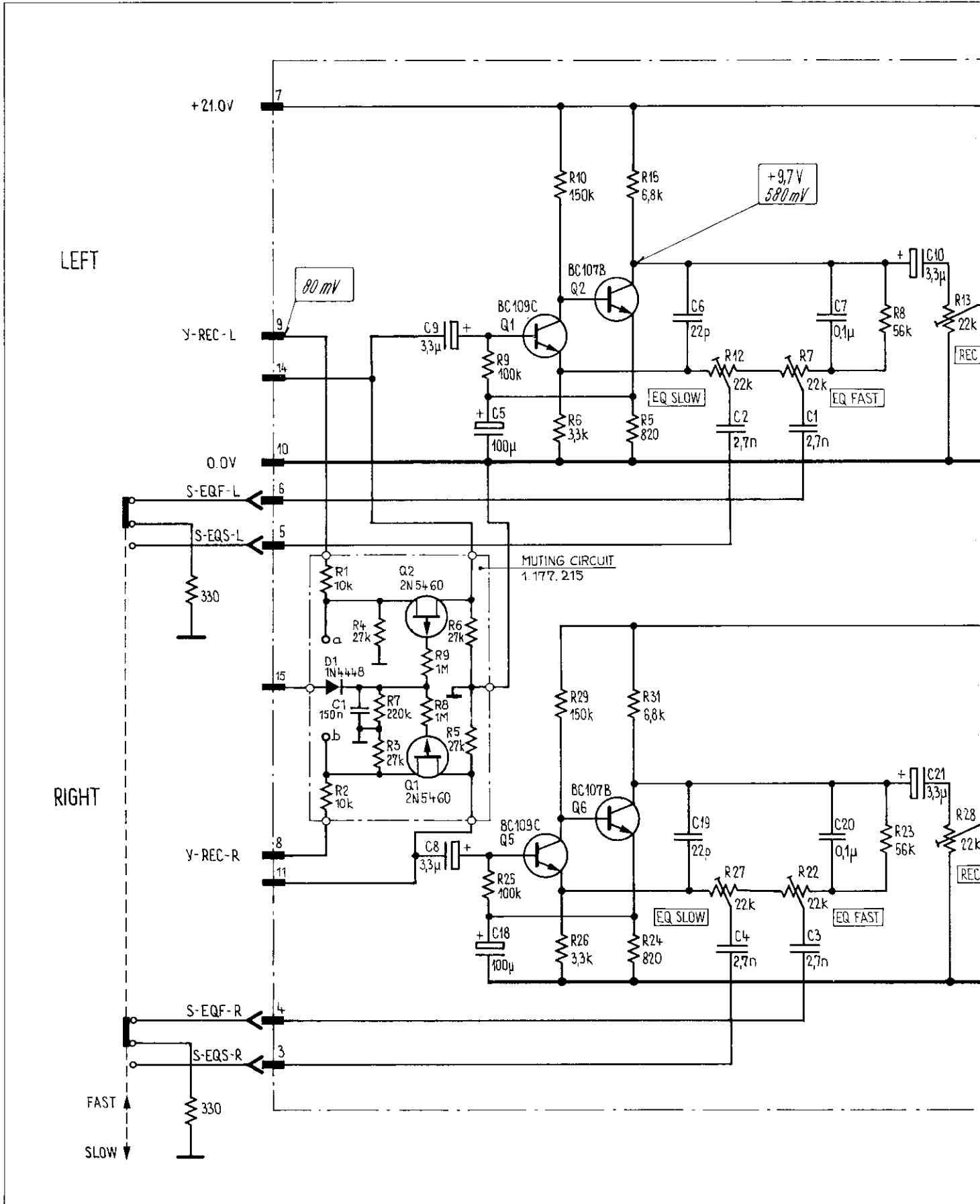


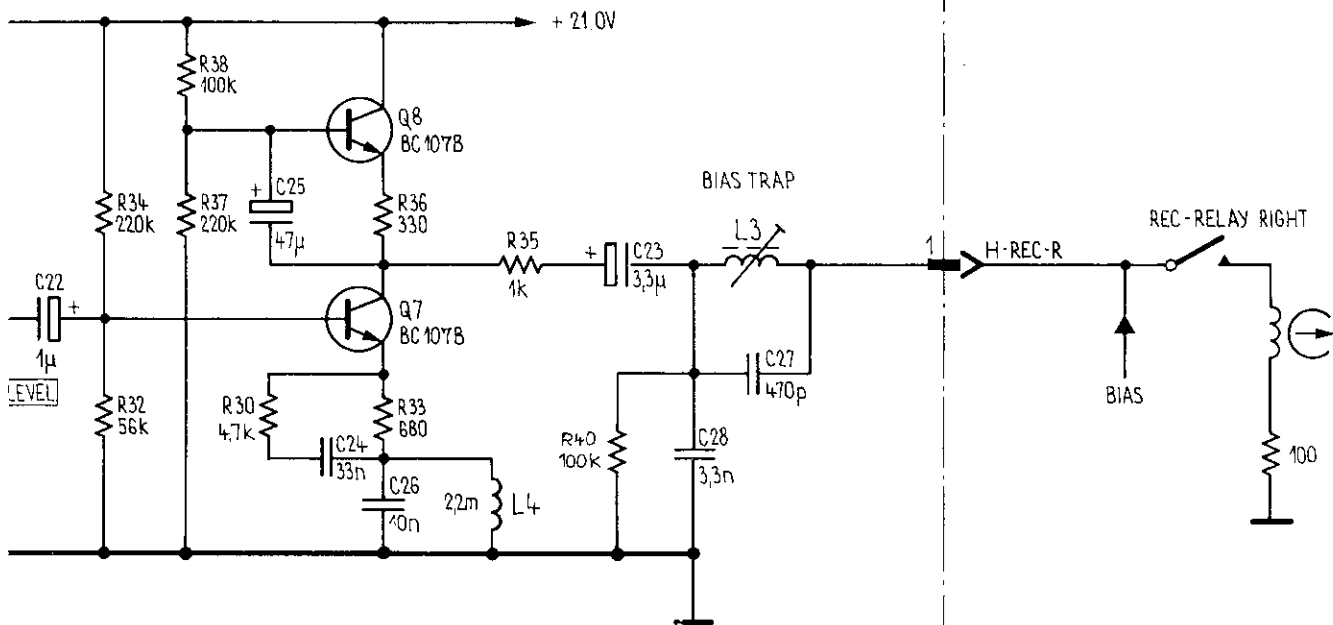
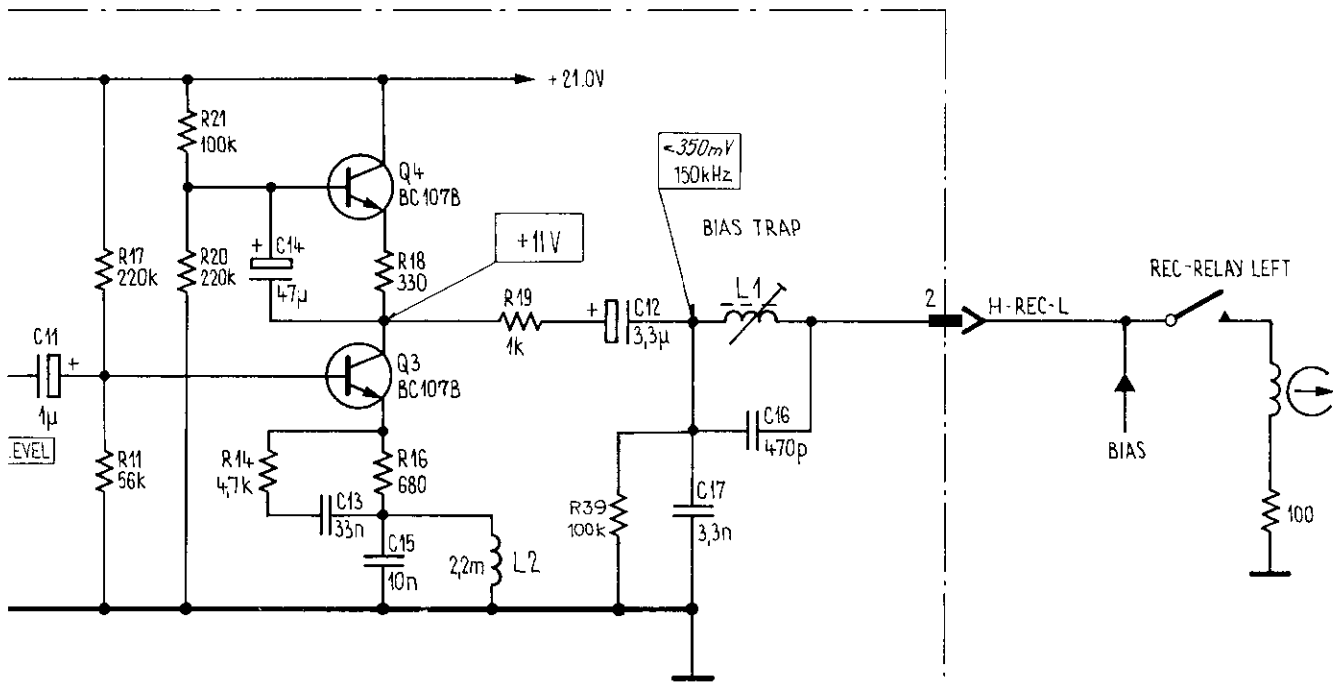
VALID SINCE SERIAL No. 38285



LAYOUT 1.177.222 - 11

RECORD AMPLIFIER PCB (NAB 3 3/4 - 7 1/2 ips) 1.177.230-81

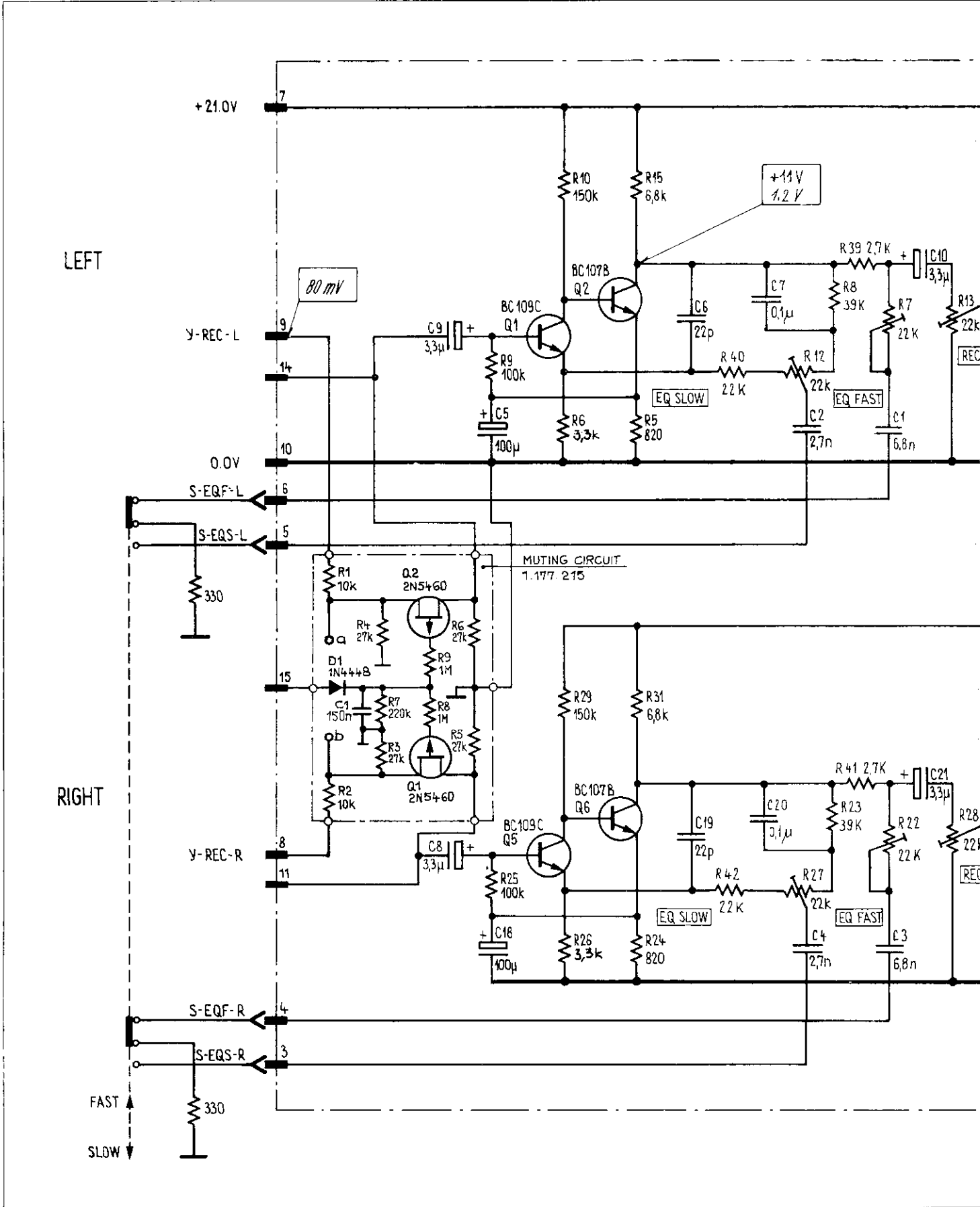


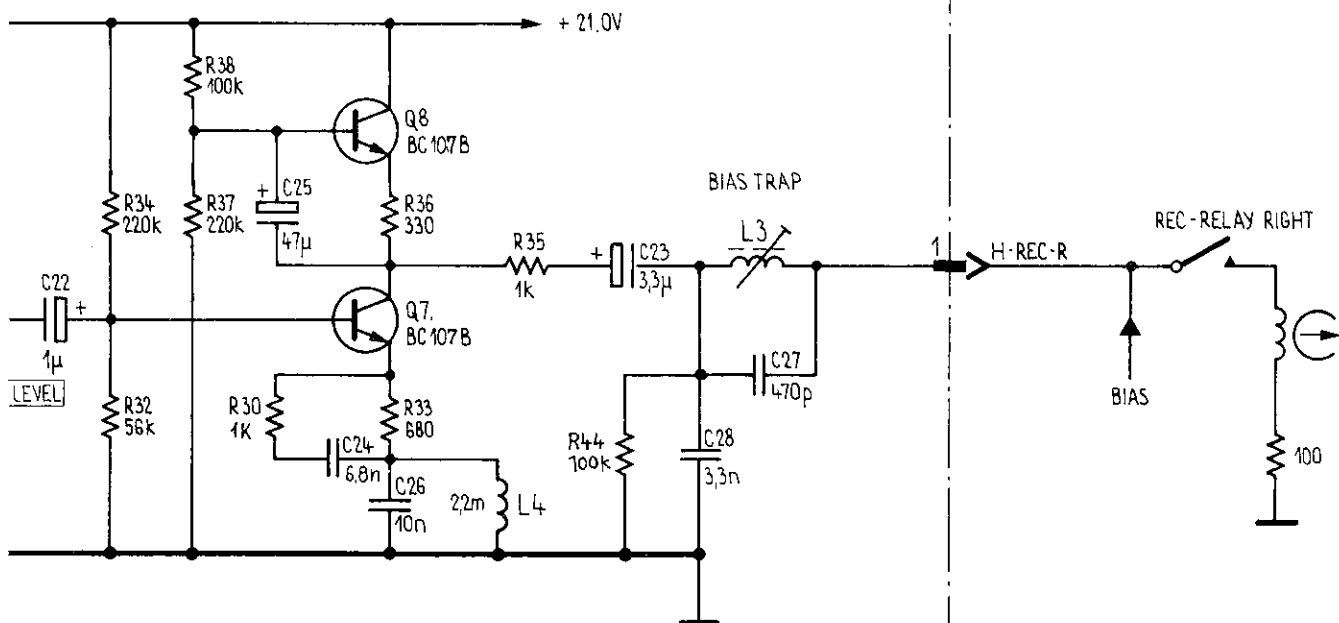
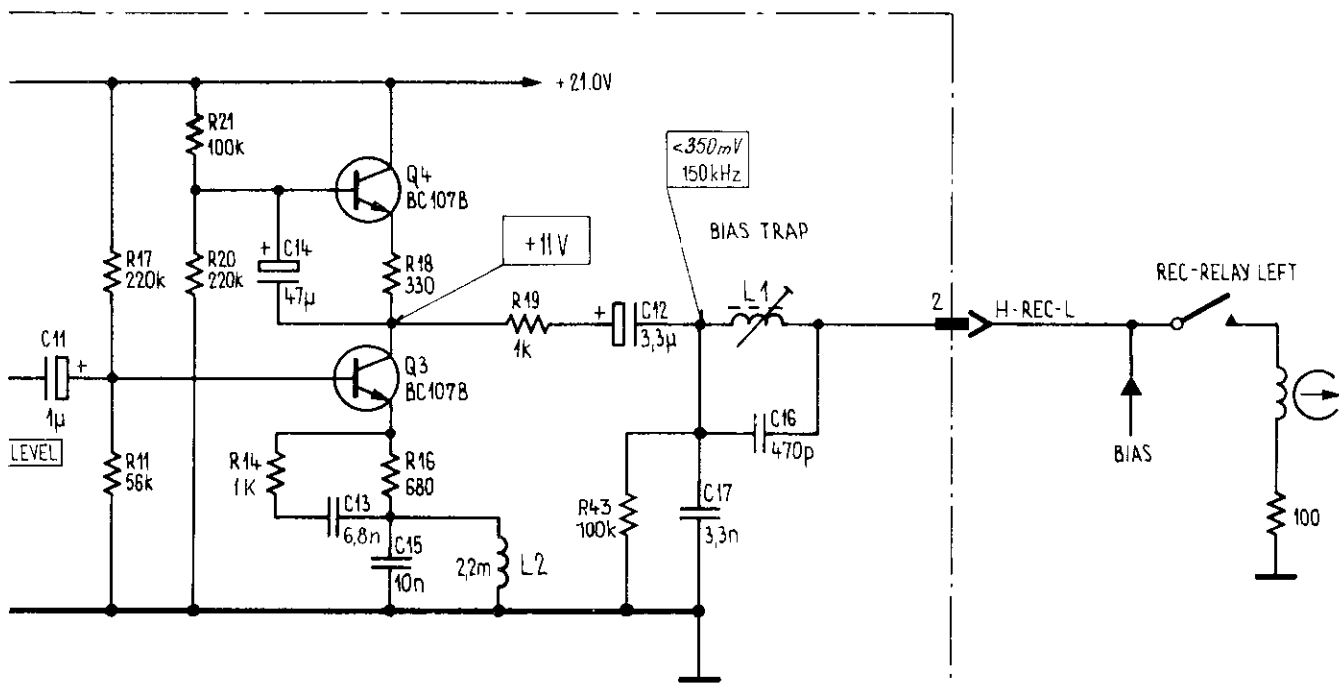


LAYOUT 1.177.230-11

SEE SERVICE INFORMATION
63.7 : MUTING CIRCUIT 1.177.215

RECORD AMPLIFIER PCB (NAB 7 1/2 - 15 ips) 1.177.232-81

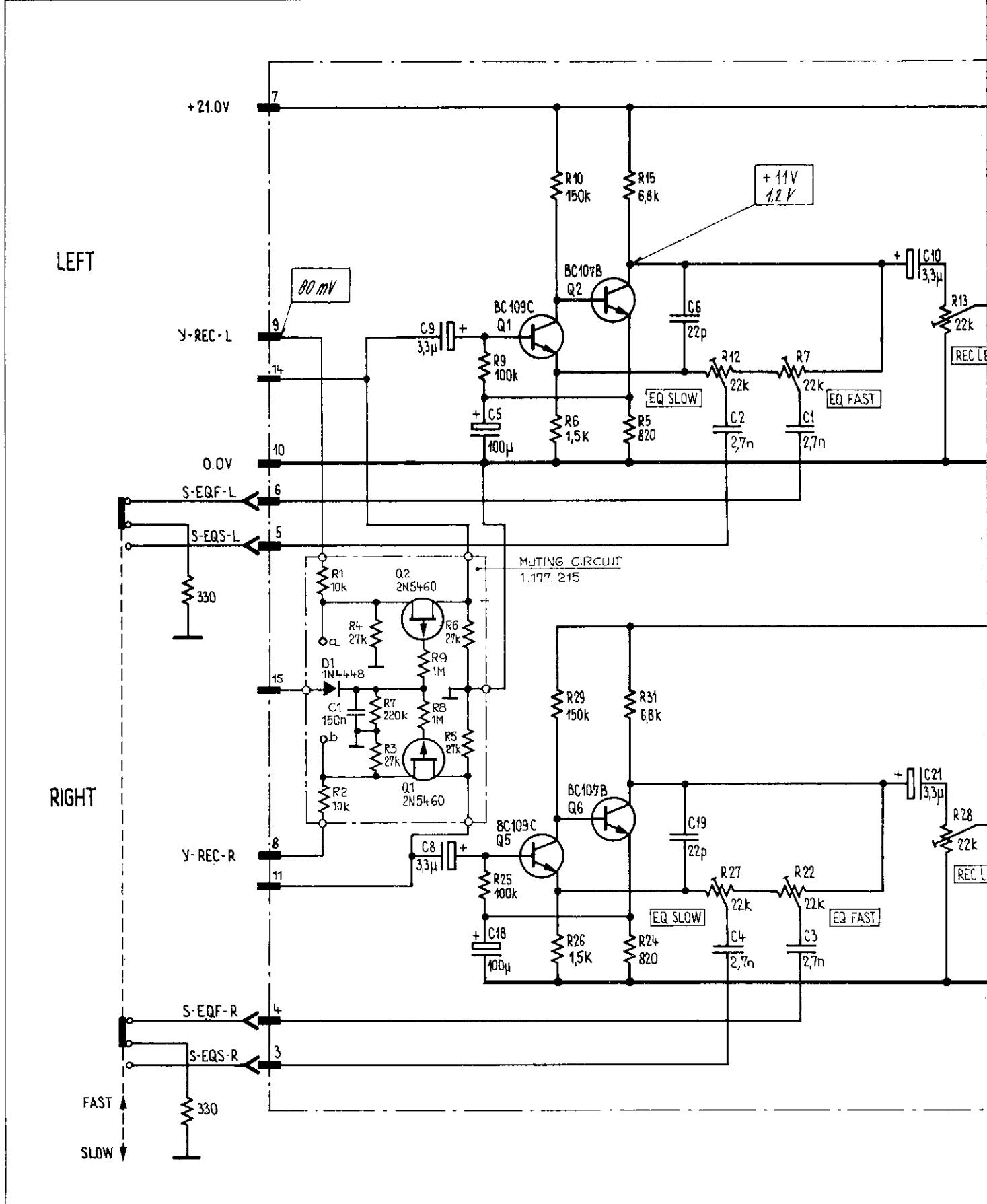


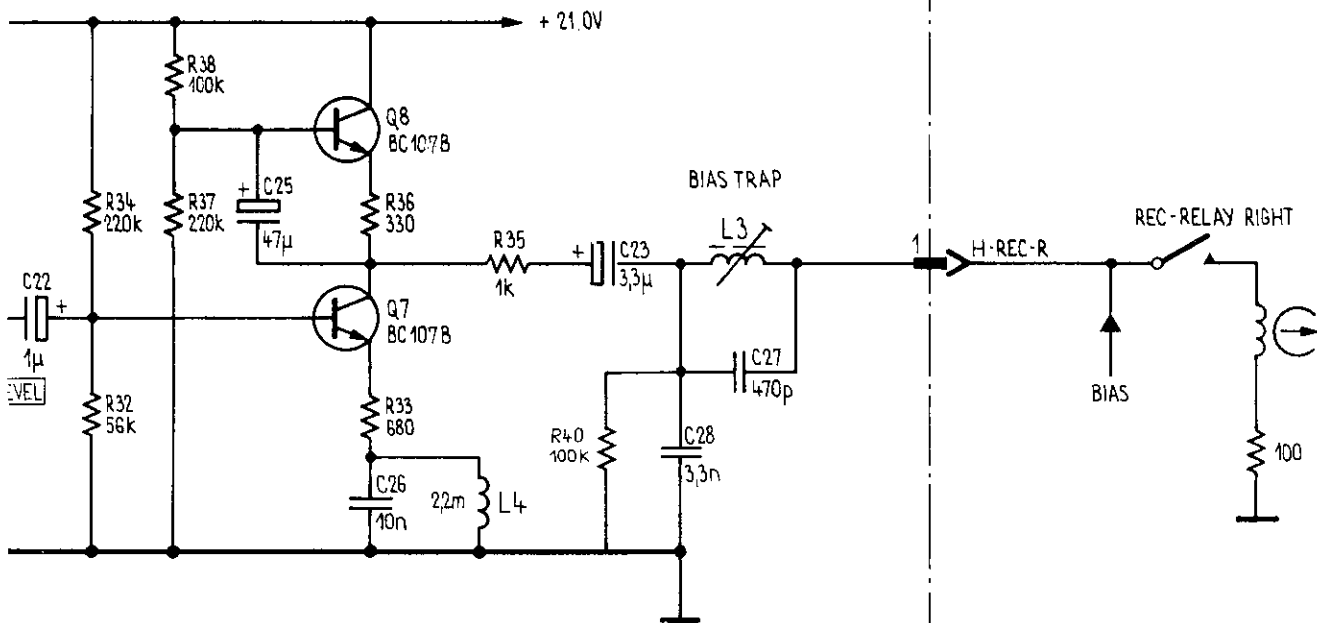
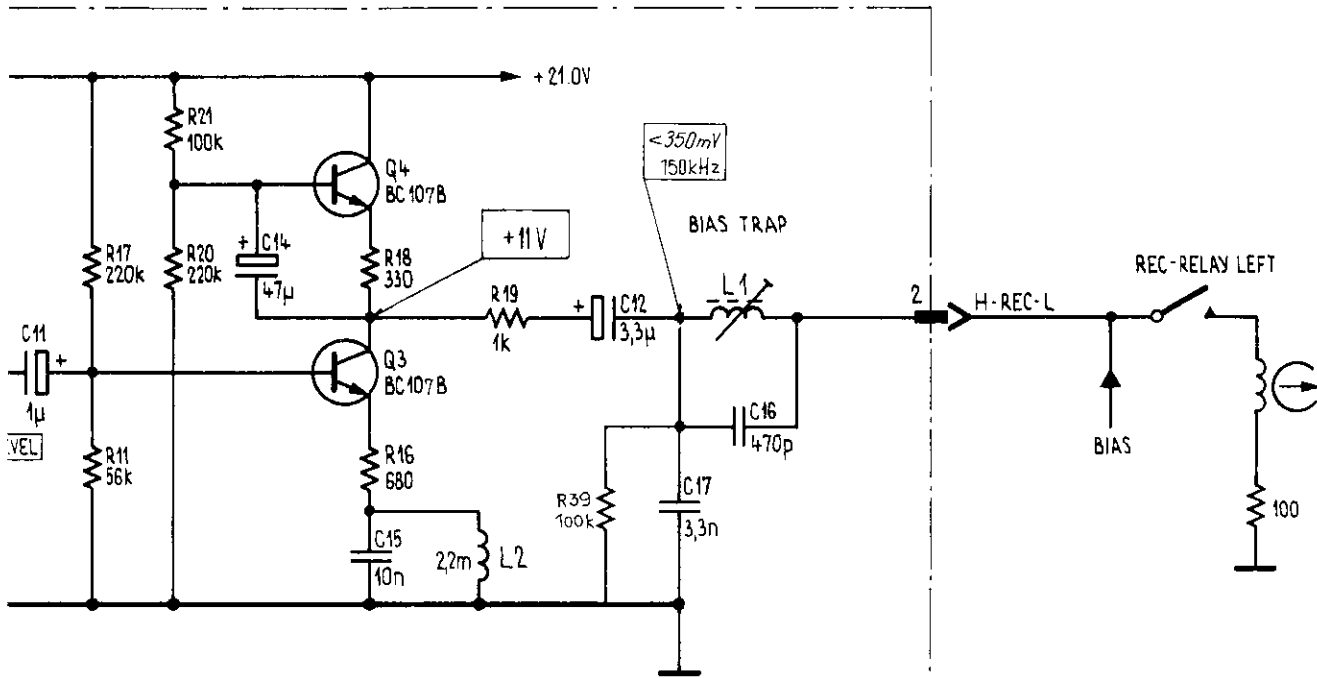


CIRCUIT 1.177.232-81
 (LAY-OUT 1.177.232-11)

SEE SERVICE INFORMATION
 63.7 : MUTING CIRCUIT 1.177.215

RECORD AMPLIFIER PCB (IEC 7 1/2 - 15 ips) 1.177.233-81

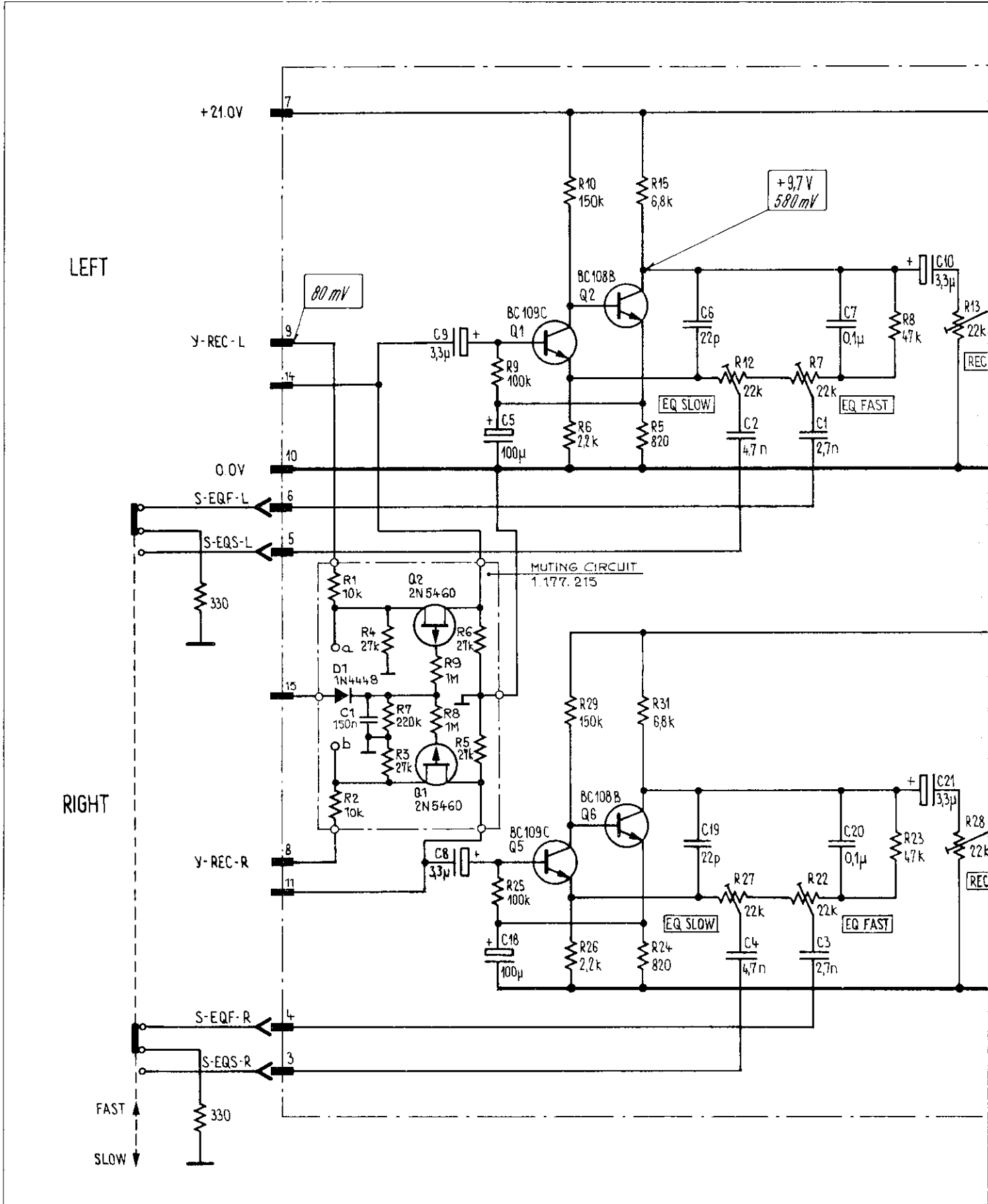


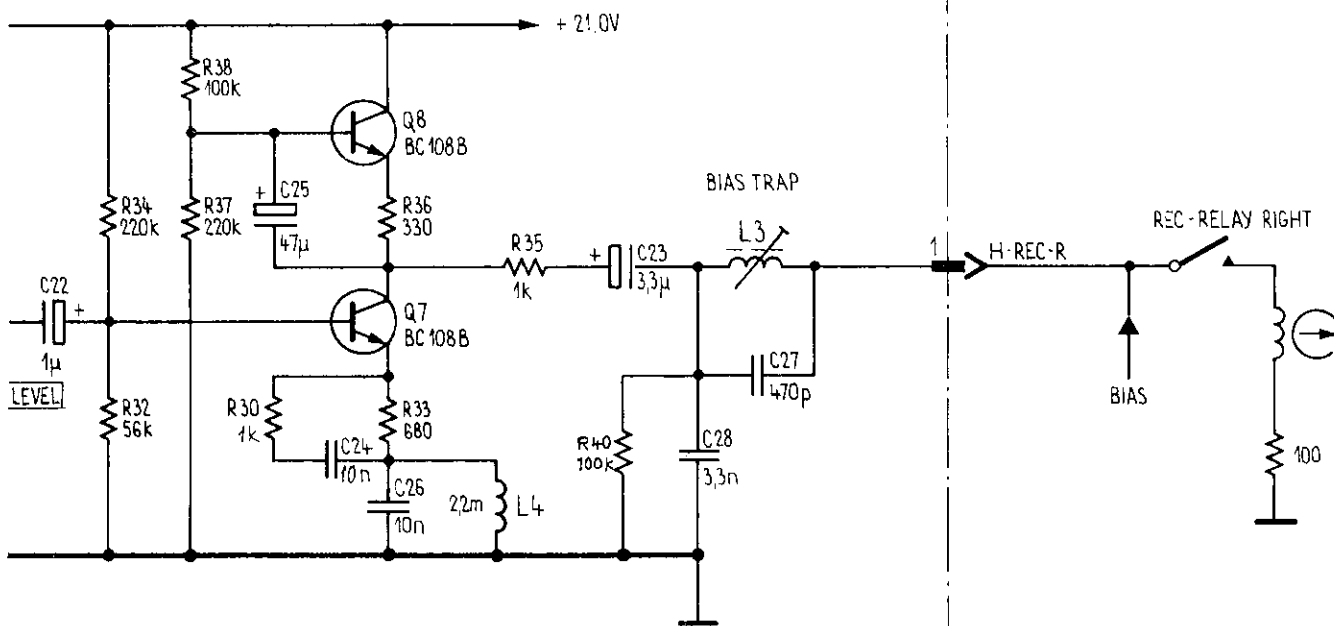
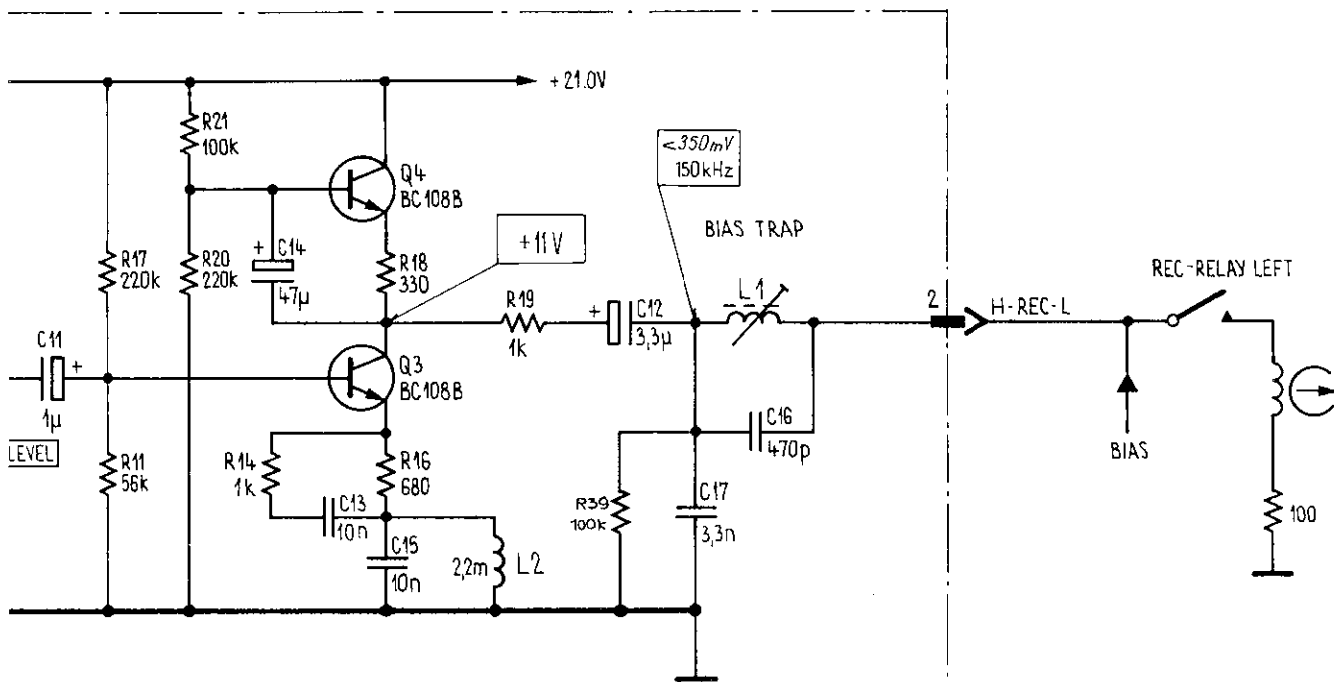


CIRCUIT 1.177.233-81
 (LAY-OUT 1.177.230-11)

SEE SERVICE INFORMATION
 63.7 : MUTING CIRCUIT 1.177.215

RECORD AMPLIFIER PCB (NAB 1 7/8 - 3 3/4 ips) 1.177.237-81

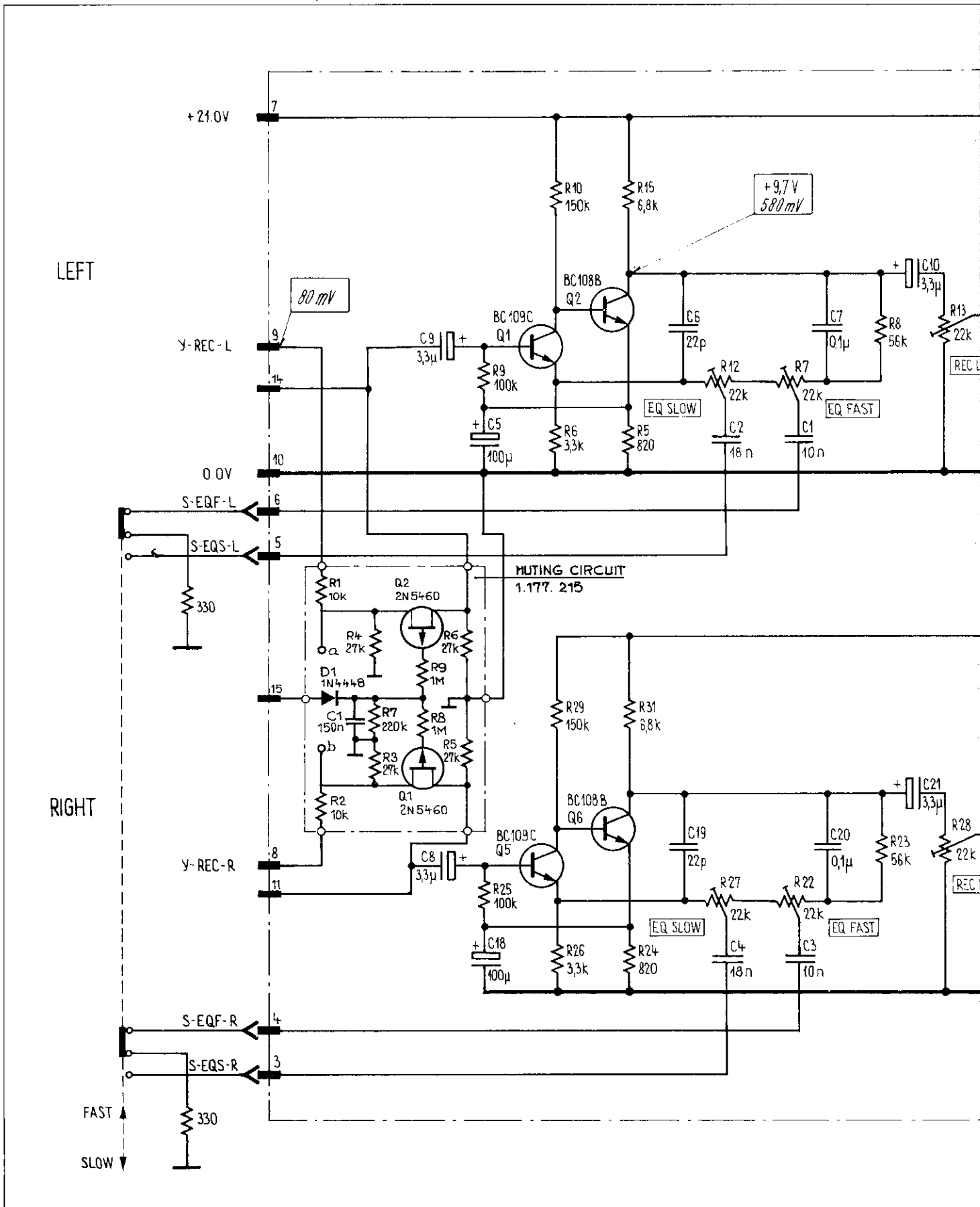


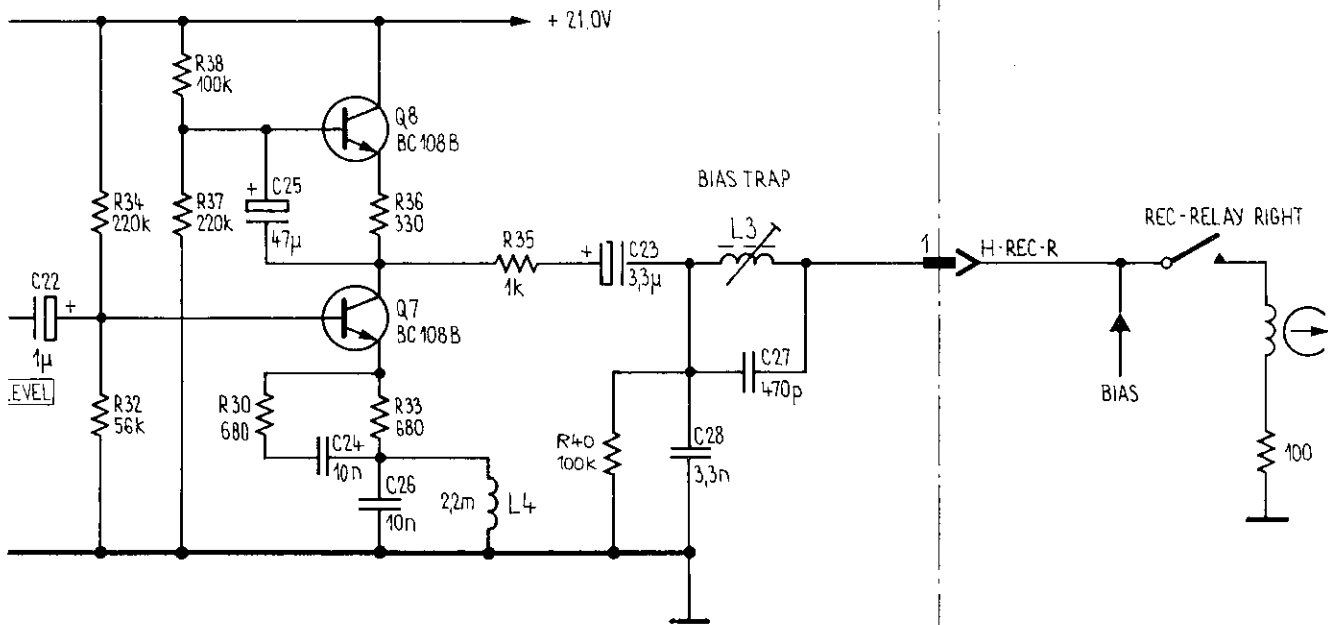
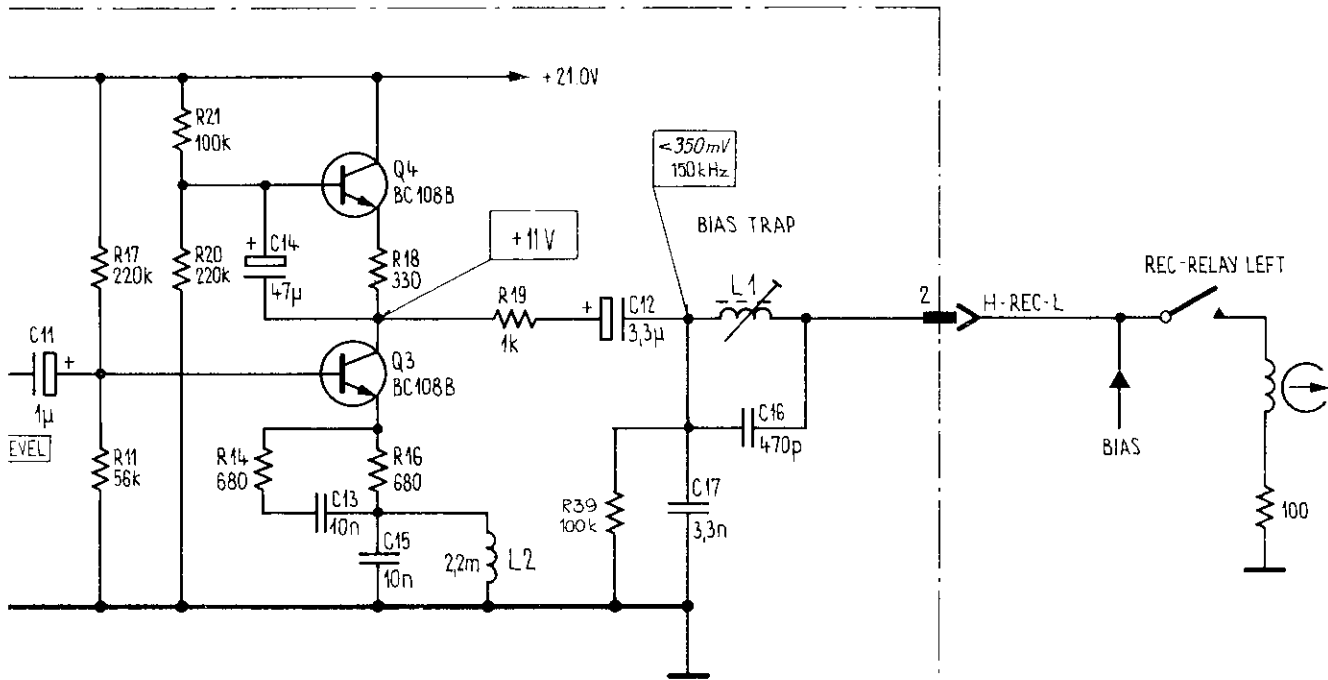


CIRCUIT 1.177.237-81
 (LAY-OUT 1.177.230-11)

SEE SERVICE INFORMATION
 63.7 : MUTING CIRCUIT 1.177.215

RECORD AMPLIFIER PCB (NAB 15/16 - 1 7/8 ips) 1.177.238-81

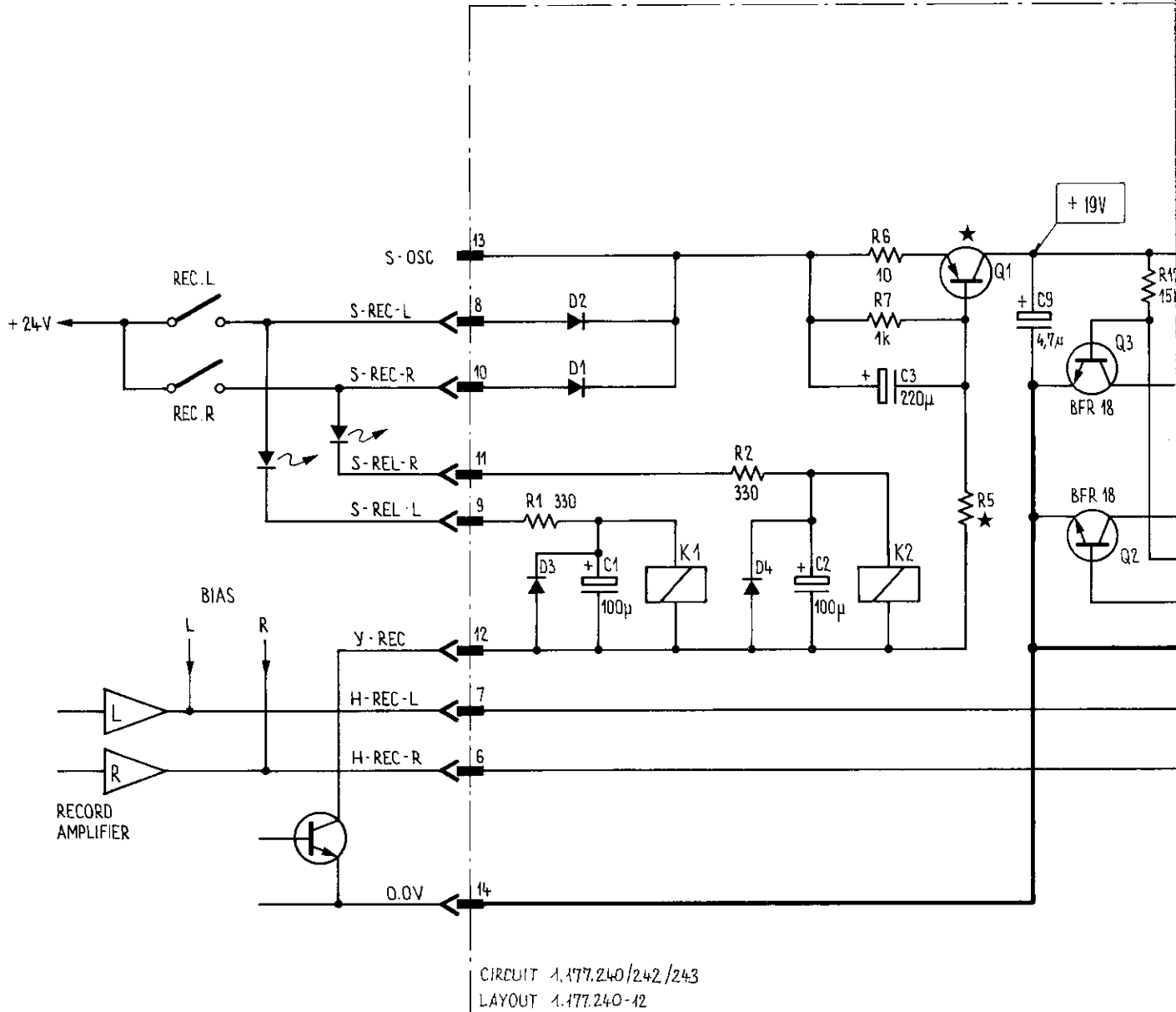




CIRCUIT 1.177.238-81
 (LAY-OUT 1.177.230-11)

SEE SERVICE INFORMATION
 63.7 : MUTING CIRCUIT 1.177.215

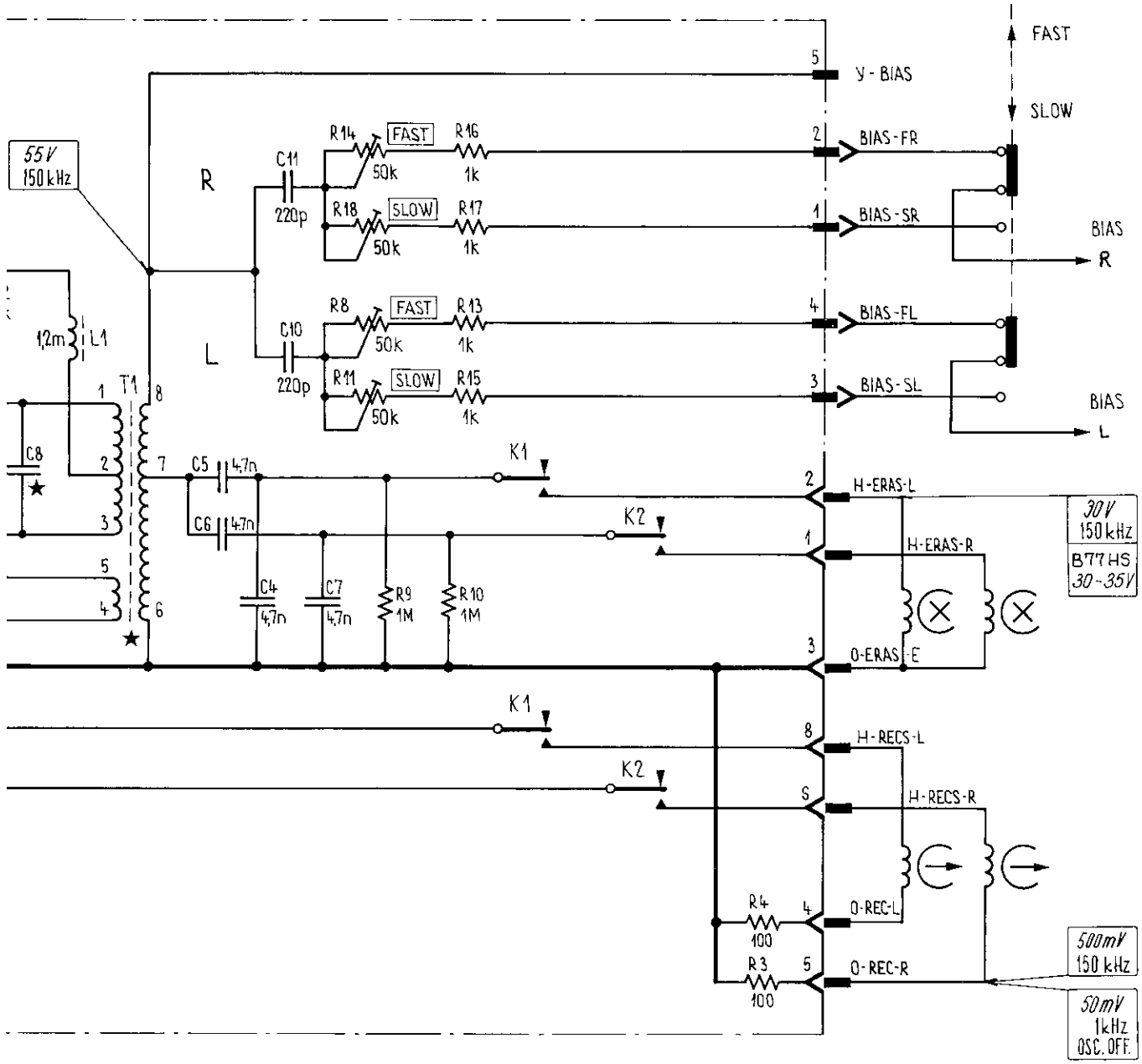
OSCILLATOR PCB 4 TRACK 1.177.240 / 2 TRACK 1.177.243



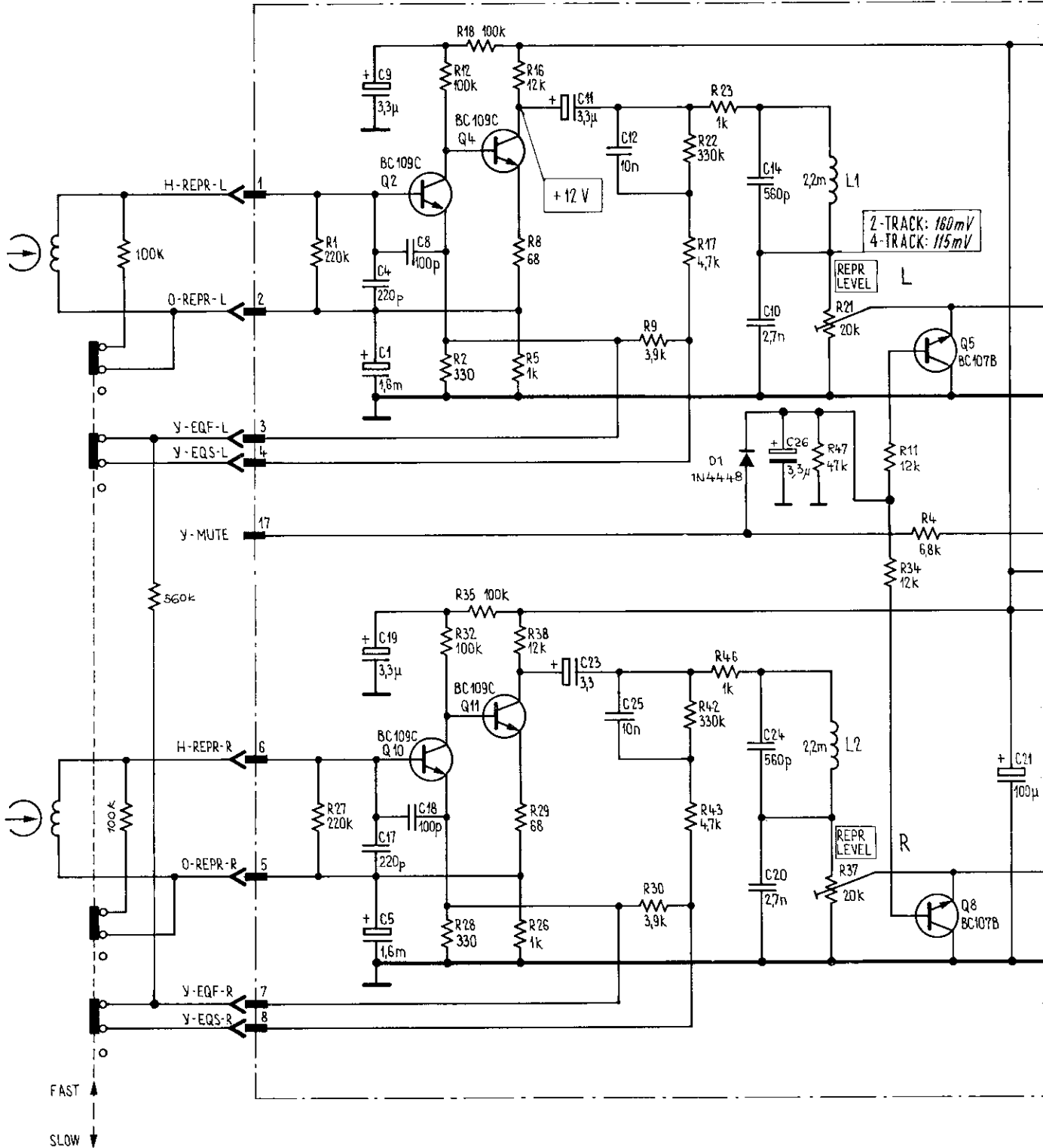
CIRCUIT 1.177.240/242/243
LAYOUT 1.177.240-12

1.177.242: VALID ONLY FOR EARLIER VERSIONS B77 HS
T1 = 1.022.192.00 C8 = 8200p

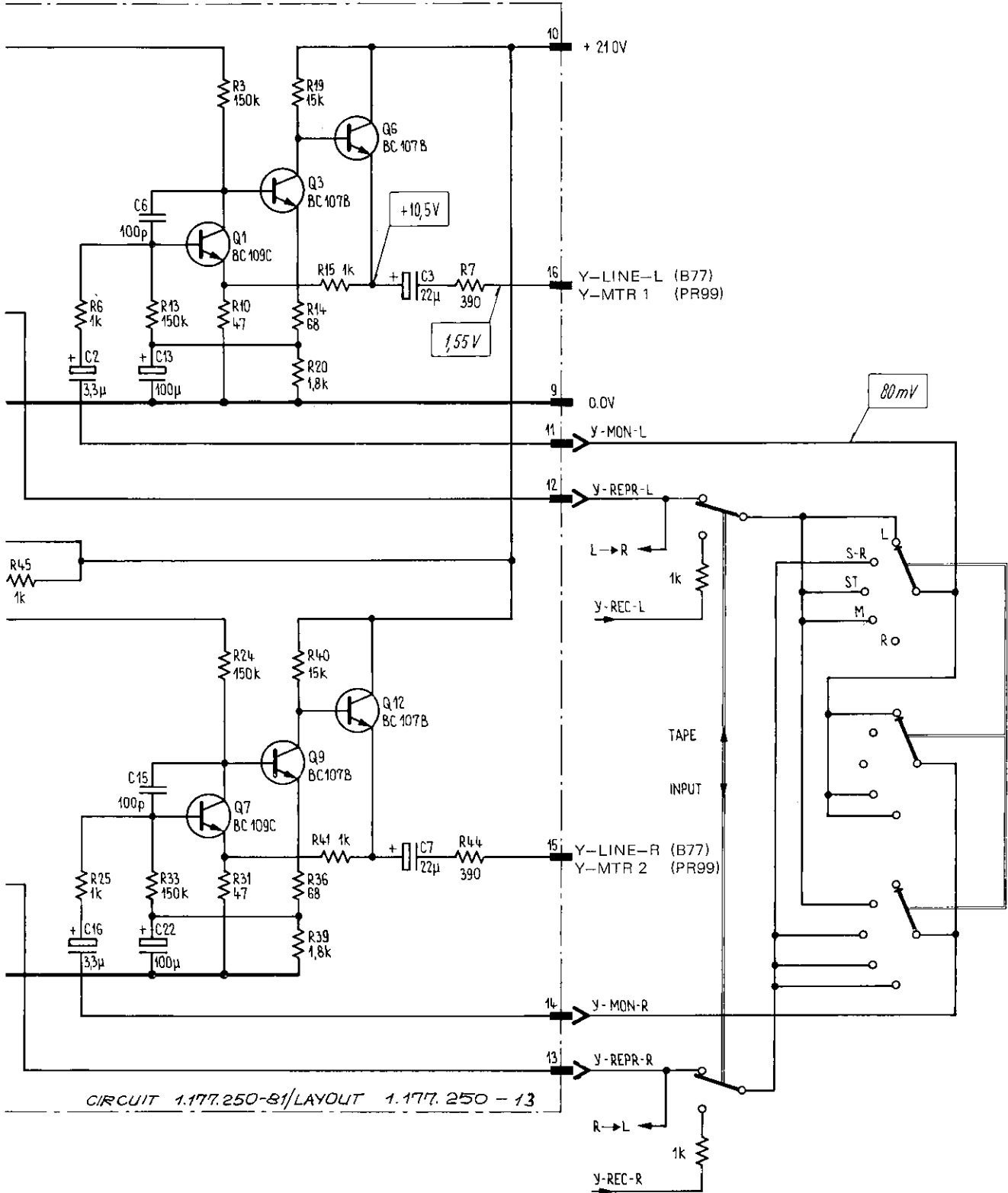
★ VALUES SEE CORRESPONDING POSITION LIST



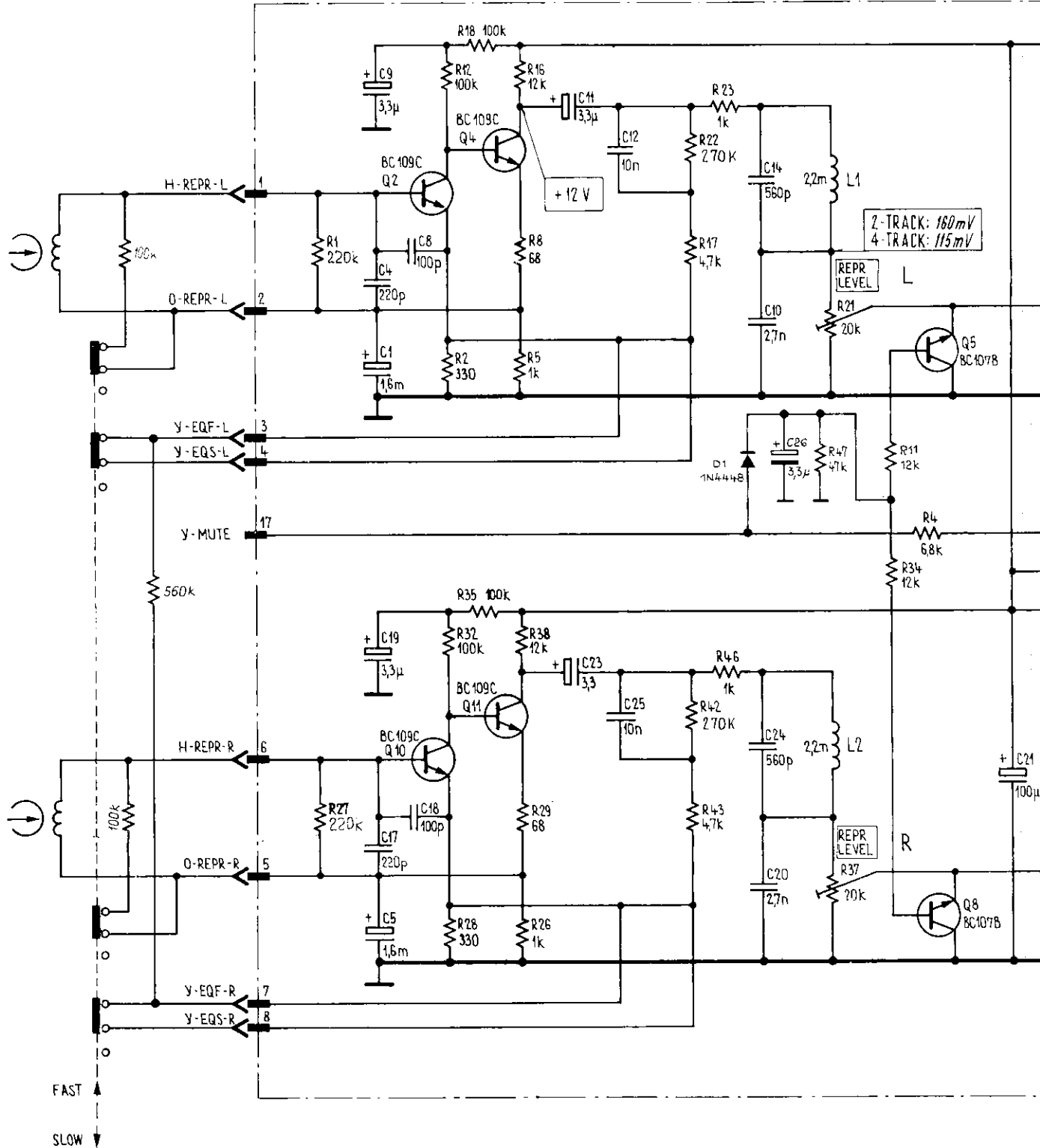
REPRODUCE AMPLIFIER PCB (NAB 3 3/4 - 7 1/2 ips) 1.177.250-81



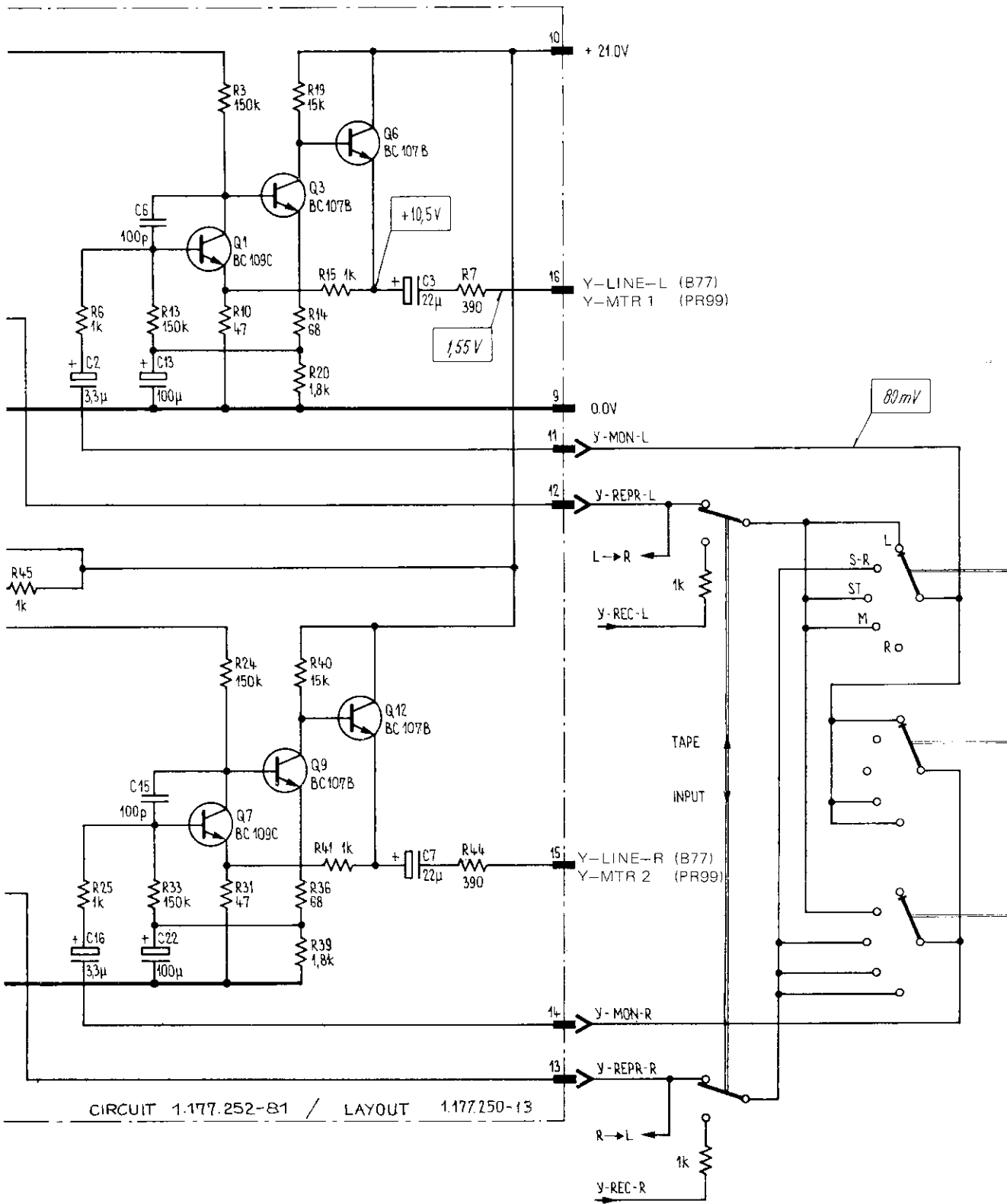
C26,D1,R47 ARE MISSING FOR VERSION 1.177.250-00



REPRODUCE AMPLIFIER PCB (NAB 7 1/2 - 15 ips) 1.177.252-81

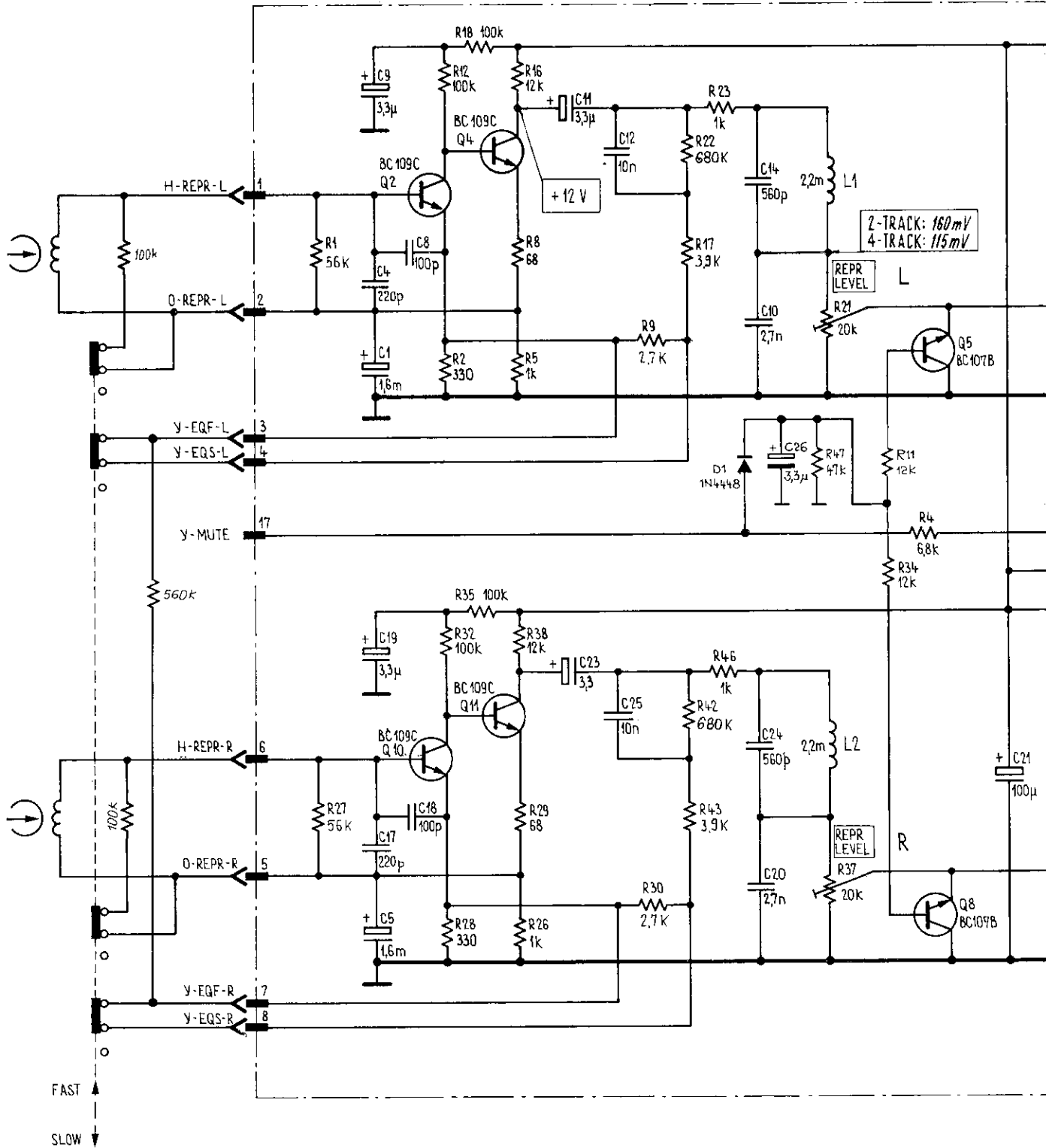


C26, D1, R47 ARE MISSING FOR VERSION 1.177.252-00

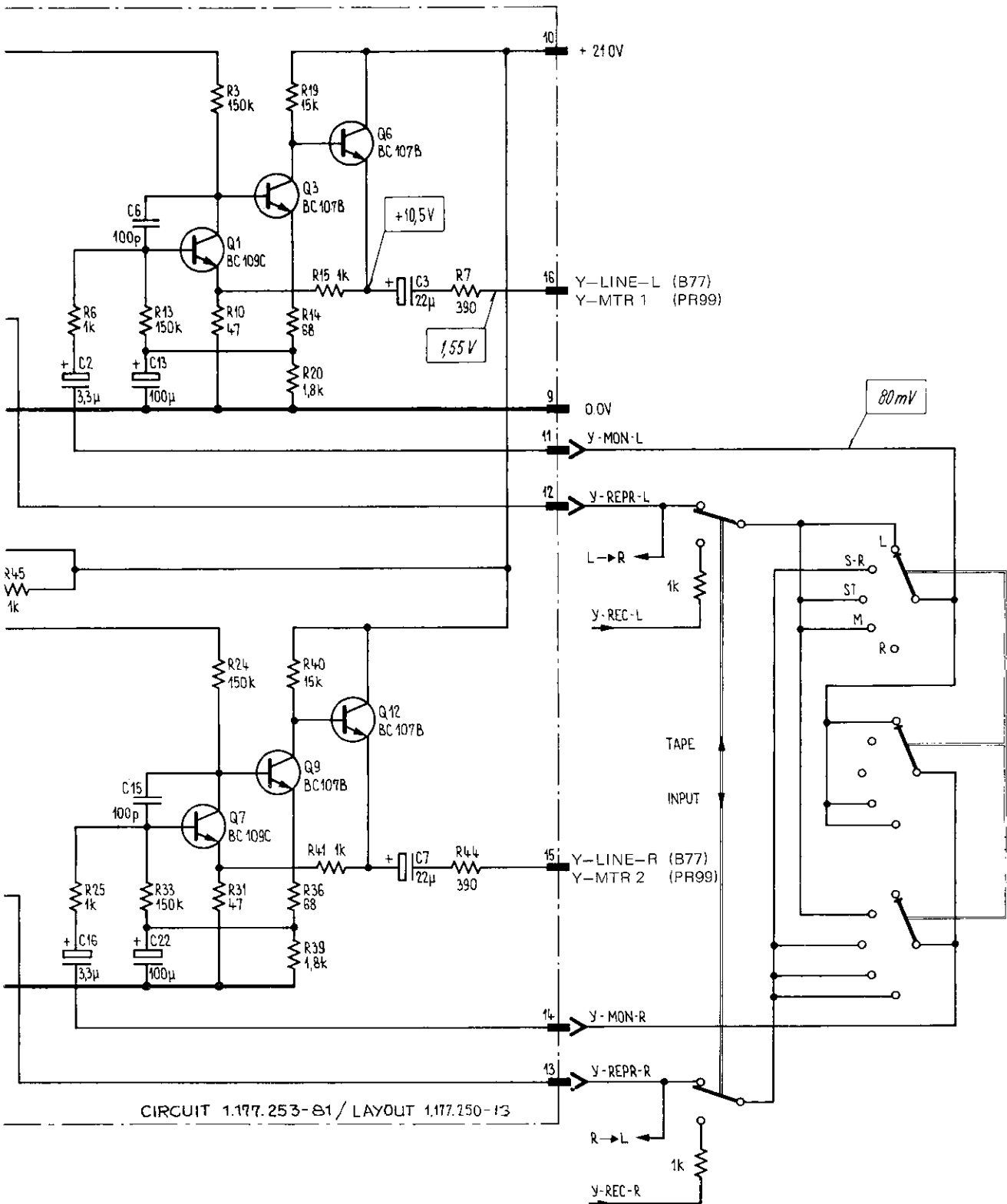


CIRCUIT 1.177.252-B1 / LAYOUT 1.177.250-13

REPRODUCE AMPLIFIER PCB (IEC 7 1/2 - 15 ips) 1.177.253-81



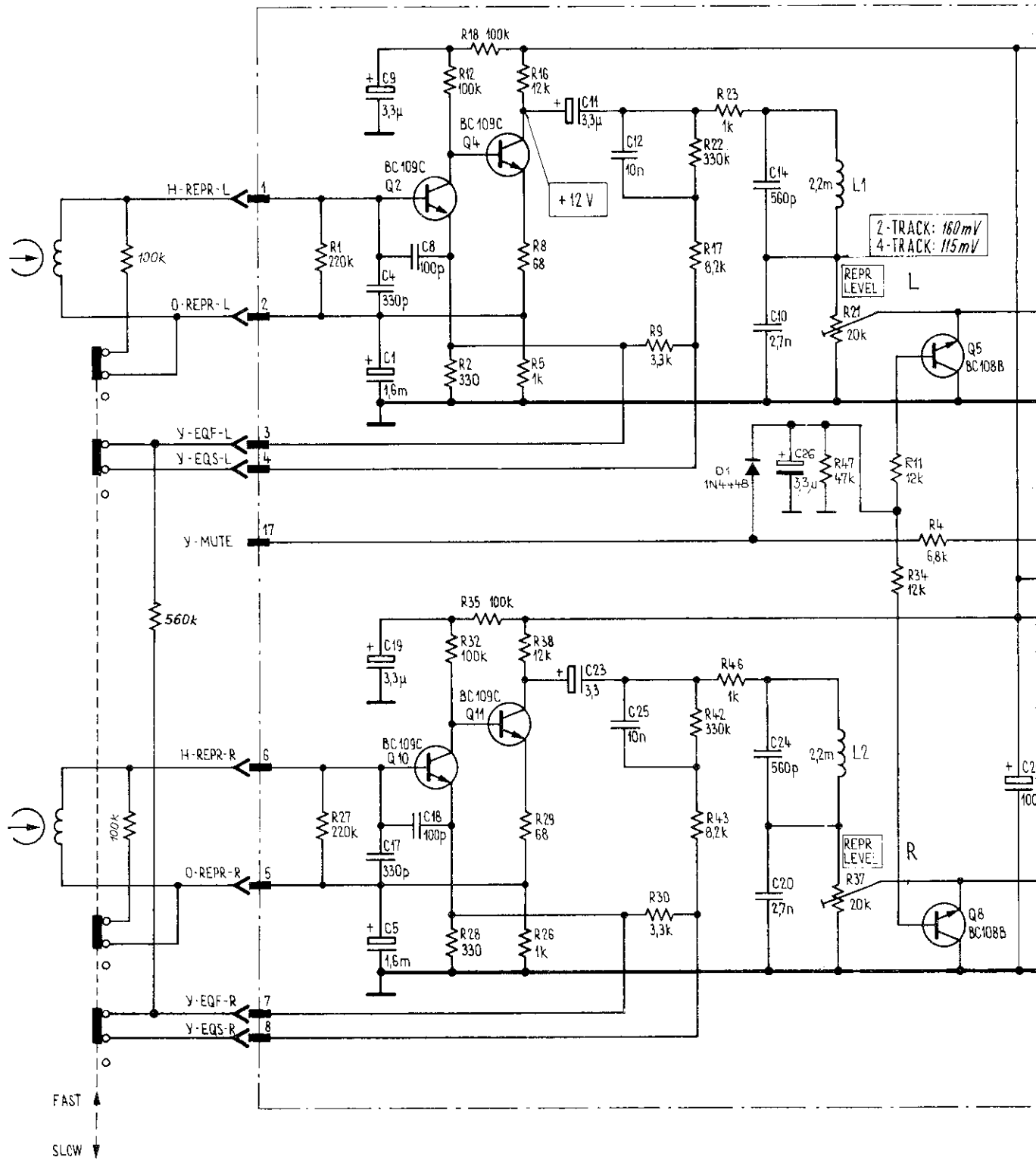
C26, D1, R47 ARE MISSING FOR VERSION 1.177.253-00



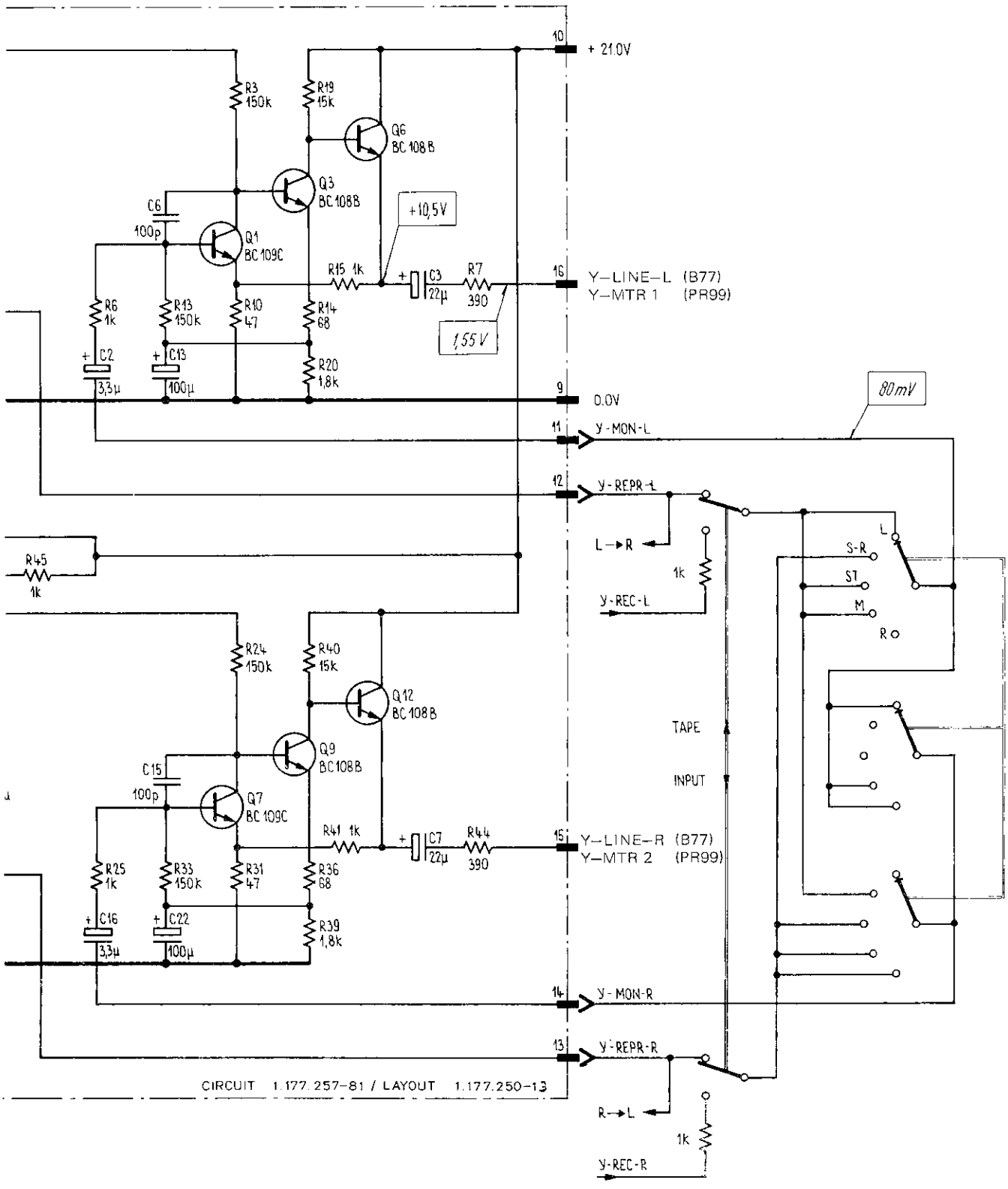
CIRCUIT 1.177.253-81 / LAYOUT 1.177.250-13

SEE SERVICE INFORMATION
63.10: R17

REPRODUCE AMPLIFIER PCB (NAB 1 7/8 - 3 3/4 ips) 1.177.257-81

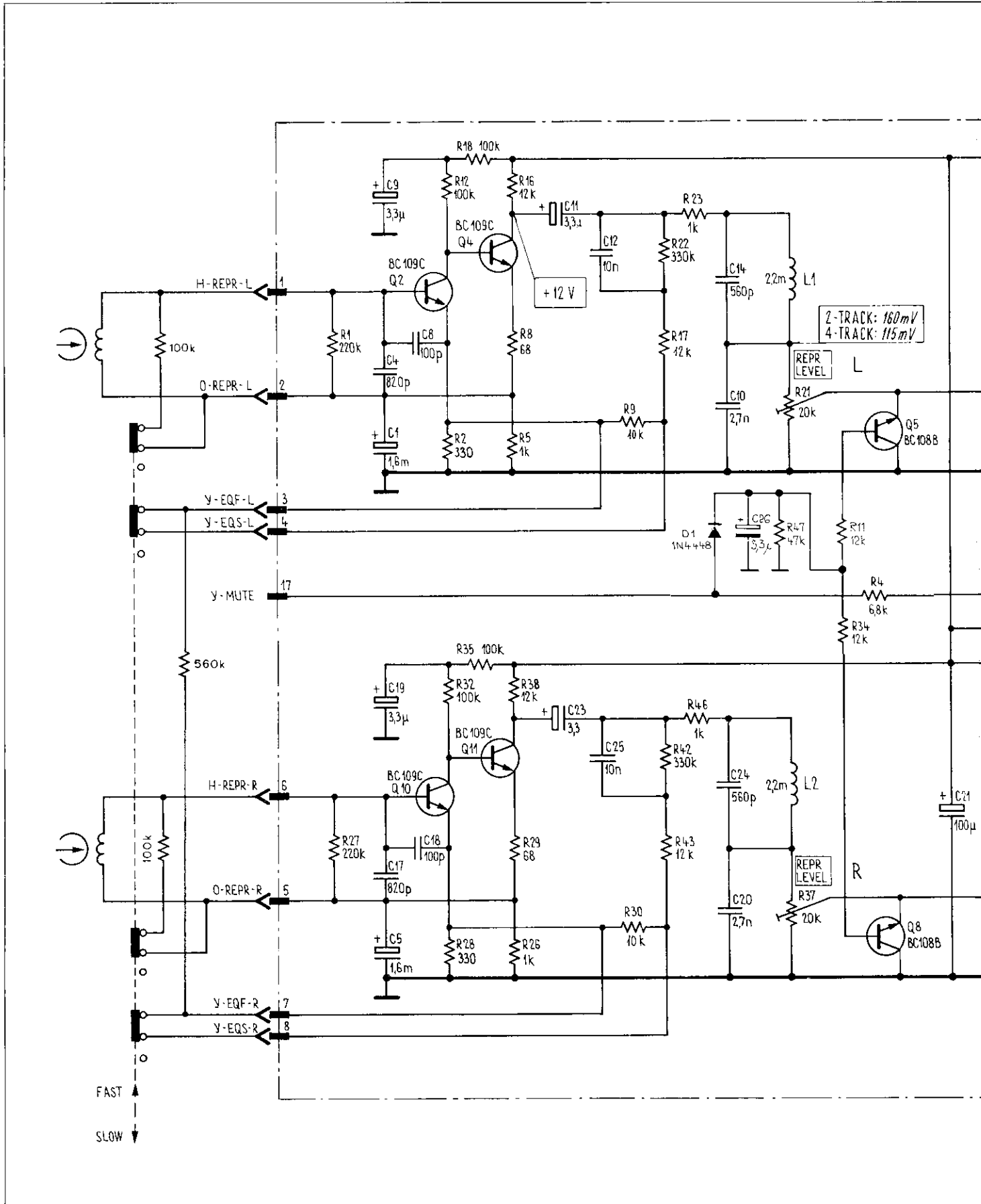


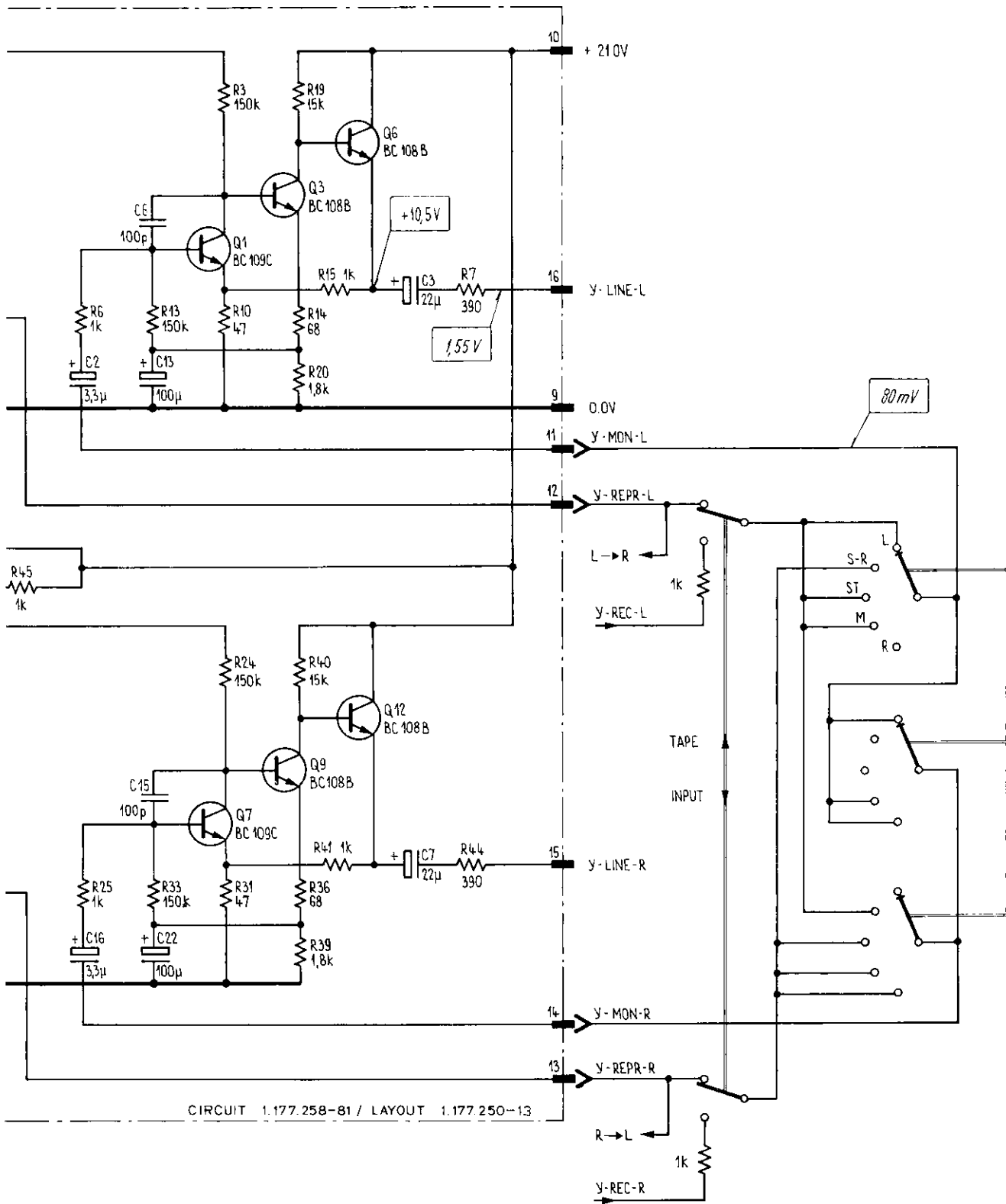
C26,D1,R47 ARE MISSING FOR VERSION 1.177.257-00



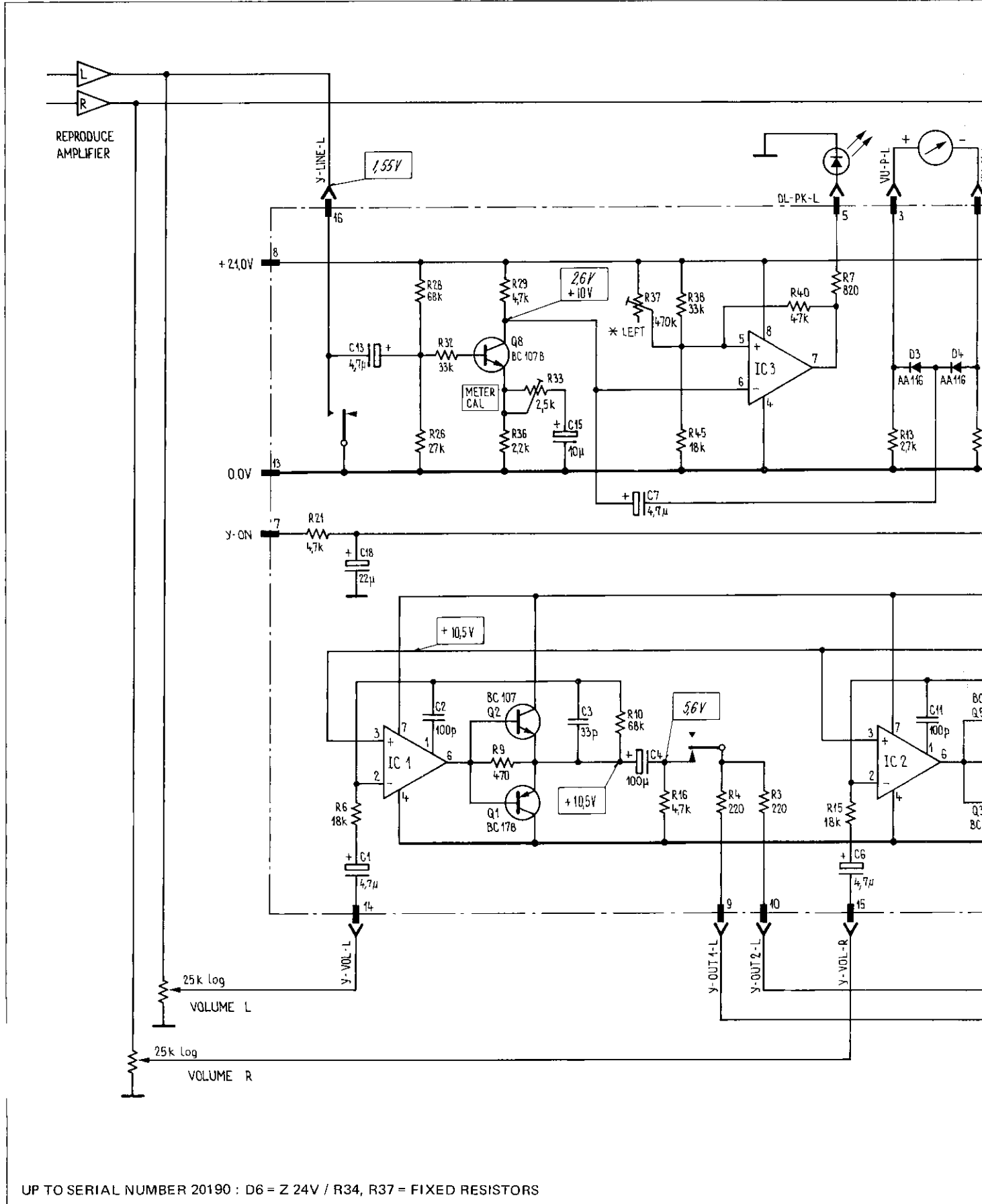
CIRCUIT 1.177.257-81 / LAYOUT 1.177.250-13

REPRODUCE AMPLIFIER PCB (NAB 15/16 - 1 7/8 ips) 1.177.258-00

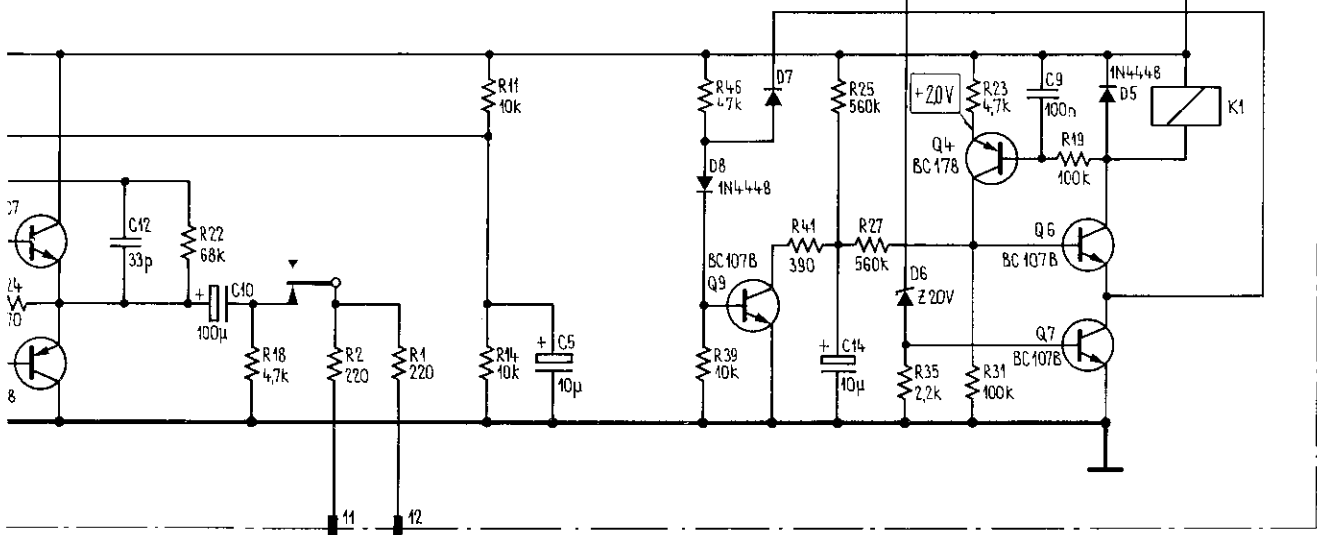
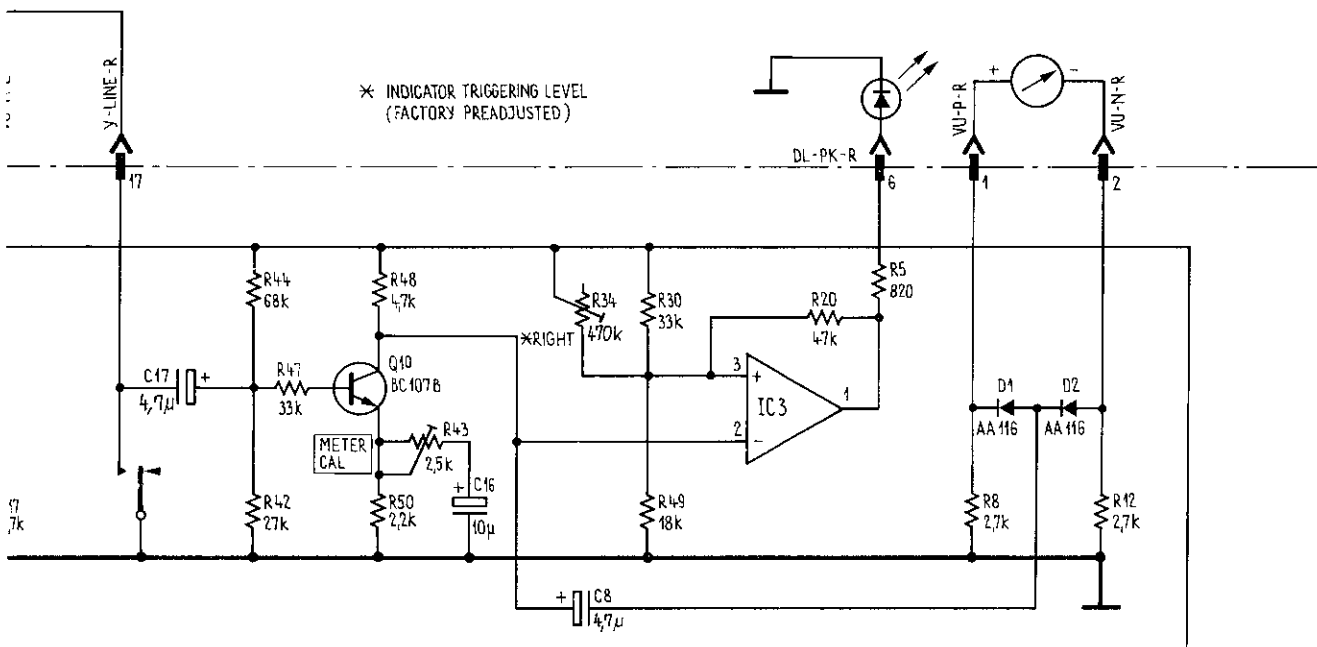




MONITOR AMPLIFIER PCB 1.177.260



UP TO SERIAL NUMBER 20190 : D6 = Z 24V / R34, R37 = FIXED RESISTORS



IC 1 = LM 301
 IC 2 = LM 301
 IC 3 = RC 4558

PHONES

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SLIDE SYNCHRONIZER PCB 1.177.270

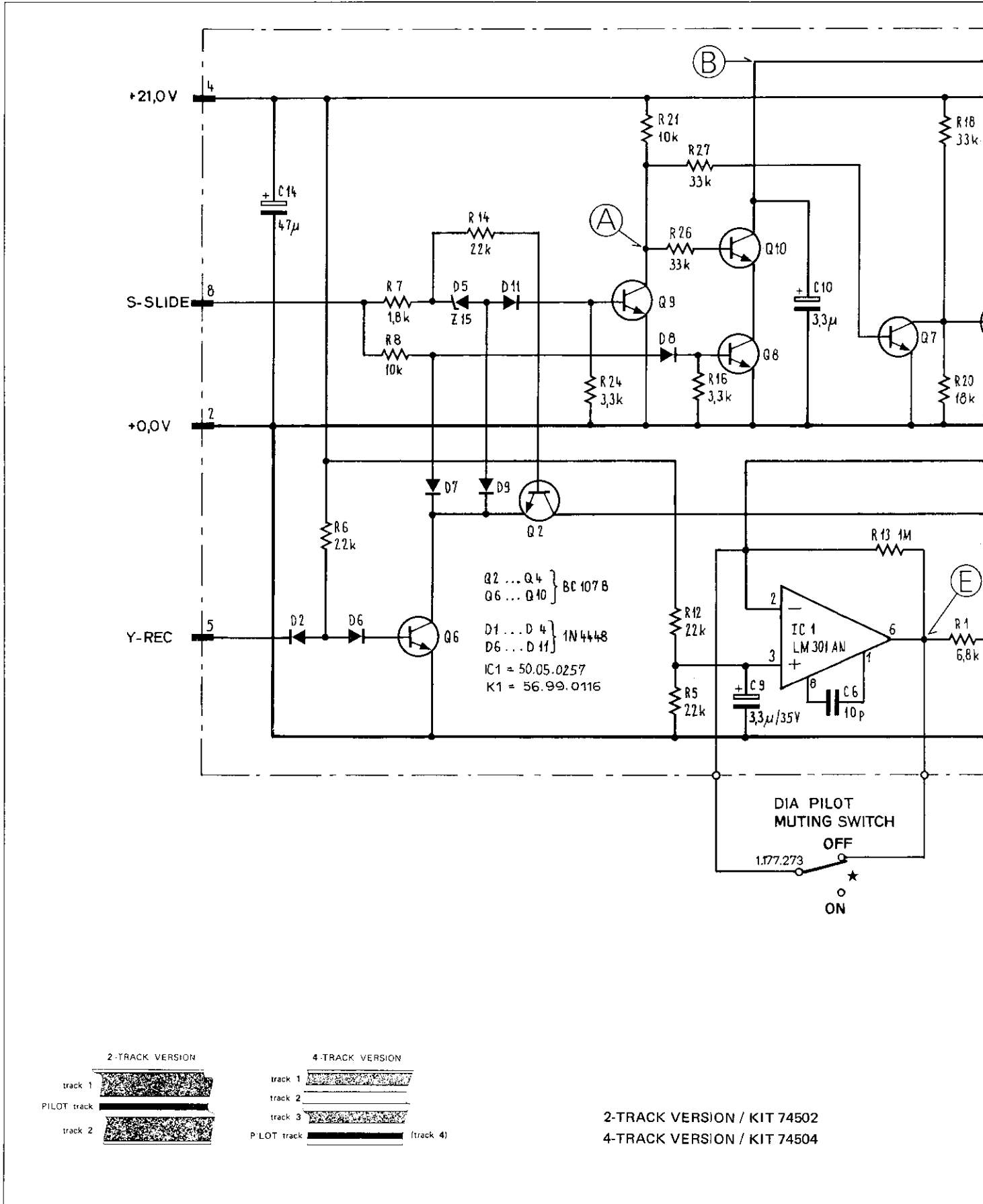
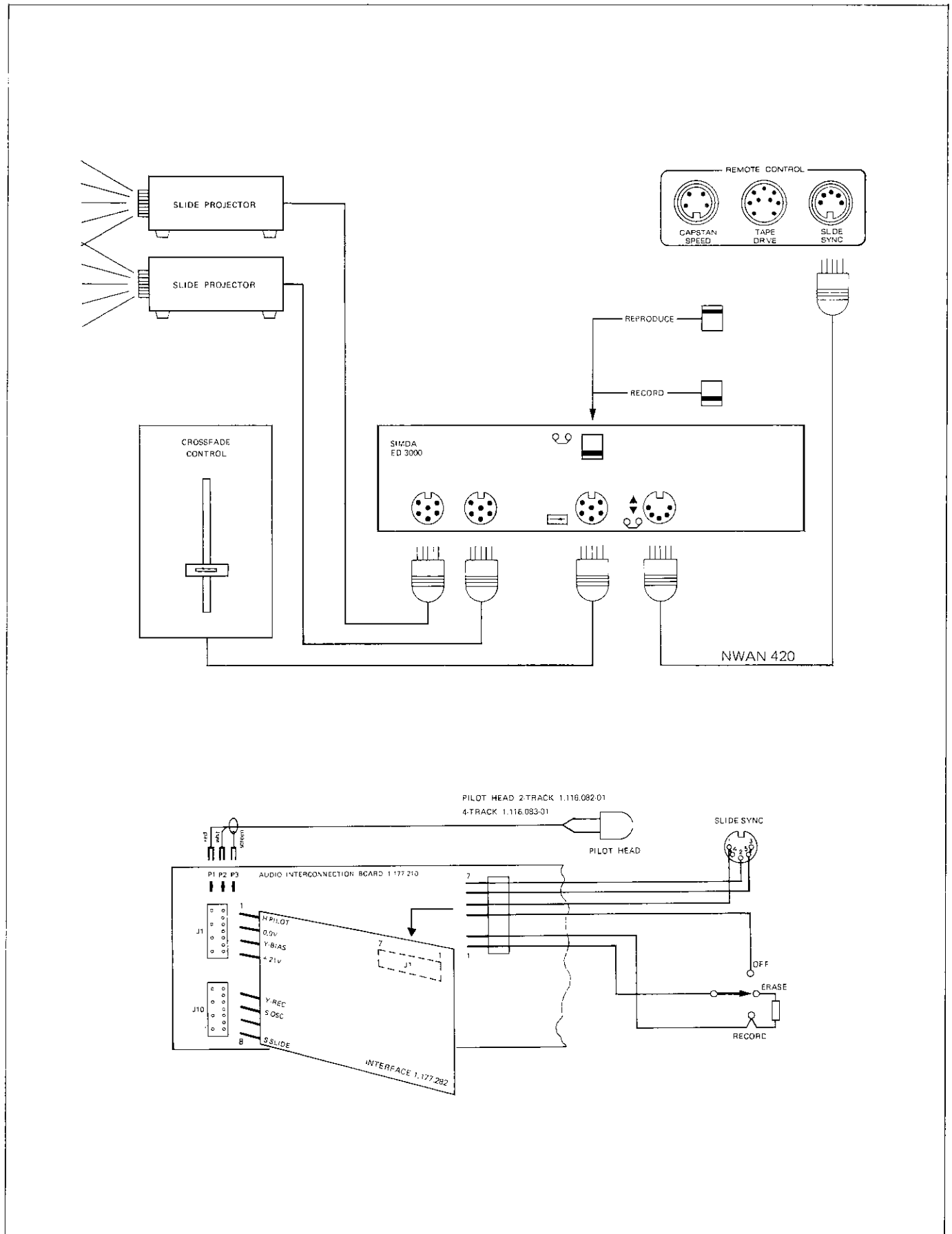


FIG.3 INSTALLATION OF DISSOLVE HEAD KIT



THIS MANUAL IS LICENSED TO SANTIN JEAN-JACQUES 14 rue du Parc des Hautes 77200 CLIGNY-EN-FRANCE *** IT IS NOT ALLOWED TO SELL AND/OR SHARE THIS MANUAL ***

FIG.4 HOLE DRILLING INSTRUCTIONS

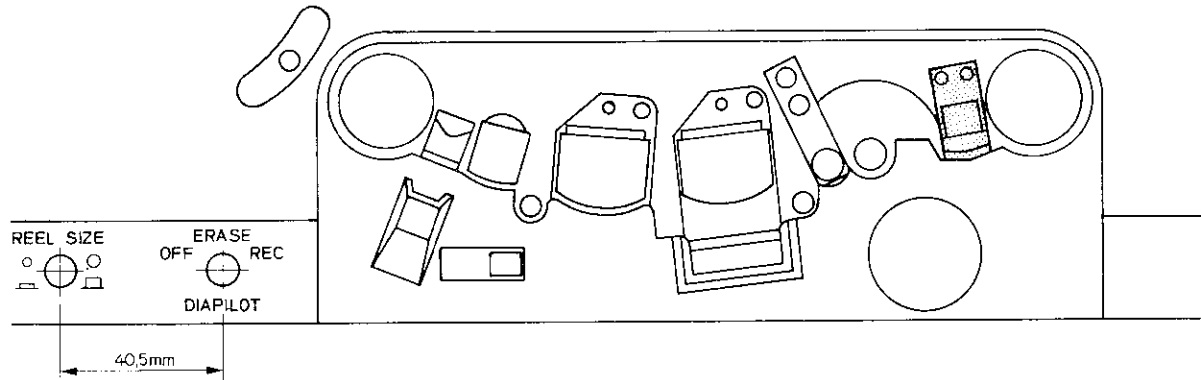
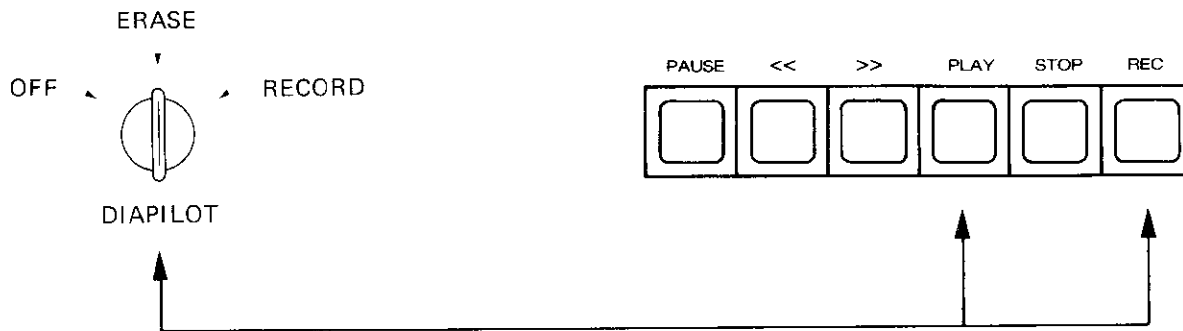


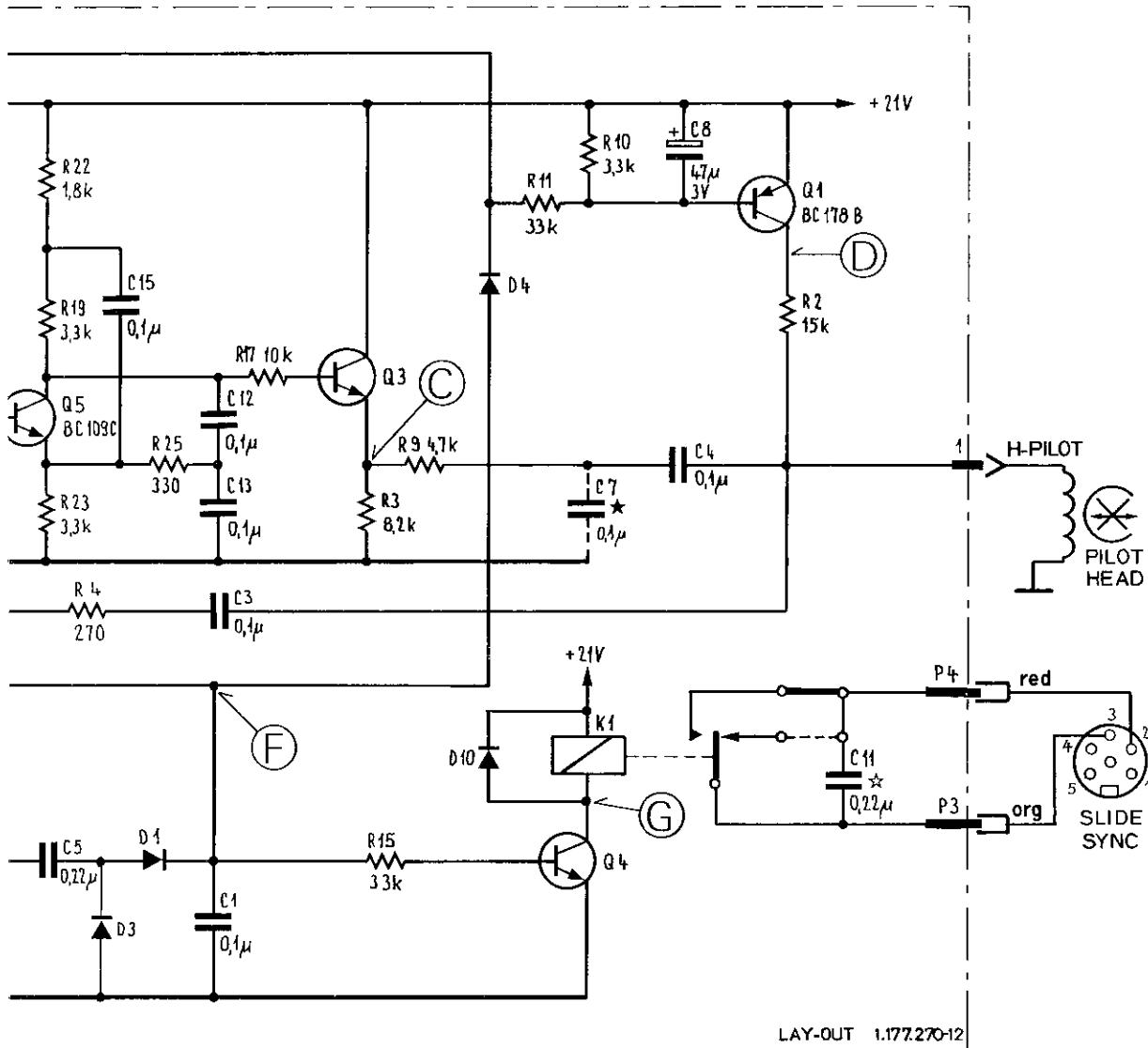
FIG.5 DHA OPERATION



PLAY+REC ⊕ DIAPILOT "OFF" = REPRODUCTION OF PILOT-TRACK
 "ERASE" = PILOT TRACK ERASED
 "RECORD" = SIMDA-SIGNAL RECORDED ON PILOT-TRACK

PLAY ⊕ DIAPILOT "OFF" } = REPRODUCTION OF PILOT-TRACK
 "ERASE" }
 "RECORD" }

POSITION OF RECORD PRESELECTORS NOT IMPORTANT FOR DIAPILOT-MODE



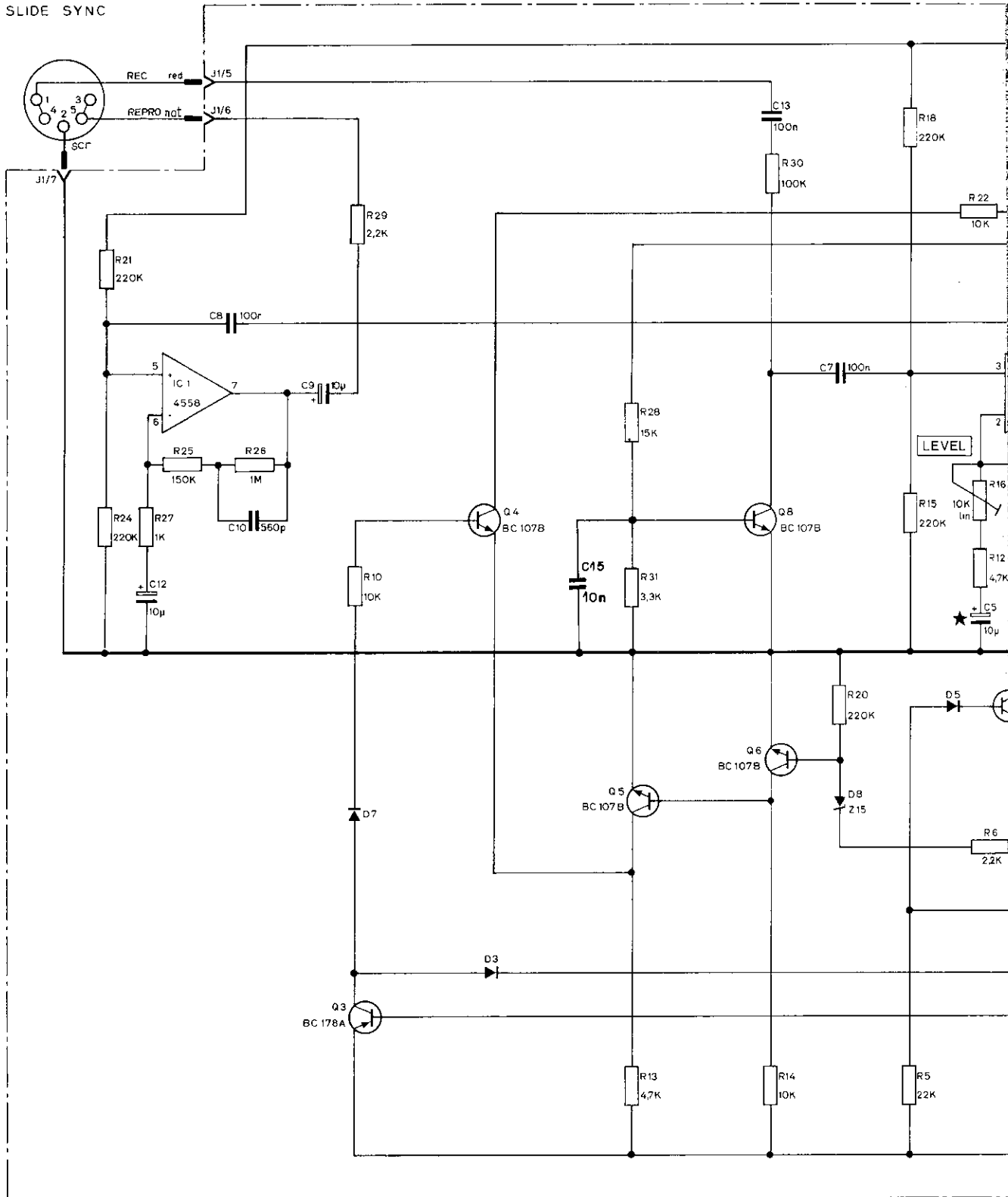
LAY-OUT 1.177.270-12

★ FOR 4-TRACK VERSION ONLY

☆ REMOVE C11 FOR USE WITH ANY ELECTRONICALLY CONTROLLED PROJECTOR

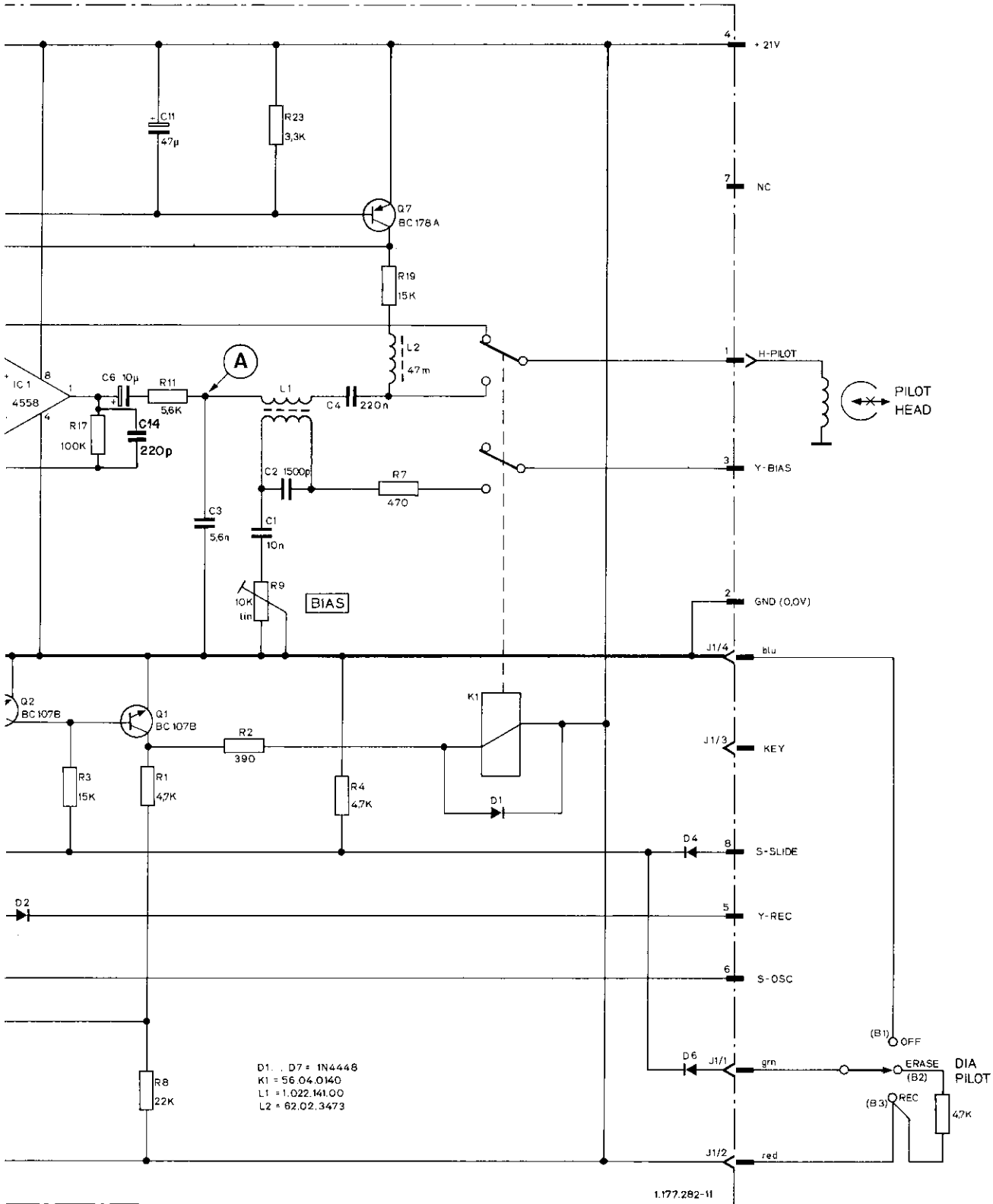
MODE	Y-REC	S-SLIDE	RELAY	1 kHz-OSC	DC ERASING	(A)	(B)	(C)	(D)	(E)	(F)	(G)
PLAY	HI	00V	(ON)	--	--	15 V	21 V	--	0V	46Vrms	1.5V AC ±0.5V	(0V)
RECORD + REC-SLIDE	LO	12V	--	--	ON	12.5V	0.1V	--	21V	--	0.5V DC	21V
RECORD + REC-SLIDE + SET-SLIDE	LO	24V	ON	ON	--	0.1V	21 V	2Vrms	0V	15Vpp	3 V AC ±0.7V	(0V)
PLAY + REC-SLIDE (CANCELS REPRO PULSES)	HI	12V	--	--	--	15 V	21 V	--	0V	--	0V	21V

DISSOLVE HEAD AMPLIFIER PCB 1.177.282 (INTERFACE SIMDA ED 3000 P)



WIRE HARNESS TO DIA PILOT SWITCH AND SLIDE SYNC CONNECTOR = 1.177.183

★ FOR SYSTEMS OTHER THAN ED 3000 P C5 = 1 μF TO DECREASE HUM SENSITIVITY



D1, D7 = 1N4448
 K1 = 56.04.0140
 L1 = 1.022.141.00
 L2 = 62.02.3473

1.177.282-11