

Q E D AUDIO PRODUCTS LTD

SERVICE SHEET

FOR

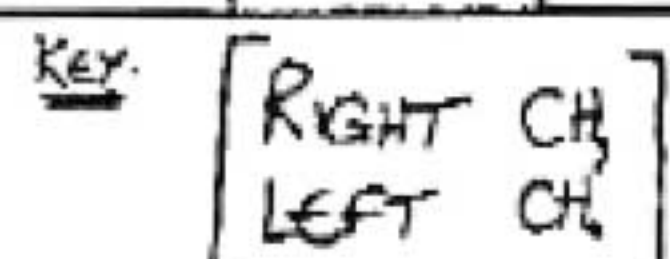
A 240 SERIES TWO

AMPLIFIER

AND

S.A. BOARD PACK

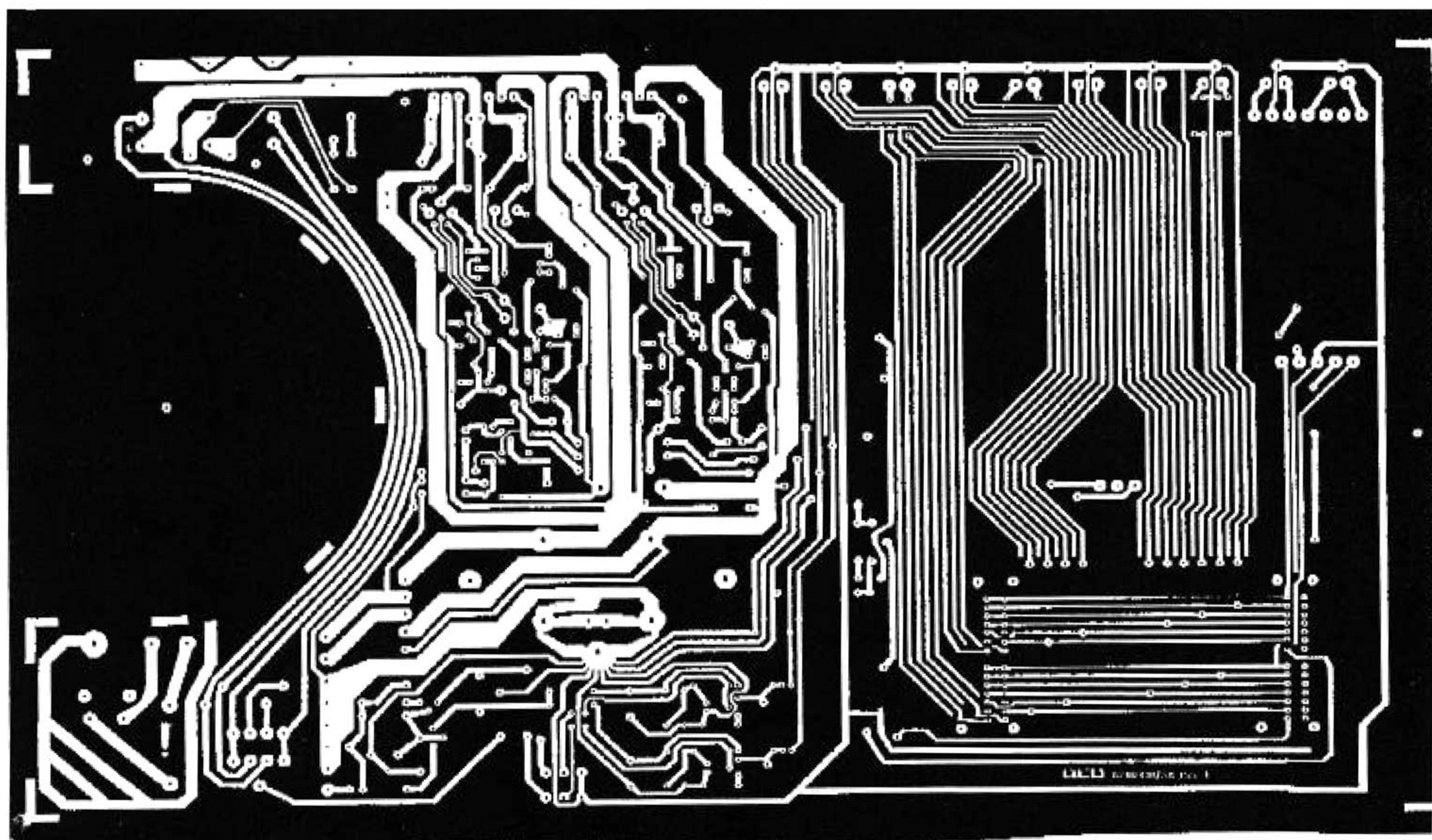
1989 QED



*** COMPONENTS IN THERMAL CONTACT,

Power Amplifier Circuit		
QED	A240	AMPLIFIER

ISSUE	4
DATE	'88



4240 AMPLIFIER

Resistors

* R1	4K7	1% metal
R2,3	10K	" "
R4,5,6,7,8	4K7	" "
R9	100K	" "
R10	1K	" "
R11	4K7	" "
R12	1K	" "
R13	100K	" "
R14	22K	" "
R15	4K7	" "
R16	1K	" "
R17,18	33K	" "
R19,20,21	100R	" "
R22	1K	" "
R23	100R	" "
R24,25	15K	" "
R26,27	100K	" "
R28		
R29	3K3	1/2W C.F.R.
R30	270R	1% metal
R31	100K	" "
R32,33	18K	1/2W C.F.R.
R34	1K	1% metal
R35,36	9K1	" "
R37,38	47R	" "
R39	1K5	" "
R40		
R41	2K	" "
R42	68R	" "
R43	680R	" "
R44	68R	" "
R45	100R	" "
R46	47K	" "

R47	100R	1% metal
R48,49	68R	" "
R50,51	680R	" "
R52,53	10R	" "
R54,55	100R	" "
R56-59	0R47	WIREWOUND
R60		

R64	1K0	1% metal
R66,67	9K1	
R68,69	47R	
R70	1K5	
R71	2K0	
R72	680R	
R73	68R	
R74	100R	
R75	68R	
R76	100R	
R77	47K	
R78,79	68K	
R80,81	680R	
R82,83	10R	
R84,85	100R	
R86-89	0R47	WIREWOUND
R90		

R94,95	10R	1/2W C.F.R.
R96,97	82R	1/2W C.F.R.
R98	1K	1% metal
R99	100R	1% "
R100	1K	" "

4240 AMPLIFIER

Capacitors

C1,2	1 μ F 63V	elect.
C3,4	1000 μ F	35V "
C5,6	1 μ F	63V "
C7,8	4,100 μ F	40V P.C.B. Can.
C9	100 nF	Polyester plate
C10	1000 μ F	35V electro.
C11	33 μ F	Bipolar.
C12	150 pF	Ceramic plate
C13	33 μ F	Bipolar.
C14	150 pF	Ceramic plate
C15,16	47 μ F	25V elect.
C28	22 μ F	35V elect.
C30,31	47 μ F	elect.
C39	22 pF	Ceramic plate
C40,42	100 nF	polyester plate
C45	22 pF	Ceramic plate

Misc

50 K Alps Volume pot
mains switch
fuse holder.
7 way P.C.B. Socket.

Resistors		BOARDS	
R1	100K	R38	470R
R2	16K	R39	3K3
R3	68K	R40	820R mini micro
R4	3K3	R41	330 " "
R5	820R mini-micro	R42	3K0
R6	330R " "	R43	3K9
R7		R44	100R
R8		R45	680R
R9	100R	R46	100K
R10	3K9	R47	10K
R11	680R	R48	220R
R12	100K	R49	470R
R13	10K	R50	10R
R14	220R	R51	1K5
R15	470R	R52	3K3
R16	1K5	R53	5K76
R17	10R	R54	1K3
R18	3K3	R55	36K
R19	1K3	R56	91K
R20	5K76	R57	
R21	36K	R58	100R
R22	91K		
R23			
R24	100K		
R25,26	68K		
R27	100K		
R28	100R		
R29-32	K0		
R33	3K0		
R34			
R35	16K		
R36	68K		
R37	100K		

Capacitors		BOARDS	
C1	10 μ	16V	Tant
C2	100 μ	6V3	"
C3	150p		ceramic
C4	1000 μ	35V	electrolytic
C5	10nF		Polypropylene
C6	100 μ	6V3	Tant
C7	10nF		Polypropylene
C8	2,200 μ	16V	electrolytic
C9	1,000 μ	35V	"
C10	22 μ	16V	Tant
C11	47n		Polypropylene
C12	4 μ 7	35V	Tant
C13	1000 μ	35V	electrolytic
C14	10 μ	16V	Tant
C15	100 μ	6V3	"
C16	150p		ceramic
C17	1000 μ	35V	electrolytic
C18	10n		Polypropylene
C19	100 μ	6V3	Tant
C20	10n		Polypropylene
C21	2,200 μ	16V	electrolytic
C22	1000 μ	35V	electrolytic
C23	22 μ	16V	Tant
C24	47nF		Polypropylene
C25	4 μ 7	35V	Tant
C26	1000 μ	35V	electrolytic
C27	4700 μ F	35V	Can
C28	470 μ	25V	electrolytic
C29	220 μ	40V	"
C30	4700 μ F	35V	Can
C31	470 μ F	25V	electrolytic
C32	220 μ F	40V	"

NOTES ON AMPLIFIER TESTING & REPAIRING

1. A240CD has standard disc board fitted.
A240SA has S.A. pack board fitted.
2. When testing Amplifier using an external supply it is necessary to connect that supply via the transformer secondary pins (1 and 2) and ground pin (3) with the transformer disconnected otherwise the turn-on delay relay will not operate.
3. Bias setting for A240 Amplifier:
 - a) connect a current-limited supply as above.
 - b) check for low dc offset at outputs.
 - c) warm amplifier to normal temperature.
 - d) adjust presets to give 10mV to 20mV dc across output resistors - i.e. between emitters of both output transistors.

SA-007

Semi-Conductors.

SA
BOARD

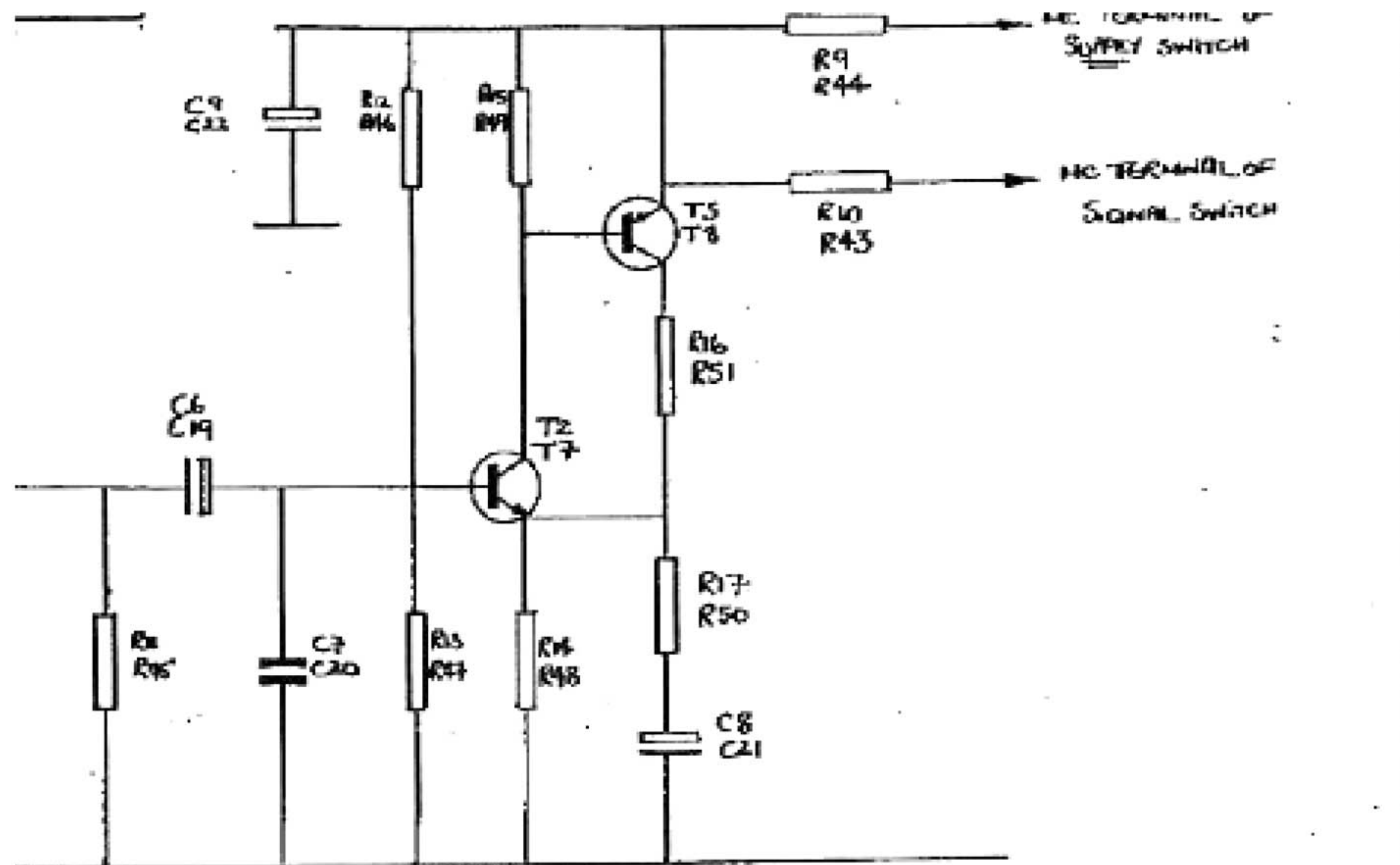
D2	—	1N401
D3,4	—	J511
ED 1,4	—	24V 1W Zener.
T1	—	Selected 2SC2547 E
T2	—	2SC2545/6/7 E
T3	—	2SA 1083/4/5 E
T4	—	2SC2445/6/7 E
T5	—	2SA 1083/4/5 E
T6	—	Selected 2SC2547 E
T7	—	2SC2545/6/7 E
T8	—	2SA 1083/4/5 E
T9	—	2SC2545/6/7 E
T10	—	2SA 1083/4/5 E

Misc.

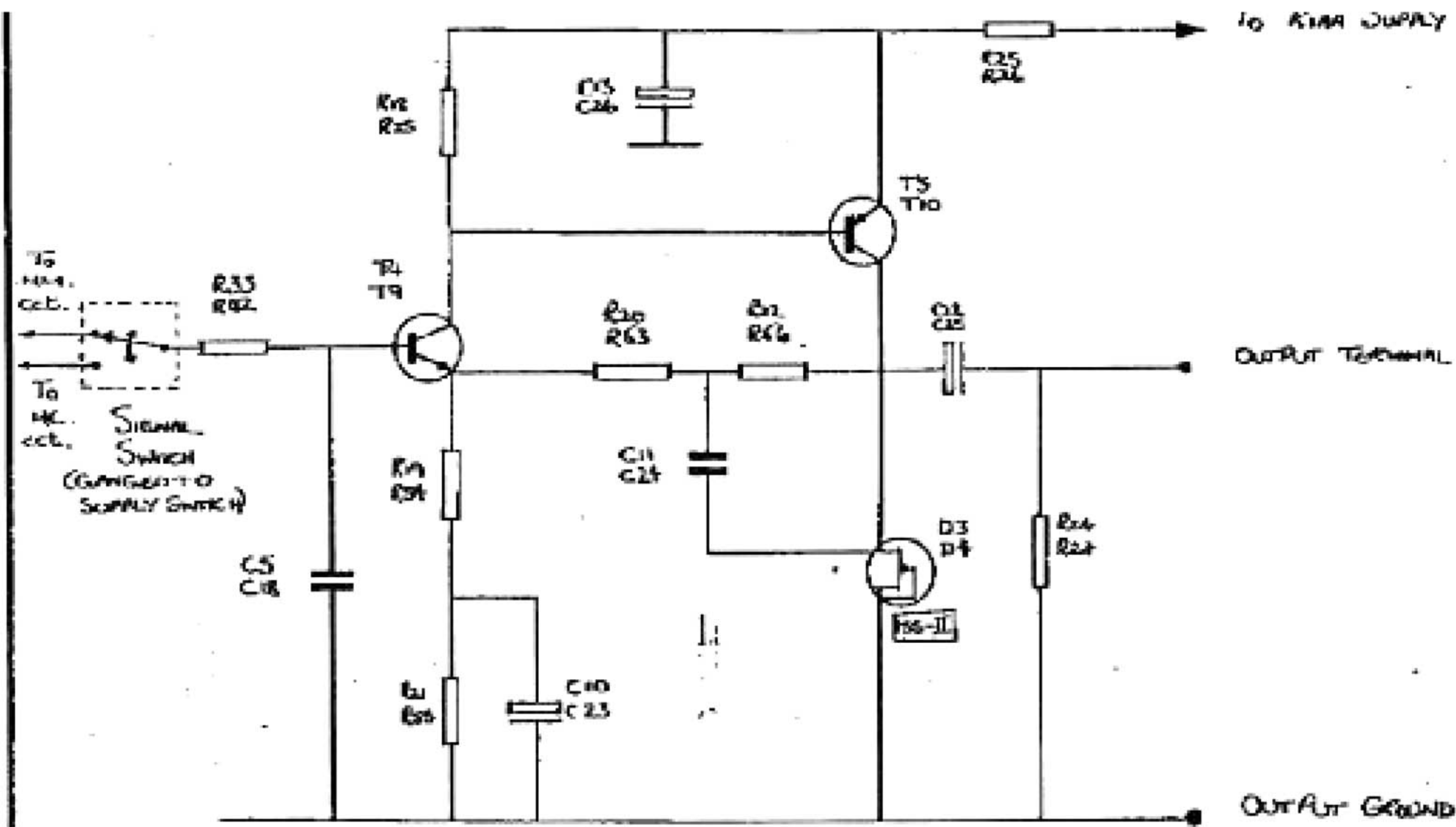
P.C.B.

1mm sleeving A/R
22 SWG Tinned wire "

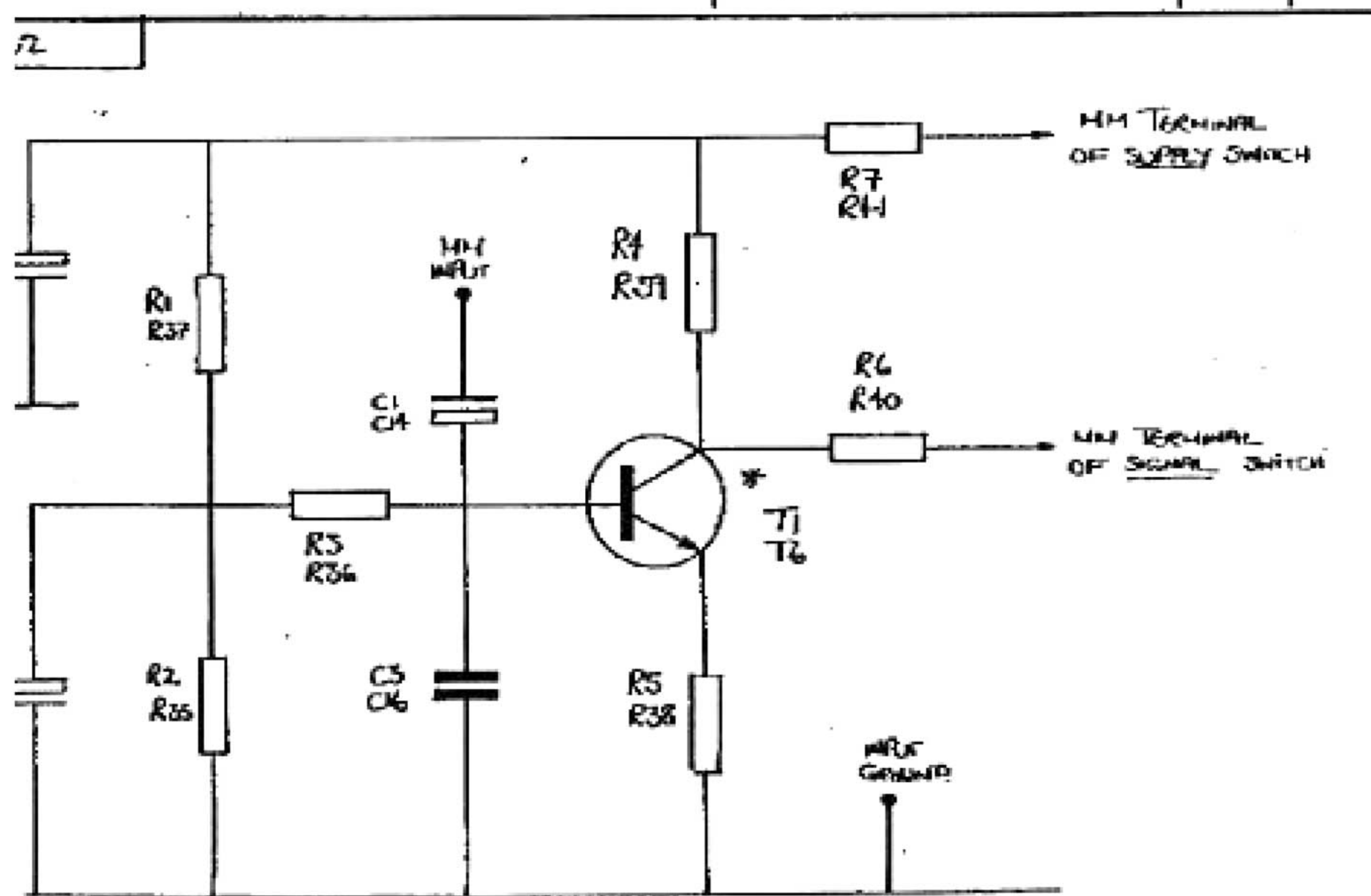
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SA PACK	ISS	2
Moving-coil input buffer	DATE	EX

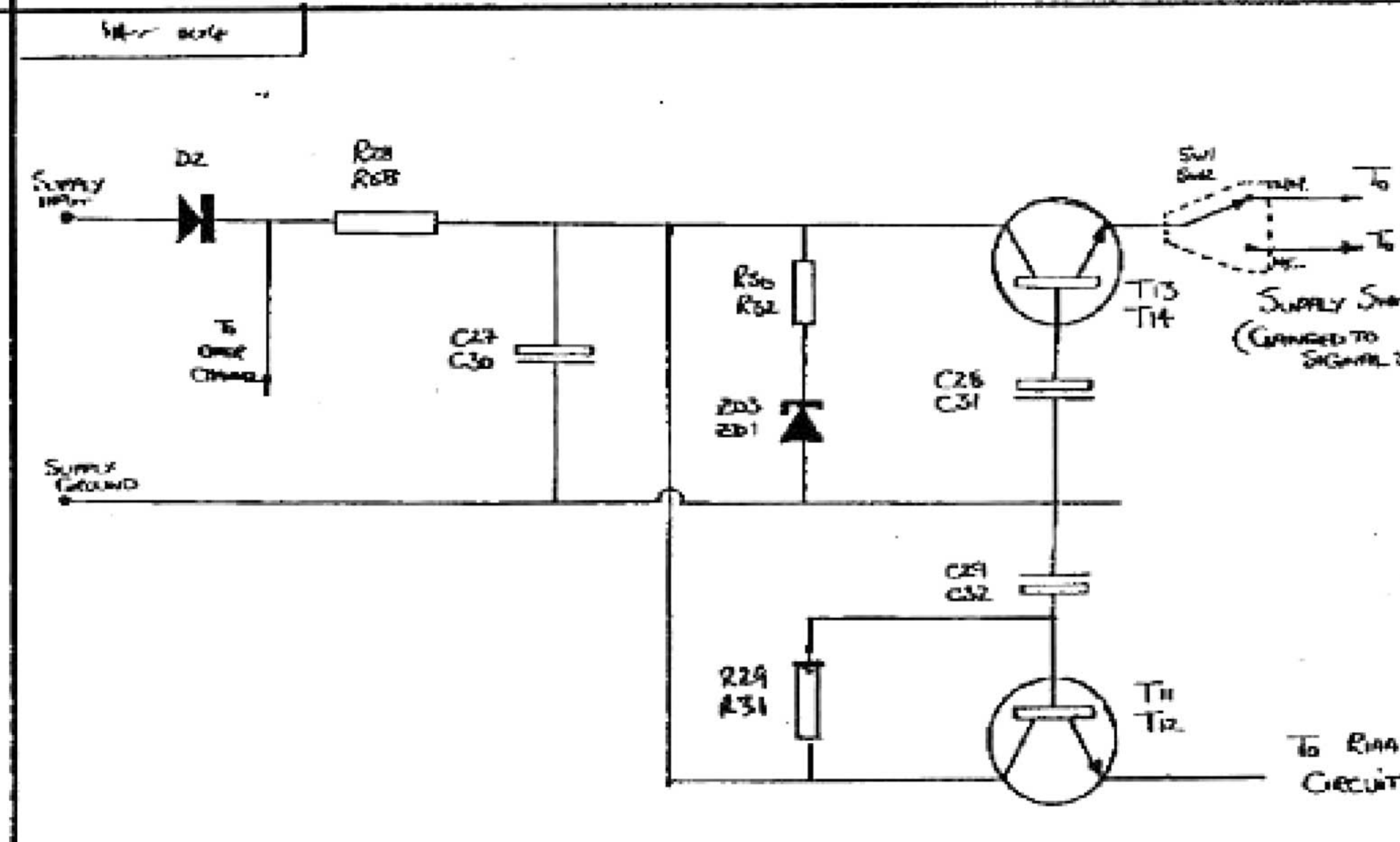


SA PACK	ISS	2
SA RAA	DATE	21



* Selected matched pairs

SA PACK	ISS	2
SA - NM STAGE	DATE	EX



SA PACK	ISS	2
SA P.S.U.	DATE	21