

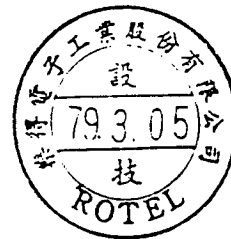
TECHNICAL MANUAL

For Service Manuals Contact
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8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk

ROTEL RCD-865

COMPACT DISC PLAYER

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THE ROTEL CO., LTD.

1-36-8 UHUKAYAMA, MEGURO KU, TOKYO 152, JAPAN

ROTEL ELECTRONICS CO., LTD.

ROTEL BLDG., 3F., NO. 35, FUSING N. ROAD, TAIPEI, TAIWAN, REPUBLIC OF CHINA

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

THIS SET EMPLOYS A LASER. THEREFORE, BE SURE TO FOLLOW CAREFULLY THE INSTRUCTIONS BELOW WHEN SERVICING.

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

LASER WARNING LABEL

THE LABEL SHOWN BELOW ARE AFFIXED.

WARNING LABEL

CAUTION

INVISIBLE LASER RADIATION WHEN OPEN
DO NOT STARE INTO BEAM

DANGER

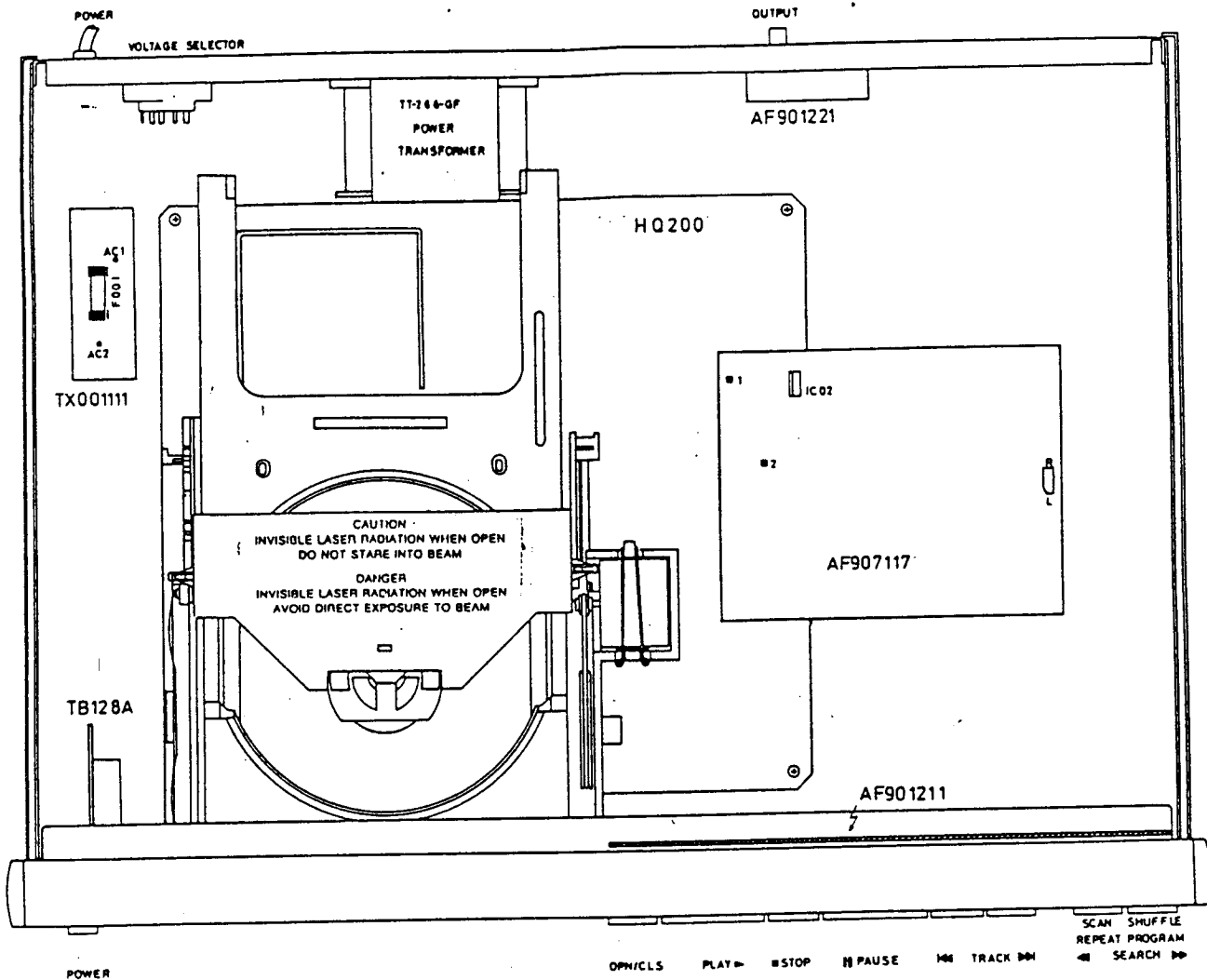
INVISIBLE LASER RADIATION WHEN OPEN
AVOID DIRECT EXPOSURE TO BEAM

ALIGNMENT PROCEDURE FOR THE LASER CURRENT AND THE FOCUS OFFSET

- NOTE 1. This alignment must be done only if or the monoboard or the CDM is replaced for service purpose.
- NOTE 2. The given measurement data are only for alignment after service. When checking monokits for these data, different values can be found. This is normal and gives no reason for malfunction.
- NOTE 3. The used test disc must be a SONY type 4 (YEDS 18).
- A. Turn the laser variable resistor R108 in a position that the total resistance of R108 plus R109 is 1 kohm.
Turn the focus variable resistor R129 in the middle position.
- B. Switch the power ON and verify that the display light up.
- C. Place the test disc in the tray. The test disc must be clean (no finger prints) and may not be damaged.
- D. Connect a DC voltmeter over resistor R101, switch the power on, press the PLAY button and check the reading of the DC voltmeter.
- E. While the monokit is playing, adjust the laser current with variable resistor R108 at a value of 50 mV +/- 2 mV.
- F. Switch the power off and connect a DC voltmeter over capacitor C133, switch the power on, press the PLAY button and check the reading of the DC voltmeter.
- G. While the monokit is playing, adjust the focus offset with variable resistor R129 at a value of 400 mV +/- 20 mV.

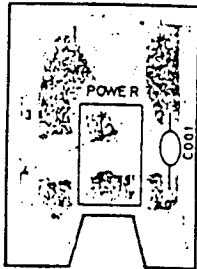
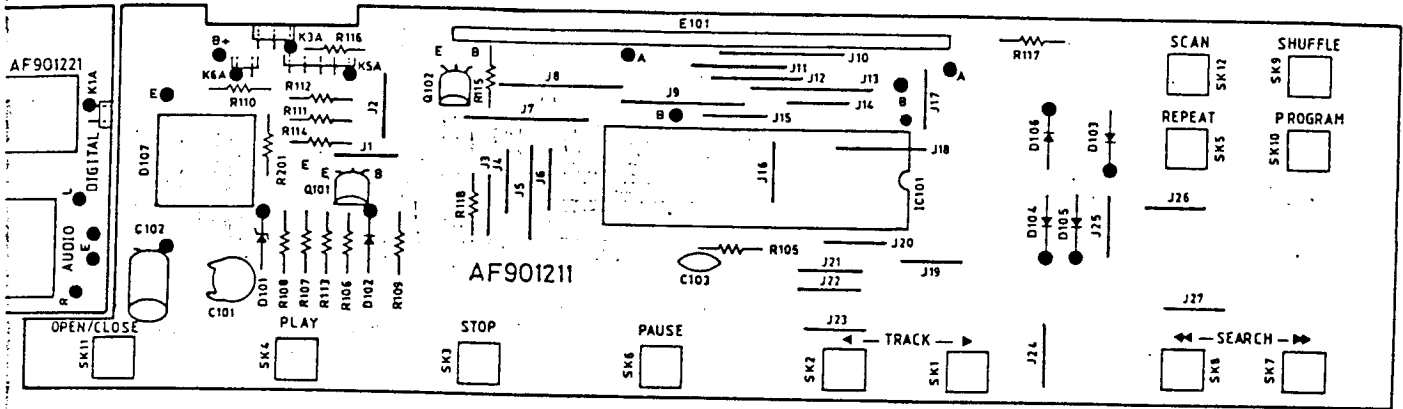
REMARK: It is normal that the focus readout is not stable, but is varying within certain range.

Chassis Layout



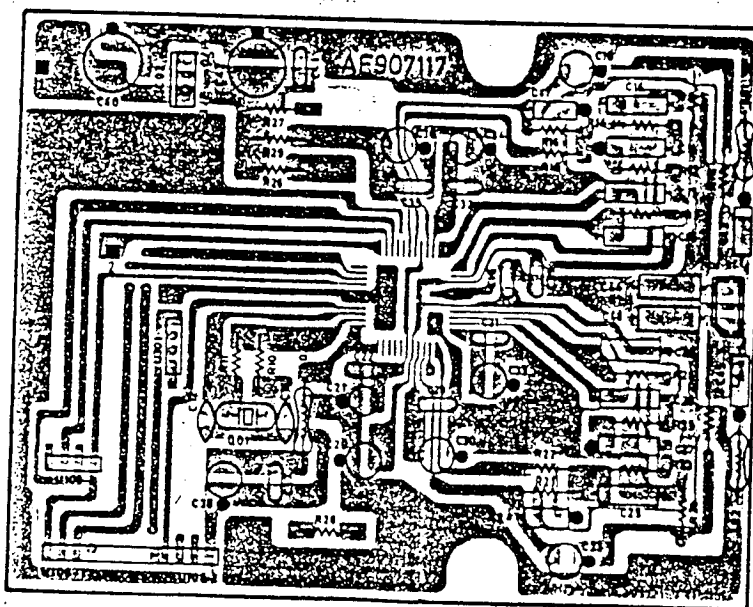
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Printed Circuit Boards



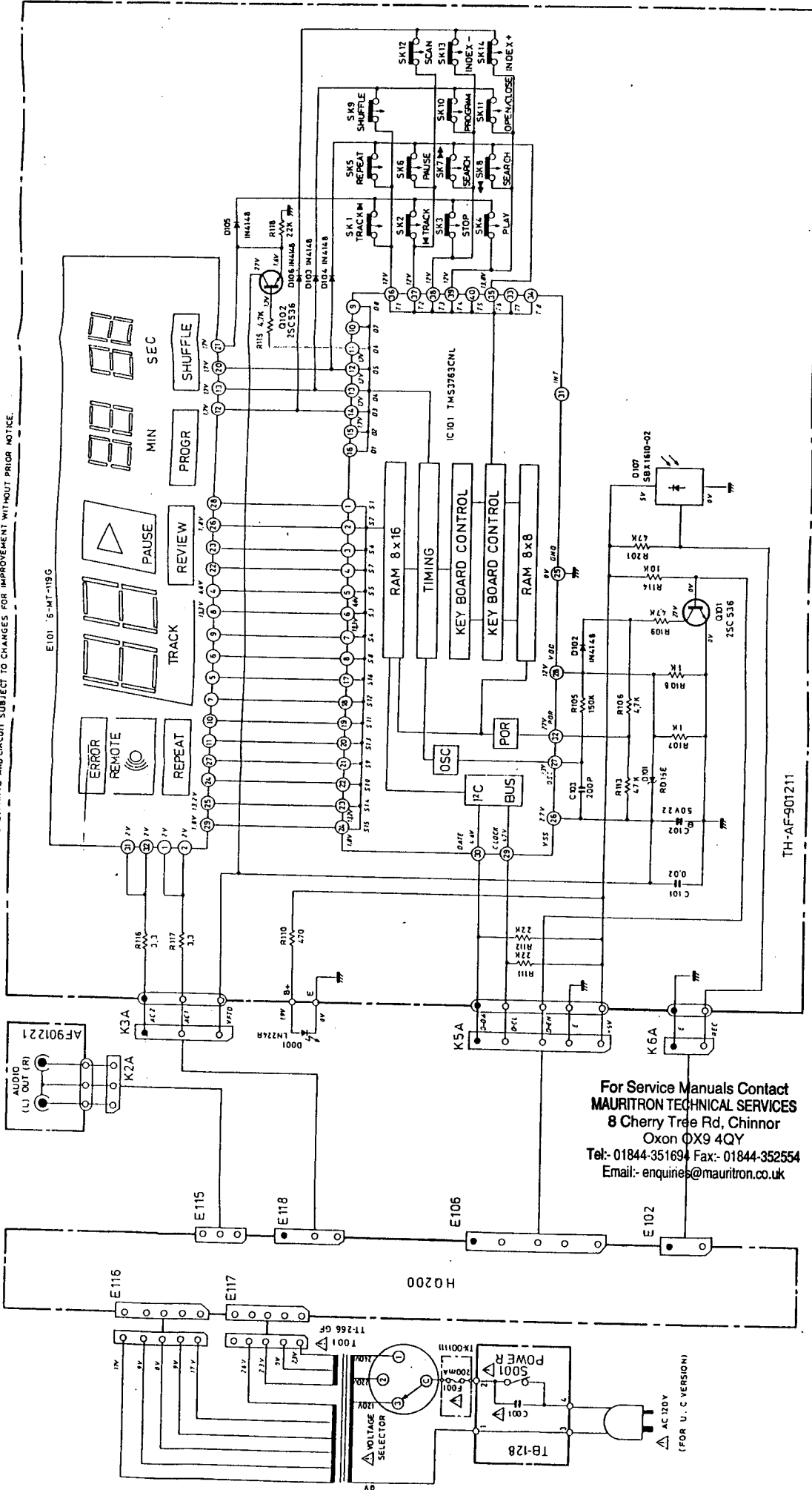
CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F200mA 250V FUSE
AC F001 TX001111

ATTENTION: AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN ACI FUSIBLE DE MEME TYPE F200mA 250V

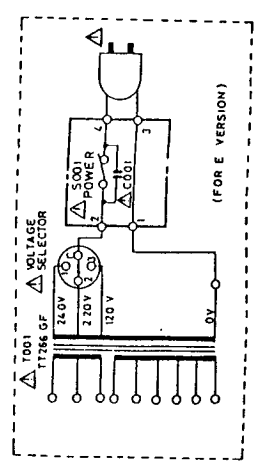
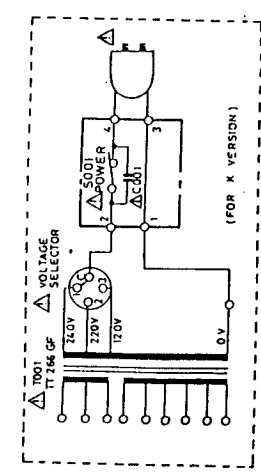
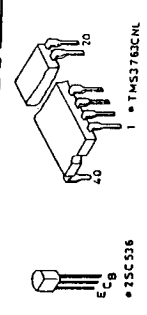


Schematic Diagram

SCHMATIC DIAGRAM MODEL RCD-865 NOTE: PARTS AND CIRCUIT SUBJECT TO CHANGES FOR IMPROVEMENT WITHOUT PRIOR NOTICE.



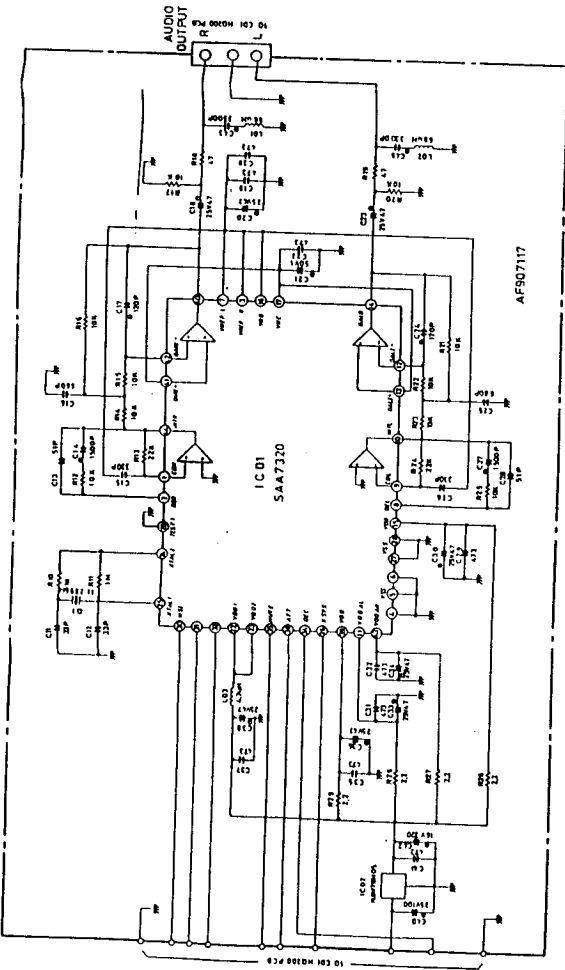
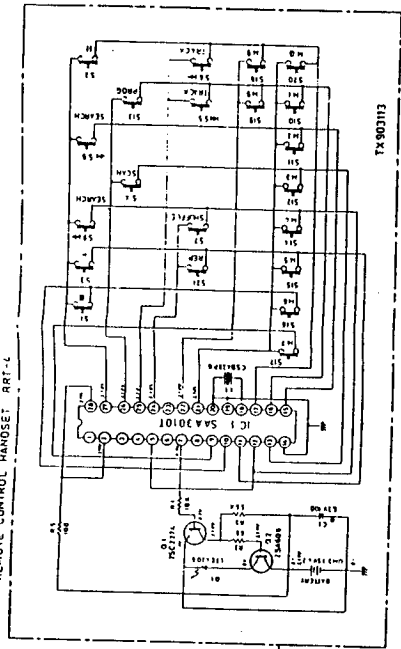
INSTRUCTIONS FOR SERVICING PERSONNEL:
 1) USE ONLY REPLACEMENT PARTS THAT HAVE THE CRITICAL CHARACTERISTICS RECOMMENDED BY THE MANUFACTURER.
 2) MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLE. MEASURE THE AC SUPPLY CIRCUIT BEFORE RETURNING THE UNIT TO THE CUSTOMER.



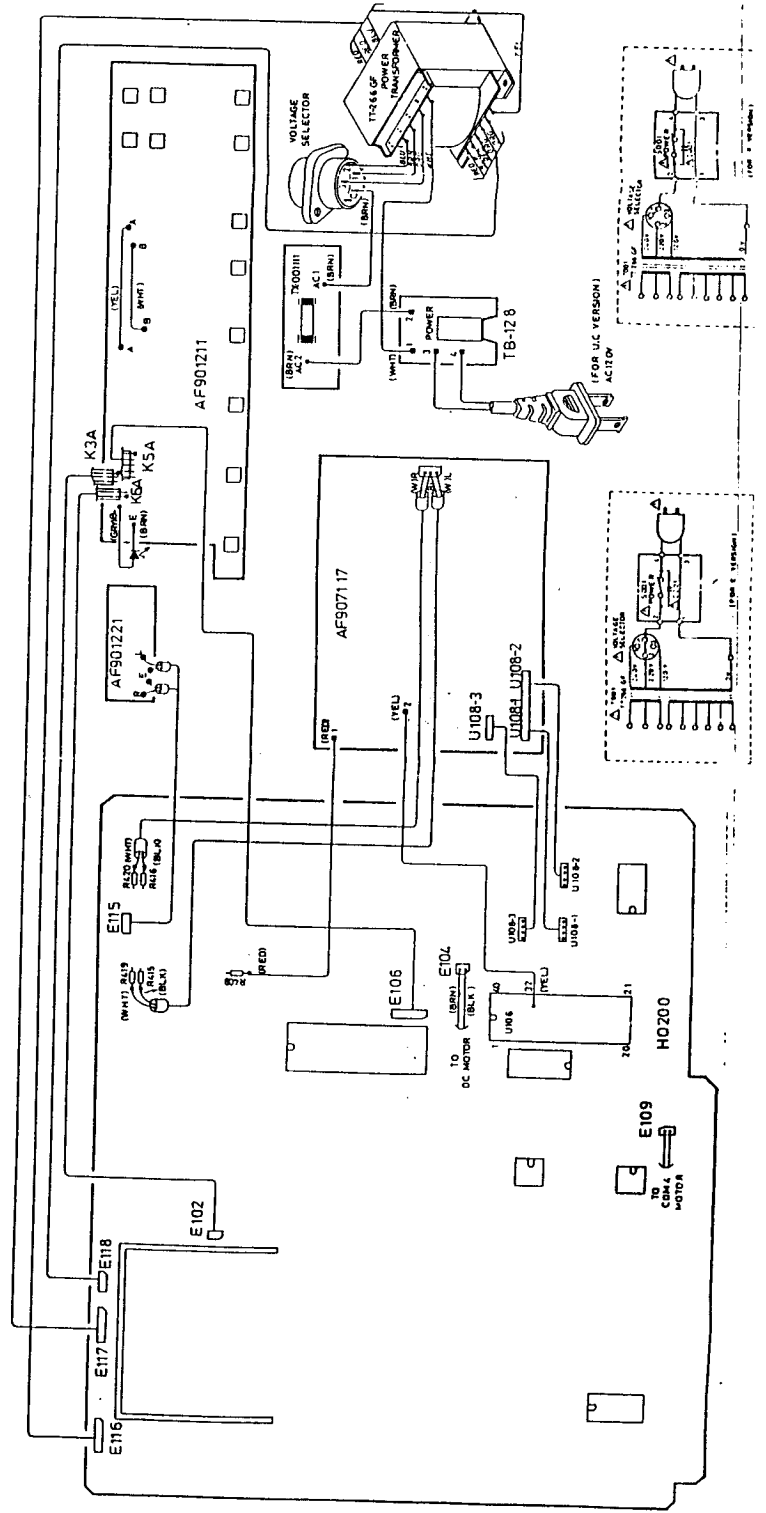
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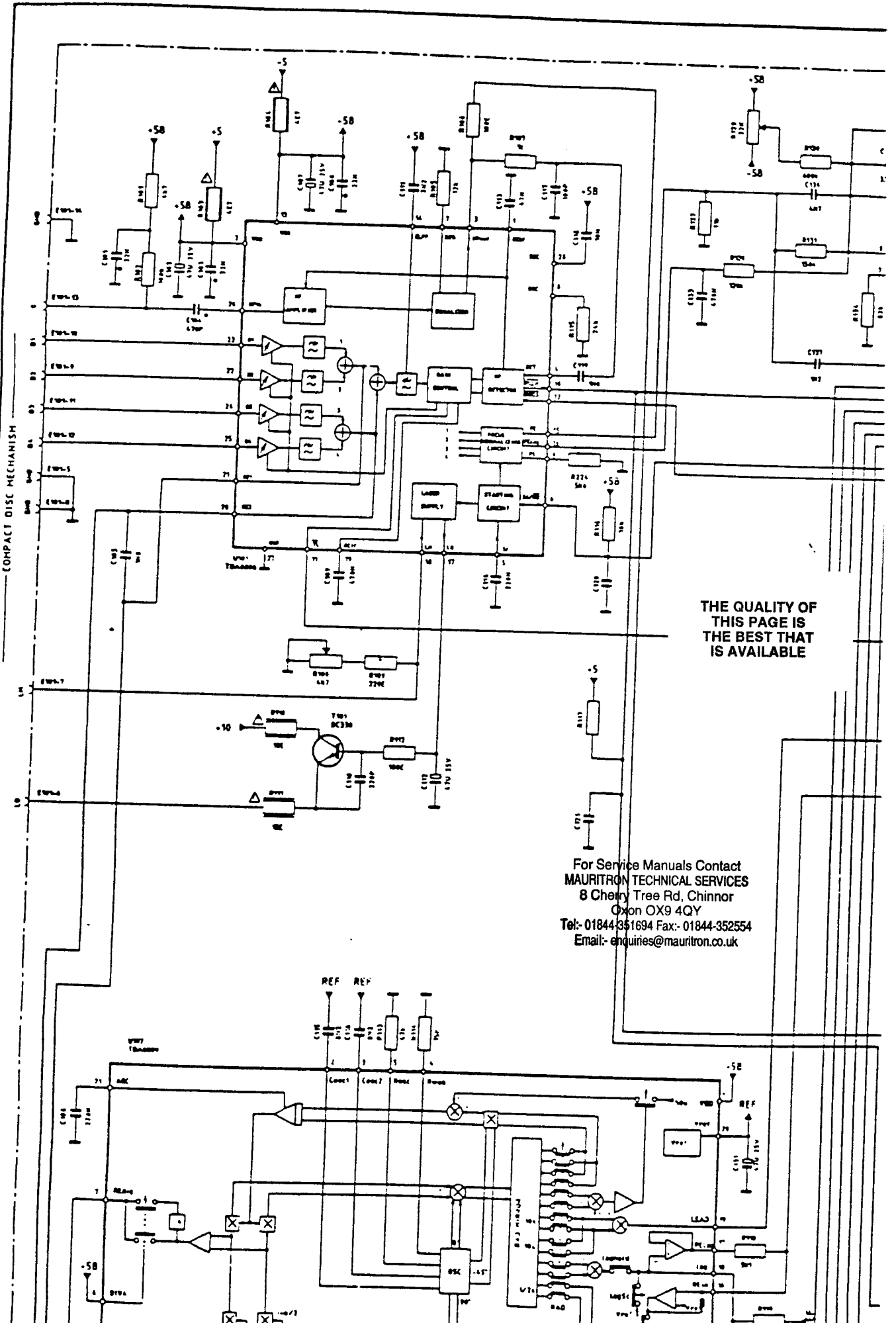
Remote handset



Wiring Diagram

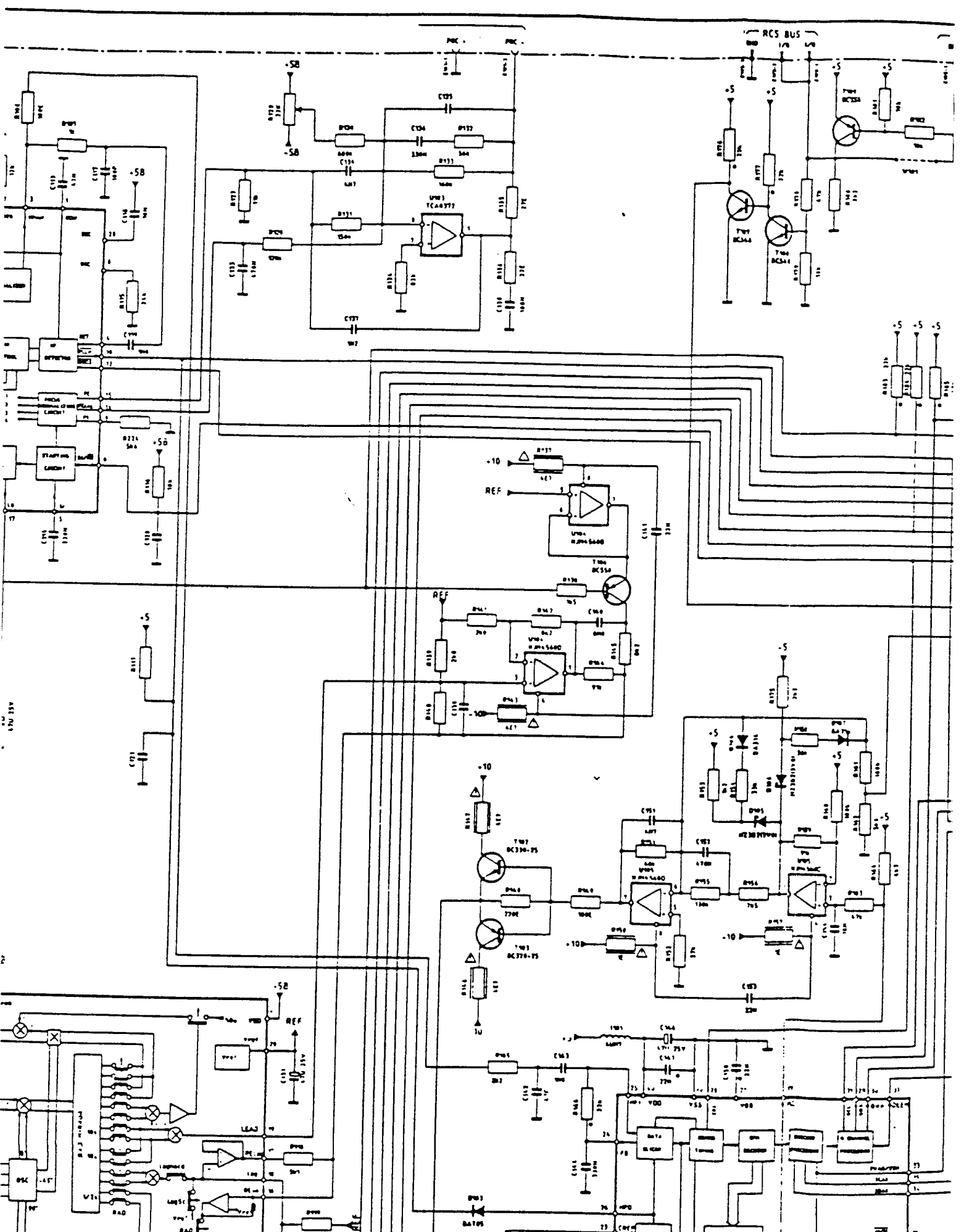


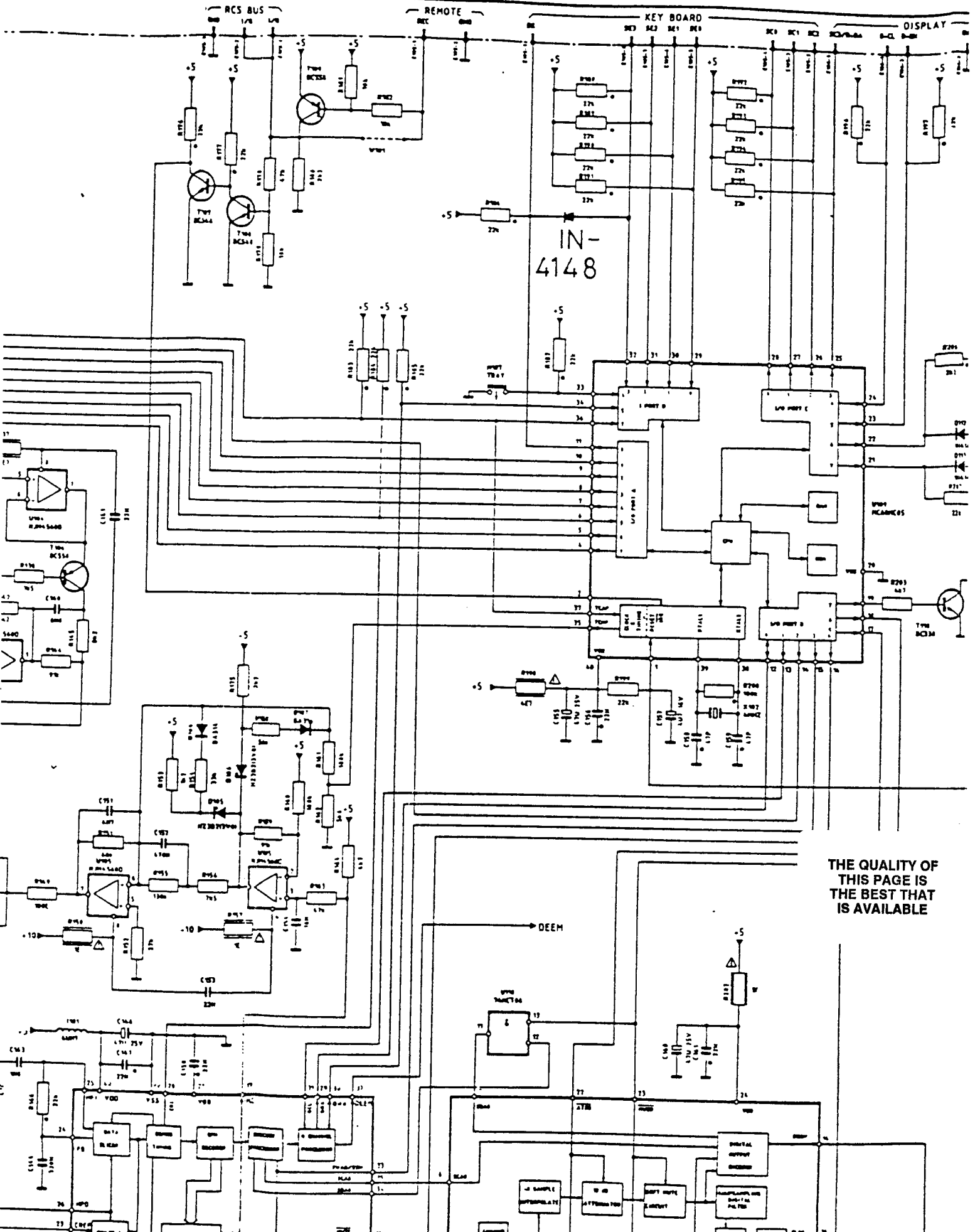
Schematic Diagram



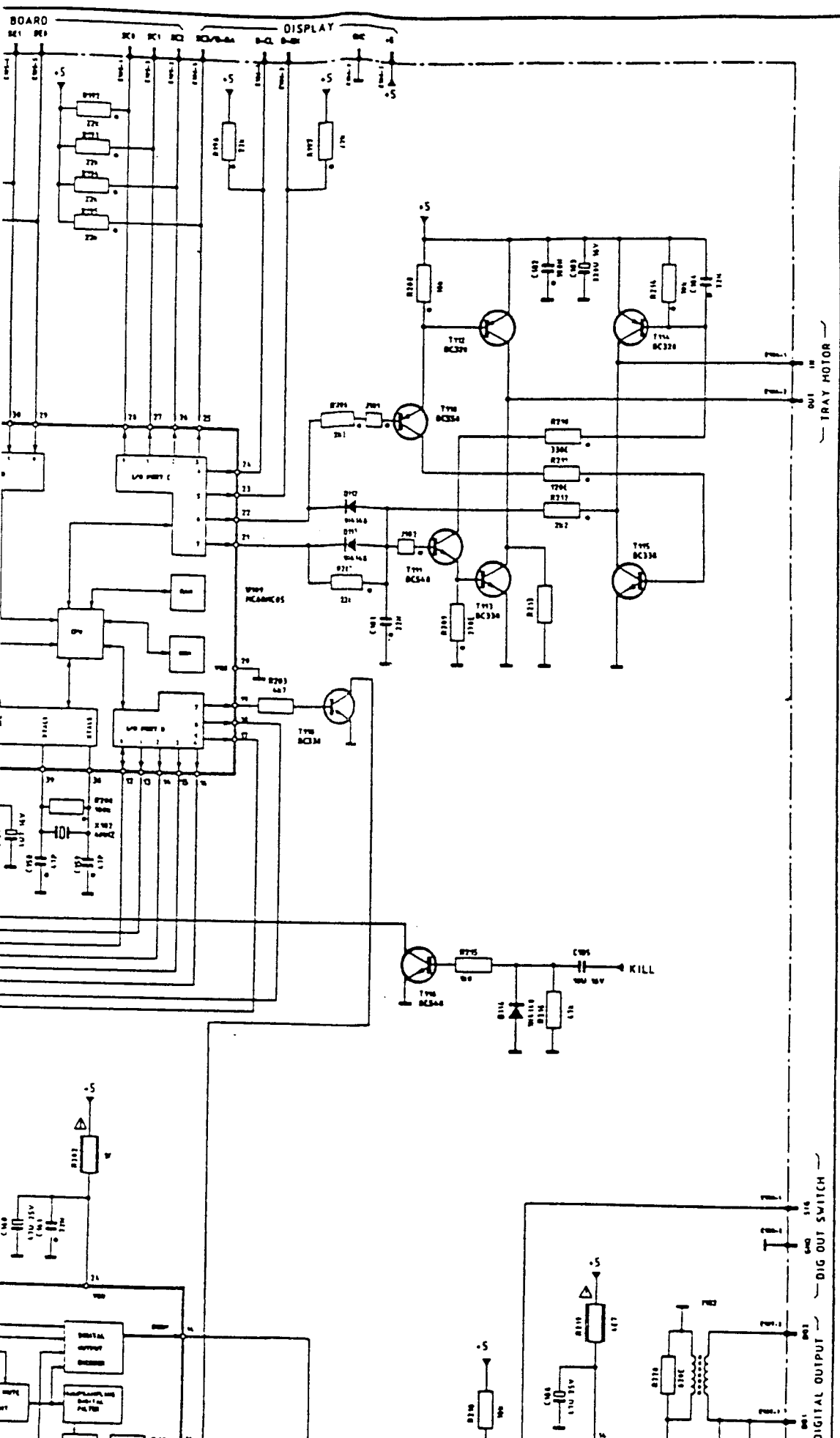
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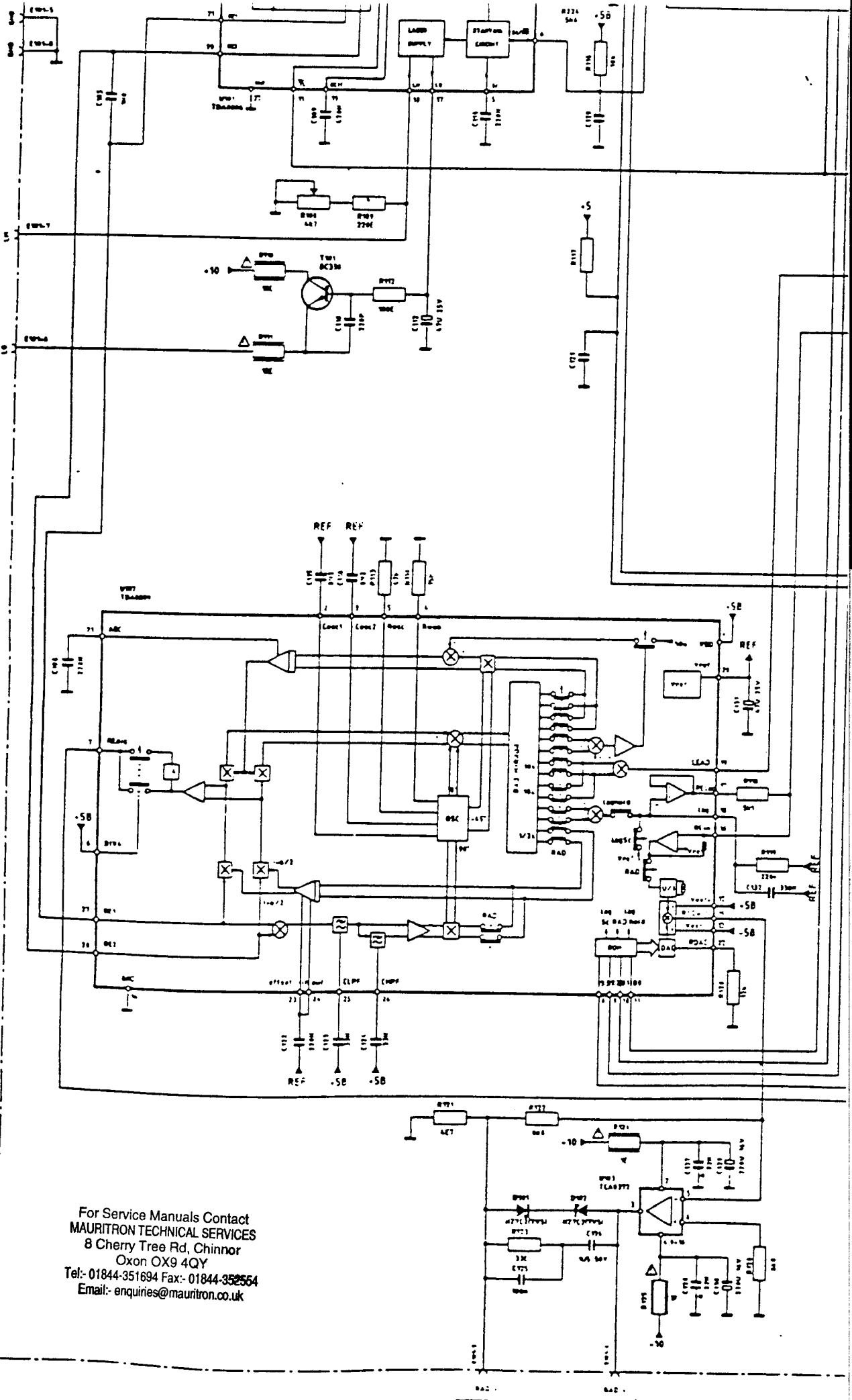




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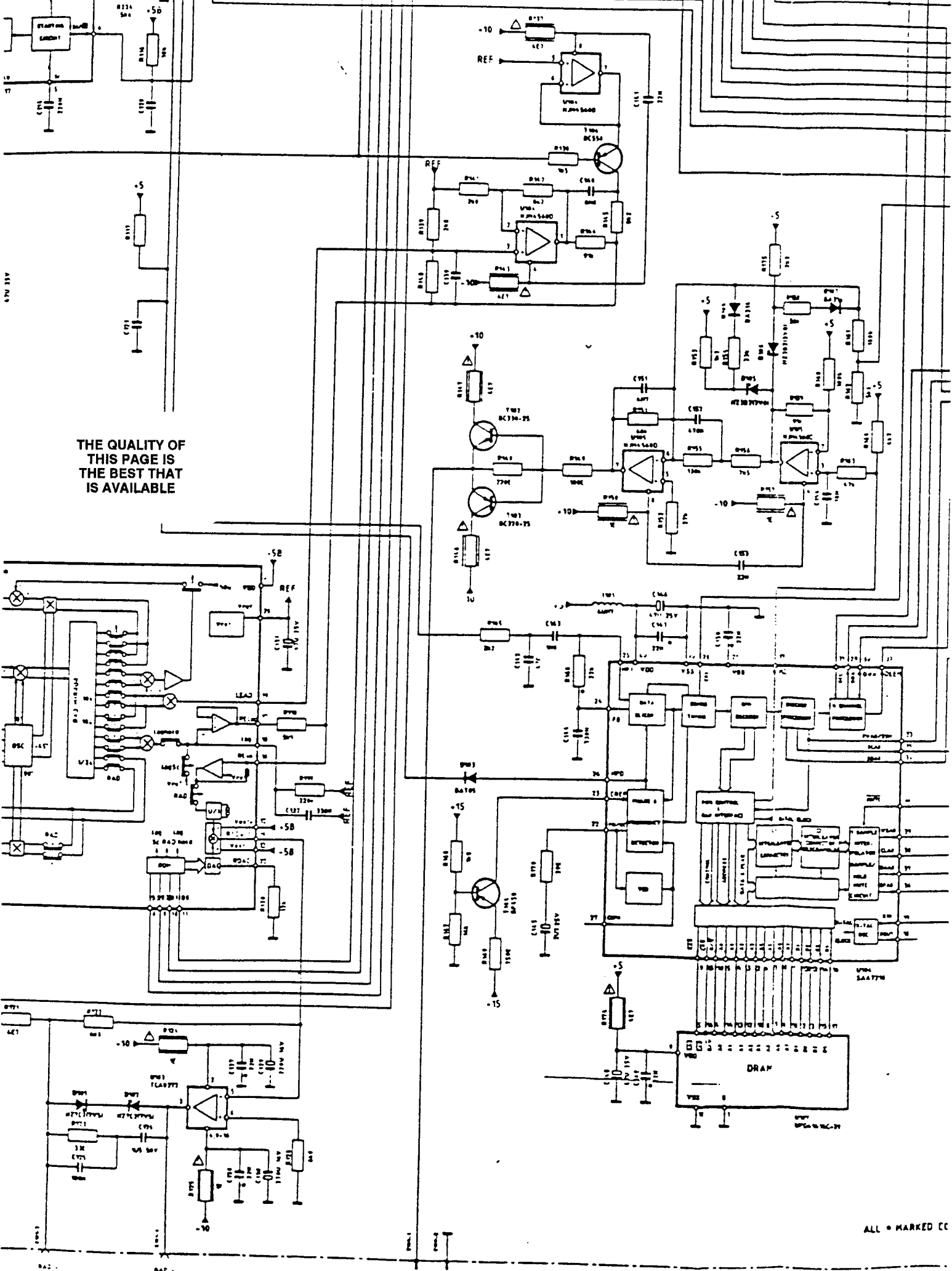


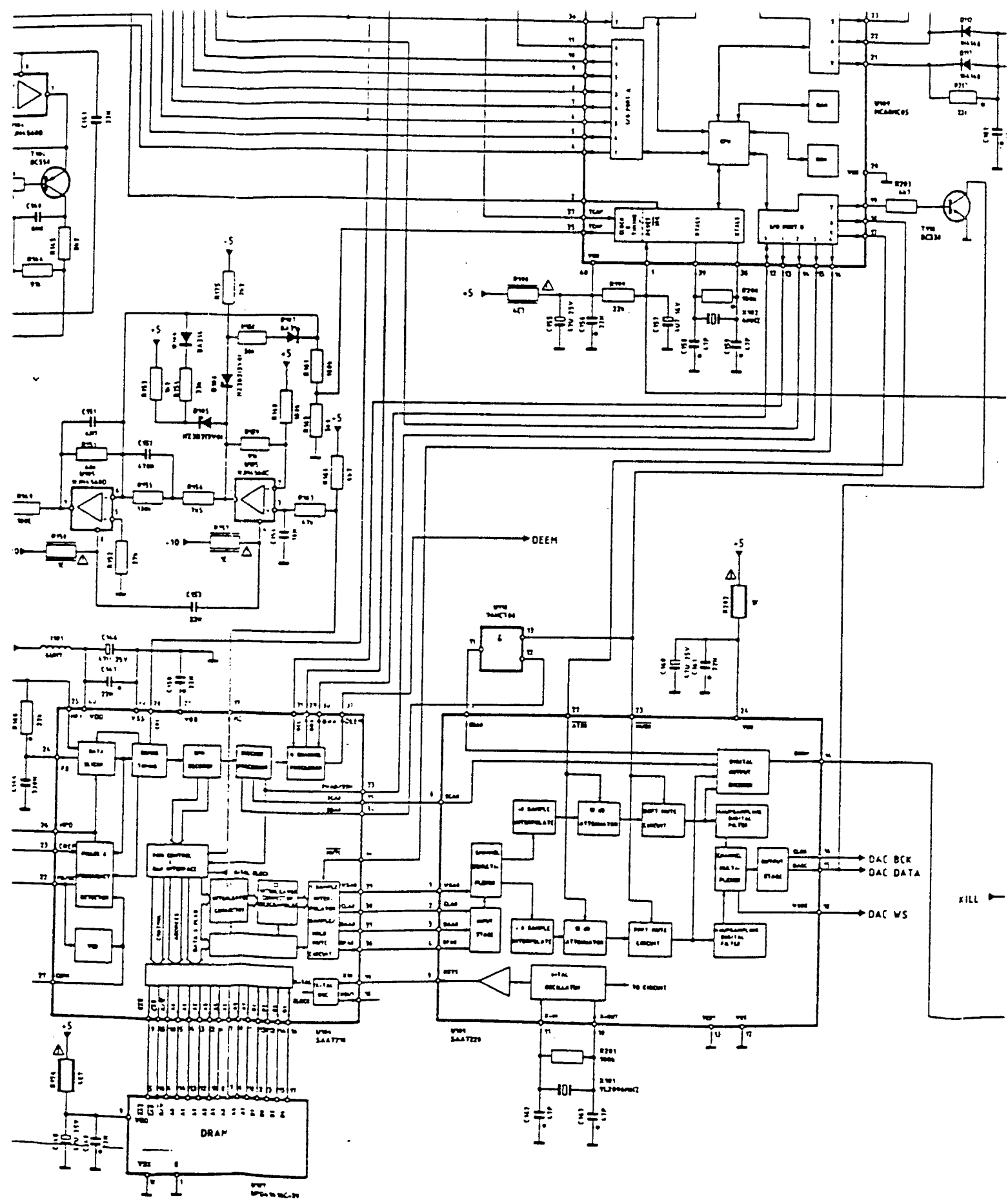
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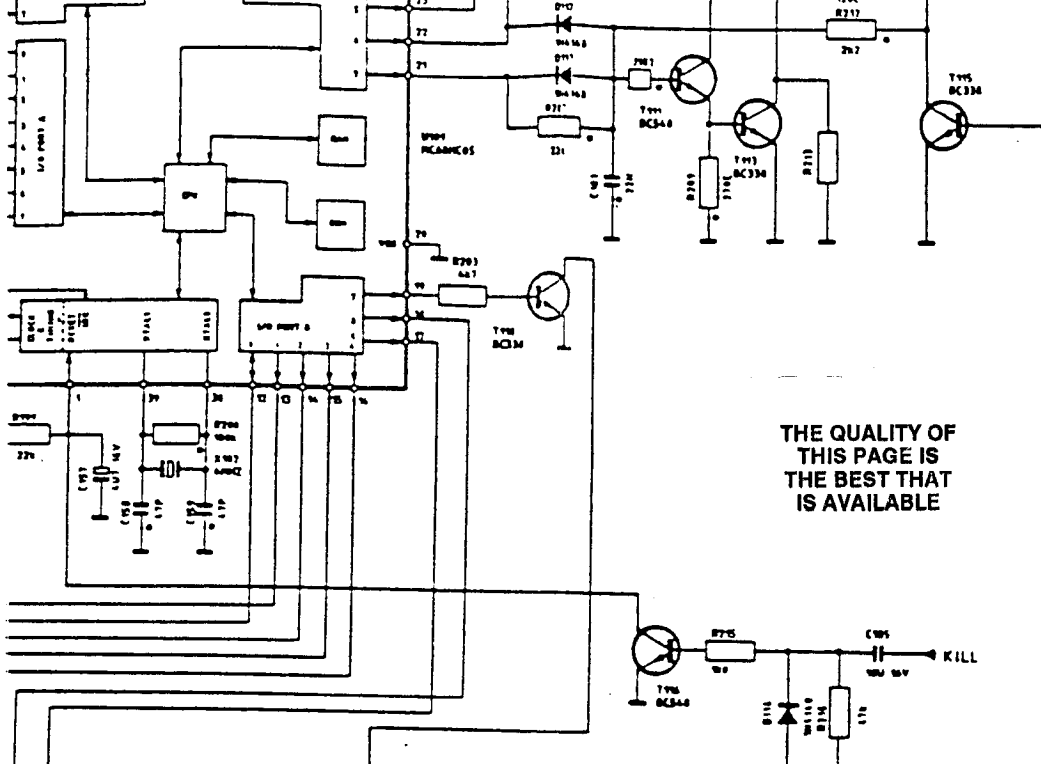
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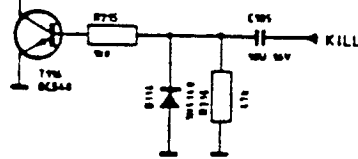


ALL • MARKED COMPONENTS ARE CHIP COMPONENTS

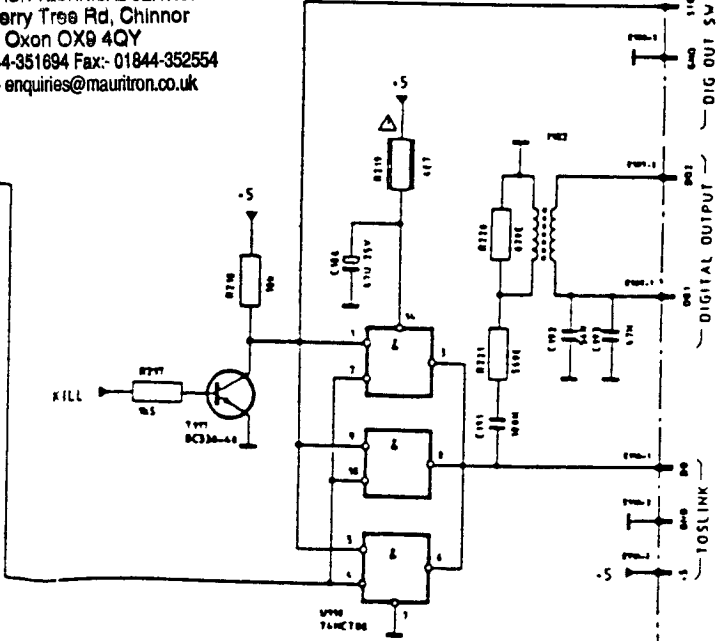
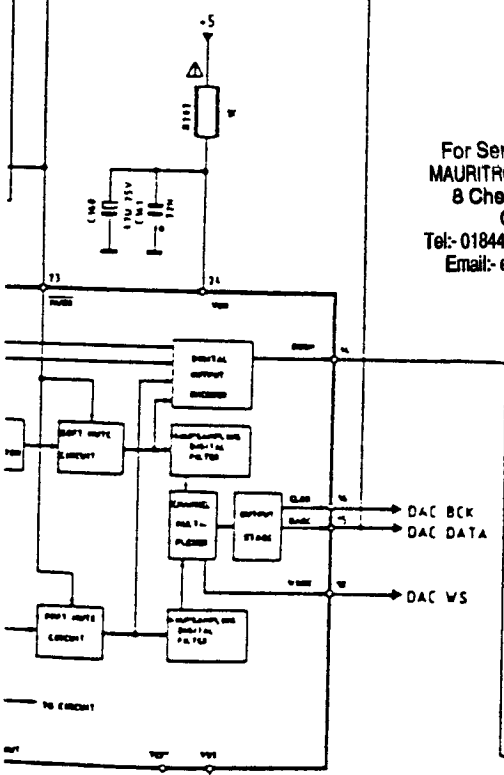
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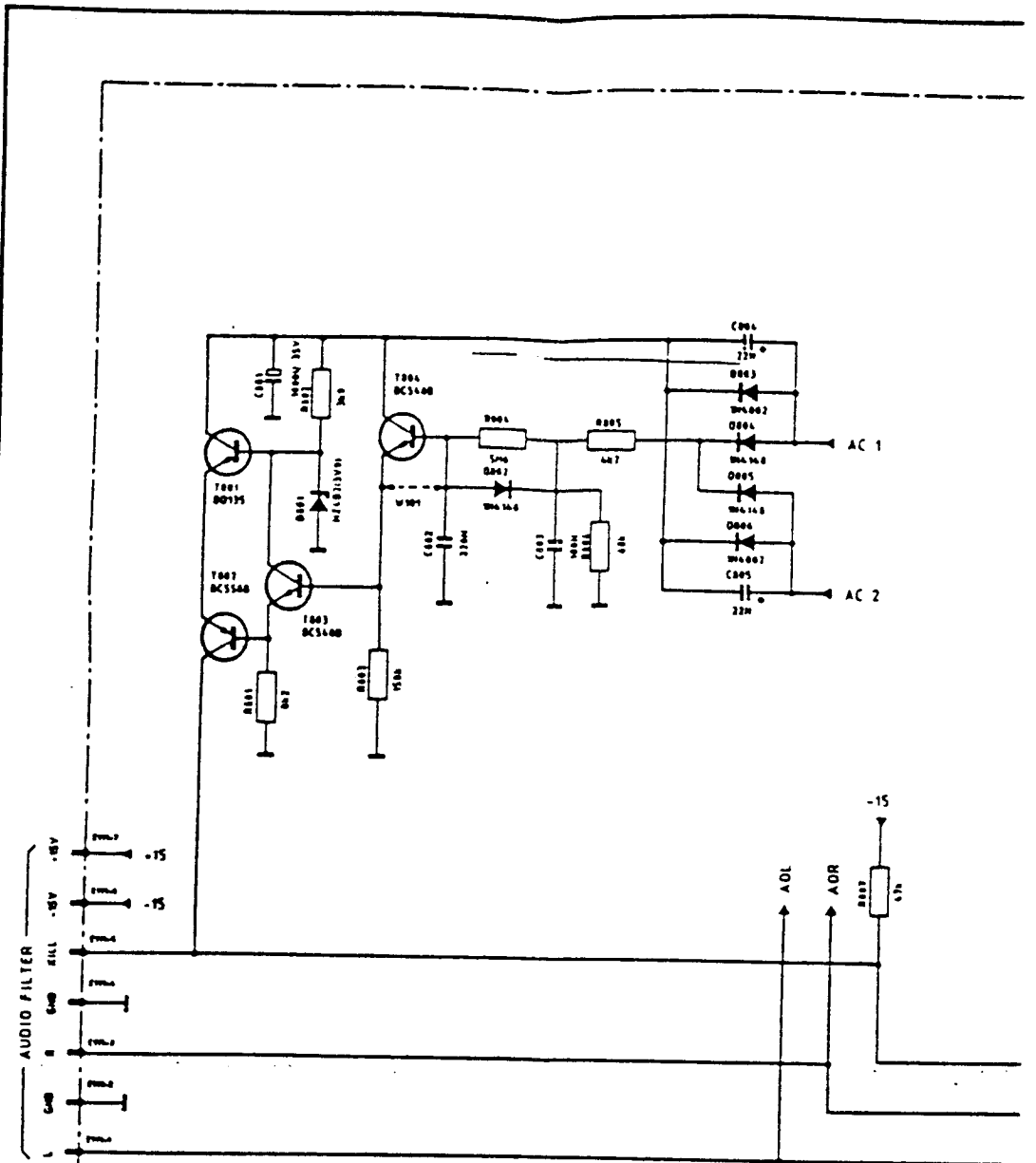
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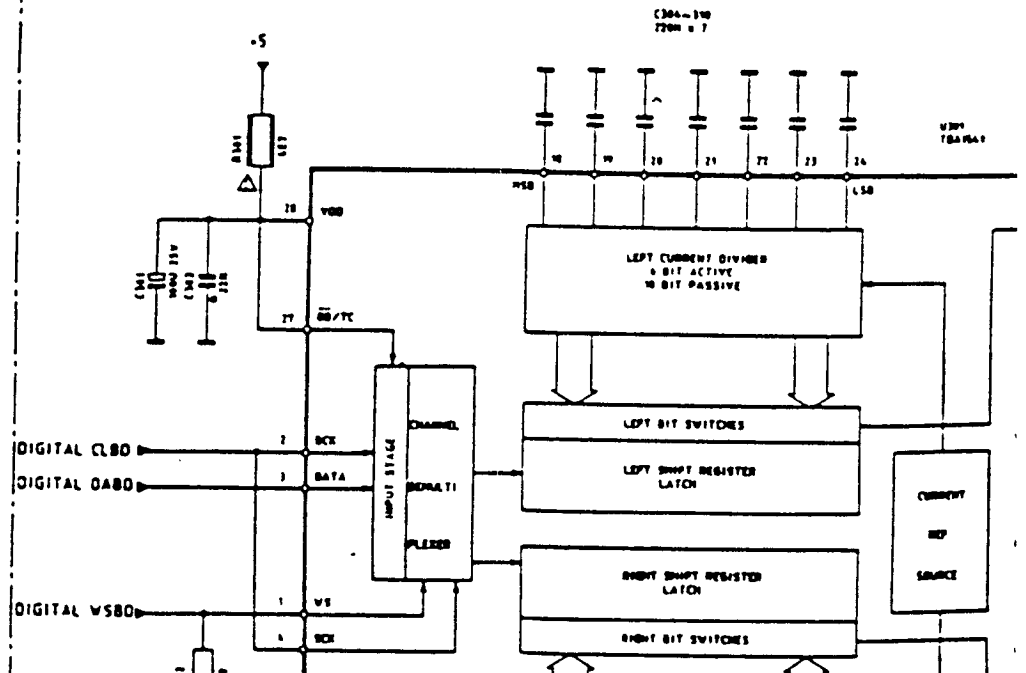
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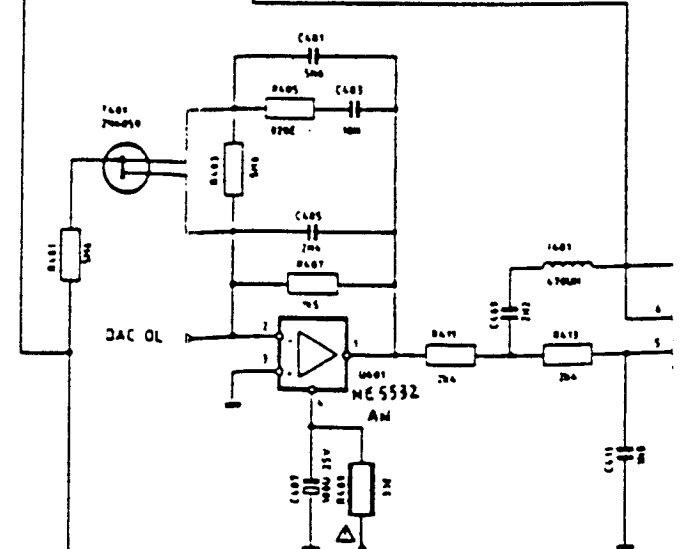
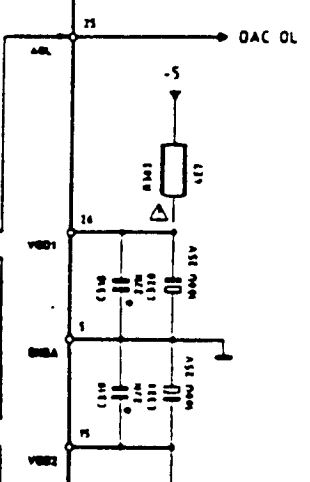
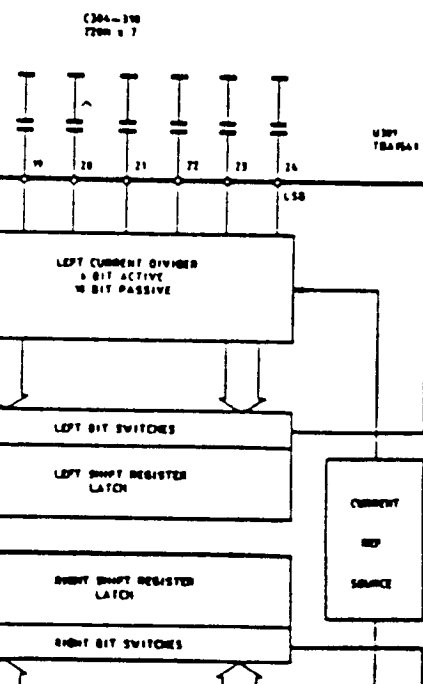
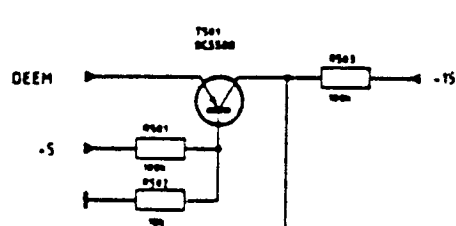
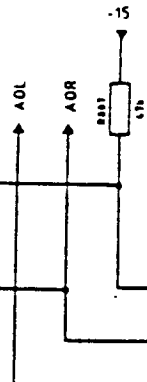
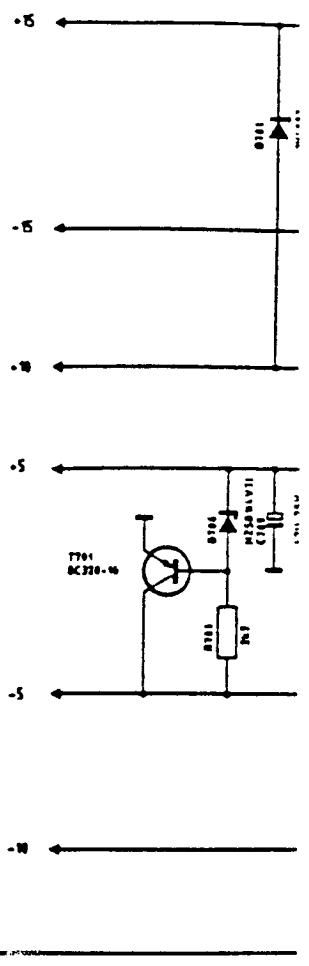
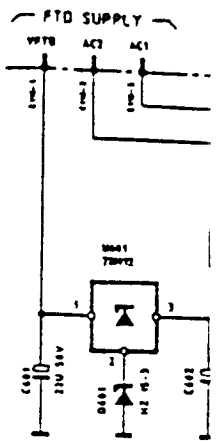
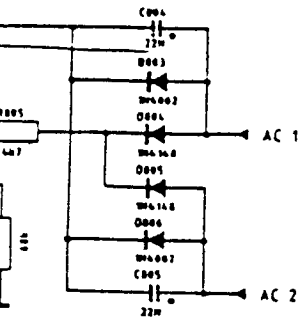


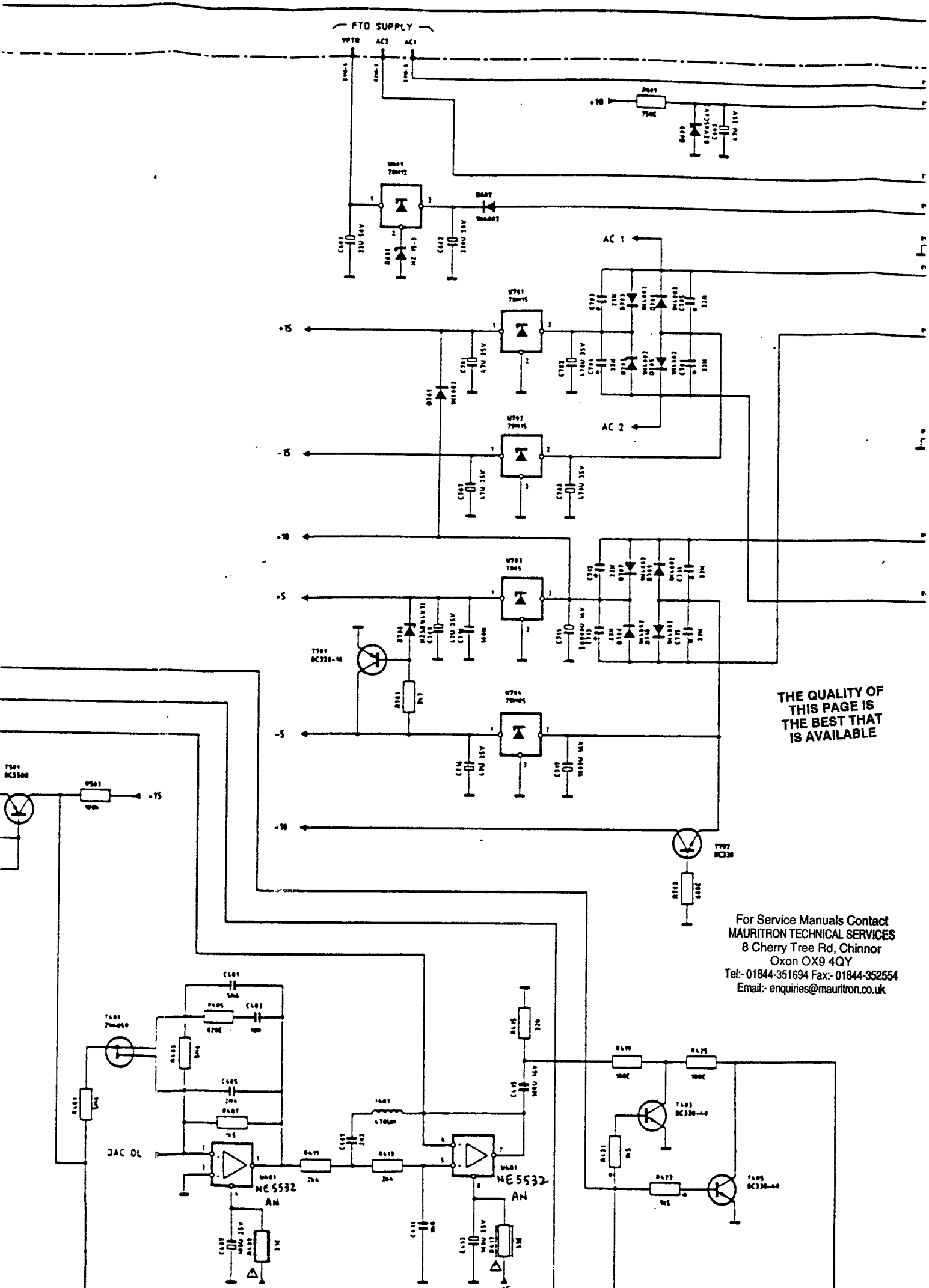
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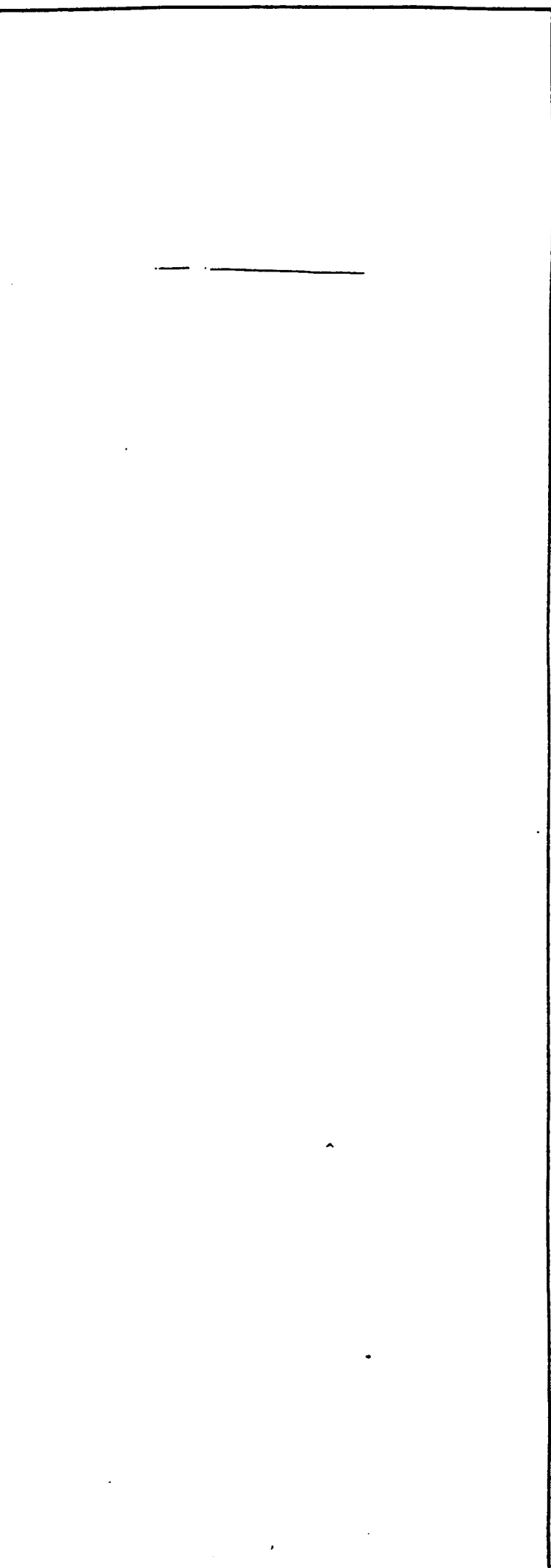
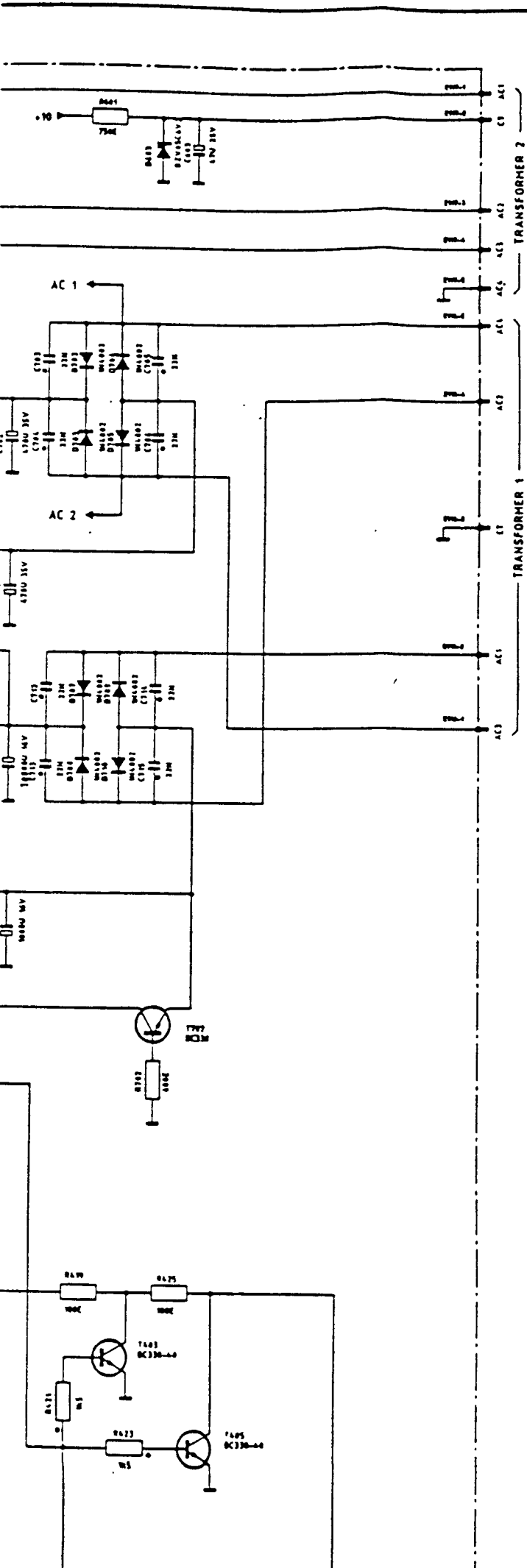


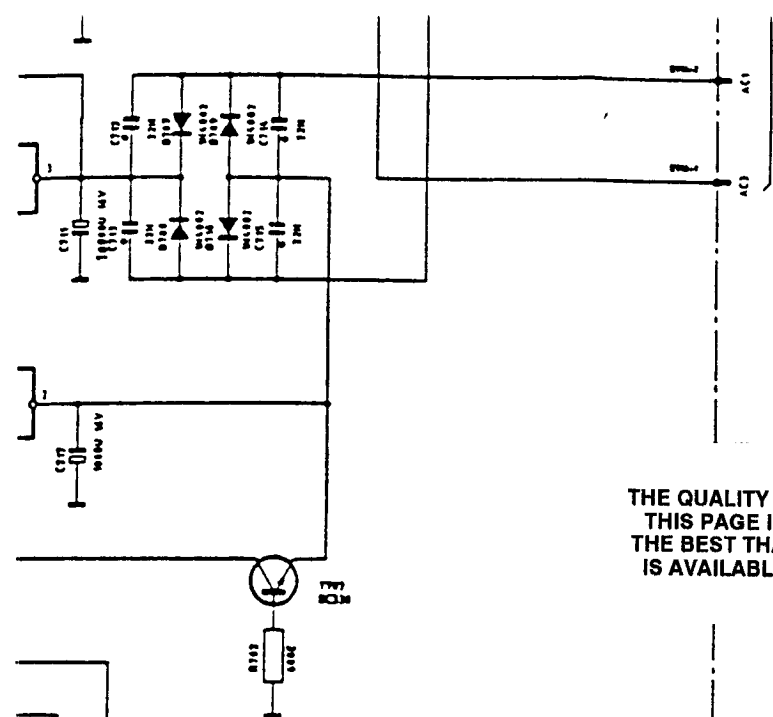




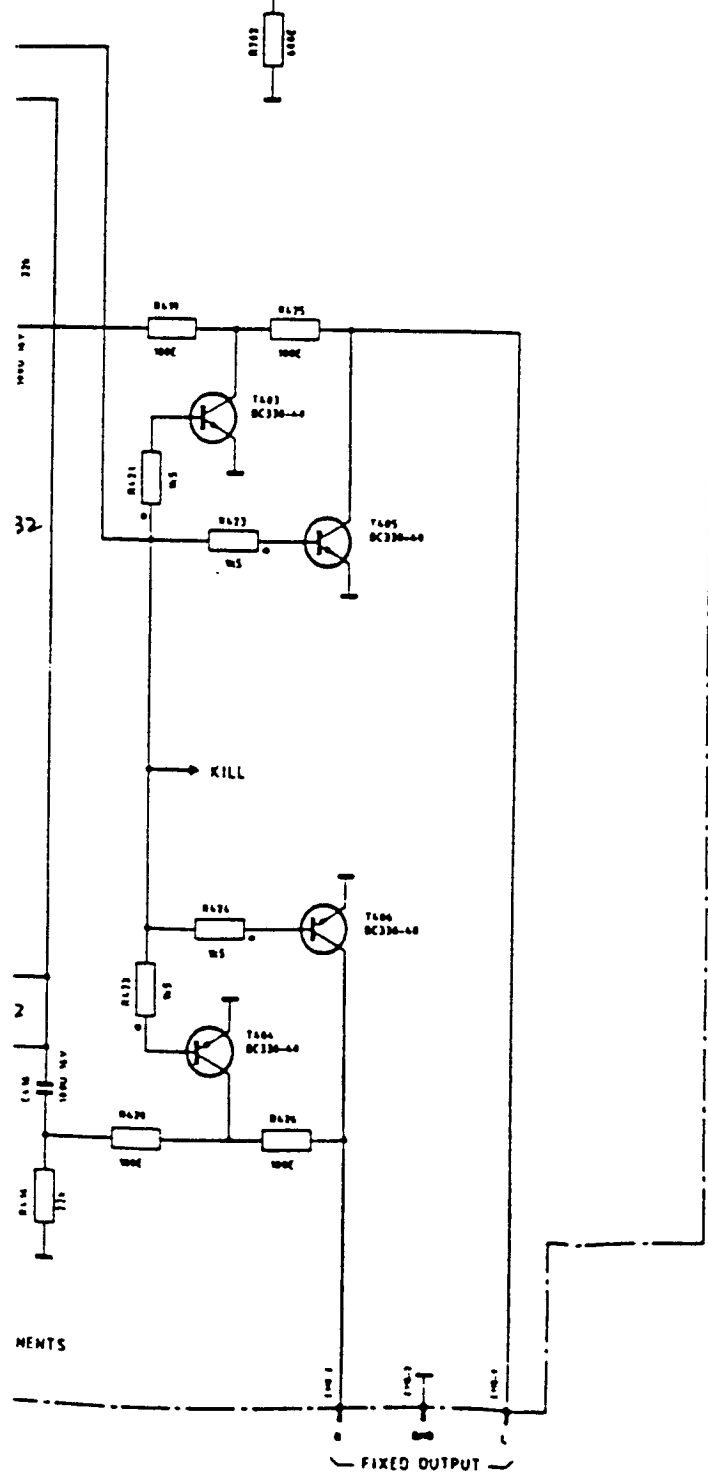
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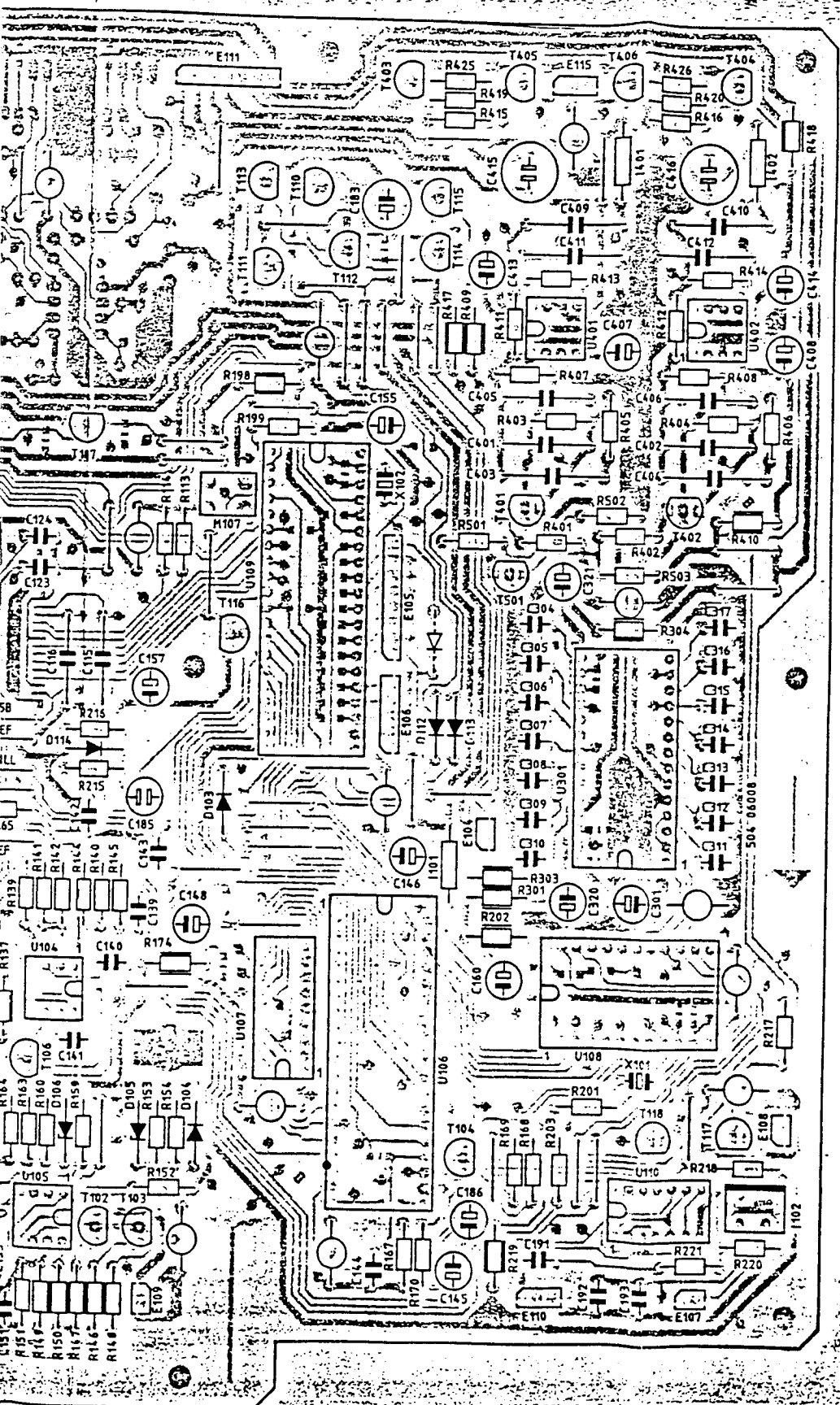




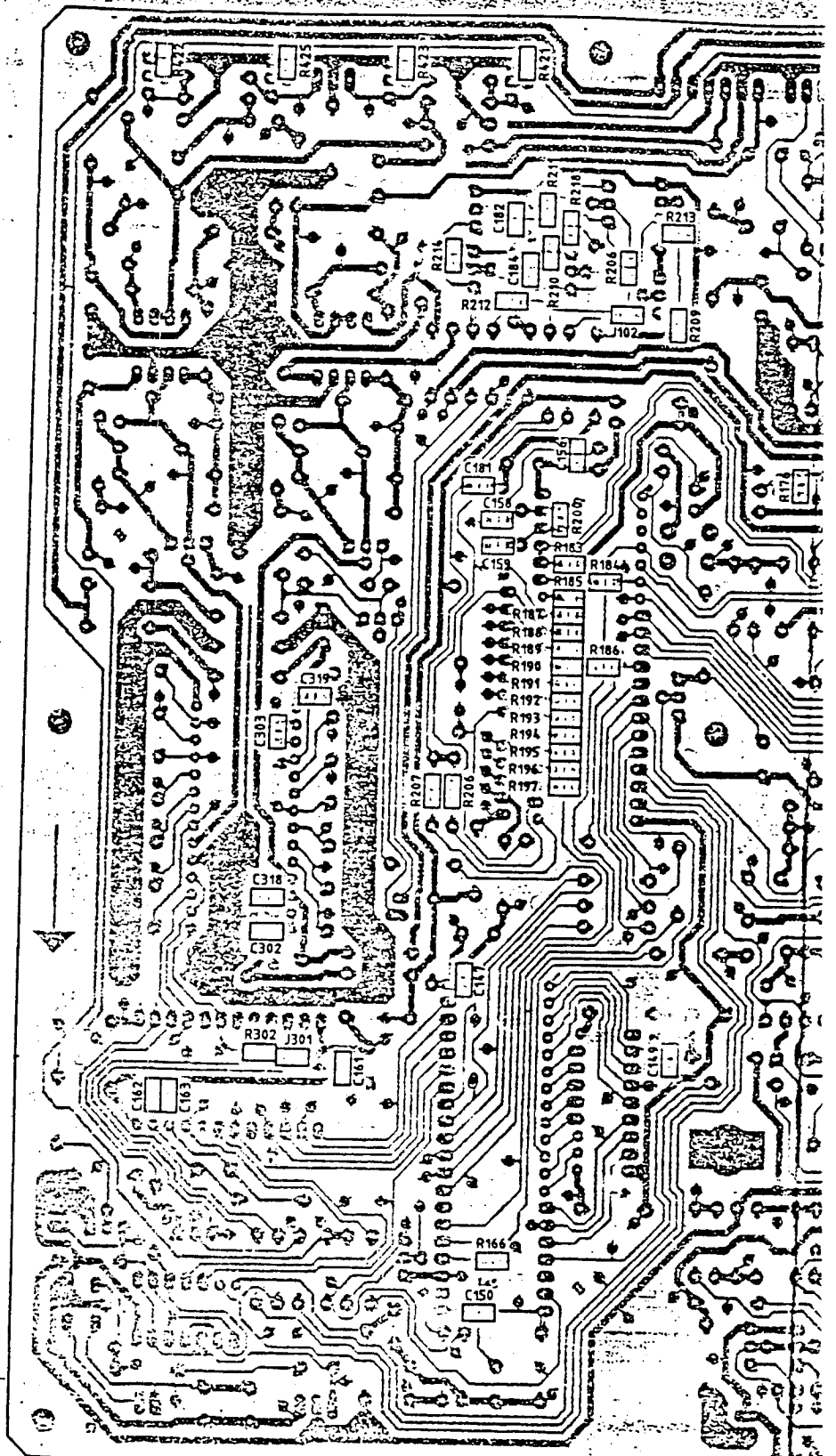
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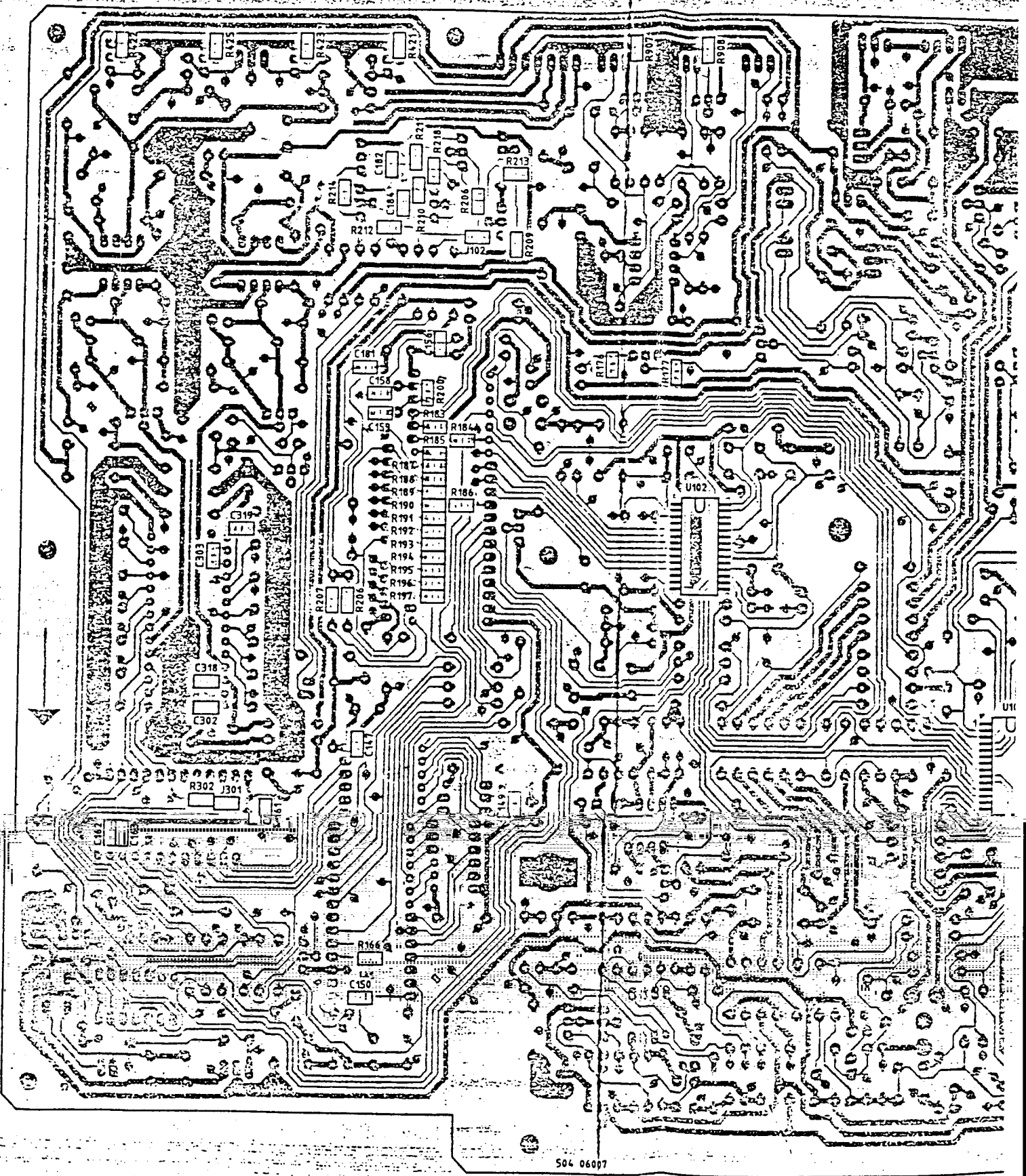
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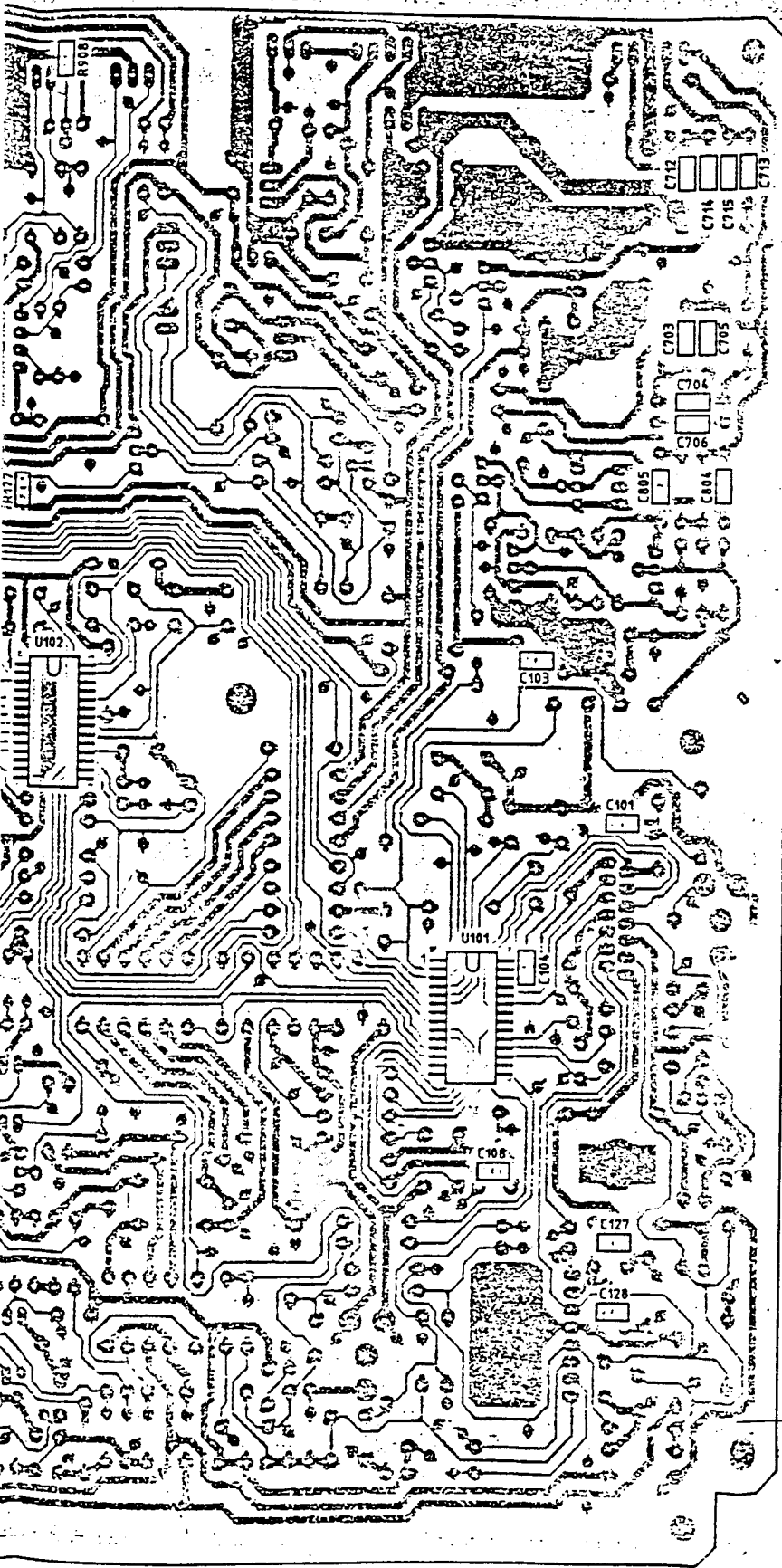


Printed Circuit Boards



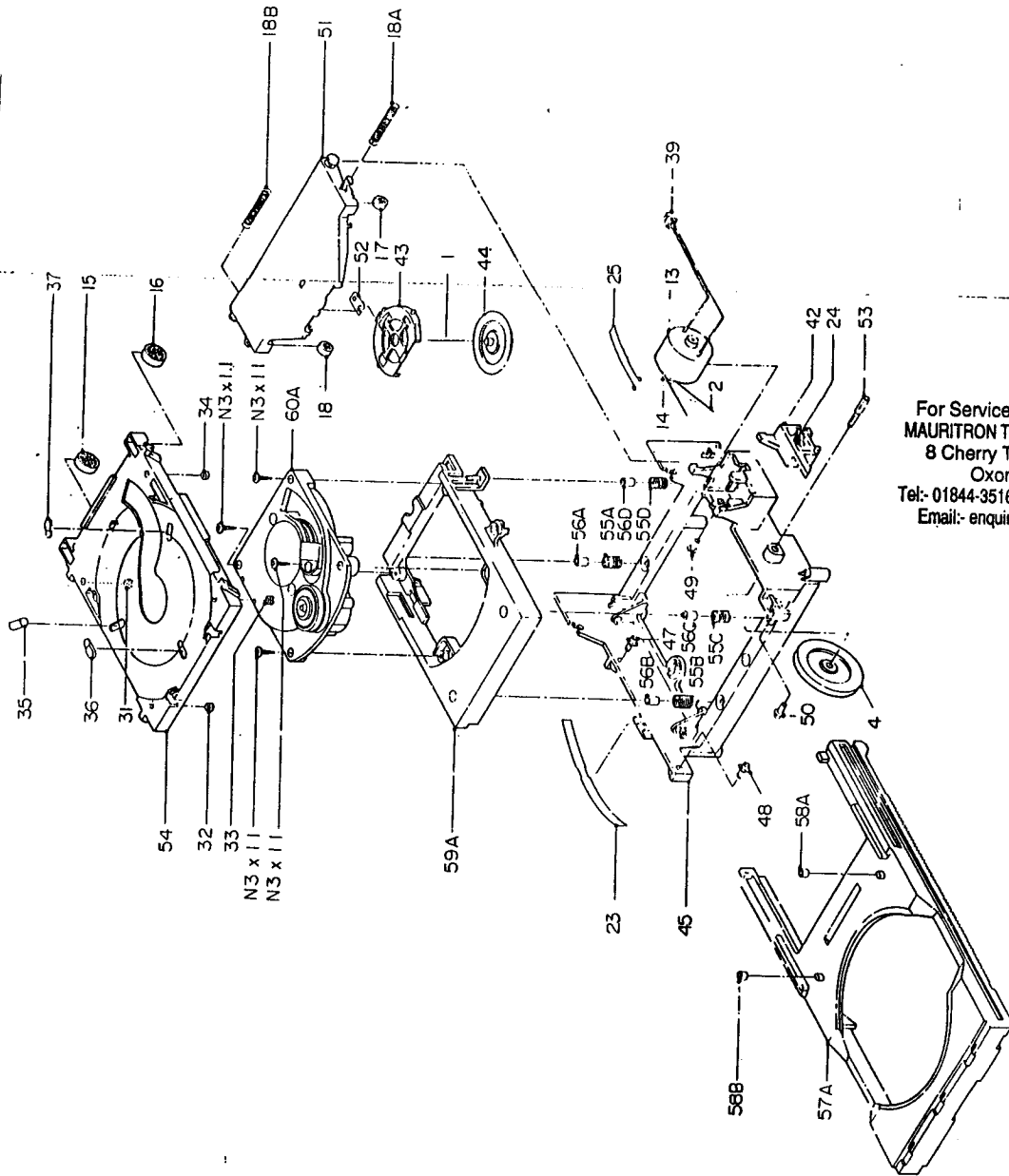
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Disassembly Diagram



ITEM	PART NO.	DESCRIPTION
1	013 40001	BALL 3F
2	017 40002	BELT
3	077 30005	GEAR WHEEL
13	118 40001	DC MOTOR
15	139 40003	POLLY (MOTOR)
15,16	151 40001	ROLLER
17,18	151 40002	ROLLER
23	172 30015	FLAT SPRING
24	172 40013	COMPRESSION SPRING
25	172 40014	SPRING
31,32	206 40014	TULE
33,34	208 40001	TULE
35-37	208 40002	ORNAMENTAL TULE
38	241 40003	LEAD ASS'Y
42	255 30003	SWITCH BRACKET
43	258 20004	CENTRING RING
44	258 30003A	CARRIER
45	259 10002	CHASSIS
47,48	271 30003	GUIDE
49,50	271 30004	GUIDE
21	300 10004A	LID
22	300 40005	PIVOT PLATE
23	316 40005	SHAFT
34	317 10003A	LIFT PLATE
35	317 10003A	LIFT PLATE
36	172 40018	TENSION SPRING
37	172 40016	COMPRESSION SPRING
18A,18B	078 40002	SUSPENSION GROMMET
59A,59B	078 40003	DAMPING GROMMET
56A,56B	317 10004	TRAY ASS'Y
56C,56D	259 10003A	SUPPORT PIECT
57A	480 32103	CDM4 MINI (DC) ACCESSORY
59A	160 40302	PLAST SCR M3x8
N3x11		

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Parts List

NOTE: THE COMPONENTS IDENTIFIED BY Δ MARK ARE FOR SAFETY. REPLACE ONLY WITH ORIGINAL PARTS. DO NOT SUBSTITUTE.

SYMBOL	PARTS NO.	DESCRIPTION
	AF901211	PCB ASSEMBLY
105	RD21501826	R. CARBON 150K J 1/4W
106	RD24701829	R. CARBON 4.7K J 1/4W
107	RD10011821	R. CARBON 1K J 1/4W
108	RD24701829	R. CARBON 4.7K J 1/4W
109	RD24701829	R. CARBON 4.7K J 1/4W
110	RD24700825	R. CARBON 470 J 1/4W
111	RD22202822	R. CARBON 22K J 1/4W
112	RD24702822	R. CARBON 47K J 1/4W
113	RD10011821	R. CARBON 1K J 1/4W
114	RD24701829	R. CARBON 4.7K J 1/4W
115	RD24701829	R. CARBON 4.7K J 1/4W
116	RD33308826	R. CARBON 3.3 J 1/4W
117	RD22202822	R. CARBON 22K J 1/4W
118	RD24702822	R. CARBON 47K J 1/4W
119	DC20000191	DIODE 1N4148
120	DC10000100	DIODE 1N4148
121	IC00000200	REMOTE RECEIVER SBX1610-02
122	CC02009458	CAP. CERAMIC 0.02μF 50V
123	CE02206508	CAP. ELEC. 22μF 50V
124	CC02011430	CAP. CERAMIC 200P 50V
125	IC00000227	IC TMS-17635NLU
126	T830000137	TRANSISTOR 2SC536
127	DD-0001040	FL TUBE ODI 9-WT-119G
128	SH600000240	KEY BOARD SW 9.5MM
129	SP100005887	4TR-2343 SKRMAN FL TUBE PLASTIC SUPPORT 4TSF-11
130	AF901221	PCB ASSEMBLY
131	JP01000181	2P PIN JACK 4TR-2166#3
132	SP100005437	P.C.B. SUPPORT 4TTU-13
133	TB128A	PCB ASSEMBLY
134	SH40000120	POWER SWITCH C-36008-11 Δ
135	CKN00000060	SPARK KILLER DE7100 F2472P (C.U.A.) Δ
136	CKN00000035	SPARK KILLER DE7150F472M Δ
137	AF907117	PCB ASSEMBLY
138	RM11001716	R. METAL MRS251K 0.4W
139	RM11001717	R. METAL MRS251M 0.4W
140	RM11001718	R. METAL MRS251K 0.4W
141	RM11001719	R. METAL MRS251K 0.4W
142	RM11002710	R. METAL MRS2510K 0.4W
143	RM11002710	R. METAL MRS2510K 0.4W
144-147		
148	RM14709710	R. METAL MRS2547R 0.4W
149	RM11002710	R. METAL MRS2510K 0.4W
150	RM11002710	R. METAL MRS2510K 0.4W
151	RM11002710	R. METAL MRS2510K 0.4W
152	RM11002710	R. METAL MRS2510K 0.4W
153	RM11002710	R. METAL MRS2510K 0.4W
154-157		
158	CC13112	CAP. CERAMIC 33P 50V
159	CC13112	CAP. CERAMIC 33P 50V
160	CC13112	CAP. CERAMIC 33P 50V
161	CC13112	CAP. CERAMIC 33P 50V
162	CC13112	CAP. CERAMIC 33P 50V
163	CC13112	CAP. CERAMIC 33P 50V
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192	CC13112	CAP. CERAMIC 33P 50V
193	CC13112	CAP. CERAMIC 33P 50V
194	CC13112	CAP. CERAMIC 33P 50V
195	CC13112	CAP. CERAMIC 33P 50V
196	CC13112	CAP. CERAMIC 33P 50V
197	CC13112	CAP. CERAMIC 33P 50V
198	CC13112	CAP. CERAMIC 33P 50V
199	CC13112	CAP. CERAMIC 33P 50V
200	CC13112	CAP. CERAMIC 33P 50V

SYMBOL	PARTS NO.	DESCRIPTION
	KB20002577	TACT. BUTTON 4TSF-14 11.5x159
	OM10000085	ORNAMENTAL SIDE PLATE 3TTF-6
	OM10001170	ALUMINIUM DOOR 4TSF-7#3
	OM10000875	FUNCTION PVC PLATE 4TSF-12 TFF-552
	OM10000091	PLASTIC DOOR 3TTF-13
	AM00000400	PANEL WINDOW 4TR-2655#2
	OM10000863	FL ORNAMENTAL PLATE 4TSF-8 TFF-551
	BUD00000882	POWER BUTTON RING W/LED 4TR-2177
	SR00000870	ORNAMENTAL PLATE SPACER 4TR-2411
	OM70000168	FILTER BOARD 4TSJ-9#2
	OM70000193	FILTER BOARD 4TSJ-9#3
	AG00000159	REMOTE CONTROL HANDSET RRT-4
	AU00000890	UPPER COVER 3TTF-5#4
	KB20001561	PUSH BUTTON 4TR-2176 14x14
	DD40000095	L.E.D LN22#R
	PL000000770	STYROL SIDE MOLDING 4TR-9A T2-165
	TN100003331	INSIDE CARTON 4TR-2377#11

For Service Manuals Contact
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SYMBOL	PARTS NO.	DESCRIPTION
	HQ200 PCB	
D101.102	058 40009	ZENERDIODE HZ7C2 (7V5)
D103	058 40010	DIODE BA114
D104	058 40011	DIODE BA114
D105.106	058 40011	ZENERDIODE HZ3B2 (3V0)
D107	058 40011	DIODE BA114
D112-114	058 40002	DIODE 1N4148
D601	058 40013	ZENERDIODE HZ15-3 (15V)
D602	058 40004	DIODE 1N4002
D603	058 40022	ZENERDIODE HZ6C2 (6V2)
D701-705	058 40004	DIODE 1N4002
D706	058 40006	ZENERDIODE HZ5B1 (4V7)
D707-710	058 40004	DIODE 1N4002
D801	058 40014	ZENERDIODE HZ4B3 (3V9)
D802	058 40002	DIODE 1N4148
D803	058 40004	DIODE 1N4002
D804.805	058 40002	DIODE 1N4148
D806	058 40004	DIODE 1N4002
I101	089 31479	COIL LAL04 4.7MHΩ PH10
I102	198 40001	DIG OUT TRANSFORMER
I401.402	089 31471	COIL LAL04 470MHΩ PH10
M105	081 40003	HEAT SINK
M107	179 40001	TACT SWITCH (4.3MM)
T101	201 40009	TRANS BC338
T102	201 40012	TRANS BC338-25
T103	201 40011	TRANS BC328-35
T104	201 40006	TRANS BF450
T106	201 40008	TRANS BC558
T107	201 40007	TRANS BC548
T108	201 40007	TRANS BC548
T109.110	201 40008	TRANS BC558
T111	201 40007	TRANS BC548
T112	201 40010	TRANS BC328
T113	201 40009	TRANS BC338
T114	201 40010	TRANS BC328
T115	201 40009	TRANS BC338
T116	201 40007	TRANS BC548
T117	201 40013	TRANS BC338-40
T118	201 40009	TRANS BC338
T401	201 40101	TRANS MPF4859A
T402	201 40101	TRANS MPF4859A
T403	201 40013	TRANS BC338-40
T404	201 40013	TRANS BC338-40
T405	201 40013	TRANS BC338-40
T406	201 40013	TRANS BC338-40
T501	201 40002	TRANS BC558B
T701	201 40004	TRANS BC328-16
T702	201 40009	TRANS BC338
T801	201 40016	TRANS B0115
T802	201 40002	TRANS BC558B
T803	201 40001	TRANS BC548B
T804	201 40001	TRANS BC548B
U101	088 44010	IC TDA8087/C3
U102	088 44011	IC TDA8087/C2
U103	088 43048	IC TCA0372 DPZ
U104	088 43038	IC NUM4560D
U105	088 43038	IC NUM4560D
U106	088 43005	IC SRA7310P/04
U107	088 41002	IC UPD4146C-20
U109	088 44003	IC H68HC05C8/P105
U110	088 43002	IC 74HC70B
U601	088 43022	IC VOL REG 78M12CT
U701	088 43023	IC VOL REG 78M15CT
U702	088 43035	IC VOL REG 78M15CT
U703	088 43012	IC VOL REG 7805CT (5V2)
U704	088 43033	IC VOL REG 7805CT
X102	148 40002	CER RESONATOR 4.0000 MHZ