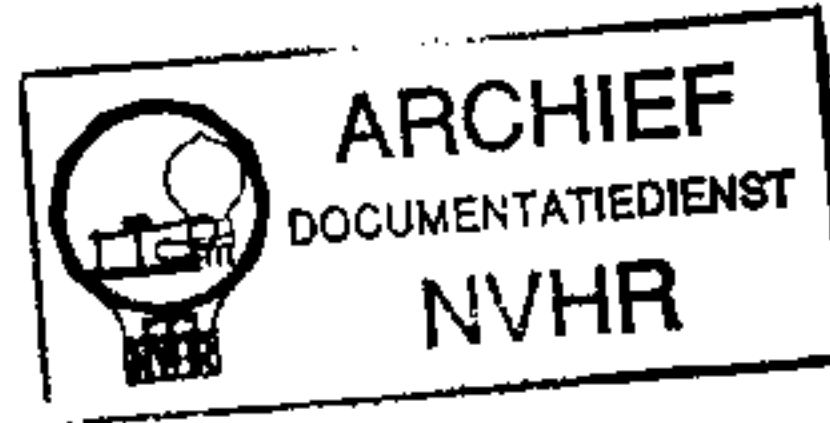


Service  
Service  
Service

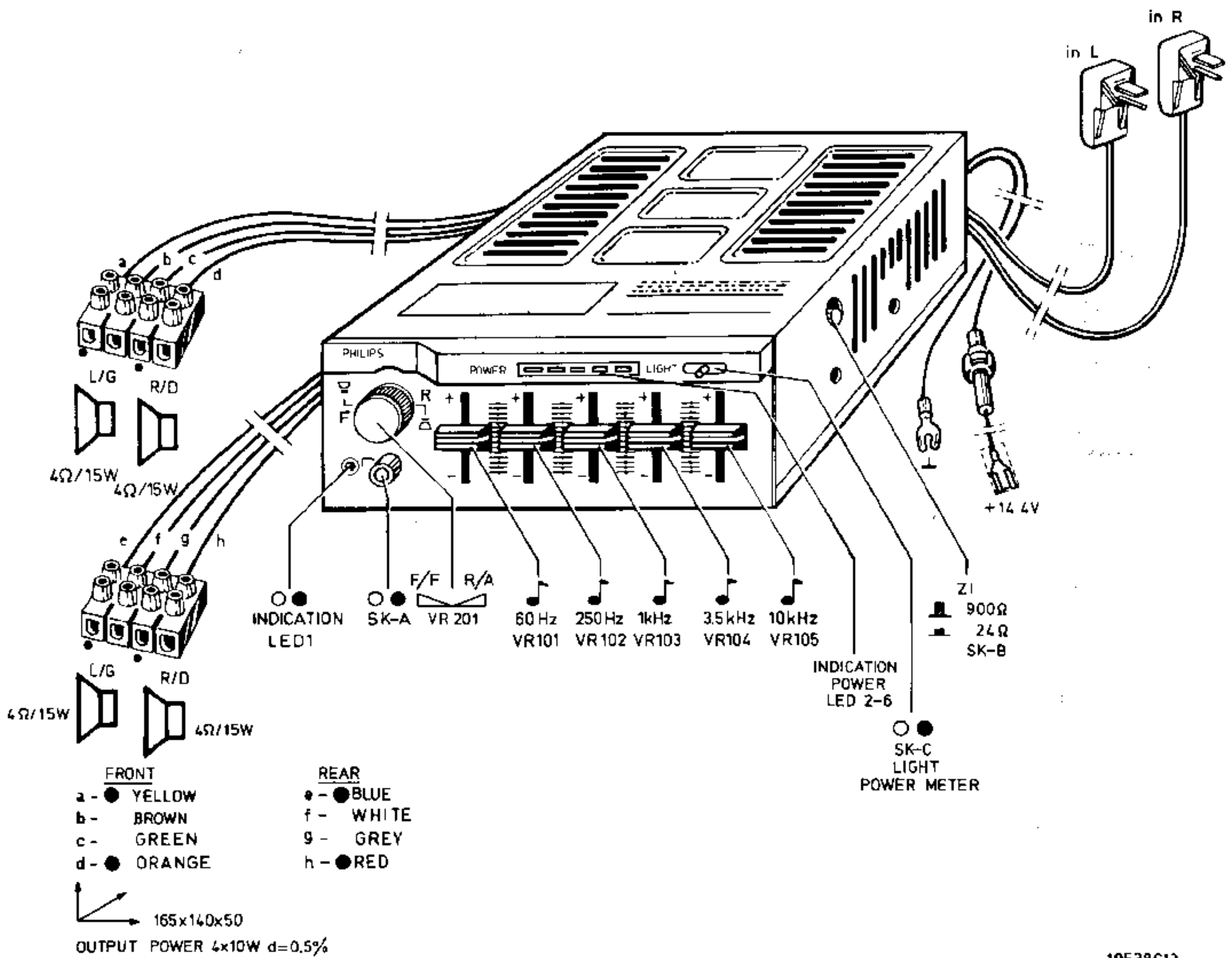
Met dank aan [www.radiomuseum-hengelo.nl](http://www.radiomuseum-hengelo.nl)

Ned. Ver. v. Historie v/d Radio



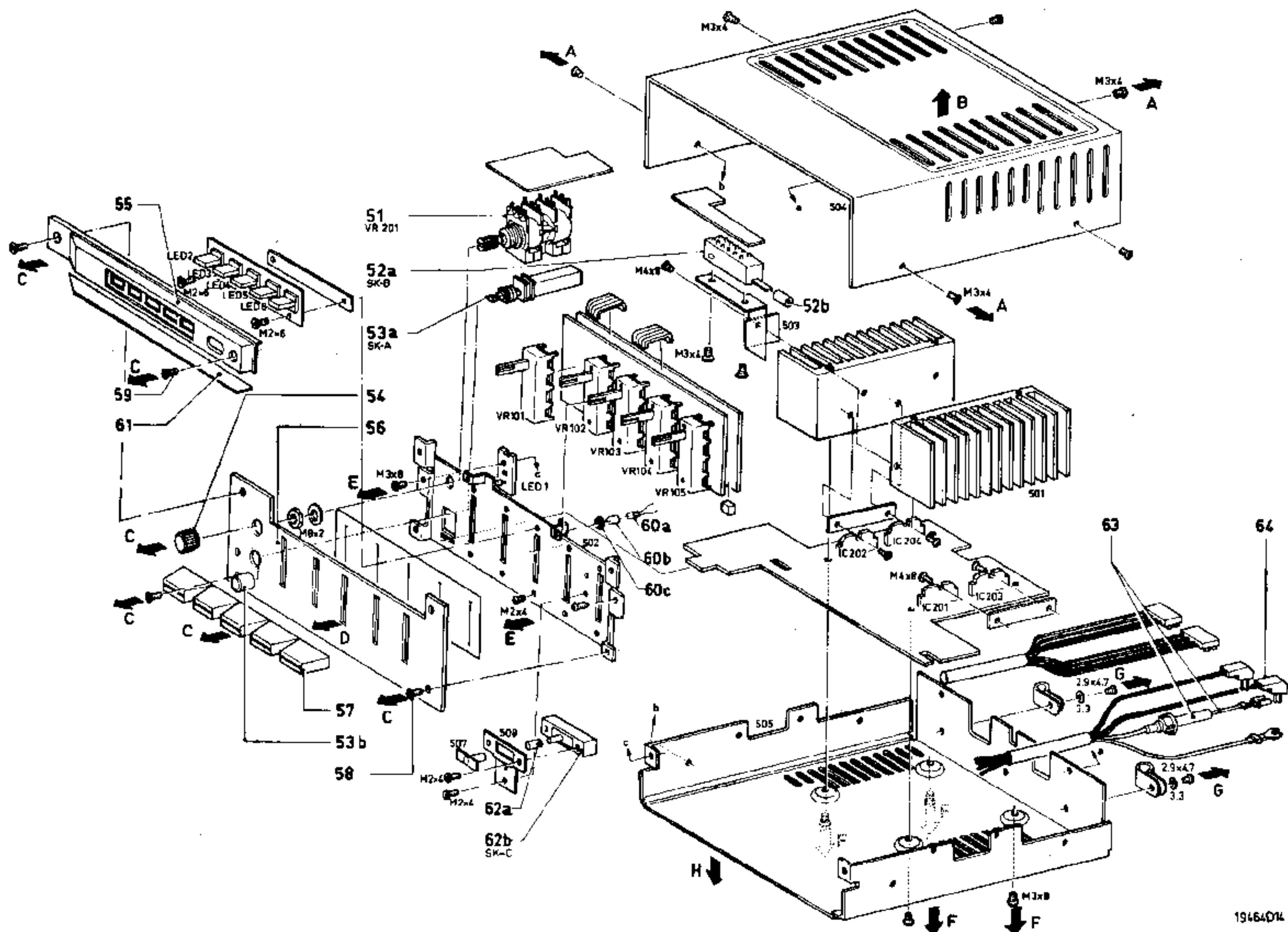
# Service Manual

12 V



19538C12



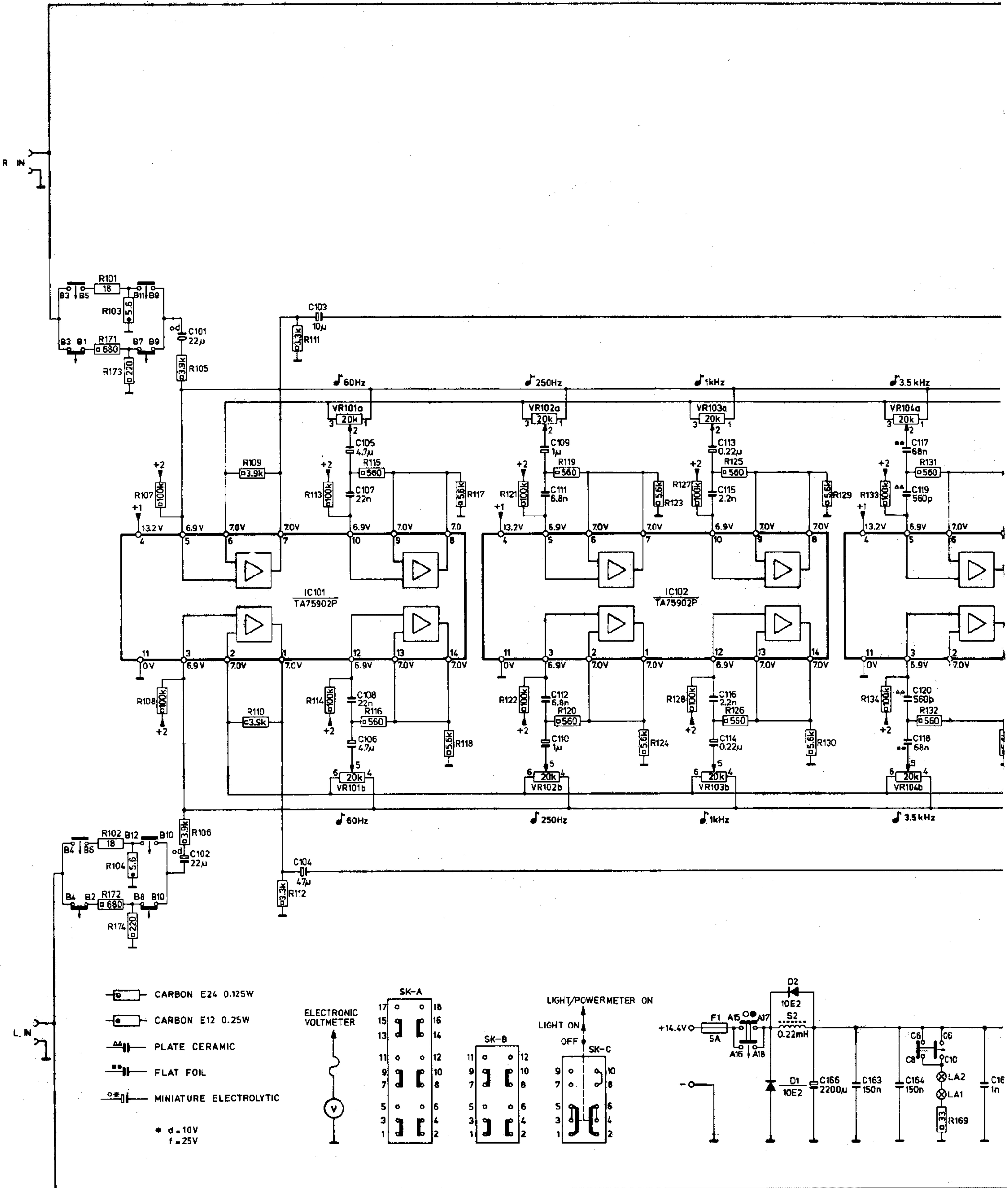


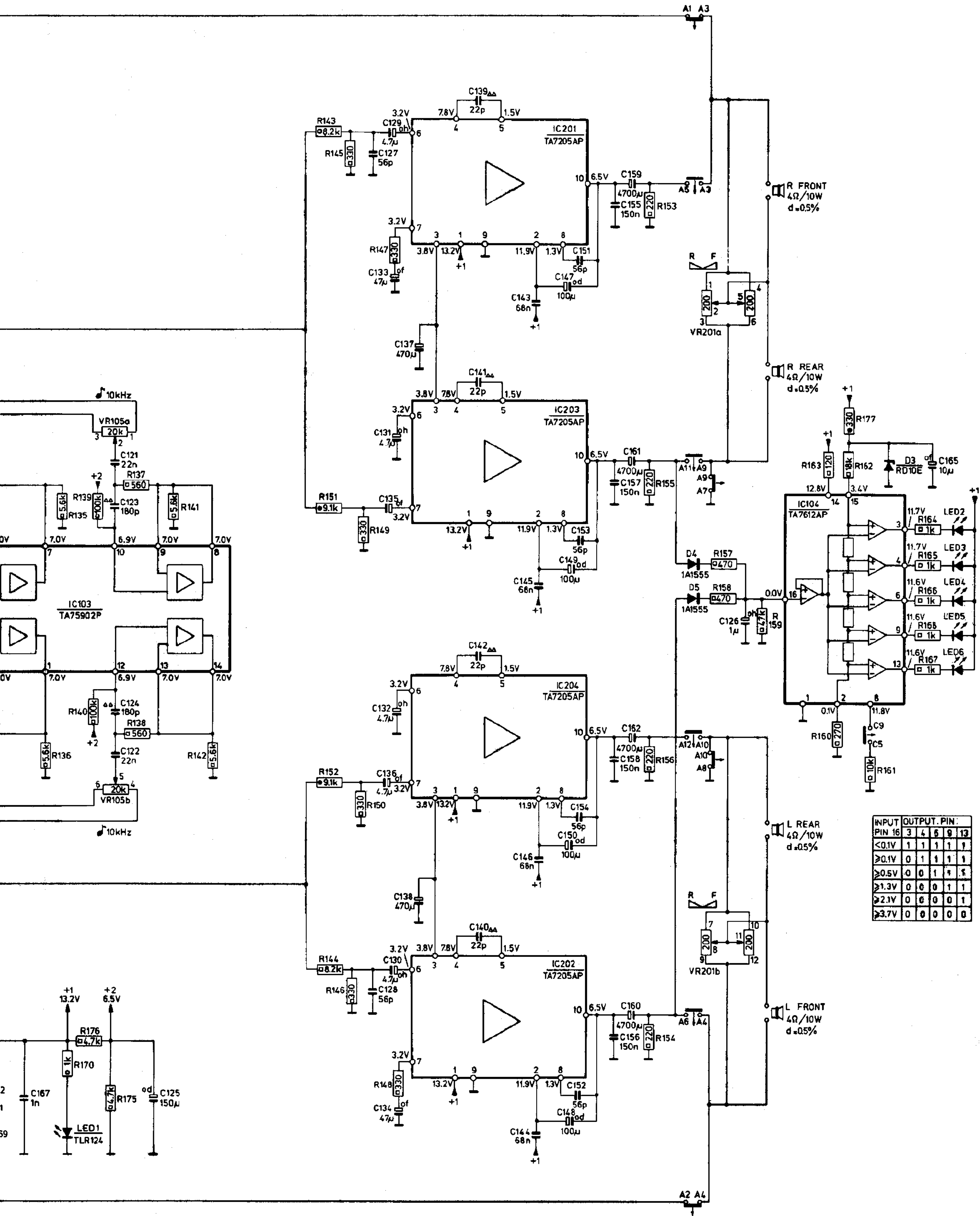
19464014

51	4822 102 50018	56	4822 459 80123	61	4822 459 80125
52a+b	4822 276 10782	57	4822 411 60697	62a+b	4822 277 30639
53a+b	4822 276 10783	58	4822 502 11139	63	4822 321 20334
54	4822 413 30871	59	4822 502 11078	64	4822 267 40235
55	4822 459 80124	60a+c	4822 134 80085		

D1,2	10E2	4822 130 31087	103,104	Tantal 10 μF/16 V	5322 124 14087
D3	Zener RD10E	4822 130 31084	105,106	Tantal 4,7 μF/16 V	5322 124 14064
D4,5	SL1A1555	4822 130 31031	107,108	Myler 0,022 μF	4822 121 40513
LED1	TLR124	4822 130 31274	109,110	Tantal 1 μF/35 V	5322 124 14075
LED2-6	LN05202P	4822 130 31259	111,112	Myler 0,0068 μF	4822 122 31264
			113,114	Tantal 0,22 μF/16 V	4822 124 10194
IC101÷103	TA75902P	4822 209 80473	115,116	Myler 0,0022 μF	4822 122 31263
IC104	TA7612AP	4822 209 80677	117,118	Myler 0,068 μF	4822 121 41156
IC201÷204	TA7205P	4822 209 80678	121,122	Myler 0,022 μF	4822 121 40513
			137,138	Elco 470 μF/10 V	4822 124 40127
101,102	18 Ω/2 W	4822 116 51112	143÷146	Myler 0,068 μF	4822 121 41156
VR101÷105	20 kΩ	4822 105 10354	155÷158	Myler 0,15 μF	4822 121 41265
VR201	Fader	4822 102 50018	159÷162	Min. 4700 μF/10 V	4822 124 40294
			163,164	Myler 0,15 μF	4822 121 41265
			166	Min. 2200 μF/16 V	4822 124 20866
			167	Myler 0,001 μF	4822 121 41264
			-Miscellaneous-		
			F1	Fuse 5A	4822 253 20027
			S2	0,22 μH	4822 157 50935

MISC	IC101			IC102	F1	D1.S2.D2	LA1.LA2		L
C	101.102	103...108	109...112	113...116	166	163	117...120.164	167	
R	171...174.101...104.105...108	109.110 VR101a.b 111...116	118.117 VR102a.b 119...122	VR103a.b 123...128	130.129		131...134 VR104a.b.169	170.VI	





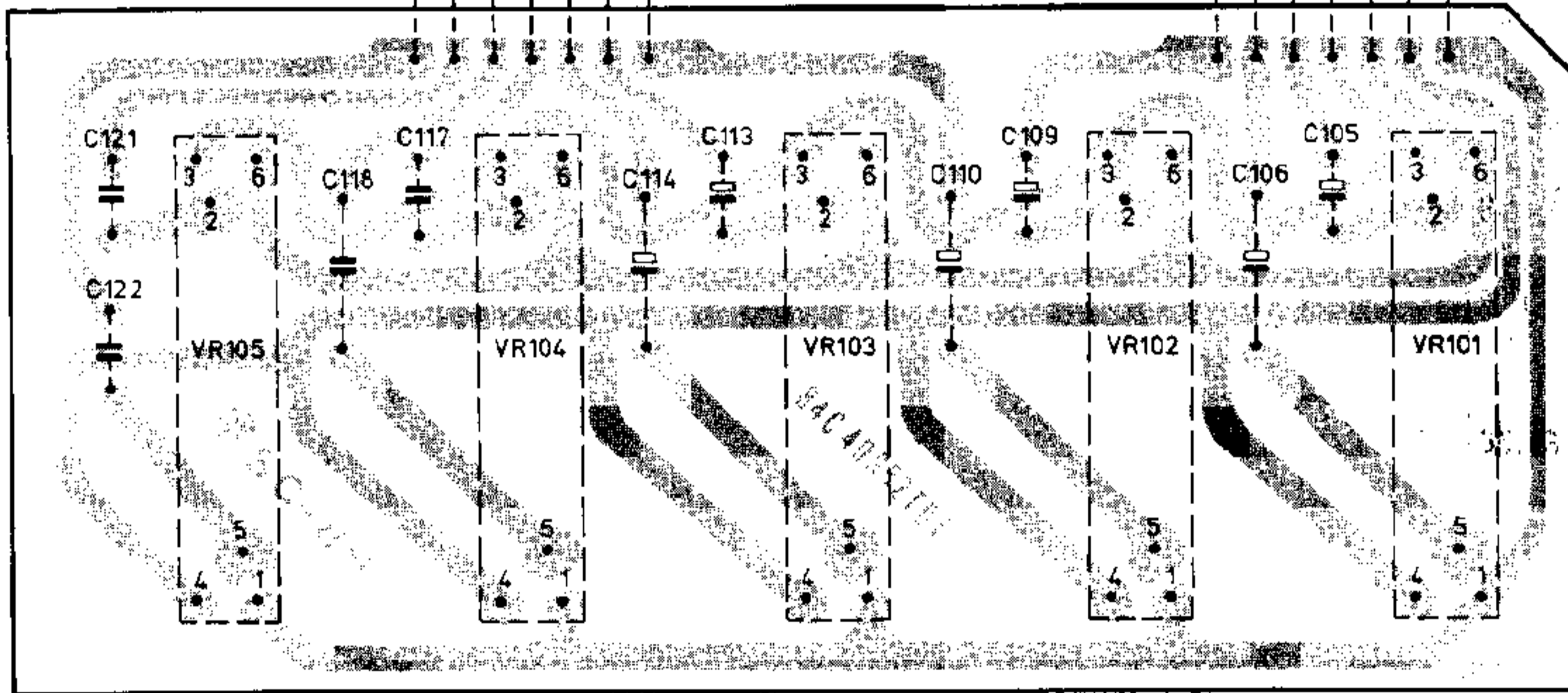
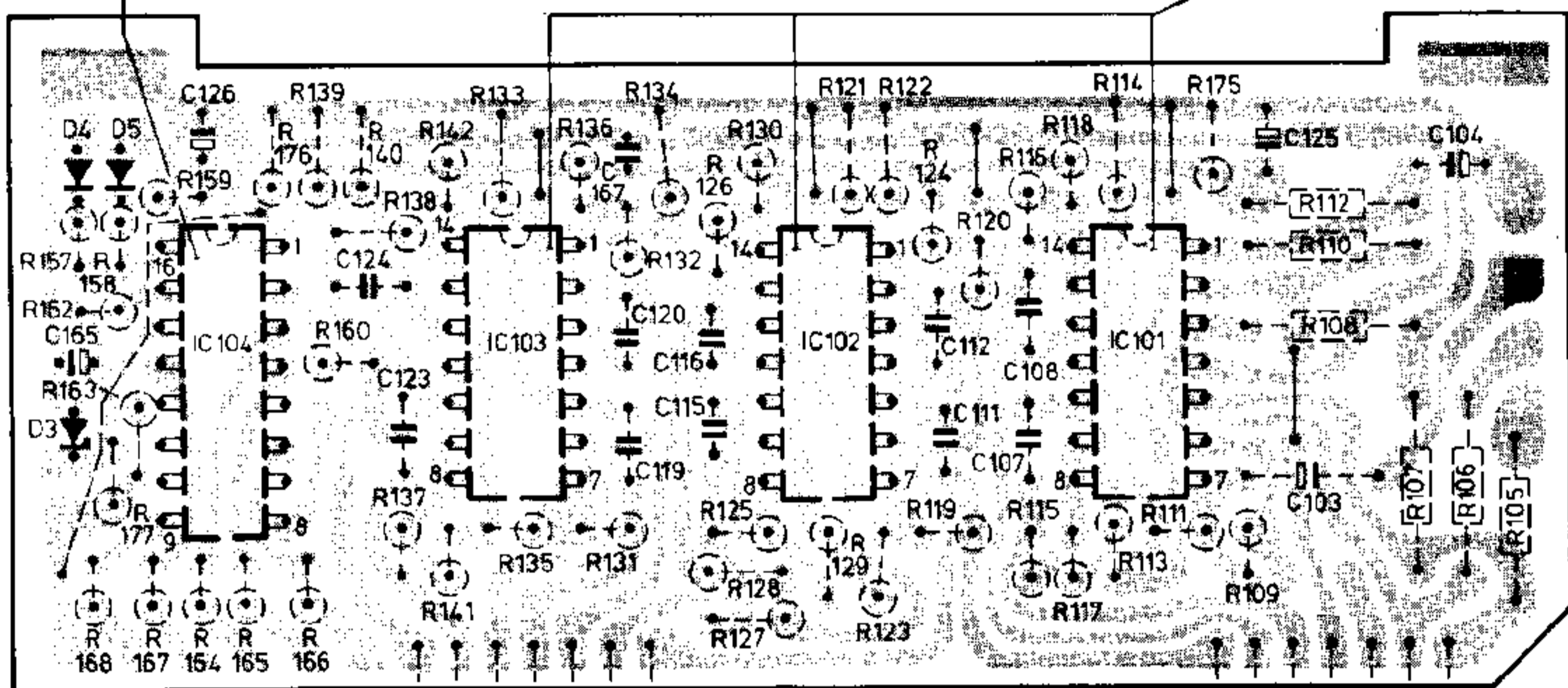
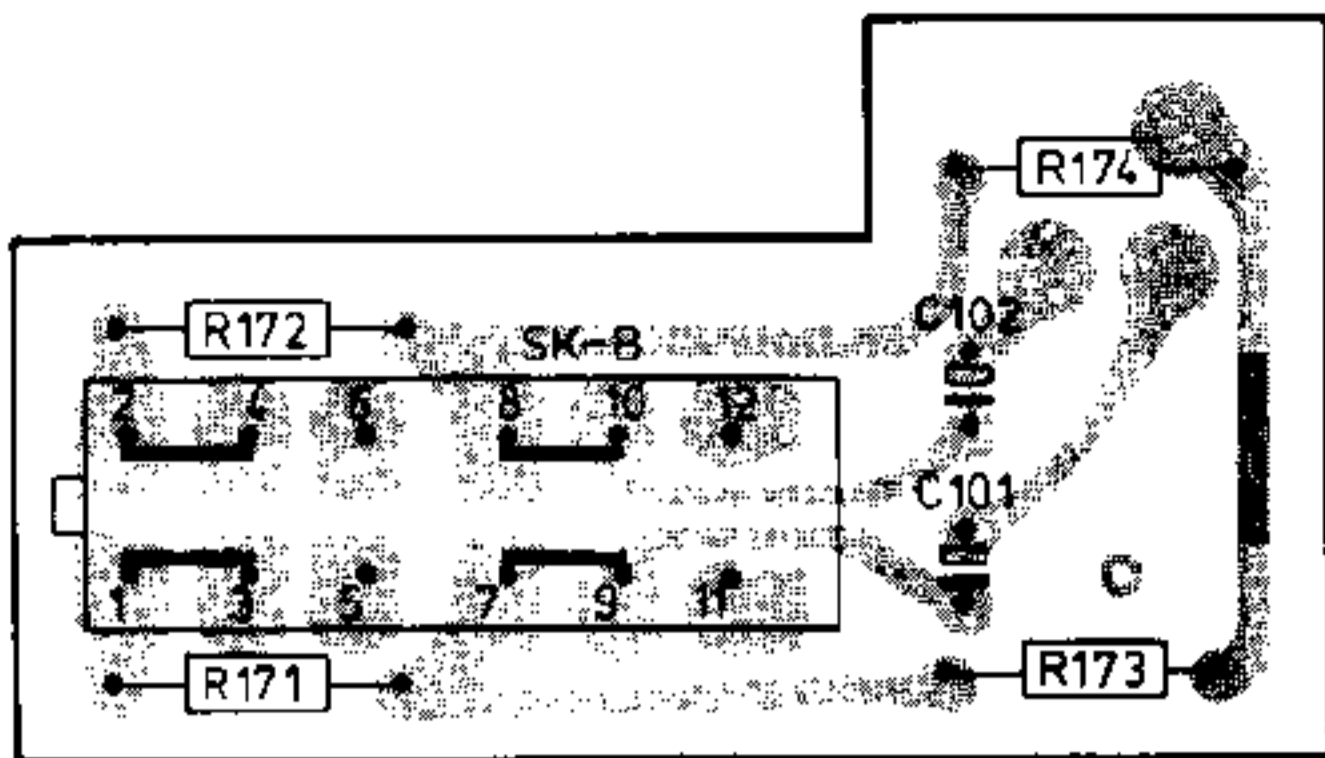
MISC	D3, D4, D5, IC104, VR105	IC103, VR104, SK-B	IC102, VR103, LED2	IC101, VR102	VR101, LED1
C	165 126 124 123	120 119 116 115	112 111 108 107 102 101	125 104	
R	121 122 118 117 167 114 113	110 109 106 105 103	157...159, 162, 177, 163...168, 176, 160, 137...142, 131...136, 172, 171, 125...130, 121...124, 174, 173, 113...120, 175, 108...112, 105...107		

**IC104**

- 1= 0.0V
- 2= 0.1V
- 3= 11.7V
- 4= 11.7V
- 6= 11.6V
- 8= 11.8V
- 9= 11.6V
- 13= 11.6V
- 14= 12.8V
- 15= 3.4V
- 16= 0.0V

**IC103,102,101**

- 1= 7.0V
- 2= 7.0V
- 3= 6.9V
- 4= 13.2V
- 5= 6.9V
- 6= 7.0V
- 7= 7.0V
- 8= 7.0V
- 9= 7.0V
- 10= 6.9V
- 11= 0.0V
- 12= 6.9V
- 13= 7.0V
- 14= 7.0V



10kHz

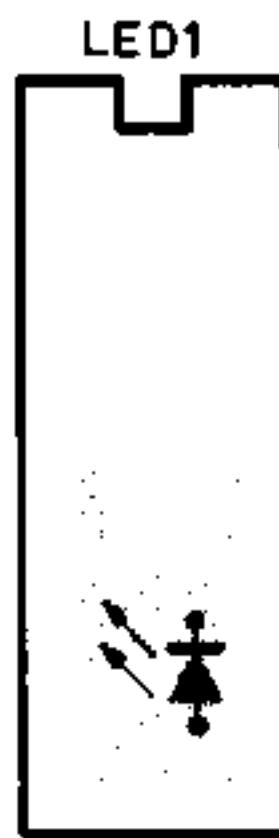
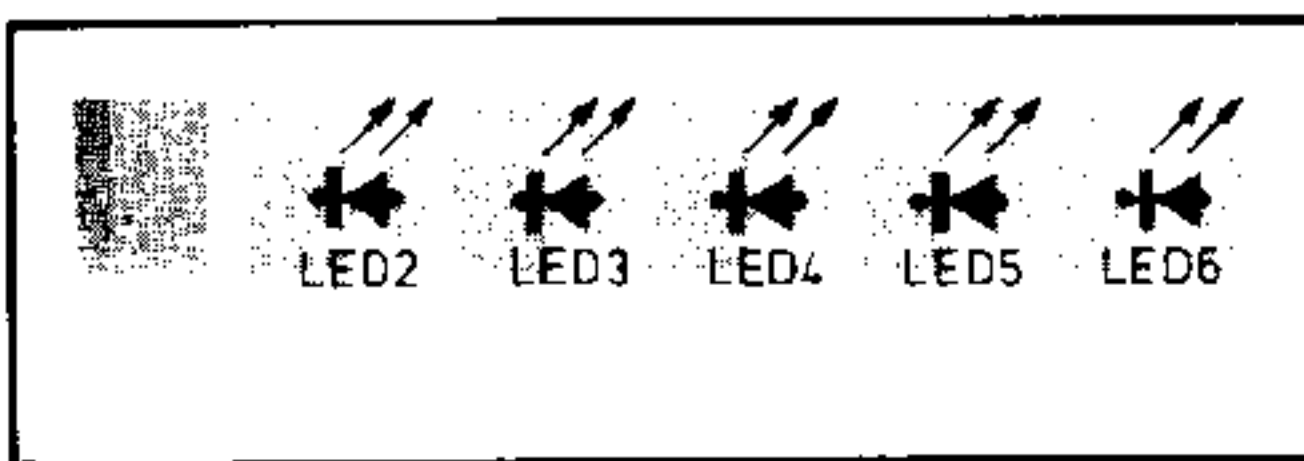
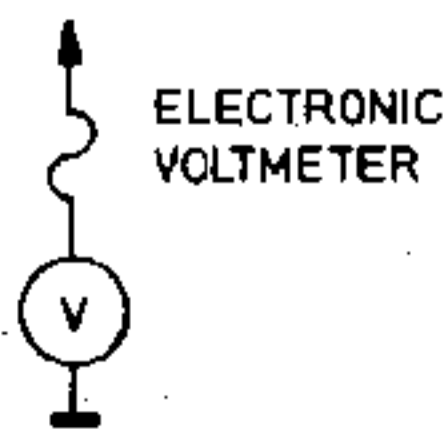
3.5kHz

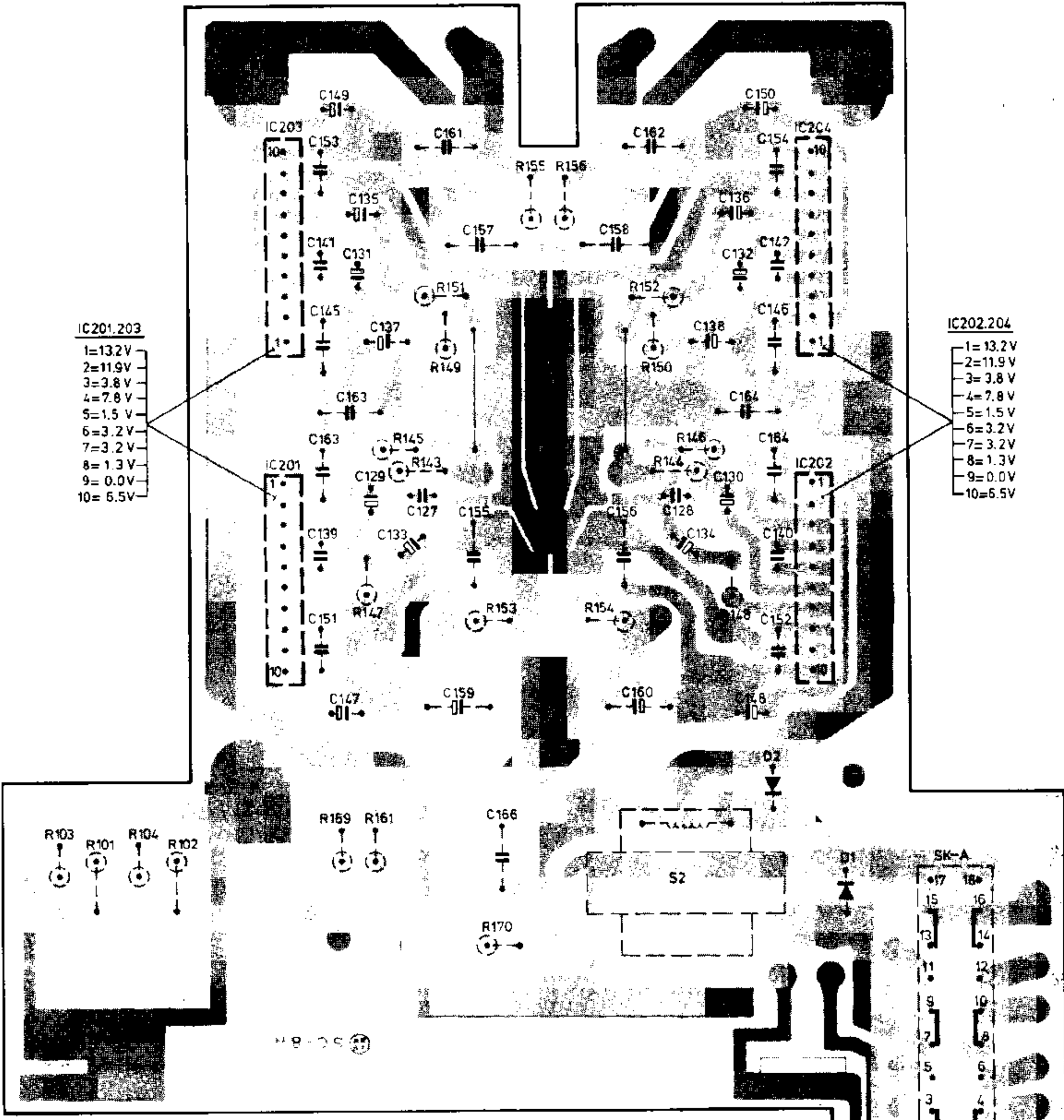
1kHz

250Hz

60Hz

VOLTAGES MEASURED WITHOUT SIGNAL



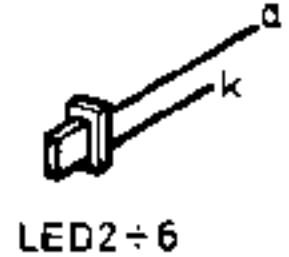
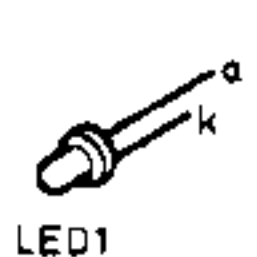
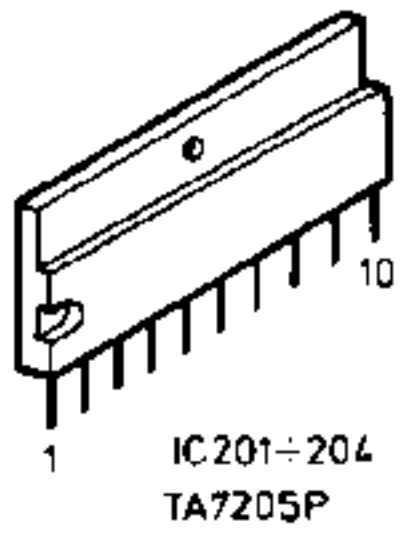
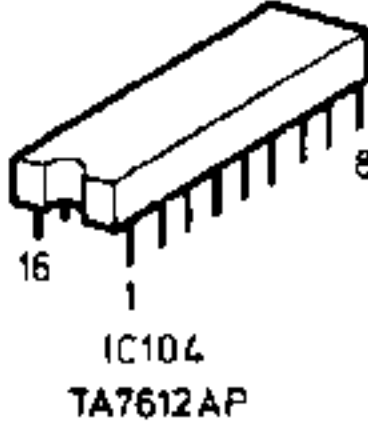
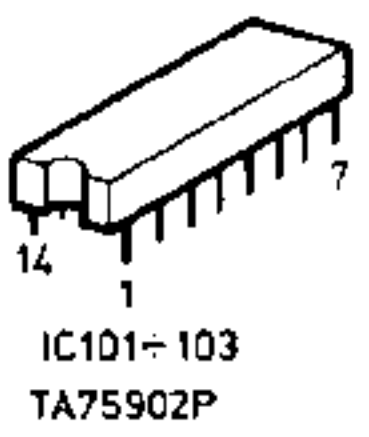
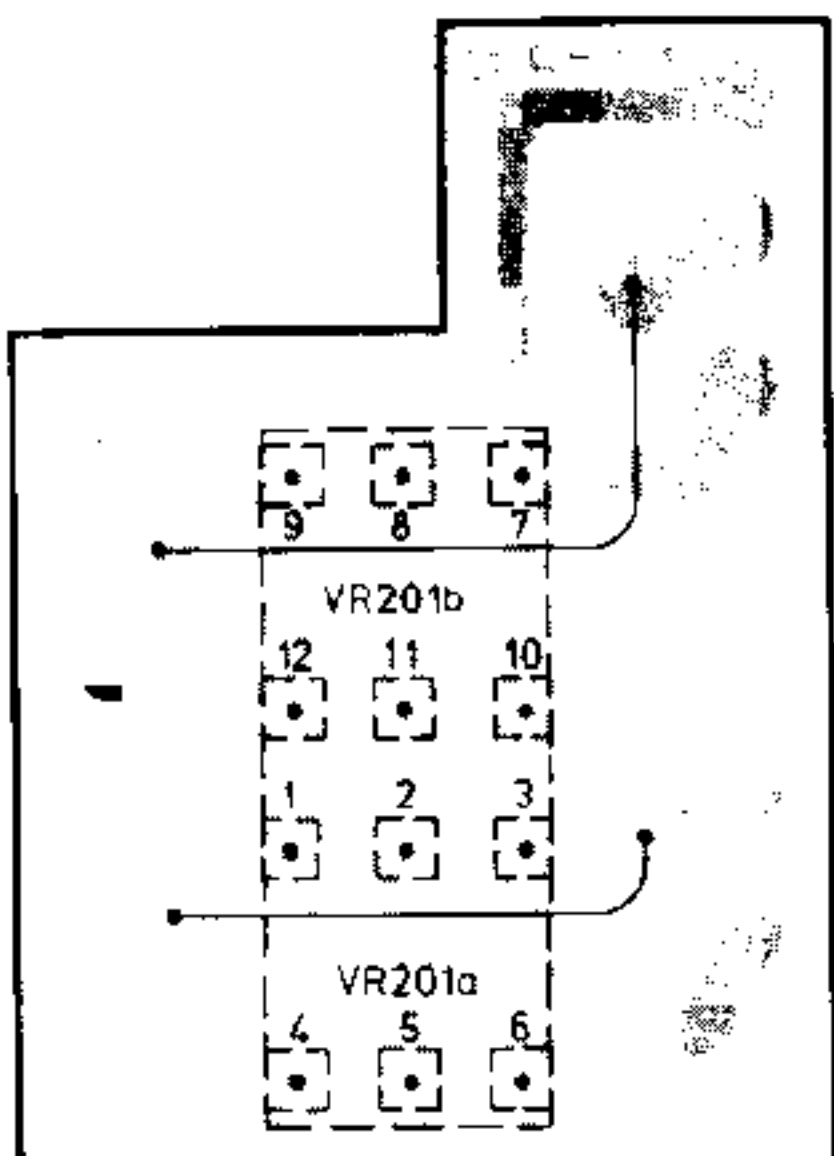
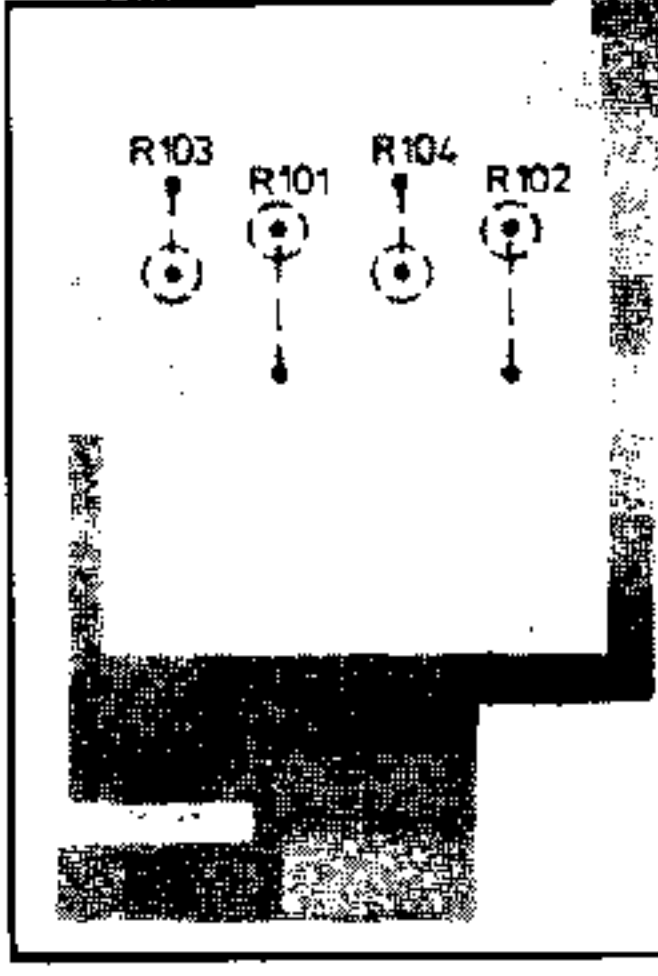


IC201, 203

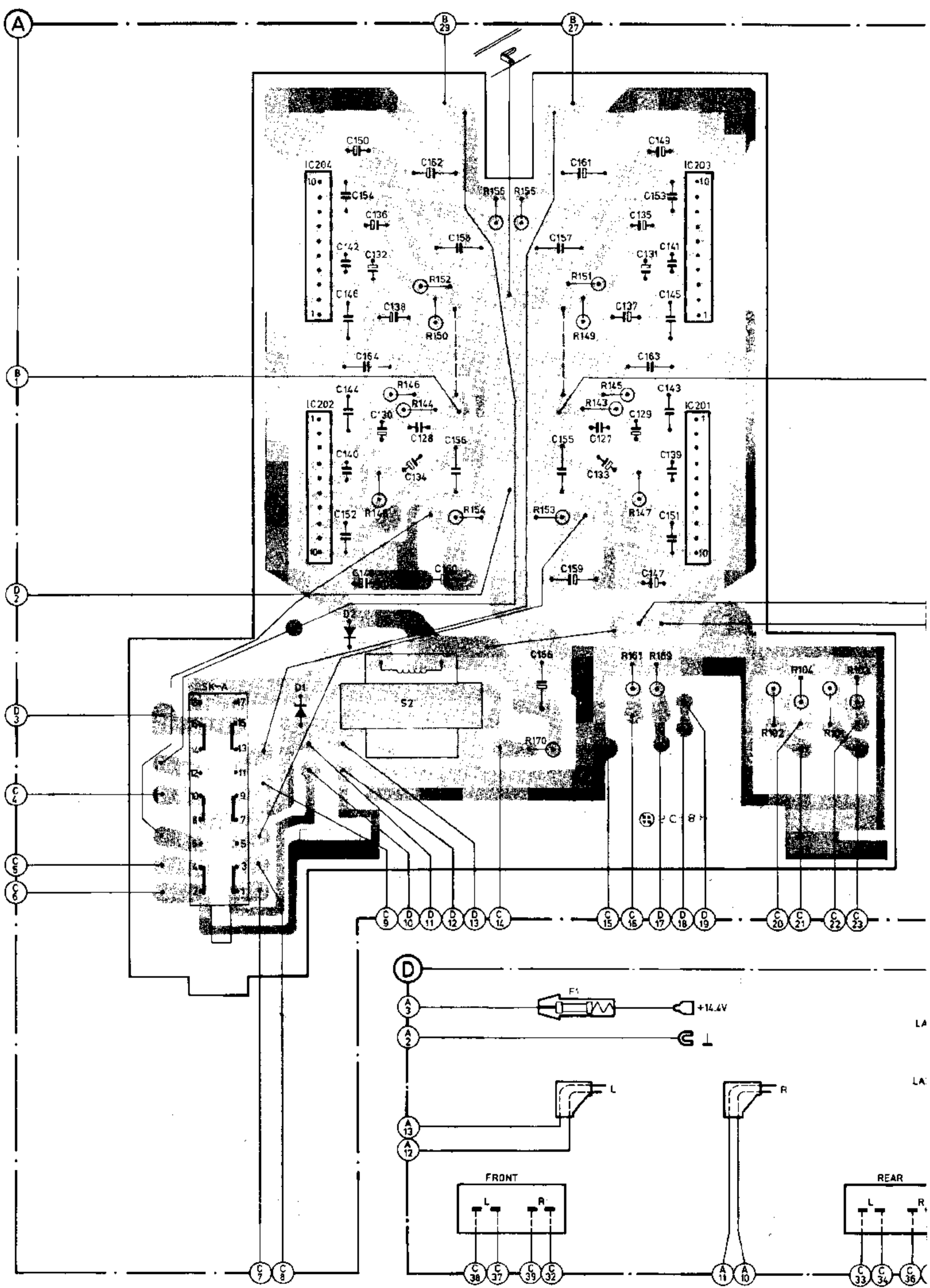
- 1=13.2V
- 2=11.9V
- 3=3.8V
- 4=7.8V
- 5=1.5V
- 6=3.2V
- 7=3.2V
- 8=1.3V
- 9=0.0V
- 10=6.5V

IC202, 204

- 1=13.2V
- 2=11.9V
- 3=3.8V
- 4=7.8V
- 5=1.5V
- 6=3.2V
- 7=3.2V
- 8=1.3V
- 9=0.0V
- 10=6.5V



MISC	SK-A	D1, IC204, IC202, D2	S2	IC203, IC201
C		150, 154, 142, 146, 136, 132, 164, 138, 162, 158	157, 161	137, 135, 131, 163, 149, 153, 141, 145
R		144, 140, 152, 148, 130, 134, 128, 160, 156	166, 155, 159	127, 133, 129, 147, 143, 139, 151
		148, 146, 144, 152, 150, 154, 156, 155, 153, 170	151, 149, 143, 145, 147, 161, 169	102, 104, 101, 103



VR101, VR201a, b, LED2, VR102, IC101	LED1, VR103, IC102	VR104, IC103, SK-B, SK-C, VR105, IC104, D4, D5, D3	MISC
104, 103, 125	108, 107, 112, 111	115, 116, 120, 119	123, 124, 126, 165
105, 106	109, 110	113, 114, 167, 102, 101, 117, 118	121, 122
105, 107, 108, 110, 112, 175, 111	113, 118, 119, 124, 125, 130	131, 142, 174, 173, 176, 160, 163, 168, 157, 159, 162, 177, 171, 172	

