

Philips BX 925 -1-

DOCUMENTATIE

- 4 MEI 1983

COMMUNICATIONS RECEIVER

Type BX 925 A/16

The type BX 925 A/16 communications receiver differs from the type BX 925 A/09 communications receiver in the following respects:

1. Switch SK107 ("Radio-Phono") is omitted.
2. The record-player input marked "Phono" is omitted.
A record-player can be connected between the terminal marked "DIODE-LOAD" and earth. In this case, the shorting strip between the terminals marked "DIODE-RET." and "DIODE-LOAD" must be removed.
3. The A.V.C. voltage on the control grid of A.F. amplifier tube B9 is earthed by a contact of switch SK108, so that the beat frequency oscillator is switched on by means of the latter switch.
4. Capacitors C69 and C70 are omitted.
5. The wiring of the A.F. section is changed because of the alterations mentioned in items 1 to 3.
6. Because of the possibility of feeding a crystal oscillator from the BX receiver, the connections to the octal socket of the receiver have been changed. This also involves a change of plug B which is used for battery-fed receivers.

For the remainder the two receivers are identical.

Manual DB-R 460e for the type BX 925 A/09 can also be used for the type BX 925 A/16 communications receiver. The circuit diagram, DB-R 460/1-1e, must be replaced, however, by the circuit diagram (DB-R 828/1-1e) attached hereto. It should also be borne in mind that the wiring diagram (Fig. 14) is no longer quite applicable to the type BX 925 A/16 receiver, because of the differing circuits used.

Make the following changes in and additions to the electrical parts list:

ELECTRICAL PARTS LIST

<u>Ref.no.</u>	<u>Designation</u>	<u>Technical data</u>	<u>Maker</u>	<u>Order code</u>
<u>Omit:</u>				
C 69				
C 70				
<u>Change:</u>				
C 101a	Electrolytic capacitor with pin base	2x50 μ F-10+30%; 350 V D.C.	Ph.	AC 5028/50+50
C 102	Paper capacitor	47000 pF +20%; 1000 V D.C.	E.R.	OD 770 03/P47K

DB-R 828e

<u>Ref.no.</u>	<u>Designation</u>	<u>Technical data</u>	<u>Maker</u>	<u>Order code</u>
C 134	Paper capacitor	33000 pF $\pm 20\%$; 630 V D.C.	E.R.	OD 770 02/P33K
C 138	Paper capacitor	33000 pF $\pm 20\%$; 1000V D.C.	E.R.	OD 770 03/P33K
<u>Add:</u>				
C 103	Pertains to the 1st I.F. trans- former	390 pF		
C 104	Paper capacitor	47000 pF $\pm 20\%$; 350 V D.C.	Ph.	48 741 20/47K
C 162	Paper capacitor	4700 pF $\pm 20\%$; 1000 V D.C.	E.R.	OD 770 03/P4K7

Appendices:

Diagram 1: circuit diagram DB-R 828/1-1e
Manual DB-R 460e, Communications receiver type BX 925 A/09

VB 6003135

ED/AES/VYS

DB-R 828e

COMMUNICATION RECEIVER

type BX 925 A/15

The type BX 925 A/15 communication receiver differs from the type BX 925 A/09 communication receiver in the following respects:

1. Switch SK 107 ("Radio-Phono") has been omitted.
2. The "Phono" input has been omitted. A record player can now be connected between the terminal marked "DIODE LOAD" and earth. In this case the shorting strap on terminals "DIODE RET." and "DIODE LOAD" should be removed.
3. The AVC voltage on the control grid of AF amplifier tube B9 is earthed by means of a contact of switch SK 108 as soon as the beat frequency oscillator is switched on with the latter switch.
4. Capacitors C69 and C70 have been omitted.
5. The wiring of the AF section has been modified because of the changes mentioned in items 1 to 3.

For the remainder the two receivers are identical. Manual DB-R460e can therefore be used for the type BX 925 A/15 receiver. The circuit diagram in this manual, diagram DB-R 460/1-1e, should be replaced by the appended diagram, DB-R 624/1-1e. In addition, it should be borne in mind that the wiring diagram (Fig. 14) has been changed to some extent by the changes in some of the circuits and must therefore be used with caution for the type BX 925 A/15 receiver.

The following changes should be made in the electrical parts-list:

ELECTRICAL PARTS LIST

<u>Ref.</u>	<u>Description</u>	<u>Technical data</u>	<u>Maker</u>	<u>Order Code</u>
<u>Omitted:</u>				
C 69				
C 70				
<u>Modified:</u>				
C 101a	Electrolytic capacitor with pins	2x50 μ F-10+30%; 350 V	Ph	AC 50 28/50+50
C 102	Paper capacitor	22000 pF \pm 20%; 1000 V	Ph	48 743 20/22K
<u>Added:</u>				
C 103	Pertains to 1st. I.F. transformer	390 pF		
C 104	Paper capacitor	47000 pF \pm 20%; 350V	Ph	48 741 20/47K

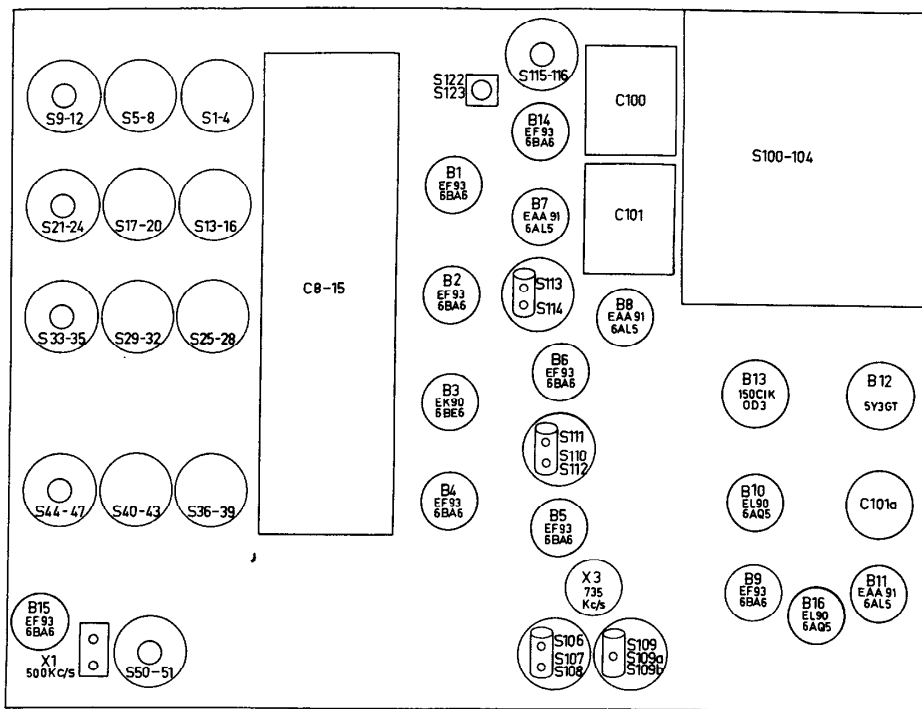


FIG. 12

ARRANGEMENT OF THE TUBES, CRYSTALS AND COIL CORES
(TOP OF THE CHASSIS)

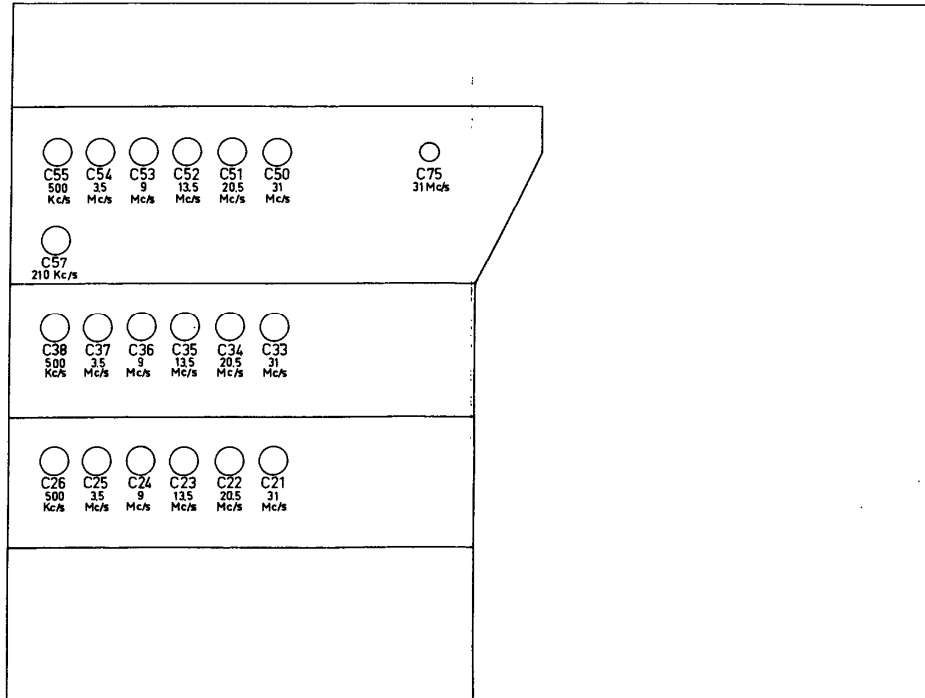
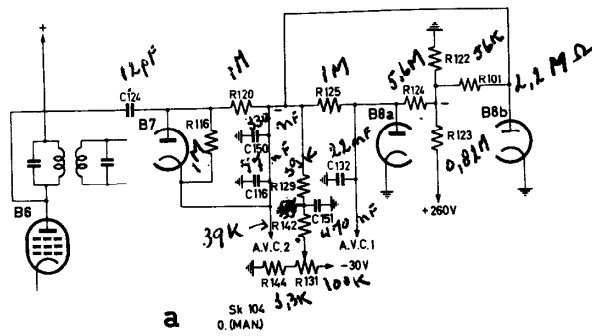


FIG. 13

ARRANGEMENT OF THE TRIMMERS
(ON THE UNDERSIDE OF THE CHASSIS)



A.V.C. 1 → B1 B2 -
A.V.C. 1 → B7 B8
A.V.C. 1 op B9 by BFO
met SK lab.

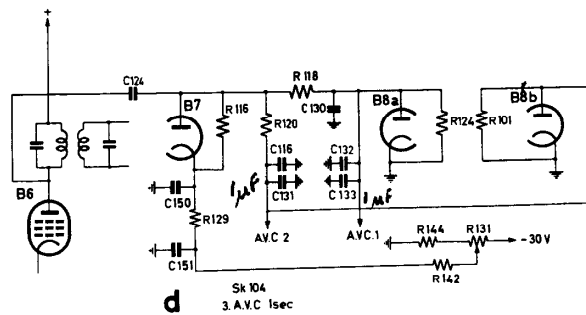
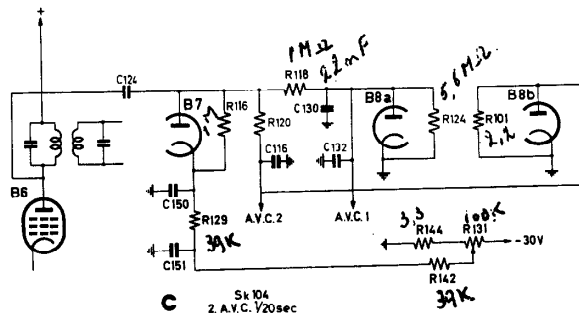
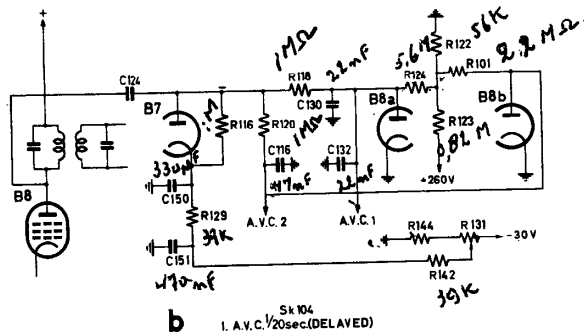


FIG. 5
DETAILED DIAGRAMS OF THE A.V.C. CIRCUIT

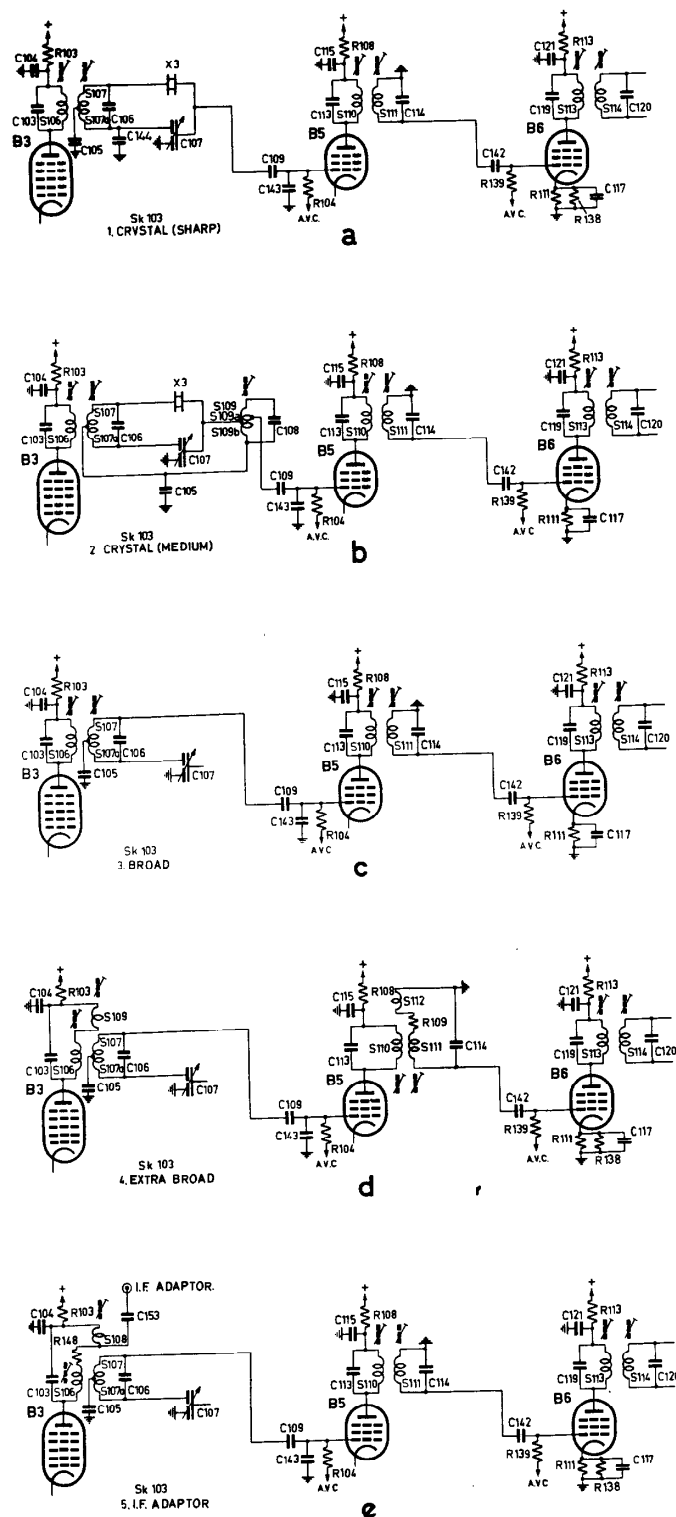
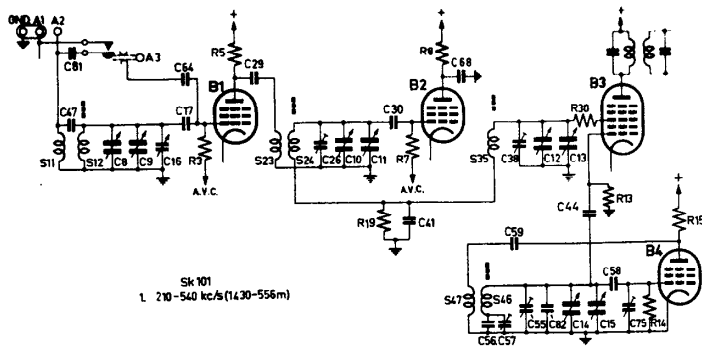
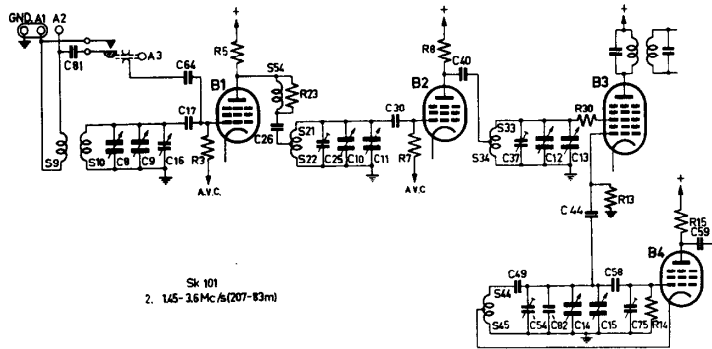


FIG. 2

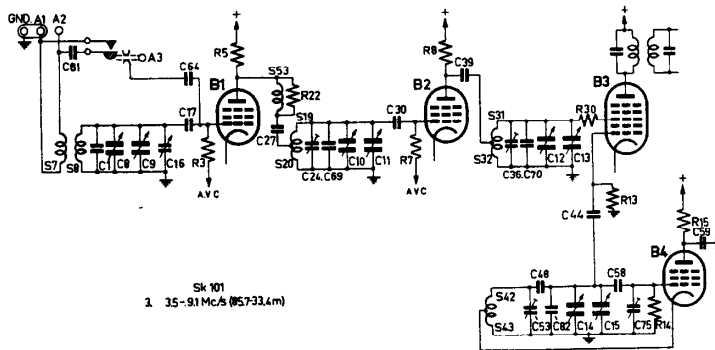
DETAILED DIAGRAMS OF I.F. SECTION



a



b



c

FIG. 1
DETAILED DIAGRAMS OF THE RF AND O

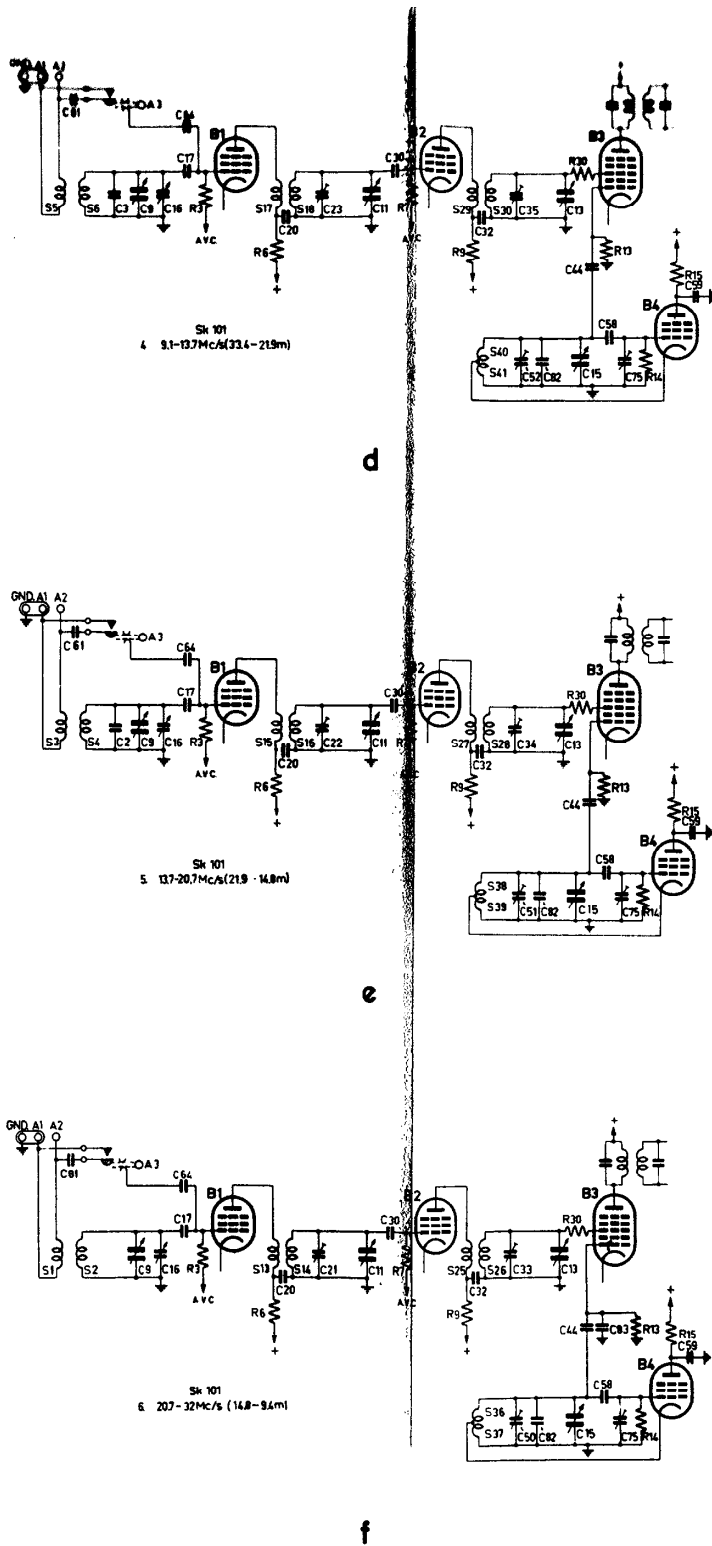


FIG. 1
F THE RF AND OSCILLATOR SECTION

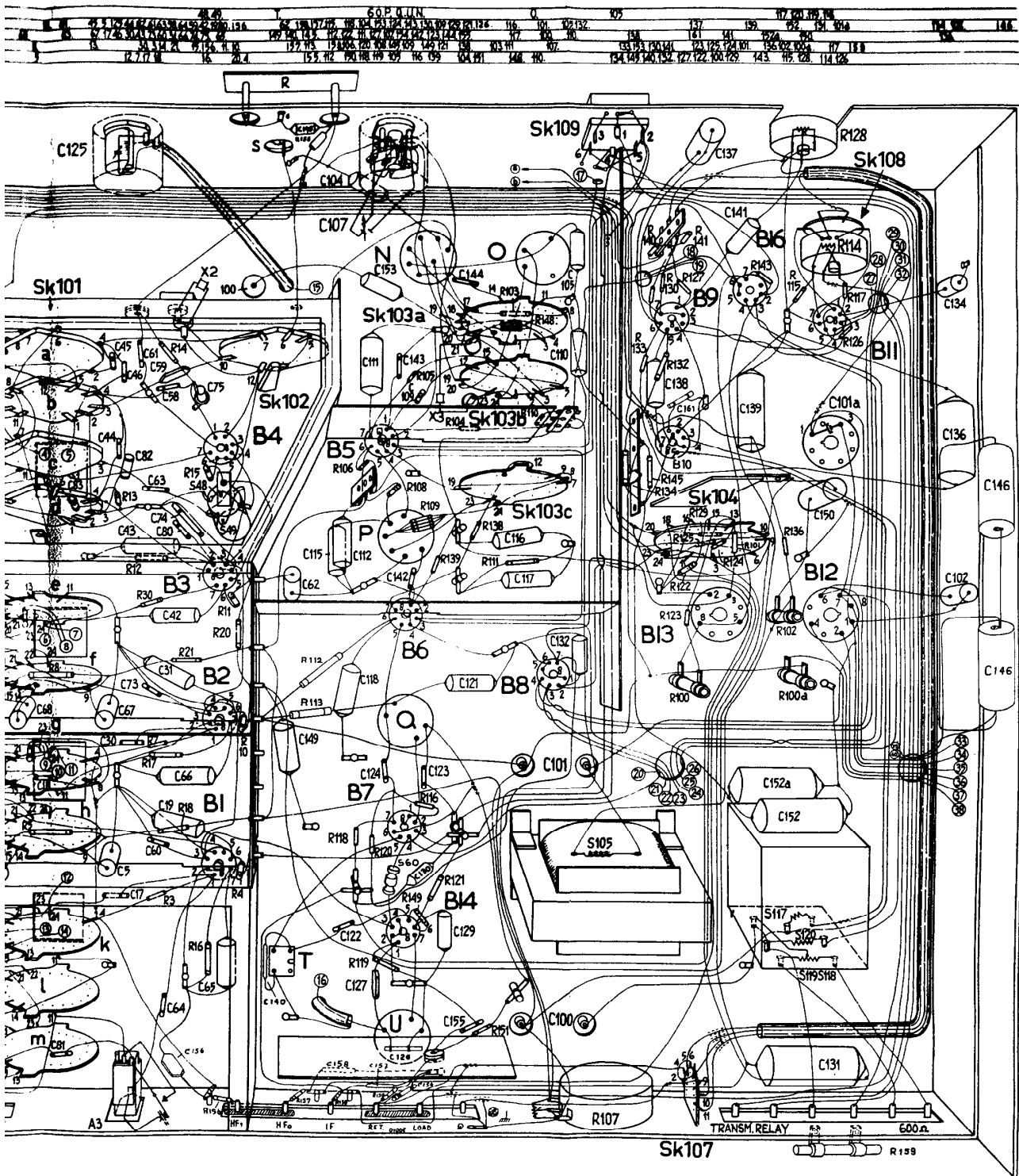
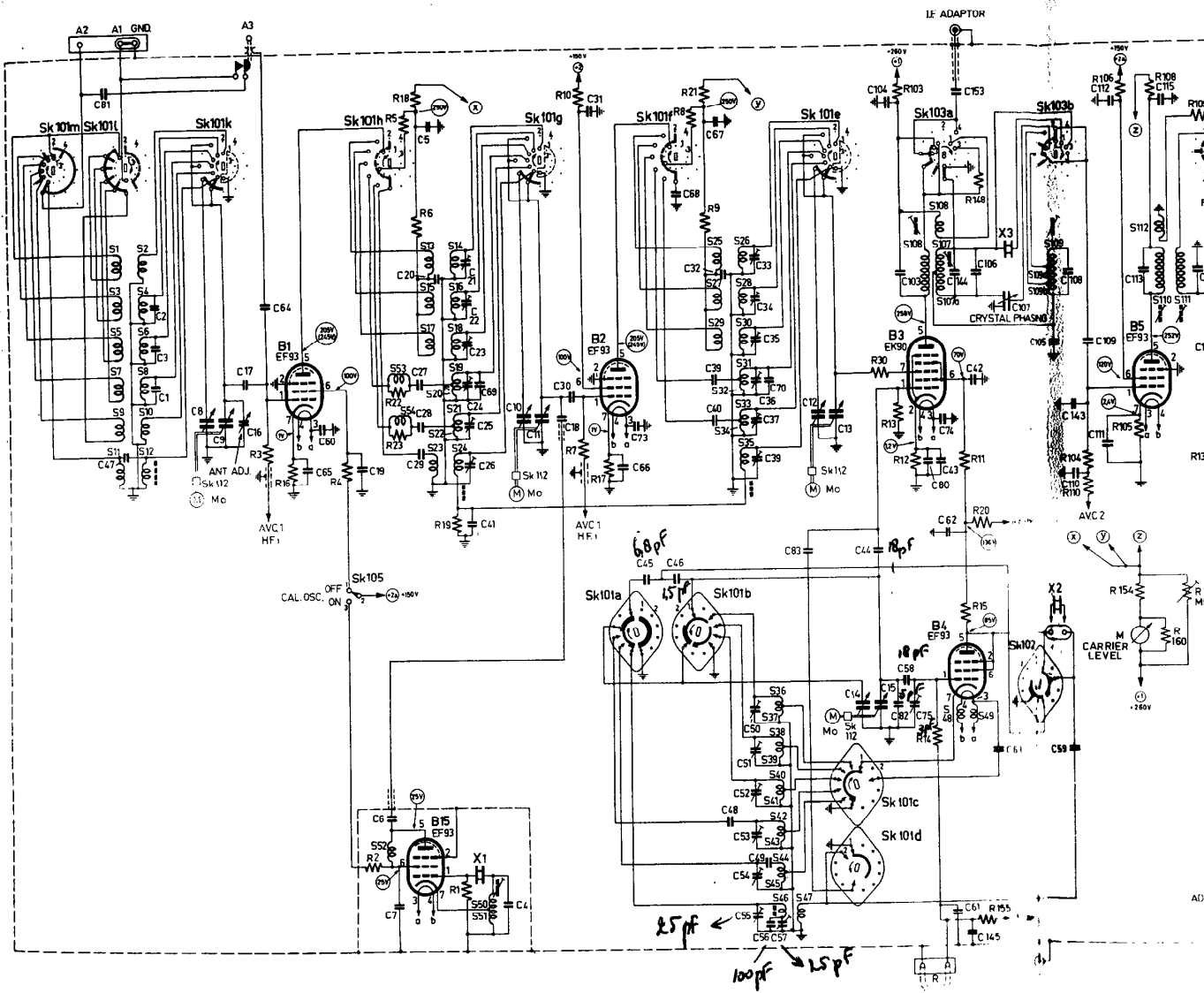


FIG. 14
 NG DIAGRAM
 / THE CHASSIS)

1-12	13-24	25-35	36-47	48-59	60-71	72-83	84-95	96-107	108-119	120-131	132-143	144-155	156-167	168-179	180-191	192-203	204-215	216-227	228-239	240-251
81 47	12 3	6 9	16 17	64	65 60	19 67	27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300	22 23 5 6 18 81	10 7	17	8 21 9									



- 210-540 kc/s
 145-36 Mc/s
 35-91 Mc/s
 91-137 Mc/s
 137-207 Mc/s
 207-32 Mc/s
- N
 X
 GREEN
 RED
- SHARP } CRYSTAL
 MEDIUM }
 BROAD }
 EXTRA BROAD }
 IF ADAPT }
- MANUAL
 AVC 1/20 sec DELAYED
 AVC 1/20 sec
 AVC 1 sec

Sk 101 Sk 102 Sk 103 Sk 104 B1 - B11 B14 - B16 B12 - B11 A3

100-102, 121, 117-120	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
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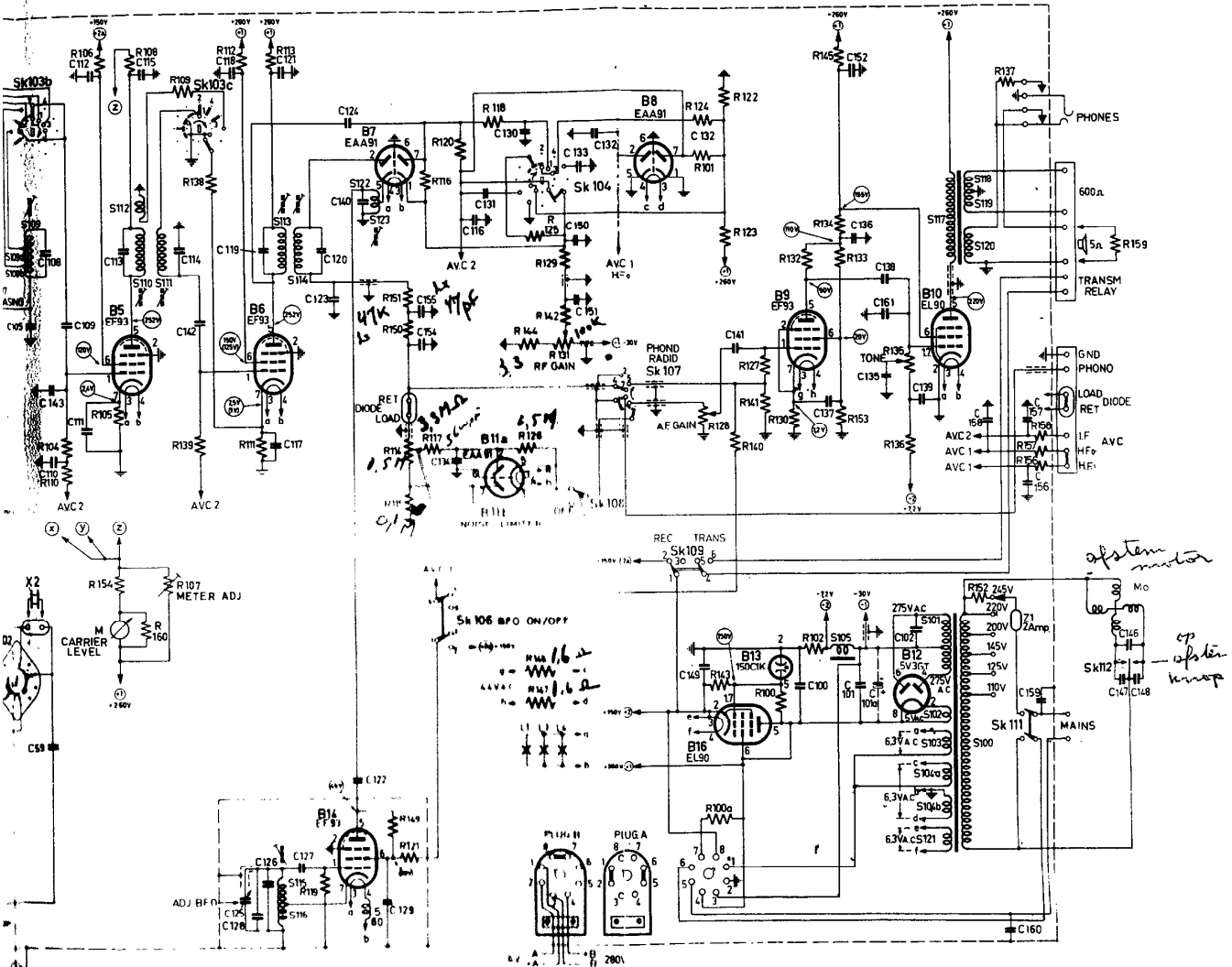
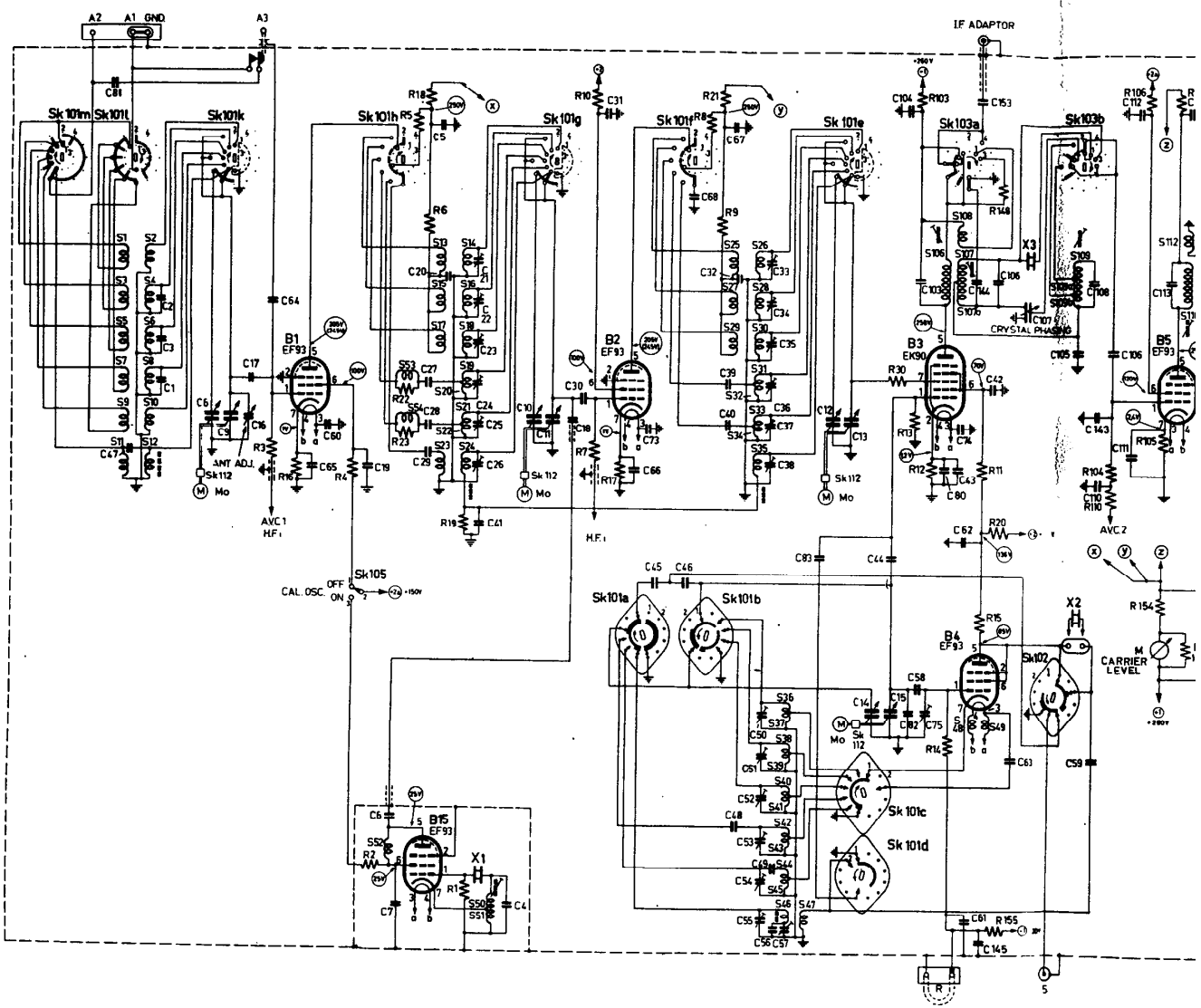


DIAGRAM
IFR TYPE BX 925A/09

570904

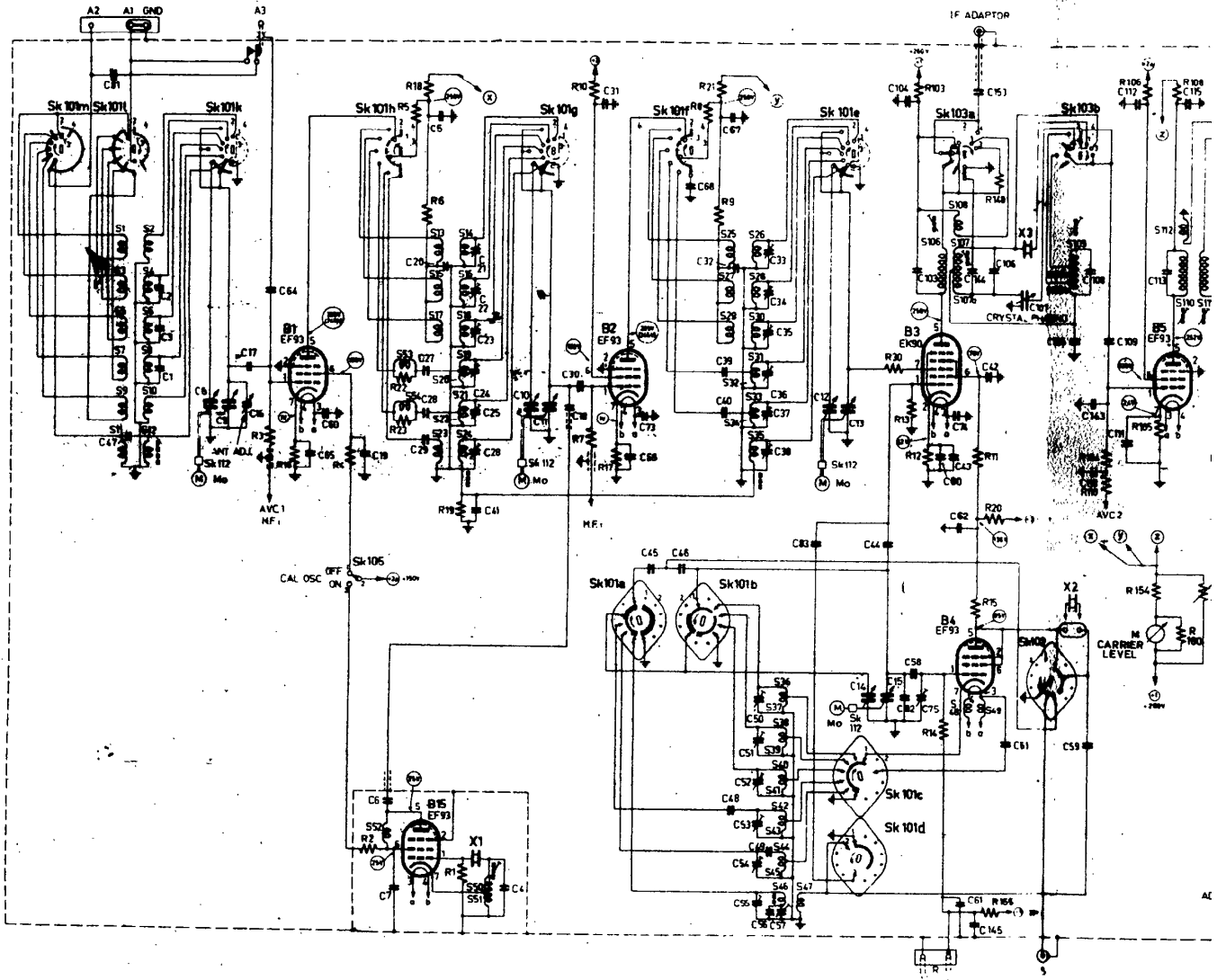
DB-R460/1-1e

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- 210-540 kc/s
 1.45-3.6 Mc/s
 35-91 Mc/s
 91-137 Mc/s
 137-207 Mc/s
 207-32 Mc/s
- N
 X
 GREEN
 RED
- SHARP } CRYSTAL
 MEDIUM }
 BROAD }
 EXTRA BROAD }
 IF. ADAPT. }
- MANUAL
 AVC 1/20 sec. DELAYED
 AVC 1/20 sec.
 AVC 1 sec.
- B1-B11
 B14-B16
- B12-B13
- X3

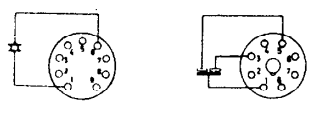
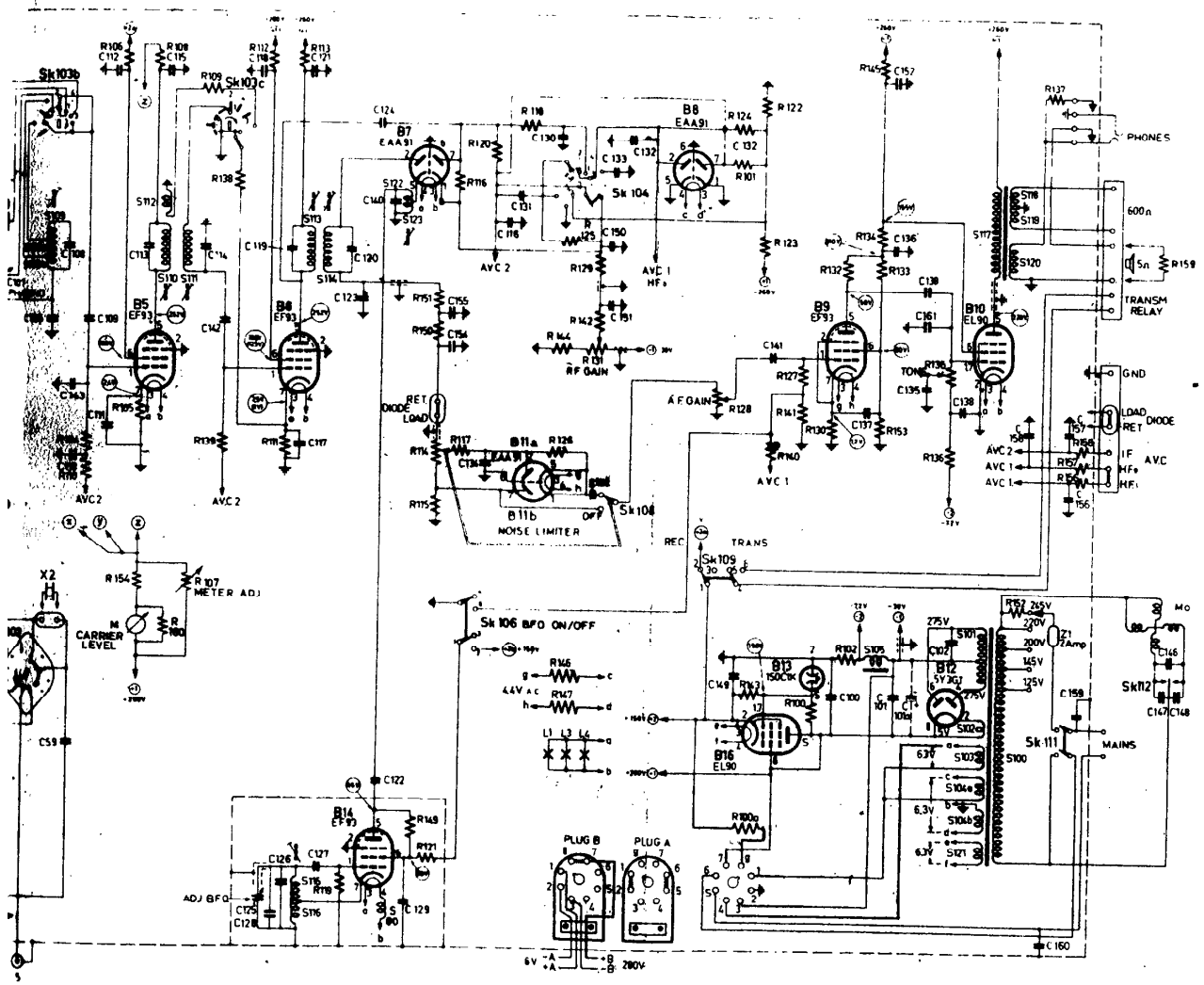
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- Sk 101
 - Sk 102
 - Sk 103
 - Sk 104
 - B1-B11
B14-B16
 - B12-B13
 - X3
- 210-540 kc/s
 145-36 Mc/s
 35-91 Mc/s
 91-137 Mc/s
 137-207 Mc/s
 207-32 Mc/s
- N
 X
 GREEN
 RED
- SHARP } CRYSTAL
 MEDIUM }
 BROAD }
 EXTRA BROAD }
 IF ADAPT }
- MANUAL
 AVC 720 sec DELAYED
 AVC 720 sec
 AVC 1 sec

CIRCUIT DIAGRAM / E
COMMUNICATION RECEIVER TYPE BX 925A/16 / RECEPTOR

77177 105 100 4-6171 11-120 46&7&8 P.2



AGFAM / ESQUEMA
/16 / RECEPTOR DE COMUNICACION TIPO BX 925A/16

600512 DB-R828/1-1es