

TA-EX5

SERVICE MANUAL



*AEP Model
UK Model
E Model
Australian Model
Tourist Model*

TA-EX5 is amplifier section in
MHC-EX5.

SPECIFICATIONS

Integrated stereo amplifier

40 W + 40 W (6 ohms,
at 1 kHz, DIN)

Continuous RMS power output
50 W + 50 W (6 ohms,
at 1 kHz, 5% THD)

Music power output
100 W + 100 W (6 ohms
at 1 kHz, 10% THD)

Inputs

CD (phono jacks):

MD/DAT (phono jacks):
sensitivity 450 mV,
impedance 47 kilohms

TUNER (phono jacks):

AUX/VIDEO (phono jacks):

TAPE1 (phono jacks):

TAPE2 (phono jacks):
sensitivity 250 mV,
impedance 47 kilohms

Outputs

MD/DAT (phono jacks):

voltage 250 mV
impedance 1 kilohm

HEADPHONES (stereo phono jack):
accepts headphones of 8 ohms
or more

TAPE1 (phono jacks):

TAPE2 (phono jacks):
voltage 250mV
impedance 1 kilohm

Dimensions

Approx. 280 x 125 x 315 mm (w/h/d)
(11 1/8 x 5 x 12 1/2 inches)

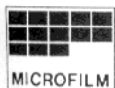
Mass Approx. 5.5 kg
(12 lb 3 oz)

General

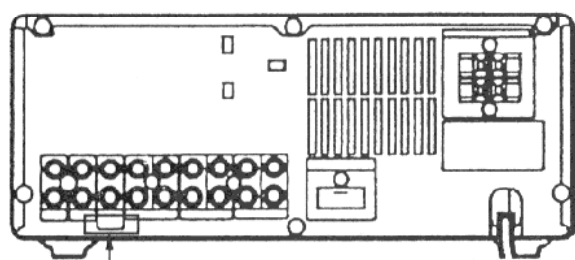
Power requirements

Destination	Power requirements
Australian model	220 - 240V AC, 50Hz
AEP, UK, German, Italian, CIS, East European model	220 - 230V AC, 50/60Hz
E, Saudi Arabia, Mexican, Malaysia, Singapore, Hong Kong, Tourist model	110 - 120V/220V - 240V AC, 50/60Hz Adjustable with the Voltage Selector

Design and specifications subject to change
without notice.



MINI HI-FI COMPONENT SYSTEM
SONY®



PARTS NO.

MODEL IDENTIFICATION

— BACK PANEL —

MODEL	PARTS NO.
AEP 2	4-970-969-0 ☐
German	4-970-969-1 ☐
UK	4-970-969-2 ☐
AEP, CIS	4-970-969-3 ☐
UK 1	4-970-969-4 ☐
EE	4-970-969-5 ☐
Italian	4-970-969-6 ☐
E, Saudi Arabia, Malaysia, Mexican, Singapore, Tourist	4-970-969-7 ☐
Australian	4-970-969-8 ☐
Hong Kong	4-970-969-9 ☐

TABLE OF CONTENTS

Section	Title	Page
Specifications		1
1. GENERAL		2
2. DIAGRAMS		3
2-1. Block Diagram		3
2-2. Printed Wiring Boards		6
2-3. Schematic Diagram — Main Section —		9
2-4. Schematic Diagram — Panel Section —		12
3. EXPLODED VIEWS		15
3-1. Front Panel Section		15
3-2. Chassis Section		16
4. ELECTRICAL PARTS LIST		17

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

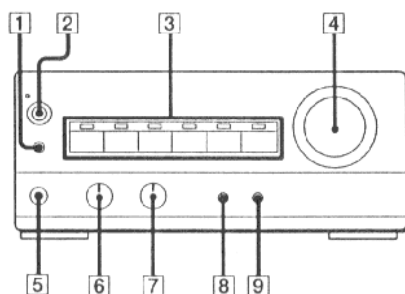
SECTION 1 GENERAL

This section is extracted from instruction manual.

Index to Parts and Controls

Refer to the pages indicated in parentheses for details on how to use the controls. Controls with an asterisk have indicators on themselves.

Integrated stereo amplifier



- 1 Remote sensor
- 2 SYSTEM POWER switch and ON/STANDBY indicator (7)
The indicator remains lit as long as the AC power cord is connected to a wall outlet.
- 3 FUNCTION buttons* (19, 23)
TAPE 1 (23)
TAPE 2 (23)
MD/DAT (23)
AUX/VIDEO (24)
CD (15)
TUNER (19)
- 4 VOLUME control (5, 7, 20)
- 5 HEADPHONES jack (20, 23)
- 6 BASS control (20)
- 7 TREBLE control (20)
- 8 SOURCE DIRECT button* (20)
- 9 MUTING button* (20)

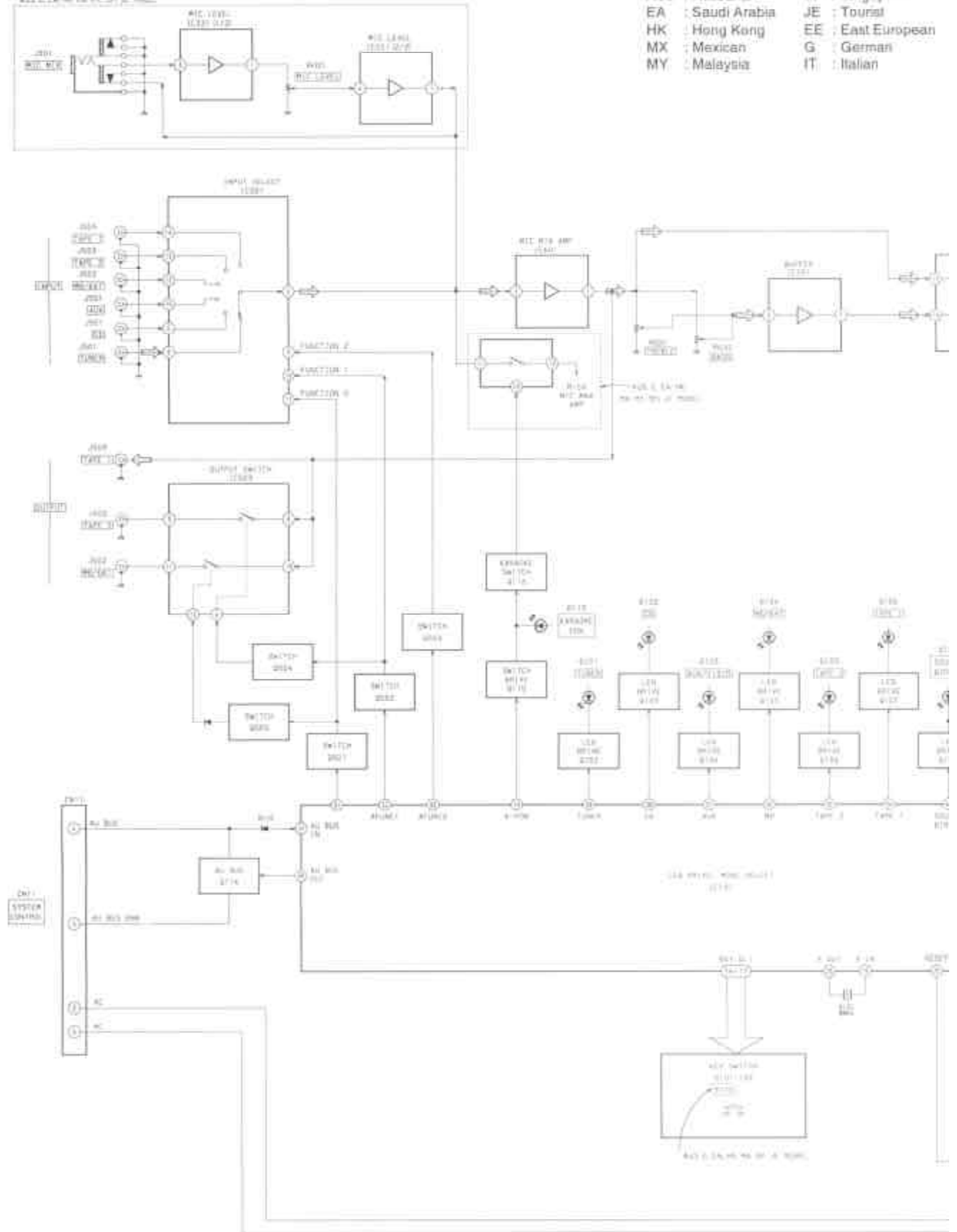
SECTION 2 DIAGRAMS

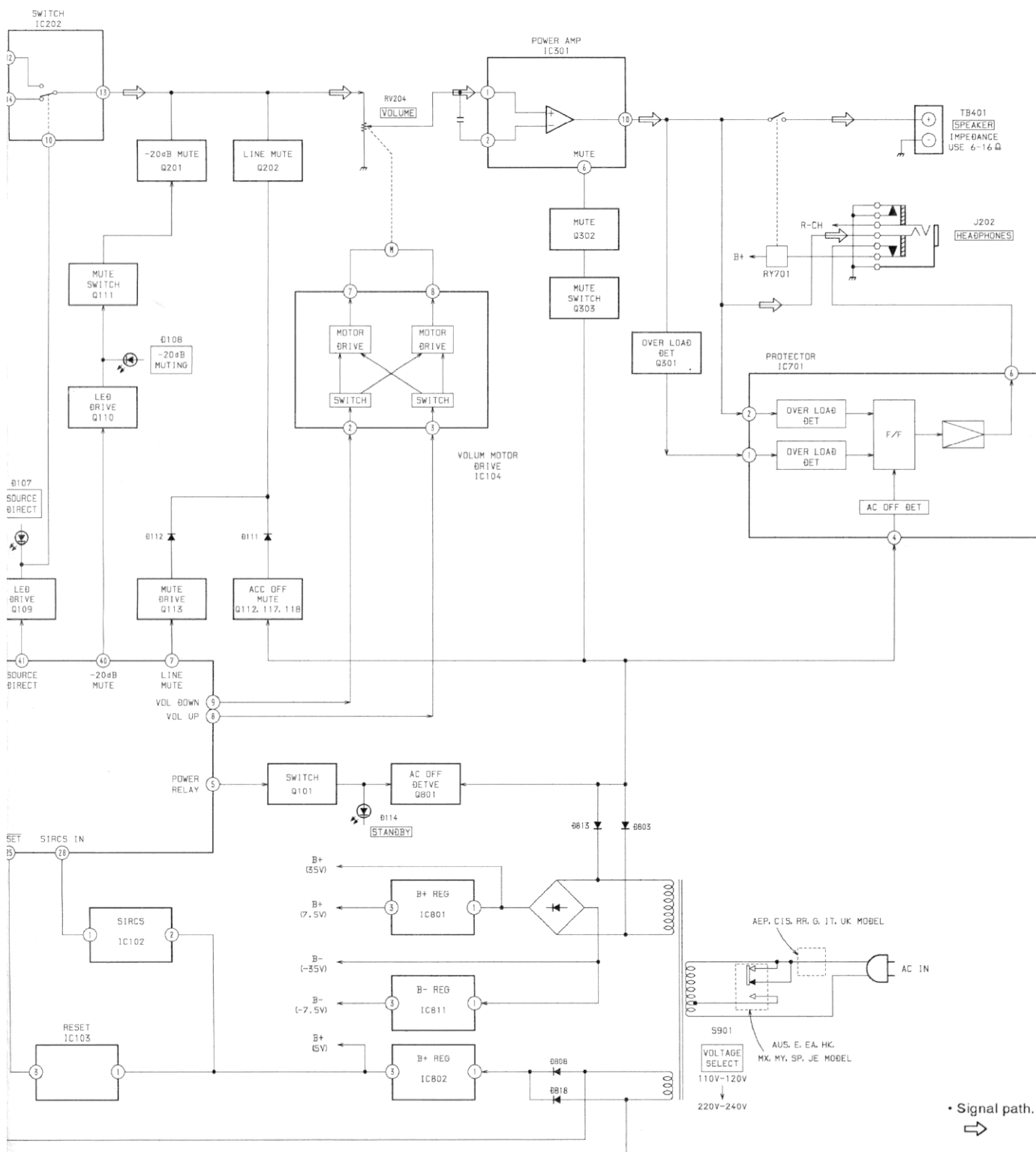
2-1. BLOCK DIAGRAM

AUS 2.1A-10, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 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, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

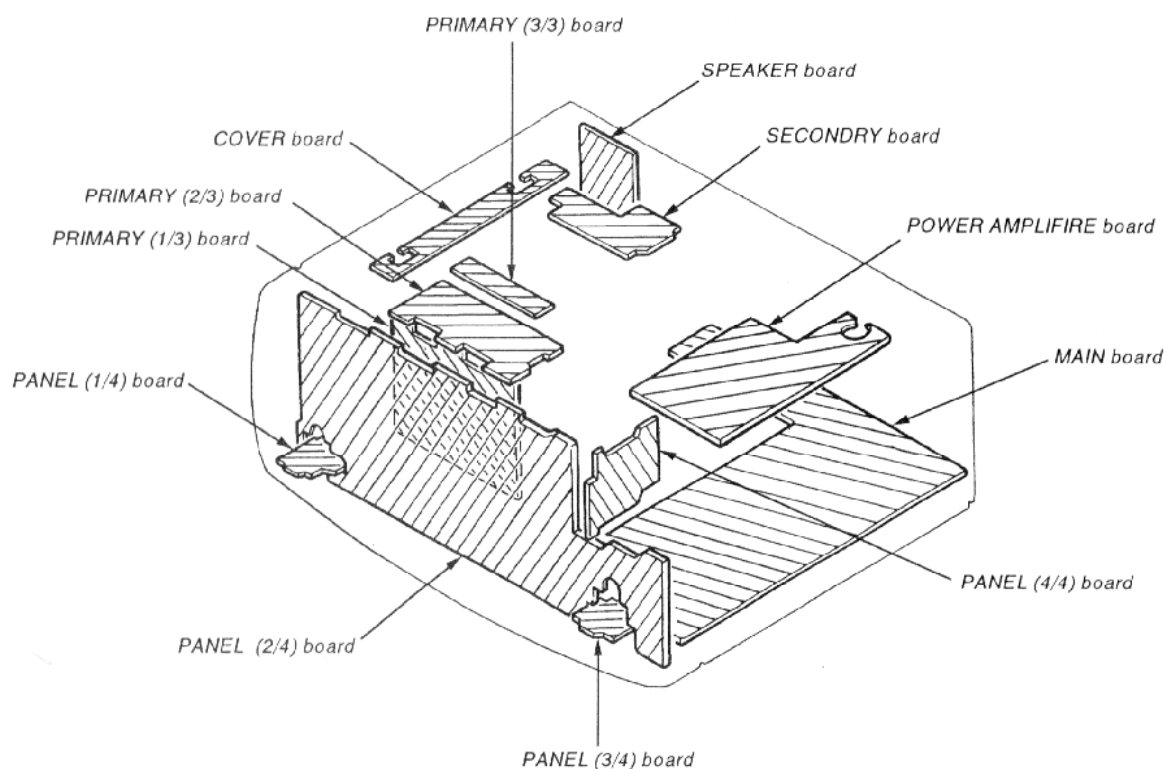
● Abbreviation

AUS	Australian	SP	Singapore
EA	Saudi Arabia	JE	Tourist
HK	Hong Kong	EE	East European
MX	Mexican	G	German
MY	Malaysia	IT	Italian

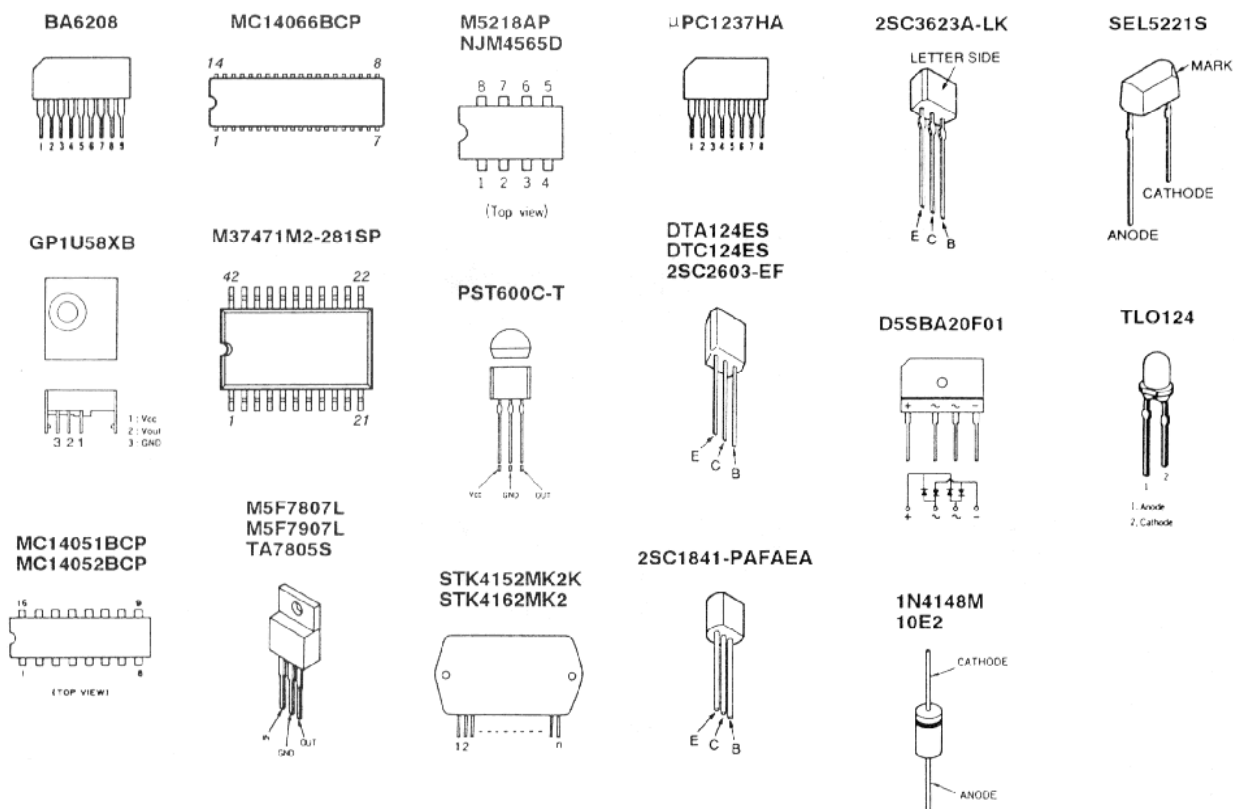




● CIRCUIT BOARD LOCATION



● SEMICONDUCTOR LEAD LAYOUTS



● SEMICONDUCTOR LOCATION

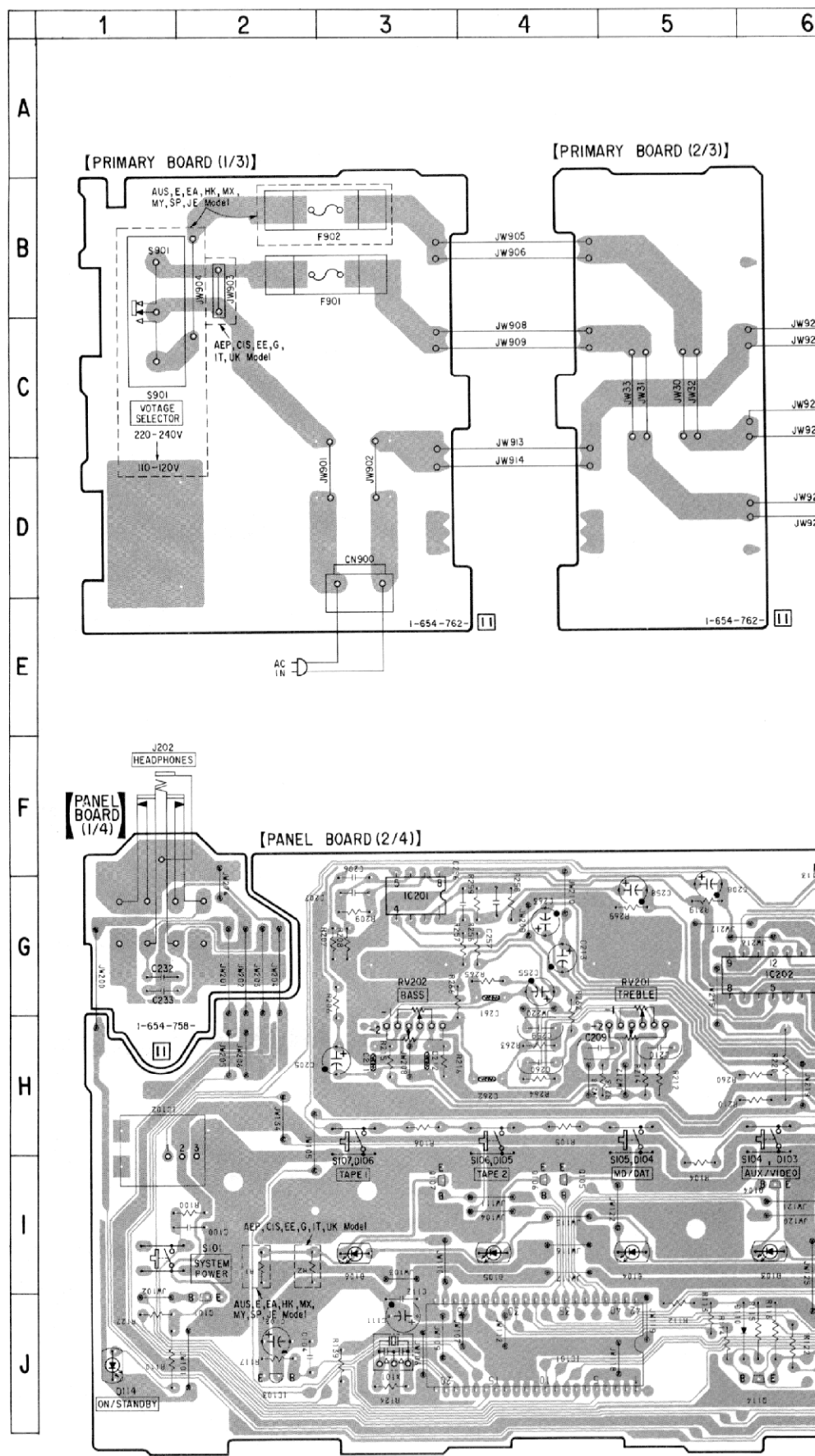
Ref. No.	Location	Ref. No.	Location
D101	I - 8	IC601	D - 14
D102	J - 7	IC701	E - 15
D103	J - 6	IC801	E - 13
D104	I - 5	IC802	I - 15
D105	I - 4	IC811	F - 13
D106	I - 3		
D107	G - 7	Q101	I - 2
D108	G - 8	Q102	I - 7
D110	J - 5	Q103	I - 6
D111	G - 7	Q104	I - 6
		Q105	I - 4
D112	G - 7		
D113	G - 9	Q106	I - 4
D114	J - 1	Q107	I - 3
D301	H - 19	Q109	G - 7
D351	I - 19	Q110	G - 8
		Q111	G - 7
D551	C - 19		
D552	C - 19	Q112	G - 8
D553	B - 19	Q113	F - 6
D554	B - 18	Q114	J - 6
D555		Q115	G - 9
		Q116	F - 8
D701	E - 14		
D702	E - 16	Q117	F - 8
D803	H - 13	Q118	F - 7
D804	G - 14	Q201	H - 9
D807	E - 13	Q202	H - 9
		Q251	H - 8
D808	I - 14		
D813	H - 13	Q252	H - 9
D817	F - 13	Q301	H - 19
D818	I - 14	Q302	G - 20
		Q303	G - 19
		Q351	I - 19
IC101	J - 4		
IC102	H - 1	Q501	B - 18
IC103	J - 2	Q502	B - 18
IC104	J - 10	Q503	B - 18
IC201	G - 3	Q504	C - 18
		Q505	B - 18
IC202	G - 6		
IC221	H - 11	Q506	B - 18
IC301	I - 18	Q701	E - 14
IC501	C - 14	Q801	I - 14
IC502	C - 13		
IC503	D - 14		
IC504	C - 13		

Note:

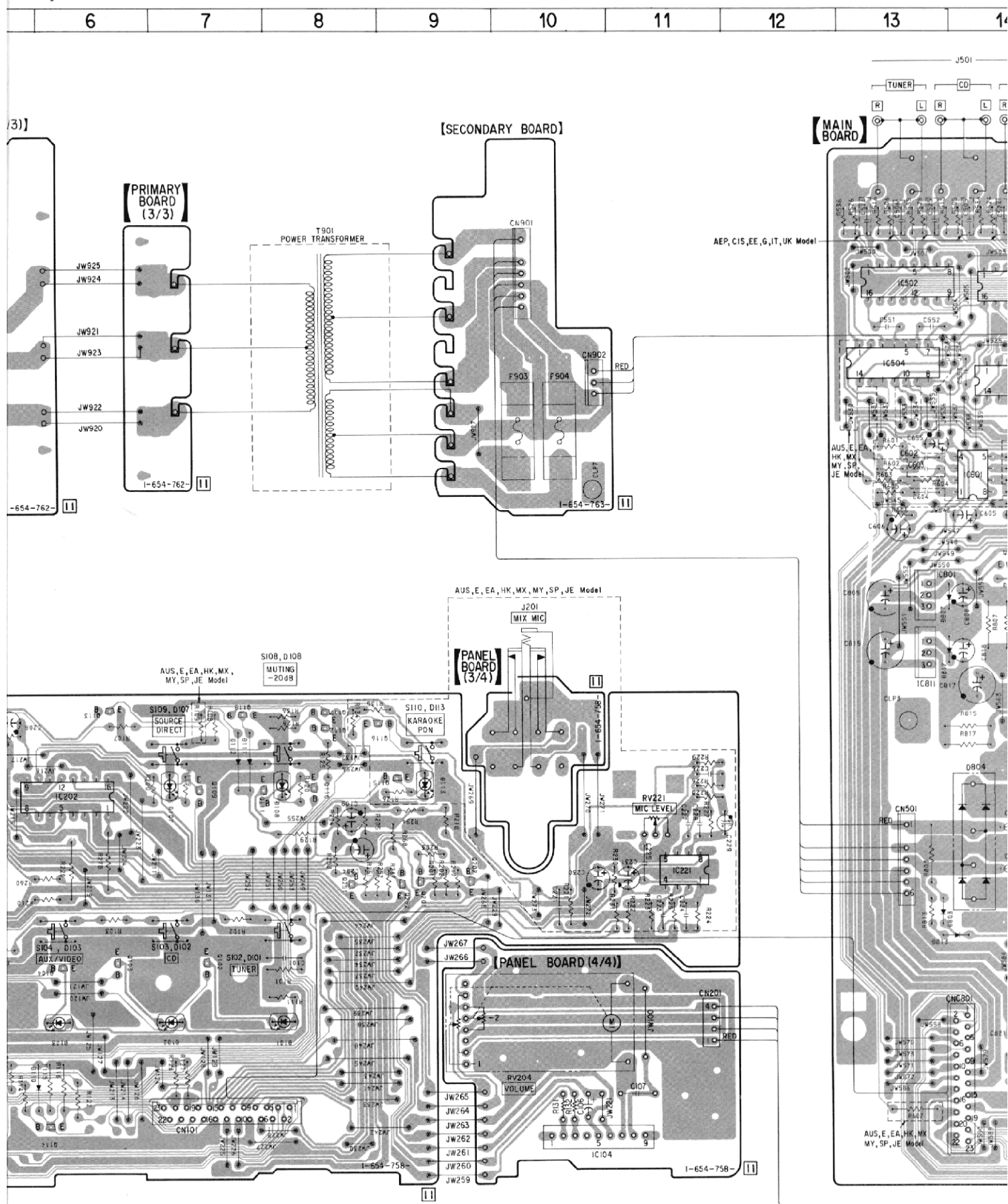
- — : parts extracted from the component side.
- ▨ : Pattern on the side which is seen.
- Abbreviation
 - AUS : Australian
 - EA : Saudi Arabia
 - HK : Hong Kong
 - MX : Mexican
 - MY : Malaysia
 - SP : Singapore
 - JE : Tourist
 - EE : East European
 - G : German
 - IT : Italian

2-2. PRINTED WIRING BOARDS

● Refer to page 5 for Semiconductor Lead Layouts.



Head Layouts.



14

15

16

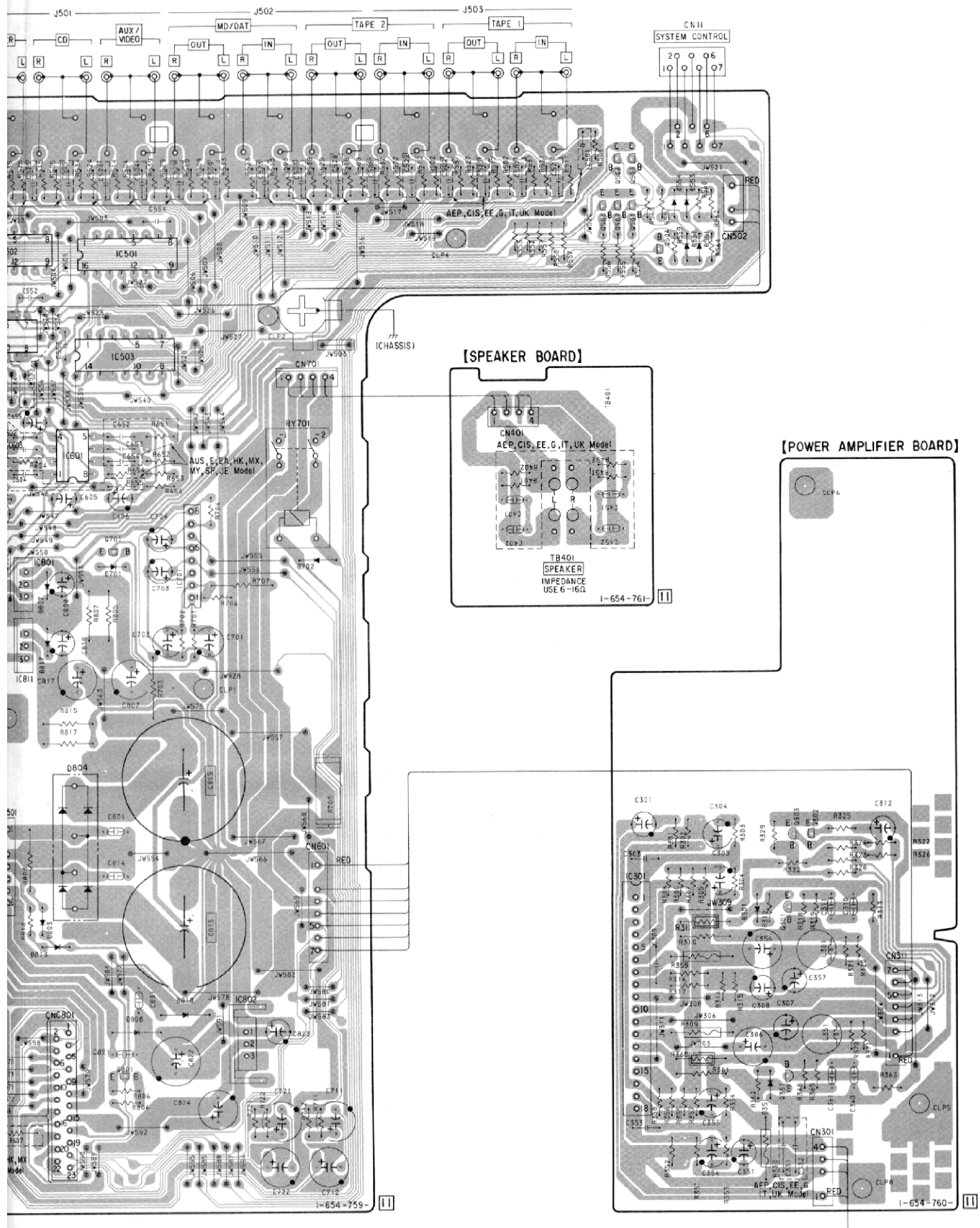
17

18

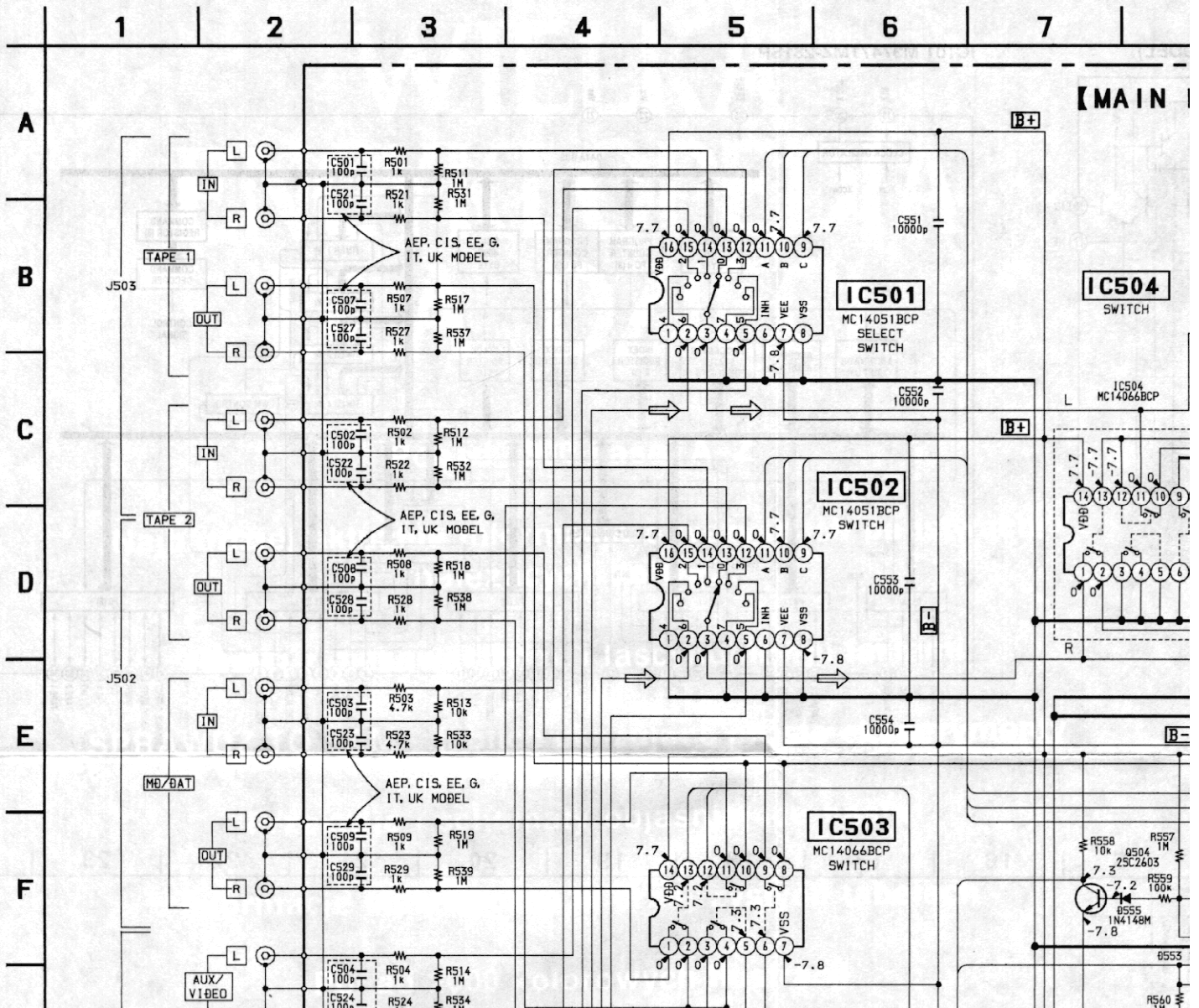
19

20

21

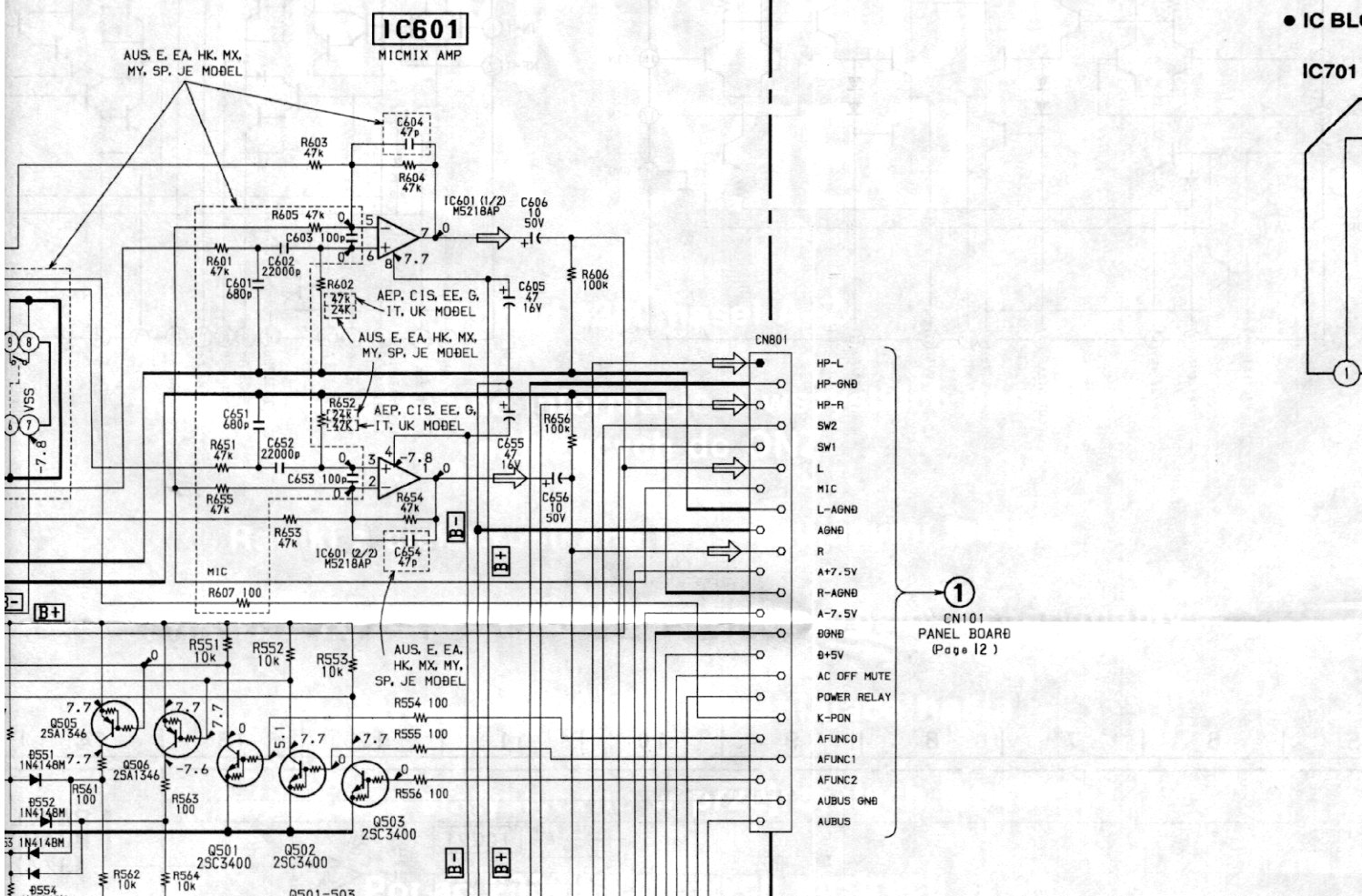


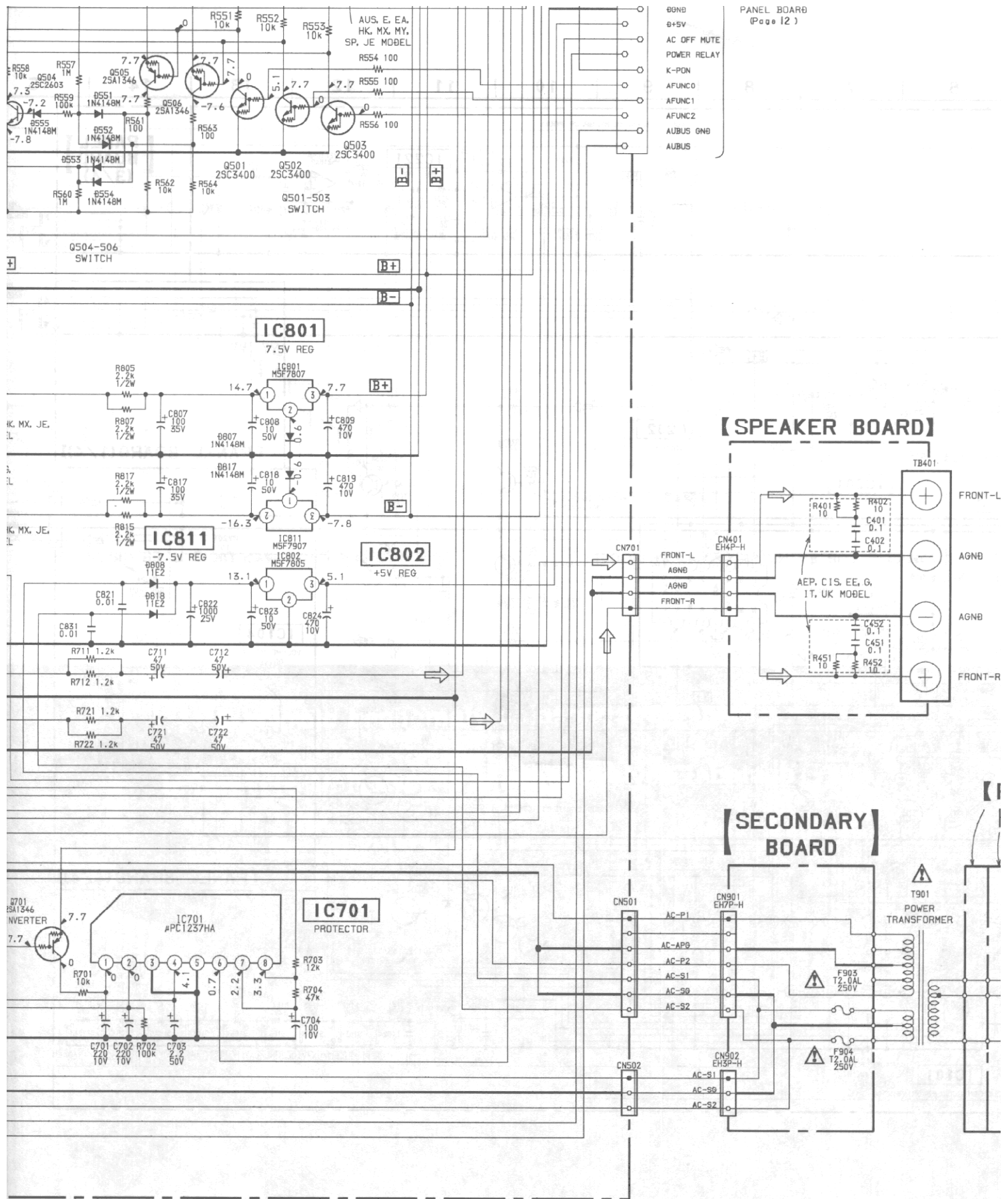
2-3. SCHEMATIC DIAGRAM - MAIN SECTION



8 9 10 11 12 13 14 15 1

BOARD 1





Note :

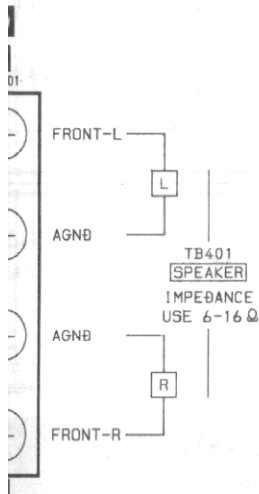
- All capacitors are in μF unless otherwise noted. pF: $\mu \mu F$ 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}W$ or less unless otherwise specified.

Note : The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

- **B+** : B+ Line
- **B-** : B- Line
- Voltage a dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input impedance $10M \Omega$). Voltage variations may be noted due to normal production tolerances.
- Signal path.



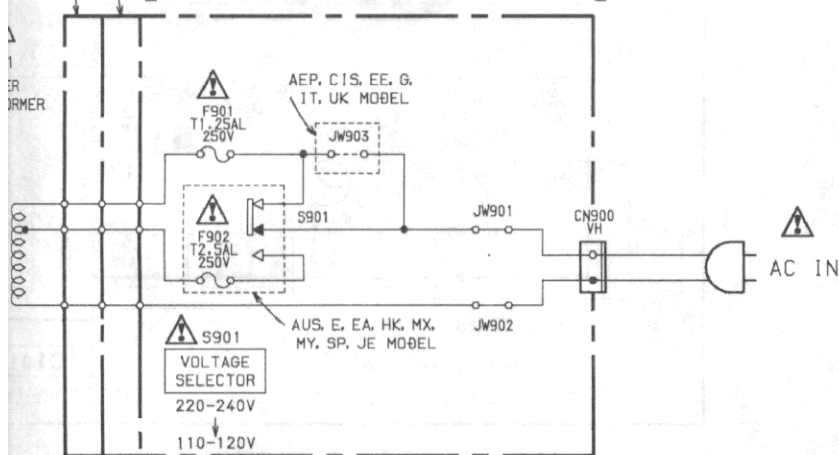
- Abbreviation
AUS : Australian
EA : Saudi Arabia
HK : Hong Kong
MX : Mexican
MY : Malaysia
SP : Singapore
JE : Tourist
EE : East European
G : German
IT : Italian



【PRIMARY BOARD (3/3)】

【PRIMARY BOARD (2/3)】

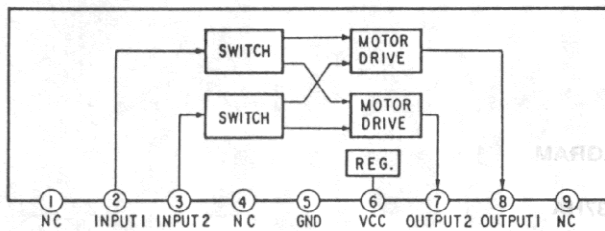
【PRIMARY BOARD (1/3)】



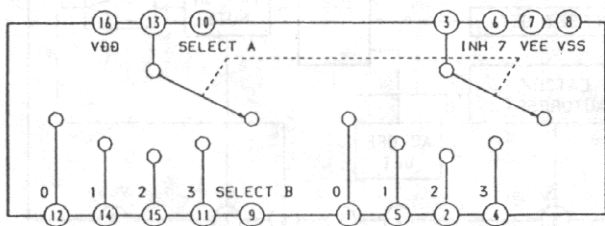
TA-EX5

● IC BLOCK DIAGRAMS

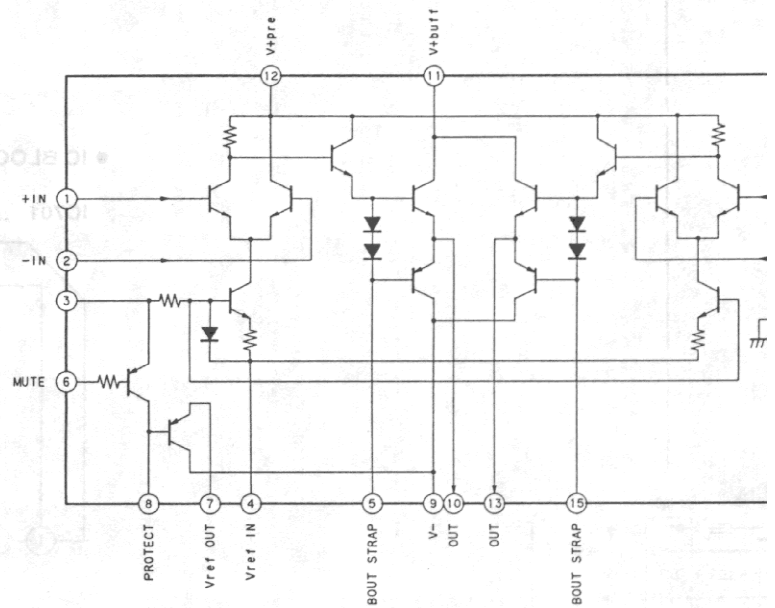
IC104 BA6208BCP



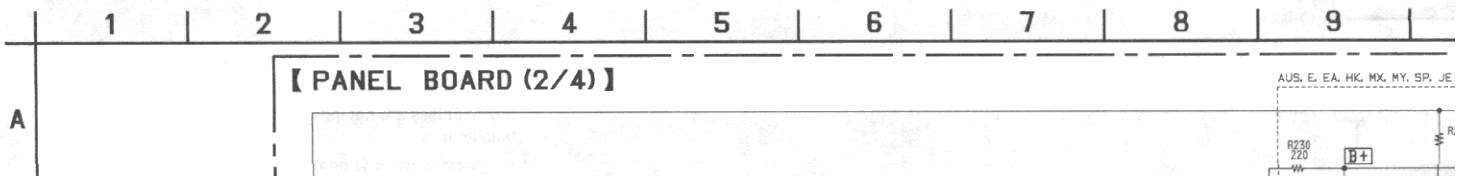
IC202 MC14052



IC301 STK4152MK2 (E, AUS, EA, HK, JE, MX, MY, SP MODEL)



2-4. SCHEMATIC DIAGRAM – PANEL SECTION –



1 2 3 4 5 6 7 8 9

A

B

C

D

E

F

G

H

I

J

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

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

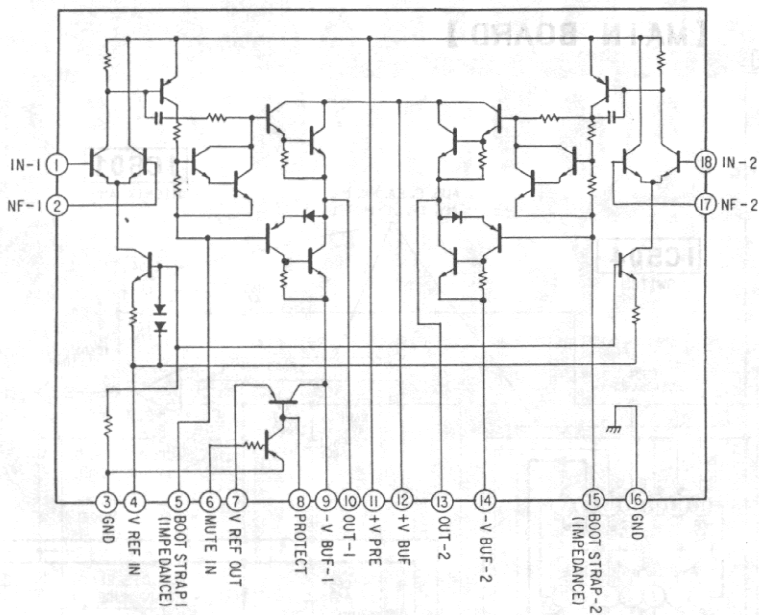
291

292

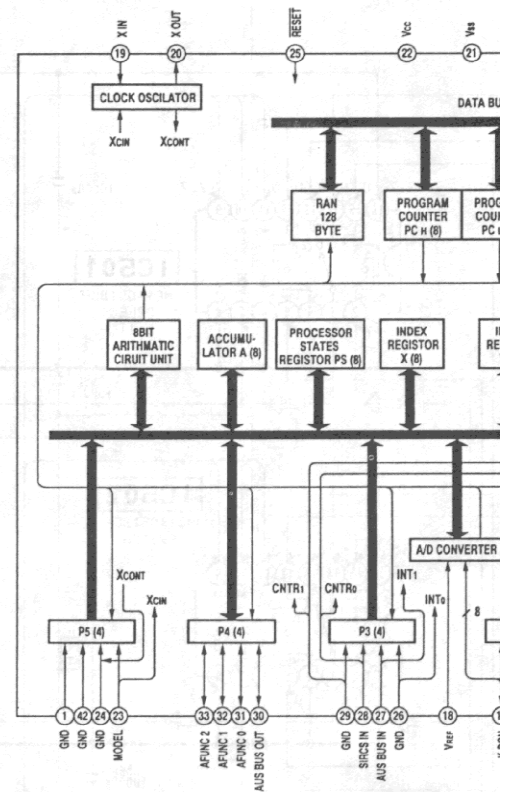
293

294

IC301 STK4162MK2 (AEP, UK, G, IT, EE, CIS MODEL)

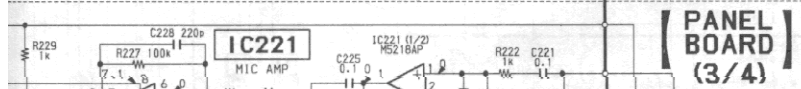


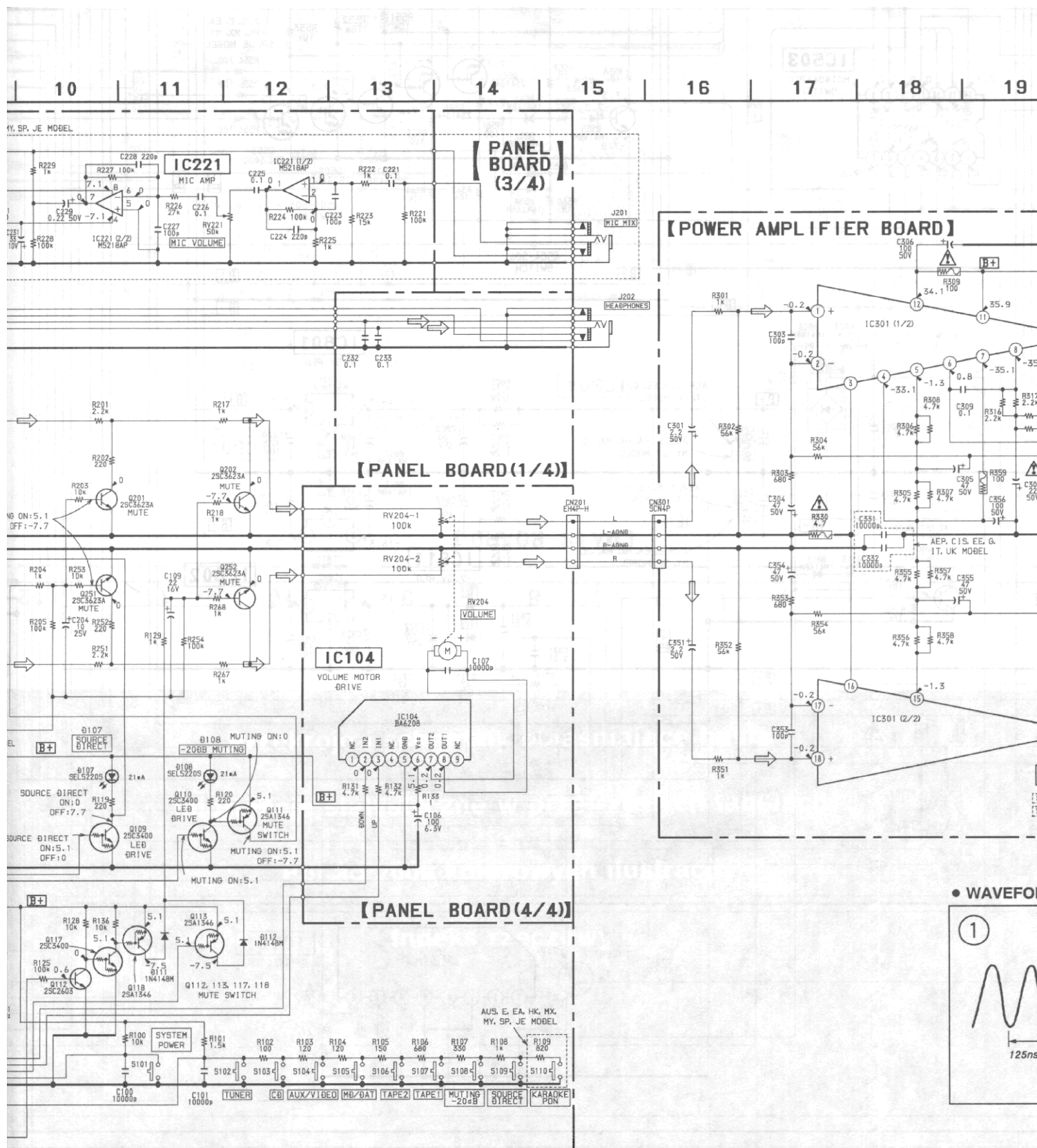
IC101 M37471MZ-281SP



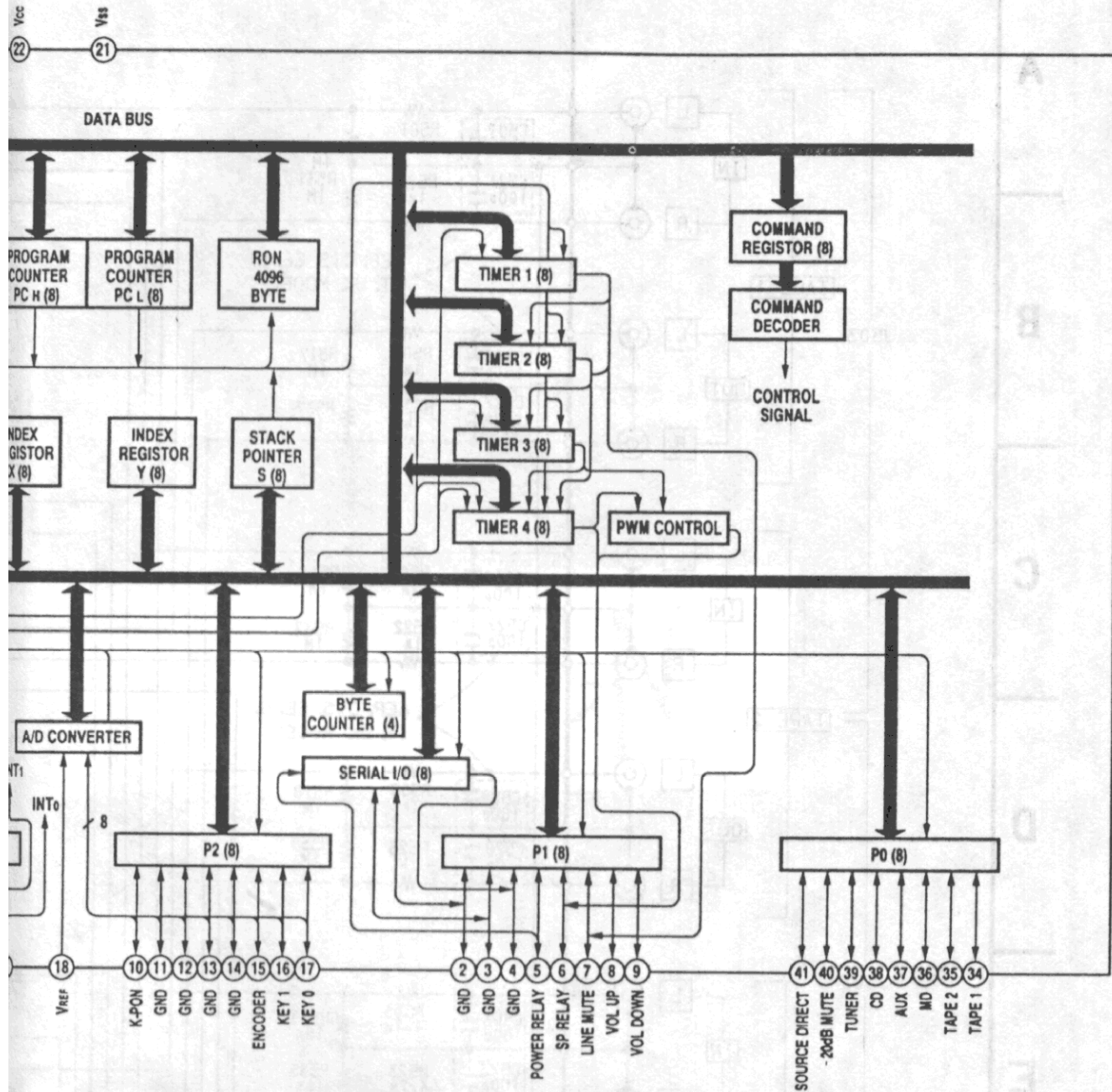
10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19

JP, JE, MODEL





S-3 SCHEMATIC DIAGRAM - MAIN SECTION



19

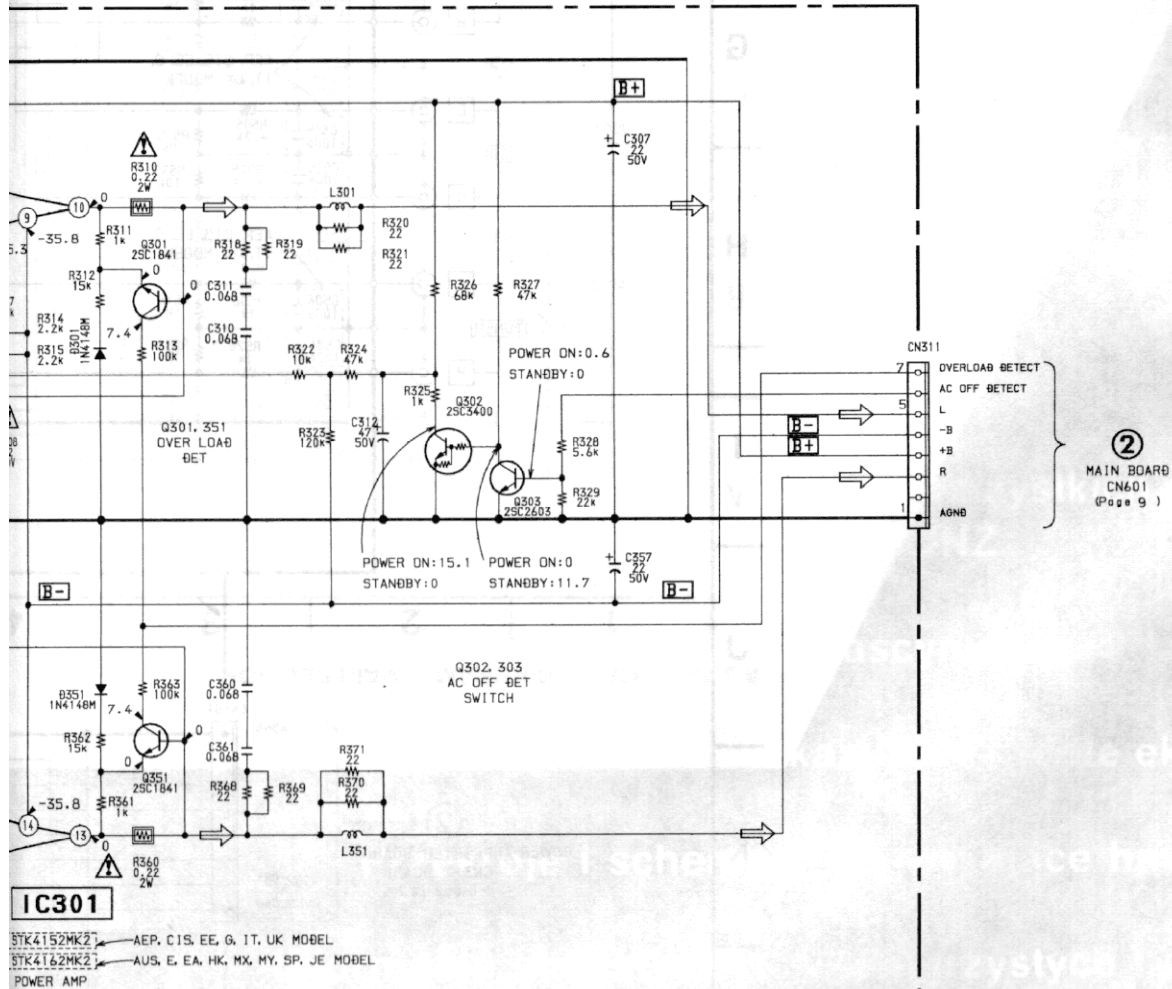
20

21

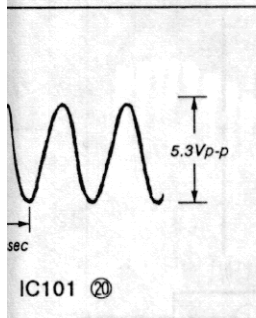
22

23

24



RM



Note :

- All capacitors are in μF unless otherwise noted. pF: $\mu \mu F$ 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}W$ or less unless otherwise specified.
- Δ : internal component.
- : nonflammable resistor.
- : fusible resistor.

Note : The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

- : B+ Line
- : B- Line
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance $10M \Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

- Signal path.



- Abbreviation
 AUS : Australian
 EA : Saudi Arabia
 HK : Hong Kong
 MX : Mexican
 MY : Malaysia
 SP : Singapore
 JE : Tourist
 EE : East European
 G : German
 IT : Italian

SECTION 3 EXPLODED VIEWS

NOTE :

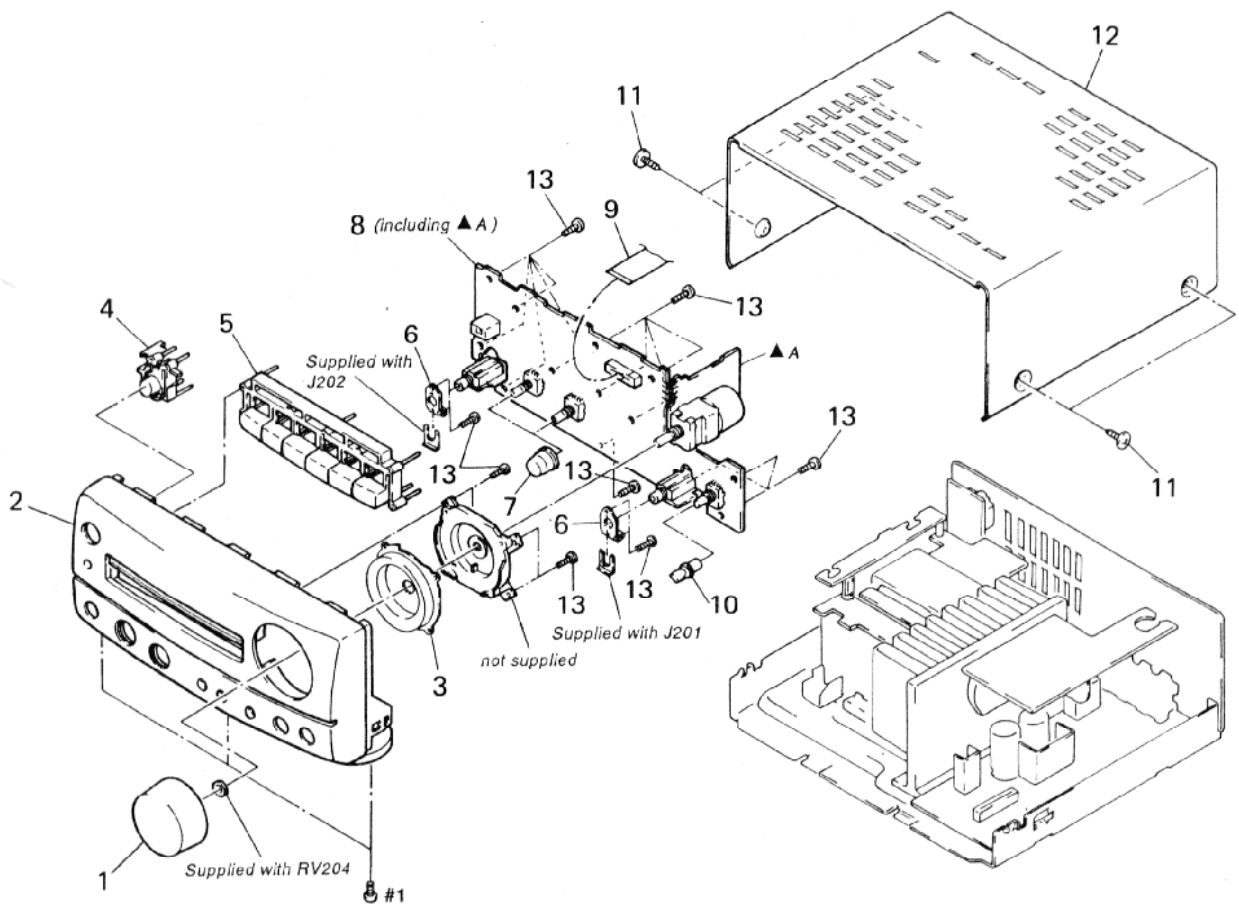
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (≠ mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation

AUS : Australian	SP : Singapore
EA : Saudi Arabia	JE : Tourist
HK : Hong Kong	EE : East European
MX : Mexican	G : German
MY : Malaysia	IT : Italian

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

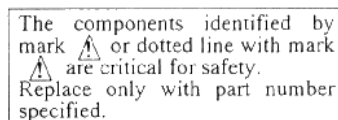
3-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	4-970-944-01	KNOB (VOL)	
2	X-4945-434-1	PANEL ASSY, FRONT (AEP, UK, G, IT, EE, CIS)	
2	X-4945-435-1	PANEL ASSY, FRONT (E, AUS, EA, HK, JE, MX, MY, SP)	
3	4-970-967-01	PLATE (VOL), ORNAMENTAL	
4	4-970-962-01	BUTTON (POWER)	
5	4-970-942-01	BUTTON (FUNC)	
* 6	4-970-946-01	BRACKET (HP)	
7	4-970-965-01	KNOB (TONE)	

Ref. No.	Part No.	Description	Remark
* 8	A-4371-988-A	PANEL BOARD, COMPLETE (AEP, UK, G, IT, EE, CIS)	
* 8	A-4371-989-A	PANEL BOARD, COMPLETE (E, AUS, EA, HK, JE, MX, MY, SP)	
* 9	1-769-784-11	WIRE (FLAT TYPE) (23 CORE)	
10	4-970-966-0	KNOB (K)	
11	3-363-099-01	SCREW (CASE 3 TP2)	
12	3-919-558-71	CASE	
13	4-951-620-01	SCREW (2.6×8), +BVTP	

▲ A : PRIMARY BOARD (3/3)
▲ B : PRIMARY BOARD (2/3)



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
60	4-965-822-01	FOOT	
* 61	A-4371-978-A	MAIN BOARD, COMPLETE	(AEP, UK, G, IT, EE, CIS)
* 61	A-4371-979-A	MAIN BOARD, COMPLETE	(E, AUS, EA, HK, JE, MX, MY, SP)
* 62	4-942-204-01	PLATE, GROUND	
△63	1-574 902-11	CORD, POWER (E, JE, MX)	
△63	1-575-651-11	CORD, POWER	(AEP, G, IT, EA, EE, HK, MY, SP, CIS)
△63	1-690-608-11	CORD, POWER (AUS)	
△63	1-696-570-21	CORD, POWER (UK)	
△64	1-569-007-11	ADAPTER, CONVERSION 2P (E, JE)	
△64	1-569-008-11	ADAPTER, CONVERSION 2P (EA, EK, MY, SP)	
△64	1-770-019-11	ADAPTOR, CONVERSION (HK)	
65	4-956-370-02	BAND, PLUG FIXED (UK, AUS, HK)	
66	1-533-293-11	FUSE HOLDER	
△T901	1-427-700-11	TRANSFORMER, POWER	(E, AUS, EA, HK, JE, MX, MY, SP)
△T901	1-427-701-11	TRANSFORMER, POWER (AEP, UK, G, IT, EE, CIS)	
△F902	1-532-286-00	FUSE (3.15A/250V)	(E, AUS, EA, HK, JE, MX, MY, SP)
△F903	1-532-203-00	FUSE (2A/250V)	
△F904	1-532-203-00	FUSE (2A/250V)	

SECTION 4 ELECTRICAL PARTS LIST

MAIN

NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal oxide-film resistor
F : nonflammable

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example :
uA.... : μ A...., uPA.... : μ PA....
uPB.... : μ PB...., uPC.... : μ PC....
uPD.... : μ PD....
- CAPACITORS
uF : μ F
- COILS
uH : μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

- Abbreviation
AUS : Australian SP : Singapore
EA : Saudi Arabia JE : Tourist
HK : Hong Kong EE : East European
MX : Mexican G : German
MY : Malaysia IT : Italian

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4371-978-A	MAIN BOARD, COMPLETE (AEP, UK, G, IT, EE, CIS)		C701	1-126-101-11	ELECT 100uF 20% 16V	
*	A-4371-979-A	MAIN BOARD, COMPLETE (E, AUS, EA, HK, JE, MX, MY, SP)		C702	1-126-101-11	ELECT 100uF 20% 16V	
	*****			C703	1-126-161-11	ELECT 2.2uF 20% 50V	
				C704	1-124-994-11	ELECT 100uF 20% 10V	
				C711	1-124-910-11	ELECT 47uF 20% 50V	
*	3-309-144-21	HEAT SINK		C712	1-124-910-11	ELECT 47uF 20% 50V	
*	4-942-204-01	PLATE, GROUND		C721	1-124-910-11	ELECT 47uF 20% 50V	
		< CAPACITOR >		C722	1-124-910-11	ELECT 47uF 20% 50V	
	C501-509			C804	1-136-165-00	FILM 0.1uF 5% 50V	
	1-162-282-31	CERAMIC 100PF 10% 50V (AEP, UK, G, IT, EE, CIS)		C805	1-126-224-11	ELECT 4700uF 20% 42V (AEP, UK, G, IT, EE, CIS)	
	C521-529			C805	1-126-138-11	ELECT 4700uF 20% 50V (E, AUS, EA, HK, JE, MX, MY, SP)	
	1-162-282-31	CERAMIC 100PF 10% 50V (AEP, UK, G, IT, EE, CIS)		C807	1-124-122-11	ELECT 100uF 20% 50V	
	C551-554			C808	1-126-059-11	ELECT 10uF 20% 50V	
	1-162-306-11	CERAMIC 0.01uF 30% 16V		C809	1-124-997-11	ELECT 470uF 20% 10V	
	C601	1-162-292-31 CERAMIC 680PF 10% 50V (E, AUS, EA, HK, JE, MX, MY, SP)		C814	1-136-165-00	FILM 0.1uF 5% 50V	
	C602	1-161-494-00 CERAMIC 0.022uF 25V (E, AUS, EA, HK, JE, MX, MY, SP)		C815	1-126-224-11	ELECT 4700uF 20% 42V (AEP, UK, G, IT, EE, CIS)	
				C815	1-126-138-11	ELECT 4700uF 20% 50V (E, AUS, EA, HK, JE, MX, MY, SP)	
	C603	1-162-282-31 CERAMIC 100PF 10% 50V (E, AUS, EA, HK, JE, MX, MY, SP)		C817	1-124-122-11	ELECT 100uF 20% 50V	
	C604	1-162-215-31 CERAMIC 47PF 5% 50V (E, AUS, EA, HK, JE, MX, MY, SP)		C818	1-126-059-11	ELECT 10uF 20% 50V	
	C605	1-126-022-11 ELECT 47uF 20% 16V		C819	1-124-997-11	ELECT 470uF 20% 10V	
	C606	1-126-059-11 ELECT 10uF 20% 50V		C821	1-136-153-00	FILM 0.01uF 5% 50V	
	C651	1-162-292-31 CERAMIC 680PF 10% 50V (E, AUS, EA, HK, JE, MX, MY, SP)		C822	1-126-942-61	ELECT 1000uF 20% 25V	
				C823	1-126-059-11	ELECT 10uF 20% 50V	
				C824	1-124-997-11	ELECT 470uF 20% 10V	
	C652	1-161-494-00 CERAMIC 0.022uF 25V (E, AUS, EA, HK, JE, MX, MY, SP)		C831	1-136-153-00	FILM 0.01uF 5% 50V	
	C653	1-162-282-31 CERAMIC 100PF 10% 50V (E, AUS, EA, HK, JE, MX, MY, SP)				< CONNECTOR >	
	C654	1-162-215-31 CERAMIC 47PF 5% 50V (E, AUS, EA, HK, JE, MX, MY, SP)		CN11	1-770-158-31	SOCKET, CONNECTOR 7P (SYSTEM CONTROL)	
	C655	1-126-022-11 ELECT 47uF 20% 16V		CN501	1-691-768-11	PLUG (MICRO CONNECTOR) 6P	
	C656	1-126-059-11 ELECT 10uF 20% 50V		CN601	1-691-769-11	PLUG (MICRO CONNECTOR) 7P	
				* CN701	1-564-507-11	PLUG, CONNECTOR 4P	
				* CN801	1-568-839-11	SOCKET, CONNECTOR 23P	

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< DIODE >				< DIODE >				< DIODE >			
D551-554				R506-509							
	8-719-987-63	DIODE 1N4148M			1-249-417-11	CARBON 1K 5% 1/4W					
D701	8-719-987-63	DIODE 1N4148M		R511	1-247-903-00	CARBON 1M 5% 1/4W					
D702	8-719-987-63	DIODE 1N4148M		R512	1-247-903-00	CARBON 1M 5% 1/4W					
D803	8-719-987-63	DIODE 1N4148M		R513	1-249-429-11	CARBON 10K 5% 1/4W					
D804	8-719-510-68	DIODE D5SBA20F01		R514	1-247-903-00	CARBON 1M 5% 1/4W					
D807	8-719-987-63	DIODE 1N4148M		R515	1-249-429-11	CARBON 10K 5% 1/4W					
D808	8-719-200-02	DIODE 10E2		R516-519							
D813	8-719-987-63	DIODE 1N4148M			1-247-903-00	CARBON 1M 5% 1/4W					
D817	8-719-987-63	DIODE 1N4148M		R521	1-249-417-11	CARBON 1K 5% 1/4W					
D818	8-719-200-02	DIODE 10E2		R522	1-249-417-11	CARBON 1K 5% 1/4W					
< IC >				R523	1-249-425-11	CARBON 4.7K 5% 1/4W					
IC501	8-759-000-47	IC MC14051BCP		R524	1-249-417-11	CARBON 1K 5% 1/4W					
IC502	8-759-000-47	IC MC14051BCP		R525	1-249-425-11	CARBON 4.7K 5% 1/4W					
IC503	8-759-000-49	IC MC14066BCP		R526	1-249-417-11	CARBON 1K 5% 1/4W					
IC504	8-759-000-49	IC MC14066BCP		R527-529							
		(E, AUS, EA, HK, JE, MX, MY, SP)			1-249-417-11	CARBON 1K 5% 1/4W					
IC601	8-759-634-51	IC M5218AP	(E, AUS, EA, HK, JE, MX, MY, SP)	R531	1-247-903-00	CARBON 1M 5% 1/4W					
IC601	8-759-167-88	IC NJM4565D		R532	1-247-903-00	CARBON 1M 5% 1/4W					
IC701	8-759-111-68	IC uPC1237HA		R533	1-249-429-11	CARBON 10K 5% 1/4W					
IC801	8-759-604-86	IC MSF7807L		R534	1-247-903-00	CARBON 1M 5% 1/4W					
IC802	8-759-231-53	IC TA7805S		R535	1-249-429-11	CARBON 10K 5% 1/4W					
IC811	8-759-604-90	IC MSF7907L		R536-539							
< JACK >					1-247-903-00	CARBON 1M 5% 1/4W					
J501	1-770-015-11	JACK, PIN 6P (TUNER/CD/AUX/VIDEO INPUT)		R551	1-249-429-11	CARBON 10K 5% 1/4W					
J502	1-770-015-11	JACK, PIN 6P		R552	1-249-429-11	CARBON 10K 5% 1/4W					
		(MD/DAT INPUT/OUTPUT, TAPE 2 OUTPUT)		R553	1-249-429-11	CARBON 10K 5% 1/4W					
J503	1-770-015-11	JACK, PIN 6P		R554-556							
		(TAPE 1 INPUT/OUTPUT, TAPE 2 INPUT)			1-247-807-31	CARBON 100 5% 1/4W					
< TRANSISTOR >				R557	1-247-903-00	CARBON 1M 5% 1/4W					
Q501-503				R558	1-249-429-11	CARBON 10K 5% 1/4W					
	8-729-900-36	TRANSISTOR DTC124ES		R559	1-249-441-11	CARBON 100K 5% 1/4W					
Q504	8-729-620-05	TRANSISTOR 2SC2603-EF		R560	1-247-903-00	CARBON 1M 5% 1/4W					
Q505	8-729-900-63	TRANSISTOR DTA124ES		R561	1-247-807-31	CARBON 100 5% 1/4W					
Q506	8-729-900-63	TRANSISTOR DTA124ES		R562	1-249-429-11	CARBON 10K 5% 1/4W					
Q701	8-729-900-63	TRANSISTOR DTA124ES		R563	1-247-807-31	CARBON 100 5% 1/4W					
Q801	8-729-620-05	TRANSISTOR 2SC2603-EF		R564	1-249-429-11	CARBON 10K 5% 1/4W					
< RESISTOR >				R601	1-249-437-11	CARBON 47K 5% 1/4W					
R501	1-249-417-11	CARBON 1K 5% 1/4W				(E, AUS, EA, HK, JE, MX, MY, SP)					
R502	1-249-417-11	CARBON 1K 5% 1/4W		R602	1-247-864-11	CARBON 24K 5% 1/4W					
R503	1-249-425-11	CARBON 4.7K 5% 1/4W				(E, AUS, EA, HK, JE, MX, MY, SP)					
R504	1-249-417-11	CARBON 1K 5% 1/4W		R602	1-249-437-11	CARBON 47K 5% 1/4W					
R505	1-249-425-11	CARBON 4.7K 5% 1/4W				(AEP, UK, G, IT, EE, CIS)					
< RESISTOR >				R603	1-249-437-11	CARBON 47K 5% 1/4W					
R501	1-249-417-11	CARBON 1K 5% 1/4W		R604	1-249-437-11	CARBON 47K 5% 1/4W					
R502	1-249-417-11	CARBON 1K 5% 1/4W		R605	1-249-437-11	CARBON 47K 5% 1/4W					
R503	1-249-425-11	CARBON 4.7K 5% 1/4W				(E, AUS, EA, HK, JE, MX, MY, SP)					
R504	1-249-417-11	CARBON 1K 5% 1/4W		R606	1-249-441-11	CARBON 100K 5% 1/4W					
R505	1-249-425-11	CARBON 4.7K 5% 1/4W		R607	1-247-807-31	CARBON 100 5% 1/4W					
< RESISTOR >						(E, AUS, EA, HK, JE, MX, MY, SP)					

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

MAIN PANEL

Ref. No.	Part No.	Description	Remark
R651	1-249-437-11	CARBON	47K 5% 1/4W (E, AUS, EA, HK, JE, MX, MY, SP)
R652	1-247-864-11	CARBON	24K 5% 1/4W (E, AUS, EA, HK, JE, MX, MY, SP)
R653	1-249-437-11	CARBON	47K 5% 1/4W (AEP, UK, G, IT, EE, CIS)
R654	1-249-437-11	CARBON	47K 5% 1/4W
R655	1-249-437-11	CARBON	47K 5% 1/4W (E, AUS, EA, HK, JE, MX, MY, SP)
R656	1-249-441-11	CARBON	100K 5% 1/4W
R701	1-249-429-11	CARBON	10K 5% 1/4W
R702	1-249-441-11	CARBON	100K 5% 1/4W
R703	1-249-430-11	CARBON	12K 5% 1/4W
R704	1-249-437-11	CARBON	47K 5% 1/4W
R705	1-216-455-11	METAL OXIDE	560 5% 2W F
R706	1-249-438-11	CARBON	56K 5% 1/4W
R707	1-249-437-11	CARBON	47K 5% 1/4W
R711	1-249-418-11	CARBON	1.2K 5% 1/4W
R712	1-249-418-11	CARBON	1.2K 5% 1/4W
R721	1-249-418-11	CARBON	1.2K 5% 1/4W
R722	1-249-418-11	CARBON	1.2K 5% 1/4W
R803	1-249-429-11	CARBON	10K 5% 1/4W
R804	1-249-429-11	CARBON	10K 5% 1/4W
R805	1-260-103-11	CARBON	2.2K 5% 1/2W
R806	1-249-429-11	CARBON	10K 5% 1/4W
R807	1-260-103-11	CARBON	2.2K 5% 1/2W
R813	1-249-429-11	CARBON	10K 5% 1/4W
R815	1-260-103-11	CARBON	2.2K 5% 1/2W
R817	1-260-103-11	CARBON	2.2K 5% 1/2W

< RELAY >

RY701 1-515-920-11 RELAY (24V)

*	A-4371-988-A	PANEL BOARD, COMPLETE	(AEP, UK, G, IT, EE, CIS)
*	A-4371-989-A	PANEL BOARD, COMPLETE	(E, AUS, EA, HK, JE, MX, MY, SP)

< CAPACITOR >

C100	1-162-306-11	CERAMIC	0.01uF 30% 16V
C101	1-162-306-11	CERAMIC	0.01uF 30% 16V
C102	1-126-096-11	ELECT	10nF 20% 35V
C104	1-164-159-11	CERAMIC	0.1uF 50V
C105	1-126-177-11	ELECT	100uF 20% 10V
C107	1-162-306-11	CERAMIC	0.01uF 30% 16V
C109	1-124-234-00	ELECT	22uF 20% 16V

C111	1-126-177-11	ELECT	100uF 20% 10V
C112	1-164-159-11	CERAMIC	0.1uF 50V
C204	1-126-096-11	ELECT	10uF 20% 35V
C205	1-126-153-11	ELECT	4.7uF 20% 50V
C206	1-162-282-31	CERAMIC	100PF 10% 50V
C207	1-162-217-31	CERAMIC	56PF 5% 50V
C208	1-126-153-11	ELECT	4.7uF 20% 50V
C209	1-136-157-00	FILM	0.022uF 5% 50V
C210	1-136-163-00	FILM	0.068uF 5% 50V
C211	1-136-167-00	FILM	0.15uF 5% 50V
C212	1-136-173-00	FILM	0.47uF 5% 50V
C213	1-126-163-11	ELECT	4.7uF 20% 50V
C221	1-164-159-11	CERAMIC	0.1uF 50V (E, AUS, EA, HK, JE, MX, MY, SP)
C223	1-162-282-31	CERAMIC	100PF 10% 50V (E, AUS, EA, HK, JE, MX, MY, SP)
C224	1-162-286-21	CERAMIC	220PF 10% 50V (E, AUS, EA, HK, JE, MX, MY, SP)
C225	1-164-159-11	CERAMIC	0.1uF 50V (E, AUS, EA, HK, JE, MX, MY, SP)
C226	1-164-159-11	CERAMIC	0.1uF 50V (E, AUS, EA, HK, JE, MX, MY, SP)
C227	1-162-282-31	CERAMIC	100PF 10% 50V (E, AUS, EA, HK, JE, MX, MY, SP)
C228	1-162-286-21	CERAMIC	220PF 10% 50V (E, AUS, EA, HK, JE, MX, MY, SP)
C229	1-124-454-11	ELECT	0.22uF 20% 50V (E, AUS, EA, HK, JE, MX, MY, SP)
C230	1-124-229-00	ELECT	33uF 20% 10V (E, AUS, EA, HK, JE, MX, MY, SP)
C231	1-124-229-00	ELECT	33uF 20% 10V (E, AUS, EA, HK, JE, MX, MY, SP)
C232	1-164-159-11	CERAMIC	0.1uF 50V
C233	1-164-159-11	CERAMIC	0.1uF 50V
C255	1-126-183-11	ELECT	4.7uF 20% 50V
C256	1-162-282-31	CERAMIC	100PF 10% 50V
C257	1-162-217-31	CERAMIC	56PF 5% 50V
C258	1-126-153-11	ELECT	4.7uF 20% 50V
C259	1-136-157-00	FILM	0.022uF 5% 50V
C260	1-136-163-00	FILM	0.068uF 5% 50V
C261	1-136-167-00	FILM	0.15uF 5% 50V
C262	1-136-173-00	FILM	0.47uF 5% 50V
C263	1-126-163-11	ELECT	4.7uF 20% 50V

< CONNECTOR >

* CN101	1-568-839-31	SOCKET CONNECTOR 23P
* CN201	1-564-507-11	PLUG CONNECTOR 4P

< DIODE >

D101	8-719-046-44	LED SEL52215 (TUNER)
------	--------------	----------------------

PANEL

Ref. No.	Part No.	Description	Remark
D102	8-719-046-44	LED SEL5221S (CD)	
D103	8-719-046-44	LED SEL5221S (AUX/VIDEO)	
D104	8-719-046-44	LED SEL5221S (MD/DAT)	
D105	8-719-046-44	LED SEL5221S (TAPE 2)	
D106	8-719-046-44	LED SEL5221S (TAPE 1)	
D107	8-719-812-44	LED TLO124 (SOURCE DIRECT)	
D108	8-719-812-44	LED TLO124 (MUTING -20dB)	
D110	8-719-987-63	DIODE 1N4148M	
D111	8-719-987-63	DIODE 1N4148M	
D112	8-719-987-63	DIODE 1N4148M	
D113	8-719-812-44	LED TLO124 (KARAOKE PON) (E, AUS, EA, HK, JE, MX, MY, SP)	
D114	8-719-046-44	LED SEL5221S (ON/STANDBY)	
< IC >			
IC101	8-759-299-88	IC M37471M2-281SP	
IC102	8-749-923-11	IC GP1U58XB	
IC103	8-759-165-80	IC PST600C-T	
IC104	8-759-962-08	IC BA6208	
IC201	8-759-634-51	IC M5218AP	
IC202	8-759-000-48	IC MC14052BCP	
IC221	8-759-634-51	IC M5218AP (E, AUS, EA, HK, JE, MX, MY, SP)	
< JACK >			
J201	1-507-854-00	JACK, PHONE (MIX MIC) (E, AUS, EA, HK, JE, MX, MY, SP)	
J202	1-507-854-11	JACK, PHONE (HEADPHONES)	
< TRANSISTOR >			
Q101-107	8-729-900-36	TRANSISTOR DTC124ES	
Q109-111	8-729-900-36	TRANSISTOR DTC124ES	
Q112	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q113	8-729-900-63	TRANSISTOR DTA124ES	
Q114	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q115	8-729-900-36	TRANSISTOR DTC124ES (E, AUS, EA, HK, JE, MX, MY, SP)	
Q116	8-729-900-63	TRANSISTOR DTA124ES (E, AUS, EA, HK, JE, MX, MY, SP)	
Q117	8-729-900-36	TRANSISTOR DTC124ES	
Q118	8-729-900-63	TRANSISTOR DTA124ES	
Q201	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q202	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q251	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q252	8-729-141-30	TRANSISTOR 2SC3623A-LK	

Ref. No.	Part No.	Description	Remark
< RESISTOR >			
R1	1-249-429-11	CARBON 10K 5% 1/4W (E, AUS, EA, HK, JE, MX, MY, SP)	
R2	1-249-429-11	CARBON 10K 5% 1/4W (AEP, UK, G, IT, EE, CIS)	
R100	1-249-429-11	CARBON 10K 5% 1/4W	
R101	1-249-419-11	CARBON 1.5K 5% 1/4W	
R102	1-247-807-31	CARBON 100 5% 1/4W	
R103	1-249-406-11	CARBON 120 5% 1/4W	
R104	1-249-406-11	CARBON 120 5% 1/4W	
R105	1-247-811-31	CARBON 150 5% 1/4W	
R106	1-249-415-11	CARBON 680 5% 1/4W	
R107	1-249-411-11	CARBON 330 5% 1/4W	
R108	1-249-417-11	CARBON 1K 5% 1/4W	
R109	1-249-416-11	CARBON 820 5% 1/4W (E, AUS, EA, HK, JE, MX, MY, SP)	
R110	1-249-409-11	CARBON 220 5% 1/4W	
R111	1-247-811-31	CARBON 150 5% 1/4W	
R112	1-249-429-11	CARBON 10K 5% 1/4W	
R113	1-249-417-11	CARBON 1K 5% 1/4W	
R114	1-249-429-11	CARBON 10K 5% 1/4W	
R115	1-249-429-11	CARBON 10K 5% 1/4W	
R116	1-249-393-11	CARBON 10 5% 1/4W	
R117	1-249-437-11	CARBON 47K 5% 1/4W	
R119	1-249-409-11	CARBON 220 5% 1/4W	
R120	1-249-409-11	CARBON 220 5% 1/4W	
R121-123	1-247-807-31	CARBON 100 5% 1/4W	
R124	1-247-903-00	CARBON 1M 5% 1/4W	
R125	1-249-441-11	CARBON 100K 5% 1/4W	
R126	1-249-409-11	CARBON 220 5% 1/4W (E, AUS, EA, HK, JE, MX, MY, SP)	
R127	1-247-807-31	CARBON 100 5% 1/4W	
R128	1-249-429-11	CARBON 10K 5% 1/4W	
R129	1-249-417-11	CARBON 1K 5% 1/4W	
R131	1-249-425-11	CARBON 4.7K 5% 1/4W	
R132	1-249-425-11	CARBON 4.7K 5% 1/4W	
R134	1-249-417-11	CARBON 1K 5% 1/4W (E, AUS, EA, HK, JE, MX, MY, SP)	
R135	1-249-441-11	CARBON 100K 5% 1/4W (E, AUS, EA, HK, JE, MX, MY, SP)	
R136	1-249-429-11	CARBON 10K 5% 1/4W	
R139	1-249-429-11	CARBON 10K 5% 1/4W	
R200	1-249-429-11	CARBON 10K 5% 1/4W	
R201	1-249-421-11	CARBON 2.2K 5% 1/4W	
R202	1-249-409-11	CARBON 220 5% 1/4W	
R203	1-249-429-11	CARBON 10K 5% 1/4W	
R204	1-249-417-11	CARBON 1K 5% 1/4W	
R205	1-249-441-11	CARBON 100K 5% 1/4W	

PANEL

POWER AMPLIFIER

Ref.No.	Part No.	Description	Remark		
R206	1-249-417-11	CARBON	1K	5%	1/4W
R207	1-247-903-00	CARBON	1M	5%	1/4W
R208	1-249-417-11	CARBON	1K	5%	1/4W
R209	1-247-844-11	CARBON	3.6K	5%	1/4W
R210	1-249-411-11	CARBON	330	5%	1/4W
R212	1-249-409-11	CARBON	220	5%	1/4W
R213	1-247-903-00	CARBON	1M	5%	1/4W
R214	1-247-903-00	CARBON	1M	5%	1/4W
R215	1-249-423-11	CARBON	3.3K	5%	1/4W
R216	1-249-417-11	CARBON	1K	5%	1/4W
R217	1-249-417-11	CARBON	1K	5%	1/4W
R218	1-249-417-11	CARBON	1K	5%	1/4W
R219	1-247-903-00	CARBON	1M	5%	1/4W
R220	1-247-807-31	CARBON	100	5%	1/4W
R221	1-249-441-11	CARBON	100K	5%	1/4W
		(E, AUS, EA, HK, JE, MX, MY, SP)			
R222	1-249-417-11	CARBON	1K	5%	1/4W
		(E, AUS, EA, HK, JE, MX, MY, SP)			
R223	1-249-431-11	CARBON	15K	5%	1/4W
		(E, AUS, EA, HK, JE, MX, MY, SP)			
R224	1-249-441-11	CARBON	100K	5%	1/4W
		(E, AUS, EA, HK, JE, MX, MY, SP)			
R225	1-249-417-11	CARBON	1K	5%	1/4W
		(E, AUS, EA, HK, JE, MX, MY, SP)			
R226	1-249-434-11	CARBON	27K	5%	1/4W
		(E, AUS, EA, HK, JE, MX, MY, SP)			
R227	1-249-441-11	CARBON	100K	5%	1/4W
		(E, AUS, EA, HK, JE, MX, MY, SP)			
R228	1-249-441-11	CARBON	100K	5%	1/4W
		(E, AUS, EA, HK, JE, MX, MY, SP)			
R229	1-249-417-11	CARBON	1K	5%	1/4W
		(E, AUS, EA, HK, JE, MX, MY, SP)			
R230	1-249-409-11	CARBON	220	5%	1/4W
		(E, AUS, EA, HK, JE, MX, MY, SP)			
R231	1-249-409-11	CARBON	220	5%	1/4W
		(E, AUS, EA, HK, JE, MX, MY, SP)			
R251	1-249-421-11	CARBON	2.2K	5%	1/4W
R252	1-249-409-11	CARBON	220	5%	1/4W
R253	1-249-429-11	CARBON	10K	5%	1/4W
R254	1-249-441-11	CARBON	100K	5%	1/4W
R256	1-249-417-11	CARBON	1K	5%	1/4W
R257	1-247-903-00	CARBON	1M	5%	1/4W
R258	1-249-417-11	CARBON	1K	5%	1/4W
R259	1-247-844-11	CARBON	3.6K	5%	1/4W
R260	1-249-411-11	CARBON	330	5%	1/4W
R262	1-249-409-11	CARBON	220	5%	1/4W
R263	1-247-903-00	CARBON	1M	5%	1/4W
R264	1-247-903-00	CARBON	1M	5%	1/4W
R265	1-249-423-11	CARBON	3.3K	5%	1/4W
R266	1-249-417-11	CARBON	1K	5%	1/4W

Ref.No.	Part No.	Description	Remark		
R267	1-249-417-11	CARBON	1K	5%	1/4W
R268	1-249-417-11	CARBON	1K	5%	1/4W
R269	1-247-903-00	CARBON	1M	5%	1/4W
R270	1-247-807-31	CARBON	100	5%	1/4W
< VARIABLE RESISTOR >					
RV201	1-223-810-11	RES, VAR, CARBON 10K/10K (TREBLE)			
RV202	1-223-810-11	RES, VAR, CARBON 10K/10K (BASS)			
RV204	1-223-811-11	RES, VAR, CARBON 100K/100K (VOLUME)			
RV221	1-223-816-11	RES, VAR, CARBON 50K (MIC VOLUME)			
		(E, AUS, EA, HK, JE, MX, MY, SP)			
< SWITCH >					
S101	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)			
S102	1-554-303-21	SWITCH, TACTILE (TUNER)			
S103	1-554-303-21	SWITCH, TACTILE (CD)			
S104	1-554-303-21	SWITCH, TACTILE (AUX/VIDEO)			
S105	1-554-303-21	SWITCH, TACTILE (MD/DAT)			
S106	1-554-303-21	SWITCH, TACTILE (TAPE 2)			
S107	1-554-303-21	SWITCH, TACTILE (TAPE 1)			
S108	1-554-303-21	SWITCH, TACTILE (MUTING -20dB)			
S109	1-554-303-21	SWITCH, TACTILE (SOURCE DIRECT)			
S110	1-554-303-21	SWITCH, TACTILE (KARAOKE PON)			
		(E, AUS, EA, HK, JE, MX, MY, SP)			
< VIBRATOR >					
X101	1-579-125-11	VIBRATOR, CERAMIC (8MHz)			

*	A-4371-980-A	POWER AMPLIFIER BOARD, COMPLETE			
		(AEP, UK, G, IT, EE, CIS)			
*	A-4371-981-A	POWER AMPLIFIER BOARD, COMPLETE			
		(E, AUS, EA, HK, JE, MX, MY, SP)			

< CAPACITOR >					
C301	1-126-161-11	ELECT	2.2uF	20%	50V
C303	1-162-282-31	CERAMIC	100PF	10%	50V
C304	1-124-910-11	ELECT	47uF	20%	50V
C305	1-124-910-11	ELECT	47uF	20%	50V
C306	1-124-122-11	ELECT	100uF	20%	50V
C307	1-126-233-11	ELECT	22uF	20%	50V
C308	1-126-233-11	ELECT	22uF	20%	50V
C309	1-164-159-11	CERAMIC	0.1uF		50V
C310	1-136-163-00	FILM	0.068uF	5%	50V
C311	1-136-163-00	FILM	0.068uF	5%	50V
C312	1-124-910-11	ELECT	47uF	20%	50V
C331	1-162-306-11	CERAMIC	0.01uF	30%	16V
		(AEP, UK, G, IT, EE, CIS)			

POWER AMPLIFIER

PRIMARY

Ref.No.	Part No.	Description	Remark
C332	1-162-306-11	CERAMIC	0.01uF 30% 16V (AEP, UK, G, IT, EE, CIS)
C351	1-126-161-11	ELECT	2.2uF 20% 50V
C353	1-162-282-31	CERAMIC	100PF 10% 50V
C354	1-124-910-11	ELECT	47uF 20% 50V
C355	1-124-910-11	ELECT	47uF 20% 50V
C356	1-124-122-11	ELECT	100uF 20% 50V
C357	1-126-233-11	ELECT	22uF 20% 50V
C360	1-136-163-00	FILM	0.068uF 5% 50V
C361	1-136-163-00	FILM	0.068uF 5% 50V

< DIODE >

D301	8-719-987-63	DIODE	1N4148M
D351	8-719-987-63	DIODE	1N4148M

< IC >

IC301	8-749-900-24	IC STK-4162MK2	(E, AUS, EA, HK, JE, MX, MY, SP)
IC301	8-749-920-09	IC STK-4152MK2K	(AEP, UK, G, IT, EE, CIS)

< COIL >

L301	1-420-872-00	COIL, AIR-CORE	
L351	1-420-872-00	COIL, AIR-CORE	

< TRANSISTOR >

Q301	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA
Q302	8-729-900-36	TRANSISTOR	DTC124ES
Q303	8-729-620-05	TRANSISTOR	2SC2603-EF
Q351	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA

< RESISTOR >

R301	1-249-417-11	CARBON	1K 5% 1/4W
R302	1-249-438-11	CARBON	56K 5% 1/4W
R303	1-249-415-11	CARBON	680 5% 1/4W
R304	1-249-438-11	CARBON	56K 5% 1/4W
R305	1-249-425-11	CARBON	4.7K 5% 1/4W

R306	1-249-425-11	CARBON	4.7K 5% 1/4W
R307	1-249-425-11	CARBON	4.7K 5% 1/4W
R308	1-249-425-11	CARBON	4.7K 5% 1/4W
△R309	1-212-881-11	FUSIBLE	100 5% 1/4W F
△R310	1-217-151-00	METAL PLATE	0.22 10% 1/2W

R311	1-249-417-11	CARBON	1K 5% 1/4W
R312	1-249-431-11	CARBON	15K 5% 1/4W
R313	1-249-441-11	CARBON	100K 5% 1/4W
R314	1-249-421-11	CARBON	2.2K 5% 1/4W
R315	1-249-421-11	CARBON	2.2K 5% 1/4W

R316	1-249-421-11	CARBON	2.2K 5% 1/4W
R317	1-249-421-11	CARBON	2.2K 5% 1/4W
R318	1-247-791-91	CARBON	22 5% 1/4W
R319	1-247-791-91	CARBON	22 5% 1/4W

Ref.No.	Part No.	Description	Remark
R320	1-247-791-91	CARBON	22 5% 1/4W
R321	1-247-791-91	CARBON	22 5% 1/4W
R322	1-249-429-11	CARBON	10K 5% 1/4W
R323	1-247-881-00	CARBON	120K 5% 1/4W
R324	1-249-437-11	CARBON	47K 5% 1/4W
R325	1-249-417-11	CARBON	1K 5% 1/4W
R326	1-249-439-11	CARBON	68K 5% 1/4W
R327	1-249-437-11	CARBON	47K 5% 1/4W
R328	1-249-426-11	CARBON	5.6K 5% 1/4W
R329	1-247-863-91	CARBON	22K 5% 1/4W

△R330	1-212-849-00	FUSIBLE	4.7 5% 1/4W F
R351	1-249-417-11	CARBON	1K 5% 1/4W
R352	1-249-438-11	CARBON	56K 5% 1/4W
R353	1-249-415-11	CARBON	680 5% 1/4W
R354	1-249-438-11	CARBON	56K 5% 1/4W

R355	1-249-425-11	CARBON	4.7K 5% 1/4W
R356	1-249-425-11	CARBON	4.7K 5% 1/4W
R357	1-249-425-11	CARBON	4.7K 5% 1/4W
R358	1-249-425-11	CARBON	4.7K 5% 1/4W
△R359	1-212-881-11	FUSIBLE	100 5% 1/4W F

△R360	1-217-151-00	METAL PLATE	0.22 10% 1/2W
R361	1-249-417-11	CARBON	1K 5% 1/4W
R362	1-249-431-11	CARBON	15K 5% 1/4W
R363	1-249-441-11	CARBON	100K 5% 1/4W
R368	1-247-791-91	CARBON	22 5% 1/4W

R369	1-247-791-91	CARBON	22 5% 1/4W
R370	1-247-791-91	CARBON	22 5% 1/4W
R371	1-247-791-91	CARBON	22 5% 1/4W

* 1-654-762-11 PRIMARY BOARD

1-533-293-11 FUSE HOLDER

< CONNECTOR >

CN900 1-564-321-00 PIN, CONNECTOR 2P

< FUSE >

△F901	1-532-285-00	FUSE (1.25A/250V)	
△F902	1-532-286-00	FUSE (2.5A/250V)	(E, AUS, EA, HK, JE, MX, MY, SP)

< SWITCH >

△S901 1-572-675-11 SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR) (E, AUS, EA, HK, JE, MX, MY, SP)

The components identified by mark **△** or dotted line with mark **△** are critical for safety. Replace only with part number specified.

SECONDARY SPEAKER

Ref.No.	Part No.	Description	Remark
*	1-654-763-11	SECONDARY BOARD *****	
	1-533-293-11	FUSE HOLDER < CONNECTOR >	
CN901	1-691-768-11	PLUG (MICRO CONNECTOR) 6P	
* CN902	1-564-506-11	PLUG, CONNECTOR 3P < FUSE >	
△F903	1-532-203-00	FUSE (2A/250V)	
△F904	1-532-203-00	FUSE (2A/250V)	

*	1-654-761-11	SPEAKER BOARD *****	
		< CAPACITOR >	
C401	1-136-165-00	FILM 0.1uF 5% 50V (AEP, UK, G, IT, EE, CIS)	
C402	1-136-165-00	FILM 0.1uF 5% 50V (AEP, UK, G, IT, EE, CIS)	
C451	1-136-165-00	FILM 0.1uF 5% 50V (AEP, UK, G, IT, EE, CIS)	
C452	1-136-165-00	FILM 0.1uF 5% 50V (AEP, UK, G, IT, EE, CIS)	
		< CONNECTOR >	
* CN401	1-564-519-11	PLUG, CONNECTOR 4P < RESISTOR >	
R401	1-249-393-11	CARBON 10 5% 1/4W (AEP, UK, G, IT, EE, CIS)	
R402	1-249-393-11	CARBON 10 5% 1/4W (AEP, UK, G, IT, EE, CIS)	
R451	1-249-393-11	CARBON 10 5% 1/4W (AEP, UK, G, IT, EE, CIS)	
R452	1-249-393-11	CARBON 10 5% 1/4W (AEP, UK, G, IT, EE, CIS)	
		< TERMINAL >	
TB401	1-537-822-11	TERMINAL BOARD (SP) (SPEAKER)	

		MISCELLANEOUS *****	
* 9	1-769-784-11	WIRE (FLAT TYPE) (23 CORE)	
△63	1-574-902-11	CORD, POWER (E, JE, MX)	
△63	1-575-651-11	CORD, POWER (AEP, G, IT, EA, EE, HK, MY, SP, CIS)	
△63	1-690-608-11	CORD, POWER (AUS)	

Ref.No.	Part No.	Description	Remark
△63	1-696-570-21	CORD, POWER (UK)	
△64	1-569-007-11	ADAPTER, CONVERSION 2P (E, JE)	
△64	1-569-008-11	ADAPTER, CONVERSION 2P (EA, HK, MY, SP)	
△64	1-770-019-11	ADAPTOR, CONVERSION (HK)	
△T901	1-427-700-11	TRANSFORMER, POWER (E, AUS, EA, HK, JE, MX, MY, SP)	
△T901	1-427-701-11	TRANSFORMER, POWER (AEP, UK, G, IT, EE, CIS)	

***** HARDWARE LIST *****

- #1 7-685-646-79 SCREW +BVTP 3×8 TYPE2 N-S
- #2 7-685-871-01 SCREW +BVTT 3×6 (S)
- #3 7-685-650-79 SCREW +BVTP 3×16 TYPE2 IT-3

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.