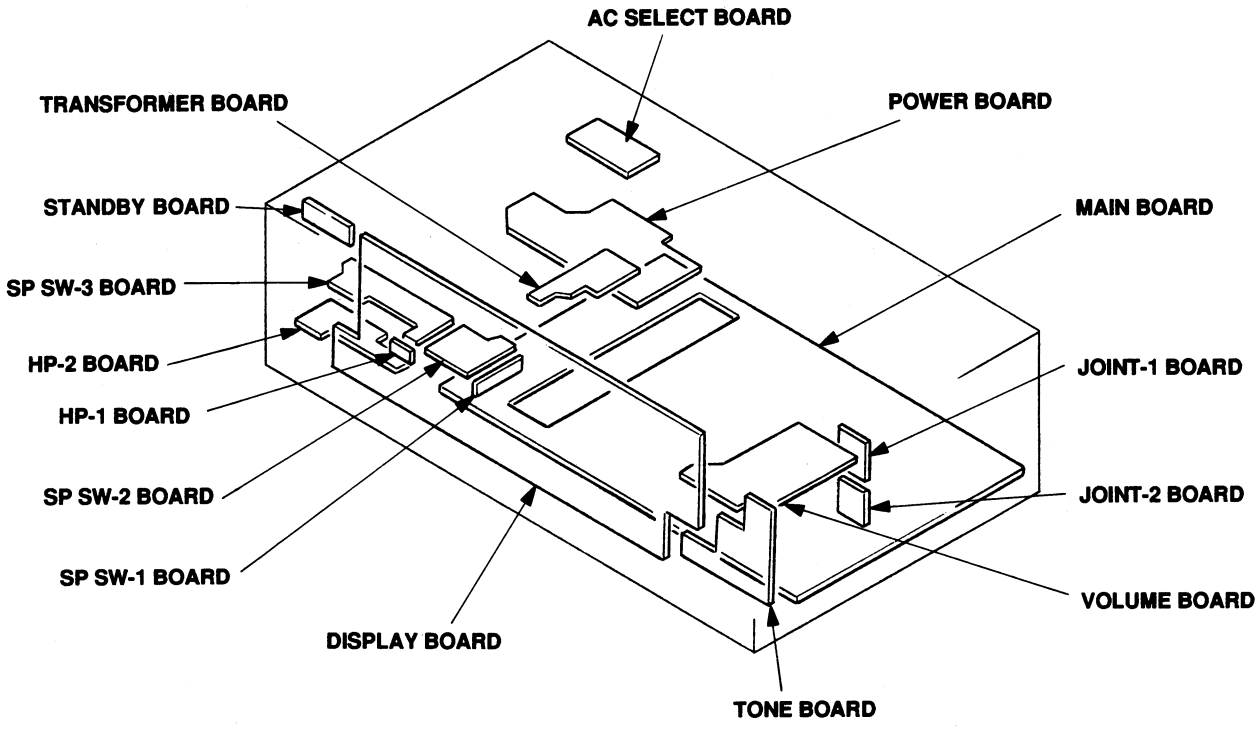
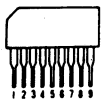
SECTION 2
DIAGRAMS

2-1. CIRCUIT BOARDS LOCATION

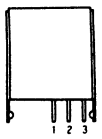


2-2. SEMICONDUCTOR LEAD LAYOUTS

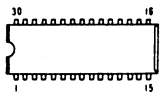
BA6208
uPC4570HA-1



GP1U58XB

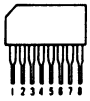


LC7822

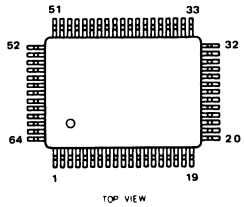


(Top view)

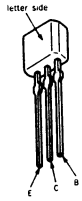
M5218AL



uPD75206GF-731-3BE

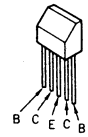


DTA124ES
DTC114TS
2SA1175-HFE
2SC2785-HFE
2SC3623A-LK

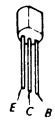


DTC124ES

2SA979-FG

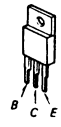


2SA988-PAFAEA

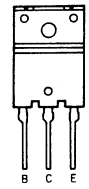


2SA1221-T-KLM
2SC2958

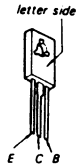
2SB1375-LC
2SD2012



2SB1588-OPY
2SD2439-OPY

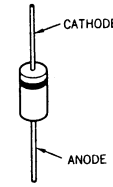


2SD809-K

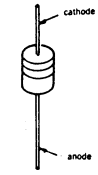


2SK246-GR3

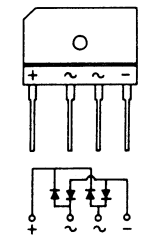
HZS4ALL
UZ-12BSB
UZ-13BSB
UZL-24L
UZ-6.2BSC
1N4148M
1S1585



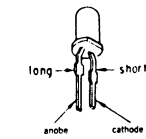
HZS6C3L
UZ-4.3BSB
11ES2



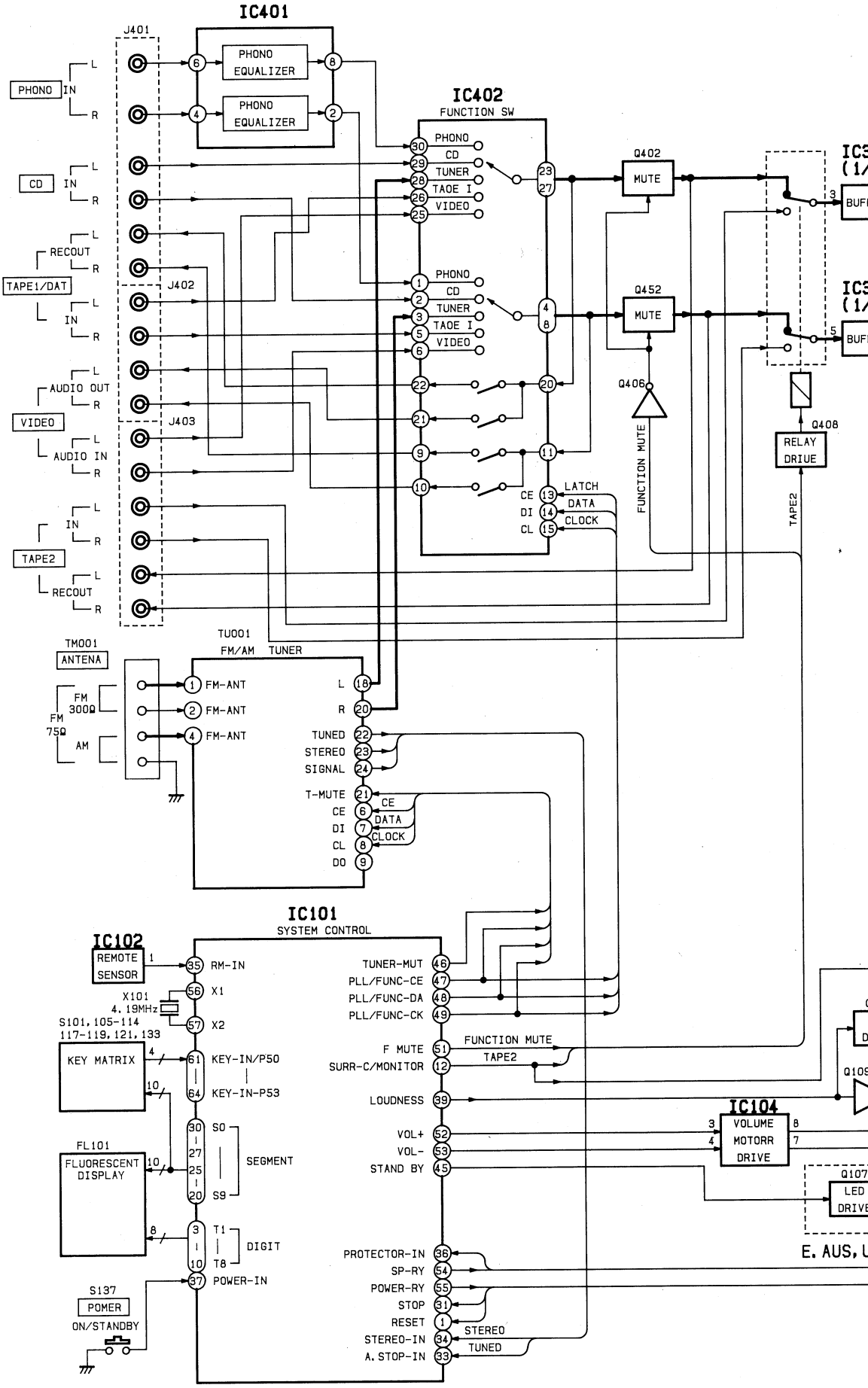
RBV-602-01

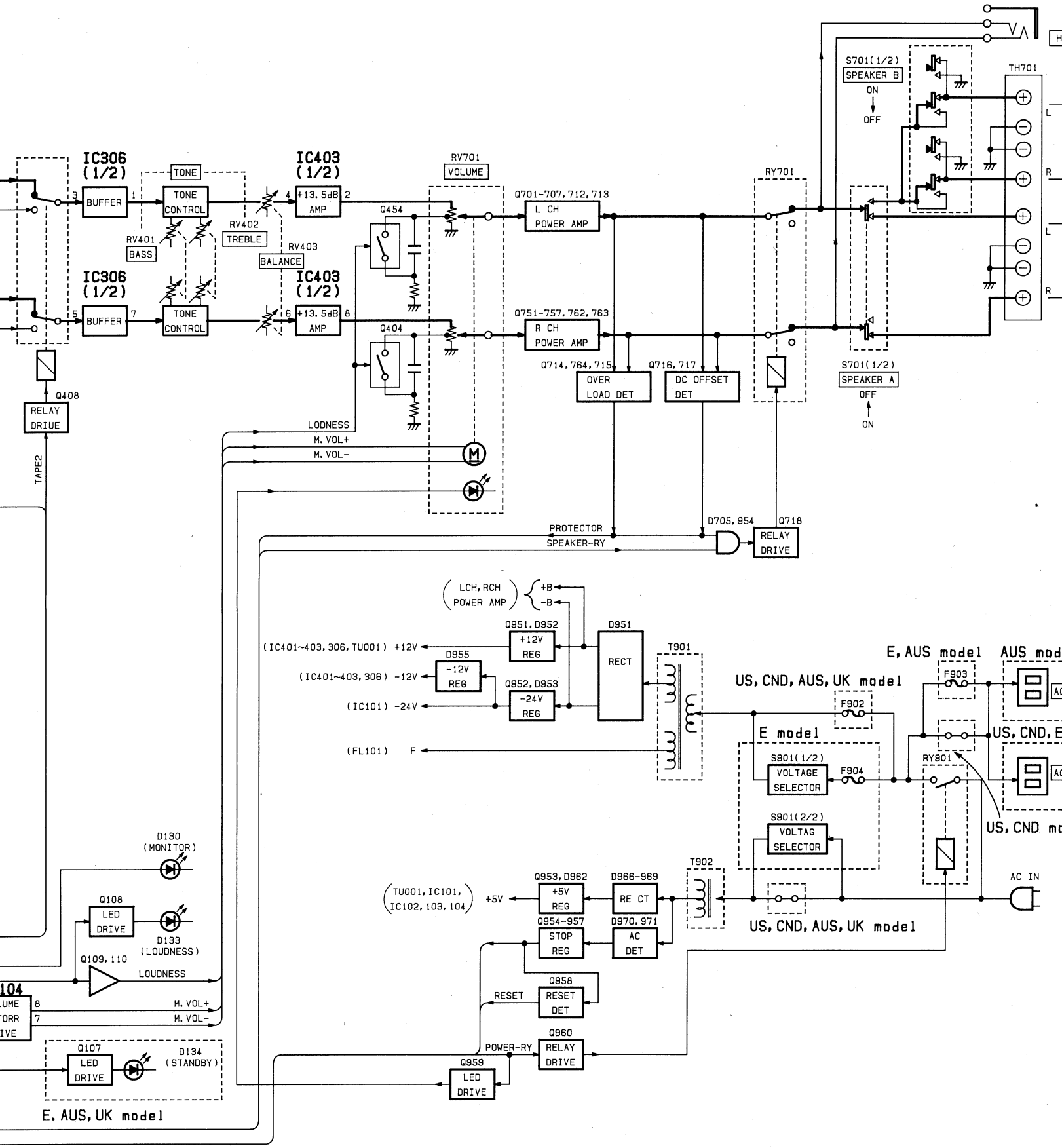


SEL3210S-CD
SEL3810A-CD



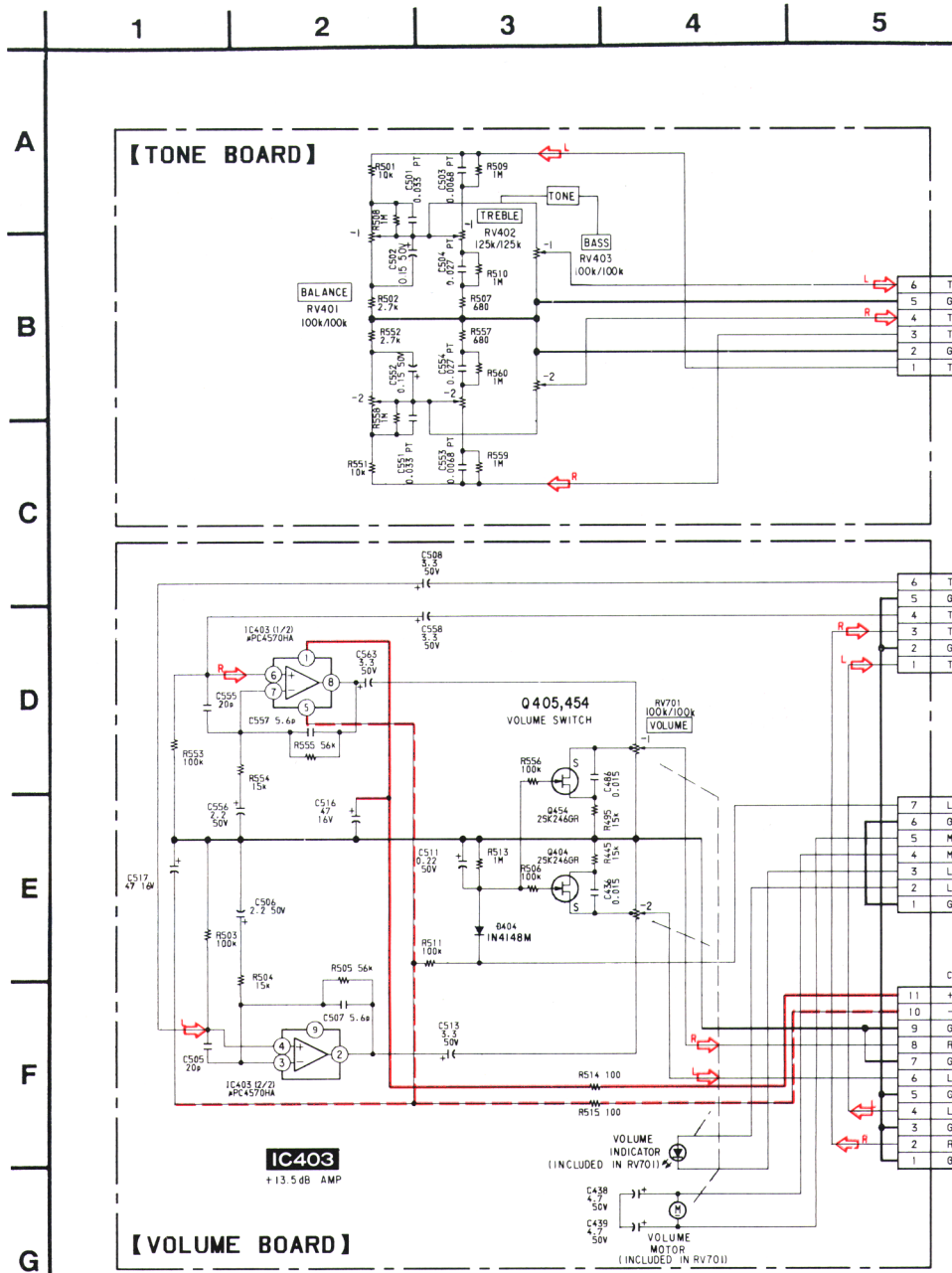
2-3. BLOCK DIAGRAM




IC306 (1/2)
BUFFER
TONE
TONE CONTROL
RV401 BASS
RV402 TREBLE
RV403 BALANCE
IC403 (1/2)
+13.5dB AMP
Q454
Q404
RV701 VOLUME
Q701-707, 712, 713
L CH POWER AMP
Q751-757, 762, 763
R CH POWER AMP
RY701
S701(1/2) SPEAKER B
ON
OFF
TH701
Q714, 764, 715
OVER LOAD DET
Q716, 717
DC OFFSET DET
S701(1/2) SPEAKER A
Q408
RELAY DRIVE
TAPE2
LODNESS
M. VOL+
M. VOL-
PROTECTOR
SPEAKER-RY
D705, 954
Q718
RELAY DRIVE
(LCH, RCH POWER AMP)
+B
-B
Q951, D952
+12V REG
D955
-12V REG
Q952, D953
-24V REG
D951
RECT
T901
(IC401~403, 306, TU001) +12V
(IC401~403, 306) -12V
(IC101) -24V
(FL101) F
E, AUS model
US, CND, AUS, UK model
E model
F903
F902
F904
S901(1/2) VOLTAGE SELECTOR
S901(2/2) VOLTAG SELECTOR
RY901
US, CND, E
US, CND mo
AC IN
T902
(TU001, IC101, IC102, 103, 104) +5V
Q953, D962
+5V REG
D966-969
RE CT
Q954-957
STOP REG
D970, 971
AC DET
Q958
RESET DET
RESET
Q960
RELAY DRIVE
POWER-RY
Q959
LED DRIVE
US, CND, AUS, UK model
D130 (MONITOR)
Q108
LED DRIVE
D133 (LOUDNESS)
Q109, 110
LOUDNESS
M. VOL+
M. VOL-
Q107
LED DRIVE
D134 (STANDBY)
E. AUS, UK model

2-5. SCHEMATIC DIAGRAM — MAIN SECTION —

• See page 23 for IC Block Diagrams.



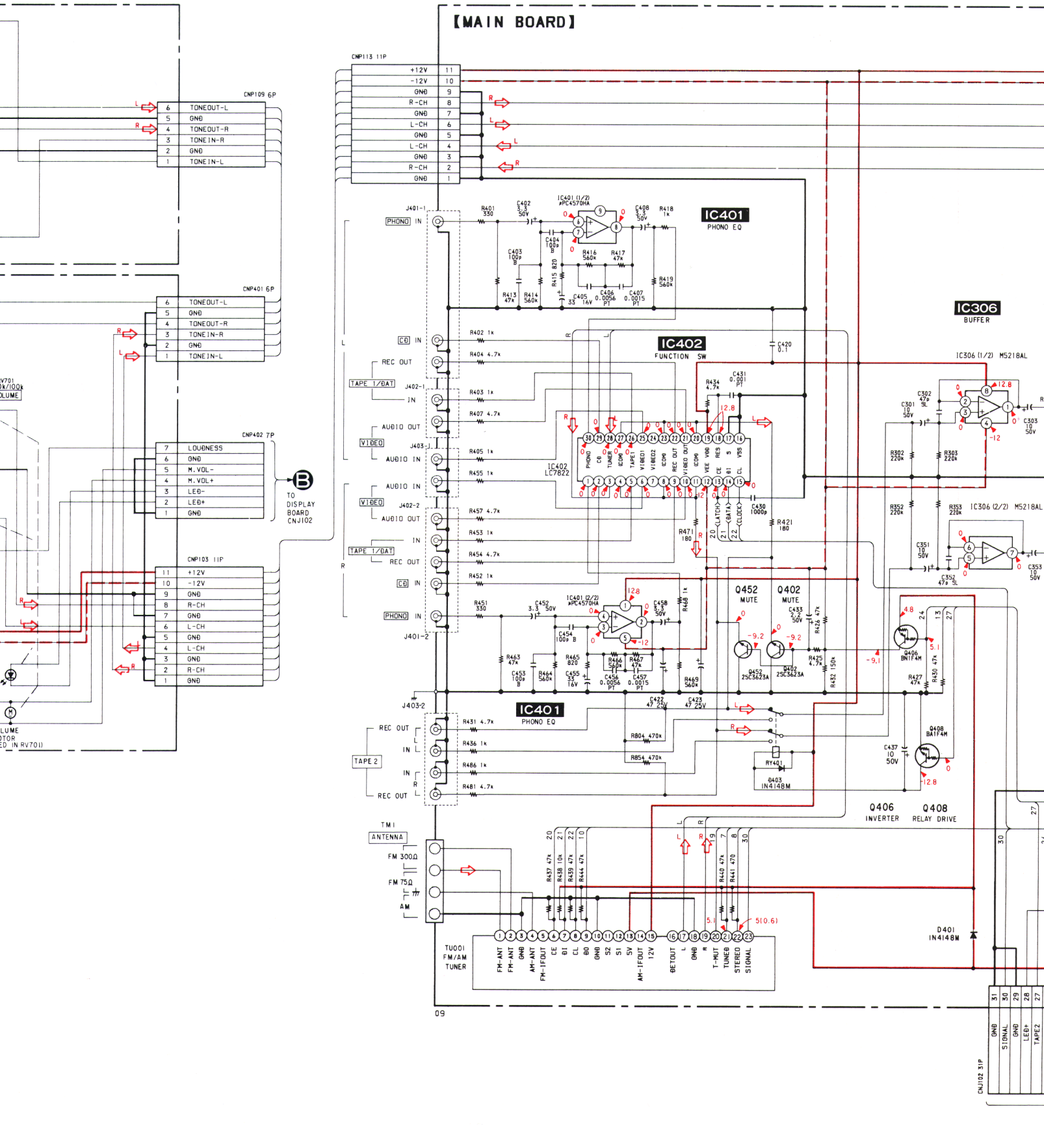
Note:

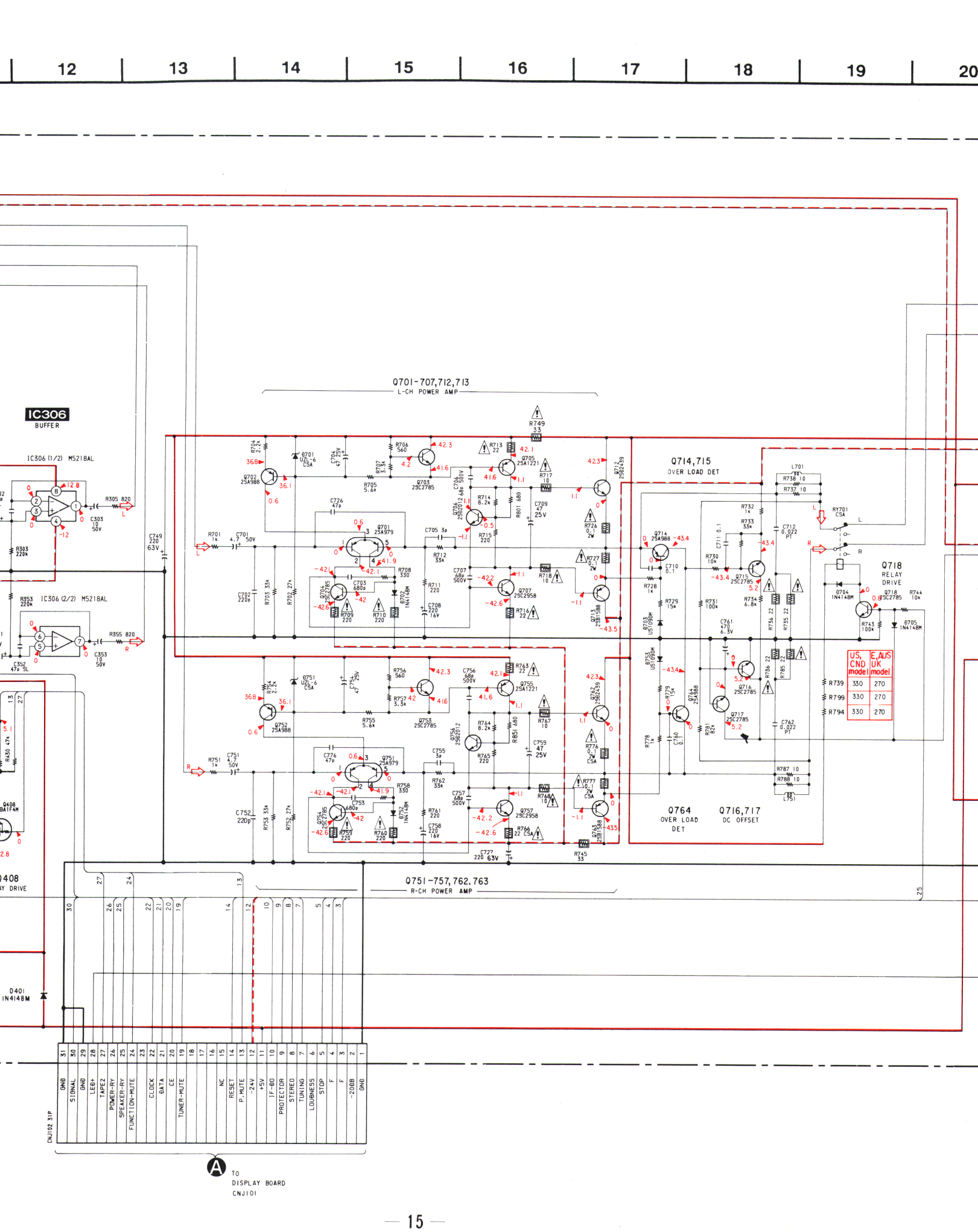
- All capacitors are in µF unless otherwise noted. pF:µµF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- % : indicates tolerance.
- ⧈ : nonflammable resistor.

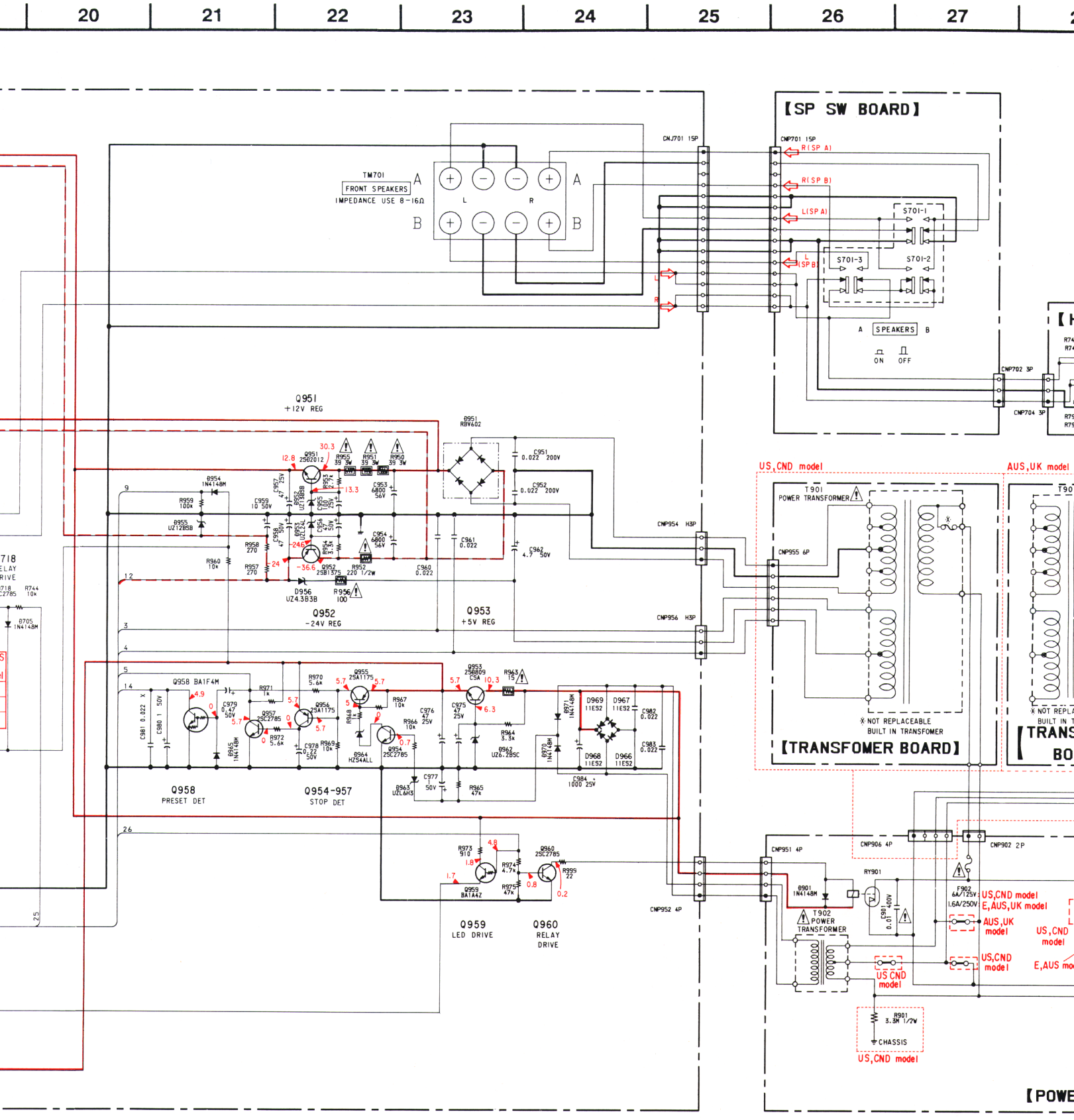
Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

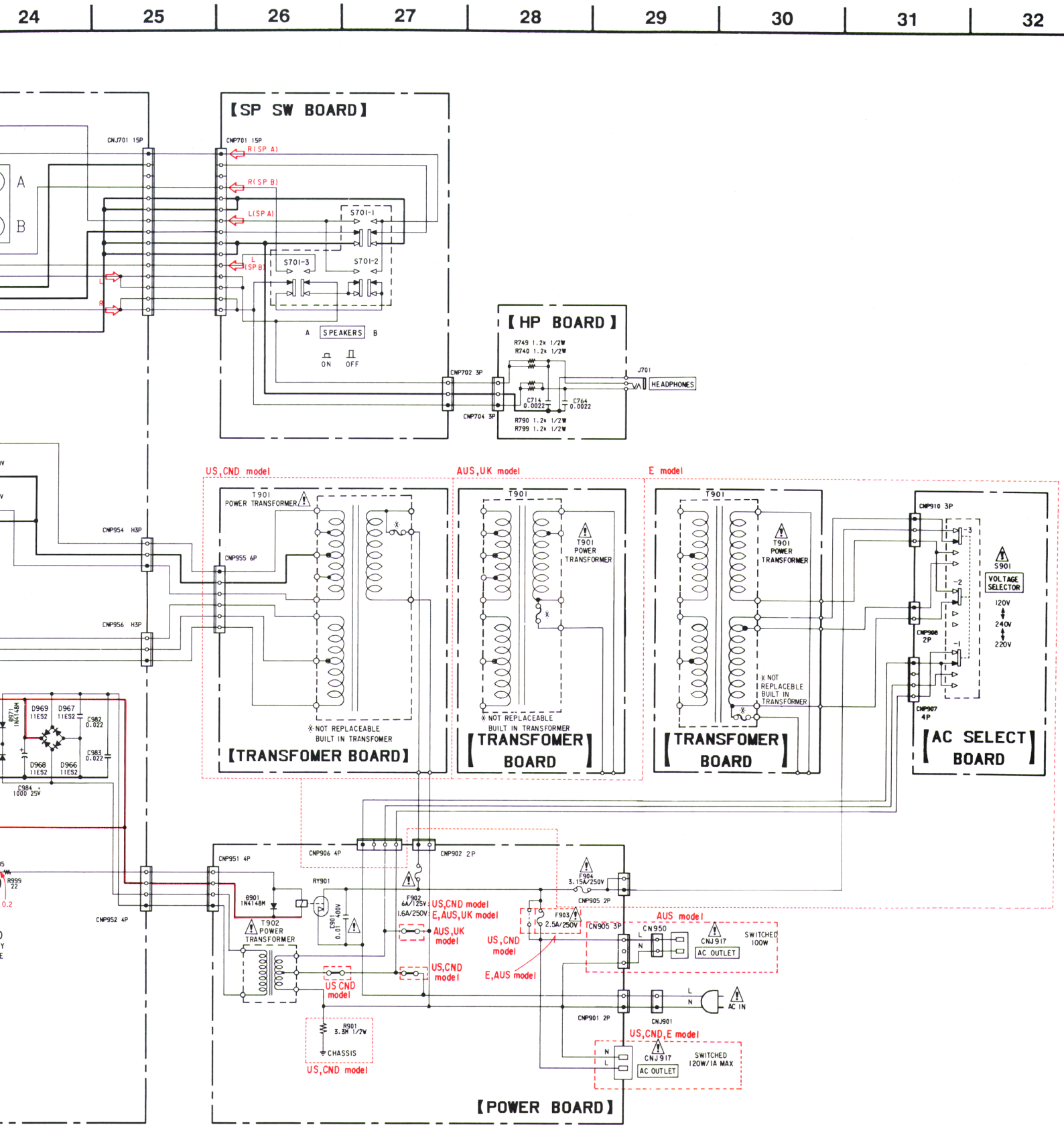
- ▬▬ : B+ Line
- ▬ ▬ ▬ : B– Line
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

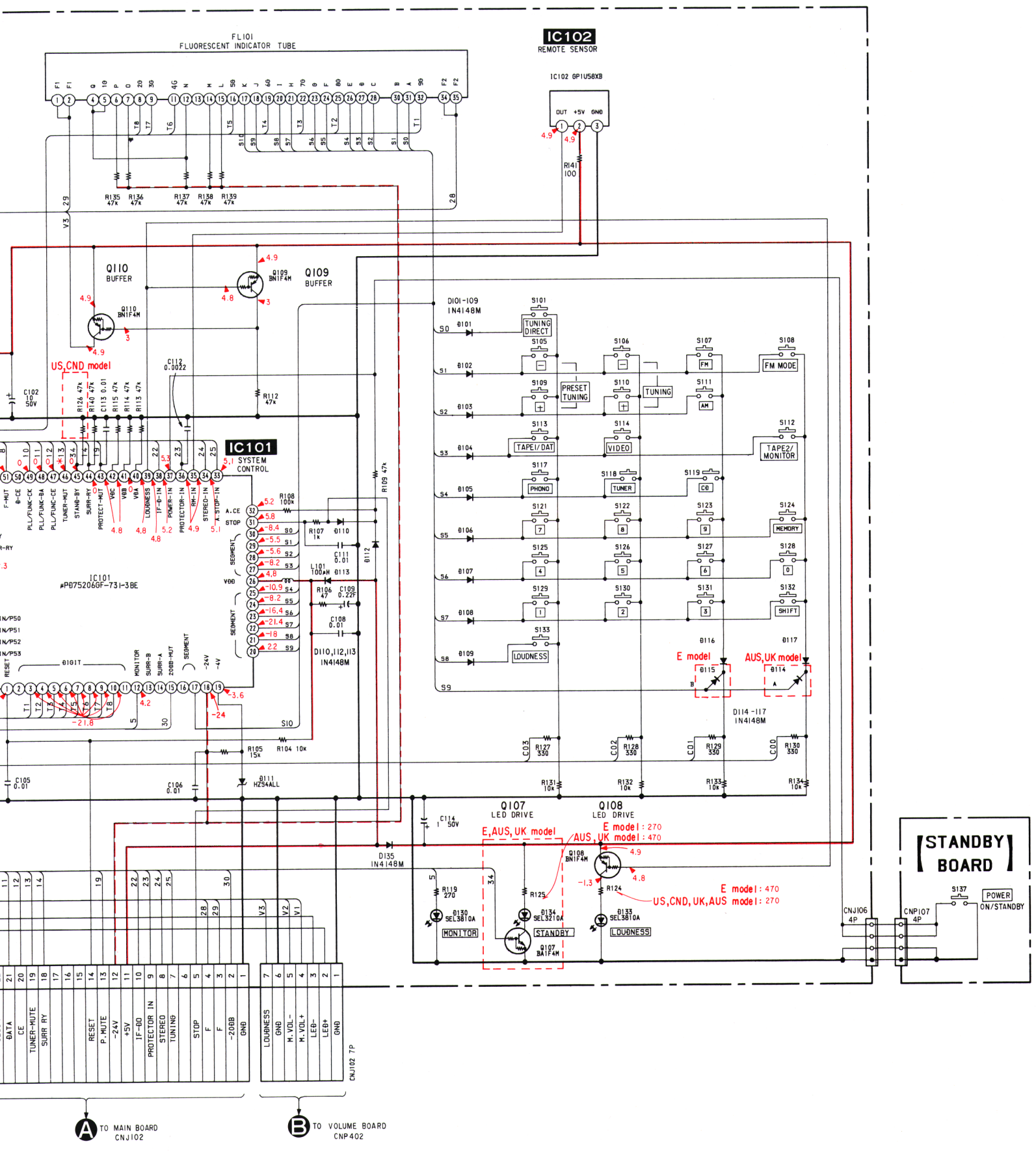
- AUS : Australian model
- CND : Canadian model


【MAIN BOARD】
CNP113 11P
+12V 11
-12V 10
GND 9
R-CH 8
GND 7
L-CH 6
GND 5
L-CH 4
GND 3
R-CH 2
GND 1
CNP109 6P
6 TONEOUT-L
5 GND
4 TONEOUT-R
3 TONEIN-R
2 GND
1 TONEIN-L
CNP401 6P
6 TONEOUT-L
5 GND
4 TONEOUT-R
3 TONEIN-R
2 GND
1 TONEIN-L
CNP402 7P
7 LOUDNESS
6 GND
5 M.VOL-
4 M.VOL+
3 LED-
2 LED+
1 GND
TO DISPLAY BOARD CNJ102
CNP103 11P
11 +12V
10 -12V
9 GND
8 R-CH
7 GND
6 L-CH
5 GND
4 L-CH
3 GND
2 R-CH
1 GND
IC401
PHONO EQ
IC402
FUNCTION SW
IC306
BUFFER
IC306 (1/2) M5218AL
IC306 (2/2) M5218AL
Q452 MUTE
Q402 MUTE
Q406 INVERTER
Q408 RELAY DRIVE
PHONO IN
CD IN
REC OUT
TAPE 1/DAT
AUDIO OUT
AUDIO IN
VIDEO
TAPE 2
TM1
ANTENNA
FM 300Ω
FM 75Ω
AM
TU001 FM/AM TUNER
D401 IN4148M
D403 IN4148M
RY401
CNJ102 31P


12
13
14
15
16
17
18
19
20
IC306
BUFFER
IC306 (1/2) M5218AL
IC306 (2/2) M5218AL
Q701-707,712,713
L-CH POWER AMP
Q714,715
OVER LOAD DET
Q718
RELAY DRIVE
Q764
OVER LOAD DET
Q716,717
DC OFFSET
Q751-757,762,763
R-CH POWER AMP
US, CND model
E,AUS UK model
R739 330 270
R799 330 270
R794 330 270
CNJ102 31P
GNB
SIGNAL
GND
LED+
TAPE2
POWER-RY
SPEAKER-RY
FUNCTION-MUTE
CLOCK
DATA
CE
TUNER-MUTE
NC
RESET
P-MUTE
-24V
+5V
IF-BO
PROTECTOR
STEREO
TUNING
LOUDNESS
STOP
F
F
-20DB
GND
A
TO
DISPLAY BOARD
CNJ101


20
21
22
23
24
25
26
27
【SP SW BOARD】
CNJ701 15P
CNP701 15P
R(SP A)
R(SP B)
L(SP A)
L(SP B)
S701-1
S701-3
S701-2
A SPEAKERS B
ON OFF
CNP702 3P
CNP704 3P
TM701
FRONT SPEAKERS
IMPEDANCE USE 8-16Ω
Q951
+12V REG
Q952
-24V REG
Q953
+5V REG
Q958 BA1F4M
Q958
PRESET DET
Q954-957
STOP DET
Q959
LED DRIVE
Q960
RELAY
DRIVE
CNP954 H3P
CNP956 H3P
CNP952 4P
US,CND model
AUS,UK model
T901
POWER TRANSFORMER
CNP955 6P
※NOT REPLACEABLE
BUILT IN TRANSFOMER
【TRANSFOMER BOARD】
CNP951 4P
CNP906 4P
CNP902 2P
RY901
T902
POWER TRANSFORMER
F902
6A/125V
1.6A/250V
US,CND model
E,AUS,UK model
AUS,UK model
US,CND model
R901
3.3M 1/2W
CHASSIS
【POWE

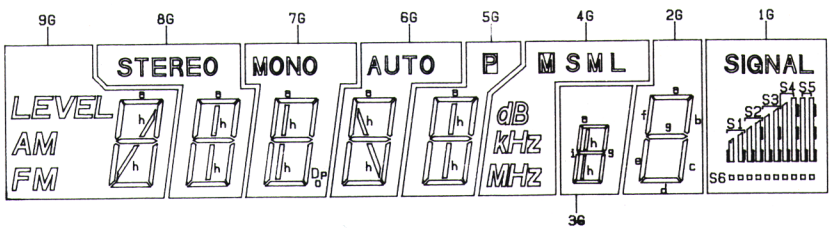

24
25
26
27
28
29
30
31
32
【SP SW BOARD】
CNJ701 15P
CNP701 15P
R(SP A)
R(SP B)
L(SP A)
L(SP B)
S701-1
S701-2
S701-3
SPEAKERS
ON
OFF
【HP BOARD】
R749 1.2k 1/2W
R740 1.2k 1/2W
R790 1.2k 1/2W
R799 1.2k 1/2W
C714 0.0022
C764 0.0022
CNP702 3P
CNP704 3P
J701
HEADPHONES
US,CND model
AUS,UK model
E model
T901
POWER TRANSFORMER
CNP954 H3P
CNP956 H3P
CNP955 6P
※NOT REPLACEABLE
BUILT IN TRANSFOMER
【TRANSFOMER BOARD】
【TRANSFOMER BOARD】
【TRANSFOMER BOARD】
CNP910 3P
S901
VOLTAGE SELECTOR
120V
240V
220V
CNP908 2P
CNP907 4P
【AC SELECT BOARD】
D969 11ES2
D967 11ES2
D968 11ES2
D966 11ES2
C982 0.022
C983 0.022
C984 1000 25V
CNP951 4P
CNP952 4P
CNP906 4P
CNP902 2P
B901 1N4148M
RY901
T902
POWER TRANSFORMER
F902 6A/125V
1.6A/250V
F904 3.15A/250V
F903 2.5A/250V
CNP905 2P
CN905 3P
CN950
CNJ917
AC OUTLET
SWITCHED 100W
AUS model
US,CND model
E,AUS,UK model
AUS,UK model
E,AUS model
R901 3.3M 1/2W
CHASSIS
CNP901 2P
CNJ901
AC IN
US,CND,E model
SWITCHED 120W/1A MAX
【POWER BOARD】


8
9
10
11
12
13
14
15
FL101
FLUORESCENT INDICATOR TUBE
IC102
REMOTE SENSOR
IC102 GP1U58XB
OUT +5V GND
R141 100
R135 47k
R136 47k
R137 47k
R138 47k
R139 47k
Q110
BUFFER
Q110 BN1F4M
Q109
BUFFER
Q109 BN1F4M
US,CND model
C112 0.0022
C102 50V
R126 47k
R140 47k
C113 0.01
R115 47k
R114 47k
R113 47k
R112 47k
IC101
SYSTEM CONTROL
IC101 #P07520GF-731-3BE
R108 100k
R107 1k
D110
C111 0.01
L101 100uH
D113
R106 47
C109 0.22
C108 0.01
D110,112,113 IN4148M
R109 47k
D112
R105 15k
R104 10k
C105 0.01
C106 0.01
D111 HZ9A4LL
D101-109 IN4148M
S101 TUNING DIRECT
S105
S106
S107 FM
S108 FM MODE
S109 PRESET TUNING
S110 TUNING
S111 AM
S112
S113 TAPE1/DAT
S114 VIDEO
TAPE2/ MONITOR
S117 PHONO
S118 TUNER
S119 CD
S121 7
S122 8
S123 9
S124 MEMORY
S125 4
S126 5
S127 6
S128 0
S129 1
S130 2
S131 3
S132 SHIFT
S133 LOUDNESS
E model
AUS,UK model
D114-117 IN4148M
R127 330
R128 330
R129 330
R130 330
R131 10k
R132 10k
R133 10k
R134 10k
Q107 LED DRIVE
Q108 LED DRIVE
E,AUS,UK model
E model : 270
AUS,UK model : 470
E model : 470
US,CND,UK,AUS model : 270
C114 1 50V
D135 IN4148M
Q108 BN1F4M
Q107 BA1F4M
R119 270
R125
R124
D130 SEL3810A
D134 SEL3210A
D133 SEL3810A
MONITOR
STANDBY
LOUDNESS
[STANDBY BOARD]
S137
POWER ON/STANDBY
CNJ106 4P
CNP107 4P
DATA
CE
TUNER-MUTE
SURR RY
RESET
P.MUTE
-24V
+5V
IF-BO
PROTECTOR IN
STEREO
TUNING
STOP
F
F
-20DB
GND
LOUDNESS
GND
M.VOL-
M.VOL+
LED-
LED+
GND
CNJ102 7P
A TO MAIN BOARD CNJ102
B TO VOLUME BOARD CNP402

2-7. SCHEMATIC DIAGRAM — DISPLAY SECTION —

• See page 23 for IC Block Diagrams.

FL101 FLUORESCENT INDICATOR TUBE



	9G	8G	7G	6G	5G	4G	3G	2G	1G
A	a	a	a	a	a	—	a	a	—
B	b	b	b	b	b	—	b	b	—
C	c	c	c	c	c	—	c	c	—
D	d	d	d	d	d	—	d	d	—
E	e	e	e	e	e	L	e	e	—
F	f	f	f	f	f	M	f	f	—
G	g	g	g	g	g	s	g	g	—
H	h	h	h	h	h	M	h	—	—
I	AM	—	—	—	—	kHz	i	—	—
J	FM	—	Dp	—	—	MHz	—	—	—
K	LEVEL	STEREO	MONO	AUTO	P	dB	—	—	—
L	—	—	—	—	—	—	—	—	S1
M	—	—	—	—	—	—	—	—	S2
N	—	—	—	—	—	—	—	—	S3
O	—	—	—	—	—	—	—	—	S4
P	—	—	—	—	—	—	—	—	S5
Q	—	—	—	—	—	—	—	—	SIGNAL S6