AKAI

MODEL MX-550
(TP-550, AX-550, CD-650)

MODEL MX-650
(TP-650, AX-650, CD-650)

SCHEMATIC DIAGRAMS AND PC BOARDS

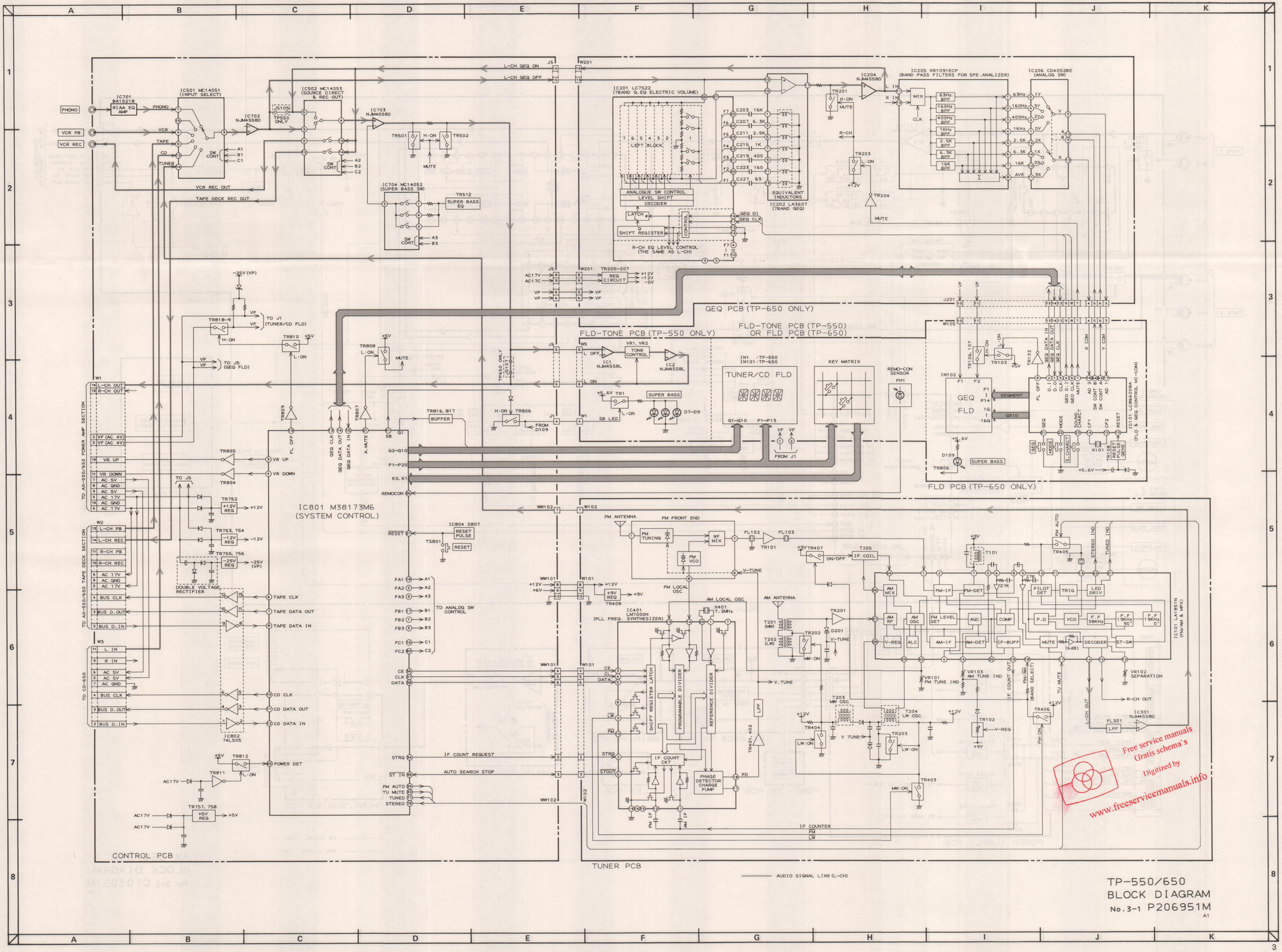
TABLE OF CONTENTS

I. BLOCK DIAGRAMS
1. TP-550, 650 3
2. AX-550, 650 4
3. CD-650 5

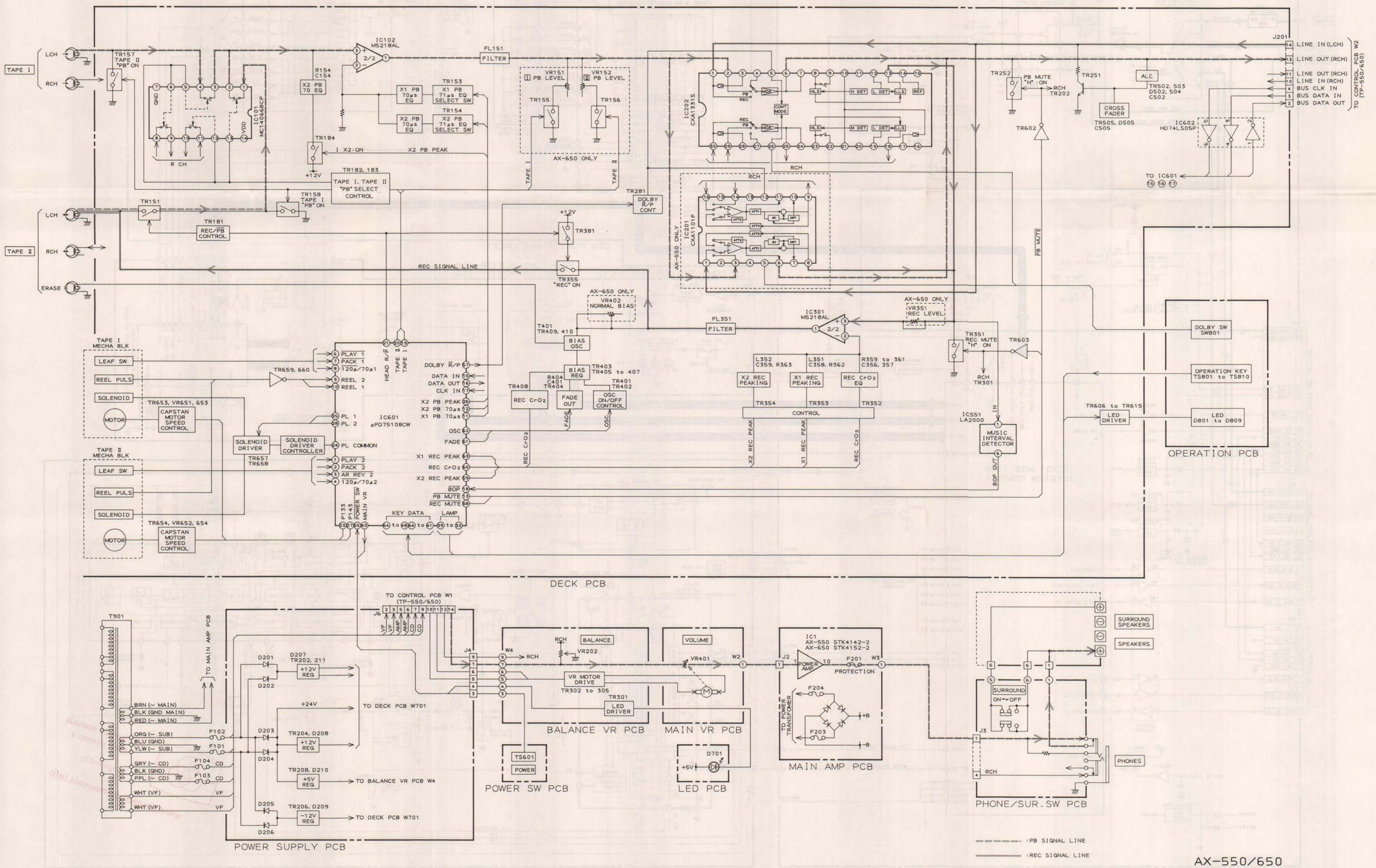
II. SCHEMATIC DIAGRAMS AND PC BOARDS
1. TP-550, 650 CONTROL 8
2. TP-550, 650 TUNER 10
3. TP-550 FLD-TONE 13
4. TP-650 FLD & GEQ 14
5. AX-550, 650 CONNECTION DIAGRAM 16
6. AX-550 DECK & OPERATION 17
7. AX-650 DECK & OPERATION 18
8. AX-550, 650 MAIN 20
9. CD-650 MAIN & FRONT 22

III. INFORMATION OF ICs 24

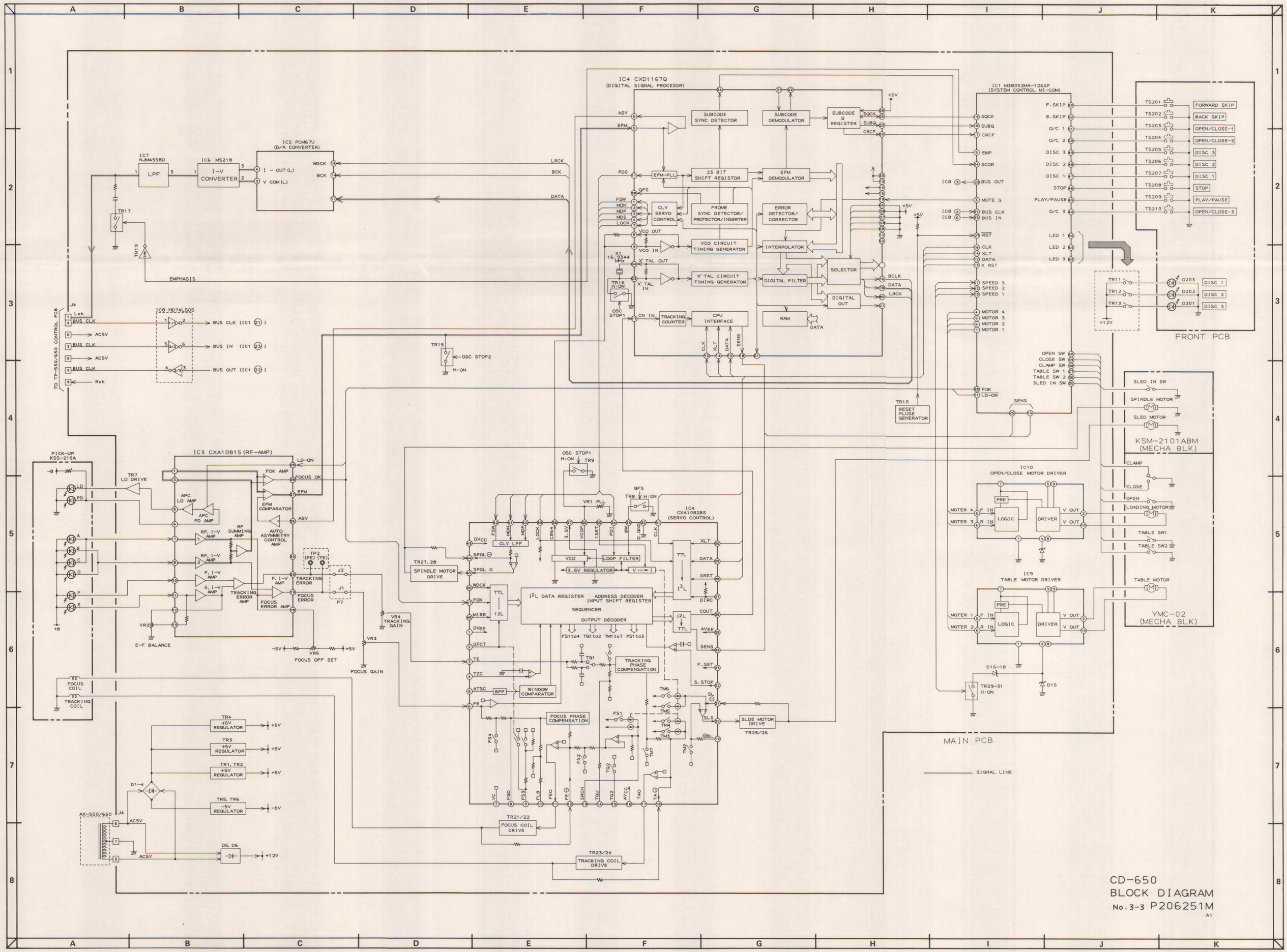
Use these schematic diagrams and PC boards together with the provided service manual.



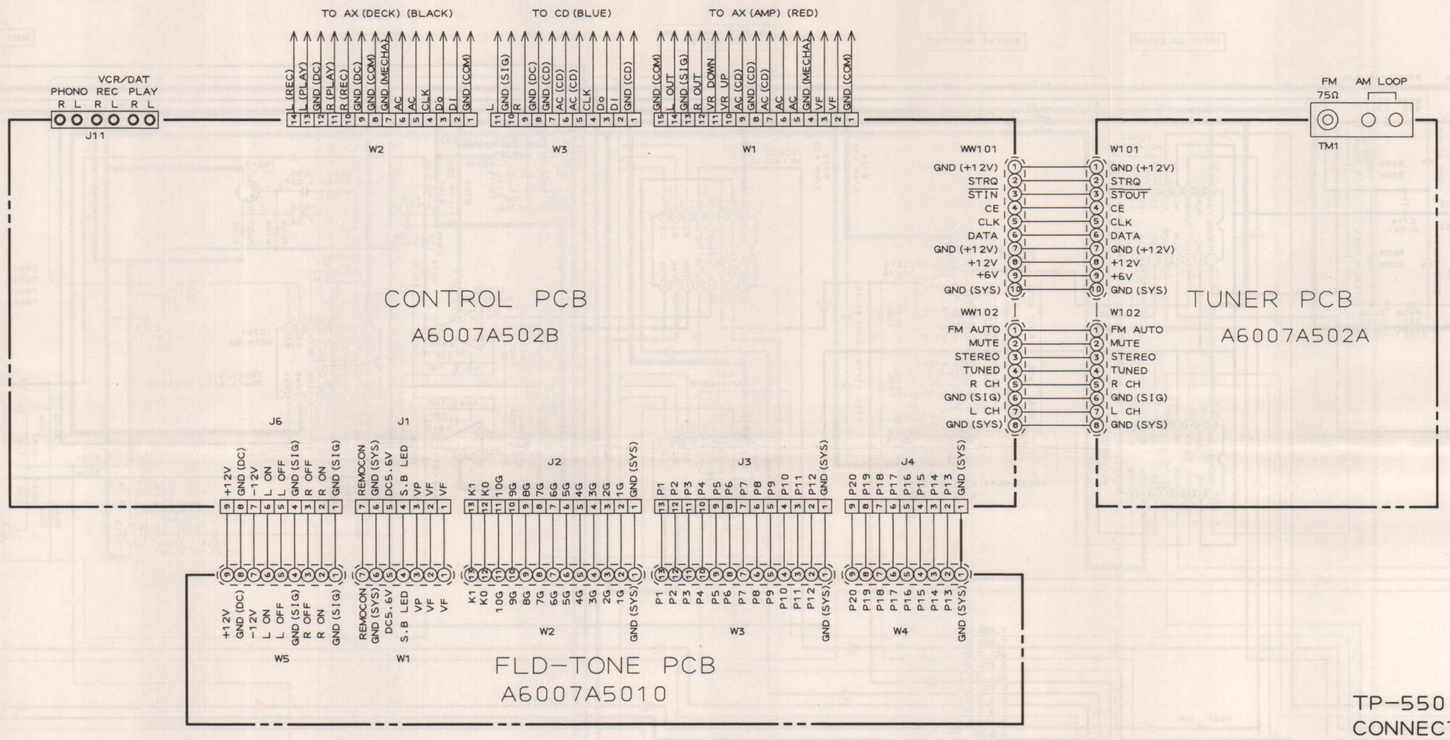
TP-550/650
BLOCK DIAGRAM
No.3-1 P206951M
A1



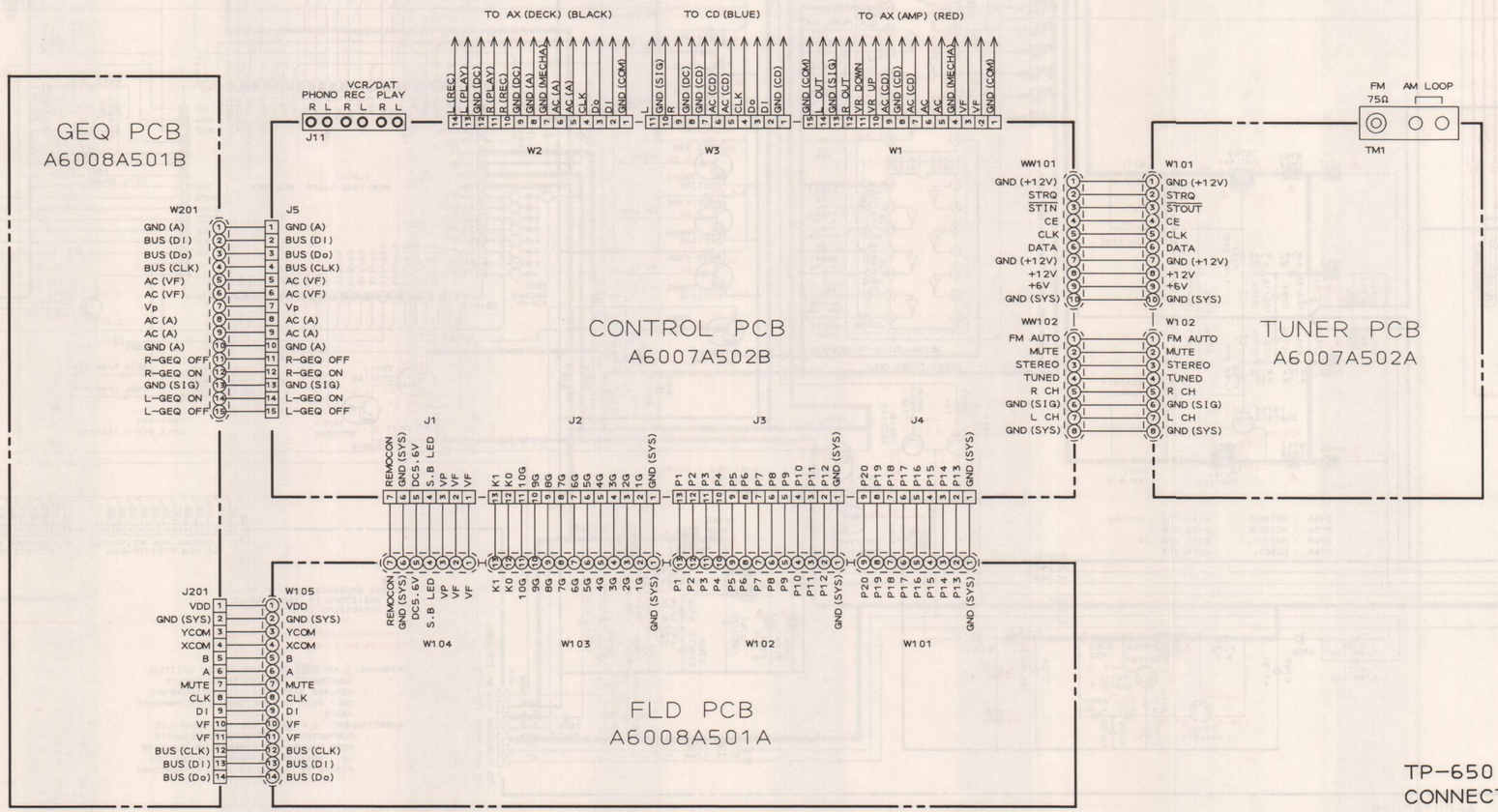
AX-550/650
BLOCK DIAGRAM
No.3-2 C103051M
A1



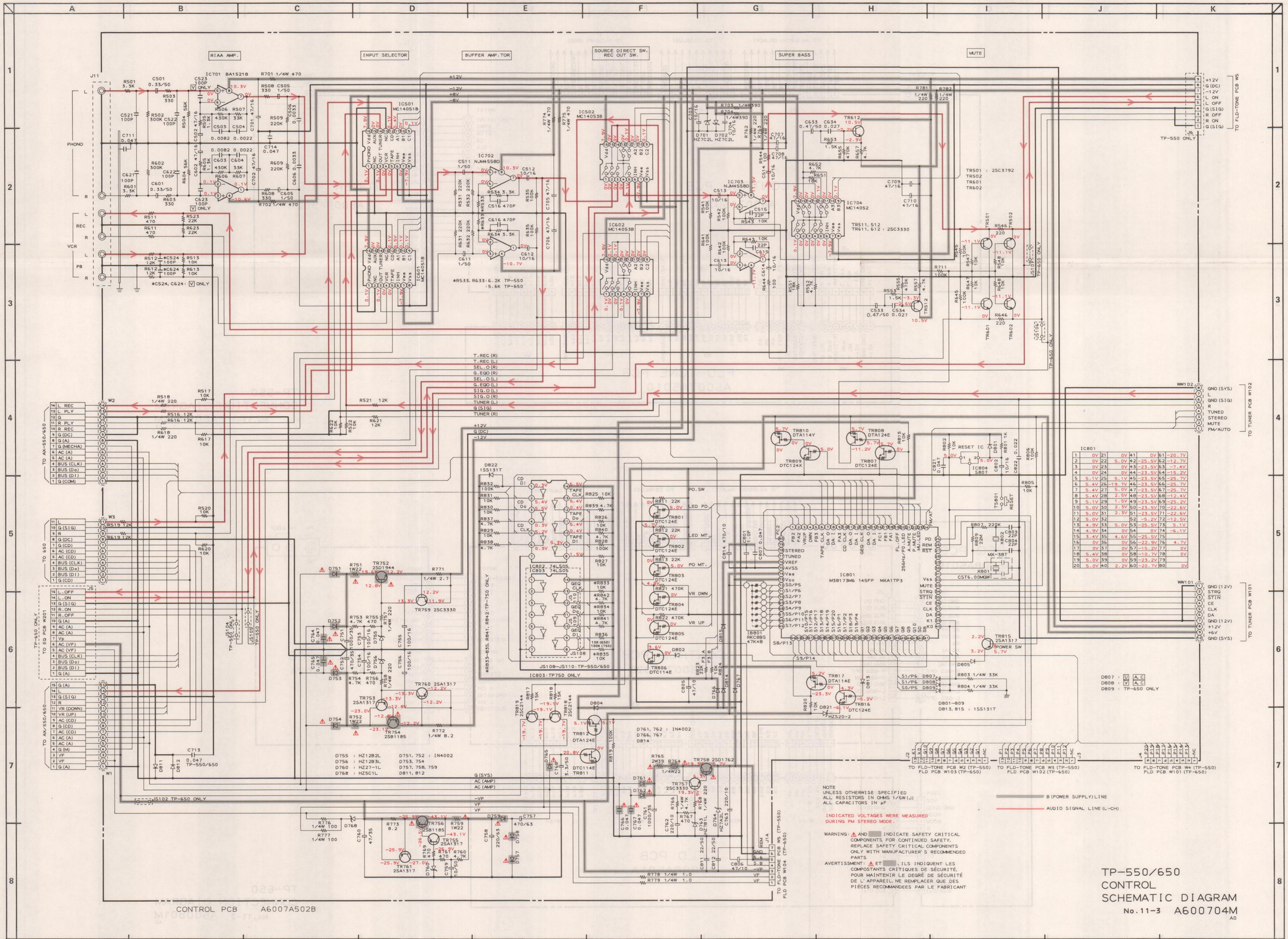
CD-650
BLOCK DIAGRAM
No.3-3 P206251M
A1



TP-550
CONNECTION DIAGRAM
No.11-1 A600701M
A2

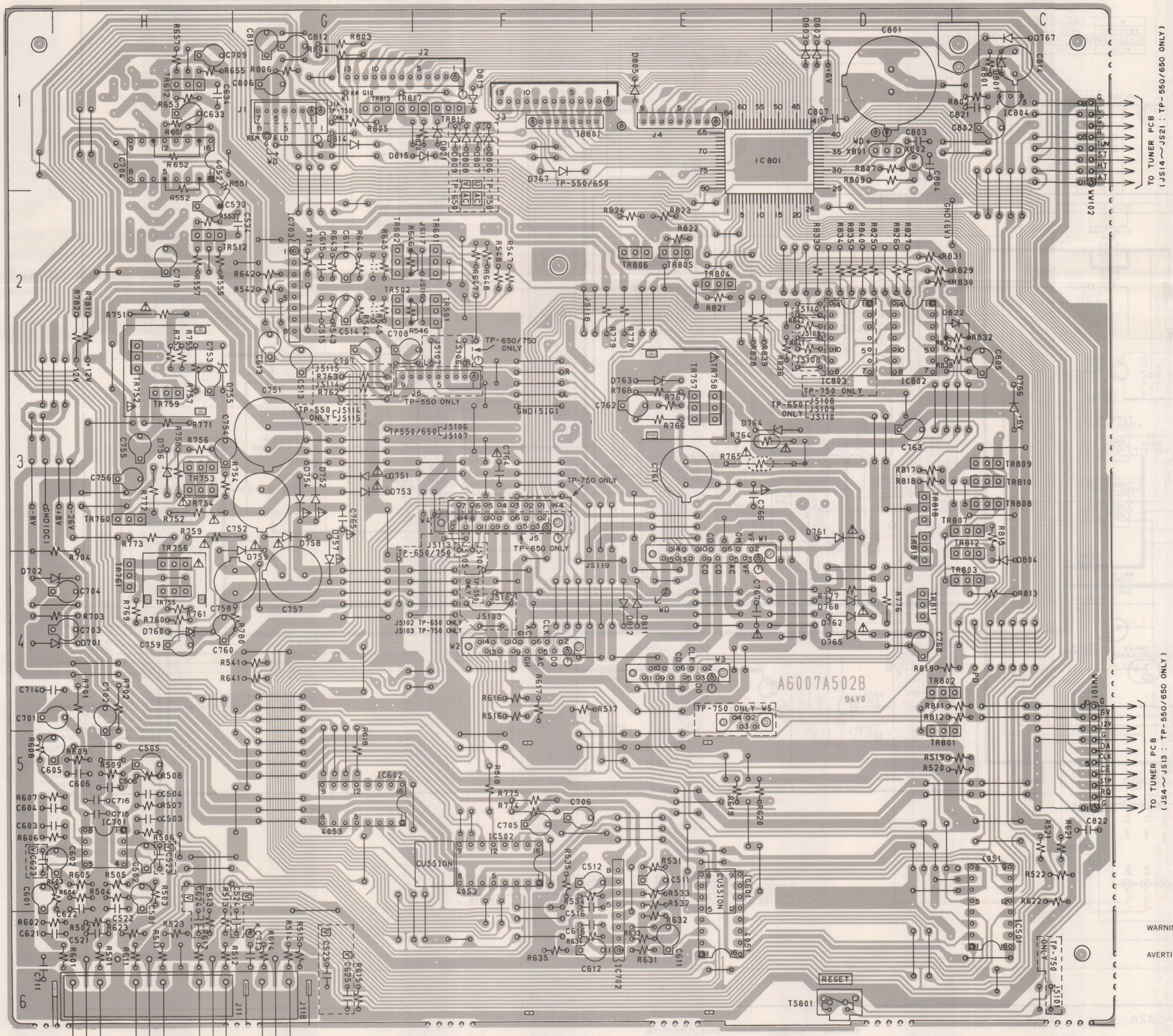


TP-650
CONNECTION DIAGRAM
No.11-2 A600801M
A2



IC801							
1	0V	21	0V	41	0V	61	-20.7V
2	0V	22	5.0V	42	-25.5V	62	-12.7V
3	0V	23	0V	43	-23.5V	63	-7.4V
4	0V	24	0V	44	-23.5V	64	-15.2V
5	5.1V	25	5.1V	45	-23.5V	65	-25.7V
6	5.4V	26	-19.7V	46	-23.5V	66	-25.7V
7	5.4V	27	5.0V	47	-23.5V	67	-25.7V
8	5.4V	28	2.5V	48	-23.5V	68	-12.4V
9	5.1V	29	1.5V	49	-23.5V	69	-25.2V
10	5.0V	30	2.3V	50	-23.5V	70	-22.6V
11	5.0V	31	2.3V	51	-23.5V	71	-22.6V
12	5.0V	32		52	-5.2V	72	-12.5V
13	4.9V	33	5.0V	53	-25.5V	73	5.1V
14	4.9V	34	0V	54	0V	74	-6.1V
15	3.4V	35	4.6V	55	-25.5V	75	
16	0V	36	0V	56	-22.9V	76	4.7V
17	0V	37	0V	57	-15.2V	77	0V
18	5.4V	38	0V	58	-10.7V	78	0V
19	5.0V	39	0V	59	-23.2V	79	
20	5.0V	40	2.2V	60	-20.7V	80	0V

CONTROL PCB A6007A502B



CONTROL PCB A6007A502B

NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTAINING PARTS INFORMATION.

PRINCIPAL PARTS LOCATION

ICs

IC101	B2,3
IC301	B1
IC401	B4,5
IC501	C5,6
IC502	F5
IC601	E5,6
IC602	G5
IC701	H5
IC702	E5,6
IC703	G2
IC704	H1
IC801	D,E1
IC801A	D,E1
IC802	D2,3
IC803	D2,3
IC804	C1

TRANSISTORs

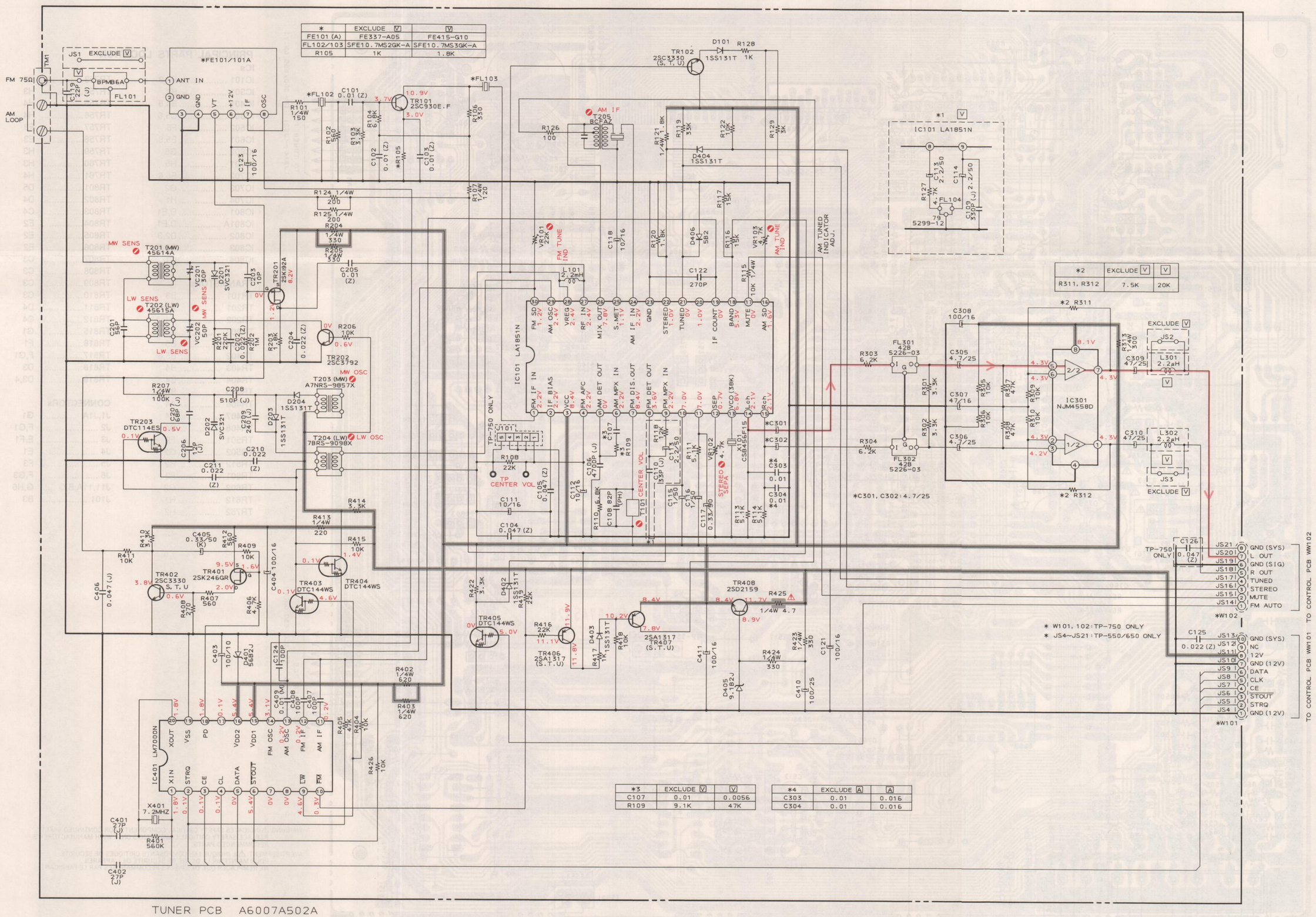
TR101	B3
TR201	A3
TR202	A4
TR203	A3
TR401	B5
TR402	B5,6
TR403	B4
TR404	B4
TR405	B2
TR406	A4
TR407	A4
TR408	B4
TR501	F2
TR502	G2
TR512	H2
TR601	F2
TR602	G2
TR612	H1
TR752	H2
TR753	H3
TR754	H3
TR755	H4
TR756	H4
TR757	E3
TR758	E3
TR759	H3
TR760	H3
TR761	H4
TR801	D5
TR802	D4
TR803	C4
TR804	E2
TR805	E2
TR806	E2
TR807	C3
TR808	C3
TR809	C3
TR810	C3
TR811	D4
TR812	C4
TR815	G1
TR816	F1
TR817	F,G1
TR818	D3
TR819	D3,4

CONNECTORs

J1,J1A	G1
J2	F,G1
J3	E,F1
J4	E1
J5	F3
J6	F,G3
J11,11A,B,C	G,H6
J101	B3

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT



*	EXCLUDE V	V
FE101 (A)	FE337-A05	FE415-G10
FL102/103	SFE10.7MS2GK-A	SFE10.7MS3GK-A
R105	1K	1.8K

*2	EXCLUDE V	V
R311, R312	7.5K	20K

*3	EXCLUDE V	V
C107	0.01	0.0056
R109	9.1K	47K

*4	EXCLUDE A	A
C303	0.01	0.016
C304	0.01	0.016

TUNER PCB A6007A502A

B (POWER SUPPLY) LINE

AUDIO SIGNAL LINE (L-CH)

WARNING: ⚠ AND ▬ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

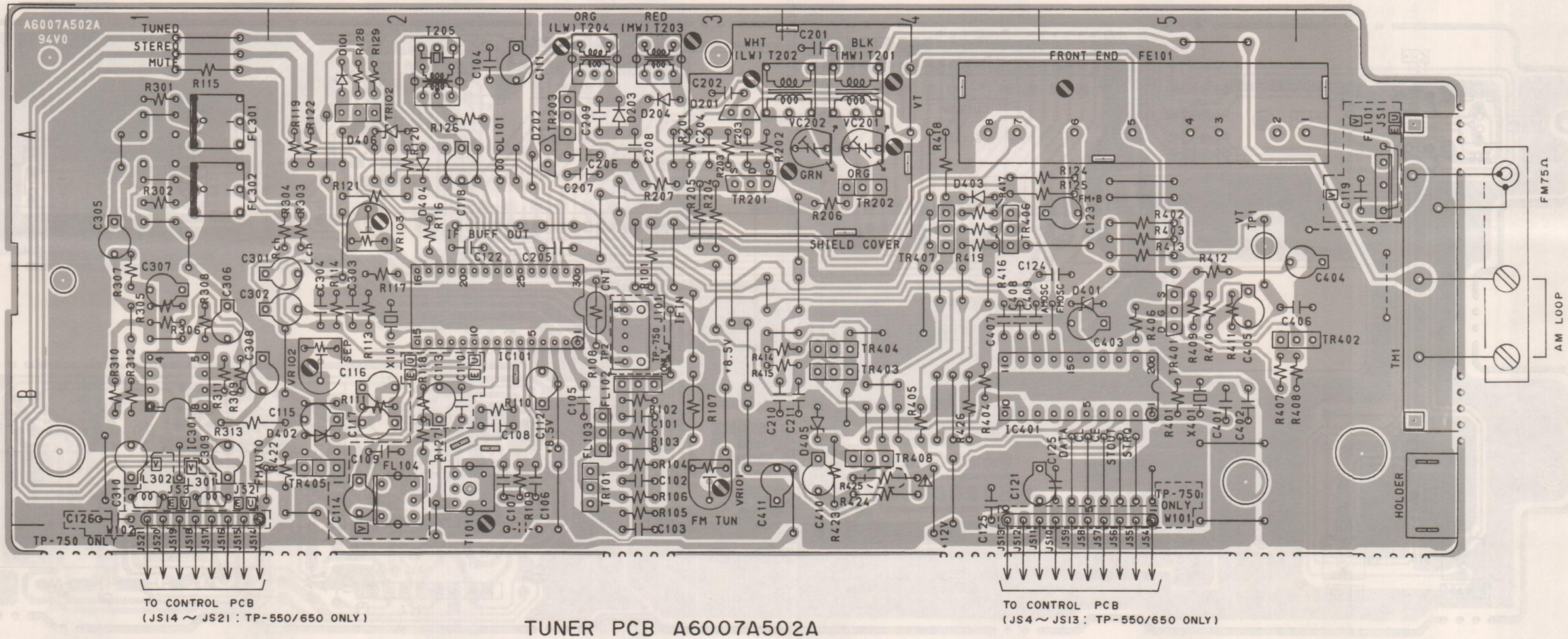
AVERTISSMENT: ⚠ ET ▬, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN μF/WV

INDICATED VOLTAGES WERE MEASURED DURING FM STEREO MODE.

TP-550/650 TUNER SCHEMATIC DIAGRAM

No.11-4 A600703M A1

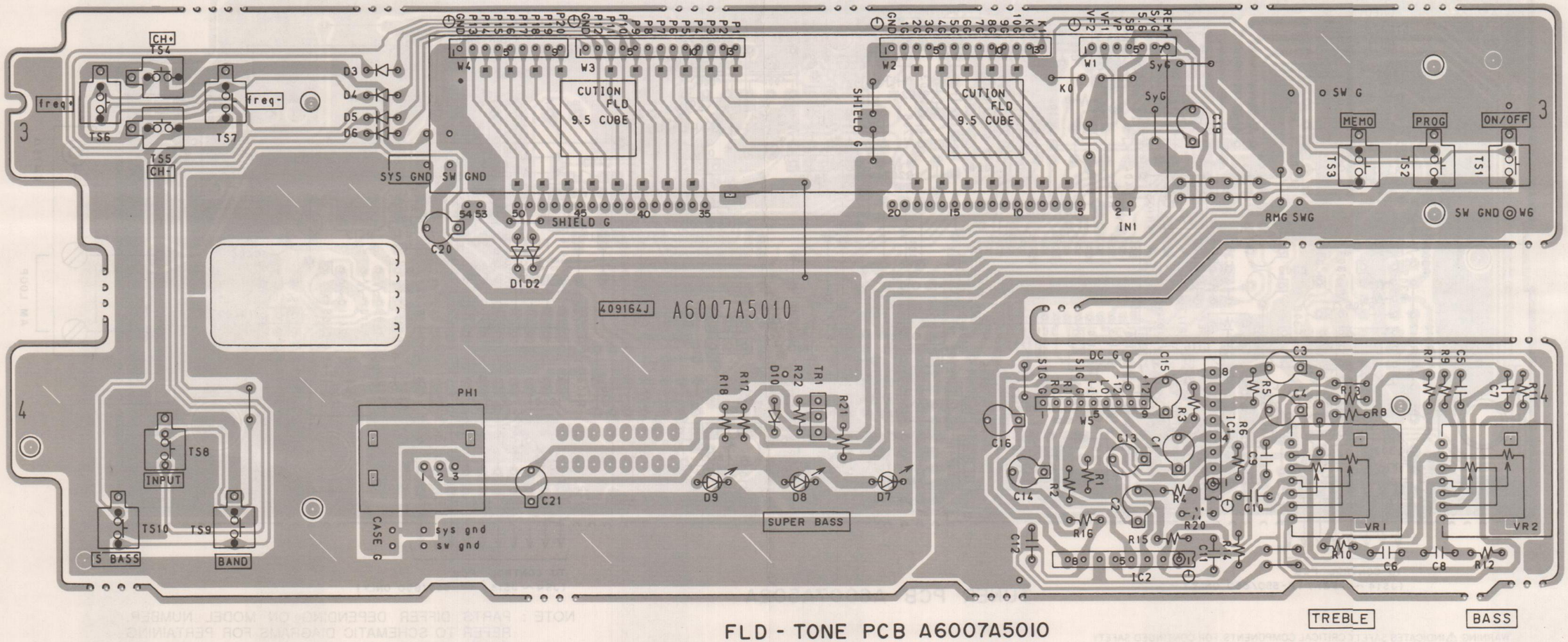


TUNER PCB A6007A502A

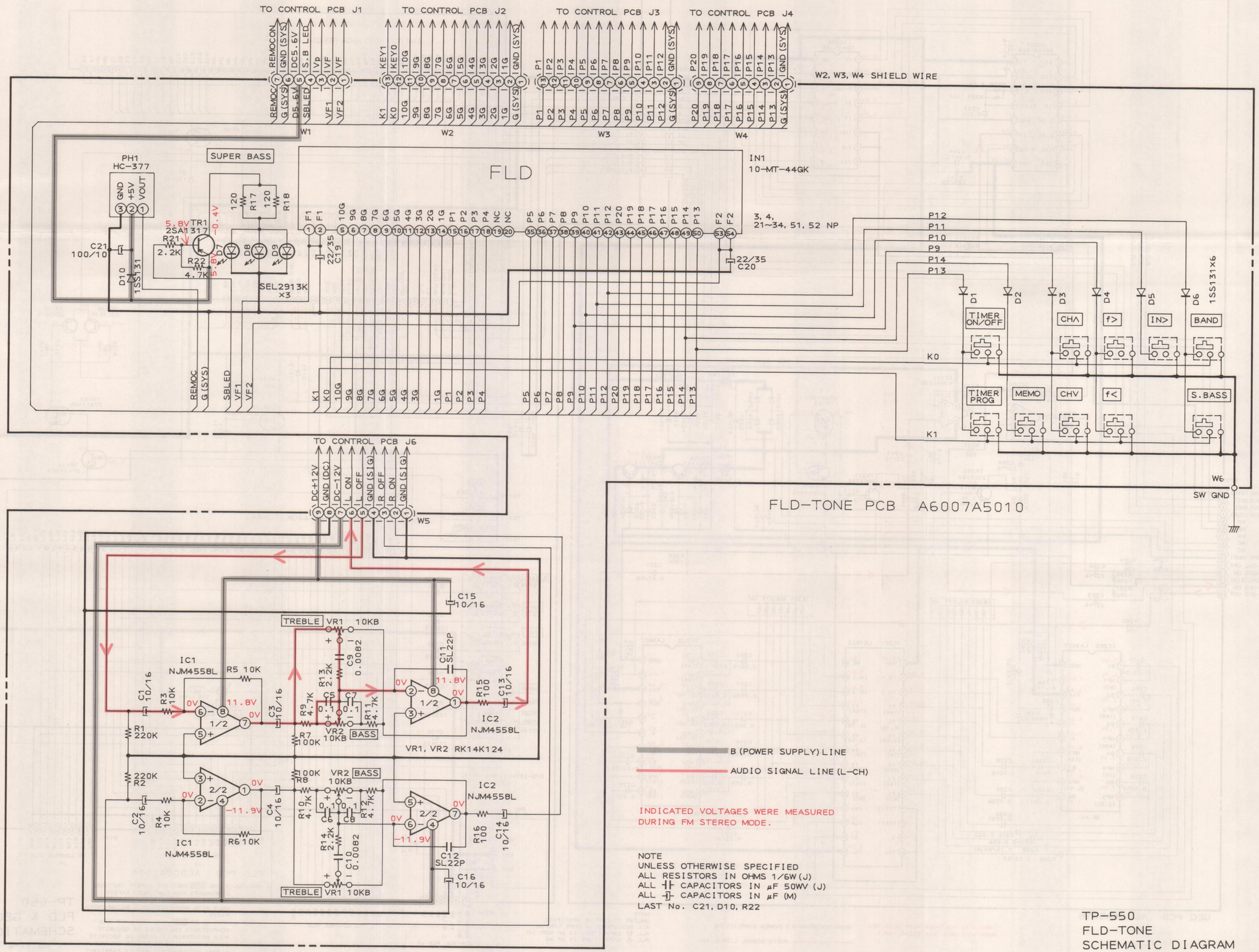
NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTAINING PARTS INFORMATION.

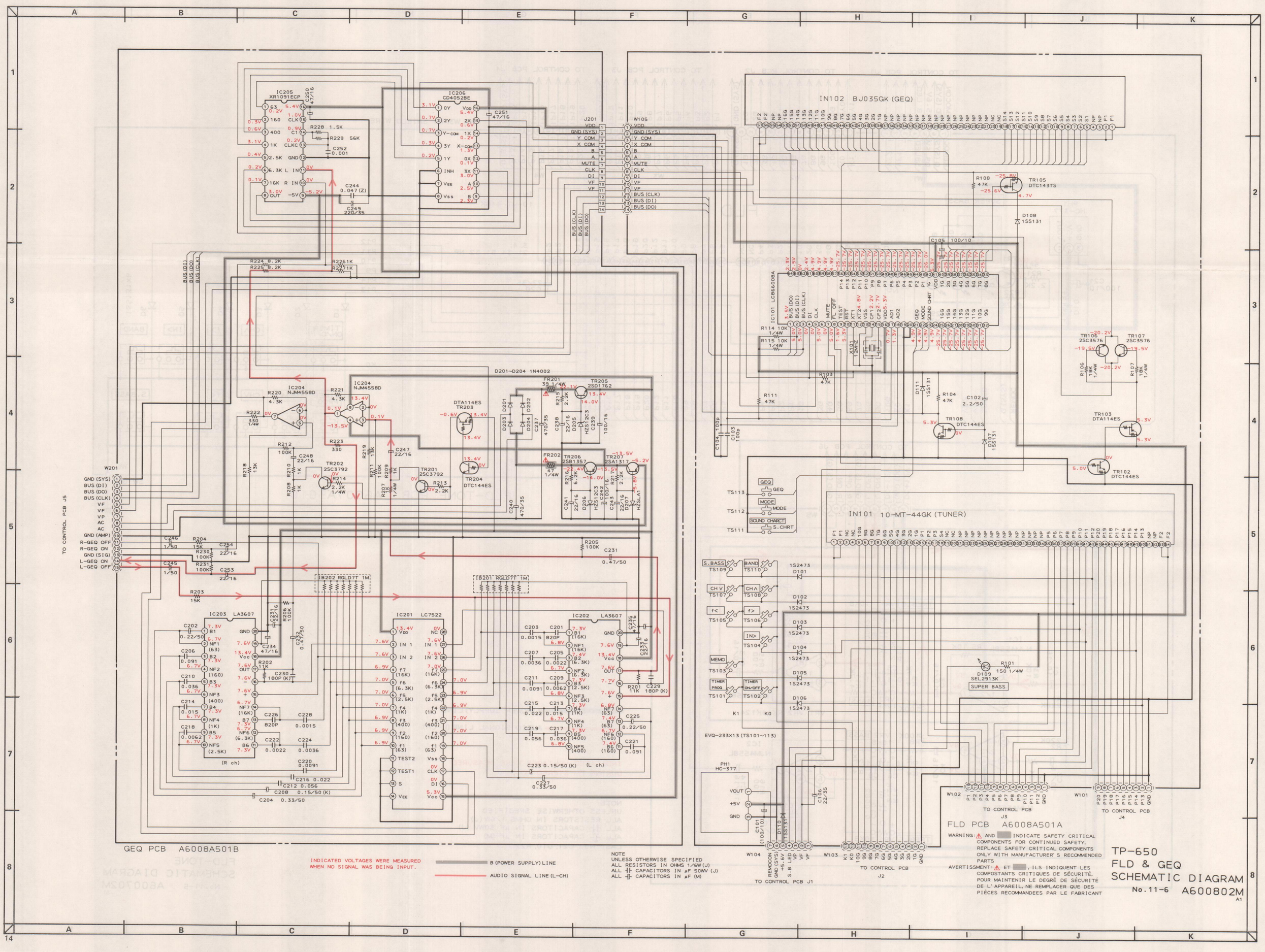
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

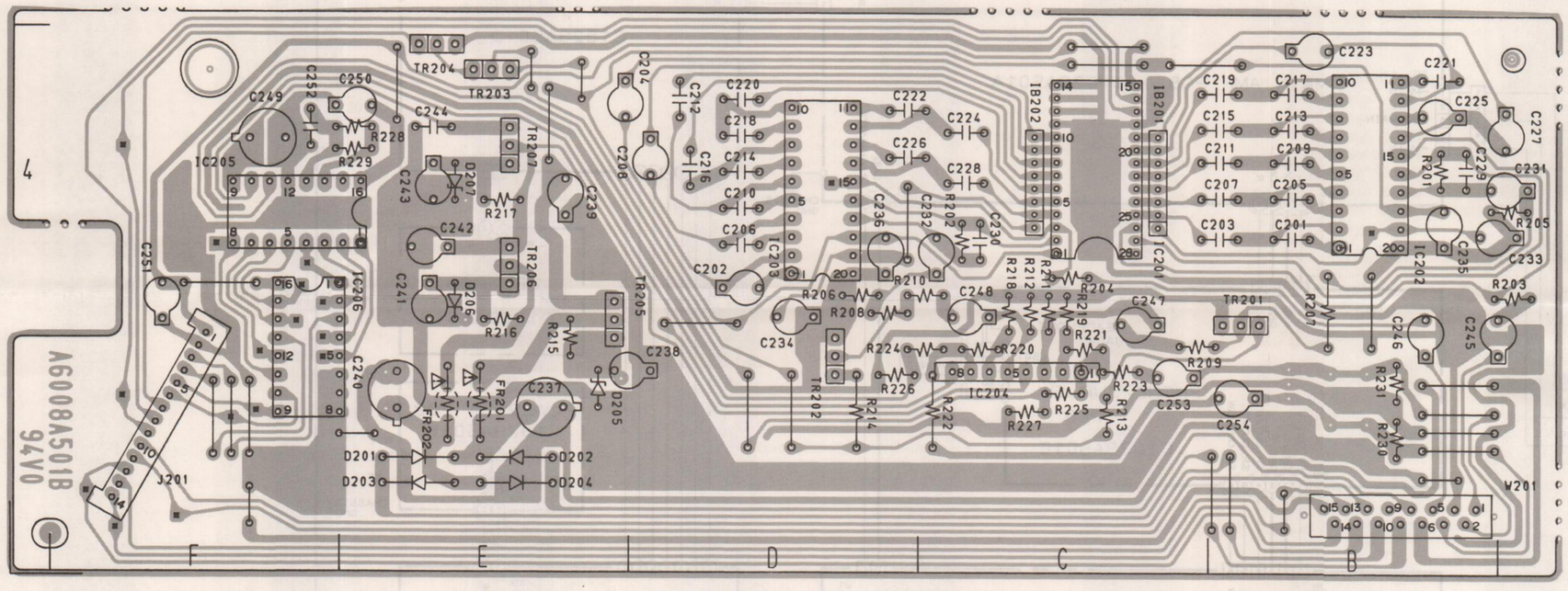
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL. NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT



FLD - TONE PCB A6007A5010


TO CONTROL PCB J1
TO CONTROL PCB J2
TO CONTROL PCB J3
TO CONTROL PCB J4
W2, W3, W4 SHIELD WIRE
W1
W2
W3
W4
PH1
HC-377
SUPER BASS
FLD
IN1
10-MT-44GK
3, 4,
21~34, 51, 52 NP
C21
100/10
D10
1SS131
TR1
2SA1317
R21
2.2K
R22
4.7K
5.8V
-0.4V
R17
120
R18
120
D7
D8
D9
SEL2913K
x3
22/35
C19
22/35
C20
TIMER ON/OFF
CH∧
f>
IN>
BAND
TIMER PROG
MEMO
CHV
f<
S.BASS
1SS131x6
W6
SW GND
FLD-TONE PCB A6007A5010
TO CONTROL PCB J6
W5
IC1
NJM4558L
IC2
NJM4558L
R5 10K
R6 10K
R7 100K
R8 100K
R1 220K
R2 220K
R3 10K
R4 10K
C1 10/16
C2 10/16
C3 10/16
C4 10/16
C15 10/16
C16 10/16
C11 SL22P
C12 SL22P
C13 10/16
C14 10/16
R15 100
R16 100
TREBLE VR1 10KB
BASS VR2 10KB
VR1, VR2 RK14K124
11.8V
-11.9V
0V
B (POWER SUPPLY) LINE
AUDIO SIGNAL LINE (L-CH)
INDICATED VOLTAGES WERE MEASURED
DURING FM STEREO MODE.
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF 50WV (J)
ALL CAPACITORS IN μF (M)
LAST No. C21, D10, R22
TP-550
FLD-TONE
SCHEMATIC DIAGRAM
No.11-5 A600702M
A1

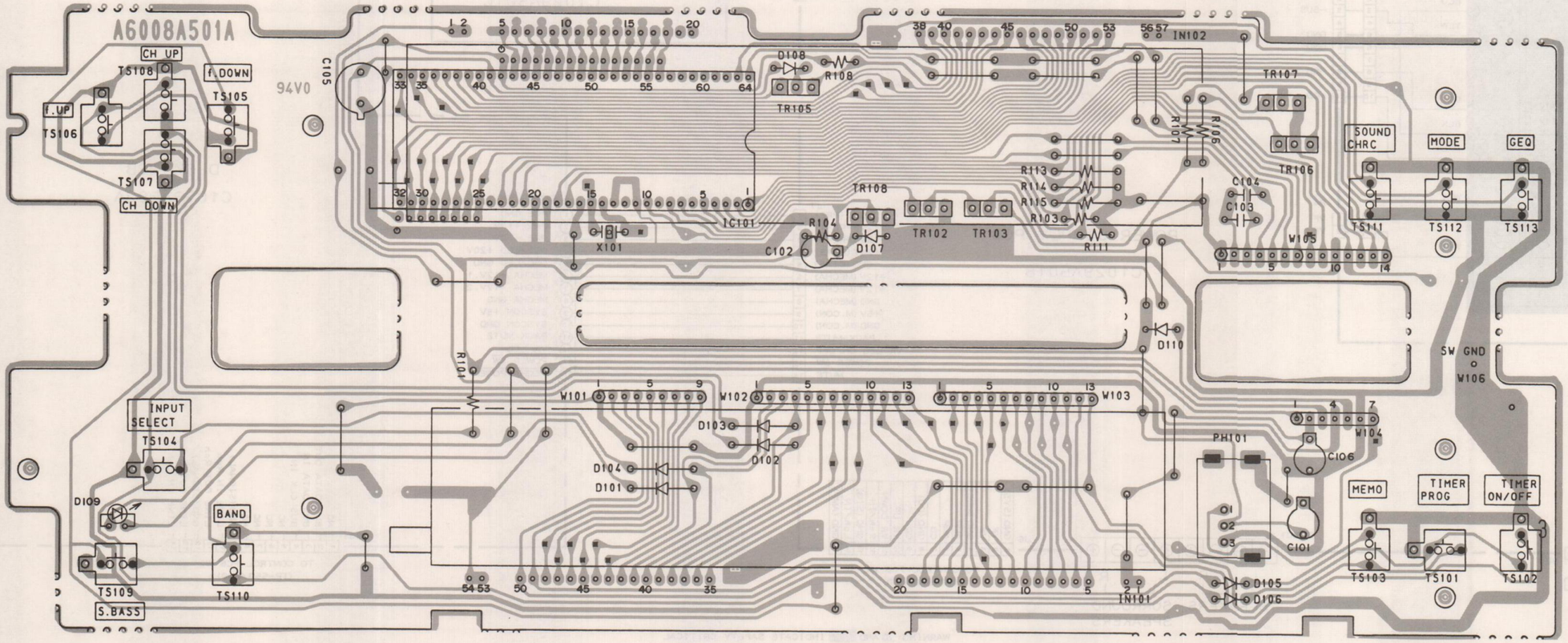

IC205 XR1091ECP
IC206 CD4052BE
IN102 BJ035GK (GEQ)
IN101 10-MT-44GK (TUNER)
IC101 LC86600BA
IC204 NJM4558D
IC203 LA3607
IC201 LC7522
IC202 LA3607
D201~D204 1N4002
TR105 DTC143TS
TR106 2SC3576
TR107 2SC3576
TR103 DTA114ES
TR102 DTC144ES
TR108 DTC144ES
TR205 2SD1762
TR206 2SB1357
TR207 2SA1317
TR203 DTA114ES
TR204 DTC144ES
TR202 2SC3792
TR201 2SC3792
W201
TO CONTROL PCB J5
GEQ PCB A6008A501B
FLD PCB A6008A501A
TO CONTROL PCB J3
TO CONTROL PCB J4
TO CONTROL PCB J2
TO CONTROL PCB J1
EVQ-233x13 (TS101~113)
SUPER BASS
INDICATED VOLTAGES WERE MEASURED WHEN NO SIGNAL WAS BEING INPUT.
B (POWER SUPPLY) LINE
AUDIO SIGNAL LINE (L-CH)
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF 50WV (J)
ALL CAPACITORS IN μF (M)
WARNING: AND INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS
AVERTISSMENT: ET , ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT
TP-650
FLD & GEQ
SCHEMATIC DIAGRAM
No.11-6 A600802M



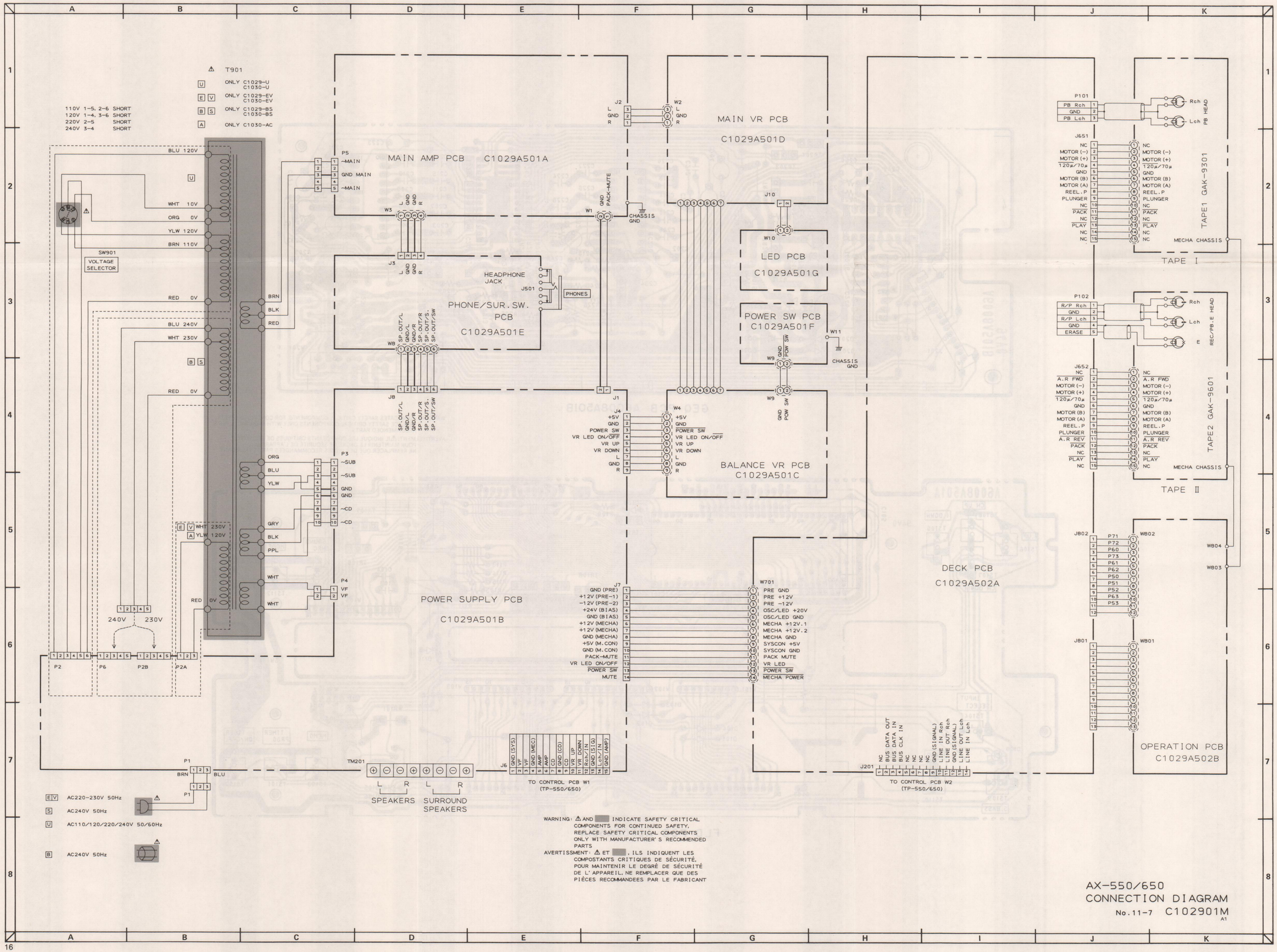
GEQ PCB A6008A501B

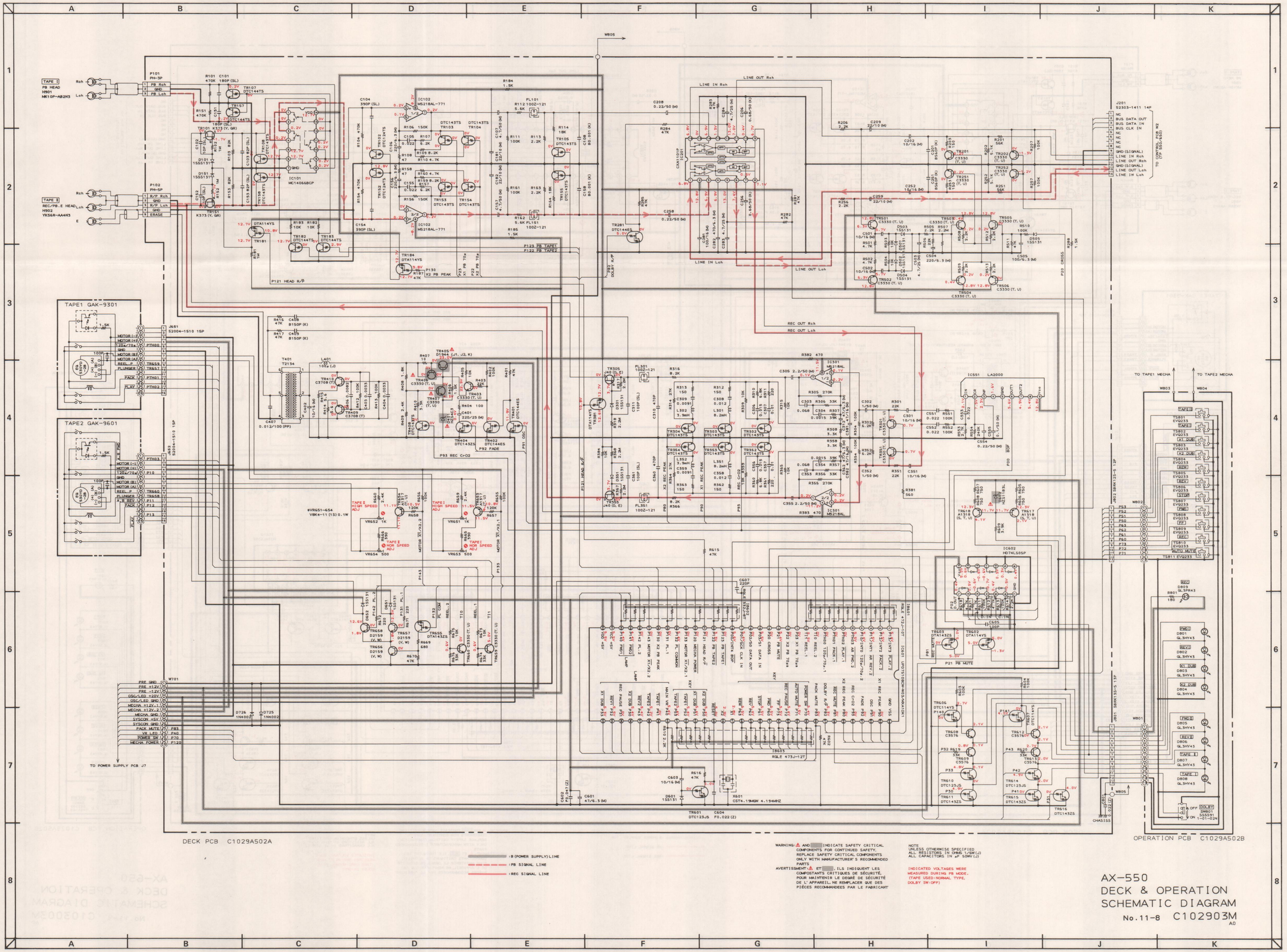
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

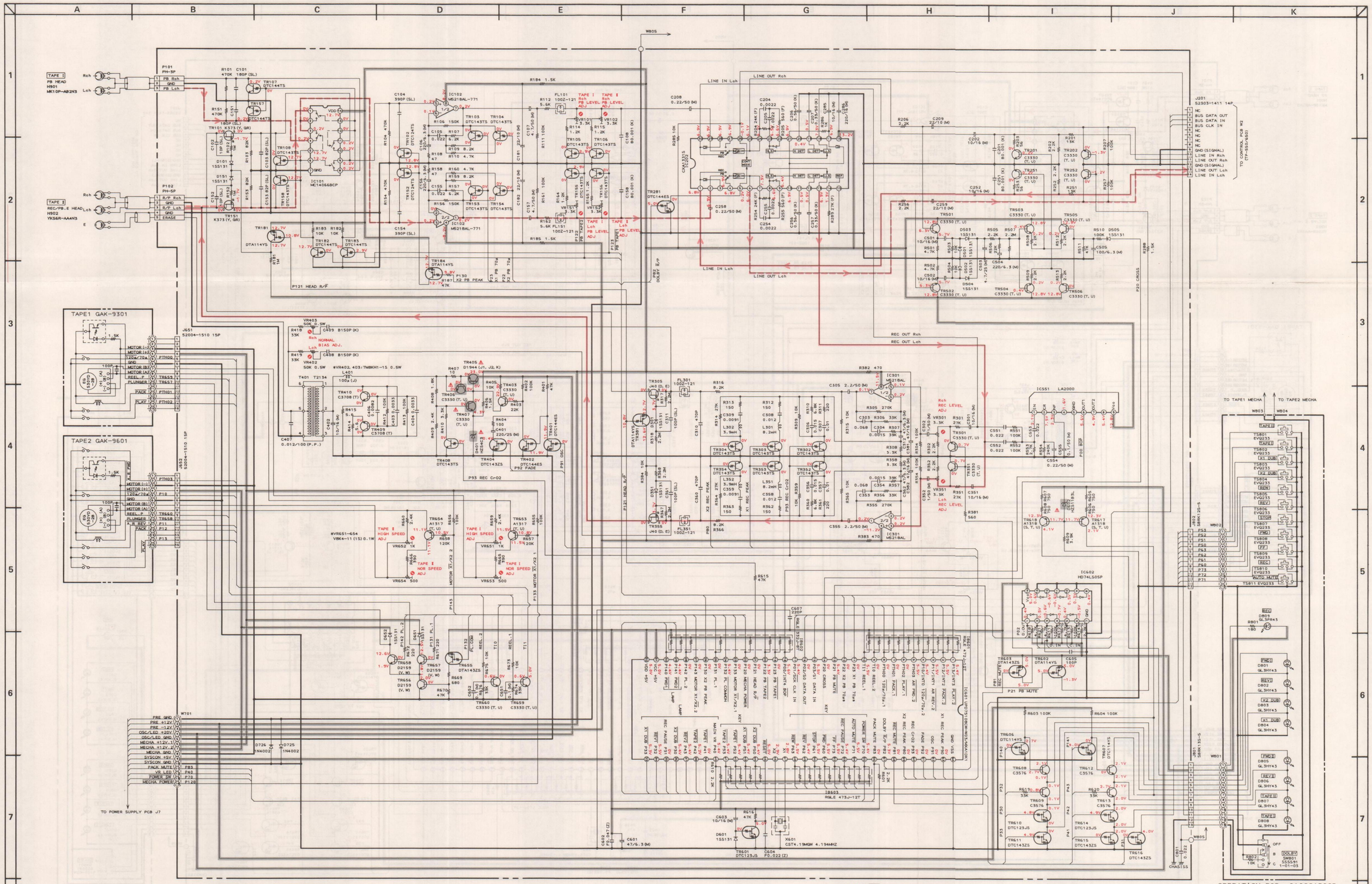
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL.
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT



FLD PCB A6008A501A


T901
U ONLY C1029-U C1030-U
E V ONLY C1029-EV C1030-EV
B S ONLY C1029-BS C1030-BS
A ONLY C1030-AC
110V 1-5, 2-6 SHORT
120V 1-4, 3-6 SHORT
220V 2-5 SHORT
240V 3-4 SHORT
SW901
VOLTAGE SELECTOR
BLU 120V
WHT 10V
ORG 0V
YLW 120V
BRN 110V
RED 0V
BLU 240V
WHT 230V
RED 0V
WHT 230V
YLW 120V
RED 0V
240V
230V
P2
P6
P2B
P2A
P1
BRN
BLU
AC220-230V 50Hz
AC240V 50Hz
AC110/120/220/240V 50/60Hz
AC240V 50Hz
MAIN AMP PCB C1029A501A
P5
~MAIN
GND MAIN
~MAIN
W3
J3
HEADPHONE JACK
J501
PHONES
PHONE/SUR.SW. PCB
C1029A501E
W8
J8
P3
~SUB
~SUB
GND
GND
~CD
~CD
P4
VF
VF
POWER SUPPLY PCB
C1029A501B
TM201
SPEAKERS
SURROUND SPEAKERS
J6
TO CONTROL PCB W1 (TP-550/650)
J2
W1
CHASSIS GND
J1
J4
MAIN VR PCB
C1029A501D
W2
J10
W10
LED PCB
C1029A501G
POWER SW PCB
C1029A501F
W11
W9
W4
BALANCE VR PCB
C1029A501C
J7
W701
DECK PCB
C1029A502A
J201
TO CONTROL PCB W2 (TP-550/650)
P101
PB Rch
GND
PB Lch
PB HEAD
J651
TAPE1 GAK-9301
TAPE I
P102
R/P Rch
GND
R/P Lch
GND
ERASE
REC/PB.E HEAD
J652
TAPE2 GAK-9601
TAPE II
MECHA CHASSIS
J802
W802
W804
W803
J801
W801
OPERATION PCB
C1029A502B
WARNING: ⚠ AND ▒ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS
AVERTISSMENT: ⚠ ET ▒, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT
AX-550/650
CONNECTION DIAGRAM
No.11-7 C102901M
A1


TAPE I
PB HEAD
H901
MK10P-AB2N3
TAPE I
REC/PB.E HEAD
H902
YK56R-AA4N3
TAPE1 GAK-9301
TAPE2 GAK-9601
J651
52004-1510 15P
J652
52004-1510 15P
J201
52303-1411 14P
TO CONTROL PCB W2
(TP 550-650)
IC101
MC14066BCP
IC102
MS218AL-771
IC501
MS218AL
IC551
LA2000
IC602
HD74LS05P
IC601
LMV751/0BCM-NL5.MKA1/CK1
IB601
RGLE 473J-10T
IB602
RGLE 353J-8T
IB603
RGLE 473J-12T
X601
CST4.19MGW 4.194MHZ
W701
TO POWER SUPPLY PCB J7
TO TAPE1 MECHA
TO TAPE2 MECHA
WB03
WB04
WB05
WB01
WB02
JW01 58KK135-5 13P
JW02 58KK135-5 12P
CHASSIS
DECK PCB C1029A502A
OPERATION PCB C1029A502B
B (POWER SUPPLY) LINE
PB SIGNAL LINE
REC SIGNAL LINE
WARNING: ⚠ AND ▒ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS
AVERTISSMENT: ⚠ ET ▒, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L' APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF 50WV (J)
INDICATED VOLTAGES WERE MEASURED DURING PB MODE. (TAPE USED: NORMAL TYPE, DOLBY SW: OFF)
AX-550
DECK & OPERATION
SCHEMATIC DIAGRAM
No.11-8 C102903M
A0



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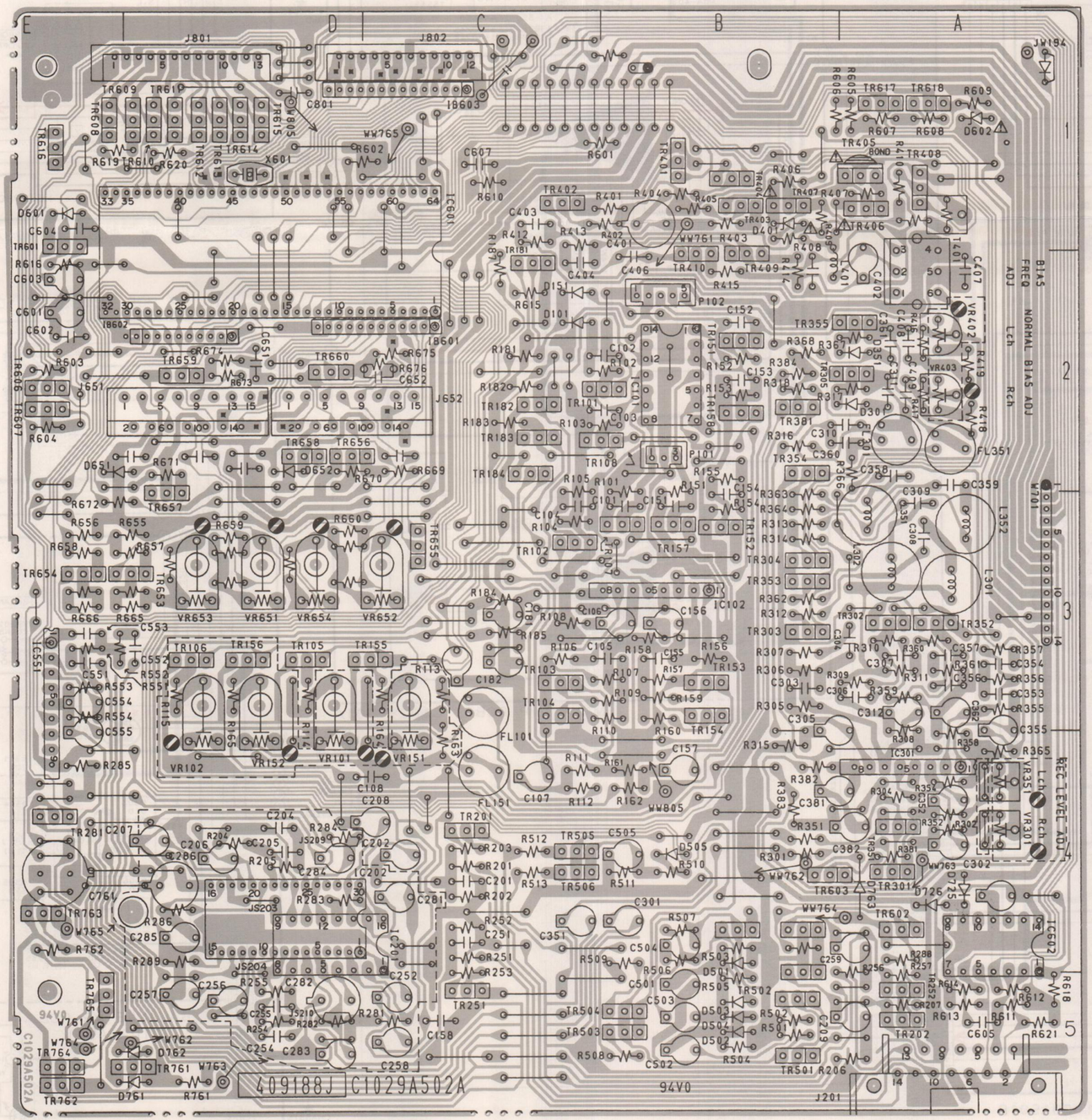
AVERTISSEMENT: ⚠ ET ▒, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ, POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF 50W (J)

INDICATED VOLTAGES WERE MEASURED DURING PB MODE. (TAPE USED: NORMAL TYPE, DOLBY SW: OFF)

AX-650
DECK & OPERATION SCHEMATIC DIAGRAM

No.11-9 C103003M
A0



DECK PCB C1029A502A

PRINCIPAL PARTS LOCATION

ICs

IC101	B2
IC102	B3
IC201	C,D4
IC202	D4
IC301	A4
IC551	E3
IC601	D1,2
IC602	A4

WIRES

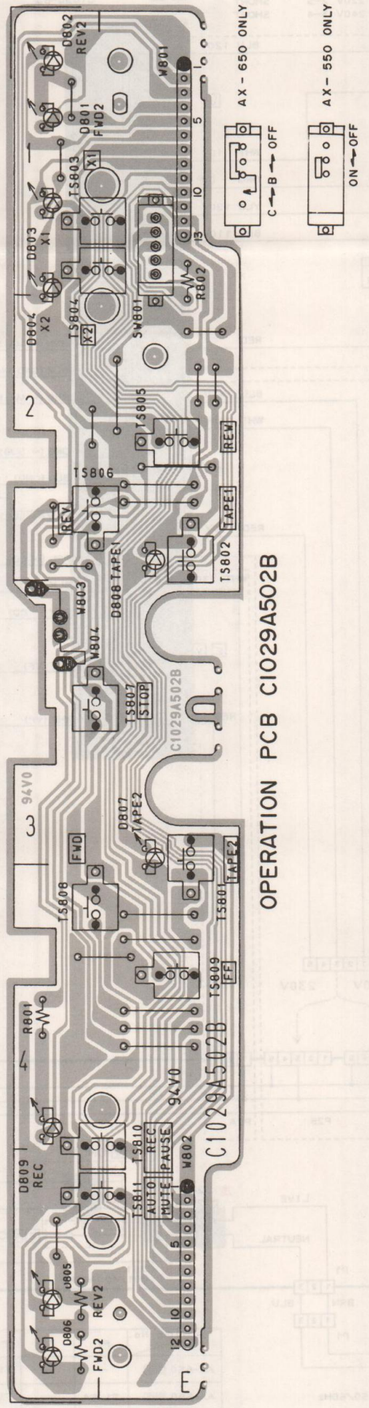
W701	A3
J651	D2
J652	C,D2
J801	D1
J802	C1

CONNECTORS

P101	B2
P102	B2

TRANSISTORS

TR101	B,C2
TR102	C3
TR103	C3
TR104	C3
TR105	D3
TR106	D3
TR107	B,C3
TR108	B,C2
TR151	B2
TR152	B3
TR153	B3
TR154	B3
TR155	C,B3
TR156	D3
TR157	B3
TR158	B2
TR181	C2
TR182	C2
TR183	C2
TR184	C2
TR201	C4
TR202	A5
TR251	C5
TR252	A5
TR281	E4
TR301	A4
TR302	A3
TR303	B3
TR304	B3
TR305	A,B2
TR351	A4
TR352	A3
TR353	B3
TR354	B2
TR355	A,B2
TR381	B2
TR401	B1
TR402	C1
TR403	B1
TR404	B1
TR405	A1
TR406	A1
TR407	B1
TR408	A1
TR409	B2
TR410	B1,2
TR501	B5
TR502	B5
TR503	B,C5
TR504	B,C5
TR505	C4
TR506	C4
TR601	E1,2
TR602	A4
TR603	B4
TR606	E2
TR607	E2
TR608	E1
TR609	D1
TR610	D1
TR611	D1
TR612	D1
TR613	D1
TR614	D1
TR615	D1
TR616	E1
TR617	A1
TR618	A1
TR653	D,E3
TR654	E3
TR655	C3
TR656	D2
TR657	D2
TR658	D2
TR659	D2
TR660	D2
TR761	D,E5
TR762	E5
TR763	E4
TR764	E5
TR765	E5

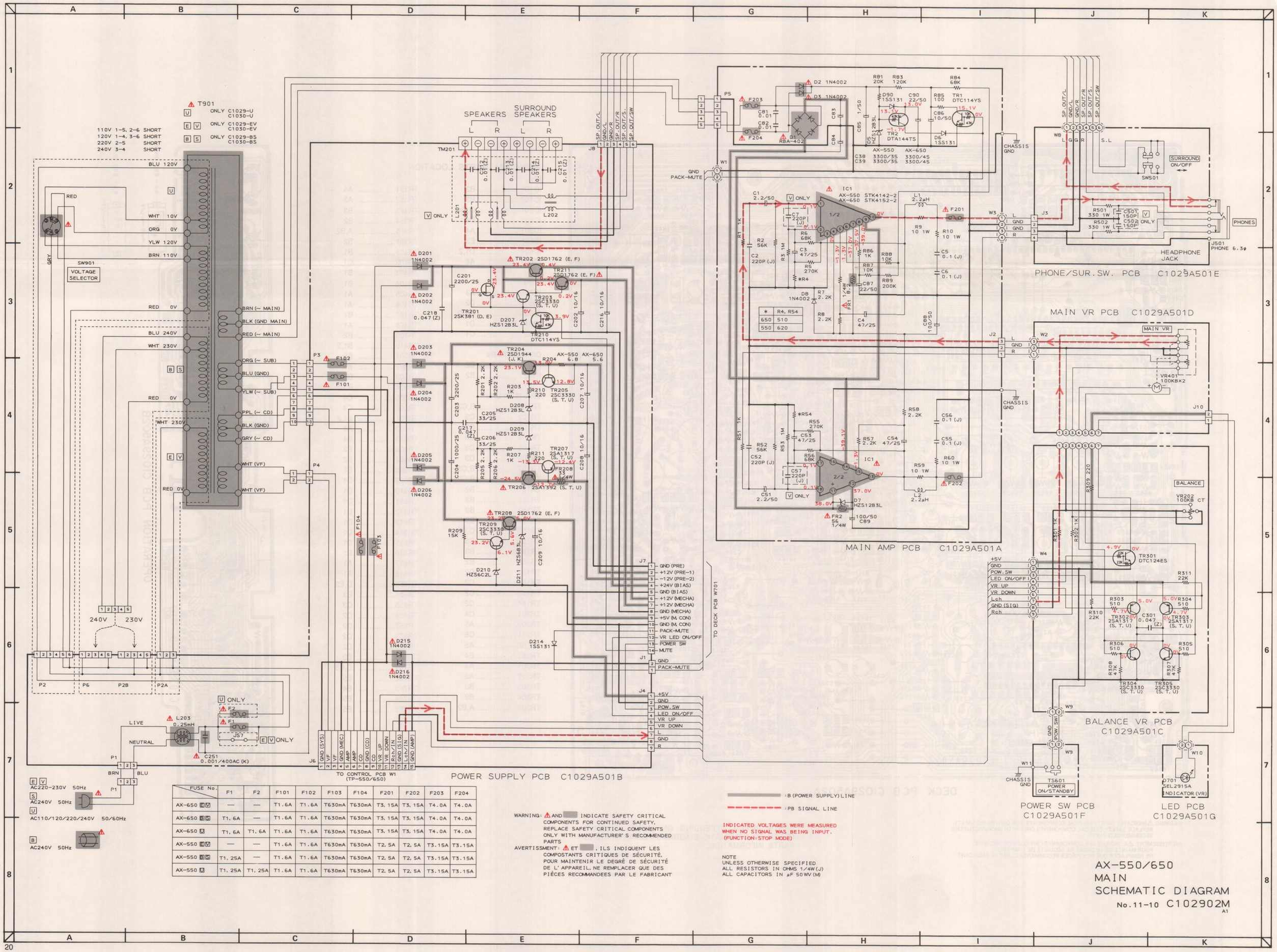


OPERATION PCB C1029A502B

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTAINING PARTS INFORMATION.



FUSE No.	F1	F2	F101	F102	F103	F104	F201	F202	F203	F204
AX-650 EV	—	—	T1.6A	T1.6A	T630mA	T630mA	T3.15A	T3.15A	T4.0A	T4.0A
AX-650 BS	T1.6A	—	T1.6A	T1.6A	T630mA	T630mA	T3.15A	T3.15A	T4.0A	T4.0A
AX-650 U	T1.6A	T1.6A	T1.6A	T1.6A	T630mA	T630mA	T3.15A	T3.15A	T4.0A	T4.0A
AX-550 EV	—	—	T1.6A	T1.6A	T630mA	T630mA	T2.5A	T2.5A	T3.15A	T3.15A
AX-550 BS	T1.25A	—	T1.6A	T1.6A	T630mA	T630mA	T2.5A	T2.5A	T3.15A	T3.15A
AX-550 U	T1.25A	T1.25A	T1.6A	T1.6A	T630mA	T630mA	T2.5A	T2.5A	T3.15A	T3.15A

WARNING: ⚠ AND ▬ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

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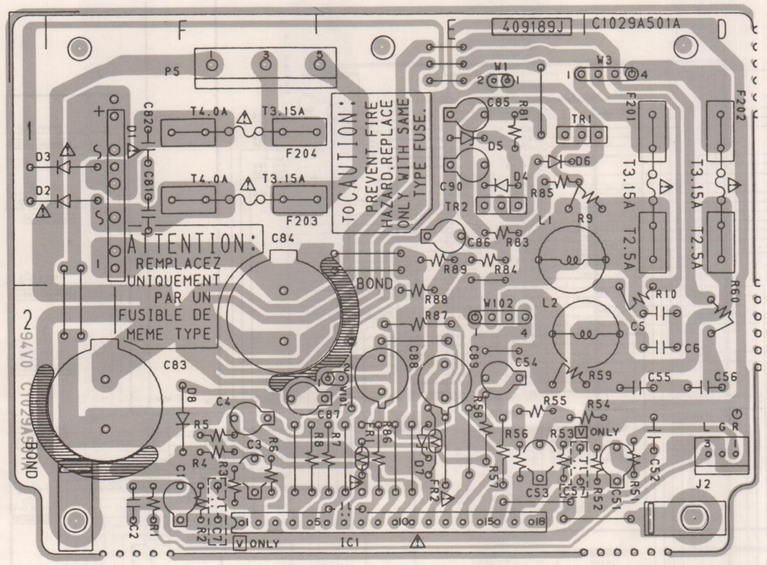
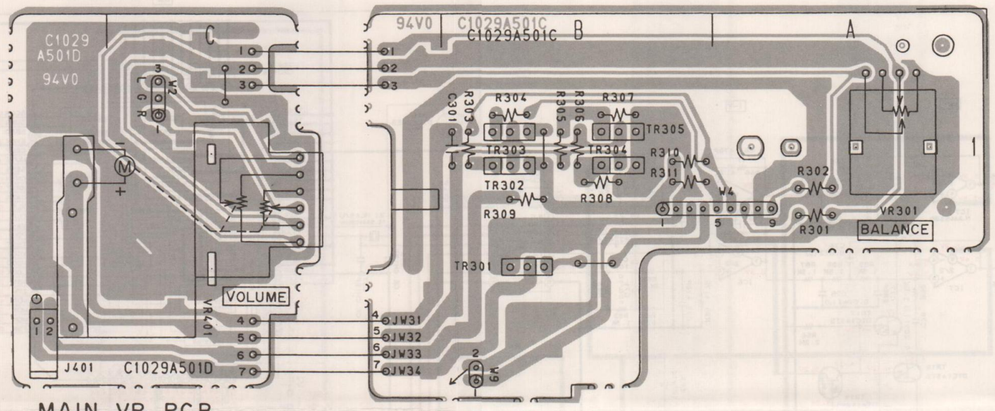
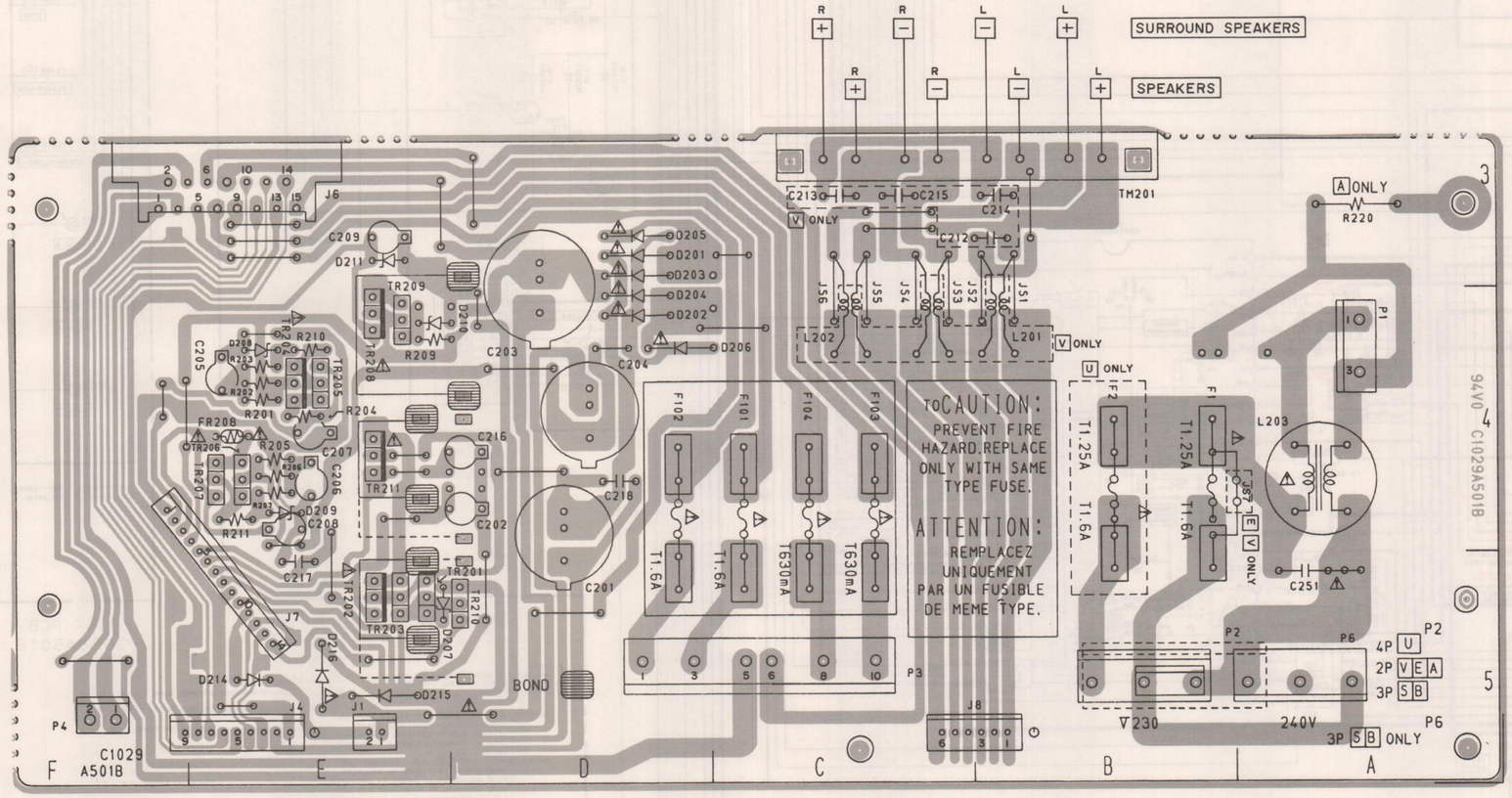


MAIN AMP PCB C1029A501A

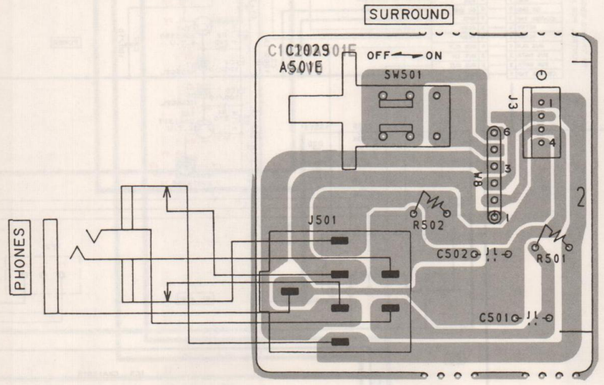


MAIN VR PCB C1029A501D

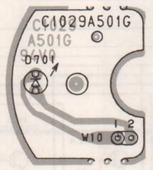
BALANCE VR PCB C1029A501C



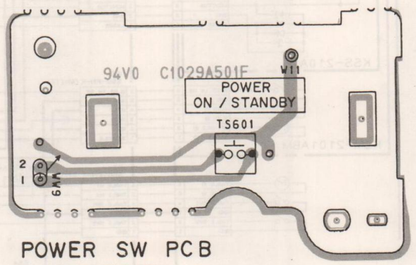
POWER SUPPLY PCB C1029A501B



PHONE / SUR. SW PCB C1029A501E



LED PCB C1029A501G



POWER SW PCB C1029A501F

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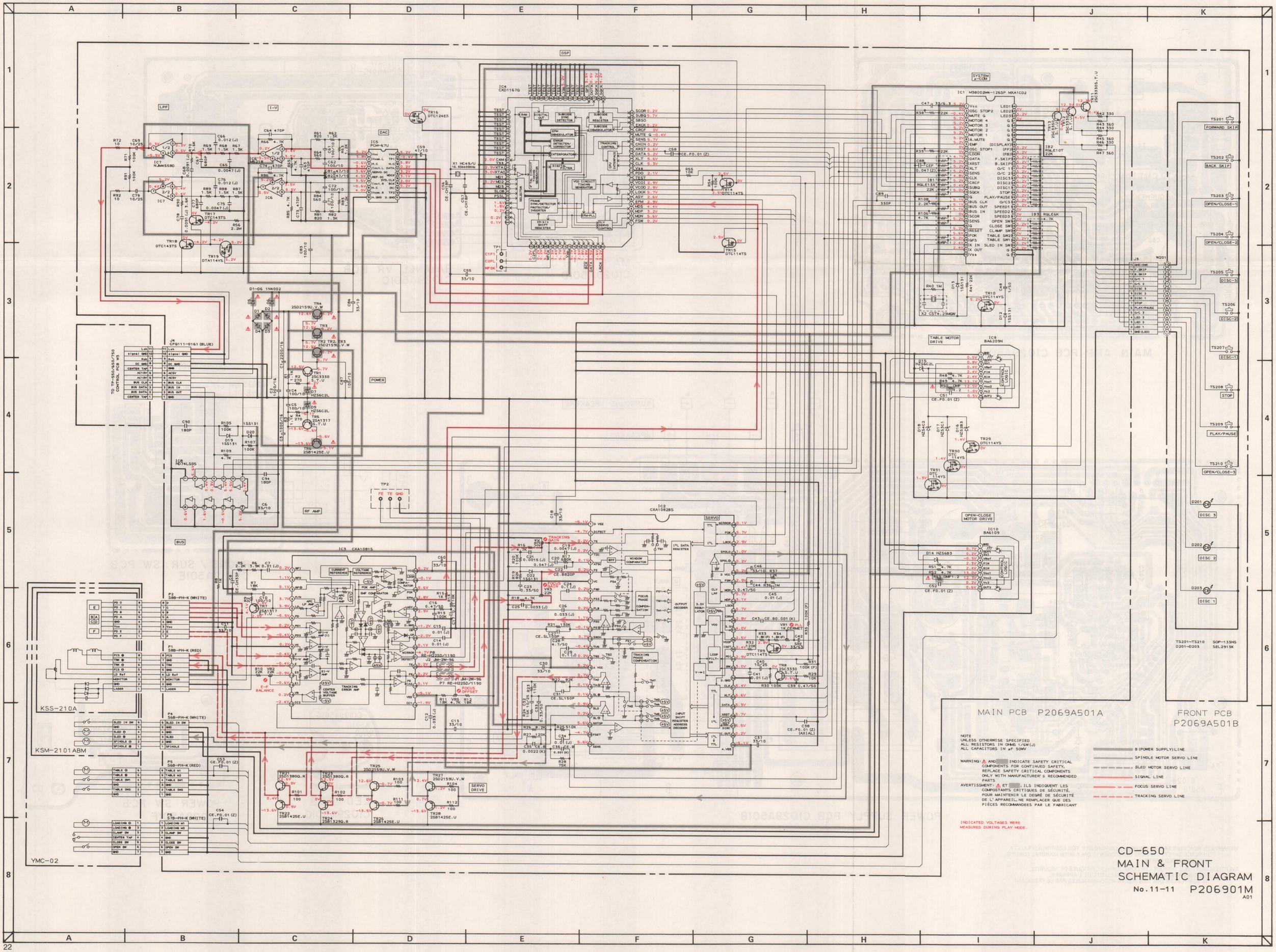
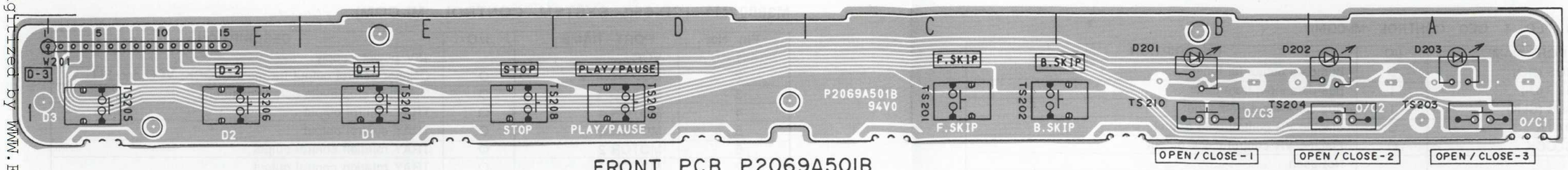
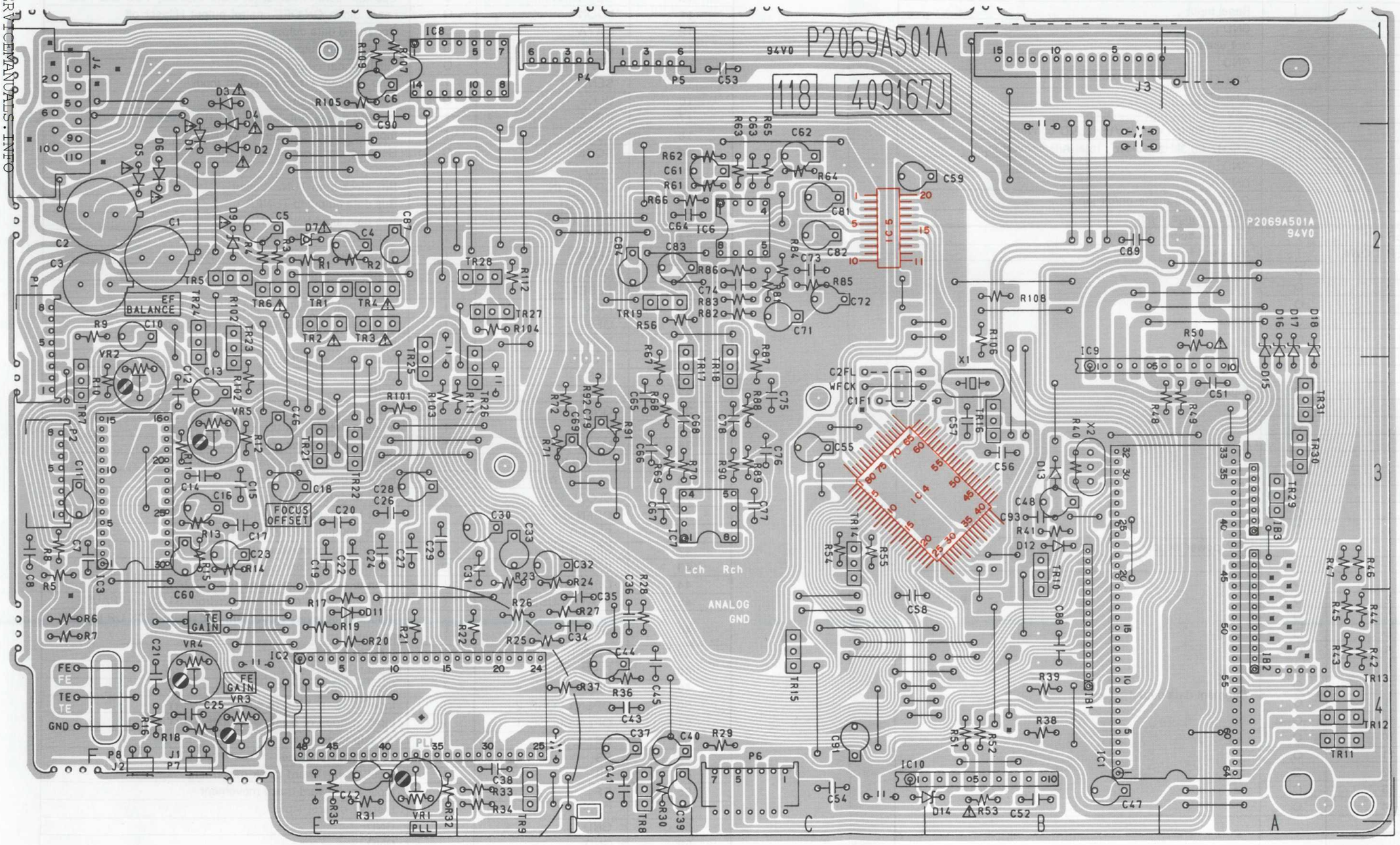

LPF
I-V
DAC
DSP
POWER
RF AMP
BUS
SYSTEM A-COM
TABLE MOTOR DRIVE
OPEN-CLOSE MOTOR DRIVE
SERVO DRIVE
KSS-210A
KSM-2101ABM
YMC-02
MAIN PCB P2069A501A
FRONT PCB P2069A501B
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF 50WV
WARNING! ⚠ AND ▒ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS
AVERTISSEMENT! ⚠ ET ▒, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT
INDICATED VOLTAGES WERE MEASURED DURING PLAY MODE.
B (POWER SUPPLY) LINE
SPINDLE MOTOR SERVO LINE
SLED MOTOR SERVO LINE
SIGNAL LINE
FOCUS SERVO LINE
TRACKING SERVO LINE
CD-650
MAIN & FRONT
SCHEMATIC DIAGRAM
No.11-11 P206901M
A01



FRONT PCB P2069A501B



MAIN PCB P2069A501A

PRINCIPAL PARTS LOCATION

ICs

IC1	3,4A,B
IC2	4D,E
IC3	3F
IC4	3B,C
IC5	2C
IC6	2C
IC7	3C,D
IC8	1D,E
IC9	3A,B
IC10	4B,C

CONNECTORs

P1	2,3F
P2	3F
P4	1D
P5	1D
P6	4C
P7	4F
P8	4F

TRANSISTORs

TR1	2E
TR2	2E
TR3	2E
TR4	2E
TR5	2E
TR6	2E
TR7	3F
TR8	4D
TR9	4D
TR10	3B
TR11	4A
TR12	4A
TR13	4A
TR14	3C
TR15	4C
TR16	3B
TR17	3D
TR18	3C
TR19	2D
TR21	3E
TR22	3E
TR23	2,3E
TR24	2F
TR25	2,3E
TR26	3D
TR27	2D
TR28	2D
TR29	3A
TR30	3A
TR31	3A

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LC866008A (TP-650 FLD & GEQ CONTROL MI-COM)

Pin No.	PORT NAME	I/O	DESCRIPTION
1	BUS (DO)	O	Bus data output for tuner
2	BUS (DI)	I	Bus data input from tuner
3	BUS (CLK)	I	Bus clock input from tuner
4	DATA	O	Electric VR control data output
5	CLOCK	O	Electric VR control clock output
6			Not used
7	MUTE	O	Mute control output (H:mute on)
8	FLD OFF	O	FLD / control output (H:FLD on)
9	TEST		Not used
10	RST	I	Reset input
11	XT 1		GND
12	XT 2		Not used
13	VSS		GND
14	CF 1		X'tal OSC
15	CF 2		X'tal OSC
16	VDD		+5V
17	A/D 1	I	63Hz /160Hz / 400Hz /1kHz A/D convert input
18	A/D 2	I	2.5kHz / 6.3kHz /16kHz / total A/D convert input
19	GND		GND
20	GND		GND
21	G·EQ	I	G·EQ control mode on/off input
22	MODE	I	Mode change input
23	CHARACTER UP	I	To move sound character
24	CHARACTER DOWN	I	Not used
25	DIGIT 16	O	Digit data output
26	DIGIT 15	O	
27	DIGIT 14	O	
28	DIGIT 13	O	
29	DIGIT 12	O	
30	DIGIT 11	O	
31	DIGIT 10	O	
32	DIGIT 9	O	
33	DIGIT 8	O	
34	DIGIT 7	O	
35	DIGIT 6	O	
36	DIGIT 5	O	
37	DIGIT 4	O	
38	DIGIT 3	O	
39	DIGIT 2	O	
40	DIGIT 1	O	
41	VDD		+5V power supply
42	VP		–40V
43	SEGMENT 1	O	Segment data output
44	SEGMENT 2	O	
45	SEGMENT 3	O	
46	SEGMENT 4	O	
47	SEGMENT 5	O	
48	SEGMENT 6	O	
49	SEGMENT 7	O	
50	SEGMENT 8	O	
51	SEGMENT 9	O	
52	SEGMENT 10	O	
53	SEGMENT 11	O	
54	SEGMENT 12	O	
55	SEGMENT 13	O	
56	SEGMENT 14	O	
57			Not used
58			
59			
60			
61			
62			
63	ANA. SW 1		Band frequency control output
64	ANA. SW 2		Band frequency control output

M38002M4 (CD-650 SYSTEM CONTROL MI-COM)

Pin No.	PORT NAME	I/O	DESCRIPTION
1	VCC		+5V power supply
2	OSC STOP 2	O	Osilator control output for main CLOCK, VCO and PLL.
3	MUTE G	O	Output to stop audio data H:mute on
4	MOTOR 4	O	TRAY control output
5	MOTOR 3	O	TRAY control output
6	MOTOR 2	O	TRAY rotation control output
7	MOTOR 1	O	TRAY rotation control output
8	AUDIO MUTE	O	Not used
9	EMP	O	Emphasis control output
10	OSC STOP 1	O	Oscilator control output for main CLOCK, VCO and PLL.
11	LDON	O	Laser diode ON/OFF control output H:laser off
12	DATA	O	Command data output
13	XRST	O	Reset signal output
14	XLT	O	Latch signal output
15	SENS	I	Auto sequence end detection input
16	CLK	O	Clock signal output
17	CRCF	I	Input to detect Sub Code - Q CRC check
18	SUBQ	I	Input to detect Sub Code - Q data
19	SQCK	O	Reading clock out of Sub Code Q data
20	GND		GND
21	CD CLK IN	I	Bus clock from TUNER input
22	BUS OUT	O	Bus data output to TUNER
23	CD DATA IN	I	Bus data input from TUNER
24	SCOR	I	Sub code - Q data ditect input
25	SENS	I	Auto sequence end ditection input
26	GND		GND
27	RESET	I	Reset input
28	FOK	I	Focus lock detection input H:Focus lock
29	GFS	I	Input to detect PLL lock condition H:lock on
30	X IN	I	Main clock input
31	X OUT	O	Main clock output
32	VSS		GND
33	GND		GND
34	GND		GND
35	IN SW	I	Input to detect pick up position
36	LU SW 1	I	Input to detect disc rotation position
37	LU SW 2	I	Input to detect disc rotation position
38	CLAMP SW	I	Input to detect disc clamp position
39	CLOSE SW	I	Input to detect tray close position
40	OPEN SW	I	Input to detect tray open position
41	SPEED 3	O	TRAY rotation control output
42	SPEED 2	O	TRAY rotation control output
43	SPEED 1	O	TRAY rotation control output
44	OPEN/CLOSE 3	I	Input to open or close and rotate TRAY
45	PLAY/PAUSE	I	Input to change mode to PLAY from STOP and PAUSE
46	STOP	I	Input to stop every movement and return PICK UP to start position
47	DISC 1	I	Input to play DISK 1
48	DISC 2	I	Input to play DISK 2
49	DISC 3	I	Input to play DISK 3
50	OPEN/CLOSE 2	I	Input to open or close and rotate TRAY
51	OPEN/CLOSE 1	I	Input to open or close and rotate TRAY
52	BS	I	To skip to next tune
53	FS	I	To skip to next tune
54	FB	I	Input for backward quick movement
55	FF	I	Input for forward quick movement
56	DISPLAY	I	Display control input
57	GND		GND
58	GND		GND
59	GND		GND
60	GND		GND
61	GND		GND
62	LED 3	O	LED control output
63	LED 2	O	LED control output
64	LED 1	O	LED control output

M38173M6-145FP MXA1TP3 (TP-550/650 SYSTEM CONTROL MI-COM)

Pin No.	PORT NAME	I/O	DESCRIPTION
1	FB 2	O	For switching function output
2	FA 2	O	For switching function output
3	VR UP	O	Main VR control (UP) output H:UP
4	VR DOWN	O	Main VR control (DOWN) output H:DOWN
5	FB 3	O	SUPER BASS control output
6	DECK CLK	O	DECK bus clock output
7	DECK DATA OUT	O	DECK bus data output
8	DECK DATA IN	I	DECK bus data input
9	FA 3	O	SUPER BASS control output
10	CD CLK	O	CD bus clock output
11	CD DATA OUT	O	CD bus data output
12	CD DATA IN	I	CD bus data input
13	G·EQ CLK	O	G·EQ bus clock output
14	G·EQ DATA OUT	O	G·EQ bus data output
15	G·EQ DATA IN	I	G·EQ bus data input
16	FC 1	O	For switching function input
17	FB 1	O	For switching function input
18	FA 1	O	For switching function input
19	FLD OFF	O	FL display off output L:OFF
20	POWER LED	O	Power led control output
21	AMP MUTE	O	Pre amp mute control output H:MUTE ON
22	POWER MUTE	O	Power amp mute control output L:MUTE ON
23	POWER LED	O	Power LED control output
24	FM A/M	O	FM auto/mono control output
25	POWER DOWN	I	Back up ditection input
26	REMOCON	I	REMOCON signal ditection input
27	$\overline{\text{RESET}}$	I	Reset input
28	XC IN	I	X'tal OSC
29	XC OUT	O	
30	X IN	I	
31	X OUT	O	
32	VSS		GND
33	TUNER MUTE	O	Mute control output H:MUTE ON
34	$\overline{\text{PLL STRQ}}$	O	PLL control output
35	PLL STIN	I	PLL control input
36	PLL CE	O	PLL control output
37	PLL CLK	O	PLL control output
38	PLL DATA	O	PLL control output
39	K 1	I	Key scan input 1
40	K 0	I	Key scan input 0
41	SB	O	Super bass led control output
42	SD	O	Super direct led control output
43	DIG 9	O	Digit data output
44	DIG 8	O	
45	DIG 7	O	
46	DIG 6	O	
47	DIG 5	O	
48	DIG 4	O	
49	DIG 3	O	
50	DIG 2	O	
51	DIG 1	O	
52	DIG 0	O	
53	SEG 19	O	Segment data output
54	SEG 18	O	
55	SEG 17	O	
56	SEG 16	O	
57	SEG 15	O	
58	SEG 14	O	

Pin No.	PORT NAME	I/O	DESCRIPTION
59	SEG 13	O	Segment data output
60	SEG 12	O	
61	SEG 11	O	
62	SEG 10	O	
63	SEG 9	O	
64	SEG 8	O	
65	SEG 7	O	
66	SEG 6	O	
67	SEG 5	O	
68	SEG 4	O	
69	SEG 3	O	
70	SEG 2	O	
71	SEG 1	O	
72	SEG 0	O	
73	VCC		+5V
74	VEE		-Vp
75	AVSS		GND
76	VREF		+5V
77	TUNED	I	TUNED display input
78	STEREO	I	STEREO display input
79	CD POWER OFF	O	CD power off output H:OFF
80	FC 2	O	For switching function output

μPD75108CW (AX-550/650 SYSTEM CONTROL MI-COM)

Pin No.	PORT NAME	I/O	DESCRIPTION
1	PLAY·II	O	Input detect head position
2	PACK·II	O	Input detect pack
3	AR·REV·II	O	Input inhibit reverse recording
4	120μ/70μ·II	O	Input detect 120μs/70μs tape L:120μs
5	AR·FWD·II	O	Input inhibit forward recording
6	PLAY I	O	Input detect head position
7	PACK I	O	Input detect pack
8	120μ/70μ·I	O	Input detect 120μs/70μs tape L:120μs
9	REEL·II	O	Reel pulse input
10	REEL·I	O	Reel pulse input
11	x 1 PB 70μs	O	x 1/ x 2 speed playback EQ switching output
12	x 2 PB 70μs	O	x 2 speed playback EQ switching output
13	PB MUTE	O	Playback mute control output
14	CROSS	O	CROSS EDIT control output
15	DATA IN	I	Bus serial data input
16	DATA OUT	O	Bus serial data output
17	CLK IN	I	Bus clock input
18	BOP	I	Music interval detection signal input H:Music interval
19	PB TAPE I	O	TAPE I playback switching control output
20	PB TAPE II	O	TAPE II playback switching control output
21	HEAD REC/PB	O	HEAD recording/playback control output H:playback
22	MECHA POWER	O	Capstan motor stop input
23	MOTOR x 1/ x 2·I	O	Capstan motor x 1/ x 2 speed switching output L: x 1 H: x 2
24	PL COMMON	O	Plunger ON/OFF control output
25	PL·I	O	Plunger ON/OFF control output
26	x 2 PB PEAK	O	For x 1/ x 2 speed playback peaking frequency switching
27	MOTOR x 1/ x 2·II	O	Capstan motor x 1/ x 2 speed switching output L: x 1 H: x 2
28	PL·II	O	Plunger ON/OFF control output
29	FWD LAMP·II	O	TAPE II ▶ LAMP control output
30	FWD LAMP·I	O	TAPE I ▶ LAMP control output
31	VCC		+5V power supply
32	VDD		+5V power supply
33	x 1 DUBBING LAMP	O	x 1 DUBBING LAMP control output
34	REV LAMP·I	O	TAPE I ◀ LAMP control output
35	REC PAUSE LAMP	O	REC PAUSE LAMP control output
36	x 2 DUBBING LAMP	O	x 2 DUBBING LAMP control output
37	REV LAMP·II	O	TAPE II ◀ LAMP control output
38	TAPE II LAMP	O	TAPE II LAMP control output
39	TAPE I LAMP	O	TAPE I LAMP control output
40	MAIN VR LAMP	O	MAIN VR LAMP control output
41	TAPE II	I	TAPE II operation input L:ON
42	TAPE I	I	TAPE I operation input L:ON
43	x 1 DUB	I	x 1 SPEED DUBBING L:ON
44	x 2 DUB	I	x 2 SPEED DUBBING L:ON
45	RESET	I	Reset signal input
46	x 2	O	Main clock output
47	x 1	I	Main clock input
48	REW	I	Command rewind tape play L:ON
49	REV	I	Command reverse tape play L:ON
50	STOP	I	Command stop machanism movement L:ON
51	FWD	I	Command forward tape play L:ON
52	FF	I	Command fast forward tape play L:ON
53	REC PAUSE	I	REC PAUSE command input L:ON
54	AUTO MUTE	I	AUTO MUTE command input L:ON
55	POWER SW	I	Power switch ON/OFF command input
56	PACK MUTE	O	PACK MUTE control putput
57	DOLBY REC/PB	O	DOLBY recording/playback control output
58	REC MUTE	O	REC MUTE control output L:MUTE ON
59	x 2 REC PEAKING	O	For x1/ x 2 speed recording peaking frequency switching
60	REC CrO_2	O	CrO_2 tape recording EQ switching output H:CrO_2 tape
61	FADE	O	FADE EDIT control output
62	OSC	O	Bias OSC control output H:OSC ON
63	x1 REC PEAKING	O	For x1/ x 2 speed recording peaking frequency switching H: x1
64	VSS		GND