

FM/AM RECEIVER

KR-A4060/A5060

SERVICE MANUAL

KENWOOD

© 1994-7 PRINTED IN KOREA
B51-4945-00 (K)3891

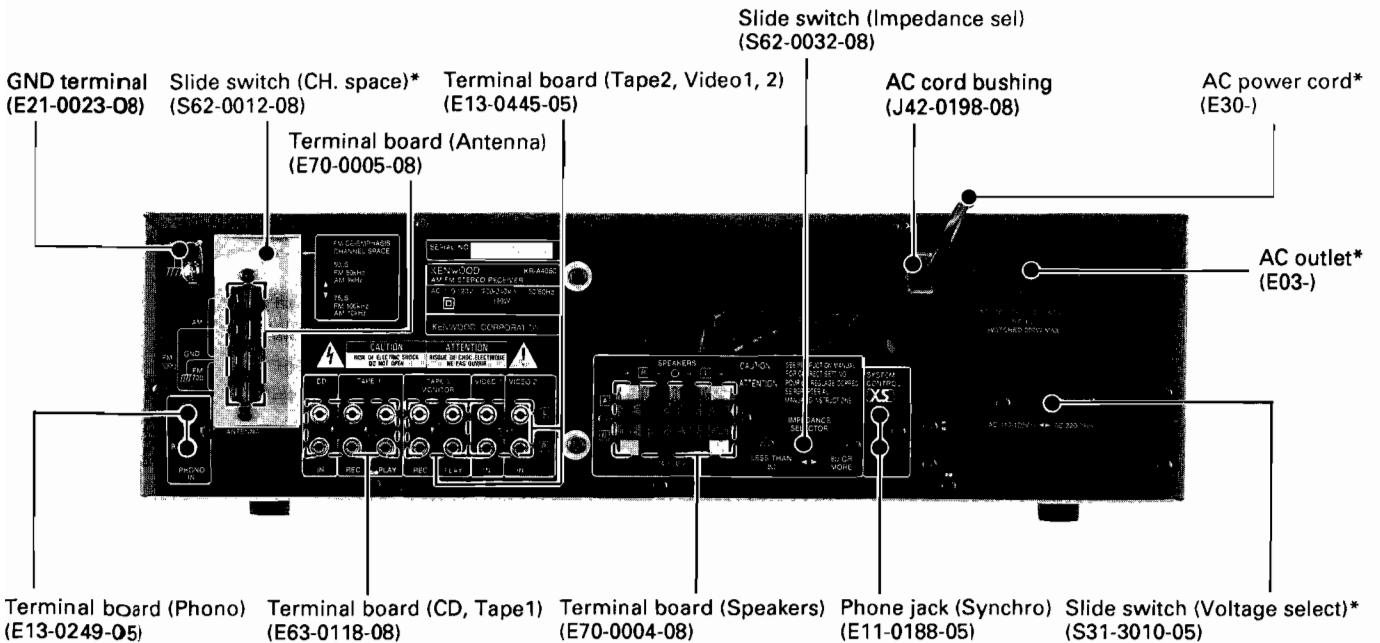
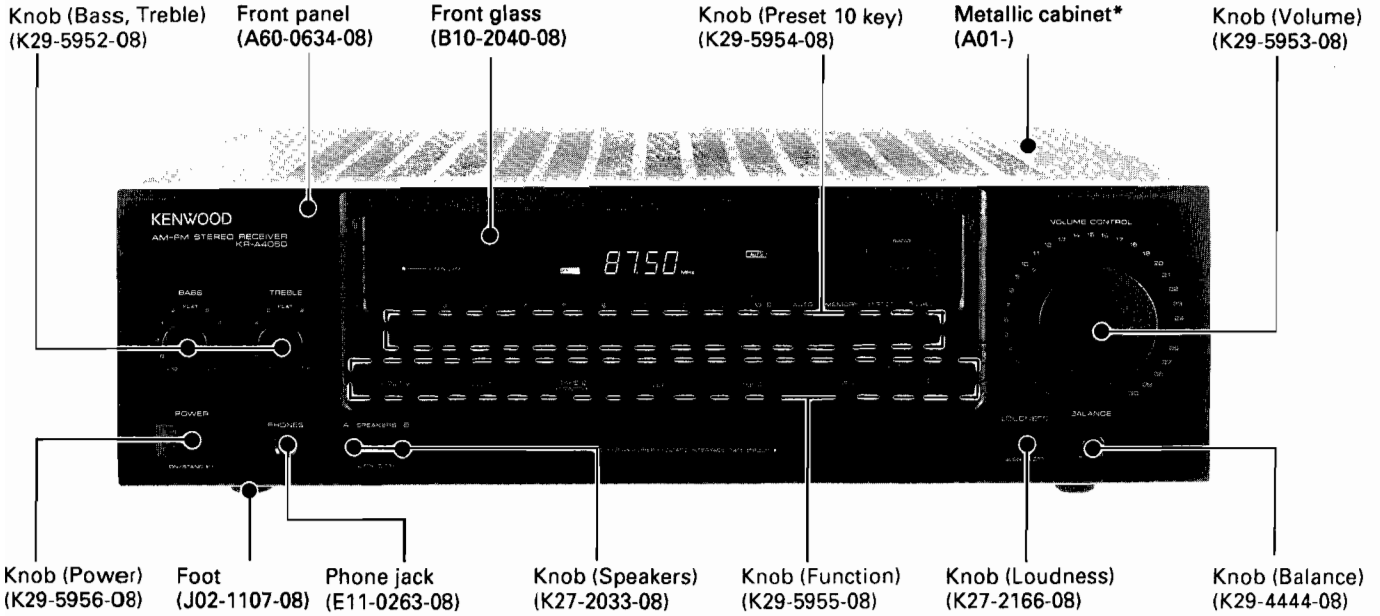


Photo is KR-A4060 (M type).
***Refer to parts list on page 35.**

KR-A4060/A5060

CONTENTS / EXTERNAL VIEW : KR-A5060

CONTENTS

EXTERNAL VIEW : KR-A5060 (Except E, T type) ...	2
EXTERNAL VIEW : KR-A5060 (E, T type)	3
REMOTE CONTROL OPERATION	4
DISASSEMBLY FOR REPAIR	5
CIRCUIT DESCRIPTION	6
SPECIFICATIONS	87
ACCESSORIES	BACK COVER

KR-A5060 (EXCEPT E, T type)

BLOCK DIAGRAM	39
ADJUSTMENT/AJUSTES	41
WIRING DIAGRAM	44
PC BOARD (COMPONENT SIDE VIEW)	45
SCHEMATIC DIAGRAM	49
EXPLODED VIEW	57
PARTS LIST	59

KR-A4060 (EXCEPT E, T type)

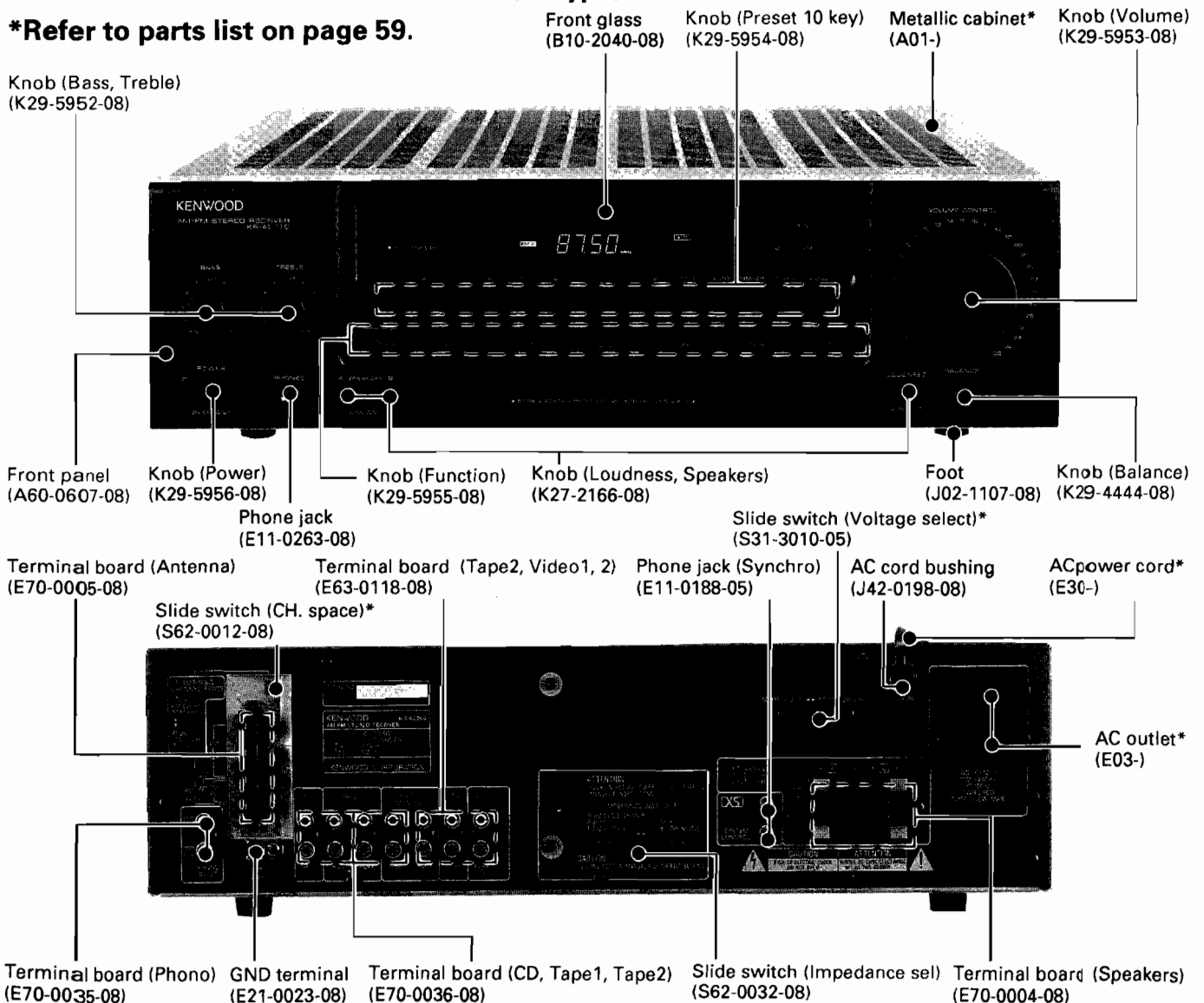
BLOCK DIAGRAM	15
ADJUSTMENT/AJUSTES	17
WIRING DIAGRAM	20
PC BOARD (COMPONENT SIDE VIEW)	21
SCHEMATIC DIAGRAM	25
EXPLODED VIEW	33
PARTS LIST	35

KR-A4060/A5060 (E, T type)

BLOCK DIAGRAM	63
ADJUSTMENT/AJUSTES	65
WIRING DIAGRAM	68
PC BOARD (COMPONENT SIDE VIEW)	69
SCHEMATIC DIAGRAM	73
EXPLODED VIEW	81
PARTS LIST	83

EXTERNAL VIEW : Photo is KR-A5060 (M type).

*Refer to parts list on page 59.



KR-A5060

KENWOOD

SERVICE MANUAL

© 1994-7 PRINTED IN KOREA
B51-4945-00 (K)3891

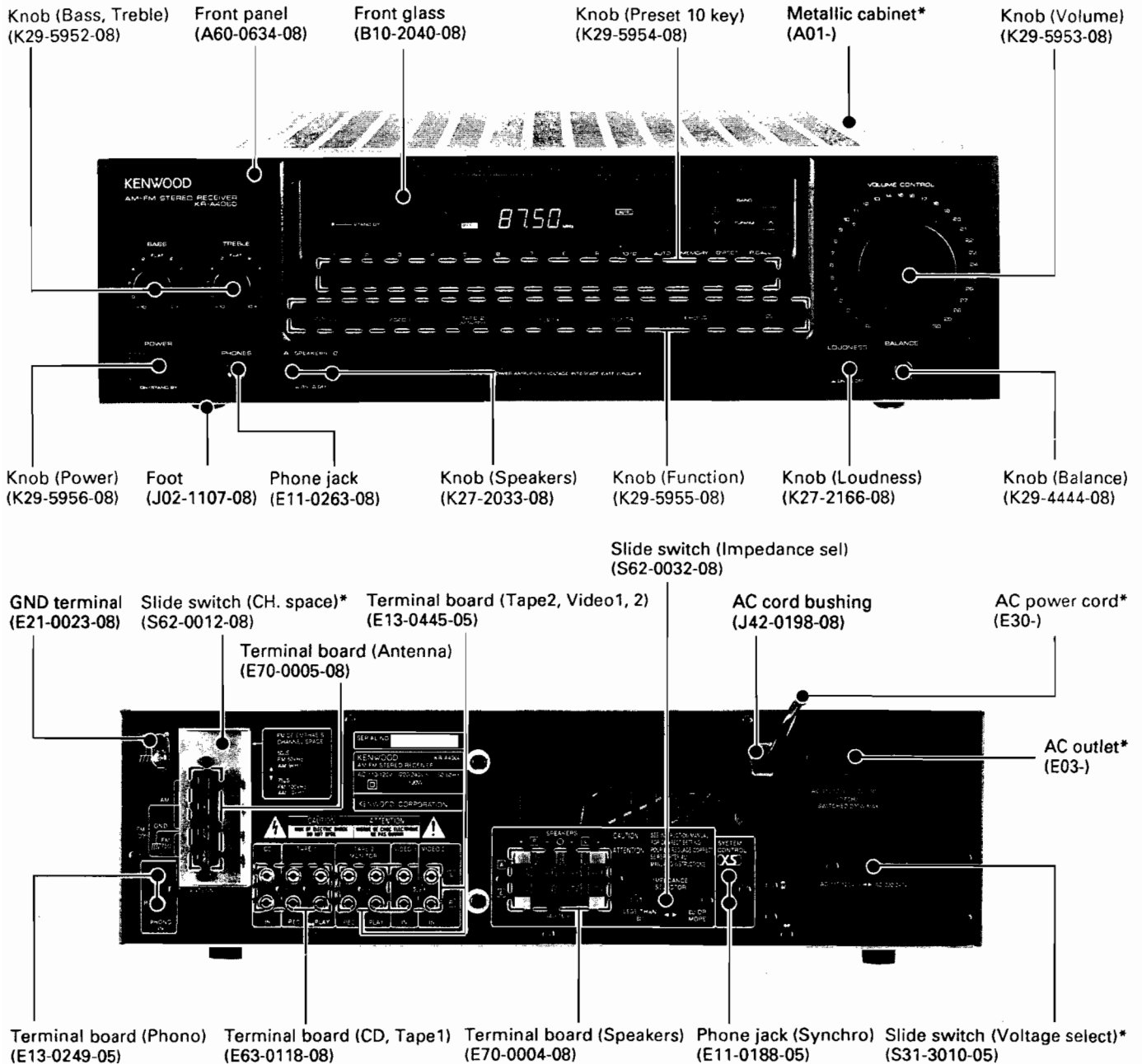
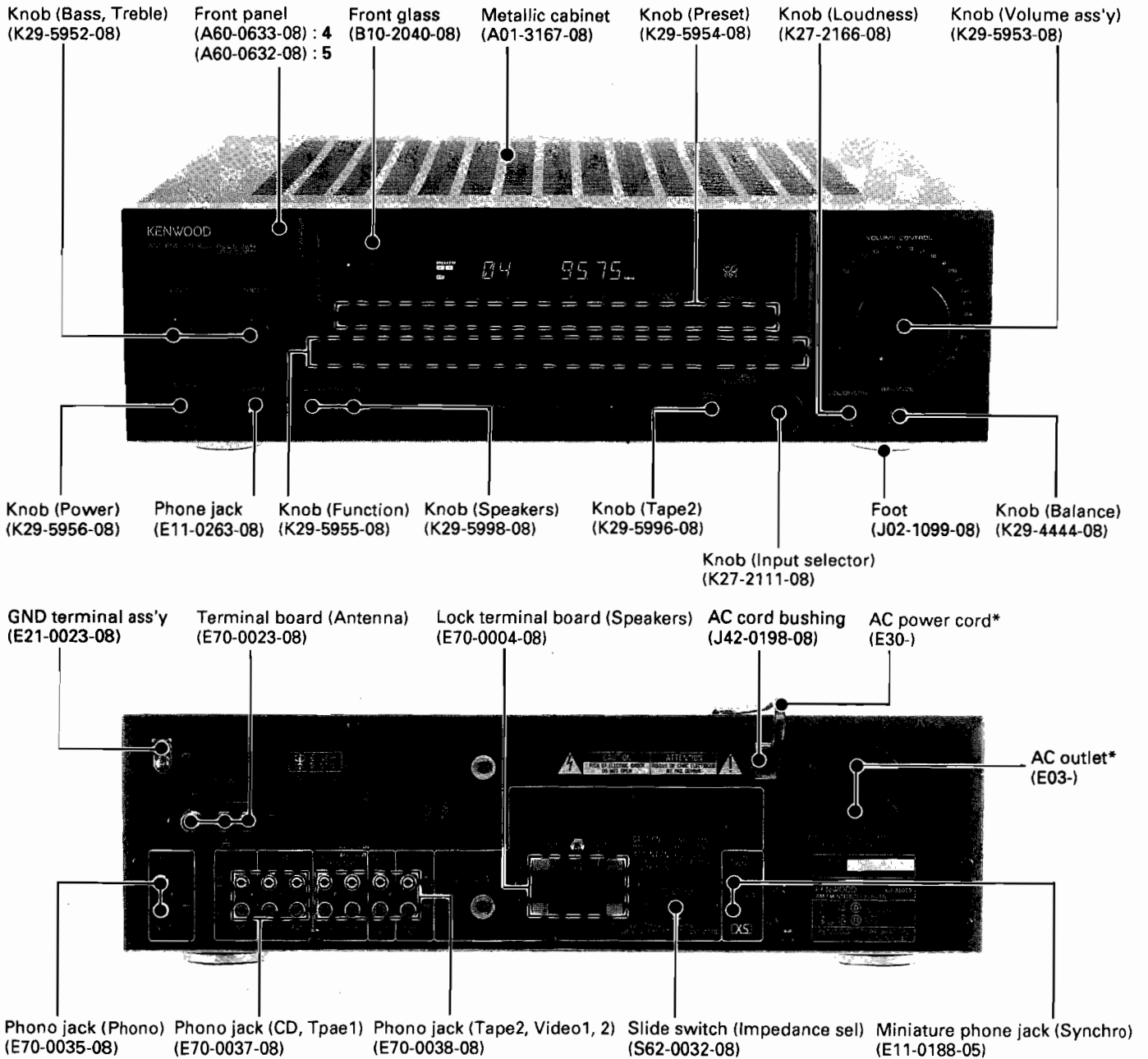


Photo is KR-A4060 (M type).

*Refer to parts list on page 35.

KR-A4060/A5060

EXTERNAL VIEW : KR-A5060



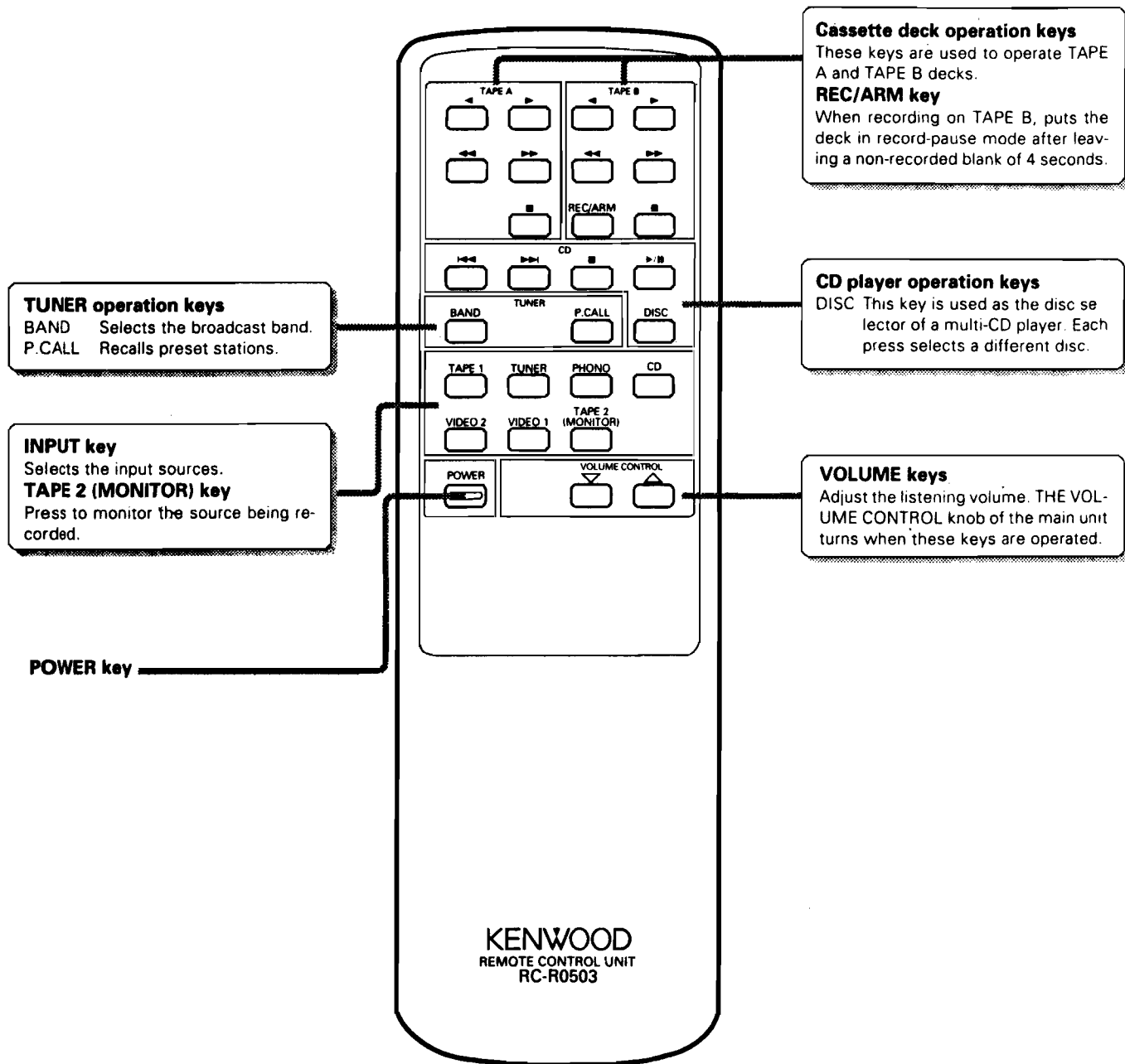
4 : KR-A4060
5 : KR-A5060

Photo

*Refer to parts list on page 83.

KR-A4060/A5060

REMOTE CONTROL OPERATION

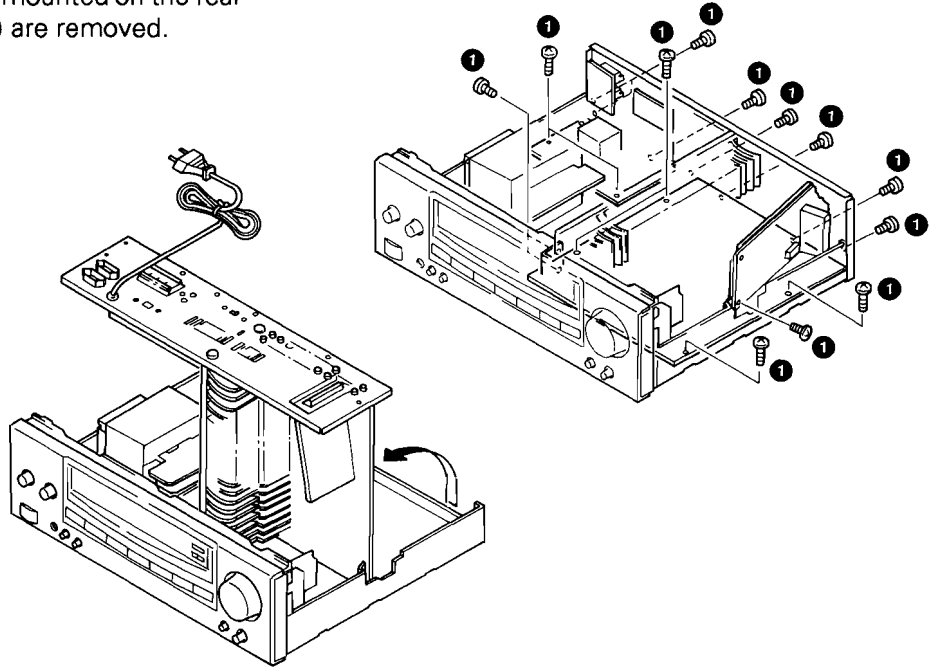


Model: RC-R0503
Infrared ray system

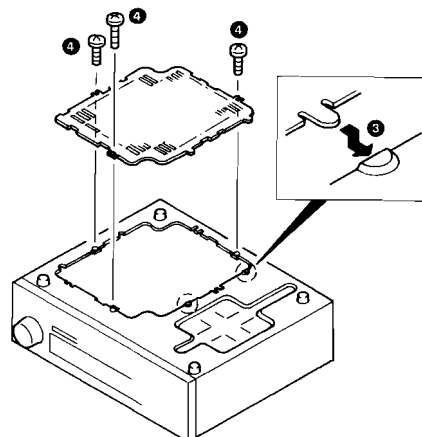
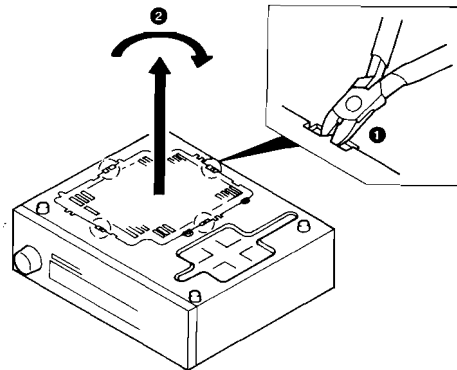
KR-A4060/A5060

DISASSEMBLY FOR REPAIR

1. Repair can be carried out with the Main (AUDIO) PCB and the power supply PCB mounted on the rear panel when the 17 screws (❶) are removed.



2. Cut the 4 places with a pair of nippers (❶), and remove the bottom panel from chassis.
3. Move the unit holder from the current position to the open mounting position.
4. Rotate the lid, which was cut off, by 180° degrees (❷).
5. Insert the lids in the 2 places of the chassis (❸), and mount them with the 3 screws (❹).



KR-A4060/A5060

CIRCUIT DESCRIPTION

1. Setting

1-1. Initial setting

• Function initial setting

Last channel memory FM : 87.5MHz
 K type AM : 530kHz
 E type AM : 531kHz
 Tuning mode Auto
 Band FM1
 Input selector Tuner
 VIDEO monitor VIDEO 1
 TAPE 2 monitor OFF
 Muting OFF
 Power OFF

Frequency memorized for each PRESET channel when the memory is cleated (Test frequency)

Band type	FM1 (MHz)		FM2 (MHz)		AM (kHz)	
	K	E	K	E	K	E
1ch	87.5	87.5	87.5	87.5	530	531
2ch	89.1	89.1	87.5	87.5	630	630
3ch	90.0	90.0	87.5	87.5	990	990
4ch	92.0	92.0	87.5	87.5	1440	1440
5ch	94.0	94.0	87.5	87.5	1610	1602
6ch	98.0	98.0	87.5	87.5	1700*	531
7ch	100.1	100.1	87.5	87.5	530	531
8ch	102.0	102.0	87.5	87.5	530	531
9ch	106.0	106.0	87.5	87.5	530	531
10ch	108.0	108.0	87.5	87.5	530	531

*1700kHz is set for WIDE only.

• μ -com output port initial setting

[Any figure in () is a pin number.]

POWER (24) "L"
 MUTE 1 (25) "H"
 MUTE 2 (26) "H"
 VRDOWN (1) "L"
 VRUP (63) "L"

The initial setting is performed in a following event

1. When backup memory data is destroyed when reset is applied to the μ -com.
2. When the power cord is plugged in to the AC wall outlet while pressing the TUNER key.

1-2. Test mode setting

• Method of entering the test mode

While pressing the CD key, plug the power cord to the AC wall outlet. When the test mode is entered, the FL tube display all lights up.

• Method of canceling the test mode

1. Unplug the power cord from the AC wall outlet once.
2. Send the reset signal to the RESET pin or some other means to reset the μ -com.

• Contents of test mode

1. When the test mode is entered, the FL tube display all lights up. This all lighting continues unless a effective remote control serial code or the test mode is canceled.
2. The test frequency is stored in memory for each preset channel. (For each frequency to be stored in memory, refer to its associated listing.)
3. The test mode is different from the normal mode in the following operations :
 When the tuner UP or DOWN key is pressed when a mode other than TUNER has been selected, the potentiometer is increased or decreased.
 Once one of the these keys has been pressed, the operation continues even if the key is released.
 It stops automatically if the AUTO or POWER key is pressed or if the AUTO or POWER key is not pressed for 16 seconds.

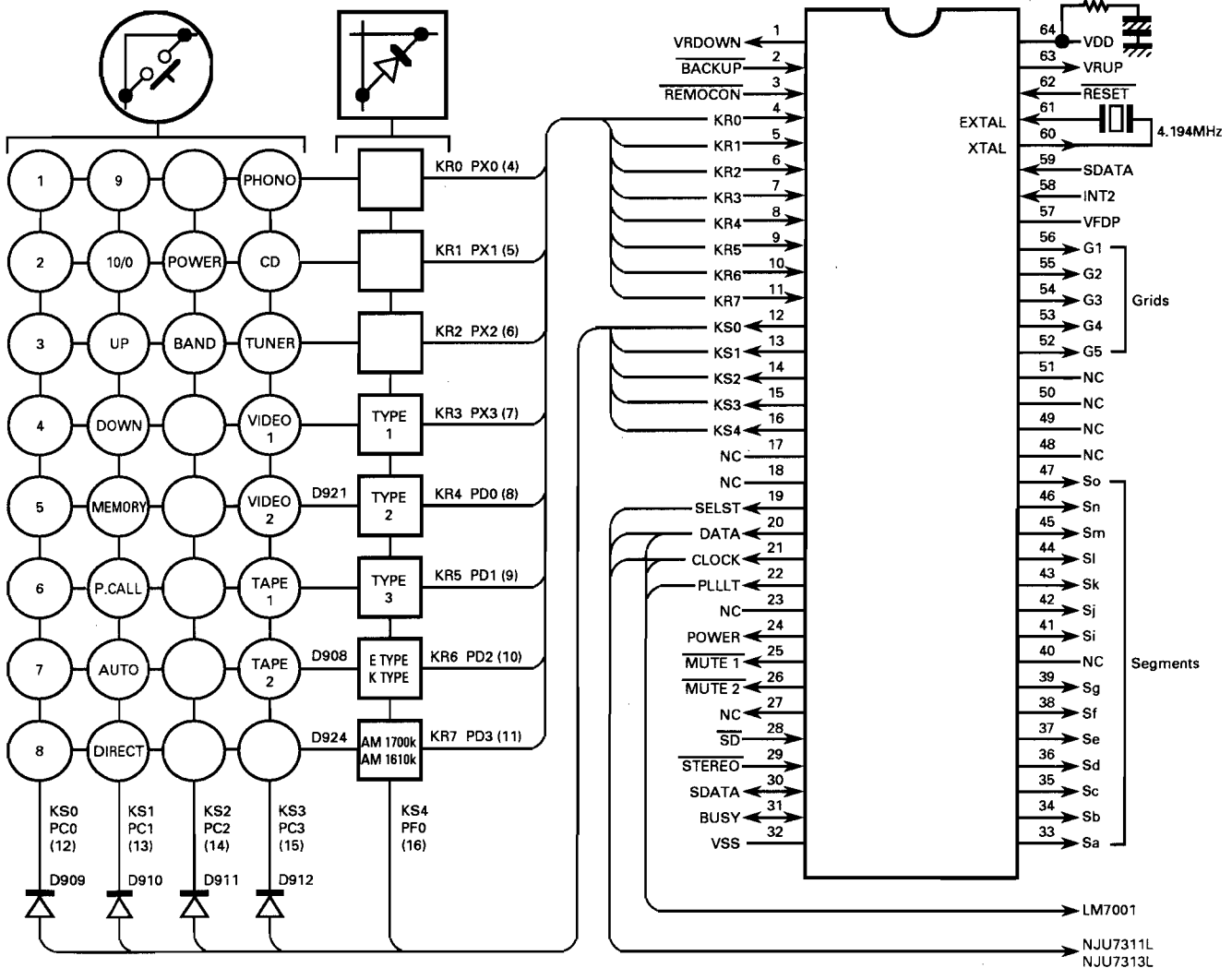
EXCEPT E,T

KR-A4060/A5060

CIRCUIT DESCRIPTION

2. Receiver μ -com : CXP5016-531S (Front PCB : IC901)

2-1. Key matrix connection diagram



2-2. Setting of destinations, models and specifications depending upon diode key matrix

The setting of destinations, models and specifications is made according to the initial set diode key matrix. In the following, "1" means with diodes and "0" without diodes.

• Model set switch (Type 2 : D921)

Model set switch			MODEL	Function		
Type 1	Type 2	Type 3		TUNER band	VOL.CONT with motor	REMOCON
-	1	0	KR-A4060/A5060	→FM1→FM2→AM→	Provided	Provided

EXCEPT

KR-A4060/A5060

CIRCUIT DESCRIPTION

• Destination set switch : E/K type (D908 to Q903)

Destination set switch	Destination	BAND	Reception frequency band	Channel space	Reference frequency
0	K	FM	87.5~108.0MHz	100kHz	50kHz
		AM	530~1610kHz	10kHz	10kHz
		AM	530~1700kHz	10kHz	10kHz
1	E	FM	87.5~108.0MHz	50kHz	50kHz
		AM	531~1602kHz	9kHz	9kHz

- Specification set switch :
AM 1700k/AM 1610k (D924)
 With destination set switch at "0" :
Effective only for K type

Specification set switch	AM reception frequency band
0	530~1610kHz
1	530~1700kHz

2-3. Pin function

No.	Name	I/O	Function
1	VRDOWN	O	Volume down operation control. ("H" : Down, "L" : Normal state)
2	BACKUP	I	Backup (AC outlet OFF) detection. ("H" : Normal state, "L" : AC outlet off)
3	REMOCON	I	Remocon signal input. (Active "L")
4~7	KR0~KR3	I	Key return signal input. ("H" : There is input, "L" : There is not input)
8~11	KR4~KR7		
12~16	KS0~KS4	O	Key scan signal output. Normally high is output. Key scan is performed when key is ON.
17, 18	NC	O	Not used.
19	SELST	O	Data latch signal output to NJU7311L/NJU7313L. Data is latched on the rising edge.
20	DATA	O	LM7001 (PLL IC), NJU7311L/NJU7313L (selector IC) control serial data output. Data is latched on the rising edge of the clock.
21	CLOCK		LM7001, NJU7311L/NJU7313L control serial data transfer shift clock output. Data is latched on the rising edge of the clock.
22	PLLLT	O	CE signal output to LM7001. When the signal is high, LM7001 is enable.
23	NC	-	Not used.
24	POWER	O	Power supply circuit relay ON/OFF control. ("H" : ON, "L" : OFF)
25	MUTE1	O	TAPE 2 REC OUT mute control. ("H" : MUTE OFF, "L" : MUTE ON)
26	MUTE2	O	LINE OUT mute control. ("H" : MUTE OFF, "L" : MUTE ON)
27	NC	O	Not used.
28	SD	I	Tuner tuned detection. ("H" : No signal, "L" : Tuned)
29	STEREO	I	Tuner FM stereo detection. ("H" : MONO, "L" : STEREO)
30	SDATA	I/O	This pin and serial data pin 59 are shorted.
31	BUSY	I/O	Serial busy signal input/output.
32	Vss	-	GND
33~47	Sa~So	O	Fluorescent display segment drive signal output. (Pin 40 muted)
48~51	-	O	Not used.
52~56	G5~G1	O	Fluorescent display digit drive signal output.
57	VFDP	-	Fluorescent display output driver circuit power supply.
58	INT2	I	Not used. This pin and GND are shorted.
59	SDATA	I	This pin and serial data input pin 30 are shorted.
60	XTAL	O	Clock generation circuit output pin.
61	EXTAL	I	Clock generation circuit input pin.
62	RESET	I	Reset signal input.
63	VRUP	O	Volume up operation control. ("H" : UP, "L" : Normal state)
64	VDD	-	+5V power supply.

EXCEPT

KR-A4060/A5060

CIRCUIT DESCRIPTION

3. Function description

Features

3-1. AMP

- Seven position selector :
CD, TUNER, PHONO, TAPE1, TAPE2, VIDEO1, VIDEO2
- Six audio output terminals :
CD, PHONO, TAPE1, TAPE2, VIDEO1, VIDEO2
- Three output terminals :
TAPE1, TAPE2
- LINE STRAIGHT

- Speaker A/B change-over
- TAPE2 monitor

3-2. TUNER

- 20ch random preset
- Tuning control by IF count
- Direct selection
- RDS function (E, T type only)

4. Conditions according to the destination and model

4-1. AMP

MODEL	DIODE SW		Surround function
	5	4	
KR-V7050	0	0	PRO-LOGIC, 3-STEREO, DSP, DSP-LOGIC
KR-V6050 (Except E, T only)	0	1	PRO-LOGIC, 3-STEREO
KR-A4060/A5060 (E, T only)	1	X	No surround

X : Don't care

4-2. TUNER

Destination	DIODE SW				Band	Receiving Remarks	Channel space	IF	RF	Note
	3	2	1	0						
K1	0	0	0	0	FM	87.5MHz~108.0MHz	100kHz	+10.7MHz	50kHz	
					AM	530kHz~1610kHz	10kHz	+450kHz	10kHz	
K2	0	0	1	0	FM	87.5MHz~108.0MHz	100kHz	+10.7MHz	50kHz	
					AM	530kHz~1700kHz	10kHz	+450kHz	10kHz	
E	0	1	0	0	FM	87.5MHz~108.0MHz	50kHz	+10.7MHz	50kHz	
					AM	531kHz~1602kHz	9kHz	+450kHz	9kHz	
E	1	1	0	0	FM	87.5MHz~108.0MHz	50kHz	+10.7MHz	50kHz	With RDS
					AM	531kHz~1602kHz	9kHz	+450kHz	9kHz	

4-3. Diode matrix : Diode switch No.

	Pin No.	55	56	57	58	59	60
Pin No.	Pin name	KR5	KR4	KR3	KR2	KR1	KR0
61	KS7	Channel space	AM 1610/1700	RDS Yes/No	DSP.DOL/DOL only	Surround Yes/No	(X)
Diode switch No.		2	1	3	4	5	0
Diode Ref. No.		D911	-	D910	-	D909	-

- Diode SW 0→
- Diode SW 1→ AM band range/Except E, T type only
0 : AM NARROW
1 : AM WIDE
- Diode SW 2→ Channel base
(Products bound for M : Change-over with switch)
0 : FM 100kHz/step, AM 10kHz/step
1 : FM 50kHz/step, AM 9kHz/step

- Diode SW 3→With/Without RDS/E, T type only
0 : Without RDS
1 : With RDS
- Diode SW 4→Surround mode
0 : Dolby function & DSP function
1 : Dolby function only
- Diode SW 5→With/Without surround
0 : With surround
1 : Without surround

KR-A4060/A5060

CIRCUIT DESCRIPTION

5. Initial state

- ① POWER OFF
- ② AMP system
 - Audio selector TUNER
 - Video system selector VIDEO 1
 - Speaker A ON
 - Speaker B OFF
 - TAPE 2 monitor OFF
 - LINE STARIGHT OFF
- ③ TUNER system
 - Band FM
 - Frequency Lower limit of FM (87.5MHz)
 - TUNING mode AUTO TUNING (AUTO STEREO)
 - P.CH indication - -ch
- ④ Test frequency

	K1 type	K2 type	E type
01ch	FM 98.00MHz	FM 98.00MHz	FM 98.00MHz
02ch	FM108.00MHz	FM108.00MHz	FM108.00MHz
03ch	AM 630 kHz	AM 630 kHz	AM 630 kHz
04ch	AM 990 kHz	AM 990 kHz	AM 990 kHz
05ch	AM 1440 kHz	AM 1440 kHz	AM 1440 kHz
06ch	AM 1610 kHz	AM 1700 kHz	AM 1602 kHz
07ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
08ch	FM 98.50MHz	FM 98.50MHz	FM 98.50MHz
09ch	AM 530 kHz	AM 530 kHz	AM 531 kHz
10ch	FM 89.10MHz	FM 89.10MHz	FM 89.10MHz
11ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
12ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
13ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
14ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
15ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
16ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
17ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
18ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
19ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
20ch	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz

Initial setting Insert the AC power cord plug in the electrical outlet while pushing the "POWER" key.

CIRCUIT DESCRIPTION

6. Main Unit Test Mode

Setting method

Turn the AC power ON while pushing the "TUNING DOWN" key.

Cancellation method

Turn the AC power OFF.

Contents

① Start of the main unit test mode

The operation gets in the test mode through a main unit key, when the AC power is turned ON while pushing the "TUNING DOWN" key.

Three operations are carried out in this case.

- Automatic power ON
- All fluorescent character display tubes and LED light up.
- Initialization of all states except POWER ON/OFF.
The "All indications lit up" states is cancelled by pushing any key of the main unit.
The states changed during the test mode are initialized when the main unit test mode is cancelled (AC power OFF).

② Automatic motor VR UP/DOWN (AMP)

The operation (16 sec. UP→16 sec. DOWN→STOP) of the motor is carried out when the "TAPE 2" key is operated. Therefore, "TAPE 2 (MONITOR)" can not be changed-over during the main unit test mode.

③ Mute signal output (AMP)

No control of selector MUTE (MUTE1) is carried out.

④ Test mode operation of 0~9, +10 (TUNER)

- a) When the +10 key is not operated, the channels 1~9 (keys 1~9), as well as the channel 10 (key 0), can be called.
- b) When the +10 key is operated once, the channels 11~19 (keys 1~9), as well as the channel 20 (key 0), can be called.
- c) When the +10 key is operated once again, the operation returns to the case "a) When the +10 key is not operated".

⑤ Processing of keys available only in the remote controller

- Processing related to the AMP : None
- Processing related to the TUNER : None

⑥ Cancellation of the main unit test mode

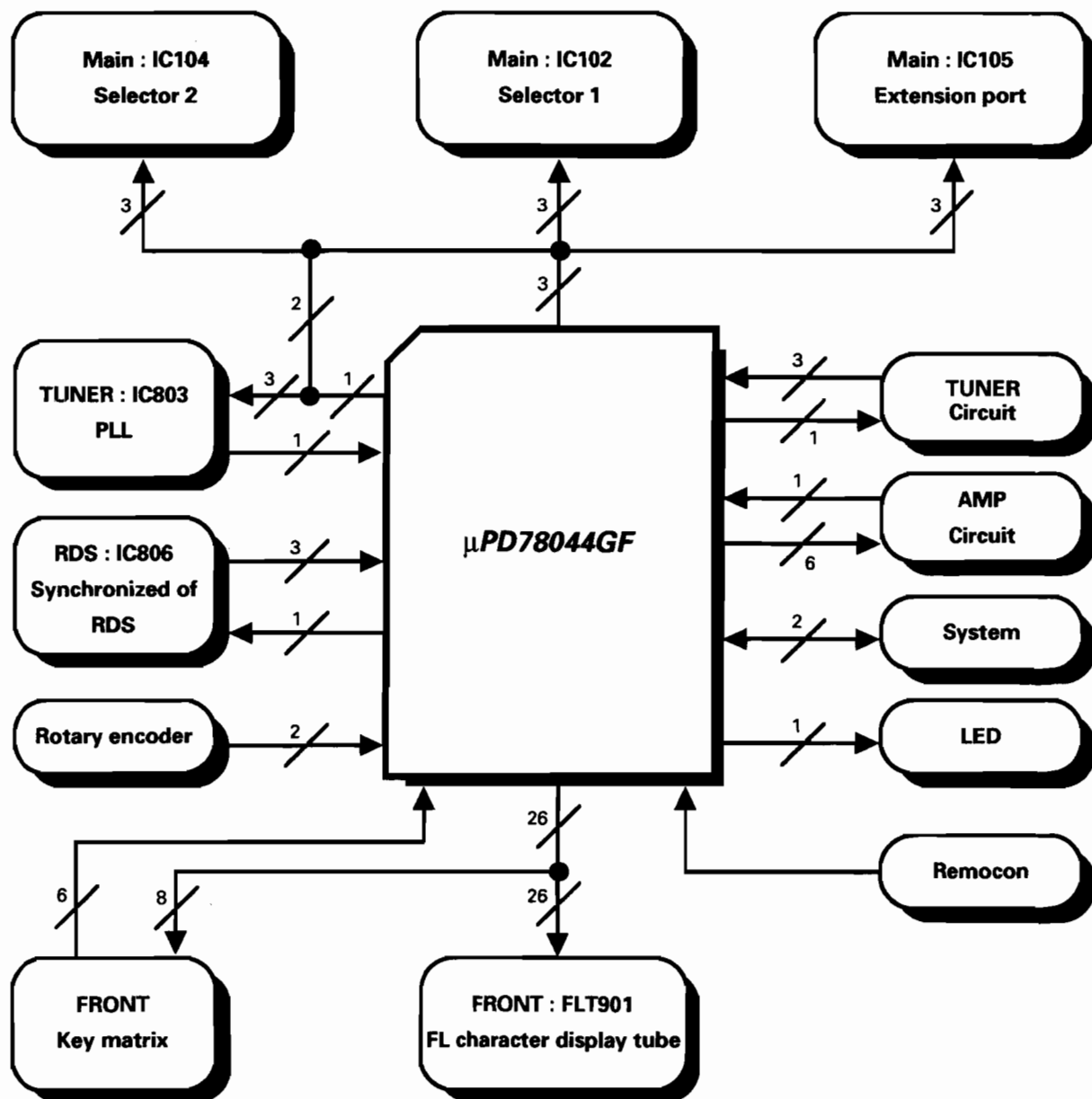
The test mode is cancelled, and the operation returns to the initial state when the AC power is turned OFF during the test mode.

KR-A4060/A5060

CIRCUIT DESCRIPTION

7. μ -com : μ PD78044GF-021 (Front PCB : IC901)

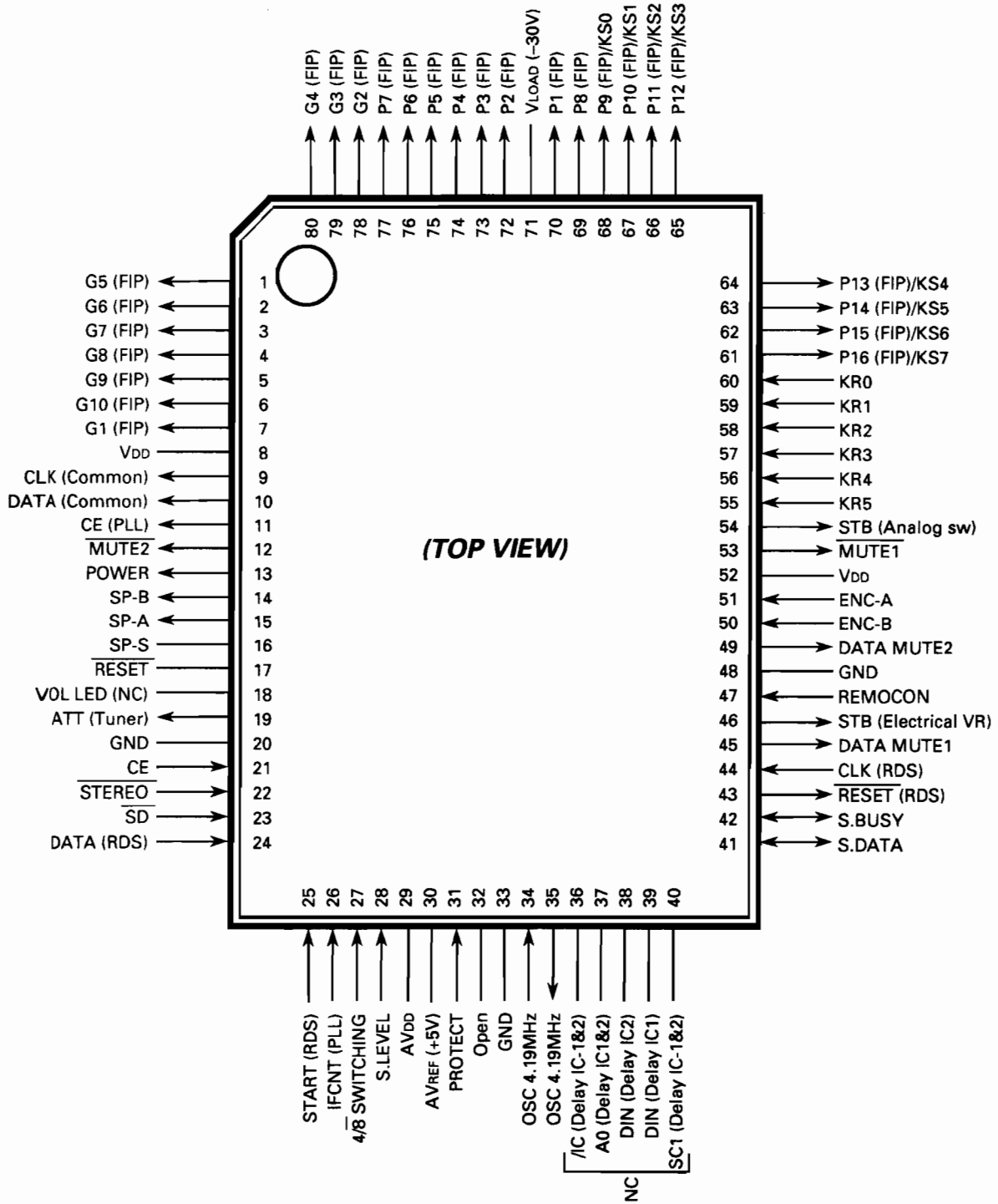
7-1. μ -com periphery block diagram



KR-A4060/A5060

CIRCUIT DESCRIPTION

7-2. Pin connection



KR-A4060/A5060

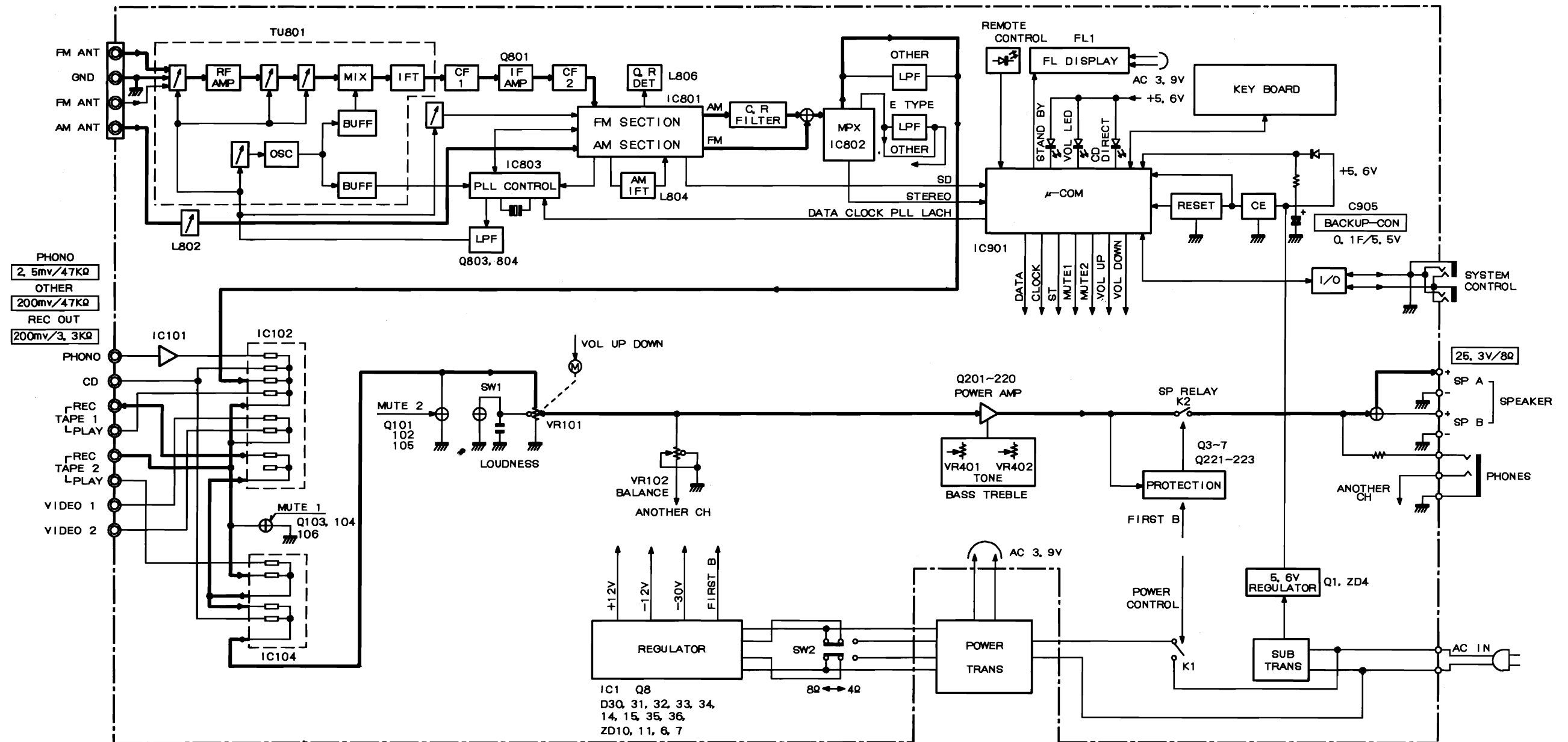
CIRCUIT DESCRIPTION

7-3. Pin function

No.	Name	I/O	Function
1~6, 7	G5~G10, G1	O	FL grid 5~10, and 1.
8	VDD	-	Power supply.
9	CLK (Common)	O	Clock for control IC. (Analog sw/PLL IC/Electronic VOL)
10	DATA (Common)	O	Data for control IC. (Analog sw/PLL IC/Electronic VOL)
11	CE (PLL)	O	PLL CE.
12	MUTE2	O	Amplifier mute control. ("H" : Mute OFF, "L" : Mute ON)
13	POWER	O	Power relay control. ("H" : Power ON, "L" : Power OFF)
14	SP-B	O	Speaker B relay control. ("H" : SP-B ON, "L" : SP-B OFF)
15	SP-A	O	Speaker A relay control. ("H" : SP-A ON, "L" : SP-A OFF)
16	SP-S	-	Not used (open).
17	RESET	I	μ -com reset.
18	VOL LED	-	Not used (open).
19	ATT (Tuner)	O	Attenuator control ("H" : ATT ON, "L" : ATT OFF)
20	GND	-	A/D power supply.
21	CE	I	μ -com CE.
22	STEREO	I	Stereo signal detection. ("H" : Monaural, "L" : Stereo)
23	SD	I	Tuning signal detection. ("H" : Not tuned, "L" : Tuned)
24	DATA (RDS)	I	RDS data.
25	START (RDS)	I	RDS start bit.
26	IFCNT (PLL)	I	IF CNT data (PLL DO).
27	4/8 SWITCHING	I	Speaker impedance switching. ("H" : 4 Ω , "L" : 8 Ω)
28	S.LEVEL	I	Signal level (A/D).
29	AVDD	-	A/D power supply.
30	AVREF	-	A/D reference voltage (+5V).
31	PROTECT	I	Protection detection. ("H" : Protection, "L" : Normal)
32	NC	-	Open.
33	Vss	-	GND
34	X1	I	4.19MHz oscillator.
35	X2	O	4.19MHz oscillator.
36	/IC (DELAY IC-1 & 2)	-	Not used.
37	A0 (DELAY IC-1 & 2)	-	Not used.
38	DIN (DELAY IC-1)	-	Not used.
39	DIN (DELAY IC-2)	-	Not used.
40	SC1 (DELAY IC-1 & 2)	-	Not used.
41	S.DATA	I/O	8-bit system data.
42	S. BUSY	I/O	8-bit system busy.
43	RESET (RDS)	O	RDS reset.
44	CLK (RDS)	I	RDS clock.
45	DT MUTE1	O	Data mute 1. ("H" : ON, "L" : OFF)
46	STB (Electical VOL)	-	Not used.
47	REMOCON	I	Remote controller input.
48	GND	-	
49	DT MUTE2	-	Not used.
50, 51	ENC-B, ENC-A	I	Encoder input. (50 pin : Encoder B, 51 pin : Encoder A)
52	VDD	-	Power supply.
53	MUTE1	O	Selector MUTE control. ("H" : MUTE OFF, "L" : MUTE ON)
54	STB (Analog sw)	O	Analog sw STB.
55~60	KR5~KR0	I	Key return 5~0. (Pin 56 : Not used)
61~68	P16/KS7~P9/KS0	O	FL segment 16~9 / Key scan 7~0.
69, 70	P8, P1	O	FL segment. (69 pin : Segment 8, 70 pin : Segment 1)
71	-30V (VLOAD)	-	FL drive power supply.
72~77	P2~P7	O	FL segment 2~7.
78~80	G2~G4	O	FL grid 2~4.

KR-A4060 KR-A4060

BLOCK DIAGRAM



KR-A4060

KR-A4060

ADJUSTMENT

AJUSTES

AM section : If alignment point is "-", confirm the value. If not, replace the front end pack.

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION SELECTOR : FM							
1	DISCRIMINATOR	(A) 98.0MHz 1kHz, ±75kHz dev. 60dBμ(ANT. input)	Connect a DC voltmeter between TP803 and TP804. (TUNER UNIT)	AUTO or MONO 98.0MHz	L806 (TUNER UNIT)	0V.	(a)
2	VCO	(A) 98.0MHz 0 dev. 60dBμ(ANT. input)	Connect a Frequency counter between TP805 and TP806. (TUNER UNIT)	AUTO 98.0MHz	L802 (TUNER UNIT)	19.00kHz	(b)
3	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ±68.25kHz dev. Selector : L or R Pilot : ±6.75kHz dev. 60dBμ(ANT. input)	(B)	98.0MHz	IFT (W02-)	Minimum distortion. (L or R)	
4	TUNING LEVEL	(A) 98.0MHz 0 dev. 18dBμ(ANT. input)	(B)	AUTO or MONO 98.0MHz	VR801 (TUNER UNIT)	Adjust VR801 and stop at the point where FLT901 (TUNED) goes on.	
AM SECTION SELECTOR : AM							
(1)	TUNING LEVEL	(D) 1000 (999) kHz 26dBμ(ANT. input)	(B)	-	VR804 (TUNER UNIT)	Adjust VR804 and stop at the point where FLT901 (TUNED) goes on.	
AUDIO SECTION							
<1>	IDLE CURRENT	-	Connect a DC voltmeter across CP1 (L), CP2 (R) (MAIN UNIT)	Volume : 0	VR201 (L) VR202 (R) (AUDIO UNIT)	10mV	(d)

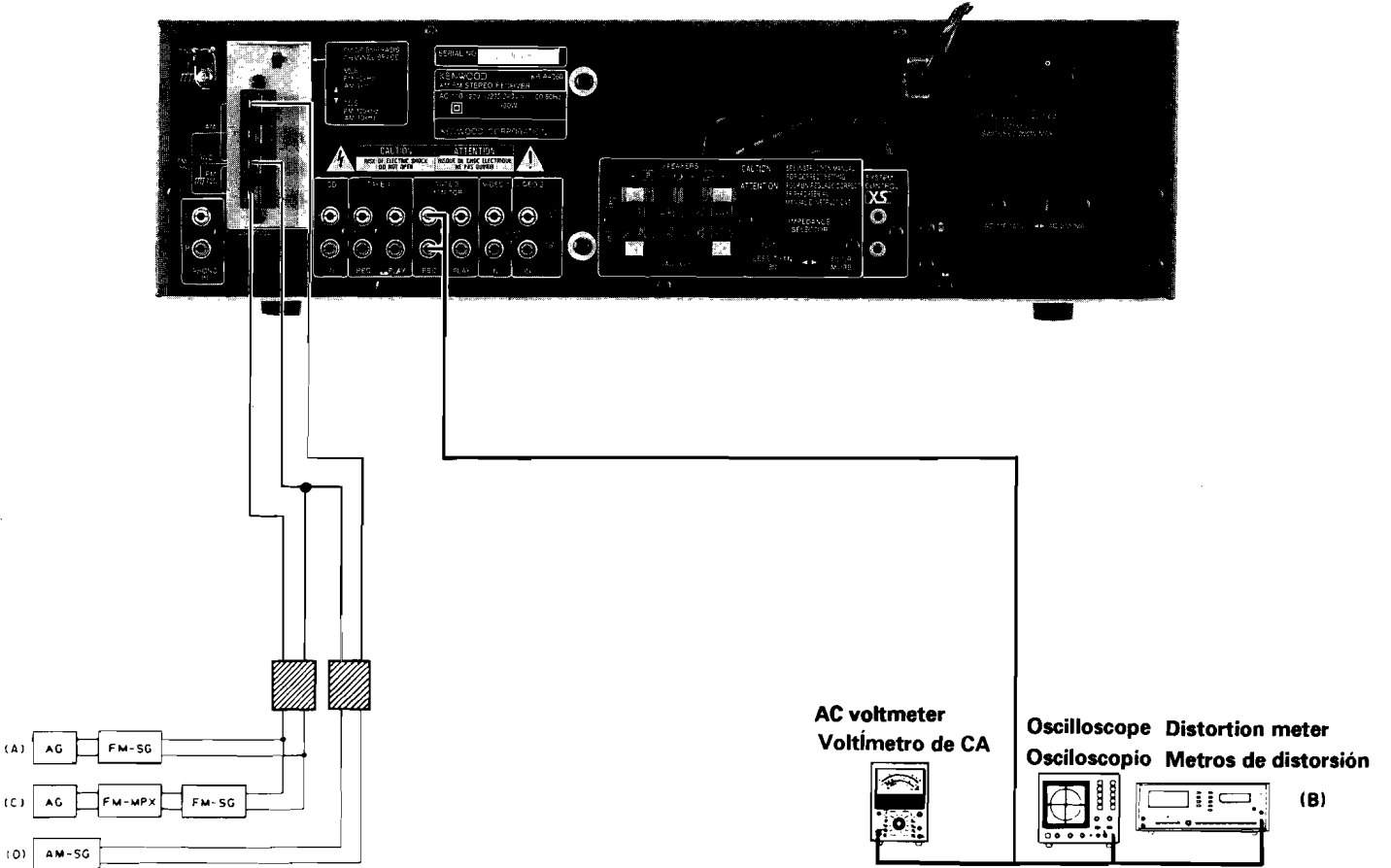
Sección de AM : Si el punto de alineación es "-", confirme el valor. Si no, reemplace el paquete de entrada.

Núm.	ÍTEM	AJUSTES DE ENTRADA	AJUSTES DE SALIDA	AJUSTES DEL SINTONIZADOR	PUNTOS DE ALINEACIÓN	ALINEACIÓN PARA	FIG.
SECCIÓN DE FM SELECTOR : FM							
1	DISCRIMINADOR	(A) 98.0MHz 1kHz, ±75kHz dev. 60dBμ(Entrada de antena)	Conecte un voltímetro de CC entre TP803 y TP804. (UNIDAD DEL SINTONIZADOR)	AUTO o MONO 98.0MHz	L806 (UNIDAD DEL SINTONIZADOR)	0V.	(a)
2	VCO	(A) 98.0MHz 0 dev. 60dBμ(Entrada de antena)	Conecte un Frecuencímetro entre TP805 y TP806. (UNIDAD DEL SINTONIZADOR)	AUTO 98.0MHz	L802 (UNIDAD DEL SINTONIZADOR)	19.00kHz	(b)
3	DISTORSIÓN (ESTÉREO)	(C) 98.0MHz 1kHz, ±68.25kHz dev. Selector : L or R Pilot : ±6.75kHz dev. 60dBμ(Entrada de antena)	(B)	98.0MHz	IFT (W02-)	Distorsión mínima. (L o R)	
4	NIVEL DE SINTONÍA	(A) 98.0MHz 0 dev. 18dBμ(Entrada de antena)	(B)	AUTO o MONO 98.0MHz	VR801 (UNIDAD DEL SINTONIZADOR)	Ajuste VR801 y pare en el punto en el que se encienda FLT 901 (SINTONIZADO).	
SECCIÓN DE AM SELECTOR : AM							
(1)	NIVEL DE SINTONÍA	(D) 1000 (999) kHz 26dBμ(Entrada de antena)	(B)	-	VR804 (UNIDAD DEL SINTONIZADOR)	Ajuste VR801 y pare en el punto en el que se encienda FLT 901 (SINTONIZADO).	
SECCIÓN DE AUDIO							
<1>	CORRIENTE EN REPOSO	-	Conecte un voltímetro de CC entre CP1 (L) y CP2 (R) (UNIDAD PRINCIPAL)	Volumen : 0	VR201 (L) VR202 (R) (UNIDAD AUDIO)	10mV	(d)

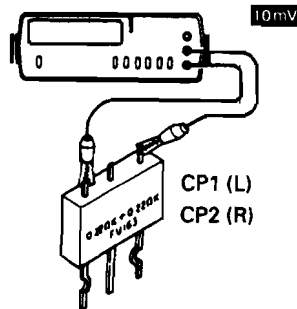
EXCEPT E,T

ADJUSTMENT/AJUSTES

SYSTEM CONNECTIONS/CONEXIONES DEL SISTEMA



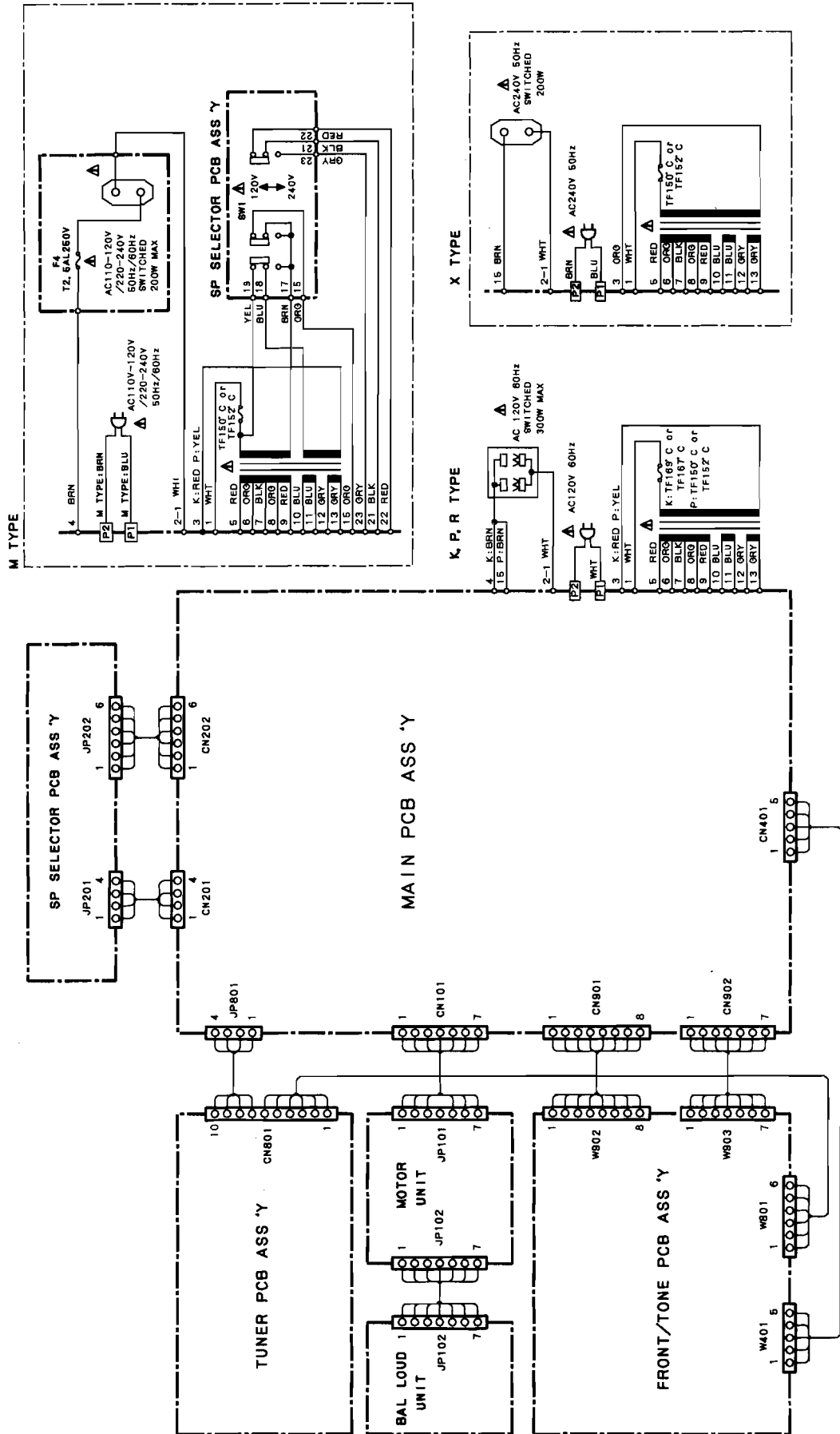
(d) DC voltmeter
Voltímetro de CC



EXCEPT E,T

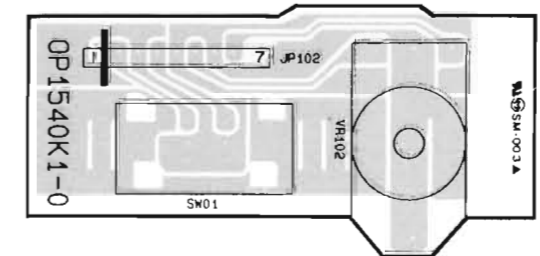
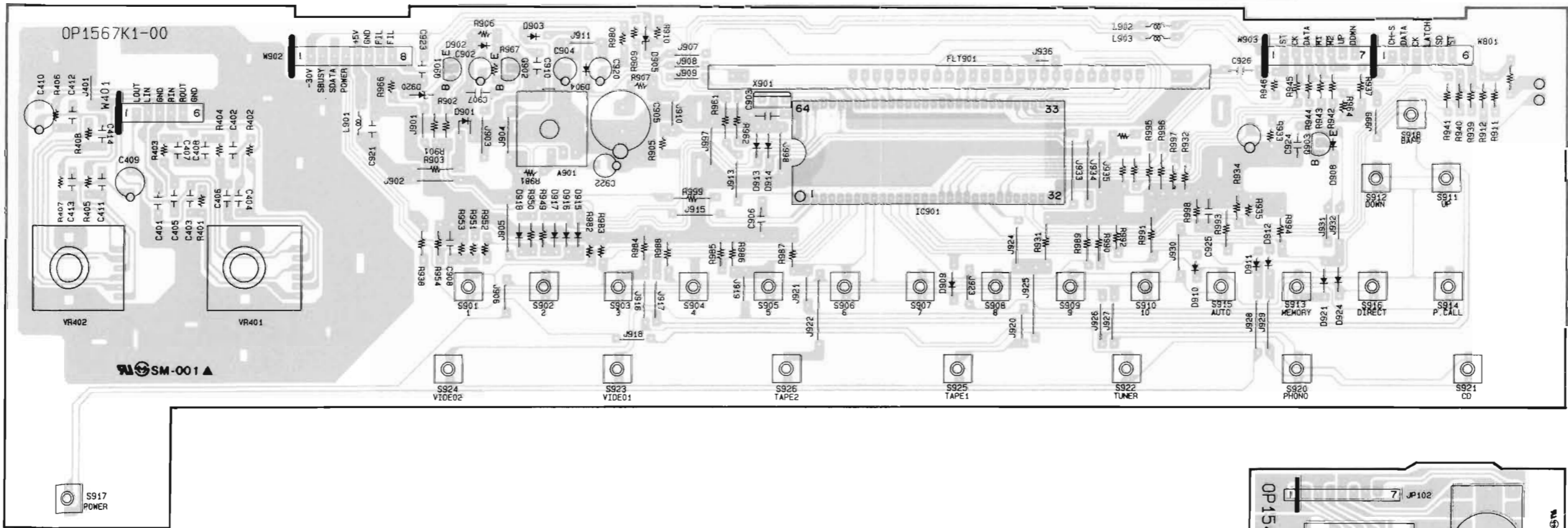
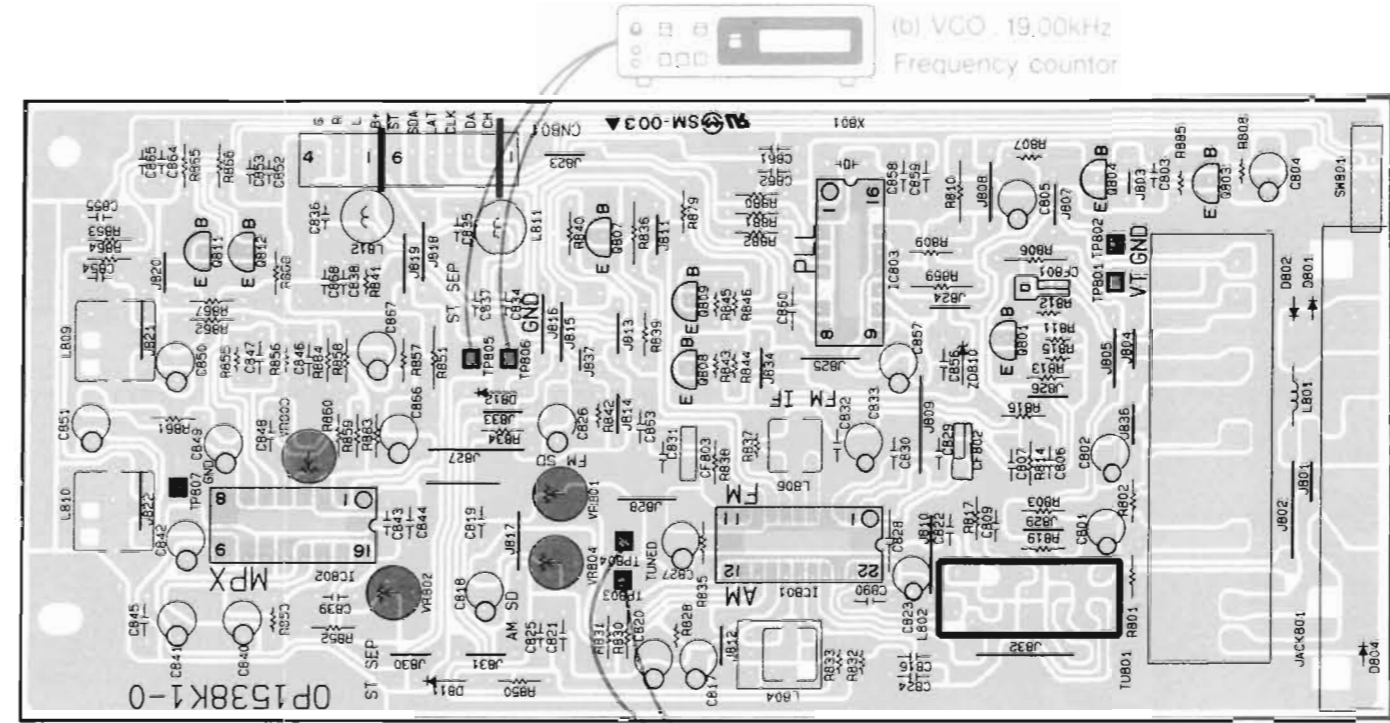
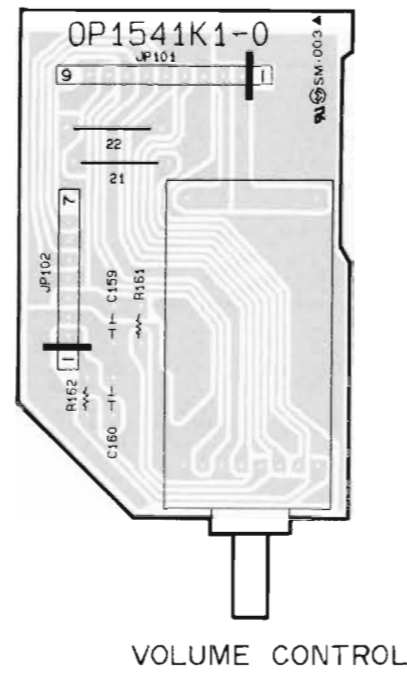
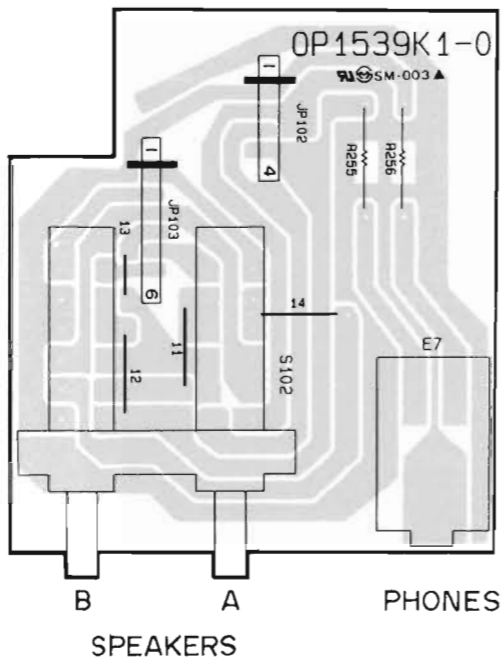
KR-A4060

WIRING DIAGRAM



EXCEPT E,T

PC BOARD (COMPONENT SIDE VIEW) : KR-A4060



Refer to the schematic diagram for the values of resistors and capacitors.

75µs
FM100KHz
AM10KHz

50µs
FM DE - EMPHASIS
CHANNEL SPACE
FM50KHz
AM9KHz

ANTENNA

FM75Ω
GND

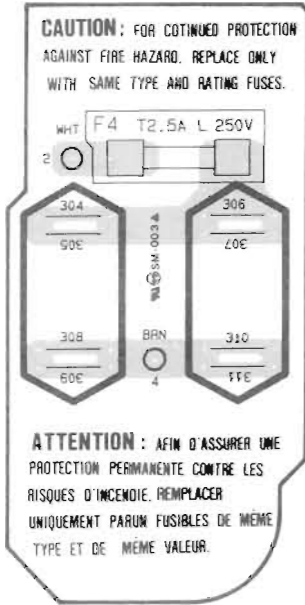


EXCEPT

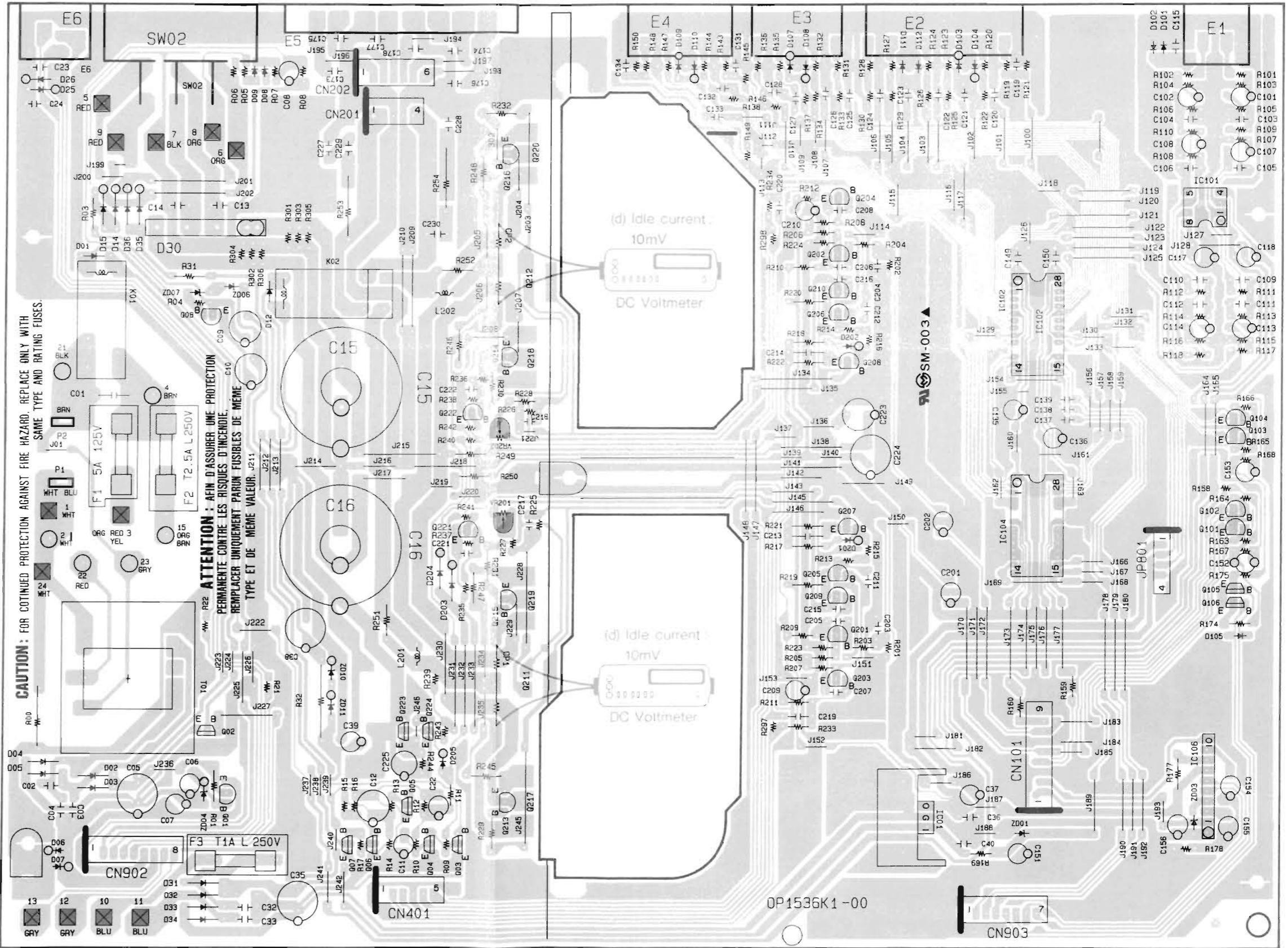
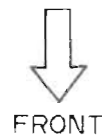
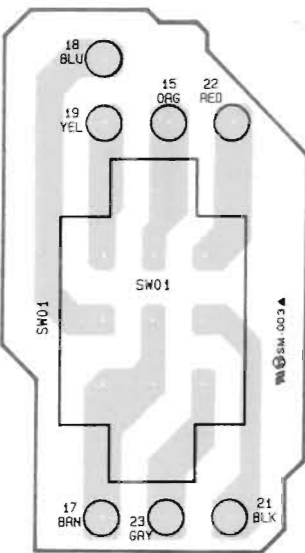
PC BOARD (COMPONENT SIDE VIEW) : KR-A4060

SYSTEM CONTROL 8Ω OR LESS + L - SPEAKERS - R + A L VIDEO | VIDEO2 MONITOR TAPE I CD PHONO L
 MORE THAN 8Ω (4Ω - 16Ω) B R IN IN PLAY REC PLAY REC IN IN R

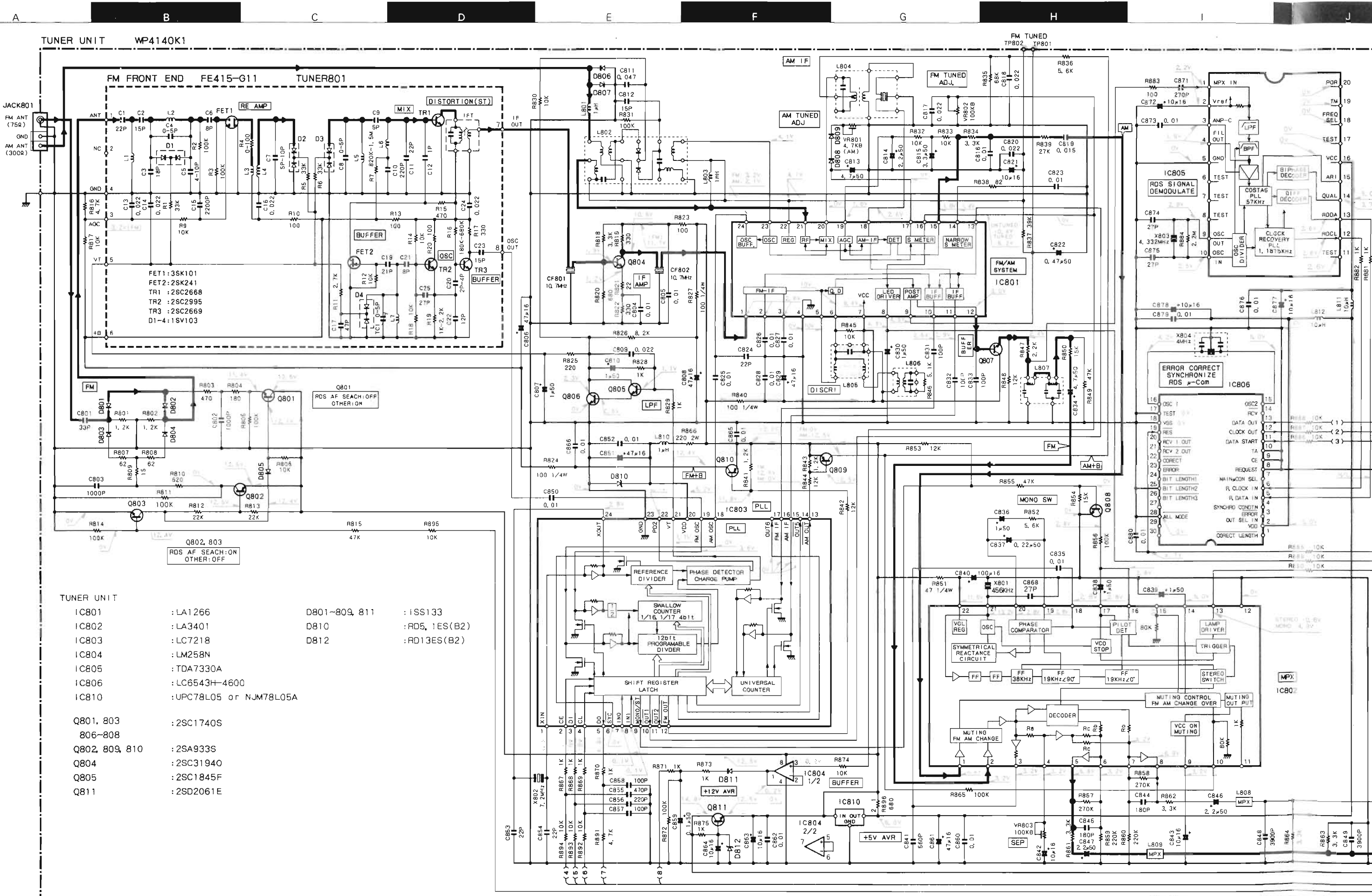
AC110-120V ~ / 220-240V ~
 50/60Hz
 SWITCHED 200W MAX.



AC110-120V ~ AC220-240V ~



EXCEPT

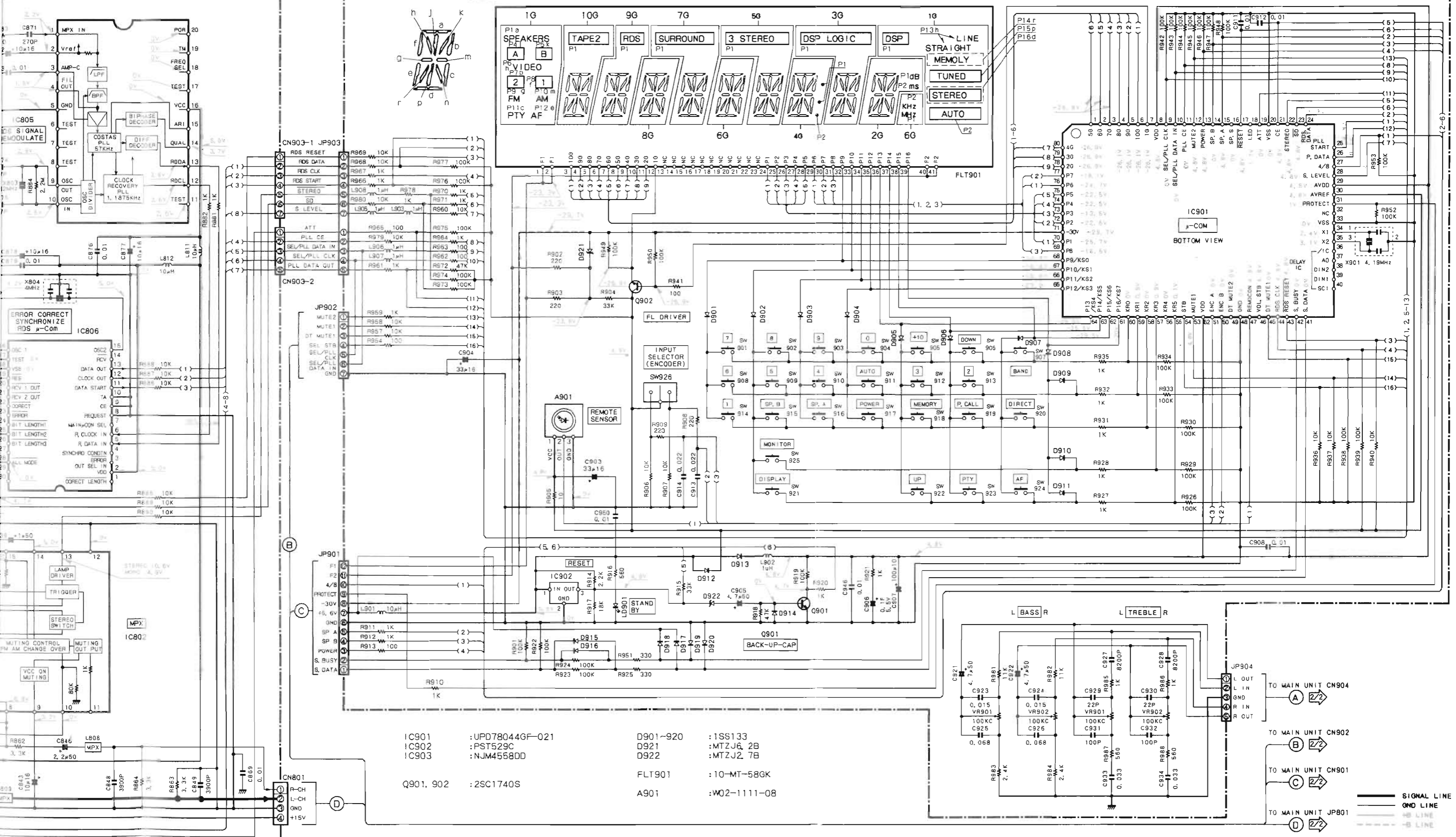


- TUNER UNIT
- | | | | |
|----------------|-------------------------|---------------|----------------|
| IC801 | : LA1266 | D801-809, 811 | : 1SS133 |
| IC802 | : LA3401 | D810 | : RD5, 1ES(B2) |
| IC803 | : LC7218 | D812 | : RD13ES(B2) |
| IC804 | : LM258N | | |
| IC805 | : TDA7330A | | |
| IC806 | : LC6543H-4600 | | |
| IC810 | : UPC78L05 or NJM78L05A | | |
| Q801, 803 | : 2SC1740S | | |
| 806-808 | | | |
| Q802, 809, 810 | : 2SA933S | | |
| Q804 | : 2SC31940 | | |
| Q805 | : 2SC1845F | | |
| Q811 | : 2SD2061E | | |

1
2
3
4
5
6
7

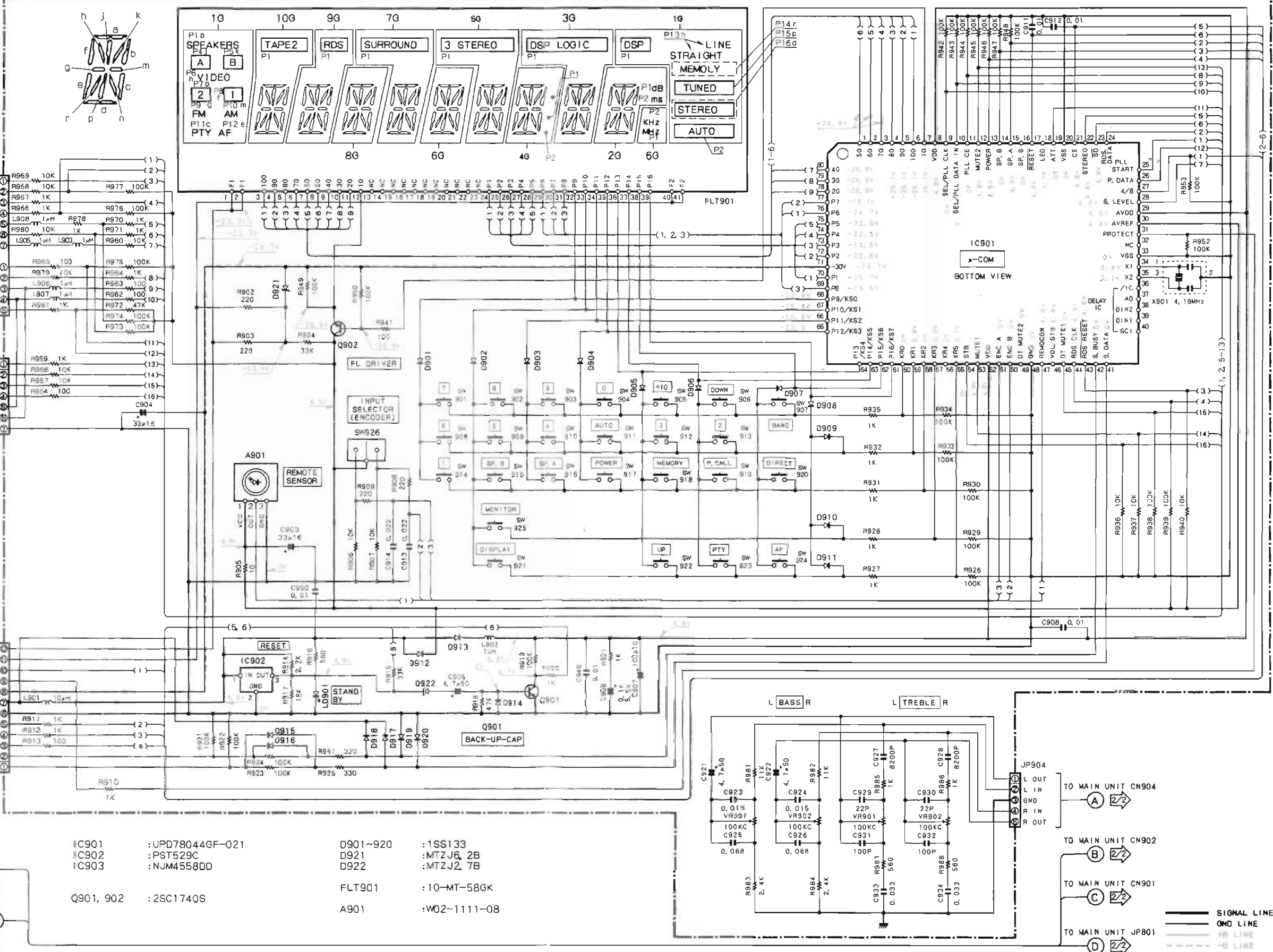
(4-6)

FRONT UNIT WP4138



- | | |
|------------------------|---------------------|
| IC901 : UPD78044GF-021 | D901~920 : 1SS133 |
| IC902 : PST529C | D921 : MTZJ6, 2B |
| IC903 : NJM4558DD | D922 : MTZJ2, 7B |
| Q901, 902 : 2SC1740S | FLT901 : 10-MT-58GK |
| | A901 : W02-1111-08 |

FRONT UNIT WP4138

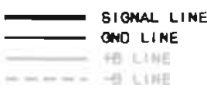


IC901	: UPD78044GF-021	D901~920	: 1SS133
IC902	: PST529C	D921	: MTZJ6, 2B
IC903	: NJM45580D	D922	: MTZJ2, 7B
Q901, 902	: 2SC1740S	FLT901	: 10-MT-58GK
		A901	: WQ2-1111-08

- 2SA992
- 2SC1845
- 2SC2878
- 2SD882
- 2SA1695
- 2SC4467
- DTA114ES
- DTC114ES
- 2SA933S
- 2SC1740S
- 2SC4137

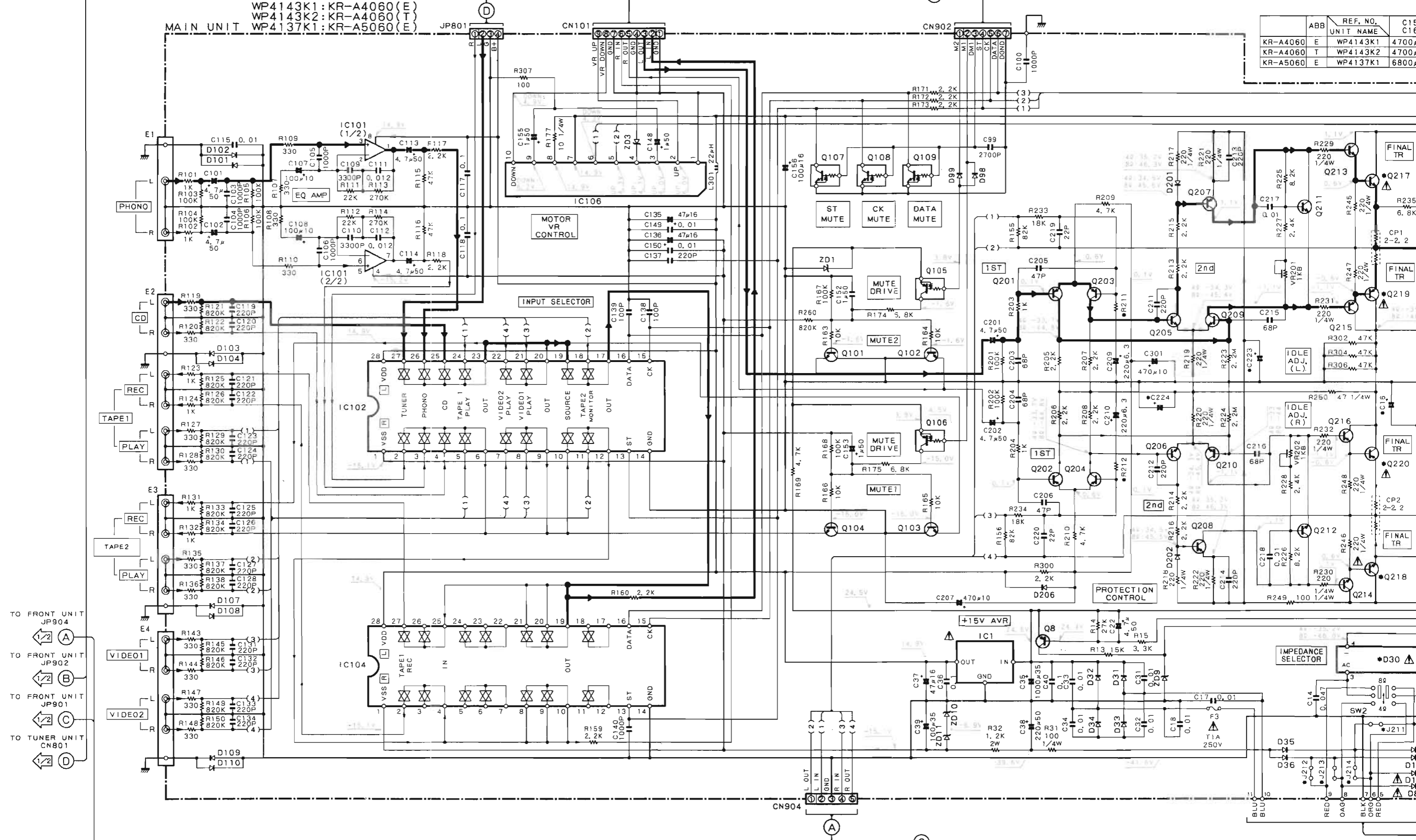
* DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚡ indicates safety critical components. To reduce the risk of electric shock, leakage current or resistance measurements shall be carried out; exposed parts are acceptably insulated from the supply circuit before the appliance is returned to the customer.



WP4143K1: KR-A4060 (E)
 WP4143K2: KR-A4060 (T)
 MAIN UNIT WP4137K1: KR-A5060 (E)

ABB	REF. NO.	C15, C16
KR-A4060 E	WP4143K1	4700μ5
KR-A4060 T	WP4143K2	4700μ5
KR-A5060 E	WP4137K1	6800μ6



- TO FRONT UNIT JP904 (A)
- TO FRONT UNIT JP902 (B)
- TO FRONT UNIT JP901 (C)
- TO TUNER UNIT CN801 (D)

2

3

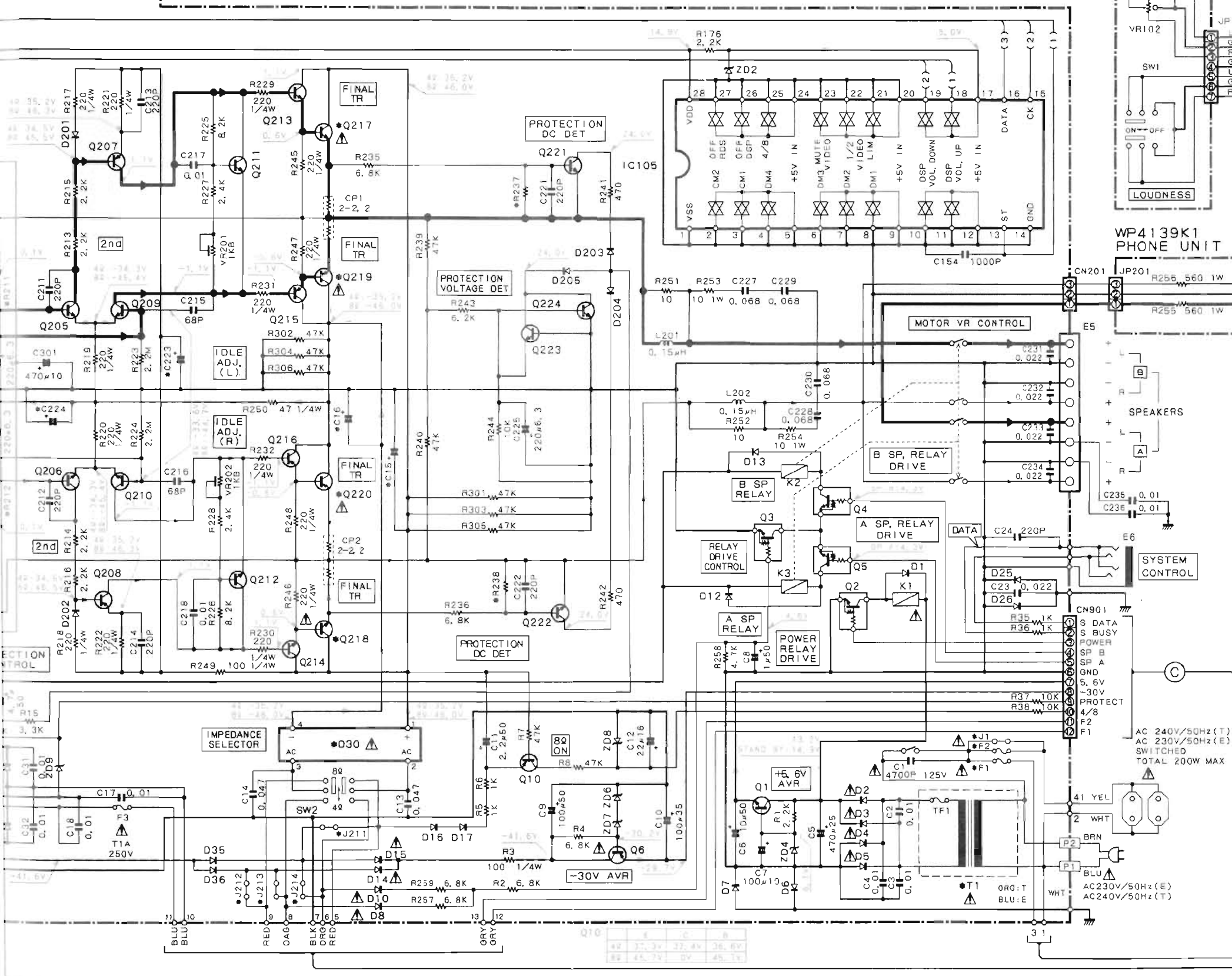
4

5

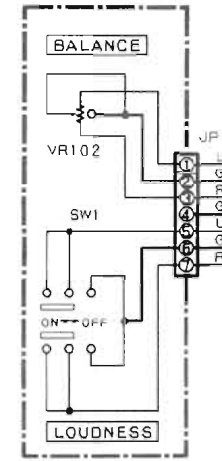
6

7

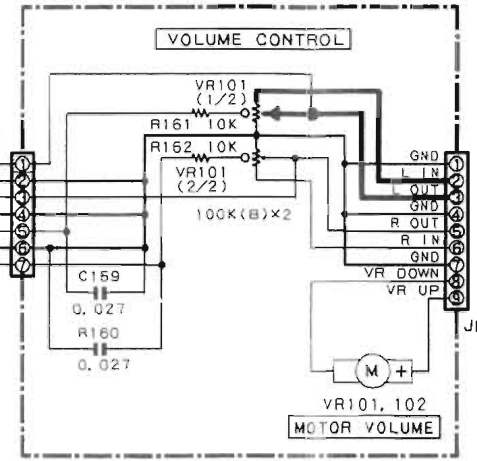
ABB	REF. NO. UNIT NAME	C15, C16	C223	C224	D30	F1	F2	R211, R212	R237, R238	Q217, Q218	Q219, Q220	J211, J212	J213, J214	T1
KR-A4060	E WP4143K1	4700µ50	47µ50	100µ50	DBF40C	T1, 6A/250V	T2, 5A/250V	820	2.7K	2SC4467	2SA1694	YES	NO	L07-0828-08
KR-A4060	T WP4143K2	4700µ50	47µ50	100µ50	DBF40C	T1, 6A/250V	J1	820	2.7K	2SC4467	2SA1694	YES	NO	L07-0825-08
KR-A5060	E WP4137K1	6800µ63	47µ63	100µ63	DBF60C	T2A/250V	T2, 5A/250V	680	2.2K	2SC4468	2SA1695	NO	YES	L07-0828-08



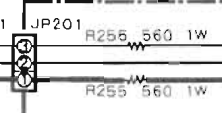
WP4141K1
BAL-LOUD UNIT



WP4142K1 MOTOR VR UNIT



WP4139K1
PHONE UNIT

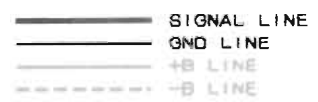
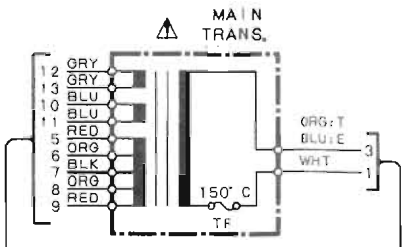


- IC1 : MC7815C
- IC101 : NJM4558DD
- IC102 : TC9164N or NJU7313L
- IC104 : TC9162N or NJU7311L
- IC105 : TC9163N or NJU7312AL
- IC106 : BA6209N

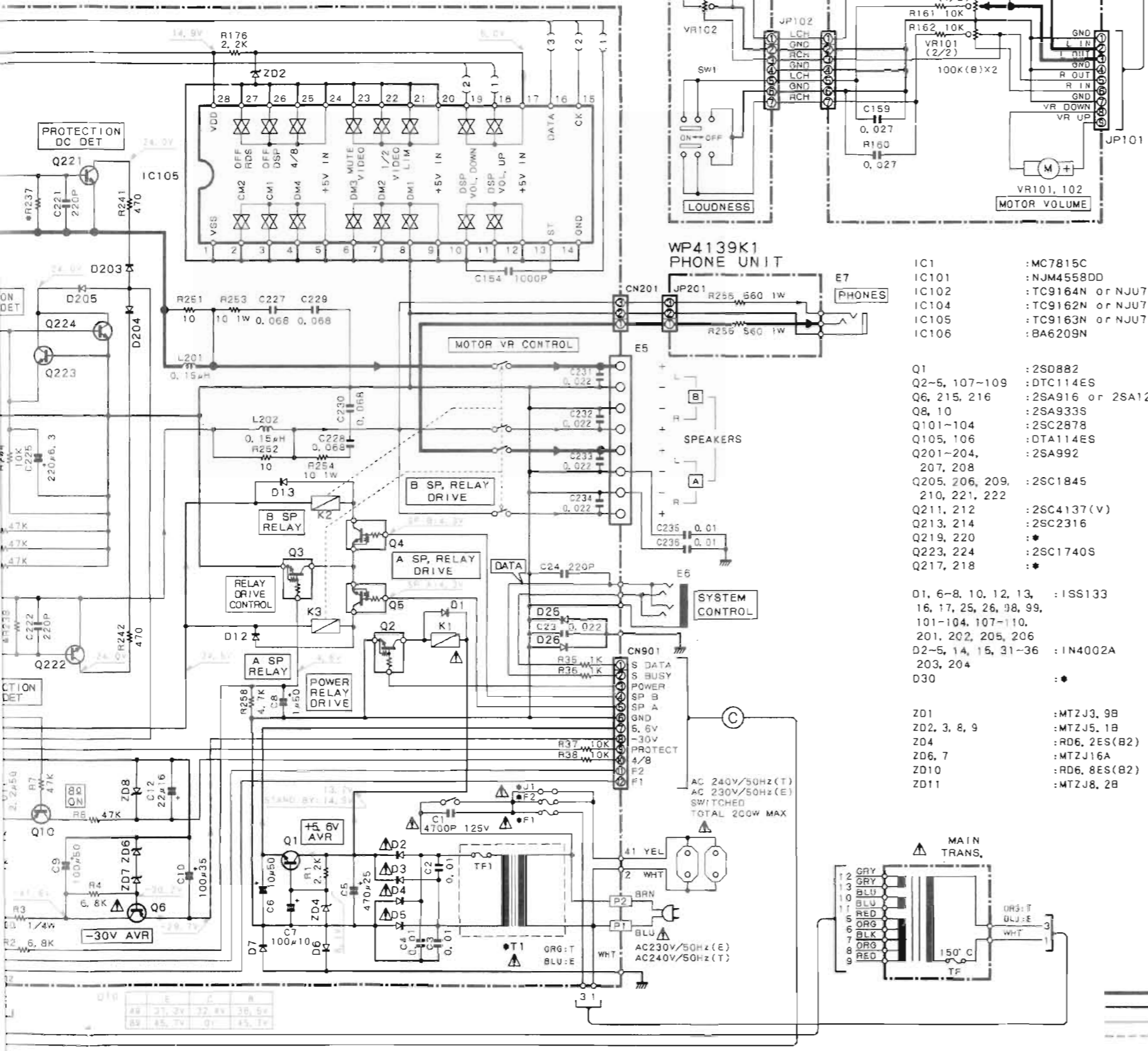
- Q1 : 2SD882
- Q2-5, 107-109 : DTC114ES
- Q6, 215, 216 : 2SA916 or 2SA1274
- Q8, 10 : 2SA933S
- Q101-104 : 2SC2878
- Q105, 106 : DTA114ES
- Q201-204, 207, 208 : 2SA992
- Q205, 206, 209, 210, 221, 222 : 2SC1845
- Q211, 212 : 2SC4137(V)
- Q213, 214 : 2SC2316
- Q219, 220 : *
- Q223, 224 : 2SC1740S
- Q217, 218 : *

- D1, 6-8, 10, 12, 13, 16, 17, 25, 26, 98, 99, 101-104, 107-110, 201, 202, 205, 206 : 1SS133
- D2-5, 14, 15, 31-36 : IN4002A
- D3, 204 : *
- D30 : *

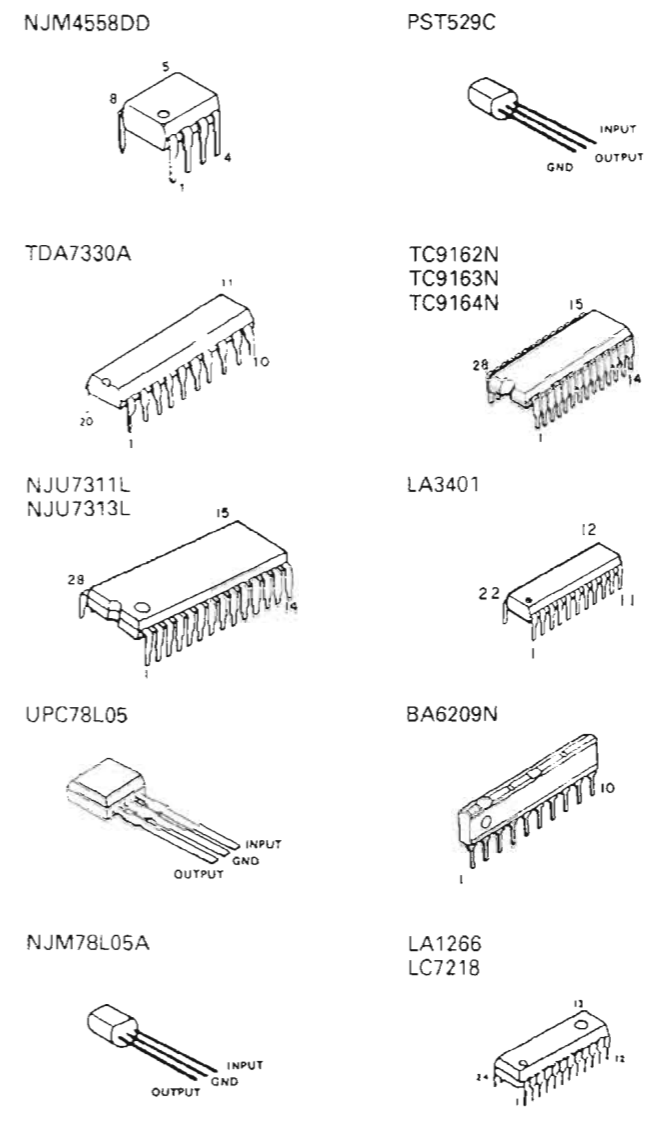
- ZD1 : MTZJ3, 9B
- ZD2, 3, 8, 9 : MTZJ5, 1B
- ZD4 : RD6, 2ES(B2)
- ZD6, 7 : MTZJ16A
- ZD10 : RD6, 8ES(B2)
- ZD11 : MTZJ8, 2B



U30	F1	F2	R211, R212	R237, R238	Q217, Q218	Q219, Q220	J211, J212	J213, J214	T1
DBF40C	T1, 6A/250V	T2, 5A/250V	820	2, 7K	2SC4467	2SA1694	YES	NO	L07-0828-08
DBF40C	T1, 6A/250V	J1	820	2, 7K	2SC4467	2SA1694	YES	NO	L07-0825-08
DBF60C	T2A/250V	T2, 5A/250V	680	2, 2K	2SC4468	2SA1695	NO	YES	L07-0828-08



- | | |
|-------------------------|------------------------|
| IC1 | : MC7815C |
| IC101 | : NJM4558DD |
| IC102 | : TC9164N or NJU7313L |
| IC104 | : TC9162N or NJU7311L |
| IC105 | : TC9163N or NJU7312AL |
| IC106 | : BA6209N |
| Q1 | : 2SD882 |
| Q2-5, 107-109 | : DTC114ES |
| Q6, 215, 216 | : 2SA916 or 2SA1274 |
| Q8, 10 | : 2SA933S |
| Q101-104 | : 2SC2878 |
| Q105, 106 | : DTA114ES |
| Q201-204, | : 2SA992 |
| 207, 208 | |
| Q205, 206, 209, | : 2SC1845 |
| 210, 221, 222 | |
| Q211, 212 | : 2SC4137(V) |
| Q213, 214 | : 2SC2316 |
| Q219, 220 | : * |
| Q223, 224 | : 2SC1740S |
| Q217, 218 | : * |
| D1, 6-8, 10, 12, 13, | : 1SS133 |
| 16, 17, 25, 26, 98, 99, | |
| 101-104, 107-110, | |
| 201, 202, 205, 206 | |
| D2-5, 14, 15, 31-36 | : 1N4002A |
| 203, 204 | |
| D30 | : * |
| ZD1 | : MTZJ3, 9B |
| ZD2, 3, 8, 9 | : MTZJ5, 1B |
| ZD4 | : RD6, 2ES(B2) |
| ZD6, 7 | : MTZJ16A |
| ZD10 | : RD6, 8ES(B2) |
| ZD11 | : MTZJ8, 2B |

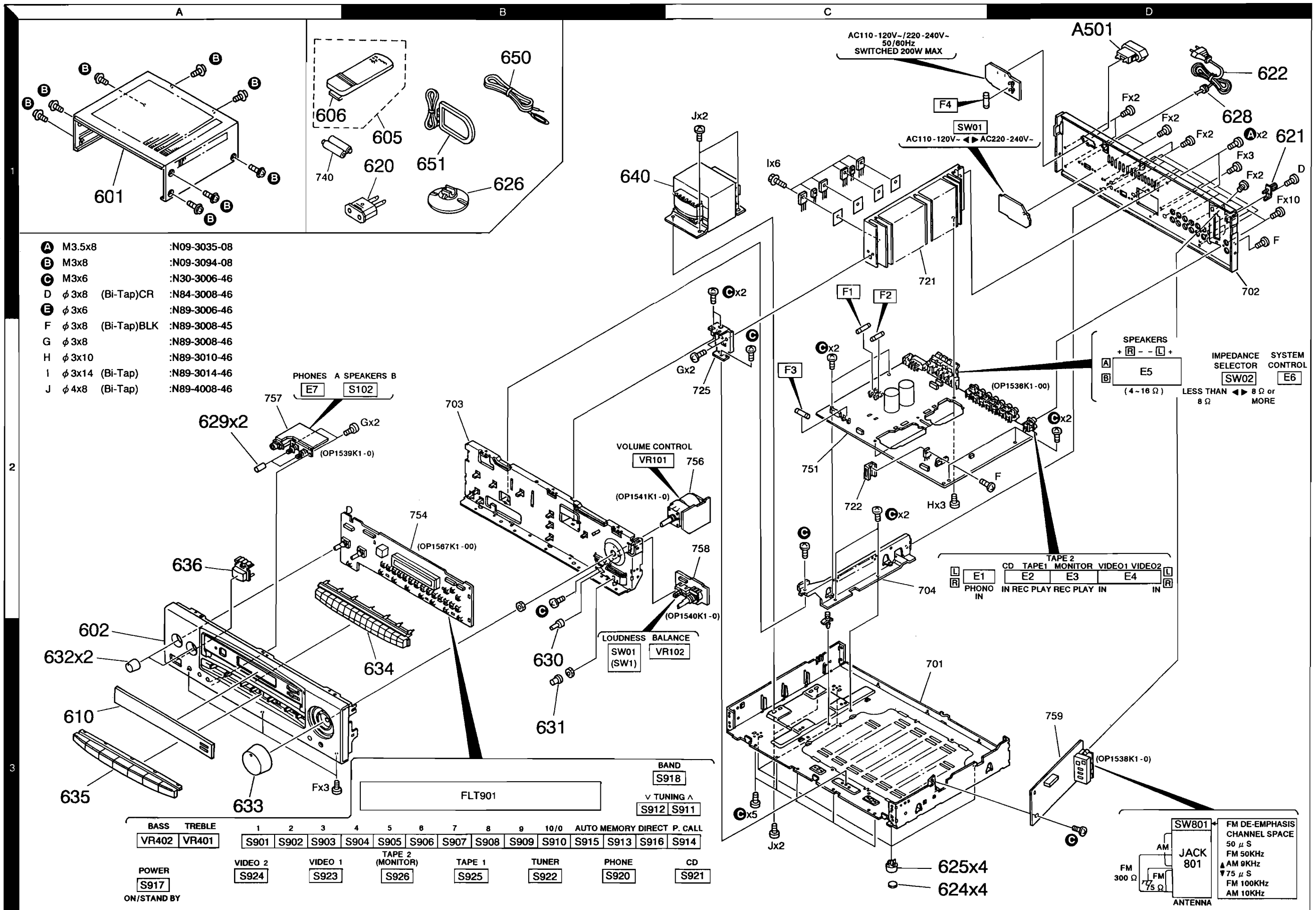


* DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or units.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KR-A4060 KR-A4060

EXPLODED VIEW (UNIT)



- A M3.5x8 :N09-3035-08
- B M3x8 :N09-3094-08
- C M3x6 :N30-3006-46
- D φ 3x8 (Bi-Tap)CR :N84-3008-46
- E φ 3x6 :N89-3006-46
- F φ 3x8 (Bi-Tap)BLK :N89-3008-45
- G φ 3x8 :N89-3008-46
- H φ 3x10 :N89-3010-46
- I φ 3x14 (Bi-Tap) :N89-3014-46
- J φ 4x8 (Bi-Tap) :N89-4008-46

2

3

Parts with the exploded numbers larger than 700 are not supplied.

EXCEPT E,T

PARTS LIST

* New Parts
 Parts without Parts No. are not supplied.
 Les articles non mentionnés dans le Parts No. ne sont pas fournis.
 Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕	Re- marks 備考
IC102		NJU7313L	IC(ANALOG SWITCH)		
IC102		TC9164N	IC(16CH BILATERAL SELECTOR SW)		
IC104		NJU07311L	IC(ANALOG SWITCH)		
IC104		TC9162N	IC(ANALOG SWITCH ARRAY)		
IC106		BA6209N	IC(MOTOR DRIVER)		
IC801		LA1265	IC(FM/AM TUNER)		
IC802		AN7470	IC(FM MPX)		
IC803		LM7001	IC(PLL FREQUENCY SYNTHESIZER)		
IC901		CX95016-5265	IC(4bit MICROPROCESSOR)		
IC901		CX95016-5315	IC(4bit MICROPROCESSOR)		
Q1		2SC2316	TRANSISTOR		
Q4		2SC1740S	TRANSISTOR		
Q7		DT0114ES	DIGITAL TRANSISTOR		
Q8		2SA916	TRANSISTOR		
Q2, 3		DT0114ES	DIGITAL TRANSISTOR		
Q5, 6		2SA933	TRANSISTOR		
Q101-104		2SC2878	TRANSISTOR		
Q105, 106		DTA114TS	DIGITAL TRANSISTOR		
Q201-204		2SA992	TRANSISTOR		
Q205, 206		2SC1845	TRANSISTOR		
Q207, 208		2SA992	TRANSISTOR		
Q209, 210		2SC1845	TRANSISTOR		
Q211, 212		2SC4137	TRANSISTOR		
Q213, 214		2SC2316	TRANSISTOR		
Q215, 216		2SA916	TRANSISTOR		
Q217, 218		2SC4468	TRANSISTOR		
Q219, 220		2SA1695	TRANSISTOR		
Q221, 222		2SC1845	TRANSISTOR		
Q223, 224		2SC1740S	TRANSISTOR		
Q801		KT031940	TRANSISTOR		
Q803		2SC1740S	TRANSISTOR		
Q804		2SC1845F	TRANSISTOR		
Q808, 809		2SA933S	TRANSISTOR		
Q811, 812		2SC1740S	TRANSISTOR		
Q901		2SA933S	TRANSISTOR		
Q902		2SC1740S	TRANSISTOR		
Q903		DTA143TS	TRANSISTOR		
Z01		MT213-9B	ZENER DIODE		
Z03		MTZ35-1B	ZENER DIODE		
Z04		MTZ36-2B	ZENER DIODE		
Z06		RD15ES(B2)	ZENER DIODE		
Z07		MTZ12B	ZENER DIODE		
Z010, 11		MTZ76-2B	ZENER DIODE		
A901		W02-1111-08	ELECTRIC CIRCUIT MODULE		
TU801		W02-2504-08	FM FRONT END UNIT		

L: Scandinavia K: USA P: Canada R: Mexico
 Y: PX (Far East, Hawaii) T: England G: Germany
 Y: AAFFS (Europe) X: Australia M: Other Areas
 △ indicates safety critical components

* New Parts
 Parts without Parts No. are not supplied.
 Les articles non mentionnés dans le Parts No. ne sont pas fournis.
 Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕	Re- marks 備考
R117		RD14GB2E100J	FL-PROOF RD 10 J 1/4W		
R217-222		RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
R229-232		RD14GB2E470J	FL-PROOF RD 47 J 1/4W		
R245-248		RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
R249		RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R250		RD14GB2E470J	FL-PROOF RD 47 J 1/4W		
R253, 254		RS14DB3A100J	FL-PROOF RS 10 J 1W		
R255, 256		RS14DB3A561J	FL-PROOF RS 560 J 1W		
R806		RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R810		RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R836		RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R851		RD14GB2E20J	FL-PROOF RD 82 J 1/4W		
R869		RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
VR101	*	R39-0001-08	POTENTIOMETER VOLUME 100KXB2		
VR102		R10-5071-08	POTENTIOMETER BALANCE		
VR201, 202		R12-1046-05	TRIMMING POT. IDLE ADJ 1KB		
VR401, 402		R35-0002-08	POTENTIOMETER BASS, TREBLE 100K		
VR801		R12-3166-08	TRIM POT. 35KB FM TUNE LEVEL		
VR802		R12-1053-05	TRIM POT. 4.7KB VCO		
VR804		R12-3071-05	TRIM POT. 10KB AM TUNE LEVEL		
K1		K78-0Y0026M1	MAGNETIC RELAY POWER		
K2		S76-0035-08	MAGNETIC RELAY SPEAKER		
S102		S42-2156-05	PUSH SWITCH SPEAKERS		
S901-918	*	S70-0030-08	TACT SWITCH KEY BOARD		
S920-926	*	S70-0030-08	TACT SWITCH KEY BOARD		
SW01		S31-3010-05	SLIDE SWITCH VOLTAGE SELECT		M
SW1		S68-0040-08	PUSH SWITCH LOUNDRNESS		
SW2		S62-0032-08	SLIDE SWITCH IMPEDANCE SEL		
SW801		S62-0012-08	SLIDE SWITCH CH. SPACE		M
D1		1SS131	DIODE		
D12		1SS131	DIODE		
D2-5		1N4002A	DIODE		
D30		DFE60C	DIODE		
D6-9		1SS131	DIODE		
D101-112		1SS131	DIODE		
D107-110		1SS131	DIODE		
D14, 15		1N4002A	DIODE		
D201-205		1SS131	DIODE		
D25, 26		1SS131	DIODE		
D31-36		1N4002A	DIODE		
D37, 38		1SS131	DIODE		
D801, 802		1SS133	DIODE		
D810		RD5-1ES(B2)	ZENER DIODE		
D811, 812		1SS133	DIODE		
D902-904		1SS133	DIODE		
D905		MTZ16-8B	ZENER DIODE		
D908		1SS133	DIODE		X
D909-918		1SS133	DIODE		
D920		RD4-7ES(B2)	ZENER DIODE		
D921		1SS133	DIODE		
D924		1SS133	DIODE		
FLT901		5-NT-167GK	FLUORESCENT INDICATOR TUBE		KPR
IC1		KIA78012AP	IC(+12V AVR)		
IC101		NJM4558DD	IC(OP AMP X2)		

L: Scandinavia K: USA P: Canada R: Mexico
 Y: PX (Far East, Hawaii) T: England G: Germany
 Y: AAFFS (Europe) X: Australia M: Other Areas
 △ indicates safety critical components

EXCEPT

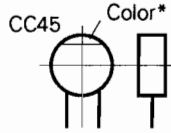
KR-A4060

PARTS LIST

CAPACITORS

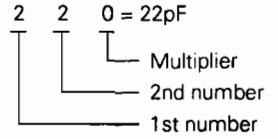
CC 45 TH 1H .220 J
1 2 3 4 5 6

- 1 = Type ... ceramic, electrolytic, etc.
- 2 = Shape ... round, square, ect.
- 3 = Temp. coefficient
- 4 = Voltage rating
- 5 = Value
- 6 = Tolerance



Capacitor value

- 010 = 1pF
- 100 = 10pF
- 101 = 100pF
- 102 = 1000pF = 0.001μF
- 103 = 0.01μF



Temperature coefficient

1st Word	C	L	P	R	S	T	U
Color*	Black	Red	Orange	Yellow	Green	Blue	Violet
ppm/°C	0	-80	-150	-220	-330	-470	-750

2nd Word	G	H	J	K	L
ppm/°C	±30	±60	±120	±250	±500

Example : CC45TH = -470 ± 60ppm/°C

Tolerance (More than 10pF)

Code	C	D	G	J	K	M	X	Z	P	No code
(%)	±0.25	±0.5	±2	±5	±10	±20	+40 -20	+80 -20	+100 -0	More than 10μF -10 ~ +50 Less than 4.7μF -10 ~ +75

(Less than 10pF)

Code	B	C	D	F	G
(pF)	±0.1	±0.25	±0.5	±1	±2

Voltage rating

2nd word 1st word	A	B	C	D	E	F	G	H	J	K	V
0	1.0	1.25	1.6	2.0	2.5	3.15	4.0	5.0	6.3	8.0	-
1	10	12.5	16	20	25	31.5	40	50	63	80	35
2	100	125	160	200	250	315	400	500	630	800	-
3	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	-

Chip capacitors

(EX) C C 7 3 F S L 1 H 0 0 0 J
1 2 3 4 5 6 7

(Chip) (CH, RH, UJ, SL)

(EX) C K 7 3 F F 1 H 0 0 0 Z
1 2 3 4 5 6 7

(Chip) (B, F)

Refer to the table above.

- 1 = Type
- 2 = Shape
- 3 = Dimension
- 4 = Temp. coefficient
- 5 = Voltage rating
- 6 = Value
- 7 = Tolerance

Dimension (Chip capacitors)

Dimension code	L	W	T
Empty	5.6 ± 0.5	5.0 ± 0.5	Less than 2.0
A	4.5 ± 0.5	3.2 ± 0.4	Less than 2.0
B	4.5 ± 0.5	2.0 ± 0.3	Less than 2.0
C	4.5 ± 0.5	1.25 ± 0.2	Less than 1.25
D	3.2 ± 0.4	2.5 ± 0.3	Less than 1.5
E	3.2 ± 0.2	1.6 ± 0.2	Less than 1.25
F	2.0 ± 0.3	1.25 ± 0.2	Less than 1.25
G	1.6 ± 0.2	0.8 ± 0.2	Less than 1.0

RESISTORS

Chip resistor (Carbon)

(EX) R K 7 3 E B 2 B 0 0 0 J
1 2 3 4 5 6 7

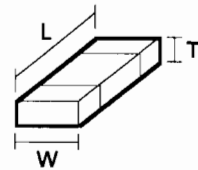
(Chip) (B, F)

Carbon resistor (Normal type)

(EX) R D 1 4 B B 2 C 0 0 0 J
1 2 3 4 5 6 7

- 1 = Type
- 2 = Shape
- 3 = Dimension
- 4 = Temp. coefficient
- 5 = Rating wattage
- 6 = Value
- 7 = Tolerance

Dimension



Dimension (Chip resistor)

Dimension code	L	W	T
E	3.2 ± 0.2	1.6 ± 0.2	1.0
F	2.0 ± 0.3	1.25 ± 0.2	1.0
G	1.6 ± 0.2	0.8 ± 0.2	0.5 ± 0.1

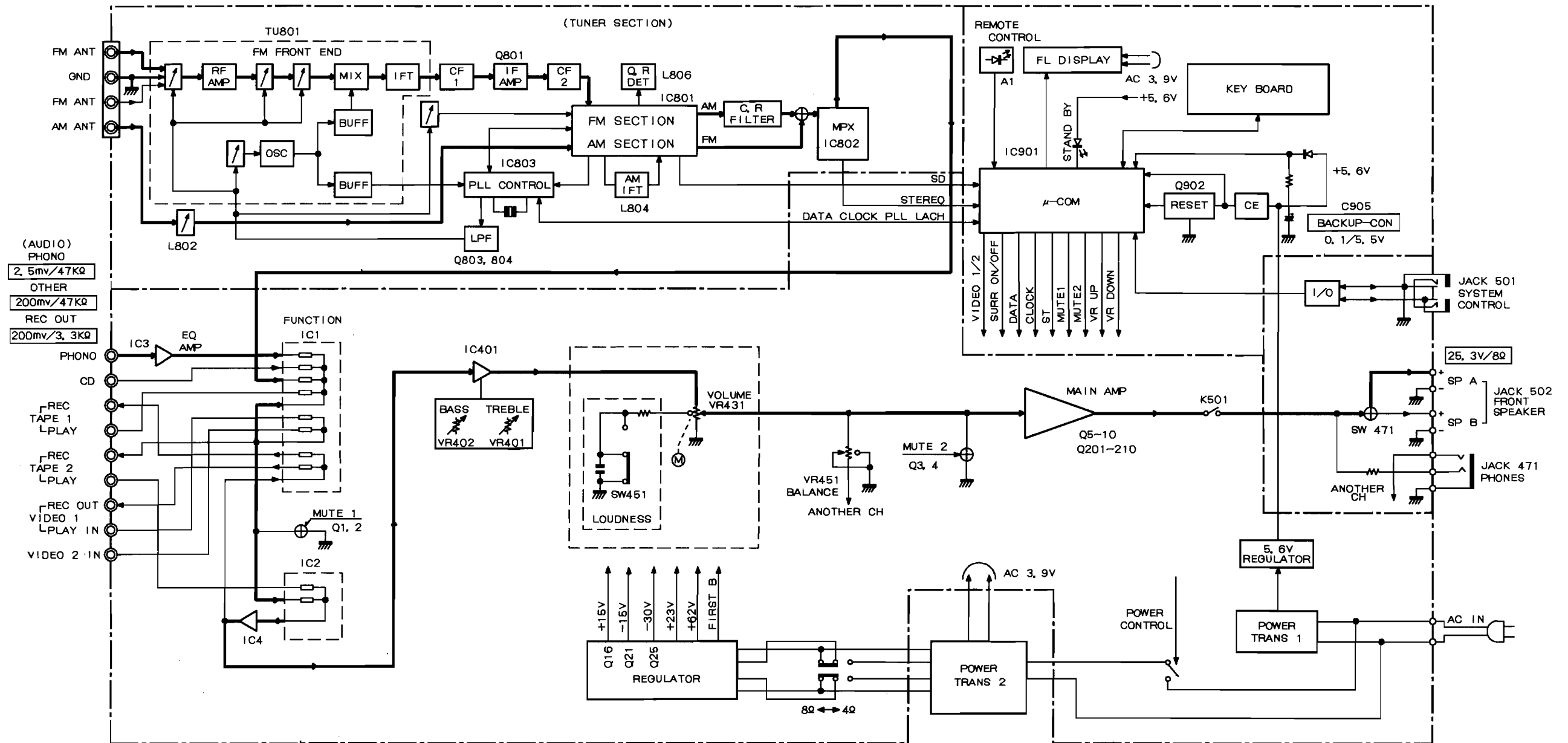
Rating wattage

Code	Wattage	Code	Wattage	Code	Wattage
1J	1/16W	2C	1/6W	3A	1/4W
2A	1/10W	2E	1/4W	3D	2/3W
2B	1/8W	2H	1/2W		

EXCEPT E, T

KR-A5060 KR-A5060

BLOCK DIAGRAM



ADJUSTMENT

AM section : If alignment point is "-", confirm the value. If not, replace the front end pack.

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION		SELECTOR : FM					
1	DISCRIMINATOR	(A) 98.0MHz 1kHz, ±75kHz dev. 60dBμ(ANT. input)	Connect a DC voltmeter between TP803 and TP804. (TUNER UNIT)	AUTO or MONO 98.0MHz	L806 (TUNER UNIT)	0V.	(a)
2	VCO	(A) 98.0MHz 0 dev. 60dBμ(ANT. input)	Connect a frequency counter between TP805 and TP806. (TUNER UNIT)	AUTO 98.0MHz	L802 (TUNER UNIT)	19.00kHz	(b)
3	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ±68.25kHz dev. Selector : L or R Pilot : ±6.75kHz dev. 60dBμ(ANT. input)	(B)	98.0MHz	IFT (W02-)	Minimum distortion. (L or R)	
4	TUNING LEVEL	(A) 98.0MHz 0 dev. 18dBμ(ANT. input)	(B)	AUTO or MONO 98.0MHz	VR801 (TUNER UNIT)	Adjust VR801 and stop at the point where FLT901 (TUNED) goes on.	
AM SECTION		SELECTOR : AM					
(1)	TUNING LEVEL	(D) 1000 (999) kHz 26dBμ(ANT. input)	(B)	-	VR804 (TUNER UNIT)	Adjust VR804 and stop at the point where FLT901 (TUNED) goes on.	
AUDIO SECTION							
<1>	IDLE CURRENT	-	Connect a DC voltmeter across CP1 (L), CP2 (R) (MAIN UNIT)	Volume : 0	VR1 (L) VR2 (R) (AUDIO UNIT)	10mV	(d)

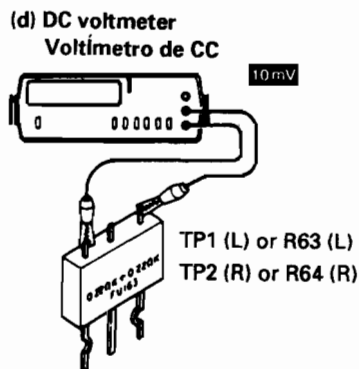
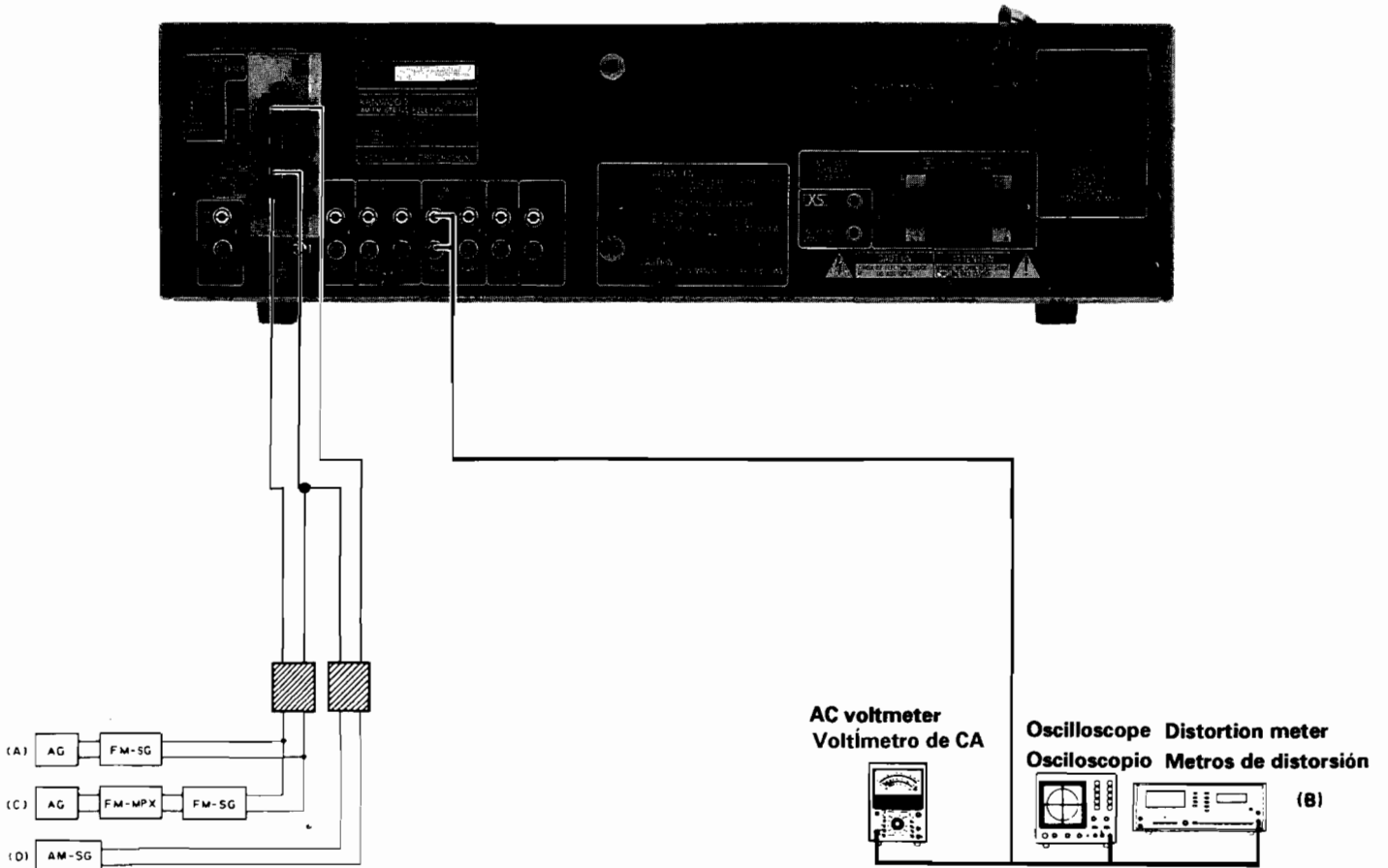
AJUSTES

Sección de AM : Si el punto de alineación es "-", confirme el valor. Si no, reemplace el paquete de entrada.

Núm.	ÍTEM	AJUSTES DE ENTRADA	AJUSTES DE SALIDA	AJUSTES DEL SINTONIZADOR	PUNTOS DE ALINEACIÓN	ALINEACIÓN PARA	FIG.
SECCIÓN DE FM		SELECTOR : FM					
1	DISCRIMINADOR	(A) 98.0MHz 1kHz, ±75kHz dev. 60dBμ(Entrada de antena)	Conecte un voltímetro de CC entre TP803 y TP804. (UNIDAD DEL SINTONIZADOR)	AUTO o MONO 98.0MHz	L806 (UNIDAD DEL SINTONIZADOR)	0V.	(a)
2	VCO	(A) 98.0MHz 0 dev. 60dBμ(Entrada de antena)	Conecte un Frecuencímetro entre TP805 y TP806. (UNIDAD DEL SINTONIZADOR)	AUTO 98.0MHz	L802 (UNIDAD DEL SINTONIZADOR)	19.00kHz	(b)
3	DISTORSIÓN (ESTÉREO)	(C) 98.0MHz 1kHz, ±68.25kHz dev. Selector : L or R Pilot : ±6.75kHz dev. 60dBμ(Entrada de antena)	(B)	98.0MHz	IFT (W02-)	Distorsión mínima. (L o R)	
4	NIVEL DE SINTONÍA	(A) 98.0MHz 0 dev. 18dBμ(Entrada de antena)	(B)	AUTO o MONO 98.0MHz	VR801 (UNIDAD DEL SINTONIZADOR)	Ajuste VR801 y pare en el punto en el que se encienda FLT 901 (SINTONIZADO).	
SECCIÓN DE AM		SELECTOR : AM					
(1)	NIVEL DE SINTONÍA	(D) 1000 (999) kHz 26dBμ(Entrada de antena)	(B)	-	VR804 (UNIDAD DEL SINTONIZADOR)	Ajuste VR801 y pare en el punto en el que se encienda FLT 901 (SINTONIZADO).	
SECCIÓN DE AUDIO							
<1>	CORRIENTE EN REPOSO	-	Conecte un voltímetro de CC entre TP1 (L) y TP2 (R) (UNIDAD PRINCIPAL)	Volumen : 0	VR1 (L) VR2 (R) (UNIDAD AUDIO)	10mV	(d)

ADJUSTMENT/AJUSTES

SYSTEM CONNECTIONS/CONEXIONES DEL SISTEMA

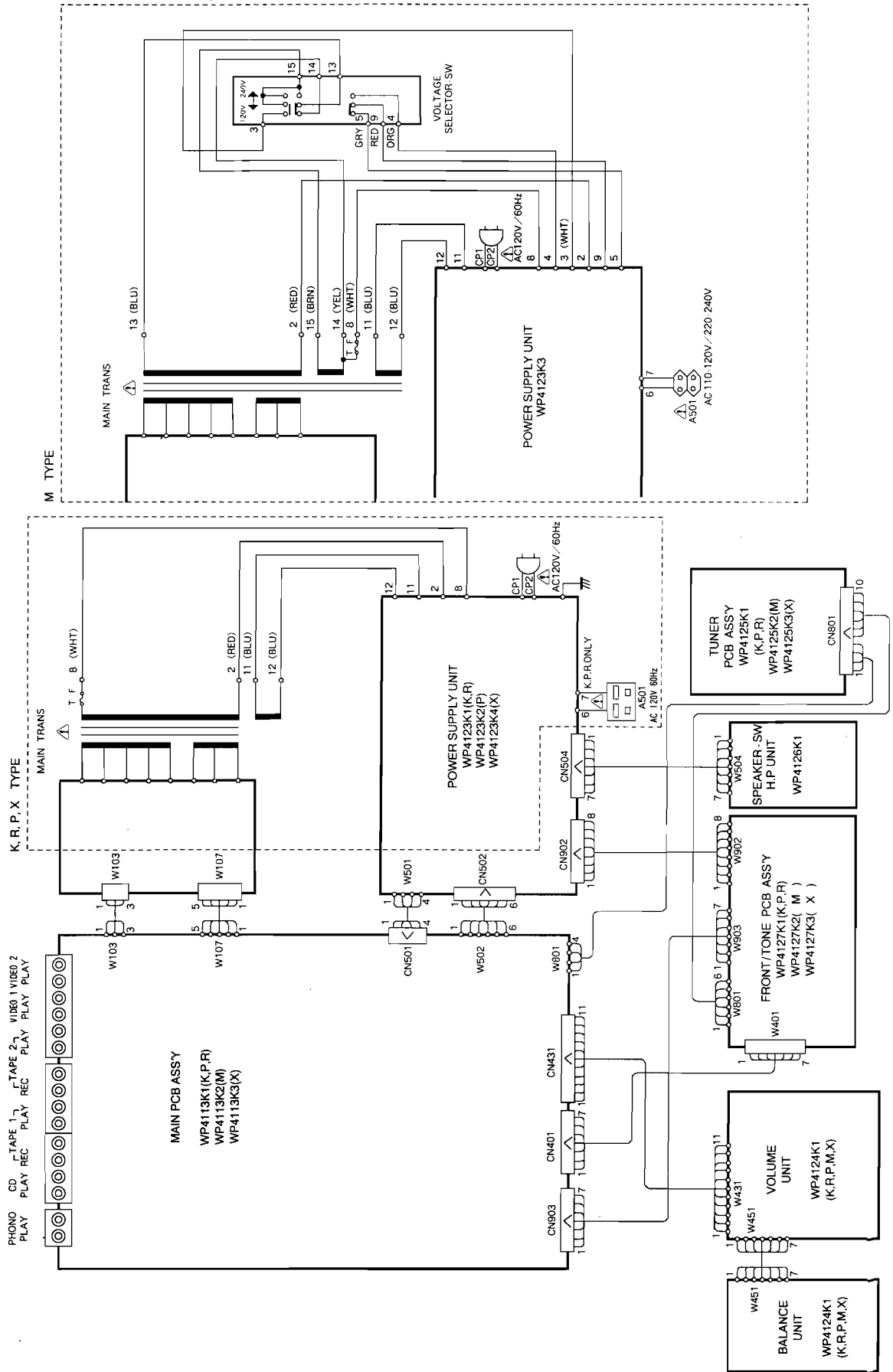


EXCEPT E, T

KR-A5060

WIRING DIAGRAM

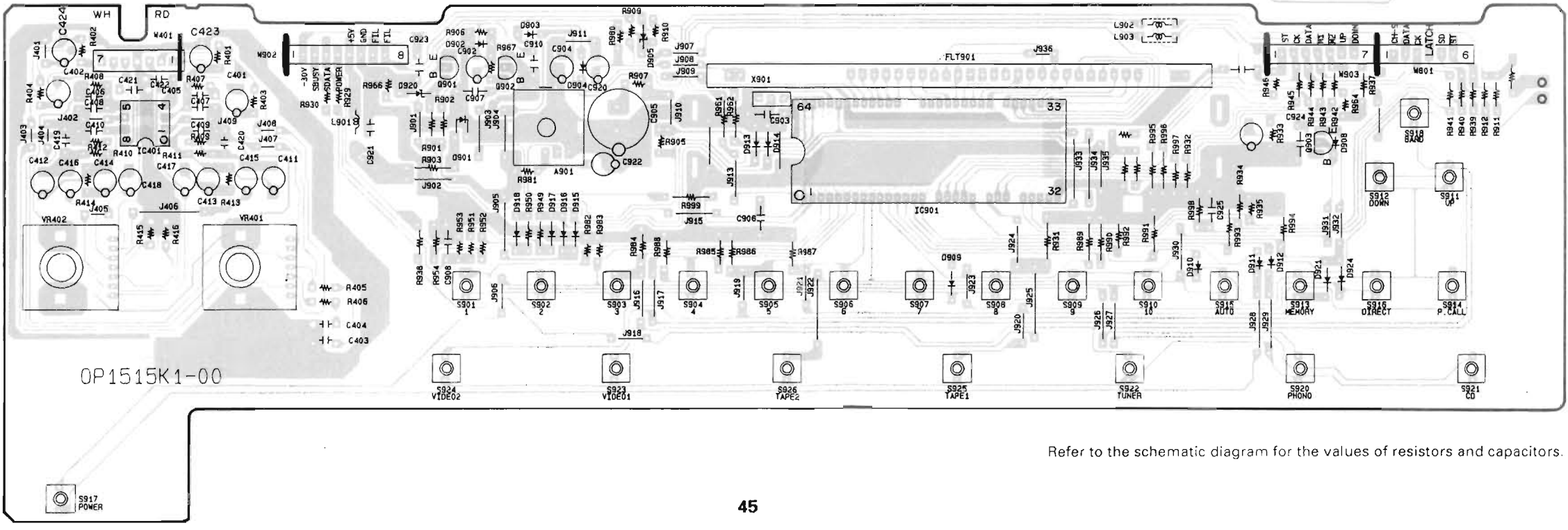
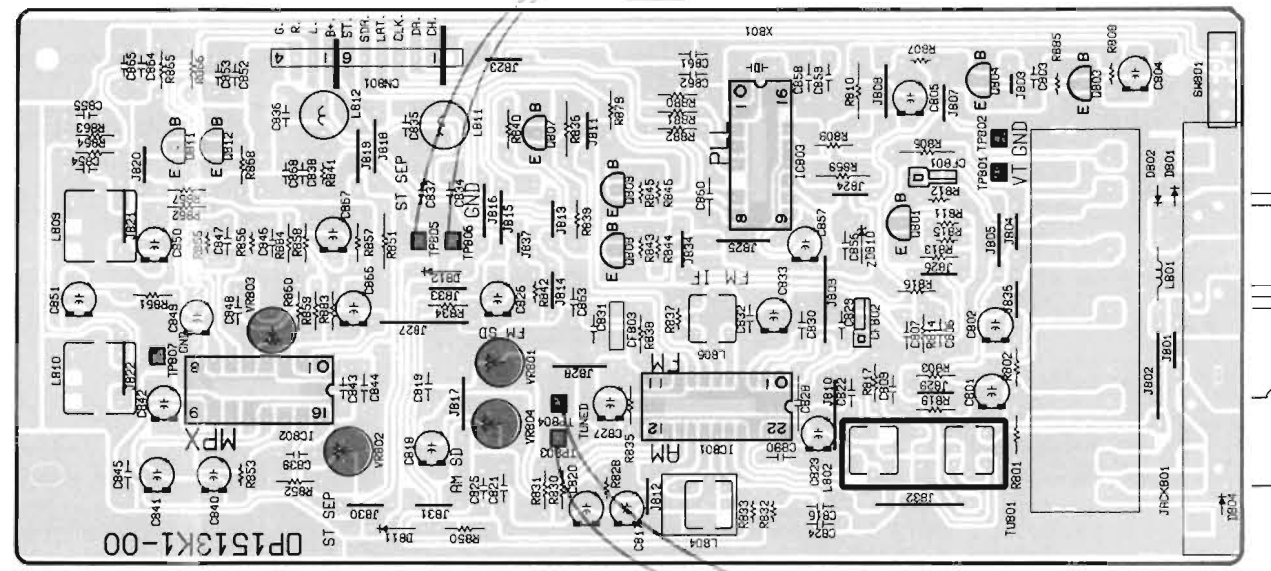
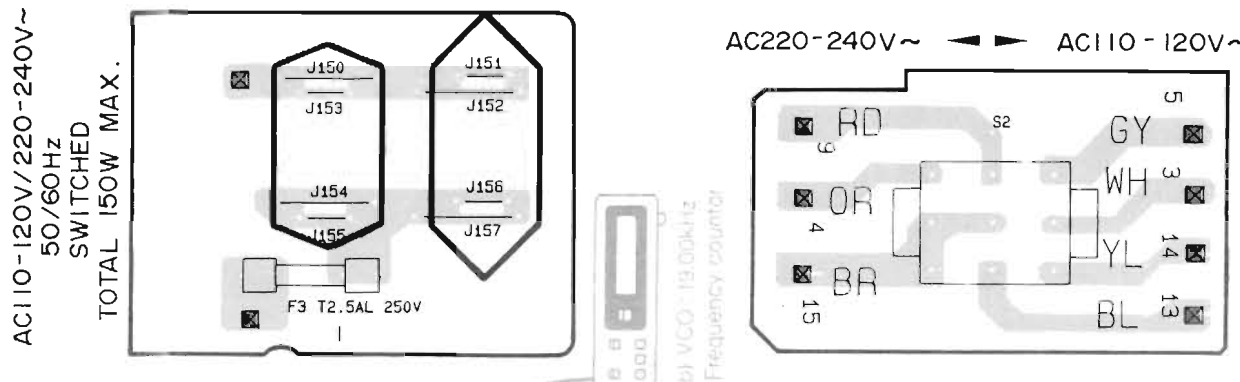
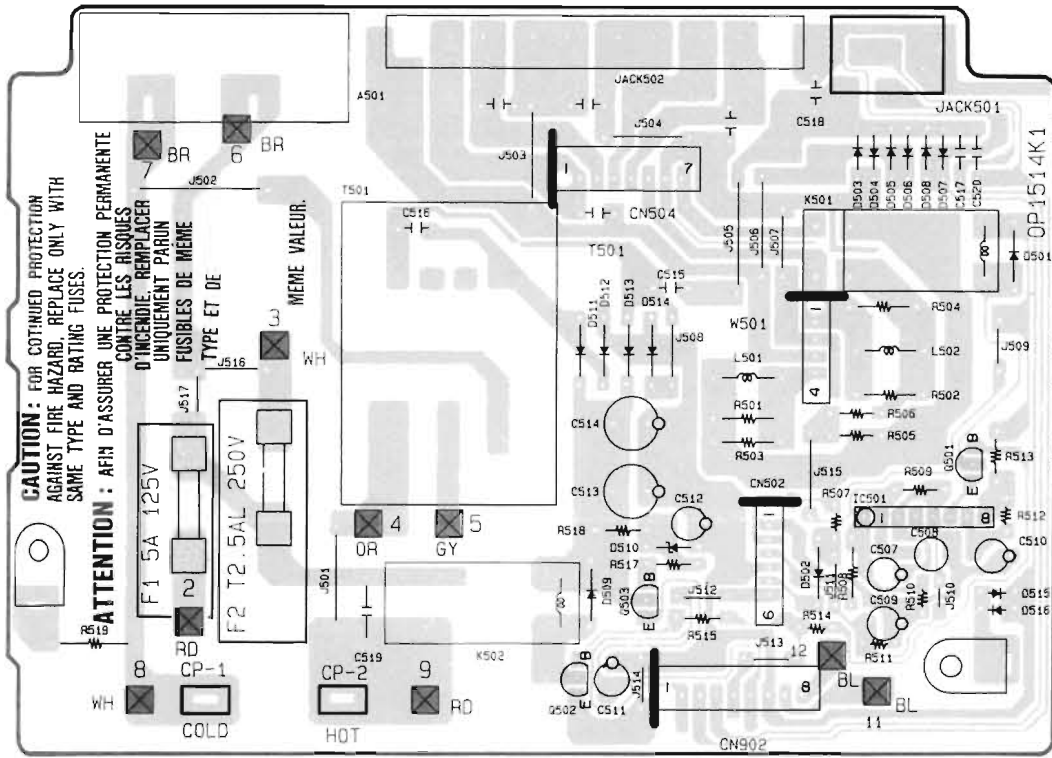
EXCEPT E,T



PC BOARD (COMPONENT SIDE VIEW) : KR-A5060

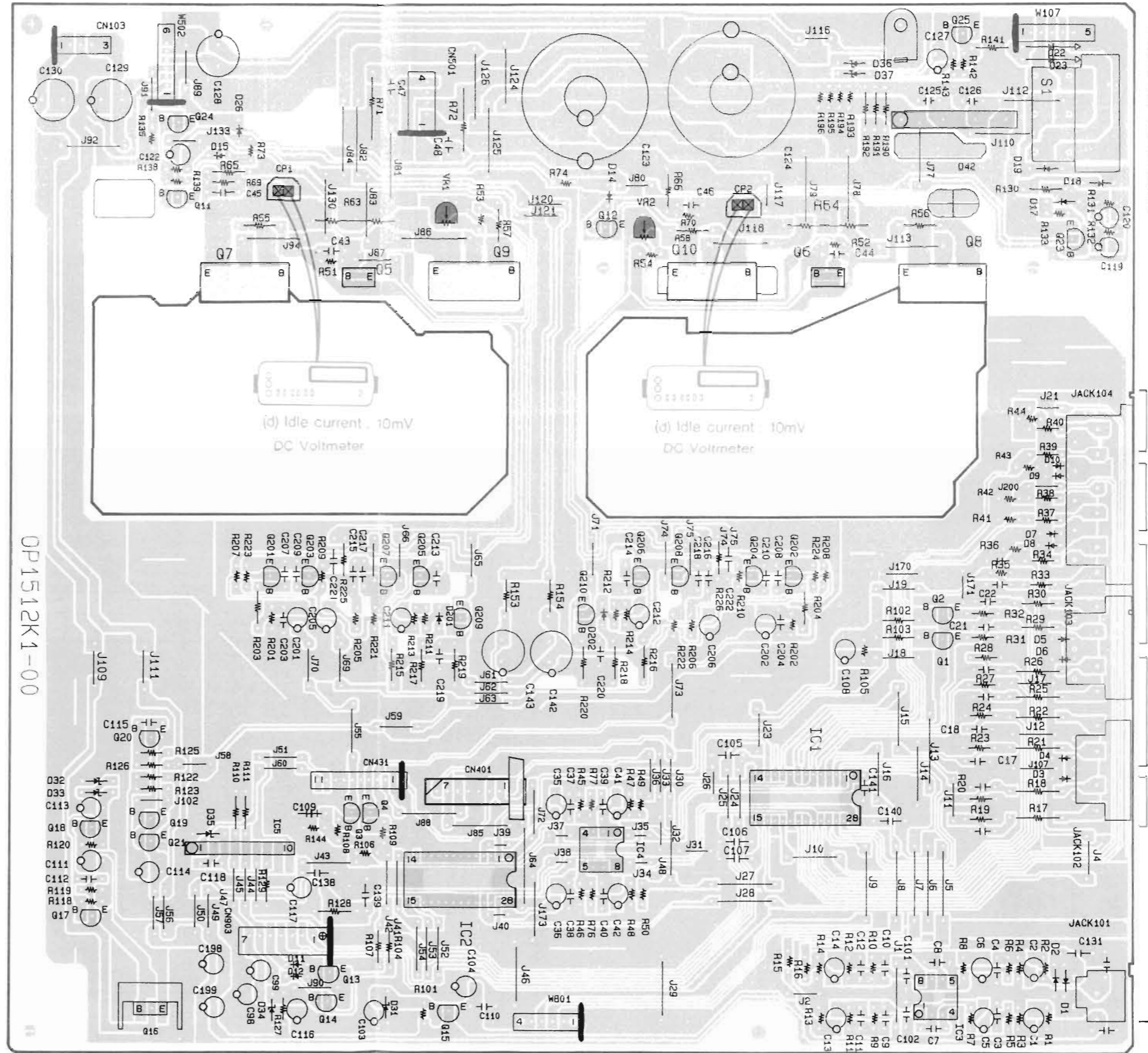
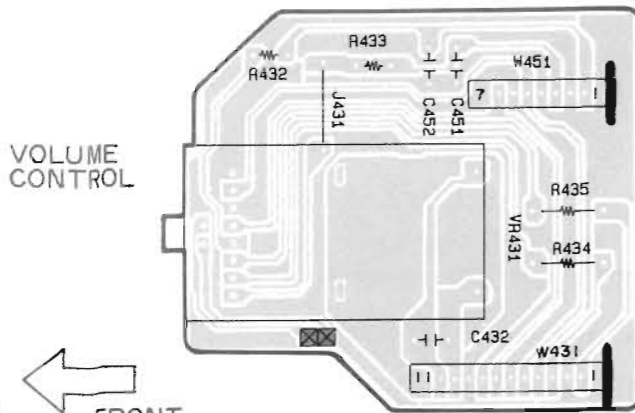
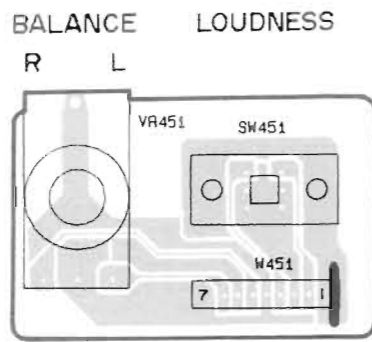
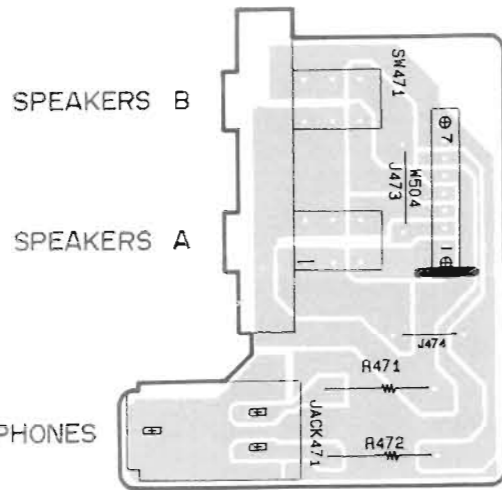
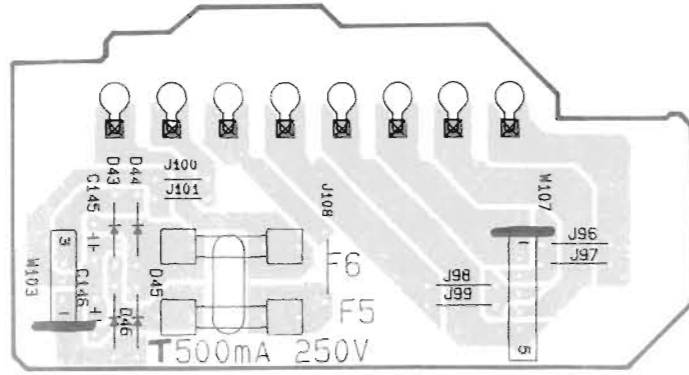
SPEAKERS
(A or B : 4 - 16Ω , A and B : 8 - 16Ω)
+ L - - R +

A SYSTEM CONTROL
B CONTROL



Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (COMPONENT SIDE VIEW) : KR-A5060



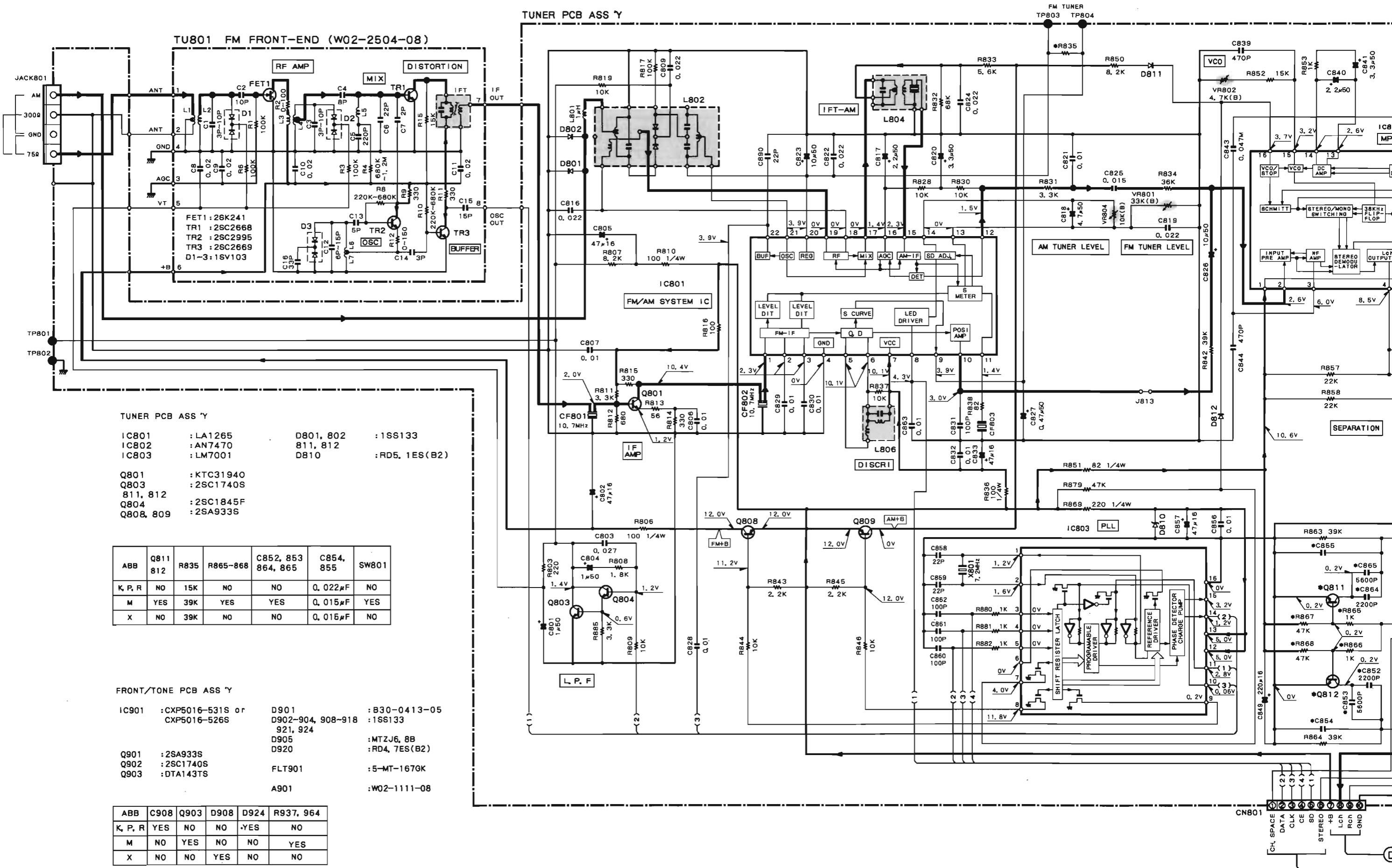
IMPEDANCE SELECTOR A or B : LESS THAN 8Ω A or B : 8Ω OR MORE
 VIDEO 1 VIDEO 2 L R
 TAPE 1 TAPE 2 TAPE 2 TAPE 1
 INPUT REC PLAY (MONITOR) PLAY IN PLAY IN
 REC PLAY IN PLAY IN
 JACK104
 JACK103
 JACK102
 JACK101
 PHONO INPUT L R

EXCEPT E,T

2
3
4
5
6
7

47 FRONT

Refer to the schematic diagram for the values of resistors and capacitors.



TUNER PCB ASS Y

IC801 : LA1265
 IC802 : AN7470
 IC803 : LM7001

D801, 802 : 1SS133
 811, 812 :
 D810 : RD5, 1ES(B2)

Q801 : KTC31940
 Q803 : 2SC1740S
 811, 812 :
 Q804 : 2SC1845F
 Q808, 809 : 2SA933S

ABB	Q811 812	R835	R865-868	C852, 853 864, 865	C854, 855	SW801
K, P, R	NO	15K	NO	NO	0.022μF	NO
M	YES	39K	YES	YES	0.015μF	YES
X	NO	39K	NO	NO	0.015μF	NO

FRONT/TONE PCB ASS Y

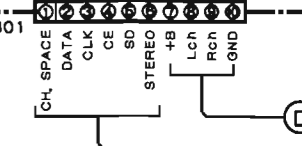
IC901 : CXP5016-531S or
 CXP5016-526S

D901 : B30-0413-05
 D902-904, 908-918 : 1SS133
 921, 924 :
 D905 : MTZJ6, 8B
 D920 : RD4, 7ES(B2)

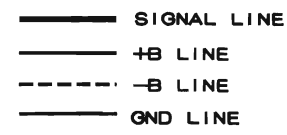
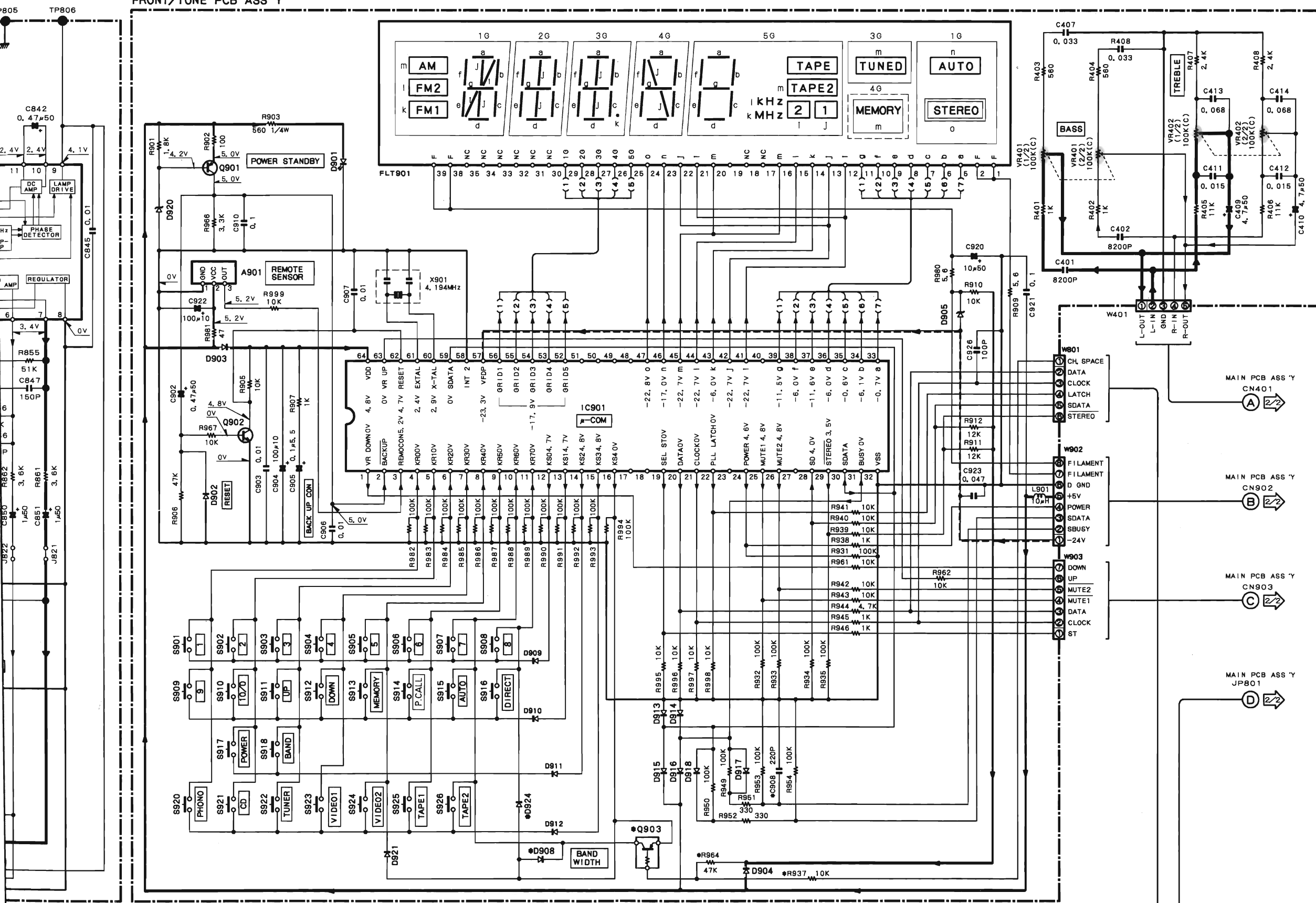
Q901 : 2SA933S
 Q902 : 2SC1740S
 Q903 : DTA143TS

FLT901 : 5-MT-1670K
 A901 : W02-1111-08

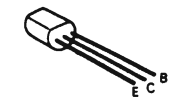
ABB	C908	Q903	D908	D924	R937, 964
K, P, R	YES	NO	NO	YES	NO
M	NO	YES	NO	NO	YES
X	NO	NO	YES	NO	NO



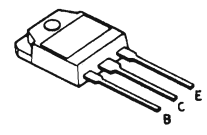
FRONT/TONE PCB ASS Y



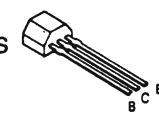
2SA992
2SC1845
2SC2878



2SA1695



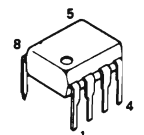
DTA143TS
DTC114ES
2SA933
2SA933S
2SC1740S



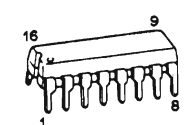
2SC4137



NJM4558DD



LM7001



• DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

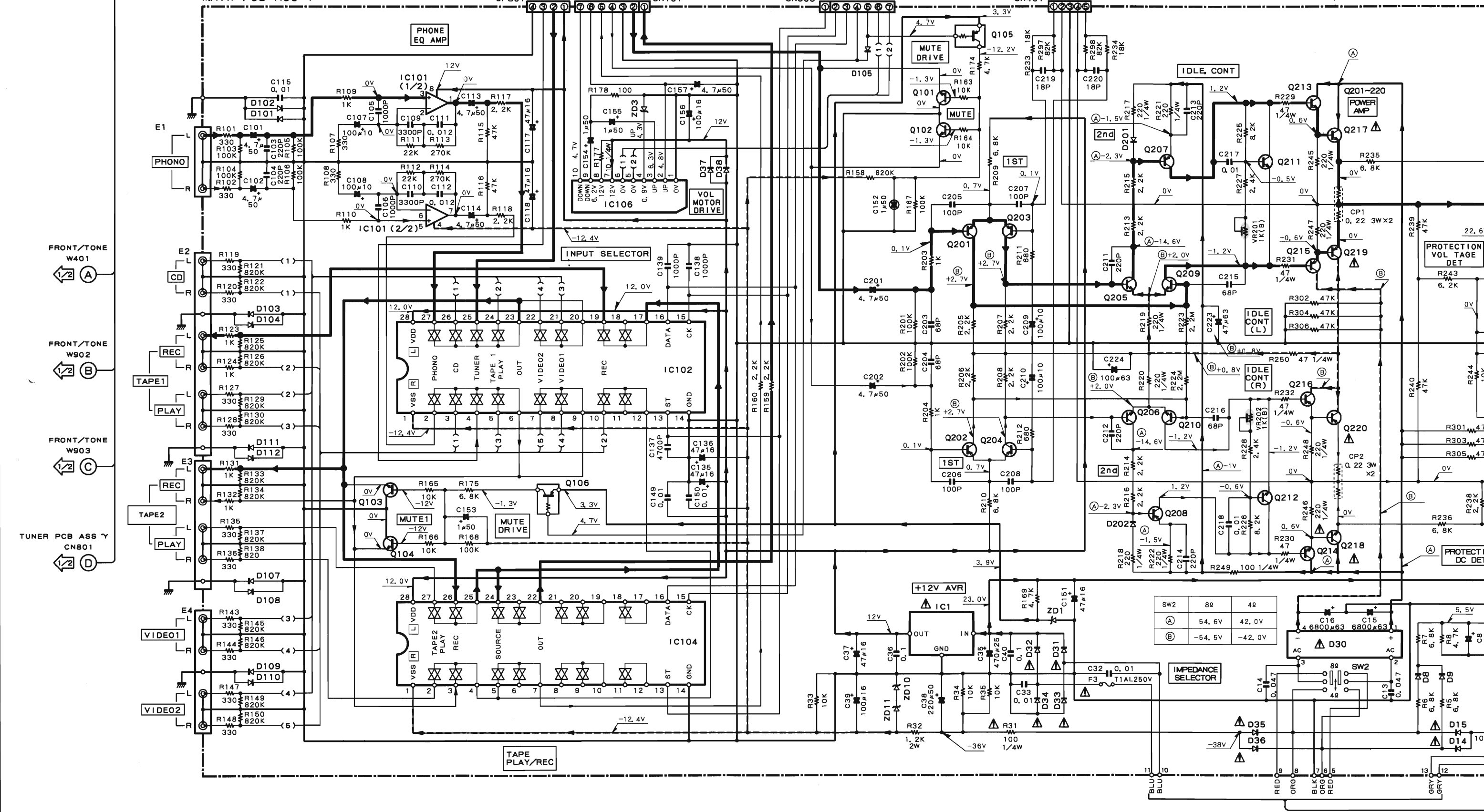
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

1/2 (Except E, T)

Y05-2880-10

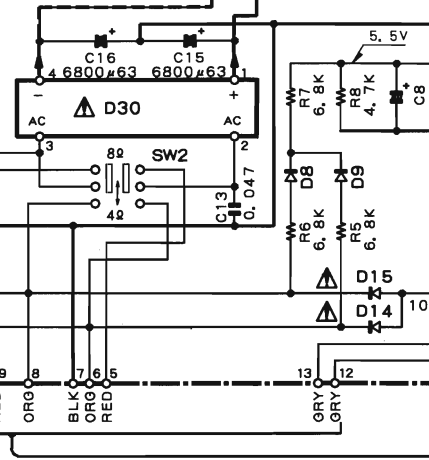
KR-A4060
KENWOOD

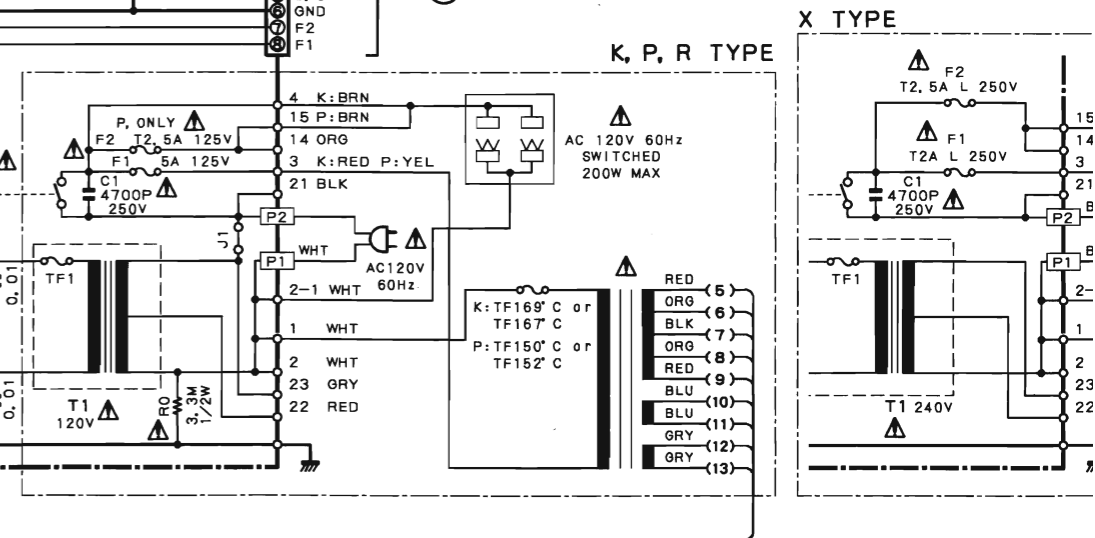
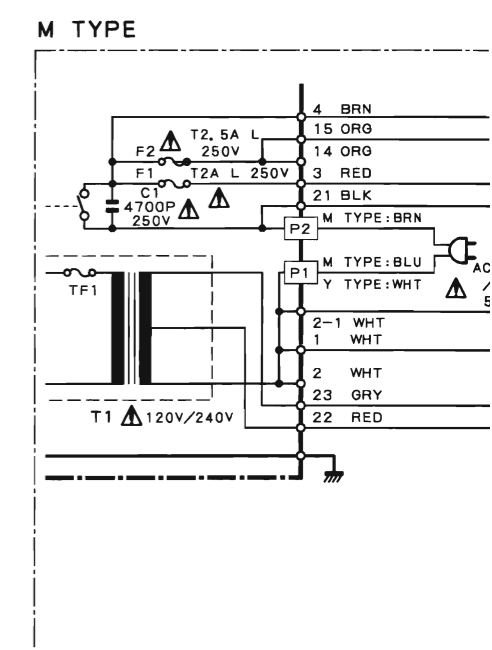
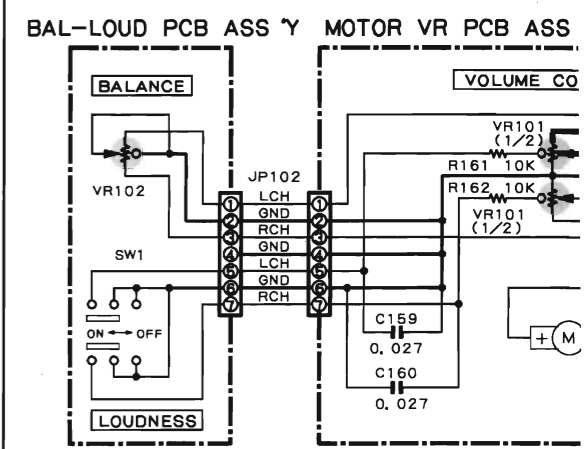
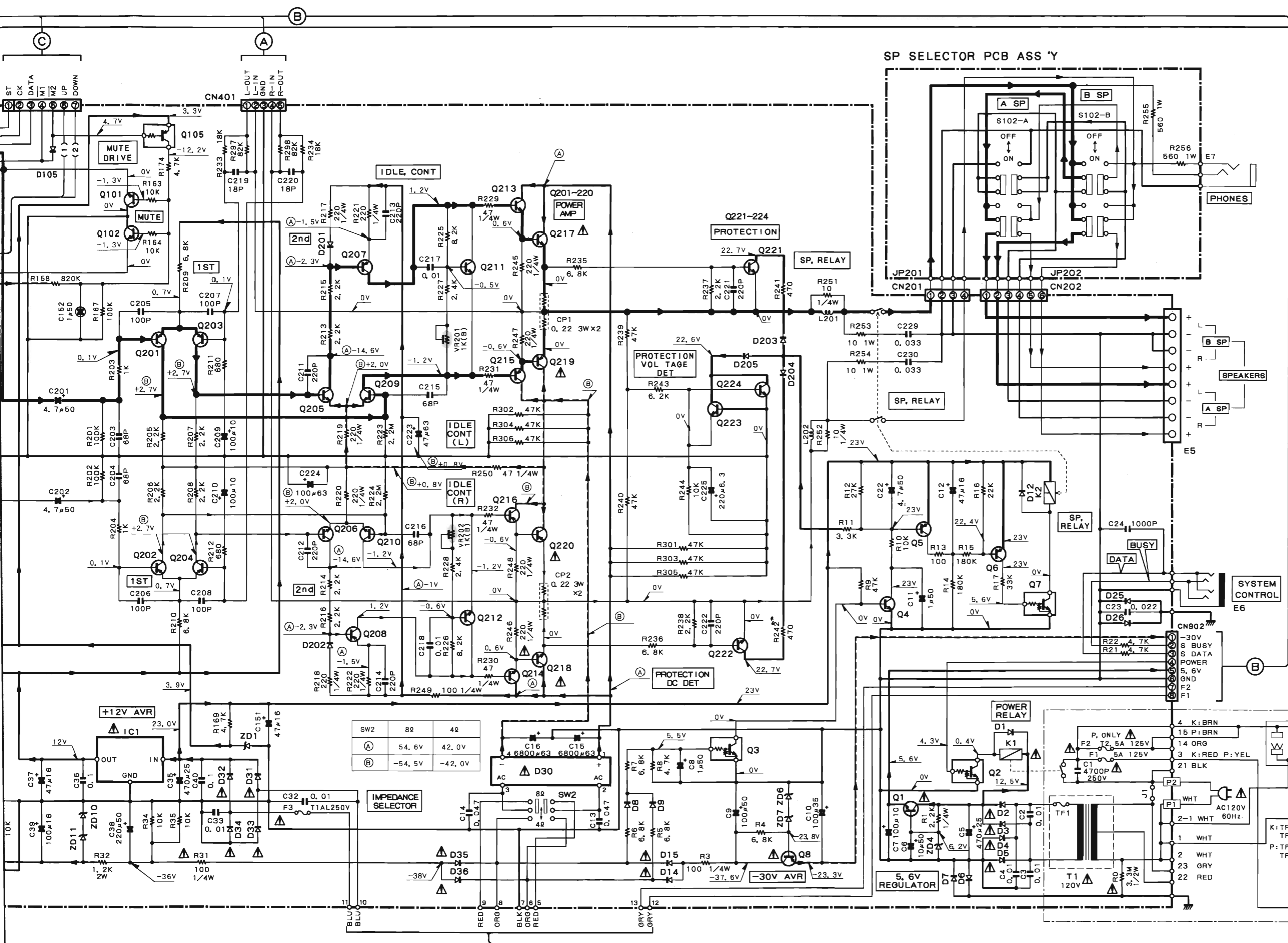
MAIN PCB ASS 'Y



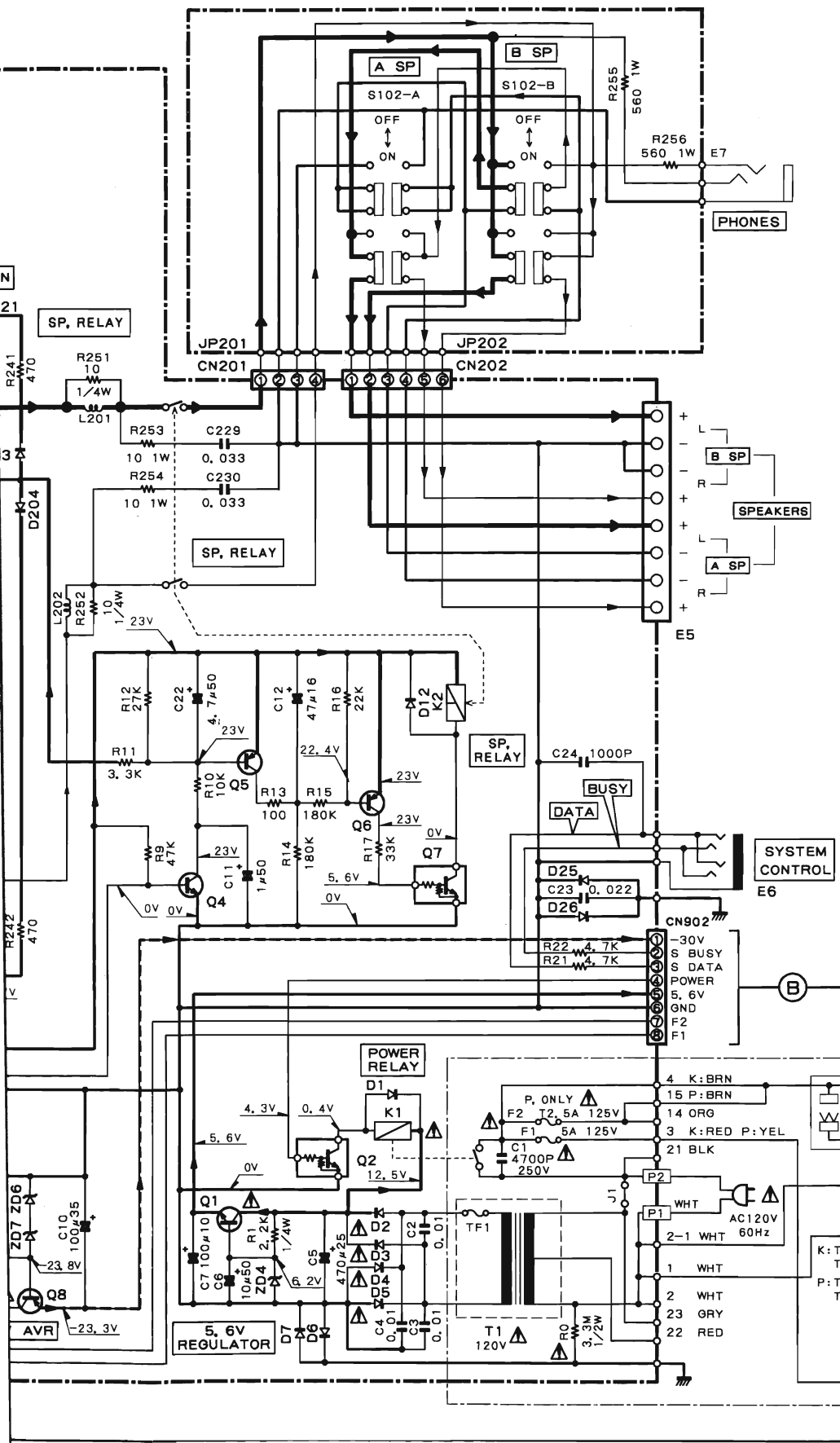
SW2	82	42
(A)	54.6V	42.0V
(B)	-54.5V	-42.0V

IMPEDANCE SELECTOR

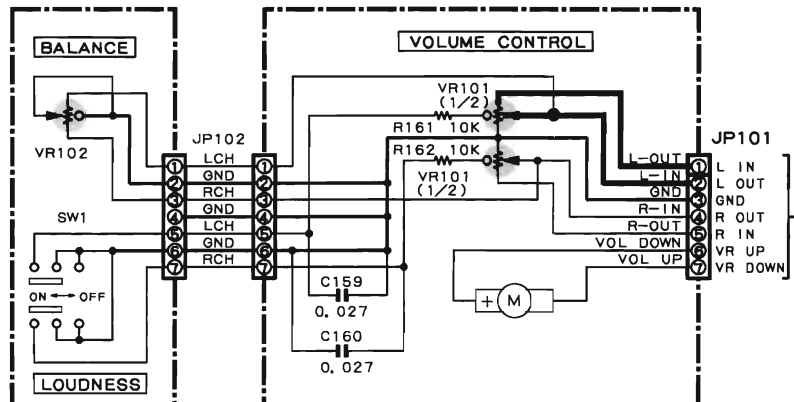




SP SELECTOR PCB ASS'Y



BAL-LOUD PCB ASS'Y MOTOR VR PCB ASS'Y

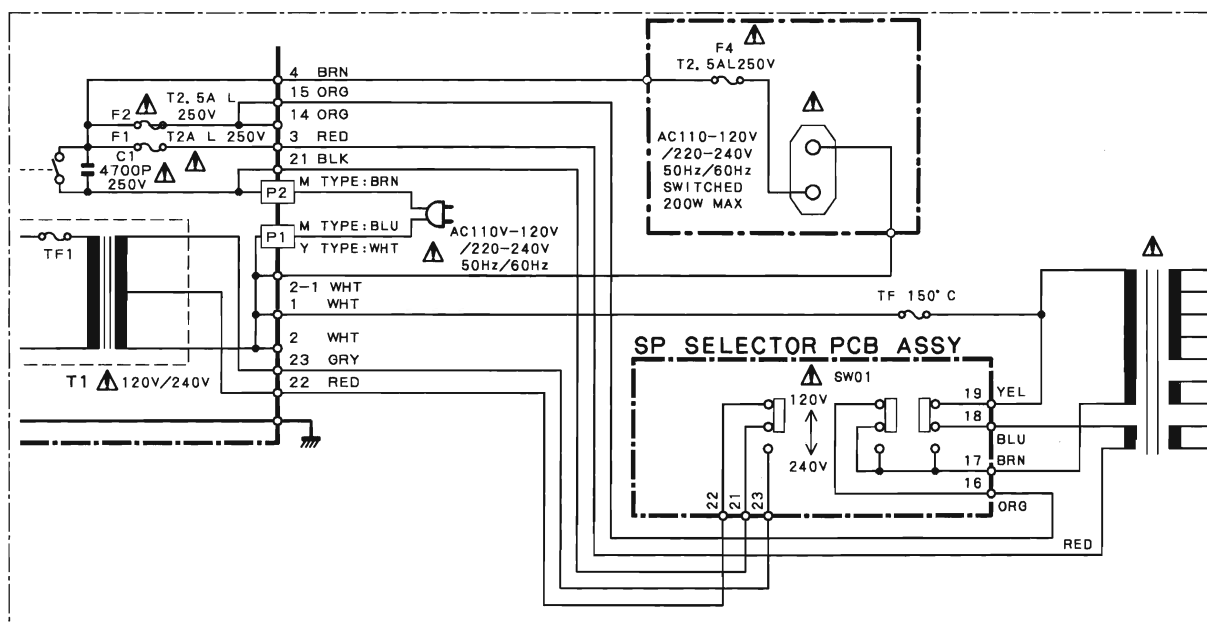


- IC1 :K1A78012AP
- IC101 :NJM4558DD
- IC102 :NJU7313L or TC9164N
- IC104 :NJU7311L or TC9162N
- IC106 :BA6209N

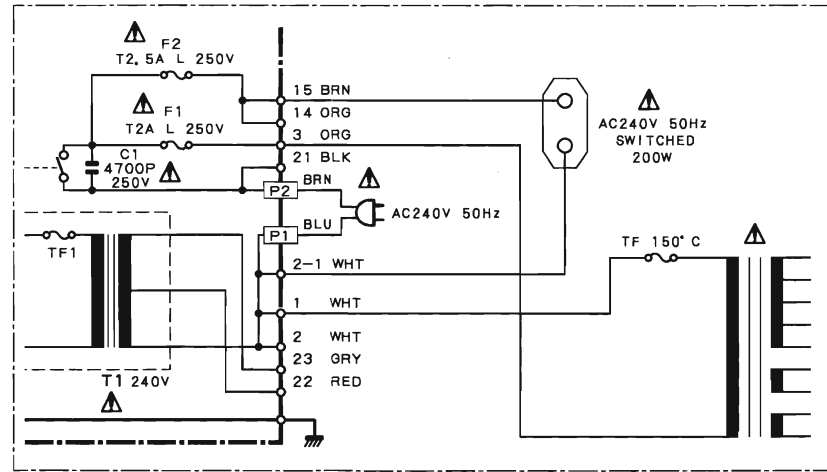
- Q1, 213, 214 :2SC2316
- Q2, 3, 7 :DTC114ES
- Q4, 223, 224 :2SC1740S
- Q5, 6 :2SA933
- Q8, 215, 216 :2SA916
- Q101-104 :2SC2878
- Q105, 106 :DTA114TS
- Q201-204, 207, 208 :2SA992
- Q205, 206, 209 :2SC1845
- 210, 221, 222
- Q211, 212 :2SC4137
- Q217, 218 :2SA4468
- Q219, 220 :2SA1695

- D1, 6-9, 12, 25, 26 :1SS131
- 37, 38, 101-105
- 107-112, 201-205
- D2-5, 14, 15, 31-36 :1N4002A
- D30 :
- ZD1 :MTZJ3, 9B
- ZD3 :MTZJ5, 1B
- ZD4, 10, 11 :MTZJ6, 2B
- ZD6 :RD15ES(B2)
- ZD7 :MTZ12B

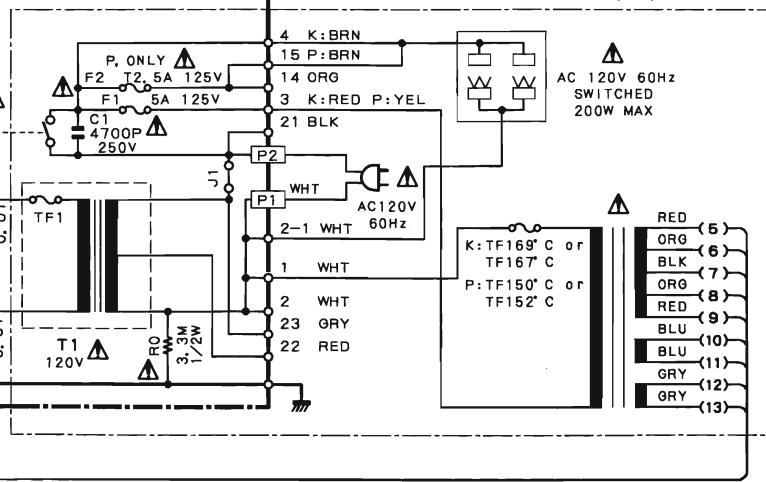
M TYPE



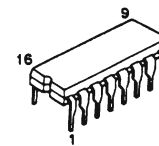
X TYPE



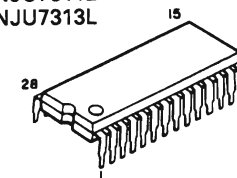
K, P, R TYPE



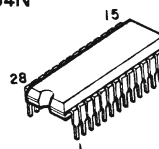
AN7470



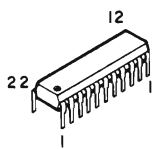
NJU7311L NJU7313L



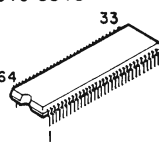
TC9162N TC9164N



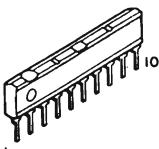
LA1265



CXP5016-526S CXP5016-531S



BA6209N



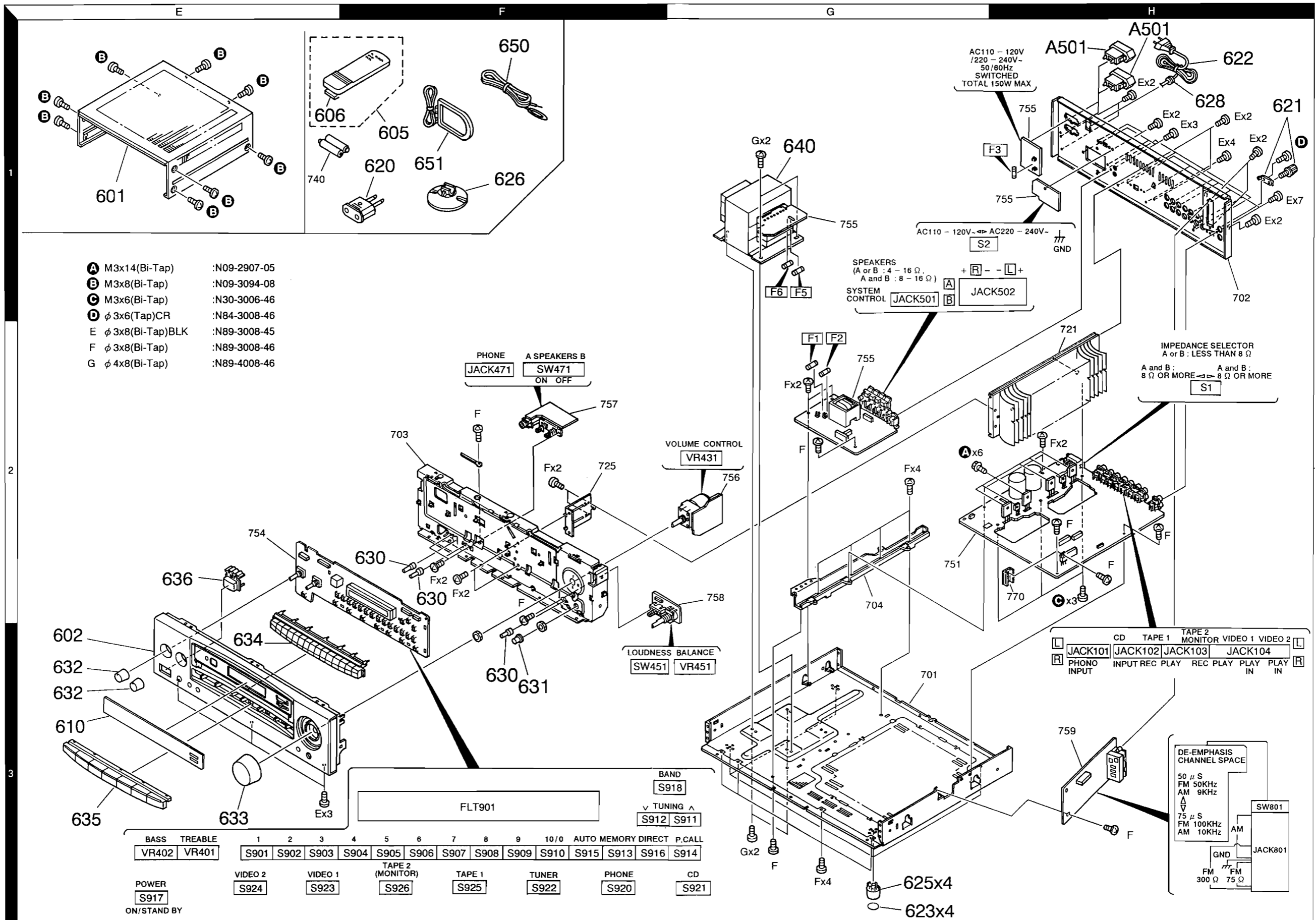
• DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

— SIGNAL LINE
 — GND LINE
 — +B LINE
 - - - -B LINE

KR-A5060 KR-A5060

EXPLODED VIEW (UNIT)



Parts with the exploded numbers larger than 700 are not supplied.

EXCEPT E,T

EXCEPT ET

New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

1

Table with columns: Ref. No., Address, Parts No., Description, Destination. Contains parts for KR-A5060 including cabinet parts, manuals, and power components.

Scandinavia, USA, Canada, Mexico, Europe, Australia, Other Areas. Includes safety critical components indicator.

New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

3

Table with columns: Ref. No., Address, Parts No., Description, Destination. Contains various electronic components like capacitors, resistors, and relays.

Scandinavia, USA, Canada, Mexico, Europe, Australia, Other Areas. Includes safety critical components indicator.

New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

2

Table with columns: Ref. No., Address, Parts No., Description, Destination. Contains various electronic components like capacitors, resistors, and relays.

Scandinavia, USA, Canada, Mexico, Europe, Australia, Other Areas. Includes safety critical components indicator.

New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

4

Table with columns: Ref. No., Address, Parts No., Description, Destination. Contains various electronic components like capacitors, resistors, and relays.

Scandinavia, USA, Canada, Mexico, Europe, Australia, Other Areas. Includes safety critical components indicator.

KR-A5060

PARTS LIST

KR-A5060

PARTS LIST

PARTS LIST

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 向	Re- marks 備考
△ T501		L07-0789-08	TRANS FORMER	X	
△ T501		L07-0790-08	TRANS FORMER	M	
X801		L77-1122-05	CRYSTAL RESONATOR 7.2MHz		
X901		L78-0209-05	RESONATOR 4.19MHz		
F	2D	N89-3008-46	BINDING HEAD TAPITTE SCREW		
R85-58		RD14GB2E220J	FL-PR00F RD 22 J 1/4W		
R63-64		R90-D187-05	MULTI-COMP 0.22X2 K 5W		
R65-66		RD14GB2E332J	FL-PR00F RD 3.3K J 1/4W		
R71-72	*	RN14BK3A100J	RN 10 J 1W		
R115	*	RD14GB2E010J	FL-PR00F RD 1.0 J 1/4W		
R116,117	*	RN14BK3D680J	RN 68 J 2W		
R121	*	RD14GB2E010J	FL-PR00F RD 1.0 J 1/4W		
R128		RD14GB2E101J	FL-PR00F RD 100 J 1/4W		
R129		RD14GB2E100J	FL-PR00F RD 100 J 1/4W		
R130		RD14GB2E101J	FL-PR00F RD 100 J 1/4W		
R141		RD14GB2E101J	FL-PR00F RD 100 J 1/4W		
R153,154		RD14GB2E470J	FL-PR00F RD 47 J 1/4W		
R215,216		RD14GB2E151J	FL-PR00F RD 150 J 1/4W		
R217-220		RD14GB2E221J	FL-PR00F RD 220 J 1/4W		
R471,472	*	RN14BK3A561J	RN 560 J 1W		
R501-504		RD14GB2E220J	FL-PR00F RD 22 J 1/4W		
R519		RD14BB2H353J	RD 3.3M J 1/2W		
R806		RD14GB2E101J	FL-PR00F RD 100 J 1/4W		
R810		RD14GB2E101J	FL-PR00F RD 100 J 1/4W		
R836		RD14GB2E101J	FL-PR00F RD 100 J 1/4W		
R851		RD14GB2E820J	FL-PR00F RD 82 J 1/4W		
R869		RD14GB2E221J	FL-PR00F RD 220 J 1/4W		
VR1-2		R12-1066-05	TRIMMING POT. IDLE ADJ 1K		
VR401,402	*	R39-0003-08	POTENTIOMETER BASS TREBLE 10KB		
VR431		R39-0001-08	POTENTIOMETER VOLUME 100KB X3		
VR451		R10-5071-08	POTENTIOMETER BALANCE		
VR801		R12-3166-08	TRIM POT. 33KB FM TUNE LEVEL		
VR802		R12-1053-05	TRIM POT. 4.7KB VC0		
VR804		R12-3071-05	TRIM POT. 10KB AM TUNE LEVEL		
△ K501		S51-2092-05	MAGNETIC RELAY POWER		
K502		S76-0032-08	MAGNETIC RELAY SPEAKER		
S1		S62-0032-08	SLIDE SWITCH IMPEDANCE SEL		
S2		S31-5010-05	SLIDE SWITCH VOLTAGE SELECT		
△ S901-926	*	S70-0030-08	TACT SWITCH KEY BOARD	M	
SM451	*	S68-0040-08	PUSH SWITCH LOUNDNES		
SW471		S62-0033-08	PUSH SWITCH SPEAKERS		
SW801		S62-0012-08	SLIDE SWITCH CH. SPACE	M	
D1-12		1S5131	DIODE		
D14,15		1S5131	DIODE		
D17,19		1S5131	DIODE		
D22,23		1N4002	DIODE		
D26		1S5131	DIODE		
D31		RD13ES(B2)	ZENER DIODE		
D32		MTZJ6.2B	ZENER DIODE		
D33		MTZJ6.2B	ZENER DIODE		
D34		MTZJ3.9B	ZENER DIODE		
D35		RD5.1ES(B2)	ZENER DIODE		
D36,37		MTZ12B(B2)	ZENER DIODE		

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 向	Re- marks 備考
△ D42		DSFB20	DIODE		
△ D43-46		1N4002	DIODE		
D201,202		1S5133	DIODE		
D501,502		1N4002A	DIODE		
D503-508		1S5133	DIODE		
D509		1N4002A	DIODE		
△ D510		MTZJ6.2B	ZENER DIODE		
D511-514		1N4002A	DIODE		
D515,516		1S5133	DIODE		
D801,802		1S5133	DIODE		
D810		RD5.1ES(B2)	ZENER DIODE		
D811,812		1S5133	DIODE		
D902-904		MTZJ6.8B	ZENER DIODE		
D905		1S5133	ZENER DIODE		
D908		1S5133	ZENER DIODE		
D909-918		1S5133	DIODE		
D920		RD4.7ES(B2)	ZENER DIODE		
D921		1S5133	DIODE		
D924		1S5133	DIODE		
FL901		5-MT-1670K	FLUORESCENT INDICATOR TUBE	KPR	
IC1		TC9164N	IC(16CH BILATERAL SELECTOR SW)		
IC2		TC9162N	IC(ANALOG SWITCH ARRAY)		
IC3,4		NJM4S65DD	IC(OP AMP X2)		
IC5		BAG209N	IC(MOTOR DRIVER)		
IC6		NJM4S65DD	IC(OP AMP X2)		
IC401		IC401	IC(OP AMP X2)		
IC501		UPC1237HA	IC(POWER AMP)		
IC801		LAI265	IC(FM/AM TUNER)		
IC802		AN7470	IC(FM MPX)		
IC803		LM7001	IC(PLL FREQUENCY SYNTHESIZER)		
IC810		UPC78L05	IC(VOLTAGE REGULATOR / +5V)		
IC901		ICP5016-526S	IC(4bit MICROPROCESSOR)		
IC901	*	ICP5016-531S	IC(4bit MICROPROCESSOR)		
Q1-4		2SC2878B	TRANSISTOR		
Q5,6		2SC4137	TRANSISTOR		
Q7,8	*	2SD2222	TRANSISTOR		
Q9,10	*	2SB1470	TRANSISTOR		
Q11,12		2SC1845F	TRANSISTOR		
Q15,14		DTA1141S	DIGITAL TRANSISTOR		
Q15,14		2SC2235Y	TRANSISTOR		
Q16	△	2SD2058Y	TRANSISTOR		
Q17,18		2SC1740S	TRANSISTOR		
Q19,20		2SA933S	TRANSISTOR		
Q21	△	2SC2235Y	TRANSISTOR		
Q23		2SC1845F	TRANSISTOR		
Q24		2SA992F	TRANSISTOR		
Q25		2SB1274	TRANSISTOR		
Q201-204		2SA992F	TRANSISTOR		
Q205-208		2SC1845F	TRANSISTOR		
Q209,210		2SA992F	TRANSISTOR		
Q501,502		2SC2316(Y)	TRANSISTOR		
Q503	△	2SD882	TRANSISTOR		
Q801		2SC3194D	TRANSISTOR		
Q803		2SC1740S	TRANSISTOR		
Q804		2SC1845F	TRANSISTOR		
Q808,809		2SA933S	TRANSISTOR		

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

△ indicates safety critical components.

L: Scandinavia K: USA P: Canada R: Mexico
Y: PX (Far East, Hawaii) T: England E: Europe G: Germany
Y: AAFES (Europe) X: Australia M: Other Areas

EXCEPT E.T.

KR-A5060

PARTS LIST

EXCEPT

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

7

Ref. No. 参照番号	Address 位置	Address New 位置新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 向	Re- marks 備考
Q811,812 Q901 Q902 Q903			2SC1740S 2SA933S 2SC1740S DTA143TS	TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR	M	
A901 T0601			W02-1111-08 W02-1042-05	ELECTRIC CIRCUIT MODULE FM FRONT END UNIT	M KPMXR	

L: Scandinavia

K: USA

P: Canada

R: Mexico

Y: PX (Far East, Hawaii)

T: England

E: Europe

G: Germany

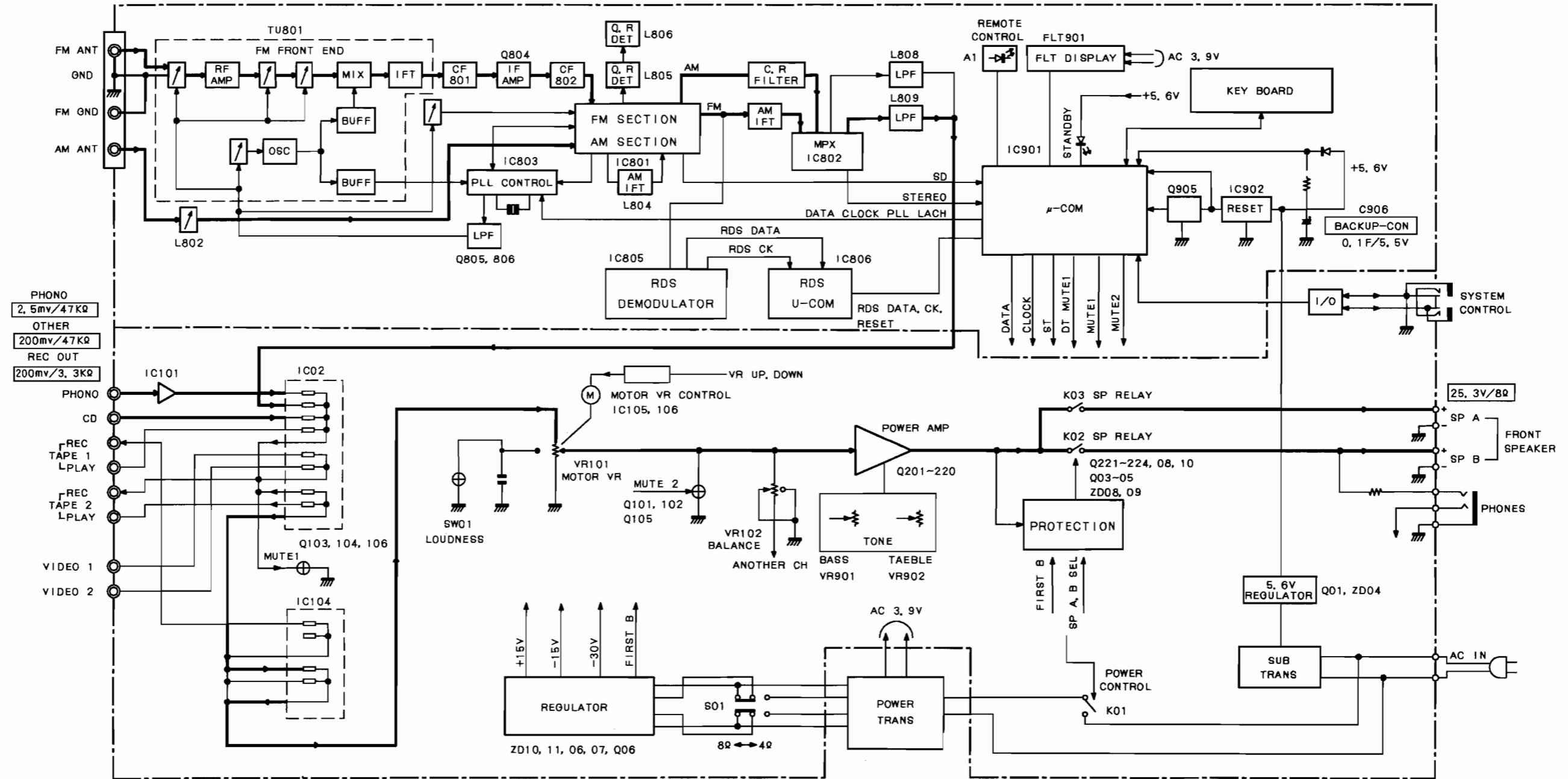
V: AAFES (Europe)

X: Australia

M: Other Areas

▲ indicates safety critical components.

KR-A4060/A5060 KR-A4060/A5060 BLOCK DIAGRAM



KR-A4060/A5060

ADJUSTMENT

AM section : If alignment point is "-", confirm the value. If not, replace the front end pack.

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION SELECTOR : FM							
1	DISCRIMINATOR	(A) 98.0MHz 1kHz, ±40kHz dev. 60dBμ(A.N.T. input)	Connect a DC voltmeter between TP801 and TP802. (TUNER UNIT)	AUTO or MONO 98.0MHz	L805 (TUNER UNIT)	0V.	(a)
2	DISCRIMINATOR	(C) 98.0MHz 1kHz, ±40kHz dev. 60dBμ(A.N.T. input)	Connect a Distortion meter (1kHz)	AUTO or MONO 98.0MHz	L806 (TUNER UNIT)	Minimum distortion. (L or R)	
3	DISCRIMINATOR	(C) 98.0MHz 1kHz, ±40kHz dev. 60dBμ(A.N.T. input)	Connect a DC voltmeter between TP801 and TP802. (TUNER UNIT)	AUTO or MONO 98.0MHz	L806 (TUNER UNIT)	0V.	(a)
4	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ±40kHz dev. Selector : L or R Pilot : ±6.0kHz dev. 60dBμ(A.N.T. input)	(B)	98.0MHz	IFT (Front end pack)	Minimum distortion. (L or R)	
5	SEPARATION	(C) 98.0MHz 1kHz, ±40kHz dev. Selector : L or R Pilot : ±6.0kHz dev. 60dBμ(A.N.T. input)	(B)	AUTO 98.0MHz	VR803 (TUNER UNIT)	Minimum cross talk.	
6	TUNING LEVEL	(A) 98.0MHz 0 dev. 17dBμ(A.N.T. input)	(B)	AUTO or MONO 98.0MHz	VR802 (TUNER UNIT)	Adjust VR802 and stop at the point where FLT901 (TUNED) goes on.	
AM SECTION SELECTOR : AM							
(1)	TUNING LEVEL	(D) 999MHz 26dBμ(A.N.T. input)	(B)	-	VR801 (TUNER UNIT)	Adjust VR801 and stop at the point where FLT901 (TUNED) goes on.	
AUDIO SECTION							
<1>	IDLE CURRENT	-	Connect a DC voltmeter across CP1 (L), CP2 (R) (MAIN UNIT)	Volume : 0	VR201 (L) VR202 (R) (AUDIO UNIT)	10mV	

KR-A4060/A5060

AJUSTES

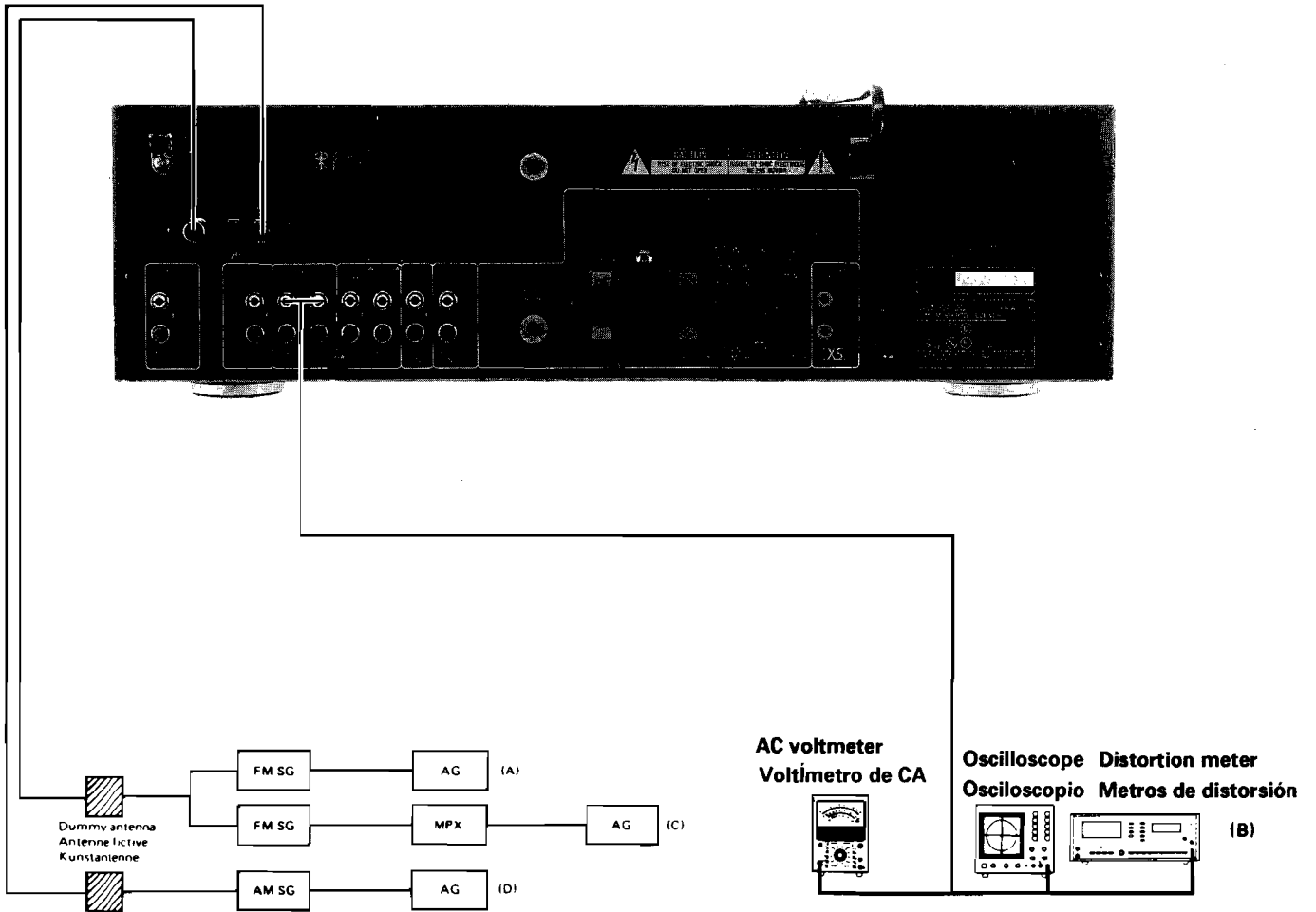
Sección de AM : Si el punto de alineación es "-", confirme el valor. Si no, reemplace el paquete de entrada.

Núm.	ÍTEM	AJUSTES DE ENTRADA	AJUSTES DE SALIDA	AJUSTES DEL SINTONIZADOR	PUNTOS DE ALINEACIÓN	ALINEACIÓN PARA	FIG.
SECCIÓN DE FM SELECTOR : FM							
1	DISCRIMINATOR	(A) 98.0MHz 1kHz, ±40kHz dev. 60dBμ(Entrada de antena)	Conecte un voltímetro de CC entre TP801 y TP802. (UNIDAD DEL SINTONIZADOR)	AUTO o MONO 98.0MHz	L805 (UNIDAD DEL SINTONIZADOR)	0V.	(a)
2	DISCRIMINATOR	(C) 98.0MHz 1kHz, ±40kHz dev. 60dBμ(Entrada de antena)	Conecte un medidor de Distorsión. (1kHz)	AUTO o MONO 98.0MHz	L806 (UNIDAD DEL SINTONIZADOR)	Distorsión mínima. (L o R)	
3	DISCRIMINATOR	(C) 98.0MHz 1kHz, ±40kHz dev. 60dBμ(Entrada de antena)	Conecte un voltímetro de CC entre TP801 y TP802. (UNIDAD DEL SINTONIZADOR)	AUTO o MONO 98.0MHz	L806 (UNIDAD DEL SINTONIZADOR)	0V.	(a)
4	DISTORSIÓN (ESTÉREO)	(C) 98.0MHz 1kHz, ±40kHz dev. Selector : L o R Piloto : ±6.0kHz dev. 60dBμ(Entrada de antena)	(B)	98.0MHz	IFT (Paquete de entrada)	Distorsión mínima. (L o R)	
5	SEPARACIÓN	(C) 98.0MHz 1kHz, ±40kHz dev. Selector : L o R Piloto : ±6.0kHz dev. 60dBμ(Entrada de antena)	(B)	AUTO 98.0MHz	VR803 (UNIDAD DEL SINTONIZADOR)	Diafonía mínima.	(b)
6	NIVEL DE SINTONÍA	(A) 98.0MHz 0 dev. 17dBμ(Entrada de antena)	(B)	AUTO o MONO 98.0MHz	VR802 (UNIDAD DEL SINTONIZADOR)	Ajuste VR802 y pare en el punto en el que se encienda FLT 901 (SINTONIZADO).	
SECCIÓN DE AM SELECTOR : AM							
(1)	NIVEL DE SINTONÍA	(D) 999MHz 26dBμ(Entrada de antena)	(B)	-	VR801 (UNIDAD DEL SINTONIZADOR)	Ajuste VR801 y pare en el punto en el que se encienda FLT 901 (SINTONIZADO).	
SECCIÓN DE AUDIO							
<1>	CORRIENTE EN REPOSO	-	Conecte un voltímetro de CC entre CP1 (L) y CP2 (R) (UNIDAD PRINCIPAL)	Volumen : 0	VR201 (L) VR202 (R) (UNIDAD AUDIO)	10mV	

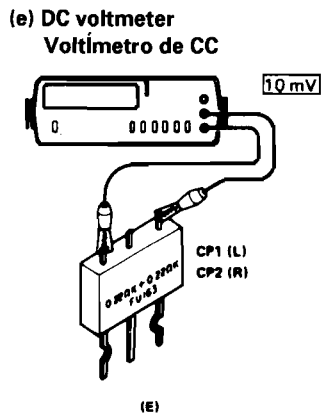
KR-A4060/A5060

ADJUSTMENT/AJUSTES

SYSTEM CONNECTIONS/CONEXIONES DEL SISTEMA

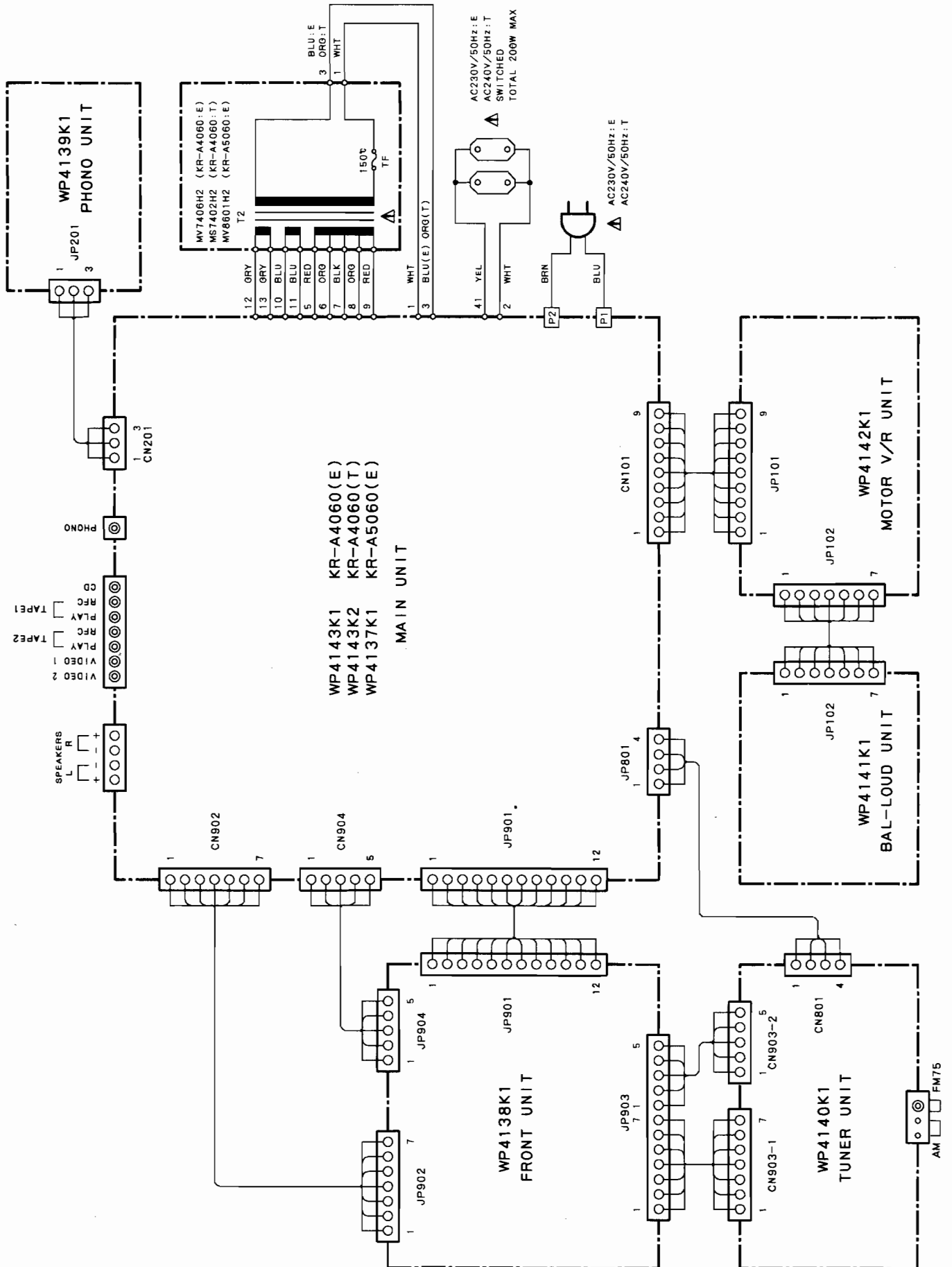


System connections/Raccordements du système/System-Anschlüsse



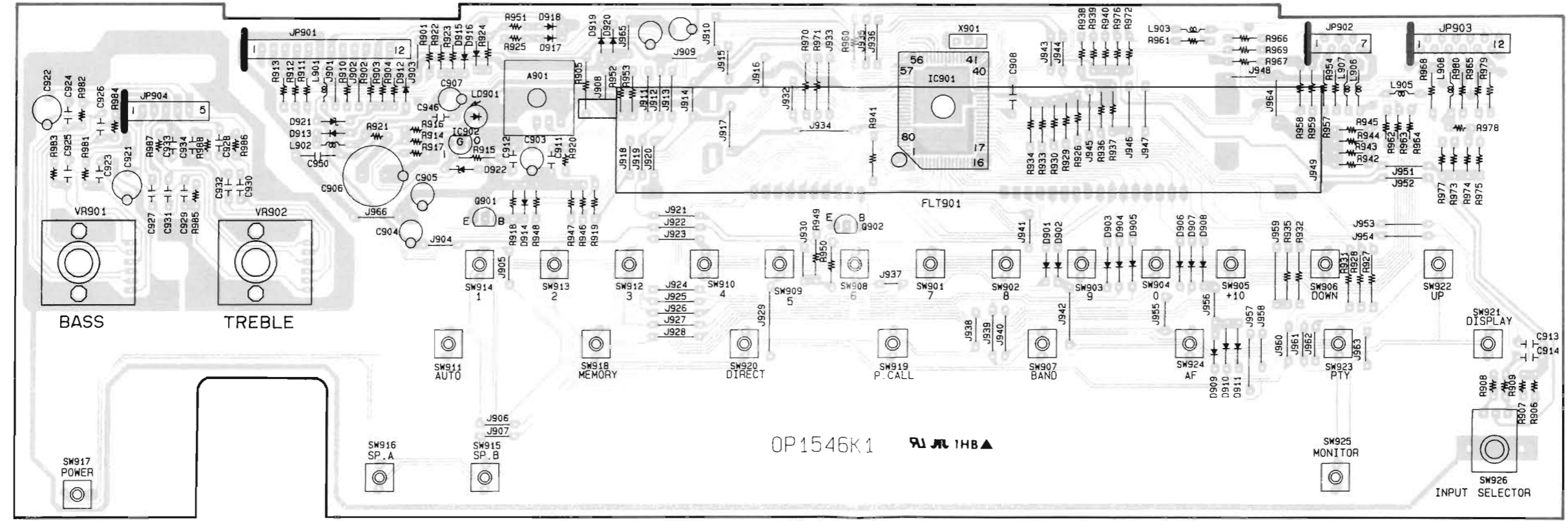
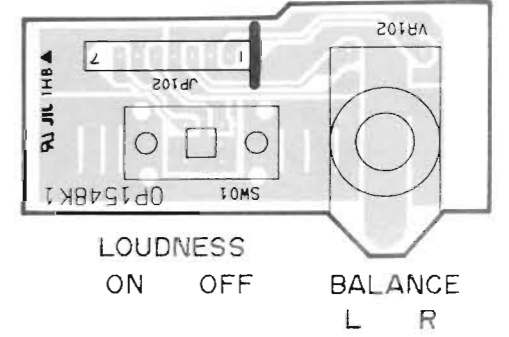
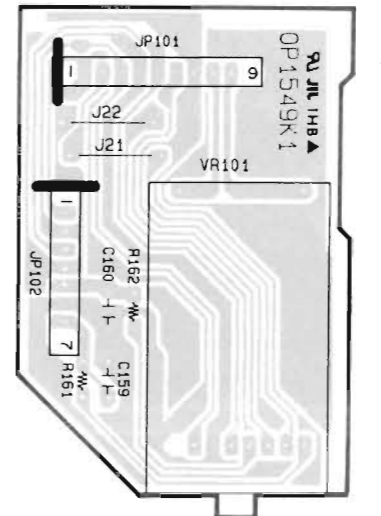
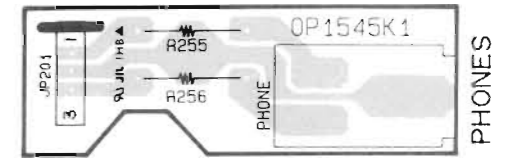
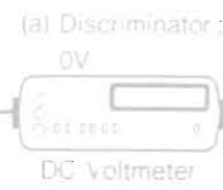
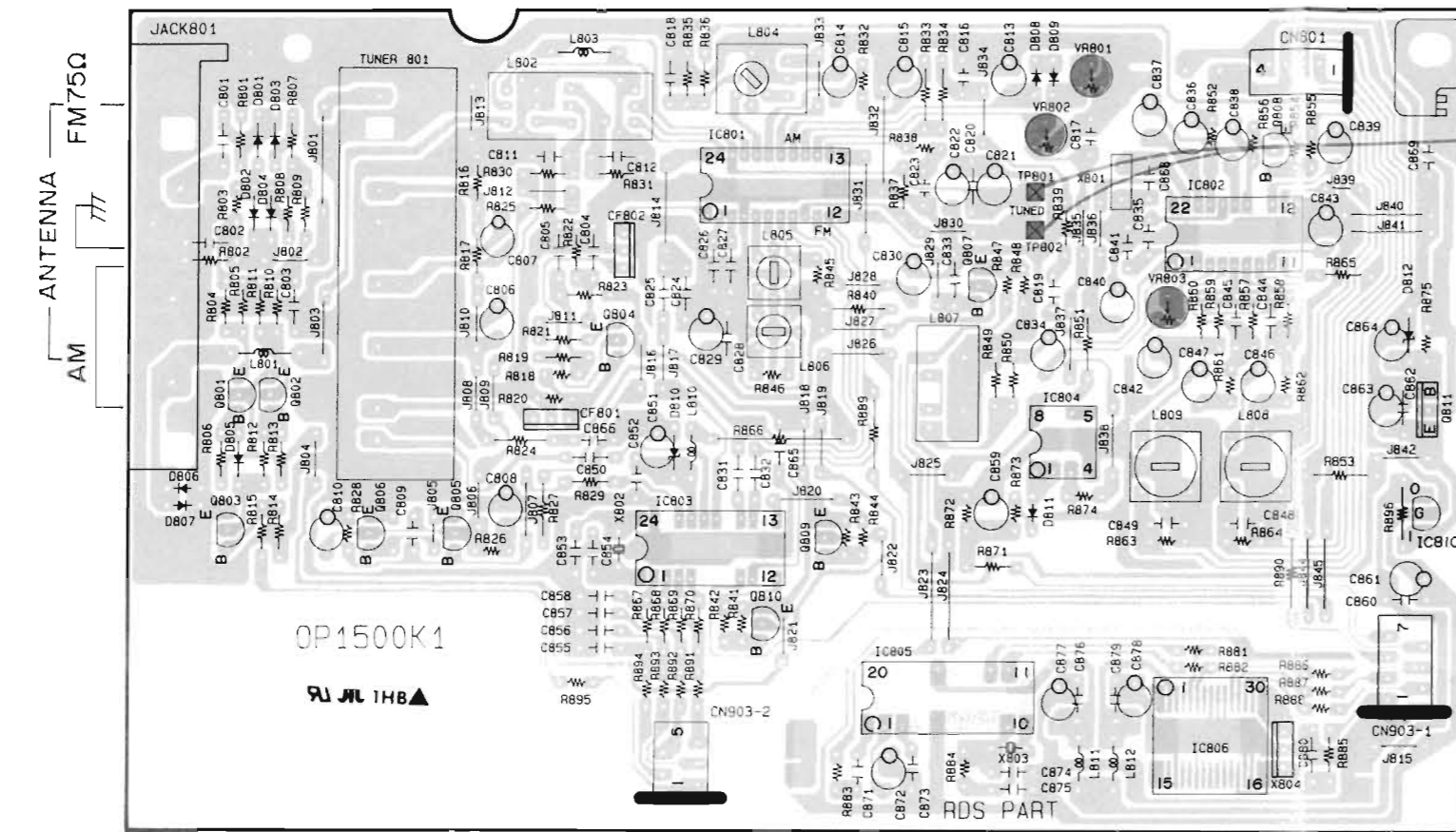
KR-A4060/A5060

WIRING DIAGRAM

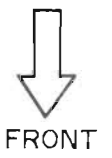


E,T

PC BOARD (COMPONENT SIDE VIEW) : KR-A4060/A5060



OP1546K1

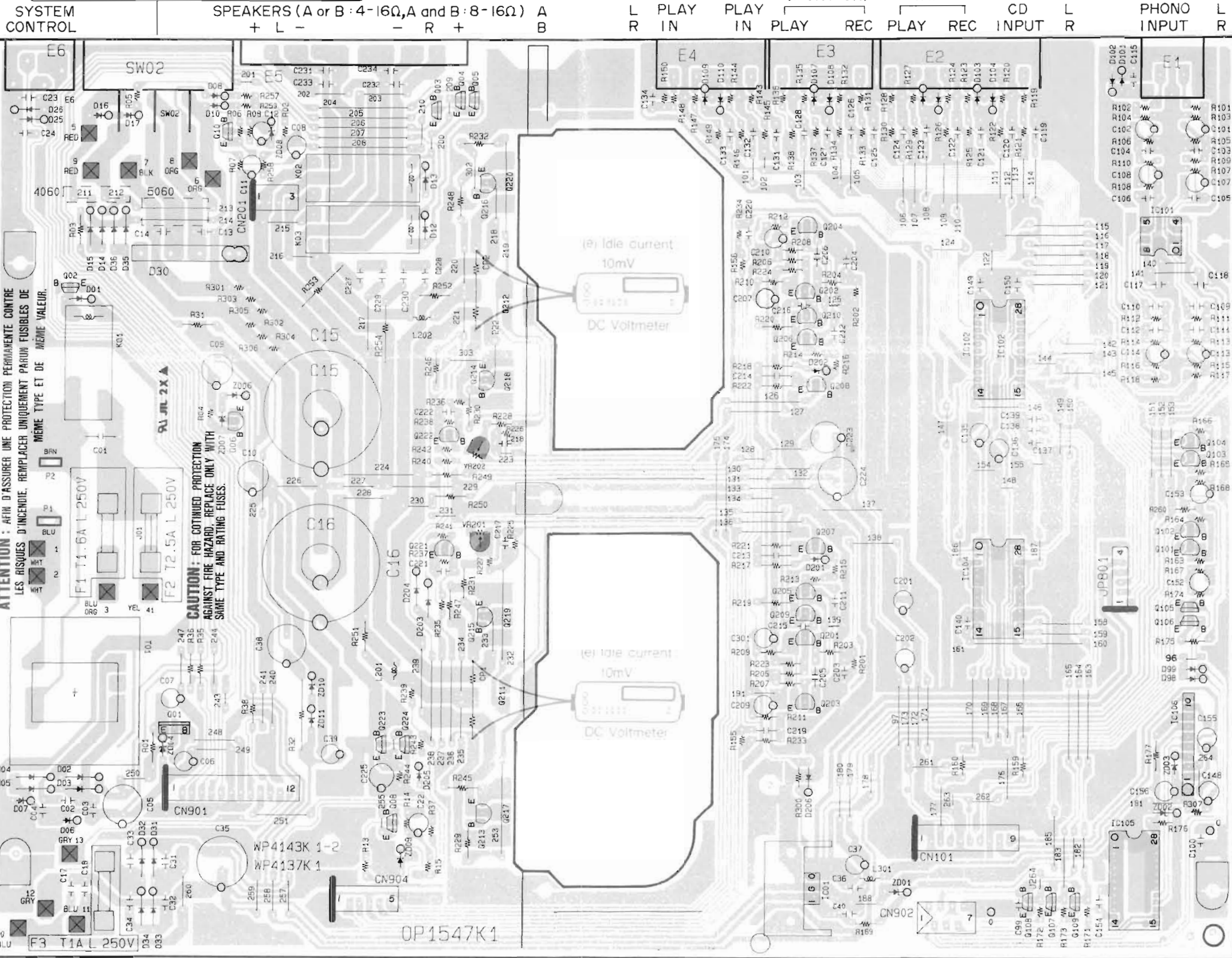


Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (COMPONENT SIDE VIEW) : KR-A4060/A5060

IMPEDANCE SELECTOR

A or B : 8Ω OR MORE A or B : LESS THAN 8Ω
 A and B : 8Ω OR MORE



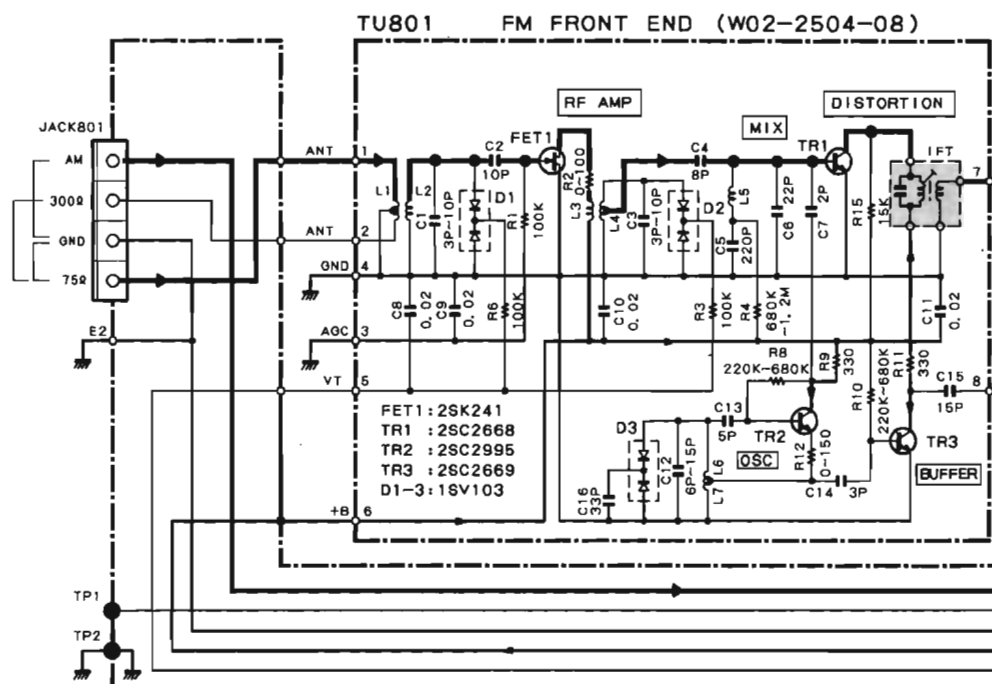
ATTENTION : AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET DE MEME VALEUR.

CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATING FUSES.

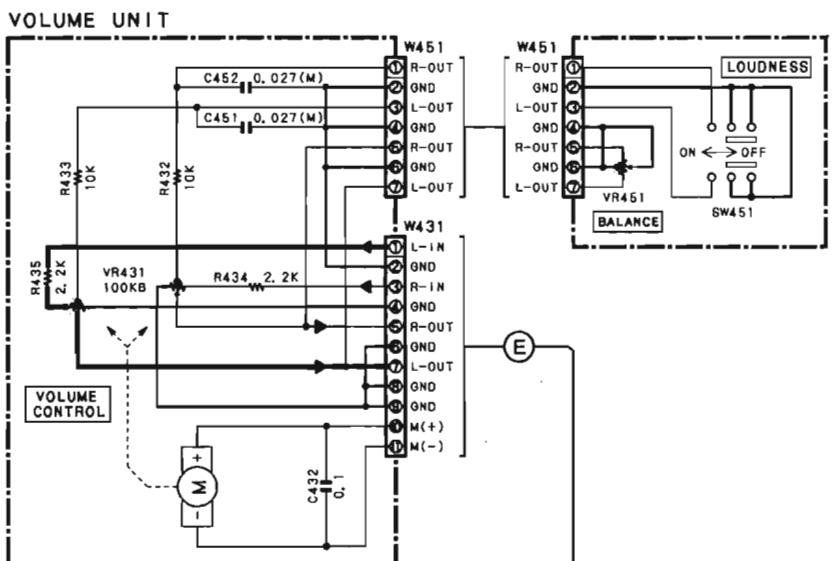


FRONT

TUNER PCB ASS Y (WP4125K1)(K, P, R) (WP4125K2)(M) (WP4125K3)(X)

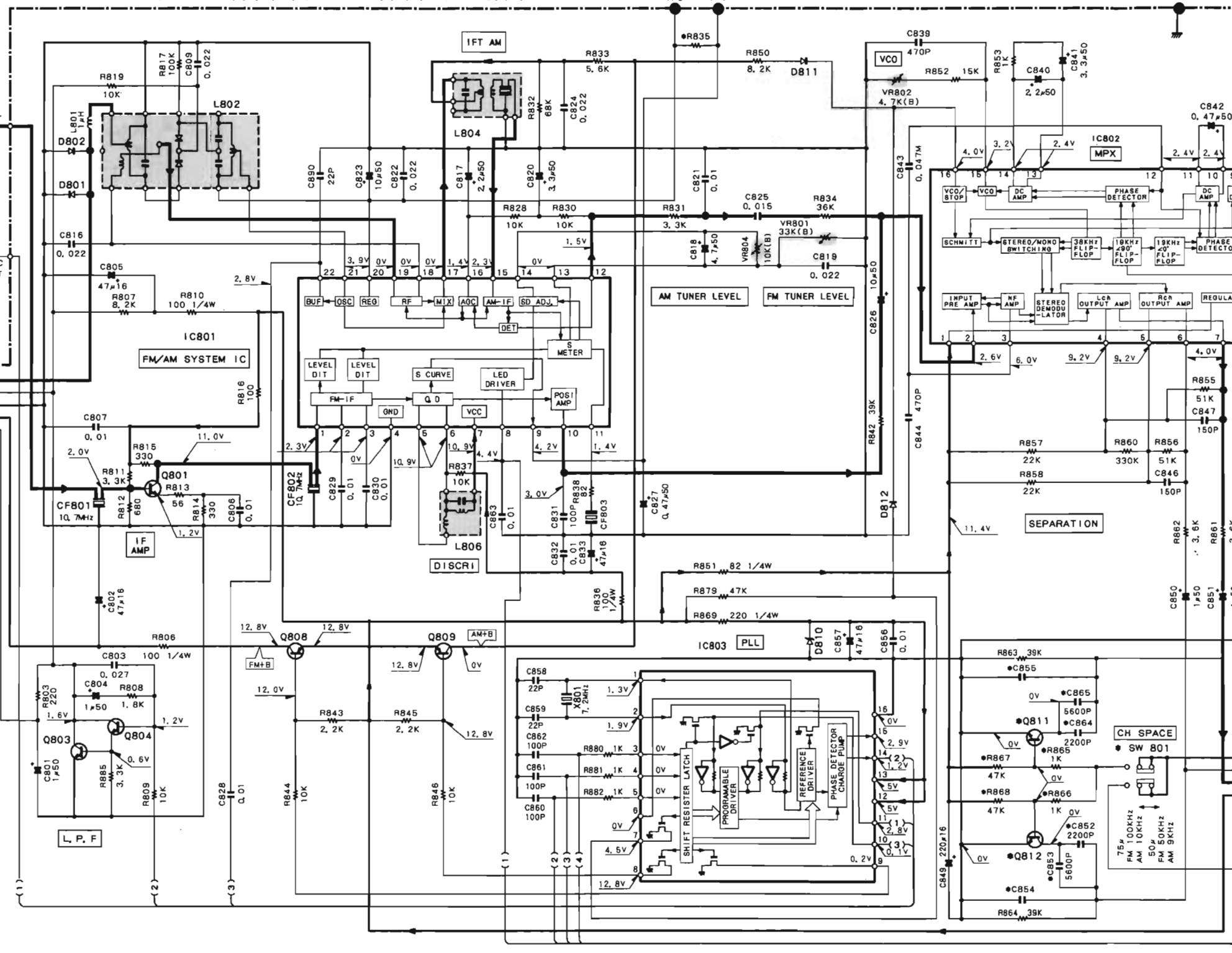


- TUNER UNIT**
- IC801 : LA1265
 - IC802 : AN7470
 - IC803 : LM7001
 - Q801 : 2SC31940
 - Q803, 811, 812 : 2SC1740S
 - Q804 : 2SC1845F
 - Q808, 809 : 2SA933S
 - D801, 802 : 1SS133
 - 811, 812
 - D810 : RD5.1ES(B2)



TUNER UNIT

DESTINATION		Q811	Q812	R835	R865	R866	R867	R868	SW801	C852	C853	C864	C865	C854	C855
COUNTRY	ABB.														
U. S. A.	K	NO	NO	15K	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.022µF	0.022µF
CANADA	P	NO	NO	15K	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.022µF	0.022µF
GENERAL MARKET	M	YES	YES	39K	YES	YES	YES	YES	YES	YES	YES	YES	YES	0.015µF	0.015µF
AUSTRALIA	X	NO	NO	39K	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.015µF	0.015µF

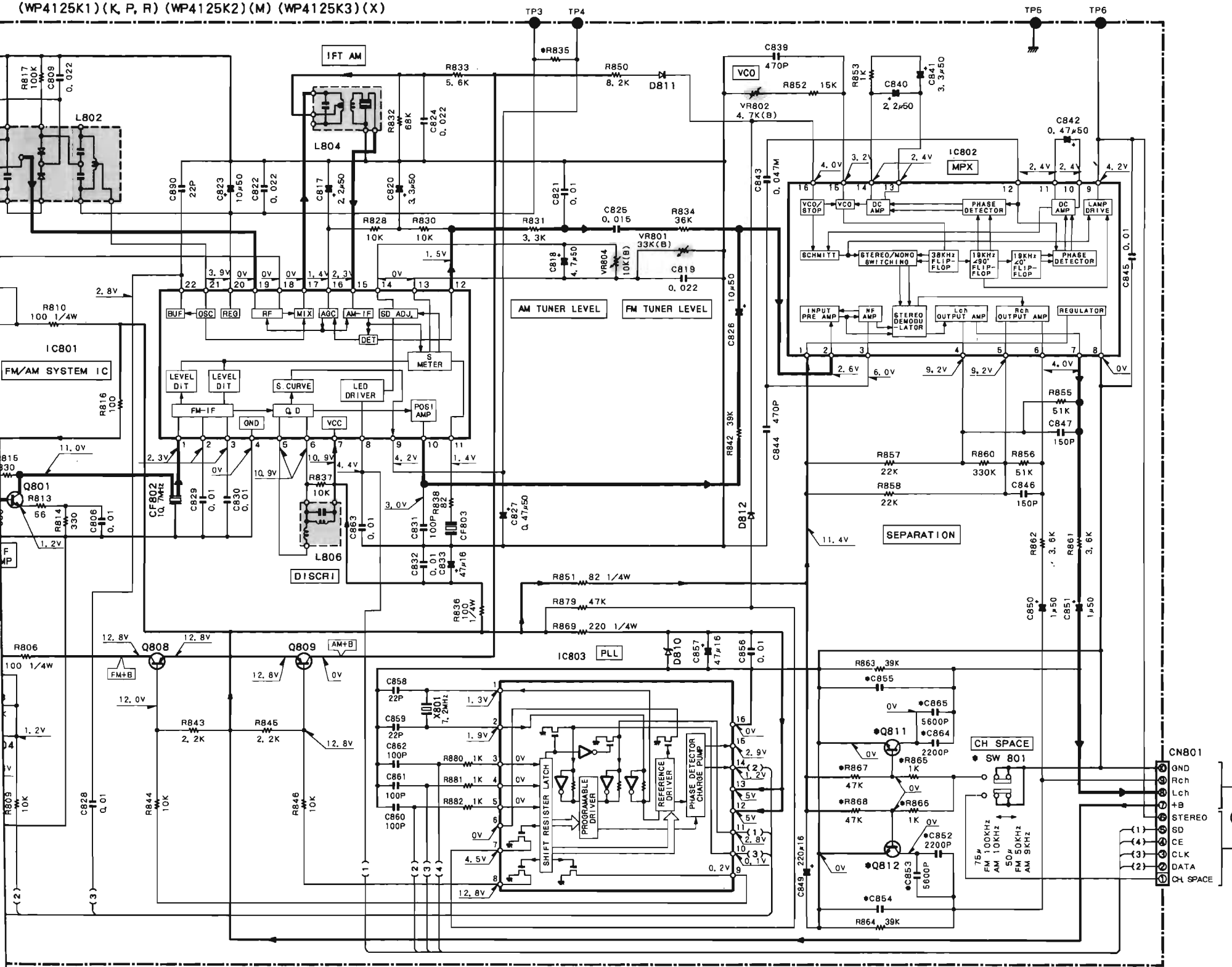


FRONT/TONE PCB ASS Y

DESTINATION		Q903	D908	D924
COUNTRY	ABB.			
U. S. A.	K	NO	NO	YES
CANADA	P	NO	NO	YES
GENERAL MARKET	M	YES	NO	NO
AUSTRALIA	X	NO	YES	NO

2
3
4
5
6
7

(WP4125K1) (K, P, R) (WP4125K2) (M) (WP4125K3) (X)

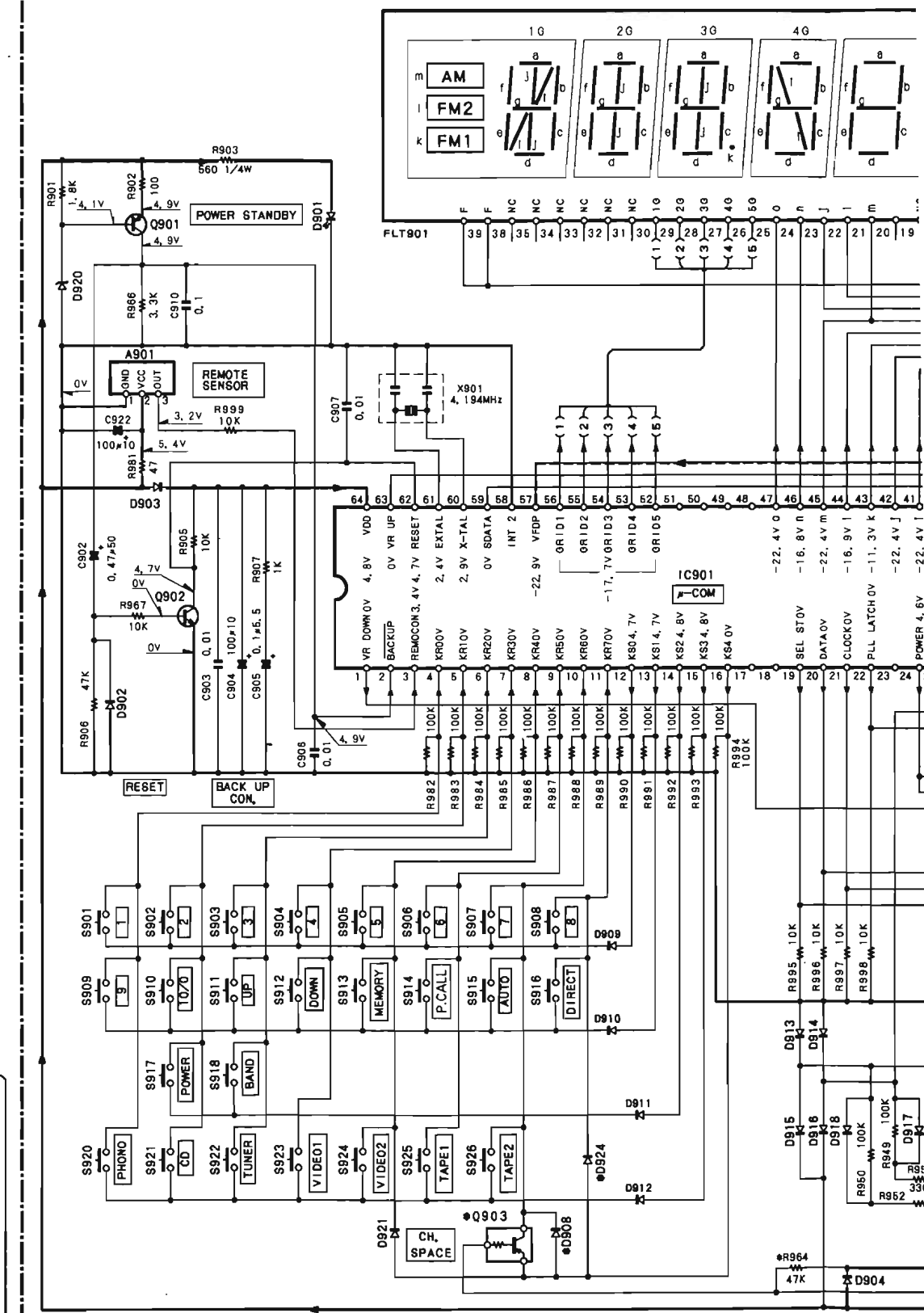


FRONT/TONE PCB ASS Y

DESTINATION	COUNTRY	ABB.	Q903	D908	D924	R964	C908
U. S. A.	K	NO	NO	YES	NO	YES	
CANADA	P	NO	NO	YES	NO	YES	
GENERAL MARKET	M	YES	NO	NO	YES	NO	
AUSTRALIA	X	NO	YES	NO	NO	NO	

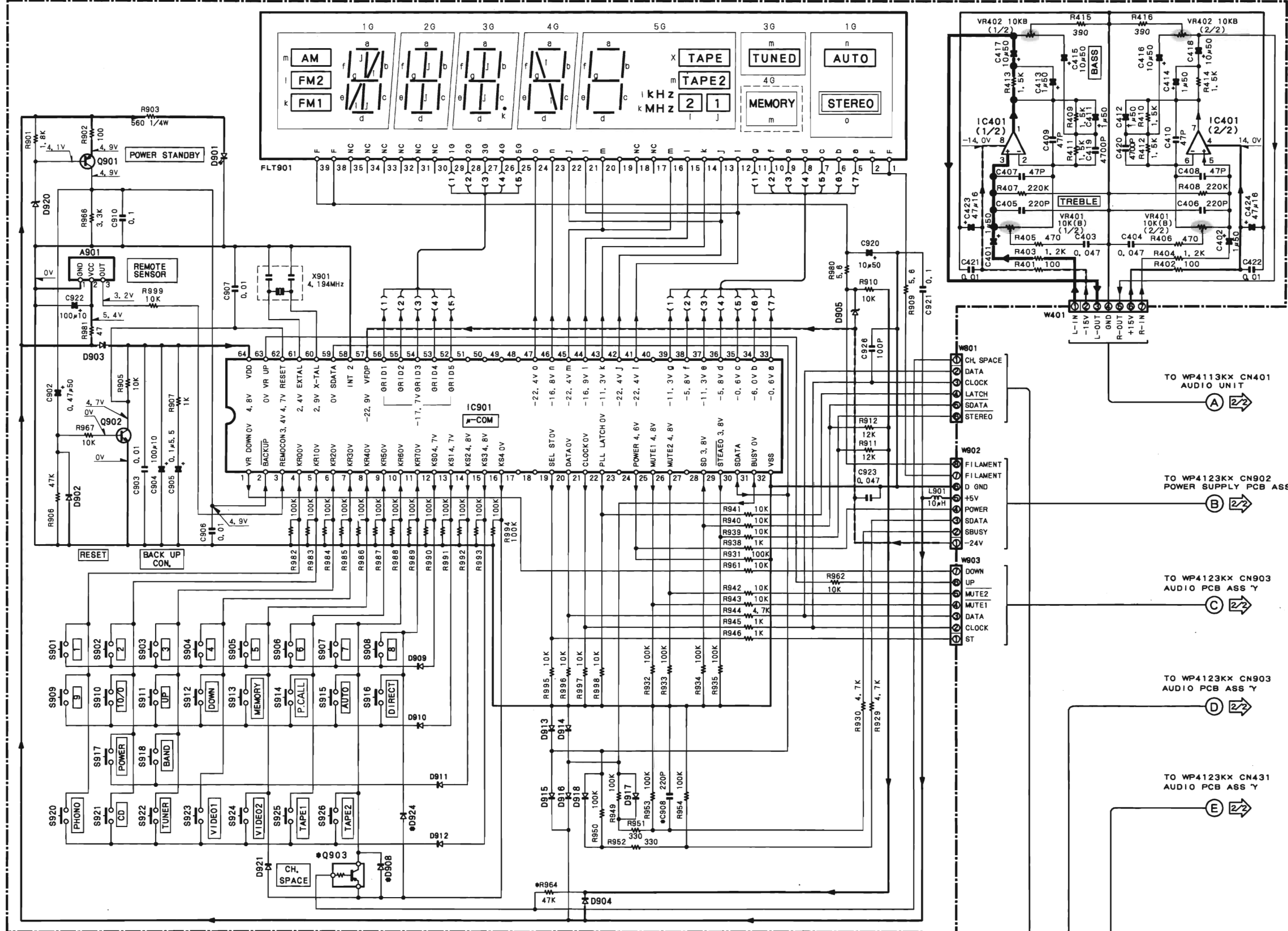
Q812	R835	R865	R866	R867	R868	SW801	C852	C853	C864	C865	C854	C855
NO	15K	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.022µF	0.022µF
YES	39K	YES	YES	YES	YES	YES	YES	YES	YES	YES	0.015µF	0.015µF
NO	39K	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.015µF	0.015µF

FRONT/TONE PCB ASS Y (WP4127K1)(K, P, R) (WP4127K2)(M) (WP4127K3)(X)

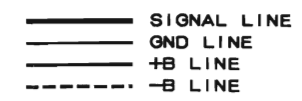


IC901	: CXP5016-531S or	Q901	: 2SA933S	D901	: B30-0413-05
IC401	: NJM4565DD	Q902	: 2SC1740S	D902-904	: 908-918 : 1S133
		Q903	: DTA143TS	921, 924	

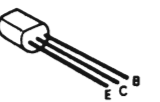
FRONT/TONE PCB ASS Y (WP4127K1)(K, P, R) (WP4127K2)(M) (WP4127K3)(X)



IC901 : CXF5016-531S or CXF5016-526S	Q901 : 2SA933S Q902 : 2SC1740S Q903 : DTA143TS	D901 : B30-0413-05 D902-904 908-918 : 1SS133 D921, 924	D905 : MTZJ6, 8B D920 : RD4, 7ES(B2)	A901 : W02-1111-08 FLT901 : 5-MT-1670K
---	--	--	---	---



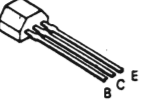
2SC2235Y
2SC2878B



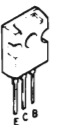
2SD882



DTA143TS
2SA933S
2SC1740S



2SC4137

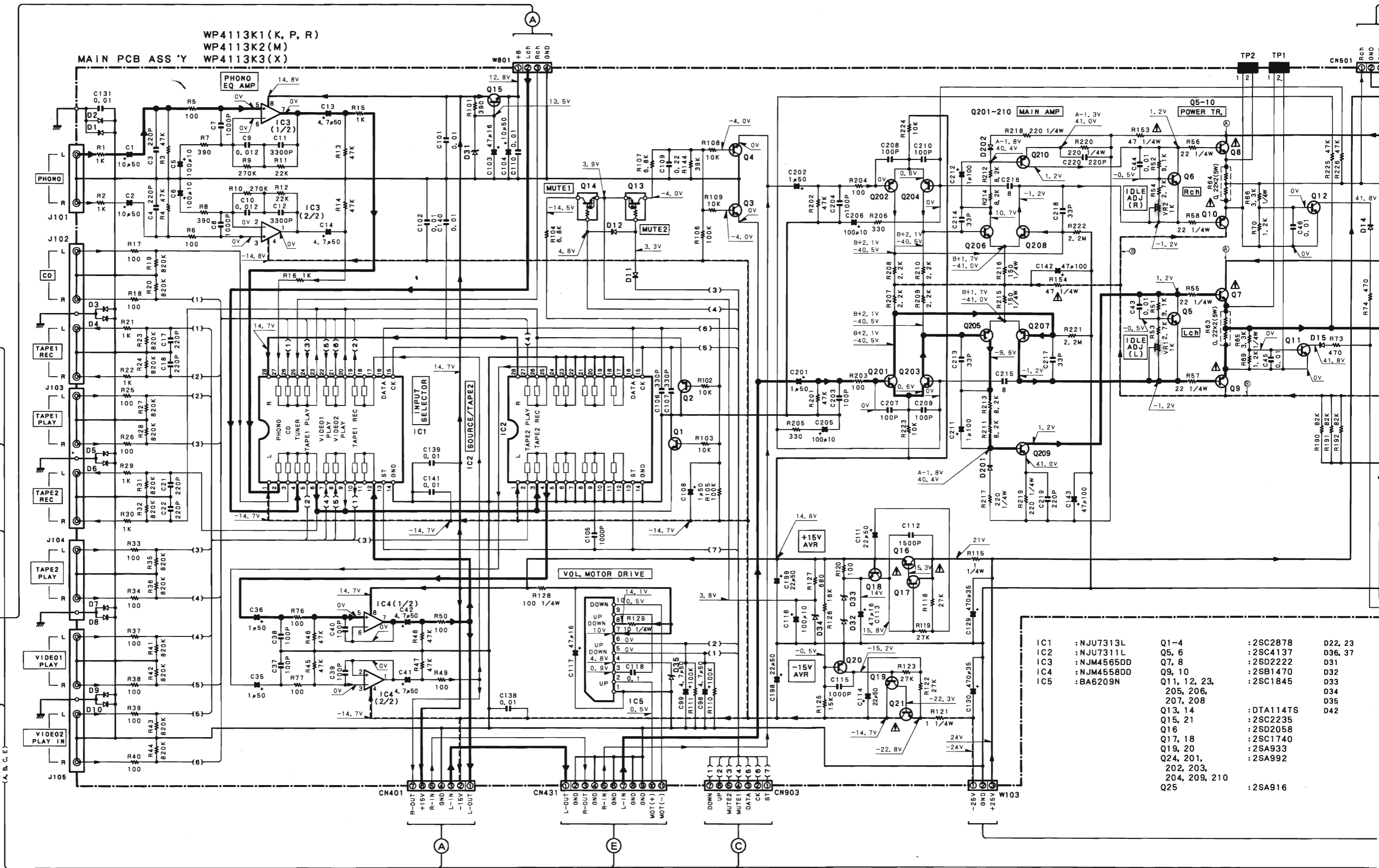


2SB1470
2SD2222



• DC voltages are as measured with a hi impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ Indicates safety critical component. To reduce the risk of electric shock, leakage current or resistance measurements shall not be carried out (exposed parts are acceptable insulated from the supply circuit) before the appliance is returned to the customer.

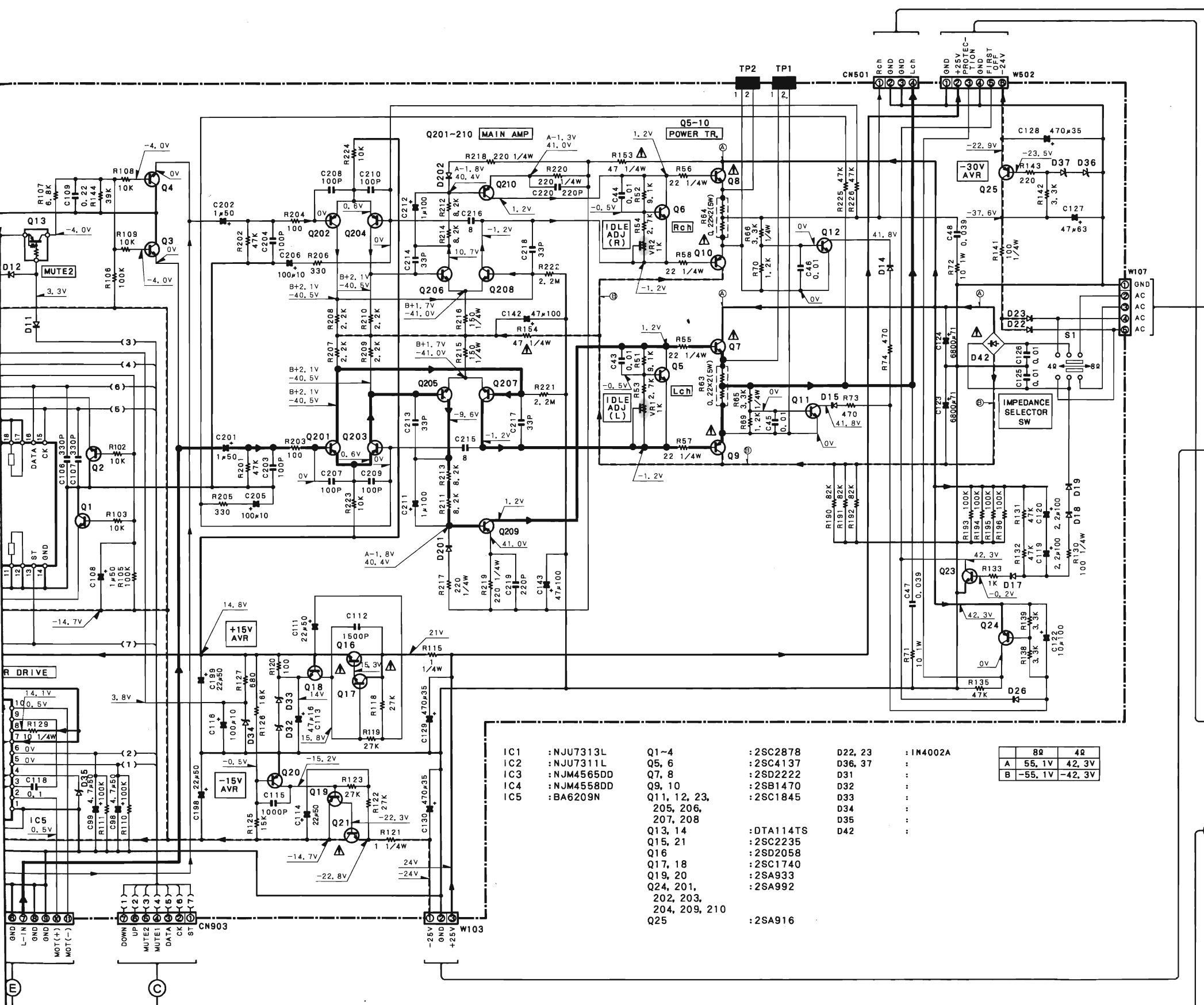


WP4113K1(K, P, R)
 WP4113K2(M)
 WP4113K3(X)

MAIN PCB ASS 'Y

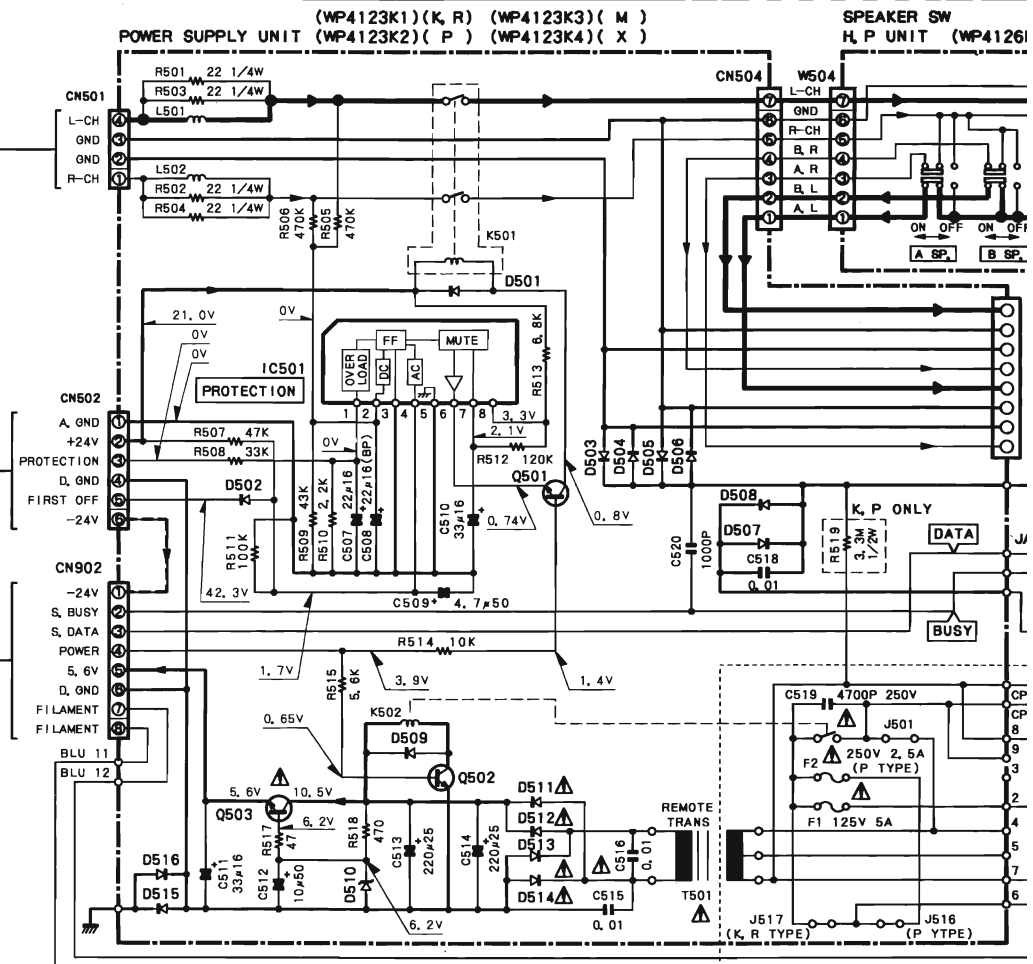
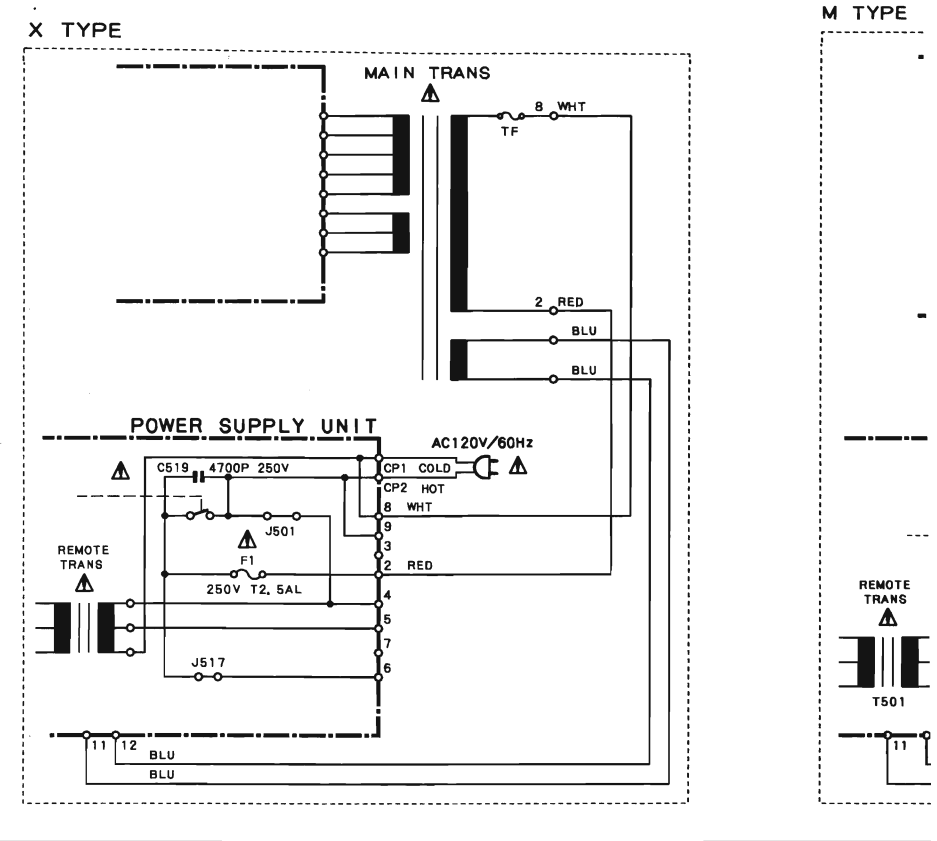
- TO WP4127KX W401
A-COM/DISPLAY/
TONE PCB ASS 'Y
- TO WP4127KX W902
A-COM/DISPLAY/
TONE PCB ASS 'Y
- TO WP4127KX W903
A-COM/DISPLAY/
TONE PCB ASS 'Y
- TO WP4126KX CN801
TUNER PCB ASS 'Y
- TO WP4124KX W431
VOLUME PCB ASS 'Y

IC1	: NJU7313L	Q1-4	: 2SC2878	D22, 23
IC2	: NJU7311L	Q5, 6	: 2SC4137	D36, 37
IC3	: NJM4565DD	Q7, 8	: 2SD2222	D31
IC4	: NJM4558DD	Q9, 10	: 2SB1470	D32
IC5	: BA6209N	Q11, 12, 23,	: 2SC1845	D33
		205, 206,		D34
		207, 208		D35
		Q13, 14	: DTA114TS	D42
		Q15, 21	: 2SC2235	
		Q16	: 2SD2058	
		Q17, 18	: 2SC1740	
		Q19, 20	: 2SA933	
		Q24, 201,	: 2SA992	
		202, 203,		
		204, 209, 210		
		Q25	: 2SA916	



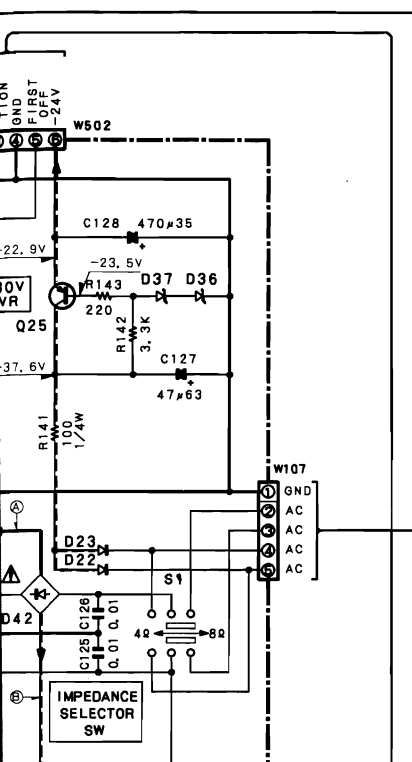
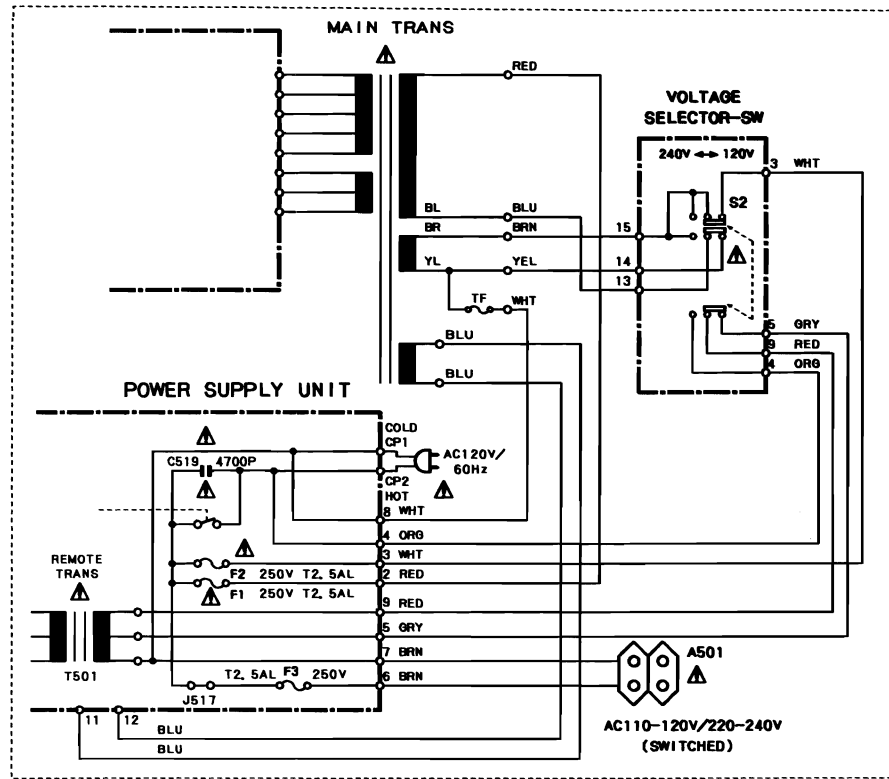
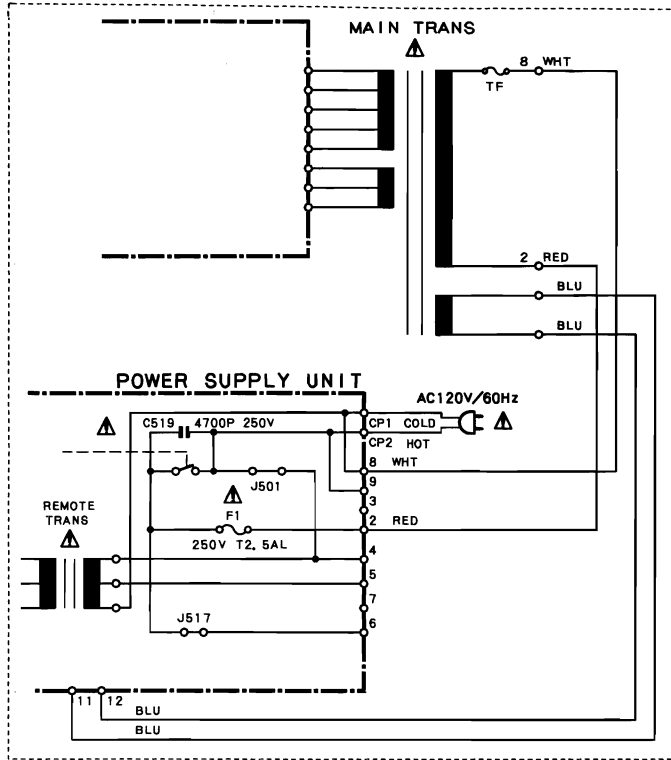
- | | | | | | |
|-----|-------------|---------------|------------|---------|-----------|
| IC1 | : NJU7313L | Q1-4 | : 2SC2878 | D22, 23 | : 1M4002A |
| IC2 | : NJU7311L | Q5, 6 | : 2SC4137 | D36, 37 | |
| IC3 | : NJM4565DD | Q7, 8 | : 2SD2222 | D31 | |
| IC4 | : NJM4558DD | Q9, 10 | : 2SB1470 | D32 | |
| IC5 | : BA6209N | Q11, 12, 23, | : 2SC1845 | D33 | |
| | | 205, 206, | | D34 | |
| | | 207, 208 | | D35 | |
| | | Q13, 14 | : DTA114TS | D42 | |
| | | Q15, 21 | : 2SC2235 | | |
| | | Q16 | : 2SD2058 | | |
| | | Q17, 18 | : 2SC1740 | | |
| | | Q19, 20 | : 2SA933 | | |
| | | Q24, 201, | : 2SA992 | | |
| | | 202, 203, | | | |
| | | 204, 209, 210 | | | |
| | | Q25 | : 2SA916 | | |

	8Ω	4Ω
A	55, 1V	42, 3V
B	-55, 1V	-42, 3V

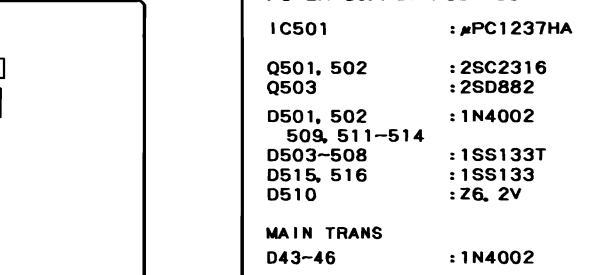
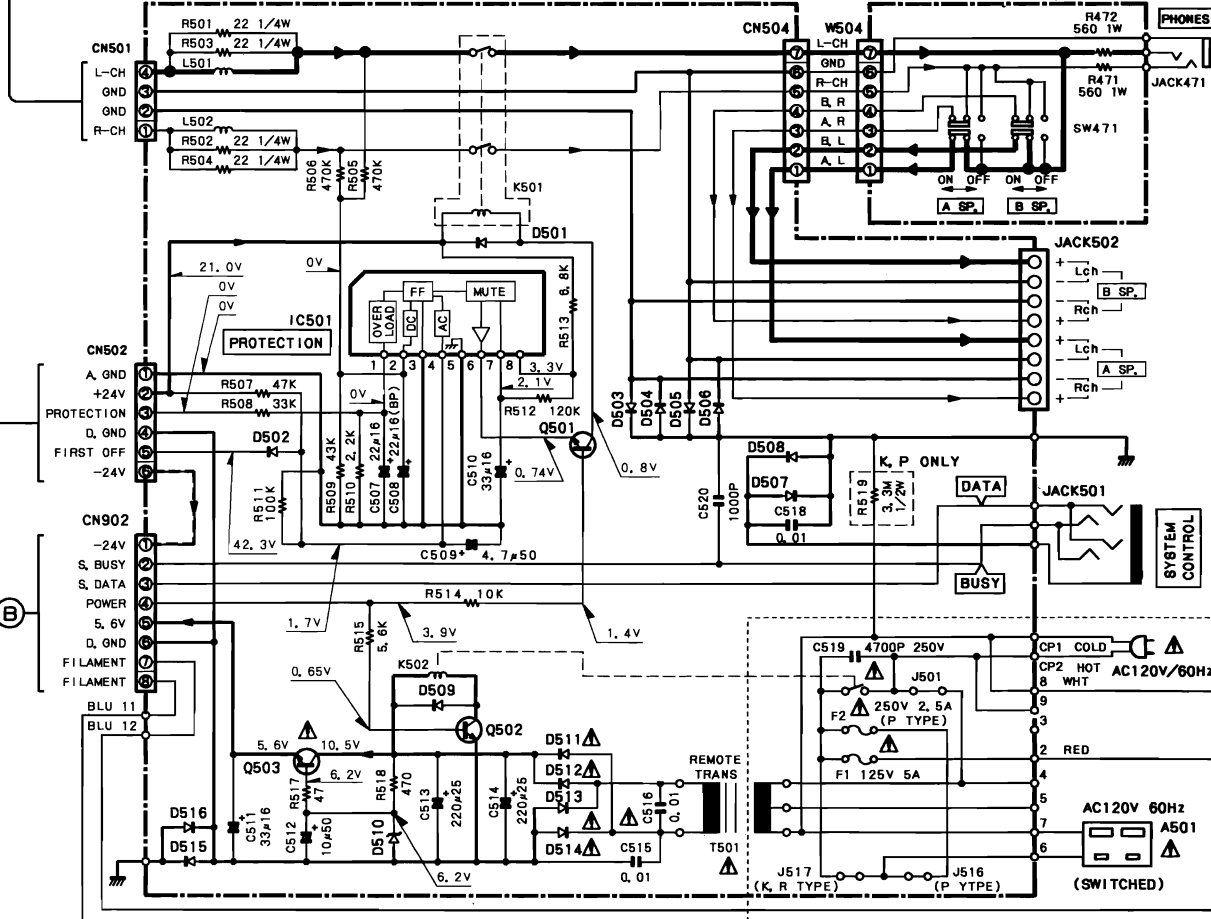


X TYPE

M TYPE

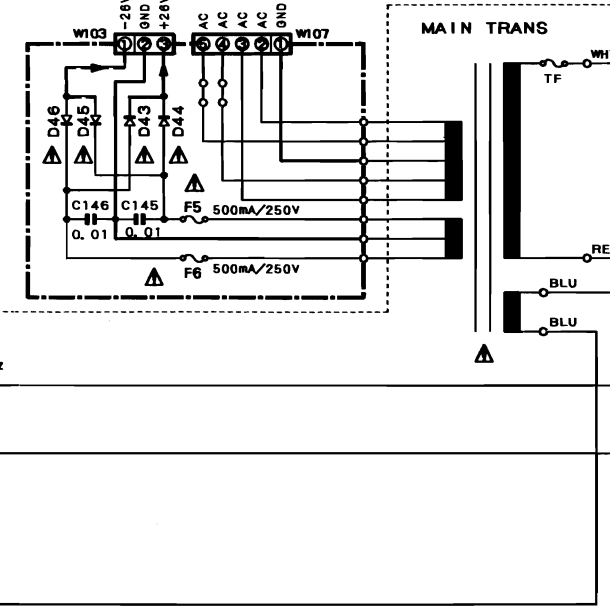


(WP4123K1)(K,R) (WP4123K3)(M)
 POWER SUPPLY UNIT (WP4123K2)(P) (WP4123K4)(X)



- POWER SUPPLY PCB ASS'Y
- IC501 : #PC1237HA
 - Q501, 502 : 2SC2316
 - Q503 : 2SD882
 - D501, 502 : 1N4002
 - 503, 511-514 : 1SS133T
 - D503-508 : 1SS133
 - D515, 516 : Z6, 2V
 - D510 : Z6, 2V
 - MAIN TRANS D43-46 : 1N4002

K, P TYPE

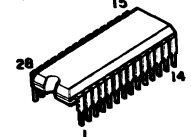


	8Ω	4Ω
A	55, 1V	42, 3V
B	55, 1V	42, 3V

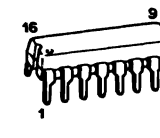
2SB1274



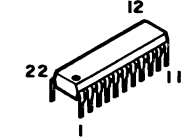
TC9162N
TC9164N



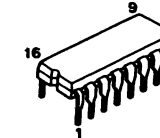
LM7001



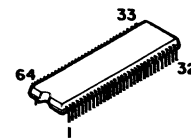
LA1265



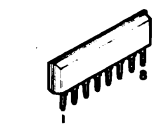
AN7470



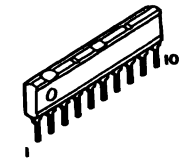
CXP5016-526S
CXP5016-531S



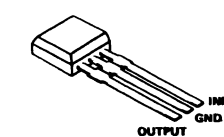
UPC1237HA



BA6209N

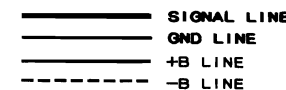


UPC78L05



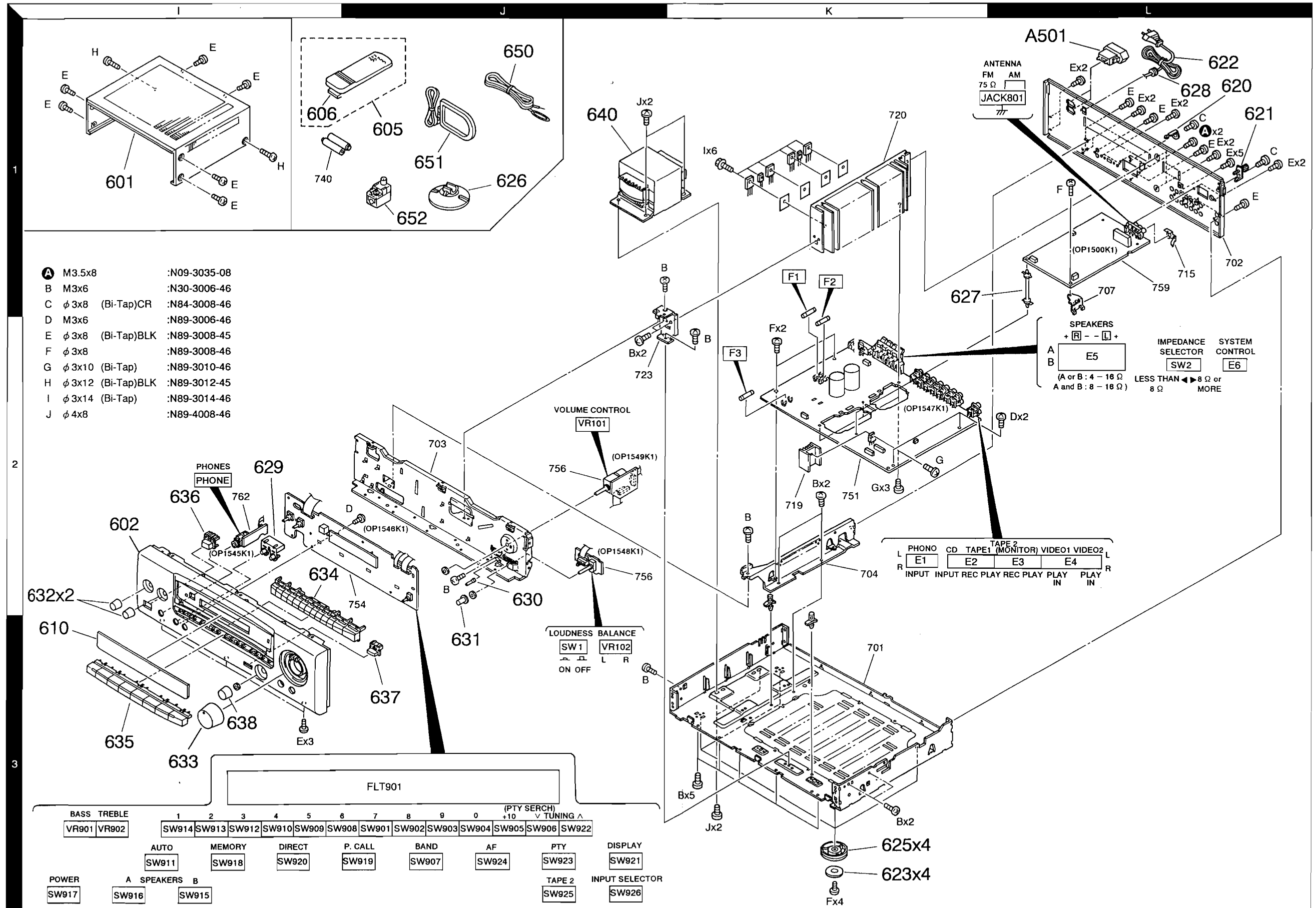
• DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.



KR-A4060/A5060 KR-A4060/A5060

EXPLODED VIEW (UNIT)



Parts with the exploded numbers larger than 700 are not supplied.

KR-A4060/A5060

PARTS LIST

x New Parts
 Parts without Parts No. are not supplied.
 Les articles non mentionnés dans le Parts No. ne sont pas fournis.
 Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名/規格	Desti- nation 向	Re- marks 備考
L803		L33-0381-08	SMALL FIXED INDUCTOR 1mH		
L804		L30-0904-08	IFT AM		
L805		L30-0905-08	IFT FM		
L806		L30-0906-08	IFT FM		
L807		L39-1323-08	CØIL		
L808, 809		L35-0070-08	CØIL		
L810	*	L40-1091-17	SMALL FIXED INDUCTOR 1UH		
L811, 812	*	L40-1001-17	SMALL FIXED INDUCTOR 100H		
L901	*	L40-1001-17	SMØLL FIXED INDUCTOR 100H		
L902, 903	*	L40-1091-17	SMALL FIXED INDUCTOR 1UH		
L905-908	*	L40-1091-17	SMALL FIXED INDUCTOR 1UH		
T1		L07-0825-08	TRANSFORMER		
T2		L07-0828-08	TRANSFORMER		
X801		L78-0616-08	RESONATOR 456kHz		
X802		L77-2126-08	CRYSTAL 7.200MHz		
X803		L77-2127-08	CRYSTAL 4.332MHz		
X804		L78-0617-08	RESONATOR 4.00MHz		
X901		L78-0209-05	RESONATOR 4.19MHz		
G	2K	N89-3010-46	BINDING HEAD TAPTITE SCREW		4
CP1, 2		R90-0187-05	MULTI-COMP 0.22X2 K 5W		
R3		RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R31		RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R32		RS14DB3D122J	FL-PROOF RS 1.2K J 2W		
R177		RD14GB2E100J	FL-PROOF RD 10 J 1/4W		
R217-222		RD14GB2E211J	FL-PROOF RD 220 J 1/4W		
R229-232		RD14GB2E211J	FL-PROOF RD 220 J 1/4W		
R245-248		RD14GB2E211J	FL-PROOF RD 220 J 1/4W		
R249		RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R250		RD14GB2E470J	FL-PROOF RD 47 J 1/4W		
R253, 254		RS14DB3A100J	FL-PROOF RS 10 J 1W		
R255, 256		RS14DB3A561J	FL-PROOF RS 560 J 1W		
R824		RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R827		RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R840		RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R851		RD14GB2E470J	FL-PROOF RD 47 J 1/4W		
R866		RD14GB30221J	FL-PROOF RD 220 J 2W		
VR101	*	R39-0001-08	POTENTIOMETER 100KBX2 VOLUME		
VR102		R10-5071-08	POTENTIOMETER BALANCE		
VR201, 202		R12-1066-05	TRIM POT. 1KB IDLE ADJ		
VR801		R12-1053-05	TRIM POT. 4.7KB FM TUNE LEVEL		
VR802		R32-0012-08	TRIM POT. 100KB FM TUNE LEVEL		
VR803		R32-0012-08	TRIM POT. 100KB SEPARATION		
VR901, 902	*	R39-0002-08	POTENTIOMETER BASS TREBLE		
K1		S76-0034-08	MAGNETIC RELAY		
K2, 3		S76-0035-08	MAGNETIC RELAY		
SW1	*	S68-0040-08	PUSH SWITCH LOUDNESS		
SW2		S62-0032-08	SLIDE SWITCH IMPEDANCE SELECT		
SW901-925	*	S70-0030-08	TACT SWITCH KEY BOARD		
SW926	*	S60-0030-08	ROTARY SWITCH INPUT SELECTOR		
D1		1S5133	DIODE		
D2 -5		1N4002A	DIODE		
D14, 15		1N4002A	DIODE		

L: Scandinavia K: USA P: Canada R: Mexico 4: KR-A4060
 Y: PX (Far East, Hawaii) T: England E: Europe 6: Germany 5: KR-A5060
 Y: AAFES (Europe) X: Australia M: Other Areas
 Δ indicates safety critical components.

x New Parts
 Parts without Parts No. are not supplied.
 Les articles non mentionnés dans le Parts No. ne sont pas fournis.
 Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名/規格	Desti- nation 向	Re- marks 備考
C852		CK45F1H103M	CERAMIC 0.010UF M		
C853, 854		C645GH1H220J	22PF J		
C855		C645EB1H471K	470PF K		
C856		C645SL1H221J	220PF J		
C857, 858		C645CH1H101J	100PF J		
C859		C604KW1H0R1M	ELECTRØ 50WV		
C860		CK45F1H103M	CERAMIC 0.010UF M		
C861		C604KW1C470M	ELECTRØ 470UF 16WV		
C862		CK45F1H103M	CERAMIC 0.010UF M		
C863, 864		C604KW1C100M	ELECTRØ 10UF 16WV		
C865, 866		CK45F1H103M	CERAMIC 0.010UF M		
C868		C645SL1H270J	27PF J		
C869		C645FF1H103Z	CERAMIC 0.010UF M		
C871		C645SL1H271J	ELECTRØ 270PF J		
C872		C604KW1C100M	ELECTRØ 10UF 16WV		
C873		CK45F1H103M	CERAMIC 0.010UF M		
C874, 875		C645SL1H270J	27PF J		
C876		CK45F1H103M	CERAMIC 0.010UF M		
C877, 878		C604KW1C100M	ELECTRØ 10UF 16WV		
C879, 880		CK45F1H103M	CERAMIC 0.010UF M		
C903, 904		C604KW1C330M	ELECTRØ 33UF 16WV		
C905		C604KW1H4R7M	ELECTRØ 4.7UF 50WV		
C906		C90-1827-05	BACKUP 0.1F 5.5WV		
C907		C604KW1A101M	ELECTRØ 1000UF 10WV		
C908		CK45F1H103M	CERAMIC 0.010UF M		
C911, 912		CK45FF1H103Z	CERAMIC 0.010UF Z		
C913, 914		CK45FF1H223K	CERAMIC 0.022UF K		
C921, 922		C604KW1H4R7M	ELECTRØ 4.7UF 50WV		
C923, 924		C922FM1H153J	MYLAR 0.015UF J		
C925, 926		C922FM1H683J	MYLAR 0.068UF J		
C927, 928		CK45F1H822M	CERAMIC 0.0082UF M		
C929, 930		C645SL1H220J	22PF J		
C931, 932		C645CH1H101J	100PF J		
C933, 934		C922FM1H333J	MYLAR 0.033UF J		
C946		CK45FF1H103Z	CERAMIC 0.010UF Z		
C950		CK45F1H103M	CERAMIC 0.010UF M		
E1		E70-0035-08	PHØNØ JACK		
E2		E70-0037-08	PHØNØ JACK CD, TAPE1		
E3, 4		E70-0038-08	PHØNØ JACK TAPE2, VIDEOØ1, 2		
E5		E70-0004-08	LOCK TERMINAL BOARD SPEAKERS		
E6		E11-0188-05	MINIATUA PHØNE JACK SYNCHRØ		
JACKØ1	2I	E70-0023-08	TERMINAL BOARD ANTENNA		
PHONE		E11-0263-08	PHØNE JACK HEAD PHONES		
F1		F05-1623-05	FUSE SEMCØ T1.6A/250V		4
F2		F06-2021-05	FUSE SEMCØ T2A/250V		5
F3	2J	F05-2525-05	FUSE SEMCØ T2.5A/250V		
F4		F06-1022-05	FUSE SEMCØ T1A/250V		
-		J13-0084-08	FUSE CLIP		
CF801, 802		L72-0575-08	CERAMIC FILTER 10.7MHZ		
L201, 202		L39-1303-08	INDUCTOR 0.15UH		
L301		L33-0379-08	INDUCTOR 220UH		
L801		L40-1091-17	SMALL FIXED INDUCTOR 1UH		
L802	*	L39-1322-08	CØIL		

L: Scandinavia K: USA P: Canada R: Mexico 4: KR-A4060
 Y: PX (Far East, Hawaii) T: England E: Europe 6: Germany 5: KR-A5060
 Y: AAFES (Europe) X: Australia M: Other Areas
 Δ indicates safety critical components.



KR-A4060/A5060

PARTS LIST

86

* New Parts

Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

7

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕	Re- marks 備考
D16 ,17		1SS133	DIODE		4
D25 ,26		1SS133	DIODE		5
D30		DBF40C	DIODE		
D30		DBF60C	DIODE		
D31 -36		1N4002A	DIODE		
D6-8,10		1SS133	DIODE		
D101-104		1SS133	DIODE		
D107-110		1SS133	DIODE		
D12,13		1SS133	DIODE		
D201,202		1SS133	DIODE		
D203,204		1N4002A	DIODE		
D205,206		1SS133	DIODE		
D801-809		1SS133	DIODE		
D810		RD5.1ES(B2)	ZENER DIODE		
D811		1SS133	DIODE		
D812		RD13ES(B2)	ZENER DIODE		
D901-920		1SS133	DIODE		
D921		MTZJ6.2B	ZENER DIODE		
D922		MTZJ2.7B	ZENER DIODE		
D96,99		1SS133	DIODE		
FLT901		10-MT-586K	FLUORESCENT INDICATOR TUBE		
IC1		MC7815C	IC(VOLTAGE REGULATOR+15)		
IC101		NJM4558DD	IC(OP AMP X2)		
IC102		NJU7313L	IC(ANALOG SWITCH) SELECTOR SW)		
IC102		TC9164N	IC(16CH BILATERAL SELECTOR SW)		
IC104		NJU7311L	IC(ANALOG SWITCH)ARRAY)		
IC104		TC9162N	IC(ANALOG SWITCH ARRAY)		
IC105		NJU7312AL	IC(BILATERAL SWITCH X16)		
IC105		TC9163N	IC(BILATERAL SWITCH X16)		
IC106		BA6209N	IC(MOTOR DRIVER)		
IC801		LA1266	IC(AM/FM IF)		
IC802		LA3401	IC(FM MPX)		
IC803		LC7218	IC(PLL SYNTHESIZER)		
IC804		LM258N	IC		
IC805		TDA7350A	IC(RDS DEMODULATOR)		
IC806		LC6543H-4600	IC(MICROPROCESSOR)		
IC810		NJM78L05A	IC(VOLTAGE REGULATOR +5V)		
IC810		UPC78L05	IC(VOLTAGE REGULATOR +5V)		
IC901		UPD78044GF-021	IC(8BIT MICROPROCESSOR)		
IC902		PST529C	IC(SYSTEM RESET)		
IC903		NJM4558DD	IC(OP AMP X2)		
Q1		2SD882	TRANSISTOR		
Q2 -5		DTC114ES	DIGITAL TRANSISTOR		
Q6		2SA916	TRANSISTOR		
Q8		2SA933S	TRANSISTOR		
Q10		2SA933S	TRANSISTOR		
Q101-104		2SC2878	TRANSISTOR		
Q105,106		DTC114ES	DIGITAL TRANSISTOR		
Q107-109		DTC114ES	DIGITAL TRANSISTOR		
Q201-204		2SA992	TRANSISTOR		
Q205,206		2SC1845	TRANSISTOR		
Q207,208		2SA992	TRANSISTOR		
Q209,210		2SC1845	TRANSISTOR		
Q211,212		2SC4137(V)	TRANSISTOR		

L: Scandinavia

K: USA

P: Canada

R: Mexico

G: Germany

Y: PX (Far East, Hawaii)

T: England

4: KR-A4060

5: KR-A5060

M: Other Areas

A indicates safety critical components.

8

* New Parts

Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕	Re- marks 備考
Q213,214		2SC2316	TRANSISTOR		4
Q215,216		2SA916	TRANSISTOR		5
Q217,218		2SC4467	TRANSISTOR		
Q217,218		2SC4468	TRANSISTOR		
Q219,220		2SA1694	TRANSISTOR		4
Q219,220		2SA1695	TRANSISTOR		5
Q221,222		2SC1845	TRANSISTOR		
Q223,224		2SC1740S	TRANSISTOR		
Q801		2SC1740S	TRANSISTOR		
Q802		2SA933S	TRANSISTOR		
Q803		2SC1740S	TRANSISTOR		
Q804		2SC31940	TRANSISTOR		
Q805		2SC1845F	TRANSISTOR		
Q806-808		2SC1740S	TRANSISTOR		
Q809,810		2SA933S	TRANSISTOR		
Q811		2SD2061E	TRANSISTOR		
Q901,902		2SC1740S	TRANSISTOR		
Z01		MTZJ3.9B	ZENER DIODE		
Z02 ,3		MTZJ5.1B	ZENER DIODE		
Z04		RD6.2ES(B2)	ZENER DIODE		
Z06 ,7		MTZJ16A	ZENER DIODE		
Z08 ,9		MTZJ5.1B	ZENER DIODE		
Z010		RD6.8ES(B2)	ZENER DIODE		
Z011		MTZJ8.2B	ZENER DIODE		
A901		W02-1111-08	ELECTRIC CIRCUIT MODULE		
TUNER801		W02-1041-15	FM FRONT END		

L: Scandinavia

K: USA

P: Canada

R: Mexico

G: Germany

Y: PX (Far East, Hawaii)

T: England

4: KR-A4060

5: KR-A5060

M: Other Areas

A indicates safety critical components.

KR-A4060/A5060

SPECIFICATIONS

KR-A4060

Audio section

Rated power output
(IEC/NF) from 63Hz~12,500Hz
0.7% T.H.D. at 8Ω 60W + 60W
(DIN) 1,000Hz at 8Ω 60W + 60W
1,000Hz at 4Ω 55W + 55W

Total harmonic distortion (1kHz, 8Ω) 0.01% at 40W

Signal to noise ratio
Phono (MM) 56dB (DIN, 50mW output)
CD, TAPE, VIDEO 57dB (DIN, 50mW output)

Input sensitivity/impedance
Phono (MM) 2.5mV/47kΩ
CD, TAPE, VIDEO 200mV/47kΩ

Tone controls
BASS ±10dB (at 100Hz)
TREBLE ±10dB (at 10kHz)

Loudness control at 30dB
Volume level +9dB (at 100Hz)

FM tuner section

Tuning frequency range 87.5MHz~108MHz

Usable sensitivity (DIN at 75Ω)
MONO 1.1μV
STEREO 4.5μV

Total harmonic distortion at 1kHz (DIN)
MONO 0.15%
STEREO 0.5%

Signal to noise ratio (DIN weighted at 1kHz)
MONO 68dB (65.2dBf input)
STEREO 61dB (65.2dBf input)

Selectivity (DIN ±300kHz) 53dB

Stereo separation (DIN) at 1kHz 40dB

Frequency response 30Hz~15kHz, +0.5dB, -2.0dB

AM tuner section

Tuning frequency range 531kHz~1,602kHz

Usable sensitivity 12μV (400μV/m)

Total harmonic distortion 0.3%

Signal to noise ratio (at 30% mod. 1mV input) 50dB

Selectivity 30dB

General

Power consumption 120W

AC outlet (Switched) 2 : (total 200W max.)

Dimensions W : 440mm x H : 133mm X D : 350mm

Weight (net) 6.8kg

KR-A5060

Audio section

Rated power output
(IEC/NF) from 63Hz~12,500Hz
0.7% T.H.D. at 8Ω 100W + 100W
(DIN) 1,000Hz at 8Ω 100W + 100W
1,000Hz at 4Ω 90W + 90W

Total harmonic distortion (1kHz, 8Ω) 0.01% at 50W

Signal to noise ratio
Phono (MM) 56dB (DIN, 50mW output)
CD, TAPE, VIDEO 57dB (DIN, 50mW output)

Input sensitivity/impedance
Phono (MM) 2.5mV/47kΩ
CD, TAPE, VIDEO 200mV/47kΩ

Tone controls
BASS ±10dB (at 100Hz)
TREBLE ±10dB (at 10kHz)

Loudness control at 30dB
Volume level +9dB (at 100Hz)

FM tuner section

Tuning frequency range 87.5MHz~108MHz

Usable sensitivity (DIN at 75Ω)
MONO 1.1μV
STEREO 4.5μV

Total harmonic distortion at 1kHz (DIN)
MONO 0.15%
STEREO 0.5%

Signal to noise ratio (DIN weighted at 1kHz)
MONO 68dB (65.2dBf input)
STEREO 61dB (65.2dBf input)

Selectivity (DIN ±300kHz) 53dB

Stereo separation (DIN) at 1kHz 40dB

Frequency response 30Hz~15kHz, +0.5dB, -2.0dB

AM tuner section

Tuning frequency range 531kHz~1,602kHz

Usable sensitivity 12μV (400μV/m)

Total harmonic distortion 0.3%

Signal to noise ratio (at 30% mod. 1mV input) 50dB

Selectivity 30dB

General

Power consumption 180W

AC outlet (Switched) 2 : (total 200W max.)

Dimensions W : 440mm x H : 133mm X D : 350mm

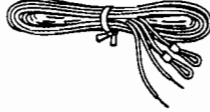
Weight (net) 8.2kg

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

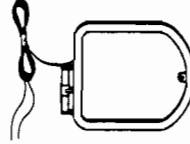
KR-A4060/A5060

ACCESSORIES

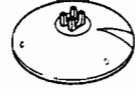
- FM indoor antenna 1
(T90-0182-05 : **Except E, T type**)
(T90-0176-05 : E, T type)



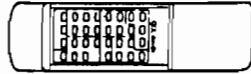
- AM loop antenna 1
(T90-0184-08)



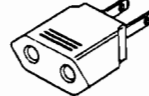
- Loop antenna holder 1
(J19-2815-04)



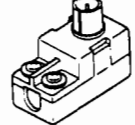
- Remote control ass'y (RC-R5030) .. 1
(A70-0985-08)



- AC plug adaptor 1
(E03-0115-05 : **Except E, T type only**)

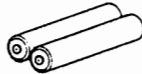


- Antenna adaptor (75Ω/300Ω) 1
(T90-0185-05 : **E, T type only**)



- Battery cover (A09-0170-08)

- Batteries (R6/AA) 2



*Except for U.K., Europe and Australia.
For the unit with a European AC plug in areas other than Europe.*

For U.K. and Europe.

Note :

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

KENWOOD CORPORATION

14-6, Dogenzaka 1-chome, Shibuya-ku, Tokyo 150, Japan

KENWOOD SERVICE CORPORATION

P.O. BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745, U.S.A.

KENWOOD ELECTRONICS CANADA INC.

6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

KENWOOD ELECTRONICS LATIN AMERICA S.A.

P.O. BOX 55-2791, Piso 6 Plaza Chase, Cl. 47 y Aquilino de la Guardia, Panama, Republic de Panama

TRIO-KENWOOD U.K. LIMITED

KENWOOD House, Dwight Road, Watford, Herts., WD1 8EB United Kingdom

KENWOOD ELECTRONICS BENELUX N.V.

Mechelsesteenweg 418 B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH

Rembrücker-Str. 15, 63150 Heusenstamm, Germany

TRIO-KENWOOD FRANCE S.A.

13 Boulevard Ney, 75018 Paris, France

KENWOOD ELECTRONICS ITALIA S.p.A.

Via G. Sirtori, 7/9 20129 Milano, Italy

KENWOOD ESPAÑA S.A.

Bolivia, 239-08020 Barcelona, Spain

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD. (A.C.N. 001 499 074)

P.O. BOX 504, B Figtree Drive, Australia Centre, Homebush, N.S.W. 2140, Australia

KENWOOD & LEE ELECTRONICS, LTD.

Unit 3712-3724, Level 37 Tower one, Metroplaza, 223 Hing Fong Road, Kwai Fong, N.T. Hong Kong

KENWOOD ELECTRONICS SINGAPORE PTE LTD.

No. 1 Genting Lane #07-00, KENWOOD Building, Singapore, 1334

KENWOOD ELECTRONICS (MALAYSIA) SDN LTD.

10 th Floor, Block B, Wisma Semantan, No. 12, Jalan Gelenggang, Bukit Damansara, 50490 Kuala Lumpur, Malaysia