AM-FM STEREO RECEIVER

KR-A4050/5050

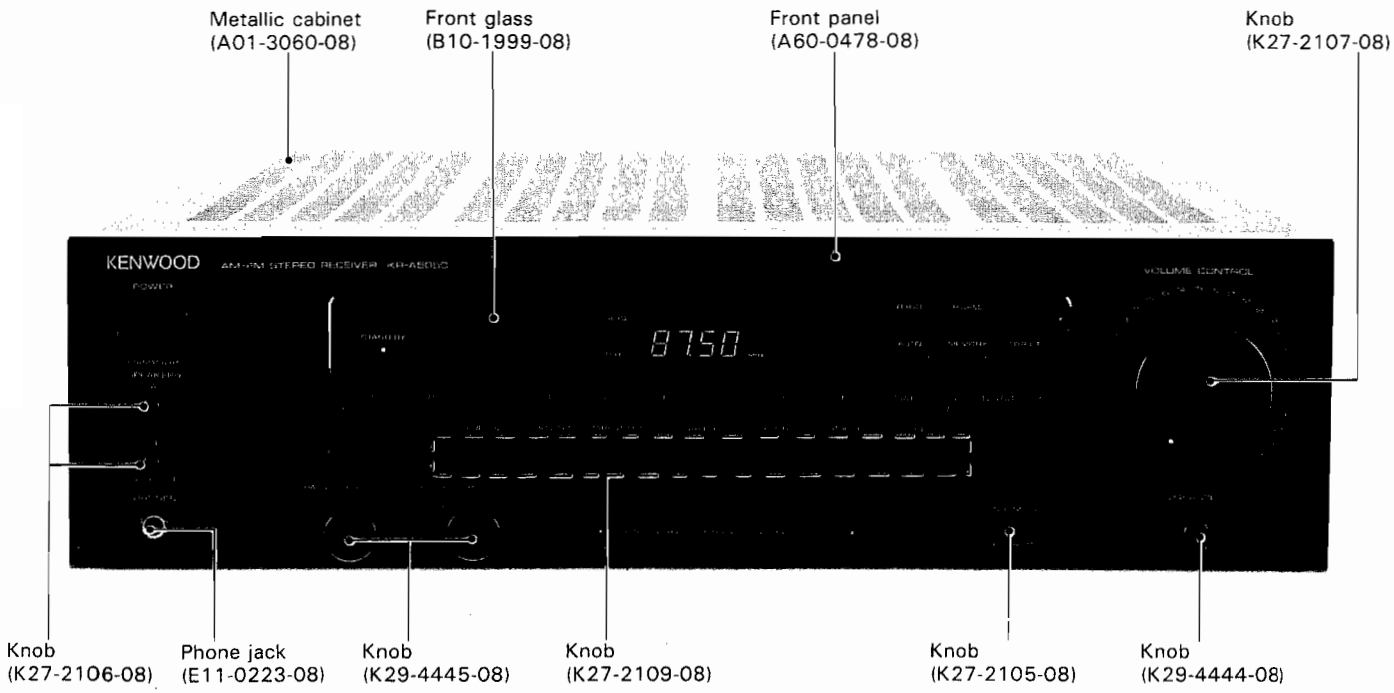
SERVICE MANUAL

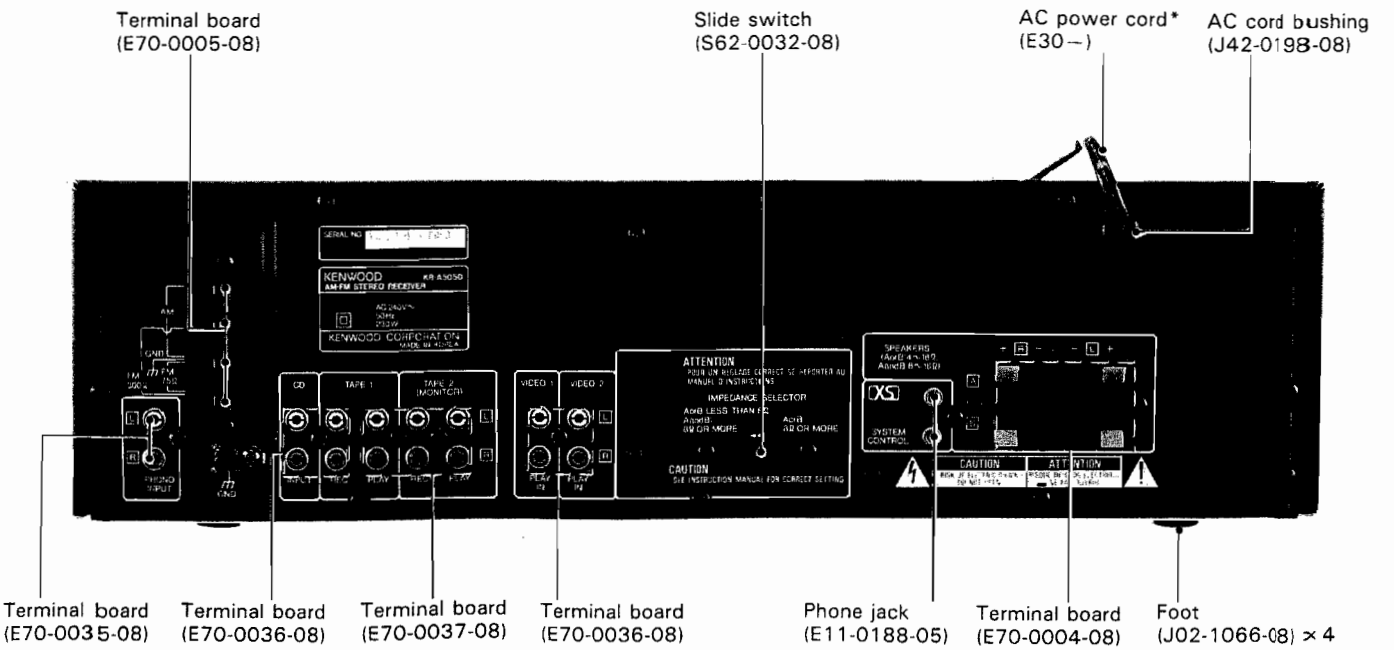
KENWOOD

3860

B51-4699-00(S) 4272

(KR-A5050 K, P, M, X Type)





*Refer to parts list on page 33.

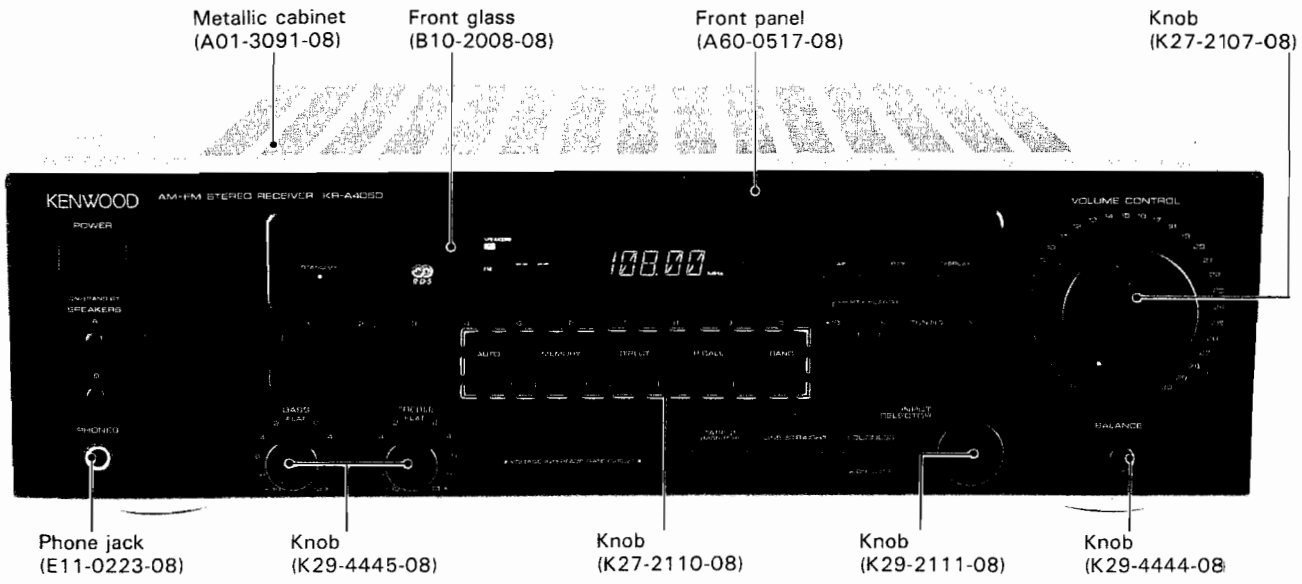
KR-A5050K (K,P,M,X)

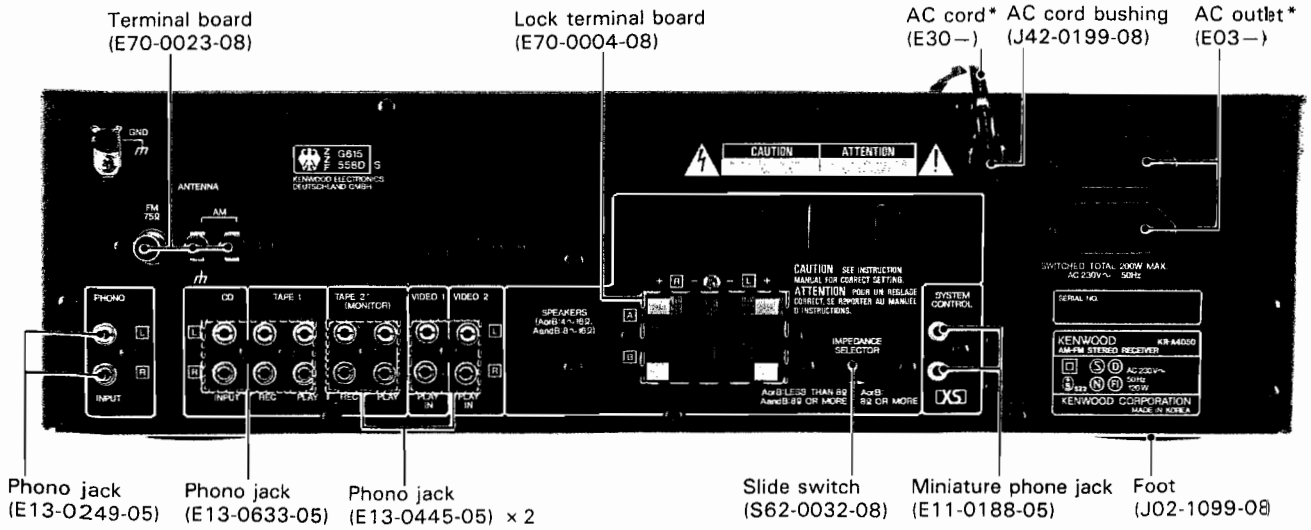
KR-A4050E/5050 E,T

KR-A4050/5050

CONTENTS

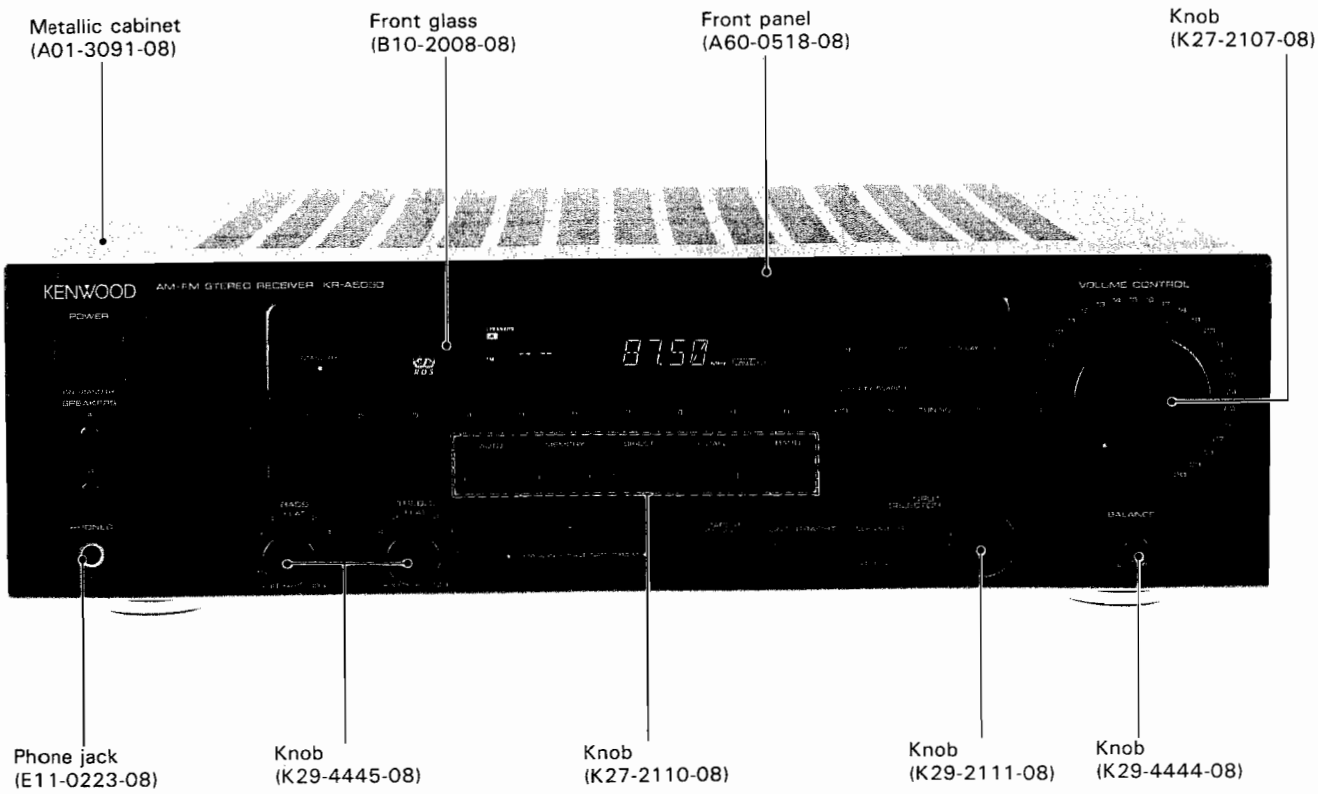
(KR-A4050 E, Type)

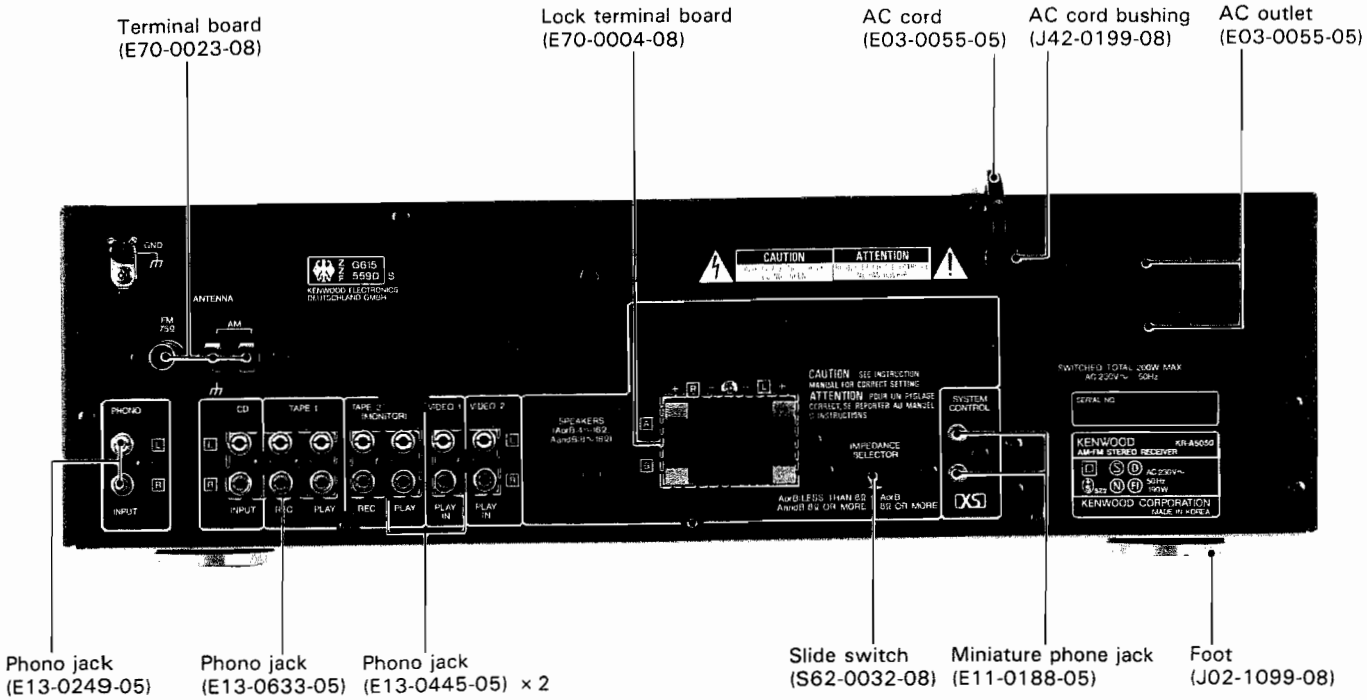




*Refer to parts list on page 77.

(KR-A5050 E,T Type)





(K, P)

INSTRUCTION MANUAL		
B60-1213-08	ENGLISH	
B60-1214-08	FRENCH	P
B60-1215-08	SPA, CHI	M

(E, T)

INSTRUCTION MANUAL		
B60-1286-08	SPANISH	E
B60-1287-08	ENGLISH	T
B60-1288-08	FR, GE, DU	E

*Refer to parts list on page 77.

KR-A4050/5050

REMOTE CONTROL OPERATION

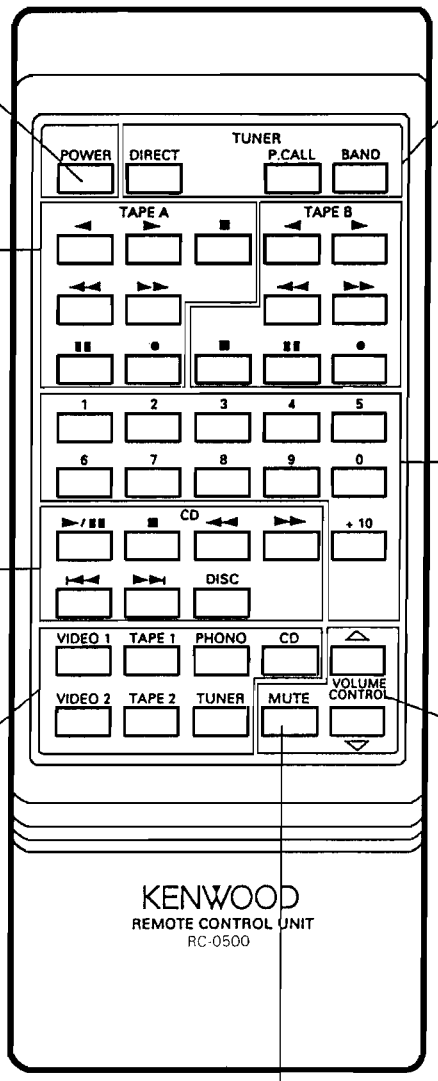
REMOTE CONTROL ASSY : A70-0953-08
BATTERY COVER : A09-0088-01

POWER key
Press to turn the power of the unit ON / OFF.

Tape deck operation keys
The TAPE A and TAPE B keys allow control of tape decks A and B respectively.

CD player operation keys
Operate the CD player.
DISC –When a CD player with a multi-disc magazine is used, the DISC key functions as the disc selector. Every press changes the disc number.

Input selector keys
Press one of these keys to select an input source.



Tuner operation keys
BAND – Press to select the broadcast band (AM or FM).
P.CALL– Press to recall the preset stations in sequence.
DIRECT– Use together with the numeric keys to recall a station directly.

Numeric keys
When the CD input is selected, these keys function as the numeric keys of the CD player.
When the TUNER input is selected, these keys function as the numeric keys of the tuner.
How to enter numbers:

To enter 23 – Press +10 twice then 3 once.
To enter 40 – Press +10 four times then 0 once.

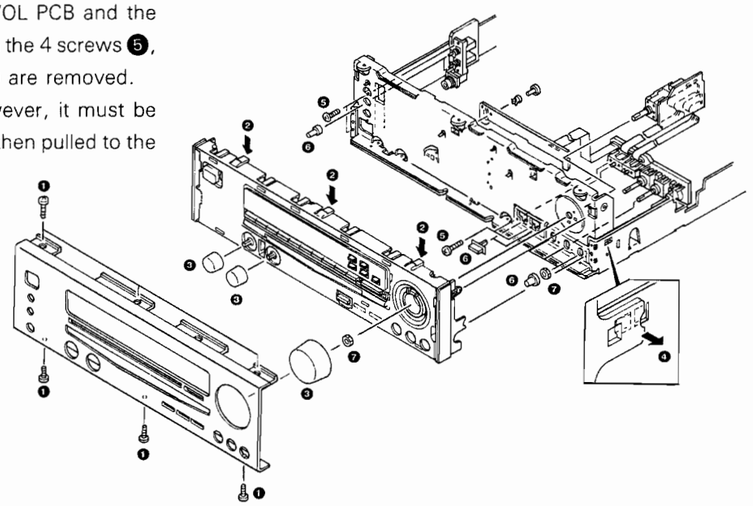
VOLUME CONTROL keys
Press to control the volume.
During control operation, the VOLUME CONTROL knob on the main unit rotates and the indicator on it blinks rapidly.

MUTE key
Press to drop the volume temporarily.
The volume indicator on the VOLUME CONTROL on the main unit flashes during muting.

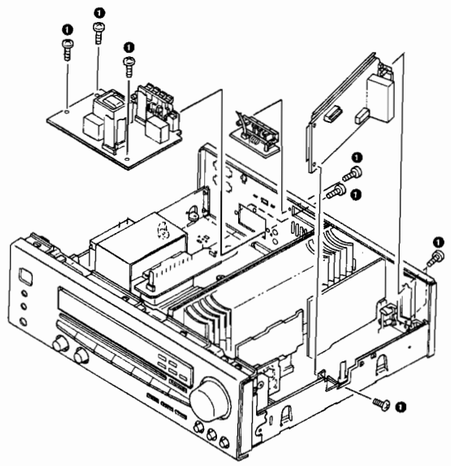
Note on remote control unit
- In case any of the following models is used, the CD manual search cannot be operated from this remote cojntrol unit:
  DP-M97, DP-57, DP-47
- If the CD player is not equipped with the System control jack, it cannot be operated properly from this remote control unit.
  In such a case, please use the remote control unit provided with the CD player.

DISASSEMBLY FOR REPAIR

1. Remove the 6 screws ❶, and the pull out the front panel out while pressing the 3 claws ❷ to remove the front panel.
2. The sub-panel can be removed when the 3 knobs ❸, are removed and the undo the 2 claws ❹ are released.
3. The headphone PCB, the MAIN VOL PCB and the balance PCB can be removed when the 4 screws ❺, the 5 knobs ❻ and the 4 nuts ❼ are removed.
   To remove the balance PCB, however, it must be raised in the upward direction and then pulled to the backward direction.



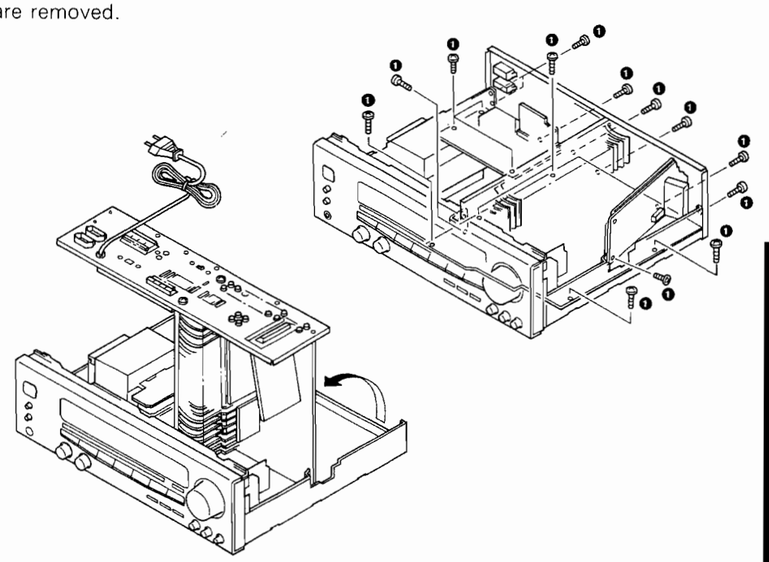
1. The tuner PCB, the power supply PCB and the surround PCB can be removed when the 8 screws ❶ are removed.



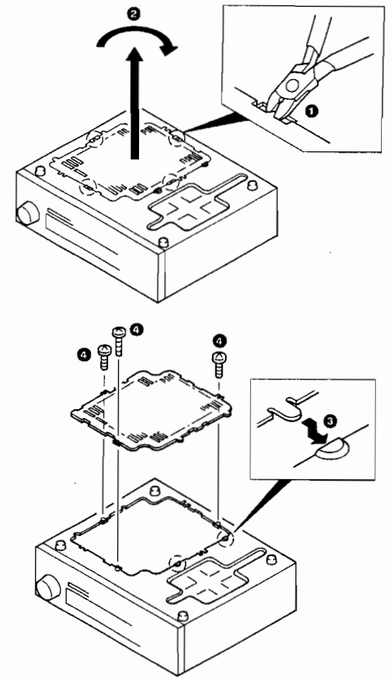
KR-A4050/5050

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 18 screws ❶ are removed.

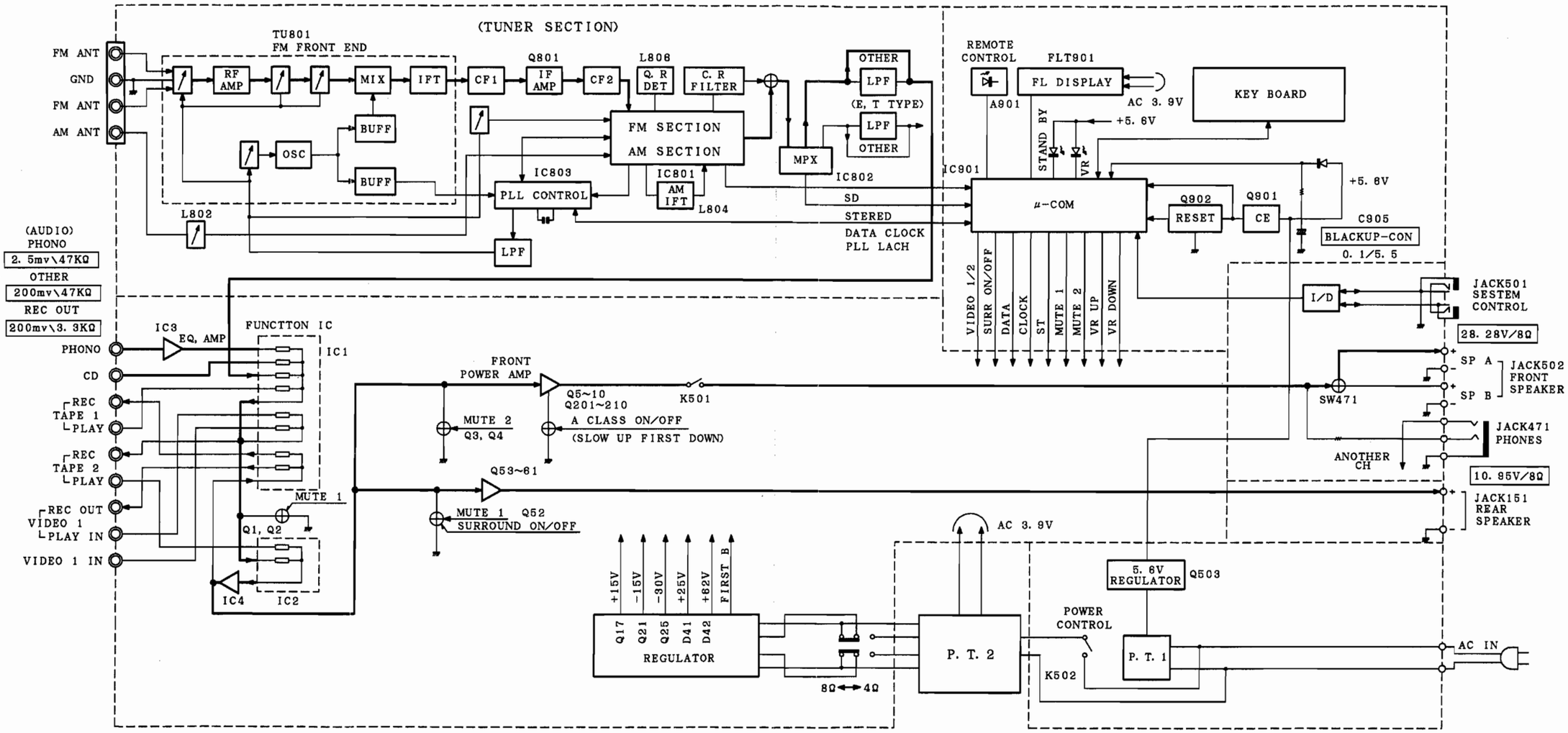


1. Cut the 4 places with a pair of nippers. ❶, and remove the bottom panel from chassis.
2. Move the unit holder from the current position to the open mounting position.
3. Rotate the lid, which was cut off, by 180° degrees ❷.
4. Insert the lids in the 2 places of the chassis ❸, and mount them with the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



KR-A4050/5050 KR-A4050/5050

BLOCK DIAGRAM



KR-A5050
(K, P, M, X TYPE)

CIRCUIT DESCRIPTION

1-1. Initial Setting

1) Function initial setting

Last channel memory ..... FM : 87.5MHz
..... AM (K) : 530kHz
..... AM (E) : 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 cleared (Test frequency)

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

* 1700 kHz is set for WIDE only.

2) Microprocessor output port initial setting

Any figure in ( ) is a pin number.

SURROUND MUTE (17) L
VOL. LED (18) L
VIDEO 1/2 (23) L
POWER (24) L
MUTE 1 (25) ..... H
MUTE 2 (26) ..... H
CDDL (27) ..... H
VOL. DOWN (1) L
VOL. UP (63) L

The initial setting is performed in a following event :

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

1-2. Test Mode Setting

1) Method of entering the test mode

1. 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.

2) 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 microprocessor.

3) Contents of test mode

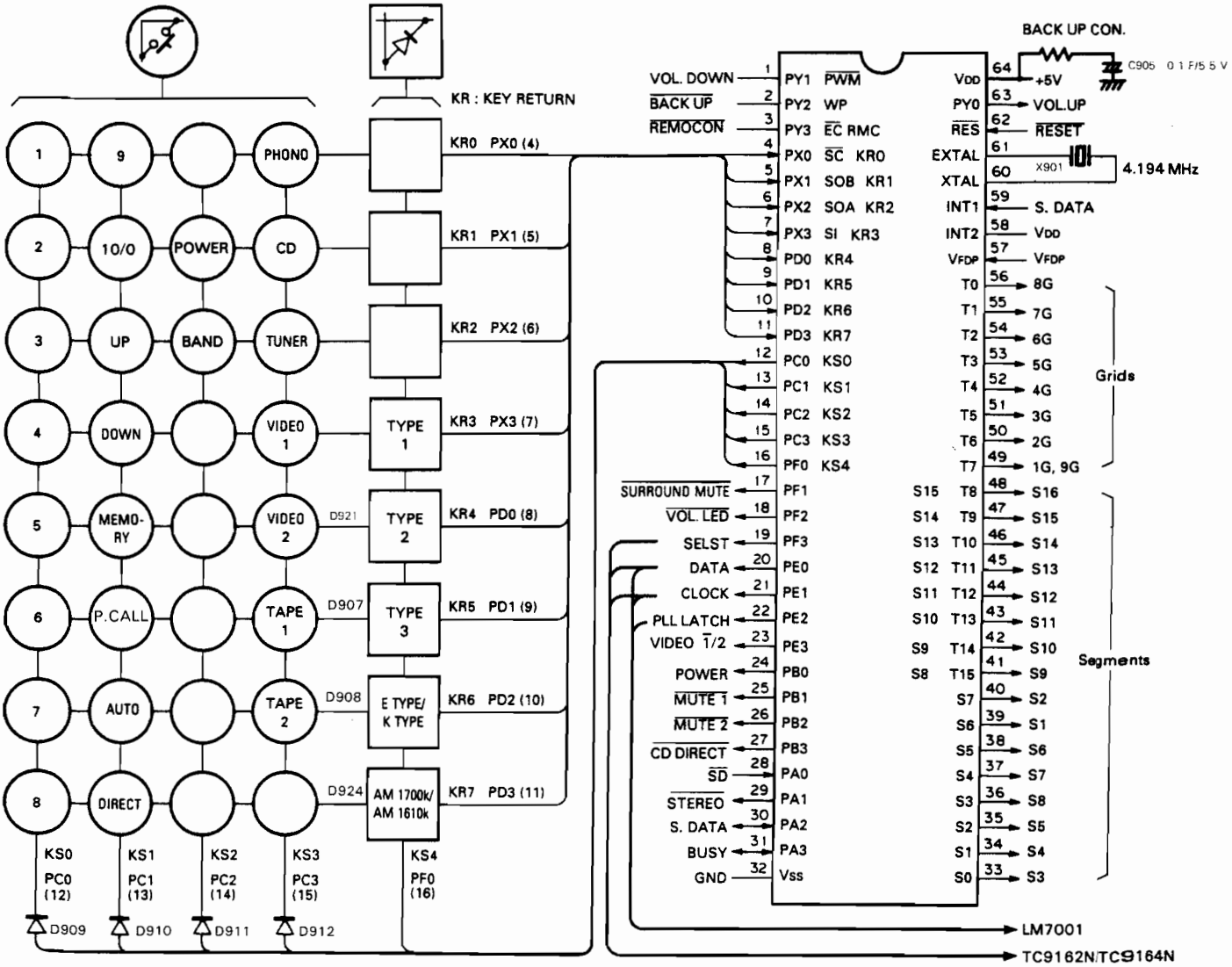
1. When the test mode is entered, the FL tube display all lights. This all lighting continues unless a effective remote control serial code or the test mode is canceled.
2. The test frequency is stored in memory for each preset channel. (For each frequency to be stored in memory, refer to its associated 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 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.

CIRCUIT DESCRIPTION

2. CXP5016-526S: Receiver microprocessor (X14-3040-10 : IC1)

2-1. Key matrix connections



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"

1) Model Set SW (TYPE2: D921, TYPE 3: D907)

Model set SW			MODEL	Function				
TYPE 1	TYPE 2	TYPE 3		TUNER BAND	DOLBY SURROUND	VOL. CONT with Motor	Switched VIDEO1, 2	REMOCON
0	0	1	KR-V5550	FM1→FM2→AM	Provided	Provided	Provided	Provided
—	1	0	KR-A5050 (EXCEPT E TYPE)	↑	Not provided	↑	Not provided	↑

CIRCUIT DESCRIPTION (Except E, T type)

2) Destination set SW: E type/K type (D908 to Q903)

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

3) Specification set SW: AM1700k/AM 1610k (D924)

With destination set SW at "0": Effective only for K type

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

Pin description

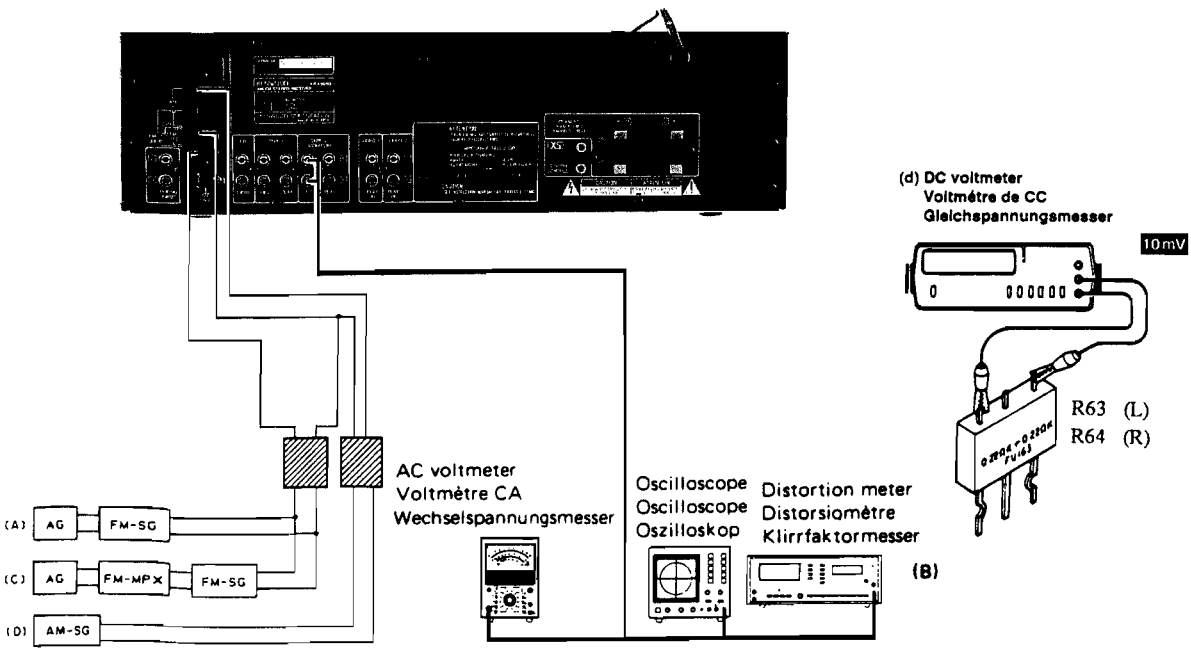
Pin No.	Pin name	I/O	Name	Function
1	PY1	O	VRDOWN	Potentiometer down operation control. High: V down Low: Normal state
2	PY2	I	BACKUP	Backup (AC outlet off) detection. High: Normal state Low: AC outlet off When the power is switched on, high is input. When low is input, the microprocessor stops clock generation and enters the backup state. When the signal changes from low to high, the backup state changes to the normal state.
3	RMC	I	$\overline{\text{REMOCON}}$	REMOCON signal input. active Low
4~11	PX0~PX3 PD0~PD3	I	KR0~KR7	KEY RETURN signal input. High There is input. Low: There is no input.
12~16	PC0~PC3 PF0	O	KS0~KS4	KEY SCAN signal output. Normally high is output. Key scan is performed when KEY is ON.
17	PF1	O	$\overline{\text{SMUTE}}$	SURROUND effect audio signal output ON/OFF control. High: output ON Low: output OFF
18	PF2	O	$\overline{\text{VOLLED}}$	Volume LED signal output. High: OFF Low: ON
19	PF3	O	SELST	Data latch signal output to TC9162/TC9164. Data is latched on the rising edge.
20	PE0	O	DATA	LM7001(PLL IC) TC9162/TC9164 (selector IC) control serial data output. Data is latched on the rising edge of the clock.
21	PE1	O	CLOCK	LM7001, TC9162/TC9164 control serial data transfer shift clock output. Data is latched on the rising edge of the clock.
22	PE2	O	PLLLT	CE signal output to LM7001. When the signal is high, LM7001 is enabled.
23	PE3	O	VIDEO $\overline{1}$/2	VIDEO signal switching control. High: VIDEO 2 Low: VIDEO 1
24	PB0	O	POWER	Power supply circuit relay on/off control. High: ON Low: OFF
25	PB1	O	$\overline{\text{MUTE 1}}$	TAPE 2 REC OUT mute control. High: MUTE OFF Low: MUTE ON
26	PB2	O	$\overline{\text{MUTE 2}}$	LINE OUT mute control. High: MUTE OFF Low: MUTE ON
27	PB3	O	$\overline{\text{CDDL}}$	CD DIRECT LED signal output. High:OFF Low:ON
28	PA0	I	$\overline{\text{SD}}$	Tuner tuned detection. High: NO SIGNAL Low: TUNED
29	PA1	I	$\overline{\text{STEREO}}$	Tuner FM stereo detection. High: MONO Low: Stereo
30	PA2	I/O	SDATA	This pin and serial data pin 59 are shorted.
31	PA3	I/O	BUSY	Serial busy signal input/output.
32	Vss	—	GND	GND.
33~48	S0~S15	O	Sa~So, Sr	Fluorescent display segment drive signal output.
49~51	T7~T5	O	—	N.C.
52~56	T4~T0	O	G5~G1	Fluorescent display digit drive signal output.
57	V_{FDP}	—	V_{FDP}	Fluorescent display output driver circuit power supply.
58	INT2	I	—	Unused pin. This pin and GND are shorted.
59	INT1	I	SDATA	This pin and serial data input pin 30 are shorted.
60	XTAL	O	XTAL	Clock generation circuit output.
61	EXTAL	I	EXTAL	Clock generation circuit input.
62	RST	I	$\overline{\text{RESET}}$	Reset signal input.
63	PY0	O	VRUP	Volume up operation control. High: UP Low: Normal state
64	V_{DD}	—	V_{DD}	+5 V power supply.

KR-A4050/5050

ADJUSTMENT

AM.Section: If alignment piont 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	VR802 (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 R63 (L) R64 (R) (MAIN UNIT)	Volume:0	VR1 (L) VR2 (R) (AUDIO UNIT)	10mV	(d)



REGLAGE

Section AM : Si le point d'alignement est—, confirmer la valeur.
Sinon, remplacer le bloc avac.

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DU TUNER	POINT DE L'ALIGNEMENT	ALIGNER POUR	FIG.
SECTION MF			SELECTEUR : FM				
1	DISCRIMI-NATEUR	(A) 98.0MHz 1kHz.±75kHz dév 60dBμ(Entrée ANT)	Relier un voltmètre CC entre les TP803 et TP804 (TUNER UNIT)	AUTO ou MONO 98.0MHz	L806 (TUNER UNIT)	0V	(a)
2	OSCILLATEUR CONTROLE PAR LA TENSION	(A) 98.0MHz 0 dév 60dBμ(Entrée ANT)	Relier un compteur de fréquence entre les TP805(VCO)et TP806 (GND) (TUNER UNIT)	AUTO 98.0MHz	VR802 (TUNER UNIT)	19.00kHz	(b)
3	DISTORSION (STEREO)	(C) 98.0MHz 1kHz.68.25kHz dév Selection:l ou R Signal pilote: ±6.75kHz dév 60dBμ(Entrée ANT)	(B)	98.0MHz	(W02-) IFT	Distorsion minimale. (LouR)	
4	NIVEAU D'ACCORDER	(A) 98.0MHz 0 dév — 18dBμ(Entrée ANT) 75Ω	(B)	AUTO ou MONO 98.0MHz	VR801 (TUNER UNIT)	Ajuster VR1 et arrêter le mouvement de VR801 au moment où le FL901(TUNED)s'allume.	
SECTION MA			Laisser l'antenne bouche MA installée. SELECTEUR: AM				
(1)	NIVEAU D'ACCORDER	(A) 1000kHz 26dBμ(Entrée ANT)	—	—	VR804 (TUNER UNIT)	Ajuster VR4 et arrêter le mouvement de VR804 au moment où le FL901(TUNED)s'allume.	
SECTION AUDIO							
<1>	COURANA DE POLARISATION	—	Connecter un voltmètre CC sur R63 (L) R64 (R) (MAIN UNIT)	Volume: 0	VR1 (G) VR2 (D) (AUDIO UNIT)	10mV	(d)

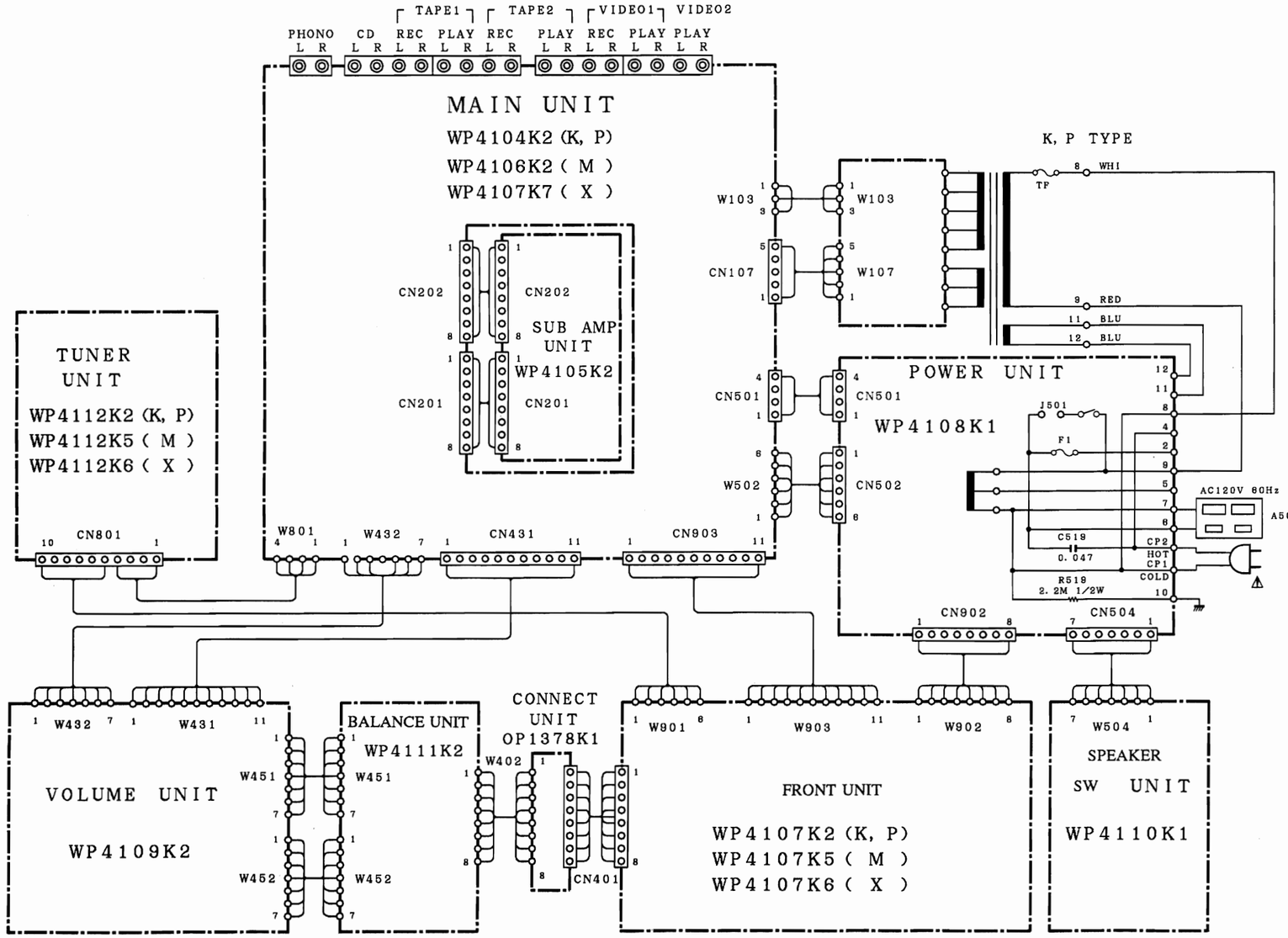
KR-A5050 K, P

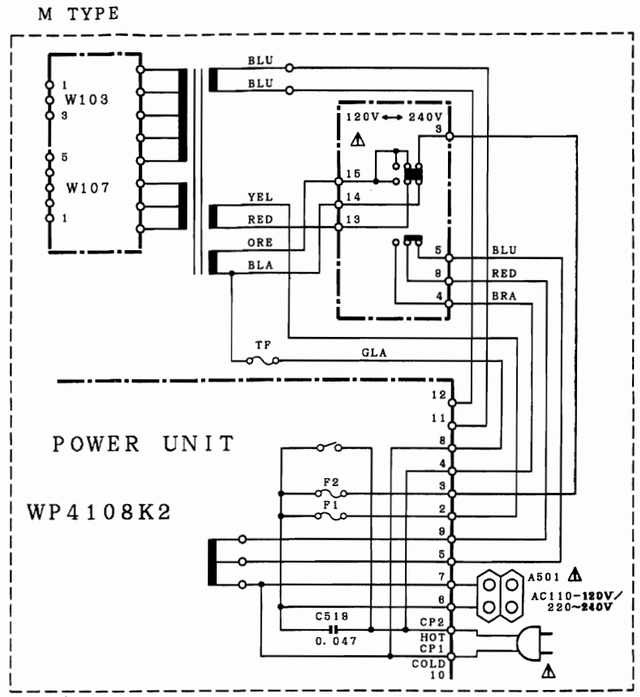
ABGLEICH

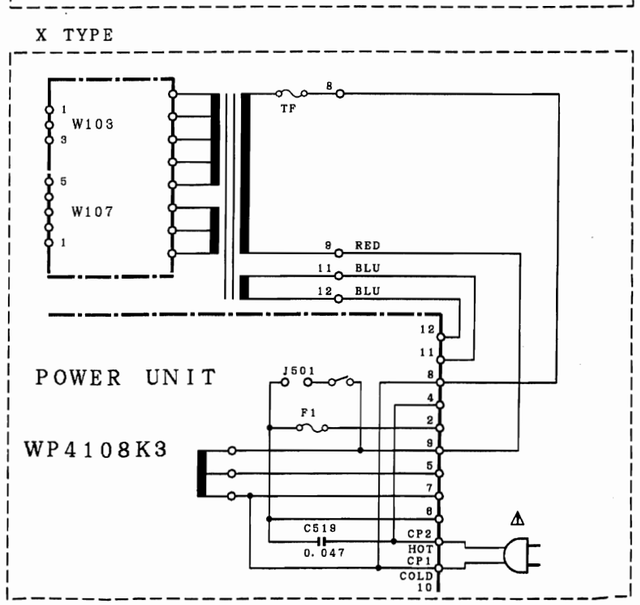
MW-Teil : Wenn der Ausrichtpunkt—ist, den Wert überprüfen.
Wenn nicht, die Fronteinheit auswechseln.

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	TUNER-EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
UKW-EMPFANGSABTEILUNG			WÄHLER: FM				
1	DISKRIMI-NATOR	(A) 98,0MHz 1kHz, ±75kHz Hub 60dBμ(ANT-Eingang)	Einen Gleichspannungs-messer zwischen TP803 UND TP804 anschlie βen. (TUNER UNIT)	AUTO oder MONO 98,0MHz	L806 (TUNER UNIT)	0V	(a)
2	SPANNUNGS-GEREGELTER OSZILLATOR	(A) 98,0MHz 0 Hub 60dBμ(ANT-Eingang)	Einen Frequenzzähler zwischen TP806 (VCO) und TP805 (GND) anschließen. (TUNER UNIT)	AUTO 98,0MHz	VR802 (TUNER UNIT)	19,00kHz	(b)
3	KLIRRFAKTOR (STEREO)	(C) 98,0MHz 1kHz, ±68,25kHz Hub Wähler: L oder R Pilotten: ±6,75kHz Hub 60dBμ(ANT-Eingang)	(B)	98,0MHz	(W02-) IFT	Minimal Klirrfaktor. (LouR)	
4	ABSTIMM PEGEL	(A) 98,0MHz 0 Hub – 18dBμ(ANT-Eingang) 75Ω	(B)	AUTO oder MONO 98,0MHz	VR801 (TUNER UNIT)	Den Pegel wiederstand aufdrehen, und dem VR801 Halt geben wobei den FL901 (TUNED) anzeiger leuchtet wird.	
MW-EMPFANGSABTEILUNG			Die MW-Rahmenantenne angebracht lassen.		WÄHLER: AM		
(1)	ABSTIMM PEGEL	(A) 1000kHz 26dBμ(ANT-Eingang)	–	–	VR804 (TUNER UNIT)	Den Pegel wiederstand aufdrehen, und dem VR804 Halt geben wobei den FL901 (TUNED) anzeiger leuchtet wird.	
AUDIO-ABTEILUNG							
<1>	LEERLAUFSTROM	–	Einen Gleichspannungs-messer über R63 (L) R64 (R) anschließen. (MAIN UNIT)	Volume: 0	VR1 (L) VR2 (R) (AUDIO UNIT)	10mV	(d)

WIRING DIAGRAM



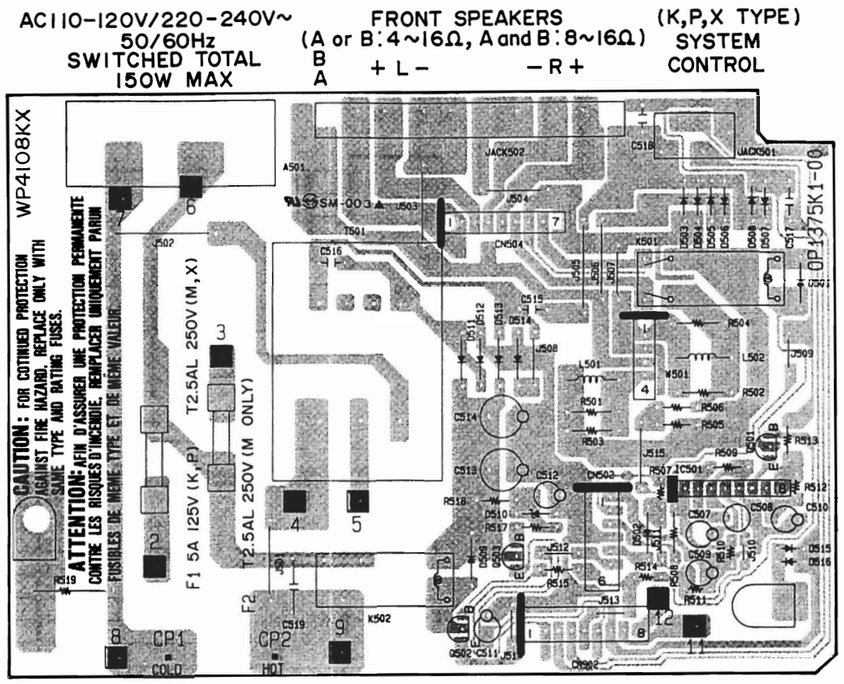


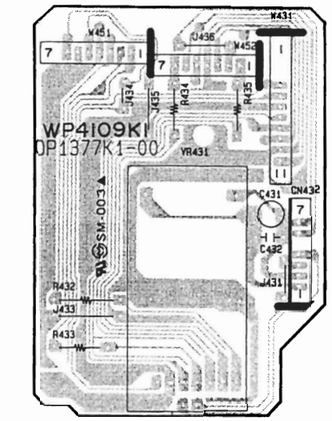


KR-A5050 K, P

KR-A5050
(K, P, M, X TYPE)

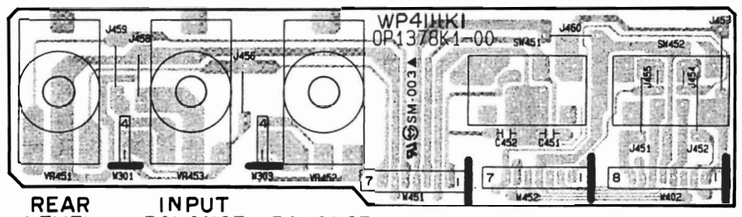
PC BOARD (Component side view) POWER UNIT (WP4108KX)



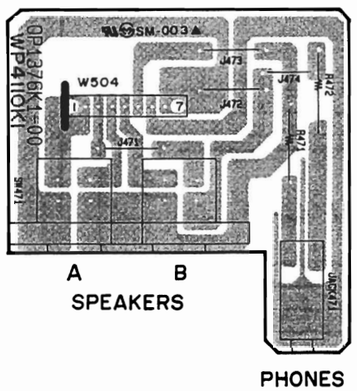


VOLUME CONTROL

LOUDNESS

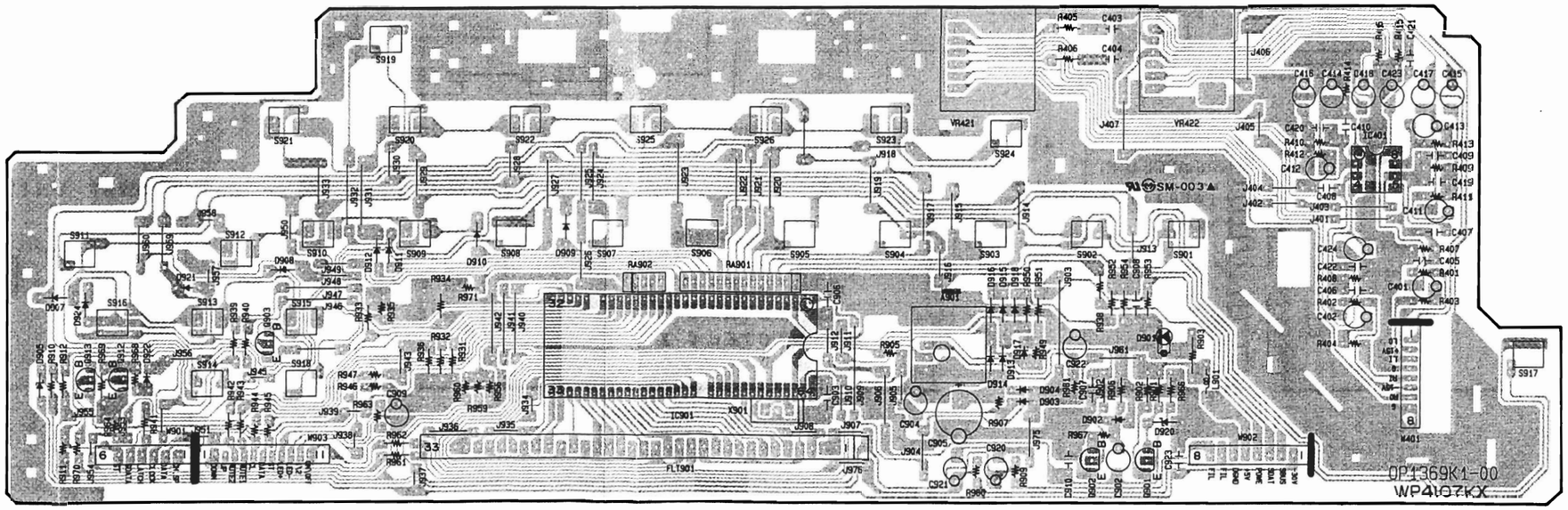


REAR LEVEL | INPUT BALANCE | BALANCE



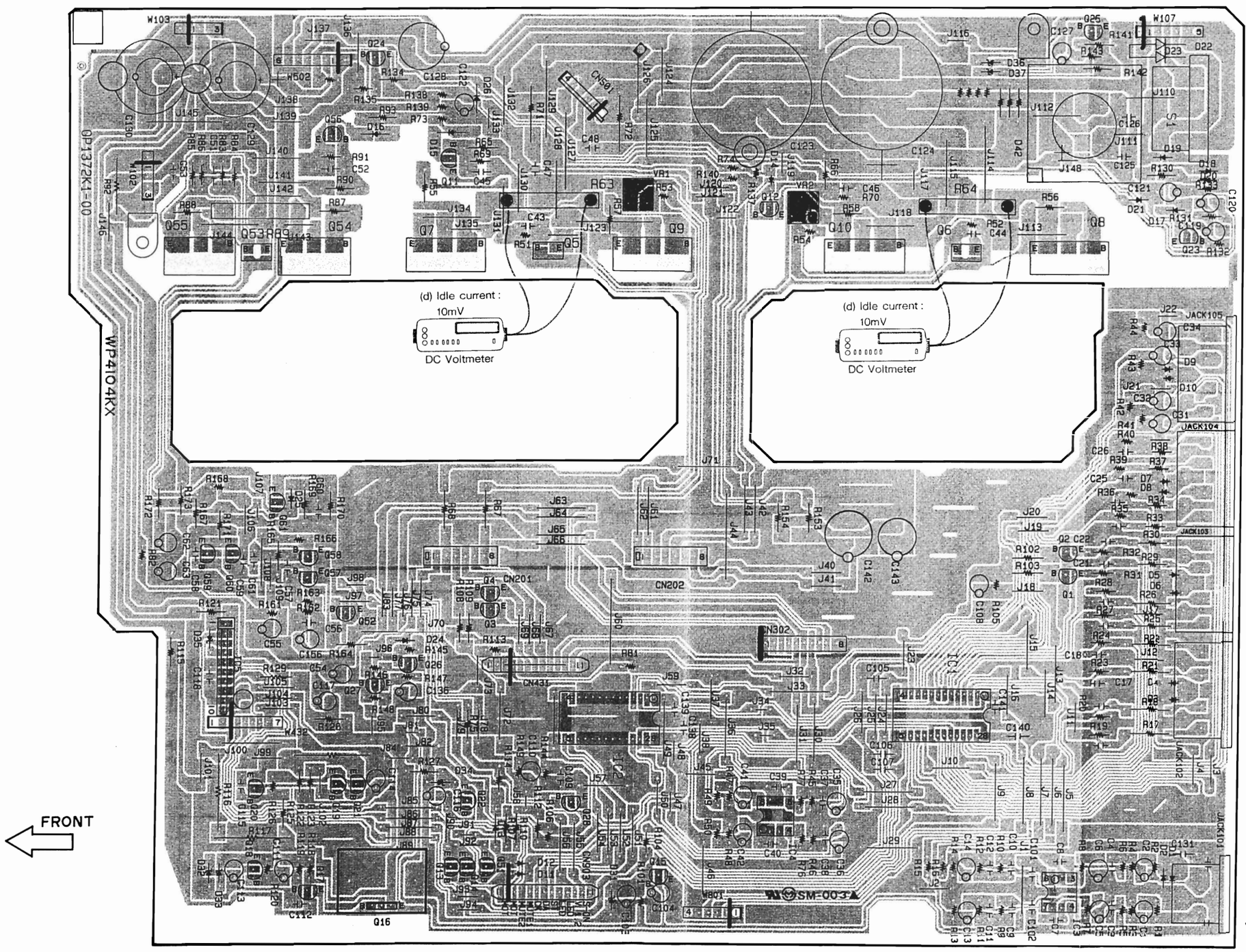
FRONT

TREBLE BASS



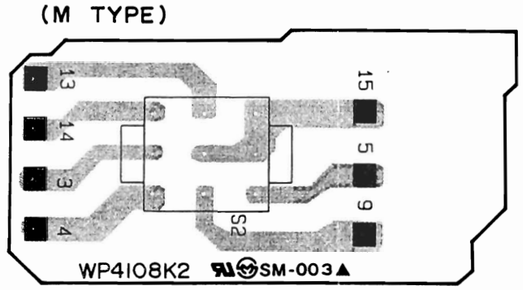
Refer to the schematic diagram for the values of resistors and capacitors.

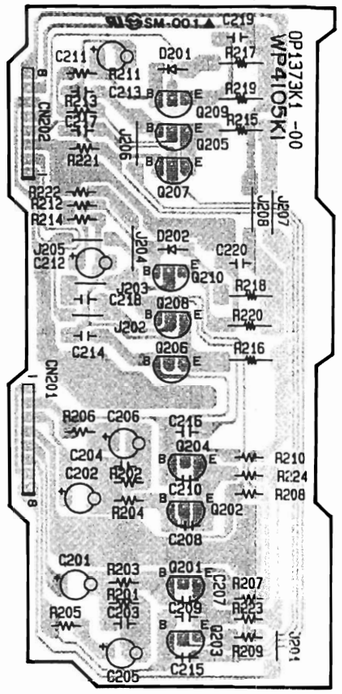
PC BOARD (Component side view) MAIN UNIT (WP4104KX)

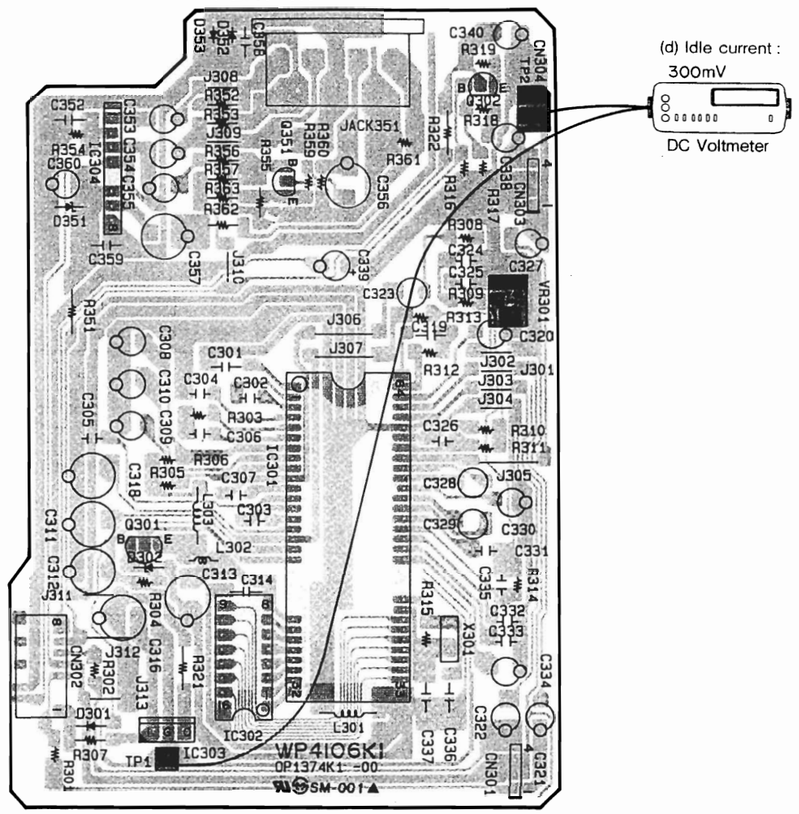


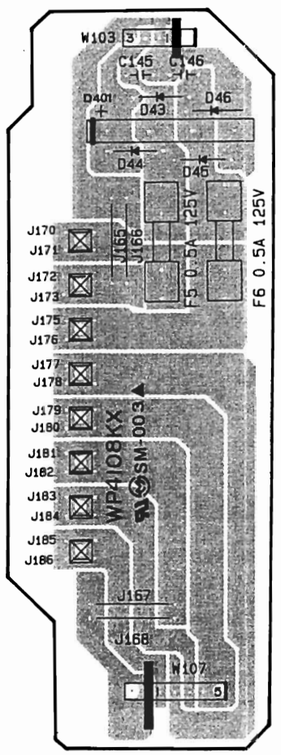
Refer to the schematic diagram for the values of resistors and capacitors.

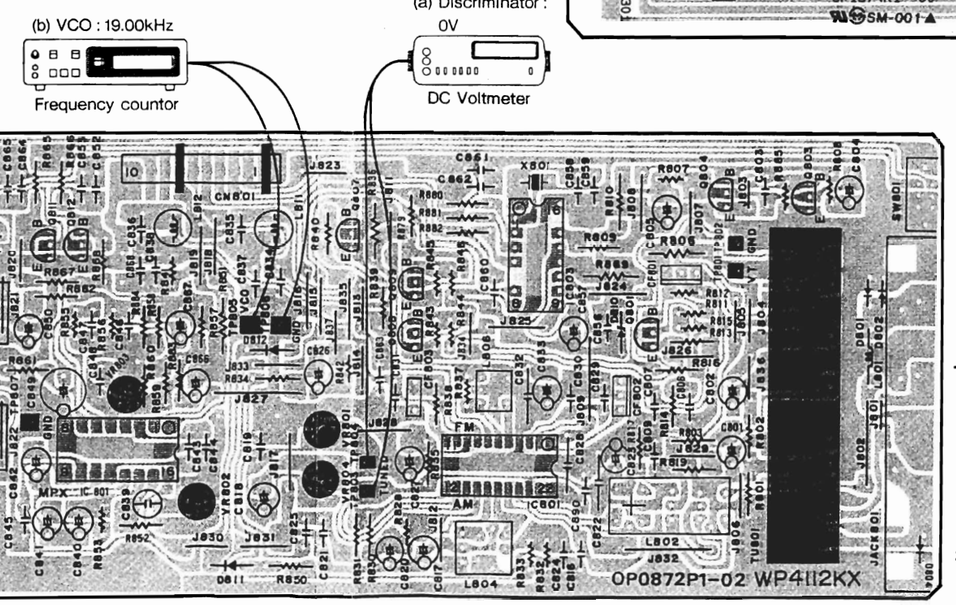
PC BOARD (Component side view) SUB UNIT (WP4105K1)

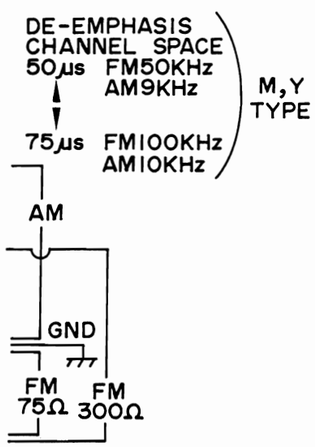






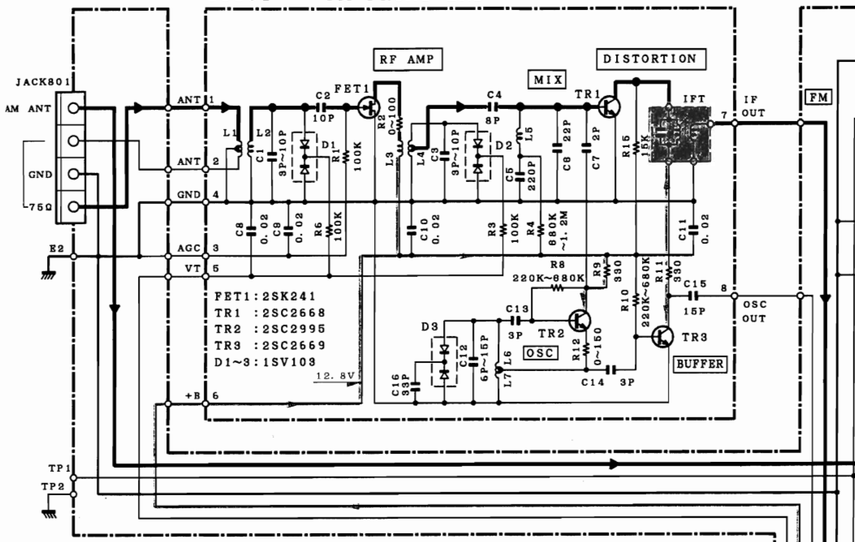




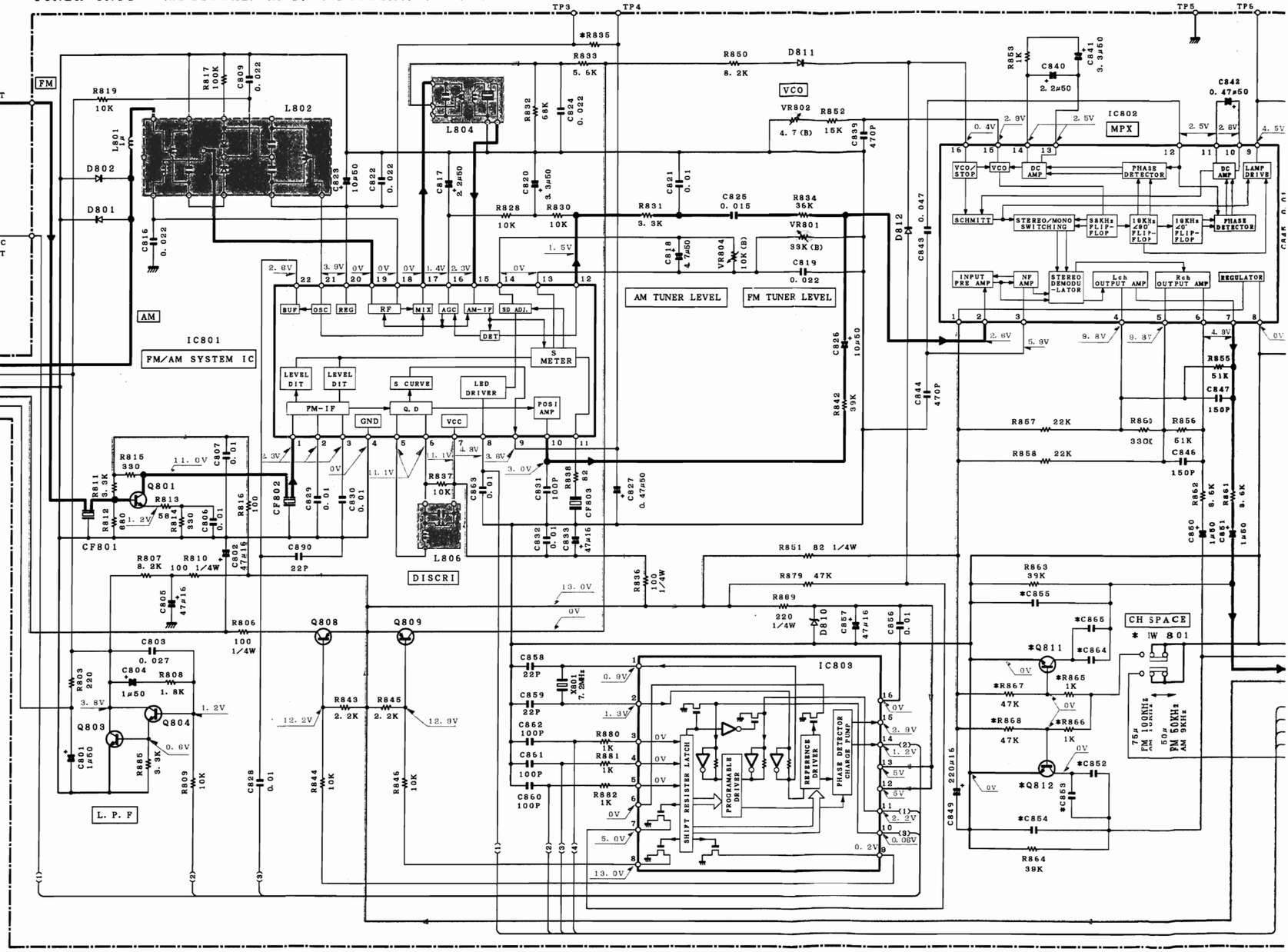


Refer to the schematic diagram for the values of resistors and capacitors.

TU801 FM FRONT END

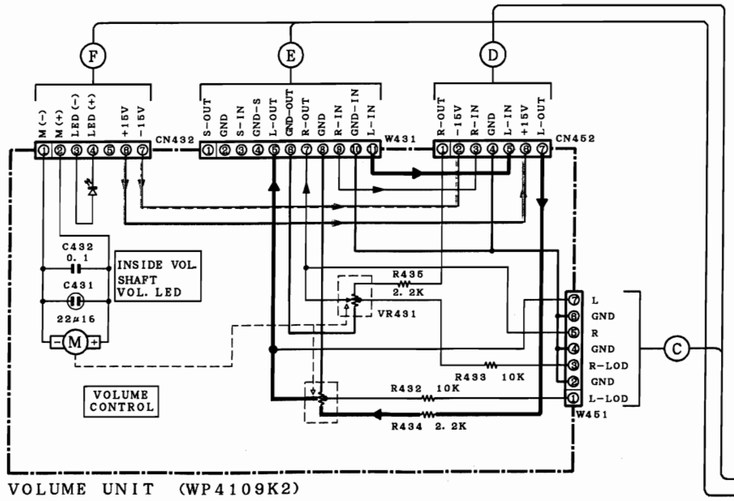


TUNER UNIT (WP4112K2) (K. P) (WP4112K5) (M) (WP4112K6) (X)



TUNER UNIT

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



VOLUME UNIT (WP4109K2)

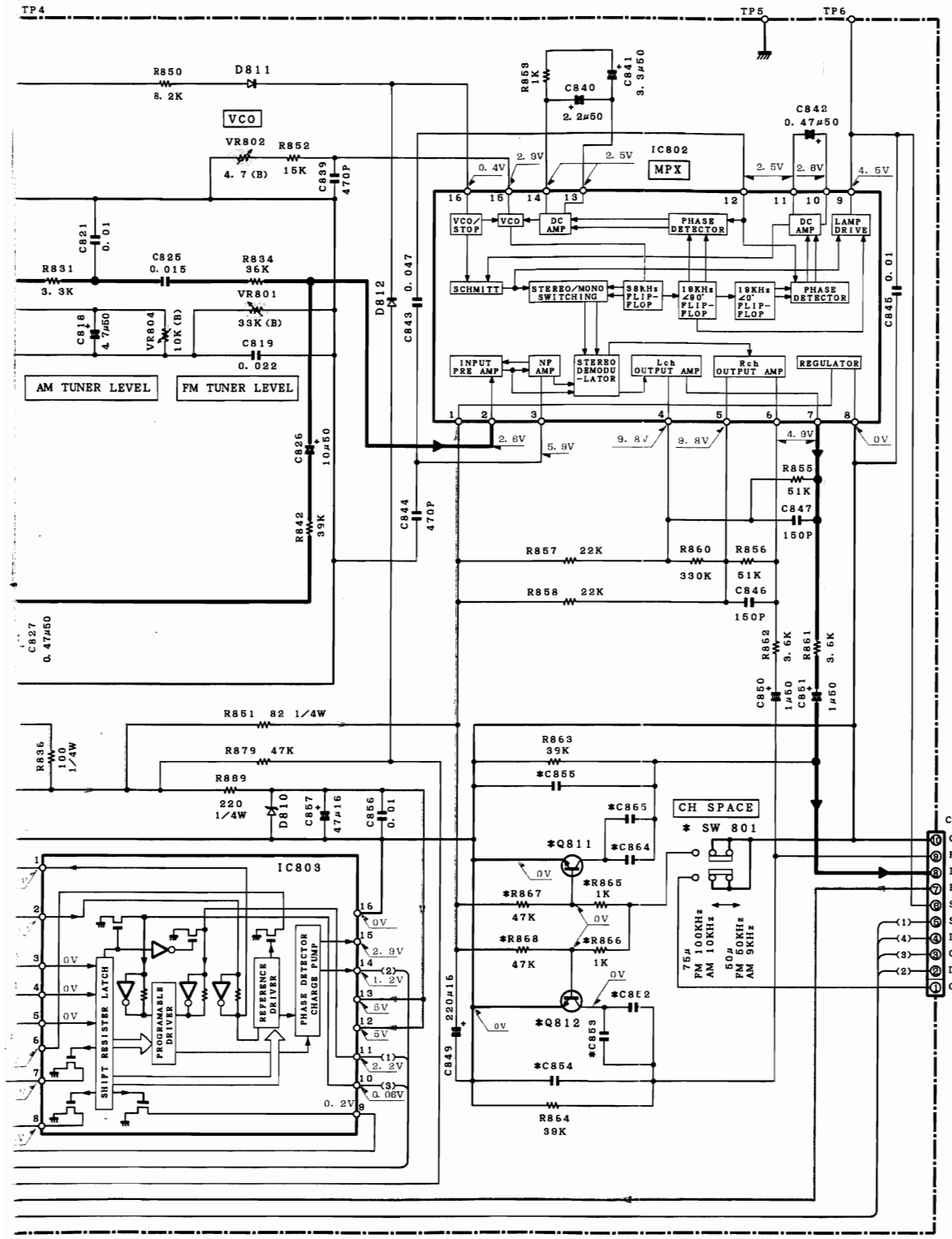
TUNER UNIT

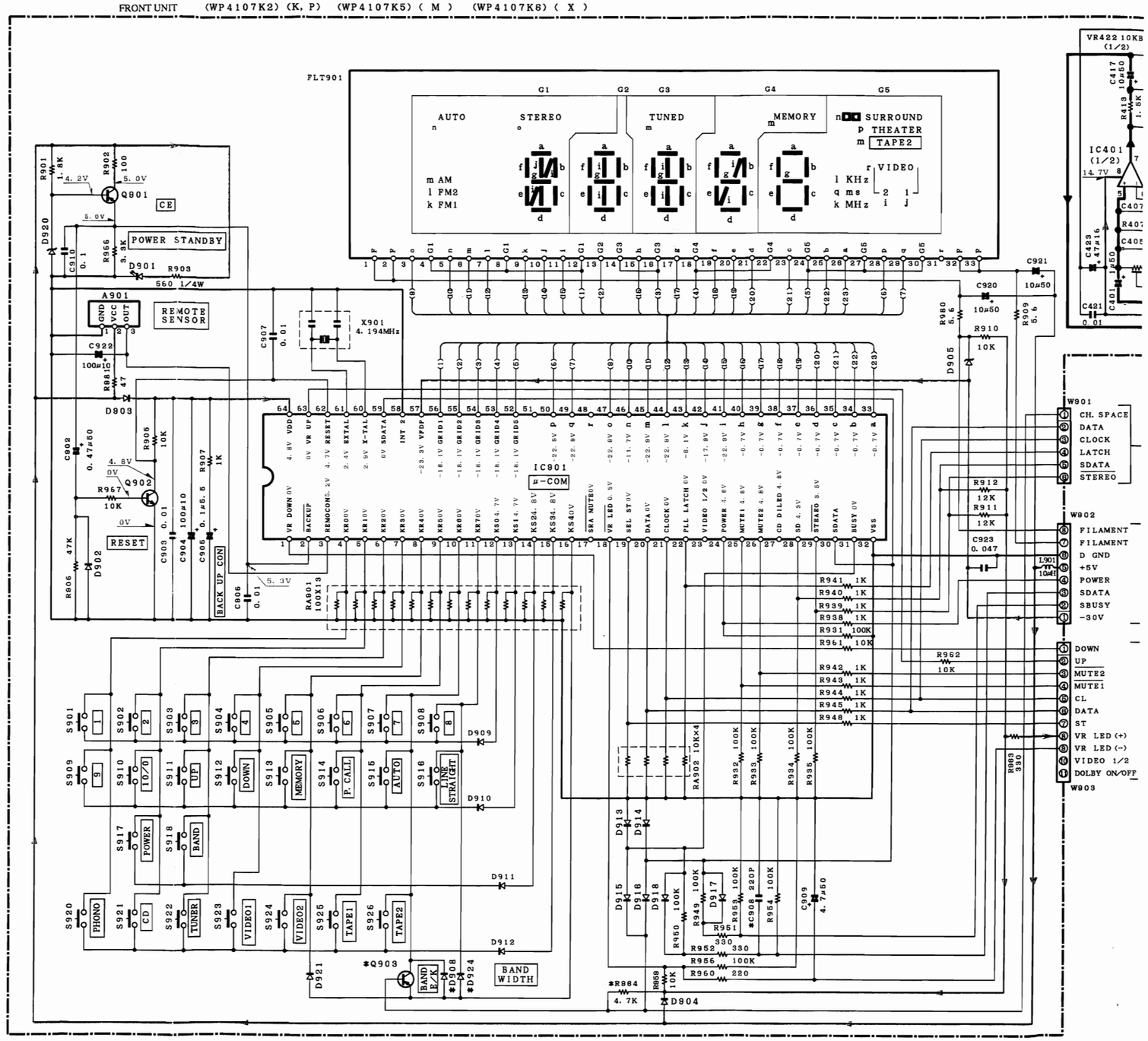
DESTINATION / COUNTOY	ABB.	Q811	Q812	R835	R865	R866	R867	R868	SW801	C852	C853	C864	C865	C854	C855
U. S. A. CANADA	K P	NO	NO	15K	NO	NO	NO	NO	NO	NO	NO	NO	NO	0. 022μF	0. 022μF
GENERAL MARKET	M	YES	YES	39K	1K	1K	47K	47K	YES	2200P	5600P	2200P	5600P	0. 015μF	0. 015μF
AUSTRALIA	X	NO	NO	39K	NO	NO	NO	NO	NO	NO	NO	NO	NO	0. 015μF	0. 015μF

FRONT UNIT

DESTINATION / COUNTOY	BB.	Q903	D908	D924
U. S. A. CANADA	K P	NO	NO	YES
GENERAL MARKET	M	YES	NO	NO
AUSTRALIA	X	NO	YES	NO

FRONT UNIT (WP4107K2) (K, P) (WP4107K5) (M) (WP4107K8) (X)





	C854	C855
	0.022μF	0.022μF
P	0.015μF	0.015μF
	0.015μF	0.015μF

FRONT UNIT

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

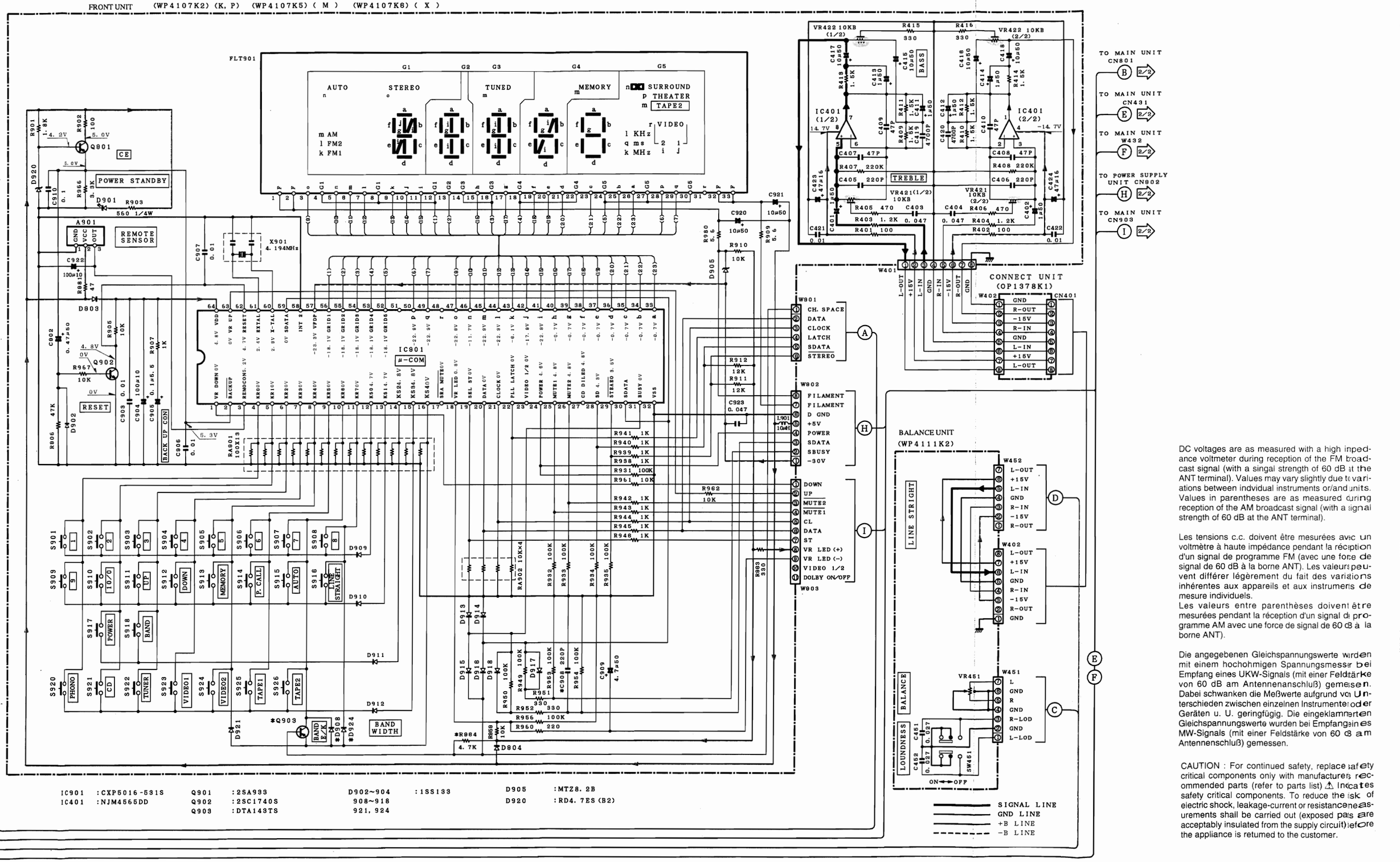
IC901 : CXP5016-531S
IC401 : NJM4565DD

Q901 : 2SA933
Q902 : 2SC1740S
Q903 : DTA143TS

D902~904 : 1SS133
908~918
921, 924

D905 : MTZ8.2B
D920 : RD4.7ES(B2)

FRONT UNIT (WP4107K2) (K, P) (WP4107K5) (M) (WP4107K8) (X)



IC901 : CXP5016-531S
IC401 : NJM4565DD

Q901 : 2SA933
Q902 : 2SC1740S
Q903 : DTA143TS

D902~904 : 1SS133
908~918
921, 924

D905 : MTZ8.2B
D920 : RD4.7ES(B2)

DC voltages are as measured with a high inpedance voltmeter during reception of the FM broadcast signal (with a singal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between indvidual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at the ANT terminal).

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.
Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM avec une force de signal de 60 dB à la borne ANT).

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser bei Empfang eines UKW-Signals (mit einer Feldstärke von 60 dB am Antennenanschluß) gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die eingeklammerten Gleichspannungswerte wurden bei Empfang eines MW-Signals (mit einer Feldstärke von 60 dB am Antennenschluß) gemessen.

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.

KR-A5050

Y05-2760-10

KENWOOD

(WP4104K2) (K, P)
(WP4104K6) (M)
(WP4104K7) (X)

MAIN UNIT

PHONO EQ AMP

+12.5V AVR

-30V AVR

+15V AVR

-15V AVR

MUTE1 (SELECTOR MUTE)

SOURCE3/TAPE2

INPUST SELECTOR

VOL, MOTOR DRIVE

IMPEDANCE SELECTOR

MAIM UNIT

IC1	:TC9164N
IC2	:TC9162N
IC3	:NJM4565DD
IC4	:NJM4558DD
IC5	:BA6209N
Q1, 19, 20	:2SA933S
Q2~4	:2SC2878B
Q5, 6	:2SC4137
Q7, 8	:2SD2222
Q9, 10	:2SB1470
Q11, 12, 22, 23	:2SC1845F
Q13, 14	:DTA114TS
Q15, 21	:2SC2235Y
Q16	:2SD2058Y
Q17. 18	:2SC1740S
Q24	:2SA992F
Q25	:2SB1274
D1~6, 9~11, 14 15, 17~21, 26	:1SS131
D22, 23	:1N4002
D31	:RD13ES (B2)
D32	:MTZJ6. 2B
D33	:MTZJ8. 2B
D34	:MTZ4. 7V
D35	:RD5. 1ES (B2)
D36, 37	:RD12ES (B2)
D42	:D5FB20

S1 (IMPEDANCE SELECTOR)

	LESS THAN 8Ω (4Ω)	8Ω or MORE (8Ω)
A	47. 0V	61. 0V
B	-47. 6V	-61. 0V

AMP SUB UNIT (WP4105K2)

SUB AMP

Q201~204	:2SA992F
Q205~208	:2SC1845F
Q209, 210	:2SA992F
D201, 202	:1SS133

POWER

IC501	:μPC1237HA
Q501, 502	:2SC2316(Y)
Q503	:2SD882
D501, 502 509, 511~514	:1N4002A
D503~508 515, 516	:1SS133
D510	:MTZJ6.2B

M TYPE

(WP4108K1) (K, P)
(WP4108K2) (M)
(WP4108K3) (X)

MAIM UNIT

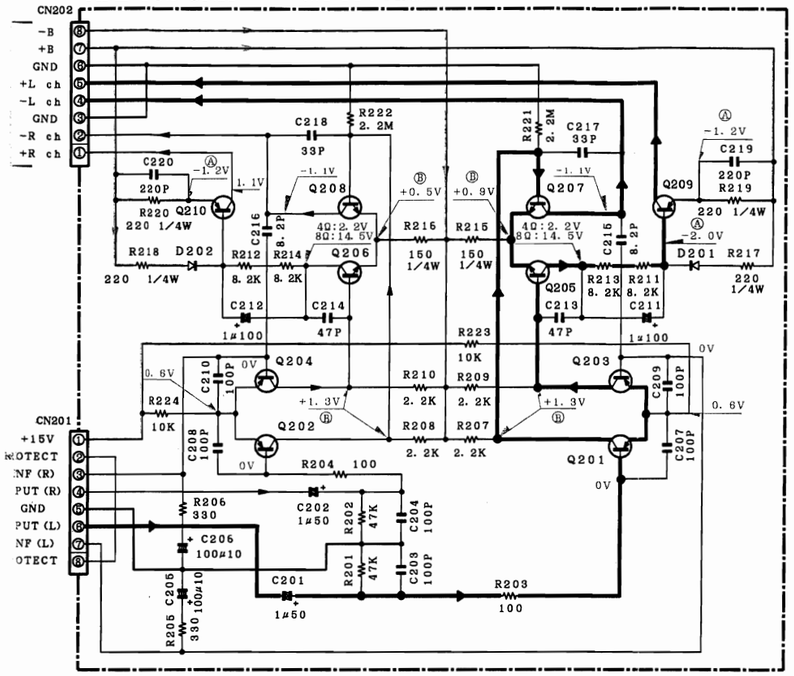
IC1	:TC9164N
IC2	:TC9162N
IC3	:NJM4565DD
IC4	:NJM4558DD
IC5	:BA6209N
Q1, 19, 20	:2SA933S
Q2~4	:2SC2878B
Q5, 6	:2SC4137
Q7, 8	:2SD2222
Q9, 10	:2SB1470
Q11, 12, 22, 23	:2SC1845F
Q13, 14	:DTA114TS
Q15, 21	:2SC2235Y
Q16	:2SD2058Y
Q17. 18	:2SC1740S
Q24	:2SA992F
Q25	:2SB1274
D1~6, 9~11, 14 15, 17~21, 26	:1SS131
D22, 23	:1N4002
D31	:RD13ES(B2)
D32	:MTZJ6.2B
D33	:MTZJ8.2B
D34	:MTZ4.7V
D35	:RD5.1ES(B2)
D36, 37	:RD12ES(B2)
D42	:D5FB20

S1 (IMPEDANCE SELECTOR)

	LESS THAN 8Ω (4Ω)	8Ω or MORE (8Ω)
A	47.0V	61.0V
B	-47.6V	-61.0V

DESTINATION COUNTOY	ABB.	F1	F2	R519
U.S.A. CANADA	K P	125V 5A	NO	2.2M
GENERAL MARKET	M	250V T2.5A	250V T2.5A	NO
AUSTRALIA	X	250V T2.5A	NO	NO

AMP SUB UNIT (WP4105K2)



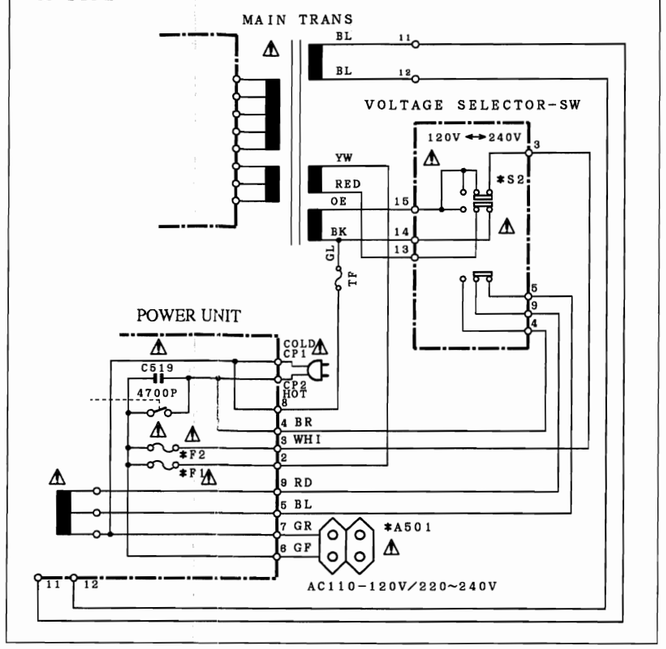
SUB AMP

Q201~204	:2SA992F
Q205~208	:2SC1845F
Q209, 210	:2SA992F
D201, 202	:1SS133

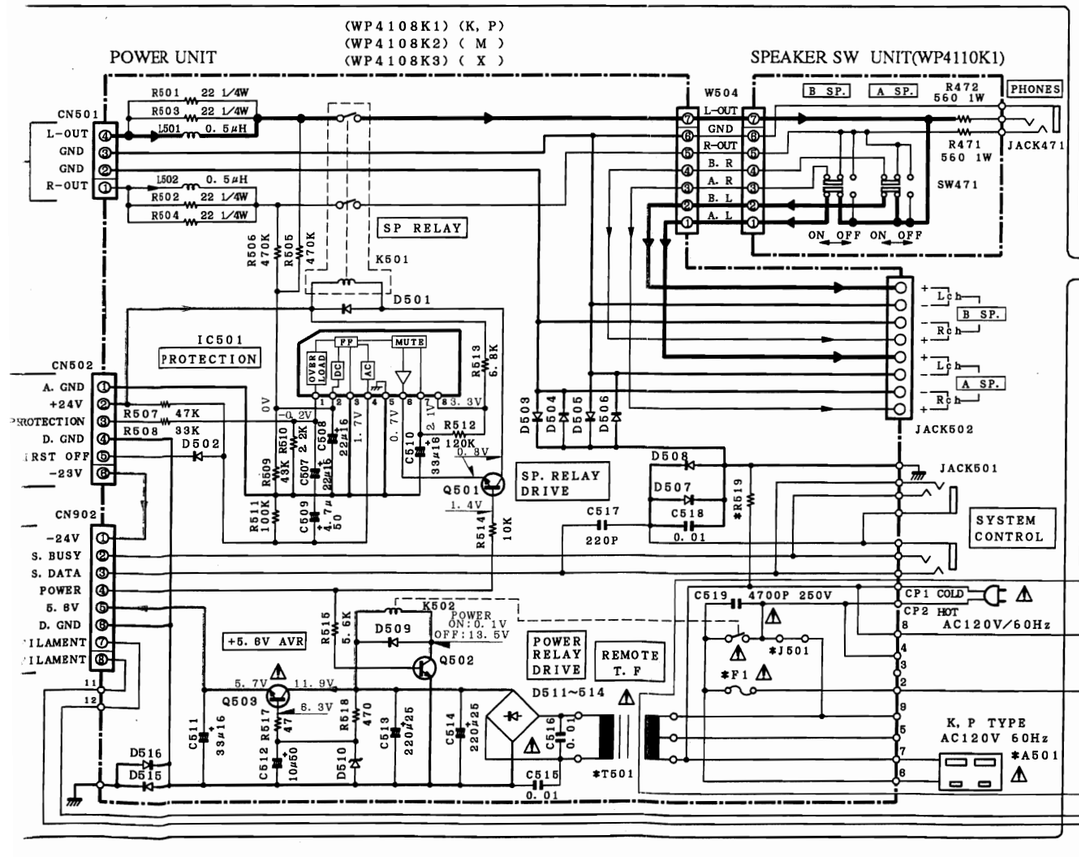
POWER

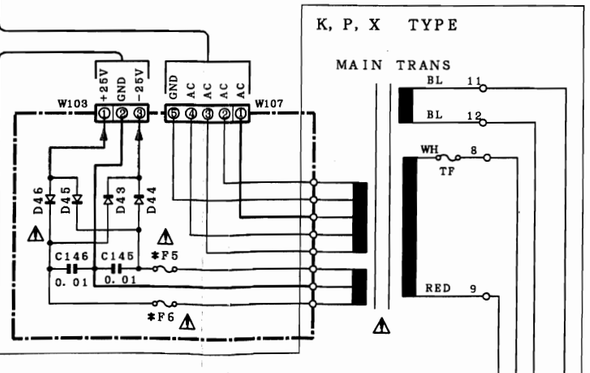
IC501	:μPC1237HA
Q501, 502	:2SC2316 (Y)
Q503	:2SD882
D501, 502 509, 511~514	:1N4002A
D503~508 515, 516	:1SS133
D510	:MTZJ6.2B

M TYPE

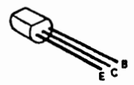


(WP4108K1) (K, P)
(WP4108K2) (M)
(WP4108K3) (X)

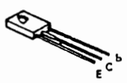




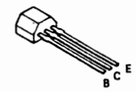
DESTINATION COUNTOY	ABB.	F1	F2	R519	J501	A501	S2	T1	F5. 6
U. S. A. CANADA	K P	125V 5A	NO	2. 2M	YES	YES	NO	L07-0778-08	0. 5A/125V
GENERAL MARKET	M	250V T2. 5A	250V T2. 5A	NO	NO	YES	YES	L07-0790-08	0. 5A/250V
AUSTRALIA	X	250V T2. 5A	NO	NO	YES	NO	NO	L07-0789-08	0. 5A/250V



2SC2235Y
2SC2878B

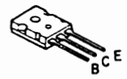


2SD882



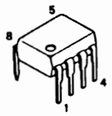
2SA933S
2SC1740S
2SC1740S-R

2SC4137

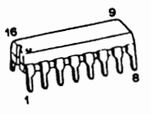


2SB1470
2SD2222

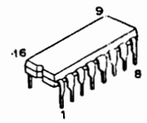
2SB1274



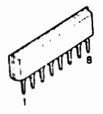
NJM4558DD



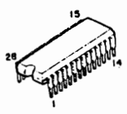
LM7001



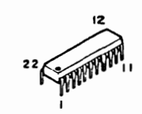
AN7470



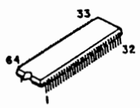
UPC1237HA



TC9162N
TC9164N



LA1265



CXP5016-531S

DC voltages are as measured with a high impedance voltmeter during reception of the FM broadcast signal (with a singal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between indvidual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at the ANT terminal).

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.
Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM avec une force de signal de 60 dB à la borne ANT).

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser bei Empfang eines UKW-Signals (mit einer Feldstärke von 60 dB am Antennenanschluß) gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die eingeklammerten Gleichspannungswerte wurden bei Empfang eines MW-Signals (mit einer Feldstärke von 60 dB am Antennenschluß) gemessen.

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 retumed to the customer.

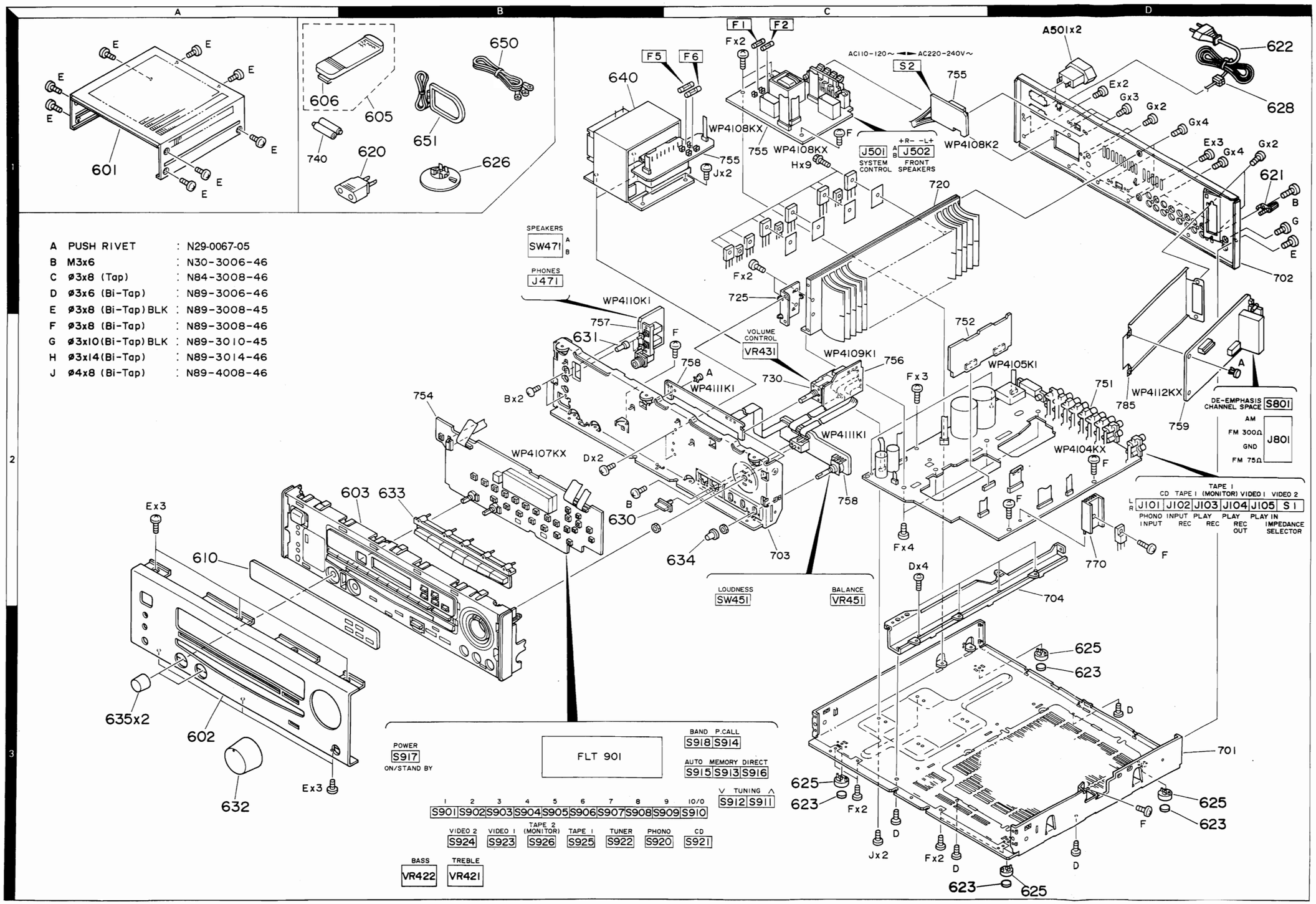
SIGNAL LINE
GND LINE
+B LINE
-B LINE

Y05-2760-10

KR-A5050

KENWOOD

EXPLODED VIEW (UNIT)



A	PUSH RIVET	:	N29-0067-05
B	M3x6	:	N30-3006-46
C	ø3x8 (Tap)	:	N84-3008-46
D	ø3x6 (Bi-Tap)	:	N89-3006-46
E	ø3x8 (Bi-Tap) BLK	:	N89-3008-45
F	ø3x8 (Bi-Tap)	:	N89-3008-46
G	ø3x10 (Bi-Tap) BLK	:	N89-3010-45
H	ø3x14 (Bi-Tap)	:	N89-3014-46
J	ø4x8 (Bi-Tap)	:	N89-4008-46

KR-A4050/5050

PARTS LIST

UNIT LIST

UNIT NAME	K	P	M	X
MAIN UNIT	WP4104K2		WP4106K2	WP4107K7
SUB AMP UNIT	WP4105K2			
POWER UNIT	WP4108K1		WP4108K2	WP4108K3
FRONT UNIT	WP4107K2		WP4107K5	WP4107K6
VOLUME UNIT	WP4109K2			
SPEAKER SWITCH UNIT	WP4110K1			
BALANCE UNIT	WP4111K2			
TUNER UNIT	WP4112K2		WP4112K5	WP4112K6

KR-A4050/5050

PARTS LIST

NO.3

* New Parts
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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	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
R55 -58			RD14GB2E220J	FL-PR00F RD 22 J 1/4W		
R63 ,64			RD14BZ2E472J	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 10 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		
VR1 ,2			R12-1066-05	TRIMMING POT. IDLE ADJ 1K		
S1			S62-0032-08	SLIDE SWITCH IMPEDANCE SEL		
D1 -6			1SS131	DIODE		
D9 -11			1SS131	DIODE		
D14 ,15			1SS131	DIODE		
D17 -21			1SS131	DIODE		
D22 ,23			1N4002	DIODE		
D26			1SS131	DIODE		
D31			RD13ESC(B2)	ZENER DIODE		
D32			MTZJ6.2B	ZENER DIODE		
D33			MTZJ8.2B	ZENER DIODE		
D34		*	MTZ4.7V	ZENER DIODE		
D35	3C,3D		RD5.1ESC(B2)	ZENER DIODE		
D36 ,37		*	MTZJ2B(B2)	ZENER DIODE		
D42			D5FB20	DIODE		
⚠IC1			TC9164N	IC(16CH BILATERAL SELECTOR SW)		
IC2			TC9162N	IC(ANALOG SWITCH ARRAY)		
IC3			NJM4565DD	IC(OP AMP X2)		
IC4			NJM4558DD	IC(OP AMP X2)		
IC5			BA6209N	IC(MOTOR DRIVER)		
Q1 -4			2SC2878B	TRANSISTOR		
Q5 ,6			2SC4137	TRANSISTOR		
⚠Q7 ,8		*	2SD2222	TRANSISTOR		
⚠Q9 ,10		*	2SB1470	TRANSISTOR		
Q11 ,12			2SC1845F	TRANSISTOR		
Q13 ,14			DTA114TS	DIGITAL TRANSISTOR		
Q15			2SC2235Y	TRANSISTOR		
Q16			2SD2058Y	TRANSISTOR		
Q17 ,18			2SC1740S	TRANSISTOR		
Q19 ,20			2SA933S	TRANSISTOR		
Q21			2SA1235Y	TRANSISTOR		
Q22 ,23			2SC2235Y	TRANSISTOR		
Q24			2SA992F	TRANSISTOR		
Q25			2SB1274	TRANSISTOR		
				SUB AMP UNIT (WP4105K1)		
C201,202			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C203,204			CC45CH1H101J	CERAMIC 100PF J		
C205,206			CE04KW1A101M	ELECTRO 100UF 10WV		
C207-210			CC45CH1H101J	CERAMIC 100PF J		
C211,212			CE04KW2A010M	ELECTRO 1.0UF 100WV		
C213,214			CC45SL1H470J	CERAMIC 47PF J		

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NO.1

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
				KR-A5050		
601	1A	*	A01-3060-08	METALLIC CABINET		
602	2A		A22-1647-08	FRONT PANNEL		
603	2B		A70-0953-08	SUB PANNEL		
605	1B	*	A09-0088-01	REMOTE CONTROL ASSY		
606	1A			BATTERY COVER		
610	2A	*	B10-1999-08	FRONT GLASS		
-			B46-0096-33	WARRANTY CARD		X
-			B46-0121-23	WARRANTY CARD		P
-		*	B60-1213-08	INSTRUCTION MANUAL (ENGLISH)		
-		*	B60-1214-08	INSTRUCTION MANUAL (FRENCH)		P
-		*	B60-1215-08	INSTRUCTION MANUAL (SPA.CHI)		M
620	1B		E03-0115-05	AC PLUG ADAPTER		
621	1D		E21-0023-08	GND TERMINAL		M
⚠622	1D		E30-0459-05	AC POWER CORD		M
⚠622	1D		E30-0974-05	AC POWER CORD		KP
⚠622	1D		E30-1341-05	AC POWER CORD		X
⚠A501	1D		E03-0055-05	AC OUTLET		M
623	3C,3D		G13-0267-08	CUSHION F00T		
		*	H50-0685-08	ITEM CATONBOX		KPX
		*	H50-0686-08	ITEM CATONBOX		M
-			H10-5574-08	POLYSTYRENE FOAMED FIXTURE		
-			H25-0078-04	PROTECTION BAG		
-			H25-1501-08	PROTECTION BAG		
625	3C,3D		J02-1066-08	F00T		
626	1B		J19-2815-04	ANTENNA HOLDER		
628	1D		J42-0198-08	AC CORD BUSHING		
630	2B		K27-2105-08	KNOB LOUDNESS		
631	2B		K27-2106-08	KNOB SPEAKERS		
632	3A		K27-2107-08	KNOB VOLUME		
633	2B		K27-2109-08	KNOB FUNCTION		
634	2C		K29-4444-08	KNOB BALANCE		
635	3A		K29-4445-08	KNOB BASS,TREBLE		
⚠640	1B	*	L07-0777-08	TRANCEFORMER		P
⚠640	1B	*	L07-0786-08	TRANCEFORMER		M
⚠640	1B	*	L07-0787-08	TRANCEFORMER		X
⚠640	1B	*	L07-0788-08	TRANCEFORMER		K
A	2C,2D		N29-0067-05	PUSH RIVET		
B	2B		N30-3006-46	PAN HEAD MACHIN SCREW		
C	1D		N84-3008-46	TAPTITE SCREW		
D	3C,3D		N89-3006-46	BINDING HEAD TAPTITE SCREW		
E	1A,1D		N89-3008-45	BINDING HEAD TAPTITE SCREW		
F	3C,3D		N89-3008-46	BINDING HEAD TAPTITE SCREW		
G	1D		N89-3010-45	BINDING HEAD TAPTITE SCREW		
H	1C		N89-3014-46	BINDING HEAD TAPTITE SCREW		
J	1C,3C		N89-4008-46	BINDING HEAD TAPTITE SCREW		
650	1B		T90-0176-05	T TYPE ANTENNA		
651	1B		T90-0184-08	LOOP ANTENNA		

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NO.2

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
				MAIN UNIT (WP4104K1)		
C1 ,2			CE04KW1H100M	ELECTRO 10UF 50WV		
C3 ,4			CC45CH1H221J	CERAMIC 220PF J		
C7 ,8		*	CE04KW1A101M	ELECTRO 100UF 10WV		
C9 ,10			CK45CH1H102J	CERAMIC 1000PF J		
			CQ92FM1H123J	MYLAR 0.012UF J		
C11 ,12			CQ92FM1H332J	MYLAR 3300PF J		
C13 ,14			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C17 ,18			CC45CH1H221J	CERAMIC 220PF J		
C21 ,22			CC45CH1H221J	CERAMIC 220PF J		
C31 -36			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C37 ,38			CC45SL1H100J	CERAMIC 10PF J		
C39 ,40			CC45SL1H101J	CERAMIC 100PF J		
C41 ,42			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C43 -46		*	CK45CH1H102J	CERAMIC 1000PF J		
C47 ,48			CQ92FM1H393J	MYLAR 0.039UF J		
C101,102			CC45SL1H103K	CERAMIC 0.010UF K		
C103			CE04KW1C470M	ELECTRO 47UF 16WV		
C104			CE04KW1H100M	ELECTRO 10UF 50WV		
C105		*	CK45CH1H102J	CERAMIC 1000PF J		
C106,107			CC45SL1H331K	CERAMIC 330PF K		
C108			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C109			CQ92FM1H104J	MYLAR 0.10UF J		
C111			CE04KW1C220M	ELECTRO 22UF 16WV		
C112		*	CK45CH1H152J	CERAMIC 1500PF J		
C113			CE04KW1C470M	ELECTRO 47UF 16WV		
C114			CE04KW1H220M	ELECTRO 22UF 50WV		
C115		*	CK45CH1H102J	CERAMIC 1000PF J		
C116			CE04KW1A101M	ELECTRO 100UF 10WV		
C117			CE04KW1C470M	ELECTRO 47UF 16WV		
C118			CK45FF1H104J	CERAMIC 0.10UF J		
C119,120			CE04KW2A2R2M	ELECTRO 2.2UF 100WV		
C121			CE04KW1H100M	ELECTRO 10UF 50WV		
C122			CE04KW2A100M	ELECTRO 10UF 100WV		
C123,124			C90-1870-05	ELECTRO 7500UF 71WV		
C125,126		*	CC45FSL2H103Z	CERAMIC 0.010UF Z		
C127			CE04KW1J470M	ELECTRO 47UF 6.3WV		
C128			CE04KW1V471M	ELECTRO 470UF 35WV		
C131			CK45SL1H103K	CERAMIC 0.010UF K		
C138-141			CC45SL1H103K	CERAMIC 0.010UF K		
C142			CE04KW2A101M	ELECTRO 100UF 100WV		
C143			CE04KW2A470M	ELECTRO 47UF 100WV		
C199			CE04KW1H220M	ELECTRO 22UF 50WV		
JACK101			E70-0035-08	TERMINAL BOARD PHONO		
JACK102			E70-0036-08	TERMINAL BOARD CD,TAPE1 REC		
JACK103		*	E70-0037-08	TERMINAL BOARD TAPE1 PLA,TAPE2		
JACK105			E70-0036-08	TERMINAL BOARD VIDEO 1,2 PLAY		
JACK151		*	E70-0038-08	TERMINAL BOARD SP EAKERS		
-			J13-0084-08	FUSE HOLDER		
L151			L40-4781-17	SMALL FIXED INDUCTOR 0.5UH		
F	2C,2D		N89-3008-46	BINDING HEAD TAPTITE SCREW		

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NO.4

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C215,216		*	CC45CH1H8R2J	CERAMIC 8.2PF J		
C217,218			CC45CH1H330J	CERAMIC 33PF J		
C219,220			CC45CH1H221J	CERAMIC 220PF J		
R215,216			RD14GB2E151J	FL-PROOF RD 150 J 1/4W		
R217-220			RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
D201,202			1SS133	DIODE		
Q201-204			2SA992F	TRANSISTOR		
Q205-208			2SC1845F	TRANSISTOR		
Q209,210			2SA992F	TRANSISTOR		
FRONT UNIT (WP4107KX)						
D901			B30-0413-05	LED (LTL4213(RED))		
C401,402			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C403,404			CQ92FM1H473J	MYLAR 0.047UF J		
C405,406			CC45CH1H221J	CERAMIC 220PF J		
C407-410			CC45SL1H470J	CERAMIC 47PF J		
C411-414			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C415-418			CE04KW1H100M	ELECTRO 10UF 50WV		
C419,420			CQ92FM1H472J	MYLAR 4700PF J		
C421,422			CK45F1H103M	CERAMIC 0.010UF M		
C423,424			CE04KW1C470M	ELECTRO 47UF 16WV		
C902			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C903			CK45F1H103M	CERAMIC 0.010UF M		
C904			CE04KW1A101M	ELECTRO 100UF 10WV		
C905			KHR-PX0001N3	BACKUP 0.1UF 5.5WV		
C906,907			CK45F1H103M	CERAMIC 0.010UF M		
C908			CC45CH1H221J	CERAMIC 220PF J	KP	
C909			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C910			CK45FF1H104Z	CERAMIC 0.10UF Z		
C920,921			CE04KW1H100M	ELECTRO 10UF 50WV		
C922			CE04KW1A101M	ELECTRO 100UF 10WV		
C923		*	CC45SL1H473K	CERAMIC 0.047UF K		
L901			L40-1001-17	SMALL FIXED INDUCTOR 10UH		
X901			L78-0209-05	RESONATOR 4.19MHz		
RA901			R90-0483-05	MULTI-COMP 100KX13 J 1/6W		
RA902			R90-0809-05	MULTI-COMP 10KX4 J 1/6W		
VR421,422			R06-3078-08	POTENTIOMETER BASS,TREBLE 10KB		
SW901-918			S70-0008-08	TACT SWITCH KEY BOARD		
SW920-926			S70-0008-08	TACT SWITCH KEY BOARD		
D902-904			1SS133	DIODE		
D905			MTZ8.2B	ZENER DIODE		
D908			1SS133	ZENER DIODE	X	
D909-918			1SS133	DIODE		
D920			RD4.7ES(B2)	ZENER DIODE		
D921			1SS133	DIODE		
D924			1SS133	DIODE	KP	
FLT901			CP1036C	FLUORESCENT INDICATOR TUBE		
IC401			NJM4565DD	IC(OP AMP X2)		
IC901			CXP5016-531S	IC(4BIT MICROPROCESSOR)		
Q901			2SA933	TRANSISTOR		
Q902			2SC1740S	TRANSISTOR		
Q903			DTA143TS	DIGITAL TRANSISTOR	M	

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NO.5

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
A901			W02-1111-08	FRONT END UNIT		
POWER UNIT (WP4108KX)						
C145,146		*	CK45F2H103Z	CERAMIC 0.010UF Z		
C507			CE04KW1C220M	ELECTRO 22UF 16WV		
C508			CE04KW1C220M	ELECTRO 22UF 16WV		
C509			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C510,511			CE04KW1C330M	ELECTRO 33UF 16WV		
C512			CE04KW1H100M	ELECTRO 10UF 50WV		
C513,514			CE04KW1E221M	ELECTRO 220UF 25WV		
⚠ C515,516			CK45F1H103M	CERAMIC 0.010UF M		
C517			CC45CH1H221J	CERAMIC 220PF J		
C518			CK45F1H103M	CERAMIC 0.010UF M		
⚠ C519			KHR-QM4726M6	CERAMIC 4700PF AC250V		
⚠ A501	1D		E03-0144-08	AC OUTLET	KP	
JACK501			E11-0188-05	PHONE JACK SYNCHRO		
JACK502			E70-0004-08	TERMINAL BOARD SPEAKERS		
⚠ F1			F04-5022-05	FUSE UL 5A(125V)	KP	
⚠ F1			F05-2525-05	FUSE T2.5A(250V)	X	
⚠ F1 ,2			F05-2525-05	FUSE T2.5A(250V)	M	
⚠ F5 ,6			F05-5016-05	FUSE 0.5A/250V	MX	
⚠ F5 ,6		*	F50-0024-08	FUSE UL 0.5A/125V	KP	
-			J13-0084-08	FUSE HOLDER		
L501,502			KHR-0C0701K1	COIL 0.5UH		
⚠ T501			L07-0778-08	TRANS FORMER	KP	
⚠ T501			L07-0789-08	TRANS FORMER	X	
⚠ T501			L07-0790-08	TRANS FORMER	M	
R501-504			RD14GB2E220J	FL-PROOF RD 22 J 1/4W		
R519		*	RD14BB2H225J	RD 2.2M J 1/2W	KP	
K501			S51-2092-05	MAGNETIC RELAY POWER		
⚠ K502			S76-0032-08	MAGNETIC RELAY SPEAKER		
⚠ S2			S31-3010-05	SLIDE SWITCH VOLTAGE SELECT	M	
⚠ D43 -46		*	1N4002A	DIODE		
D501,502		*	1N4002A	DIODE		
D503-508			1SS133	DIODE		
D509		*	1N4002A	DIODE		
D510			MTZJ6.2B	ZENER DIODE		
⚠ D511-514		*	1N4002A	DIODE		
D515,516			1SS133	DIODE		
IC501			UPC1237HA	IC(POWER AMP)		
Q501,502			2SC2316(Y)	TRANSISTOR		
⚠ Q503			2SD882	TRANSISTOR		
VOLUME UNIT (WP4109K1)						
C431			CE04BW1C220M	NP-ELEC 22UF 16WV		
C432		*	CC45SL1H104J	CERAMIC 0.10UF J		
VR431		*	R29-5082-08	POTENTIOMETER VOLUME 100KB X3		
SPEAKER SWITCH UNIT (WP4110K1)						
JACK471			E11-0223-08	PHONE JACK HEAD PHONE		
R471,472		*	RN14BK3A561J	RN 560 J 1W		
SW471			S62-0033-08	PUSH SWITCH SPEAKERS		

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KR-A5050 K, P

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NO.6

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
BALANCE UNIT (WP4111K1)						
C451,452			CQ92FM1H273J	MYLAR 0.027UF J		
VR451			R10-5071-08	POTENTIOMETER BALANCE		
SW451			S40-2376-05	PUSH SWITCH LOUNDNESS		
TUNER UNIT (WP4112KX)						
C801			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C802			CE04KW1C470M	ELECTRO 47UF 16WV		
C803			CQ92FM1H273J	MYLAR 0.027UF J		
C804			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C805			CE04KW1C470M	ELECTRO 47UF 16WV		
C806,807			CK45F1H103M	CERAMIC 0.010UF M		
C809			CK45FF1H223Z	CERAMIC 0.022UF Z		
C816			CK45FF1H223Z	CERAMIC 0.022UF Z		
C817			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C818			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C819			CK45FF1H223Z	CERAMIC 0.022UF Z		
C820			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C821			CK45F1H103M	CERAMIC 0.010UF M		
C822			CK45FF1H223Z	CERAMIC 0.022UF Z		
C823			CE04KW1H100M	ELECTRO 10UF 50WV		
C824			CK45FF1H223Z	CERAMIC 0.022UF Z		
C825			CQ92FM1H153J	MYLAR 0.015UF J		
C826			CE04KW1H100M	ELECTRO 10UF 50WV		
C827			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C828-830			CK45F1H103M	CERAMIC 0.010UF M		
C831			CC45CH1H101J	CERAMIC 100PF J		
C832			CK45F1H103M	CERAMIC 0.010UF M		
C833			CE04KW1C470M	ELECTRO 47UF 16WV		
C839			CQ09FS1H471J	POLYSTY 470PF J		
C840			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C841			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C842			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C843			CQ92FM1H473J	MYLAR 0.047UF J		
C844			CK45B1H471K	CERAMIC 470PF K		
C845			CK45F1H103M	CERAMIC 0.010UF M		
C846,847			CC45SL1H151K	CERAMIC 150PF K		
C849			CE04KW1C221M	ELECTRO 220UF 16WV		
C850,851			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C852			CQ92FM1H222J	MYLAR 2200PF J		M
C853			CQ92FM1H562J	MYLAR 5600PF J		M
C854,855			CQ92FM1H153J	MYLAR 0.015UF J		MX
C854,855			CQ92FM1H223J	MYLAR 0.022UF J		KP
C856			CK45F1H103M	CERAMIC 0.010UF M		
C857			CE04KW1C470M	ELECTRO 47UF 16WV		
C858,859			CC45CH1H220J	CERAMIC 22PF J		
C860-862			CC45CH1H101J	CERAMIC 100PF J		
C863			CK45F1H103M	CERAMIC 0.010UF M		
C864			CQ92FM1H222J	MYLAR 2200PF J		M
C865			CQ92FM1H562J	MYLAR 5600PF J		M
C890			CC45CH1H220J	CERAMIC 22PF J		
JACK801			E70-0005-08	TERMINAL BOARD ANTENNA		

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

⚠ indicates safety critical components.

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

NO.7

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
CF801,802			L72-0531-05	CERAMIC FILTER 10.7MHz		
CF803			L72-0096-05	CERAMIC FILTER		
L801			L40-1091-17	SMALL FIXED INDUCTOR 1UH		
L802			L39-0189-05	COIL		
L804			L30-0488-05	IFT-AM		
L806			L30-0439-05	IFT-FM		
X801			L77-1122-05	CRYSTAL RESONATOR 7.2MHz		
A	2D		N29-0067-05	PUSH RIVET		
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			RD14GB2E820J	FL-PROOF RD 82 J 1/4W		
R869			RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
VR801			R12-3166-08	TRIM POT. 33KB FM TUNE LEVEL		
VR802			R12-1053-05	TRIM POT. 4.7KB VCO		
VR804			R12-3071-05	TRIM POT. 10KB AM TUNE LEVEL		
SW801			S62-0012-08	SLIDE SWITCH ch SEPALATION	M	
D801,802			1SS133	DIODE		
D810			RD5.1ES(B2)	ZENER DIODE		
D811,812			1SS133	DIODE		
IC801			LA1265	IC(FM/AM TUNER)		
IC802			AN7470	IC(FM MPX)		
IC803			LM7001	IC(PLL FREQUENCY SYNTHESIZER)		
Q801		*	2SC3194O	TRANSISTOR		
Q803			2SC1740S	TRANSISTOR		
Q804			2SC1845F	TRANSISTOR		
Q808,809			2SA933S	TRANSISTOR		
Q811,812			2SC1740S	TRANSISTOR	M	
TU801			W02-1042-05	FM TUNER PACK	KPMX	

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

⚠ indicates safety critical components.

KR-A4050/5050

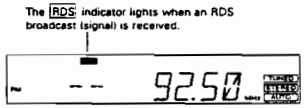
PARTS LIST

RDS (Radio Data System)

RDS is a system which transmits useful information (digital data) for FM broadcasts together with the broadcast signal. Tuners and receivers designed for RDS reception can extract the information from the broadcast signal for use with various functions such as automatic display of the station name.

This unit is equipped with the following functions utilizing RDS data:

(In some areas, some functions cannot be activated and some function names differ as follows.)



PTY (Program Type Identification) Search:
The tuner automatically searches for a station that is currently broadcasting a specified program type (genre).

AF (Alternative Frequencies) Search:
When a weak signal is received, the tuner automatically searches for alternative frequencies broadcasting the same program and selects the best signal.

PS (Program Service Name) Display: (refer to the table below.)
When an RDS broadcast is received, the station name is automatically displayed.

CT (Clock Time) Display: (refer to the table below.)
Some RDS stations transmit clock data along with the broadcast signal. When the CT display is selected with the DISPLAY key, the hour and minute are displayed.

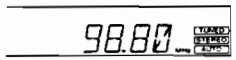
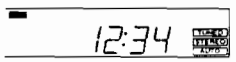
DISPLAY key

Pressing the DISPLAY key changes the display contents. The display returns to the original display after about 5 seconds.

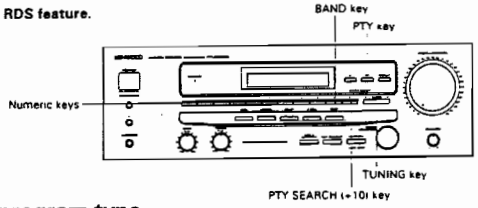
Display mode priority ranking

When an RDS broadcast is received:

① → ② → ③

① **PS (Program Service Name) Display:** When an RDS broadcast is received, the station name is automatically displayed. If no PS data is transmitted, the display changes to the ② Frequency display.	
② **Frequency Display:** The frequency of the current station is displayed.	
③ **CT (Clock Time) Display:** When an RDS broadcast is received, the hour and minute are shown on the display. If no clock data is available, the clock time is not displayed and the program service name is displayed.	

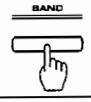
Refer to page 20 for a description of the RDS feature.

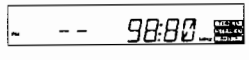


■ Searching for a desired program type

<PTY (Program Type Identification) Search>
By specifying the type of program (genre) you want to listen to, the tuner automatically searches for a station which is currently broadcasting a program of the specified type.

1 Set the broadcast band to FM.

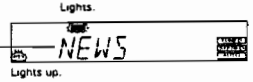




2 Select the search mode.

Press the PTY key.

When an RDS broadcast is received, the program type is shown on the display. If no PTY data is available or if the station is not an RDS station, "NONE" is displayed.

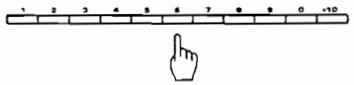


- Perform step 3 within 5 seconds after the program type appears on the display.

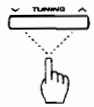
3 Select the desired program type.

Select while "PTY" is lit.

Ⓐ Use the numeric keys to directly select one of the ten program types numbered 1 to 0.



Ⓑ: Press the TUNING (P.CALL) key to sequentially select from the fifteen available program types. Release the key when the desired program type is displayed.



Ⓑ	Ⓐ	Program Type Name	Display
DOWN	1	Pop Music	POP M
	2	Rock Music	ROCK M
	3	* M.O.R. Music	M.O.R. M
	4	Light Classical	LIGHT M
	5	Serious Classical	CLASSICS
	6	Other Music	OTHER M
	7	News	NEWS
	8	Current Affairs	AFFAIRS
	9	Information	INFO
	0	Sport	SPORT
	—	Education	EDUCATE
	—	Drama	DRAMA
	—	Culture	CULTURE
	—	Science	SCIENCE
UP	—	Varied	VARIED

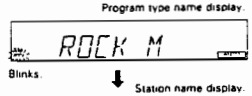
* M.O.R. Music (Middle of the Road Music)

4 Start the search.

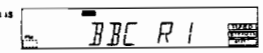
Press while "PTY" is lit.

- No sound is heard while "PTY" is blinking.
- If a program of the desired type cannot be found, "NO PROG" is displayed, then after several seconds the display returns to the original display.
- If a program type name display changes temporarily to the frequency display and then to the station name display.

When searching for a Rock Music broadcast.



When a station is received

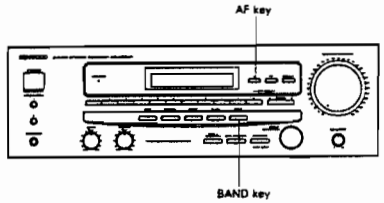


To change to a different program type:

- Repeat steps 2 – 4.

KR-A4050/5050

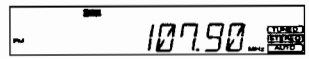
Refer to page 20 for a description of the RDS feature.



■ Searching for the best frequency

<AF (Alternative Frequencies) Search>
If more than one FM station is broadcasting the same program, this function will automatically select the station offering the strongest signal or the least interference. (The AF feature will not function if the RDS indicator is not lit.)

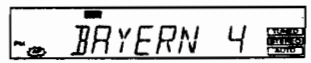
1 Set the broadcast band to FM.



2 Receive an RDS broadcast station.

- Tune in the desired station and verify that the RDS indicator lights.
- After a short time, the "AF" indicator lights.
  After verifying that the "AF" indicator is lit, proceed to the next step.

Check that the indicator is lit.



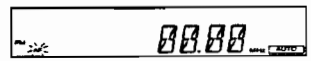
Lights up.

3 Select the search mode.

Press the AF key

- Scanning (station searching) starts.
- No sound is heard while searching is being carried out.
- When a station is found, the "AF" indicator goes out.
- After several seconds, the station name is displayed.

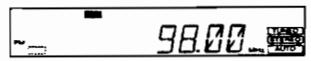
Display while the tuner is searching.



Blinks. The frequency changes continuously.

⬇

When a station is received.



Goes off.

⬇

After several seconds

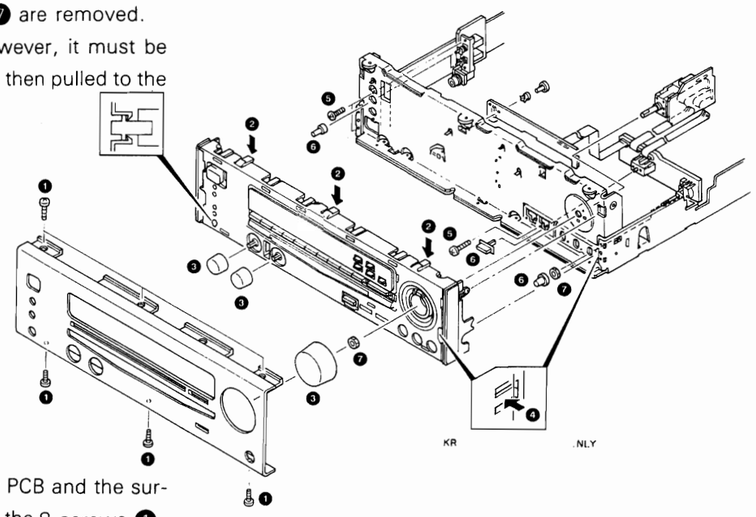
Station name display

AF (Alternative Frequencies) Feature

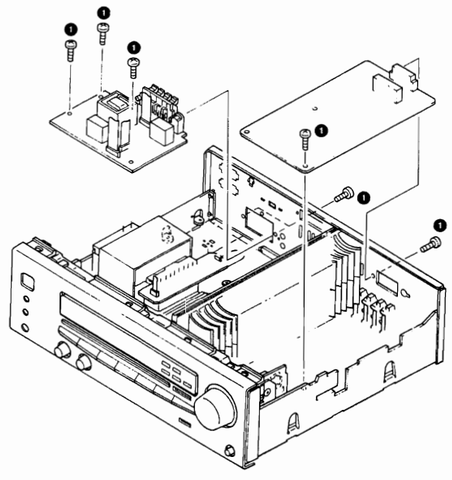
- With some stations, it may take some time for the "AF" indicator to light.
- To obtain the best reception conditions, we recommend waiting a few minutes after the "AF" indicator lights before pressing the AF key.
- It is useful to use the number keys to preset (memorize) stations received with this AF function. (See page 18.)
- The selected frequency may vary depending on the signal conditions.
- There are some RDS stations which do not support this AF function. For such stations, the "AF" indicator does not light.

DISASSEMBLY FOR REPAIR

1. Remove the 6 screws ❶, and the pull out the front panel out while pressing the 3 claws ❷ to remove the front panel.
2. The sub-panel can be removed when the 3 knobs ❸, are removed and the undo the 2 claws ❹ are released.
3. The headphone PCB, the MAIN VOL PCB and the balance PCB can be removed when the 4 screws ❺, the 5 knobs ❻ and the 4 nuts ❼ are removed.
   To remove the balance PCB, however, it must be raised in the upward direction and then pulled to the backward direction.



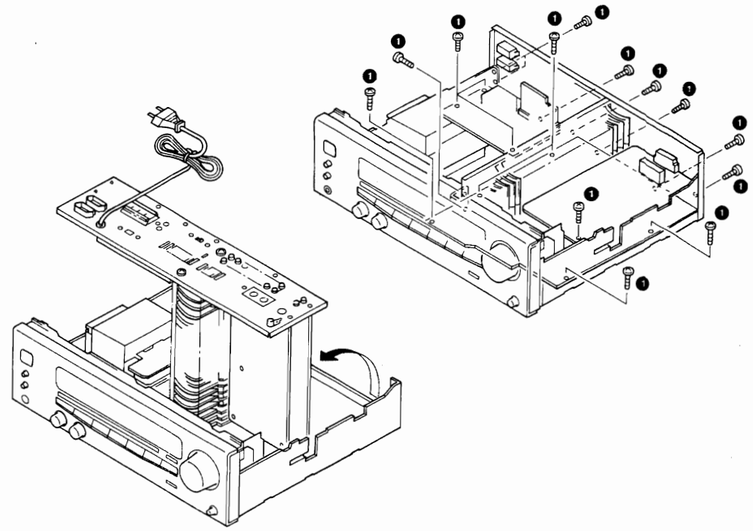
1. The tuner PCB, the power supply PCB and the surround PCB can be removed when the 8 screws ❶ are removed.



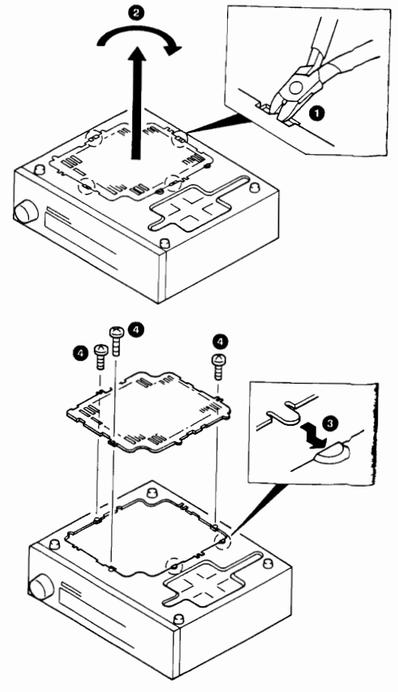
KR-A4050/5050

DISASSEMBLY FOR REPAIR

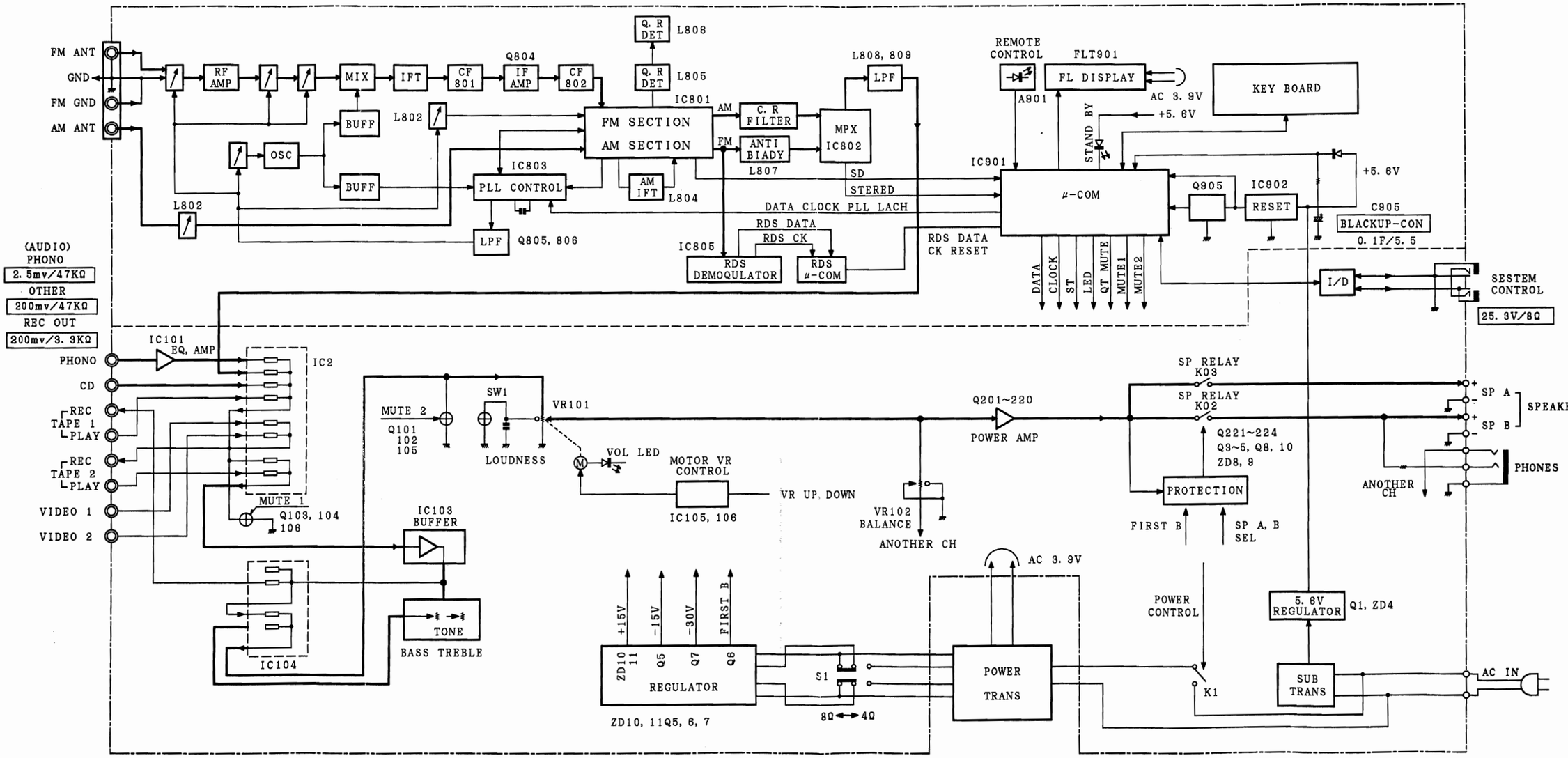
1. Repair can be carried out with the MAIN (AUDIO) PCB and the power supply PCB mounted on the rear panel when the 18 screws ❶ are removed.



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



BLOCK DIAGRAM



CIRCUIT DESCRIPTION

1. Function description

Features

AMP

Seven-position selector: (CD, TUNER, PHONO, TAPE1, TAPE2, VIDEO1, VIDEO2)

Six audio input terminals: (CD, PHONO, TAPE1, TAPE2, VIDEO1, VIDEO2)

Three audio output terminals: (TAPE1, TAPE2)

LINE STRAIGHT

Speaker A/B changeover.

TAPE 2 monitor.

TUNER

20ch random preset..

Tuning control by IF count.

Direct selection.

RDS function (E, T-TYPE only)

2. Conditions according to the destination and model

AMP

MODEL	DIODE SW		Surround function
	5	4	
KR-V7050	0	0	PRO-LOGIC, 3-STEREO, DSP, DSP-LOGIC
KR-V6050 (except E, T)	0	1	PRO-LOGIC, 3-STEREO
KR-A4050/A5050/V6050 (E, T only)	1	X	No surround

X: Don't Care

TUNER

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

[DIODE MATRIX: <X14> DIODE SW NO.]

μ-com	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 No/Yes	DSP. DOL/ DOL DNLY	SURROUND Yes/No	(X)
DUIDE SW NO.		2	1	3	4	5	0
<X13> DIODE Ref. No.		D923		D922		D921	—

CIRCUIT DESCRIPTION

- Diode SW 0 →
- Diode SW 1 → AM band range/K TYPE only
  0: AM NARROW
  1: AM WIDE
- Diode SW 2 → Channel base (Products bound for M: Changeover with switch)
  0: FM 100 kHz/step, AM 10 kHz/step
  1: FM 50 kHz/step, AM 9 kHz/step
- Diode SW 3 → With/without RDS/E 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

3. Initial state

① POWER OFF

② AMP system

- Audio selector — TUNER
- Video system selector — VIDEO1
- Speaker A — ON
- Speaker B — OFF
- TAPE2 MONITOR — OFF
- LINE STRAIGHT — OFF

③ TUNER system

- Band — FM
- Frequency — Lower limit of FM (87,5 MHz)
- TUNING mode — AUTO TUNING (AUTO STEREO)
- P. CH indication — --ch

④ Test frequency

	K1 TYPE	K2 TYPE	E TYPE
01ch	FM 98.00 MHz	FM 98.00 MHz	FM 98.00 MHz
02ch	FM 108.00 MHz	FM 108.00 MHz	FM 108.00 MHz
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 87.50 MHz	FM 87.50 MHz	FM 87.50 MHz
08ch	FM 98.50 MHz	FM 98.50 MHz	FM 98.50 MHz
09ch	AM 530 kHz	AM 530 kHz	AM 531 kHz
10ch	FM 89.10 MHz	FM 89.10 MHz	FM 89.10 MHz
11ch	FM 87.50 MHz	FM 87.50 MHz	FM 87.50 MHz
12ch	FM 87.50 MHz	FM 87.50 MHz	FM 87.50 MHz
13ch	FM 87.50 MHz	FM 87.50 MHz	FM 87.50 MHz
14ch	FM 87.50 MHz	FM 87.50 MHz	FM 87.50 MHz
15ch	FM 87.50 MHz	FM 87.50 MHz	FM 87.50 MHz
16ch	FM 87.50 MHz	FM 87.50 MHz	FM 87.50 MHz
17ch	FM 87.50 MHz	FM 87.50 MHz	FM 87.50 MHz
18ch	FM 87.50 MHz	FM 87.50 MHz	FM 87.50 MHz
19ch	FM 87.50 MHz	FM 87.50 MHz	FM 87.50 MHz
20ch	FM 87.50 MHz	FM 87.50 MHz	FM 87.50 MHz

(Initial setting)

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

CIRCUIT DESCRIPTION

4. Test mode

Main unit test mode

1) Setting method
Turn the AC power ON while pushing the "TUNING DOWN" key.

2) Cancellation method
Turn the AC power OFF.

3) 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" state is canceled by pushing any key of the main unit. The states changed during the test mode are initialized when the main unit test mode is canceled (AC power OFF).

② Automatic motor VR UP/DOWN (AMP)
The (16-second UP → 16-second DOWN → Stop) operation of the motor VR 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 (MUTE 1) is carried out.

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

a) When the +10 key is not operated, the channels 1 to 9 (keys 1 to 9), as well as the channel 10 (key 0) can be called.

b) When the key +10 is operated once, the channels 11 to 19 (keys 1 to 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

a) Processing related to the AMP: None

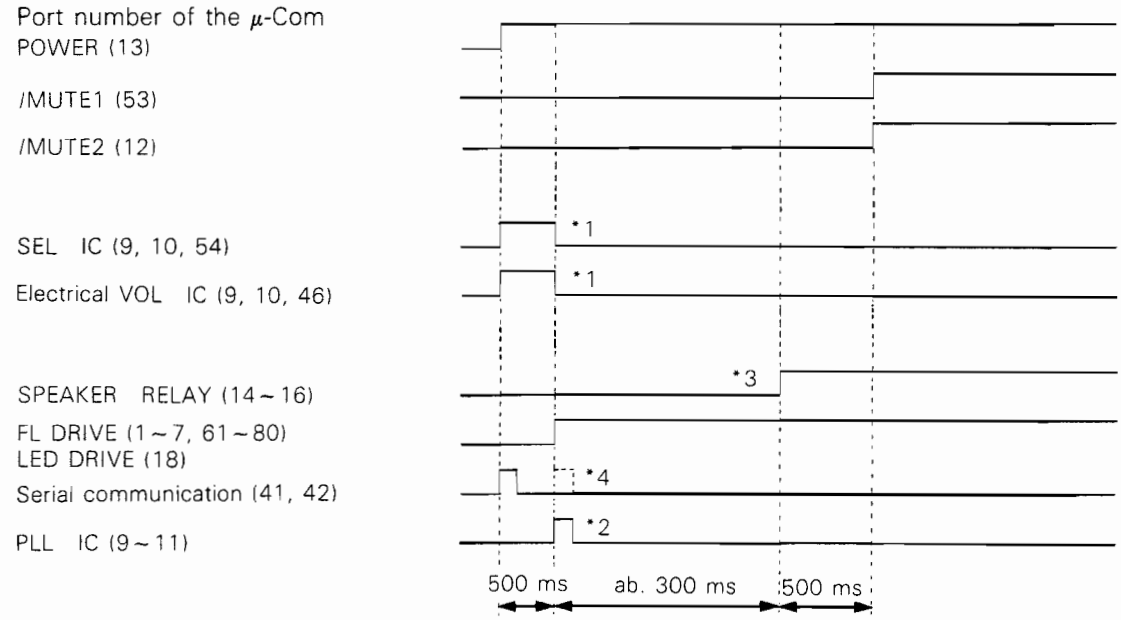
b) Processing related to the TUNER: None

⑥ Cancellation of the main unit test mode
The test mode is canceled, and the operation returns to the initial state when the AC power is turned OFF during the test mode.

CIRCUIT DESCRIPTION

Timing Chart

① POWER ON



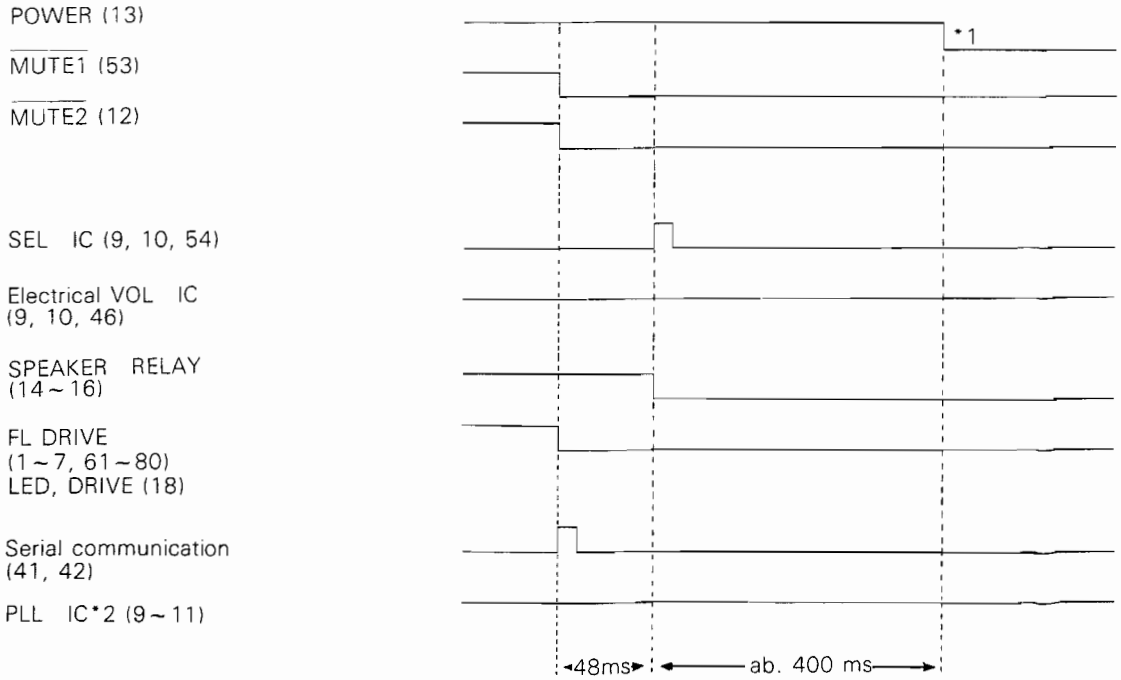
*1. Output of data to the selector IC and the electronic VOL. IC is continued during the time t1 to prevent unstable state of the IC. Moreover, resistors are connected without fail in series with the control lines of the selector IC and the electronic volume IC.

*2. This signal is outputted when the forcible MONO control signal of the TUNER is outputted from the port of the PLL IC (receiver).

*3. Protection detection is started immediately before connecting the SPEAKER RELAY.

*4. The SYSTEM ON code is outputted after the time t1 in the case of single item as well as system component AMP. and RECEIVER.

② POWER OFF

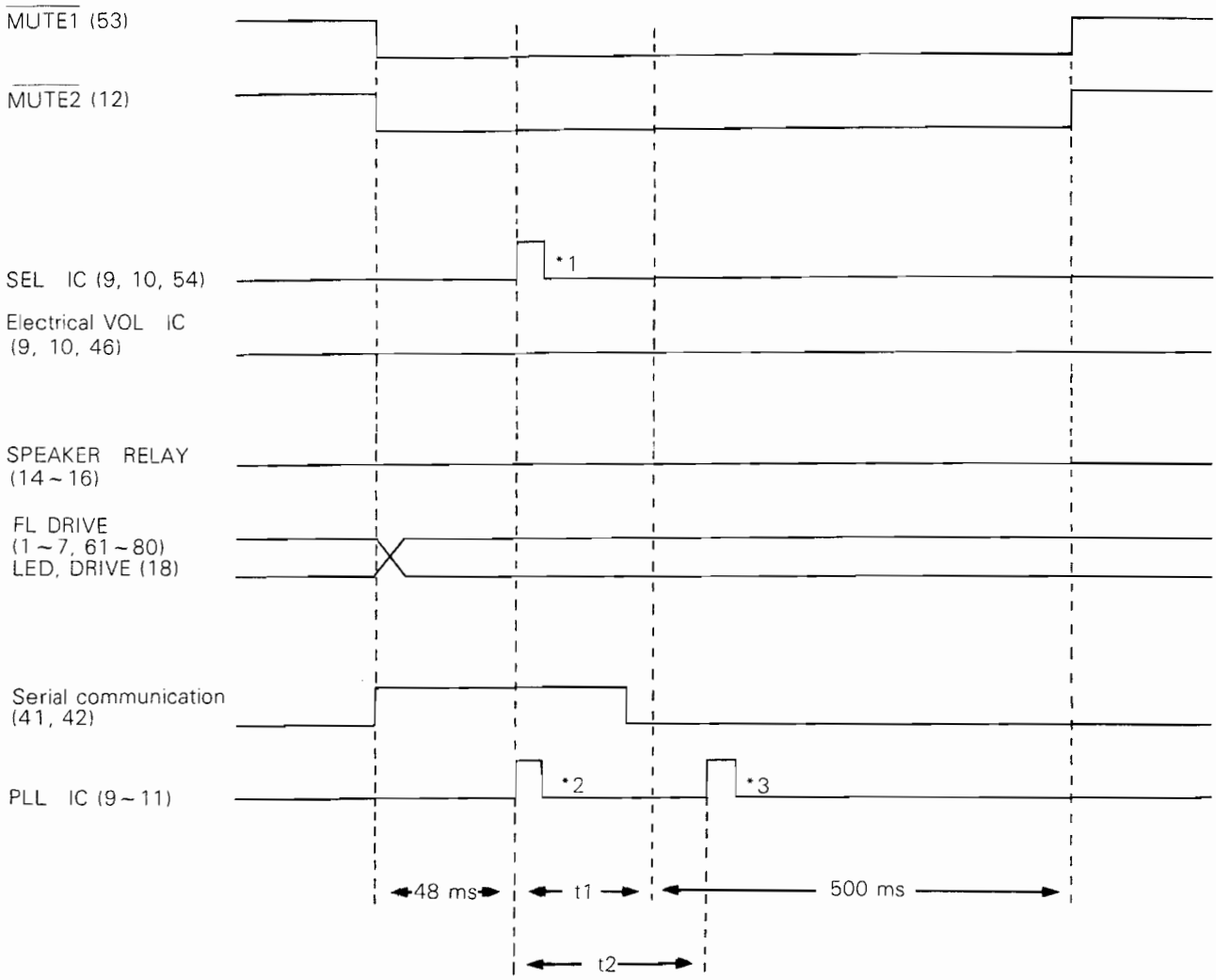


*1. The disconnection of the AC OUTLET is delayed to drop the mechanism of the DECK connected to the AC OUTLET (SWITCHED).

*2. This signal is outputted in the case of receiver.

CIRCUIT DESCRIPTION

③ Selector changeover



t1: Data transmission time to the selector IC, DSP IC, etc.

t2: 80 ms (+80 ms) IF COUNT time

*1. Pay special attention to the oscillation when switching. In particular, before switching the input selector, make sure of opening the REC OUT SW once.

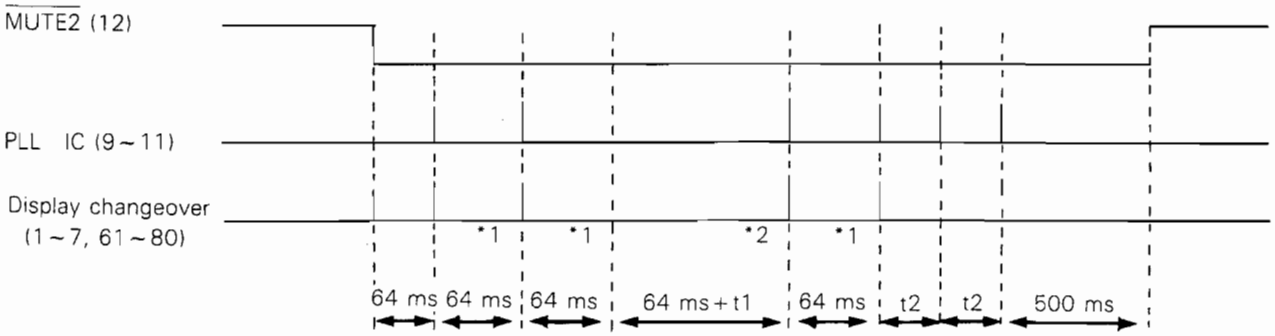
Since data before changeover are left in the RAM for DELAY when the surround is composed by using DSP IC and the like, data of the current surround mode are sent once again to the DSP IC and the like after clearing the RAM for DELAY.

*2. Receivers without TUNER MUTE set the lower frequency limit of AM in the PLL IC, except when the selector is set to TUNER.

*3. The IF count completion data is set with this timing when IF count is being carried out.

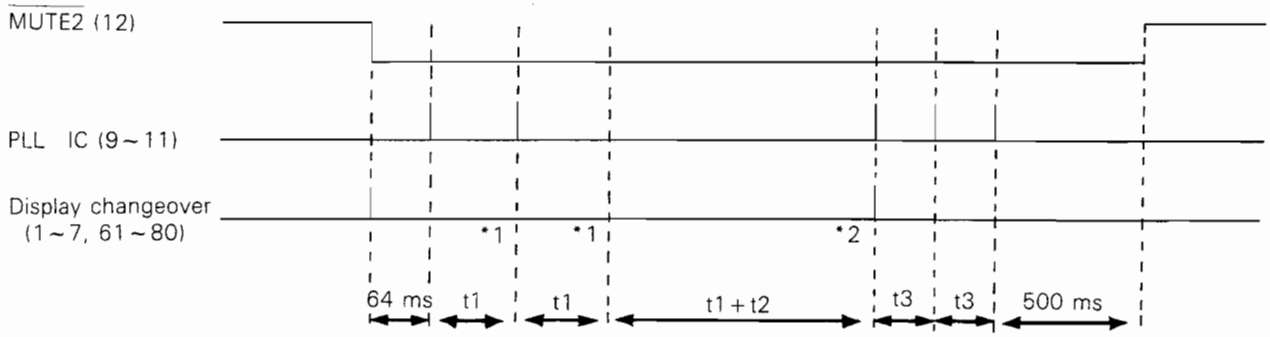
CIRCUIT DESCRIPTION

④ AF SEARCH



t1: 560 ms (RDS CHECK)
t2: 80 ms (Once or twice/IF count time)
*1: When SD = High (Without station)
*2: When SD = Low (With station)

⑤ PTY SEARCH

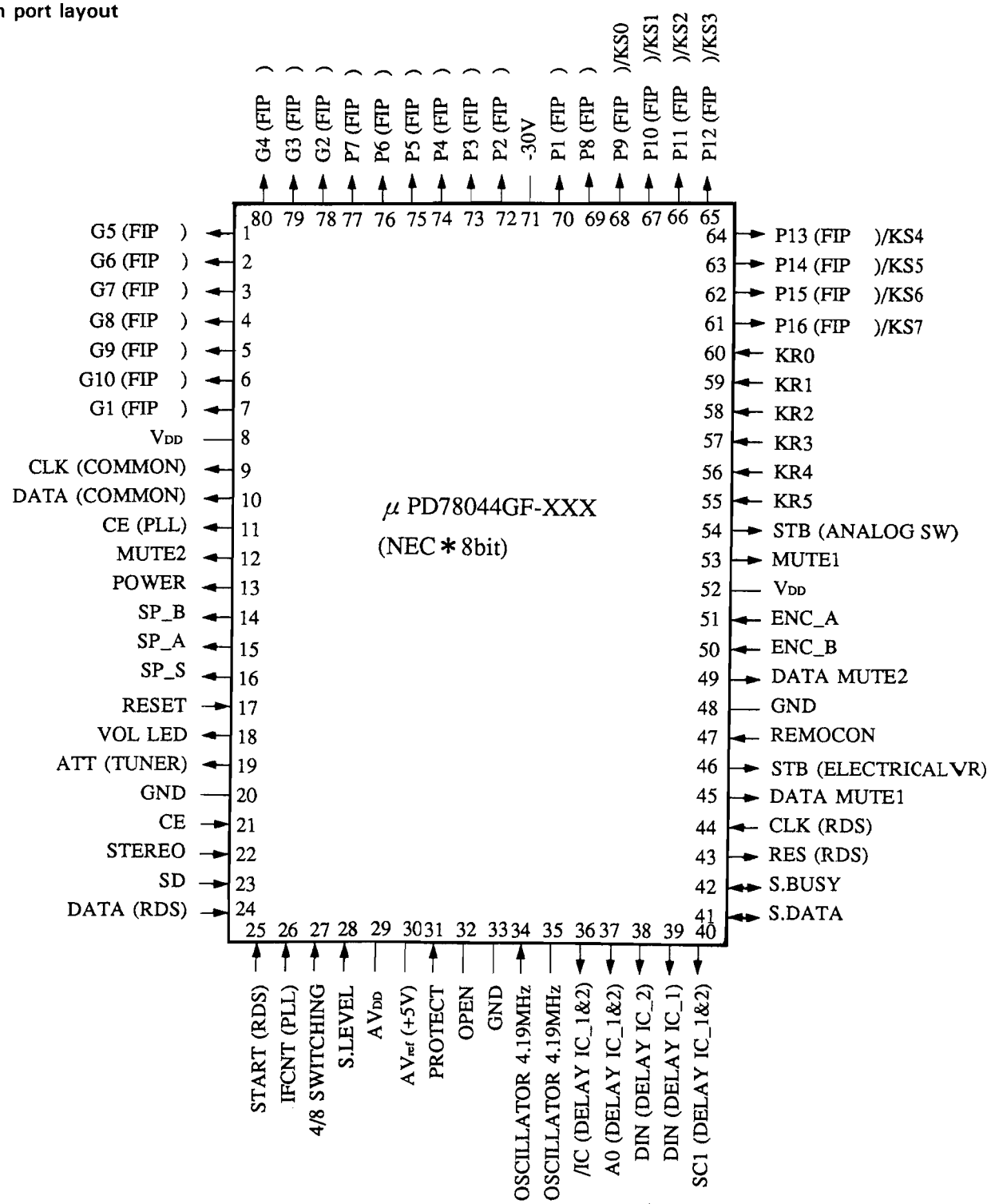


t1: 32 ms (BAND EDGE = 64 ms)
t2: 480 mS + 240 mS (RDS CHECK)
t3: 80 ms (Once or twice/IF count time)
*1: When SD = High (Without station)
*2: When SD = Low (With station)

CIRCUIT DESCRIPTION

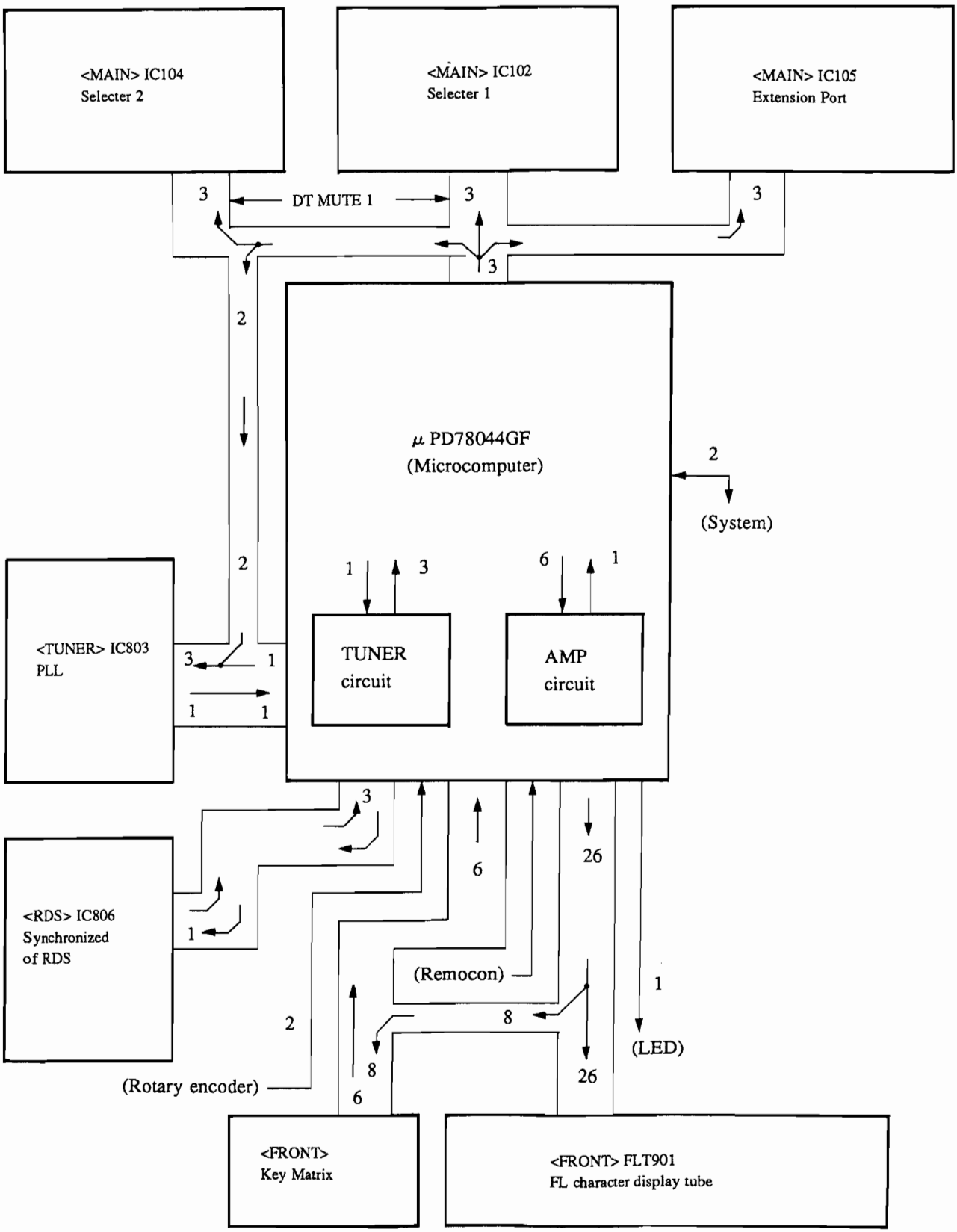
Microprocessor: μPD78044GF-021 (Front PCB : IC901)

μCom port layout



CIRCUIT DESCRIPTION

Microprocessor periphery block Diagram



CIRCUIT DESCRIPTION

Pin description

Pin Number	Port I/O	Name	Description
1	OUT	G5	FL gird 5
2	OUT	G6	FL grid 6
3	OUT	G7	FL grid 7
4	OUT	G8	FL grid 8
5	OUT	G9	FL grid 9
6	OUT	G10	FL grid 10
7	OUT	G1	FL gird 1
8	—	V_{DD}	Microprocessor power supply
9	OUT	CLK (COMMON)	Clock for control IC (ANALOG SW/PLL IC/Electronic VOL)
10	OUT	DATA (COMMON)	Data for control IC (ANALOG SW/PLL IC/Electronic VOL)
11	OUT	CE (PLL)	PLL CE
12	OUT	$\overline{\text{MUTE2}}$	Amplifier MUTE control H: MUTE OFF L: MUTE ON
13	OUT	POWER	Power relay control H: POWER ON L: POWER OFF
14	OUT	SP__B	Speaker B relay control H: SP__B ON L: SP__B OFF
15	OUT	SP__A	Speaker A relay control H: SP__A ON L: SP__A OFF
16	OUT	SP__S	Surround speaker relay control H: SP__S ON L: SP__S OFF
17	IN	$\overline{\text{RESET}}$	Microprocessor reset
18	OUT	VOL LED	VOLUME LED control H: LED OFF L: LED ON
19	OUT	ATT (TUNER)	Attenuator control H: ATT ON L: ATT OFF
20	—	GND	A/D power supply
21	IN	CE	Microprocessor CE
22	IN	STEREO	Stereo signal detection H: MONAURAL L: STEREO
23	IN	SD	Tuning signal detection H: NOT TUNED L: TUNED
24	IN	DATA (RDS)	RDS data
25	IN	START (RDS)	RDS start bit
26	IN	IFCNT (PLL)	IF CNT data (PLL DO)
27	IN	4/8 Changeover	Speaker impedance switching H: 4 Ω L: 8 Ω
28	IN	S. LEVEL	SIGNAL level (A/D)
29	—	AV_{DD}	A/D power supply
30	—	AVref	A/D reference voltage (+5 V)
31	IN	PROTECTION	Protection detection H: PROTECTION L: NORMAL
32	—	OPEN	
33	—	V_{SS} (GND)	Microprocessor power supply
34	IN	X1	4.19 MHz oscillator
35	OUT	X2	4.19 MHz oscillator
36	OUT	/IC (DELAY1 & 2)	DELAY IC 1 & 2 initial clearing
37	OUT	A0 (DELAY 1 & 2)	DELAY IC 1 & 2 address/data
38	OUT	DIN (DELAY 1)	DELAY IC 1 data
39	OUT	DIN (DELAY 2)	DELAY IC 2 data
40	OUT	SC1 (DEALY 1 & 2)	DELAY IC 1 & 2 clock

CIRCUIT DESCRIPTION

Pin Number	Port I/O	Name	Description
41	I/O	S. DATA	8 bit system DATA
42	I/O	S. BUSY	8 bit system BUSY
43	OUT	$\overline{\text{RESET}}$ (RDS)	RDS reset
44	IN	CLK (RDS)	RDS clock
45	OUT	DT MUTE 1	Data MUTE 1 H: DATA MUTE ON L: DATA MUTE OFF
46	OUT	STB (Electrical VOL)	Electronic VOL STB
47	IN	REMOCON	Remote controller input
48	—	GND	
49	OUT	DT MUTE 2	Data MUTE 2 H: DATA MUTE ON L: DATA MUTE OFF
50	IN	ENC_B	Encoder input B
51	IN	ENC_A	Encoder input A
52	—	V_{DD}	Microprocessor power supply
53	OUT	$\overline{\text{MUTE 1}}$	Selector MUTE control H: MUTE OFF L: MUTE ON
54	OUT	STB (ANALOG SW)	Analog SW STB
55	IN	KR5	Key return 5
56	IN	KR4	Key return 4
57	IN	KR3	Key return 3
58	IN	KR2	Key return 2
59	IN	KR1	Key return 1
60	IN	KR0	Key return 0
61	OUT	P16/KS7	FL segment 16/Key scan 7
62	OUT	P15/KS6	FL segment 15/Key scan 6
63	OUT	P14/KS5	FL segment 14/Key scan 5
64	OUT	P13/KS4	FL segment 13/Key scan 4
65	OUT	P12/KS3	FL segment 12/Key scan 3
66	OUT	P11/KS2	FL segment 11/Key scan 2
67	OUT	P10/KS1	FL segment 10/Key scan 1
68	OUT	P9/KS0	FL segment 9/Key scan 0
69	OUT	P8	FL segment 8
70	OUT	P1	FL segment 1
71	—	−30 V (Vload)	FL drive power supply
72	OUT	P2	FL segment 2
73	OUT	P3	FL segment 3
74	OUT	P4	FL segment 4
75	OUT	P5	FL segment 5
76	OUT	P6	FL segment 6
77	OUT	P7	FL segment 7
78	OUT	G2	FL grid 2
79	OUT	G3	FL gird 3
80	OUT	G4	FL grid 4

ADJUSTMENT

AM. Section : If alignment piont 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 (ANT. input)	Connect a DC voltmeter between TP801 and TP802. (TUNER UNIT)	AUTO or MONO 98.0MHz	L805 (TUNER UNIT)	0 V	(a)
2	DISCRIMINATOR	(C) 98.0MHz 1kHz, ±40kHz dev 60dBμ (ANT. input)	Connect a Distortion meter (1kHz)	AUTO or MONO 98.0MHz	L806 (TUNER UNIT)	MINIMUM Distortion (L or R)	(b)
3	DISCRIMINATOR	(C) 98.0MHz 1kHz, ±40kHz dev 60dBμ (ANT. input)	Connect a DC voltmeter between TP801 and TP802.	AUTO or MONO 98.0MHz	L806 (TUNER UNIT)	0 V	(a)
4	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ±40kHz dev Selector : L or R Pilot : ±6.0kHz dev 60dBμ (ANT. input)	(B)	98.0MHz	IFT (FRONT end PACK)	Minimum distortion (L or R)	(c)
5	SEPARATION	(C) 98.0MHz 1kHz, ±40kHz dev Pilot : 6kHz dev Selector : L or R 60dBμ (ANT. input)	(B)	AUTO 98.0MHz	VR803 (TUNER UNIT)	MINIMUM CROSSTALK	(b)
6	TUNING LEVEL	(A) 98.0MHz 0 dev 17dBμ (ANT. input)	(B)	AUTO or MONO 98.0MHz	VR801 (TUNER UNIT)	Adjust VR802 and stop at the point where FLT 901 (TUNED) goes on.	(d)
AM SECTION			SELECTOR : AM				
(1)	TUNING LEVEL	(D) 999MHz 26dBμ (ANT. input)	(B)	—	VR804 (TUNER UNIT)	Adjust VR801 and stop at the point where FLT901 (TUNED) goes on.	(b)
AUDIO SECTION							
(2)	IDLE CURRENT	—	Connect a DC voltmeter across CP1 (L) CP2 (R) (MAIN UNIT)	volume : 0	VR201 (L) VR202 (R) (MAIN UNIT)	10mV	(e)

REGLAGE

Section AM : Sile point d'alignement est-, confirmer la valeur.
Sinon, remplacer le bloc avac.

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DU TUNER	POINT DE L'ALIGNEMENT	ALIGNER POUR	FIG.
SECTION MF			SELECTEUR : FM				
1	DISCRIMINATEUR	(A) 98.0MHz 1kHz. ±40kHz dév 60dBμ (Entrée ANT)	Relier un voltmètre CC entre les TP801 et TP802 (TUNER UNIT)	AUTO ou MONO 98.0MHz	L805 (TUNER UNIT)	0 V	(a)
2	DISCRIMINATEUR	(C) 98.0MHz 1kHz, ±40kHz dèv 60dBμ (Entrée ANT)	Relier un clistorsionmètre (1kHz)	AUTO ou MONO 98.0MHz	L806 (TUNER UNIT)	Distorsion minimale (L ou R)	(b)
3	DISCRIMINATEUR	(C) 98.0MHz 1kHz, ±40kHz dèv 60dBμ (Entrée ANT)	Relier un voltmètre CC entre les TP801 et TP802 (TUNER UNIT)	AUTO ou MONO 98.0MHz	L805 (TUNER UNIT)	0 V	(a)
4	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ±40kHz dév Selection :L ou R Signal pilote : ±6.0kHz dév 60dBμ (Entrée ANT)	(B)	98.0MHz	IFT (Tête H.F.)	Distorsion minimale. (L ou R)	(c)
5	SEPARATION	(C) 98.0MHz 1kHz, ±40kHz dév Selection : L ou R Signal Pilot : 6kHz dév 60 dBμ (Entrée ANT)	(B)	AUTO 98.0MHz	VR803 (TUNER UNIT)	Diaphonie minimale.	(b)
6	NIVEAU D'ACCORDER	(A) 98.0MHz 0dév 17dBμ (Entrée ANT)	(B)	AUTO ou MONO 98.0MHz	VR801 (TUNER UNIT)	Ajuster VR802 et arrèter le mouvement de moment oú le FL901 (TUNED) s'allume.	(d)
SECTION MA			SELECTEUR : AM				
(1)	NIVEAU D'ACCORDER	(D) 999kHz 26dBμ (Entrée ANT)	(B)	—	VR804 (TUNER UNIT)	Ajuster VR801 et arrèter le mouvement de moment oú le FL901 (TUNED) s' allume	(d)
SECTION AUDIO							
(1)	COURANE DE PLARISATION	—	Counnecter un voltmètre CC sur CP1 (L) CP2 (R) (MAIN UNIT)	volume : 0	VR201 (G) VR202 (D) (MAIN UNIT)	10mV	(e)

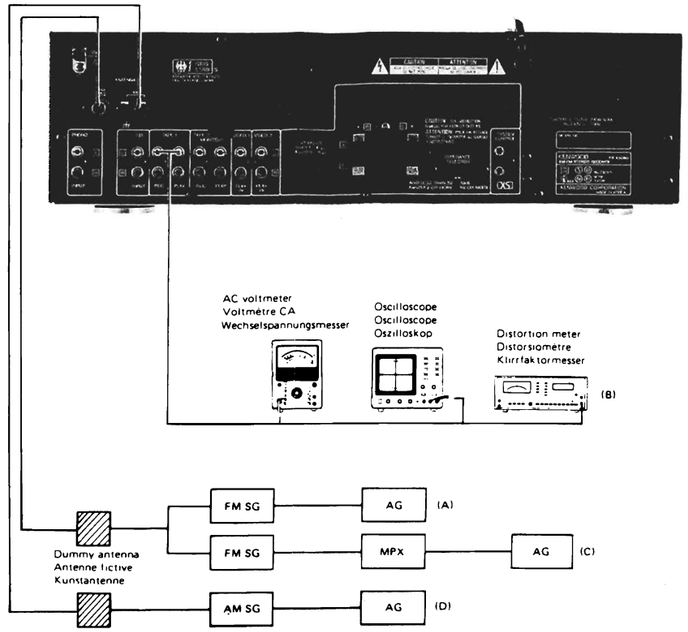
ABGLEICH

MW-Teil : Wenn der Ausrichtpunkt—ist, den Wert überprifen.
Wenn nicht, die Fronteinheit auswechseln.

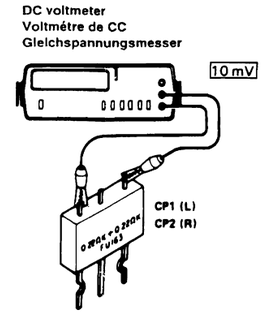
NR	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	TUNER-EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
UKW-EMPFANGSABTEILUNG				WÄHLER : FM			
1	DISKRIMINATOR	(A) 98.0MHz 1kHz. ±40kHz Hub 60dBμ (ANT-Eingang)	Einen Gleichspan-nungsmesser zwischen TP801 UND TP802 anschlie ßen. (TUNER UNIT)	AUTO oder MONO 98.0MHz	L805 (TUNER UNIT)	0 V	(a)
2	DISKRIMINATOR	(C) 98.0MHz 1kHz. ±40kHz Hub 60dBμ (ANT-Eingang)	Einen Klirrfaktor. (1kHz)	AUTO oder MONO 98.0MHz	L806 (TUNER UNIT)	Minimal Klirrfaktor. (L oder R)	(b)
3	DISKRIMINATOR	(C) 98.0MHz 1kHz. ±40kHz Hub 60dBμ (ANT-Eingang)	Einen Gleichspan-nungsmesser zwischen TP801 UND TP802 anschlie ßen.	AUTO oder MONO 98.0MHz	L805 (TUNER UNIT)	0 V	(a)
4	KLIRRFAKTOR (STEREO)	(C) 98.0MHz 1kHz, ±40kHz Hub Wähler : L oder R Pilotten : ±6.0kHz Hub 60 dBμ (ANT-Eingang)	(B)	98.0MHz	IFT (Frontend)	Minimal Klirrfaktor. (L ou R)	(c)
5	STEREO KANAL TRENNUNG	(C) 98.0MHz 1kHz, ±40kHz Hub Wähler : L oder R Pillotten : 6kHz Hub 60dBμ (ANT-Eingang)	(B)	AUTO 98.0MHz	VR803 (TUNER UNIT)	Minimales ubersprechen.	(b)
6	ABSTIMM PEGEL	(A) 98.0MHz 0 Hub 17dBμ (ANT-Eingang)	(B)	AUTO oder MONO 98.0MHz	VR801 (TUNER UNIT)	Den Pegel wieder-stand aufdrehen, und dem VR802 Halt geben wobei den FL901 (TUNED) anzeiger leuchtet wird.	(d)
MW-EMPFANGSABTEILUNG				WÄHLER : AM			
(1)	ABSTIMM PEGEL	999kHz 26dBμ (ANT-Eingang)	(B)	—	VR804 (TUNER UNIT)	Den Pegel wieder-stand aufdrehen, und dem VR801 Halt geben wobei den FL901 (TUNED) anzeiger leuchtet wird.	(d)
AUDIO —ABTEILUNG							
(1)	LEERLAUFSTROM	—	Einen Gleichspan-nungsmesser über CP1 (L) CP2 (R) anschließen. (MAIN UNIT)	Volume : 0	VR201 (G) VR202 (D) (RECEIVER UNIT)	10mV	(e)

KR-A4050/5050

ADJUSTMENT / REGLAGE / ABGLEICH



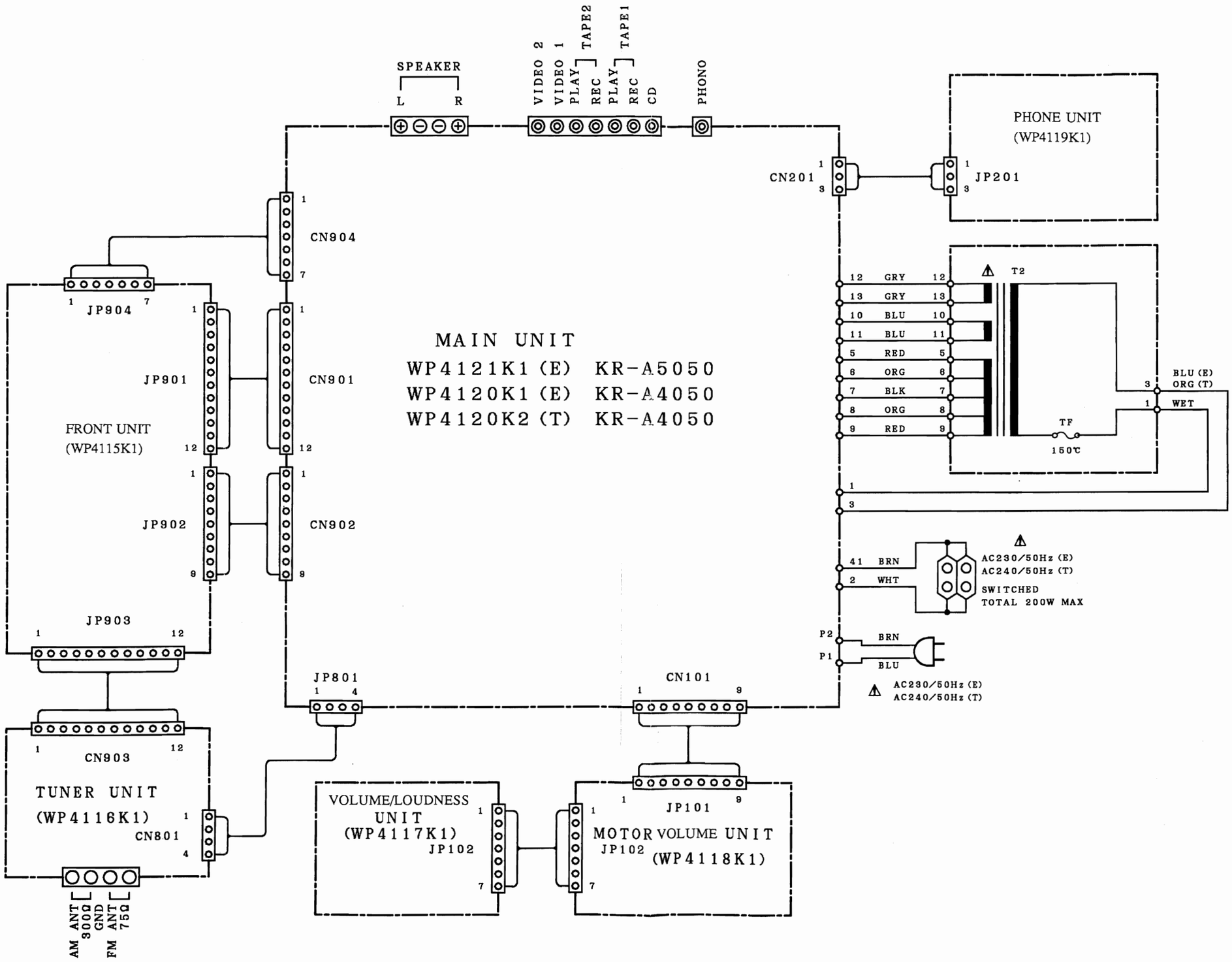
System connections/Raccordements du système/System-Anschlusse



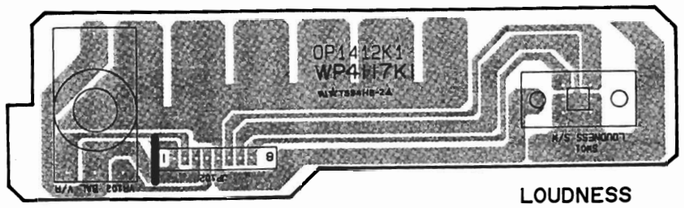
(E)

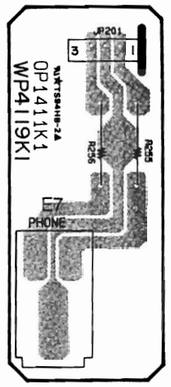
KR-A4050/5050 KR-A4050/5050

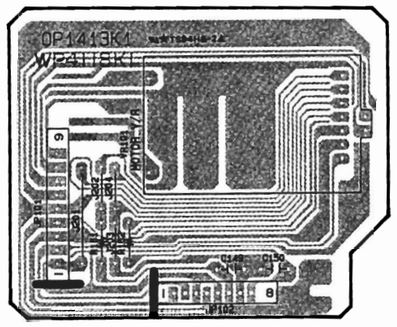
WIRING DIAGRAM

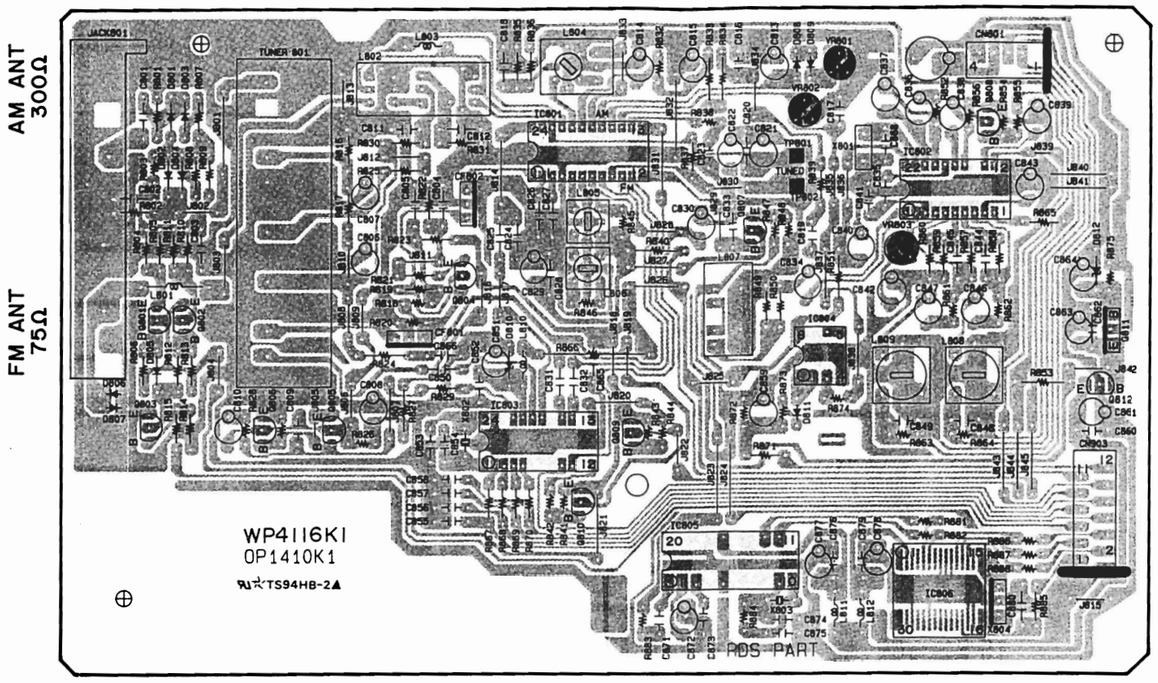


PC BOARD (Component side view)

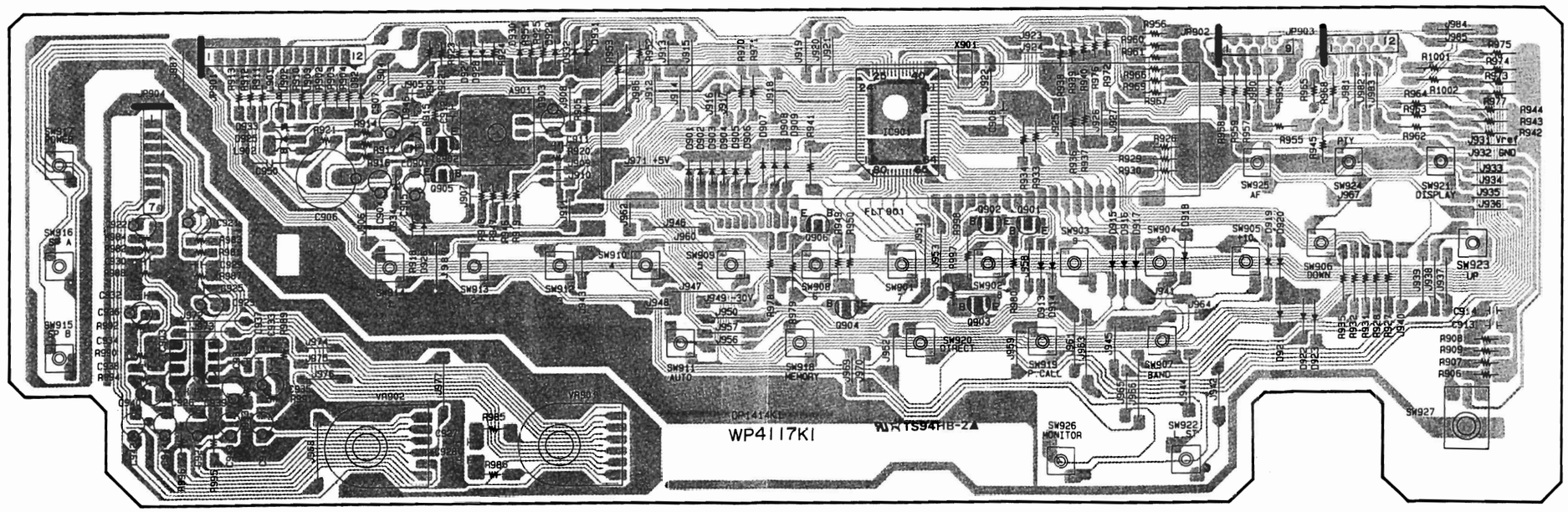






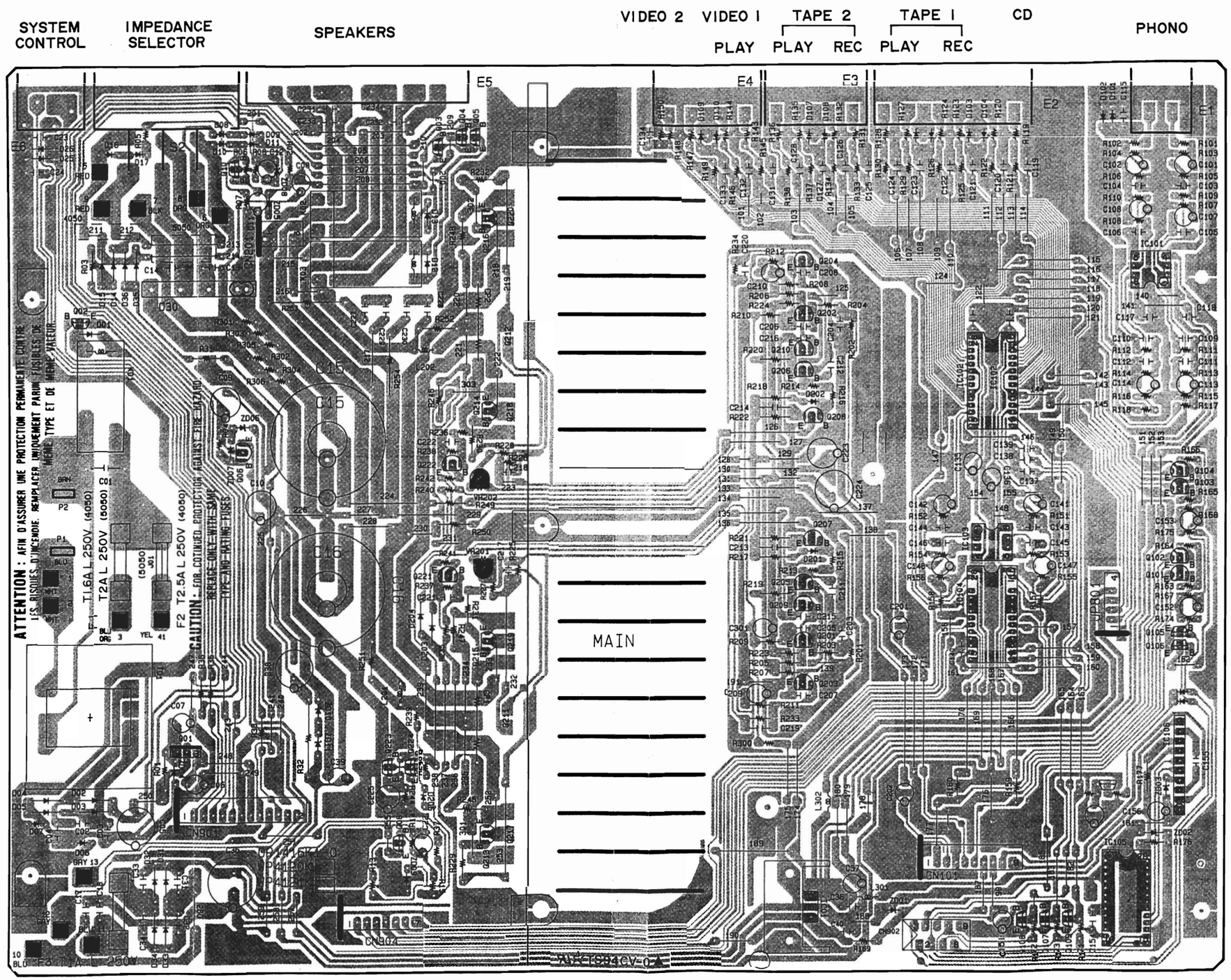


FRONT



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

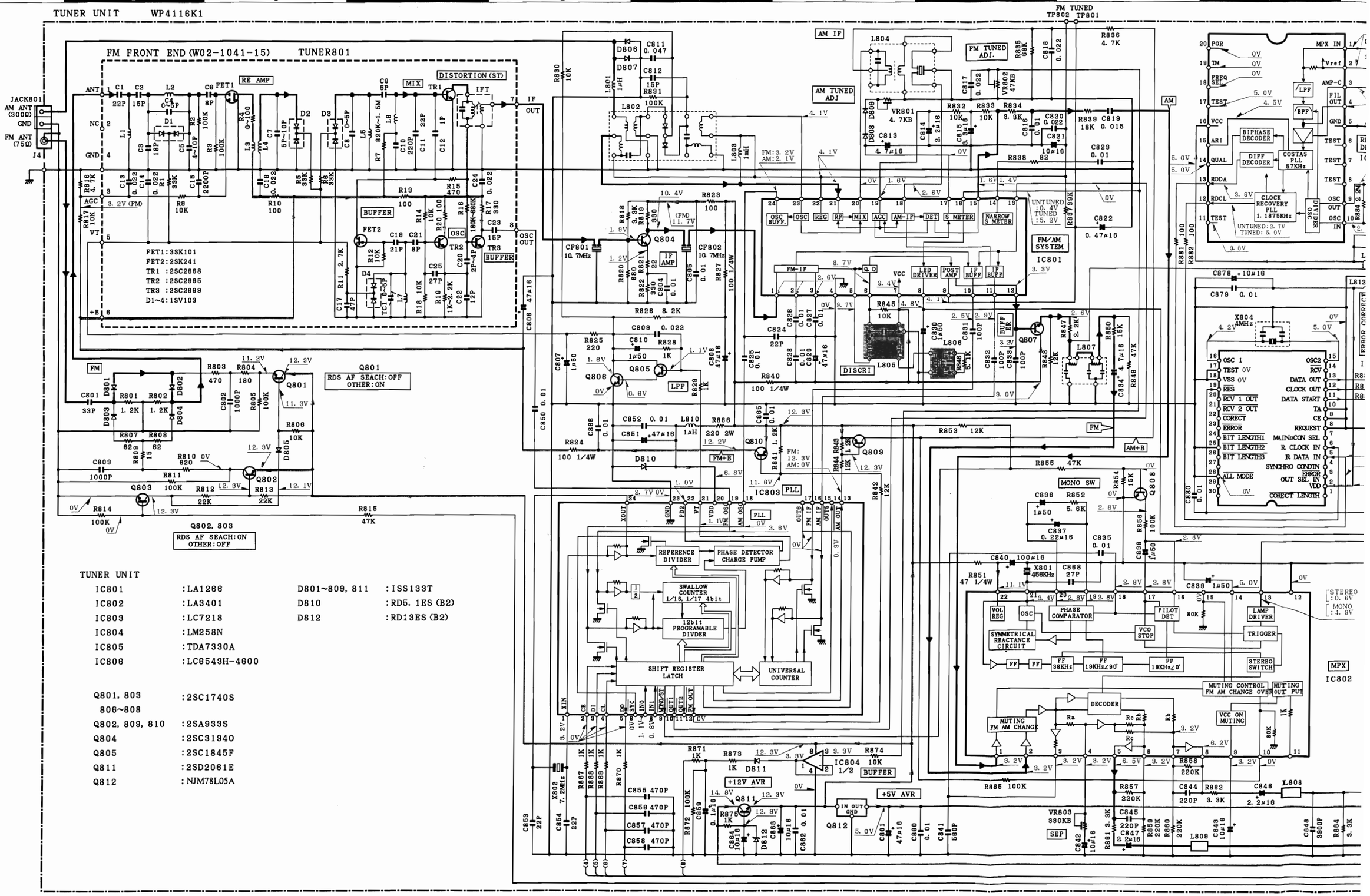
PC BOARD (Component side view)



FRONT

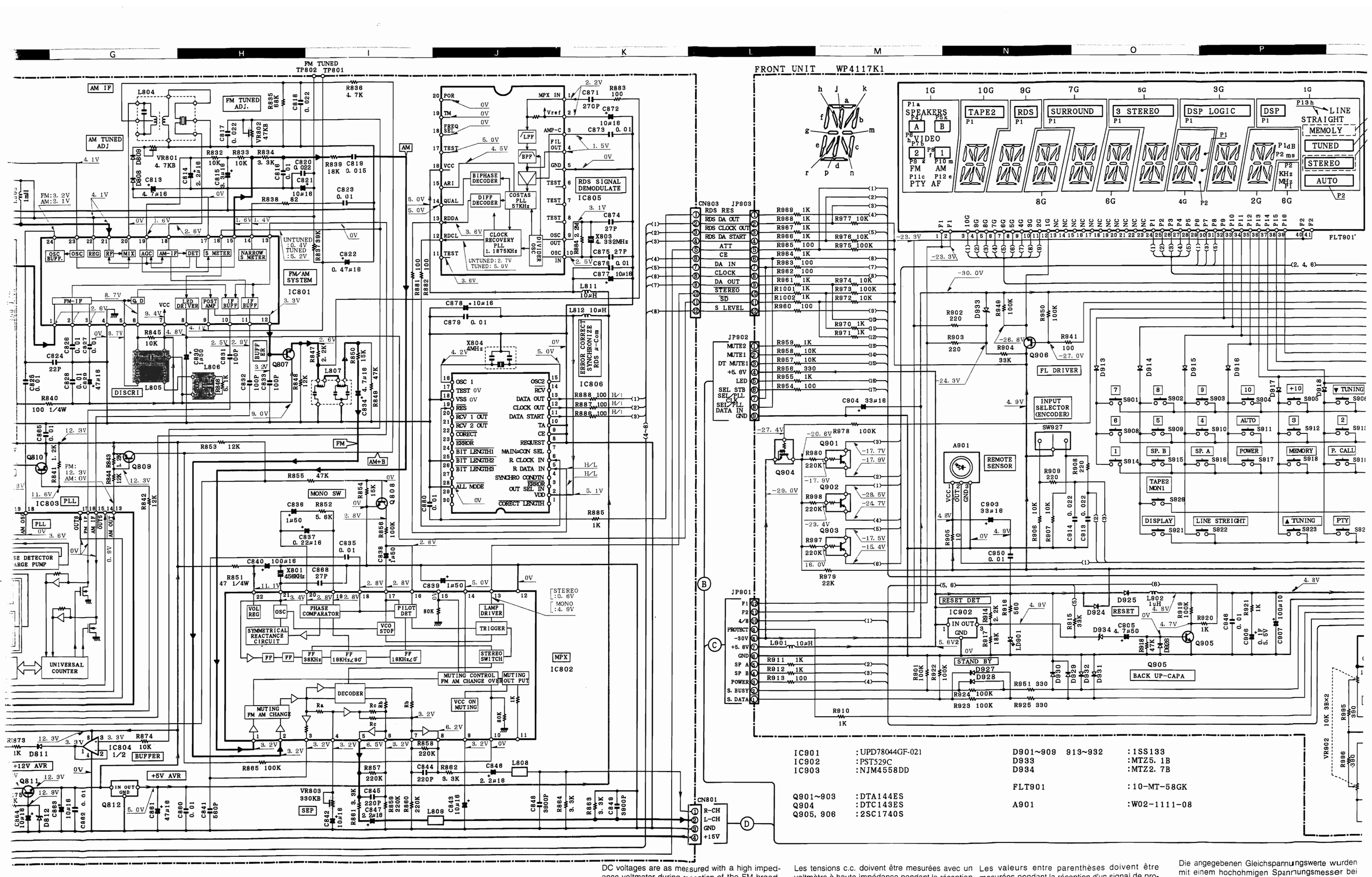
Refer to the schematic diagram for the values of resistors and capacitors.

TUNER UNIT WP4116K1



TUNER UNIT

IC801	:LA1266	D801~809, 811	:ISS133T
IC802	:LA3401	D810	:RD5. 1ES (B2)
IC803	:LC7218	D812	:RD13ES (B2)
IC804	:LM258N		
IC805	:TDA7330A		
IC806	:LC8543H-4600		
Q801, 803 806~808	:2SC1740S		
Q802, 809, 810	:2SA933S		
Q804	:2SC3194O		
Q805	:2SC1845F		
Q811	:2SD2061E		
Q812	:NJM78L05A		



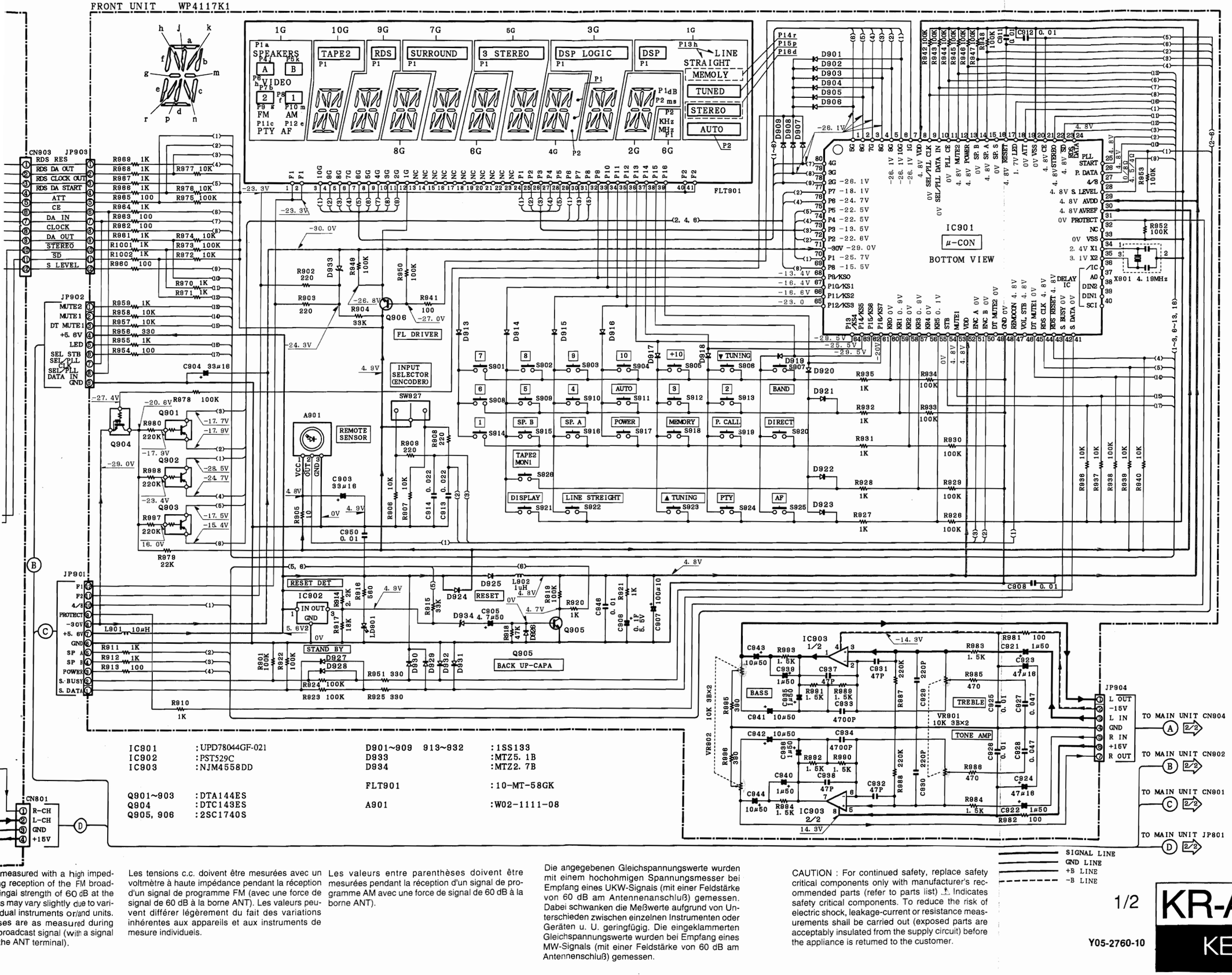
DC voltages are as measured with a high impedance voltmeter during reception of the FM broadcast signal (with a singal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between indvidual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at the ANT terminal).

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM avec une force de signal de 60 dB à la borne ANT).

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser bei Empfang eines UKW-Signals (mit einer Feldstärke von 60 dB am Antennenanschluß) gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die eingeklammerten Gleichspannungswerte wurden bei Empfang eines MW-Signals (mit einer Feldstärke von 60 dB am Antennenschluß) gemessen.

FRONT UNIT WP4117K1



IC901	:UPD78044GF-021	D901~909 913~932	:1SS133	
IC902	:PST529C	D933	:MTZ5.1B	
IC903	:NJM4558DD	D934	:MTZ2.7B	
		FLT901	:10-MT-58GK	
Q901~903	:DTA144ES			
Q904	:DTC143ES	A901	:W02-1111-08	
Q905, 906	:2SC1740S			

measured with a high impedance reception of the FM broadcast signal (with a signal strength of 60 dB at the ANT terminal).

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM avec une force de signal de 60 dB à la borne ANT).

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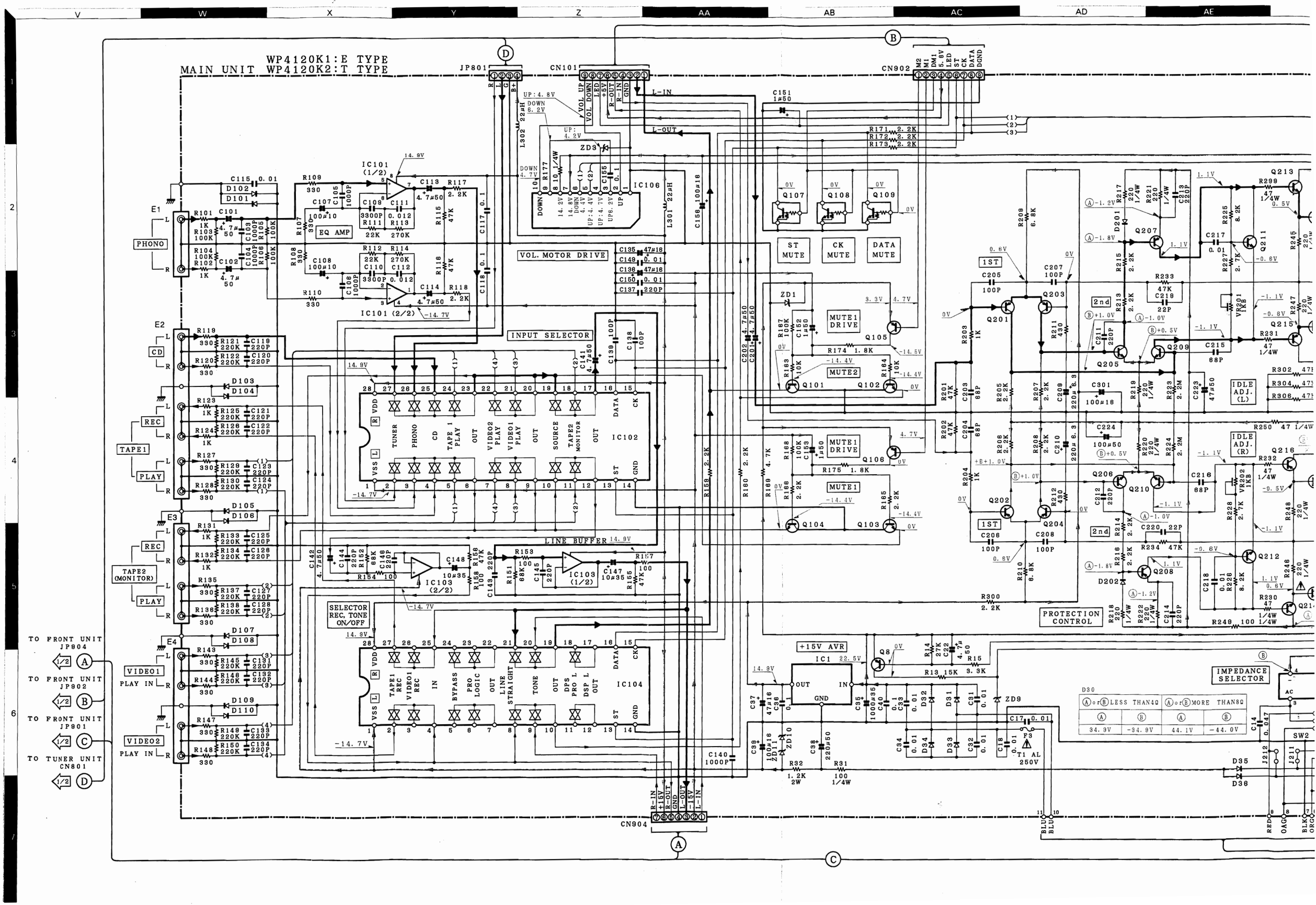
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list) ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably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

1/2

KR-A4050/5050

KENWOOD

Y05-2760-10


WP4120K1:E TYPE
MAIN UNIT WP4120K2:T TYPE
JP801
CN101
CN902
L-IN
L-OUT
IC101 (1/2)
IC101 (2/2)
EQ AMP
VOL. MOTOR DRIVE
INPUT SELECTOR
IC102
LINE BUFFER
IC103 (1/2)
IC103 (2/2)
SELECTOR REC, TONE ON/OFF
IC104
IC106
ST MUTE
CK MUTE
DATA MUTE
MUTE1 DRIVE
MUTE2
PROTECTION CONTROL
+15V AVR
IC1 22.5V
IMPEDANCE SELECTOR
IDLE ADJ. (L)
IDLE ADJ. (R)
PHONO
CD
TAPE1 PLAY
REC
TAPE2 (MONITOR)
VIDEO1 PLAY IN
VIDEO2 PLAY IN
TO FRONT UNIT JP904
TO FRONT UNIT JP902
TO FRONT UNIT JP901
TO TUNER UNIT CN801
CN904
T1 AL 250V
F3

CN902 M2 M1 DM1 5.8V LED ST CK DATA DGND

WP4117K1
VOLUME/LOUDNESS UNIT

WP4118K1 MOTOR VOLUME U

WP4119K1
PHONE UNIT

ABB	REF. NO. DISTINATION
E	EUROPE
T	ENGLAND

IC1	:MC7815C
IC101, 103	:NJM4558DD
IC102	:TC9164N
IC104	:TC9162N
IC105	:TC9163N
IC106	:BA6209N
Q1	:2SD882
Q2~5, 107~109	:DTC114ES
Q6	:2SA1274
Q8, 105, 106	:2SA933S
Q223, 224	:2SC1740
Q101~104	:2SC2878
Q201~204, 207, 208	:2SA992
Q205, 206, 209, 210, 221, 222	:2SC1845
Q211, 212	:2SC4137(V)
Q215, 216	:2SC2316
Q217, 218	:2SC4467
Q219, 220	:2SA1694

D30			
Ⓐ or Ⓑ LESS THAN 4Ω		Ⓐ or Ⓑ MORE THAN 8Ω	
Ⓐ	Ⓑ	Ⓐ	Ⓑ
34.9V	-34.9V	44.1V	-44.0V

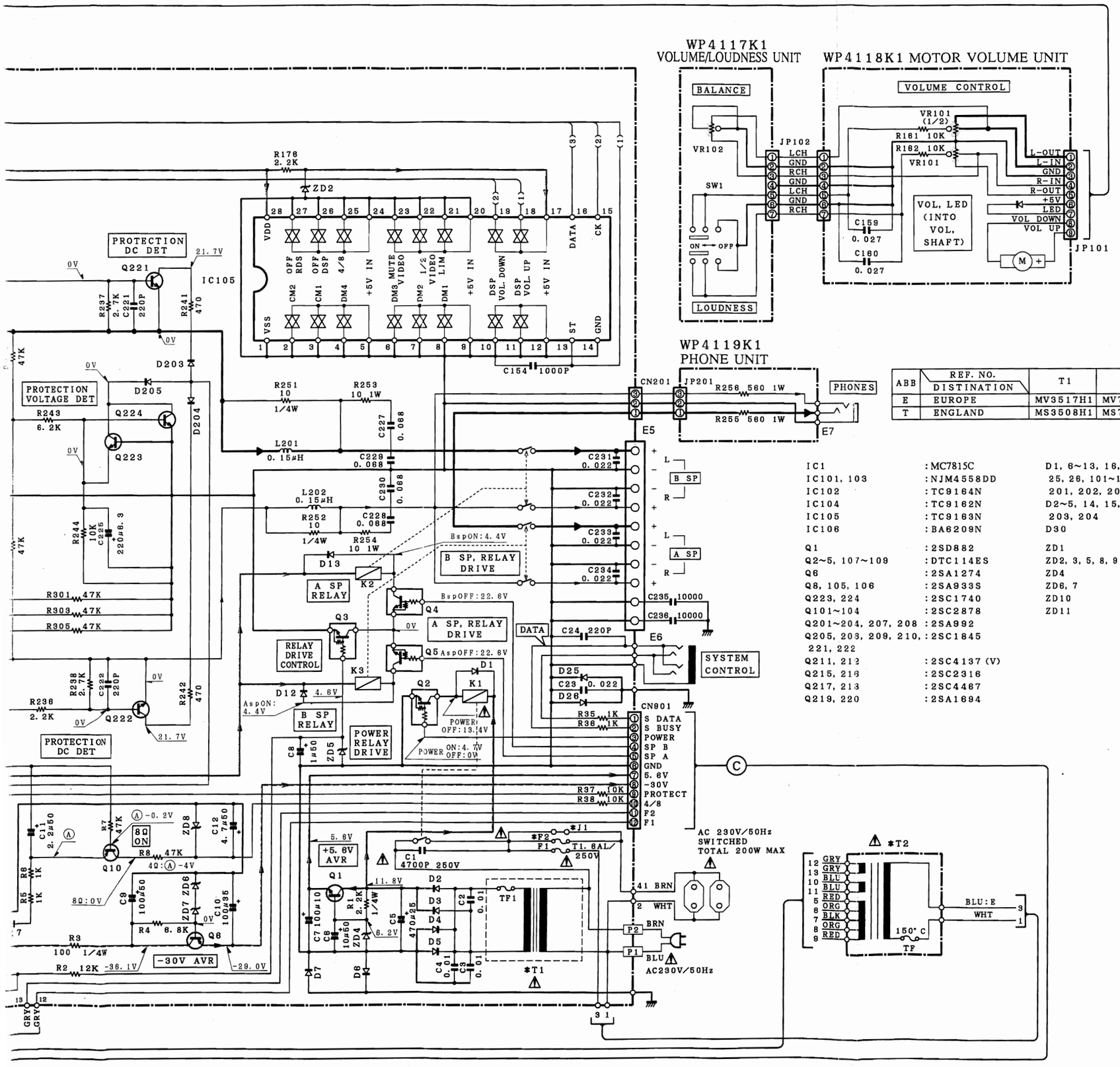
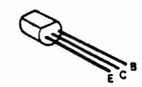
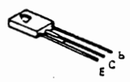
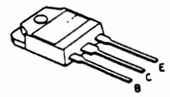


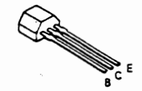
ABB	REF. NO. / DISTINATION	T1	T2	F2
E	EUROPE	MV3517H1	MV7406H1	T2.5AL/250V
T	ENGLAND	MS3508H1	MS7402H1	J1

IC1	:MC7815C	D1, 6~13, 16, 17, 25, 26, 101~110,	:ISS133
IC101, 103	:NJM4558DD		
IC102	:TC9164N	201, 202, 205	
IC104	:TC9162N	D2~5, 14, 15, 31~36	:IN4002
IC105	:TC9163N	203, 204	
IC106	:BA6209N	D30	:DBF40C
Q1	:2SD882	ZD1	:MTZ3.9B
Q2~5, 107~109	:DTC114ES	ZD2, 3, 5, 8, 9	:MTZJ5.1B
Q6	:2SA1274	ZD4	:RD6.2ES(B2)
Q8, 105, 106	:2SA933S	ZD6, 7	:MTZJ16A
Q223, 224	:2SC1740	ZD10	:RD6.8ES(B2)
Q101~104	:2SC2878	ZD11	:MTZJ8.2B
Q201~204, 207, 208	:2SA992		
Q205, 206, 209, 210, 221, 222	:2SC1845		
Q211, 212	:2SC4137(V)		
Q215, 216	:2SC2316		
Q217, 218	:2SC4467		
Q219, 220	:2SA1694		

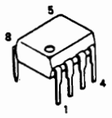

2SA992
2SC1740
2SC1845
2SC2878

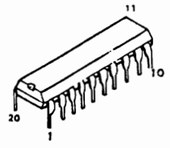

2SD882

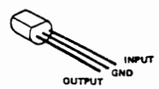

2SA1695
2SC4467


DTA144ES
DTC114ES
2SA933S
2SC1740S

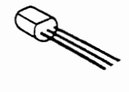

2SC4137

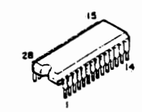

NJM4558DD

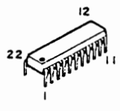

TDA7330A



NJM78L05A


PST529C


TC9162N
TC9163N
TC9164N


LA3401


LA1266
LC7218

DC voltages are as measured with a high impedance voltmeter during reception of the FM broadcast signal (with a singal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between indvidual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at the ANT terminal).

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.
Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM avec une force de signal de 60 dB à la borne ANT).

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser bei Empfang eines UKW-Signals (mit einer Feldstärke von 60 dB am Antennenanschluß) gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die eingeklammerten Gleichspannungswerte wurden bei Empfang eines MW-Signals (mit einer Feldstärke von 60 dB am Antennenschluß) gemessen.

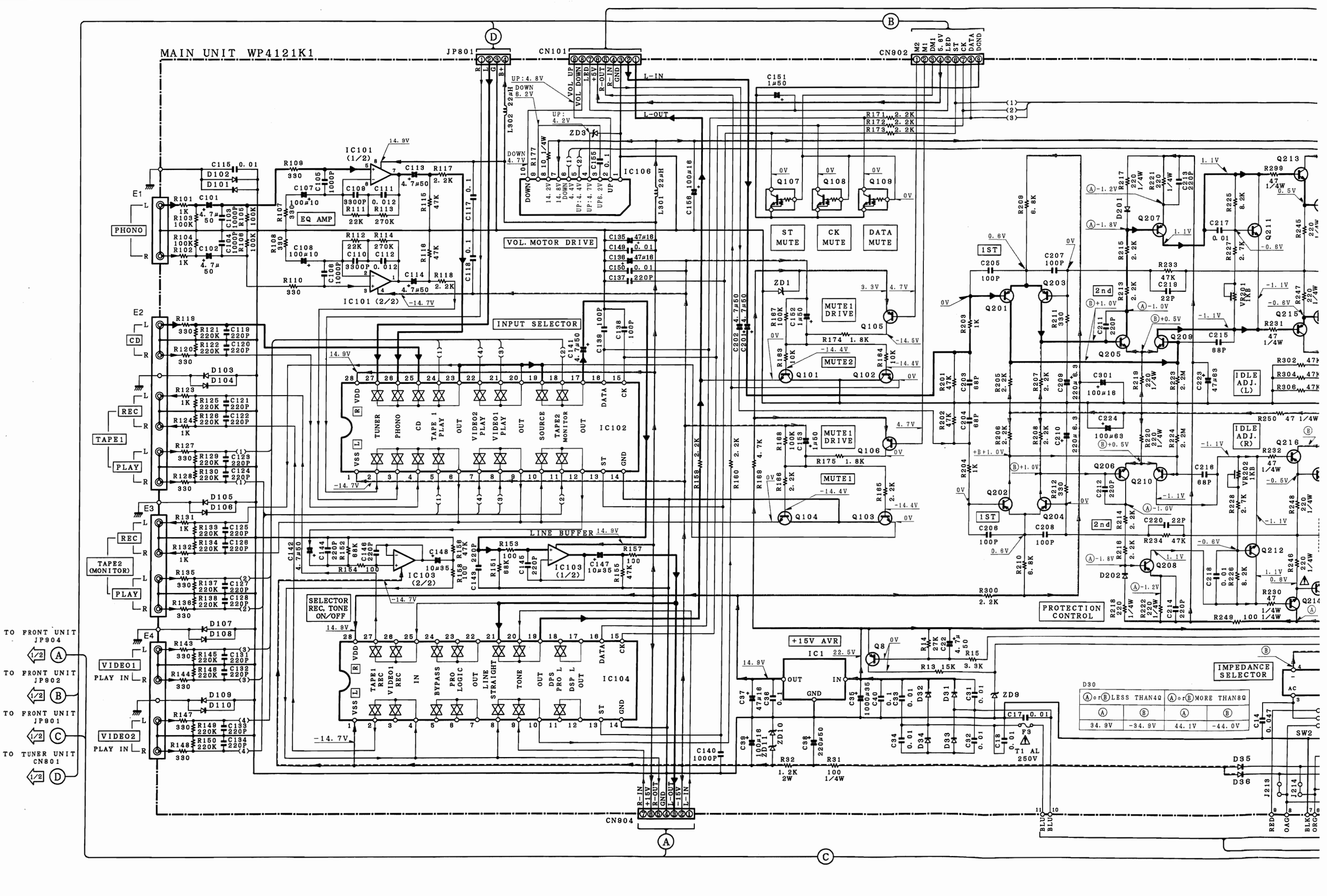
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list) ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably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

SIGNAL LINE
GND LINE
+B LINE
−B LINE

2/2

Y05-2802-70

KR-A4050
KENWOOD


MAIN UNIT WP4121K1
JP801
CN101
CN902
L-IN
L-OUT
VOL. MOTOR DRIVE
INPUT SELECTOR
LINE BUFFER
SELECTOR REC, TONE ON/OFF
EQ AMP
ST MUTE
CK MUTE
DATA MUTE
MUTE1 DRIVE
MUTE2
1ST
2nd
PROTECTION CONTROL
+15V AVR
IMPEDANCE SELECTOR
IDLE ADJ. (L)
IDLE ADJ. (R)
PHONO
CD
REC
PLAY
TAPE1
TAPE2 (MONITOR)
VIDEO1 PLAY IN
VIDEO2 PLAY IN
IC101 (1/2)
IC101 (2/2)
IC102
IC103 (2/2)
IC103 (1/2)
IC104
IC106
IC1
ZD3
ZD1
ZD9
TUNER
PHONO
CD
TAPE 1 PLAY
OUT
VIDEO2 PLAY
VIDEO1 PLAY
OUT
SOURCE
TAPE2 MONITOR
OUT
DATA
CK
ST
GND
TO FRONT UNIT JP904
TO FRONT UNIT JP902
TO FRONT UNIT JP801
TO TUNER UNIT CN801
CN904
R-IN
+15V
R-OUT
GND
L-OUT
-15V
L-IN
D30
A or B LESS THAN 4Ω
A or B MORE THAN 8Ω
34.9V
-34.9V
44.1V
-44.0V

WP4117K1
VOLUME/LOUDNESS UNIT

WP4119K1
PHONE UNIT

CN902 M2 M1 DM1 5.6V LED ST CK DATA DGND

Q107 Q108 Q109 Q101 Q102 Q104 Q103 Q106 Q105 Q201 Q202 Q203 Q204 Q205 Q206 Q207 Q208 Q209 Q210 Q211 Q212 Q213 Q214 Q215 Q216 Q217 Q218 Q219 Q220

ST MUTE / CK MUTE / DATA MUTE / MUTE1 DRIVE / MUTE2 / MUTE1 DRIVE / MUTE1

1ST / 2nd / 1ST / 2nd

FINAL TOR / FINAL TOR / FINAL TOR / FINAL TOR

IDLE ADJ. (L) / IDLE ADJ. (R)

PROTECTION CONTROL / PROTECTION DC DET / PROTECTION VOLTAGE DET / PROTECTION DC DET

IC105 VDD VSS OFF RDS OFF DSP 4/8 +5V IN DM3 MUTE VIDEO 1/2 VIDEO DM2 DM1 +5V IN DSP VOL. DOWN DSP VOL. UP +5V IN DATA CK ST GND CM2 CM1 DM4

BALANCE VR102 SW1 LOUDNESS JP102 LCH GND RCH GND LCH GND RCH

CN201 JP201 R256 560 1W R255 560 1W

E5 B SP L R A SP L R

B SP, RELAY DRIVE / A SP RELAY / A SP, RELAY DRIVE / RELAY DRIVE CONTROL / B SP RELAY / POWER RELAY DRIVE

BspON: 4.4V BspOFF: 22.6V AspON: 4.4V AspOFF: 22.6V POWER OFF: 13.4V POWER ON: 4.7V POWER OFF: 0V

E6 SYSTEM CONTROL

CN901 S DATA S BUSY POWER SP B SP A GND 5.6V -30V PROTECT 4/8 F2 F1

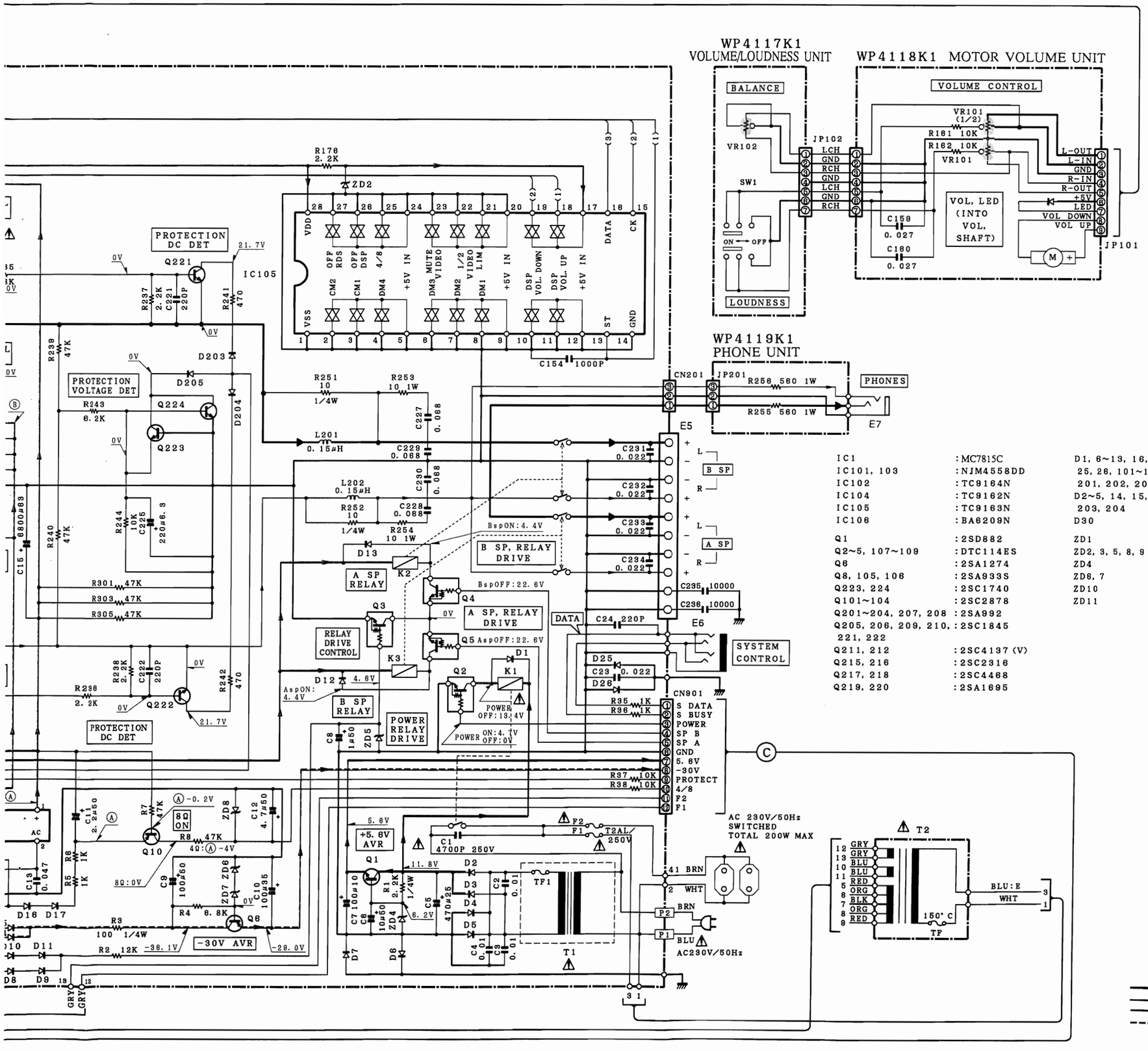
AC 230V/50Hz SWITCHED TOTAL 200W MAX

AC230V/50Hz

+15V AVR / IC1 / +5.6V AVR / -30V AVR

IMPEDANCE SELECTOR / SW2 / D30

D30			
A or B LESS THAN 4Ω		A or B MORE THAN 8Ω	
A	B	A	B
34.9V	-34.9V	44.1V	-44.0V



IC1	:MC7815C	D1, 6~13, 16, 17, 25, 26, 101~110,	:ISS133
IC101, 103	:NJM4558DD		
IC102	:TC9164N	201, 202, 205	
IC104	:TC9162N	D2~5, 14, 15, 31~36	:IN4002
IC105	:TC9163N	203, 204	
IC106	:BA6209N	D30	:DBF60C
Q1	:2SD882	ZD1	:MTZ3.9B
Q2~5, 107~109	:DTC114ES	ZD2, 3, 5, 8, 9	:MTZJ5.1B
Q6	:2SA1274	ZD4	:RD6.2ES(B2)
Q8, 105, 106	:2SA933S	ZD6, 7	:MTZJ16A
Q223, 224	:2SC1740	ZD10	:RD6.8ES(B2)
Q101~104	:2SC2878	ZD11	:MTZJ8.2B
Q201~204, 207, 208	:2SA992		
Q205, 206, 209, 210, 221, 222	:2SC1845		
Q211, 212	:2SC4137(V)		
Q215, 216	:2SC2316		
Q217, 218	:2SC4468		
Q219, 220	:2SA1695		

DC voltages are as measured with a high impedance voltmeter during reception of the FM broadcast signal (with a singal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between indvidual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at the ANT terminal).

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.
Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM avec une force de signal de 60 dB à la borne ANT).

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser bei Empfang eines UKW-Signals (mit einer Feldstärke von 60 dB am Antennenanschluß) gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die eingeklammerten Gleichspannungswerte wurden bei Empfang eines MW-Signals (mit einer Feldstärke von 60 dB am Antennenschluß) gemessen.

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 retumed to the customer.

SIGNAL LINE
GND LINE
+B LINE
−B LINE

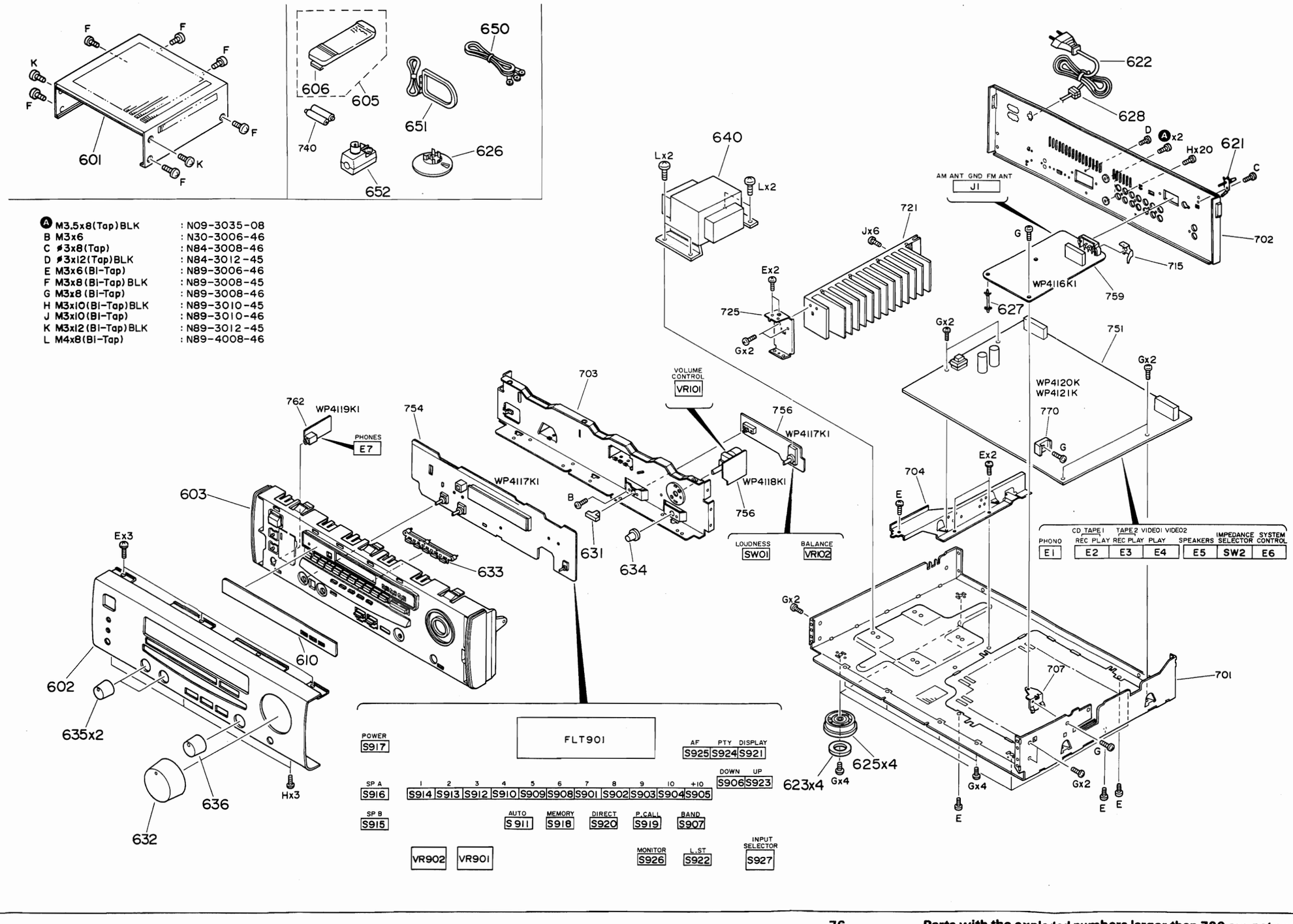
KR-A5050

KENWOOD

Y05-2760-10

EXPLODED VIEW (UNIT)

Ⓐ M3.5x8(Tap)BLK	: N09-3035-08
B M3x6	: N30-3006-46
C ø3x8(Tap)	: N84-3008-46
D ø3x12(Tap)BLK	: N84-3012-45
E M3x6(Bi-Tap)	: N89-3006-46
F M3x8(Bi-Tap)BLK	: N89-3008-45
G M3x8(Bi-Tap)	: N89-3008-46
H M3x10(Bi-Tap)BLK	: N89-3010-45
J M3x10(Bi-Tap)	: N89-3010-46
K M3x12(Bi-Tap)BLK	: N89-3012-45
L M4x8(Bi-Tap)	: N89-4008-46



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

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

NO.1

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
			KR-A4050			
601	1A	*	A01-3091-08	METALIC CABINET		
602	3A	*	A60-0517-08	FRONT PANEL		
603	2A	*	A22-1668-08	SUB PANEL		
605	1B		A70-0953-08	REMOCON		
606	1A		A09-0088-01	BATTERY COVER		
610	3A	*	B10-2008-08	FRONT GRASS		
-			B46-0122-23	WARRANTY CARD	E	
-			B46-0143-13	WARRANTY CARD	T	
-		*	B60-1286-08	INSTRUCTION MANUAL (SPANISH)	E	
-		*	B60-1287-08	INSTRUCTION MANUAL (ENGLISH)		
-		*	B60-1288-08	INSTRUCTION MANUAL (FR,GE,DU)	E	
		*	CK45B2H103Z	CERAMIC 0.010UF Z		
621	1D		E21-0023-08	GND TERMINAL		
⚠ 622	1D		E30-0459-05	AC CORD	E	
⚠ 622	1D		E30-2718-05	AC CORD	T	
⚠ A501			E03-0055-05	AC OUTLET	E	
⚠ A501			E03-0085-05	AC OUTLET	T	
623	3C	*	G13-0297-08	CUSHION		
		*	H10-5661-08	POLYSTEREN FORMED FIXTUER		
		*	H50-0728-08	CARTON BOX		
-			H25-0647-08	PROTECTION BAG		
-		*	H25-1505-08	PROTECTION BAG		
-		*	H25-1506-08	PROTECTION BAG		
625	3C	*	J02-1099-08	FOOT ASSY		
626	1B		J19-2815-04	ANTTENNA HOLDER		
627	1C	*	J19-3631-08	UNIT HOLDER		
628	1D	*	J42-0199-08	AC CORD BUSHING		
631	2B		K27-2105-08	KNOB PUSH		
632	3A		K27-2107-08	KNOB VOLUME		
633	2B	*	K27-2110-08	KNOB FUNCTION		
634	2B		K29-4444-08	KNOB BALANCE		
635	3A		K29-4445-08	KNOB CONTROL		
636	3A	*	K27-2111-08	KNOB SELECTOR		
⚠ 640	1C	*	L07-0823-08	POWER TRANSFORMER	E	
⚠ 640	1C	*	L07-0824-08	POWER TRANSFORMER	T	
A	1D	*	N09-3035-08	TAPTITE SCREW		
B	2B		N30-3006-46	PAN HEAD MACHIN SCREW		
C	1D		N84-3008-46	BINDING HEAD TAPTITE SAREW		
D	1D	*	N84-3012-45	TAPTITE SCREW		
E	2C		N89-3006-46	BINDING HEAD TAPTITE SCREW		
F	1A		N89-3008-45	BINDING HEAD TAPTITE SCREW		
G	3C,3D		N89-3008-46	BINDING HEAD TAPTITE SCREW		
H	3A,1D		N89-3010-45	BINDING HEAD TAPTITE SCREW		
J	1C		N89-3010-46	BINDING HEAD TAPTITE SCREW		
K	1A		N89-3012-45	BINDIND HEAD TAPTITE SCREW		
L	1C		N89-4008-46	BINDING HEAD TAPTITE SCREW		
650	1B		T90-0176-05	T TYPE ANTENNA		
651	1B		T90-0184-08	LOOP ANTTENA		
652	1B		T90-0185-05	ANTTENNA ADAPTER		

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

⚠ indicates safety critical components

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

NO.2

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
			KR-A5050			
601	1A	*	A01-3091-08	METALIC CABINET		
602	3A	*	A60-0518-08	FRONT PANEL		
603	2A	*	A22-1668-08	SUB PANEL		
605	1B	*	A70-0953-08	REMOCON		
606	1A		A09-0088-01	BATTERY COVER		
610	3A	*	B10-2008-08	FRONT GRASS		
-			B46-0122-23	WARRANTY CARD		
-		*	B60-1287-08	INSTRUCTION MANUAL (ENGLISH)		
-		*	B60-1288-08	INSTRUCTION MANUAL (FR,GE,DU)		
-		*	B60-1289-08	INSTRUCTION MANUAL (ITALIAN)		
621	1D		E21-0023-08	GND TERMINAL		
⚠ 622	1D		E30-0459-05	AC CORD		
⚠ A501			E03-0055-05	AC OUTLET		
623	3C	*	G13-0297-08	CUSHION		
		*	H10-5661-08	POLYSTEREN FORMED FIXTUER		
		*	H50-0729-08	CARTON BOX		
-			H25-0647-08	PROTECTION BAG		
-		*	H25-1505-08	PROTECTION BAG		
-		*	H25-1506-08	PROTECTION BAG		
625	3C	*	J02-1099-08	FOOT ASSY		
626	1B		J19-2815-04	ANTTENNA HOLDER		
627	1C	*	J19-3631-08	UNIT HOLDER		
628	1D	*	J42-0199-08	AC CORD BUSHING		
631	2B		K27-2105-08	KNOB PUSH		
632	3A		K27-2107-08	KNOB VOLUME		
633	2B	*	K27-2110-08	KNOB FUNCTION		
634	2B		K29-4444-08	KNOB BALANCE		
635	3A		K29-4445-08	KNOB CONTROL		
636	3A		K27-2111-08	KNOB SELECTOR		
⚠ 640	1C	*	L07-0568-08	POWER TRANSFORMER		
A	1D	*	N09-3035-08	TAPTITE SCREW		
B	2B		N30-3006-46	PAN HEAD MACHIN SCREW		
C	1D		N84-3008-46	BINDING HEAD TAPTITE SCREW		
D	1D	*	N84-3012-45	BINDING HEAD TAPTITE SCREW		
E	2C		N89-3006-46	BINDING HEAD TAPTITE SCREW		
F	1A		N89-3008-45	BINDING HEAD TAPTITE SCREW		
G	3C,3D		N89-3008-46	BINDING HEAD TAPTITE SCREW		
H	3A,1D		N89-3010-45	BINDING HEAD TAPTITE SCREW		
J	1C	*	N89-3010-46	BINDING HEAD TAPTITE SCREW		
K	1A		N89-3012-45			
L	1C		N89-4008-46	BINDING HEAD TAPTITE SCREW		
650	1B		T90-0176-05	T TYPE ANTENNA		
651	1B		T90-0184-08	LOOP ANTTENA		
652	1B		T90-0185-05	ANTTENNA ADAPTER		
			MAIN UNIT (WP4121K1) / PHONE UNIT (WP4119K1)			
⚠ C1			KHR-0M4726M6	CERAMIC 4700PF 125V		
C2 -4			CK45FF1H103Z	CERAMIC 0.010UF Z		
C5			KHR-PE0417D0	ELECTRO 470UF 25WV		
C6			CE04KW1H100M	ELECTRO 10UF 50WV		
C7			CE04KW1A101M	ELECTRO 100UF 10WV		

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NO.3

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C8			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C9			CE04KW1H101M	ELECTRO 100UF 50WV		
C10			CE04KW1V101M	ELECTRO 100UF 35WV		
C11			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C12			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C13 ,14			CK45F1H473Z	CERAMIC 0.047UF Z		
C15 ,16			KHR-PE0221G1	ELECTRO 4700UF 50WV		4
C15 ,16			KHR-PE0222H1	ELECTRO 6800UF 63WV		5
C17 ,18			CK45FF1H103Z	CERAMIC 0.010UF Z		
C22			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C23			CK45FF1H223Z	CERAMIC 0.022UF Z		
C24			CC45CH1H221J	CERAMIC 220PF J		
C31 -34			CK45FF1H103Z	CERAMIC 0.010UF Z		
C35		*	KHR-PE0418E1	ELECTRO 1000UF 35WV		
C36			CK45FF1H104Z	CERAMIC 0.10UF Z		
C37			CE04KW1C470M	ELECTRO 47UF 16WV		
C38		*	KHR-PE0415G1	ELECTRO 220UF 50WV		
C39			CE04KW1C101M	ELECTRO 100UF 16WV		
C40			CK45FF1H104Z	CERAMIC 0.10UF Z		
C101,102			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C103-106		*	CC45CH1H102J	CERAMIC 1000PF J		
C107,108			CE04KW1A101M	ELECTRO 100UF 10WV		
C109,110			CQ92FM1H332J	MYLAR 3300PF J		
C111,112			CQ92FM1H123J	MYLAR 0.012UF J		
C113,114			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C115			CK45FF1H103Z	CERAMIC 0.010UF Z		
C117,118			CK45FF1H104Z	CERAMIC 0.10UF Z		
C119-128			CC45CH1H221J	CERAMIC 220PF J		
C131-134			CC45CH1H221J	CERAMIC 220PF J		
C135,136			CE04KW1C470M	ELECTRO 47UF 16WV		
C137			CC45CH1H221J	CERAMIC 220PF J		
C138,139			CC45SL1H101J	CERAMIC 100PF J		
C140		*	CC45CH1H102J	CERAMIC 1000PF J		
C141,142			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C143-146			CC45CH1H221J	CERAMIC 220PF J		
C147,148			CE04KW1V100M	ELECTRO 10UF 35WV		
C149,150			CK45FF1H103Z	CERAMIC 0.010UF Z		
C151-153			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C154		*	CC45CH1H102J	CERAMIC 1000PF J		
C155			CK45FF1H104Z	CERAMIC 0.10UF Z		
C156			CE04KW1C101M	ELECTRO 100UF 16WV		
C201,202			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C203,204			CC45SL1H680J	CERAMIC 68PF J		
C205-208			CC45SL1H101J	CERAMIC 100PF J		
C209,210			CE04KW0J221M	ELECTRO 220UF 6.3WV		
C211,212			CC45CH1H221J	CERAMIC 220PF J		
C213,214			CC45CH1H221J	CERAMIC 220PF J		
C215,216			CC45SL1H680J	CERAMIC 68PF J		
C217,218			CK45FF1H103Z	CERAMIC 0.010UF Z		
C219,220			CC45CH1H220J	CERAMIC 22PF J		
C221,222			CC45CH1H221J	CERAMIC 220PF J		
C223			CE04KW1H470M	ELECTRO 47UF 50WV		4
C223			CE04KW1J470M	ELECTRO 47UF 63WV		5
C224			CE04KW1H101M	ELECTRO 100UF 50WV		4
C224		*	KHR-PE0414H1	ELECTRO 100UF 63WV		5

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NO.4

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C225			CE04KW0J221M	ELECTRO 220UF 6.3WV		
C227-230			CQ92FM1H683J	MYLAR 0.068UF J		
C231-234			CK45FF1H223Z	CERAMIC 0.022UF Z		
C235,236		*	CK45CH1H103J	CERAMIC 0.010UF J		
C301			CE04KW1C101M	ELECTRO 100UF 16WV		
CP1 ,2			KHR-RT0R25K0	MULTI-COMP 2.2X2 3W		
E1			E13-0249-05	PHONO JACK PHONO		
E2			E13-0633-05	PHONO JACK CD,TAPE1		
E3 ,4			E13-0445-05	PHONO JACK TAPE2,VIDEO1,2		
E5			E70-0004-08	LOCK TERMINAL BOARD SPEAKERS		
E6			E11-0188-05	MINIATUA PHONE JACK SYNCHORO		
E7			E11-0223-08	PHONE JACK HEAD PHONES		
⚠ F1			F05-1623-05	FUSE SEMCO T1.6A/250V		4
⚠ F1			F06-2021-05	FUSE SEMCO T2A/250V		5
⚠ F2			F05-2525-05	FUSE SEMCO T2.5A/250V	E	
⚠ F3			F06-1022-05	FUSE SEMCO T1A/250V		
-			J13-0084-08	FUSE CLIP		
L201,202			L39-1303-08	INDUCTOR 0.15UH		
L302		*	L33-0379-08	INDUCTOR 22UH		
⚠ T1		*	L07-0825-08	TRANSFORMER	T	4
⚠ T1		*	L07-0828-08	TRANSFORMER	E	
G	1C		N89-3008-46	BINDING HEAD TAPTITE SCREW		
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			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		
VR201,202			R12-1066-05	TRIM POT. 1KB IDLE ADJ		
⚠ K1		*	S76-0034-08	MAGNETIC RELAY		
K2 ,3		*	S76-0035-08	MAGNETIC RELAY		
SW2			S62-0032-08	SLIDE SWITCH IMPEDANCE SELECT		
D1			1SS133	DIODE		
D2 -5			1N4002	DIODE		
D6 -13			1SS133	DIODE		
D14 ,15			1N4002	DIODE		
D16 ,17			1SS133	DIODE		
D25 ,26			1SS133	DIODE		
D30			DBF40C	DIODE		4
D30			DBF60C	DIODE		5
D31 -36			1N4002	DIODE		
D101-110			1SS133	DIODE		
D201,202			1SS133	DIODE		
D203,204			1N4002	DIODE		
D205			1SS133	DIODE		
IC1			MC7815C	IC(VOLTAGE REGULATOR/+15)		

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NO.5

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
IC101			NJM4558DD	IC(OP AMP X2)		
IC102			TC9164N	IC(16CH BILATERAL SELECTOR SW)		
IC103			NJM4558DD	IC(OP AMP X2)		
IC104			TC9162N	IC(ANALOG SWITCH ARRAY)		
IC105			TC9163N	IC(BILATERAL SWITCH X16)		
IC106			BA6209N	IC(MOTOR DRIVER)		
Q1			2SD882	TRANSISTOR		
Q2 -5			DTC114ES	DIGITAL TRANSISTOR		
Q6		*	2SA1274	TRANSISTOR		
Q8			2SA933S	TRANSISTOR		
Q10			2SA933S	TRANSISTOR		
Q101-104			2SC2878	TRANSISTOR		
Q105,106			2SA933S	TRANSISROR		
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		
Q213,214		*	2SC2316	TRANSISTOR		
Q215,216		*	2SA916	TRANSISTOR		
Q217,218			2SC4467	TRANSISTOR		4
Q217,218		*	2SC4468	TRANSISTOR		5
Q219,220			2SA1694	TRANSISTOR		4
Q219,220		*	2SA1695	TRANSISTOR		5
Q221,222			2SC1845	TRANSISTOR		
Q223,224			2SC1740	TRANSISTOR		
ZD1			MTZ3.9B	ZENER DIODE		
ZD2 ,3			MTZJ5.1B	ZENER DIODE		
ZD4			RD6.2ES(B2)	ZENER DIODE		
ZD5			MTZJ5.1B	ZENER DIODE		
ZD6 ,7			MTZJ16A	ZENER DIODE		
ZD8 ,9			MTZJ5.1B	ZENER DIODE		
ZD10			RD6.8ES(B2)	ZENER DIODE		
ZD11			MTZJ8.2B	ZENER DIODE		
FRONT UNIT(WP4115K1)						
LD901			B30-0413-05	LED(LTL4213(RED))		
C903,904			CE04KW1C330M	ELECTRO 33UF 16WV		
C905			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C906			KHR-PX0001N3	BACKUP 0.1F 5.5WV		
C907			CE04KW1A101M	ELECTRO 100UF 10WV		
C908			CK45F1H103M	CERAMIC 0.010UF M		
C911,912			CK45FF1H103Z	CERAMIC 0.010UF Z		
C913,914			CK45B1H223K	CERAMIC 0.022UF K		
C921,922			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C923,924			CE04KW1C470M	ELECTRO 47UF 16WV		
C925,926			CK45FF1H103Z	CERAMIC 0.010UF Z		
C927,928			CQ92FM1H473J	MYLAR 0.047UF J		
C929,930			CC45SL1H221J	CERAMIC 220PF J		
C931,932			CC45SL1H470J	CERAMIC 47PF J		
C933,934			CQ92FM1H472J	MYLAR 4700PF J		
C935,936			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C937,938			CC45SL1H470J	CERAMIC 47PF J		
C939,940			CE04KW1H010M	ELECTRO 1.0UF 50WV		

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NO.6

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C941-944			CE04KW1H100M	ELECTRO 10UF 50WV		
C946			CK45FF1H103Z	CERAMIC 0.010UF Z		
C950			CK45F1H103M	CERAMIC 0.010UF M		
L901		*	L33-0380-08	INDUCTOR 10UH		
L902			L40-1091-17	SMALL FIXED INDUCTOR 1UH		
X901			L78-0209-05	RESONATOR 4.19MHz		
VR901,902		*	R06-3078-08	POTENTIOMETER BASS TREBLE		
SW901-926			S70-0008-08	TACT SWITCH KEY BOARD		
SW927		*	S60-0024-08	ROTARY SWITCH INPUT SELECTOR		
D901-909			1SS133	DIODE		
D913-932			1SS133	DIODE		
D933			MTZ5.1B	DIODE		
D934		*	MTZ2.7B	ZENER DIODE		
FLT901			10-MT-58GK	FLUORESCENT INDICATOR TUBE		
IC901			UPD78044GF-021	IC(8BIT MICROPROCESSOR)		
IC902			PST529C	IC(SYSTEM RESET)		
IC903			NJM4558DD	IC(OP AMP X2)		
Q901-903			DTA144ES	DIGITAL TRANSISTOR		
Q904			DTC143ES	DIGITAL TRANSISTOR		
Q905,906			2SC1740	TRANSISTOR		
A901			W02-1111-08	FRONT END UNIT		
VOLUME/LOUDNESS UNIT (WP4117K1) / MOTOR VOLUME UNIT (WP4118KI)						
C159,160			CQ92FM1H273J	MYLAR 0.027UF J		
VR101		*	R29-5082-08	POTENTIOMETER 100KBX2 VOLUME		
VR102			R10-5071-08	POTENTIOMETER BALANCE		
SW1			S40-2376-05	PUSH SWITCH LOUDNESS		
TUNER UNIT(WP4116K1)						
C801			CC45CH1H330J	CERAMIC 33PF J		
C802,803			CK45B1H102K	CERAMIC 1000PF K		
C804,805			CK45F1H103M	CERAMIC 0.010UF M		
C806			CE04KW1C470M	ELECTRO 47UF 16WV		
C807			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C808			CE04KW1C470M	ELECTRO 47UF 16WV		
C809			CQ92FM1H223J	MYLAR 0.022UF J		
C810			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C811			CK45F1H473Z	CERAMIC 0.047UF Z		
C812			CC45CH1H150J	CERAMIC 15PF J		
C813			CE04KW1C4R7M	ELECTRO 4.7UF 16WV		
C814			CE04KW1C2R2M	ELECTRO 2.2UF 16WV		
C815			CE04KW1C3R3M	ELECTRO 3.3UF 16WV		
C816			CK45F1H103M	CERAMIC 0.010UF M		
C817,818			CK45FF1H223Z	CERAMIC 0.022UF Z		
C819			CQ92FM1H153J	MYLAR 0.015UF J		
C820			CK45FF1H223Z	CERAMIC 0.022UF Z		
C821			CE04KW1C100M	ELECTRO 10UF 16WV		
C822		*	CE04KW1CR47M	ELECTRO 0.47UF 16WV		
C823			CK45F1H103M	CERAMIC 0.010UF M		
C824			CC45CH1H220J	CERAMIC 22PF J		
C825-828			CK45F1H103M	CERAMIC 0.010UF M		
C829			CE04KW1C470M	ELECTRO 47UF 16WV		

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NO.7

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C830			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C831-833			CC45CH1H101J	CERAMIC 100PF J		
C834			CE04KW1C4R7M	ELECTRO 4.7UF 16WV		
C835			CQ92FM1H103J	MYLAR 0.010UF J		
C836			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C837			CE04KW1CR22M	ELECTRO 0.22UF 16WV		
C838,839			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C840			CE04KW1C101M	ELECTRO 100UF 16WV		
C841			CC45SL1H561K	CERAMIC 560PF K		
C842,843			CE04KW1C100M	ELECTRO 10UF 16WV		
C844,845			CC45SL1H221J	CERAMIC 220PF J		
C846,847			CE04KW1C2R2M	ELECTRO 2.2UF 16WV		
C848,849			CQ92FM1H392J	MYLAR 3900PF J		
C850			CK45F1H103M	CERAMIC 0.010UF M		
C851			CE04KW1C470M	ELECTRO 47UF 16WV		
C852			CK45F1H103M	CERAMIC 0.010UF M		
C853,854			CC45CH1H220J	CERAMIC 22PF J		
C855-858			CK45B1H471K	CERAMIC 470PF K		
C859		*	CE04KW1C0R1M	ELECTRO 0.1UF 16WV		
C860			CK45F1H103M	CERAMIC 0.010UF M		
C861			CE04KW1C470M	ELECTRO 47UF 16WV		
C862			CK45F1H103M	CERAMIC 0.010UF M		
C863,864			CE04KW1C100M	ELECTRO 10UF 16WV		
C865,866			CK45F1H103M	CERAMIC 0.010UF M		
C868			CC45SL1H270J	CERAMIC 27PF J		
C871			CC45SL1H271J	CERAMIC 270PF J		
C872			CE04KW1C100M	ELECTRO 10UF 16WV		
C873			CK45F1H103M	CERAMIC 0.010UF M		
C874,875			CC45SL1H270J	CERAMIC 27PF J		
C876			CK45F1H103M	CERAMIC 0.010UF M		
C877,878			CE04KW1C100M	ELECTRO 10UF 16WV		
C879,880			CK45F1H103M	CERAMIC 0.010UF M		
JACK801			E70-0023-08	TERMINAL BOARD ANTENNA		
CF801,802		*	L72-0575-08	CERAMIC FILTER 10.7MHz		
L801			L40-1091-17	SMALL FIXED INDUCTOR 1UH		
L802		*	L39-1322-08	COIL		
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	COIL		
L808,809		*	L35-0070-08	COIL		
L810			L40-1091-17	SMALL FIXED INDUCTOR 1UH		
L811,812		*	L33-0380-08	SMALL FIXED INDUCTOR 10UH		
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		
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			RD14GB3D221J	FL-PROOF RD 220 J 2W		

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NO.8

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VR801			R12-1053-05	TRIM POT. 4.7KB AM TUNE LEVEL		
VR802			R12-3083-05	TRIM POT. 47KB FM TUNE LEVEL		
VR803			R12-6663-05	TRIM POT. 330KB SEPARATION		
D801-809			1SS133T	DIODE		
D810			RD5.1ES(B2)	ZENER DIODE		
D811			1SS133T	DIODE		
D812			RD13ES(B2)	ZENER DIODE		
IC801			LA1266	IC(AM/FM IF)		
IC802			LA3401	IC(FM MPX)		
IC803			LC7218	IC(PLL SYNTHESIZER)		
IC804		*	LM258N	IC		
IC805			TDA7330A	IC(RDS DEMODULATOR)		
IC806			LC6543H-4600	IC		
Q801			2SC1740S	TRANSISTOR		
Q802			2SA933S	TRANSISTOR		
Q803			2SC1740S	TRANSISTOR		
Q804			2SC3194Q	TRANSISTOR		
Q805			2SC1845F	TRANSISTOR		
Q806-808			2SC1740S	TRANSISTOR		
Q809,810			2SA933S	TRANSISTOR		
Q811			2SD2061E	TRANSISTOR		
Q812			NJM78L05A	IC(VOLTAGE REGULATOR/ +5V)		
TUNER801			W02-1041-15	TUNER ASSY		

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Y:PX(Far East, Hawaii) T:England E:Europe
Y:AAFES(Europe) X:Australia M:Other Areas

⚠ indicates safety critical component.

KR-A4050/5050

PARTS LIST

SPECIFICATIONS

(For the U.S.A. and Canada)

[AUDIO section]

Rated power output (FTC)
STEREO MODE

100 watts per channel minimum RMS, both channels driven, at 8 Ω from 20 Hz to 20,000 Hz with no more than 0.06 % total harmonic distortion.

Total harmonic distortion
..... 0.03 % (1 kHz, 50 W, 8 Ω)
Signal to noise ratio
(IHF'66)
PHONE (MM) ..... 73 dB
LINE (CD,TAPE, VIDEO) ..... 100 dB
Input sensitivity / impedance
PHONE (MM) ..... 2.5 mV / 47 kΩ
LINE (CD, TAPE, VIDEO) ..... 200 mV /47 kΩ
Tone control
BASS ..... ± 10 dB (at 100 Hz)
TREBLE ..... ± 10 dB (at 10 kHz)
Loudness control (volume at –30 dB level)
..... + 9 dB (100 Hz)

[FM tuner section]
Tuning frequency range ..... 87.5 MHz ~ 108 MHz
Usable sensitivity (MONO at 75 Ω) .. 0.95 μ V / 10.8 dBf
50 dB quieting sensitivity (at 75Ω)
MONO ..... 2.0 μ V / 17.2 dBf
STEREO ..... 25.0 μ V / 39.2 dBf
Total harmonic distortion (at 1 kHz)
MONO ..... 0.4 % (65 dBf input)
STEREO ..... 0.5 % (65 dBf input)
Signal to noise ratio (at 1 kHz)
MONO ..... 78 dB (65 dBf input)
STEREO ..... 73 dB (65 dBf input)
Stereo separation
1 kHz ..... 45 dB
Selectivity (± 400 kHz) ..... 50 dB
Frequency response (30 Hz ~ 15 kHz)
..... + 0.5 dB, –2.0 dB

[AM tuner section]
Tuning frequency range ..... 530 kHz ~ 1,700 kHz
Usable sensitivity ..... 16 μ V / (400 μ V/m)
Signal to noise ratio (at 30% mod. 1mV input) .... 50 dB
Total harmonic distortion ..... 0.5 %
Selectivity ..... 23 dB

[General]
Power consumption ..... 2,5 A
AC outlet
SWITCHED ..... 2: (Total 150W max.)
Dimensions ..... W : 440 mm (17-5/16")
H : 129 mm (5-1/16")
D : 379 mm (14-15/16")
Weight (Net) ..... 10.2 kg (22,5 lb)

(For other countries)

[AUDIO section]
Rated power output
(IHF'66) From 20 Hz to 20,000 Hz, 0.06 % T.H.D.
at 8 Ω ..... 105 W+105 W
Total harmonic distortion
..... 0.03 % (1 kHz, 50 W, 8 Ω)
Signal to noise ratio
(IHF'66)
PHONE (MM) ..... 73 dB
LINE (CD,TAPE, VIDEO) ..... 100 dB
Input sensitivity / impedance
PHONE (MM) ..... 2.5 mV / 47 k Ω
LINE (CD, TAPE, VIDEO) ..... 200 mV / 47 k Ω
Tone control
BASS ..... ± 10 dB (at 100 Hz)
TREBLE ..... ± 10 dB (at 10 kHz)
Loudness control (volume at –30 dB level)
..... + 9 dB (100 Hz)

[FM tuner section]
Tuning frequency range ..... 87.5 MHz ~ 108 MHz
Usable sensitivity (MONO at 75 Ω) .. 0.95 μ V / 10.8 dBf
50 dB quieting sensitivity (at 75Ω)
MONO ..... 2.0 μ V / 17.2 dBf
STEREO ..... 25,0 μ V / 39.2 dBf
Total harmonic distortion (at 1 kHz)
MONO ..... 0.4 % (65 dBf input)
STEREO ..... 0.5 % (65 dBf input)
Signal to noise ratio (at 1 kHz)
MONO ..... 78 dB (65 dBf input)
STEREO ..... 73 dB (65 dBf input)
Stereo separation
1 kHz ..... 45 dB
Selectivity (± 400 kHz) ..... 50 dB
Frequency response (30 Hz ~ 15 kHz)
..... + 0.5 dB, - 2.0 dB

[AM tuner section]
Tuning frequency range
9 kHz step ..... 531 kHz ~ 1,602 kHz
10 kHz step ..... 530 kHz ~ 1,610 kHz
Usable sensitivity ..... 16 μ V / (400 μ V/m)
Signal to noise ratio (at 30% mod. 1mV input) ... 50 dB
Total harmonic distortion ..... 0.5 %
Selectivity ..... 23 dB

[General]
Power consumption ..... 230 W
AC outlet
SWITCHED ..... 2: (Total 150 W max.)
Dimensions ..... W: 440 mm
H: 129 mm
D: 379 mm
Weight (Net) ..... 10,2 kg

KR-A5050 K, P

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

KR-A4050/5050

SPECIFICATIONS

For KR-A5050

Audio section

Rated power output
at 1kHz, 8 Ω (DIN) ..... 100 W + 100 W
Total harmonic distortion (1 kHz, 8 Ω) .... 0.01% at 50 W
Signal to noise ratio
PHONO (MM) ..... 56 dB (DIN, 50 mW output)
CD, TAPE, VIDEO ..... 57 dB (DIN, 50 mW output)
Input sensitivity / impedance
PHONO (MM) ..... 2.5 mV / 47 kΩ
CD, TAPE, VIDEO ..... 200 mV / 47 kΩ
Tone controls
BASS ..... ± 10 dB (at 100 Hz)
TREBLE ..... ± 10 dB (at 10 kHz)
Loudness control at –30 dB VOLUME level
..... + 9 dB (100 Hz)

FM Tuner section

Tuning frequency range ..... 87.5 MHz ~ 108 MHz
Usable sensitivity (DIN at 75 Ω)
MONO ..... 1.1 μV
STEREO ..... 45 μV
Total harmonic distortion at 1 kHz (DIN)
MONO ..... 0.15 % (65.2 dBf input)
STEREO ..... 0.5 % (65.2 dBf input)
Signal to noise ratio (DIN weighted at 1 kHz)
MONO ..... 68 dB (65.2 dBf input)
STEREO ..... 61 dB (65.2 dBf input)
Selectivity (DIN ± 300 kHz) ..... 53 dB
Stereo separation (DIN)
1 kHz ..... 40 dB
6.3 kHz ..... 33 dB
Frequency response .. 30 Hz ~ 15 kHz, + 0.5 dB, – 2.0 dB

AM Tuner Section

Tuning frequency range ..... 531 kHz ~ 1,602 kHz
Usable sensitivity ..... 12 μV / (400 μV / m)
Total harmonic distortion ..... 0.3 %
Signal to noise ratio (at 30 % mod. 1 mV input) .. 50 dB
Selectivity ..... 30 dB

General

Power consumption ..... 190 W (IEC)
AC outlet
SWITCHED ..... 2: (total 200 W max.)
Dimensions ..... 440 (W) × 133 (H) × 350 (D) mm
Weight (net) ..... 8.6 kg

For KR-A4050

Audio section

Rated power output
at 1kHz, 8 Ω (DIN) ..... 60 W + 60 W
Total harmonic distortion (1 kHz, 8 Ω) .... 0.01% at 40 W
Signal to noise ratio
PHONO (MM) ..... 56 dB (DIN, 50 mW output)
CD, TAPE, VIDEO ..... 57 dB (DIN, 50 mW output)
Input sensitivity / impedance
PHONO (MM) ..... 2.5 mV / 47 kΩ
CD, TAPE, VIDEO ..... 200 mV / 47 kΩ
Tone controls
BASS ..... ± 10 dB (at 100 Hz)
TREBLE ..... ± 10 dB (at 10 kHz)
Loudness control at –30 dB VOLUME level
..... + 9 dB (100 Hz)

FM Tuner section

Tuning frequency range ..... 87.5 MHz ~ 108 MHz
Usable sensitivity (DIN at 75 Ω)
MONO ..... 1.1 μV
STEREO ..... 45 μV
Total harmonic distortion at 1 kHz (DIN)
MONO ..... 0.15 % (65.2 dBf input)
STEREO ..... 0.5 % (65.2 dBf input)
Signal to noise ratio (DIN weighted at 1 kHz)
MONO ..... 68 dB (65.2 dBf input)
STEREO ..... 61 dB (65.2 dBf input)
Selectivity (DIN ± 300 kHz) ..... 53 dB
Stereo separation (DIN)
1 kHz ..... 40 dB
6.3 kHz ..... 33 dB
Frequency response .. 30 Hz ~ 15 kHz, + 0.5 dB, – 2.0 dB

AM Tuner Section

Tuning frequency range ..... 531 kHz ~ 1,602 kHz
Usable sensitivity ..... 12 μV / (400 μV / m)
Total harmonic distortion ..... 0.3 %
Signal to noise ratio (at 30 % mod. 1 mV input) .. 50 dB
Selectivity ..... 30 dB

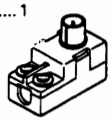
General

Power consumption ..... 120 W (IEC)
AC outlet
SWITCHED ..... 2: (total 200 W max.)
Dimensions ..... 440 (W) × 133 (H) × 350 (D) mm
Weight (net) ..... 7.0 kg

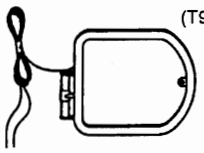
Note:
KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Accessories

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

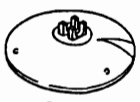


- AM loop antenna 1 (T90-0184-08)

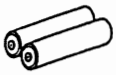


- FM indoor antenna 1 (T90-0176-05)

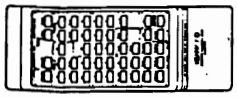
- Loop antenna stand 1 (J19-2815-04)



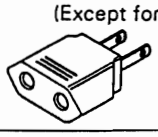
- Batteries(R6 / AA) 2



- Remote control unit 1 (A70-0953-08)
(A09-0088-01) Battery cover



- AC plug adaptor ..... 1 (Except for some areas) (E03-0115-05) : K,P



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