

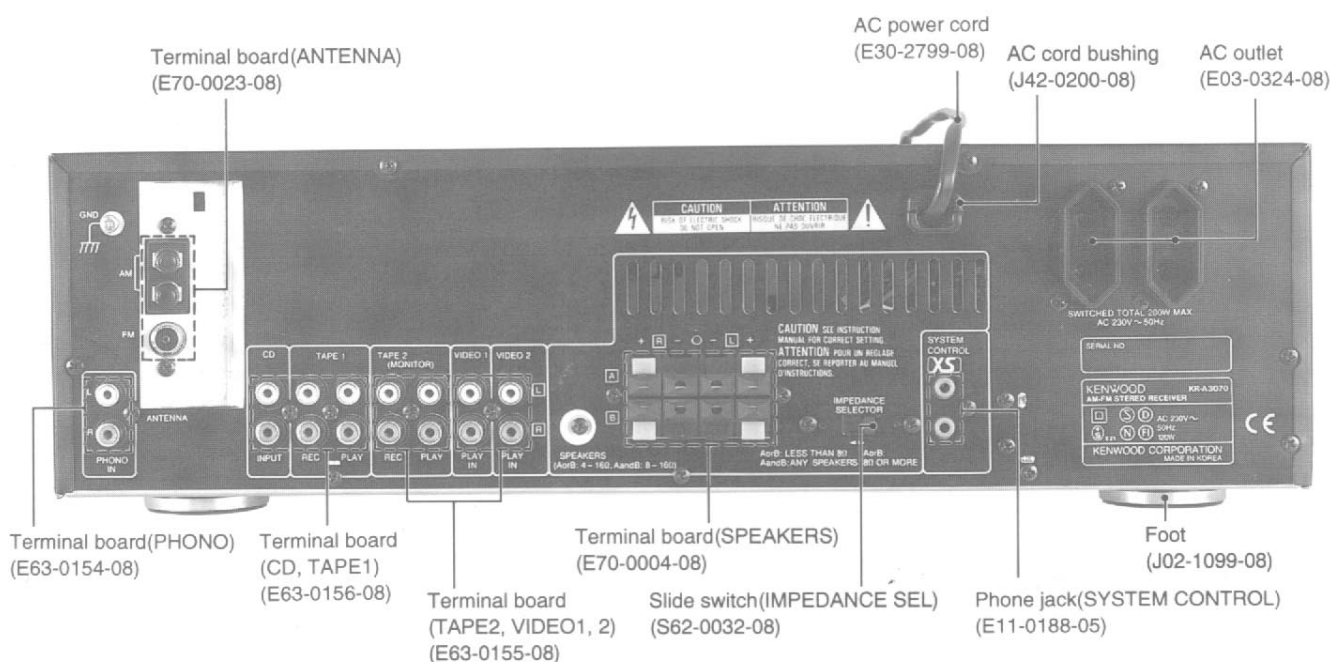
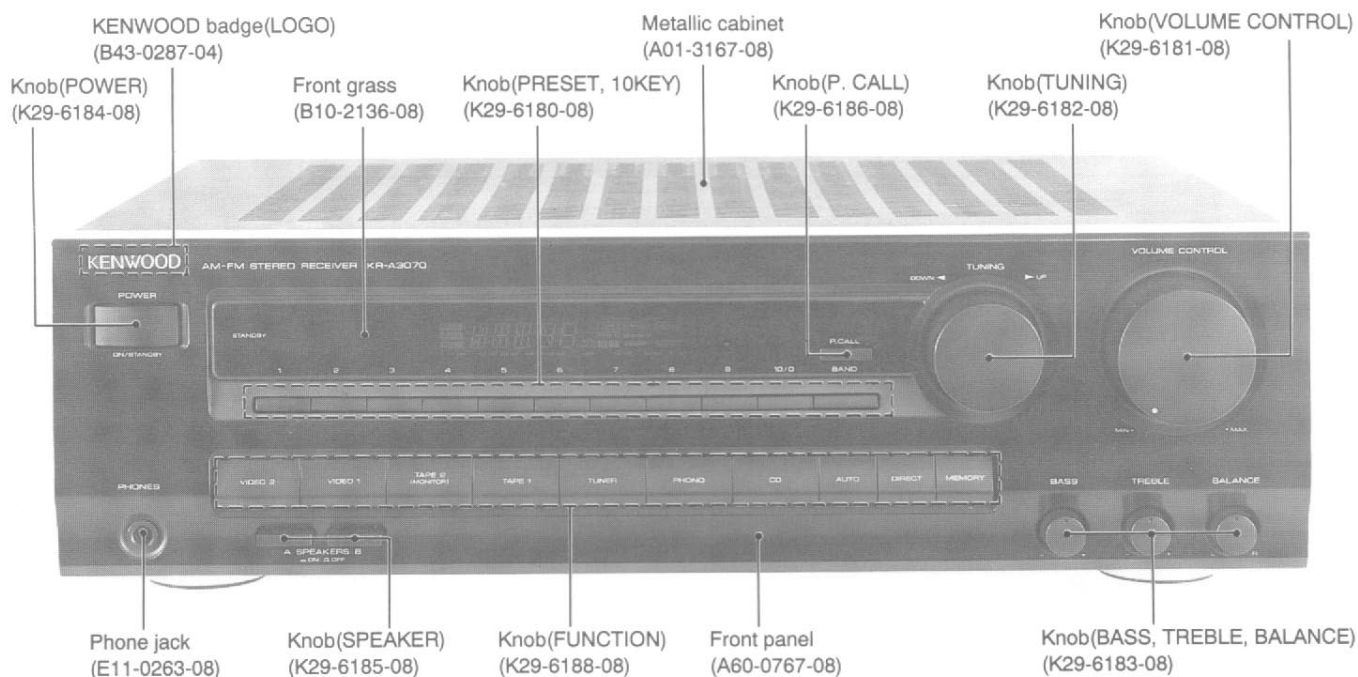
AM-FM STEREO RECEIVER

KR-A3070 [E, G Type]

SERVICE MANUAL

KENWOOD

© 1995-4 PRINTED IN KOREA
B51-5055-00 (S) 1622



PRECAUTIONS FOR REPAIR

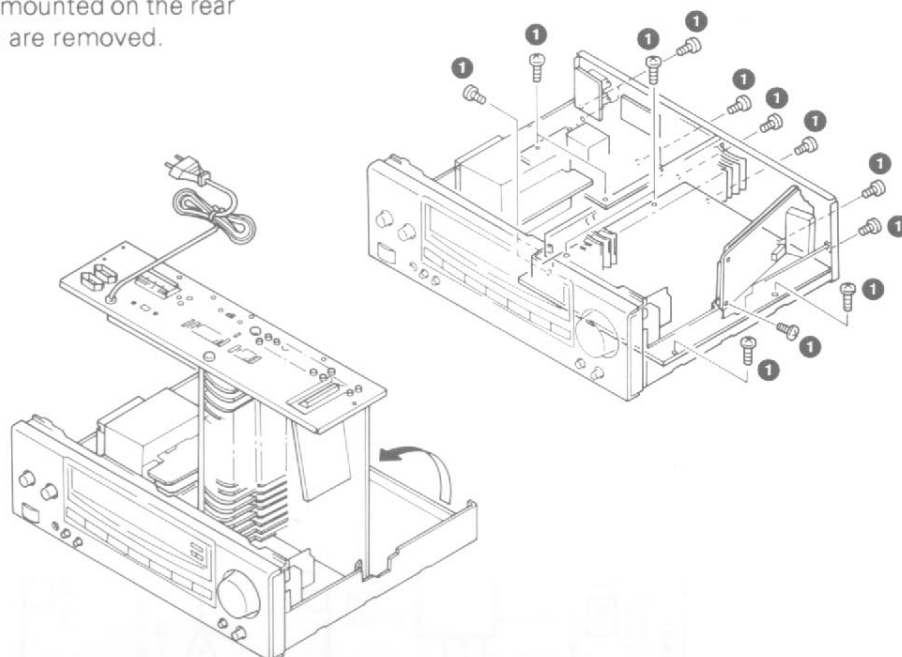
- For the **CIRCUIT DESCRIPTION**, see Service Manual (B51-4890-00) of KR-A3060.

Refer to parts list on page 22.

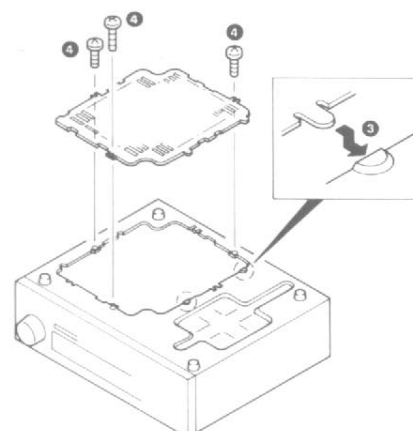
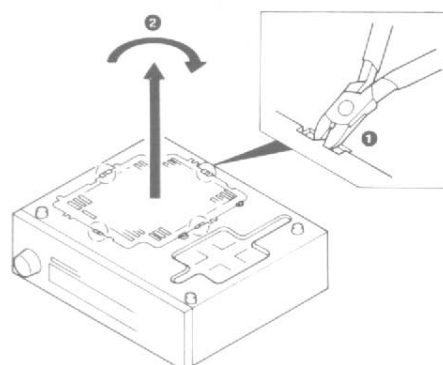
DISASSEMBLY FOR REPAIR

[Illustrations are reference materials.]

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

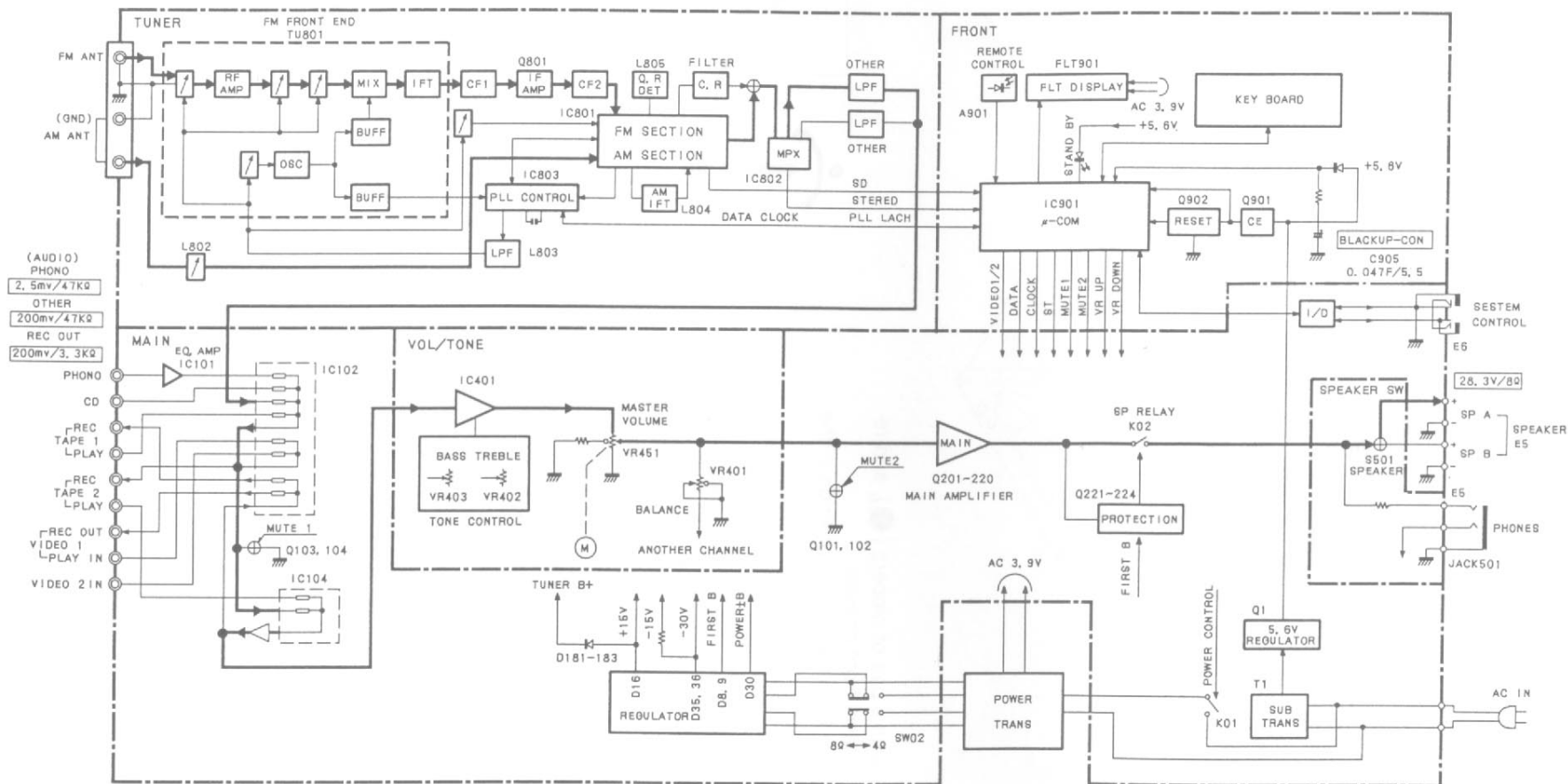


2. Cut the 4 places with a pair of nippers (1), and remove the bottom panel from chassis.
3. Move the unit holder from the current position to the open mounting position.
4. Rotate the lid, which was cut off, by 180° degrees (2).
5. Insert the lids in the 2 places of the chassis (3), and mount them with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



KR-A3070 [E, G]

BLOCK DIAGRAM



KR-A3070 [E, G]

ADJUSTMENT

AM. Section: If alignment point is "—", Confirm the value.

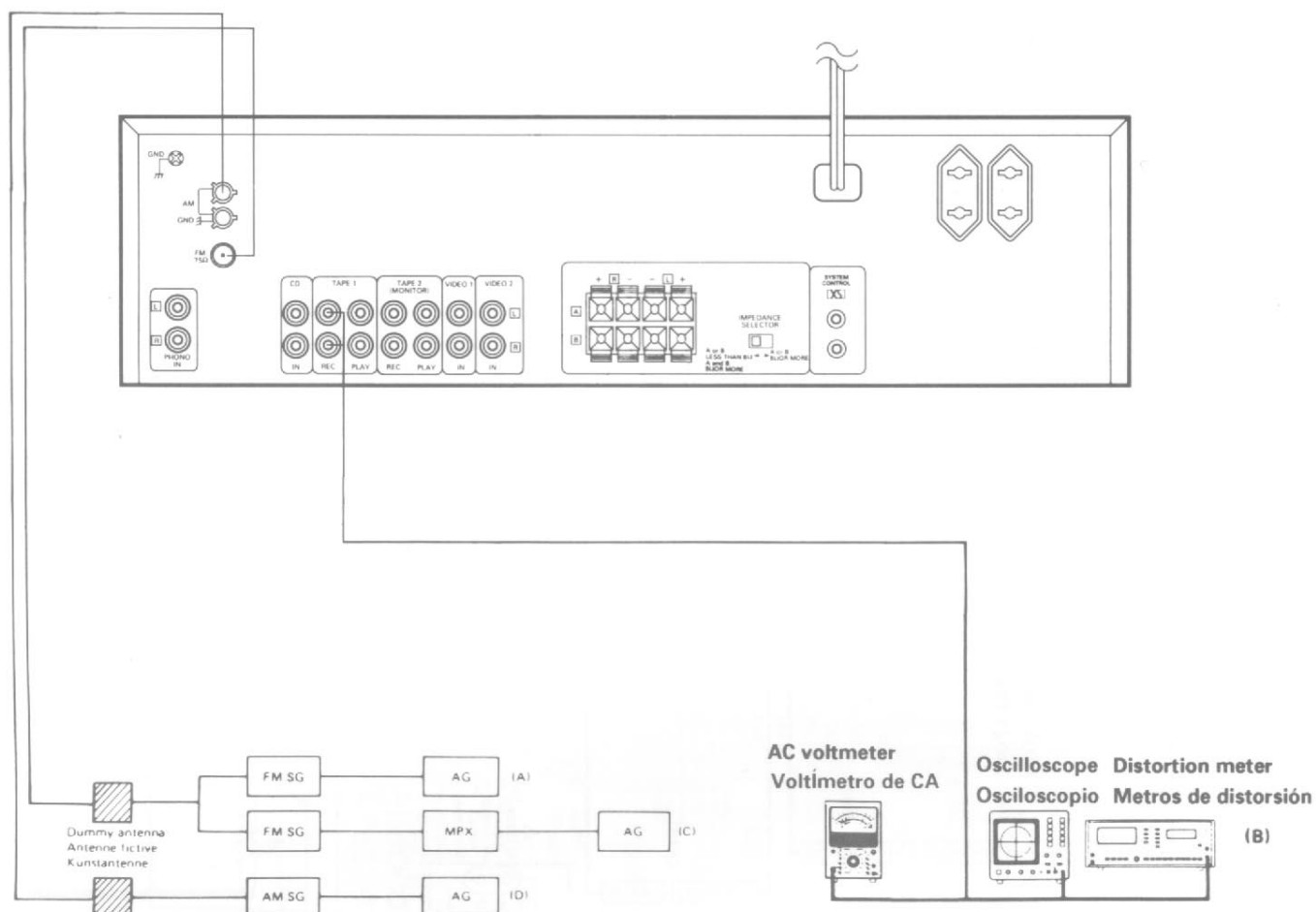
If not, replace the front end pack.

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION		SELECTOR: FM					
1	DISCRIMINATOR	(A) 98.0MHz 1kHz, ±75kHz dev. 60dBμ(Ant. input)	Connect a DC voltmeter between TP803 and TP804. (TUNER UNIT)	AUTO or MONO 98.0MHz	L806 (TUNER UNIT)	0V	(a)
2	VCO	(A) 98.0MHz 0 dev. 60dBμ(Ant. input)	Connect a frequency counter between TP805 and TP806. (TUNER UNIT)	AUTO 98.0MHz	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	SEPARATION	(C) 98.0 MHz 1kHz, ±40kHz dev. Pilot : 6kHz dev. Selector : L or R 60dBμ (Ant. input)	(B)	AUTO 98.0MHz	VR803 (TUNER UNIT)	Minimum crosstalk	
5	TUNING LEVEL	(A) 98.0MHz 0 dev 18dBμ(Ant. input)	(B)	AUTO or MONO 98.0MHz	VR801 (TUNER UNIT)	Adjust VR801 and stop at the point where FLT901(TUNED) goes on.	
AM SECTION		SELECTOR: AM					
(1)	TUNING LEVEL	(D) 1000(999)kHz 26dBμ(Ant. input)	(B)	—	VR804 (TUNER UNIT)	Adjust VR804 and stop at the point where FLT901(TUNED) goes on.	
AUDIO SECTION							
<1>	IDLE CURRENT	—	Connect a DC voltmeter across CP1 or TP2(L) CP2 or TP1(R) (MAIN UNIT)	Volume: 0	VR101(L) VR102(R) (MAIN UNIT)	5mV	(d)

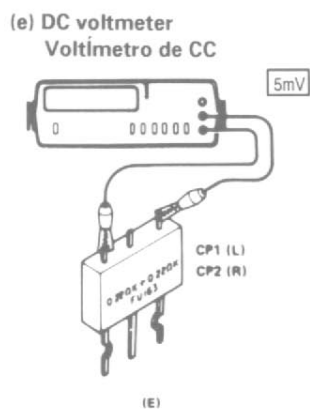
KR-A3070 [E, G]

ADJUSTMENT/AJUSTES

SYSTEM CONNECTIONS/CONEXIONES DEL SISTEMA

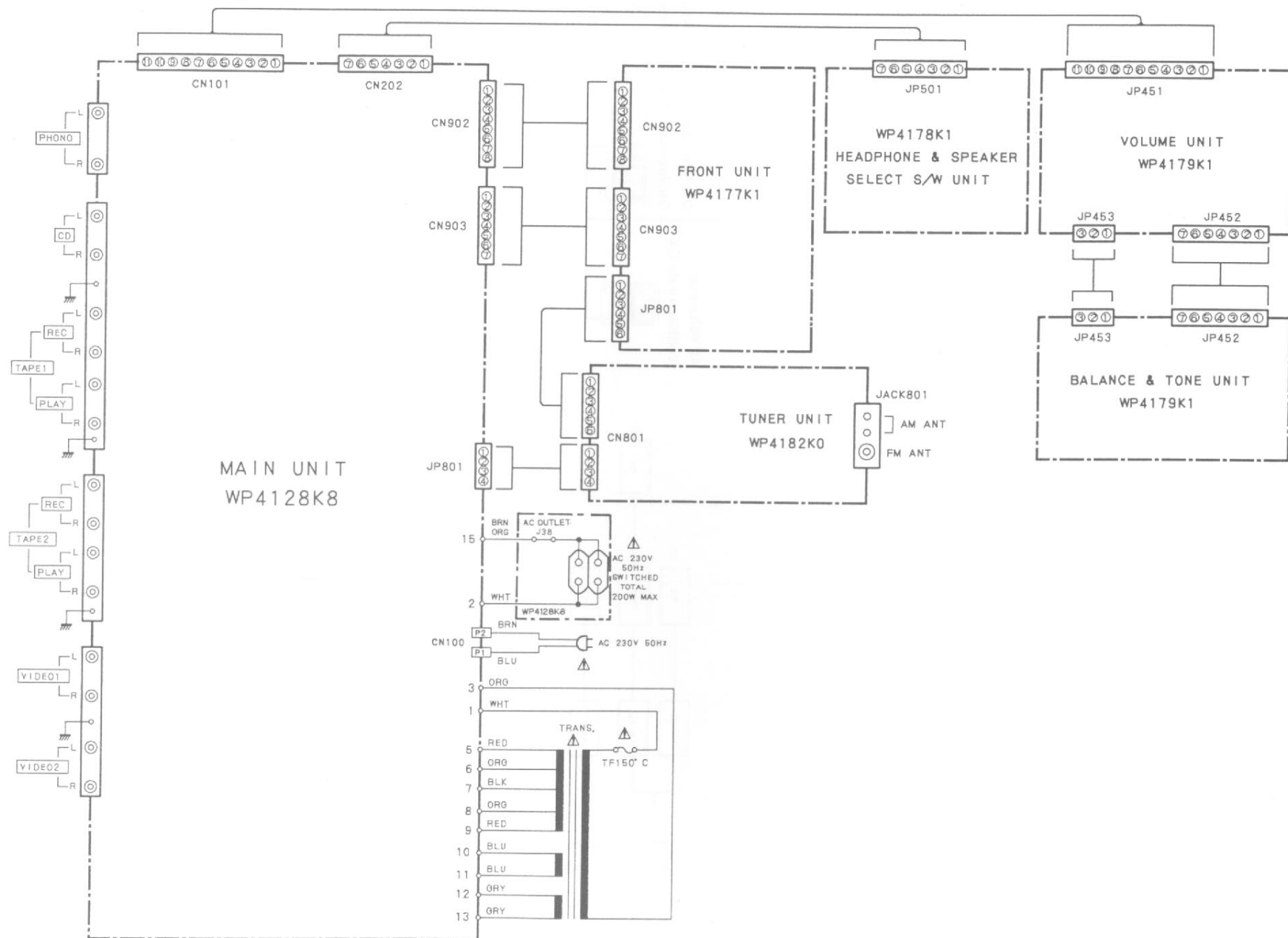


System connections/Conexiones del sistema



KR-A3070 [E, G]

WIRING DIAGRAM



A

B

C

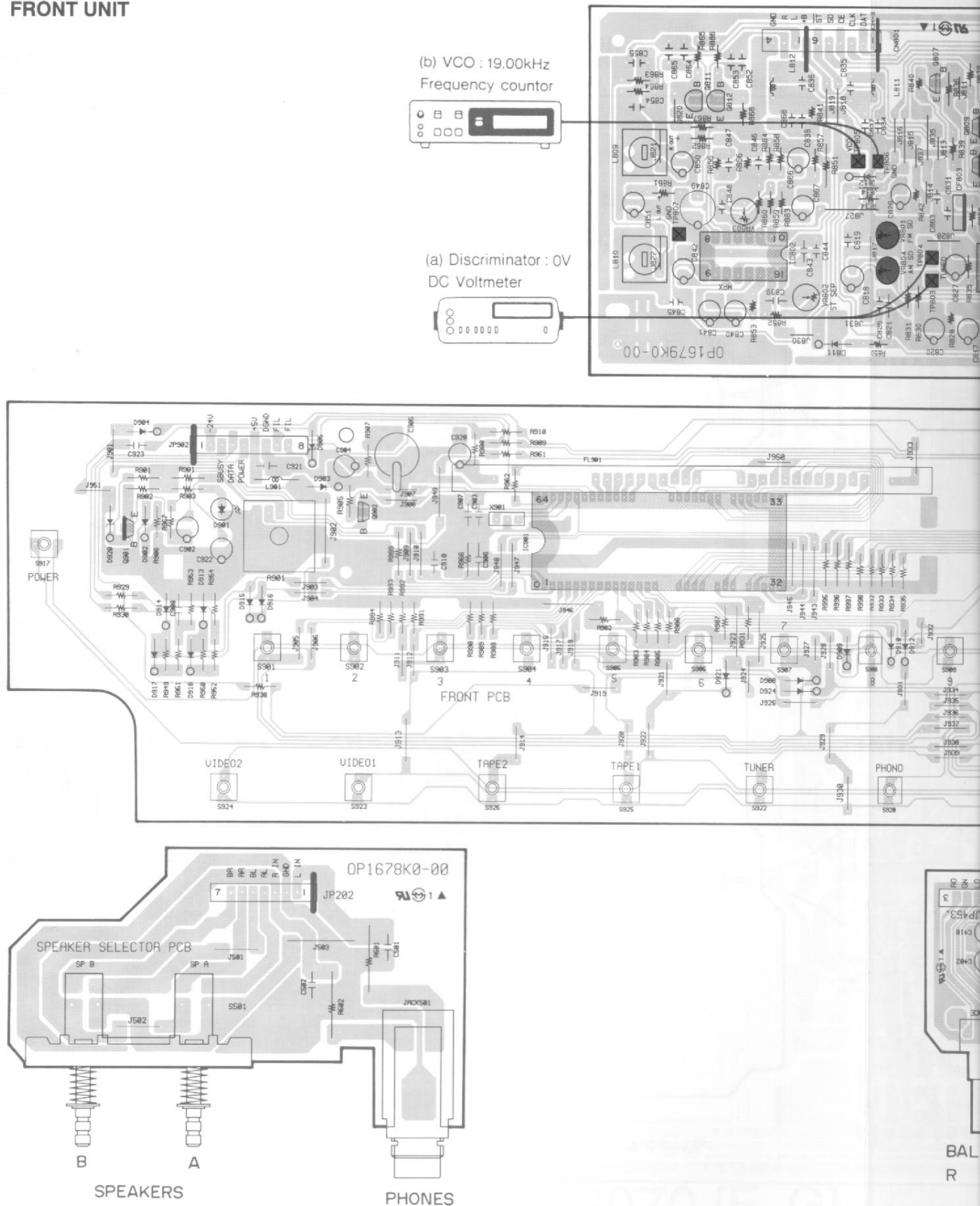
D

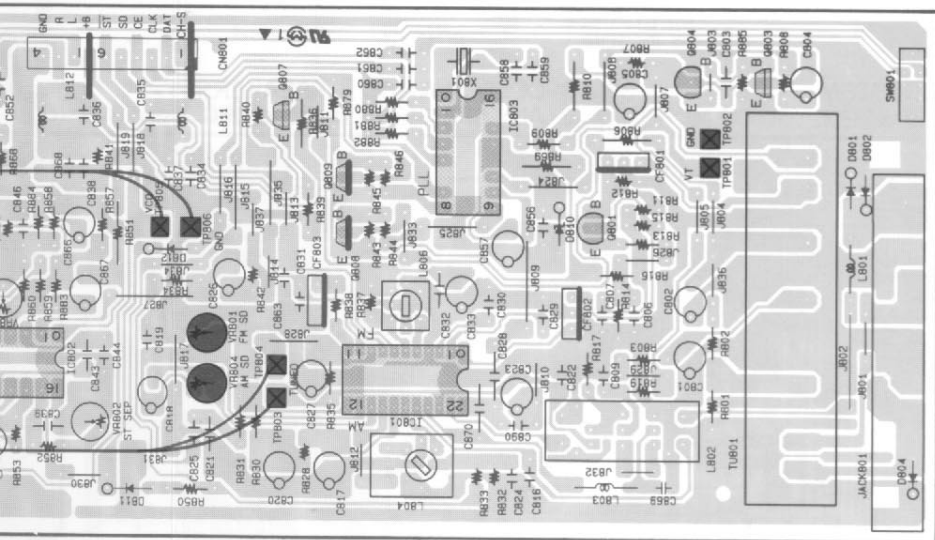
E

F

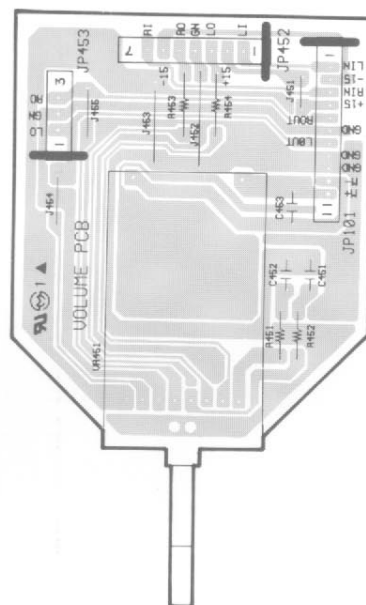
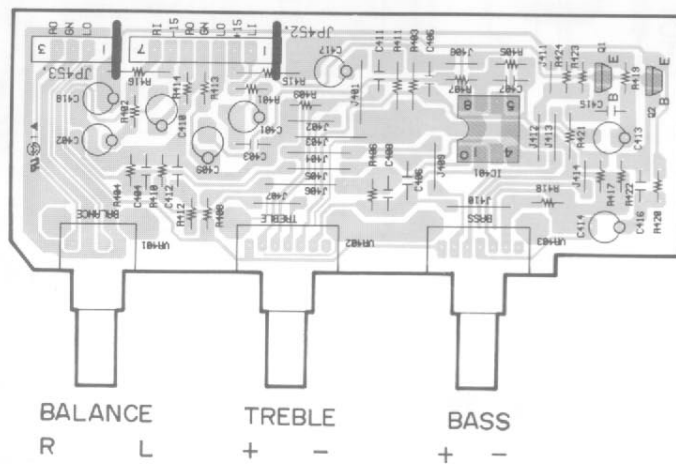
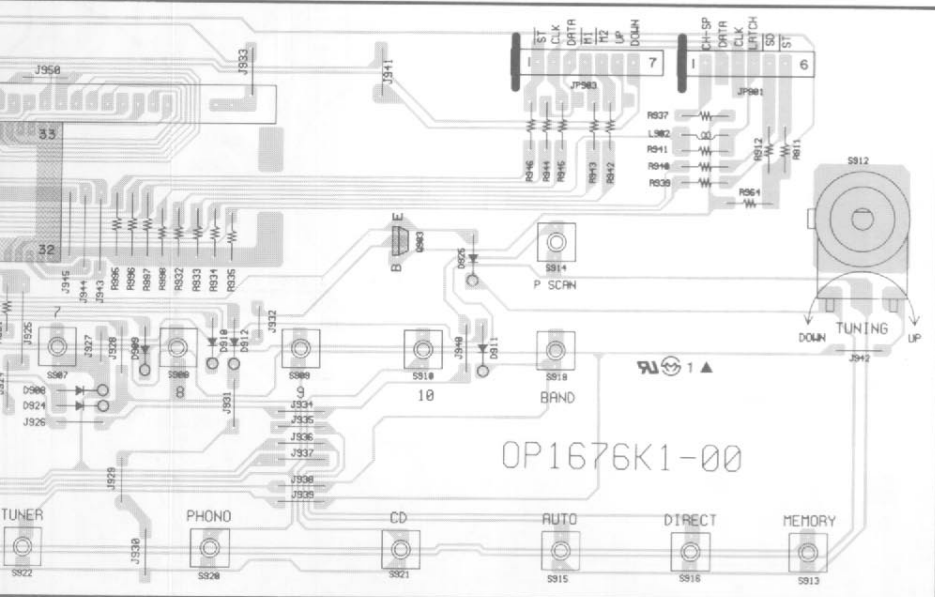
PC BOARD (Component side view)

FRONT UNIT

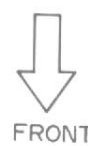




FM
ANTENNA



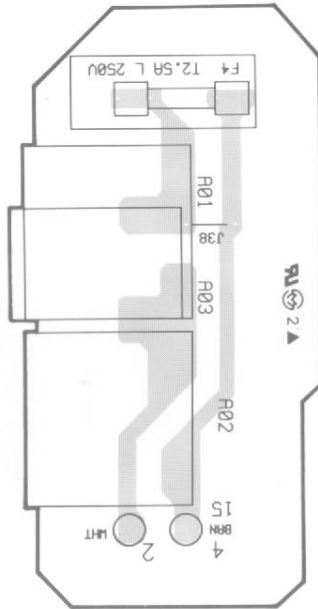
VOLUME CONTROL



PC BOARD (Component side view)

MAIN UNIT

SWITCHED TOTAL 200W MAX.
AC230V~50Hz

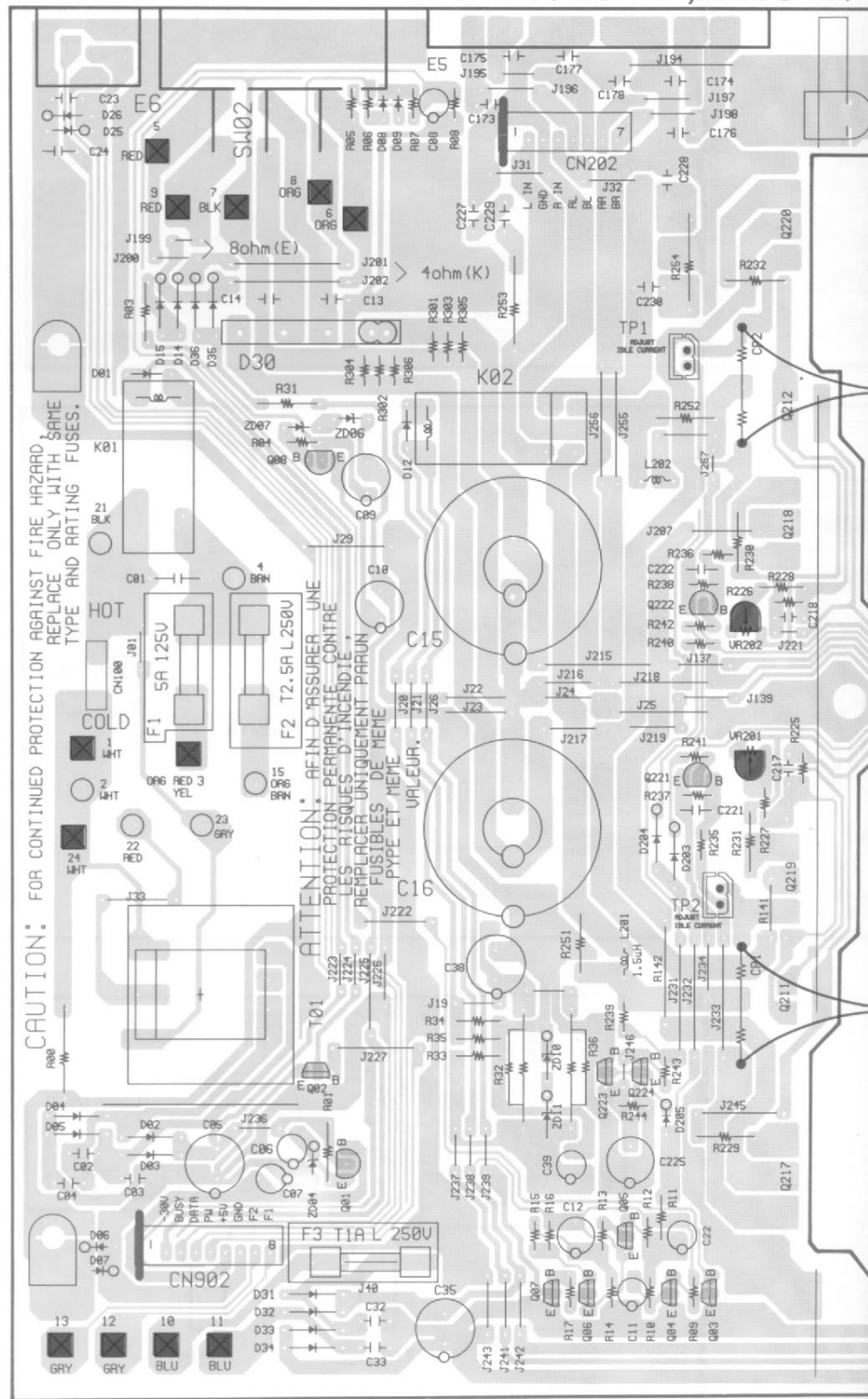


IMPEDANCE
SELECTOR

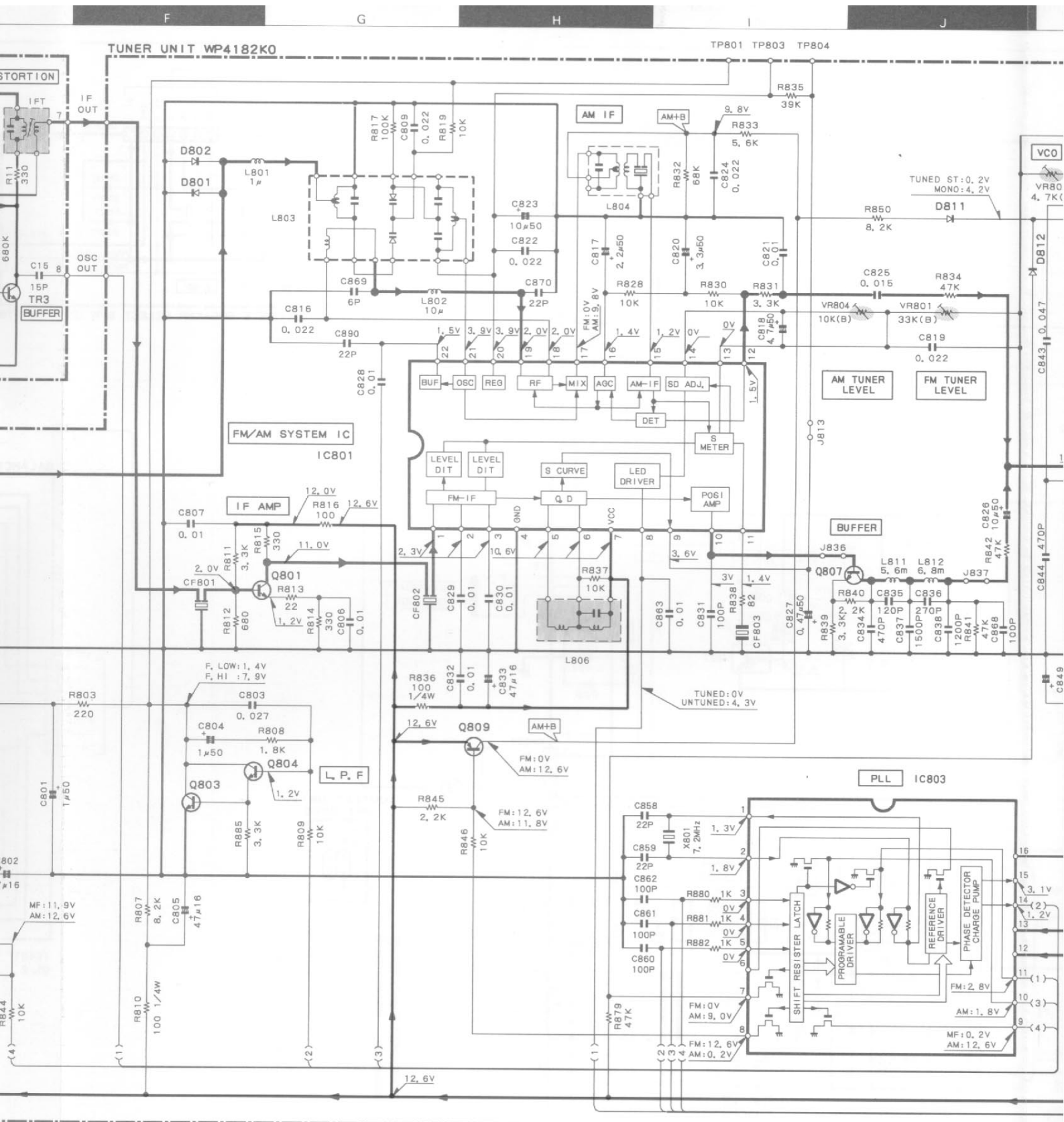
+ L -

- R +

SYSTEM A or B: ◀ ▶ A or B: LESS THAN 8Ω SPEAKERS
CONTROL 8Ω OR MORE A or B: ANY SPEAKERS (A or B: 4-16Ω, A and B: B-16Ω)





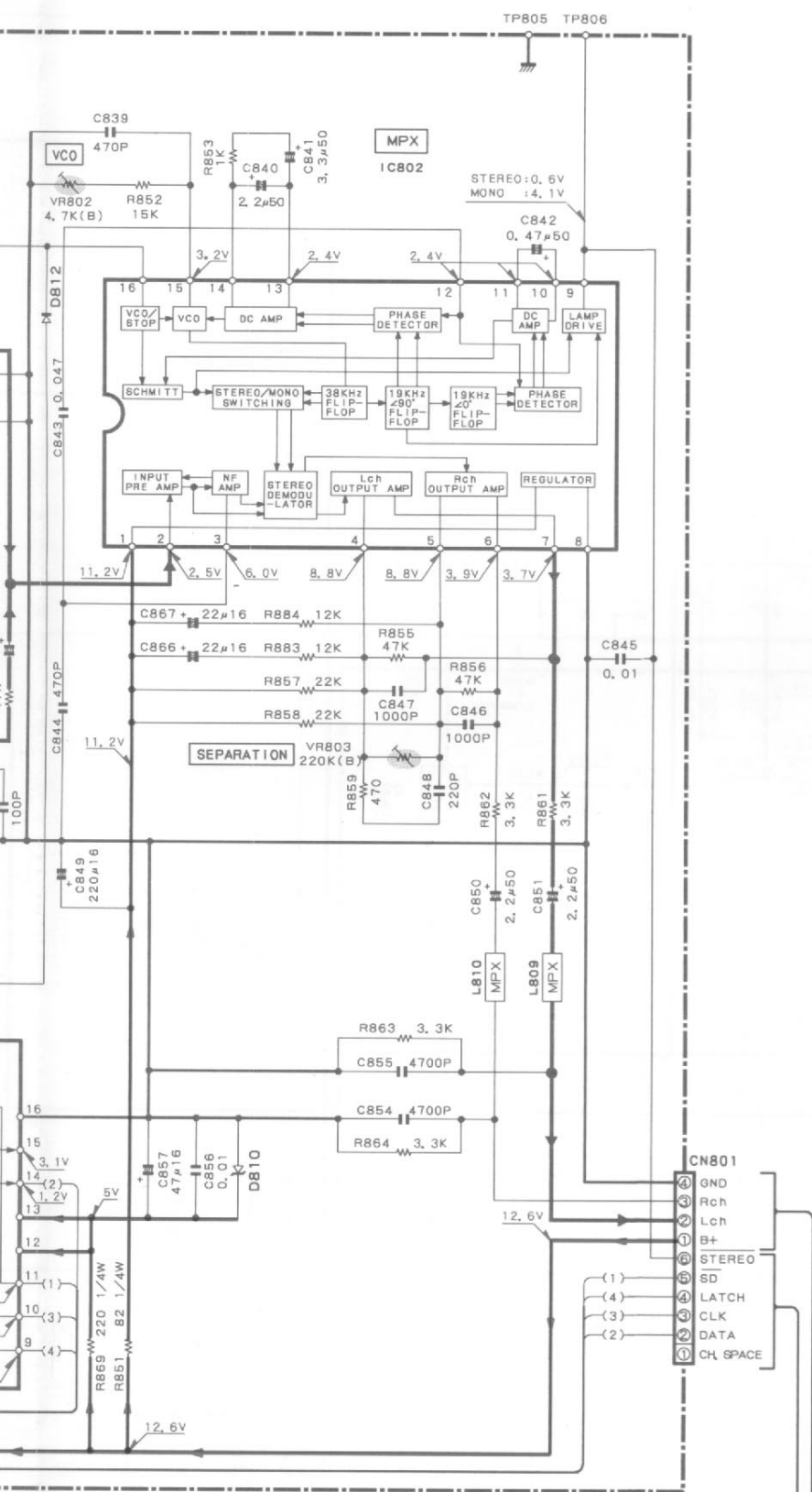


1265
17470
17001

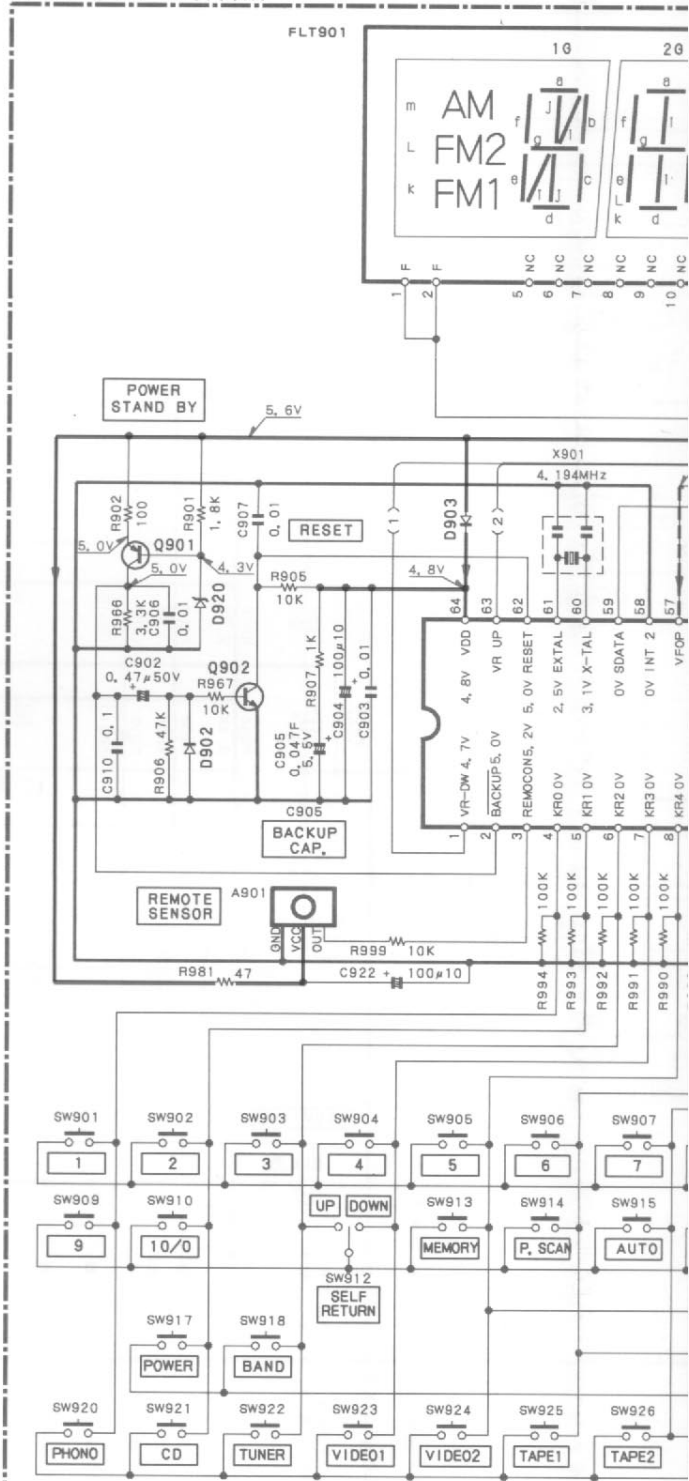
Q801 : 2SC31940
Q803, 807 : 2SC1740S-R
Q804 : 2SC1845F
Q808, 809 : 2SA933S

D801, 802 : 1SS133
804, 811, 812 : 1SS133
D810 : RD5, 1ES(B2)

DC voltages are as measured with a high impedance meter. Values may vary slightly due to variations between components or/and units.



FRONT UNIT WP4177K1



IC901 : CXP5016-531S

Q901 : 2SA933S

Q902 : 2SC1740S-R

D901 : B30-0413-05

D902-904

908-918, 921, 925 : 1SS133

D905 : MTZJ8, 2B

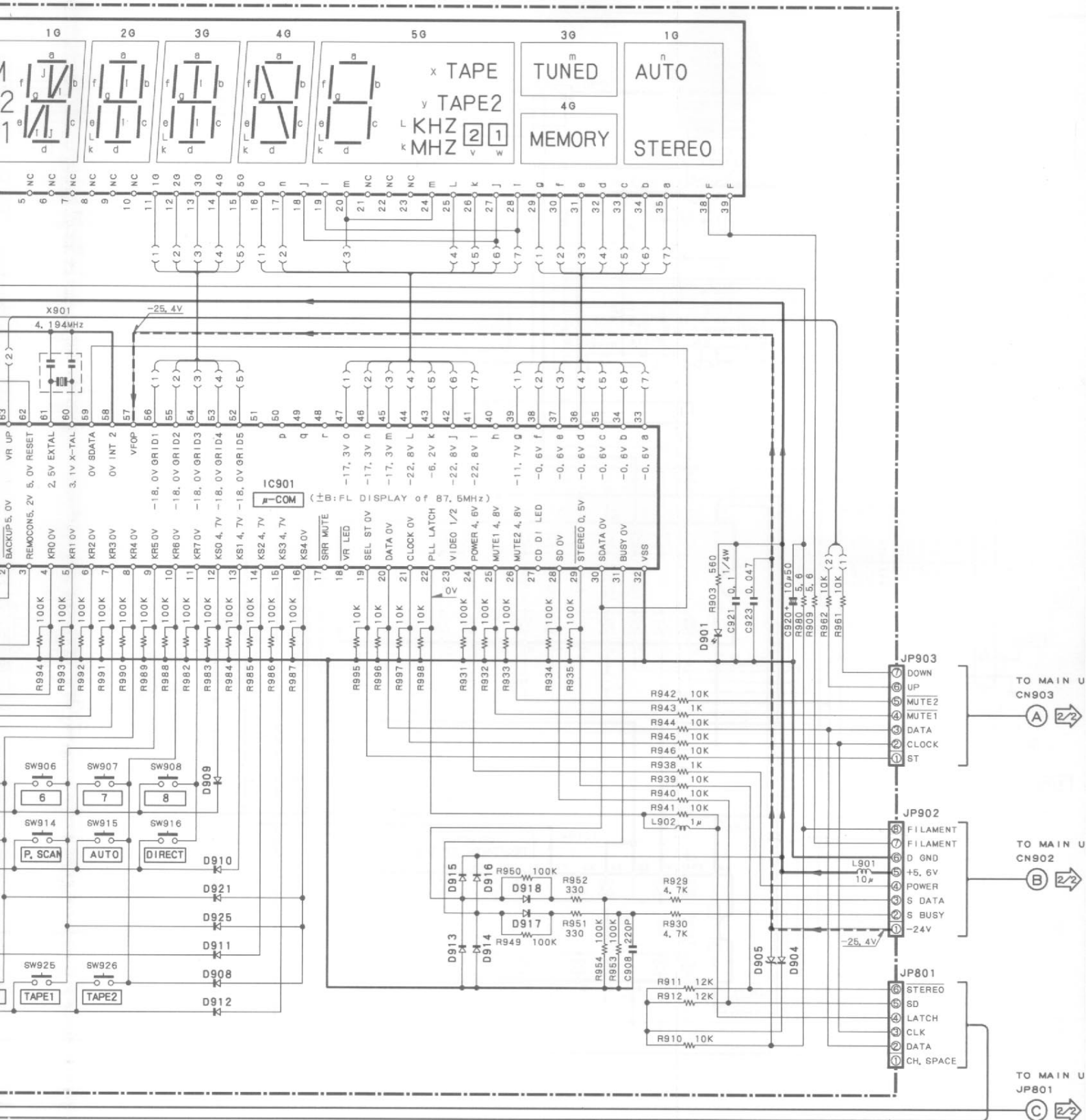
D920 : MTZJ4, 7V

on a high impedance voltmeter.
variations between individual instru-

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

CAUTION
ponents
to parts
reduce
measur
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returned



:B30-0413-05

5 :1SS133
 :MTZJ8, 2B
 :MTZJ4, 7V

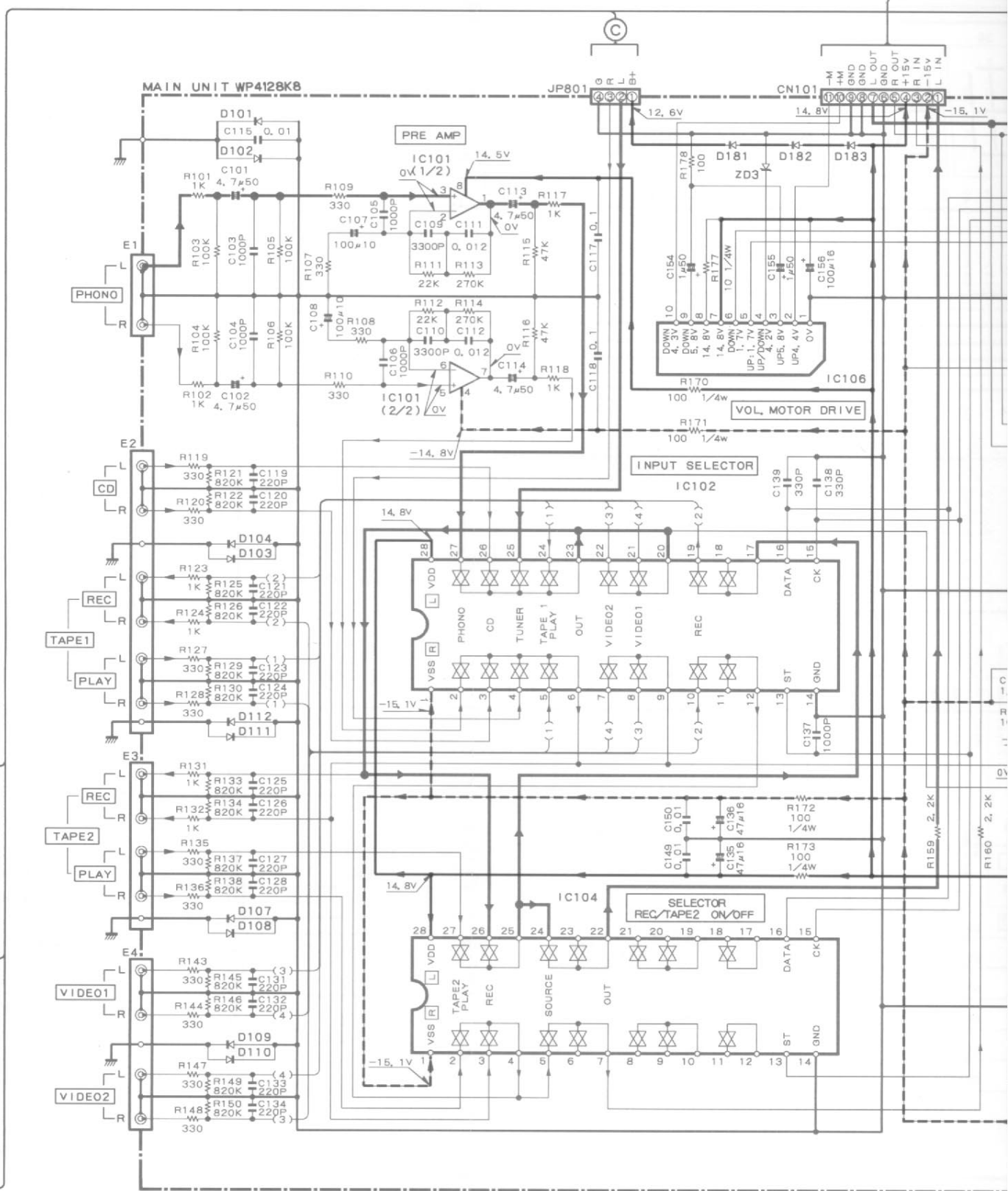
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably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

1/2

Y05-3022-71

KR-A307
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IC101 : NJM4558DD
 IC102 : NJU7313L
 IC104 : NJU7311L
 IC106 : BA6209N

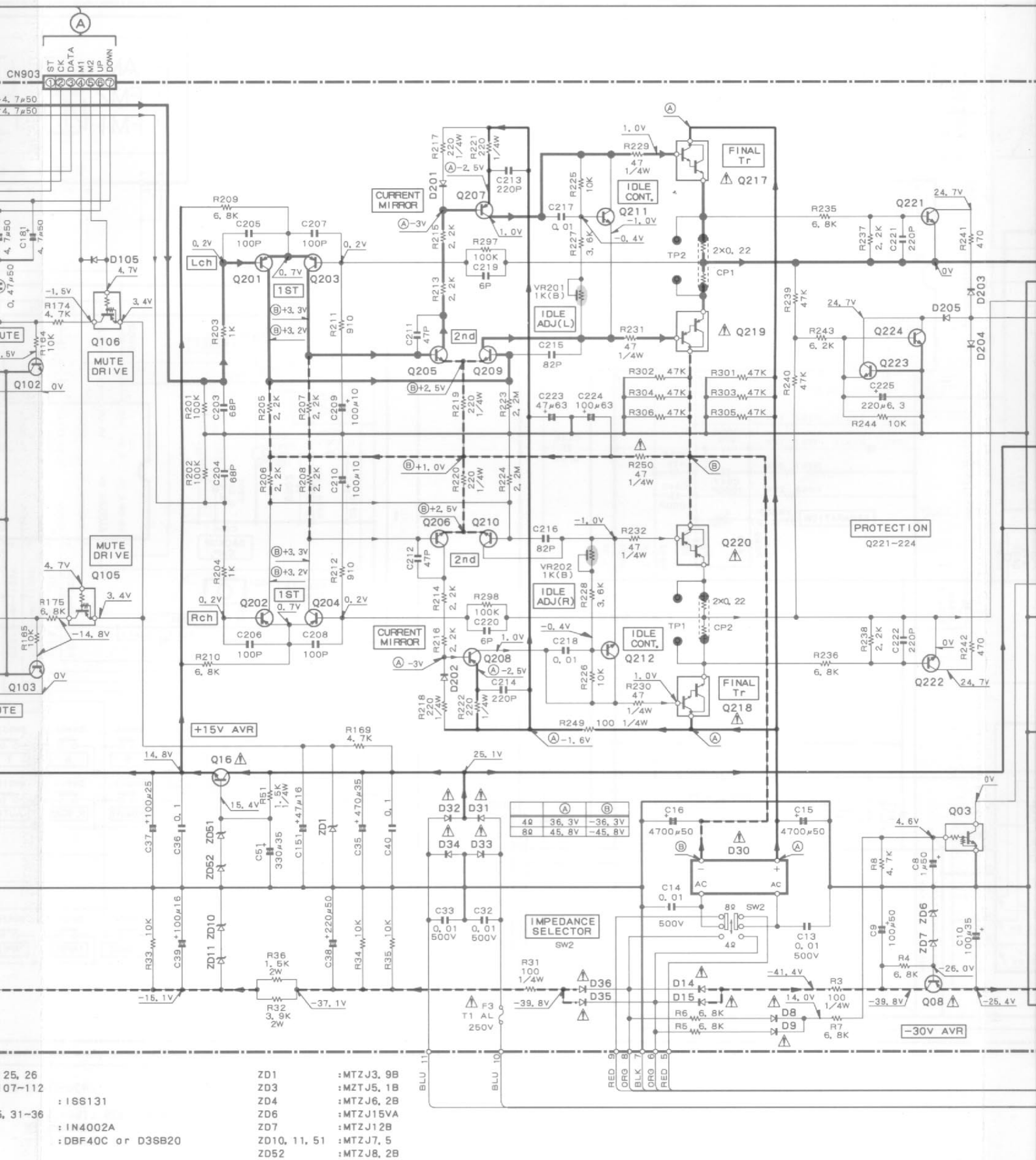
Q01 : 2SC2316Y
 Q02, 03, 07 : DTC114ES
 Q04, 223, 224 : 2SC1740S-R
 Q05, 06 : 2SA933S
 Q08 : 2SA916
 Q16 : 2SD2058Y
 Q101-104 : 2SC2878B

Q105, 106 : DTA114TS
 Q201-204, 207, 208 : 2SA992
 Q205, 206, 209, 210 : 2SC1845F
 221, 222 : 2SC4137V
 Q211, 212 : 2SD2389Y
 Q217, 218 : 2SD2389Y
 Q219, 220 : 2SB1559Y

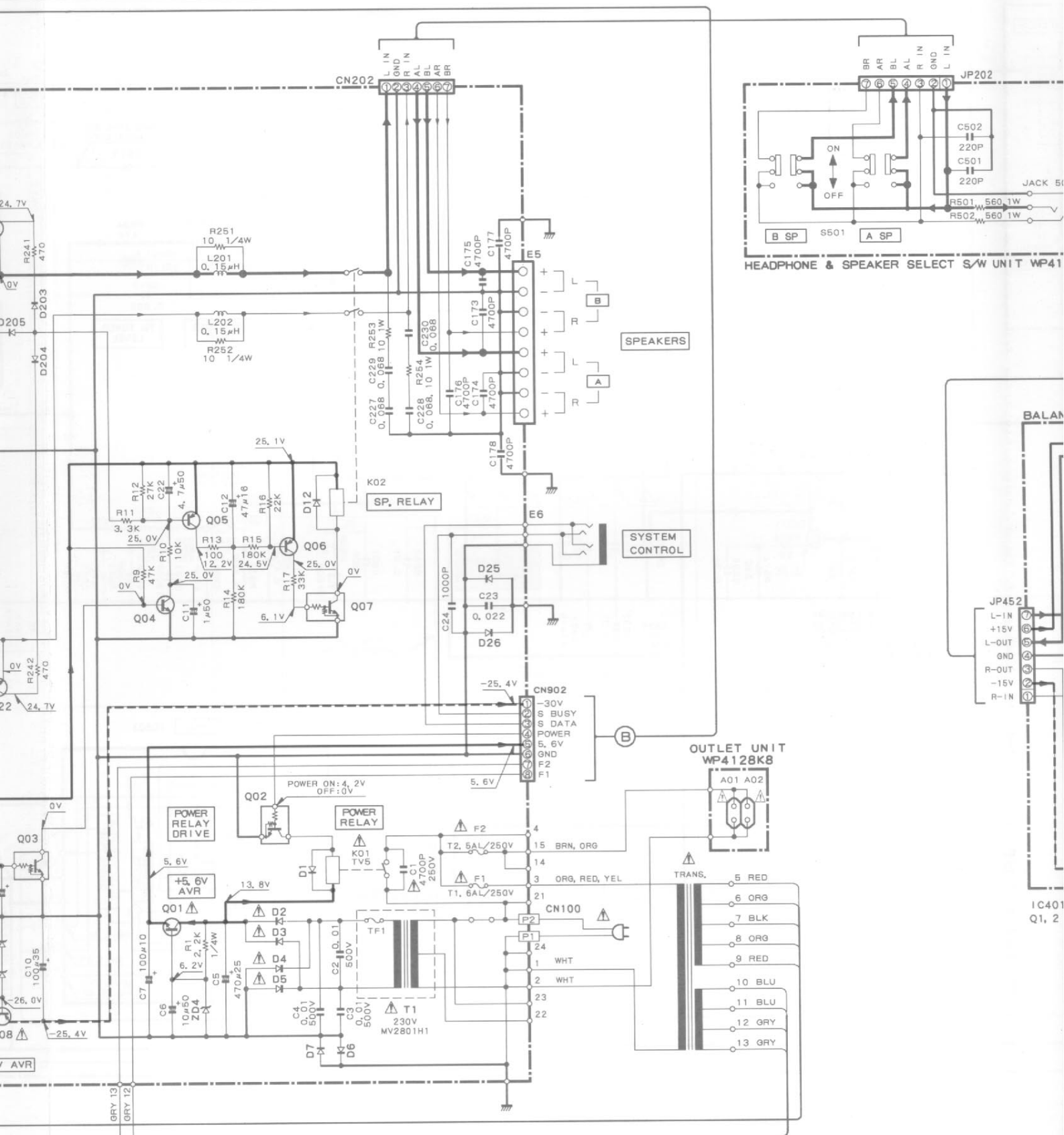
From
 FRONT UNIT
 JP903
 1/2 A

From
 FRONT UNIT
 JP902
 1/2 B

From
 TUNER UNIT
 CN801
 1/2 C



DC voltages are as measured with a high impedance meter. Values may vary slightly due to variations between components or/and units.

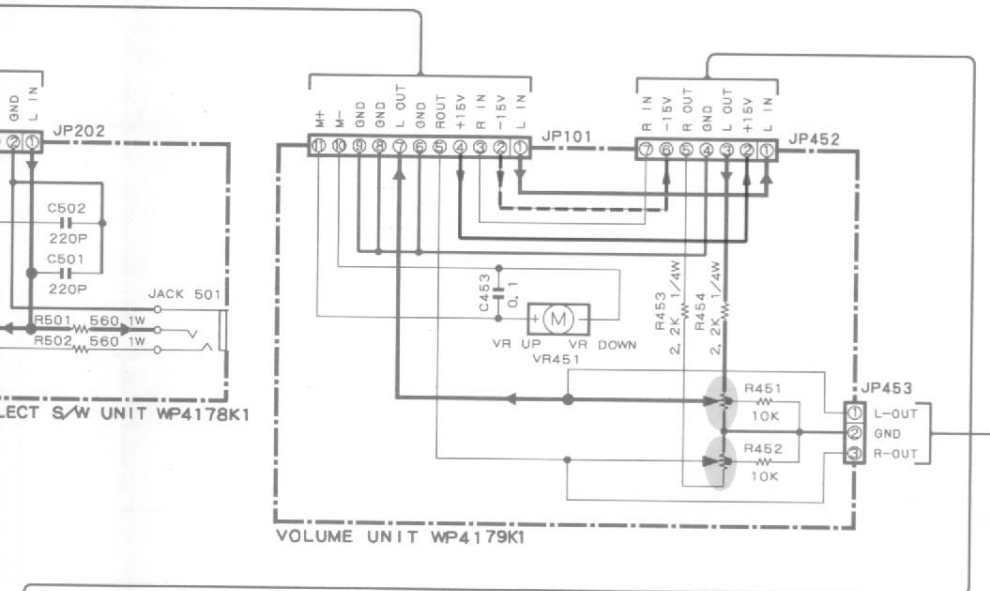


with a high impedance voltmeter.
variations between individual instru-

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

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2SA992
2SC2878B

NJU7311L
NJU7313L

DTC114ES
2SA933S
2SC1740S-R

LA1265

NJM4558DD

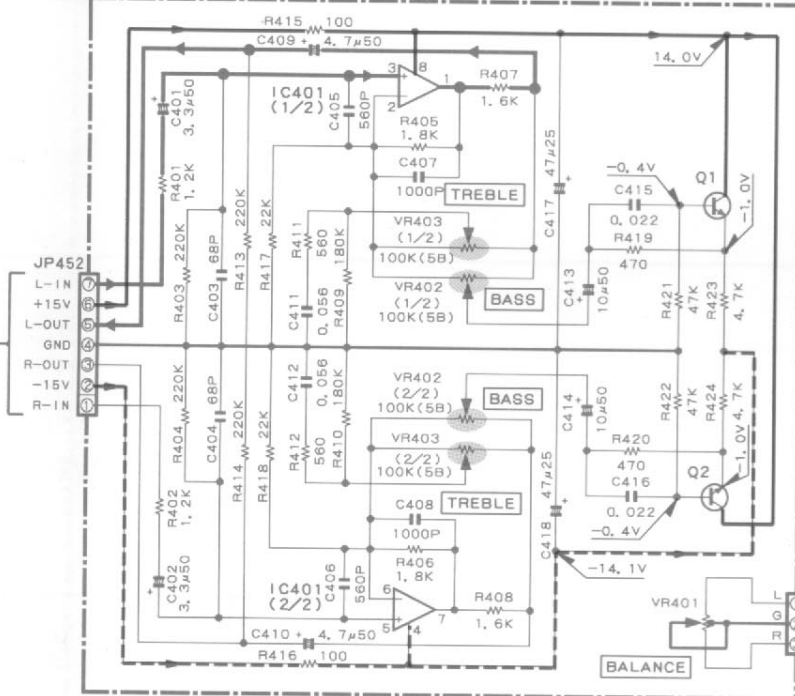
CXP5016-531S

LM7001

BA6209N

AN7470

BALANCE & TONE UNIT WP4179K1



IC401 : NJM4565DD
Q1, 2 : 2SC1740S-R

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

mem ho-
nken die
on Instru-

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.

Y05-3022-71

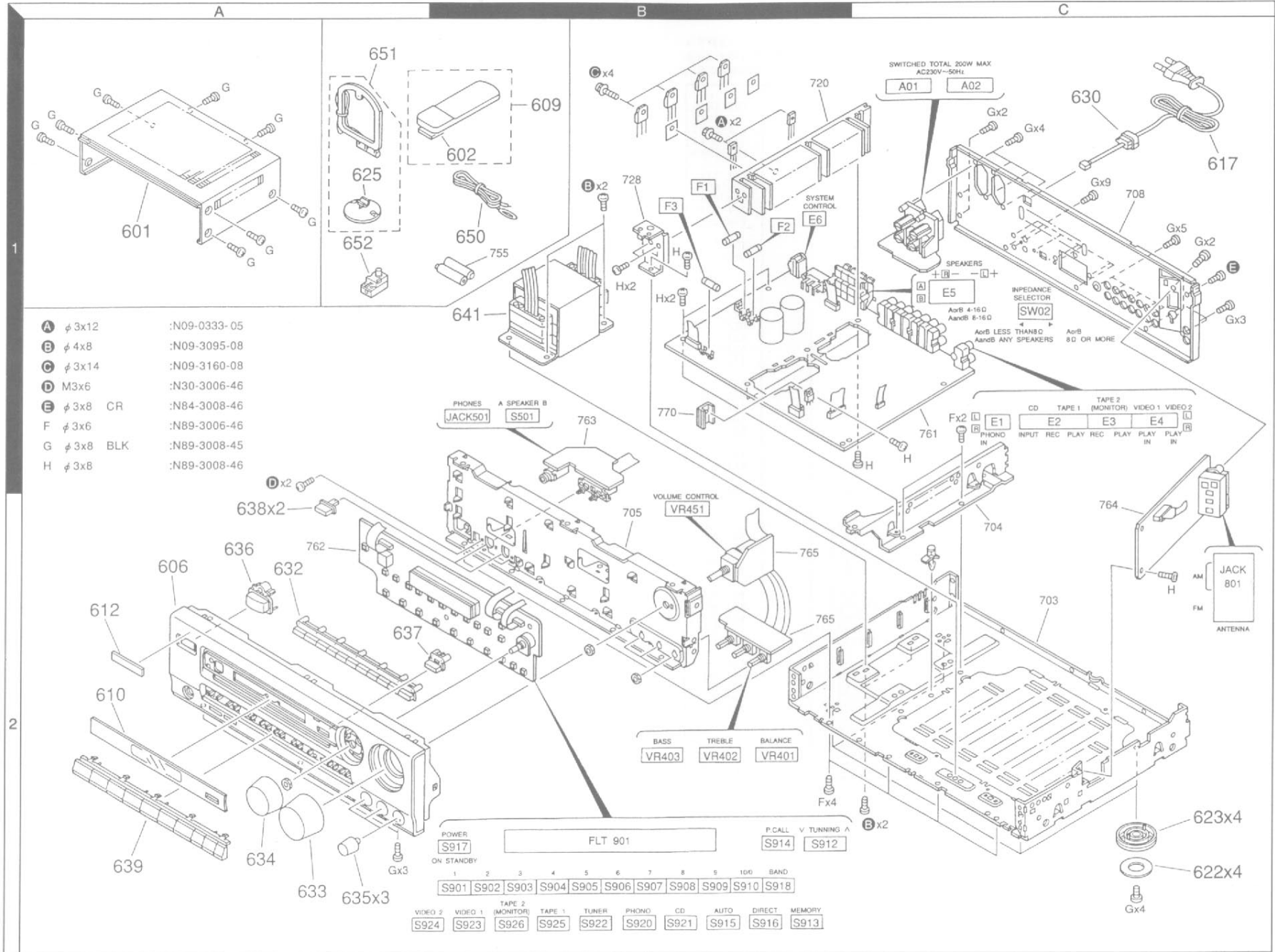
2/2

KR-A3070 [E, G]

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EXPLODED VIEW

KR-A3070 [E, G]



- A ϕ 3x12 :N09-0333-05
- B ϕ 4x8 :N09-3095-08
- C ϕ 3x14 :N09-3160-08
- D M3x6 :N30-3006-46
- E ϕ 3x8 CR :N84-3008-46
- F ϕ 3x6 :N89-3006-46
- G ϕ 3x8 BLK :N89-3008-45
- H ϕ 3x8 :N89-3008-46

POWER		FLT 901										P. CALL		V. TUNING							
S917												S914		S912							
ON STANDBY																					
1		2		3		4		5		6		7		8		9		100		BAND	
S901		S902		S903		S904		S905		S906		S907		S908		S909		S910		S918	
VIDEO 2		VIDEO 1		TAPE 2 (MONITOR)		TAPE 1		TUNER		PHONO		CD		AUTO		DIRECT		MEMORY			
S924		S923		S926		S925		S922		S920		S921		S915		S916		S913			

Parts with exploded numbers larger than 700 are not supplied.

KR-A3070 [E, G]

SPECIFICATIONS

Audio section

Rated power output	
(DIN) 1,000 Hz at 8 Ω	50 W + 50 W
at 4 Ω	50 W + 50 W
Total harmonic distortion (1 kHz, 8 Ω)	0.03% at 25 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 k Ω
CD, TAPE, VIDEO	200 mV / 47k Ω
Tone controls	
BASS	± 10 dB (at 100 Hz)
TREBLE	± 10 dB (at 10 kHz)

FM Tuner section

Tuning frequency range	87.5 MHz~108 MHz
Usable sensitivity (DIN at 75 Ω)	
MONO	1.0 μ V
STEREO	45 μ V
Total harmonic distortion at 1 kHz (DIN)	
MONO	0.2%
STEREO	0.7%
Signal to noise ratio (DIN weighted at 1 kHz)	
MONO	65 dB (65.2 dBf input)
STEREO	58 dB (65.2 dBf input)
Selectivity (DIN ± 300 kHz)	50 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 μ V / (500 μ V / m)
Total harmonic distortion	0.7 %
Signal to noise ratio	
(at 30% mod. 1mV input)	46 dB
Selectivity	30 dB

General

Power consumption	120 W
AC outlet	
SWITCHED	2: (total 200 W max)
Dimensions	W:440 mm
	H:133 mm
	D:350 mm
Weight (net)	6.7 kg

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

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Note:

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