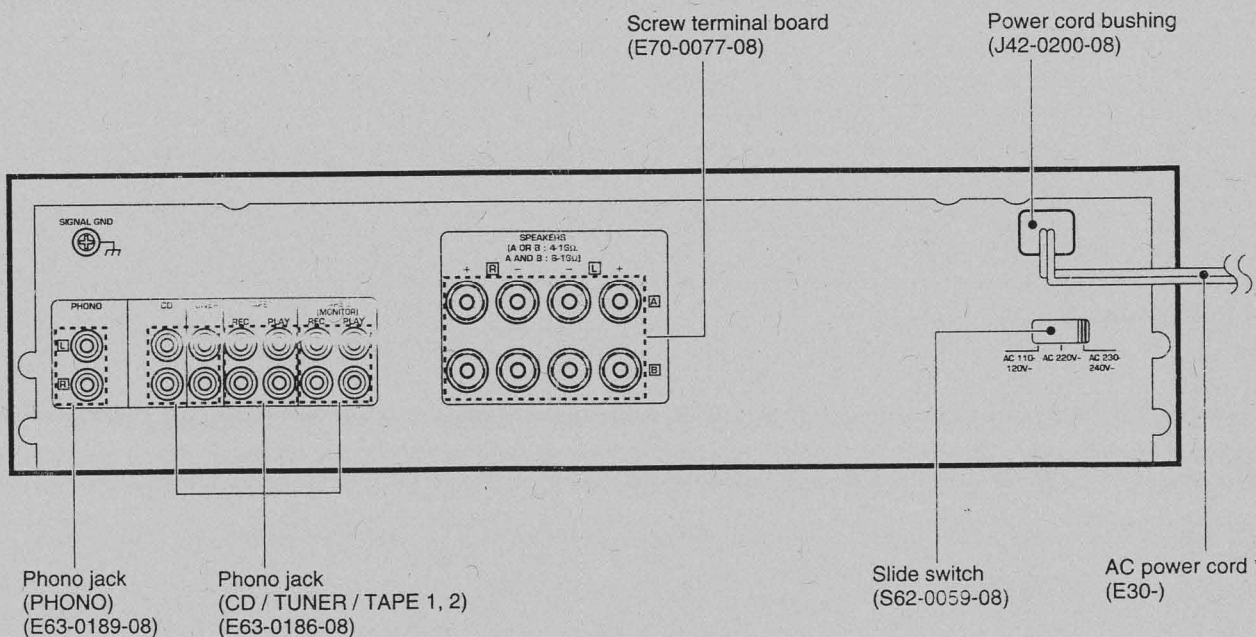
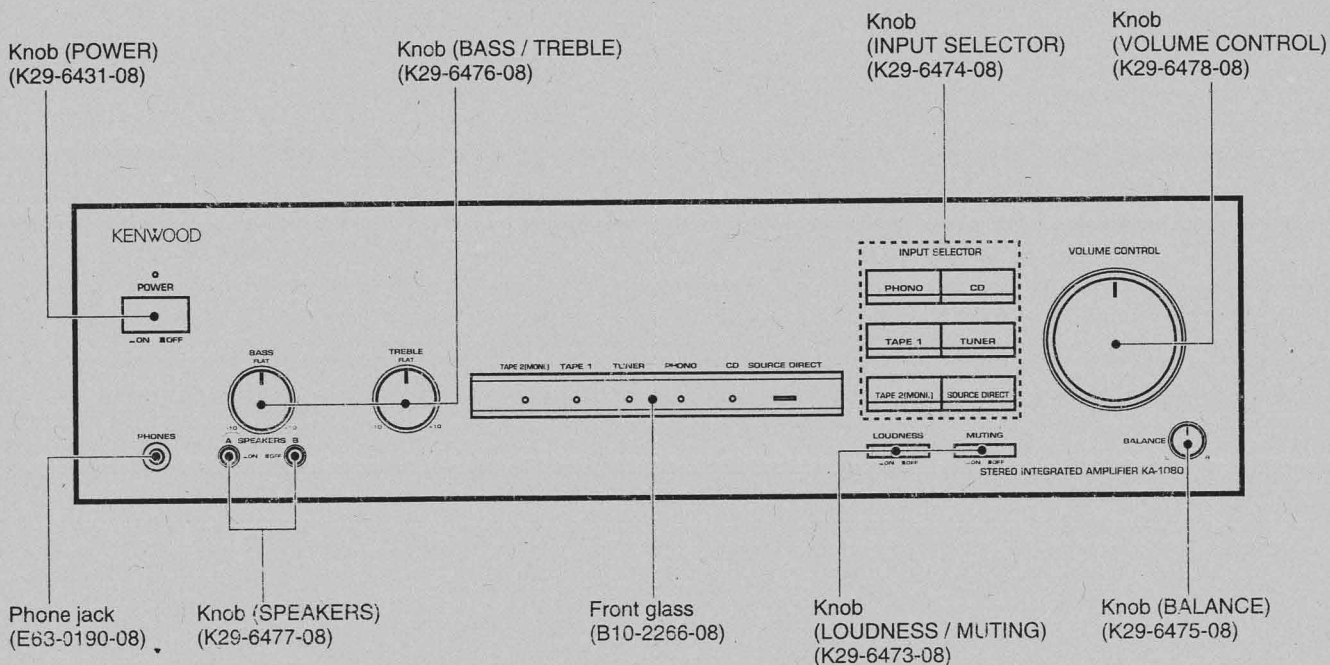


STEREO INTEGRATED AMPLIFIER  
**KA-1080**  
 SERVICE MANUAL

**KENWOOD**

© 1996-3/B51-5144-00 (K/K) 2380



\* Refer to parts list on page 14.

# KA-1080

## CONTENTS / ACCESSORIES / CONTROLS

### Contents

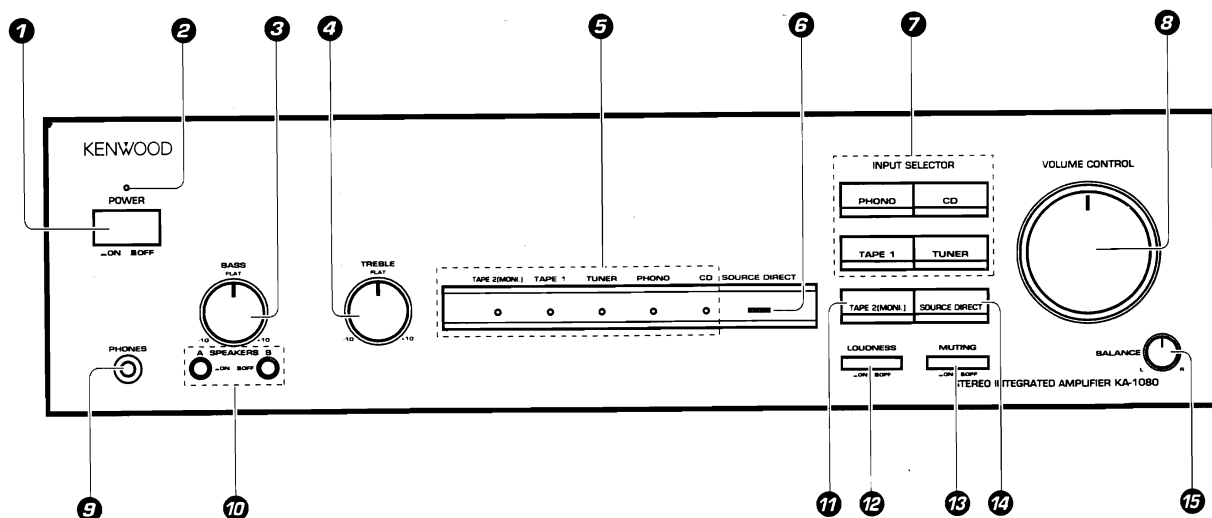
CONTENTS / ACCESSORIES / CONTROLS .....	2	SCHEMATIC DIAGRAM .....	9
BLOCK DIAGRAM .....	3	EXPLODED VIEW .....	13
ADJUSTMENT .....	4	PARTS LIST .....	14
PC BOARD .....	5	SPECIFICATIONS .....	Back cover

### Accessories

AC plug adaptor(1)  
(E03-0115-05)  
M type only

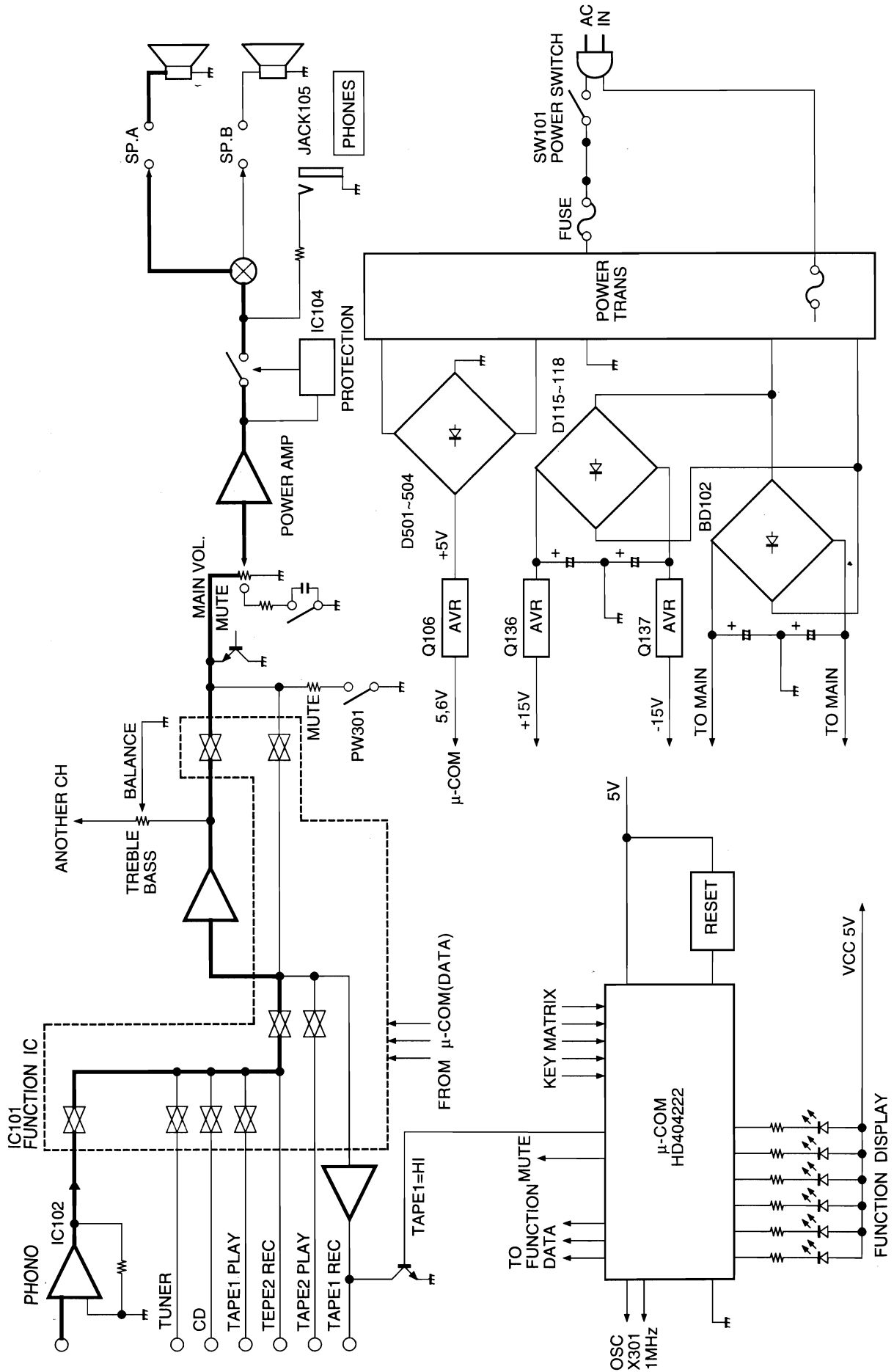


### Controls



- 1 POWER key**  
Press to turn on/off the power.
- 2 POWER indicator**
- 3 BASS knob**  
To adjust low frequencies.
- 4 TREBLE knob**  
To adjust high frequencies.
- 5 INPUT indicator**  
An indicator lights for the source selected with the INPUT SELECTOR keys.
- 6 SOURCE DIRECT indicator**
- 7 INPUT SELECTOR keys**  
Press to select the input sources.
- 8 VOLUME CONTROL knob**  
Adjust the volume.
- 9 PHONES jack**  
Used for headphone listening.
- 10 SPEAKERS A/B switches**  
Press to select the A and/or B speaker systems.
- 11 TAPE 2(MONI.) key**  
Press to monitor the sound being recorded.
- 12 LOUDNESS key**  
Use to emphasize deep bass sounds.
- 13 MUTING key**  
Mute the sound temporarily.
- 14 SOURCE DIRECT key**  
To listen to a source with high quality sound.
- 15 BALANCE knob**  
Adjust the volume balance between left and right.

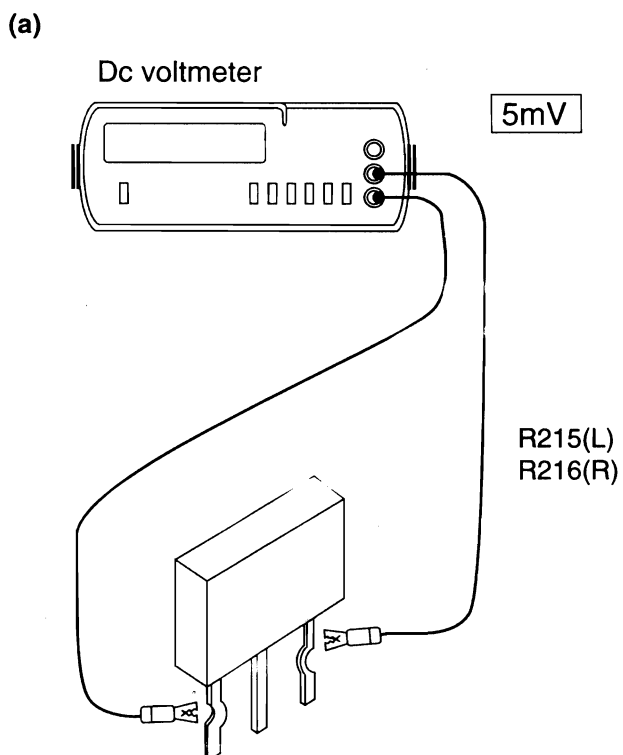
## BLOCK DIAGRAM



# KA-1080

## ADJUSTMENT

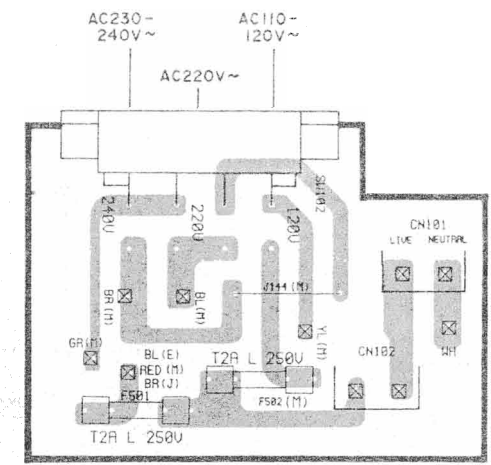
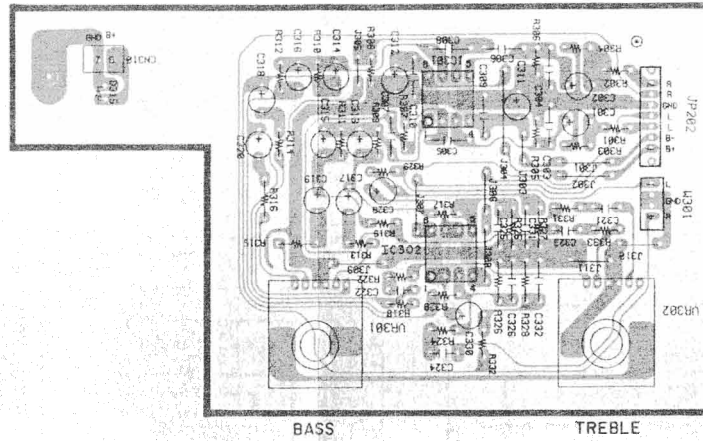
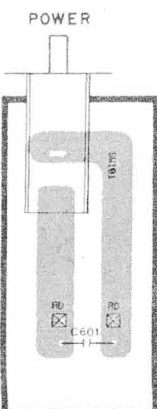
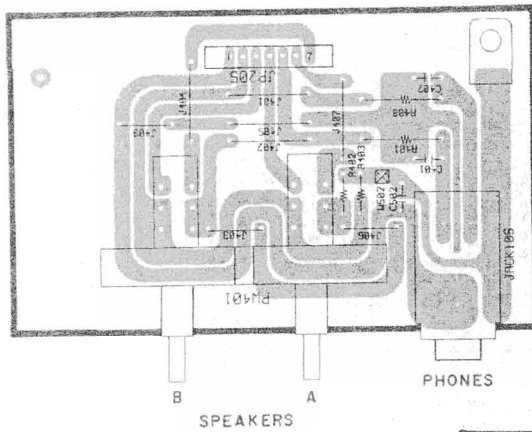
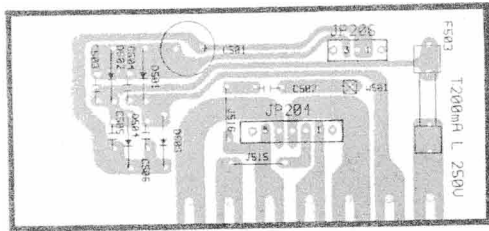
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
Unless otherwise specified, the individual switches should be set as following : POWER : ON      SPEAKER : B      SELECTOR : PHONO							
1	IDLE CURRENT	—	Connect a DC voltmeter between R215 (Lch), R216 (Rch). (MAIN PCB)	VOLUME : 0	VR101 (L) VR102 (R) (MAIN PCB)	5mV	(a)

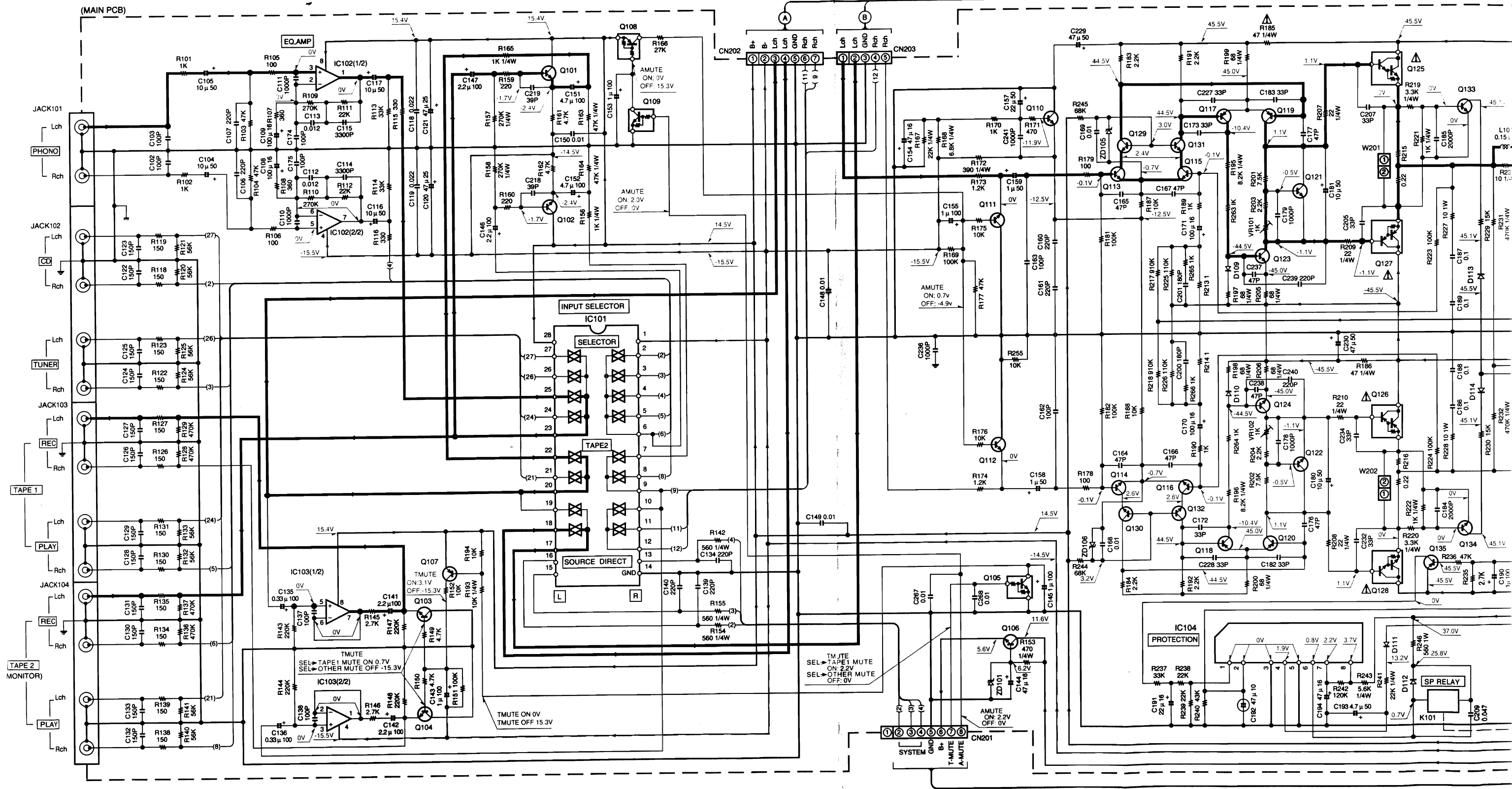


**Caution :**

Signal ground floats from chassis ground. Please connect the cold lead of tester or oscilloscope to the cold terminal of speaker or input jack if check and/or measure the voltage. (Don't connect ground of unit.)

# PC BOARD (Component side view)

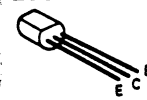




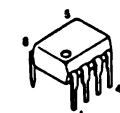
**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  $\Delta$  indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of 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.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

2SC2878



NJM4565D-D



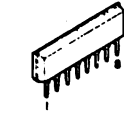
DTA114ES  
DTA124ES  
DTC114TS  
DTC124ES  
2SC1740SR



NJM4580D-D



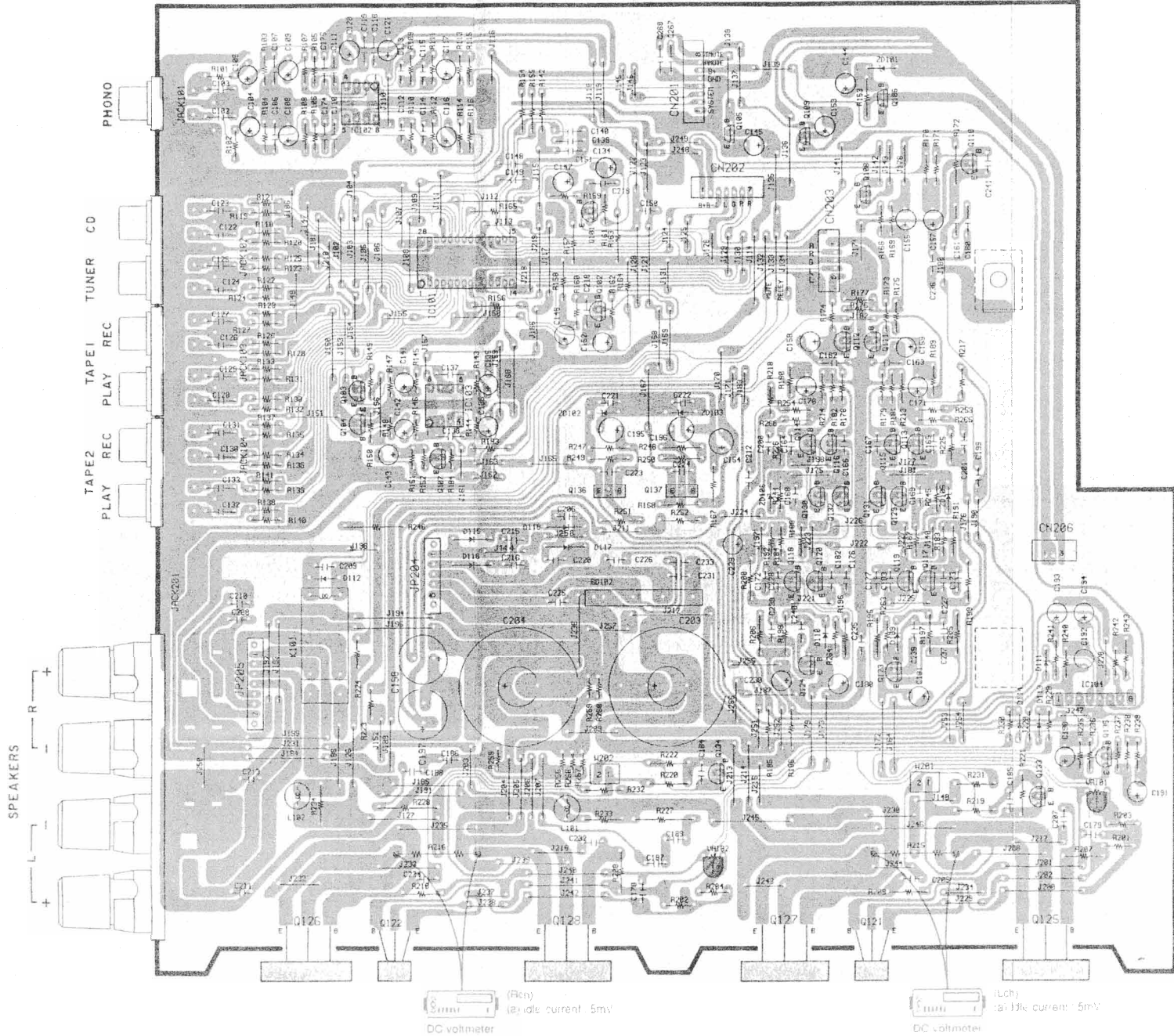
UPC1237HA







# PC BOARD (Component side view)

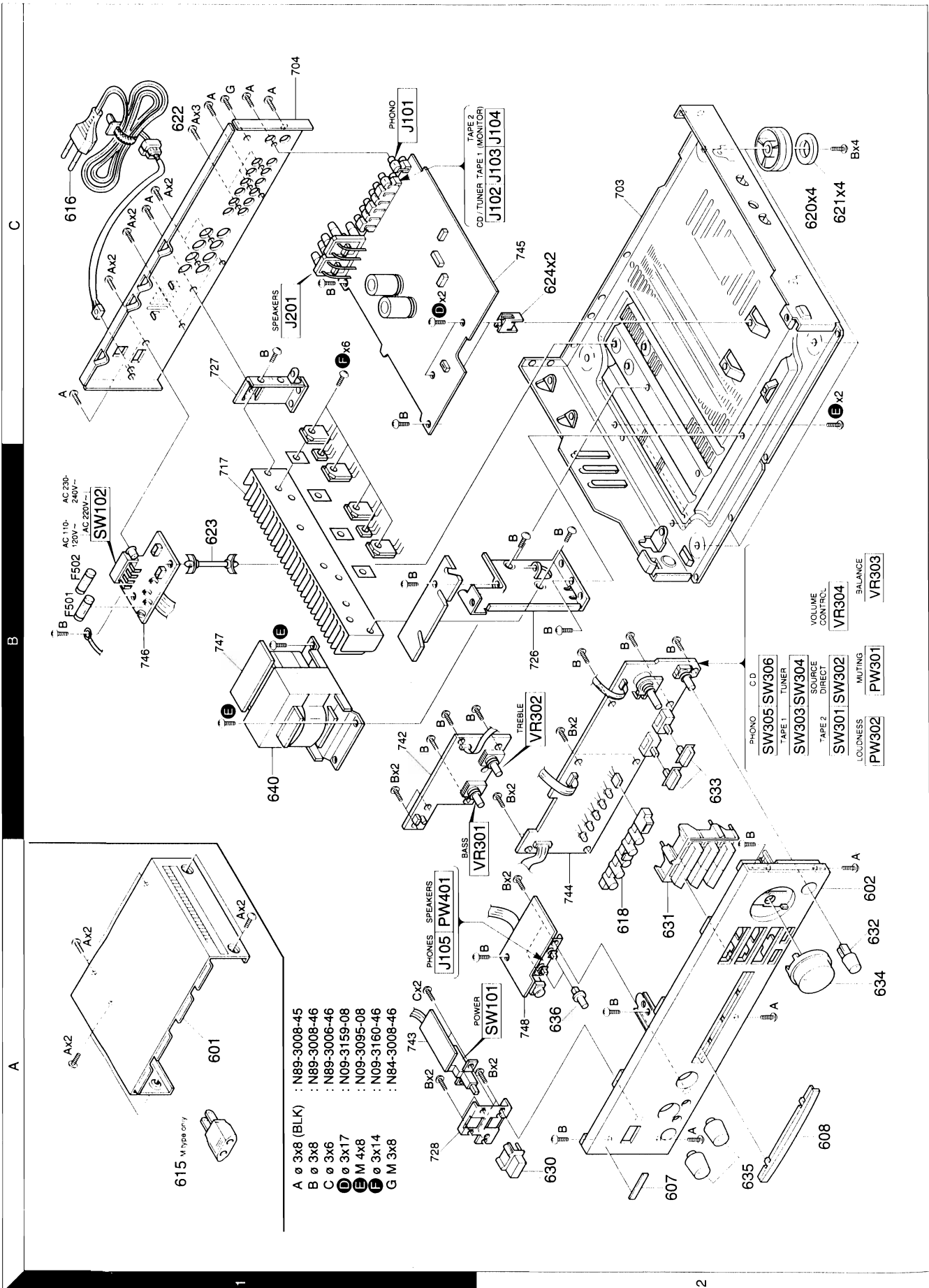


DC voltmeter (Rch) (a) 10k current 5mV

DC voltmeter (Lch) (a) 10k current 5mV



## EXPLODED VIEW



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

# KA-1080

## PARTS LIST

②  
 \* New Parts  
 Parts without **Parts No.** are not supplied.  
 Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.  
 Teile ohne **Parts No.** werden nicht geliefert.

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
C137,138			C91-0745-05	CERAMIC		
C139,140			C91-0749-05	CERAMIC		
C141,142			CE04KW2A2R2M	ELECTRO		
C143			CE04KW2A010M	ELECTRO		
C144			CE04KW1C470M	ELECTRO		
C145			CE04KW2A010M	ELECTRO		
C146,147			CE04KW2A2R2M	ELECTRO		
C148,149			C91-0769-05	CERAMIC		
C150			CK45FB1H103K	CERAMIC		
C151,152			CE04KW2A4R7M	ELECTRO		
C153			CE04KW2A010M	ELECTRO		
C154			CE04KW1C470M	ELECTRO		
C155			CE04KW2A010M	ELECTRO		
C157			CE04KW1H220M	ELECTRO		
C158,159			CE04KW1H010M	ELECTRO		
C160,161			C91-0749-05	CERAMIC		
C162,163			C91-0745-05	CERAMIC		
C164,167			CC45FCH1H470J	CERAMIC		
C168,169			CK45FB1H103K	CERAMIC		
C170,171			CE04KW1C101M	ELECTRO		
C172,173			CC45FSL1H330J	CERAMIC		
C174,175			C91-0745-05	CERAMIC		
C176,177			CC45FCH1H470J	CERAMIC		
C178,179			CK45FB1H102K	CERAMIC		
C180,181			CE04KW1H100M	ELECTRO		
C182,183			CC45FSL1H330J	CERAMIC		
C184,185			CK45FB1H222K	CERAMIC		
C186-189			CQ92FM1H104J	MYLAR		
C190			CE04KW2A010M	ELECTRO		
C191			CE04KW1C220M	ELECTRO		
C192			CE04KW1A470M	ELECTRO		
C193			CE04KW1H470M	ELECTRO		
C194			CE04KW1C470M	ELECTRO		
C195,196			CE04KW1E101M	ELECTRO		
C197,198			CE04KW1H471M	ELECTRO		
C200,201			C91-0748-05	CERAMIC		
C203,204			CE04KW1H682M	ELECTRO		
C205			CC45FSL1H330J	CERAMIC		
C206			CK45FB2H103K	CERAMIC		
C207			CC45FSL1H330J	CERAMIC		
C208			CK45FF1H223K	CERAMIC		
C209			CQ92FM1H473J	MYLAR		
C210,211			CK45FF1H223K	CERAMIC		
C213			CK45FF1H223Z	CERAMIC		
C215,216			CK45FB2H103K	CERAMIC		
C218,219			C91-0735-05	CERAMIC		
C220			CK45FB2H103K	CERAMIC		
C221,224			CK45FB1H103K	CERAMIC		
C225,226			CK45FB2H103K	CERAMIC		
C227,228			CC45FSL1H330J	CERAMIC		
C229,230			CE04KW1H470M	ELECTRO		
C231			CK45FB2H103K	CERAMIC		
C232			CC45FSL1H330J	CERAMIC		
C233			CK45FB2H103K	CERAMIC		
C234			CC45FSL1H330J	CERAMIC		

①  
 \* New Parts  
 Parts without **Parts No.** are not supplied.  
 Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.  
 Teile ohne **Parts No.** werden nicht geliefert.

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
<b>KA-1080</b>						
601	1A	*	A01-3357-08	METALLIC CABINET		
602	2A	*	A60-0998-08	PANEL		
607	2A	*	B43-0302-04	KENWOOD BADGE	ET	
608	2A	*	B10-2266-08	FRONT GLASS	T	
		*	B46-0610-03	WARRANTY CARD	M	
		*	B60-2770-08	INSTRUCTION MANUAL(EN)	M	
		*	B60-2771-08	INSTRUCTION MANUAL(EN/SP/C)	M	
		*	B60-2772-08	INSTRUCTION MANUAL(F/G/D/I/SP)	E	
		*	B60-2773-08	INSTRUCTION MANUAL(TAIWAN)	E	
		*	B60-2774-08	INSTRUCTION MANUAL(PO)	E	
615	1A		E03-0115-05	AC PURG ADAPTOR	M	
616	1C		E30-2718-08	AC POWER CORD	T	
616	1C		E30-2799-08	AC POWER CORD	EM	
		*	H50-2013-08	ITEM CARTON CASE	ET	
		*	H50-2015-08	ITEM CARTON CASE	M	
		*	H10-7292-08	POLYSTYRENE FOAMMED FIXTURE	ET	
		*	H23-1572-08	PROTECTION BAG(MANUAL)		
		*	H23-1587-08	PROTECTION BAG(SET)		
618	2A	*	J19-5724-08	HOLDER		
620	2B,2C	*	J02-1166-08	FOOT		
621	2C	*	G13-0534-08	CUSHION(FOOT)		
622	1C	*	J42-0200-08	POWER CORD BUSHING		
623	1B	*	J19-3631-08	UNIT HOLDER		
624	2C	*	J19-5725-08	UNIT HOLDER		
630	2A	*	K29-6431-08	K110B POWER		
631	2A	*	K29-6474-08	K110B INPUT SELECTOR		
632	2A	*	K29-6475-08	K110B BALANCE		
633	2B	*	K29-6473-08	Knob LOUDNESS/MUTING		
634	2A	*	K29-6478-08	Knob VOLUME CONTROL		
635	2A	*	K29-6476-08	Knob BASS/TREBLE		
636	2A	*	K29-6477-08	Knob SPEAKER A/B		
640	1B	*	L07-2218-08	POWER TRANSFORMER	ET	
640	1B	*	L07-2219-08	POWER TRANSFORMER	M	
D			N09-3159-08	TAPTITE SCREW M3X17		
E			N09-3085-08	TAPTITE SCREW M4X8		
F			N09-3160-08	TAPTITE SCREW M3X14		
<b>ELECTRICAL UNIT</b>						
C102,103			C91-0745-05	CERAMIC		
C104,105			CE04KW1H100M	ELECTRO		
C106,107			C91-0749-05	CERAMIC		
C108,109			CE04KW1C101M	ELECTRO		
C110,111			C91-0757-05	CERAMIC		
C112,113			CQ92FM1H123J	MYLAR		
C114,115			CQ92FM1H382J	MYLAR		
C116,117			CE04KW1H100M	ELECTRO		
C118,119			CK14FF1E23Z	CERAMIC		
C120,121			CE04KW1E470M	ELECTRO		
C122-133			C91-0747-05	CERAMIC		
C134			C91-0749-05	CERAMIC		
C135,136			CE04KW2AR33M	ELECTRO		

L : Scandinavia  
 Y : PX(Far East, Hawaii)  
 Y : AAFES(Europe)

K : USA  
 T : Europe  
 X : Australia

P : Canada  
 E : Europe  
 M : Other Areas

R : Mexico  
 G : Germany

Δ indicates safety critical components.

## PARTS LIST

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

4

Ref. No	Add-ress	New Parts	Parts No.	Description	Designation	Remarks
R400,401			RS14GB3A561J	FL-PROOF RS 560		
VR101,102			R12-1066-05	SEMI FIXED VARIABLE RESISTOR	J	1W
VR301,302		*	R39-0013-08	VARIABLE RESISTOR		
VR303			R31-0055-08	TONE BALANCE		
VR304			R39-0005-08	VARIABLE RESISTOR		
PW301,302			S68-0040-08	PUSH SWITCH		
PW401			S68-0045-08	PUSH SWITCH		
SW101			S40-1089-05	SLIDE SWITCH		
SW102			S62-0059-08	SLUSH SWITCH		
SW301-306			S70-0030-08	TACT SWITCH		M
BD102			D3SB20	DIODE		
D109,114			1SS131T	DIODE		
D115-118			1N4002A	DIODE		
D301-304		*	SLR54VR	LED		
D305		*	SLB25VR3	LED		
D306		*	SLR54VR	LED		
D307		*	SLB25VR3	LED		
D311			1SS131T	DIODE		
D315			SLR54VR	LED		
D320			1SS131T	DIODE		
D501-504			1N4002A	DIODE		
IC101			NIJ7313AL	IC(ANALOG SWITCH)		
IC102			NIJ4580D-D	IC(OP AMP X2)		
IC103			NIJ4585D-D	IC(OP AMP X2)		
IC104			UPC1237HA	IC(POWER AMP)		
IC301,302			NIJ4585D-D	IC(OP AMP X2)		
IC303			HD404222	IC(U-COM)		
Q101,102			2SC1845F	TRANSISTOR		
Q103,104			2SC2878	TRANSISTOR		
Q105			DTC124ES	TRANSISTOR		
Q106		*	2SC1027Y	TRANSISTOR		
Q107			2SA992F	TRANSISTOR		
Q108			DTA124ES	TRANSISTOR		
Q109			DTC124ES	TRANSISTOR		
Q110			2SC1845F	TRANSISTOR		
Q111,112			SC2878	TRANSISTOR		
Q113-116			SC1845F	TRANSISTOR		
Q117-120			2SA992F	TRANSISTOR		
Q121,122			2SC4137V	TRANSISTOR		
Q123,124			2SC1845F	TRANSISTOR		
Q125			2SD2390P	TRANSISTOR		
Q126,127			2SB1560P	TRANSISTOR		
Q128			2SD2390P	TRANSISTOR		
Q129-134			2SC1845F	TRANSISTOR		
Q135			2SA992F	TRANSISTOR		
Q136			2SD2058Y	TRANSISTOR		
Q137			2SB1366Y	TRANSISTOR		
Q301			DTA114ES	TRANSISTOR		
Q302,303			2SC1740SR	TRANSISTOR		
Q304			DTC114TS	TRANSISTOR		
Q305			DTA114ES	TRANSISTOR		
ZD101			MTZ6.2B	ZENER DIODE		
ZD102,103			MTZJ16B	ZENER DIODE		
ZD105,106			MTZ5.1B	ZENER DIODE		

L : Scandinavia  
Y : PX(Far East, Hawaii)  
Y : AAFES(Europe)

K : USA  
P : Canada  
T : Europe  
X : Australia

R : Mexico  
G : Germany  
M : Other Areas

Δ indicates safety critical components.

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

3

Ref. No	Add-ress	New Parts	Parts No.	Description	Designation	Remarks
C235			CQ92FM1H102J	MYLAR	J	
C235,236			CK45FB1H102K	CERAMIC	K	
C237,238			CC45FCH1H470J	CERAMIC	J	
C239,240			C91-0749-05	CERAMIC	K	
C241			CK45FB1H102K	CERAMIC	K	
C261			CK45FB2H103K	CERAMIC	K	
C267,268			C91-0769-05	CERAMIC	K	
C301,302			CE04KW1HR33M	ELECTRO	50WV	
C303,306			CE04KW1HR33M	ELECTRO	K	
C307,308			C91-0745-05	CERAMIC	K	
C309,310			C91-0749-05	CERAMIC	K	
C311,312			C91-0769-05	CERAMIC	K	
C313,316			CE04KW1E470M	ELECTRO	25WV	
C317-320			CE04KW1H100M	ELECTRO	50WV	
C321-324			CQ92FM1H223J	MYLAR	50WV	
C325,326			C91-0754-05	CERAMIC	J	
C327			CE04KW1C220M	ELECTRO	16WV	
C328			C91-0769-05	CERAMIC	K	
C329,330			CE04KW1H100M	ELECTRO	50WV	
C331,332			C91-0754-05	CERAMIC	J	
C333			CK45FF1H473Z	CERAMIC	Z	
C335			C91-0769-05	CERAMIC	K	
C338			CE04KW1C101M	ELECTRO	16WV	
C341			CE04KW1HR10M	ELECTRO	50WV	
C343,344			CQ92FM1H273J	MYLAR	J	
C345,346			C91-0745-05	CERAMIC	K	
C387			CE04KW1C101M	ELECTRO	16WV	
C401,402			CK45FB1H102K	CERAMIC	K	
C403		*	CK45FB1H103K	CERAMIC	K	
C501			CE04KW1C471M	ELECTRO	16WV	
C502-506			CK45FB1H103K	CERAMIC	K	
C601			C91-1441-08	CERAMIC	250WV	
CN101,102			J13-0084-08	FUSE CLIP	(F501-503)	
CN310			E40-9986-08	PIN ASSY		
JACK101			E40-9970-08	PIN ASSY		
JACK102-104		*	E63-0189-08	PHONO JACK(2P)PHONO		
JACK105		*	E63-0186-08	PHONO JACK(4P)CD/TUNER/TAPE		
JACK201		*	E63-0190-08	PHONE JACK PHONES		
F501			E70-0077-08	TERMINAL BOARD(8P)SPEAKERS		
F502			F06-2021-05	FUSE		
F503			F06-2021-05	FUSE		
L101,102			F50-0008-08	FUSE		
X301			L39-1303-08	PHASE COMPENSATION COIL		
K101			L78-0617-08	RESONATOR		
R185,186			S76-0054-08	MAGNETIC RELAY		
R197,200			RD14GB2E470J	FL-PROOF RD	J	1/4W
R205,206			RD14GB2E680J	FL-PROOF RD	J	1/4W
R207-210			RD14GB2E680J	FL-PROOF RD	J	1/4W
R215,216			RD14GB2E220J	FL-PROOF RD	J	1/4W
R227,228			R90-0948-08	MULTI-COMP	K	3W
R246			RS14GB3A100J	FL-PROOF RS	J	1W
R251,252			RS14GB3A561J	FL-PROOF RS	J	1W
			RD14GB2E470J	FL-PROOF RD	J	1/4W

L : Scandinavia  
Y : PX(Far East, Hawaii)  
Y : AAFES(Europe)

K : USA  
P : Canada  
T : Europe  
X : Australia

R : Mexico  
G : Germany  
M : Other Areas

Δ indicates safety critical components.

# KA-1080

## SPECIFICATIONS

### For U.K. and Europe

Continuous rated power output  
(DIN) 1 kHz

at 8  $\Omega$  .....60 W + 60 W  
at 4  $\Omega$  .....80 W + 80 W

(IEC / NF) From 63 Hz to 12,500 Hz, 0.7 % T.H.D.

at 8  $\Omega$  .....60 W + 60 W  
at 4  $\Omega$  .....80 W + 80 W

Damping factor .....42 (50 Hz)

Total harmonic distortion

.....0.06 % (40 Hz ~ 20,000 Hz, 30 W, 8  $\Omega$ )  
.....0.01 % (1 kHz, 60 W, 8  $\Omega$ )

Frequency response (IHF'78)

CD / TUNER / TAPE .....10 Hz ~ 60 kHz, +0 dB, -3 dB  
PHONO 'RIAA' response...20 Hz ~ 20 kHz, +1.0 dB, -1.0 dB

Maximum input level

PHONO (MM) .....100 mV, 0.5% T.H.D. at 1 kHz

Signal to noise ratio

PHONO (MM) .....70 dB (IHF '66)  
CD / TUNER / TAPE.....97 dB (IHF '66)  
PHONO (MM) .....57 dB (DIN, 50 mW output)  
CD / TUNER / TAPE .....60 dB (DIN, 50 mW output)

Input sensitivity / impedance

PHONO (MM) .....2.5 mV / 47 k $\Omega$   
CD / TUNER / TAPE .....200 mV / 47 k $\Omega$

Tone control

BASS ..... $\pm 10$  dB (at 100 Hz)  
TREBLE ..... $\pm 10$  dB (at 10 kHz)

Loudness control

VOLUME at -30 dB level .....+9 dB (at 100 Hz)

Output level / impedance

TAPE REC.....200 mV / 220  $\Omega$

### General

Power consumption .....160 W

Dimensions .....W : 440 mm  
.....H : 123 mm  
.....D : 395 mm

Weight (Net) .....7.0 kg

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

## KENWOOD CORPORATION

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

### KENWOOD SERVICE CORPORATION

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

### KENWOOD ELECTRONICS CANADA INC.

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

### KENWOOD ELECTRONICS LATIN AMERICA S.A.

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

### KENWOOD ELECTRONICS U.K. LIMITED

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

### KENWOOD ELECTRONICS BENELUX N.V.

Meachelsesteenweg 418, B-1930 Zaventem, Belgium

### KENWOOD ELECTRONICS DEUTSCHLAND GMBH

Rembrücker Str. 15, 63150 Heusenstamm, Germany

### For other countries

Continuous rated power output  
(EIAJ) 1 kHz, 10 % T.H.D.

at 8  $\Omega$  .....80 W + 80 W  
at 4  $\Omega$  .....110 W + 110 W

(DIN / IEC)

at 8  $\Omega$  .....60 W + 60 W  
at 4  $\Omega$  .....80 W + 80 W

Damping factor .....42 (50 Hz)

Total harmonic distortion

.....0.06 % (40 Hz ~ 20,000 Hz, 30 W, 8  $\Omega$ )  
.....0.01 % (1 kHz, 60 W, 8  $\Omega$ )

Frequency response (IHF'78)

CD / TUNER / TAPE .....10 Hz ~ 60 kHz, +0 dB, -3 dB  
PHONO 'RIAA' response...20 Hz ~ 20 kHz, +1.0 dB, -1.0 dB

Maximum input level

PHONO (MM) .....100 mV, 0.5% T.H.D. at 1 kHz

Signal to noise ratio

PHONO (MM) .....70 dB (IHF '66)  
CD / TUNER / TAPE.....97 dB (IHF '66)

Input sensitivity / impedance

PHONO (MM) .....2.5 mV / 47 k $\Omega$   
CD / TUNER / TAPE .....200 mV / 47 k $\Omega$

Tone control

BASS ..... $\pm 10$  dB (at 100 Hz)  
TREBLE ..... $\pm 10$  dB (at 10 kHz)

Loudness control

VOLUME at -30 dB level .....+9 dB (at 100 Hz)

Output level / impedance

TAPE REC.....200 mV / 220  $\Omega$

### General

Power consumption .....160 W

Dimensions .....W : 440 mm  
.....H : 123 mm  
.....D : 395 mm

Weight (Net) .....7.0 kg

### Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on 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.

### KENWOOD ELECTRONICS FRANCE S.A.

13 Boulevard Ney, 75018 Paris, France

### KENWOOD ELECTRONICS ITALIA S.p.A.

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

### KENWOOD IBÉRICA S.A.

Bolivia, 239-08020 Barcelona, Spain

### KENWOOD ELECTRONICS AUSTRALIA PTY. LTD. (A.C.N. 001499 074)

P.O. Box 504, 8 Figtree Drive, Australia Centre, Homebush, N.S.W. 2140, Australia

### KENWOOD & LEE ELECTRONICS, LTD.

Unit 37/12-37/24, Level 37, Tower 1, Metroplaza, 223 Hing Fong Road, Kwai Fong N.T., Hong Kong

### KENWOOD ELECTRONICS SINGAPORE PTE LTD.

No. 1 Genting Lane # 07-00, KENWOOD Building, Singapore, 349544

### KENWOOD ELECTRONICS (MALAYSIA) SDN BHD.

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