

4418

INTEGRATED AMPLIFIER

# KA-1030

## SERVICE MANUAL

46085

# KENWOOD

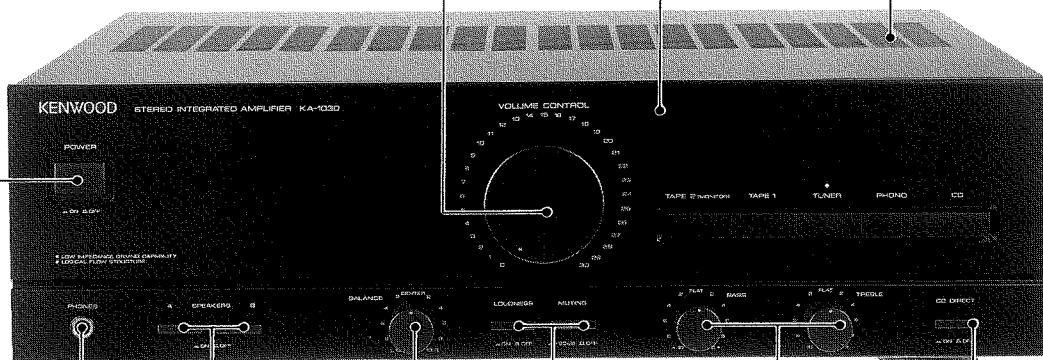
©1991-2 PRINTED IN JAPAN  
B51-4305-00(S)1546

Knob (POWER)  
(K27-2004-04)

Knob (VOLUME)  
(K29-4107-04)

Panel  
(A60-0025-02)

Metallic cabinet  
(A01-1913-01)



Phone jack  
(E11-0189-05)

Knob (SPEAKERS)  
(K27-2014-04)

Knob (BALANCE)  
(K29-3909-04)

Knob  
(K27-2017-04)

Knob (BASS, TREBLE)  
(K29-3909-04)

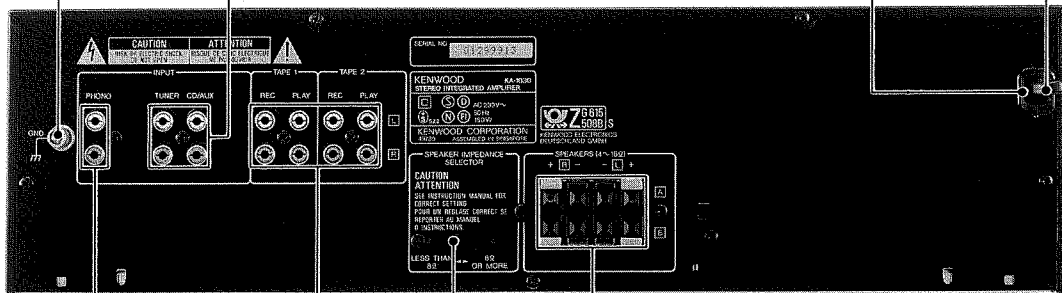
Knob  
(K27-2017-04)

Binding post  
(N08-0128-35)

Phono jack (4P)  
(E13-0486-05)

Power cord bushing  
(J42-0083-05)

AC power cord\*  
(E30-)



Phono jack (2P)  
(E13-0250-05)

Phono jack (8P)  
(E13-0826-05)

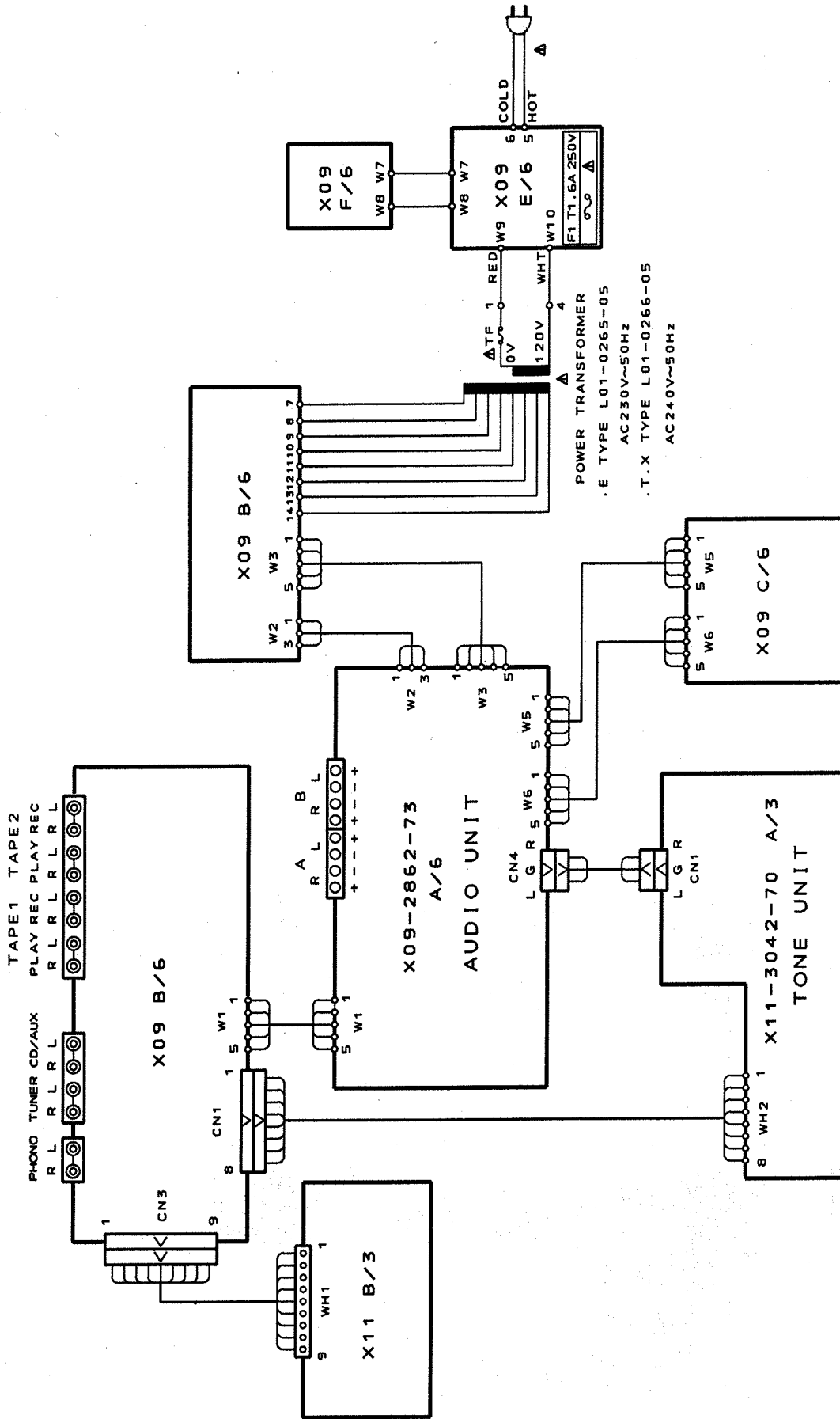
Slide switch  
(S31-2136-05)

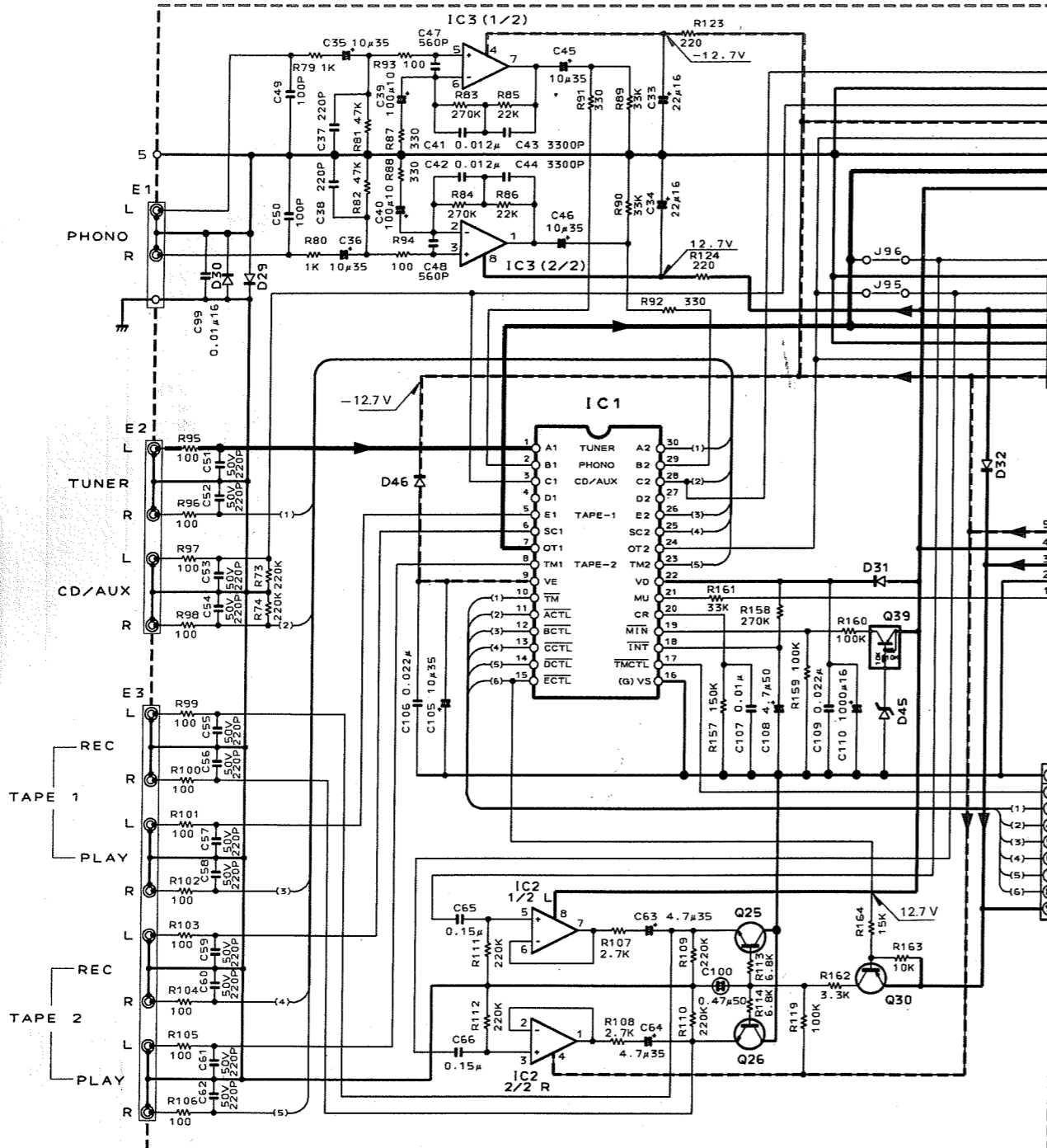
Lock terminal board  
(E20-0823-05)

Foot  
(J02-1034-05) x 4

\* Refer to parts list on page 12.

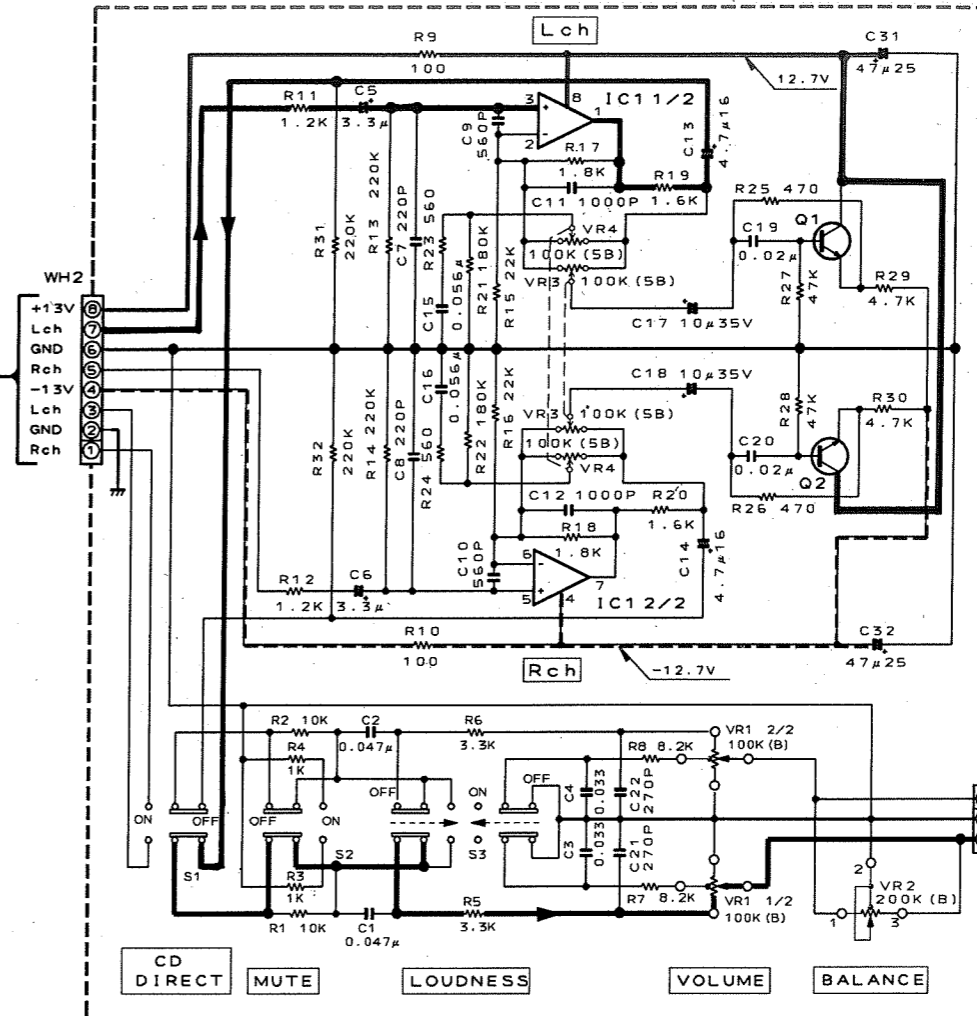
# WIRING DIAGRAM



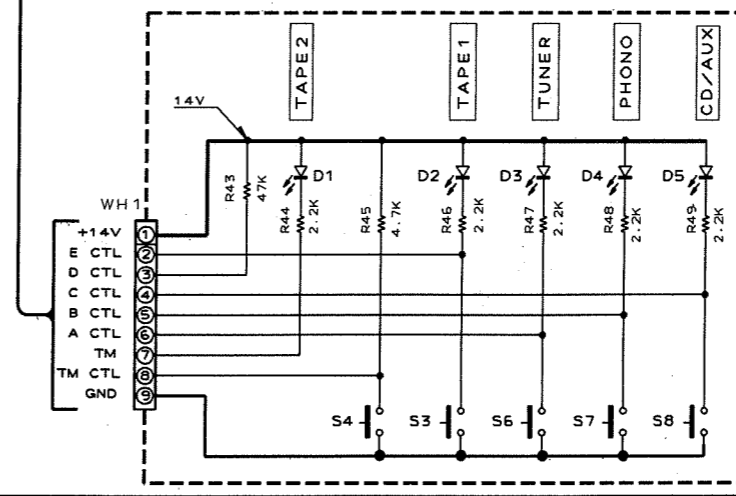


(X09-2862-73) (B/6)

- |         |                   |            |                    |
|---------|-------------------|------------|--------------------|
| IC1     | : LC7818          | Q39        | : DTA124EN         |
| IC2, 3  | : PC4570C-A       | D29~32, 46 | : 1SS133 or 1SS104 |
| Q25, 26 | : 2SC2878 (B)     | D45        | : RD10ES (B)       |
| Q30     | : 2SA733 (A) (QP) |            | or HZS10N (B)      |
|         | or 2SA933 (QR)    |            |                    |

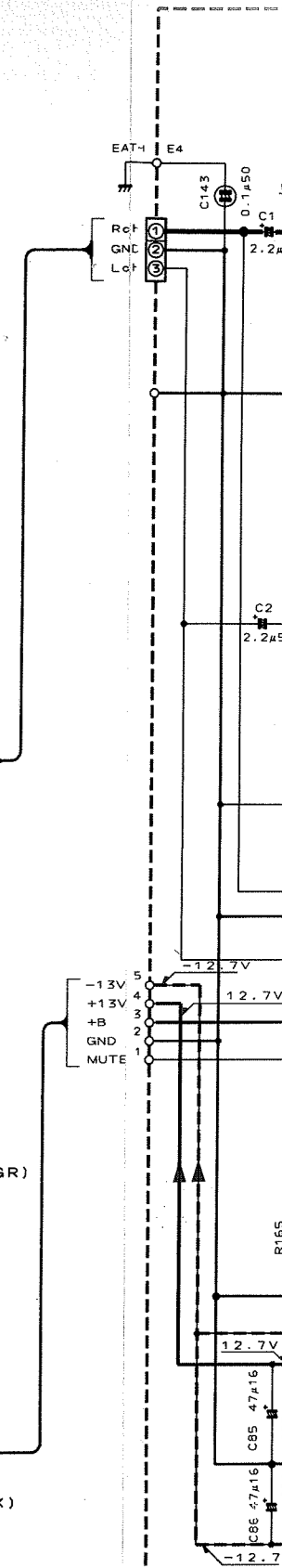


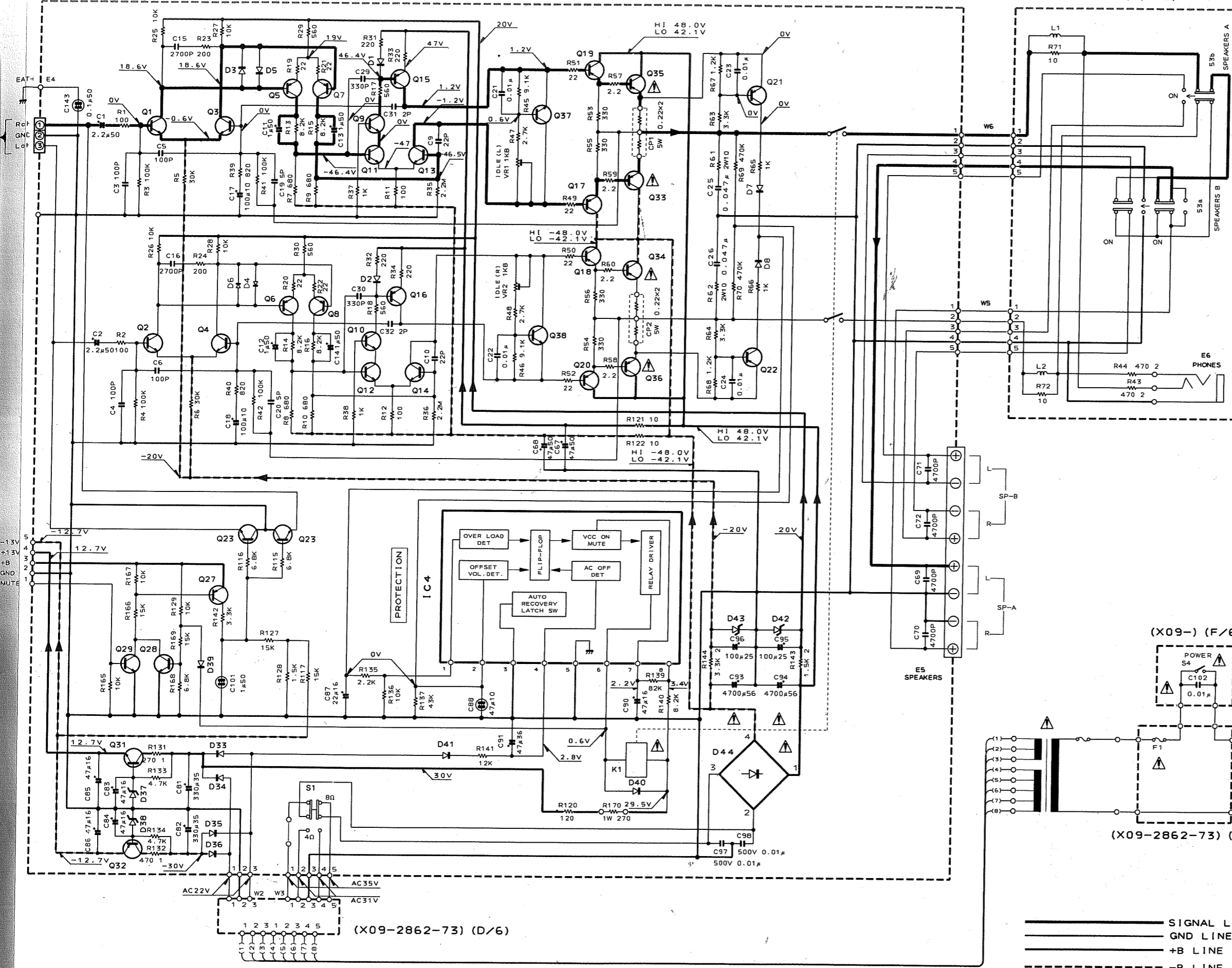
(X11-3042-70) (B/3)



(X09-2862-73) (A/6)

- |                  |                     |              |                    |
|------------------|---------------------|--------------|--------------------|
| IC4              | : PC1237HA          | Q32          | : 2SA954 (L, K)    |
| Q1~4             | : 2SC1845 (F, E)    | Q33, 34      | : 2SA1694-5        |
| Q5~8, 21, 22, 27 | : 2SA733 (A) (QP)   | Q35, 36      | : 2SC4467-5        |
|                  | or 2SA933 (QR)      | Q37, 38      | : 2SC4137 (V, W)   |
| Q9~4             | : 2SC2632 (Q, R, S) | D1~8, 39, 40 | : 1SS133 or 1SS104 |
| Q15, 16          | : 2SA1124 (Q, R, S) | D33~36, 41   | : S5566B           |
| Q17, 18          | : 2SA1284 (D, E)    | D37, 38      | : RD13ES (B2)      |
| Q19, 20          | : 2SC3244 (D, E)    |              | or HZS13N (B)      |
| Q23, 24          | : 2SC2878 (B)       | D42, 43      | : RD20ES (B)       |
| Q28, 29          | : 2SC945 (A) (QP)   |              | or HZS20N (B)      |
|                  | or 2SC1740S (QR)    | D44          | : RBV-402LFA       |
| Q31              | : 2SD882            |              | or D3SBA20F03      |



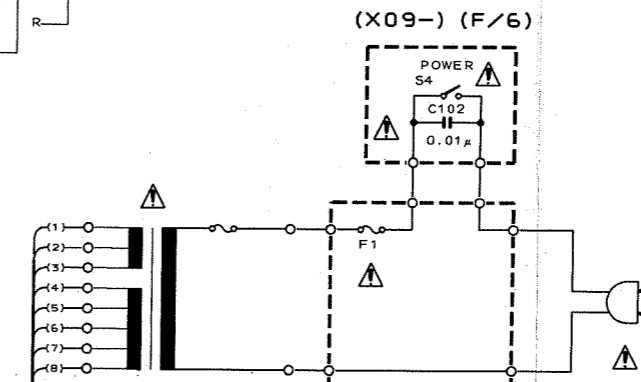


-13V  
+13V  
+B  
GND  
MUTE

AC 22V  
AC 35V  
AC 31V

1 2 3 4 5  
1 2 3 4 5  
1 2 3 4 5

(X09-2862-73) (D/6)



(X09-2862-73) (E/6)

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

- DTA124EN
- 2SC4137
- 2SA1124
- 2SA1284
- 2SA733(A)
- 2SA954
- 2SC1845
- 2SC2632
- 2SC2878
- 2SC3244
- 2SC945(A)
- NJM4565D-D
- RC4565D-D
- UPC4570C-A
- UPC1237HA
- LC7818
- 2SA1694\*5
- 2SC4467\*5
- 2SA933S
- 2SC1740S
- 2SC2458

**CAUTION:** For continued safety, replace parts only with manufacturer's recommended parts list. ⚠ Indicates safety critical components. Risk of electric shock, leakage-current or fire shall be carried out (exposed parts are accessible to the user) before the appliance is repaired.

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

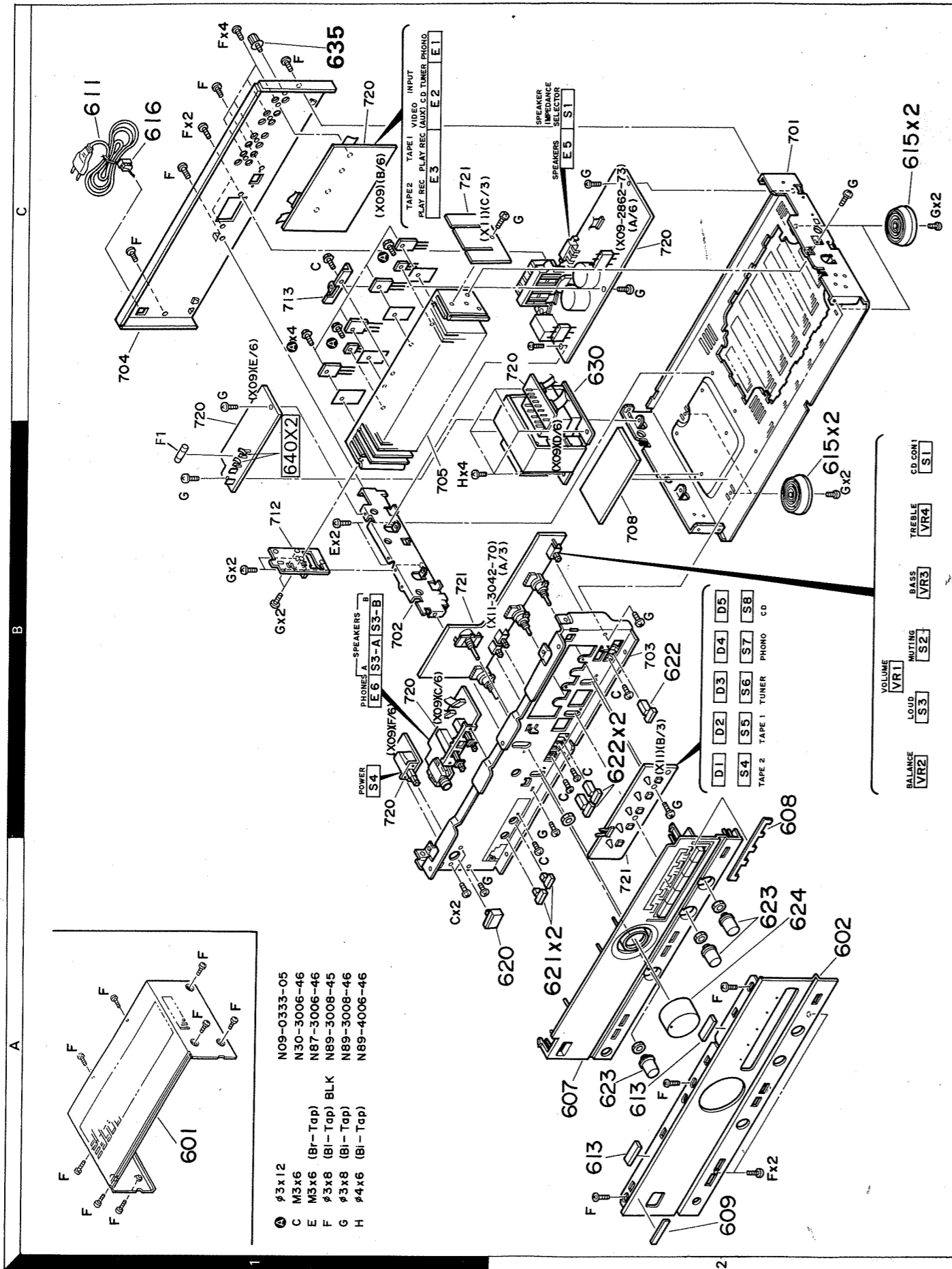
Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement en raison de variations inhérentes aux appareils de mesure individuels.

Die angegebenen Gleichspannungswerte sind mit einem hochohmigen Spannungsmesser gemessen. Die Meßwerte können sich aufgrund von Unterschieden in den Instrumenten oder Geräten u. U. geringfügig unterscheiden.



EXPLODED VIEW (MECHANISM)

PARTS LIST



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

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

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
<b>KA-1030</b>						
601	1A	*	A01-1913-01	METALLIC CABINET		
602	2A	*	A60-0025-02	PANEL		
607	2A	*	B01-0480-01	PANEL ESCUTCHEON		
608	2A, 2B	*	B03-2693-04	DRESSING PLATE		
609	2A	*	B43-0287-04	KENWOOD BADGE		
-	-	-	B46-0096-23	WARRANTY CARD		X
-	-	-	B46-0122-13	WARRANTY CARD		E
-	-	-	B46-0143-13	WARRANTY CARD		T
-	-	*	B60-0347-00	INSTRUCTION MANUAL (ENGLISH)		E
-	-	*	B60-0348-00	INSTRUCTION MANUAL (F,G,D,I)		T
△ 611	1C	-	E30-0459-05	AC POWER CORD		X
△ 611	1C	-	E30-1341-05	AC POWER CORD		E
△ 611	1C	-	E30-1416-05	AC POWER CORD		T
△ F1	1B	-	F05-1623-05	FUSE (SEMKO) (250V T1.6A)		
613	2A	-	G11-0155-14	SOFT TAPE (40X9X2)		
-	-	*	H50-0021-04	ITEM CARTON CASE		
-	-	*	H10-3847-12	POLYSTYRENE FOAMED FIXTURE		
-	-	*	H10-3848-12	POLYSTYRENE FOAMED FIXTURE		
-	-	*	H25-0223-04	PROTECTION BAG (750X350X0.03)		
-	-	*	H25-0232-04	PROTECTION BAG (235X350X0.03)		
△ 615	2B, 2C	-	J02-1034-05	FOOT		E
△ 616	1C	-	J42-0083-05	POWER CORD BUSHING		T
-	-	-	J61-0307-05	WIRE BAND		
620	1A, 2A	-	K27-2004-04	KNOB POWER		
621	2A	-	K27-2014-04	KNOB SPEAKERS		
622	2B	-	K27-2017-04	KNOB LOUDNESS, MUTING, CD DIRECT		
623	2A	-	K29-3909-04	KNOB BALANCE, BASS, TREBLE		
624	2A	*	K29-4107-04	KNOB VOLUME		
△ 630	2B, 2C	*	L07-0265-05	POWER TRANSFORMER		E
△ 630	2B, 2C	*	L07-0266-05	POWER TRANSFORMER		T
635	1C	-	N08-0128-35	BINDING POST (EARTH)		
A	1C	-	N09-0333-05	TAPPING SCREW (3X12)		
C	1A, 2B	-	N30-3006-46	PAN HEAD MACHIN SCREW		
E	1B	-	N87-3006-46	BRAZIER HEAD TAPTITE SCREW		
F	1A, 2B	-	N89-3008-45	BINDING HEAD TAPTITE SCREW		
G	1B, 2C	-	N89-3008-46	BINDING HEAD TAPTITE SCREW		
H	1B	-	N89-4006-46	BINDING HEAD TAPTITE SCREW		
Q33,34			2SA1694*5	TRANSISTOR		
Q35,36			2SC4467*5	TRANSISTOR		
Q37,38			2SC4137(V,W)	TRANSISTOR		
<b>AUDIO UNIT (X09-2862-73)</b>						
C1	, 2		CE04LW1H2R2M	ELECTRO	2.2UF	50WV
C3	- 6		CC45FSL1H101J	CERAMIC	100PF	J
C9	, 10		CC45FSL1H220J	CERAMIC	22PF	J
C11	- 14		CE04LW1H010M	ELECTRO	1.0UF	50WV
C15	, 16		CF92FV1H272J	MF	2700PF	J
C17	, 18		CE04LW1A101M	ELECTRO	100UF	10WV
C19	, 20		CC45FSL1H050C	CERAMIC	5.0PF	C
C21	, 22		CK45FF1H103Z	CERAMIC	0.010UF	Z

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

**PARTS LIST**

× New Parts

Parts without Parts No. are not supplied.

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

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
C23 ,24			CF92FV1H103J	MF 0.010UF J		
C25 ,26			CF92FV1H473J	MF 0.047UF J		
C29 ,30			CC45FSL1H331J	CERAMIC 330PF J		
C31 ,32			CC45FSL1H020C	CERAMIC 2.0PF C		
C33 ,34			CE04LW1C220M	ELECTRO 22UF 16WV		
C35 ,36			CE04LW1V100M	ELECTRO 10UF 35WV		
C37 ,38			CC45FSL1H221J	CERAMIC 220PF J		
C39 ,40			CE04LW1A101M	ELECTRO 100UF 10WV		
C41 ,42			CF92FV1H123J	MF 0.012UF J		
C43 ,44			CF92FV1H332J	MF 3300PF J		
C45 ,46			CE04LW1V100M	ELECTRO 10UF 35WV		
C47 ,48			CK45FB1H561K	CERAMIC 560PF K		
C49 ,50			C91-0745-05	CERAMIC 100PF K		
C51 -62			C91-0749-05	CERAMIC 220PF K		
C63 ,64			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C65 ,66			CF92FV1H154J	MF 0.15UF J		
C67 ,68			CE04LW1H470M	ELECTRO 47UF 50WV		
C69 -72			CF92FV1H472J	MF 4700PF J		
C81 ,82			CE04LW1V331M	ELECTRO 330UF 35WV		
C83 -86			CE04LW1C470M	ELECTRO 47UF 16WV		
C87			CE04LW1C220M	ELECTRO 22UF 16WV		
C88			C90-1334-05	NP-ELEC 47UF 10WV		
C90			CE04LW1C470M	ELECTRO 47UF 16WV		
C91			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C93 ,94		*	C90-1933-05	ALMINIUM ELECTROLYTIC C.		
C95 ,96			CE04LW1E101M	ELECTRO 100UF 25WV		
C97 ,98			CK45FE2H103P	CERAMIC 0.010UF P		
C99			C91-0769-05	CERAMIC 0.01UF K		
C100			C90-1331-05	NP-ELEC 0.47UF 50WV		
C101			C90-1349-05	NP-ELEC 1UF 50WV		
C102			C91-0647-05	CERAMIC 0.01UF P		
C105			CE04LW1V100M	ELECTRO 10UF 35WV		
C106			CK45FF1H223Z	CERAMIC 0.022UF Z		
C107			CF92FV1H103J	MF 0.010UF J		
C108			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C109			CK45FF1H223Z	CERAMIC 0.022UF Z		
C110			C90-1256-05	ELECTRO 1000UF 16WV		
C143			C90-1455-05	NP-ELEC 0.1UF 50WV		
E1			E13-0250-05	PHONE JACK PHONE		
E2			E13-0486-05	PHONE JACK TUNER, CD/AUX		
E3			E13-0826-05	PHONE JACK TAPE-1/2		
E5			E20-0823-05	LOCK TERMINAL BOARD SPEAKERS		
E6			E11-0189-05	PHONE JACK HEAD PHONE		
640	1B		J13-0054-05	FUSE CLIP		
L1 ,2			L39-0085-05	PHASE-COMPENSATION COIL		
CP1 ,2			R90-0187-05	MULTI-COMP 0.22X2 K 5W		
R11 ,12			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R31 -34			RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
R41 ,42			RN14BK2C1003F	RN 100K F 1/6W		
R43 ,44			RS14KB3D471J	FL-PROOF RS 470 J 2W		
R49 -52			RD14GB2E220J	FL-PROOF RD 22 J 1/4W		
R53 -56			RD14GB2E331J	FL-PROOF RD 330 J 1/4W		
R57 -60			RD14GB2E2R2J	FL-PROOF RD 2.2 J 1/4W		

E: Scandinavia & Europe K: USA P: Canada W: Europe

Y: PX(Far East, Hawaii) T: England M: Other Areas

IY: AAFES(Europe) X: Australia

**SPECIFICATIONS**

**Audio Section**

**Rated Power Output**

Maximum continuous output power

(IEC) from 63 Hz to 12,500 Hz 0.7%

T.H.D. at 8 Ω.....65 W + 65 W

(DIN) 1,000 Hz at 8 Ω.....65 W + 65 W

at 4 Ω.....70 W + 70 W

**Total Harmonic Distortion**

(20 Hz to 20,000 Hz).....0.03% at rated power into 8 Ω

**Intermodulation Distortion**

(60 Hz:7kHz = 4:1).....0.03% at rated power into 8 Ω

Damping factor .....40 (50 Hz at 8 Ω)

Frequency Response.....10 Hz to 60 kHz, +0 dB, -3 dB

**Input Sensitivity/Impedance**

Phono.....2.5 mV/47 kΩ

Tuner/Tape /CD .....150 mV/27 kΩ

**Signal-to-noise Ratio (IHF-A)**

Phono.....75 dB for 2.5 mV input

Tuner/Tape/CD .....100 dB for 150 mV input

Phono Maximum Input Level.....100 mV, T.H.D. 0.05% at 1 kHz

**Output Level/Impedance**

Tape REC (Pin).....150 mV/330 Ω

Phono Frequency Response.....RIAA standard curve ±0.5 dB (20 Hz to 20,000 Hz)

**Tone control**

Bass.....±10 dB (at 100 Hz)

Treble.....±10 dB (at 10 kHz)

Loudness Control.....+8 dB at 100 Hz (at -30 dB VOLUME Level)

**General**

Power Consumption.....150 W

Dimensions.....W:440 mm

H: 137 mm

D: 280 mm

Weight (Net).....6.7 kg (14.8 lb)

Note:

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

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KENWOOD & LEE ELECTRONICS, LTD.

Wang Kee Building, 4th Floor, 34-37, Connaught Road, Central, Hong Kong

## PARTS LIST

× New Parts

Parts without Parts No. are not supplied.

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

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
C1 ,2			CF92FV1H473J	MF 0.047UF J		
C3 ,4			CF92FV1H333J	MF 0.033UF J		
C5 ,6			CE04LW1H3R3M	ELECTRO 3.3UF 50WV		
C7 ,8			CC45FSL1H221J	CERAMIC 220PF J		
C9 ,10			CK45FB1H561K	CERAMIC 560PF K		
C11 ,12			CK45FB1H102K	CERAMIC 1000PF K		
C13 ,14			CE04JW1C4R7M	ELECTRO 4.7UF 16WV		
C15 ,16			CF92FV1H563J	MF 0.056UF J		
C17 ,18			CE04JW1V100M	ELECTRO 10UF 35WV		
C19 ,20			CF92FV1H203J	MF 0.020UF J		
C21 ,22			CC45FSL1H271J	CERAMIC 270PF J		
C31 ,32			CE04LW1E470M	ELECTRO 47UF 25WV		
R9 ,10			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
VR1			R06-5176-05	POTENTIOMETER VOLUME		
VR2			R01-5075-05	POTENTIOMETER VALANCE		
VR3 ,4			R06-5199-05	POTENTIOMETER BASS TREBLE		
S1 ,2			S40-2351-05	PUSH SWITCH CD DIRECT,MUTE		
S3			S40-4074-05	PUSH SWITCH LOUDNESS		
S4 -8			S40-1064-05	PUSH SWITCH KEY BOARD		
IC1			NJM4565D-D	IC(OP AMP X2)		
IC1		*	RC4565D-D	IC(OP AMP)X2)		
Q1 ,2			2SC1740S(Q,R)	TRANSISTOR		
Q1 ,2			2SC2458(Y,GR)	TRANSISTOR		

E: Scandinavia &amp; Europe K: USA P: Canada W: Europe

Y: PX(Far East, Hawaii) T: England M: Other Areas

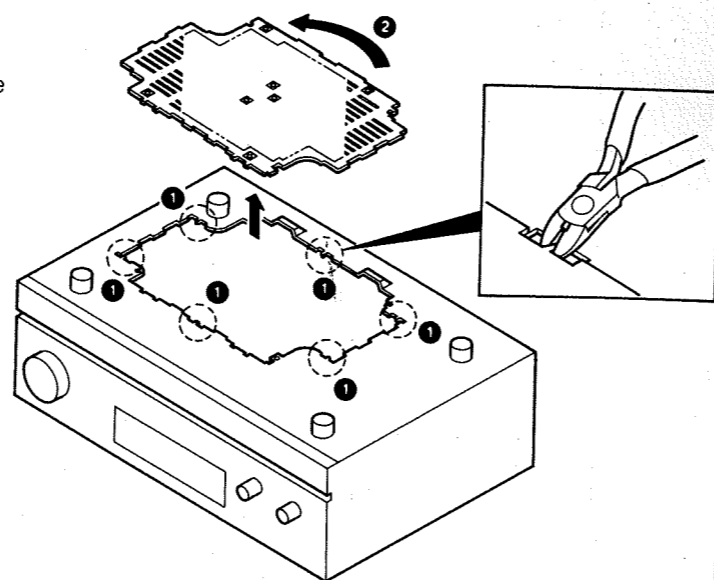
Y: AAFES(Europe) X: Australia

⚠ indicates safety critical components.

## DISASSEMBLY FOR REPAIR

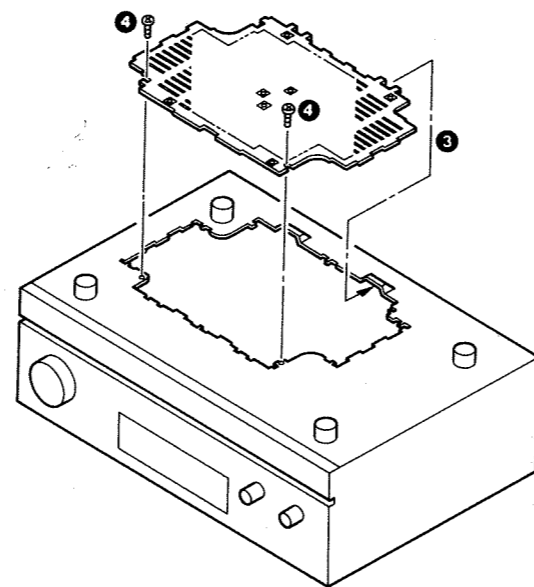
### How to remove the repairing chassis

- 1 Cut the 6 parts ① of the repairing chassis. Remove the repairing chassis from main chassis.



### After repair

- 2 Turn the repairing chassis 180 degrees in the arrow direction ②.
- 3 Insert the 2 claws ③ into main chassis.
- 4 Lock to the main chassis by 2 screws (M3 x 6) ④.



## ADJUSTMENT / REGLAGE / ABGLEICH

### ADJUSTMENT

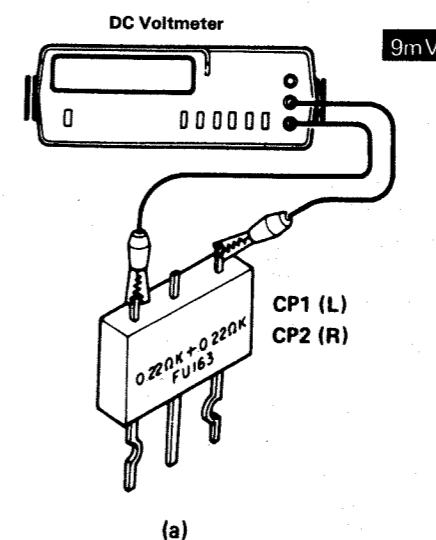
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
Set the controls and switches as follows: POWER: ON SPEAKER: B							
1	IDLE CURRENT	-	Connect a DC voltmeter across CP1 (L) CP2 (R)	VOLUME: 0	VR1 (L) VR2 (R)	9mV	(a)

### REGLAGES

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DE L'AMPLIFICATEUR	POINTS L'ALIGNEMENT	ALIGNER POUR	FIG.
Régler les controles et les boutons comme suit: POWER: ON SPEAKER: B							
1	COURANT DE POLARISATION	-	Connecter un voltmètre de CC sur CP1 (C) CP2 (D)	VOLUME: 0	VR1 (C) VR2 (D)	9mV	(a)

### ABGLEICH

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	VORSTÄRKER EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
Die Regler und Knöpfe wird folgt einstellen: POWER: ON SPEAKER: B							
1	LEERLAUFSTROM	-	Einen Gleichspannungsmesser über CP1 (L) CP2 (R) anschließen	VOLUME: 0	VR1 (L) VR2 (R)	9mV	(a)



(a)



## SPECIFICATIONS

### Audio Section

#### Rated Power Output

Maximum continuous output power  
(IEC) from 63 Hz to 12,500 Hz 0.7%

T.H.D. at 8 Ω.....65 W + 65 W  
(DIN) 1,000 Hz at 8 Ω.....65 W + 65 W  
at 4 Ω.....70 W + 70 W

#### Total Harmonic Distortion

(20 Hz to 20,000 Hz).....0.03% at rated power into 8 Ω

#### Intermodulation Distortion

(60 Hz:7kHz = 4:1).....0.03% at rated power into 8 Ω

Damping factor .....40 (50 Hz at 8 Ω)

Frequency Response.....10 Hz to 60 kHz, +0 dB, -3 dB

#### Input Sensitivity/Impedance

Phono.....2.5 mV/47 kΩ  
Tuner/Tape /CD.....150 mV/27 kΩ

#### Signal-to-noise Ratio (IHF-A)

Phono.....75 dB for 2.5 mV input  
Tuner/Tape/CD.....100 dB for 150 mV input

Phono Maximum Input Level.....100 mV, T.H.D. 0.05% at 1 kHz

#### Output Level/Impedance

Tape REC (Pin).....150 mV/330 Ω

Phono Frequency Response.....RIAA standard curve ±0.5 dB (20 Hz to 20,000 Hz)

#### Tone control

Bass.....±10 dB (at 100 Hz)

Treble.....±10 dB (at 10 kHz)

Loudness Control.....+8 dB at 100 Hz (at -30 dB VOLUME Level)

### General

Power Consumption.....150 W

Dimensions.....W:440 mm

H: 137 mm

D: 280 mm

Weight (Net).....6.7 kg (14.8 lb)

#### Note:

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

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