

4K 18

INTEGRATED AMPLIFIER

KA-1030

# SERVICE MANUAL

46085

KENWOOD

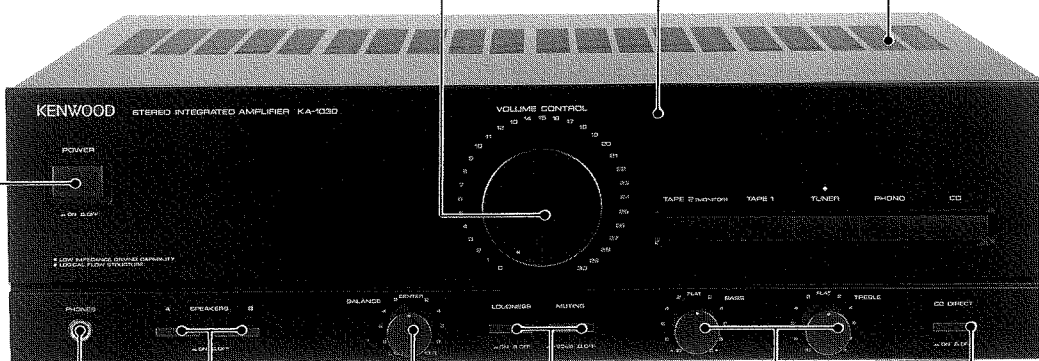
©1991-2 PRINTED IN JAPAN  
B51-4305-00(S)1546

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)

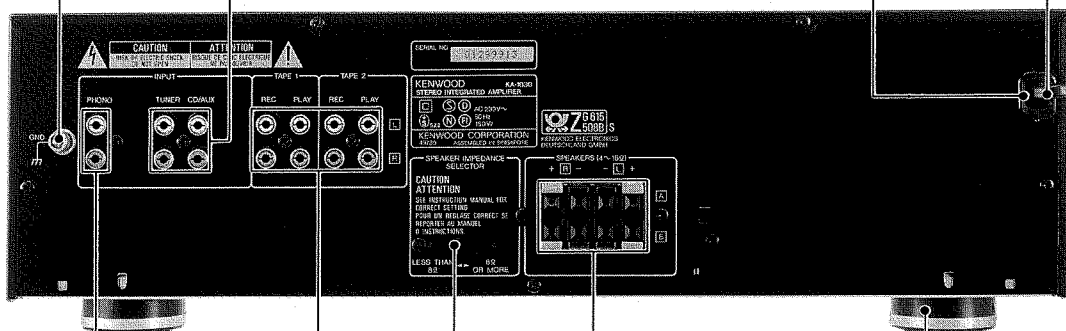
Knob  
(K27-2017-04)

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)

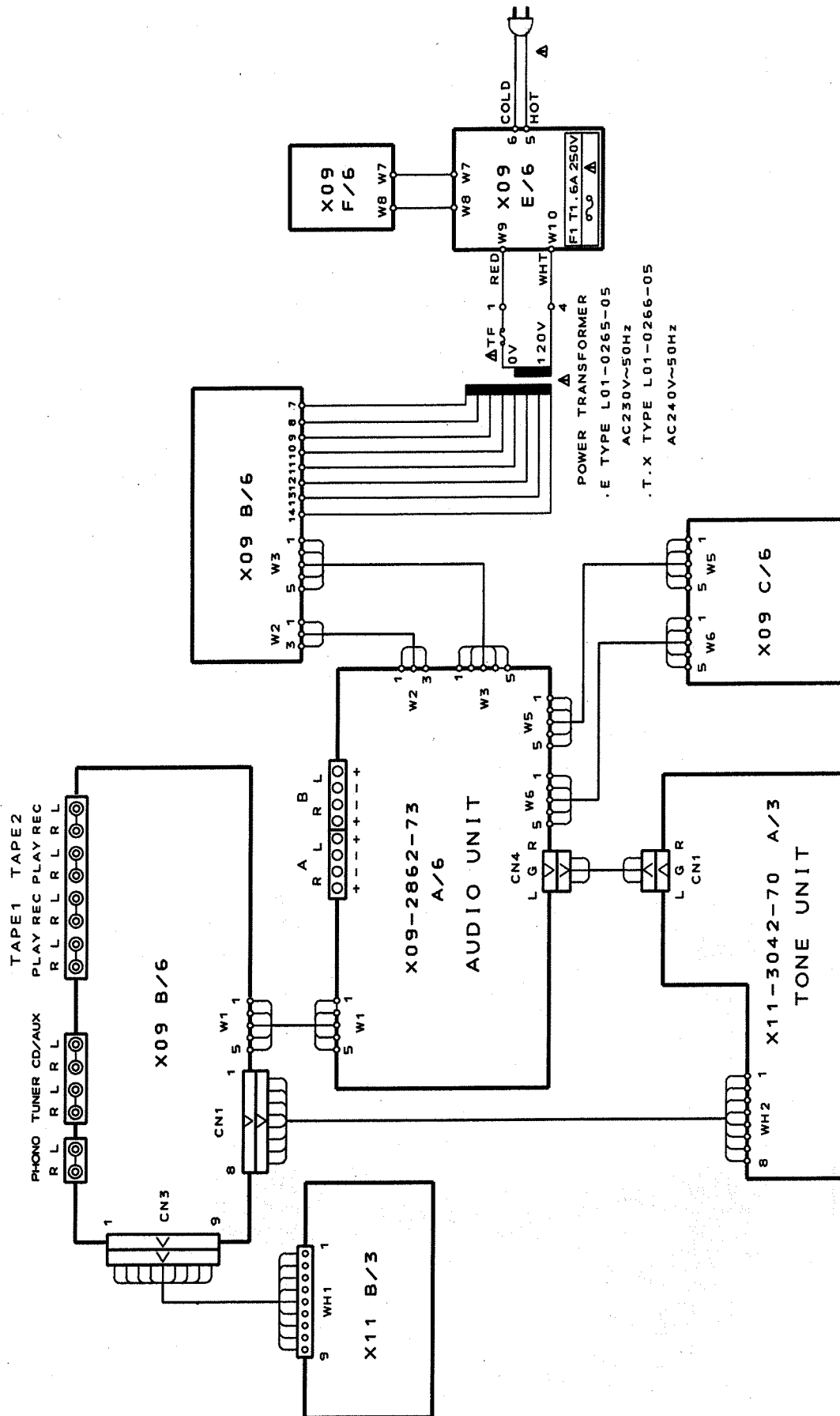
Slide switch  
(S31-2136-05)

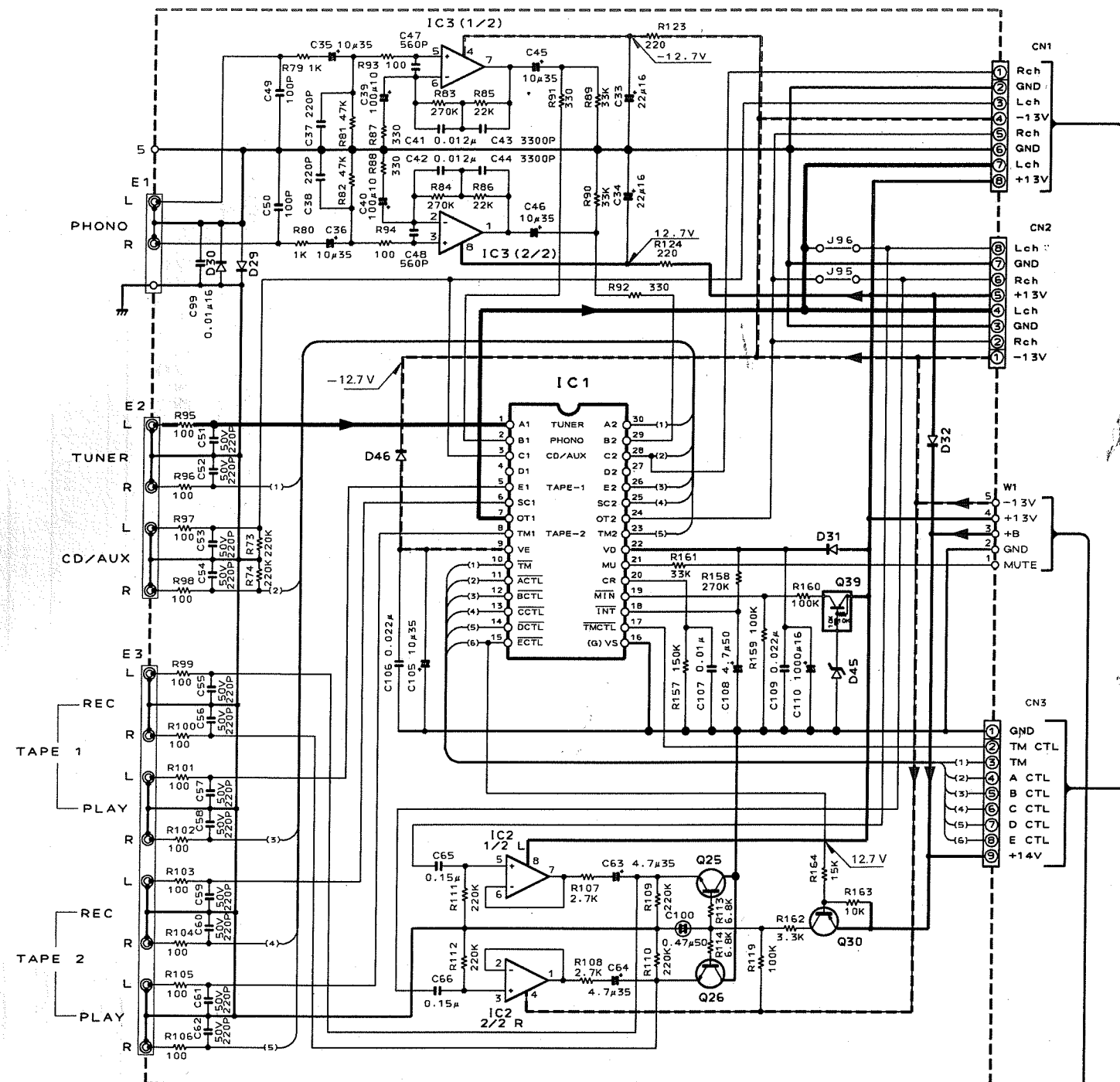
Lock terminal board  
(E20-0823-05)

Foot  
(J02-1034-05) × 4

\* Refer to parts list on page 12.

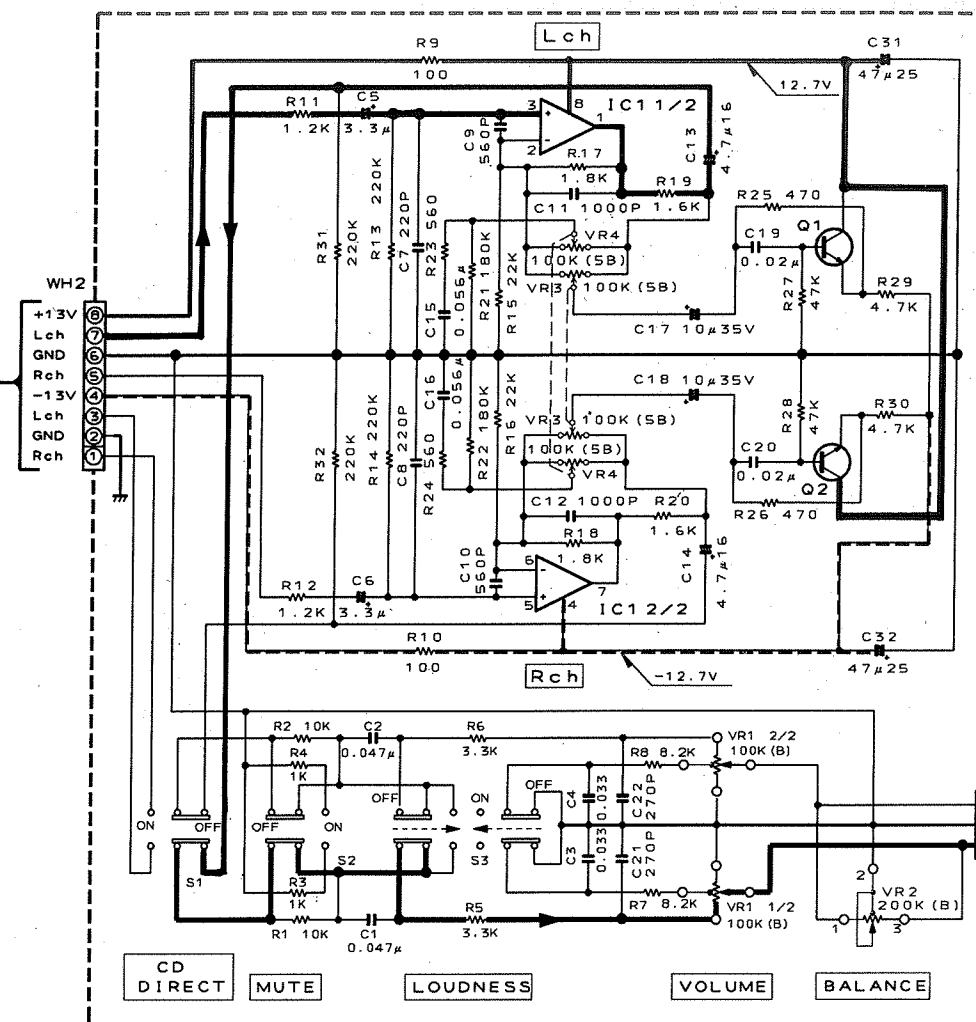
## WIRING DIAGRAM



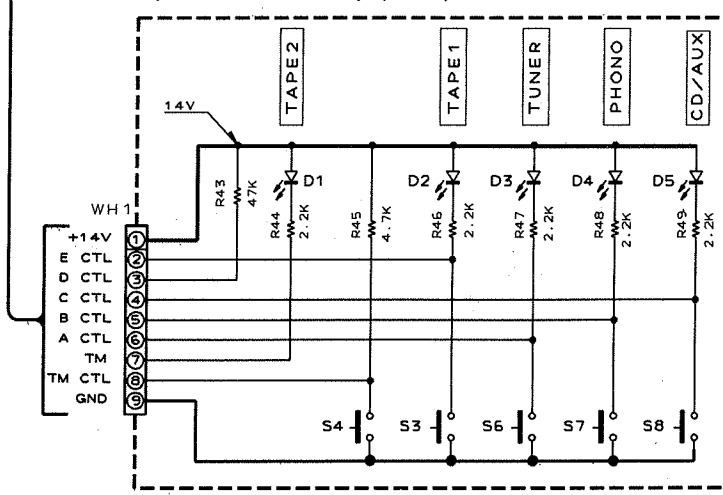


(X09-2862-73) (B/6)

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)		

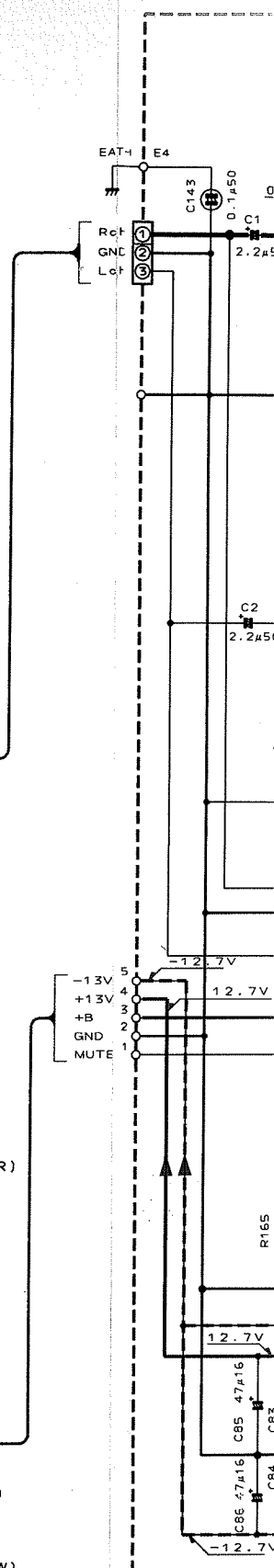


(X11-3042-70) (B/3)



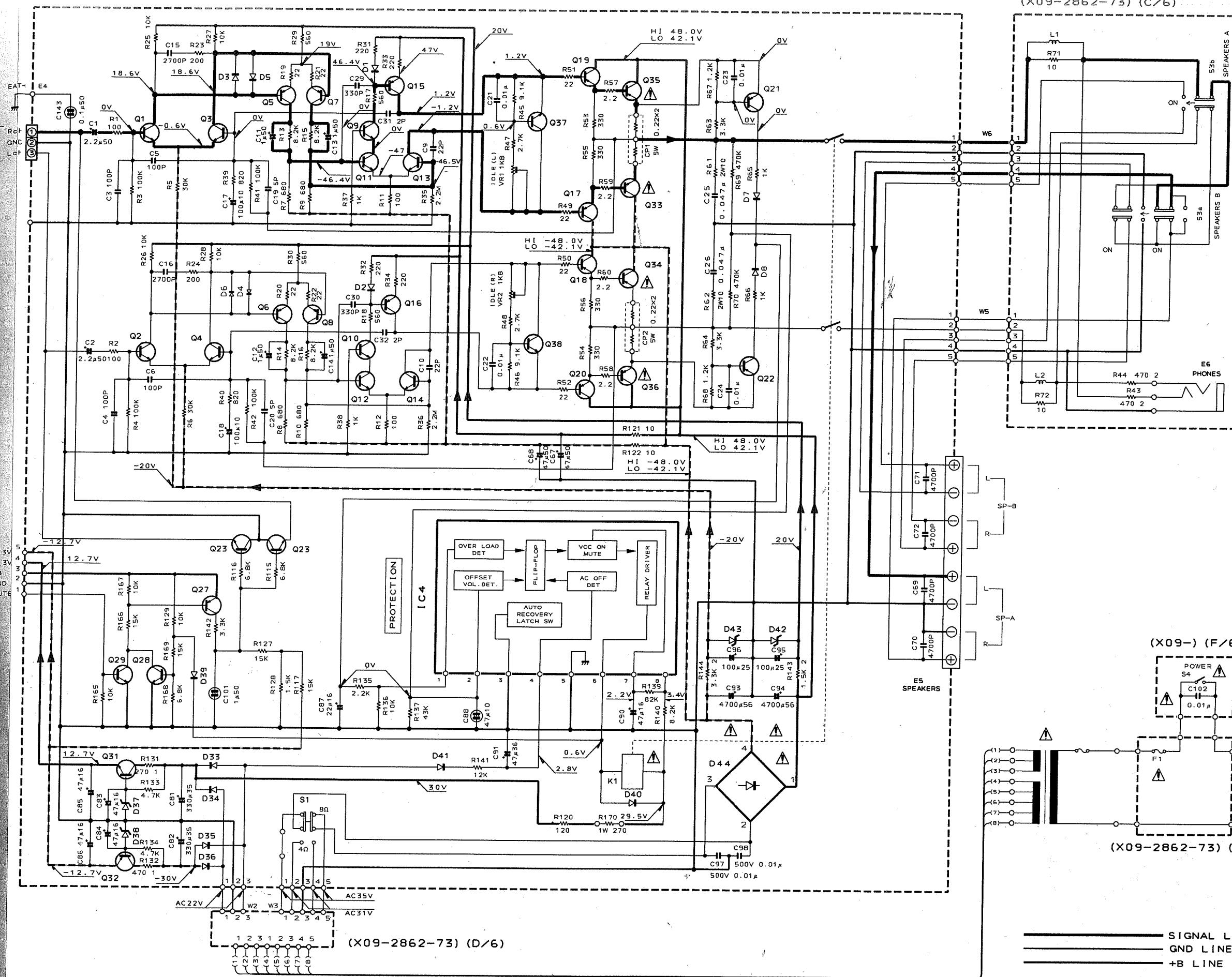
(X09-2862-73) (A/6)

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



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

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



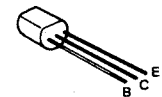
(X09-2862-73) (D/6)

(X09-) (F/6)

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

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

DTA124EN



2SC4137

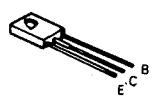


2SA1124  
 2SA1284  
 2SA733(A)  
 2SA954  
 2SC1845  
 2SC2632  
 2SC2878  
 2SC3244  
 2SC945(A)

NJM4565D-E

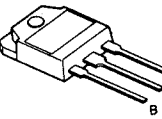
RC4565D-D  
UPC4570C-A

2SD882



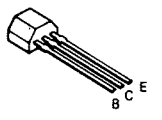
UPC1237HA

2SA1694\*5  
 2SC4467\*5



LC7818

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 according to the supply circuit) before the appliance is repaired.

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

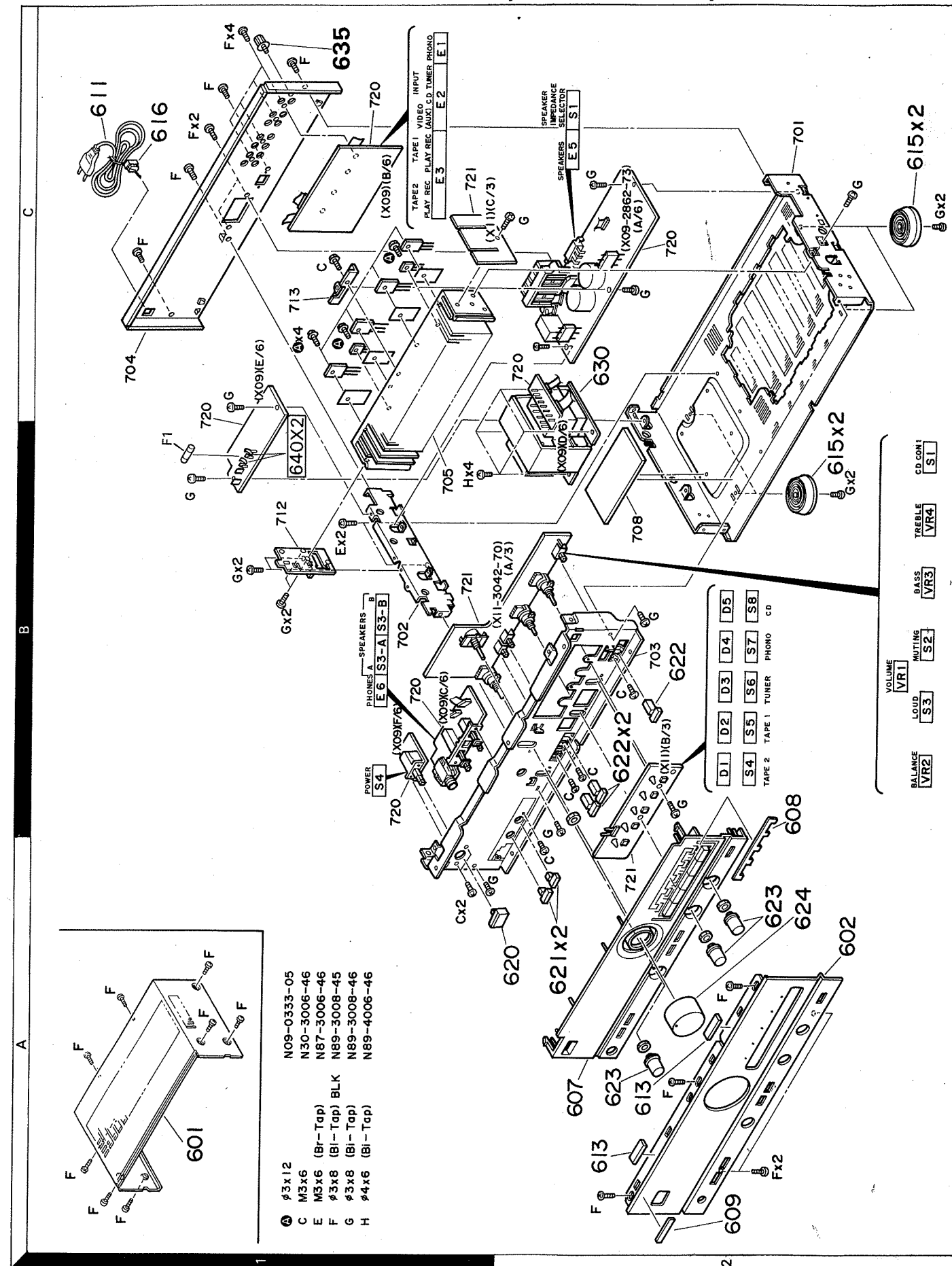
Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement à cause des variations inhérentes aux appareils de mesure individuels.

Die angegebenen Gleichspannungswerte sind mit einem hochohmigen Spannungsmesser gemessen. Die Meßwerte können aufgrund von Unterschieden zwischen Instrumenten oder Geräten u. U. geringfügig abweichen.

Y08-4332-70

KA  
 KE

## EXPLODED VIEW (MECHANISM)



## 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
KA-1030						
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		
			B46-0122-13	WARRANTY CARD		
			B46-0143-13	WARRANTY CARD		
		*	B60-0347-00	INSTRUCTION MANUAL (ENGLISH)		
		*	B60-0348-00	INSTRUCTION MANUAL (F,G,D,I)		
611	1C		E30-0459-05	AC POWER CORD		
611	1C		E30-1341-05	AC POWER CORD		
611	1C		E30-1416-05	AC POWER CORD		
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		
616	1C		J42-0083-05	POWER CORD BUSHING		
			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		
630	2B, 2C	*	L07-0266-05	POWER TRANSFORMER		
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		
AUDIO UNIT (X09-2862-73)						
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 &amp; Europe K: USA P: Canada W: Europe

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

Y: AAFES(Europe) X: Australia



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C23 ,24 C25 ,26 C29 ,30 C31 ,32 C33 ,34			CF92FV1H103J CF92FV1H473J CC45FSL1H331J CC45FSL1H020C CE04LW1C220M	MF 0.010UF J MF 0.047UF J CERAMIC 330PF J CERAMIC 2.0PF C ELECTRO 22UF 16WV		
C35 ,36 C37 ,38 C39 ,40 C41 ,42 C43 ,44			CE04LW1V100M CC45FSL1H221J CE04LW1A101M CF92FV1H123J CF92FV1H332J	ELECTRO 10UF 35WV CERAMIC 220PF J ELECTRO 100UF 10WV MF 0.012UF J MF 3300PF J		
C45 ,46 C47 ,48 C49 ,50 C51 ,62 C63 ,64			CE04LW1V100M CK45FB1H561K C91-0745-05 C91-0749-05 CE04LW1V4R7M	ELECTRO 10UF 35WV CERAMIC 560PF K CERAMIC 100PF K CERAMIC 220PF K ELECTRO 4.7UF 35WV		
C65 ,66 C67 ,68 C69 ,72 C81 ,82 C83 ,86			CF92FV1H154J CE04LW1H470M CF92FV1H472J CE04LW1V331M CE04LW1C470M	MF 0.15UF J ELECTRO 47UF 50WV MF 4700PF J ELECTRO 330UF 35WV ELECTRO 47UF 16WV		
C87 C88 C90 C91 C93 ,94			CE04LW1C220M C90-1334-05 CE04LW1C470M CE04LW1V4R7M C90-1933-05	ELECTRO 22UF 16WV NP-ELEC 47UF 10WV ELECTRO 47UF 16WV ELECTRO 4.7UF 35WV ALUMINIUM ELECTROLYTIC C.		
C95 ,96 C97 ,98 C99 C100 C101		*	CE04LW1E101M CK45FE2H103P C91-0769-05 C90-1331-05 C90-1349-05	ELECTRO 100UF 25WV CERAMIC 0.010UF P CERAMIC 0.01UF K NP-ELEC 0.47UF 50WV NP-ELEC 1UF 50WV		
C102 C105 C106 C107 C108			C91-0647-05 CE04LW1V100M CK45FF1H223Z CF92FV1H103J CE04LW1V4R7M	CERAMIC 0.01UF P ELECTRO 10UF 35WV CERAMIC 0.022UF Z MF 0.010UF J ELECTRO 4.7UF 35WV		
C109 C110 C143			CK45FF1H223Z C90-1256-05 C90-1455-05	CERAMIC 0.022UF Z ELECTRO 1000UF 16WV NP-ELEC 0.1UF 50WV		
E1 E2 E3 E5 E6			E13-0250-05 E13-0486-05 E13-0826-05 E20-0823-05 E11-0189-05	PHONE JACK PHONE PHONE JACK TUNER, CD/AUX PHONE JACK TAPE-1/2 LOCK TERMINAL BOARD SPEAKERS PHONE JACK HEAD PHONE		
640	1B		J13-0054-05	FUSE CLIP		
L1 ,2			L39-0085-05	PHASE-COMPENSATION COIL		
CP1 ,2 R11 ,12 R31 ,34 R41 ,42 R43 ,44			R90-0187-05 RD14GB2E101J RD14GB2E221J RN14BK2C1003F RS14KB3D471J	MULTI-COMP 0.22X2 K 5W FL-PROOF RD 100 J 1/4W FL-PROOF RD 220 J 1/4W RN 100K F 1/6W FL-PROOF RS 470 J 2W		
R49 -52 R53 -56 R57 -60			RD14GB2E220J RD14GB2E331J RD14GB2E2R2J	FL-PROOF RD 22 J 1/4W FL-PROOF RD 330 J 1/4W FL-PROOF RD 2.2 J 1/4W		

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

## 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  $\Omega$  ..... 65 W + 65 W(DIN) 1,000 Hz at 8  $\Omega$  ..... 65 W + 65 Wat 4  $\Omega$  ..... 70 W + 70 W

## Total Harmonic Distortion

(20 Hz to 20,000 Hz) ..... 0.03% at rated power into 8  $\Omega$ 

## Intermodulation Distortion

(60 Hz:7kHz = 4:1) ..... 0.03% at rated power into 8  $\Omega$ Damping factor ..... 40 (50 Hz at 8  $\Omega$ )

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

## Input Sensitivity/Impedance

Phono ..... 2.5 mV/47 k $\Omega$ Tuner/Tape /CD ..... 150 mV/27 k $\Omega$ 

## 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  $\Omega$ Phono Frequency Response ..... RIAA standard curve  $\pm 0.5$  dB (20 Hz to 20,000 Hz)

## Tone control

Bass .....  $\pm 10$  dB (at 100 Hz)Treble .....  $\pm 10$  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.

## KENWOOD CORPORATION

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KENWOOD &amp; LEE ELECTRONICS, LTD.

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

## PARTS LIST

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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	Desti- nation 仕向	Re- marks 備考
C1 ,2 C3 ,4 C5 ,6 C7 ,8 C9 ,10			CF92FV1H473J CF92FV1H333J CE04LW1H3R3M CC45FSL1H221J CK45FB1H561K	MF 0.047UF J MF 0.033UF J ELECTRO 3.3UF 50WV CERAMIC 220PF J CERAMIC 560PF K		
C11 ,12 C13 ,14 C15 ,16 C17 ,18 C19 ,20			CK45FB1H102K CE04JW1C4R7M CF92FV1H563J CE04JW1V100M CF92FV1H203J	CERAMIC 1000PF K ELECTRO 4.7UF 16WV MF 0.056UF J ELECTRO 10UF 35WV MF 0.020UF J		
C21 ,22 C31 ,32			CC45FSL1H271J CE04LW1E470M	CERAMIC 270PF J ELECTRO 47UF 25WV		
R9 ,10 VR1 VR2 VR3 ,4			RD14GB2E101J R06-5176-05 R01-5075-05 R06-5199-05	FL-PROOF RD 100 J 1/4W POTENTIOMETER VOLUME POTENTIOMETER VALANCE POTENTIOMETER BASS TREBLE		
S1 ,2 S3 S4 -8			S40-2351-05 S40-4074-05 S40-1064-05	PUSH SWITCH CD DIRECT,MUTE PUSH SWITCH LOUDNESS PUSH SWITCH KEY BOARD		
IC1 IC1 Q1 ,2 Q1 ,2		*	NJM4565D-D RC4565D-D 2SC1740S(Q,R) 2SC2458(Y,GR)	IC(OP AMP X2) IC(OP AMP)X2) TRANSISTOR TRANSISTOR		

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

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

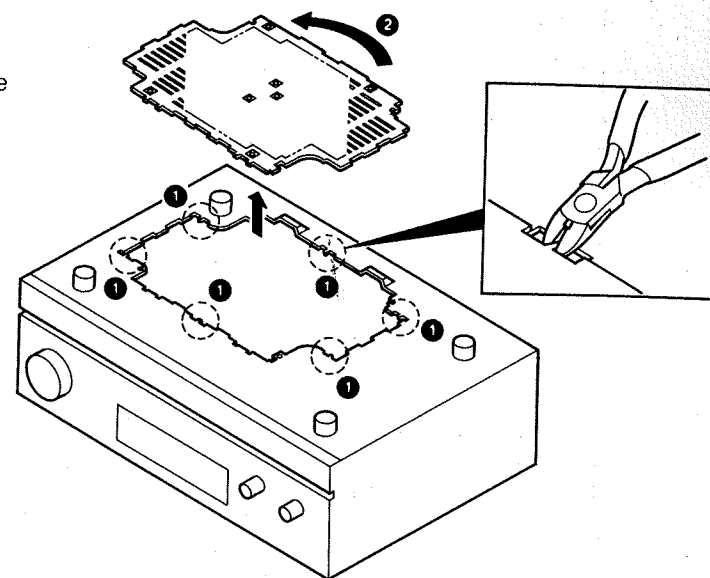
Y : AAFES(Europe) X: Australia

⚠ indicates safety critical components.

## DISASSEMBLY FOR REPAIR

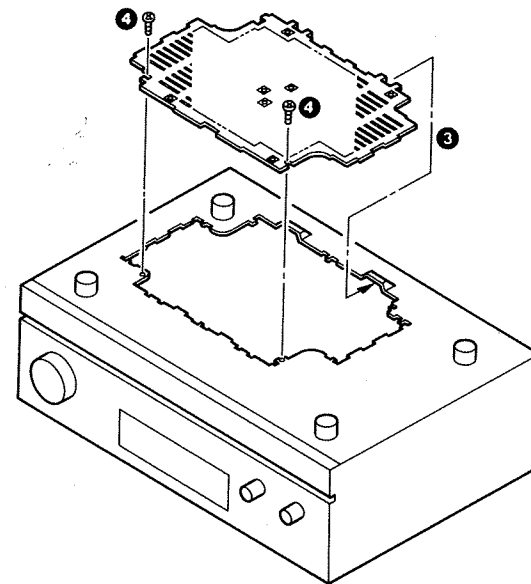
## How to remove the repairing chassis

- 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

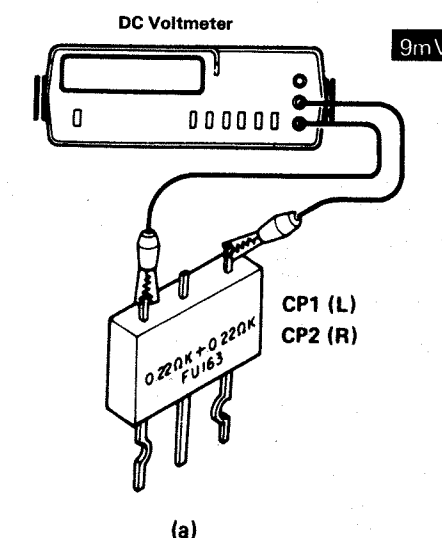
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
Set the controls and switches as follows: POWER: ON SPEAKER: B							
1	IDLE CURRENT	—	Connect a DC voltmeter across CP1 (L) CP2 (R)	VOLUME: 0	VR1 (L) VR2 (R)	9mV	(a)

## 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 (G) CP2 (D)	VOLUME: 0	VR1 (G) 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  $\Omega$  ..... 65 W + 65 W  
(DIN) 1,000 Hz at 8  $\Omega$  ..... 65 W + 65 W  
at 4  $\Omega$  ..... 70 W + 70 W

## Total Harmonic Distortion

(20 Hz to 20,000 Hz) ..... 0.03% at rated power into 8  $\Omega$

## Intermodulation Distortion

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

Damping factor ..... 40 (50 Hz at 8  $\Omega$ )

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

## Input Sensitivity/Impedance

Phono ..... 2.5 mV/47 k $\Omega$

Tuner/Tape /CD ..... 150 mV/27 k $\Omega$

## 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  $\Omega$

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

## Tone control

Bass .....  $\pm 10$  dB (at 100 Hz)

Treble .....  $\pm 10$  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:

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