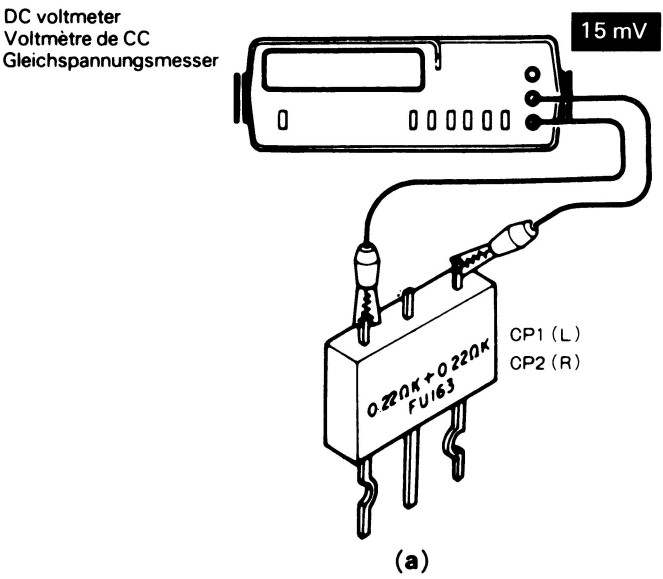


ADJUSTMENT/REGLAGE/ABGLEICH

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	IDLE CURRENT	—	Connect a DC voltmeter across CP1 (CP3) CP2 (CP4)	VOLUME: 0	VR1 (L) VR2 (R)	15 mV	(a)

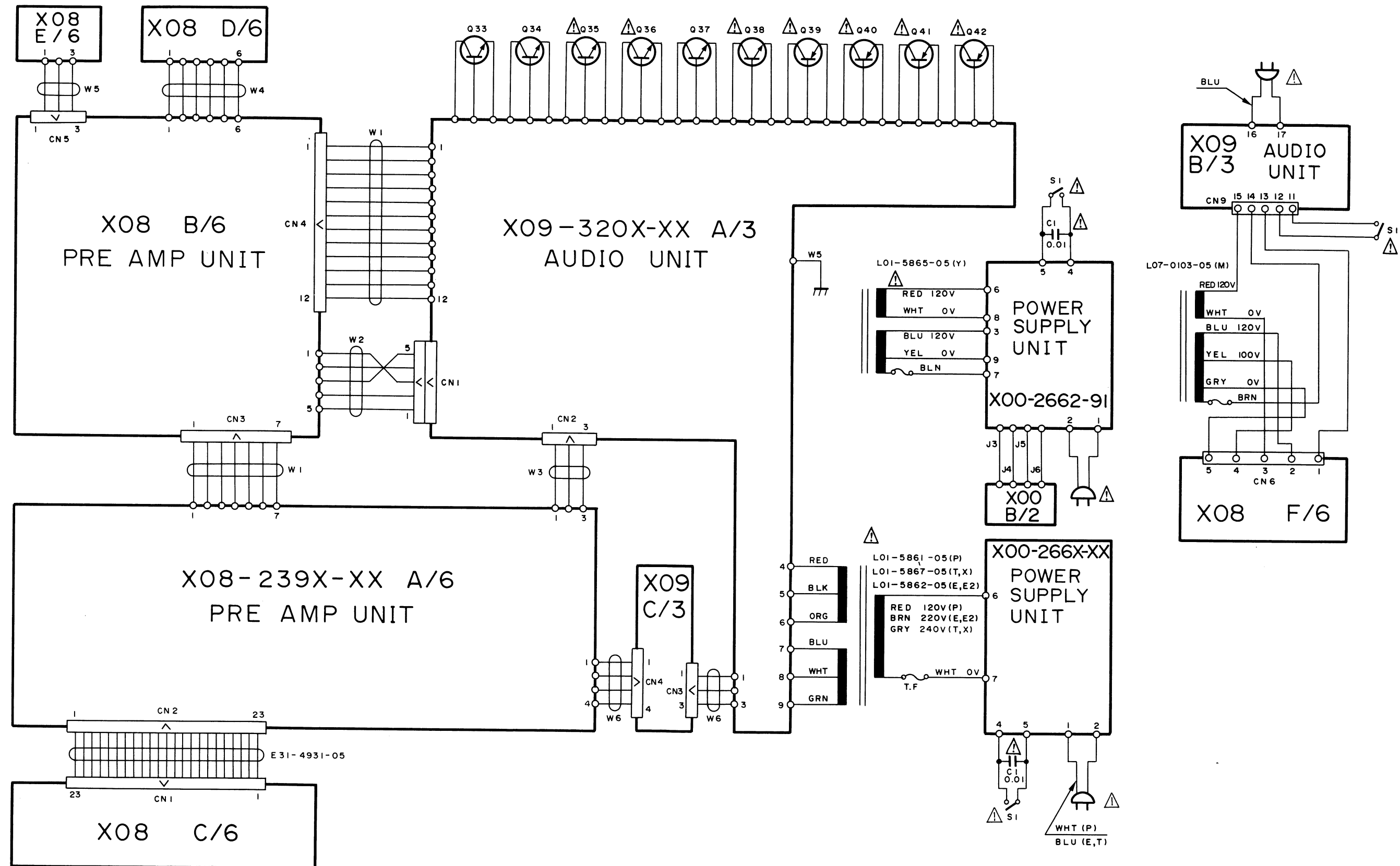
N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DE L'AMPLIFICATEUR	POINT L'ALIGNEMENT	ALIGNER POUR	FIG.
1	COURANT DE POLARISATION	—	Connecter un voltmètre de CC sur CP1 (G) (CP3) CP2 (D) (CP4)	VOLUME: 0	VR1 (G) VR2 (D)	15 mV	(a)

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	VERSTÄRKER-EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
1	LEERLAUFSTROM	—	Einen Gleichspannungsmesser über CP1 (L) (CP3) CP2 (R) (CP4) anschließen	VOLUME: 0	VR1 (L) VR2 (R)	15 mV	(a)



WIRING DIAGRAM

KA-5020 KA-5020

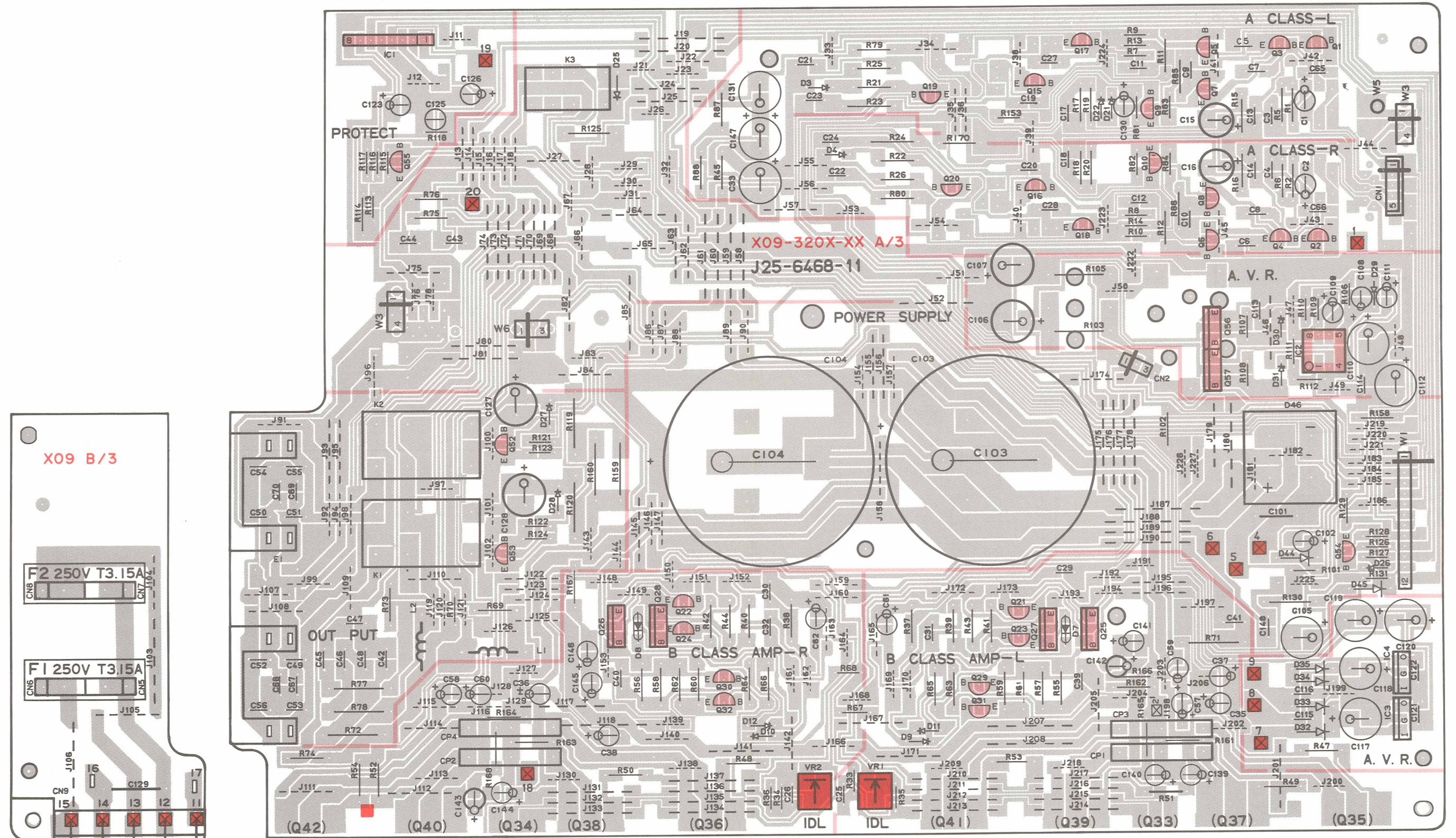


DESTINATION	P	Y	M	X, T	E	E 2
UNIT NO						
X00 - 266	1-01	2-91	NO.	2-71		
X08 - 239	2-72		0-21	2-72	2-71	2-72
X09 - 320	1-01			1-01		



# PC BOARD (Component Side View)

## AUDIO UNIT

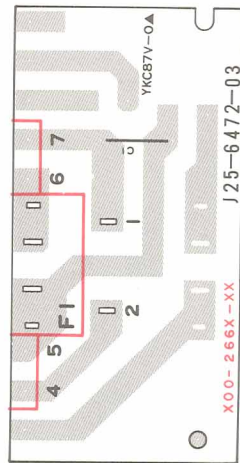


Refer to the schematic diagram for the values of resistors and capacitors.

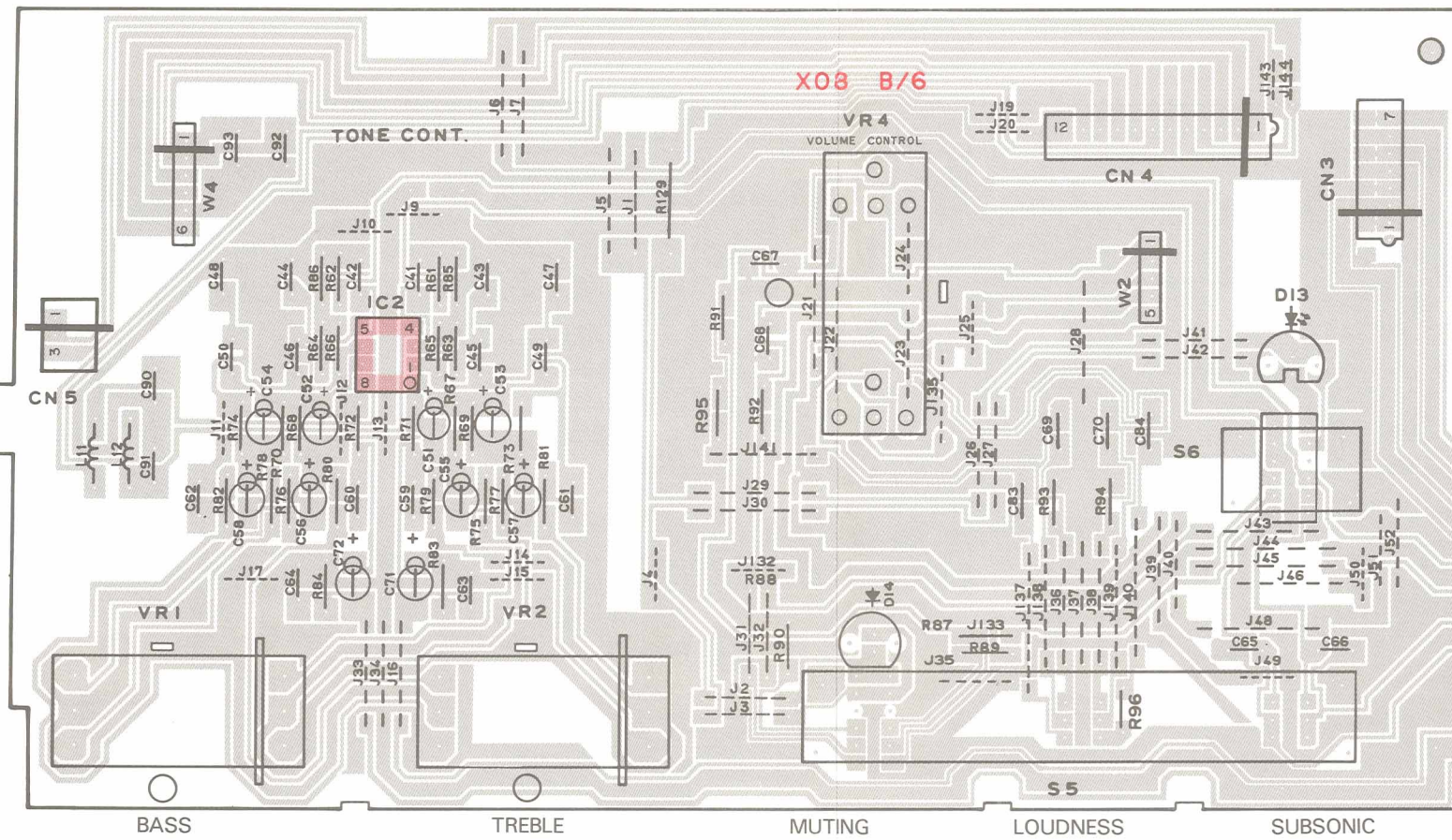


# PC BOARD (Component Side View)

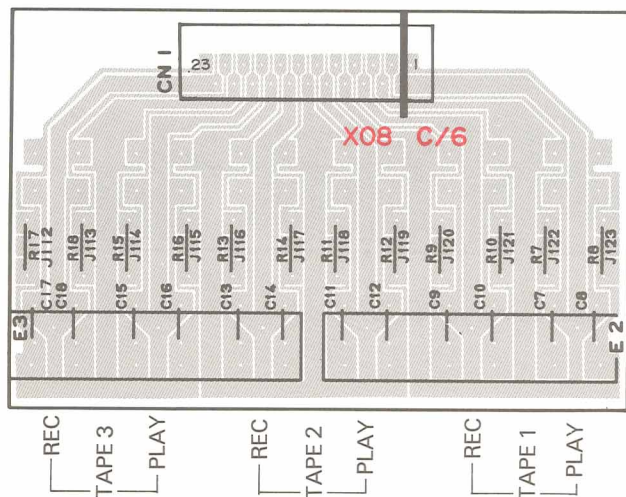
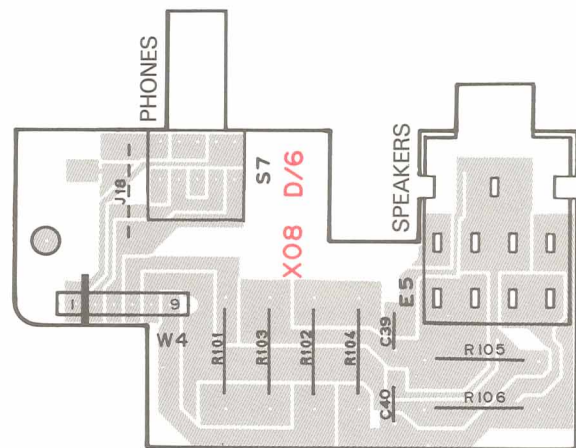
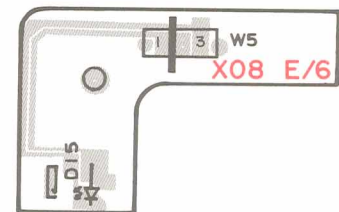
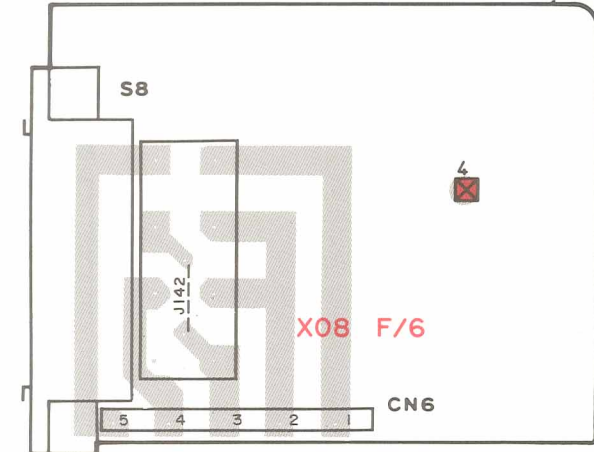
## POWER SUPPLY UNIT



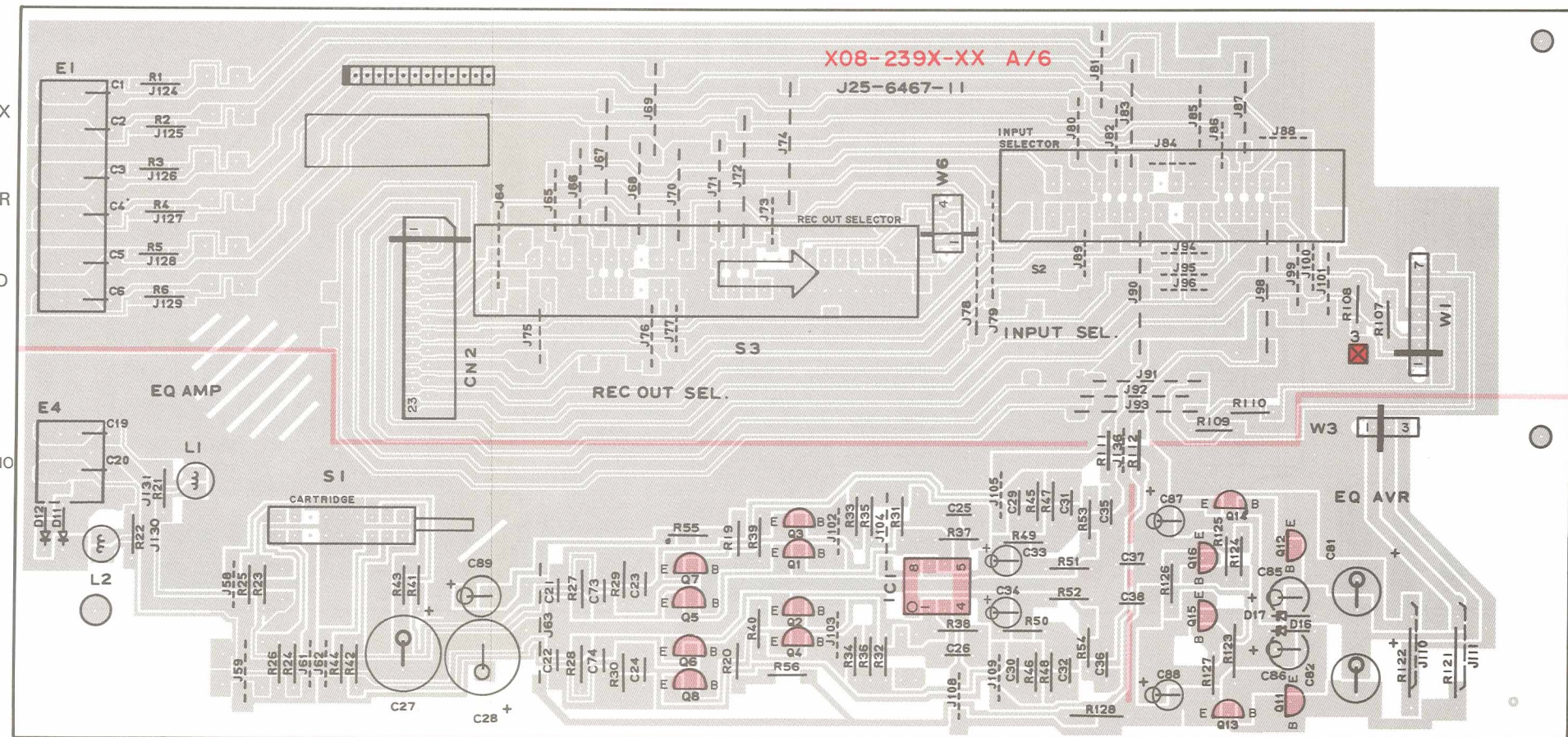
## PRE AMPLIFIER UNIT



## VOLTAGE SELECTOR



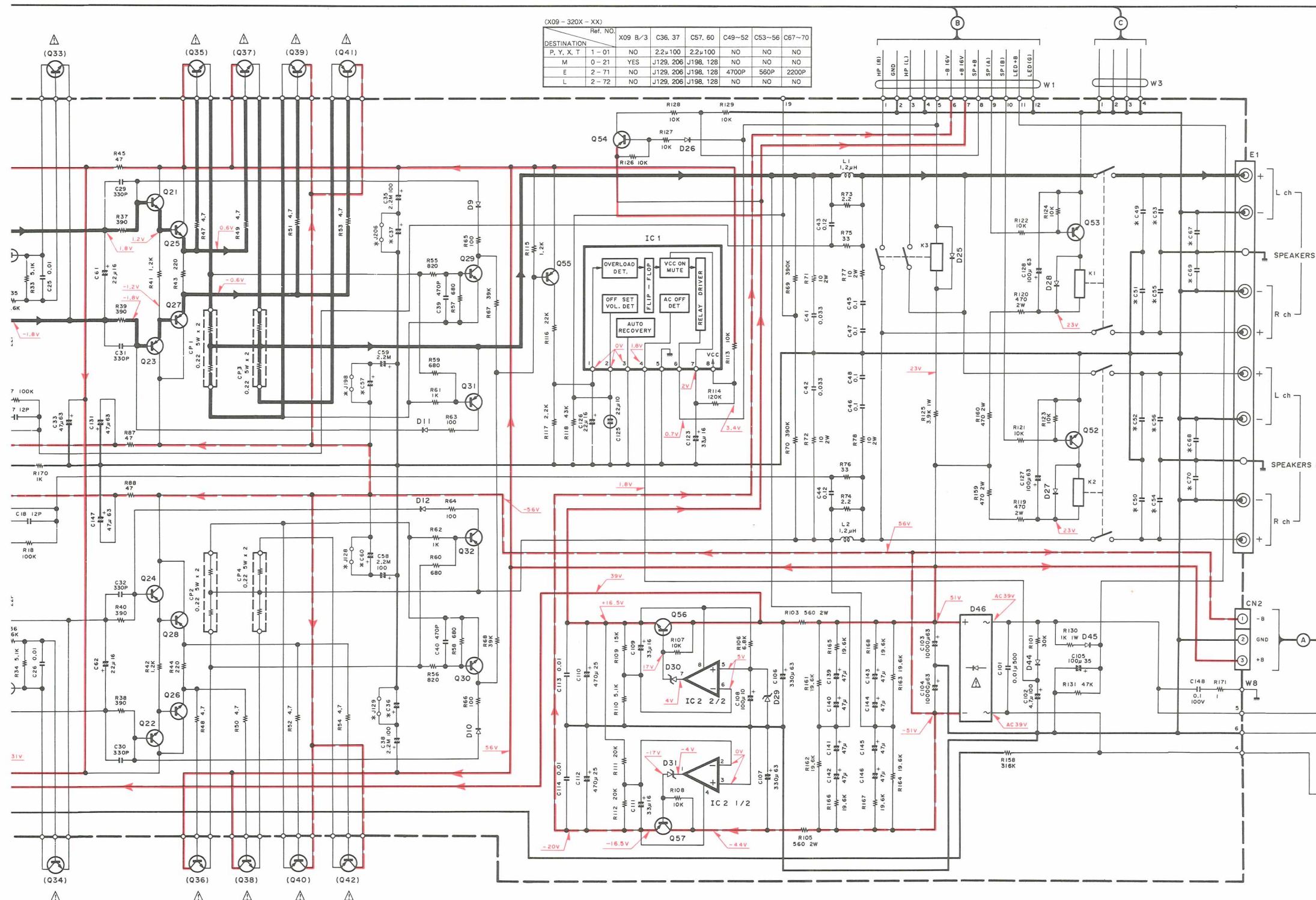
AUX  
TUNER  
CD



PHONO

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



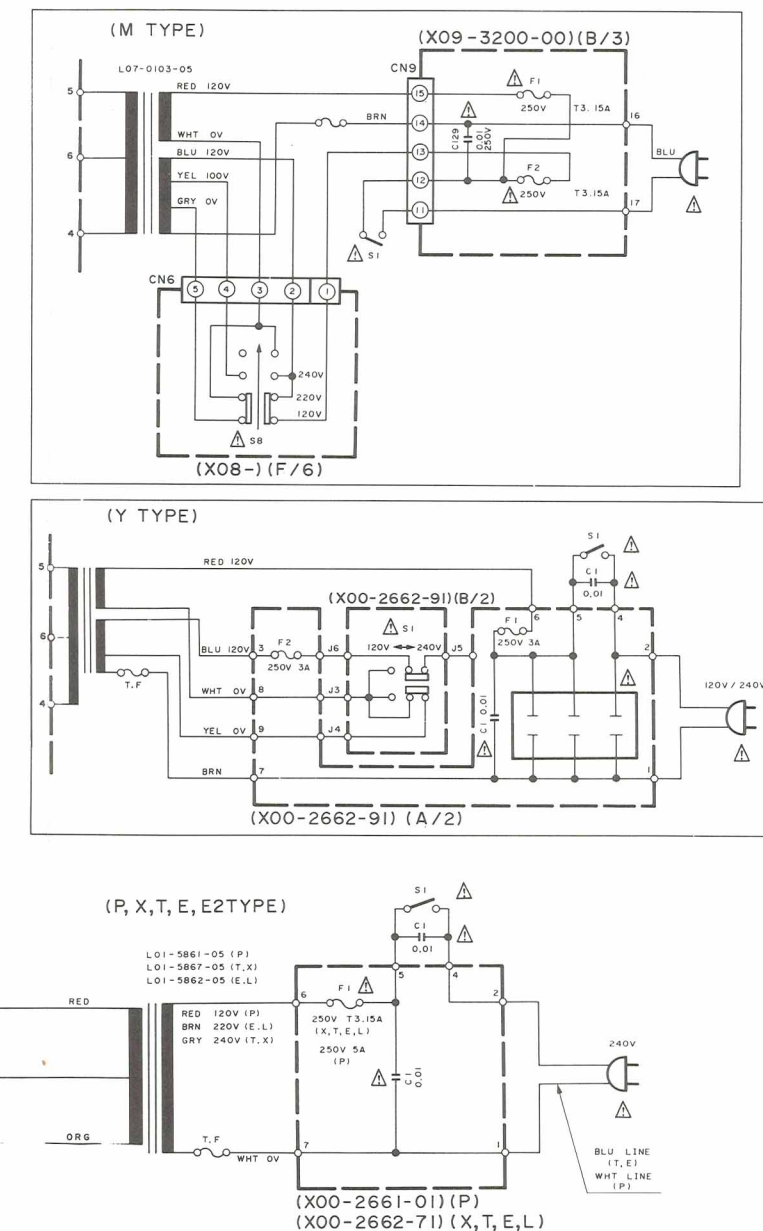


**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably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

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

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.



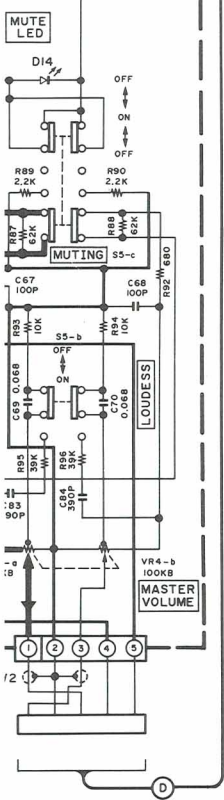
**KA-5020**  
**KENWOOD**

Y08-4150-00

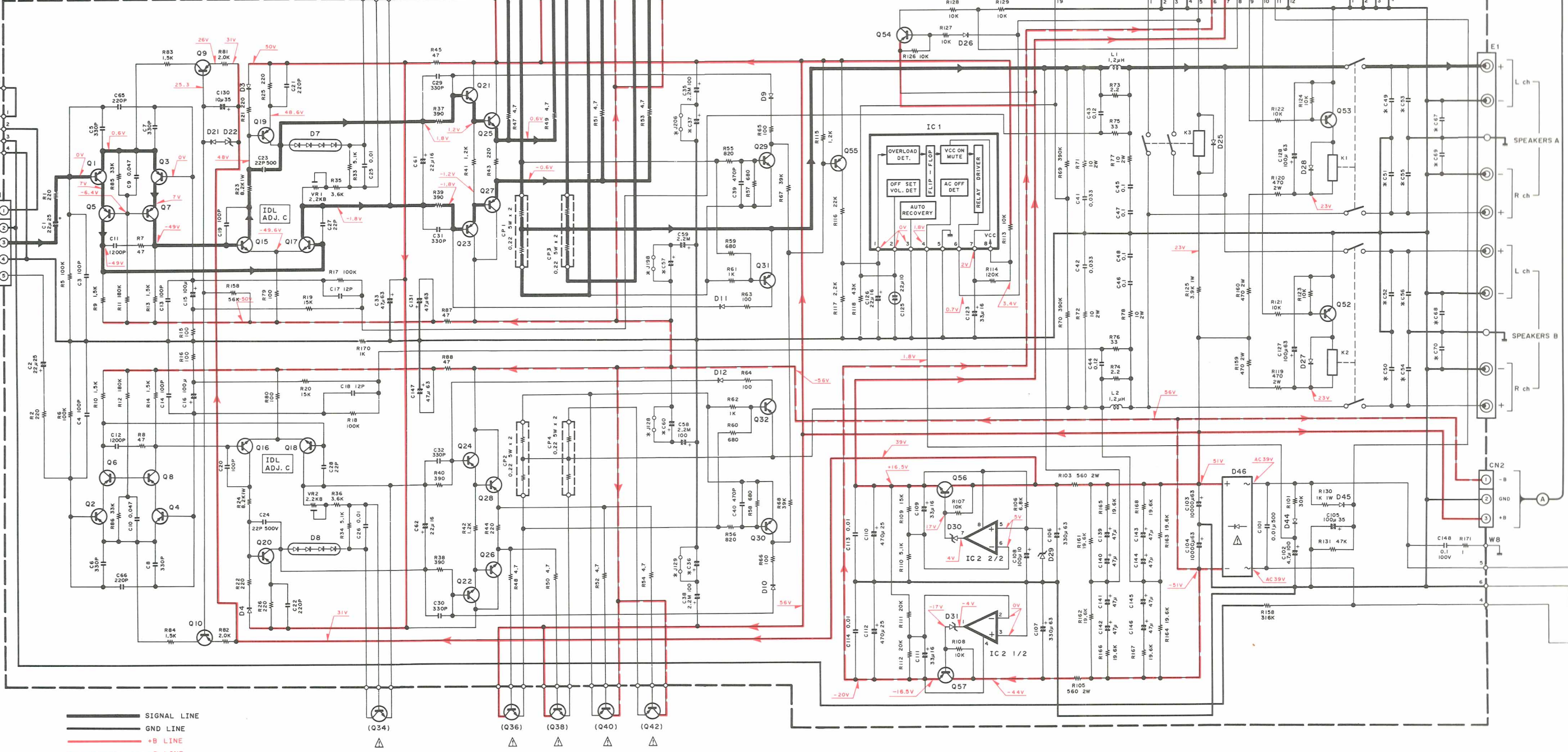


R29, 30	R37, 38	S8
NO	180	S31-2322-05
430	180	S31-2322-05
NO	270	S31-2322-05

1237HA  
A4565D  
992(F.E)  
.733(A, Q, P) or 25A933S(Q, R)  
2632(R, S)  
1124(R, S)  
2631(R, S)  
1123(R, S)  
3944(R, S)  
1535(R, S)  
1845(F, E)  
1266(Q, P)  
941(Q, P)  
151S(B2) or RD5.1JS(B2)  
104 or 1SS133  
270(A)  
104A or 1SS131  
13N(B2) or RD13ES(B2)  
66B  
B20 \*1



(X09-320X-XX) (A/3)



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

DESTINATION	Ref. NO.	X09 B/3	C36, 37	C57, 60	C49-52	C53-56	C67-70
P, Y, X, T	1-01	NO	2.2µ100	2.2µ100	NO	NO	NO
M	0-21	YES	J129, 206	J198, 128	NO	NO	NO
E	2-71	NO	J129, 206	J198, 128	4700P	560P	2200P
L	2-72	NO	J129, 206	J198, 128	NO	NO	NO

2SK105  
2SK170



**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.

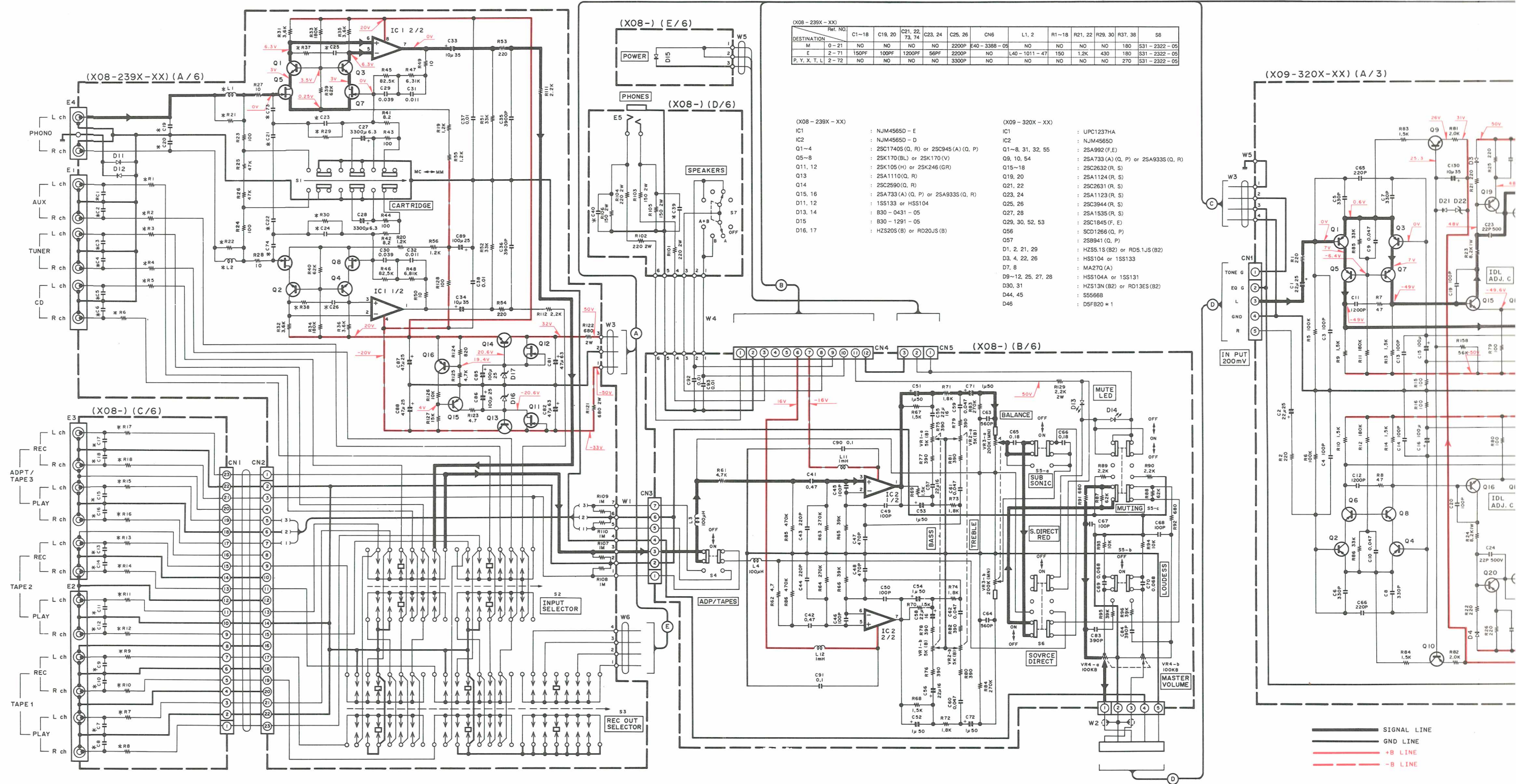
DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

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.



1  
2  
3  
4  
5  
6  
7



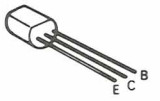
DESTINATION	C1-18	C19, 20	C21, 22, 73, 74	C23, 24	C25, 26	CN6	L1, 2	R1-18	R21, 22	R29, 30	R37, 38	S8
M	0-21	NO	NO	NO	2200P	E40-3388-05	NO	NO	NO	NO	180	S31-2322-05
E	2-71	150PF	100PF	56PF	2200P	NO	L40-1011-47	150	1.2K	430	180	S31-2322-05
P, Y, X, T, L	2-72	NO	NO	NO	3300P	NO	NO	NO	NO	NO	270	S31-2322-05

- (X08-239X-XX)

IC1 : NJM4565D - E  
IC2 : NJM4565D - D  
Q1-4 : 2SC1740S (Q, R) or 2SC945 (A) (Q, P)  
Q5-8 : 2SK170 (BL) or 2SK170 (V)  
Q11, 12 : 2SK105 (H) or 2SK246 (GR)  
Q13 : 2SA1110 (Q, R)  
Q14 : 2SC2590 (Q, R)  
Q15, 16 : 2SA733 (A) (Q, P) or 2SA933S (Q, R)  
D11, 12 : 1SS133 or HSS104  
D13, 14 : B30-0431-05  
D15 : B30-1291-05  
D16, 17 : HZS20S (B) or RD20JS (B)
- (X09-320X-XX)

IC1 : UPC1237HA  
IC2 : NJM4565D  
Q1-8, 31, 32, 55 : 2SA733 (A) (Q, P) or 2SA933S (Q, R)  
Q9, 10, 54 : 2SC2632 (R, S)  
Q15-18 : 2SA1124 (R, S)  
Q19, 20 : 2SC2631 (R, S)  
Q21, 22 : 2SC3944 (R, S)  
Q23, 24 : 2SA1123 (R, S)  
Q25, 26 : 2SC3944 (R, S)  
Q27, 28 : 2SA1535 (R, S)  
Q29, 30, 52, 53 : 2SC1845 (F, E)  
Q56 : 2SC1266 (Q, P)  
Q57 : 2SB941 (Q, P)  
D1, 2, 21, 29 : HZS5.1S (B2) or RD5.1JS (B2)  
D3, 4, 22, 26 : HSS104 or 1SS133  
D7, 8 : MA27Q (A)  
D9-12, 25, 27, 28 : HSS104A or 1SS131  
D30, 31 : HZS13N (B2) or RD13ES (B2)  
D44, 45 : S5566B  
D46 : DSFB20 \*1

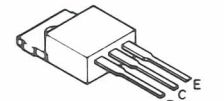
2SA1123  
2SA1124  
2SA733 (A)  
2SA992  
2SC1845  
2SC2631  
2SC2632  
2SC945 (A)



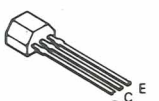
2SA1110  
2SC2590



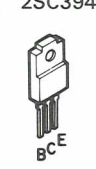
2SD1266



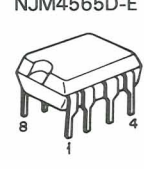
2SA933S  
2SC1740S



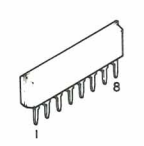
2SA1535  
2SB941  
2SC3944



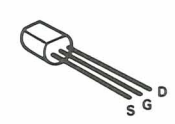
NJM4565D  
NJM4565D-D  
NJM4565D-E



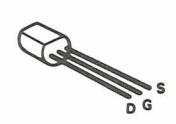
UPC1237HA



2SK246



2SK105  
2SK170

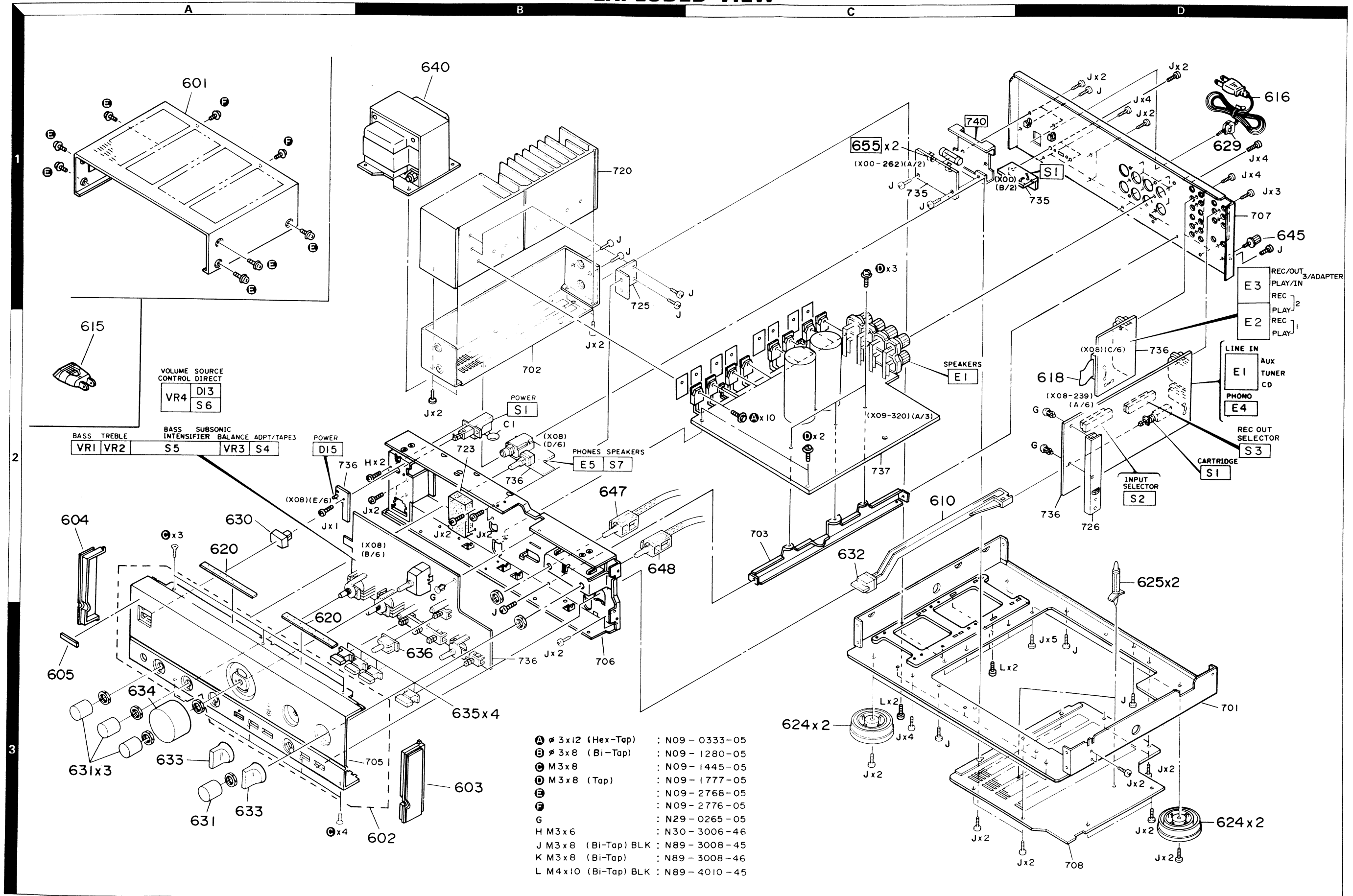


— SIGNAL LINE  
— GND LINE  
— +B LINE  
— -B LINE

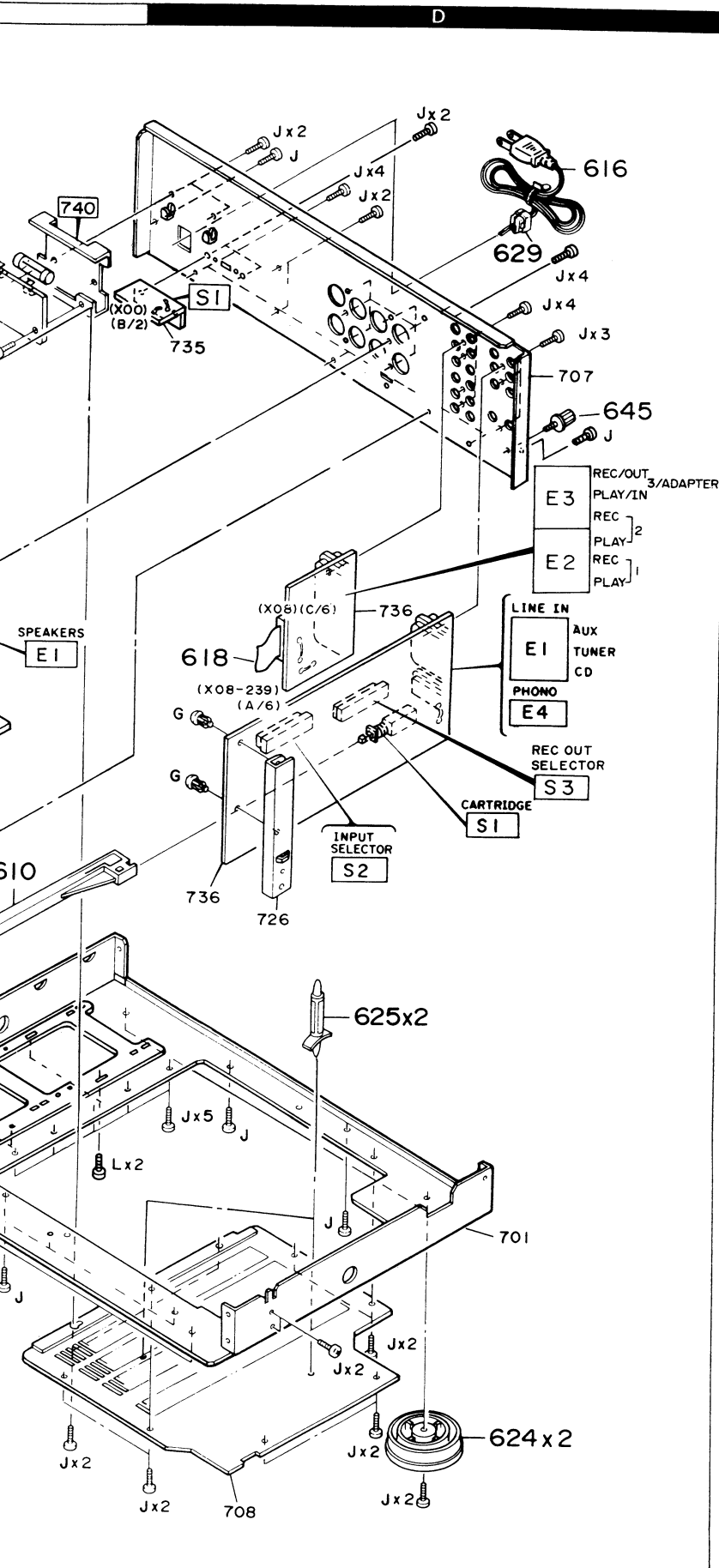


# KA-5020 KA-5020

## EXPLODED VIEW







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

## PARTS LIST

✕ New Parts

Parts without Parts No. are not supplied.

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

Telle 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-5020</b>						
601	1A	*	A01-1880-01	METALLIC CABINET		
602	3A, 3B	*	A20-6043-02	PANEL ASSY		
603	3B	*	B07-1950-04	SIDE ESCUTCHEON(L)		
604	2A, 3A	*	B07-1951-04	SIDE ESCUTCHEON(R)		
605	3A		B43-0287-04	KENWOOD BADGE		
-			B46-0094-03	WARRANTY CARD	Y	
-			B46-0095-03	WARRANTY CARD	Y	
-			B46-0096-13	WARRANTY CARD	X	
-			B46-0121-03	WARRANTY CARD	P	
-			B46-0122-13	WARRANTY CARD	EE2	
-			B46-0143-13	WARRANTY CARD	T	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	Y	
-			B58-0803-13	CAUTION CARD	E	
-		*	B60-0128-00	INSTRUCTION MANUAL (ENGLISH)		
-		*	B60-0129-00	INSTRUCTION MANUAL (FRENCH)	PEE2	
-		*	B60-0130-00	INSTRUCTION MANUAL (SPA,CHA)	M	
-		*	B60-0131-00	INSTRUCTION MANUAL (GE,DU,IT)	EE2	
△ C1	2B		C91-0971-05	FILM 0.01UF 250WV		
610	2C		D21-1505-03	EXTENSION SHAFT		
△ 615	2A		E03-0115-05	AC PLUG ADAPTER	M	
△ 616	1D		E30-0459-05	AC POWER CORD	MEE2	
△ 616	1D		E30-0812-05	AC POWER CORD	Y	
△ 616	1D		E30-0974-05	AC POWER CORD	P	
△ 616	1D		E30-1341-05	AC POWER CORD	X	
△ 616	1D		E30-1416-05	AC POWER CORD	T	
618	2D		E31-4931-05	FLAT CABLE		
△ F1			F05-3121-05	FUSE (SEMKO) (250V T3.15A)	XTEE2	
△ F1			F06-5022-05	FUSE (UL) (250V 5A)	P	
△ F1 ,2			F05-2521-05	FUSE (250V 2.5A)	Y	
△ F1 ,2			F05-3121-05	FUSE (SEMKO) (250V T3.15A)	M	
620	2A, 3A	*	G10-0402-04	CUSHION (110X5X1)		
-		*	H01-8806-04	ITEM CARTON CASE		
-			H10-3832-02	POLYSTYRENE FOAMED FIXTURE		
-		*	H10-3833-12	POLYSTYRENE FOAMED FIXTURE		
-			H25-0225-04	PROTECTION BAG (850X450X0.03)		
-			H25-0232-04	PROTECTION BAG (235X350X0.03)		
624	3C, 3D		J02-1002-05	FOOT		
625	2D		J19-0581-05	UNIT HOLDER		
△ 629	1D		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
630	2A		K27-2004-04	KNOB (POWER)		
631	3A	*	K29-3935-04	KNOB (BASS, TREBLE, SPEAKERS)		
632	3C	*	K29-3932-04	KNOB (CARTRIDGE)		
633	3A	*	K29-3938-04	KNOB (RECOUT SEL, INPUT SEL)		
634	3A	*	K29-3939-04	KNOB (MAIN VR)		
635	3A, 3B	*	K29-3942-04	KNOB (MUT, LOUD, SUB, ADPT/TAPE)		
636	3B		K29-3506-04	KNOB (SOURCE DIRECT)		
△ 640	1B		L01-5861-05	POWER TRANSFORMER	P	
△ 640	1B		L01-5862-05	POWER TRANSFORMER	EE2	

E: Europe

K: USA

**P:** Canada

**Y:** PX(Far East, Hawaii)

T: England

**M: Other Areas**

Y: AAFES(Europe)

**X: Australia**

## E2: Scandinavia

 indicates safety critical components.

## ← New Parts

Parts without Parts No. and

les articles non mentionnés

Teile ohne Parts No. werden

Ref. No.	Address
参照番号	位置
640	1B
640	1B
640	1B
645	1D
A	2C
B	2B
C	2A, 3A
C	2C
E	1A
F	1A
G	2D, 2B
H	2B
I	1B, 1D
	3C
647	2B
648	2B
651	2B
651	2B
651	2B
633 , 34	
635 -38	
639 -42	
<b>POWER S</b>	
651	
651	
650	1C
650	1C
655	1C, 1D
655	1C, 1D
	1C
651	
<b>PRE AMPL</b>	
653 , 14	
655	
651 -18	
659 , 20	
661 , 22	
663 , 24	
665 , 26	
667 , 28	
669 , 30	
671 , 32	
673 , 34	
675 , 36	
677 , 38	
679 , 40	
681 , 42	
683 , 44	
685 , 46	
687 , 48	

Europe

: PX(Far East, Hawaii)

Y: AAFES(Europe)



## 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-5020						
601 602	1A 3A, 3B	* *	A01-1880-01 A20-6043-02	METALLIC CABINET PANEL ASSY		
603 604 605 - -	3B 2A, 3A 3A	* *   	B07-1950-04 B07-1951-04 B43-0287-04 B46-0094-03 B46-0095-03	SIDE ESCUTCHEON(L) SIDE ESCUTCHEON(R) KENWOOD BADGE WARRANTY CARD WARRANTY CARD	Y Y	
- - - - -			B46-0096-13 B46-0121-03 B46-0122-13 B46-0143-13 B58-0513-04	WARRANTY CARD WARRANTY CARD WARRANTY CARD WARRANTY CARD CAUTION CARD (PRESET220-240)	X P EE2 T Y	
- - - - -			B58-0803-13 B60-0128-00 B60-0129-00 B60-0130-00 B60-0131-00	CAUTION CARD INSTRUCTION MANUAL (ENGLISH) INSTRUCTION MANUAL (FRENCH) INSTRUCTION MANUAL (SPA,CHA) INSTRUCTION MANUAL (GE,DU,IT)	E PEE2 M EE2	
△ C1	2B		C91-0971-05	FILM 0.01UF 250WV		
610	2C		D21-1505-03	EXTENSION SHAFT		
△ 615 △ 616 △ 616 △ 616 △ 616	2A 1D 1D 1D 1D		E03-0115-05 E30-0459-05 E30-0812-05 E30-0974-05 E30-1341-05	AC PLUG ADAPTER AC POWER CORD AC POWER CORD AC POWER CORD AC POWER CORD	M MEE2 Y P X	
△ 616 618	1D 2D		E30-1416-05 E31-4931-05	AC POWER CORD FLAT CABLE	T	
△ F1 △ F1 △ F1 ,2 △ F1 ,2			F05-3121-05 F06-5022-05 F05-2521-05 F05-3121-05	FUSE (SEMKO) (250V T3.15A) FUSE (UL) (250V 5A) FUSE (250V 2.5A) FUSE (SEMKO) (250V T3.15A)	XTEE2 P Y M	
620 - - - -	2A, 3A	*    	G10-0402-04 H01-8806-04 H10-3832-02 H10-3833-12 H25-0225-04 H25-0232-04	CUSHION (110X5X1) ITEM CARTON CASE POLYSTYRENE FOAMED FIXTURE POLYSTYRENE FOAMED FIXTURE PROTECTION BAG (850X450X0.03) PROTECTION BAG (235X350X0.03)		
624 625 △ 629 -	3C, 3D 2D 1D		J02-1002-05 J19-0581-05 J42-0083-05 J61-0307-05	FOOT UNIT HOLDER POWER CORD BUSHING WIRE BAND		
630 631 632 633 634	2A 3A 3C 3A 3A	* * * * *	K27-2004-04 K29-3935-04 K29-3932-04 K29-3938-04 K29-3939-04	KNOB (POWER) KNOB (BASS, TREBLE, SPEAKERS) KNOB (CARTRIDGE) KNOB (RECOUT SEL, INPUT SEL) KNOB (MAIN VR)		
635 636	3A, 3B 3B	* 	K29-3942-04 K29-3506-04	KNOB (MUT, LOUD, SUB, ADPT/TAPE) KNOB (SOURCE DIRECT)		0
△ 640 △ 640	1B 1B		L01-5861-05 L01-5862-05	POWER TRANSFORMER POWER TRANSFORMER	P EE2	

E: Europe K: USA P: Canada  
Y: PX(Far East, Hawaii) T: England M: Other Areas  
Y: AAFES(Europe) X: Australia E2: Scandinavia

△ 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.

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
640 640 640	1B 1B 1B		L01-5865-05 L01-5867-05 L07-0103-05	POWER TRANSFORMER POWER TRANSFORMER POWER TRANSFORMER	Y XT M	
645 A B C D	1D 2C 2B 2A, 3A 2C		N08-0128-35 N09-0333-05 N09-1280-05 N09-1445-05 N09-1777-05	BINDING POST (EARTH) TAPPING SCREW (3X12) TAPTITE SCREW (3X8) SET SCREW (M3X8) SEMS (TAPTITE SCREW)		
E F G H J	1A 1A 2D, 2B 2B 1B, 1D	*	N09-2768-05 N09-2776-05 N29-0265-05 N30-3006-46 N89-3008-45	SEMS (TAPTITE SCREW)(4X8) SEMS (TAPTITE SCREW) PUSH RIVET PAN HEAD MACHINE SCREW BINDING HEAD TAPTITE SCREW		
L	3C		N89-4010-45	BINDING HEAD TAPTITE SCREW		
647 648 △ S1 △ S1 △ S1	2B 2B 2B 2B 2B		S90-0110-05 S90-0111-05 S40-1073-05 S40-1073-05 S40-1094-05	REMOTE SWITCH SHAFT(RECOUT) REMOTE SWITCH SHAFT(INPUT SEL) PUSH SWITCH (POWER SW) PUSH SWITCH (POWER SW) PUSH SWITCH (POWER SW)	YMXTE E2 P	
Q33 ,34 Q35 -38 Q39 -42		*	2SC4137F19(V,W) 2SC4467LB*5 2SA1694LB*5	TRANSISTOR TRANSISTOR TRANSISTOR		
POWER SUPPLY UNIT (X00-2661-01: P, 2-71: X, T, E, E2, 2-91: Y)						
△ C1 △ C1			C91-0971-05 C91-0971-05	FILM 0.01UF 250WV FILM 0.01UF 250WV	PYXTE E2	
△ 650 △ 650	1C 1C		E03-0077-05 E03-0078-05	AC OUTLET AC OUTLET	Y P	
655 655	1C, 1D 1C, 1D		J13-0041-05 J13-0054-05	FUSE CLIP FUSE CLIP	PY XTEE2	
K	1C		N89-3008-46	BINDING HEAD TAPTITE SCREW	XTEE2	
△ S1			S31-2126-05	SLIDE SWITCH (POWER SW)	Y	
PRE AMPLIFIER UNIT (X08-2392-72: P, Y, X, T, E2, 0-21: M, 2-71: E)						
D13 ,14 D15			B30-0431-05 B30-1291-05	LED(LN21CPH) LED(LN21CPSLX(V)-(TA4))		
C1 -18 C19 ,20 C21 ,22 C23 ,24 C25 ,26			CF92FV1H151K CF92FV1H101K CF92FV1H122J CC45FSL1H560J CF92FV1H222J	MF 150PF K MF 100PF K MF 1200PF J CERAMIC 56PF J MF 2200PF J	E E E E	
C27 ,28 C29 ,30 C31 ,32 C33 ,34 C35 ,36			CE04KW0J332M CF92FV1H393J CF92FV1H113J CE04KW1V100M CF92FV1H392J	ELECTRO 3300UF 6.3WV MF 0.039UF J MF 0.011UF J ELECTRO 10UF 35WV MF 3900PF J		
C37 ,38 C39 ,40 C41 ,42 C43 ,44 C45 ,46			CF92FV1H103J CF92FV1H102J CF92FV1H474J CF92FV1H221K CF92FV1H101K	MF 0.010UF J MF 1000PF J MF 0.47UF J MF 220PF K MF 100PF K	E	
C47 ,48			CF92FV1H471J	MF 470PF J		

E: Europe K: USA P: Canada  
Y: PX(Far East, Hawaii) T: England M: Other Areas  
Y: AAFES(Europe) X: Australia E2: Scandinavia

△ indicates safety critical components.



PARTS LIST

※ 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.

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
C49 ,50 C51 -54 C55 -58 C59 -62 C63 ,64			CF92FV1H101K CE04KW1H010M CE04KW1C220M CF92FV1H473J CK45FB1H561K	MF 100PF K ELECTRØ 1.0UF 50WV ELECTRØ 22UF 16WV MF 0.047UF J CERAMIC 560PF K		
C65 ,66 C67 ,68 C69 ,70 C71 ,72 C73 ,74			CF92FV1H184J CF92FV1H101K CF92FV1H683J CE04KW1H010M CF92FV1H122J	MF 0.18UF J MF 100PF K MF 0.068UF J ELECTRØ 1.0UF 50WV MF 1200PF J	E	
C81 ,82 C83 ,84 C85 ,86 C87 ,88 C89			CE04KW1J470M CF92FV1H391K CE04KW1E101M CE04KW1E470M CE04KW1E101M	ELECTRØ 47UF 63WV MF 390PF K ELECTRØ 100UF 25WV ELECTRØ 47UF 25WV ELECTRØ 100UF 25WV		
C90 ,91 C92 ,93			CF92FV1H104J CF92FV1H103J	MF 0.10UF J MF 0.010UF J		
CN1 CN2 E1 -3 E4 E5			E10-2304-05 E10-2303-05 E13-0621-05 E13-0294-05 E11-0189-05	FLAT CABLE CONNECTØR FLAT CABLE CONNECTØR PHONØ JACK (AUX,CD,TUNER,TAPE) PHONØ JACK (PHONØ) PHONE JACK (PHONE)		
L1 ,2 L3 ,4 L11 ,12			L40-1011-47 L40-1011-17 L40-1021-14	SMALL FIXED INDUCTØR(100UH,K) SMALL FIXED INDUCTØR(100UH,K) SMALL FIXED INDUCTØR(1.0MH,K)	E	
R45 ,46 R47 ,48 R101-104 R105,106 R121,122		*	RN14BK2C8252FTS RN14BK2C6811FTS RS14DB3D221JTE RS14DB3D151JTE RS14DB3D681JTE	RN 82.5K F 1/6W RN 6.81K F 1/6W FL-PROOF RS 220 J 2W FL-PROOF RS 150 J 2W FL-PROOF RS 680 J 2W		
R123 R128 R129 VR1 ,2 VR3 VR4			RD14AB2E4R7JTS RD14AB2E101JTS RS14DB3D222JTE R06-2018-05 R06-5166-05 R06-5172-05	FL-PROOF RD 4.7 J 1/4W FL-PROOF RD 100 J 1/4W FL-PROOF RS 2.2K J 2W POTENTIØMETER(BASS,TREBLE) POTENTIØMETER(BALANCE) POTENTIØMETER(VOLUME)		
S1 S2 S3 S4 S5			S40-6036-05 S90-0038-05 S90-0078-05 S40-2351-05 S42-3115-05	PUSH SWITCH (CARTRIDGE) SLIDE SWITCH (INPUT SELECTØR) SLIDE SWITCH (RECØUT SELECTØR) PUSH SWITCH (ADPT/TAPE3) MULTIPLE PUSH SWITCH(LUD,MUT)		
S6 S7 S8			S40-4074-05 S29-2035-05 S31-2322-05	PUSH SWITCH (S-DIRECT) ROTARY SWITCH(SPEAKERS) SLIDE SWITCH (VOLTAGE SELECT)	M	
D11 ,12 D11 ,12 D16 ,17 D16 ,17 IC1		*	HSS104 1SS133 HZZS20S(B) RD20JS(B) NJM4565D-E	DIØDE DIØDE ZENER DIØDE ZENER DIØDE IC(ØP AMP X2)		
IC2 Q1 -4 Q1 -4 Q5 -8			NJM4565D-D 2SC1740S(Q,R) 2SC945(A)(Q,P) 2SK170(BL)	IC(ØP AMP X2) TRANSISTØR TRANSISTØR FET		

E: Europe K: USA P: Canada  
Y: PX(Far East, Hawaii) T: England M: Other Areas  
Y: AAFES(Europe) X: Australia E2: Scandinavia

⚠ indicates safety critical components.

PARTS LIST

※ 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.

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
Q5 -8 Q11 ,12 Q11 ,12 Q13 Q14			2SK170(V) 2SK105(H) 2SK246(GR) 2SA1110(Q,R) 2SC2590(Q,R)	FET FET FET TRANSISTØR TRANSISTØR		
Q15 ,16 Q15 ,16			2SA733(A)(Q,P) 2SA933S(Q,R)	TRANSISTØR TRANSISTØR		
AUDIO UNIT (X09-3200-21: M, 1-01: P, Y, X, T, 2-71: E, 2-72: E2)						
C1 ,2 C3 ,4 C5 -8 C9 ,10 C11 ,12			C90-1814-05 CF92FV1H101K CF92FV1H331K CF92FV1H473J CF92FV1H122J	ELECTRØ 22UF 25WV MF 100PF K MF 330PF K MF 0.047UF J MF 1200PF J		
C13 ,14 C15 ,16 C17 ,18 C19 ,20 C21 ,22			CF92FV1H101K C90-1783-05 C91-0167-05 CF92FV1H101K CF92FV1H221K	MF 100PF K ELECTRØ 100UF 50WV POLYSTY 12PF K MF 100PF K MF 220PF K		
C23 ,24 C25 ,26 C27 ,28 C29 -32 C33			CC45FSL2H220J CF92FV1H103J C91-0170-05 CF92FV1H331K CE04KW1J470M	CERAMIC 22PF J MF 0.010UF J POLYSTY 22PF K MF 330PF K ELECTRØ 47UF 63WV	MEE2	
C35 C35 -38 C38 C39 ,40 C41 ,42			CE04KW2A2R2M CE04KW2A2R2M CE04KW2A2R2M CF92FV1H471J CF92FV1H333J	ELECTRØ 2.2UF 100WV ELECTRØ 2.2UF 100WV ELECTRØ 2.2UF 100WV MF 470PF J MF 0.033UF J	MEE2 PYXT MEE2	
C43 ,44 C45 -48 C49 -52 C53 -56 C57 -60			CF92FV1H124J CF92FV1H104J CF92FV1H472J CF92FV1H561J CE04KW2A2R2M	MF 0.12UF J MF 0.10UF J MF 4700PF J MF 560PF J ELECTRØ 2.2UF 100WV	E E PYXT	
C58 ,59 C61 ,62 C65 ,66 C67 -70 C101			CE04KW2A2R2M CE04KW1C220M CF92FV1H221K CF92FV1H222J CK45FE2H103P	ELECTRØ 2.2UF 100WV ELECTRØ 22UF 16WV MF 220PF K MF 2200PF J CERAMIC 0.010UF P	MEE2 E	
C102 C103,104 C105 C106,107 C108		*	CE04KW2A4R7M C90-1822-05 CE04KW1V101M CE04KW1J331M CE04KW1A101M	ELECTRØ 4.7UF 100WV ELECTRØ 10000UF 63WV ELECTRØ 100UF 35WV ELECTRØ 330UF 63WV ELECTRØ 100UF 10WV		
C109 C110 C111 C112 C113,114			CE04KW1C330M CE04DW1E471M CE04KW1C330M CE04DW1E471M CF92FV1H103J	ELECTRØ 33UF 16WV ELECTRØ 470UF 25WV ELECTRØ 33UF 16WV ELECTRØ 470UF 25WV MF 0.010UF J		
C123 C125 C126 C127,128 C129		*	CE04KW1C330M C90-1333-05 CE04KW1C220M CE04DW1J101M C91-1421-05	ELECTRØ 33UF 16WV NP-ELEC 22UF 10WV ELECTRØ 22UF 16WV ELECTRØ 100UF 63WV FILM 0.01UF 250AC	M	
C130			CE04KW1V100M	ELECTRØ 10UF 35WV		

E: Europe K: USA P: Canada  
Y: PX(Far East, Hawaii) T: England M: Other Areas  
Y: AAFES(Europe) X: Australia E2: Scandinavia

⚠ indicates safety critical components.



PARTS LIST

※ 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.

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
C131 C139-141 C142, 143 C144-146 C147			CE04KW1J470M CE04KW1H470M CE04KW1H470M CE04KW1H470M CE04KW1J470M	ELECTRO 47UF 63WV ELECTRO 47UF 50WV ELECTRO 47UF 50WV ELECTRO 47UF 50WV ELECTRO 47UF 63WV		
E1 E1		* *	E20-0839-05 E20-0840-05	SCREW TERMINAL BOARD(SPEAKERS) SCREW TERMINAL BOARD(SPEAKERS)	PYMXTE E2	
CN5 -8			J13-0075-05	FUSE CLIP	M	
L1 ,2			L39-0080-15	PHASE-COMPENSATION COIL		
CP1 -4 R21 ,22 R23 ,24 R25 ,26 R37 -40			R90-0187-05 RD14AB2E221JTS RS14DB3A822JTE RD14AB2E221JTS RD14AB2E391JTS	MULTI-COMP 0.22X2 K 5W FL-PROOF RD 220 J 1/4W FL-PROOF RS 8.2K J 1W FL-PROOF RD 220 J 1/4W FL-PROOF RD 390 J 1/4W		
R41 ,42 R43 ,44 R45 R47 -50 R51			RD14AB2E122JTS RD14AB2E221JTS RD14AB2E470JTS RD14AB2E4R7JTS RD14GB2E4R7JTS	FL-PROOF RD 1.2K J 1/4W FL-PROOF RD 220 J 1/4W FL-PROOF RD 47 J 1/4W FL-PROOF RD 4.7 J 1/4W FL-PROOF RD 4.7 J 1/4W		
R52 -54 R55 ,56 R57 -60 R61 ,62 R63 -66		*	RD14AB2E4R7JTS RD14AB2E821JTS RD14AB2E681JTS RD14AB2E102JTS RD14AB2E101JTS	FL-PROOF RD 4.7 J 1/4W FL-PROOF RD 820 J 1/4W FL-PROOF RD 680 J 1/4W FL-PROOF RD 1.0K J 1/4W FL-PROOF RD 100 J 1/4W		
R71 ,72 R73 ,74 R75 ,76 R77 ,78 R79 ,80			RS14DB3D100JTE RD14AB2E2R2JTS RD14AB2E330JTS RS14DB3D100JTE RD14AB2E101JTS	FL-PROOF RS 10 J 2W FL-PROOF RD 2.2 J 1/4W FL-PROOF RD 33 J 1/4W FL-PROOF RS 10 J 2W FL-PROOF RD 100 J 1/4W		
R87 ,88 R102 R103 R105 R119, 120		*	RD14AB2E470JTS RN14BK2E3163FTS RS14DB3D561JTE RS14DB3D561JTE RS14DB3D471JTE	FL-PROOF RD 47 J 1/4W RN 316K F 1/4W FL-PROOF RS 560 J 2W FL-PROOF RS 560 J 2W FL-PROOF RS 470 J 2W		
R125 R130 R158 R159, 160 R161-168		*	RS14DB3A392JTE RS14DB3A102JTE RN14BK2E3163FTS RS14DB3D471JTE RN14BK2E1962FTS	FL-PROOF RS 3.9K J 1W FL-PROOF RS 1.0K J 1W RN 316K F 1/4W FL-PROOF RS 470 J 2W RN 19.6K F 1/4W		
R170 VR1 ,2			RN14BK2E1001FTS R12-1085-05	RN 1.00K F 1/4W TRIM POT. 2.2K		
K1 ,2 K3		*	S51-2096-05 S51-2090-05	MAGNETIC RELAY MICRO SWITCH		
D3 ,4 D3 ,4 D7 ,8 D9 -12 D9 -12			HSS104 1SS133 MA27Q(A) HSS104A 1SS131	DIODE DIODE VARISTOR DIODE DIODE		
D21 D21 D22 D22			HSS104 1SS133 HZS5.1S(B2) RD5.1JS(B2)	DIODE DIODE ZENER DIODE ZENER DIODE		

E: Europe K: USA P: Canada  
Y: PX(Far East, Hawaii) T: England M: Other Areas  
Y: AAFES(Europe) X: Australia E2: Scandinavia

 indicates safety critical components.

PARTS LIST

※ 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.

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
D25 D25 D26 D26 D27 ,28 D27 ,28 D29 D29 D30 ,31 D30 ,31 D44 ,45 D46 IC1 IC2 Q1 -8 Q9 ,10 Q9 ,10 Q15 -18 Q19 ,20 Q21 ,22 Q23 ,24 Q25 ,26 Q27 ,28 Q29 ,30 Q31 ,32 Q52 ,53 Q54 Q54 Q55 Q56 Q57			HSS104A 1SS131 HSS104 1SS133 HSS104A 1SS131 HZS5.1S(B2) RD5.1JS(B2) HZS13N(B2) RD13ES(B2) S5566B D5FB20*1 UPC1237HA NJM4565D 2SA992(F,E) 2SA733(A)(Q,P) 2SA933S(Q,R) 2SC2632(R,S) 2SA1124(R,S) 2SC2631(R,S) 2SA1123(R,S) 2SC3944(R,S) 2SA1535(R,S) 2SC1845(F,E) 2SA992(F,E) 2SC1845(F,E) 2SA733(A)(Q,P) 2SA933S(Q,R) 2SA992(F,E) 2SD1266(Q,P) 2SB941(Q,P)	DIODE DIODE DIODE DIODE DIODE DIODE ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE DIODE DIODE IC(POWER AMP) IC(OP AMP X2) TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		

E: Europe K: USA P: Canada  
Y: PX(Far East, Hawaii) T: England M: Other Areas  
Y: AAFES(Europe) X: Australia E2: Scandinavia

 indicates safety critical components.



# KA-5020

## EXPLODED VIEW

### Rated Power Output

**80 watts per channel minimum RMS, both channels driven, at 8  $\Omega$  from 20 Hz to 20,000 Hz with no more than 0.03% total harmonic distortion**

### Maximum Continuous Power Output (DIN)

1 kHz at 4  $\Omega$  .....145 W

### Maximum Continuous Power Output (DIN)

1 kHz at 8  $\Omega$  .....95 W

### Maximum Continuous Power Output (IEC/NF)

from 63 Hz to 12,500 Hz, 0.7% Total Harmonic

Distortion at 8  $\Omega$  .....95 W + 95 W

Dynamic Power .....210 W per channel at 2  $\Omega$

175 W per channel at 4  $\Omega$

105 W per channel at 8  $\Omega$

### Total Harmonic Distortion

(LINE input to SPEAKER output)

Rated Output Power at 8  $\Omega$ ,

20 Hz ~ 20,000 Hz .....0.03%

1/2 Rated Output Power at 8  $\Omega$ ,

20 Hz ~ 20,000 Hz .....0.02%

Rated Output Power at 8  $\Omega$ , 1 kHz .....0.002%

### Frequency Response

LINE to SPEAKER .....5 Hz to 100 kHz +0 dB, -3 dB

PHONO "RIAA" Response

PHONO (MM) Input .....20 Hz to 20 kHz  $\pm 0.3$  dB

PHONO (MC) Input .....20 Hz to 20 kHz  $\pm 0.3$  dB

### Signal To Noise Ratio

PHONO (MM) (IHF-A) (IHF'66) ...87 dB for 2.5 mV input

PHONO (MC) (IHF-A) (IHF'66) ...69 dB for 0.25 mV input

TUNER/AUX/TAPE/CD

(IHF-A) (IHF'66) .....110 dB for 200 mV input

PHONO (MM) (IHF-A) .....80 dB

PHONO (MC) (IHF-A) .....74 dB

TUNER/AUX/TAPE/CD (IHF-A) .....83 dB

PHONO (MM) at Unweighted,

50 mW Output (DIN) .....60 dB

TUNER/AUX/TAPE/CD at Unweighted,

50 mW Output (DIN) .....62 dB

Filter .....SUBSONIC 18 Hz -6 dB/oct

### Tone Control

BASS ..... $\pm 10$  dB at 100 Hz

TREBLE ..... $\pm 10$  dB at 10 kHz

Loudness Control .....+6 dB at 100 Hz, +3 dB at 10 kHz

Damping Factor .....220/50 Hz at 8  $\Omega$

### Channel Separation at 1 kHz (DIN)

PHONO (MM) .....60 dB (Terminated with 2.2 k $\Omega$ )

TUNER/AUX/TAPE/CD .....56 dB

(Terminated with 47 k $\Omega$  + 250 pF)

### Input Sensitivity/Impedance

PHONO (MM) .....2.5 mV 47 k $\Omega$

PHONO (MC) .....0.2 mV 100  $\Omega$

TUNER/AUX/TAPE/CD .....200 mV 47 k $\Omega$

### Phono Maximum Input Level (PHONO to TAPE REC)

MM at 1 kHz 0.03% T.H.D. ....150 mV

MC at 1 kHz 0.03% T.H.D. ....12 mV

Phono input capacity (DIN) .....150pF

### Output Level/Impedance

TAPE REC (Pin) .....200 mV 220  $\Omega$

### General

#### Power Consumption

3.1 A .....Canada Model

300 W .....UK & European Models

300 W .....Other Countries

Dimensions .....W : 440 mm (17-5/16")

H : 148 mm (5-13/16")

D : 396 mm (15-9/16")

Weight (net) .....11.8 kg (26.0 lb)

KENWOOD follows a policy of continuous advancements in development.

For this reason specifications may be changed without notice.

DOLBY and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation. Noise reduction circuit made under license from Dolby Laboratories Licensing Corporation.

KENWOOD poursuit une politique de progrès constants en ce qui concerne le développement.

Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

La marque DOLBY et le double "D" sont des marques déposées des Dolby Laboratories.

Le système de réduction du bruit de fond est fabriqué sous licence des Dolby Laboratories.

KENWOOD strebt ständige Verbesserungen in der Entwicklung an.

Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

DOLBY und Doppel-D-Symbol sind eingetragene Warenzeichen der Dolby Laboratories.

Dolby-Rauschunterdrückung mit Lizenz der Dolby Laboratories gefertigt.

### 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.

## KENWOOD CORPORATION

Shionogi Shibuya Building, 17-5, 2-chome Shibuya, Shibuya-ku, Tokyo 150, Japan

KENWOOD U.S.A. CORPORATION

2201 East Dominguez Street, Long Beach, CA 90810;

550 Clark Drive, Mount Olive, NJ 07828, U.S.A.

KENWOOD ELECTRONICS CANADA INC.

P.O. BOX 1075, 959 Gana Court, Mississauga, Ontario, Canada L4T 4C2

TRIO-KENWOOD U.K. LIMITED

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

KENWOOD ELECTRONICS BENELUX N.V.

Mechelsesteenweg 418 B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH

Rembrücker-Str. 15, 6056 Heusenstamm, West Germany

TRIO-KENWOOD FRANCE S.A.

13 Boulevard Ney, 75018 Paris, France

KENWOOD LINEAR S.p.A.

20125, MILANO-VIA ARBE, 50, ITALY

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD. (INCORPORATED IN N.S.W.)

4E Woodcock Place, Lane Cove, N.S.W. 2066, Australia

KENWOOD & LEE ELECTRONICS, LTD.

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