

STEREO POWER AMPLIFIER/GRAPHIC EQUALIZER

# B-B5/B7

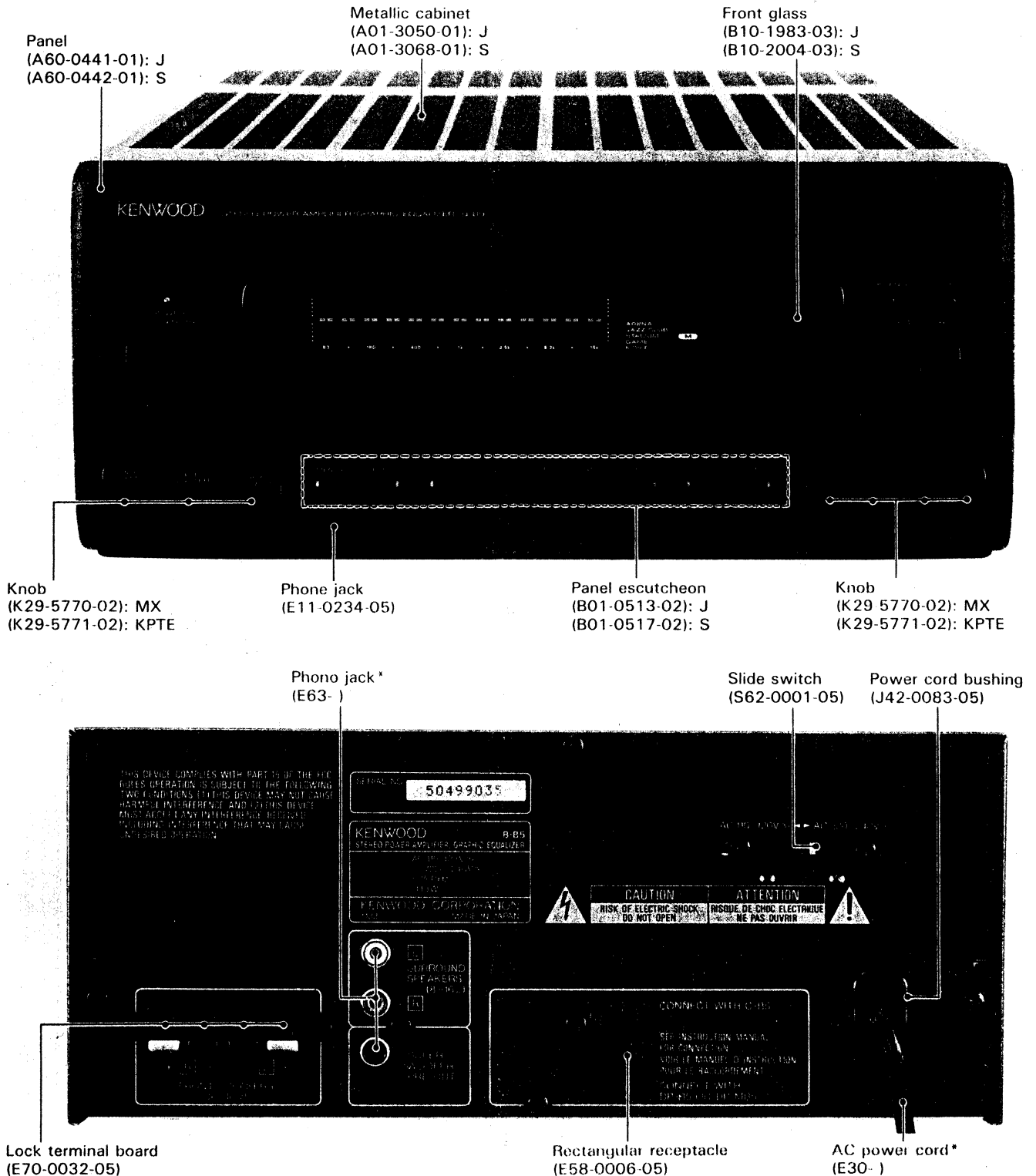
## SERVICE MANUAL

(UD-501/701M)

# KENWOOD

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B51-4751-00(S) 4447

B-B5



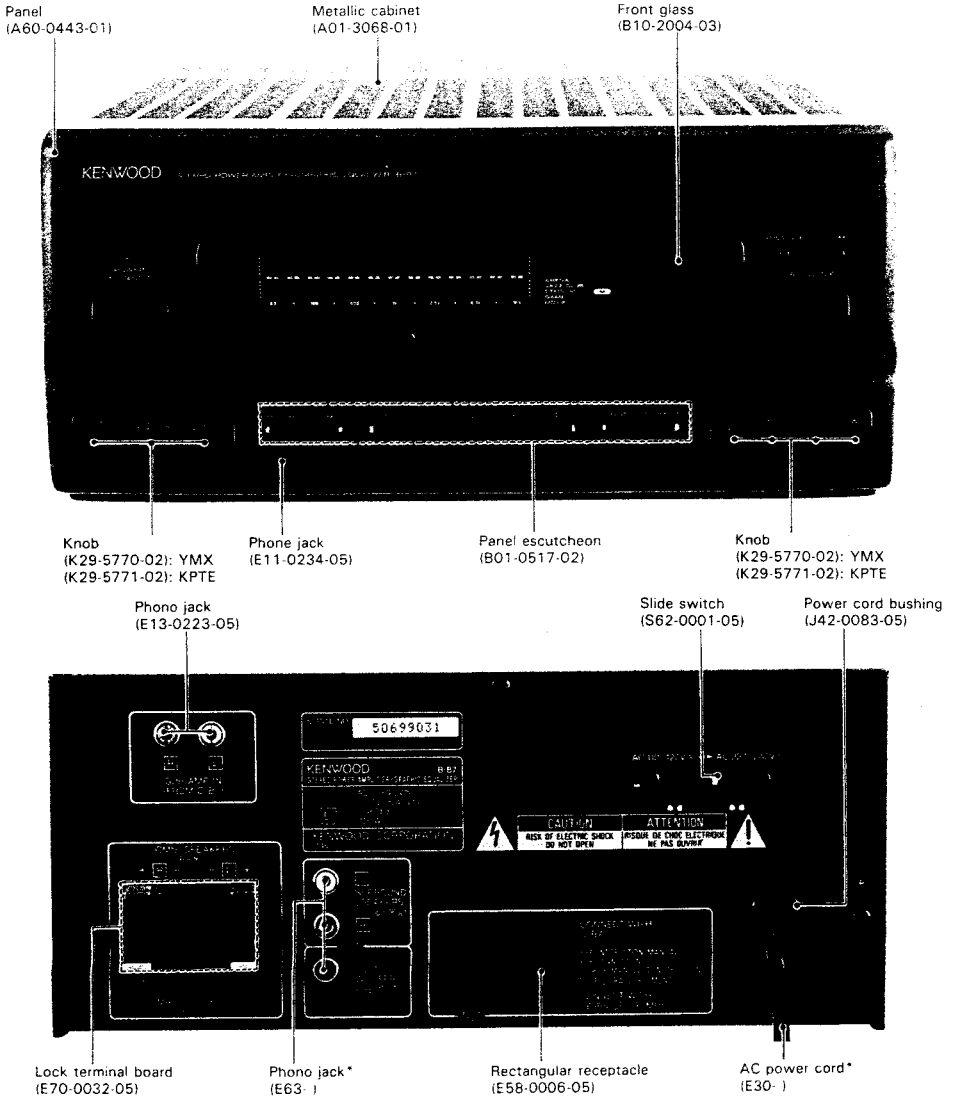
\*Refer to parts list on page 16.

# B-B5/B7

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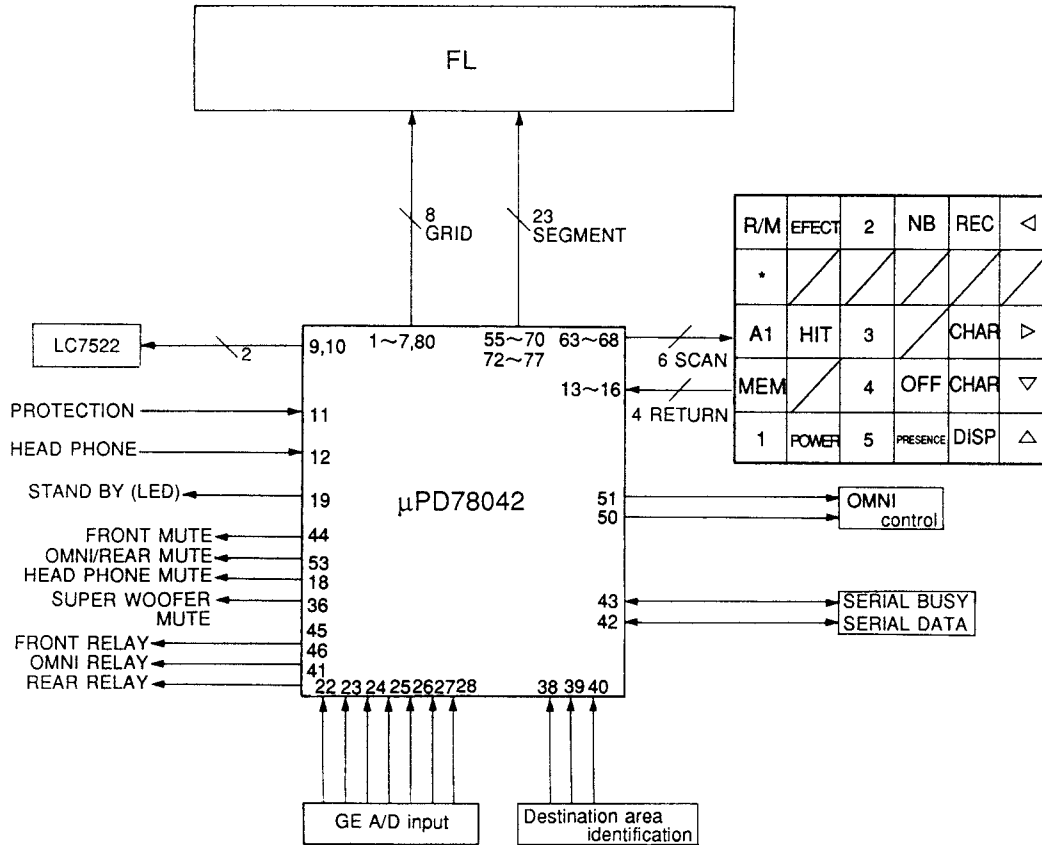
B-B7



CIRCUIT DESCRIPTION

PORT LAYOUT

Microprocessor  $\mu$  PD78042GF-038(IC11-X09)



CIRCUIT DESCRIPTION

Pin Description

Pin No.	Pin Name	I/O	Name	Description
1	P94	O	GRID 6	FL driver output Grid 6
2	P93	O	GRID 5	FL driver output Grid 5
3	P92	O	GRID 4	FL driver output Grid 4
4	P91	O	GRID 3	FL driver output Grid 3
5	P90	O	GRID 2	FL driver output Grid 2
6	P81	O	GRID 1	FL driver output Grid 1
7	P80	O	GRID 0	FL driver output Grid 0
8	Vdd			+5V
9	P27	O	GE. IC (CLOCK)	Gleico IC (LC7522) $\rightarrow$ CLK (Clock terminal)
10	P26	O	GE. IC (DATA)	Gleico IC (LC7522) $\rightarrow$ DI (Data terminal)
11	P25 SI0/SB0	I	PROTECTION	Protection detection Low: NON PROTECTION, High: PROTECTION
12	P24 BUSY	I	HEAD PHONE	Headphone input detection Low: NON HEADPHONE High: HEADPHONE IN
13	P23 STB	O	KEY RETURN 3	Key return 3
14	P22 SCK1	O	KEY RETURN 2	Key return 2
15	P21 SO1	O	KEY RETURN 1	Key return 1
16	P20 SI1	O (I)	KEY RETURN 0	Key return 0
17	RESET		RESET	Microcomputer set terminal
18	P74	O	HEAD PHONE MUTE	Headphone mute Low: MUTE OFF High: MUTE ON
19	P73	O	STAND BY LED	Standby LED
20	AVss			GND terminal
21	P17 AN17	I	NC	Unused
22	P16 AN16	I	AD (16kHz)	Analog input 16kHz
23	PP15 AN15	I	AD (6.3kHz)	Analog input 6.3kHz
24	P14 AN14	I	AD (2.5kHz)	Analog input 2.5kHz
25	P13 AN13	I	AD (1kHz)	Analog input 1kHz
26	P12 AN12	I	AD (400Hz)	Analog input 400Hz
27	P11 AN11	I	AD (160Hz)	Analog input 160Hz
28	P10 AN10	I	AD (63Hz)	Analog input 63Hz
29	AVdd			+5V
30	AVref			+5V
31	P04 XT1	I	Vss	GND
32	XT2			
33	Vss			GND
34	X1	I		Oscillator 4.19MHz
35	X2			Oscillator 4.19MHz
36	P37	O	SW MUTE	Super woofer mute Low: S.W. OFF High: S.W. ON
37	P36 BUZ	O	POWER RELAY	Power relay Low: POWER OFF High: POWER ON
38	P35 PCL	I	UD701/UD501	UD701/UD501 destination area changeover Low: UDA501 High: UD701
39	P34 TI2	I	HIT MASTER	HIT MASTER destination area changeover Low: HIT MASTER OFF High: HIT MASTER ON
40	P33 TI1	I	OMNI I	OMNI destination area changeover Low: OMNI OFF, High: OMNI ON

# B-B5/B7

## CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Name	Description
41	P32 TO2	O	REAR RELAY	Rear speaker relay Low: RELAY OFF, High: RELAY ON
42	P31 TO1	I	SDATA	Serial data terminal
43	P30 TO0	I	SBUSY	Serial busy terminal
44	P03 INTP3/C10	I	FRONT MUTE	Front mute Low: MUTE ON High: MUTE OFF
45	P02 INTP2	I	FRONT RELAY	Front speaker raly Low: RELAY OFF High: RELAY ON
46	P01 INTP1	I	OMNI RELAY	Omni speaker relay Low: RELAY OFF High: RELAY ON
47	P00 INTP0/T10	I	CE	Backup terminal
48	IC (Vpp)			GND
49	P72	I	Vss	GND
50	P71	O	OMNI B	Omni TC terminal → B
51	P70	O	OMNI A	Omni TC terminal → A
52	Vdd			+5V
53	P127 FIP33	O	OMNI MUTE	Omni mute Low: MUTE OFF High: MUTE ON
54	P126 FIP32	O	SEGMENT 22	FL drive output segment 22
55	P125 FIP31	O	SEGMENT 21	FL drive output segment 21
56	P124 FIP30	O	SEGMENT 20	FL drive output segment 20
57	P123 FIP29	O	SEGMENT 19	FL drive output segment 19
58	P122 FIP28	O	SEGMENT 18	FL drive output segment 18
59	P121 FIP27	O	SEGMENT 17	FL drive output segment 17
60	P120 FIP26	O	SEGMENT 16	FL drive output segment 16
61	P117 FIP25	O	SEGMENT 15	FL drive output segment 15
62	P116 FIP24	O	SEGMENT 14	FL drive output segment 14
63	P115 FIP23	O	SEGMENT 13	FL drive output segment 13
64	P114 FIP22	O	SEGMENT 12	FL drive output segment 12
65	P113 FIP21	O	SEGMENT 11	FL drive output segment 11
66	P112 FIP20	O	SEGMENT 10	FL drive output segment 10
67	P111 FIP19	O	SEGMENT 9	FL drive output segment 9
68	P110 FIP18	O	SEGMENT 8	FL drive output segment 8
69	P107 FIP17	O	SEGMENT 7	FL drive output segment 7
70	P106 FIP16	O	SEGMENT 6	FL drive output segment 6
71	Vload			-30V
72	P105 FIP15	O	SEGMENT 5	FL drive output segment 5
73	P104 FIP14	O	SEGMENT 4	FL drive output segment 4
74	P103 FIP13	O	SEGMENT 3	FL drive output segment 3
75	P102 FIP12	O	SEGMENT 2	FL drive output segment 2
76	P101 FIP11	O	SEGMENT 1	FL drive output segment 1
77	P100 FIP10	O	SEGMENT 0	FL drive output segment 0
78	P97 FIP9	O	NC	Unused
79	P96 FIP8	O	NC	Unused (A logic terminal)
80	P95 FIP7	O	GRID 7	FL driver output grid 7 (B logic terminal)

# B-B5/B7

## CIRCUIT DESCRIPTION

### 1. Test mode by means of main unit keys

#### (1) Setting method

- Plug the power cord in the AC electrical outlet while pressing the FLAT key.

#### (2) Cancellation method

- The test mode set at the beginning is cancelled when the power cord is unplugged from the AC electrical outlet.

#### (3) Contents

##### ① Automatic POWER ON

- The POWER turns necessarily ON, and all functions are initialized when the power cord is plugged into the AC electrical outlet while pressing the FLAT KEY.

##### ② ALL LIT mode

- All FI and all LED light up without fail when the power cord is plugged into the AC electrical outlet while pressing the FLAT KEY. After that, the equipment switches to the ordinary indication mode when any key of the main unit is operated.

##### ③ Check of the circuit operation by means of the main unit keys

###### a. Relay operation check test

The FRONT, OMNI ↔ FRONT, S switching operation takes place every time the MEMORY key is pressed, and the "OMNI 123" ↔ "PRESENCE all lit up" appears accordingly on the display during 5 seconds.

###### b. Test of the super woofer

The super woofer is turned ON/OFF cyclically every time the REF/MANU key is pressed, and the "SUPER WOOFER" segment of the FL turns ON/OFF accordingly.

###### c. Operations of the other main unit keys in the test mode

The operations of the test mode and the workings of the list of workings are carried out.

### Operations and workings of the graphic equalizer in test mode

Name of the key	Workings
EQ DISPLAY	• Changeover of the FL display mode The EQ diaply, inverted spectrum analyzer display, and the display of the Niagara mode (the short circuit of the GRID and the short circuit of the SEGMENT can be checked) are switched cyclically.
1	• EQ all frequency center The booth cut extents of all bands used are set at the center.
2	• EQ all frequency MAX The booth cut extents all bands used are set at MAX.
3	• EQ all frequency MIN The booth cut extents of all band sused are set at MIN.

### 2. Initialization

#### (1) Setting method

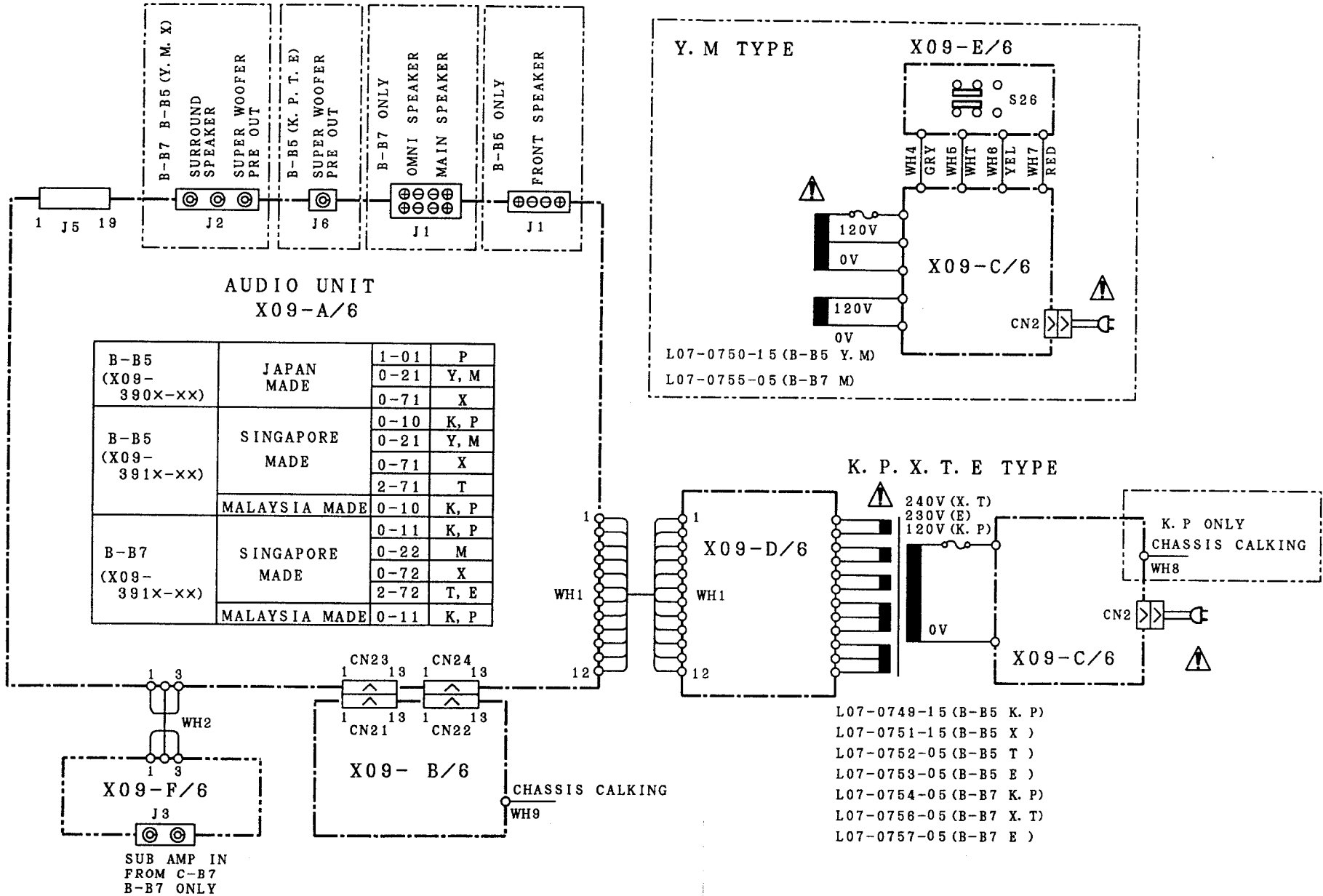
- The equipment is initialized by plugging the power cord in the AC electrical outlet while pressing the EQ MEMORY key.
- The equipment is initialized when the power cord is unplugged and then plugged in the AC electrical outlet during the test mode by means of the main unit keys and the test mode by means of serial communication.

#### (2) Contents

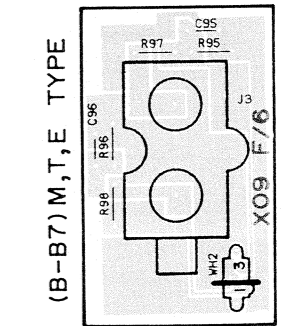
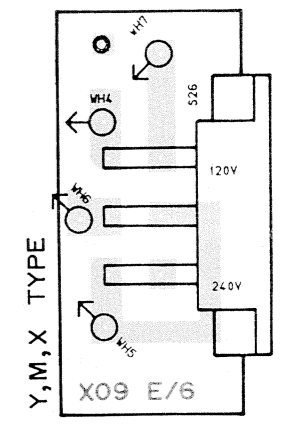
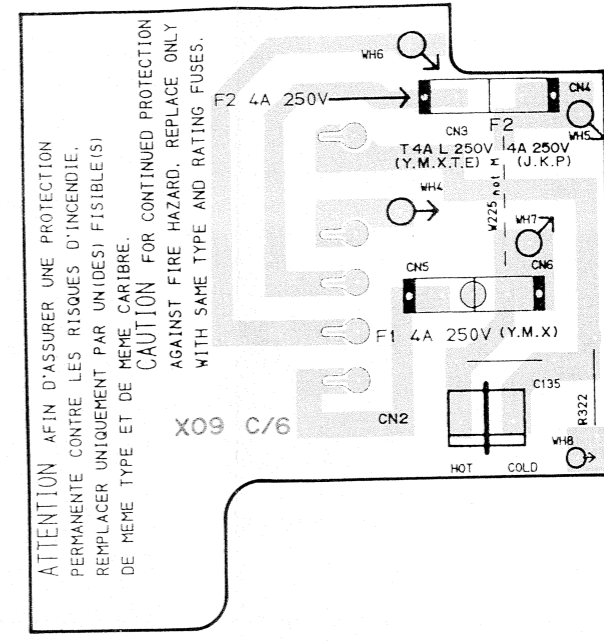
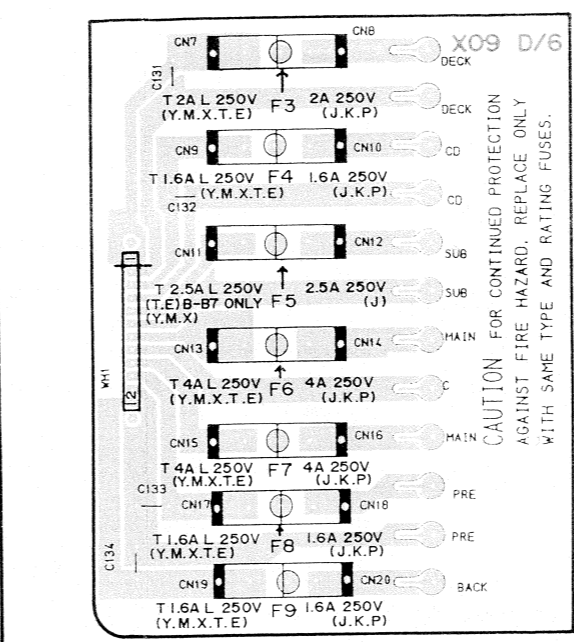
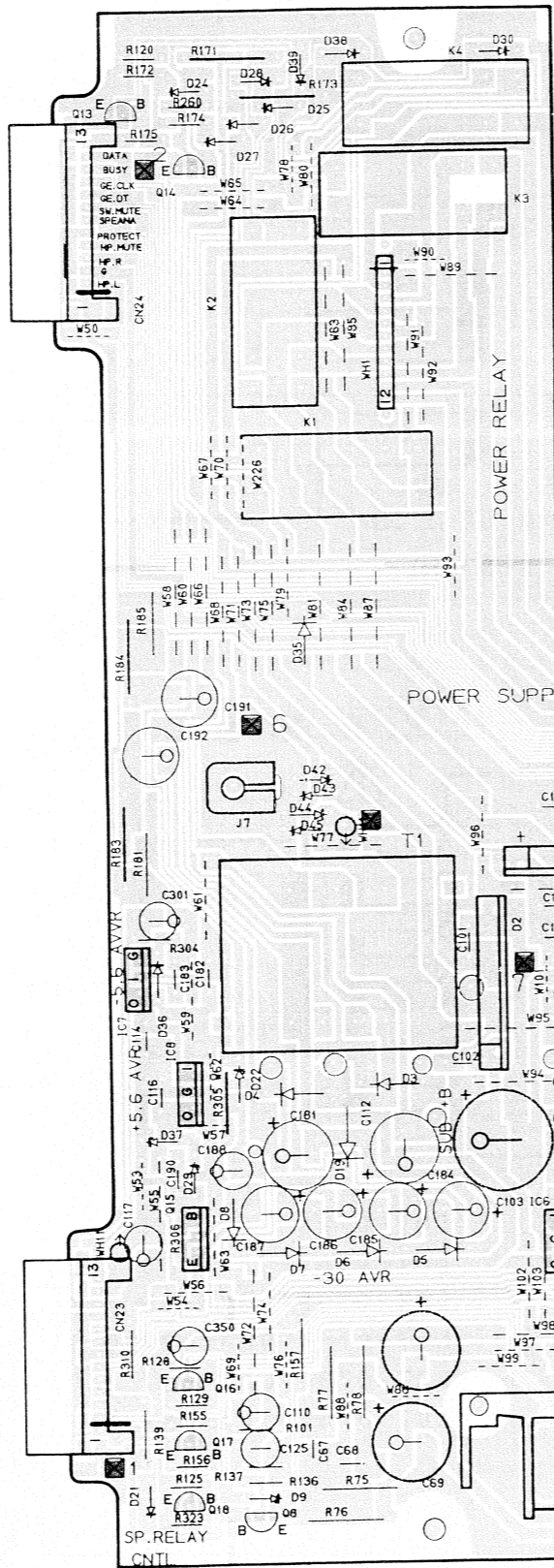
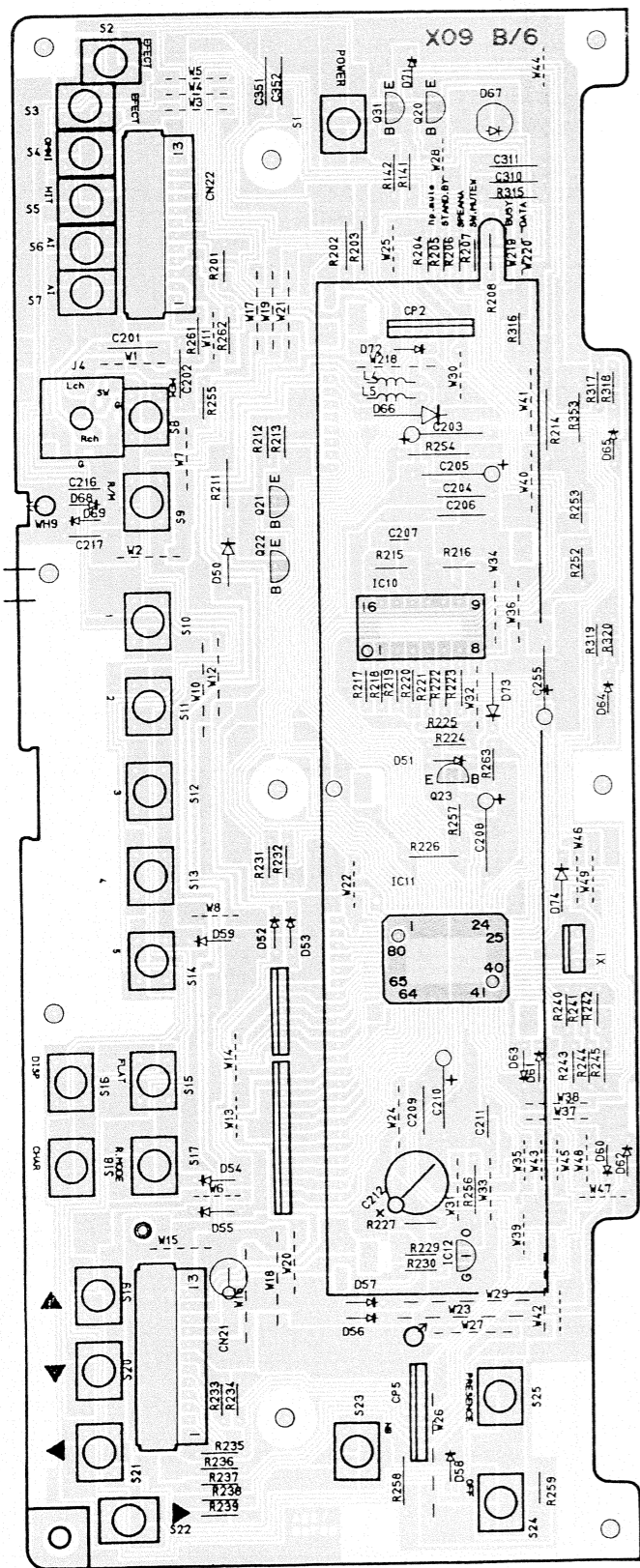
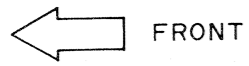
All functions are initialized (Including test mode).

# B-B5/B7 B-B5/B7

## WIRING DIAGRAM



PC BOARD (Component side view) AUDIO UNIT (X09-390X-XX)



AC 220-240V ~ AC 110-120V ~

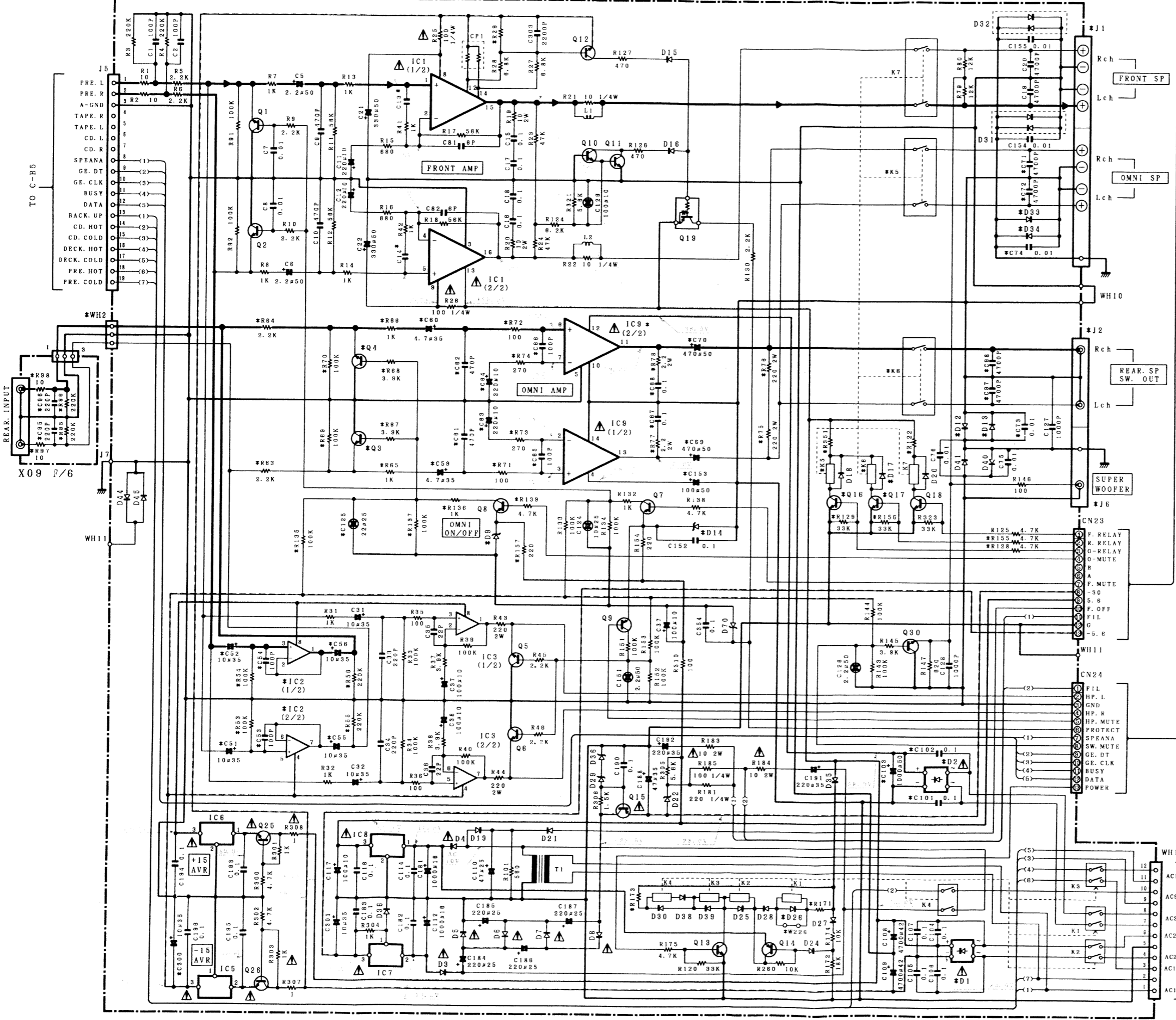
2  
3  
4  
5  
6  
7

CONNECT WITH C-B5  
CONNECT WITH  
DP-B5 OR DP-MB5  
SURROUND SPEAKERS  
(8-16Ω) (J,K,P TYPE)  
FRONT SPEAKERS  
(6-16Ω)

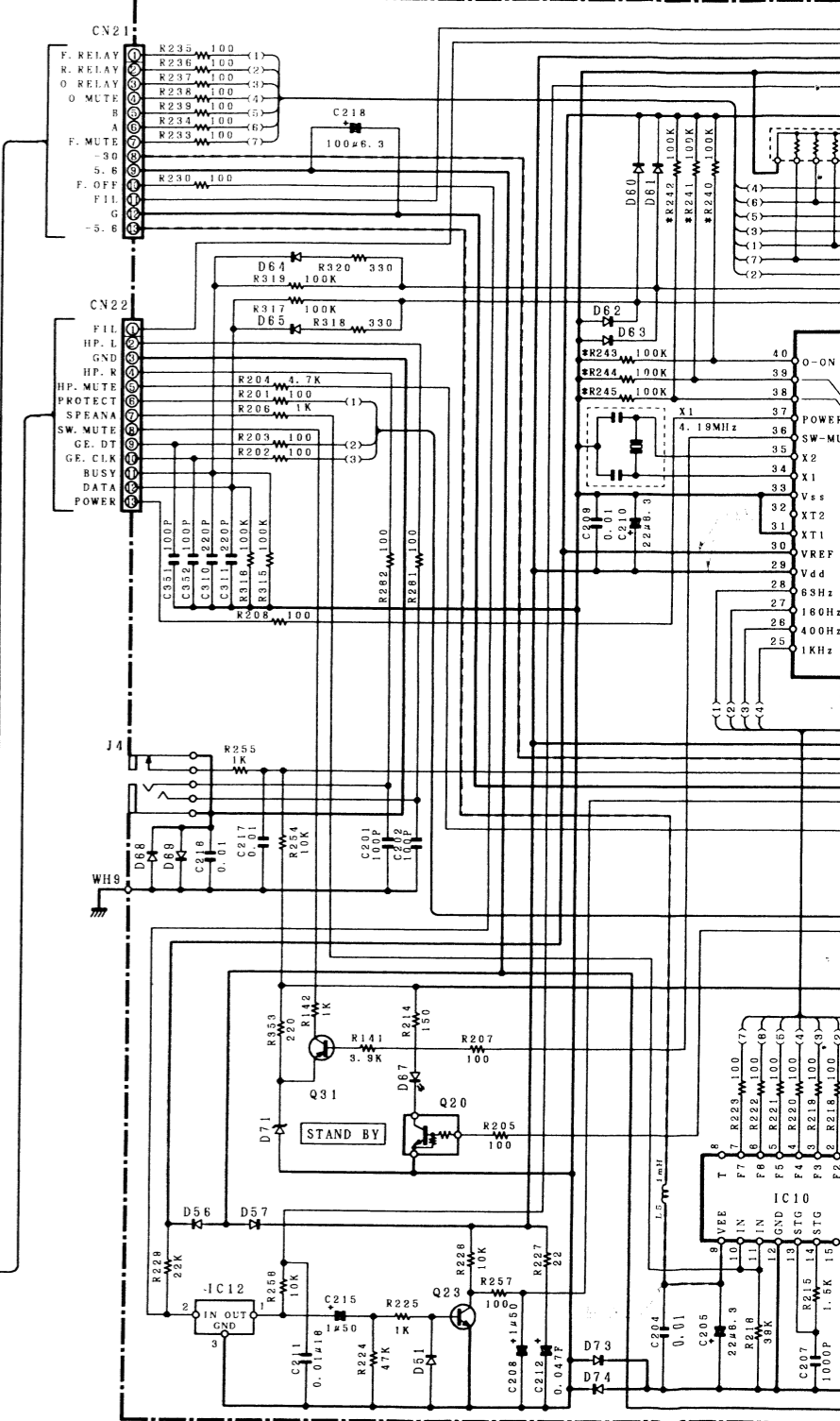
CONNECT WITH C-B5  
CONNECT WITH  
DP-B5 OR DP-MB5  
SURROUND SPEAKERS  
(8-16Ω) (J,K,P TYPE)  
FRONT SPEAKERS  
(6-16Ω)

CONNECT WITH C-B5  
CONNECT WITH  
DP-B5 OR DP-MB5  
SURROUND SPEAKERS  
(8-16Ω) (J,K,P TYPE)  
FRONT SPEAKERS  
(6-16Ω)

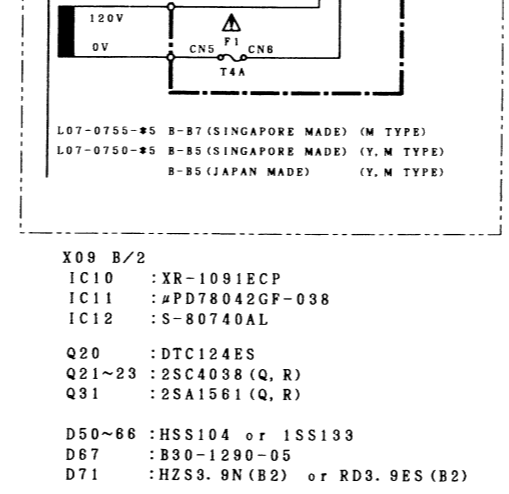
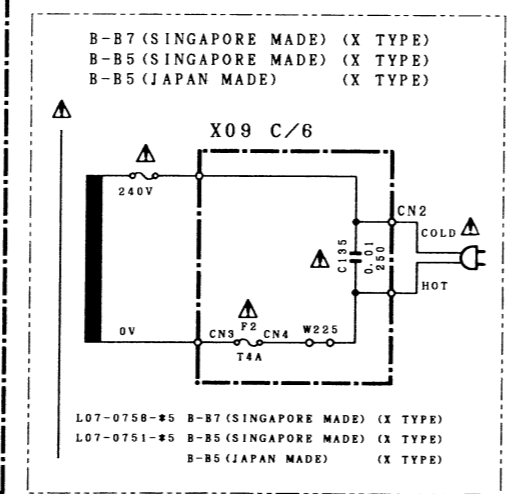
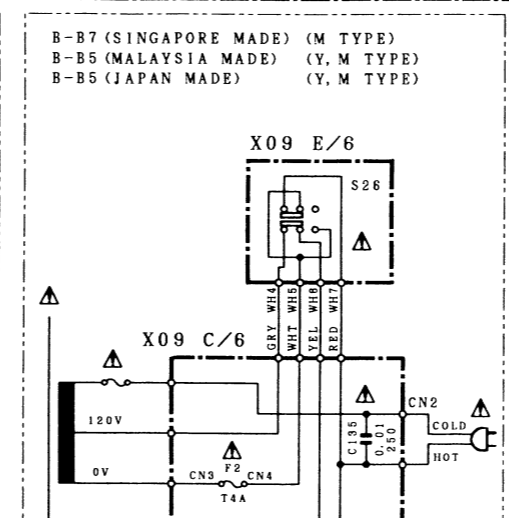
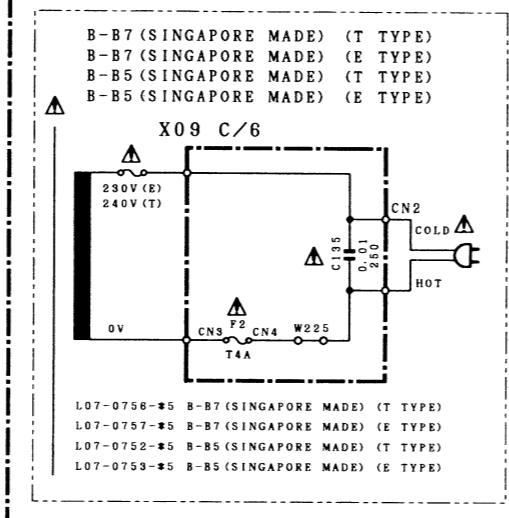
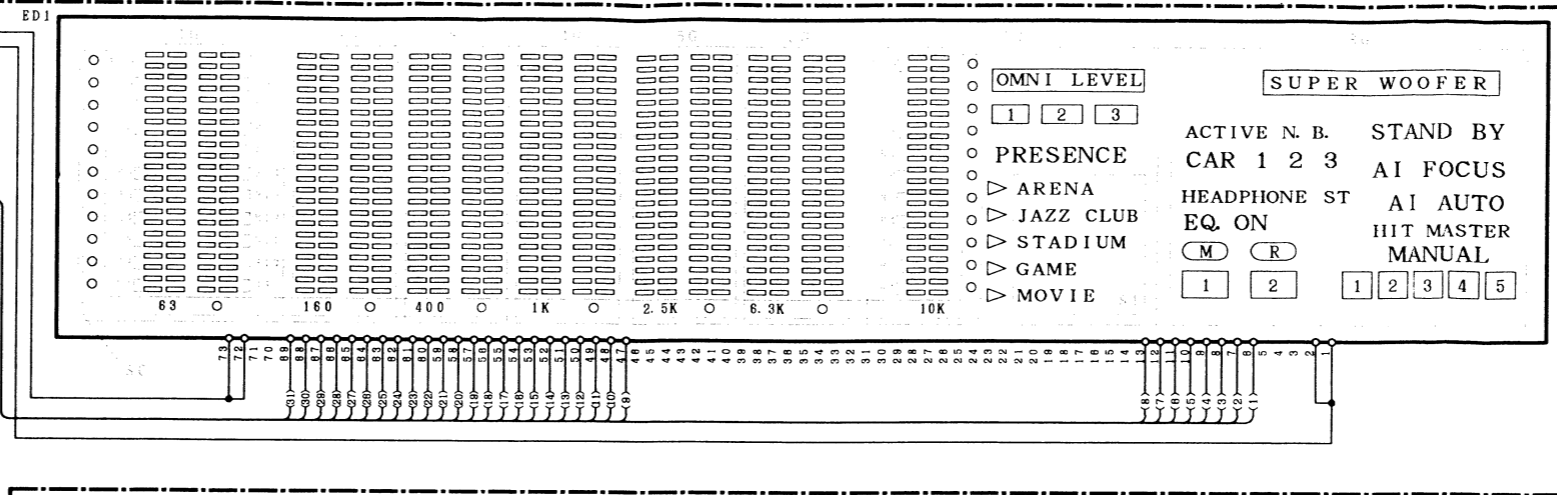
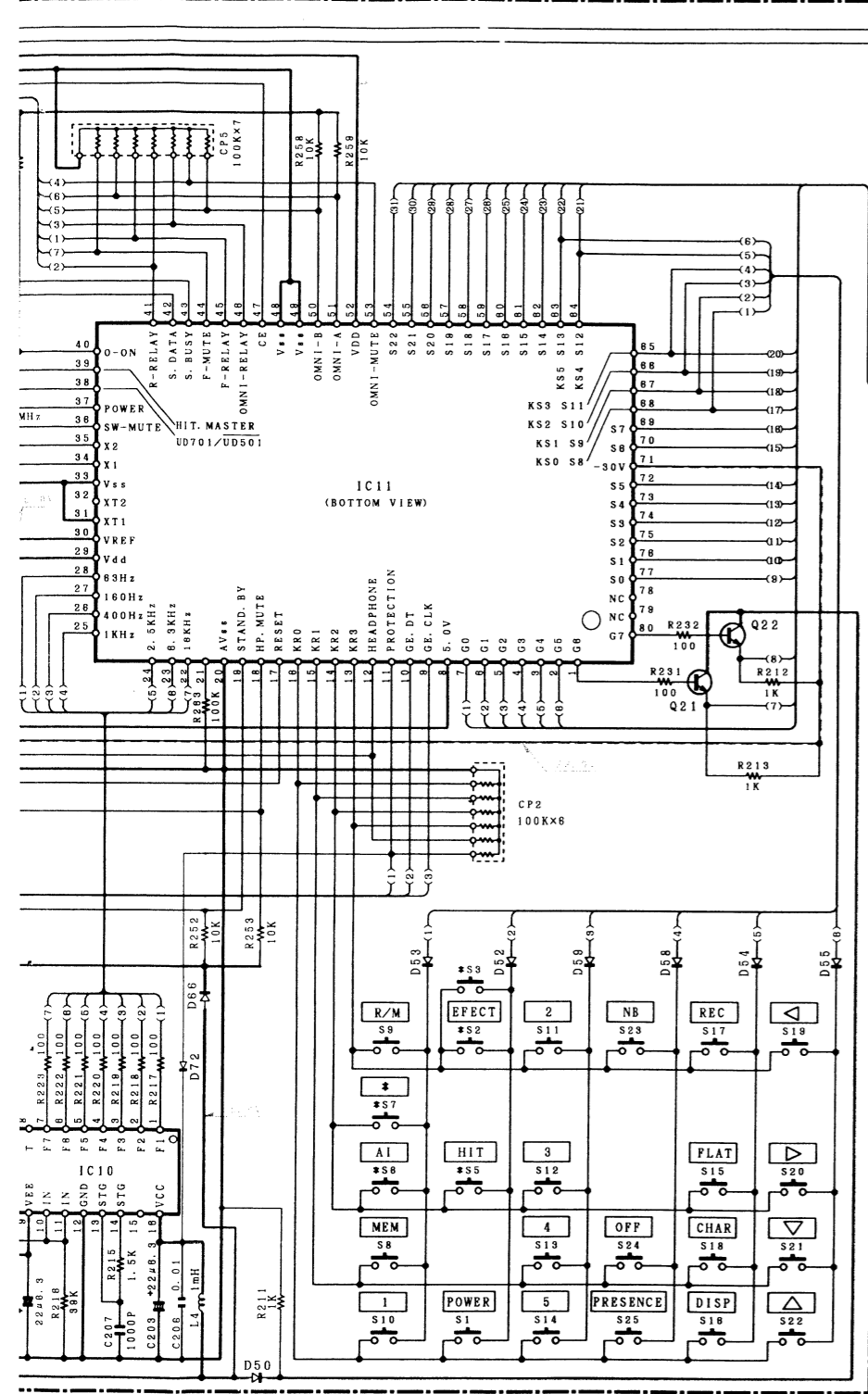
(X09-391X-XX) (A/6)



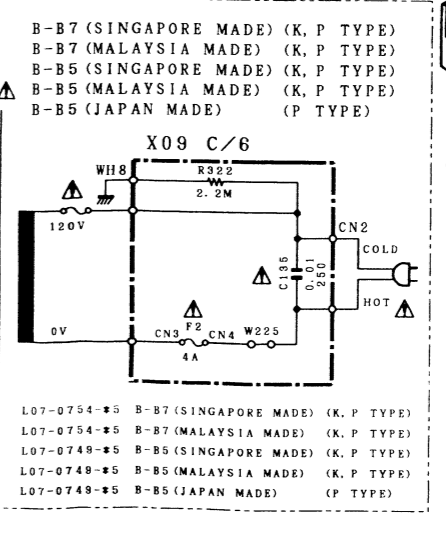
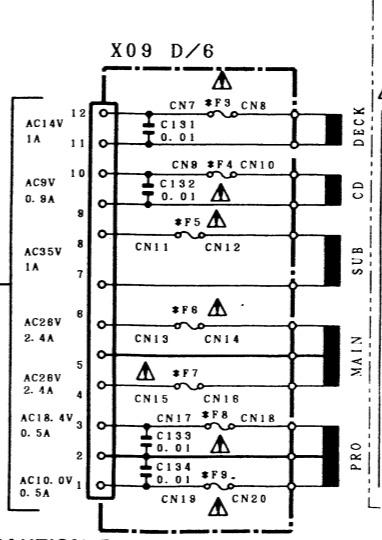
(X09-39XX-XX) (B/2)



Part No.	Description	Ref No	Component									
			IC2	Q16	Q3,4	D2,9	D33	C51~	C59~70,	98,101,	125,153	
B-B5 (X09-390)	JAPAN MADE	1-01	P	NO	NO	NO	NO	NO	NO	NO	NO	NO
		0-21	Y, M	YES	NO	YES	YES	NO	YES	YES	YES	YES
		0-71	X	YES	NO	YES	YES	NO	YES	YES	YES	YES
B-B5 (X09-391)	SINGAPORE MADE	0-10	K, P	NO	NO	NO	NO	NO	NO	NO	NO	
		0-21	Y, M	YES	NO	YES	YES	NO	YES	YES	YES	
		0-71	X	YES	NO	YES	YES	NO	YES	YES	YES	
B-B7 (X09-391)	SINGAPORE MADE	2-71	T	NO	NO	NO	NO	NO	NO	NO	NO	
		0-11	K, P	NO	YES	YES	YES	YES	NO	YES	YES	
		0-22	Y, M	NO	YES	YES	YES	YES	YES	NO	YES	
MALAYSIA MADE	0-11	K, P	NO	YES	YES	YES	YES	YES	NO	YES		
	2-72	T, E	NO	YES	YES	YES	YES	YES	NO	YES		
MALAYSIA MADE	0-11	K, P	NO	YES	YES	YES	YES	YES	NO	YES		
	0-11	K, P	NO	YES	YES	YES	YES	YES	NO	YES		



- X09 A/6**  
IC1 : STK401-061 (K, P, Y, M)  
IC2, 3 : STK401-261 (B-B5 T)  
IC5 : STK401-071 (B-B7 M)  
IC6 : STK401-271 (B-B7 T, E)  
IC7 : NJM4565D-D  
IC8 : #PC7915AHF or TA79015S  
IC9 : #PC17815T or TA7815S  
IC10 : #PC7905AHF or TA79005S  
IC11 : AN780575F or TA78057S  
IC12 : LA4280
- Q1~6, 30 : 2SC2878 (B)  
Q7~9 : 2SA933S (Q, R) or 2SA1175 (F, E)  
Q10, 11, 13, 16~18 : 2SC2003 (L, K)  
Q12 : 2SC1845 (F, E)  
Q14 : 2SA954  
Q15 : 2SB1370 (F, E) or 2SB1375  
Q19 : DTA124ES or UN4112  
Q20 : DTC124ES or UN4212  
Q21~23 : 2SC4038 (Q, R)  
Q25 : 2SC3940A  
Q26 : 2SA1534A  
Q31 : 2SA1561 (Q, R)
- D1, 2 : D3SBA20F03 or RBV-402LFA  
D3~8, 19, 35 : S5688B or ISR139-100  
D9, 14, 71 : HZS3.9N (B2) or RDS3.9ES (B2)  
D12, 13, 15~18 : HSS104 or ISS133  
D20, 24~28, 30, 33 : 20, 24~28, 30, 33  
D34, 38~41, 50~66 : 68, 69, 72  
D22 : HZS13N (B2) or RD13ES (B2)  
D29, 37 : HZS15N (B2) or RD15ES (B2)  
D31, 32 : MA177  
D67 : B30-1290-05  
D70 : HZS4.7N (B2) or RD4.7ES (B2)



- 2SA1534A 2SC2003  
2SA954 2SC2878  
2SC1845 2SC3940A
- 2SA1175
- DTA124ES 2SA1048  
DTC124ES 2SA933S  
UN4112
- UN4212 2SA1309A
- NJM4565D-D
- LA4280
- AN780575F TA7815S
- UPC7815AHF
- UPC79 UPC79
- 2SB1370
- 2SB1375
- XR-1091EC
- UPC79 UPC79
- S-80740A
- TA79005S TA79015S

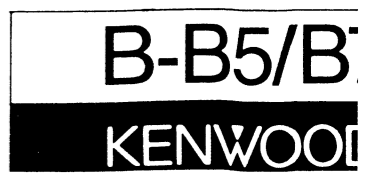
	C51~4	C59~70, 73, 97	C71, 72	R53~	R63, 64, 65~78	R95~98	R122	R171	R173	R240	R241	R243	R244	R351	CN11	K5	K6	J1	J2, 3	J6	S2	S3, 6	J3	W203	W226	F3	F5	F4	F6	F7
C	NO	NO	NO	NO	NO	NO	330	470	180	NO	NO	YES	YES	NO	NO	NO	NO	4P	NO	YES	NO	NO	NO	NO	NO	NO	2A	NO	1.6A	4A
Y	YES	YES	NO	YES	YES	NO	120	1	1	NO	YES	YES	NO	120	YES	NO	YES	4P	NO	NO	NO	NO	NO	NO	NO	T2A	T2.5A	T1.6A	T4A	
E	YES	YES	NO	YES	YES	NO	120	1	1	NO	YES	YES	NO	120	YES	NO	YES	4P	NO	NO	NO	NO	NO	NO	NO	T2A	T2.5A	T1.6A	T4A	
M	YES	YES	NO	YES	YES	NO	120	1	1	NO	YES	YES	NO	120	YES	NO	YES	4P	NO	NO	NO	NO	NO	NO	NO	T2A	T2.5A	T1.6A	T4A	
P	NO	NO	NO	NO	NO	NO	330	470	180	NO	NO	YES	YES	NO	NO	NO	4P	NO	YES	NO	NO	NO	NO	NO	NO	T2A	T2.5A	T1.6A	T4A	
S	NO	NO	NO	NO	NO	NO	330	470	180	NO	NO	YES	YES	NO	NO	NO	4P	NO	YES	NO	NO	NO	NO	NO	NO	T2A	T2.5A	T1.6A	T4A	
S	NO	YES	YES	NO	YES	YES	330	150	150	YES	NO	NO	YES	330	YES	YES	YES	8P	YES	NO	NO	NO	NO	NO	NO	2A	2.5A	1.6A	4A	
S	NO	YES	YES	NO	YES	YES	120	27	27	YES	YES	NO	NO	120	YES	YES	YES	8P	YES	NO	NO	NO	NO	NO	NO	T2A	T2.5A	T1.6A	T4A	
S	NO	YES	YES	NO	YES	YES	330	150	150	YES	NO	NO	YES	120	YES	YES	YES	8P	YES	NO	NO	NO	NO	NO	NO	T2A	T2.5A	T1.6A	T4A	
S	NO	YES	YES	NO	YES	YES	330	150	150	YES	NO	NO	YES	120	YES	YES	YES	8P	YES	NO	NO	NO	NO	NO	NO	T2A	T2.5A	T1.6A	T2A	

DC voltages are as measured with a high impedance voltmeter with no signal input. Voltages may vary slightly due to variations in component characteristics and/or manufacturing tolerances.

Les tensions d.c. doivent être mesurées avec un voltmètre à haute impédance sans signal d'entrée. Les valeurs peuvent différer légèrement en raison des variations des caractéristiques et des tolérances de fabrication.

Die angegebenen Gleichspannungswerte wurden mit einem hochwertigen Spannungsmeßgerät ohne Eingangssignal gemessen. Die Werte können durch die Mängel der Bauteile oder die Ungenauigkeit der Meßinstrumente oder Geräte geringfügig abweichen.

**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.







PARTS LIST

NO.4  
 \* 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 新部品	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 国番号	Re- marks 備考
C181			CE04KW1C102M	ELECTRØ 1000UF	J	
C181			CE04LW1C102M	ELECTRØ 1000UF	S	
C182, 183			CF92FV1H104J	MF 0.10UF	J	
C184-187			CE04KW1E221M	ELECTRØ 220UF	S	
C184-187			CE04LW1E221M	ELECTRØ 220UF	S	
C188			CE04KW1V470M	ELECTRØ 47UF	J	
C188			CE04LW1V470M	ELECTRØ 47UF	S	
C190			CF92FV1H104J	MF 0.10UF	J	
C191, 192			CE04DW1Z221M	ELECTRØ 220UF	J	
C193-196			CF92FV1H104J	MF 0.10UF	J	
C201, 202			C91-0757-05	CERAMIC 1000PF	K	
C203			C90-3503-05	ALUMINIUM ELECTROLYTIC C.	K	
C204			C91-0769-05	CERAMIC 0.01UF	K	
C205			C90-3503-05	ALUMINIUM ELECTROLYTIC C.	K	
C206			C91-0769-05	CERAMIC 0.01UF	K	
C207			CF92FV1H102J	MF 1000PF	J	
C208			C90-3505-05	ALUMINIUM ELECTROLYTIC C.	K	
C209			C91-0769-05	CERAMIC 0.01UF	K	
C210			C90-3503-05	ALUMINIUM ELECTROLYTIC C.	K	
C211			C91-0769-05	CERAMIC 0.01UF	K	
C212			C90-1827-05	BACKUP 0.047F	5.5WV	
C213, 214			C91-0769-05	CERAMIC 0.01UF	K	
C216, 217			C91-0769-05	CERAMIC 0.01UF	K	
C218			C90-3214-05	ELECTRØ 1000UF	6.3WV	
C252			C91-0769-05	CERAMIC 0.01UF	K	
C355			C90-3505-05	ALUMINIUM ELECTROLYTIC C.	K	
C300, 301			CE04KW1V100M	ELECTRØ 10UF	35WV	
C303, 304			CE04LW1V100M	ELECTRØ 10UF	35WV	
C310, 311			CK45FB1H22K	CERAMIC 2200PF	K	
C350			C91-0749-05	CERAMIC 220PF	K	
C350			CE04KW1A101M	ELECTRØ 100UF	10WV	
C351, 352			CE04LW1A101M	ELECTRØ 100UF	10WV	
C354			CF92FV1H104J	MF 0.10UF	J	
J1		*	E70-0032-05	LOCK TERMINAL BOARD SPEAKERS	KPTE	
J2		*	E63-0017-05	PHONE JACK SURROUND S.S. WØØFER	YMX	
J2		*	E63-0096-05	PHONE JACK SURROUND S.S. WØØFER	YMX	
J2		*	E63-0096-05	PHONE JACK SURROUND S.S. WØØFER	YMX	
J3			E13-0223-05	PHONE JACK REAR INPUT	YMX	
J4			E11-0234-05	PHONE JACK HEAD PHONES	YMX	
J5			E58-0006-05	RECTANGULAR RECEPTACLE BLACK	YMX	
650	1C		F20-1371-05	INSULATING SHEET	YMX	
651	1C		F20-1384-05	INSULATING SHEET	YMX	
651	1C		F20-1384-05	INSULATING SHEET	YMX	
A, F1, 2			F06-4025-05	FUSE (SEMØ) (250V T4A)	M	
A, F2			F06-4025-05	FUSE (SEMØ) (250V T2A)	YMX	
A, F2			F05-4028-05	FUSE (UL) (125V 4A)	KP	
A, F3			F04-4025-05	FUSE (SEMØ) (250V T2A)	XTE	
A, F3			F04-2025-05	FUSE (UL) (250V 2A)	KP	
A, F3			F06-2021-05	FUSE (UL) (250V 2A)	YMX	
A, F3			F06-2021-05	FUSE (SEMØ) (250V T2A)	MXTE	
A, F4			F05-1623-05	FUSE (SEMØ) (250V T1.6A)	YMXTE	
A, F4			F05-1623-05	FUSE (SEMØ) (250V T1.6A)	YMXTE	
A, F4			F05-1628-05	FUSE (UL) (250V 1.6A)	KP	

J: JAPAN MADE  
 S: SINGAPORE MADE  
 W: MALAYSIA MADE  
 5: B-B5  
 7: B-B7

NO.3  
 \* 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 新部品	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 国番号	Re- marks 備考
C51, 52			CE04LW1V100M	ELECTRØ 10UF	YMX	
C53, 54			CC45FSL1H101J	CERAMIC 100PF	S	
C55			CE04KW1V100M	ELECTRØ 10UF	YMX	
C55, 56			CE04LW1V100M	ELECTRØ 10UF	S	
C59, 60			CE04KW1H4R7M	ELECTRØ 4.7UF	YMX	
C59, 60			CE04LW1H4R7M	ELECTRØ 4.7UF	S	
C61, 62			CK45FB1H471K	CERAMIC 470PF	YMX	
C63, 64			CE04KW1A221M	ELECTRØ 220UF	YMX	
C63, 64			CE04LW1A221M	ELECTRØ 220UF	S	
C65, 66			CC45FSL1H101J	CERAMIC 100PF	S	
C65, 66			CC45FSL1H101J	CERAMIC 100PF	S	
C67, 68			CF92FV1H104J	MF 0.10UF	YMX	
C67, 68			CF92FV1H104J	MF 0.10UF	S	
C69, 70			CE04KW1V471M	ELECTRØ 470UF	YMX	
C69, 70			CE04LW1V471M	ELECTRØ 470UF	S	
C69, 70			CE04KW1V471M	ELECTRØ 470UF	YMX	
C71, 72			CK45FF1H472Z	CERAMIC 4700PF	Z	
C73			C91-0757-05	CERAMIC 1000PF	K	
C73			C91-0757-05	CERAMIC 1000PF	K	
C74, 75			C91-0769-05	CERAMIC 0.01UF	K	
C95, 96			CC45FSL1H221J	CERAMIC 220PF	K	
C97, 98			CK45FF1H472Z	CERAMIC 4700PF	Z	
C97, 98			CK45FF1H472Z	CERAMIC 4700PF	Z	
C101, 102			CF92FV1H104J	MF 0.10UF	J	
C101, 102			CF92FV1H104J	MF 0.10UF	S	
C103			CE04KW1H102M	ELECTRØ 1000UF	50WV	
C103			CE04LW1H102M	ELECTRØ 1000UF	50WV	
C104-107			CF92FV1H104J	MF 0.10UF	J	
C108, 109		*	C90-1966-05	ELECTRØ 4700UF	42WV	
C108, 109		*	C90-3518-05	ELECTRØ 42WV	42WV	
C108, 109		*	C90-3518-05	ELECTRØ 42WV	42WV	
C110			CE04KW1E470M	ELECTRØ 47UF	25WV	
C110			CE04LW1E470M	ELECTRØ 47UF	25WV	
C112			CF92FV1H104J	MF 0.10UF	J	
C114			CF92FV1H104J	MF 0.10UF	J	
C117			CE04KW1A101M	ELECTRØ 100UF	10WV	
C117			CE04LW1A101M	ELECTRØ 100UF	10WV	
C124			CE04HW1E100M	NP-ELEC 25WV	YMX	
C125			CE04HW1E220M	NP-ELEC 25WV	YMX	
C125			CE04HW1E220M	NP-ELEC 25WV	YMX	
C126			CE04HW1H2R2M	NP-ELEC 2.2UF	50WV	
C128			CK45FB1H102K	CERAMIC 1000PF	K	
C129			CE04HW1A101M	NP-ELEC 100UF	10WV	
C131-134			CK45FF1H103Z	CERAMIC 0.010UF	Z	
C135			C91-1439-05	FILM 250VAC	50WV	
C151			CE04HW1H2R2M	NP-ELEC 2.2UF	50WV	
C152			CF92FV1H104J	MF 0.10UF	J	
C153			CE04LW1H101M	ELECTRØ 100UF	50WV	
C153			CE04LW1H101M	ELECTRØ 100UF	50WV	
C154, 155			C90-3523-05	ALUMINIUM ELECTROLYTIC C.	K	
C157, 158			CF92FV1H104J	MF 0.10UF	J	
C159			CF92FV1H104J	MF 0.10UF	J	

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L: Scandinavia  
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 Y: AFES(Europe)

K: USA  
 T: England  
 X: Australia

P: Canada  
 E: Europe  
 M: Other Areas

Z indicates safety critical components

PARTS LIST

NO.6

Ref. No. 参照番号	Address 位置	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 向標	Re- marks 備考
K2	-4		SS1-2094-05	MAGNETIC RELAY	KPTE	5
K5	-7		S76-0005-05	MAGNETIC RELAY	YMX	7
K6	,7		S76-0005-05	MAGNETIC RELAY	KPTE	5
K7	,7		S76-0005-05	MAGNETIC RELAY	KPTE	5
S1			S40-1064-05	PUSH SWITCH POWER		
S1	,2		S40-1064-05	PUSH SWITCH POWER, BQ EFFECT	MX	7
S3	,2		S40-1064-05	PUSH SWITCH BQ EFFECT	YMX	5
S5			S40-1064-05	PUSH SWITCH HIT MASTER	MX	7
S5			S40-1064-05	PUSH SWITCH HIT MASTER	YMX	5
S6			S40-1064-05	PUSH SWITCH HIT MASTER	KPTE	7
S7	-25		S40-1064-05	PUSH SWITCH KEY BOARD	MX	7
S7	-25		S40-1064-05	PUSH SWITCH KEY BOARD	YMX	5
S8	-25		S40-1064-05	PUSH SWITCH KEY BOARD	KPTE	7
S26			S62-0001-05	SLIDE SWITCH VOLTAGE SELECTOR	M	
S26			S62-0001-05	SLIDE SWITCH VOLTAGE SELECTOR	YMX	5
D1			D35BA20F03	DIODE	KPTE	5
D1			RBV-402LFA	DIODE	KPTE	5
D1	,2		D35BA20F03	DIODE	YMX	7
D1	,2		D35BA20F03	DIODE	YMX	7
D1	,2		RBV-402LFA	DIODE	YMX	7
D1	,2		RBV-402LFA	DIODE	YMX	5
D3	-8		SS6888	DIODE		
D3	-8		1SR139-100	DIODE		
D9			HZS3.9N(B2)	ZENER DIODE		
D9			RD3.9ES(B2)	ZENER DIODE		
D12	,13		HSS104	DIODE		
D12	,13		HSS104	DIODE	YMX	7
D12	,13		1SS133	DIODE	YMX	7
D12	,13		1SS133	DIODE	YMX	5
D14			HZS3.9N(B2)	ZENER DIODE		
D14			RD3.9ES(B2)	ZENER DIODE		
D15	-17		HSS104	DIODE	YMX	5
D15	-17		1SS133	DIODE	YMX	5
D15	-18		HSS104	DIODE		
D15	-18		1SS133	DIODE		
D15	,16		HSS104	DIODE	KPTE	5
D15	,16		1SS133	DIODE	KPTE	5
D19			SS6888	DIODE		
D19			1SR139-100	DIODE		
D20			HSS104	DIODE		
D20			1SS133	DIODE		
D21			RB721W	DIODE		
D22			HZS13N(B2)	ZENER DIODE		
D22			RD1.9ES(B2)	ZENER DIODE		
D24	-28		HSS104	DIODE		
D24	-28		1SS133	DIODE	YMX	5
D24	-28		1SS133	DIODE	YMX	5
D24	,25		HSS104	DIODE	KPTE	5
D24	,25		1SS133	DIODE	KPTE	5
D27	,28		HSS104	DIODE	KPTE	5
D27	,28		1SS133	DIODE	KPTE	5
D29			HZS15N(B2)	ZENER DIODE		

NO.5

Ref. No. 参照番号	Address 位置	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 向標	Re- marks 備考
F5			F05-2526-05	FUSE (SEMK0) (250V T2.5A)	YMX	7
F5			F05-2526-05	FUSE (SEMK0) (250V T2.5A)	YMX	5
F6	,7		F06-2526-05	FUSE (UL) (250V T1.5A)	KPTE	7
F6	,7		F05-4028-05	FUSE (SEMK0) (250V T4A)	YMX	7
F6	,7		F05-4028-05	FUSE (UL) (125V 4A)	KP	
F6	,7		F06-4028-05	FUSE (SEMK0) (250V T2A)	YMX	7
F8	,9		F05-1623-05	FUSE (SEMK0) (250V T1.6A)	YMX	5
F8	,9		F05-1623-05	FUSE (SEMK0) (250V T1.6A)	YMX	5
F8	,9		F05-1628-05	FUSE (UL) (250V 1.6A)	KP	
CN3	-20		J13-0075-05	FUSE CLIP	M	
CN3	-20		J13-0075-05	FUSE CLIP	YMX	5
CN3	,4		J13-0075-05	FUSE CLIP	KPTE	5
CN7	-10		J13-0075-05	FUSE CLIP	KPTE	5
CN7	-20		J13-0075-05	FUSE CLIP	KPTE	7
CN7	-20		J13-0075-05	FUSE CLIP	YMX	5
CN13	-20		J13-0075-05	FUSE CLIP	KPTE	5
L1	,5		L39-0086-05	PHASE COMPENSATION COIL		
L4	,5		L40-1031-14	SWITCH FLYBACK INDUCTOR (1.0MH, K)		
T1			L67-0822-05	POWER TRANSFORMER		
X1			L76-0287-05	RESONATOR (4.194MHZ)		
A		1C	N09-0333-05	TAPPING SCREW (3X12)	YMX	7
A		1C	N09-0333-05	TAPPING SCREW (3X12)		
B		1C	N09-1236-05	TAPPING SCREW (3X16)		
D		2C	N09-3008-45	BINDING HEAD TAPLITE SCREW		
CP1			R90-0826-05	MULTI-COMP 0.22X2 J 5W		
CP2			R90-0800-05	MULTI-COMP 100KX6 J 1/4W		
CP5			R90-0803-05	MULTI-COMP 100KX7 J 1/4W		
R19	,20		RS14KB3D100J	FL-PROOF RS 10 J 2W		
R25	,26		RD14NB2E101J	RD J 1/4W		
R43	,44		RS14KB3D221J	FL-PROOF RS 220 J 2W		
R75	,76		RS14KB3D221J	FL-PROOF RS 220 J 2W		
R77	,78		RS14KB3D2R2J	FL-PROOF RS 2.2 J 2W		
R77	,78		RS14KB3D2R2J	FL-PROOF RS 2.2 J 2W		
R122			RS14KB3D331J	FL-PROOF RS 330 J 2W		
R171			RS14KB3D1R0J	FL-PROOF RS 1.0 J 2W		
R171			RS14KB3D1S1J	FL-PROOF RS 1.5 J 2W		
R171			RS14KB3D1S1J	FL-PROOF RS 1.5 J 2W		
R171			RS14KB3D20J	FL-PROOF RS 2.0 J 2W		
R171			RS14KB3D471J	FL-PROOF RS 470 J 2W		
R173			RS14KB3D1R0J	FL-PROOF RS 1.0 J 2W		
R173			RS14KB3D1S1J	FL-PROOF RS 1.5 J 2W		
R173			RS14KB3D1S1J	FL-PROOF RS 1.5 J 2W		
R173			RS14KB3D20J	FL-PROOF RS 2.0 J 2W		
R181			RD14NB2E221J	RD J 1/4W		
R183	,184		RS14KB3D100J	FL-PROOF RS 10 J 2W		
R185			RD14NB2E221J	RD J 1/4W		
R305			RS14KB3D456ZJ	FL-PROOF RS 5.6K J 1W		
R322			RZ2-0173-05	RC 2.2M H 1/2W		
R351			RS14KB3D121J	FL-PROOF RS 120 J 2W	KP	7
R351			RS14KB3D121J	FL-PROOF RS 120 J 2W	YMX	5
K1	-4		SS1-2094-05	MAGNETIC RELAY	YMX	7
K1	-4		SS1-2094-05	MAGNETIC RELAY	YMX	5

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**J.JAPAN MADE**  
**S.SINGAPORE MADE**  
**W.MALAYSIA MADE**  
**5.B-B5**  
**7.B-B7**

**J.JAPAN MADE**  
**S.SINGAPORE MADE**  
**W.MALAYSIA MADE**  
**5.B-B5**  
**7.B-B7**

L:Scandinavia  
 K:USA  
 T:England  
 Y:AFES(Europe)  
 X:Australia  
 M:Other Areas  
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 E:Europe  
 indicates safety critical components.

PARTS LIST

NO.8

Ref. No. 参照番号	Address 位 置	Parts No. 部 品 番 号	Description 部 品 名 / 規 格	Desti- nation 仕 任	Re- marks 備 考
Q7		2SA933S(Q,R)	TRANSISTOR	KPTE	5
Q7	-9	2SA1048(Y,G,R)	TRANSISTOR	YMX	5
Q7	-9	2SA1175(F,E)	TRANSISTOR	YMX	5
Q7	-9	2SA1175(F,E)	TRANSISTOR	YMX	5
Q7	-9	2SA1309A(G,R)	TRANSISTOR	YMX	5
Q7	-9	2SA933S(Q,R)	TRANSISTOR	YMX	7
Q7	-9	2SA933S(Q,R)	TRANSISTOR	YMX	5
Q9		2SA1175(F,E)	TRANSISTOR	KPTE	5
Q9		2SA933S(Q,R)	TRANSISTOR	KPTE	5
Q10	,11	2SC2003(L,K)	TRANSISTOR		
Q12		2SC1845(F,E)	TRANSISTOR		
Q13		2SC2003(L,K)	TRANSISTOR		
Q14		2SA954(L,K)	TRANSISTOR		
Q15		2SB1370(E,F)	TRANSISTOR		
Q15		2SB1375	TRANSISTOR		
Q16	-18	2SC2003(L,K)	TRANSISTOR	YMX	7
Q17	,18	2SC2003(L,K)	TRANSISTOR	YMX	5
Q18		DTA124ES	DIGITAL TRANSISTOR	KPTE	5
Q19		UN4112	DIGITAL TRANSISTOR		
Q20		DTC124ES	DIGITAL TRANSISTOR		
Q20		UN4212	DIGITAL TRANSISTOR		
Q21	-23	2SG403B(Q,R)	TRANSISTOR		
Q25		2SC3940A	TRANSISTOR		
Q26		2SA1534A	TRANSISTOR		
Q30		2SC2978(B)	TRANSISTOR		
Q31		2SA1561(G,R)	TRANSISTOR		

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7:B-B7

⚠ indicates safety critical components

✖ New Parts

Parts without Parts No. are not supplied.  
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Teile ohne Parts No. werden nicht geliefert.

NO.7

Ref. No. 参照番号	Address 位 置	Parts No. 部 品 番 号	Description 部 品 名 / 規 格	Desti- nation 仕 任	Re- marks 備 考
D29		RD15ES(B2)	ZENER DIODE		
D30		HSS104	DIODE		
D31		JSS133	DIODE		7
D31	,32	RA177	DIODE		
D33	,34	HSS104	DIODE		
D33	,34	HSS133	DIODE		5
D34		HSS104	DIODE		5
D34		JSS133	DIODE		
D35		SS688B	DIODE		
D35		1SR139-100	DIODE		
D36		HSS104	DIODE		
D36		JSS133	DIODE		
D37		HZS15N(B2)	ZENER DIODE		
D37		RD15ES(B2)	ZENER DIODE		
D38	-45	HSS104	DIODE		
D38	-45	JSS133	DIODE		
D50	-66	HSS104	DIODE		
D50	-66	JSS133	DIODE		
D68	,69	HSS104	DIODE		
D68	,69	JSS133	DIODE		
D70		HZS4.7N(B2)	ZENER DIODE		
D70		RD4.7ES(B2)	ZENER DIODE		
D71		HZS3.9N(B2)	ZENER DIODE		
D71		RD3.9ES(B2)	ZENER DIODE		
D72		HSS104	DIODE		5
D72		JSS133	DIODE		
D72	-74	HSS104	DIODE		5
D72	-74	JSS133	DIODE		7
E01		B1175GK	INDICATOR TUBE	KPYMX	5
IC1		STR401-061	IC(CAF POWER AMP/35W)		
IC1		STK401-071	IC(CAF POWER AMP/40WX2)	KPMX	7
IC1		STK401-261	IC(CAF POWER AMP/35W)	TE	5
IC1		STK401-271	IC(CAF POWER AMP/40WX2)	TE	7
IC2	,3	NJM45650-D	IC(OP AMP X2)	YMX	5
IC2	,3	NJM45650-D	IC(OP AMP X2)		
IC3		NJM45650-D	IC(OP AMP X2)	KPTE	5
IC5		TA7901SS	IC(VOLTAGE REGULATOR/ -15V)		
IC5		UPC7915HF	IC(VOLTAGE REGULATOR/ -15V)		
IC6		TA7815S	IC(VOLTAGE REGULATOR/ +15V)		
IC6		UPC7815AHF	IC(VOLTAGE REGULATOR/ +15V)		
IC7		TA7900SS	IC(VOLTAGE REGULATOR/ -5V)		
IC7		UPC7905HF	IC(VOLTAGE REGULATOR/ -5V)		
IC8		AN780575F	IC(VOLTAGE REGULATOR/+5.75V)		
IC8		TA780575	IC(VOLTAGE REGULATOR/+5.75V)		
IC9		LA4280	IC(CAF POWER AMP/10WX2)	YMX	7
IC9		LA4280	IC(CAF POWER AMP/10WX2)		
IC10		XR-1091ECP	IC(GE FILTER)		5
IC11		IPD780426F-038	IC(MICROPROCESSOR)		
IC12		MN1381-R(TA)	IC(VOLTAGE DETECT)		5
IC12		S-80740AL	IC(VOLTAGE DETECTOR)		
Q1	-6	2SC2878(B)	TRANSISTOR	YMX	7
Q1	-6	2SC2878(B)	TRANSISTOR	KPTE	5
Q1	,2	2SC2878(B)	TRANSISTOR	KPTE	5
Q5	,6	2SC2878(B)	TRANSISTOR	KPTE	5
Q7		2SA1175(F,E)	TRANSISTOR	KPTE	5

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⚠ indicates safety critical components

✖ New Parts

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# B-B5/B7

(For U.K. and Europe)

## SPECIFICATIONS

### (B-B5)

#### Power amplifier section Rated power output

(IEC / NF) ..... 30 W + 30 W  
(63 Hz ~ 12.5 kHz, 0.7 % THD, 6 Ω)  
(DIN) ..... 32 W + 32 W (1 kHz, 6 Ω)  
Total harmonic distortion  
Frequency response ..... 0.7 % (40 Hz ~ 20 kHz, 30 W, 6 Ω)  
Signal to noise ratio ..... 20 Hz ~ 70 kHz, + 0 dB, - 1.0 dB  
Input sensitivity / Impedance ..... 105 dB (IHF'66)  
Output level / Impedance ..... 200 mV / 47 kΩ  
SUPER WOOFER PRE OUT ..... 2.0 V / 600 Ω

#### Graphic equalizer section

Individual channel ..... 63 Hz, 160 Hz, 400 Hz,  
1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz  
Equalizer characteristic variable range  
..... ± 10 dB

#### [General]

Power consumption ..... 110 W  
Dimensions ..... W: 270 mm (10-5 / 8")  
H: 120 mm (4-3 / 4")  
D: 319 mm (12-9 / 16")  
Weight (net) ..... 5.8 kg (12.8 lb)

### (B-B7)

#### Power amplifier section Rated power output

(DIN) ..... 32 W + 32 W (1 kHz, 6 Ω)  
Total harmonic distortion  
Frequency response ..... 0.7% (40 Hz ~ 20 kHz, 32 W, 6 Ω)  
Signal to noise ratio ..... 25 Hz ~ 70 kHz, + 0 dB, - 1.0 dB  
Input sensitivity / Impedance ..... 105 dB (IHF'66)  
..... 200 mV / 47 kΩ

#### Graphic equalizer section

Individual channel ..... 63 Hz, 160 Hz, 400 Hz,  
1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz  
Equalizer characteristic variable range  
..... ± 10 dB

#### [General]

Power consumption ..... 120 W  
Dimensions ..... W: 270 mm (10-5 / 8")  
H: 120 mm (4-3 / 4")  
D: 319 mm (12-9 / 16")  
Weight (net) ..... 5.8 kg (12.8 lb)

# B-B5/B7

# B-B5/B7

# B-B5/B7

## SPECIFICATIONS

(For other countries)

(B-B5)

Power amplifier section  
Rated power output

FRONT ..... 30 W + 30 W (EIAJ, 6 Ω)  
REAR ..... 8 W + 8 W (EIAJ, 8 Ω)

Total harmonic distortion

..... 0.09 % (1kHz, 1/2 Rated power, 6 Ω)

Frequency response

..... 20 Hz ~ 70 kHz, + 0 dB, - 1.0 dB

Signal to noise ratio

..... 105 dB (IHF'66)

Input sensitivity / Impedance

..... 200 mV / 47 kΩ

Output level / Impedance

SUPER WOOFER PRE OUT ..... 2.0 V / 600 Ω

Graphic equalizer section

Individual channel ..... 63 Hz, 160 Hz, 400 Hz,  
1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz

Equalizer characteristic variable range

..... ± 10 dB

[General]

Power consumption

..... 110 W

Dimensions

W: 270 mm (10-5 / 8")

H: 120 mm (4-3 / 4")

D: 319 mm (12-9 / 16")

Weight (net)

..... 5.8 kg (12.8 lb)

(B-B7)

Power amplifier section  
Rated power output

FRONT ..... 35 W + 35 W (EIAJ, 6 Ω)  
REAR ..... 12 W + 12 W (EIAJ, 8 Ω)

Total harmonic distortion

..... 0.09 % (1kHz, 1/2 Rated power, 8 Ω)

Frequency response

..... 20 Hz ~ 70 kHz, + 0 dB, - 1.0 dB

Signal to noise ratio

..... 105 dB (IHF'66)

Input sensitivity / Impedance

..... 200 mV / 47 kΩ

Output level / Impedance

SUPER WOOFER PRE OUT ..... 2.0 V / 600 Ω

Graphic equalizer section

Individual channel ..... 63 Hz, 160 Hz, 400 Hz,  
1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz

Equalizer characteristic variable range

..... ± 10 dB

[General]

Power consumption

..... 120 W

Dimensions

W: 270 mm (10-5 / 8")

H: 120 mm (4-3 / 4")

D: 319 mm (12-9 / 16")

Weight (net)

..... 5.8 kg (12.8 lb)

(For U.S.A. and Canada)

(B-B5)

Power amplifier section  
Rated power output

28 watts per channel minimum RMS, both channels driven, at 6 Ω from 40 Hz to 20 kHz with no more than 0.4 % total harmonic distortion.

Total harmonic distortion

..... 0.4 % (40 Hz ~ 20 kHz, 28 W, 6 Ω)

Frequency response

..... 20 Hz ~ 70 kHz, + 0 dB, - 1.0 dB

Signal to noise ratio

..... 105 dB (IHF'66)

Input sensitivity / Impedance

..... 200 mV / 47 kΩ

Output level / Impedance

SUPER WOOFER PRE OUT ..... 2.0 V / 600 Ω

Graphic equalizer section

Individual channel ..... 63 Hz, 160 Hz, 400 Hz,  
1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz

Equalizer characteristic variable range

..... ± 10 dB

[General]

Power consumption

..... 110 W

Dimensions

W: 270 mm (10-5 / 8")

H: 120 mm (4-3 / 4")

D: 319 mm (12-9 / 16")

Weight (net)

..... 5.8 kg (12.8 lb)

(B-B7)

Power amplifier section  
Rated power output

30 watts per channel minimum RMS, both channels driven, at 6 Ω from 40 Hz to 20 kHz with no more than 0.4 % total harmonic distortion.

REAR

10 watts per channel minimum RMS, both channels driven, at 8 Ω from 40 Hz to 20 kHz with no more than 0.4 % total harmonic distortion.

Total harmonic distortion

..... 0.2% (40 Hz ~ 20kHz, 30W, 6 Ω)

Frequency response

..... 25 Hz ~ 80 kHz, + 0 dB, - 1.0 dB

Signal to noise ratio

..... 105 dB (IHF'66)

Input sensitivity / Impedance

..... 200 mV / 47 kΩ

Graphic equalizer section

Individual channel ..... 63 Hz, 160 Hz, 400 Hz,  
1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz

Equalizer characteristic variable range

..... ± 10 dB

[General]

Power consumption

..... 120 W

Dimensions

W: 270 mm (10-5 / 8")

H: 120 mm (4-3 / 4")

D: 319 mm (12-9 / 16")

Weight (net)

..... 5.8 kg (12.8 lb)

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Kenwood follows a policy of continuous advancements in design. Component specifications may be changed without notice.

Kenwood pour suit une politique de progrès constants en ce qui concerne les spécifications des composants.

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Kenwood stredn stojnede vnebeskerungen in der Entwicklung der Einzelteile.

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Kenwood continues to improve its products.

Kenwood continues to improve its products.

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the U.S.A. (K) 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.