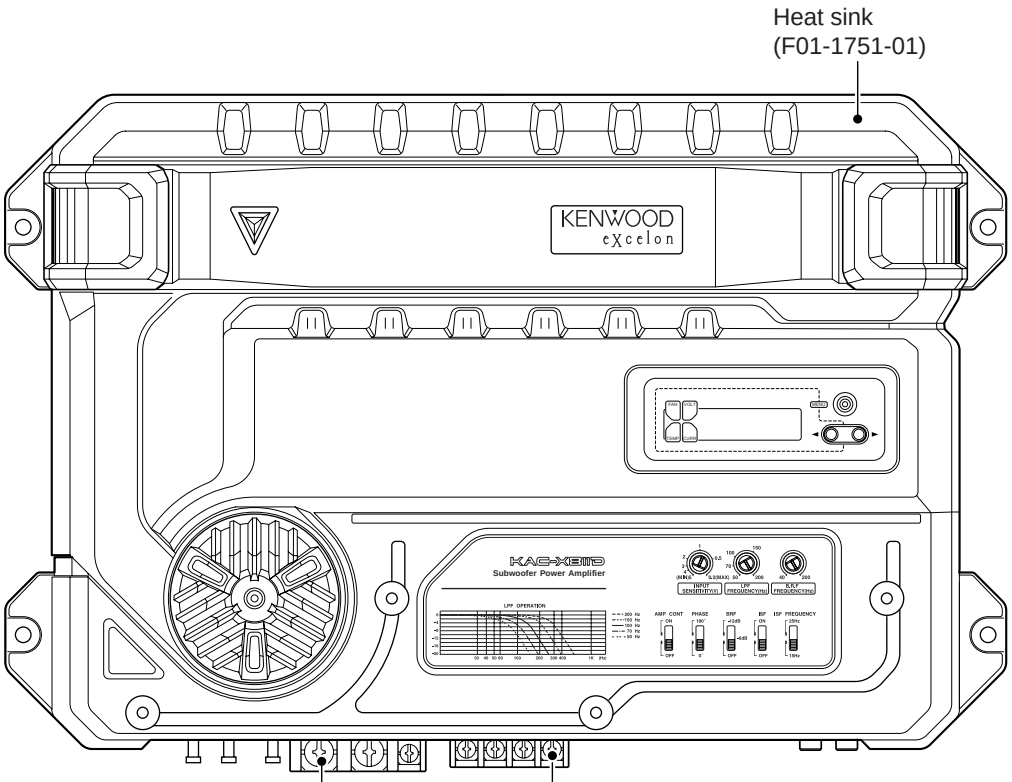
POWER AMPLIFIER

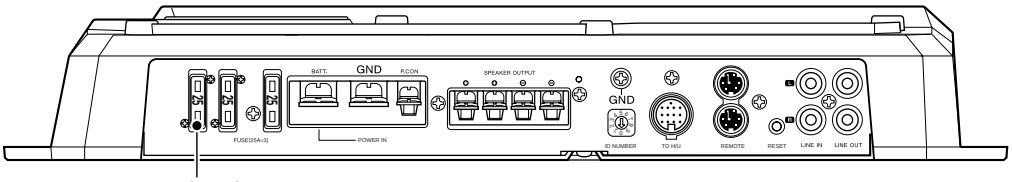
KAC-PS811D
KAC-X811D

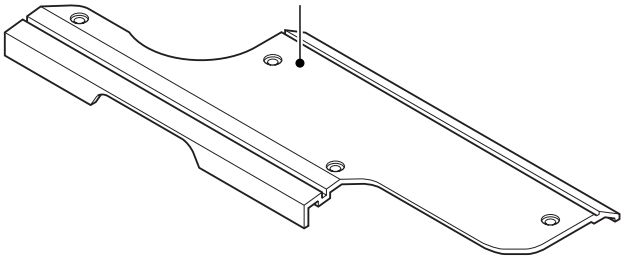
SERVICE MANUAL

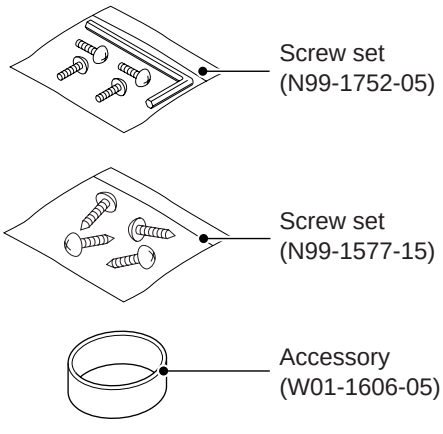
KENWOOD

B53-0138-00 (N) 2704



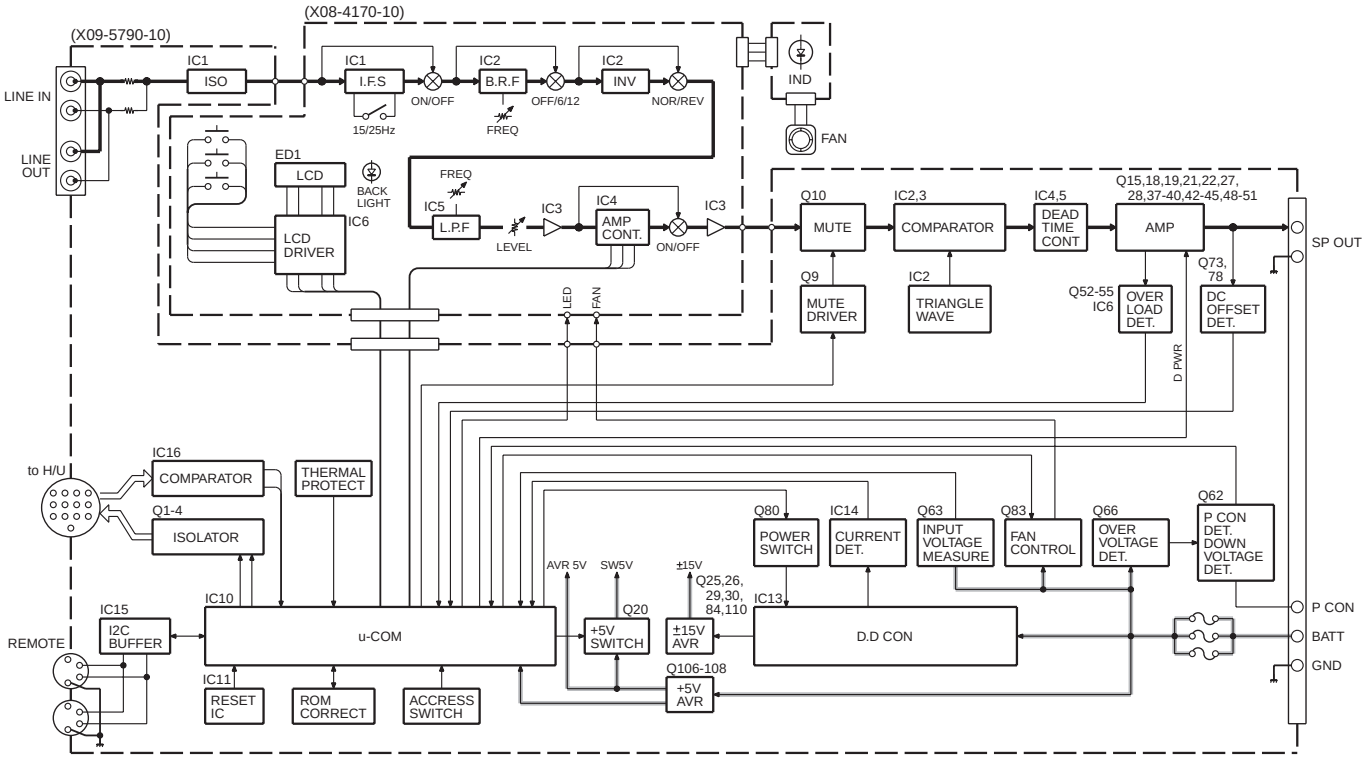






40%

BLOCK DIAGRAM



COMPONENTS DESCRIPTION

● PREAMPLIFIER UNIT (X08-4170-10)

Ref. No	Application / Function	Operation / Condition / Compatibility
IC1	ISF	Cutting super-low range of audio signal
IC2 (1/4~3/4)	BRF	Cutting bandwidth of audio signal
IC2 (4/4)	INV	Phase reversal of audio signal
IC3	OP amplifier	Voltage amplification, Buffer
IC4	E-VOL	Electronic volume
IC5	LPF	Cutting high-range of audio signal
IC6	LCD driver	LCD driver

● AUDIO UNIT (X09-5790-10)

Ref. No	Application / Function	Operation / Condition / Compatibility
IC1	Isolation amplifier	Prevent noise from GND potential difference
IC2 (1/2)	Triangular wave generation	Reference signal for digitizing analog signal
IC2 (2/2)	Error amplifier	Error is compensated by the feedback from output
IC3	Comparator, Triangular wave generation	Digitizing by comparison of analog signal and triangular wave

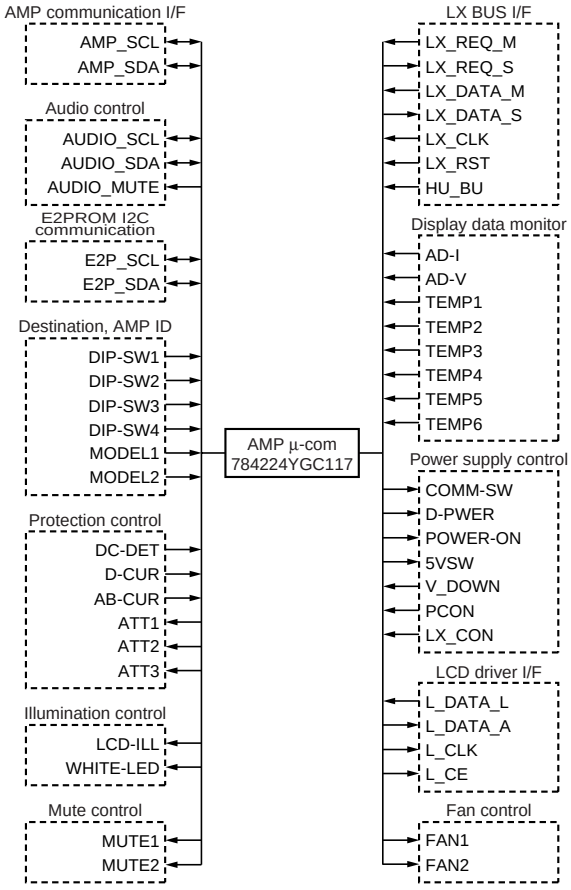
COMPONENTS DESCRIPTION

Ref. No	Application / Function	Operation / Condition / Compatibility
IC4,5	NAND	D class section reverse wave, deadtime, generation and rectification
IC6	Comparator	Short circuit detection of SP output
IC7	Signal amplification	For SP output short-circuit detection, send the output to comparator
IC10	Element operation control	Communication, display, protection, etc. control
IC11	Reset	Reset signal is output when voltage goes below standard voltage
IC13	DC/DC converter	Voltage on secondary side, which produces the drive signal for switching element, will be limited to below standard voltage
IC14	Signal amplification	To have µcom display current value, amplify potential differences of GND
IC15	Bi-directional buffer	Send/Receive data and clock between AMP
IC16	Comparator	Receive from H/U data and clock
Q1,2,5,7	Digital signal transmission	Send LX-REQ-M signal to H/U
Q3,4,6,8	Digital signal transmission	Send LX-DATA-S signal to H/U
Q9	Mute	Mute drive signal generation
Q10	Mute	Turn audio signal OFF
Q15,18,19,21,22,27, Q28,37~40,42~45	Signal amplification, switching	D class section voltage or current amplification
Q16,17	Voltage control	Match the beginning of the fall to +15V when -15V power supply is OFF
Q20	Voltage control	5V power supply ON/OFF
Q23,24,35,36,41,83	Voltage control	Fan voltage ON/OFF and limiting over voltage
Q25,29,84	AVR	+15V
Q26,30,110	AVR	-15V
Q31,33,46,109	Voltage control	D class section predrive stage power supply ON/OFF
Q47	AVR	D class section first stage supplementary power supply
Q52-55	Voltage current converter	Over current detection when SP is shorted
Q57,58,60,61, Q64,65,67~70	Switching	DC/DC converter switching
Q59,63	Voltage control	In order to have µcom display voltage value, send voltage to it only when 5V SW ON
Q62	Voltage detection	Pcon detection
Q66	Voltage detection	Pcon over voltage detection
Q71,72	Waveform shaping	For SP output short-circuit detection, send the output to comparator
Q73,78	Voltage detection	DC detection of output
Q74-77	Current amplification	Switching FET drive current amplification
Q79,80	Voltage control	DC/DC converter power supply ON/OFF
Q81,82	Voltage control	DC/DC converter drive waveform ON/OFF
Q88,89,98,99	Voltage control	5L digital signal reception
Q95,96	Voltage control	When Comm-SW of µcom is ON, turn communication system power supply ON
Q97	Voltage control	Normally 15V power supply and over voltage control
Q102,111	Voltage control	When Comm-SW of µcom is ON, turn communication system 5V power supply ON
Q103,104	Voltage control	LCD backlight and illumination LED control
Q106-108	AVR	µcom system 5V power supply.

MICROCOMPUTER'S TERMINAL DESCRIPTION

● MICROPROCESSOR : 784224YGC117 (X09 : IC10)

◊ Block Digram



◊ Terminal Function

Pin No.	Pin Name	I/O	Function	Processing Operation Description
1~3	TEMP4~TEMP6	I	Temperature detection 4~6	
4	AVSS	-	GND	
5	L_CE	O	CE output to LCD driver	H : LCD driver CE
6	LX_REQ_S	O	Data transmit request to H/U	H : OFF, L : ON
7	AVREF1	-	DA reference voltage	
8	L_DATA_L	I	Data input from LCD driver	
9	L_DATA_A	O	Data output to LCD driver	
10	L_CLK	O	CLK output to LCD driver	
11	LX_DATA_M	I	Data input from H/U	
12	LX_DATA_S	O	Data output to H/U	
13	LX_CLK	I	CLK input from H/U	
14	LX_BU	I	LX BUS communication, H/U connect detection	H : Not connect (Except master amplifier), L : Connect
15	NC	O	Not used	
16	SDA_AMP	I/O	Data input/output AMP communication	
17	NC	O	Not used	

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Function	Processing Operation Description
18	SCL_AMP	I/O	CLK input/output AMP communication	
19	AUDIO_SCL	I/O	CLK input/output with audio chip	
20	AUDIO_SDA	I/O	Data input/output with audio chip	
21	AUDIO_MUTE	O	Mute output to audio chip	H : Mute OFF, L : Mute ON
22	E2P_SCL	I/O	CLK input/output with E2PROM	
23	E2P_SDA	I/O	Data input/output with E2PROM	
24	NC	O	Not used	
25~28	DIP-SW1~DIP-SW4	I	AMP address setting	
29	MODEL1	I	Model setting 1	
30	MODEL2	I	Model setting 2	
31,32	NC	O	Not used	
33	VSS1	-	GND	
34~37	NC	O	Not used	
38	LCD-ILL	O	LCD backlight switch	H : ON, L : OFF
39	WHITE-LED	O	Triangle illumination switch	H : ON, L : OFF
40	NC	O	Not used	
41~43	ATT1~ATT3	O	Output attenuate due to rise in temperature 1~3	H : Attenuate, L : Not attenuate
44,45	NC	O	Not used	
46	COMM-SW	O	Communication IC power switch	H : ON, L : OFF
47~50	NC	O	Not used	
51	D-PWER	O	D class amplifier power supply control	H : ON, L : OFF (2ch/4ch L fixed)
52	DC-DET	I	Speaker output DC voltage detection	H : Normal, L : Abnormal
53	NC	O	Not used	
54	POWER-ON	O	Amplifier power supply control	H : ON (D/AB class), L : OFF
55	5VSW	O	5VSW	H : OFF, L : ON
56	MUTE1	O	Amplifier section input stage mute control	H : OFF, L : ON
57	MUTE2	O	Driver stage pop-noise mute control	H : OFF, L : ON
58	FAN1	O	Fan rotation control	H : Operate, L : Stop
59	FAN2	O	Fan speed control	H : Low speed, L : High speed
60	RESET	-	Hard reset	H : Normal, L : Reset
61	PCON	I	Amplifier power control	H : OFF, L : ON
62	LX_CON	I	LX-BUS communication control	H : OFF, L : ON
63	LX_REQ_M	I	Data receive request from H/U	H : ON, L : OFF
64	NC	O	Not used	
65	V_DOWN	I	Momentary power down detection	H : ON (Power down detection), L : OFF (L fixed)
66	NC	O	Not used	
67	VSS0	-	GND	
68	VD1	-	VDD	
69	X2	-	Main clock input 1	
70	X1	-	Main clock input 2	

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Function	Processing Operation Description
71	TEST	-	Flash ROM writing	
72	XT2	-	Not used	
73	XT1	-	Not used	
74	VDD0	-	VDD	
75	AVDD	-	VDD	
76	AD-I	I	First current detection (for display)	
77	AD-V	I	BU voltage detection (for display)	
78~80	TEMP1~TEMP3	I	Temperature detection 1~3	

◊ **Logic Table**

1) Destination

The destination in AMP does not mean the sales regions but specific models.

The following are the models. When reset is released, it is checked only once.

Model name	MODEL1 (29pin)	MODEL2 (30pin)
KAC-PS811D/X811D	Low	Low
KAC-PS521/X521	Low	High
KAC-PS621/X621	High	Low
KAC-PS541/X541	High	High

2) AMP ID

AMP ID is checked only ohce at the time reset is released or when the microcomputer is released from the low consumption mode.

When set to AMP ID 8/9 no remote control is possible.

AMP ID	DIP-SW1 (25pin)	DIP-SW2 (26pin)	DIP-SW3 (27pin)	DIP-SW4 (28pin)
0	High	High	High	High
1	Low	High	High	High
2	High	Low	High	High
3	Low	Low	High	High
4	High	High	Low	High
5	Low	High	Low	High
6	High	Low	Low	High
7	Low	Low	Low	High
8	High	High	High	Low
9	Low	High	High	Low

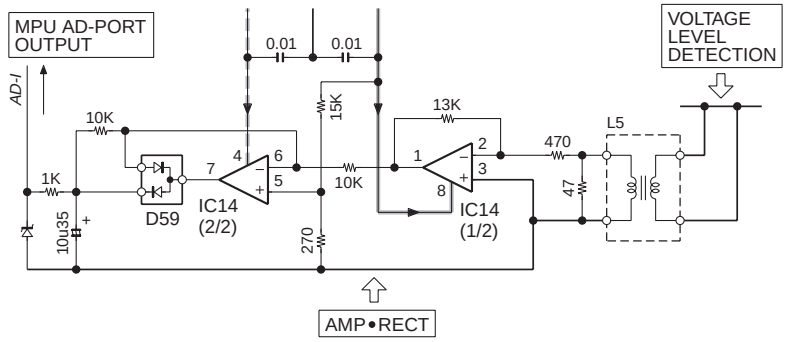
3) Fan speed

Operation	FAN1 (58pin)	FAN2 (59pin)
Stop	Low	High/Low
Low speed	High	High
High speed	High	Low

CIRCUIT DESCRIPTION

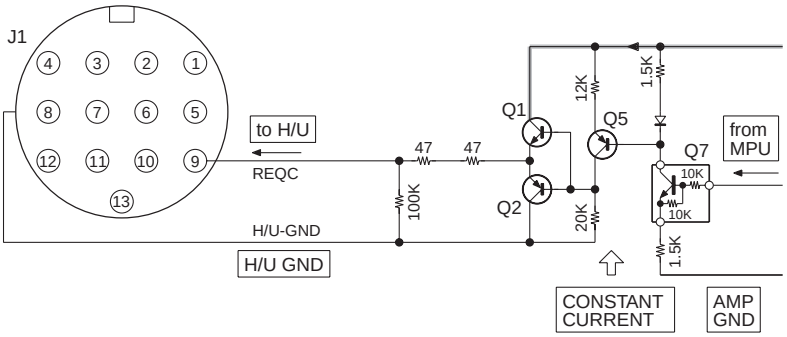
● Current detection circuit

Amplify and rectify potential differences at two points in the primary-side current circuit and send it to the AD-port of the MPU and obtain data for displaying current value.



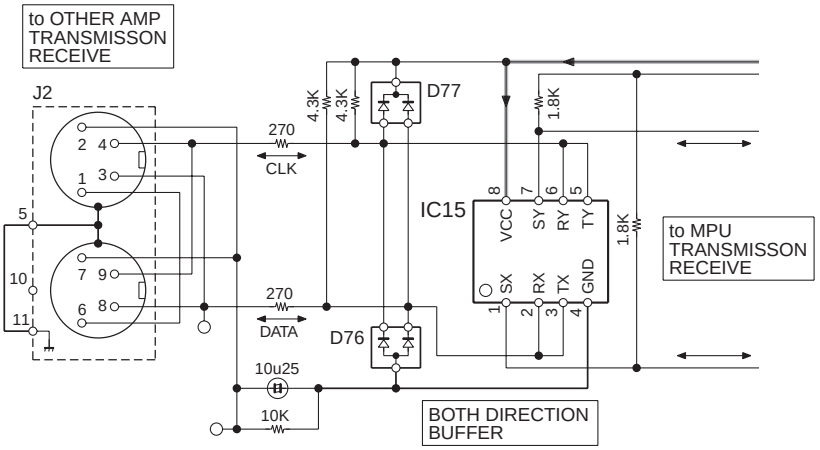
● Constant current output circuit

Remove troubles caused by the potential differences between the constant current output and the GND, so that the GND potential differences between the H/U and the AMP is not overlapped in the AMP to H/U communication.



● I2C buffer

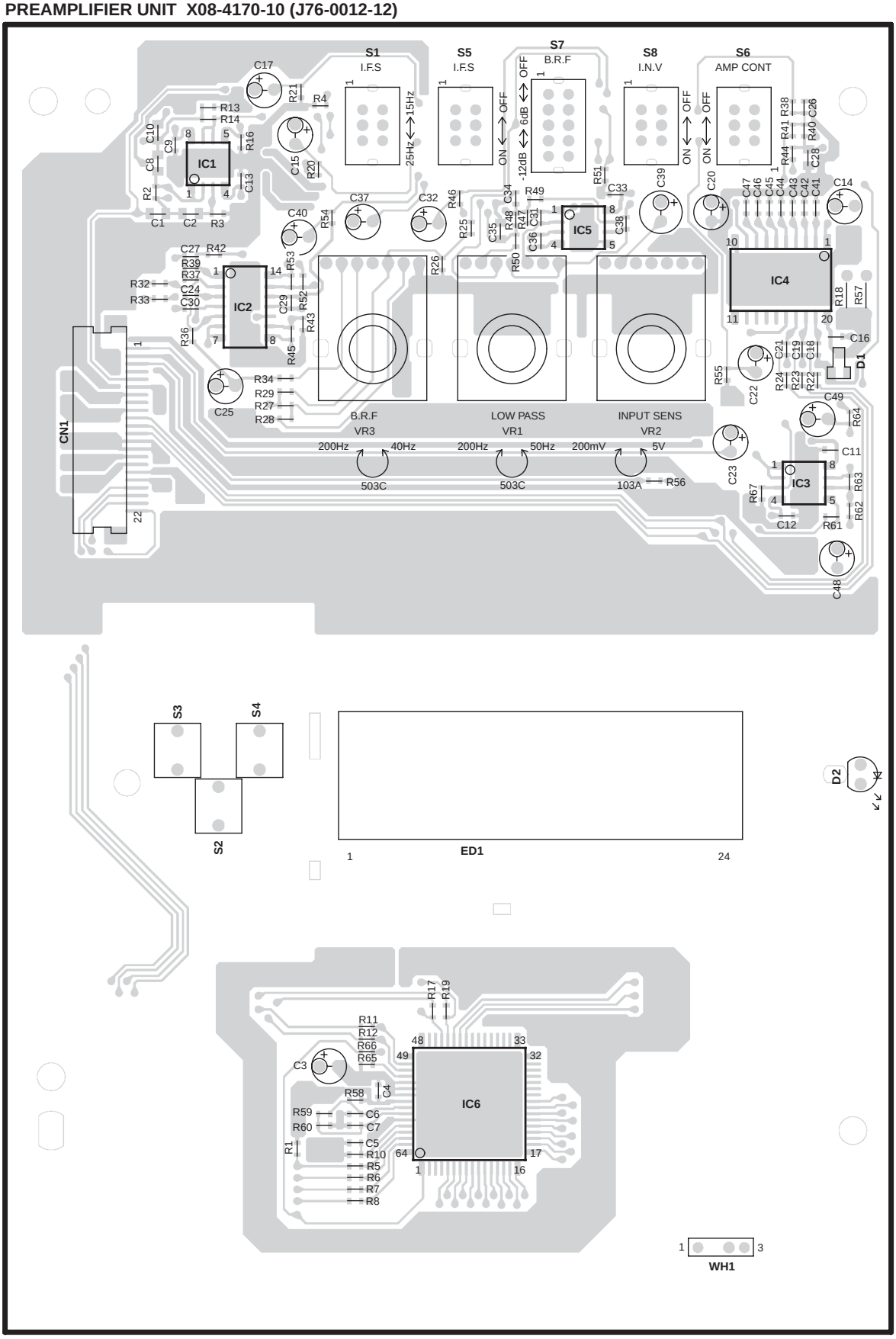
Using an IC for I2C communication, between-AMP communication is conducted so that there will be no trouble from GND potential differences.



KAC-PS811D/X811D

PC BOARD (COMPONENT SIDE VIEW)

PREAMPLIFIER UNIT X08-4170-10 (J76-0012-12)



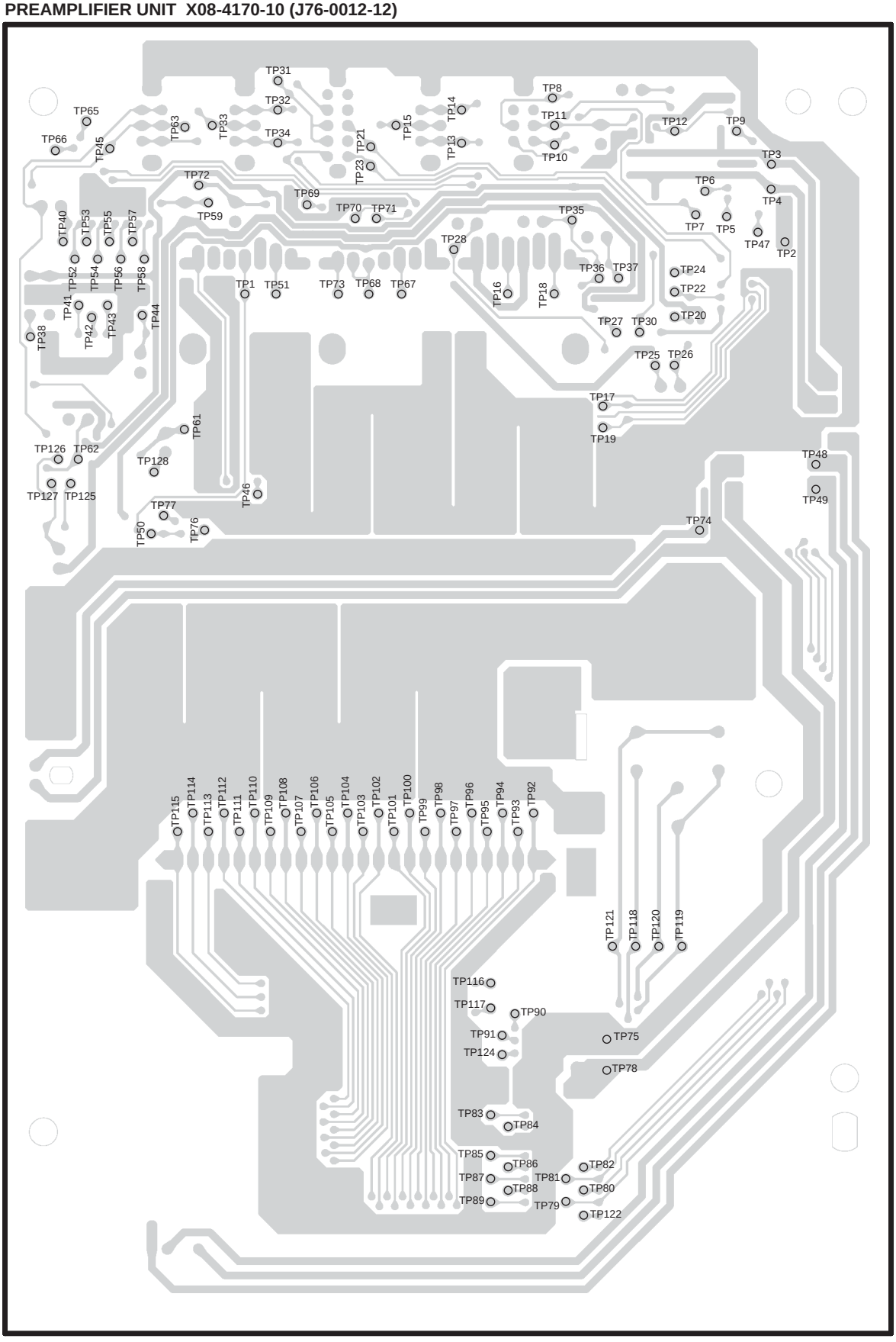
X08-4170-10

Ref. No.	Address
IC1	2B
IC2	3B
IC3	3D
IC4	2D
IC5	2C
IC6	6C

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

PC BOARD (FOIL SIDE VIEW)

PREAMPLIFIER UNIT X08-4170-10 (J76-0012-12)

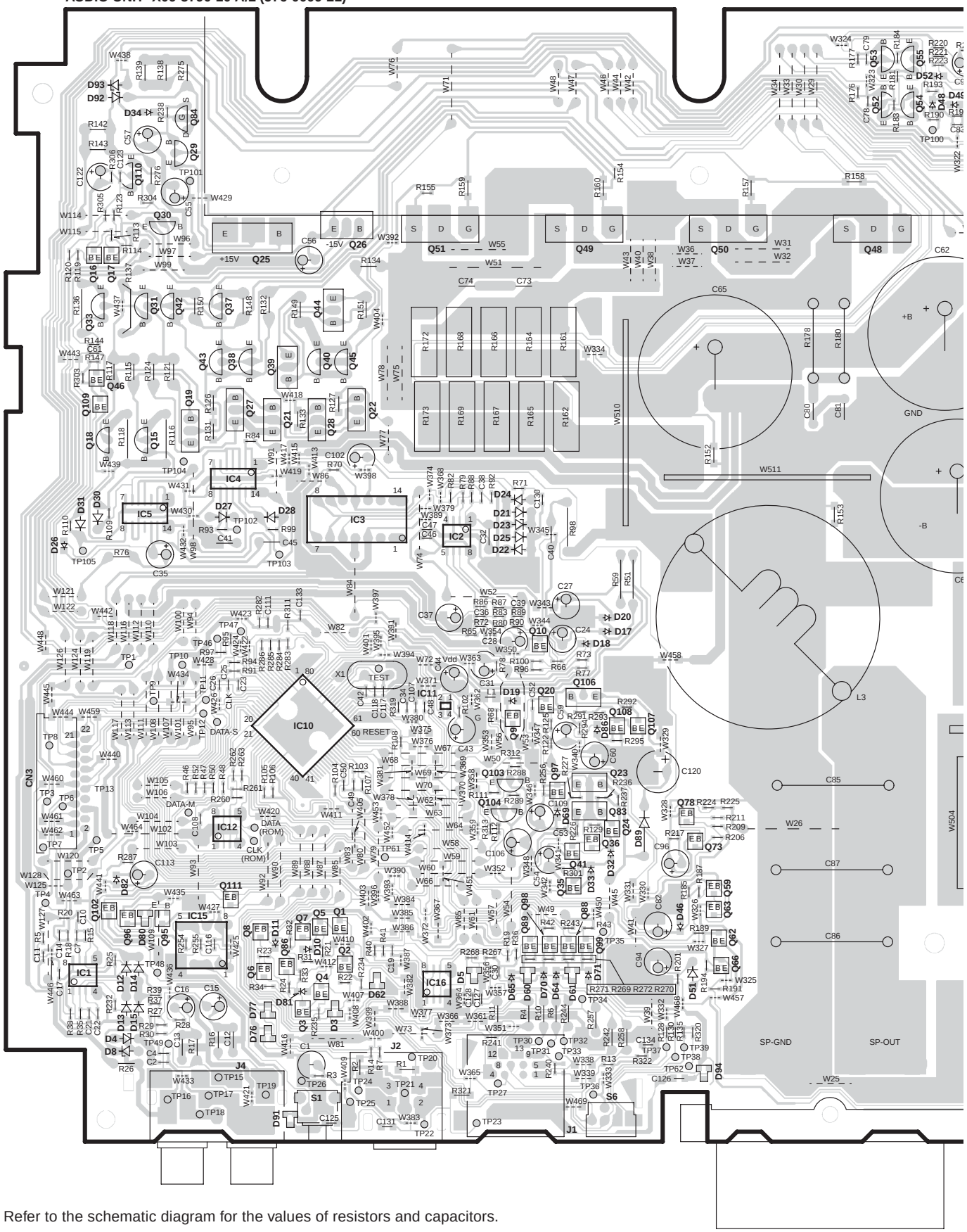


Refer to the schematic diagram for the values of resistors and capacitors.

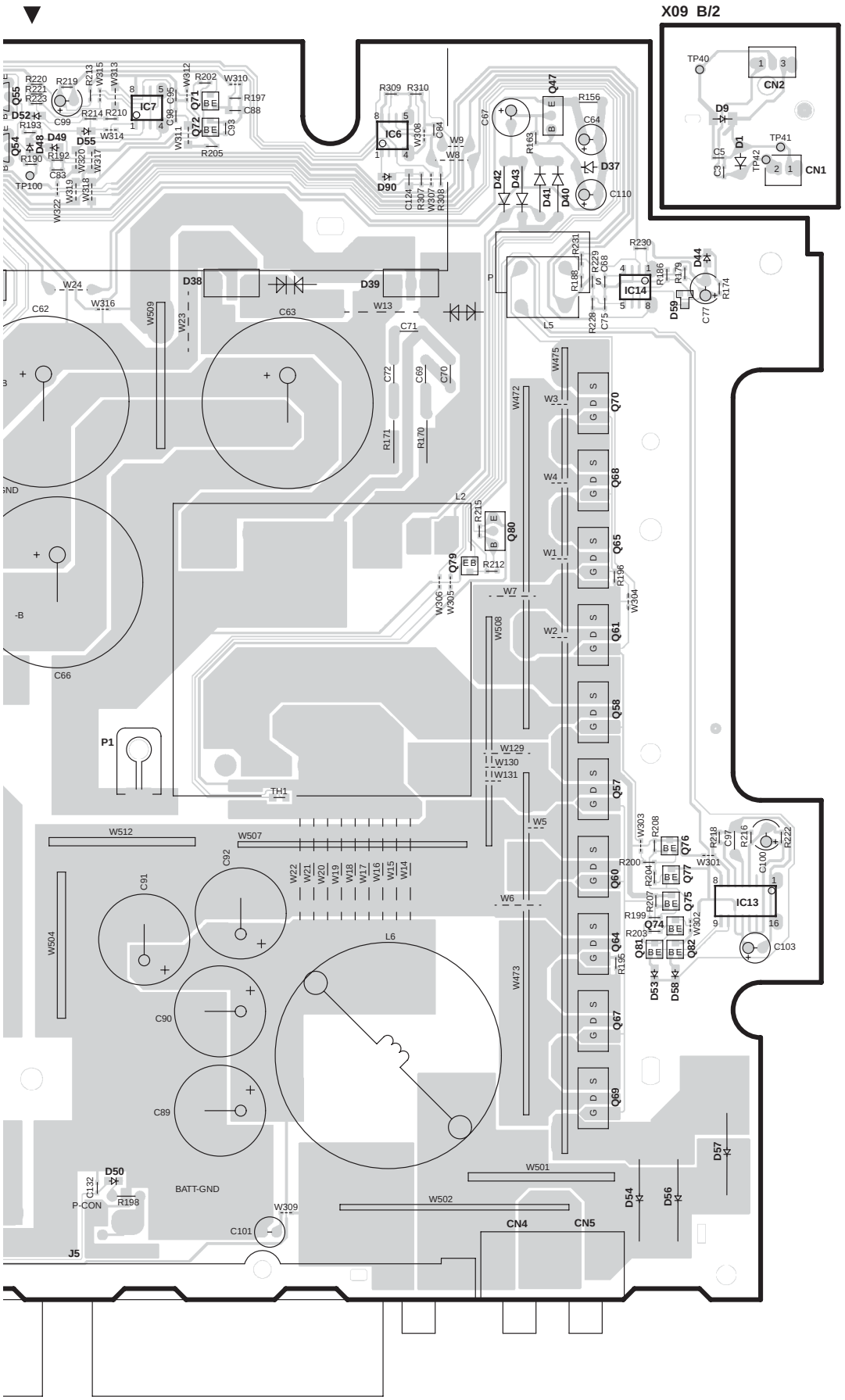
KAC-PS811D/X811D

PC BOARD (FOIL SIDE VIEW)

AUDIO UNIT X09-5790-10 A/2 (J76-0009-21)



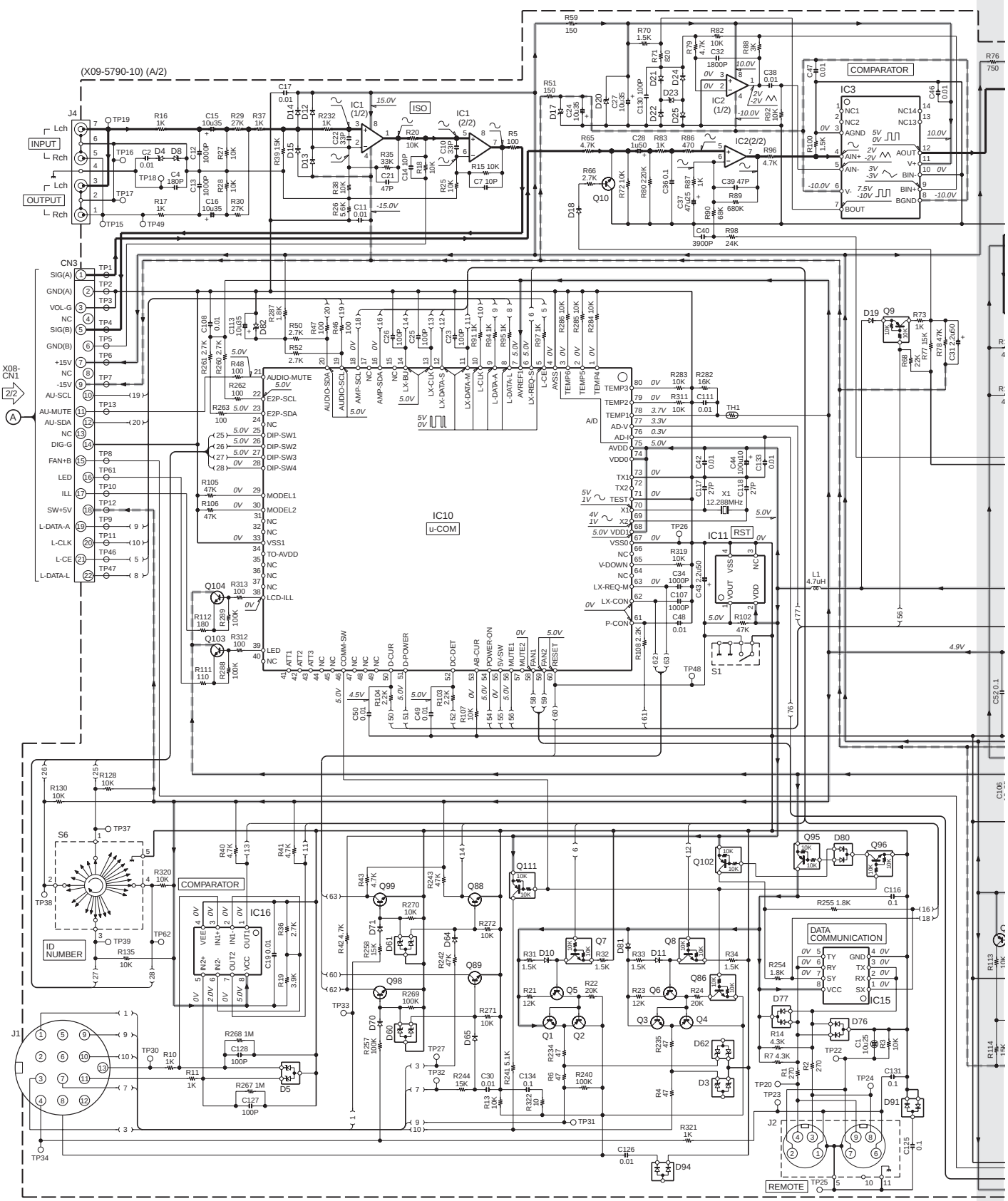
Refer to the schematic diagram for the values of resistors and capacitors.

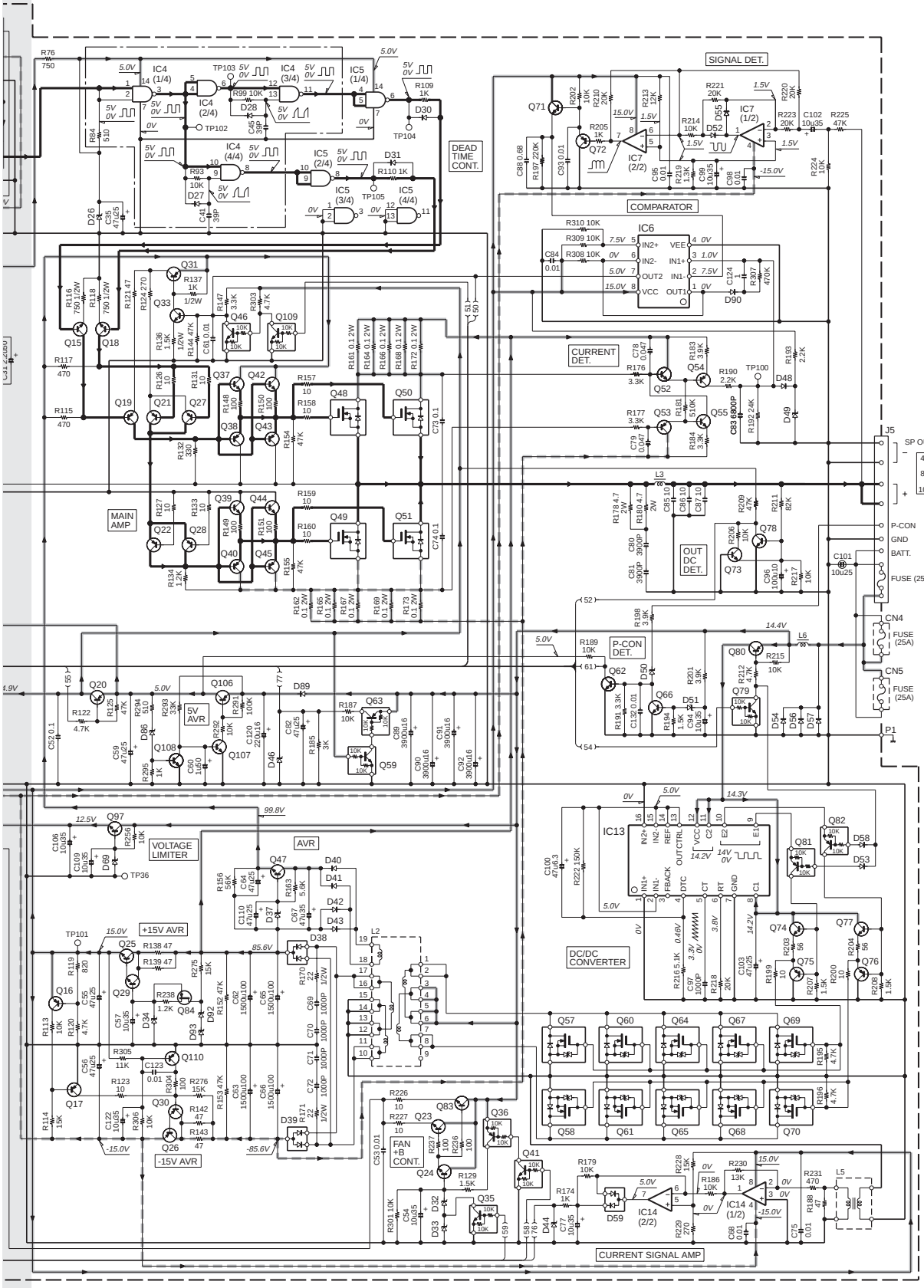


X09-5790-10

Ref. No.	Address	Ref. No.	Address
IC1	6K	Q48	2O
IC2	4M	Q49	2N
IC3	4M	Q50	2N
IC4	4L	Q51	2M
IC5	4L	Q52	2O
IC6	2Q	Q53	2O
IC7	2P	Q54	2O
IC10	5L	Q55	2O
IC11	5M	Q57	5R
IC13	5S	Q58	4R
IC14	2R	Q59	6N
IC15	6L	Q60	5R
IC16	6M	Q61	4R
Q1	6M	Q62	6N
Q2	6M	Q63	6N
Q3	6L	Q64	5R
Q4	6L	Q65	4R
Q5	6L	Q66	6N
Q6	6L	Q67	6R
Q7	6L	Q68	3R
Q8	6L	Q69	6R
Q9	5M	Q70	3R
Q10	4M	Q71	2P
Q15	3L	Q72	2P
Q16	3K	Q73	5N
Q17	3K	Q74	5R
Q18	3K	Q75	5R
Q19	3L	Q76	5R
Q20	5N	Q77	5R
Q21	3L	Q78	5N
Q22	3M	Q79	4Q
Q23	5N	Q80	3R
Q24	5N	Q81	5R
Q25	3L	Q82	5R
Q26	2M	Q83	5N
Q27	3L	Q84	2L
Q28	3L	Q86	6L
Q29	2L	Q88	6N
Q30	2L	Q89	6M
Q31	3L	Q95	6L
Q33	3K	Q96	6K
Q35	6N	Q97	5N
Q36	5N	Q98	6M
Q37	3L	Q99	6N
Q38	3L	Q102	6K
Q39	3L	Q103	5M
Q40	3L	Q104	5M
Q41	5N	Q106	5N
Q42	3L	Q107	5N
Q43	3L	Q108	5N
Q44	3L	Q109	3K
Q45	3M	Q110	2L
Q46	3K	Q111	6L
Q47	2R		

KAC-PS811D/X811D





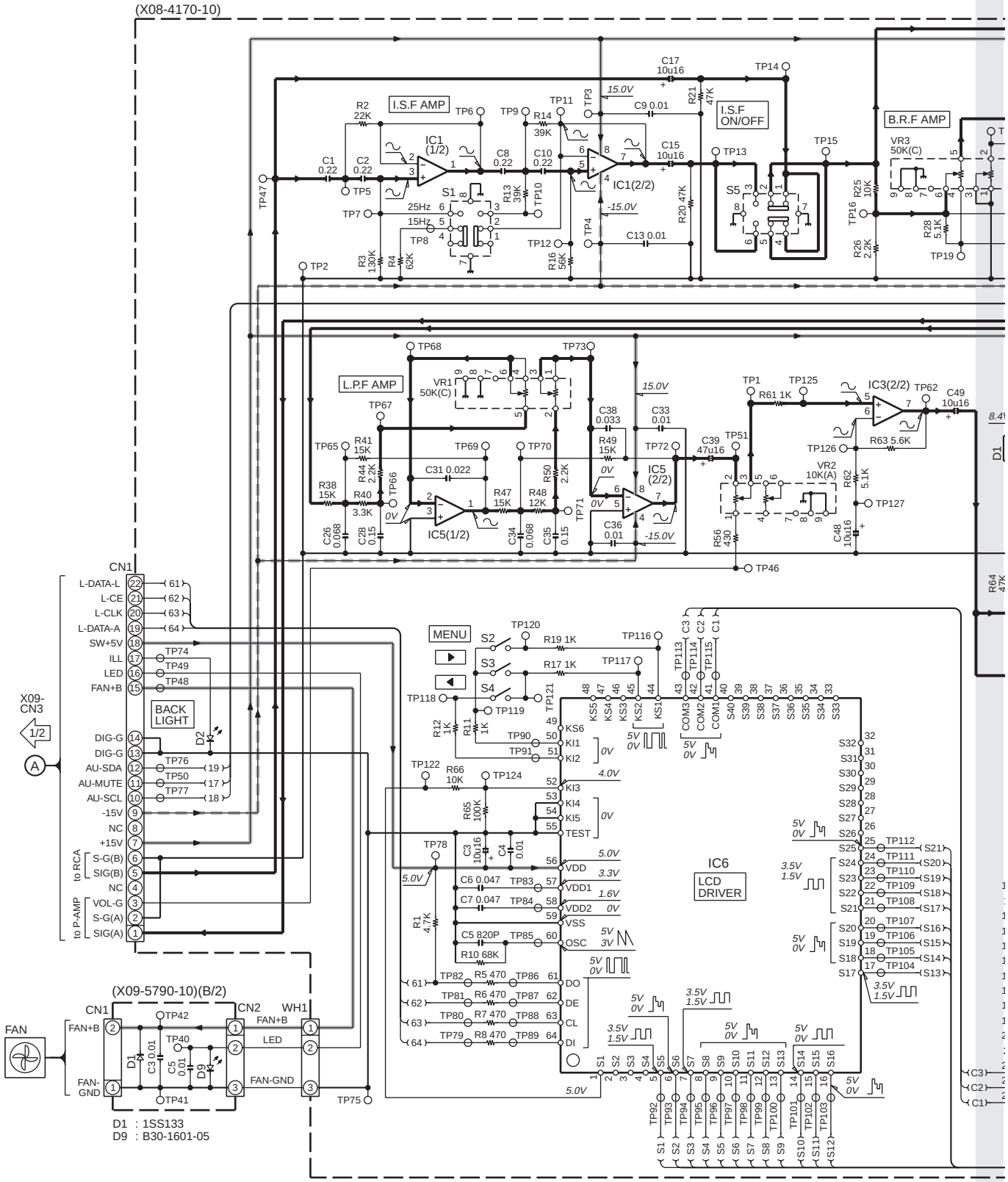
IC1,2,7,14	: BA4560F
IC3	: NJM319D
IC4,5	: SN74HC00D
IC6,16	: BA10393F
IC10	: 784224YGC117
IC11	: PST3436UL-E
IC13	: TL494GS
IC15	: P82B96PN
Q1,3,10,24,62,66,71,73,78,88,89, 97-99,107,108	: 2SC4081
Q2,4-6,16,17,20,72	: 2SA1576A
Q7,8,35,41,46,59,79,86, 96,109	: DTC114EUA
Q9,36,63,81,82,95,102, 111	: DTA114EUA
Q15,18,33,37,42,52,55	: 2SC3478A(L,K)
Q19,21,22,27,28	: 2SA1352(E,F)
Q23,47,83	: 2SD1863
Q25	: 2SC4467NF
Q26	: 2SA1859ANF
Q29	: 2SC1845-A(F,E)
Q30,110	: 2SA992(F,E)
Q31,53,54	: 2SA1376A(L,K)
Q38,40,43,45	: 2SA1286-T11
Q39,44	: 2SC3902
Q48-51	: STW34NB20
Q57,58,60,61,64,65, 67-70	: 2SK3662-F
Q74,77	: 2SC4097
Q75,76	: 2SA1577
Q80	: 2SB1241
Q84	: 2SK246(BL)-F
Q103,104	: 2SC945A(Q,P)
Q106	: 2SB1238
D3,5,60-62,94	: UMZ6.8N
D4,8	: RD6.2JS(B2)
D10,11,18,19,48,52,53, 55,58,64,65,70,71,81, 90	: 1SS355
D12-15,21,22,24,25,27, 28,30,31,40-43	: 1SS133
D17,20,32	: UDZS10B
D23	: RD5.1JS(B2)
D26,44,46,49,82	: UDZS5.1B
D33	: UDZS2.7B
D34,69	: UDZS16B
D37,51	: RD15JS(B)
D38	: FCH20A20
D39	: FRH20A20
D50	: UDZS6.8B
D54,56,57	: RM4ZLF-J1NF
D59,91	: DA204U
D76	: LM1MA142WA-G
D77,80	: LM1MA142WK-G
D86	: UDZS4.7B
D89	: S5566B-Q
D92,93	: RD24ES(B)

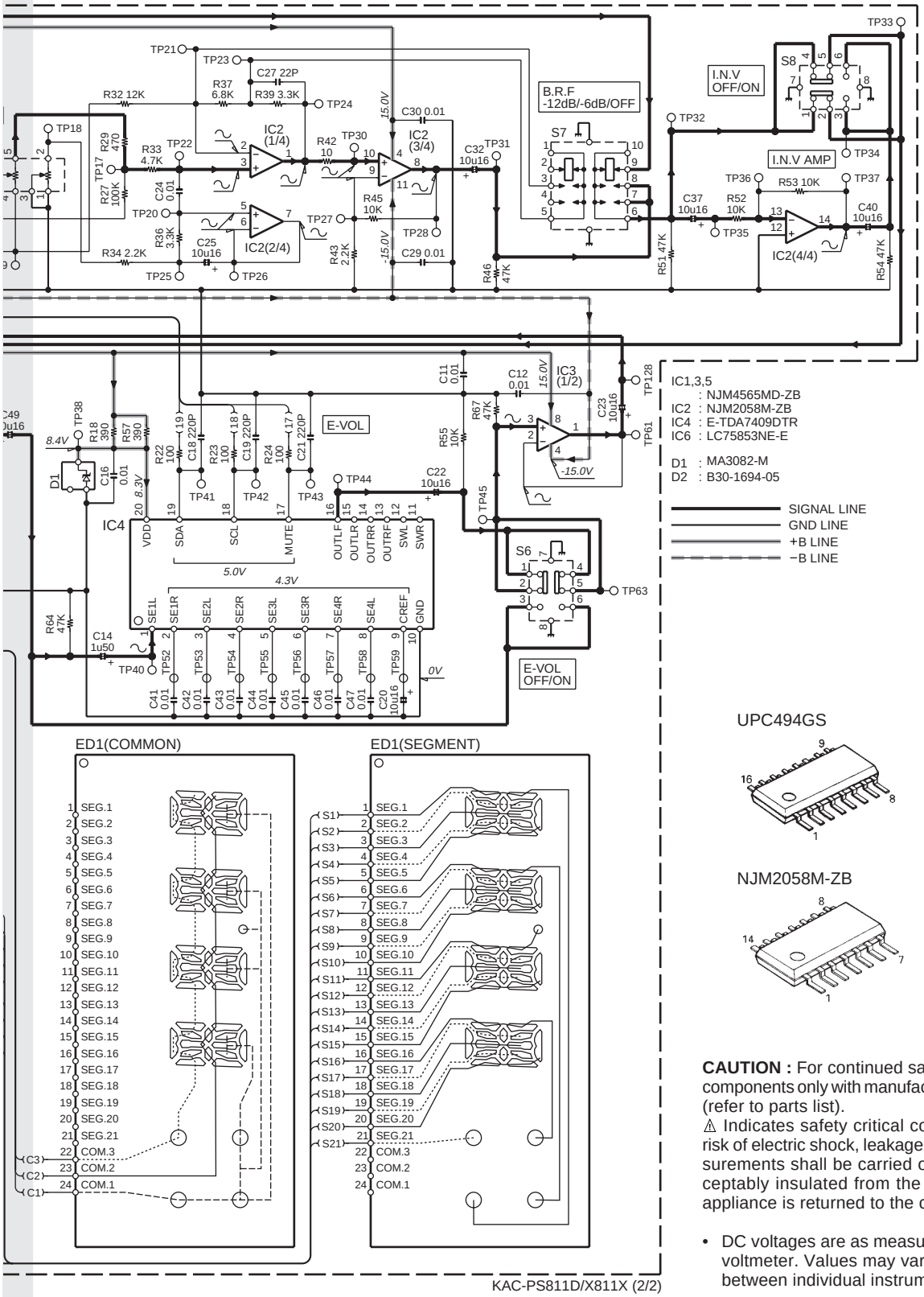
SIGNAL LINE
GND LINE
+B LINE
−B LINE

KAC-PS811D/X811D (1/2)

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.


(X08-4170-10)
I.S.F AMP
I.S.F ON/OFF
B.R.F AMP
L.P.F AMP
IC1 (1/2)
IC1(2/2)
IC5 (2/2)
IC5(1/2)
IC3(2/2)
IC6
LCD DRIVER
S1
S5
VR1 50K(C)
VR2 10K(A)
VR3 50K(C)
MENU
BACK LIGHT
CN1
X09-CN3
1/2
to RCA
to P-AMP
L-DATA-L
L-CE
L-CLK
L-DATA-A
SW+5V
ILL
LED
FAN+B
DIG-G
AU-SDA
AU-MUTE
AU-SCL
-15V
NC
+15V
S-G(B)
SIG(B)
VOL-G
S-G(A)
SIG(A)
(X09-5790-10)(B/2)
CN2
WH1
FAN
FAN+B
FAN-GND
LED
D1 : 1SS133
D9 : B30-1601-05



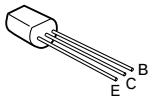
KAC-PS811D/X811X (2/2)

IC1,3,5 : NJM4565MD-ZB
IC2 : NJM2058M-ZB
IC4 : E-TDA7409DTR
IC6 : LC75853NE-E

D1 : MA3082-M
D2 : B30-1694-05

SIGNAL LINE
GND LINE
+B LINE
−B LINE

2SA1286-T11
2SA992
2SC1845
2SC945(A)



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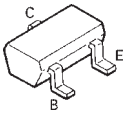
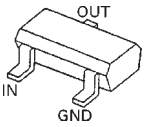
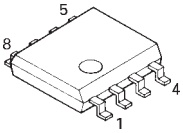
2SC4081



DTA114EUA
DTC114EUA



NJM4565MD-ZB

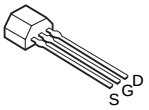


UPC494GS

DA204U

NJM2058M-ZB

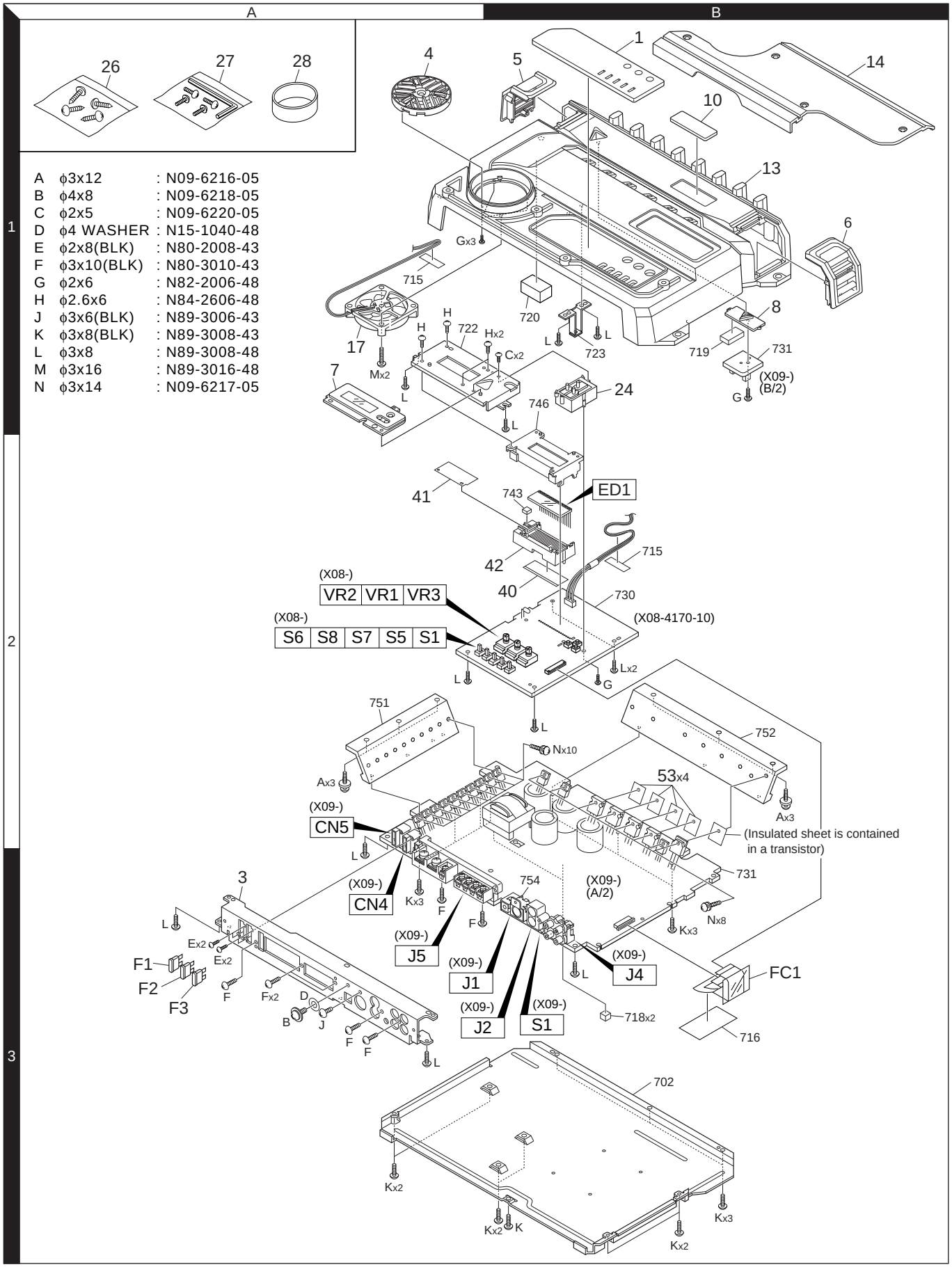
2SK246



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.

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 mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

Ref. No.	Add	New	Parts No.	Description	Destination
KAC-PS811D/X811D					
1	1B	✻	A21-4335-02	DRESSING PANEL	KM1
1	1B	✻	A21-4336-02	DRESSING PANEL	E1
3	3A	✻	A64-3296-02	PANEL SMALL-MONO	
4	1A	✻	B07-3102-03	ESCUTCHEON MAIN-FAN	
5	1B	✻	B07-3103-02	ESCUTCHEON SIDE-FAN-L	
6	1B	✻	B07-3104-02	ESCUTCHEON SIDE-FAN-R	
7	1A	✻	B10-4544-03	FRONT GLASS LCD	
8	1B	✻	B19-2257-03	LIGHTING BOARD	
10	1B	✻	B43-1521-04	BADGE	KM1
10	1B	✻	B43-1522-04	BADGE	E1
-			B46-0100-50	WARRANTY CARD	
-			B46-0648-13	USER CARD	K
-		✻	B64-2792-00	INSTRUCT.MANUAL (ENG.FRE.SPA.)	KE1
-		✻	B64-2793-00	INST.MANUAL (GER.DUT.ITA.POR.)	E1
-		✻	B64-2794-00	INSTRUCTION MANUAL (ENG.T-CHI.)	M1
FC1	3B	✻	E39-0642-05	FLAT CABLE	
13	1B	✻	F01-1751-01	HEAT SINK	
14	1B	✻	F07-1136-12	COVER	KM1
14	1B	✻	F07-1137-12	COVER	E1
17	1A	✻	F09-1885-05	FAN (60X60X11.5)	
⚠ F1-3	3A		F52-0014-05	FUSE (BLADE TYPE) 25A	
-		✻	H10-4894-13	POLYSTYRENE FOAMED FIXTURE	
-		✻	H13-2055-04	CARTON BOARD	
-		✻	H25-1199-04	PROTECTION BAG	
-		✻	H25-1200-04	PROTECTION BAG (250X350X0.03)	
-		✻	H54-3128-03	ITEM CARTON CASE	K
-		✻	H54-3129-03	ITEM CARTON CASE	E1
-		✻	H54-3130-03	ITEM CARTON CASE	M1
24	1B	✻	K24-4146-03	KNOB (VR CAP)	
26	1A		N99-1577-15	SCREW SET	
27	1A	✻	N99-1752-05	SCREW SET	
A	2A	✻	N09-6216-05	TAPTITE SCREW (3X13)	
B	3A	✻	N09-6218-05	TAPTITE SCREW (4X8)	
C	2B	✻	N09-6220-05	TAPTITE SCREW (2X5)	
D	3A	✻	N15-1040-48	FLAT WASHER (4)	
E	3A	✻	N80-2008-43	PAN HEAD TAPTITE SCREW	
F	3A		N80-3010-43	PAN HEAD TAPTITE SCREW	
G	1A		N82-2006-48	BINDING HEAD TAPTITE SCREW	
H	2A	✻	N84-2606-48	PAN HEAD TAPTITE SCREW	
J	3A		N89-3006-43	BINDING HEAD TAPTITE SCREW	
K	3B	✻	N89-3008-43	BINDING HEAD TAPTITE SCREW	
L	2B		N89-3008-48	BINDING HEAD TAPTITE SCREW	
M	2A	✻	N89-3016-48	BINDING HEAD TAPTITE SCREW	
28	1A		W01-1606-05	ACCESSORY	
PREAMPLIFIER UNIT (X08-4170-10)					
40	2B	✻	B11-1446-04	REFLECTION SHEET	
41	2A	✻	B11-1447-04	OPTICAL DIFFUSER	
42	2B	✻	B19-2258-12	LIGHTING BOARD	
D2		✻	B30-1694-05	LED	
ED1		✻	B38-1150-05	LCD DISPLAY ASSY	

Ref. No.	Add	New	Parts No.	Description	Destination
C1,2			CK73FB1C224K	CHIP C 0.22UF K	
C3			CD04AS1C100M	ELECTRO 10UF 16WV	
C4			CK73GB1H103K	CHIP C 0.010UF K	
C5			CK73GB1H821K	CHIP C 820PF K	
C6,7			CK73GB1H473K	CHIP C 0.047UF K	
C8			CK73FB1C224K	CHIP C 0.22UF K	
C9			CK73GB1H103K	CHIP C 0.010UF K	
C10			CK73FB1C224K	CHIP C 0.22UF K	
C11-13			CK73GB1H103K	CHIP C 0.010UF K	
C14			CD04AS1H010M	ELECTRO 1UF 50WV	
C15			CD04AS1C100M	ELECTRO 10UF 16WV	
C16			CK73GB1H103K	CHIP C 0.010UF K	
C17			CD04AS1C100M	ELECTRO 10UF 16WV	
C18,19			CC73GCH1H221J	CHIP C 220PF J	
C20			CD04AS1C100M	ELECTRO 10UF 16WV	
C21			CC73GCH1H221J	CHIP C 220PF J	
C22,23			CD04AS1C100M	ELECTRO 10UF 16WV	
C24			CK73GB1H103K	CHIP C 0.010UF K	
C25			CD04AS1C100M	ELECTRO 10UF 16WV	
C26			CK73GB1H683K	CHIP C 0.068UF K	
C27			CC73GCH1H220J	CHIP C 22PF J	
C28			CK73FB1E154K	CHIP C 0.15UF K	
C29,30			CK73GB1H103K	CHIP C 0.010UF K	
C31			CK73GB1H223K	CHIP C 0.022UF K	
C32			CD04AS1C100M	ELECTRO 10UF 16WV	
C33			CK73GB1H103K	CHIP C 0.010UF K	
C34			CK73GB1H683K	CHIP C 0.068UF K	
C35			CK73FB1E154K	CHIP C 0.15UF K	
C36			CK73GB1H103K	CHIP C 0.010UF K	
C37			CD04AS1C100M	ELECTRO 10UF 16WV	
C38			CK73GB1C333K	CHIP C 0.033UF K	
C39			CD04AS1C470M	ELECTRO 47UF 16WV	
C40			CD04AS1C100M	ELECTRO 10UF 16WV	
C41-47			CK73GB1H103K	CHIP C 0.010UF K	
C48,49			CD04AS1C100M	ELECTRO 10UF 16WV	
CN1		✻	E41-2178-05	FLAT CABLE CONNECTOR (22P)	
WH1		✻	E39-0655-05	WIRING HARNESS	
R1			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R2			RK73GB2A223J	CHIP R 22K J 1/10W	
R3			RK73GB2A134J	CHIP R 130K J 1/10W	
R4			RK73GB2A623J	CHIP R 62K J 1/10W	
R5-8			RK73GB2A471J	CHIP R 470 J 1/10W	
R10			RK73GB2A683J	CHIP R 68K J 1/10W	
R11,12			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R13,14			RK73GB2A393J	CHIP R 39K J 1/10W	
R16			RK73GB2A563J	CHIP R 56K J 1/10W	
R17			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R18			RD14BB2C391J	RD 390 J 1/6W	
R19			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R20,21			RK73GB2A473J	CHIP R 47K J 1/10W	
R22-24			RK73GB2A101J	CHIP R 100 J 1/10W	
R25			RK73GB2A103J	CHIP R 10K J 1/10W	
R26			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R27			RK73GB2A104J	CHIP R 100K J 1/10W	

E1 : KAC-PS811D **K** : KAC-X811D **M1** : KAC-X811D
(**E** : Europe **K** : North America **M** : Other Areas)

⚠ Indicates safety critical components.

PARTS LIST

✻ New parts
Parts without **Parts No.** are not supplied.
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Teile ohne **Parts No.** werden nicht geliefert.

Ref. No.	Add	New	Parts No.	Description				Destination
R28			RK73GB2A512J	CHIP R	5.1K	J	1/10W	
R29			RK73GB2A471J	CHIP R	470	J	1/10W	
R32			RK73GB2A123J	CHIP R	12K	J	1/10W	
R33			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R34			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R36			RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R37			RK73GB2A682J	CHIP R	6.8K	J	1/10W	
R38			RK73GB2A153J	CHIP R	15K	J	1/10W	
R39,40			RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R41			RK73GB2A153J	CHIP R	15K	J	1/10W	
R42			RK73GB2A100J	CHIP R	10	J	1/10W	
R43,44			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R45			RK73GB2A103J	CHIP R	10K	J	1/10W	
R46			RK73GB2A473J	CHIP R	47K	J	1/10W	
R47			RK73GB2A153J	CHIP R	15K	J	1/10W	
R48			RK73GB2A123J	CHIP R	12K	J	1/10W	
R49			RK73GB2A153J	CHIP R	15K	J	1/10W	
R50			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R51			RK73GB2A473J	CHIP R	47K	J	1/10W	
R52,53			RK73GB2A103J	CHIP R	10K	J	1/10W	
R54			RK73GB2A473J	CHIP R	47K	J	1/10W	
R55			RK73GB2A103J	CHIP R	10K	J	1/10W	
R56			RK73GB2A431J	CHIP R	430	J	1/10W	
R57			RD14BB2C391J	RD	390	J	1/6W	
R58-60			RK73GB2A103J	CHIP R	10K	J	1/10W	
R61			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R62			RK73GB2A512J	CHIP R	5.1K	J	1/10W	
R63			RK73GB2A562J	CHIP R	5.6K	J	1/10W	
R64			RK73GB2A473J	CHIP R	47K	J	1/10W	
R65			RK73GB2A104J	CHIP R	100K	J	1/10W	
R66			RK73GB2A103J	CHIP R	10K	J	1/10W	
R67			RK73GB2A473J	CHIP R	47K	J	1/10W	
VR1			R31-0225-05	VARIABLE RESISTOR 50K (C) X2				
VR2		✻	R31-0238-05	VARIABLE RESISTOR				
VR3			R31-0225-05	VARIABLE RESISTOR 50K (C) X2				
S1		✻	S62-0873-05	SLIDE SWITCH				
S2-4		✻	S70-0922-05	TACT SWITCH				
S5,6		✻	S62-0873-05	SLIDE SWITCH				
S7		✻	S62-0874-05	SLIDE SWITCH				
S8		✻	S62-0873-05	SLIDE SWITCH				
D1			MA3082-M	ZENER DIODE				
IC1		✻	NJM4565MD-ZB	ANALOGUE IC				
IC2		✻	NJM2058M-ZB	ANALOGUE IC				
IC3		✻	NJM4565MD-ZB	ANALOGUE IC				
IC4		✻	E-TDA7409DTR	ANALOGUE IC				
IC5		✻	NJM4565MD-ZB	ANALOGUE IC				
IC6		✻	LC75853NE-E	MOS-IC (1/3DUTY)				

AUDIO UNIT (X09-5790-10)

C1		✻	C90-5557-05	ELECTRO	10UF		25WV	
C2,3			CK73GB1H103K	CHIP C	0.010UF		K	
C4			CC73GCH1H181J	CHIP C	180PF		J	
C5			CK73GB1H103K	CHIP C	0.010UF		K	
C7			CC73GCH1H100D	CHIP C	10PF		D	
C10			CC73GCH1H330J	CHIP C	33PF		J	

PREAMPLIFIER UNIT (X08-4170-10)

Ref. No.	Add	New	Parts No.	Description				Destination
C11			CK73GB1H103K	CHIP C	0.010UF		K	
C12,13			CF92FV1H102J	MF-C	1000PF		J	
C14			CC73GCH1H100D	CHIP C	10PF		D	
C15,16		✻	C90-5592-05	ELECTRO	10UF		35WV	
C17			CK73GB1H103K	CHIP C	0.010UF		K	
C19			CK73GB1H103K	CHIP C	0.010UF		K	
C21			CC73GCH1H470J	CHIP C	47PF		J	
C22			CC73GCH1H330J	CHIP C	33PF		J	
C23			CC73GCH1H101J	CHIP C	100PF		J	
C24		✻	C90-5592-05	ELECTRO	10UF		35WV	
C25,26			CC73GCH1H101J	CHIP C	100PF		J	
C27		✻	C90-5592-05	ELECTRO	10UF		35WV	
C28			C90-5601-05	ELECTRO	1UF		50WV	
C30			CK73GB1H103K	CHIP C	0.010UF		K	
C31			C90-5602-05	ELECTRO	2.2UF		50WV	
C32			CF92FV1H182J	MF-C	1800PF		J	
C34			CK73GB1H102K	CHIP C	1000PF		K	
C35		✻	C90-5588-05	ELECTRO	47UF		25WV	
C36			CK73GB1H104K	CHIP C	0.10UF		K	
C37		✻	C90-5588-05	ELECTRO	47UF		25WV	
C38			CK73GB1H103K	CHIP C	0.010UF		K	
C39			CC73GCH1H470J	CHIP C	47PF		J	
C40			CF92FV1H392J	MF-C	3900PF		J	
C41			CC45FCH1H390J	CERAMIC	39PF		J	
C42			CK73GB1H103K	CHIP C	0.010UF		K	
C43			C90-5602-05	ELECTRO	2.2UF		50WV	
C44			C90-5572-05	ELECTRO	100UF		10WV	
C45			CC45FCH1H390J	CERAMIC	39PF		J	
C46-50			CK73GB1H103K	CHIP C	0.010UF		K	
C52			CK73GB1H104K	CHIP C	0.10UF		K	
C53			CK73GB1H103K	CHIP C	0.010UF		K	
C54		✻	C90-5592-05	ELECTRO	10UF		35WV	
C55,56		✻	C90-5588-05	ELECTRO	47UF		25WV	
C57		✻	C90-5592-05	ELECTRO	10UF		35WV	
C59		✻	C90-5588-05	ELECTRO	47UF		25WV	
C60			C90-5601-05	ELECTRO	1UF		50WV	
C61			CK73GB1H103K	CHIP C	0.010UF		K	
C62,63		✻	C90-5688-05	ELECTRO	1500UF		100WV	
C64		✻	C90-5588-05	ELECTRO	47UF		25WV	
C65,66		✻	C90-5688-05	ELECTRO	1500UF		100WV	
C67		✻	C90-5594-05	ELECTRO	47UF		35WV	
C68			CK73GB1H103K	CHIP C	0.010UF		K	
C69-72			CK45FB1H102K	CERAMIC	1000PF		K	
C73,74			CF92FV2A104J	MF-C	0.10UF		J	
C75			CK73GB1H103K	CHIP C	0.010UF		K	
C77		✻	C90-5592-05	ELECTRO	10UF		35WV	
C78,79			CK73GB1E473K	CHIP C	0.047UF		K	
C80,81			CF92FV1H392J	MF-C	3900PF		J	
C82		✻	C90-5588-05	ELECTRO	47UF		25WV	
C83			CK73GB1H682K	CHIP C	6800PF		K	
C84			CK73GB1H103K	CHIP C	0.010UF		K	
C85-87			C91-2267-05	MP-F	10UF		J	
C88			CK73FB1C684K	CHIP C	0.68UF		K	
C89-92		✻	CD04BC1C392M	ELECTRO	3900UF		16WV	
C93			CK73GB1H103K	CHIP C	0.010UF		K	

E1 : KAC-PS811D **K** : KAC-X811D **M1** : KAC-X811D
(**E** : Europe **K** : North America **M** : Other Areas)

⚠ Indicates safety critical components.

PARTS LIST

✻ New parts
Parts without **Parts No.** are not supplied.
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Teile ohne **Parts No.** werden nicht geliefert.

AUDIO UNIT (X09-5790-10)

Ref. No.	Add	New	Parts No.	Description	Destination
C94		✻	C90-5592-05	ELECTRO 10UF 35WV	
C95			CK73GB1H103K	CHIP C 0.010UF K	
C96			C90-5572-05	ELECTRO 100UF 10WV	
C97			CF92FV1H102J	MF-C 1000PF J	
C98			CK73GB1H103K	CHIP C 0.010UF K	
C99		✻	C90-5592-05	ELECTRO 10UF 35WV	
C100			C90-5565-05	ELECTRO 47UF 6.3WV	
C101		✻	C90-5557-05	ELECTRO 10UF 25WV	
C102		✻	C90-5592-05	ELECTRO 10UF 35WV	
C103		✻	C90-5588-05	ELECTRO 47UF 25WV	
C106		✻	C90-5592-05	ELECTRO 10UF 35WV	
C107			CK73GB1H102K	CHIP C 1000PF K	
C108			CK73GB1H103K	CHIP C 0.010UF K	
C109		✻	C90-5592-05	ELECTRO 10UF 35WV	
C110		✻	C90-5588-05	ELECTRO 47UF 25WV	
C111			CK73GB1H103K	CHIP C 0.010UF K	
C113		✻	C90-5592-05	ELECTRO 10UF 35WV	
C116			CK73GB1H104K	CHIP C 0.10UF K	
C117,118			CC73GCH1H270J	CHIP C 27PF J	
C120		✻	C90-5590-05	ELECTRO 220UF 25WV	
C122		✻	C90-5592-05	ELECTRO 10UF 35WV	
C123			CK73GB1H103K	CHIP C 0.010UF K	
C124			CK73FB1C105K	CHIP C 1.0UF K	
C125,126			CK73FB1H104K	CHIP C 0.10UF K	
C127,128			CC73GCH1H101J	CHIP C 100PF J	
C130			CC73GCH1H101J	CHIP C 100PF J	
C131			CK73FB1H104K	CHIP C 0.10UF K	
C132,133			CK73GB1H103K	CHIP C 0.010UF K	
C134			CK73FB1H104K	CHIP C 0.10UF K	
CN1			E41-0927-05	PIN ASSY (2P)	
CN2			E41-0928-05	PIN ASSY (3P)	
CN3		✻	E41-2202-05	FLAT CABLE CONNECTOR (22P)	
J1		✻	E56-0856-05	CYLINDRICAL RECEPTACLE (13P)	
J2		✻	E56-0853-05	CYLINDRICAL RECEPTACLE (M-D4P)	
J4		✻	E63-0901-05	PIN JACK (4P)	
J5			E70-0838-05	SCREW TERMINAL BOARD (7P)	
53	2B		F20-2205-14	INSULATING SHEET	
⚠ CN4,5			J13-0602-05	FUSE HOLDER	
L1		✻	L41-4795-33	SMALL FIXED INDUCTOR 4.7U	
L2		✻	L19-0756-05	TRANSFORMER FOR CONVERTER	
L3		✻	L33-1973-05	CHOKE COIL 50UH	
L5		✻	L19-0758-05	TRANSFORMER FOR CONVERTER	
L6		✻	L33-1972-05	CHOKE COIL 25UH	
X1			L77-2844-05	CRYSTAL RESONATOR 12.288MHZ	
F	3A		N80-3010-43	PAN HEAD TAPTITE SCREW	
K	3B	✻	N89-3008-43	BINDING HEAD TAPTITE SCREW	
N	2B	✻	N09-6217-05	TAPTITE SCREW	
R1,2			RK73EB2E271J	CHIP R 270 J 1/4W	
R3			RK73GB2A103J	CHIP R 10K J 1/10W	
R4			RD14BB2C470J	RD 47 J 1/6W	
R5			RK73GB2A101J	CHIP R 100 J 1/10W	
R6			RD14BB2C470J	RD 47 J 1/6W	
R7			RK73GB2A432J	CHIP R 4.3K J 1/10W	
R10,11			RD14BB2C102J	RD 1.0K J 1/6W	
R13			RK73GB2A103J	CHIP R 10K J 1/10W	
R14			RK73GB2A432J	CHIP R 4.3K J 1/10W	
R15			RN73GH1J103D	CHIP R 10K D 1/16W	
R16,17			RD14BB2C102J	RD 1.0K J 1/6W	
R18			RN73GH1J103D	CHIP R 10K D 1/16W	
R19			RK73GB2A392J	CHIP R 3.9K J 1/10W	
R20			RN73GH1J103D	CHIP R 10K D 1/16W	
R21			RK73GB2A123J	CHIP R 12K J 1/10W	
R22			RK73GB2A203J	CHIP R 20K J 1/10W	
R23			RK73GB2A123J	CHIP R 12K J 1/10W	
R24			RK73GB2A203J	CHIP R 20K J 1/10W	
R25			RN73GH1J103D	CHIP R 10K D 1/16W	
R26			RD14BB2C562J	RD 5.6K J 1/6W	
R27,28			RK73GB2A103J	CHIP R 10K J 1/10W	
R29,30			RK73GB2A273J	CHIP R 27K J 1/10W	
R31-34			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R35			RK73GB2A333J	CHIP R 33K J 1/10W	
R36			RK73GB2A272J	CHIP R 2.7K J 1/10W	
R37			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R38			RK73GB2A103J	CHIP R 10K J 1/10W	
R39			RK73GB2A153J	CHIP R 15K J 1/10W	
R40-43			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R46-48			RK73GB2A101J	CHIP R 100 J 1/10W	
R50			RK73GB2A272J	CHIP R 2.7K J 1/10W	
R51			RD14BB2E151J	RD 150 J 1/4W	
R52			RK73GB2A272J	CHIP R 2.7K J 1/10W	
R59			RD14BB2E151J	RD 150 J 1/4W	
R65			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R66			RK73GB2A272J	CHIP R 2.7K J 1/10W	
R68			RK73GB2A223J	CHIP R 22K J 1/10W	
R70			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R71			RK73GB2A821J	CHIP R 820 J 1/10W	
R72			RK73GB2A103J	CHIP R 10K J 1/10W	
R73			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R76			RD14BB2C751J	RD 750 J 1/6W	
R77			RK73GB2A153J	CHIP R 15K J 1/10W	
R78			RK73GB2A473J	CHIP R 47K J 1/10W	
R79			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R80			RK73GB2A224J	CHIP R 220K J 1/10W	
R82			RK73GB2A103J	CHIP R 10K J 1/10W	
R83			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R84			RK73GB2A511J	CHIP R 510 J 1/10W	
R86			RK73GB2A471J	CHIP R 470 J 1/10W	
R87			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R88			RK73GB2A302J	CHIP R 3.0K J 1/10W	
R89			RK73GB2A684J	CHIP R 680K J 1/10W	
R90			RK73GB2A683J	CHIP R 68K J 1/10W	
R91			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R92,93			RK73GB2A103J	CHIP R 10K J 1/10W	
R94,95			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R96			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R97			RK73GB2A102J	CHIP R 1.0K J 1/10W	

E1 : KAC-PS811D **K** : KAC-X811D **M1** : KAC-X811D
(**E** : Europe **K** : North America **M** : Other Areas)

⚠ Indicates safety critical components.

KAC-PS811D/X811D

PARTS LIST

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AUDIO UNIT (X09-5790-10)

Ref. No.	Add	New	Parts No.	Description				Destination
R98			RD14BB2E243J	RD	24K	J	1/4W	
R99			RK73GB2A103J	CHIP R	10K	J	1/10W	
R100			RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R102			RK73GB2A473J	CHIP R	47K	J	1/10W	
R103,104			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R105,106			RK73GB2A473J	CHIP R	47K	J	1/10W	
R107			RK73GB2A103J	CHIP R	10K	J	1/10W	
R108			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R109,110			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R111		✻	RK73GB2A111J	CHIP R	110	J	1/10W	
R112			RK73GB2A181J	CHIP R	180	J	1/10W	
R113			RK73GB2A103J	CHIP R	10K	J	1/10W	
R114			RK73GB2A153J	CHIP R	15K	J	1/10W	
R115			RD14NB2E471J	RD	470	J	1/4W	
R116			RD14DB2H751J	SMALL-RD	750	J	1/2W	
R117			RD14NB2E471J	RD	470	J	1/4W	
R118			RD14DB2H751J	SMALL-RD	750	J	1/2W	
R119			RK73GB2A821J	CHIP R	820	J	1/10W	
R120			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R121			RD14NB2E470J	RD	47	J	1/4W	
R122			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R123			RK73GB2A100J	CHIP R	10	J	1/10W	
R124			RD14NB2E271J	RD	270	J	1/4W	
R125			RK73GB2A473J	CHIP R	47K	J	1/10W	
R126,127			RK73EB2E100J	CHIP R	10	J	1/4W	
R128			RK73GB2A103J	CHIP R	10K	J	1/10W	
R129			RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R130			RK73GB2A103J	CHIP R	10K	J	1/10W	
R131			RK73EB2E100J	CHIP R	10	J	1/4W	
R132			RD14NB2E331J	RD	330	J	1/4W	
R133			RK73EB2E100J	CHIP R	10	J	1/4W	
R134			RD14NB2E122J	RD	1.2K	J	1/4W	
R135			RK73GB2A103J	CHIP R	10K	J	1/10W	
R136			RD14DB2H152J	SMALL-RD	1.5K	J	1/2W	
R137			RD14DB2H102J	SMALL-RD	1.0K	J	1/2W	
R138,139			RD14NB2E470J	RD	47	J	1/4W	
R142,143			RD14NB2E470J	RD	47	J	1/4W	
R144			RK73GB2A473J	CHIP R	47K	J	1/10W	
R147			RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R148-151			RD14NB2E101J	RD	100	J	1/4W	
R152,153			RK73EB2E473J	CHIP R	47K	J	1/4W	
R154,155			RK73GB2A473J	CHIP R	47K	J	1/10W	
R156			RD14BB2C563J	RD	56K	J	1/6W	
R157-160			RK73EB2E100J	CHIP R	10	J	1/4W	
R161,162			R92-0205-05	METAL-PLATE	0.1	K	2W	
R163			RK73GB2A562J	CHIP R	5.6K	J	1/10W	
R164-169			R92-0205-05	METAL-PLATE	0.1	K	2W	
R170,171			RD14DB2H220J	SMALL-RD	22	J	1/2W	
R172,173			R92-0205-05	METAL-PLATE	0.1	K	2W	
R174			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R176,177			RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R178			RS14KB3D4R7J	FL-PROOF RS	4.7	J	2W	
R179			RK73GB2A103J	CHIP R	10K	J	1/10W	
R180			RS14KB3D4R7J	FL-PROOF RS	4.7	J	2W	
R181			RK73GB2A514J	CHIP R	510K	J	1/10W	
R183			RK73GB2A392J	CHIP R	3.9K	J	1/10W	
R184			RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R185			RK73GB2A302J	CHIP R	3.0K	J	1/10W	
R186,187			RK73GB2A103J	CHIP R	10K	J	1/10W	
R188			RK73GB2A470J	CHIP R	47	J	1/10W	
R189			RK73GB2A103J	CHIP R	10K	J	1/10W	
R190			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R191			RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R192			RK73GB2A243J	CHIP R	24K	J	1/10W	
R193			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R194			RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R195,196			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R197			RK73GB2A224J	CHIP R	220K	J	1/10W	
R198			RD14BB2C392J	RD	3.9K	J	1/6W	
R199,200			RK73GB2A100J	CHIP R	10	J	1/10W	
R201			RK73GB2A392J	CHIP R	3.9K	J	1/10W	
R202			RK73GB2A103J	CHIP R	10K	J	1/10W	
R203,204			RK73GB2A560J	CHIP R	56	J	1/10W	
R205			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R206			RK73GB2A103J	CHIP R	10K	J	1/10W	
R207,208			RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R209			RK73GB2A473J	CHIP R	47K	J	1/10W	
R210			RK73GB2A203J	CHIP R	20K	J	1/10W	
R211			RK73GB2A823J	CHIP R	82K	J	1/10W	
R212			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R213			RK73GB2A123J	CHIP R	12K	J	1/10W	
R214,215			RK73GB2A103J	CHIP R	10K	J	1/10W	
R216			RK73GB2A682J	CHIP R	6.8K	J	1/10W	
R217			RK73GB2A103J	CHIP R	10K	J	1/10W	
R218			RK73GB2A183J	CHIP R	18K	J	1/10W	
R219			RK73GB2A132J	CHIP R	1.3K	J	1/10W	
R220,221			RK73GB2A203J	CHIP R	20K	J	1/10W	
R222			RK73GB2A104J	CHIP R	100K	J	1/10W	
R223			RK73GB2A203J	CHIP R	20K	J	1/10W	
R224			RK73GB2A103J	CHIP R	10K	J	1/10W	
R225			RK73GB2A473J	CHIP R	47K	J	1/10W	
R226,227			RK73GB2A100J	CHIP R	10	J	1/10W	
R228			RK73GB2A153J	CHIP R	15K	J	1/10W	
R229			RK73GB2A271J	CHIP R	270	J	1/10W	
R230			RK73GB2A133J	CHIP R	13K	J	1/10W	
R231			RK73GB2A471J	CHIP R	470	J	1/10W	
R232			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R234,235			RK73GB2A470J	CHIP R	47	J	1/10W	
R236,237			RK73GB2A101J	CHIP R	100	J	1/10W	
R238			RK73GB2A122J	CHIP R	1.2K	J	1/10W	
R240			RK73GB2A104J	CHIP R	100K	J	1/10W	
R241			RK73GB2A512J	CHIP R	5.1K	J	1/10W	
R242			RD14BB2C473J	RD	47K	J	1/6W	
R243			RK73GB2A473J	CHIP R	47K	J	1/10W	
R244			RD14BB2C153J	RD	15K	J	1/6W	
R254,255			RK73GB2A182J	CHIP R	1.8K	J	1/10W	
R256			RK73GB2A103J	CHIP R	10K	J	1/10W	
R257			RD14BB2C104J	RD	100K	J	1/6W	
R258			RD14BB2C153J	RD	15K	J	1/6W	
R260,261			RK73GB2A272J	CHIP R	2.7K	J	1/10W	

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AUDIO UNIT (X09-5790-10)

Ref. No.	Add	New	Parts No.	Description	Destination
R262,263			RK73GB2A101J	CHIP R 100 J 1/10W	
R267,268			RK73GB2A105J	CHIP R 1.0M J 1/10W	
R269			RK73GB2A104J	CHIP R 100K J 1/10W	
R270-272			RK73GB2A103J	CHIP R 10K J 1/10W	
R275,276			RD14BB2C153J	RD 15K J 1/6W	
R282			RK73GB2A163J	CHIP R 16K J 1/10W	
R283-286			RK73GB2A103J	CHIP R 10K J 1/10W	
R287			RK73GB2A182J	CHIP R 1.8K J 1/10W	
R288,289			RK73GB2A104J	CHIP R 100K J 1/10W	
R291			RK73GB2A104J	CHIP R 100K J 1/10W	
R292			RK73GB2A103J	CHIP R 10K J 1/10W	
R293			RK73GB2A333J	CHIP R 33K J 1/10W	
R294			RK73GB2A511J	CHIP R 510 J 1/10W	
R295			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R301			RK73GB2A103J	CHIP R 10K J 1/10W	
R303			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R304			RK73GB2A101J	CHIP R 100 J 1/10W	
R305			RK73GB2A113J	CHIP R 11K J 1/10W	
R306			RK73GB2A103J	CHIP R 10K J 1/10W	
R307			RK73GB2A474J	CHIP R 470K J 1/10W	
R308-311			RK73GB2A103J	CHIP R 10K J 1/10W	
R312,313			RK73GB2A101J	CHIP R 100 J 1/10W	
R319,320			RK73GB2A103J	CHIP R 10K J 1/10W	
R321			RK73EB2E102J	CHIP R 1.0K J 1/4W	
R322			RK73GB2A100J	CHIP R 10 J 1/10W	
W301-310			R92-1252-05	CHIP R 0 OHM J 1/16W	
W311			R92-2053-05	CHIP R 0 J 1/8W	
W312			R92-1252-05	CHIP R 0 OHM J 1/16W	
W313			R92-2053-05	CHIP R 0 J 1/8W	
W314-316			R92-1252-05	CHIP R 0 OHM J 1/16W	
W317-320			R92-2053-05	CHIP R 0 J 1/8W	
W322-328			R92-1252-05	CHIP R 0 OHM J 1/16W	
W329			R92-2053-05	CHIP R 0 J 1/8W	
W330			R92-1252-05	CHIP R 0 OHM J 1/16W	
W331			R92-2053-05	CHIP R 0 J 1/8W	
W332,333			R92-1252-05	CHIP R 0 OHM J 1/16W	
W334			R92-2053-05	CHIP R 0 J 1/8W	
W338,339			R92-2053-05	CHIP R 0 J 1/8W	
W340-342			R92-1252-05	CHIP R 0 OHM J 1/16W	
W343			R92-2053-05	CHIP R 0 J 1/8W	
W344-346			R92-1252-05	CHIP R 0 OHM J 1/16W	
W347,348			R92-2053-05	CHIP R 0 J 1/8W	
W350-352			R92-1252-05	CHIP R 0 OHM J 1/16W	
W353			R92-2053-05	CHIP R 0 J 1/8W	
W354			R92-1252-05	CHIP R 0 OHM J 1/16W	
W356,357			R92-1252-05	CHIP R 0 OHM J 1/16W	
W358			R92-2053-05	CHIP R 0 J 1/8W	
W359			R92-1252-05	CHIP R 0 OHM J 1/16W	
W361			R92-2053-05	CHIP R 0 J 1/8W	
W362-365			R92-1252-05	CHIP R 0 OHM J 1/16W	
W366,367			R92-2053-05	CHIP R 0 J 1/8W	
W368			R92-1252-05	CHIP R 0 OHM J 1/16W	
W369-371			R92-2053-05	CHIP R 0 J 1/8W	
W372-374			R92-1252-05	CHIP R 0 OHM J 1/16W	
W375,376			R92-2053-05	CHIP R 0 J 1/8W	
W377			R92-1252-05	CHIP R 0 OHM J 1/16W	
W378			R92-2053-05	CHIP R 0 J 1/8W	
W379,380			R92-1252-05	CHIP R 0 OHM J 1/16W	
W381,382			R92-2053-05	CHIP R 0 J 1/8W	
W383			R92-1252-05	CHIP R 0 OHM J 1/16W	
W384-386			R92-2053-05	CHIP R 0 J 1/8W	
W387			R92-1252-05	CHIP R 0 OHM J 1/16W	
W388			R92-2053-05	CHIP R 0 J 1/8W	
W389,390			R92-1252-05	CHIP R 0 OHM J 1/16W	
W391			R92-2053-05	CHIP R 0 J 1/8W	
W392-398			R92-1252-05	CHIP R 0 OHM J 1/16W	
W399			R92-2053-05	CHIP R 0 J 1/8W	
W400-402			R92-1252-05	CHIP R 0 OHM J 1/16W	
W403			R92-2053-05	CHIP R 0 J 1/8W	
W404			R92-1252-05	CHIP R 0 OHM J 1/16W	
W405			R92-2053-05	CHIP R 0 J 1/8W	
W407-409			R92-1252-05	CHIP R 0 OHM J 1/16W	
W410,411			R92-2053-05	CHIP R 0 J 1/8W	
W412-415			R92-1252-05	CHIP R 0 OHM J 1/16W	
W416			R92-2053-05	CHIP R 0 J 1/8W	
W417-419			R92-1252-05	CHIP R 0 OHM J 1/16W	
W420			R92-2053-05	CHIP R 0 J 1/8W	
W421-424			R92-1252-05	CHIP R 0 OHM J 1/16W	
W425			R92-2053-05	CHIP R 0 J 1/8W	
W426,427			R92-1252-05	CHIP R 0 OHM J 1/16W	
W428,429			R92-2053-05	CHIP R 0 J 1/8W	
W430-433			R92-1252-05	CHIP R 0 OHM J 1/16W	
W434			R92-2053-05	CHIP R 0 J 1/8W	
W435-439			R92-1252-05	CHIP R 0 OHM J 1/16W	
W440			R92-2053-05	CHIP R 0 J 1/8W	
W441			R92-1252-05	CHIP R 0 OHM J 1/16W	
W442-445			R92-2053-05	CHIP R 0 J 1/8W	
W446			R92-1252-05	CHIP R 0 OHM J 1/16W	
W448			R92-2053-05	CHIP R 0 J 1/8W	
W450			R92-1252-05	CHIP R 0 OHM J 1/16W	
W451			R92-2053-05	CHIP R 0 J 1/8W	
W452,453			R92-1252-05	CHIP R 0 OHM J 1/16W	
W457			R92-1252-05	CHIP R 0 OHM J 1/16W	
W458-463			R92-2053-05	CHIP R 0 J 1/8W	
W464			R92-1252-05	CHIP R 0 OHM J 1/16W	
W468			R92-1252-05	CHIP R 0 OHM J 1/16W	
W469			R92-2053-05	CHIP R 0 J 1/8W	
S1			S68-0806-05	PUSH SWITCH	
S6		✻	S79-0843-05	DIP SWITCHES	
D1			1SS133	DIODE	
D3			UMZ6.8N	ZENER DIODE	
D4			RD6.2JS(B2)	ZENER DIODE	
D5			UMZ6.8N	ZENER DIODE	
D8			RD6.2JS(B2)	ZENER DIODE	
D9			B30-1601-05	LED	
D10,11			1SS355	DIODE	
D12-15			1SS133	DIODE	
D17			UDZS10B	ZENER DIODE	
D18,19			1SS355	DIODE	

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Ref. No.	Add	New	Parts No.	Description	Destination
D20			UDZS10B	ZENER DIODE	
D21,22			1SS133	DIODE	
D23			RD5.1JS(B2)	ZENER DIODE	
D24,25			1SS133	DIODE	
D26			UDZS5.1B	ZENER DIODE	
D27,28			1SS133	DIODE	
D30,31			1SS133	DIODE	
D32			UDZS10B	ZENER DIODE	
D33			UDZS2.7B	ZENER DIODE	
D34		✻	UDZS16B	ZENER DIODE	
D37			RD15JS(B)	ZENER DIODE	
D38		✻	FCH20A20	DIODE	
D39		✻	FRH20A20	DIODE	
D40-43			1SS133	DIODE	
D44			UDZS5.1B	ZENER DIODE	
D46			UDZS5.1B	ZENER DIODE	
D48			1SS355	DIODE	
D49			UDZS5.1B	ZENER DIODE	
D50			UDZS6.8B	ZENER DIODE	
D51			RD15JS(B)	ZENER DIODE	
D52,53			1SS355	DIODE	
D54		✻	RM4ZLF-J1NF	DIODE	
D55			1SS355	DIODE	
D56,57		✻	RM4ZLF-J1NF	DIODE	
D58			1SS355	DIODE	
D59			DA204U	DIODE	
D60-62			UMZ6.8N	ZENER DIODE	
D64,65			1SS355	DIODE	
D69		✻	UDZS16B	ZENER DIODE	
D70,71			1SS355	DIODE	
D76			LM1MA142WA-G	DIODE	
D77		✻	LM1MA142WK-G	DIODE	
D80		✻	LM1MA142WK-G	DIODE	
D81			1SS355	DIODE	
D82			UDZS5.1B	ZENER DIODE	
D86			UDZS4.7B	ZENER DIODE	
D89		✻	S5566B-Q	DIODE	
D90			1SS355	DIODE	
D91			DA204U	DIODE	
D92,93			RD24ES(B)	ZENER DIODE	
D94			UMZ6.8N	ZENER DIODE	
IC1,2			BA4560F	IC	
IC3			NJM319D	ANALOGUE IC	
IC4,5		✻	SN74HC00D	MOS-IC	
IC6			BA10393F	ANALOGUE IC	
IC7			BA4560F	IC	
IC10		✻	784224YGC117	MICROCONTROLLER IC	
IC11			PST3436UL-E	MOS-IC	
IC13			UPC494GS	ANALOGUE IC	
IC14			BA4560F	IC	
IC15		✻	P82B96PN	ANALOGUE IC	
IC16			BA10393F	ANALOGUE IC	
Q1			2SC4081	TRANSISTOR	
Q2			2SA1576A	TRANSISTOR	
Q3			2SC4081	TRANSISTOR	
Q4-6			2SA1576A	TRANSISTOR	
Q7,8			DTC114EUA	DIGITAL TRANSISTOR	
Q9			DTA114EUA	DIGITAL TRANSISTOR	
Q10			2SC4081	TRANSISTOR	
Q15			2SC3478A(L,K)	TRANSISTOR	
Q16,17			2SA1576A	TRANSISTOR	
Q18			2SC3478A(L,K)	TRANSISTOR	
Q19			2SA1352(E,F)	TRANSISTOR	
Q20			2SA1576A	TRANSISTOR	
Q21,22			2SA1352(E,F)	TRANSISTOR	
Q23			2SD1863	TRANSISTOR	
Q24			2SC4081	TRANSISTOR	
Q25		✻	2SC4467NF	TRANSISTOR	
Q26		✻	2SA1859ANF	TRANSISTOR	
Q27,28			2SA1352(E,F)	TRANSISTOR	
Q29			2SC1845(F,E)	TRANSISTOR	
Q30			2SA992(F,E)	TRANSISTOR	
Q31			2SA1376A(L,K)	TRANSISTOR	
Q33			2SC3478A(L,K)	TRANSISTOR	
Q35			DTC114EUA	DIGITAL TRANSISTOR	
Q36			DTA114EUA	DIGITAL TRANSISTOR	
Q37			2SC3478A(L,K)	TRANSISTOR	
Q38			2SA1286-T11	TRANSISTOR	
Q39		✻	2SC3902	TRANSISTOR	
Q40			2SA1286-T11	TRANSISTOR	
Q41			DTC114EUA	DIGITAL TRANSISTOR	
Q42			2SC3478A(L,K)	TRANSISTOR	
Q43			2SA1286-T11	TRANSISTOR	
Q44		✻	2SC3902	TRANSISTOR	
Q45			2SA1286-T11	TRANSISTOR	
Q46			DTC114EUA	DIGITAL TRANSISTOR	
Q47			2SD1863	TRANSISTOR	
Q48-51			STW34NB20	FET	
Q52			2SC3478A(L,K)	TRANSISTOR	
Q53,54			2SA1376A(L,K)	TRANSISTOR	
Q55			2SC3478A(L,K)	TRANSISTOR	
Q57,58		✻	2SK3662-F	FET	
Q59			DTC114EUA	DIGITAL TRANSISTOR	
Q60,61		✻	2SK3662-F	FET	
Q62			2SC4081	TRANSISTOR	
Q63			DTA114EUA	DIGITAL TRANSISTOR	
Q64,65		✻	2SK3662-F	FET	
Q66			2SC4081	TRANSISTOR	
Q67-70		✻	2SK3662-F	FET	
Q71			2SC4081	TRANSISTOR	
Q72			2SA1576A	TRANSISTOR	
Q73			2SC4081	TRANSISTOR	
Q74			2SC4097	TRANSISTOR	
Q75,76			2SA1577	TRANSISTOR	
Q77			2SC4097	TRANSISTOR	
Q78			2SC4081	TRANSISTOR	
Q79			DTC114EUA	DIGITAL TRANSISTOR	
Q80			2SB1241	TRANSISTOR	
Q81,82			DTA114EUA	DIGITAL TRANSISTOR	
Q83			2SD1863	TRANSISTOR	

E1 : KAC-PS811D **K** : KAC-X811D **M1** : KAC-X811D
(**E** : Europe **K** : North America **M** : Other Areas)

⚠ 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.

AUDIO UNIT (X09-5790-10)

Ref. No.	Add	New	Parts No.	Description	Destination
Q84		✻	2SK246(BL)-F	FET	
Q86			DTC114EUA	DIGITAL TRANSISTOR	
Q88,89			2SC4081	TRANSISTOR	
Q95			DTA114EUA	DIGITAL TRANSISTOR	
Q96			DTC114EUA	DIGITAL TRANSISTOR	
Q97-99			2SC4081	TRANSISTOR	
Q102			DTA114EUA	DIGITAL TRANSISTOR	
Q103,104			2SC945(A)(Q,P)	TRANSISTOR	
Q106			2SB1238	TRANSISTOR	
Q107,108			2SC4081	TRANSISTOR	
Q109			DTC114EUA	TRANSISTOR	
Q110			2SA992(F,E)	TRANSISTOR	
Q111			DTA114EUA	TRANSISTOR	
TH1		✻	NT732ATTD103J	THERMISTOR	

Ref. No.	Add	New	Parts No.	Description	Destination

E1 : KAC-PS811D **K** : KAC-X811D **M1** : KAC-X811D
(**E** : Europe **K** : North America **M** : Other Areas)

⚠ Indicates safety critical components.

KAC-PS811D/X811D

SPECIFICATIONS

KAC-PS811D

AUDIO SECTION

Rated Power Output (4Ω, 20Hz~200Hz) ..... 300W (0.5% THD)
(2Ω, 100Hz) ..... 600W (0.5% THD)
Bridged Power (4Ω, 20Hz~200Hz) ..... 400W (0.5% THD)
(4Ω, DIN45324) ..... 400W (0.5% THD)
(2Ω, 100Hz) ..... 800W (0.5% THD)
(1Ω, 100Hz) ..... 1000W (1.0% THD)
MAX Power Output 1600W
Low-Pass Filter ..... 50Hz~200Hz (24dB/oct)
Infrasonic Filter OFF/15Hz/25Hz (24dB/oct)
Phase Inverter ..... 0°/180°
Frequency Response ..... 5Hz~200Hz (+0, -3dB)
S/N Ratio 100dB
Sensitivity (Max) ..... 0.2V (Rated Output)
Sensitivity (Min) ..... 5V (Rated Output)
Input Impeadance 10kΩ

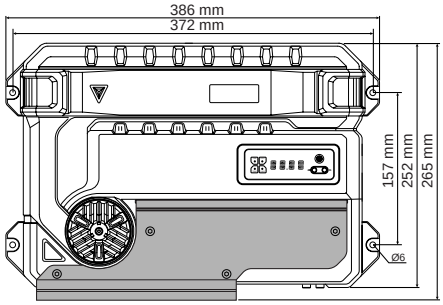
AMP CONTROL SECTION (EQ)

Bass Frequency Control 60Hz, 80Hz, 100Hz, 200Hz
Bass Level Control ..... -15dB to +15dB
Bass Q Factor Control 1.00, 1.25, 1.50, 2.00

GENERAL

Operating Voltage (11~16V allowable) 14.4V
Current Consumption (100Hz, 10% THD) at 4Ω 55A
Size (with out dress plate) (W x H x D)
..... 386 x 61 x 259.5 (mm), 15-1/5 x 2-2/5 x 10-1/5 (inch)
Installation Size (foot point) (W x H x D)
..... 386 x 61 x 265 (mm), 15-1/5 x 2-2/5 x 10-2/5 (inch)
Weight ..... 4.07kg (8.97 lbs)

Installation



KAC-X811D

AUDIO SECTION

RMS Power Output (4Ω/1ch) ..... 533W (1.0% THD+N)
(2Ω/1ch) ..... 919W (1.0% THD+N)
(1Ω/1ch) ..... 1016W (1.0% THD+N)
Dynamic Power 566W
Output Regulation ..... Under 0.2dB (4Ω)
Signal to Noise Ratio 74dBA (w/4Ω)
Signal to Noise Ratio (Bypass) 74dBA (w/4Ω)
Rated Power Output (4Ω, 20Hz~200Hz, 12V) ..... 300W (0.5% THD)
(2Ω, 100Hz, 12V) ..... 600W (0.5% THD)
(4Ω, 20Hz~200Hz, 14.4V) ..... 400W (0.5% THD)
(4Ω, DIN45324, 14.4V) ..... 400W (0.5% THD)
(2Ω, 100Hz, 14.4V) ..... 800W (0.5% THD)
(1Ω, 100Hz, 14.4V) ..... 1000W (1.0% THD)
MAX Power Output 1600W
Low-Pass Filter ..... 50Hz~200Hz (24dB/oct)
Infrasonic Filter OFF/15Hz/25Hz (24dB/oct)
Phase Inverter ..... 0°/180°
Frequency Response ..... 5Hz~200Hz (+0, -3dB)
Sensitivity (Max) ..... 0.2V (Rated Output)
Sensitivity (Min) ..... 5V (Rated Output)
Input Impeadance 10kΩ

AMP CONTROL SECTION (EQ)

Bass Frequency Control 60Hz, 80Hz, 100Hz, 200Hz
Bass Level Control ..... -15dB to +15dB
Bass Q Factor Control 1.00, 1.25, 1.50, 2.00

GENERAL

Operating Voltage (11~16V allowable) 14.4V
Current Consumption (100Hz, 10% THD) at 4Ω 55A
Size (with out dress prate) (W x H x D)
..... 386 x 61 x 259.5 (mm), 15-1/5 x 2-2/5 x 10-1/5 (inch)
Installation Size (foot point) (W x H x D)
..... 386 x 61 x 265 (mm), 15-1/5 x 2-2/5 x 10-2/5 (inch)
Weight ..... 4.07kg (8.97 lbs)

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

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