

POWER AMPLIFIER

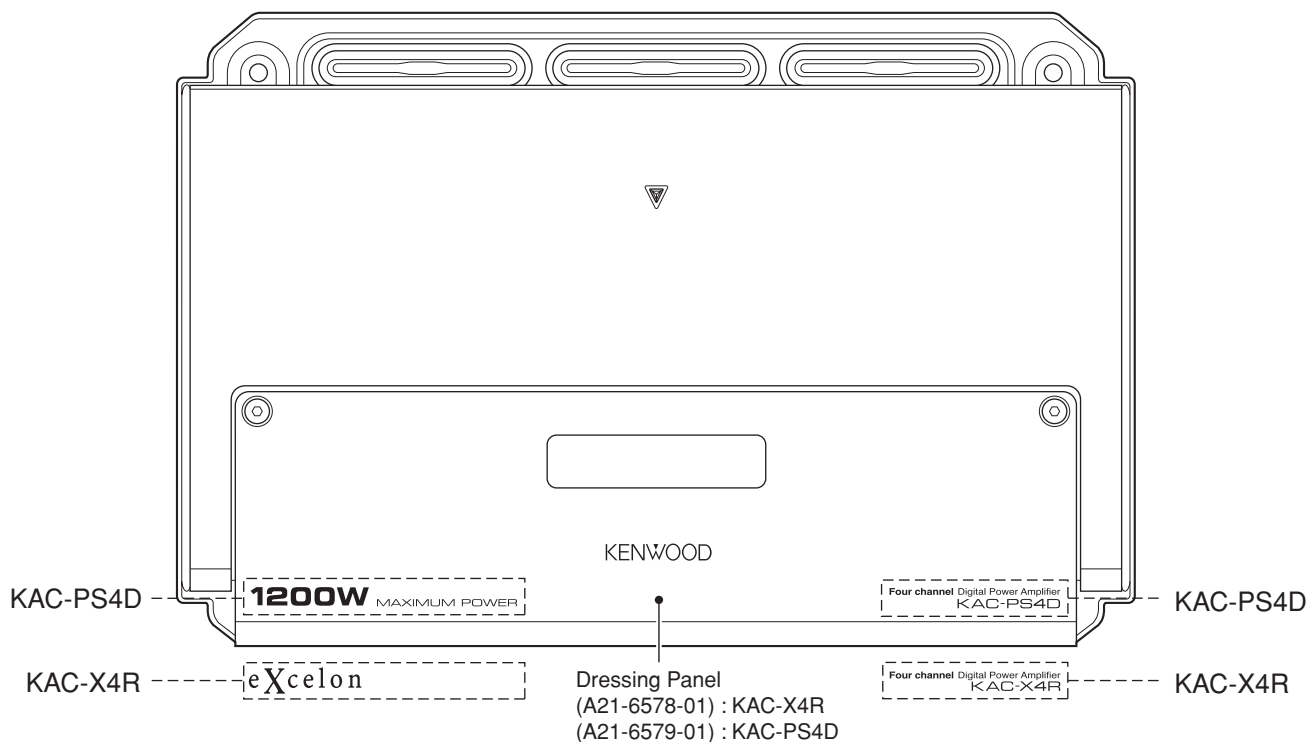
# KAC-PS4D/X4R

## SERVICE MANUAL

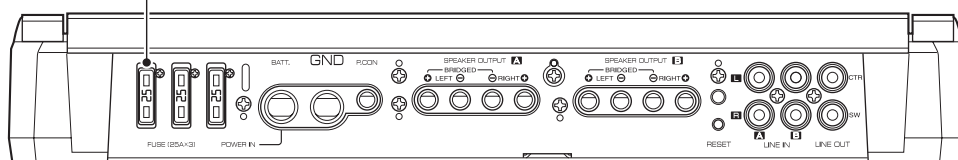
# KENWOOD

Kenwood Corporation

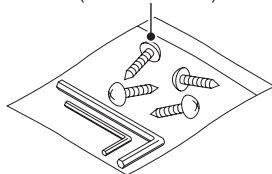
© 2007-4 PRINTED IN JAPAN  
B53-0520-00 (N) 426



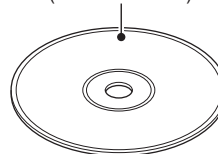
Fuse (25A)  
(F52-0014-05)



Screw & Wrench Key set  
(N99-1795-05)



Compact disc  
(W01-1701-05)

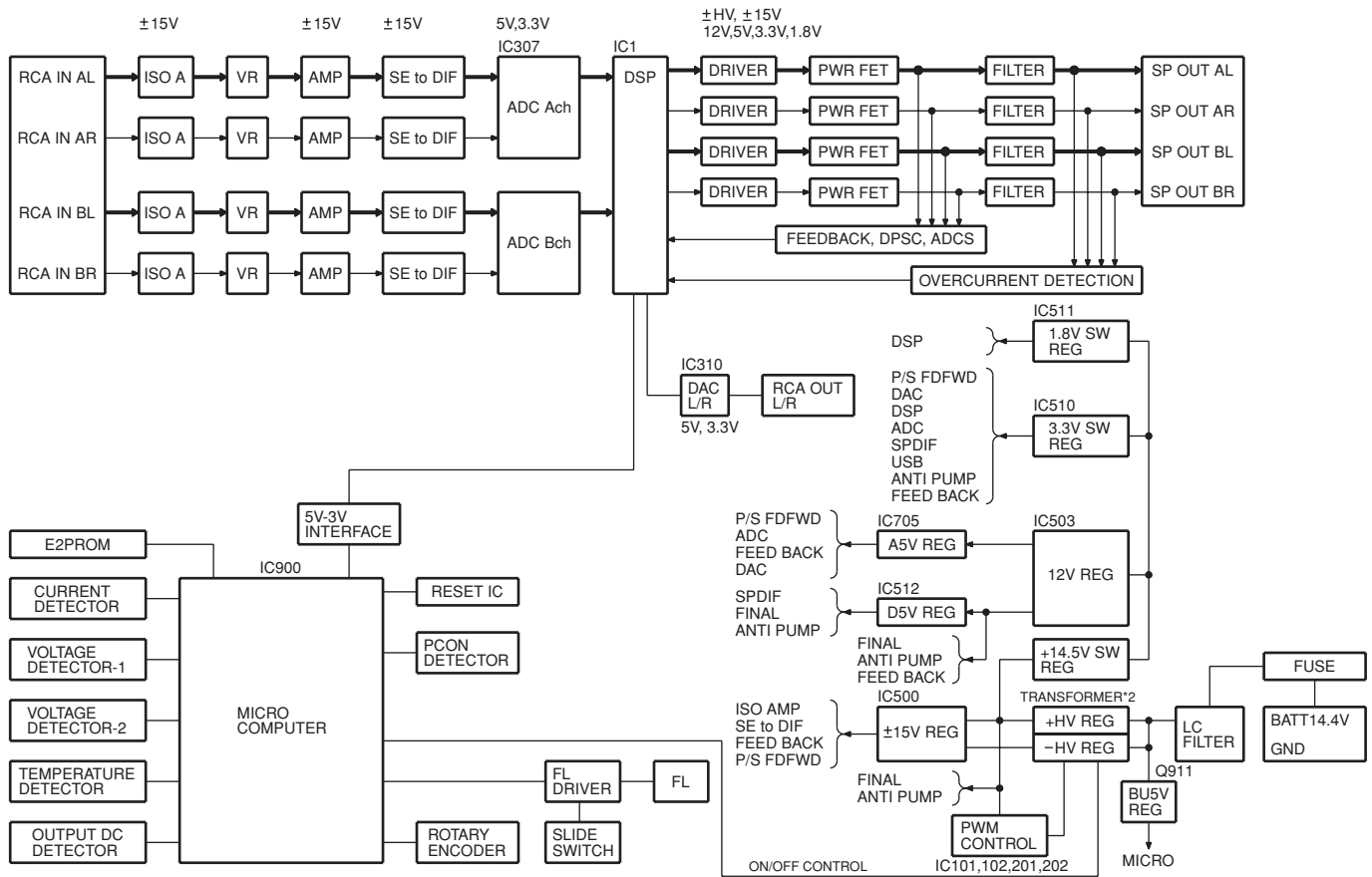


This product uses Lead Free solder.

This product complies with the **RoHS** directive for the European market.

# KAC-PS4D/X4R

## BLOCK DIAGRAM



## COMPONENTS DESCRIPTION

### ● PREAMPLIFIER UNIT (X08-4350-10)

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC1	AR/BRch 8dB buffer-amp	
IC2	AL/BLch 8dB buffer-amp	
IC100	FL driver and Key Matrix	Communicate with microcomputer (on X09 unit).

### ● AUDIO UNIT (X09-8620-10)

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC1	DSP (digital amplifier processor)	
IC3	reset	detect 3.3V VDD for DSP etc
IC100,200,604	buffer	
IC101,102,201,202	MOS FET driver	
IC301,302,401,402	Isolation amp to reduce common mode noise	
IC303,304,403,404	Amp for differential input of AD converter	
IC306	Buffer amp for common voltage of AD converter	
IC307	4ch AD converter for analog input	
IC309	Low pass filter for Line out	
IC310	DAC for pre-out	
IC500	Error Amp for +/-16V regulator	
IC502	SW power supply control IC	
IC503	12V voltage regulator	
IC507	buffer for sync clk	
IC509	14.5V SW regulator	
IC510,511	dc/dc converter for 3.3V and 1.8V	
IC512	5V voltage regulator	
IC601	Amp for differential input of AD converter	
IC602	Buffer amp for common voltage of AD converter	
IC603,704,804	AD Converter for feedback	
IC605	FET driver for (Q601,602) (Anti-pump circuit)	
IC701,702,801,802	Amp for differential input of AD converter	
IC703	Buffer amp for common voltage of AD converter	
IC705	5V voltage regulator	
IC900	system micro	
IC901	control line 3.3V ↔ 5V translation buffer	
IC902	E2PROM	for installer memory, error log.
IC904	Amp for sensing GND voltage	
Q101~104,201~204	SW transistor for SP output line	
Q105~108,205~208	Current protection detect	
Q109,110,209,210	on/off SW of N_HB_ERR (SP out over current det.)	
Q111,112,114,115, Q211,212,214,215	Speaker mute TR	

# KAC-PS4D/X4R

## COMPONENTS DESCRIPTION

Pin No.	Application / Function	Operation / Condition / Compatibility
Q113,116,213,216	SP Mute driver	
Q301,401	Mute circuit of Line out	
Q302	Mute driver of Line out	
Q303	AND circuit of SW5V & Preout Mute	
Q503~508	Driver of SW power supply	
Q509~516	SW transistor for SW regulator	
Q517	AVR of +16V	
Q520	AVR of -16V	
Q521~523	AVR on/off control (1.8V → 3.3V on)	
Q524	Interception circuit of VFL	
Q525	Secondarily stage of Darlington AVR of VFL and FIL+	
Q526	primary stage of Darlington AVR of VFL and FIL+	
Q527~529	Secondarily stage of Darlington AVR of FIL+	
Q530	primary stage of Darlington AVR of FIL+	
Q531	Interception circuit of VFL	
Q533	fixed current supply of +/-16V	
Q601,602	SW transistor for Anti-pump circuit	
Q603,604	current detect for Anti-Pump circuit	
Q605	on/off SW of N_PSCURR (Anti-pump over current det.)	
Q901	On/off SW of SW5V	
Q902	Logo LED driver	
Q903	inverter of +40V detect circuit	
Q904	Interception circuit of B14V	
Q905	On/off SW of Q904	
Q906,907	SP DC detect circuit	
Q908	Interception circuit of SW5V	
Q909	Protect circuit for Vdd5V	
Q910	NF control for Vdd5V	
Q911	Interception circuit of BU5V	
Q912	On/off SW of SW14V	
Q913	Interception circuit of SW14V	
Q914,915	P-con detector	
Q916	BATT14V down detector	
Q917	Inverter of FAN CTRL line from $\mu$ -con	
Q918	On/off SW of FAN+B	
Q920	Secondarily stage of Darlington AVR of FAN+B	
Q922,923	On/off SW of SP MUTE	
Q924	Inverter of OUT_OF_BOOT line	

## MICROCOMPUTER'S TERMINAL DESCRIPTION

● SYSTEM  $\mu$ -COM 78F0536GK011A (X09-862 : IC900)

Pin No.	Pin Name	I/O	Application	Processing / Operation / Description
1	/P_CON	I	Clear the stop mode by P-CON ON	L: Clear the stop mode (INTP0) H: (P120)
2~5	NC	O	Not used	Output L fixed
6	/RESET	I	Reset	
7	OVF	I	ADC overflow detection	H: When the overflow is detected displays on VFD
8	NC	O	Not used	Output L fixed
9	FLASH_W	I	Used when writing in the flash	
10,11	NC	O	Not used	Output L fixed
12	REGC	-		
13	VSS	-	Connect to GND	
14	EVSS	-	Connect to GND	
15	VDD	-	Connect to VDD	
16	EVDD	-	Connect to VDD	
17	D2_CLK	I/O	D2 control (75kHz max)	I2C BUS
18	D2_DATA	I/O	D2 control	I2C BUS
19	/N-ERROR	I	Over current detection	L: Enter the protection mode when the over current is detected. Turn off the amplifier power supply and display the error (E-03). Automatically recover in 200msec.
20	NC	O	Not used	Output L fixed
21	/OC_DET	I	Over current detection	Check current every 1ms, and when "L" is detected 15 times in succession the over current is detected and enter the over current protection mode. Turn off the amplifier power supply and display the error (E-03). Automatically recover in 200msec.
22	/D2_RESET	O	Reset TENZING	L=RESET
23	/D2_RST_DET	I	Tenzing reset detection	When Low is detected at pin23 while the pin22 of the $\mu$ -com is High, temporarily turn off the amplifier and reboot the system.
24,25	NC	O	Not used	Output L fixed
26	/PREOUT_MUTE	O	Mute the pre-out	L: MUTE ON
27	/DSP_MUTE	O	Mute TENZING	L: MUTE ON
28~30	NC	O	Not used	Output L fixed
31	/SP_MUTE	O	Mute the speaker output	L: MUTE ON
32	OUT_OF_BOOT	I	Receive BOOT completion status from TENZING	L: Tenzing BOOT completion (DSP is in its operation)
33	BOOT_CTRL (Not Used)	I	DSP BOOT control (No $\mu$ -com control)	L: BOOT from $\mu$ -com H: BOOT from EEPROM
34	ROTARY_CW	I	Encoder pulse input	Detect pulse phase difference
35	ROTARY_CCW	I	Encoder pulse input	Detect pulse phase difference
36	14V_SW	O	SW14V ON/OFF	SW14V ON/OFF Amplifier power supply ON: H, Initial condition L

# KAC-PS4D/X4R

## MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Processing / Operation / Description
37	5V_SW	O	SW5V ON/OFF	SW5V ON/OFF Power supply ON: H, Initial condition L
38	VD DOWN	I	Detection of voltage at momentary power down	H: Processing to detect voltage at momentary power down (Enter the stop mode when the P-CON is down.)
39	FAN_CTRL	O	FAN control	H: FAN_ON
40	PON_ILLUM	O	LOGO LED+B SW	H: ON, L: OFF, Initial condition L
41	PON_FL	O	FL power supply (Grid and Filament) control	H: ON, L: OFF
42	/VFD_INH (/BLK)	O	Inhibit FL driver display	H: Display, L: No display
43	VFD_CE	O		
44	VFD_DATA_M (FVD.DI)	O		
45	VFD_DATA_S (FVD.DO)	I		
46	VFD_CLK	O		
47	AVREF	-	DA REF voltage	
48	AVSS	-		
49	AD_V	I	Detects BU voltage (For display)	Displays the voltage and condition.
50	AD_I	I	Detects primary current (For display)	Converts into the current and displays current value.
51	TEMP6	I	Temperature detection 6 (at power supply side) (For display and protection)	Displays the temperature and overheat protection.
52	TEMP5	I	Temperature detection 5 (at power supply side) (For display and protection)	Displays the temperature and overheat protection.
53	TEMP4	I	Temperature detection 4 (at power supply side) (For display and protection)	Displays the temperature and overheat protection.
54	TEMP3	I	Temperature detection 3 (at power supply side) (For display and protection)	Displays the temperature and overheat protection.
55	TEMP2	I	Temperature detection 2 (at power supply side) (For display and protection)	Displays the temperature and overheat protection.
56	TEMP1	I	Temperature detection 1 (at power supply side) (For display and protection)	Displays the temperature and overheat protection.
57	NC	O	Not used	Output L fixed
58	E2P_SCL	I/O	To memorize D2 setting	
59	E2P_SDA	I/O	To memorize D2 setting	
60,61	NC	O	Not used	Output L fixed
62	B_DET	I	B voltage over voltage detection (Not Used)	Plan: Enters the protection operation when the voltage is higher than a certain value. (Not Used) • Software does not have a detection function. • Make sure to pull down/up when it is required to remove the external circuit!
63	/DC_DET	I	Output DC OFFSET voltage detection	L: Enters into the voltage error protection operations.
64	USB_DET (Not Used)	I	USB detection	H: When USB is detected, do not make D2 setup from the $\mu$ -com. • No processing is included.

## TEST MODE

### ● How to enter the test mode and how to clear the test mode

#### • How to enter

In the backup connection condition (when the battery is being connected), turn ON the P\_CON while keep pushing the rotary push key.

\* Set up SETTING SW from the INFORMATION side.

#### • How to clear

P\_CON OFF or reset to clear the mode.

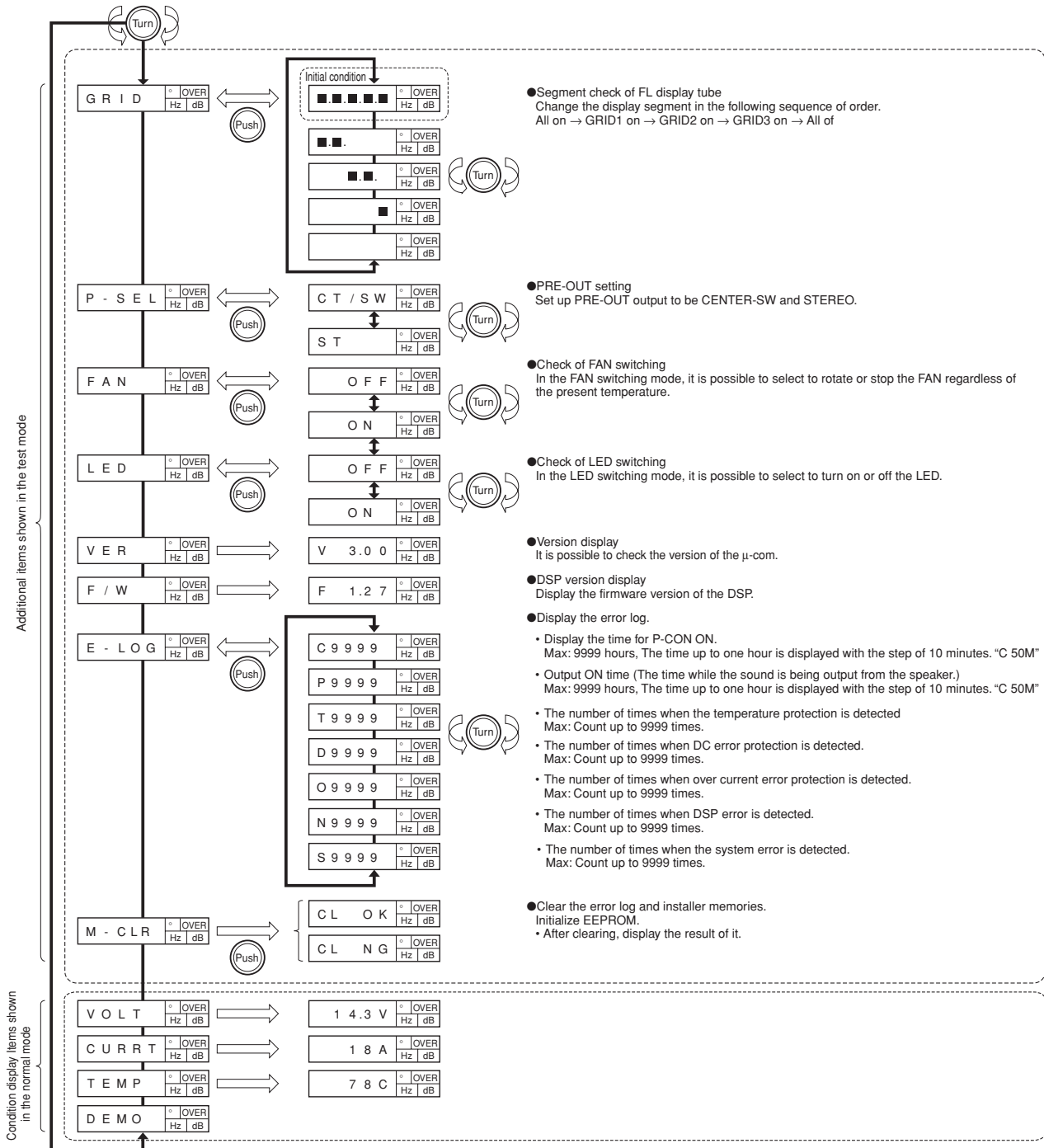
\* Do not clear the mode if the protection recovers automatically.

### ● Items in the test mode and test operations

#### • INFORMATION display (Display of conditions)

In the test mode, the following items can be checked in addition to the normal INFORMATION display.

Each item can be selected with the rotary encoder and the settings can be changed with the push key.



# KAC-PS4D/X4R

## CIRCUIT DESCRIPTION

### ● Flow of PS4D/X4R signal line and power supply controls

#### • Block diagram

The signal from the pin jack is converted into the differential signal via the isolation amplifier, variable resistor, and single end.

It is converted into the digital signal in the AD converter and it is signal-conditioned in the DSP so that it can be amplified by the PWM digital amplifier.

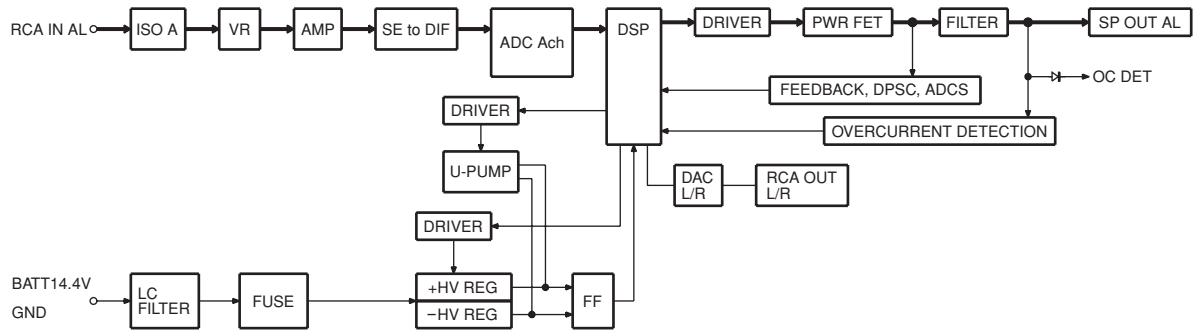
It is PWM-amplified to the analog signal by the driver and power MOSFET to the level that can be output from the speaker.

The signal right after this step is converted into the digital signal in the AD converter and is feed-backed to the DSP.

The main signal is output from SP via the low pass filter. In addition, current of the main signal is monitored in the over current detection circuit and when the over current is detected the output level is controlled by the DSP.

The signal for pre-out is output to the pin jack via the DA converter used for the pre-out.

The 14V of the battery is converted to +/-40V in the SW regulator. The voltage is controlled in the feed-forward and anti-pumping circuits.



### ● Main signal amplifier circuit with PWM

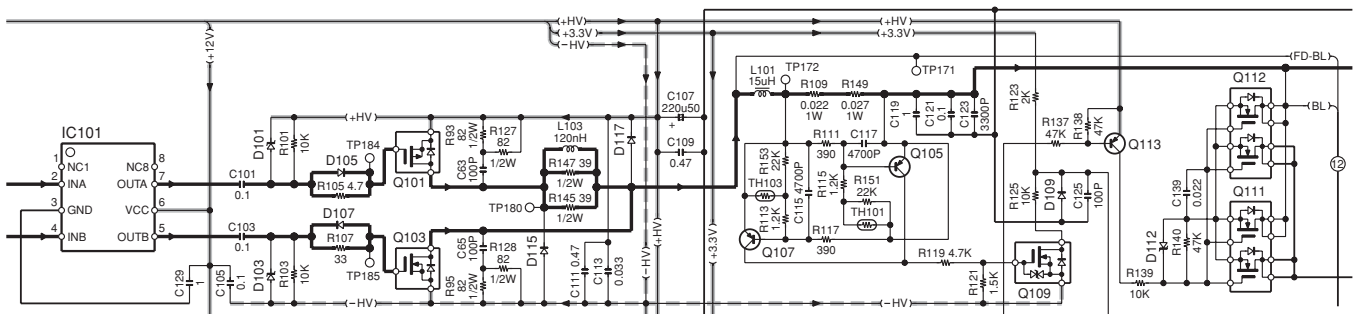
#### • Main signal amplifier circuit with PWM

The audio signal that is DA-converted is converted into the signal for PWM in the DSP.

Its level is shifted in the IC101 and it is converted into the PWM signal whose amplitude is +/- B. The "+" side of the amplitude is controlled by Q101 of the PchMOSFET and the "-" side is controlled by Q103 of the NchMOSFET.

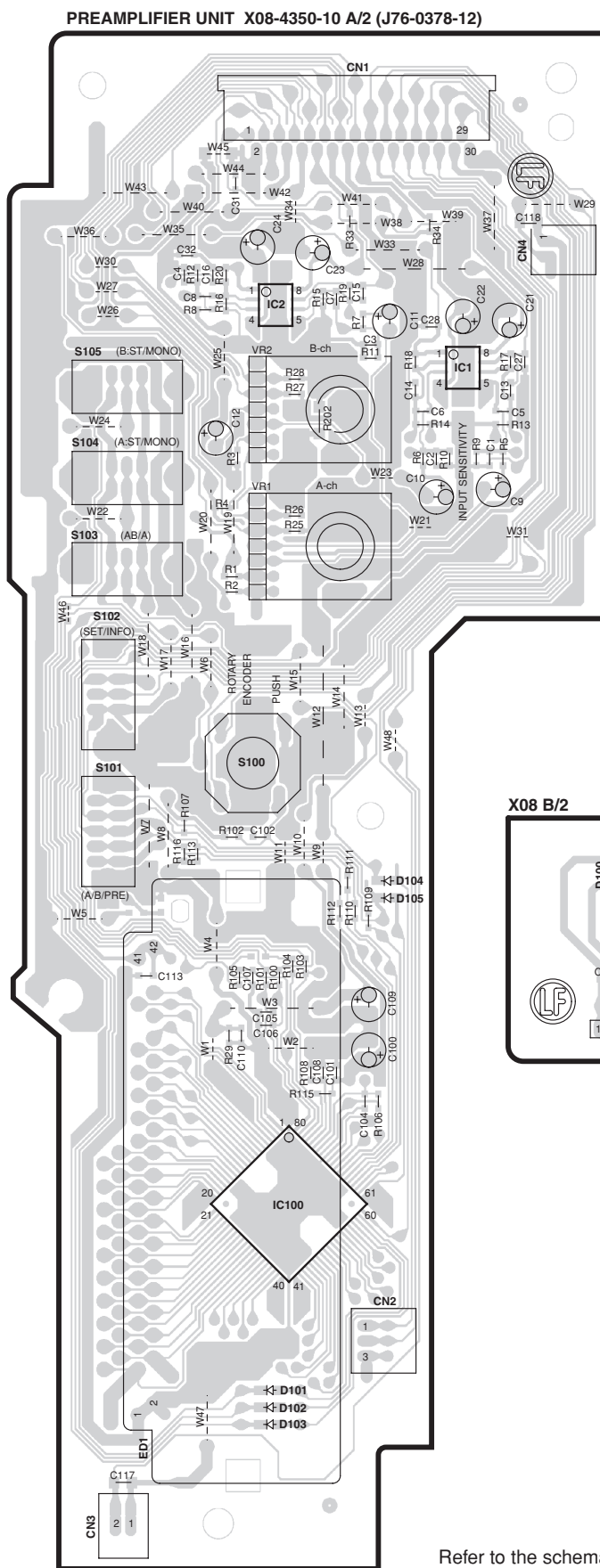
Over current is detected by R109 and R149. The signal level is lowered in the DSP when the over current is detected.

Q107 is used to detect the "+" side of the switching current and Q105 is used to detect the "-" side of the current.

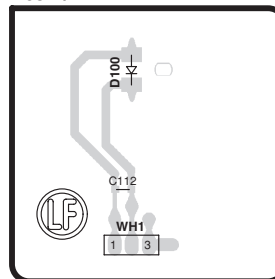




## PC BOARD (FOIL SIDE VIEW)



X08 B/2



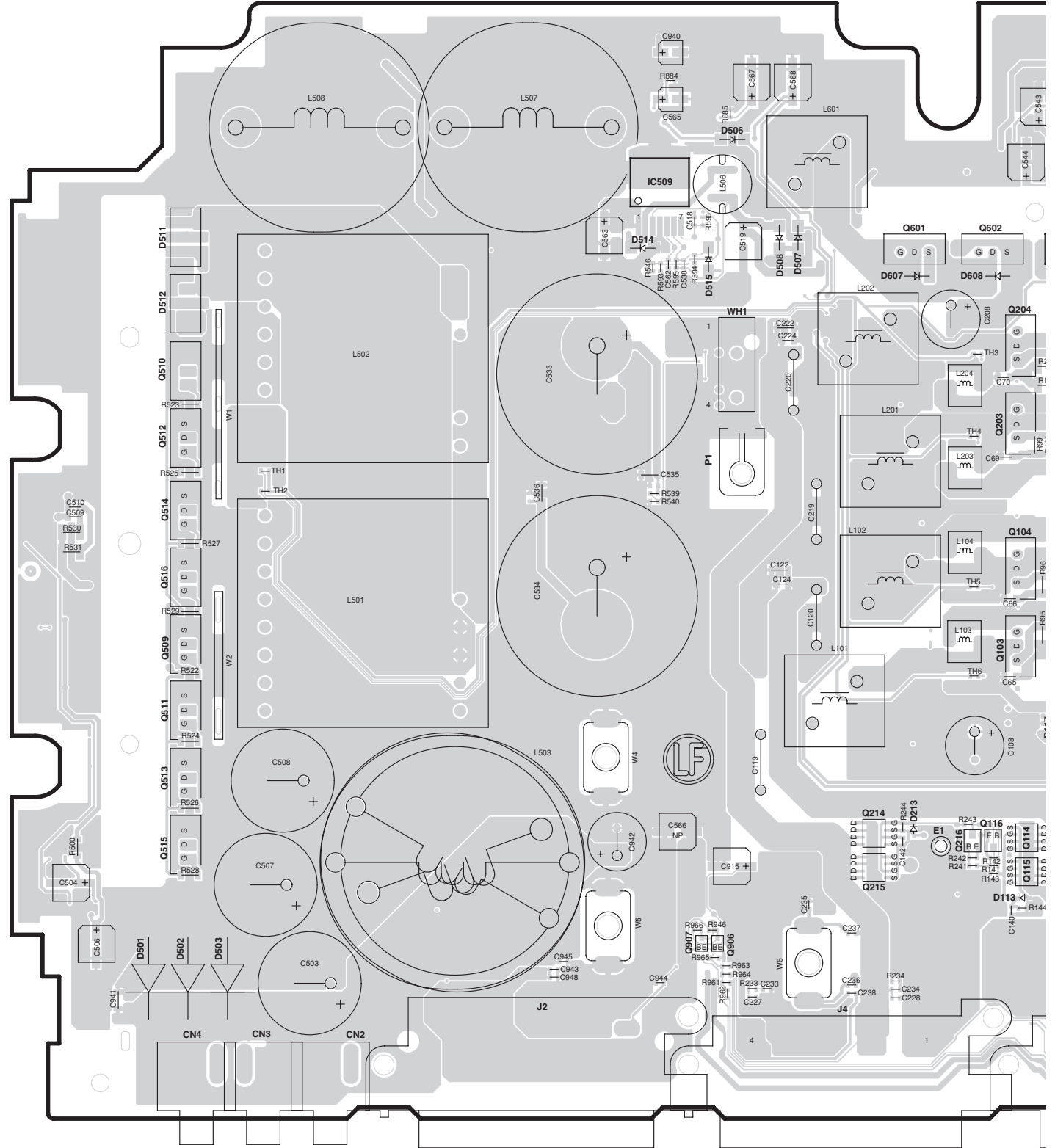
X08-4350-10

Ref. No.	Address
IC1	3C
IC2	2B
IC100	6B

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

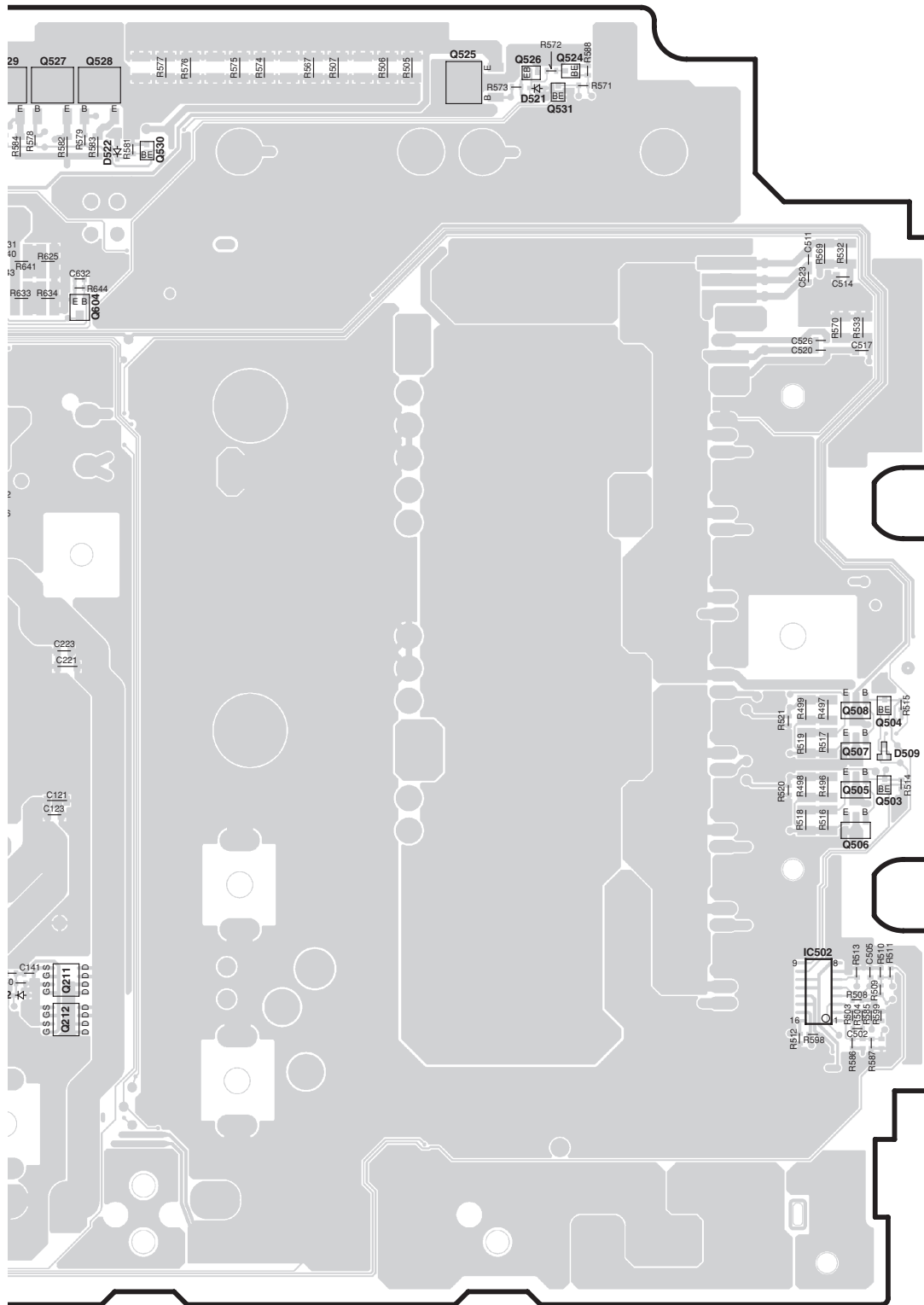
# KAC-PS4D/X4R PC BOARD (COMPONENT SIDE VIEW)

AUDIO UNIT X09-8620-10 (J76-0376-21)









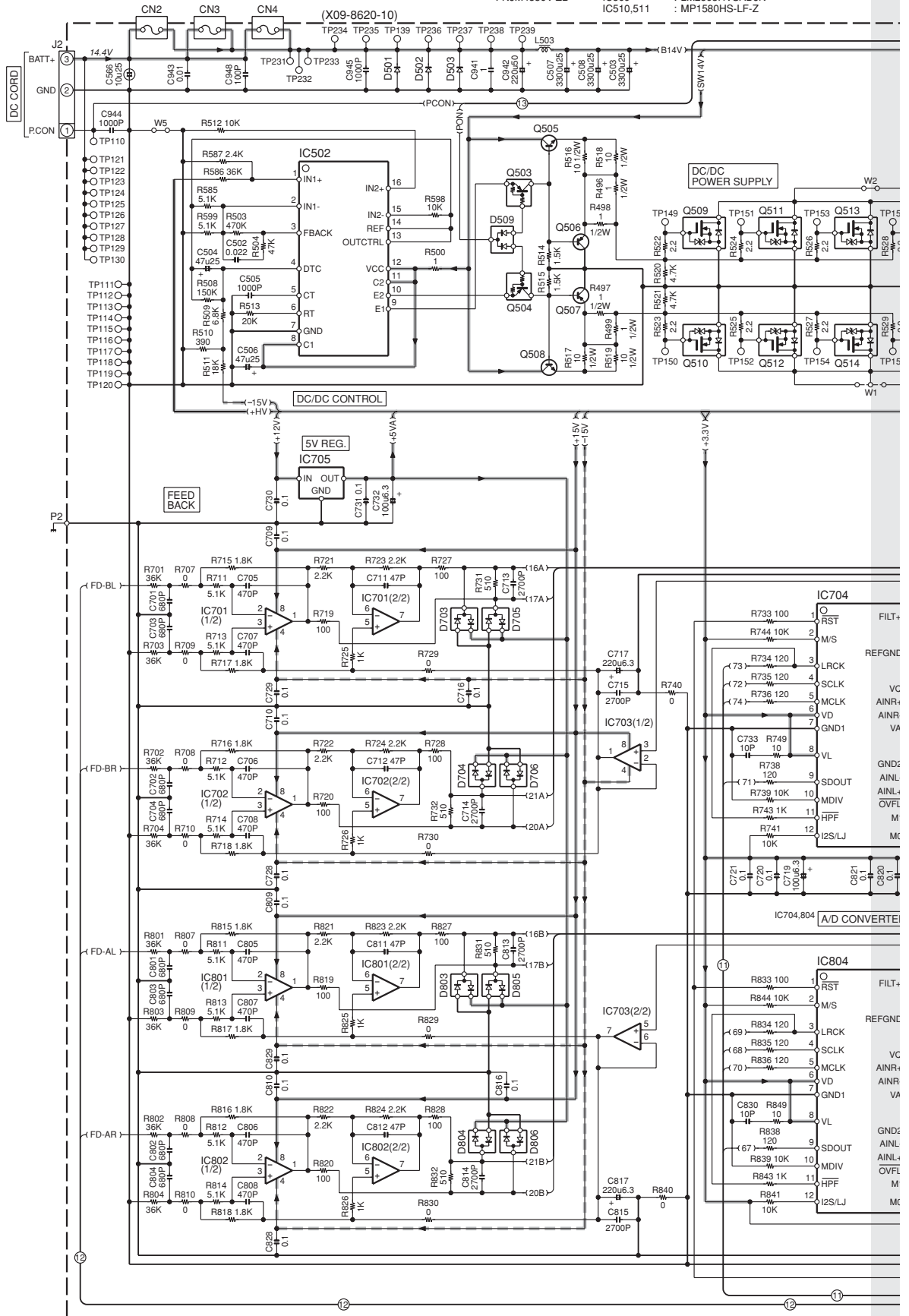
## X09-8620-10

Ref. No.	Address	Ref. No.	Address
IC101	5S	Q209	4T
IC102	4S	Q210	3T
IC201	4S	Q211	5U
IC202	3S	Q212	5U
IC301	5Q	Q213	5S
IC302	5Q	Q301	6P
IC303	5Q	Q302	5Q
IC304	5Q	Q303	5Q
IC306	4R	Q401	6Q
IC310	6P	Q503	4X
IC401	5Q	Q504	4X
IC402	5R	Q505	4X
IC403	5Q	Q506	5X
IC404	5R	Q507	4X
IC500	2R	Q508	4X
IC502	5X	Q524	2W
IC601	3R	Q525	2V
IC602	3R	Q526	2W
IC603	3R	Q527	2U
IC604	2S	Q528	2U
IC605	2S	Q529	2T
IC701	5R	Q530	2U
IC702	4R	Q531	2W
IC704	4R	Q533	2R
IC801	4R	Q603	2T
IC802	4R	Q604	2U
IC804	4R	Q605	2T
IC902	3P	Q901	3Q
IC904	5R	Q902	4P
Q105	5T	Q904	2Q
Q106	4T	Q905	2Q
Q107	5T	Q908	2Q
Q108	4T	Q909	2Q
Q109	5T	Q910	2P
Q110	4T	Q912	2P
Q111	5S	Q914	2Q
Q112	5S	Q915	2Q
Q113	5S	Q916	2Q
Q205	4T	Q917	2Q
Q206	3T	Q918	2Q
Q207	4T	Q922	5T
Q208	3T	Q923	3P

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

# KAC-PS4D/X4R

IC1 : D2-91413-LR	IC303,304,309,403,404,500,904	IC512 : BA05T
IC3 : S-80827CNBB-G	IC307 : NJM4565V-ZB	IC603,704,804
IC100,200,604 : TC74VHC125FT	IC310 : WM8716SEDS/R	IC5361-DZZR
IC101,102,201,202,605	IC502 : TL494IDR	IC705 : LM1117D5.0N
IC301,302,306,401,402,601,	IC503 : LT1086IT-PBF	IC900 : 78F0536GK011A
602,701-703,801,802	IC507 : TC7S2125PU-F	IC901 : TC7MBD3245AF
	IC509 : LM2593HVSADJN	IC902 : BR24L04FV-W
	IC510,511 : MP1580HS-LF-Z	



# KAC-PS4D/X4R

15T  
14  
3361-DZZR  
1171D75.0N  
0536GK011A  
MBD3245AFK  
34L04FV-W

Q101,102,201,202 : IRF9530NPBF  
Q103,104,203,204 : IRF530NPBF  
Q105-108,113,116,205-208,  
213,216,603,604 : 2SA1163-F  
Q109,110,209,210,605 : SSM3K7002FU-F  
Q111,112,114,115,211,212,  
214,215 : IRF7341PBF  
Q301,401 : 2SD2114K

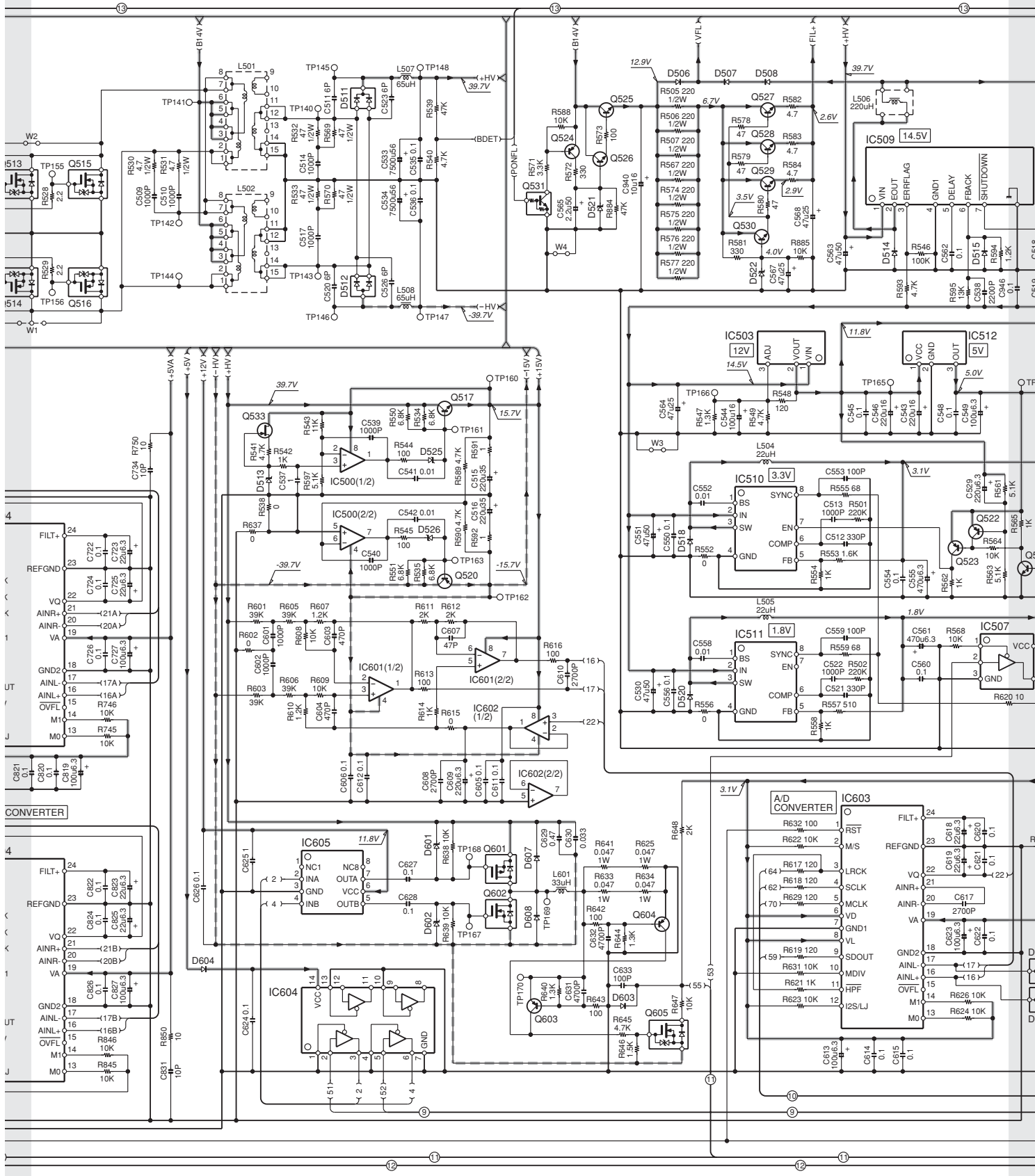
Q302,503,504,904,918,931 : DTA114EUA  
Q303,521,526,530,902,903,  
906,907,909,910,914-916 : 2SC4081  
Q505,508 : 2SD2153  
Q506,507 : 2SB1427  
Q509-516 : 2SK3662-F  
Q517 : 2SD2012-F

Q520 : 2SB1375-F  
Q522-524,908 : 2SA1576A  
Q525,527-529,920 : 2SD1733  
Q531,901,905,912,917,  
922-924,930 : DTC114EUA  
Q533 : 2SK879-F(GR)  
Q601 : IRF5210PBF  
Q602 : IRF540NPBF  
Q911,913 : 2SB1181

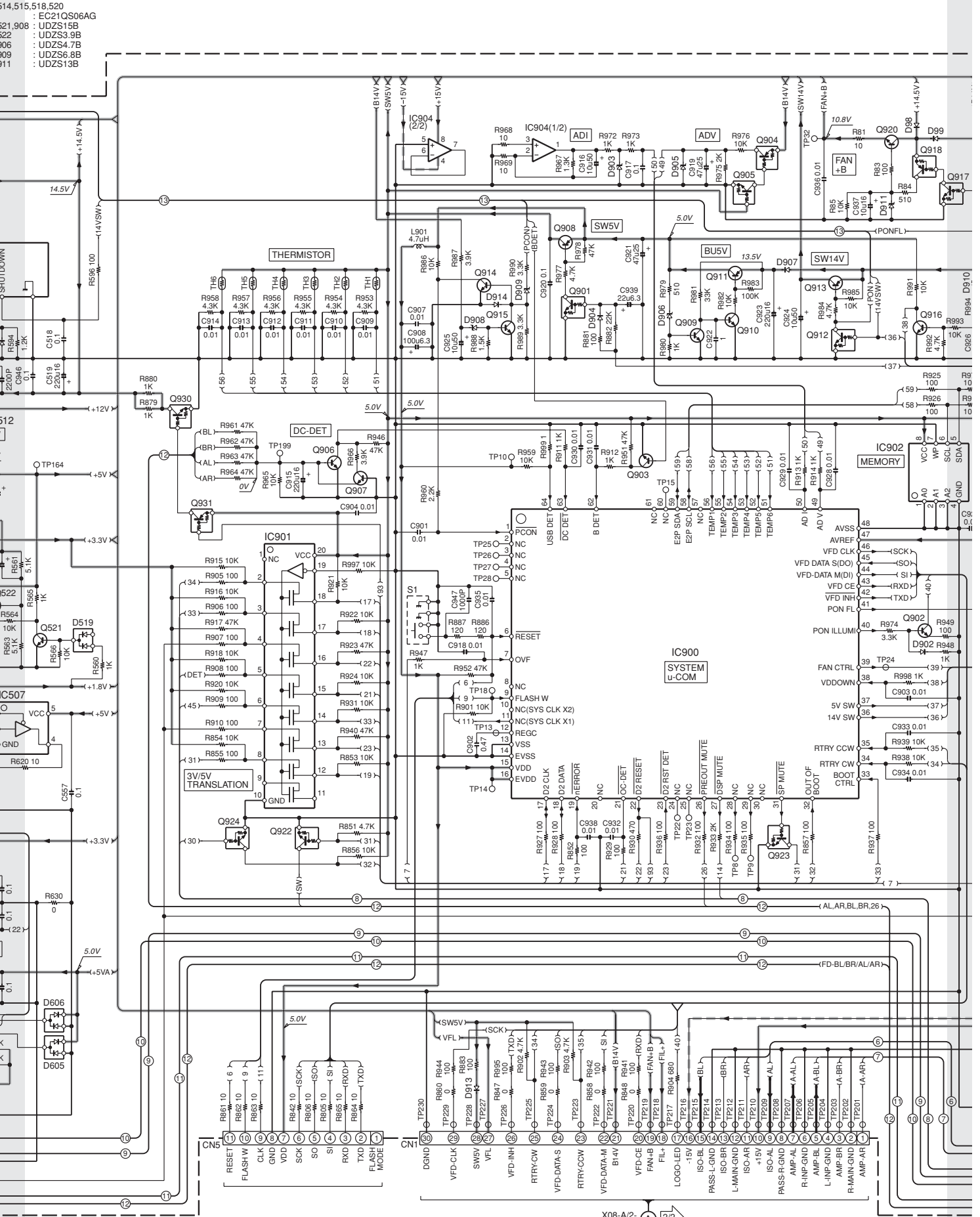
D1,105-110,205-210,603,  
913 : EP05Q04  
D4-8,111,211,302,308,309,  
311,604,902,904,914 : 1SS355  
D98,99,506-508,907 : 1SR154-400  
D101-104,112,113,201-204,  
212,213,525,526,601,602 : UDZS12B

D115-118,215-218,607,608 : M3FL20U-5063  
D300,400,405 : UMZ6.8N  
D312-317,411-416,605,606,  
703-706,803-806 : DAN217U  
D501-503 : RM42LF-1J1N  
D509,519 : DAN202U  
D511,512 : FCH20A20  
D513,903,905,910 : UDZS5.1B

D514,515,518 : EC  
D521,908 : UD  
D522 : UD  
D906 : UD  
D909 : UD  
D911 : UD



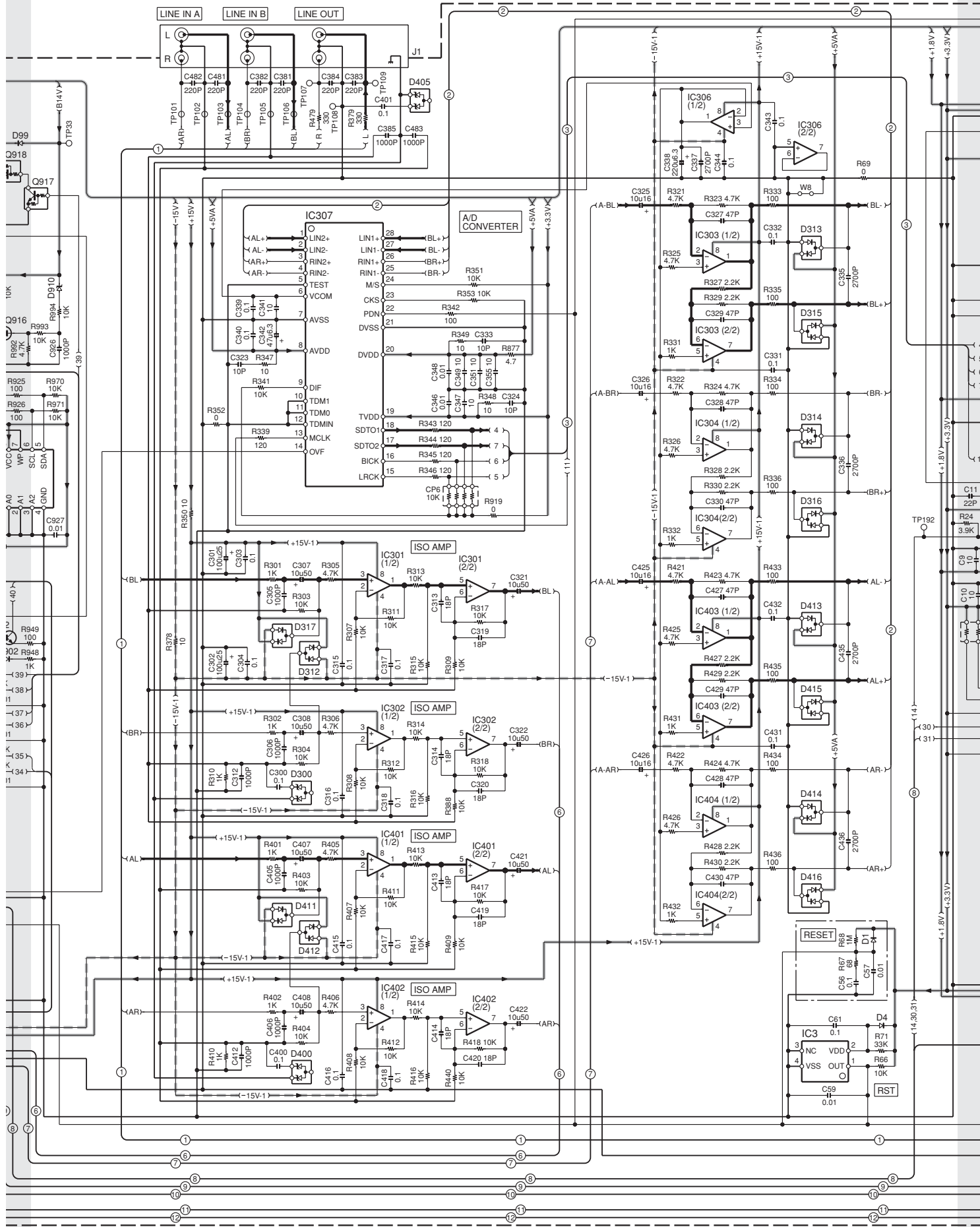
# KAC-PS4D/X4R



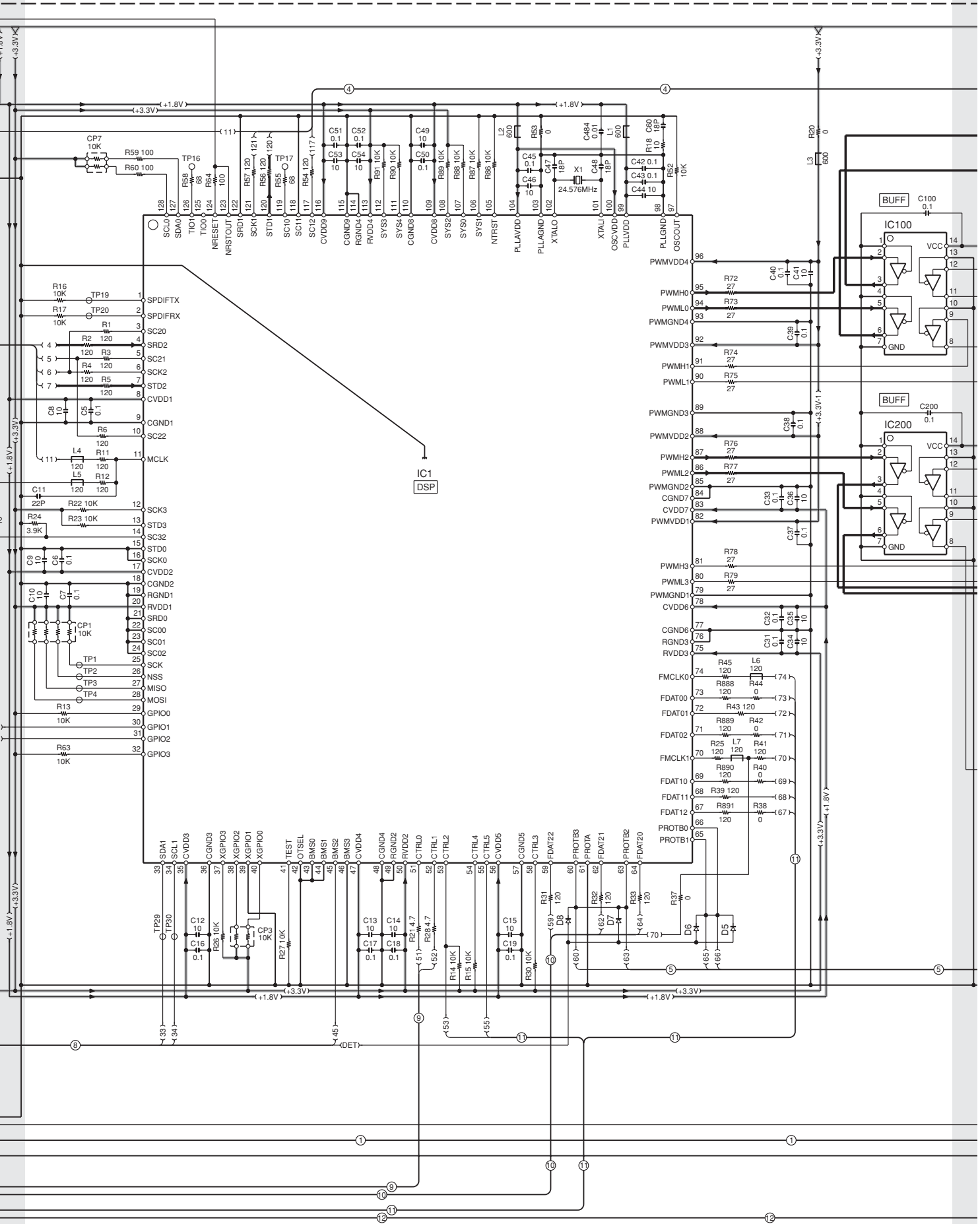
- 514,515,518,520 : EC21QS06AG
- 521,908 : UDZS15B
- 522 : UDZS3.9B
- 906 : UDZS4.7B
- 909 : UDZS6.8B
- 911 : UDZS13B



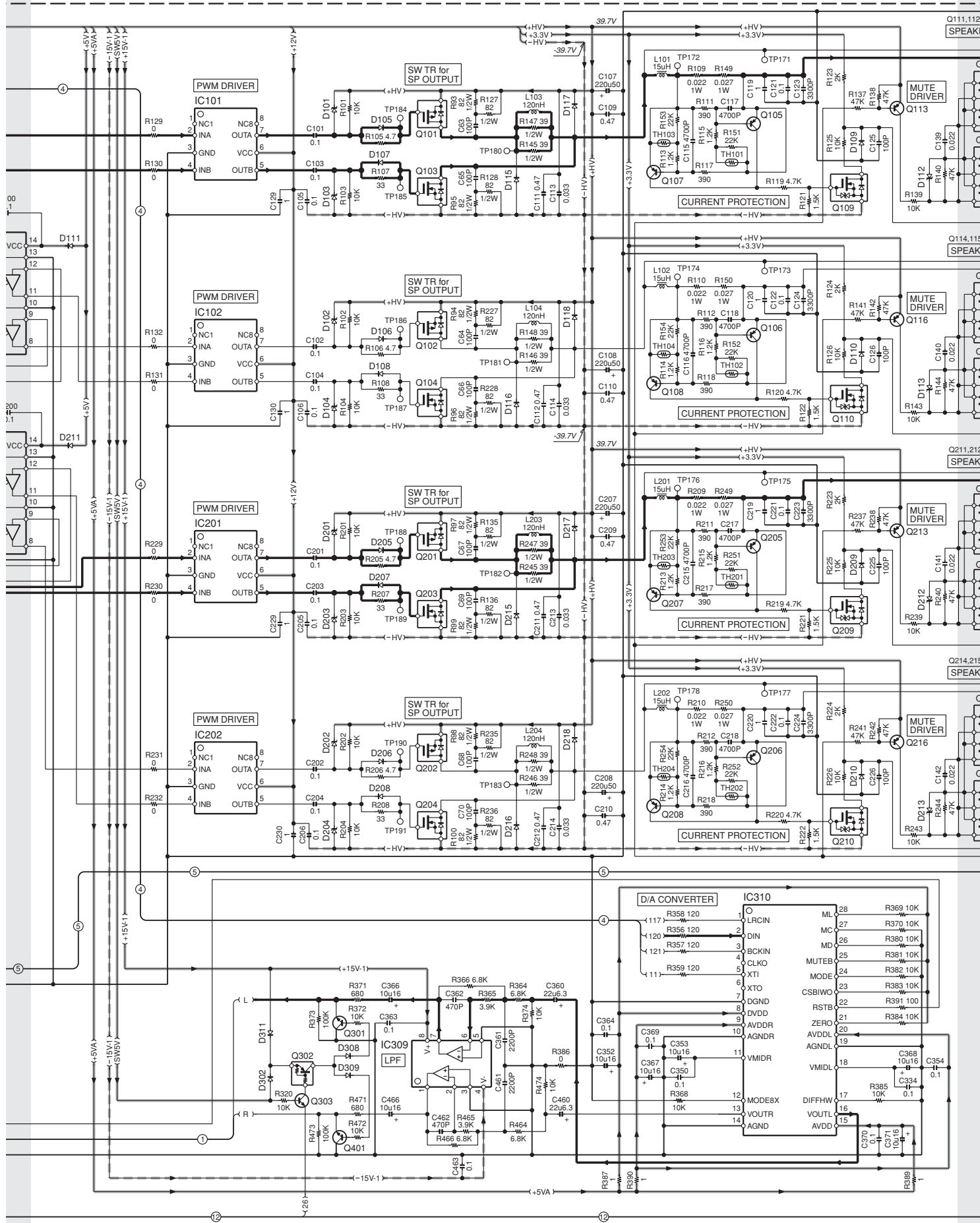
# KAC-PS4D/X4R



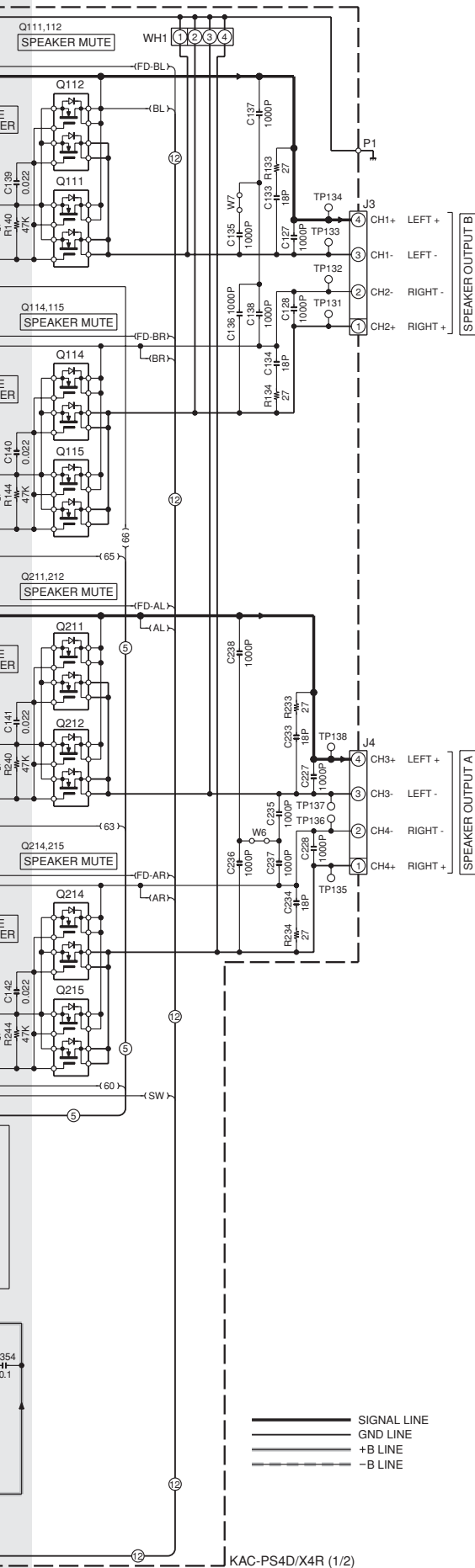
# KAC-PS4D/X4R



# KAC-PS4D/X4R



# KAC-PS4D/X4R

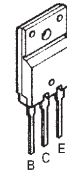


KAC-PS4D/X4R (1/2)

DTA144EUA  
 2SA1163-F  
 2SA1576A  
 2SD2114K



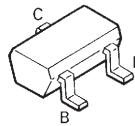
2SB1375-F  
 2SD2012-F



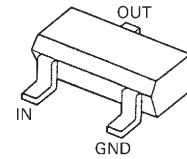
1

2

2SC4081



DTA114EUA  
 DTC114EUA



3

DAN202U

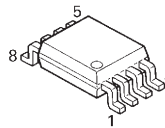


2SK879-F

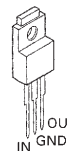


4

NJM4580V-ZB

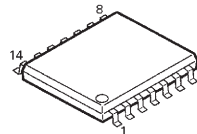


BA05T



5

TC74VHC125FT



6

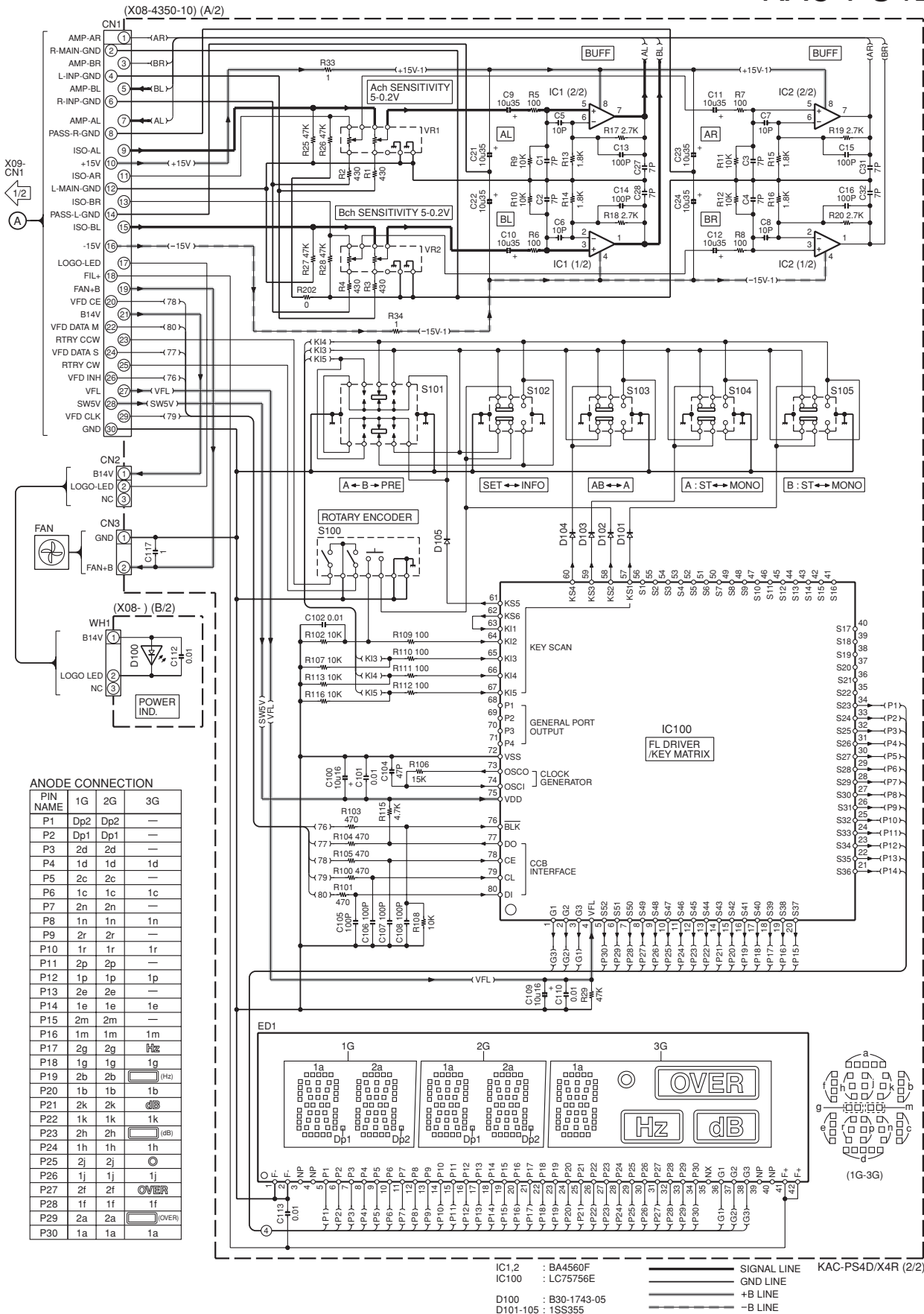
**CAUTION** : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).

△ 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.

7

# KAC-PS4D/X4R



IC1,2 : BA4560F  
 IC100 : LC75756E  
 D100 : B30-1743-05  
 D101-105 : 1SS355

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

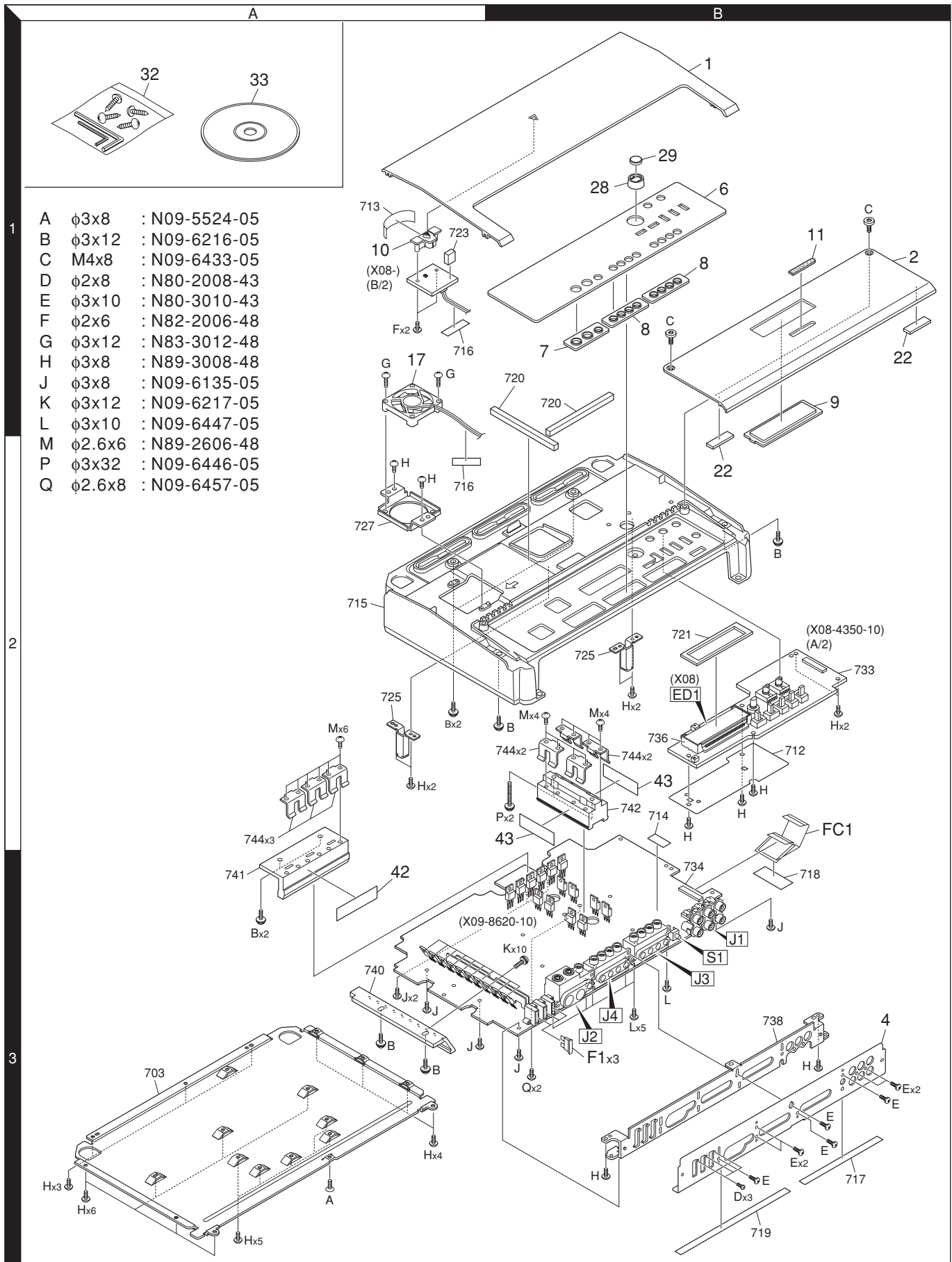
KAC-PS4D/X4R (2/2)

**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.

# KAC-PS4D/X4R

## EXPLODED VIEW



- A  $\phi 3 \times 8$  : N09-5524-05
- B  $\phi 3 \times 12$  : N09-6216-05
- C M4x8 : N09-6433-05
- D  $\phi 2 \times 8$  : N80-2008-43
- E  $\phi 3 \times 10$  : N80-3010-43
- F  $\phi 2 \times 6$  : N82-2006-48
- G  $\phi 3 \times 12$  : N83-3012-48
- H  $\phi 3 \times 8$  : N89-3008-48
- J  $\phi 3 \times 8$  : N09-6135-05
- K  $\phi 3 \times 12$  : N09-6217-05
- L  $\phi 3 \times 10$  : N09-6447-05
- M  $\phi 2.6 \times 6$  : N89-2606-48
- P  $\phi 3 \times 32$  : N09-6446-05
- Q  $\phi 2.6 \times 8$  : N09-6457-05

# KAC-PS4D/X4R

## 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.	Add	New	Parts No.	Description	Destination
<b>KAC-PS4D/X4R</b>					
1	1B		A21-6574-11	DRESSING PANEL	
2	1B	*	A21-6578-01	DRESSING PANEL	K
2	1B	*	A21-6579-01	DRESSING PANEL	E1
4	3B	*	A64-4089-02	PANEL	
6	1B	*	B03-5092-02	DRESSING PLATE	K
6	1B	*	B03-5093-02	DRESSING PLATE	E1
7	1B		B07-3198-04	ESCUTCHEON	
8	1B		B07-3199-04	ESCUTCHEON	
9	1B		B10-4939-13	FRONT GLASS	
10	1A		B19-2423-03	LIGHTING BOARD	
11	1B		B43-0336-04	BADGE	
-		*	B64-3525-00	INSTRUCTION MANUAL (ENG.FRE.SPA)	
-		*	B64-3526-00	INSTRUCTION MANUAL (GER.DUT.)	E1
-		*	B64-3526-00	INSTRUCTION MANUAL (ITA.POR.)	E1
FC1	2B		E39-0887-05	FLAT CABLE	
17	1A		F09-1846-15	FAN	
△ F1	3B		F52-0014-05	FUSE (BLADE TYPE) 25A	
22	1B		G11-3716-04	CUSHION	
-		*	H54-3952-03	ITEM CARTON CASE	K
-		*	H54-3953-03	ITEM CARTON CASE	E1
28	1B		K28-0222-04	KNOB ASSY (VOL ASSY)	
29	1B		K28-0223-04	KEY TOP (VOL FM/AM)	
32	1A		N99-1795-05	SCREW & WRENCH KEY SET	
A	3A		N09-5524-05	SET SCREW (3X8)	
B	2A		N09-6216-05	TAPTITE SCREW (3X12)	
C	1B		N09-6433-05	DRESSED SCREW (M4X8)	
D	3B		N80-2008-43	PAN HEAD TAPTITE SCREW	
E	3B		N80-3010-43	PAN HEAD TAPTITE SCREW	
F	1A		N82-2006-48	BINDING HEAD TAPTITE SCREW	
G	1A		N83-3012-48	PAN HEAD TAPTITE SCREW	
H	3A		N89-3008-48	BINDING HEAD TAPTITE SCREW	
P	3B	*	N09-6446-05	SEMS (TAPTITE SCREW) (3X32)	
33	1A	*	W01-1701-05	COMPACT DISC	
<b>PREAMPLIFIER UNIT (X08-4350-10)</b>					
D100			B30-1743-05	LED (RED LED)	
C1-4			CC73GCH1H070D	CHIP C 7.0PF D	
C5-8			CC73GCH1H100D	CHIP C 10PF D	
C9-12			CD04AS1V100M	ELECTRO 10UF 35WV	
C13-16			CC73GCH1H101J	CHIP C 100PF J	
C21-24			CD04AS1V100M	ELECTRO 10UF 35WV	
C27,28			CC73GCH1H070D	CHIP C 7.0PF D	
C31,32			CC73GCH1H070D	CHIP C 7.0PF D	
C100			CD04AT1C100M	ELECTRO 10UF 16WV	
C101,102			CK73GB1H103K	CHIP C 0.010UF K	
C104			CC73GCH1H470J	CHIP C 47PF J	
C105-108			CC73GCH1H101J	CHIP C 100PF J	
C109			CD04AT1C100M	ELECTRO 10UF 16WV	
C110			CK73GB1H103K	CHIP C 0.010UF K	
C112,113			CK73GB1H103K	CHIP C 0.010UF K	

Ref. No.	Add	New	Parts No.	Description	Destination
C117			CK73FB1C105K	CHIP C 1.0UF K	
CN1			E41-2203-05	FLAT CABLE CONNECTOR	
CN2			E41-1700-05	PIN ASSY	
CN3			E41-1699-05	PIN ASSY	
WH1			E39-0921-05	WIRING HARNESS	
R1-4			RK73GB2A431J	CHIP R 430 J 1/10W	
R5-8			RK73GB2A101J	CHIP R 100 J 1/10W	
R9-12			RK73GB2A103J	CHIP R 10K J 1/10W	
R13-16			RK73GB2A182J	CHIP R 1.8K J 1/10W	
R17-20			RK73GB2A272J	CHIP R 2.7K J 1/10W	
R25-28			RK73GB2A473J	CHIP R 47K J 1/10W	
R29			RK73GB2A103J	CHIP R 10K J 1/10W	
R33,34			RK73GB2A1R0J	CHIP R 1.0 J 1/10W	
R100,101			RK73GB2A471J	CHIP R 470 J 1/10W	
R102			RK73GB2A103J	CHIP R 10K J 1/10W	
R103-105			RK73GB2A471J	CHIP R 470 J 1/10W	
R106			RK73GB2A153J	CHIP R 15K J 1/10W	
R107,108			RK73GB2A103J	CHIP R 10K J 1/10W	
R109-112			RK73GB2A101J	CHIP R 100 J 1/10W	
R113			RK73GB2A103J	CHIP R 10K J 1/10W	
R115			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R116			RK73GB2A103J	CHIP R 10K J 1/10W	
R202			RK73EB2E000J	CHIP R 0.0 J 1/4W	
VR1,2			R31-0238-05	VARIABLE RESISTOR	
W45			R92-2053-05	CHIP R 0 OHM J 1/8W	
W46			R92-1252-05	CHIP R 0 OHM J 1/16W	
S101			S62-0880-05	SLIDE SWITCH	
S102-105			S62-0879-05	SLIDE SWITCH	
S100			T99-0474-05	ROTARY ENCODER	
D101-105			1SS355	DIODE	
ED1			CNA-03SS10T	FLUORESCENT INDICATOR TUBE	
IC1,2			BA4560F	ANALOGUE IC	
IC100			LC75756E	MOS-IC	
<b>AUDIO UNIT (X09-8620-10)</b>					
C5-7			CK73GB1H104K	CHIP C 0.10UF K	
C8-10			CK73FB0J106K	CHIP C 10UF K	
C11			CC73GCH1H220J	CHIP C 22PF J	
C12-15			CK73FB0J106K	CHIP C 10UF K	
C16-19			CK73GB1H104K	CHIP C 0.10UF K	
C31-33			CK73GB1H104K	CHIP C 0.10UF K	
C34-36			CK73FB0J106K	CHIP C 10UF K	
C37-40			CK73GB1H104K	CHIP C 0.10UF K	
C41			CK73FB0J106K	CHIP C 10UF K	
C42,43			CK73GB1H104K	CHIP C 0.10UF K	
C44			CK73FB0J106K	CHIP C 10UF K	
C45			CK73GB1H104K	CHIP C 0.10UF K	
C46			CK73FB0J106K	CHIP C 10UF K	
C47,48			CC73GCH1H180J	CHIP C 18PF J	
C49			CK73FB0J106K	CHIP C 10UF K	
C50-52			CK73GB1H104K	CHIP C 0.10UF K	
C53,54			CK73FB0J106K	CHIP C 10UF K	
C55,56			CK73GB1H104K	CHIP C 0.10UF K	

E1 : KAC-PS4D (Europe) K : KAC-X4R (North America)

△ Indicates safety critical components.

# KAC-PS4D/X4R

## PARTS LIST

### AUDIO UNIT (X09-8620-10)

Ref. No.	Add	New	Parts No.	Description	Destination
C57			CK73GB1H103K	CHIP C 0.010UF K	
C59			CK73GB1H103K	CHIP C 0.010UF K	
C60			CC73GCH1H180J	CHIP C 18PF J	
C61			CK73GB1H104K	CHIP C 0.10UF K	
C63-70		*	C93-1450-05	CHIP C 100PF J	
C100			CK73GB1H104K	CHIP C 0.10UF K	
C101-106			C93-1174-05	CERAMIC 0.1UF 100WV	
C107,108		*	C90-6839-05	ELECTRO 220UF 50WV	
C109,110			CK73EB1H474K	CHIP C 0.47UF K	
C111,112		*	CK73ER2A474K	CHIP C 0.47UF K	
C113,114		*	CK73ER2A333K	CHIP C 0.033UF K	
C115-118			CK73GB1H472K	CHIP C 4700PF K	
C119,120		*	C91-2296-05	CHIP C 1.0UF M	
C121,122			C93-1174-05	CERAMIC 0.1UF 100WV	
C123,124		*	C93-1435-05	CHIP C 3300PF K	
C125,126			CC73GCH1H101J	CHIP C 100PF J	
C127,128			CK73GB1H102K	CHIP C 1000PF K	
C129,130			CK73FB1C105K	CHIP C 1.0UF K	
C133,134			CC73GCH1H180J	CHIP C 18PF J	
C135-138			CK73GB1H102K	CHIP C 1000PF K	
C139-142			CK73GB1H223K	CHIP C 0.022UF K	
C200			CK73GB1H104K	CHIP C 0.10UF K	
C201-206			C93-1174-05	CERAMIC 0.1UF 100WV	
C207,208		*	C90-6839-05	ELECTRO 220UF 50WV	
C209,210			CK73EB1H474K	CHIP C 0.47UF K	
C211,212		*	CK73ER2A474K	CHIP C 0.47UF K	
C213,214		*	CK73ER2A333K	CHIP C 0.033UF K	
C215-218			CK73GB1H472K	CHIP C 4700PF K	
C219,220		*	C91-2296-05	CHIP C 1.0UF M	
C221,222			C93-1174-05	CERAMIC 0.1UF 100WV	
C223,224		*	C93-1435-05	CHIP C 3300PF K	
C225,226			CC73GCH1H101J	CHIP C 100PF J	
C227,228			CK73GB1H102K	CHIP C 1000PF K	
C229,230			CK73FB1C105K	CHIP C 1.0UF K	
C233,234			CC73GCH1H180J	CHIP C 18PF J	
C235-238			CK73GB1H102K	CHIP C 1000PF K	
C300			CK73GB1H104K	CHIP C 0.10UF K	
C301,302			CE32BF1E101M	CHIP EL 100UF 25WV	
C303,304			CK73GB1H104K	CHIP C 0.10UF K	
C305,306			CK73GB1H102K	CHIP C 1000PF K	
C307,308			CE32BJ1H100M	CHIP EL 10UF 50WV	
C312			CK73GB1H102K	CHIP C 1000PF K	
C313,314			CC73GCH1H180J	CHIP C 18PF J	
C315-318			CK73GB1H104K	CHIP C 0.10UF K	
C319,320			CC73GCH1H180J	CHIP C 18PF J	
C321,322			CE32BJ1H100M	CHIP EL 10UF 50WV	
C323,324			CC73GCH1H100D	CHIP C 10PF D	
C325,326			CE32BJ1C100M	CHIP EL 10UF 16WV	
C327-330			CC73GCH1H470J	CHIP C 47PF J	
C331,332			CK73GB1H104K	CHIP C 0.10UF K	
C333			CC73GCH1H100D	CHIP C 10PF D	
C334			CK73GB1H104K	CHIP C 0.10UF K	
C335-337			CK73GB1H272K	CHIP C 2700PF K	
C338			C92-1927-05	ELECTRO 220UF 6.3WV	
C339,340			CK73GB1H104K	CHIP C 0.10UF K	

Ref. No.	Add	New	Parts No.	Description	Destination
C341			CK73FB0J106K	CHIP C 10UF K	
C342			CE32BJ0J470M	CHIP EL 47UF 6.3WV	
C343,344			CK73GB1H104K	CHIP C 0.10UF K	
C346			CK73GB1H103K	CHIP C 0.010UF K	
C347			CK73FB0J106K	CHIP C 10UF K	
C348			CK73GB1H103K	CHIP C 0.010UF K	
C349			CK73FB0J106K	CHIP C 10UF K	
C350			CK73GB1H104K	CHIP C 0.10UF K	
C351			CK73FB0J106K	CHIP C 10UF K	
C352,353			CE32BJ1C100M	CHIP EL 10UF 16WV	
C354			CK73GB1H104K	CHIP C 0.10UF K	
C355			CK73FB0J106K	CHIP C 10UF K	
C360		*	CE32BJ0J220M	CHIP EL 22UF 6.3WV	
C361			CK73GB1H222K	CHIP C 2200PF K	
C362			CC73GCH1H471J	CHIP C 470PF J	
C363,364			CK73GB1H104K	CHIP C 0.10UF K	
C366-368			CE32BJ1C100M	CHIP EL 10UF 16WV	
C369,370			CK73GB1H104K	CHIP C 0.10UF K	
C371			CE32BJ1C100M	CHIP EL 10UF 16WV	
C381-384			CC73GCH1H221J	CHIP C 220PF J	
C385			CK73GB1H102K	CHIP C 1000PF K	
C400,401			CK73GB1H104K	CHIP C 0.10UF K	
C405,406			CK73GB1H102K	CHIP C 1000PF K	
C407,408			CE32BJ1H100M	CHIP EL 10UF 50WV	
C412			CK73GB1H102K	CHIP C 1000PF K	
C413,414			CC73GCH1H180J	CHIP C 18PF J	
C415-418			CK73GB1H104K	CHIP C 0.10UF K	
C419,420			CC73GCH1H180J	CHIP C 18PF J	
C421,422			CE32BJ1H100M	CHIP EL 10UF 50WV	
C425,426			CE32BJ1C100M	CHIP EL 10UF 16WV	
C427-430			CC73GCH1H470J	CHIP C 47PF J	
C431,432			CK73GB1H104K	CHIP C 0.10UF K	
C435,436			CK73GB1H272K	CHIP C 2700PF K	
C460		*	CE32BJ0J220M	CHIP EL 22UF 6.3WV	
C461			CK73GB1H222K	CHIP C 2200PF K	
C462			CC73GCH1H471J	CHIP C 470PF J	
C463			CK73GB1H104K	CHIP C 0.10UF K	
C466			CE32BJ1C100M	CHIP EL 10UF 16WV	
C481,482			CC73GCH1H221J	CHIP C 220PF J	
C483			CK73GB1H102K	CHIP C 1000PF K	
C484			CK73GB1H103K	CHIP C 0.010UF K	
C502			CK73GB1H223K	CHIP C 0.022UF K	
C503		*	C90-6846-05	ELECTRO 3300UF 25WV	
C504		*	CE32BD1E470M	CHIP EL 47UF 25WV	
C505			CC73GCH1H102J	CHIP C 1000PF J	
C506		*	CE32BD1E470M	CHIP EL 47UF 25WV	
C507,508		*	C90-6846-05	ELECTRO 3300UF 25WV	
C509,510			C93-1293-05	CHIP C 1000PF 250WV	
C511		*	C93-1443-05	CHIP C 6PF CH	
C512			CC73GCH1H331J	CHIP C 330PF J	
C513			CK73GB1H102K	CHIP C 1000PF K	
C514			C93-1293-05	CHIP C 1000PF 250WV	
C515,516			CE32BF1V221M	CHIP EL 220UF 35WV	
C517			C93-1293-05	CHIP C 1000PF 250WV	
C518			CK73GB1H104K	CHIP C 0.10UF K	

E1 : KAC-PS4D (Europe) K : KAC-X4R (North America)

△ Indicates safety critical components.



## PARTS LIST

### AUDIO UNIT (X09-8620-10)

Ref. No.	Add	New	Parts No.	Description	Destination	Ref. No.	Add	New	Parts No.	Description	Destination
C519			CE32BF1C221M	CHIP EL 220UF 16WV		C630		*	CK73ER2A333K	CHIP C 0.033UF K	
C520		*	C93-1443-05	CHIP C 6PF CH		C631,632			CK73GB1H472K	CHIP C 4700PF K	
C521			CC73GCH1H331J	CHIP C 330PF J		C633			CC73GCH1H101J	CHIP C 100PF J	
C522			CK73GB1H102K	CHIP C 1000PF K		C701-704			CC73GCH1H681J	CHIP C 680PF J	
C523		*	C93-1443-05	CHIP C 6PF CH		C705-708			CC73GCH1H471J	CHIP C 470PF J	
C526		*	C93-1443-05	CHIP C 6PF CH		C709,710			CK73GB1H104K	CHIP C 0.10UF K	
C529			C92-1927-05	ELECTRO 220UF 6.3WV		C711,712			CC73GCH1H470J	CHIP C 47PF J	
C530		*	CE32BF1H470M	CHIP EL 47UF 50WV		C713-715			CK73GB1H272K	CHIP C 2700PF K	
C533,534		*	C90-6836-05	ELECTRO 7500UF 56WV		C716			CK73GB1H104K	CHIP C 0.10UF K	
C535,536			C93-1174-05	CERAMIC 0.1UF 100WV		C717			C92-1927-05	ELECTRO 220UF 6.3WV	
C537			CK73FB1C105K	CHIP C 1.0UF K		C719			CE32CLOJ101M	CHIP EL 100UF 6.3WV	
C538			CK73GB1H222K	CHIP C 2200PF K		C720-722			CK73GB1H104K	CHIP C 0.10UF K	
C539,540			CK73GB1H102K	CHIP C 1000PF K		C723		*	CE32CLOJ220M	CHIP EL 22UF 6.3WV	
C541,542			CK73GB1H103K	CHIP C 0.010UF K		C724			CK73GB1H104K	CHIP C 0.10UF K	
C543			CE32BF1C221M	CHIP EL 220UF 16WV		C725		*	CE32CLOJ220M	CHIP EL 22UF 6.3WV	
C544			CE32BJ1C101M	CHIP EL 100UF 16WV		C726			CK73GB1H104K	CHIP C 0.10UF K	
C545			CK73GB1H104K	CHIP C 0.10UF K		C727			CE32CLOJ101M	CHIP EL 100UF 6.3WV	
C546			CE32BF1C221M	CHIP EL 220UF 16WV		C728-731			CK73GB1H104K	CHIP C 0.10UF K	
C548			CK73GB1H104K	CHIP C 0.10UF K		C732			CE32CLOJ101M	CHIP EL 100UF 6.3WV	
C549			CE32CLOJ101M	CHIP EL 100UF 6.3WV		C733,734			CC73GCH1H100D	CHIP C 10PF D	
C550			CK73GB1H104K	CHIP C 0.10UF K		C801-804			CC73GCH1H681J	CHIP C 680PF J	
C551		*	CE32BF1H470M	CHIP EL 47UF 50WV		C805-808			CC73GCH1H471J	CHIP C 470PF J	
C552			CK73GB1H103K	CHIP C 0.010UF K		C809,810			CK73GB1H104K	CHIP C 0.10UF K	
C553			CC73GCH1H101J	CHIP C 100PF J		C811,812			CC73GCH1H470J	CHIP C 47PF J	
C554			CK73GB1H104K	CHIP C 0.10UF K		C813-815			CK73GB1H272K	CHIP C 2700PF K	
C555		*	CE32BF0J471M	CHIP EL 470UF 6.3WV		C816			CK73GB1H104K	CHIP C 0.10UF K	
C556,557			CK73GB1H104K	CHIP C 0.10UF K		C817			C92-1927-05	ELECTRO 220UF 6.3WV	
C558			CK73GB1H103K	CHIP C 0.010UF K		C819			CE32CLOJ101M	CHIP EL 100UF 6.3WV	
C559			CC73GCH1H101J	CHIP C 100PF J		C820-822			CK73GB1H104K	CHIP C 0.10UF K	
C560			CK73GB1H104K	CHIP C 0.10UF K		C823		*	CE32CLOJ220M	CHIP EL 22UF 6.3WV	
C561		*	CE32BF0J471M	CHIP EL 470UF 6.3WV		C824			CK73GB1H104K	CHIP C 0.10UF K	
C562			CK73GB1H104K	CHIP C 0.10UF K		C825		*	CE32CLOJ220M	CHIP EL 22UF 6.3WV	
C563		*	CE32BF1H470M	CHIP EL 47UF 50WV		C826			CK73GB1H104K	CHIP C 0.10UF K	
C564		*	CE32BD1E470M	CHIP EL 47UF 25WV		C827			CE32CLOJ101M	CHIP EL 100UF 6.3WV	
C565		*	CE32BD1H2R2M	CHIP EL 2.2UF 50WV		C828,829			CK73GB1H104K	CHIP C 0.10UF K	
C566		*	C92-1979-05	ELECTRO 10UF 25WV		C830,831			CC73GCH1H100D	CHIP C 10PF D	
C567,568		*	CE32BD1E470M	CHIP EL 47UF 25WV		C901			CK73GB1H103K	CHIP C 0.010UF K	
C601,602			CK73GB1H102K	CHIP C 1000PF K		C902			CK73GB1A474K	CHIP C 0.47UF K	
C603,604			CC73GCH1H471J	CHIP C 470PF J		C903,904			CK73GB1H103K	CHIP C 0.010UF K	
C605,606			CK73GB1H104K	CHIP C 0.10UF K		C907			CK73GB1H103K	CHIP C 0.010UF K	
C607			CC73GCH1H470J	CHIP C 47PF J		C908			CE32CLOJ101M	CHIP EL 100UF 6.3WV	
C608			CK73GB1H272K	CHIP C 2700PF K		C909-914			CK73GB1H103K	CHIP C 0.010UF K	
C609			C92-1927-05	ELECTRO 220UF 6.3WV		C915			CE32BF1C221M	CHIP EL 220UF 16WV	
C610			CK73GB1H272K	CHIP C 2700PF K		C916			CE32BJ1H100M	CHIP EL 10UF 50WV	
C611,612			CK73GB1H104K	CHIP C 0.10UF K		C917			CK73GB1H104K	CHIP C 0.10UF K	
C613			CE32CLOJ101M	CHIP EL 100UF 6.3WV		C918			CK73GB1H103K	CHIP C 0.010UF K	
C614,615			CK73GB1H104K	CHIP C 0.10UF K		C919		*	CE32BD1E470M	CHIP EL 47UF 25WV	
C617			CK73GB1H272K	CHIP C 2700PF K		C920			CK73GB1H104K	CHIP C 0.10UF K	
C618,619		*	CE32CLOJ220M	CHIP EL 22UF 6.3WV		C921		*	CE32BD1E470M	CHIP EL 47UF 25WV	
C620-622			CK73GB1H104K	CHIP C 0.10UF K		C922			CK73GB1A105K	CHIP C 1.0UF K	
C623			CE32CLOJ101M	CHIP EL 100UF 6.3WV		C923			CE32BF1C221M	CHIP EL 220UF 16WV	
C624			CK73GB1H104K	CHIP C 0.10UF K		C924,925			CE32BJ1H100M	CHIP EL 10UF 50WV	
C625			CK73FB1C105K	CHIP C 1.0UF K		C926			CK73GB1H102K	CHIP C 1000PF K	
C626-628			C93-1174-05	CERAMIC 0.1UF 100WV		C927-936			CK73GB1H103K	CHIP C 0.010UF K	
C629		*	CK73ER2A474K	CHIP C 0.47UF K		C937			CE32BJ1C100M	CHIP EL 10UF 16WV	

E1 : KAC-PS4D (Europe) K : KAC-X4R (North America)

△ Indicates safety critical components.

# KAC-PS4D/X4R

## PARTS LIST

### AUDIO UNIT (X09-8620-10)

Ref. No.	Add	New	Parts No.	Description	Destination
C938			CK73GB1H103K	CHIP C 0.010UF K	
C939		*	CE32BJ0J220M	CHIP EL 22UF 6.3WV	
C940			CE32BJ1C100M	CHIP EL 10UF 16WV	
C941			CK73EB1E105K	CHIP C 1.0UF K	
C942		*	C90-6839-05	ELECTRO 220UF 50WV	
C943			CK73GB1H103K	CHIP C 0.010UF K	
C944,945			CK73GB1H102K	CHIP C 1000PF K	
C946			CK73GB1H104K	CHIP C 0.10UF K	
C947			CK73GB1H102K	CHIP C 1000PF K	
C948			CC73GCH1H101J	CHIP C 100PF J	
CN1			E41-2203-05	FLAT CABLE CONNECTOR	
CN5		*	E41-1494-05	PIN ASSY	
J1			E63-0922-05	PIN JACK	
J2			E70-0846-05	SCREW TERMINAL BOARD (M6-M4 3P)	
J3,4			E70-0847-05	SCREW TERMINAL BOARD (M4 4P)	
WH1		*	E39-0923-15	WIRING HARNESS	
42	3A		F20-2410-04	INSULATING BOARD	
43	2B	*	F20-2425-04	INSULATING SHEET	
CN2-4			J13-0602-05	FUSE HOLDER	
E1			J11-0898-05	WIRE CLAMPER	
L1-3			L92-0075-05	CHIP FERRITE	
L4-7		*	L92-0647-05	CHIP FERRITE	
L101,102		*	L33-2421-05	CHOKE COIL	
L103,104		*	L39-1064-05	AIR-CORE COIL	
L201,202		*	L33-2421-05	CHOKE COIL	
L203,204		*	L39-1064-05	AIR-CORE COIL	
L501,502		*	L19-0800-05	TRANSFORMER FOR CONVERTER	
L503		*	L33-2406-05	CHOKE COIL	
L504		*	L33-1949-05	SMALL FIXED INDUCTOR	
L505		*	L33-2284-05	SMALL FIXED INDUCTOR	
L506			L33-2307-05	CHOKE COIL	
L507,508		*	L33-2419-05	CHOKE COIL	
L601		*	L33-2367-05	CHOKE COIL	
L901			L41-4795-33	SMALL FIXED INDUCTOR (4.7U)	
X1			L77-2841-05	CRYSTAL RESONATOR (24.576MHZ)	
E	3B		N80-3010-43	PAN HEAD TAPTITE SCREW	
J	3B		N09-6135-05	TAPTITE SCREW (3X8 B-T)	
K	3B		N09-6217-05	TAPTITE SCREW (3X12)	
L	3B		N09-6447-05	TAPTITE SCREW (3X10 P-T)	
M	2A		N89-2606-48	BINDING HEAD TAPTITE SCREW	
Q	3B	*	N09-6457-05	TAPTITE SCREW (2.6X8)	
CP1			RK74GB1J103J	CHIP-COM 10K J 1/16W	
CP3			RK74GA1J103J	CHIP-COM 10K J 1/16W	
CP6			RK74GB1J103J	CHIP-COM 10K J 1/16W	
CP7			RK74GA1J103J	CHIP-COM 10K J 1/16W	
R1-6			RK73GB2A121J	CHIP R 120 J 1/10W	
R11,12			RK73GB2A121J	CHIP R 120 J 1/10W	
R13-17			RK73GB2A103J	CHIP R 10K J 1/10W	
R18			RK73GB2A100J	CHIP R 10 J 1/10W	
R20			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R21			RK73GB2A4R7J	CHIP R 4.7 J 1/10W	
R22,23			RK73GB2A103J	CHIP R 10K J 1/10W	

Ref. No.	Add	New	Parts No.	Description	Destination
R24			RK73GB2A392J	CHIP R 3.9K J 1/10W	
R25			RK73GB2A121J	CHIP R 120 J 1/10W	
R26,27			RK73GB2A103J	CHIP R 10K J 1/10W	
R28			RK73GB2A4R7J	CHIP R 4.7 J 1/10W	
R30			RK73GB2A103J	CHIP R 10K J 1/10W	
R31-33			RK73GB2A121J	CHIP R 120 J 1/10W	
R37,38			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R39			RK73GB2A121J	CHIP R 120 J 1/10W	
R40-42			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R43			RK73GB2A121J	CHIP R 120 J 1/10W	
R44			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R45			RK73GB2A121J	CHIP R 120 J 1/10W	
R52			RK73GB2A103J	CHIP R 10K J 1/10W	
R53			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R54			RK73GB2A121J	CHIP R 120 J 1/10W	
R55			RK73GB2A680J	CHIP R 68 J 1/10W	
R56,57			RK73GB2A121J	CHIP R 120 J 1/10W	
R58			RK73GB2A680J	CHIP R 68 J 1/10W	
R59,60			RK73GB2A101J	CHIP R 100 J 1/10W	
R63			RK73GB2A103J	CHIP R 10K J 1/10W	
R64			RK73GB2A101J	CHIP R 100 J 1/10W	
R66			RK73GB2A103J	CHIP R 10K J 1/10W	
R67			RK73GB2A680J	CHIP R 68 J 1/10W	
R68			RK73GB2A105J	CHIP R 1.0M J 1/10W	
R69			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R71			RK73GB2A333J	CHIP R 33K J 1/10W	
R72-79			RK73GB2A270J	CHIP R 27 J 1/10W	
R81			RK73EB2E100J	CHIP R 10 J 1/4W	
R83			RK73GB2A101J	CHIP R 100 J 1/10W	
R84			RK73GB2A511J	CHIP R 510 J 1/10W	
R85-91			RK73GB2A103J	CHIP R 10K J 1/10W	
R93-100		*	RK73PB2H820J	CHIP R 82 J 1/2W	
R101-104			RK73GB2A103J	CHIP R 10K J 1/10W	
R105,106			RK73EB2E4R7J	CHIP R 4.7 J 1/4W	
R107,108			RK73EB2E330J	CHIP R 33 J 1/4W	
R109,110		*	R92-5211-05	CHIP R 0.022 F 1W	
R111,112			RK73GB2A391J	CHIP R 390 J 1/10W	
R113-116			RK73GB2A132J	CHIP R 1.3K J 1/10W	
R117,118			RK73GB2A391J	CHIP R 390 J 1/10W	
R119,120			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R121,122			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R123,124			RK73GB2A202J	CHIP R 2.0K J 1/10W	
R125,126			RK73GB2A103J	CHIP R 10K J 1/10W	
R127,128		*	RK73PB2H820J	CHIP R 82 J 1/2W	
R129-132			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R133,134			RK73GB2A270J	CHIP R 27 J 1/10W	
R135,136		*	RK73PB2H820J	CHIP R 82 J 1/2W	
R137,138			RK73GB2A473J	CHIP R 47K J 1/10W	
R139			RK73GB2A103J	CHIP R 10K J 1/10W	
R140-142			RK73GB2A473J	CHIP R 47K J 1/10W	
R143			RK73GB2A103J	CHIP R 10K J 1/10W	
R144			RK73GB2A473J	CHIP R 47K J 1/10W	
R145-148		*	RK73PB2H390J	CHIP R 39 J 1/2W	
R149,150		*	R92-5212-05	CHIP R 0.027 F 1W	
R151-154			RK73GB2A000J	CHIP R 0.0 J 1/10W	

E1 : KAC-PS4D (Europe) K : KAC-X4R (North America)

△ Indicates safety critical components.

## PARTS LIST

### AUDIO UNIT (X09-8620-10)

Ref. No.	Add	New	Parts No.	Description	Destination	Ref. No.	Add	New	Parts No.	Description	Destination
R201-204			RK73GB2A103J	CHIP R 10K J 1/10W		R379			RK73EB2E331J	CHIP R 330 J 1/4W	
R205,206			RK73EB2E4R7J	CHIP R 4.7 J 1/4W		R380-385			RK73GB2A103J	CHIP R 10K J 1/10W	
R207,208			RK73EB2E330J	CHIP R 33 J 1/4W		R386			RK73EB2E000J	CHIP R 0.0 J 1/4W	
R209,210		*	R92-5211-05	CHIP R 0.022 F 1W		R387			RK73EB2E1R0J	CHIP R 1.0 J 1/4W	
R211,212			RK73GB2A391J	CHIP R 390 J 1/10W		R388			RK73GH2A103D	CHIP R 10K D 1/10W	
R213-216			RK73GB2A132J	CHIP R 1.3K J 1/10W		R389,390			RK73EB2E1R0J	CHIP R 1.0 J 1/4W	
R217,218			RK73GB2A391J	CHIP R 390 J 1/10W		R391			RK73GB2A101J	CHIP R 100 J 1/10W	
R219,220			RK73GB2A472J	CHIP R 4.7K J 1/10W		R401,402			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R221,222			RK73GB2A152J	CHIP R 1.5K J 1/10W		R403,404			RK73GB2A103J	CHIP R 10K J 1/10W	
R223,224			RK73GB2A202J	CHIP R 2.0K J 1/10W		R405,406			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R225,226			RK73GB2A103J	CHIP R 10K J 1/10W		R407,408			RK73GB2A103J	CHIP R 10K J 1/10W	
R227,228		*	RK73PB2H820J	CHIP R 82 J 1/2W		R409			RK73GH2A103D	CHIP R 10K D 1/10W	
R229-232			RK73GB2A000J	CHIP R 0.0 J 1/10W		R410			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R233,234			RK73GB2A270J	CHIP R 27 J 1/10W		R411,412			RK73GB2A103J	CHIP R 10K J 1/10W	
R235,236		*	RK73PB2H820J	CHIP R 82 J 1/2W		R413-418			RK73GH2A103D	CHIP R 10K D 1/10W	
R237,238			RK73GB2A473J	CHIP R 47K J 1/10W		R421-426			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R239			RK73GB2A103J	CHIP R 10K J 1/10W		R427-430			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R240-242			RK73GB2A473J	CHIP R 47K J 1/10W		R431,432			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R243			RK73GB2A103J	CHIP R 10K J 1/10W		R433-436			RK73GB2A101J	CHIP R 100 J 1/10W	
R244			RK73GB2A473J	CHIP R 47K J 1/10W		R440			RK73GH2A103D	CHIP R 10K D 1/10W	
R245-248		*	RK73PB2H390J	CHIP R 39 J 1/2W		R464			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R249,250		*	R92-5212-05	CHIP R 0.027 F 1W		R465			RK73GB2A392J	CHIP R 3.9K J 1/10W	
R251-254			RK73GB2A000J	CHIP R 0.0 J 1/10W		R466			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R301,302			RK73GB2A102J	CHIP R 1.0K J 1/10W		R471			RK73GB2A681J	CHIP R 680 J 1/10W	
R303,304			RK73GB2A103J	CHIP R 10K J 1/10W		R472			RK73GB2A103J	CHIP R 10K J 1/10W	
R305,306			RK73GB2A472J	CHIP R 4.7K J 1/10W		R473			RK73GB2A104J	CHIP R 100K J 1/10W	
R307,308			RK73GB2A103J	CHIP R 10K J 1/10W		R474			RK73GB2A103J	CHIP R 10K J 1/10W	
R309			RK73GH2A103D	CHIP R 10K D 1/10W		R479			RK73EB2E331J	CHIP R 330 J 1/4W	
R310			RK73GB2A102J	CHIP R 1.0K J 1/10W		R496-499			RK73PB2H1R0J	CHIP R 1.0 J 1/2W	
R311,312			RK73GB2A103J	CHIP R 10K J 1/10W		R500			RK73EB2E1R0J	CHIP R 1.0 J 1/4W	
R313-318			RK73GH2A103D	CHIP R 10K D 1/10W		R501,502			RK73GB2A224J	CHIP R 220K J 1/10W	
R320			RK73GB2A103J	CHIP R 10K J 1/10W		R503			RK73GB2A474J	CHIP R 470K J 1/10W	
R321-326			RK73GB2A472J	CHIP R 4.7K J 1/10W		R504			RK73GB2A473J	CHIP R 47K J 1/10W	
R327-330			RK73GB2A222J	CHIP R 2.2K J 1/10W		R505-507			RK73PB2H221J	CHIP R 220 J 1/2W	
R331,332			RK73GB2A102J	CHIP R 1.0K J 1/10W		R508			RK73GB2A154J	CHIP R 150K J 1/10W	
R333-336			RK73GB2A101J	CHIP R 100 J 1/10W		R509			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R339			RK73GB2A121J	CHIP R 120 J 1/10W		R510			RK73GB2A391J	CHIP R 390 J 1/10W	
R341			RK73GB2A103J	CHIP R 10K J 1/10W		R511			RK73GB2A183J	CHIP R 18K J 1/10W	
R342			RK73GB2A101J	CHIP R 100 J 1/10W		R512			RK73GB2A103J	CHIP R 10K J 1/10W	
R343-346			RK73GB2A121J	CHIP R 120 J 1/10W		R513			RK73GB2A203J	CHIP R 20K J 1/10W	
R347-349			RK73GB2A100J	CHIP R 10 J 1/10W		R514,515			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R350			RK73EB2E100J	CHIP R 10 J 1/4W		R516-519			RK73PB2H100J	CHIP R 10 J 1/2W	
R351			RK73GB2A103J	CHIP R 10K J 1/10W		R520,521			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R352			RK73EB2E000J	CHIP R 0.0 J 1/4W		R522-529			RK73EB2E2R2J	CHIP R 2.2 J 1/4W	
R353			RK73GB2A103J	CHIP R 10K J 1/10W		R530,531		*	RK73PB2H4R7J	CHIP R 4.7 J 1/2W	
R356-359			RK73GB2A121J	CHIP R 120 J 1/10W		R532,533			RK73PB2H470J	CHIP R 47 J 1/2W	
R364			RK73GB2A682J	CHIP R 6.8K J 1/10W		R534,535			RK73EB2E682J	CHIP R 6.8K J 1/4W	
R365			RK73GB2A392J	CHIP R 3.9K J 1/10W		R538			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R366			RK73GB2A682J	CHIP R 6.8K J 1/10W		R539			RK73GB2A473J	CHIP R 47K J 1/10W	
R368-370			RK73GB2A103J	CHIP R 10K J 1/10W		R540,541			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R371			RK73GB2A681J	CHIP R 680 J 1/10W		R542			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R372			RK73GB2A103J	CHIP R 10K J 1/10W		R543			RK73GB2A113J	CHIP R 11K J 1/10W	
R373			RK73GB2A104J	CHIP R 100K J 1/10W		R544,545			RK73GB2A101J	CHIP R 100 J 1/10W	
R374			RK73GB2A103J	CHIP R 10K J 1/10W		R546			RK73GB2A104J	CHIP R 100K J 1/10W	
R378			RK73EB2E100J	CHIP R 10 J 1/4W		R547			RK73GH2A132D	CHIP R 1.3K D 1/10W	

E1 : KAC-PS4D (Europe) K : KAC-X4R (North America)

△ Indicates safety critical components.

# KAC-PS4D/X4R

## PARTS LIST

### AUDIO UNIT (X09-8620-10)

Ref. No.	Add	New	Parts No.	Description	Destination
R548		*	RK73GH2A121D	CHIP R 120 D 1/10W	
R549			RK73GH2A472D	CHIP R 4.7K D 1/10W	
R550,551			RK73EB2E682J	CHIP R 6.8K J 1/4W	
R552			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R553			RK73GB2A162J	CHIP R 1.6K J 1/10W	
R554			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R555			RK73GB2A680J	CHIP R 68 J 1/10W	
R556			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R557			RK73GB2A511J	CHIP R 510 J 1/10W	
R558			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R559			RK73GB2A680J	CHIP R 68 J 1/10W	
R560			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R561			RK73GB2A512J	CHIP R 5.1K J 1/10W	
R562			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R563			RK73GB2A512J	CHIP R 5.1K J 1/10W	
R564			RK73GB2A103J	CHIP R 10K J 1/10W	
R565			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R566			RK73GB2A103J	CHIP R 10K J 1/10W	
R567			RK73PB2H221J	CHIP R 220 J 1/2W	
R568			RK73GB2A103J	CHIP R 10K J 1/10W	
R569,570			RK73PB2H470J	CHIP R 47 J 1/2W	
R571			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R572			RK73GB2A331J	CHIP R 330 J 1/10W	
R573			RK73GB2A101J	CHIP R 100 J 1/10W	
R574-577			RK73PB2H221J	CHIP R 220 J 1/2W	
R578-580			RK73GB2A470J	CHIP R 47 J 1/10W	
R581			RK73GB2A331J	CHIP R 330 J 1/10W	
R582-584			RK73EB2E4R7J	CHIP R 4.7 J 1/4W	
R585			RK73GB2A512J	CHIP R 5.1K J 1/10W	
R586			RK73GH2A363D	CHIP R 36K D 1/10W	
R587			RK73GH2A242D	CHIP R 2.4K D 1/10W	
R588			RK73GB2A103J	CHIP R 10K J 1/10W	
R589,590			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R591,592			RK73GB2A1R0J	CHIP R 1.0 J 1/10W	
R593			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R594			RK73GH2A122D	CHIP R 1.2K D 1/10W	
R595			RK73GH2A133D	CHIP R 13K D 1/10W	
R596			RK73GB2A101J	CHIP R 100 J 1/10W	
R597			RK73GB2A512J	CHIP R 5.1K J 1/10W	
R598			RK73GB2A103J	CHIP R 10K J 1/10W	
R599			RK73GB2A512J	CHIP R 5.1K J 1/10W	
R601			RK73GB2A393J	CHIP R 39K J 1/10W	
R602			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R603			RK73GB2A393J	CHIP R 39K J 1/10W	
R605,606			RK73GB2A393J	CHIP R 39K J 1/10W	
R607			RK73GB2A122J	CHIP R 1.2K J 1/10W	
R608,609			RK73GB2A103J	CHIP R 10K J 1/10W	
R610			RK73GB2A122J	CHIP R 1.2K J 1/10W	
R611,612			RK73GB2A202J	CHIP R 2.0K J 1/10W	
R613			RK73GB2A101J	CHIP R 100 J 1/10W	
R614			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R615			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R616			RK73GB2A101J	CHIP R 100 J 1/10W	
R617-619			RK73GB2A121J	CHIP R 120 J 1/10W	
R620			RK73GB2A100J	CHIP R 10 J 1/10W	

Ref. No.	Add	New	Parts No.	Description	Destination
R621			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R622-624			RK73GB2A103J	CHIP R 10K J 1/10W	
R625		*	R92-5163-05	CHIP R 0.047 F 1W	
R626			RK73GB2A103J	CHIP R 10K J 1/10W	
R629			RK73GB2A121J	CHIP R 120 J 1/10W	
R630			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R631			RK73GB2A103J	CHIP R 10K J 1/10W	
R632			RK73GB2A101J	CHIP R 100 J 1/10W	
R633,634		*	R92-5163-05	CHIP R 0.047 F 1W	
R637			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R638,639			RK73GB2A103J	CHIP R 10K J 1/10W	
R640			RK73GB2A132J	CHIP R 1.3K J 1/10W	
R641		*	R92-5163-05	CHIP R 0.047 F 1W	
R642,643			RK73GB2A101J	CHIP R 100 J 1/10W	
R644			RK73GB2A132J	CHIP R 1.3K J 1/10W	
R645			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R646			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R647			RK73GB2A103J	CHIP R 10K J 1/10W	
R648			RK73GB2A202J	CHIP R 2.0K J 1/10W	
R701-704			RK73GH2A363D	CHIP R 36K D 1/10W	
R707-710			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R711-714			RK73GH2A512D	CHIP R 5.1K D 1/10W	
R715-718			RK73GH2A182D	CHIP R 1.8K D 1/10W	
R719,720			RK73GB2A101J	CHIP R 100 J 1/10W	
R721-724			RK73GH2A222D	CHIP R 2.2K D 1/10W	
R725,726			RK73GH2A102D	CHIP R 1.0K D 1/10W	
R727,728			RK73GB2A101J	CHIP R 100 J 1/10W	
R729,730			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R731,732			RK73GB2A511J	CHIP R 510 J 1/10W	
R733			RK73GB2A101J	CHIP R 100 J 1/10W	
R734-736			RK73GB2A121J	CHIP R 120 J 1/10W	
R738			RK73GB2A121J	CHIP R 120 J 1/10W	
R739			RK73GB2A103J	CHIP R 10K J 1/10W	
R740			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R741			RK73GB2A103J	CHIP R 10K J 1/10W	
R743			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R744-746			RK73GB2A103J	CHIP R 10K J 1/10W	
R749,750			RK73GB2A100J	CHIP R 10 J 1/10W	
R801-804			RK73GH2A363D	CHIP R 36K D 1/10W	
R805,806			RK73EB2E100J	CHIP R 10 J 1/4W	
R807-810			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R811-814			RK73GH2A512D	CHIP R 5.1K D 1/10W	
R815-818			RK73GH2A182D	CHIP R 1.8K D 1/10W	
R819,820			RK73GB2A101J	CHIP R 100 J 1/10W	
R821-824			RK73GH2A222D	CHIP R 2.2K D 1/10W	
R825,826			RK73GH2A102D	CHIP R 1.0K D 1/10W	
R827,828			RK73GB2A101J	CHIP R 100 J 1/10W	
R829,830			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R831,832			RK73GB2A511J	CHIP R 510 J 1/10W	
R833			RK73GB2A101J	CHIP R 100 J 1/10W	
R834-836			RK73GB2A121J	CHIP R 120 J 1/10W	
R838			RK73GB2A121J	CHIP R 120 J 1/10W	
R839			RK73GB2A103J	CHIP R 10K J 1/10W	
R840			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R841			RK73GB2A103J	CHIP R 10K J 1/10W	

E1 : KAC-PS4D (Europe) K : KAC-X4R (North America)

△ Indicates safety critical components.

## PARTS LIST

### AUDIO UNIT (X09-8620-10)

Ref. No.	Add	New	Parts No.	Description	Destination	Ref. No.	Add	New	Parts No.	Description	Destination
R842			RK73EB2E100J	CHIP R 10 J 1/4W		R972,973			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R843			RK73GB2A102J	CHIP R 1.0K J 1/10W		R974			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R844-846			RK73GB2A103J	CHIP R 10K J 1/10W		R975			RK73GB2A202J	CHIP R 2.0K J 1/10W	
R847,848			RK73GB2A000J	CHIP R 0.0 J 1/10W		R976			RK73GB2A103J	CHIP R 10K J 1/10W	
R849,850			RK73GB2A100J	CHIP R 10 J 1/10W		R977			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R851			RK73GB2A472J	CHIP R 4.7K J 1/10W		R978			RK73GB2A473J	CHIP R 47K J 1/10W	
R852			RK73GB2A101J	CHIP R 100 J 1/10W		R979			RK73GB2A511J	CHIP R 510 J 1/10W	
R853,854			RK73GB2A103J	CHIP R 10K J 1/10W		R980			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R855			RK73GB2A101J	CHIP R 100 J 1/10W		R981			RK73GB2A333J	CHIP R 33K J 1/10W	
R856			RK73GB2A103J	CHIP R 10K J 1/10W		R982			RK73GB2A103J	CHIP R 10K J 1/10W	
R857			RK73GB2A101J	CHIP R 100 J 1/10W		R983			RK73GB2A104J	CHIP R 100K J 1/10W	
R858-860			RK73GB2A000J	CHIP R 0.0 J 1/10W		R984			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R861-865			RK73EB2E100J	CHIP R 10 J 1/4W		R985,986			RK73GB2A103J	CHIP R 10K J 1/10W	
R877			RK73FB2B4R7J	CHIP R 4.7 J 1/8W		R987			RK73GB2A392J	CHIP R 3.9K J 1/10W	
R879,880			RK73EB2E102J	CHIP R 1.0K J 1/4W		R988			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R881			RK73GB2A101J	CHIP R 100 J 1/10W		R989,990			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R882			RK73GB2A223J	CHIP R 22K J 1/10W		R991			RK73GB2A103J	CHIP R 10K J 1/10W	
R883			RK73FB2B101J	CHIP R 100 J 1/8W		R992			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R884			RK73GB2A473J	CHIP R 47K J 1/10W		R993,994			RK73GB2A103J	CHIP R 10K J 1/10W	
R885			RK73GB2A103J	CHIP R 10K J 1/10W		R995			RK73GB2A101J	CHIP R 100 J 1/10W	
R886-891			RK73GB2A121J	CHIP R 120 J 1/10W		R997			RK73GB2A103J	CHIP R 10K J 1/10W	
R901			RK73GB2A103J	CHIP R 10K J 1/10W		R998			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R902,903			RK73GB2A472J	CHIP R 4.7K J 1/10W		R999			RK73GB2A1R0J	CHIP R 1.0 J 1/10W	
R904			RK73EB2E681J	CHIP R 680 J 1/4W		S1			S68-0806-05	PUSH SWITCH	
R905-910			RK73GB2A101J	CHIP R 100 J 1/10W		D1			EP05Q04	DIODE	
R911-914			RK73GB2A102J	CHIP R 1.0K J 1/10W		D4-8			1SS355	DIODE	
R915,916			RK73GB2A103J	CHIP R 10K J 1/10W		D98,99			1SR154-400	DIODE	
R917			RK73GB2A473J	CHIP R 47K J 1/10W		D101-104			UDZS12B	ZENER DIODE	
R918			RK73GB2A103J	CHIP R 10K J 1/10W		D105-110			EP05Q04	DIODE	
R919			RK73FB2B000J	CHIP R 0.0 J 1/8W		D111			1SS355	DIODE	
R920-922			RK73GB2A103J	CHIP R 10K J 1/10W		D112,113			UDZS12B	ZENER DIODE	
R923			RK73GB2A473J	CHIP R 47K J 1/10W		D115-118	*		M3FL20U-5063	DIODE	
R924			RK73GB2A103J	CHIP R 10K J 1/10W		D201-204			UDZS12B	ZENER DIODE	
R925-929			RK73GB2A101J	CHIP R 100 J 1/10W		D205-210			EP05Q04	DIODE	
R930			RK73GB2A471J	CHIP R 470 J 1/10W		D211			1SS355	DIODE	
R931			RK73GB2A103J	CHIP R 10K J 1/10W		D212,213			UDZS12B	ZENER DIODE	
R932			RK73GB2A101J	CHIP R 100 J 1/10W		D215-218	*		M3FL20U-5063	DIODE	
R933			RK73GB2A202J	CHIP R 2.0K J 1/10W		D300			UMZ6.8N	ZENER DIODE	
R934-937			RK73GB2A101J	CHIP R 100 J 1/10W		D302			1SS355	DIODE	
R938,939			RK73GB2A103J	CHIP R 10K J 1/10W		D308,309			1SS355	DIODE	
R940			RK73GB2A473J	CHIP R 47K J 1/10W		D311			1SS355	DIODE	
R941-944			RK73GB2A101J	CHIP R 100 J 1/10W		D312-317			DAN217U	DIODE	
R946			RK73GB2A473J	CHIP R 47K J 1/10W		D400			UMZ6.8N	ZENER DIODE	
R947,948			RK73GB2A102J	CHIP R 1.0K J 1/10W		D405			UMZ6.8N	ZENER DIODE	
R949			RK73GB2A101J	CHIP R 100 J 1/10W		D411-416			DAN217U	DIODE	
R951,952			RK73GB2A473J	CHIP R 47K J 1/10W		D501-503			RM4ZLF-J1NF	DIODE	
R953-958			RK73GB2A432J	CHIP R 4.3K J 1/10W		D506-508			1SR154-400	DIODE	
R959			RK73GB2A103J	CHIP R 10K J 1/10W		D509			DAN202U	DIODE	
R960			RK73GB2A222J	CHIP R 2.2K J 1/10W		D511			FCH20A20	DIODE	
R961-964			RK73GB2A473J	CHIP R 47K J 1/10W		D512			FRH20A20	DIODE	
R965			RK73GB2A103J	CHIP R 10K J 1/10W		D513			UDZS5.1B	ZENER DIODE	
R966			RK73GB2A392J	CHIP R 3.9K J 1/10W		D514,515			EC21QS06AG	DIODE	
R967			RK73GB2A132J	CHIP R 1.3K J 1/10W		D518			EC21QS06AG	DIODE	
R968,969			RK73GB2A100J	CHIP R 10 J 1/10W		D519			DAN202U	DIODE	
R970,971			RK73GB2A103J	CHIP R 10K J 1/10W							

E1 : KAC-PS4D (Europe) K : KAC-X4R (North America)

△ Indicates safety critical components.

# KAC-PS4D/X4R

## PARTS LIST

### AUDIO UNIT (X09-8620-10)

Ref. No.	Add	New	Parts No.	Description	Destination
D520			EC21QS06AG	DIODE	
D521			UDZS15B	ZENER DIODE	
D522			UDZS3.9B	ZENER DIODE	
D525,526			UDZS12B	ZENER DIODE	
D601,602			UDZS12B	ZENER DIODE	
D603			EP05Q04	DIODE	
D604			1SS355	DIODE	
D605,606			DAN217U	DIODE	
D607,608	*		M3FL20U-5063	DIODE	
D703-706			DAN217U	DIODE	
D803-806			DAN217U	DIODE	
D902			1SS355	DIODE	
D903			UDZS5.1B	ZENER DIODE	
D904			1SS355	DIODE	
D905			UDZS5.1B	ZENER DIODE	
D906			UDZS4.7B	ZENER DIODE	
D907			1SR154-400	DIODE	
D908			UDZS15B	ZENER DIODE	
D909			UDZS6.8B	ZENER DIODE	
D910			UDZS5.1B	ZENER DIODE	
D911			UDZS13B	ZENER DIODE	
D913			EP05Q04	DIODE	
D914			1SS355	DIODE	
IC1	*		D2-91413-LR	MOS-IC	
IC3	*		S-80827CNNB-G	MOS-IC	
IC100			TC74VHC125FT	MOS-IC	
IC101,102	*		IXDF402SIA	MOS-IC	
IC200			TC74VHC125FT	MOS-IC	
IC201,202	*		IXDF402SIA	MOS-IC	
IC301,302			NJM4580V-ZB	ANALOGUE IC	
IC303,304			NJM4565V-ZB	ANALOGUE IC	
IC306			NJM4580V-ZB	ANALOGUE IC	
IC307	*		AK5384VF	MOS-IC	
IC309			NJM4565V-ZB	ANALOGUE IC	
IC310			WM8716SEDS/R	MOS-IC	
IC401,402			NJM4580V-ZB	ANALOGUE IC	
IC403,404			NJM4565V-ZB	ANALOGUE IC	
IC500			NJM4565V-ZB	ANALOGUE IC	
IC502			TL494IDR	ANALOGUE IC	
IC503	*		LT1086IT-PBF	ANALOGUE IC	
IC507	*		TC7SZ125FU-F	MOS-IC	
IC509	*		LM2593HVSADJN	MOS-IC	
IC510,511	*		MP1580HS-LF-Z	ANALOGUE IC	
IC512			BA05T	ANALOGUE IC	
IC601,602			NJM4580V-ZB	ANALOGUE IC	
IC603	*		CS5361-DZZR	MOS-IC	
IC604			TC74VHC125FT	MOS-IC	
IC605	*		IXDF402SIA	MOS-IC	
IC701-703			NJM4580V-ZB	ANALOGUE IC	
IC704	*		CS5361-DZZR	MOS-IC	
IC705	*		LM1117IDT5.0N	ANALOGUE IC	
IC801,802			NJM4580V-ZB	ANALOGUE IC	
IC804	*		CS5361-DZZR	MOS-IC	
IC900	*		78F0536GK011A	MICROCONTROLLER IC	
IC901			TC7MBD3245AFK	MOS-IC	

Ref. No.	Add	New	Parts No.	Description	Destination
IC902			BR24L04FV-W	ROM IC	
IC904			NJM4565V-ZB	ANALOGUE IC	
Q101,102	*		IRF9530NPBF	FET	
Q103,104	*		IRF530NPBF	FET	
Q105-108			2SA1163-F	TRANSISTOR	
Q109,110	*		SSM3K7002FU-F	FET	
Q111,112	*		IRF7341PBF	DUAL FET	
Q113			2SA1163-F	TRANSISTOR	
Q114,115	*		IRF7341PBF	DUAL FET	
Q116			2SA1163-F	TRANSISTOR	
Q201,202	*		IRF9530NPBF	FET	
Q203,204	*		IRF530NPBF	FET	
Q205-208			2SA1163-F	TRANSISTOR	
Q209,210	*		SSM3K7002FU-F	FET	
Q211,212	*		IRF7341PBF	DUAL FET	
Q213			2SA1163-F	TRANSISTOR	
Q214,215	*		IRF7341PBF	DUAL FET	
Q216			2SA1163-F	TRANSISTOR	
Q301			2SD2114K	TRANSISTOR	
Q302			DTA114EUA	DIGITAL TRANSISTOR	
Q303			2SC4081	TRANSISTOR	
Q401			2SD2114K	TRANSISTOR	
Q503,504			DTA114EUA	DIGITAL TRANSISTOR	
Q505	*		2SD2153	TRANSISTOR	
Q506,507			2SB1427	TRANSISTOR	
Q508	*		2SD2153	TRANSISTOR	
Q509-516			2SK3662-F	FET	
Q517			2SD2012-F	TRANSISTOR	
Q520			2SB1375-F	TRANSISTOR	
Q521			2SC4081	TRANSISTOR	
Q522-524			2SA1576A	TRANSISTOR	
Q525	*		2SD1733	TRANSISTOR	
Q526			2SC4081	TRANSISTOR	
Q527-529	*		2SD1733	TRANSISTOR	
Q530			2SC4081	TRANSISTOR	
Q531			DTC114EUA	DIGITAL TRANSISTOR	
Q533	*		2SK879-F (GR)	FET	
Q601	*		IRF5210PBF	FET	
Q602			IRF540NPBF	FET	
Q603,604			2SA1163-F	TRANSISTOR	
Q605	*		SSM3K7002FU-F	FET	
Q901			DTC114EUA	DIGITAL TRANSISTOR	
Q902,903			2SC4081	TRANSISTOR	
Q904			DTA114EUA	DIGITAL TRANSISTOR	
Q905			DTC114EUA	DIGITAL TRANSISTOR	
Q906,907			2SC4081	TRANSISTOR	
Q908			2SA1576A	TRANSISTOR	
Q909,910			2SC4081	TRANSISTOR	
Q911	*		2SB1181	TRANSISTOR	
Q912			DTC114EUA	DIGITAL TRANSISTOR	
Q913	*		2SB1181	TRANSISTOR	
Q914-916			2SC4081	TRANSISTOR	
Q917			DTC114EUA	DIGITAL TRANSISTOR	
Q918			DTA114EUA	DIGITAL TRANSISTOR	
Q920	*		2SD1733	TRANSISTOR	

E1 : KAC-PS4D (Europe) K : KAC-X4R (North America)

△ Indicates safety critical components.

## PARTS LIST

### AUDIO UNIT (X09-8620-10)

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation	Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
Q922-924			DTC114EUA	DIGITAL TRANSISTOR							
Q930			DTC114EUA	DIGITAL TRANSISTOR							
Q931			DTA144EUA	DIGITAL TRANSISTOR							
TH1-6			NCP18XH103J0S	THERMISTOR							

E1 : KAC-PS4D (Europe)    K : KAC-X4R (North America)

△ Indicates safety critical components.

# KAC-PS4D/X4R

## SPECIFICATIONS

### CEA-2006

RMS Watts per channel @ 4 ohms, 1% THD+N .... 100W x 4  
Signal to Noise Ratio (Reference: 1Watt into 4 ohms) ..... 78dB

### Audio Section

Max Power Output ..... 1200W  
Rated Power Output (+B=12.0V)  
(4Ω) (20Hz~20kHz, 0.8% THD) ..... 75W x 4  
(2Ω) (1kHz, 1.0% THD) ..... 100W x 4  
(Bridged 4Ω) (1kHz, 1.0% THD) ..... 200W x 2  
Rated Power Output (+B=14.4V)  
(4Ω) (20Hz~20kHz, 0.8% THD) ..... 100W x 4  
(4Ω) (DIN45324, +B=14.4V) ..... 100W x 4  
(2Ω) (1kHz, 1.0% THD) ..... 150W x 4  
(Bridged 4Ω) (1kHz, 1.0% THD) ..... 300W x 2  
Frequency Response (+0, -1dB) ..... 20Hz~20kHz  
Sensitivity (rated output) (MAX.) ..... 0.2V  
(MIN.) ..... 5.0V  
Input Impedance ..... 10kΩ  
Signal to Noise Ratio ..... 105dB  
Low Pass Filter Frequency (-24/-12dB/oct.)  
Low Range ..... 30~250Hz  
High Range ..... 500~5kHz  
High Pass Filter Frequency (-24/-12dB/oct.)  
Low Range ..... 30~250Hz  
High Range ..... 500~5kHz

Infrasonic Filter Frequency (-24dB/oct.) ..... 20/30/40/50/60Hz  
Built in Parametric EQ Control

Frequency BAND 1 ..... 25/40/60/80/100Hz  
Frequency BAND 2 ..... 150/200/300/400/500Hz  
Frequency BAND 3 ..... 600/800/1k/15k/2kHz  
Frequency BAND 4 ..... 3k/4k/5k/6.3kHz  
Frequency BAND 5 ..... 8k/10k/12.5k/16kHz  
Quality Factor BAND 1~BAND 3 ..... 1.0/2.0/3.0/5.0  
Quality Factor BAND 4~BAND 5 ..... 2.0/4.0/8.0/1.0  
Gain (Boost or Cut) ..... -9dB~+9dB

Delay Control ..... 0ms~3.9ms (0.1ms Step)  
Phase Inverter ..... 0° (Normal)/-180° (Reverse)

### General

Operating Voltage ..... 14.4V (11~16V allowable)  
Current Consumption ..... 60A  
Installation Size (W x H x D)  
..... 340 x 60 x 225mm (13-3/8 x 2-3/8 x 8-7/8 inch)  
Weight ..... 3.8kg (8.4lbs)

---

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

---

## INSTALLATION

