

STEREO POWER AMPLIFIER

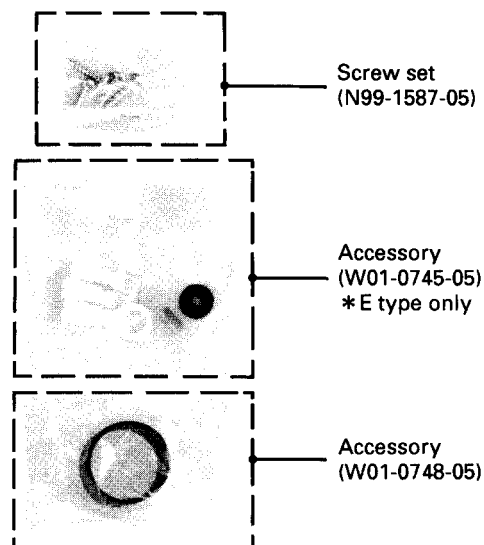
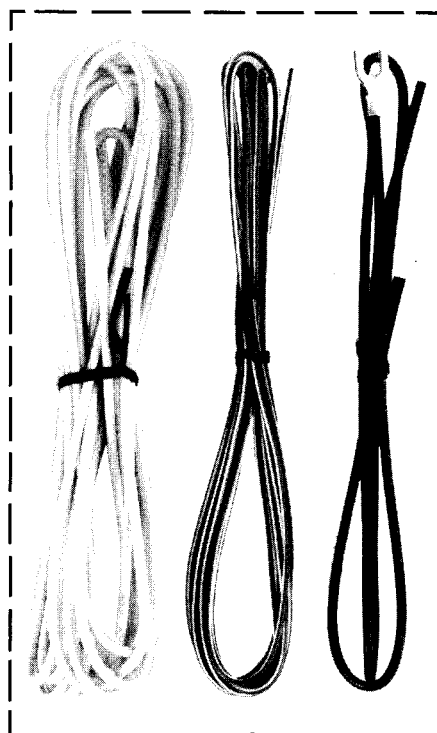
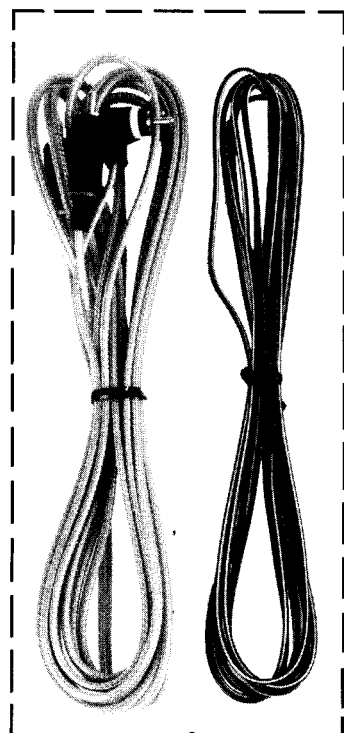
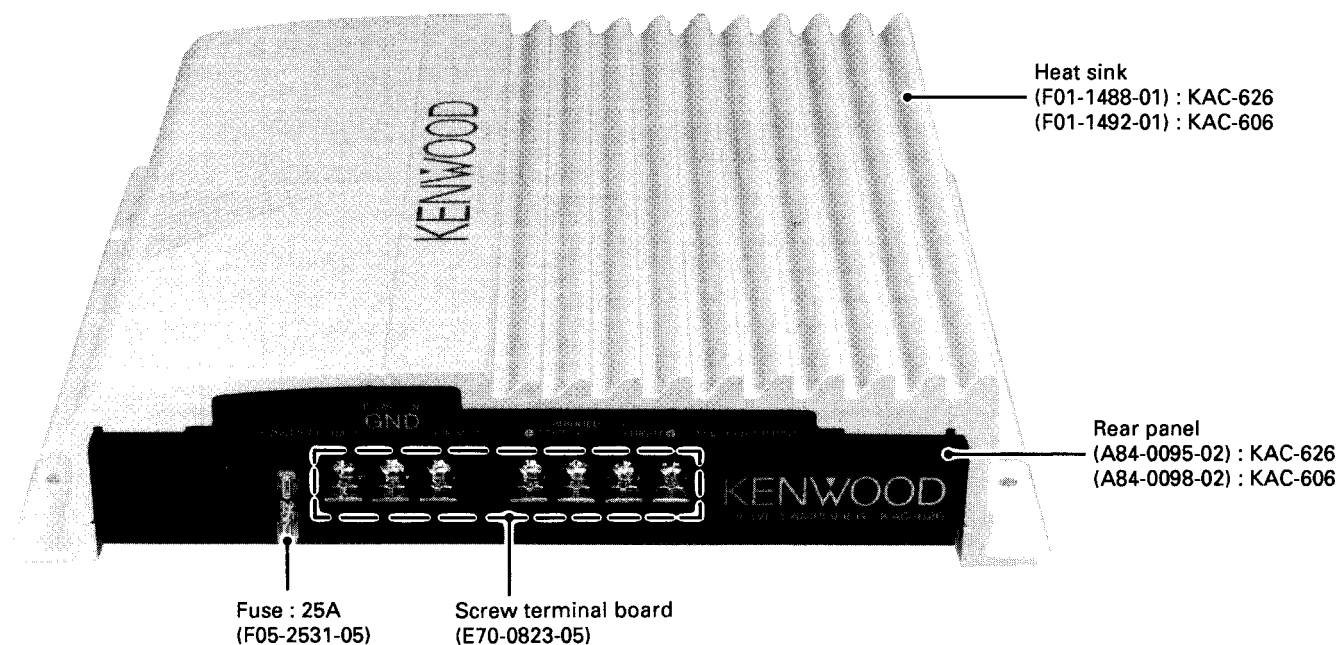
KAC-606/626

SERVICE MANUAL

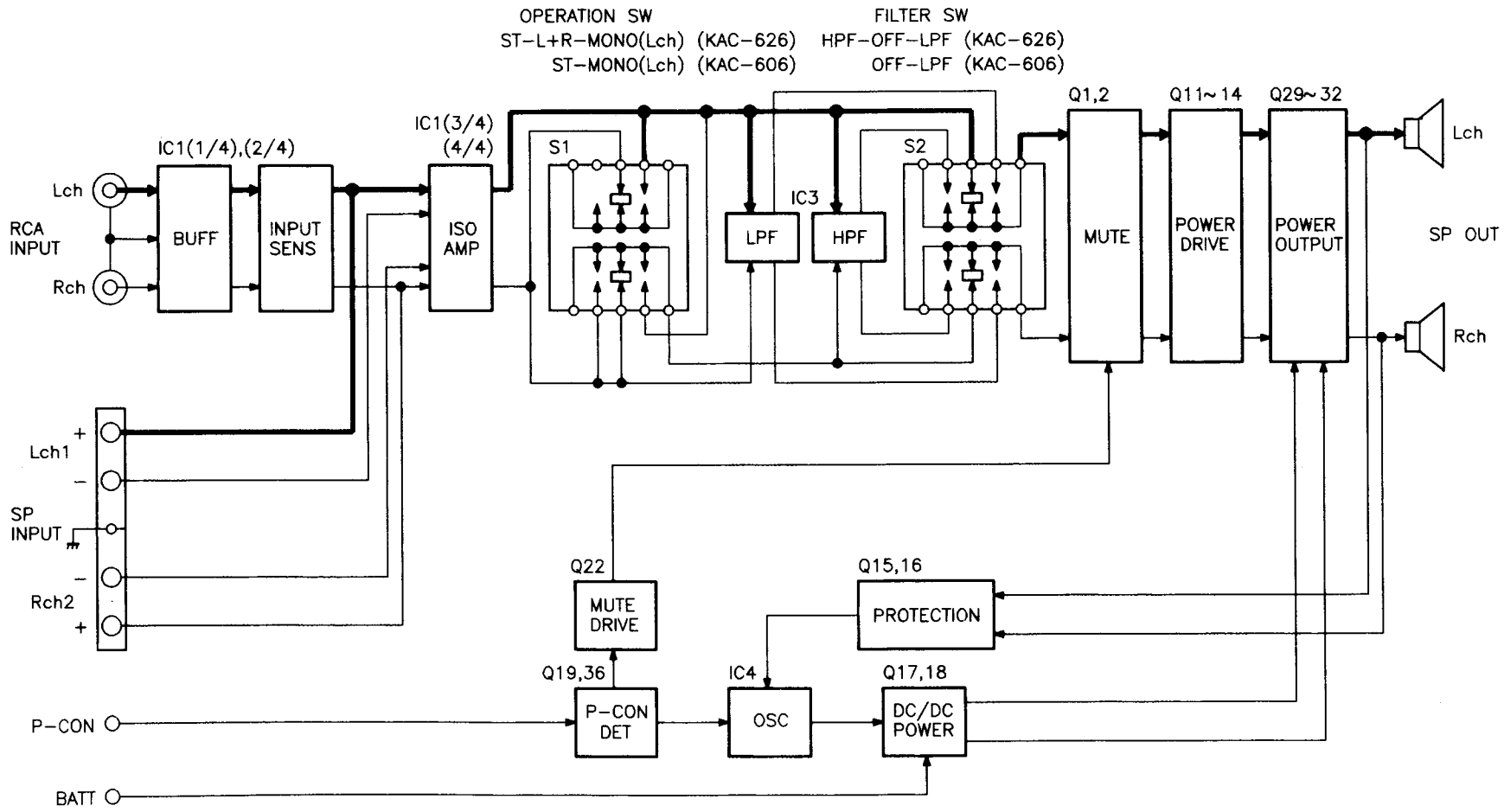
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Photo is KAC-626



BLOCK DIAGRAM



CIRCUIT DESCRIPTION

Description of components

AUDIO UNIT (X09-5160-xx) -10:KAC-626 -11:KAC-606

Component	Component Name	Application/Functions	Operation/Condition/Compatibility
IC1	μ PU4574C	Isolation amp	
IC3	NJM4565D	L.P.F	
IC4	μ PC494C	Switching regulator	Oscillator for DC-DC converter.
Q1, 2	2SC945(A)(Q,P)	Muting transistor	
Q3 - 6	2SA733(A)(Q,P)	Differential amp	
Q7, 8	2SC945(A)(Q,P)	Differential amp	
Q9, 10	2SC945(A)(Q,P)	For temperature-compensating	
Q11, 12	2SC1627A	Power amp	
Q13, 14	2SA817A	Power amp	
Q15, 16	2SC945(A)(Q,P)	Protection for overcurrent	When overcurrent flows, turns IC4 off.
Q17, 18	IRFIZ34GLF24	Power switching	
Q19	2SC945(A)(Q,P)	P-con detector	
Q21	2SC3940A(R,S)	A-class power supply controller	
Q22	DTA124EL	Muting driver	
Q29, 30	2SC5100LB	Power stage	
Q31, 32	2SA1908LB	Power stage	
Q35	2SC945(A)(Q,P)	A-class muting	Operates when the power supply voltage fluctuates.
Q36	2SC945(A)(Q,P)	P-con detector	
Q37	2SA733(A)(Q,P)	Power switch	Turns power supply of IC4 ON/OFF.
Q38, 39	2SC945(A)(Q,P)	DC protection	
Q40	2SC945(A)(Q,P)	Overvoltage protection	

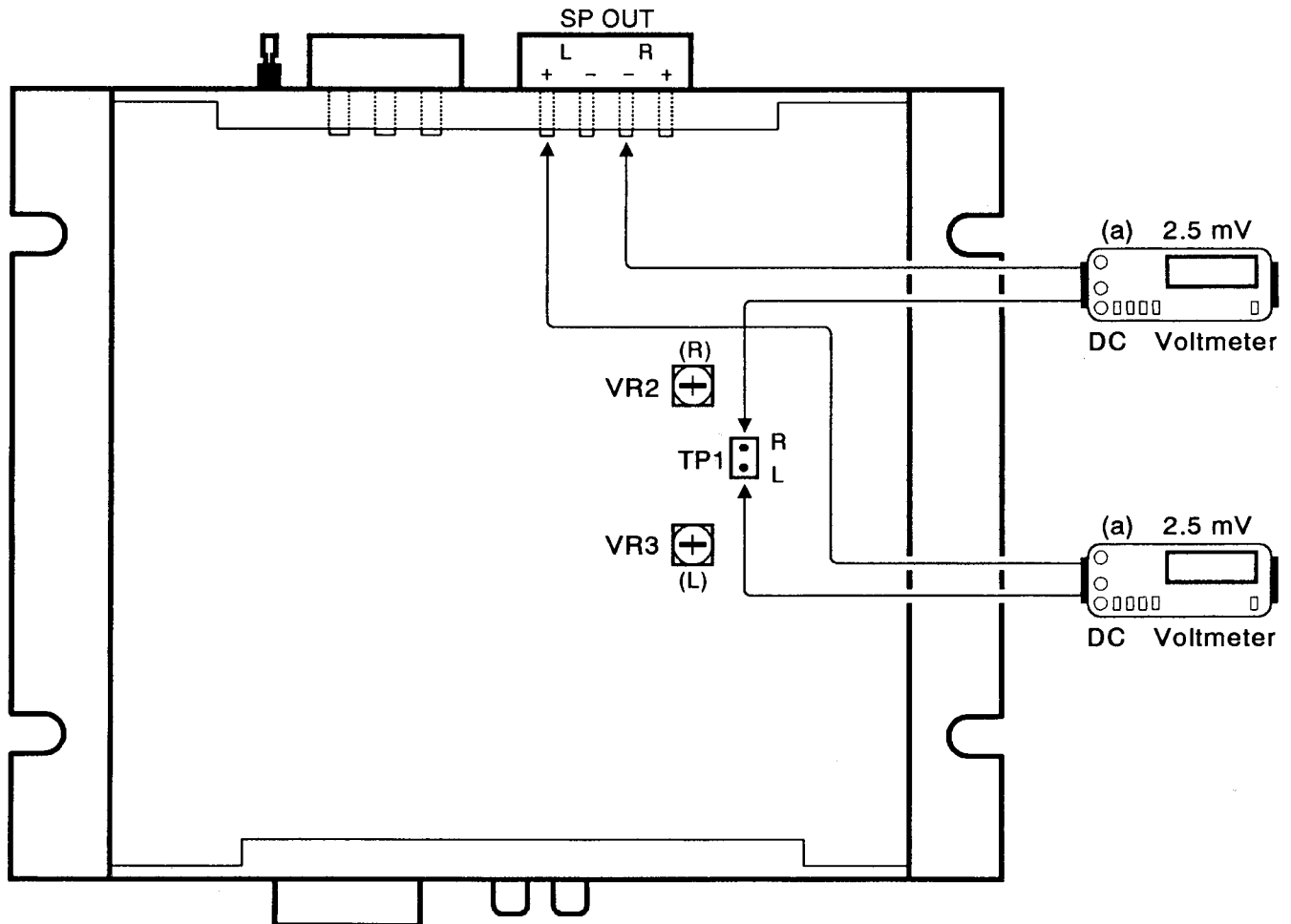
ADJUSTMENT/ABGLEICH

ADJUSTMENT

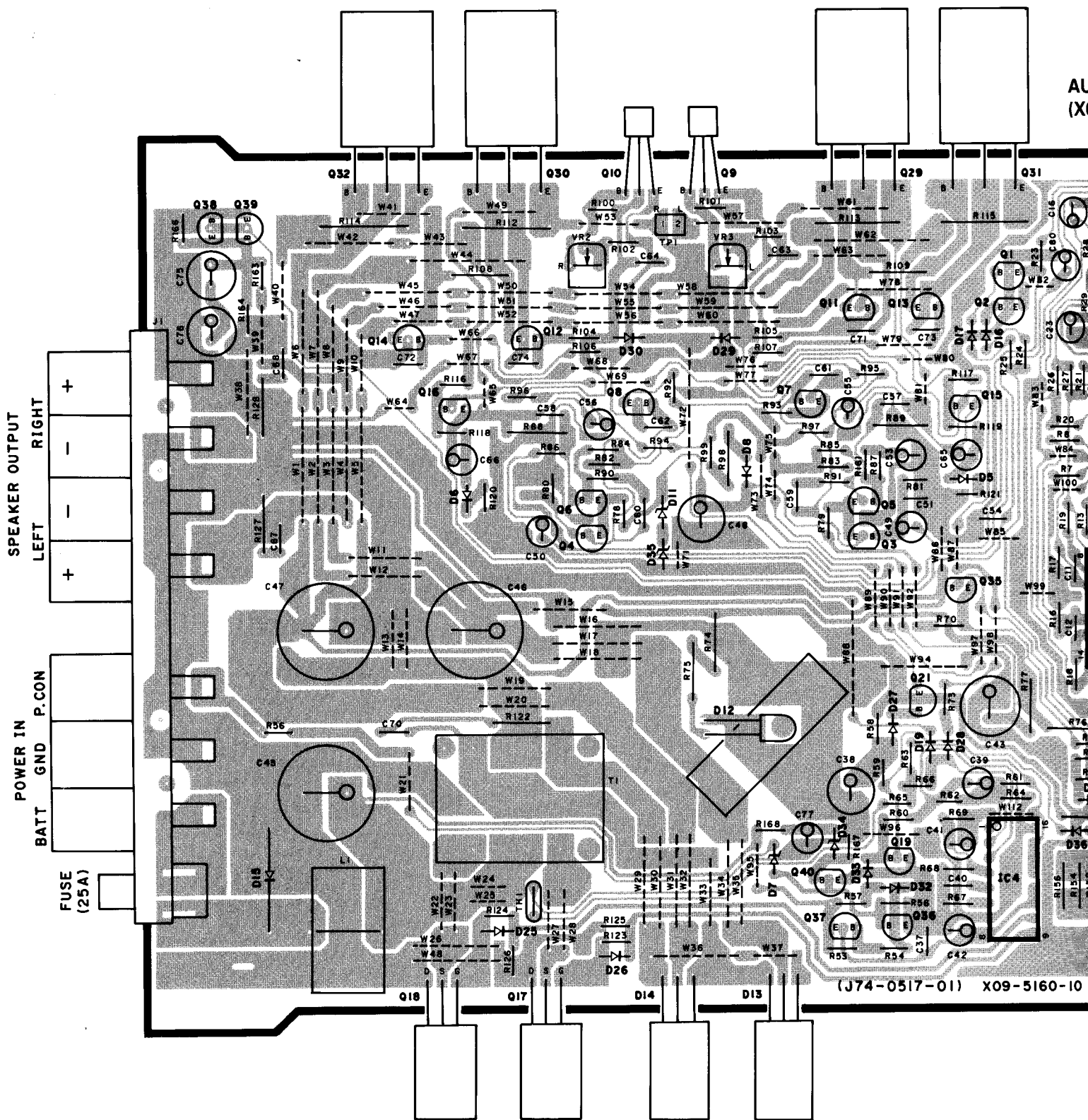
No	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	CASSETTE RECEIVER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	IDLE CURRENT	—	Connect a DC voltmeter to TP1 (L,R) and SP-OUT(L,R).	VOLUME : 0	VR2 (Rch) VR3 (Lch)	2.5mV	(a)

ABGLEICH

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANG-EINSTELLUNG	VORSTÄRKER-EINSTELLUNG	ABGLEICHE-PUNKTE	ABGLEICHEN FÜR	ABB
1	LEERLAUF-STROM	—	Einen Gleichspannungsmesser zu TP1 (L,R) und SP-OUT(L,R) anschließen.	VOLUME : 0	VR2 (Rch) VR3 (Lch)	2.5mV	(a)

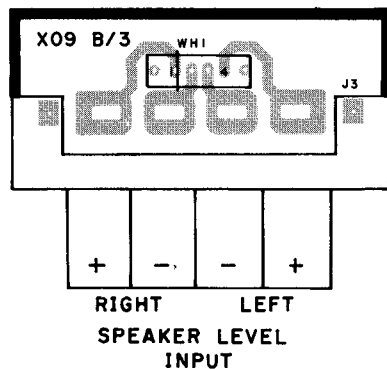
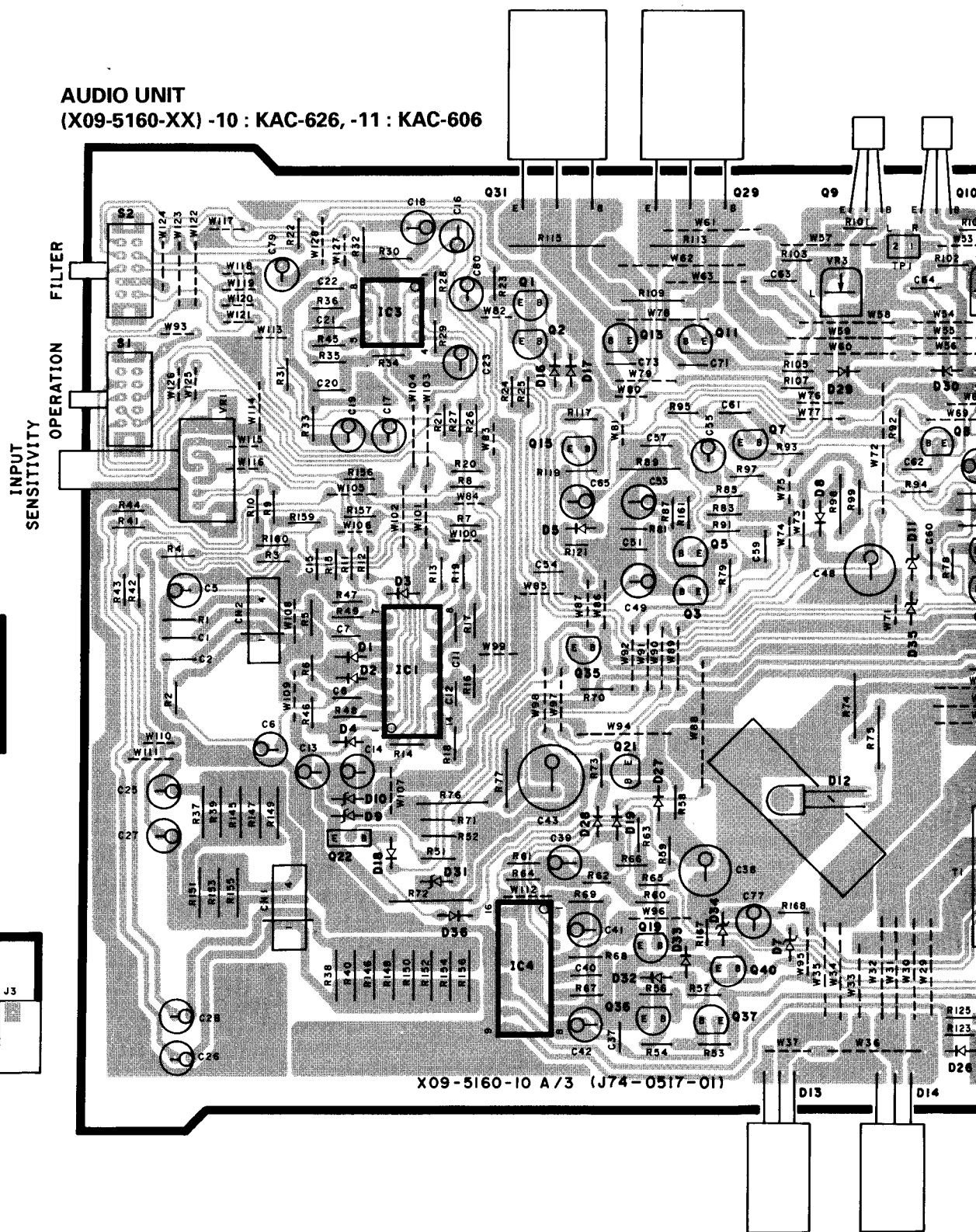


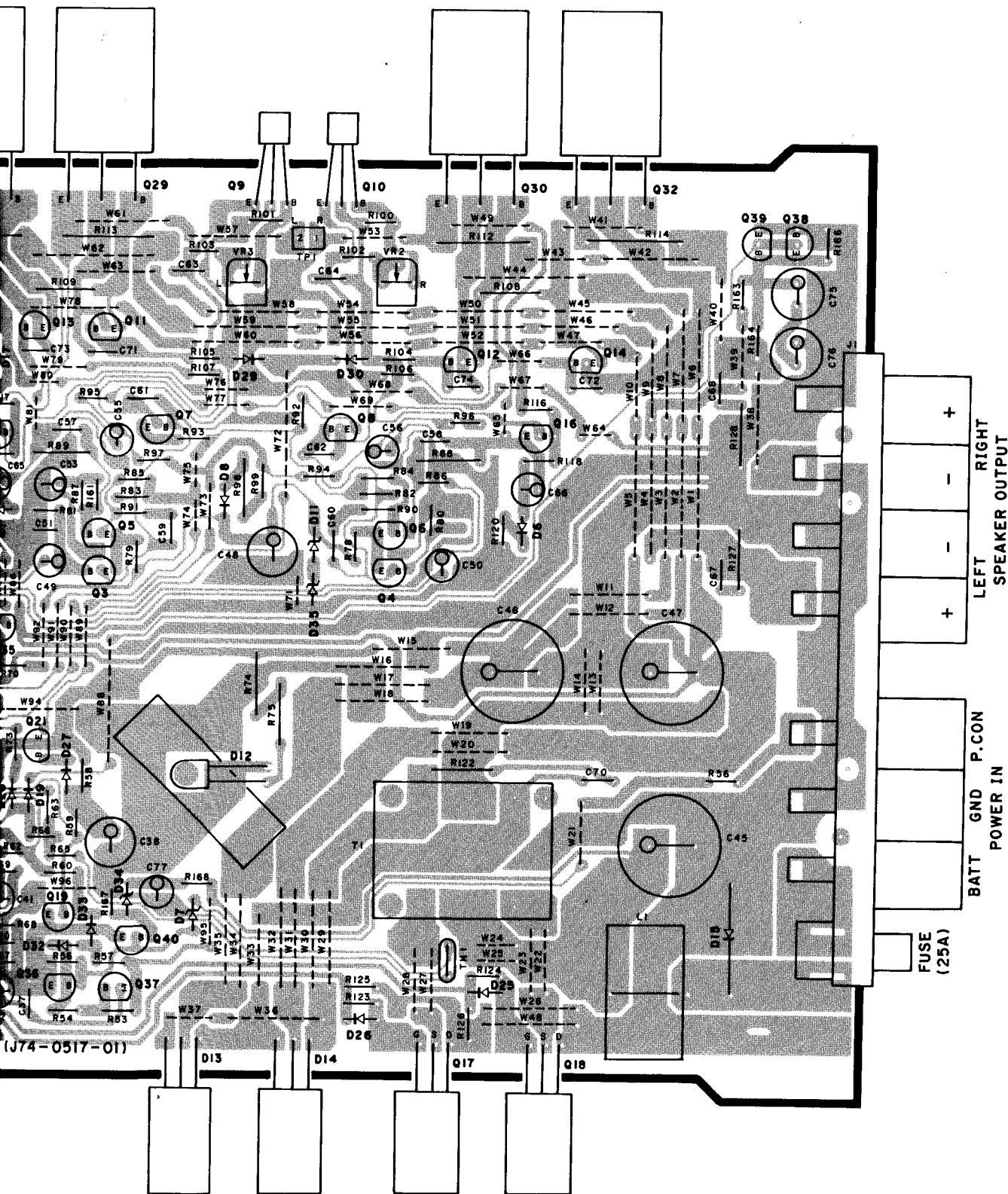
PC BOARD (Component Side View)



AL
(X)

L	M	N	O	P	Q
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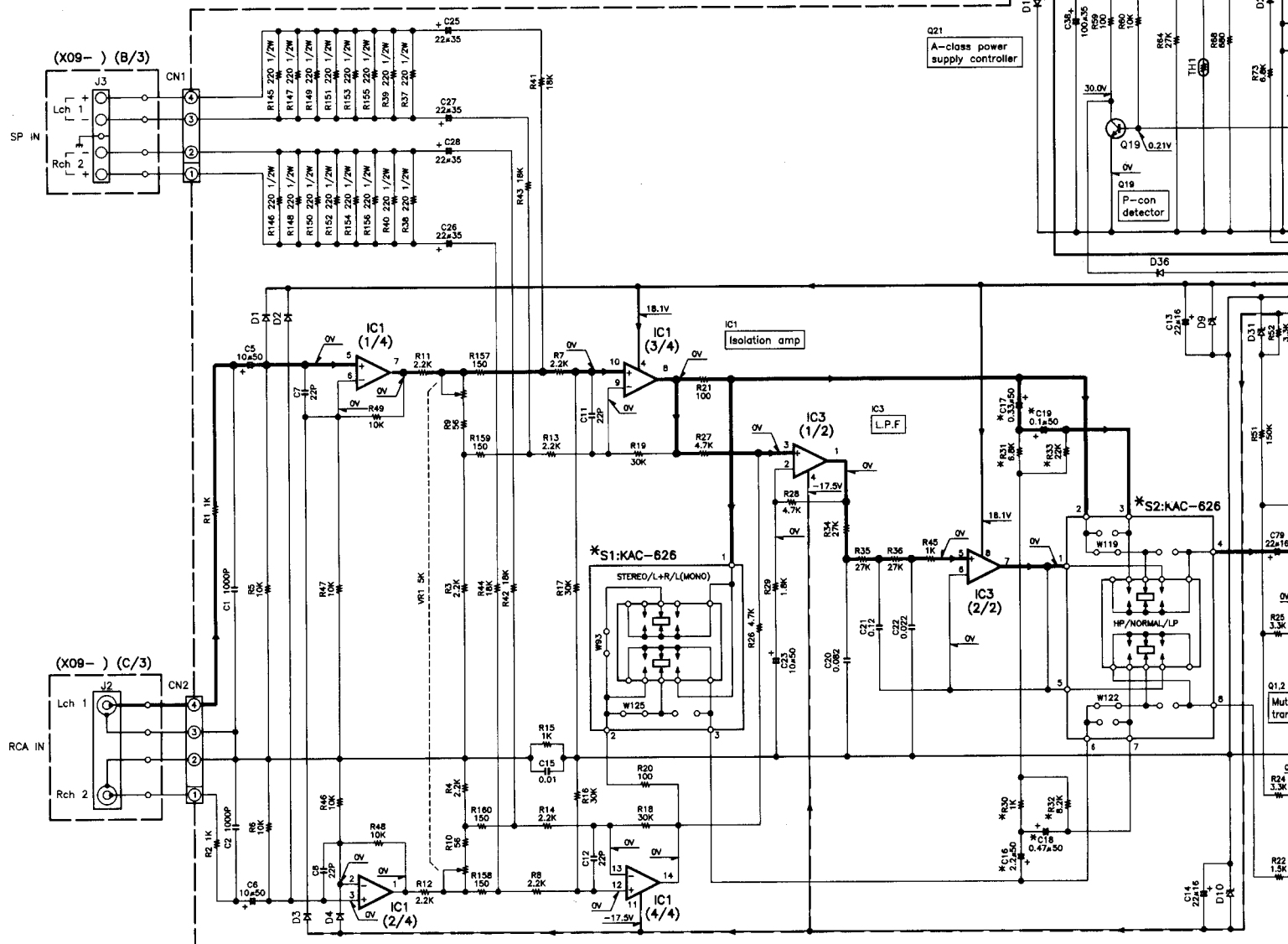




Ref.No.	Address
IC1	4O
IC3	3O
IC4	5O
Q1	2O
Q2	3O
Q3	4P
Q4	4Q
Q5	4P
Q6	4Q
Q7	3P
Q8	3Q
Q9	2Q
Q10	2Q
Q11	3P
Q12	3R
Q13	3P
Q14	3R
Q15	3O
Q16	3R
Q17	6R
Q18	6R
Q19	5P
Q21	4P
Q22	5N
Q29	2P
Q30	2R
Q31	2O
Q32	2S
Q35	4P
Q36	6P
Q37	6P
Q38	2S
Q39	2S
Q40	5P

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

- IC1 : UPC4574C
IC3 : NJM4565D
IC4 : UPC494C
- Q1,2,7~10,15,16,19,35,36,38~40 : 2SC945(A)(Q,P)
Q3~6,37 : 2SA733(A)(Q,P)
Q11,12 : 2SC1627A
Q13,14 : 2SA817A
Q17,18 : IRFIZ34GLF24
Q21 : 2SC3940A(R,S)
Q22 : DTA124EL
Q29,30 : 2SC5100LB
Q31,32 : 2SA1908LB
- D1~6,8,16~19,25~30,32,33,36 : 1SS176
D7 : RD7.5JS(B)
D9,10,34 : RD16JS(B)
D11,35 : RD8.2JS(B)
D12 : B30-1460-05
D13 : FMU22S+A
D14 : FMU22R+A
D15 : RM4ZLF-J1
D31 : RDS.1JS(B2)

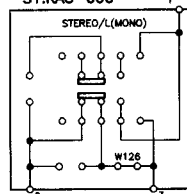


(X09-5160-XX)

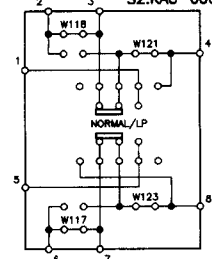
MODEL NAME	UNIT No.	S1,2	R30~33	C16~19
KAC-626	-10	S31-2630-05	YES	YES
MAC-606	-11	S62-0845-05	NO	NO

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

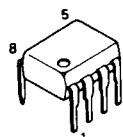
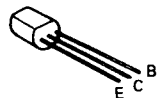
*S1:KAC-606



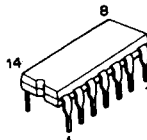
*S2:KAC-606



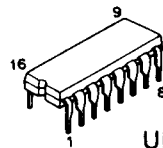
2SA733(A)
2SA817A
2SC1627A
2SC3940A
2SC945(A)



NJM4565D



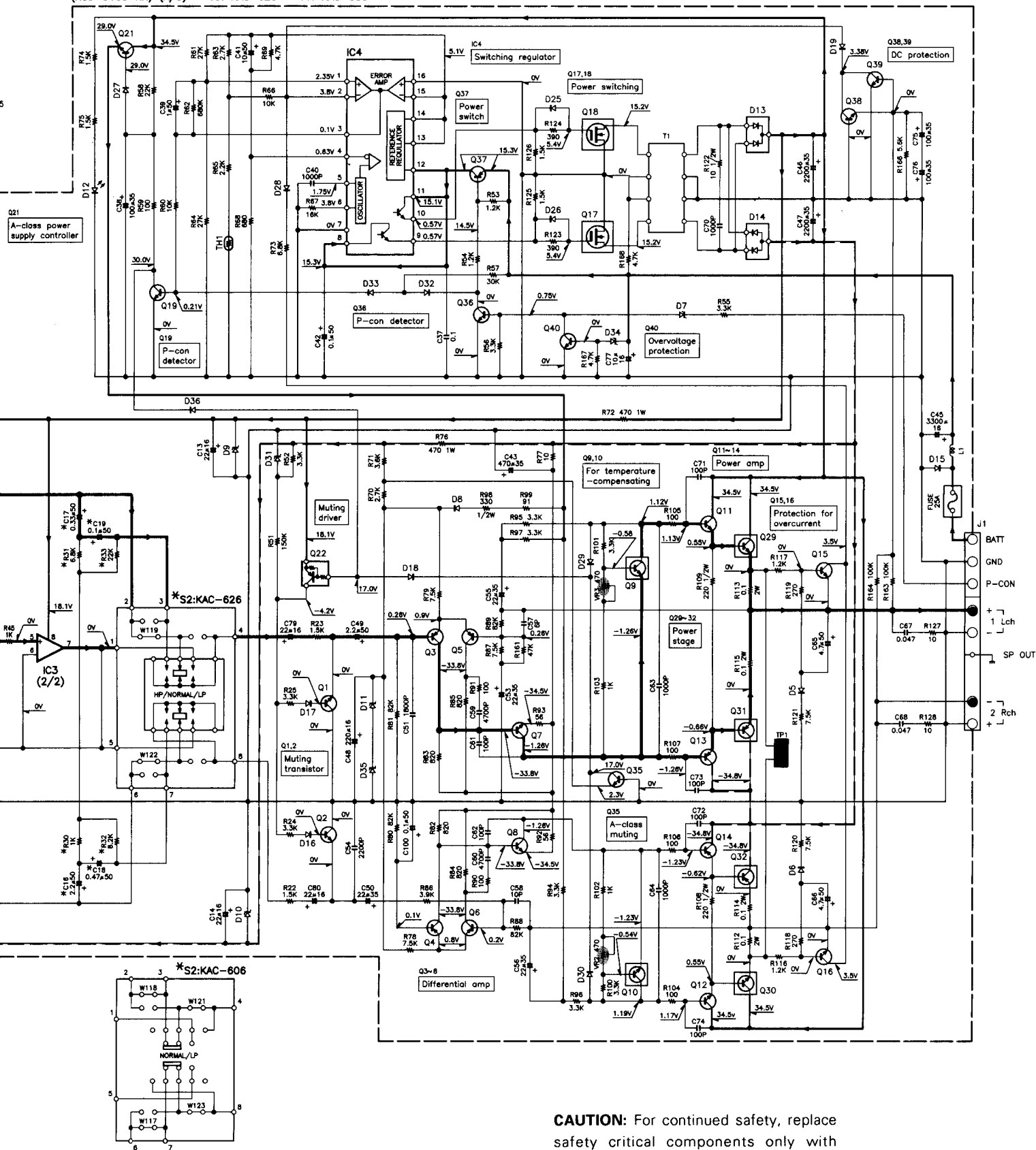
UPC4574C




UPC494C

• DC voltage
impedance
slightly due
instruments

(X09-5160-XX) (A/3) -10: KAC-626 -11: KAC-606

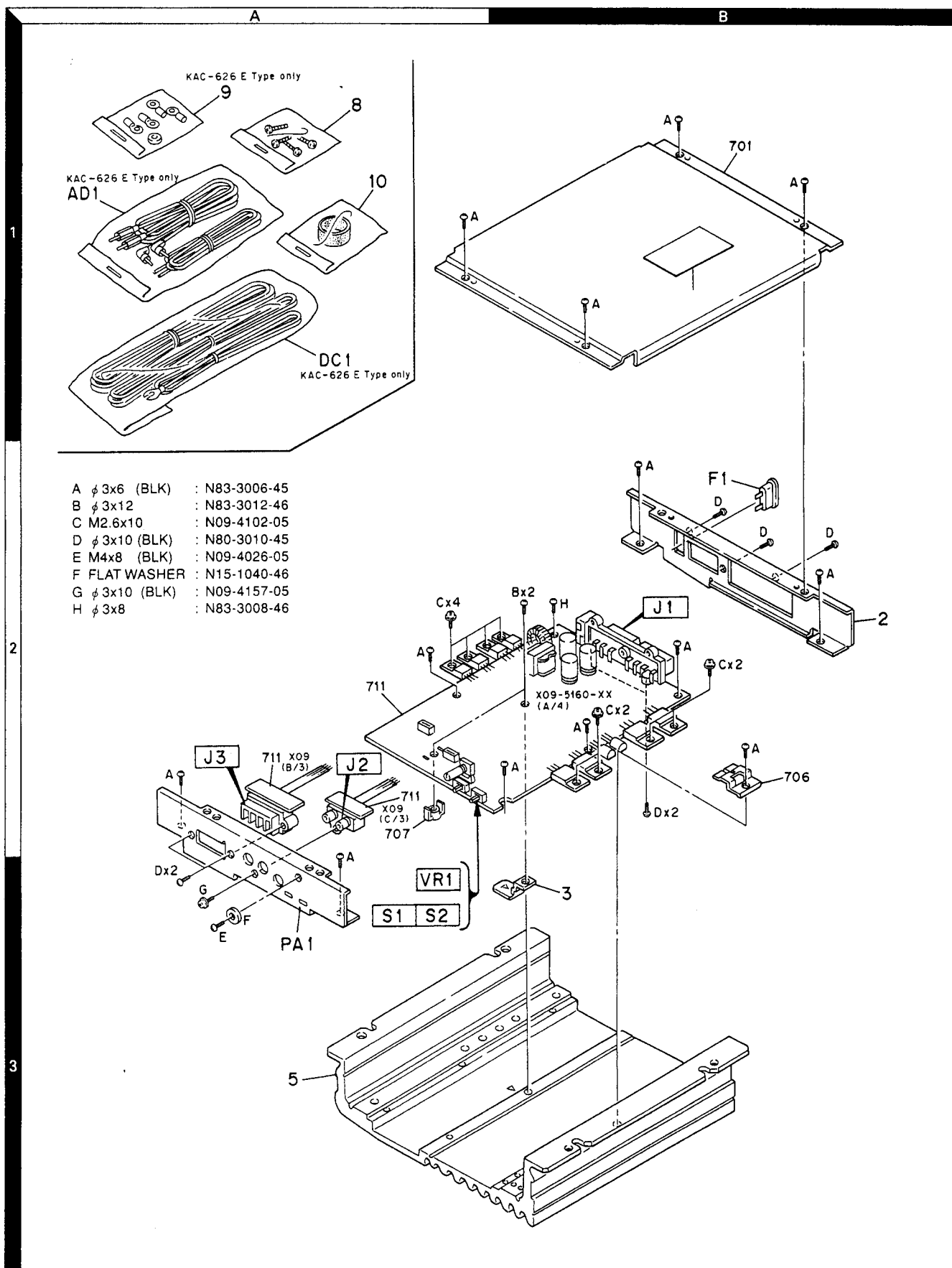


CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably 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-606/626
KENWOOD

EXPLODED VIEW



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

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

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

Teile ohne Parts No. werden nicht geliefert.

KAC-606/626
(X09-5160-1X)

Ref. No. 参照番号	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向
KAC-606/626				
2	2B	* A84-0095-02	REAR PANEL (KAC-626) KE	
2	2B	* A84-0098-02	REAR PANEL (KAC-606) K	
PA1	3A	* A64-0758-02	PANEL (KAC-626) KE	
PA1	3A	* A64-0759-02	PANEL (KAC-606) K	
3	3B	* B19-1061-03	LIGHTING BOARD	
-		B46-0100-40	WARRANTY CARD	
-		* B64-0775-00	INST. MANUAL(ENG,FRE)	KK1
-		* B64-0776-00	INST. MANUAL(SPA)	KK1
-		* B64-0777-00	INST. MANUAL(ENG,FRE)(KAC-626) E	
-		* B64-0778-00	INST. MANUAL(GER,DUT)(KAC-626) E	
-		* B64-0779-00	INST. MANUAL(ITA,SPA)(KAC-626) E	
-		* B64-0780-00	INST. MANUAL(POR) (KAC-626) E	
AD1	1A	E30-4067-05	AUDIO CORD (KAC-626) E	
DC1	1A	* E30-4328-05	DC CORD ASSY (KAC-626) E	
5	3A	* F01-1488-01	HEAT SINK (KAC-626) KE	
5	3A	* F01-1492-01	HEAT SINK (KAC-606) K	
F1	2B	F05-2531-05	FUSE (25A) 1	
-		H12-2587-04	PACKING FIXTURE	
-		* H12-2603-03	PACKING FIXTURE	
-		H25-0336-04	PROTECTION BAG (170X250X0.03)	
-		H25-0342-04	PROTECTION BAG (350X350X0.03)	
-		* H54-0588-03	ITEM CARTON CASE (KAC-626) KE	
-		* H54-0589-03	ITEM CARTON CASE (KAC-606) K	
8	1A	N99-1587-05	SCREW SET	
A	1B	N83-3006-45	PAN HEAD TAPTITE SCREW	
B	2B	N83-3012-46	PAN HEAD TAPTITE SCREW	
C	2B	N09-4102-05	SEMS (MACHINE SCREW)(M2.6X10)	
D	2B	N80-3010-45	PAN HEAD TAPTITE SCREW	
E	3A	N09-4026-05	TAPPING SCREW (4X8,TP,S)	
F	3A	N15-1040-46	FLAT WASHER (4)	
G	3A	N09-4157-05	SEMS (TAPTITE SCREW)	
H	2B	N83-3008-46	PAN HEAD TAPTITE SCREW	
9	1A	* W01-0745-05	ACCESSORY (KAC-626) E	
10	1A	* W01-0748-05	ACCESSORY(TUBE)	
AUDIO UNIT (X09-5160-10 : KAC-626, 0-11 : KAC-606)				
D12	*	B30-1460-05	LED(RED)	
C1	,2	CF92FV1H102J	MF-C 1000PF J	
C5	,6	CE04DW1H100M	ELECTRO 10UF 50WV	
C7	,8	CC45FSL1H220J	CERAMIC 22PF J	
C11	,12	CC45FSL1H220J	CERAMIC 22PF J	
C13	,14	CE04DW1C220M	ELECTRO 22UF 16WV	
C15		CF92FV1H102J	MF-C 1000PF J	
C16		CE04DW1H2R2M	ELECTRO 2.2UF 50WV KE	
C17		CE04DW1HR33M	ELECTRO 0.33UF 50WV KE	
C18		CE04DW1HR47M	ELECTRO 0.47UF 50WV KE	
C19		CE04DW1HOR1M	ELECTRO 0.1UF 50WV KE	
C20		CF92FV1H823J	MF-C 0.082UF J	
C21		CF92FV1H124J	MF-C 0.12UF J	
C22		CF92FV1H223J	MF-C 0.022UF J	
C23		CE04DW1H100M	ELECTRO 10UF 50WV	

Ref. No. 参照番号	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向
C25	-28	CE04DW1V220M	ELECTRO 22UF 35WV	
C37		CF92FV1H104J	MF-C 0.10UF J	
C38		CE04DW1V101M	ELECTRO 100UF 35WV	
C39		CE04DW1H010M	ELECTRO 1.0UF 50WV	
C40		CF92FV1H102J	MF-C 1000PF J	
C41		CE04DW1H100M	ELECTRO 10UF 50WV	
C42		CE04DW1HOR1M	ELECTRO 0.1UF 50WV	
C43		CE04DW1V471M	ELECTRO 470UF 35WV	
C45		C90-2689-05	ELECTRO 3300UF 16WV	
C46	,47	C90-2780-05	ELECTRO 2200UF 35WV	
C48		CE04DW1C221M	ELECTRO 220UF 16WV	
C49		CE04DW1H2R2M	ELECTRO 2.2UF 50WV	
C50		CE04DW1V220M	ELECTRO 22UF 35WV	
C51		CK45FB1H182K	CERAMIC 1800PF K	
C53		CE04DW1V220M	ELECTRO 22UF 35WV	
C54		CK45FB1H222K	CERAMIC 2200PF K	
C55	,56	CE04DW1V220M	ELECTRO 22UF 35WV	
C57		CC45FSL1H060D	CERAMIC 6.0PF D	
C58		CC45FSL1H100D	CERAMIC 10PF D	
C59	,60	CF92FV1H472J	MF-C 4700PF J	
C61	,62	CC45FSL1H101J	CERAMIC 100PF J	
C63	,64	CK45FB1H102K	CERAMIC 1000PF K	
C65	,66	CE04DW1H4R7M	ELECTRO 4.7UF 50WV	
C67	,68	CF92FV1H473J	MF-C 0.047UF J	
C70		CF92FV1H102J	MF-C 1000PF J	
C71	-74	CC45FSL1H101J	CERAMIC 100PF J	
C75	,76	CE04DW1V101M	ELECTRO 100UF 35WV	
C77		CE04DW1C100M	ELECTRO 10UF 16WV	
C79	,80	CE04DW1C220M	ELECTRO 22UF 16WV	
J1	*	E70-0823-05	SCREW TERMINAL BOARD	
J2	*	E63-0834-05	PHONE JACK	
J3	*	E70-0822-05	SCREW TERMINAL BOARD	KE
J3	*	E70-0824-05	SCREW TERMINAL BOARD	K
WH1	,2	E31-8122-05	LEAD WIRE	
L1		L33-1032-05	CHOKE COIL	
T1	*	L19-0549-05	TRANSFORMER FOR CONVERTER	
D	2B	N80-3010-45	PAN HEAD TAPTITE SCREW	
R37	-40	RD14DB2H221J	SMALL-RD 220 J 1/2W	
R72		RS14KB3A471J	FL-PROOF RS 470 J 1W	
R76		RS14KB3A471J	FL-PROOF RS 470 J 1W	
R98		RD14DB2H331J	SMALL-RD 330 J 1/2W	
R108,109		RD14DB2H221J	SMALL-RD 220 J 1/2W	
R112-115		R92-2115-05	METAL FILMR 1 J 2W	
R122		RD14DB2H100J	SMALL-RD 10 J 1/2W	
R145-156		RD14DB2H221J	SMALL-RD 220 J 1/2W	
VR1	*	R31-0209-05	VARIABLE RESISTOR	
VR2	,3	R12-0607-05	TRIMMING POT.(470)	
S1	,2	S31-2630-05	SLIDE SWITCH (KAC-626) KE	
S1	,2	* S62-0845-05	SLIDE SWITCH (KAC-606) K	
D1	-6	1SS176	DIODE	
D7		RD7.5JS(B)	ZENER DIODE	
D8		1SS176	DIODE	
D9	,10	RD16JS(B)	ZENER DIODE	

E: Europe K: North America M: Other Areas
W: Without Europe

△ indicates safety critical components.

* 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.

(X09-5160-1X)

Ref. No.	New Parts	Parts No.	Description	Destination
参照番号	新	部品番号	部品名 / 規格	仕向
D11		RD8.2JS(B)	ZENER DIODE	
D13		FMU22S*A	DIODE	
D14		FMU22R*A	DIODE	
D15		RM4ZLF-J1	DIODE	
D16 -19		1SS176	DIODE	
D25 -30		1SS176	DIODE	
D31		RD5.1JS(B2)	ZENER DIODE	
D32 ,33		1SS176	DIODE	
D34		RD16JS(B)	ZENER DIODE	
D35		RD8.2JS(B)	ZENER DIODE	
D36		1SS176	DIODE	
IC1		UPC4574C	IC(OP AMP X4)	
IC3		NJM4565D	IC(OP AMP X2)	
IC4		UPC494C	IC(SWITCHING REGULATOR)	
Q1 ,2		2SC945(A)(Q,P)	TRANSISTOR	
Q3 -6		2SA733(A)(Q,P)	TRANSISTOR	
Q7 ,8		2SC945(A)(Q,P)	TRANSISTOR	
Q9 ,10		2SC945(A)(Q,P)	TRANSISTOR	
Q11 ,12		2SC1627A	TRANSISTOR	
Q13 ,14		2SA817A	TRANSISTOR	
Q15 ,16		2SC945(A)(Q,P)	TRANSISTOR	
Q17 ,18		IRFI234GLF24	FET	
Q19		2SC945(A)(Q,P)	TRANSISTOR	
Q21		2SC3940A(R,S)	TRANSISTOR	
Q22		DTA124EL	DIGITAL TRANSISTOR	
Q29 ,30		2SC5100LB	TRANSISTOR	
Q31 ,32		2SA1908LB	TRANSISTOR	
Q35 ,36		2SC945(A)(Q,P)	TRANSISTOR	
Q37		2SA733(A)(Q,P)	TRANSISTOR	
Q38 -40		2SC945(A)(Q,P)	TRANSISTOR	
TH1		ERT-D2ZHL103S	THERMISTOR	

Ref. No. 参照番号	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向

E : Europe K : North America M : Other Areas
W : Without Europe

 indicates safety critical components.

KAC-606/626

SPECIFICATIONS

Specifications subject to change without notice.

Audio Section

Max Power Output (4 Ω)	
2 Channel Mode	100W x 2
1 Channel Mode	300W x 1
Rated Power Output (4 Ω)	
2 Channel Mode	50W x 2 (20Hz~20kHz, less than 0.08% THD)
1 Channel Mode	150W x 1 (1kHz, 0.8%THD)
Rated Power Output (2 Ω)	
2 Channel Mode	75W x 2 (1kHz, 0.8%THD)
Frequency Response	10Hz~45kHz (+0, -1dB)
Signal to Noise Ratio	100dB
Sensitivity (MAX.)	0.15V (rated output)
Sensitivity (MIN.)	4.0V (rated output)
Input Impedance	10k Ω
High Pass Filter Frequency (KAC-626 only)	150Hz (12dB/oct.)
Low Pass Filter Frequency	80Hz (12dB/oct.)

General

Operating Voltage	14.4V (11~16V allowable)
Current Consumption (1kHz, 10% THD)	19A
Dimensions (W x H x D)	220 x 52 x 228mm (8-11/16 x 2-1/16 x 9 in.)
Weight	2.2kg (4.9 lb)

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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