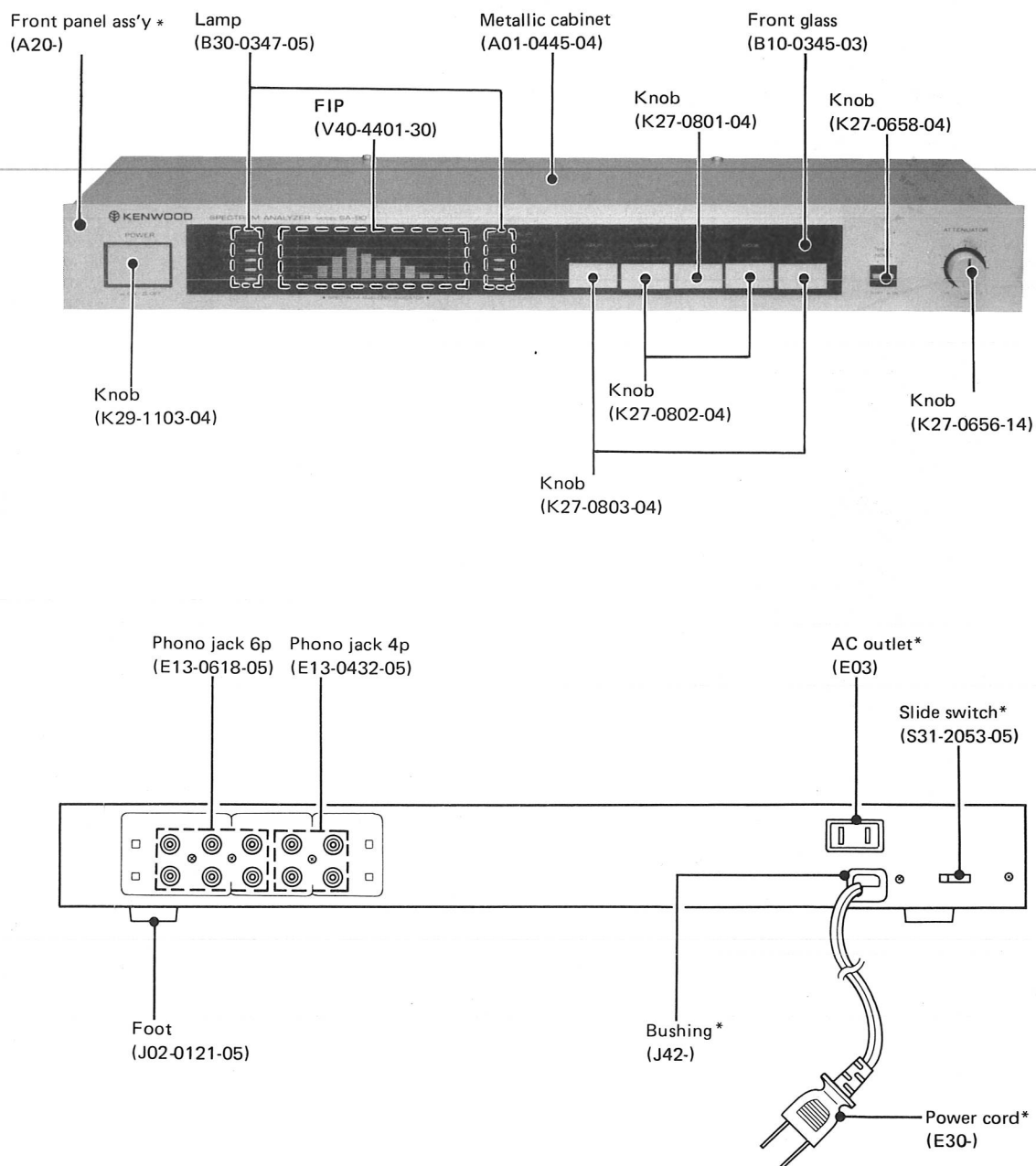
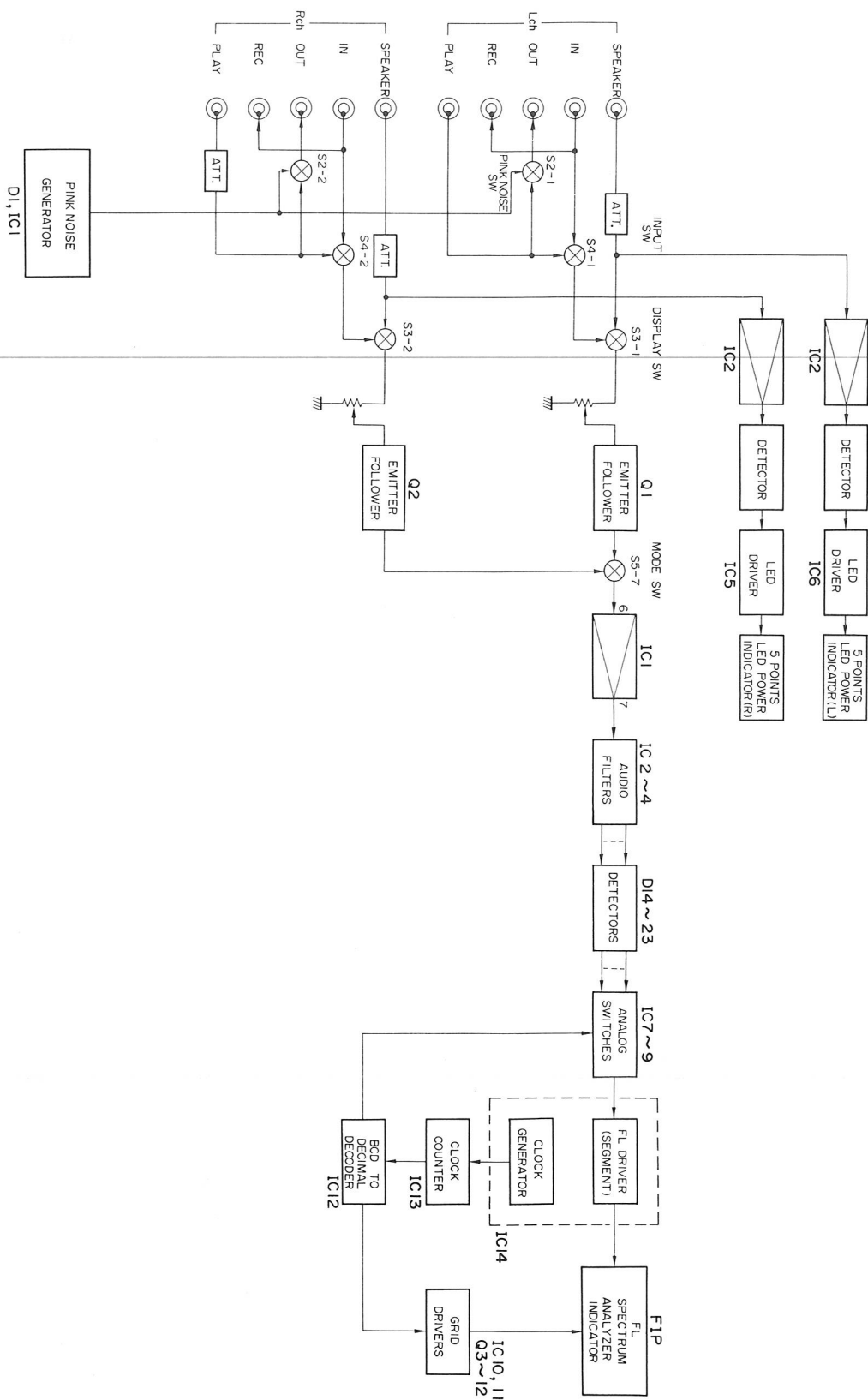


SPECTRUM ANALYZER



BLOCK DIAGRAM



ADJUSTMENT / REGLAGES / ABGLEICH

ADJUSTMENT

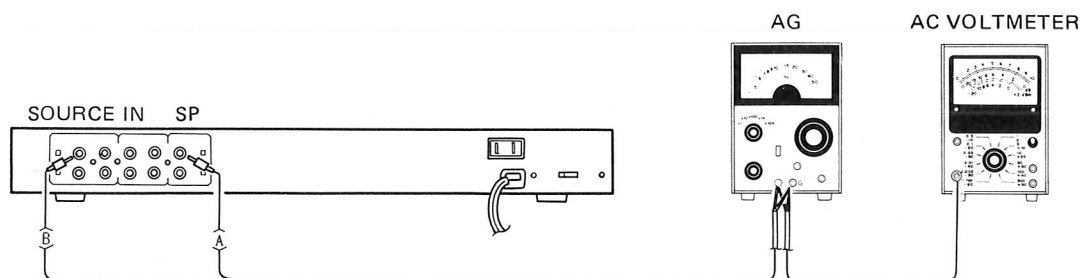
NO.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	SPECTRUM ANALYZER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
[1]	POWER METER (LEVEL)	(A) 1 kHz, 0.51 V	POWER LEVEL (LED)	PINK NOISE: OFF	VR3 (L) VR4 (R)	0.03 W	(a)
[2]	FIP INDICATOR	(B) 1 kHz, 3.4 mV	SPECTRUM ANALYZER INDICATOR	INPUT: LINE DISPLAY: SOURCE MODE: L + R ATT: 0 dB PINK NOISE: OFF	VR5	-14 dB	(b)

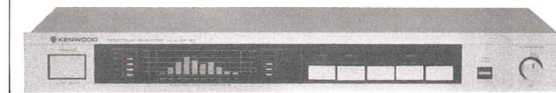
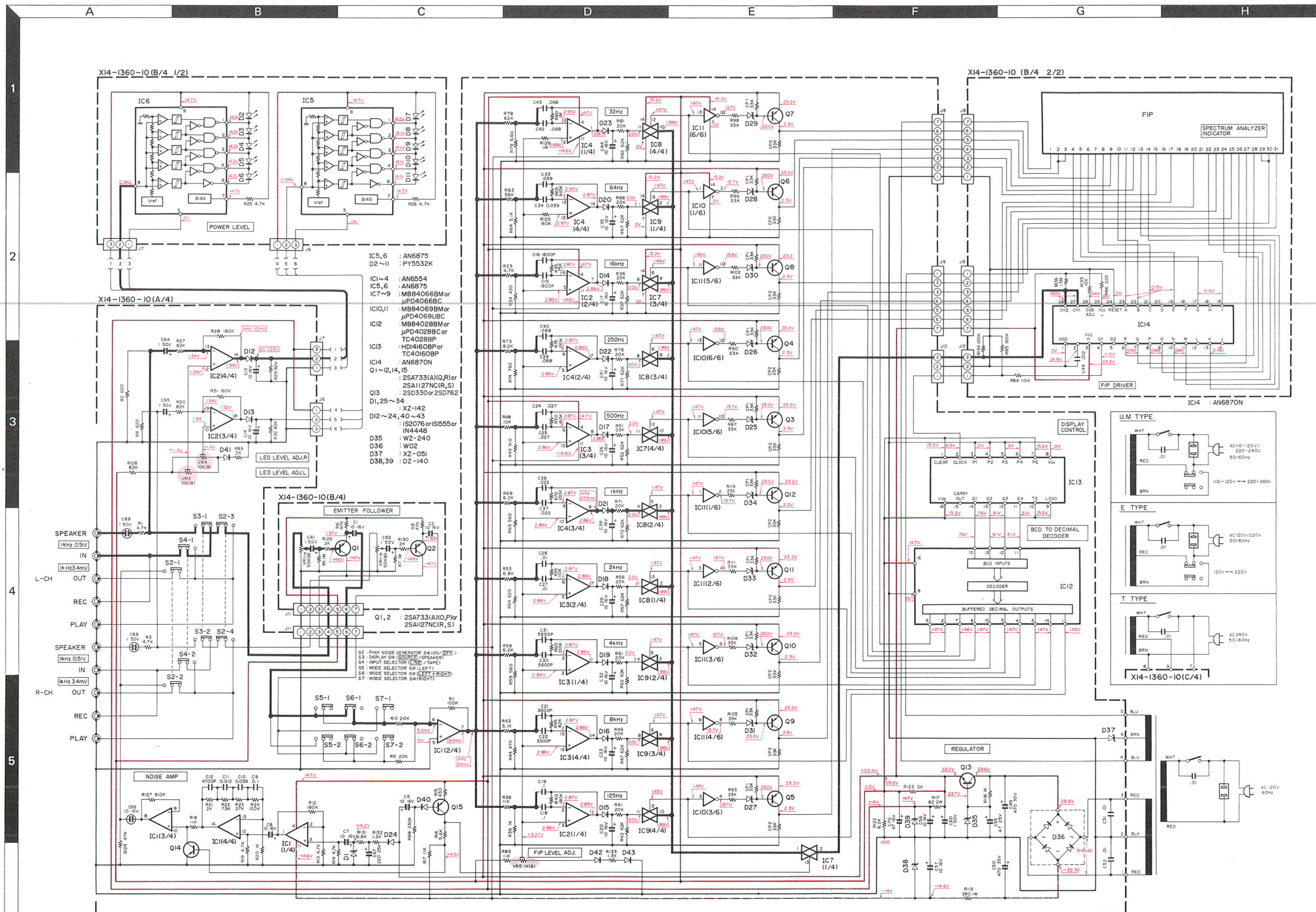
REGLAGE

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DE SPECTRUM ANALYZER	POINTS L'ALIGNMENT	ALIGNER POUR	FIG.
[1]	VU METRE (LEVEL)	(A) 1 kHz, 0.51 V	POWER LEVEL (LED)	PINK NOISE: OFF	VR3 (G) VR4 (D)	0.03 W	(a)
[2]	INDICATEUR FIP	(B) 1 kHz, 3.4 mV	SPECTRUM ANALYZER INDICATOR	INPUT: LINE DISPLAY: SOURCE MODE: L + R ATT: 0 dB PINK NOISE: OFF	VR 5	-14 dB	(b)

ABGLEICH

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	SPECTRUM ANALYZER EINSTELLUNG	ABGLEICH-PUNKTE	ABGEICHEN FÜR	ABB.
[1]	LEISTUNGS-MESSER (LEVEL)	(A) 1 kHz, 0.51 V	POWER LEVEL (LED)	PINK NOISE: OFF	VR3 (L) VR4 (R)	0.03 W	(a)
[2]	FIP INDIKATOR	(B) 1 kHz, 3.4 mV	SPECTRUM ANALYZER INDICATOR	INPUT: LINE DISPLAY: SOURCE MODE: L + R ATT: 0 dB PINK NOISE: OFF	VR 5	-14 dB	(b)





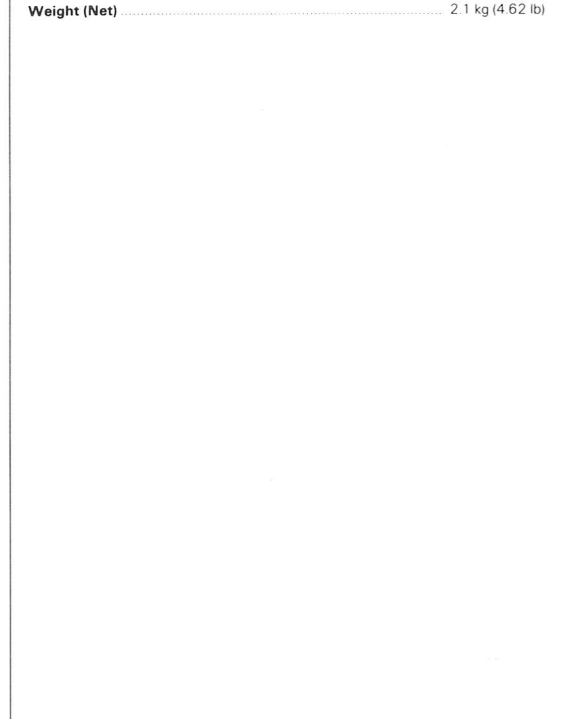
SPECIFICATIONS

PERFORMANCE

Input Impedance	Line	47 kΩ
Speaker		5 kΩ
Input Sensitivity		30 mV at 0 dB
Display Range		+8 dB, -20 dB
Filter Frequency		32 Hz, 64 Hz, 125 Hz, 250 Hz, 500 Hz, 1 kHz, 2 kHz, 4 kHz, 8 kHz, 16 kHz
Power Indicator		0.03W, 1W, 5W, 20W, 70W
Pink Noise Generator		150 mV
Output Impedance		100Ω

GENERAL

Power Requirements	60 Hz, 120V (USA & Canada models) or 50/60 Hz
	110 ~ 120V/220 ~ 240V, switchable
AC Outlet	1, unswitched 100W max
Power Consumption	13W
Dimensions	W: 440 mm (17-5/16")
	H: 57 mm (2-1/4")
	D: 168 mm (6-5/8")
Weight (Net)	2.1 kg (4.62 lb)



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

Kenwood strebt ständige Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

Kenwood poursuit une politique de progrès constants en ce qui concerne le développement. Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

2SA733(A) (Q, P)

2SD330

AN6870N

AN6875

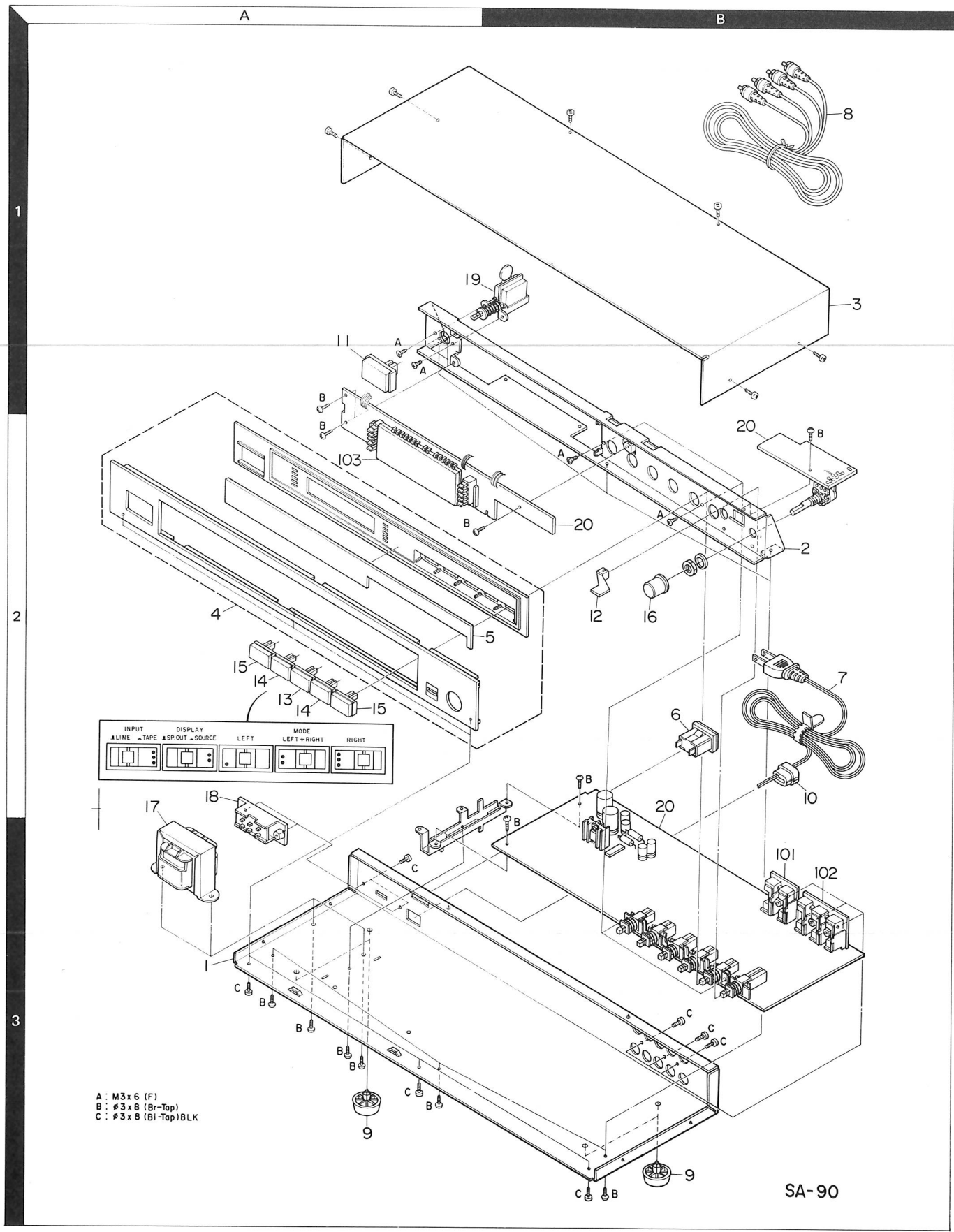
AN6554

HD14160BP

MB84066B
MB84069B

DC voltages are measured by a VOM with 20 kΩ/V input impedance.

EXPLODED VIEW



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.

INSTRUCTION FOR PARTS LIST

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
②	14 3A	A20-1391-13	FRONT PANEL ASSY
①	14 3A	A20-1417-13	FRONT PANEL ASSY
	15 3A	A21-0302-03	DRESSING PANEL
	15 3A	A21-0302-03	DRESSING PANEL
	15 3A	A21-0302-03	DRESSING PANEL
⑤	C1 C2	C54-3310-39	CERAMIC 0.01UF F
	C1	C90-0145-05	POLYESTER 0.01UF AC125V
	C1	C91-0023-05	CERAMIC 0.01UF AC250V
	C1	C91-0023-05	CERAMIC 0.01UF AC250V
	C1	C91-0025-05	CERAMIC 0.01UF AC125V

- ① Exploded view drawing No.
② Position in exploded view.
③ Symbol of new parts
④ Area to which parts are shipped. Example: A20-1391-13 is the part No. of FRONT PANEL ASS'Y for the "K" type products (for U.S.A.). When this column is blank, it means that the same type of parts (same parts No.) are used for the products shipped to all areas.
⑤ Reference No. in schematic diagram.
⑥ Abbreviation of "ceramic capacitor"
All capacitors and resistors are listed using abbreviations.
Abbreviations
* Abbreviations of capacitors (Parts No. with initial letter "C").
ELECTRO Electrolytic capacitor
LL-ELEC Low leak electrolytic capacitor
NP-ELEC Non-pole electrolytic capacitor
MICA Mica capacitor
POLYSTY Polystyrene capacitor
MYLAR Mylar capacitor
CERAMIC Ceramic capacitor
TANTAL Tantalum capacitor
MF Metallized film capacitor
MP Metallized paper capacitor
OIL Oil capacitor
The unit "UF" is used in lieu of "μF"
* Abbreviations of resistors (Parts No. with initial letters "R").
RC Carbon composition resistor
RD Carbon film resistor
FL-PROOF RD Flame-proof carbon film resistor
RW Wire wound power resistor
FL-PROOF RS Flame-proof metal oxide film resistor
RN Metal film resistor
FUSE-RESIST Resistor with fuse function
2B Rated wattage 1/8W
2E Rated wattage 1/4W
2H Rated wattage 1/2W
3A Rated wattage 1W
3D Rated wattage 2W
3F Rated wattage 3W
3G Rated wattage 4W
3H Rated wattage 5W
All resistor values are indicated with the unit (Ω) omitted.
* Abbreviations common to capacitors and resistors.
C ± 0.25pF (Used for capacitors only)
D ± 0.5pF (Used for capacitors only)
F ± 1%
G ± 2%
J ± 5%
K ± 10%
M ± 20%
Z + 80%, - 20%(Used for capacitors only)
P + 100%, - 0%(Used for capacitors only)
Resistors RD (carbon composition resistors) are not listed in the parts list. For values, refer to the schematic diagram.

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
SA-90 (UNIT)			
1	3A	NO STOCK	MAIN CHASSIS
2	2B	NO STOCK	SUB CHASSIS
3	1B	A01-0445-04	METALLIC CABINET
4	2A	A20-3245-03	FRONT PANEL ASSY
4	2A	A20-3245-03	FRONT PANEL ASSY
4	2A	A20-3245-03	FRONT PANEL ASSY
4	2A	A20-3245-03	FRONT PANEL ASSY
4	2A	A20-3245-03	FRONT PANEL ASSY
4	2A	A20-3246-03	FRONT PANEL ASSY
4	2A	A20-3247-03	FRONT PANEL ASSY
5	2B	B10-0345-03	FRONT GLASS
-	-	B46-0055-30	WARRANTY CARD
-	-	B46-0060-00	WARRANTY CARD
-	-	B46-0061-30	WARRANTY CARD
-	-	B46-0062-30	WARRANTY CARD
-	-	B46-0062-30	WARRANTY CARD
-	-	B46-0063-13	WARRANTY CARD MILITARY
-	-	B46-0063-13	WARRANTY CARD MILITARY
-	-	B46-0064-20	WARRANTY CARD
-	-	B46-0078-03	WARRANTY CARD
-	-	B50-4403-00	INSTRUCTION MANUAL(LN)
-	-	B50-4403-00	INSTRUCTION MANUAL(EN)
-	-	B50-4403-00	INSTRUCTION MANUAL(EN)
-	-	B50-4403-00	INSTRUCTION MANUAL(EN)
-	-	B50-4403-00	INSTRUCTION MANUAL(EN)
-	-	B50-4404-00	INSTRUCTION MANUAL(FR)
-	-	B50-4404-00	INSTRUCTION MANUAL(FR)
-	-	B50-4405-00	INSTRUCTION MANUAL
-	-	B50-4406-00	INSTRUCTION MANUAL(SL)
-	-	B50-4407-00	INSTRUCTION MANUAL(SP)
-	-	C91-0023-05	CERAMIC 0.01UF AC250V
-	-	C91-0079-05	CERAMIC 0.01UF AC125V
6	2B	E03-0036-05	AC OUTLET
6	2B	E03-0036-05	AC OUTLET
6	2B	E03-0036-05	AC OUTLET
6	2B	E03-0036-05	AC OUTLET
6	2B	E03-0041-05	AC OUTLET
6	2B	E03-0055-05	AC OUTLET
7	2B	E30-0181-05	POWER CORD
7	2B	E30-0459-05	POWER CORD
7	2B	E30-0545-05	POWER CORD
7	2B	E30-0545-05	POWER CORD
7	2B	E30-0545-05	POWER CORD
7	2B	E30-0587-15	POWER CORD
7	2B	E30-0649-05	POWER CORD
8	1B	E30-0505-05	AUDIO CORD
-	-	E30-0735-05	SPEAKER CORD
-	-	H01-3429-04	CARTON BOX
-	-	H01-3429-04	CARTON BOX
-	-	H01-3429-04	CARTON BOX
-	-	H01-3429-04	CARTON BOX
-	-	H01-3429-04	CARTON BOX
-	-	H01-3430-04	CARTON BOX
-	-	H10-1611-03	POLYSTYRENE FIXTURE
-	-	H25-0078-04	BAG (235x315)
-	-	H25-0179-04	BAG (530x450)
9	3A, 3B	J02-0121-05	FOOT
10	2B	J42-0083-05	BUSHING
10	2B	J42-0083-05	BUSHING

E: Scandinavia & Europe H: Audio Club K: USA P: Canada
S: South Africa T: England U: PX (Far East, Hawaii)
UE: AAFES (Europe) X: Australia M: Other Areas

PARTS LIST

*New Parts

Parts without Parts No. are not supplied.

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

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
10 2B	J42-0083-05	BUSHING	H
10 2B	J42-0083-05	BUSHING	UE
10 2B	J42-0083-05	BUSHING	TE
10 2B	J42-0085-05	BUSHING	X
11 1A	K27-0656-14	KNOB	
12 2B	K27-0658-04	KNOB (PLASTIC)	
13 2A	K27-0801-04	KNOB	*
14 2A	K27-0802-04	KNOB	*
15 2A	K27-0803-04	KNOB	*
16 2B	K29-1103-04	KNOB	*
17 3A	L01-2721-05	POWER TRANS	*K
17 3A	L01-2721-05	POWER TRANS	P
17 3A	L01-2724-05	POWER TRANS	*U
17 3A	L01-2724-05	POWER TRANS	MH
17 3A	L01-2724-05	POWER TRANS	UE
17 3A	L01-2724-05	POWER TRANS	X
17 3A	L01-2727-05	POWER TRANS	*T
17 3A	L01-2727-05	POWER TRANS	E
18 3A	S31-2053-05	SLIDE SWITCH	UM
18 3A	S31-2053-05	SLIDE SWITCH	HX
18 3A	S31-2053-05	SLIDE SWITCH	UE
19 1A	S40-1022-05	PUSH SWITCH	UM
19 1A	S40-1022-05	PUSH SWITCH	HX
19 1A	S40-1022-05	PUSH SWITCH	UE
19 1A	S40-1024-05	PUSH SWITCH	KP
19 1A	S40-1025-05	PUSH SWITCH	TE
20 3B	X14-1360-10	DISPLAY PCB UNIT	*K
20 3B	X14-1360-10	DISPLAY PCB UNIT	PU
20 3B	X14-1360-10	DISPLAY PCB UNIT	MH
20 3B	X14-1360-10	DISPLAY PCB UNIT	UE
20 3B	X14-1360-10	DISPLAY PCB UNIT	XE
20 3B	X14-1360-51	DISPLAY PCB UNIT	*T
DISPLAY (X14-1360-10)			
D2 -11	B30-0347-05	LAMP	
C1 ,2	C24-1210-67	ELECTRO 10UF 16wv	
C6 -8	C24-1210-67	ELECTRO 10UF 16wv	
C9	C45-1710-45	MYLAR 0.1UF J	
C10	C45-1739-35	MYLAR 0.039UF J	
C11	C45-1712-35	MYLAR 0.012UF J	
C12	C45-1747-25	MYLAR 0.0047UF J	
C13 ,14	C24-1210-67	ELECTRO 10UF 16wv	
C15 ,16	C45-1718-25	MYLAR 0.0018UF J	
C17	C24-1210-67	ELECTRO 10UF 16wv	
C18 ,19	C45-1710-45	MYLAR 0.1UF J	
C20	C24-1210-67	ELECTRO 10UF 16wv	
C21 ,22	C45-1733-25	MYLAR 0.0033UF J	
C23	C24-1210-67	ELECTRO 10UF 16wv	
C24 ,25	C45-1727-35	MYLAR 0.027UF J	
C26	C24-1210-67	ELECTRO 10UF 16wv	
C27 ,28	C45-1710-35	MYLAR 0.01UF J	
C29	C24-1210-67	ELECTRO 10UF 16wv	
C30 ,31	C45-1756-25	MYLAR 0.0056UF J	
C32	C24-1210-67	ELECTRO 10UF 16wv	
C33 ,34	C45-1739-35	MYLAR 0.039UF J	
C35	C24-1210-67	ELECTRO 10UF 16wv	
C36 ,37	C45-1722-35	MYLAR 0.022UF J	
C38	C24-1210-67	ELECTRO 10UF 16wv	
C39 ,40	C45-1768-35	MYLAR 0.068UF J	
C41	C24-1210-67	ELECTRO 10UF 16wv	

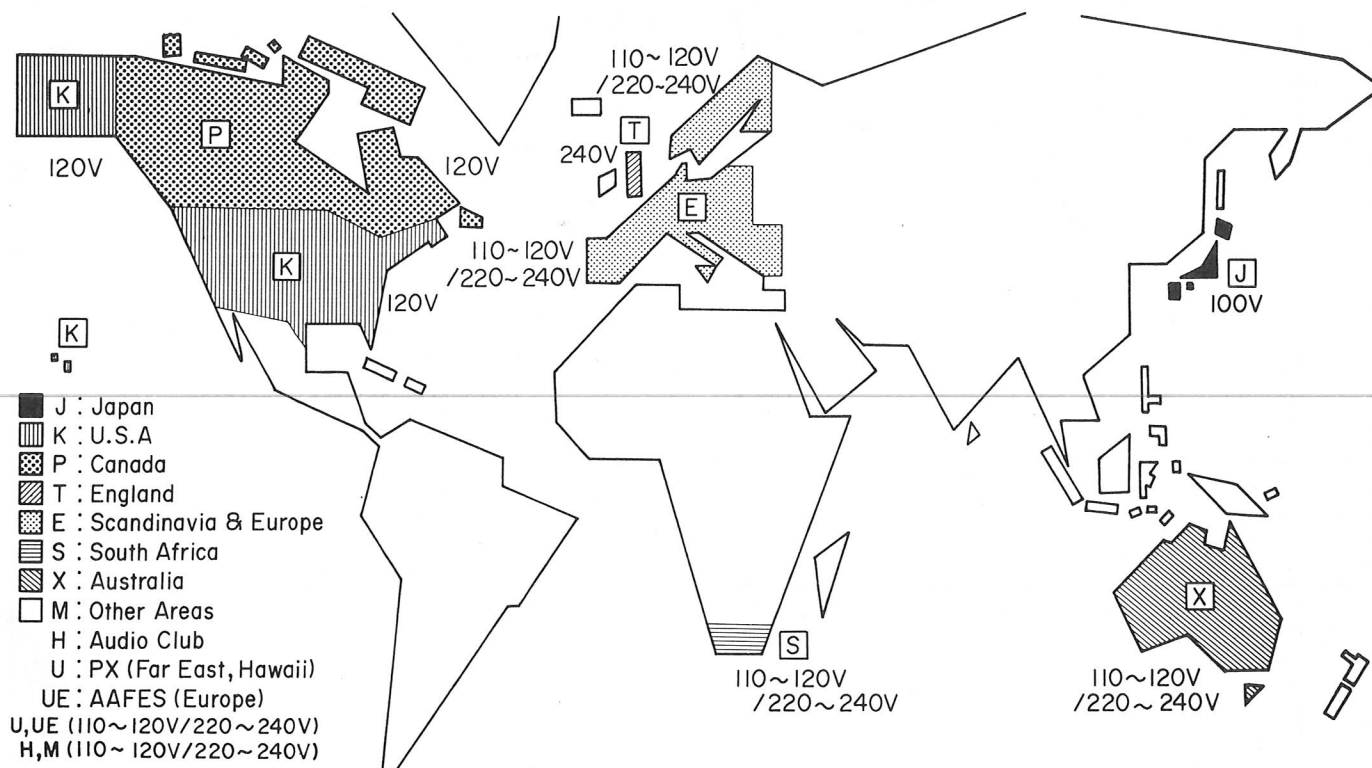
Ref. No. 参照番号	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
C42 ,43	C45-1768-35	MYLAR 0.068UF J	
C44	C24-1210-67	ELECTRO 10UF 16wv	
C48	C45-1712-35	MYLAR 0.012UF J	
C49 ,50	C24-6547-77	ELECTRO 470UF 35wv	
C51 ,52	C55-1710-38	CERAMIC 0.01UF Z	
C55	C24-1447-67	ELECTRO 47UF 25wv	
C56 ,57	C24-1210-67	ELECTRO 10UF 16wv	
C60 -62	C24-1710-57	ELECTRO 1UF 50wv	
C64 ,65	C24-1710-57	ELECTRO 1UF 50wv	
C66	C26-1210-67	NP-ELEC 10UF 16wv	
C67	C24-1422-77	ELECTRO 220UF 25wv	
C68 ,69	C26-1710-57	NP-ELEC 1UF 50wv	
C70	C24-1247-67	ELECTRO 47UF 16wv	
-	E40-0356-05	PIN CONNECTOR	
-	E40-0756-05	PIN CONNECTOR	
101 3B	E13-0432-05	PHONO JACK 4P	
102 3B	E13-0618-05	PHONO JACK 6P	
CP1 ,2	R90-0196-05	MULTIPLE COMPONENTS	
R117	R47-5582-05	FL-PROOF RS82 J 3D	
R119	R47-5439-15	FL-PROOF RS390 J 3A	
VR1	R06-4058-05	POTENTIOMETER 50K	*
VR3 ,4	R12-3302-05	TRIMMING POT. 10K	
VR5	R12-1304-05	TRIMMING PCT. 1K	
S2	S40-4041-05	PUSH SWITCH	*
S3 -7	S42-5029-05	PUSH SWITCH 5KEY	*
103 2A	V40-4401-30	FIP10AW19Y	*
D1	V11-4103-70	XZ-142	
D12 -24	V11-0271-05	1S2076	
D25 -34	V11-4103-70	XZ-142	
D35	V11-0287-05	wZ-240	
D36	V11-2400-20	w02	
D37	V11-4103-60	XZ-051	
D38 ,39	V21-0006-05	DZ-140	
D40 -43	V11-0271-05	1S2076	
IC1 -4	V30-0668-10	AN6554	
IC5 ,6	V30-0348-10	AN6875	
IC7 -9	V30-0516-10	MB8406CB	
IC10 ,11	V30-0526-10	MB84069B	
IC12	V30-0767-10	MB84028B	*
IC13	V30-0821-10	HD14160BP	*
IC14	V30-0808-10	AN6870M	*
Q1 -12	V01-0733-40	2SA733(A)(Q,P)	
Q13	V04-0330-00	2SD330	
Q14 ,15	V01-0733-40	2SA733(A)(Q,P)	

E: Scandinavia & Europe H: Audio Club K: USA P: Canada

S: South Africa T: England U: PX (Far East, Hawaii)

UE: AAFES (Europe) X: Australia M: Other Areas

WORLD MAP & AREA CODE



Note:

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