

SERVICE MANUAL

AX4103

STEREO INTEGRATED AMPLIFIER

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SPECIFICATION

Measuring methods are based on IHF and IEC standard 268-3

Measurements conditions, unless otherwise noted :

Output resistive load = (8) ohms / Both channel driven

Tone(Bass, Treble), Balance, EQ control : Center Position , Other SW's : OFF

Nominal input level : 5mV for MM, 0.5mV for MC, 500mV for general purpose inputs

Power figures should be kept minimum 10min. between 15 and 35°C

Terminator : 100ohm for MC, 1kohm for MM and general purpose inputs

Filter : IHF-A filter

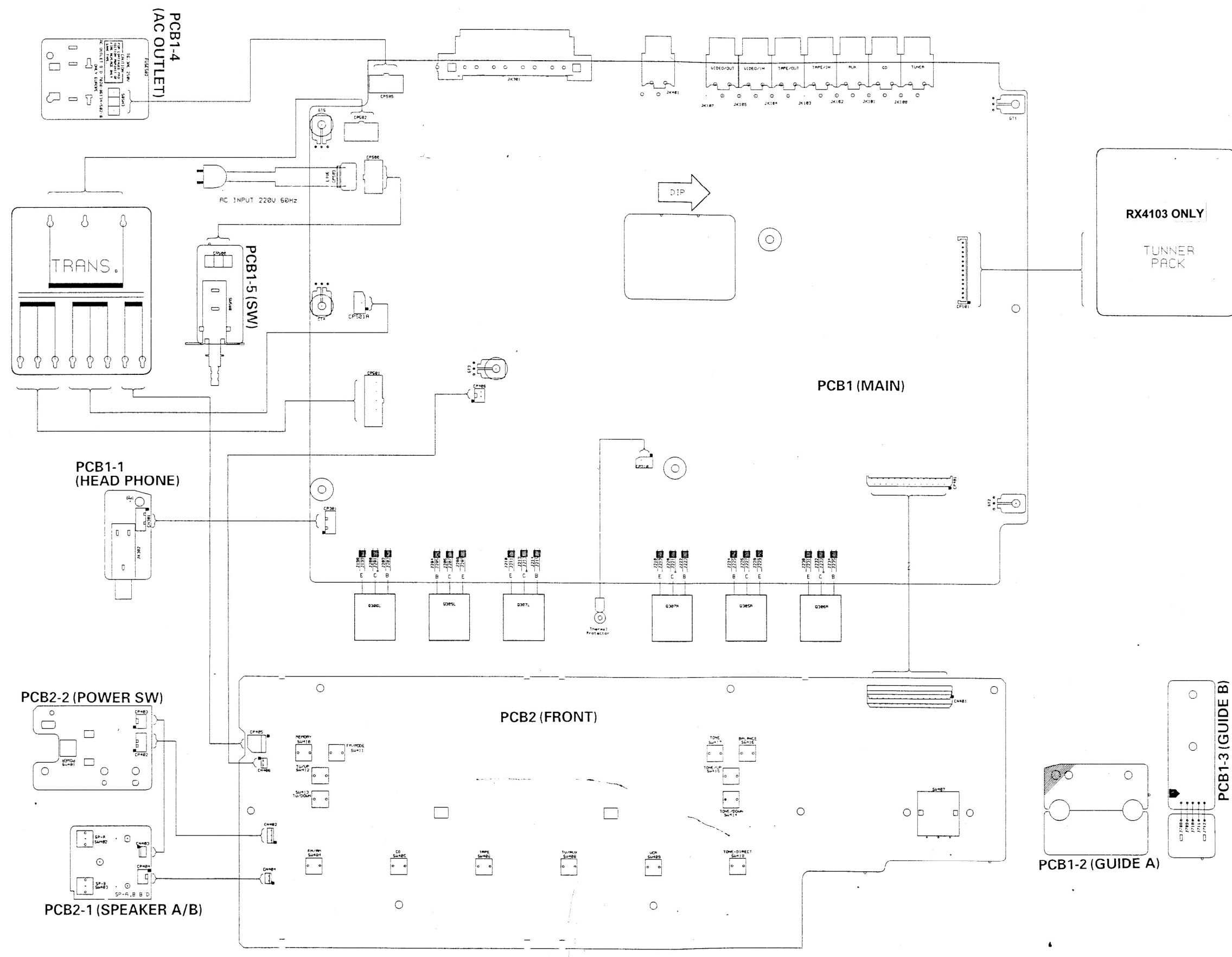
R/O = Rated Output

Power supply : 230V / 50Hz

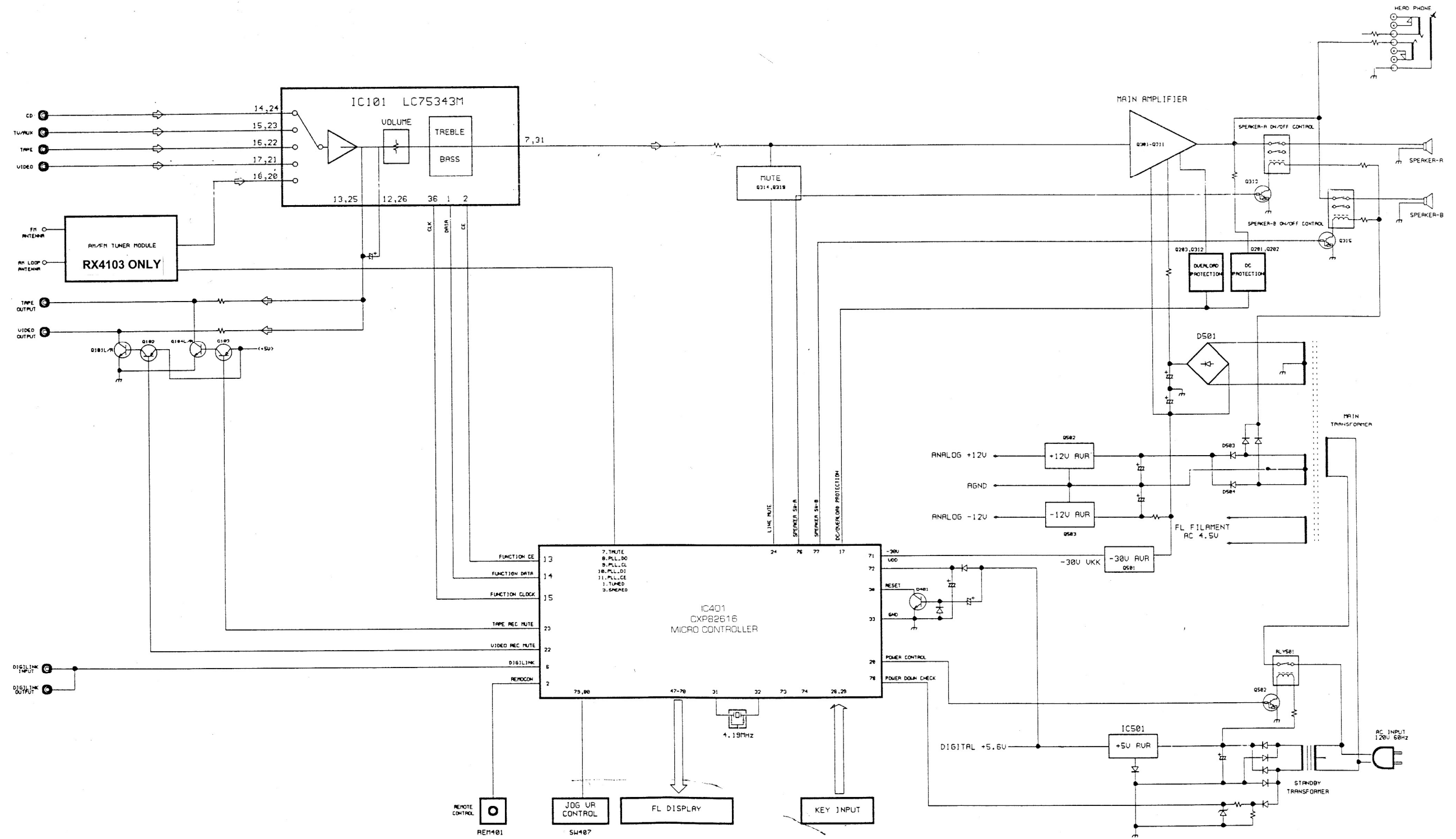
• FRONT AMP SECTION (2-CH STEREO RECEIVER)

NO	DESCRIPTION	INPUT	FREQ.	REMARK	UNIT	LIMIT L/R	NOMINAL L/R
1	INPUT SENSITIVITY @ 1KHz , 47KΩ	CD	1kHz		mV	200±50	200±30
		MM	1kHz		mV	-	-
		MC	1kHz		mV	-	-
		MIC	1kHz		mV	-	-
2	CHANNEL BALANCE	CD	1kHz	R/O TO -40dB	dB	±2	±0.5
			1kHz			-	-
3	DAMPING FACTOR	CD	1kHz			-	-
4	RESIDUAL NOISE	CD	1kHz	VOL min.	mV	≤1	≤0.7
			1kHz	VOL max.	mV	≤2	≤1.5
5	TOTAL HARMONIC DISTORTION	CD (500mV)	(40)Hz	R/O TO -3dB	%	-	-
			1kHz		%	≤0.08	≤0.05
			(20)KHz		%	-	-
6	CONTINUOUS AVERAGE POWER at (0.3)% THD	CD	(40)Hz	(8)ohms	W	50	52
			1kHz		W	50	53
			(20)KHz		W	50	52
7	IMD (SMPTE)	CD	60Hz=4	R/O TO -3dB	%	≤0.08	≤0.03
			7kHz=1		%		
8	S/N RATIO, IHF-A FILTER	CD (500mV)	1kHz	R/O	dB	≥90	≥95
			1kHz	1W	dB	-	-
9	CHANNEL SEPARATION AT INPUT SHORTED	CD (500mV)	1kHz	R/O	dB	≥55	≥65
			10kHz		dB	≥40	≥45
10	FUNCTION CROSSTALK AT INPUT SHORTED	AUX→CD	1 kHz	R/O	dB	60	65
		CD→AUX	1 kHz		dB	60	65
11	FREQUENCY RESPONSE (-3dB)	CD (500mV)		1W	Hz~kHz	30~40	20~40
12	TONE CONTROL	CD	100Hz	1W	dB	±10±3	±10±1
			10kHz		dB	±10±3	±10±1
13	HEADPHONE OUTPUT H/P = 64ohms	CD (500mV)	1kHz	R/O	V	2±0.5	2±0.3

WIRING DIAGRAM



BLOCK DIAGRAM



TROUBLESHOOTING

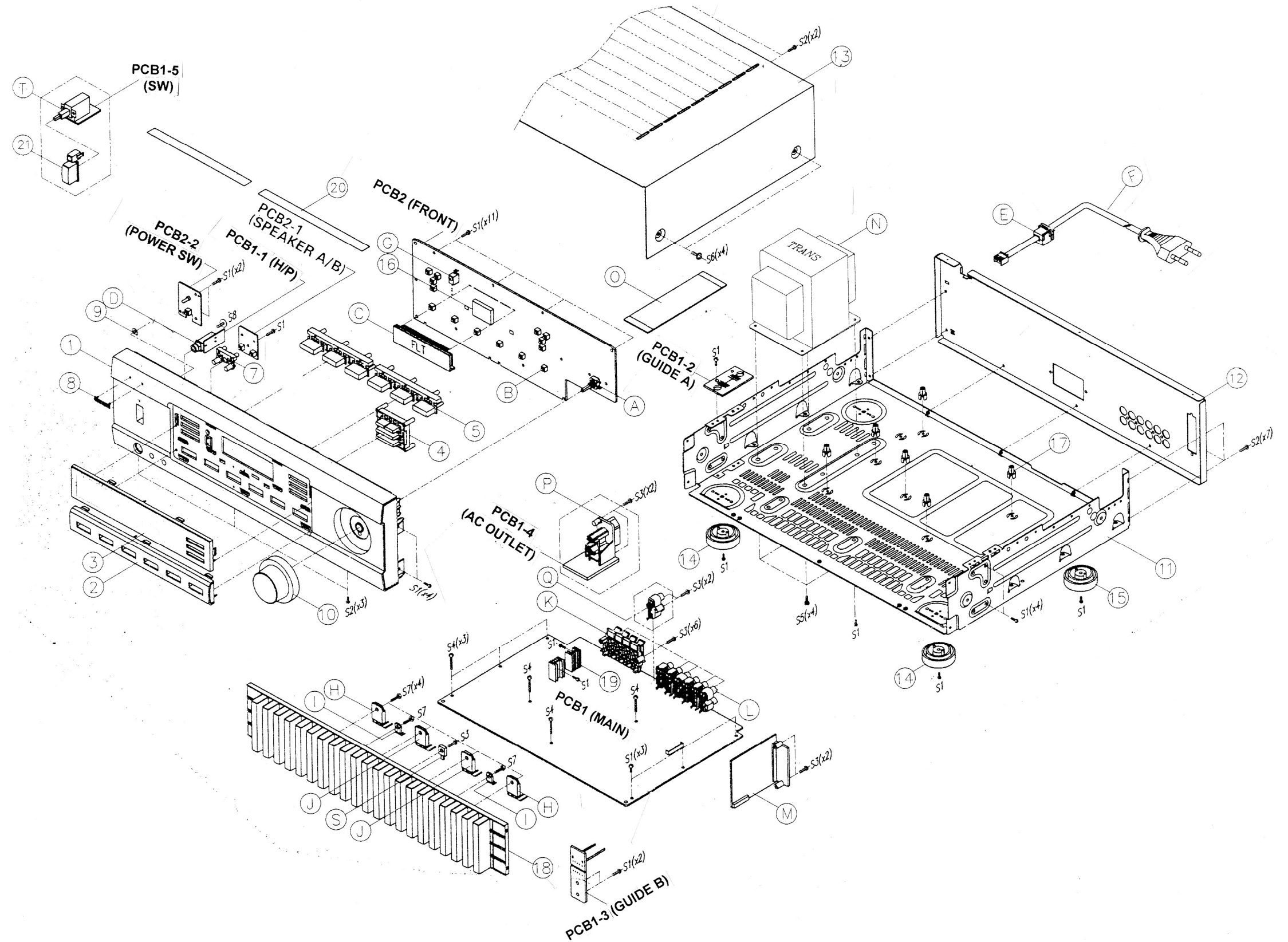
Symptom	Cause and Remedy	Ref NO.
Power On Failure. 1. FLT does not light up. 2. ST-BY LED does not light up.	A) AC-cord check. B) Power Trans (Main/ST-BY) check. C) Fuse's disconnection check. D) Connector's disconnection or disjunction. Change or close insertion of the connector. E) Inferior Stany-By switch. F) μ -COM I.C & Resonator check. 1. μ -COM I.C B+(5.5)V check. 2. μ -COM clock pulse check.	F (501) CNT (503) SW (401) I.C Pin No. (72) X-TAL (401)
Fuse Disconnection. (Power On)	A) Inferior transformer. B) AMP drive transistor out. (POWER TR) C) AMP bias TR out.	Q (306L/R, 307L/R) Q (305L/R)
Key Disorder.	A) Key's being pushed check. B) Key signal input components inferior. C) Key data check. D) μ -COM I.C or Resonator inferior. 1. μ -COM I.C B+(5.5)V check. 2. μ -COM clock pulse check.	SW (401~410) R (407, 427) I.C Pin No. (28, 29) I.C No. (401) I.C Pin No. (72) X-TAL (401)
Power Off in 2~3 sec. after Power On.	A) Drive transistor out. (POWER TR) B) Protection circuit check. 1. Output DC check. 2. μ -COM I.C protection terminal check. C) Posistor's connector disconnectoin. D) Connector's disconnection or disjunction.	Q (306L/R, 307L/R) R (328L/R) I.C Pin No. (17) CP (210) CP (401)
Bump Sound. (During input-select switch's change.)	A) POWER MUTE Transistor's out and inferior. μ -Com Front mute control PORT check.	Q (319, 314L/R) I.C Pin No. (24)
Bass/Treble Control Failure.	A) TONE VOLUME I.C check. (IC101-75343M) 1. Signal IN/OUT terminal. 2. I.C voltage check. (+10V) 3. I.C control data check.	I.C Pin No. (7, 31) I.C Pin No. (35) I.C Pin No. (1, 2, 36)
AMP sound dead. 1. "L / R" channel dead 2. "LEFT" channel dead. 3. "RIGHT" channel dead.	A) Signal Mute TR's inferior. B) Connector disconnection & disjunction. Changer or close insertion of the connector. C) Speaker wire's disjunction. Close insertion of the speaker wire. D) Signal switching I.C check. 1. I.C voltage check. (+10V) 2. Switching I.C control data check. 3. Switching I.C signal IN/OUT check.	Q (319, 314L/R) CP (401) I.C No. (101) I.C Pin No. (35) I.C Pin No. (1, 2, 36) I.C Pin No. (7, 31)
Video Output Dead.	A) Video switching TR check. B) Signal OUT terminal. C) Switching I.C control data check.	Q (104L/R, 103) IC101 Pin No. (13, 25) IC401 Pin No. (22)
Digi-Link Failure.	A) Digi-link line disconnection check. Digi-Link IN/OUT circuit check.	R (462, 439, 455), D (404)
Remote Controller Failure.	A) Battery check. B) RMC I.C & Resonator inferior. 1. RMC I.C B+(3)V check. 2. RMC clock pulse check.	I.C Pin No. (24) X-TAL (Z1) 455KHz

★ MECHANICAL PARTS LIST (AX4103)

♣ Parts without Parts NO are not supplied.

NO.	DESCRIPTION	Q'TY	PARTS NO.
PACKAGE			
	INSTRUCTION MANUAL	1	5707210550010
	WARRANTY CARD	1	5727041620020
	BOX, INNER CARTON	1	6017040120570
	CUSHION, SNOW	1	6230043714010
	FILM SOFT PE	1	6320040052010
	POLY BAG, 330*240*0.05	1	6330040062010
	REMOCON	1	8300102000010
	BATTERY, DRY	2	G670011R50000
CABINET & CHASSIS			
1	PANEL, FRONT	1	3067210721020
2	DECORATION, COVER	1	5127210201000
3	WINDOW, DISPLAY	1	5077210753000
4	BUTTON, 4-KEY	1	5090211461000
5	BUTTON, 3-KEY	2	5090211441000
7	BUTTON, SPKR	1	5090211451000
8	BADGE, SHERWOOD	1	5637210031010
9	INDICATOR, GUIDE LED	1	5160041003010
10	KNOB, VOLUME	1	5080210281000
11	CHASSIS, MAIN	1	3200200026010
12	CHASSIS, BACK	1	3207210866200
13	CABINET, TOP	1	3007041236060
14	FOOT PL (H.S)	2	4007040201010
15	FOOT PL	2	4000040201010
16	CUSHION	1	4050044565010
17	SPACER, KNOB	6	4300040561010
21	BUTTON, POWER PUSH	1	5090211571000
A	SW, ENCODER (EC16B24304)	1	G121162430400
B	SW, TACT (SKQNAF)	17	G180000210030
C	DISPLAY, FLT	1	K530073800010
D	JACK, D6.5	1	G402040161330
E	STOPPER CORD	1	4380040162010
F	CORD ASS'Y	1	L06804009001C
G	REMOCON MODULE, NJL64H380A	1	E940643800000
H	2SD2390-Y, NPN	2	J5032390Y0000
I	2SD947F, NPN	2	J503947F00000
J	2SB1560-Y, PNP	2	J5011560Y0000
K	TER.BOARD PUSH 8P	1	G598041680010
L	TER.RCA 6PIN	2	G603060046020
N	POWER TRANS, 230V/50Hz	1	8200740530010
O	CABLE,FLAT CARD	1	L301181270010
P	POWER SOCKET	1	G435040110000
Q	TER.RCA 2PIN	1	G601200430040
S	POSISTOR	1	F320101020010
T	SW, POWER PUSH	1	G000122006030
SCREWS			
S1	SCREW, +2S 3*8 B-TYPE ZNY/BH	35	B020030081B10
S2	SCREW, +2S 3*8 B-TYPE BK/BH	12	B020030083B10
S3	SCREW, +2S 3*10 B-TYPE(DOT) BK/BH	8	B020030103B11
S4	SCREW, 3X18 B-TYPE ZNY/BH	6	B020030181B10
S5	SCREW, +3S 4*10 P+S-WASHER ZNY/BH	4	B028940101B10
S6	SCREW, +3S 4*8 BK/BH	4	B020940083B10
S7	SCREW, 3X18 B-TYPE ZNY/BH	6	B020030181B10
S8	SCREW, +2S 3*8 B-TYPE ZNY/BH	1	B020030081B10

EXPLODED VIEW



★ ELECTRICAL PARTS LIST (AX4103)

♣ Parts without Parts NO are not supplied.

REF NO.	DESCRIPTION	Q'TY	PARTS NO.
PCB1	ASSEMBLY P.C.BOARD MAIN		7025HA0101010
	CAPACITORS		
C101L/R	CERAMIC HIK AXIAL 220 pF 50V K	2	D005221277520
C102	CERAMIC HIK AXIAL 0.047 uF 50V K	1	D005473597520
C102L/R	ELECT GE 85C 4.7 uF 50V M	2	D0404R7087100
C103L/R	ELECT GE 85C 4.7 uF 50V M	2	D0404R7087100
C104L/R	CERAMIC HIK AXIAL 220 pF 50V K	2	D005221277520
C105L/R	CERAMIC HIK AXIAL 220 pF 50V K	2	D005221277520
C106L/R	ELECT GE 85C 4.7 uF 50V M	2	D0404R7087100
C107L/R	CERAMIC HIK AXIAL 220 pF 50V K	2	D005221277520
C108L/R	CERAMIC HIK AXIAL 220 pF 50V K	2	D005221277520
C109L/R	ELECT GE 85C 4.7 uF 50V M	2	D0404R7087100
C110L/R	CERAMIC HIK AXIAL 220 pF 50V K	2	D005221277520
C111L/R	CERAMIC HIK AXIAL 220 pF 50V K	2	D005221277520
C113L/R	ELECT GE 85C 4.7 uF 50V M	2	D0404R7087100
C114L/R	ELECT GE 85C 4.7 uF 50V M	2	D0404R7087100
C115L/R	ELECT GE 85C 4.7 uF 50V M	2	D0404R7087100
C116	ELECT GE 85C 22 uF 16V M	1	D040220083070
C117L/R	FILM POLYESTER 0.0027 uF 100V J	2	D02027206C060
C118L/R	FILM POLYESTER 0.1 uF 63V K	2	D020104078060
C119L/R	FILM POLYESTER 0.1 uF 63V K	2	D020104078060
C120	CERAMIC HIK AXIAL 0.1 uF 50V Z	1	D005104597530
C121	ELECT GE 85C 22 uF 16V M	1	D040220083070
C122/C123	CERAMIC HIK AXIAL 100 pF 50V K	2	D005101177520
C122L/R	ELECT GE 85C 4.7 uF 50V M	2	D0404R7087100
C201	CERAMIC HIK AXIAL 0.01 uF 16V M	1	D005103773530
C202	CERAMIC HIK AXIAL 0.001 uF 50V K	1	D005102177530
C203	ELECT GE 85C 330 uF 10V M	1	D040331082060
C302L/R	ELECT GE 85C 10 uF 35V M	2	D040100085100
C303L/R	CERAMIC HIK AXIAL 680 pF 50V K	2	D005681177520
C304L/R	CERAMIC HIK DISC 0.0022 uF 1KV K	2	D00422227Q010
C305L/R	CERAMIC T.C DISC 33 pF 500V J	2	D00033006D050
C306L/R	ELECT GE 85C 100 uF 10V M	2	D040101082060
C308L/R	CERAMIC HIK AXIAL 0.001 uF 50V K	2	D005102177530
C309L/R	ELECT GE 85C 47 uF 50V M	2	D040470087060
C310L/R	ELECT GE 85C 10 uF 50V M	2	D040100087050
C311L/R	CERAMIC HIK DISC 100 pF 500V K	2	D00410106D050
C312L/R	CERAMIC HIK DISC 100 pF 500V K	2	D00410106D050
C313L/R	CERAMIC HIK AXIAL 0.022 uF 25V Z	2	D005223594520
C314L/R	FILM POLYESTER 0.047 uF 100V J	2	D02047306C060
C315L/R	FILM POLYESTER 0.0047 uF 100V J	2	D02047206C060
C316L/R	FILM POLYESTER 0.0047 uF 100V J	2	D02047206C060
C318L/R	FILM POLYESTER 0.0047 uF 100V J	2	D02047206C060
C320	ELECT GE 85C 470 uF 10V M	1	D040471082060
C331	ELECT GE 85C 10 uF 50V M	1	D040100087050
C413	CERAMIC HIK AXIAL 0.047 uF 50V K	1	D005473597520
C414	CERAMIC HIK AXIAL 220 pF 50V K	1	D005221277520

REF NO.	DESCRIPTION				Q'TY	PARTS NO.
C501	CERAMIC HIK AXIAL	0.01 uF	16V	M	1	D005103773530
C502	ELECT GE 85C	47 uF	50V	M	1	D040470087060
C505-C508	FILM POLYESTER	0.022 uF	100V	J	4	D02022306C060
C509/C510	ELECT GE 85C	4700 uF	50V	M	2	D040472087000
C511	ELECT GE 85C	1 uF	50V	M	1	D040010087080
C512	ELECT GE 85C	470 uF	10V	M	1	D040471082060
C513	ELECT GE 85C	1 uF	50V	M	1	D040010087080
C514	CERAMIC AC(SAFETY)	DE1307-1E472M-KH			1	D008472089010
C516	ELECT GE 85C	47 uF	25V	M	1	D040470084070
C517	ELECT GE 85C	470 uF	35V	M	1	D040471085230
C520-C522	FILM POLYESTER	0.022 uF	100V	J	3	D02022306C060
C526	CERAMIC HIK AXIAL	0.01 uF	16V	M	1	D005103773530
C527	CERAMIC HIK AXIAL	0.047 uF	50V	K	1	D005473597520
C528	ELECT GE 85C	10 uF	50V	M	1	D040100087050
C529	ELECT GE 85C	3.3 uF	50V	M	1	D0403R3087050
C530	ELECT GE 85C	100 uF	16V	M	1	D040101083070
C535	FILM POLYESTER	0.022 uF	100V	J	1	D02022306C060
C536	ELECT GE 85C	470 uF	35V	M	1	D040471085230
C538-C540	CERAMIC HIK AXIAL	0.1 uF	50V	Z	3	D005104597530
C541	CERAMIC HIK AXIAL	0.01 uF	16V	M	1	D005103773530
C542	CERAMIC HIK AXIAL	0.047 uF	50V	K	1	D005473597520
C550	CERAMIC HIK AXIAL	0.1 uF	50V	Z	1	D005104597530
C601L/R	ELECT GE 85C	4.7 uF	50V	M	2	D0404R7087100
C602L/R	ELECT GE 85C	22 uF	16V	M	2	D040220083070
C603L/R	CERAMIC T.C AXIAL	56 pF	50V	J	2	D001560067520
C604L/R	CERAMIC HIK AXIAL	560 pF	50V	K	2	D005561277520
	CONNECTORS					
CP210	CN.WAFER 2.5MM (2P)				1	L102526700200
CP301	CN.WAFER 2.0MM (4P)				1	L101530140410
CP401	CN.FPC 1.25MM (27P)				1	L131520452745
CP406	CN.WAFER 2.0MM (2P)				1	L101530140210
CP500	CN.WAFER 3.96MM				1	L104353280200
CP501	CN.WAFER 3.96MM				1	L104353280300
CP501A	CN.WAFER 2.5MM (3P)				1	L102526700300
CP502	CN.WAFER 3.96MM				1	L104353280200
CP503	CN.WAFER 7.92MM (2P)				1	L108039602010
CP505	CN.WAFER 3.96MM				1	L104353280200
PN101	CN.WAFER 2.0MM (13P)				1	L101353361310
	DIODES					
D105/D106	1SS133T, SWITCHING				2	K000013300520
D210	1SS133T, SWITCHING				1	K000013300520
D301L/R	1SS133T, SWITCHING				2	K000013300520
D302-D304	1SS133T, SWITCHING				3	K000013300520
D306/D307	1SS133T, SWITCHING				2	K000013300520
D404-D406	1SS133T, SWITCHING				3	K000013300520
D502-D505	IN4007, SWITCHING				4	K000400700520
D514/D515	1SS133T, SWITCHING				2	K000013300520
D516-D519	IN4007, SWITCHING				4	K000400700520
D520	1SS133T, SWITCHING				1	K000013300520

REF NO.	DESCRIPTION	Q'TY	PARTS NO.
D521-D523	IN4007, SWITCHING	3	K000400700520
D525-D528	1N5402, RECTIFIER 1N	4	K040540200020
DZ101	MTZJ10B, ZENER	1	K06010R044520
DZ201	MTZJ5.1B, ZENER	1	K06005R144520
DZ210	MTZJ9.1B, ZENER	1	K06009R144520
DZ301	MTZJ5.1B, ZENER	1	K06005R144520
DZ501	MTZJ15B, ZENER	1	K06015R044520
DZ502	MTZJ4.3B, ZENER	1	K06004R344520
DZ512	MTZJ30B, ZENER	1	K06030R044520
	INTEGRATED CIRCUITS		
IC101	LC75343M, LINEAR EQ	1	J123753430010
IC501	NJM7805FA, REGULATOR	1	J126780500130
IC502	NJM7815FA, REGULATOR	1	J126781500050
IC601	NJM2068DD, LINEAR OP	1	J121206800000
	COILS		
L301L/R	INDUCTOR COIL, 0.5UH	2	D330R50000000
	TRANSISTORS		
Q101L/R	KTC2874B, NPN	2	J502287400010
Q102/Q103	DTA114YS, PNP	2	J6000114Y0010
Q104L/R	KTC2874B, NPN	2	J502287400010
Q201/Q202	KTC3198Y, NPN	2	J5023198Y0000
Q203	KTA1266-GR, PNP	1	J5001266G0060
Q302L/R	KSA992F, PNP	2	J5000992F0050
Q303L/R	KSA992F, PNP	2	J5000992F0050
Q304L/R	KSC1845F, NPN	2	J5021845F0000
Q308L/R	KSC1845F, NPN	2	J5021845F0000
Q313	DTC114YS, NPN	1	J6020114Y0050
Q314L/R	KTC2874B, NPN	2	J502287400010
Q315	DTC114YS, NPN	1	J6020114Y0050
Q319	DTA114YS, PNP	1	J6000114Y0010
Q320	DTC114YS, NPN	1	J6020114Y0050
Q501	KTA1273Y, PNP	1	J5001273Y0050
Q502	DTC114YS, NPN	1	J6020114Y0050
	RESISTORS		
R101L/R	CARBON FILM 220 ohm 1/5W J	2	C00002216P520
R102L/R	CARBON FILM 82 kohm 1/5W J	2	C00008236P520
R103L/R	CARBON FILM 220 ohm 1/5W J	2	C00002216P520
R104L/R	CARBON FILM 82 kohm 1/5W J	2	C00008236P520
R105L/R	CARBON FILM 220 ohm 1/5W J	2	C00002216P520
R106L/R	CARBON FILM 82 kohm 1/5W J	2	C00008236P520
R107L/R	CARBON FILM 220 ohm 1/5W J	2	C00002216P520
R108L/R	CARBON FILM 10 kohm 1/5W J	2	C00001036P520
R109L/R	CARBON FILM 2.2 kohm 1/5W J	2	C00002226P520
R110L/R	CARBON FILM 220 ohm 1/5W J	2	C00002216P520
R111L/R	CARBON FILM 82 kohm 1/5W J	2	C00008236P520
R113L/R	CARBON FILM 2.2 kohm 1/5W J	2	C00002226P520
R114L/R	CARBON FILM 3.3 kohm 1/5W J	2	C00003326P520
R115L/R	CARBON FILM 220 ohm 1/5W J	2	C00002216P520
R116L/R	CARBON FILM 10 kohm 1/5W J	2	C00001036P520

REF NO.	DESCRIPTION					Q'TY	PARTS NO.
R117L/R	CARBON FILM	220 ohm	1/5W	J		2	C00002216P520
R118L/R	CARBON FILM	82 kohm	1/5W	J		2	C00008236P520
R119L/R	CARBON FILM	3.3 kohm	1/5W	J		2	C00003326P520
R121L/R	CARBON FILM	7.5 kohm	1/5W	J		2	C00007526P520
R122	CARBON FILM	100 ohm	1/5W	J		1	C00001016P520
R201	CARBON FILM	4.7 kohm	1/5W	J		1	C00004726P520
R202	CARBON FILM	3.3 kohm	1/5W	J		1	C00003326P520
R203	CARBON FILM	22 kohm	1/5W	J		1	C00002236P520
R204	CARBON FILM	560 ohm	1/5W	J		1	C00005616P520
R205	CARBON FILM	6.8 kohm	1/5W	J		1	C00006826P520
R206	CARBON FILM	10 kohm	1/5W	J		1	C00001036P520
R210	CARBON FILM	33 kohm	1/5W	J		1	C00003336P520
R211	CARBON FILM	1 kohm	1/5W	J		1	C00001026P520
R304L/R	CARBON FILM	220 ohm	1/5W	J		2	C00002216P520
R305L/R	CARBON FILM	33 kohm	1/5W	J		2	C00003336P520
R306L/R	CARBON FILM	10 kohm	1/5W	J		2	C00001036P520
R307L/R	CARBON FILM	470 kohm	1/5W	J		2	C00004746P520
R308L/R	CARBON FILM	33 kohm	1/5W	J		2	C00003336P520
R309L/R	CARBON FILM	1.5 kohm	1/5W	J		2	C00001526P520
R310L/R	CARBON FILM	1.2 kohm	1/5W	J		2	C00001226P520
R311L/R	CARBON FILM	470 ohm	1/5W	J		2	C00004716P520
R312L/R	CARBON FILM	47 kohm	1/5W	J		2	C00004736P520
R313L/R	CARBON FILM	1.5 kohm	1/5W	J		2	C00001526P520
R314L/R	CARBON FILM	2.7 kohm	1/5W	J		2	C00002726P520
R315L/R	METAL FILM 100PPM	5.6 kohm	1W	J		2	C060056265050
R316L/R	METAL FILM 100PPM	5.6 kohm	1W	J		2	C060056265050
R317L/R	METAL FILM 100PPM	4.7 ohm	1/4W	J		2	C0604R7063050
R318L/R	METAL FILM 100PPM	100 ohm	1/4W	J		2	C060010163050
R319L/R	METAL FILM 100PPM	4.7 ohm	1/4W	J		2	C0604R7063050
R320L/R	METAL FILM 100PPM	0.47 ohm	2W	J		2	C060R47066050
R321L/R	METAL FILM 100PPM	0.47 ohm	2W	J		2	C060R47066050
R322L/R	METAL FILM 100PPM	0.47 ohm	2W	J		2	C060R47066050
R323L/R	METAL FILM 100PPM	0.47 ohm	2W	J		2	C060R47066050
R324L/R	CARBON FILM	180 kohm	1/5W	J		2	C00001836P520
R325L/R	CARBON FILM	15 kohm	1/5W	J		2	C00001536P520
R326L/R	CARBON FILM	10 kohm	1/5W	J		2	C00001036P520
R327L/R	CARBON FILM	2.2 kohm	1/5W	J		2	C00002226P520
R328L/R	METAL FILM 100PPM	10 ohm	1W	J		2	C060010065050
R331	METAL FILM 100PPM	10 ohm	1W	J		1	C060010065050
R341L/R	METAL FILM 100PPM	10 ohm	1W	J		2	C060010065050
R342L/R	CARBON FILM	22 kohm	1/5W	J		2	C00002236P520
R343L/R	METAL FILM 100PPM	820 ohm	1W	J		2	C060082165050
R345/R346	METAL FILM 100PPM	100 ohm	1W	J		2	C060010165060
R351L/R	CARBON FILM	220 kohm	1/5W	J		2	C00002246P520
R352L/R	CARBON FILM	10 kohm	1/5W	J		2	C00001036P520
R353L/R	CARBON FILM	2.2 kohm	1/5W	J		2	C00002226P520
R355	CARBON FILM	3.3 Mohm	1/5W	J		1	C00003356P520
R356	CARBON FILM	220 kohm	1/5W	J		1	C00002246P520
R357	CARBON FILM	47 kohm	1/5W	J		1	C00004736P520
R358-R360	METAL FILM 100PPM	1.2 kohm	1W	J		3	C060012265050

REF NO.	DESCRIPTION					Q'TY	PARTS NO.
R361	METAL FILM 100PPM	100 ohm	1W	J	1	C060010165060	
R362L/R	CARBON FILM	1.5 kohm	1/5W	J	2	C00001526P520	
R439	CARBON FILM	82 kohm	1/5W	J	1	C00008236P520	
R462	CARBON FILM	220 ohm	1/5W	J	1	C00002216P520	
R501	CARBON FILM	2.2 kohm	1/5W	J	1	C00002226P520	
R506	METAL FILM 100PPM	10 ohm	1W	J	1	C060010065050	
R508	METAL FILM 100PPM	560 ohm	1W	J	1	C060056165050	
R509	CARBON FILM	1.2 kohm	1/5W	J	1	C00001226P520	
R510	CARBON FILM	150 ohm	1/5W	J	1	C00001516P520	
R513	CARBON FILM	47 kohm	1/5W	J	1	C00004736P520	
R514	CARBON FILM	4.7 kohm	1/5W	J	1	C00004726P520	
R515	METAL FILM 100PPM	0.22 ohm	1W	J	1	C060R22065050	
R516	METAL FILM 100PPM	68 ohm	1/4W	J	1	C060068063050	
R518	METAL FILM 100PPM	560 ohm	1W	J	1	C060056165050	
R531-R533	CARBON FILM	51 kohm	1/5W	J	3	C00005136P520	
R535-R537	CARBON FILM	27 kohm	1/5W	J	3	C00002736P520	
R538	CARBON FILM	10 kohm	1/5W	J	1	C00001036P520	
R540/R541	METAL FILM 100PPM	0.22 ohm	1W	J	2	C060R22065050	
R601L/R	CARBON FILM	47 kohm	1/5W	J	2	C00004736P520	
R602L/R	CARBON FILM	10 kohm	1/5W	J	2	C00001036P520	
R603L/R	CARBON FILM	47 kohm	1/5W	J	2	C00004736P520	
R604L/R	CARBON FILM	22 kohm	1/5W	J	2	C00002236P520	
R605L/R	CARBON FILM	100 ohm	1/5W	J	2	C00001016P520	
R606L/R	CARBON FILM	1 kohm	1/5W	J	2	C00001026P520	
	RELAYS						
RLY301-RLY303	RELAY, G5PA-28 12V					3	G680120528010
RLY501	RELAY, HR-CR7-DC12V/10A					1	G680000210000
	MISCELLANEOUS						
FUSE501	FUSE, 250V-T1.6A					1	G650162251160
GT1-GT4	TERMINAL					4	3790040876010
J101-J114	CN,WIRE 1P					14	L045084006040
J116-J138	CN,WIRE 1P					23	L045084006040
J140-J143	CN,WIRE 1P					4	L045084006040
J149-J158	CN,WIRE 1P					10	L045084006040
JK108	TER.RCA 2PIN					1	G601200440010
P101/P102	FUSE CLIP					2	G645000050010
T502	TRANS ST/BY, 230V/50Hz					1	8201280000011
PCB1-1 ASSEMBLY P.C.BOARD HAED PHONE							
C317L/R	CERAMIC HIK AXIAL	0.001 uF	50V	K	2	D005102177530	
C330	CERAMIC HIK AXIAL	0.022 uF	25V	Z	1	D005223594520	
CN301	CN.WIRE 250MM (4P)					1	L000251040060
GW1	RING.TER WIRE 120MM (1P)					1	8410121220040
R344L/R	CARBON FILM	10 ohm	1/5W	J	2	C00001006P520	
	JACK, D6.5					1	G402040161330
PCB1-2 ASSEMBLY P.C.BOARD GUIDE A							
J701-J706	CN,WIRE 1P					6	L045084006040
PCB1-3 ASSEMBLY P.C.BOARD GUIDE B							
C1/C2	CLAMP					2	4330000120000
J708-J712	CN,WIRE 1P					5	L045084006040
PCB1-4 ASSEMBLY P.C.BOARD AC OUTLET							
CN505	CN.WIRE 120MM (2P)					1	L000121020050

REF NO.	DESCRIPTION	Q'TY	PARTS NO.
FUSE502	FUSE, 250V-T6.3A	1	G650632251160
P103/P104	FUSE CLIP	2	G645000050010
	POWER SOCKET	1	G435040110000
PCB1-5	ASSEMBLY P.C.BOARD SW		
CN500	CN.WIRE 450MM (2P)	1	L000451020010
SW500	SW, PUSH (SDDL-005-S)	1	G000122006030
PCB2	ASSEMBLY P.C.BOARD FRONT		7025HA0101011
	CAPACITORS		
C401	ELECT GE 85C 100 uF 10V M	1	D040101082070
C402	DOUBLE LAYER(70) 0.1 F 150UA 5.5V	1	D090104800010
C404	CERAMIC HIK AXIAL 0.001 uF 50V K	1	D005102177530
C405	ELECT GE 85C 1 uF 50V M	1	D040010087050
C406	ELECT GE 85C 2.2 uF 50V M	1	D0402R2087100
C408	CERAMIC HIK AXIAL 0.022 uF 25V Z	1	D005223594520
C409/C410	CERAMIC HIK AXIAL 100 pF 50V K	2	D005101177520
C411	ELECT GE 85C 22 uF 50V M	1	D040220087100
C412	ELECT GE 85C 47 uF 10V M	1	D040470082230
C415/C416	FILM POLYESTER 0.1 uF 63V K	2	D020104078060
C417-C422	CERAMIC HIK AXIAL 0.1 uF 50V Z	6	D005104597530
	CONNECTORS		
CN401	CN.FPC 1.25MM (27P)	1	L131524922720
CN402	CN.WIRE 100MM (3P)	1	L000101030080
CN404	CN.WIRE 100MM (2P)	1	L000101020100
CN406	CN.WIRE 370MM (2P)	1	L000371020030
CP405	CN.WAFER 2.5MM (2P)	1	L102526800200
	DIODES		
D401-D403	1SS133T, SWITCHING	3	K000013300520
DZ401	MTZJ6.2B, ZENER	1	K06006R244520
	TRANSISTORS		
Q401	DTC124ES, NPN	1	J6020124E0010
Q402	DTC114YS, NPN	1	J6020114Y0050
	RESISTORS		
R403	CARBON FILM 470 ohm 1/5W J	1	C00004716P520
R407	CARBON FILM 470 ohm 1/5W J	1	C00004716P520
R408	CARBON FILM 10 kohm 1/5W J	1	C00001036P520
R409/R410	CARBON FILM 4.7 kohm 1/5W J	2	C00004726P520
R413	CARBON FILM 2.2 kohm 1/5W J	1	C00002226P520
R414	CARBON FILM 3.3 kohm 1/5W J	1	C00003326P520
R415	CARBON FILM 4.7 kohm 1/5W J	1	C00004726P520
R416	CARBON FILM 1 kohm 1/5W J	1	C00001026P520
R417	CARBON FILM 8.2 kohm 1/5W J	1	C00008226P520
R418	CARBON FILM 15 kohm 1/5W J	1	C00001536P520
R419	CARBON FILM 1 kohm 1/5W J	1	C00001026P520
R420	CARBON FILM 1.5 kohm 1/5W J	1	C00001526P520
R421	CARBON FILM 2.2 kohm 1/5W J	1	C00002226P520
R422	CARBON FILM 3.3 kohm 1/5W J	1	C00003326P520
R423	CARBON FILM 4.7 kohm 1/5W J	1	C00004726P520
R424	CARBON FILM 8.2 kohm 1/5W J	1	C00008226P520
R425	CARBON FILM 15 kohm 1/5W J	1	C00001536P520
R426	CARBON FILM 10 kohm 1/5W J	1	C00001036P520
R427	CARBON FILM 470 ohm 1/5W J	1	C00004716P520

REF NO.	DESCRIPTION	Q'TY	PARTS NO.
R428/R429	CARBON FILM 10 kohm 1/5W J	2	C00001036P520
R430-R432	CARBON FILM 100 kohm 1/5W J	3	C00001046P520
R433/R434	CARBON FILM 150 ohm 1/5W J	2	C00001516P520
R436-R438	CARBON FILM 1 kohm 1/5W J	3	C00001026P520
R440-R455	CARBON FILM 1 kohm 1/5W J	6	C00001026P520
R456/R457	CARBON FILM 4.7 kohm 1/5W J	2	C00004726P520
R458-R460	CARBON FILM 1 kohm 1/5W J	3	C00001026P520
R461	CARBON FILM 100 ohm 1/5W J	1	C00001016P520
R464	CARBON FILM 1 kohm 1/5W J	1	C00001026P520
R465	CARBON FILM 390 ohm 1/5W J	1	C00003916P520
R466	CARBON FILM 27 kohm 1/5W J	1	C00002736P520
R467	CARBON FILM 10 kohm 1/5W J	1	C00001036P520
R468	CARBON FILM 4.7 ohm 1/5W J	1	C0004R706P520
	SWS		
SW404-SW406	SW, TACT (SKQNAF)	3	G180000210030
SW407	SW, ENCODER (EC16B24304)	1	G121162430400
SW408/SW409	SW, TACT (SKQNAF)	2	G180000210030
SW414-SW418	SW, TACT (SKQNAF)	5	G180000210030
	MISCELLANEOUS		
FLT	DISPLAY, FLT	1	K530073800010
GW401	RING. TER WIRE 140MM	1	8410141010010
IC401	CXP82616-169Q, DWP570	1	J020826161690
J401-J417	CN,WIRE 1P	17	L045084006040
J419-J427	CN,WIRE 1P	9	L045084006040
L400	COIL, LINE FILTER (BFS2550A0F1)	1	D320255000520
PCB2-1 ASSEMBLY P.C.BOARD SPEAKER A/B			
CN403	CN.WIRE 100MM (2P)	1	L000101020100
CP404	CN.WAFER 2.0MM (2P)	1	L101530140210
R411	CARBON FILM 1 kohm 1/5W J	1	C00001026P520
R412	CARBON FILM 1.5 kohm 1/5W J	1	C00001526P520
SW402/SW403	SW, TACT (SKQNAF)	2	G180000210030
PCB2-2 ASSEMBLY P.C.BOARD POWER SW			
CP402	CN.WAFER 2.0MM (3P)	1	L101530140310
CP403	CN.WAFER 2.0MM (2P)	1	L101530140210
LED402	LED, SLR56VCTB7	1	K500052101121

★ MAIN PCB ASS'Y (PCB1) INCLUDES THE FOLLOWING BOARDS.

- ① THE ASS'Y PCB HEAD PHONE (PCB1-1).
- ② THE ASS'Y PCB GUIDE A (PCB1-2).
- ③ THE ASS'Y PCB GUIDE B (PCB1-3).
- ④ THE ASS'Y PCB AC OUTLET (PCB1-4).
- ⑤ THE ASS'Y PCB SW (PCB1-5).

★ FRONT PCB ASS'Y (PCB2) INCLUDES THE FOLLOWING BOARDS.

- ① THE ASS'Y PCB SPEAKER A/B (PCB2-1).
- ② THE ASS'Y PCB POWER SW (PCB2-2).

SCHEMATIC DIAGRAM

