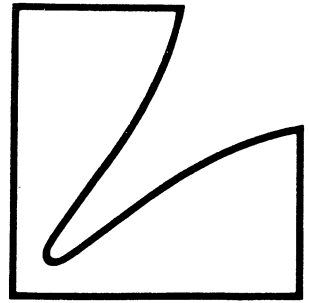
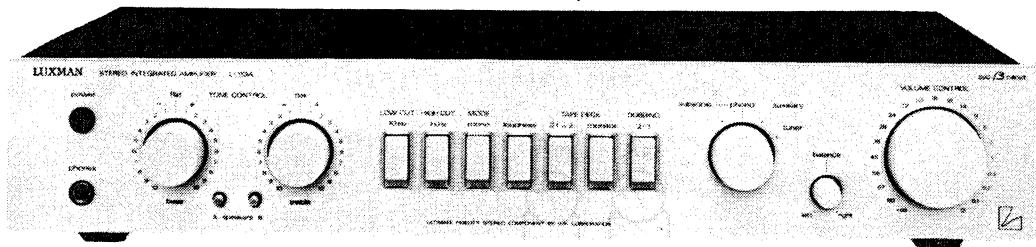


# SERVICE MANUAL



## LUXMAN SOLID STATE STEREO INTEGRATED AMPLIFIER **L-113A**



# CONTENTS

ALIGNMENT PROCEDURE ..... 1

FRONT VIEW PARTS LIST ..... 2

REAR VIEW PARTS LIST ..... 2

MECHANISM PARTS LIST ..... 2

PB-1324 PARTS LIST ..... 3

PB-1324, PB-1374 PARTS LIST ..... 4

BLOCK DIAGRAMME ..... 4

STANDARD CURVES ..... 5

SPECIFICATIONS ..... 5

SCHEMATIC DIAGRAMME ..... 6

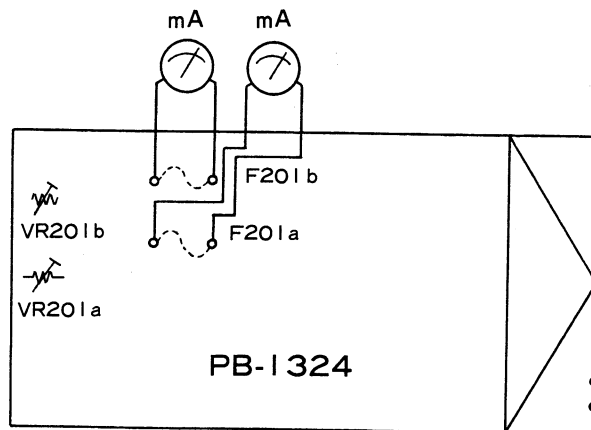
## ALIGNMENT PROCEDURE

### Set up Unit

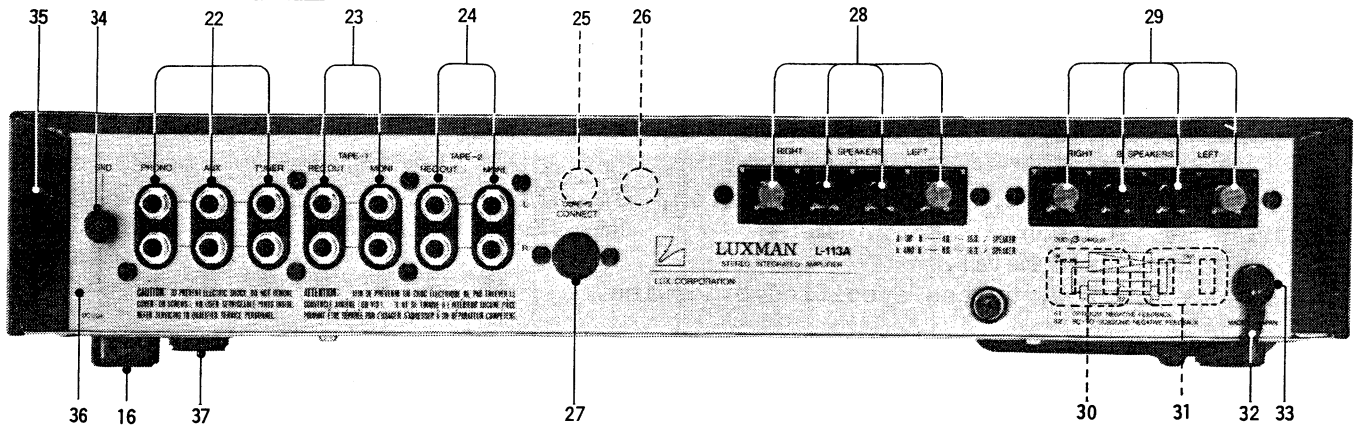
Volume Control  
 Tone Control  
 Speaker

Minimum  
 Center(Flat) Position  
 "A" Pushed ON Position

1. Turn ON the Power Switch and wait 1 minute for warm up.
2. Bias (Idle Current) Adjustment
  - (1) Take off Fuse F201a,b and connect D.C.Ammeter.
  - (2) Adjust VR201a,b to get 50mA in D.C Ammeter.



REAR VIEN



PARTS LIST .....(Cosmetic)

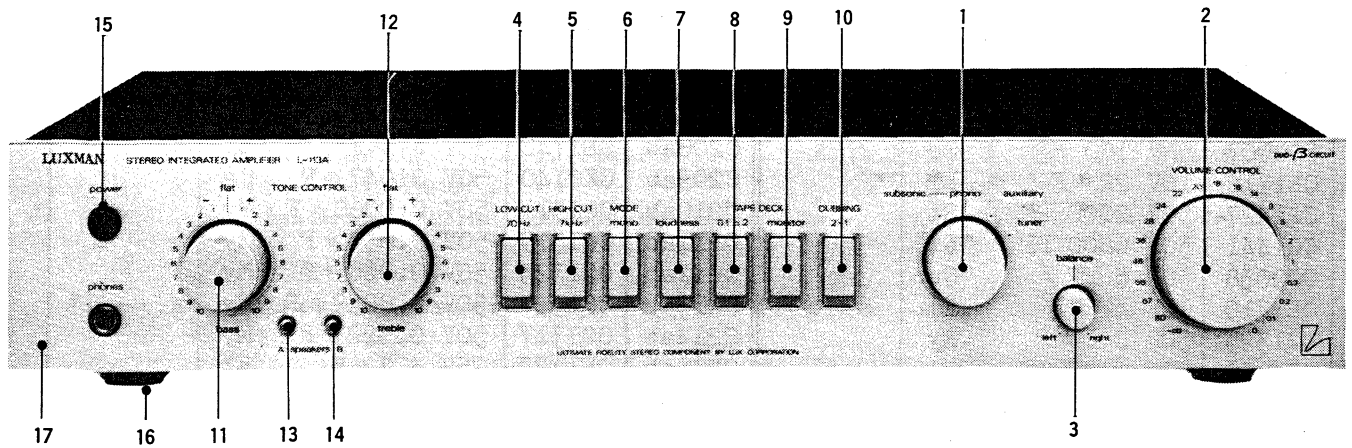
SYMBOL NO	STOCK NO	DESCRIPTION	REMARK	SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
Terminal				Terminal			
22	AT5019	Input 6P. (Phono, Aux, Tuner)		27	AS0205	D.I.N.	
23	AT5018	Input 4P. (Recout 1, Monitor 1)		28	AT0124	Speaker A. (T5730)	
24	AT5018	Input 4P. (Recout 2, Monitor 2)		29	AT0124	Speaker B. (T5730)	
Power Cord & Bushing				Fuse holder & Extra AC Outlet			
32	BK0018	UL AC Cord A-18BF	E,U	25		Speaker Protector (R)	U
32	BK0022	AC Cord C-2-461-B	S	26		Speaker Protector (L)	U
33	BU0033	Bushing SR-4N-4		30	AC0010	AC Outlet (Unswitched)	E
Bonnet				AC Outlet (Switched)			
35	UG1027	Bonnet 1027		31	AC0010	AC Outlet (Switched)	E
Bottom Plate				Rear Panel			
37	UE1105	Bottom Plate 1105		* 36	UC1204	Rear Panel 1204	S
				* 36	UC1205	Rear Panel 1205	E,U

MECHANISM

Variable Resistor				Transistor			
VR001	RV0260	250K,CX2,Blance Cont.		Q206ab	TRO323	2SC-1845	
VR002	RV0259	50K,CX2,Treble Cont.		Q209ab	TRO330	2SC-2577(or 25A1135)	
VR003	RV0259	50K,CX2,Bass Cont.		Q210ab	TRO329	2SA-1102(or 25C2665)	
VR101	RV0279	200K,AX2,Volume Cont.		Fuse holder, Jack & Heat sink			
Switch				*F001	AH0019	1P Fuse holder XN-1153	S
S001	SP0167	Push. (Power)		*F001	AH0016	1P Fuse holder XN-1157	E
S101	SR0143	R-Slide (Input Selector)		*F001	BF0304	Fuse.MF51NR-2A	S
S102~ S108	SP0165	Push. (Monitor, Filter, etc.)		*F001	BF0120	Fuse.MF60NR-3.5A	E
S401ab S402ab	SP0193	Push. (Speaker)		*F301	BF0308	Fuse.MF51NR-0.5A	S
Power Transformer				*F301	BF0111	Fuse.MF60NR-0.5A	E
*	PT2557	P-2557	S	*F201ab	BF0302	Fuse.MF51NR-4A	S
*	PT2558	P-2558	E	*F201ab	BF0118	Fuse.MF60NR-4A	E
Lamp				*F202ab	BE1075	Heat Sink 1075	
Phono	AL0057	Lamp. (Green)		Hphone	AJ0014	Head Phone Jack	
Subsonic	AL0057	Lamp. (Green)		Packing Material			
Tuner	AL0056	Lamp. (Orange)			XAL300	Carton 1300	
Aux	AL0056	Lamp. (Orange)			XB1040	Pad 1040	
Line Voltage Selector E ONLY					ME0208	Owner's Manual	
*	AC0054	Socket M-1615	E				
*	AC0014	Plug P-2120	E				

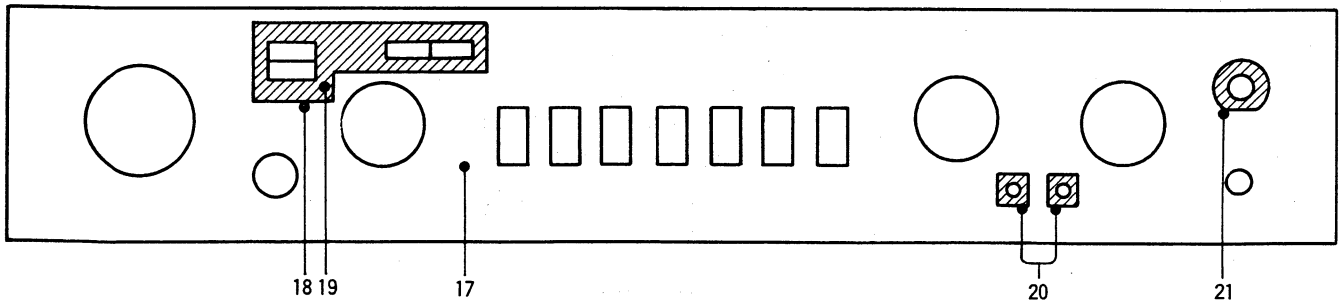
U= 120V Only  
 S= 220V on 240V Only  
 E= 120V (with Line Voltage Selection)

FRONT VIEW



**PARTS LIST.....(Cosmetic)**

SYMBOL NO	STOCK NO	DESCRIPTION	REMARK	SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
Knob Set				Knob Set			
1	WH1106	Input Selector		9	WJ1142P	Tape Monitor	
2	WH1105	Volume Control		10	WJ1142P	Tape Dubbing	
3	WH1115	Balance Control		11	WH1106	Treble Control	
4	WJ1142P	Low Cut		12	WH1106	Bass Control	
5	WJ1142P	High Cut		13	WJ1145	A Speaker	
6	WJ1142P	Mode Selector		14	WJ1145	B Speaker	
7	WJ1142P	Loudness		15	WJ1133	Power Switch	
8	WJ1142P	Tape Selector		Foot			
				16	WN0007	Foot	



Front Panel A'ssy				Front Panel A'ssy			
17	WA1234	Front Panel		20	WE1095	Protector 1095	Set
18	UW1124	Spacer 1124		21	WE1089	Protector 1089	
19	WE1092	Protector 1092					

SYMBOL NO	STOCK NO	DESCRIPTION	REMARK	SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
Capacitor				Capacitor			
C101ab	CE0346	50V 3.3 $\mu$ F LR	El	C206ab	CE1720	16V 47 $\mu$ F	El
C102ab	CC0005	50V 33 PF	Ce	C207ab	CQ1321	50V 0.047 $\mu$ F	My
C103ab	CC0007	50V 100 PF	Ce	C208ab	CE1742	35V 47 $\mu$ F	El
C104ab	CE1718	16V 22 $\mu$ F	El	C209ab	CK0140	50V 0.047 $\mu$ F	Ce
C105ab	CQ1427	50V 2000 PF	St	C210ab	CQ1311	50V 0.0068 $\mu$ F	My
C106ab	CQ1441	50V 6800 PF	St	C211ab	CQ1319	50V 0.033 $\mu$ F	My
C107ab	CC0038	50V 5 PF	Ce	C212ab	CQ1323	50V 0.068 $\mu$ F	My
C108ab	CE1710	10V 47 $\mu$ F	El	C213ab	CQ1308	50V 0.0039 $\mu$ F	My
C109ab	CQ1325	50V 0.1 $\mu$ F	My	C214ab	CQ1317	50V 0.022 $\mu$ F	My
C110ab	CE4096	50V 0.47 $\mu$ F	El	C215ab	CE1727	25V 4.7 $\mu$ F	El
C111	CE1721	16V 100 $\mu$ F	El	C216ab	CE1718	16V 22 $\mu$ F	El
C112	CE1758	50V 100 $\mu$ F	El	C217ab	CQ1310	50V 0.001 F	My
C113ab	CQ1320	50V 0.039 $\mu$ F	My	C301	CK0203	500V 0.01 $\mu$ F	Ce
C114ab	CQ1308	50V 0.0039 $\mu$ F	My	C302	CE1027	50V 6800 $\mu$ F	El
C115ab	CQ1319	50V 0.033 $\mu$ F	My	C303	CE1027	50V 6800 $\mu$ F	El
C116	CE1757	50V 47 $\mu$ F	El	C304	CQ1420	50V 680 PF	St
C117	CE1717	16V 10 $\mu$ F	El	C305	CQ1420	50V 680 PF	St
C118	CE1717	16V 10 $\mu$ F	El	C306	CK0203	500V 0.01 $\mu$ F	Ce
C119	CK0158	25V 0.047 $\mu$ F	Ce	C307	CE1758	50V 100 $\mu$ F	El
C120a	CQ5077	50V 330 PF	St	C308	CE1758	50V 100 $\mu$ F	El
C121	CQ1420	50V 680 PF	St	C309	CE1758	50V 100 $\mu$ F	El
C201ab	CE0346	50V 3.3 $\mu$ F LR	El	C310	CC0007	50V 100 PF	Ce
C202ab	CC0004	50V 22 PF	Ce	C311	CK0158	25V 0.047 $\mu$ F	Ce
C203ab	CE1732	25V 100 $\mu$ F	El	C312	CK0158	25V 0.047 $\mu$ F	Ce
C204ab	CC0006	50V 47 PF	Ce	C313	CE1759	50V 220 $\mu$ F	El
C205ab	CE1758	50V 100 $\mu$ F	El	Transistor			
Diode				Q101ab	TR0320	2SA-992	
D201ab	TDO065	WZ-192 (Zener)		Q102ab	TR0323	2SC-1845	
D301	TDO105	S3V 20		Q201ab	TR0254	2SA-798	
D302	TDO105	S3V 20		Q203ab	TR0198	2SC-1815	
D303	TDO105	S3V 20		Q204ab	TR0198	2SC-1815	
D304	TDO105	S3V 20		Q205ab	TR0335	2SC-1438-B	
D305	TDO003	IN-4003		Q206ab	TR0323	2SC-1845	
D306	TDO002	IN-4002		Q207ab	TR0311	2SC-2824	
Switch				Q208ab	TR0312	2SA-1184	
S101	SR0143	Rotary		Q209ab	TR0330	2SC-2577(or2SC-2665)	
S102		Input Selector		Q210ab	TR0329	2SA-1102(or2SA-1135)	
		Filter		Q301	TR0320	2SA-992	
S108	SP0165	Push Loudness		P.C.B. Fuse Holder			
		Tape Dubbing etc.		*F201ab	AH0028	23165102-C	S
Variable Resistor				*F202ab	AH0028	23165102-C	S
VR101a	RV0279	200 k $\Omega$ Ax2 Volume C		*F301	AH0028	23165102-C	S
P.C.B. Board				*F201ab	AH0029	YSH-401T	E
	PC1324	PB-1324		*F202ab	AH0029	YSH-401T	E
Choke Coil				*F301	AH0029	YSH-401T	E
L201ab	LA1004	LUX-1004 2 mH		Variable Resistor			
Resistor(Unit: $\Omega$ )				VR201ab	RT0050	500 Idle A.D.J.	
R101ab	RB0414	56 K.0.25 W.	Rd	Resistor (Unit: $\Omega$ )			
R102ab	RB0340	47 0.25 W.	Rd	R110ab	RB0410	39 K. 0.25 W.	Rd
R103ab	RB0444	1 M.0.25 W.	Rd	R111ab	RB0440	680 K. 0.25 W.	Rd
R104ab	RB0436	470 K.0.25 W.	Rd	R112ab	RB0374	1.2 K. 0.25 W.	Rd
R106ad	RB0368	680 K.0.25 W.	Rd	R113ab	RB0394	8.2 K. 0.25 W.	Rd
R107ab	RB0412	47 K.0.25 W.	Rd	R114ab	RB0360	330 0.25 W.	Rd
R108ad	RB0370	820 0.25 W.	Rd	R115ab	RB0436	470 K. 0.25 W.	Rd
R109ad	RB0420	100 K.0.25 W.	Rd	R116ab	RB0426	180 K. 0.25 W.	Rd
				R117	RB0400	15 K. 0.25 W.	Rd

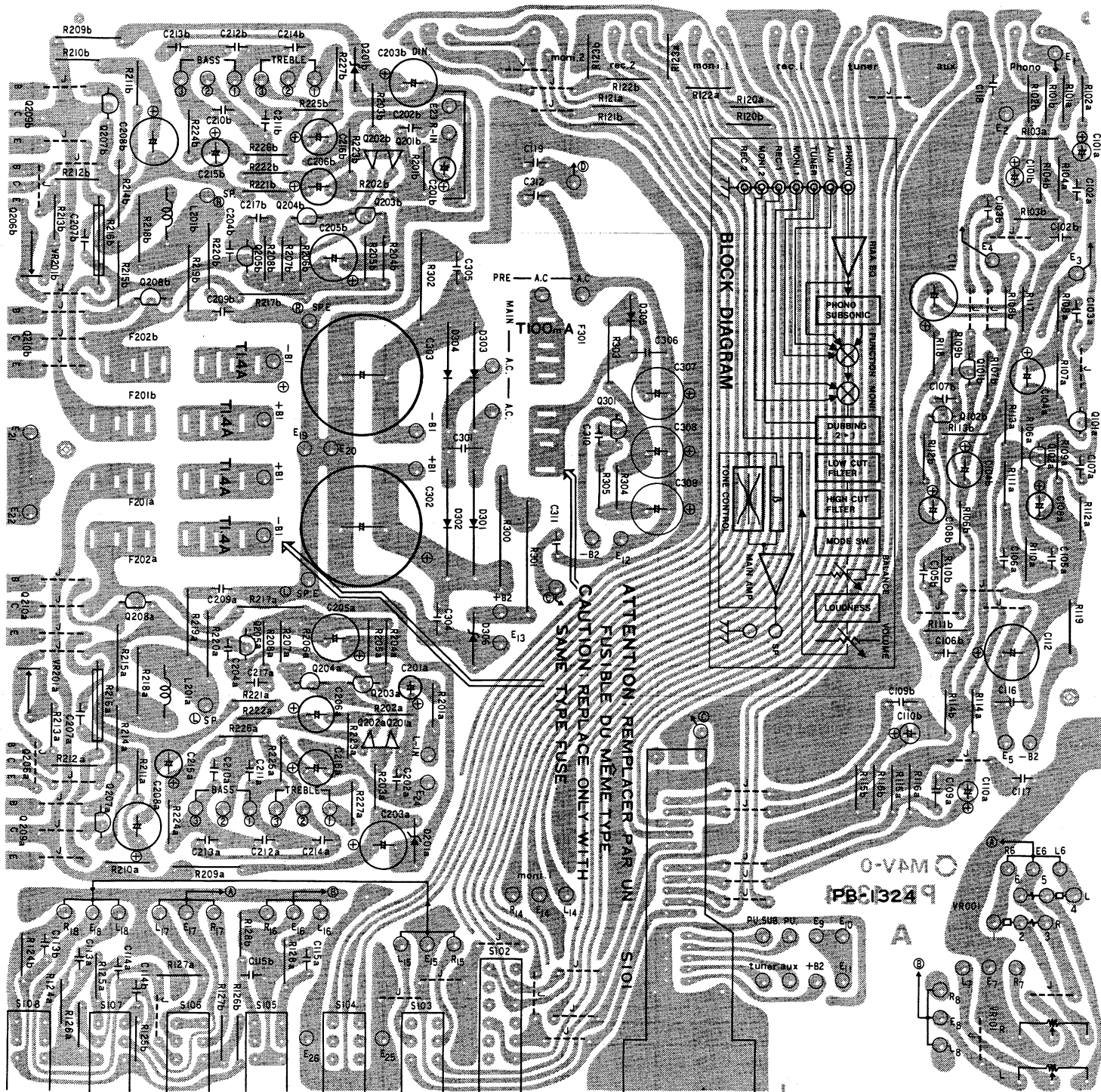
PARTS LIST .....(P. C. B)

REMARKS

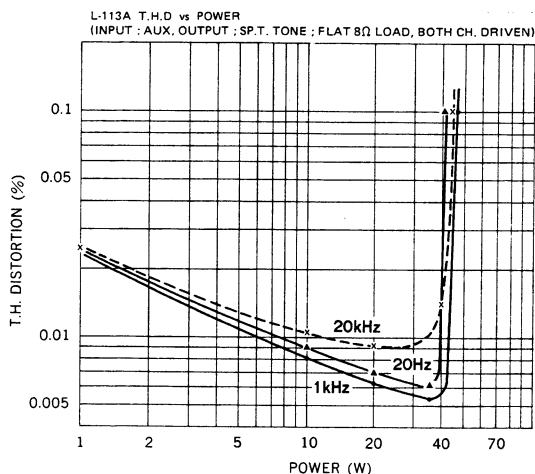
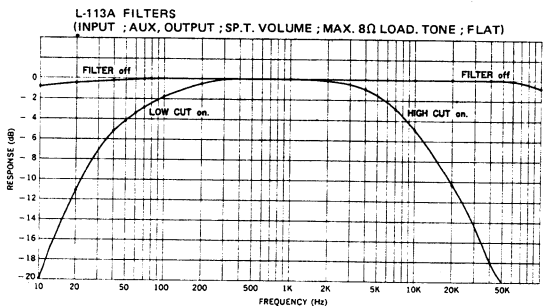
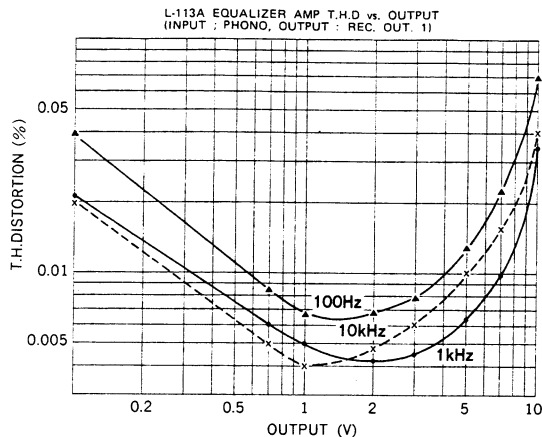
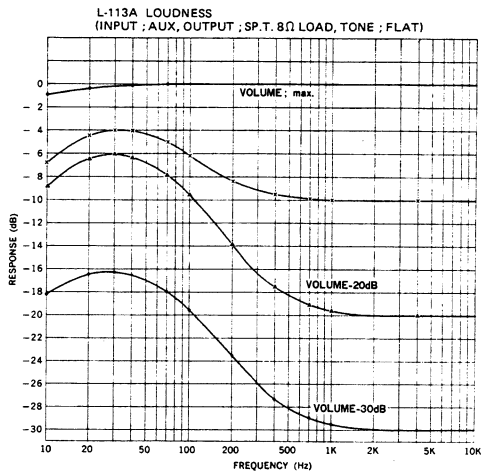
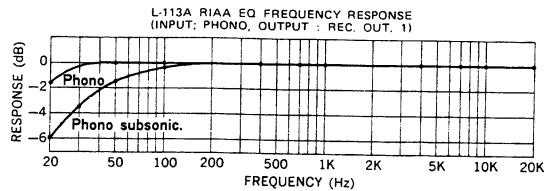
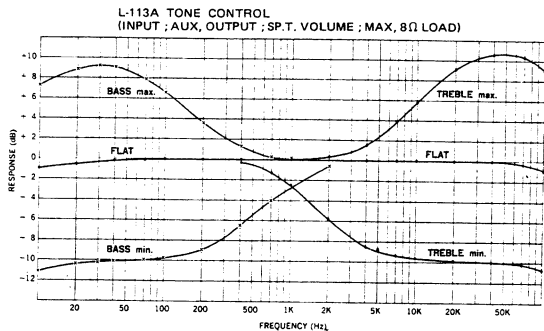
Capacitor: My...Mylar, El...Electrolitic, St...Styrol, Ce...Ceramic  
 Mi...Mica, Ta...Tantalum, Lp...Line pass (AC Cap.)  
 Tm...Trimmer, Ac...AC Capacitor, Fi...Film Cap.

Resistor: Rd...Carbon, Rc...Cement Rm...Metal Film, Rf...Flame proof  
 Ro...Oxid Metal,  
 +5%,0,25W, unless specified otherwise.

PB-1324...Equalizer Power Amp



STANDARD CURVES

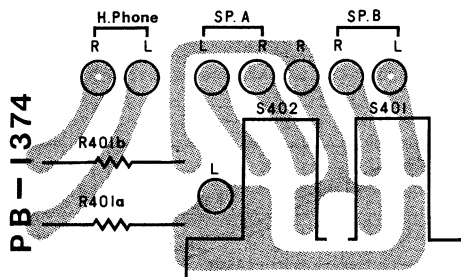


SPECIFICATIONS

Power Output:	40 W minimum continuous per channel both channels driven into 8 ohms with no more than 0.02% total harmonic distortion.												
Rated I.M.:	no more than 0.02% (8 ohms, 40 W/ch, 60 Hz: 7kHz= 4 : 1)												
Frequency Response	30 Hz ~ 20 kHz (± 0.5 dB)—PHONO												
Input Sensitivity & Input Impedance:	<table border="0"> <tr> <td>PHONO</td> <td>2.2 mV</td> <td>50 k ohms</td> </tr> <tr> <td>TUNER</td> <td>130 mV</td> <td>70 k ohms</td> </tr> <tr> <td>AUX</td> <td>130 mV</td> <td>70 k ohms</td> </tr> <tr> <td>MONITOR</td> <td>130 mV</td> <td>70 k ohms</td> </tr> </table>	PHONO	2.2 mV	50 k ohms	TUNER	130 mV	70 k ohms	AUX	130 mV	70 k ohms	MONITOR	130 mV	70 k ohms
PHONO	2.2 mV	50 k ohms											
TUNER	130 mV	70 k ohms											
AUX	130 mV	70 k ohms											
MONITOR	130 mV	70 k ohms											
Signal-to-Noise Ratio: (input short-circuited)	<table border="0"> <tr> <td>PHONO</td> <td>better than 93 dB (IHF-A weighted, 10 mV)</td> </tr> <tr> <td>TUNER</td> <td>better than 100 dB (IHF-A weighted)</td> </tr> <tr> <td>MONITOR</td> <td>better than 100 dB (IHF-A weighted)</td> </tr> </table>	PHONO	better than 93 dB (IHF-A weighted, 10 mV)	TUNER	better than 100 dB (IHF-A weighted)	MONITOR	better than 100 dB (IHF-A weighted)						
PHONO	better than 93 dB (IHF-A weighted, 10 mV)												
TUNER	better than 100 dB (IHF-A weighted)												
MONITOR	better than 100 dB (IHF-A weighted)												
Residual Noise:	no more than 0.5 mV												
Tone Control:	<table border="0"> <tr> <td>Bass</td> <td>+ 8 dB</td> <td></td> </tr> <tr> <td></td> <td>- 10 dB</td> <td>at 70 Hz</td> </tr> <tr> <td>Treble</td> <td>+ 8 dB</td> <td></td> </tr> <tr> <td></td> <td>- 10 dB</td> <td>at 14 kHz</td> </tr> </table>	Bass	+ 8 dB			- 10 dB	at 70 Hz	Treble	+ 8 dB			- 10 dB	at 14 kHz
Bass	+ 8 dB												
	- 10 dB	at 70 Hz											
Treble	+ 8 dB												
	- 10 dB	at 14 kHz											
Filter:	<table border="0"> <tr> <td>High Cut</td> <td>7 kHz (-6 dB/oct.)</td> </tr> <tr> <td>Phono-Subsonic</td> <td>30 Hz (-6 dB/oct.)</td> </tr> <tr> <td>Low Cut</td> <td>70 Hz (-6 dB/oct.)</td> </tr> </table>	High Cut	7 kHz (-6 dB/oct.)	Phono-Subsonic	30 Hz (-6 dB/oct.)	Low Cut	70 Hz (-6 dB/oct.)						
High Cut	7 kHz (-6 dB/oct.)												
Phono-Subsonic	30 Hz (-6 dB/oct.)												
Low Cut	70 Hz (-6 dB/oct.)												
Dimensions:	438 (W) x 306 (D) x 84 (H) mm (17-1/4" x 12-1/16" x 3-11/32")												
Weight:	<table border="0"> <tr> <td>Net</td> <td>7.5 kgs (16.5 lbs.)</td> </tr> <tr> <td>Gross</td> <td>8.5 kgs (18.7 lbs.)</td> </tr> </table>	Net	7.5 kgs (16.5 lbs.)	Gross	8.5 kgs (18.7 lbs.)								
Net	7.5 kgs (16.5 lbs.)												
Gross	8.5 kgs (18.7 lbs.)												

SYMBOL NO	STOCK NO	DESCRIPTION	REMARK	SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
Resistor (Unit: Ω)				Resistor (Unit: Ω)			
R118	RB0410	39 K.0.25 W. Rd		R212ab	RB0378	1.8 K.0.25 W. Rd	
R119	RS1281	100 0.33 W. Rf		R213ab	RB0364	470 0.25 W. Rd	
R120ab	RB0444	1 M.0.25 W. Rd		R214ab	RS2512L	100 0.5 W. Ro	
R121ab	RB0444	1 M.0.25 W. Rd		R215ab	RS2512L	100 0.5 W. Ro	
R122ab	RB0424	150 K.0.25 W. Rd		R216ab	RG0090	0.33 2 W. Rc	
R123ab	RB0424	150 K.0.25 W. Rd		R217ab	RS2510L	68 0.5 W. Ro	
R124ab	RB0444	1 M.0.25 W. Rd		R218ab	RS2501L	10 0.5 W. Ro	
R125ab	RB0444	1 M.0.25 W. Rd		R219ab	RS2709L	10 1 W. Ro	
R126ab	RB0392	6.8 K.0.25 W. Rd		R220ab	RS2526L	1.5 K.0.5W. Ro	
R127ab	RB0392	6.8 K.0.25 W. Rd		R221ab	RB0412	47 K.0.25 W. Rd	
R128ab	RB0398	12 K.0.25 W. Rd		R222ab	RB0394	8.2 K.0.25 W. Rd	
R201ab	RB0372	1 K.0.25 W. Rd		R223ab	Rb0362	390 0.25 W. Rd	
R202ab	RB0414	56 K.0.25 W. Rd		R224ab	RB0394	8.2 K.0.25 W. Rd	
R203ab	RB0396	10 K.0.25 W. Rd		R225ab	RB0376	1.5 K.0.25 W. Rd	
R204ab	RB0356	220 0.25 W. Rd		R226ab	RB0378	1.8 K.0.25 W. Rd	
R207ab	RB0356	220 0.25 W. Rd		R227ab	RB0360	330 0.25 W. Rd	
R208ab	RB0374	1.2 K.0.25 W. Rd		R303	RS2512L	100 0.5 W. Ro	
R209ab	RS2526L	1.5 K.0.5 W. Ro		R304	RB0416	68 K.0.25 W. Rd	
R210ab	RB0382	2.7 K.0.25 W. Rd		R305	RB0372	1 K.0.25 W. Rd	
R211ab	RB0390	5.6 K.0.25 W. Rd					

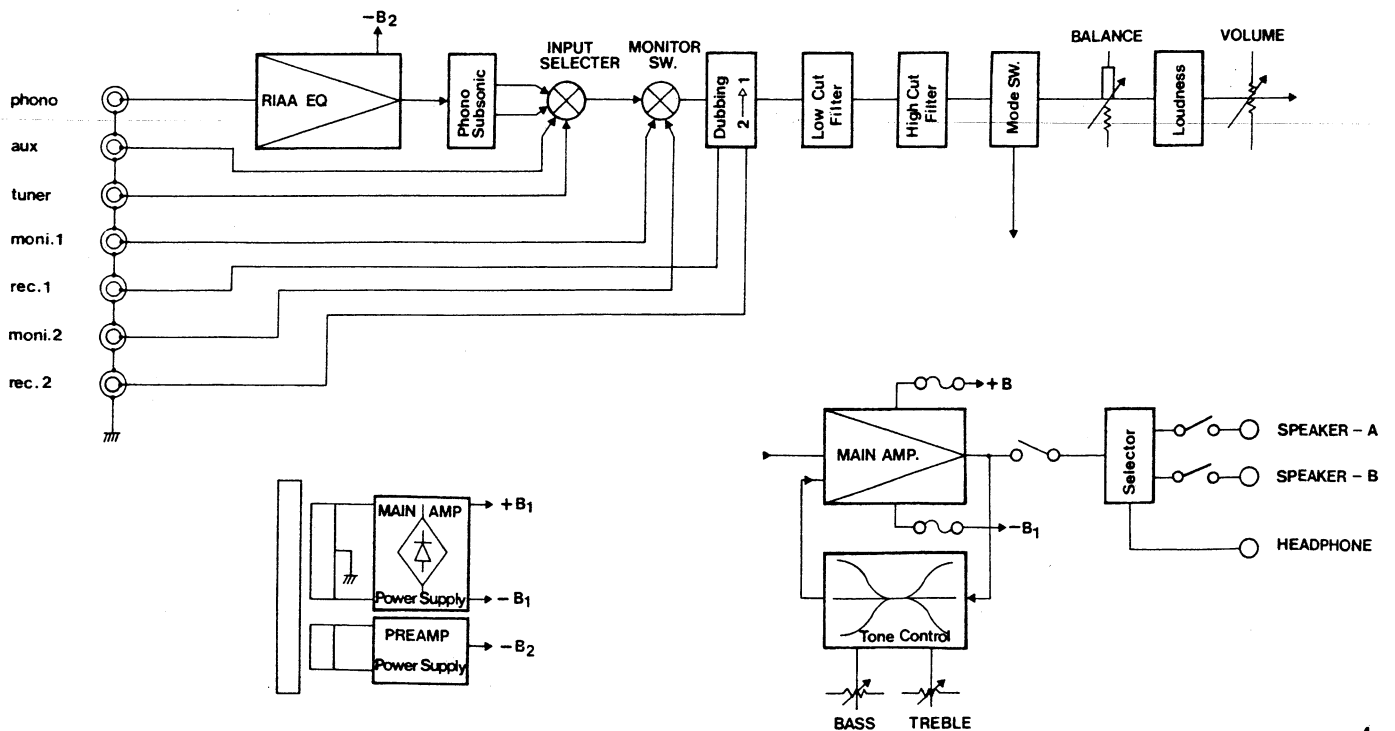
PB-1374 ..... Speaker Selector



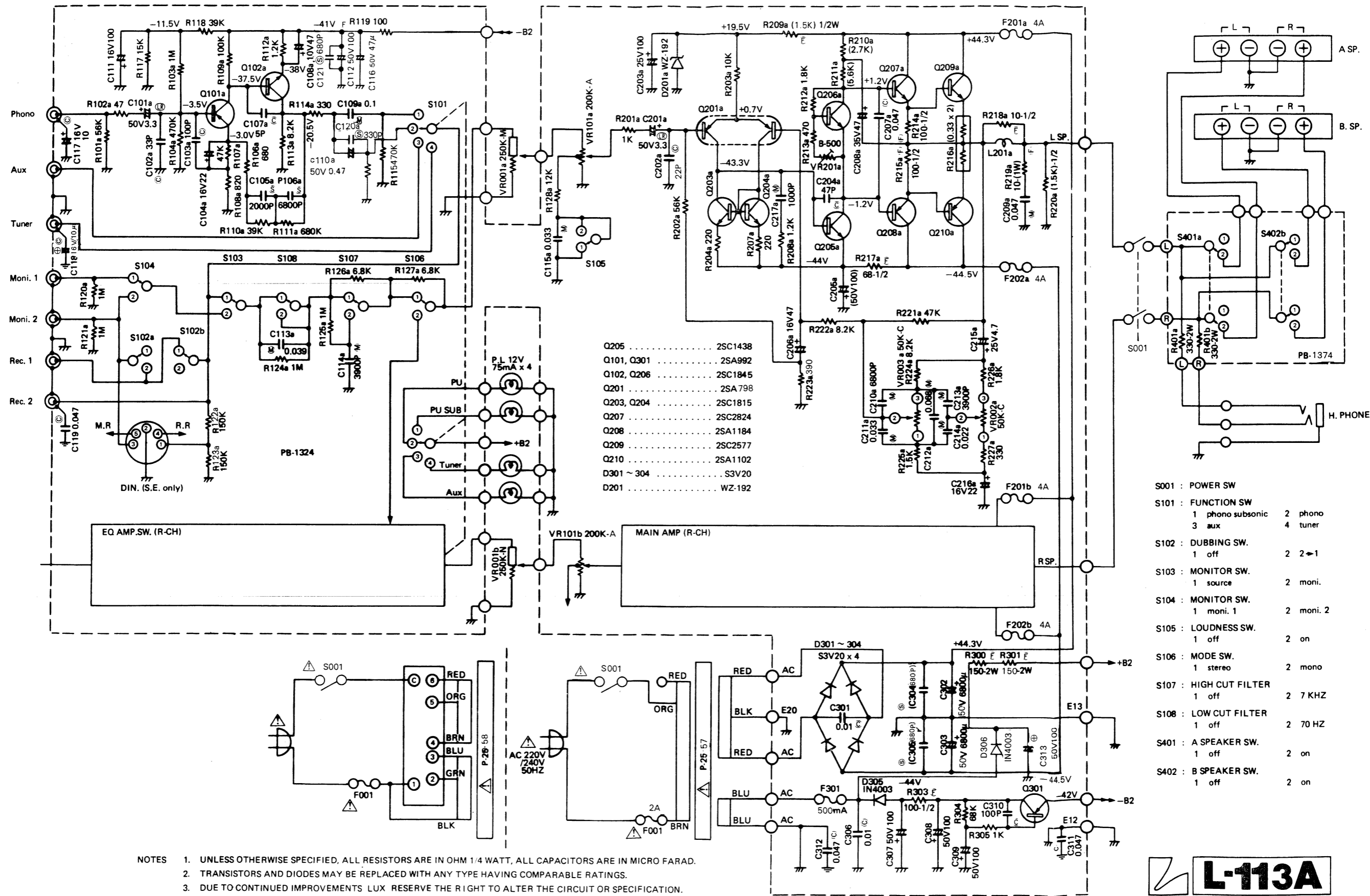
PB-1374 (Speaker Selector)

R401ab	RS0125	300 Ω 2 W. Rf	
S401ab	SP0193	Push Switch	
S402ab	SUF22S23	SUF22S23	
	PC1374	P.C.B. Board	
		PB-1374	

BLOCK DIAGRAMME







**L-113A**