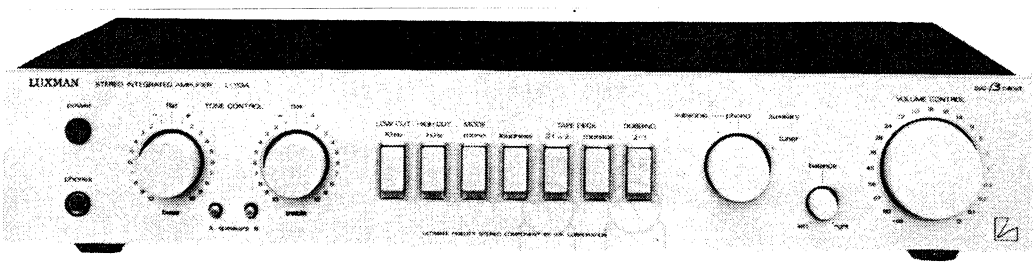
SERVICE MANUAL

LUXMAN SOLID STATE STEREO INTEGRATED AMPLIFIER L-113A



CONTENTS

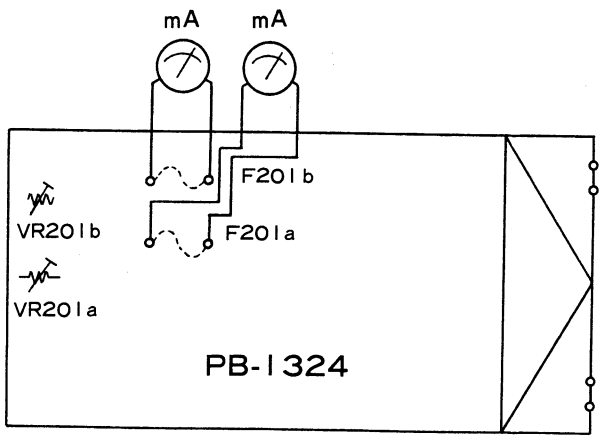
ALIGNMENT PROCEDURE

Set up Unit

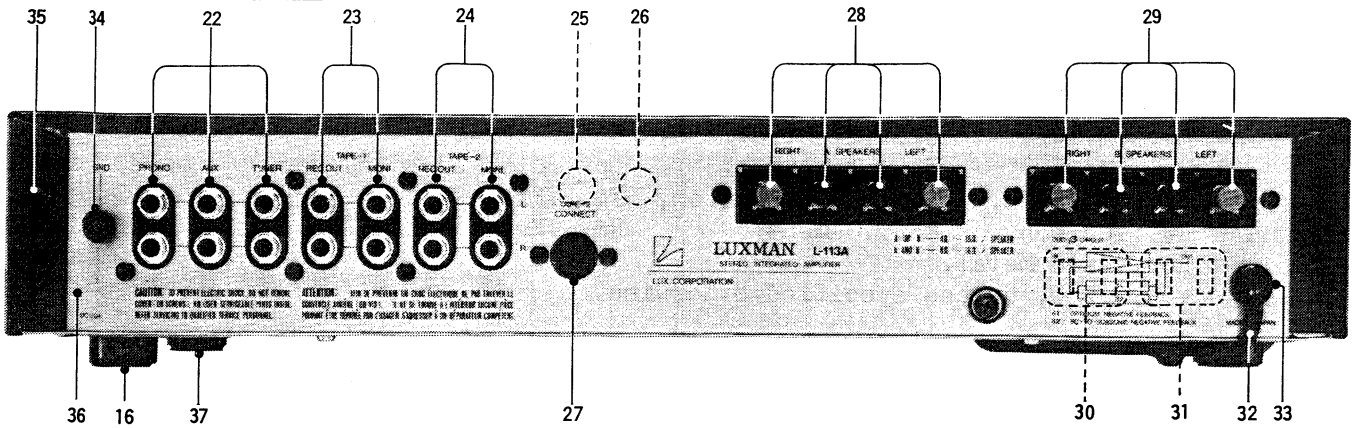
Volume Control	Minimum
Tone Control	Center(Flat) Position
Speaker	"A" Pushed ON Position

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
	Terminal		
22	AT5019	Input 6P. (Phono, Aux, Tuner)	
23	AT5018	Input 4P. (Recout 1,Monitor 1)	
24	AT5018	Input 4P. (Recout 2,Monitor 2)	
	Power Cord & Bushing		
32	BK0018	UL AC Cord A-18BF	E,U
32	BK0022	AC Cord C-2-461-B	S
33	BU0033	Bushing SR-4N-4	
	Bonnet		
35	UG1027	Bonnet 1027	
	Bottom Plate		
37	UE1105	Bottom Plate 1105	

SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
	Terminal		
27	AS0205	D.I.N.	
28	AT0124	Speaker A.(T5730)	
29	AT0124	Speaker B.(T5730)	
34	AC0010	G.N.D.	
	Fuse holder & Extra AC Outlet		
25		Speaker Protector (R)	U
26		Speaker Protector (L)	U
30	AC0010	AC Outlet (Unswitched)	E
31	AC0010	AC Outlet (Switched)	E
	Rear Panel		
※ 36	UC1204	Rear Panel 1204	S
※ 36	UC1205	Rear Panel 1205	E,U

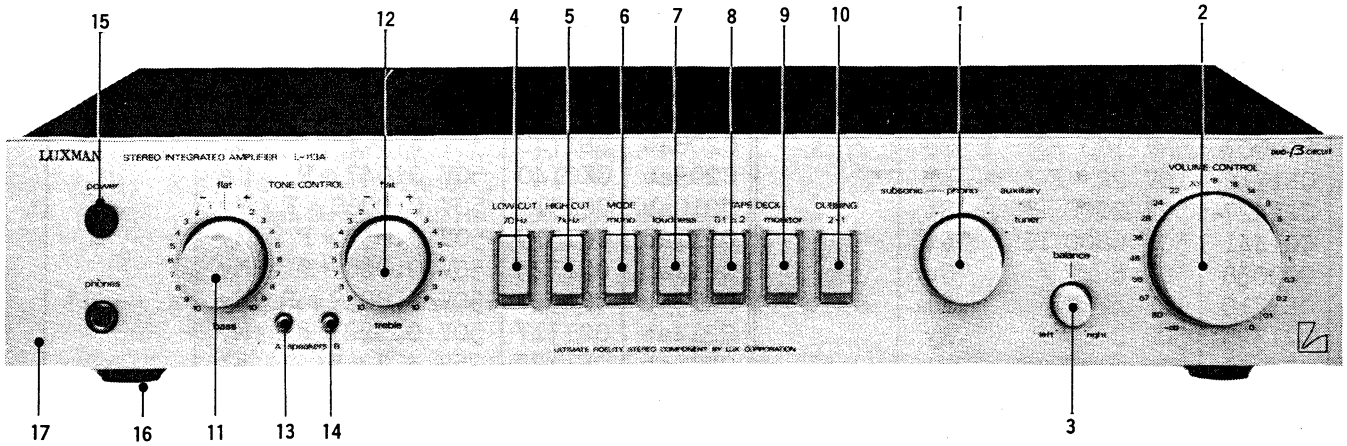
MECHANISM

	Variable Resistor		
VR001	RV0260	250K,CX2,Blance Cont.	
VR002	RV0259	50K,CX2,Treble Cont.	
VR003	RV0259	50K,CX2,Bass Cont.	
VR101	RV0279	200K,AX2,Volume Cont.	
	Switch		
S001	SP0167	Push. (Power)	
S101	SR0143	R-Slide (Input Selector)	
S102～S108	SP0165	Push. (Monitor,Filter,etc.)	
S401ab S402ab	SP0193	Push. (Speaker)	
	Power Transformer		
※	PT2557	P-2557	S
※	PT2558	P-2558	E
	Lamp		
Phono	AL0057	Lamp. (Green)	
Subsonic	AL0057	Lamp. (Green)	
Tuner	AL0056	Lamp. (Orange)	
Aux	AL0056	Lamp. (Orange)	
	Line Voltage Selector E ONLY		
※	AC0054	Socket M-1615	E
※	AC0014	Plug P-2120	E

	Transistor		
Q206ab	TR0323	2SC-1845	
Q209ab	TR0330	2SC-2577(or 2SA-1135)	
Q210ab	TR0329	2SA-1102(or 2SC-2665)	
	Fuse holder,Jack & Heat sink		
※F001	AH0019	1P Fuse holder XN-1153	S
※F001	AH0016	1P Fuse holder XN-1157	E
※F001	BF0304	Fuse.MF51NR-2A	S
※F001	BF0120	Fuse.MF60NR-3.5A	E
※F301	BF0308	Fuse.MF51NR-0.5A	S
※F301	BF0111	Fuse.MF60NR-0.5A	E
※F201ab ※F202ab	BF0302	Fuse.MF51NR-4A	S
※F201ab ※F202ab	BF0118	Fuse.MF60NR-4A	E
	BE1075	Heat Sink 1075	
Hphone	AJ0014	Head Phone Jack	
	Packing Material		
	XA1300	Carton 1300	
	XB1040	Pad 1040	
	ME0208	Owner's Manual	

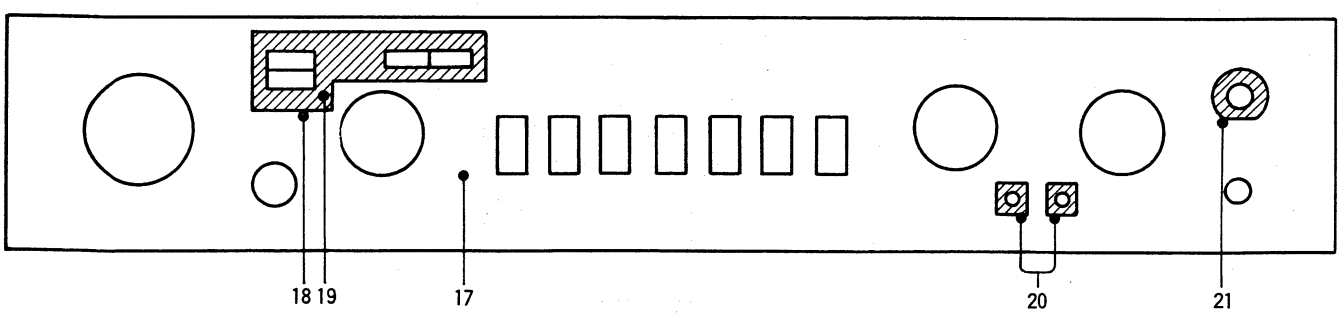
U= 120V Only
S= 220V on 240V Only
E= 120V (with Line Voltage Selection)

FRONT VIEW



PARTS LIST·····(Cosmetic)

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

PB-1324

SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
	Capacitor		
C101ab	CE0346	50V 3.3μF LR El	
C102ab	CC0005	50V 33 PF Ce	
C103ab	CC0007	50V 100 PF Ce	
C104ab	CE1718	16V 22μF El	
C105ab	CQ1427	50V 2000 PF St	
C106ab	CQ1441	50V 6800 PF St	
C107ab	CC0038	50V 5 PF Ce	
C108ab	CE1710	10V 47 μF El	
C109ab	CQ1325	50V 0.1 μF My	
C110ab	CE4096	50V 0.47 μF El	
C111	CE1721	16V 100 μF El	
C112	CE1758	50V 100 μF El	
C113ab	CQ1320	50V 0.039 μF My	
C114ab	CQ1308	50V 0.0039 μF My	
C115ab	CQ1319	50V 0.033 μF My	
C116	CE1757	50V 47 μF El	
C117	CE1717	16V 10 μF El	
C118	CE1717	16V 10 μF El	
C119	CK0158	25V 0.047 μF Ce	
C120a	CQ5077	50V 330 PF St	
C121	CQ1420	50V 680 PF St	
C201ab	CE0346	50V 3.3 μF LR El	
C202ab	CC0004	50V 22 PF Ce	
C203ab	CE1732	25V 100 μF El	
C204ab	CC0006	50V 47 PF Ce	
C205ab	CE1758	50V 100 μF El	
	Diode		
D201ab	TD0065	WZ-192 (Zener)	
D301	TD0105	S3V 20	
D302	TD0105	S3V 20	
D303	TD0105	S3V 20	
D304	TD0105	S3V 20	
D305	TD0003	IN-4003	
D306	TD0002	IN-4002	
	Switch		
S101	SR0143	Rotary Input Selector	
S102 ~ S108	SP0165	Filter Push Loudness Tape Dubbing etc.	
	Variable Resistor		
VR101a	RV0279	200 kΩ Ax2 Volume C	
	P.C.B. Board		
	PC1324	PB-1324	
	Choke Coil		
L201ab	LA1004	LUX-1004 2 mH	
	Resistor(Unit: Ω)		
R101ab	RB0414	56 K. 0.25 W. Rd	
R102ab	RB0340	47 0.25 W. Rd	
R103ab	RB0444	1 M. 0.25 W. Rd	
R104ab	RB0436	470 K. 0.25 W. Rd	
R106ad	RB0368	680 K. 0.25 W. Rd	
R107ab	RB0412	47 K. 0.25 W. Rd	
R108ad	RB0370	820 0.25 W. Rd	
R109ad	RB0420	100 K. 0.25 W. Rd	

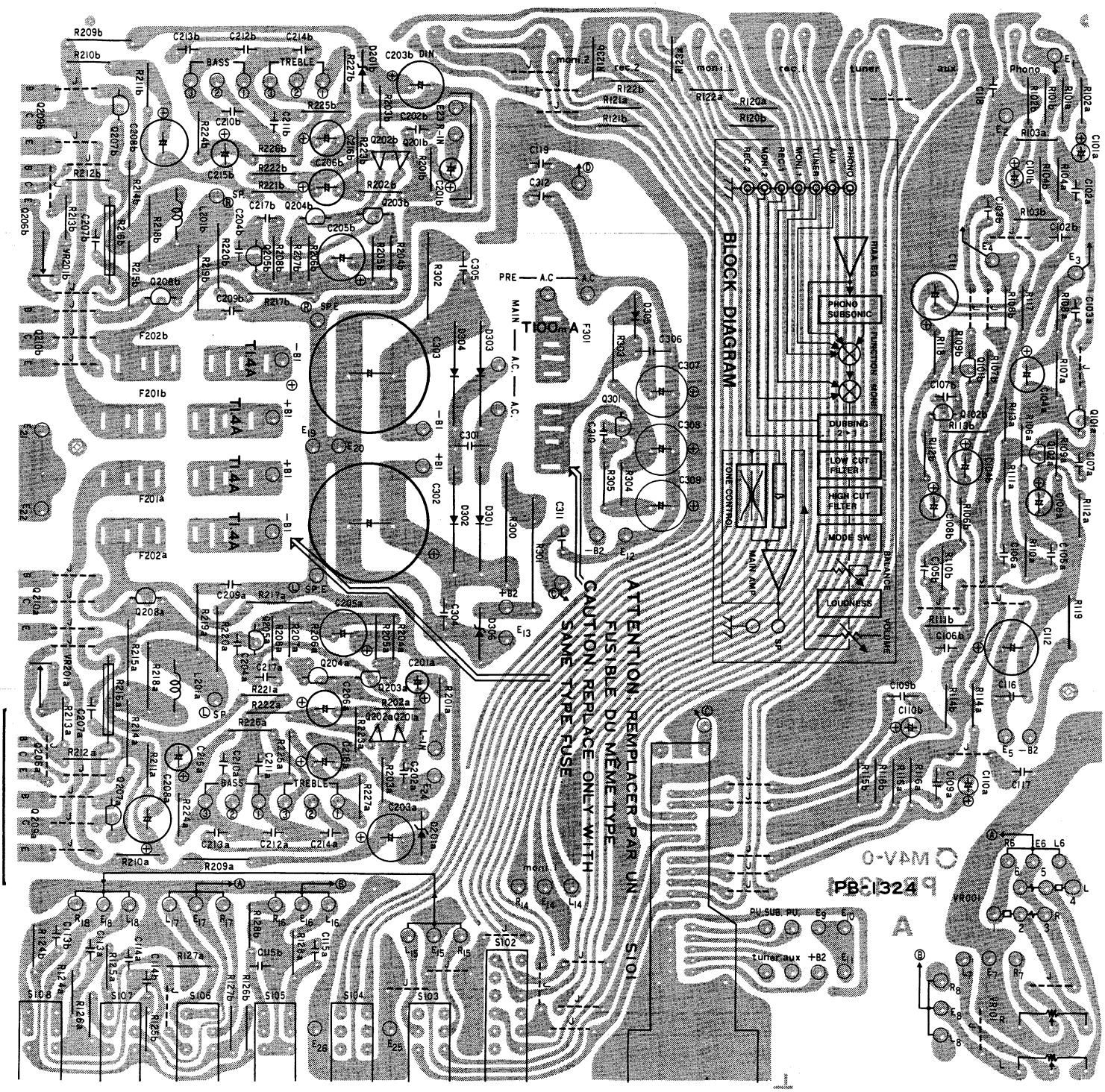
SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
	Capacitor		
C206ab	CE1720	16V 47 μF El	
C207ab	CQ1321	50V 0.047 μF My	
C208ab	CE1742	35V 47 μF El	
C209ab	CK0140	50V 0.047 μF Ce	
C210ab	CQ1311	50V 0.0068 μF My	
C211ab	CQ1319	50V 0.033 μF My	
C212ab	CQ1323	50V 0.068 μF My	
C213ab	CQ1308	50V 0.0039 μF My	
C214ab	CQ1317	50V 0.022 μF My	
C215ab	CE1727	25V 4.7 μF El	
C216ab	CE1718	16V 22 μF El	
C217ab	CQ1310	50V 0.001 F My	
C301	CK0203	500V 0.01 μF Ce	
C302	CE1027	50V 6800 μF El	
C303	CE1027	50V 6800 μF El	
C304	CQ1420	50V 680 PF St	
C305	CQ1420	50V 680 PF St	
C306	CK0203	500V 0.01 μF Ce	
C307	CE1758	50V 100 μF El	
C308	CE1758	50V 100 μF El	
C309	CE1758	50V 100 μF El	
C310	CC0007	50V 100 PF Ce	
C311	CK0158	25V 0.047 μF Ce	
C312	CK0158	25V 0.047 μF Ce	
C313	CE1759	50V 220 μF El	
	Transistor		
Q101ab	TR0320	2SA-992	
Q102ab	TR0323	2SC-1845	
Q201ab	TR0254	2SA-798	
Q203ab	TR0198	2SC-1815	
Q204ab	TR0198	2SC-1815	
Q205ab	TR0335	2SC-1438-B	
Q206ab	TR0323	2SC-1845	
Q207ab	TR0311	2SC-2824	
Q208ab	TR0312	2SA-1184	
Q209ab	TR0330	2SC-2577(or2SC-2665)	
Q210ab	TR0329	2SA-1102(or2SA-1135)	
Q301	TR0320	2SA-992	
	P.C.B. Fuse Holder		
※F201ab	AH0028	23165102-C	S
※F202ab	AH0028	23165102-C	S
※F301	AH0028	23165102-C	S
※F201ab	AH0029	YSH-401T	E
※F202ab	AH0029	YSH-401T	E
※F301	AH0029	YSH-401T	E
	Variable Resistor		
VR201ab	RT0050	500 Idle A.D.J.	
	Resistor (Unit: Ω)		
R110ab	RB0410	39 K. 0.25 W. Rd	
R111ab	RB0440	680 K. 0.25 W. Rd	
R112ab	RB0374	1.2 K. 0.25 W. Rd	
R113ab	RB0394	8.2 K. 0.25 W. Rd	
R114ab	RB0360	330 0.25 W. Rd	
R115ab	RB0436	470 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

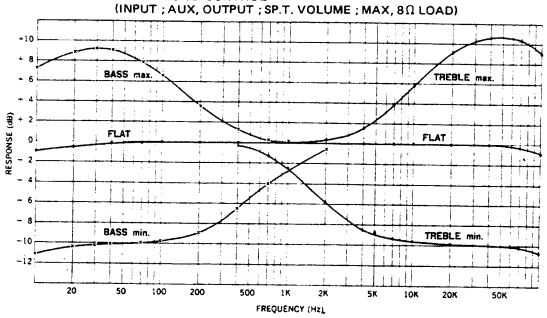
Capacitor: My...Mylar, El...Electrolitic, St...Styrol, Ce...Ceramic
Mi...Mica, Ta...Tantalum, Lp...Line pass (AC Cap.)
Tm...Trimmer, Ac...AC Capacitor, Fi...Film Cap.
Resistor: Rd...Carbon, Rc...Cement Rm...Metal Film, Rf...Flame proof
Ro...Oxid Metal,
±5%,0,25W, unless specified otherwise.

PB—1324··· Equalizer Power Amp

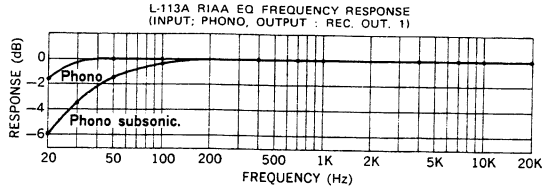


STANDARD CURVES

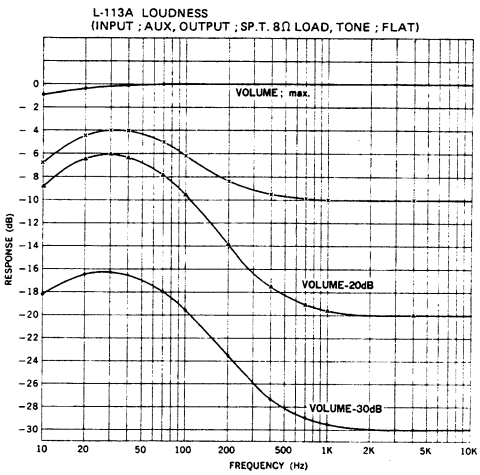
L-113A TONE CONTROL
(INPUT ; AUX, OUTPUT ; SP.T. VOLUME ; MAX, 8Ω LOAD)



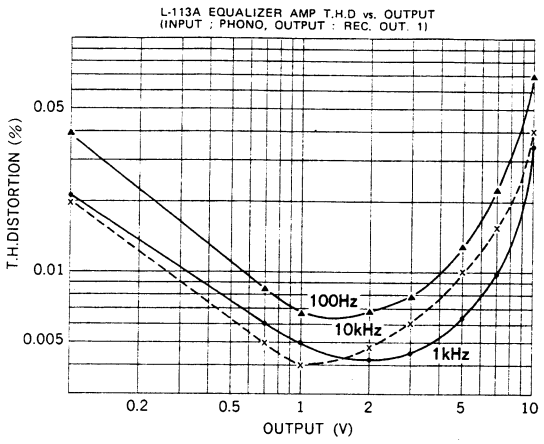
L-113A RIAA EQ FREQUENCY RESPONSE
(INPUT; PHONO, OUTPUT : REC. OUT. 1)



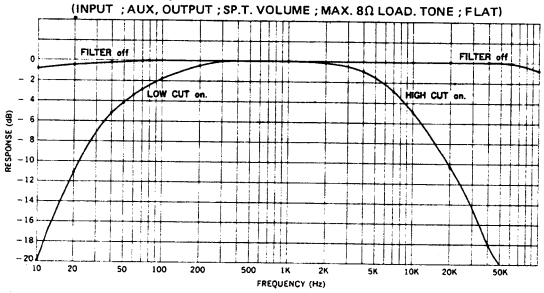
L-113A LOUDNESS
(INPUT ; AUX, OUTPUT ; SP.T. 8Ω LOAD, TONE ; FLAT)



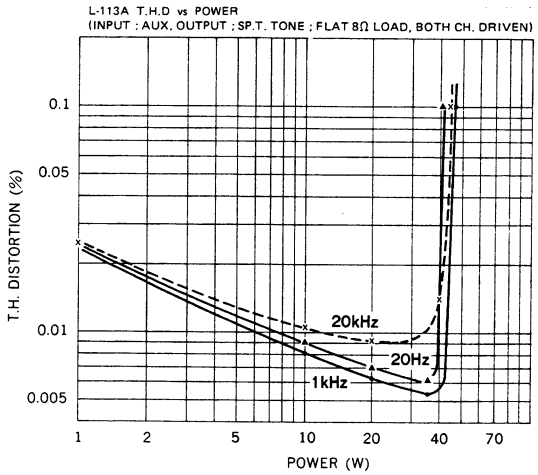
L-113A EQUALIZER AMP T.H.D vs. OUTPUT
(INPUT ; PHONO, OUTPUT : REC. OUT. 1)



L-113A FILTERS
(INPUT ; AUX, OUTPUT ; SP.T. VOLUME ; MAX. 8Ω LOAD. TONE ; FLAT)



L-113A T.H.D vs POWER
(INPUT : AUX, OUTPUT ; SP.T. TONE ; FLAT 8Ω LOAD, BOTH CH. DRIVEN)



SPECIFICATIONS

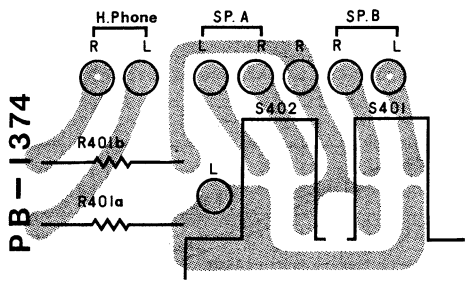
Power Output:	40 W minimum continuous per channel both channels driven into 8 ohms with no more than 0.02% total harmonic distortion.		
Rated I.M.:	no more than 0.02% (8 ohms, 40 W/ch, 60 Hz: 7kHz= 4 : 1)		
Frequency Response	30 Hz ~ 20 kHz (± 0.5 dB)—PHONO		
Input Sensitivity & Input Impedance:	PHONO	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)	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:	Bass	+ 8 dB – 10 dB at 70 Hz	
	Treble	+ 8 dB – 10 dB at 14 kHz	
Filter:	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:	Net	7.5 kgs (16.5 lbs.)	
	Gross	8.5 kgs (18.7 lbs.)	

Specifications and appearance design subject to change without notice.

SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
	Resistor (Unit: Ω)		
R118	RB0410	39 K. 0.25 W. Rd	
R119	RS1281	100 0.33 W. Rf	
R120ab	RB0444	1 M. 0.25 W. Rd	
R121ab	RB0444	1 M. 0.25 W. Rd	
R122ab	RB0424	150 K. 0.25 W. Rd	
R123ab	RB0424	150 K. 0.25 W. Rd	
R124ab	RB0444	1 M. 0.25 W. Rd	
R125ab	RB0444	1 M. 0.25 W. Rd	
R126ab	RB0392	6.8 K. 0.25 W. Rd	
R127ab	RB0392	6.8 K. 0.25 W. Rd	
R128ab	RB0398	12 K. 0.25 W. Rd	
R201ab	RB0372	1 K. 0.25 W. Rd	
R202ab	RB0414	56 K. 0.25 W. Rd	
R203ab	RB0396	10 K. 0.25 W. Rd	
R204ab	RB0356	220 0.25 W. Rd	
R207ab	RB0356	220 0.25 W. Rd	
R208ab	RB0374	1.2 K. 0.25 W. Rd	
R209ab	RS2526L	1.5 K. 0.5 W. Ro	
R210ab	RB0382	2.7 K. 0.25 W. Rd	
R211ab	RB0390	5.6 K. 0.25 W. Rd	

SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
	Resistor (Unit: Ω)		
R212ab	RB0378	1.8 K. 0.25 W. Rd	
R213ab	RB0364	470 0.25 W. Rd	
R214ab	RS2512L	100 0.5 W. Ro	
R215ab	RS2512L	100 0.5 W. Ro	
R216ab	RG0090	0.33 2 W. Rc	
R217ab	RS2510L	68 0.5 W. Ro	
R218ab	RS2501L	10 0.5 W. Ro	
R219ab	RS2709L	10 1 W Ro	
R220ab	RS2526L	1.5 K. 0.5W. Ro	
R221ab	RB0412	47 K. 0.25 W. Rd	
R222ab	RB0394	8.2 K. 0.25 W. Rd	
R223ab	Rb0362	390 0.25 W. Rd	
R224ab	RB0394	8.2 K. 0.25 W. Rd	
R225ab	RB0376	1.5 K. 0.25 W. Rd	
R226ab	RB0378	1.8 K. 0.25 W. Rd	
R227ab	RB0360	330 0.25 W. Rd	
R303	RS2512L	100 0.5 W. Ro	
R304	RB0416	68 K. 0.25 W. Rd	
R305	RB0372	1 K. 0.25 W. Rd	

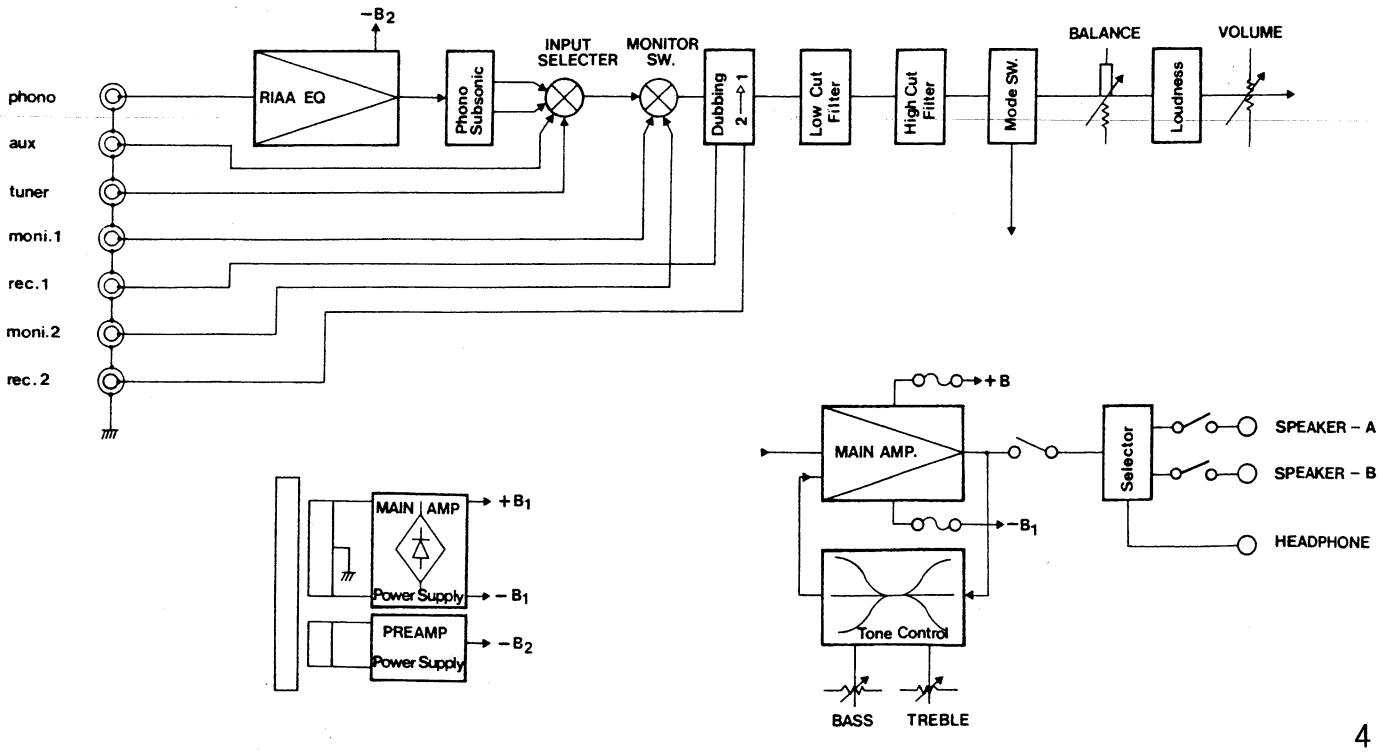
PB-1374 ····· Speaker Selector

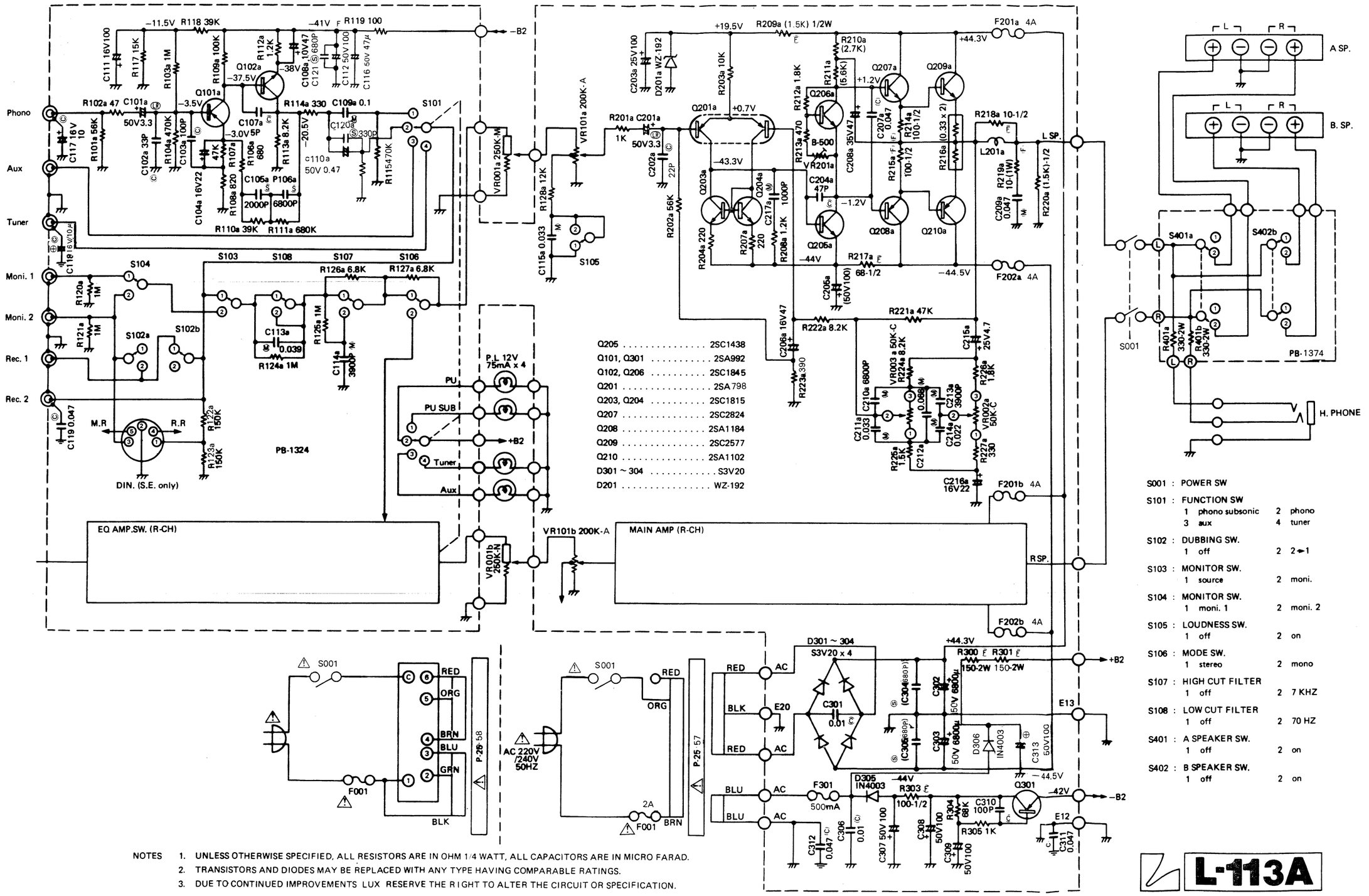


PB-1374 (Speaker Selector)

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

BLOCK DIAGRAMME





Q205 . . . . . 2SC1438
Q101, Q301 . . . . . 2SA992
Q102, Q206 . . . . . 2SC1845
Q201 . . . . . 2SA798
Q203, Q204 . . . . . 2SC1815
Q207 . . . . . 2SC2824
Q208 . . . . . 2SA1184
Q209 . . . . . 2SC2577
Q210 . . . . . 2SA1102
D301 ~ 304 . . . . . S3V20
D201 . . . . . WZ-192

S001 : POWER SW

S101 : FUNCTION SW
1 phono subsonic 2 phono
3 aux 4 tuner

S102 : DUBBING SW.
1 off 2 2←1

S103 : MONITOR SW.
1 source 2 moni.

S104 : MONITOR SW.
1 moni. 1 2 moni. 2

S105 : LOUDNESS SW.
1 off 2 on

S106 : MODE SW.
1 stereo 2 mono

S107 : HIGH CUT FILTER
1 off 2 7 KHZ

S108 : LOW CUT FILTER
1 off 2 70 HZ

S401 : A SPEAKER SW.
1 off 2 on

S402 : B SPEAKER SW.
1 off 2 on

NOTES
1. UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE IN OHM 1/4 WATT, ALL CAPACITORS ARE IN MICRO FARAD.
2. TRANSISTORS AND DIODES MAY BE REPLACED WITH ANY TYPE HAVING COMPARABLE RATINGS.
3. DUE TO CONTINUED IMPROVEMENTS LUX RESERVE THE RIGHT TO ALTER THE CIRCUIT OR SPECIFICATION.

L-113A

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