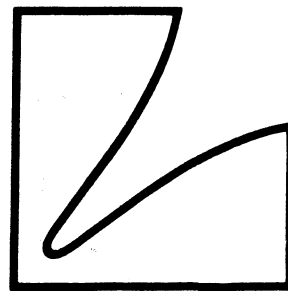
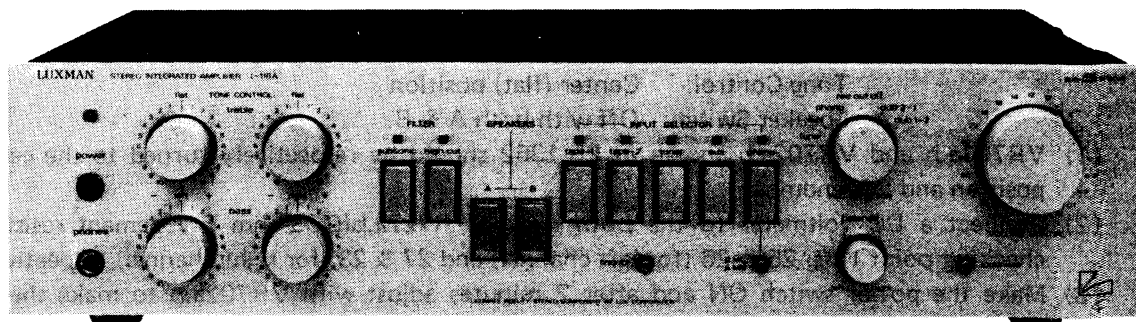


SERVICE MANUAL



LUXMAN SOLID STATE STEREO INTEGRATED AMPLIFIER *L-116A*



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L-116A ALIGNMENT PROCEDURES

L-116A Alignment Procedures

1) Idling Current Adjustment

Setting condition — Volume Control: minimum

Tone Control: Center (flat) position

Speaker Switch: Off with both A & B.

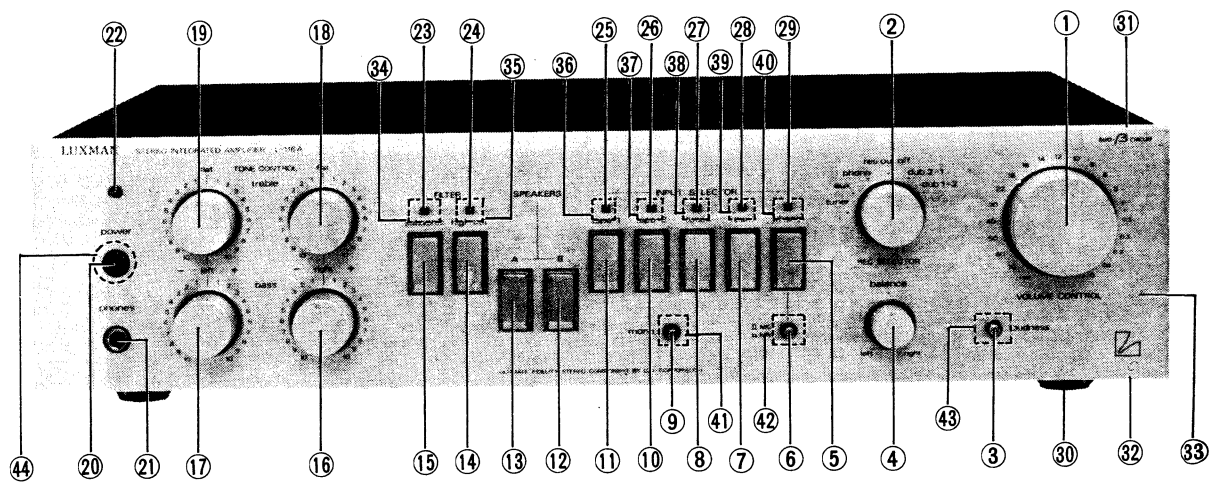
- (1) VR701a.b and VR702a.b shown in PB-1362 should be respectively turned to the center position and left-endmost.
- (2) Connect a DC voltmeter to the both ends of R727a.b(0.33-ohm 5W cement resistor), checking point Nos. 25 & 26 (for left channel) and 27 & 28 (for right channel) respectively.
- (3) Make the power switch ON and after 2 minutes adjust with VR702a.b to make the DC voltmeter connected in above-mentioned procedure (2) read 33mV.

2) Center Voltage Adjustment

- (1) Connect a DC voltmeter to the right and left channels of the speaker terminal "A" respectively.
- (2) Push the speaker switch "A" and adjust with VR701a.b to make the DC voltmeter connected in above-mentioned procedure (1) read 0V.

* The affix a.b of VR701a.b & VR702a.b stands for right and left channels.

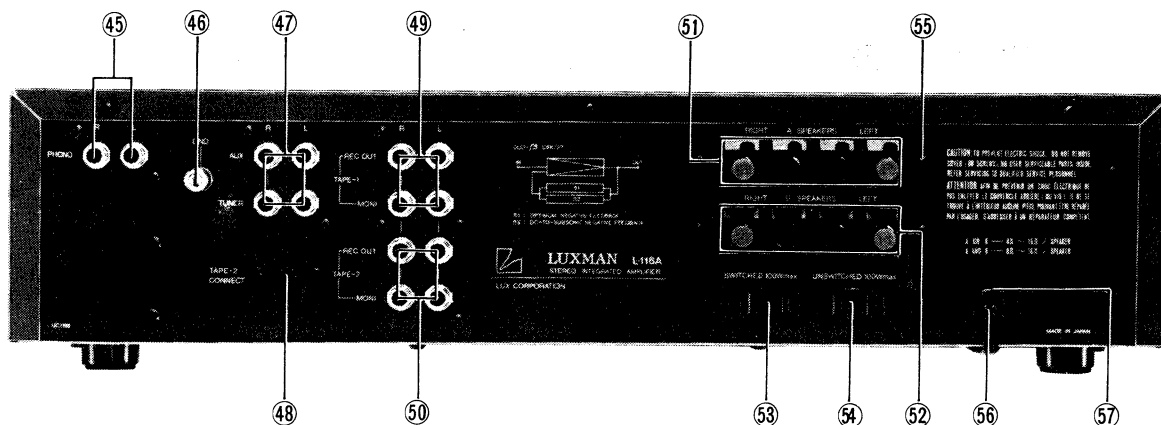
FRONT VIEW



PARTS LIST(COSMETIC)

SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK	SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK
(Knob)							
1	WH1105	Volume Control		11	WJ1142P	Tape-1	
2	WH1117	Rec Selector		12	WJ1142P	Speaker-B	
3	WJ1145	Loudness		13	WJ1142P	Speaker-A	
4	WJ1118	Balance Control		14	WJ1142P	High Cut	
5	WJ1142P	Phono		15	WJ1142P	Subsonic	
6	WJ1145	Phono MC.MM Selector		16	WH1117	Bass Control Right	
7	WJ1142P	Aux		17	WH1117	Bass Control Left	
8	WJ1142P	Tuner		18	WH1117	Treble Control Right	
9	WJ1145	Mode		19	WH1117	Treble Control Left	
10	WJ1142P	Tape-2		20	WJ1133	Power	
(LED)				(Head Phone Jack)			
22	TD0196	SLR-30UR, Pilot		21	AJ0014	LJ-264-1-7	
23	TD0223	SEL1910A, Subsonic		(Case Ass'y)			
24	TD0223	SEL1910A, High Cut		30	WN0007	Foot	
25	TD0222	SEL1710K, Tape-1		31	UG1032	Bonnet 1032	
26	TD0222	SEL1710K, Tape-2		32	UE1107	Bottom Plate 1107	
27	TD0222	SEL1710K, Tuner					
28	TD0222	SEL1710K, Aux					
29	TD0222	SEL1710K, Phono					
(Front Panel A'ssy)							
33	WA1226	Front Panel 1226					
34-40	WE1097	Protector 1097					
41	WE10951	Protector 1095 1/2					
42	WE10951	Protector 1095 1/2					
43	WE10951	Protector 1095 1/2					
44	WE1089	Protector 1089					

REAR VIEW



PARTS LIST

SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK	SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK	
(Terminal)				(Extra AC Outlet) E Only				
45	AT0120	Input 2P, Phono		*53	AC0010	MD-40 Switched	E	
46	AG0048	Ground		*54	AC0010	MD-40 Un Switched	E	
47	AT0122	Input 4P, Aux Tuner		(Rear Panel)				
48	AS0205	DIN		*55	UC1198	Rear Panel 1198	E	
49	AT0109	Input 4P, Tape-1			UC1197	Rear Panel 1197	S	
50	AT0109	Input 4P, Tape-2		(Power Cord)				
51	AT0080	Speaker A		*56	BK0018	A-18BF	EZ	
52	AT0080	Speaker B			BK0022	C2-461-B	EK SK	
(Bushing)						BK0023	SAA Mini	EG SG
*57	BU0033	SR-4N-4	EK EZ SK					
	BU0039	SR-5N-4	EG SG					

*Note: In this manual the parts, which differs depending on destination and mains voltage, are classified indicated as follows:

- EZ: 120V For North America, South East Asia, Middle East Asia, Middle South America
- E EK: 220V For Europe, South Asia, East Asia, Middle East Asia, Middle South America
- EG: 240V For England, Australia, New Zealand
- SK: 220V For Europe, South East Asia, South America
- S SG: 240V For England, Oceania

* E Type All With Line Voltage Selector

MECHANISM

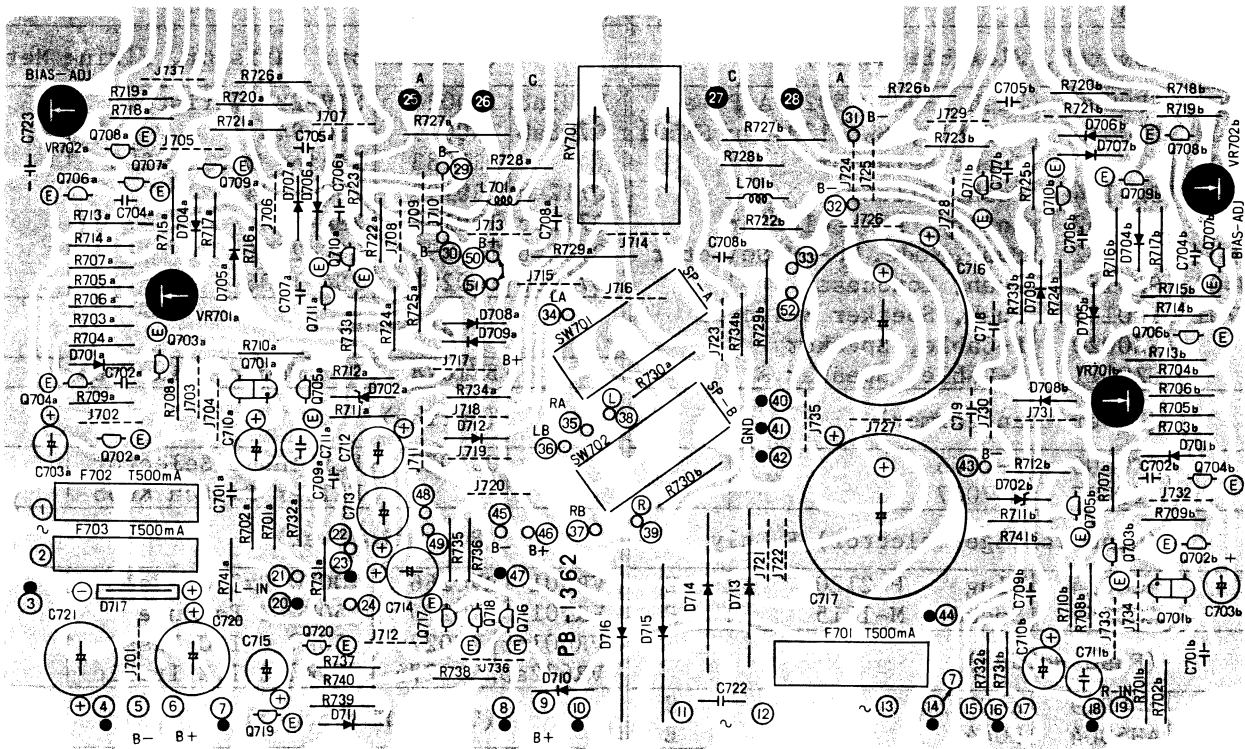
SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK	SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK
(Switch, Flexible Cable)				(Transistor, Varistor, Fixing Metal)			
SW001	SP0090	Push, SDG5P-502 5A Power		D703ab	TV0026	STV-2H, Varistor	
SW101	SZ0016	F-Cable, SWR-1204 For SW501		Q708ab	TR0029	2SC-945	
SW201		Input Selector			UR1283	Fixing Metal 1283	
SW207	SP0184	Push, Filter		Q712ab	TR0190	2SC-1624	
SW301	SR0152	Rotary, Rec Selector		Q713ab	TR0188	2SA-814	
SW501	SP0182	Push, Mode, MC-MM Selector		Q714ab	TR0295	2SC-2581	
SW502	SP0183	Push, Loudness		Q715ab	TR0294	2SA-1106	
SW701	SP0185	Push, Speaker Selector		(Heat Sink)			
	SZ0020	F-Cable, Speaker B			BE1078	For Power Transistor	
	SZ0021	F-Cable, Speaker A		(Spring)			
(Power Transformer)					UU1038	For Input Selector Filter Switch Knob	
*	PT7006	P-7006	S	(Potentiometer)			
	PT7007	P-7007	E	VR001	RV0266	100K Ω Bx2 CT Volume	
(Line Voltage Selector) E Only				VR501	RV0275	250K Ω Z Balance	
*	AC0014	Plug P-2120	E	VR601ab	RV0276	50K Ω C T.C Bass	
*	AC0054	Socket M-1615	E	VR602ab	RV0276	50K Ω C T.C Treble	
(Fuse Holder)				(LED, LED Socket)			
*F001	AH0019	X-N1153	S		TD0196	SLR-30UR Pilot	
	AH5004	H0445	E		AS0206	Socket, L: 250mm	
(Fuse)				D401	TD0222	Yellow, Phono	
*F001	BF0210	5 x 20 2A(T)	EK.S	D402	TD0222	Yellow, Aux	
	BF0213	5 x 20 4A(T)	EZ	D403	TD0222	Yellow, Tuner	
F701	BF0206	5 x 20 500mA(T)		D404	TD0222	Yellow, Tape-2	
F702	BF0206	5 x 20 500mA(T)		D405	TD0222	Yellow, Tape-1	
F703	BF0206	5 x 20 500mA(T)		D406	TD0223	Orange, High Cut	
				D407	TD0223	Orange, Subsonic	
(Packing Material)							
	XB1046	Pad A 1046					
	XA1287	Carton 1287					
	ME0190	Owner's Manial					

Notes:

Flexible Cable Switch Ass'y can be disintegrated into 3 components-Switch Body, Flexible Cable, Switch Mechanism. In this list, the respective disintegrated Components are classified into the categories.

Switch Body - PCB Unit Parts List
 Flexible Cable - Mechanism Parts List
 Switch Mechanism - Mechanism Parts List

PB-1362 POWER AMP, PROTECTOR



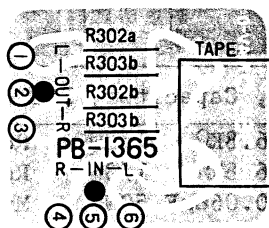
PB-1362 PARTS LIST

SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK	SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK
(Resistor) Unit: Ω							
R111ab	RD0461	2.7K 1/3W	Rd	R721ab	RS2508L	47 1/2W	Ro
R701ab	RD0430	1M 1/3W	Rd	R723ab	RS2565L	360 1/2W	Ro
R702ab	RD0466	1K 1/3W	Rd	R723ab	RS2565L	360 1/2W	Ro
R703ab	RS2522L	680 1/2W	Ro	R724ab	RD0456	6.8K 1/3W	Rd
R704ab	RS2522L	680 1/2W	Ro	R725ab	RD0456	6.8K 1/3W	Rd
R705ab	RS2513L	120 1/2W	Ro	R726ab	RS2514L	150 1/2W	Rd
R706ab	RS2513L	120 1/2W	Ro	R727ab	RG0601	0.33 5W	Rc
R707ab	RD0441	120K 1/3W	Rd	R728ab	RD2530	6.8 1/2W	Rd
R708ab	RD0446	47K 1/3W	Rd	R729ab	RS5044LA	10 2W	Ro
R709ab	RD0476	150 1/3W	Rd	R730ab	RS2715LA	330 1W	Ro
R710ab	RD2594	3.3K 1/2W	Rd	R731ab	RD0453	12K 1/3W	Rd
R712ab	RD2618	33K 1/2W	Rd	R733ab	RD0489	10 1/3W	Rd
R713ab	RS2520L	470 1/2W	Ro	R734ab	RD0455	8.2K 1/3W	Rd
R714a	RD2620	39K 1/2W	Rd	R735	RD0466	1K 1/3W	Rd
R715ab	RS2501L	10 1/2W	Ro	R736	RD0460	3.3K 1/3W	Rd
R716ab	RS2514L	150 1/2W	Ro	R737	RD0464	1.5K 1/3W	Rd
R717a	RD2618	33K 1/2W	Rd	R738	RDO469	560 1/3W	Rd
R718ab	RD0467	820 1/3W	Rd	R739	RD0460	3.3K 1/3W	Rd
R719ab	RD0469	560 1/3W	Rd	R740	RD0441	120K 1/3W	Rd
R720ab	RS2508L	47 1/2W	Ro	R741ab	RD0480	68 1/3W	Rd

PB-1362-1365 PARTS LIST

SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK	SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK
(Capacitor)				(Diode)			
C115	CE1702	100μF 6.3WV	E1	D701ab	TD0053	1S-2473	
C174	CE1721	100μF 16WV	E1	D702ab	TD0027	WZ-120 ZENER 12V	
C701ab	CC0006	47PF 50WV	Ce	D703ab	TV0026	STV-3H VARISTOR	
C702ab	CC0010	330PF 50WV	Ce	D704ab	TD0053	1S-2473	
C703ab	CE1717	10μF 16WV	E1	D705ab	TD0053	1S-2473	
C704ab	CM0114	22PF 500WV	Mi	D706ab	TD0053	1S-2473	
C705ab	CQ1319	0.033μF 50WV	My	D707ab	TD0053	1S-2473	
C706ab	CK0155	0.01μF 50WV	Ce	D708ab	TD0053	1S-2473	
C707ab	CK0155	0.01μF 50WV	Ce	D709ab	TD0053	1S-2473	
C708ab	CQ1315	0.015μF 50WV	My	D710ab	TD0002	1N-4002	
C709ab	CC0038	5PF 50WV	Ce	D711	TD0053	1S-2473	
C710ab	CE1701	47μF 6.3WV	E1	D712ab	TD0002	1N-4002	
C711ab	CQ1441	6800PF 50WV	St	D713	TD0160F	S3V-40 (F4)	
C712	CE1704	330μF 6.3WV	E1	D714	TD0160F	S3V-40 (F4)	
C713	CE1704	330μF 6.3WV	E1	D715	TD0160F	S3V-40 (F4)	
C716	CE1016	10000μF 56WV	E1	D716	TD0160F	S3V-40 (F4)	
C717	CE1016	10000μF 56WV	E1	D717	TD0142	S1VB-20	
C718	CQ2006	0.47μF 125WV	Fi	D718	TD0002	1N-4002	
C719	CQ2006	0.47μF 125WV	Fi	(Transistor)			
C720	CE1761	470μF 50WV	E1	Q701ab	TF0014	2SK-129A	
C721	CE1761	470μF 50WV	E1	Q702ab	TR0029	2SC-945	
(Switch)				Q703ab	TR0029	2SC-945	
SW701ab	SS0138	Slide, SSR22351D		Q704ab	TR0043	2SA-733	
SW702ab	SS0138	Slide, SSR22351D		Q705ab	TR0323	2SC-1845	
(Trimming Potentiometer)				Q706ab	TR0320	2SA-992	
VR701ab	RT0090	100Ω (B) SR1PR		Q707ab	TR0237	2SA-949	
VR702ab	RT0007	470Ω (B) SR1PR		Q708ab	TR0029	2SC-945	
(Fuse, Fuse Holder)				Q709ab	TR0236	2SC-2229	
F701	BF0206	5 x 20 0.5A(T)		Q710ab	TR0198	2SC-1815	
F702	BF0206	5 x 20 0.5A(T)		Q711ab	TR0087	2SA-1015	
F703	BF0206	5 x 20 0.5A(T)		Q712ab	TR0190	2SC-1624	
F701	AH0028	23165102-C		Q713ab	TR0188	2SA-814	
F702	AH0028	23165102-C		Q714ab	TR0295	2SC-2581	
F703	AH0028	23165102-C		Q715ab	TR0294	2SA-1106	
(Relay)				Q716	TR0029	2SC-945	
RY701	AY0046	GZ-12H		Q717	TR0029	2SC-945	
(Choke Coil)				Q718	TR0320	2SA-992	
L701ab	LA1004	LUX-1004-2M/mH		Q719	TR0029	2SC-945	
				Q720ab	TR0259	2SC-2120	
				(PCB Board)			
					PC1362	PB-1362	

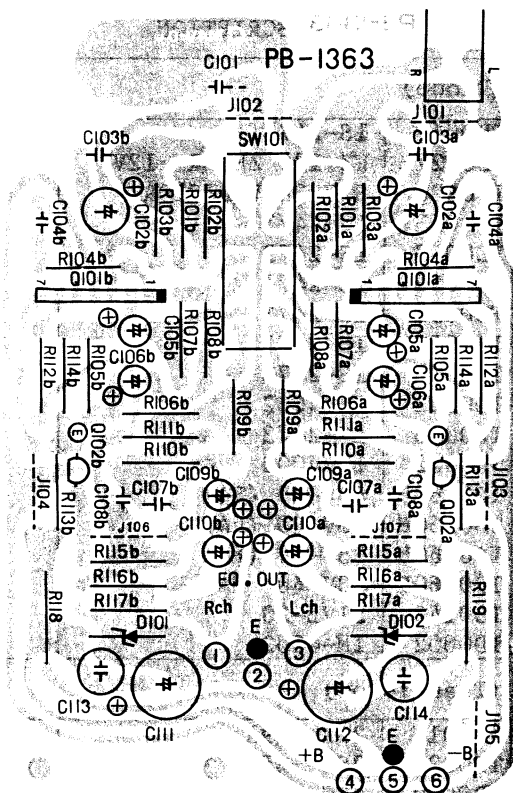
PB-1365(HEAD PHONE)



(Resistor)							
R302ab	RD0440	150K	1/3W	Rd			
R303ab	RD0440	150K	1/3W	Rd			
(DIN Connector)							
	AS0205	5P					
(PCB Board)							
	PD1363	PB-1363, 4, 5, 6					

PB-1363-1364 PARTS LIST

PB-1363-EQUOLIZER



SYMBOL NO.	STOCK NO.	DESCRIPTION			REMARK
(Resistor) Unit: Ω					
R101ab	RD0474	220	1/3W	Rd	
R102ab	RD0434	470K	1/3W	Rd	
R103ab	RD0446	47K	1/3W	Rd	
R104ab	RD0472	330	1/3W	Rd	
R105ab	RD0474	220	1/3W	Rd	
R106ab	RD0483	39	1/3W	Rd	
R107ab	RD0434	470K	1/3W	Rd	
R108ab	RD0434	470K	1/3W	Rd	
R109ab	RD0470	470	1/3W	Rd	
R110ab	RD0451	18K	1/3W	Rd	
R111ab	RD2137	200K	1/3W	Rd	
R112ab	RD0470	470	1/3W	Rd	
R113ab	RD0454	10K	1/3W	Rd	
R114ab	RD0456	6.8K	1/3W	Rd	
R115ab	RD0443	82K	1/3W	Rd	
R116ab	RD0469	560	1/3W	Rd	
R117ab	RD0438	220K	1/3W	Rd	
R118	RS2746LA	560	1W	Ro	
R119	RS2746LA	560	1W	Ro	

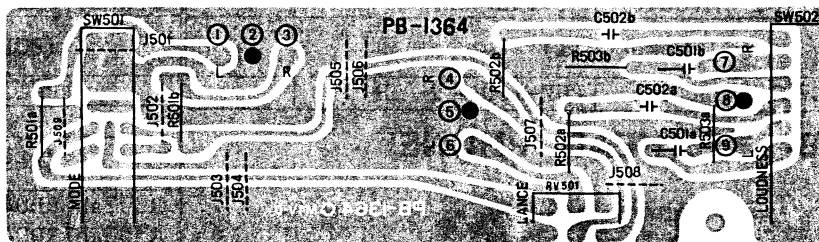
(Zener)					
D101	TD0210	BZ-260		26V	
D102	TD0210	BZ-260		26V	

(IC, Transistor)					
Q101ab	TC0179	M-5214L			
Q102ab	TR0320	2SA-992			

SYMBOL NO.	STOCK NO.	DESCRIPTION			REMARK
(Switch)					
SW101	SS0139	Slide, SSR-24351D			
(Capacitor)					
C101	CK0157	0.047 μ F	25WV	Ce	
C102ab	CE0781	22 μ F	35WV LR	E1	
C103ab	CC0006	47PF	50WV	Ce	
C104ab	CC0006	47PF	50WV	Ce	
C105ab	CE0784	0.33 μ F	50WV LR	E1	
C106ab	CE0784	0.33 μ F	50WV LR	E1	
C107ab	CQ1617	3900PF	50WV	My	

(PCB Board)					
	PD1363	PB-1363, 4, 5, 6			
(IC, Transistor)					
C108ab	CQ1618	0.015 μ F	50WV	My	
C109ab	CE1709	33 μ F	10WV	E1	
C110ab	CE0787	2.2 μ F	50WV LR	E1	
C111	CE1744	220 μ F	35WV	E1	
C112	CE1744	220 μ F	35WV	E1	
C113	CQ1441	6800PF	50WV	St	
C114	CQ1441	6800PF	50WV	St	

PB-1364-MODE, LOUDNESS, BALANCE CONTROL

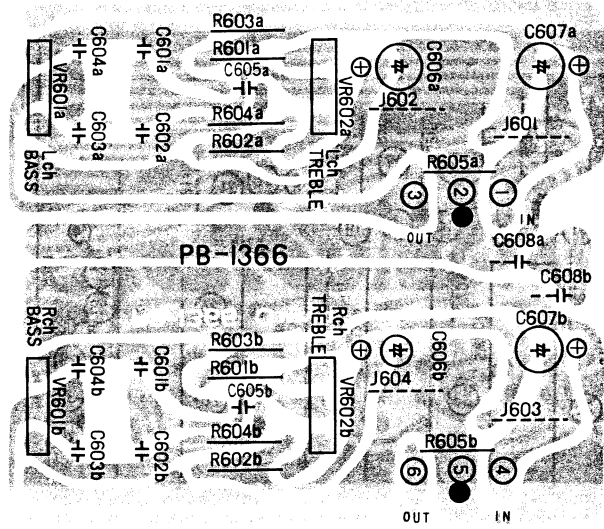


(Switch, Potentiometer)					
SW501ab	SP0182	Push, SUF-12(9250)			
SW502ab	SP0183	Push, SUFR-22			
VR501ab	RV0275	250K 1Z			

(Resistor, Capacitor, PCB Board)					
R501ab	RD0456	6.8K Ω	1/3W	Rd	
R503ab	RD0456	6.8K Ω	1/3W	Rd	
C501ab	CQ1323	0.068 μ F	50WV	My	
	PD1363	PB-1363, 4, 5, 6			

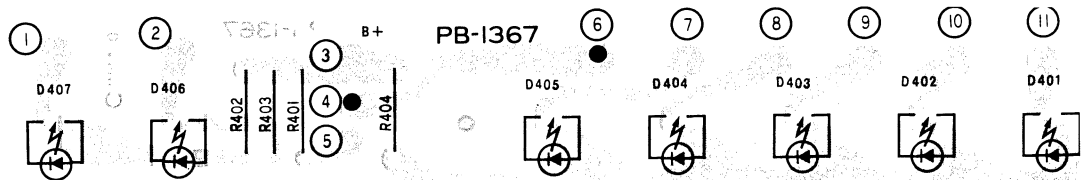
PB-1366 · 1367 · 1368 PARTS LIST

PB-1366-TONE CONTROL



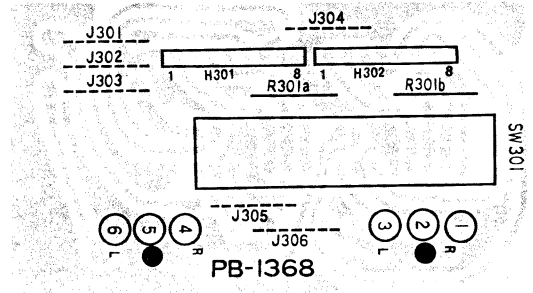
SYMBOL NO.	STOCK NO.	DESCRIPTION			REMARK
(Resistor) Unit: Ω					
R601ab	RD0463	1.8K	1/3W	Rd	
R602ab	RD0472	330	1/3W	Rd	
R603ab	RD0455	8.2K	1/3W	Rd	
R604ab	RD0464	1.5K	1/3W	Rd	
R605ab	RD0444	68K	1/3W	Rd	
(Capacitor)					
C601ab	CQ1308	3900PF	50WV	My	
C602ab	CQ1317	0.022 μ F	50WV	My	
C603ab	CQ1319	0.033 μ F	50WV	My	
C604ab	CQ1311	6800PF	50WV	My	
C605ab	CQ1323	0.068 μ F	50WV	My	
(Potentiometer)					
VR601ab	RV0276	50K Ω	C		
VR602ab	RV0276	50K Ω	C		
(PCB Board)					
	PD1363	PB-1363, 4, 5, 6			

PB-1367-LED, PILOT



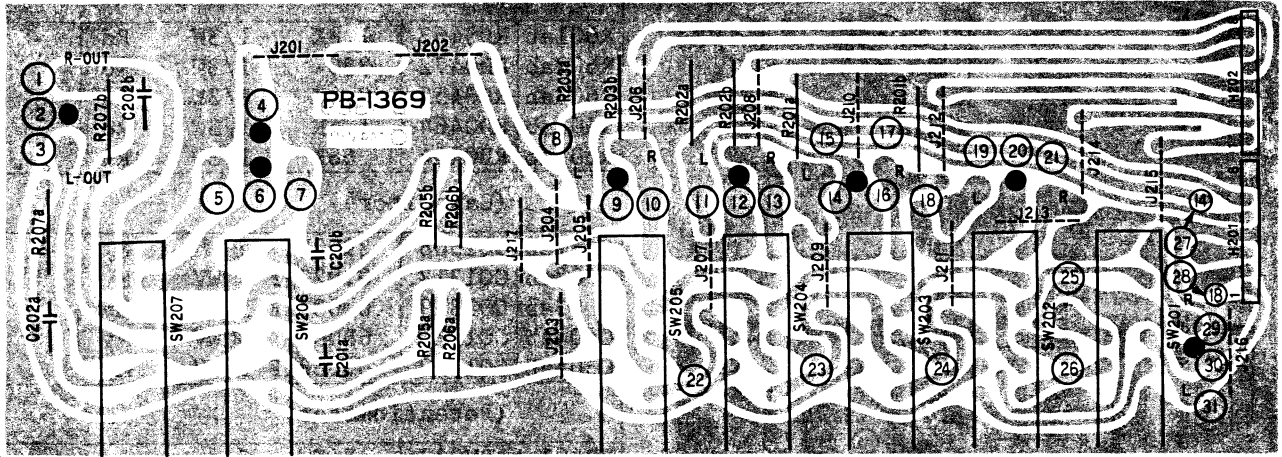
SYMBOL NO.	STOCK NO.	DESCRIPTION			REMARK
(Resistor) Unit: Ω					
R401	RD0463	1.8K	1/3W	Rd	
R402	RD0467	820	1/3W	Rd	
R403	RD0467	820	1/3W	Rd	
R404	RD0463	1.8K	1/3W	Rd	
(LED)					
D401	TD0222	SEL-1710K (YELLOW)			
D402	TD0222	SEL-1710K (YELLOW)			
D403	TD0222	SEL-1710K (YELLOW)			
D404	TD0222	SEL-1710K (YELLOW)			
D405	TD0222	SEL-1710K (YELLOW)			
D406	TD0223	SEL-1910A (ORANGE)			
D407	TD0223	SEL-1910A (ORANGE)			
(PCB Board)					
	PD1368	PB-1367, 8, 9			

PB-1368-REC SELECTOR



(Switch)					
SW301a					
SW301d	SR0152	Rotary, SRZW-46N			
(Resistor)					
R301ab	RD0430	1M Ω	1/3W	Rd	
(PCB Board)					
	PD1368	PB-1367, 8, 9			

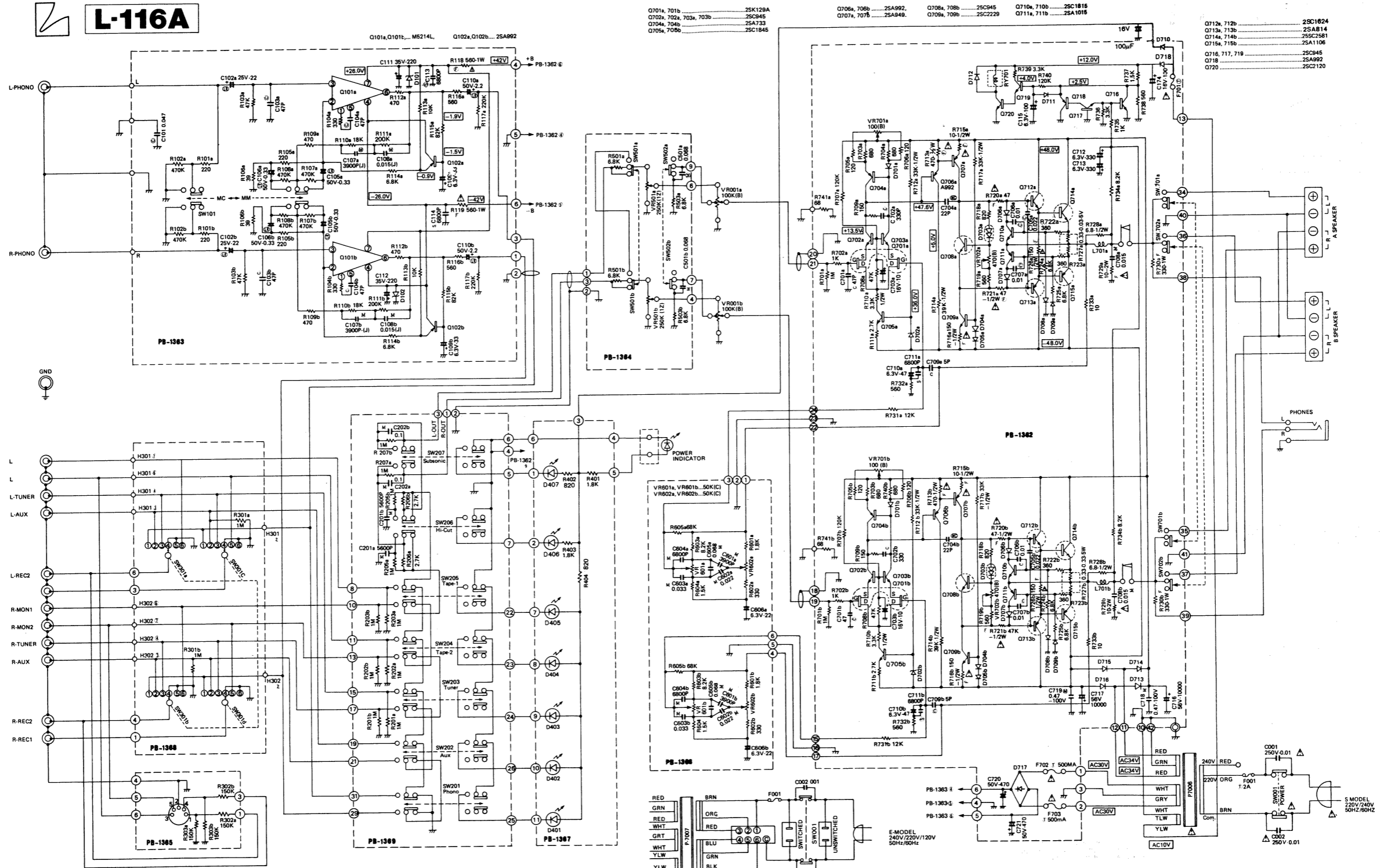
PB-1369-INPUT SELECTOR,HIGH CUT,SUBSONIC



PB-1369 PARTS LIST

SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK	SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK
(Resistor)				(Capacitor)			
R201ab	RD0430	1M 1/3W Rd		C201ab	CQ1310	5600PF 50WV My	
R202ab	RD0430	1M 1/3W Rd		C202ab	CQ1325	0.1µF 50WV My	
R203ab	RD0430	1M 1/3W Rd		(Switch)			
R205ab	RD0430	1M 1/3W Rd		SW201			
R206ab	RD0461	2.7K 1/3W Rd		SW207	SP0184	Push, SUF-73	
R207ab	RD0430	1M 1/3W Rd					
(PCB Board)							
	PD1368	PB-1367, 8, 9					

L-116A



NOTE

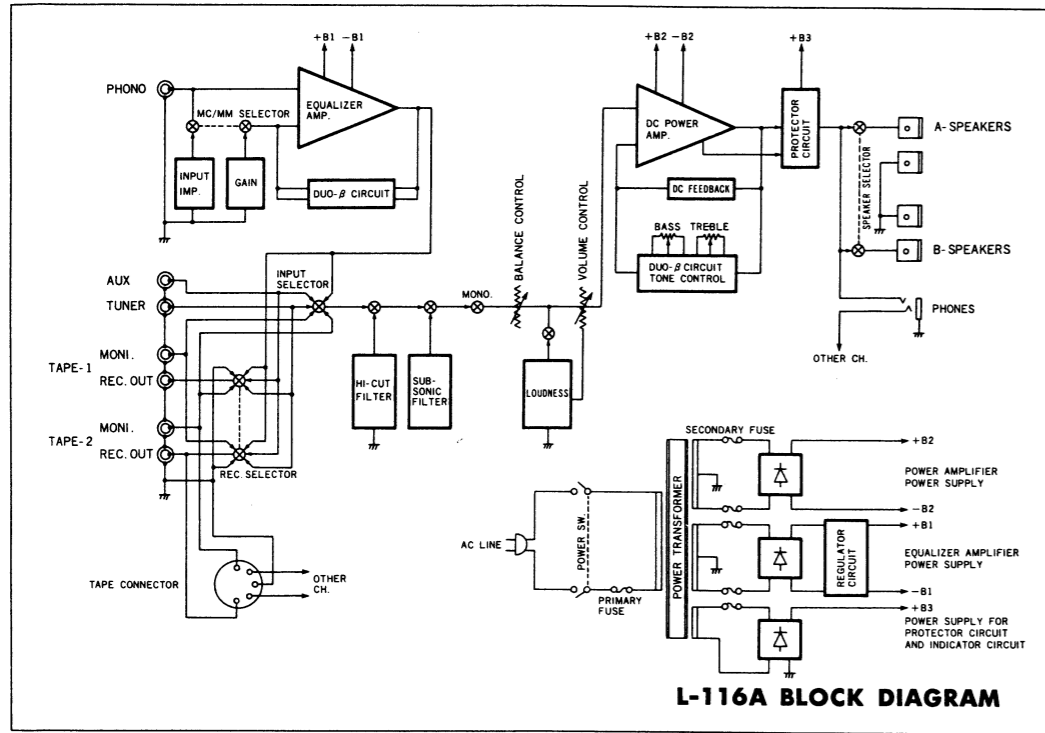
PCB. NO.	SELECTOR	SPEAKERS A	CONTROLLER
PB-1362	SW-701 (a, b)	SPEAKERS A	
PB-1362	SW-702 (a, b)	SPEAKERS B	
PB-1363	SW-101 (a, b, c, d)	MM/MC SELECTOR	
PB-1364	SW-501 (a, b)	MODE	VR-501 (a, b) BALANCE
PB-1364	SW-502 (a, b)	LOUDNESS	VR-601a, VR-601b BASS VR-602a, VR-601b TREBLE
PB-1368	SW-301 (a, b, c, d)	REC. SELECTOR	
PB-1369	SW-201, 202, 203, 204, 205	INPUT SELECTOR	
PB-1369	SW-206	HI-CUT FILTER	
PB-1369	SW-207	SUB-SONIC FILTER	VR-001 (a, b) VOLUME

- All resistors are in OHM, 1/4 - watt, unless otherwise specified.
- F Flame-proof resistors
- All Capacitors are in μF , unless otherwise specified.
- Electrolytic capacitors
- Polyester film capacitors, voltage rating 50v
- C Ceramic Capacitors, voltage rating 50v
- S Polystyrene film capacitors, voltage rating 50v.
- MC Dipped mica film capacitors, voltage rating 50v.
- LR Low-leak, electrolytic capacitors
- Transistors and Diodes may be replaced with any types having comparable ratings.
- DC voltage, no input signal
- Due to continued improvements LUX reserve the right to alter the design or the specifications.
- Symbol for Zener diode

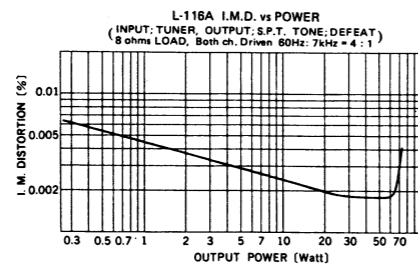
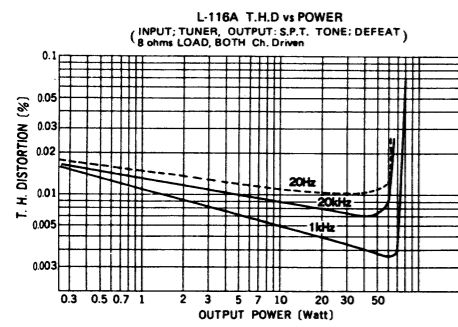
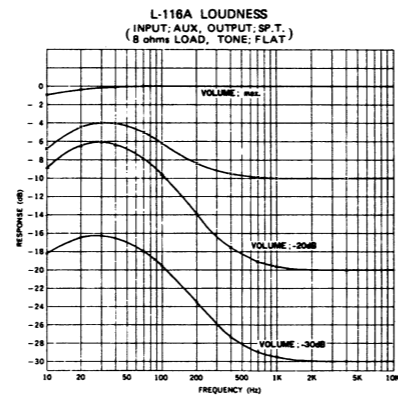
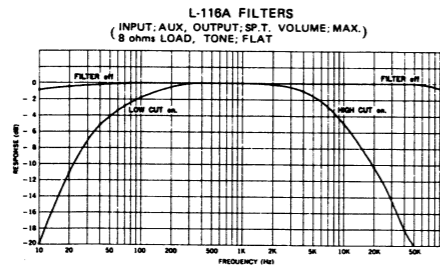
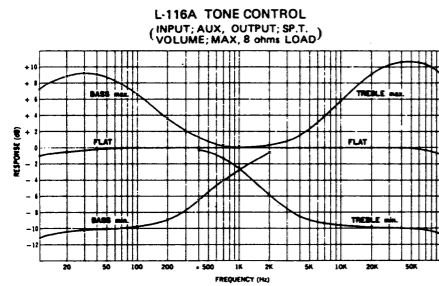
Bottom View	NPN	PNP	V _{ceo}	V _{ceo}	I _c DC I	P _c	T _j	IT (TYP) (NPN/PNP)
	2SC945	2SA733	60V	50V	100mA	250mW	125°C	250MHz/180MHz
	2SC1845	2SA992	120V	120V	50mA	500mW	125°C	110MHz/100MHz
	2SC2229	2SA949	150V	150V	50mA	800mW	150°C	120MHz/120MHz
	2SC2120	—	35V	30V	800mA	500mW	150°C	120MHz
	2SC2238	2SA968	160V	160V	1.5A	25W	150°C	100MHz/100MHz
	2SC2581	2SA1106	140V	140V	—	100W	150°C	—

Diodes	Symbol No.
IS2473	D701a, D701b, D704a, D704b, D707a, D705a, D705b, D706a, D706b, D707b, D708a, D708b, D709a, D709b, D711
WZ-120	D702a, D702b Zener diode
STV-2H	D703a, D703b Varistor
IN4002	D710, D718
SIVB-20	D717
S3V-40	D713, D714, D715, D716
BZ-260	D101, D102 Zener diode

BLOCK DIAGRAMME



STANDARD CURVES



LUX CORPORATION, JAPAN

1-1, 1-CHOME, SHINSENRI-NISHIMACHI, TOYONAKA-SHI, OSAKA
 PHONES: 06-834-0004 CABLE: LUXMAN TOYONAKA TELEX: J63694