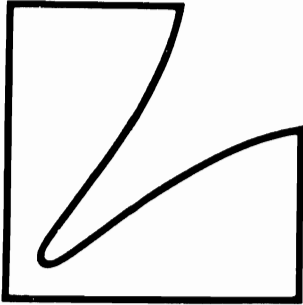
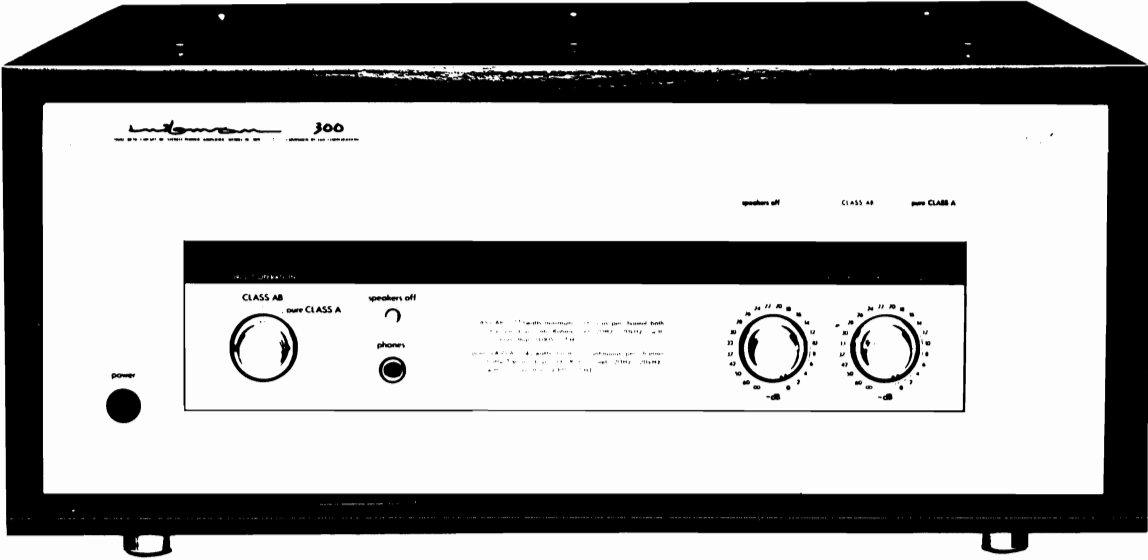


SERVICE MANUAL



DC STEREO POWER AMPLIFIER **M-300**



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REMARKS

- 1) The M-300 diversifies the original M-300 and M-300KA, whose difference exists in each regulator of the pre-driver stage, printed circuit board of the power stage and a part of the PB-1350.

Circuit	M-300	M-300KA
Regulator, Pre Driver	PB-1348	PB-1384
Power Stage	PB-1349	PB-1385
Capacitor Board	PB-1360	NON USE
Protector, Class Sel.	PB-1350	PB-1350

- 2) In this manual the parts, which differes depending on destination and mains voltage, are classified and indicated as follows:

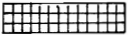

J: 100V for Japan
 A — AZ: 120V(With Line Voltage Selector) for U.S.A., South Asia, East Asia
 AK: 220V(With Line Voltage Selector) for Europe, South Asia, East Asia
 AG: 240V(With Line Voltage Selector) for England, Australia

M-300 ALIGNMENT PROCEDURES

Note that adjustment of Regulator and Idling Current on the M-300 is different from that of M-300KA since each set-up value is different.

1) Alignment of Regulator

Setting Conditions - Volume Control:	Minimum
Speaker Switch:	ON
Class Selector Switch:	Class AB

- Put on the Power Switch and adjust VR103(positive-going) and VR104 (negative-going) respectively to make these (+70V and -70V/M300, +61V and -61V/M300 KA) on the pattern shown in the (PB1348/M300, PB1384/M300 KA). (+Pattern: ) (-Pattern: )

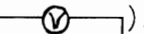
Remarks: Both channels should be adjusted since the mains parts of the right and left channels are independent.

2) Alignment of Center Voltage (DC offsets)

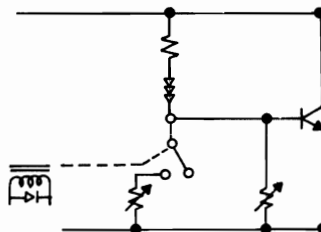
- Connect a high sensitivity DC volt meter to the speaker terminals after alignment of the regulator.
- With setting VR101 and VR102 of the (PB-1348/M300, PB-1384/M300KA) at around the middle point, connect the checking terminal, TP-2 to the "E" terminal.
- Put on the Speaker Switch.
- Adjust VR101 to make the DC volt meter connected to the speaker terminals 0V.
- Disconnect the TP-2 and the "E" terminal connected in the foregoing procedure (2) and adjust VR102 to make the DC volt meter 0V.

Remarks: This procedure should be done for both channels.

3) Alignment of Idling Current

- Put off the Speaker Switch.
- With turning VR201 and VR202 of the (PB1349/M300, PB1385/M300KA) counter-clockwise, connect a high sensitive DC volt meter to the idling checking terminals ().
- Adjust VR202 to make the volt meter connected to the idling checking terminals (19mV/M300, 17mV/M300KA).
- With switching over the Class Selector Switch to Class A position, adjust VR201 to make the volt meter connected to the idling checking terminal (170mV/M300, 140mV/M300KA). Reconfirm and readjust of idling current on Class A and AB respectively 10 minutes after the Power Switch has been put on.

Remarks: This procedure should be done for both channels. As shown in the circuit diagram here, the alignment on Class AB should be done at first since VR201 for Class A I_o adjustment is put in parallel with VR202 for Class AB I_o adjustment.



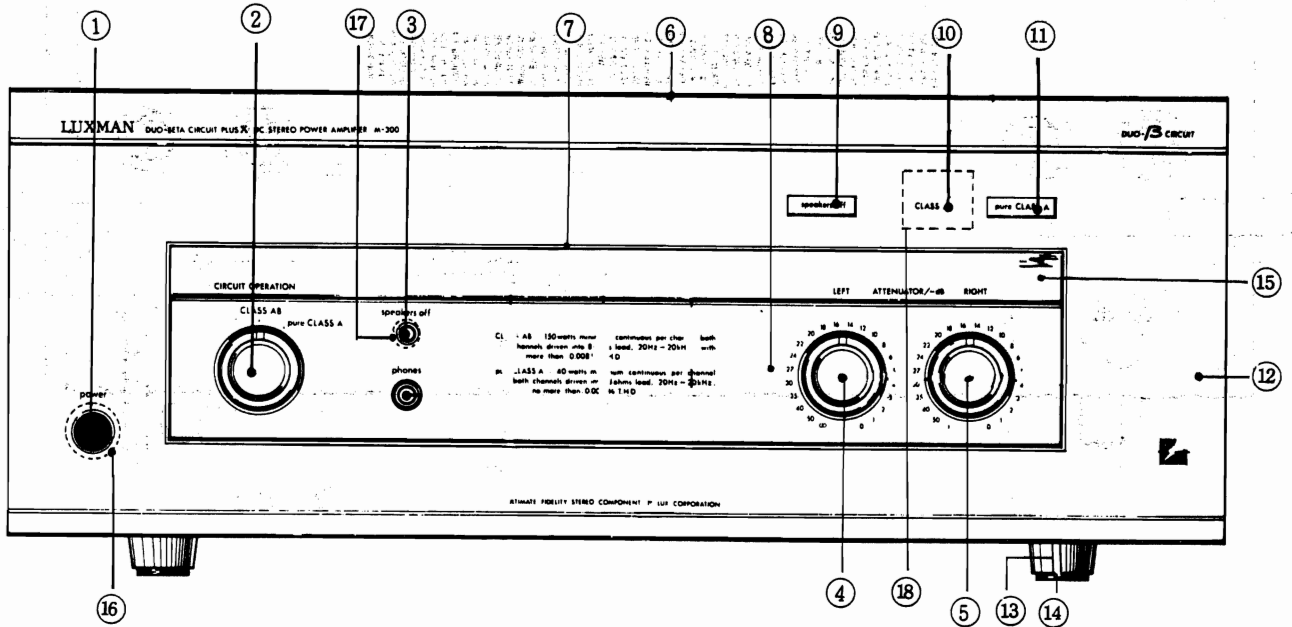
4) Alignment of Peak Indicator

Setting Conditions - Volume Control:	Maximum
Speaker Switch:	OFF
Class Selector Switch	Class A

- (1) With connecting an 8-ohm non-inductive load to the speaker terminals and applying 1 kHz sine wave input by an audio Signal Generator to the input terminals, adjust output voltage of the audio Signal Generator to make output voltage of the speaker terminals 18.5V.
- (2) Adjust VR401a.b.(L.R.) of the PB-1361 to put the peak indicators of left and right light up in red at 18.5V and in green at 18.3V.
- (3) Confirm that the peak indicators light up in red at 36.9V output voltage with the Class Selector Switch at Class AB.

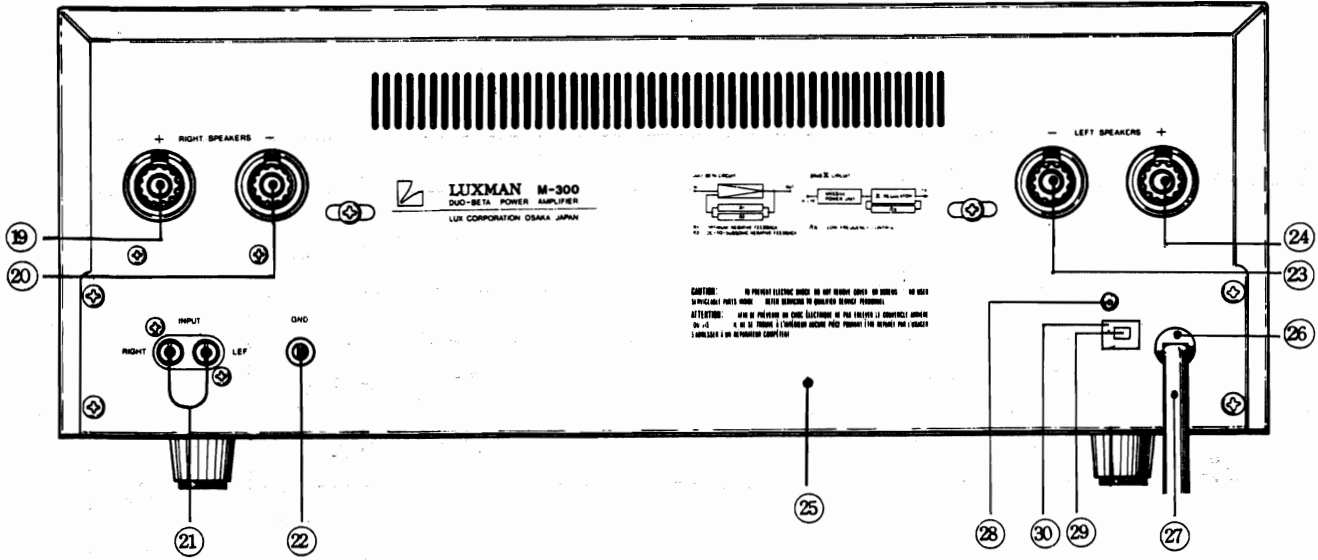
Remarks: Be careful not to break up all power transistors on both channels by short-circuiting between B-C or E-C with probes of a tester or a soldering iron when power transistors are replaced or checked since no resistors for discharge are incorporated in the B mains for the power supply and the capacitors are charged for a few hours after the Power Switch has been put off.

PARTS LIST (Cosmetic)
FRONT VIEW



SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK	SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK
(Knob)				(Enclosures, Front panel)			
1	WJ1090	Power Switch		*6	WB1091	Wooden Case	AZ.J
*2	WH1123-1	Circuit, Operation	AZ.J	*6	UG1031	Bonnet	AK.AG
*2	WH1123-2	Circuit, Operation	AK.AG	*6	UE1111	Bottom Plate	AK.AG
*3	WJ1133-1	Speaker, Off	AZ.J	7	WM1066	Dressing Plate	
*3	WJ1133-2	Speaker, Off	AK.AG	*8	WA1224-1	Front Panel 1224	J
*4	WJ1123-1	Volume Control, (L)	AZ.J	*8	WA1224-2	Front Panel 1224	A
*4	WJ1123-2	Volume Control, (R)	AK.AG	*12	WA1222-1	Front Panel 1222	J
*5	WJ1123-1	Volume Control, (L)	AZ.J	*12	WA1222-2	Front Panel 1222	A
*5	WJ1123-2	Volume Control, (R)	AK.AG	15	WE1096	Acrylic Plate 1096	
(Indication, Foot)				(Protector)			
9	WR1011-2	Speaker, Off		16	WE1051	Protector 1051	
10	WR1011-1	Class AB		17	WE1036	Protector 1036	
11	WR1011-3	Class A		18	WZ1134	Shade Paper 1134	
13	WN1019	Foot, Felt 1019					
14	WN1022	Foot, Metal, 1022					

REAR VIEW



SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK
(Terminal)			
19	AT5026B	Right Speaker, Red	
20	AT5026A	Right Speaker, Black	
21	AT0136	Input, 2P	
22	AG0110	GND	
23	AT5026A	Left Speaker, Black	
24	AT5026B	Left Speaker, Red	
(Rear Panel)			
*25	UC1193-1	Rear Panel 1193-1	J
*25	UC1193-2	Rear Panel 1193-2	A

SYMBOL NO.	STOCK NO.	DESCRIPTION	REMARK
(Line Phase Senser) J only			
*28	AL0001	Neon Lamp	J
*29	UZ1245	L.P.S. Terminal	J
*30	UZ1244	L.P.S. Housing	J
(Bushing, Power Cord)			
*26	BU0080	Bushing SKN-4	J
*26	BU0033	Bushing SR-4N-4	AR, AZ
*26	BU0039	Bushing SR-4N-4	AG
*27	BK0048	Power Cord VKF2.0MM	J
*27	BK0029	Power Cord 1337R	AR
*27	BK0023	Power Cord SAAMini	AG
*27	BK0019	Power Cord UP-720-001	AZ

MECHANISM

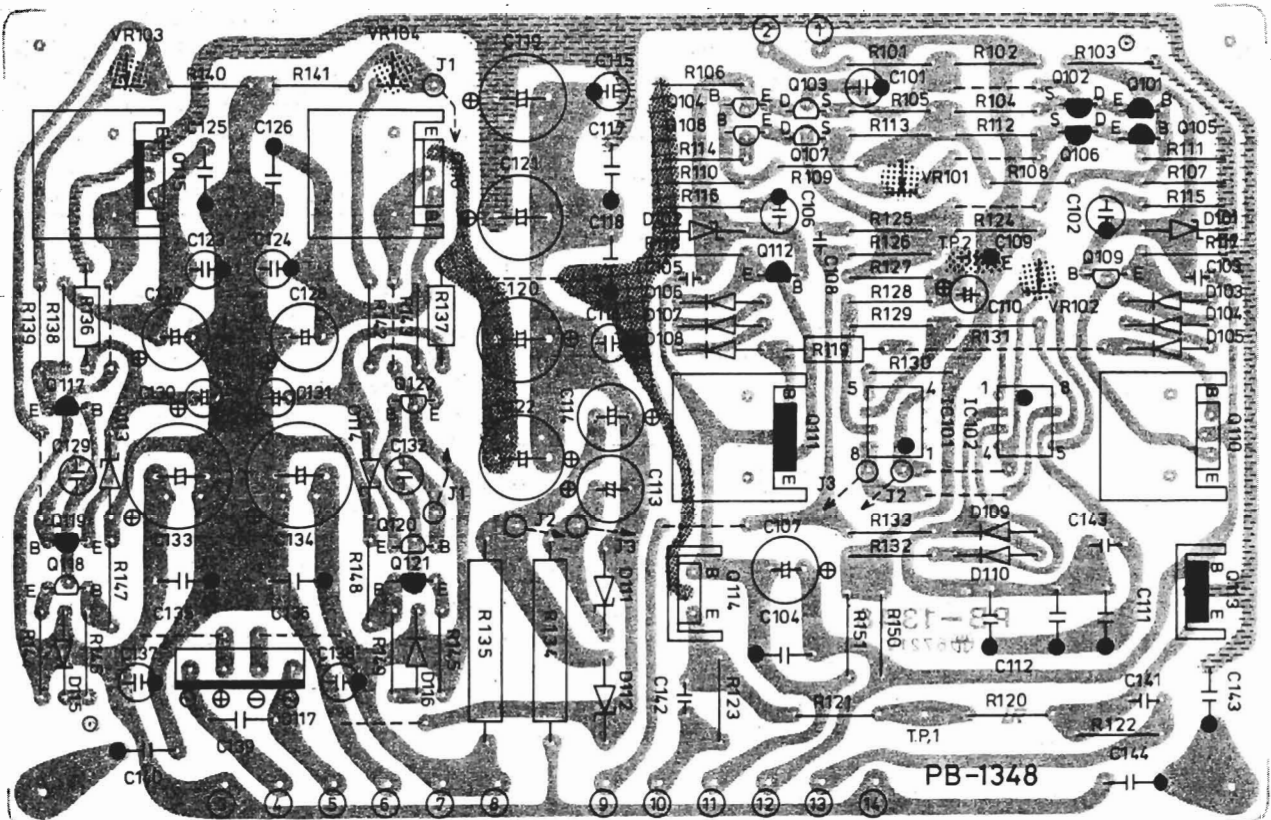
SYMBOL NO	STOCK NO	DESCRIPTION	REMARK	SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
(Potentiometer, Lamp)				(Resistor, Capacitor)			
VRO01ab	RV0273	50 K	Ⓢ	R001ab	RD2121	43 K Ω 0.33 W	RD
ST. BY	AL0063	12 V 75 MA	(G140)	R002	RG0031	6 Ω 20 W	Rc
ST. BY	AL0064	12 V 75 MA	(R230)	R003	RG0031	6 Ω 20 W	Rc
L-PEAK	AL0063	12 V 75 MA	(G140)	*R004	RDO100	2.2 M Ω 0.5 W	RD J
L-PEAK	AL0064	12 V 75 MA	(R230)	C001	CK0159	0.1 μ F 25 WV	Ce
R-PEAK	AL0063	12 V 75 MA	(G140)	C004ab	CE1911	12000 μ F 80 WV	EL
R-PEAK	AL0064	12 V 75 MA	(R230)	C005ab	CE1911	12000 μ F 80 WV	EL
SP. OFF	AL0065	12 V 75 MA	(B7-5)	*C006	CVO07	0.01 μ F 125 WV	Lp J
CLASS,A	AL0065	12 V 75 MA	(B7-5)	*C006	CU0040	0.01 μ F 250 WV	Lp A
CLASS,AB	AL0065	12 V 75 MA	(B7-5)	*C007	CU0007	0.01 μ F 125 WV	Lp J
				*C007	CU0040	0.01 μ F 250 WV	Lp A
(Switch)				(Line Voltage Selector, A Only)			
SW001	SR0151	Rotary SRF 1042N, Class Selector		*	AC0013	Socket M-1625	A
SW002	SP5037	Push SUF12 2N2, Speaker off		*	AC0014	Plug P-2120	A
*SW003	SP0037	Push SDG5P001-10A, Power SW					
*SW003	SP0090	Push SWSGD5P502, Power SW					
(Power Transformer)				(Transistor)			
*	PT2528	P-2528	J	Q206ab	TRO344	2SC-2921-0Y	
*	PT2527	P-2527	A	Q207ab	TRO343	2SA-1215-0Y	
				Q208ab	TRO344	2SC-2921-0Y	
				Q209ab	TRO343	2SA-1215-0Y	
				Q210ab	TRO344	2SC-2921-0Y	
				Q211ab	TRO343	2SA-1215-0Y	
(Packing material)				(Jack, Heatsink, Short Bar)			
*	WZ1150	Pad 1150	AG.AK	Phones	AJ0014	Hone Jack LJ264-1-7	
*	WZ1168	Pad 1150	AZ. J		BE1081	Heatsink 1081	
*	XA1280	Carton 1280	AG.Ak		UZ1243	Short Bar 1243	
*	XA1298	Carton 1298	AZ				
*	XA1298J	Carton 1298J	J				
*	XB1050	Tray Pad DC1050	AZ. J				
*	XD1031	Shock Absobing Pad B1031	AG.Ak				
*	XD1045	Shock Absobing Pad B1045	AZ. J				
*	MA0138	Owner's manial	J				
*	ME0195	Owner's manial	A				

PARTS LIST(P. C. B)

REMARKS

Capacitor: My...Mylar, El...Electrolytic, 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.

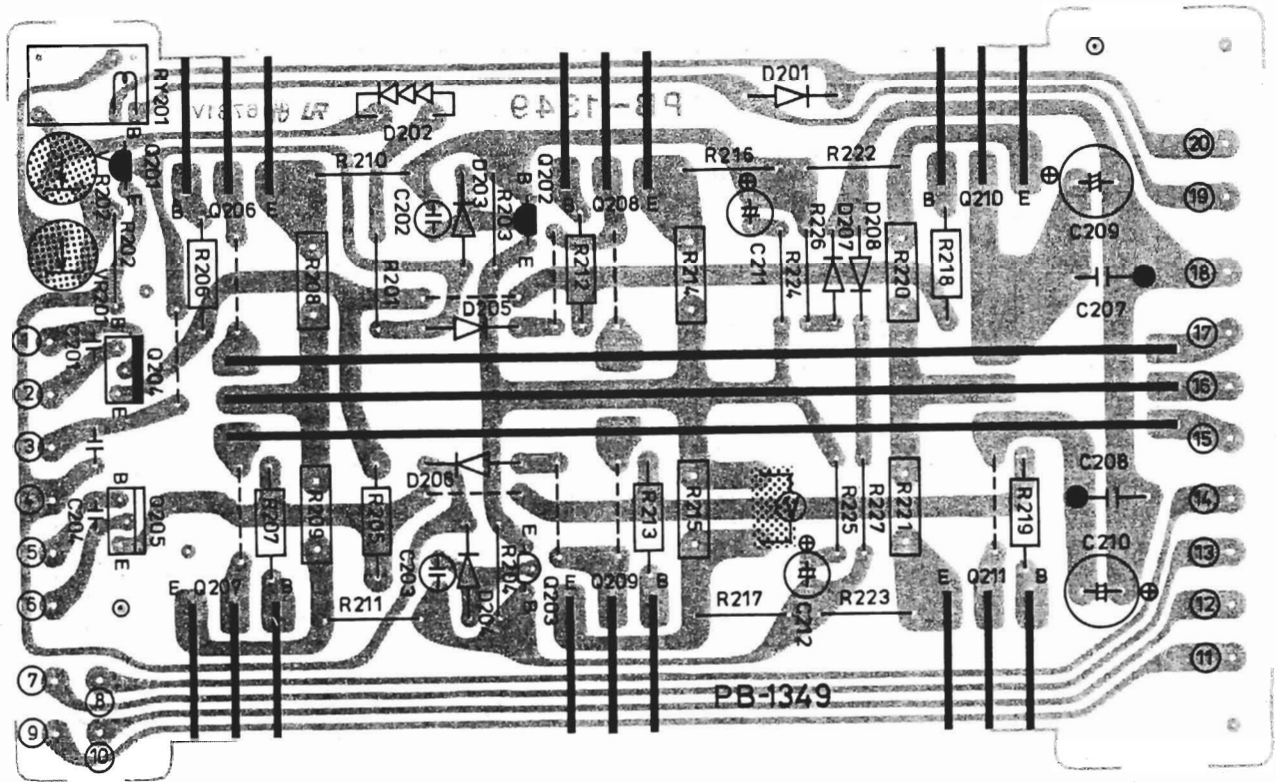
PB-1348.....(Pre Driver,Regulator) M-300 only



SYMBOL NO	STOCK NO	DESCRIPTION	REMARK	SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
(Capacitor)							
C101ab	CQ1218	120 PF 50 WV	St	C124ab	CQ1552	560 PF 125 WV	St
C102ab	CQ1219	2200 PF 50 WV	St	C125ab	CQ2006	0.47µF 125 WV	Fi
C103ab	CM0106	10 PF 500 WV	Mi	C126ab	CQ2006	0.47µF 125 WV	Fi
C104ab	CQ2008	1 µF 125 WV	Fi	C127ab	CQ2008	1 µF 125 WV	Fi
C105ab	CM0106	10 PF 500 WV	Mi	C128ab	CQ2008	1 µF 125 WV	Fi
C106ab	CQ1219	2200 PF 50 WV	St	C133ab	CE2011	100 µF 100 WV	AR EL
C107ab	CE1954	470 µF 16 WV	AR EL	C134ab	CE2011	100 µF 100 WV	AR EL
C108ab	CM0106	10 PF 500 WV	Mi	C135ab	CQ2008	1 µF 125 WV	Fi
C112ab	CQ2010	2.2 µF 125 WV	Fi	C136ab	CQ2008	1 µF 125 WV	Fi
C113ab	CE1952	220 µF 16 WV	AR EL	C137ab	CQ1552	560 PF 125 WV	St
C114ab	CE1952	220 µF 16 WV	AR EL	C138ab	CQ1552	560 PF 125 WV	St
C115ab	CQ1552	560 PF 125 WV	St	C140ab	CQ2006	0.47 µF 125 WV	Fi
C116ab	CQ1552	560 PF 125 WV	St	C143ab	CQ1201	560 PF 50 WV	St
C117ab	CQ2006	0.47 µF 125 WV	Fi	C151ab	CQ1201	560 PF 50 WV	St
C118ab	CQ2006	0.47 µF 125 WV	Fi	C152ab	CQ1201	560 PF 50 WV	St
C119ab	CE2011	100 µF 100 WV	AR EL	C153ab	CQ2006	0.47 µF 125 WV	Fi
C120ab	CE2011	100 µF 100 WV	AR EL	C154ab	CQ1201	560 PF 50 WV	St
C121ab	CE2011	100 µF 100 WV	AR EL	C155ab	CQ2006	0.47 µF 125 WV	Fi
C122ab	CE2011	100 µF 100 WV	AR EL	C156ab	CQ1200	100 PF 50 WV	St
C123ab	CQ1552	560 PF 125 WV	St	C157ab	CQ0294	100 PF 125 WV	St

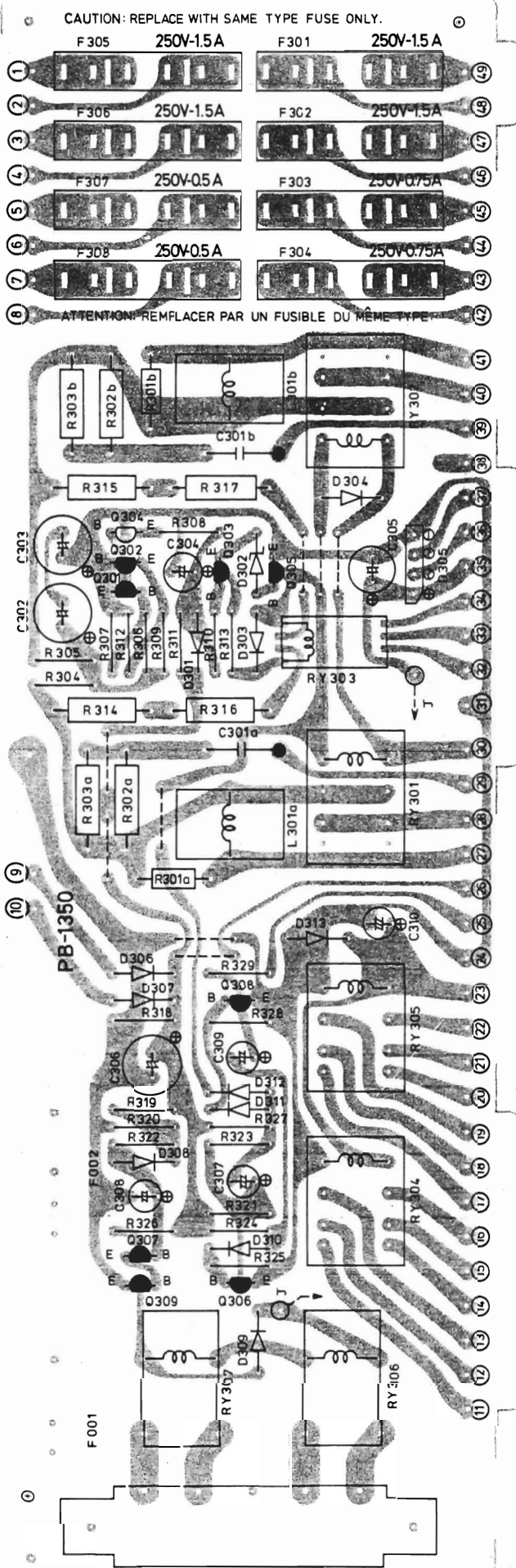
SYMBOL NO	STOCK NO	DESCRIPTION	REMARK	SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
(Resistor) Unit: Ω							
R101ab	RBO174	47 0.25 W RD		R126ab	RDO112	18 K 0.5 W RD	
R102ab	RDO430	1 M 0.33 W RD		R127ab	RDO455	8.2 K 0.33 W RD	
R103ab	RDO470	470 0.33 W RD		R128ab	RDO451	18 K 0.33 W RD	
R104ab	RDO482	47 0.33 W RD		R129ab	RDO451	18 K 0.33 W RD	
R105ab	RDO482	47 0.33 W RD		R130ab	RDO457	5.6 K 0.33 W RD	
R106ab	RDO470	470 0.33 W RD		R131ab	RDO455	8.2 K 0.33 W RD	
R107ab	RDO436	330 K 0.33 W RD		R133ab	RDO430	1 M 0.33 W RD	
R108ab	RDO448	33 K 0.33 W RD		R134ab	RS5014L	4.7 K 3 W Ro	
R109ab	RDO448	33 K 0.33 W RD		R135ab	RS5014L	4.7 K 3 W Ro	
R110ab	RDO436	330 K 0.33 W RD		R136ab	RS5025L	10 K 1 W Ro	
R111ab	RDO470	470 0.33 W RD		R137ab	RS5025L	10 K 1 W Ro	
R112ab	RDO478	101 0.33 W RD		R138ab	RS1265	22 0.33 W Ro	
R113ab	RDO478	101 0.33 W RD		R140ab	RDO454	10 K 0.33 W RD	
R114ab	RDO470	470 0.33 W RD		R141ab	RDO454	10 K 0.33 W RD	
R115ab	RDO481	56 0.33 W RD		R143ab	RS1265	22 0.33 W Ro	
R116ab	RDO481	56 0.33 W RD		R144ab	RS1284	150 0.33 W Rf	
R117ab	RS1279	82 0.33 W Ro		R145ab	RS1284	150 0.33 W Rf	
R118ab	RS1279	82 0.33 W Ro		R146ab	RS1231	270 0.33 W Rf	
R119ab	RS5037L	56 K 1 W Ro		R147ab	RDO110	39 K 0.5 W RD	
R120ab	RS1286	180 0.33 W Ro		R148ab	RDO110	39 K 0.5 W RD	
R121ab	RS1286	180 0.33 W Ro		R149ab	RS1231	270 0.33 W Rf	
R122ab	RS1281	100 0.33 W Rf		R152ab	RDO443	82 K 0.25 W RD	
R123ab	RS1281	100 0.33 W Rf		R153ab	RDO443	82 K 0.25 W RD	
R124ab	RDO470	470 0.33 W RD		R154ab	RDO443	82 K 0.25 W RD	
R125ab	RDO129	1.5 K 0.5 W RD		R155ab	RDO443	82 K 0.25 W RD	
(Diode)				(IC, FET, Transistor)			
D101ab	TD0044	WZ052 ZENER 5.2V		IC101ab	TC0025	IC NJM4558DD	
D102ab	TD0044	WZ052 ZENER 5.2V		IC102ab	TC0180	IC LF13741	
D103ab	TD0053	1S-2473		Q101ab	TR5004	2SC-2240	
D104ab	TD0053	1S-2473		Q102ab	TF0028	2SK-170-BL-PAIR	
D105ab	TD0053	1S-2473		Q103ab	TF0029	2SJ-74-BL-PAIR	
D106ab	TD0053	1S-2473		Q104ab	TR5005	2SA-970	
D107ab	TD0053	1S-2473		Q105ab	TR5004	2SC-2240	
D108ab	TD0053	1S-2473		Q106ab	TF0028	2SK-170-BL-PAIR	
D109ab	TD0053	1S-2473		Q107ab	TF0029	2SJ-74-BL-PAIR	
D110ab	TD0053	1S-2473		Q108ab	TR5005	2SA-970	
D111ab	TD0079	WZ-140 ZENER 14V		Q109ab	TR0332	2SA-857-V	
D112ab	TD0079	WZ-140 ZENER 14V		Q110ab	TR0342	2SA-899-BV	
D113ab	TD0044	WZ-052 ZENER 5.2V		Q111ab	TR0318	2SC-1904-BV	
D114ab	TD0044	WZ-052 ZENER 5.2V		Q112ab	TR0331	2SC-1438-V	
D115ab	TD0053	1S-2473		Q113ab	TR0318	2SC-1904-BV	
D116ab	TD0053	1S-2473		Q114ab	TR0342	2SA-899-BV	
D117ab	TD0215	UB-152		Q115ab	TR0191	2SC-1625	
(Trimming Potentiometer)				Q116ab	TR0189	2SA-815	
VR101ab	RT0102	220 Ω (B)		Q117ab	TR5004	2SC-2240	
VR102ab	RT0049	10 K. Ω (B)		Q118ab	TR5005	2SA-970	
VR103ab	RT0017	47 K. Ω (B)		Q119ab	TR5004	2SC-2240	
VR104ab	RT0017	47 K. Ω (B)		Q120ab	TR5005	2SA-970	
(PCB Board)				Q121ab	TR5004	2SC-2240	
	PC1348	PB-1348		Q122ab	TR5005	2SA-970	

PB-1349.....(Power Amp) M-300 only



SYMBOL NO	STOCK NO	DESCRIPTION	REMARK	SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
(Resistor) Unit:Ω							
R201ab	RD0468	680 0.25 W	RD	R213ab	RS296L	4.7 1 W	Ro
R202ab	RD0467	150 0.25 W	RD	R214ab	RG0075	0.22 5 W	Rc
R203ab	RD0139	100 0.5 W	RD	R215ab	RG0075	0.22 5 W	Rc
R204ab	RD0139	100 0.5 W	RD	R216ab	RD0133	560 0.5 W	RD
R205ab	RS2717L	100 1 W	Ro	R217ab	RD0133	560 0.5 W	RD
R206ab	RS2696L	4.7 1 W	Ro	R218ab	RS2696L	4.7 1 W	Ro
R207ab	RS2696L	4.7 1 W	Ro	R219ab	RS2696L	4.7 1 W	Ro
R208ab	RG0075	0.22 5 W	Rc	R220ab	RG0075	0.22 5 W	Rc
R209ab	RG0075	0.22 5 W	Rc	R221ab	RG0075	0.22 5 W	Rc
R210ab	RD0133	560 0.5 W	RD	R222ab	RD0133	560 0.5 W	RD
R211ab	RD0133	560 0.5 W	RD	R223ab	RD0133	560 0.5 W	RD
R212ab	RS2696L	4.7 1 W	Ro	(Diode)			
(Capacitor)				D201ab	TD0002	1N-4002	
C201ab	CM0125	47 PF 500 WV	Mi	D202ab	TV0020	STV-3H	
C202ab	CQ0170	470 PF 50 WV	St	D203ab	TD0053	1S-2473	
C203ab	CQ0170	470 PF 50 WV	St	D204ab	TD0053	1S-2473	
C204ab	CM0125	47 PF 500 WV	Mi	D205ab	TD5025	1S-2462	
C207ab	CQ2010	2.2 μF 125 WV	Fi	D206ab	TD5025	1S-2462	
C208ab	CQ2010	2.2 μF 125 WV	Fi	(Transistor)			
C209ab	CE2003	22 μF 100 WV AR	EL	Q201ab	TR5004	2SC-2240	
C210ab	CE2003	22 μF 100 WV AR	EL	Q202ab	TR5004	2SC-2240	
(Trimming Potentiometer)				Q203ab	TR5005	2SA-970	
VR201ab	RT0020	330 Ω (B)		Q204ab	TRO242	2SC-2336	
VR202ab	RT0020	330 Ω (B)		Q205ab	TRO241	2SA-1006	
(Relay)				(PCB Board)			
RY201ab	AY0042	BR211BB012-M (12V)			PC1349	PB-1349	

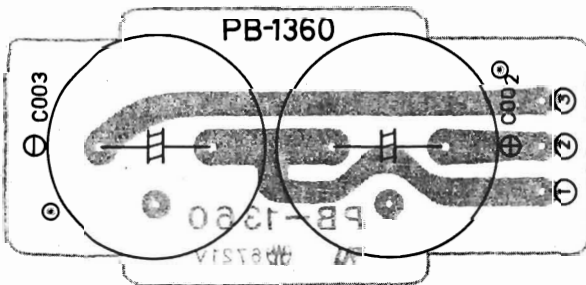
PB-1350.....(Protector, Class A. AB. Selector Relay)



SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
(Fuse holder)			
* F001	AH0016	X-N1157	J
* F001	AH0019	X-N1153	A
* F002	AH0016	X-N1157	J
* F002	AH0019	X-N1153	A
* F301	AH0029	YSH-401T	J
* F301	AH0028	23165102-C	A
* F302	AH0029	YSH-401T	J
* F302	AH0028	23165102-C	A
* F303	AH0029	YSH-401T	J
* F303	AH0028	23165102-C	A
* F304	AH0029	YSH-401T	J
* F304	AH0028	23165102-C	A
* F305	AH0029	YSH-401T	J
* F305	AH0028	23165102-C	A
* F306	AH0029	YSH-401T	J
* F306	AH0028	23165102-C	A
* F307	AH0029	YSH-401T	J
* F307	AH0028	23165102-C	A
(Fuse)			
* F001	BF0401	FGT40 125V-10A	J
* F001	BF0212	5X20 3.15A(T)	AK.AG
* F001	BF0215	5X20 6.3 A(T)	AZ
* F002	BF0401	FGT40 125V-10A	J
* F002	BF0212	5X20 3.15A(T)	AK.AG
* F002	BF0215	5X20 6.3 A(T)	AZ
* F301	BF0114	MF60NR-1.5A	J
* F301	BF0206	5X20 0.5 A(T)	A
* F302	BF0114	MF60NR-1.5A	J
* F302	BF-206	5X20 0.5 A(T)	A
* F303	BF0112	MF60NR-0.75A	J
* F303	BF0206	5X20 0.5A(T)	A
* F304	BF0112	MF60NR-0.75A	J
* F304	BF0206	5X20 0.5 A(T)	A
* F305	BF0114	MF60NR-1.5A	J
* F305	BF0206	5X20 0.5A(T)	A
* F306	BF0114	MF60NR-1.5A	J
* F306	BF0206	5X20 0.5A(T)	A
* F307	BF0111	MF60NR-0.5A	J
* F307	BF0206	5X20 0.5A(T)	A
* F308	BF0111	MF60NR-0.5A	J
* F308	BF0206	5X20 0.5A(T)	A
(Diode)			
D301	TD0053	1S-2473	
D302	TD0023	WZ-071 ZENER 7.1V	M-300
	TD0044	WZ-052 ZENER 5.2V	M-300KA
D303	TD0002	1N-4002	
D304	TD0002	1N-4002	
D305	TD0139	SIV-B20	
D306	TD0002	1N-4002	
D307	TD0002	1N-4002	
D308	TD0053	1S-2473	
D309	TD0002	1N-4002	
D310	TD0053	1S-2473	
D311	TD0053	1S-2473	
D312	TD0018	1K-188FM-1	
D313	TD0002	1N-4002	

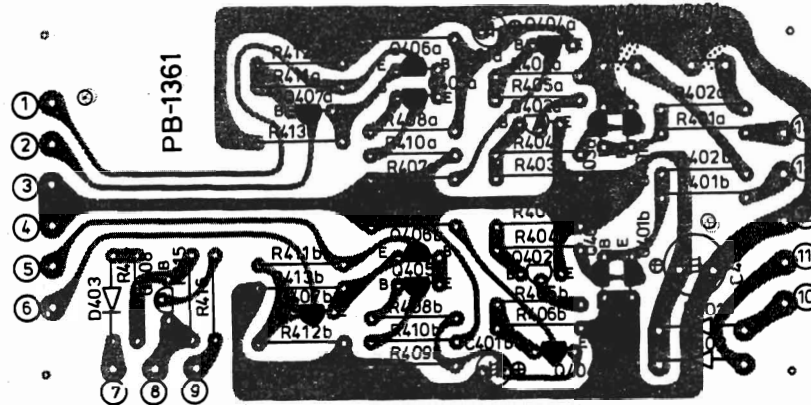
SYMBOL NO	STOCK NO	DESCRIPTION	REMARK	SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
(Resistor) Unit: Ω							
R301ab	RS2709L	10 1 W. Ro		R315	RS2568L	220 2 W. Ro	
R302ab	RS2569L	22 2 W. Ro		R316	RS2568L	220 2 W. Ro	
R303ab	RS2569L	22 2 W. Ro		R317	RS2568L	220 2 W. Ro	
R304	RDO447	39 K. 0.33 W. RD		R318	RDO119	3.3 K. 0.5 W. RD	
R305	RDO447	39 K. 0.33 W. RD		R319	RDO458	4.7 K. 0.33 W. RD	
R306	RDO458	47 K. 0.33 W. RD		R320	RDO464	1.5 K. 0.33 W. RD	
R307	RDO455	8.2 K. 0.33 W. RD		R321	RDO464	1.5 K. 0.33 W. RD	
R308	RDO475	180 0.33 W. RD		R322	RDO442	100 K. 0.33 W. RD	
R309	RDO450	22 K. 0.33 W. RD		R323	RDO458	4.7 K. 0.33 W. RD	
R310	RDO454	10 K. 0.33 W. RD		R324	RD450	22 K. 0.33 W. RD	
R311	RDO443	82 K. 0.33 W. RD		R325	RDO430	1 M. 0.33 W. RD	
R312	RDO446	47 K. 0.33 W. RD		R326	RDO461	2.7 K. 0.33 W. RD	
R313	RDO459	3.9 K. 0.33 W. RD		R327	RDO451	18 K. 0.33 W. RD	
R314	RS2568L	220 2 W. RD		R328	RDO430	1 M. 0.33 W. RD	
(Capacitor)				(Transistor)			
C301ab	CU0007	0.01 μ F 250 WV LP		Q301	TRO029	2SC-945	
C302	CE1735	470 μ F 25 WV EL		Q302	TRO029	2SC-945	
C303	CE1735	470 μ F 25 WV EL		Q303	TRO029	2SC-945	
C304	CE1721	100 μ F 16 WV EL	M300	Q304	TRO043	2SA-733	
	CE1722	220 μ F 16 WV EL	M300KA	Q305	TRO264	2SC-2235	
C305	CE1745	330 μ F 35 WV EL		Q306	TRO029	2SC-945	
C306	CE1735	470 μ F 25 WV EL		Q307	TRO029	2SC-945	
C307	CE1730	33 μ F 25 WV EL		Q308	TRO264	2SC-2235	
C308	CE1728	10 μ F 25 WV EL		Q309	TRO264	2SC-2235	
C309	CE1730	33 μ F 25 WV EL		(Relay)			
C310	CE1740	47 μ F 50 WV EL		RY301	AY1016	G2W-1112P-VDC 12V	
C311	CK0195	0.01 μ F 500 WV Ce		RY302	AY1016	G2W-1112P-VDC 12V	
C312	CK0195	0.01 μ F 500 WV Ce		RY303	AY0033	FRL-644 24V	
C313	CK0195	0.01 μ F 500 WV Ce		RY304	AY0022	MAT2B-CR 24V	
C314	CK0195	0.01 μ F 500 WV Ce		RY305	AY0022	MAT2B-CR 24V	
C315	CK0195	0.01 μ F 500 WV Ce		RY306	AY0022	MAT2B-CR 24V	
C316	CK0195	0.01 μ F 500 WV Ce		RY307	AY0022	MAT2B-CR 24V	
C317	CK0195	0.01 μ F 500 WV Ce		(PCB Board)			
C318	CK0195	0.01 μ F 500 WV Ce			PC1350	PB-1350	
(Choke Coil)							
L301ab	LA9430	LUX-9430					

PB-1360.....(Capacitor Board) M-300 only



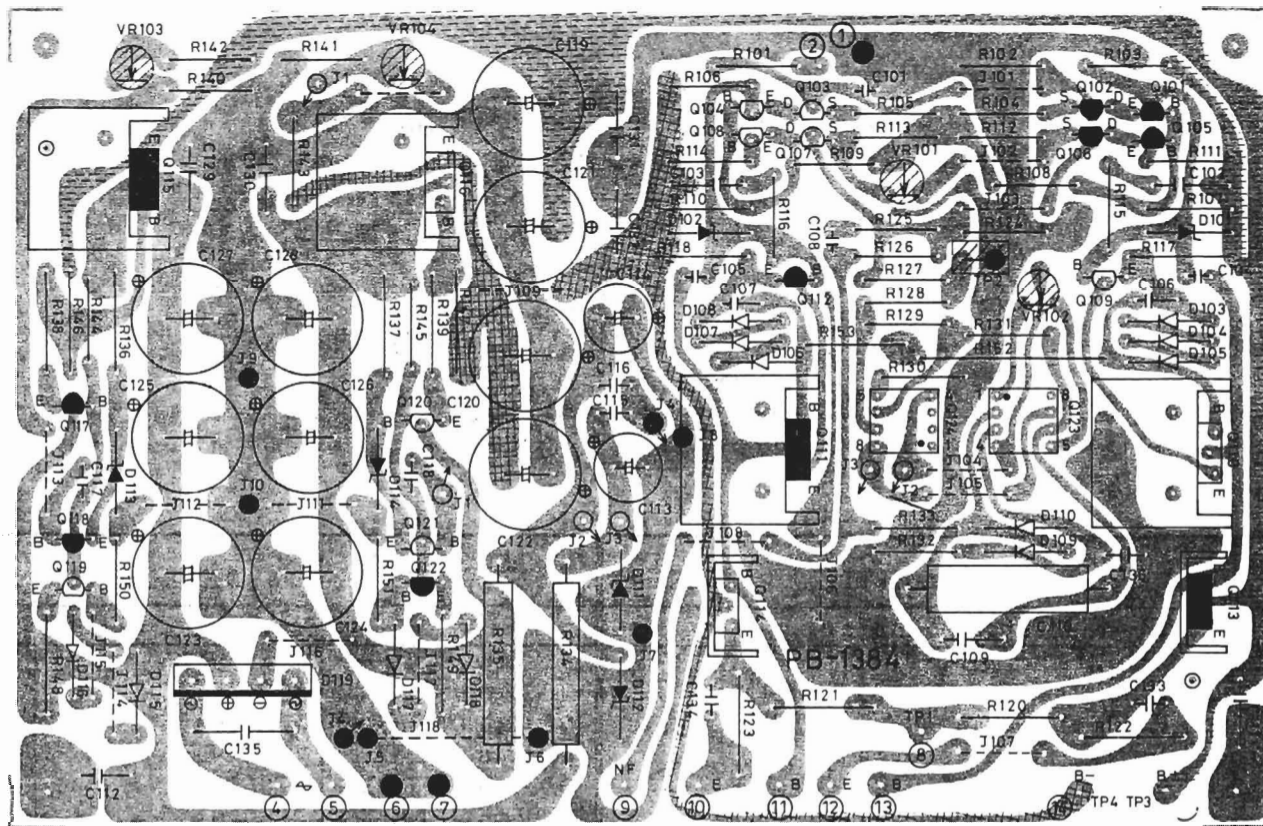
(Capacitor)							
C002ab	CE1913	2200 μ F 100V	EL				
C003ab	CE1913	2200 μ F 100V	EL				
(PCB Board)							
	PC1360	PB-1360					

PB-1361.....(Peak Pilot)



SYMBOL NO	STOCK NO	DESCRIPTION	REMARK	SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
(Resistor) Unit: Ω				(Transistor)			
R401ab	RDO447	39 K. 0.25 W RD		Q401ab	TR0029	2SC-945	
R402ab	RDO469	560 0.25 W RD		Q402ab	TR0043	2SA-733	
R403ab	RDO450	22 K. 0.25 W RD		Q403ab	TR0029	2SC-945	
R404ab	RDO467	820 0.25 W RD		Q404ab	TR0029	2SC-945	
R405ab	RDO458	4.7 K. 0.25 W RD		Q405ab	TR0029	2SC-945	
R406ab	RDO450	22 K. 0.25 W RD		Q406ab	TR0029	2SC-945	
R407ab	RDO486	22 0.25 W RD		Q407ab	TR0264	2SC-2235	
R408ab	RDO442	100 K. 0.25 W RD		Q408	TR0043	2SA-733	
R410ab	RDO458	4.7 K. 0.25 W RD		(Diode)			
R411ab	RDO458	4.7 K. 0.25 W RD		D401	TD0002	1N-4002	
R412ab	RDO450	22 K. 0.25 W RD		D402	TD0002	1N-4002	
R414	RDO458	4.7 K. 0.25 W RD		D403	TD0053	1S-2473	
R415	RDO450	22 K. 0.25 W RD		(Capacitor)			
(Trimming Potentiometer)				C401ab	CE1749	47 μ F 50WV E1	
VR401ab	RTO014	470 Ω (B)		C402	CE1739	330 μ F 25WV E1	
(PCB Board)							
	PC1361	PB-1361					

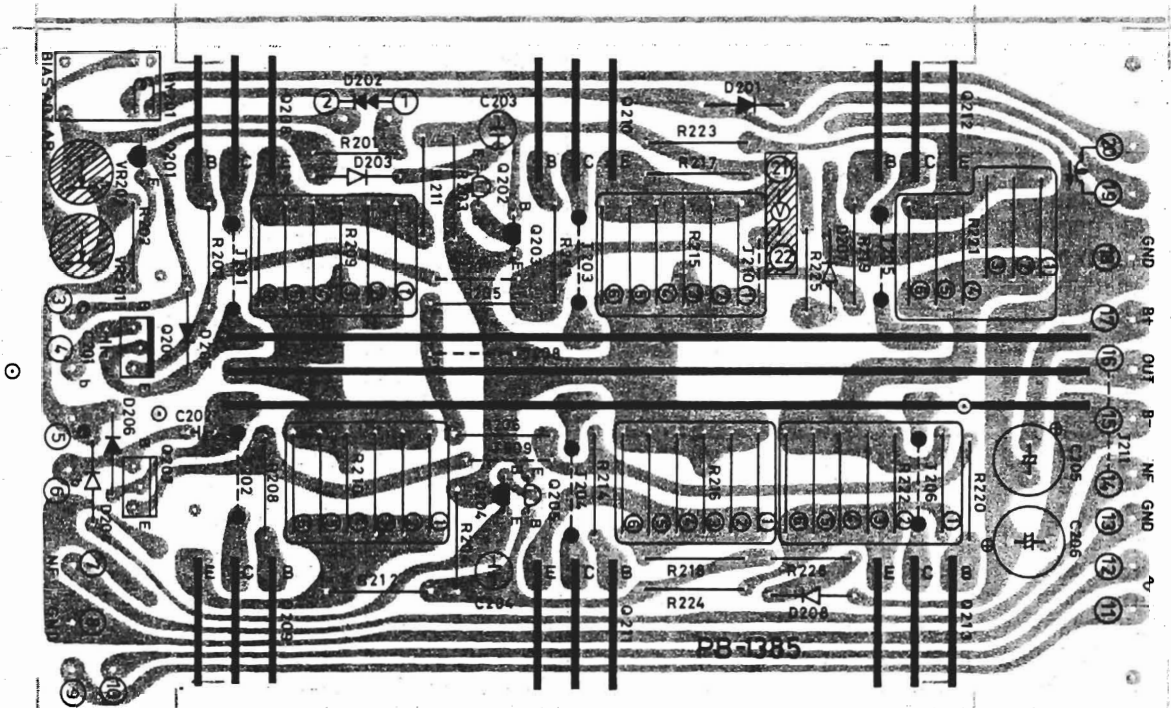
PB-1384.....(Pre Driver,Regulator) M300KA only



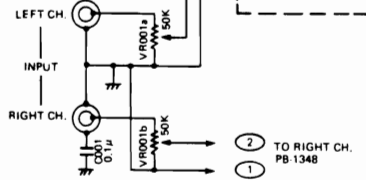
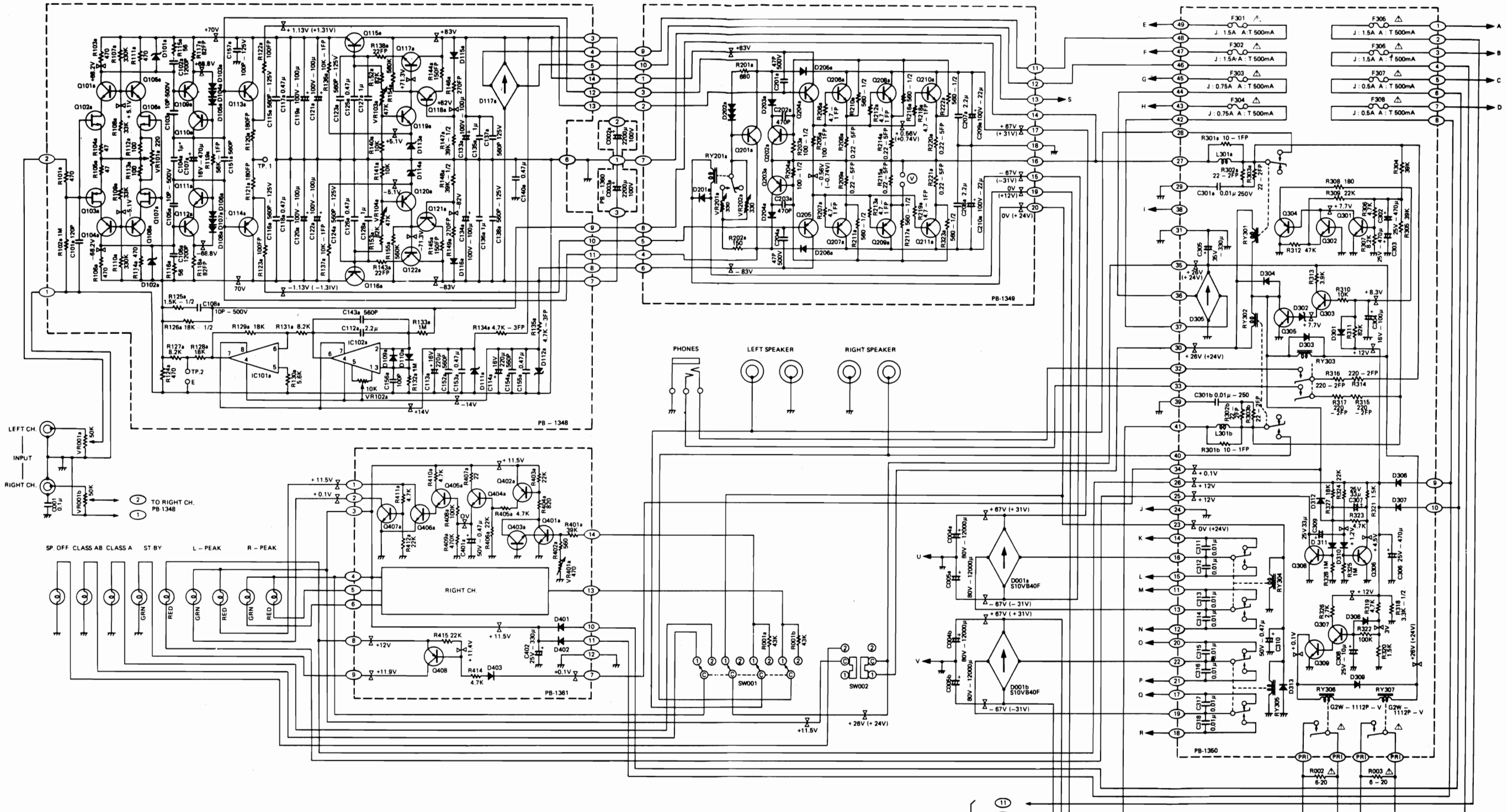
SYMBOL NO	STOCK NO	DESCRIPTION	REMARK	SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
(Resistor) Unit: Ω							
R101ab	RDO134	470 1/2W	Rd	R126ab	RDO112	18K 1/2W	Rd
R102ab	RDO430	1M 1/3W	Rd	R127ab	RDO445	56K 1/3W	Rd
R103ab	RDO470	470 1/3W	Rd	R128ab	RDO451	18K 1/3W	Rd
R104ab	RDO482	47 1/3W	Rd	R129ab	RDO447	39K 1/3W	Rd
R105ab	RDO482	47 1/3W	Rd	R130ab	RDO457	5.6K 1/3W	Rd
R106ab	RDO470	470 1/3W	Rd	R131ab	RDO455	8.2K 1/3W	Rd
R107ab	RDO436	330K 1/3W	Rd	R132ab	RDO430	1M 1/3W	Rd
R108ab	RDO448	33K 1/3W	Rd	R133ab	RDO430	1M 1/3W	Rd
R109ab	RDO448	33K 1/3W	Rd	R134ab	RS5014	4.7K 3 W	Ro
R110ab	RDO436	330K 1/3W	Rd	R135ab	RS5014	4.7K 3 W	Ro
R111ab	RDO482	47 1/3W	Rd	R136ab	RDO356	27K 1/2W	Rd
R112ab	RDO478	100 1/3W	Rd	R137ab	RDO356	27K 1/2W	Rd
R113ab	RDO478	100 1/3W	Rd	R138ab	RS1437	22 1/3W	Ro * U
R114ab	RDO470	470 1/3W	Rd		RD0141	22 1/2W	Ro * J
R115ab	RDO481	56 1/3W	Rd	R139ab	RS1437	22 1/3W	Ro * U
R116ab	RDO481	56 1/3W	Rd		RD0141	22 1/2W	Ro * J
R117ab	RS1451	82 1/3W	Ro * U	R140ab	RDO112	18K 1/2W	Rd
	RD0479	82 1/3W	Rd * J	R141ab	RDO112	18K 1/2W	Rd
R118ab	RS1451	82 1/3W	Ro * U	R142ab	RDO106	100K 1/2W	Rd
	RD0479	82 1/3W	Rd * J	R143ab	RDO106	100K 1/2W	Rd
R120ab	RS1459	180 1/3W	Ro * U	R144ab	RDO433	560K 1/3W	Rd
	RD0136	180 1/2W	Rd * J	R145ab	RDO433	560K 1/3W	Rd
R121ab	RS1459	180 1/3W	Ro * U	R148ab	RS1457	150 1/3W	Ro * U
	RD0136	180 1/2W	Rd * J		RD0476	150 1/3W	Rd * J
R122ab	RS1453	100 1/3W	Ro * U	R149ab	RS1457	150 1/3W	Ro * U
	RD0139	100 1/2W	Rd * J		RD0476	150 1/3W	Rd * J
R123ab	RS1453	100 1/3W	Ro * U	R150ab	RDO259	47K 1/2W	Rd
	RD0139	100 1/2W	Rd * J	R151ab	RDO259	47K 1/2W	Rd
R124ab	RBO174	470 1/4W	Rd	R152ab	RDO356	27K 1/2W	Rd
R125ab	RDO129	1.5K 1/2W	Rd	R153ab	RDO356	27K 1/2W	Rd

SYMBOL NO	STOCK NO	DESCRIPTION	REMARK	SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
(Capacitor)				(Transistor, FET, IC)			
C101ab	CM0169	120PF 100WV	Mi	Q101ab	TR5004	2SC-2240	
C102ab	CM0170	1200PF 100WV	Mi	Q102ab	TF0028	2SK-170-BL-PAIR	
C103ab	CM0170	1200PF 100WV	Mi	Q103ab	TF0029	2SJ-74-BL-PAIR	
C104ab	CM0106	10PF 500WV	Mi	Q104ab	TR5005	2SA-970	
C105ab	CM0106	10PF 500WV	Mi	Q105ab	TR5004	2SC-2240	
C108ab	CM0106	10PF 500WV	Mi	Q106ab	TF0028	2SK-170-BL-PAIR	
C109ab	CM0168	560PF 100WV	Mi	Q107ab	TF0029	2SJ-74-BL-PAIR	
C110ab	CE5050	2.2uF 50WV	EL	Q108ab	TR5005	2SA-970	
C113ab	CE1952	220uF 16WV AR	EL	Q109ab	TR0332	2SA-857-V	
C114ab	CE1952	220uF 16WV AR	EL	Q110ab	TR0342	2SA-899-BV	
C115ab	CM0163	330PF 100WV	Mi	Q111ab	TR0318	2SC-1904-BV	
C116ab	CM0163	330PF 100WV	Mi	Q112ab	TR0331	2SC-1438-V	
C119ab	CE2011	100uF 100WV AR	EL	Q113ab	TR0318	2SC-1904-BV	
C120ab	CE2011	100uF 100WV AR	EL	Q114ab	TR0342	2SA-899-BV	
C121ab	CE2011	100uF 100WV AR	EL	Q115ab	TR0191	2SC-1625	
C122ab	CE2011	100uF 100WV AR	EL	Q116ab	TR0189	2SA-815	
C123ab	CE2011	100uF 100WV AR	EL	Q117ab	TR5004	2SC-2240	
C124ab	CE2011	100uF 100WV AR	EL	Q118ab	TR5004	2SC-2240	
C125ab	CE1782	220uF 100WV	EL	Q110ab	TR5005	2SA-970	
C126ab	CE1782	220uF 100WV	EL	Q120ab	TR5005	2SA-970	
C127ab	CE1782	220uF 100WV	EL	Q121ab	TR5005	2SA-970	
C128ab	CE1782	220uF 100WV	EL	Q122ab	TR5004	2SC-2240	
C131ab	CK0185	2200PF 50WV	Ce	Q123ab	TC0180	LF-13741	
C132ab	CK0185	2200PF 50WV	Ce	Q124ab	TC0025	NJM-4558-DD	
(Diode)				(Trimming Potentiometer) Unit:Ω			
D101ab	TD0044	WZ-052 ZENER	5.2V	VR101a	RT0102	220 B CR29R	
D102ab	TD0044	WZ-052 ZENER	5.2V	VR101b	RT0102	220 B CR29R	
D103ab	TD0053	1S-2473		VR102a	RT0049	10K B CR29R	
D104ab	TD0053	1S-2473		VR102b	RT0049	10K B CR29R	
D105ab	TD0053	1S-2473		VR103a	RT0017	47K B SR29R	
D106ab	TD0053	1S-2473		VR103b	RT0017	47K B SR29R	
D107ab	TD0053	1S-2473		VR104a	RT0017	47K B SR29R	
D108ab	TD0053	1S-2473		VR104b	RT0017	47K B SR29R	
D109ab	TD0053	1S-2473		(PCB Board)			
D110ab	TD0053	1S-2473			PC1348	PB-1384	
D111ab	TD0079	WZ-140 ZENER	14V				
D112ab	TD0079	WZ-140 ZENER	14V				
D113ab	TD0024	WZ-081 ZENER	8.1V				
D114ab	TD0024	WZ-081 ZENER	8.1V				
D115ab	TD0053	1S-2473					
D116ab	TD0053	1S-2473					
D117ab	TD0053	1S-2473					
D118ab	TD0053	1S-2473					
D119ab	TD0215	UB-152					

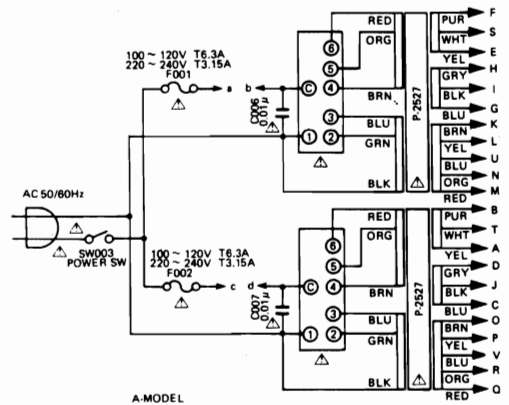
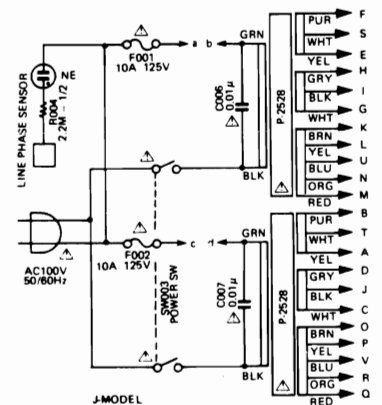
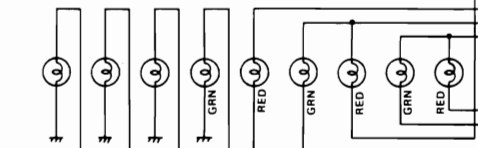
PB-1385.....(Power Amp)



SYMBOL NO	STOCK NO	DESCRIPTION	REMARK	SYMBOL NO	STOCK NO	DESCRIPTION	REMARK
(Resistor) Unit:Ω							
R201ab	RD0468	680 1/4W	Rd	R213ab	RD1526	4.7 1/2W	Rd * J
R202ab	RD0478	100 1/4W	Rd	R214ab	RS2564L	4.7 1/2W	Ro * U
R203ab	RD0138	120 1/2W	Rd		RD1526	4.7 1/2W	Rd * J
R204ab	RD0138	120 1/2W	Rd	R215ab	RG0075	0.22 5 W	Rc * U
R205ab	RS2508L	47 2 W	Ro * U		RD1512	1.2 1/2Wx6	Rd * J
	RD0140	47 1/2W	Rd * J	R216ab	RG0075	0.22 5 W	Rc * U
R206ab	RS2508L	47 2 W	Ro * U		RD1512	1.2 1/2Wx6	Rc * J
	RD0140	47 1/2W	Rd * J	R217ab	RD0133	560 1/2W	Rd
R207ab	RS2564L	4.7 2 W	Ro * U	R218ab	RD0133	560 1/2W	Rd
	RD1526	4.7 1/2W	Rd * J	R219ab	RS2564L	4.7 1/2W	Ro * U
R208ab	RS2564L	4.7 2 W	Ro * U		RD1526	4.7 1/2W	Rd * J
	RD1526	4.7 1/2W	Rd * J	R220ab	RS2564L	4.7 1/2W	Ro * U
R209ab	RG0075	0.22 5 W	Rc * U		RD1526	4.7 1/2W	Rd * J
	RD1512	1.2 1/2Wx6	Rd * J	R221ab	RG0075	0.22 5 W	Rc * U
R210ab	RG0075	0.22 5 W	Rc * U		RD1512	1.2 1/2Wx6	Rd * J
	RD1512	1.2 1/2Wx6	Rd * J	R222ab	RG0075	0.22 5 W	Rc * U
R211ab	RD0133	560 1/2W	Rd		RD1512	1.2 1/2Wx6	Rd * J
R212ab	RD0133	560 1/2W	Rd	R223ab	RD0133	560 1/2W	Rd
R213ab	RS2564L	4.7 1/2W	Ro * U	R224ab	RD0133	560 1/2W	Rd
(Transistor)				(Trimming Potentiometer, Diode)			
Q201ab	TR5004	2SC-2240		VR201a	RT0121	220 B CR19R	
Q202ab	TR5005	2SA-970		VR201b	RT0121	220 B CR19R	
Q203ab	TR5004	2SC-2240		VR202a	RT0121	220 B CR19R	
Q204ab	TR5004	2SC-2240		VR202b	RT0121	220 B CR19R	
Q205ab	TR5005	2SA-970					
Q206ab	TR5005	2SA-970		D201ab	TD0002	1N-4002	
(Capacitor)				D203ab	TR0053	1S-2473	
C201ab	CM0125	47PF 500WV	Mi	D204ab	TD0053	1S-2473	
C202ab	CM0125	47PF 500WV	Mi	D205ab	TD5025	1S-2462	
C203ab	CQ1216	470PF 50WV	St	D206ab	TD5025	1S-2462	
C204ab	CQ1216	470PF 50WV	St	(Relay, PCB Board)			
C205ab	CE2003	22uF 100WV AR	EL	RY201a	AY0042	BR211BB-012 12V	
C206ab	CE2003	22uF 100WV AR	EL	RY201b	AY0042	BR211BB-012 12V	
					PC1385	PB-1385	



SP OFF CLASS AB CLASS A ST BY L-PEAK R-PEAK



PB-1348

Q101 Q105 Q117	25C2240
Q102 Q106	25K170
Q103 Q107	25J74
Q104 Q108 Q118	25A970
Q109	25A857
Q110 Q114	25A899
Q111 Q113	25C1804
Q112	25C1438
Q115	25C1825
Q116	25A815
IC101	NJM4558DD
IC102	LF13741
D101 D102 D113	WZ-052
D114	IS2473
D116	WZ-140
D111 D112	WZ-152
D117	UB-152

PB-1349

Q201 Q202	25C2240
Q203	25A970
Q204	25C2336
Q205	25A1006
Q206 Q208 Q210	25C2921
Q207 Q209 Q211	25A1215
D201	IN4002
D202	STV-3H
D203 D204	IS2473
D205 D206	IS2462

PB-1350

Q301 Q302 Q303	25C945
Q304	25A733
Q305 Q308 Q309	25C2235

PB-1360

D301 D308 D310	IS2473
D311	WZ-071
D302	IN4002
D303 D304 D306	IN4002
D307 D308 D313	SIVB20
D305	IK188
D312	IK188

PB-1361

Q401 Q403 Q404	25C945
Q405 Q406	25A735
Q402 Q408	25C2235
Q407	25C2235

D401 D402

D401 D402	IN4002
D403	IS2473

SW001: CIRCUIT OFF SW

1	CLASS AB
2	CLASS A

SW002: SPEAKERS OFF SW

1	ON
2	OFF

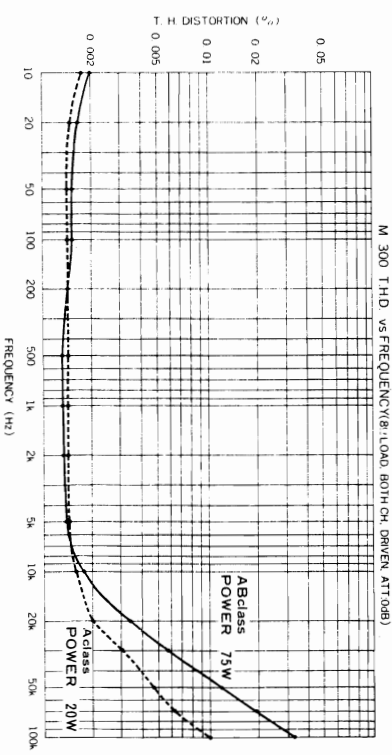
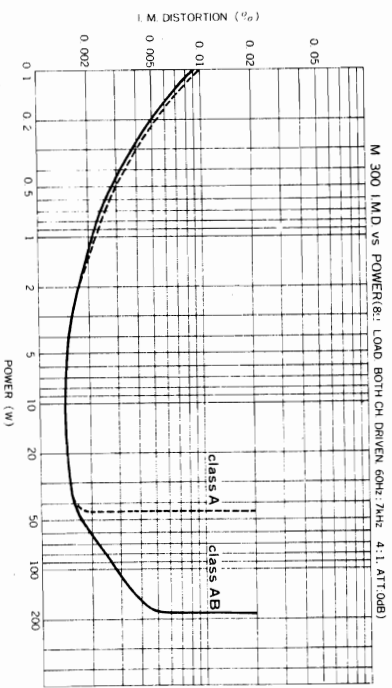
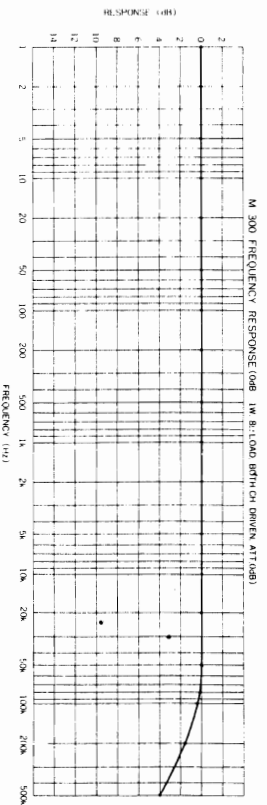
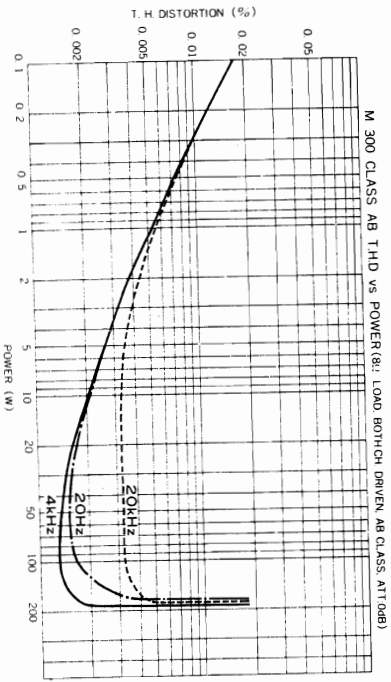
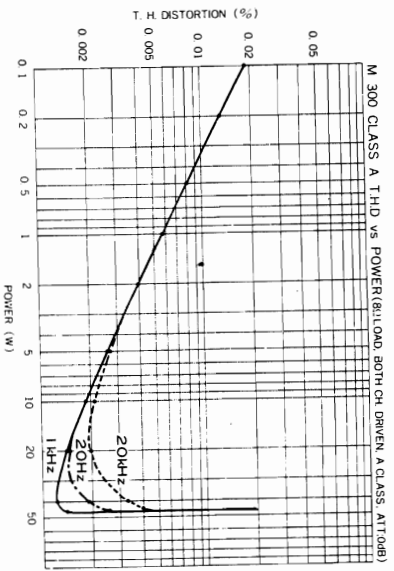
VR001: ATTENUATOR

VR101	DC BALANCE ADJ.
VR102	DC OFFSET ADJ.
VR103	VOLTAGE ADJ. (PLUS)
VR104	VOLTAGE ADJ. (MINUS)
VR201	BLAS ADJ. (CLASS AB)
VR202	BLAS ADJ. (CLASS A)
VR401	PEAK LEVEL ADJ.

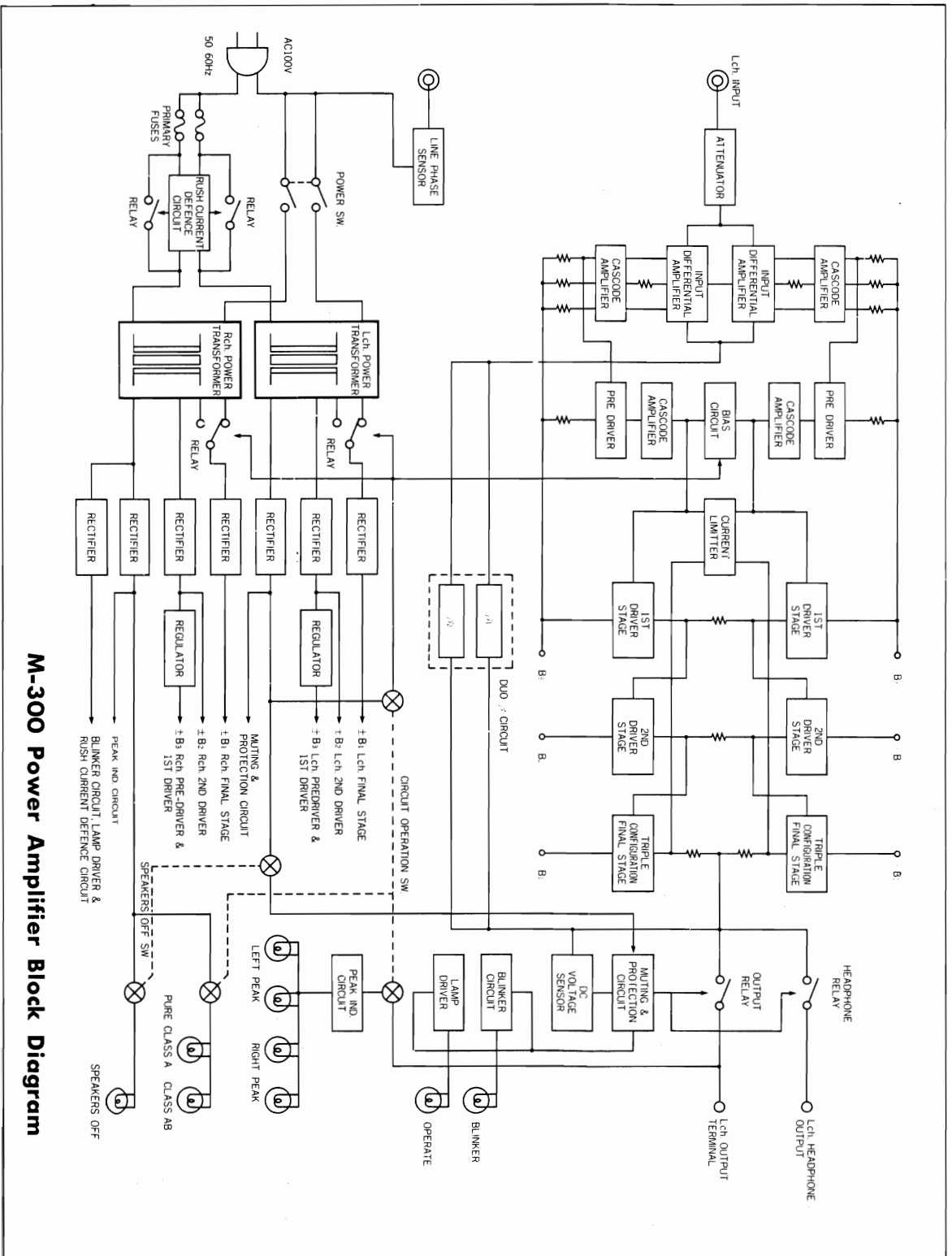
NOTE: 1) UNLESS OTHER SPECIFIED ALL RESISTORS IN OHM 1/4 WATT. ALL CAPACITORS ARE IN FARAD. 2) SPECIFIED VOLTAGE IN THE PARENTHESES () IS FOR THE CLASS A OPERATION.



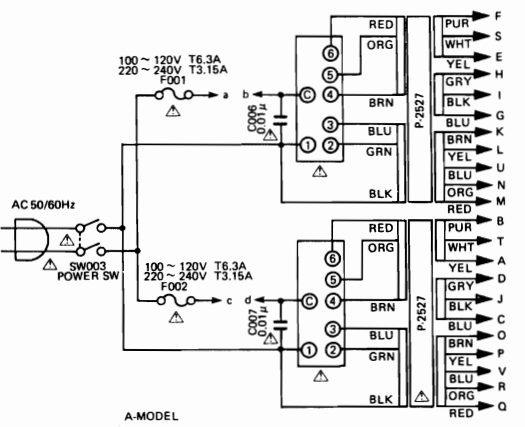
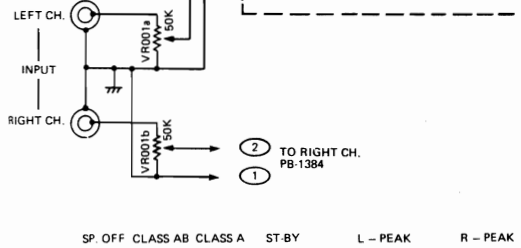
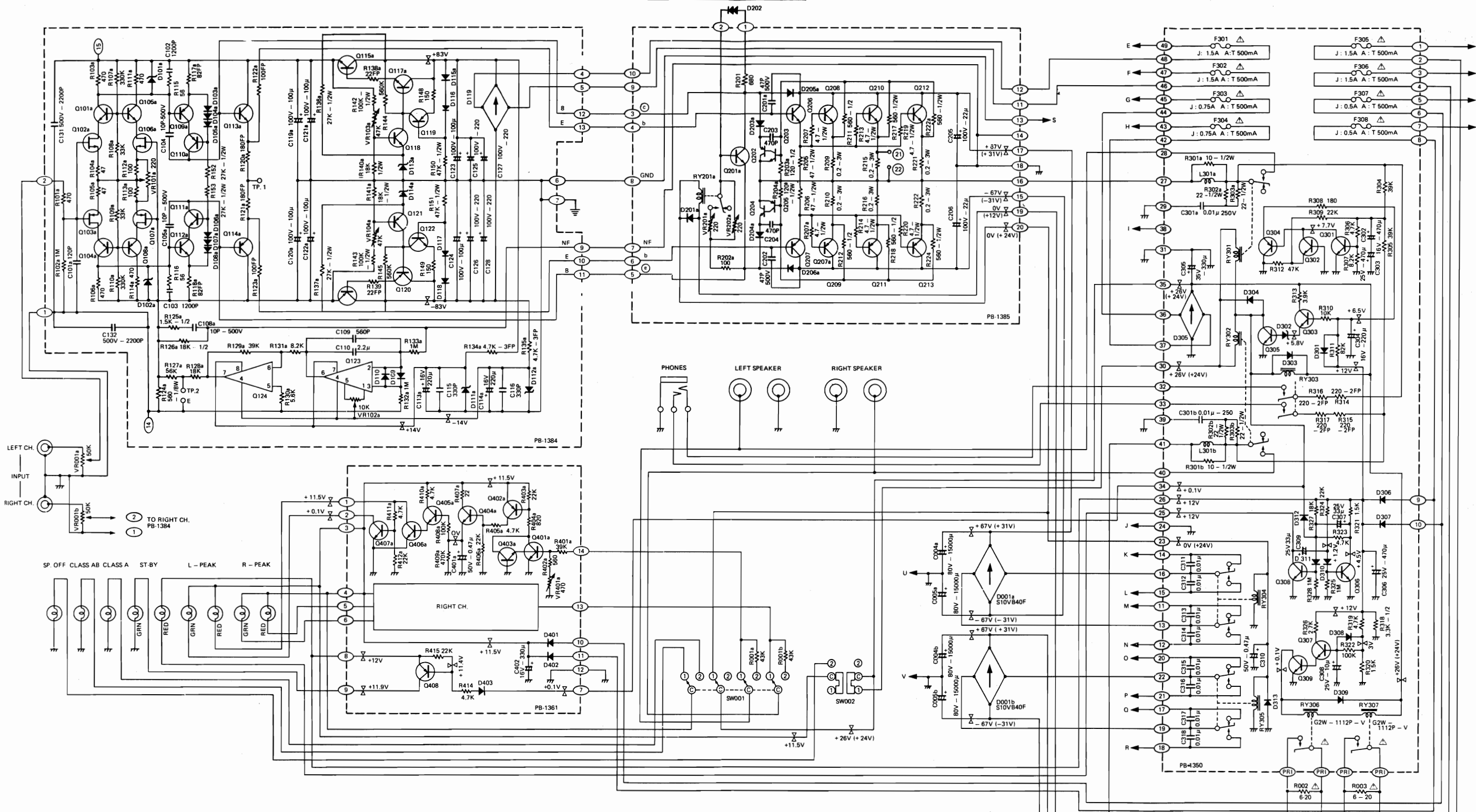
STANDARD CURVES



BLOCK DIAGRAM



M-300 Power Amplifier Block Diagram



Component lists for PB-1384, PB-1385, PB-1350, and PB-1361.

PB-1384	Q101 Q105 Q117	25C2240
	Q118 Q122	25C2240
	Q102 Q106	25K170
	Q103 Q107	25J74
	Q104 Q108 Q119	25A970
	Q120 Q121	25A857
	Q109	25A899
	Q110 Q114	25C1904
	Q111 Q113	25C1438
	Q112	25C1625
	Q115	25A815
	Q116	25A815
	Q124	NJM4588DD
	Q123	LF13741
	D101 D102 D113	WZ-052
	D113	WZ-081
	D103 ~ D110	IS2473
	D115 ~ D118	IS2473
	D111 D112	WZ-140
	D119	UB-152
	D201	IN4002
	D202	STV-2H
	D203 D204	IS2473
	D205 D206	IS2462
	D301 D308 D310	IS2473
	D311	WZ-052
	D302	IN4002
	D303 D304 D306	IN4002
	D307 D309 D313	SIVB20
	D305	IK188
	D312	IK188
	D401 D402	IN4002
	D403	IS2473
	C301 C302 C303	25C945
	C306 C307	25C945
	C304	25A733
	C305 C308 C309	25C2235
	C401 C403 C404	25C945
	C405 C406	25C945
	C402 C408	25A735
	C407	25C2235

Component lists for PB-1350 and PB-1361.

PB-1350	Q201 Q202 Q204	25C2240
	Q202 Q205	25A970
	Q206	25C336
	Q207	25A1006
	Q208 Q210 Q212	25C2921
	Q209 Q211 Q213	25A1215
	D201	IN4002
	D202	STV-2H
	D203 D204	IS2473
	D205 D206	IS2462
	C301 C302 C303	25C945
	C306 C307	25C945
	C304	25A733
	C305 C308 C309	25C2235
	C401 C403 C404	25C945
	C405 C406	25C945
	C402 C408	25A735
	C407	25C2235

NOTE: 1) UNLESS OTHERWISE SPECIFIED, ALL RESISTORS IN OHM 1/4 WATT. ALL CAPACITORS ARE IN FARAD. 2) SPECIFIED VOLTAGE IN THE PARENTHESES () IS FOR THE CLASS A OPERATION.

SW001: CIRCUIT OP. SW
1 CLASS AB
2 CLASS A

SW002: SPEAKERS OFF SW
1 ON
2 OFF

VR001: ATTENUATOR
VR101: DC BALANCE ADJ.
VR102: DC OFFSET ADJ.
VR103: VOLTAGE ADJ. (PLUS)
VR104: VOLTAGE ADJ. (MINUS)
VR201: BLAS ADJ. (CLASS AB)
VR202: BLAS ADJ. (CLASS A)
VR401: PEAK LEVEL ADJ.



SPECIFICATIONS

Power Output:	Class A; 40 watts minimum continuous per channel both channels driven into 8 ohms load at any frequency from 20Hz to 20,000Hz with no more than 0.005% total harmonic distortion.
	Class AB; 150 watts minimum continuous per channel both channels driven into 8 ohms load at any frequency from 20Hz to 20,000Hz with no more than 0.008% total harmonic distortion.
Rated I.M.:	Class A; no more than 0.005% (8 ohms, 60Hz : 7kHz = 4 : 1)
	Class AB; no more than 0.008% (8 ohms, 60Hz : 7kHz = 4 : 1)
Slew Rate:	Class A; 180V/ μ sec. Class AB; 200V/ μ sec.
Rise Time:	0.6 μ sec.
Frequency Response:	10Hz - 100,000Hz (-1dB, Class A/Class AB)
Input Sensitivity:	Class A; 450mV Class AB; 900mV
Input Impedance:	50k ohms (Class A/Class AB)
Signal-to-Noise Ratio: (IHF-A wtd.)	Class A; better than 115dB Class AB; better than 120dB
Residual Noise:	30 μ V (Class A/Class AB)
Damping Factor:	120 (1kHz, 8 ohms, ClassA/Class AB)
Protection Circuit:	Speaker Protection by sensing DC-drift. Amplifier Protection by sensing excessive current.
Power Consumption:	7A 120V
Dimensions:	438(W) x 484(D) x 176 (H) mm (17.5" x 19.4" x 7.0")
Weight:	Net 30kgs (66.0 lbs.) Gross 32kgs (70.4 lbs.)

Specifications and appearance design subject to change without notice.

LUX CORPORATION, JAPAN

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