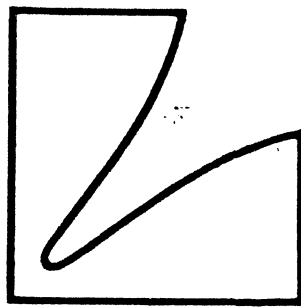


Keine weiteren  
Unterlagen vorhanden.

# SERVICE MANUAL



FREQUENCY SYNTHESIZED  
STEREO TUNER-AMPLIFIER

# R-2050





# Specifications

## [AUDIO SECTION]

RMS Output Power:	55W/55W (8 ohms, both channels driven)
Total Harmonic Distortion:	no more than 0.05% (8 ohms, 55W)
Rated I.M.:	no more than 0.05% (8 ohms, both channels driven, 60Hz : 7kHz=4 : 1)
Input Sensitivity:	2.1mV (phono) 150mV (aux, monitor)
Input Impedance:	50k ohms (phono) 30k ohms (aux, monitor)
Phono Overload Voltage:	110mV
Signal-to-Noise Ratio:	85dB (phono, IHF-A weighted, 10mV) 95dB (aux, monitor)
Residual Noise:	0.5mV
Tone Control:	Bass: $\pm 10$ dB at 100Hz Treble: $\pm 10$ dB at 10kHz
Filters:	subsonic 45Hz (6dB/oct.) high cut 7kHz (6dB/oct.)
Crosstalk at 1kHz:	-70dB (aux, monitor)
Loudness Control:	+10dB at 100Hz, +7dB at 10kHz (VR: -30dB)

## [FM SECTION] (IEEE/IHF Standard)

	[MONO]	[STEREO]
Usable Sensitivity:	10.3dBf (1.8 $\mu$ V)	
50dB Quieting Sensitivity:	15.3dBf (3.2 $\mu$ V) (50 $\mu$ sec)	
Signal-to-Noise Ratio at 65dBf:	74dB (IHF-A weighted)	
Muting Threshold:	7 $\mu$ V (at "auto" position)	
Frequency Response 30Hz to 15kHz:	$\pm 1$ dB	
Distortion at 65dBf		
100Hz:	0.15%	0.2%
1kHz:	0.12%	0.15%
6kHz:	0.25%	0.3%
Capture Ratio at 65dBf:	1.5dB	
Alternate Channel Selectivity		
$\pm 400$ kHz:	70dB	
40kHz dev. $\pm 300$ kHz:	60dB	
Spurious Response Ratio:	90dB	
IF Response Ratio:	90dB	
Image Response Ratio:	85dB	
AM Suppression Ratio:	57dB	
Stereo Separation		
100Hz:		45dB
1kHz:		45dB
10kHz:		32dB

## [AM SECTION]

Usable Sensitivity at 1MHz, 400Hz 30% mod.:	20 $\mu$ V (EXT. ANT)
Signal-to-Noise Ratio at 1MHz, 10mV, 400Hz 30% mod.:	48dB
Distortion at 1MHz, 10mV, 400Hz 30% mod.:	0.5%
Image Response Ratio at 1MHz:	50dB
iF Response Ratio at 1MHz:	40dB

## [GENERAL]

Power Consumption:	310 W (at full power, 8 ohms)
Dimensions:	438(W) x 405(D) x 108(H) mm (17-1/4" x 15-15/16" x 4-1/4") (including legs, front & rear protrusions)
Weight:	Net 10.5 kgs (23.10 lbs.) Gross 12.0 kgs (26.40 lbs.)

Specifications and appearance design subject to change without notice.

Receiver R2050 ALIGNMENT PROCEDURE

STEP	SIGNAL SOURCE	SET RADIO		OUTPUT INDICATOR	ADJUST	ADJUST FOR
		SET SIGNAL TO	DIAL FL DISPLAY TO			
1	Set Function Switch to 'AM', and Power Switch 'OFF'					
2	Press Power Switch for 'ON'					
3				DC Digital Multimeter PB7032 point PB7022 point 30 PB7022 point J3	check	11.0 - 13.0 DC Digital Multimeter reading 8.5 - 9.5 DC Digital Multimeter reading 27.0 - 29.0 DC Digital Multimeter reading
4	Pull out and set. Bar Antenna at right angle to the rear panel.					
5	Output of sweep generator to PB7021 and ground	±40KHz sweep centered at 460KHz generator output level 40-50dB	Quiet Point on band near 1600KHz	Input of sweep generator PB7032 AM Front End Check read and ground	IF1 IF2 IF3	Maximum, Centered at 460KHz
6	Standard radiating	1400KHz at 400Hz 30% modulation. Field strength 50dB/m - 80dB/m	1400KHz	DC Digital Multimeter PB7022 14 and ground	TC0	15.5 DC Digit, Multimeter reading
7	EXT antenna			Oscilloscope AC Voltage Meter Tape out, DIN connector	TCA	Maximum AC Voltage Meter reading
8		600KHz at 400Hz 30% modulation. Field strength 50dB/m - 80dB/m	600KHz	DC Digital Multimeter PB7022 14 and ground	L0	2.5 DC Digital Multimeter reading
9				Oscilloscope AC Voltage Meter. Tape out, DIN connector	Bar antenna	Maximum AC Voltage Meter reading

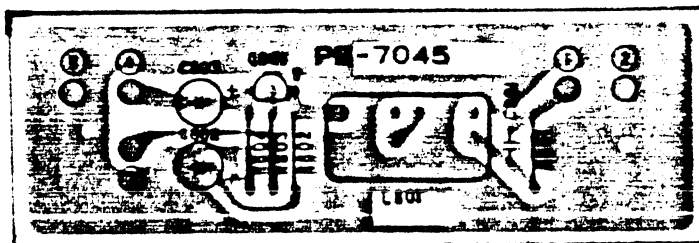
10	Repeat steps 6 - 9 until the maximum sensitivity can be obtained.				
11	Standard radiating EXT antenna	1000KHz at 400Hz 30% modulation. Field strength 80dB/m	1000KHz	VR101	Set lighting of signal strength FL display to the '5' segments.
13	Set Function Switch to 'FM' and Auto Scan Key Switch to 'MAN'.				
14	Set the VR101 in the endmost clockwise direction, the VR102 in the endmost counter clockwise direction and the VR103, VR104 and VR105 to center position.				
15	FM signal generator Across FM antenna connector (300-ohm) through matching network.	Reduce the output level to zero. (interstation receiving condi- tion)	Quiet near 98MHz	DC Digital Multimeter PB7027 8 and 9	±0V DC Digital Multimeter reading that time.
16		108MHz at 400Hz 100% (75KHz) modulation output level 1mV	108MHz	DC Digital Multimeter PH7022. 14 and ground	21.0 DC Digital Multimeter reading
17	Output level 2uV	Output level 2uV		Oscilloscope AC Voltage Meter Tape out, DIN connector	Maximum output level
18	88MHz at 400Hz 100% (75KHz) modulation output level 1mV	88MHz	DC Digital Multimeter PB7022 14 and ground	LO	3.0 DC Digital Multimeter reading
19	Output level 2uV	Output level 2uV	Oscilloscope AC Voltage Meter Tape out, DIN connector	LA LR LR	maximum output level

20	Repeat steps 16 - 19 until the maximum sensitivity can be obtained.			
21	FM signal generator across FM antenna connector (300-ohm) through matching network.	98MHz at 1KHz 100% (75KHz) modulation output level 1mV	98MHz	Distortion meter Oscilloscope Tape out DIN connector
22				LA05  L104 -10V DC Digital Multimeter reading
23	Repeat steps 21 - 22 so as to obtain distortion of no more than 0.1 - 0.2%			
24	Set Auto Scan Key Switch to 'AUTO'			
25	FM signal generator across FM antenna connector through (300-ohm) matching network	98MHz at 1KHz 100% (75KHz) modulation output level 3-5µV	98MHz	Oscilloscope AC Voltage Meter Tape out DIN connector
26		98MHz at 1KHz 100% (75KHz) modulation output level 1mV		VR103  VR104 Set to appear the signal  Set lighting of signal strength FL display to the '5' segments.
27		98MHz no modulation output level 1mV		VR105 Adjust at 19KHz the frequency of PLL - Oscillation
28		98MHz at 19KHz 10% 1KHz 90% Lch		VR106 Rch output level 40 minimum
29		98MHz at 19KHz 10% 1KHz 90% Rch		Lch output level to minimum
30	Repeat steps 28 - 29 so as to get balanced Separation.			
31	Confirm <del>the</del> the receivable FM frequency bandwidth from 87.55MHz up to 108.0MHz.			



SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION			
Volume					
VR301	RV0255	Volume V16 GM80E	200K	BB	
VR302	RV0254	Volume V16 VM10E	250KX2		
VR303	RV0253	Volume V16 GM70E	100K	BB	
VR304	RV0252	Volume V16 GM70E	50K	BB	
Resistor					
R301AB	RB0444	Resistor	1M OHM	0.25W +/-5%	RD
R302AB	RB0444	Resistor	1M OHM	0.25W +/-5%	RD
R303AB	RB0392	Resistor	6.8K OHM	0.25W +/-5%	RD
R304AB	RB0392	Resistor	6.8K OHM	0.25W +/-5%	RD
R305AB	RB0406	Resistor	27K OHM	0.25W +/-5%	RD
R306AB	RB0398	Resistor	12K OHM	0.25W +/-5%	RD
R307AB	RB0394	Resistor	8.2K OHM	0.25W +/-5%	RD
R308AB	RB0382	Resistor	2.7K OHM	0.25W +/-5%	RD
R309AB	RB0442	Resistor	820K OHM	0.25W +/-5%	RD
R310AB	RB0444	Resistor	1M OHM	0.25W +/-5%	RD
R311AB	RB0412	Resistor	47K OHM	0.25W +/-5%	RD
R312AB	RB0372	Resistor	1K OHM	0.25W +/-5%	RD
R313AB	RB0390	Resistor	5.6K OHM	0.25W +/-5%	RD
R314AB	RB0348	Resistor	100 OHM	0.25W +/-5%	RD
R315AB	RB0438	Resistor	560K OHM	0.25W +/-5%	RD
R316AB	RB0376	Resistor	1.5K OHM	0.25W +/-5%	RD
R317AB	RB0402	Resistor	18K OHM	0.25W +/-5%	RD
R318AB	RB0382	Resistor	2.7K OHM	0.25W +/-5%	RD
R319AB	RB0376	Resistor	1.5K OHM	0.25W +/-5%	RD
R320AB	RB0402	Resistor	18K OHM	0.25W +/-5%	RD
R321AB	RB0372	Resistor	1K OHM	0.25W +/-5%	RD
R322AB	RB0412	Resistor	47K OHM	0.25W +/-5%	RD
R323AB	RB0428	Resistor	220K OHM	0.25W +/-5%	RD
R324AB	RB0362	Resistor	390 OHM	0.25W +/-5%	RD
R325AB	RB0386	Resistor	3.9K OHM	0.25W +/-5%	RD
R326AB	RB0428	Resistor	220K OHM	0.25W +/-5%	RD
R327	RB0372	Resistor	1K OHM	0.25W +/-5%	RD
R328	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R329	RB0408	Resistor	33K OHM	0.25W +/-5%	RD

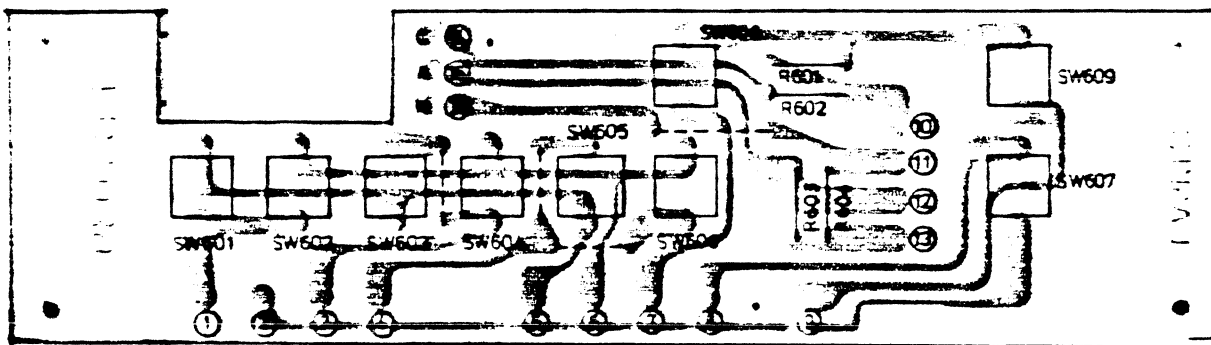
PB-7045 Parts List



SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION			
Capacitor					
C801	CC0009	Capacitor	220pF	50WV	C
C802	CE1718	Capacitor	22μF	16WV	E
C803	CE1718	Capacitor	22μF	16WV	E
L801	LAL192	Anti-Bardi Filter	Lux-1192		
Q801	TR0174	Transistor	2SC1345		
R801	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R802	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R803	RB0364	Resistor	470 OHM	0.25W +/-5%	RD
R804	RB0388	Resistor	4.7K OHM	0.25W +/-5%	RD

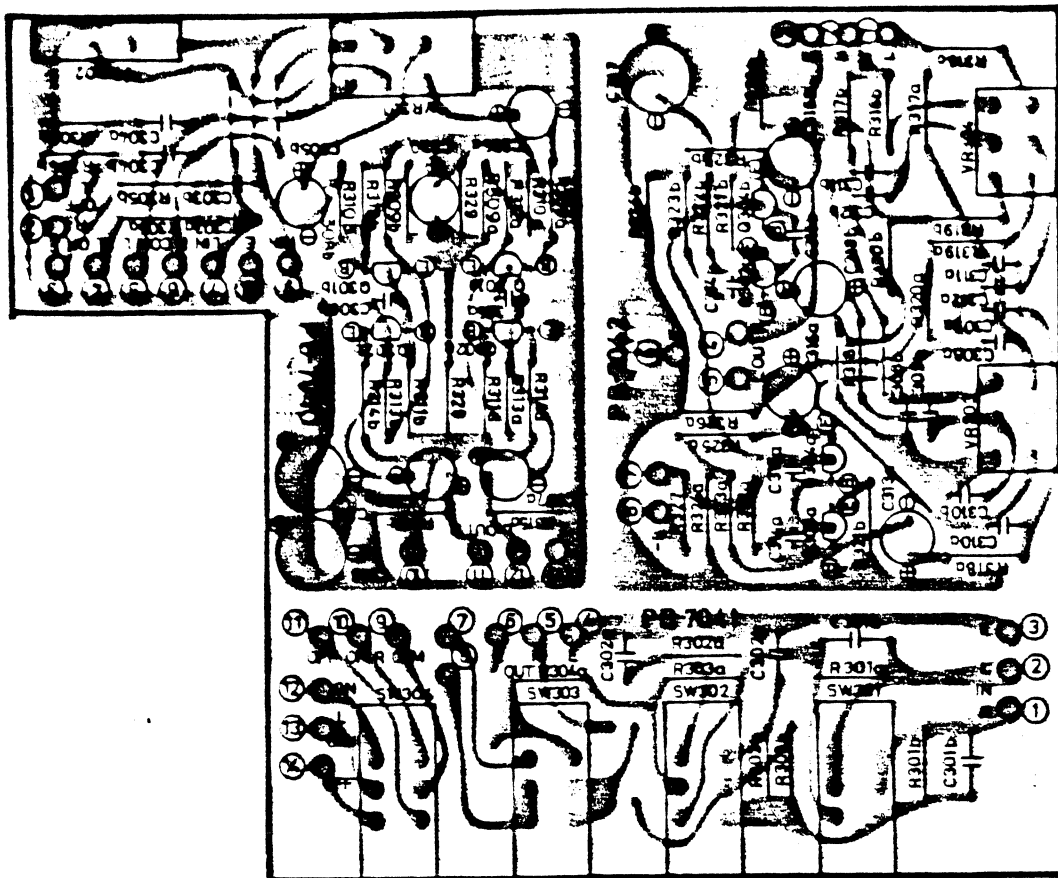
SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION			
Transistor					
Q116	TR0198	Transistor	2SC1815		
Q117	TR0198	Transistor	2SC1815		
Q118	TR0198	Transistor	2SC1815		
Q119	TR0198	Transistor	2SC1815		
Q120	TR0198	Transistor	2SC1815		
Coil					
L101	LA1143	Choke Coil	S-470K		
L102	LA1149	Choke Coil	S-180J		
L103	LA1149	Choke Coil	S-180J		
L104	LA5021	FM Transformer	LUX5021		
L105	LA5022	FM Transformer	LUX5022		
L106	LA1103	Low-Pass Filter	FB-3204		
Ceramic Filter					
F101	LA1834	Ceramic Filter	KMFC112A12		
F102	LA1834	Ceramic Filter	KMFC112A12		
F103	LA1834	Ceramic Filter	KMFC112A12		
Slide Switch					
SW101	SS0022	Switch Slide	SSR24602D		
SW102	SS0022	Switch Slide	SSR24602D		
SW103	SS0128	Switch Slide	SSR262		
Semi-Fixed Resistor					
VR101	RT0052	Semi Fixed Resistor	20K OHM B	KVSF8-7PNFX	
VR102	RT0050	Semi Fixed Resistor	500 OHM B	KVSF8-7PNFX	
VR103	RT0056	Semi Fixed Resistor	50K OHM B	KVSF8-7PNFX	
VR104	RT0052	Semi Fixed Resistor	20K OHM B	KVSF8-7PNFX	
VR105	RT0083	Semi Fixed Resistor	5K OHM B	KVSF8-6PNX	
VR106	RT0087	Semi Fixed Resistor	200K OHM B	KVSF8-7PN	

PB-7033 Parts List



SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION			
Resistor					
R601	RB0372	Resistor	1K OHM	0.25W +/-5%	RD
R602	RB0372	Resistor	1K OHM	0.25W +/-5%	RD
R603	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R604	RB0420	Resistor	100K OHM	0.25W +/-5%	RD





SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION			
switch					
SW301	SP0154	Switch Push	SUF44		
SW302	SP0154	Switch Push	SUF44		
SW303	SP0154	Switch Push	SUF44		
SW304	SP0154	Switch Push	SUF44	MULTI R2050	
Transistor					
Q301AB	TR0091	Transistor	2SA836		
Q302AB	TR0174	Transistor	2SC1345		
Q303AB	TR0091	Transistor	2SA836		
Q304AB	TR0091	Transistor	2SA836		
Capacitor					
C301AB	CQ0007	Capacitor	0.068 $\mu$ F	50WV	M
C302AB	CQ0021	Capacitor	0.0033 $\mu$ F	50WV	M
C303AB	CC0010	Capacitor	330pF	50WV	C
C304AB	CQ0011	Capacitor	0.033 $\mu$ F	50WV	M
C305AB	CE0786	Capacitor	1 $\mu$ F	50WV	E
C306AB	CC0038	Capacitor	5pF	50WV	C
C307AB	CE0787	Capacitor	2.2 $\mu$ F	50WV	E
C308AB	CQ0012	Capacitor	0.027 $\mu$ F	50WV	M
C309AB	CQ0026	Capacitor	0.001 $\mu$ F	50WV	M
C310AB	CQ0026	Capacitor	0.001 $\mu$ F	50WV	M
C311AB	CQ0024	Capacitor	0.0015 $\mu$ F	50WV	M
C312AB	CQ0024	Capacitor	0.0015 $\mu$ F	50WV	M
C313AB	CE0787	Capacitor	2.2 $\mu$ F	50WV	E
C314AB	CC0033	Capacitor	10pF	50WV	C
C315AB	CC0038	Capacitor	5pF	50WV	C
C316AB	CE0788	Capacitor	3.3 $\mu$ F	50WV	E
C317	CE1743	Capacitor	100 $\mu$ F	35WV	E
C318	CE1743	Capacitor	100 $\mu$ F	35WV	E
C319	CE1743	Capacitor	100 $\mu$ F	35WV	E
C320	CE1718	Capacitor	22 $\mu$ F	16WV	E

SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION			
Resistor					
R199	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R200	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R201	RB0388	Resistor	4.7K OHM	0.25W +/-5%	RD
R202	RB0400	Resistor	15K OHM	0.25W +/-5%	RD
R203	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R204	RB0348	Resistor	100 OHM	0.25W +/-5%	RD
R205	RB0380	Resistor	2.2K OHM	0.25W +/-5%	RD
R206	RB0372	Resistor	1K OHM	0.25W +/-5%	RD
R207	RB0332	Resistor	22 OHM	0.25W +/-5%	RD
R208	RB0372	Resistor	1K OHM	0.25W +/-5%	RD
R209	RB0412	Resistor	47K OHM	0.25W +/-5%	RD
R210	RB0340	Resistor	47 OHM	0.25W +/-5%	RD
R211	RB0380	Resistor	2.2K OHM	0.25W +/-5%	RD
R212	RB0356	Resistor	220 OHM	0.25W +/-5%	RD
R213	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R214	RB0412	Resistor	47K OHM	0.25W +/-5%	RD
R215	RB0412	Resistor	47K OHM	0.25W +/-5%	RD
R216	RB0412	Resistor	47K OHM	0.25W +/-5%	RD
R217	RB0412	Resistor	47K OHM	0.25W +/-5%	RD
Diode					
D101	TD0197	Diode	US1070		
D102	TD0197	Diode	US1070		
D103	TD0197	Diode	US1070		
D104	TD0197	Diode	US1070		
D105	TD0197	Diode	US1070		
D106	TD0197	Diode	US1070		
D107	TD0197	Diode	US1070		
D108	TD0197	Diode	US1070		
D109	TD0197	Diode	US1070		
D110	TD0197	Diode	US1070		
D111	TD0197	Diode	US1070		
D112	TD0197	Diode	US1070		
D113	TD0018	Diode GE	1K188FM-1		
D114	TD0018	Diode GE	1K188FM-1		
D115	TD0197	Diode	US1070		
IC & Transistor					
Q101AB	TC0120	IC HA1457			
Q102	TR0198	Transistor	2SC1815		
Q103	TC0120	IC HA1457			
Q104	TR0198	Transistor	2SC1815		
Q105	TR0233	Transistor	2SC535		
Q106	TR0019	Transistor	2SC1923		
Q107	TR0019	Transistor	2SC1923		
Q108	TC0099	IC LA1231NS			
Q109	TR0174	Transistor	2SC1345		
Q110	TC0100	IC MPC1173C			
Q111	TR0198	Transistor	2SC1815		
Q112	TR0198	Transistor	2SC1815		
Q113	TR0198	Transistor	2SC1815		
Q114	TR0198	Transistor	2SC1815		
Q115	TC5002	IC NJM4558D			

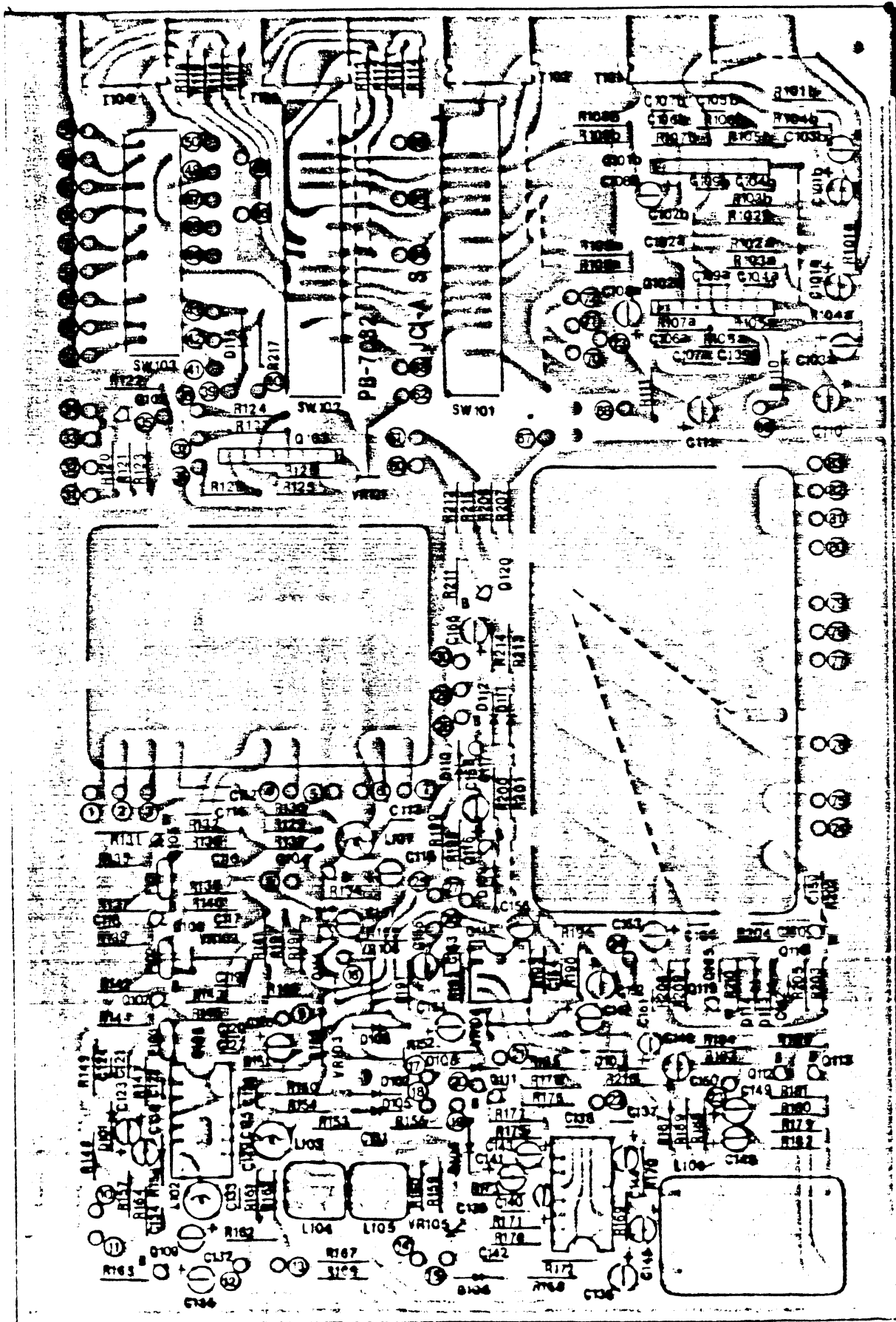
SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION			
Resistor					
R146	RB0348	Resistor	100 OHM	0.25W +/-5%	RD
R147	RB0364	Resistor	470 OHM	0.25W +/-5%	RD
R148	Rb0408	Resistor	33K OHM	0.25W +/-5%	RD
R149	RB0408	Resistor	33K OHM	0.25W +/-5%	RD
R150	RB0348	Resistor	100 OHM	0.25W +/-5%	RD
R151	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R152	RB0400	Resistor	15K OHM	0.25W +/-5%	RD
R153	RB0412	Resistor	47K OHM	0.25W +/-5%	RD
R154	RB0348	Resistor	100 OHM	0.25W +/-5%	RD
R155	RB0412	Resistor	47K OHM	0.25W +/-5%	RD
R156	RB0332	Resistor	22 OHM	0.25W +/-5%	RD
R157	RB0404	Resistor	22K OHM	0.25W +/-5%	RD
R158	RB0414	Resistor	56K OHM	0.25W +/-5%	RD
R159	RB0404	Resistor	22K OHM	0.25W +/-5%	RD
R160	RB0378	Resistor	1.8K OHM	0.25W +/-5%	RD
R161	RB0394	Resistor	8.2K OHM	0.25W +/-5%	RD
R162	RB0404	Resistor	22K OHM	0.25W +/-5%	RD
R163	RB0356	Resistor	220 OHM	0.25W +/-5%	RD
R164	RB0364	Resistor	470 OHM	0.25W +/-5%	RD
R165	RB0388	Resistor	4.7K OHM	0.25W +/-5%	RD
R166	RB0364	Resistor	470 OHM	0.25W +/-5%	RD
R167	RB0408	Resistor	33K OHM	0.25W +/-5%	RD
R168	RB0364	Resistor	470 OHM	0.25W +/-5%	RD
R169	RB0384	Resistor	3.3K OHM	0.25W +/-5%	RD
R170	RB0384	Resistor	3.3K OHM	0.25W +/-5%	RD
R171	RB0400	Resistor	15K OHM	0.25W +/-5%	RD
R172	RB0340	Resistor	47 OHM	0.25W +/-5%	RD
R173	RB0372	Resistor	1K OHM	0.25W +/-5%	RD
R174	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R175	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R176	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R177	RB0412	Resistor	47K OHM	0.25W +/-5%	RD
R178	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R179	RB0384	Resistor	3.3K OHM	0.25W +/-5%	RD
R180	RB0384	Resistor	3.3K OHM	0.25W +/-5%	RD
R181	RB0384	Resistor	3.3K OHM	0.25W +/-5%	RD
R182	RB0384	Resistor	3.3K OHM	0.25W +/-5%	RD
R183	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R184	RB0412	Resistor	47K OHM	0.25W +/-5%	RD
R185	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R186	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R187	RB0412	Resistor	47K OHM	0.25W +/-5%	RD
R188	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R189	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R190	RB0386	Resistor	3.9K OHM	0.25W +/-5%	RD
R191	RB0386	Resistor	3.9K OHM	0.25W +/-5%	RD
R192	RB0408	Resistor	33K OHM	0.25W +/-5%	RD
R193	RB0408	Resistor	33K OHM	0.25W +/-5%	RD
R194	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R195	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R196	RB0412	Resistor	47K OHM	0.25W +/-5%	RD
R197	RB0324	Resistor	10 OHM	0.25W +/-5%	RD
R198	RB0388	Resistor	4.7K OHM	0.25W +/-5%	RD

SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION			
Capacitor					
C156	CE1718	Capacitor	22 $\mu$ F	16WV	E
C157	CE1718	Capacitor	22 $\mu$ F	16WV	E
C158	CE1727	Capacitor	4.7 $\mu$ F	25WV	E
C159	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C160	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C161	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C162	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C163	CE1751	Capacitor	2.2 $\mu$ F	50WV	E
C164	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C165	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C166	CE1727	Capacitor	4.7 $\mu$ F	25WV	E
Resistor					
R101AB	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R102AB	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R103AB	RB0380	Resistor	2.2K OHM	0.25W +/-5%	RD
R104AB	RB0368	Resistor	680 OHM	1/8W +/-5%	RD
R105AB	RB0370	Resistor	820 OHM	0.25W +/-5%	RD
R106AB	RB 0437	RESISTOR	510K OHM	0.25W +/-5%	RD
R107AB	RB0410	Resistor	39K OHM	0.25W +/-5%	RD
R108AB	RB0428	Resistor	220K OHM	0.25W +/-5%	RD
R109AB	RB0366	Resistor	560 OHM	0.25W +/-5%	RD
R110	RB0376	Resistor	1.5K OHM	0.25W +/-5%	RD
R111	RB0376	Resistor	1.5K OHM	0.25W +/-5%	RD
R116	RB0416	Resistor	68K OHM	0.25W +/-5%	RD
R117	RB0416	Resistor	68K OHM	0.25W +/-5%	RD
R118	RB0424	Resistor	150K OHM	0.25W +/-5%	RD
R119	RB0424	Resistor	150K OHM	0.25W +/-5%	RD
R120	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R121	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R122	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R123	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R124	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R125	RB0356	Resistor	220 OHM	0.25W +/-5%	RD
R126	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R127	RB0372	Resistor	1K OHM	0.25W +/-5%	RD
R128	RB0372	Resistor	1K OHM	0.25W +/-5%	RD
R129	RB0400	Resistor	15K OHM	0.25W +/-5%	RD
R130	RB0406	Resistor	27K OHM	0.25W +/-5%	RD
R131	RB0364	Resistor	470 OHM	0.25W +/-5%	RD
R132	RB0390	Resistor	5.6K OHM	0.25W +/-5%	RD
R133	RB0348	Resistor	100 OHM	0.25W +/-5%	RD
R134	RB0372	Resistor	1K OHM	0.25W +/-5%	RD
R135	RB0348	Resistor	100 OHM	0.25W +/-5%	RD
R136	RB0360	Resistor	330 OHM	0.25W +/-5%	RD
R137	RB0364	Resistor	470 OHM	0.25W +/-5%	RD
R138	RB0382	Resistor	2.7K OHM	0.25W +/-5%	RD
R139	RB0364	Resistor	470 OHM	0.25W +/-5%	RD
R140	RB0360	Resistor	330 OHM	0.25W +/-5%	RD
R141	RB0348	Resistor	100 OHM	0.25W +/-5%	RD
R142	RB0388	Resistor	4.7K OHM	0.25W +/-5%	RD
R143	RB0414	Resistor	56K OHM	0.25W +/-5%	RD
R144	RB0356	Resistor	220 OHM	0.25W +/-5%	RD
R145	RB0360	Resistor	330 OHM	0.25W +/-5%	RD

SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION			
Capacitor					
C101AB	CE0775	Capacitor	4.7 $\mu$ F	25WV	E
C102AB	CC0006	Capacitor	47pF	50WV	C
C103AB	CE1717	Capacitor	10 $\mu$ F	16WV	E
C104AB	CC0007	Capacitor	100pF	50WV	C
C105AB	CQ0027	Capacitor	0.0068 $\mu$ F	50WV	M
C106AB	CQ0028	Capacitor	0.0018 $\mu$ F	50WV	M
C107AB	CC0008	Capacitor	150pF	50WV	C
C108AB	CE0787	Capacitor	2.2 $\mu$ F	50WV	E
C109AB	CC0005	Capacitor	33pF	50WV	C
C110	CE1722	Capacitor	220 $\mu$ F	16WV	E
C112	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C113	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C114	CK0155	Capacitor	0.01 $\mu$ F	50WV	C
C115	CE1720	Capacitor	47 $\mu$ F	16WV	E
C116	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C117	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C118	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C119	CK0156	Capacitor	0.022 $\mu$ F	25WV	C
C120	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C121	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C122	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C123	CE1751	Capacitor	2.2 $\mu$ F	50WV	E
C124	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C125	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C126	CE1717	Capacitor	10 $\mu$ F	16WV	E
C127	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C128	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C129	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C130	CE1751	Capacitor	2.2 $\mu$ F	50WV	E
C131	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C132	CE1749	Capacitor	47 $\mu$ F	50WV	E
C133	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C134	CC0007	Capacitor	100pF	50WV	C
C136	CE1722	Capacitor	220 $\mu$ F	16WV	E
C137	CC0011	Capacitor	470pF	50WV	C
C138	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C139	CC0011	Capacitor	470pF	50WV	C
C140	CE1750	Capacitor	1 $\mu$ F	50WV	E
C141	CE1752	Capacitor	3.3 $\mu$ F	50WV	E
C142	CK0158	Capacitor	0.047 $\mu$ F	25WV	C
C143	CS0019	Capacitor	0.22 $\mu$ F	35WV	T
C144	CE1751	Capacitor	2.2 $\mu$ F	50WV	E
C145	CE1751	Capacitor	2.2 $\mu$ F	50WV	E
C146	CE1750	Capacitor	1 $\mu$ F	50WV	E
C147	CE1717	Capacitor	10 $\mu$ F	16WV	E
C148	CS0019	Capacitor	0.22 $\mu$ F	35WV	T
C149	CS0019	Capacitor	0.22 $\mu$ F	35WV	T
C150	CE1727	Capacitor	4.7 $\mu$ F	25WV	E
C151	CE1718	Capacitor	22 $\mu$ F	16WV	E
C152	CE1718	Capacitor	22 $\mu$ F	16WV	E
C153	CQ0024	Capacitor	0.0015 $\mu$ F	50WV	M
C154	CQ0024	Capacitor	0.0015 $\mu$ F	50WV	M
C155	CE1718	Capacitor	22 $\mu$ F	16WV	E

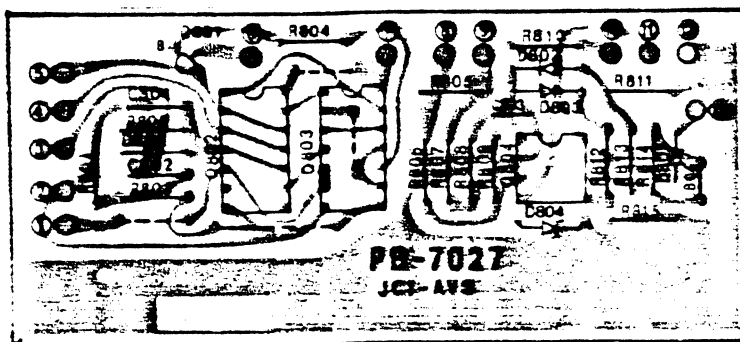
SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION
IC & Transistor		
Q801	TR0008	Transistor 2SA562
Q802	TC0141	IC TC4012BP
Q803	TC0140	IC TC4011BP
Q804	TC5002	IC NJM4558D

PB-7032 Parts List



SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION			
Resistor					
R501	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R502	RB0332	Resistor	22 OHM	0.25W +/-5%	RD
R503	RB0388	Resistor	4.7K OHM	0.25W +/-5%	RD
R504	RB0332	Resistor	22 OHM	0.25W +/-5%	RD
R505	RB0394	Resistor	8.2K OHM	0.25W +/-5%	RD
R506	RB0414	Resistor	56K OHM	0.25W +/-5%	RD
R507	RB0404	Resistor	22K OHM	0.25W +/-5%	RD
R508	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
Diode					
D501	TD0137	Diode	1N4001		
D502	TD0137	Diode	1N4001		
D503	TD0001	Diode	1N4001		
D504	TD0029	Diode Zener	WZ290	29V	
D505	TD5023	Diode Zener	WZ-040	4V	
D506	TD5023	Diode Zener	WZ-040	4V	

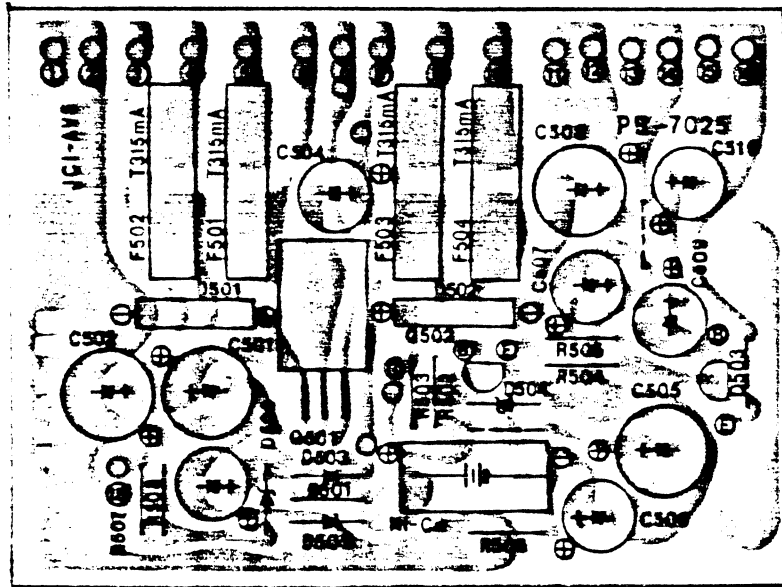
PB-7027 Part List



SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION			
Resistor					
R801	RB0426	Resistor	180K OHM	0.25W +/-5%	RD
R802	RB0426	Resistor	180K OHM	0.25W +/-5%	RD
R803	RB0384	Resistor	3.3K OHM	0.25W +/-5%	RD
R804	RB0408	Resistor	33K OHM	0.25W +/-5%	RD
R806	RB0414	Resistor	56K OHM	0.25W +/-5%	RD
R807	RB0414	Resistor	56K OHM	0.25W +/-5%	RD
R808	RB0432	Resistor	330K OHM	0.25W +/-5%	RD
R809	RB0432	Resistor	330K OHM	0.25W +/-5%	RD
R810	RB0360	Resistor	330 OHM	0.25W +/-5%	RD
R811	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R812	RB0414	Resistor	56K OHM	0.25W +/-5%	RD
R813	RB0414	Resistor	56K OHM	0.25W +/-5%	RD
R814	RB0422	Resistor	120K OHM	0.25W +/-5%	RD
R815	RB0422	Resistor	120K OHM	0.25W +/-5%	RD
Capacitor					
C301	CK0159	Capacitor	0.1µF	25WV	C
C802	CK0159	Capacitor	0.1µF	25WV	C
C803	CK0158	Capacitor	0.047µF	25WV	C
C804	CK0135	Capacitor	1000pF	50WV	C
Diode					
D801	TD0197	Diode	US1070		
D802	TD0197	Diode	US1070		
D803	TD0197	Diode	US1070		
D804	TD0027	Diode Zener	WZ120	12V	
D805	TD0197	Diode	US1070		

SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION
Diode		
D401	TD0001	Diode IN4001
D402	TD0027	Diode Zener WZ120 12V
D403	TD0001	Diode IN4001
D404	TD0001	Diode IN4001
D405	TD0137	Diode 11V810
D406	TD0106	Diode S3V40
D407	TD0106	Diode S3V40
D408	TD0106	Diode S3V40
D409	TD0106	Diode S3V40
IC & Transistor		
Q402	TC0131	IC STK3082
Q403AB	TR0165	Transistor 2SC1775A
Q404AB	TR0190	Transistor 2SC1624
Q405AB	TR0188	Transistor 2SA814
Q408	TC5013	IC HA12002
Q409	TR0043	Transistor 2SA733
Q410	TR0194	Transistor 2SD667
Q411	TC0130	IC NJM78M12A

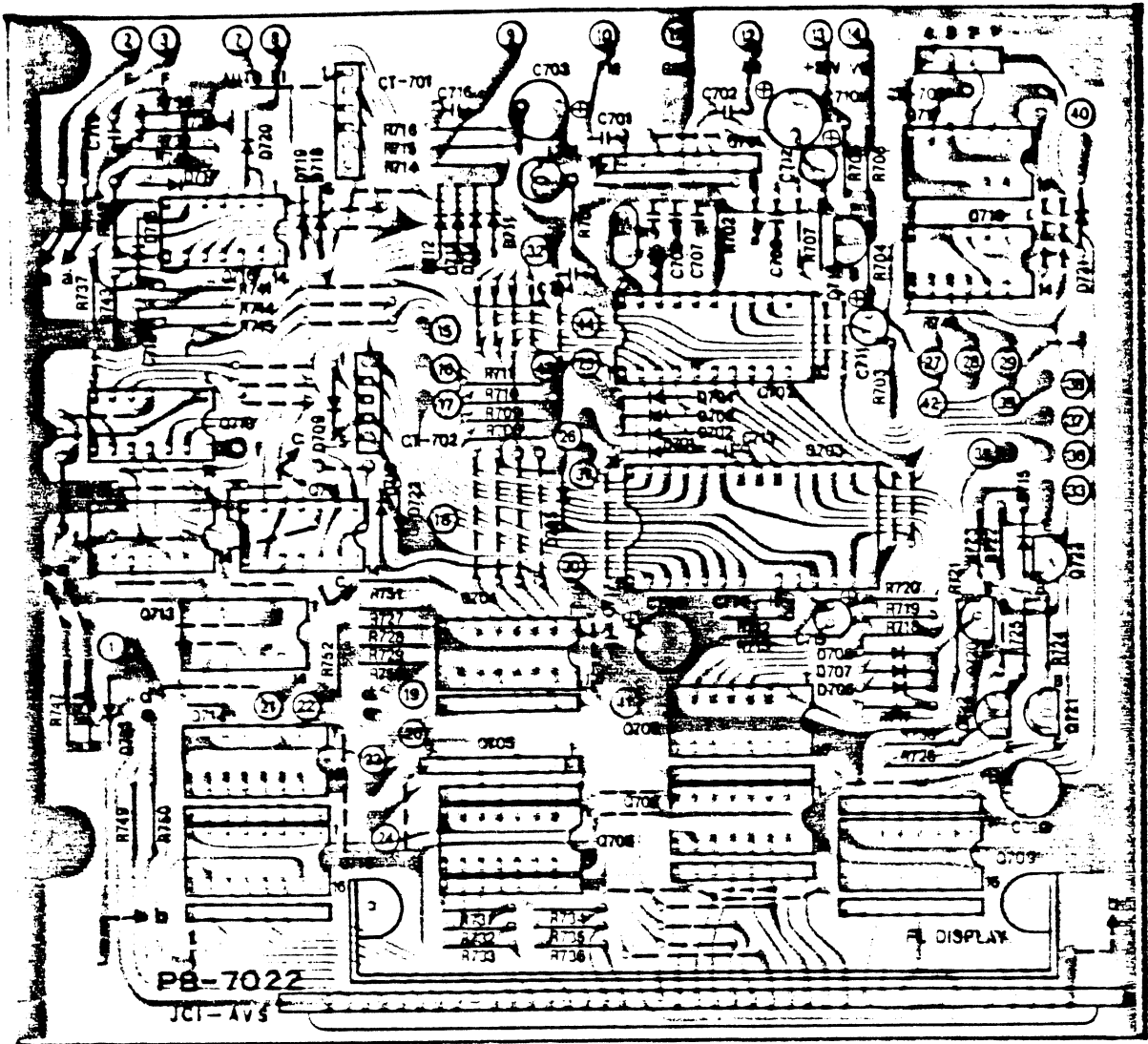
PB-7025 Parts List



SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION
Capacitor		
C501	CE1733	Capacitor 220µF 25WV E
C502	CE1733	Capacitor 220µF 25WV E
C503	CE1711	Capacitor 100µF 10WV E
C504	CE1712	Capacitor 220µF 10WV E
C504	CE1758	Capacitor 100µF 50WV E
C506	CE1743	Capacitor 100µF 35WV E
C507	CE1740	Capacitor 22µF 35WV E
C508	CE1758	Capacitor 100µF 50WV E
C509	CE1758	Capacitor 100µF 50WV E
C510	CE1757	Capacitor 47µF 50WV E
IC & Transistor		
Q501	TC0145	IC NJM78M02A
Q502	TR0194	Transistor 2SD667
Q503	TR0195	Transistor 2SB647



FB-7022 Parts List



SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION
IC & Transistor		
Q701	TC5015	IC TD6102P
Q702	TC5016	IC TC9123P-GR
Q703	TC5017	IC TC9124P
Q704	TC0133	IC TC5066
Q705	TC0085	IC BA656
Q706	TC5018	IC TC5022BP
Q707	TC0133	IC TC5066
Q708	TC0133	IC TC5066
Q709	TC0133	IC TC5066
Q710	TC0134	IC TC4071
Q711	TC0135	IC TC4081
Q712	TC0135	IC TC4081
Q713	TC0136	IC TC4075
Q714	TC5018	IC TC5022BP
Q715	TC0133	IC TC5066
Q716	TC0135	IC TC4081
Q718	TC0142	IC TC4066
Q719	TR0198	Transistor 2SC1815
Q720	TR0198	Transistor 2SC1815
Q721	TR0198	Transistor 2SC1815
Q722	TR0198	Transistor 2SC1815
Q723	TR0009	Transistor 2SA562

SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION		
Capacitor				
C407AB	CC0011	Capacitor	470pF 50WV	C
C408AB	CC0008	Capacitor	150pF 50WV	C
C409AB	CE1750	Capacitor	1 $\mu$ F 50WV	E
C410AB	CC0038	Capacitor	5pF 50WV	C
C411AB	CK0157	Capacitor	0.04 $\mu$ F 25WV	C
C412AB	CC0009	Capacitor	220pF 50WV	C
C413AB	CC0008	Capacitor	150pF 50WV	C
C414AB	CQ0005	Capacitor	0.1 $\mu$ F 50WV	M
C415AB	CK0195	Capacitor	0.01 $\mu$ F 500WV	C
C416	CE1711	Capacitor	100 $\mu$ F 10WV	E
C417	CE1717	Capacitor	10 $\mu$ F 16WV	E
C418	CE1722	Capacitor	220 $\mu$ F 16WV	E
C419	CE1717	Capacitor	10 $\mu$ F 16WV	E
C420	CE1736	Capacitor	1000 $\mu$ F 25WV	E
C421	CE1725	Capacitor	1000 $\mu$ F 16WV	E
C422	CE1735	Capacitor	470 $\mu$ F 25WV	E
C425AB	CE0788	Capacitor	3.3 $\mu$ F 50WV	E
C427	CK0155	Capacitor	0.01 $\mu$ F 50WV	C
C428	CK0155	Capacitor	0.01 $\mu$ F 50WV	C
Resistor				
R411AB	RB0388	Resistor	4.7K OHM 0.25W +/-5%	RD
R412AB	RB0408	Resistor	33K OHM 0.25W +/-5%	RD
R413AB	RB0366	Resistor	560 OHM 0.25W +/-5%	RD
R414AB	RB0408	Resistor	33K OHM 0.25W +/-5%	RD
R415AB	RB0364	Resistor	470 OHM 0.25W +/-5%	RD
R416AB	RB0379	Resistor	2.2K OHM 0.25W +/-5%	RD
R417AB	RB0416	Resistor	68K OHM 0.25W +/-5%	RD
R418AB	RB0376	Resistor	1.5K OHM 0.25W +/-5%	RD
R419AB	RB0366	Resistor	560. OHM 0.25W +/-5%	RD
R420AB	RS2512	Resistor	100 OHM 0.5W +/-5%	RO
R421AB	RS2512	Resistor	100 OHM 0.5W +/-5%	RO
R422AB	RG0078	Resistor	0.47 OHM 5W +/-5%	RC
R423AB	RG0078	Resistor	0.47 OHM 5W +/-5%	RC
R424AB	RS2696	Resistor	4.7 OHM 1W +/-5%	RO
R425AB	RS2708	Resistor	15 OHM 1W +/-5%	RO
R426AB	RB0420	Resistor	100K OHM 0.25W +/-5%	RD
R427	RB0376	Resistor	1.5K OHM 0.25W +/-5%	RD
R428	RB0424	Resistor	150K OHM 0.25W +/-5%	RD
R429	RB0402	Resistor	18K OHM 0.25W +/-5%	RD
R430	RB0396	Resistor	10K OHM 0.25W +/-5%	RD
R431	RB0408	Resistor	33K OHM 0.25W +/-5%	RD
R432	RB0396	Resistor	10K OHM 0.25W +/-5%	RD
R433	RS5026	Resistor	220 OHM 1W +/-5%	RO
R434	RB0376	Resistor	1.5K OHM 0.25W +/-5%	RD
R435	RB0392	Resistor	6.8K OHM 0.25W +/-5%	RD
R436	RB0392	Resistor	6.8K OHM 0.25W +/-5%	RD
R437AB	RS2947	Resistor	330 OHM 2W +/-5%	RM
Choke Coil & Battery				
L401AB	LA1004	Choke-Coil	LUX-1004-2M/MH	
NI-CD	TA5001	Battery	50FT-3-1	
Relay				
RL401	AY0045	Relay LC2N-E	24V	
RL402	AY0045	Relay LC2N-E		

SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION			
Resistor					
R728	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R729	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R730	RB0356	Resistor	220 OHM	0.25W +/-5%	RD
R731	RB0400	Resistor	15K OHM	0.25W +/-5%	RD
R732	RB0418	Resistor	82K OHM	0.25W +/-5%	RD
R733	RB0418	Resistor	82K OHM	0.25W +/-5%	RD
R734	RB0418	Resistor	82K OHM	0.25W +/-5%	RD
R735	RB0418	Resistor	82K OHM	0.25W +/-5%	RD
R736	RB0418	Resistor	82K OHM	0.25W +/-5%	RD
R737	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R738	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R739	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R740	RB0444	Resistor	1M OHM	0.25W +/-5%	RD
R741	RB0444	Resistor	1M OHM	0.25W +/-5%	RD
R742	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R743	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R744	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R745	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R746	RB0372	Resistor	1K OHM	0.25W +/-5%	RD
R747	RD0474	RESISTOR	220 OHM	0.25W +/-5%	
R748	RD0474	RESISTOR	220 OHM	0.25W +/-5%	
R749	RB0408	Resistor	33K OHM	0.25W +/-5%	RD
R750	RB0422	Resistor	120 OHM	0.25W +/-5%	RD
R751	RB0416	Resistor	68K OHM	0.25W +/-5%	RD
R752	RB0416	Resistor	68K OHM	0.25W +/-5%	RD
R753	RB0416	Resistor	68K OHM	0.25W +/-5%	RD
R754	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
Diode					
D701	TD0197	Diode	US1070		
D702	TD0197	Diode	US1070		
D703	TD0197	Diode	US1070		
D704	TD0197	Diode	US1070		
D705	TD0197	Diode	US1070		
D706	TD0197	Diode	US1070		
D707	TD0197	Diode	US1070		
D708	TD0197	Diode	US1070		
D709	TD0197	Diode	US1070		
D710	TD0197	Diode	US1070		
D711	TD0197	Diode	US1070		
D712	TD0197	Diode	US1070		
D713	TD0197	Diode	US1070		
D714	TD0197	Diode	US1070		
D715	TD0197	Diode	US1070		
D716	TD0197	Diode	US1070		
D717	TD0197	Diode	US1070		
D718	TD0197	Diode	US1070		
D719	TD0197	Diode	US1070		
D720	TD0197	Diode	US1070		
D721	TD0197	Diode	US1070		
D722	TD0197	Diode	US1070		
D723	TD0178	Diode Zener	WZ-032	3.2V	

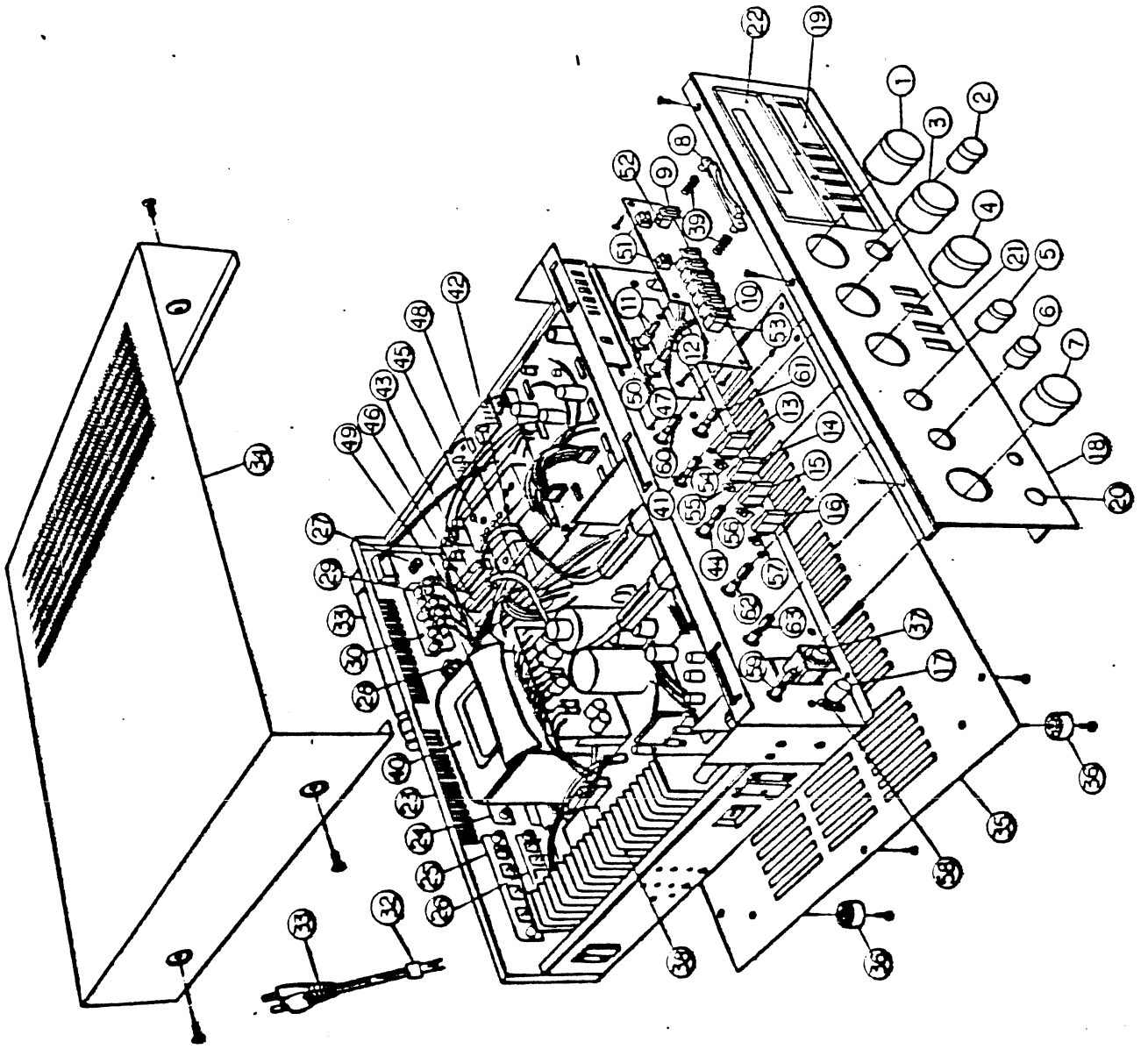
SYMBOL NO.	PARTS NO.	DESCRIPTION AND SPECIFICATION			
Crystal					
XTL	TX5001	Crystal	6.4 MHZ	HC-18U	
Choke Coil					
L701	LA1143	Choke Coil		S-470K	
Connector & Capacitor					
CT701	AS0174	Concentor (Pin)	B6P-SHF-1AA		
CT702	AS0182	Concentor (Pin)	B5P-SHF-1AA		
CT703	AS0181	Concentor (Pin)	B4P-SHF-1AA		
C701	CK0155	Capacitor	0.01 $\mu$ F	50WV	C
C702	CK0155	Capacitor	0.01 $\mu$ F	50WV	C
C703	CE1720	Capacitor	47 $\mu$ F	16WV	E
C704	CK0155	Capacitor	0.01 $\mu$ F	50WV	C
C705	CC0005	Capacitor	33pF	50WV	C
C706	CC0005	Capacitor	33pF	50WV	C
C707	CK0155	Capacitor	0.01 $\mu$ F	50WV	C
C708	CK0155	Capacitor	0.01 $\mu$ F	50WV	C
C709	CE1722	Capacitor	220 $\mu$ F	16WV	E
C710	CE1743	Capacitor	100 $\mu$ F	35WV	E
C711	CS0022	Capacitor	2.2 $\mu$ F	35WV	T
C713	CK0155	Capacitor	0.01 $\mu$ F	50WV	C
C714	CK0130	Capacitor	4700pF	50WV	C
C715	CE1751	Capacitor	2.2 $\mu$ F	50WV	E
C716	CK0155	Capacitor	0.01 $\mu$ F	50WV	C
C717	CK0155	Capacitor	0.01 $\mu$ F	50WV	C
C718	CK0155	Capacitor	0.01 $\mu$ F	50WV	C
C719	CK0155	Capacitor	0.01 $\mu$ F	50WV	C
C720	CE1722	Capacitor	220 $\mu$ F	16WV	E
C721	CE1722	Capacitor	220 $\mu$ F	16WV	E
Resistor					
R701	RB0336	Resistor	33 OHM	0.25W +/-5%	RD
R702	RB0436	Resistor	470K OHM	0.25W +/-5%	RD
R703	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R704	RB0390	Resistor	5.6K OHM	0.25W +/-5%	RD
R705	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R706	RB0392	Resistor	6.8K OHM	0.25W +/-5%	RD
R707	RB0374	Resistor	1.2K OHM	0.25W +/-5%	RD
R708	RB0384	Resistor	3.3K OHM	0.25W +/-5%	RD
R709	RB0384	Resistor	3.3K OHM	0.25W +/-5%	RD
R710	RB0384	Resistor	3.3K OHM	0.25W +/-5%	RD
R711	RB0384	Resistor	3.3K OHM	0.25W +/-5%	RD
R712	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R713	RB0408	Resistor	33K OHM	0.25W +/-5%	RD
R714	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R715	RB0420	Resistor	100K OHM	0.25W +/-5%	RD
R716	RB0408	Resistor	33K OHM	0.25W +/-5%	RD
R717	RB0400	Resistor	15K OHM	0.25W +/-5%	RD
R718	RB0400	Resistor	15K OHM	0.25W +/-5%	RD
R719	RB0400	Resistor	15K OHM	0.25W +/-5%	RD
R720	RB0400	Resistor	15K OHM	0.25W +/-5%	RD
R721	RB0386	Resistor	3.9K OHM	0.25W +/-5%	RD
R722	RB0400	Resistor	15K OHM	0.25W +/-5%	RD
R723	RB0412	Resistor	47K OHM	0.25W +/-5%	RD
R724	RB0380	Resistor	2.2K OHM	0.25W +/-5%	RD
R725	RB0380	Resistor	2.2K OHM	0.25W +/-5%	RD
R726	RB0396	Resistor	10K OHM	0.25W +/-5%	RD
R727	RB0420	Resistor	100K OHM	0.25W +/-5%	RD

< Switch >		
41	SR0139	Input selector (Rotary)
42	SZ0137R	(Wire)
43	SS0022	(Slide Sw.)
44	SR0138	Rec. Out Selector (Rotary)
45	SZ0137R	(Wire)
46	SS0022	(Slide Sw.)
47	SP0155	Function (AM/FM)
48	SZ0136P.	(Wire)
49	SS0128	(Slide Sw.)
50	SP0155	Tuning (Auto/Manual)
51	SP0133	Tuning Key
52	SP0133	Memory
53	SP0133	Presets (1-6)
54	SP0154	Loudness
55	SP0154	Mono
56	SP0154	High Cut
57	SP0154	Subsonic
58	SP0114	Power SDU4P
59	SR0140	Speaker Selector
< Variable Resistor >		
60	RV0255	Volume Control
61	RV0254	Balance Control
62	RV0252	Treble Control
63	RV0253	Bass Control
Packing Material		
	XA1247	Carton
	XB1039	Pad
	ME0147	Oumer's Manual

Replacement Parts List (Cosmetic)

Ref. No.	Parts No.	Description
< Knob >		
1	WH1114	Volume
2	WH1111	Balance
3	WH1114	Input Selector
4	WH1114	Rec. Selector
5	WH3006	Treble
6	WH3006	Bass
7	WH1114	Speaker Selector
8	WJ1132	Tuning Key [Up, Down]
9	WJ1131	Memory
10	WJ1131	Preset [1-6]
11	WJ1136	Tuning [Auto/Manual]
12	WJ1136	Function [AM/FM]
13	WJ1130	Loudness
14	WJ1130	Mono
15	WJ1130	High Cut
16	WJ1130	Subsonic
17	WJ1125	Power
< Front Panel >		
18	WA1191	Frontpanel
19	WD1120	Escutcheon
20	WE1051	Protector [Power Sw.]
21	WE1087	Protector [Push Sw.]
22	WE1088	Protector [Transparent Cover]
	UW1118	Spacer
	WU1025	Filter
	UQ1034	Dressing Plate
< Rear Panel >		
23	UC1158	Rear Panel
24	AT0121	Terminal Antenna
25	AS0156	Antenna (DIN)
26	AT0080	Speaker
27	AG0048	GND
28	AS0208	DIN
29	AT0122	Phono, Aux
30	AT0122	Moni., Rec out
31	BK0023	Power Cord SG
	BK0022	SK
	BK0018	E
32	BU0033	Bushing [For Power Cord]
33	LA1132	Bar antenna
< Bottom Plate >		
34	UG1026	Bonnet
35	WE7006	Bottom Plate
36	WN0007	Foot
37	AJ0014	Headphone Jack
38	BE7004	Heat Roop
39	UU1031	Spring
40	PT7003	Power transformer, P7003 [SG, SK]
	PT7004	P7004 [E]

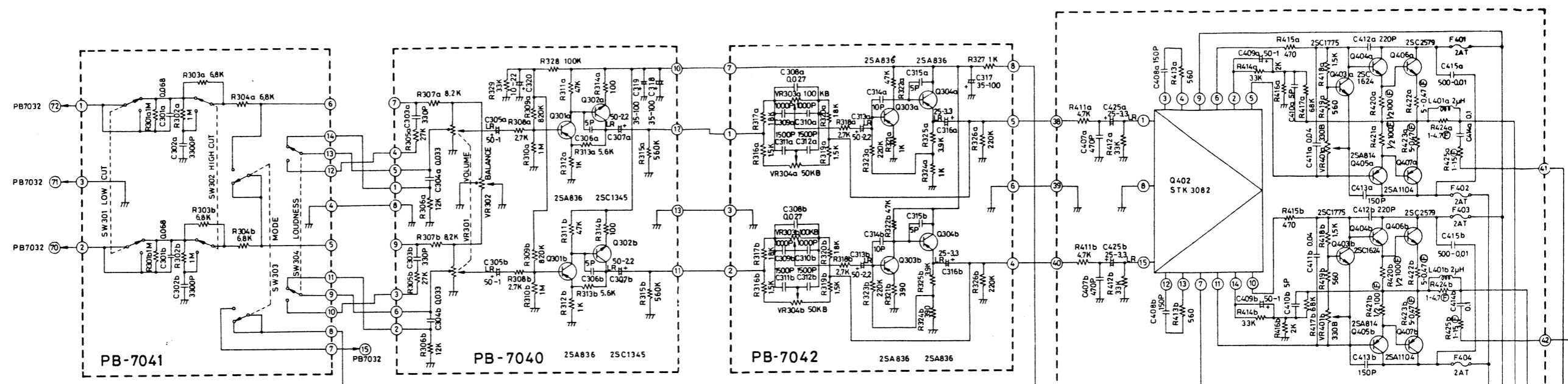
EXPLODED VIEW



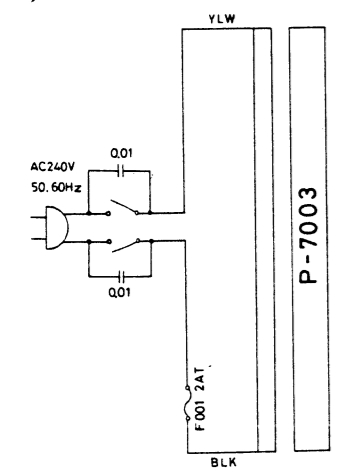




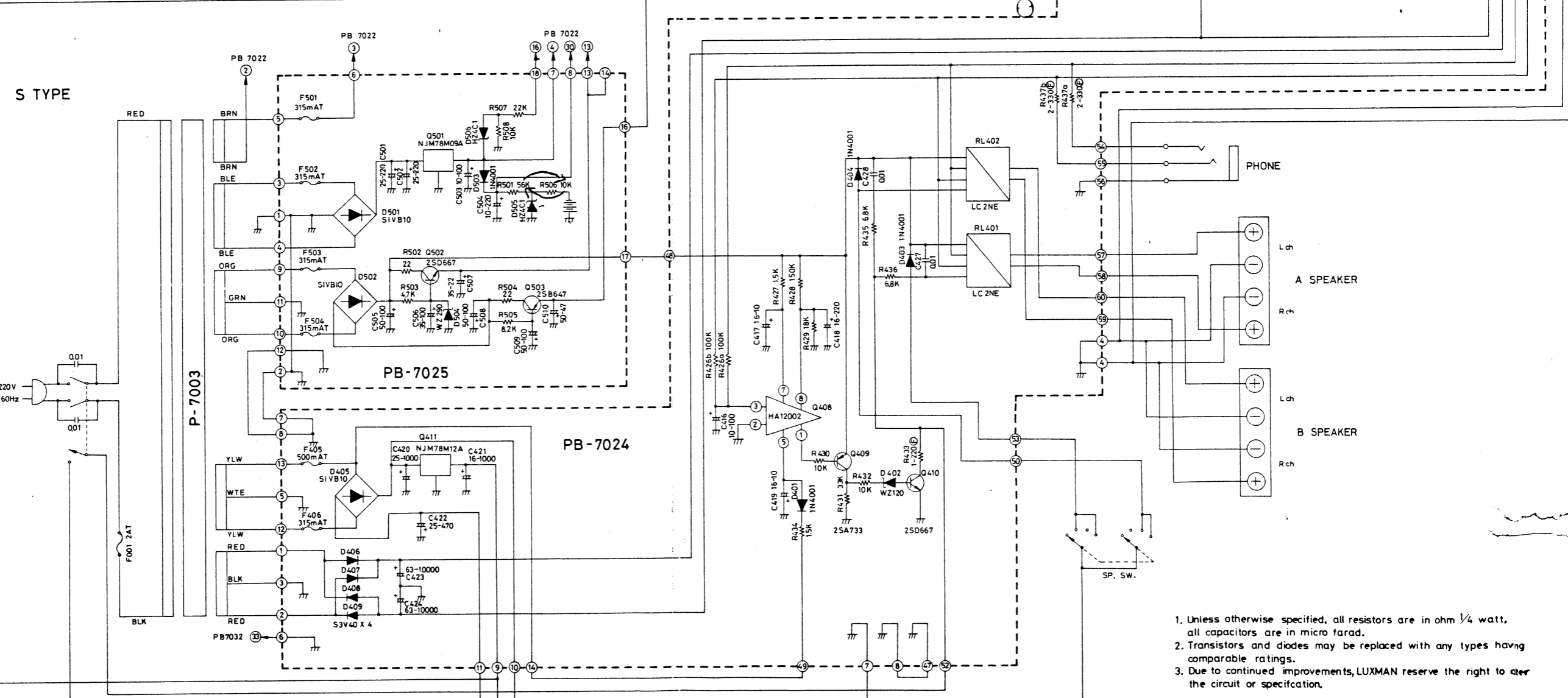
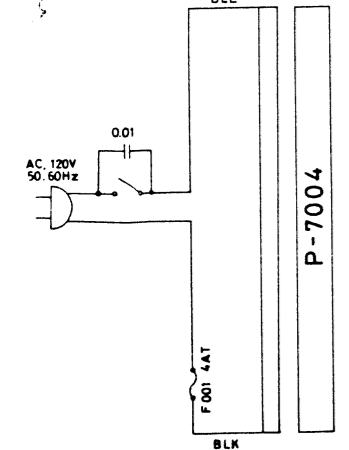
50mA



SG,SB TYPE

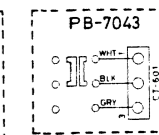
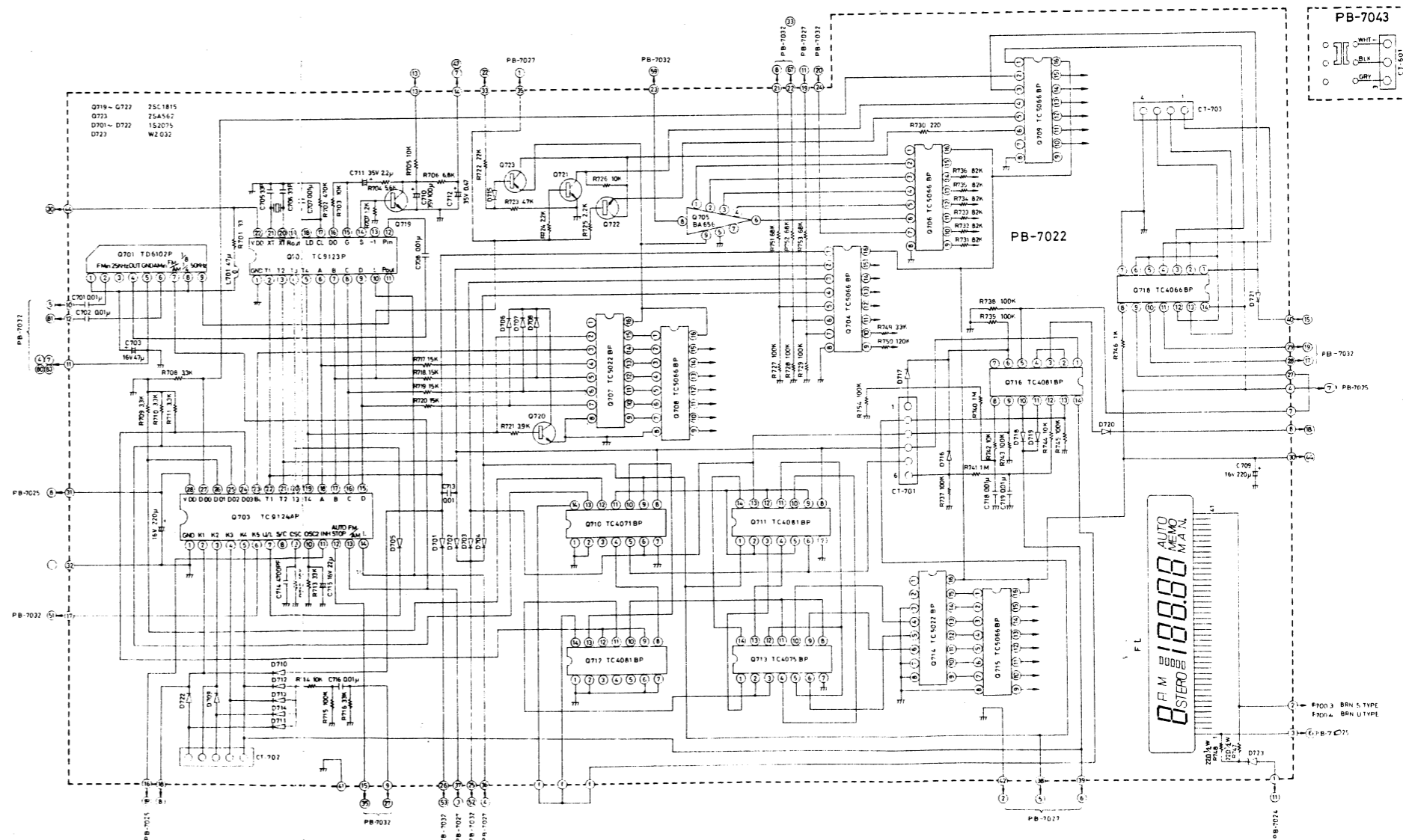
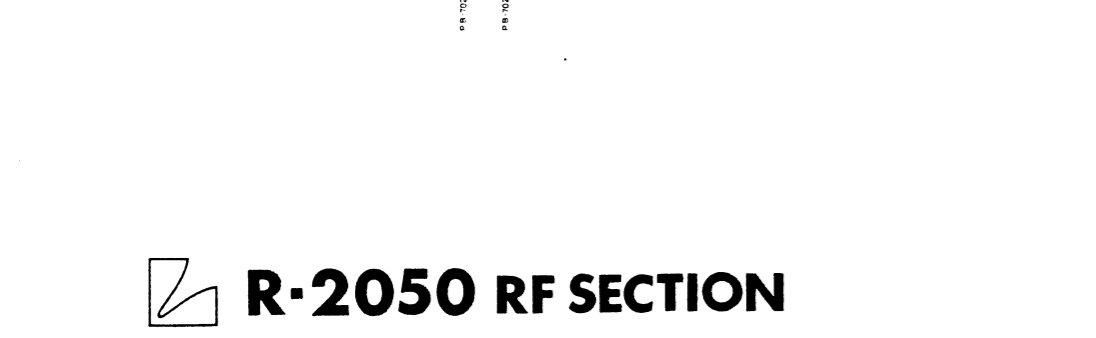
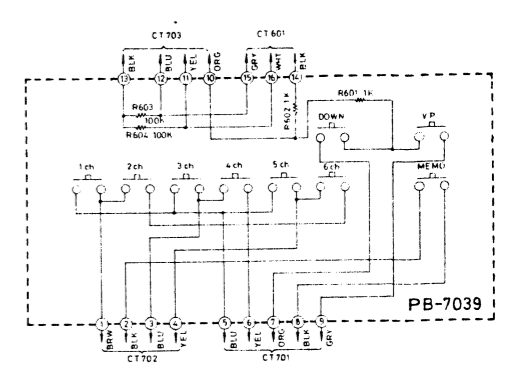
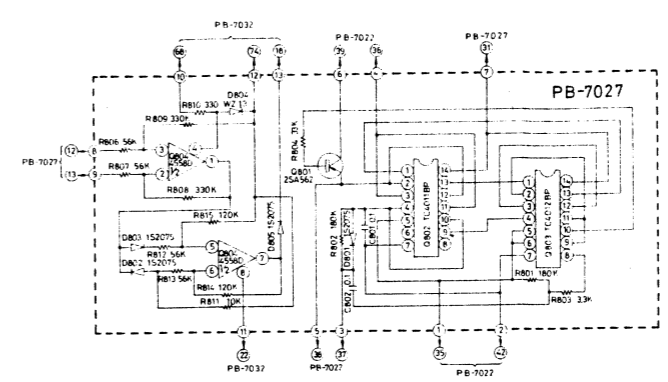
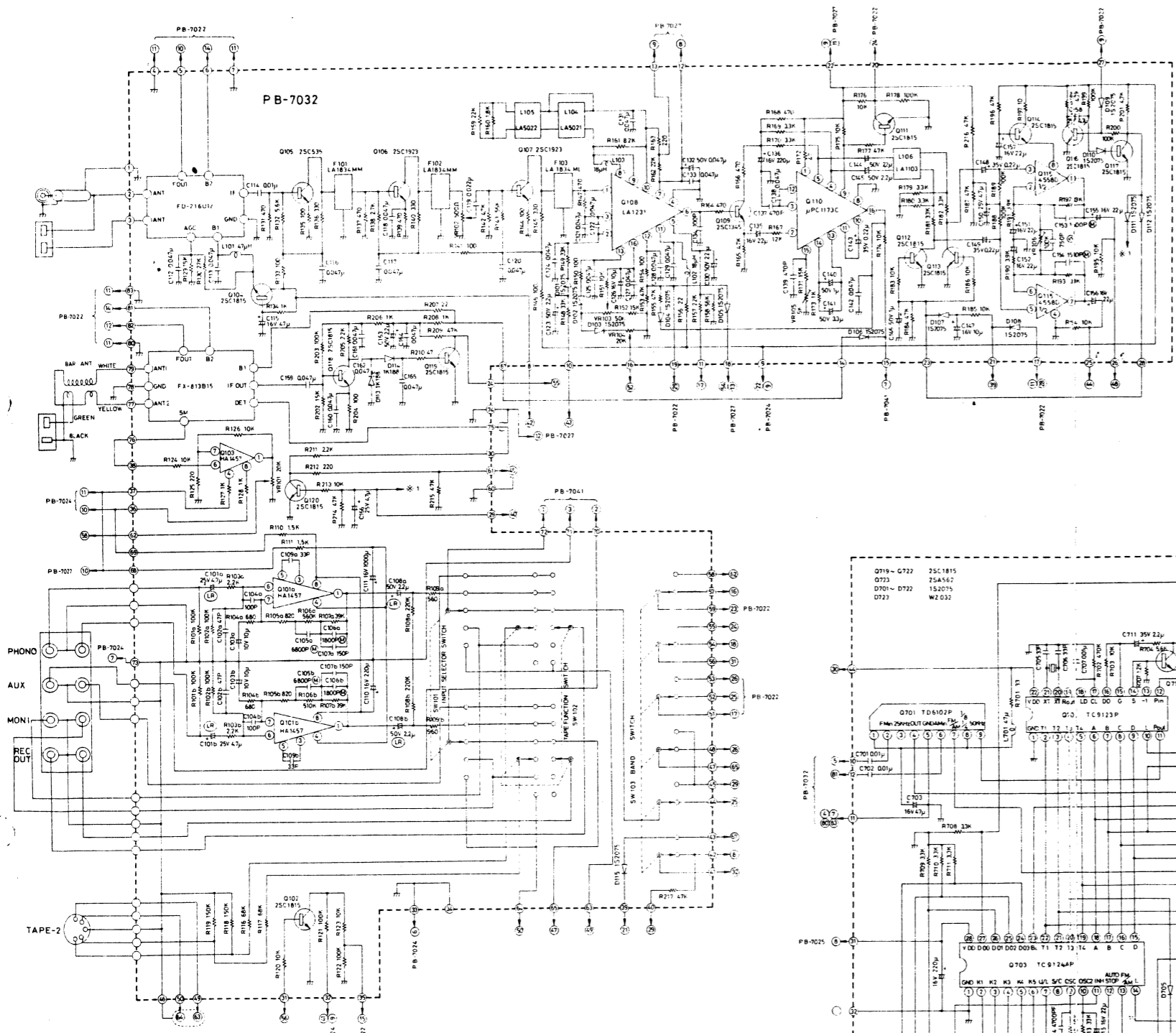


E TYPE



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 types having comparable ratings.
3. Due to continued improvements, LUXMAN reserve the right to alter the circuit or specification.

**LUXMAN R-2050**  
**AUDIO SECTION**



**R-2050 RF SECTION**