

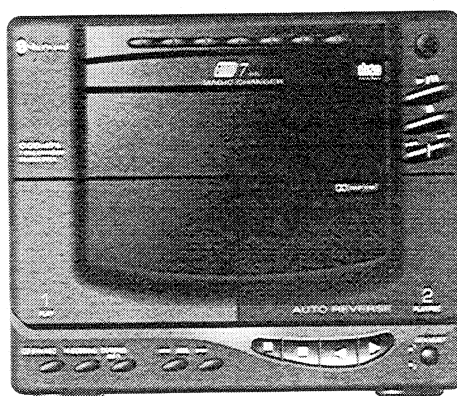
SERVICE MANUAL

P-686



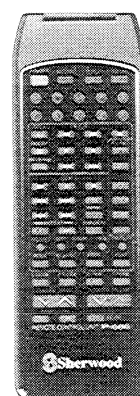
AVT-686

- AUDIO/VIDEO PRO-LOGIC AMPLIFIER
- STEREO AM/FM TUNER & TIMER



CCD-676

- MULTI COMPACT DISC PLAYER (7 CD Changer)
- STEREO DOUBLE CASSETTE DECK



 **Sherwood®**

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AVT-686

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CCD-676

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SAFETY PRECAUTION

WARNING

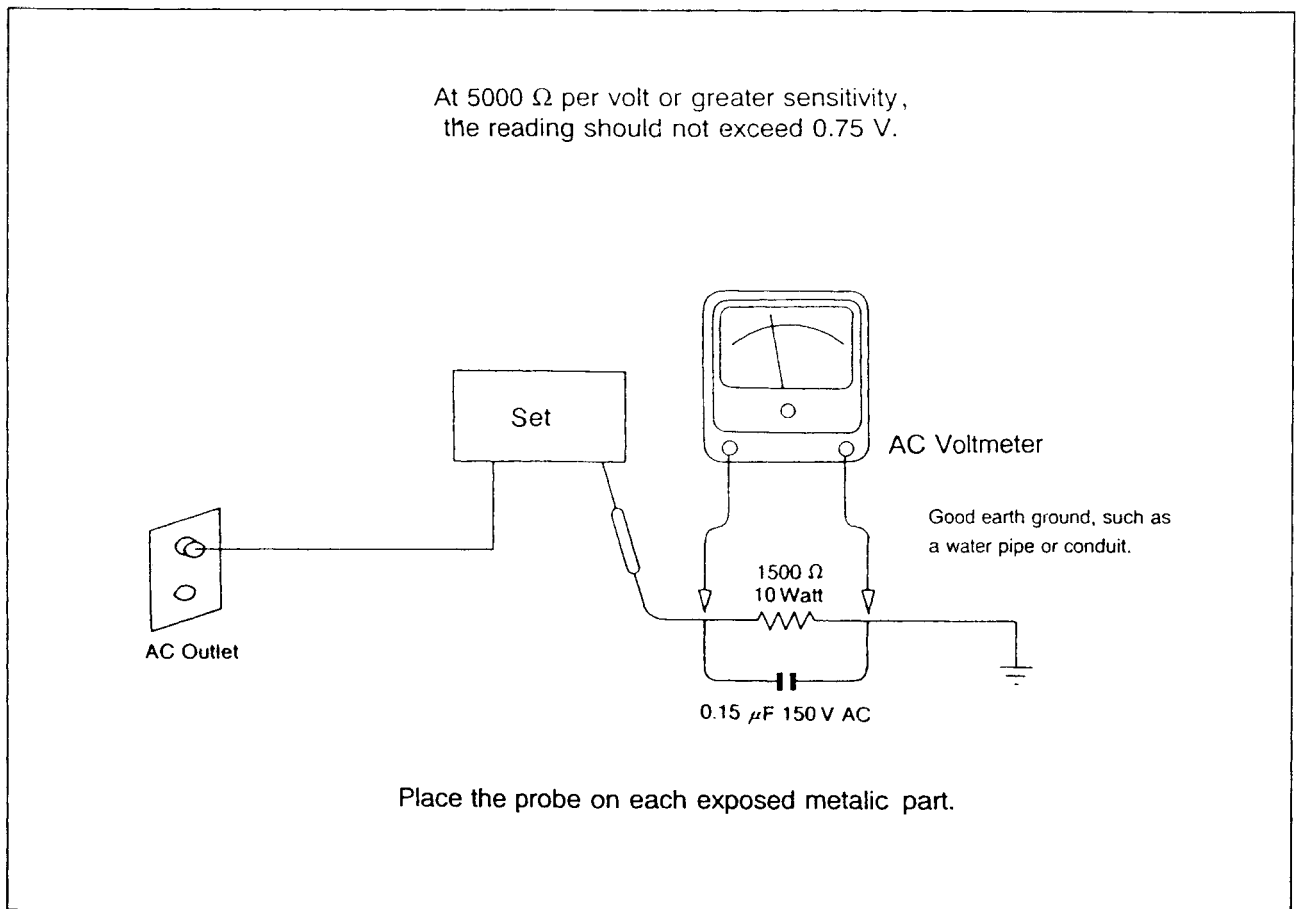
Before servicing this unit, familiarize yourself with the following precautions:

1. Many electrical and mechanical parts in this chassis have special safety characteristics that often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements: electrical components having such features are identified by $\square$ in the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

2. Before returning the set to the customer, always do an AC leakage current check on the

exposed metal parts of the cabinet, such as terminals, screw heads, and metal overlays, to be sure the set is safe to operate danger of electrical shock. Plug the AC line cord directly into a 120 V AC outlet (120 V AC version only). (Do not use a line isolation transformer during this check.) Be sure your AC voltmeter has a sensitivity of $5000\ \Omega$ per volt or greater. Then connect a $1500\ \Omega$ 10 watt resistor, paralleled by a $0.15\ \mu\text{F}$ 150 V AC capacitor, between a known good earth ground (such as a water pipe, or conduit) and the exposed metallic is parts, one at a time. Measure the AC voltage across the combination of a $1500\ \Omega$ resistor and a $0.15\ \mu\text{F}$ capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75V RMS. This corresponds to 0.2 mA AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



AVT-686 SPECIFICATIONS

FRONT AMPLIFIER SECTION

Description	Unit	Nominal	Limit	Condition
RMS Output Power <Stereo Mode>	W	57	53	6Ω Load, THD ≤ 0.8%, 1 kHz
Total Harmonic Distortion	%	0.1	0.3	1 kHz, 50 W Output, Stereo Mode
Inter Modulation Distortion	%	0.1	0.3	50 W Output, Stereo Mode
Input Sensitivity	AUX	mV	250	± 30 50 W Output, Stereo Mode
	MIC	mV	2.5	
Signal to Noise Ratio	AUX	dB	90	IHF WTD, 50 W Output Input 4.7 KΩ Shorted
	MIC	dB	42	
Frequency Response (at -3 dB Down)	Hz	10 ~ 75000	20 ~ 70000	AUX Input, 6Ω Load 1 W Output
Channel Separation	1 kHz	dB	55	Vol. Max. 50 W = 0 dB
Minimum Noise	mV	0.7	1	Vol. Min., Speaker Output

CENTER AMPLIFIER SECTION

Description	Unit	Nominal	Limit	Condition
RMS Output Power	W	33	30	6Ω Load, THD ≤ 0.3%, 1 kHz
Signal to Noise Ratio	dB	78	73	IHF WTD, 30 W Output, Pro-Logic Mode
Frequency Response (at -3 dB Down)	Hz	20~18	50~15	6Ω Load, 1 W Output

REAR AMPLIFIER SECTION

Description	Unit	Nominal	Limit	Condition
RMS Output Power	W	18	15	12Ω Load, THD ≤ 0.7%, 1 kHz
Signal to Noise Ratio	dB	65	60	IHF WTD, 30 W Output, Pro-Logic Mode
Frequency Response (at -3 dB Down)	Hz	80~7k	100~6	12Ω Load, 1 W Output

AM SECTION

AM Performance test Standard

- RF Signal: 999 kHz, 5 mV/m
- Modulation: 400 Hz, 30% at VOLUME 31 POINT (OUTPUT LEVEL ; 28 POINT)
- Test Condition: 30% DEV. at 400 Hz · EQ FLAT · SURROUND OFF · X-BASS OFF

Description		Unit	Nominal	Limit	Condition
Tuning Range	MW	kHz	520~1710		Step: 10 kHz, USA/Canada
	MW	kHz	522~1611		Step: 9 kHz, Korea, PT INDO, Europe
	LW	kHz	153~279		Step: 9 kHz, Europe
Usable Sensitivity (S/N=20 dB)	MW-2Band	uV/m	1000	1500	MW: 600 kHz, 1000 kHz, 1400 kHz
	MW-3Band	uV/m	1000	1500	MW: 603 kHz, 999 kHz, 1404 kHz
	LW	uV/m	1500	2000	LW: 162 kHz, 207 kHz, 252 kHz
Image Rejection		dB	25	20	1404 kHz
IF Rejection		dB	40	35	603 kHz
AGC Figure of Merit		dB	45	40	From 100 mV/m at 999 kHz
Frequency Response		Hz~kHz	100~2.2	120~2	999 kHz, -6 dB
Selectivity		dB	25	20	500 uV/m, 999 kHz ± 9 kHz
	3Band	dB	35	30	
RF Overload THD		%	10	15	80% MOD., 100 mV/m Input
Whistle	3mV/m 2IF, 3IF	%	10	20	
	5mV/m 2IF, 3IF	%	10	20	
Output Voltage	Ref :790 mV	mV	± 80	± 60	400Hz, 5 mV, 30% MOD, Volume Level 28

EQ SECTION

Ref. EQ FLAT

EQ	POPS	ROCK	CLASSIC	Unit	Nominal	Limit	Condition
100 Hz	0	3.75	2	dB	± 1	± 2	1 W Output
1 kHz	3.75	0	0	dB	± 1	± 2	1 W Output
10 kHz	2	2	2	dB	± 1	± 2	1 W Output

FM SECTION

FM Performance Test Standard

EQ FLAT

SURROUND OFF

X-BASS OFF

Tuning Range : 87.5 MHz - 107.9 MHz Area	Tuning Range : 87.5 MHz - 108 MHz Area
RF Signal : 98.1 MHz	RF Signal : 98.0 MHz
Modulation : Mono ± 75 kHz DEV. for 1 kHz	Modulation : Mono ± 40 kHz DEV. for 1 kHz
Stereo ± 75 kHz, L=-R	Stereo ± 40 kHz, L=-R

Description			Unit	Nominal	Limit	Condition
Tuning range			MHz	87.5~107.9		Korea, USA/Canada Step: 200 kHz
			MHz	87.5~108		Europe, PT INDO, Step: 50 kHz
Usable Sensitivity			uV	2.5	4	90.1/98.1/106.1 MHz, 30 dB ≤ S/N
			uV	2.5	4	90/98/106 MHz, 26 dB ≤ SN
Image Rejection			dB	35	30	106/106.1 MHz
IF Rejection			dB	80	70	90/90.1 MHz
Full Limiting			uV	2	4	-3 dB, 75 Ω
50 dB Quieting Sensitivity	Mono	75 kHz DEV.	uV	5	8	IHF B.P.F, 75 dB
		40 kHz DEV.	uV	5	8	
	Stereo	75 kHz DEV.	uV	5	8	
		40 kHz DEV.	uV	70	80	
Total Harmonic Distortion	Mono	75 kHz DEV.	%	1	1.5	IHF B.P.F, 1 kHz, 100 % MOD.
		40 kHz DEV.	%	1	1.5	
	Stereo	75 kHz DEV.	%	1.5	2	
		40 kHz DEV.	%	1.5	2	
Signal to Noise Ratio	Mono	75 kHz DEV.	dB	60	55	IHF B.P.F, 100 % MOD., 1 mV Input
		40 kHz DEV.	dB	60	55	
	Stereo	75 kHz DEV.	dB	58	54	
		40 kHz DEV.	dB	58	54	
Frequency Response at -3 dB			Hz~kHz	45~14	50~13.5	98/98.1 MHz, 100% MOD., 1 mV Input
AM Rejection Ratio			dB	40	30	100 uV ~ 20 mV Input
Search Level			uV	10	± 6 dB	75 Ω
Automatic Stereo Threshold			uV	10	± 6 dB	75 Ω
Muting Threshold			uV	10	± 6 dB	75 Ω
Overload THD			%	1	1.5	100% MOD., 100 mV RF Input
Spurious Response			dB	60	50	ANT. Input 2 uV 1/2IF, IF
Capture Ratio				2	3	40/60 dBu
Stereo Separation	100 Hz		dB	25	20	100% MOD., 1 mV Input, IHF B.P.F
	1 kHz		dB	25	20	
	10 kHz		dB	25	20	
Output Voltage		Mono	mV	± 400	± 700	1 kHz, 5 mV Input, 100% MOD, Volume Level 28
		Ref. : 2100				

GENERAL

POWER CONSUMPTION (AVT-686 + CCD-676)

DIMENSIONS (W × H × D)

WEIGHT (Net), (AVT-686 + CCD676)

POWER SUPPLIES

D, KS, PT INDO: 240 W

AVT-686 : 245 × 200 × 280 mm

CCD-676 : 245 × 200 × 280 mm

15 kg

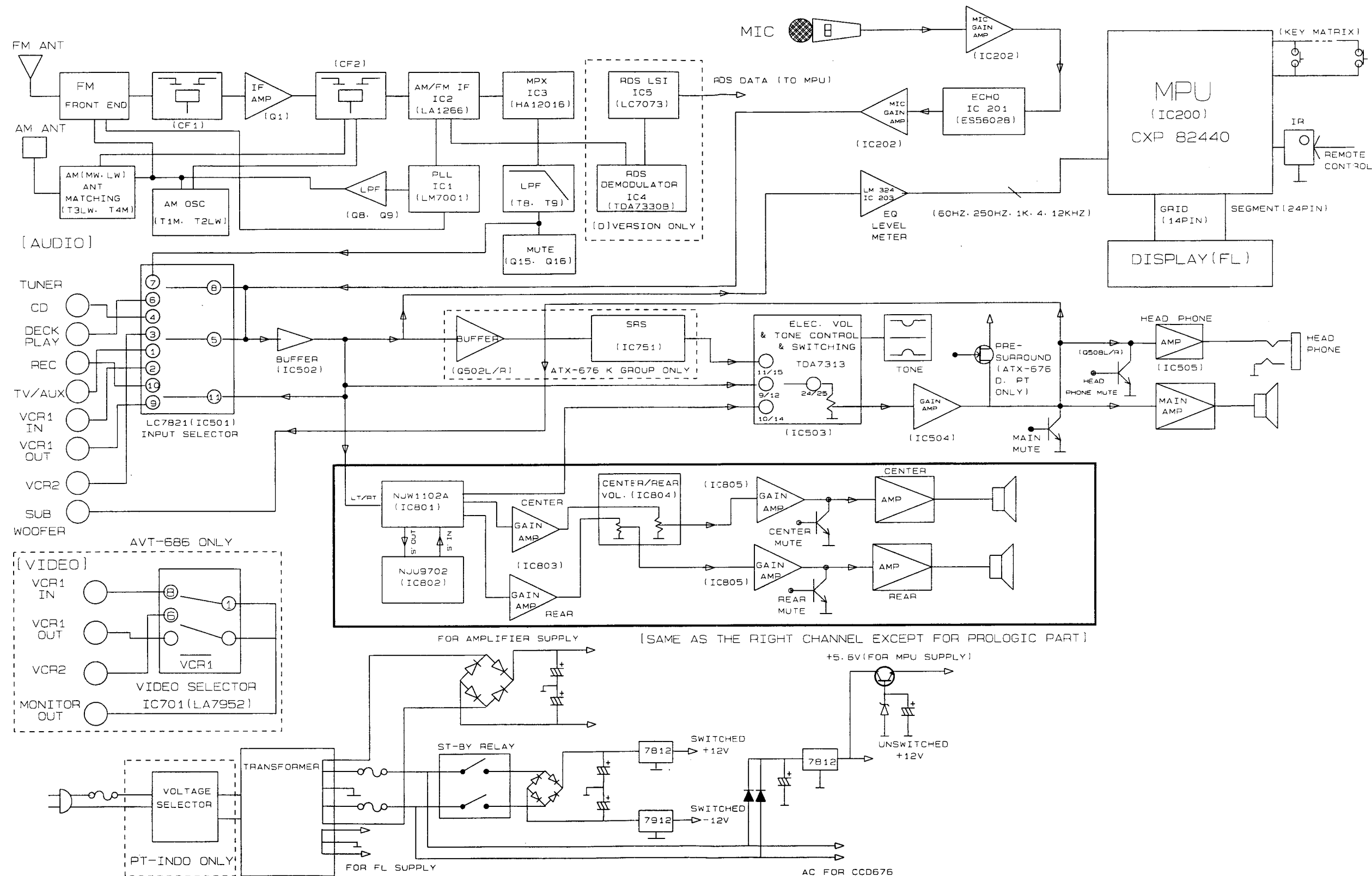
D : AC 230 V, 50 Hz (Europe Area)

KS : AC 220 V, 60 Hz (Korea Area)

PT INDO : AC 110/220 V, 50/60 Hz (multi voltage Area)

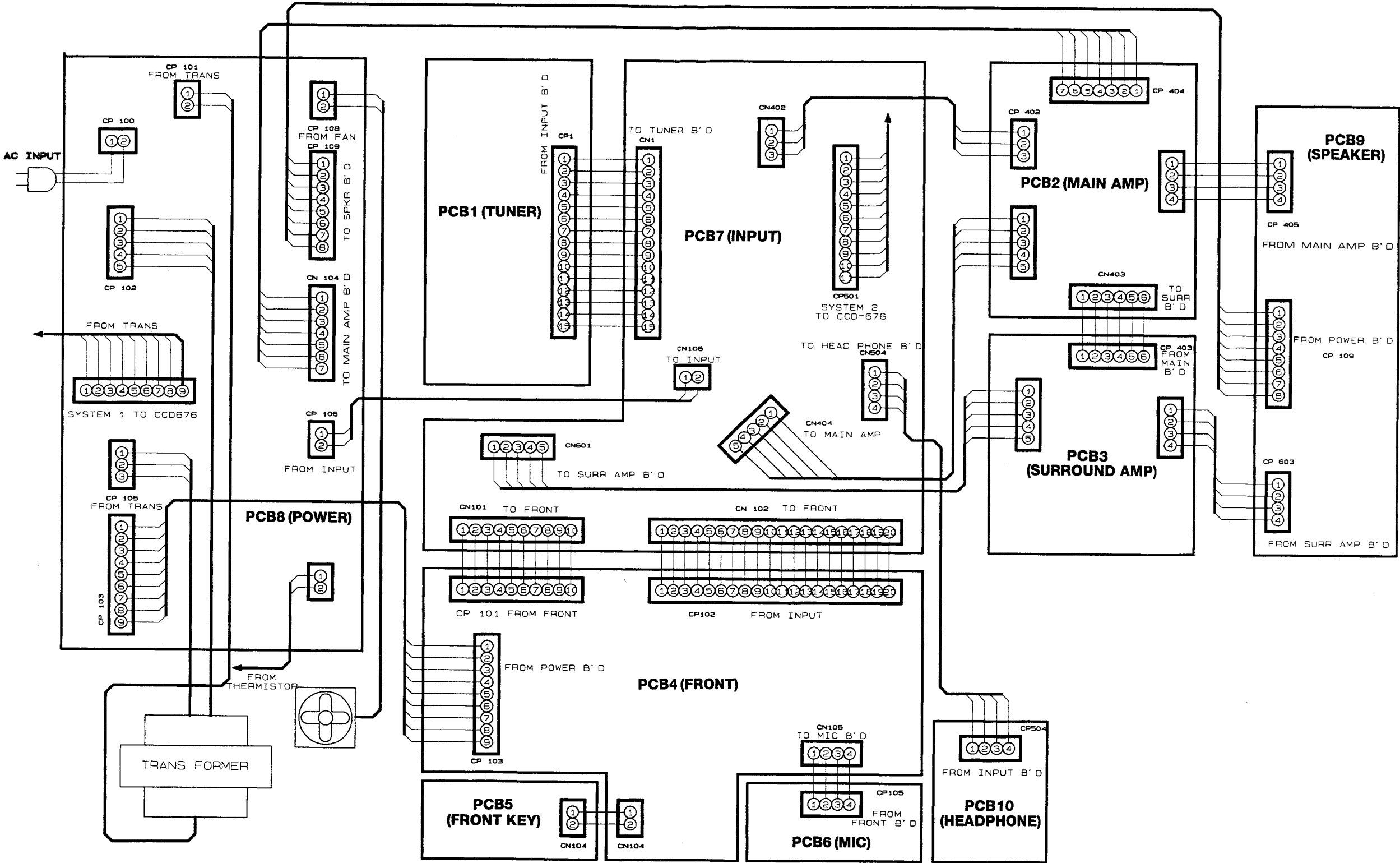
BLOCK DIAGRAM

Model No. : AVT-686



WIRING DIAGRAM

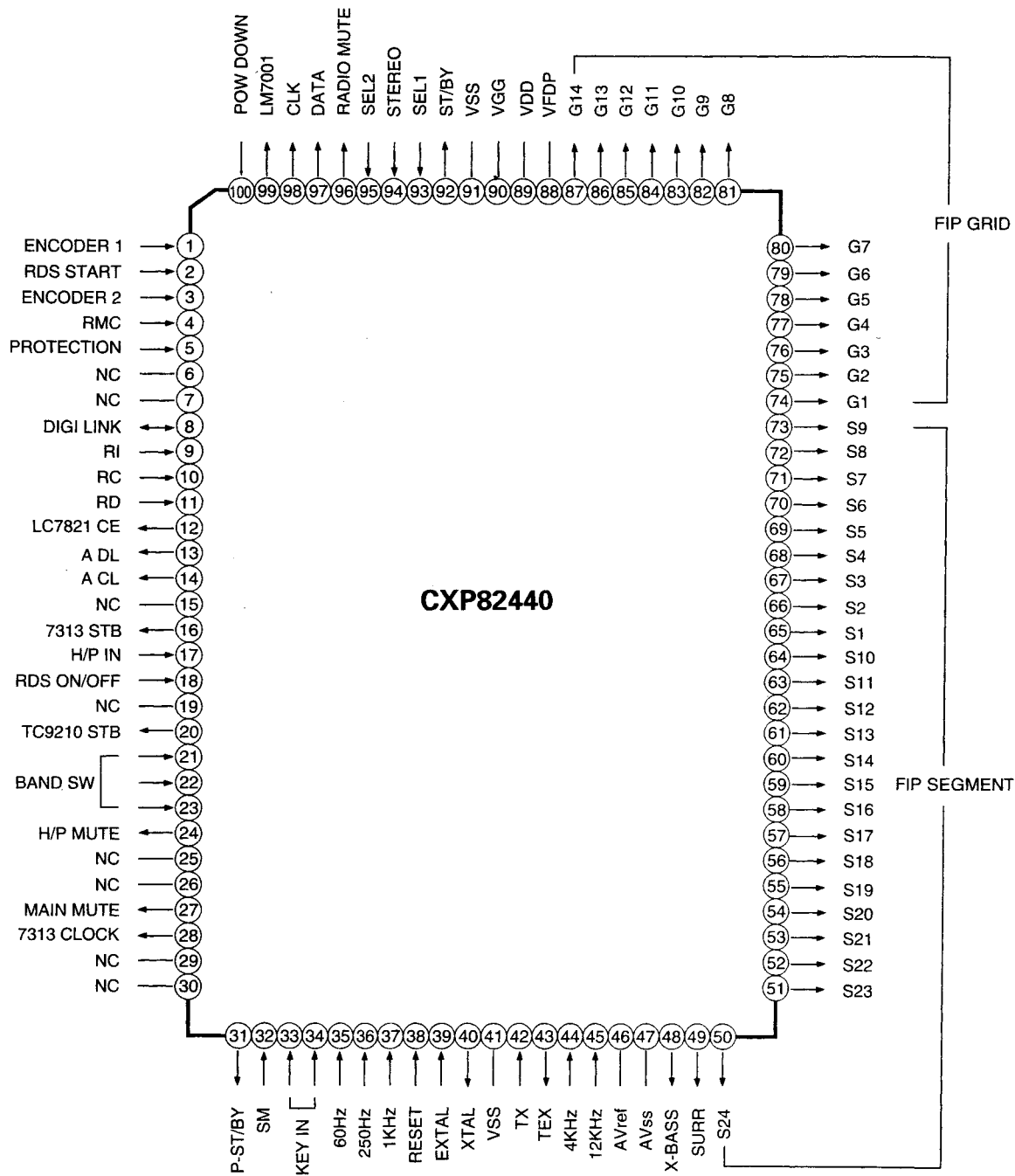
Model No. : AVT-686



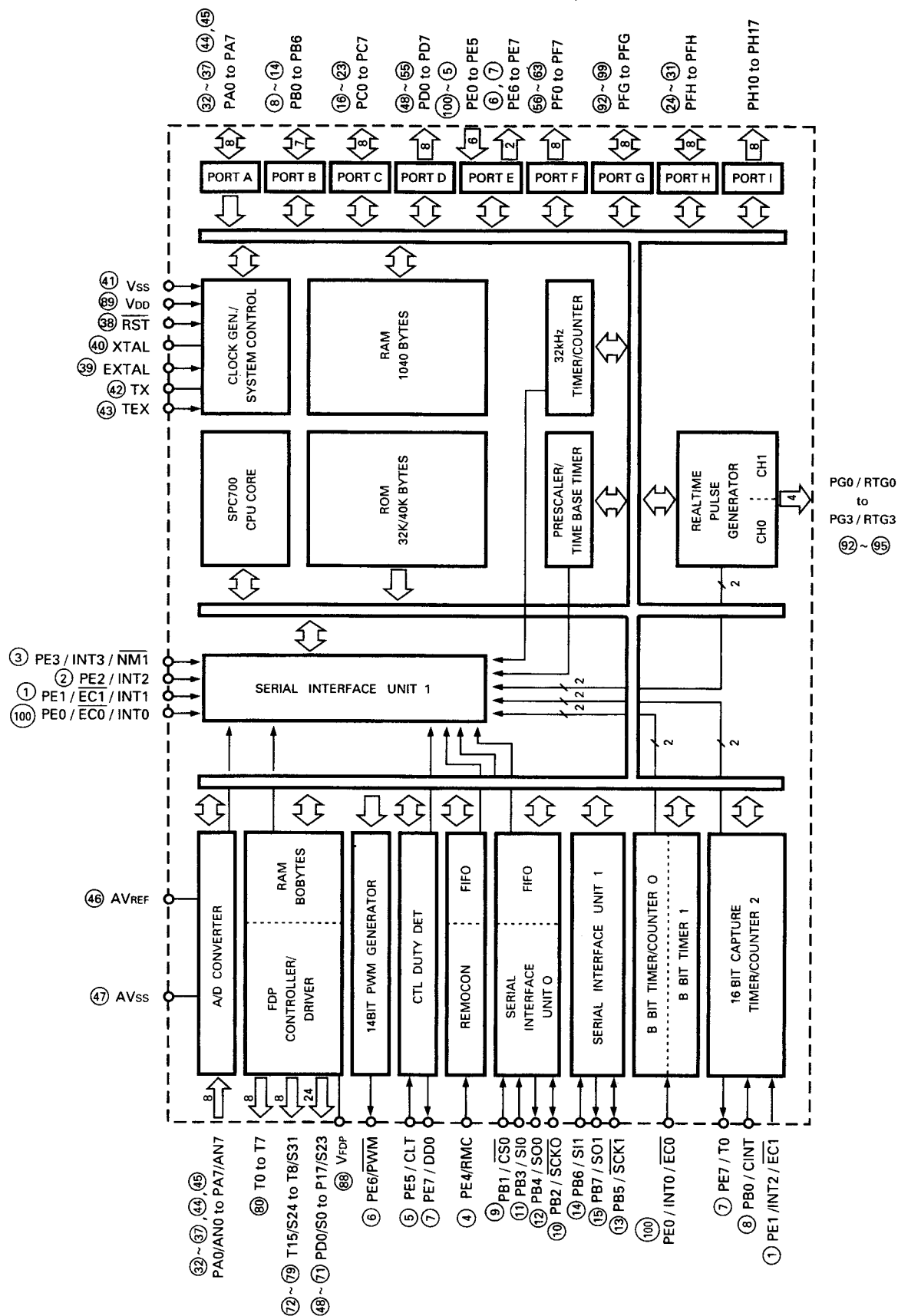
CIRCUIT DESCRIPTION

IC200 : CXP82440

1. Pin Configuration



2. Block Diagram



3. Input and Output terminal Functions

Pin No.	Symbol	Description																																								
1/3	ENCODER 1/2	Signal input to decrease or increase volume by volume encoder.																																								
2	RDS START	Input for LC7073 (pin14) data start.																																								
4	RMC	Input for remote control signal.(At "L", it is active)																																								
5	PROTECTION	Signal input for protection. If it is low, all channel mute signal levels are turned to high protect speakers and this unit. At abnormal condition, after 3 seconds elapses, it does check protection.																																								
6/7	NC	Not used !																																								
8	DIGI LINK	Input/Output for controlling digi-link.																																								
9	RI	Input signal from TDA7330B (pin15) for ARI indication.																																								
10	RC	Clock signal input from LC7073 (pin16).																																								
11	RD	Data signal input from LC7073 (pin15).																																								
12	LC7821 CE	Chip enable output for LC7821.																																								
13	A DI	Data output for NJU9702, NJU1102 and LC7821.																																								
14	A CL	Clock output for NJU9702, NJU1102 and LC7821.																																								
15	NC	Not used !																																								
16	7313 STB	Chip enable output for TDA7313.																																								
17	H/P IN	Input for detecting headphone. When headphone is plugged or unplugged, input is high or low level.																																								
18	RDS ON/OFF	Input for RDS on or off. (RDS on: "H", RDS off: "L")																																								
19	NJU1102/9702 CE	Chip enable output for NJU1102 and NJM9702.																																								
20	TC9210 STB	Chip enable output for TC9210.																																								
21~23	BAND S/W	According to region, input for selecting the frequency band and the steps of FM and AM. Setting are as follows. <table><tr><th>Region</th><th>Frequency Band</th><th>Step</th><th>Pin 21</th><th>Pin 22</th><th>Pin 23</th></tr><tr><td rowspan="2">USA/Canada</td><td>FM: 87.5~107.9 MHz</td><td>200 kHz</td><td rowspan="2">L</td><td rowspan="2">H</td><td rowspan="2">L</td></tr><tr><td>AM: 520~1710 kHz</td><td>10 kHz</td></tr><tr><td rowspan="3">Europe</td><td>FM: 87.5~108 MHz</td><td>50 kHz</td><td rowspan="3">L</td><td rowspan="3">L</td><td rowspan="3">L</td></tr><tr><td>AM: 522~1611 kHz</td><td>9 kHz</td></tr><tr><td>153~279 kHz</td><td>9 kHz</td></tr><tr><td rowspan="2">Korea</td><td>FM: 87.5~107.5 MHz</td><td>200 kHz</td><td rowspan="2">H</td><td rowspan="2">H</td><td rowspan="2">L</td></tr><tr><td>AM: 522~1611 kHz</td><td>9 kHz</td></tr><tr><td rowspan="2">PT INDO</td><td>FM: 87.5~108 MHz</td><td>50 kHz</td><td rowspan="2">H</td><td rowspan="2">L</td><td rowspan="2">L</td></tr><tr><td>AM: 522~1611 kHz</td><td>9 kHz</td></tr></table>	Region	Frequency Band	Step	Pin 21	Pin 22	Pin 23	USA/Canada	FM: 87.5~107.9 MHz	200 kHz	L	H	L	AM: 520~1710 kHz	10 kHz	Europe	FM: 87.5~108 MHz	50 kHz	L	L	L	AM: 522~1611 kHz	9 kHz	153~279 kHz	9 kHz	Korea	FM: 87.5~107.5 MHz	200 kHz	H	H	L	AM: 522~1611 kHz	9 kHz	PT INDO	FM: 87.5~108 MHz	50 kHz	H	L	L	AM: 522~1611 kHz	9 kHz
Region	Frequency Band	Step	Pin 21	Pin 22	Pin 23																																					
USA/Canada	FM: 87.5~107.9 MHz	200 kHz	L	H	L																																					
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Korea	FM: 87.5~107.5 MHz	200 kHz	H	H	L																																					
	AM: 522~1611 kHz	9 kHz																																								
PT INDO	FM: 87.5~108 MHz	50 kHz	H	L	L																																					
	AM: 522~1611 kHz	9 kHz																																								
24	H/P MUTE	Output for headphone mute. Output, high level under the following conditions. 1. When power is tuned on or off. 2. When headphone plug is inserted. 3. When "-∞ mute signal" is received from the commander. 4. When function is changed.																																								
25	NC	Not used !																																								
26	NC	Not used !																																								

Pin No.	Symbol	Description												
27	MAIN MUTE	Output for left and right channels mute. Output, low level under the following conditions. 1. When power is tuned on or off. 2. When headphone plug is inserted. 3. When "-∞ mute signal" is received from the commander. 4. When function is changed.												
28	7313 CLOCK	Clock output for TDA7313.												
29/30	NC	Not used !												
31	P-ST/BY	Signal output for stand-by mute. At abnormal condition, after 3 sceonds elapses, it dose check protection.												
32	SM	Input to detect the signal strength of RDS station.												
33/34	KEY IN	Input data for key scan.												
35	60 Hz	Input for controlling the level display at 60 Hz.												
36	250 Hz	Input for controlling the level display at 250 Hz.												
37	1 kHz	Input for controlling the level display at 1 kHz.												
38	RESET	Input to reset u-com.												
39/40	EXTAL/XTAL	Input/Output for crystal oscillator.												
41	Vss	Ground												
42/43	TX/TEX	Input/Output for crystal oscillator.												
44	4 kHz	Input for controlling the level display at 4 kHz.												
	12 kHz	Input for controlling the level display at 12 kHz.												
46	AVref	Referance voltage												
47	AVss	This pin provides the analog ground potential.												
48	X-BASS	Output to light up X-BASS LED. At "x-bass on", "H" and at "x-bass off", "L".												
49	SURR	Output to light up SURROUND LED. At "surround on", "H" and at "surround off", "L".												
50 ~ 73	S24 ~ S10, S1 ~ S9	Output for FIP segment.												
74 ~ 87	G1 ~ G14	Output for FIP grid.												
88	V _{FDP}	-30V power supply for FIP.												
89	VDD	+5V power supply.												
90	VGG	This pin should be connected to VDD during operation.												
91	Vss	This pin provides the ground potential.												
92	ST/BY	When the power is on, control data output is "H". When the power is off, control data output is "L" and last memory function is activated.												
93/95	SEL1/SEL2	Input for selecting surround mode. <table><tr><td></td><td>DOLBY PROLOGIC</td><td>SRS</td><td>PRE SURROUND</td></tr><tr><td>SEL 1</td><td>L</td><td>L</td><td>H</td></tr><tr><td>SEL 2</td><td>H</td><td>L</td><td>L</td></tr></table>		DOLBY PROLOGIC	SRS	PRE SURROUND	SEL 1	L	L	H	SEL 2	H	L	L
	DOLBY PROLOGIC	SRS	PRE SURROUND											
SEL 1	L	L	H											
SEL 2	H	L	L											
94	STEREO	Input for lighting the STERO indicator.(At "L", it is active)												
96	RADIO MUTE	Output for tuner mute.(At "H", it is active)												
97/98	DATA/CLK	Clock/Data output for LM7001.												
99	LM7001	Chip enable output for LM7001.												
100	POW DOWN	Input for power down.(At "L", it is active)												

ALIGNMENT PROCEDURES

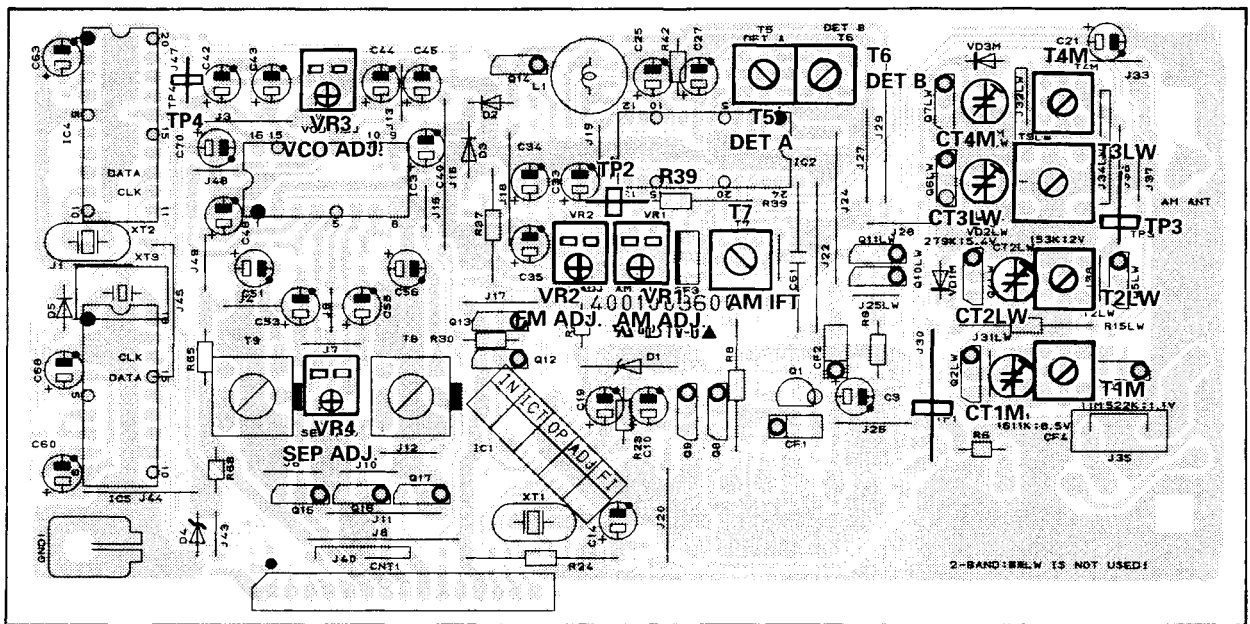
TUNER

1. Equipment Required

- AM Standard Signal Generator (AM SSG)
- Oscilloscope
- AC Voltmeter
- FM Standard Signal Generator (FM SSG)
- Stereo Modulator
- Audio Generator
- Distortion Meter
- DC Voltmeter
- Frequency Counter

Note : Disconnect external FM antenna prior to alignment.

2. Alignment and Test Point



3. AM Alignment

- Output of signal generator should not be greater than necessary to obtain an optimum output reading.
- Signal generator modulation : 30 %
- RF signal frequency : 400 Hz
- Switch : Press the BAND button to AM

Step	Subject	Signal Generator Frequency	Set Frequency Setting	Equipment Connection	Adjustment Point	Adjust for
1	Tuning Voltage	520 kHz (522 kHz)	520 kHz 1) (522 kHz)	DC Volt meter to J30(TP1)	T1M	DC 1.1 ± 0.2 V
		1710 kHz (1611 kHz)	1710 kHz 2) (1611 kHz)		CT1M	DC 8.5 ± 0.2 V
		* Repeat the step 1) and 2) until the DC voltmeter reads the tuning voltage mentioned above.				
2	RF Tuning	600 kHz (594 kHz)	600 kHz 1) (594 kHz)	AC voltmeter and oscilloscope to speaker terminal of L or R channel	T4M	Maximize audio output
		1400 kHz (1404 kHz)	1400 kHz 2) (1404 kHz)		CT4M	
		* Feed signal should be fed to loop antenna through the test loop antenna 60 cm distant from the appliance. * Repeat the step 1) and 2) until no further improvement occurs.				

3	IF	1000 kHz (999 kHz)	1000 kHz (999 kHz)	IF genescope to speaker terminal of L or R channel	T7 AM IFT	Symmetrical curve on AM IF genescope
4	Tuned Level	1000 kHz (999 kHz) 800 μ V/m	1000 kHz (999 kHz)		VR1	"Tuned" flag in the FL display light on

4. LW Alignment

- Switch : Press the BAND button to LW

Step	Subject	Signal Generator Frequency	Set Frequency Setting	Equipment Connection	Adjustment Point	Adjust for
1	Tuning Voltage	153 kHz	153 kHz 1)	DC Volt meter to J30(TP1)	T2LW LW OSC(A)	DC 2 ± 0.2 V
		279 kHz	279 kHz 2)		CT2LM	DC 5.4 ± 0.3 V
		* Repeat the step 1) and 2) until the DC voltmeter reads the tuning voltage metioned above.				
2	RF Tuning	162 kHz	162 kHz 1)	AC voltmeter and oscilloscope to speaker terminal of L or R channel	T3LW LW ANT(B)	Maximize audio output
		252 kHz	252 kHz 2)		CT3LW	
		* Feed signal should be fed to loop antenna through the test loop antenna 60 cm distant from the appliance. * Repeat the step 1) and 2) until no further improvement occurs.				

5. FM Alignment

- Output of signal generator should not be greater than necessary to obtain an optimum output reading.
- Signal generator deviation : 40 kHz (75 kHz)
- RF signal frequency : 1 kHz
- Switch : Press the BAND button to FM and the FM MODE button to MONO

Step	Subject	Signal Generator Frequency	Set Frequency Setting	Equipment Connection	Adjustment Point	Adjust for
1	Tuning Band Widt	98.0 MHz (98.1 MHz)	98.0 MHz (98.1 MHz)	DC Volt meter to R39(TP2-TP3)	T5	Zero reading on DC Volt meter
2	THD	98.0 MHz (98.1 MHz)	98.0 MHz (98.1 MHz)	Distortion meter to speaker terminal of L or R channel	T6	Minimize distortion
3	Tuned Level	98.0 MHz(98.1 MHz) SSG output level : 10 μ V/m	98.0 MHz (98.1 MHz)		VR2	"Tuned" flag in the FL display light on

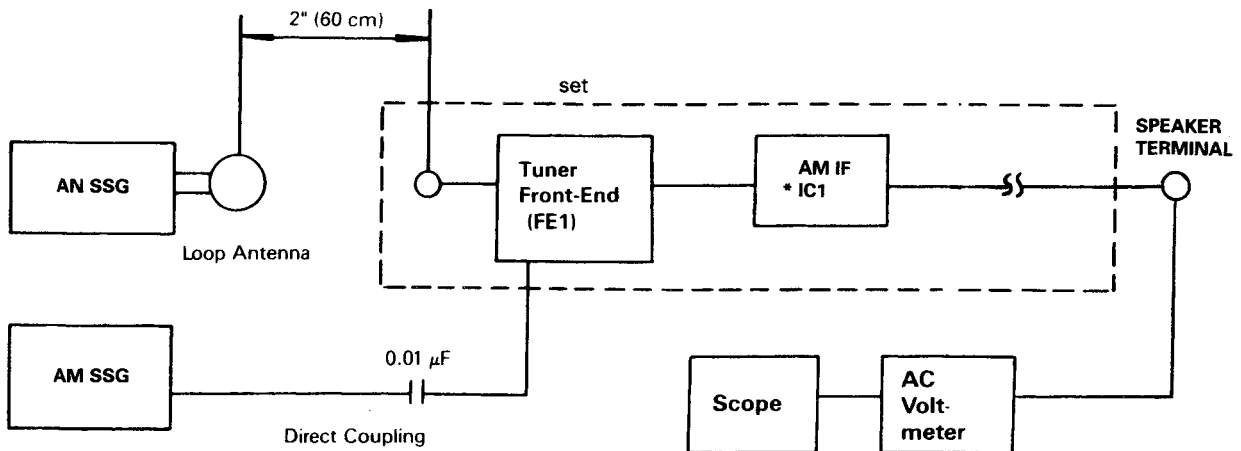
6. MPX Alignment

- Signal generator frequency : 98 MHz
- Signal generator deviation : 40 kHz (75 kHz)
- RF signal frequency : 1 kHz
- Signal generator output level : 1000 μ V/m
- Connect signal generator to FM antenna terminal through FM dummy antenna (75 Ω)
- Switch : Press the BAND button to FM and the FM MODE button to STEREO

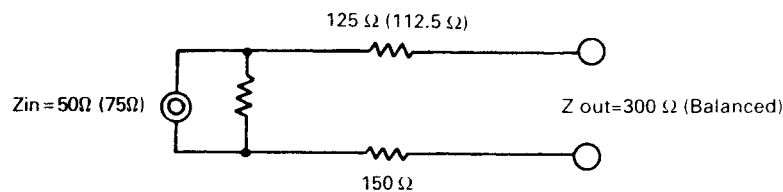
Step	Subject	19 kHz Modulation Level	Signal Generator Setting	Equipment Connection	Adjustment Point	Adjust for
1	VCO	8 % Modulation	Pilot off Carrier only	Frequency counter to TP4(HOT) of PCB and ground	VR3	76 kHz
2	Seperation R → L	8 % Modulation	Pilot on	AC voltmeter to speaker terminal of R channel	VR4	Set AC voltmeter to 0 dB
				AC voltmeter to speaker terminal of L channel		AC voltmeter reading should be at least 20 dB below
3	Seperation L → R	8 % Modulation	Pilot on	AC voltmeter to speaker terminal of L channel	VR4	Set AC voltmeter to 0 dB
				AC voltmeter to speaker terminal of R channel		AC voltmeter reading should be at least 20 dB below
If you could not obtain -20 dB readings in steps 2 and 3, readjust VR4 until you obtain -20 dB readings for both steps 3 and 4. Normal is -25 dB.						

7. Equipment Connection

7-1. AM Alignment Connection

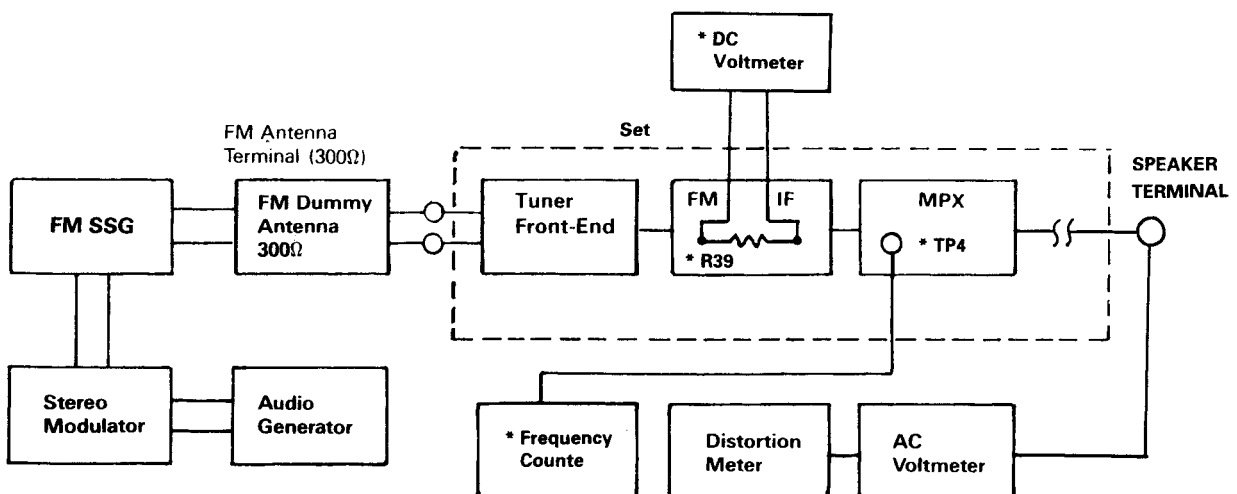


7-2. FM Dummy Antenna

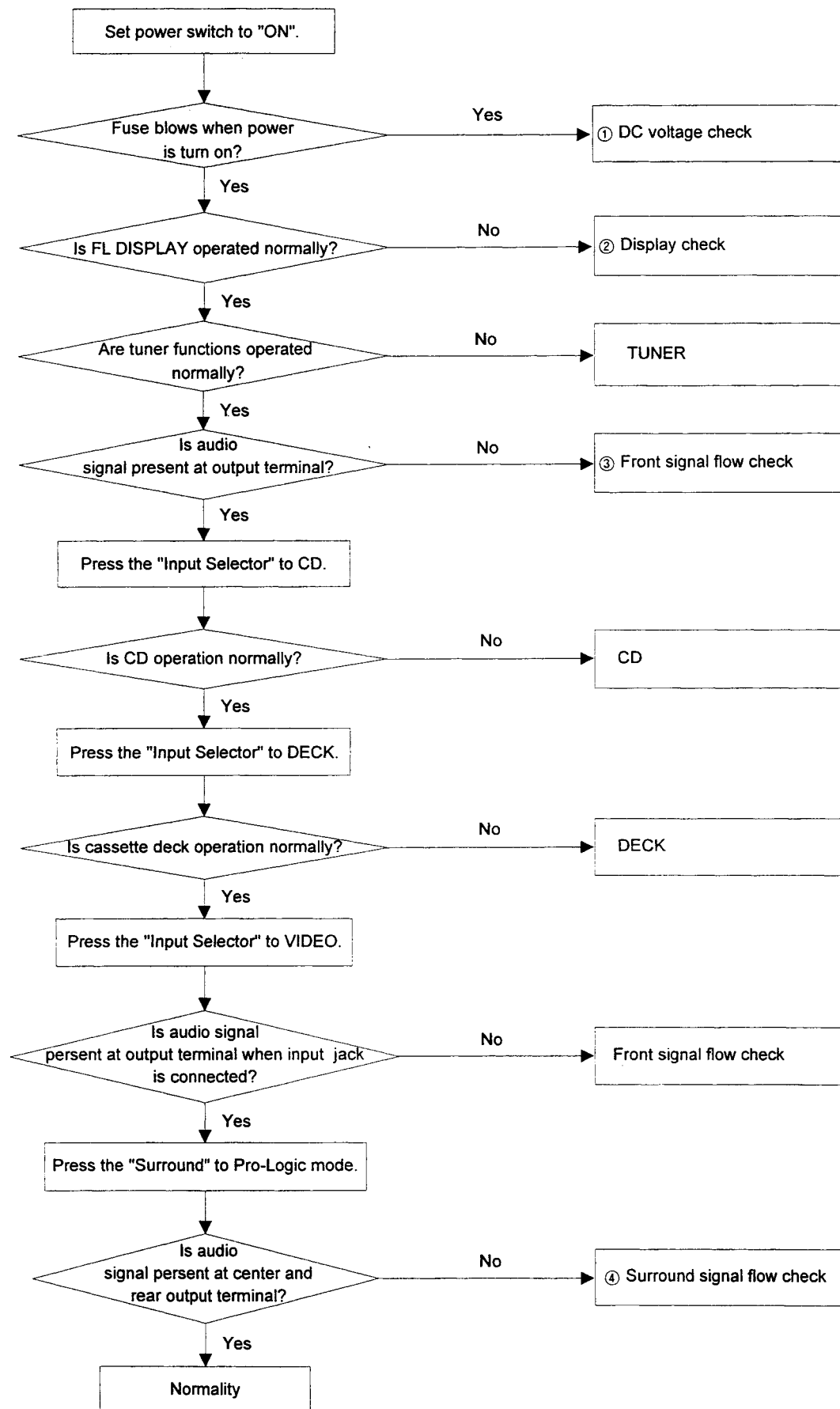


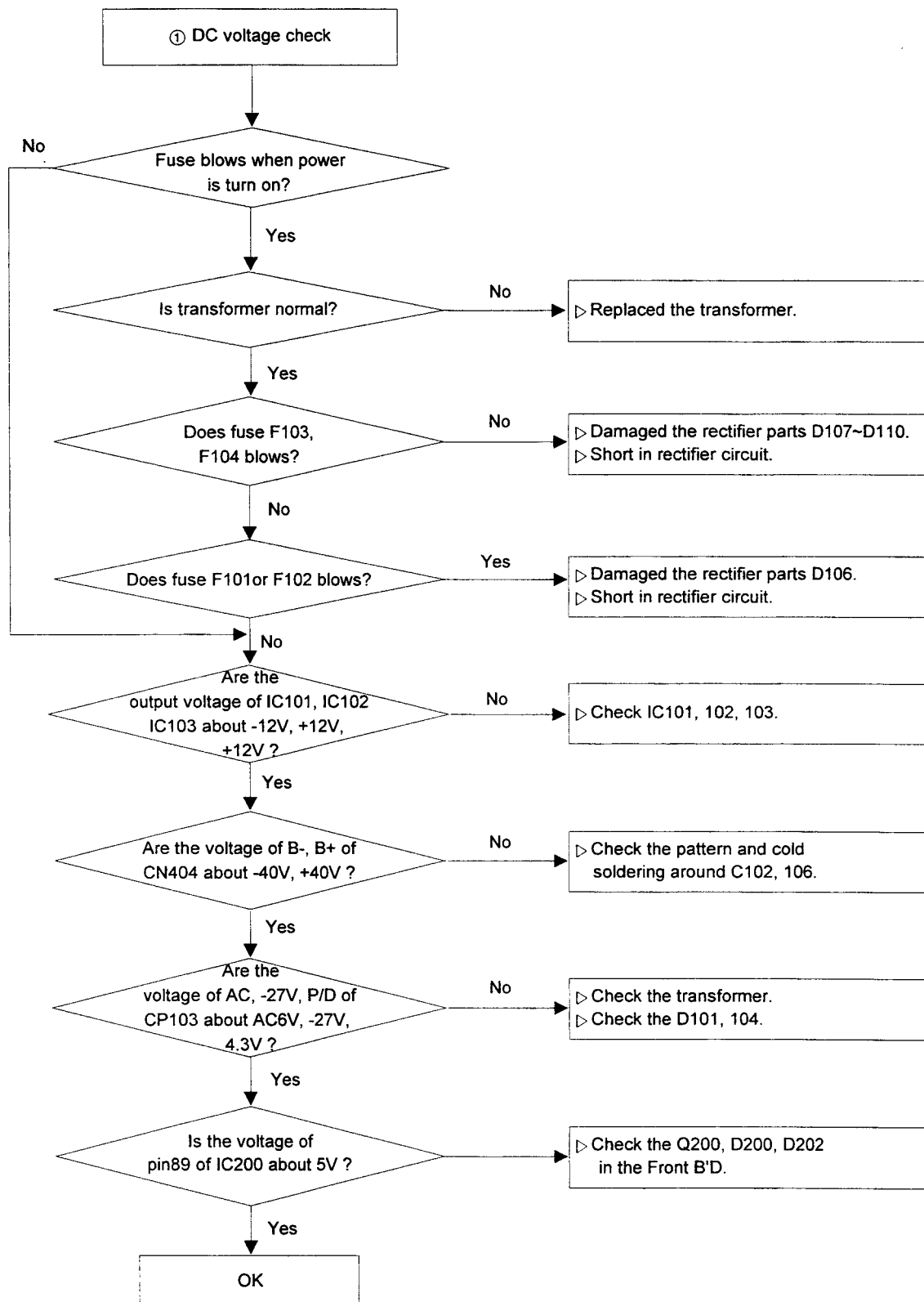
FM Dummy Antenna to 300 Ω Antenna terminal of system.

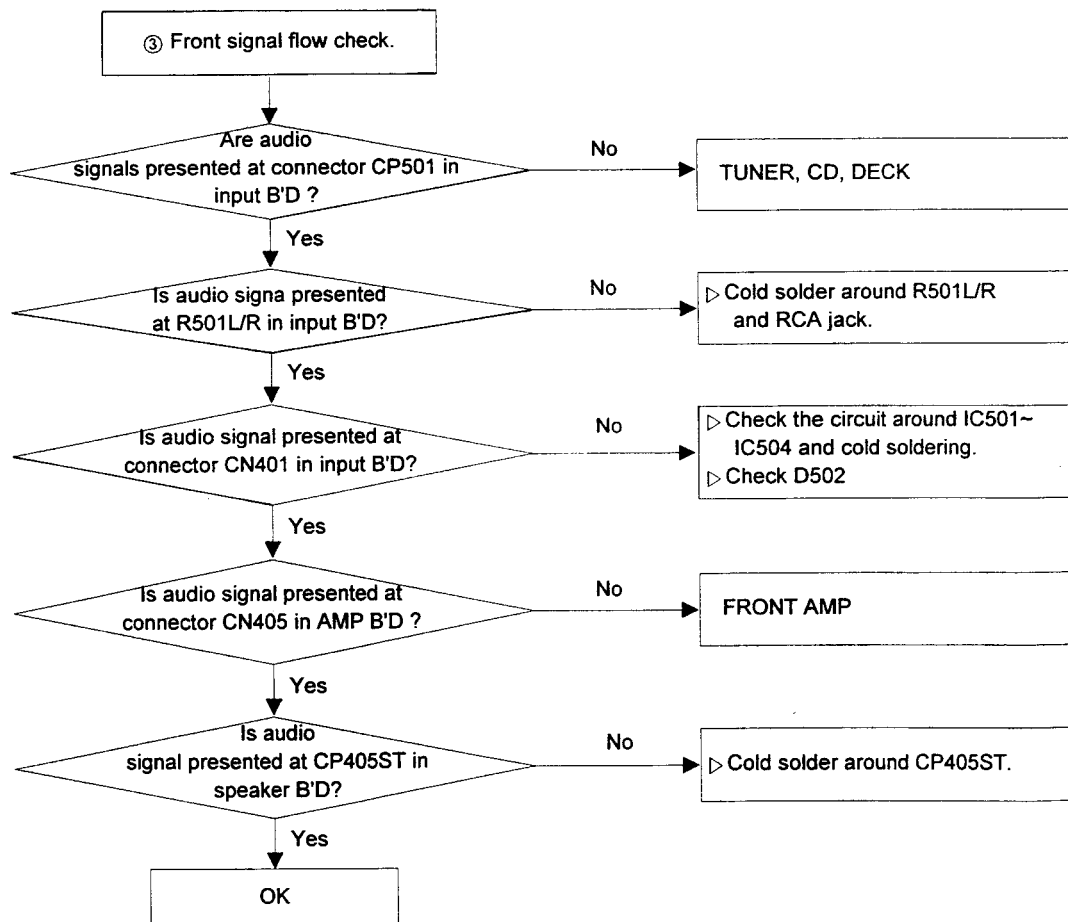
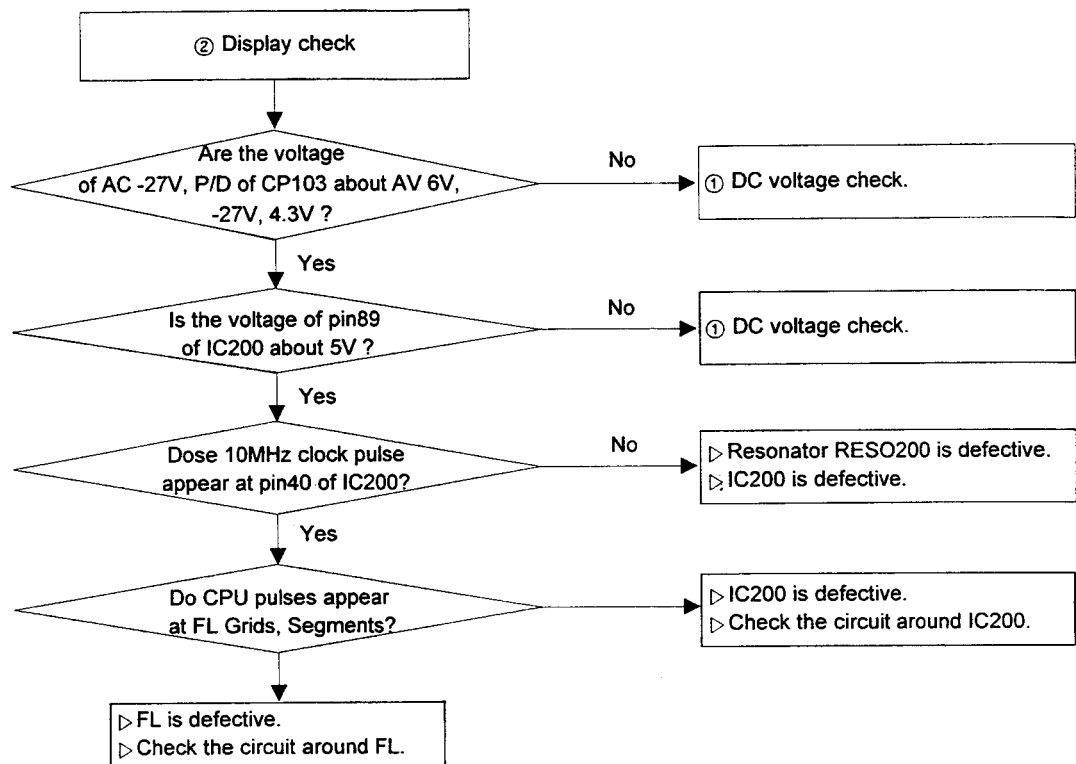
7-3. FM RF/IF and MPX Alignment Connection

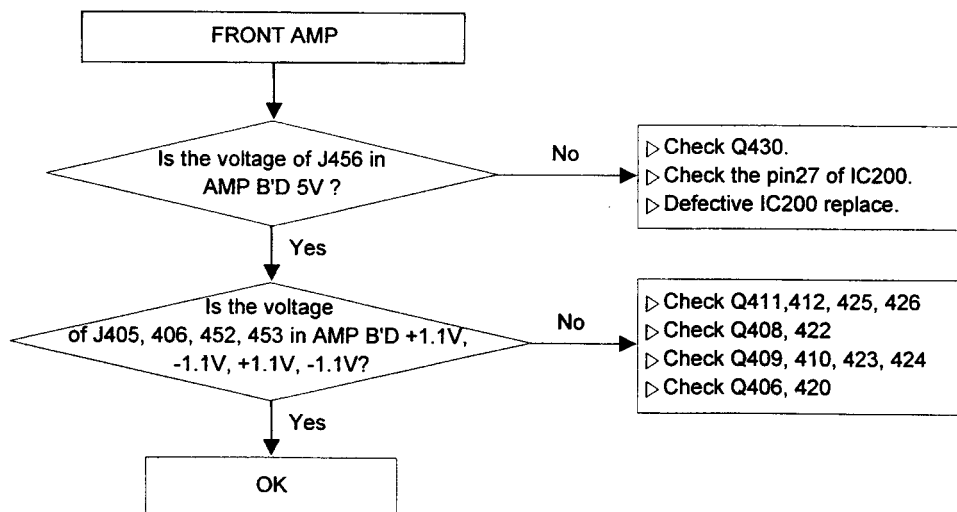
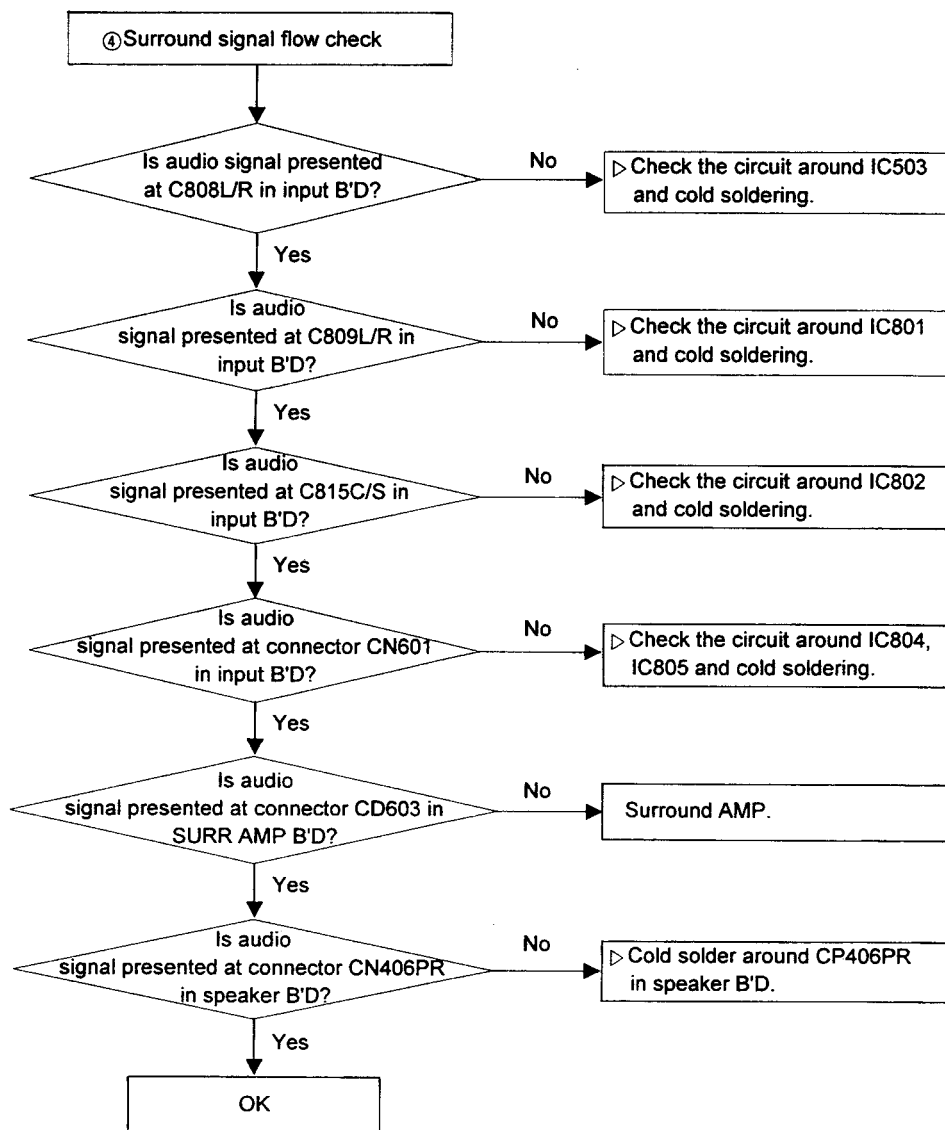


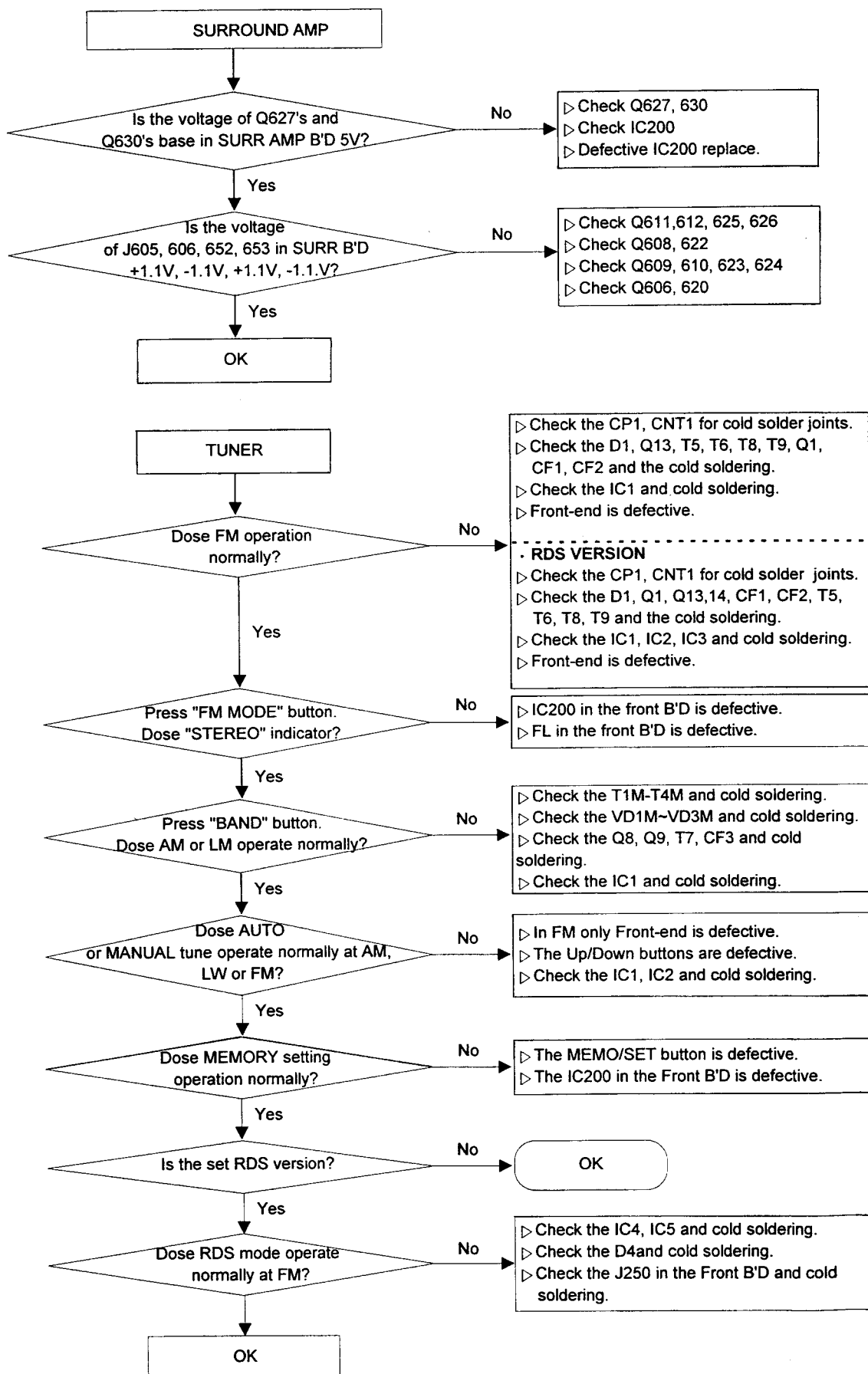
TROUBLESHOOTING











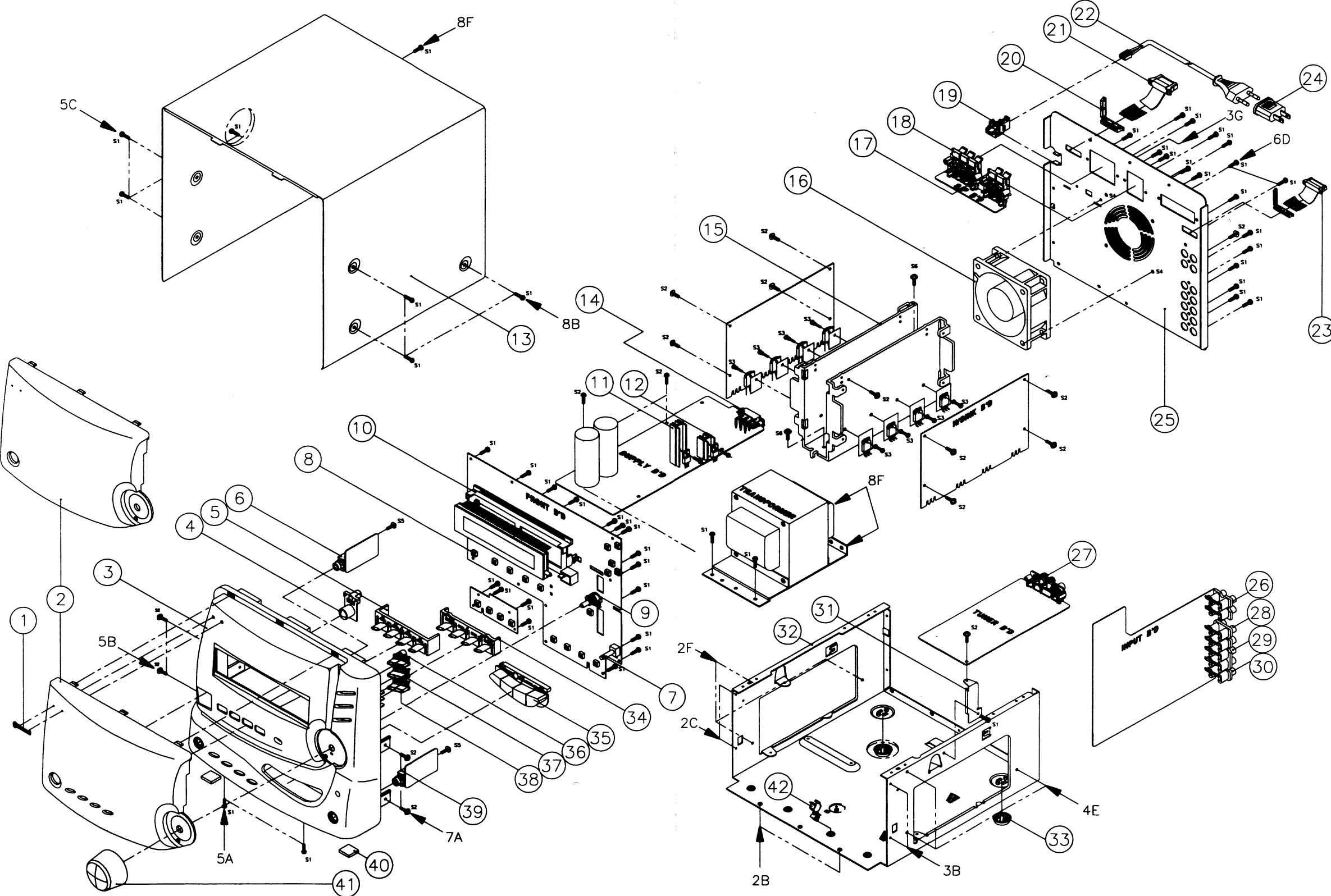
MECHANICAL PARTS LIST

- Parts without **Parts No** are not supplied.
- Parts with blank version are available in common.

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
PACKAGE				
	BOX Carton	6017041780040	1	K
	BOX Carton	6017041780030	1	D,PT INDO
	Cushion Poly	6230043744010	1	
	Film Soft PE	6320040022010	1	
	Poly Bag	6330040092010	1	
ACCESSORIES				
	Antenna wire FM	E605010020000	1	K,PT INDO
	Antenna wire FM	E605010040000	1	D
	Compact disc demonstration.	6510040030010	1	K(ONLY)
	Commander Ass'y	830004025V010	1	K
	Commander Ass'y	830004025V020	1	D,PT INDO
	Battery, 1.5V AA(R6M)	G670001R50010	2	K(ONLY)
	Antenna AM LOOP Stand strip wire	E605010090000	1	K,PT INDO
	Antenna AM LOOP stand type	E601010000000	1	D
	Manual Instruction	5707045840030	1	K
	Manual Instruction	5707045830010	1	PT INDO
	Manual Instruction	5707045830020	1	D
CABINET & CHASSIS				
1	Badge, (Sherwood)	5637040661010	1	D,PT INDO
(1)	Badge, (Inkel)	5637040671010	1	K
2	Window Panel	5077040023020	1	K,PT INDO
(2)	Window Panel	5077040033020	1	D
3	Panel Front	3067042121020	0	
4	Button, POWER	5090066601010	1	
5	Button, 4KEY	5090058981010	1	
6	Jack , HTJ064-05B	G402040221930	1	
7(VR201)	Volume MIC, 50KB	C451115302200	1	
8	Switch Tact (H:5)	G180040500010	15	
(8)	Switch Tact (H:5)	G180040500010	4	D(ONLY)
9(VR202)	Switch, Rotary encoder	C49004106001A	1	
10	Guide holder, FL	4320040811010	1	
11	Heatsink, Regulator TR (H:45)	2120044348010	1	
12	Heatsink, Regulator TR (H:30)	2120044338010	1	
13	Cover top	3007042106030	1	
14	Voltage selector, 6P	G060040540010	1	PT INDO(ONLY)
15	Heatsink, Power	2120042538010	1	
16	FAN	G720040030010	1	
17	Terminal speaker, Push type, 4P	G594040210000	1	
18	Stopper Cord	4380040162010	1	
19	Stopper Connector, 11P	L109510441100	2	
20	System Connector, 9P	L033586097010	1	
21	Cord AC Power	L061040121010	1	A
(22)	Cord AC Power	L061040401030	1	K
(22)	Cord AC Power	L061040011010	1	D,PT INDO
23	System Connector, 11P	L109285118000	1	
24	Adapter	L109283004100	1	PT INDO(ONLY)
25	Chassis Back	3207042666010	1	K
(25)	Chassis Back	3207042666020	1	D
(25)	Chassis Back	3207042666030	1	PT INDO
26	Ground Plat	3070045526010	1	
27	Terminal antenna, Screw type	G590040450000	1	D(ONLY)
(27)	Terminal antenna, Push type	G590040440000	1	
30	Jack RCA, 2P	G601200440010	1	
31	Bracket PCB	4010056226010	1	
32	Chassis MAIN	3200044756010	1	
33	Foot	4000040571010	2	
34	Button tact, 4KEY	5090058981010	1	
35	Button, FUNCTION	5097046361010	1	
36	Button, INPUT	5097054611010	1	
37	Button, SURROUND	5097054631010	1	
38	Button, X-BASS	5097054641010	1	
39(JACK380)	Jack , HTJ064-05B	G402040221930	1	
40	Cushion Foot	4050044645010	2	
41	Knob rotary volume	5090066631010	1	
42	Clamp Wire	4330040633010	1	
HARDWARE KIT				
S1	Screw, #B BTT 3X8B	B020030083B10	52	
(S1)	Screw, #B BTT 3X8B	B020030083B10	54	PT INDO
S2	Screw, #B WPTT 3X6Y	B020030061W10	16	
S3	Screw, HEATSINK (L:12)	1507041136010	4	
S4	Screw, #2PTC 5X10B	B010545103P10	2	
S5	Screw, Mecha	1507041026010	2	
S6	Screw, WPM 4X10Y	B010040101W10	2	
N1	NUT, Flange M4Y	B200000401F00	2	
MISCELLANEOUS				
	Power Transformer, 220V 60Hz	8200281014170	1	K
	Power Transformer, 230V 50Hz	8200281014070	1	D
	Power Transformer, 110/220V 50/60Hz	8200281014270	1	PT INDO
	Thermister, 2P 180mm	F340550300000	1	

EXPLODED VIEW

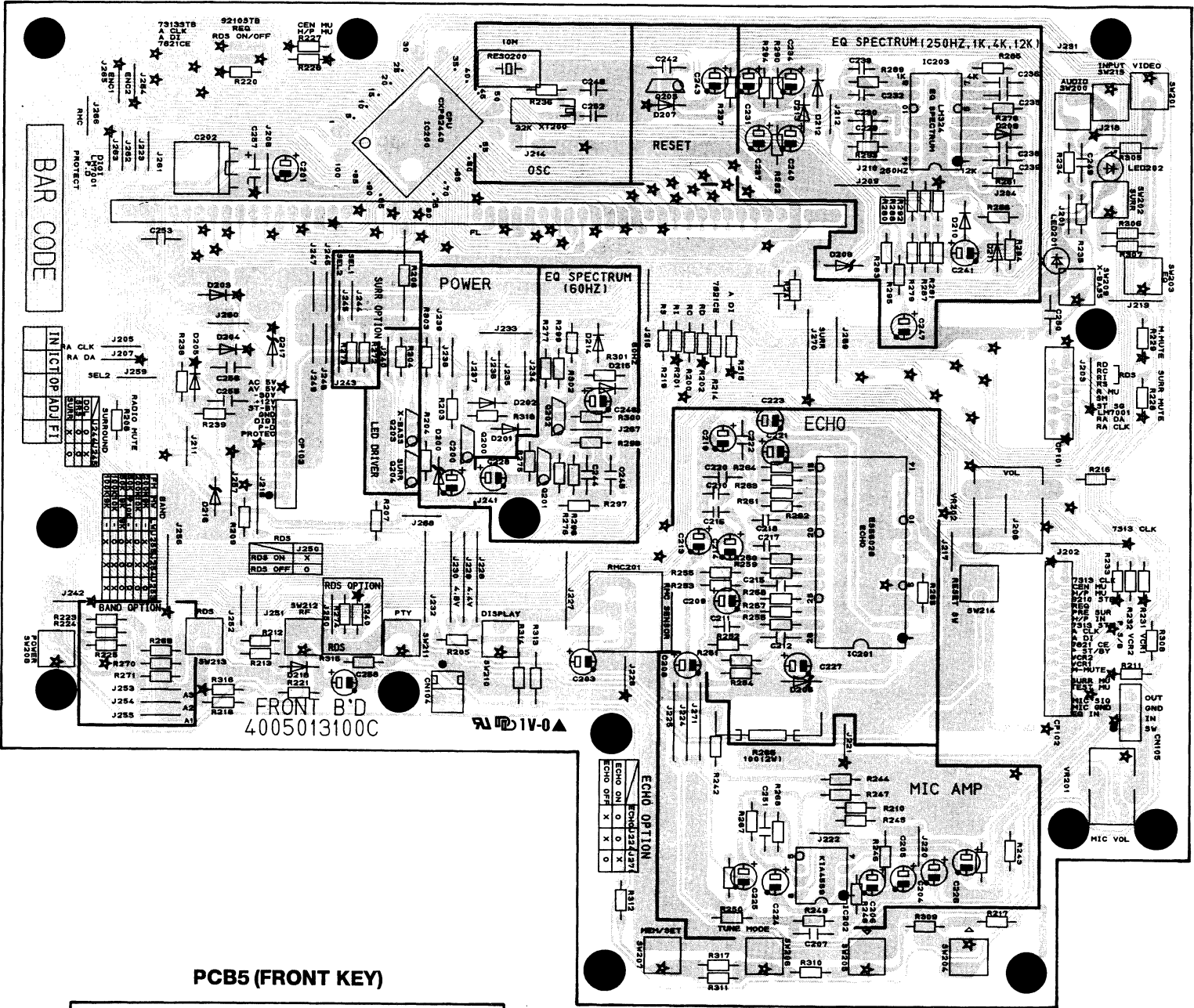
Model No. : AVT-686



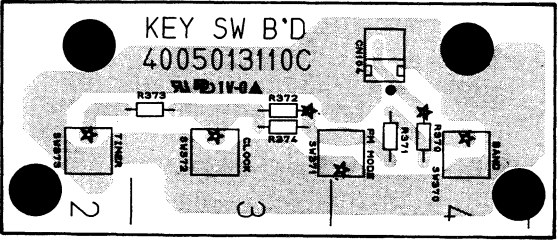
PRINTED CIRCUIT BOARDS

Model No. : AVT-686

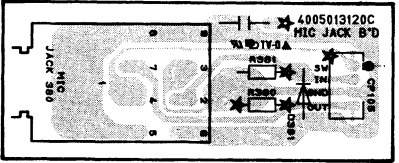
PCB4 (FRONT)



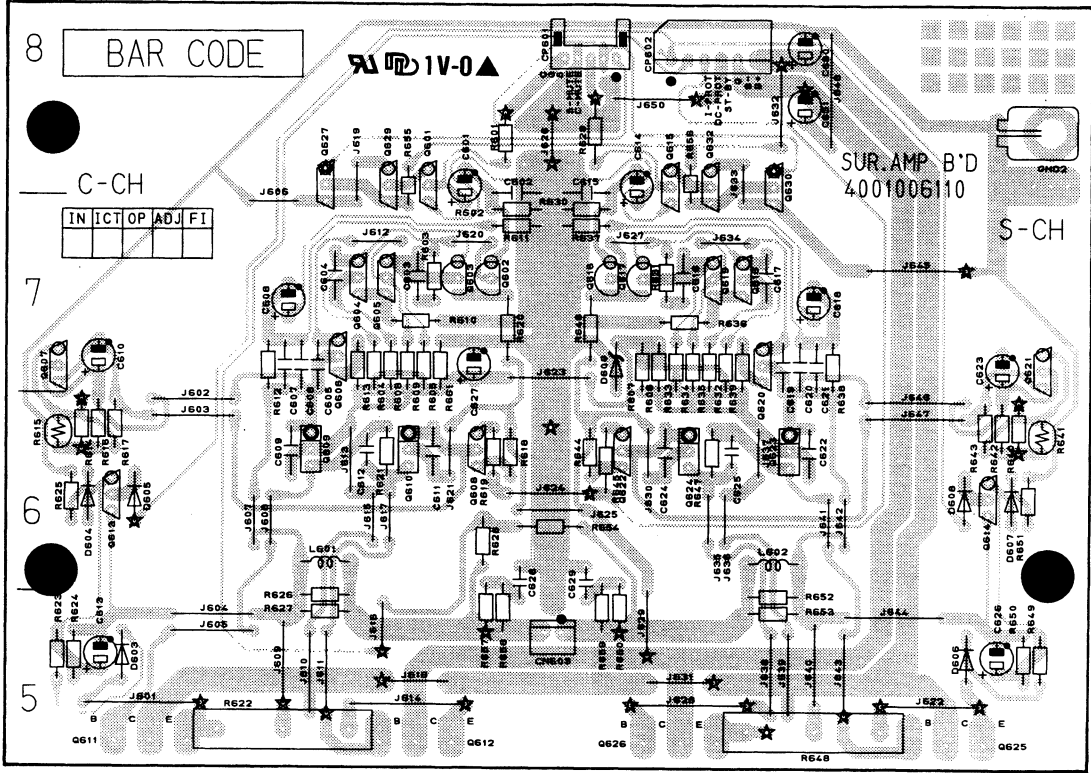
PCB5 (FRONT KEY)



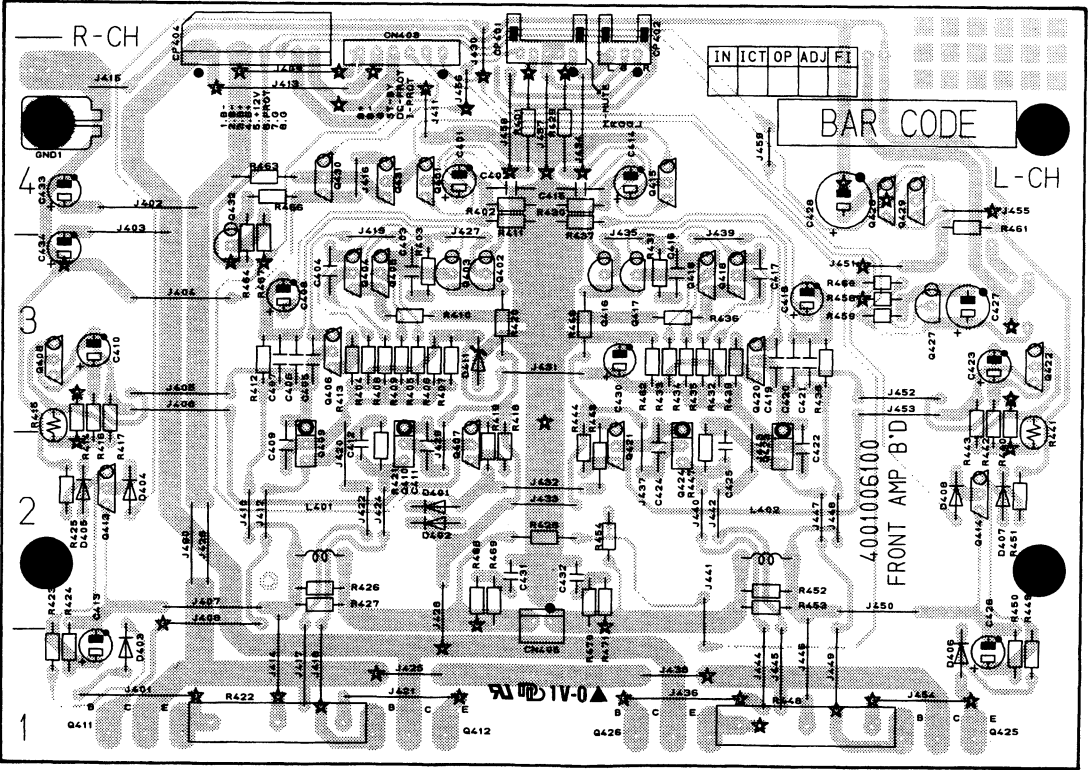
PBC6 (MIC)



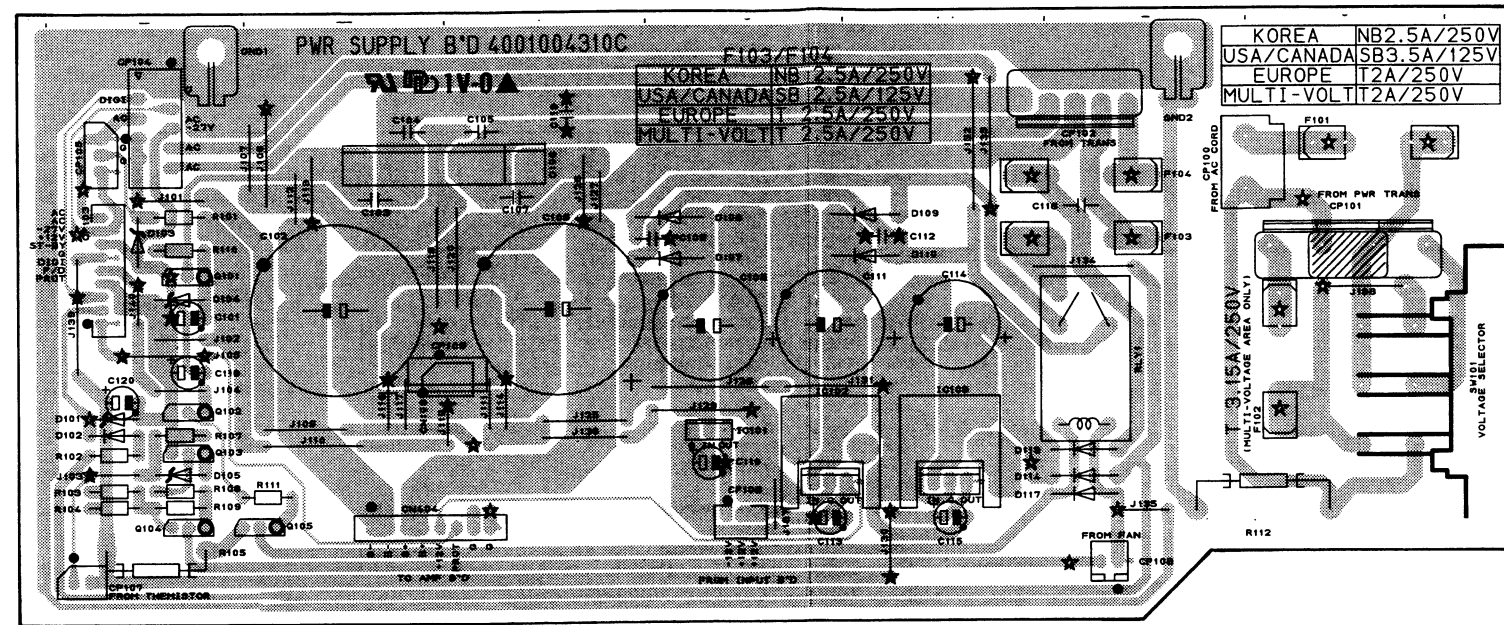
PBC3 (SURROUND)



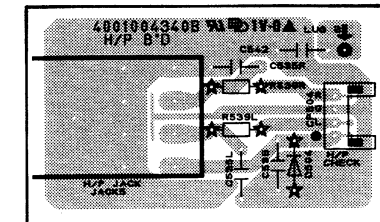
PCB2 (MAIN)



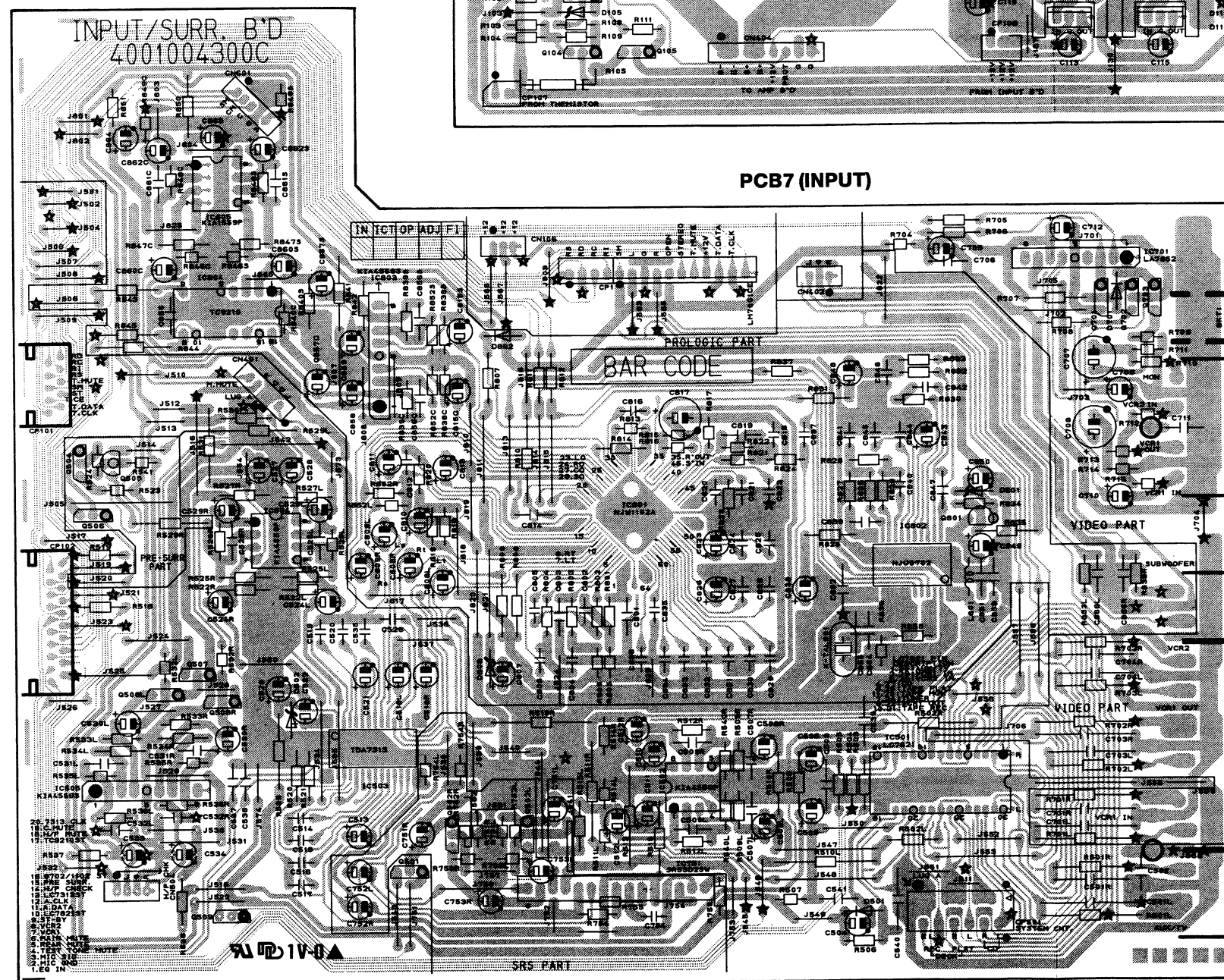
PCB8 (POWER)



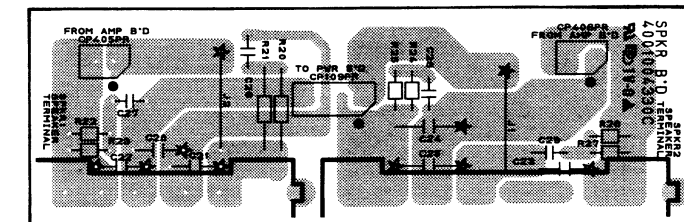
PCB10 (HEADPHONE)



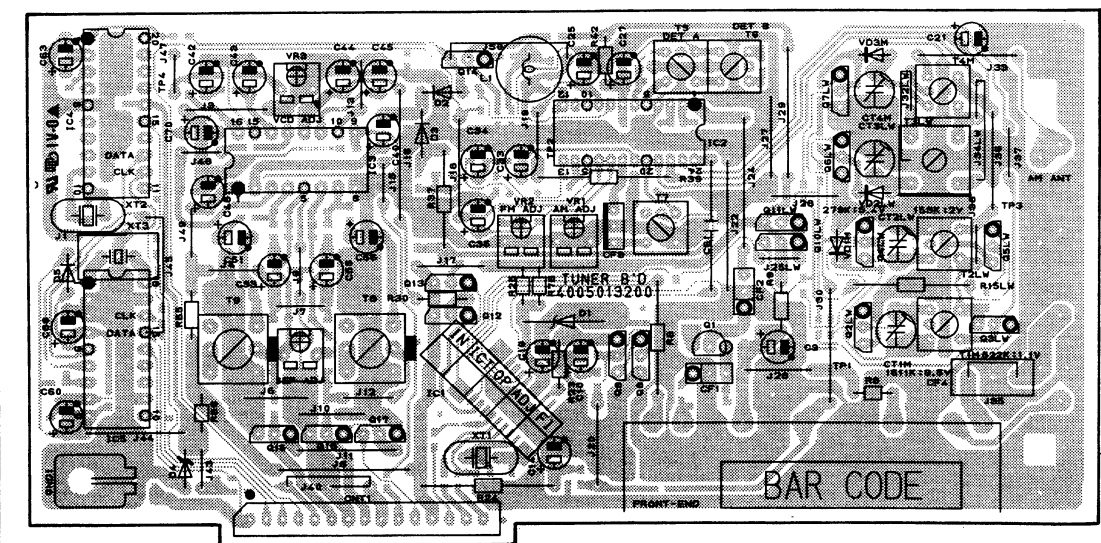
PCB7 (INPUT)



PCB9 (SPEAKER)



PCB1 (TUNER)



ELECTRICAL PARTS LIST

• Parts without **Parts No** are not supplied.
• Parts with blank version are available in common.

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
PCB1	ASSEMBLY P.C.BOARD TUNER	7028040700900		PT INDO
PCB1	ASSEMBLY P.C.BOARD TUNER	7028040697700		K
CAPACITORS				
C1/C2	Ceramic Chip 0.022 μ F	50 V Z D011223177210	2	
C3	Electrolytic SG 100 μ F	16 V M D040101083100	1	
C4	Ceramic Chip CH 470 pF	50 V J D010471167210	1	
C5	Ceramic Chip CH 12 pF	50 V J D010120167210	1	
C9	Ceramic Chip 0.047 μ F	50 V Z D011473597210	1	
C10	Electrolytic SG 1 μ F	50 V M D040010087100	1	
C11	Ceramic Chip 0.01 μ F	50 V Z D011103177210	1	
C12	Ceramic Chip 0.022 μ F	50 V Z D011223177210	1	
C13	Ceramic Chip 0.01 μ F	50 V Z D011103177210	1	
C14	Electrolytic SG 47 μ F	16 V M D040470083100	1	
C15	Ceramic Chip 0.022 μ F	50 V Z D011223177210	1	
C16/C17	Ceramic Chip CH 18 pF	50 V J D010180167210	2	
C18	Ceramic Chip CH 100 pF	50 V J D010101167210	1	
C19	Electrolytic SG 47 μ F	16 V M D040470083100	1	
C20	Ceramic Chip 0.022 μ F	50 V Z D011223177210	1	
C21	Electrolytic SG 10 μ F	50 V M D040100087100	1	
C22-C24	Ceramic Chip 0.022 μ F	50 V Z D011223177210	3	
C25	Electrolytic SG 1 μ F	50 V M D040010087100	1	
C26	Ceramic Chip 0.022 μ F	50 V Z D011223177210	1	
C27	Electrolytic SG 47 μ F	16 V M D040470083100	1	
C28	Ceramic Chip CH 330 pF	50 V J D010331167210	1	
C32	Ceramic Chip 0.022 μ F	50 V Z D011223177210	1	
C33	Electrolytic SG 4.7 μ F	50 V M D0404R7087100	1	
C34	Electrolytic SG 3.3 μ F	50 V M D0403R3087100	1	
C35	Electrolytic SG 4.7 μ F	50 V M D0404R7087100	1	
C36	Ceramic Chip 0.022 μ F	50 V Z D011223177210	1	
C37	Ceramic Chip 0.0033 μ F	50 V Z D011332177210	1	
C38	Ceramic Chip 0.039 μ F	50 V Z D011393597210	1	
C39	Ceramic Chip 0.022 μ F	50 V Z D011223177210	1	
C40	Electrolytic SG 4.7 μ F	50 V M D0404R7087100	1	
C41	Ceramic Chip 0.001 μ F	50 V Z D011102177210	1	
C42	Electrolytic SG 3.3 μ F	50 V M D0403R3087100	1	
C43/C44	Electrolytic SG 1 μ F	50 V M D040010087100	2	
C45	Electrolytic SG 3.3 μ F	50 V M D0403R3087100	1	
C46	Ceramic Chip 0.047 μ F	50 V Z D011473597210	1	
C47	Ceramic Chip CH 680 pF	50 V J D010681167210	1	
C48	Electrolytic SG 100 μ F	16 V M D040101083100	1	
C49/C50	Ceramic Chip 0.001 μ F	50 V Z D011102177210	2	PT INDO
(C49/C50)	Ceramic Chip 0.0015 μ F	50 V Z D011152177210	2	K
C51	Electrolytic SG 2.2 μ F	50 V M D0402R2087100	1	
C52	Ceramic Chip 0.0022 μ F	50 V Z D011222177210	1	
C53	Electrolytic SG 22 μ F	35 V M D040220085100	1	
C54	Ceramic Chip CH 270 pF	50 V J D010271167210	1	
C55	Electrolytic SG 22 μ F	35 V M D040220085100	1	
C56	Electrolytic SG 2.2 μ F	50 V M D0402R2087100	1	
C57-C59	Ceramic Chip 0.0022 μ F	50 V Z D011222177210	3	
C61	Ceramic Tubular 10000 pF	16 V J D005103077530	1	
C70	Electrolytic SG 1 μ F	50 V M D040010087100	1	
C71	Ceramic Chip 10 pF	50 V J D011100567210	1	
CT1M	Trimmer, 20 pF	D110200901100	1	
CT4M	Trimmer, 10 pF	D110100901100	1	
FILTERS				
CF1/CF2	Ceramic, SFE10.7MS3GH-ATF21	E430107000150	2	PT INDO
(CF1/CF2)	Ceramic, SFE10.7MA8-A-TF21	E430107000140	2	K
CF3	Ceramic, CFM2-450BL	E431450000120	1	
COILS				
T1M	AM-OSC	D940010010000	1	
T4M	MW-ANT(W)	D304010000000	1	
T5	FM-DET-A, K5713FKG	D970010020000	1	
T6	FM-DET-B, K5714K	D970010030000	1	
T7	AM-IFT, P-7SB	D950010050000	1	
T8/T9	MPX, 19/38K	E401010010000	2	
DIODES				
D1	Zener, UZ 5.1BSB	K06005R114520	1	
D2/D3	Switching, 1N4148M	K000414801520	2	
VD1L	Varector, SVC321C-2	K080032100520	1	
VD3M	Varector, SVC321C-2	K080032100520	1	
INTEGRATED CIRCUITS				
IC1	LM7001M	J124700100010	1	
IC2	LA1266	J124126600000	1	
IC3	HA12016	J124120160000	1	
TRANSISTORS				
Q1	KTC1923Y/BKTC3194Y, NPN	J5023194Y0050	1	
Q8/Q9	KTC2240/BKTC3200, NPN	J5023200B0050	2	
Q12/Q13	KRA107M/DTA114YS	J601107M00050	2	
Q15/Q16	DTC323TS	J602323TS0050	2	
Q17	KRA107M/DTA114YS	J601107M00050	1	

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
RESISTORS				
R1	Chip 100 ohm 1/10 W J	C200010160200	1	
R2	Chip 560 ohm 1/10 W J	C200056160200	1	
R3	Chip 1.8 kohm 1/10 W J	C200018260200	1	
R4/R5	Chip 330 ohm 1/10 W J	C200033160200	2	
R8	Metal Film 470 ohm 1/5 W J	C06004716P520	1	
R9	Metal Film 47 ohm 1/5 W J	C06004706P520	1	
R10	Chip 100 kohm 1/10 W J	C200010460200	1	
R18	Chip 100 kohm 1/10 W J	C200010460200	1	
R20	Chip 1 kohm 1/10 W J	C200010260200	1	
R21	Chip 10 kohm 1/10 W J	C200010360200	1	
R22	Chip 1.5 kohm 1/10 W J	C200015260200	1	
R23	Metal Film 820 ohm 1/5 W J	C06008216P520	1	
R24	Metal Film 270 ohm 1/5 W J	C06002716P520	1	
R25	Metal Film 390 ohm 1/5 W J	C06003916P520	1	
R26-R28	Chip 1 kohm 1/10 W J	C200010260200	3	
R30	Carbon Film 33 kohm 1/5 W J	C00003336P520	1	
R31	Chip 2.7 kohm 1/10 W J	C200027260200	1	
R32	Chip 68 kohm 1/10 W J	C200068360200	1	
R33	Chip 10 kohm 1/10 W J	C200010360200	1	
R34	Chip 22 kohm 1/10 W J	C200022060200	1	
R35	Chip 2.4 kohm 1/10 W J	C200024260200	1	PT INDO
(R35)	Chip 1 kohm 1/10 W J	C200010260200	1	K
R36	Chip 1.8 kohm 1/10 W J	C200018260200	1	
R37	Carbon Film 100 kohm 1/5 W J	C00001046P520	1	
R38	Chip 22 ohm 1/10 W J	C200022060200	1	
R39	Carbon Film 39 kohm 1/5 W J	C00003936P520	1	PT INDO
(R39)	Carbon Film 18 kohm 1/5 W J	C00001836P520	1	K
R40	Chip 10 kohm 1/10 W J	C200010360200	1	
R41	Chip 3.3 kohm 1/10 W J	C200033260200	1	
R42	Metal Film 47 ohm 1/5 W J	C06004706P520	1	
R43	Chip 0 ohm 1/10 W J	C200000060200	1	
R46	Chip 100 kohm 1/10 W J	C200010460200	1	
R48	Chip 5.6 kohm 1/10 W J	C200056260200	1	
R49	Chip 1 kohm 1/10 W J	C200010260200	1	
R50	Chip 100 kohm 1/10 W J	C200010460200	1	
R51	Chip 5.6 kohm 1/10 W J	C200056260200	1	
R52	Chip 2.7 kohm 1/10 W J	C200027260200	1	
R53/R54	Chip 51 kohm 1/10 W J	C200051360200	2	PT INDO
(R53/R54)	Chip 47 kohm 1/10 W J	C200047360200	2	K
R55	Chip 2.7 kohm 1/10 W J	C200027260200	1	
R56/R57	Chip 3.9 kohm 1/10 W J	C200039260200	2	PT INDO
(R56/R57)	Chip 6.8 kohm 1/10 W J	C200068260200	2	K
R58	Chip 3.9 kohm 1/10 W J	C200039260200	1	
R59/R60	Chip 27 kohm 1/10 W J	C200027360200	2	
R61	Chip 1 kohm 1/10 W J	C200010260200	1	
R62	Chip 3.3 kohm 1/10 W J	C200033260200	1	
R63	Chip 1 kohm 1/10 W J	C200010260200	1	
R64	Chip 3.3 kohm 1/10 W J	C200033260200	1	
R65	Metal Film 100 ohm 1/5 W J	C06001016P520	1	
R67	Chip 10 kohm 1/10 W J	C200010360200	1	
R75	Chip 22 kohm 1/10 W J	C200022060200	1	
R76/R77	Chip 0 ohm 1/10 W J	C200000060200	2	
R78	Metal Film 390 ohm 1/5 W J	C06003916P520	1	
J14	Chip 0 ohm 1/10 W J	C200000060200	1	
J39	Chip 0 ohm 1/10 W J	C200000060200	1	
J50	Chip 0 ohm 1/10 W J	C200000060200	1	
SEMI FIXED VARIABLE RESISTORS				
VR1	20K(B)-H	C541203115000	1	
VR2	100K(B)-H	C541104115000	1	
VR3	5K(B)-H	C541502115000	1	
VR4	100K(B)-H	C541104115000	1	
MISCELLANEOUS				
CNT1	Plug, 5267-11A	L102526701100	1	
XT1	Crystal, HC49U T 7.2MHz CL12PF	E800720000080	1	
27	Terminal antenna, Push type	G590040440000	1	
	FM Front end Ass'y	7028040708500	1	
PCB1	ASSEMBLY P.C.BOARD TUNER	7028040698500		D(ONLY)
CAPACITORS				
C1/C2	Ceramic Chip 0.022 μ F	50 V Z D011223177210	2	
C3	Electrolytic SG 100 μ F	16 V M D040101083100	1	
C4	Ceramic Chip CH 470 pF	50 V J D010471167210	1	
C5	Ceramic Chip CH 8 pF	50 V J D010808117210	1	
CTLW	Ceramic Chip 0.022 μ F	50 V Z D011223177210	1	
C8LW	Ceramic Chip 0.01 μ F	50 V Z D011103177210	1	
C9	Ceramic Chip 0.047 μ F	50 V Z D011473597210	1	
C10	Electrolytic SG 1 μ F	50 V M D040010087100	1	
C11	Ceramic Chip 0.01 μ F	50 V Z D011103177210	1	
C12	Ceramic Chip 0.022 μ F	50 V Z D011223177210	1	
C13	Ceramic Chip 0.01 μ F	50 V Z D011103177210	1	
C14	Electrolytic SG 47 μ F	25 V M D040470084100	1	
C15	Ceramic Chip 0.022 μ F	50 V Z D011223177210	1	

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
C16/C17	Ceramic Chip CH 18 pF	50 V J D010180167210	2	
C18	Ceramic Chip CH 100 pF	50 V J D010101167210	1	
C19	Electrolytic SG 47 μF	25 V M D040470084100	1	
C20	Ceramic Chip 0.022 μF	50 V Z D011223177210	1	
C21	Electrolytic SG 10 μF	50 V M D040100087100	1	
C22-C24	Ceramic Chip 0.022 μF	50 V Z D011223177210	3	
C25	Electrolytic SG 1 μF	50 V M D040010087100	1	
C26	Ceramic Chip 0.022 μF	50 V Z D011223177210	1	
C27	Electrolytic SG 47 μF	25 V M D040470084100	1	
C28	Ceramic Chip CH 330 pF	50 V J D010331167210	1	
C29/C30	Ceramic Chip CH 100 pF	50 V J D010101167210	2	
C31/C32	Ceramic Chip 0.022 μF	50 V Z D011223177210	2	
C33	Electrolytic SG 4.7 μF	50 V M D0404R7087100	1	
C34	Electrolytic SG 3.3 μF	50 V M D0403R3087100	1	
C35	Electrolytic SG 4.7 μF	50 V M D0404R7087100	1	
C36	Ceramic Chip 0.022 μF	50 V Z D011223177210	1	
C37	Ceramic Chip 0.0033 μF	50 V Z D011332177210	1	
C38	Ceramic Chip 0.039 μF	50 V Z D011393597210	1	
C39	Ceramic Chip 0.022 μF	50 V Z D011223177210	1	
C40	Electrolytic SG 4.7 μF	50 V M D0404R7087100	1	
C41	Ceramic Chip 0.001 μF	50 V Z D011102177210	1	
C42	Electrolytic SG 3.3 μF	50 V M D0403R3087100	1	
C43/C44	Electrolytic SG 1 μF	50 V M D040010087100	2	
C45	Electrolytic SG 3.3 μF	50 V M D0403R3087100	1	
C46	Ceramic Chip 0.047 μF	50 V Z D011473597210	1	
C47	Ceramic Chip CH 680 pF	50 V J D010681167210	1	
C48	Electrolytic SG 100 μF	16 V M D040101083100	1	
C49/C50	Ceramic Chip 0.001 μF	50 V Z D011102177210	2	
C51	Electrolytic SG 2.2 μF	50 V M D0402R2087100	1	
C52	Ceramic Chip 0.0022 μF	50 V Z D011222177210	1	
C53	Electrolytic SG 22 μF	25 V M D040220084100	1	
C54	Ceramic Chip CH 270 pF	50 V J D010271167210	1	
C55	Electrolytic SG 22 μF	25 V M D040220084100	1	
C56	Electrolytic SG 2.2 μF	50 V M D0402R2087100	1	
C57-C59	Ceramic Chip 0.0022 μF	50 V Z D011222177210	3	
C60	Electrolytic SG 47 μF	25 V M D040470084100	1	
C61	Ceramic Tubular 10000 pF	16 V J D005103077530	1	
C62	Ceramic Chip CH 270 pF	50 V J D010271167210	1	
C63	Electrolytic SG 10 μF	50 V M D040100087100	1	
C64	Ceramic Chip 0.1 μF	50 V Z D011104597210	1	
C65/C66	Ceramic Chip CH 27 pF	50 V J D010270167210	2	
C67	Ceramic Chip 0.1 μF	50 V Z D011104597210	1	
C68	Electrolytic SG 10 μF	50 V M D040100087100	1	
C69	Ceramic Chip 0.1 μF	50 V Z D011104597210	1	
C6LW	Ceramic Chip CH 150 pF	50 V J D010151167210	1	
C70	Electrolytic SG 1 μF	50 V M D040010087100	1	
C71	Ceramic Chip 10 pF	50 V J D011100567210	1	
CT1M	Trimmer, 20 pF	D110200901100	1	
CT2L	Trimmer, 20 pF	D110200901100	1	
CT3LW	Trimmer, 10 pF	D110100901100	1	
CT4M	Trimmer, 10 pF	D110100901100	1	
FILTERS				
CF1/CF2	Ceramic, SFE10.7MS3GH-ATF21	E430107000150	2	
CF3	Ceramic, CFM2-450BL	E431450000120	1	
CF4	BPF, PFWB4	E4400010020000	1	
COILS				
L1	Inductor, 20.8MH	D330208001120	1	
T1M	AM-OSC	D940010010000	1	
T2LW	LW-OSC	D941010000000	1	
T3LW	LW-ANT(B)	D304010010000	1	
T4M	MW-ANT(W)	D304010000000	1	
T5	FM-DET-A, K8713FKG	D970010020000	1	
T6	FM-DET-B, K5714K	D970010030000	1	
T7	AM-IFT, P-7SB	D950010050000	1	
T8/T9	MPX, 19/38K	E401010010000	2	
DIODES				
D1	Zener, UZ 5.1BSB	K06005R114520	1	
D2/D3	Switching, 1N4148M	K000414801520	2	
D4	Zener, UZ 5.1BSB	K06005R114520	1	
D5	Switching, 1N4148M	K000414801520	1	
VD1M	Varector, SVC321SPA-C	K080032100520	1	
VD2LW	Varector, SVC321SPA-C	K080032100520	1	
VD3M	Varector, SVC321SPA-C	K080032100520	1	
INTEGRATED CIRCUITS				
IC1	LM7001M	J1247001000010	1	
IC3	HA12016	J214120160000	1	
IC4	TDA7330B	J1247330000000	1	
IC5	LC7073	J1247073000000	1	
TRANSISTORS				
Q1	KTC1923Y/BKTC3194Y, NPN	J5023194Y0050	1	
Q10LW	2SC3199Y/BKTC3199Y, NPN	J5023199Y0050	1	
Q11LW	KRA107M/DTA114YS	J601107M00050	1	

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
R821	Carbon Film 8.2 kohm 1/5 W	J C00008226P520	1	
R822	Carbon Film 15 kohm 1/5 W	J C00001536P520	1	
R823	Carbon Film 330 kohm 1/5 W	J C00003346P520	1	
R824/R825	Carbon Film 8.2 kohm 1/5 W	J C00008226P520	2	
R826	Carbon Film 10 kohm 1/5 W	J C00001036P520	1	
R827/R828	Carbon Film 15 kohm 1/5 W	J C00001536P520	2	
R829/R830	Metal Film 22 ohm 1/5 W	J C06002206P520	2	
R831	Carbon Film 43 kohm 1/5 W	J C00004336P520	1	
R832	Carbon Film 15 kohm 1/5 W	J C00001536P520	1	
R833	Carbon Film 10 kohm 1/5 W	J C00001036P520	1	
R833L/R	Metal Film 1 kohm 1/5 W	J C06001026P520	2	
R834	Metal Film 1 kohm 1/5 W	J C06001026P520	1	
R835	Metal Film 100 ohm 1/5 W	J C06001016P520	1	
R836	Carbon Film 1 Mohm 1/5 W	J C00001056P520	1	
R837	Metal Film 1 kohm 1/5 W	J C06001026P520	1	
R838C/S	Carbon Film 100 kohm 1/5 W	J C00001046P520	2	
R839C/S	Carbon Film 12 kohm 1/5 W	J C00001236P520	2	
R840C/S	Carbon Film 100 kohm 1/5 W	J C00001046P520	2	
R841/R842	Metal Film 47 ohm 1/5 W	J C06004706P520	2	
R843-R845	Metal Film 1 kohm 1/5 W	J C06001026P520	3	
R846C/S	Carbon Film 100 kohm 1/5 W	J C00001046P520	2	
R847C/S	Metal Film 1.8 kohm 1/5 W	J C06001826P520	2	
R848C/S	Carbon Film 10 kohm 1/5 W	J C00001036P520	2	
R849C/S	Carbon Film 100 kohm 1/5 W	J C00001046P520	2	
R850/R851	Metal Film 47 ohm 1/5 W	J C06004706P520	2	
R852C	Metal Film 3.3 kohm 1/5 W	J C06003326P520	1	
R852L/R	Carbon Film 100 kohm 1/5 W	J C00001046P520	2	
R852S	Metal Film 3.3 kohm 1/5 W	J C06003326P520	1	
MISCELLANEOUS				
L801	Inductor, 100 uH	D330101001020	1	
26	Ground plat	3070045526010	1	
30	Jack RCA, 2P	G601200440010	1	
PCB8 ASSEMBLY P.C.BOARD POWER CAPACITORS				
C101	Electrolytic SG 10 µF 50 V	M D040100087100	1	
C102	Electrolytic HS 4700 µF 50 V	M D040472087330	1	
C103-C105	Mylar 0.047 µF 100 V	J D02047306C060	3	
C106	Electrolytic HS 4700 µF 50 V	M D040472087330	1	
C107	Mylar 0.047 µF 100 V	J D02047306C060	1	
C108	Electrolytic SG 2200 µF 25 V	M D040222084200	1	
C109	Mylar 0.047 µF 100 V	J D02047306C060	1	
C110	Electrolytic SG 1 µF 50 V	M D040010087100	1	
C111	Electrolytic SG 2200 µF 25 V	M D040222084200	1	
C112	Mylar 0.047 µF 100 V	J D02047306C060	1	
C113	Electrolytic SG 1 µF 50 V	M D040010087100	1	
C114	Electrolytic SG 1000 µF 25 V	M D040102084200	1	
C115	Electrolytic SG 1 µF 50 V	M D040010087100	1	
C116	Electrolytic SG 22 µF 50 V	M D040220087100	1	
C118/C119	Mylar 0.047 µF 100 V	J D02047306C060	2	
C120	Electrolytic SG 47 µF 16 V	M D040470083100	1	
CONNECTORS				
CP100	Plug AC, GSCS-1301	L104020020000	1	
CP101	Plug, JE202B1T4	L108202000420	1	PT INDO
CP102	Plug, JE202A1T5	L104202000500	1	
CP103	Plug, GIL-S-9P-S2T2	L101220090000	1	
CP104	Plug, 52004-0910	L140520040900	1	
CP105	Plug, 5267-03A	L102526700300	1	
CP106	Plug, G1L-S-3P-S2TS	L101220030000	1	
CP107	Plug, 5267-02A	L102526700200	1	
CP108	Plug, 2P	L102330020000	1	
CN109	Lead Ass'y, 2P, 200mm	L021022037110	1	
CP109	Plug, 5267-02A	L102526700200	1	
CN404	Lead Ass'y, 8P, 140mm	L021081433210	1	
DIODES				
D101	Zener, UZ 4.3BSB	K06004R314520	1	
D102	Switching, 1N4148M	K000414801520	1	
D103	Zener, UZ 6.8BSC	K06006R814520	1	
D104	Zener, UZ 27.0BSC	K060270024520	1	
D105	Zener, UZ 4.3BSB	K06004R314520	1	
D106	Bridge, D5SBA60	K047056000010	1	
D107-D110	Rectifier, 1N4003	K040400300520	4	
D113/D114	Rectifier, 1N4003	K040400300520	2	
D117	Switching, 1N4148M	K000414801520	1	
FUSES				
F101	NB 2.5A, 250V	G650252251150	1	K
(F101)	T 2A, 250V	G650202251160	1	D,PT INDO
F102	T 3.15A, 250V	G650312251160	1	PT INDO(ONLY)
F103/F104	NB 2.5A, 250V	G650252251150	2	K
(F103/F104)	T 2.5A, 250V	G650252251160	2	D,PT INDO
INTEGRATED CIRCUITS				
IC101	KA7912, Regulator	J126791200050	1	

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
IC102/IC103	KIA78012AP, Regulator	J126780120000	2	
TRANSISTORS				
Q101	KTA1023, PNP	J5001023Y0050	1	
Q102/Q103	2SC3199Y/BKTC3199Y, NP	J5023199Y0050	2	
Q104/Q105	KTA966A/KTA1273, PNP	J5001273Y0050	2	
RESISTORS				
R101/R102	Carbon Film 10 kohm 1/5 W	J C00001036P520	2	
R103/R104	Metal Film 22 ohm 1/5 W	J C06002206P520	2	
R105	Metal Film 10 ohm 1 W	J C060010065520	1	
R107	Carbon Film 6.8 kohm 1/5 W	J C00006826P520	1	
R108	Metal Film 4.7 kohm 1/5 W	J C06004726P520	1	
R109	Metal Film 1 kohm 1/5 W	J C06001026P520	1	
R110	Metal Film 4.7 kohm 1/5 W	J C06004726P520	1	
R111	Metal Film 1 kohm 1/5 W	J C06001026P520	1	
R112	Metal Film 3.3 Mohm	J C060033574530	1	
MISCELLANEOUS				
GND1/GND2	Terminal ground	3790040696010	2	
RLY1	Relay, OSA-SS-212DM3	G680123020000	1	
11	Heatsink, Regulator TR (H:45)	2120044348010	1	
12	Heatsink, Regulator TR (H:30)	2120044338010	1	
14	Voltage selector, 6P	G060040540010	1	PT INDO(ONLY)
PCB9 ASSEMBLY P.C.BOARD SPEAKER				
C20-C25	C, Ceramic Tubular 0.0047 µF 50 V	Z D005472773530	6	D
C26-C29	C, Mylar 0.047 µF 100 V	J D02047306C060	2	
CN109ST	CNT, Lead Ass'y, 2P, 240m	L021022437110	1	
CP405ST	CNT, Plug, 5267-02A	L102526700200	1	
R10-R13	R, Metal Film 22 ohm 1/5 W	J C06002206P520	4	
17	Terminal speaker, Push type, 4P	G594040210000	1	
PCB10 ASSEMBLY P.C.BOARD HEADPHONE				
C542	C, Ceramic Tubular 0.01 µF 16 V	Z D005103773530	1	
C535L/R	C, Ceramic Tubular 0.022 µF 25 V	Z D005223574530	2	
C536	C, Ceramic Tubular 0.022 µF 25 V	Z D005223574530	1	
CP504	CNT Plug, 4P	L101220040010	1	
D504	D, Switching, 1N4148M	K000414801520	1	
R539L/R	R, Metal Film 4.7 ohm 1/5 W	J C0604R706P520	2	
6	Jack, HTJ064-05B	G402040221930	1	
3	Panel Front	3067042121020	1	
► THE ASS'Y PCB MAIN (PCB2) INCLUDE BELOW.				
① THE ASS'Y PCB SURROUND (PCB3).				
► THE ASS'Y PCB FRONT (PCB4) INCLUDE BELOW.				
① THE ASS'Y PCB FRONT KEY (PCB5).				
② THE ASS'Y PCB MIC (PCB6).				
► THE ASS'Y PCB INPUT (PCB7) INCLUDE BELOW.				
① THE ASS'Y PCB POWER (PCB8).				
② THE ASS'Y PCB SPEAKER (PCB9).				
③ THE ASS'Y PCB HEADPHONE (PCB10).				

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
SW200	Switch, AUDIO	G180040500010	1	D
SW201	Switch, VIDEO	G180040500010	1	D
SW202	Switch, SURROUND	G180040500010	1	
SW203	Switch, MODE	G180040500010	1	
SW204	Switch, VOLUME-UP	G180040500010	1	
SW205	Switch, VOLUME-DOWN	G180040500010	1	
SW206	Switch, TUNE MODE	G180040500010	1	
SW207	Switch, MEM/SET	G180040500010	1	
SW208	Switch, POWER	G180040500010	1	
SW209	Switch, X-BASS	G180040500010	1	
SW210	Switch, DISP	G180040500010	1	D
SW211	Switch, PTY	G180040500010	1	D
SW212	Switch, AF	G180040500010	1	D
SW213	Switch, RDS	G180040500010	1	D
SW214	Switch	G180040500010	1	
7(VR201)	Volume MIC, 50KB	C451115302200	1	
9(VR202)	Switch, Rotary encoder	C49004106001A	1	
XT200	Crystal, MX-38T (32.768kHz)	E800327680050	1	
FL	FL Display, 14BMW8R	K530001700010	1	
10	Guide holder, FL	4320040811010	1	

PCB5 ASSEMBLY P.C.BOARD FRONT KEY

R370	Metal Film	1.8 kohm	1/5 W	J	C06001826P520	1	
R371	Carbon Film	5.1 kohm	1/5 W	J	C00005126P520	1	
R372-R374	Carbon Film	18 kohm	1/5 W	J	C00001836P520	3	
CN104	Lead Ass'y, 2P, 80mm				L021020826320	1	
SW370	Switch, BAND				G180040500010	1	
SW371	Switch, FM MODE				G180040500010	1	
SW372	Switch, CLOCK				G180040500010	1	
SW373	Switch, TIMER				G180040500010	1	

PCB6 ASSEMBLY P.C.BOARD MIC

D381	Switching, 1N4148M				K000414801520	1	
R380	Metal Film	3.3 kohm	1/5 W	J	C06003326P520	1	
R381	Carbon Film	10 kohm	1/5 W	J	C00001036P520	1	
39(JACK380)	Jack , HTJ064-05B				G402040221930	1	
CP105	Plug, GIL-S-4P-S2T2				L101220040000	1	

* ASS'Y P.C.BOARD INPUT/SURROUND (PCB 7, 8, 9, 10) 70288040698700 D

* ASS'Y P.C.BOARD INPUT/SURROUND (PCB 7, 8, 9, 10) 70288040699600 PT INDO

* ASS'Y P.C.BOARD INPUT/SURROUND (PCB 7, 8, 9, 10) 70288040696400 K

PCB7 ASSEMBLY P.C.BOARD INPUT

CAPACITORS

C501L/R	Ceramic Tubular	100 pF	50 V	J	D001101077530	2	D(ONLY)
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C503	Ceramic Tubular	100 pF	50 V	J	D001101077530	1	
C504	Electrolytic SG	1 μ F	50 V	M	D040010087100	1	
C505/C506	Electrolytic SG	47 μ F	35 V	M	D040470085100	2	
C507L/R	Ceramic Tubular	100 pF	50 V	J	D001101077530	2	
C508L/R	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C509L/R	Ceramic Tubular	100 pF	50 V	J	D001101077530	2	
C510/C511	Electrolytic SG	47 μ F	35 V	M	D040470085100	2	
C512L/R	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C513	Electrolytic SG	2.2 μ F	50 V	M	D0402R2087100	1	
C514-C517	Mylar	0.1 μ F	63 V	K	D020104078060	4	
C518L/R	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C519/C520	Mylar	0.0022 μ F	100 V	J	D02022206C060	2	
C521	Electrolytic SG	2.2 μ F	50 V	M	D0402R2087100	1	
C522	Electrolytic SG	22 μ F	35 V	M	D040220085100	1	
C523	Electrolytic SG	47 μ F	35 V	M	D040470085100	1	
C524L/R	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C525L/R	Ceramic Tubular	220 pF	50 V	J	D005221077530	2	
C526	Mylar	0.1 μ F	63 V	K	D020104078060	1	
C527/C528	Electrolytic SG	47 μ F	35 V	M	D040470085100	2	
C529L/R	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C530L/R	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C531L/R	Ceramic Tubular	560 pF	50 V	J	D005561077530	2	
C532L/R	Ceramic Tubular	560 pF	50 V	J	D005561077530	2	
C533/C534	Electrolytic SG	47 μ F	35 V	M	D040470085100	2	
C535	Mylar	0.1 μ F	63 V	K	D020104078060	1	
C537/C538	Ceramic Tubular	100 pF	50 V	J	D001101077530	2	
C539-C541	Ceramic Tubular	0.01 μ F	16 V	Z	D005103773530	3	
C751L/R	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C752L/R	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C753L/R	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C754	Mylar	0.47 μ F	63 V	K	D020474078060	1	
C701L/R	Ceramic Tubular	100 pF	50 V	J	D001101077530	2	
C703L/R	Ceramic Tubular	100 pF	50 V	J	D001101077530	2	
C704L/R	Ceramic Tubular	100 pF	50 V	J	D001101077530	2	
C705	Electrolytic SG	100 μ F	16 V	M	D040101083100	1	
C706	Ceramic Tubular	0.0047 μ F	25 V	Z	D005473574530	1	
C707/C708	Electrolytic SG	470 μ F	10 V	M	D040471082100	2	
C709/C710	Electrolytic SG	10 μ F	35 V	M	D040100085100	2	

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION			
C711	Ceramic Tubular	0.1 μ F	25 V	Z	D005104574530	1	
C712	Electrolytic SG	47 μ F	16 V	M	D040470083100	1	
C801	Ceramic Tubular	680 pF	50 V	K	D005681077530	1	
C802	Mylar	0.1 μ F	63 V	K	D020104078060	1	
C803	Ceramic Tubular	680 pF	50 V	K	D005681077530	1	
C804-806	Mylar	0.1 μ F	63 V	K	D020104078060	3	
C807	Electrolytic SG	220 μ F	16 V	M	D040221083100	1	
C808L/R	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C809L/R	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C810	Electrolytic SG	22 μ F	16 V	M	D040220083100	1	
C811	Electrolytic SG	47 μ F	16 V	M	D040470083100	1	
C812	Mylar	0.0047 μ F	100 V	J	D02047206C060	1	
C813	Electrolytic SG	22 μ F	16 V	M	D040220083100	1	
C814	Ceramic Tubular	100 pF	50 V	J	D001101077530	1	
C815C/S	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C816	Mylar	0.1 μ F	63 V	K	D020104078060	1	
C817	Electrolytic SG	220 μ F	10 V	M	D040221082100	1	
C818	Mylar	0.0047 μ F	100 V	J	D02047206C060	1	
C819	Ceramic Tubular	470 pF	50 V	K	D005471077530	1	
C820	Mylar	0.68 μ F	63 V	K	D020684078060	1	
C821	Mylar	0.047 μ F	100 V	J	D02047306C060	1	
C822	Mylar	0.0056 μ F	100 V	J	D02056206C060	1	
C823	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	1	
C824/C825	Mylar	0.22 μ F	63 V	K	D020224078060	2	
C826	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	1	
C827/C828	Mylar	0.22 μ F	63 V	K	D020224078060	2	
C829	Mylar	0.1 μ F	63 V	K	D020104078060	1	
C830/C831	Mylar	0.047 μ F	100 V	J	D02047306C060	2	
C832/C833	Mylar	0.1 μ F	63 V	K	D020104078060	2	
C834/C835	Mylar	0.022 μ F	100 V	J	D02022306C060	2	
C836	Mylar	0.1 μ F	63 V	K	D020104078060	1	
C837	Mylar	0.0056 μ F	100 V	J	D02056206C060	1	
C838	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	1	
C839	Ceramic Tubular	560 pF	50 V	K	D005561077530	1	
C840	Mylar	0.1 μ F	250 V	K	D02010407H080	1	
C841	Mylar	0.0056 μ F	100 V	J	D02056206C060	1	
C842	Mylar	0.1 μ F	63 V	K	D020104078060	1	
C843	Electrolytic SG	47 μ F	16 V	M	D040470083100	1	
C844/C845	Mylar	0.047 μ F	100 V	J	D02047306C060	2	
C846	Mylar	0.0022 μ F	100 V	J	D02022206C060	1	
C847	Ceramic Tubular	560 pF	50 V	K	D005561077530	1	
C848	Electrolytic SG	10 μ F	35 V	M	D040100085100	1	
C849	Electrolytic SG	100 μ F	10 V	M	D040101082060	1	
C850	Electrolytic SG	10 μ F	35 V	M	D040100085100	1	
C851-C853	Ceramic Tubular	100 pF	50 V	J	D001101077530	3	
C854/C855	Ceramic Tubular	220 pF	50 V	J	D005221077530	2	
C856C/S	Ceramic Tubular	560 pF	50 V	K	D005561077530	2	
C857C/S	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C858/C859	Electrolytic SG	47 μ F	35 V	M	D040470085100	2	
C860C/S	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C861C	Ceramic Tubular	330 pF	50 V	J	D005331077530	1	
C861S	Ceramic Tubular	560 pF	50 V	K	D005561077530	1	
C862C/S	Electrolytic SG	4.7 μ F	50 V	M	D0404R7087100	2	
C863/C864	Electrolytic SG	47 μ F	35 V	M	D040470085100	2	
C865	Ceramic Tubular	100 pF	50 V	J	D001101077530	1	
C866L/R	Ceramic Tubular	100 pF	50 V	J	D001101077530	2	

CONNECTORS

CP1	Lead Ass'y, 11P, 80mm	L021110831310	1	K,PT INDO
(CP1)	Lead Ass'y, 15P, 80mm	L021150831310	1	D
CP102	Plug, TKC0V20X-A1	L102200020010	1	
CP101	Socket BTB, TKC-V10X-A1	L102100020010	1	
CN106	Lead Ass'y, 3P, 160mm	L022031633320	1	
CN504	Lead Ass'y, 4P, 200mm	L022042033320	1	
CP501	Plug, 52004-1110	L140520041100	1	
CN401	Lead Ass'y, 5P, 160mm	L022051633320	1	

DIODES

D501	Switching, 1N4148M	K000414801520	1	
D502	Zener, UZ 9.1BSC	K060009R124520	1	
D701	1N4148, Switching	K000414801520	1	
D801	Zener, UZ5.6V	K060005R614520	1	
D802	1N4148, Switching	K000414801520	1	
D803	Zener, UZ10V	K06010R014520	1	

INTEGRATED CIRCUITS

IC501	LC7821	J080782100000	1	
IC502	KIA4559P/KIA75559P	J121455900010	1	
IC503	TD7313D	J084731300000	1	
IC504	KIA4559P/KIA75559P	J121455900010	1	
IC505	KIA4559S/KIA75559S	J121455900000	1	
IC751	HYBRID, SRS3D2SW	J100320000000	1	
IC701	LA7952	J171795200000	1	
IC801	NJW1102A	J081110200000	1	
IC802	NJU9702	J120970200010	1	

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
IC803	KIA4559S	J121455900000	1	
IC804	TC9210	J084921000010	1	
IC805	KIA4559P	J121455900010	1	

TRANSISTORS

Q502L/R	KTC3198, NPN	J5023198B0050	2	
Q504	KRA107M/DTA114YS	J601107M00050	1	
Q505	FET, 2SK117Y	J5441170Y0050	1	
Q506	DTC114YS	J602011400050	1	
Q507	KRA107M/DTA114YS	J601107M00050	1	
Q508L/R	DTC323TL	J502323TL0050	2	

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REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
TRANSISTORS				
Q601	DTC323TS, NPN	J602323TS0050	1	
Q602/Q603	KTC3200, NPN	J5023200B0050	2	
Q604/Q605	2SC1740S, NPN	J5021740S0010	2	
Q606	KTA1024, PNP	J5001024Y0050	1	
Q607	2SC1740S, NPN	J5021740S0010	1	
Q608	KTC3206, NPN	J5023206Y0050	1	
Q609	KSC2690, NPN	J5022690Y0000	1	
Q610	KSA1220, PNP	J5001220Y0000	1	
Q611	2SC3853, NPN	J5001489Y0000	1	
Q612	2SA1489, PNP	J5001489Y0000	1	
Q613/Q614	2SC1740S, NPN	J5021740S0010	2	
Q615	DTC323TS, NPN	J602323TS0050	1	
Q616/Q617	KTC3200, NPN	J5023200B0050	2	
Q618/Q619	2SC1740S, NPN	J5021740S0010	1	
Q620	KTA1024, PNP	J5001024Y0050	1	
Q621	2SC1740S, NPN	J5021740S0010	1	
Q622	KTC3206, NPN	J5023206Y0050	1	
Q623	KSC2690, NPN	J5022690Y0000	1	
Q624	KSA1220, PNP	J5001220Y0000	1	
Q625	2SC3853, NPN	J5001489Y0000	1	
Q626	2SA1489, PNP	J5001489Y0000	1	
Q627	DTA114YS, NPN	J6020114Y0050	1	
Q629	DTA114YS, PNP	J6000114Y0010	1	
Q630	DTA114YS, NPN	J6020114Y0050	1	
Q632	DTA114YS, PNP	J6000114Y0010	1	
RESISTORS				
R601	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R602	Carbon Film	39 kohm 1/5 W J C00003936P520	1	
R603	Metal Film	680 ohm 1/5 W J C06006816P520	1	
R604/R605	Metal Film	1 kohm 1/5 W J C06001026P520	2	
R606/R607	Metal Film	4.7 kohm 1/5 W J C06004726P520	2	
R608/R609	Metal Film	1 kohm 1/5 W J C06001026P520	2	
R610	Carbon Film	10 kohm 1/5 W J C00001036P520	1	
R611	Metal Film	3.3 kohm 1/5 W J C06003326P520	1	
R612	Carbon Film	39 kohm 1/5 W J C00003936P520	1	
R613	Metal Film	120 ohm 1/5 W J C06001216P520	1	
R614	Metal Film	820 ohm 1/5 W J C06008216P520	1	
R615	Carbon Film	3 kohm 1/5 W J C00003026P520	1	
R616	Metal Film	1.8 kohm 1/5 W J C06001826P520	1	
R617	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R618	Metal Film	120 ohm 1/5 W J C06001216P520	1	
R619	Metal Film	3.3 kohm 1/5 W J C06003326P520	1	
R620	Carbon Film	100 kohm 1/5 W J C00001046P520	1	
R621	Ceramic	330 pF 50 V D005331077530	1	
R622	MPR	0.27 ohm 5 W C144R27069300	1	
R623	Metal Film	390 ohm 1/5 W J C06003916P520	1	
R624	Metal Film	4.7 kohm 1/5 W J C06004726P520	1	
R625	Carbon Film	15 kohm 1/5 W J C00001536P520	1	
R626/R627	Metal Film	22 ohm 1/5 W J C06002206P520	2	
R628	Carbon Film	24 kohm 1/5 W J C00002436P520	1	
R629	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R630	Carbon Film	39 kohm 1/5 W J C00003936P520	1	
R631	Metal Film	680 ohm 1/5 W J C06006816P520	1	
R632-R635	Metal Film	1 kohm 1/5 W J C06001026P520	4	
R636	Carbon Film	10 kohm 1/5 W J C00001036P520	1	
R637	Metal Film	3.3 kohm 1/5 W J C06003326P520	1	
R638	Carbon Film	39 kohm 1/5 W J C00003936P520	1	
R639	Metal Film	120 ohm 1/5 W J C06001216P520	1	
R640	Metal Film	820 ohm 1/5 W J C06008216P520	1	
R641	Carbon Film	3 kohm 1/5 W J C00003026P520	1	
R642	Metal Film	1.8 kohm 1/5 W J C06001826P520	1	
R643	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R644	Metal Film	120 ohm 1/5 W J C06001216P520	1	
R645	Metal Film	3.3 kohm 1/5 W J C06003326P520	1	
R646	Carbon Film	100 kohm 1/5 W J C00001046P520	1	
R647	Metal Film	330 ohm 1/5 W J C06003316P520	1	
R648	MPR	0.27 ohm 5 W C144R27069300	1	
R649	Metal Film	390 ohm 1/5 W J C06003916P520	1	
R650	Metal Film	4.7 kohm 1/5 W J C06004726P520	1	
R651	Carbon Film	15 kohm 1/5 W J C00001536P520	1	
R652/R653	Metal Film	22 ohm 1/5 W J C06002206P520	2	
R654	Carbon Film	24 kohm 1/5 W J C00002436P520	1	
R655/R656	Metal Film	4.7 kohm 1/5 W J C06004726P520	2	
R661	Carbon Film	10 kohm 1/5 W J C00001036P520	1	
*ASS'Y P.C.BOARD FRONT (PCB 4, 5, 6) 7028040698100 D *ASS'Y P.C.BOARD FRONT (PCB 4, 5, 6) 7028040700500 PT INDO *ASS'Y P.C.BOARD FRONT (PCB 4, 5, 6) 7028040697300 K				
PCB4 ASSEMBLY P.C.BOARD FRONT				
CAPACITORS				
C200/C201	Electrolytic SG	10 µF 50 V M D040100087100	2	
C202	Electrolytic SG	0.047 F 5.5 V M D090473702200	1	

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
C203	Electrolytic SG	10 µF 50 V M D040100087100	1	
C204	Electrolytic SG	4.7 µF 50 V M D0404R7087100	1	
C205	Electrolytic SG	100 µF 10 V M D040101082060	1	
C206	Electrolytic SG	10 µF 50 V M D040100087100	1	
C207	Ceramic Tubular	0.001 µF 50 V Z D005102077530	1	
C208/C209	Electrolytic SG	4.7 µF 50 V M D0404R7087100	2	
C210	Mylar	0.033 µF 100 V J D02033306C060	1	K,PT INDO
C211	Mylar	0.0056 µF 100 V J D02056206C060	1	K,PT INDO
C212	Ceramic Tubular	560 pF 50 V J D005561077530	1	K,PT INDO
C213/C214	Electrolytic SG	4.7 µF 50 V M D0404R7087100	2	K,PT INDO
C215	Ceramic Tubular	560 pF 50 V J D005561077530	1	K,PT INDO
C216	Mylar	0.0056 µF 100 V J D02056206C060	1	K,PT INDO
C217/C218	Mylar	0.047 µF 100 V J D02047306C060	2	K,PT INDO
C219	Electrolytic SG	0.33 µF 50 V M D040R33087100	1	K,PT INDO
C220	Ceramic Tubular	10000 pF 16 V J D005103077530	1	K,PT INDO
C221	Electrolytic SG	0.33 µF 50 V M D040R33087100	1	K,PT INDO
C222	Ceramic Tubular	10000 pF 16 V J D005103077530	1	K,PT INDO
C223	Electrolytic SG	47 µF 16 V M D040470083100	1	K,PT INDO
C224	Electrolytic SG	10 µF 50 V M D040100087100	1	
C225/C226	Electrolytic SG	4.7 µF 50 V M D0404R7087100	2	
C227	Electrolytic SG	100 µF 10 V M D040101082060	1	K,PT INDO
C228	Electrolytic SG	4.7 µF 50 V M D0404R7087100	1	
C229/C230	Ceramic Tubular	4700 pF 16 V J D005472773530	2	
C231	Electrolytic SG	10 µF 50 V M D040100087100	1	
C232/C233	Mylar	0.0027 µF 100 V J D02027206C060	2	
C234	Electrolytic SG	10 µF 50 V M D040100087100	1	
C235/C236	Ceramic Tubular	680 pF 50 V J D005681077530	2	
C237	Electrolytic SG	10 µF 50 V M D040100087100	1	
C238/C239	Ceramic Tubular	180 pF 50 V K D005181077530	2	
C240	Electrolytic SG	10 µF 50 V M D040100087100	1	
C241	Electrolytic SG	22 µF 35 V M D040220085100	1	
C242	Ceramic Tubular	10000 pF 16 V J D005103077530	1	
C243	Electrolytic SG	2.2 µF 50 V M D0402R2087100	1	
C244/C245	Ceramic Tubular	0.022 µF 25 V Z D005223574530	2	
C246	Electrolytic SG	4.7 µF 50 V M D0404R7087100	1	
C247	Electrolytic SG	10 µF 50 V M D040100087100	1	
C248	Ceramic DISC CH	20 pF 50 V J D000200167070	1	
C249/C250	Ceramic Tubular	0.022 µF 25 V Z D005223574530	2	
C251	Ceramic Tubular	0.001 µF 50 V Z D005102077530	1	
C252	Ceramic DISC CH	20 pF 50 V J D000200167070	1	
C253/C254	Ceramic Tubular	0.022 µF 25 V Z D005223574530	2	
C255	Ceramic Tubular	470 pF 50 V J D005471077530	1	
C256/C267	Ceramic Tubular	0.022 µF 25 V Z D005223574530	2	
C258	Electrolytic SG	100 µF 10 V M D040101082060	1	
CONNECTORS				
CN105	Lead Ass'y, 4P, 120mm	L022041233320	1	
CP101	Plug, TKC-V10P-A1	L102100020000	1	
CP102	Plug, TKC-V20P-A1	L102200020000	1	
CP103	Lead Ass'y, 9P, 120mm	L022091233320	1	
DIODES				
D200	Zener, UZ 6.2BSB	K06006R214520	1	
D201-D205	Switching, 1N4148M	K000414801520	5	
D206	Zener, UZ 5.1BSB	K06005R114520	1	K,PT INDO
D207	Switching, 1N4148M	K000414801520	1	
D208	Zener, UZ 7.5BSC	K06007R524520	1	
D209-D215	Switching, 1N4148M	K000414801520	7	
D216	Zener, UZ 5.1BSB	K06005R114520	1	
D217	Zener, UZ 9.1BSC	K06009R124520	1	
D218	Switching, 1N4148M	K000414801520	1	
LED201/202	LED, SR3511-U, RED	K509081501010	2	
INTEGRATED CIRCUITS				
IC200	CXP 82440A-151Q, DWP463	J020824401510	1	
IC201	ES 56028, Digital Echo	J083560200000	1	K,PT INDO
IC202	KIA4559P/KIA75559P	J121455900010	1	
IC203	KA324	J121032400010	1	
TRANSISTORS				
Q200-Q202	2SC1199Y/BKTC3199Y, NP	J5023199Y0050	3	
Q203-Q205	DTC114YS	J602011400050	3	
RESISTORS				
R200-R202	Carbon Film	100 kohm 1/5 W J C00001046P520	3	
R203	Metal Film	47 ohm 1/5 W J C06004706P520	1	
R204	Metal Film	270 ohm 1/5 W J C06002716P520	1	
R205	Metal Film	100 ohm 1/5 W J C06001016P520	1	
R206/R207	Carbon Film	47 kohm 1/5 W J C00004736P520	2	
R208	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R209	Carbon Film	47 kohm 1/5 W J C00004736P520	1	
R210	Carbon Film	7.5 kohm 1/5 W J C00007526P520	1	
R211	Carbon Film	27 kohm 1/5 W J C00002736P520	1	
R212/R213	Carbon Film	10 kohm 1/5 W J C00001036P520	2	
R214/R215	Carbon Film	100 kohm 1/5 W J C00001046P520	2	
R216	Metal Film	3.3 kohm 1/5 W J C06003326P520	1	
R217/R218	Metal Film	1.8 kohm 1/5 W J C06001826P520	2	

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
R219	Carbon Film	100 kohm 1/5 W J C00001046P520	1	
R220	Carbon Film	47 kohm 1/5 W J C00004736P520	1	
R221	Carbon Film	22 kohm 1/5 W J C00002236P520	1	
R223-R225	Carbon Film	47 kohm 1/5 W J C00004736P520	3	
R226-R233	Metal Film	1 kohm 1/5 W J C06001026P520	8	
R234/R235	Carbon Film	10 kohm 1/5 W J C00001036P520	2	
R236	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R237	Carbon Film	100 kohm 1/5 W J C00001046P520	1	
R238	Carbon Film	10 kohm 1/5 W J C00001036P520	1	
R239	Carbon Film	470 kohm 1/5 W J C00004746P520	1	
R240	Carbon Film	47 kohm 1/5 W J C00004736P520	1	
R241	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R242	Metal Film	47 ohm 1/5 W J C06004706P520	1	
R243	Metal Film	4.7 kohm 1/5 W J C06004726P520	1	
R244	Metal Film	3.3 kohm 1/5 W J C06003326P520	1	
R245	Carbon Film	7.5 kohm 1/5 W J C00007526P520	1	
R246/R247	Carbon Film	47 kohm 1/5 W J C00004736P520	2	
R248	Metal Film	560 ohm 1/5 W J C06005616P520	1	
R249	Carbon Film	18 kohm 1/5 W J C00001836P520	1	
R250	Carbon Film	15 kohm 1/5 W J C00001536P520	1	
R251	Carbon Film	10 kohm 1/5 W J C00001036P520	1	K,PT INDO
R252	Carbon Film	15 kohm 1/5 W J C00001536P520	1	K,PT INDO
R253	Carbon Film	8.2 kohm 1/5 W J C00008226P520	1	K,PT INDO
R254	Metal Film	3.3 kohm 1/5 W J C06003326P520	1	K,PT INDO
R255/R256	Carbon Film	10 kohm 1/5 W J C00001036P520	2	K,PT INDO
R257	Metal Film	3.3 kohm 1/5 W J C06003326P520	1	K,PT INDO
R258	Carbon Film	15 kohm 1/5 W J C00001536P520	1	K,PT INDO
R259	Carbon Film	10 kohm 1/5 W J C00001036P520	1	K,PT INDO
R260	Carbon Film	15 kohm 1/5 W J C00001536P520	1	K,PT INDO
R261	Carbon Film	75 kohm 1/5 W J C00007536P520	1	K,PT INDO
R262/R263	Carbon Film	6.8 kohm 1/5 W J C00006826P520	2	K,PT INDO
R264	Carbon Film	75 kohm 1/5 W J C00007536P520	1	K,PT INDO
R265	Carbon Film	27 kohm 1/5 W J C00002736P520	1	K,PT INDO
R266	Metal Film	100 ohm 2 W J C060010166520	1	K,PT INDO
R267	Metal Film	4.7 kohm 1/5 W J C06004726P520	1	
R268	Carbon Film	5.6 kohm 1/5 W J C00005626P520	1	
R269-R274	Carbon Film	47 kohm 1/5 W J C00004736P520	6	
R275	Carbon Film	680 kohm 1/5 W J C00006846P520	1	
R276	Metal Film	470 ohm 1/5 W J C06004716P520	1	
R277	Carbon Film	12 kohm 1/5 W J C00001236P520	1	
R278	Carbon Film	10 kohm 1/5 W J C00001036P520	1	
R279	Carbon Film	12 kohm 1/5 W J C00001236P520	1	
R280	Carbon Film	120 kohm 1/5 W J C00001246P520	1	
R281	Carbon Film	470 kohm 1/5 W J C00004746P520	1	
R282	Carbon Film	5.6 kohm 1/5 W J C00005626P520	1	
R283	Carbon Film	10 kohm 1/5 W J C00001036P520	1	
R284	Carbon Film	100 kohm 1/5 W J C00001046P520	1	
R285	Carbon Film	390 kohm 1/5 W J C00003946P520	1	
R286	Carbon Film	5.6 kohm 1/5 W J C00005626P520	1	
R287	Carbon Film	12 kohm 1/5 W J C00001236P520	1	
R288	Carbon Film	68 kohm 1/5 W J C00006836P520	1	
R289	Carbon Film	390 kohm 1/5 W J C00003946P520	1	
R290	Carbon Film	5.6 kohm 1/5 W J C00005626P520	1	
R291	Carbon Film	47 kohm 1/5 W J C00004736P520	1	
R292	Carbon Film	68 kohm 1/5 W J C00006836P520	1	
R293	Carbon Film	680 kohm 1/5 W J C00006846P520	1	
R294	Carbon Film	5.6 kohm 1/5 W J C00005626P520	1	
R295	Metal Film	330 ohm 1/5 W J C06003316P520	1	
R296	Carbon Film	12 kohm 1/5 W J C00001236P520	1	
R297	Carbon Film	120 kohm 1/5 W J C00001246P520	1	
R298	Carbon Film	2.2 Mohm 1/5 W J C00002256P520	1	
R299	Metal Film	330 ohm 1/5 W J C06003316P520	1	
R300	Carbon Film	10 kohm 1/5 W J C00001036P520	1	
R301	Carbon Film	1 Mohm 1/5 W J C00001056P520	1	
R302	Carbon Film	10 kohm 1/5 W J C00001036P520	1	
R303	Metal Film	1.8 kohm 1/5 W J C06001826P520	1	
R304	Metal Film	5.6 kohm 1/5 W J C06005626P520	1	
R305	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R306	Metal Film	1.5 kohm 1/5 W J C06001526P520	1	
R307	Metal Film	1.8 kohm 1/5 W J C06001826P520	1	
R308	Metal Film	2.4 kohm 1/5 W J C06002426P520	1	
R309	Metal Film	1.8 kohm 1/5 W J C06001826P520	1	
R310	Carbon Film	5.1 kohm 1/5 W J C00005126P520	1	
R311/R312	Carbon Film	18 kohm 1/5 W J C00001836P520	2	
R313	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R314	Metal Film	1.5 kohm 1/5 W J C06001526P520	1	
R315	Metal Film	1.8 kohm 1/5 W J C06001826P520	1	
R316	Metal Film	2.4 kohm 1/5 W J C06002426P520	1	
R317	Carbon Film	18 kohm 1/5 W J C00001836P520	1	
R318	Metal Film	56 ohm 1/5 W J C06005606P520	1	
MISCELLANEOUS				
RES0200	Resonator, CST10.0MTW-TF01	E830100000050	1	
RMC201	Remote senso, TFM5380(38KHz)	E940538000000	1	

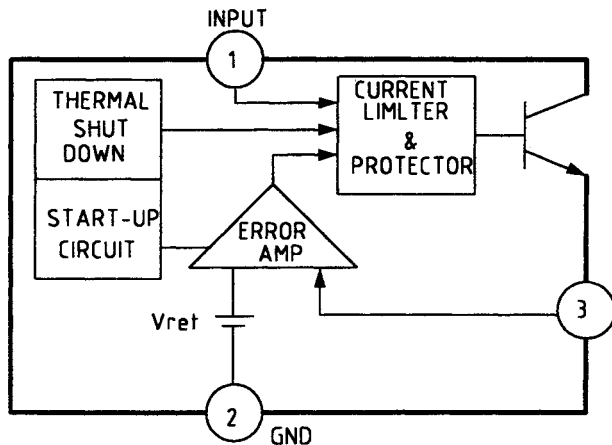
REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
Q12/Q13	KRA107M/DTA114YS	J601107M00050	2	
Q14	2SC3199Y/BKTC3199Y, NPN	J5023199Y0050	1	
Q15/Q16	DTC323TS	J602323TS0050	2	
Q17	KRA107M/DTA114YS	J601107M00050	1	
Q2LW-Q7LW	2SC3199Y/BKTC3199Y, NPN	J5023199Y0050	6	
Q8/Q9	KTC2240/BKTC3200, NPN	J5023200B0050	2	
RESISTORS				
R1	Chip	100 ohm 1/10 W J C200010160200	1	
R2	Chip	560 ohm 1/10 W J C200056160200	1	
R3	Chip	1.8 kohm 1/10 W J C200018260200	1	
R4/R5	Chip	330 ohm 1/10 W J C200033160200	2	
R6	Metal Film	100 kohm 1/5 W J C06001046P520	1	
R7	Chip	22 kohm 1/10 W J C200022060200	1	
R8	Metal Film	470 ohm 1/5 W J C06004716P520	1	
R9	Metal Film	47 ohm 1/5 W J C06004706P520	1	
R10	Chip	100 kohm 1/10 W J C200010460200	1	
R11LW	Chip	1.5 Mohm 1/10 W J C200015260200	1	
R12LW	Chip	47 kohm 1/10 W J C200047360200	1	
R13LW	Chip	47 kohm 1/10 W J C200047360200	1	
R14LW	Chip	47 kohm 1/10 W J C200047360200	1	
R15LW	Chip	47 kohm 1/10 W J C200047360200	1	
R16LW	Chip	100 kohm 1/10 W J C200010460200	1	
R17LW	Chip	47 kohm 1/10 W J C200047360200	1	
R18	Chip	100 kohm 1/10 W J C200010460200	1	
R19LW	Chip	47 kohm 1/10 W J C200047360200	1	
R20	Chip	1 kohm 1/10 W J C200010260200	1	
R21	Chip	10 kohm 1/10 W J C200010360200	1	
R22	Chip	1.5 kohm 1/10 W J C200015260200	1	
R23	Metal Film	820 ohm 1/5 W J C06008216P520	1	
R24	Metal Film	270 ohm 1/5 W J C06002716P520	1	
R25	Metal Film	390 ohm 1/5 W J C06003916P520	1	
R26-R28	Chip	1 kohm 1/10 W J C200010260200	3	
R29LW	Chip	10 kohm 1/10 W J C200010360200	1	
R30	Carbon Film	33 kohm 1/5 W J C00003336P520	1	
R31	Chip	2.7 kohm 1/10 W J C200027260200	1	
R32	Chip	68 kohm 1/10 W J C200068360200	1	
R33	Chip	10 kohm 1/10 W J C200010360200	1	
R34	Chip	22 kohm 1/10 W J C200022060200	1	
R35	Chip	3.9 kohm 1/10 W J C200039260200	1	
R36	Chip	1.8 kohm 1/10 W J C200018260200	1	
R37	Metal Film	100 kohm 1/5 W J C06001046P520	1	
R38	Chip	22 ohm 1/10 W J C200022060200	1	
R39	Carbon Film	39 kohm 1/5 W J C00003936P520	1	
R40	Chip	10 kohm 1/10 W J C200010360200	1	
R41	Chip	3.3 kohm 1/10 W J C200033260200	1	
R42	Metal Film	47 ohm 1/5 W J C06004706P520	1	
R43	Chip	1.8 kohm 1/10 W J C200018260200	1	
R44	Chip	47 kohm 1/10 W J C200047360200	1	
R45	Chip	1 kohm 1/10 W J C200010260200	1	
R46	Chip	100 kohm 1/10 W J C200010460200	1	
R47	Chip	22 ohm 1/10 W J C200022060200	1	
R48	Chip	5.6 kohm 1/10 W J C200056260200	1	
R49	Chip	1 kohm 1/10 W J C200010260200	1	
R50	Chip	100 kohm 1/10 W J C200010460200	1	
R51	Chip	5.6 kohm 1/10 W J C200056260200	1	
R52	Chip	2.7 kohm 1/10 W J C200027260200	1	
R53/R54	Chip	51 kohm 1/10 W J C200051360200	2	
R55	Chip	2.7 kohm 1/10 W J C200027260200	1	
R56/R57	Chip	2.4 kohm 1/10 W J C200024260200	2	
R58	Chip	3.9 kohm 1/10 W J C200039260200	1	
R59/R60	Chip	27 kohm 1/10 W J C200027360200	2	
R61	Chip	1 kohm 1/10 W J C200010260200	1	
R62	Chip	3.3 kohm 1/10 W J C200033260200	1	
R63	Chip	1 kohm 1/10 W J C200010260200	1	
R64	Chip	3.3 kohm 1/10 W J C200033260200	1	
R65	Metal Film	100 ohm 1/5 W J C06001016P520	1	
R67	Chip	10 kohm 1/10 W J C200010360200	1	
R68	Metal Film	680 ohm 1/5 W J C06006816P520	1	
R69	Chip	2.2 Mohm 1/10 W J C200022560200	1	
R70-R74	Chip	10 kohm 1/10 W J C200010360200	5	
R75-R77	Chip	0 ohm 1/10 W J C200000060200	3	
R78	Metal Film	390 ohm 1/5 W J C06003916P520	1	
J14	Chip	0 ohm 1/10 W J C200000060200	1	
J41	Chip	0 ohm 1/10 W J C200000060200	1	
J50	Chip	0 ohm 1/10 W J C200000060200	1	
SEMI FIXED RESISTORS				
VR1	20K(B)-H	C541203115000	1	
VR2	100K(B)-H	C541104115000	1	
VR3	5K(B)-H	C541502115000	1	
VR4	100K(B)-H	C541104115000	1	
MISCELLANEOUS				
CNT1	Plug, 5267-15A	L102526701500	1	
XT1	Crystal, 7.2MHz	E800720000080	1	

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
XT2	Crystal, 4.332MHz	E800433200050	1	
XT3	Resonator, CST4.00MGW-TF01	E830400000070	1	
FE1	FM Front end, FTA4-460V	E900446000100	1	
27	Terminal antenna, Screw type	G590040450000	1	
* ASS'Y P.C.BOARD MAIN (PCB 2, 3)		7028040698000	D	
* ASS'Y P.C.BOARD MAIN (PCB 2, 3)		7028040699500	PT INDO	
* ASS'Y P.C.BOARD MAIN (PCB 2, 3)		7028040696300	K	
PCB2 ASSEMBLY P.C.BOARD MAIN AM				
CAPACITORS				
C401	Electrolytic SG	4.7 μ F 50 V M D0404R7087100	1	
C402/C403	Ceramic Tubular	820 pF 50 V J D005821077530	2	
C404	Ceramic Tubular	20 pF 50 V J D005200067530	1	
C405	Ceramic Tubular	27 pF 50 V J D001270067530	1	
C406/C407	Ceramic Tubular	3.3 pF 50 V J D0013R3077530	2	
C408	Electrolytic SG	47 μ F 16 V M D040470083100	1	
C409	Ceramic Tubular	220 pF 50 V J D005221077530	1	
C410	Electrolytic SG	10 μ F 35 V M D040100085100	1	
C412	Mylar	0.047 μ F 100 V J D02047306C060	1	
C413	Electrolytic SG	0.1 μ F 50 V M D040R10087100	1	
C414	Electrolytic SG	4.7 μ F 50 V M D0404R7087100	1	
C415/C416	Ceramic Tubular	820 pF 50 V J D005821077530	2	
C417	Ceramic Tubular	20 pF 50 V J D005200067530	1	
C418	Electrolytic SG	47 μ F 16 V M D040470083100	1	
C419	Ceramic Tubular	27 pF 50 V J D001270067530	1	
C420/C421	Ceramic Tubular	3.3 pF 50 V J D0013R3077530	2	
C422	Ceramic Tubular	220 pF 50 V J D005221077530	1	
C423	Electrolytic SG	10 μ F 35 V M D040100085100	1	
C425	Mylar	0.047 μ F 100 V J D02047306C060	1	
C426	Electrolytic SG	0.1 μ F 50 V M D040R10087100	1	
C427	Electrolytic SG	100 μ F 16 V M D040101083100	1	
C428	Electrolytic AU	470 μ F 6.3 V M D046471081100	1	
C430	Electrolytic SG	10 μ F 35 V M D040100085100	1	
C433/C434	Electrolytic SG	1 μ F 100 V M D04001008C100	2	
CONNECTORS				
CN403	Lead Ass'y, 6P, 100mm	L021061033210		
CN405	Lead Ass'y, 2P, 240mm	L021022437110	1	
CP401	Plug, GIL-05P-S2L2-EF	L101220050010	1	
CP402	Plug, GIL-03P-S2L2-EF	L101220030010		
CP404	Plug, 5268-08A	L102526808010	1	
DIODES				
D401-D408	Switching, 1N4148M	K000414801520	8	
D411	Zener, UZ 33.0BSC	K060330034520	1	
TRANSISTORS				
Q401	DTC323TS	J602323TS0050	1	
Q402/Q403	KTC2240/BKTC3200, NPN	J5023200B0050	2	
Q404/Q405	2SC1740S	J5021740Y0050	2	
Q406	KTA1024, PNP	J5001024Y0050	1	
Q407	KTC3206, NPN	J5023206Y0050	1	
Q408	2SC1740S	J5021740Y0050	1	
Q409	KSC2690A-Y, NPN	J5022690Y0000	1	
Q410	KSA1220A-Y, PNP	J5001220Y0000	1	
Q411	2SC3853, NPN	J5023853Y0000	1	
Q412	2SA1489, PNP	J5001489Y0000	1	
Q413/Q414	2SC1740S	J5021740Y0050	2	
Q415	DTC323TS	J602323TS0050	1	
Q416/Q417	KTC2240/BKTC3200, NPN	J5023200B0050	2	
Q418/Q419	2SC1740S	J5021740Y0050	2	
Q420	KTA1024, PNP	J5001024Y0050	1	
Q421	KTC3206, NPN	J5023206Y0050	1	
Q422	2SC1740S	J5021740Y0050	1	
Q423	KSC2690A-Y, NPN	J5022690Y0000	1	
Q424	KSA1220A-Y, PNP	J5001220Y0000	1	
Q425	2SC3853, NPN	J5023853Y0000	1	
Q426	2SA1489, PNP	J5001489Y0000	1	
Q427	BKTA1266, PNP	J5001266Y0050	1	
Q428/Q429	2SC1740S	J5021740Y0050	2	
Q430	DTC114YS	J602011400050	1	
Q431	KRA107M/DTA114YS	J601107M00050	1	
Q432	BKTA1266, PNP	J5001266Y0050	1	
RESISTORS				
R401	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R402	Carbon Film	39 kohm 1/5 W J C00003936P520	1	
R403	Metal Film	680 ohm 1/5 W J C06006816P520	1	
R404/R405	Metal Film	1 kohm 1/5 W J C06001026P520	2	
R406/R407	Metal Film	4.7 kohm 1/5 W J C06004726P520	2	
R408/R409	Metal Film	1 kohm 1/5 W J C06001026P520	2	
R410	Carbon Film	10 kohm 1/5 W J C00001036P520	1	
R411	Metal Film	2.7 kohm 1/5 W J C06002726P520	1	
R412	Carbon Film	39 kohm 1/5 W J C00003936P520	1	
R413	Metal Film	120 ohm 1/5 W J C06001216P520	1	
R414	Metal Film	820 ohm 1/5 W J C06008216P520	1	

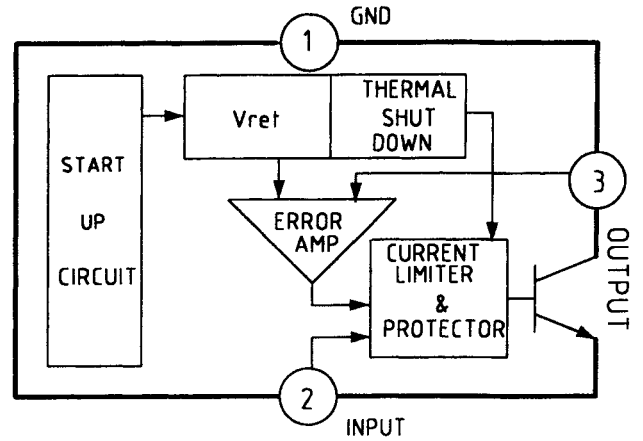
REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
R415	Carbon Film	3 kohm 1/5 W J C00003026P520	1	
R416	Metal Film	1.8 kohm 1/5 W J C06001826P520	1	
R417	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R418	Metal Film	120 ohm 1/5 W J C06001216P520	1	
R419	Metal Film	3.3 kohm 1/5 W J C06003326P520	1	
R420	Carbon Film	100 kohm 1/5 W J C00001046P520	1	
R421	Metal Film	330 ohm 1/5 W J C06003316P520	1	
R422	Cement	0.27 ohm 5 W J C144R27069300	1	
R423	Metal Film	390 ohm 1/5 W J C06003916P520	1	
R424	Metal Film	4.7 kohm 1/5 W J C06004726P520	1	
R425	Carbon Film	15 kohm 1/5 W J C00001536P520	1	
R426/R427	Metal Film	22 ohm 1/5 W J C06002206P520	2	
R428	Carbon Film	24 kohm 1/5 W J C00002436P520	1	
R429	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R430	Carbon Film	39 kohm 1/5 W J C00003936P520	1	
R431	Metal Film	680 ohm 1/5 W J C06006816P520	1	
R432-R435	Metal Film	1 kohm 1/5 W J C06001026P520	4	
R436	Carbon Film	10 kohm 1/5 W J C00001036P520	1	
R437	Metal Film	2.7 kohm 1/5 W J C06002726P520	1	
R438	Carbon Film	39 kohm 1/5 W J C00003936P520	1	
R439	Metal Film	120 ohm 1/5 W J C06001216P520	1	
R440	Metal Film	820 ohm 1/5 W J C06008216P520	1	
R441	Carbon Film	3 kohm 1/5 W J C00003026P520	1	
R442	Metal Film	1.8 kohm 1/5 W J C06001826P520	1	
R443	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R444	Metal Film	120 ohm 1/5 W J C06001216P520	1	
R445	Metal Film	3.3 kohm 1/5 W J C06003326P520	1	
R446	Carbon Film	100 kohm 1/5 W J C00001046P520	1	
R447	Metal Film	330 ohm 1/5 W J C06003316P520	1	
R448	Cement	0.27 ohm 5 W J C144R27069300	1	
R449	Metal Film	390 ohm 1/5 W J C06003916P520	1	
R450	Metal Film	4.7 kohm 1/5 W J C06004726P520	1	
R451	Carbon Film	15 kohm 1/5 W J C00001536P520	1	
R452/R453	Metal Film	22 ohm 1/5 W J C06002206P520	2	
R454	Carbon Film	24 kohm 1/5 W J C00002436P520	1	
R458	Carbon Film	10 kohm 1/5 W J C00001036P520	1	
R459	Carbon Film	47 kohm 1/5 W J C00004736P520	1	
R460	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R461	Metal Film	1.5 kohm 1/5 W J C06001526P520	1	
R462	Carbon Film	10 kohm 1/5 W J C00001036P520	1	
R463	Metal Film	4.7 kohm 1/5 W J C06004726P520	1	
R464	Carbon Film	47 kohm 1/5 W J C00004736P520	1	
R466	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R467	Carbon Film	22 kohm 1/5 W J C00002236P520	1	
MISCELLANEOUS				
GND1	Terminal ground	3790040696010	1	
L401/L402	Inductor, 0.5UH	D330900001320	2	
PCB3 ASSEMBLY P.C.BOARD SURROUND AMP				
CAPACITORS				
C601	Electrolytic SG	4.7 μF 50 V D0404R7087100	1	
C602/C603	Ceramic	820 pF 50 V D005821077530	2	
C604	Ceramic	20 pF 50 V D005200067530	1	
C605	Ceramic	27 pF 50 V D001270067530	1	
C606/C607	Ceramic	3.3 pF 50 V D0013R3077530	2	
C608	Electrolytic SG	47 μF 16 V D040470083100	1	
C609	Ceramic	220 pF 50 V D005221077530	1	
C610	Electrolytic SG	10 μF 35 V D040100085100	1	
C612	Mylar	0.047 μF 100 V J D02047306C060	1	
C613	Electrolytic SG	0.1 μF 50 V D040R10087050	1	
C614	Electrolytic SG	4.7 μF 50 V D0404R7087100	1	
C615/C616	Ceramic	820 pF 50 V D005821077530	2	
C617	Ceramic	20 pF 50 V D005200067530	1	
C618	Electrolytic SG	47 μF 16 V D040470083100	1	
C619	Ceramic	27 pF 50 V D001270067530	1	
C620/C621	Ceramic	3.3 pF 50 V D0013R3077530	2	
C622	Ceramic	220 pF 50 V D005221077530	1	
C623	Electrolytic SG	10 μF 35 V D040100085100	1	
C625	Mylar	0.047 μF 100 V J D02047306C060	1	
C626	Electrolytic SG	0.1 μF 50 V D040R10087050	1	
C627	Electrolytic SG	10 μF 35 V D040100085100	1	
C630/C631	Electrolytic SG	10 μF 50 V D040100087050	2	
CONNECTORS				
CN603	Lead ass'y, 2P, 240mm	L021022437110	1	
CP601	Plug, GIL-05P-S2L2-EF	L101220050010	1	
CP602	6P, 2.5mm, Angle	L102526806010	1	
DIOEDS				
D603-D608	1N4148	K000414801520	8	
D609	Zener, UZ27V	500mW K060270024520	1	
COILS				
L601/L602	0.5UH	D330900001320	2	

IC'S FUNCTIONAL BLOCK DIAGRAM

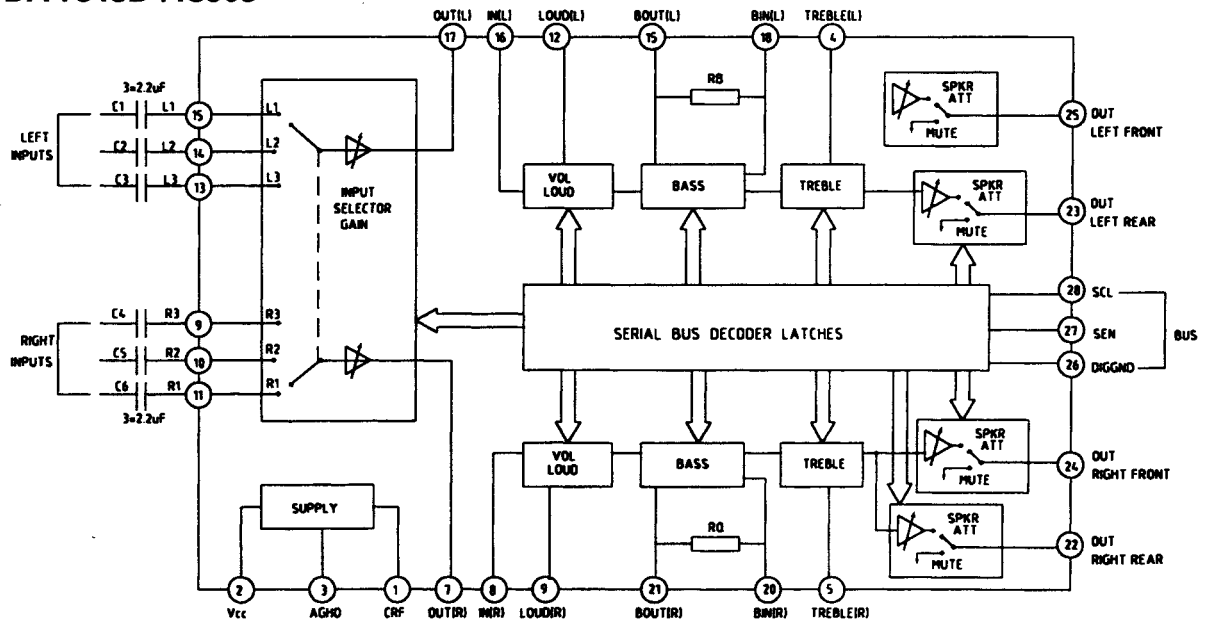
KIA 78012AP : IC102/IC103



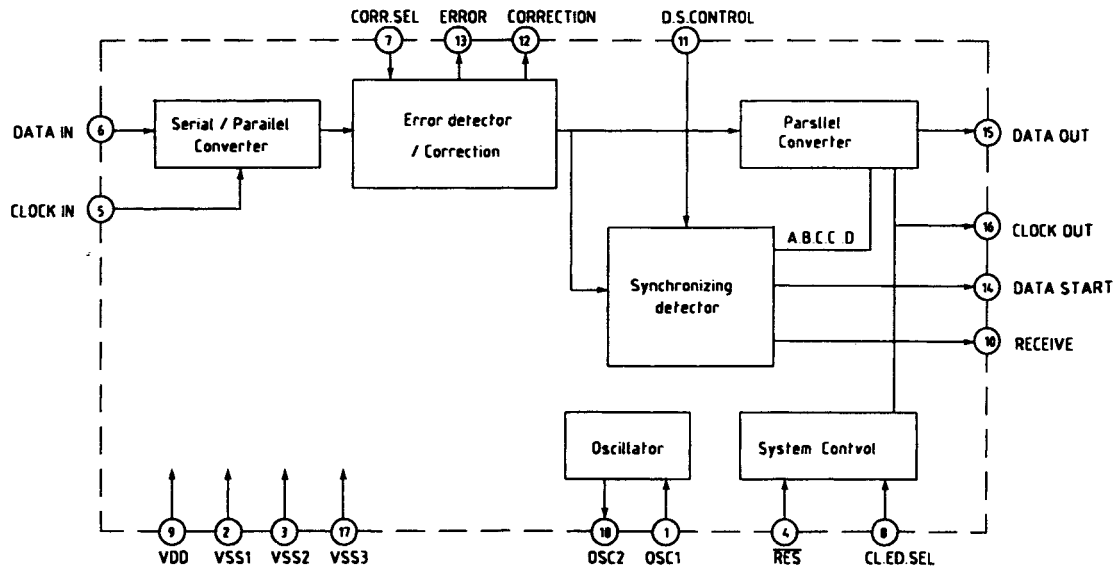
KA 7912 : IC101



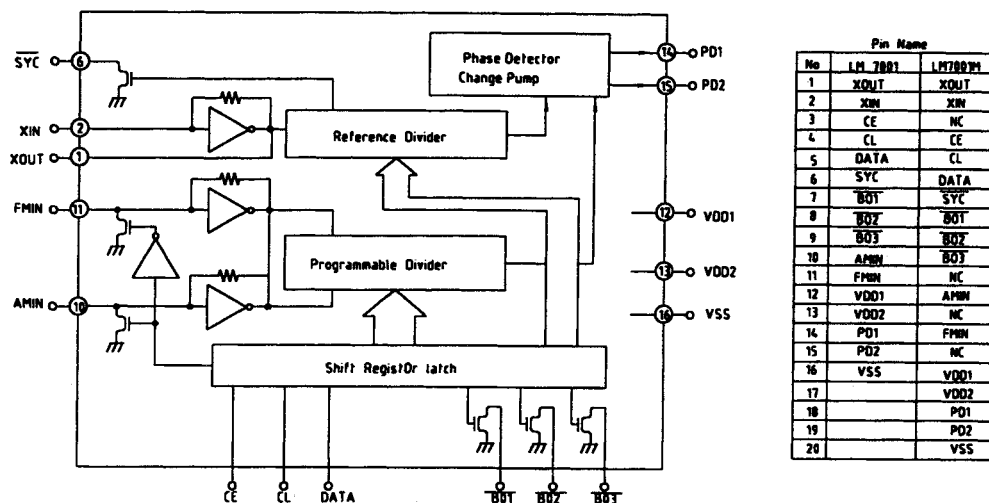
TDA 7313D : IC503



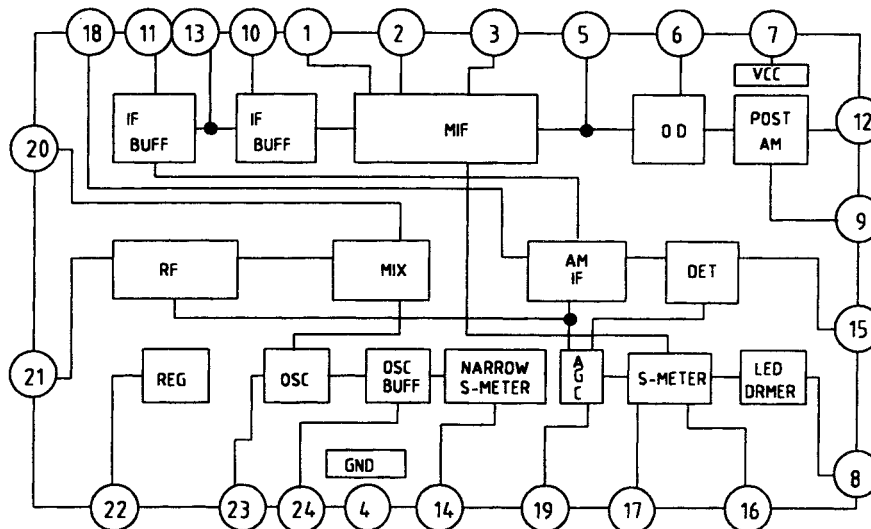
LC 7073 : IC5



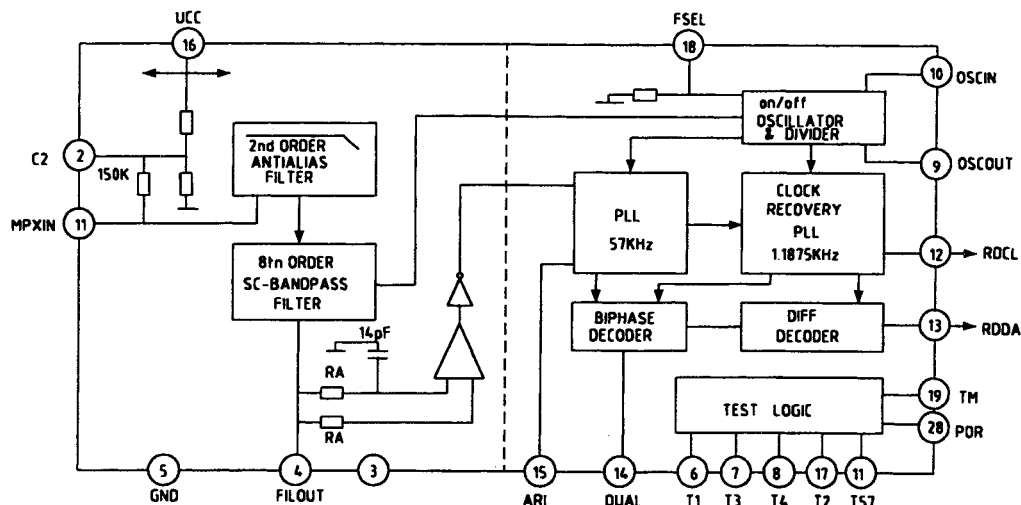
LM 7001 M : IC1



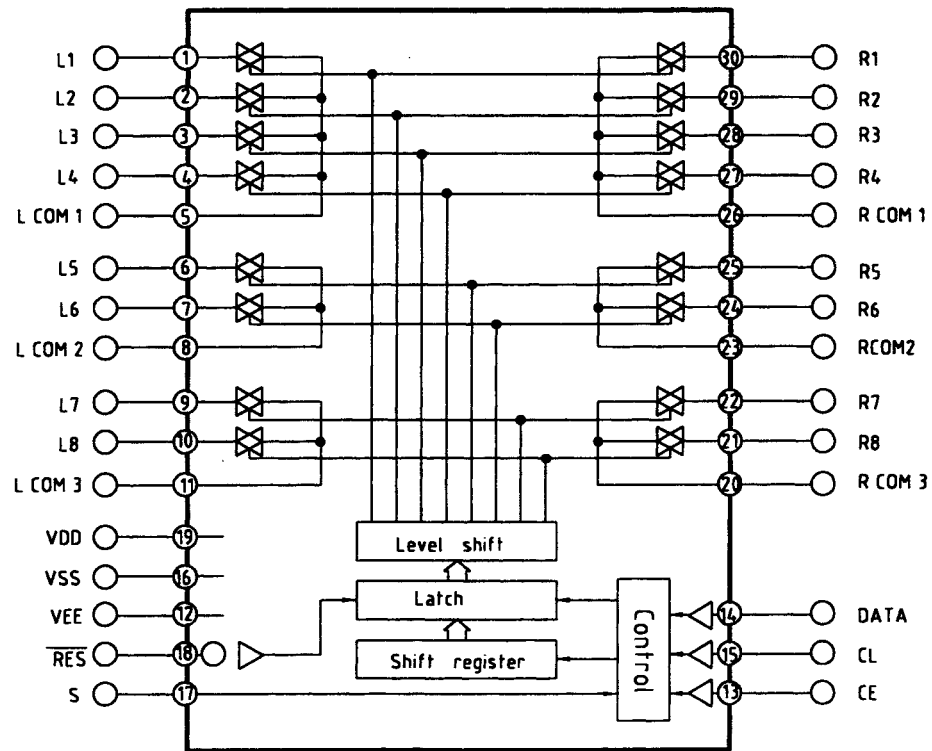
LA 1266 : IC2



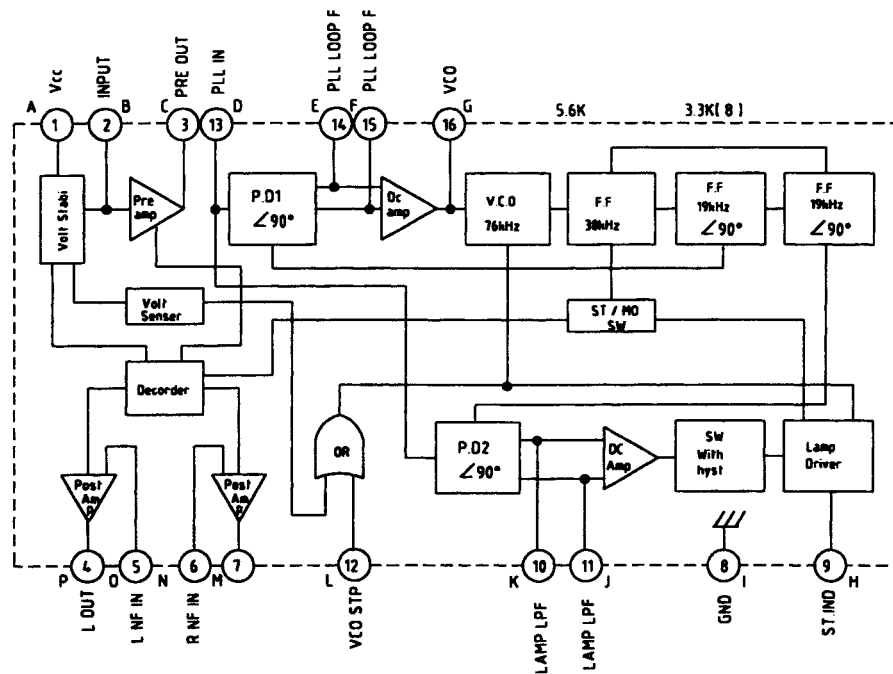
TDA 7330B : IC4



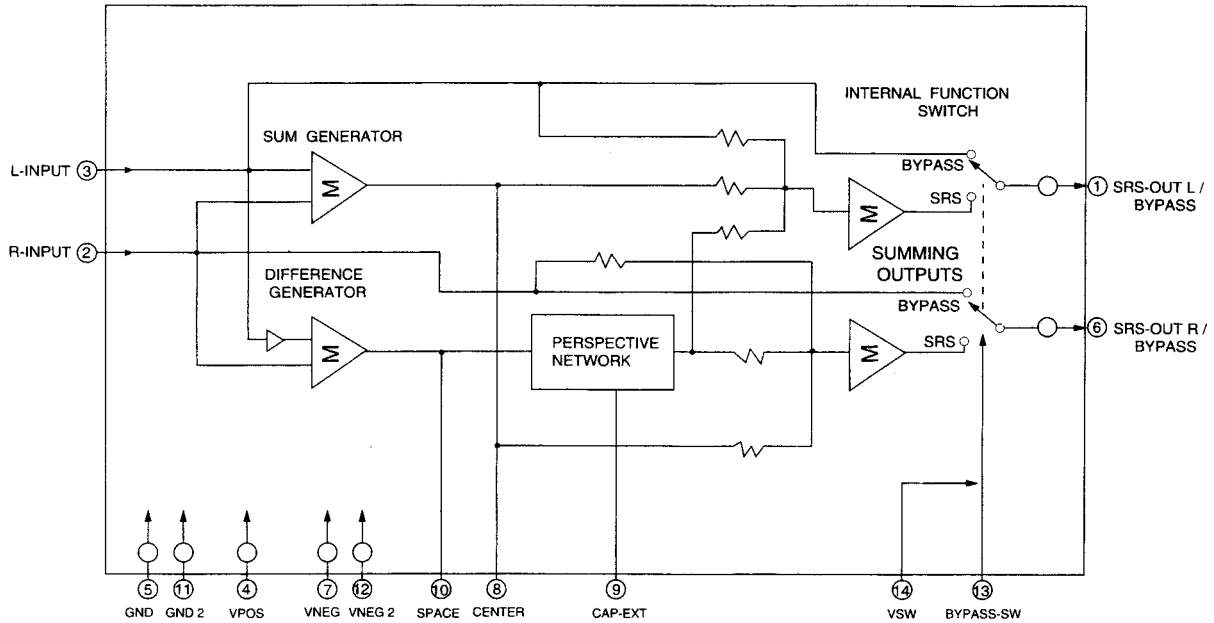
LC 7821 : IC501



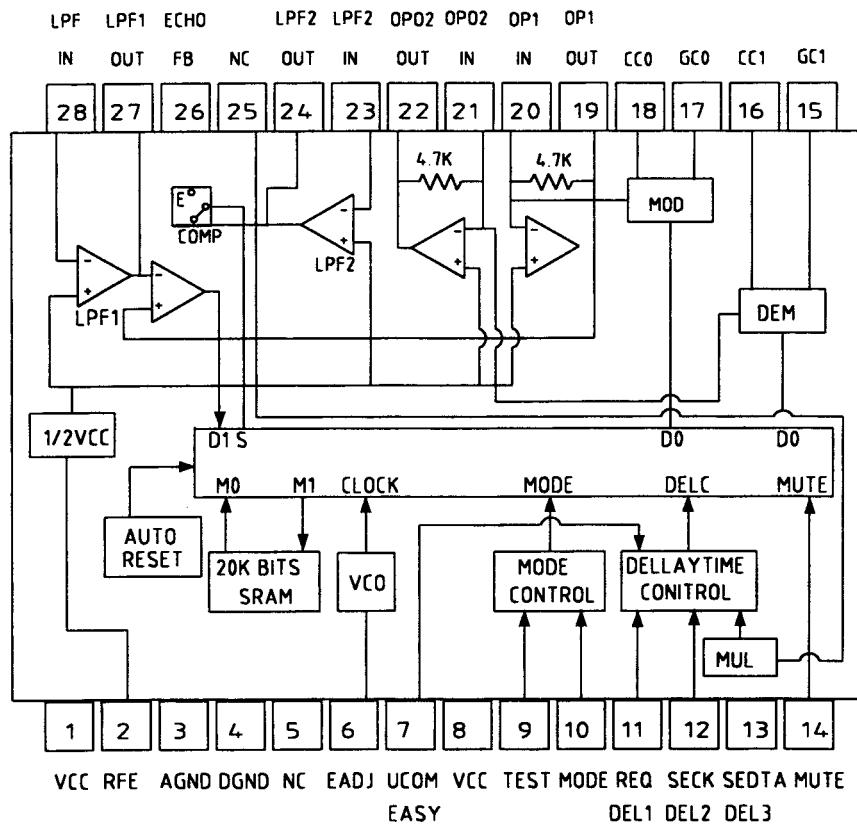
HA 12016 : IC3



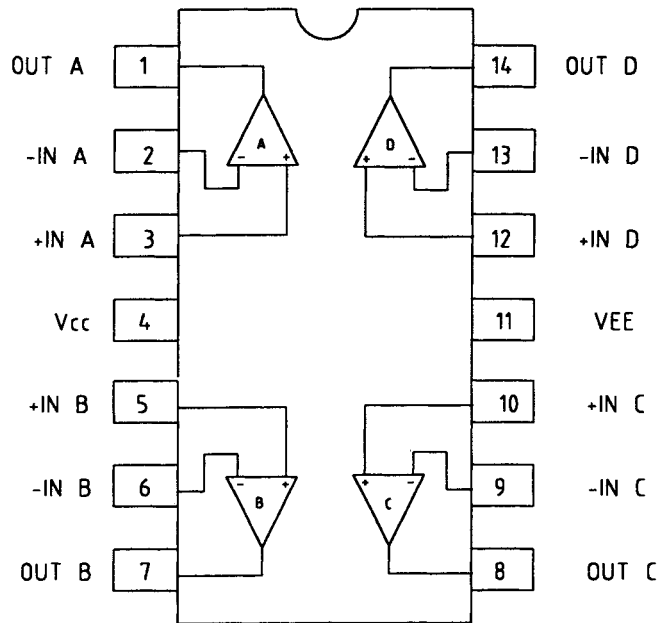
SRS 3D2 SW : IC751



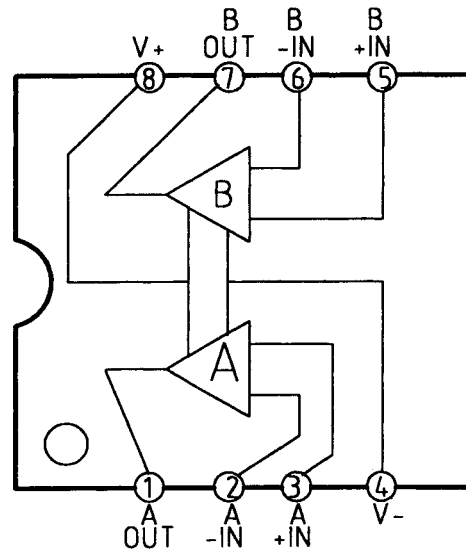
ES 56028 : IC201



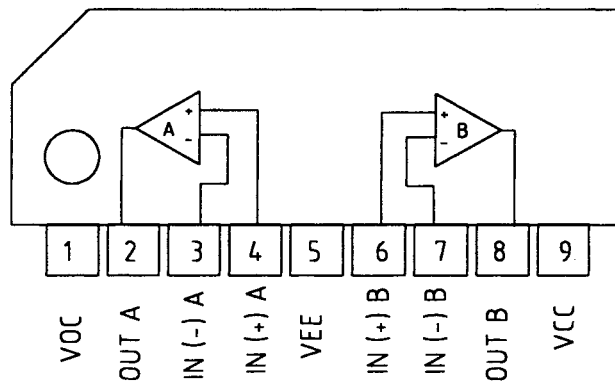
KA 324 : IC203



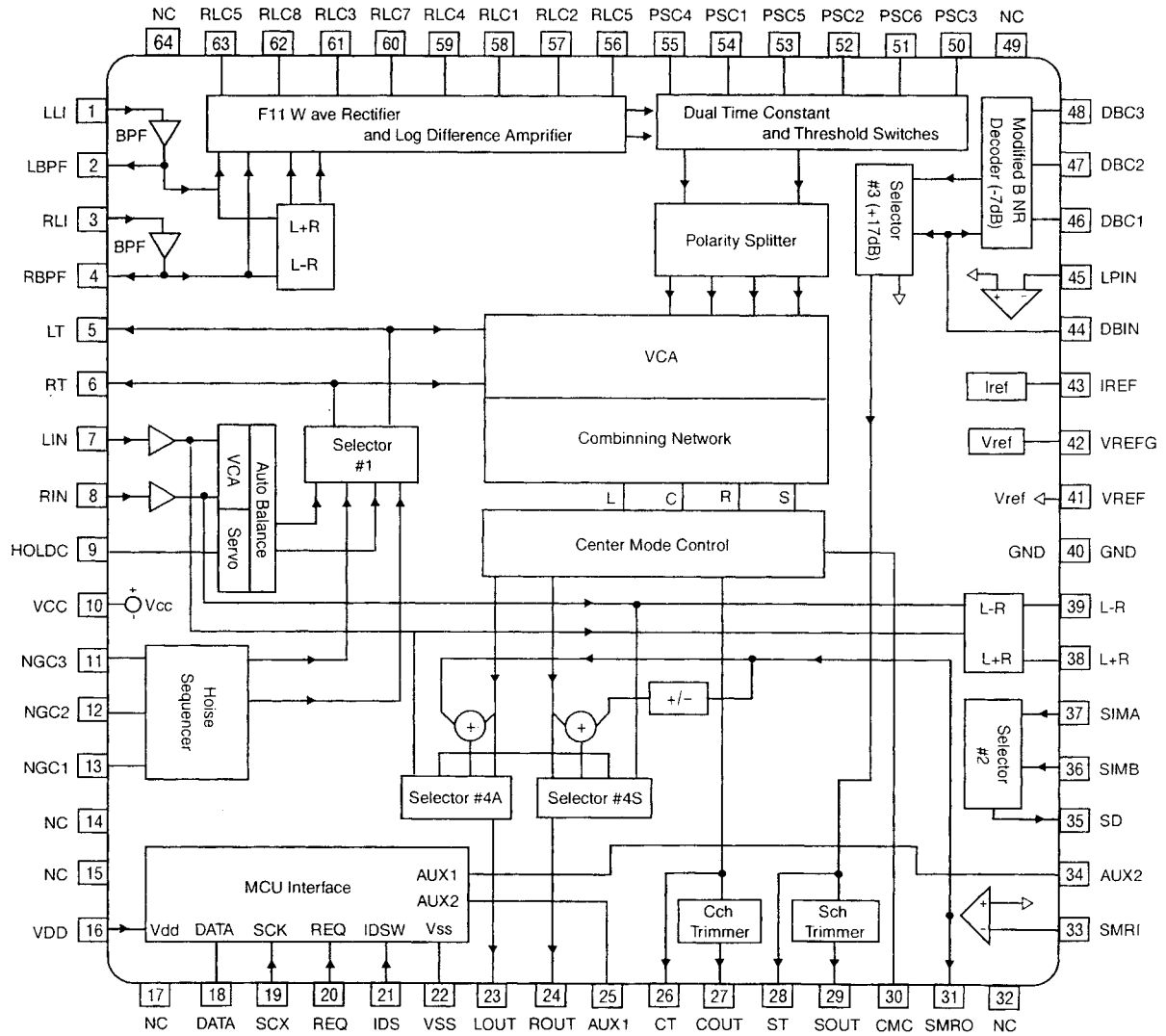
KIA 4559P : IC202, IC502, IC504, IC805



KIA 4559S : IC505, IC803



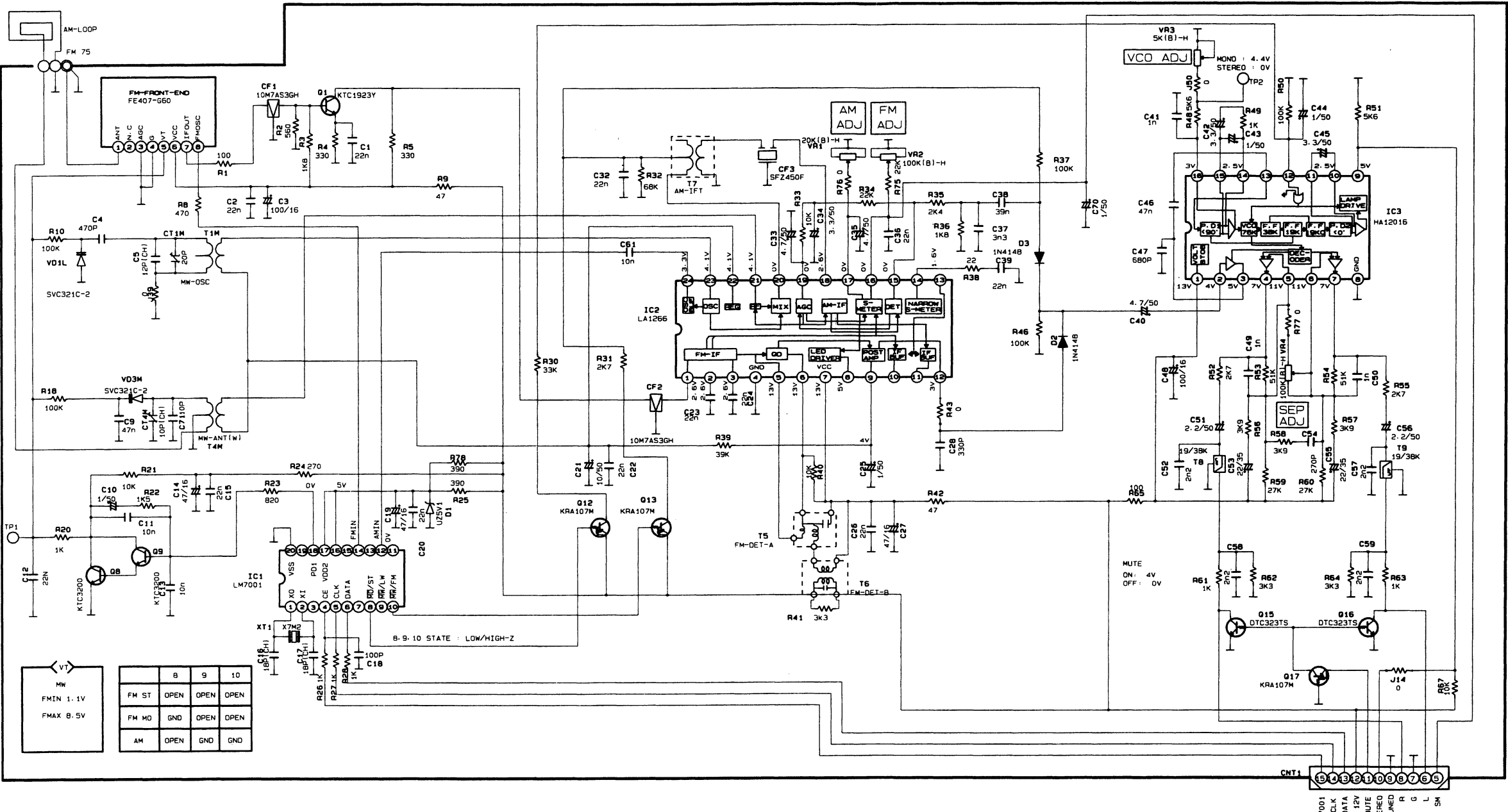
NJW 1102A : IC801



SCHEMATIC DIAGRAM (III)

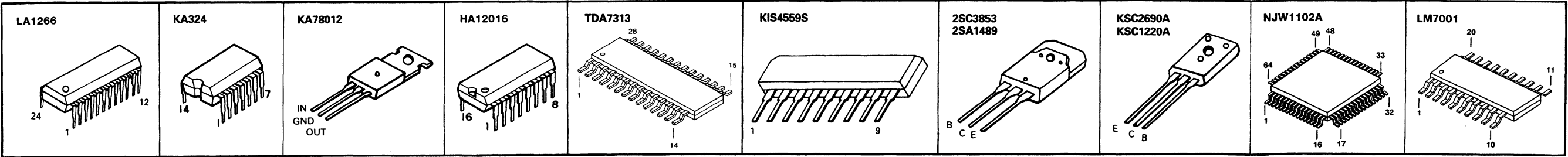
Model No. : AVT-686

TUNER(PCB1) : A, K, PT INDO VERSION

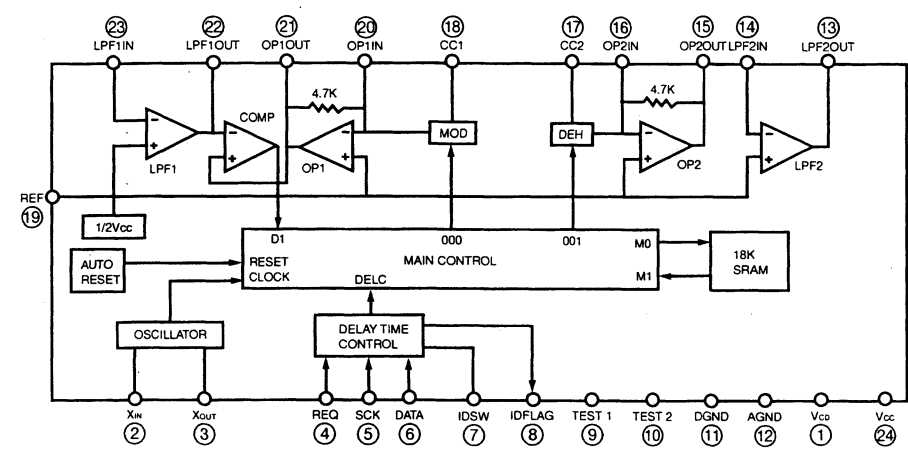


	PT	A. DOM
CF1	10M7AS3GH	10M7AB
CF2	10M7AS3GH	10M7AB
R35	2K4	1K
R56	3K9	6.8K
R57	3K9	6.8K
R53	.51K	47K
R54	51K	47K
C49	1n	1n5
C50	1n	1n5
R39	39K	18K

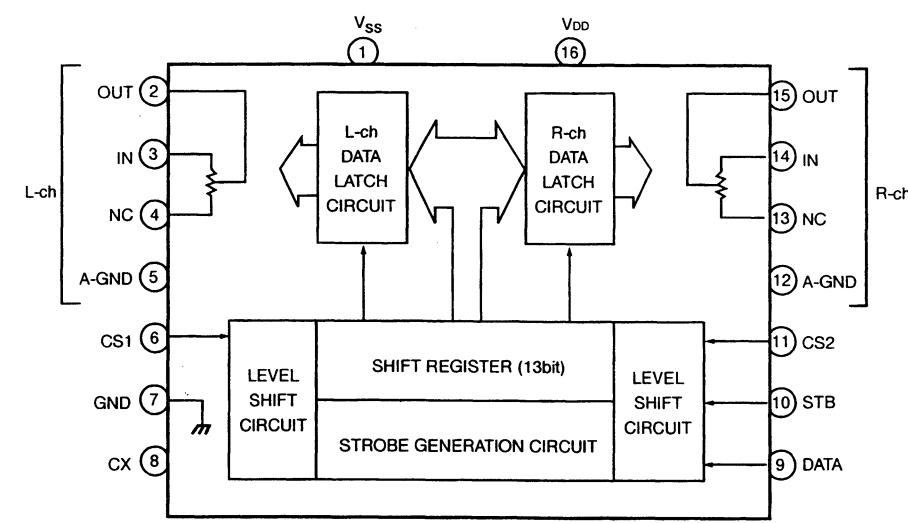
NOTES
1. Resistor values are indicated in ohms unless otherwise specified [K=1,000 M=1,000,000]
2. Capacitor values are indicated in microfarads unless otherwise specified. [p=micro-microfarads]
CAUTION
Safety precaution to be followed during servicing
1) Since those parts marked with are critical parts for safety, use only the one described in the parts list
2) Before returning the set to the customer, make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.



NJU 9702 : IC802



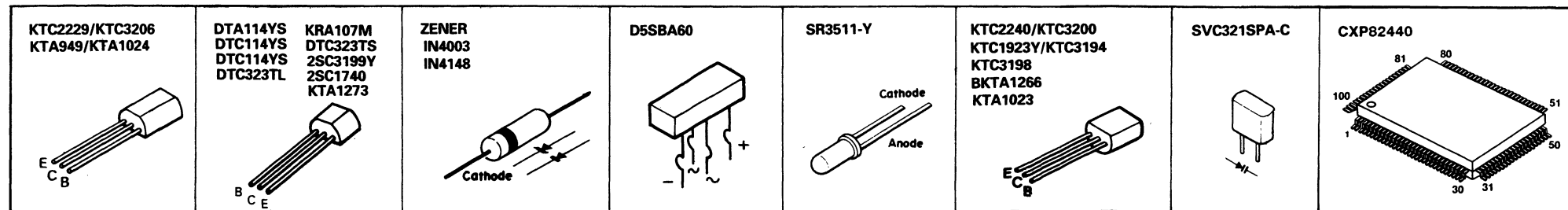
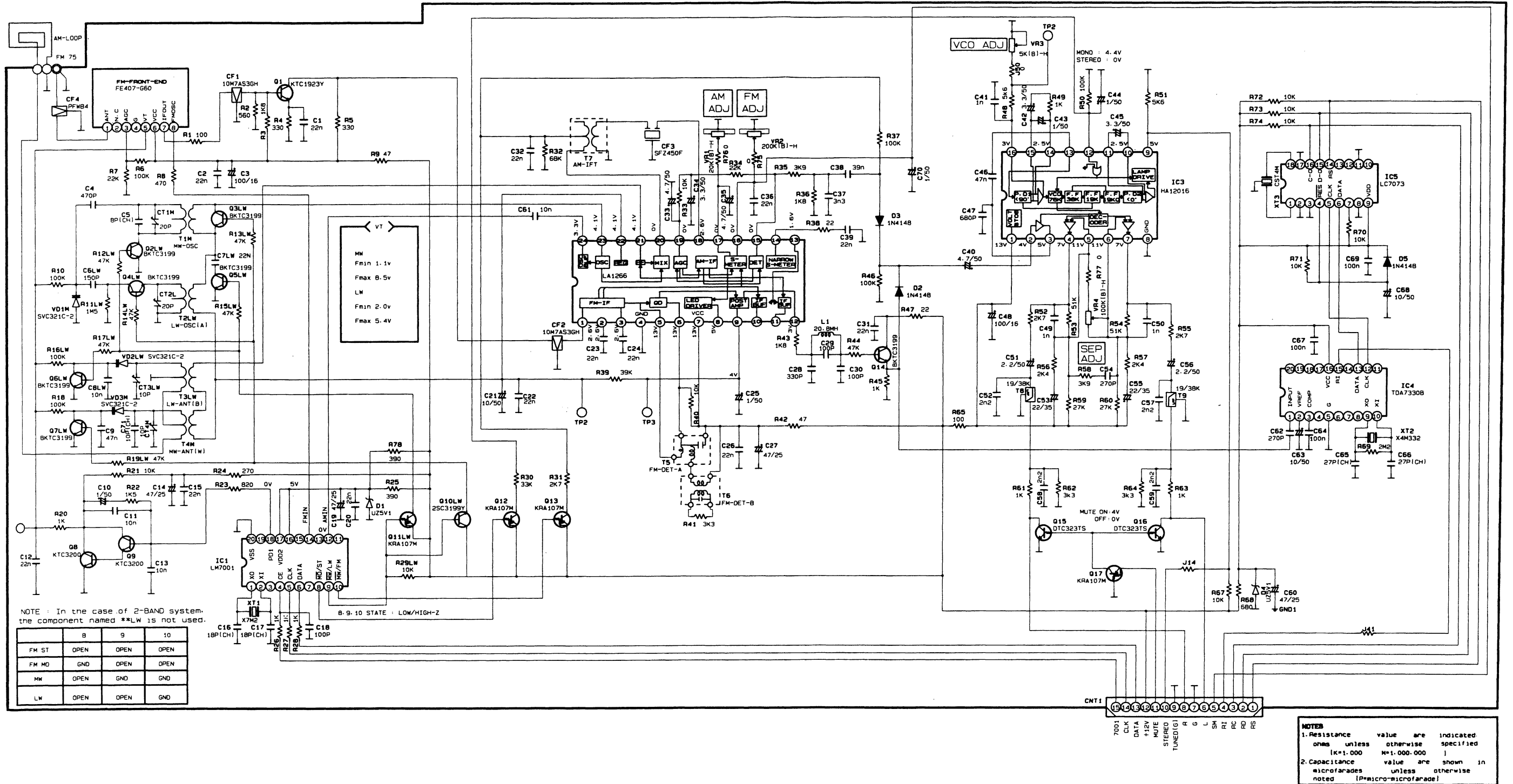
TC 9210 : IC804



SCHEMATIC DIAGRAM (IV)

Model No. : AVT-686

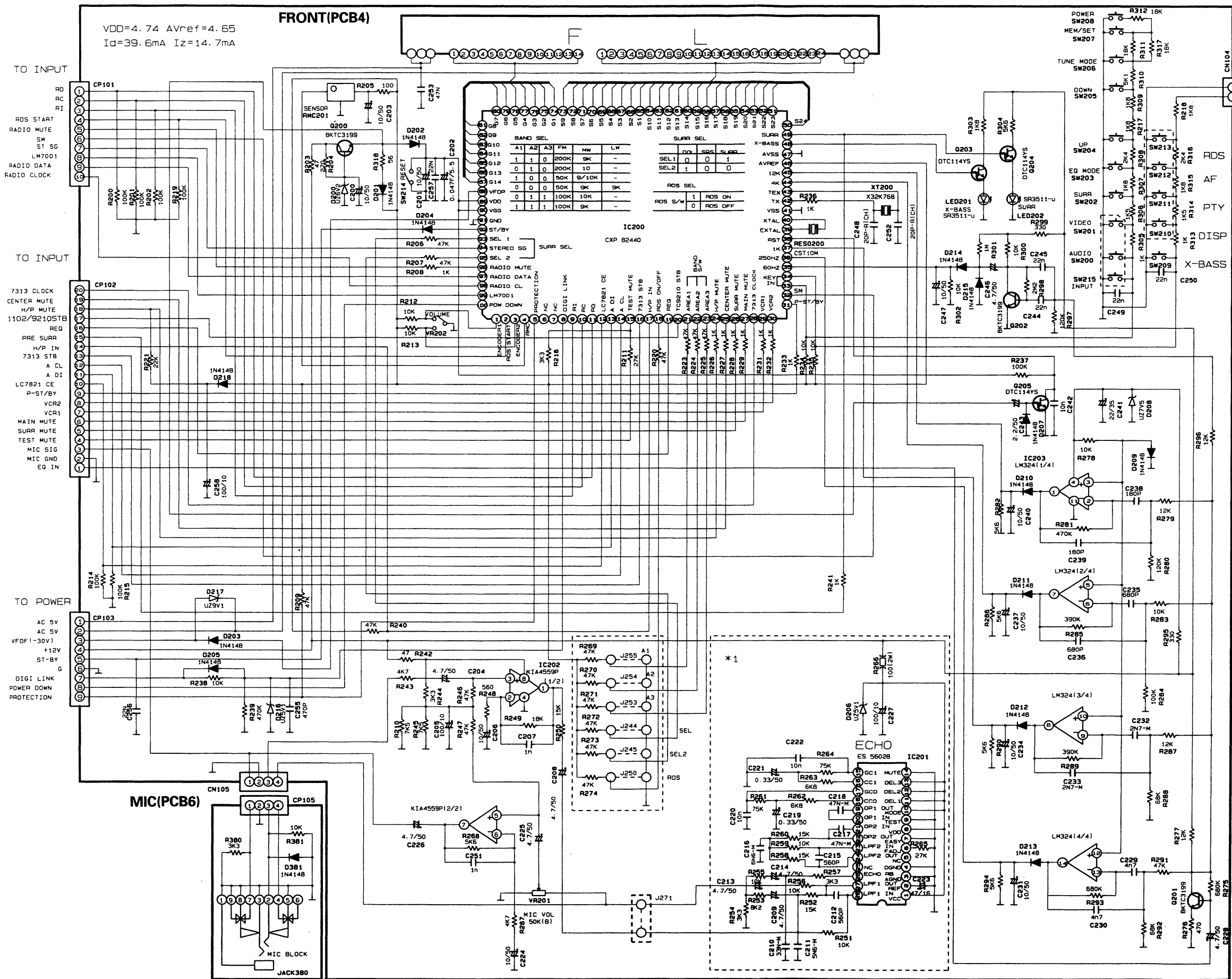
TUNER(PCB1) : D VERSION ONLY



Model No. : AVT-686

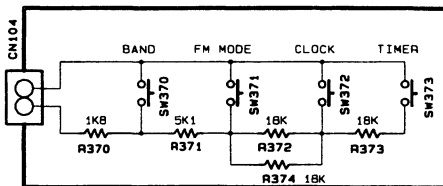


SCHEMATIC DIAGRAM (I)



Model No. : AVT-686

PCB5 (FRONT KEY)



KEY (VIDEO)SEL

	ATX-676	AVT-686
SW200	X	O
SW201	X	O
SW215	O	X

RDS SEL

	ADS(0)	ADS(x)
J250	X	0
SW210	0	X
SW211	0	X
SW212	0	X
SW213	0	X

SURROUND SEL

	DOLBY	SRS	SURROU
J244	0	0	X
J245	X	0	0

BAND SEL

FM	MW	LW	J255	J254	J253
200K	9K	-	X	X	0
200K	10K	-	0	X	0
50K	9/10	-	X	0	0
50K	9K	9K	0	0	0
100K	10K	-	0	X	X
100K	9K	-	X	X	X

ECHO SEL

	ECHO ON	ECHO OFF
*1	0	X
J271	X	0

NOTES

1. Resistor values are indicated in ohms unless otherwise specified
[K=1.000 M=1.000.000]
2. Capacitor values are indicated in microfarads unless otherwise specified.
[p=micro-microfarads]

CAUTION

Safety precaution to be followed during servicing

- 1) Since those parts marked with  are critical parts for safety, use only the one described in the parts list
- 2) Before returning the set to the customer make appropriate leakage current or resistance measurement to determine the exposed parts are properly insulated from the supply circuit.

CCD-676

LASER BEAM SAFETY PRECAUTIONS

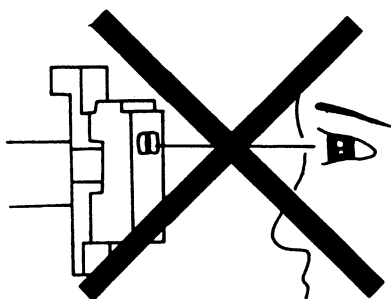
CLASS 1 LASER PRODUCT

**CLASS 1
LASER PRODUCT**

CAUTION

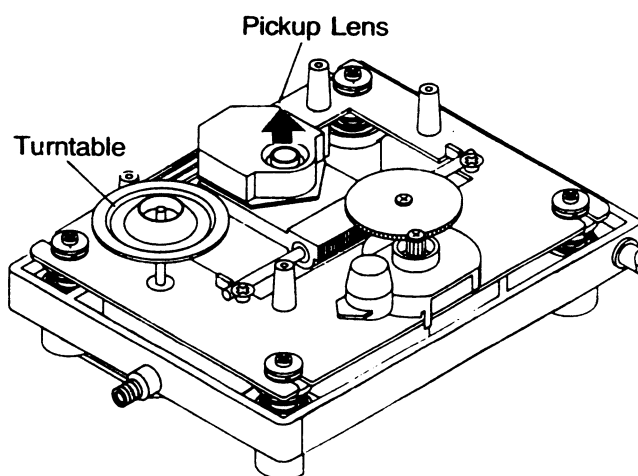
Invisible laser radiation when the unit is open. Do not stare the beam

CAUTION: USE OF ANY CONTROLS, ADJUSTMENT, OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.



Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.

This compact disc player uses a pickup that emits a laser beam. The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 1 foot away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.



CAUTION:

Using controls and adjustment, or doing procedures other than those specified herein, may result in hazardous radiation exposure.

CCD-676 SPECIFICATIONS

DECK SECTION

- DOLBY Level: 200 nWB/m, 400 Hz (A-BEX, TCC-130). • EQ FLAT
- REC/PB Level: 0 dB=200 nWB, 400 Hz.

Description			Unit	Nominal	Limit	Test Tape
Speed at Normal			Hz	3000	± 30	A-BEX, TCC-112
Wow and Flutter WRMS (JIS) Aerage of 3 Times Check at BEG' MID/END of Tape.			%	0.13	0.12	A-BEX, TCC-112
DOLBY Test Point			mV	245	± 25	A-BEX, TCC-130
REC/PB Level Calibration			dB	± 0.7	± 1	TDK, AC-225, AC514
Playback Frequency	250 Hz	dB		Within 3	120 us: A-BEX, TCC-162C	
	10 kHz	dB		Within 3	70 us: A-BEX, TCC-262C	
	12.5 kHz	dB		Within 4		
REC/PB Frequency Response						
	DOLBY NR OFF	250 Hz	dB		Within 3	NOR: TDK, AC-514, AC-225
		10 kHz	dB		Within 3	
		12.5 kHz	dB		Within 5	
DOLBY NR ON	250 Hz	dB		Within 3		
	10 kHz	dB		Within 3		
	12.5 kHz	dB		Within 5		
3rd Harmonic Distortion (0 dB)			%	2	2.5	NOR: TDK, AC-514
Total Harmonic Distortion (0 dB)			%	3	3.5	NOR: TDK, AC-514
Channel Crosstalk (B.P.F at 1 kHz)			dB	40	35	NOR: TDK, AC-514
Signal to Noise Ratio (K3=3%)	UNWTD	DOLBY OFF	dB	43	41	NOR: TDK, AC-225, AC-514
		DOLBY B	dB	44	42	DOLBY B NR Effect: 8.5 dB
	WTD	DOLBY OFF	dB	45	43	
		DOLBY B	dB	54	52	
Erase Attenuation (B.P.F at 1 kHz, +10 dB Input)				65	60	NOR: TDK, AC-514
Output Voltage (at Volume Level 19)			V	2	± 0.4	A-BEK, TCC130

CD SECTION

- Test Disc: SONY YEDS7 or ABEX TCD784, TCD725
at DOLBY Tape (TCC-130), Speaker Output 2 V (Volume Level 19) • EQ FLAT

Description	Unit	Nominal
Signal to Noise ratio (WTD)	dB	65
Total harmonic Distortion	%	15
Frequency response (1 kHz=0 dB)	dB	± 0,4
	dB	± 1,5

ENVIRONMENTAL

Test to specification

Temperature between 59°F (15°C) and 95°F (35°C) and relative humidity between 45% and 75%, with power supply voltage of 10% the normal supply voltage.

Test disc: SONY YEDS-7 or ABEX TCD784, TCD725.

Operation

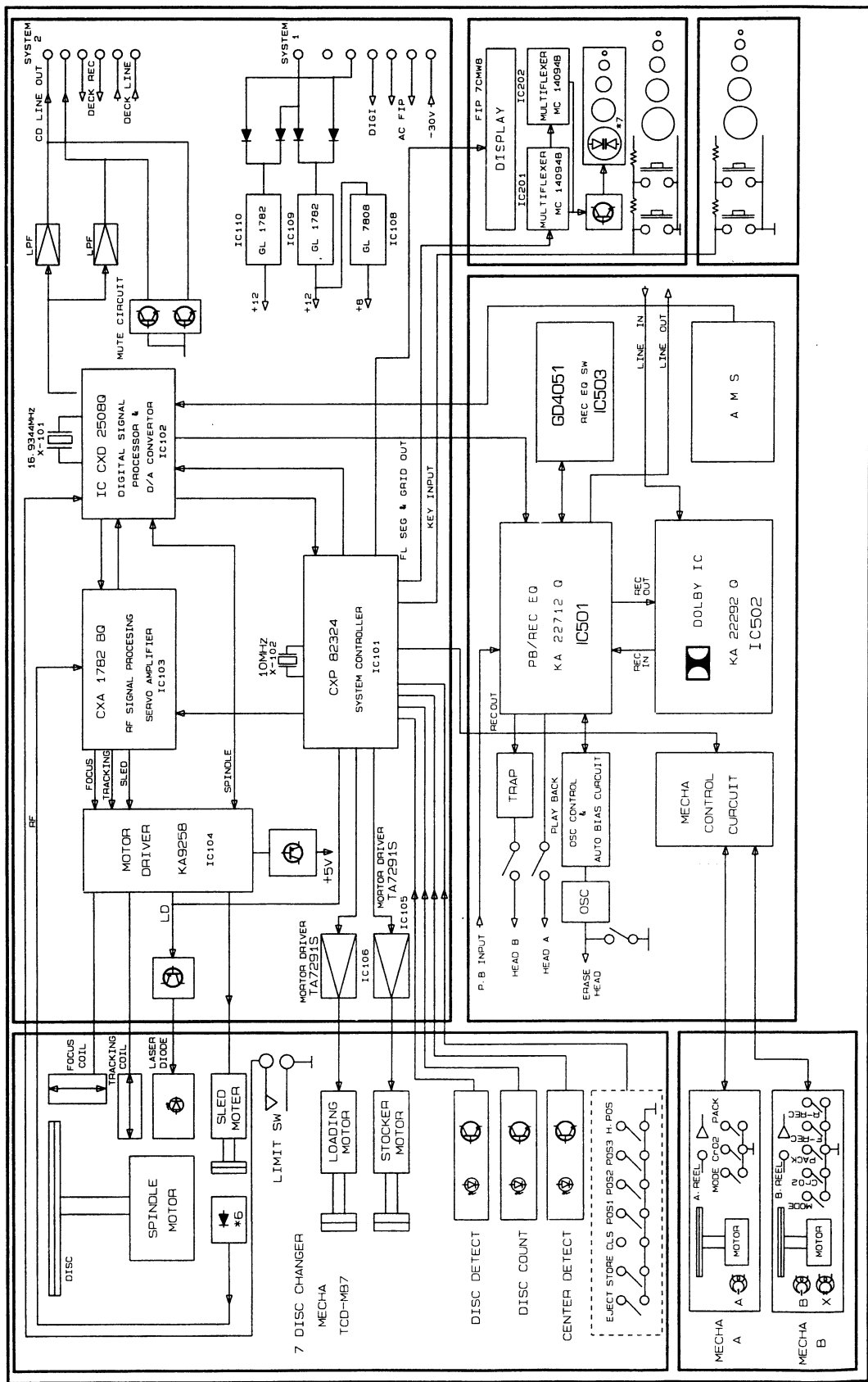
Unit must work properly and correctly at the temperature range from 32°F (0°C) to 113°F (45°C) and the relative humidity from 40% to 80%, and with the supply voltage.

Storage

Temperature test: 48 hours each at -40°F (-40°C) and 149°F (65°C), Humidity test: 40°C 95% relative humidity.

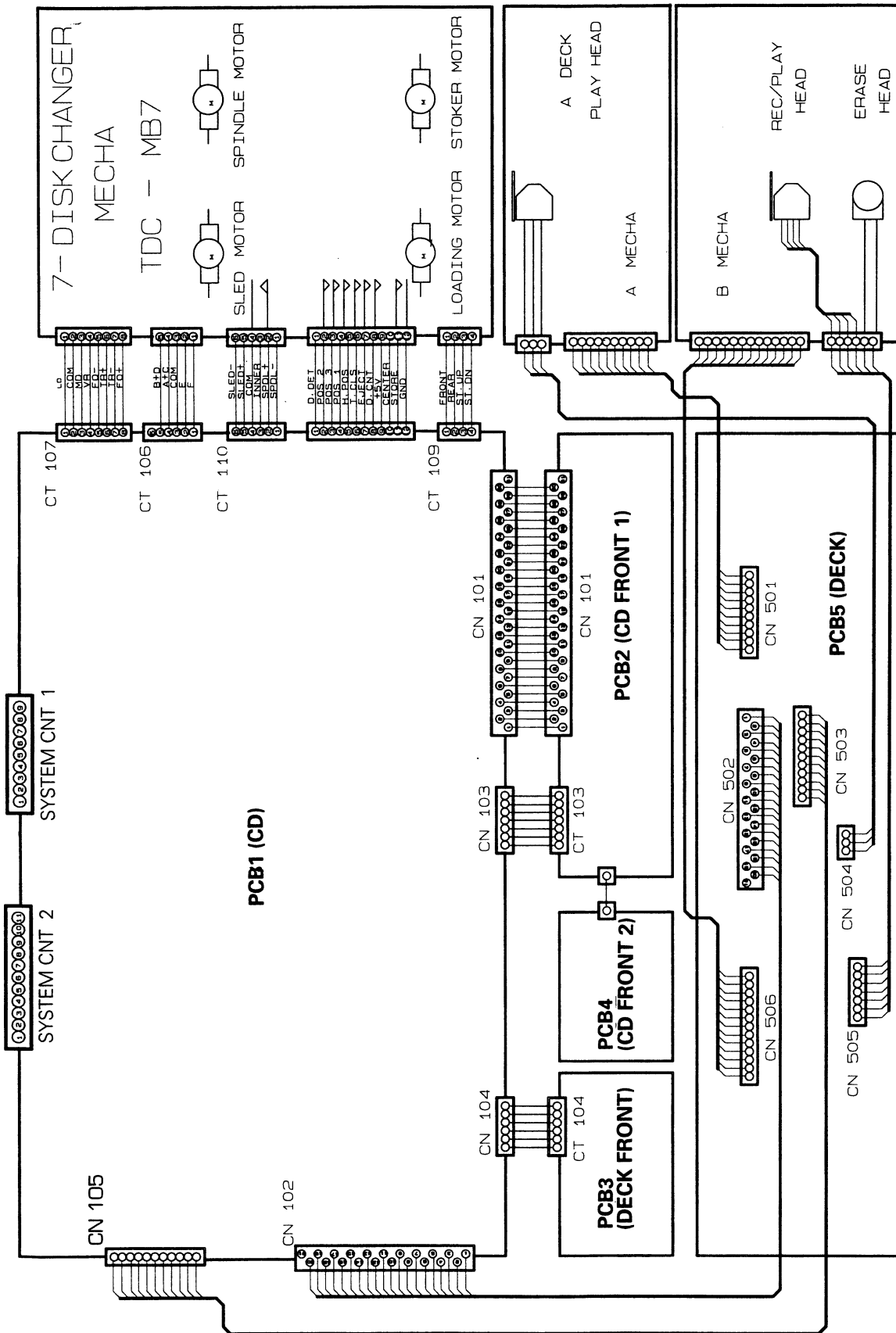
BLOCK DIAGRAM

Model No. : CCD-676



WIRING DIAGRAM

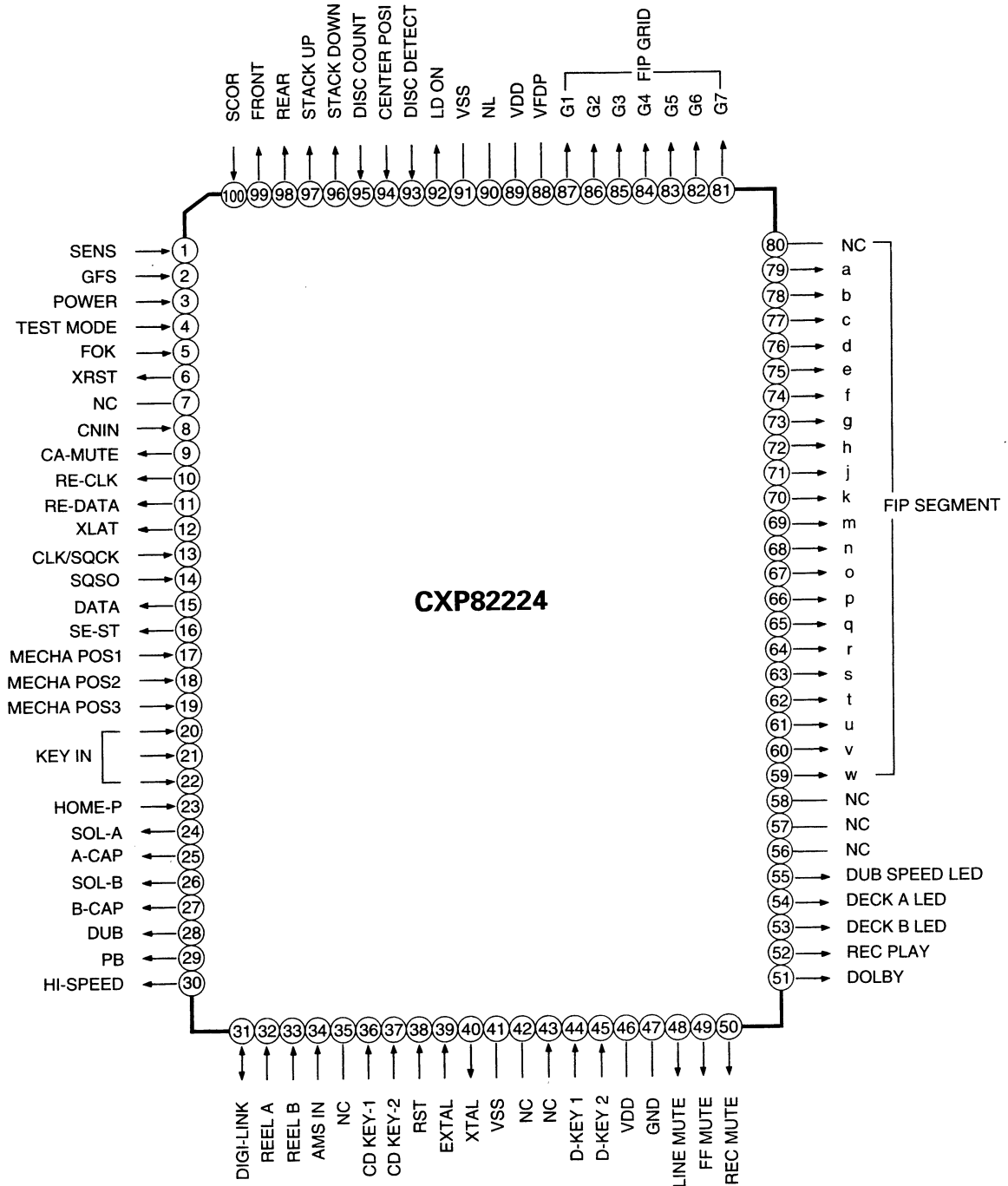
Model No. : CCD-676



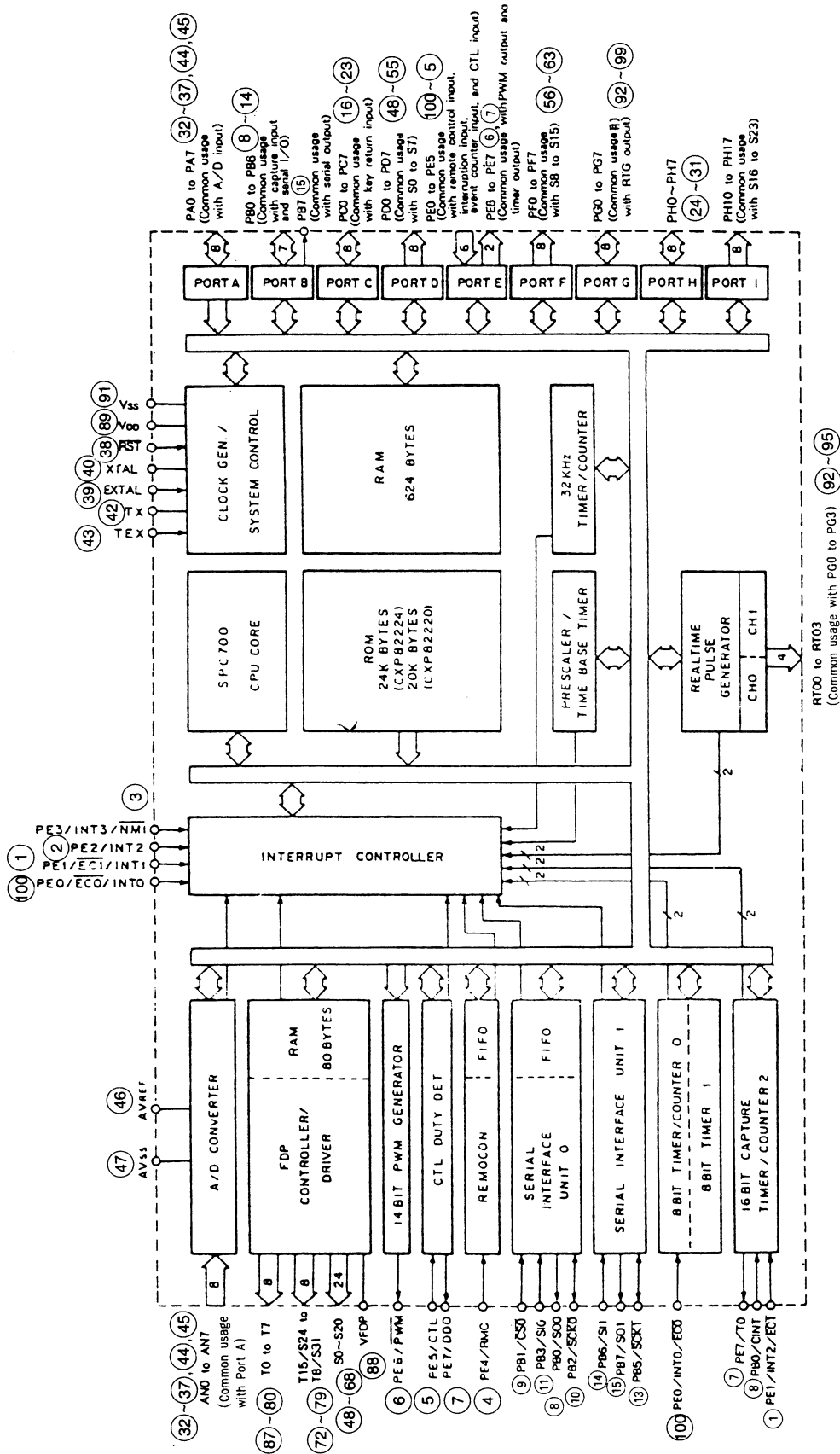
CIRCUIT DESCRIPTION

IC101 : CXP82224 CMOS 8-bit Single Chip Microcomputer.

1. Pin Configuration



2. Block Diagram



3. Input and Output terminal Functions

Pin No.	Symbol	Description
1	SENS	Sens input from CXD2508Q (pin7).
2	GFS	GFS input from CXD2508Q (pin51) during CD operation.
3	POWER	Self power key.
4	TEST MODE	Self power on test
5	FOK	Focus ok input from CXD2508Q (pin23).
6	XRST	Output for resetting CXD2508Q.(At "L", it is active)
7	NC	Not used !
8	CNIN	Input from C.out of CXA1782BQ (pin23).
9	CA-MUTE	Output for CD line mute.
10	RE-CLK	Shift resistor output (CLK) to MC14094B.
11	RE-DATA	Shift resistor output (DATA) to MC14094B.
12	XLAT	Serial latch data output to CXD2508Q (pin10).
13	CLK/SQCK	Clock data input for subcode-Q readout to CXD2508Q.
14	SQSO	Subcode-Q signal input form CXD2508Q.
15	DATA	Serial data output to CXD2508Q.
16	SE-ST	Shift resistor output (ST) to MC14094B.
17 ~ 19	1/2/3	Mechanism drive motor control input.
20 ~ 22	KEY-IN	Data input for key scan.
23	HOME-P	Input to detect the CD loaded on the pick-up.(At "H", it is active)
24	SOL-A	Output for driving the solenoid of Deck .
25	A-CAP	Output for driving the capstan of Deck .
26	SOL-B	Output for driving the solenoid of Deck .
27	B-CAP	Output for driving the capstan of Deck .
28	DUB	Output for dubbing.(Dubbing mode: "H", Play mode: "L")
29	PB	Output for playback.
30	HI-SPEED	Output to control the tape speed.(At "L", it is in the high speed dubbing mode)
31	DIGI-LINK	Input/Output for controlling digi-link.
32	REEL A	Input for detecting the reel pulse from Deck .
33	REEL B	Input for detecting the reel pulse from Deck .
34	AMS IN	Input for checking the balnk space during AMS (Automatic Music Searching) (If on the blank space, then "H")
35	NC	Not used !
36	CD KEY-1	CD disc selection key A/D input.
37	CD KEY-2	CD operation key A/D input.
38	RST	Input to reset u-com.
39/40	EXTAL/XTAL	Input/Output for crystal oscillator.
41	VSS	This pin provides the ground potential.
42/43	NC	Not used !
44/45	D-KEY 1/2	Data input for key scan.
46	VDD	+5V power supply for CPU.
47	GND	Ground

Pin No.	Symbol	Description
48	LINE MUTE	Output for muting the line output. Except play or recoding (dubbing), Output is "H".
49	FF MUTE	Output for muting line output FF or REW.(If FF or REW, then "H")
50	REC MUTE	Output for muting recoding. (If recoding, then "L")
51	DOLBY	Output to select DOLBY NR or not.(DOLBY NR on: "L", off: "H")
52	REC PLAY	Output for controlling the record.
53	DECK B LED	Output for lighting on the LED at deck mode.(If deck play, then "H")
54	DECK A LED	Output for lighting on the LED at deck mode.(If deck play, then "H")
55	DUB SPEED LED	Output for lighting on the LED at high dubbing mode. (If high dubbing, then "H")
56 ~ 58	NC	Not used !
59 ~ 79	a ~ h,j,k,m,n,o,w	Output for FIP segment.
80	NC	Not used !
81 ~ 87	G7 ~ G1	Output for FIP grid.
88	V _{FDP}	-30V power supply for FIP.
89	VDD	+5V power supply for CPU.
90	NC	Not used !
91	Vss	Ground
92	LD-ON	LD-ON signal output to pick-up unit.
93	DISC DETECT	Input to detect the CD being pulled out from the mechanism.
94	CENTER POSI	Input to detect the center position.
95	DISC COUNT	Input to detect the disc count.
96	STACK DOWN	Stack motor down drive output.
97	STACK UP	Stack motor up drive output.
98	REAR	Loading motor rear drive output.
99	FRONT	Loading motor front drive output.
100	SCOR	Subcode sync input from CXD2508Q (pin1) during CD operation.

ALIGNMENT PROCEDURES

DECK PART

Before Measurements and Adjustments

The following general conditions apply to the electrical measurements and adjustments unless especial stated otherwise.

– Dolby NR switch off.

1. Test Tape

- TCC -154 Azimuth (12.5 kHz, –24 dB)
- TCC -112 Tape Speed (3 kHz, –10 dB)
- TCC -130 Playback Level (Dolby Ref. Tape, 400 Hz, 0 dB)
- TCC -185C Playback frequency response
- Reference Tape TDK, AC-225, AC-514

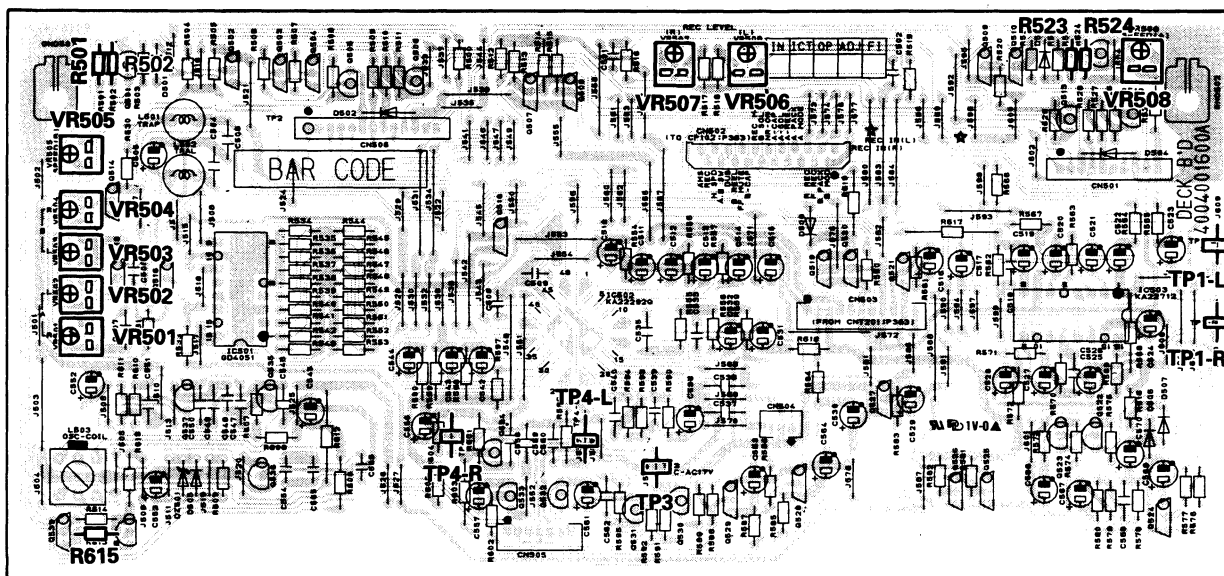
2. Instrument required

- Audio frequency oscillator
- ACVM or dual channel, mV-meter
- Wow/Flutter meter
- Oscilloscope

3. Test Reference

Point : TP1-L/R (Dolby T/P)

Level : 245 mV (TCC-130 Play)



4. Playback section

Adjustments	Test tape	Mode	Apply Signal to	Measure on	Read on	Adjust with	Adjust to
Head Azimuth	TCC-154 12.5 kHz (A.BEX)	FWD Play (1 & 2 Deck)		Dolby TP(TP1-L/R)	AC mV-meter Oscilloscope	Adjusting a left screw of head	Max Lissajous wave from become a straight line with an angle 45 degrees
		Adjusting a right screw of head					
Playback Speed at normal	TCC-112 3 kHz -10 dB (A.Bex)	Play (1 & 2 Deck)			Wow and Flutter Meter	1 Deck : VR508 2 Deck : VR505	3000 Hz ± 30 Hz
						1(R523, R524) 2(R501, R502)	4400 Hz ± 45 Hz
Playback at high-speed	TCC-112 3kHz -10dB (A. Bex)	TP2 : GND			AC mV-meter	1 Deck : VR501, VR502	245 mV (Dolby TP)
Playback Level	TCC-130 400 Hz, 0 dB (A. Bex)					2 Deck : VR503, VR504	
Playback frequency response	TCC-185C 12.5 kHz, 1 kHz, 60 Hz (A.Bex)				AC mV-meter		See graph Figure 9 freq. response

5. Recording section

Adjustments	Test tape	Mode	Apply Signal to	Measure on	Read on	Adjust with	Adjust to
Bias OSC Frequency	AC-225 (TDK)	Rec/Pause	400 Hz 400 mV Video	TP3	Frequency Counter	R615	105KHZ $\pm$ 400HZ
Target value Bias	AC-225 (TDK)	Rec/Pause		TP3	AC mV-meter	R615	AC 17IV $\pm$ 1V
Recording Level	AC-225 (TDK)	Rec/Pause		TP4-L/R		VR506, VR507	AC 320mV

Note :

- *a. Prior to any measurement or adjustment with the tape running, heads and tape guides should be degaussed and cleaned. Reference below the figuer.
- *b. The maximum permissible speed variation $\pm 1.0\%$. More over the Wow and Flutter can be read. This value on line out be exceed 0.2%
- *c. The voltage on line out shoule be $400\text{mV} \pm 20\text{mV}$. If not, it reduce the LF signal (bias disabled) as many as the reading was too low or too high by VR503/504, VR501/502.
- *d. When the channel is adjsted, this may slightly affect the adjustment of the other channel. If the adjustment is correct, the frequency response curve will be similar to curve b in figuer 1, distortion below 3%.

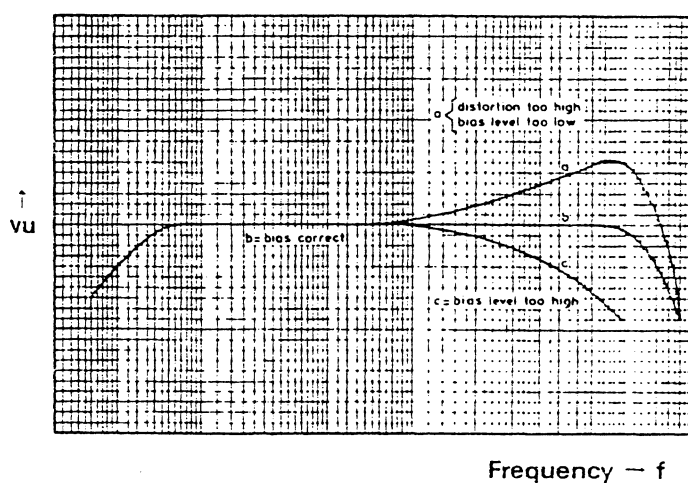
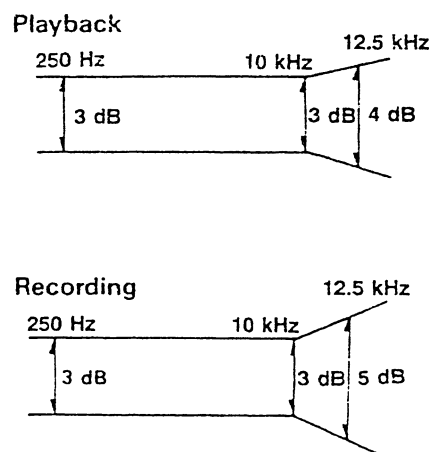


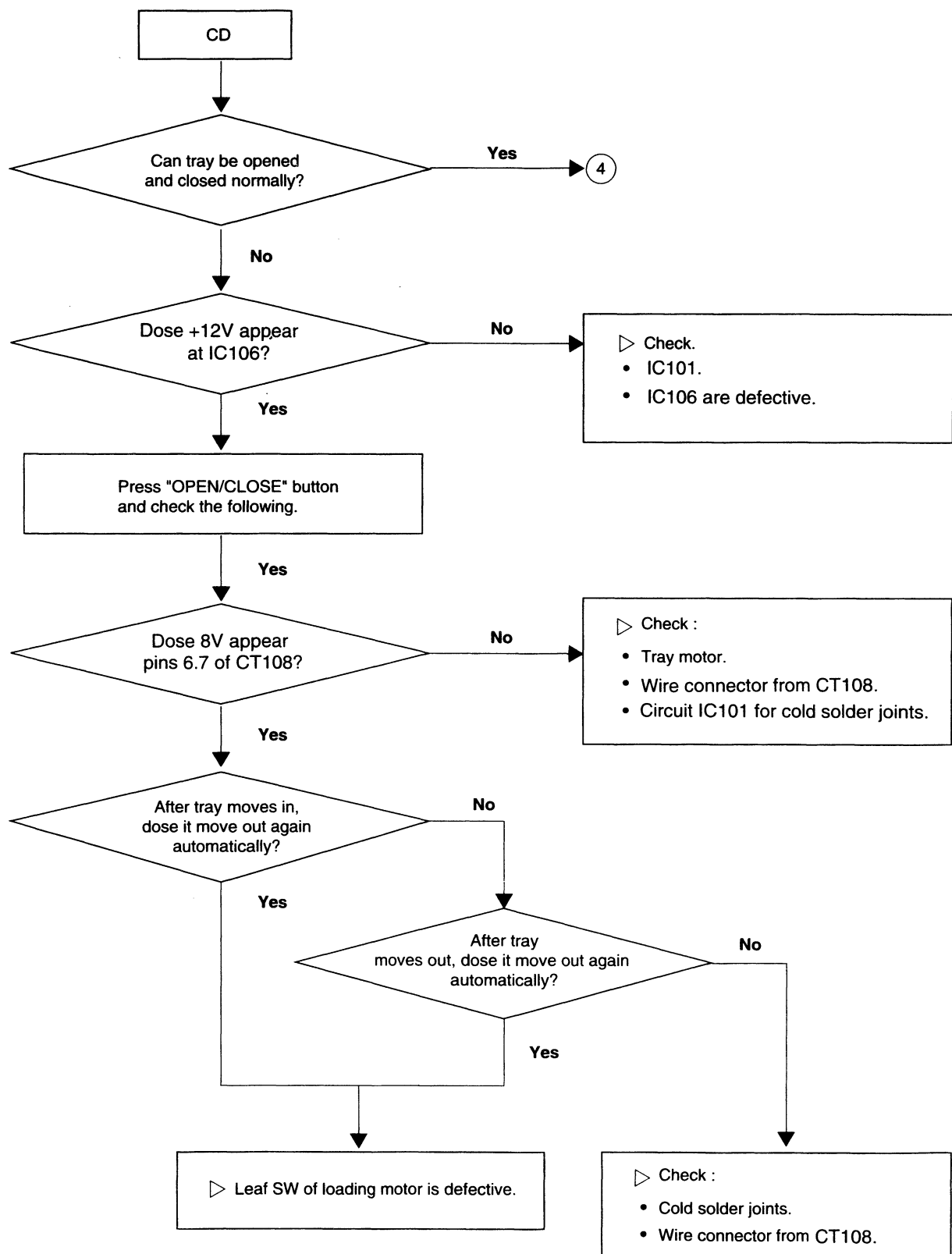
Figure 1

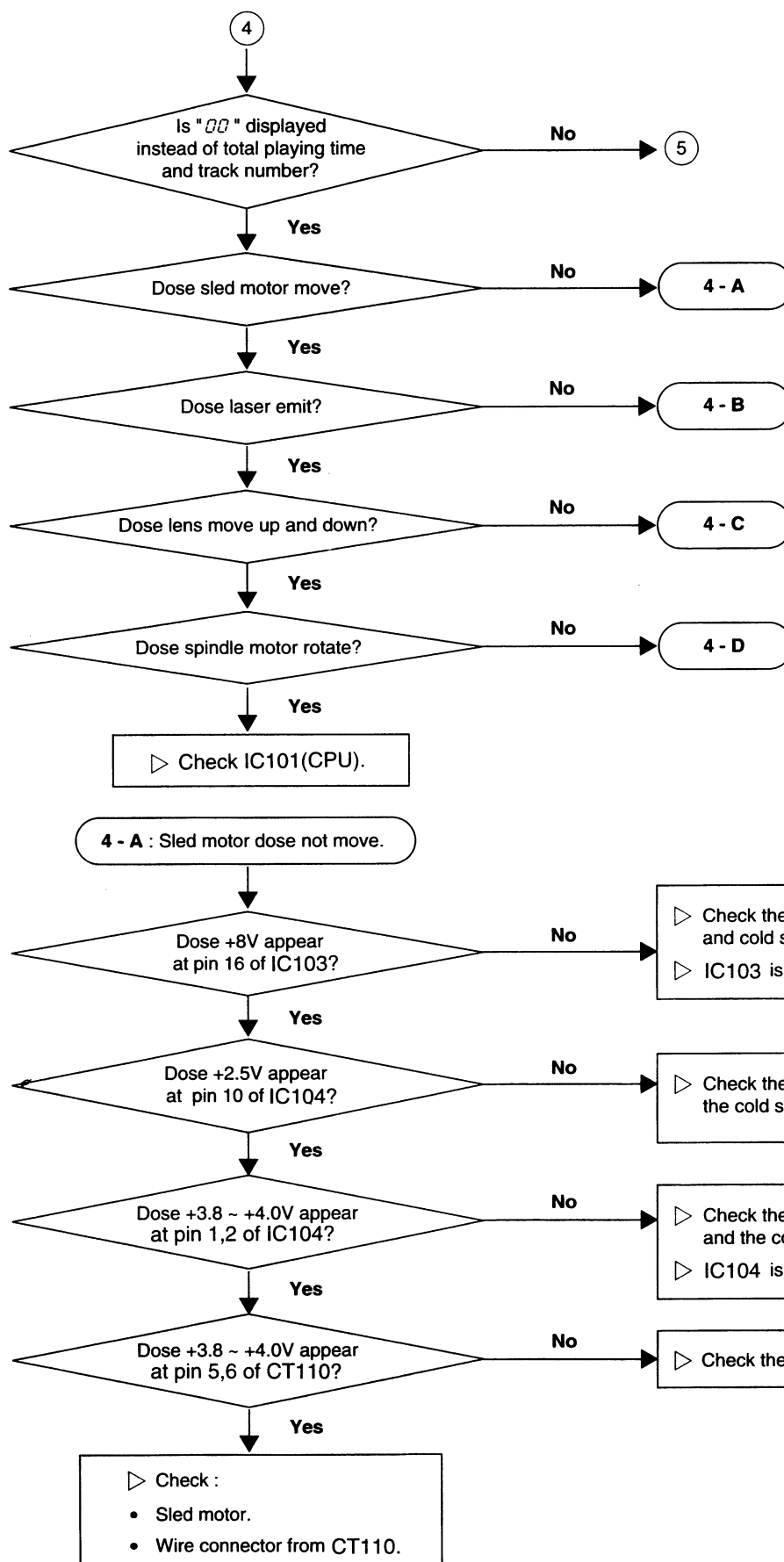


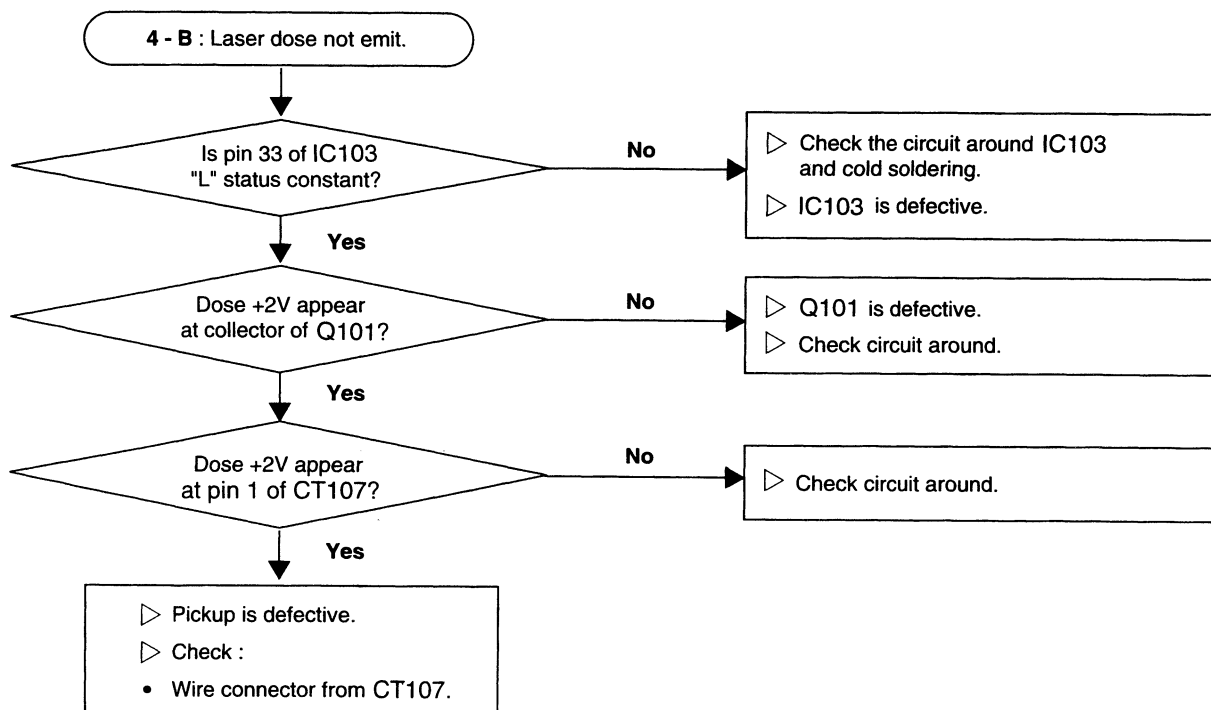
**Allowable Playback/Recording
Frequency Response Zone**

Figure 2

TROUBLESHOOTING







4 -C : Object of pickup unit dose not move up and down.

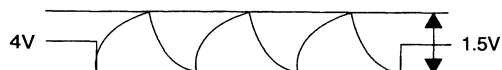
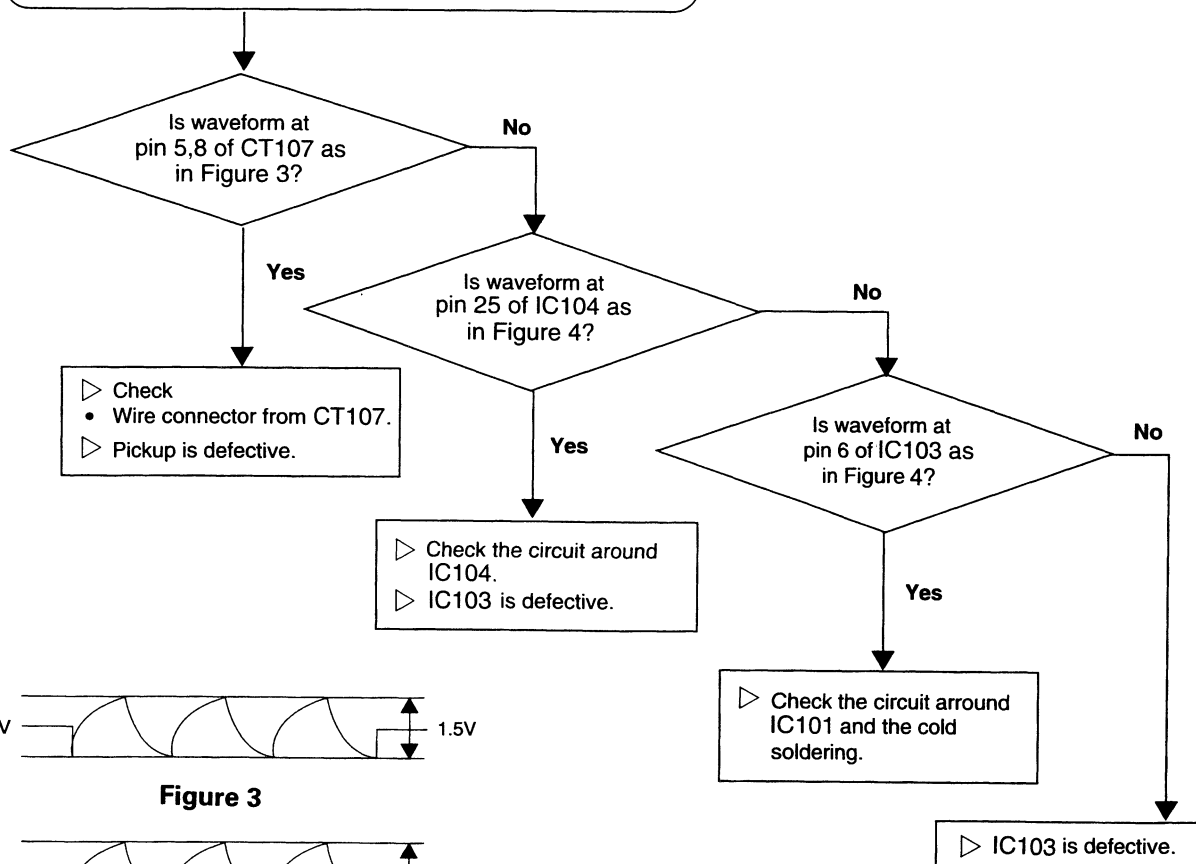


Figure 3

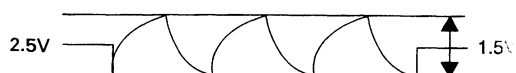
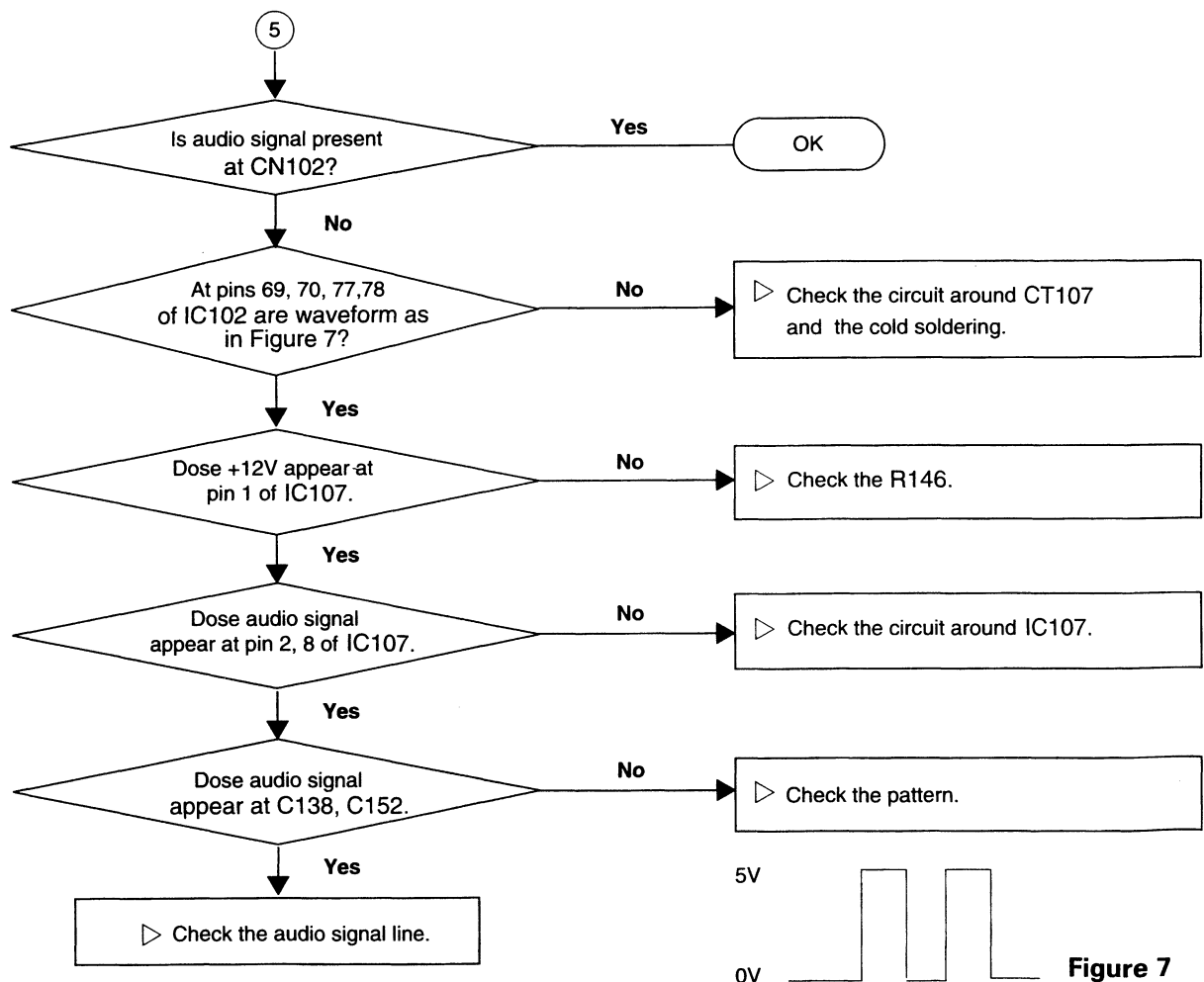
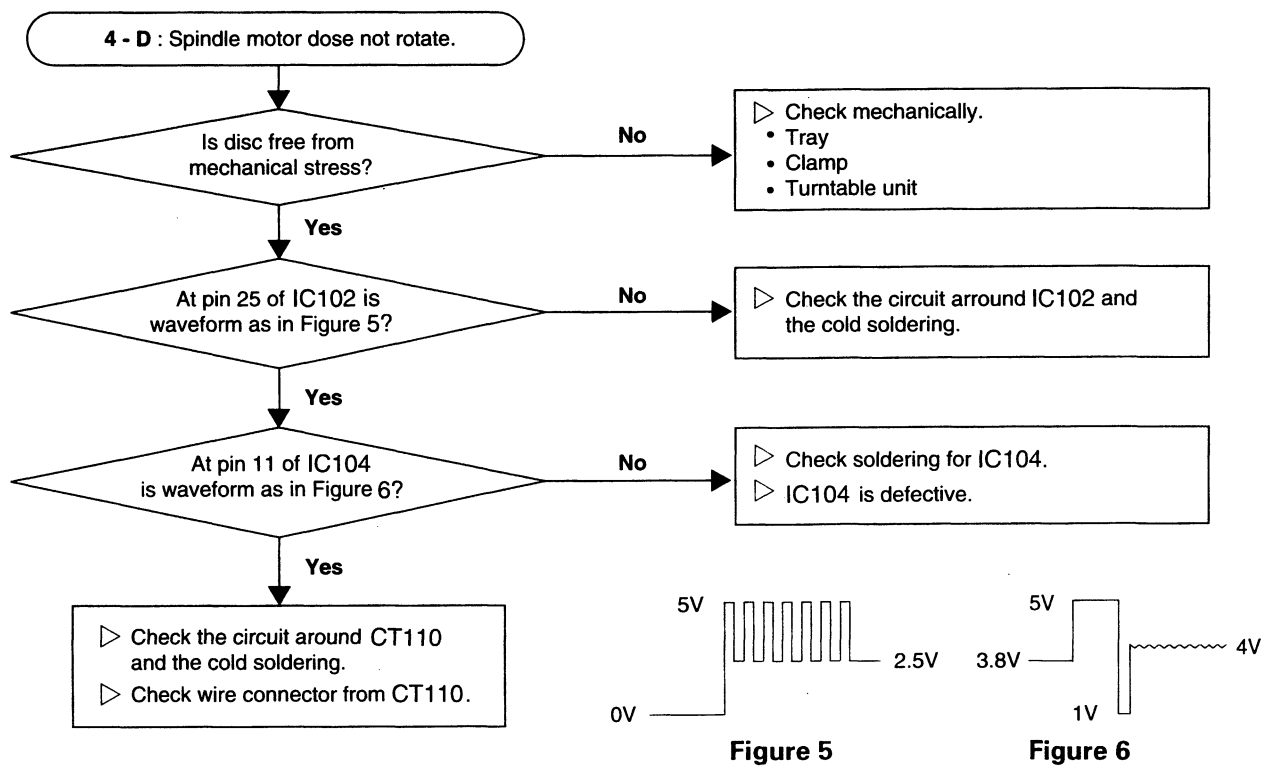
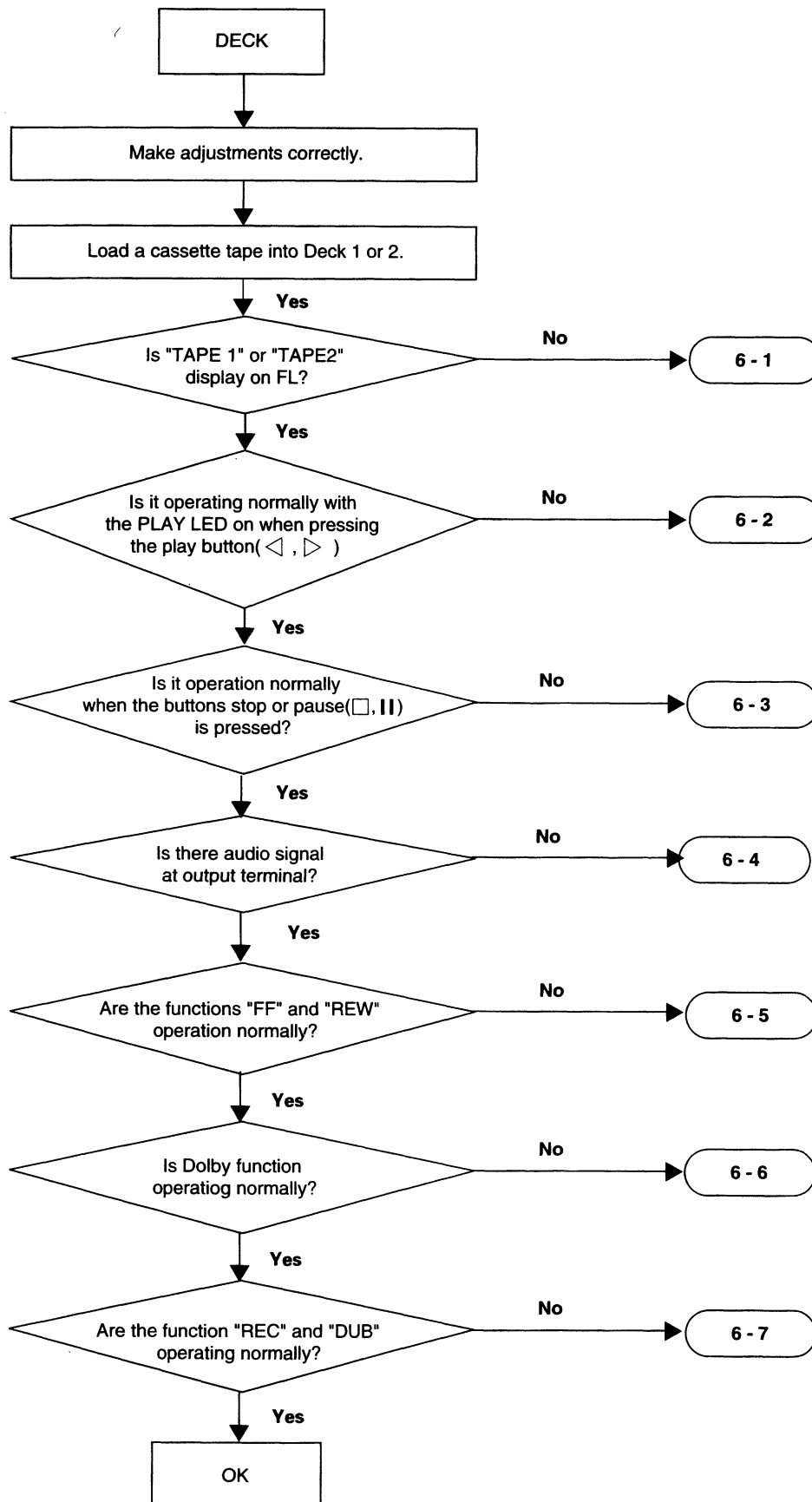


Figure 4





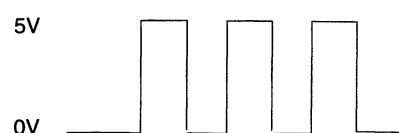
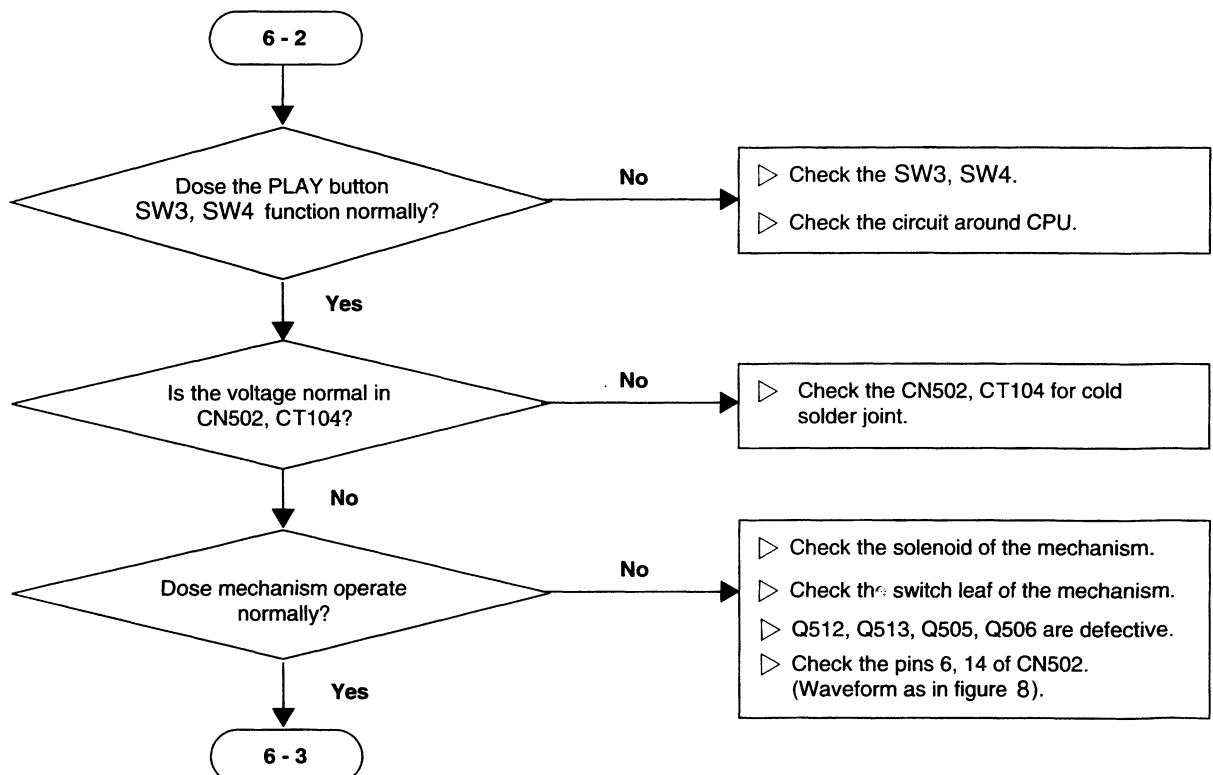
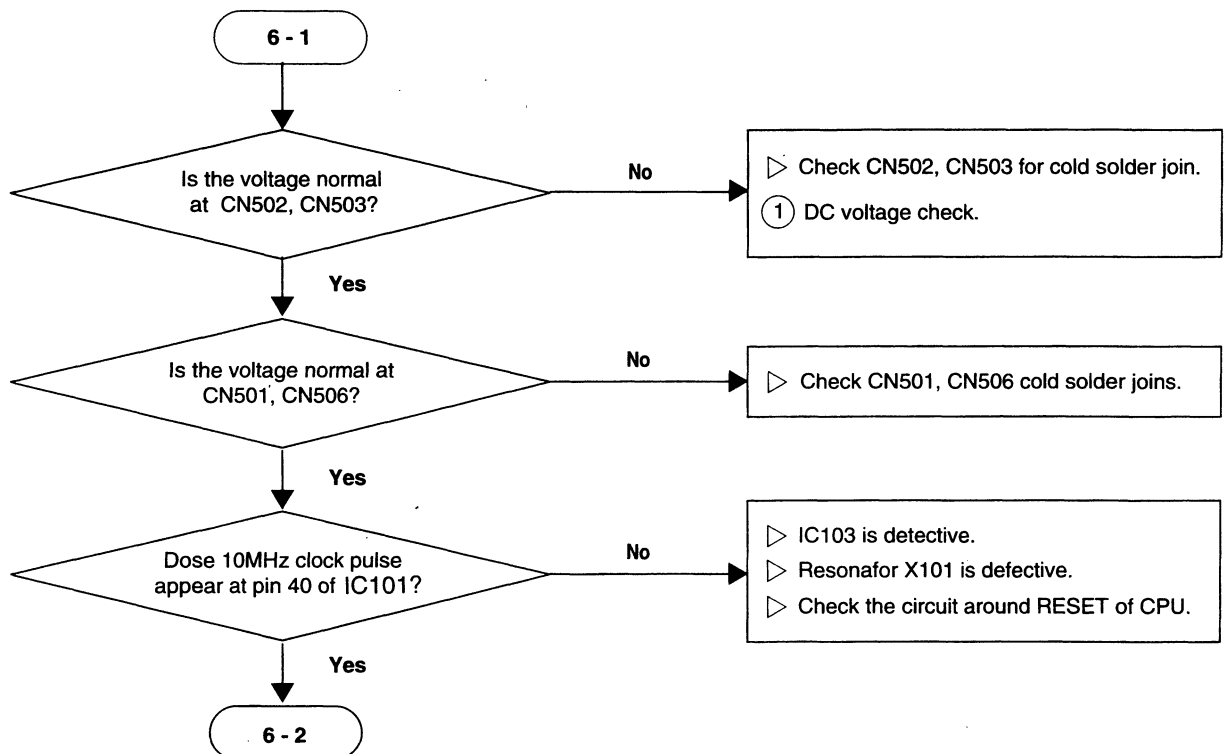
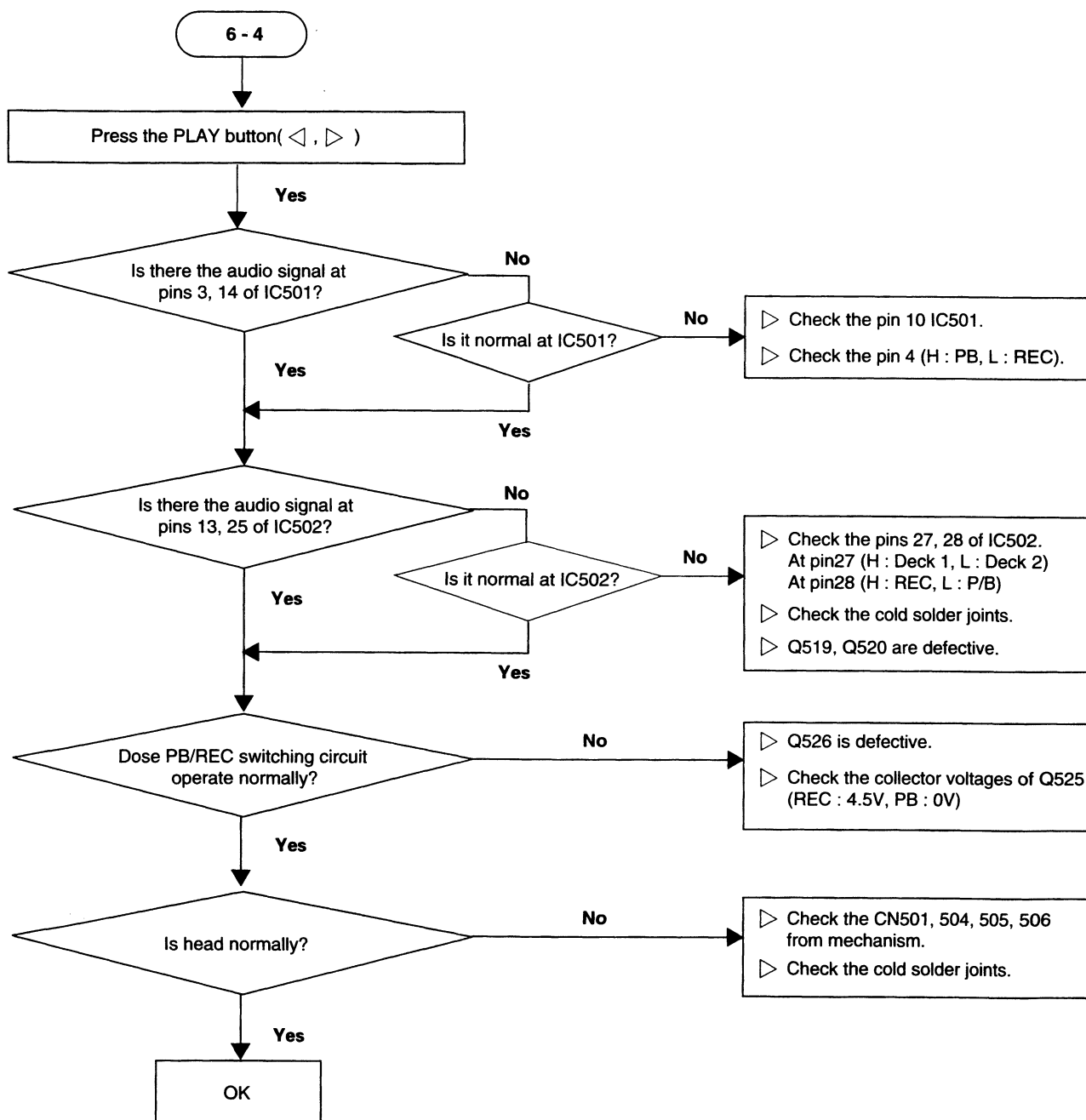
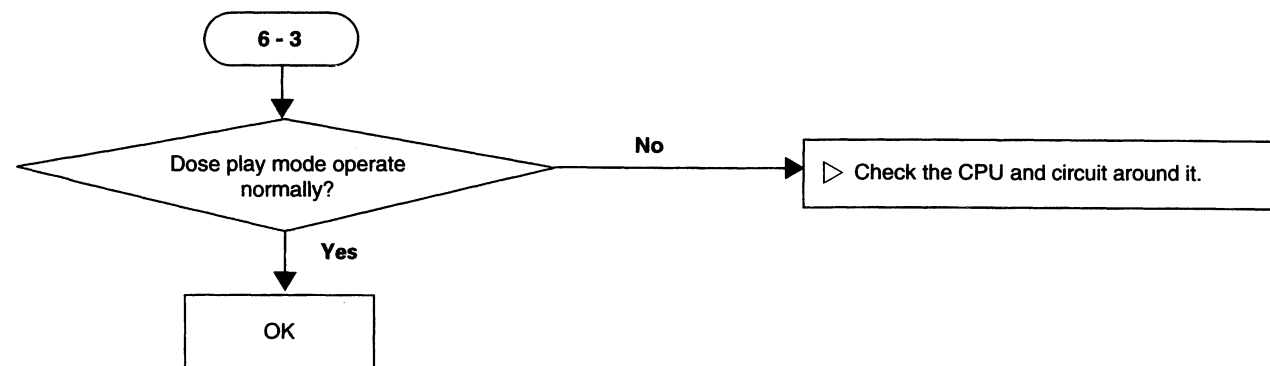
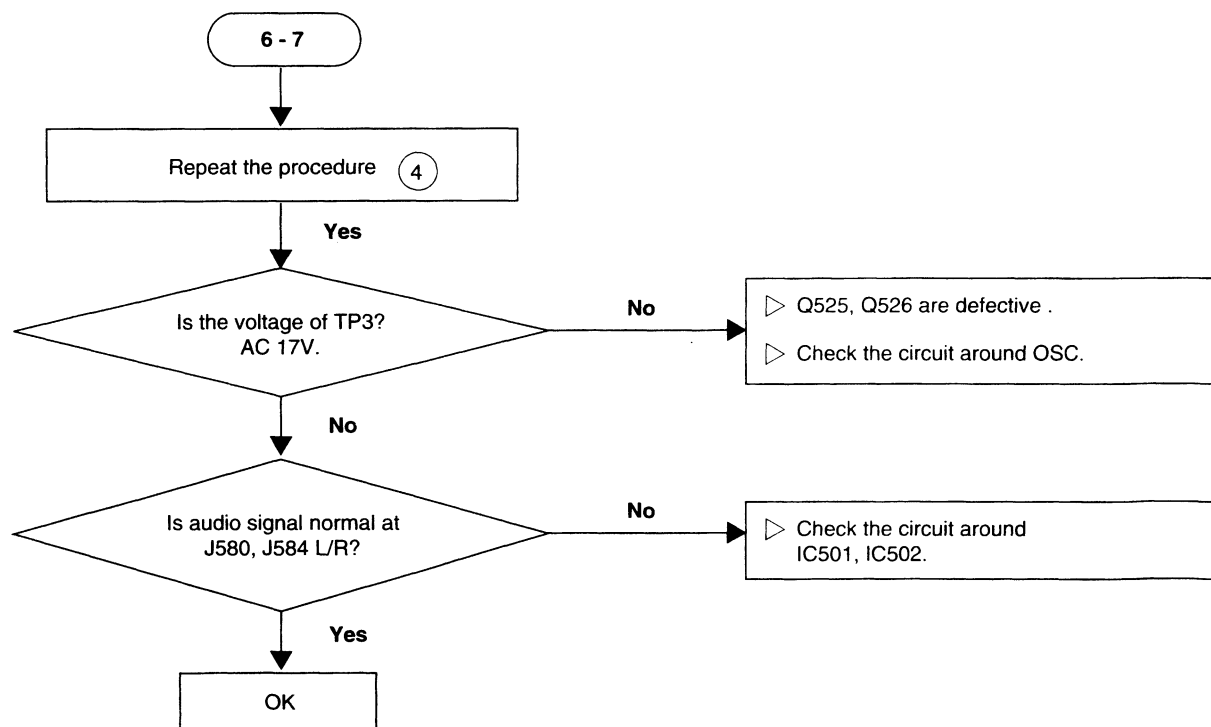
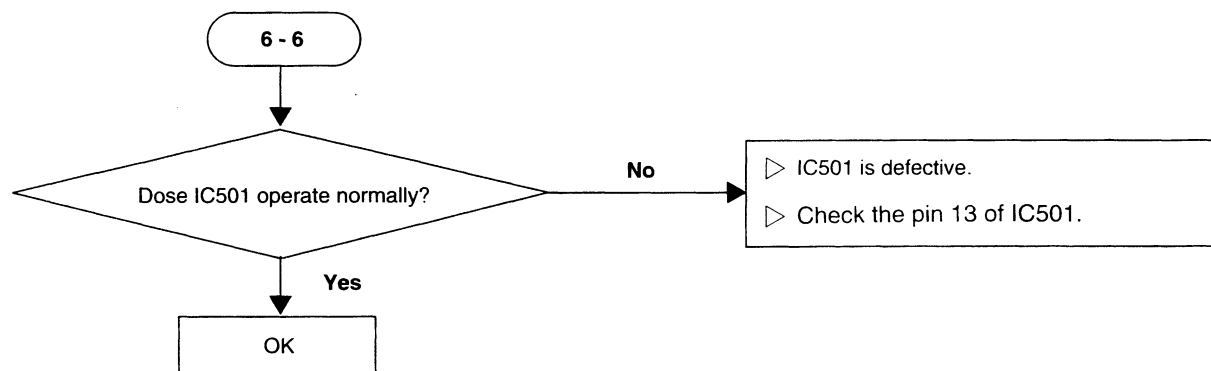
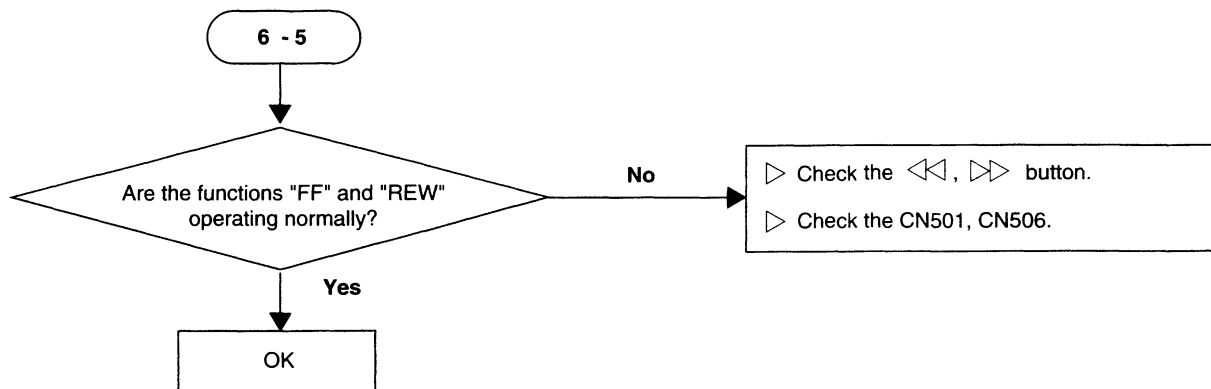


Figure 8





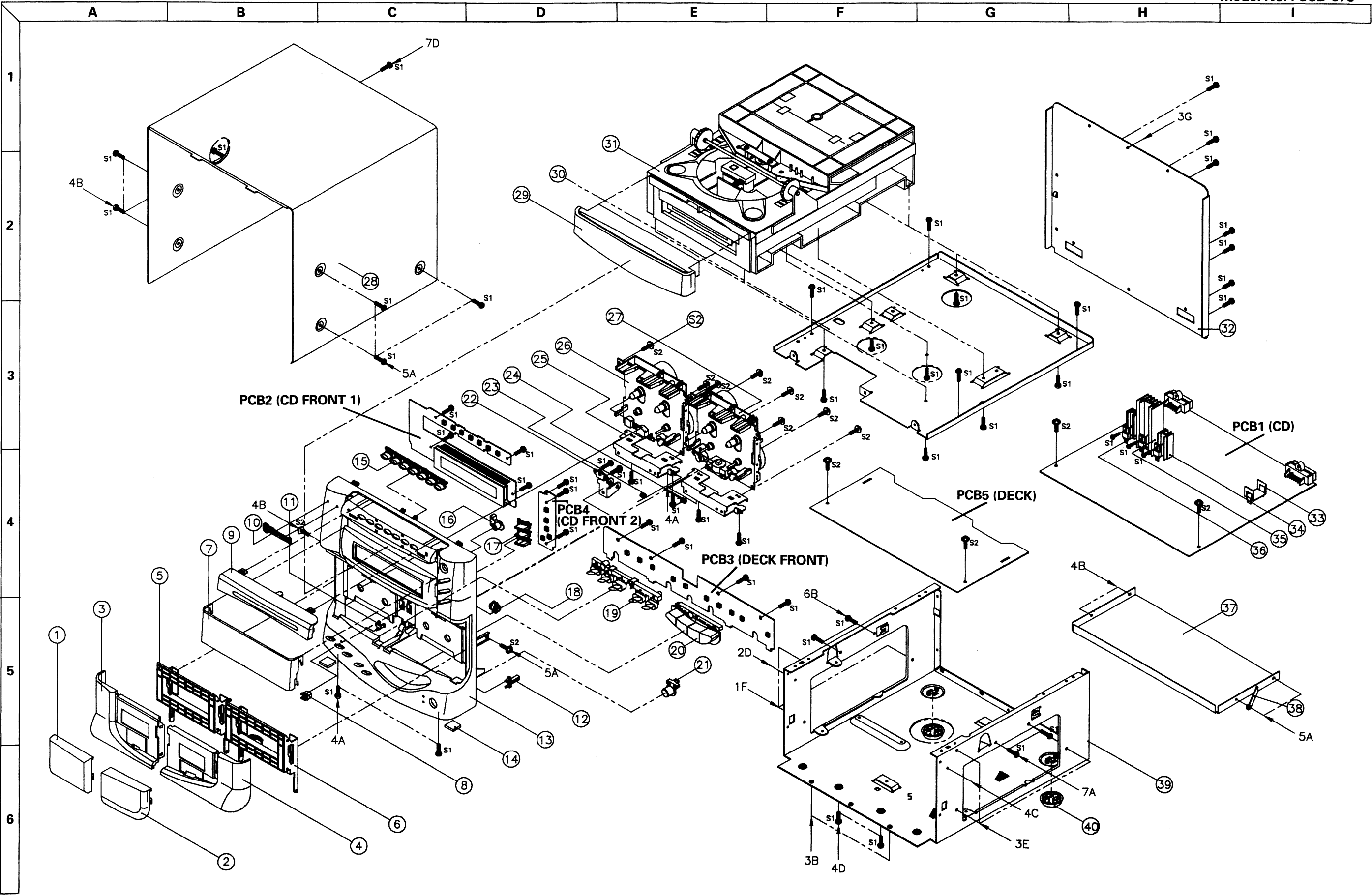
MECHANICAL PARTS LIST

- Parts without **Parts No** are not supplied.
- Parts with blank version are available in common.

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
PACKAGE				
	Film soft PE	6320040022010	1	
	Cyshion poly	6230043744010	1	
CABINET & CHASSIS				
1	Door Window "A"	5077040803010	1	
2	Door Window "B"	5077040813010	1	
3	Door Deck "A"	5047041541010	1	
4	Door Deck "B"	5047041551010	1	
5	LID Cassette "A"	5040040431010	1	
6	LID Cassette "B"	5040040441010	1	
7	Window display	5070044361010	1	
8	Locker	2530041303010	2	
9	Cover, Front	4310046511010	1	
10	Badge, SHERWOOD	5637040661010	1	
(10)	Badge, INKEL	5637040671010	1	K(ONLY)
11	Indicator "A"	5160040753010	1	
12	Indicator "B"	5160040763010	1	
13	Panel, Front	3067042131010	1	
14	Foot Cushion	4050044645010	2	
15	Button, 7 key	5097046401010	1	
16	Button, 1 key	5090066671010	1	
17	Button, 4 key CD	5090059011010	1	
18	Damfer Oil	3660040183010	2	
19	Button, 5 key	5090059031010	1	
20	Button, 4 key Deck	5097046381010	1	
21	Button, Deck Selector	5090066651010	1	
22	Guide LID Cassette	4320043781010	1	
23	Spring Door "L"	3720043656010	1	
24	Spring Door "R"	3720043666010	1	
25	Bracket Mecha	4010043586010	2	
26	Deck Mecha, P/B	8150041410010	1	
27	Deck Mecha, R/B	8150041420010	1	
28	Cover, Top	3007042106030	1	
29	Door Tray	5047042571010	1	
30	Bracket Changer	4010040426010	1	
31	Mecha Changer, TCD-MB7T-AN	8030040692010	1	
32	Chassis Back	3207042686010	1	PT INDO
(32)	Chassis Back	3207042686020	1	K(ONLY)
(32)	Chassis Back	3207042686030	1	D
33	Heatsink, IC	3070046266010	1	
34	Heatsink, Regulator TR (15X30)	2120044338010	1	
35	Heatsink, Regulator TR (24X60)	2120044308010	1	
36	Heatsink, Regulator TR (24X30)	2120044288010	1	
37	Shield Fence	3070046496010	1	
38	Clamp wire	4330040213010	1	
39	Chassis Main	3200044766010	1	
40	Foot	4000040571010	2	
HARDWARE KIT				
S1	Screw, #B BTT 3X8B	BO20030083B10	50	
S2	Screw, #2 WPTC 3X8Y	B010530081W10	14	
MISCELLANEOUS				
	Card Cable, CN101 to CN101	L301186312050	1	
	Card Cable, CN102 to CN502	L301186211650	1	
	CNT, 7P 26 mm, CN103 to CN103	L022072638320	1	
	CNT, 7P 200mm, CN505 to Play back head	L012072080020	1	
	CNT, 3P 260mm	L022032650320	1	

EXPLODED VIEW

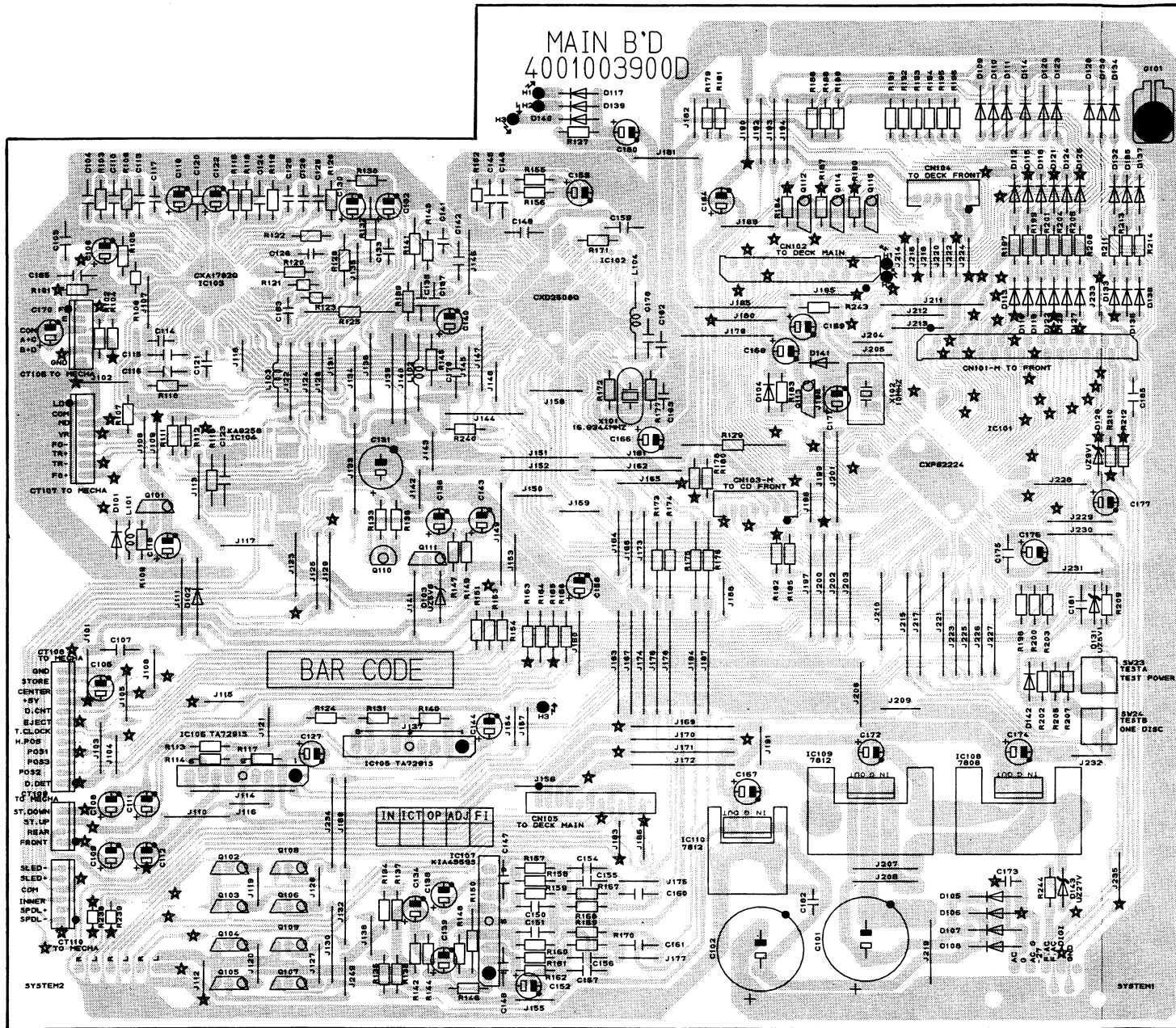
Model No. : CCD-676



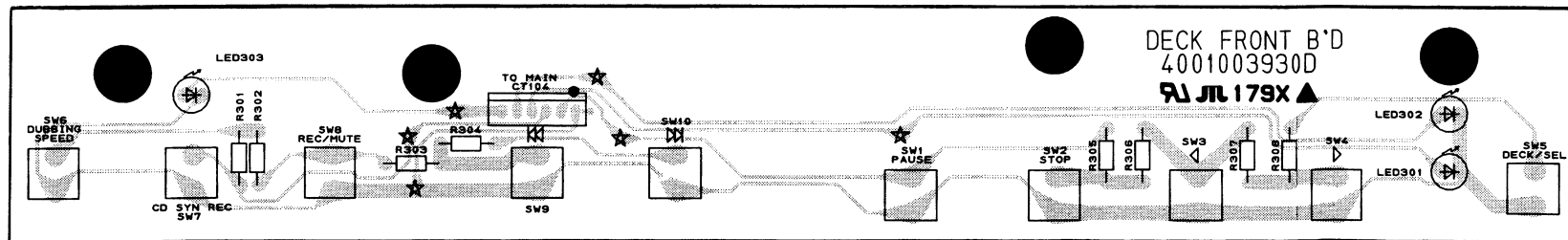
PRINTED CIRCUIT BOARDS

Model No. : CCD-676

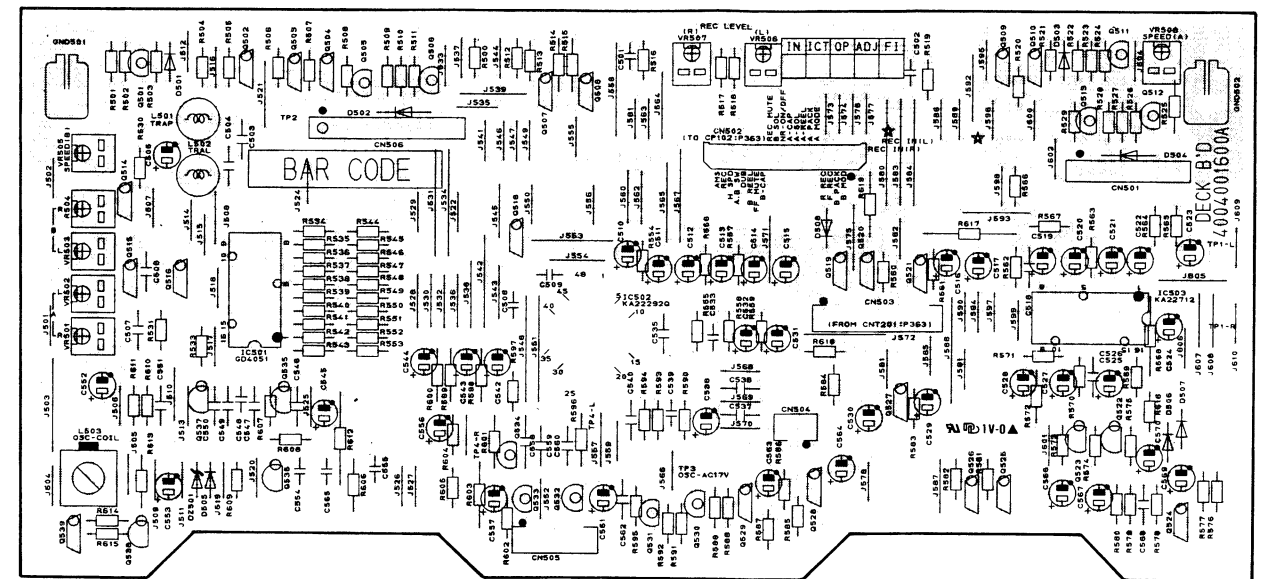
PCB1 (CD)



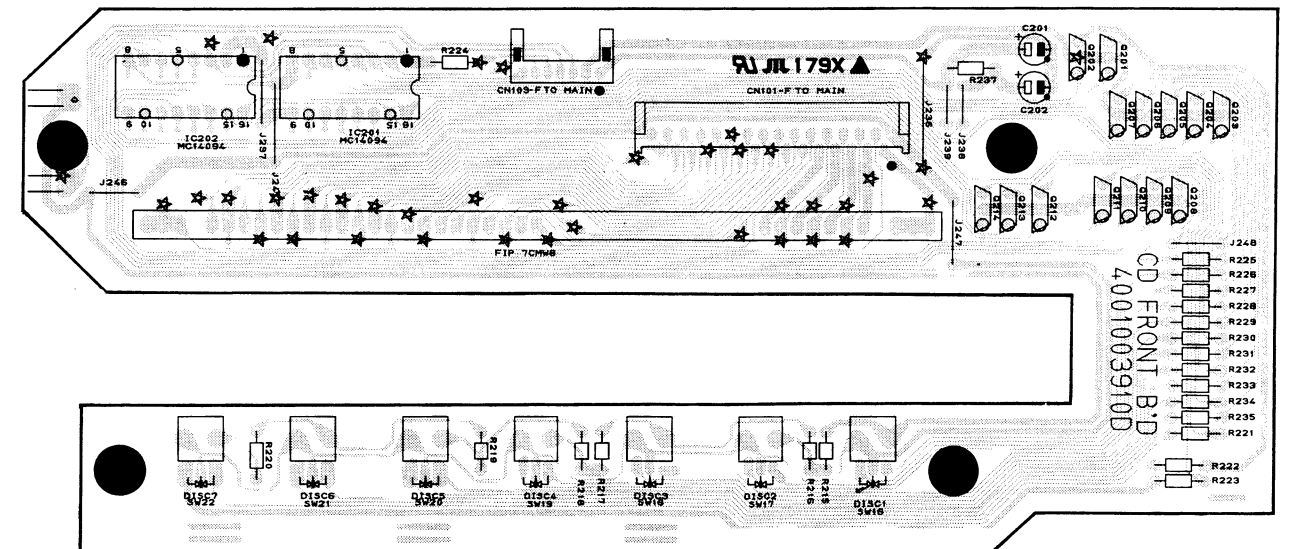
PCB3 (DECK FRONT)



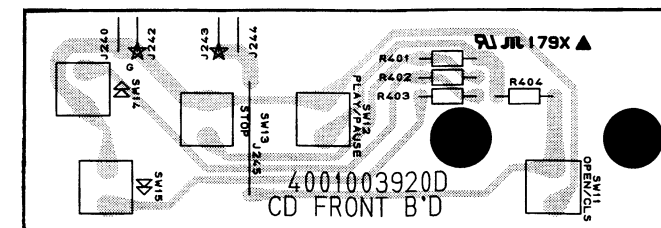
PCB5 (DECK)



PCB2 (CD FRONT 1)



PCB4 (CD FRONT 2)



ELECTRICAL PARTS LIST

• Parts without Parts No are not supplied.
• Parts with blank version are available in common.

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
* ASS'Y P.C.BOARD MAIN (PCB 1, 2, 3, 4)		7028040734700	KS	
* ASS'Y P.C.BOARD MAIN (PCB 1, 2, 3, 4)		7028040735400	D,PT INDO	
PCB1	ASSEMBLY P.C.BOARD CD MAIN			
CAPACITORS				
C101/C102	Electrolytic SG	2200 μ F	25 V M	D040222084200 2
C103	Ceramic Tubular	0.022 μ F	25 V Z	D005223574530 1
C104	Ceramic Tubular	0.01 μ F	50 V Z	D005103077530 1
C105/C106	Electrolytic SG	100 μ F	10 V M	D040101082100 2
C107	Ceramic Tubular	0.022 μ F	25 V Z	D005223574530 1
C108/C109	Electrolytic SG	100 μ F	10 V M	D040101082100 2
C110	Ceramic Tubular	0.01 μ F	50 V Z	D005103077530 1
C111/C112	Electrolytic SG	100 μ F	10 V M	D040101082100 2
C113	Ceramic Tubular	0.022 μ F	25 V Z	D005223574530 1
C114	Mylar	0.033 μ F	100 V J	D02033306C060 1
C115/C116	Ceramic Tubular	0.01 μ F	50 V Z	D005103077530 2
C117	Mylar	0.1 μ F	250 V J	D02010407H080 1
C118	Electrolytic SG	22 μ F	16 V M	D040220083100 1
C119	Electrolytic SG	100 μ F	10 V M	D040101082100 1
C120	Ceramic Tubular	0.022 μ F	25 V Z	D005223574530 1
C121	Mylar	0.033 μ F	100 V J	D02033306C060 1
C122	Electrolytic SG	4.7 μ F	50 V M	D0404R7087100 1
C123	Ceramic Tubular	0.01 μ F	50 V Z	D005103077530 1
C124	Ceramic Tubular	0.0022 μ F	16 V Z	D005222773530 1
C125	Mylar	0.1 μ F	250 V J	D02010407H080 1
C126	Mylar	0.033 μ F	100 V J	D02033306C060 1
C127	Electrolytic SG	47 μ F	16 V M	D040470083100 1
C128	Mylar	0.1 μ F	250 V J	D02010407H080 1
C129	Mylar	0.1 μ F	250 V J	D02010407H080 1
C130	Electrolytic SG	22 μ F	16 V M	D040220083100 1
C131	Electrolytic SG	470 μ F	10 V M	D040471082100 1
C132	Electrolytic SG	3.3 μ F	50 V M	D0403R3087100 1
C133	Mylar	0.047 μ F	100 V J	D02047306C060 1
C134	Electrolytic SG	47 μ F	16 V M	D040470083100 1
C135	Ceramic Tubular	0.022 μ F	25 V Z	D005223574530 1
C136	Electrolytic SG	100 μ F	10 V M	D040101082100 1
C137	Ceramic Tubular	0.022 μ F	25 V Z	D005223574530 1
C138	Electrolytic SG	10 μ F	50 V M	D040100087100 1
C139	Electrolytic SG	47 μ F	16 V M	D040470083100 1
C140	Electrolytic SG	100 μ F	10 V M	D040101082100 1
C141	Mylar	0.0015 μ F	100 V J	D02015206C060 1
C142	Ceramic Tubular	0.01 μ F	50 V Z	D005103077530 1
C143	Electrolytic SG	100 μ F	10 V M	D040101082100 1
C144	Electrolytic SG	47 μ F	16 V M	D040470083100 1
C145	Ceramic Tubular	220 pF	50 V J	D005221077530 1
C146	Ceramic Tubular	0.01 μ F	50 V Z	D005103077530 1
C147/C148	Ceramic Tubular	120 pF	50 V J	D005121077530 2
C149	Ceramic Tubular	0.022 μ F	25 V Z	D005223574530 1
C150/C151	Ceramic Tubular	120 pF	50 V J	D005121077530 2
C152	Electrolytic SG	10 μ F	50 V M	D040100087100 1
C153	Electrolytic SG	4.7 μ F	50 V M	D0404R7087100 1
C154-C157	Ceramic Tubular	120 pF	50 V J	D005121077530 4
C158	Electrolytic SG	100 μ F	10 V M	D040101082100 1
C159	Ceramic Tubular	100 pF	50 V J	D001101077530 1
C160/C161	Ceramic Tubular	120 pF	50 V J	D005121077530 2
C162/C163	Ceramic DISC CH	33 pF	50 V J	D000330167070 2
C164	Electrolytic SG	47 μ F	16 V M	D040470083100 1
C165	Ceramic Tubular	0.022 μ F	25 V Z	D005223574530 1
C166	Electrolytic SG	47 μ F	16 V M	D040470083100 1
C167	Electrolytic SG	1 μ F	50 V M	D040010087100 1
C168	Electrolytic SG	3.3 μ F	50 V M	D0403R3087100 1
C169	Electrolytic SG	100 μ F	10 V M	D040101082100 1
C170	Electrolytic SG	22 μ F	16 V M	D040220083100 1
C171	Electrolytic SG	3.3 μ F	50 V M	D0403R3087100 1
C172	Electrolytic SG	1 μ F	50 V M	D040010087100 1
C173	Mylar	0.047 μ F	100 V J	D02047306C060 1
C174	Electrolytic SG	1 μ F	50 V M	D040010087100 1
C175	Ceramic Tubular	0.022 μ F	25 V Z	D005223574530 1
C176	Electrolytic SG	100 μ F	10 V M	D040101082100 1
C177	Electrolytic SG	10 μ F	50 V M	D040100087100 1
C178	Ceramic Tubular	0.1 μ F	50 V Z	D005104097530 1
C179	Ceramic Tubular	0.022 μ F	25 V Z	D005223574530 1
C180	Electrolytic SG	10 μ F	50 V M	D040100087100 1
C181	Ceramic Tubular	470 pF	50 V J	D005471077530 1
CONNECTORS				
CN101	Plug, FFC-52045-31	L131520453100	1	
CN102	Plug, FPC 21P	L131837002100	1	

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
CN103	Plug, GIL-S-7P-S2T2	L101220070000	1	
CN104	Plug, GIL-S-6P-S2T2	L101220060000	1	
CN105	Lead Ass'y, 11P 180mm	L022111833320	1	
CT106	Lead Ass'y, 5P 180mm	L012051877820	1	
CT107	Lead Ass'y, 8P 200mm	L012082021320	1	
CT108	Lead Ass'y, 12P 180mm	L012121821320	1	
CT109	Lead Ass'y, 4P 180mm	L012041821320	1	
CT110	Lead Ass'y, 6P 180mm	L012061821320	1	
SYSTEM1	System connector, 9P	L140523030900	1	
SYSTEM2	System connector, 11P	L140523031110	1	
DIODES				
D101/D102	Switching, 1N4148M	K000414801520	2	
D103	Zener, UZ 5.6BSB	K06005R614520	1	
D104	Switching, 1N4148M	K000414801520	1	
D105-D108	Rectifier, 1N4003	K040400300520	4	
D109-D128	Switching, 1N4148M	K000414801520	10	
D129	Zener, UZ 9.1BSC	K06009R124520	1	
D130	Switching, 1N4148M	K000414801520	1	
D131	Zener, UZ 5.1BSB	K06005R114520	1	
D132-D142	Switching, 1N4148M	K000414801520	11	
INTEGRATED CIRCUITS				
IC101	CXP82224-134Q, DWP332	J020822241340	1	
IC102	CXD2508AQ	J031250800000	1	
IC103	CXA1782BQ	J031178200000	1	
IC104	KA9258D	J127925800010	1	
IC105/IC106	TA7291S	J127729100000	2	
IC107	KIA4559S/KIA75559S	J121455900000	1	
IC108	KA7808, Regulator	J126780800060	1	
IC109/IC110	KA7812, Regulator	J126780120000	2	
TRANSISTORS				
Q101	BKTA1267Y, PNP	J5001267Y0050	1	
Q102-Q105	DTC323TS, NPN	J602323TS0050	4	
Q106-Q109	DTA114YS	J601114YS0050	4	
Q110	MPSA56, PNP	J5005600Y0050	1	
Q111	BKTC3199, NPN	J5023199Y0050	1	
Q112-Q115	DTC114YS	J602011400050	4	
RESISTORS				
R101	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R102	Metal Film	470 ohm 1/5 W J	C06004716P520	1
R103	Carbon Film	100 kohm 1/5 W J	C00001046P520	1
R104	Metal Film	470 ohm 1/5 W J	C06004716P520	1
R105	Carbon Film	22 kohm 1/5 W J	C00002236P520	1
R106	Carbon Film	100 kohm 1/5 W J	C00001046P520	1
R107	Metal Film	100 ohm 1/5 W J	C06001016P520	1
R108	Carbon Film	22 kohm 1/5 W J	C00002236P520	1
R109	Metal Film	22 ohm 1/5 W J	C06002206P520	1
R110	Carbon Film	27 kohm 1/5 W J	C00002736P520	1
R111/R112	Carbon Film	10 kohm 1/5 W J	C00001036P520	2
R113	Carbon Film	5.6 kohm 1/5 W J	C00005626P520	1
R114	Metal Film	2.7 kohm 1/5 W J	C06002726P520	1
R115/R116	Carbon Film	10 kohm 1/5 W J	C00001036P520	2
R117	Metal Film	1 ohm 1/5 W J	C06000106P520	1
R118/R119	Carbon Film	10 kohm 1/5 W J	C00001036P520	2
R120	Carbon Film	100 kohm 1/5 W J	C00001046P520	1
R121	Carbon Film	82 kohm 1/5 W J	C00008236P520	1
R122	Carbon Film	68 kohm 1/5 W J	C00006836P520	1
R123	Carbon Film	82 kohm 1/5 W J	C00008236P520	1
R124	Carbon Film	5.6 kohm 1/5 W J	C00005626P520	1
R125	Carbon Film	120 kohm 1/5 W J	C00001246P520	1
R126	Carbon Film	680 kohm 1/5 W J	C00006846P520	1
R127	Carbon Film	33 kohm 1/5 W J	C00003336P520	1
R128	Carbon Film	470 kohm 1/5 W J	C00004746P520	1
R129	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R130	Carbon Film	15 kohm 1/5 W J	C00001536P520	1
R131	Metal Film	2.7 kohm 1/5 W J	C06002726P520	1
R132	Carbon Film	8.2 kohm 1/5 W J	C00008226P520	1
R133	Metal Film	4.7 kohm 1/5 W J	C06004726P520	1
R134/R135	Metal Film	470 ohm 1/5 W J	C06004716P520	2
R136	Metal Film	4.7 ohm 1/5 W J	C0604R706P520	1
R137/R138	Carbon Film	47 kohm 1/5 W J	C00004736P520	2
R139	Metal Film	3.3 kohm 1/5 W J	C00003326P520	1
R140	Metal Film	1 ohm 1/5 W J	C06000106P520	1
R141	Metal Film	3.3 kohm 1/5 W J	C06003326P520	1
R142	Carbon Film	22 kohm 1/5 W J	C00002236P520	1
R143	Carbon Film	10 kohm 1/5 W J	C00001036P520	1

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
R144	Carbon Film	22 kohm 1/5 W J	C00002236P520	1
R145	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R146	Metal Film	220 ohm 1/5 W J	C06002216P520	1
R147	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R148	Carbon Film	39 kohm 1/5 W J	C00003936P520	1
R149	Metal Film	10 ohm 1/5 W J	C06001006P520	1
R150	Carbon Film	39 kohm 1/5 W J	C00003936P520	1
R151	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R152	Carbon Film	1 Mohm 1/5 W J	C00001056P520	1
R153/R154	Carbon Film	47 kohm 1/5 W J	C00004736P520	2
R155	Carbon Film	100 kohm 1/5 W J	C00001046P520	1
R156	Carbon Film	10 kohm 1/5 W J	C00001036P520	1
R157	Carbon Film	39 kohm 1/5 W J	C00003936P520	1
R158-R161	Carbon Film	33 kohm 1/5 W J	C00003336P520	4
R162	Carbon Film	39 kohm 1/5 W J	C00003936P520	1
R163-R166	Carbon Film	47 kohm 1/5 W J	C00004736P520	4
R167-R170	Carbon Film	33 kohm 1/5 W J	C00003336P520	4
R171	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R172	Metal Film	470 ohm 1/5 W J	C06004716P520	1
R173-R176	Carbon Film	10 kohm 1/5 W J	C00001036P520	4
R177	Carbon Film	1 Mohm 1/5 W J	C00001056P520	1
R178-R181	Carbon Film	12 kohm 1/5 W J	C00001236P520	4
R182	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R183	Metal Film	4.7 kohm 1/5 W J	C06004726P520	1
R184	Metal Film	150 ohm 1/5 W J	C06001516P520	1
R185	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R186	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R187	Metal Film	150 ohm 1/5 W J	C06001516P520	1
R188/R189	Carbon Film	47 kohm 1/5 W J	C00004736P520	2
R190	Metal Film	150 ohm 1/5 W J	C06001516P520	1
R191-R196	Carbon Film	47 kohm 1/5 W J	C00004736P520	6
R197	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R198	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R199	Metal Film	1 kohm 1/5 W J	C06001026P520	1
MISCELLANEOUS				
L101-L104	Indicator, 10 uH	D330100001020	4	
X101	Crystal, 16.9344MHz	E800169344460	1	
X102	Resonator, CST10.0MTW-TF01	E830100000050	1	
SW16~24	Switch tact	G180040500010	9	
33	Heatsink, IC	3070046266010	1	
34	Heatsink, Regulator TR (15X30)	2120044338010	1	
35	Heatsink, Regulator TR (24X60)	2120044308010	1	
36	Heatsink, Regulator TR (24X30)	2120044288010	1	
	Connector, 2P, 140mm	L022021436320	1	
	Wire, HI-WP #24BK FF140	L046241014440	1	
	Terminal ground	3790040696010	1	
PCB2 ASSEMBLY P.C.BOARD CD FRONT1				
CAPACITORS				
C201	Electrolytic SG	47 μ F 16 V M	D040470083100	1
C202	Electrolytic SG	100 μ F 10 V M	D040101082100	1
CONNECTORS				
CN101	Plug, FPC-52044-31	L131520443100	1	
CN103	Plug, GIL-07P-S2L2-EF	L101220070010	1	
INTEGRATED CIRCUITS				
IC201/IC202	MC14094BCP	J040140940000	2	
TRANSISTORS				
Q201-Q214	DTC114YS	J602011400050	4	
RESISTORS				
R200	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R201	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R202	Carbon Film	10 kohm 1/5 W J	C00001036P520	1
R203	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R204	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R205	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R206	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R207	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R208	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R209	Carbon Film	470 kohm 1/5 W J	C00004746P520	1
R210	Metal Film	2.2 ohm 1/5 W J	C0602R206P520	1
R211	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R212	Metal Film	2.2 ohm 1/5 W J	C0602R206P520	1
R213/R214	Metal Film	1 kohm 1/5 W J	C06001026P520	2
R215	Metal Film	1.5 kohm 1/5 W J	C06001526P520	1

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
R216	Metal Film	2.7 kohm 1/5 W J C06002726P520	1	
R217/R218	Metal Film	3.6 kohm 1/5 W J C06003626P520	2	
R219	Carbon Film	10 kohm 1/5 W J C00001036P520	1	
R220	Carbon Film	24 kohm 1/5 W J C00002436P520	1	
R221	Metal Film	270 ohm 1/5 W J C06002716P520	1	
R222	Metal Film	150 ohm 1/5 W J C06001516P520	1	
R223	Metal Film	270 ohm 1/5 W J C06002716P520	1	
R224	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R225	Metal Film	150 ohm 1/5 W J C06001516P520	1	
R226	Metal Film	270 ohm 1/5 W J C06002716P520	1	
R227	Metal Film	150 ohm 1/5 W J C06001516P520	1	
R228	Metal Film	270 ohm 1/5 W J C06002716P520	1	
R229	Metal Film	150 ohm 1/5 W J C06001516P520	1	
R230	Metal Film	270 ohm 1/5 W J C06002716P520	1	
R231	Metal Film	150 ohm 1/5 W J C06001516P520	1	
R232	Metal Film	270 ohm 1/5 W J C06002716P520	1	
R233	Metal Film	150 ohm 1/5 W J C06001516P520	1	
R234	Metal Film	270 ohm 1/5 W J C06002716P520	1	
R235	Metal Film	150 ohm 1/5 W J C06001516P520	1	
R237	Carbon Film	15 kohm 1/5 W J C00001536P520	1	
R238/R239	Carbon Film	24 kohm 1/5 W J C00002436P520	2	
R240	Metal Film	1 kohm 1/5 W J C06001026P520	1	
R243	Carbon Film	10 kohm 1/5 W J C00001036P520	1	
MISCELLANEOUS				
SW16	Switch tact "1"	G180040500010	1	
SW17	Switch tact "2"	G180040500010	1	
SW18	Switch tact "3"	G180040500010	1	
SW19	Switch tact "4"	G180040500010	1	
SW20	Switch tact "5"	G180040500010	1	
SW21	Switch tact "6"	G180040500010	1	
SW22	Switch tact "7"	G180040500010	1	
PCB3 ASSEMBLY P.C.BOARD DECK FRONT				
LED301	LED, SLR-34GCN49	K500035101230	1	
LED302	LED, SLR-34GCN49	K500035101230	1	
LED303	LED, SLR-34GCN49	K500035101230	1	
CT104	CNT, Lead Ass'y, 6P, 200	L022062021320	1	
R301	R, Metal Film	1.5 kohm 1/5 W J C06001526P520	1	
R302	R, Metal Film	2.7 kohm 1/5 W J C06002726P520	1	
R303	R, Metal Film	3.6 kohm 1/5 W J C06003626P520	1	
R304	R, Carbon Film	5.6 kohm 1/5 W J C00005626P520	1	
R305	R, Metal Film	1.5 kohm 1/5 W J C06001526P520	1	
R306	R, Metal Film	2.7 kohm 1/5 W J C06002726P520	1	
R307	R, Metal Film	3.6 kohm 1/5 W J C06003626P520	1	
R308	R, Carbon Film	5.6 kohm 1/5 W J C00005626P520	1	
SW1	Switch tact, PAUSE	G180040500010	1	
SW2	Switch tact, STOP	G180040500010	1	
SW3	Switch tact, B "PLAY"	G180040500010	1	
SW4	Switch tact, F, PLAY	G180040500010	1	
SW5	Switch tact, DECK 1.2	G180040500010	1	
SW6	Switch tact, DUBBING SPEED	G180040500010	1	
SW7	Switch tact, CD SYN REC	G180040500010	1	
SW8	Switch tact, SEC/MUTE	G180040500010	1	
SW9	Switch tact "◀ ▶"	G180040500010	1	
SW10	Switch tact "▶ ▶"	G180040500010	1	
PCB4 ASSEMBLY P.C.BOARD CD FRONT2				
R401	RES, Metal Film	2.7 kohm 1/5 W J C06002726P520	1	
R402	RES, Metal Film	3.6 kohm 1/5 W J C06003626P520	1	
R403	RES, Carbon Film	5.6 kohm 1/5 W J C00005626P520	1	
R404	RES, Metal Film	1.5 kohm 1/5 W J C06001526P520	1	
SW11	Switch tact, OPEN/CLOSE	G180040500010	1	
SW12	Switch tact, PLAY/PAUSE	G180040500010	1	
SW13	Switch tact, STOP	G180040500010	1	
SW14	Switch tact, B "SKIP"	G180040500010	1	
SW15	Switch tact, F, SKIP	G180040500010	1	
* ASS'Y P.C.BOARD DECK MAIN (PCB 5) 7028040734700 KS				
* ASS'Y P.C.BOARD DECK MAIN (PCB 5) 7028040735900 D,PT INDO				
PCB5 ASSEMBLY P.C.BOARD DECK CAPACITORS				
C501/C502	Mylar	0.0082 µF 100 V Z D02082206C060	2	
C503/C504	Ceramic Tubular	0.0022 µF 16 V Z D005222773530	2	
C505	Electrolytic SG	10 µF 50 V M D040100087100	1	
C506	Ceramic Tubular	820 pF 50 V J D005821077530	1	

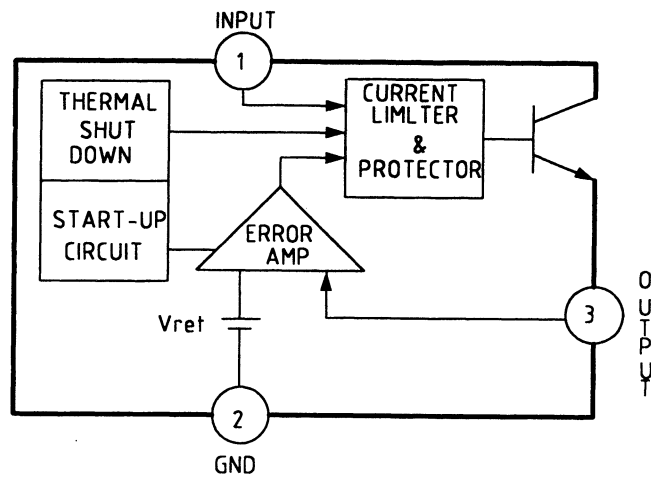
REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
C507	Ceramic Tubular	820 pF 50 V J D005821077530	1	
C508/C509	Mylar	0.033 µF 100 V J D02033306C060	2	
C510	Electrolytic SG	100 µF 10 V M D040101082100	1	
C511	Electrolytic SG	4.7 µF 50 V M D0404R7087100	1	
C512/C513	Electrolytic SG	47 µF 25 V M D040470084100	2	
C514	Electrolytic SG	220 µF 10 V M D040221082100	1	
C515	Electrolytic SG	47 µF 25 V M D040470084100	1	
C516	Electrolytic SG	2.2 µF 50 V M D0402R2087100	1	
C517	Electrolytic SG	3.3 µF 50 V M D0403R3087100	1	
C518	Ceramic Tubular	0.0022 µF 16 V Z D005222773530	1	
C519	Electrolytic SG	4.7 µF 50 V M D0404R7087100	1	
C520	Electrolytic SG	3.3 µF 50 V M D0403R3087100	1	
C521	Electrolytic SG	0.68 µF 50 V M D040R68087100	1	
C522/C523	Electrolytic SG	4.7 µF 50 V M D0404R7087100	2	
C524	Electrolytic SG	0.68 µF 50 V M D040R68087100	1	
C525	Electrolytic SG	47 µF 16 V M D040470083100	1	
C526	Ceramic Tubular	0.0022 µF 16 V Z D005222773530	1	
C527	Electrolytic SG	4.7 µF 50 V M D0404R7087100	1	
C528	Electrolytic SG	47 µF 25 V M D040470084100	1	
C529	Electrolytic SG	2.2 µF 50 V M D0402R2087100	1	
C530	Electrolytic SG	22 µF 50 V M D040220087100	1	
C531	Electrolytic SG	47 µF 25 V M D040470084100	1	
C532	Electrolytic SG	22 µF 35 V M D040220085100	1	
C533	Mylar	0.015 µF 100 V J D02015306C060	1	
C535	Ceramic Tubular	330 pF 50 V J D005331077530	1	
C536/C537	Ceramic Tubular	0.001 µF 50 V Z D005102077530	2	
C538	Electrolytic SG	22 µF 35 V M D040220085100	1	
C539	Mylar	0.015 µF 100 V J D02015306C060	1	
C540	Ceramic Tubular	330 pF 50 V J D005331077530	1	
C542	Electrolytic SG	47 µF 25 V M D040470084100	1	
C543	Electrolytic SG	4.7 µF 50 V M D0404R7087100	1	
C544	Electrolytic SG	100 µF 10 V M D040101082100	1	
C545	Electrolytic SG	47 µF 25 V M D040470084100	1	
C546	Ceramic Tubular	10000 pF 16 V Z D005103773530	1	
C547	Ceramic Tubular	0.001 µF 50 V Z D005102077530	1	
C548	Mylar	0.022 µF 100 V J D02022306C060	1	
C549	Ceramic Tubular	0.001 µF 50 V Z D005102077530	1	
C550/C551	Ceramic Tubular	10000 pF 16 V Z D005103773530	2	
C552	Electrolytic SG	100 µF 10 V M D040101082100	1	
C553	Electrolytic SG	1 µF 50 V M D040010087100	1	
C554	Mylar	0.0056 µF 100 V J D02056206C060	1	
C555	Mylar	0.047 µF 100 V J D02047306C060	1	
C556	Electrolytic SG	4.7 µF 50 V M D0404R7087100	1	
C557	Electrolytic SG	10 µF 50 V M D040100087100	1	
C558	Ceramic Tubular	0.001 µF 50 V Z D005102077530	1	
C559/C560	Ceramic Tubular	330 pF 50 V J D005331077530	2	
C561	Electrolytic SG	10 µF 50 V M D040100087100	1	
C562	Ceramic Tubular	0.001 µF 50 V Z D005102077530	1	
C563	Electrolytic SG	47 µF 25 V M D040470084100	1	
C564	Electrolytic SG	22 µF 35 V M D040220085100	1	
C565	Mylar	0.0022 µF 100 V J D02022206C060	1	
C566/C567	Electrolytic SG	4.7 µF 50 V M D0404R7087100	2	
C568	Ceramic Tubular	0.0022 µF 16 V Z D005222773530	1	
C569	Electrolytic SG	0.1 µF 50 V M D040R10087100	1	
C570	Electrolytic SG	4.7 µF 50 V M D0404R7087100	1	
CONNECTORS				
CN501	Lead Ass'y, 10P 120mm	L024101207320	1	
CN502	Plug, FPC 21P	L131837002100	1	
CN503	Plug, GIL-S-11P-S2T2	L101220110000	1	
CN504	Plug, GIL-S-3P-S2T2	L101220030000	1	
CN505	Plug, GIL-S-7P-S2T2	L101220070000	1	
CN506	Lead Ass'y, 13P 120mm	L024131207320	1	
DIODES				
D501-D509	Switching, 1N4148M	K000414801520	9	
DZ501	Zener, UZ 7.5BSC	K06007R524520	1	
INTEGRATED CIRCUITS				
IC501	KA22712, DOLBY B Type	J081227120000	1	
IC502	KA22292Q	J081222920000	1	
IC503	GD4051B	J040405100010	1	
COILS				
L501/L502	TRAP BIAS	D302010020000	2	
L503	OSC BIAS, CQN-K5174	E080010040000	1	
TRANSISTORS				
Q501	MPSA56, PNP	J5005600Y0050	1	

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
Q502-Q504	DTC114YS	J6020114Y0050	3	
Q505/Q506	MPSA56, PNP	J5005600Y0050	2	
Q507-Q510	DTC114YS	J6020114Y0050	4	
Q511-Q513	MPSA56, PNP	J5005600Y0050	3	
Q514/Q515	DTA114T(S)	J601114TS0050	2	
Q516	DTC114YS	J6020114Y0050	1	
Q518	DTC114YS	J6020114Y0050	1	
Q519/Q520	DTC114TS	J6000114T0010	2	
Q521	DTC114YS	J6020114Y0050	1	
Q522	KTA1015Y/BKTA1266, PNP	J5001266Y0050	1	
Q523	KTC3198, NPN	J5023198B0050	1	
Q524-Q527	DTC114YS	J6020114Y0050	4	
Q528/Q529	DTA114TS	J601114TS0050	2	
Q530-Q534	FET, 2SK117Y	J5441170Y0050	4	
Q535	KTC2236A/KTC3205, NPN	J5023205Y0050	1	
Q536	KTC2400/BKTC3200, NPN	J5023200B0050	1	
Q537	KTC2236A/KTC3205, NPN	J5023205Y0050	1	
Q538	KTC3198, NPN	J5023198B0050	1	
Q539	DTC114YS	J602011400050	1	
RESISTORS				
R500	Metal Film	220 ohm 1/5 W J	C06002216P520	1
R501	Metal Film	1.5 kohm 1/5 W J	C06001526P520	1
R502	Metal Film	220 ohm 1/5 W J	C06002216P520	1
R503	Carbon Film	15 kohm 1/5 W J	C00001536P520	1
R504	Carbon Film	10 kohm 1/5 W J	C00001036P520	1
R505	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R506	Metal Film	750 ohm 1/5 W J	C06007516P520	1
R507	Metal Film	750 ohm 1/5 W J	C06007516P520	1
R508	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R509	Carbon Film	68 kohm 1/5 W J	C00006836P520	1
R510	Metal Film	750 ohm 1/5 W J	C06007516P520	1
R511	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R512	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R513-R515	Carbon Film	10 kohm 1/5 W J	C00001036P520	2
R516	Carbon Film	6.8 kohm 1/5 W J	C00006826P520	1
R517/R518	Carbon Film	10 kohm 1/5 W J	C00001036P520	2
R519	Carbon Film	6.8 kohm 1/5 W J	C00006826P520	1
R520/R521	Metal Film	750 ohm 1/5 W J	C06007516P520	2
R522	Carbon Film	15 kohm 1/5 W J	C00001536P520	1
R523	Metal Film	1.5 kohm 1/5 W J	C06001526P520	1
R524/R525	Metal Film	220 ohm 1/5 W J	C06002216P520	2
R526	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R527	Metal Film	750 ohm 1/5 W J	C06007516P520	1
R528	Carbon Film	68 kohm 1/5 W J	C00006836P520	1
R529	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R530	Carbon Film	10 kohm 1/5 W J	C00001036P520	1
R531	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R533	Carbon Film	10 kohm 1/5 W J	C00001036P520	1
R534	Carbon Film	51 kohm 1/5 W J	C00005136P520	1
R535	Carbon Film	75 kohm 1/5 W J	C00007536P520	1
R536	Carbon Film	180 kohm 1/5 W J	C00001846P520	1
R537	Carbon Film	68 kohm 1/5 W J	C00006836P520	1
R538	Carbon Film	24 kohm 1/5 W J	C00002436P520	1
R539	Carbon Film	51 kohm 1/5 W J	C00005136P520	1
R540	Carbon Film	82 kohm 1/5 W J	C00008236P520	1
R541	Carbon Film	150 kohm 1/5 W J	C00001546P520	1
R542	Carbon Film	43 kohm 1/5 W J	C00004336P520	1
R543	Carbon Film	47 kohm 1/5 W J	C00004736P520	1
R544	Carbon Film	150 kohm 1/5 W J	C00001546P520	1
R545	Carbon Film	120 kohm 1/5 W J	C00001246P520	1
R546	Carbon Film	330 kohm 1/5 W J	C00003346P520	1
R547	Carbon Film	39 kohm 1/5 W J	C00003936P520	1
R548	Carbon Film	27 kohm 1/5 W J	C00002736P520	1
R549/R550	Carbon Film	150 kohm 1/5 W J	C00001546P520	2
R551	Carbon Film	270 kohm 1/5 W J	C00002746P520	1
R552	Carbon Film	22 kohm 1/5 W J	C00002236P520	1
R553	Carbon Film	43 kohm 1/5 W J	C00004336P520	1
R554	Metal Film	470 ohm 1/5 W J	C06004716P520	1
R555	Carbon Film	12 kohm 1/5 W J	C00001236P520	1
R556	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R557	Carbon Film	3.3 Mohm 1/5 W J	C00003356P520	1
R558	Carbon Film	10 kohm 1/5 W J	C00001036P520	1
R559	Metal Film	82 ohm 1/5 W J	C06008206P520	1
R560	Carbon Film	10 kohm 1/5 W J	C00001036P520	1
R561	Metal Film	1 kohm 1/5 W J	C06001026P520	1
R562	Metal Film	3.3 kohm 1/5 W J	C06003326P520	1

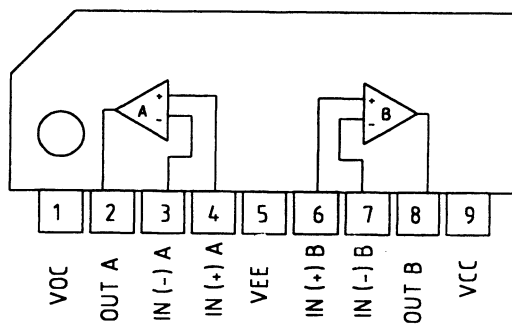
REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
R563	Carbon Film 47 kohm 1/5 W J	C00004736P520	1	
R564/R565	Carbon Film 7.5 kohm 1/5 W J	C00007526P520	2	
R566	Carbon Film 10 kohm 1/5 W J	C00001036P520	1	
R567	Carbon Film 15 kohm 1/5 W J	C00001536P520	1	
R568/R569	Carbon Film 150 kohm 1/5 W J	C00001546P520	2	
R570	Metal Film 3.3 kohm 1/5 W J	C06003326P520	1	
R571	Carbon Film 5.1 kohm 1/5 W J	C00005126P520	1	
R572	Metal Film 100 ohm 1/5 W J	C06001016P520	1	
R573	Carbon Film 1 Mohm 1/5 W J	C00001056P520	1	
R574	Carbon Film 120 kohm 1/5 W J	C00001246P520	1	
R575	Carbon Film 10 kohm 1/5 W J	C00001036P520	1	
R576	Metal Film 4.7 kohm 1/5 W J	C06004726P520	1	
R577	Carbon Film 6.8 kohm 1/5 W J	C00006826P520	1	
R578	Metal Film 3.9 kohm 1/5 W J	C06003926P520	1	
R579	Metal Film 680 ohm 1/5 W J	C06006816P520	1	
R580	Metal Film 33 ohm 1/5 W J	C06003306P520	1	
R581	Metal Film 4.7 kohm 1/5 W J	C06004726P520	1	
R582	Metal Film 470 ohm 1/5 W J	C06004716P520	1	
R583	Metal Film 1 kohm 1/5 W J	C06001026P520	1	
R584	Carbon Film 33 kohm 1/5 W J	C00003336P520	1	
R585	Metal Film 1 kohm 1/5 W J	C06001026P520	1	
R586	Carbon Film 330 kohm 1/5 W J	C00003346P520	1	
R587	Metal Film 1 kohm 1/5 W J	C06001026P520	1	
R588	Carbon Film 330 kohm 1/5 W J	C00003346P520	1	
R589	Carbon Film 1 Mohm 1/5 W J	C00001056P520	1	
R590	Metal Film 82 ohm 1/5 W J	C06008206P520	1	
R591/R592	Carbon Film 1 Mohm 1/5 W J	C00001056P520	2	
R593	Carbon Film 10 kohm 1/5 W J	C00001036P520	1	
R594	Carbon Film 12 kohm 1/5 W J	C00001236P520	1	
R595	Carbon Film 6.2 kohm 1/5 W J	C00006226P520	1	
R596	Carbon Film 100 kohm 1/5 W J	C00001046P520	1	
R597	Carbon Film 18 kohm 1/5 W J	C00001836P520	1	
R598	Metal Film 1 kohm 1/5 W J	C06001026P520	1	
R599	Carbon Film 10 kohm 1/5 W J	C00001036P520	1	
R600	Metal Film 470 ohm 1/5 W J	C06004716P520	1	
R601	Carbon Film 6.2 kohm 1/5 W J	C00006226P520	1	
R602/R603	Carbon Film 1 Mohm 1/5 W J	C00001056P520	2	
R604	Carbon Film 100 kohm 1/5 W J	C00001046P520	1	
R605	Metal Film 1 kohm 1/5 W J	C06001026P520	1	
R606	Metal Film 10 ohm 1/5 W J	C06001006P520	1	
R607	Metal Film 4.7 kohm 1/5 W J	C06004726P520	1	
R608	Metal Film 3.3 kohm 1/5 W J	C06003326P520	1	
R609	Carbon Film 10 kohm 1/5 W J	C00001036P520	1	
R610	Metal Film 4.7 kohm 1/5 W J	C06004726P520	1	
R611	Metal Film 10 ohm 1/5 W J	C06001006P520	1	
R612	Metal Film 1 kohm 1/5 W J	C06001026P520	1	
R613	Metal Film 4.7 kohm 1/5 W J	C06004726P520	1	
R614/R615	Carbon Film 5.1 kohm 1/5 W J	C00005126P520	2	
R616	Metal Film 3.3 kohm 1/5 W J	C06003326P520	1	
R617	Carbon Film 5.1 kohm 1/5 W J	C00005126P520	1	
R618	Metal Film 100 ohm 1/5 W J	C06001016P520	1	
R619	Carbon Film 10 kohm 1/5 W J	C00001036P520	1	
SEMI FIXED VAREABLE RESISTORS				
VR501-VR504	20K(B)-H	C541203115000	4	
VR505	500(B)-H	C541501115000	1	
VR506/VR507	20K(B)-H	C541203115000	2	
VR508	500(B)-H	C541501115000	1	
MISCELLANEOUS				
	Terminal ground	3790040696010	2	

IC'S FUNCTIONAL BLOCK DIAGRAM

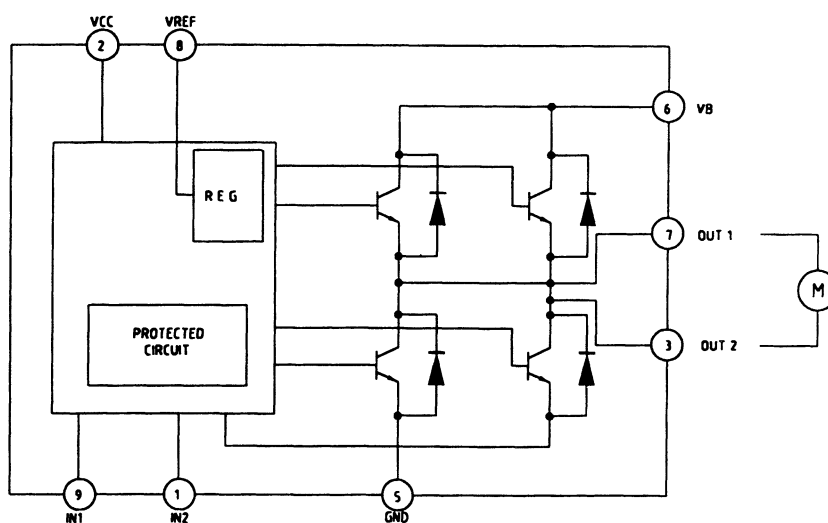
KA78 : IC108, IC109, IC110



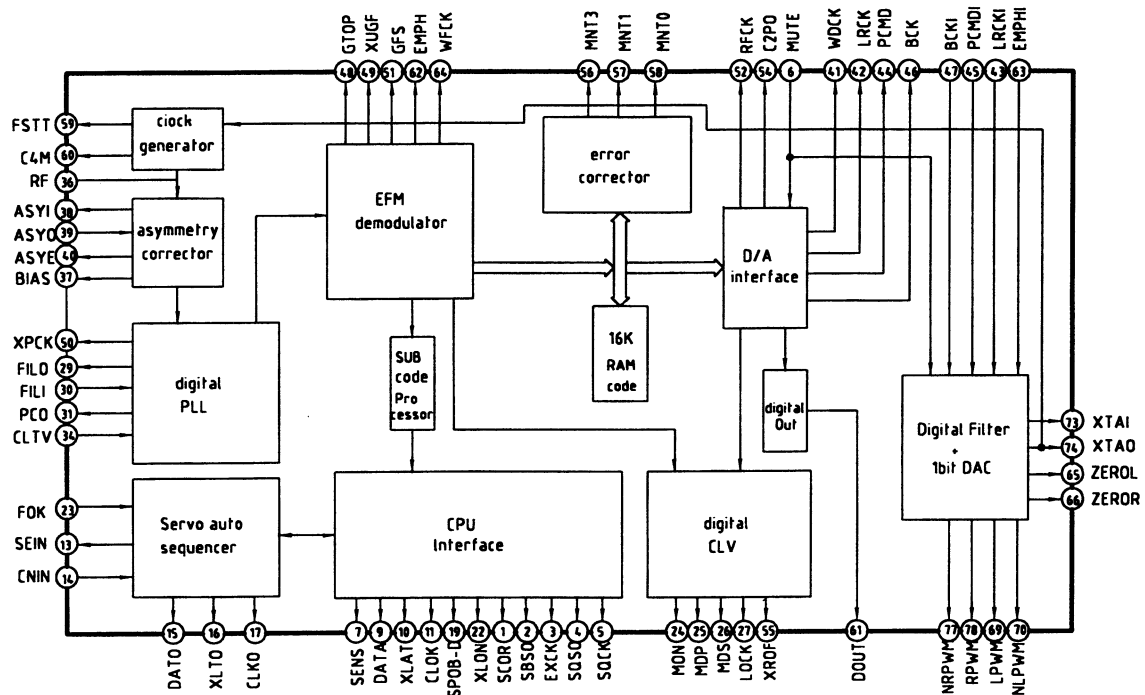
KIA 4559S : IC107



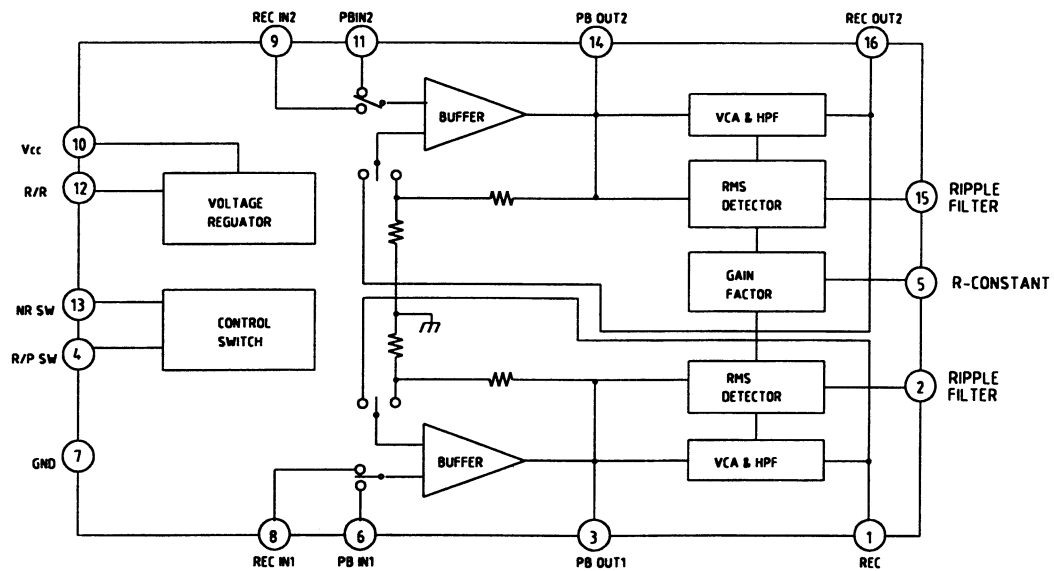
TA 7291S : IC105, IC106



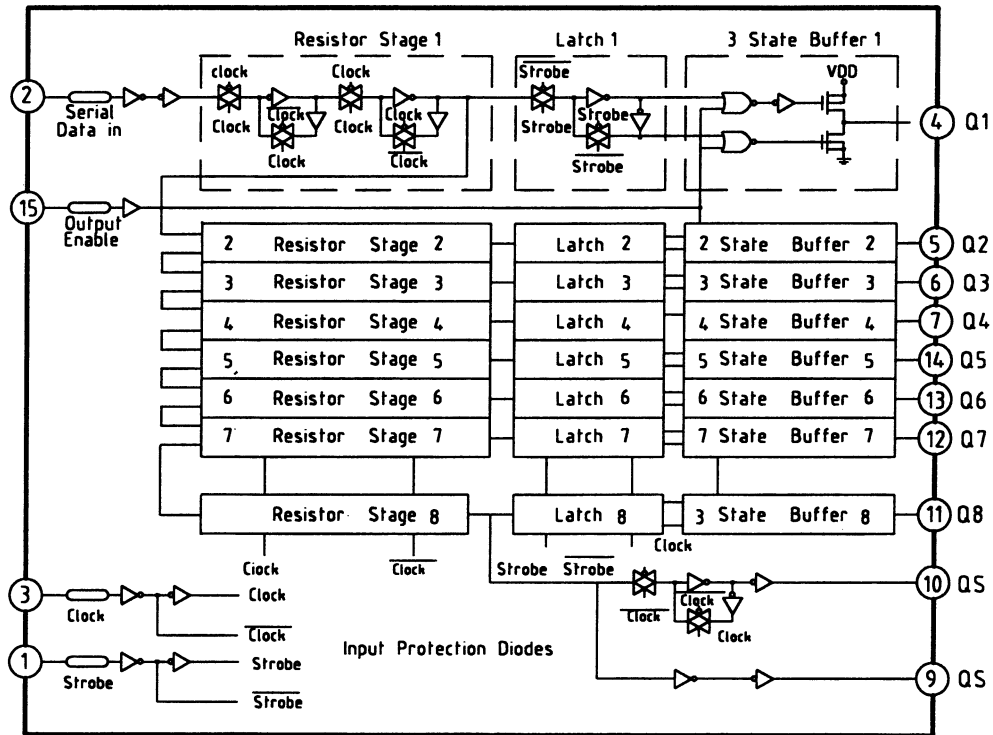
CXD 2508Q : IC102



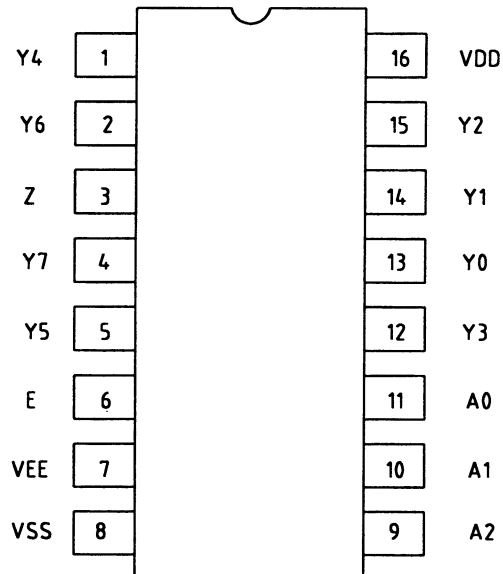
KA 22712 : IC501



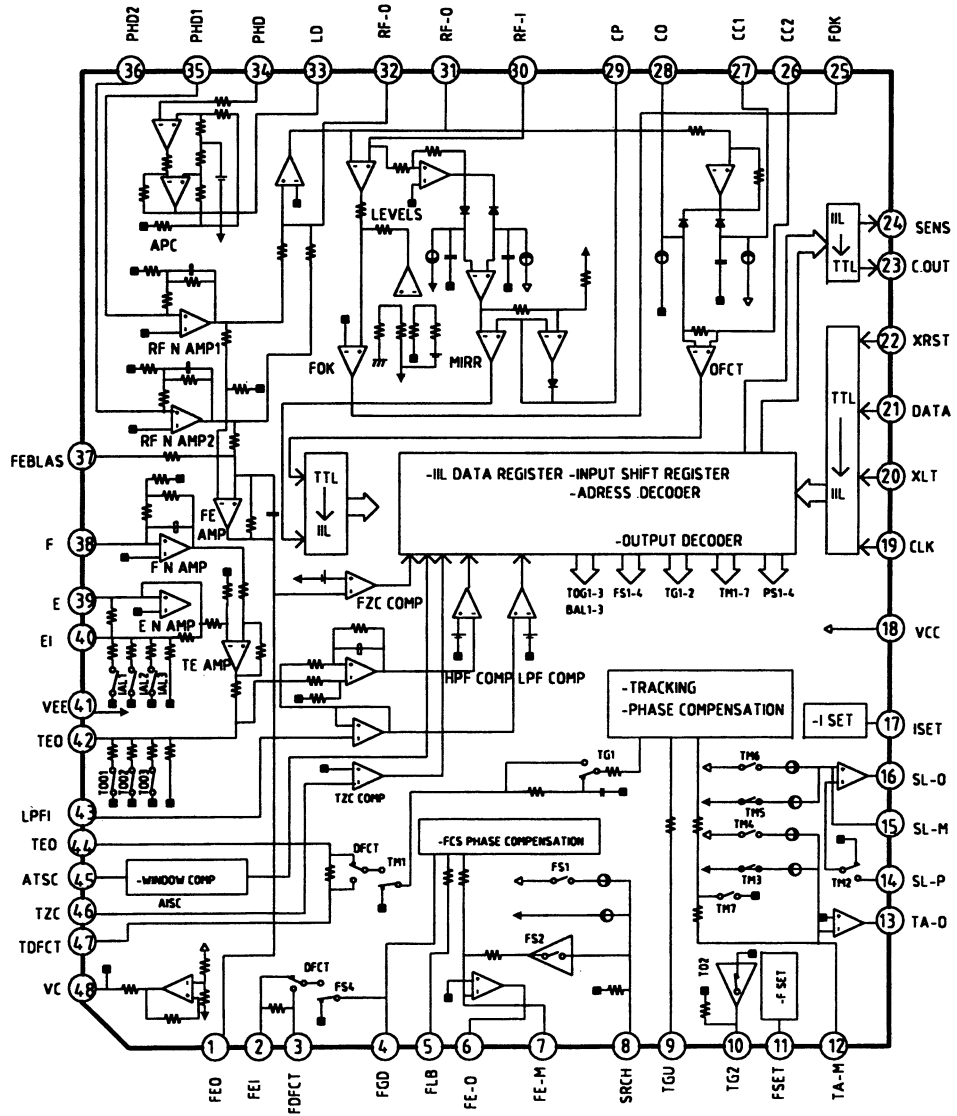
MC 14094BCP : IC201, IC202



GD 4051B : IC503

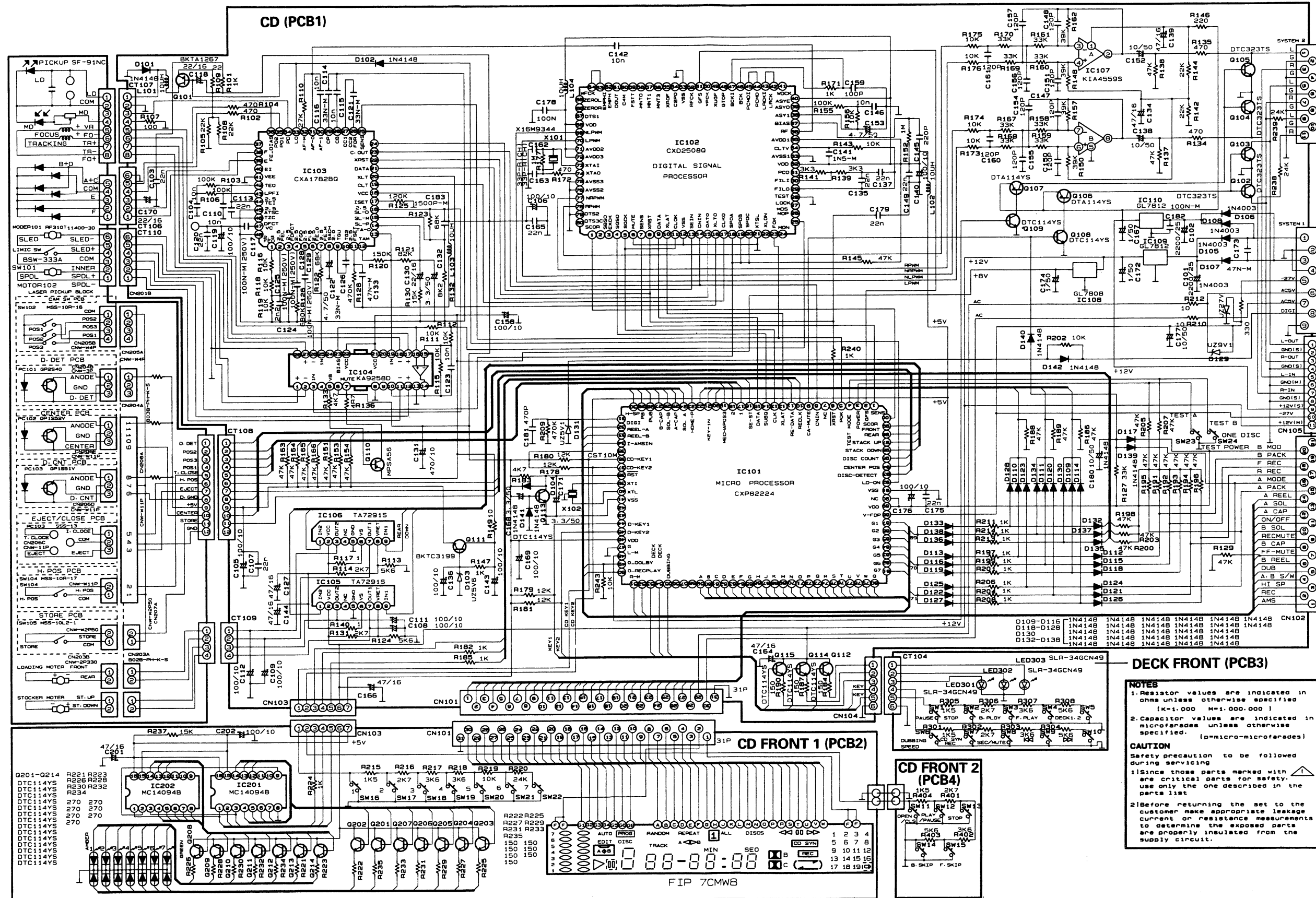


CXA 1782BQ : IC103



SCHEMATIC DIAGRAM (I)

Model No. : CCD-676



NOTES

1. Resistor values are indicated in ohms unless otherwise specified (K=1,000 M=1,000,000)
2. Capacitor values are indicated in microfarads unless otherwise specified. (p=micro-microfarads)

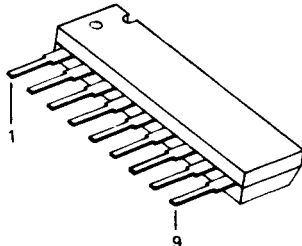
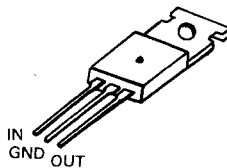
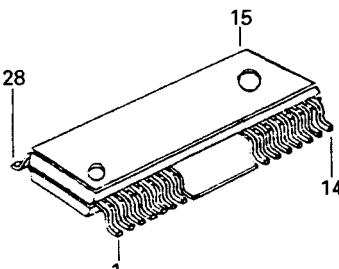
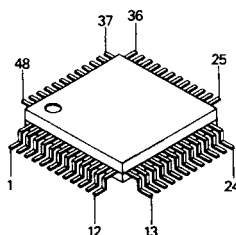
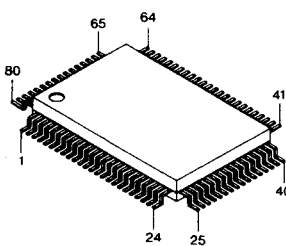
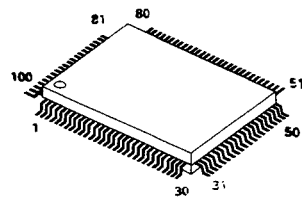
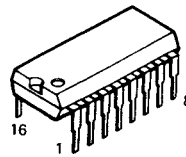
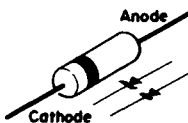
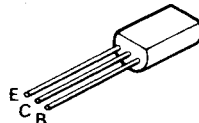
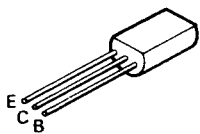
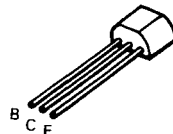
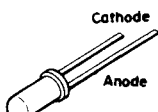
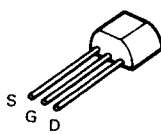
CAUTION

Safety precaution to be followed during servicing

1. Since those parts marked with are critical parts for safety, use only the one described in the parts list
2. Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

SHER-00437 / DRUCK: 22

PIN CONNECTION DIAGRAM OF IC'S, TRANSISTORS AND DIODES.

TA7291S KIA4559S/KIA7559S 	KA7808 KA7812 	KA9258D 	
CXA1782BQ KA22292Q 	CXD2508Q 	CXP82440 	
GD4051B KA22712 	ZENER IN4003 IN4148 	KTC3198/KTC1815 KTA1266/KTA1015Y KTC2240/BKTC3200 	MPSA56Y 
DTA114YS BKTC3199 DTC114YS BKTC1267Y DTC114TS DTA114TS DTC323TS 	SLR-34GCN49 	2SK117Y 	KTC2236A/KTC3205 