SERVICE MANUAL

NAD

SERVICE SAFETY PRECAUTIONS (UL)

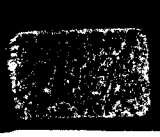
1. Use exact replacement parts for critical locations marked "⚠"
2. Return lead dress to original position and re-install protective covers.
3. Before returning to customer, test for shock hazard; use either mothod A or B:

A. Leakage test "cold":
   1. Unplug the AC cord; turn power switch ON.
   2. Connect one lead of High Voltage Insulation Tester to both prongs of the AC plug.
   3. Touch other lead to all exposed metal parts.
   4. Impedance measurement must be 0.3-5.0 Megohms.

B. Leakage test, "live" :
   1. Plug unit directly into the AC outlet: do not use isolation transformer.
   2. Connect one lead of the Leakage Current Tester to earth ground.
   3. Touch other lead to all exposed metal parts.
   4. Leakage measurement must be less than 0.5 milliamps.

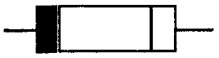
AV711 RECEIVER

AV711
RECEIVER



SERVICE SAFETY PRECAUTIONS

1. Replacing the fuses



This symbol located near the fuse indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating refer to the marking adjacent to the symbol.

Circuit No.	Part No.	Description
F901	5732-01101502	Fuse, 5A 125V/250V <AH>
	5732-01601252	Fuse, T2.5AL 125V/250V <C><B><B1>
F902	5732-01101202	Fuse, 2A 125V/250V <AH>
	5732-01601122	Fuse, T1.25A, 125V/250V <C><B><B1>
F903,F904	5732-01101802	Fuse, 8A 125V/250V <AH>
	5732-01601632	Fuse, T6.3AL 125V/250V <C><B><B1>

NOTE: <AH>: U.S.A., Canadian model only
<B>: U.K. model only
<B1>: Australian model only
<C>: European model only

2. Memory preservation

This unit does not require memory preservation batteries. A built-in memory power back-up system preserves contents of the memory during power failures and even when the unit is unplugged. The unit must be plugged in and the power switch turned on and off once in order to charge the back-up system. Note that since this is not a permanent memory the power switch must be turned on and off a few times each month to keep the back-up system operative. The period of time during which memory contents are preserved after power has last been turned off varies depending on climate and placement of the unit. On average, memory contents are protected over a period of 3 to 4 weeks (a minimum of 2 weeks) after the last time power has been turned off. This period is shorter when the unit is exposed to very high humidity or used in an area with an extremely humid climate.

3. Safety-check out

(Only U.S.A. model)
After correcting the original service problem perform the following safety check before releasing the set to the customer.
Connect the insulating-resistance tester between the plug of power supply cord and the screw on the back panel.
Specifications : 3.3 Mohm ± 10% at 500V.

TABLE OF CONTENTS

SPECIFICATIONS

POWER AMPLIFIER SECTION

Power Output into 8 Ω		
Stereo Mode		40 W
(Min. power per channel, 20Hz - 20kHz, both channels driven, with no more than rated distortion)		
Front L/R and Center Channels		40W
Rear Channels		20W + 20W
Dynamic power output (Front)	8 ohms:	60W
	4 ohms:	90W
Continuous Power output	8 ohms:	40W
	4 ohms:	40W
THD 20Hz - 20kHz		0.08 % (Front)
IM distortion		0.08% (Front)
Damping factor		60 at 8 Ω (Front)
Input sensitivity and Impedance		
	Line:	150 mV, 47 k ohms
	Video:	1Vp-p, 75 ohms
Output level and Impedance		
	Subwoofer:	1V, 2.2k ohms
	Video:	1Vp-p, 75 ohms
Frequency response 5Hz to 50kHz		±0.8dB
Tone control	Bass:	±8dB at 100Hz
	Treble:	±8dB at 10kHz
Signal/Noise ratio, A weighted		
	CD/Tape:	95 dB
Muting:		-60 dB

FM TUNER SECTION

Usable Sensitivity	Mono:	13.5 dBf, 1.3 μV
75 ohms IHF		
50dB Quieting Sensitivity	Mono:	18.2 dBf, 2.2 μV
75 Ω	Stereo:	38.2 dBf, 22 μV
Capture ratio		2.0 dB
Signal to Noise Ratio (IHF)	Mono:	73 dB
	Stereo:	67 dB
Altermate channel attenuation	Mono:	55 dB (IHF)
Selectivity DIN ±300kHz, 40kHz Devi.		50 dB
AM Suppresion ratio		50 dB
THD	Mono:	0.2%
	Stereo :	0.4%
Frequency Response 30-15kHz		±1.5dB
Stereo Separation		45 dB at 1kHz
		30 dB at 100-10kHz

AM TUNER SECTION

Usable Sensitivity	30 μV
Image rejection ratio	40 dB
IF rejection ratio	40 dB
Signal to Noise ratio (IHF)	40 dB
THD	0.7%

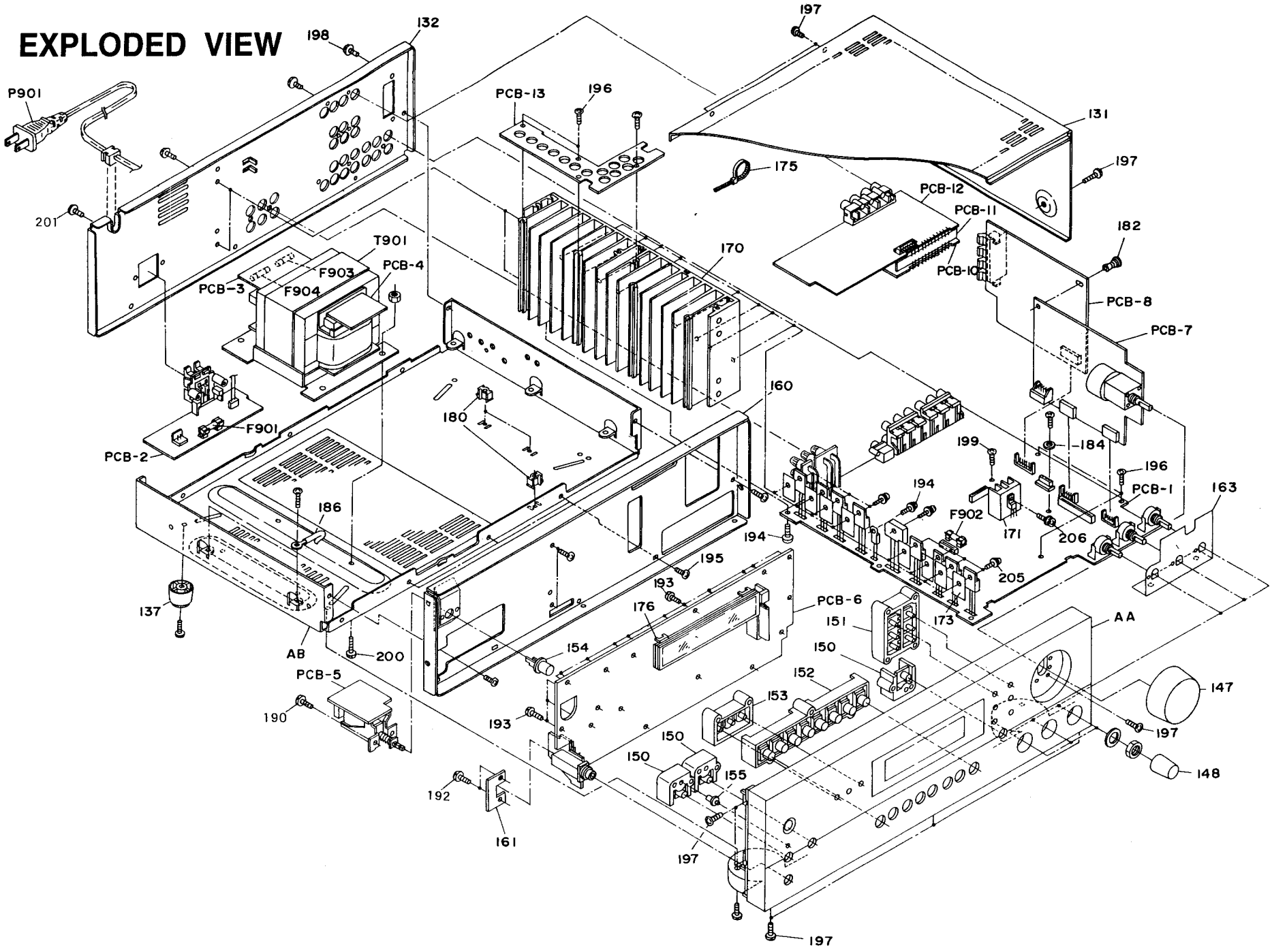
REMOTE CONTROL

Power, Master Volume Up/Down, Mute, Sleep, Surround Mode, Delay Time, Test Tone, Center Volume Up/Down, Rear Volume Up/Down, Input Selector (CD, Aux, Tuner, Tape 1, Tape 2, Video 1, Video 2)
Deck A/B: (Play, Reverse Play, Stop, Record/Pause, Fast Forward, Rewind)
CD: (Play, Pause, Stop, Disc, Skip Forward/Back)
Tuner: (Bank, Preset Up/Down)

PHYSICAL SPECIFICATION

Dimensions in mm (W x H x D)	435 x 147 x 331
Net weight	8.4 kg (18 lbs. 8 oz.)
Shipping weight	10.1 kg (22 lbs. 4 oz.)

EXPLODED VIEW



EXPLODED VIEW PARTS LIST

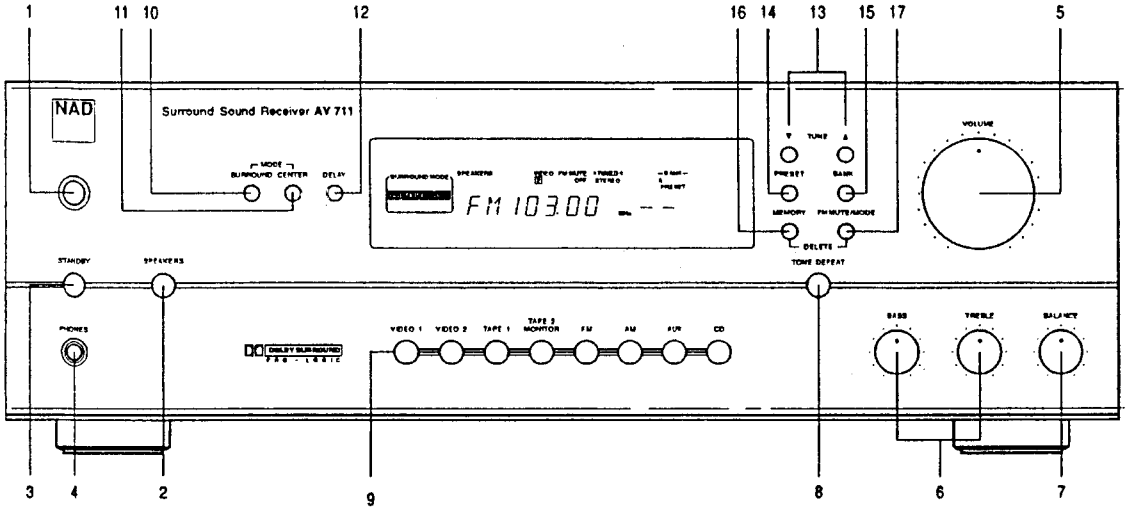
REF. NO.	PART NO.	DESCRIPTION
AA	A442-AV711A	Front Panel Ass'y
AB	A424-AV711A	Cabinet Bottom Ass'y
131	1414-18202	Cabinet Top Cover
132*AH	1424-39303	Cabinet Rear <AH>
132*CB	1424-39304	Cabinet Rear <C><B><B1>
137	1319-05801	Leg, base (x2)
147	1632-22801	Knob, Volume
148	1632-22702	Knob, Balance, Bass, Treble (x3)
150	1662-75701	Push Button, Standby, Speaker, Tone Defeat (x3)
151	1662-75801	Push Button, Tune
152	1662-75901	Push Button, Function
153	1662-76001	Push Button, Mode
154	1662-76101	Push Button, Power
155	1732-11001	Indicator, Power
160	2211-384	Front Panel Chassis
161	2219-8417	Bracket, H/P
163	2216-565	Shield Plate, Tone VR
170	2222-360	Heat Sink, Main Amp.
171	2222-7217	Heat Sink, Tr
173	2224-7134	Insulator (x8)
175	2240-R0101	Cable ties (x6)
176	2240-7370	Holder, FL Q702(x2)
180	2360-008	Special Boss, Bottom (x3)
182	2459-3004511	Plastic Rivet
184	2401-032	Metal Washer, GND
186	2218-R0230	Holding Bracket (x2)
190	2327-R0130064	Screw (+) (3x6 mm) (x2)
192	2347-R0126082	Self-Tapping Screw (+) (2.6x8 mm) (x2)
193	2347-R0126122	Self-Tapping Screw (+) (2.6x12 mm) (x18)
194	2347-R0130062	Self-Tapping Screw (+) (3x6 mm) (x4)
195	2347-R0130062	Self-Tapping Screw (+) (3x6 mm) (x10)
196	2347-R0130062	Self-Tapping Screw (+) (3x6 mm) (x6)
197	2347-R0130084	Self-Tapping Screw (+) (3x8 mm) (x19)
198	2347-R0130102	Self-Tapping Screw (+) (3x10 mm) (x20)
199	2347-R0130142	Self-Tapping Screw (+) (3x14 mm) (x3)
200	2347-R0140082	Self-Tapping Screw (+) (4x8 mm) (x4)
201	2347-R0130064	Self-Tapping Screw (+) (3x6 mm) (x3)
205	2557-F301426	Screw (+) (3x14 mm) (x9)
206	2557-301229	Screw (+) (3x12 mm)

REF. NO.	PART NO.	DESCRIPTION
⚠ P901*AH	4161-09401202	AC Cord w/Plug <AH>
⚠ P901*CB	4161-10201202	AC Cord w/Plug <C><B>
⚠ P901*B1	4161-12301202	AC Cord w/Plug <B1>
⚠ T901*AH	5584-T6302	Transformer, Power <AH>
⚠ T901*CB	5584-T6301	Transformer, Power <C><B><B1>
PCB-1*AH	D551-AV711A	Main Circuit P.C. Board <AH>
PCB-1*C	D551-AV711AA	Main Circuit P.C. Board <C>
PCB-1*B	D551-AV711AB	Main Circuit P.C. Board <B>
PCB-1*B1	D551-AV711AC	Main Circuit P.C. Board <B1>
PCB-2*AH	D551-AV711B	Power Supply P.C. Board <AH>
PCB-2*C	D551-AV711BA	Power Supply P.C. Board <C>
PCB-2*B	D551-AV711BB	Power Supply P.C. Board <B>
PCB-2*B1	D551-AV711BC	Power Supply P.C. Board <B1>
PCB-3*AH	D551-AV711C	Secondary P.C. Board <AH>
PCB-3*C	D551-AV711CA	Secondary P.C. Board <C>
PCB-3*B	D551-AV711CB	Secondary P.C. Board <B>
PCB-3*B1	D551-AV711CC	Secondary P.C. Board <B1>
PCB-4	D551-AV711D	Primary P.C. Board
PCB-5	D551-AV711E	Power Switch P.C. Board
PCB-6*AH	D551-AV711F	Front Circuit P.C. Board <AH>
PCB-6*C	D551-AV711FA	Front Circuit P.C. Board <C>
PCB-6*B	D551-AV711FB	Front Circuit P.C. Board <B>
PCB-6*B1	D551-AV711FC	Front Circuit P.C. Board <B1>
PCB-7	D551-AV711G	VR/Surround P.C. Board
PCB-8*AH	D551-AV711H	Tuner Circuit P.C. Board <AH>
PCB-8*C	D551-AV711HA	Tuner Circuit P.C. Board <C>
PCB-8*B	D551-AV711HB	Tuner Circuit P.C. Board <B>
PCB-8*B1	D551-AV711HC	Tuner Circuit P.C. Board <B1>
PCB-9	D551-AV711J	Headphones P.C. Board
PCB-10	D551-AV711K	Video-Audio Circuit P.C. Board
PCB-11	4551-10055020	Connecting P.C. Board (bare P.C.B.)
PCB-12	D551-AV711M	Video Ciruit P.C. Board
PCB-13	4551-10055040	Wire P.C. Board (bare P.C.B.)

NOTE: <AH> : U.S.A., Canadian model only
<B> : U.K. model only
<B1> : Australian model only
<C> : European model only

WARNING:TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE

FRONT PANEL CONTROLS

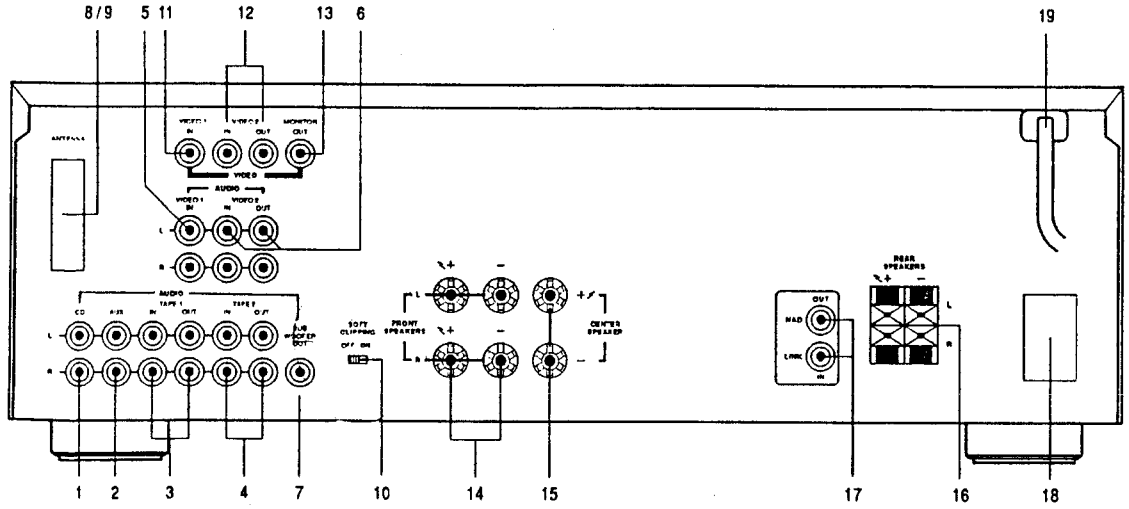


1. POWER
2. SPEAKERS
3. STANDBY
4. PHONES
5. VOLUME
6. BASS/TREBLE
7. BALANCE
8. TONE DEFEAT
9. FUNCTIONS
10. SURROUND MODE
11. CENTER MODE
12. DELAY
13. TUNE ▲AND▼
14. PRESET
15. BANK
16. MEMORY
17. FM MUTE/MODE

The lightning flash with arrowhead, within an equilateral triangle is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.

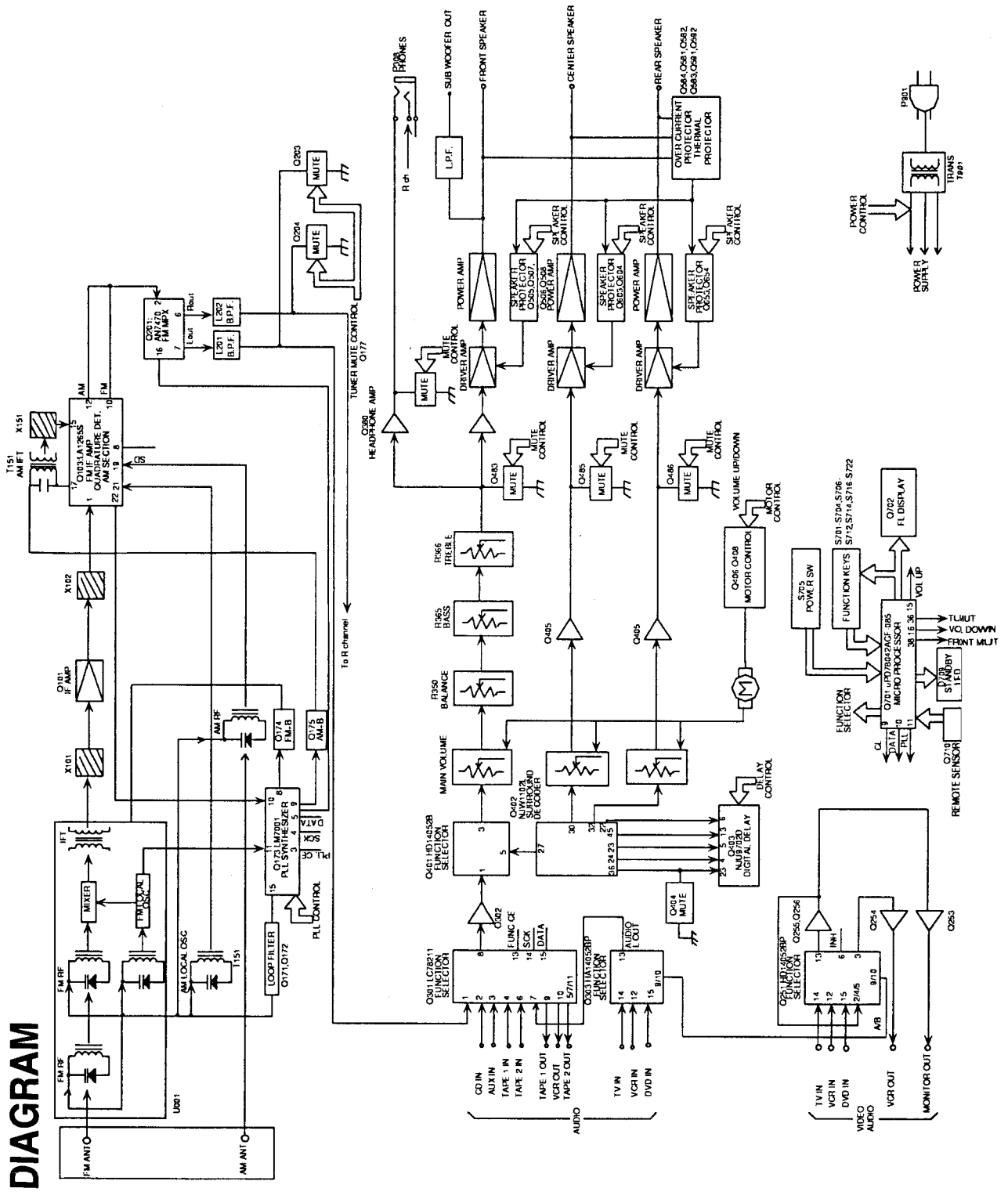
The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance

REAR PANEL CONNECTIONS

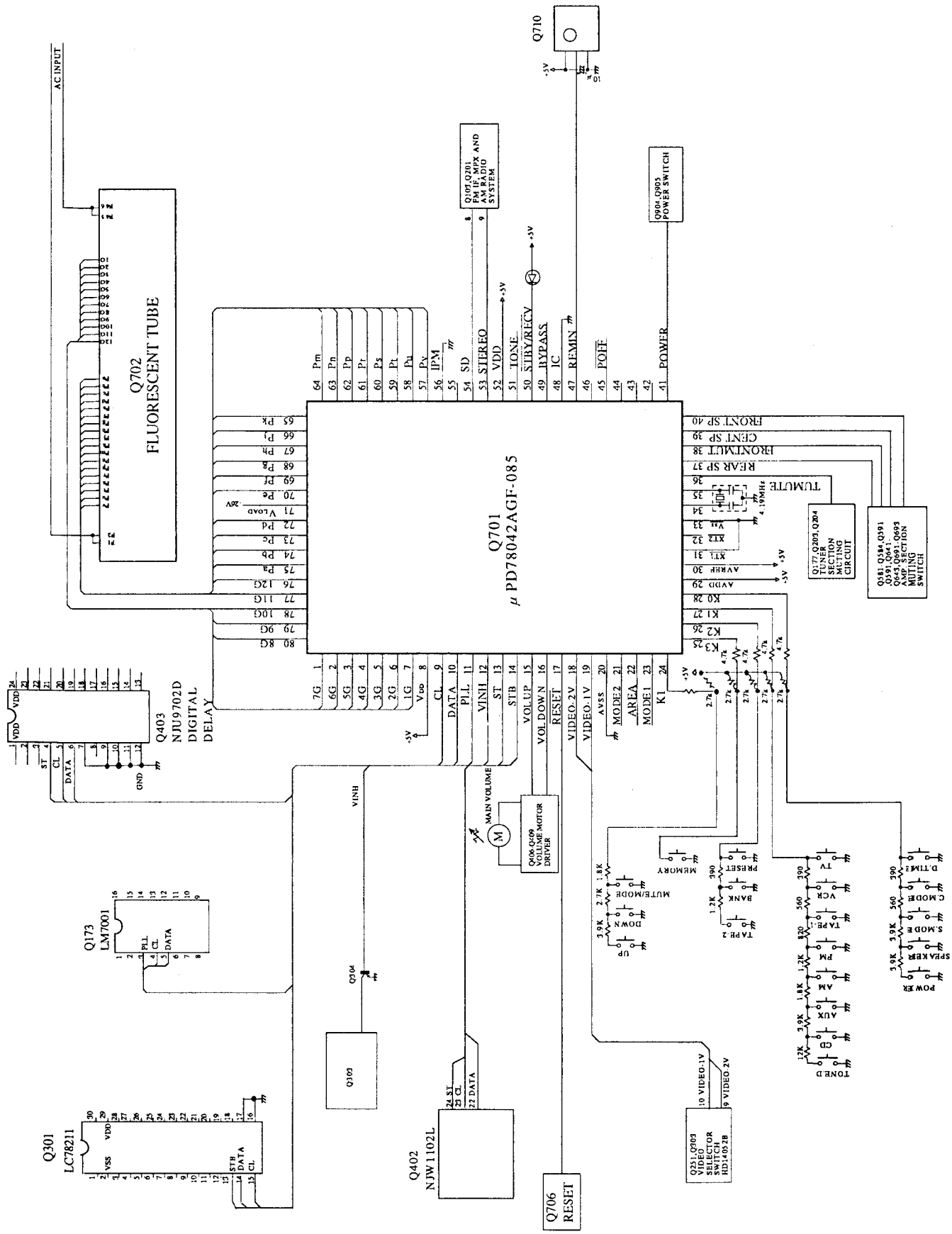


1. CD INPUT
2. AUX INPUT
3. TAPE 1 IN/OUT
4. TAPE 2 IN/OUT
5. VIDEO 1 IN (AUDIO)
6. VIDEO 2 IN/OUT (AUDIO)
7. SUB WOOFER OUT
8. AM ANTENNA
9. FM ANTENNA
10. SOFT CLIPPING
11. VIDEO 1 IN (VIDEO)
12. VIDEO 2 IN/OUT (VIDEO)
13. MONITOR OUT
14. FRONT SPEAKERS
15. CENTER SPEAKER
16. REAR SPEAKERS
17. NAD-LINK IN OUT
18. AC OUTLETS (US & CANADA VERSION ONLY)
19. AC POWER CORD CONNECTOR

BLOCK DIAGRAM



MICROPROCESSOR CONNECTION DIAGRAM



MICROPROCESSOR DESCRIPTIONS

Q701 : μPD78042AGF-085

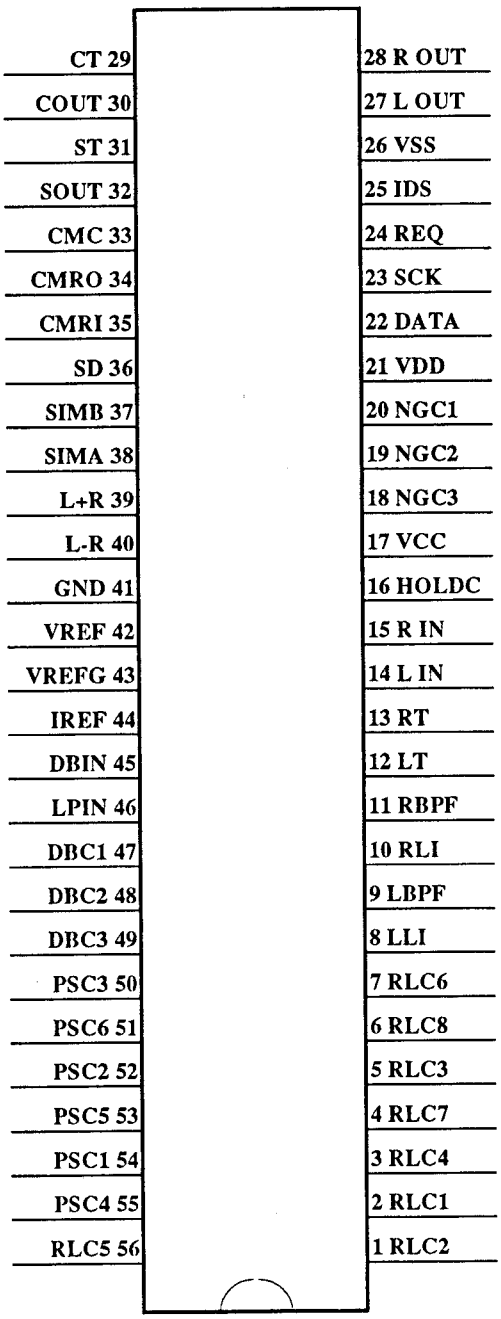
Pin No.	Function	I/O	Description
1~7	7G~1G	O	Grid control output pin. On at the high level.
8	VDD		Power supply pin (+5V)
9	CL	O	Clock output pin. Connects to the terminals CK of function switch Q301, Dolby Pro Logic Decorder Q402 and digital delay Q403.
10	DATA	O	Data output pin. Connects to the terminals DATA of function switch Q301, Dolby Pro Logic Decorder Q402 and digital delay Q403.
11	PLL	O	Chip enable output pin for PLL IC Q173.
12	DINH	O	Chip enable output pin for Q459.
13	ST	O	Chip enable output pin. Connects to the terminals ST of Dolby Pro Logic Decorder Q402 and digital delay Q403.
14	STB	O	Chip enable output pin for Q301 pin 13.
15	VOLUP	O	Volume control output pin. Volume up
16	VOLDOWN	O	Volume control output pin. Volume down (Refer table 1.)
17	RESET	I	System reset input pin
18	VIDEO-2V	O	Video input selector output pin.
19	VIDEO-1V	O	Video input selector output pin.
20	AVSS		Ground pin of A/D converter
21	MODE2	I	Initializing input of operation mode
22	AREA	I	Initializing input of area region
23	MODE1	I	Initializing input of operation mode
24	K4	I	Operation key connection pin
25	K3	I	Operation key connection pin
26	K2	I	Operation key connection pin
27	K1	I	Operation key connection pin
28	K0	I	Operation key connection pin
29	AVDD		Analogue power supply of A/D converter
30	AVREF		Reference voltage input pin of A/D converter
31	XT1	I	Crystal connection pin for sub system clock resonator
32	XT2	-	Not used.
33	VSS		Ground pin
34	X1	I	Resonator connection terminal for main system clock
35	X2	-	Connect the ceramic resonator 4.19MHz.
36	TUMUT	O	Muting output pin for tuner section.
37	REAR SP	O	Relay control pin for rear speaker.
38	FRONT MUT	O	Muting output pin for amplifier section
39	CENT SP	O	Relay control pin for center speaker.
40	FRNTSP	O	Relay control pin for front speaker
41	PW	O	Power source control output pin
42	NADOUT		Not used
43	NC		Not used
44	NC		Not used
45	POFF	I	Power stoppage detector input pin
46	NADIN		Not used
47	REMIN	I	Remote control signal input pin
48	IC		Internal connection pin. Connect to the ground terminal.
49	BY PASS	I	Detector input pin of protection circuit. H:On
50	STBY/RECV	O	Stand-by and received indicator output pin
51	TONED		Not used
52	VDD		Power supply pin (+5V)
53	STEREO	I	Detector input pin of FM stereo broadcast
54	SD	I	Detector input pin of broadcast more than muting level
55	NC		Not used
56	IPM	I	RF mode input pin. Local at low level.
57~70	Pv-Pe	O	Segment output pins. On at the high level.
71	VLOAD	I	Pull-down resistor connection pin of controller and driver of FL.
72~75	Pd~Pa	O	Segment output pins. On at the high level.
76~80	12G~8G	O	Grid control output pins. On at the high level.

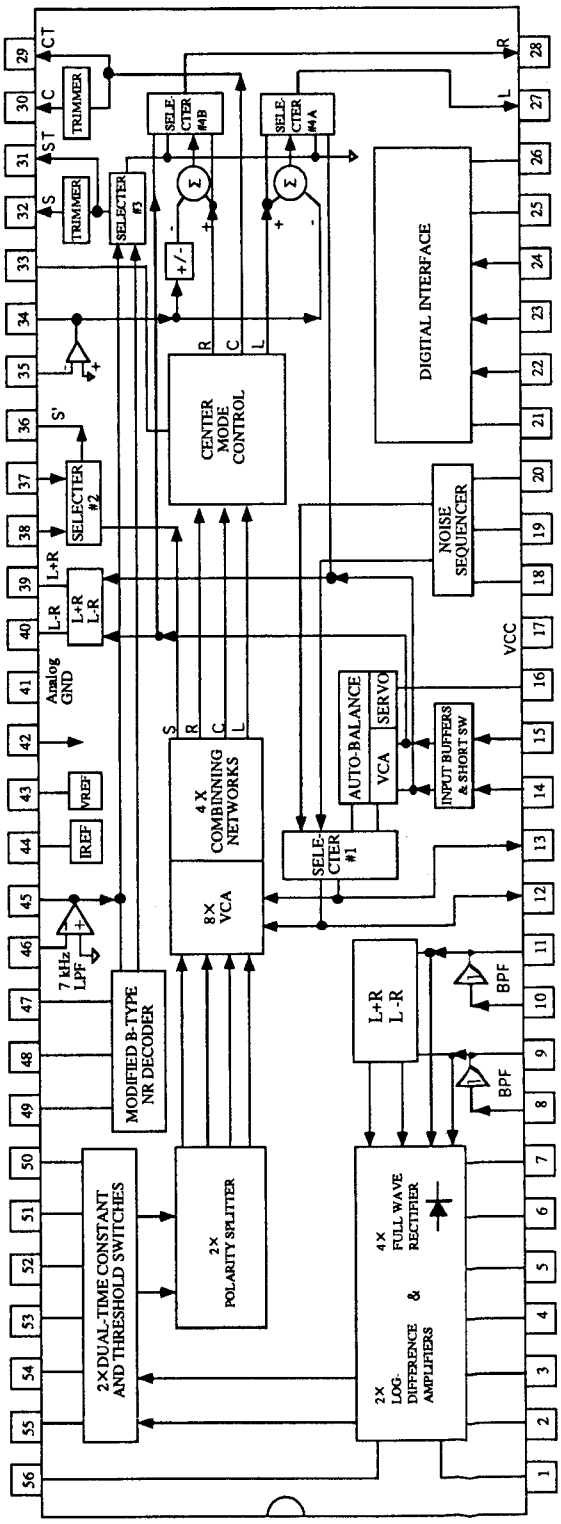
Operation	#15	#16
VOLUME UP	H	L
VOLUME DOWN	L	H
STOP	H	H

Table 1

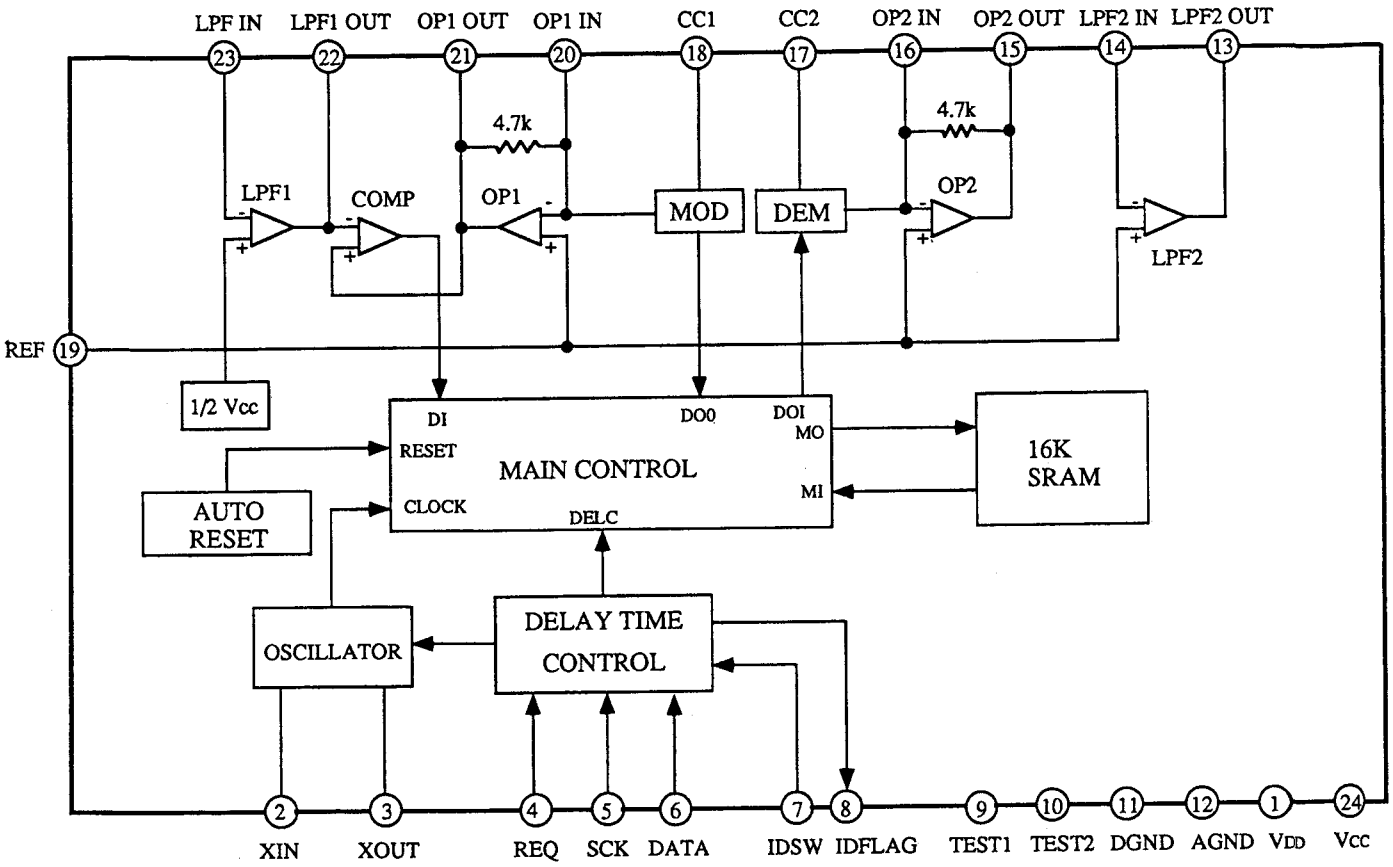
IC BLOCK DIAGRAMS AND DESCRIPTIONS

Q402 : NJW1102L (Dolby Pro Logic)



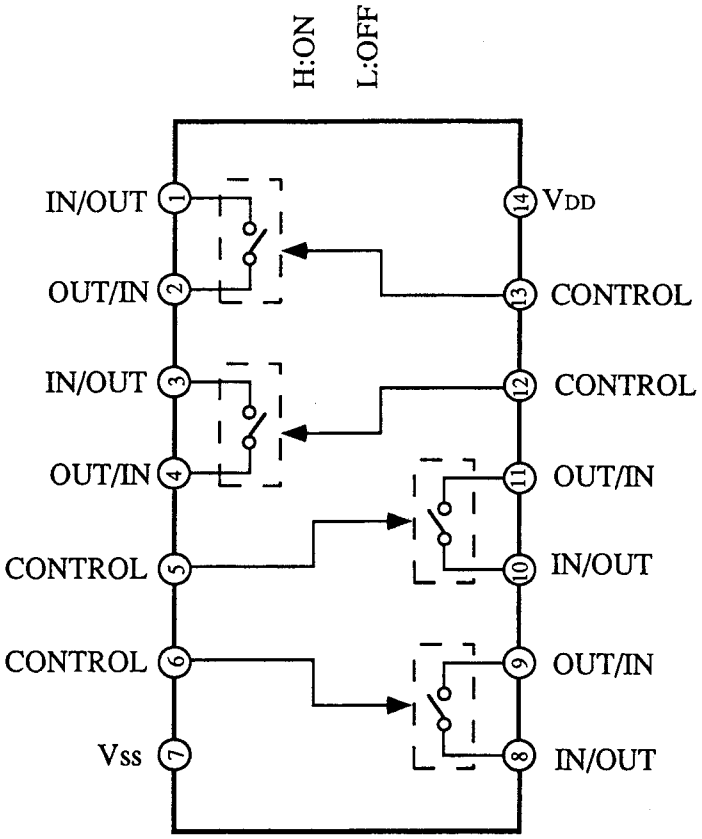


Q403 : NJU9702D (Digital Delay)



Pin No.	Mark	Function	I/O	Description
1	VDD	Digital power supply	-	
2	XIN	Resonator input	I	Connect the 2MHz ceramic resonator
3	XOUT	Resonator output	O	
4	REQ	Request	I	Data request input
5	SCK	Shift lock	I	Serial data shift clock input
6	DATA	Data	I	Serial data input
7	IDSW	ID switch	I	External input of 4th bit of ID code
8	IDFLAG	ID flag	O	Not used
9	TEST1	Test 1	-	Normal mode when low level
10	TEST2	Test 2	-	Normal mode when low level
11	D GND	Digital ground	-	
12	A GND	Analog ground	-	
13	LPF2 OUT	LPF filter 2 output	O	
14	LPF2 IN	LPF filter 2 input	I	
15	OP2 OUT	Operation amp. 2 output	O	
16	OP2 IN	Operation amp. 2 input	I	
17	CC2	Current control 2	-	Demodulation ADM control
18	CC1	Current control 1	-	Modulation ADM control
19	REF	Reference	-	Analog reference voltage = 1/2VCC
20	OP1 IN	Operation amp. 1 input	I	
21	OP1 OUT	Operation amp. 1 output	O	
22	LPF1 OUT	LPF filter 1 output	O	
23	LPF1 IN	LPF filter 1 input	I	
24	VCC	Analog power supply	-	

Q251, Q303 HD14052B (Analog Switch)

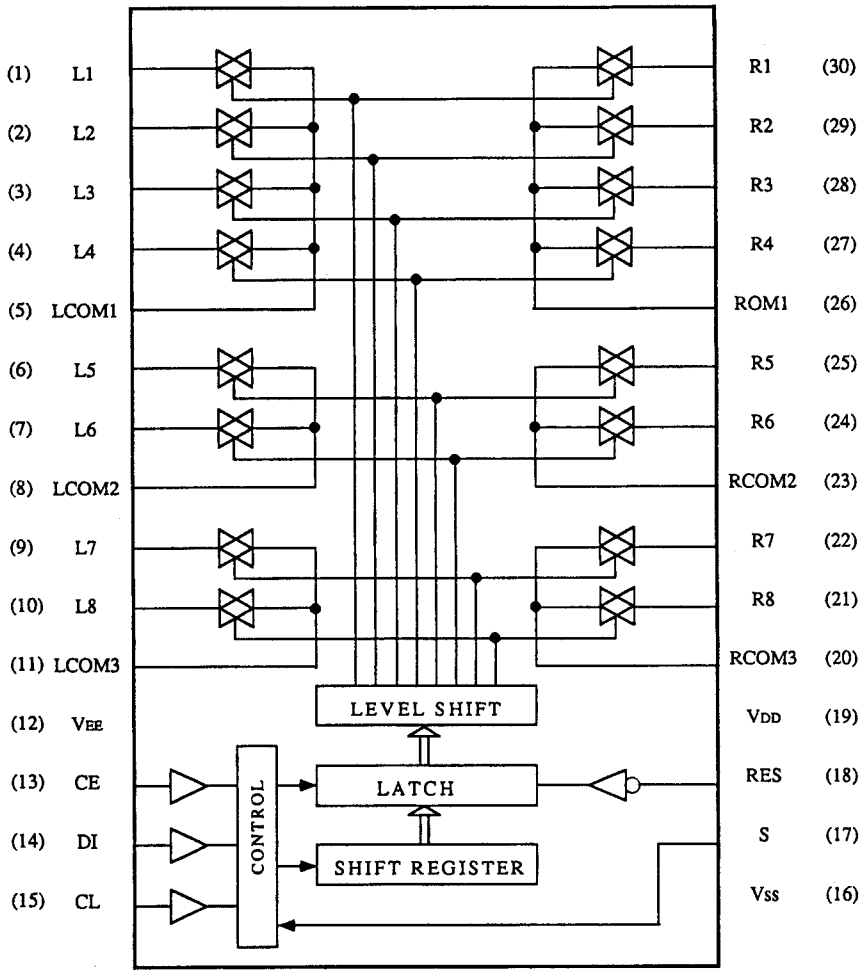


Q251, Q303 : HD14052B

Pin No.	Terminal	Description
1	Y0	Input/output terminals of audio signal of right channel. Control to the inside analogue switch at the terminals "A"&"B".
2	Y2	
3	Y	
4	Y1	
5	VCR1	
6	INHIBIT	Selector of active or inactive.(L)
7	VEE	Negative power supply terminal.(-12V)
8	VSS	Ground terminal.
9	B	Control for analogue switch.
10	A	
11	X	Input/output terminals of audio signal of left channel. Control to the inside analogue switch at the terminals "A"&"B".
12	X	
13	X	
14	X	
15	X	
16	VDD	Power supply terminal.(+12V)

A	B	VIDEO SOURCE OUT
L	L	None
H	L	VCR1
L	H	VCR2/LD
H	H	DSS

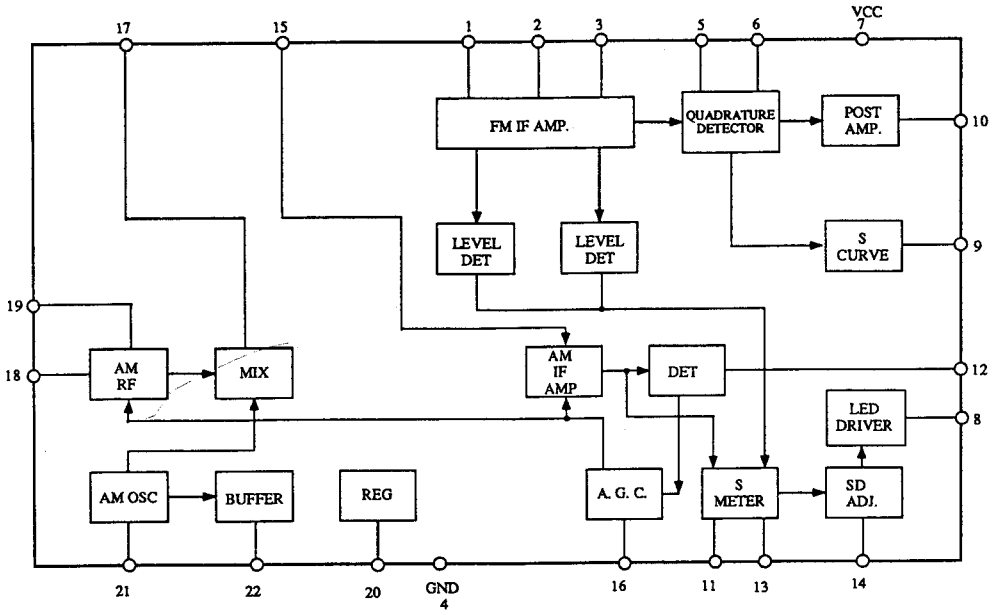
Q301 : LC78211 (Analog Switch)



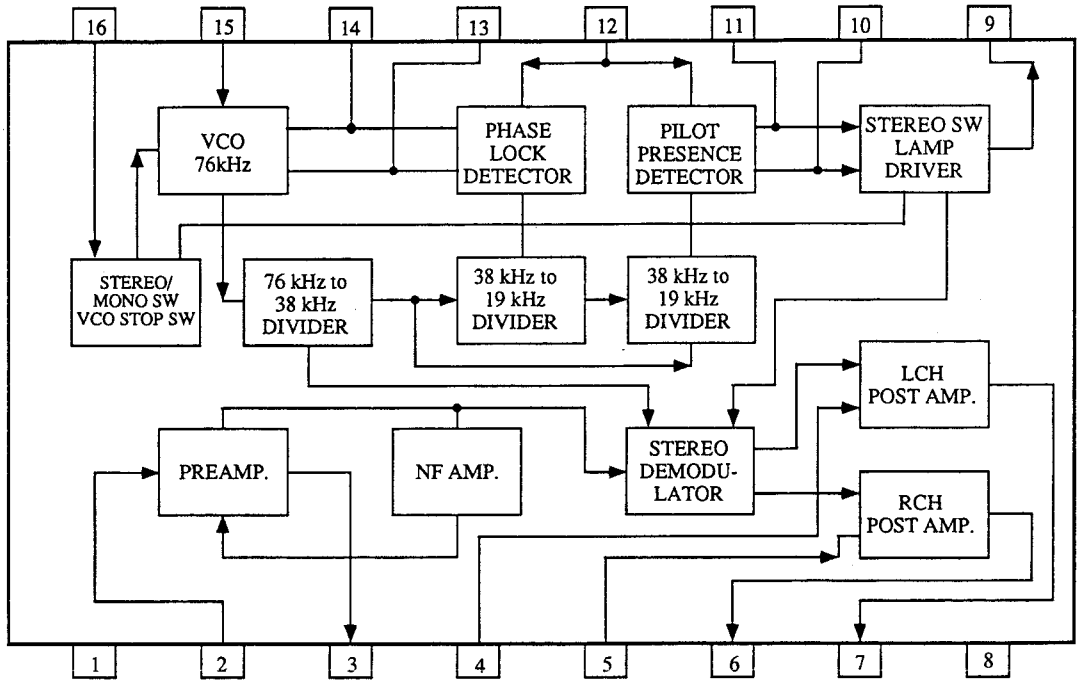
Q301: LC78211

Pin No.	Terminal	Description	Pin No.	Terminal	Description
1	L1	Input/output terminals of multi source of left channel. Control the analogue switch at the serial data.	16	VSS	Ground terminal
2	L2		17	S	Selector terminal
3	L3		18	RES	Reset terminal. When power is turned on, the condition of the analogue switch is not determined, but when this terminal is "L", all analogue switches are off.
4	L4				
5	LCOM1				
6	L5	Input/output terminals of TAPE-2 signal of left channel. Control the analogue switch at the serial data.			
7	L6				
8	LCOM2		19	VDD	Power supply terminal (+15V)
9	L7	Input/output terminals of audio signal of left channel. Control the analogue switch at the serial data.	20	RCOM3	Input/output terminals of audio signal of right channel. Control the analogue switch at the serial data.
10	L8		21	R8	
11	LCOM3		22	R7	
12	VEE	Negative power supply terminal (-15V)	23	RCOM2	Input/output terminals of TAPE-2 signal of right channel. Control the analogue switch at the serial data.
			24	R6	
13	CE	Chip enable terminal. Connect to the terminal FUNC of the microprocessor.	25	R5	
			26	RCOM1	Input/output terminals of multi source of right channel. Control the analogue switch at the serial data.
14	DI	Serial data input terminal. Connect to the terminal DATA of the microprocessor.	27	R4	
			28	R3	
15	CL	Serial clock input terminal. Connect to the terminal CL of the microprocessor.	29	R2	
			30	R1	

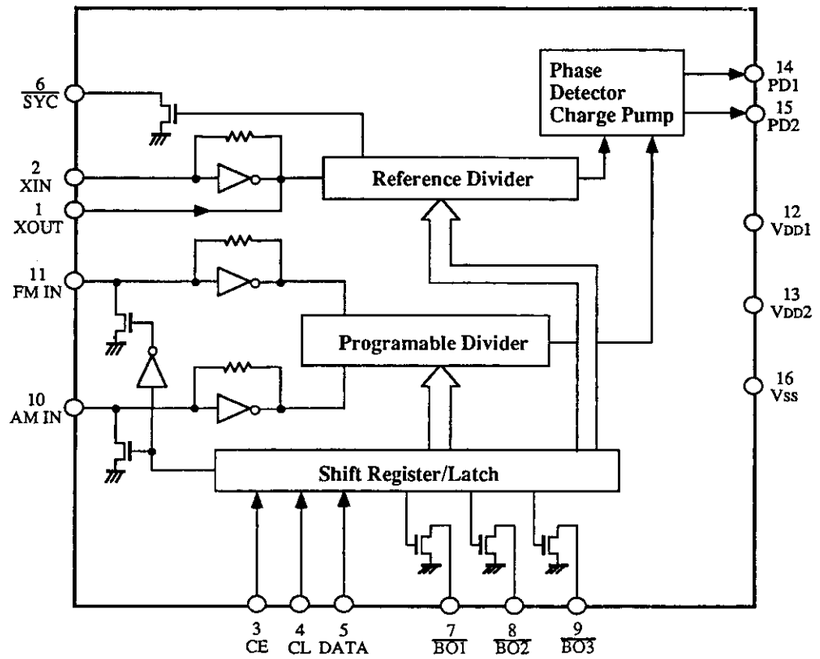
Q103 : LA1265S (AM, FM IF)



Q201 : AN7470 (FM MPX)



Q173 : LM7001 (PLL Frequency Synthesized LSI)



Pin No.	Terminal	Description
1	XOUT	Connect the 7.2MHz crystal resonator.
2	XIN	
3	CE	Chip enable terminal. Connect to the terminal PLL CE of microprocessor.
4	CL	Serial clock input terminal. Connect to the terminal PLL CL of microprocessor.
5	DATA	Serial data input terminal. Connect to the terminal PLL DATA of microprocessor.
6	$\overline{SYC}$	Not used.
7	$\overline{BO1}$	This is the output terminal for AUTO/MONO. 'L' when AUTO.
8	$\overline{BO2}$	Band selector output terminal.
9	$\overline{BO3}$	Band selector output terminal.
10	AMIN	AM local oscillator input terminal.
11	FMIN	FM local oscillator input terminal.
12	VDD1	Power source terminal for back-up.
13	VDD2	Power source terminal.
14	PD1	Not used.
15	PD2	Phase comparator output terminal
16	Vss	Ground terminal

ADJUSTMENT PROCEDURES

Preparation

1. Input

FM mono: 1 kHz, 75 kHz devi., 60 dB/μV
FM stereo: 1 kHz, 67.5 kHz devi., 60 dB/μV
Pilot signal :19 kHz (L+R=46%, L-R=46% 19kHz=8%), 75 kHz devi.
AM : 400Hz ,30% mod.

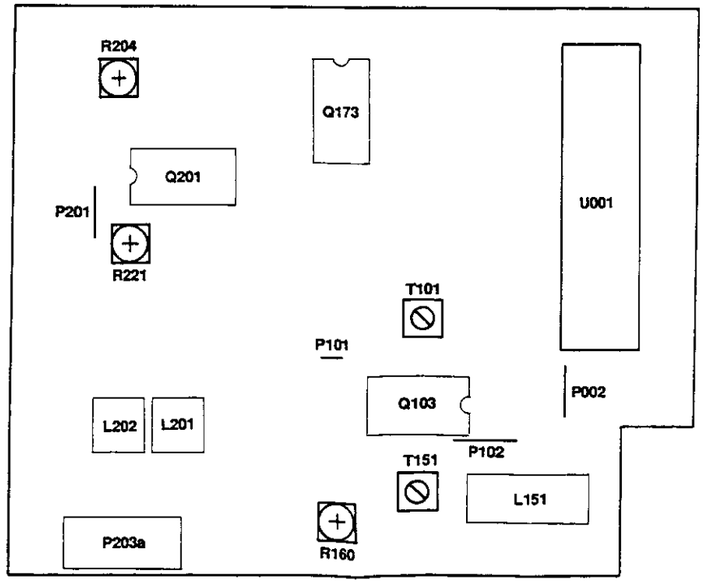
2. Outputs

Connect non-inductive type resistors of 6 ohms to the speaker terminals A unless otherwise noted.

3. Standard Knob Positions

Volume Control ..... Minimum
Bass Control Knob..... Center
Treble Control Knob ..... Center
Balance Control Knob ..... Center
Input SelectorButttons.....CD
Tape 2 Monitor .....Off
FM Mute .....Off
Speaker.....On
Center Mode Button.....Wide Band
Delay Time Button.....20 ms
Surround Mode Button .....Off

TEST POINT LOCATIONS



1.FM ADJUSTMENT

Item	Step	Connection of instruments	FM SG output	Stereo modulator output	Tuning frequency	Output indicator	Adjustment point	Adjust for	Remarks
FM IF/RF	1	Fig.1	99.1MHz 1kHz 75kHz devi. 65dBf(60dB)	——	99.1MHz	DC voltmeter	T101	0±30mV	FM MUTE/MODE switch:ON/AUTO Repeat steps 1 and 3 until no further adjustment is necessary.
	2					AC voltmeter	IFT on the front end	Min. Distort.	
MPX		Fig. 3	99.1MHz 1kHz 75kHz devi. 65dBf		99.1MHz	Frequency Counter	R204	19kHz±10Hz	
FM Stereo		Fig.2	99.1MHz Ext. mod.65dBf	Stereo	99.1MHz	AC voltmeter	R221	Adjust so that the left(or right) channel output becomes minimum when only the right (or left) channel of the Stereo modulator is modulated.	
Stereo Ind. Sens.		Fig.2	99.1MHz 30dBf	Stereo	99.1MHz		R160	Stereo indicator turns on	

2.AM ADJUSTMENT

<AH>

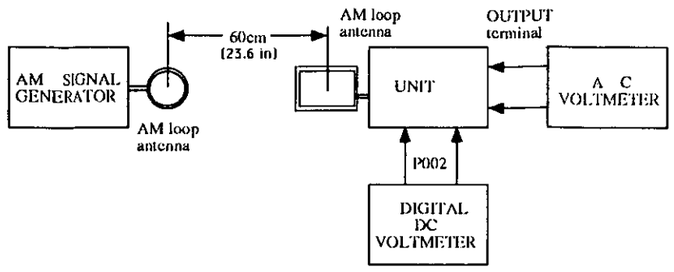
Step	AM SG output	Tuning Frequency	Output Indicator	Adjustment point	Adjust for
1		530kHz	Digital DC voltmeter	OSC coil on RF block L151	1.2±0.2V
2	600kHz 400Hz 30% mod. 60dB/m	600kHz	AC voltmeter	RF coil on RF block L151	Maximum
3	990kHz 400Hz 30% mod. 55dB μ/m	990kHz	AC voltmeter	T151	Maximum

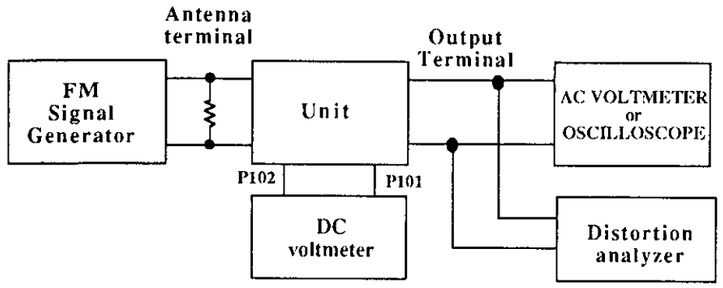
Reference Specification
FM tuning voltage : 87.9MHz～107.9MHz
More than 1.3V～less than 10.0V
AM tuning voltage : 530kHz～1710kHz
1.2V±0.2V～less than 9.0V

<B×B1×C>

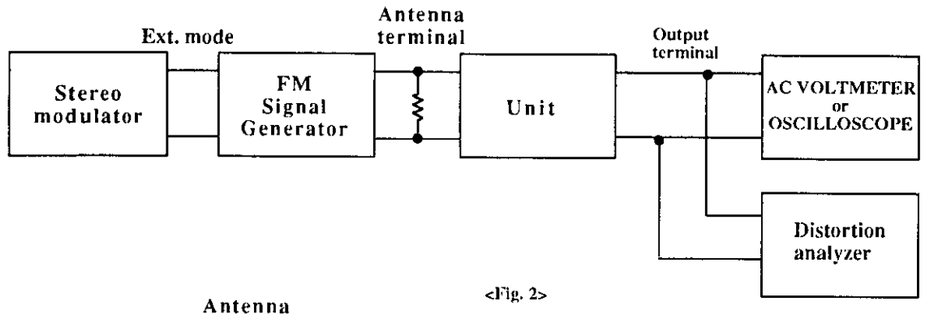
Step	AM SG output	Tuning Frequency	Output Indicator	Adjustment point	Adjust for
1		522kHz	Digital DC voltmeter	OSC coil on RF block L151	1.2±0.2V
2	603kHz 400Hz 30% mod. 60dB/m	603kHz	AC voltmeter	RF coil on RF block L151	Maximum
3	999kHz 400Hz 30% mod. 55dB μ/m	999kHz	AC voltmeter	T151	Maximum

Reference Specification
FM tuning voltage : 87.5MHz～108.0MHz
More than 1.3V～less than 10.0V
AM tuning voltage : 522kHz～1611kHz
1.2V±0.2V～less than 9.0V

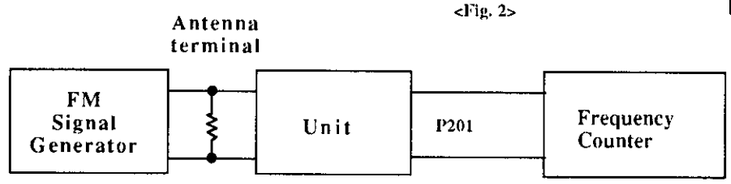




<Fig. 1>



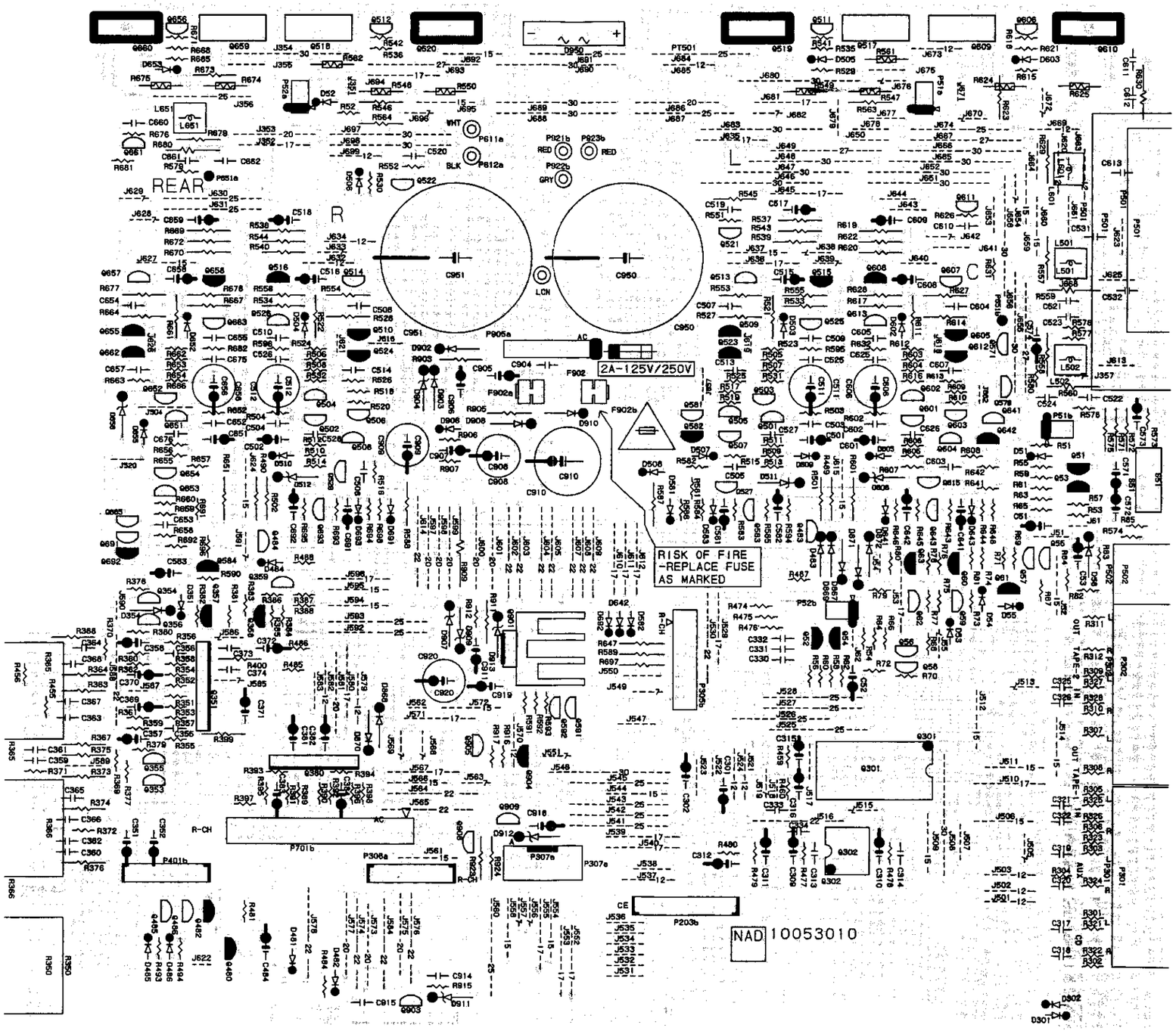
<Fig. 2>



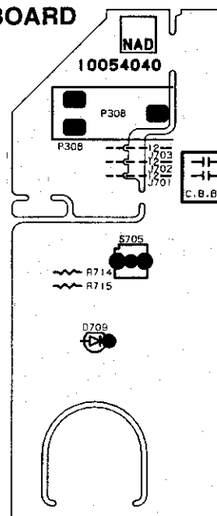
<Fig. 3>

PRINTED CIRCUIT BOARD VIEW

PCB-1 MAIN P.C. BOARD

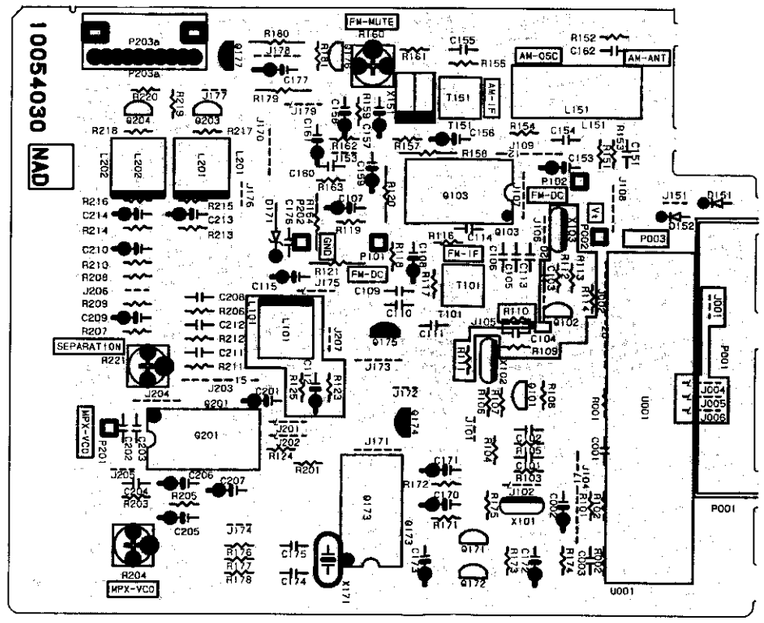


PCB-9
HEADPHONES
P.C. BOARD

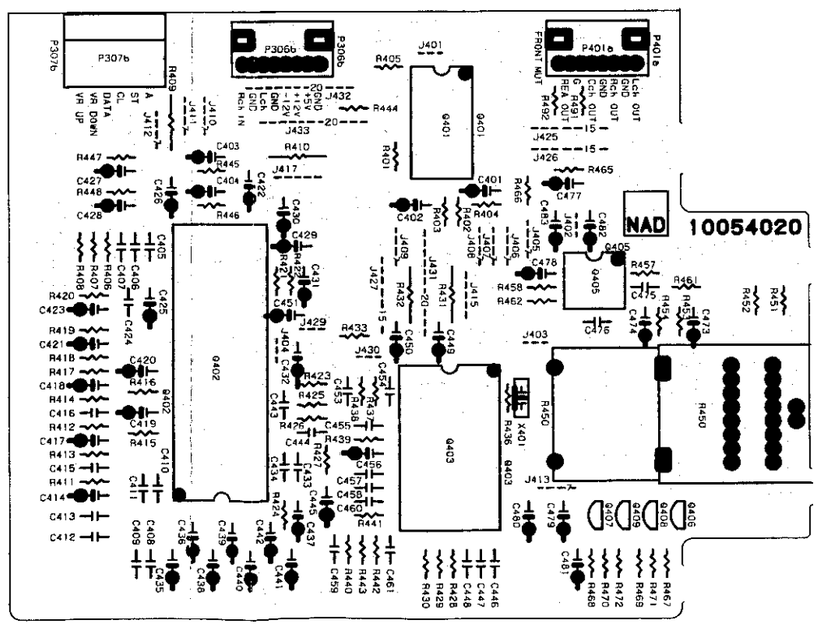


PCB-6 FRONT P.C. BOARD

PCB-8 TUNER P.C. BOARD



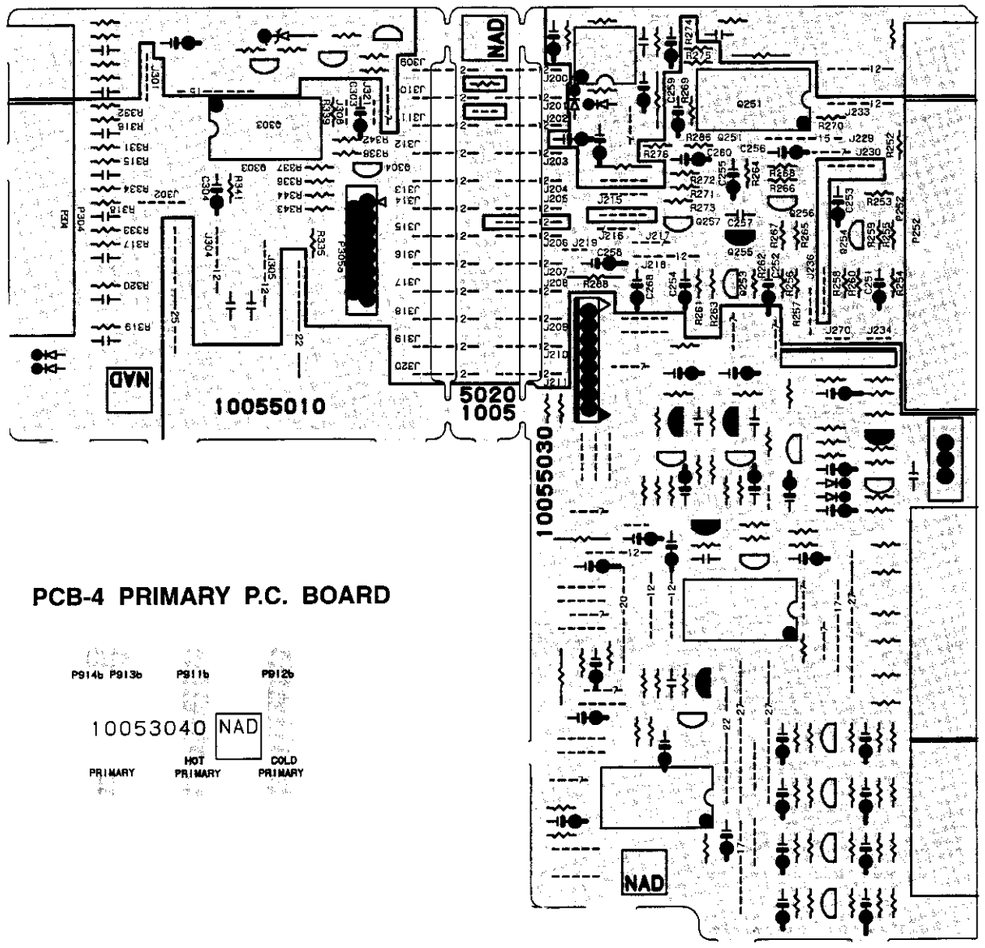
PCB-7 VR / SURROUND P.C. BOARD



PCB-10 VIDEO-AUDIO P.C. BOARD

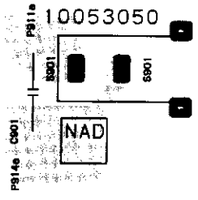
PCB-11
CONNECTOR
P.C. BOARD

PCB-12 VIDEO P.C. BOARD

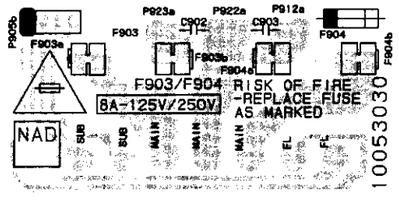


PCB-4 PRIMARY P.C. BOARD

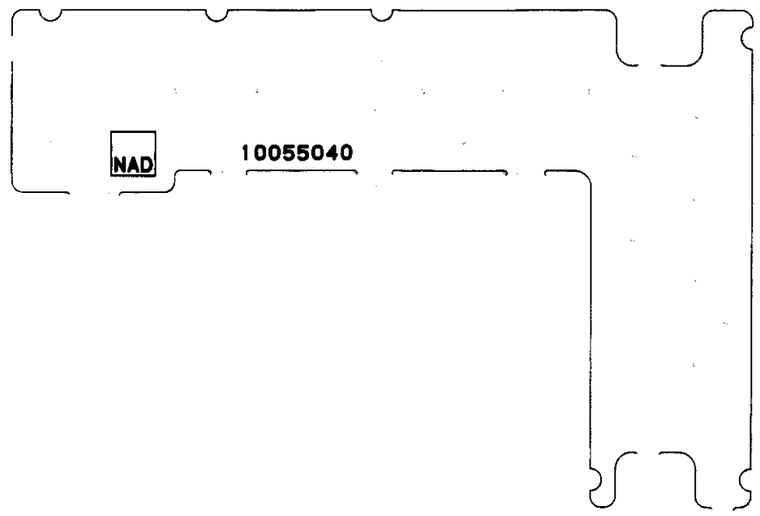
PCB-5 POWER SWITCH
P.C. BOARD



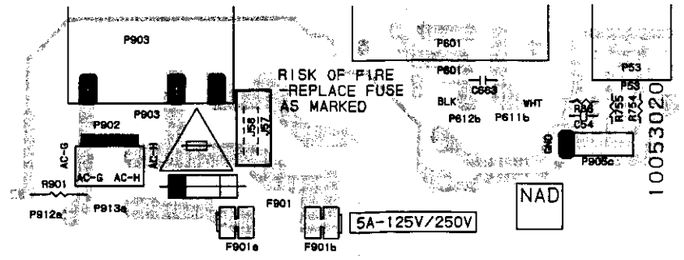
PCB-3 SECONDARY P.C. BOARD



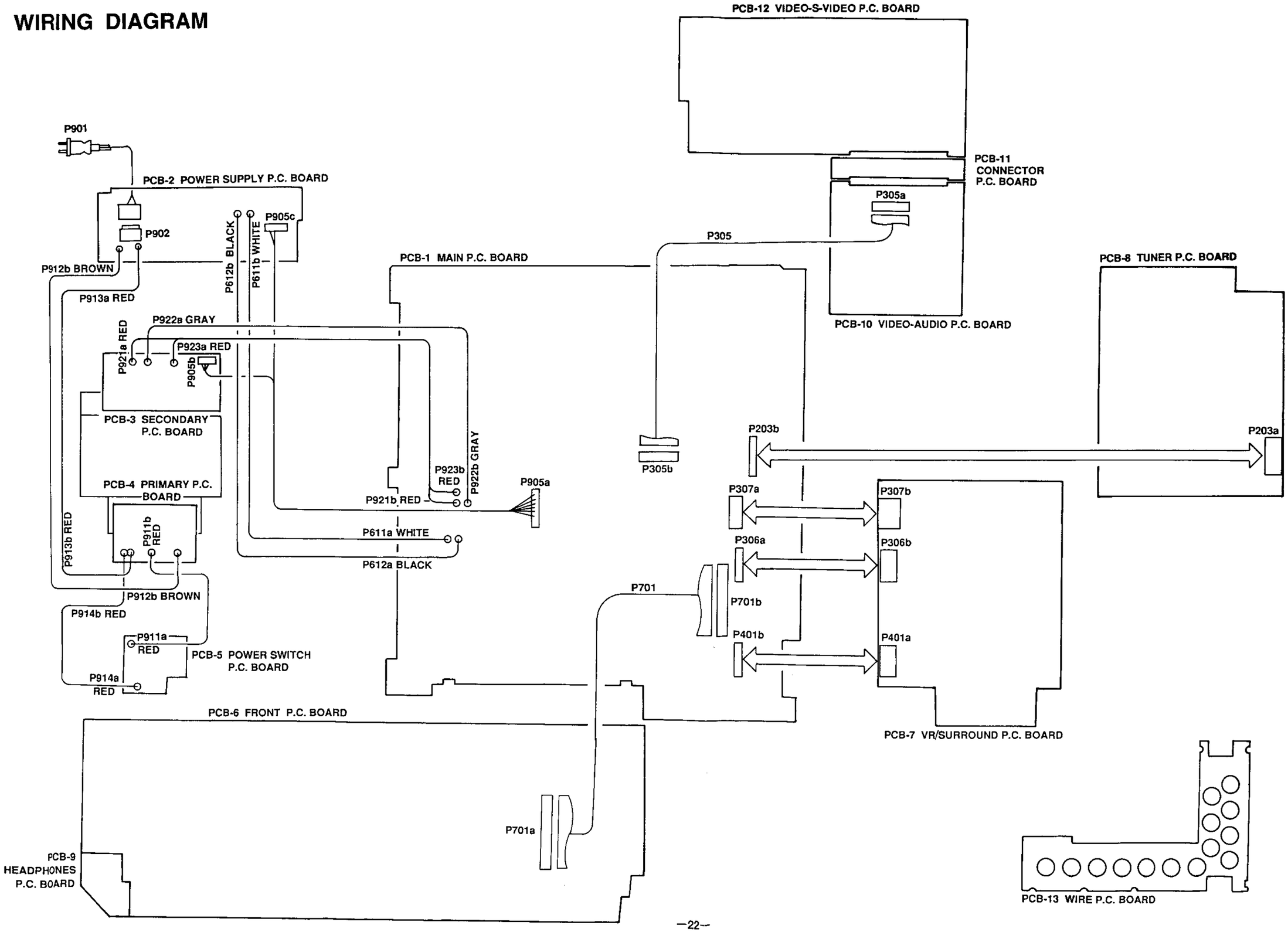
PCB-13 WIRE P.C. BOARD



PCB-2 POWER SUPPLY P.C. BOARD



WIRING DIAGRAM



ELECTRICAL PARTS LIST

PCB-1 MAIN CIRCUIT PC BOARD

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q301	5654-LC78211	LC78211
Q302	5653-HA17458G	HA17458GS
Q351	5653-NJ4558L	NJ4558L
Q380	5653-NJ4556AL	NJ4556AL
	TRANSISTORS	
Q51-Q54	5611-933(R)	2SA933(R)
Q55-Q59	5613-1740(R)	2SC1740(R)
Q60,Q61	5611-933(R)	2SA933(R)
Q62	5613-1740(R)	2SC1740(R)
Q63	5611-933(R)	2SA933(R)
Q353-Q356	5616-2SK246BL	FET, 2SK246BL
Q357,Q358	5611-933(R)	2SA933(R)
Q359	5613-1740(R)	2SC1740(R)
Q480	5611-933(R)	2SA933(R)
Q482	5611-A124ES	DTA124ES
Q483-Q486	5614-655(E)	2SD655(E)
Q501-Q504	5613-1775(F)	2SC1775(F)
Q505-Q508	5613-1815(GR)	2SC1815(GR)
Q509,Q510	5612-646A(C)	2SB646A(C)
Q511,Q512	5614-666A(C)	2SD666A(C)
Q513,Q514	5614-667A(C)	2SD667A(C)
Q515,Q516	5612-647A(C)	2SB647A(C)
Q517,Q518	⚠ 5614-1047(E)	2SD1047(E)
Q519,Q520	⚠ 5612-817(E)	2SB817(E)
Q521,Q522	5613-1775A(E)	2SC1775A(E)
Q523,Q524	5611-872A(E)	2SA872A(E)
Q525,Q526	5614-666A(C)	2SD666A(C)
Q527,Q528	5614-666A(C)	2SD666A(C) <C><B><B1>
Q570,Q571	5613-1815(GR)	2SC1815(GR) <C><B><B1>
Q581	5613-1815(GR)	2SC1815(GR)
Q582	5611-872A(E)	2SA872A(E)
Q583	5613-1740(R)	2SC1740(R)
Q584	5611-872A(E)	2SA872A(E)
Q591,Q592	5613-1740(R)	2SC1740(R)
Q601,Q602	5613-1775(F)	2SC1775(F)
Q603,Q604	5613-1815(GR)	2SC1815(GR)
Q605	5612-646A(C)	2SB646A(C)
Q606	5614-666A(C)	2SD666A(C)
Q607	5614-667A(C)	2SD667A(C)
Q608	5612-647A(C)	2SB647A(C)
Q609	⚠ 5614-1047(E)	2SD1047(E)
Q610	⚠ 5612-817(E)	2SB817(E)
Q611	5613-1775A(E)	2SC1775A(E)
Q612	5611-872A(E)	2SA872A(E)
Q613	5614-666A(C)	2SD666A(C)
Q615	5614-666A(C)	2SD666A(C) <C><B><B1>
Q641	5613-1815(GR)	2SC1815(GR)
Q642	5611-872A(E)	2SA872A(E)
Q643	5613-1740(R)	2SC1740(R)
Q651,Q652	5613-1775(F)	2SC1775(F)
Q653,Q654	5613-1815(GR)	2SC1815(GR)
Q655	5612-646A(C)	2SB646A(C)
Q656	5614-666A(C)	2SD666A(C)
Q657	5614-667A(C)	2SD667A(C)
Q658	5612-647A(C)	2SB647A(C)
Q659	⚠ 5614-1047(E)	2SD1047(E)
Q660	⚠ 5612-817(E)	2SB817(E)
Q661	5613-1775A(E)	2SC1775A(E)
Q662	5611-872A(E)	2SA872A(E)
Q663	5614-666A(C)	2SD666A(C)
Q665	5614-666A(C)	2SD666A(C) <C><B><B1>
Q691	5613-1815(GR)	2SC1815(GR)
Q692	5611-872A(E)	2SA872A(E)
Q693	5613-1740(R)	2SC1740(R)
Q901	⚠ 5614-1406(Y)	2SD1406(Y)
Q903*AH	5613-1815(GR)	2SC1815J(GR) <AH>
Q903*CB	5614-1406(Y)	2SD1406(Y) <C><B><B1>
Q904	5612-562(C)	2SB562(C)
Q905	5613-C114TS	DTC114TS
Q908	5614-468(C)	2SD468(C)
Q909	5613-1740(R)	2SC1740(R)
	DIODES	
D51-D55	5636-1SS133	1SS133
D56	5635-HZ5C2	Zener, HZ5C2
D301,D302	5636-1SS133	1SS133
D351	5636-1SS133	1SS133
D354	5636-1S2473	1S2473

CIRCUIT NO.	PART NO.	DESCRIPTION
D481,D482	5636-1SS133	1SS133
D483	5636-1S2473	1S2473
D484-D486	5636-1SS133	1SS133
D503-D508	5636-1SS133	1SS133
D511,D512	5635-HZ6C3	Zener, HZ6C3 <C><B><B1>
D581-D583	5636-1SS133	1SS133
D602,D603	5636-1SS133	1SS133
D606	5635-HZ6C3	Zener, HZ6C3 <C><B><B1>
D641-D643	5636-1SS133	1SS133
D652-D653	5636-1SS133	1SS133
D656	5635-HZ6C3	Zener, HZ6C3 <C><B><B1>
D691-D693	5636-1SS133	1SS133
D867-D869	5636-1S2473	1S2473
D870-D874	5636-1S2473	1S2473
D902,D903	5632-1N4002E	1N4002-E
D904	5635-HZ24-1	Zener, HZ24-1
D906	5636-1SS133	1SS133
D907	5635-HZ5C1	Zener, HZ5C1
D908	5632-1N4002E	1N4002-E
D909	5635-HZ12B2	Zener, HZ12B2
D910	5632-1N4002E	1N4002-E
D911,D912	5635-HZ6C3	Zener, HZ6C3
D913	5635-HZ12B2	Zener, HZ12B2
D950	⚠ 5685-RS804	Bridge Silicon, RS804
	CAPACITORS	
C51,C52	5345-107-16	100 μF 16V Elect.
C53	5345-106-50	10 μF 50V Elect.
C301,C302	5345-476-25	47 μF 25V Elect.
C309-C312	5345-106-50	10 μF 50V Elect.
C315,C316	5345-476-25	47 μF 25V Elect.
C351,C352	5345-106-50	10 μF 50V Elect.
C357,C358	5345-226-50	22 μF 50V Elect.
C359,C360	5369-S010M223	0.022 μF 25V Plastic
C363,C364	5354-124593	0.12 μF ±5% 50V Plastic
C367,C368	5354-223J1HM	0.022 μF ±5% 50V Plastic
C369,C370	5345-107-16	100 μF 16V Elect.
C371,C372	5345-106-50	10 μF 50V Elect.
C381,C382	5345-106-50	10 μF 50V Elect.
C383,C384	5345-476-25	47 μF 25V Elect.
C484	5345-477-16	470 μF 16V Elect.
C501,C502	5345-106-50	10 μF 50V Elect.
C505,C506	5354-104593	0.1 μF ±5% 50V Plastic
C511,C512	5345-227-10	220 μF 10V Elect.
C515-C518	5345-106-50	10 μF 50V Elect.
C519,C520	5369-S010M683	0.068 μF ±20% 25V Plastic
C521,C524	5354-683593	0.068 μF ±5% 50V Plastic
C525,C526	5354-104593	0.1 μF ±5% 50V Plastic
C571,C572	5345-107-16	100 μF 16V Elect.
C573	5345-225-50	2.2 μF 50V Elect.
C574	5345-227-10	220 μF 10V Elect.
C581	5345-226-50	22 μF 50V Elect.
C582	5345-334-50	0.33 μF 50V Elect.
C583	5345-105-50	1 μF 50V Elect.
C601	5345-106-50	10 μF 50V Elect.
C603	5354-104593	0.1 μF ±5% 50V Plastic
C606	5345-227-10	220 μF 10V Elect.
C608,C609	5345-106-50	10 μF 50V Elect.
C610	5369-S010M683	0.068 μF ±20% 25V Plastic
C611,C612	5354-683593	0.068 μF ±5% 50V Plastic
C625	5354-104593	0.1 μF ±5% 50V Plastic
C641	5345-226-50	22 μF 50V Elect.
C642	5345-334-50	0.33 μF 50V Elect.
C651	5345-106-50	10 μF 50V Elect.
C653	5354-104593	0.1 μF ±5% 50V Plastic
C656	5345-227-10	220 μF 10V Elect.
C658,C659	5345-106-50	10 μF 50V Elect.
C660	5369-S010M683	0.068 μF ±20% 25V Plastic
C661,C662	5354-683593	0.068 μF ±5% 50V Plastic
C675	5354-104593	0.1 μF ±5% 50V Plastic
C691	5345-226-50	22 μF 50V Elect.
C692	5345-334-50	0.33 μF 50V Elect.
C905,C906	5345-476-25	47 μF 25V Elect.
C907	5345-475-50	4.7 μF 50V Elect.
C908	5345-477-25	470 μF 25V Elect.
C909	5345-227-35	220 μF 35V Elect.
C910	5345-228-25	2200 μF 25V Elect.
C911	5345-337-16	330 μF 16V Elect.
C918	5345-107-16	100 μF 16V Elect.
C919	5345-227-16	220 μF 16V Elect.
C920	5345-477-16	470 μF 16V Elect.

CIRCUIT NO.	PART NO.	DESCRIPTION
C950,C951	⚠ 5341-S51GM109	10000 μF 63V Elect.
	RESISTORS	
R350	5109-S1201104	100 k ohm Variable Resistor, BALANCE
R365	5113-S2201104	100 k ohm Variable Resistor, BASS
R366	5113-S2201503	50 k ohm Variable Resistor,TREBLI
R521,R522	⚠ 5102-S101J221	220 ohm ±5% 1/4W Fuse
R527-R528	⚠ 5102-S101J101	100 ohm ±5% 1/4W Fuse
R533,R534	⚠ 5102-S101J101	100 ohm ±5% 1/4W Fuse
R537,R538	⚠ 5102-S101J100	10 ohm ±5% 1/4W Fuse
R539,R540	⚠ 5102-S101J331	330 ohm ±5% 1/4W Fuse
R543,R544	⚠ 5102-S101J100	10 ohm ±5% 1/4W Fuse
R547-R550	⚠ 5272-S010JR22	0.22 ohm ±5% 2W Cement
R553-R556	⚠ 5102-S101J4R7	4.7 ohm ±5% 1/4W Fuse
R559,R560	5171-S040J100	10 ohm ±5% 1W Metal
R561,R562	5272-S010KR10	0.1 ohm ±10% 2W Cement
R611	⚠ 5102-S101J221	220 ohm ±5% 1/4W Fuse
R614,R617	⚠ 5102-S101J101	100 ohm ±5% 1/4W Fuse
R619	⚠ 5102-S101J100	10 ohm ±5% 1/4W Fuse
R620	⚠ 5102-S101J331	330 ohm ±5% 1/4W Fuse
R622	⚠ 5102-S101J100	10 ohm ±5% 1/4W Fuse
R624,R625	⚠ 5272-S010JR22	0.22 ohm ±5% 2W Cement
R627,R628	⚠ 5102-S101J4R7	4.7 ohm ±5% 1/4W Fuse
R630	5171-S040J100	10 ohm ±5% 1W Metal
R661	⚠ 5102-S101J221	220 ohm ±5% 1/4W Fuse
R664,R667	⚠ 5102-S101J101	100 ohm ±5% 1/4W Fuse
R669	⚠ 5102-S101J100	10 ohm ±5% 1/4W Fuse
R670	⚠ 5102-S101J331	330 ohm ±5% 1/4W Fuse
R672	⚠ 5102-S101J100	10 ohm ±5% 1/4W Fuse
R674,R675	⚠ 5272-S010JR22	0.22 ohm ±5% 2W Cement
R677,R678	⚠ 5102-S101J4R7	4.7 ohm ±5% 1/4W Fuse
R680	5171-S040J100	10 ohm ±5% 1W Metal
R909	⚠ 5175-S041J151	150 ohm ±5% 3W Metal
R923	⚠ 5102-S101J220	22 ohm ±5% 1/4W Fuse
	COILS	
L501,L502	5991-0059	
L601,L651	5991-0059	
	MISCELLANEOUS	
F902*AH	⚠ 5732-01101202	Fuse, 2A 125V/250V <AH>
F902*CB	⚠ 5732-01601122	Fuse, T1.25A 125V/250V <C><B><B1>
F902a,F902b	4472-05001	Fuse Holder, F902
P203b	4443-13001010	Connector
P301,P302	4489-05001006	Pin Jack,
P305b	4443-02301015	Connector
P306a	4443-13001008	Connector
P307a	4443-12801006	Connector
P401b	4443-13001008	Connector
P501	4214-276	Terminal, Main/Center Speaker
P502	4481-01401	Jack, Subwoofer out
P611	4163-0140027	Connector
P612	4163-0140024	Connector
P701b	4443-02301033	Connector
P905	4163-09608009	Connector
P921	4163-0135025	Connector
P922	4163-0135026	Connector
P923	4163-0135025	Connector
R597	5192-010BC222	Posistor 1
S51	4421-03501011	Slide Switch, DEP

PCB-2 POWER SUPPLY CIRCUIT PC BOARD

CIRCUIT NO.	PART NO.	DESCRIPTION
	RESISTOR	
R901	⚠ 5135-S031J335	3.3 M ohm ±5% 1/2W Carbon <AH>
	MISCELLANEOUS	
P53	4489-05104002	Pin Jack, NAD Link
P601	4214-272	Terminal, Rear Speaker
F901*AH	⚠ 5732-01101502	Fuse, 5A 125V/250V <AH>
F901*CB	⚠ 5732-01601252	Fuse, 2.5AL <C><B><B1>
F901a,F901b	4472-05001	Fuse Holder, F901
P902	⚠ 4443-09501002	Connector
P903	⚠ 4474-02903	Socket, Outlet <AH>
P912	4163-S5101350	Connector
P913	4163-S5201350	Connector

PCB-3 SECONDARY PC BOARD

CIRCUIT NO.	PART NO.	DESCRIPTION
	CAPACITORS	
C902,C903	5354-104K2AM	0.1 μF ±10% 100V Plastic
	MISCELLANEOUS	
F903*AH	⚠ 5732-01101802	Fuse, 8A 125V/250V<AH>
F903*CB	⚠ 5732-01601632	Fuse, T6.3AL 125V/250V <C><B><B1>
F904*AH	⚠ 5732-01101802	Fuse, 8A 125V/250V<AH>
F904*CB	⚠ 5732-01601632	Fuse, T6.3AL 125V/250V <C><B><B1>
F903a,F903b	4472-05001	Fuse Holder, F903
F904a,F904b	4472-05001	Fuse Holder, F904

PCB-4 PRIMARY PC BOARD

CIRCUIT NO.	PART NO.	DESCRIPTION
	MISCELLANEOUS	
P911,P914	4163-S5201100	Connector with Lead Wire

PCB-5 POWER SWITCH PC BOARD

CIRCUIT NO.	PART NO.	DESCRIPTION
	CAPACITOR	
C901	⚠ 5352-S251M103	0.01 μF ±20% Metalized Polyester
	MISCELLANEOUS	
S901	⚠ 4433-00105	Push Switch, Power

PCB-6 FRONT CIRCUIT PC BOARD

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q701	5654-UD78042B	μPD78042AGF
IC711	5654-H74H00D	H74H00D
IC712	5654-Z86E08-1	Z86E08-1
	TRANSISTORS	
Q703-Q705	5613-1740(R)	2SC1740(R)
Q706	5613-C124ES	DTC124ES
Q707-Q709	5613-1740(R)	2SC1740(R)
	DIODES	
D701,D702	5636-1SS133	1SS133
D703	5635-HZ9C1	Zener, HZ9C1
D709	5637-L132XPGC	LED, L132XPGC
D710-D716	5636-1S2473	1S2473
D720	5636-1SS133	1SS133
	CAPACITORS	
C701	5350-S081Z104	0.1F Special Elect.
C702	5354-474593	0.47 μF ±5% 50V Plstic
C703	5345-107-10	100 μF ±20% 10V Elect.
C704	5345-105-50	1 μF ±20% 50V Elect.
C706, C707	5345-105-50	1 μF ±20% 50V Elect.
C708,C709	5345-107-10	100 μF ±20% 10V Elect.
C711	5345-107-10	100 μF ±20% 10V Elect.
C722,C726	5345-106-50	10 μF ±20% 50V Elect.
C727	5345-107-10	100 μF ±20% 10V Elect.
C728	5345-104-50	0.1 μF ±20% 50V Elect.
	COILS	
L701-L703	5995-220098	
	MISCELLANEOUS	
Q702	5722-068	Display
Q710	6143-02201	Remote Control Receiver Unit
P701a	4443-02301033	Connector
S701-S716	4437-02301	Push Switch
S719-S722	4437-02301	Push Switch
X701	5693-CST419MG	Ceramic Osc.
X702	5693-CST12MTW	Ceramic Osc.

PCB-7 VR/SURROUND CIRCUIT PC BOARD

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q401	5654-HD14052B	HD14052BP
Q402	5653-NJW1102L	NJW1102L
Q403	5654-NJU9702D	NJU9702D
Q405	5653-HA17458G	HA17458GS

CIRCUIT NO.	PART NO.	DESCRIPTION
	TRANSISTORS	
Q406-Q409	5613-1740(R)	2SC1740(R)
	CAPACITORS	
C401-C404	5345-106-50	10 μF 50V Elect.
C408,C409	5369-S010M473	0.047 μF 25V Plastic
C410,C411	5369-S010M104	0.1 μF ±20% 25V Plastic
C412,C412	5354-223J1HM	0.022 μF ±5% 50V Plastic
C414	5345-104-50	0.1 μF 50V Elect.
C415,C416	5354-681J1HM	680 pF ±5% 50V Plastic
C417-C420	5345-104-50	0.1 μF 50V Elect.
C421	5345-226-50	22 μF 50V Elect.
C422	5345-107-16	100 μF 16V Elect.
C423	5345-476-25	47 μF 25V Elect.
C424	5361-472KB	4700 pF ±10% 50V Ceramic
C425	5345-226-50	22 μF 50V Elect.
C426	5345-107-10	100 μF 10V Elect.
C427-C430	5345-106-50	10 μF 50V Elect.
C431	5345-104-50	0.1 μF 50V Elect.
C432	5345-227-16	220 μF 16V Elect.
C434	5369-S010M473	0.047 μF ±20% 25V Plastic
C435,C436	5345-224-50	0.22 μF 50V Elect.
C437	5345-684-50	0.68 μF 50V Elect.
C438,C439	5345-475-50	4.7 μF 50V Elect.
C440,C441	5345-224-50	0.22 μF 50V Elect.
C442	5345-104-50	0.1 μF 50V Elect.
C445	5345-475-50	4.7 μF 50V Elect.
C449,C450	5345-107-16	100 μF 16V Elect.
C451	5345-475-50	4.7 μF 50V Elect.
C455	5354-104593	0.1 μF ±5% 50V Plastic
C456	5345-476-25	47 μF 25V Elect.
C457,C458	5369-S010M473	0.047 μF ±20% 25V Plastic
C460	5354-104593	0.1 μF ±5% 50V Plastic
C473,C474	5345-106-50	10 μF 50V Elect.
C477,C478	5345-106-50	10 μF 50V Elect.
C479,C480	5345-475-50	4.7 μF 50V Elect.
C481	5345-476-25	47 μF 25V Elect.
C482,C483	5345-475-50	4.7 μF 50V Elect.
	RESISTORS	
R410	⚠ 5102-S101J220	22 ohm ±5% 1/4W Fuse <C><B><B1>
R450	6161-01201	50 k ohm Variable Resistor,Volume
	MISCELLANEOUS	
P306b	4443-12901008	Connector
P307b	4443-12701006	Connector
P401a	4443-12901008	Connector
X401	5693-CST204MG	Ceramic Osc.

PCB-8 TUNER CIRCUIT PC BOARD

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q103	5653-LA1265S	LA1265S
Q173	5654-LM7001	LM7001
Q201	5653-AN7470	AN7470
	TRANSISTORS	
Q101	5613-1923(Y)	2SC1923(Y)
Q102	5613-1923(Y)	2SC1923(Y) <C><B><B1>
Q171	5613-1775(F)	2SC1775(F)
Q172	5613-1740(R)	2SC1740(R)
Q174,Q175	5611-A114YS	DTA114YS
Q176	5614-468(C)	2SD468(C)
Q177	5611-A114YS	DTA114YS
Q203,Q204	5614-655(E)	2SD655(E)
	DIODES	
D151,D152	5636-1SS133	1SS133
D171	5635-HZ5C2	Zener, HZ5C2
	CAPACITORS	
C002	5345-476-25	47 μF 25V Elect.
C107	5345-106-50	10 μF 50V Elect.
C108	5345-105-50	1 μF 50V Elect.
C112	5345-226-50	22 μF 50V Elect. <C><B><B1>
C113	5369-S010M223	0.022 μF ±20% 25V Plastic
C115*AH	5345-226-50	22 μF 50V Elect. <AH>
C115*CB	5345-106-50	10 μF 50V Elect. <C><B><B1>
C153	5345-106-50	10 μF 50V Elect.
C156	5345-475-50	4.7 μF 50V Elect.
C157	5345-106-50	10 μF 50V Elect.
C158	5345-105-50	1 μF 50V Elect.
C159	5345-475-50	4.7 μF 50V Elect.
C161	5345-224-50	0.22 μF 50V Elect.
C170	5345-L224M50	0.22 μF 50V Elect.
C171	5345-L684M50	0.68 μF 50V Elect.
C172,C173	5345-107-16	100 μF 16V Elect.
C177	5345-337-16	330 μF 16V Elect.
C201	5345-476-25	47 μF 25V Elect.
C203	5369-S010M473	0.047 μF ±20% 25V Plastic
C204	5359-471585	470 pF ±5% 100V Polypopylene
C205	5345-335-50	3.3 μF 50V Elect.
C206	5345-105-50	1 μF 50V Elect.
C207	5345-224-50	0.22 μF 50V Elect.
C209,C210	5345-106-50	10 μF 50V Elect.
C213,C214	5345-475-50	4.7 μF 50V Elect.
	RESISTORS	
R160	5101-10301934	10 k ohm Variable Resistor
R180	⚠ 5102-S101J100	10 ohm ±5% 1/4W Fuse <C><B><B1>
R204	5101-30201934	3 k ohm Variable Resistor
R221	5101-20401934	200 k ohm Variable Resistor
	COILS	
L101	5214-86	Coil <C><B><B1>
L151	6111-02402	RF Block
L201,L202	5214-75	LC Components
	MISCELLANEOUS	
P001*AH	4214-274	Terminal, Antenna <AH>
P001*CB	4214-275	Terminal, Antenna <C><B><B1>
P003	4162-01201700	Lug w/wire <C><B><B1>
P203a	4443-12901010	Connector
T101	5572-00116	Transformer
T151	5552-00712	Transformer
U001*AH	6114-01002	FM Front End <AH>
U001*CB	6114-01003	FM Front End <C><B><B1>
X101*AH	5671-012A	Ceramic Filter, 10.7 MHz <AH>
X101*CB	5671-7142A	Ceramic Filter, 10.7 MHz <C><B><B1>
X102*AH	5671-0101A113	Ceramic Filter, 10.7 MHz <AH>
X102*CB	5671-7142A	Ceramic Filter, 10.7 MHz <C><B><B1>
X103	5671-7141A	Ceramic Filter <C><B><B1>
X151	5671-017135R5	Ceramic Filter, 450 kHz
X171	5691-S1907722	Crystal Osc.

PCB-9 HEADPHONES PC BOARD

CIRCUIT NO.	PART NO.	DESCRIPTION
	MISCELLANEOUS	
P308	4451-50805	Jack, Headphones

PCB-10 VIDEO-AUDIO CIRCUIT PC BOARD

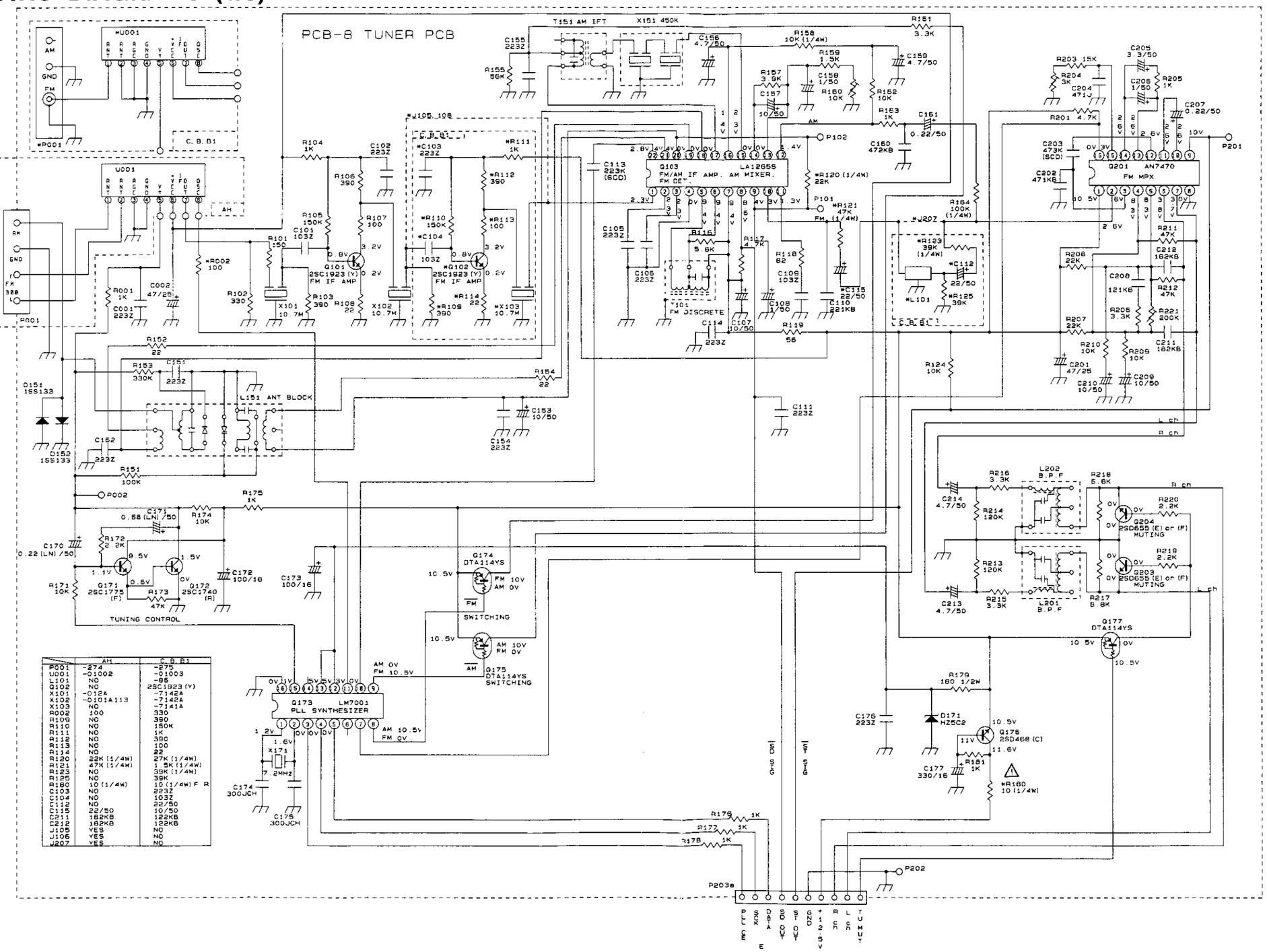
CIRCUIT NO.	PART NO.	DESCRIPTION
	IC	
Q303	5654-HD14052B	HD14052BP
	TRANSISTOR	
Q304	5613-C124ES	DTC124ES
	CAPACITORS	
C303,C304	5345-106-50	10 μF 50V Electrolytic
	MISCELLANEOUS	
P304	4489-05002006	Pin Jack, TV,VCR In/Out
P305a	4443-02302015	Connector

PCB-12 VIDEO CIRCUIT PC BOARD

CIRCUIT NO.	PART NO.	DESCRIPTION
	IC	
Q251	5654-HD14052B	HD14052BP
	TRANSISTORS	
Q253,Q254	5613-1740(R)	2SC1740(R)
Q255	5611-933(R)	2SA933(R)
Q256,Q257	5613-1740(R)	2SC1740(R)
	CAPACITORS	
C251,C252	5345-477-10	470 μF 10V Elect.
C253-C256	5345-107-10	100 μF 10V Elect.
C258	5345-107-16	100 μF 16V Elect.
C259,C260	5345-106-50	10 μF 50V Elect.
C268	5345-107-16	100 μF 16V Elect.
	RESISTOR	
R288	5102-S011J100	10 ohm ±5% 1/4W Carbon <C><B><B1>
	MISCELLANEOUS	
P252	4489-05401004	Pin Jack, TV, VCR In/Out, Monitor

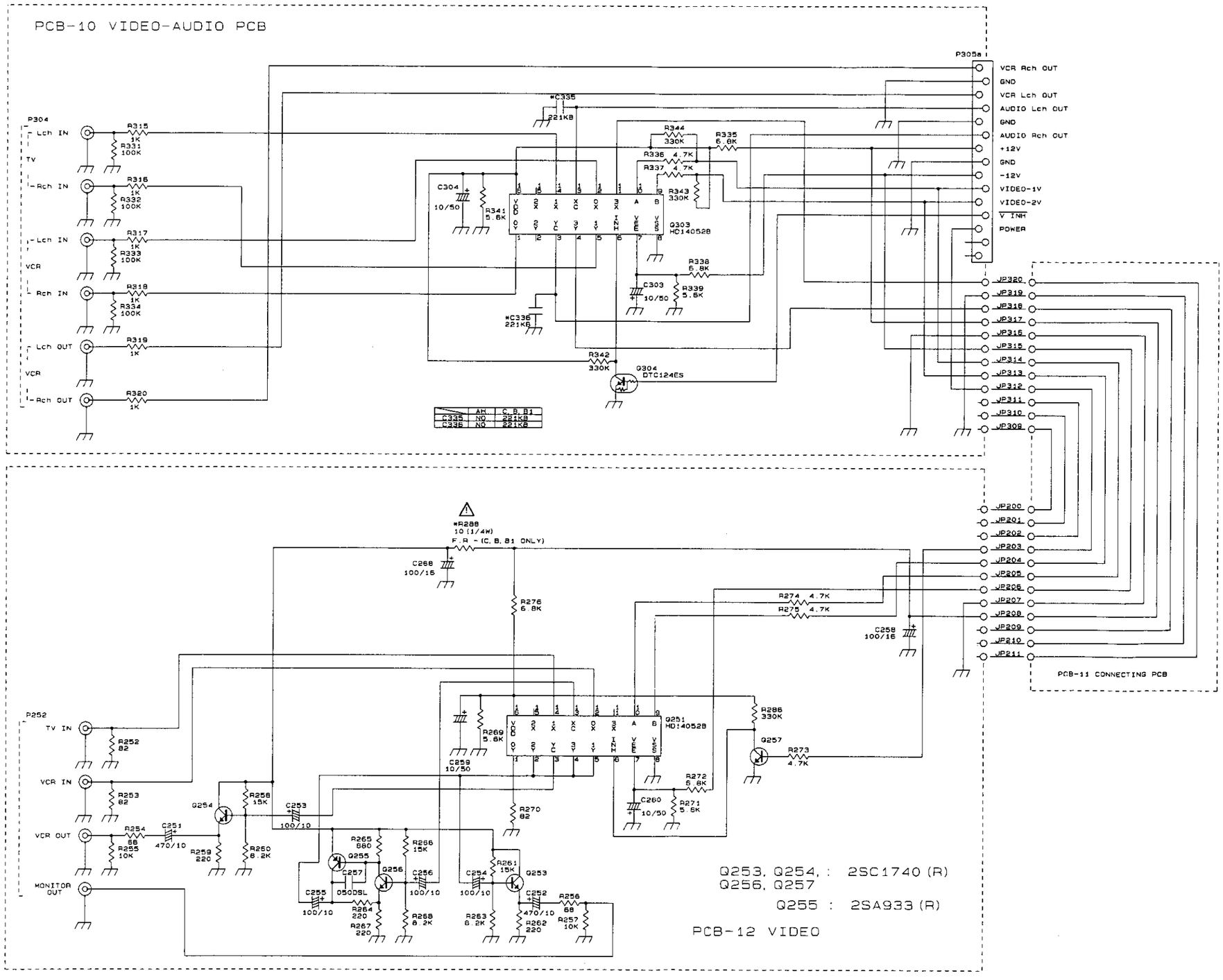
NOTE: <AH>: U.S.A., Canadian model only
<B>: U.K. model only
<B1>: Australian model only
<C>: European model only

SCHEMATIC DIAGRAMS (1/6)

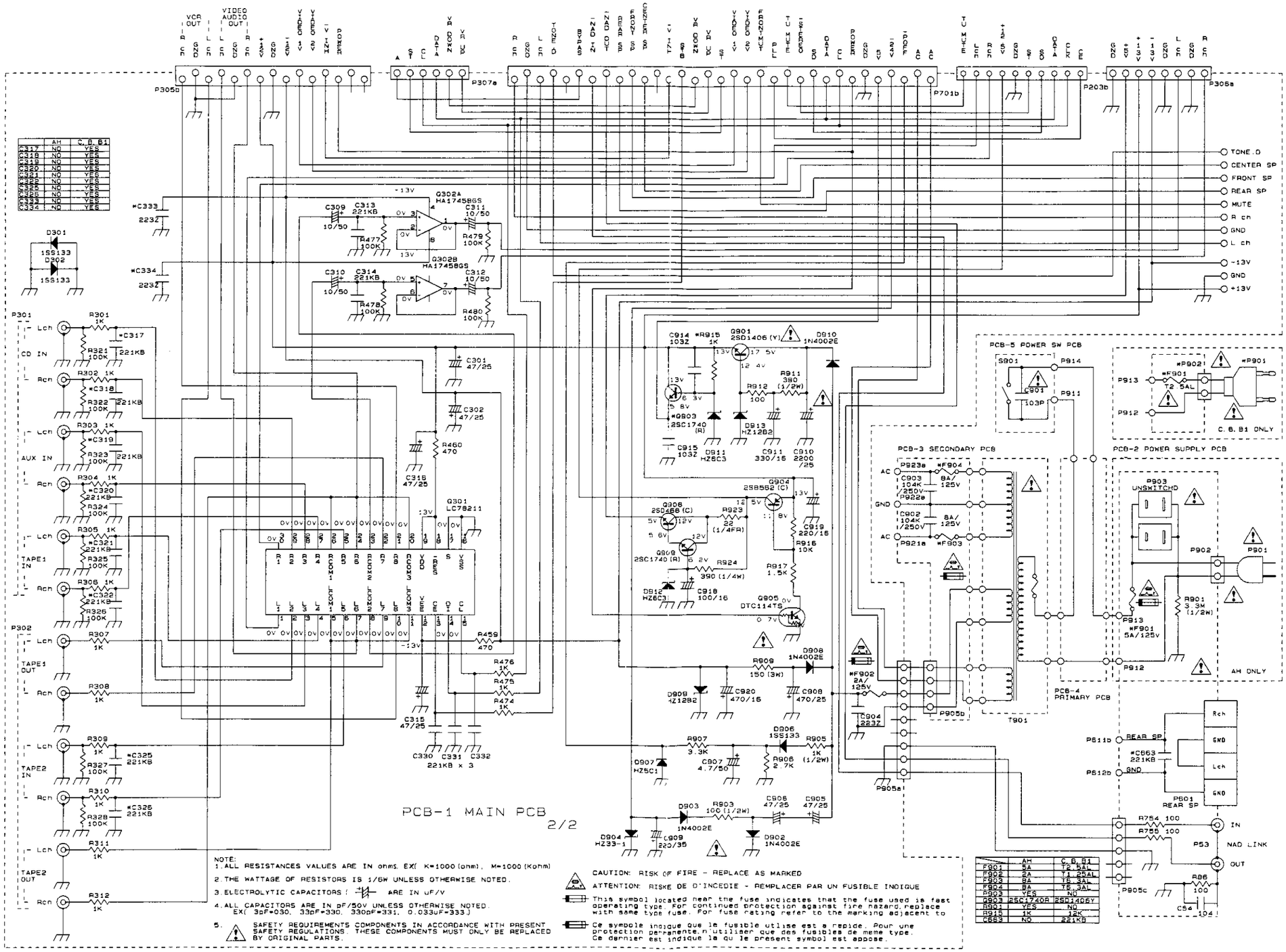


	AH	C. B. B1
P001	-274	-275
U001	-01002	-01003
L101	NO	-85
Q102	NO	2SC1923 (Y)
X101	-012A	-7142A
X102	-0101A113	-7142A
X103	NO	-7141A
R002	100	330
R109	NO	390
R110	NO	150K
R111	NO	1K
R112	NO	390
R113	NO	100
R114	NO	22
R120	22K (1/4W)	27K (1/4W)
R121	47K (1/4W)	1.5K (1/4W)
R123	NO	39K (1/4W)
R125	NO	39K
R180	10 (1/4W)	10 (1/4W) F R
C103	NO	223Z
C104	NO	103Z
C112	NO	22/50
C115	22/50	10/50
C211	182KB	122KB
C212	182KB	122KB
J105	YES	NO
J106	YES	NO
W207	YES	NO

SCHEMATIC DIAGRAMS (2/6)

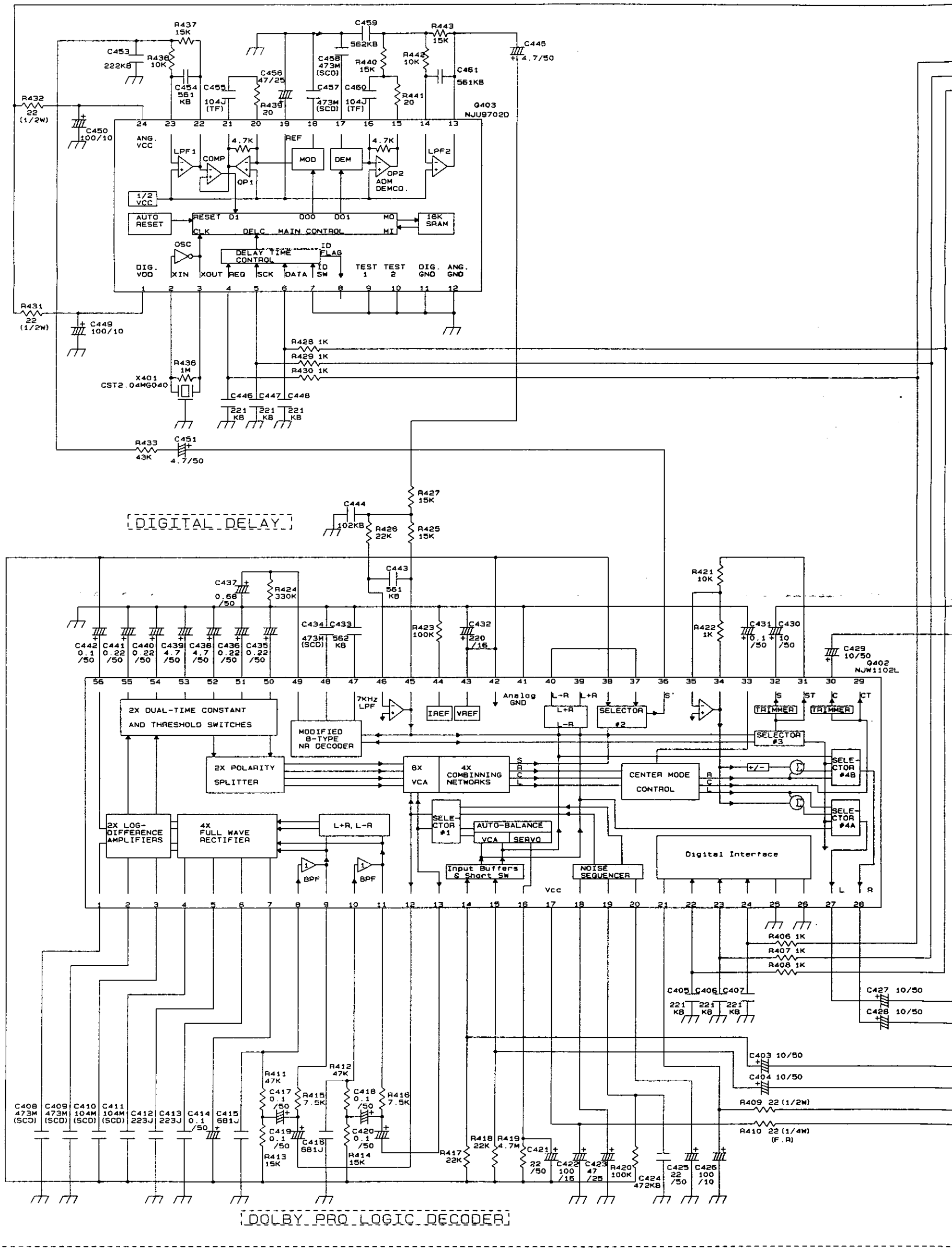


SCHEMATIC DIAGRAMS (3/6)



SCHEMATIC DIAGRAMS (4/6)

PCB-7 VR/SURROUND PCB



F G H I J K

P306b
GND
+5V
+12V
-12V
GND
Lch IN
GND
Rch IN

R403 6.8K
R444 330K
R401 4.7K
C402 10/50
R405 5.6K
Q401 HD140528
R402 6.8K
C401 10/50
R404 5.6K
C482 10/50
C483 10/50

R450
R450 (1/4) 50KA
R450 (2/4) 50KA
R450 (3/4) 50KA
R450 (4/4) 50KA

R451 3.3K
R452 3.3K

P401a
Lch OUT
GND
Rch OUT
GND
CENTER OUT
GND
REAR OUT

C473 10/50
*C475 560KSL
R453 47K
Q405 HA17458GS (1/2)
C477 10/50
R491 2.2K
R465 39K
R457 10K
R461 1K

C474 10/50
*C476 560KSL
R454 47K
Q405 HA17458GS (2/2)
C478 10/50
R492 2.2K
R466 39K
R458 10K
R462 1K

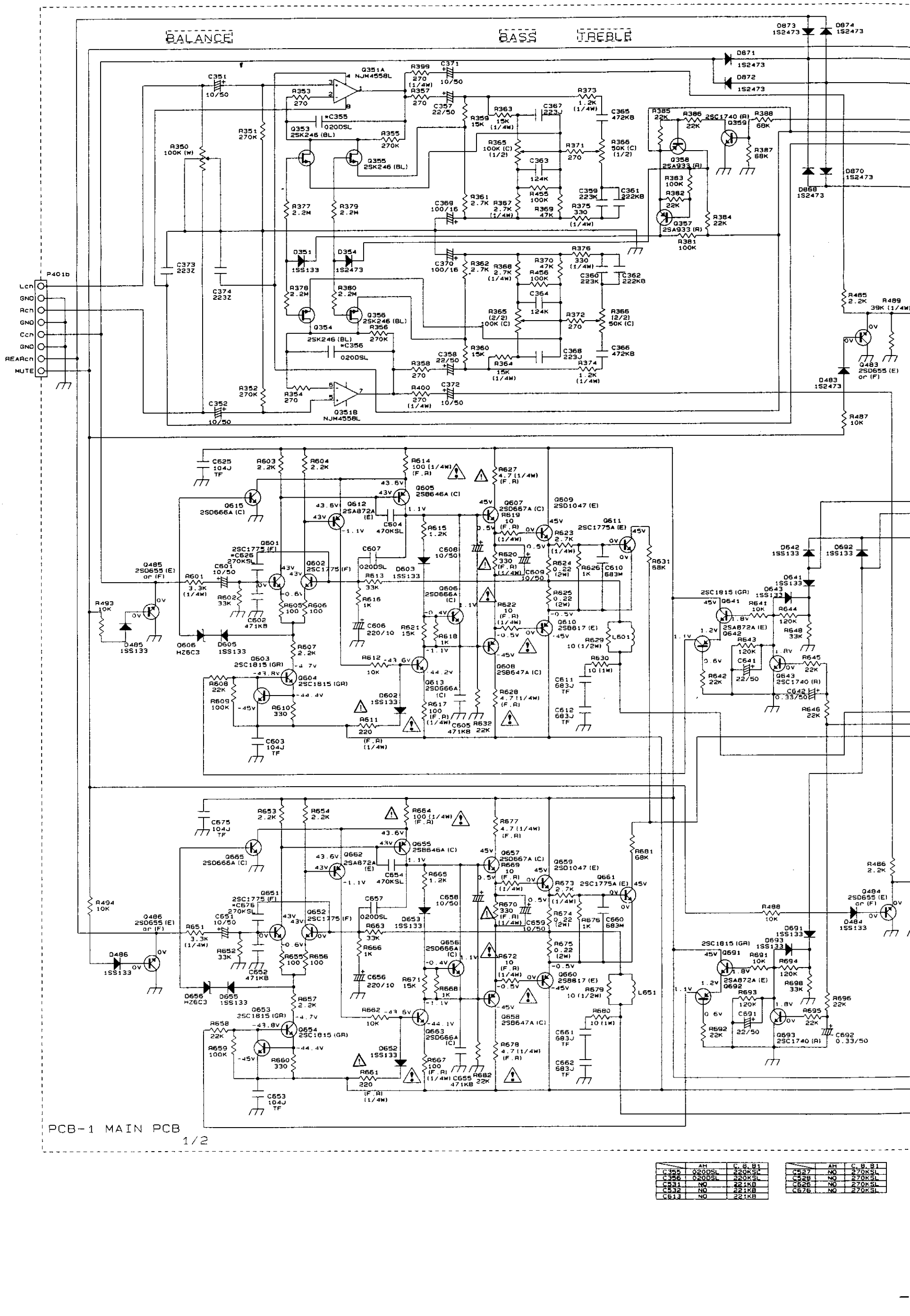
	AH	C, B, 81
C475	NO	560KSL
C476	NO	560KSL

Q408 2SC1740 (R)
Q406 2SC1740 (R)
R471 1.5K
R467 1.5K
R469 22K
C481 47/25
C479 4.7/50
C480 4.7/50
Q407 2SC1740 (R)
R468 1.5K
Q409 2SC1740 (R)
R472 1.5K
R470 22K

P307b
A
ST
CL
DATA
VR DOWN
VR UP

R448 100K
R447 100K
R445 100K
R446 100K

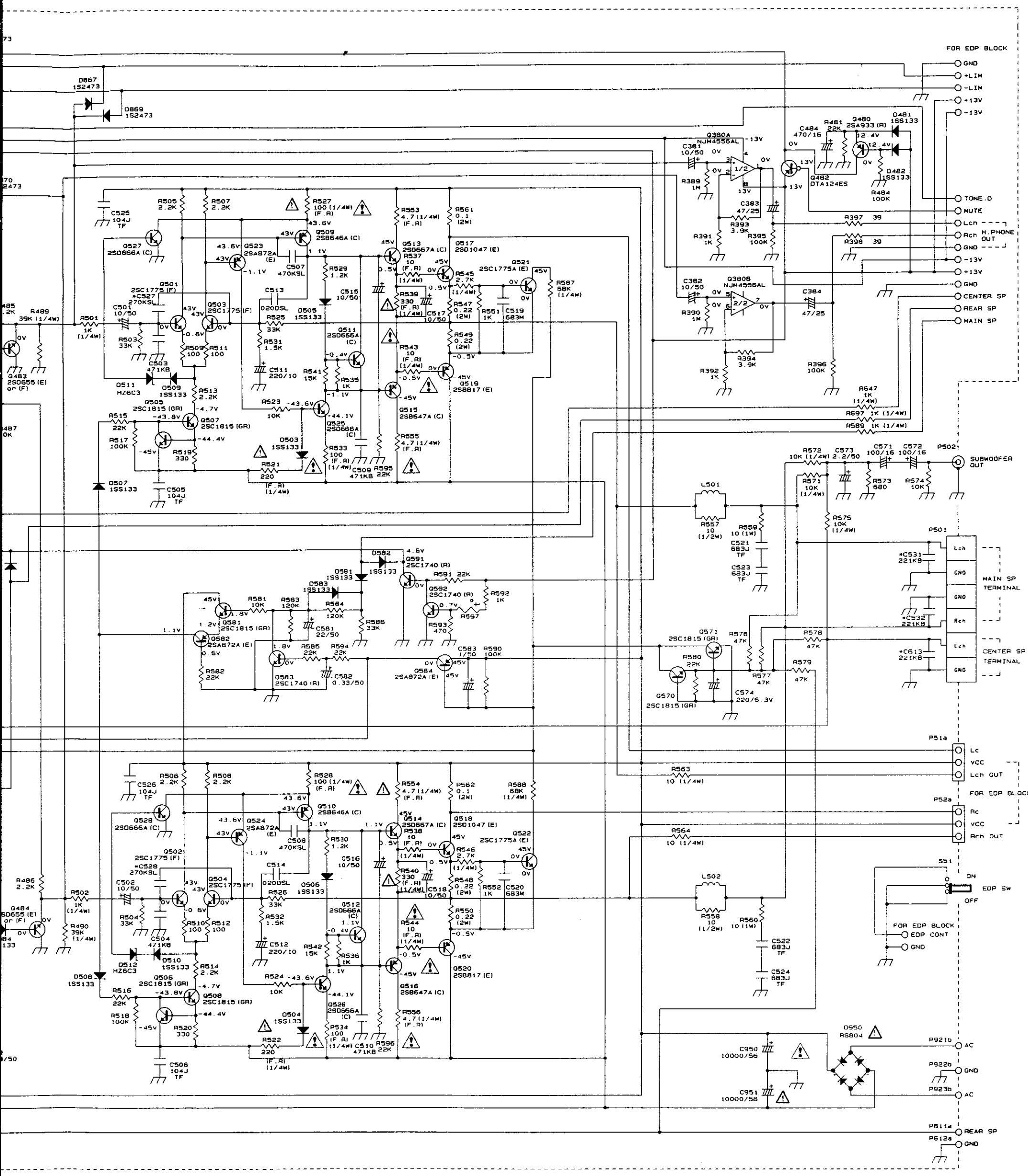
SCHEMATIC DIAGRAMS (5/6)



	AH	C, B, B1
C355	020DSL	220KSL
C356	020DSL	220KSL
C531	NO	221KB
C532	NO	221KB
C613	NO	221KB

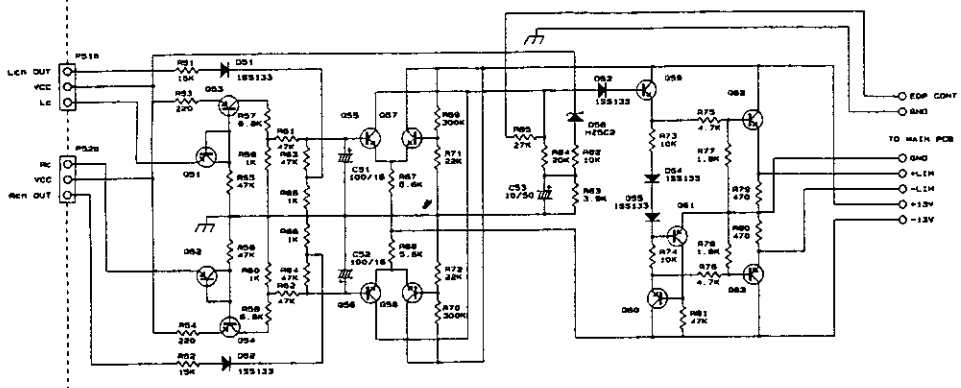
	AH	C, B, B1
C527	NO	270KSL
C528	NO	270KSL
C626	NO	270KSL
C676	NO	270KSL

F G H I J K



NOTE:
1. ALL RESISTANCES VALUES ARE IN ohm. Ex(K=1000 (ohm), M=1000 (Kohm)
2. THE WATTAGE OF RESISTORS IS 1/6W UNLESS OTHERWISE NOTED.
3. ELECTROLYTIC CAPACITORS(⊣+⊢) ARE IN uF/V.
4. ALL CAPACITORS ARE IN pF/50V UNLESS OTHERWISE NOTED.
   Ex(3pF=030, 33pF=330, 330pF=331, 0.033uF=3331
5. ⚠ SAFETY REQUIREMENTS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS. THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.

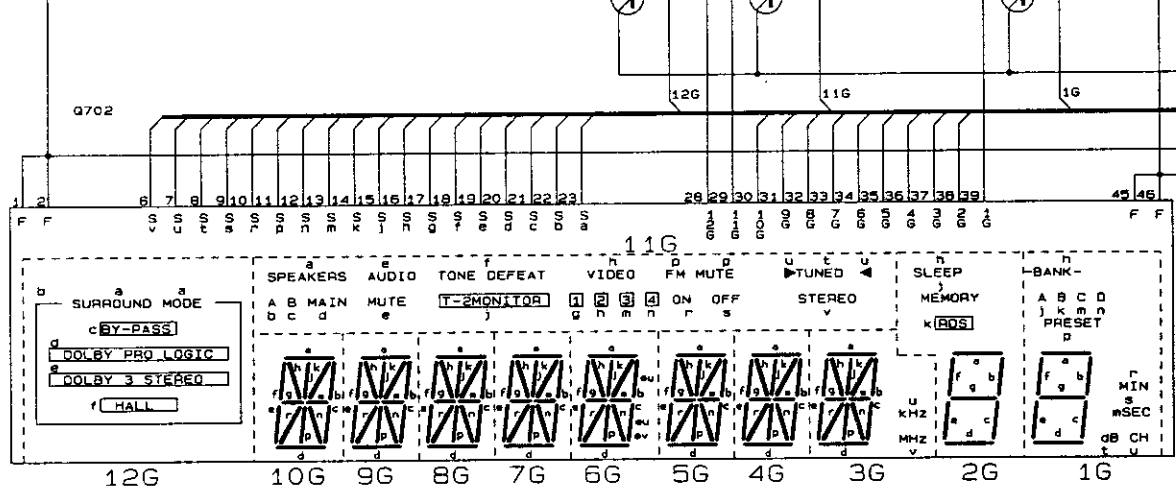
SCHEMATIC DIAGRAMS (6/6)

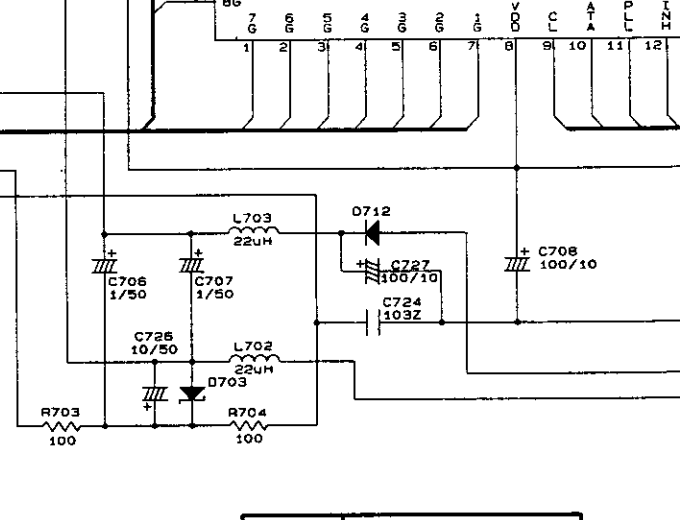


Q51-Q54 : 2SA933 (R)
Q60, Q61, Q63

Q55-Q59 : 2SC1740 (R)
Q62

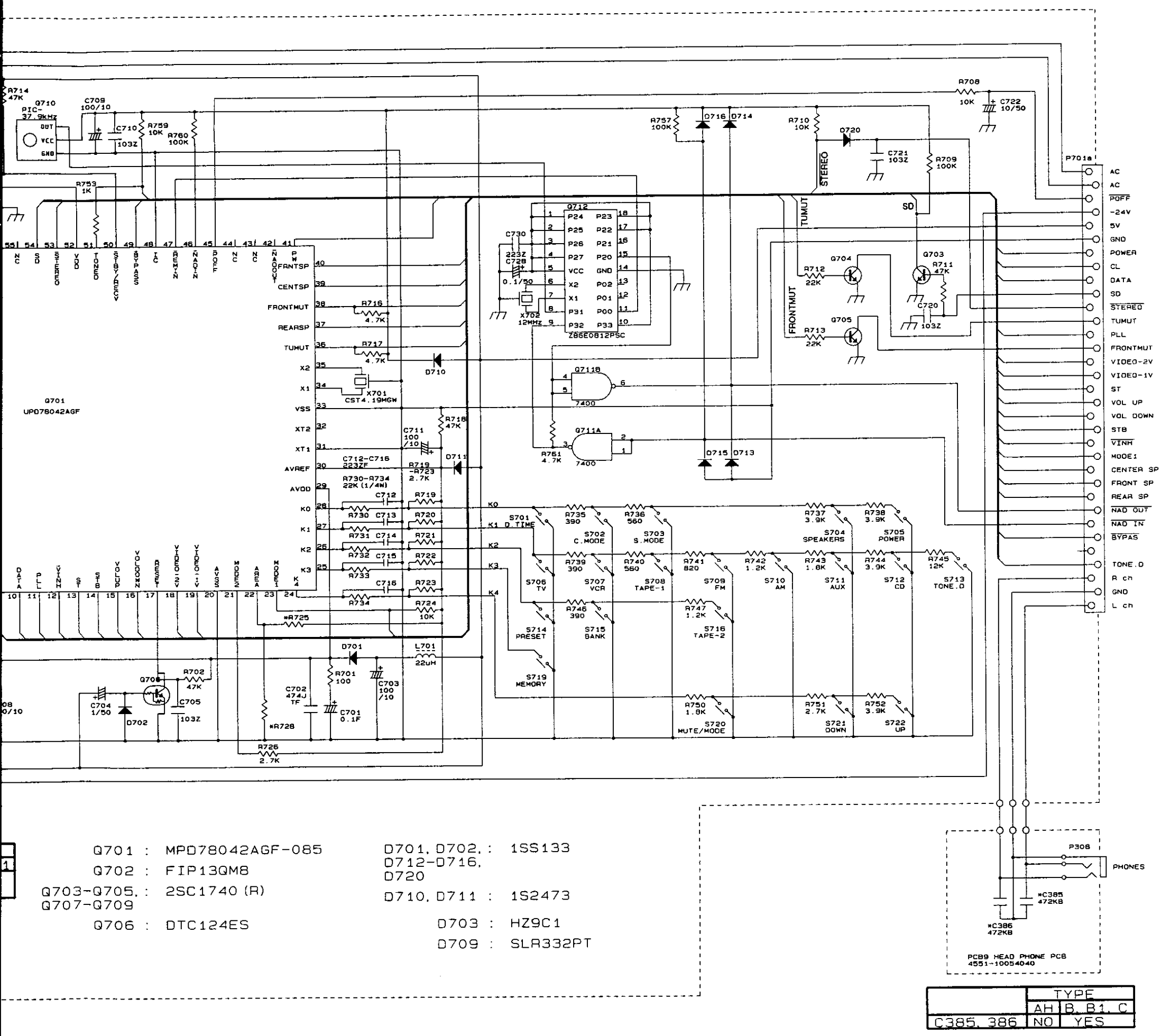
PCB-6 FRONT PCB





	TYPE	
	AH	C, B, B1
R725	2.7K	NO
R728	NO	22K

Q7
Q7



	TYPE	
	AH	B, B1, C
C385, 386	NO	YES

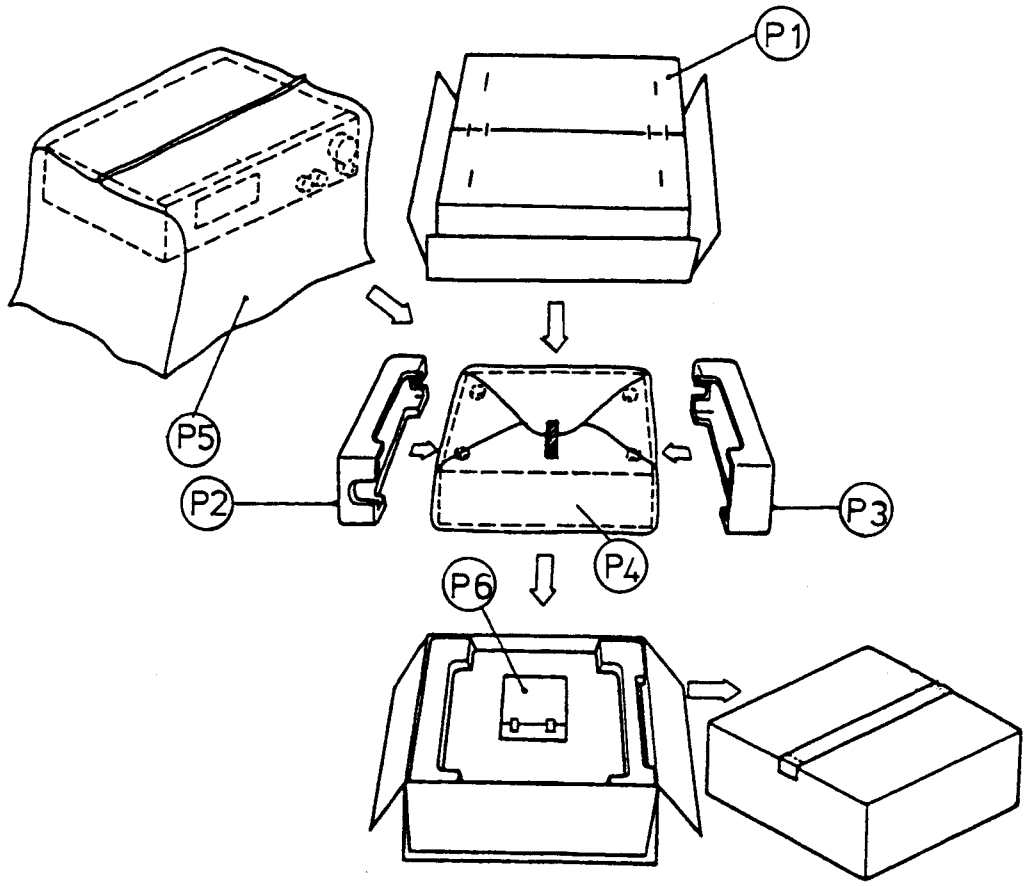
Q701 : MPD78042AGF-085
Q702 : FIP13QM8
Q703-Q705, Q707-Q709 : 2SC1740 (R)
Q706 : DTC124ES

D701, D702, D712-D716, D720 : 1SS133
D710, D711 : 1S2473
D703 : HZ9C1
D709 : SLR332PT

PACKING VIEW

REF. NO.	PART NO.	DESCRIPTION
P1	1221-36503	Carton Box
P2	1222-1319	Cushion, R
P3	1222-1320	Cushion, L
P4	1223-R0220055	Soft Sheet, FRONT PANEL
P5	1241-R0160601	Polyethylene Bag, SET
P6	Accessory bag ass'y	
P6-1	1111-2280MCB1	Owner Guide, IB
P6-2	1241-R0123351	Polyethylene Bag, IB
P6-3	6142-08801	Infrared Remote Control Ass'y
P6-4	1135-00301	Accessory Battery, UM-3E (2S)
P6-5	1397-017	FM Feeder Antenna <AH>
P6-6	1397-020	FM Feeder Antenna <C><B><B1>
P6-7	5911-278	Ferrite Bar Antenna, (AM Loop ant.)

NOTE: <AH> : U.S.A., Canadian model only
<B> : U.K. model only
<B1> : Australian model only
<C> : European model only



NOTES :

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