T 770

SURROUND SOUND
AV RECEIVER

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SERVICE MANUAL

NAD

SERVICE SAFETY PRECAUTIONS

1. **Replacing the fuses**
   CAUTION: FOR CONTINUED PROTECTION AGAINST THE RISK OF FIRE
   REPLACE ONLY WITH SAME TYPE OF FUSE.

Reference No.	Part No.	Description
F901, F915, F916*AH	252166	6.3A-125V UL/T-237 Time lag
F902*B1, B, C	252077	T4AL/250V SE-EAK Time lag
F915,F916*B1, B, C	252079	T6.3AL/250V SE-EAK Time lag

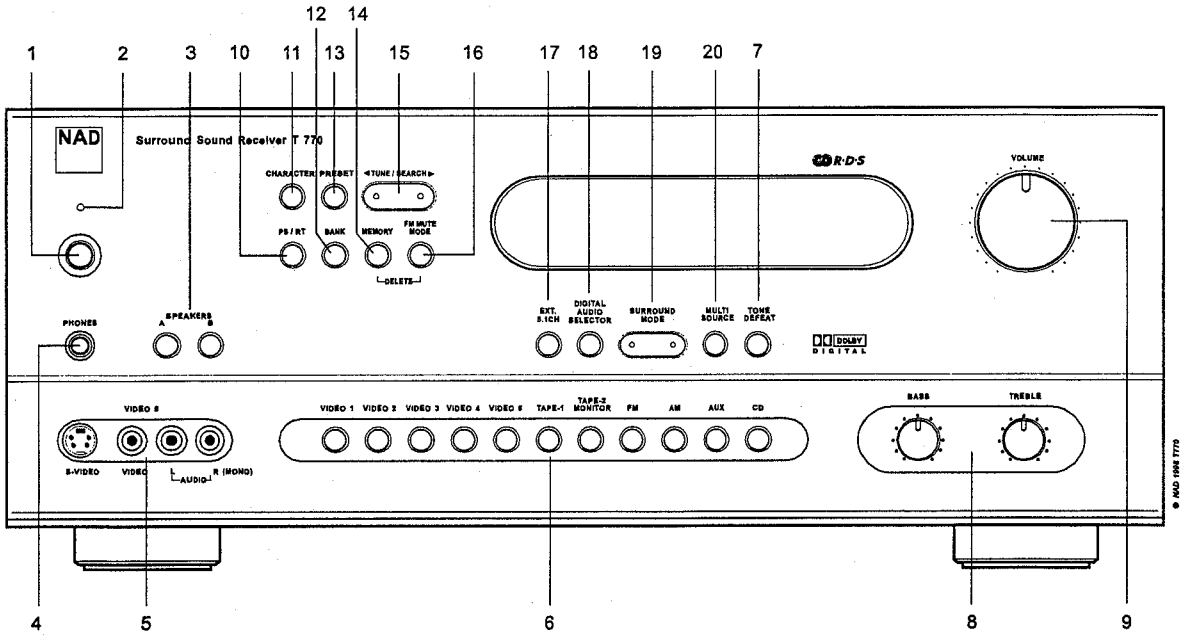
NOTE:
<*AH> : U.S.A. , CANADIAN MODEL ONLY.
<*C> : EUROPEAN MODEL ONLY.
<*B1> : AUSTRALIAN MODEL ONLY.
<*B> : U. K. MODEL ONLY.

2. **Safety Check out**
   (Only U.S.A. model)
   Before returning the product to the customer, make leakage current or resistance measurements to determine that exposed parts are acceptably insulated from the supply circuit.

Parts marked with the symbol ⚠ are critical with regard to the risk of fire and electric shock. Replace only with parts recommended by the manufacturer.

CONTENTS

FRONT PANEL CONTROLS

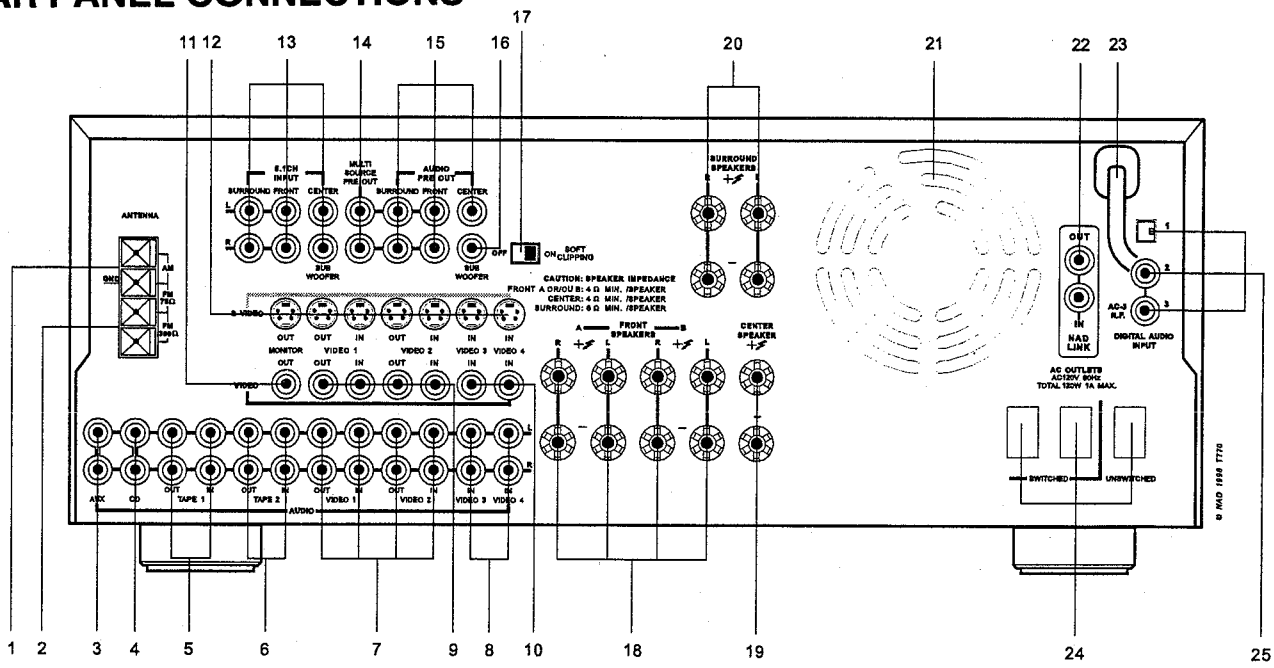


1. POWER
2. STANDBY LED
3. SPEAKERS A, B
4. HEADPHONE SOCKET
5. VIDEO 5 INPUT
6. INPUT SELECTOR
7. TONE DEFEAT
8. BASS & TREBLE CONTROLS
9. VOLUME
10. DISPLAY FOR AH, PS/RT FOR (B, B1, C)
11. CHARACTER
12. BANK
13. PRESET
14. MEMORY
15. TUNE/SEARCH ◄AND►
16. FM MUTE MODE
17. EXT. 5.1 CH
18. DIGITAL AUDIO SELECTOR
19. SURROUND MODE
20. MULTI SOURCE

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. AM ANTENNA
2. FM ANTENNA (SPRING CLIP FOR AH, DIN FOR B, B1, C)
3. AUX INPUT
4. CD INPUT
5. TAPE 1
6. TAPE 2
7. VIDEO 1 & VIDEO 2 (AUDIO)
8. VIDEO 3 & VIDEO 4 (AUDIO)
9. VIDEO 1 & VIDEO 2 (VIDEO)
10. VIDEO 3 & VIDEO 4 (VIDEO)
11. MONITOR OUT
12. S-VIDEO VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, MONITOR
13. 5.1 CHANNEL INPUTS
14. MULTI SOURCE PRE-OUT
15. AUDIO PRE-OUT
16. SUBWOOFER OUT
17. SOFT CLIPPING
18. FRONT SPEAKERS A & B
19. CENTER SPEAKER
20. SURROUND SPEAKERS
21. COOLING FAN
22. NAD-LINK IN OUT
23. AC POWER CORD
24. AC OUTLETS (AH ONLY)
25. DIGITAL AUDIO INPUTS

SPECIFICATIONS

Test conditions
Power Supply Voltage & Frequency
AH Type ----------120V / 60Hz
C/B/B1 Type ----------230V / 50Hz
Load Resistance
Speaker Terminal -------8 ohms
Other Terminal ---------47k ohms
Temperature & Humidity
Temperature ---------- 5 ~ 35 °C
Humidity ---------- 45 ~ 85 %

〈Amplifier section〉

L&R Max.Power		
8 ohms	70W	20Hz / 1kHz / 20kHz
4 ohms	70W	Both Channel Driven
Line Hum & Noise	-60.0dBV	Terminated With 5.1kΩ
Line Separation		
100Hz	67.0dB	Terminated With 5.1kΩ
10kHz	45.0dB	
Line Distortion		
20kHz	0.15%	
DSP Gain (ADC INPUT)		
1kHz	6.5±1.0dBV	L/R/C-SP
1KHz	6.5±1.0dBV	LS/RS-SP
	-23.0±1.0dBV	L/R/C-PO
20Hz	-4.0±1.5dBV	SW-PO
L&R&C MAX. Power		
8 ohms 1kHz	70W	L/R/C-SP. 3ch Only Driven
4 ohms 1kHz	70W	L/R/C-SP. 3ch Only Driven
Surround Mode MAX. Power		Surround 2-channel Driven.
8 ohms 1kHz	70W	THD=0.1%
6 ohms 1kHz	50W	THD=0.3%
DSP THD 1kHz	0.12%	L/R-SP
1kHz	0.12%	C/LS/RS-SP
20Hz	0.1%	SW-PO
AC-3 Decoder gain		
1kHz	8.5±1.5dBV	L/R-SP
	8.5±1.5dBV	C/LS/RS-SP
30Hz	-3.0±1.5dBV	SW-PO
COAXIAL Gain		
1kHz	8.5±1.5dBV	L/R-SP
OPT. Gain		
1kHz	9.0±1.5dBV	LS/RS-SP
Tone Gain		Master Volume: -24dB
1kHz	-3.7±1.5dBV	L-SP
	-3.7±1.5dBV	R-SP
	-3.7±1.5dBV	C-SP
Bass Max.		Master Volume: -24dB, Bass Max.
100Hz	+8.0±1.0dBV	L-SP
	+8.0±1.0dBV	R-SP
	+8.0±1.0dBV	C-SP
Bass Min.		Master Volume: -24dB, Bass Min.
100Hz	+8.0±1.0dBV	L-SP
	+8.0±1.0dBV	R-SP
	+8.0±1.0dBV	C-SP
Treble Max.		Master Volume: -24dB, Treble Max.
10kHz	+8.5±1.0dBV	L-SP
	+8.5±1.0dBV	R-SP
	+8.5±1.0dBV	C-SP
Treble Min.		Master Volume: -24dB, Treble Min.
10kHz	+8.5±1.0dBV	L-SP
	+8.5±1.0dBV	R-SP
	+8.5±1.0dBV	C-SP

〈Tuner section〉
(AM)

Tuning Range	530 / 522 kHz	
	1710 / 1611 kHz	Fmax. AH/C,B,B1
Frequency step	AH / C,B,B1 = 10 / 9kHz	

Change the AM freq.step.

	To 9kHz step	To 10kHz step
R1721	10k ohm	4.7k ohm
R1720	-	3.9k ohm

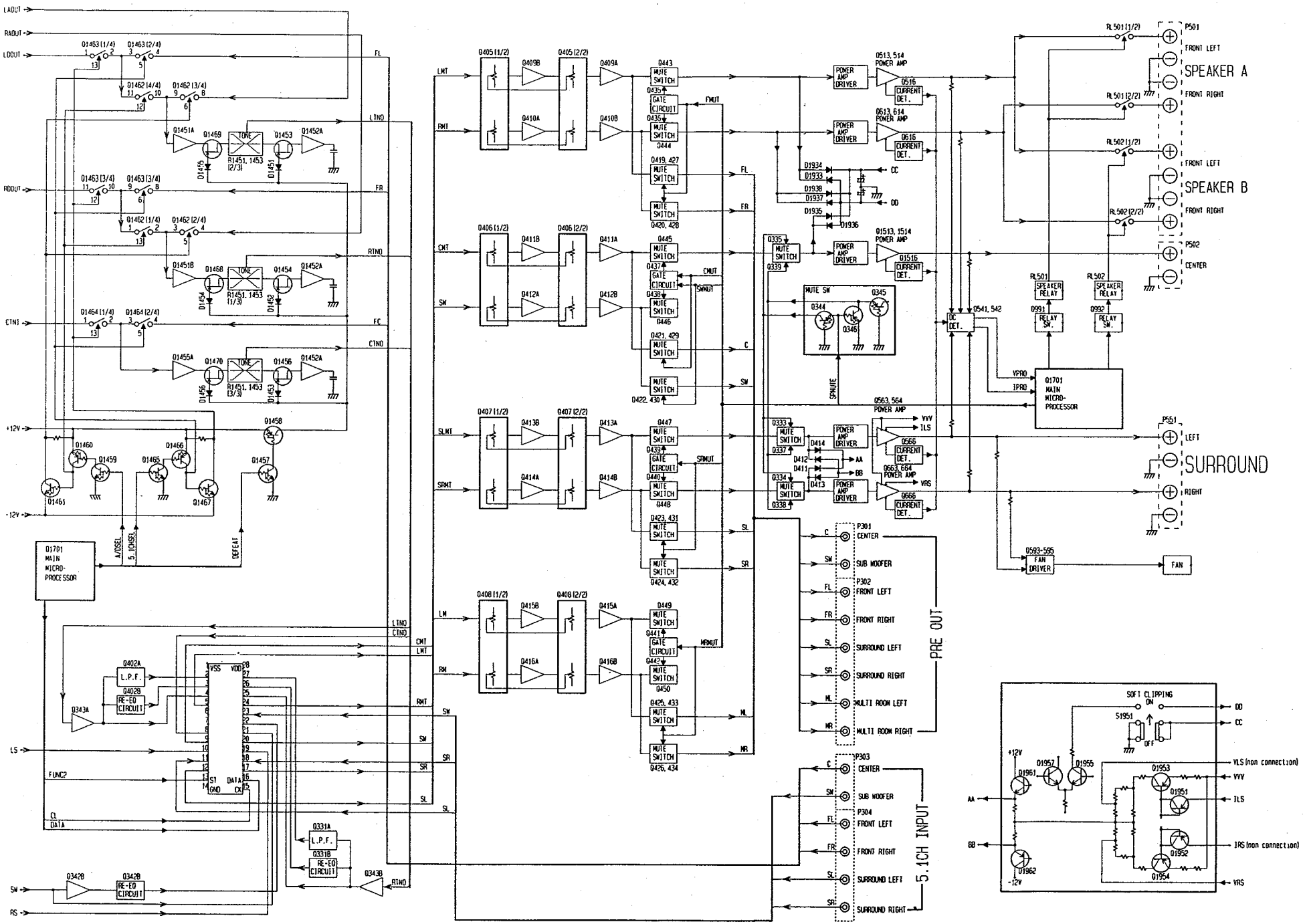
Intermediate Frequency	450 ± 0.01kHz	
Maximum Sensitivity	70 dB/m	603,990,1404 kHz
Usable Sensitivity	15 dB	603,990,1404 kHz
		600,990,1400 kHz
Image Rejection Ratio	28 dB min.	1404 / 1400 kHz
IF Rejection Ratio	40 dB min.	603 / 600 kHz
Signal to Noise Ratio	40 dB min.	990 kHz
Fixed Output Level	100 mV min.	990 kHz
T.H.D.	1.5 % max.	990 kHz

(FM)

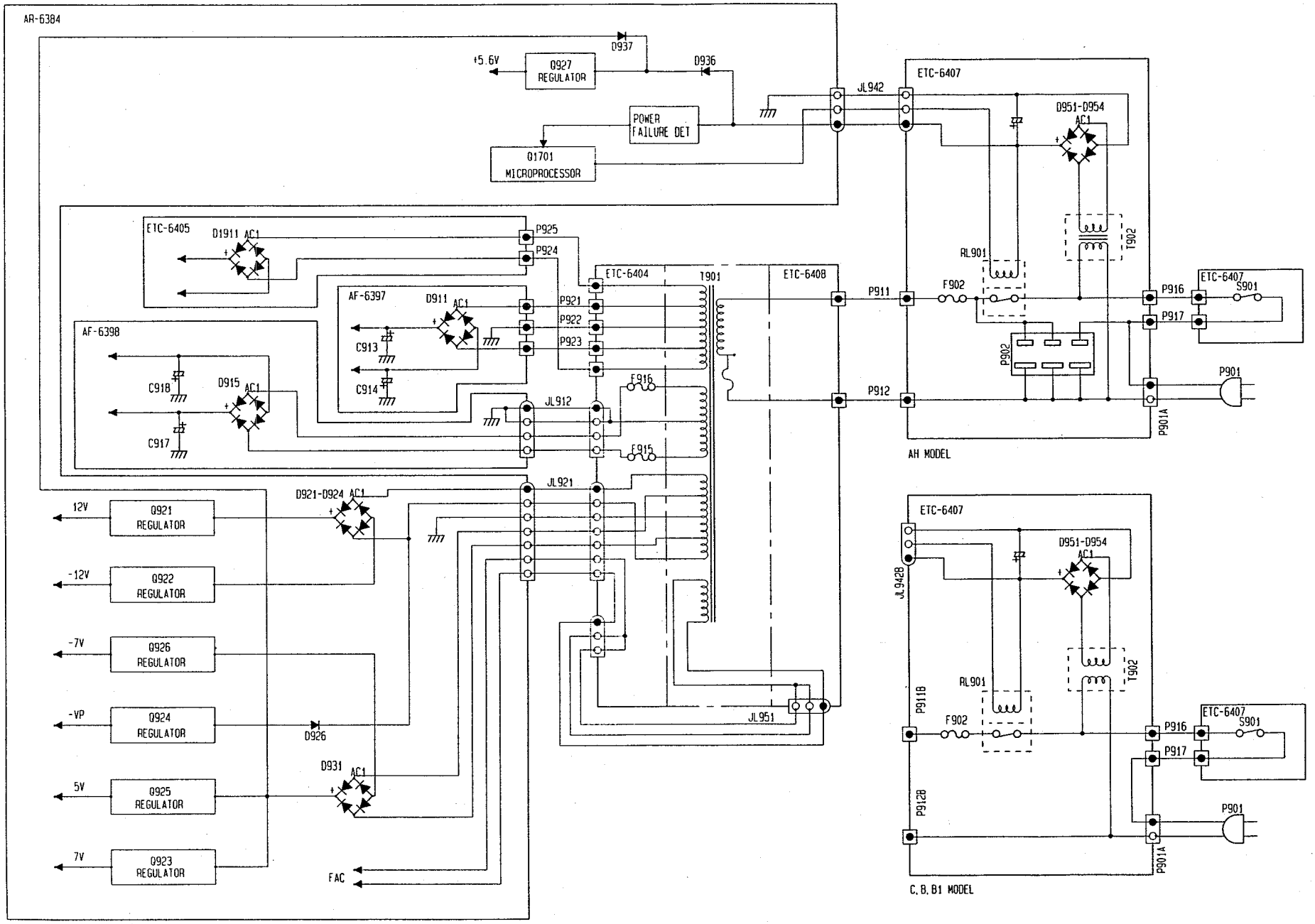
Tuning Range	87.5 MHz	Fmin.
Tuning Range	108.0 MHz	Fmax.
Intermediate Frequency	10.7 ± 0.002MHz	
Usable Sensitivity	30 dB min.	87.5 ,98, 108 MHz
3dB Limited Sensitivity	6 dBμV max.	98 MHz
Image Rejection Ratio	35 / 70 dB min.	108 MHz (AH/C, B, B1)
IF Rejection Ratio	70 dB min.	90 MHz
Signal to Noise Ratio	65 dB min.	98 MHz
Fixed Output Level	500 ± 250 mV	AH (98MHz)
	700 ± 250 mV	C,B,B1
T.H.D.	0.6 % max.	Mono. (98MHz)
	1.5 % max.	Stereo
AM Suppression Ratio	45 dB min.	98 MHz
RDS Sensitivity	32dBμV max.	98 MHz, 1.0kHz Dev.

Available Remote Operations : T770

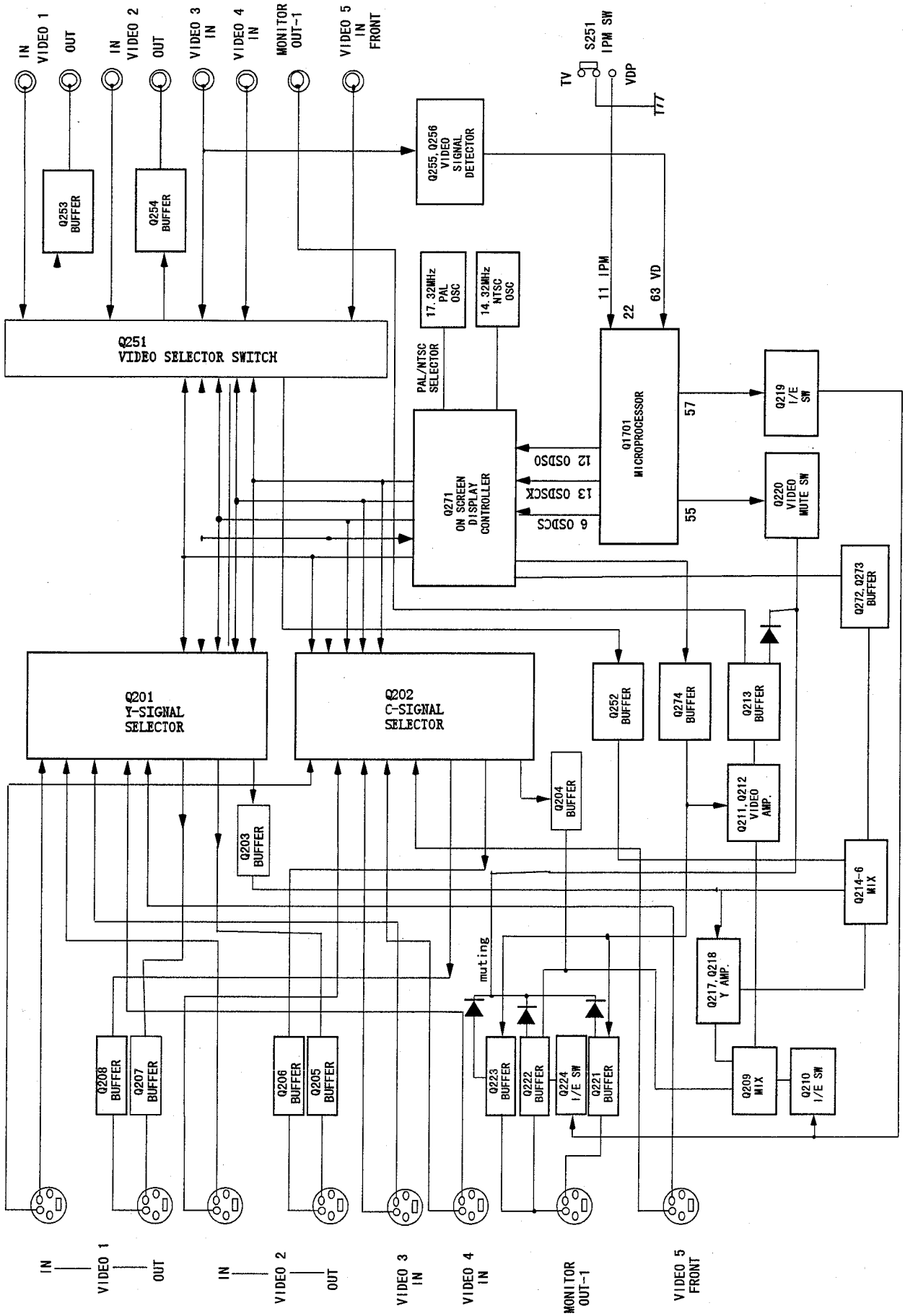
AUDIO SECTION BLOCK DIAGRAM



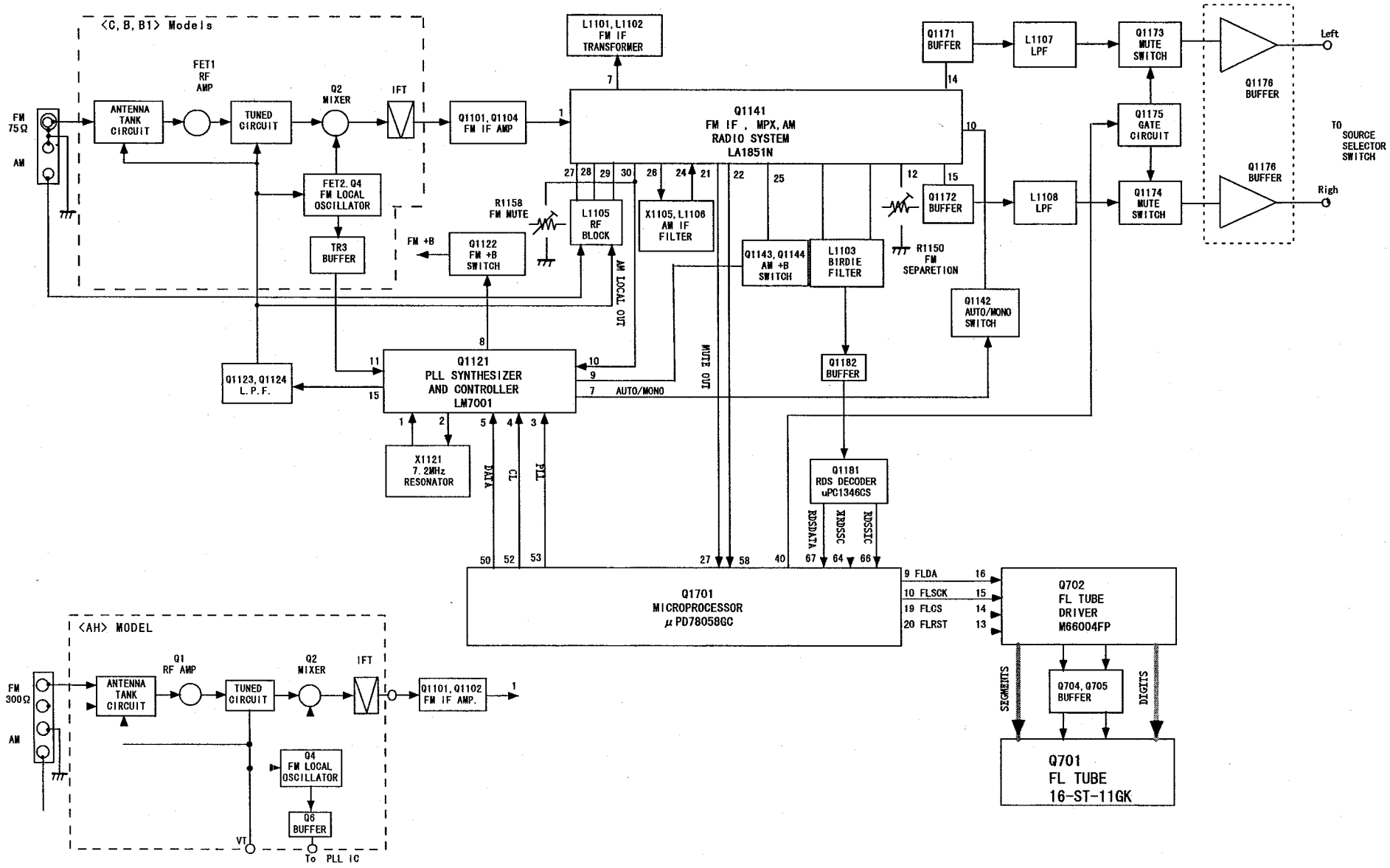
POWER SUPPLY SECTION BLOCK DIAGRAM



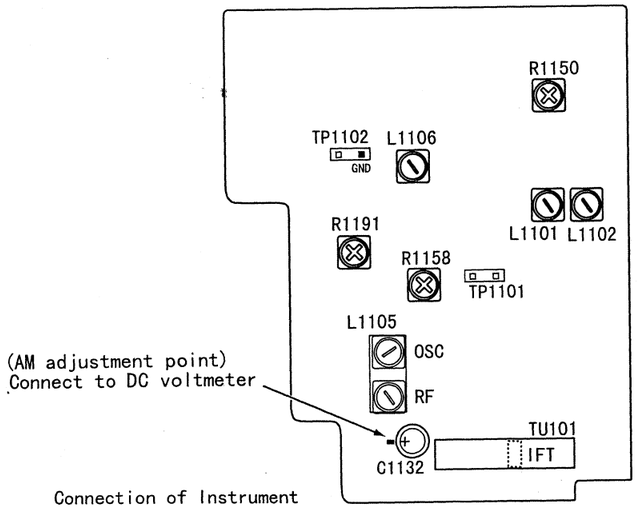
VIDEO SECTION BLOCK DIAGRAM



TUNER SECTION BLOCK DIAGRAM

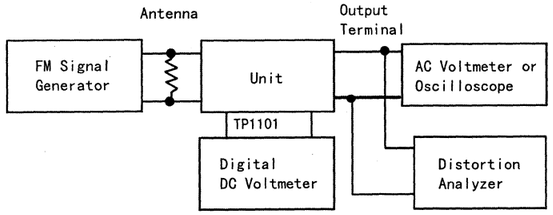


ADJUSTMENT POINTS

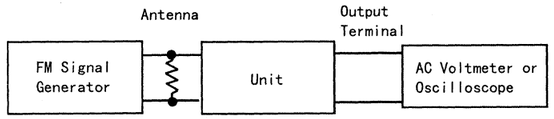


Connection of Instrument

FM Adjustment

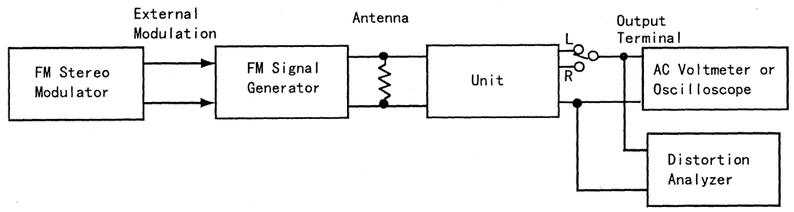


(Fig-1)

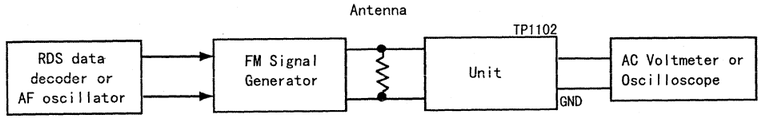


(Fig-2)

FM Stereo Adjustment

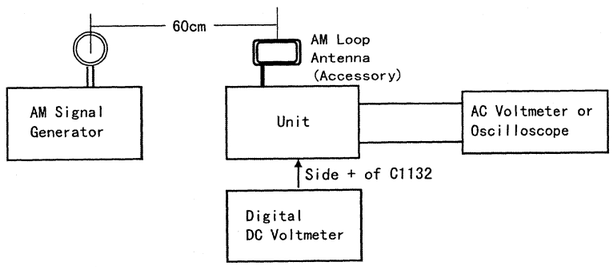


(Fig-3)



(Fig-4)

AM Ajustment



ADJUSTMENT PROCEDURES

Preparation

1. Input

FM mono : 1kHz, 75kHz devi., 60dB/μV

FM stereo: 1kHz, 67.5kHz devi., 60dB/μV

Pilot signal:19kHz 7.5kHz devi.

AM : 400Hz, 30% mod.

2. Outputs

Connect the non-inductive type resistor of 8 ohms to the all speaker terminals unless otherwise noted.

FM Adjustment

Item	Step	Connection of instrument	FM SG output	Stereo modulator output	Tuning frequency	Output indicator	Adjustment point	Adjust for	Remarks
FM IF/ RF	1	Fig.1	99.0MHz 1kHz 75kHz devi. 65dBf(60dBμ)	———	99.0MHz	DC voltmeter	L1101	0±20mV	FM MUTE/MODE switch:OFF/MONO Repeat the steps 1 and 3 until no further adjustment is necessary.
	2					AC voltmeter	IFT on the front end	Maximum	
	3					Distortion analyzer	L1102	Minimum	
Stereo Distortion		Fig.3	99.0MHz Ext. mod. 65dBf(60dBμV)	Channel L or R 1kHz	99.0MHz	Distortion analyzer	IFT on the front end	Minimum	Don't turn more than ±180°
Stereo Separation	1	Fig.3	99.0MHz Ext. mod. 65dBf(60dBμV)	Channel L 1kHz	99.0MHz	Channel R AC voltmeter	R1150	Minimum	Maximum and same separation
	2			Channel R 1kHz		Channel L AC voltmeter		Minimum	
Muting Level		Fig. 2	99.0MHz 1kHz 22.5kHz devi. 19.2dBf(14dBμV)	———	99.0MHz	Oscilloscope	R1158	TUNED indicator lights on	
RDS		Fig.4	98.0MHz Ext. mod. 65dBf(60dBμV)	RDS data or 57kHz 3% devi.	98.0MHz	Oscilloscope	R1191	Maximum	

AM ADJUSTMENT

AH model

Step (model)	AM SG output	Tuning Frequency	Output Indicator	Adjustment point	Adjust for
1		530kHz	Digital DC voltmeter	OSC coil on RF block L1105	1.4±0.2V
2	600kHz 400Hz 30% mod. 60dB/m	600kHz	AC voltmeter	RF coil on RF block L1105	Maximum
3		990kHz	AC voltmeter	L1106	Maximum

Reference Specification

FM tuned voltage: 87.50MHz ~ 108.00MHz

More than 1.3V ~ Less than 9V

AM tuned voltage: 530kHz ~ 1710kHz

1.4V ±0.4 ~ Less than 9.0V

B, B1, C models

Step	AM SG output	Tuning Frequency	Output Indicator	Adjustment point	Adjust for
1		522kHz or 531kHz	Digital DC voltmeter	OSC coil on RF block L1105	1.4±0.2V
2	600kHz 400Hz 30% mod. 60dB/m	603kHz	AC voltmeter	RF coil on RF block L1105	Maximum
3		999kHz	AC voltmeter	L1106	Maximum

Reference Specification

FM tuned voltage: 87.50MHz ~ 108.00MHz

More than 1.3V ~ Less than 9V

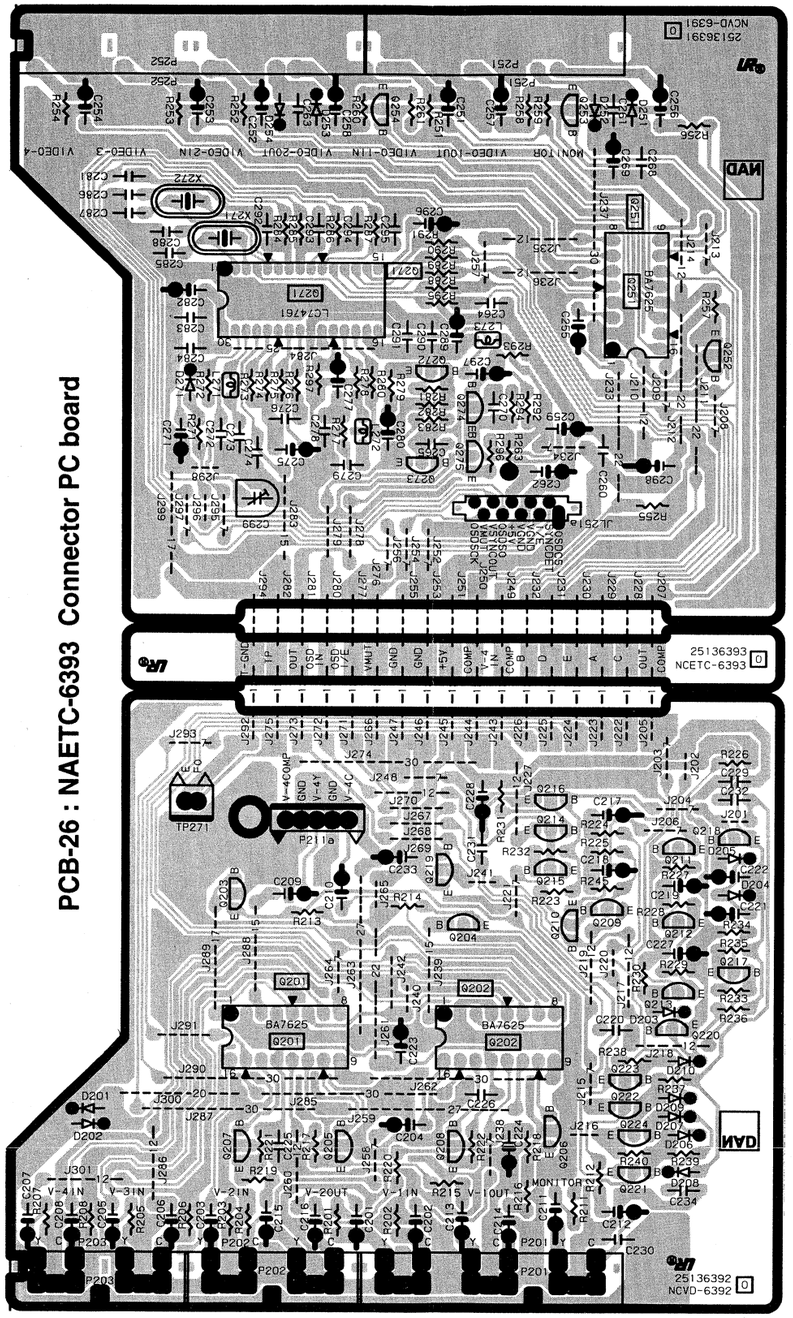
AM tuned voltage: 522kHz ~ 1611kHz

(230V model) 1.4V ±0.4 ~ Less than 9.0V

AM tuned voltage: 531kHz ~ 1602kHz

(Worldwide model) 1.4V ±0.4 ~ Less than 9.0V

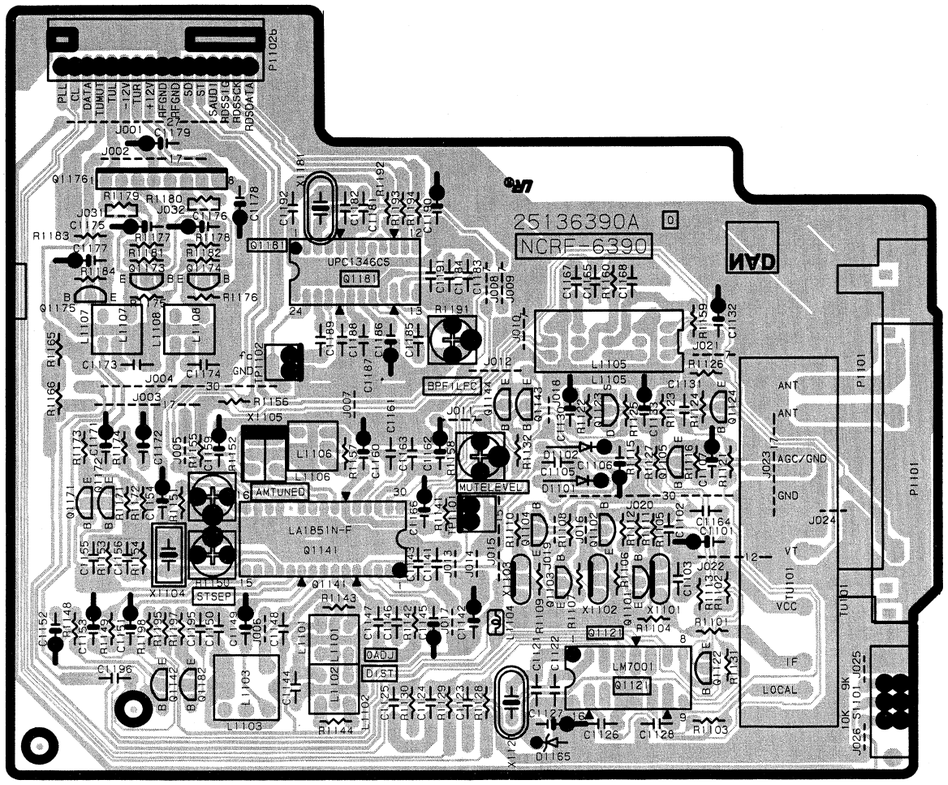
PCB-20 : NAVD-6391 Composite video circuit PC board



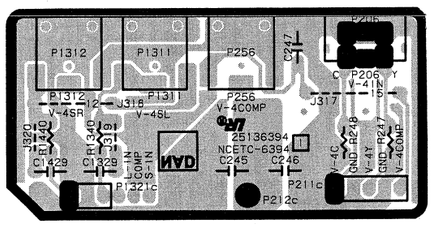
PCB-26 : NAETC-6393 Connector PC board

PCB-21 : NAVD-6392 Video circuit PC board

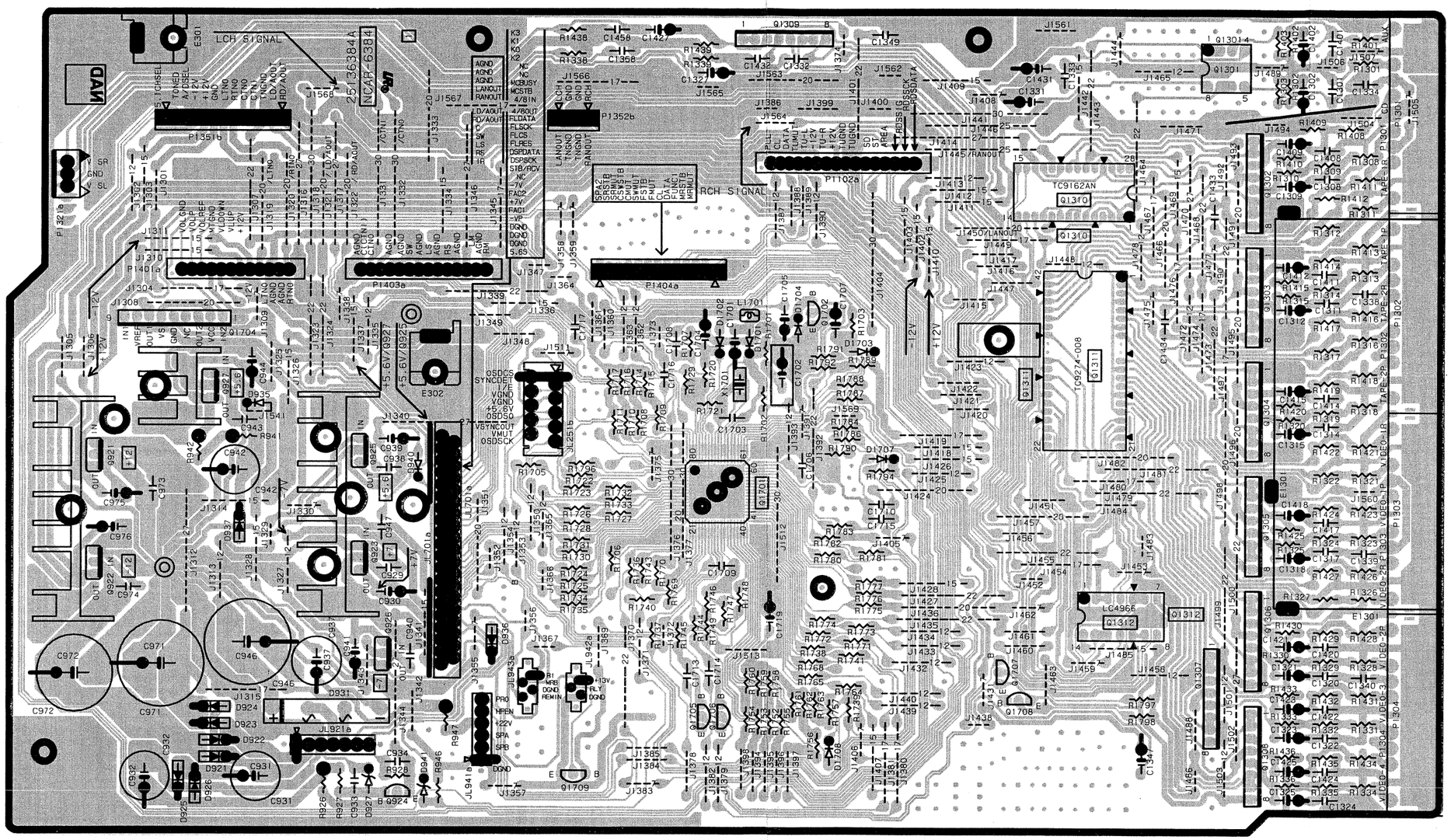
PCB-19 : NARF-6390 Tuner circuit PC board



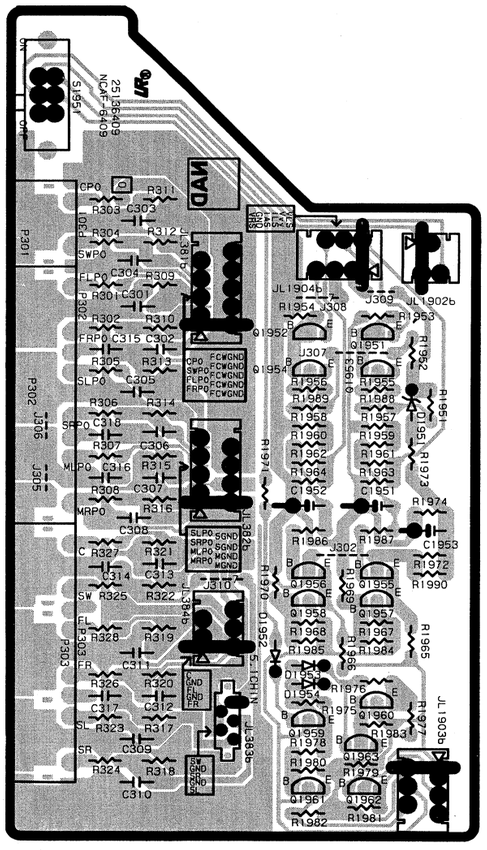
PCB-25 : NAETC-6394
Front video terminal PC board



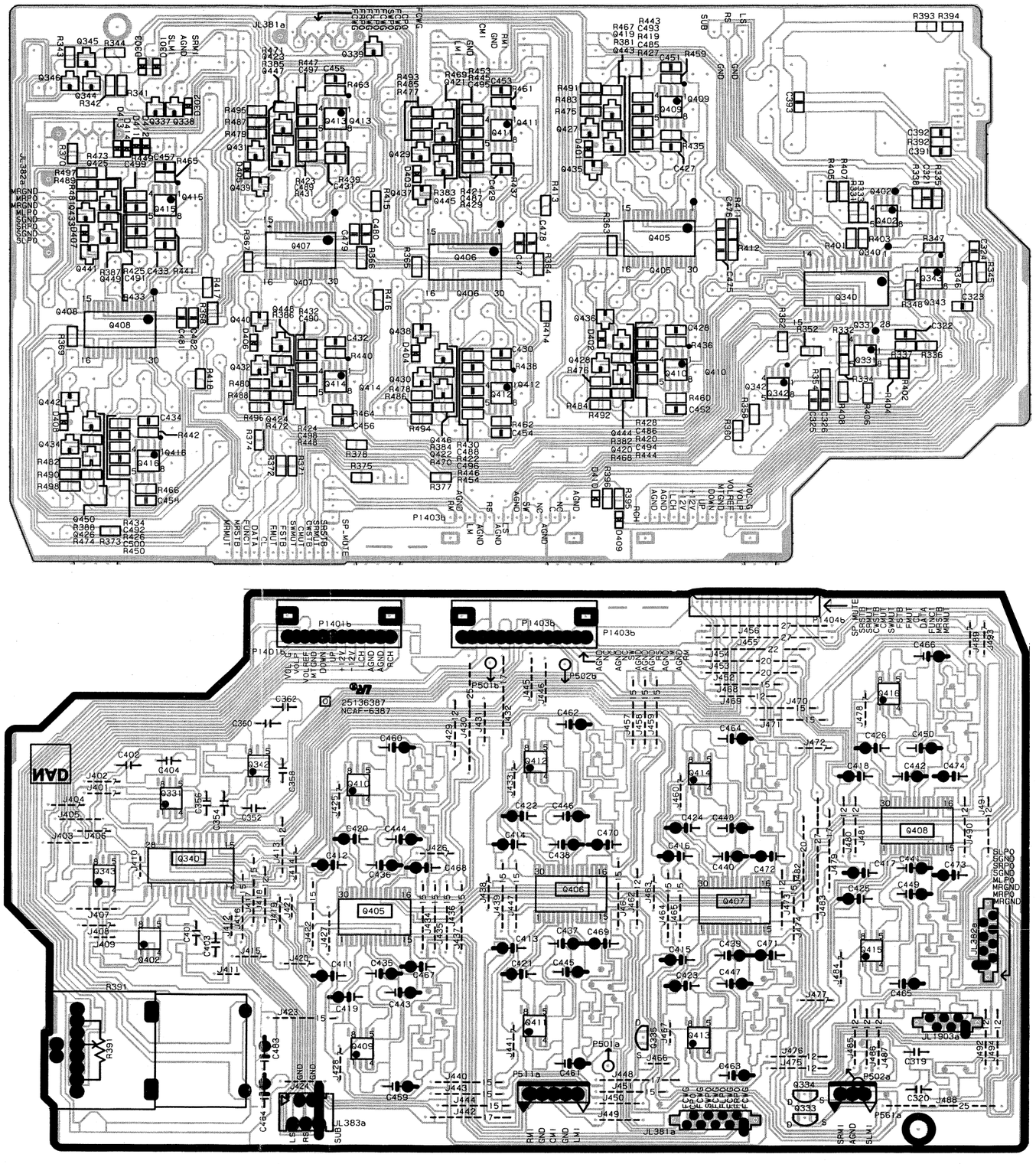
PCB-1 : NAAR-6384 Main circuit PC board



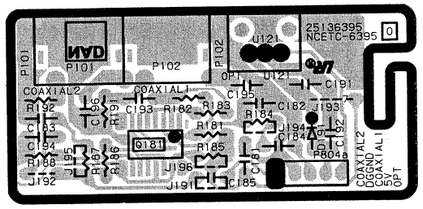
PCB-5 : NAAF-6409 Pre. output terminal PC board



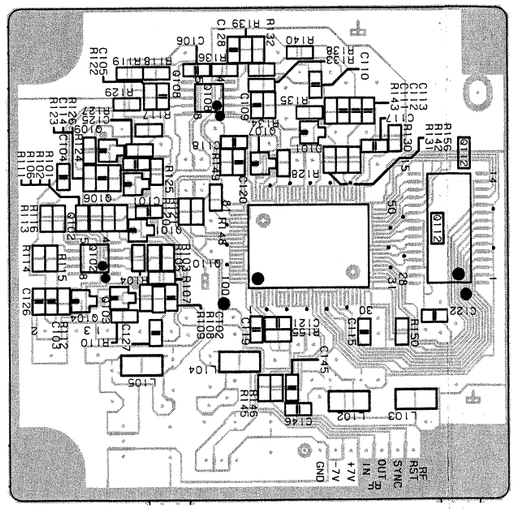
PCB-16 : NAAF-6387-1 Volume circuit PC board

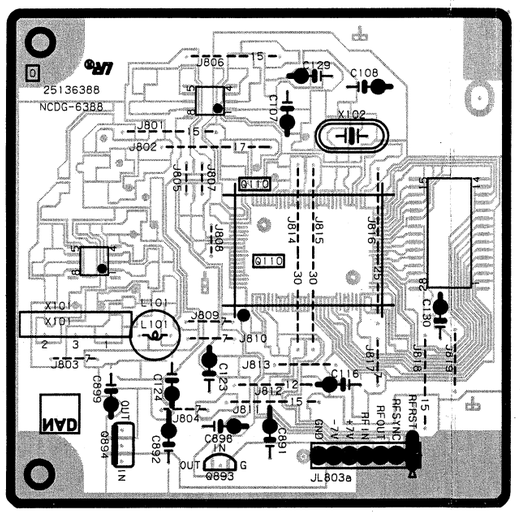


PCB-22 : NAETC-6395
Digital input terminal PC board

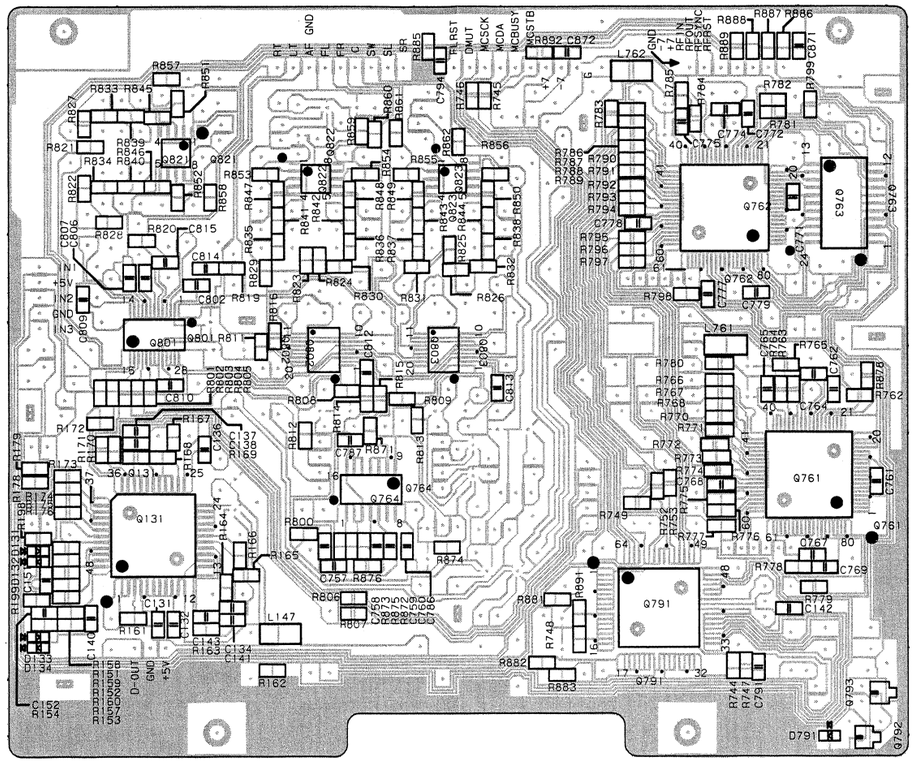


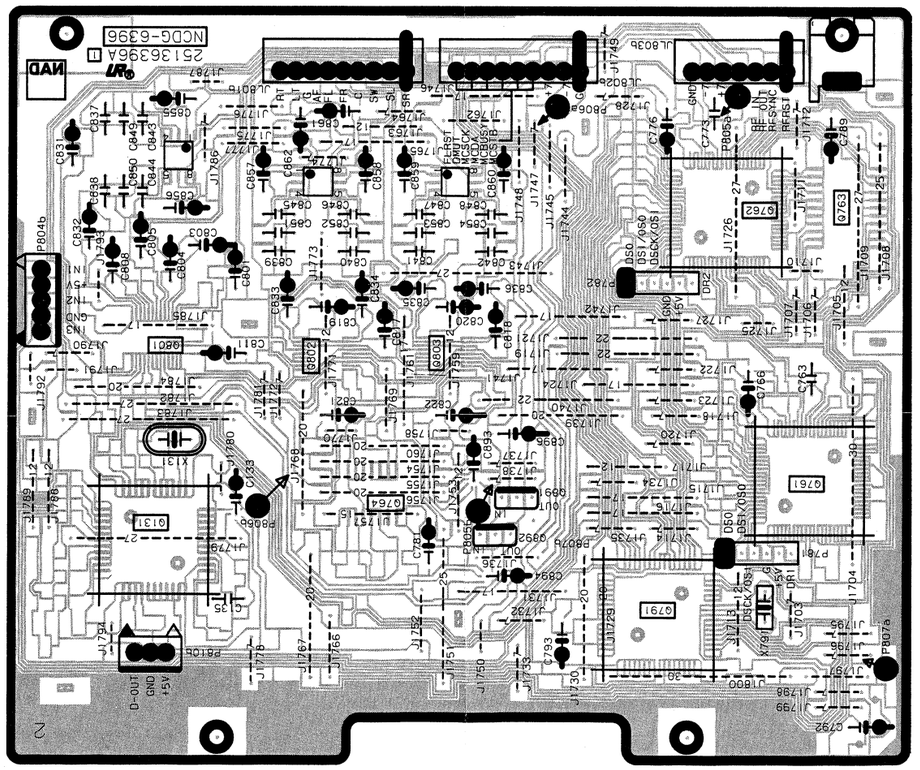
PCB-30 : NADG-6388 AC-3 circuit PC board



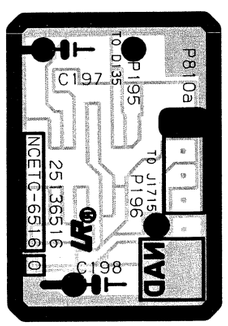


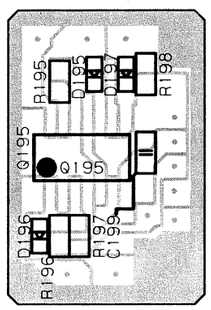
PCB-27 : NADG-6396 DSP circuit PC board



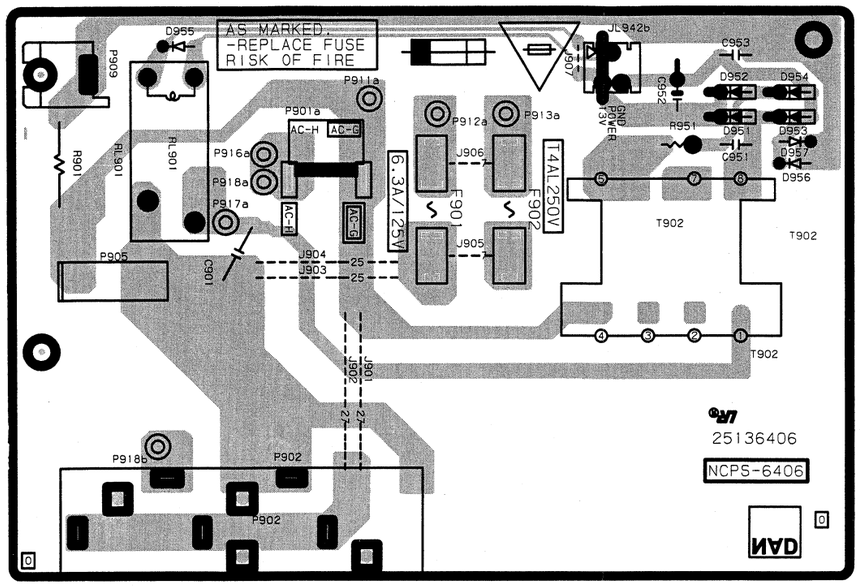


PCB-35 : NAETC-6516
DSP sub PC board

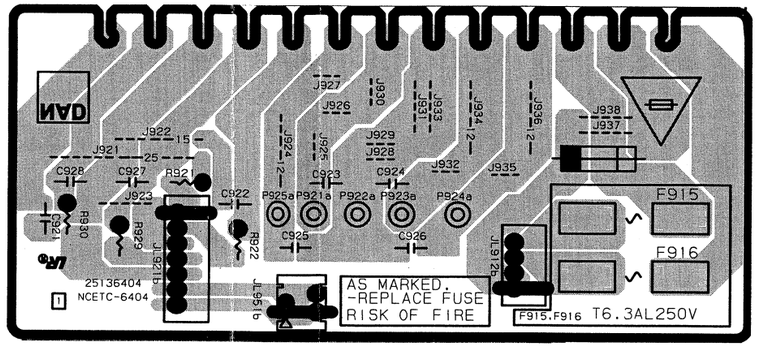




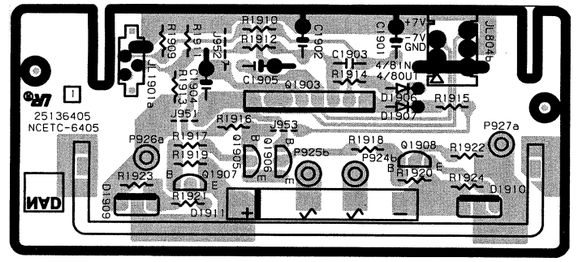
PCB-8 : NAPS-6406 Power supply circuit PC board



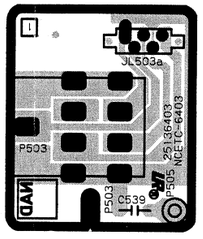
PCB-10 : NAETC-6404 Secondary circuit PC board



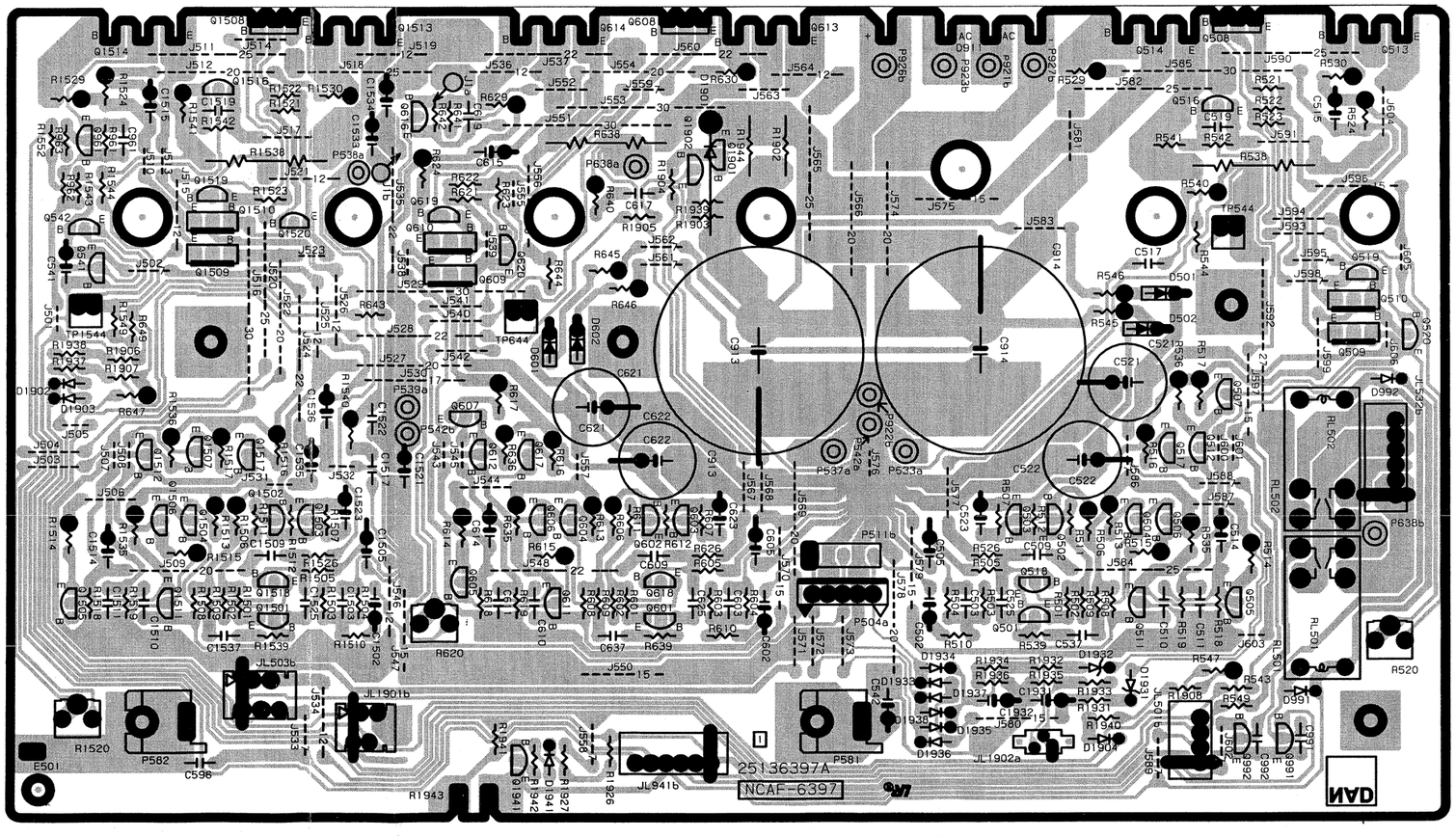
PCB-32 : NAETC-6405 Regulator circuit PC board



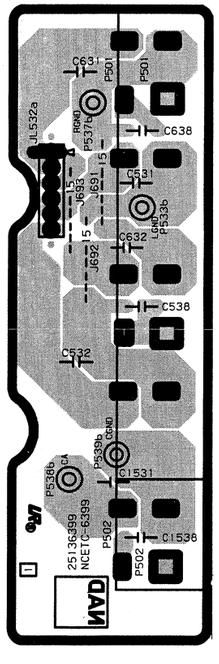
PCB-17 : NAETC-6403 Headphone terminal PC board



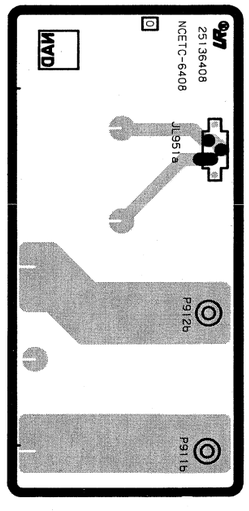
PCB-6 : NAAF-6397 Front and center power amplifier PC board



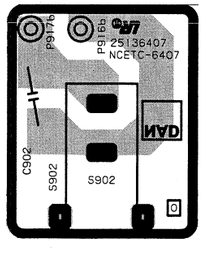
PCB-12 : NAETC-6399 Speaker terminal PC board



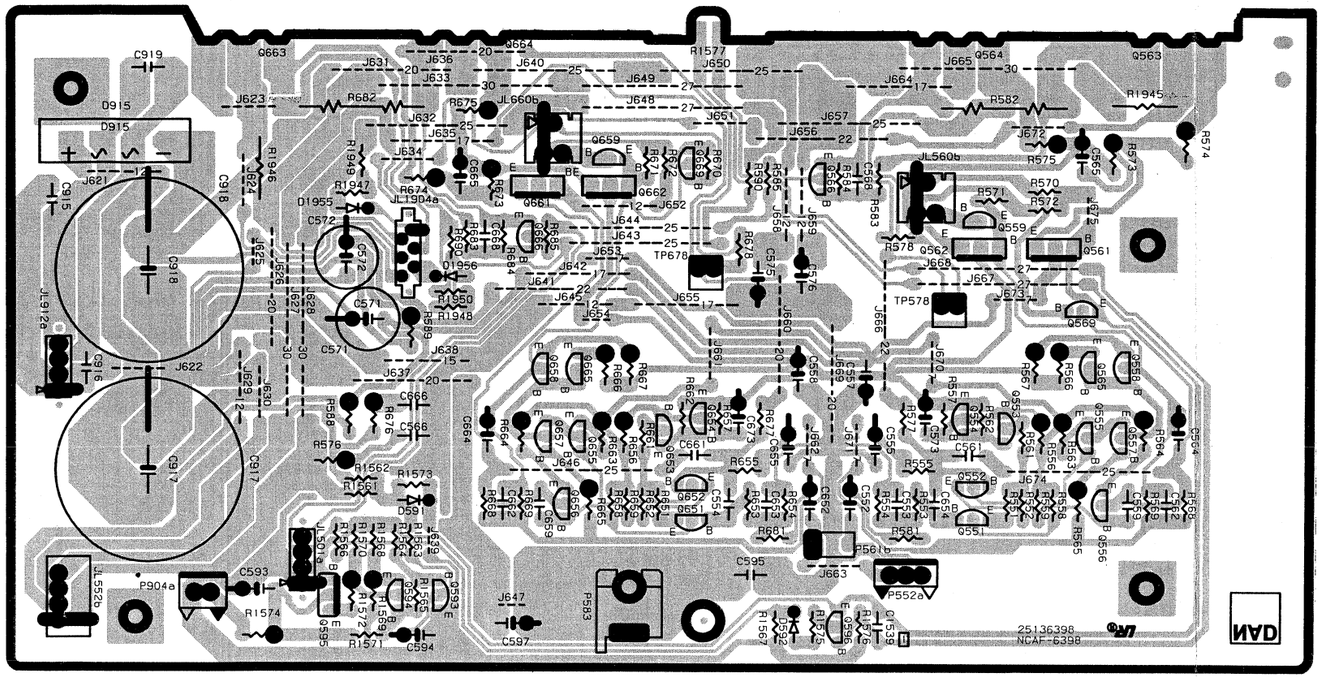
PCB-11 : NAETC-6408 Terminal PC board



PCB-13 : NAETC-6407 Power switch PC board

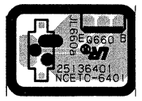


PCB-7 : NAAF-6398 Surround power amplifier PC board

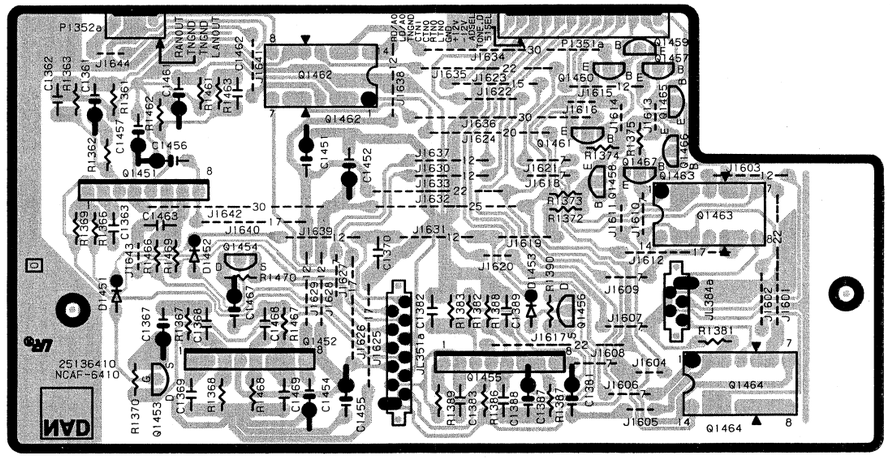


PCB-29 : NAETC-6402
Thermal compensation PC board

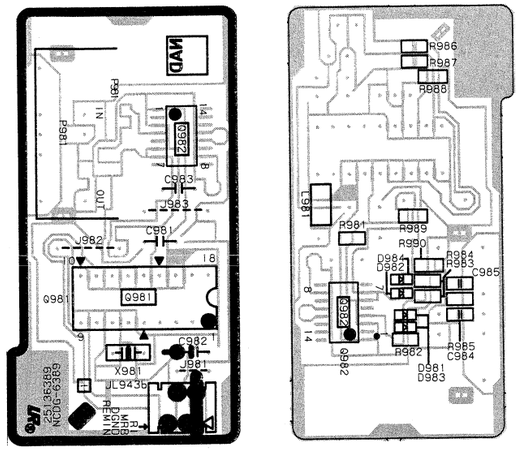
PCB-28 : NAETC-6401
Thermal compensation PC board



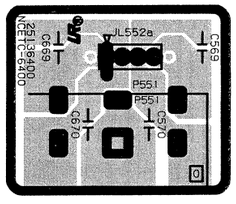
PCB-2 : NAAF-6410 Tone control circuit PC board



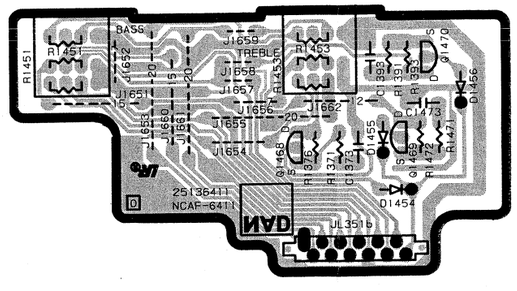
PCB-23 : NADG-6389
NAD link PC board



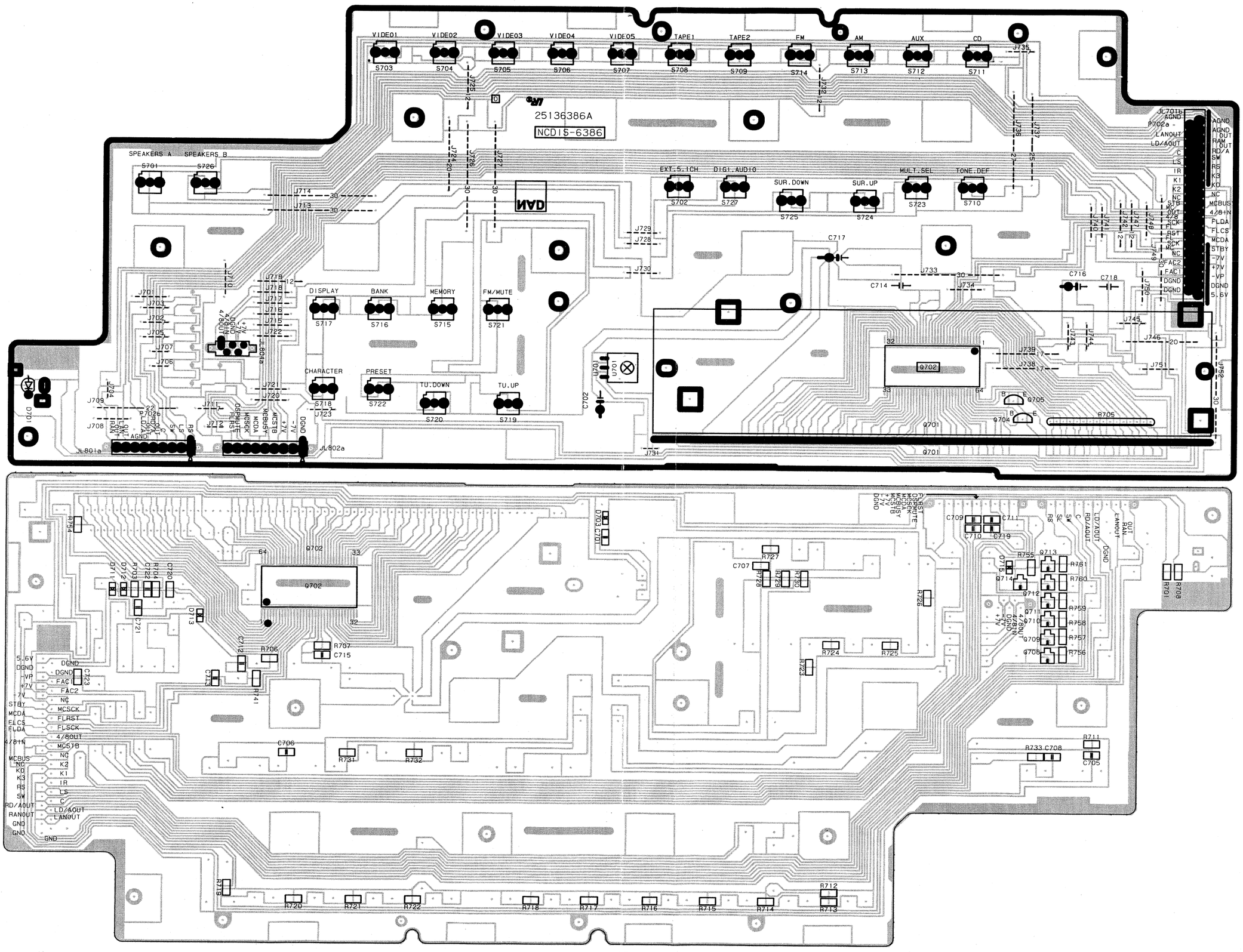
PCB-4 : NAETC-6400
Surround speaker terminal PC board



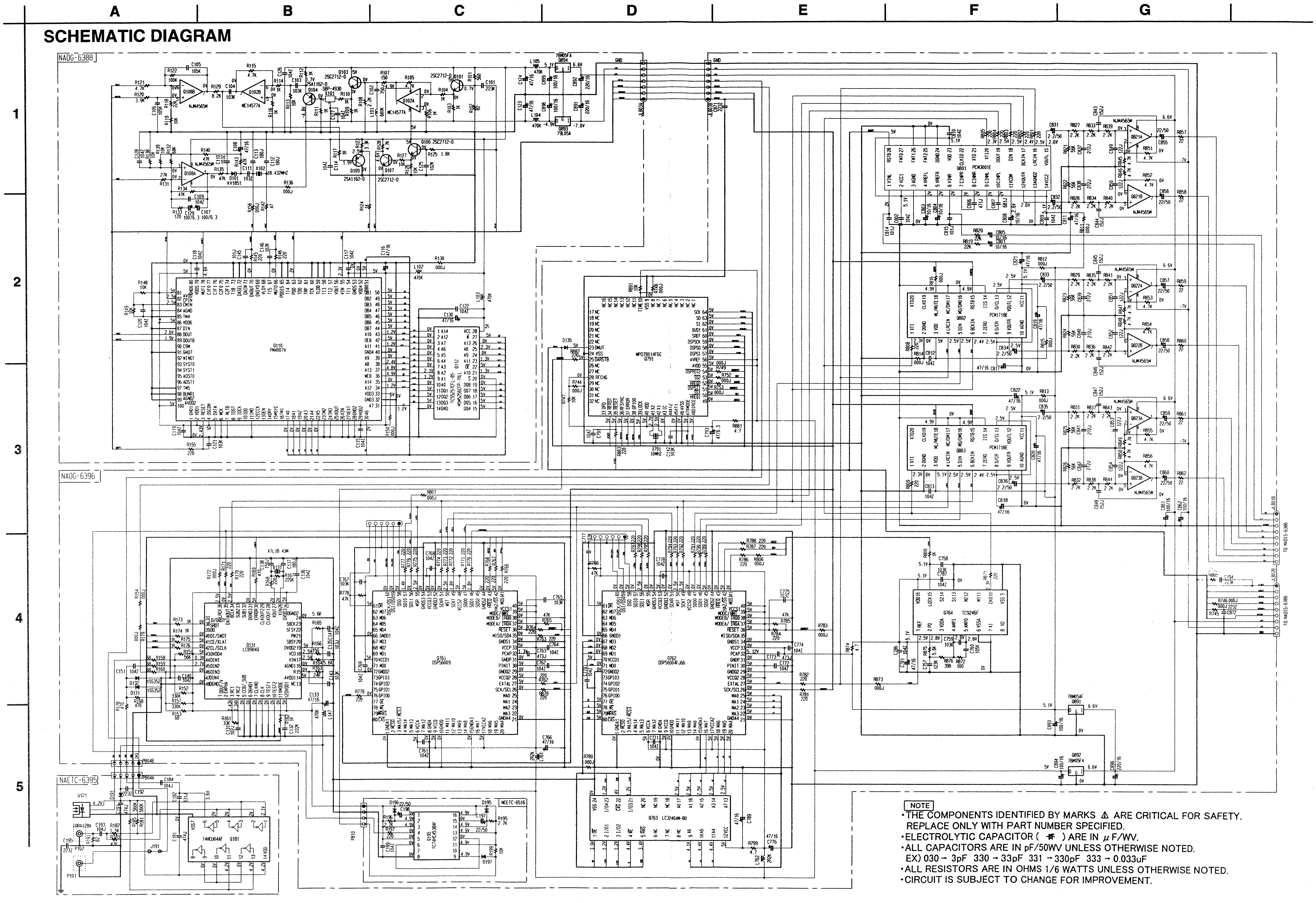
PCB-3 : NAAF-6411 Tone volume PC board



PCB-15 : NADIS-6386 Display circuit PC board



SCHEMATIC DIAGRAM



NOTE

- THE COMPONENTS IDENTIFIED BY MARKS ⚠ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- ELECTROLYTIC CAPACITOR (⊣⊢) ARE IN μF/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
  EX) 030 → 3pF 330 → 33pF 331 → 330pF 333 → 0.033uF
- ALL RESISTORS ARE IN OHMS 1/6 WATTS UNLESS OTHERWISE NOTED.
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

SCHEMTIC DIAGRAM

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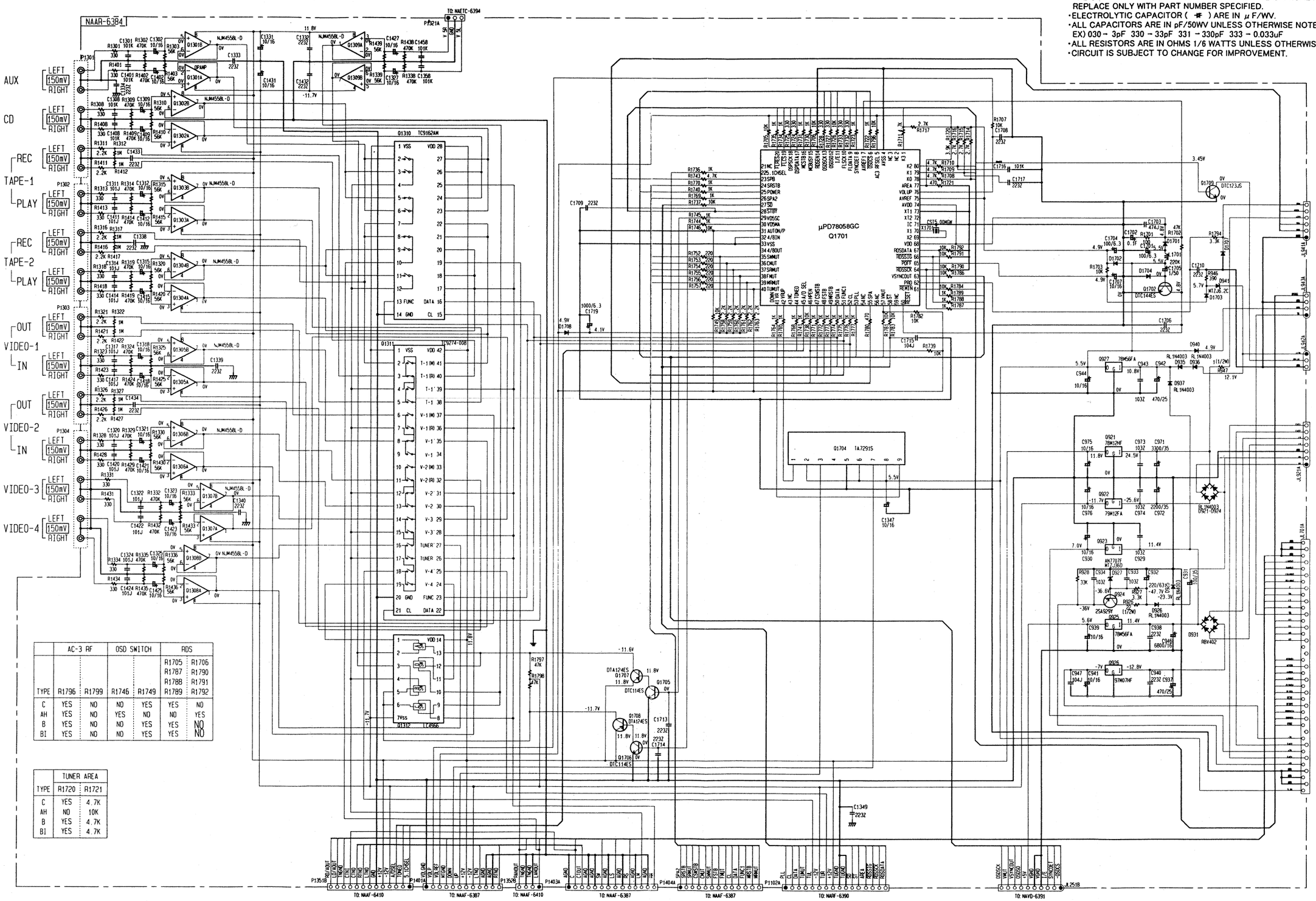
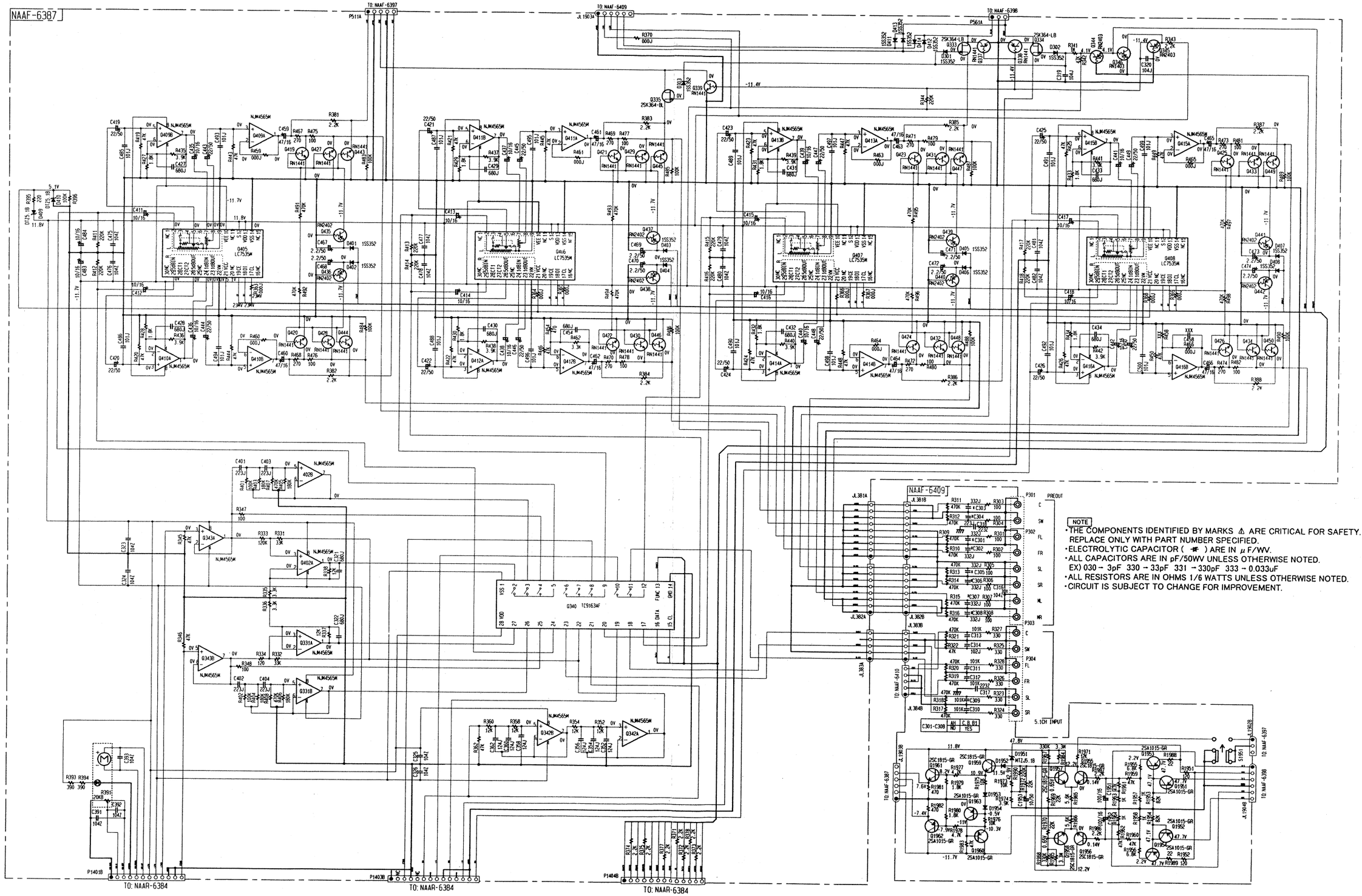


TYPE	AC-3 RF R1796	AC-3 RF R1799	OSD SWITCH R1746	OSD SWITCH R1749	RDS R1705	RDS R1706	RDS R1787	RDS R1790	RDS R1788	RDS R1791	RDS R1789	RDS R1792
C	YES	NO	NO	YES	YES	NO						
AH	YES	NO	YES	NO	NO	YES						
B	YES	NO	NO	YES	YES	NO						
BI	YES	NO	NO	YES	YES	NO						

TYPE	TUNER AREA R1720	TUNER AREA R1721
C	YES	4.7K
AH	NO	10K
B	YES	4.7K
BI	YES	4.7K

SCHEMATIC DIAGRAM



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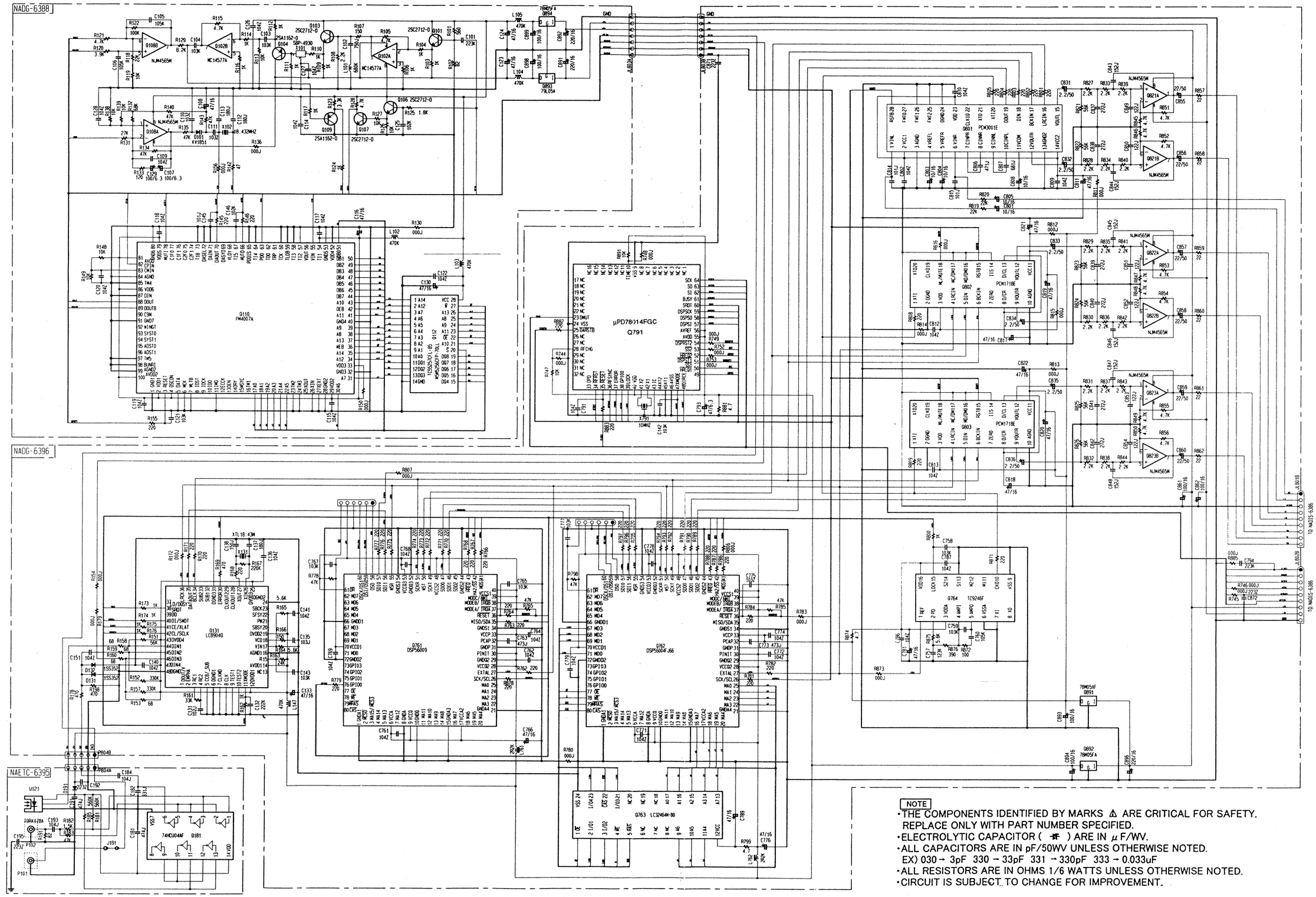
SCHEMATIC DIAGRAM



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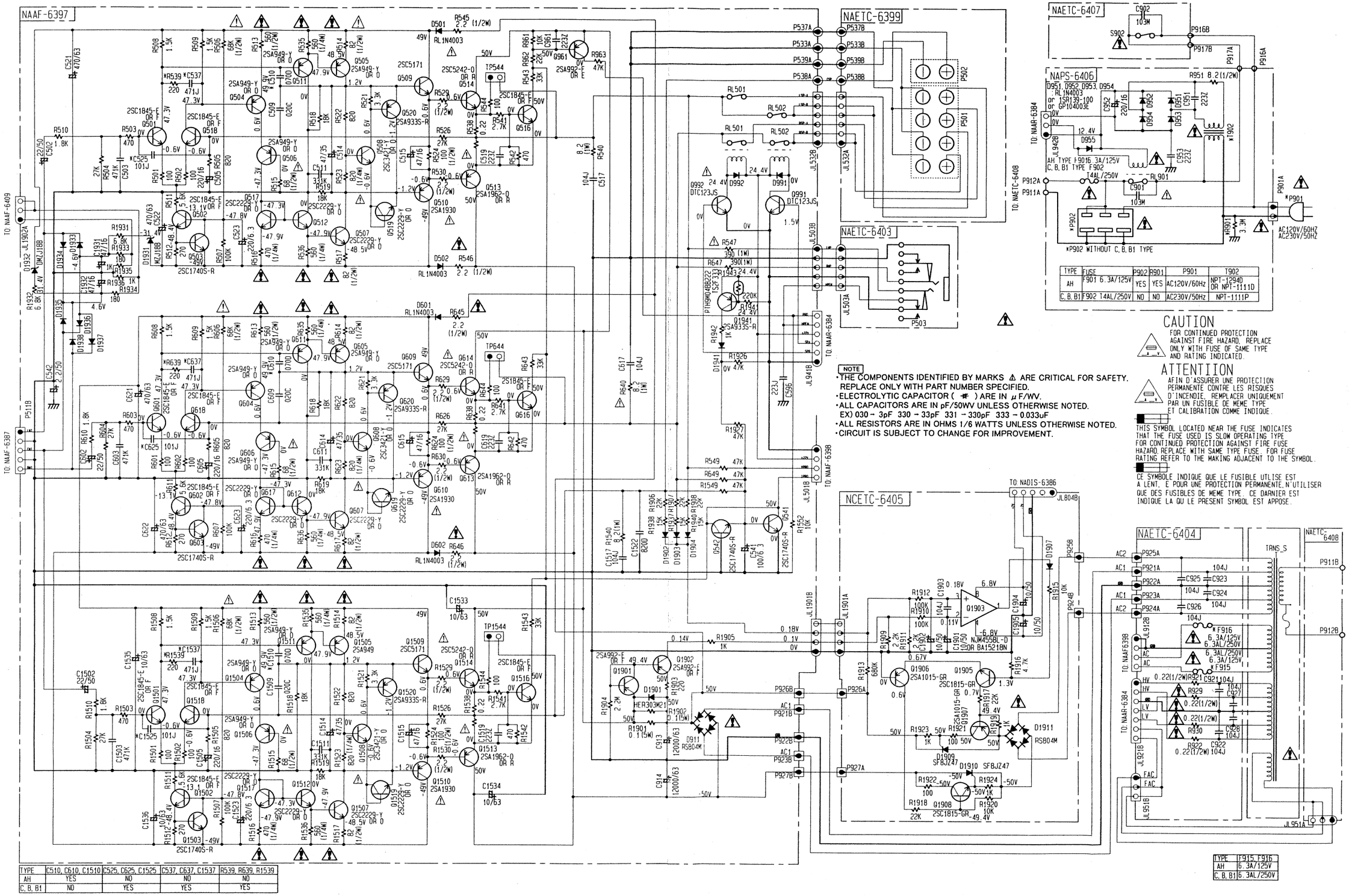
SCHEMATIC DIAGRAM



TYPE	FUSE	P902	R901	P901	T902
AH	F901 6.3A/125V	YES	YES	AC120V/60Hz	NPT-1294D OR NPT-1111D
C, B, B1	F902 T4AL/250V	NO	NO	AC230V/50Hz	NPT-1111P

TYPE	C510, C610, C1510	C525, C625, C1525	C537, C637, C1537	R539, R639, R1539
AH	YES	NO	NO	NO
C, B, B1	NO	YES	YES	YES

TYPE	F915, F916
AH	6.3A/125V
C, B, B1	6.3AL/250V

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CAUTION

FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH FUSE OF SAME TYPE AND RATING INDICATED.

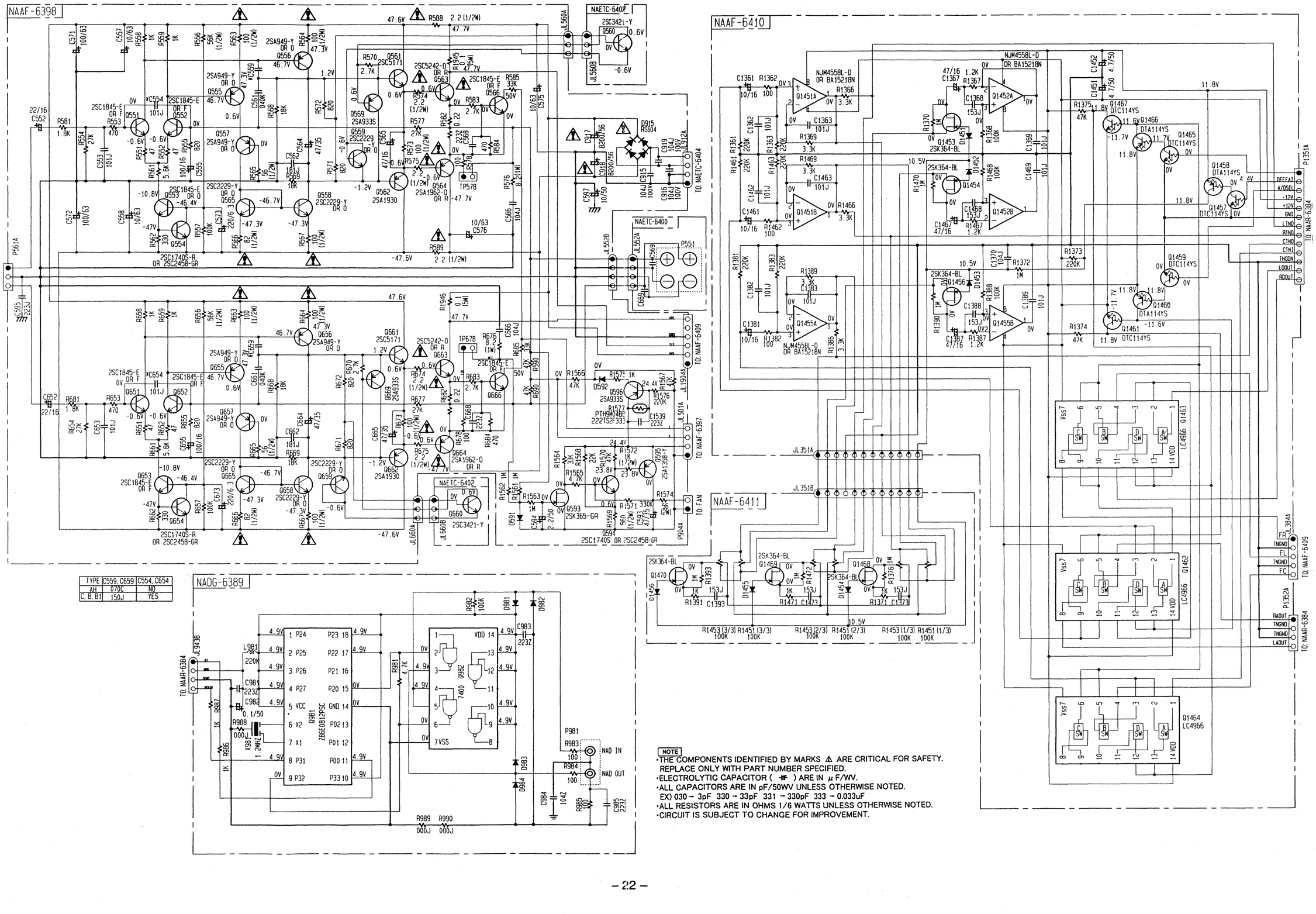
ATTENTION

AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET CALIBRATION COMME INDIQUE.

THIS SYMBOL LOCATED NEAR THE FUSE INDICATES THAT THE FUSE USED IS SLOW OPERATING TYPE FOR CONTINUED PROTECTION AGAINST FIRE FUSE HAZARD. REPLACE WITH SAME TYPE FUSE. FOR FUSE RATING REFER TO THE MAKING ADJACENT TO THE SYMBOL.

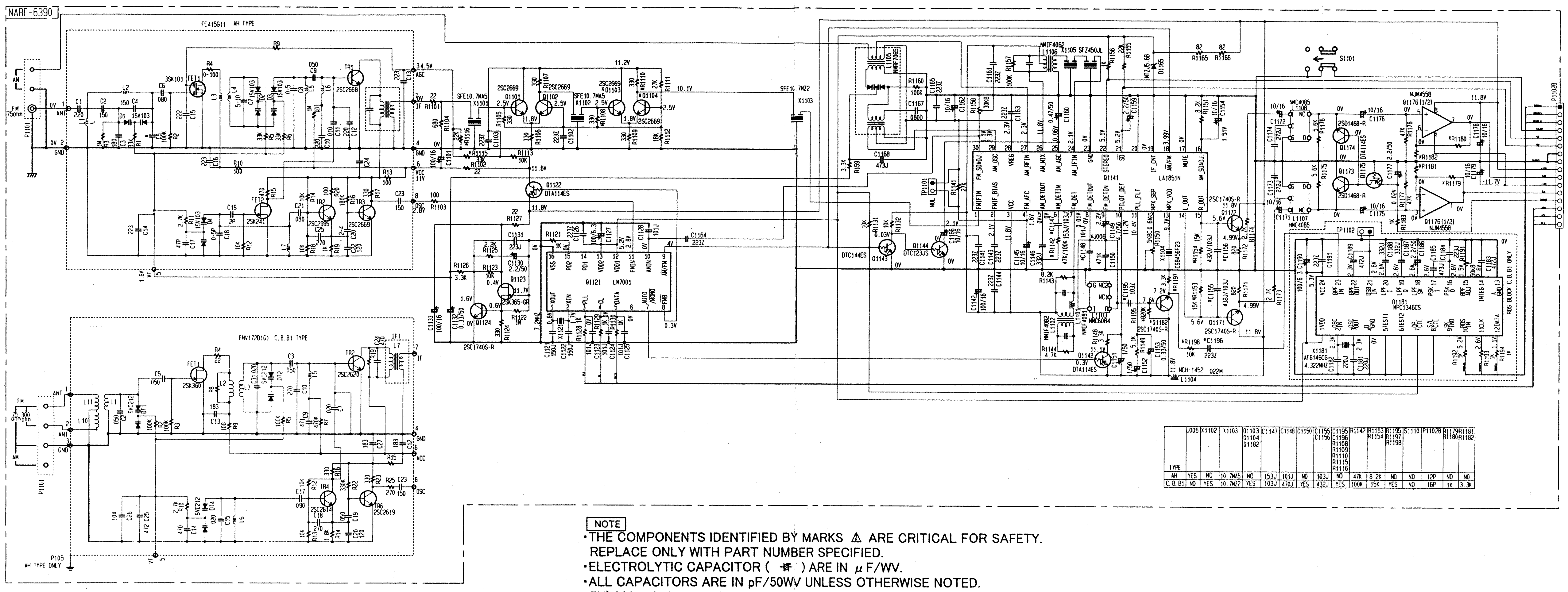
CE SYMBOLE INDIQUE QUE LE FUSIBLE UTLISE EST A LENT. E POUR UNE PROTECTION PERMANENTE, N'UTILISER QUE DES FUSIBLES DE MEME TYPE. CE DARNIER EST INDIQUE LA QU'LE PRESENT SYMBOL EST APPOSE.

SCHEMATIC DIAGRAM



TYPE	C559, C659	C554, C654
AH	070C	NO
C, B, B1	150J	YES

SCHEMATIC DIAGRAM



TYPE	J006	X1102	X1103	Q1103 Q1104 Q1182	C1147	C1148	C1150	C1155 C1156	C1195 C1196 R1108 R1109 R1110 R1115 R1116	R1142	R1153 R1154	R1195 R1197 R1198	S1110	P1102B	R1179 R1180	R1181 R1182
AH	YES	NO	10.7MA5	NO	153J	101J	NO	103J	NO	47K	8.2K	NO	NO	12P	NO	NO
C.B.B1	NO	YES	10.7MZ2	YES	103J	470J	YES	432J	YES	100K	15K	YES	NO	16P	1K	3.3K

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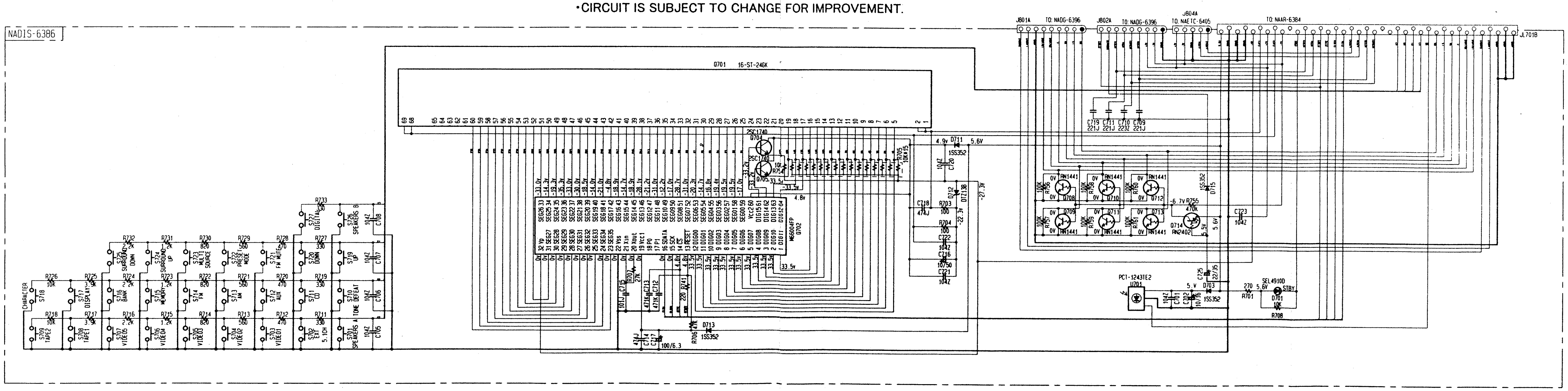
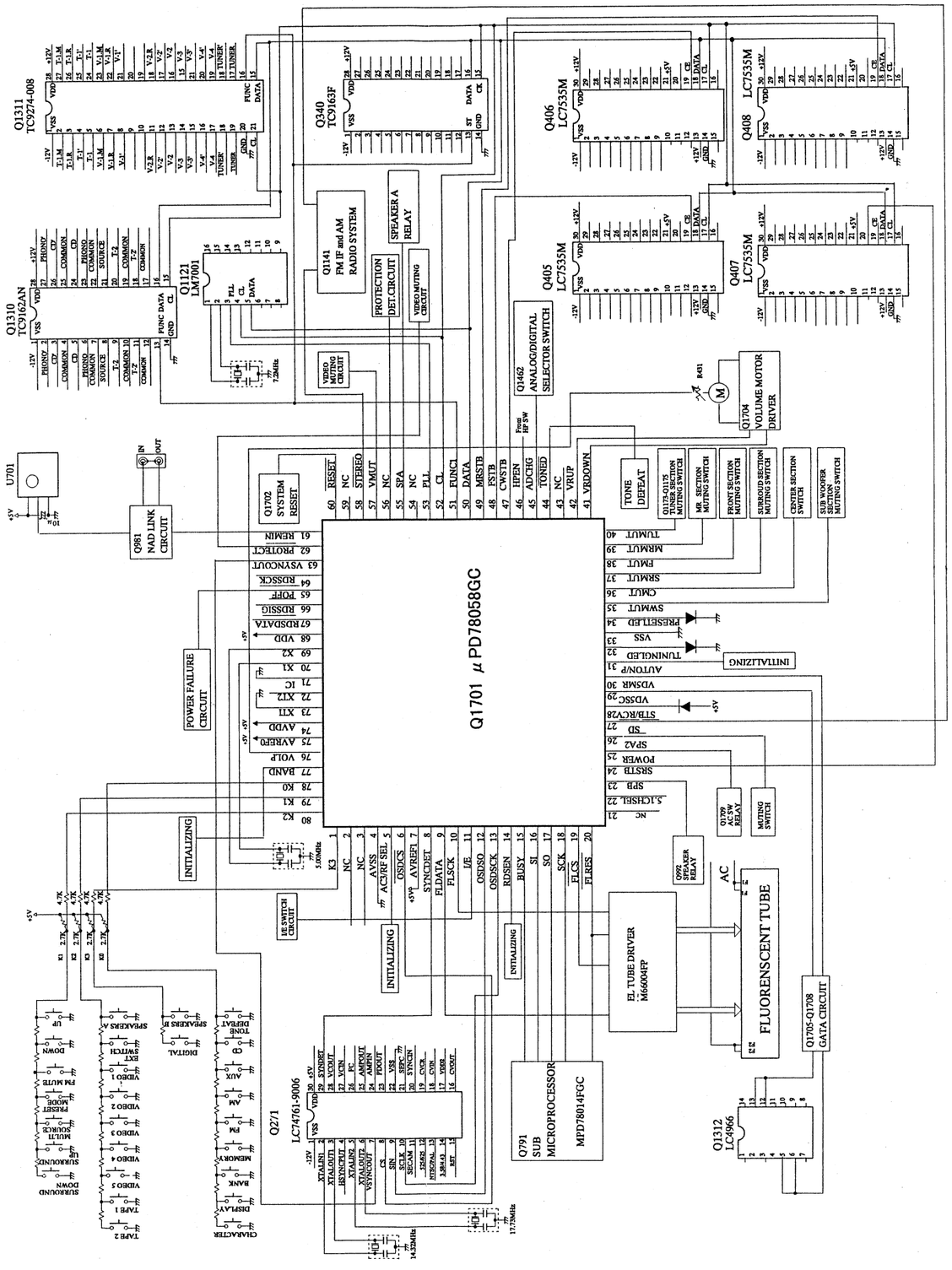


MAIN MICROPROCESSOR CONNECTION DIAGRAM

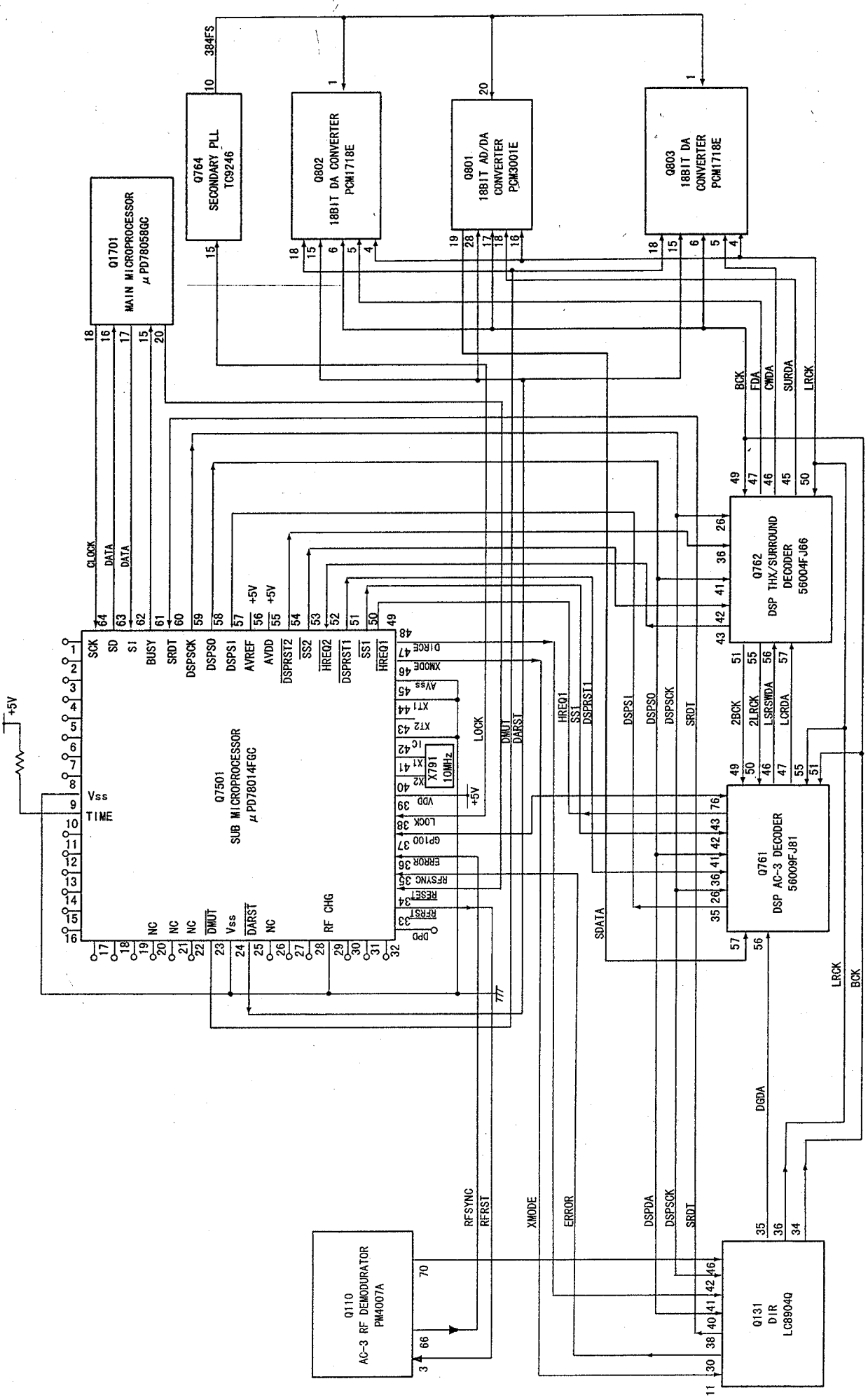


Main Microprocessor pin Description

No.	Mark	Symbol	Description
1	P15/ANI5	K3	Operation key connection pin
2	P16/ANI6	NC	
3	P17/ANI7	NC	
4	AVss	AVSS	Ground voltage pin for A/D converter
5	P130/ANO0	AC3/RF SEL	Initializing pin of AC3 RF function
6	P131/ANO1	OSDCS	Output pin to connect to the terminal CS for OSD controller LC7461
7	AVREF	AVREF1	Reference voltage pin for D/A converter
8	P70/SI2/RxD	SYNCDET	Judge input pin external synchronizing of OSD IC. External synchronizing when high level
9	P71/SO2/TxD	FLDATA	Data output pin to connect to pin SDTAT of FL tube driver IC
10	P72/SCK2/ASCK	FLSCK	Clock output pin to connect to pin SCK of FL tube driver IC
11	P20/SI1	I/E	Output pin to show the status of synchronizing for OSD IC. High level when external synchronizing.
12	P21/S01	OSDSO	Output pin to connect to the pin SIN of OSD controller.
13	P22/SCK1	OSDSCK	Output pin to connect to the pin SCLK of OSD controller.
14	P23/STB	RDSEN	Initializing input for RDS
15	P24/BUSY	BUSY	Busy pin for transfer to the sub microprocessor
16	P25/SI0/SB0	SI	Data input pin for transfer to the sub microprocessor
17	P26/SO0/SB1	SO	Data output pin for transfer to the sub microprocessor
18	P27/SCK0	SCK	Clock output pin for transfer to the sub microprocessor
19	P40/AD0	FLCS	Output pin to connect to pin CS of FL tube driver.
20	P41/AD1	FLRES	Output pin to connect to pin RES of FL tube driver. Use for the reset signal of sub microprocessor when power on.
21	P42/AD2	NC	Not used
22	P43/AD3	5.1CHSEL	Multi room indicator and control output pin
23	P44/AD4	SPB	Speaker B relay control output pin
24	P45/AD5	SRSTB	Strobe output pin to connect to the pin STB of Electro. volume
25	P46/AD6	POWER	Power source control pin
26	P47/AD7	SPA2	Muting output pin when SPEAKER switch is changed A.
27	P50/A8	SD	Station detection pin
28	P51/A9	STBY/RECV	RECEIVED or STANDBY indicator control output pin
29	P52/A10	VIDEO5	Control output pin for VIDEO-5 on the front panel. On when high level.
30	P53/A11	VIDEO5'	Control output pin for multi-source and recording of VIDEO-5 on the front panel.
31	P54/A12	AUTON/P	Initializing pin to select NTSC or PAL.
32	P55/A13	4/8 IN	4/8 ohm input pin.
33	Vss	VSS	Ground pin
34	P56/A14	4/8 OUT	4/8 ohm output pin.
35	P57/A15	WMUT	Muting control output pin for sub-woofer. On when high level
36	P60	CMUT	Muting control output pin for center amplifier. On when high level
37	P61	SRMUT	Muting control output pin for surround amplifier. On when high level
38	P62	FMUT	Muting control output pin for front amplifier. On when high level
39	P63	MRMUT	Muting control output pin for multi-amplifier. On when high level
40	P64/RD	TUMUT	Muting control output pin for tuner section. On when high level
41	P65/WR	VOLDOWN	Volume control output pin
42	P66/WAIT	VOLUP	These pins change as the below table by the signal from remote control transmitter.
43	P67/ASTB	NC	Not used
44	P30/TO0	TONED	Tone defeat select pin
45	P31/TO1	ADCHG	Analogue/digital selector switch pin
46	P32/TO2	HPEN	Detection input pin for insertion of headphone. When the headphone is used. The surround mode turns off.
47	P33/TI1	CWSTB	Strobe output pin to connect to the terminal STB of Electro volume.
48	P34/TI2	FSTB	Strobe output pin to connect to the terminal STB of Electro volume.
49	P35/PCL	MRSTB	Strobe output pin to connect to the terminal STB of Electro volume.
50	P36/BUZ	DATA	Data output pin to the, PLL, and Electro volume ICs.
51	P37	FUNC1	Strobe output pin to the function switch ICs.
52	P120/RTP0	CL	Strobe output pin to the function switch, PLL and Electro volume ICs.
53	P121/RTP1	PLL	Chip enable output pin to PLL IC.
54	P122/RTP2	NC	Not used
55	P123/RTP3	SPA	Control output pin for speaker relay A. On when high level.
56	P124/RTP4	NC	Not used
57	P125/RTP5	VMUT	Muting control output for video signal
58	P126/RTP6	STEREO	Input pin to detect the stereo broadcast. Low level when stereo broadcast.
59	P127/RTP7	NC	Not used
60	RESET	RESET	System reset input pin.
61	P00/INTP0/TI00	REMIN	Remote control signal input pin
62	P01/INTP1	PROTECT	Detection input pin for protection circuit.
63	P02/INTP2	VSYNCOUT	Vertical synchronizing signal input pin
64	P03/INTP3	RDSSCK	Clock input pin from RDS decoder.
65	P04/INTP4	POFF	Detection input pin for power failure.
66	P05/INTP5	RDSSIG	Detection input pin for RDS broadcast.
67	P06/INTP6	RDSDATA	Data input pin from RDS decoder.
68	VDD	VDD	Power supply pin
69	X2	X2	Crystal connection pins for main system clock
70	X1	X1	These pins is connected to the 5MHz ceramic oscillator.
71	IC	IC	Internal connection pin.
72	XT2	XT2	Crystal connection pins for sub system clock
73	XT1/P07	XT1	Not used.
74	AVDD	AVDD	Analog power supply pin for A/D converter.
75	AVREF0	AVREF0	Reference voltage input pin for A/D converter.
76	P10/ANI0	VOLP	Input pin to detect the position of ,master volume.
77	P11/ANI1	BAND	Initializing input pin for band area
78	P12/ANI2	K0	Operation key connection pin
79	P13/ANI3	K1	Operation key connection pin
80	P14/ANI4	K2	Operation key connection pin

Operation	Vol up	Vol down
Stop	H	H
When up	H	L
When down	L	H
Power off	L	L

SUB MICROPROCESSOR CONNECTION DIAGRAM

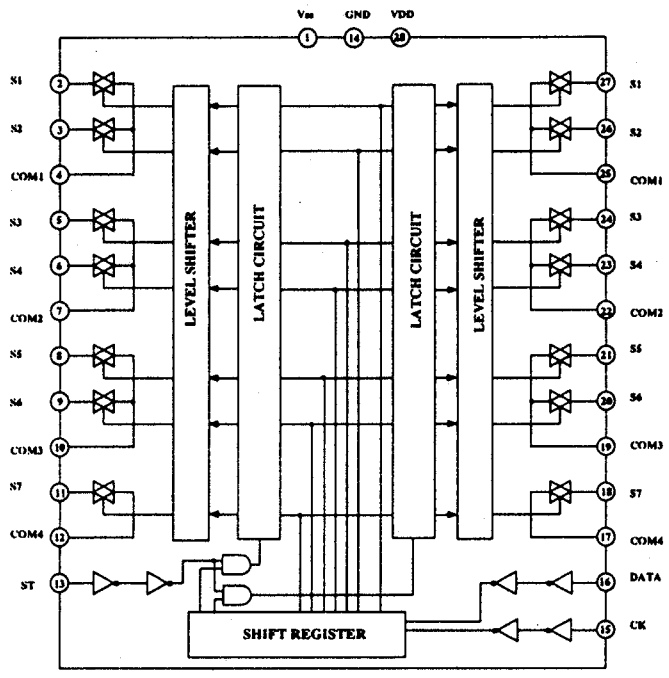


SUB MICROPROCESSOR PIN DESCRIPTION

Pin No.	Terminal	Description
1-8	NC	
9	VSS	Ground terminal.
10	TIME	Not used.
11-22	NC	
23	DMUT	Muting output terminal for digital section.
24	VSS	Ground terminal.
25	DARSTB	Output terminal to connect to the terminal RSTB of D/A converter PCM1718E..
26	NC	
27	AC-3LED	"AC-3" indicator control output terminal.
28	RF CHG	Initializing input.
29-32	NC	
33	DPD	Digital power down control output terminal.
34	RF RST	Reset output terminal for AC-3 RF demodulator.
35	RESRT	System reset input terminal.
36	RFSYNC	Synchronizing detection input pin for AC-3 RF demodulator.
37	ERROR	Input terminal to connect to terminal ERROR of DIR IC LC8904Q.
38	GPI00	Input terminal to connect to terminal GPI00 of DST IC.
39	LOCK	Input terminal to connect to the terminal LOCK of clock generation IC TC9246F.
40	VDD	Power supply (5V).
41	X2	Crystal resonator connection terminals for main system.
42	X1	Connect the ceramic resonator 10MHz.
43	IC	Internal connection terminal.
44	XT2	Sub system clock connection terminals.
45	XT1	Not used.
46	AVSS	Ground terminal for A/D converter.
47	XMODE	Output terminal to connect to the terminal XMODE of DIR IC LC8904Q.
48	DIRCE	Chip enable output terminal to connect to the terminal CE of DIR IC LC8904Q.
49	HREQ1	Input terminal to connect to the terminal HREQ of DSP IC DSP56009.
50	SS1	Input terminal to connect to the terminal SS of DSP IC DSP56009.
51	DSPRST1	Input terminal to connect to the terminal RESET of DSP IC DSP56009.
52	HREQ2	Input terminal to connect to the terminal HREQ of DSP IC DSP56004.
53	SS2	Input terminal to connect to the terminal SS of DSP IC DSP56004.
54	DSPRST2	Input terminal to connect to the terminal RESET of DSP IC DSP56004.
55	AVDD	Power supply circuit for analog section.
56	AVREF	Reference voltage input terminal for A/D converter.
57	DSPSI	Input terminal to connect to the terminal MOSI of DSP IC DSP56009.
58	DSPSO	Data output terminal. Connect to the terminal MOSI of DSP ICs and the terminal DI of DIR IC.
59	DSPSCK	Clock output terminal. Connect to the terminal SCK of DSP ICs and the terminal CL of DIR IC.
60	SRDT	Input terminal to connect to the terminal SRDT of DIR IC.
61	BUSY	Busy signal output terminal to main microprocessor.
62	SI	Data input terminal from main microprocessor.
63	SO	Data output terminal from main microprocessor.
64	SCK	Clock input terminal from main microprocessor.

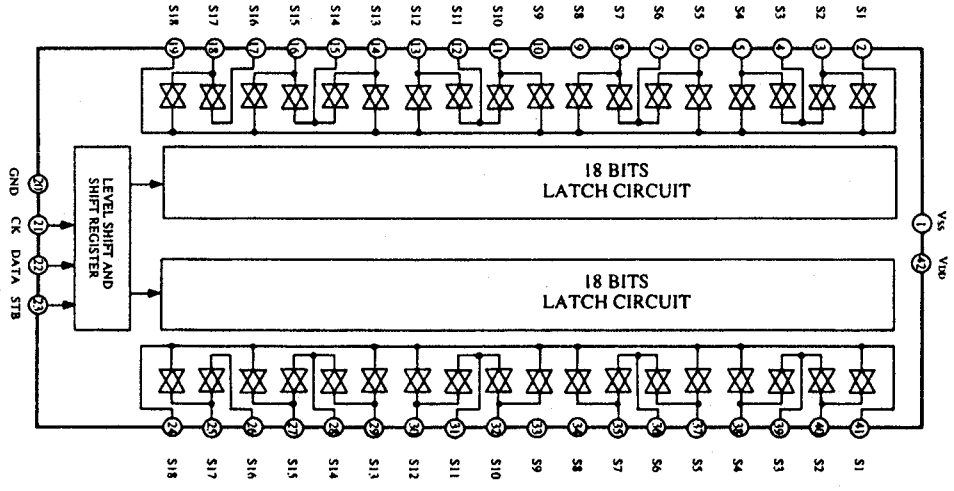
IC BLOCK DIAGRAMS AND PIN DESCRIPTIONS

TC9162AN (Analog Switch)

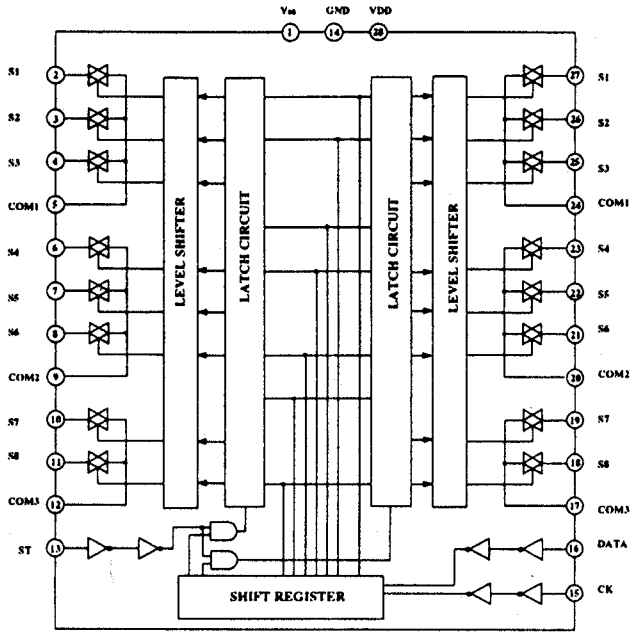


Pin No.	Symbol	Function
1	Vss	Power supply pin (-)
14	GND	Ground pin
28	VDD	Power supply pin (+)
2,3,5,6,8,9,11	S1 ~ S7	Switch input/output pins
27,26,24,23,21,20,18	S1 ~ S7	Switch input/output pins
4,7,10,12	COM1 ~ COM4	Common pins
25,22,19,17	COM1 ~ COM4	Common pins
13	ST	Strobe input pin for data interruption
15	CK	Clock input for data transfer
16	DATA	Serial data input pin for switch setting

TC9274N-008 (Analog Switch)

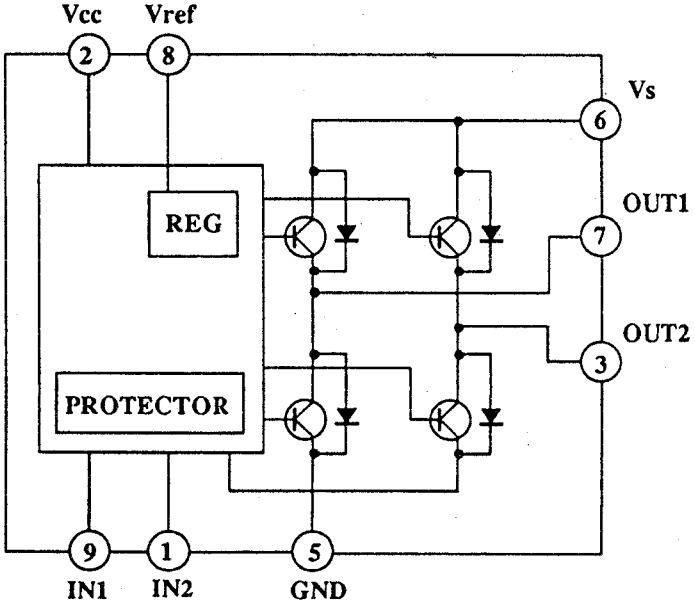


TC9163AN (Analog Switch)



Pin No.	Symbol	Function
1	Vss	Power supply pin (-)
14	GND	Ground pin
28	VDD	Power supply pin (+)
2,3,4,6,7,8,10,11	S1～S8	Switch input/output pins
27,26,25,24,22,21,19,18	S1～S8	Switch input/output pins
5,9,12	COM1～COM3	Common pins
24,20,17	COM1～COM3	Common pins
13	ST	Strobe input pin for data interruption
15	CK	Clock input for data transfer
16	DATA	Serial data input pin for switch setting

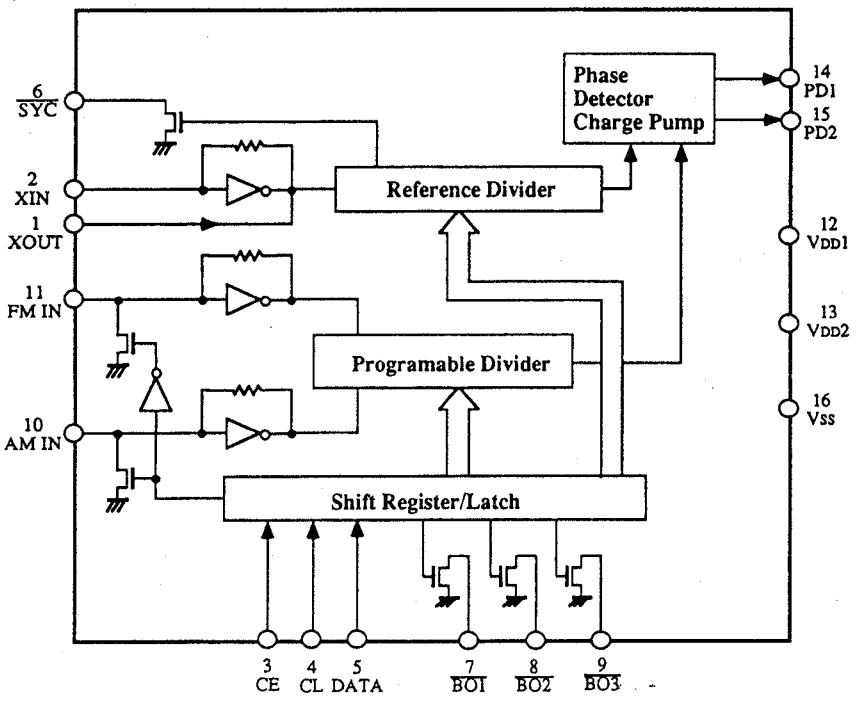
TC7291 (Volume Motor Driver)



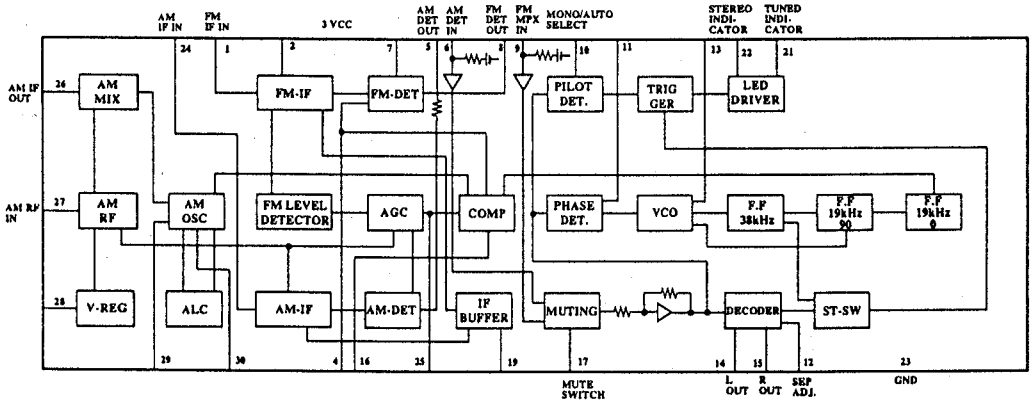
INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

CCW:Counter-clockwise direction
CW:Clockwise direction

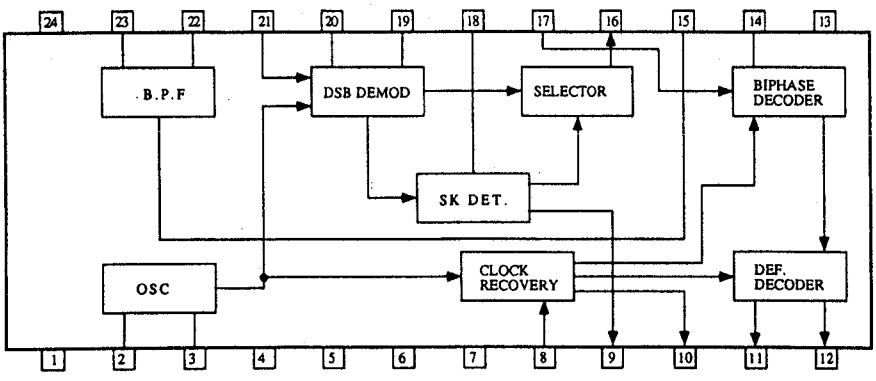
LM7001 (PLL synthesizer and controller)



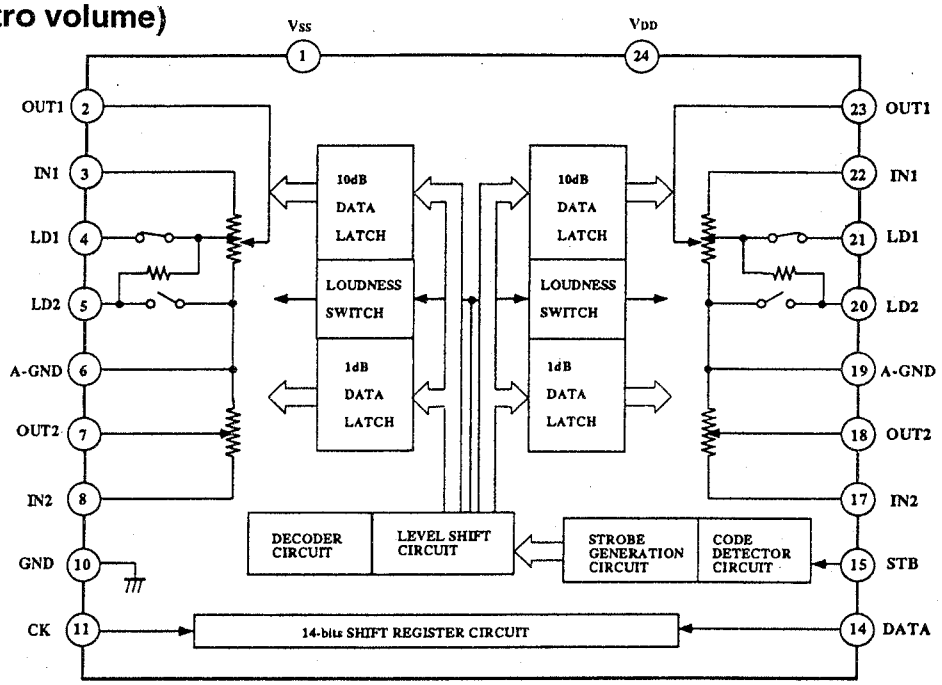
LA1851N-F (AM/FM IF and MPX)



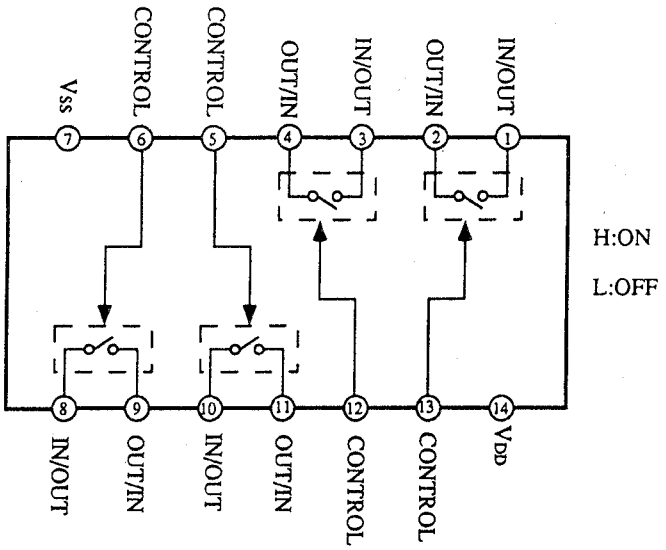
μPC1346CS (RDS decoder)



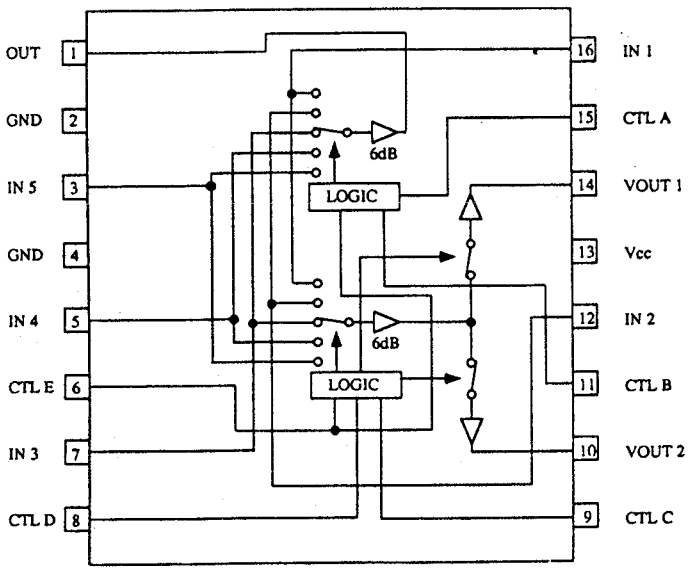
TC9217F (Electro volume)



LC4966 (Video selector switch)



BA7625 (Video Selector Switch)



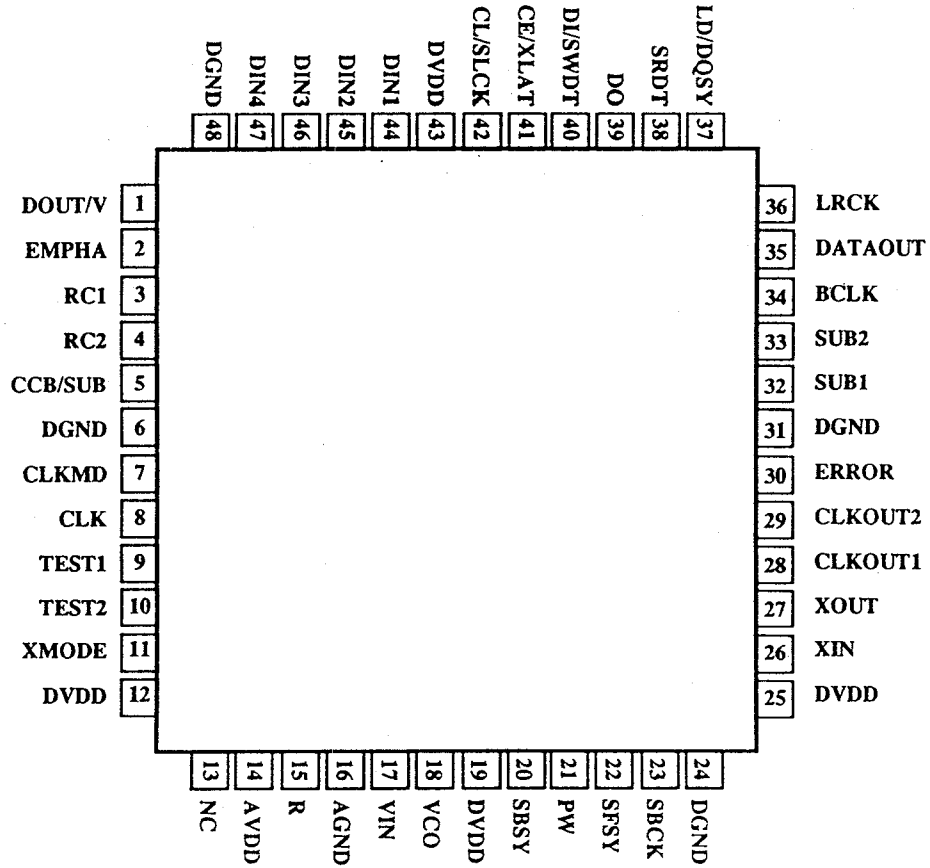
#15	#11	#6	#1
A	B	E	MONITOR OUT
L	L	X	IN1
H	L	X	IN2
L	H	X	IN3
H	H	L	IN4
H	H	H	IN5

X:Don't care

#9	#8	#6	#14
C	D	E	VOUT1
L	L	X	
H	L	X	IN2
L	H	X	IN3
H	H	L	IN4
H	H	H	IN5

#15	#11	#6	#10
A	B	E	VOUT 2
L	L	X	IN1
H	L	X	
L	H	X	IN3
H	H	L	IN4
H	H	H	IN5

LC8904 (DIR)



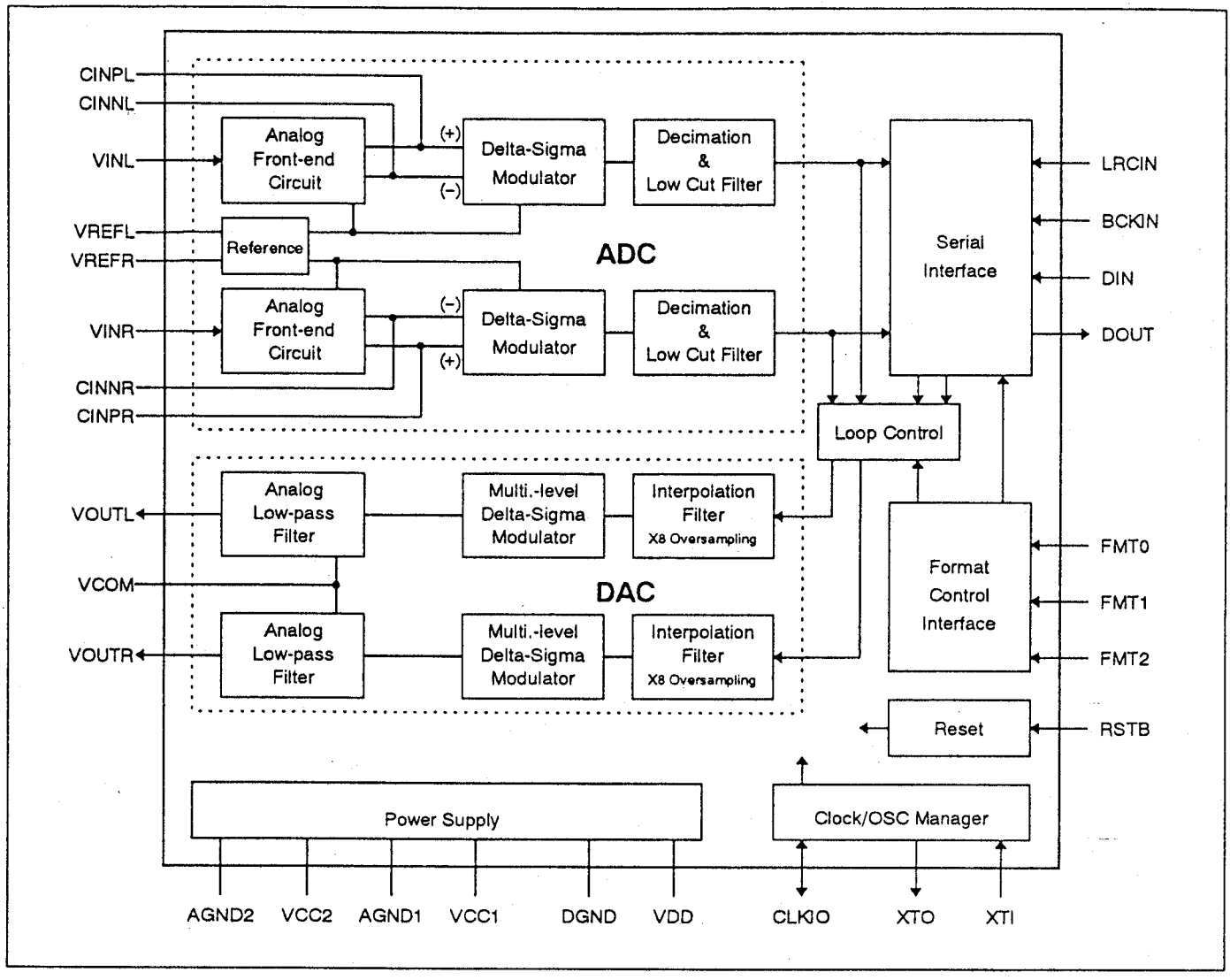
Pin No.	Terminal	I/O	Description
1	DOUT/V	O	EIAJ data and parity flag output pin
2	EMPHA	O	Emphasis monitor output pin
3	RC1	I	Input pin for CR oscillator
4	RC2	O	Output pin for CR oscillator
5	CCB/SUB	I	Input pin for interface selector of microprocessor
6	DGND		Digital ground pin
7	CLKMD	I	Changeover input pin for clock signal
8	CLK	I	Changeover input pin for clock signal
9	TEST1	I	Test pin
10	TEST2	I	Test pin
11	XMODE	I	Reset input pin
12	DVDD		Digital power supply pin
13	NC		
14	AVDD		Analog power supply pin
15	R	I	Input pin for range adjustment of VCO oscillator
16	AGND		Analog ground pin
17	VIN	I	Input pin for VCO oscillator
18	VCO	O	Output pin of PLL
19	DVDD		Digital ground pin
20	SBSY	O	Block sink output pin for sub code interface
21	PW	O	Data output pin for sub code interface
22	SFSY	O	Frame sink output pin for sub code interface
23	SBCK	I	Shift clock input pin for data read of sub code interface
24	DGND		Digital ground pin
25	DVDD		Digital power supply pin
26	XIN	I	Input pin for crystal oscillator
27	XOUT	O	Output pin for crystal oscillator
28	CLKOUT1	O	Clock output pin for crystal oscillator
29	CLKOUT2	O	Clock output pin for 256fs or 128fs
30	ERROR	O	Error muting output pin
31	DGND		Digital ground pin
32	SUB1	O	Monitor output pin for sampling frequency
33	SUB2	O	Monitor output pin for sampling frequency
34	BCLK	O	Bit clock output pin
35	DATAOUT	O	Audio data output pin
36	LRCK	O	LR clock output pin
37	LD/DQSY	O	Data sink output pin for sub code Q of microprocessor
38	SRDT	O	Data output pin of microprocessor. CCB/SUB=L
39	DO	O	Data output pin of microprocessor. CCB/SUB=H
40	DI/SWDT	I	Data input pin from microprocessor
41	CE/XLAT	I	Chip enable and latch input pin from microprocessor
42	CL/SLCK	I	Clock input pin from microprocessor
43	DVDD		Digital power supply pin
44	DIN1	I	Data input pin
45	DIN2	I	Data input pin
46	DIN3	I	Data input pin
47	DIN4	I	Data input pin
48	DGND		Digital ground pin

PM4007A (AC-3 RF Demodulator)

Pin No.	Symbol	I/O	Description
1	GND	–	Ground
2	VDD	–	Power supply (+5V)
3	RESET	I	System reset. Reset when "L".
4	OSCON	I	Oscillation control. Oscillation ON when "H".
5	DATA	I	For IC testing. Normally connected to ground (or unconnected).
6	MCK	I	For IC testing. Normally connected to ground (or unconnected).
7	MLTB	I	For IC testing. Normally connected to ground (or unconnected).
8	IDST	O	Output for IC testing.
9	IDCK	O	Output for IC testing.
10	IDO	O	Output for IC testing.
11	TMO	I	For IC testing. Normally connected to ground (or unconnected).
12	BCCK	O	Output for IC testing.
13	DEN	O	Output for IC testing.
14	DRY	O	Output for IC testing.
15	MSYC	O	Output for IC testing.
16	TMI	O	For IC testing. Normally connected to ground (or unconnected).
17	A0	O	External RAM address output.. Address o(LSB).
18	A1	O	External RAM address output.. Address 1.
19	A2	O	External RAM address output.. Address 2.
20	A3	O	External RAM address output.. Address 3.
21	A4	O	External RAM address output.. Address 4.
22	A5	O	External RAM address output.. Address 5.
23	TM2	I	For IC testing. Normally connected to ground (or unconnected).
24	TM3	I	For IC testing. Normally connected to ground (or unconnected).
25	XOUT	O	Output for IC testing.
26	XIN	I	For IC testing. Normally connected to ground (or unconnected).
27	XETX	I	For IC testing. Normally connected to ground (or unconnected).
28	GND	–	Ground.
29	VDD	–	Power supply (+5V)
30	A6	O	External RAM address output. Address 6.
31	A7	O	External RAM address output. Address 7.
32	GND	–	Ground.
33	VDD	–	Power supply (+5V)
34	A12	O	External RAM address output. Address 12.
35	A14	O	External RAM address output. Address 14(MSB).
36	WEB	O	Write-enable signal for external RAM. Active when "L".
37	A13	O	External RAM address output. Address 13.
38	A8	O	External RAM address output. Address 8.
39	A9	O	External RAM address output. Address 9.
40	GND	–	Ground.
41	A11	O	External RAM address output. Address 11.
42	OEB	O	Output-enable signal for external RAM. Active when "L".
43	A10	O	External RAM address output. Address 10.
44	DB7	I/O	External RAM data terminal. Data Bus 7.
45	DB6	I/O	External RAM data terminal. Data Bus 6.
46	DB5	I/O	External RAM data terminal. Data Bus 5.
47	DB4	I/O	External RAM data terminal. Data Bus 4.
48	DB3	I/O	External RAM data terminal. Data Bus 3.
49	DB2	I/O	External RAM data terminal. Data Bus 2.
50	DB1	I/O	External RAM data terminal. Data Bus 1.
51	DB0	I/O	External RAM data terminal. Data Bus 0.

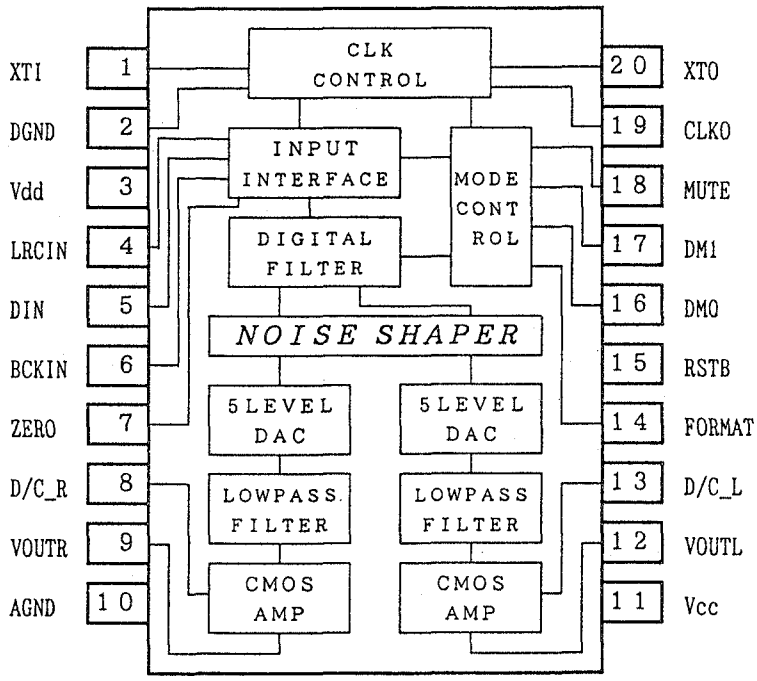
Pin No.	Symbol	I/O	Description
52	VDD	–	Power supply (+5V).
53	GNG	–	Ground.
54	TI1	I	For IC testing. Normally connected to VDD.
55	VIN	I	VCXO output.
56	VOUT	O	For IC testing. Normally connected to ground. (or unconnected.)
57	TI2	I	For IC testing. Normally connected to ground. (or unconnected.)
58	TI3	I	For IC testing. Normally connected to ground. (or unconnected.)
59	TLDB	I	For IC testing. Normally connected to ground. (or unconnected.)
60	TCK	I	For IC testing. Normally connected to ground. (or unconnected.)
61	TRP	O	Output for IC testing.
62	TDO	O	Output for IC testing.
63	PDO	O	Phase comparator output. (3 states)
64	TI4	I	For IC testing. Normally connected to ground. (or unconnected.)
65	PDDIS	I	PDO output control input. Output ON when "L".
66	MUTO	O	Muting output. Muted when "H".
67	TI5	I	For IC testing. Normally connected to ground. (or unconnected.)
68	VLDY	O	Output for IC testing.
69	DASYO	O	Output for IC testing.
70	SAOUT	O	Digital out output.
71	DAIN	I	For IC testing. Normally connected to ground. (or unconnected.)
72	DASEL	I	Digital out select.
73	TI8	I	For IC testing. Normally connected to ground. (or unconnected.)
74	C2F1	O	Error status display for C2 correction.
			Output s whether or not correction was accomplished.
75	C2F0	O	Error status display for C2 correction. Outputs the error count for C2.
76	C1F1	O	Error status display for C2 correction.
			Output s whether or not correction was accomplished.
77	C1F0	O	Error status display for C2 correction. Outputs the error count for C1.
78	MUT1	I	Muting input. Muted when "H".
79	VDD	–	Power supply. (+5V)
80	GND	–	Ground.
81	AVDD	–	Power supply for analog comparator.(5V)
82	CPIN	I	Analog comparator input. Plus side.
83	CMIN	I	Analog comparator input. Minus side.
84	AGND	–	Ground for analog comparator.
85	TM4	I	For IC testing. Normally connected to ground. (or unconnected.)
86	VDD	–	Power supply. (+5V)
87	DIN	I	For IC testing. Normally connected to ground. (or unconnected.)
88	DOUT	O	Analog comparator output.
89	DOUTB	O	Analog comparator reverse output.
90	C9M	O	9.16MHz output.
91	GND	–	Ground.
92	WINGT	O	For IC testing.
93	SYST0	O	For IC testing.
94	SYST1	O	For IC testing.
95	ADST0	O	For IC testing.
96	ADST1	O	For IC testing.
97	TM5	I	For IC testing. Normally connected to ground. (or unconnected.)
98	BUNRI	I	For IC testing. Normally connected to ground. (or unconnected.)
99	AGND	–	Ground for 46.08MHz transmitter.
100	AVDD	–	Power supply for 46.08MHz transmitter.

PCM3001E (18-Bit Stereo Audio Codec Single Ended Analog Input/Output)



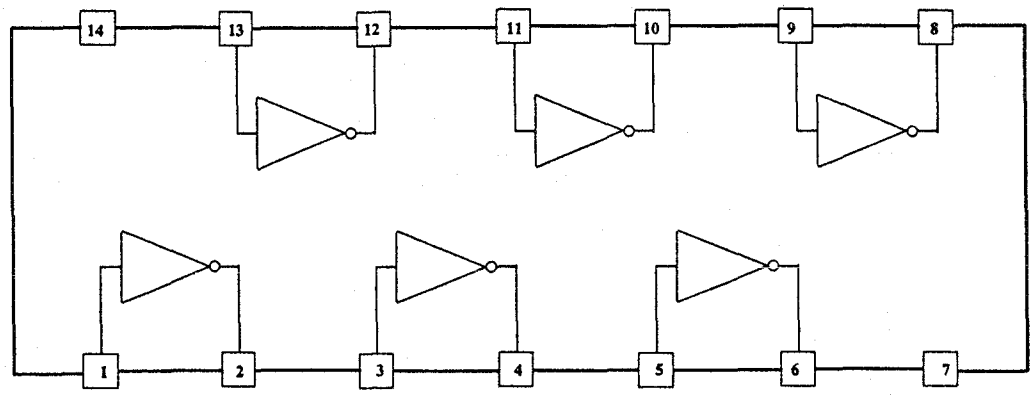
PIN	NAME	I/O	DESCRIPTION	PIN	NAME	I/O	DESCRIPTION
1	VINL	I	ADC analog Input, Lch	15	VOUTL	O	DAC analog output,Lch.
2	VCC1		ADC analog power supply	16	LRCIN	I	sample rate clock input
3	AGND1		ADC analog ground	17	BCKIN	I	Bit clock input
4	VREFL		ADC input reference, Lch	18	DIN	I	Data input
5	VREFR		ADC input reference, Rch	19	DOUT	O	Data output
6	VINR	I	ADC analog input, Rch	20	XTI	I	Oscillator input
7	CINPR		ADC anti-alias filter capacitor (+),Rch	21	XTO	O	Oscillator output
8	CINNR		ADC anti-alias filter capacitor (-),Rch	22	CLKIO	I/O	Buffered output of oscillator or external clock input
9	CINNL		ADC anti-alias filter capacitor (-),Lch	23	VDD		Digital power supply
10	CINPL		ADC anti-alias filter capacitor (+),Lch	24	DGND		Digital ground
11	VCOM		DAC output common	25	FMT2	I	Audio data format select 2
12	VOUTR	O	DAC analog output, Rch	26	FMT1	I	Audio data format select 1
13	AGND2		DAC analog ground	27	FMT0	I	Audio data format select 0
14	VCC2		DAC analog power supply	28	RSTB	I	Reset

PCM1718E (D/A Converter)

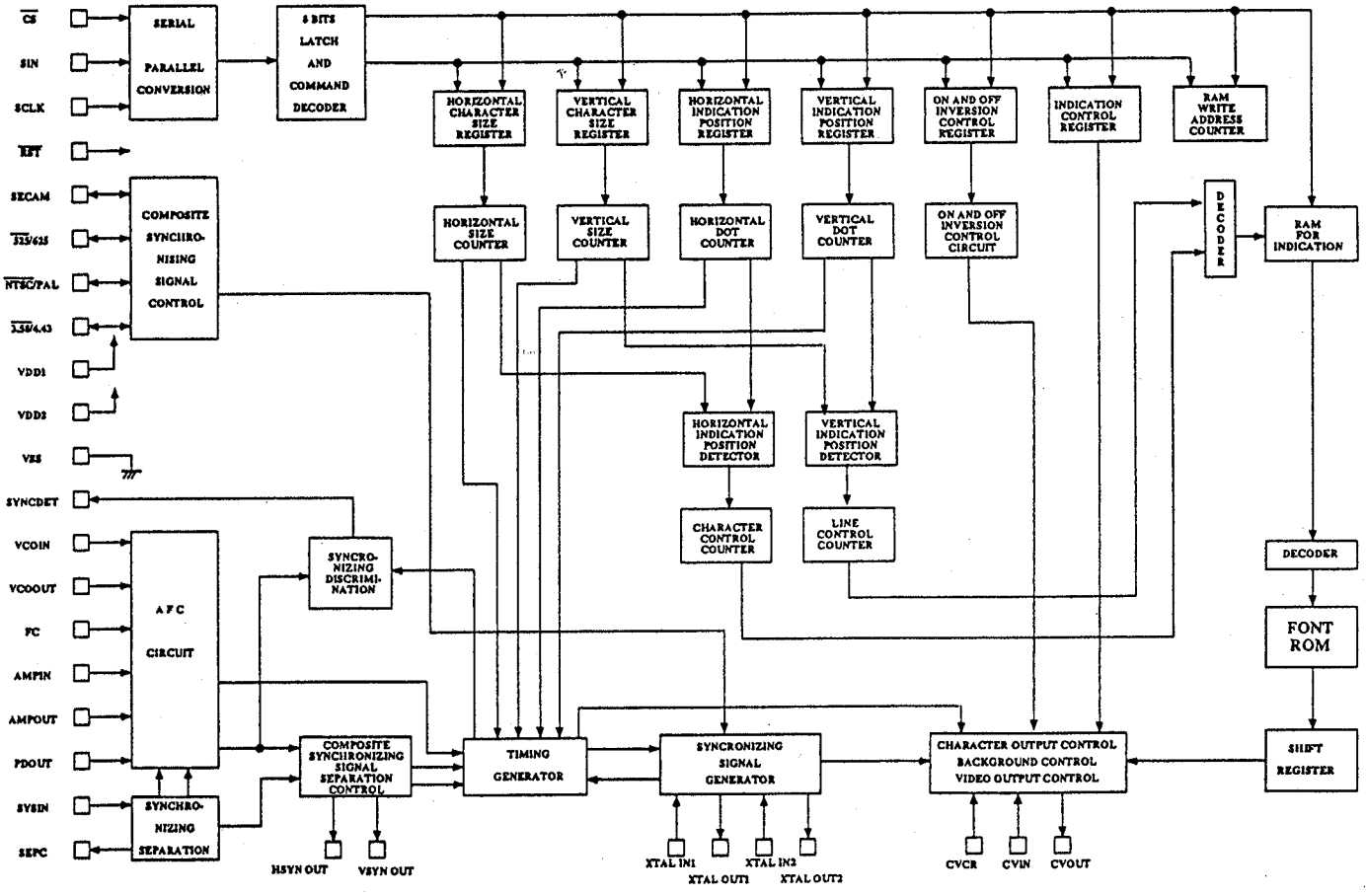


PIN NO.	SYMBOL	FUNCTION	PIN NO.	SYMBOL	FUNCTION
1	XTI	Oscillator input or external clock input	11	Vcc	Analog power supply
2	DGND	Digital ground	12	VOUTL	Analog voltage output of LEFt channel
3	VDD	Digital power supply	13	D/C-L	Common terminal of output amplifier of left channel
4	LRCIN	Reference sampling clock input	14	FORMAT	data format control
5	DIN	Data input	15	RSTB	Reset
6	BCKIN	Bit clock input for data	16	DM0	De-emphasis control
7	ZERO	Infinity zero flag output	17	DM1	De-emphasis control
8	D/C-R	Common terminal of output amplifier of right channel	18	MUTE	Muting control
9	VOUTR	Analog voltage output of right channel	19	CLKO	Inversion output of XTI
10	AGND	Analog ground	20	XTO	Oscillator output pin

74HC04 (Hex Inverter)

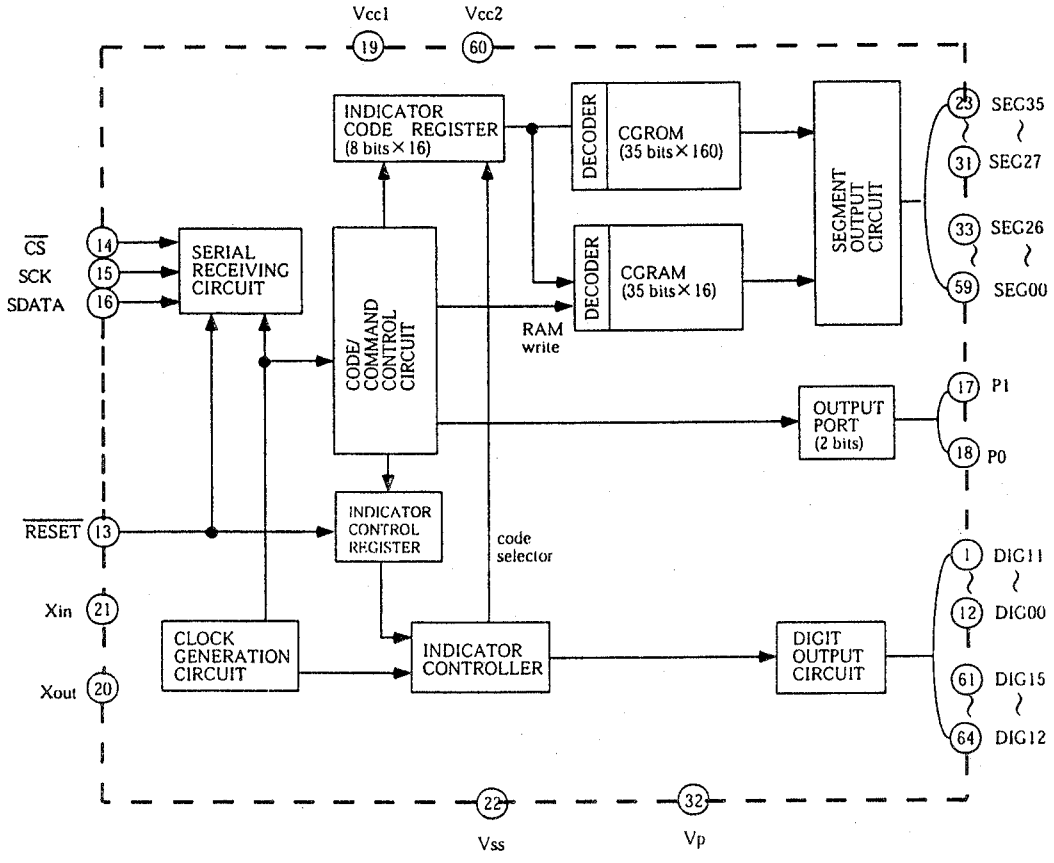


LC74761 (TV Character/Pattern Indicator)

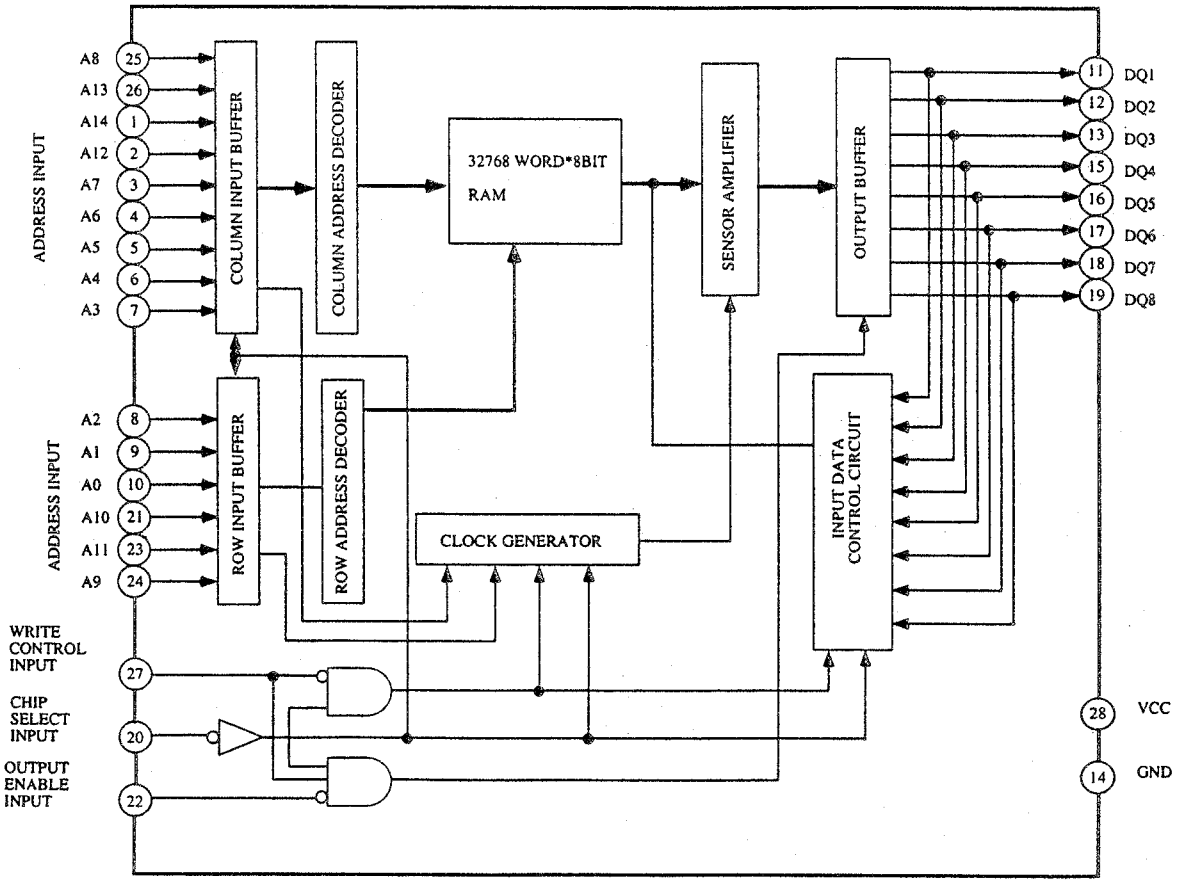


Pin No.	Symbol	Description	Pin No.	Symbol	Description
1	VSS	Ground pin	16	CVOUT	Composite video signal output pin
2	XTAL IN1	Crystal resonator connection pin for	17	VDD2	Power supply pin for Composite video signal
3	XTAL OUT1	internal synchronizing signal generation	18	CVIN	Composite video signal input pin
4	HSYNCOUT	Horizontal synchronizing signal output pin	19	CVCR	Chroma signal input pin for SECAM
5	XTAL IN2	Crystal resonator connection pin for	20	SYNCIN	Video signal input pin for internal synchronizing separation circuit
6	XTAL OUT2	internal synchronizing signal generation	21	SEPC	Bias output pin for internal synchronizing separation circuit
7	VSYNCOUT	Vertical synchronizing signal output pin	22	VSS	Ground pin
8	CS	Chip enable input pin for serial data input	23	PDOUT	Voltage output pin for AFC circuit
9	SIN	Serial data input pin	24	AMPIN	Filter connection pin
10	SCLK	Clock input pin for serial data	25	AMPOUT	
11	SECAM	SECAM mode selector input pin	26	FC	Voltage output pin for AFC circuit
12	525/625	Selector pin for scansion line	27	VCOIN	LC resonator connection pins for VCO
13	NTSC/PAL	Selector pin for NTSC or PAL	28	VCOOUT	
14	3.58/4.43	Selector pin for 3.58MHz or 4.43MHz	29	SYNCDET	External synchronizing signal discrimination output pin
15	RST	System reset input pin	30	VDD1	Power supply pin

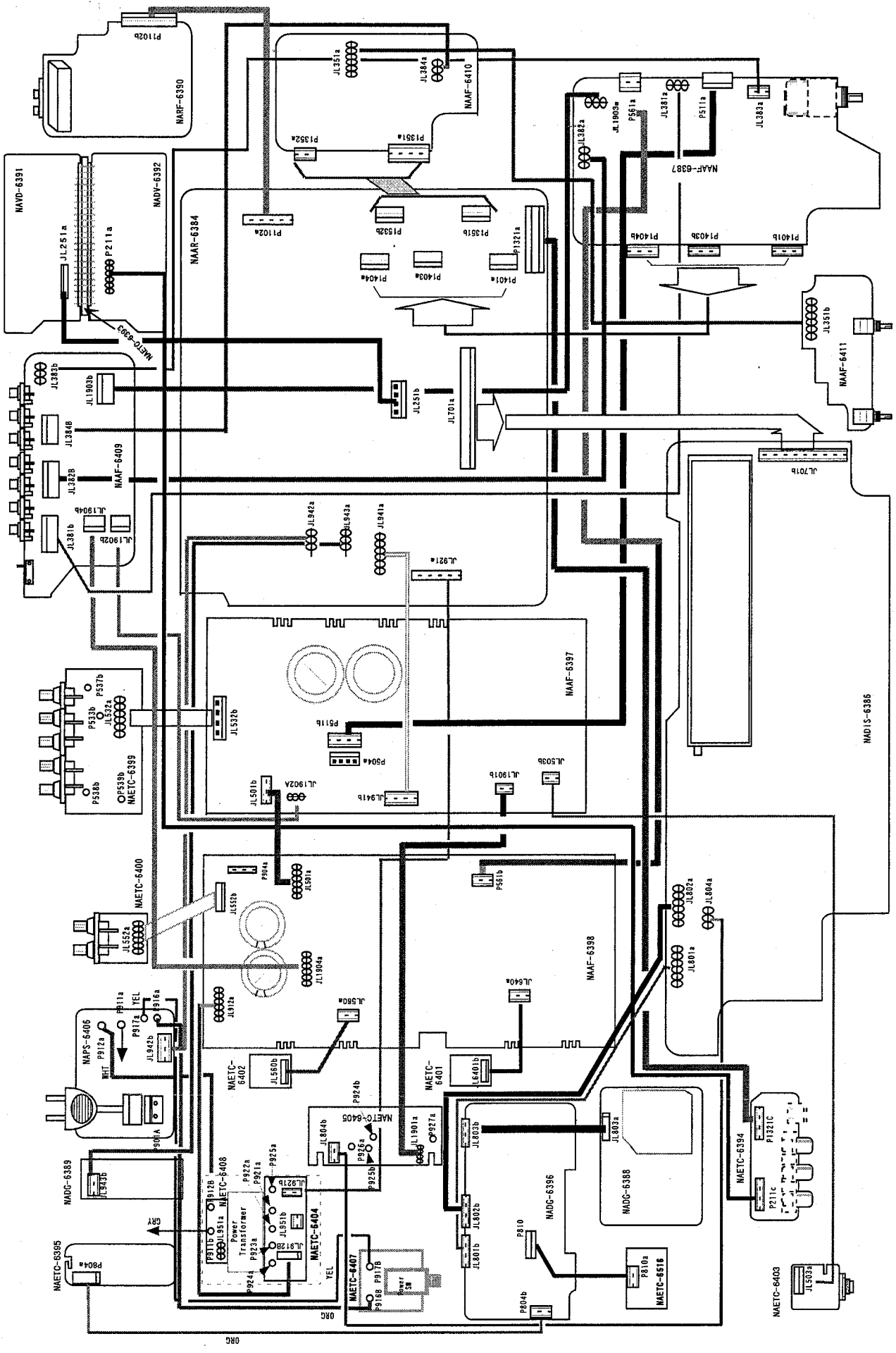
M6604FP (FL Tube Driver)



M5M5256FP-L (RAM)



WIRING DIAGRAM



ELECTRICAL PARTS LIST

Main circuit PC board (NAAR-6384)

CIRCUIT No.	PART No.	DESCRIPTION
Capacitors		
C1301, C1308, C1401, C1408 *AH	374721015	100pF±5%, 50V, Plastic
C1301, C1308, C1401, C1408*B1, B, C	374724714	470pF±5%, 50V, Plastic
C1302, C1309, C1312, C1315, C1318, C1321, C1323, C1325, C1327	354741009	10μF, 50V, Elect.
C1308, C1401, C1408 *AH	374721015	100pF±10%, 50V, Plastic
C1331, C1347, C1415, C1418, C1421, C1423, C1425, C1427, C1431, C1707, C930, C939, C941, C944, C975, C976	354741009	10μF, 16V, Elect.
C1349	335622230	0.022μF +80% -20%, 50V, Plastic
C1701, C1704	354721019	100μF, 6.3V, Elect.
C1702	3000076 or 3000078	EECS5R5T104 or DX-5R5L104, 0.1μF, 5.5V, Miniaturized
C1703	375524744	0.47μF±5%, Plastic
C1705	354780109	1μF, 50V, Elect.
C1715, C947	374721044	0.1μF±5%, Plastic
C1719	354721029	1000μF, 6.3V, Elect.
C761, C762	33761104ORO	0.1μF, +80% -20%, 50V, Chip cap.
C923-C926	374731044	0.1μF, ±5%, 50V, Plastic.
C931	354761019	100μF, 35V, Elect
C932	354772219S	220μF, 6.3V, Elect
C937, C942	354754719	470μF, 25V, Electric
C946	⚠354746829S	6800μF, 16V, Electric
C972	⚠354762229S	2200μF, 35V, Electric
Diodes		
D1701-D1704, D1707-D1708, D940	223163 or 223205 or 223222	1SS133 or 1SS270A or WG713A
D921-D926	22380260 or 22380035 or 22380046	RL1N4003 or GP1040D3E or AM01Z
D927, D931, D936-D937	224473604 / 22380022F or 22380285F	MTZJ36D zener / RBV402 or RS403M
D935*AH	22380260	RL1N4003 Diode
D940	223163 or 223205	1SS133 or 1SS270A
D941	224470623	MTZJ6.2C Zener
Coils		
L1701	233454K220	NCH-1452 220K Choke coil
Plugs		
P1102a*AH	25055651	NPLG-12P607 Plug
P1102a*B1, B, C	25055653	NPLG-16P609 Plug
P1321a	25055234	NPLG-3P218
P1351a	25051238	NSCT-13P1028 Socket
P1351b	25055709	NPLG-13P665
P1352b	25055804	NPLG-4P760
P1401a	25055651	NPLG-12P607
P1403a	25055652	NPLG-14P608
P1404a	25055709	NPLG-13P665
Jacks		
P1301-P1304	25045565	NPJ-6PDBL380

CIRCUIT No.	PART No.	DESCRIPTION
Transistors		
Q1707, Q1708	2212600	DTA124ES
Q1709	2213640	DTC123JS
Resonator		
X1701	3010242	CST5.00MGW
Resistors		
R926	⚠443522204	22Ω±5%, 1/2W, Metal
R947	⚠453530104	1Ω±5%, 1/2W, Metal
Transistors		
Q924	2211354 or 2211353	2SA949-Y or 2SA949-O
Q1705, Q1706	221282 or 2213560	DTC144ES or RN1204
ICs		
Q1301	22240191	NJM4565D-D
Q1302-Q1309	22240293 or 22240247	NJM4558L-D or BA15218N
Q1310	22240798	TC9162AN
Q1311	22240829	TC9274N-008
Q1312	22240025	LC4966
Q1701	22241264R3	μPD78P058GC(AV728)
Q1702	221282 or 2213560	DTC144ES or RN1204
Q1704	22240239	TA7291S
Q921	222780125NEC	78M12HF
Q922	222790125JRC	79M12HF
Q922b, Q925b, Q927b	838430107	3TTB+10S(BC) screw
Q923	222780078MA	AN7707F
Q925, Q927	222780565JRC	78M56(NJM78M56FA)
Q922a, Q925a	27160391	HEAT SINK
Q927a	27160227	HEAT-SINK(RAD-076)
Q926	222790075	79M07HF
Others		
JL251b	25055631	NPLG-10P593 plug
JL701a	25051846	NSCT-39P1633 Socket
JL921	7J450606H	JL7 450H Jumper lead
JL921a	25051111	NSCT-7P898 wire holder
JL941	6J200606H	JL6 200 H Jumper lead
JL941a	25051110	NSCT-6P897 wire holder
JL942a	25051087	NSCT-3P874 wire holder
JL943	4J500606B15	JL4 500B(6-6) Jumper lead
JL943a	25051088	NSCT-4P875 wire holder

Display circuit PC board (NADIS-6386)

CIRCUIT No.	PART No.	DESCRIPTION
Capacitors		
C701, C705-C708, C720-C723	33762104ORO	0.1μF +80% -20%, 50V, Chip capacitor
C702	355741009	10μF, 16V, Electric.
C712, C713	337324715RO	470pF±10%, Chip capacitor
C714, C718	375524744	0.47μF±5%, 50V, Plastic
C717	355721019	100μF, 6.3V, Electric.
Diodes		
D701	225292D	SEL4310G-D LED
D703, D711, D713, D715	223234RO	1SS352
D712	224481302RO / 224491300RO	DTZ13B or UDZ13B Zener
Others		
JL701b	25051846	NSCT-39P1633, Socket(FFC)
JL801, JL802	9J150606H	JL9 150 H, Jumper lead
JL801a, JL802a	25051113	NSCT-9P900, Socket
JL803	7J100606H	JL7 100 H, Jumper lead
JL803a	25051111	NSCT-7P898, socket
JL804a	25051089	NSCT-5P876, socket
P1403b	25050986	NSCT-14P773, socket

CIRCUIT No.	PART No.	DESCRIPTION
Fluorescence tube		
Q701	212195	16-ST-24GK FL
Q701a	27191001	FL holder
ICs		
Q702	22240685R9	M66004FP
Transistors		
Q704, Q705	2213284 or	2SC1740S-R or
	2212115	2SC2458-GR
Q708-Q713	2215410R0	RN1441
Q714	2214530R0	RN2402
Resistors		
R703, R704	433121014R0	100Ω ±5%, 1/10W, Chip R.
R705	49163103415	10kΩ*15 Network R.
R708, R718, R726, R754	433121034R0	10kΩ ±5%, 1/10W, Chip R.
R711, R719, R727, R733	433123314R0	330Ω ±5%, 1/10W, Chip R.
R714, R722, R730	433128214R0	820Ω ±5%, 1/10W, Chip R.
R715, R723, R731	433121224R0	1.2kΩ ±5%, 1/10W, Chip R.
R716, R724, R732	433122224R0	2.2kΩ ±5%, 1/10W, Chip R.
R717 , R725	433123924R0	3.9kΩ ±5%, 1/10W, Chip R.
R720, R728	433124714R0	470Ω ±5%, 1/10W, Chip R.
Others		
S701-S727	25035675	NPS-111-111-S628 Tact switch
U701	24130011	PIC-12043TE2 Remote sensor

Volume circuit PC board (NAAF-6387)

Capacitors		
C321, C322,	347346804R0	68pF±5%, 50V, Chip capacitor
C427-C434, C454		
C323-C326, C391-C393,	337621040R0	0.1μF±5%, 50V, Chip capacitor
C475-C482		
C352, C354, C356,	374721244	0.12μF±5%, 50V, Plastic
C358, C360, C362		
C401-C404, C981, C983	374722234	0.022μF±5%, 50V, Plastic
C411-C418,	354741009	10μF, 16V, Electric.
C435-C442, C483, C484		
C419-C426, C443-C450	354782209	22μF, 50V, Electric.
C459-C466	354744709	47μF, 16V, Electric.
C467-C474	354780229	2.2μF, 50V, Electric.
C486-C500, C715	347341014R0	100pF±5%, 50V, Chip capacitor
Diodes		
D301-D303, D401-408,	223234R0	1SS352
D411-D414		
D409-D410	224480512R0	DTZ5.1B or
	or	
	224490510R0	UDZ5.1B Zener
ICs		
Q331, Q342, Q343, Q402,	22240581R0	NJM4565M
Q409-Q416		
Q340	22240943R0	TC9163AF
Q405-Q408	22241261R0	LC7535M
Transistors		
Q333-Q335	2215196	2SK364-BL
Q337-Q339, Q419-Q450	2215410R0	RN1441
Q344, Q345	2214540R0	RN2403
Q346	2214480R0	RN1403
Q435-Q442	2214530R0	RN2402
Resistors		
R331, R332	433123334R0	33kΩ ±5%, 1/10W, Chip R.
R333, R334	433121244R0	120kΩ ±5%, 1/10W, Chip R.
R335, R336	433123324R0	3.3kΩ ±5%, 1/10W, Chip R.
R337, R338, R352, R354,	433121234R0	12kΩ ±5%, 1/10W, Chip R.
R358, R360		
R341	433121054R0	1MΩ ±5%, 1/10W, Chip R.
R342, R345, R346,	433124734R0	47kΩ ±5%, 1/10W, R.
R362, R419-R426,		
R443-R450, R706		
R343, R352, R354,	433122224R0	2.2kΩ ±5%, 1/10W, Chip R.
R358, R360		
R344, R411-R418	433122244R0	220kΩ ±5%, 1/10W, Chip R.
R347, R348, R475-	433121014R0	100Ω ±5%, 1/10W, Chip R.
R363, R364-R370	433420004R0	0Ω, Chip R.
R391	5142448	N16RGL20KB30F,
		Variable resistor
R393, R394	433123914R0	390Ω ±5%, 1/10W, Chip R.
R395	433122214R0	220Ω ±5%, 1/10W, Chip R.
R396, R401, R402,	433121044R0	100kΩ ±5%, 1/10W, Chip R.
R483-R490		
R403-R406	433121844R0	180kΩ ±5%, 1/10W, Chip R.
R407-R408, R491-	433124744R0	470kΩ ±5%, 1/10W, Chip R.
R498, R755		
R427-R434	433121824R0	1.8kΩ ±5%, 1/10W, Chip R.
R435-R442	433123924R0	3.9kΩ ±5%, 1/10W, Chip R.
R454, R712	433124714R0	470Ω ±5%, 1/10W, Chip R.
R459-R466	433120004R0	0Ω, Chip R.
R467-R474, R701	433122714R0	270Ω ±5%, 1/10W, Chip R.
Others		
P561b	2009990241A	NSAS-6P0346 M588F socket ass'y
P1401b	25050985	NSCT-12P772 Socket
JL1903a	25051090	NSCT-6P877 Socket
JL382a	25051092	NSCT-8P879 Socket
JL381a	25051093	NSCT-9P880 Socket
P1404b	25051238	NSCT-13P1028 Socket
P504	25055135	NPLG-5P119 Plug
P511a	25055236	NPLG-5P220 Plug
JL383a	25055626	NPLG-5P588 Plug
JL383	5J300606B15	JL5 300 B Jumper lead
JL1903	6J150606B15	JL6 150 B Jumper lead
JL382	8J200606B15	Jumper lead

AC-3 circuit PC board (NADG-6388)

Capacitors		
C107, C129	355721019	100μF, 6.3V, Electric.
C108, C116, C130	355744709	CE04W16V-47M Electric.
C112, C113	347341804R0	18pF±5%, 50V, Chip capacitor
C114-C115,	337611040R0	0.1μF±5%, 50V, Chip capacitor
C117-C120, C122,		
C126-C128,		
C123, C124	354744709	47μF, 16V, Electric.
C125, C146	337321025R0	1000pF+80%-20%, 50V, Chip capacitor
C891, C892	354742219	220μF, 16V, Electric.
C898, C899	354741019	100μF, 16V, Electric.
Transistors		
Q101, Q103, Q106,	2213143R0	2SC2712-O
Q107		
Q104, Q109	2214373R0	2SA1162-O
ICs		
Q108	22240581R0	NJM4565M
Q102	22240976R0	MC14577A
Q112	22241036R9	M5M5256CFP-70LL
Q110	22241107R3	PM4007A
Q894	222780055JRC	78M05(NJM78M05FA)
Q893	222790053JRC	79L05(NJM79L05A)

CIRCUIT No.	PART No.	DESCRIPTION
Resistors		
R101	433125614R0	560Ω±5%, 1/10W, Chip R.
R103, R104, R106, R109-R112, R114, R116, R117, R124	433121024R0	1kΩ±5%, 1/10W, Chip R.
R105, R115, R121, R128, R981	433124724R0	4.7kΩ±5%, 1/10W, Chip R.
R107	433121514R0	150Ω±5%, 1/10W, Chip R.
R108	433122224R0	2.2kΩ±5%, 1/10W, Chip R.
R113, R119, R126, R127, R138, R139, R148, R149	433121034R0	10kΩ±5%, 1/10W, Chip R.
R118	433122234R0	22kΩ±5%, 1/10W, Chip R.
R120, R435-R442	433123924R0	3.9kΩ±5%, 1/10W, Chip R.
R122	433121044R0	100kΩ±5%, 1/10W, Chip R.
R123	433123324R0	3.3kΩ±5%, 1/10W, Chip R.
R125	433121824R0	1.8kΩ±5%, 1/10W, Chip R.
R129	433128224R0	8.2kΩ±5%, 1/10W, Chip R.
R130, R136	433120004R0	0Ω, Chip R.
R132	433126834R0	68kΩ±5%, 1/10W, Chip R.
R133	433121214R0	120Ω±5%, 1/10W, Chip R.
R134, R135, R140, R143	433124734R0	47kΩ±5%, 1/10W, Chip R.
R142	433124704R0	47Ω±5%, 1/10W, Chip R.
R145, R146, R155	433122214R0	220Ω±5%, 1/10W, Chip R.
Resonator		
X102	3010279	XTL-18.432M

NAD link PC board (NADG-6389)

Capacitors		
C982	354781099	1μF, 50V, Electric.
C984	337611040R0	0.01μF±5%, 50V, Chip capacitor
C985	337322235R0	CK732B1H 223K Chip capacitor
diodes		
D981-D984	223234R0	1SS352
Coils		
L981	231237K220R0	NCH-1477 Choke coil
ICs		
Q981	22241266	Z86C0812PSC-R2536
Q982	222740005R0	74HC00
Resistors		
R983-R985	433121014R0	100Ω±5%, 1/10W, Chip R.
R986, R987	433121024R0	1kΩ±5%, 1/10W, Chip R.
R988-R990	433420004R0	0Ω, Chip R.
Oscillators		
X981	3010252	CST12.0MTW Cera lock
Others		
JL943b	25055625	NPLG-4P587
P981	25045569	NPJ-2PDYE384 Pin jack

Tuner circuit PC board (NARF-6390)

Capacitors		
C1101, C1133, C1132, C1142	354741019	100μF, 16V, Electric.
C1127, C227	354721019	100μF, 6.3V, Electric.
C1130, C1159, C1177	354780229	2.2μF, 50V, Electric.
C1131, C274	374722234	0.022μF±5%, 50V, Plastic.
C1132, C1153	354783399	0.33μF, 50V, Electric.
C1145, C1149	354780479	4.7μF, 50V, Electric.
C1146	374723324	3300pF±5%, 50V, Plastic.
C1147*AH	374721534	0.015μF±5%, 50V, Plastic.
C1147*B1, B, C	374721034	0.01μF±5%, 50V, Plastic.
C1151, C1152	354780109	1μF, 50V, Electric.
C1154, C1166, C1171, C1172, C1175, C1176, C1178, C1179	354741009	10μ, 16V, Electric.
C1155, C1156*AH	374721034	0.01μF±5%, Plastic.
C1155, C1156*B1, B, C	374724324	4300pμF±5%, Plastic.
C1160, C271, C277	354784799	0.47μF, 50V, Electric.
C1162	353741009	10μF, 16V, Electric.
C1168	374724734	0.047μF±5%, 50V, Plastic.
C1173, C1174	374722724	2700pF±5%, 50V, Plastic.
C1183, C1189*B1, B, C	374724724	4700pF±5%, 50V, Plastic.
C1184*B1, B, C	374722234	0.022μF±5%, 50V, Plastic.
C1185*B1, B, C	374724734	0.047μF±5%, 50V, Plastic.
C1186*B1, B, C	354780229	2.27μF, 50V, Electric.
C1187, C1188*B1, B, C	374723324	3300pF±5%, 50V, Plastic.
C1190*B1, B, C	354721019	100μF, 6.3V, Electric.
C716	355744709	47μF, 16V, Electric.
Diodes		
D1165	224470512	MTZJ5.1B Zener
Coils		
L1101	233457	NFIF-4081 IF transformer
L1102	233458	NFIF-4082 IF transformer
L1103*B1, B, C	233471	NMC-6084 MPX coil
L1104	233454M022	NCH-1452 022M Choke
L1105	232174	NMRF-5077 RF coil
L1106	232139	NMIF-4062 IF transformer
L1107, L1108	233484	NMC-4085 MPX coil
Terminals		
P1101*AH	25060239 or 25060195	NTM-4PDML161 or NTM-4PDML117 ANT. Terminal
P1101*B1, B, C	25060222 or 25060117	NTM-2PDML144 or NTM-2PDML051 ANT. Terminal
TU101a	27150435	ANT. TERMINAL 4P
TU101a*B1, B, C	27150397	Shield plate
Transistors		
Q1101, Q1102, Q1103, Q1104	2215063	TR 2SC2669-0
Q1122, Q1142, Q1175	2213510 or 2214350	DTA114ES or RN2202
Q1123	2212445	2SK365-GR
Q1124, Q1171, Q1172	2213284 or 2212115	2SC1740S-R or 2SC2458-GR
Q1143	221282 or 2213560	DTC144ES or RN1204
Q1144	2213640 or 2214660	DTC123JS or RN1205
Q1173, Q1174	2215024	2SD1468S-R
Q1182*B1, B, C	2213284 or 2212115	2SC1740S-R or 2SC2458-GR
ICs		
Q1121	22241076	LM7001J
Q1141	22240983	LA1851N-F
Q1176	22240293 or 22240247	NJM4558L-D or BA15218N
Q1181*B1, B, C	22240679	MPC1346CS
Resistors		
R1150	5210261	N06HR5KBC Trim
R1158	5210264	N06HR30KBC Trim
R1191	5210265	N06HR50KBC Trim
Terminals		
TP1101, TP1102	25055038	NPLG-2P29 Terminal
Frontends		
TU101*AH	240098	ENV172D1G1 Frontend
TU101*B1, B, C	240089	FE415-G11 Frontend

CIRCUIT No.	PART No.	DESCRIPTION
Filters		
X1102*B1,B,C	3010071	SFE-10.7MA5 RED
X1101,X1103	3010071	SFE-10.7MA5 RED
X1103*B1,B,C	3010130	SFE10.7MZ2K
X1104	3010268	CSB456F23
X1105	3010123	SFZ450JL
Resonators		
X1121	3010141	XTL-7.2M
X1181*B1,B,C	3010203	AF6146CG Crystal
Others		
P1102a*AH	25055651	NPLG-12P607 Plug
P1102b*AH	25050985	NSCT-12P772 Socket
P1102b*B1,B,C	25050987	NSCT-16P774 Socket

Composite video circuit PC board (NAVD-6391)

Capacitors		
C251-C255	354780229	2.2μF,50V, Electric.
C256-C259	354724719	470μF,6.3V, Electric.
C262,C282,C289,C298	354721019	100μF,6.3V, Electric.
C269	354741009	10μF,16V, Electric.
C275,C296	354780109	1μF,50V, Electric.
C280,C297	354744709	47μF,16V, Electric.
C284,C291	375524744	0.47μF±5%,50V,Plastic.
Diodes		
D251,D252.D271	223163 or	1SS133 or
	223205	1SS270A
Coils		
L271	233454K056	NCH-1452 056K Choke coil
L272,L273	233454K220	NCH-1452 220K Choke coil
ICs		
Q251	22240373	BA7625
Q271	22241071	LC74761-9006
Transistors		
Q252-Q254,Q273-Q275	2213354 or	2SA933S-R or
	2212125	2SA1048-GR
Q272	2213284	2SC1740S-R
Resistors		
R263	453530154	1.5Ω±5%,1/2W, Metal
Resonators		
X271	3010167	XTL-14.32M
X272*B1,B,C	3010238	XTL-17.73M Crystal
Sockets		
P251	25045363 or	NPJ-3PDYE208 or
	25045506	NPJ-3PDYE321 Jack
P252	25045566 or	NPJ-4PDYE381 or
	25045507	NPJ-3PDYE322 Jack
Others		
JL251a	25051094	NSCT-10P881

Video circuit PC board (NAVD-6392)

Capacitors		
C201-C210,C212, C214,C216,C218,C221	354780229	2.2μF,50V, Electric.
C211,C213,C215,C217, C223	354724719	470μF,6.3V, Electric.
C219	354744709	47μF,16V, Electric.
C222	354741009	10μF,16V, Electric.
C228,C233	354721019	100μF,6.3V, Electric.
Diodes		
D201-D210	223163 or	1SS133 or
	223205	1SS270A

CIRCUIT No.	PART No.	DESCRIPTION
Transistors		
Q203-Q208,Q217	2213354 or	2SA933S-R or
	2212125	2SA1048-GR
Q209,Q213-Q215,	2212286 or	2SC2878-B or
Q221-Q223	2212285	2SC2878-A
Q210,Q224	221282 or	DTC144ES or
	2213560	RN1204
Q211,Q212	2213284 or	2SC1740S-R or
	2212115	2SC2458-GR
Q216,Q220	2213640 or	DTC123JS or
	2214660	RN1205
Q218,Q219	2213510 or	DTA114ES or
	2214350	RN2202
ICs		
Q201,Q202	22240373	BA7625
Sockets		
P201	25051957	NSCT-12P1744 Socket
P202,P203	25051956	NSCT-8P1743 Socket Video in
Others		
P211a	25055135	NPLG-5P119 plug

Front video terminal PC board (NAETC-6394)

P1321c	2009990525UL	NSAS-6P0690 Socket ass'y
P211c	2009990433UL	NSAS-10P0577 Socket ass'y
P212c	2061712140UL	CRIMP AS
P206	25051749	NSCT-4P1536 Socket
P256	25045479A	NPJ-1PDBL297 Jack
P242	25051957	NSCT-12P1744 Socket
P1311,P1312	25045479A	NPJ-1PDBL297 Jack

Digital input terminal PC board (NAETC-6395)

Capacitors		
C181,C191	375524744	0.47μF±5%,50V,Plastic.
C184,C193	374721044	0.1μF±5%,50V,Plastic.
Diodes		
D191	223163 or	1SS133 or
	223205	1SS270A
ICs		
Q181	222740046R00	74HCU04(TC74HCU04F)
Photo coupler		
U121	24120037	TORX178A Photo coupler
Others		
P101*AH	25045477	NPJ-1PDBL295 Jack
P101*B1,B,C	25045477	NPJ-1PDBL295 Jack
P102	25045478	NPJ-1PDBL296 Jack
P804a	2009990434UL	NSAS-10P0578 Socket ass'y

DSP circuit PC board (NADG-6396)

Capacitors		
C131	347021024R0	1000pF±5%,50V,Chip.capacitor
C132	337322225R0	2200pF +80%-20%,50V,Chip.capacitor
C133,C766,C811, C781,C793,C817, C818-C822	354744709	47μF,16V, Electric
C135	374721034	0.01μF±5%,50V,Plastic.
C137	347341804R0	18pF±5%,50V, Chip.capacitor
C138	347341504R0	15pF±5%,50V, Chip.capacitor
C142,C143,C758, C759,C765,C767, C775,C777	337321035R0	0.01μF +80%-20%,50V,Chip.capacitor
C145,C814,C815	347021014R0	100pF±5%,50V, Chip.capacitor
C757	337321235R0	0.012μF +80%-20%,50V,Chip.capacitor
C760	337361055R2	1μF +80%-20%,50V,Chip.capacitor
C763,C773	374724734	0.047μF±5%,50V,Plastic.
C764,C768,C769, C771,C772,C774,C778, C779,C786,C787,C791, C802, C809,C810,C812, C813	337611040R0	0.1μF±5%,50V,Chip.capacitor

CIRCUIT No.	PART No.	DESCRIPTION
C776,C789	355744709	47μF,16V, Electric.
C794	337322235RO	0.022μF+80%-20%,50V,Chip.
C801,C803-C805,C808	354741009	10μF,16V, Electric.
C806	347024714RO	470pF±5%,50V,Chip.
C807	347026814RO	680pF±5%,50V,Chip.
C831-C836	354780229	2.2μF,50V, Electric.
C837-C842	374722724	2700pF±5%,50V,Plastic
C843-C848	374721524	1500pF±5%,50V,Plastic
C849-C854	374721224	1200pF±5%,50V,Plastic
C855-C860	354782209	22μF,50V, Electric.
C861,C862,C893,C894	354741019	100μF,16V, Electric.
C871,C872	337622230RO	0.022μF+80%-20%,50V, Chip
C871,C872*AH	337622230RO	0.022μF+80%-20%,50V, Chip
C896	354742219	220μF,16V, Electric.
Diodes		
D101	223236RO	KV1851-TL
D131,D132	223234RO	1SS352
Resistors		
R151,R821-R826	433125634RO	56kΩ±5%,1/10W,Chip R.
R152,R157	433123344RO	330kΩ±5%,1/10W,Chip R.
R153	433126834RO	68kΩ±5%,1/10W,Chip R.
R158-R160	433126804RO	68Ω±5%,1/10W,Chip R.
R161	433123334RO	33kΩ±5%,1/10W,Chip R.
R162,R173-R176,R800	433121024RO	1kΩ±5%,1/10W,Chip R.
R163	433122434RO	24kΩ±5%,1/10W,Chip R.
R164,R165	433125624RO	5.6kΩ±5%,1/10W,Chip R.
R166	433121514RO	150Ω±5%,1/10W,Chip R.
R167	433122244RO	240kΩ±5%,1/10W,Chip R.
R168 ,R872	433121014RO	100Ω±5%,1/10W,Chip R.
R169,R178,R198	433124714RO	470Ω±5%,1/10W,Chip R.
R170,R171,R741, R762-R764, R766-R777,R779, R781,R782,R784, R786, R786-R797	433122214RO	220Ω±5%,1/10W,Chip R.
R707	433122734RO	27kΩ±5%,1/10W,Chip R.
R713,R721,R729	433125614RO	560Ω±5%,1/10W,Chip R.
R744,R892,R154,R179	433120004RO	0Ω,Chip R.
R747,R891	433121034RO	10kΩ±5%,1/10W,Chip R.
R756-R761,R982	433121044RO	100kΩ±5%,1/10W,Chip R.
R765,R778,R798	433124734RO	47kΩ±5%,1/10W,Chip R.
R799,R874,R881	433120474RO	4.7Ω±5%,1/10W,Chip R.
R801-R805,R808, R809,R871,R878, R882,R883	433122214RO	220Ω±5%,1/10W,Chip R.
R811-R816,R873, R885 R780,R783, R806,R807,R745, R746,R749,R752, R753,R172,R150,R156	433120004RO	0Ω,Chip R.
R819,R820	433122234RO	22kΩ±5%,1/10W,Chip R.
R827-R844	433122224RO	2.2kΩ±5%,1/10W,Chip R.
R845-R856	433124724RO	4.7kΩ±5%,1/10W,Chip R.
R857-R862	433122204RO	22Ω±5%,1/10W,Chip R.
R876	433123914RO	390Ω±5%,1/10W,Chip R.

CIRCUIT No.	PART No.	DESCRIPTION
ICs		
Q891,Q892	222780055JRC	78M05(NJM78M05FA)
Q821-Q823	22240581RO	NJM4565M
Q802,Q803	22241099RO	PCM1718E
Q801	22241100RO	PCM3001E
Q791	22241265R3	MPD78P014GC(AV728)
Q764	22240928RO	TC9246F
Q763	22241101RO	LC32464M-80
Q762	22240940R3	DSP56004FJ66
Q761	22241219R3 or 22241235R3	DSPF56009FJ88 or XCF56009FJ88
Q131	22240915R3	LC8904Q
Transistors		
Q569,Q596	2213354	2SA933S-R
Coils		
L761,L762	231237M022RO	NCH-1471
L147,L102-L105	231237K470RO	NCH-1479 Choke coil
L101	233493K680	COIL NCH-1487 680K
Sockets		
JL801b,JL802b	25050286	NSCT-9P114 Socket
JL803b*AH	25050284	NSCT-7P112 Socket
P804b	25055135	NPLG-5P119
P805	2067713121UL	CRIMP AS
P806	2067713150UL	CRIMP AS
Resonators		
X791	3010239	CST10.0MTW
X131	3010266	XTL-18.432M

Front and center power amplifier PC board (NAAF-6397)

Capacitors		
C1502,C502,C602	354782209	22μF,50V, Electric.
C1505,C505,C605	354742219	220μF,16V, Electric.
C1514,C1515,C514, C515	354764709	47μF,35V, Electric.
C1533-C1536	354771009	10μF,63V, Electric.
C1931,C1932	354744709	47μF,16, Electric.
C517,C566,C617, C666,C1517	374721044	0.1μF±5%,50V, Plastic.
C521,C522,C621,C622	354774719S	470μF,63V, Electric.
C523,C1523	354722219	220μF,6.3V, Electric.
C541	354721019	100μF,6.3V, Electric.
C542,C594	354780229	2.2μF,50V, Electric.
C913,C914	3504346S	12000μF,63V, Electric.
C915,C916*AH	374731044	0.1μF±5%,50V, Plastic.
C915,C916*B1,B,C	374731044	0.1μF±5%,50V, Plastic.
Diodes		
D1901	22380012F	HER303F
D991,D992, D1902-D1905, D1933-D1938,D1941	223163 or 223205	1SS133 or 1SS270A
D1909	226065	SF8JZ47 SCR
D1909b,D1910b	838430107	3TTB+10S(BC) Screw
D1931,D1932	224471802	MTZJ18B Zener
D501,D502,D601, D602	22380260 or 22380032 or 22380035	RL1N4003 or 1SR139-100 or GP104003E
Transistors		
Q509,Q609Q1509	2203010	2SC5171
Q501,Q502,Q516, Q1501,Q1502,Q1516 , Q518,Q1518,Q601, Q602,Q616,Q618	2211733 or 2211732	2SC1845-E or 2SC1845-F

CIRCUIT No.		PART No.	DESCRIPTION
Q503, Q541, Q542,		2213284 or	2SC1740S-R or
Q594, Q1503, Q603, Q654		2212115	2SC2458-GR
Q508	*	2212654 or	2SC3421-Y or
		2212653	2SC3421-O
Q513	*	2202833 or	2SA1962-O or
		2202832	2SA1962-R
Q514	*	2202843 or	2SC5242-O or
		2202842	2SC5242-R
Q563	*	2202843 or	2SC5242-O or
		2202842	2SC5242-R
Q564	*	2202833 or	2SA1962-O or
		2202832	2SA1962-R
Q608	*	2212654 or	2SC3421-Y or
		2212653	2SC3421-O
Q613	*	2202833 or	2SA1962-O or
		2202832	2SA1962-R
Q614	*	2202843 or	2SC5242-O or
		2202842	2SC5242-R
Q663	*	2202843 or	2SC5242-O or
		2202842	2SC5242-R
Q664	*	2202833 or	2SA1962-O or
		2202832	2SA1962-R
Q1508	*	2212654 or	2SC3421-Y or
		2212653	2SC3421-O
Q1513	*	2202833 or	2SA1962-O or
		2202832	2SA1962-R
Q1514	*	2202843 or	2SC5242-O or
		2202842	2SC5242-R
R1577, R1943		4000149	PTH9M04BB222TS2F333 Thermistor
Q504-Q506, Q511, Q604-Q606, Q611, Q1504-Q1506, Q1511		2211354 or	2SA949-Y or
		2211353	2SA949-O
Q507, Q512, Q517, Q519, Q1507, Q1512, Q1517, Q1519, Q617, Q619		2211634 or	2SC2229-Y or
		2211633	2SC2229-O
Q508, Q1508, Q608	*	2212654 or	2SC3421-Y or
		2212653	2SC3421-O
Q513 , Q1513, Q613	*	2202833 or	2SA1962-O or
		2202832	2SA1962-R
Q514, Q1510		2203000	2SA1930
Q514, Q614, Q1514	*	2202843 or	2SC5242-O or
		2202842	2SC5242-R
Q520, Q620, Q1941, Q1520		2213354	2SA933S-R
Q961, Q1901, Q1902		2211792 or	2SA992-F or
		2211793	2SA992-E
Q991, Q992		2213640	DTC123JS
Resistors			
R1541	⚠	443522724	2.7kΩ ±5%, 1/2W, Metal oxide
R1901, R1902, R1945	⚠	4500014	0.1Ω ±5%, 5E, Metal
R1943		4000149	PTH9M04BB222TS2F333 Thermistor
R506, R606, R1506	⚠	443526834	68kΩ ±5%, 1/2W, Metal oxide
R513, R613 , R1513, R1569	⚠	443525614	560Ω ±5%, 1/2W, Metal oxide
R514, R517, R614, R617, R566, R666, R1514, R1517	⚠	443528204	82Ω ±5%, 1/2W, Metal oxide
R515, R615 , R1515	⚠	443526804	68Ω ±5%, 1/2W, Metal oxide
R516, R616, R1516		4500199	470Ω ±5%, 1/4W, Metal oxide
R522, R572, R622, R672, R1522		4500116	820Ω ±5%, 1/4W, Metal oxide
R523, R571, R623, R671, R1523		4500116	820Ω ±5%, 1/4W, Metal oxide
R524, R563, R564, R567, R1524	⚠	443521014	100Ω ±5%, 1/2W, Metal oxide
R529, R530, R545, R546	⚠	453530224	2.2Ω ±5%, 1/2W, Metal
R1529, R1530			
R535, R536, 635, R636, R1535, R1536	⚠	4500200	560Ω ±5%, 1/4W, Metal
R540, R640, R1540	⚠	453630824	8.2Ω ±5%, 1W, Metal
R547, R647	⚠	443623914	390Ω ±5%, 1W, Metal
R582, R638, R682	⚠	4000132	0.22Ω ±5%, 5W, Metal
Relays			
RL501, RL502	⚠	25065517	NRL-2P5A-DC24-098
Terminals			
TP1544, TP544, TP644		25055038	NPLG-2P29
Others			
JL1901b		25055625	NPLG-4P587
JL1902		3J150606B15	JL3 150 B(6-6)
JL501		4J300606H	JL4 300 H
JL501b		25050268	NSCT-4P96
JL503		5J450606B15	Jumper lead
JL503b, JL804b		25055626	NPLG-5P588
JL532		6J200606H	JL6 200 H
JL532b, JL941b		25050270	NSCT-6P98
P511b		2009990382	NSAS-10P0519 Socket ass'y
P552		25055133	NPLG-3P117 Plug

Surround power amplifier PC board (NAAF-6398)

Capacitors			
C552, C652		354742209	22μF, 16V, Electric.
C555, C655		354741019	100μF, 16V, Electric.
C557, C558, C575, C576		354771009	10μF, 63V, Electric.
C564, C565, C593, C614, C615, C664, C665		354764709	47μF, 50V, Electric.
C571, C572		354771019	100μF, 63V, Electric.
C573, C623, C673		354722219	220μF, 6.3V, Electric.
C595, C596		374722234	0.022μF±5%, 50V, Plastic.
C597		354781009	10μF, 50V, Electric.
C917, C918	⚠	3504347S	8200μF, 56V, Electric.
C971		354763329S	3300μF, 35V, Electric.
Diodes			
D915	⚠	22380281	RS604
D915a		27160166	Heat sink
D915b		82143015	3P+15FN(BC) Screw
Transistors			
Q551-Q553, Q566, Q651-Q653, Q666		2211733 or	2SC1845-E or
		2211732	2SC1845-F
Q554		2213284 or	2SC1740S-R or
		2212115	2SC2458-GR
Q555-Q557, Q655-Q657		2211354 or	2SA949-Y or
		2211353	2SA949-O
Q558, Q559, Q565, Q607, Q612, Q658, Q659, Q665		2211634 or	2SC2229-Y or
		2211633	2SC2229-O
Q561, Q661		2203010	2SC5171
Q563, Q564, Q663, Q664		2202833 or	2SA1962-O or
		2202832	2SA1962-R
Q593		2212445	2SK365-GR
Q595	*	2212644	2SA1358-Y
Q669		2213354	2SA933S-R

NOTE:

Replacement of the transistor of mark *, if necessary, must be made from the same beta group (HFE) as the original type.

CIRCUIT No.		PART No.	DESCRIPTION
Resistors			
R1571, R1572		443525614	560Ω ±5%, 1/2W, Metal
R1572		443521024	1kΩ ±5%, 1/2W, Metal
R1574	⚠	443725604	56Ω ±5%, 2W, Metal
R1577	⚠	4000149	PTH9M04BB222TS2F333 Thermistor
R556, R656	⚠	443525634	56kΩ ±5%, 1/2W, Metal
R565, R665		443525604	56Ω ±5%, 1/2W, Metal
R573, R624, R663, R664, R667, R673	⚠	443521014	100Ω ±5%, 1/2W, Metal
R574, R575, R588, R589, R629, R630, R645, R646, R674, R675	⚠	453530224	2.2Ω ±5%, 1/2W, Metal
R576, R676	⚠	453630824	8.2Ω ±5%, 1W, Metal
Terminals			
TP578, TP678	⚠	25055038	NPLG-2P29
Sockets			
P561a		25055234	NPLG-3P218
P904a		25055600	NPLG-2P568 plug
Others			
JL1904		6J300606B15	JL6 300 B
JL1904a		25051090	NSCT-6P877
JL501a, JL912a		25051108	NSCT-4P895
JL552b		25050268	NSCT-4P96
JL560, JL660		3J100606B15	JL3 100 B(7-7)
JL560a, JL660a		25051087	NSCT-3P874

Speaker terminal PC board (NAETC-6399)

P501		25060203 or	NTM-8PDMN125 or
		25060248	NTM-8PDMN168 Terminal
P502		25060282 or	NTM-2PDMN213 or
		25060247	NTM-2PDMN167 Terminal
JL532a		25051110	NSCT-6P897

Surround speaker terminal PC board (NAETC-6400)

P551		25060193 or	NTM-4PDMN115 or
		25060246	NTM-4PDMN166 Terminal
JL552		4J150606H	JL4 150 H
JL552a		25051108	NSCT-4P895

Thermal compensation PC board (NAETC-6401)

JL560b		25055624	NPLG-3P586
Q560		2212654	2SC3421-Y, transistor

Thermal compensation PC board (NAETC-6402)

JL660b		25055624	NPLG-3P586
Q660		2212654	2SC3421-Y, transistor

Headphone terminal PC board (NAETC-6403)

JL503a		25051089	NSCT-5P876
P503		25045385	YKB26-5153 Jack

Secondary circuit PC board (NAETC-6404)

Capacitors			
C921, C922, C927, C928		374721044	0.1μF±5%, 50V, Plastic.
Resistors			
R921, R922, R929, R930	⚠	453532294	0.22Ω ±5%, 1/2W, Metal
Fuses			
F915, F916*AH	⚠	252166	Fuse 6.3A-UL/T-237
F915, F916*B1, B, C	⚠	252079	Fuse 6.3A-SE-EAK
Others			
F915a, F916a		25050065	YSH403T Fuse holder
F916b*AH		29362027	6.3A/125V Fuse label
JL912		4J300606H	JL4 300 H Jumper wire
JL912b		25050268	NSCT-4P96 Socket
JL921b		25050271	NSCT-7P99 Socket
JL942b, JL951b		25055624	NPLG-3P586 plug
JL951		3J350606B15	JL3 350 B Jumper lead

Regulator circuit PC board (NAETC-6405)

ICs			
Q1903		22240293 or	NJM4558L-D or
		22240247	BA15218N
Transistors			
Q1905, Q1908		2211255	2SC1815-GR
Q1906, Q1907		2211455	2SA1015-GR
Capacitors			
C1901, C1902, C1904, C1905		355781009	10μF, 50V, Electric.
C1903		374721044	0.1μF±5%, 50V, Plastic.
Diodes			
D1907		223163 or	1SS133 or
		223205	1SS270A
D1910		226065	SF8JZ47 SCR
D1911	⚠	22380273	RS804M
D1911a		27160423	AL t=2mm Heat sink(SCR)
D1911b		838430107	3TTB+10S(BC) Screw
D911		22380273	RS804M
Others			
JL1901		4J300606B15	JL4 300B Jumper wire
JL1901a		25051088	NSCT-4P875
JL804		5J200606B15	JL5 200B(6-6)

Power supply circuit PC board (NAPS-6406)

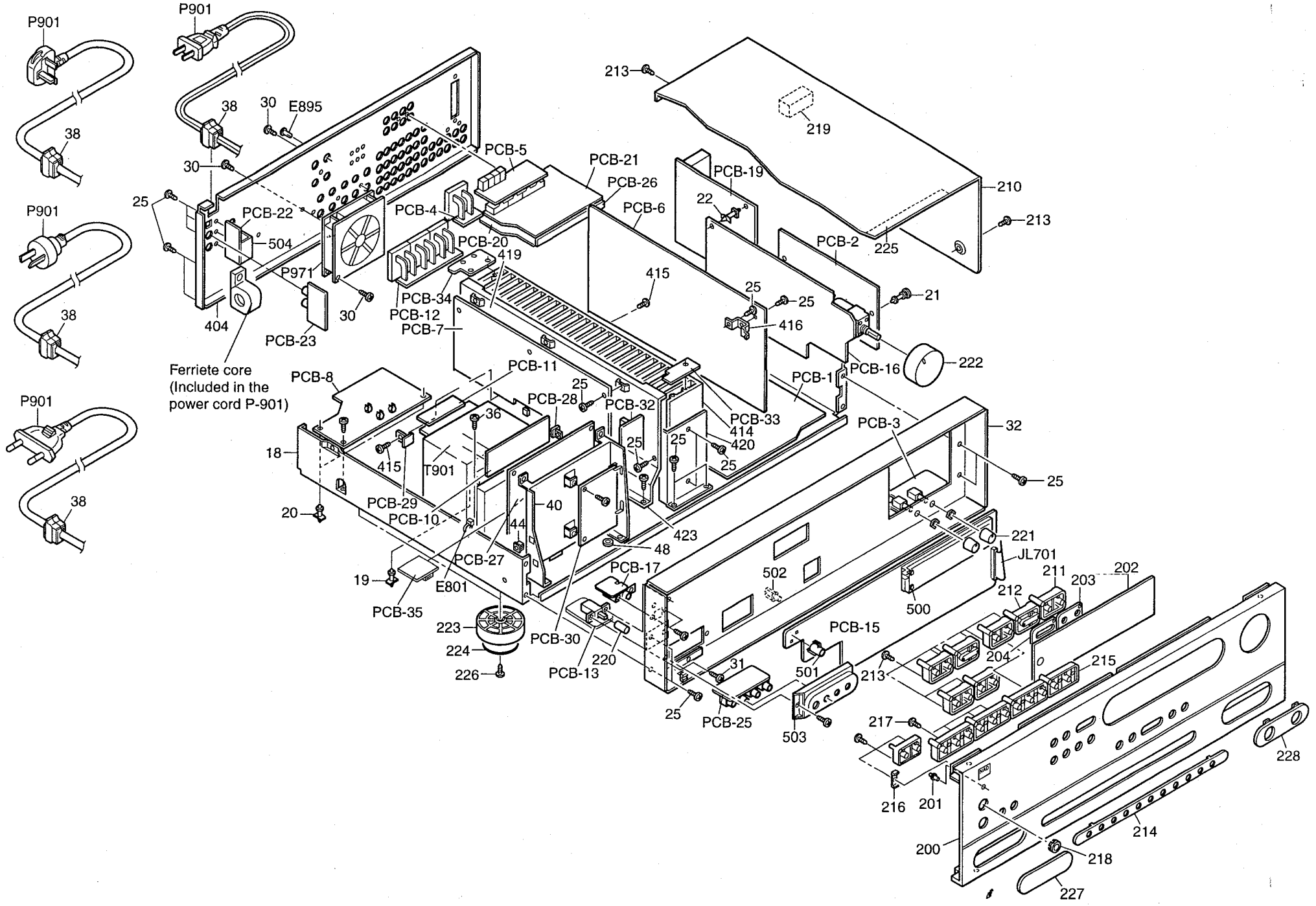
Capacitors			
C901	⚠	3500191	0.01μF±5%, 50V, IS Capacitor
C952		354744719	470μF, 16V, Elect.
Fuses			
F901*AH	⚠	252166	Fuse 6.3A-UL/T-237
F902 *B1, B, C	⚠	252077 or	Fuse 4A-SE-EAK
		252077CC	
Diodes			
D591-D592		22380260 or	RL1N4003 or
		22380032 or	1SR139-100 or
		22380035	GP104003E
D951-Q955		22380032 or	1SR139-100 or
		22380035	GP104003E
Fuse holders			
F901a*AH		25050065	YSH403T Fuse holder
F902a*B1, B, C		25050065	YSH403T Fuse holder
Resistors			
R901*AH	⚠	431533355	RC1/2GFKUL-3.3M Solid resistor
R951	⚠	453530824	RNU1/2WCJ-8.2 Metal
Relay			
RL901*AH	⚠	25065248 or	NRL-1P15A-DC12-29 or
		25065516	2300670A Relay
RL901*B1, B, C	⚠	25065515 or	NRL-1P5A-DC12-096 or
		25065508	NRL-1P10A-DC12-093 Relay
Transformers			
T902*AH	⚠	2301258 or	NPT-1294D or
		2300670A	NPT-1111D TX906MD
T902*B1, B, C	⚠	2300671A	NPT-1111P TX906MP
Others			
P901a	⚠	25055675	NPLG-2P631 plug for AC cord
JL942		3J500606B15	JL3500B(7-7) Jumper lead
P902*AH	⚠	25051220	NSCT-6P1010 Socket

CIRCUIT No.	PART No.	DESCRIPTION
Power switch PC board (NAETC-6407)		
C902	⚠ 3500191	0.01μF±5%, 50V, IS capacitor
C902a	27301216	SB1925A, Capacitor cover
S902	⚠ 25035550	NPS-111-L512P Power switch
Terminal PC board (NAETC-6408)		
JL951a	⚠ 25051087	NSCT-3P874 Holder
P909*B1, B, C	27141059	Retainer
P918*AH	2069925119UL	Clamper AS
Pre.output terminal PC board (NAAF-6409)		
Capacitors		
C1951, C1953	354741019	100μF, 16V, Electric.
C301-C303, C305-C308*B1, B, C	374723324	3300pF±5%, 50V, Plastic
C304*B1, B, C	374722234	0.022μF±5%, 50V, Plastic
C309-C313	374721015	100pF, ±5%, 50V, Plastic
C314	374721024	1000pF, ±5%, 50V, Plastic
C319, C320	374721044	0.1μF, ±5%, 50V, Plastic
Diodes		
D1951	224470512	MTZJ5.1B Zener
D1952-D1954	223163 or 223205	1SS133 or 1SS270A
D1955, D1956	223205	1SS270A
Jacks		
P301, P304	25045357 or 25045509	NPJ-2PDBL203 or NPJ-2PDBL324 pin jack
P302	25045565	NPJ-6PDBL380 pin jack
P303	25045491	NPJ-4PDBL308
Transistors		
Q1955-Q1959-Q1963, Q1951-Q1954	2211255	2SC1815-GR
Others		
S1951	25065286	NSS-22112 slide switch
JL1902a	25051087	NSCT-3P874
JL1902b	25055624	NPLG-3P586 plug
JL1904b	25055627	NPLG-6P589 plug
JL381	9J250606B15	JL9 250 B Jumper lead
JL382b	25055629	NPLG-8P591 plug
JL383b, JL384a	25051089	NSCT-5P876 Holder
JL384	3J350606B15	JL3 350 B Jumper lead
JL384b	25055626	NPLG-5P588 plug
Tone control circuit PC board (NAAF-6410)		
Capacitors		
C136, C140, C141, C151	337611040R0	0.1μF+80%-20%, 50V, Chip
C1361, C1381, C1461, C1953	354741009	10μF, 16V, Electric.
C1367, C1387, C1467	354744709	47μF, 16V, Electric.
C1368, C1373, C1388, C1393, C1468, C1473	374721534	0.015μF±5%, 50V, Plastic.
C1370	374721044	0.1μF±5%, 50V, Plastic.
C1402, C1409, C1412	354741009	10μF, 16V, Electric.
C1451, C1452	354780479	4.7μF, 50V, Electric.
Diodes		
D1451-D1453	223163 or 223205	1SS133 or 1SS270A

CIRCUIT No.	PART No.	DESCRIPTION
ICs		
Q1451-Q1452, Q1455	22240293 or 22240247	NJM4558L-D or BA15218N
Q1462, Q1463, Q1464	22240025	LC4966
Transistors		
Q1453, Q1454, Q1456	2215196	2SK364-BL
Q1457, Q1459, Q1461, Q1466, Q1467	221281	DTC114YS
Q1458, Q1460	2213090	DTA114YS
Others		
JL351	2J200606B15	JL12 200B(6-6) Jumper lead
JL351a	25051096	NSCT-12P883 Holder
P1352a	25051526	NSCT-4P1313 Socket
JL351b	25051096	NSCT-12P883 Holder
DSP sub. PC board (NAETC-6516)		
ICs		
Q195	222740115R0	TC74HC4538AF, IC
Capacitors		
C197, C198	354782209	CE04W50V-22M Electric.
Diodes		
D195-D197	223233R0 or 233234R0	1SS355 or 1SS352 Chip D.
Resistors		
R194	433121034R0	10kΩ±5%, 1/10W, Chip R.
R195, R196	433122724R0	2.7kΩ±5%, 1/10W, Chip R.
R197	433122214R0	220Ω±5%, 1/10W, Chip R.
Others		
P195	72120120505	1007 #24 Jumper lead
P810a	25055888	NPLG-3P844 Plug
Tone volume PC board (NAAF-6411)		
Transistors		
Q1468-Q1470	2215196	2SK364-BL
Diodes		
D1454-D1456	223163 or 223205	1SS133 or 1SS270A
Capacitors		
C1373, C1393	374721534	0.015μF±5%, 50V, Plastic
Resistors		
R1451, R1453	5104386	N9RTLC100KWT25F Volume

NOTE:
Replacement of the transistor of mark *, if necessary, must be made from the same beta group (HFE) as the original type.

EXPLODED VIEW



EXPLODED VIEW PARTS LIST

REF.No.	PART No.	Q'ty	DESCRIPTION
18	27100328C	1	Chassis
19	27190503A	2	KGLS-8RF Holder
20	27190428A	2	KGLS-10RF Holder
21	27190772	2	KGLS-22RF Holder
22	27190062	1	KGLS-12S Holder
25	838130088	104	3TTB+8B Self tapping screw
30	838150108	5	Self tapping screw 5TTB+10B
31	838430107	2	Self tapping screw 3TTB+10S(BC)
32	27111084	1	Front bracket
36	830440089	4	4TTC+8C(BC) Self tapping screw
38	27300750	1	⚠Bushing S-RELIEF #2271
40	27141684A	1	Retainer (AC3)
44	27191016	2	Holder (NIFCO#2315)
48	27270374	2	SPACER(Plastic washer Φ9.5,t1.0)
200*AH	27212027	1	Front panel
200*B1,B,C	27212039	1	Front panel
201	28198858	1	Facet (POWER)
202	28191832	1	Clear plate (WINDOW)
203	27267996	6	Guide (DUO)
204	27267998	2	Guide (RACKER)
210	28184742	1	Cover (TOP)
211	28325605	6	Button (DUO)
212	28325607		Button (RACKER)
213	838120068 or	16	Screw 2TTB+6B or
	838220068		2TTB+6B(Ni)
214	27215308	1	Decorative frame(INPUT)
215	28325608	4	Button (INPUT)
216	27191052	1	Holder (DECO)
217	838126068 or	9	ST screw 2.6TTB+6B or
	833426068 or		2.6TTP+6B(BC) or
	834426068		2.6TTS+6B(BC)
218	27267995	1	Guide power
219	28141235	1	Cushion
220	28325604	1	Button (POWER.BUTTON)
221	28325609	2	Knob (TONE.CONT.)
222	28325618	1	Knob (VOLUME)
223	27175320	4	Leg
224	28141332	4	Cushion for legs
225	28140546	1	Cushion (0.5*10*390) Top cover
226	831430088	4	3TTW+8B(BC) Self tapping screw
227	28184743	1	Cover (VIDEO.IN)
228	27215310	1	Decorative frame(Tone button)
404*AH	27122506A	1	Rear panel
404*B1,B,C	27122507A	1	Rear panel
414	27160384	1	Heat sink (MAIN)

REF.No.	PART No.	Q'ty	DESCRIPTION
415	801433	14	3SMS8W.SW+14B(BC) Special screw
416	27141681	1	Retainer (PWB)
419	27141682A	1	Retainer (REAR)
420	27141683A	1	Retainer (FRONT)
423	27160385A	1	Heat sink (SUB)
500	28141282	4	Cusion Guide for FL
501	27191051	1	Holder(LED)
502	27190713	2	Holder UA-0
503	27191057	1	Holder (Video input jack)
504	27150408	1	Shield plate
D911	22380273	1	Diode RS804M
E801	260208	16	Wire holder (CLAMPER)UL
E812	223024	6	Isolation sheet AC238
E895*B1,B,C	880048	14	Plastic rivet P-3055B-8L
JL701	2047392512	1	Flexible flat cable NCFC7-392512
P901*AH	253244AHIT	1	⚠ AC cord AS-UC-6#18
P901*B	253269AHIT	1	⚠ AC cord AS-BS
P901*B1	253268HIT	1	⚠ AC cord AS-SAA
P901*C	253245MAR	1	⚠ AC cord AS-CEE
P971	24502284	1	Fan KD2409PTB2
Q1508	2212654 or	1	* 2SC3421-Y or
	2212653		2SC3421-0
Q1513	2202833 or	1	* 2SA1962-0 or
	2202832		2SA1962-R
Q1514	2202843 or	1	* 2SC5242-0 or
	2202842		2SC5242-R
Q508	2212654 or	1	* 2SC3421-Y or
	2212653		2SC3421-0
Q513	2202833 or	1	* 2SA1962-0 or
	2202832		2SA1962-R
Q514	2202843 or	1	* 2SC5242-0 or
	2202842		2SC5242-R
Q563	2202843 or	1	* 2SC5242-0 or
	2202842		2SC5242-R
Q564	2202833 or	1	* 2SA1962-0 or
	2202832		2SA1962-R
Q608	2212654 or	1	* 2SC3421-Y or
	2212653		2SC3421-0

REF.No.	PART No.	Q'ty	DESCRIPTION
Q613	2202833 or	1	* 2SA1962-O or
	2202832		2SA1962-R
Q614	2202843 or	1	* 2SC5242-O or
	2202842		2SC5242-R
Q663	2202843 or	1	* 2SC5242-O or
	2202842		2SC5242-R
Q664	2202833 or	1	* 2SA1962-O or
	2202832		2SA1962-R
R1577, R1943	4000149	1	Thermistor PTH9M04BB222TS2F333
T901*AH	2301360	1	⚠ Power transformer NPT-1351D
T901*B1,B,C	2301361	1	⚠ Power transformer NPT-1351P
PCB-1*AH	1A785584-1A	1	NAAR-6384-1A, Main circuit PC board ass'y
PCB-2*AH	1A785510-1A	1	NAAF-6410-1A, Tone control circuit PC board ass'y
PCB-3*AH	1A785511-1A	1	NAAF-6411-1A, Tone volume PC board ass'y
PCB-4*AH	1A785500-1A	1	NAETC-6400-1A, Surround speaker terminal PC board ass'y
PCB-5*AH	1A785509-1A	1	NAAF-6409-1A, Pre. output terminal PC board ass'y
PCB-6*AH	1A785597-1A	1	NAAF-6397-1A, Front and center power amplifier PC board ass'y
PCB-7*AH	1A785598-1A	1	NAAF-6398-1A, Surround power amplifier PC board ass'y
PCB-8*AH	1A785506-1A	1	NAPS-6406-1A, Power supply circuit PC board ass'y
PCB-10*AH	1A785504-1A	1	NAETC-6404-1A, Secondary circuit PC board ass'y
PCB-11*AH	1A785508-1A	1	NAETC-6408-1A, Terminal PC board ass'y
PCB-12*AH	1A785599-1A	1	NAETC-6399-1A, Speaker terminal PC board ass'y
PCB-13*AH	1A785507-1A	1	NAETC-6407-1A, Power switch PC board ass'y
PCB-15*AH	1A785586-1A	1	NADIS-6386-1A, Display circuit PC board ass'y
PCB-16*AH	1A785587-1A	1	NAAF-6387-1A, Volume circuit PC board ass'y
PCB-17*AH	1A785503-1A	1	NAETC-6403-1A, Headphone terminal PC board ass'y
PCB-19*AH	1A785590-1A	1	NARF-6390-1A, Tuner circuit PC board ass'y
PCB-20*AH	1A785591-1A	1	NAVD-6391-1A, Composite video circuit PC board ass'y
PCB-21*AH	1A785592-1A	1	NAVD-6392-1A, S video circuit PC board ass'y
PCB-22*AH	1A785595-1A	1	NAETC-6395-1A, Digital input terminal PC board ass'y
PCB-23*AH	1A785589-1A	1	NADG-6389-1, NAD link PC board ass'y
PCB-25*AH	1A785594-1A	1	NAETC-6394-1A, Front video terminal PC board ass'y
PCB-26*AH	1A785593-1A	1	NAETC-6393-1A, Connector PC board ass'y
PCB-27*AH	1A785596-1A	1	NADG-6396-1A, DSP circuit PC board ass'y
PCB-28*AH	1A785501-1A	1	NATEC-6401-1A, Thermal compensation PC board ass'y
PCB-29*AH	1A785502-1A	1	NATEC-6402-1A, Thermal compensation PC board ass'y
PCB-30*AH	1A785588-1A	1	NADG-6388-1A, AC-3 circuit PC board ass'y
PCB-32*AH	1A785505-1A	1	NAETC-6405-1A, Regulator circuit PC board ass'y
PCB-33*AH	1A785585-1A	1	NAETC-6385-1A, PC board ass'y
PCB-34*AH	1A785531-1A	1	NAETC-6431-1A, PC board ass'y
PCB-35*AH	1A785516-1A	1	NAETC-6516-1A, DSP sub PC board ass'y

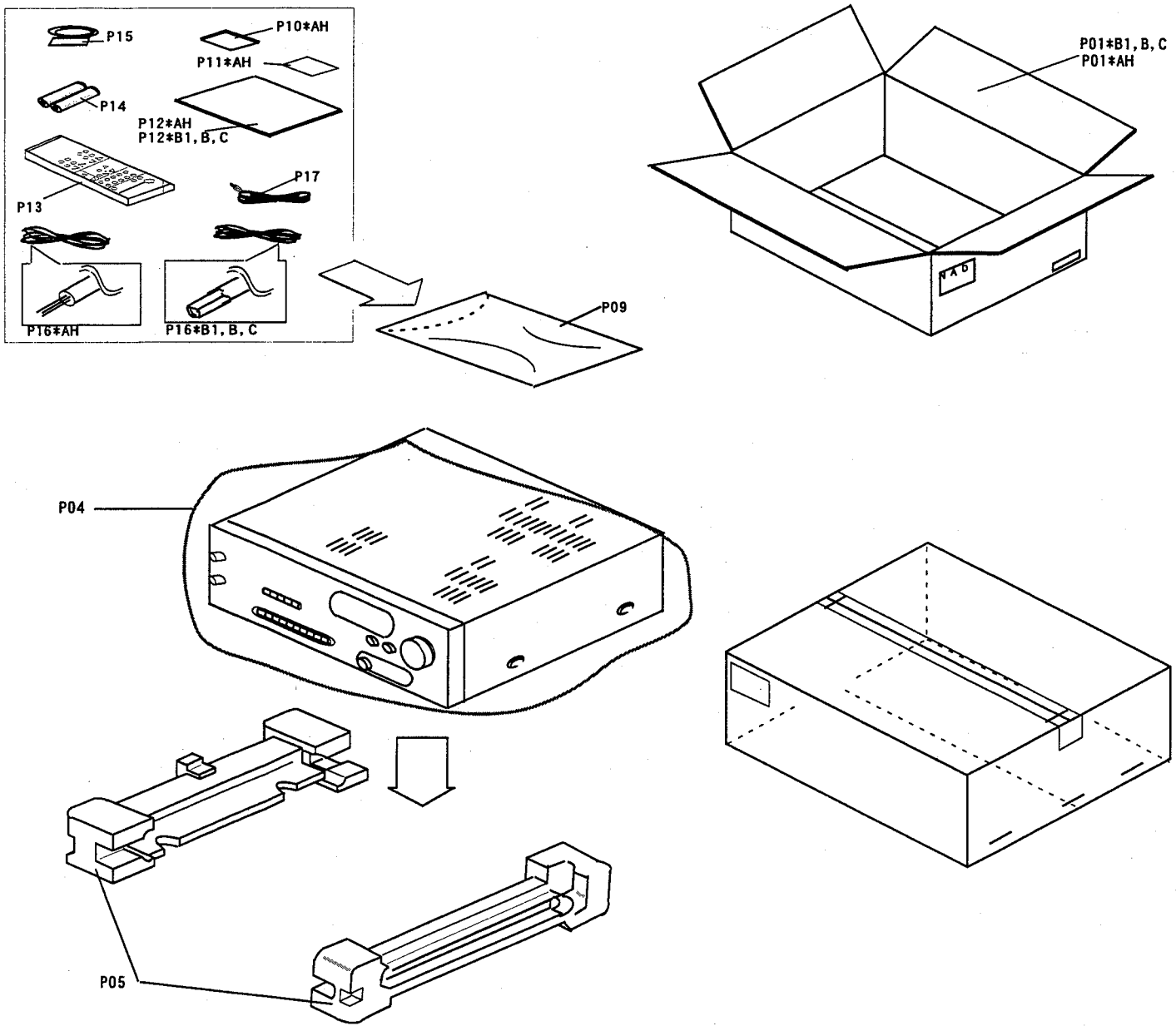
REF.No.	PART No.	Q'ty	DESCRIPTION
PCB-1*B1,B,C	1A785584-1B	1	NAAR-6384-1B, Main circuit PC board ass'y
PCB-2*B1,B,C	1A785510-1B	1	NAAF-6410-1B, Tone control circuit PC board ass'y
PCB-3*B1,B,C	1A785511-1B	1	NAAF-6411-1B, Tone volume PC board ass'y
PCB-4*B1,B,C	1A785500-1B	1	NAETC-6400-1B, Surround speaker terminal PC board ass'y
PCB-5*B1,B,C	1A785509-1B	1	NAAF-6409-1B, Pre. output terminal PC board ass'y
PCB-6*B1,B,C	1A785597-1B	1	NAAF-6397-1B, Front and center power amplifier PC board ass'y
PCB-7*B1,B,C	1A785598-1B	1	NAAF-6398-1B, Surround power amplifier PC board ass'y
PCB-8*B1,B,C	1A785506-1B	1	NAPS-6406-1B, Power supply circuit PC board ass'y
PCB-10*B1,B,C	1A785504-1B	1	NAETC-6404-1B, Secondary circuit PC board ass'y
PCB-11*B1,B,C	1A785508-1B	1	NAETC-6408-1B, Terminal PC board ass'y
PCB-12*B1,B,C	1A785599-1B	1	NAETC-6399-1B, Speaker terminal PC board ass'y
PCB-13*B1,B,C	1A785507-1B	1	NAETC-6407-1B, Power switch PC board ass'y
PCB-15*B1,B,C	1A785586-1B	1	NADIS-6386-1B, Display circuit PC board ass'y
PCB-16*B1,B,C	1A785587-1B	1	NAAF-6387-1B, Volume circuit PC board ass'y
PCB-17*B1,B,C	1A785503-1B	1	NAETC-6403-1B, Headphone terminal PC board ass'y
PCB-19*B1,B,C	1A785590-1B	1	NARF-6390-1B, Tuner circuit PC board ass'y
PCB-20*B1,B,C	1A785591-1B	1	NAVD-6391-1B, Composite video circuit PC board ass'y
PCB-21*B1,B,C	1A785592-1B	1	NAVD-6392-1B, S video circuit PC board ass'y
PCB-22*B1,B,C	1A785595-1B	1	NAETC-6395-1B, Digital input terminal PC board ass'y
PCB-23*B1,B,C	1A785589-1B	1	NADG-6389-1, NAD link PC board ass'y
PCB-25*B1,B,C	1A785594-1B	1	NAETC-6394-1B, Front video terminal PC board ass'y
PCB-26*B1,B,C	1A785593-1B	1	NAETC-6393-1B, Connector PC board ass'y
PCB-27*B1,B,C	1A785596-1B	1	NADG-6396-1B, DSP circuit PC board ass'y
PCB-28*B1,B,C	1A785501-1B	1	NATEC-6401-1B, Thermal compensation PC board ass'y
PCB-29*B1,B,C	1A785502-1B	1	NATEC-6402-1B, Thermal compensation PC board ass'y
PCB-30*B1,B,C	1A785588-1B	1	NADG-6388-1B, AC-3 circuit PC board ass'y
PCB-32*B1,B,C	1A785505-1B	1	NAETC-6405-1B, Regulator circuit PC board ass'y
PCB-33*B1,B,C	1A785585-1B	1	NAETC-6385-1B, PC board ass'y
PCB-34*B1,B,C	1A785531-1B	1	NAETC-6431-1B, PC board ass'y
PCB-35*B1,B,C	1A785516-1B	1	NAETC-6516-1B, DSP sub PC board ass'y

NOTE: Replacement of the transistor of mark *, if necessary, must be made from the same beta group (HFE) as the original type.

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH RAPT NUMBER SPECIFIED.

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

PACKING DIAGRAM



Parts List

REF. No.	PART No.	Q'ty	DESCRIPTION
P01*AH	29053337	1	Carton
P01*B1, B, C	29053354	1	Carton
P04	29100034-1A	1	Polystyrene bag (850*650)
P05	29091855A	1	Pad ass'y T770
P09	29100097-1A	1	Polystyrene bag 350*250

REF. No.	PART No.	Q'ty	DESCRIPTION
P10*AH	29355233	1	Instruction sheet E
P11*AH	29365078	1	Warranty card
P12*AH	29342621	1	Instruction manual U4EFGS
P12*B1, B, C	29342662	1	Instruction manual U4EIPSW
P13	24140381R	1	Remote control T770
P14	3010124	2	Battery UM-4
P15	232140	1	AM antenna coil NMA-3057
P16*AH	292111	1	FM antenna ass'y
P16*B1, B, C	292112	1	FM antenna ass'y(connect type)
P17	2010317	1	NAD link cable

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

Countermeasure for DVD noise

1. Purpose

To solve the POP-NOISE problem when using the Dolby Digital decoder (AC-3) function with DVD Player.

2. Modification object

Digital Signal Processor's Printed Wiring Board. [NCDG-6396]

3. Contents of Modification Parts

a. Micro Processor [MPD78P014GC] Part No. 22241265R3

b. PWB Assembly [NAETC-6516]

c. Diode [1SS133] Part No. 223163

d. Wire Black,120mm (P195 to anode of D135)
Wire Red, 120mm (P196 to J1715)

4. Procedure

Please install the countermeasure parts with following procedure.

a. Remove the IC (Q791 : MPD78014FGC) carefully. *De-soldering tool will be necessary.

b. Solder the IC (Q791 : MPD78P014GC) carefully.

c. Remove the Jumper wire ("J1729" : Pitch = 20mm).

d. To insert the additional PWB (NCETC-6516), remove solder & open the hole of "P810b"

e. Insert the additional PWB (NCETC-6516) to the "P810b" and solder.

f. Insert the DIODE ("D135" : 1SS133) to the hole of "J1729" as drawing.

g. Insert the wire lead (P195 : Black / 120mm) with ANODE of D135 together and solder.

h. Solder the wire lead (P196 : Red /120mm) together with "J1715" on component side.

5. Application

<AH> model: Serial number 087700001 ~ 087701000 (1000 sets)
<C> model : Serial number 087701001 ~ 087701400 (400 sets)