

T 741

**SURROUND
SOUND RECEIVER**

SERVICE MANUAL

T 741

**SURROUND
SOUND RECEIVER**

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 Number	Description
M271 *C \triangle	5120-0024-0	3.15A TIME-LAG 5x20 VDE-SEMKO

NOTE:

<*AH > : USA, CANADIAN MODEL ONLY.

<*C > : EUROPEAN 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 \triangle are critical with regard to the risk of fire and electric shock.
Replace only with parts recommended by the manufacturer.

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SPECIFICATIONS

POWER AMPLIFIER AND PREAMPLIFIER SECTION (all channels stated 8 ohms)

Rated distortion	(THD 20Hz-20 kHz FL/C/FR)	≤ 0.08%
	(THD 20Hz-20 kHz SL/SR)	≤ 0.3%
Input Sensitivity	(ref. 8 ohms, 1 kHz)	180+/-30 mV
S/N Ratio	(A-wtd, 1KHz, 1W, 8 ohm)	≥ -78 dB
	(A-wtd, 1KHz, 80W, 8 ohm)	≥ 92 dB
	FL/FR/C	≥ -90 dB
	SL/SR	≥ -90 dB
Frequency Response	(20 Hz - 20 kHz)	0 ± 0.8 dB
Channel Balance	(1 dB to -40 dB, 1 kHz)	≤ 2 dB
	(-41 dB to -50 dB, 1 kHz)	≤ 3 dB
Audio muting at 1kHz		≥ 53 dB
Headphone O/P in 0.1%, 600 ohm load, CD in 500mV, 1 kHz		≥ 10V
Subwoofer out, 500mV in	(THD at 2V O/P, 100 Hz)	≥ 0.5%
	(S/N at 2V O/P, 100 Hz)	≥ 80 dB
Crosstalk	(2V input, 10W, 1 kHz)	> -68 dB
Continuous average power output (L/R/C RL/RR 8 ohms)		50 W

Controls

Bass	(at 500mV in, 1W out, 100 Hz)	± 9 dB
Treble	(at 500mV in, 1W out, 10 kHz)	± 9 dB

SURROUND SECTION

Channel separation

I/p mode : L, R	: 1V in, 1 kHz, Ch R, L	≥ 45 dB
	: o/p at unexpected, 1 kHz, Ch C	≥ 35 dB
I/p mode : L= -R	: 1V in, 1 kHz, Ch R, L	≥ 28 dB
	: o/p at unexpected, 1 kHz, Ch C	≥ 30 dB
I/p mode : L= R	: 1V in, 1 kHz, Ch R, L	≥ 45 dB
	: o/p at unexpected, 1 kHz, Ch SL, SR	≥ 30 dB

Frequency Response

I/p mode : L, R	: 1V in, 1W, Ch R, L	40Hz	0 ± 1.5 dB
		20kHz	0 ± 1.5 dB
I/p mode : L= R	: 1V in, 1W, Ch C	300Hz	0 ± 0.8 dB
		20kHz	0 ± 0.8 dB
I/p mode : L= -R	: 1V in, 1W, Ch SL, SR	30Hz	0 ± 1.0 dB
		6.5kHz	-3 ± 1.0 dB
S/N Ratio (200mV in, 1, A-WTD w/ 1k termination)			
I/p mode : L, R	: 1 kHz, Ch L, R		≥ 65 dB
I/p mode : L=R	: 1 kHz, Ch C		≥ 65 dB
I/p mode : L=-R	: 1 kHz, Ch SL, SR		≥ 65 dB
THD (2.2V in, 1W, w/ 80 kHz LPF, 1 kHz)			≤ 0.2%

DTS SECTION

Frequency Response

FL, FR, C, SL, SR:	200Hz	0 ± 0.8 dB
	20kHz	0 ± 0.8 dB
Distortion 1W all channels		0.08%

AM TUNER SECTION

Input level is expressed as the reading in open-circuit
of 75-ohm source impedance signal generator

Usable sensitivity (999/1000kHz)		≤ 30 dBμ
S/N Ratio (5mV in)		≥ 38 dB
THD (5mV in)		≤ 3%
IF Rejection (450 kHz)	≥ 36 dB	
Image Rejection (F+2xIF)		≥ 28 dB
Selectivity		≥ 17 dB
Output		130+/- 20mV
Loop sensitivity (20dB S/N)		
	999/1000 kHz	≤ 66 dB
	603/600 kHz	≤ 66 dB
	1404/1400 kHz	≤ 66 dB
Frequency response (100 - 2.3 kHz, 5mV)		± 6 dB

FM TUNER SECTION

Input level is expressed as the reading in open-circuit
of 75-ohm source impedance signal generator

Usable Sensitivity (98 MHz)		≤ 15 dBμ
Signal / Noise Ratio	Mono	≥ 72 dB
(60 dBμ, IHF wtd)	Stereo	≥ 66 dB
Frequency Response (20 Hz - 15 kHz, 60 dBμ)		0 ± 1.5 dB
Channel Separation (60 dBμ)	100 Hz	≥ 30 dB
	1 kHz	≥ 40 dB
	10 kHz	≥ 30 dB
Alternate Channel Selectivity		
(40 dBμ, ±400 kHz)		≥ 60 dB
Capture Ratio (40 dBμ)		≤ 3 dB
AM Suppression		
(60 dBμ, 100% Mod.FM, 30% Mod.AM)		≥ 48 dB
Image Rejection (119.4 MHz)		≥ 68 dB
I.F. Rejection (10.7 MHz)		≥ 78 dB
Pilot Suppression (60 dBμ)		≥ 60 dB
THD (60 dBμ, L=R 75 kHz for AH, 40 kHz Dev for C)		
	Mono	≤ 0.25%
	Stereo	≤ 0.35%
Auto-Search Sensitivity	On	≥ 24 dBμ
	Off	≤ 15 dBμ
RDS decode Sensitivity		≤ 26 dBμ

POWER RATING

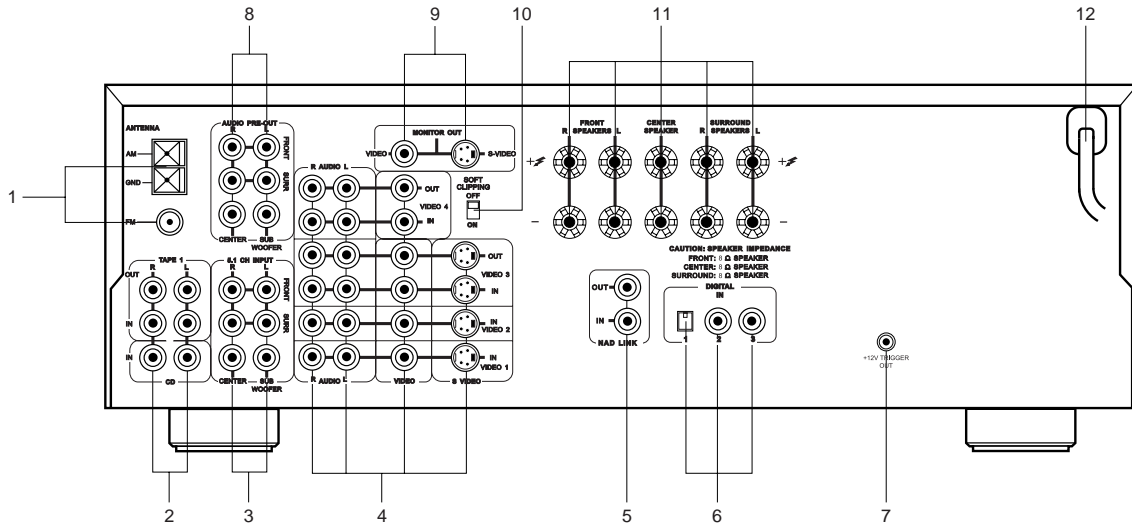
EUROPEAN Model	*C	AC 230V~ 50Hz 1.2A
USA, CANADIAN Model	*AH	AC 120V~ 60Hz 2.5A

PHYSICAL SPECIFICATIONS

Dimensions (Width x Height x Depth)	435 x 131 x 348mm
Net weight	14kg (31 lbs)
Shipping weight	16.7kg (37 lbs)

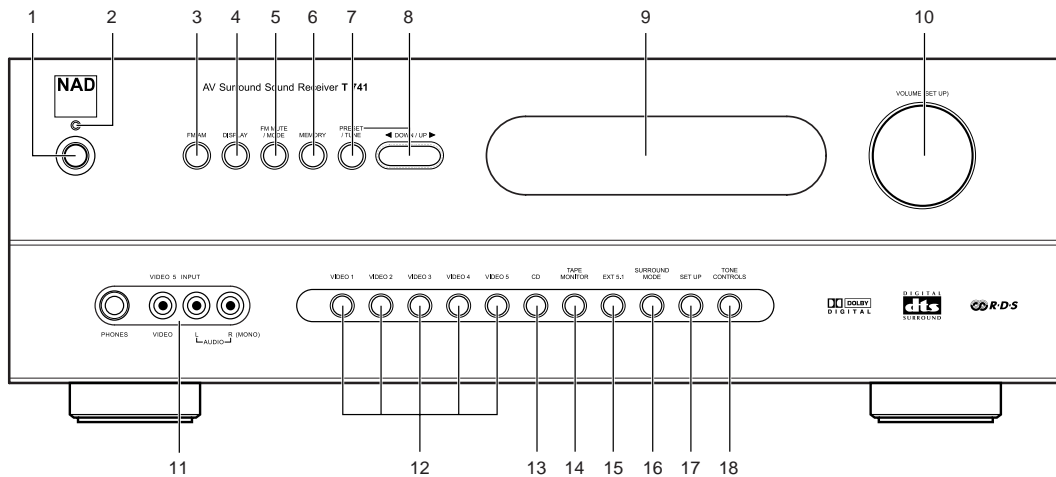
REAR PANEL / FRONT PANEL

REAR PANEL



- | | |
|--------------------------------------|---|
| 1. FM & AM ANTENNA | 8. AUDIO PRE OUTS |
| 2. TAPE 1 & CD INPUTS | 9. MONITOR OUT |
| 3. 5.1 CHANNEL INPUT | 10. SOFT CLIPPING |
| 4. VIDEO 1 - VIDEO 4 (AUDIO & VIDEO) | 11. SPEAKERS: FRONT, CENTER & SURROUND SPEAKERS |
| 5. NAD-LINK INPUT / OUTPUT | 12. AC POWER CORD |
| 6. DIGITAL AUDIO INPUTS / OUTPUTS | |
| 7. 12V TRIGGER INPUT | |

FRONT PANEL



- | | |
|----------------------|--------------------------------------|
| 1. POWER | 10. VOLUME & SETUP |
| 2. STAND-BY | 11. HEADPHONE SOCKET & VIDEO 5 INPUT |
| 3. AM/FM | 12. VIDEO 1 ~ VIDEO 5 INPUT |
| 4. DISPLAY | 13. CD |
| 5. FM MUTE / MODE | 14. TAPE MONITOR |
| 6. MEMORY | 15. EXT. 5.1 |
| 7. PRESET / TUNE | 16. SURROUND MODE |
| 8. DOWN / UP ◀ AND ▶ | 17. SET UP |
| 9. VFL DISPLAY | 18. TONE CONTROLS |

DISASSEMBLY INSTRUCTIONS

1. Remove machine screws M 4.0 x 6.0 (① to ⑥) from the side panels.
Remove tapping screw 3.0 x 8.5 (⑦) from the back panel.
Refer to **Figure No.1**.

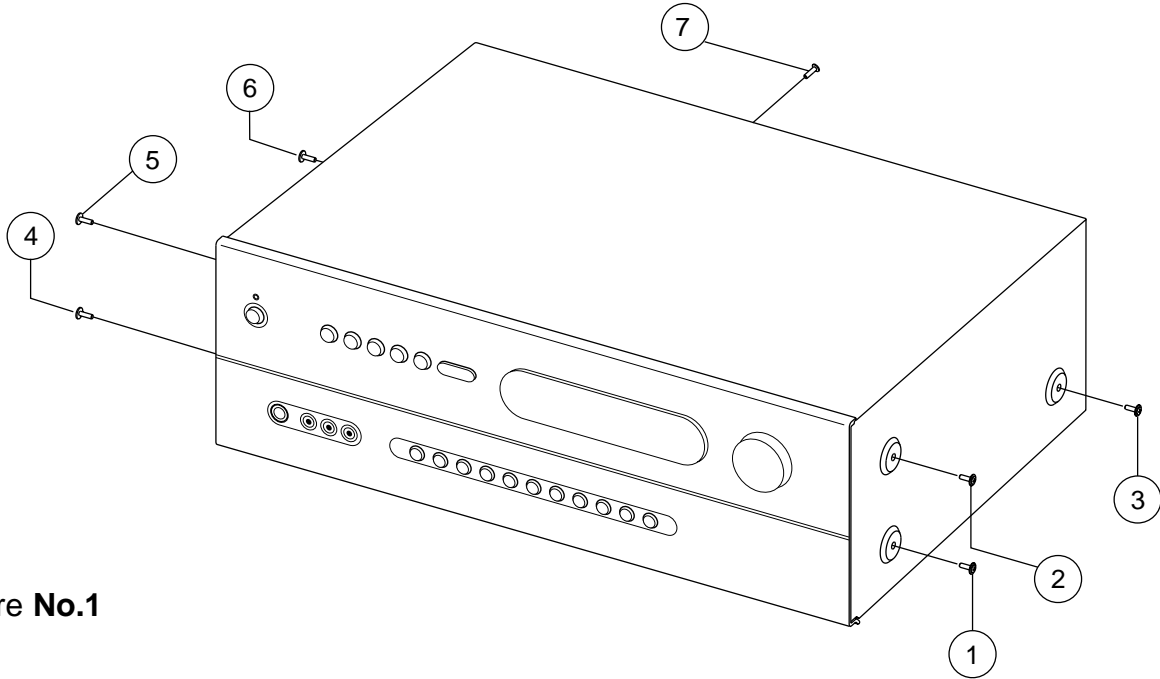


Figure No.1

2. Pull both sides of the TOP COVER slightly outwards (⑧) and tilt approx. 35° and then remove in the direction as indicated by the arrow (⑨). Refer to **Figure No.2**.

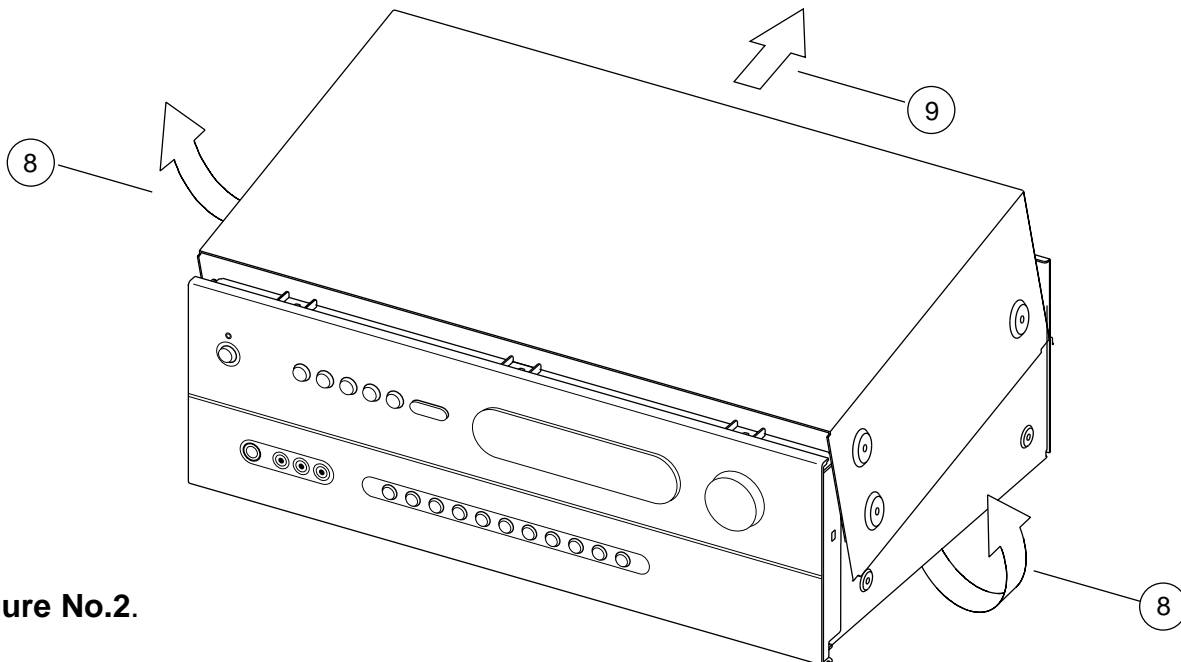
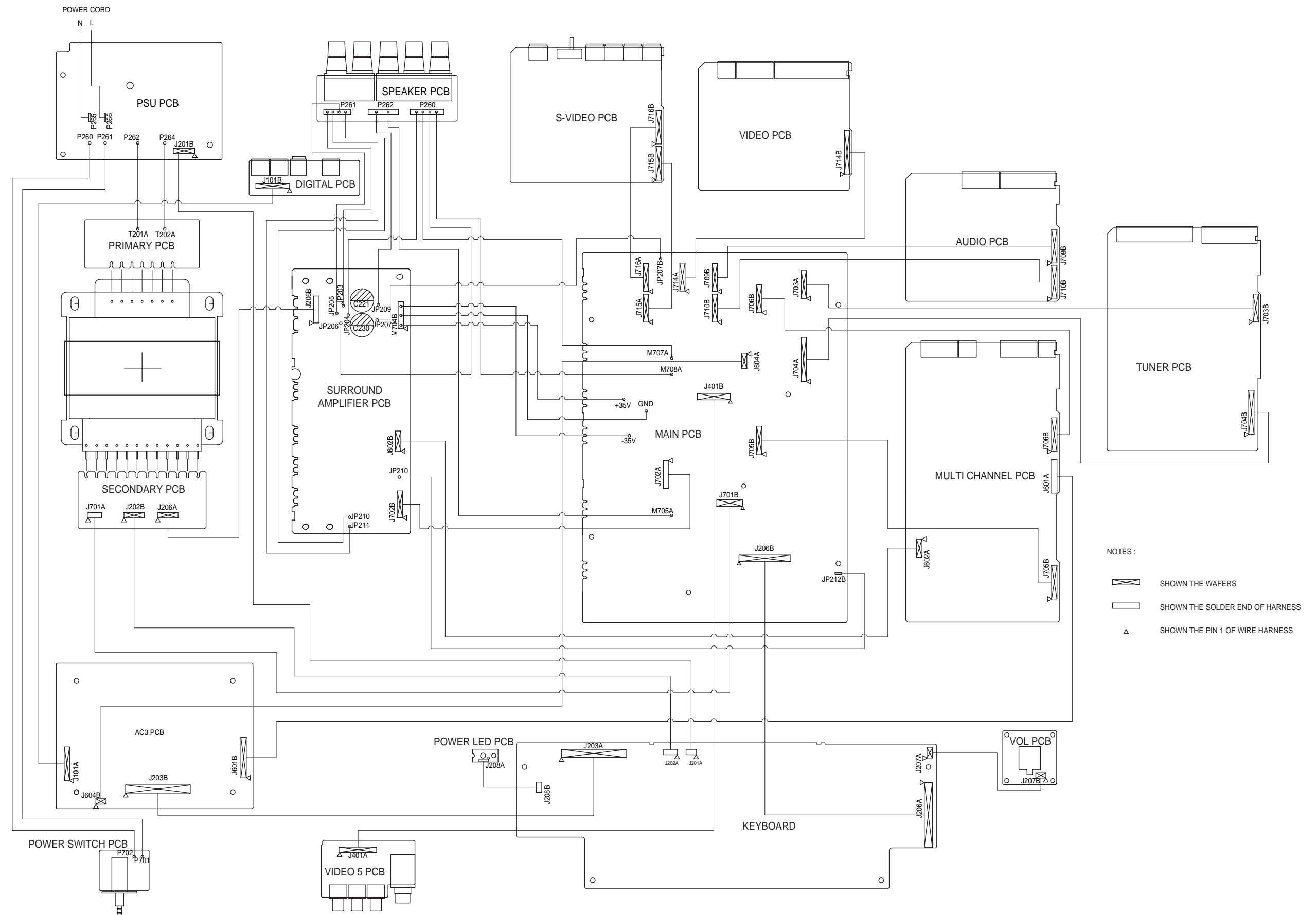
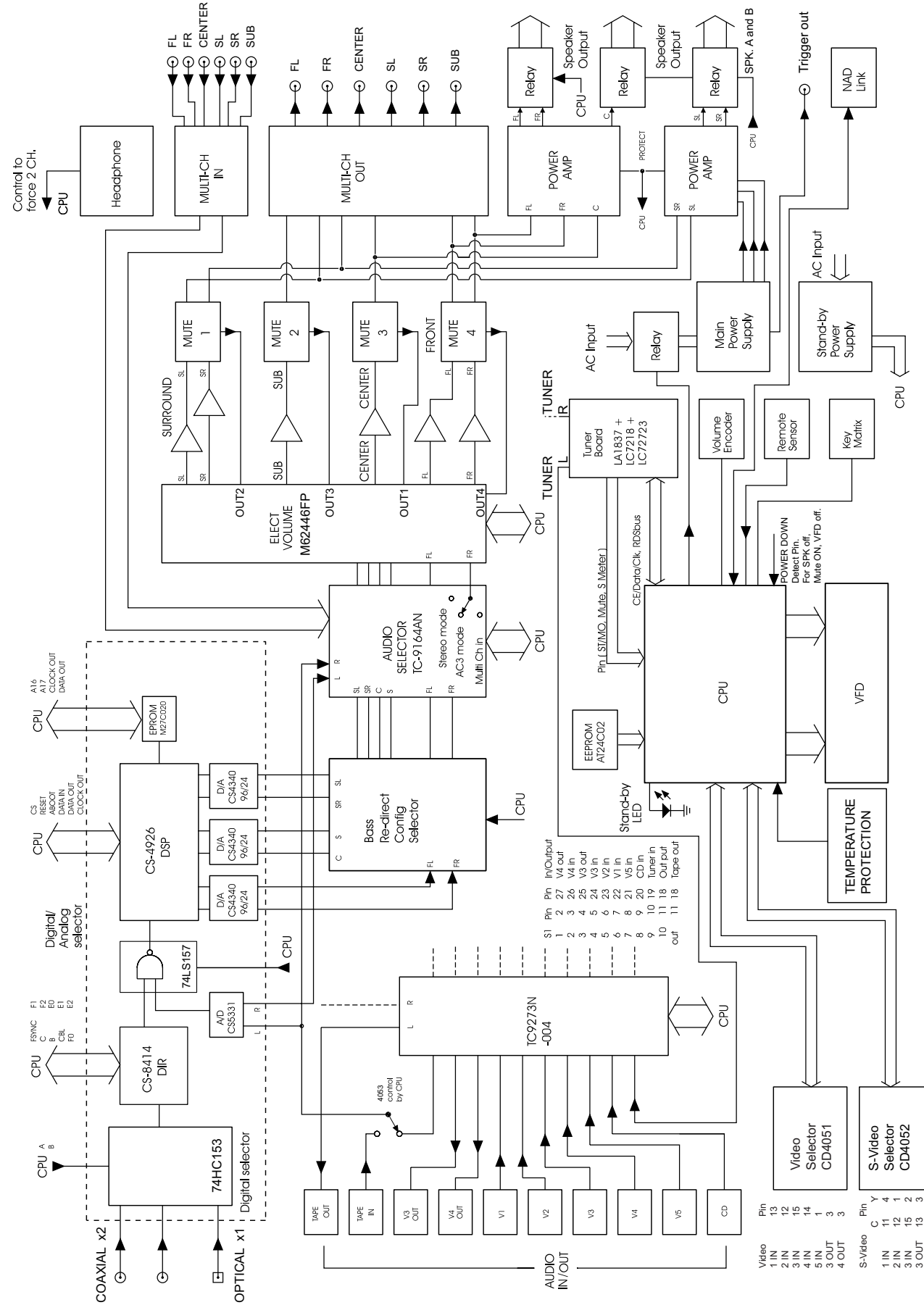


Figure No.2.

WIRING DIAGRAM

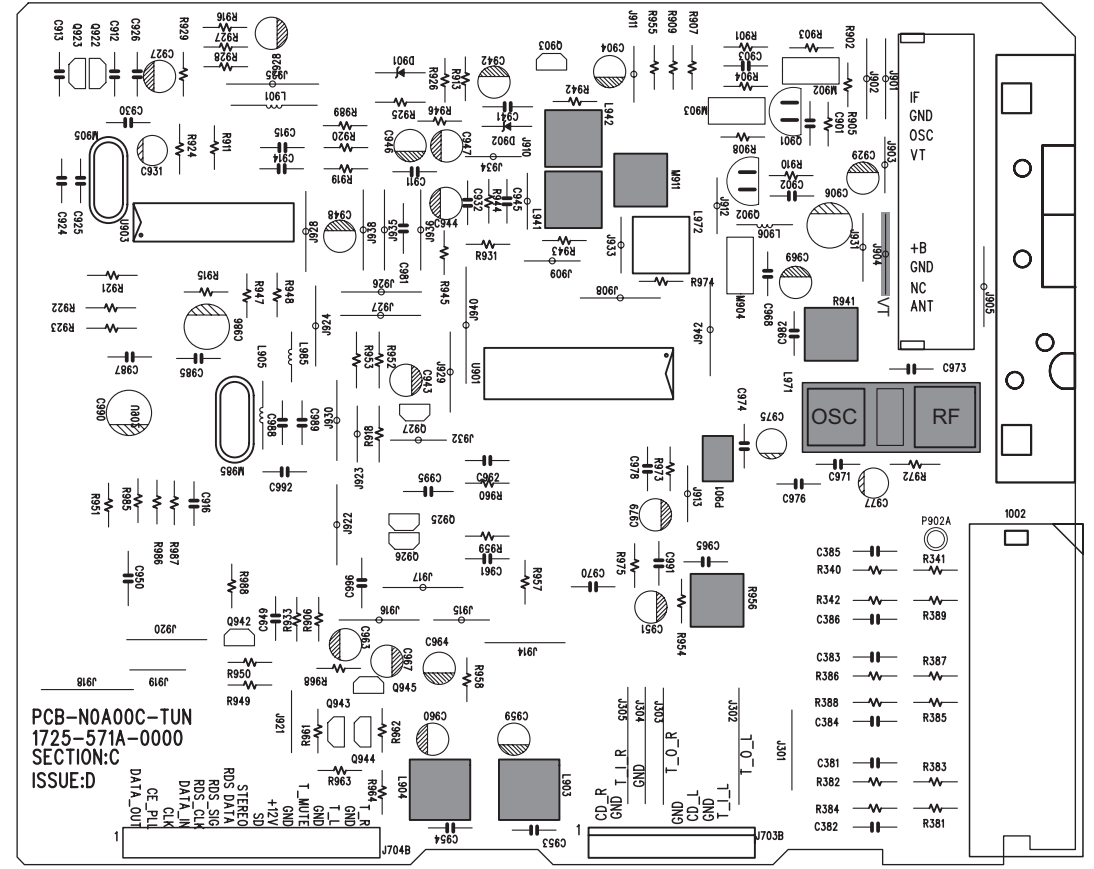


BLOCK DIAGRAM

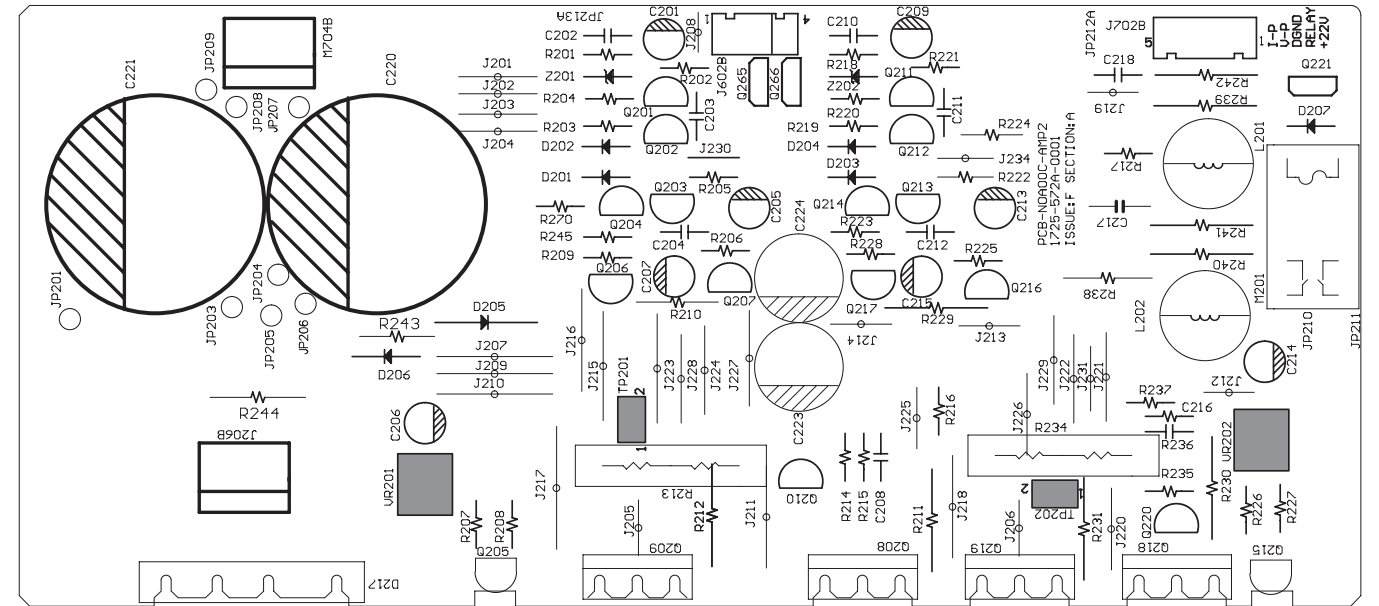


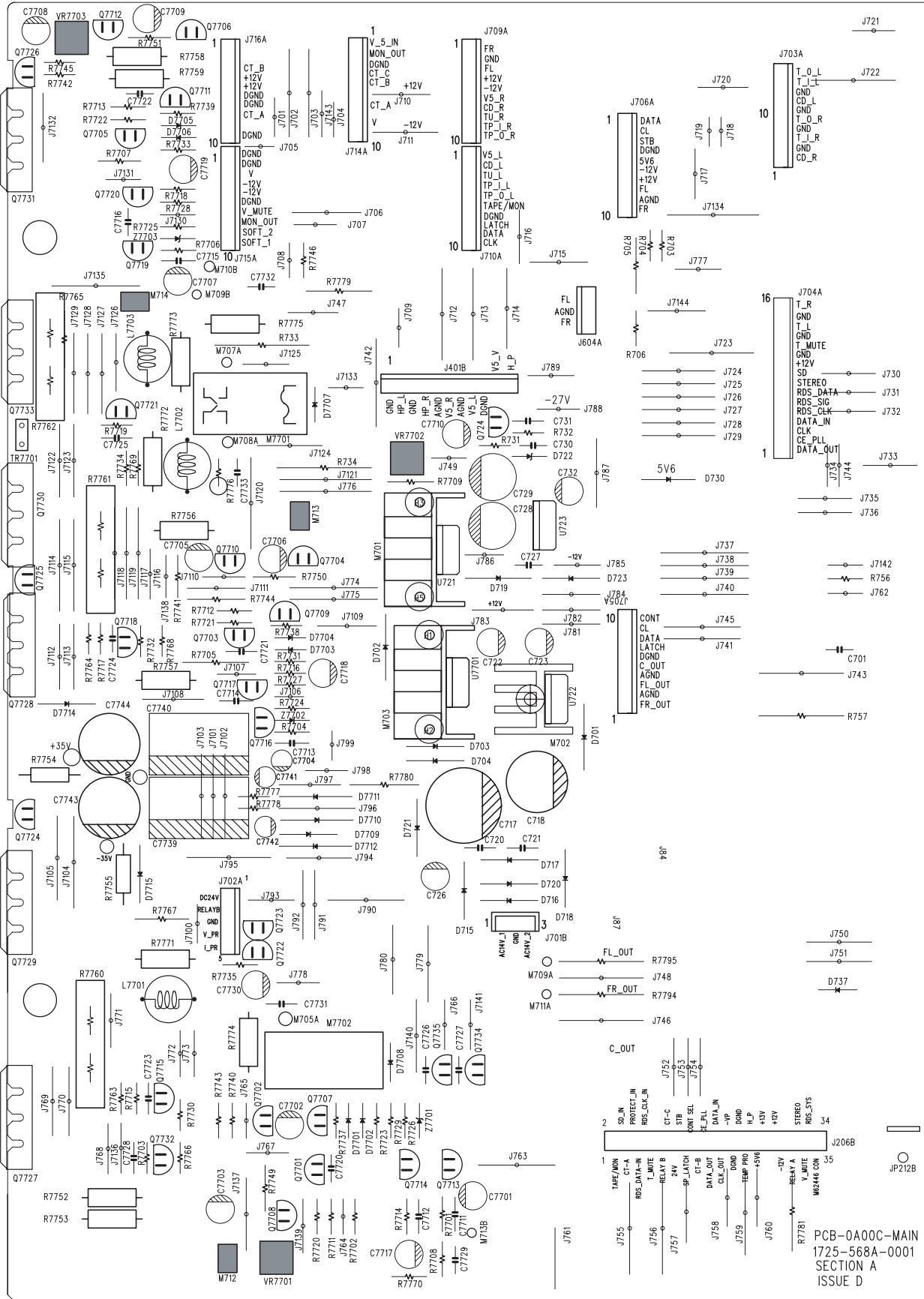
ADJUSTMENT POINTS DIAGRAM

1. TUNER



2. IDLE CURRENT - Front Amplifier & Surround Amplifier Board





PCB-0A00C-MAIN
1725-568A-0001
SECTION A
ISSUE D

INSTRUMENT SETUP

1. FM MEASUREMENT

Fig. 1

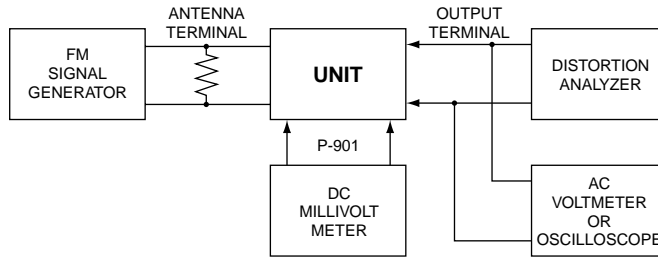
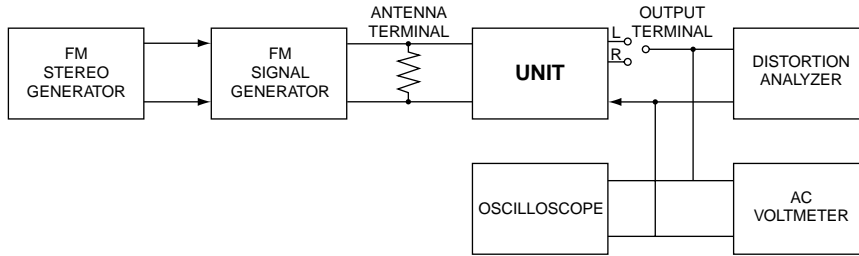
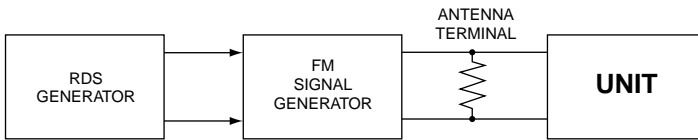


Fig. 2



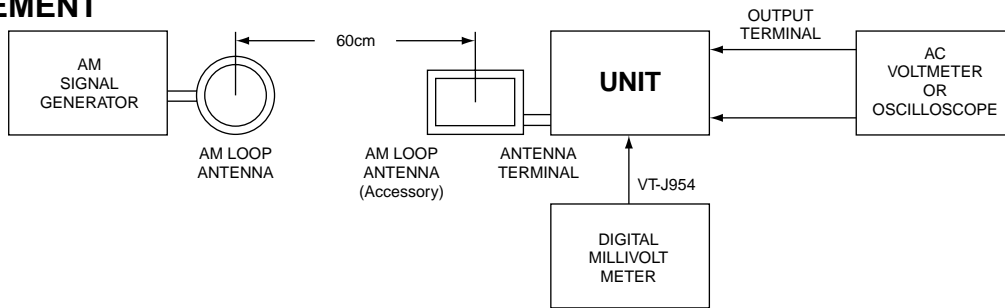
2. RDS MEASUREMENT

Fig. 3



3. AM MEASUREMENT

Fig. 4



ALIGNMENT PROCEDURES

AMPLIFIER SECTION

Idle Current

Step	Item	Connection	Adjustment	Adjust for
1	Front Left Channel	Voltmeter to M714 on Main Board	VR7703	1mV±0.2mV
2	Front Right Channel	Voltmeter to M713 on Main Board	VR7702	1mV±0.2mV
3	Center Channel	Voltmeter to M712 on Main Board	VR7701	1mV±0.2mV
4	Rear Left Channel	Voltmeter to TP202 on Surround Amplifier Board (PCB N0A00C-AMP2)	VR202	1mV±0.2mV
5	Rear Right Channel	Voltmeter to TP201 on Surround Amplifier Board (PCB N0A00C-AMP2)	VR201	1mV±0.2mV

FM/RDS SECTION

- FM mono: 1kHz, 75kHz devi., 60dB/μV
- FM stereo: 1kHz, 67.5kHz devi., 60dB/μV
- Pilot signal 19kHz 7.5kHz devi.

OUTPUTS

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

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 (60dB)	-	99.0MHz	DC voltmeter	L941	0±100mV	FM MUTE/MODE switch: ON/AUTO Repeat the steps 1 to 3 until no further adjustment is necessary.
	AC voltmeter					IFT on the front end	Maximum		
	Distortion analyzer					L942	Minimum		
Stereo Distortion		Fig.2	99.0MHz Ext. mod. 65dBf (60dB)	Channel L or R 1kHz	99.0MHz	Distortion analyzer	IFT on the front end	Minimum	FM MUTE/MODE switch: ON/AUTO Don't turn more than +/-180°
Stereo Separation		Fig.2	99.0MHz Ext. mod. 65dBf (60dB)	Channel L or R 1kHz	99.0MHz	Oscilloscope	R956	Maximum separation	Repeat stereo distortion and stereo separation alignment until THD at minimum and separation at maximum.
Muting Level		Fig.1	99.0MHz 18dB	-	99.0MHz	Oscilloscope	R941	Signal output	
RDS		Fig.3	99.0MHz Ext. mod. 65dBf(60dB) RDS 2% MOD	-	99.0MHz	-	-	-	Decode the RDS-Program Station.

AM SECTION

AM Modulation: 400Hz, 30%

For AH Version

Step	AM SG output	Tuning frequency	Output indicator	Adjustment point	Adjust for
1	-	530kHz	Digital DC voltmeter	OSC coil on RF block L971	1.35±0.2V
2	600kHz 400Hz 30% mod. 60dB/m	600kHz	AC voltmeter	RF coil on RF block L971	Maximum
3	600kHz 400Hz 30% mod. 60dB/m	990kHz	AC voltmeter	L972	Maximum

For C Version

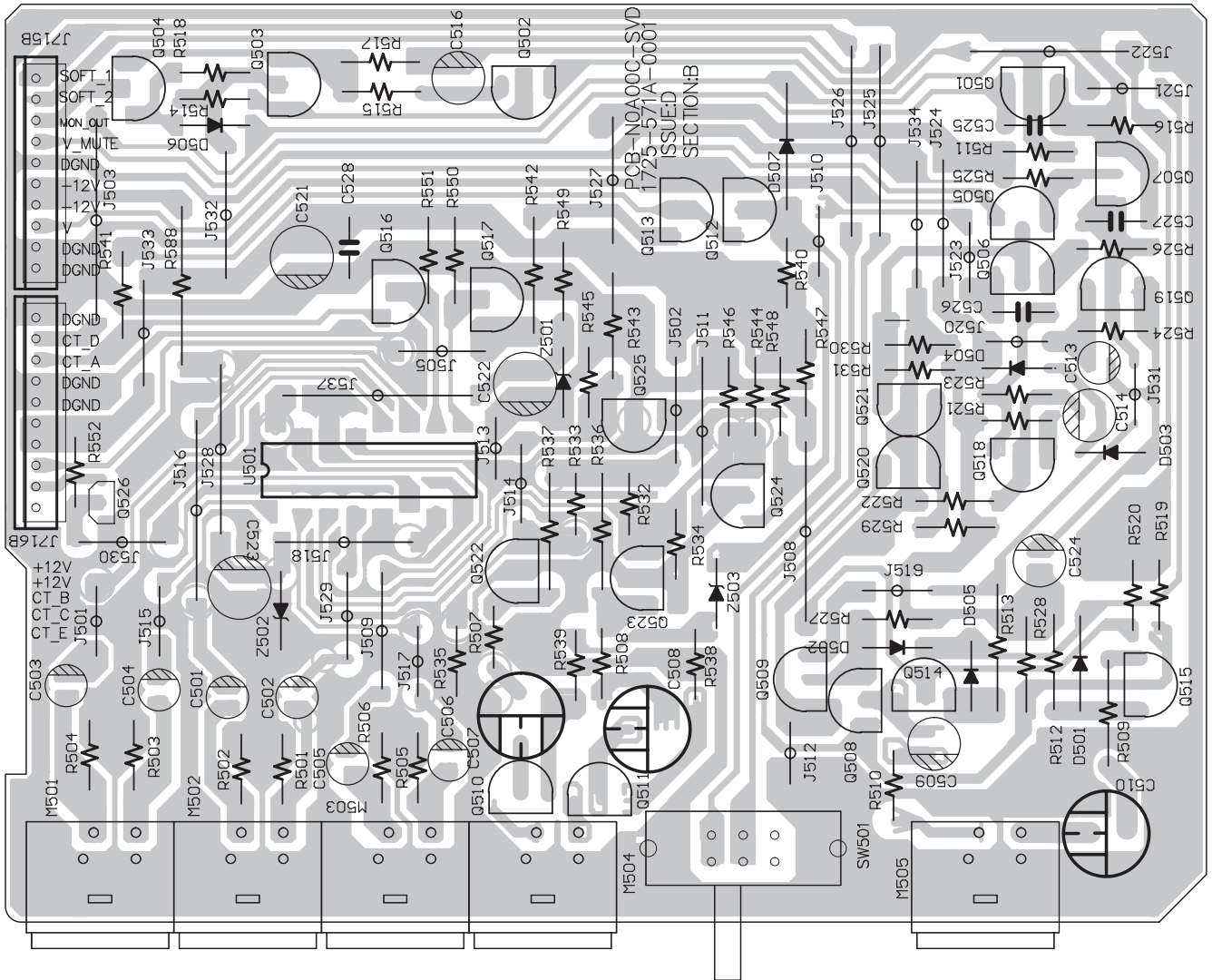
Step	AM SG output	Tuning frequency	Output indicator	Adjustment point	Adjust for
1	-	522kHz or 531kHz	Digital DC voltmeter	OSC coil on RF block L971	1.3±0.2V (522kHz) 1.35±0.2V (531kHz)
2	600kHz 400Hz 30% mod. 60dB/m	603kHz	AC voltmeter	RF coil on RF block L971	Maximum
3	600kHz 400Hz 30% mod. 60dB/m	999kHz	AC voltmeter	L972	Maximum

IMPORTANT NOTES

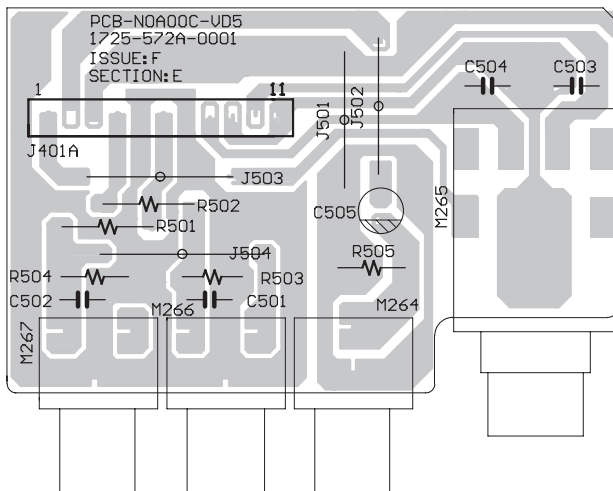
- 1. Show the software version**
Press "FM/AM" and "EXT 5.1".
- 2. Light up all the icon on the VFL.**
Press "FM/AM" and "TONE CONTROL".
- 3. Toggle between 9K and 10K**
Press "FM/AM" and "CD".
- 4. Clear all tuner presets**
Press "TAPE(MON)" and "VIDEO 1".

PCB LAYOUT

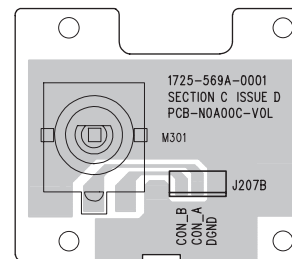
S-VIDEO BOARD



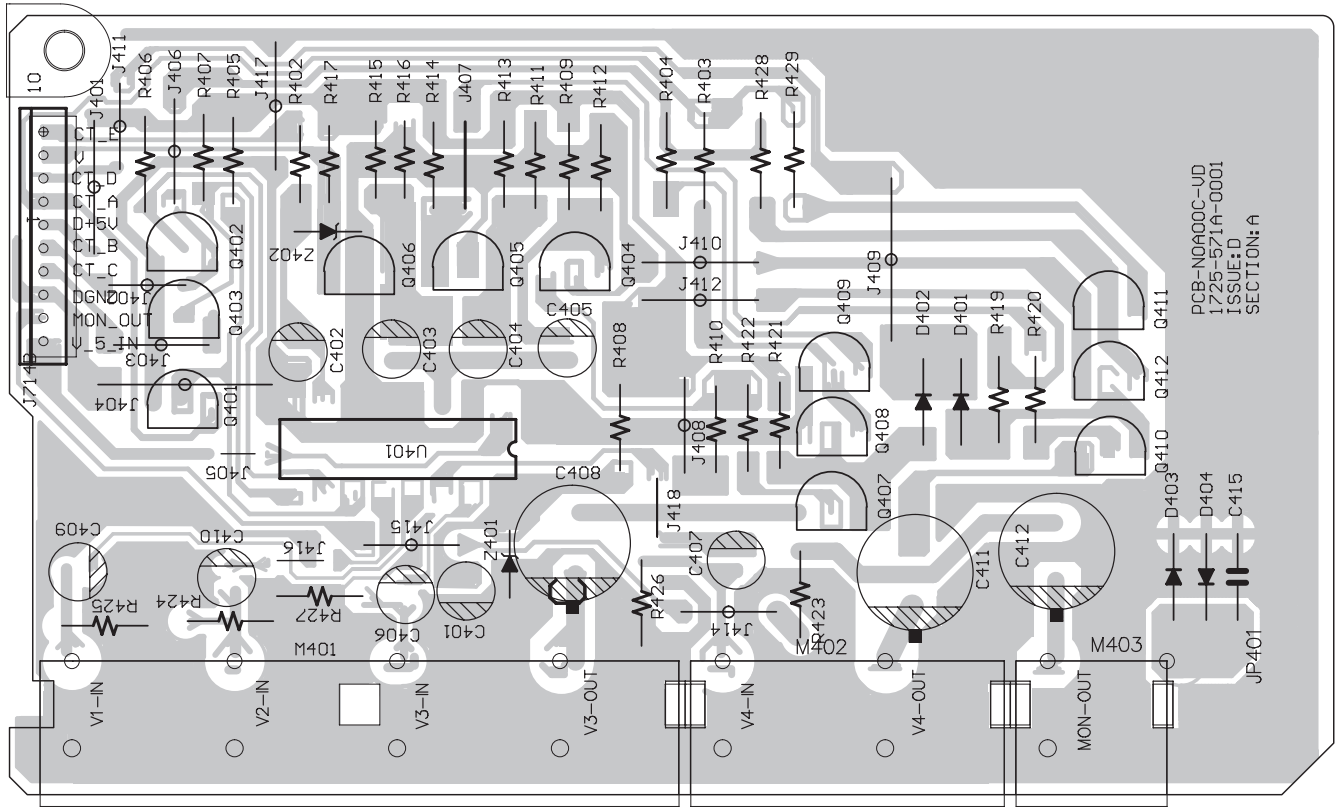
VIDEO-5 BOARD



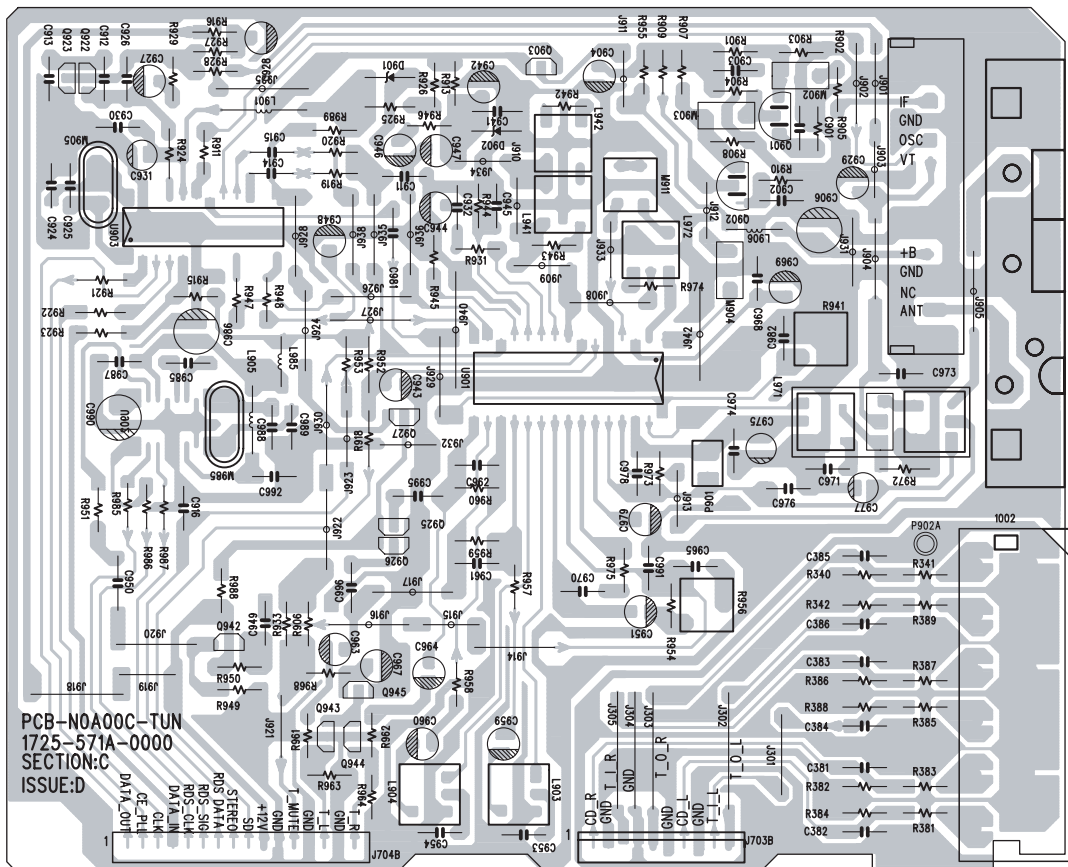
VOLUME BOARD



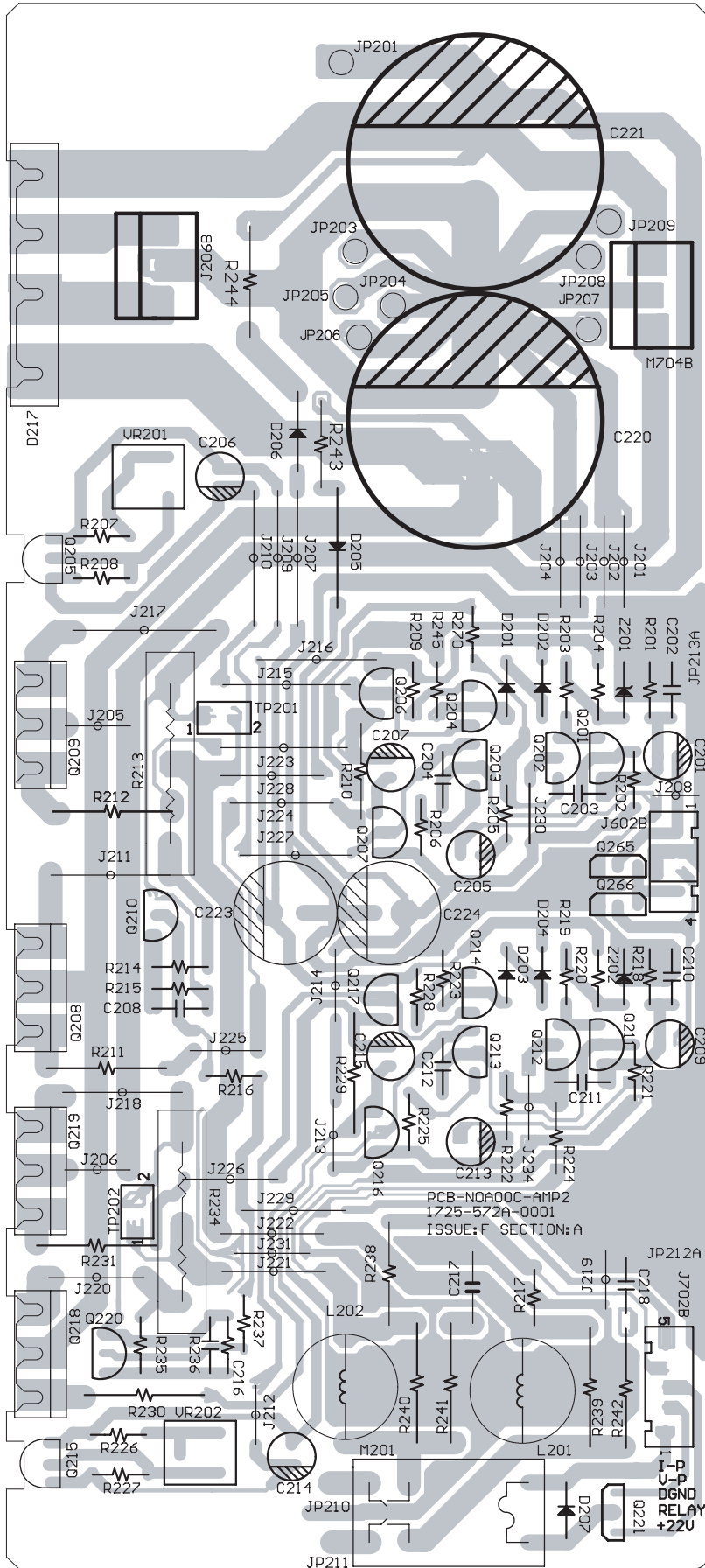
VIDEO BOARD



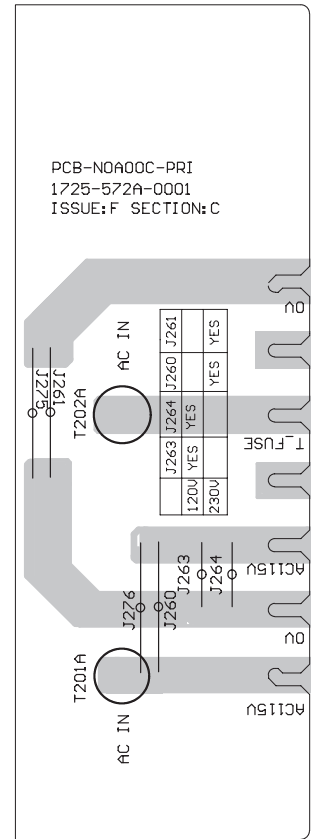
TUNER BOARD



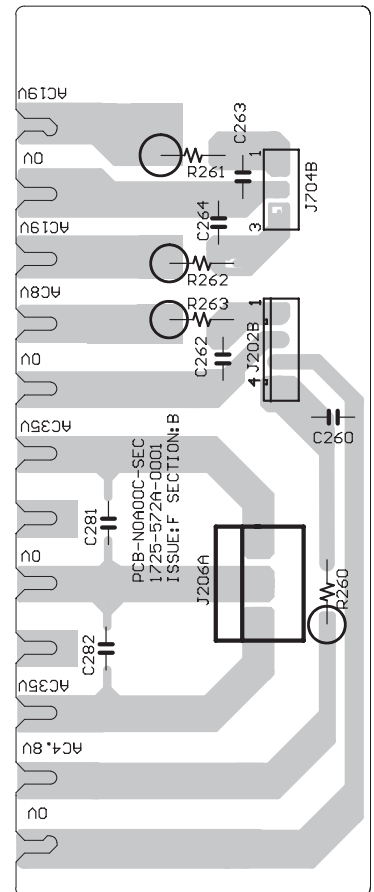
SURROUND AMPLIFIER BOARD



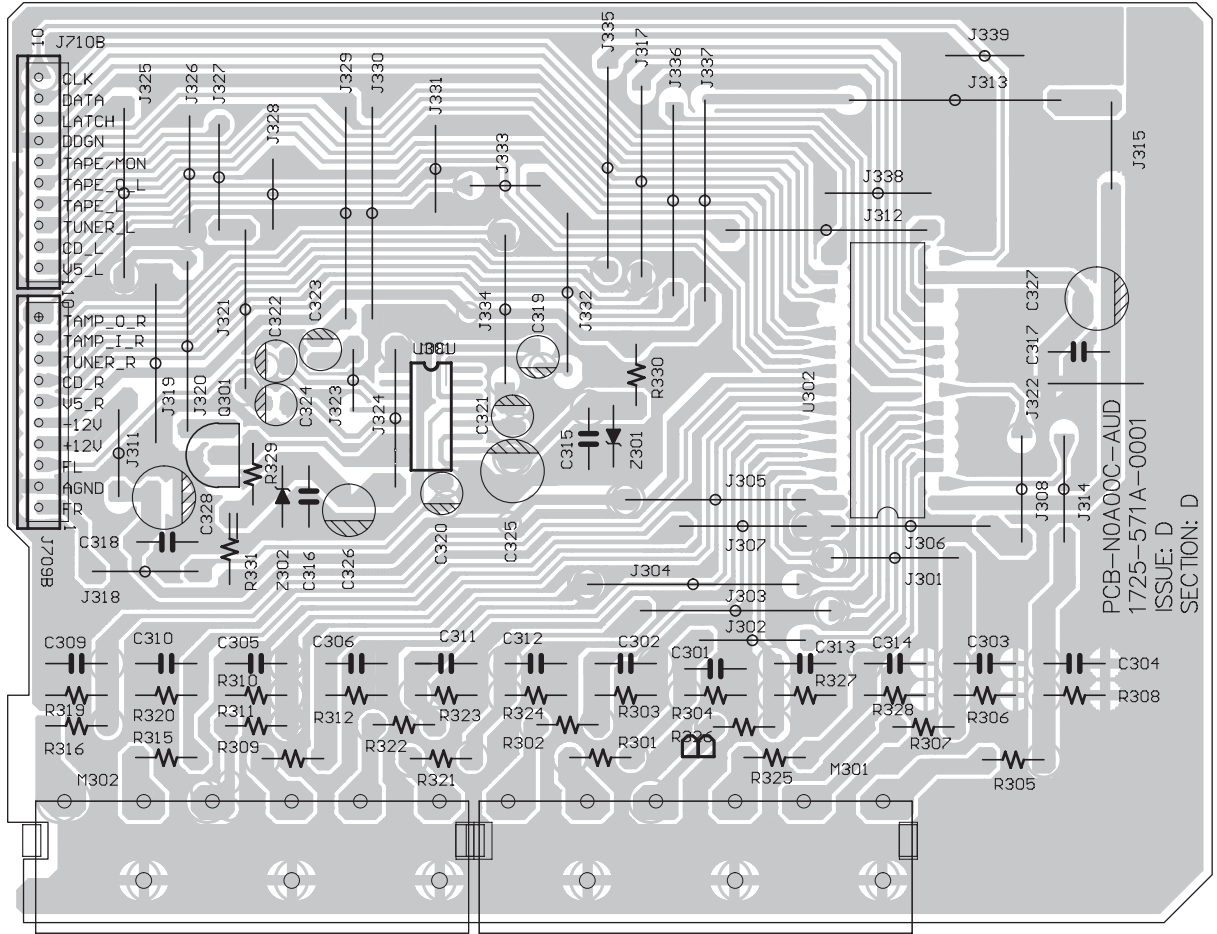
PRIMARY BOARD



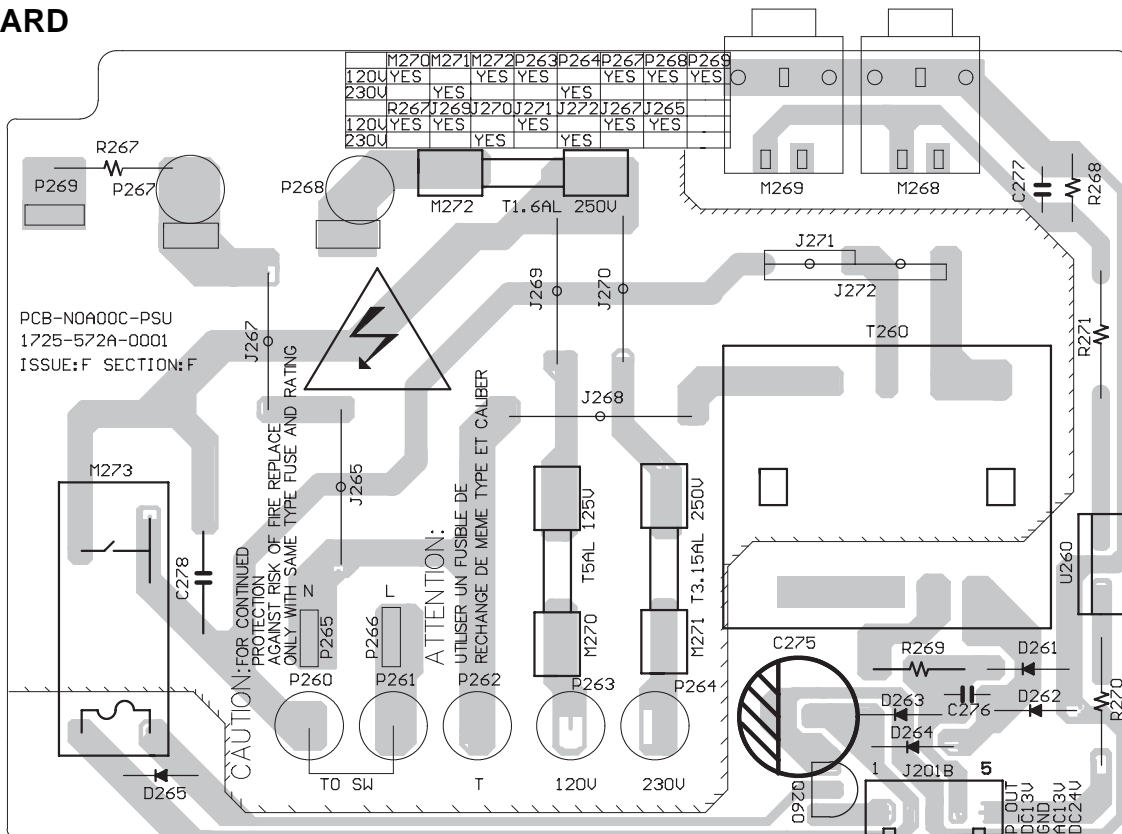
SECONDARY BOARD



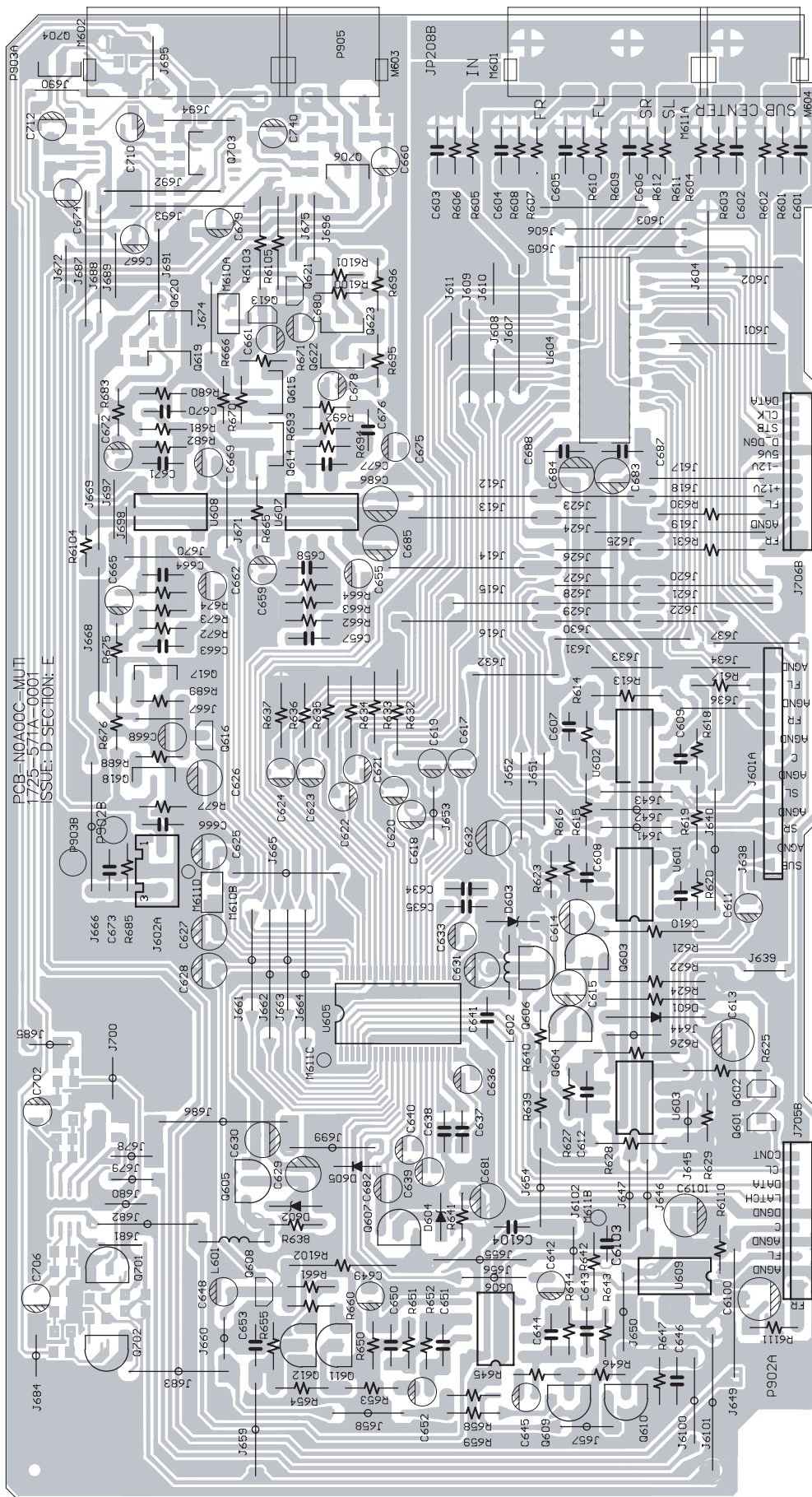
AUDIO BOARD



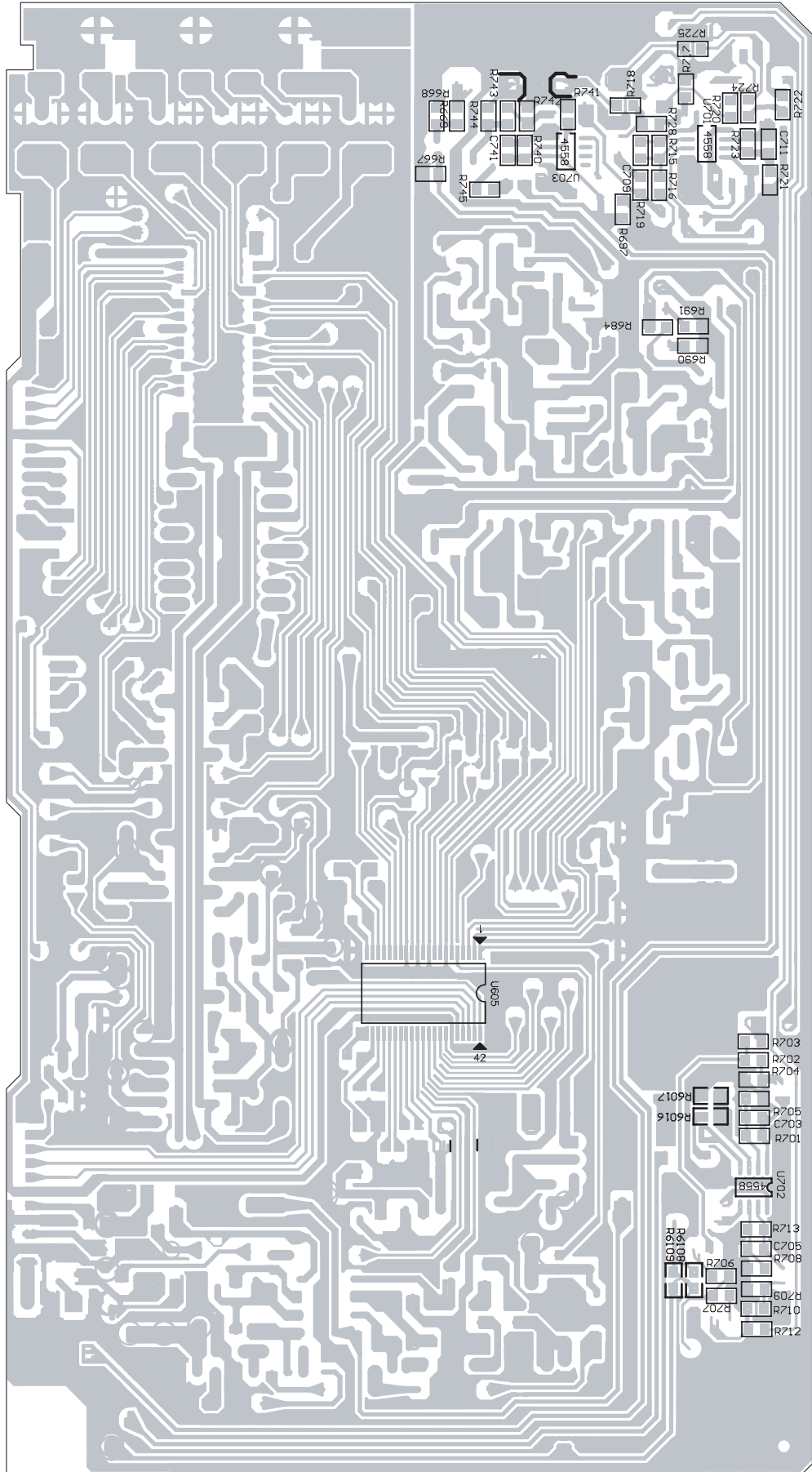
PSU BOARD



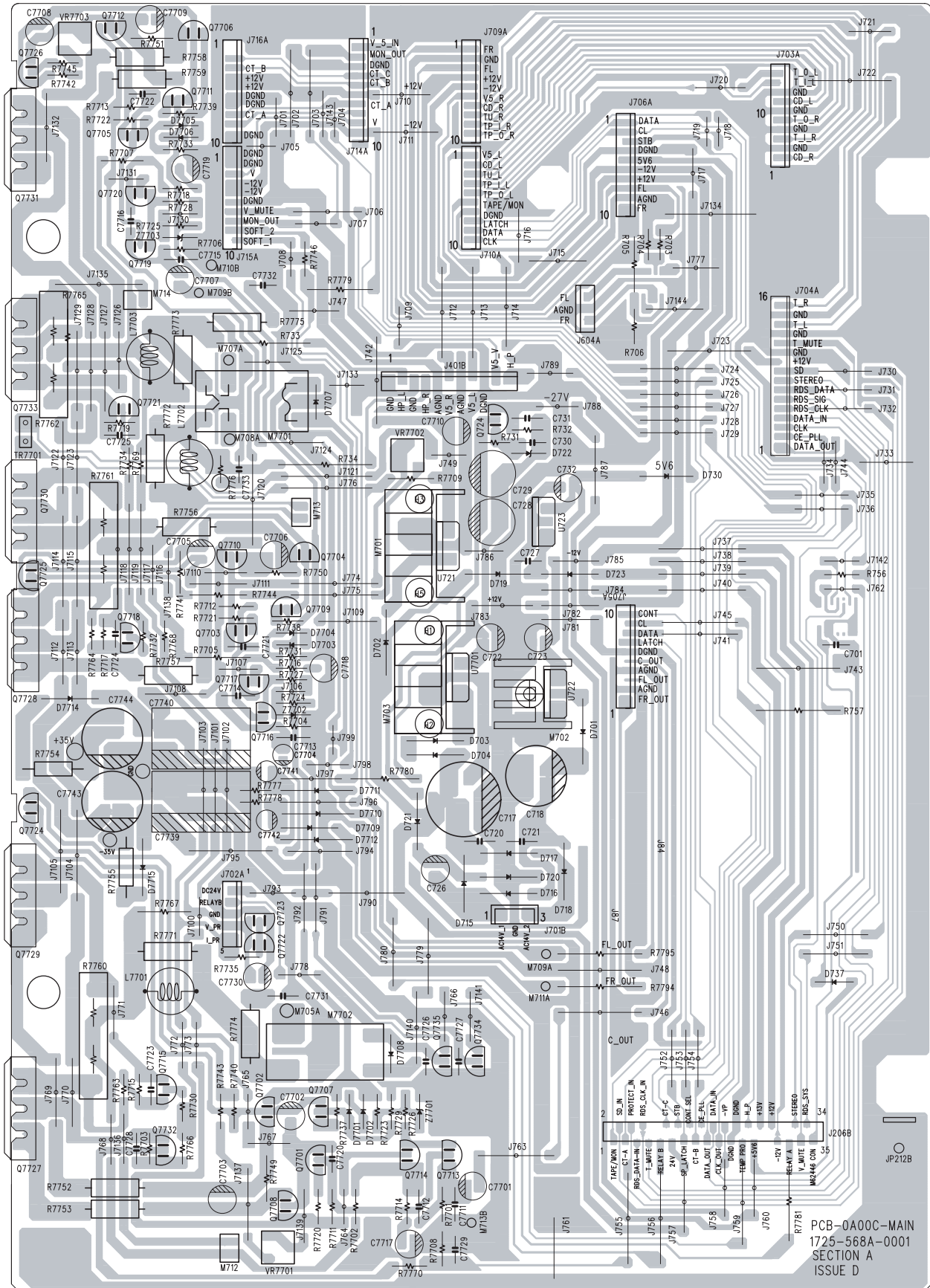
MULTI-CHANNEL BOARD - COMPONENT SIDE



MULTI-CHANNEL BOARD - SOLDER SIDE

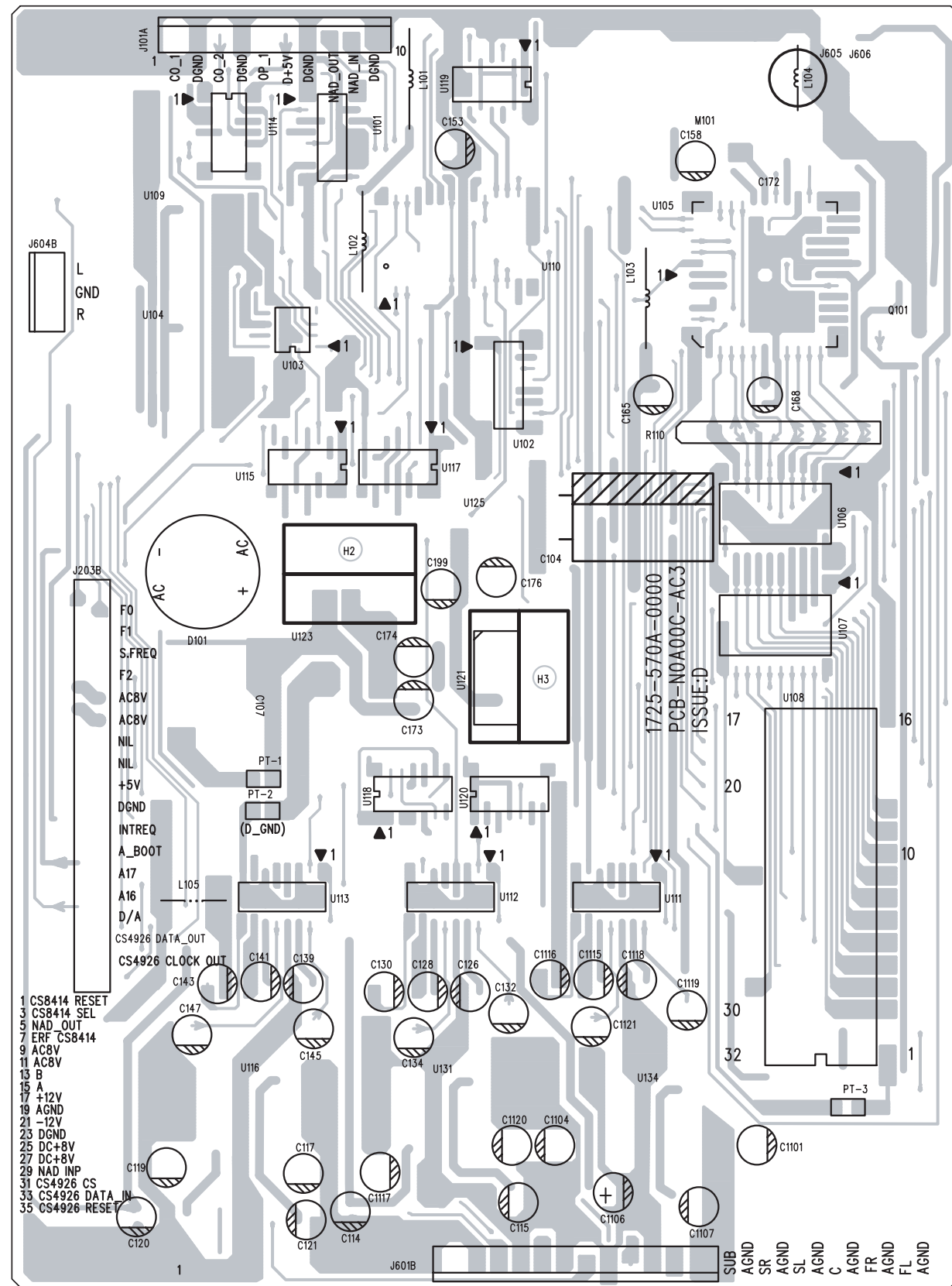


MAIN BOARD

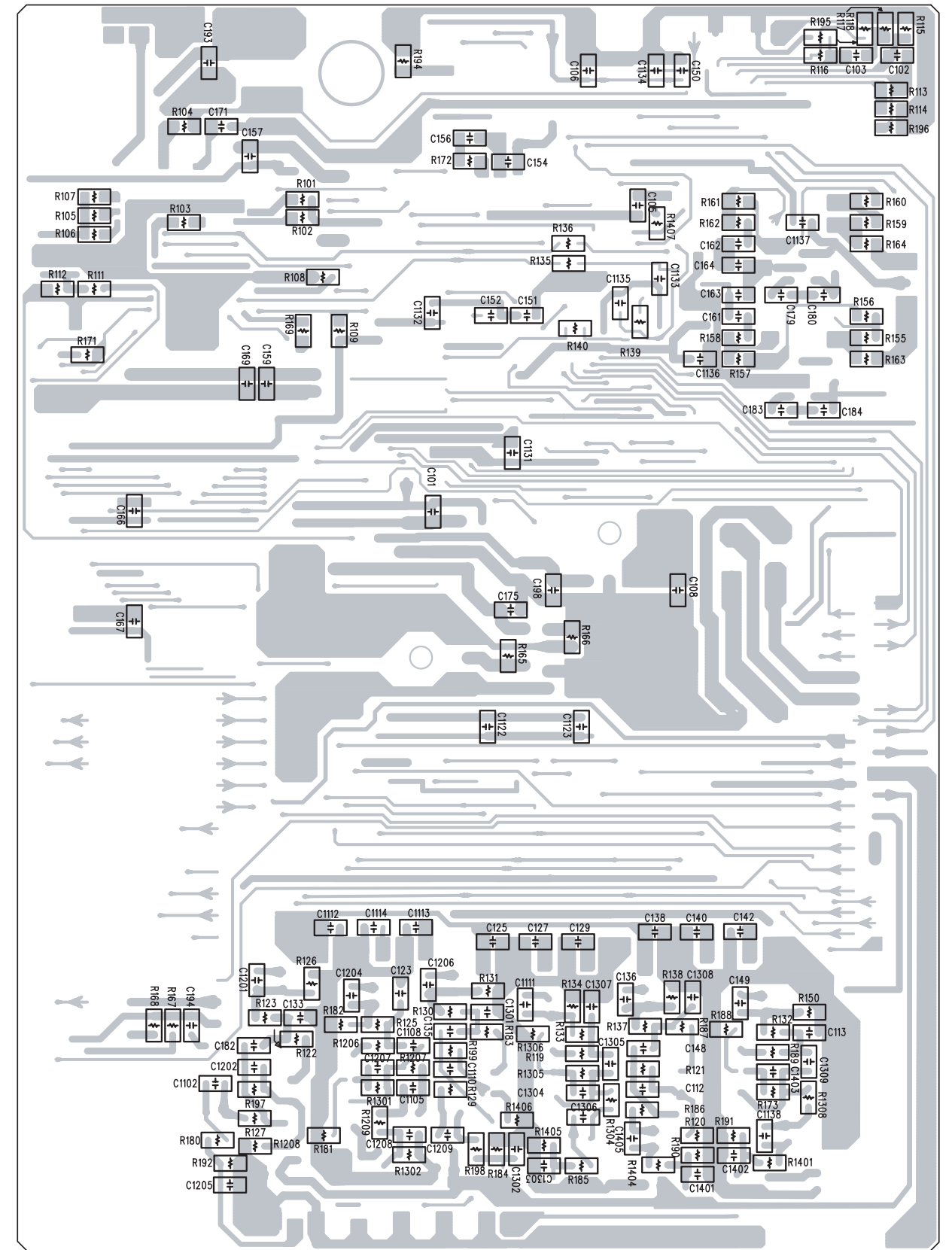


PCB-0A00C-MAIN
1725-568A-001
SECTION A
ISSUE D

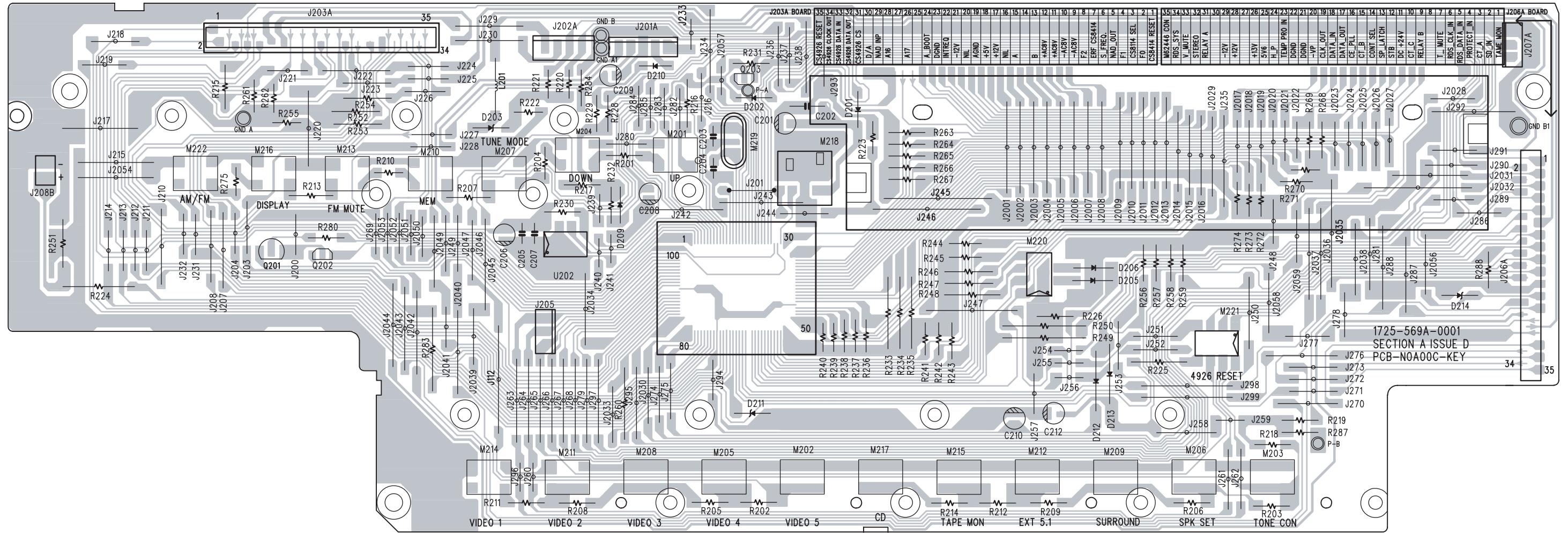
AC3 BOARD - COMPONENT SIDE



AC3 BOARD - SOLDER SIDE

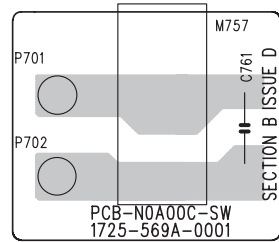


KEY BOARD

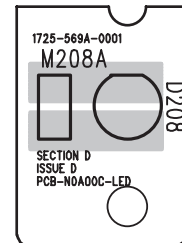


1725-569A-0001
SECTION A ISSUE D
PCB-NOA00C-KEY

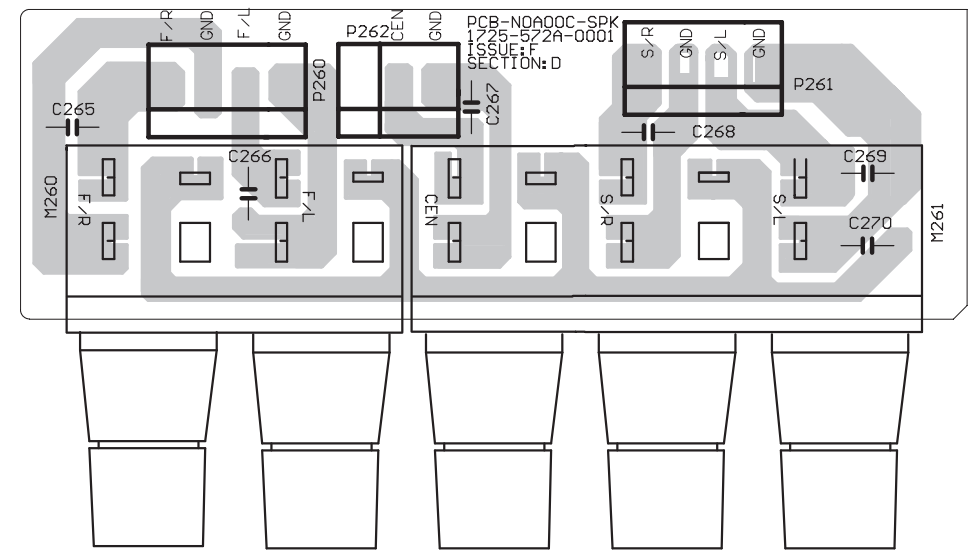
POWER SWITCH BOARD



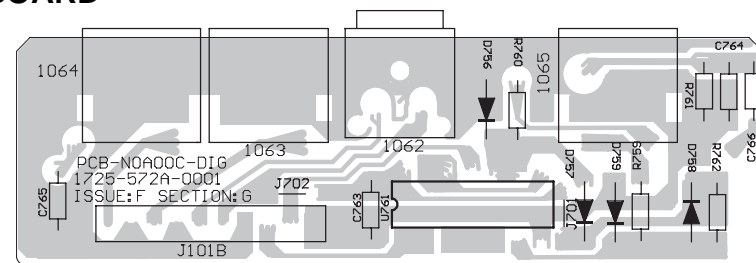
LED BOARD



SPEAKER BOARD

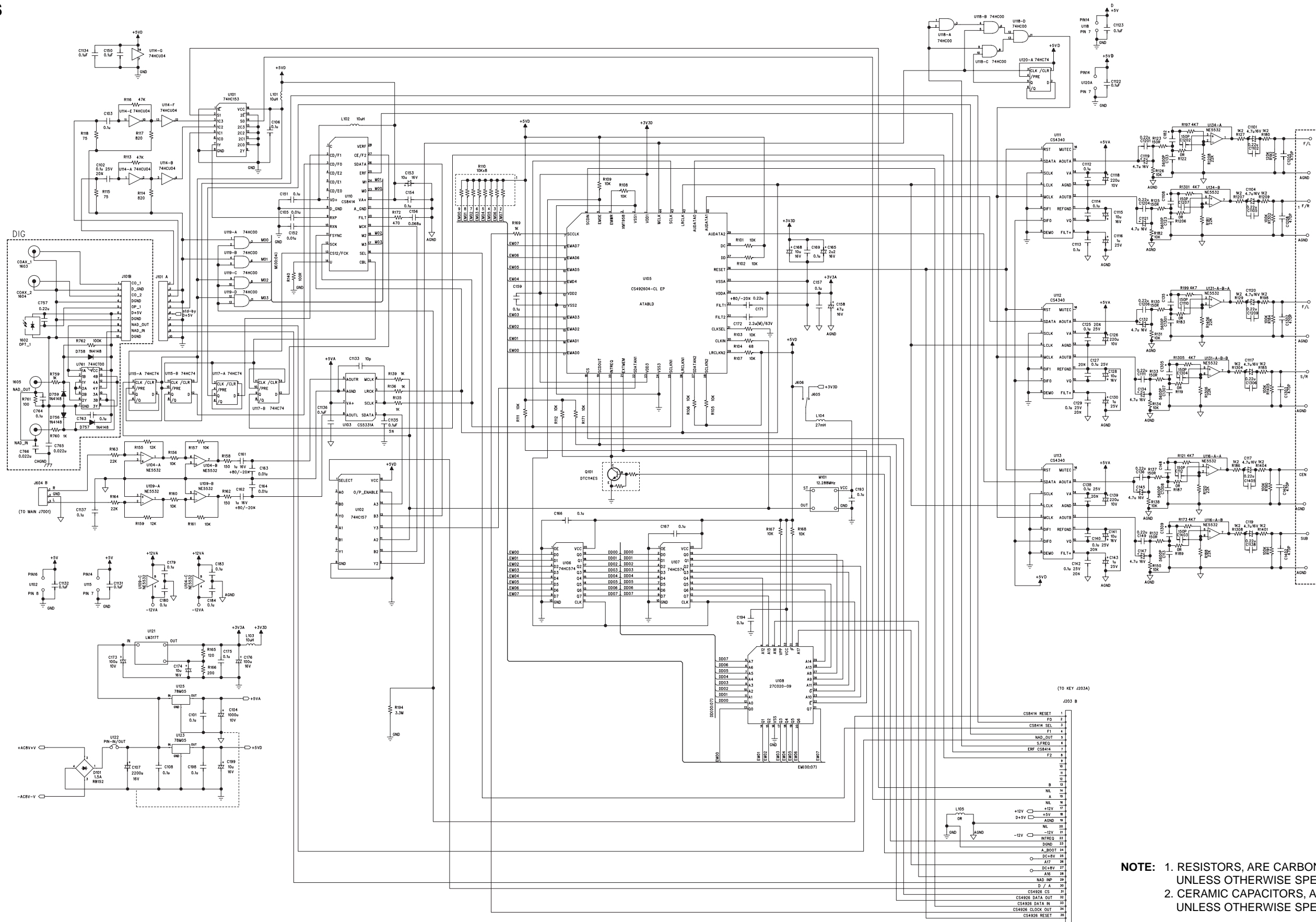


DIGITAL BOARD

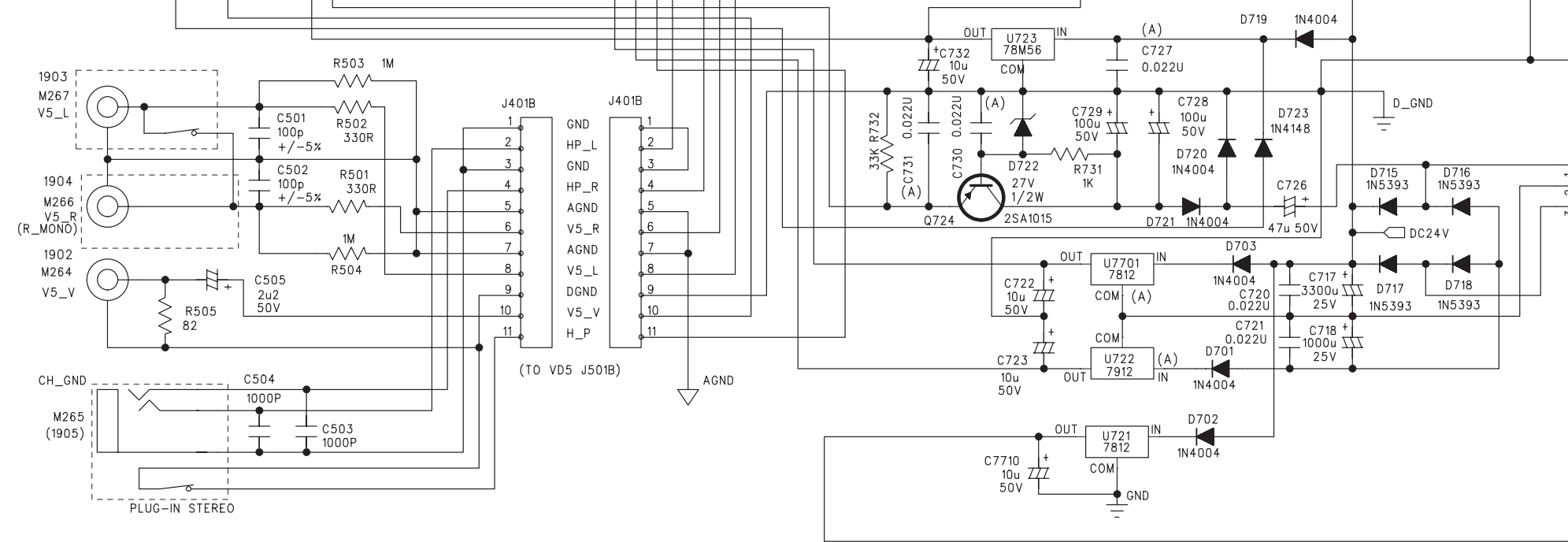
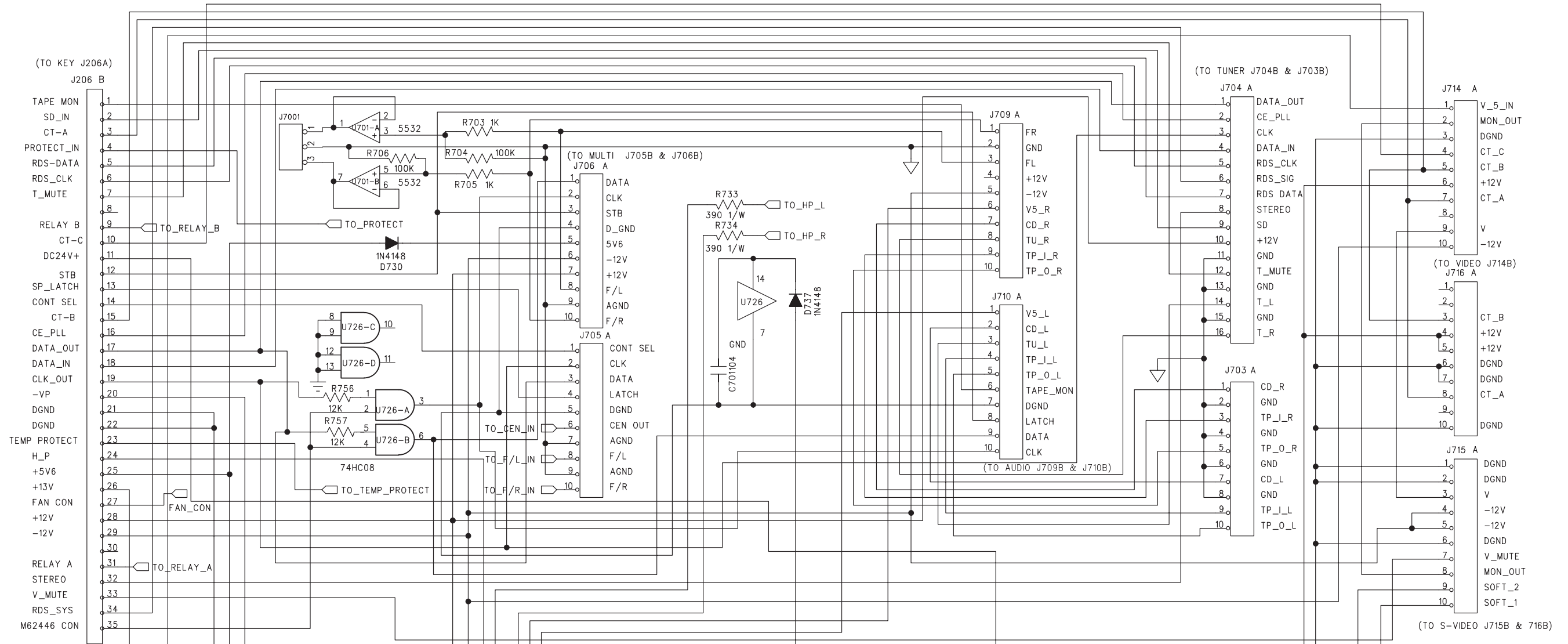


SCHEMATIC DIAGRAM

AC3 / DTS

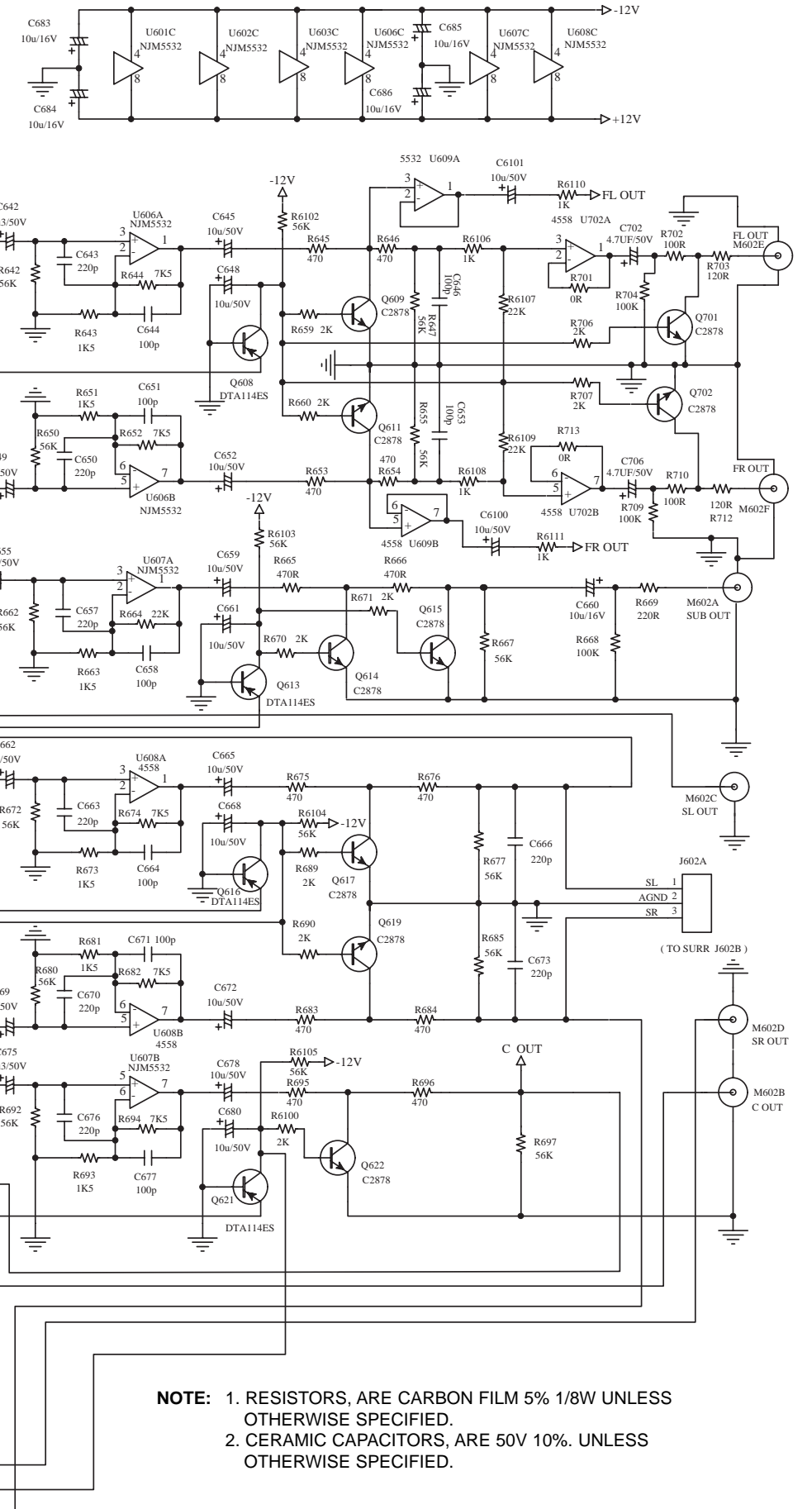
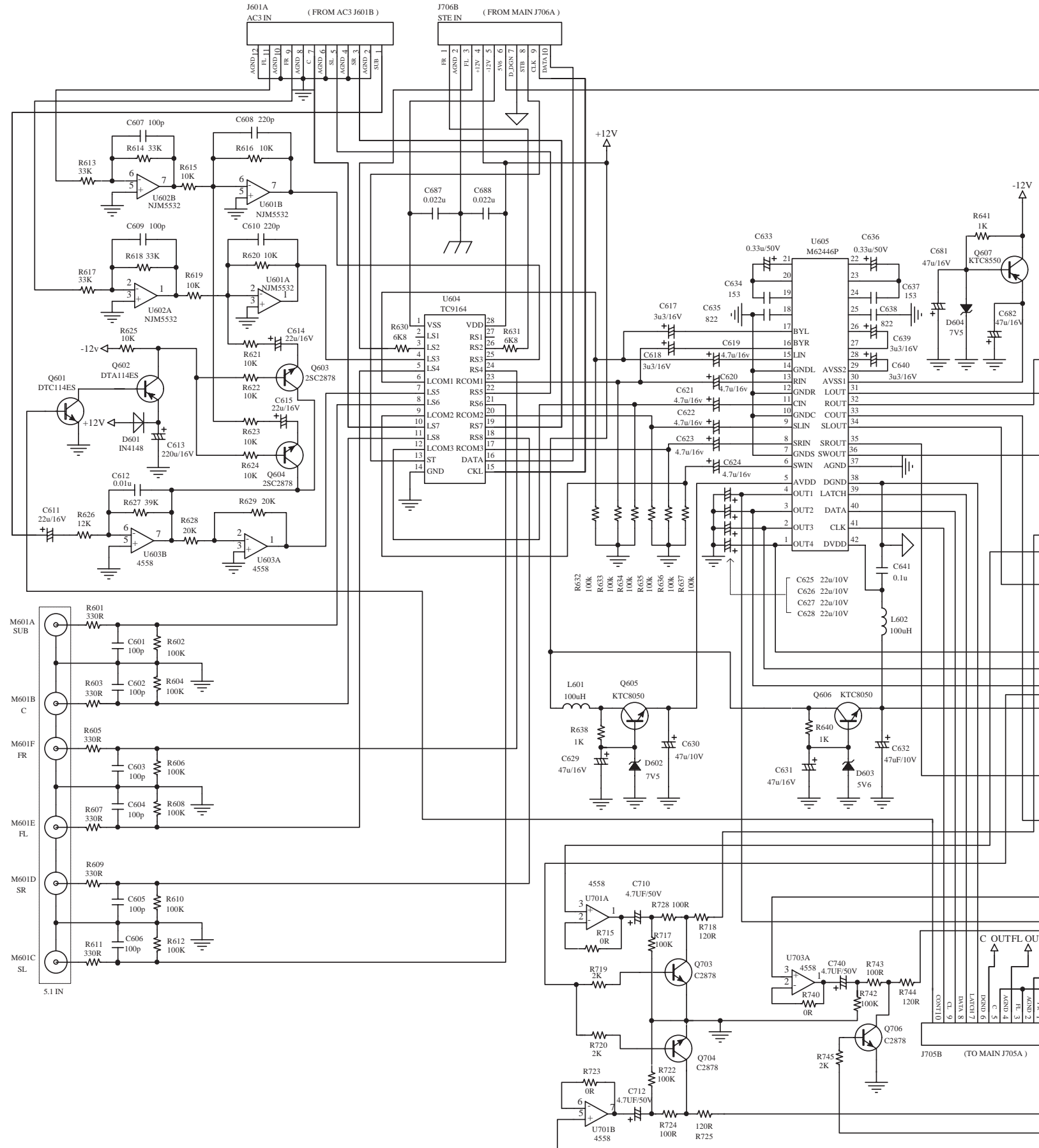


NOTE: 1. RESISTORS, ARE CARBON FILM 5% 1/10W UNLESS OTHERWISE SPECIFIED.
 2. CERAMIC CAPACITORS, ARE 50V 10%. UNLESS OTHERWISE SPECIFIED.



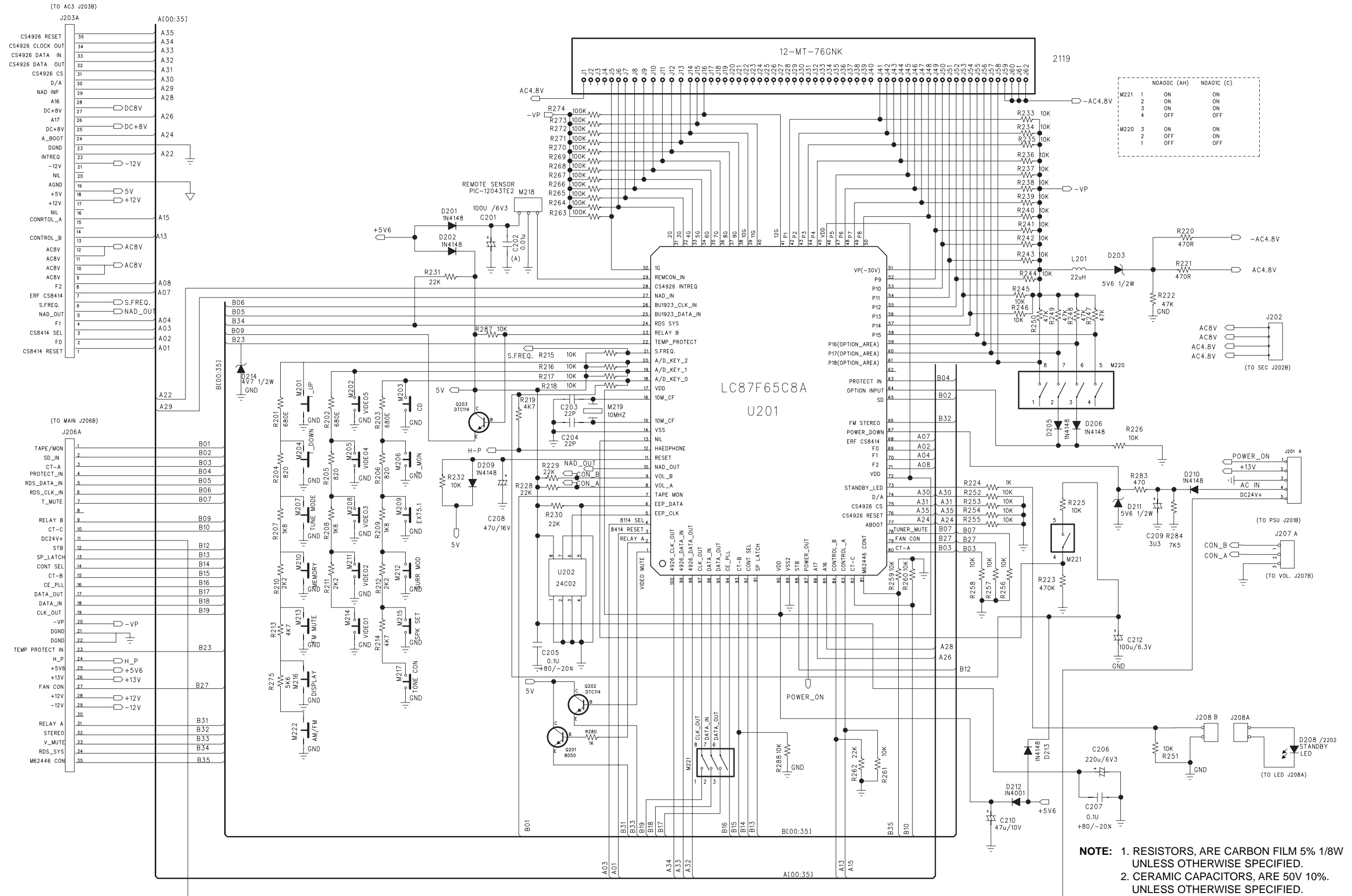
NOTE: 1. RESISTORS, ARE CARBON FILM 5% 1/8W UNLESS OTHERWISE SPECIFIED.
 MF-METAL FILM
 2. CERAMIC CAPACITORS, ARE 50V 10%. UNLESS OTHERWISE SPECIFIED.

MULTI-CHANNEL

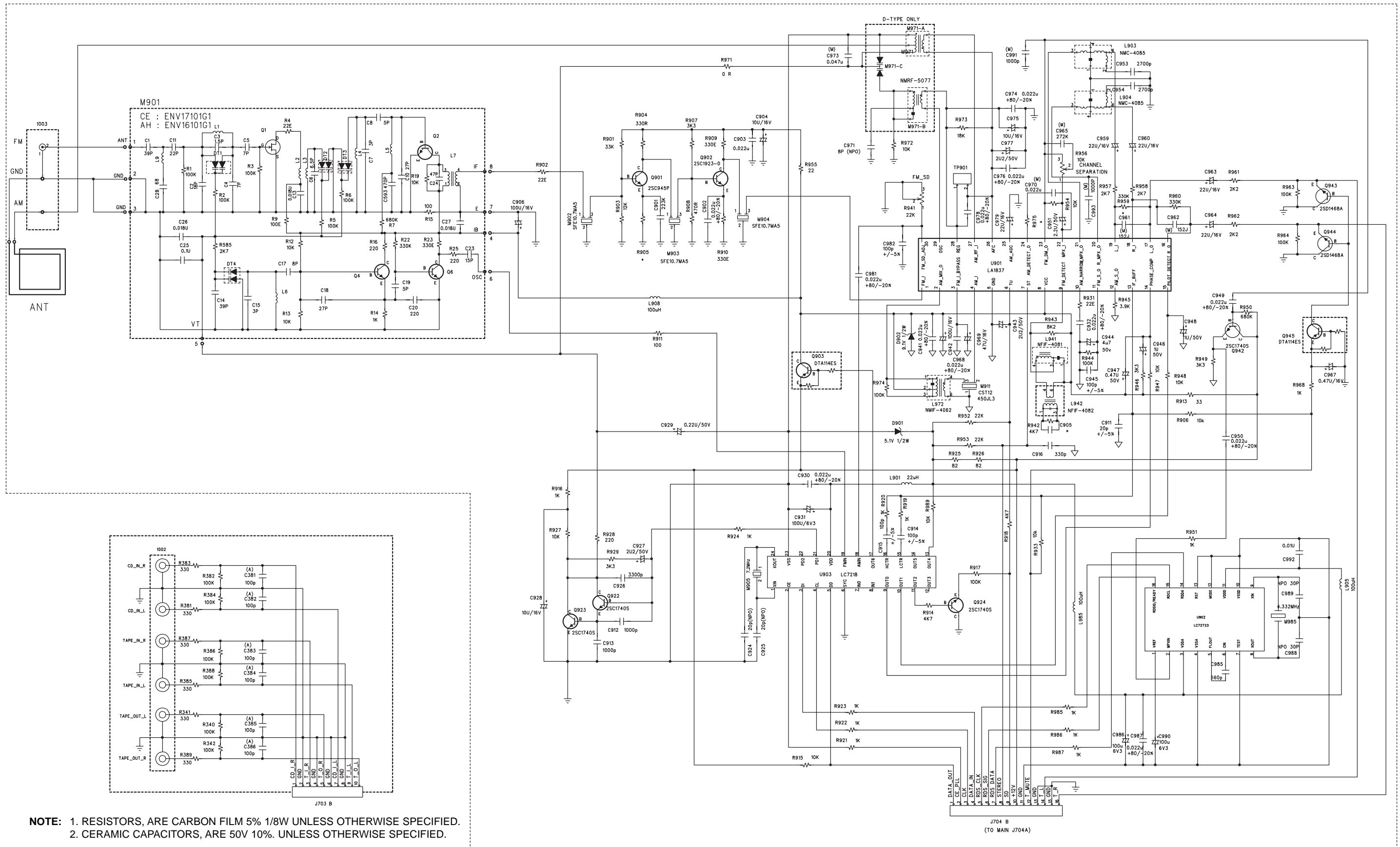


NOTE: 1. RESISTORS, ARE CARBON FILM 5% 1/8W UNLESS OTHERWISE SPECIFIED.
2. CERAMIC CAPACITORS, ARE 50V 10%. UNLESS OTHERWISE SPECIFIED.

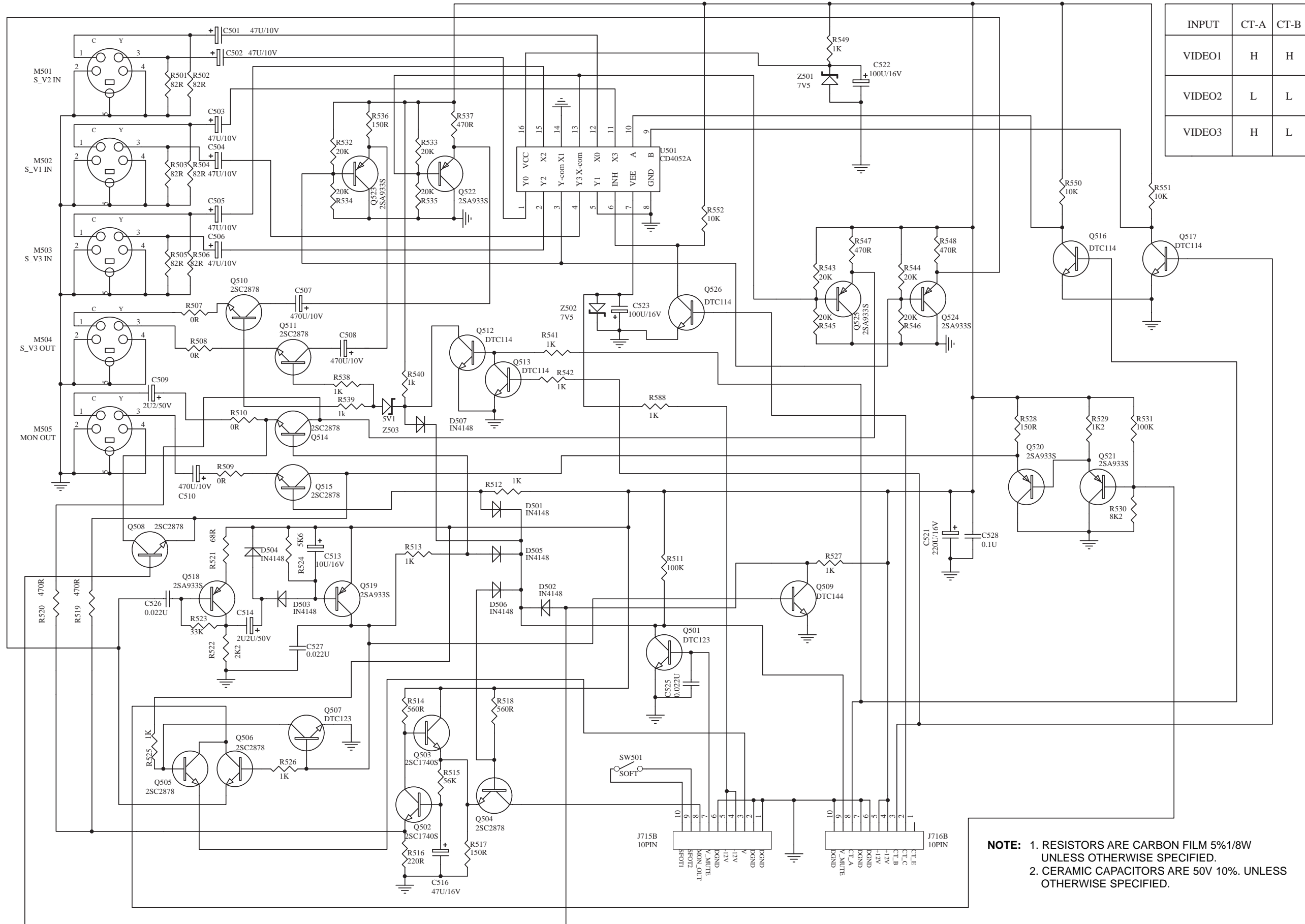
KEYBOARD



TUNER

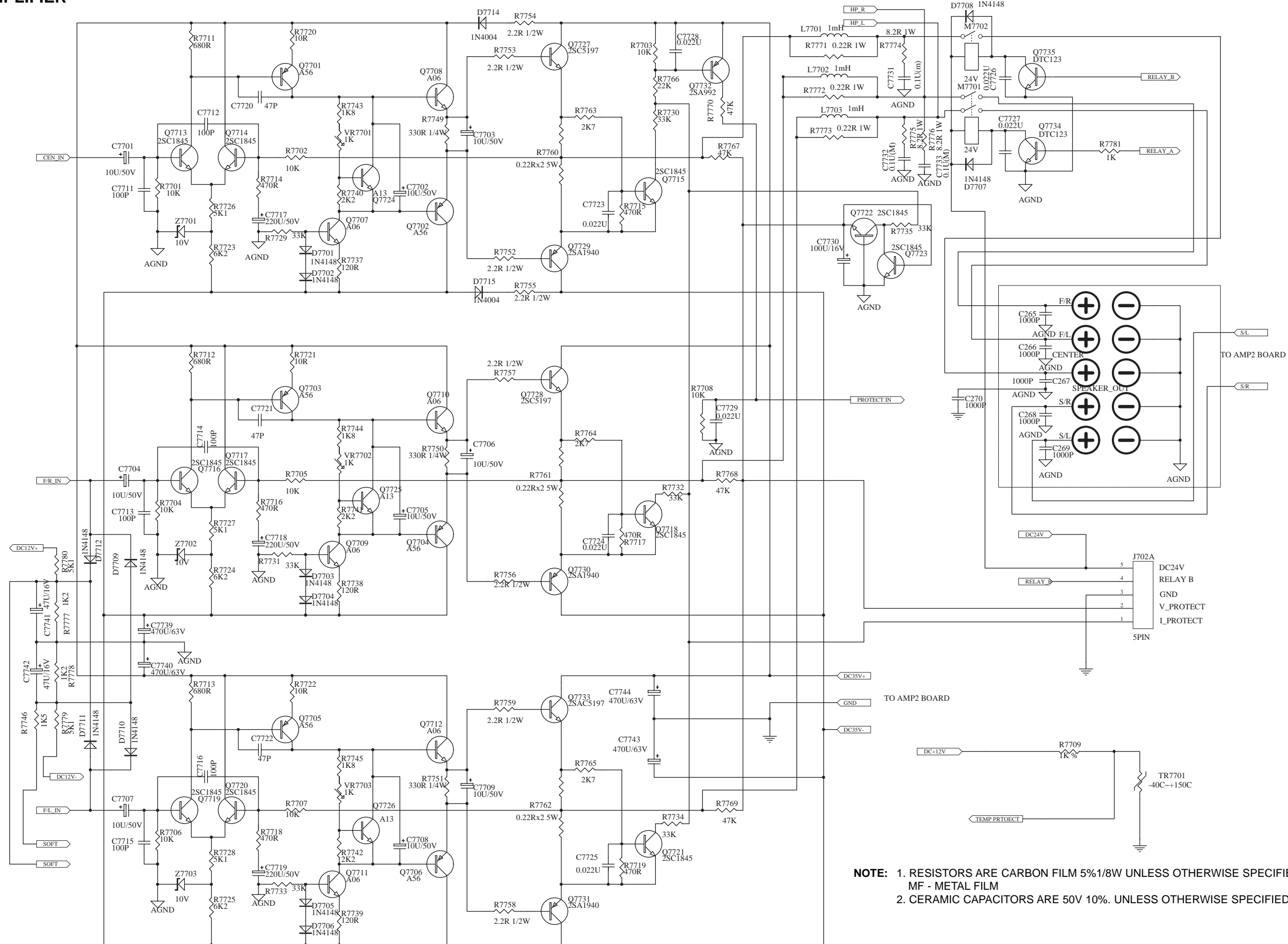


S-VIDEO



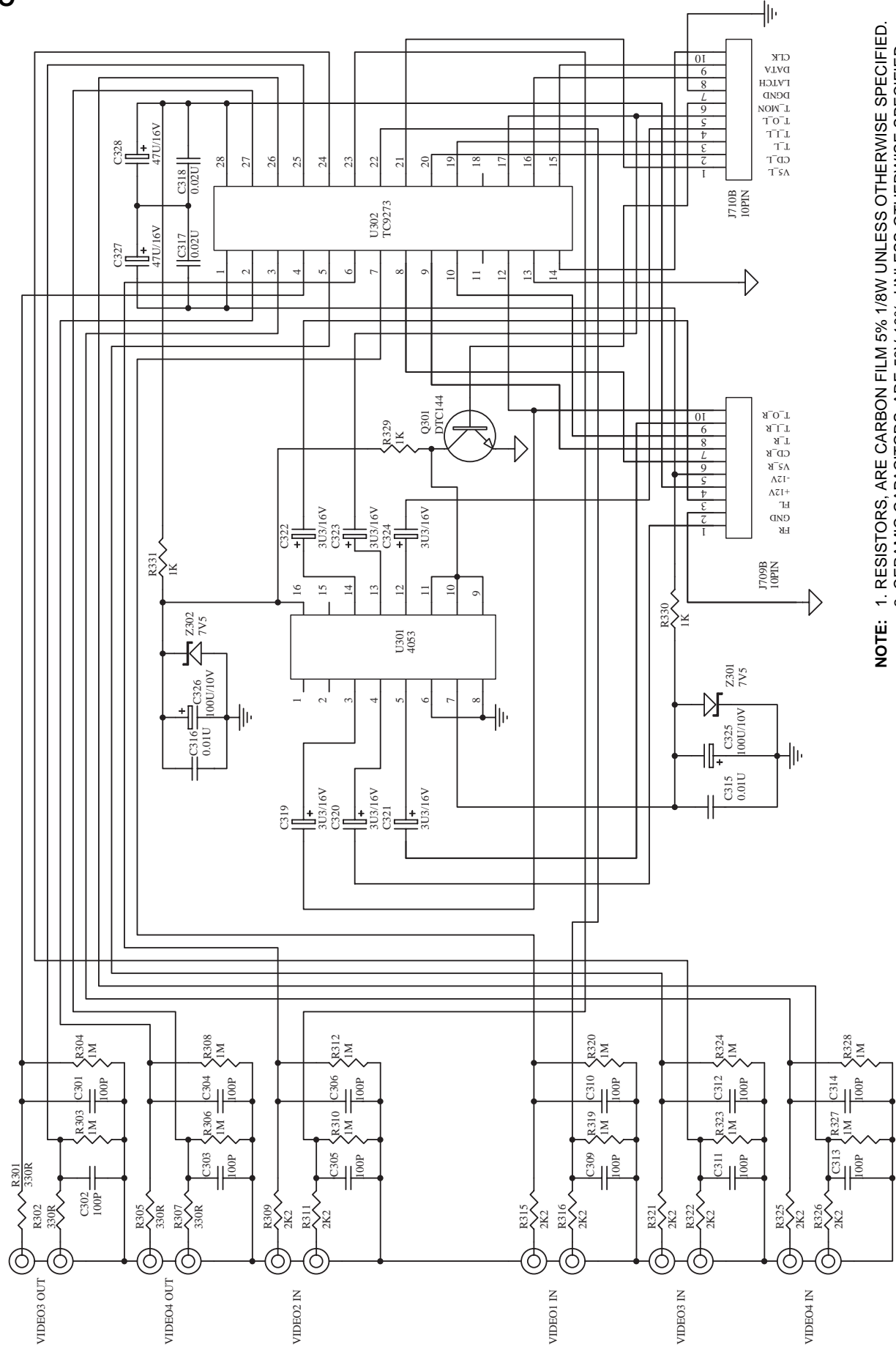
NOTE: 1. RESISTORS ARE CARBON FILM 5%1/8W UNLESS OTHERWISE SPECIFIED.
 2. CERAMIC CAPACITORS ARE 50V 10%. UNLESS OTHERWISE SPECIFIED.

FRONT AMPLIFIER



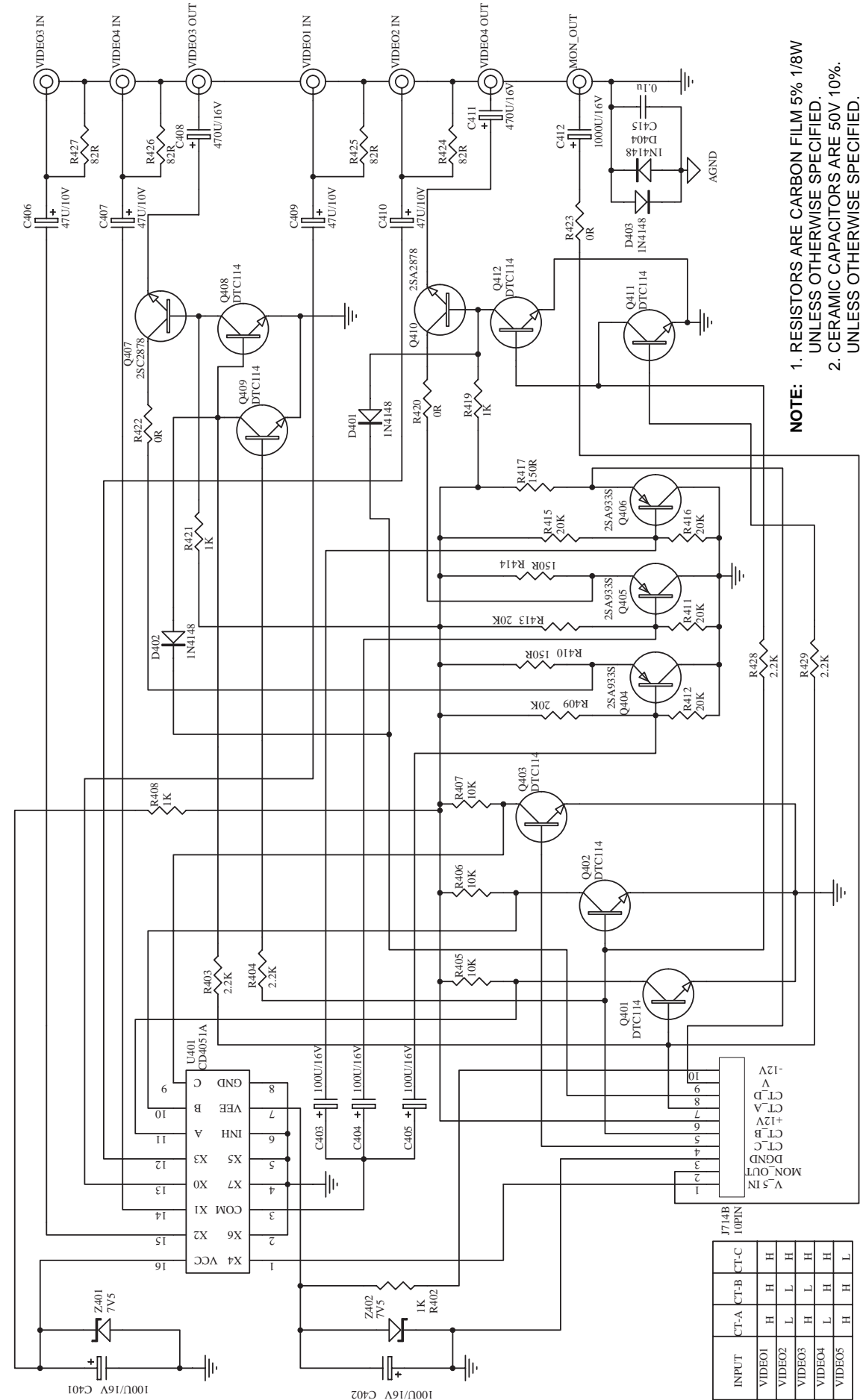
NOTE: 1. RESISTORS ARE CARBON FILM 5%/1/8W UNLESS OTHERWISE SPECIFIED.
 MF - METAL FILM
 2. CERAMIC CAPACITORS ARE 50V 10%. UNLESS OTHERWISE SPECIFIED.

AUDIO



NOTE: 1. RESISTORS ARE CARBON FILM 5% 1/8W UNLESS OTHERWISE SPECIFIED.
 2. CERAMIC CAPACITORS ARE 50V 10% UNLESS OTHERWISE SPECIFIED.

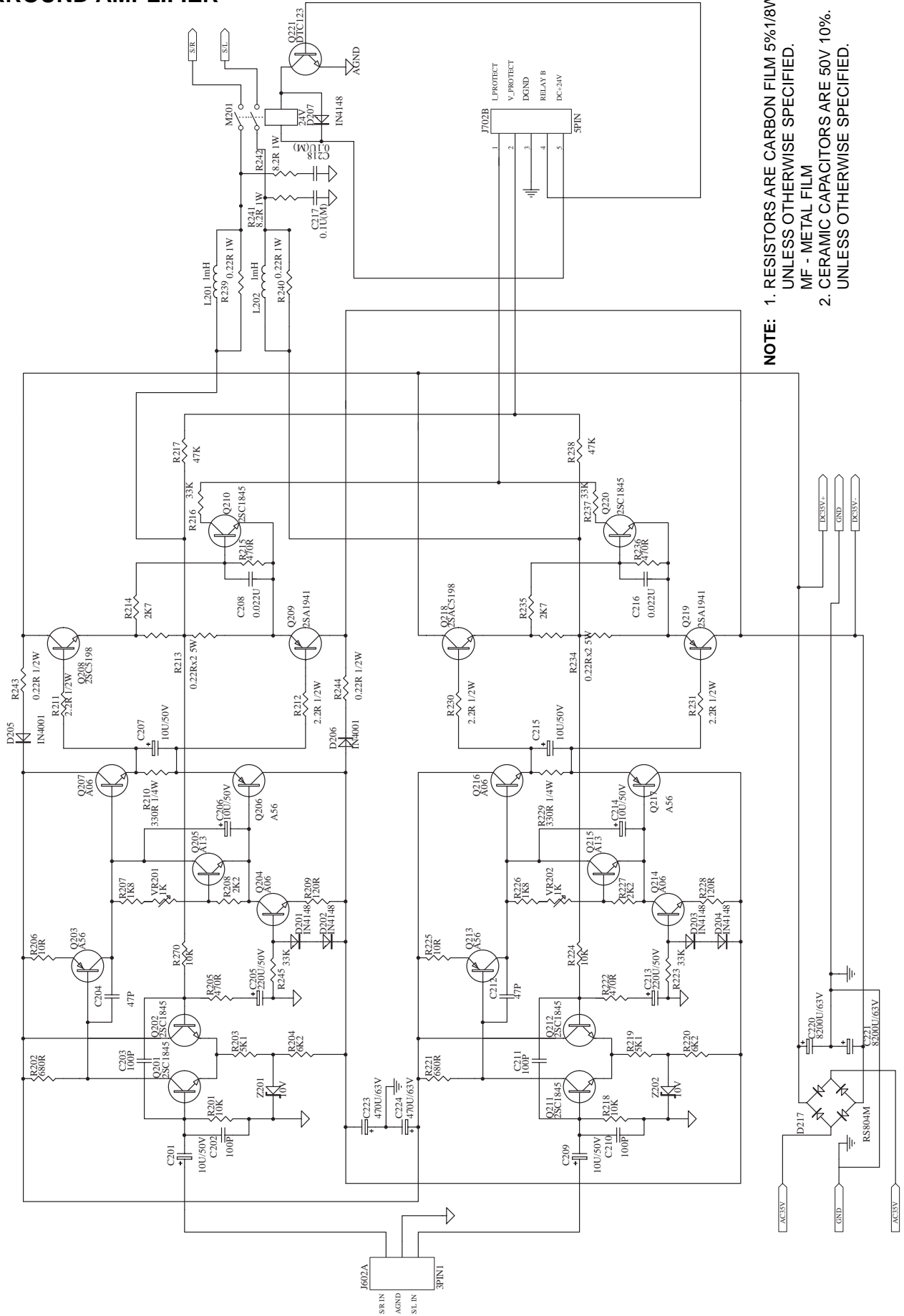
VIDEO



NOTE: 1. RESISTORS ARE CARBON FILM 5% 1/8W UNLESS OTHERWISE SPECIFIED.
 2. CERAMIC CAPACITORS ARE 50V 10% UNLESS OTHERWISE SPECIFIED.

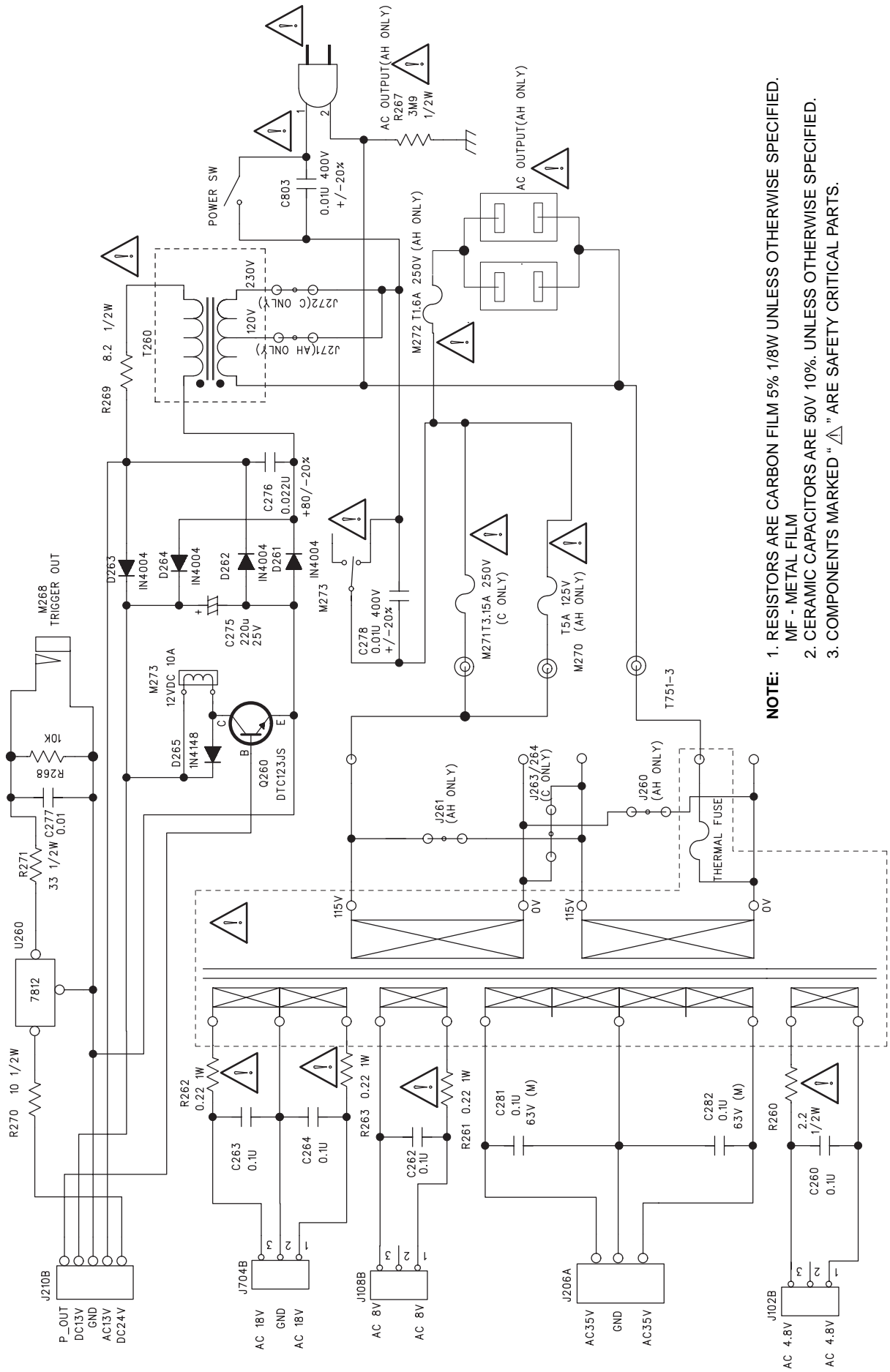
INPUT	CT-A	CT-B	CT-C
VIDEO1	H	H	H
VIDEO2	L	L	L
VIDEO3	L	L	H
VIDEO4	L	H	H
VIDEO5	H	H	L

SURROUND AMPLIFIER



NOTE: 1. RESISTORS ARE CARBON FILM 5% 1/8W
UNLESS OTHERWISE SPECIFIED.
MF - METAL FILM
2. CERAMIC CAPACITORS ARE 50V 10%.
UNLESS OTHERWISE SPECIFIED.

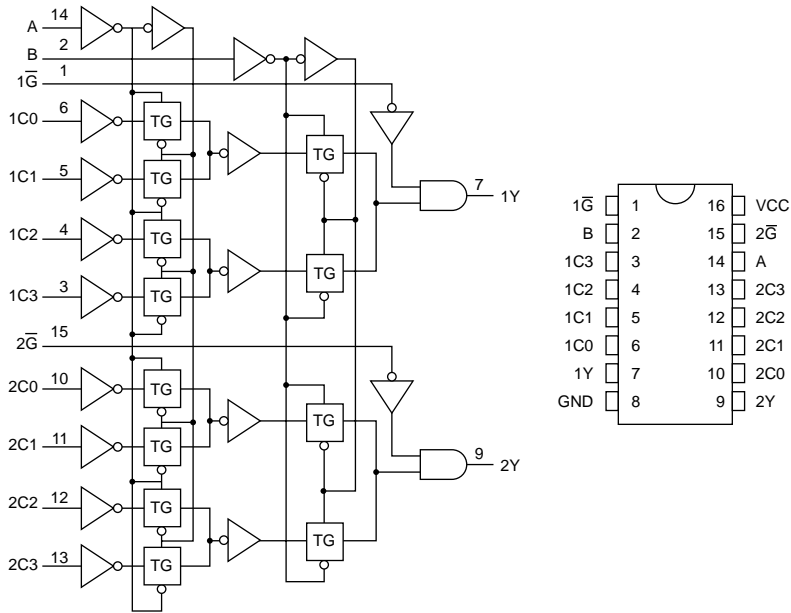
PSU



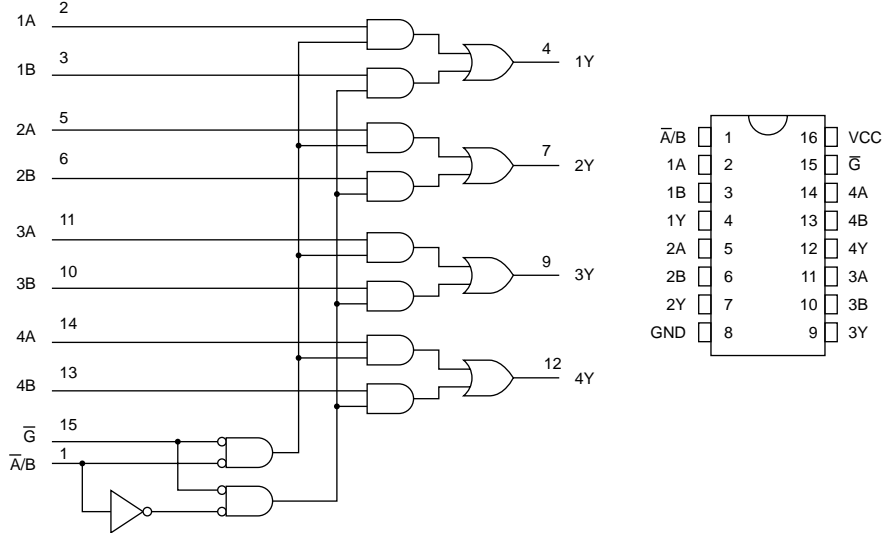
- NOTE:**
1. RESISTORS ARE CARBON FILM 5% 1/8W UNLESS OTHERWISE SPECIFIED.
 2. CERAMIC CAPACITORS ARE 50V 10%, UNLESS OTHERWISE SPECIFIED.
 3. COMPONENTS MARKED "Δ" ARE SAFETY CRITICAL PARTS.

IC BLOCK DIAGRAM

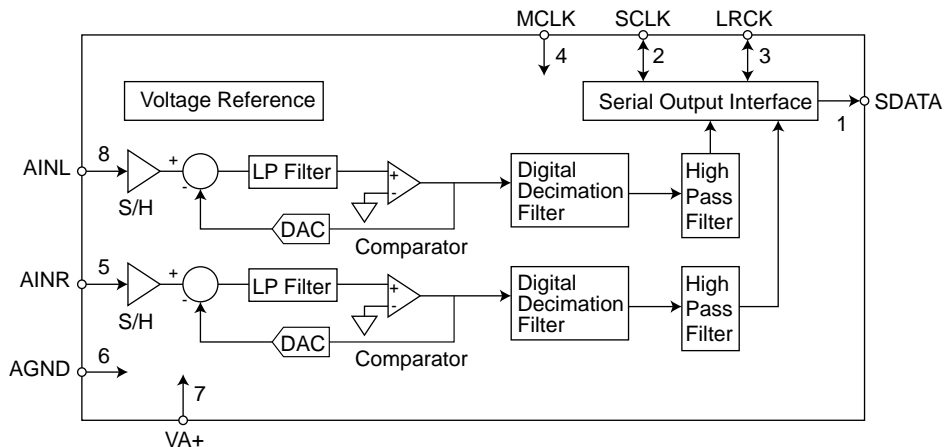
AC3 BOARD
U101: 74HC153



AC3 BOARD
U102: 74HC157



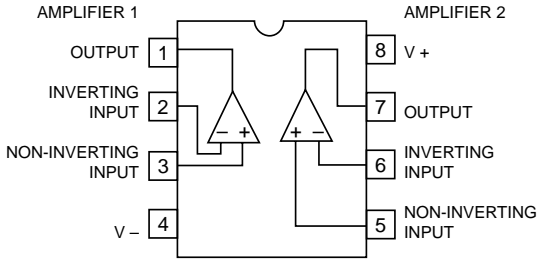
AC3 BOARD
U103: CS5331A



AC3 BOARD

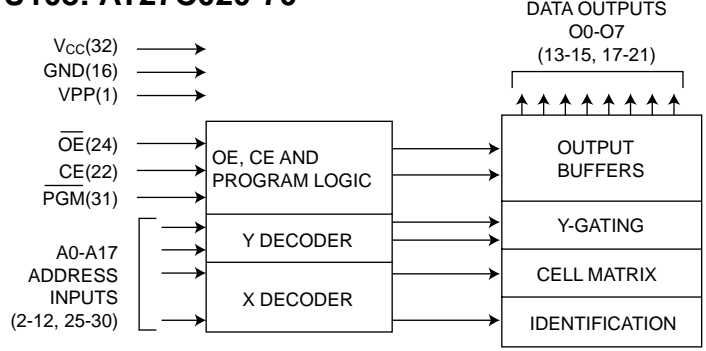
U104, U109, U116, U134: NJM5532

U131: NJM4558D



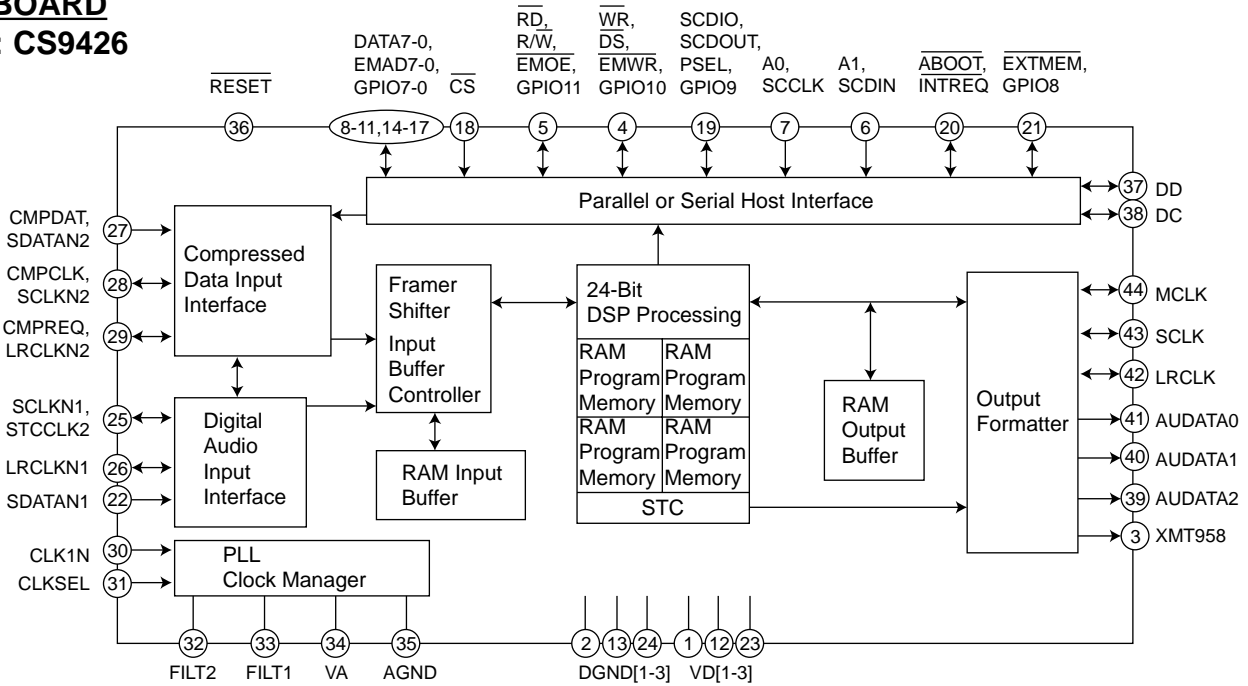
AC3 BOARD

U108: AT27C020-70



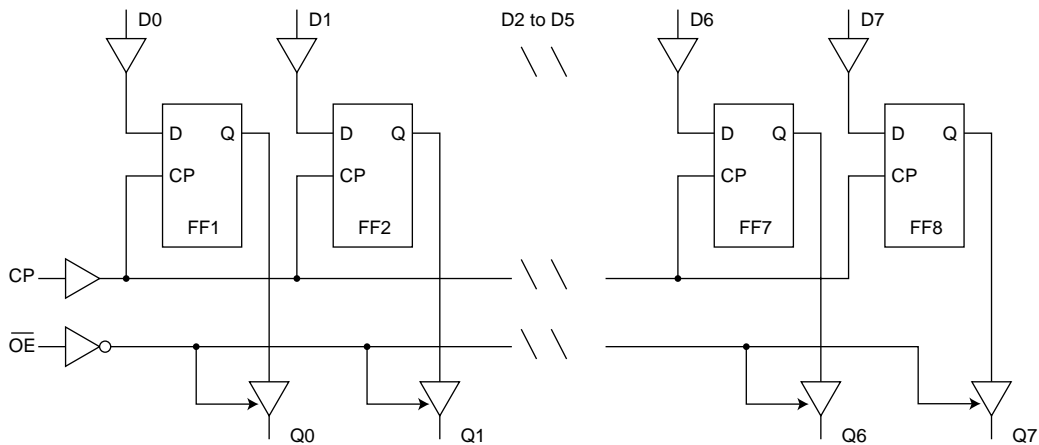
AC3 BOARD

U105: CS9426

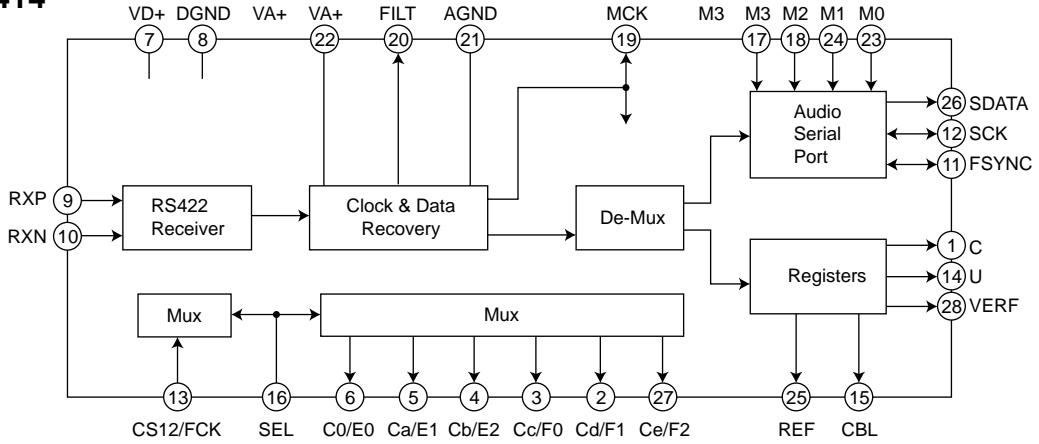


AC3 BOARD

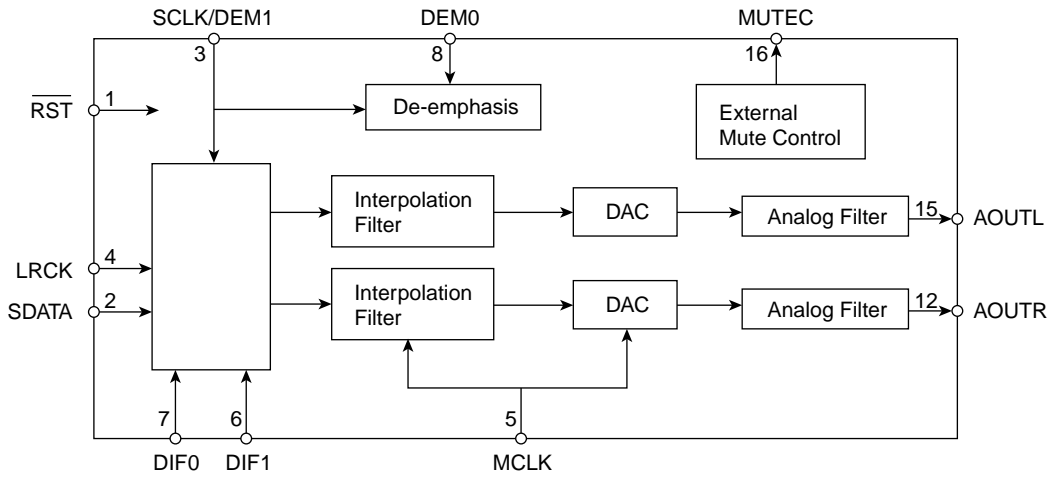
U106, U107: 74HC574



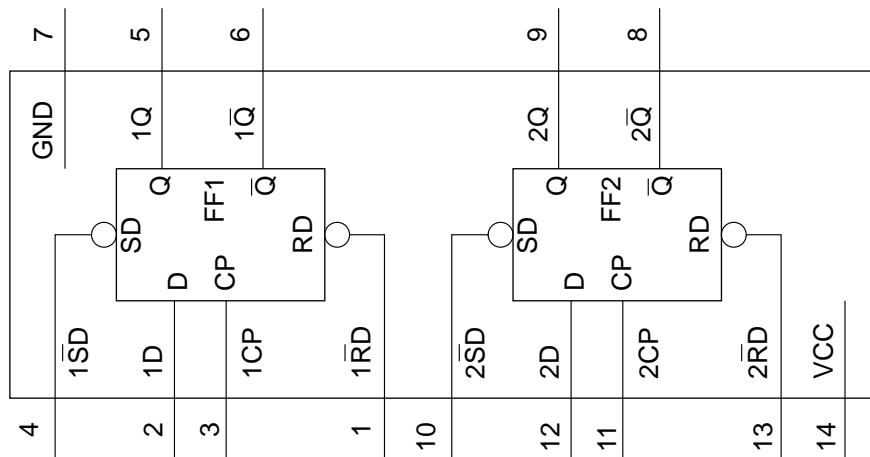
AC3 BOARD
U110: CS8414



AC3 BOARD
U111-U113: CS4340

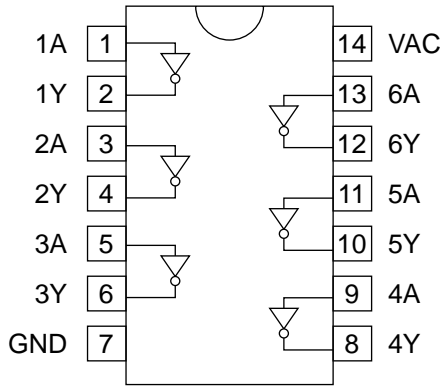


AC3 BOARD
U115, U117, U120: 74HC74



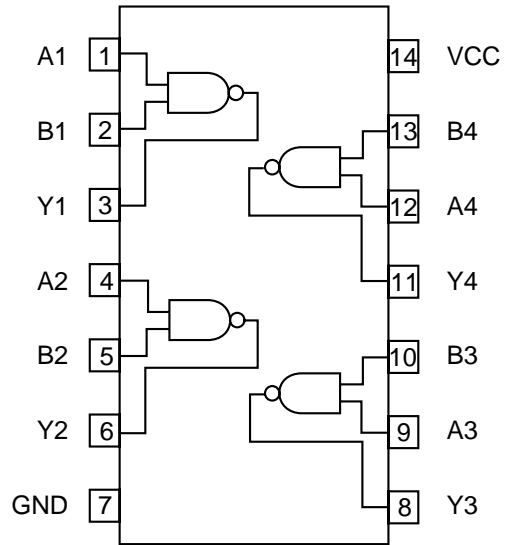
AC3 BOARD

U114: 74HCU04



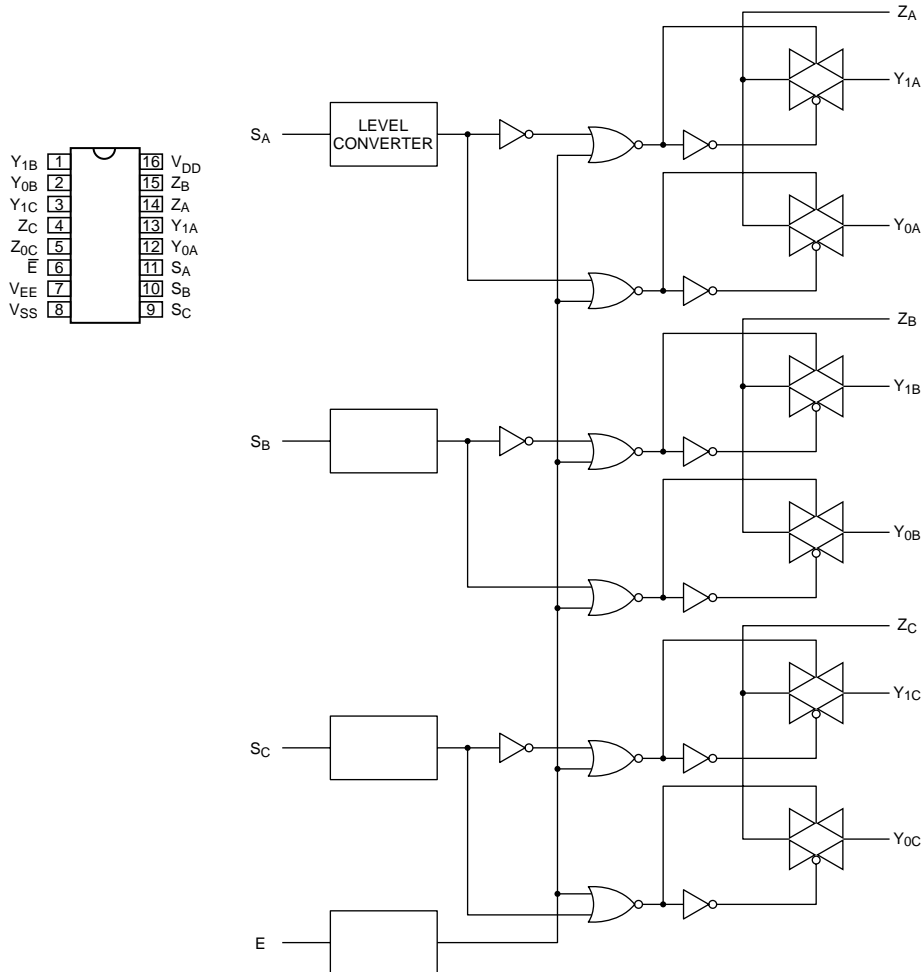
AC3 BOARD

U118, U119: 74HC00

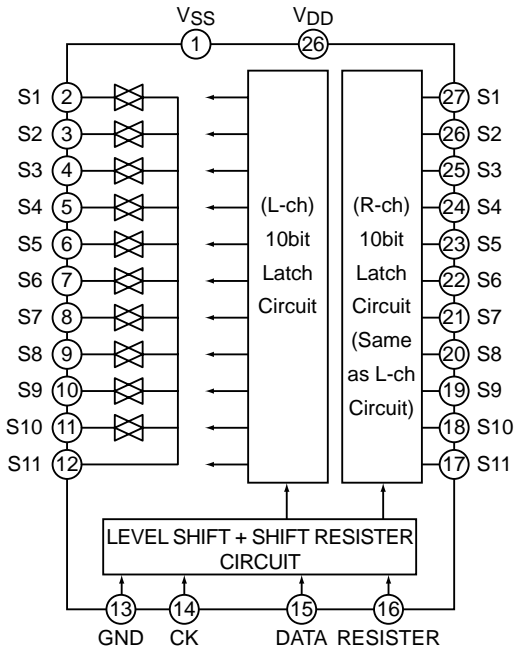


AUDIO BOARD

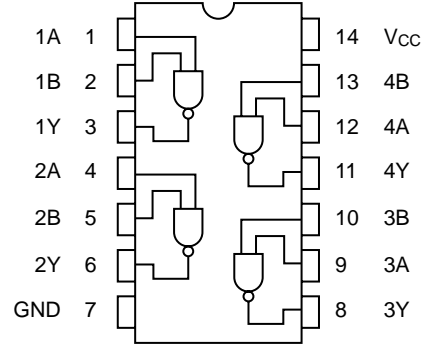
U301: HCF4053BT



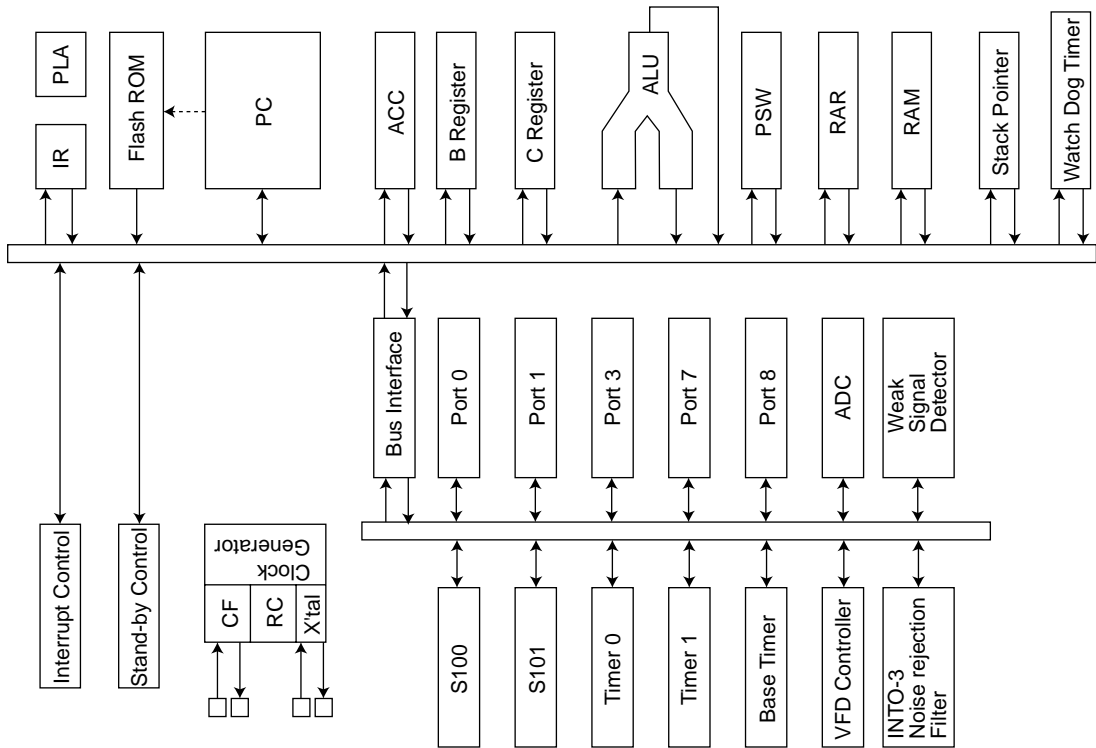
AUDIO BOARD
U302: TC9273N-004



DIGITAL BOARD
U761: 74HCT00

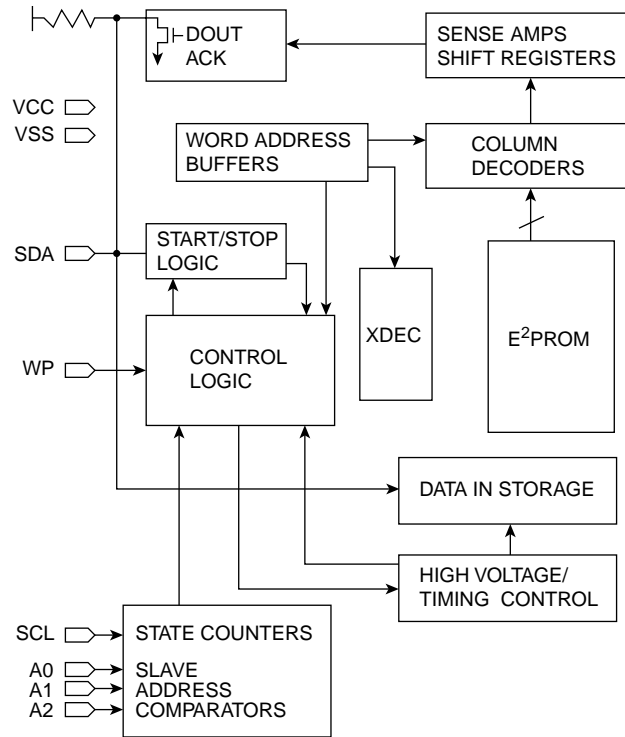
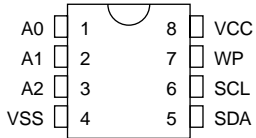


KEY BOARD
U201: LC87F65C8A



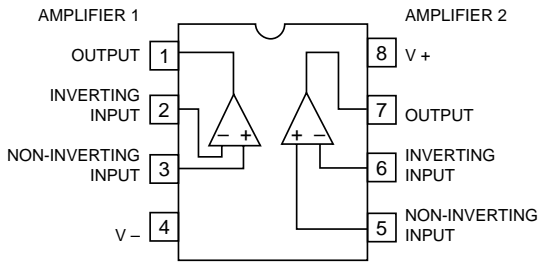
KEY BOARD

U202: EEPROM 24C02



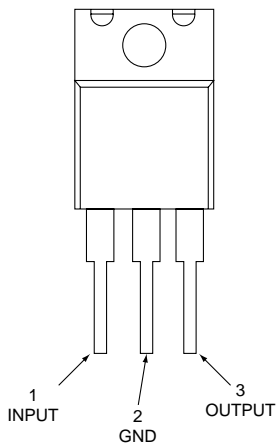
MAIN BOARD

U701: NJM5532M



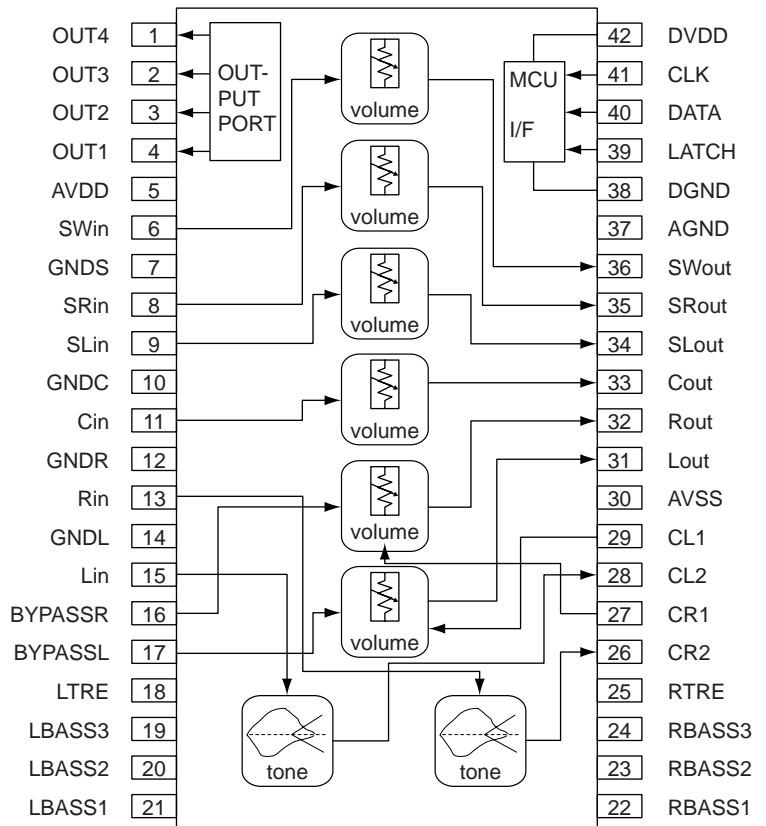
MAIN BOARD

U723: NJM78M56FA



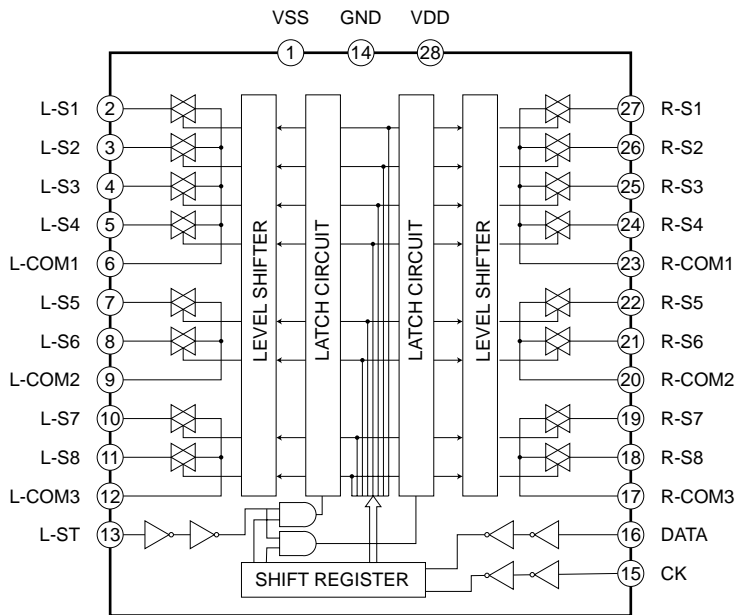
MULTI-CHANNEL BOARD

U605: M6244FP



MULTI-CHANNEL BOARD

U604: TC9164AN

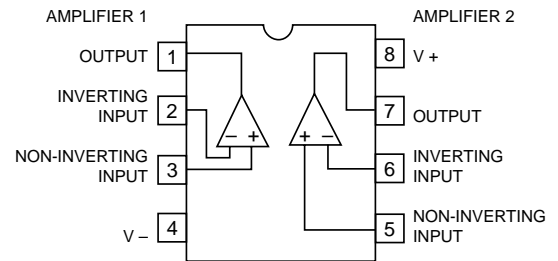


MULTI-CHANNEL BOARD

U601, U602, U606, U607, U609: NJM5532

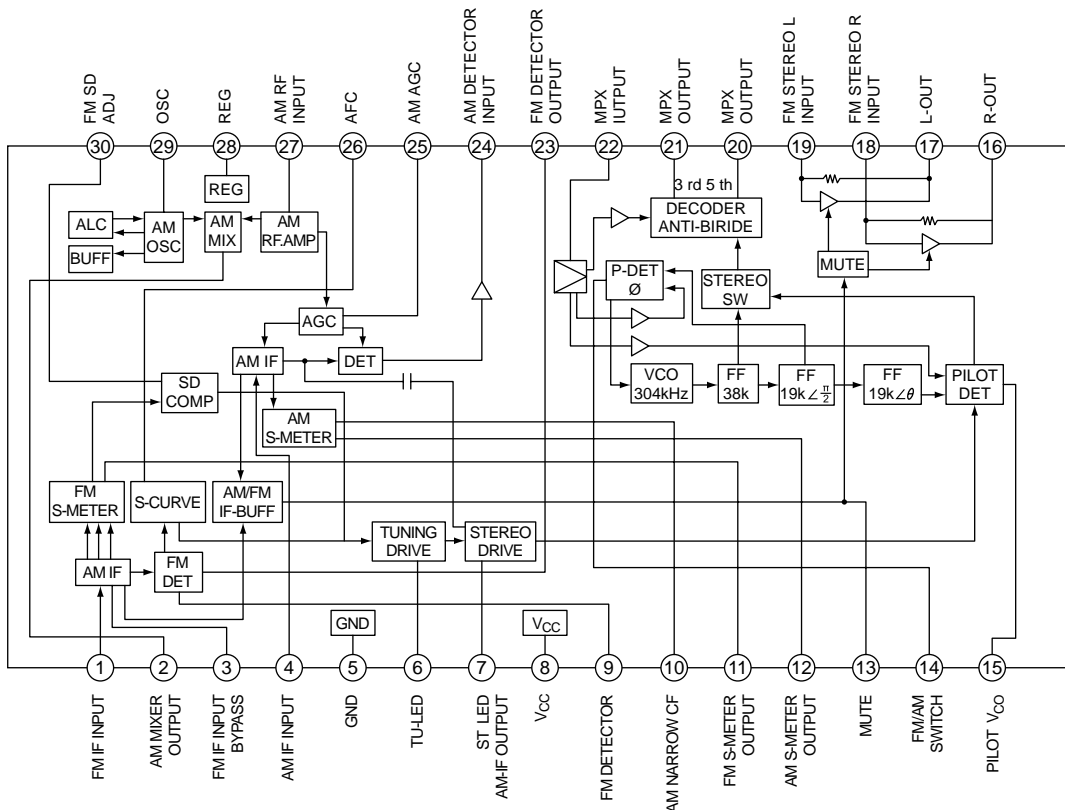
U603, U608: NJM4558D

U701-U703: NJM4558M

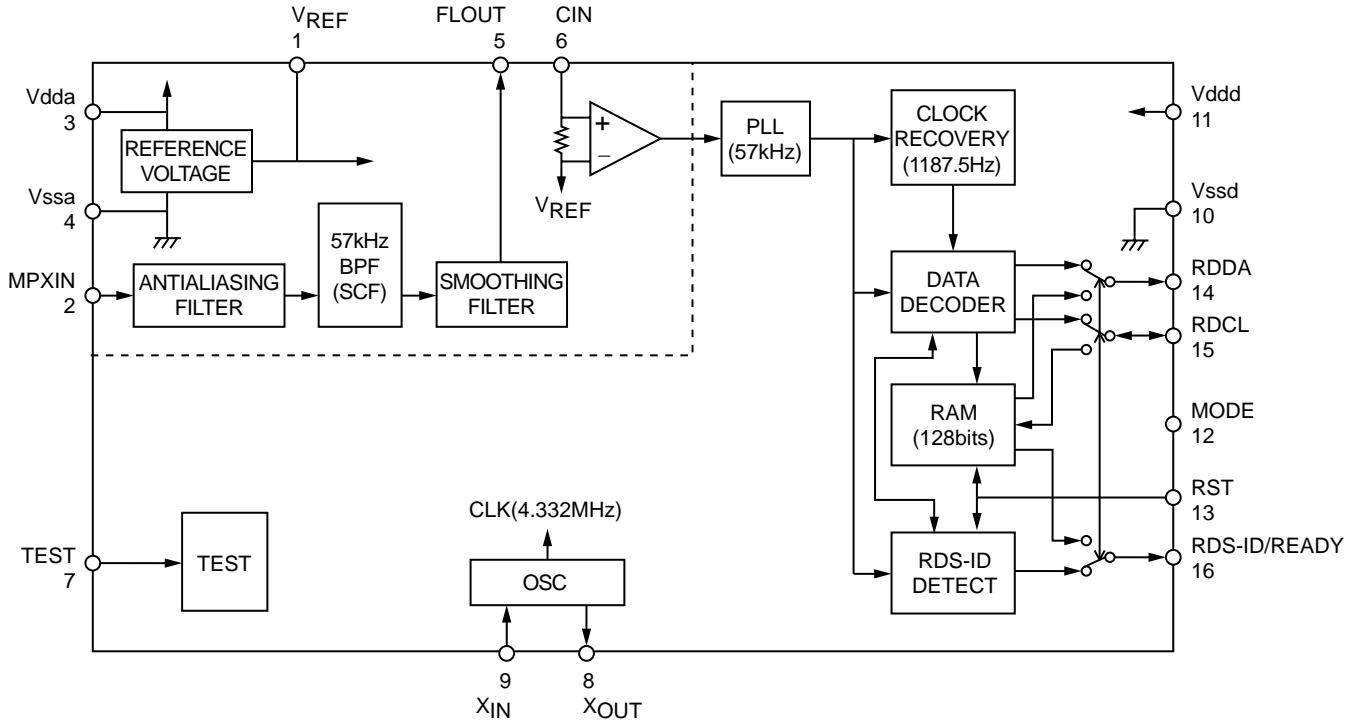


TUNER BOARD

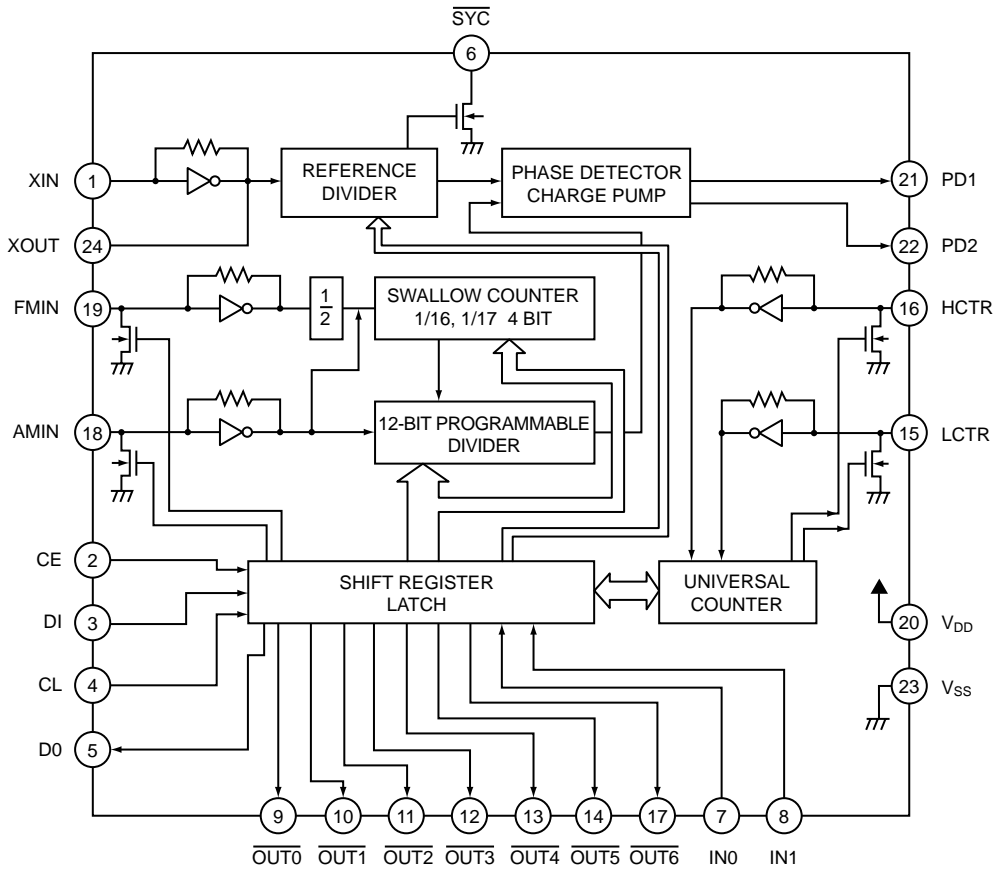
U901: LA1837



TUNER BOARD
U902: LC72723M

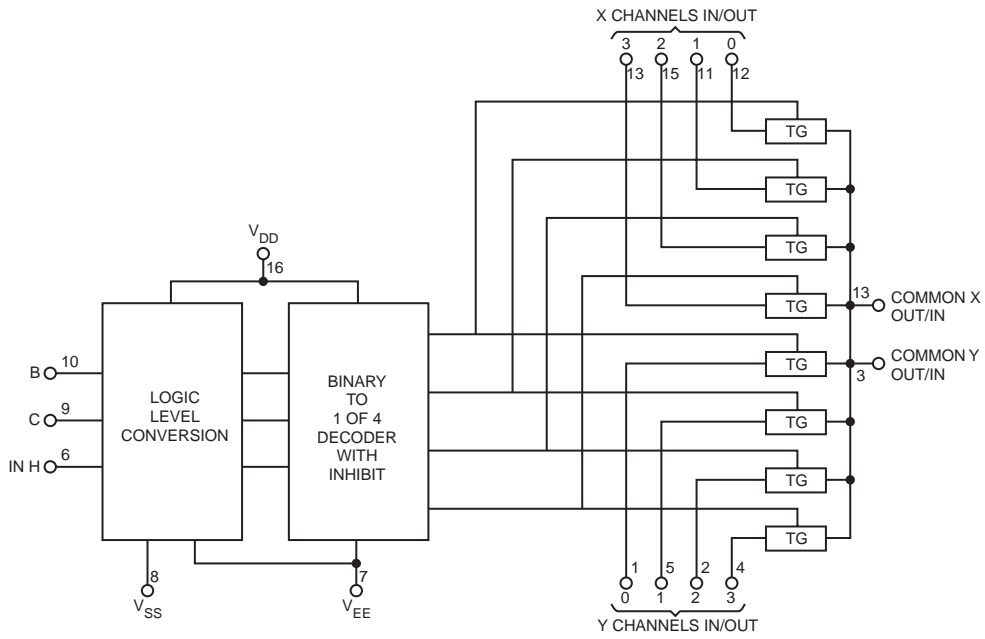


TUNER BOARD
U903: LC7218



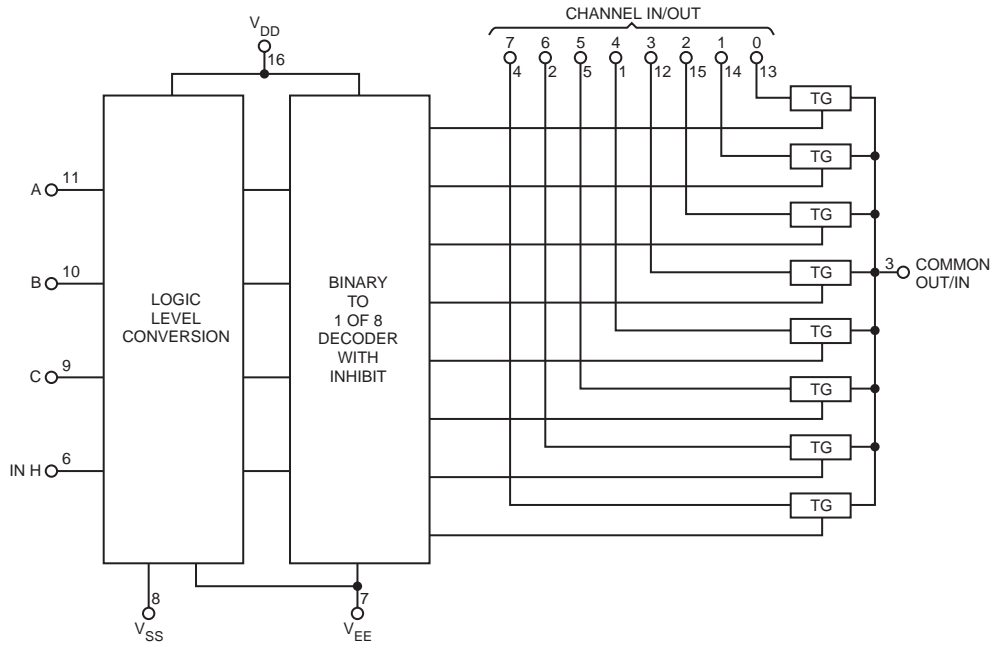
S-VIDEO ASSEMBLY

U501: 4052



VIDEO ASSEMBLY

U401: MC14051



ELECTRICAL PARTS LIST

Reference No.	Part No.	Description
<u>AC3 BOARD</u>		
1000	PCB-N0A00C-AC3	AC3 ASSEMBLY
<u>MISCELLANEOUS</u>		
2702	2954-3008-0000	TAPPING 3X8MM B-TITE
2703	4151-9931-0	INSULATION BUSHING
2704	2954-2606-0000	SCREWS BT 2.6X6
<u>CAPACITORS</u>		
C101	150F-104K-J-BD	CC 50V 0.1 μ F 10% 0805
C102	150E-104M-J-BD	CC 25V 0.1 μ F 20% 0805
C103	150F-104K-J-BD	CC 50V 0.1 μ F 10% 0805
C104	157C-108M-5-S5	CE 10V 1000 μ F 20% RL
C105	150F-103K-J-BD	CC 50V 0.01 μ F 10% 0805
C106	150F-104K-J-BD	CC 50V 0.1 μ F 10% 0805
C107	157D-228M-5-W@T	CE 16V 2200 μ F 20% RL
C108	150F-104K-J-BD	CC 50V 0.1 μ F 10% 0805
C1101	157D-475M-5-EI	CE 16V 4.7 μ F 20% RL 3x5
C1102	15FF-224Z-J-BD	CC 50V 0.22 μ F +80/-20%
C1104	157D-475M-5-EI	CE 16V 4.7 μ F 20% RL 3x5
C1105	15FF-224Z-J-BD	CC 50V 0.22 μ F +80/-20%
C1106, C1107	157D-226M-5-GM	CE 16V 22 μ F 20% RL 4X7
C1110	150F-151K-J-BD	CC 50V 150pF 10% 0805 1.
C1111	150D-224K-J-BD	CC 16V 0.22 μ F 10% 0805
C1112-C1114	150F-104K-J-BD	CC 50V 0.1 μ F 10% 0805
C1115	157D-106M-5-GM	CE 16V 10 μ F 20% RL 4x7
C1116	157E-105M-5-EI	CE 25V 1 μ F 20% RL 3x5
C1117	157D-475M-5-EI	CE 16V 4.7 μ F 20% RL 3x5
C1118	157D-227M-5-KW	CE 16V 220 μ F 20% RL 6x12
C1119	157D-475M-5-EI	CE 16V 4.7 μ F 20% RL 3x5
C112	150F-151K-J-BD	CC 50V 150pF 10% 0805 1.
C1120, C1121	157D-475M-5-EI	CE 16V 4.7 μ F 20% RL 3x5
C1122, C1123	150F-104K-J-BD	CC 50V 0.1 μ F 10% 0805
C113	150F-562K-J-BD	CC 50V 5600pF 10% 0805
C1131, C1132	150F-104K-J-BD	CC 50V 0.1 μ F 10% 0805
C1133	150F-100J-J-BD	CC 50V 10pF 5% 0805 1.2x
C1134	150F-104K-J-BD	CC 50V 0.1 μ F 10% 0805
C1135	150F-100J-J-BD	CC 50V 10pF 5% 0805 1.2x
C1136, C1137	150F-104K-J-BD	CC 50V 0.1 μ F 10% 0805
C1138	150D-224K-J-BD	CC 16V 0.22 μ F 10% 0805
C114, C115	157D-226M-5-GM	CE 16V 22 μ F 20% RL 4X7
C117, C119	157D-475M-5-EI	CE 16V 4.7 μ F 20% RL 3x5
C120	157D-226M-5-GM	CE 16V 22 μ F 20% RL 4X7
C1201	150D-224K-J-BD	CC 16V 0.22 μ F 10% 0805
C1202	150F-151K-J-BD	CC 50V 150pF 10% 0805 1.
C1204	150D-224K-J-BD	CC 16V 0.22 μ F 10% 0805
C1205	150F-471K-J-BD	CC 50V 470pF 10% 0805
C1206	150D-224K-J-BD	CC 16V 0.22 μ F 10% 0805
C1207	150F-151K-J-BD	CC 50V 150pF 10% 0805 1.
C1208	150F-471K-J-BD	CC 50V 470pF 10% 0805
C1209	150D-224K-J-BD	CC 16V 0.22 μ F 10% 0805
C121	157D-226M-5-GM	CE 16V 22UF 20% RL 4X7

Reference No.	Part No.	Description
C123	150F-562K-J-BD	CC 50V 5600pF 10% 0805
C125	150E-104M-J-BD	CC 25V 0.1F 20% 0805
C126	157D-227M-5-KW	CE 16V 220µF 20% RL 6x12
C127	150E-104M-J-BD	CC 25V 0.1F 20% 0805
C128	157D-106M-5-GM	CE 16V 10µF 20% RL 4x7
C129	150E-104M-J-BD	CC 25V 0.1F 20% 0805
C130	157E-105M-5-EI	CE 25V 1µF 20% RL 3x5
C1301	150F-562K-J-BD	CC 50V 5600pF 10% 0805
C1302, C1303	150F-471K-J-BD	CC 50V 470pF 10% 0805
C1304	150F-151K-J-BD	CC 50V 150pF 10% 0805 1.
C1306	150D-224K-J-BD	CC 16V 0.22µF 10% 0805
C1307, C1308	150F-562K-J-BD	CC 50V 5600pF 10% 0805
C132	157D-475M-5-EI	CE 16V 4.7µF 20% RL 3x5
C133	150F-562K-J-BD	CC 50V 5600pF 10% 0805
C134	157D-475M-5-EI	CE 16V 4.7µF 20% RL 3x5
C136	150D-224K-J-BD	CC 16V 0.22µF 10% 0805
C138	150E-104M-J-BD	CC 25V 0.1F 20% 0805
C139	157D-227M-5-KW	CE 16V 220µF 20% RL 6x12
C140	150E-104M-J-BD	CC 25V 0.1F 20% 0805
C1401, C1402	150F-471K-J-BD	CC 50V 470pF 10% 0805
C1403	150F-151K-J-BD	CC 50V 150pF 10% 0805 1.
C1405	150D-224K-J-BD	CC 16V 0.22µF 10% 0805
C141	157D-106M-5-GM	CE 16V 10µF 20% RL 4x7
C142	150E-104M-J-BD	CC 25V 0.1F 20% 0805
C143	157E-105M-5-EI	CE 25V 1µF 20% RL 3x5
C145, C147	157D-475M-5-EI	CE 16V 4.7µF 20% RL 3x5
C149	150D-224K-J-BD	CC 16V 0.22µF 10% 0805
C150, C151	150F-104K-J-BD	CC 50V 0.1µF 10% 0805
C152	150F-103K-J-BD	CC 50V 0.01µF 10% 0805
C153	157D-106M-5-GM	CE 16V 10µF 20% RL 4x7
C154	150F-104K-J-BD	CC 50V 0.1µF 10% 0805
C156	150F-683M-J-BD	CC 50V 0.068µF 20% 0805
C157	150F-104K-J-BD	CC 50V 0.1µF 10% 0805
C158	157D-476M-5-IU	CE 16V 47µF 20% RL 5x11
C159	150F-104K-J-BD	CC 50V 0.1µF 10% 0805
C161	15FD-105Z-J-BD	CC 16V 1µF +80-20% 0805
C162	15FD-105Z-J-BD	CC 16V 1µF +80-20% 0805
C163, C164	150F-103K-J-BD	CC 50V 0.01µF 10% 0805
C165	157D-225M-5-GM	CE 16V 2.2µF 20% RL 4X7
C166, C167	150F-104K-J-BD	CC 50V 0.1µF 10% 0805
C168	157D-106M-5-GM	CE 16V 10µF 20% RL 4x7
C169	150F-104K-J-BD	CC 50V 0.1µF 10% 0805
C171	15FF-224Z-J-BD	CC 50V 0.22µF +80/-20%
C172	153F-225J-5-TOM	CM 50V 2.2µF RL 10X8
C173	157E-107M-5-LUT	CE 25V 100µF 20% RL
C174	157D-106M-5-GMT	CE 16V 10µF 20% RL 4x7
C175	150F-104K-J-BD	CC 50V 0.1µF 10% 0805
C176	157E-107M-5-LUT	CE 25V 100µF 20% RL
C179, C180, C183, C184	150F-104K-J-BD	CC 50V 0.1µF 10% 0805
C193, C194, C198	150F-104K-J-BD	CC 50V 0.1µF 10% 0805
C199	157D-106M-5-GMT	CE 16V 10µF 20% RL 4x7
DIODE		
D101	4840-0490-0	BRIDGE RECTIFIER RB152

<u>Reference No.</u>	<u>Part No.</u>	<u>Description</u>
HEATSINKS		
H-U121	5400-0831-0	HEATSINK
H-U123	5400-9130-0	HEAT SINK FOR 7805 2438-
WAFERS		
J101A	2102-101S-004	WAFER 10P P2.5 ST.
J203B	2101-1581-0	FLEXIBLE CONN. 35P
J601B	2102-121S-004	12P ST.WAFER
J604B	2102-031S-004	3 PIN ST. WAFER
COILS		
L101-L103	1801-100K-M	COIL 10 μ H 10% BL7.0
L104	1807-273J-PS	COIL 27MH 5% 8.3X9.7
CRYSTAL		
M101	2300-3060-0 8910-0493-0	X'TAL 12.288MHZ +/-20PPM CRYSTAL IC KIT ASSY
TRANSISTOR		
Q101	485C-114E-5	TR DTC114ES
RESISTORS		
R101-R103	4720-103J-J	RMG 1/10W 10K 5% 0805
R104	4720-680J-J	RMG 1/10W 68R 5% 0805
R105-R109	4720-103J-J	RMG 1/10W 10K 5% 0805
R110	4707-103C-5-8	RCFA 1/2W 10K 2% RL 8 9P
R111, R112	4720-103J-J	RMG 1/10W 10K 5% 0805
R113	4720-473J-J	RMG 1/10W 47K 5% 0805
R114	4720-821J-J	RMG 1/10W 820R 5% 0805
R115	4720-750J-J	RMG 1/10W 75R 5% 0805
R116	4720-473J-J	RMG 1/10W 47K 5% 0805
R117	4720-821J-J	RMG 1/10W 820R 5% 0805
R118	4720-750J-J	RMG 1/10W 75R 5% 0805
R119	4720-000J-J	RMG 1/10W 0R 5% 0805
R120	4720-203J-J	RMG 1/10W 20K 5% 0805
R1206	4720-000J-J	RMG 1/10W 0R 5% 0805
R1207	4720-102J-J	RMG 1/10W 1K 5% 0805
R1208	4720-203J-J	RMG 1/10W 20K 5% 0805
R1209	4720-102J-J	RMG 1/10W 1K 5% 0805
R121	4720-472J-J	RMG 1/10W 4.7K 5% 0805
R122	4720-000J-J	RMG 1/10W 0R 5% 0805
R123, R125	4720-151J-J	RMG 1/10W 150R 5% 0805
R126	4720-103J-J	RMG 1/10W 10K 5% 0805
R127, R129	4720-102J-J	RMG 1/10W 1K 5% 0805
R130	4720-151J-J	RMG 1/10W 150R 5% 0805
R1301	4720-472J-J	RMG 1/10W 4.7K 5% 0805
R1302	4720-104J-J	RMG 1/10W 100K 5% 0805
R1304	4720-102J-J	RMG 1/10W 1K 5% 0805
R1305	4720-472J-J	RMG 1/10W 4.7K 5% 0805
R1306	4720-203J-J	RMG 1/10W 20K 5% 0805
R1308	4720-102J-J	RMG 1/10W 1K 5% 0805
R131	4720-103J-J	RMG 1/10W 10K 5% 0805
R132, R133	4720-151J-J	RMG 1/10W 150R 5% 0805
R134	4720-103J-J	RMG 1/10W 10K 5% 0805
R135, R136	4720-102J-J	RMG 1/10W 1K 5% 0805
R137	4720-151J-J	RMG 1/10W 150R 5% 0805

Reference No.	Part No.	Description
R138	4720-103J-J	RMG 1/10W 10K 5% 0805
R139	4720-102J-J	RMG 1/10W 1K 5% 0805
R140	4720-101J-J	RMG 1/10W 100R 5% 0805
R1401, R1404	4720-102J-J	RMG 1/10W 1K 5% 0805
R1405	4720-104J-J	RMG 1/10W 100K 5% 0805
R1406	4720-203J-J	RMG 1/10W 20K 5% 0805
R150	4720-103J-J	RMG 1/10W 10K 5% 0805
R155	4720-153J-J	RMG 1/10W 15K 5% 0805
R156, R157	4720-103J-J	RMG 1/10W 10K 5% 0805
R158	4720-151J-J	RMG 1/10W 150R 5% 0805
R159	4720-153J-J	RMG 1/10W 15K 5% 0805
R160, R161	4720-103J-J	RMG 1/10W 10K 5% 0805
R162	4720-151J-J	RMG 1/10W 150R 5% 0805
R163, R164	4720-223J-J	RMG 1/10W 22K 5% 0805
R165	4720-121J-J	RMG 1/10W 120R 5% 0805
R166	4720-201J-J	RMG 1/10W 200R 5% 0805
R167, R168	4720-103J-J	RMG 1/10W 10K 5% 0805
R169	4720-102J-J	RMG 1/10W 1K 5% 0805
R171	4720-103J-J	RMG 1/10W 10K 5% 0805
R172	4720-471J-J	RMG 1/10W 470R 5% 0805
R173	4720-472J-J	RMG 1/10W 4.7K 5% 0805
R180	4720-102J-J	RMG 1/10W 1K 5% 0805
R181	4720-203J-J	RMG 1/10W 20K 5% 0805
R182	4720-103J-J	RMG 1/10W 10K 5% 0805
R183	4720-000J-J	RMG 1/10W 0R 5% 0805
R184	4720-104J-J	RMG 1/10W 100K 5% 0805
R185, R186	4720-102J-J	RMG 1/10W 1K 5% 0805
R187	4720-000J-J	RMG 1/10W 0R 5% 0805
R188	4720-203J-J	RMG 1/10W 20K 5% 0805
R189	4720-000J-J	RMG 1/10W 0R 5% 0805
R190-R192	4720-104J-J	RMG 1/10W 100K 5% 0805
R194	4720-335J-J	RMG 1/10W 3.3M 5% 0805
R197	4720-472J-J	RMG 1/10W 4.7K 5% 0805
R198	4720-102J-J	RMG 1/10W 1K 5% 0805
R199	4720-472J-J	RMG 1/10W 4.7K 5% 0805
ICs		
S-U121	3100-3551-0	SI INSULATOR 12X18
U101	3131-3980-0	IC 74HC153 QUAD 4-INPUT
U102	3131-3870-0	IC 74HC157 QUAD 2-INPUT
U103	3131-3700-0	IC CS5331A 18BIT A/D
U104	3130-9560-0	NJM5532 IC 'DIP8'
U105	3131-3720-0	IC CS4926 DSP CRYSTAL
U106, U107	3130-8980-0	IC 74HC574 8X D-TYPE
U108	3131-9320-0	IC AT27C020-70 256KX8
U109	3130-9560-0	NJM5532 IC 'DIP8'
U110	3130-8890-0	IC CS8414 DIR 96KHZ
U111-U113	3131-3710-0	IC CS4340 D/A CONVERTER
U114	3131-9100-0	IC 74HCU04 HEX INVERTERS
U115	3130-6590-0	IC 74HC74 DUAL D-TYPE
U116	3130-9560-0	NJM5532 IC 'DIP8'
U117	3130-6590-0	IC 74HC74 DUAL D-TYPE
U118, U119	3131-9050-0	IC 74HC00 QUAD 2/P NAND
U120	3130-6590-0	IC 74HC74 DUAL D-TYPE
U121	3130-5610-0	IC LM317T+ADJ REGULATOR
U123	3130-2020-2	IC 7805 REG 5V

<u>Reference No.</u>	<u>Part No.</u>	<u>Description</u>
U125	3130-2020-3	IC 7805 REG 5V 1.5A
U131	3130-0890-0	IC NJM4558D DUAL OP AMP.
U134	3130-9560-0	NJM5532 IC 'DIP8'
<u>SURROUND AMP BOARD</u> 2000	PCB-N0A00C-AMP2	SL/SR POWER AMP ASSEMBLY
<u>CAPACITORS</u>		
C201	157F-106M-5-IUE	CE 50V 10µF 20% RL 5X11
C202, C203	150F-101K-2-FC	CC 50V 100pF 10% AT 3.5x
C204	150F-470K-2-GD	CC 50V 47P 10% AT
C205	157C-227M-5-KW	CE 10V 220µF 20% RL 6x12
C206, C207	157F-106M-5-IUE	CE 50V 10µF 20% RL 5X11
C208	150F-223K-2-FD	CC 50V 0.022µF 10% AT
C209	157F-106M-5-IUE	CE 50V 10µF 20% RL 5X11
C210, C211	150F-101K-2-FC	CC 50V 100pF 10% AT 3.5x
C212	150F-470K-2-GD	CC 50V 47P 10% AT
C213	157C-227M-5-KW	CE 10V 220µF 20% RL 6x12
C214, C215	157F-106M-5-IUE	CE 50V 10µF 20% RL 5X11
C216	150F-223K-2-FD	CC 50V 0.022µF 10% AT
C217, C218	150F-104K-2-FC	CC 50V 0.1µF 10% AT
C220, C221	8910-0112-0	CE 63V 8200µF 20% RL
C223, C224	157I-477M-5-W&A	CE 63V 470µF 20% RL 12.5
<u>DIODES</u>		
D201-D204	4804-1480-C	DIODE 1N4148 ATS
D205, D206	4804-0010-2	DIODE 1N4001 AT
D207	4804-1480-C	DIODE 1N4148 ATS
D217	4840-7060-0	DIODE BRIDGE RS804M
<u>WAFERS</u>		
J602A	2102-031S-004	3 PIN ST. WAFER
J702B	2102-051S-004	5P ST.WAFER
M704B	2101-9400-0	JM2422-3M WAFER
<u>COILS</u>		
L201, L202	1804-0540-0	SPRING COIL 1MH
<u>RELAY</u>		
M201	4500-0910-0	RELAY 24VDC,125VA,3A
<u>WIRE CON ASSY</u>		
JP211	7012-6224-0	WIRE CON ASSY 4P P=3.96
P201	7012-6205-0	WIRE CON ASSY 3P P=3.96
<u>TRANSISTORS</u>		
Q201, Q202	4860-0190-5	TR 2SC 1845 (F.E) RL
Q203	4860-8910-0	TR MPS A56 VCE 80V NS
Q204, Q205	4860-8890-0	TR MPS A06 VCE 80V NS
Q206	4860-8910-0	TR MPS A56 VCE 80V NS
Q207	4860-8890-0	TR MPS A06 VCE 80V NS
Q208	4860-5210-5	TR 2SC5198-0 HFE 80-160
Q209	4860-5220-5	TR 2SA1941-0 HFE 80-160
Q210, Q211	4860-0190-5	TR 2SC 1845 (F.E) RL
Q212	4860-0190-5	TR 2SC 1845 (F.E) RL
Q213	4860-8910-0	TR MPS A56 VCE 80V NS


<u>Reference No.</u>	<u>Part No.</u>	<u>Description</u>
Q214	4860-8890-0	TR MPS A06 VCE 80V NS
Q215	4860-8900-0	TR MPS A13 VCE 100V
Q216	4860-8890-0	TR MPS A06 VCE 80V NS
Q217	4860-8910-0	TR MPS A56 VCE 80V NS
Q218	4860-5210-5	TR 2SC5198-0 HFE 80-160
Q219	4860-5220-5	TR 2SA1941-0 HFE 80-160
Q220	4860-0190-5	TR 2SC 1845 (F.E) RL
Q221	485C-123J-5	TR DTC123JSA ROHM
RESISTORS		
R201	4701-103J-C	RCF 1/8W 10K 5% ATS
R202	4701-681J-C	RCF 1/8W 680R 5% ATS
R203	4701-512J-C	RCF 1/8W 5.1K 5% ATS
R204	4701-622J-C	RCF 1/8W 6.2K 5% ATS
R205	4701-471J-C	RCF 1/8W 470R 5% ATS
R206	4701-100J-C	RCF 1/8W 10R 5% ATS
R207, R208	4701-122J-C	RCF 1/8W 1.2K 5% ATS
R209	4701-121J-C	RCF 1/8W 120R 5% ATS
R210	4705-331J-2	RCF 1/4W 330R 5% AT
R211, R212	4717-2R2J-2	RMF 1/2W 2.2R 5% AT
R213	474B-R22K-5-02	RWR 5W 0.22R X2 10% RL
R214	4701-272J-C	RCF 1/8W 2.7K 5% ATS
R215	4701-471J-C	RCF 1/8W 470R 5% ATS
R216	4701-333J-C	RCF 1/8W 33K 5% ATS
R217	4701-473J-C	RCF 1/8W 47K 5% ATS
R218	4701-103J-C	RCF 1/8W 10K 5% ATS
R219	4701-512J-C	RCF 1/8W 5.1K 5% ATS
R220	4701-622J-C	RCF 1/8W 6.2K 5% ATS
R221	4701-681J-C	RCF 1/8W 680R 5% ATS
R222	4701-471J-C	RCF 1/8W 470R 5% ATS
R223	4701-333J-C	RCF 1/8W 33K 5% ATS
R224	4701-103J-C	RCF 1/8W 10K 5% ATS
R225	4701-100J-C	RCF 1/8W 10R 5% ATS
R226	4701-122J-C	RCF 1/8W 1.2K 5% ATS
R227	4701-222J-C	RCF 1/8W 2.2K 5% ATS
R228	4701-121J-C	RCF 1/8W 120R 5% ATS
R229	4705-331J-2	RCF 1/4W 330R 5% AT
R230, R231	4717-2R2J-2	RMF 1/2W 2.2R 5% AT
R234	474B-R22K-5-02	RWR 5W 0.22R X2 10% RL
R235	4701-272J-C	RCF 1/8W 2.7K 5% ATS
R236	4701-471J-C	RCF 1/8W 470R 5% ATS
R237	4701-333J-C	RCF 1/8W 33K 5% ATS
R238	4701-473J-C	RCF 1/8W 47K 5% ATS
R239, R240	4718-R22J-2	RMF 1W 0.22R 5% AT
R241, R242	4718-8R2J-2-X	RMF 1W 8.2R 5% AT
R243, R244	4718-R22J-2	RMF 1W 0.22R 5% AT
R245	4701-333J-C	RCF 1/8W 33K 5% ATS
R270	4701-103J-C	RCF 1/8W 10K 5% ATS
VOLUMES		
VR201, VR202	4756-1026-3-06	SVR 1K H3 7X7.6 RH0615C
ZENERS		
Z201, Z202	4837-10V6-2	DZ 1/2W 10V TEMIC AT

Reference No.	Part No.	Description
AUDIO ASSEMBLY 3000	PCB-N0A00C-AUD	AUDIO ASSEMBLY
CAPACITORS C301-C306 C309-C314 C315, C316 C317, C318 C319-C324 C325, C326 C327, C328	150F-101K-2-FC 150F-101K-2-FC 150F-103K-2-FC 150F-223K-2-FD 157D-335M-5-II 157D-107M-5-IU 157D-476M-5-IU	CC 50V 100pF 10% AT 3.5x CC 50V 100pF 10% AT 3.5x CC 50V 0.01μF 10% AT 3.5 CC 50V 0.022μF 10% AT CE 16V 3.3μF 20% RL 5x5 CE 16V 100μF 20% RL 5x11 CE 16V 47μF 20% RL 5x11
SOCKETS / JACKS J709B, J710B M301, M302	2101-1801-0 2113-1677-0	SOCKET (PCB/PCB) 10P 6P RCA JACK R/W NI
TRANSISTOR Q301	485C-144E-5	TR DTC144ES ROHM
RESISTORS R329-R331 R303, R304, R306, R308 R310, R312, R319, R320 R323, R324, R327, R328 R309, R311, R315, R316 R321, R322, R325, R326 R301, R302, R305, R307	4701-102J-C 4701-105J-C 4701-105J-C 4701-105J-C 4701-222J-C 4701-222J-C 4701-331J-C	RCF 1/8W 1K 5% ATS RCF 1/8W 1M 5% ATS RCF 1/8W 1M 5% ATS RCF 1/8W 1M 5% ATS RCF 1/8W 2.2K 5% ATS RCF 1/8W 2.2K 5% ATS RCF 1/8W 330R 5% ATS
ICs U301 U302	3130-3870-0 3131-3570-0	IC HCF4053BT IC TC9273N-004 ANALOG
ZENERS Z301, Z302	4837-7B51-2	DZ 1/2W 7.07~7.45V ROHM
DIG ASSEMBLY 1200	PCB-N0A00C-DIG	DIG ASSEMBLY
JACKS J101B 1063, 1064 1065	2102-101S-004 2113-1311-0 2113-1777-0	WAFER 10P P2.5 ST. 1P RCA JACK BK NI JACK RCA 2P YL NICKEL-
RECEIVER 1062	4811-F32R-3	LIGHT RX UNIT GPIF32R
CAPACITORS C763, C764 C765, C766	150F-104K-2-FC 150F-223K-2-FD	CC 50V 0.1μF 10% AT CC 50V 0.022μF 10% AT
DIODES D756-D759	4804-1480-C	DIODE 1N4148 ATS
RESISTORS R759, R760 R761	4701-102J-C 4701-101J-C	RCF 1/8W 1K 5% ATS RCF 1/8W 100R 5% ATS

Reference No.	Part No.	Description
R762	4701-104J-C	RCF 1/8W 100K 5% ATS
IC U761	3130-7370-0	IC 74HCT00 NAND GATE
KEY ASSEMBLY 2200	PCB-N0A00C-KEY	KEY ASSEMBLY
LED DISPLAY 2119	2460-1890-2	VFD 12-MT-84GNK FUTABA
CAPACITORS C205, C207 C203, C204 C201 C206 C208, C210, C212 C209 C202	150F-104Z-5-IU 150F-220K-5-GG 157B-107M-5-KM 157B-227M-5-KW 157D-476M-5-IU 157E-335M-5-GM 150F-103K-2-FC	CC 50V 0.1 μ F +80/-20% RL CC 50V 22pF 10% RL 4x4 CE 6.3V 100 μ F 20% RL 6x7 CE 6.3V 220 μ F 20% RL CE 16V 47 μ F 20% RL 5x11 CE 25V 3.3 μ F 20% RL 4x7 CC 50V 0.01 μ F 10% AT 3.5
DIODES D212 D201,D202,D205 D206,D209,D210,D213	4804-0010-2 4804-1480-C 4804-1480-C	DIODE 1N4001 AT DIODE 1N4148 ATS DIODE 1N4148 ATS
ZENER D214 D203, D211	4837-4C20-2 4837-5B61-2	DZ 1/2W 5.0-5.2V AT DZ 1/2W 5.45-5.73 ROHM
FLEXIBLEs J203A, J206A	2101-1581-0	FLEXIBLE CONN. 35P
WIRE CON ASSY J208B J207A J202A J201A	7702-1120-2004 7703-1150-2004 7704-1200-2004 7705-1410-2004	WIRE CON ASSY 2P P=2.5 WIRE CON ASSY 3P P=2.5 CN ASSY 4P P=2.5 L=200 CONN ASSY 5P P2.5 L=410
COIL L201	1801-220K-M	COIL 22 μ H 10% AL BL7
MISCELLANEOUS M218 M218 2118	2954-3008-0000 4132-1061-0 4152-5741-0	TAPPING 3X8MM B-TITE SOLDER TAG HOLDER (FL)
CRYSTAL M219	2300-3150-0	CRYSTAL 10MHZ +/-30PPM
SWITCHES M201-M217, M222	5200-3538-0	SWITCH, TACT SKHHBY 7MM
TRANSISTOR M218 Q203 Q202	4814-3TE2-3 485C-114E-5 485C-144E-5	IR SENSOR PIC-12043TE2 TR DTC114ES TR DTC144ES ROHM


<u>Reference No.</u>	<u>Part No.</u>	<u>Description</u>
Q201	4860-0050-5	TR SS8050 C/D SAMSUNG RL
RESISTORS		
R201-R203	4701-681J-C	RCF 1/8W 680R 5% ATS
R204-R206	4701-821J-C	RCF 1/8W 820R 5% ATS
R207-R209	4701-182J-C	RCF 1/8W 1.8K 5% ATS
R210-R212	4701-222J-C	RCF 1/8W 2.2K 5% ATS
R213,R214	4701-472J-C	RCF 1/8W 4.7K 5% ATS
R215-R218	4701-103J-C	RCF 1/8W 10K 5% ATS
R219	4701-472J-C	RCF 1/8W 4.7K 5% ATS
R220, R221	4701-471J-C	RCF 1/8W 470R 5% ATS
R222	4701-473J-C	RCF 1/8W 47K 5% ATS
R223	4701-474J-C	RCF 1/8W 470K 5% ATS
R224	4701-102J-C	RCF 1/8W 1K 5% ATS
R225, R226	4701-103J-C	RCF 1/8W 10K 5% ATS
R228-R231	4701-223J-C	RCF 1/8W 22K 5% ATS
R232-R246	4701-103J-C	RCF 1/8W 10K 5% ATS
R247-R250	4701-473J-C	RCF 1/8W 47K 5% ATS
R251-R261	4701-103J-C	RCF 1/8W 10K 5% ATS
R262	4701-223J-C	RCF 1/8W 22K 5% ATS
R263-R274	4701-104J-C	RCF 1/8W 100K 5% ATS
R275	4701-562J-C	RCF 1/8W 5.6K 5% ATS
R280	4701-102J-C	RCF 1/8W 1K 5% ATS
R283	4701-471J-C	RCF 1/8W 470R 5% ATS
R284	4701-752J-C	RCF 1/8W 7.5K 5% ATS
R287, R288	4701-103J-C	RCF 1/8W 10K 5% ATS
ICs		
U201	3131-3810-0	IC LC87F65C8A 8-BIT MCU
U202	3131-3920-0	IC EEPROM 24C02 2KBIT
LED BOARD ASSEMBLY		
8000	PCB-N0A00C-LED	LEDBOARD ASSEMBLY
WAFER		
J208A	2102-8002-3-100	WAFER 2 PIN 9MM
LED		
	3700-2489-G	LED 3MM GREEN SP
MAIN ASSEMBLY		
7000	PCB-N0A00C-MAIN	MAIN ASSEMBLY
CAPACITORS		
C701	150F-104K-2-FC	CC 50V 0.1 μ F 10% AT
C717	157E-338M-5-5\$	CE 25V 3300F 20% RL
C718	157E-108M-5-X&	CE 25V 1000 μ F 20% RL
C720,C721	150F-223K-2-FD	CC 50V 0.022 μ F 10% AT
C722, C723, C732	157F-106M-5-GM	CE 50V 10 μ F 20% RL 4x7
C726	157F-476M-5-IU	CE 50V 47 μ F 20% RL 5x11
C727	150F-223K-2-FD	CC 50V 0.022 μ F 10% AT
C728, C729	157F-107M-5-OW	CE 50V 100 μ F 20% RL 8x12
C730, C731	150F-223K-2-FD	CC 50V 0.022 μ F 10% AT
C7701-C7710	157F-106M-5-GM	CE 50V 10 μ F 20% RL 4x7
C7711-C7716	150F-101K-2-FC	CC 50V 100pF 10% AT 3.5x
C7717, C7719	157C-227M-5-KW	CE 10V 220 μ F 20% RL 6x12

<u>Reference No.</u>	<u>Part No.</u>	<u>Description</u>
C7720-C7722	150F-470J-2-FC	CC 50V 47PF 5% AT 3.5X2
C7723-C7729	150F-223K-2-FD	CC 50V 0.022μF 10% AT
C7730	157D-107M-5-IU	CE 16V 100μF 20% RL 5x11
C7731-C7733	150F-104K-2-FC	CC 50V 0.1μF 10% AT
C7739, C7740	157I-477M-5-X&	CE 63V 470μF 20% RL
C7741, C7742	157D-476M-5-IM	CE 16V 47μF 20% RL 5X7
C7743, C7744	157I-477M-5-W&A	CE 63V 470μF 20% RL 12.5
DIODES		
D723	4804-0010-2	DIODE 1N4001 AT
D701-D704	4804-0040-2	DIODE IN4004 AT
D719-D721	4804-0040-2	DIODE IN4004 AT
D7714, D7715	4804-0040-2	DIODE IN4004 AT
D730, D737	4804-1480-C	DIODE 1N4148 ATS
D7701-D7712	4804-1480-C	DIODE 1N4148 ATS
D715-D718	4805-3930-2	DIODE 1N5393 200V 1.5A
MISCELLANEOUS		
	2954-2606-0000	SCREWS BT 2.6X6
	2954-3008-0000	TAPPING 3X8MM B-TITE
GND	4132-1061-0	SOLDER TAG
WAFERS		
J206B	2101-1591-0	FLEXIBLE CONN. 35P P1.25
J703A,J705A,J706A,J709A	2101-1621-0	WAFER (PCB/PCB) 10P P2.0
J710A,J714A,-J716A	2101-1621-0	WAFER (PCB/PCB) 10P P2.0
J704A	2101-1641-0	WAFER (PCB/PCB) 16P P2.0
J7001,J701B	2102-031S-004	3 PIN ST. WAFER
J401B	2102-111S-004	11P ST.WAFER
M712-M714	2113-1160-0	WAFER 2P ST. P=2.5 NH
COILS		
L7701-C7703	1804-0540-0	SPRING COIL 1MH
RELAYS		
M7702	4500-0900-0	RELAY 24VDC,250VAC,10A
M7701	4500-0910-0	RELAY 24VDC,125VA,3A
HEATSINK		
M702	5400-0831-0	HEATSINK
M701,M703	5400-1702-0	HEATSINK 23.5X17X50
WIRE CON ASSY		
M707A	7012-6203-0	WIRE CON ASSY 4P P=3.96
M704A	7012-6204-0	WIRE CON ASSY 3P P=3.96
M705A	7012-6206-0	WIRE CON ASSY 2P P=3.96
J702A	7705-1180-2004	WIRE CON ASSY 5P P=2.5
TRANSISTORS		
Q7732	4850-992F-5	TR 2SA992 HFE 300-600
Q7734, Q7735	485C-123J-5	TR DTC123JSA ROHM
Q7713-Q7723	4860-0190-5	TR 2SC 1845 (F.E) RL
Q724	4860-0660-5	TR 2SA1015 (G.R.) RL
Q7727, Q7728, Q7733	4860-5210-5	TR 2SC5198-0 HFE 80-160
Q7729-Q7731	4860-5220-5	TR 2SA1941-0 HFE 80-160
Q7707-Q7712	4860-8890-0	TR MPS A06 VCE 80V NS

<u>Reference No.</u>	<u>Part No.</u>	<u>Description</u>
Q7724-Q7726 Q7701-Q7726	4860-8900-0 4860-8910-0	TR MPS A13 VCE 100V TR MPS A56 VCE 80V NS
RESISTORS		
R703, R705	4701-102J-C	RCF 1/8W 1K 5% ATS
R704, R706	4701-104J-C	RCF 1/8W 100K 5% ATS
R731	4701-102J-C	RCF 1/8W 1K 5% ATS
R732	4701-333J-C	RCF 1/8W 33K 5% ATS
R733, R724	4718-391J-2-X	RMF 1W 390R 5% AT
R756, R757	4701-123J-C	RCF 1/8W 12K 5% ATS
R7701-R7708	4701-103J-C	RCF 1/8W 10K 5% ATS
R7709	4711-102A-2	RMF 1/8W 1K 1% AT
R7711-R7713	4701-681J-C	RCF 1/8W 680R 5% ATS
R7714-R7719	4701-471J-C	RCF 1/8W 470R 5% ATS
R7720-R7722	4701-100J-C	RCF 1/8W 10R 5% ATS
R7723-R7725	4701-622J-C	RCF 1/8W 6.2K 5% ATS
R7726-R7728	4701-512J-C	RCF 1/8W 5.1K 5% ATS
R7729-R7735	4701-333J-C	RCF 1/8W 33K 5% ATS
R7737-R7739	4701-121J-C	RCF 1/8W 120R 5% ATS
R7740-R7742	4701-222J-C	RCF 1/8W 2.2K 5% ATS
R7743-R7745	4701-122J-C	RCF 1/8W 1.2K 5% ATS
R7746	4701-152J-C	RCF 1/8W 1.5K 5% ATS
R7749-R7751	4715-331A-2	RMF 1/4W 330R 1% AT
R7752-R7759	4717-2R2J-C	RMF 1/2W 2.2R 5% ATS
R7760-R7762	474B-R22K-5-02	RWR 5W 0.22R X2 10% RL
R7763-R7765	4701-272J-C	RCF 1/8W 2.7K 5% ATS
R7766	4701-223J-C	RCF 1/8W 22K 5% ATS
R7767-R7770	4701-473J-C	RCF 1/8W 47K 5% ATS
R7771-R7773	4718-R22J-2	RMF 1W 0.22R 5% AT
R7774-R7776	4718-8R2J-2-X	RMF 1W 8.2R 5% AT
R7777, R7778	4701-122J-C	RCF 1/8W 1.2K 5% ATS
R7779, R7780	4701-512J-C	RCF 1/8W 5.1K 5% ATS
R7781	4701-102J-C	RCF 1/8W 1K 5% ATS
VR7701-VR7703	4756-1026-3-06	SVR 1K H3 7X7.6 RH0615C
THERMISTOR		
TR7701 	8910-0491-0	NTC THERMISTOR 1K (B)
ICs		
U701	3131-4850-0	IC NJM5532M JRC (SMD)
U721, U7701	3130-2520-3	IC 7812 12V REGULATOR
U722	3130-3800-0	IC UPC79M12HF REGULATOR
U723	3130-8190-0	IC NJM78M56FA 5.6V
U726	3131-9110-0	IC 74HC08 AND GATES(SOP)
ZENERS		
Z7701-Z7703	4837-10V6-2	DZ 1/2W 10V TEMIC AT
D722	4837-27V0-2	DZ 1/2W 27V(26.2-27.6)AT
<u>MULTI CH ASSEMBLY</u>		
6300	PCB-N0A00C-MUTI	MULTI CH ASSEMBLY
CAPACITORS		
C601-C606	150F-101K-2-FC	CC 50V 100pF 10% AT 3.5x
C6100, C6101	157F-106M-5-GM	CE 50V 10µF 20% RL 4x7

Reference No.	Part No.	Description
C6103, C6104 C611, C614, C615 C612 C613 C617, C618, C639 C619-C622 C623, C624, C660 C625-C628 C629-C632 C633, C636 C634, C637 C635, C638 C640, C642, C649, C641 C643,C650,C657,C663 C644,C646,C651,C653 C645,C648,C652,C659 C655,C662,C669,C675 C658,C664,C671,C677 C661,C665,C668, C666,C670,C673,C676 C672,C678,C680 C681,C682 C683-C686 C687,C688 C702,C706,C710,C712,C740	150F-104K-2-FC 157D-226M-5-II 150F-103K-2-FC 157D-227M-5-KW 157D-335M-5-II 157D-475M-5-IU 157D-106M-5-IU 157D-226M-5-II 157D-476M-5-IM 157D-334M-5-IU 153F-153J-5-KP 153F-822J-5-KW 157D-335M-5-II 150F-104K-2-FC 150F-221K-2-FC 150F-101K-2-FC 157F-106M-5-IU 157D-335M-5-II 150F-101K-2-FC 157F-106M-5-IU 150F-221K-2-FC 157F-106M-5-IU 157D-476M-5-IM 157D-106M-5-IU 150F-223K-2-FD 157D-475M-5-IU	CC 50V 0.1µF 10% AT CE 16V 22µF 20% RL 5x5 CC 50V 0.01µF 10% AT 3.5 CE 16V 220µF 20% RL 6x12 CE 16V 3.3µF 20% RL 5x5 CE 16V 4.7µF 20% RL 5x11 CE 16V 10µF 20% RL 5x11 CE 16V 22µF 20% RL 5x5 CE 16V 47µF 20% RL 5X7 CE 16V 0.33µF 20% RL 5X11 CM 50V 0.015µF 5% RL CM 50V 8200pF 5% RL 6x12 CE 16V 3.3µF 20% RL 5x5 CC 50V 0.1µF 10% AT CC 50V 220pF 10% AT 3.5x CC 50V 100pF 10% AT 3.5x CE 50V 10µF 20% RL 5x11 CE 16V 3.3µF 20% RL 5x5 CC 50V 100pF 10% AT 3.5x CE 50V 10µF 20% RL 5x11 CC 50V 220pF 10% AT 3.5x CE 50V 10µF 20% RL 5x11 CE 16V 47µF 20% RL 5X7 CE 16V 10µF 20% RL 5x11 CC 50V 0.022µF 10% AT CE 16V 4.7µF 20% RL 5x11
DIODES / ZENER D601 D602-D604	4804-1480-2 4837-7B51-2	DIODE 1N4148 AT DZ 1/2W 7.07~7.45V ROHM
WAFERS / JACKS J705B,J706B J602A M603,M604 M601,M602	2101-1801-0 2102-031S-004 2113-1310-0 2113-1678-0	SOCKET (PCB/PCB) 10P 3 PIN ST. WAFER 2P RCA JACK BK/BK NI 4P RCA JACK R/W NI
COILS L601,L602	1801-101K-M	COIL 100µH 10%
TRANSISTORS Q601,Q602 Q603,Q604 Q605,Q606 Q607 Q608 Q609,Q611 Q613 Q614,Q615 Q616 Q617,Q619 Q621 Q622,Q701-Q704,C706	485C-114E-5 4860-0770-5 4860-0050-5 4860-0060-5 485A-114E-5 4860-0770-5 485A-114E-5 4860-0770-5 485A-114E-5 4860-0770-5 485A-114E-5 4860-0770-5 485A-114E-5 4860-0770-5 485A-114E-5 4860-0770-5	TR DTC114ES TR 2SC2878 (A,B) RL TR SS8050 C/D SAMSUNG RL TR SS8550 C/D SAMSUNG RL TR DTA114ESA ROHM TR 2SC2878 (A,B) RL TR DTA114ESA ROHM TR 2SC2878 (A,B) RL TR DTA114ESA ROHM TR 2SC2878 (A,B) RL TR DTA114ESA ROHM TR 2SC2878 (A,B) RL TR DTA114ESA ROHM TR 2SC2878 (A,B) RL
RESISTORS R601,R603,R605	4701-331J-C	RCF 1/8W 330R 5% ATS

<u>Reference No.</u>	<u>Part No.</u>	<u>Description</u>
R6016,R6109	4720-102J-J	RMG 1/10W 1K 5% 0805
R6017,R6108	4720-223J-J	RMG 1/10W 22K 5% 0805
R602,R604,R606	4701-104J-C	RCF 1/8W 100K 5% ATS
R607,R609,R611	4701-331J-C	RCF 1/8W 330R 5% ATS
R608,R610,R612	4701-104J-C	RCF 1/8W 100K 5% ATS
R6100,R659,R660	4701-202J-C	RCF 1/8W 2K 5% ATS
R6102-R6105	4701-563J-C	RCF 1/8W 56K 5% ATS
R6110,R6111	4701-102J-C	RCF 1/8W 1K 5% ATS
R613,R614,R617,R618	4701-333J-C	RCF 1/8W 33K 5% ATS
R615,R616	4701-103J-C	RCF 1/8W 10K 5% ATS
R619-R625	4701-103J-C	RCF 1/8W 10K 5% ATS
R626	4701-123J-C	RCF 1/8W 12K 5% ATS
R627	4701-393J-C	RCF 1/8W 39K 5% ATS
R628,R629	4701-203J-C	RCF 1/8W 20K 5% ATS
R630,R631	4701-682J-C	RCF 1/8W 6.8K 5% ATS
R632-R637	4701-104J-C	RCF 1/8W 100K 5% ATS
R638,R640,R641	4701-102J-C	RCF 1/8W 1K 5% ATS
R642,R647,R650,R655	4701-563J-C	RCF 1/8W 56K 5% ATS
R643,R651,R663	4701-152J-C	RCF 1/8W 1.5K 5% ATS
R644,R652	4701-752J-C	RCF 1/8W 7.5K 5% ATS
R645,R646,R653	4701-471J-C	RCF 1/8W 470R 5% ATS
R654,R665,R666	4701-471J-C	RCF 1/8W 470R 5% ATS
R662,R672,R677,R680	4701-563J-C	RCF 1/8W 56K 5% ATS
R664	4701-153J-C	RCF 1/8W 15K 5% ATS
R667,R697	4720-563J-J	RMG 1/10W 56K 5% 0805
R668,R704,R709,R717	4720-104J-J	RMG 1/10W 100K 5% 0805
R669	4720-221J-J	RMG 1/10W 220R 5% 0805
R670,R671,R689	4701-202J-C	RCF 1/8W 2K 5% ATS
R673,R681,R693	4701-152J-C	RCF 1/8W 1.5K 5% ATS
R674,R682,R694	4701-752J-C	RCF 1/8W 7.5K 5% ATS
R675,R676,R683	4701-471J-C	RCF 1/8W 470R 5% ATS
R684	4720-471J-J	RMG 1/10W 470R 5% 0805
R685,R692	4701-563J-C	RCF 1/8W 56K 5% ATS
R690,R706,R707,	4720-202J-J	RMG 1/10W 2K 5% 0805
R695,R696	4701-471J-C	RCF 1/8W 470R 5% ATS
R701,R713	4720-000J-J	RMG 1/10W 0R 5% 0805
R702,R710,R724	4720-101J-J	RMG 1/10W 100R 5% 0805
R703,R712,R718	4720-121J-J	RMG 1/10W 120R 5% 0805
R715,R723,R740	4720-000J-J	RMG 1/10W 0R 5% 0805
R719,R720,R745	4720-202J-J	RMG 1/10W 2K 5% 0805
R722,R742	4720-104J-J	RMG 1/10W 100K 5% 0805
R725,R744	4720-121J-J	RMG 1/10W 120R 5% 0805
R728,R743	4720-101J-J	RMG 1/10W 100R 5% 0805
ICs		
U603,U608	3130-0890-0	IC NJM4558D DUAL OP AMP.
U604	3130-3730-1	IC TC9164AN HV ANALOG SW
U601,U602	3130-9560-0	NJM5532 IC 'DIP8'
U606,U607,U609	3130-9560-0	NJM5532 IC 'DIP8'
U605	3131-4910-0	IC M62446FP MITSUBISHI
U701-U703	3130-6060-0	IC NJM4558M OP AMP
<u>PRIMARY ASSEMBLY</u>		
	PCB-N0A00C-PRI	PRIMARY ASSEMBLY

Reference No.	Part No.	Description
<u>PSU ASSEMBLY</u> 7100	PCB-N0A01C-PSU	PSU ASSEMBLYNA00C
<u>CAPACITORS</u> C275 C276 C277 C278  C503,C504	157E-227M-5-PU 150F-223K-2-FD 150F-103K-2-FC 8910-0091-0 150F-102K-2-FC	CE 25V 220µF 20% RL CC 50V 0.022µF 10% AT CC 50V 0.01µF 10% AT CC 400V 0.01µF +20% RL CC 50V 1000pF 10% AT 3.5
<u>DIODES</u> D261-D264 *AH D265 *C	4804-0040-1 4804-0040-1	DIODE IN4004 AL DIODE IN4004 AL
<u>WAFER / JACK</u> J201B M268	2102-051S-004 2113-1179-0	5P ST.WAFER PHONE JACK D3.5 BK
<u>MISCELLANEOUS</u> P265 P266 M270,M272 *AH M271 *C	4131-9321-0 4131-9321-0 4132-1011-0 4132-1011-0	TERMINAL WRAP TERMINAL WRAP FUSE HOLDER FUSE HOLDER
<u>RELAY</u> M273	4500-0890-0	RELAY 12VDC,250VAC,10A
<u>TRANSISTOR</u> Q260	485C-123J-5	TR DTC123JSA ROHM
<u>RESISTORS</u> R268 R503,R504 R501,R502 R505	4701-103J-C 4701-105J-C 4701-331J-C 4701-820J-C	RCF 1/8W 10K 5% ATS RCF 1/8W 1M 5% ATS RCF 1/8W 330R 5% ATS RCF 1/8W 82R 5% ATS
<u>TRANSFORMER</u> T260	1806-2311-0	EI-35 TRANSFORMER 12V/AC
<u>IC</u> U260	3130-2520-3	IC 7812 12V REGULATOR
<u>SECONDARY ASSEMBLY</u> 7200	PCB-N0A00C-SEC	SECONDARY ASSEMBLY
<u>CAPACITORS</u> C281,C282 C260,C262-C264	153I-104J-5-NMN 150F-104K-2-FC	CM 63V 0.1µF RL (7.5X7) CC 50V 0.1µF 10% AT
<u>WAFERS</u> J206A J202B	2101-9400-0 2102-041S-004	JM2422-3M WAFER 4P ST.WAFER
<u>WIRE ASSY</u> J704B	7703-1360-2004	CONN.ASSY 3P P205 L=360

Reference No.	Part No.	Description
RESISTORS R260 R261-R263	4717-2R2J-2 4718-R22J-2	RMF 1/2W 2.2R 5% AT RMF 1W 0.22R 5% AT
SPEAKER ASSEMBLY 7700	PCB-N0A00C-SPK	SPEAKER ASSEMBLY
CAPACITORS C265-C270	153F-102J-5-IM	CM 50V 1000PF 5% RL 5x7
WAFERS / TERMINALS P260,P261 P262 M260 M261	2101-9100-0 2101-9090-0 2113-1664-0 2113-1663-0	JM2422-4M WAFER JM2422-2M WAFER 6P SPEAKER TERMINAL R/B 4P SPEAKER TERMINAL R/B
S-VIDEO ASSEMBLY	PCB-N0A00C-SVD	S-VIDEO ASSEMBLY
CAPACITORS C501-C506 C507,C508,5510 C509,C514 C513 C516 C521 C522,C523 C525-Q527 C528 C761	157C-476M-5-GM 157C-477M-5-OU 157F-225M-5-GM 157D-106M-5-GM 157D-476M-5-IM 157D-227M-5-KW 157D-107M-5-IU 150F-223K-2-FD 150F-104K-2-FC 8910-0091-0	CE 10V 47uF 20% RL 4X7 CE 10V 470UF 20% RL 8X11 CE 50V 2.2uF 20% RL 4x7 CE 16V 10uF 20% RL 4x7 CE 16V 47UF 20% RL 5X7 CE 16V 220uF 20% RL 6x12 CE 16V 100uF 20% RL 5x11 CC 50V 0.022uF 10% AT CC 50V 0.1UF 10% AT CC 400V 0.01UF +-20% RL
DIODES D501-D507	4804-1480-C	DIODE 1N4148 ATS
SOCKETS / CONNECTORS J715B,J716B M501-M505	2101-1801-0 2113-1183-0	SOCKET (PCB/PCB) 10P 1P DIN CONNECTOR HDC-050
TRANSISTOR Q501,Q507 Q502,Q503 Q504-Q506 Q508,Q510,Q511 Q509 Q512,Q513,Q516 Q514,Q515 Q517,Q526 Q518-Q525	485C-123J-5 4860-1590-5 4860-0770-5 4860-0770-5 485C-144E-5 485C-114E-5 4860-0770-5 485C-114E-5 485A-933S-5	TR DTC123JSA ROHM TR 2SC1740S TR 2SC2878 (A,B) RL TR 2SC2878 (A,B) RL TR DTC144ES ROHM TR DTC114ES TR 2SC2878 (A,B) RL TR DTC114ES TR 2SA933S HFE 120-560
RESISTORS R501-R506 R511,R531 R512 R513 R514,R518 R515	4701-820J-C 4701-104J-C 4701-102J-C 4701-102J-C 4701-561J-C 4701-563J-C	RCF 1/8W 82R 5% ATS RCF 1/8W 100K 5% ATS RCF 1/8W 1K 5% ATS RCF 1/8W 1K 5% ATS RCF 1/8W 560R 5% ATS RCF 1/8W 56K 5% ATS

Reference No.	Part No.	Description
R516	4701-221J-C	RCF 1/8W 220R 5% ATS
R517,R528,R536	4701-151J-C	RCF 1/8W 150R 5% ATS
R519,R520,R537	4701-471J-C	RCF 1/8W 470R 5% ATS
R521	4701-680J-C	RCF 1/8W 68R 5% ATS
R522	4701-222J-C	RCF 1/8W 2.2K 5% ATS
R523	4701-333J-C	RCF 1/8W 33K 5% ATS
R524	4701-562J-C	RCF 1/8W 5.6K 5% ATS
R525-R527	4701-102J-C	RCF 1/8W 1K 5% ATS
R529	4701-122J-C	RCF 1/8W 1.2K 5% ATS
R530	4701-822J-C	RCF 1/8W 8.2K 5% ATS
R532-R535	4701-203J-C	RCF 1/8W 20K 5% ATS
R538-R542	4701-102J-C	RCF 1/8W 1K 5% ATS
R543-R546	4701-203J-C	RCF 1/8W 20K 5% ATS
R547,R548	4701-471J-C	RCF 1/8W 470R 5% ATS
R549,R588	4701-102J-C	RCF 1/8W 1K 5% ATS
R550-R552	4701-103J-C	RCF 1/8W 10K 5% ATS
SWITCH		
SW501	5200-3171-0-01	DPDT SLIDE
IC		
U501	3130-3840-0	IC 4052 QUAD ANALOG SW
ZENERS		
Z501	4837-7C51-2	DZ 1/2W 7.29~7.67V ROHM
Z502	4837-7C51-2	DZ 1/2W 7.29~7.67V ROHM
SWITCH ASSEMBLY		
7800	PCB-N0A00C-SW	SWITCH ASSEMBLY
POWER SWITCH		
	5200-3665-0	POWER SWITCH TV5
TUNER ASSEMBLY		
9000	PCB-N0A01C-TUN	TUNER ASSEMBLY
CAPACITORS		
C381-C386	150F-101K-2-FC	CC 50V 100pF 10% AT 3.5x
C902,C903	150F-223K-2-FD	CC 50V 0.022μF 10% AT
C904	157D-106M-5-GM	CE 16V 10μF 20% RL 4x7
C906	157D-107M-5-IU	CE 16V 100μF 20% RL 5x11
C911	150F-200J-2-FC	CC 50V 20pF 5% AT 3.5x2
C912,C913	150F-102K-2-FC	CC 50V 1000pF 10% AT 3.5
C914,915,C945,C982	150F-101K-2-FC	CC 50V 100pF 10% AT 3.5x
C916	150F-331K-2-FC	CC 50V 330pF 10% AT 3.5x
C924,C925	15CH-200J-5-GG	CTC 0/60 20pF 5% RL 4x4
C926	153F-333J-5-NLM	CM 50V 0.033μF 5% RL 7.5
C927	157F-225M-5-GM	CE 50V 2.2μF 20% RL 4x7
C928	157D-106M-5-GM	CE 16V 10μF 20% RL 4x7
C929	157F-224M-5-GM	CE 50V 0.22μF 20% RL 4x7
C930,C932,C941,C949	150F-223K-2-FD	CC 50V 0.022μF 10% AT
C931	157B-107M-5-KM	CE 6.3V 100μF 20% RL 6x7
C942	157D-107M-5-IU	CE 16V 100μF 20% RL 5x11
C943	157F-225M-5-GM	CE 50V 2.2μF 20% RL 4x7
C944	157F-475M-5-GM	CE 50V 4.7μF 20% RL 4x7
C946	157F-105M-5-GM	CE 50V 1μF 20% RL 4x7

Reference No.	Part No.	Description
C947	157F-474M-5-GM	CE 50V 0.47μF 20% RL 4x7
C948	157F-105M-5-GM	CE 50V 1μF 20% RL 4x7
C950,C968,C974,C976	150F-223K-2-FD	CC 50V 0.022μF 10% AT
C951	157F-225M-5-GM	CE 50V 2.2μF 20% RL 4x7
C953,C954	153F-272J-5-JM	CM 50V 2700PF 5% RL
C959,C960	157D-226M-5-GM	CE 16V 22μF 20% RL 4X7
C961,C962 *AH	153F-272J-5-JM	CM 50V 2700PF 5% RL
C961,C962 *C	153F-152J-5-JM	CM 50V 1500PF 5% RL
C963,C964	157D-226M-5-GM	CE 16V 22μF 20% RL 4X7
C965	153F-272J-5-JM	CM 50V 2700PF 5% RL
C967	157D-474M-5-II	CE 16V 0.47μF 20% RL 5x5
C969	157D-476M-5-IM	CE 16V 47μF 20% RL 5X7
C970	153F-223J-5-LQ	CM 50V 0.022μF 5% RL
C971	15CH-080D-5-GG	CTC 0/60 8pF 0.5pF RL
C973	153F-473J-5-NLM	CM 50V 0.047μF 5% RL 7.5
C975	157D-106M-5-GM	CE 16V 10μF 20% RL 4x7
C977	157F-225M-5-GM	CE 50V 2.2μF 20% RL 4x7
C978,C981	150F-223K-2-FD	CC 50V 0.022μF 10% AT
C979	157D-226M-5-GM	CE 16V 22μF 20% RL 4X7
C985	150F-561K-2-FC	CC 50V 560pF 10% AT 3.5x
C986	157B-107M-5-KM	CE 6.3V 100μF 20% RL 6x7
C987	150F-223K-2-FD	CC 50V 0.022μF 10% AT
C988,R989	15CH-300J-5-IG	CTC 0/60 30pF 5% RL 5x4
C990	157B-107M-5-KM	CE 6.3V 100μF 20% RL 6x7
C991	153F-102J-5-IM	CM 50V 1000PF 5% RL 5x7
C992	150F-103K-2-FC	CC 50V 0.01μF 10% AT 3.5
DIODE		
D905	4804-1480-C	DIODE 1N4148 ATS
ZENERS		
D901	4837-4C20-2	DZ 1/2W 5.0-5.2V AT
D902	4837-7C20-2	DZ 1/2W 9.1-9.5V AT
SOCKETS / WAFERS		
J704B	2101-1601-0	SOCKET (PCB/PCB) 16P
J703B	2101-1801-0	SOCKET (PCB/PCB) 10P
1003 *AH	2107-0641-0	ANT-TERMINAL F-TYPE
1003 *C	2107-0681-0	ANT-TERMINAL (DIN-TYPE)
P901	2113-1160-0	WAFER 2P ST. P=2.5 NH
1002	2113-1677-0	6P RCA JACK R/W NI
COILS		
L901	1801-220K-M	COIL 22μH 10% AL BL7
L903,L904	5600-3386-S	COIL MPX LPF NMC-4085
L941	5600-3396-S	COIL FM DET-1 10.7MHZ
L942	5600-3406-S	COIL FM DET-2 10.7MHZ
L971	5600-3280-G	COIL MW RF BLOCK
L972	5600-3416-S	COIL AM IFT NMIF-4062
L906 *C	1801-101K-M	COIL 100μH 10%
L905,L908,L985 *AH	1801-101K-M	COIL 100μH 10%
CRYSTALS		
M905	2300-0440-0	CRYSTAL 7.2MHZ 20PPM
M985	2300-1220-0	CRYSTAL 4.332MHZ

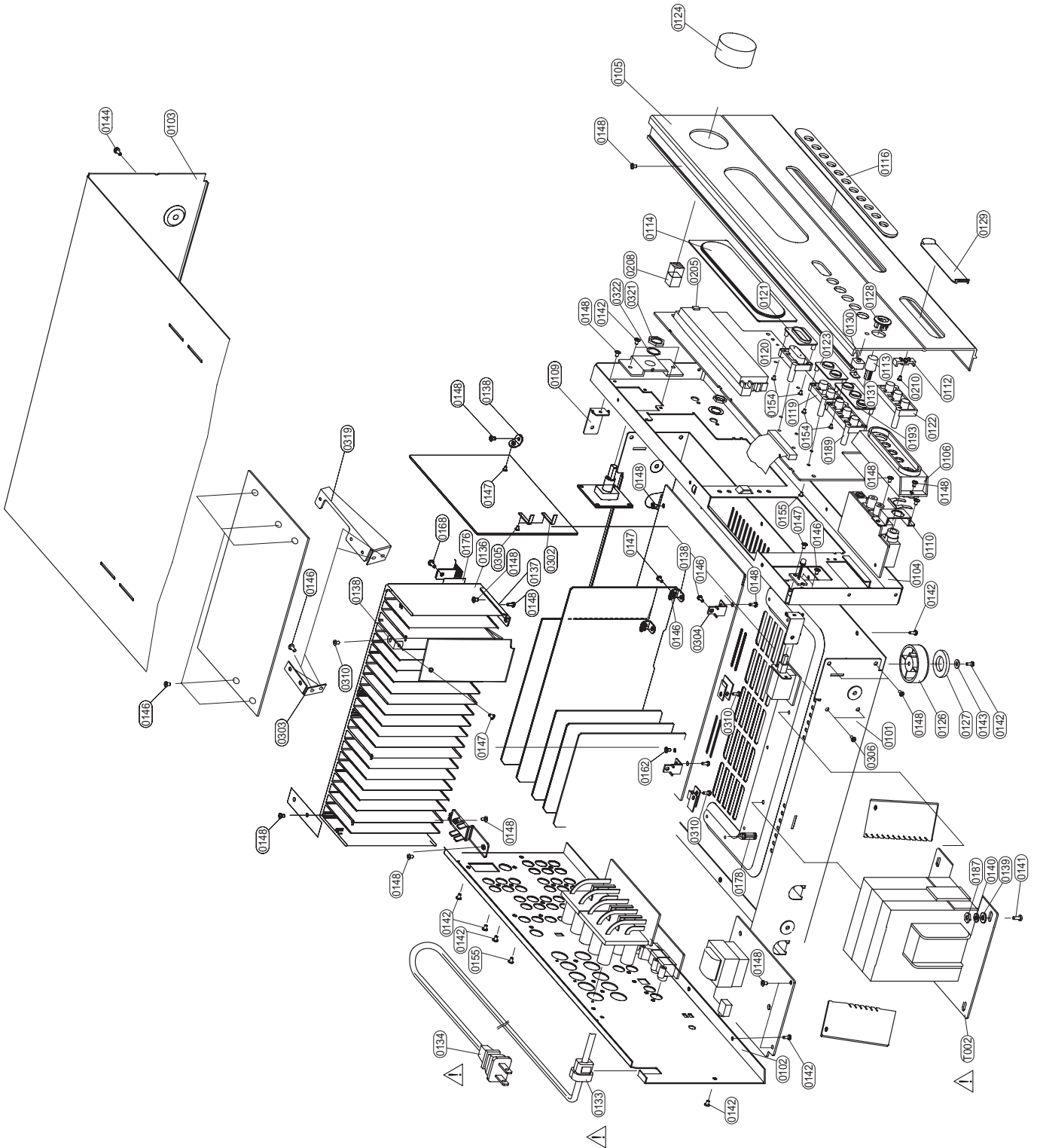
Reference No.	Part No.	Description
CERAMIC FILTERS		
M902-M904	2701-0010-1	CF10.7 +-30
M911	2701-0680-0	CF 450 +-1
TUNERS		
M901 *AH	1300-0810-0	TUNER ENV16102G1 UL VER
M901 *C	1300-0800-0	TUNER ENV16102GI CE VER
MISCELLANEOUS		
	4131-7701-0	ANTENNA WASHER
TRANSISTORS		
Q902	4851-9230-5	TR 2SC1923-0 HFE 70-140
Q903,Q945	485A-114E-5	TR DTA114ESA ROHM
Q922,Q923,Q942	4860-1590-5	TR 2SC1740S
Q943,Q944	4860-8120-0	TR 2SD 1468 S
RESISTORS		
R340	4701-104J-C	RCF 1/8W 100K 5% ATS
R341	4701-331J-C	RCF 1/8W 330R 5% ATS
R342	4701-104J-C	RCF 1/8W 100K 5% ATS
R381	4701-331J-C	RCF 1/8W 330R 5% ATS
R382	4701-104J-C	RCF 1/8W 100K 5% ATS
R383	4701-331J-C	RCF 1/8W 330R 5% ATS
R384	4701-104J-C	RCF 1/8W 100K 5% ATS
R385	4701-331J-C	RCF 1/8W 330R 5% ATS
R386	4701-104J-C	RCF 1/8W 100K 5% ATS
R387	4701-331J-C	RCF 1/8W 330R 5% ATS
R388	4701-104J-C	RCF 1/8W 100K 5% ATS
R389	4701-331J-C	RCF 1/8W 330R 5% ATS
R901 *AH	4701-332J-C	RCF 1/8W 3.3K 5% ATS
R901 *C	4701-333J-C	RCF 1/8W 33K 5% ATS
R902	4701-220J-C	RCF 1/8W 22R 5% ATS
R903 *AH	4701-102J-C	RCF 1/8W 1K 5% ATS
R903 *C	4701-123J-C	RCF 1/8W 12K 5% ATS
R904	4701-331J-C	RCF 1/8W 330R 5% ATS
R905	4701-681J-C	RCF 1/8W 680R 5% ATS
R906	4701-103J-C	RCF 1/8W 10K 5% ATS
R907	4701-332J-C	RCF 1/8W 3.3K 5% ATS
R908	4701-471J-C	RCF 1/8W 470R 5% ATS
R909,R910	4701-331J-C	RCF 1/8W 330R 5% ATS
R911	4701-101J-C	RCF 1/8W 100R 5% ATS
R913	4701-330J-C	RCF 1/8W 33R 5% ATS
R915	4701-103J-C	RCF 1/8W 10K 5% ATS
R916	4701-102J-C	RCF 1/8W 1K 5% ATS
R918	4701-472J-C	RCF 1/8W 4.7K 5% ATS
R919-R924	4701-102J-C	RCF 1/8W 1K 5% ATS
R925	4701-820J-C	RCF 1/8W 82R 5% ATS
R926	4701-820J-C	RCF 1/8W 82R 5% ATS
R927	4701-103J-C	RCF 1/8W 10K 5% ATS
R928	4701-221J-C	RCF 1/8W 220R 5% ATS
R929	4701-332J-C	RCF 1/8W 3.3K 5% ATS
R931	4701-220J-C	RCF 1/8W 22R 5% ATS
R933	4701-103J-C	RCF 1/8W 10K 5% ATS
R942	4701-472J-C	RCF 1/8W 4.7K 5% ATS
R943	4701-822J-C	RCF 1/8W 8.2K 5% ATS

Reference No.	Part No.	Description
R944	4701-104J-C	RCF 1/8W 100K 5% ATS
R945	4701-392J-C	RCF 1/8W 3.9K 5% ATS
R946	4701-332J-C	RCF 1/8W 3.3K 5% ATS
R947,R948	4701-103J-C	RCF 1/8W 10K 5% ATS
R949	4701-332J-C	RCF 1/8W 3.3K 5% ATS
R950	4701-684J-C	RCF 1/8W 680K 5% ATS
R951	4701-102J-C	RCF 1/8W 1K 5% ATS
R952,R953	4701-223J-C	RCF 1/8W 22K 5% ATS
R954	4701-103J-C	RCF 1/8W 10K 5% ATS
R955	4701-220J-C	RCF 1/8W 22R 5% ATS
R957,R958	4701-332J-C	RCF 1/8W 3.3K 5% ATS
R959,R960	4701-683J-C	RCF 1/8W 68K 5% ATS
R959,R960	4701-334J-C	RCF 1/8W 330K 5% ATS
R961,R962	4701-222J-C	RCF 1/8W 2.2K 5% ATS
R963,R964	4701-104J-C	RCF 1/8W 100K 5% ATS
R968	4701-102J-C	RCF 1/8W 1K 5% ATS
R971	4701-000J-2	RCF 1/8W 0R 5% AT
R972	4701-103J-C	RCF 1/8W 10K 5% ATS
R973	4701-183J-C	RCF 1/8W 18K 5% ATS
R974	4701-104J-C	RCF 1/8W 100K 5% ATS
R975	4701-333J-C	RCF 1/8W 33K 5% ATS
R975	4701-563J-C	RCF 1/8W 56K 5% ATS
R985-R987	4701-102J-C	RCF 1/8W 1K 5% ATS
R991	4701-000J-2	RCF 1/8W 0R 5% AT
<u>VOLUMES</u>		
R956	4756-1036-3-06	SVR 10K H3 7X7.6 RH0615C
R941	4756-2236-3-06	SVR 22K H3 7X7.6 RH0615C
<u>ICs</u>		
U901	3130-8180-0	IC LA1837 AM/FM IF
U903	3131-3760-0	IC LC7218 PLL FREQ
U902	3131-9040-0	IC LC72723M RDS
<u>VIDEO ASSEMBLY</u>		
	PCB-N0A00C-VD	VIDEO ASSEMBLY
<u>CAPACITORS</u>		
C401-C405	157D-107M-5-KW	CE 16V 100µF 20% RL 6x12
C406, C407, C409	157D-476M-5-IM	CE 16V 47µF 20% RL 5X7
C408, C411	157D-477M-5-SY	CE 16V 470µF 20% RL
C410	157D-476M-5-IM	CE 16V 47µF 20% RL 5X7
C412	157D-108M-5-S5	CE 16V 1000µF 20% RL
<u>DIODES</u>		
D401,D402	4804-1480-C	DIODE 1N4148 ATS
<u>SOCKETS / JACKS</u>		
J714B	2101-1801-0	SOCKET (PCB/PCB) 10P
M403	2113-1316-0	1P RCA JACK YL NI
M402	2113-1775-0	JACK RCA 2P TL NICKEL-
M401	2113-1776-0	JACK RCA 4P YL NICKEL-
<u>TRANSISTORS</u>		
Q401-Q403	485C-114E-5	TR DTC114ES
Q404-Q406	485A-933S-5	TR 2SA933S HFE 120-560

Reference No.	Part No.	Description
Q407,Q410 Q408,Q409,Q411,Q412	4860-0770-5 485C-114E-5	TR 2SC2878 (A,B) RL TR DTC114ES
RESISTORS		
R402	4701-102J-C	RCF 1/8W 1K 5% ATS
R403,R404	4701-222J-C	RCF 1/8W 2.2K 5% ATS
R405-R408	4701-103J-C	RCF 1/8W 10K 5% ATS
R409	4701-203J-C	RCF 1/8W 20K 5% ATS
R410	4701-151J-C	RCF 1/8W 150R 5% ATS
R411-R413	4701-203J-C	RCF 1/8W 20K 5% ATS
R414	4701-151J-C	RCF 1/8W 150R 5% ATS
R415,R416	4701-203J-C	RCF 1/8W 20K 5% ATS
R417	4701-151J-C	RCF 1/8W 150R 5% ATS
R419,R421	4701-102J-C	RCF 1/8W 1K 5% ATS
R424-R427	4701-820J-C	RCF 1/8W 82R 5% ATS
R428,R429	4701-222J-C	RCF 1/8W 2.2K 5% ATS
IC		
U401	3131-4100-0	IC MC14051BCP MOTOROLA
ZENERS		
Z401,Z402	4837-7C51-2	DZ 1/2W 7.29~7.67V ROHM
<u>VOLUME ASSEMBLY</u>		
	PCB-N0A00C-VOL	VOLUME ASSEMBLY
WAFER		
J207B	2102-031R-004	WAFER 3P P2.5 RIGHT
VOLUME		
M301	4750-6000-0	ROTARY ENCODER

- NOTE:**
- The components identified by \triangle mark are critical for risk of fire and electrical shock. Replace only with part number specified.
 - <*AH > : USA, Canadian model only.
 - <*C > : European model only.
 - Capacitors : CP-Polystyrene, CM-Mylar, CE-Electrolytic, CC-Ceramic, CTC-NPO.
 - Resistors : RMF-Metal Film, RCF-Carbon Film, RWR-Wirewound Metal Oxide.


EXPLODED VIEW



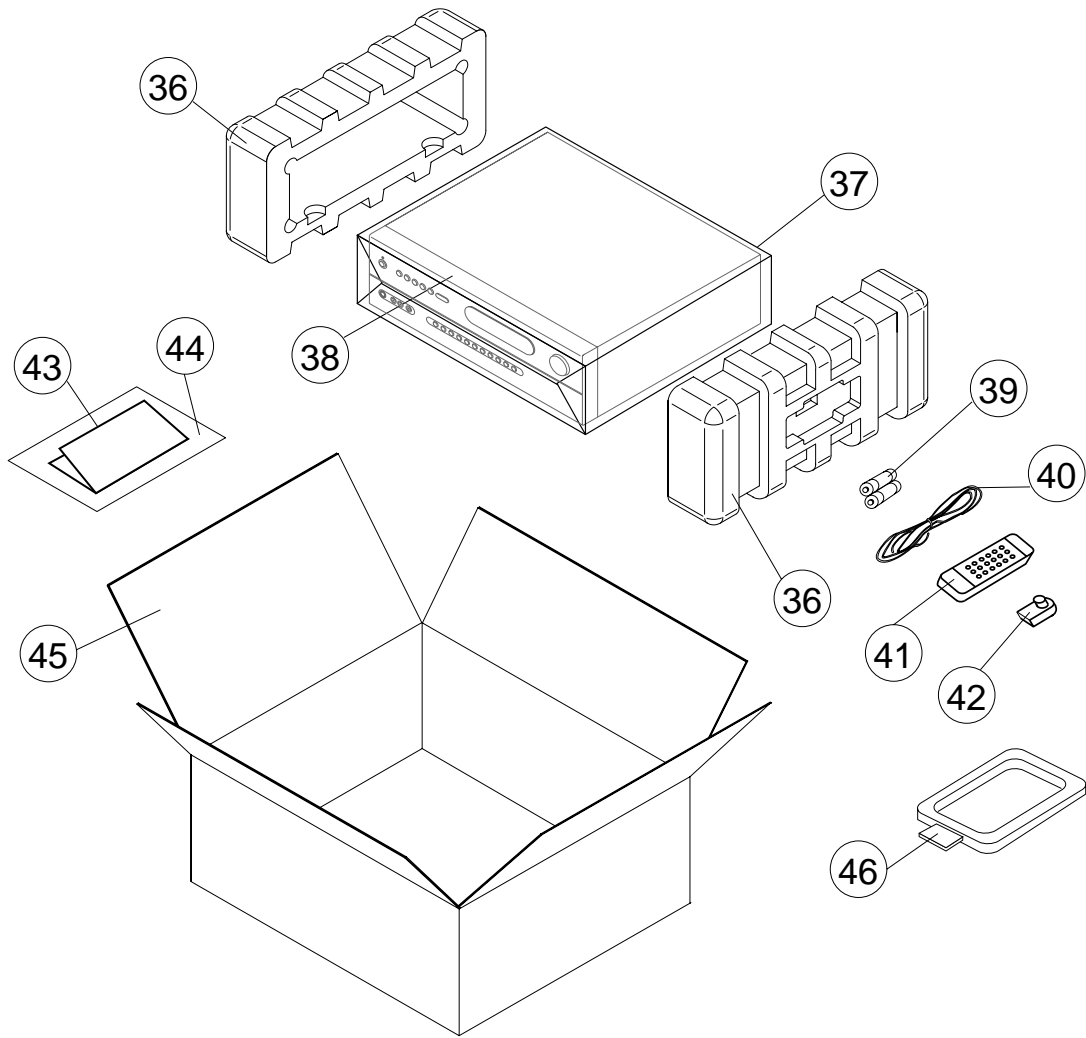
EXPLODED VIEW PARTS LIST

<u>ITEM</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty</u>
0101	1403-5161-1	BOTTOM CHASSIS T-741	1
0102	1403-5173-2	REAR PANEL T-741	1
0103	1403-5183-0	TOP COVER T-741	1
0104	1403-6511-0	SUBFASCIA T-741	1
0105	1403-6381-0	FASCIA T-741	1
0106	4154-0301-0	INPUT BEZEL T-760	1
0109	4134-9051-0	BRACKET ANGLE	2
0110	4134-9061-0	BRACKET PHONES	1
0112	4154-0311-0	DUMMY CLAMP	1
0113	2444-1601-0	POWER BUTTON GREEN LONG	1
0114	3716-4401-0	WINDOW LENS	1
0116	4152-4341-0	INPUT BUTTON LOZENGE	1
0119	2444-1901-0	DUO BUTTON T-760	1
0120	2444-1301-1	BUTTON RACKER (NICKEL)	1
0121	4154-0091-0	BEZEL RACKER (NICKEL)	1
0122	2444-2101-0	INPUT BUTTON	4
0123	4154-0411-0	BEZEL DUO	1
0124	2444-6001-0	KNOB VOLUME T-741	1
0126	4152-4631-0	RUBBER FOOT (522) 14MM	4
0127	4152-4641-0	CUSHION FOOT (522)	4
0128	4152-4331-0	POWER BUTTON BEZEL	1
0129	4154-0331-0	VIDEO COVER T-760	1
0130	4152-1701-0	LED BEZEL (117)	0.5
0131	3714-5706-0	LED LENS (412) CLEAR SAN	1
0133	△ 4152-3851-0	SQ. STRAIN RELIEF	1
0134	△ 7009-3110-0	AC CORD (SEMKO)	1
0136	5400-9052-0	HEAT SINK T-741	1
0137	4134-0121-0	BRACKET, HTSK MOUNT	2
0138	4152-0451-0	L-BRACKET	4
0139	2600-4008-0973	FLAT WASHER M4X0.8X9.7	4
0140	2607-4010-0703	SPRING WASHER M4X1X7 BZ	4
0141	2904-4010-3000	SCREW M4X10 (BLK)	4
0142	2954-3008-3000	T3X8MM SELF TAPPING	38
0143	2842-3367-0	METAL WASHER	4
0144	2900-4006-3010	M4X0.5PX6MM W/FLAT	6

ITEM	Part No.	Description	Qty
0146	2904-3008-0000	M3X8MM BINDING HEAD	15
0147	2954-3006-0000	3X6MM B-TITE (YEL.ZN)	5
0148	2954-3008-0000	TAPPING 3X8MM B-TITE	34
0154	2954-2606-3000	SCREW BH 2.6X6 BLACK	9
0155	2954-2608-3000	SCREW BT 2.6X8 BLACK	19
0162	2904-3006-0000	SCREW M3X6	1
0168	2900-3010-3030	SCREW M3X10 W/S&F	11
0176	3100-3211-0	SILICON SHEET (26X20MM)	10
0178	4152-5831-0	PCB SUPPORT 12MM HIGH	1
0187	2640-4030-0703	M4 NUT (BLK)	4
0187	4135-1641-0	BRACKET HEATSINK	2
0188	4153-9291-0	FOAM 60X13X5 W/TAPE	4
0189	2444-1201-0	BUTTON TRIO (NICKEL)	1
0193	4154-0031-0	BEZEL TRIO (NICKEL)	1
0201	6360-0012-0	PLASTIC CABLE TIE (BLK)	13
0204	2601-2608-0601	FIBRE WASHER M2.6 0.8T	3
0205	4152-3291-1	FOAM 6X4X1.5T MM	1
0208	4152-1161-0	FOAM RUBBER 10X10X10 BK	2
0210	2954-2006-0000	TAPPING SCREW 2X6	6
0220	2600-4508-0980	WASHER M4.5 0.8T 0D=9.8	1
0302	4133-2090-0	2204-3 MTG BKT	2
0303	4132-4361-1	MOUNTING BKT -AMP NK110C	1
0304	4134-2461-0	HEAT SINK MOUNTING BKT	2
0305	2904-2606-0000	M.SCREW M2.6X6 BH YZ.	2
0306	2904-2606-0000	M.SCREW M2.6X6 BH YZ.	2
0311	4135-1651-0	BRACKET PCB-AMP2	1
0316	2954-3008-0000	TAPPING 3X8MM B-TITE	2
0319	4135-1791-0	BRACKET VOLUME T741	1
0321	2640-9020-1203	M9 NUT (BLK)	1
0322	2600-9005-1403	M9 WASHER BK ZINC	1
T002 	1806-2441-0	TRANSFORMER FOR T-741	1

- NOTE:**
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 - <*AH > : USA, Canadian model only.
 - <*C > : European model only.

PACKING DIAGRAM



ITEM	PART NO.	DESCRIPTION	Q'TY
36	1490-3584-2	POLYFORM ENDCAP	2
37	1497-1072-4	UNIT POLYBAG	1
38	1497-1162-0	FASCIA COVER	1
39	4060-0530-0	BATTERIES	2
40	2107-0661-1	300 OHM T ANTENNA	1
41	8912-0001-0	REMOTE CONTROL HANDSET	1
42	2103-6101-0	RF CONNECTOR PLUG	1
43	4301-4157-0	OWNER'S MANUAL	1
44	1497-1062-0	MANUAL POLYBAG	1
45	1480-2000-0	CARTON BOX	1
46	2113-1155-0	AM LOOP ANTENNA	1

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SERVICE MANUAL

T 741

SURROUND
SOUND RECEIVER

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