

SERVICE MANUAL



T 752

AV SURROUND
SOUND RECEIVER

T 752

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SOUND RECEIVER

SAFETY INFORMATION

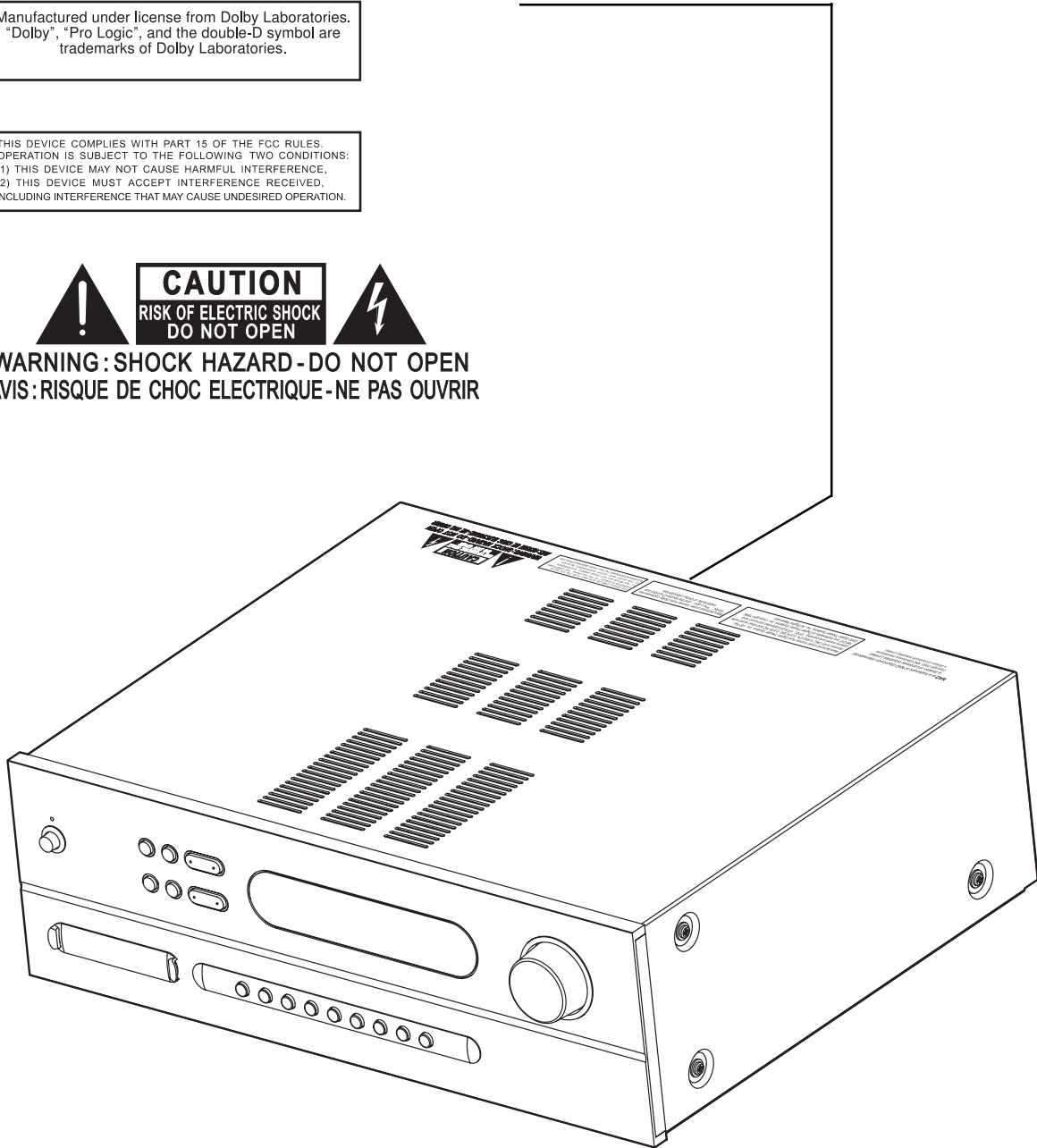
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THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE,
(2) THIS DEVICE MUST ACCEPT INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
WARNING : SHOCK HAZARD - DO NOT OPEN
AVIS : RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR



SERVICE SAFETY PRECAUTIONS

1. Replacing the fuses

CAUTION:

FOR CONTINUED PROTECTION AGAINST THE RISK OF FIRE REPLACE ONLY WITH SAME TYPE OF FUSE.

Reference Designator	Part Number	Description
F751*AH	33-0160001-00-48	Fuse 8A 250V Time Lag 5x20 MM UL/CSA
F751*C	33-0131002-00-48	Fuse 5A 250V Time Lag 5x20 MM SEMKO/VDE
F752*AH	33-0111006 -00-48	Fuse 1.6A 250V Time Lag 5x20 MM UL/CSA/VDE/SEMKO
F752*C	33-0151006 -00-48	Fuse 800mA 250V Time Lag 5x20 MM UL/CSA/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 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.

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SPECIFICATIONS

POWER AMPLIFIER SECTION

Rated distortion	(Rated power level into 8 ohms, THD 20 Hz-20 kHz FL/C/FR) (Rated power level into 8 ohms, THD 20 Hz-20 kHz SL/SR)	$\leq 0.1 \%$ $\leq 0.1 \%$
Input Sensitivity	(ref. 8 ohms, 1 kHz)	200 \pm 20 mV
S/N Ratio	(A-wtd, 1kHz, 1 W, 8 ohm, SL/SR) (A-wtd, 1kHz, 80 W, 8 ohm, SL/SR)	≥ -80 dB ≥ -96 dB
Frequency Response	(20 Hz - 20 kHz)	0 \pm 0.8 dB
Channel Balance	(1 dB to -40 dB, 1 kHz) (-41 dB to -50 dB, 1 kHz)	≤ 2 dB ≤ 3 dB
Audio muting at 1 kHz		≥ 55 dB
Subwoofer out, 500 mV in	(THD at 2 V O/P, 100 Hz)	$\leq 0.5 \%$
Crosstalk	(500 mV input, 10 W, 1 kHz)	≥ -70 dB
Controls		
Bass	(at 500 mV in, 1 W out, 100 Hz)	± 10 dB ± 2 dB
Treble	(at 500 mV in, 1 W out, 10 kHz)	± 10 dB ± 2 dB

DOLBY DIGITAL SECTION

Channel Difference(FL ref. Track 30)		± 1.2 dB
Frequency Response @ Dolby config.2	SL Track 46 200 - 20 kHz SR Track 47 200 - 20 kHz C Track 44 200 - 20 kHz	± 0.8 dB ± 0.8 dB ± 0.8 dB
Harmonic Distortion (1 W, Audio LPF, Dolby Config.1)	FL Track 65 997 Hz FR Track 67 997 Hz SL Track 68 997 Hz SR Track 69 997 Hz C Track 66 997 Hz	$\leq 0.08 \%$ $\leq 0.08 \%$ $\leq 0.08 \%$ $\leq 0.08 \%$ $\leq 0.08 \%$
S/N Ratio	(31 for O/P 1 W, Track 35) CCIR / ARM Audio LPF A-wtd	≥ 65 dB ≥ 70 dB ≥ 70 dB
Channel Separation	(1 W, 20 kHz LPF) Track 65 997 Hz	≥ 75 dB

DOLBY PRO LOGIC II SECTION

Frequency Response

I/P mode : L, R	: 1 V in, 1 W, Ch L/R	40 Hz 20 Hz	0 \pm 1.5 dB 0 \pm 0.8 dB
I/P mode : L, R	: 1 V in, 1 W, Ch C	300 Hz 20 Hz	0 \pm 0.8 dB 0 \pm 0.8 dB
I/P mode : L, R	: 1 V in, 1 W, Ch SL/SR	40 Hz 20 Hz	0 \pm 1.5 dB -3 \pm 1.0 dB
S/N Ratio (200 mV in, 1 W, A-WTD w/ 1 k 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 (2.2 V in, 1 W, w/ 80 kHz LPF, 1 kHz)			$\leq 0.2 \%$

AM TUNER SECTION

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

Usable sensitivity	(999/1000 kHz)		≤ 30 dBuv
S/N Ratio	(5 mV in)		≥ 30 dB
THD	(5 mV in)		≤ 3 %
IF Rejection	(450 kHz)		≤ 36 dB
Image Rejection	(F+2xIF)		≥ 28 dB
Selectivity			≥ 17 dB
Output			110 ± 20 mV
Loop sensitivity	(20 dB S/N)		
	999/1000 kHz		≤ 66 dB
	603/600 kHz		≤ 66 dB
	1404/1400 kHz		≤ 66 dB
Frequency Response	(100 - 2.3 kHz, 5 mV)		± 6 dB

FM TUNER SECTION

***C**

***AH**

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

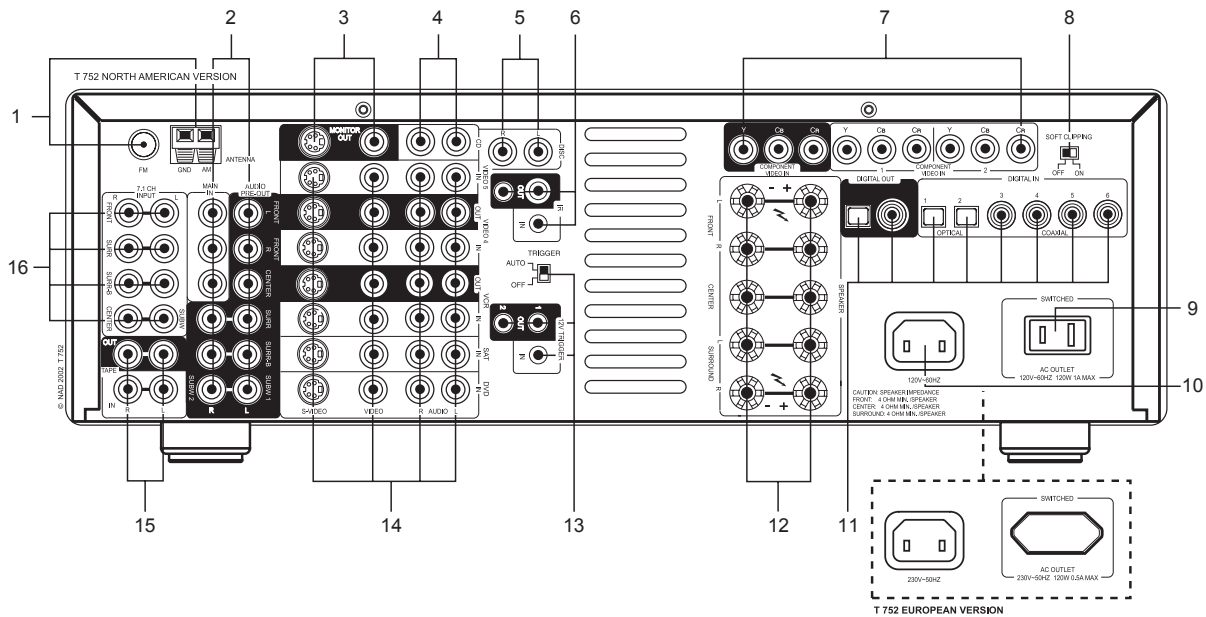
Usable sensitivity	(98 MHz)		≤ 15 dBuv	≤ 15 dBuv
S/N Ratio	(60 dB, IHF wtd)	Mono	≥ 65 dB	≥ 65 dB
		Stereo	≥ 60 dB	≥ 60 dB
Frequency Response	(20 Hz - 15 kHz, 60 dBm)		0 ± 1.5 dB	0 ± 1.5 dB
Channel Separation	(60 dBm)	100 Hz	≥ 30 dB	≥ 30 dB
		1 Hz	≥ 35 dB	≥ 35 dB
		10 Hz	≥ 20 dB	≥ 25 dB
Alternate Channel Selectivity (40 dBm, ± 400 kHz)			≥ 60 dB	≥ 45 dB
Capture Ratio	(40 dBm)		≤ 3 dB	≤ 3 dB
AM Suppression (60 dBm, 100% Mod. FM, 30% Mod. AM)			≥ 40 dB	≥ 40 dB
Image Rejection	(119.4 MHz)		≥ 65 dB	≥ 65 dB
I.F. Rejection	(10.7 MHz)		≥ 78 dB	≥ 65 dB
Pilot Suppression	(60 dBm)		≥ 60 dB	≥ 60 dB
THD (60 dBm, L=R 75 kHz for AH, 40 kHz Dev for C)		Mono	≤ 0.8 %	≤ 0.8 %
		Stereo	≤ 1 %	≤ 1 %
Auto-Search Sensitivity		On	≥ 24 dBuv	≥ 24 dBuv
		Off	≤ 15 dBuv	≤ 15 dBuv
RDS decode Sensitivity			≤ 26 dBuv	-

PHYSICAL SPECIFICATIONS

Dimensions (Width x Height x Depth)	435 x 133 x 349 mm
Net Weight	14.40 Kg (31.68 lbs)
Shipping Weight	16.00 Kg (35.20 lbs)

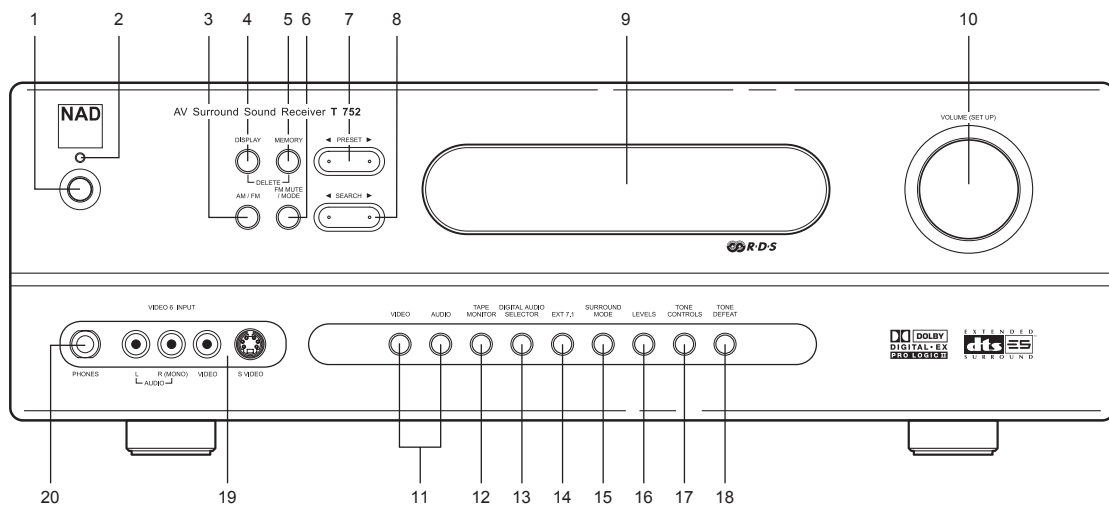
REAR PANEL / FRONT PANEL VIEW

REAR PANEL



- | | |
|---|---|
| 1. FM & AM ANTENNA | 9. SWITCHED POWER OUTLETS |
| 2. MAIN IN / AUDIO PRE-OUTS / SUBWOOFER OUT | 10. AC POWER CORD |
| 3. MONITOR OUT | 11. DIGITAL AUDIO INPUTS & DIGITAL AUDIO OUTPUT |
| 4. CD INPUT | 12. FRONT, CENTER & SURROUND SPEAKERS |
| 5. DISC INPUT | 13. 12V TRIGGER INPUT & OUTPUT |
| 6. IR INPUT & OUTPUT | 14. VIDEO 1 - VIDEO 5 (AUDIO & VIDEO) |
| 7. COMPONENT VIDEO IN & COMPONENT VIDEO OUT | 15. TAPE INPUT & OUTPUT |
| 8. SOFT CLIPPING ON/OFF | 16. 7.1 CHANNEL INPUTS |

FRONT PANEL



- | | | |
|---------------------|----------------------------|-------------------|
| 1. POWER | 8. SEARCH DOWN / UP | 15. SURROUND MODE |
| 2. STAND-BY | 9. VFL DISPLAY | 16. LEVELS |
| 3. AM / FM | 10. VOLUME | 17. TONE CONTROLS |
| 4. DISPLAY | 11. VIDEO & AUDIO | 18. TONE DEFEAT |
| 5. MEMORY | 12. TAPE MONITOR | 19. VIDEO 6 INPUT |
| 6. FM MUTE / MONO | 13. DIGITAL AUDIO SELECTOR | 20. PHONES |
| 7. PRESET DOWN / UP | 14. EXT. 7.1 | |

DISASSEMBLY INSTRUCTIONS

1. Remove machine screws M4.0 x 8.0 (1 to 6) from the side panels. Remove tapping screw 3.0 x 8.0 (7 to 10) from the back panel. Refer to **Figure No. 1**.

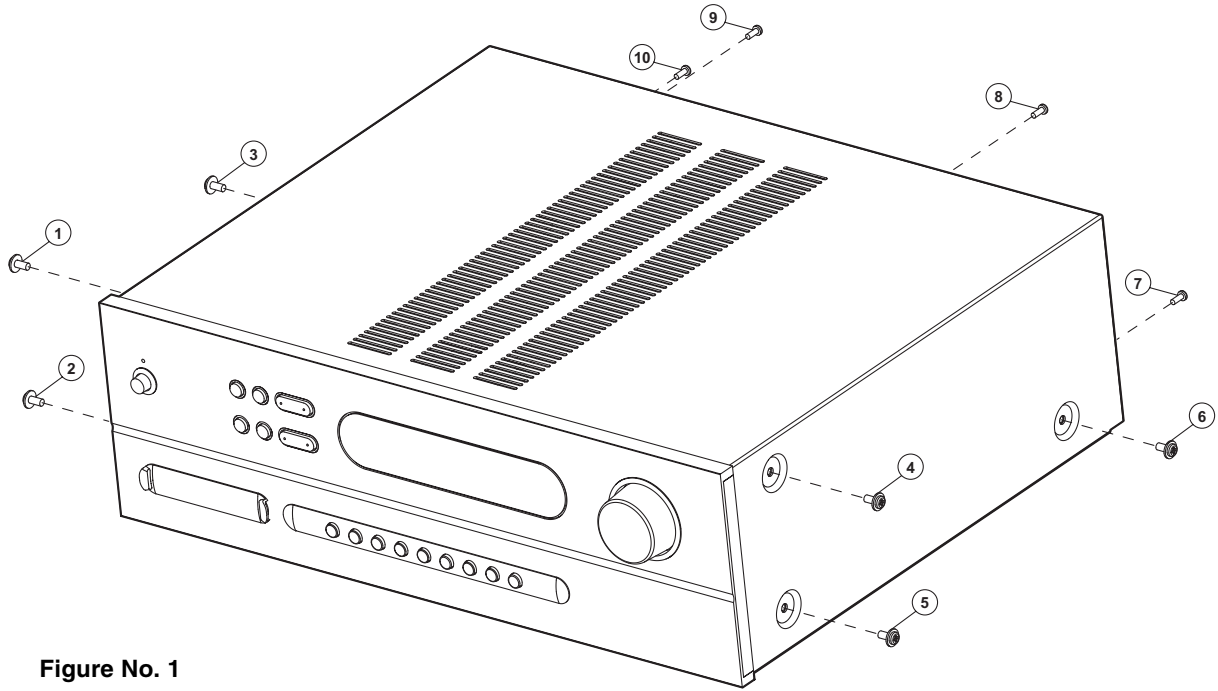


Figure No. 1

2. Pull both sides of the TOP COVER slightly outwards 11 and tilt approx. 35 ° and then remove in the direction as indicated by the arrow 12. Refer to **Figure No. 2**.

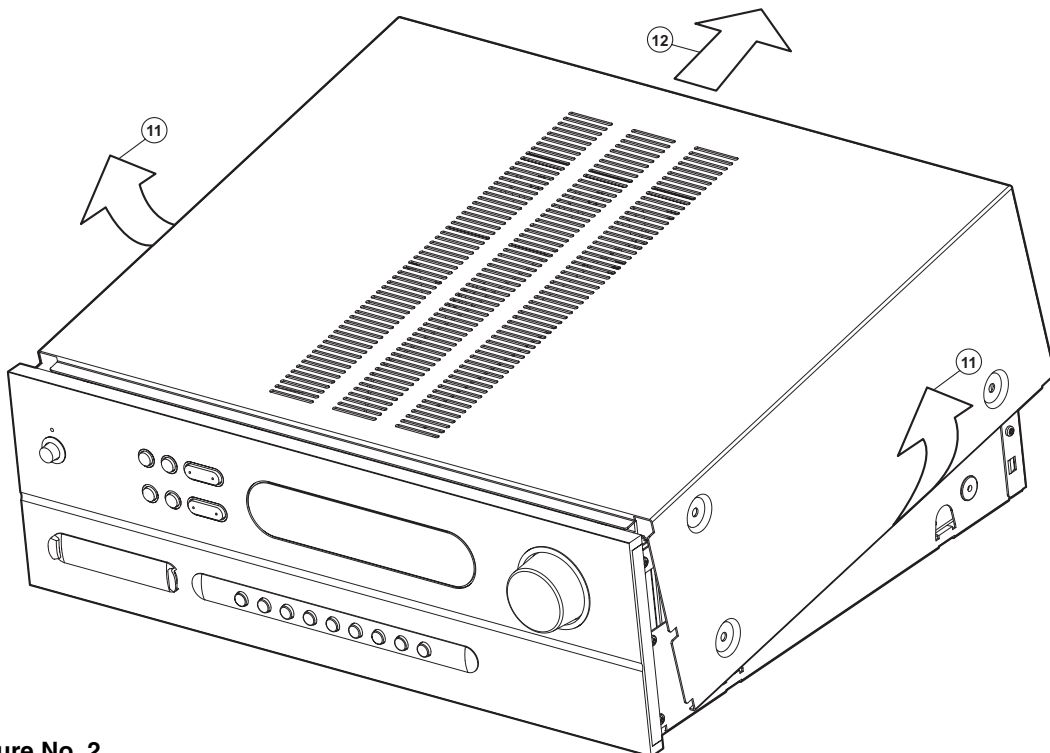
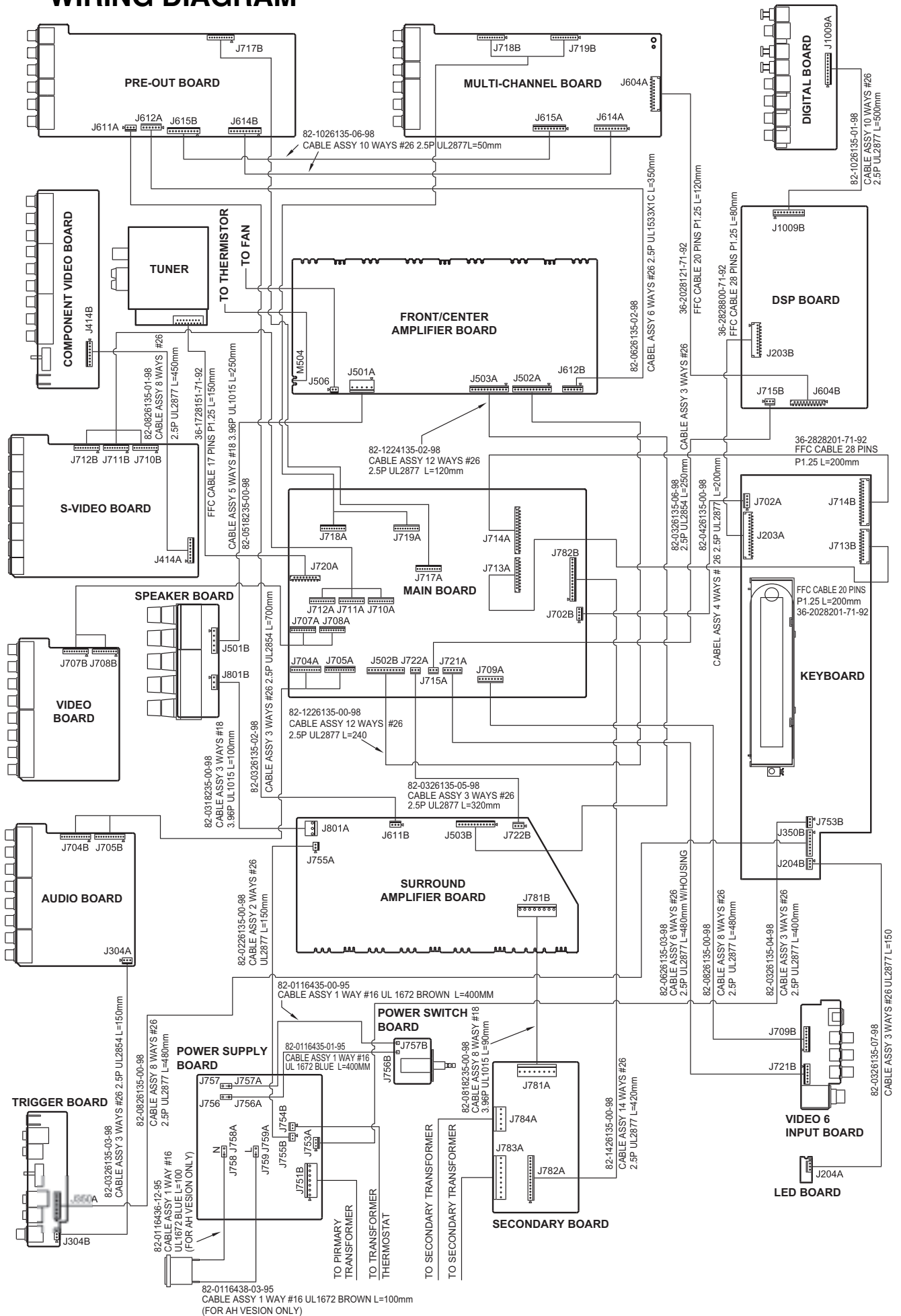


Figure No. 2

WIRING DIAGRAM



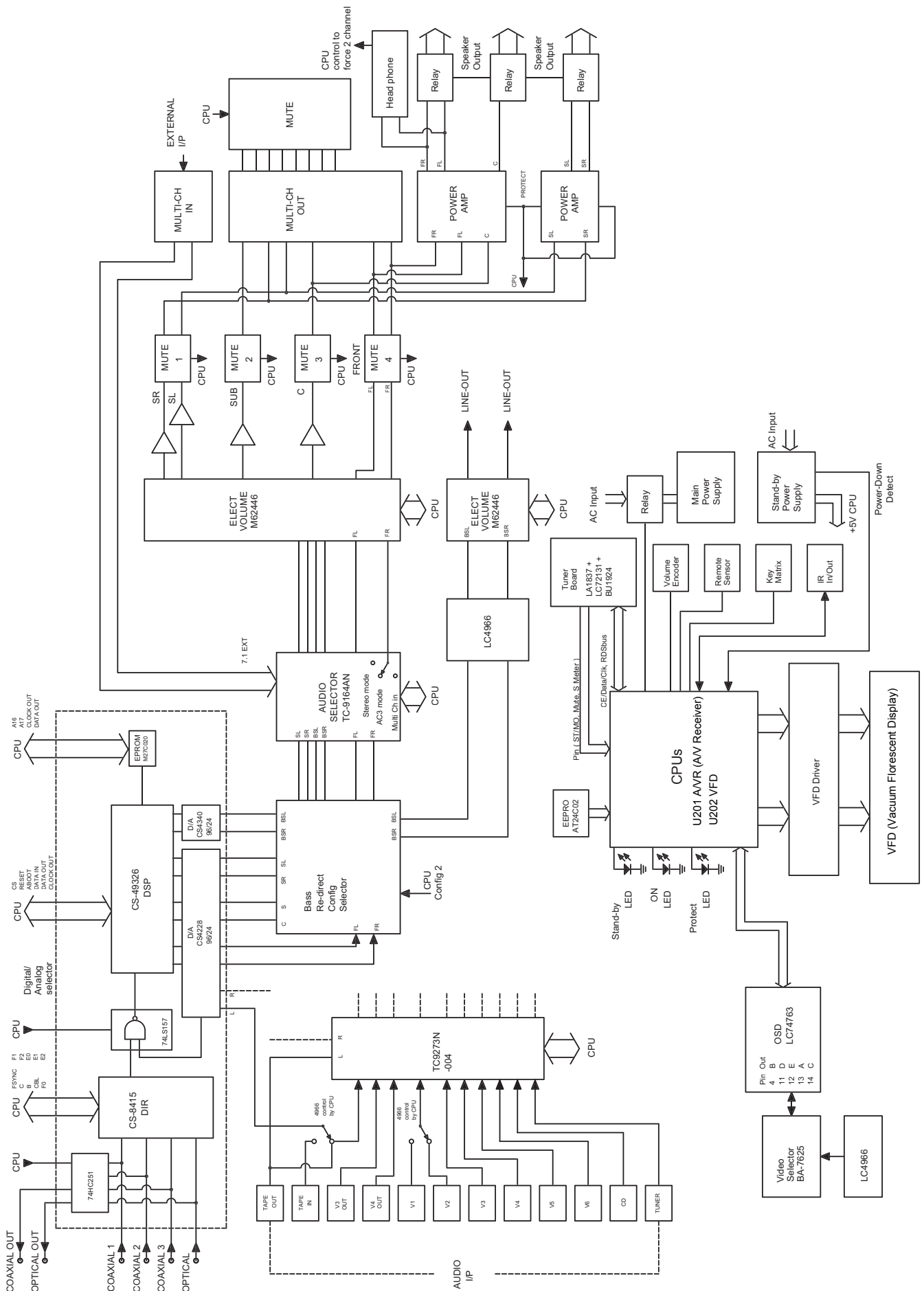
MODEL: T752

CABLE HARNESS CROSS REFERENCE

<u>Part No.</u>	<u>Description</u>	<u>Location</u>	<u>Start</u>	<u>End</u>
Normal Front and Center Amp Board				
82-1224135-02-98	CABLE ASSY 12 WAYS AWG=26 2.5P UL2877 L=120mm	J503A	FR & C Amp board	Surr Amp Board
Normal Surround Amp Board				
82-0318235-03-98	CABLE ASSY 3 WAYS AWG=18 3.96P UL1007 L=180mm	J504B	Surr Amp Board	FR & C Amp board
82-0818235-00-98	CABLE ASSY 8 WAYS AWG=18 3.96P UL1015 L=90mm	J781B	Surr Amp Board	Secondary Board
Normal Component Video Board				
82-0826135-01-98	CABLE ASSY 8 WAYS AWG=26 2.5P UL2877 L=450mm	J414B	Component Video Board	S-Video Board
Normal Digital Input Board				
82-0426135-02-98	CABLE ASSY 4 WAYS AWG=26 2.5P UL2877 L=500mm	J1010A	Digital Input Board	DSP Board
82-1226135-03-98	CABLE ASSY 12 WAYS AWG=26 2.5P UL1533 L=500mm	J1009A	Digital Input Board	DSP Board
Normal Keyboard				
82-0118435-00-98	CABLE ASSY 1 WAY AWG18 UL1007 BLACK L=100mm W/ RING TERMINAL	J201	Keyboard	Subfascia
82-0326135-04-98	CABLE ASSY 3 WAYS AWG=26 2.5P UL2877 L=400mm	J753B	Keyboard	Power Supply Board
82-0426135-00-98	CABEL ASSY 4 WAYS AWG=26 2.5P UL2877 L=200mm	J702A	Keyboard	Main Board
Normal LED Board				
82-0326135-07-98	CABLE ASSY 3 WAYS AWG=26 UL2877 L=150mm	J204A	LED Board	Keyboard
Normal Main Board				
82-0326135-05-98	CABLE ASSY 3 WAYS AWG=26 2.5P UL2877 L=320mm	J722A	Main Board	Surr Amp Board
82-0326135-06-98	CABLE ASSY 3 WAYS AWG=26 2.5P UL2854 L=250mm	J715A	Main Board	DSP Board
82-0626135-03-98	CABLE ASSY 6 WAYS AWG=26 2.5P UL2877 L=480mm W/HOUSING	J721A	Main Board	Video-6 Board
82-0826135-00-98	CABLE ASSY 8 WAYS AWG=26 2.5P UL2877 L=480mm	J709A	Main Board	Video-6 Board
82-1226135-00-98	CABLE ASSY 12 WAYS AWG=26 2.5P UL2877 L=240mm	J502B	Main Board	FR & C Amp board
Normal Speaker Board				
82-0318235-02-98	CABLE ASSY 3 WAYS AWG=18 3.96P UL1007 L=120mm	J801B	Speaker Board	Surr Amp Board
82-0518235-02-95	CABLE ASSY 5 WAYS AWG=18 3.96P UL1007 L=350mm	J786B	Speaker Board	Secondary Board
82-0518235-03-98	CABLE ASSY 5 WAYS AWG=18 3.96P UL1007 L=300mm	J501B	Speaker Board	FR & C Amp board
Normal Pre-Out Board				
82-0326135-02-98	CABLE ASSY 3 WAYS AWG=26 2.5P UL2854 L=700mm	J611A	Pre-Out Board	Surr Amp Board
82-0626135-02-98	CABEL ASSY 6 WAYS AWG=26 2.5P UL1533X1C L=350mm	J612A	Pre-Out Board	FR & C Amp board
82-1026135-06-98	CABLE ASSY 10 WAYS AWG=26 2.5P UL2877L=50mm	J614B	Pre-Out Board	Multi-Channel Board
82-1026135-06-98	CABLE ASSY 10 WAYS AWG=26 2.5P UL2877L=50mm	J615B	Pre-Out Board	Multi-Channel Board
Normal Power Switch Board				
82-0116435-00-95	CABLE ASSY 1 WAYS AWG=16 UL1672 BROWN L=370mm	J757B	Power Switch Board	Power Supply Board
82-0116435-01-95	CABLE ASSY 1 WAYS AWG=16 UL1672 BLUE L=370mm	J756B	Power Switch Board	Power Supply Board

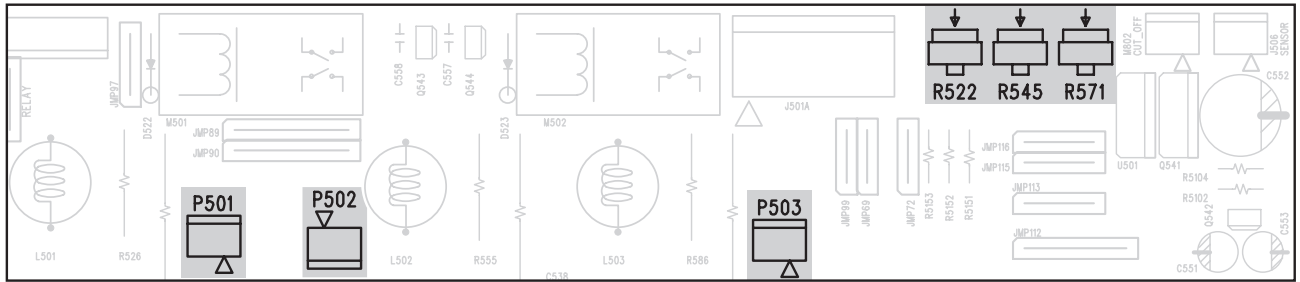
Normal Secondary Board									
82-1426135-00-98	CABLE ASSY 14 WAYS AWG=26 2.5P UL2877 L=420mm				J782A	Secondary Board	Main Board		
Normal Trigger Board									
82-0326135-03-98	CABLE ASSY 3 WAYS AWG=26 2.5P UL2854 L=150mm				J304B	Trigger Board	Audio Board		
82-0826135-00-98	CABLE ASSY 8 WAYS AWG=26 2.5P UL2877 L=480mm				J350A	Trigger Board	Keyboard		
Normal Video-6 Board									
82-0118435-00-98	CABLE ASSY 1 WAY AWG18 UL 1007 BLACK L=100mm W/ RING TERMINAL				P4401	Video-6 Board	Chassis		
Casing									
36-1728201-71-26	FFC CABLE 17 PINS P1.25 L=200mm				J720C	Main Board	Tuner		
36-2028121-71-92	FFC CABLE 20 PINS P1.25 L=120mm				J604C	DSP Board	Multi-Channel Board		
36-2028201-71-92	FFC CABLE 20 PINS P1.25 L=200mm				J713C	Main Board	Keyboard		
36-2828201-71-92	FFC CABLE 28 PINS P1.25 L=200mm				J714C	Main Board	Keyboard		
36-2828800-71-92	FFC CABLE 28 PINS P1.25 L=80mm				J203C	Keyboard	DSP Board		
82-0116436-12-95	CABLE ASSY 1 WAY AWG=16 UL1672 BROWN L=100mm				J759	AC Outlet	Power Supply Board		
82-0116438-03-95	CABLE ASSY 1 WAY AWG=16 UL1672 BLUE L=100mm				J758	AC Outlet	Power Supply Board		

BLOCK DIAGRAM

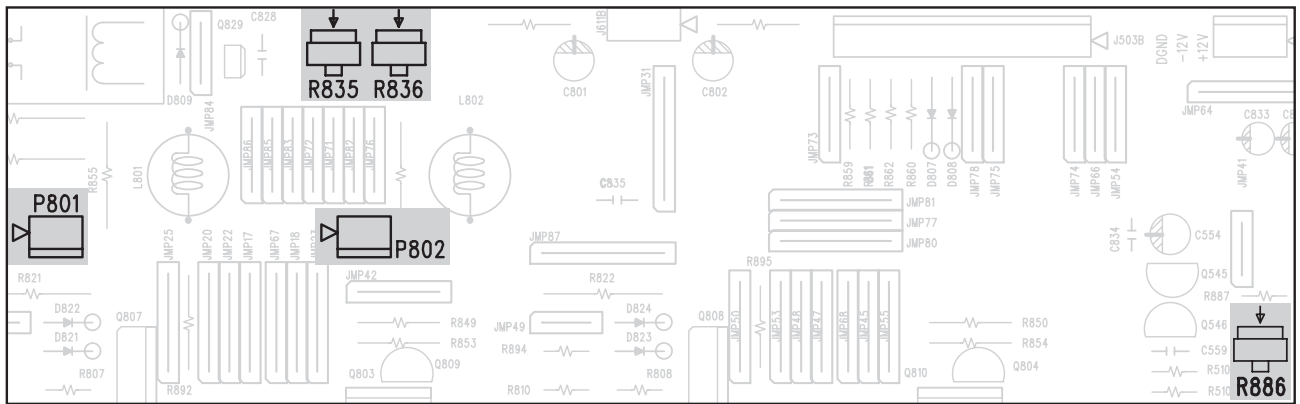


ADJUSTMENT POINT DIAGRAM

FRONT/CENTER AMPLIFIER BOARD



SURROUND AMPLIFIER BOARD



AMPLIFIER ADJUSTMENT

Idle Current

1. Rotate R522 fully clockwise.
2. Connect DC millivoltmeter to P501 (i.e. Across half of R523, 0.22 Ohm resistor).
3. Turn on the unit.
4. Adjust R522 for 1mV reading on voltmeter.
5. Leave power on for at least 5 min, and check for idle current again.
6. Repeat for other channels.

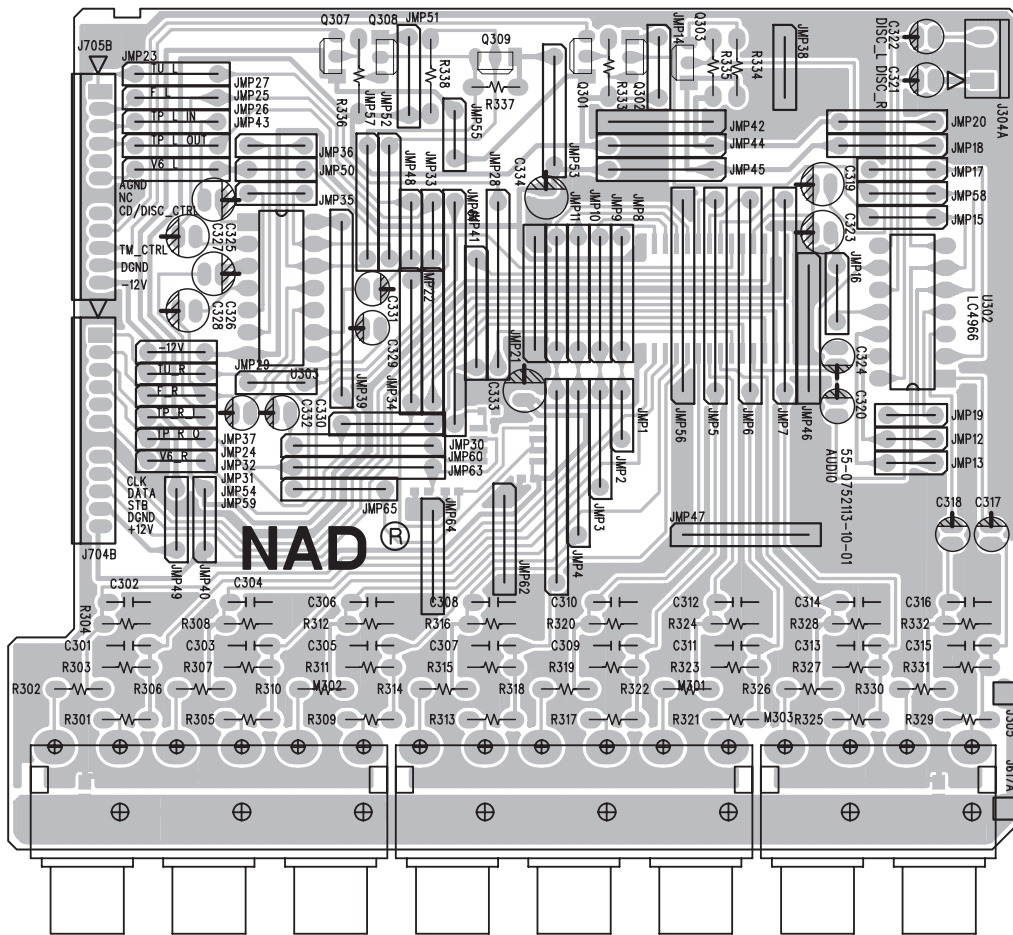
CHANNEL	JUMPER	VR
FL	P503	R571
FR	P502	R545
C	P501	R522
SL	P801	R835
SR	P802	R836

ISC Sensitivity

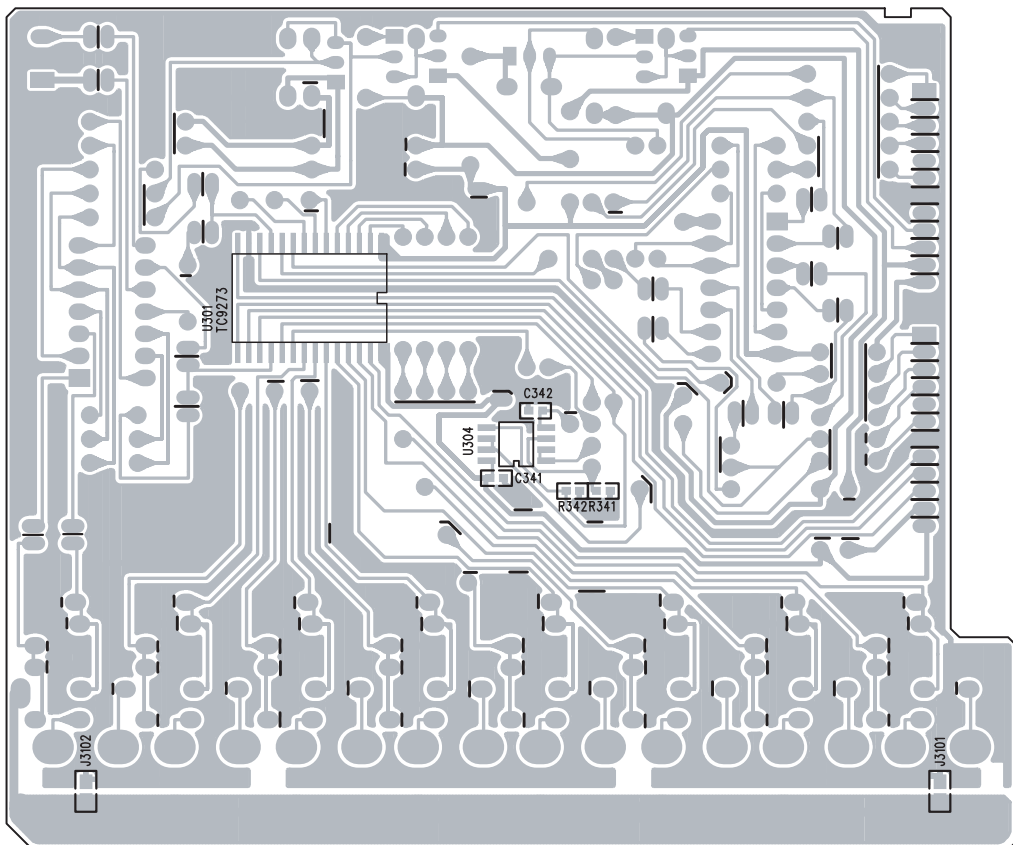
1. Connect 8 ohm loading to all channels.
2. Rotate R886 fully clockwise.
3. Load all channels at full power using 1kHz sine wave.
4. At this time, monitor the THD of the output. Clipping should occur before full power achieved.
5. Rotate R886 counter-clockwise slowly until the THD just below 0.1%.
6. The procedure is finish at this step.
7. Load all channels at full power using 1kHz sine wave with 4 ohm load.
8. The clipping power(at THD 0.1%) should less than 85W.

PCB LAYOUT

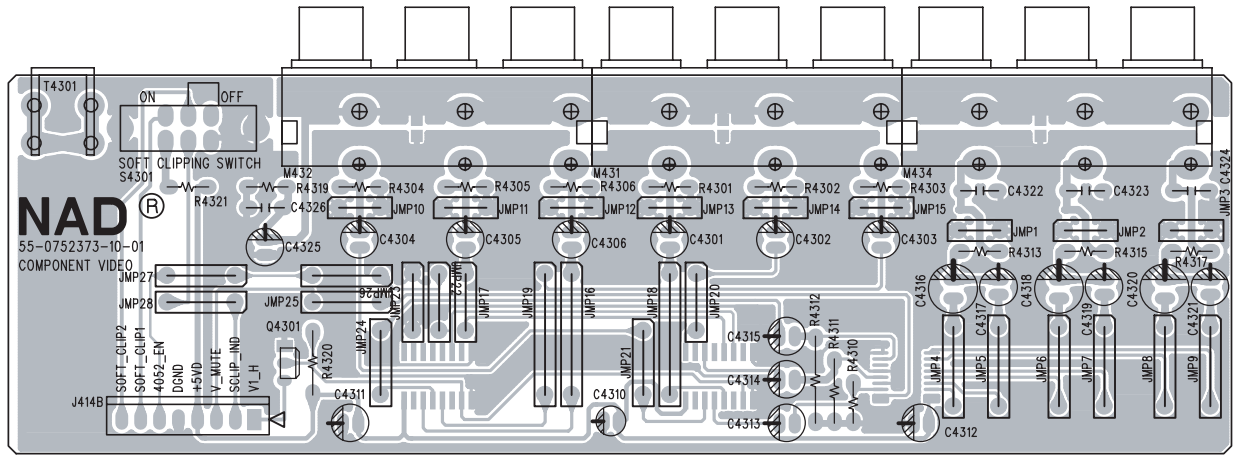
AUDIO BOARD - COMPONENT SIDE



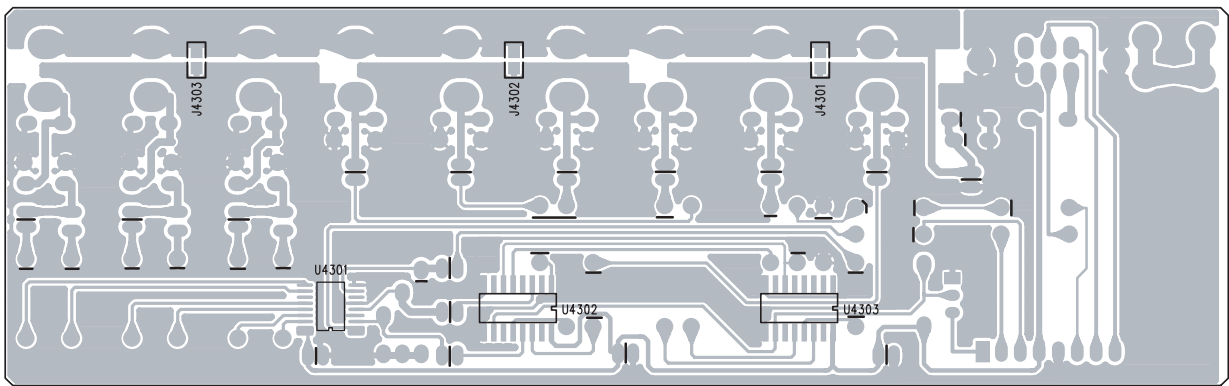
AUDIO BOARD - COPPER SIDE



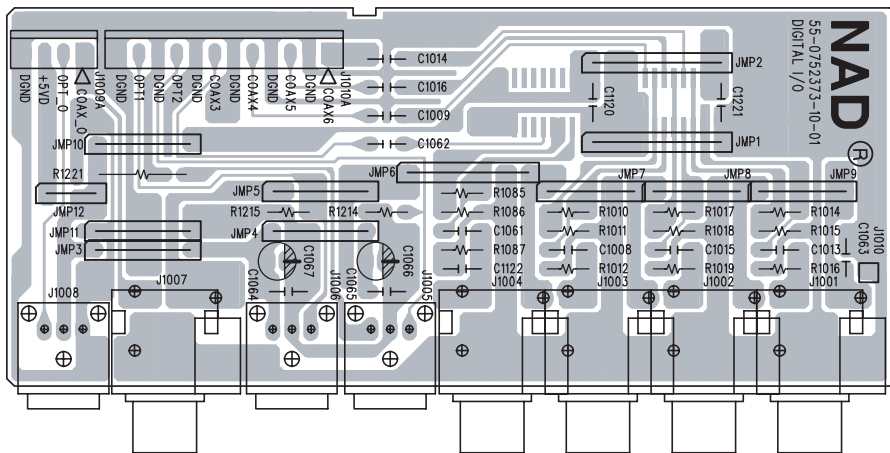
COMPONENT VIDEO BOARD - COMPONENT SIDE



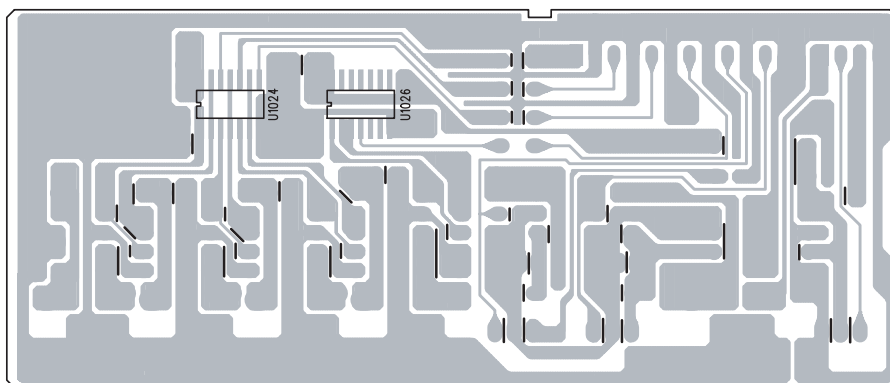
COMPONENT VIDEO BOARD - COPPER SIDE



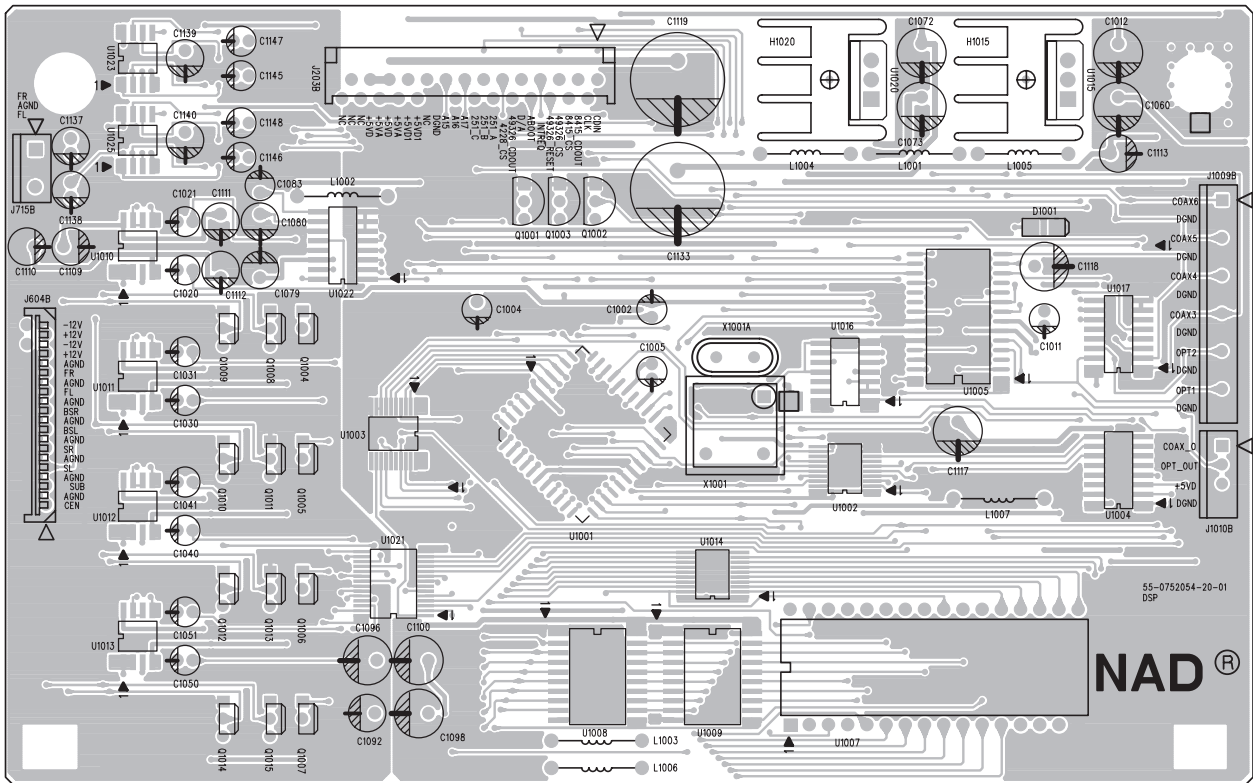
DIGITAL BOARD - COMPONENT SIDE SIDE



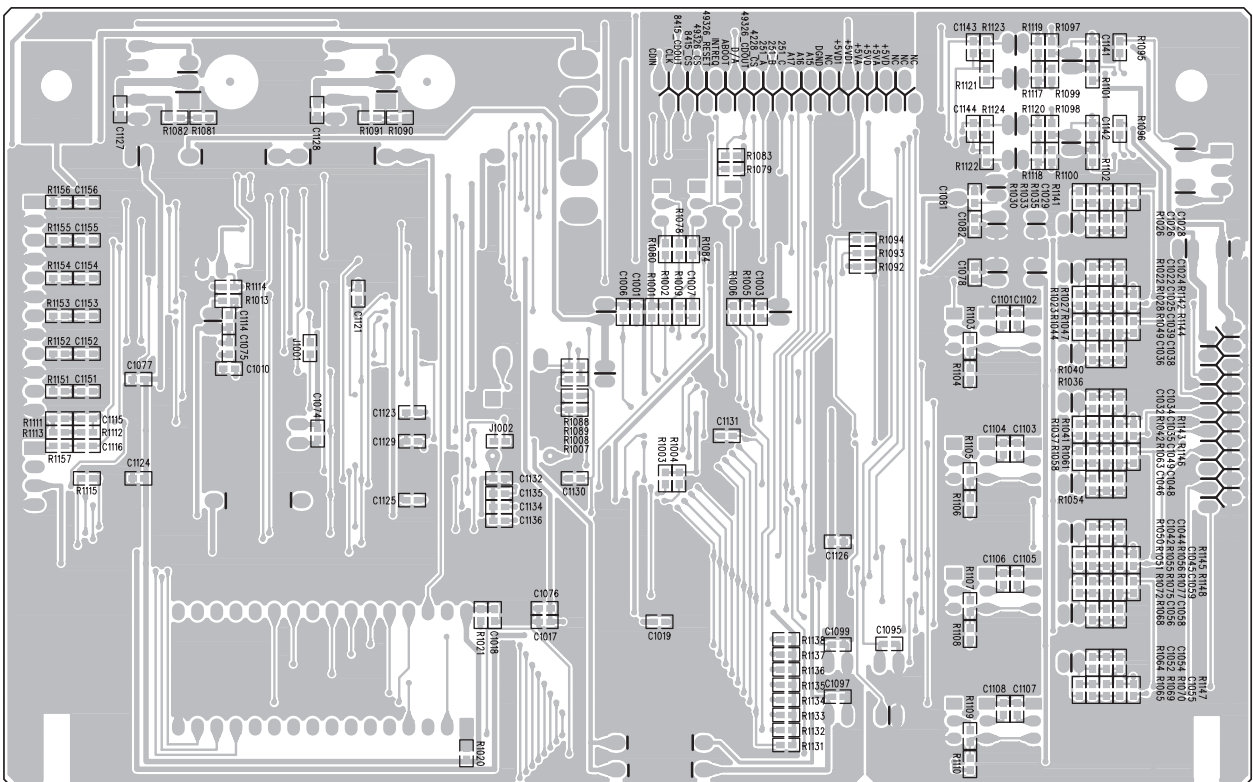
DIGITAL BOARD - COPPER SIDE



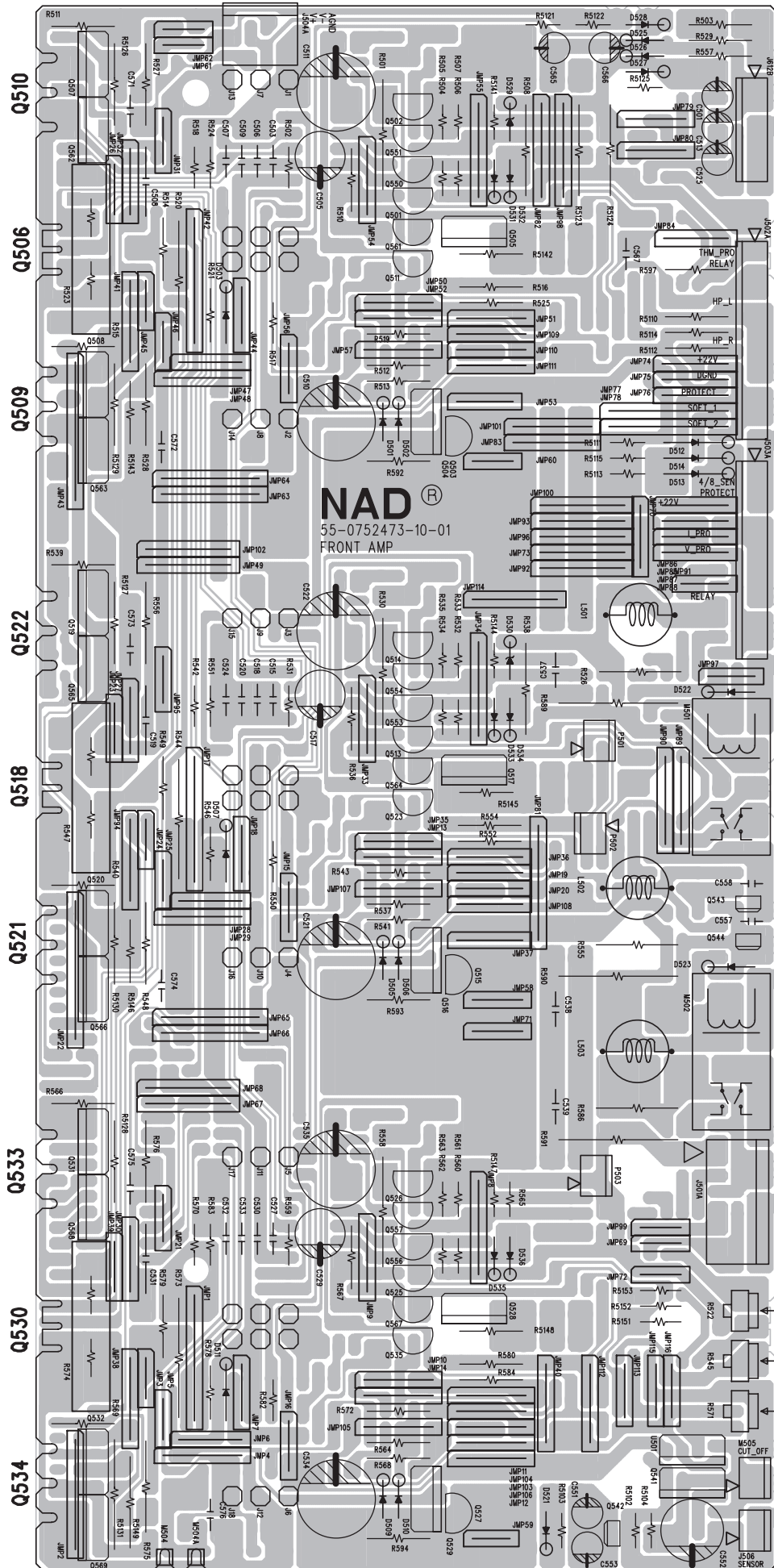
DSP BOARD - COMPONENT SIDE



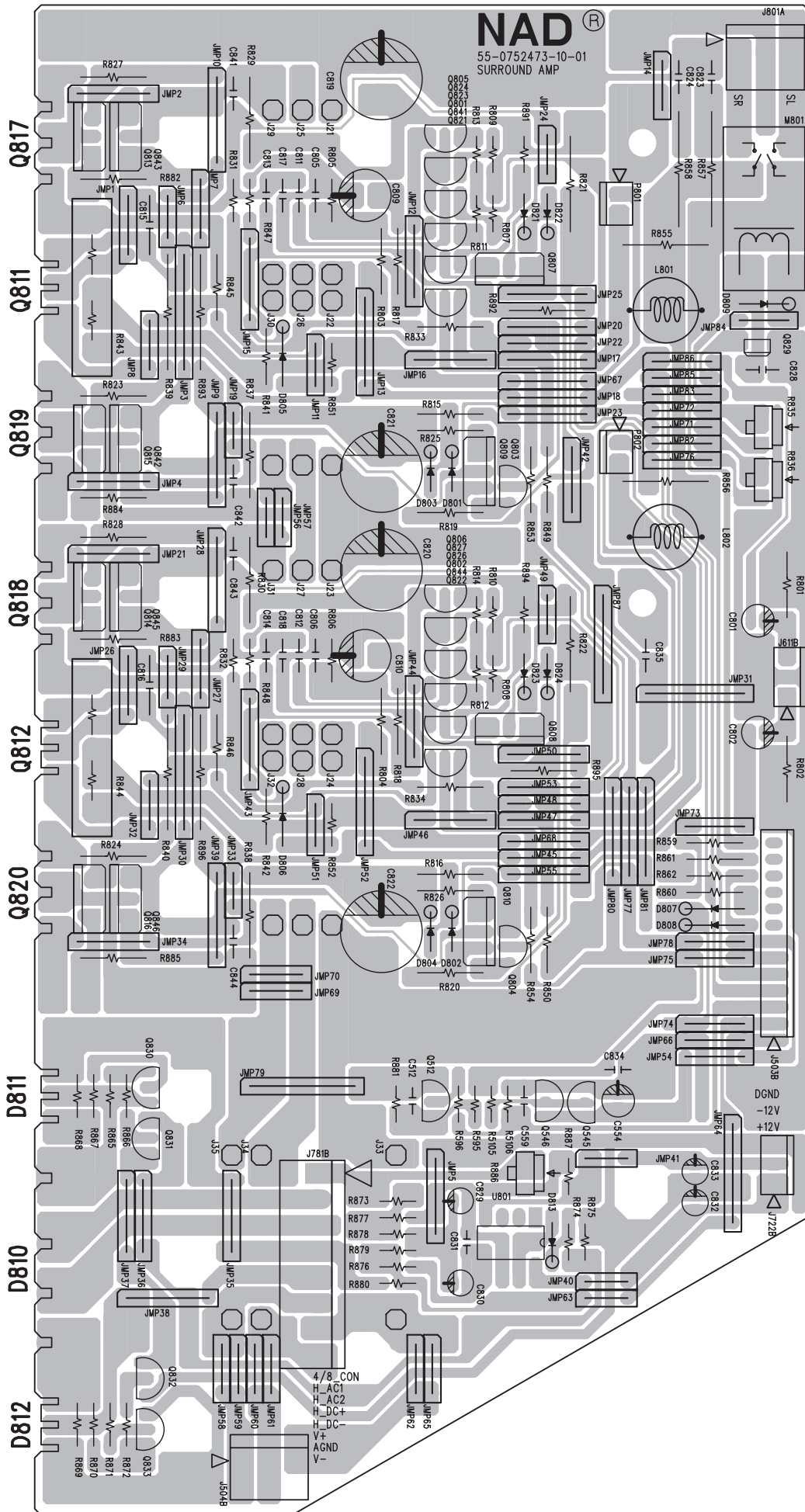
DSP BOARD - COPPER SIDE



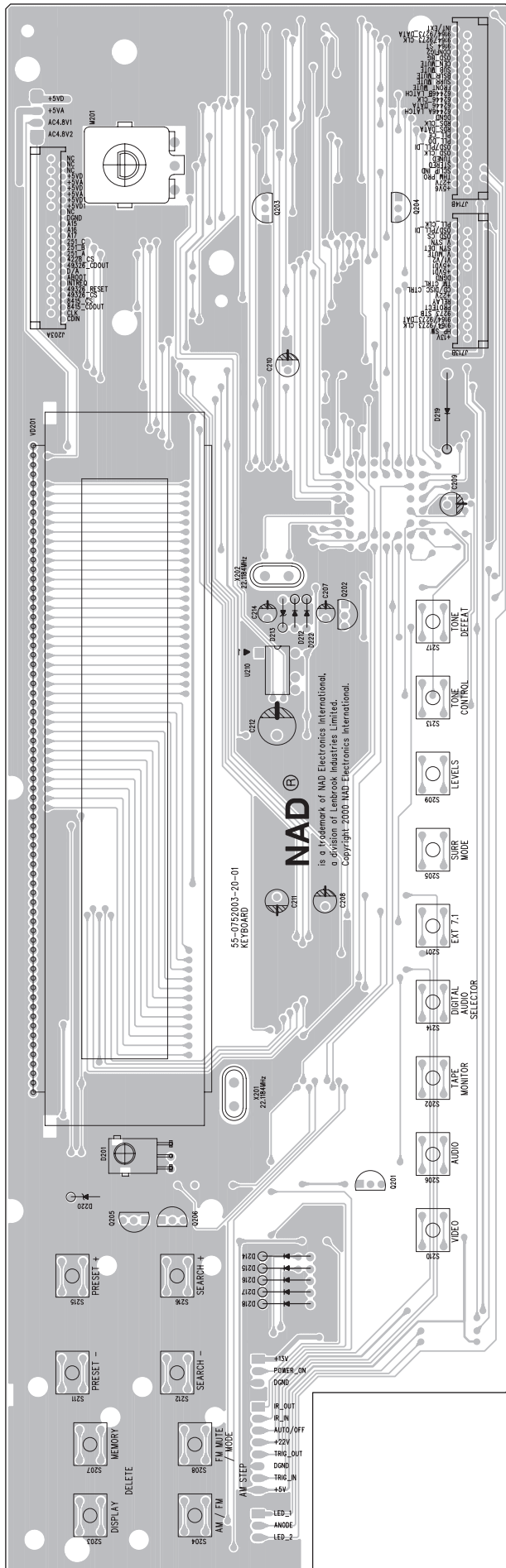
FRONT/CENTER AMPLIFIER BOARD



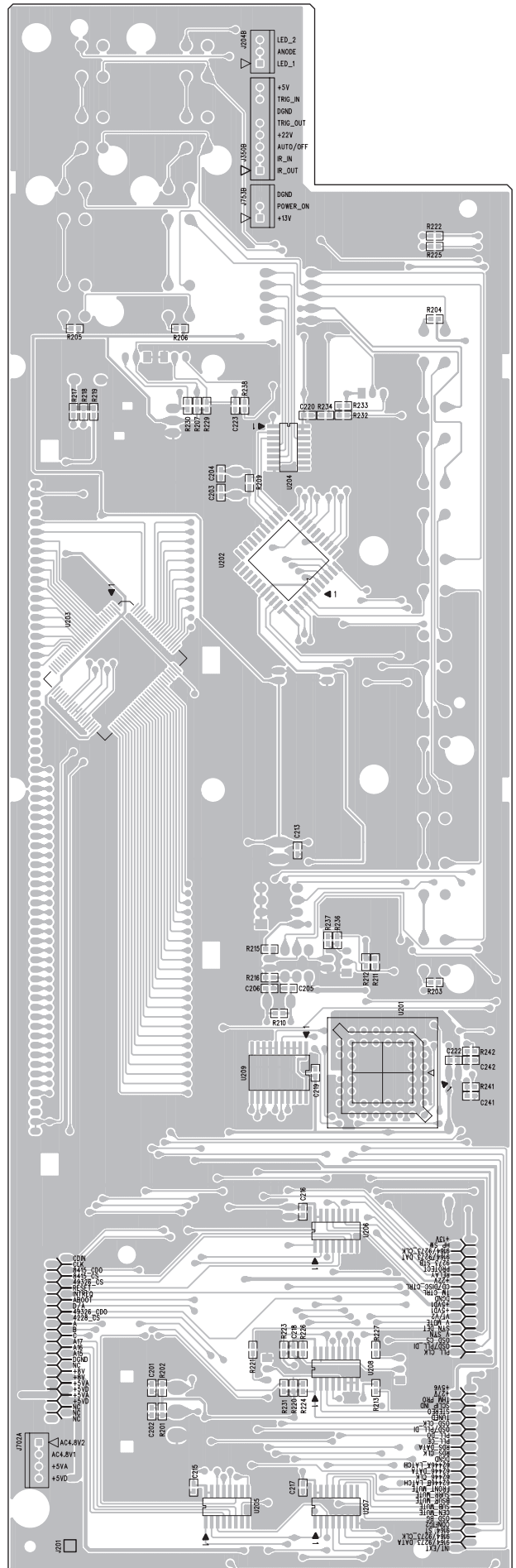
SURROUND AMPLIFIER BOARD



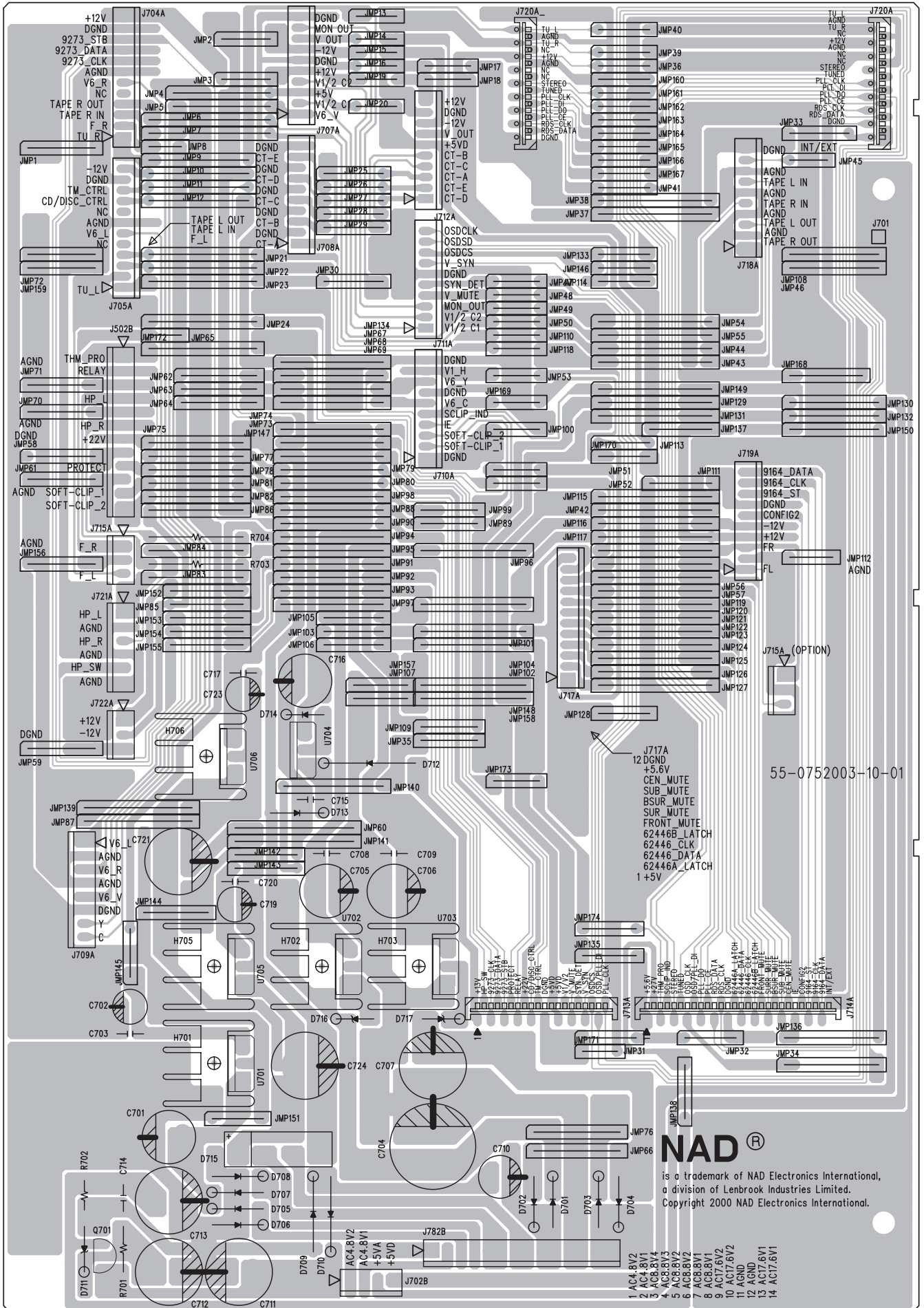
KEY BOARD - COMPONENT SIDE



KEY BOARD - COPPER SIDE



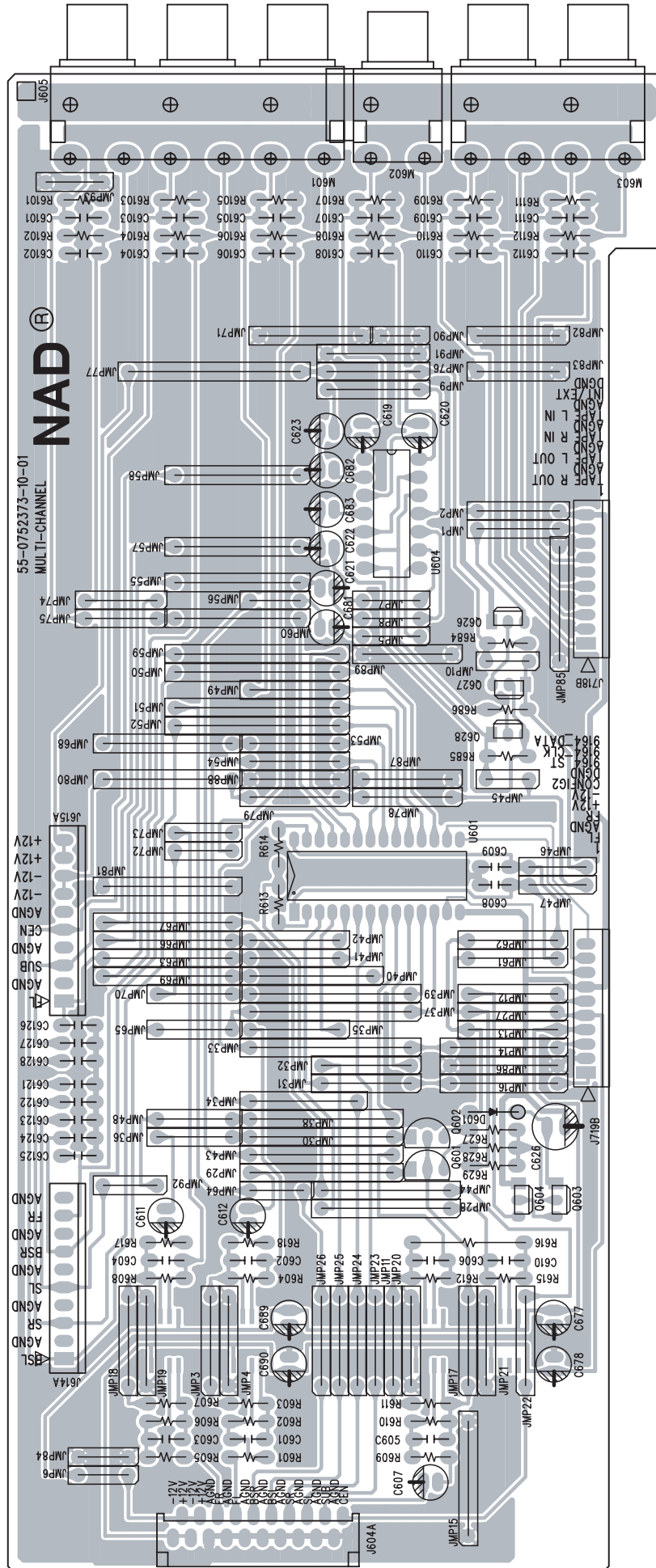
MAIN BOARD



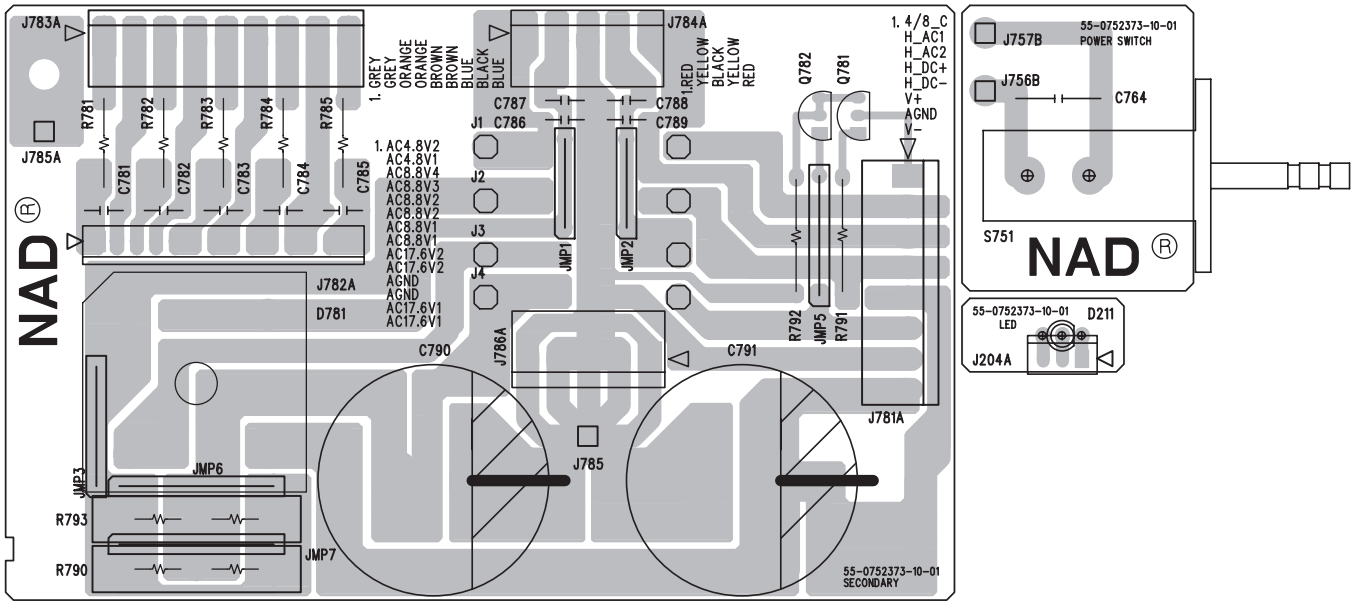
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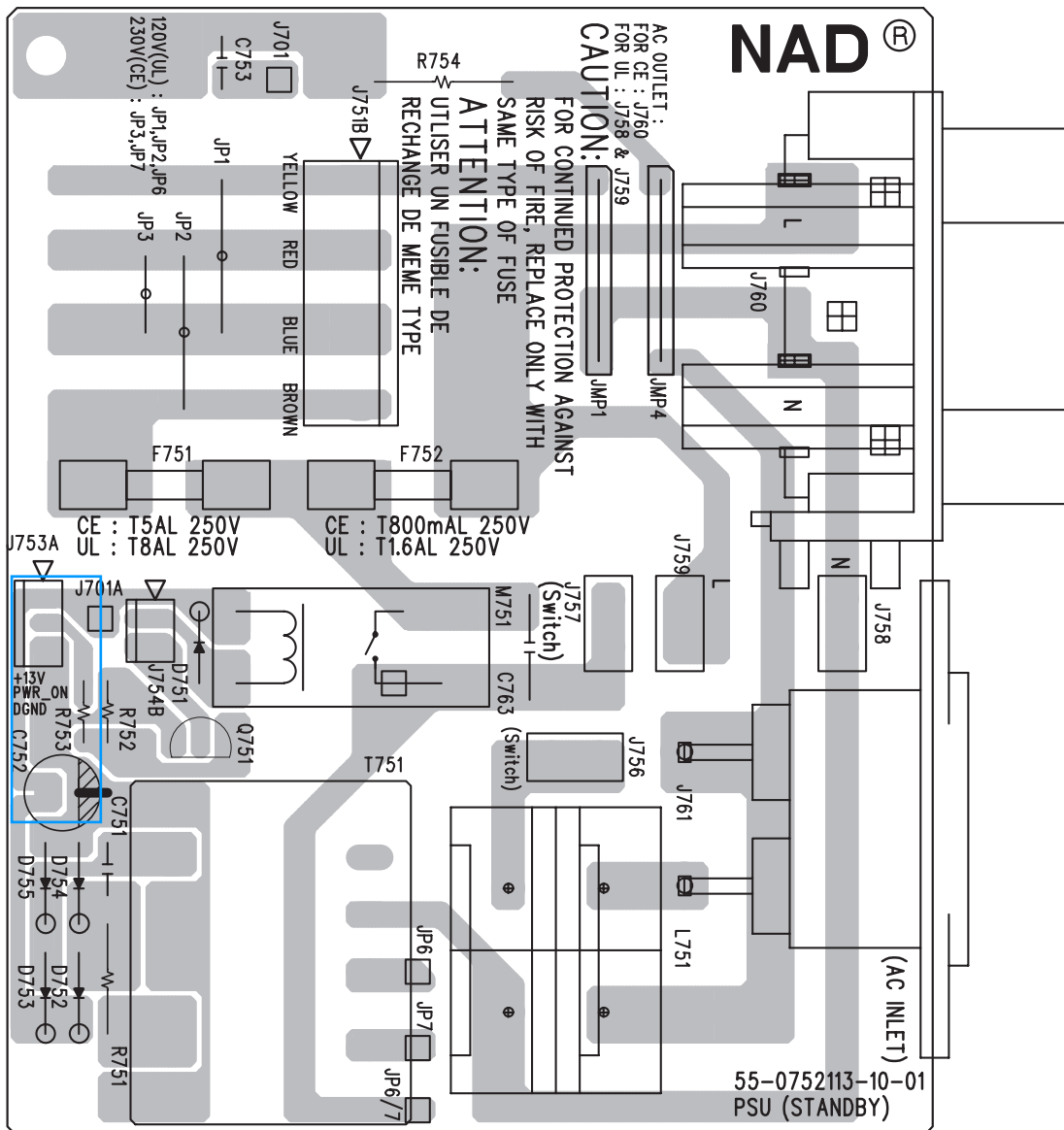
MULTI-CHANNEL BOARD



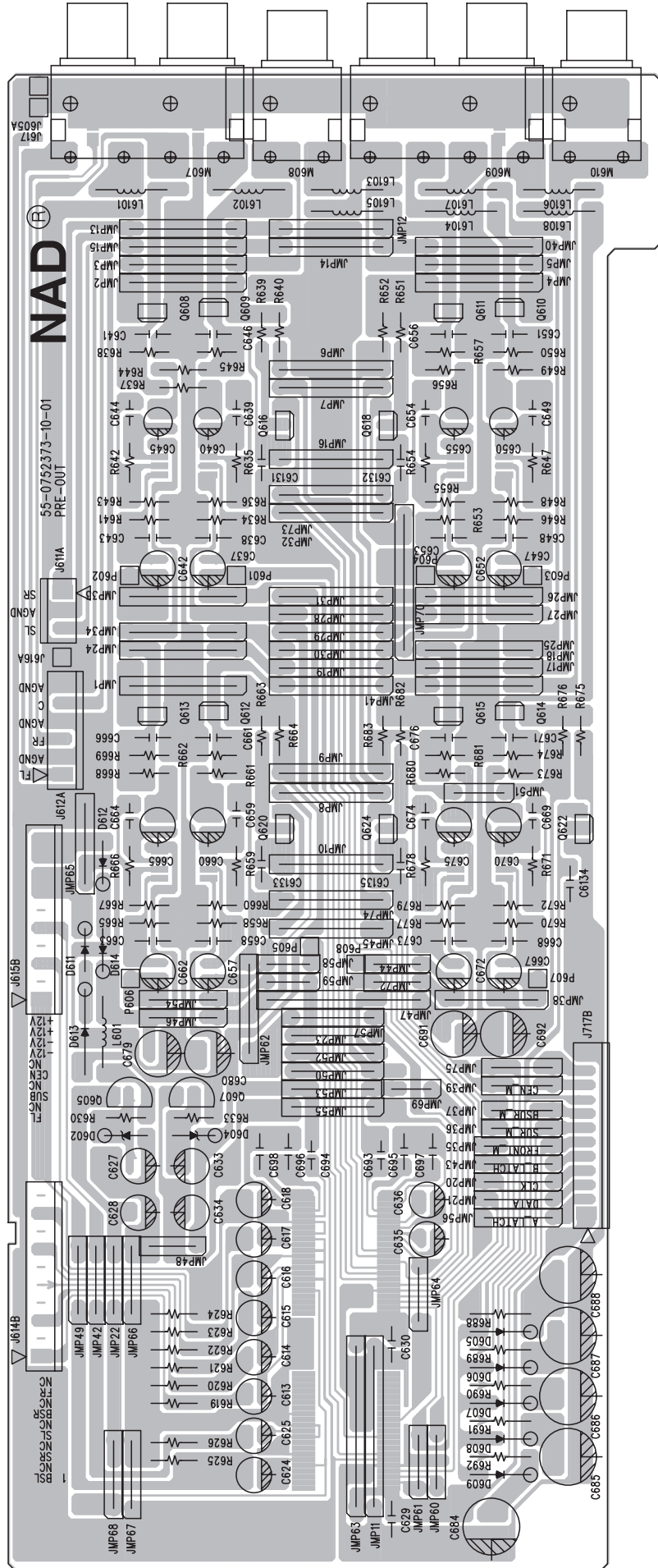
SECONDARY/POWER SWITCH/LED BOARD



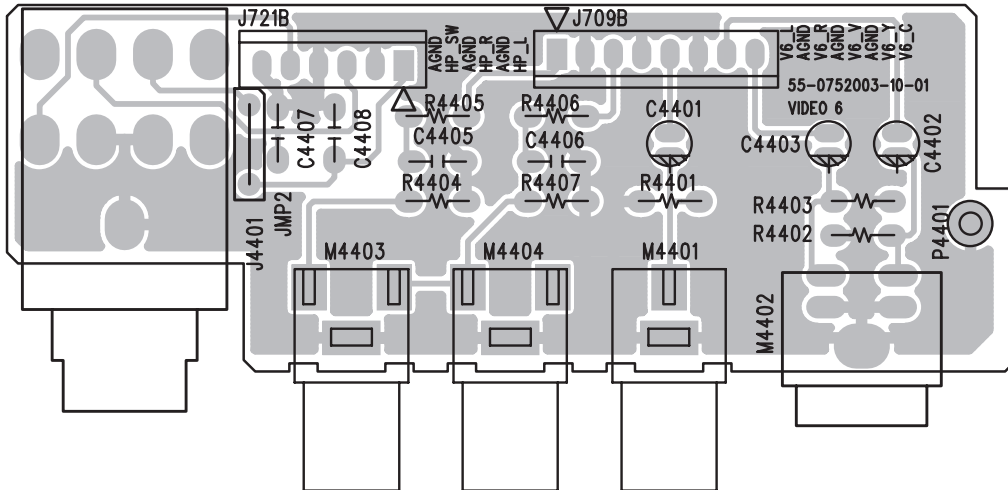
POWER SUPPLY BOARD (STANDBY)



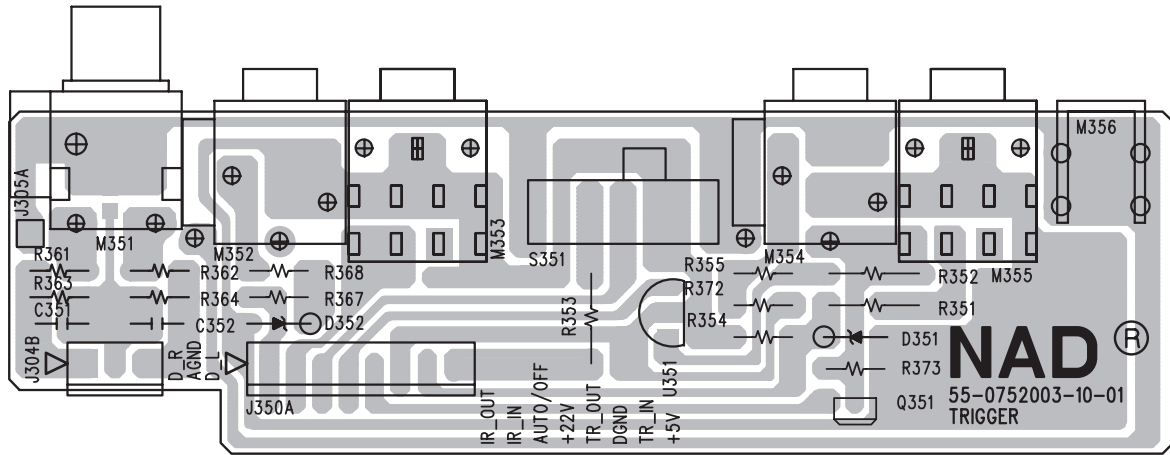
PRE-OUT BOARD



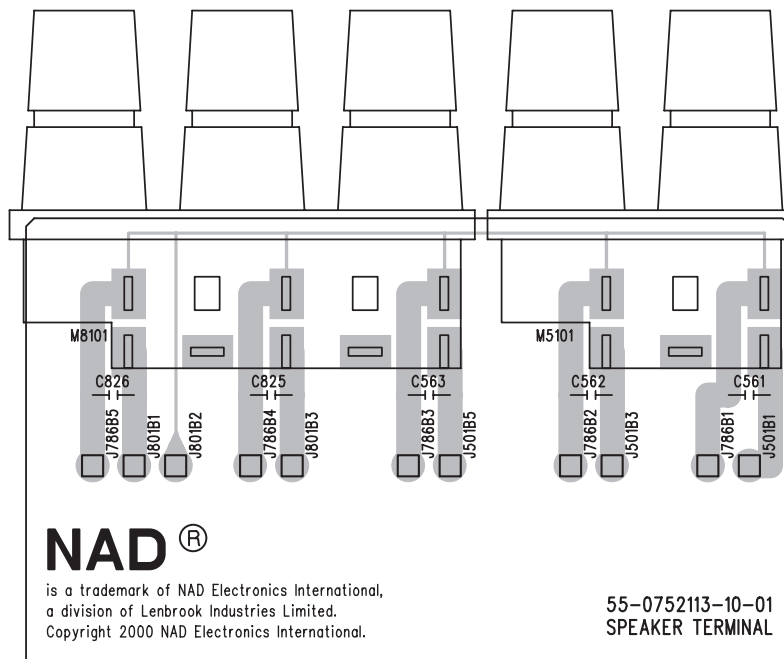
VIDEO 6 BOARD



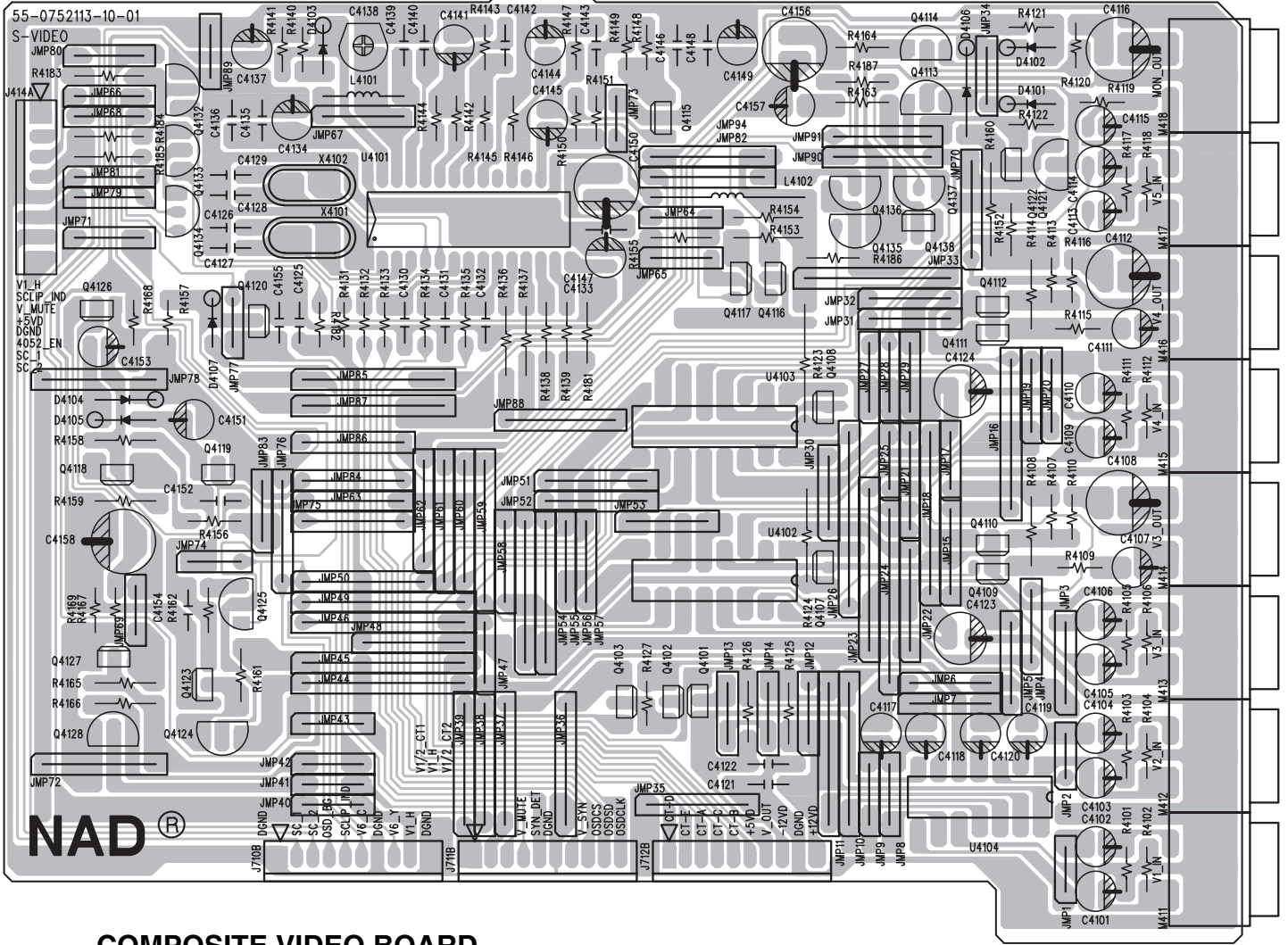
TRIGGER BOARD



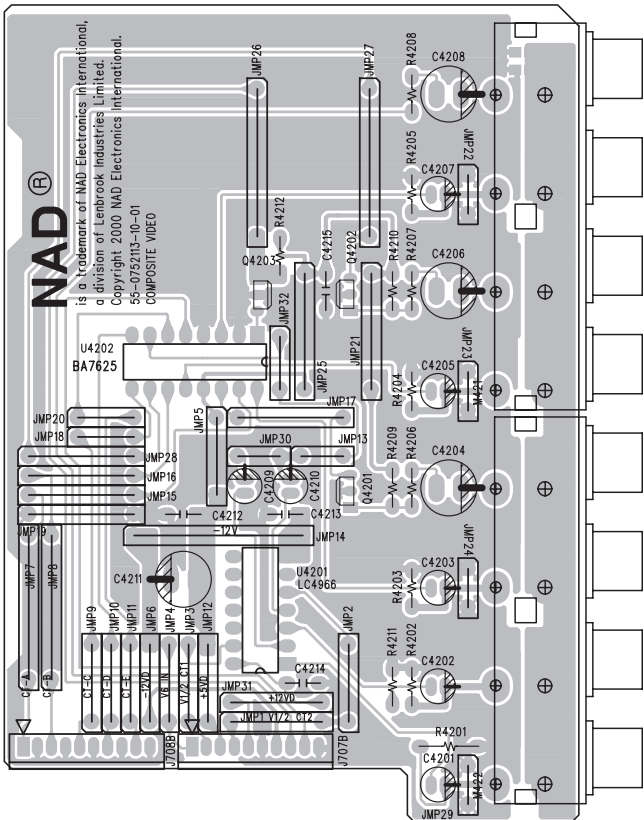
SPEAKER TERMINAL BOARD



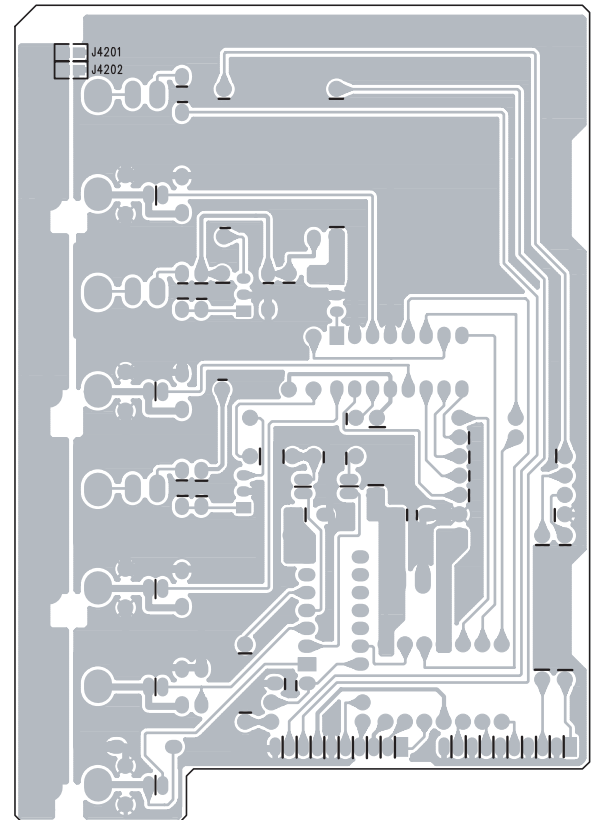
S-VIDEO BOARD



COMPOSITE VIDEO BOARD - COMPONENT SIDE

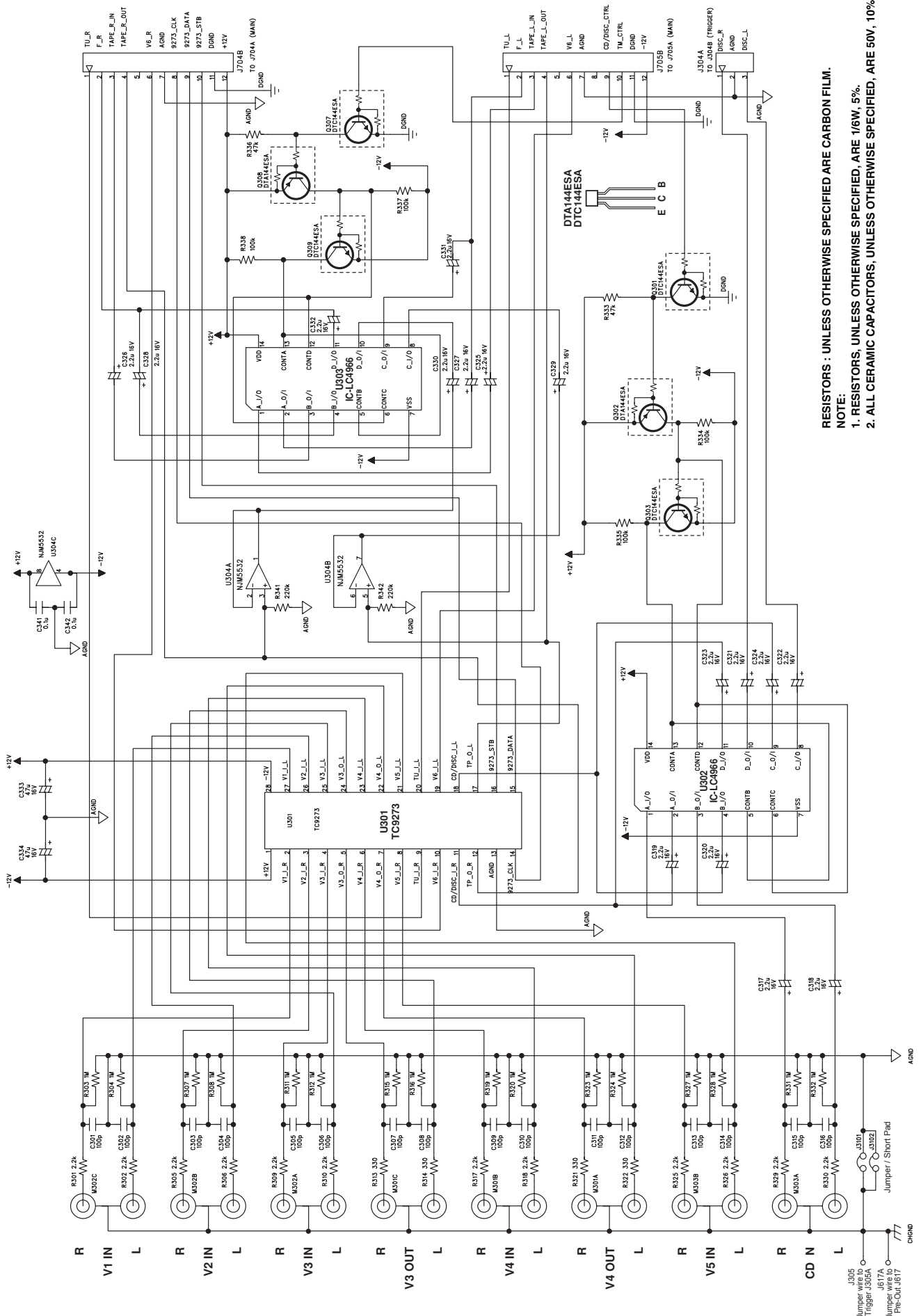


- COPPER SIDE



SCHEMATIC DIAGRAM

AUDIO SWITCH

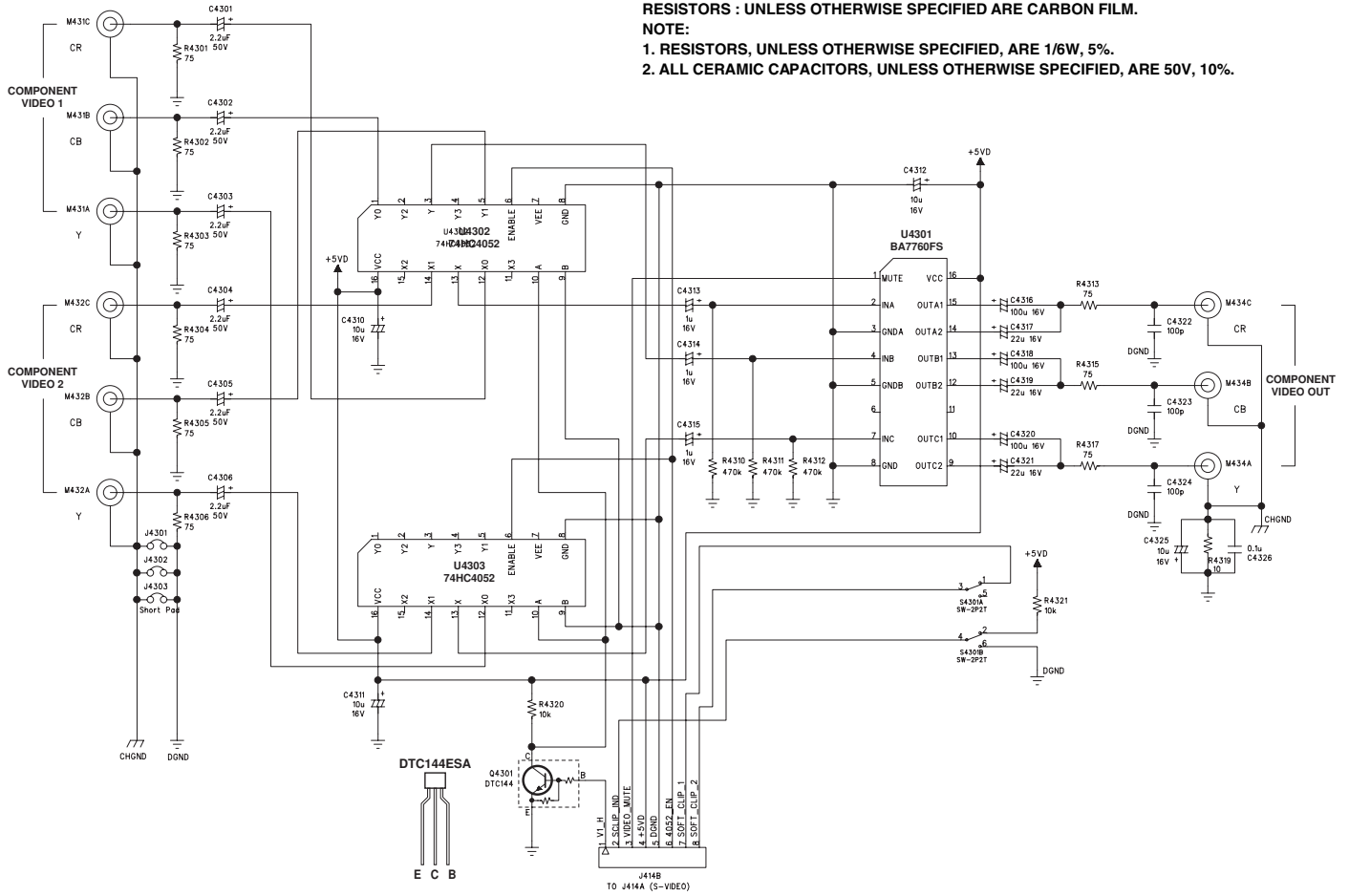


RESISTORS : UNLESS OTHERWISE SPECIFIED ARE CARBON FILM.

NOTE:

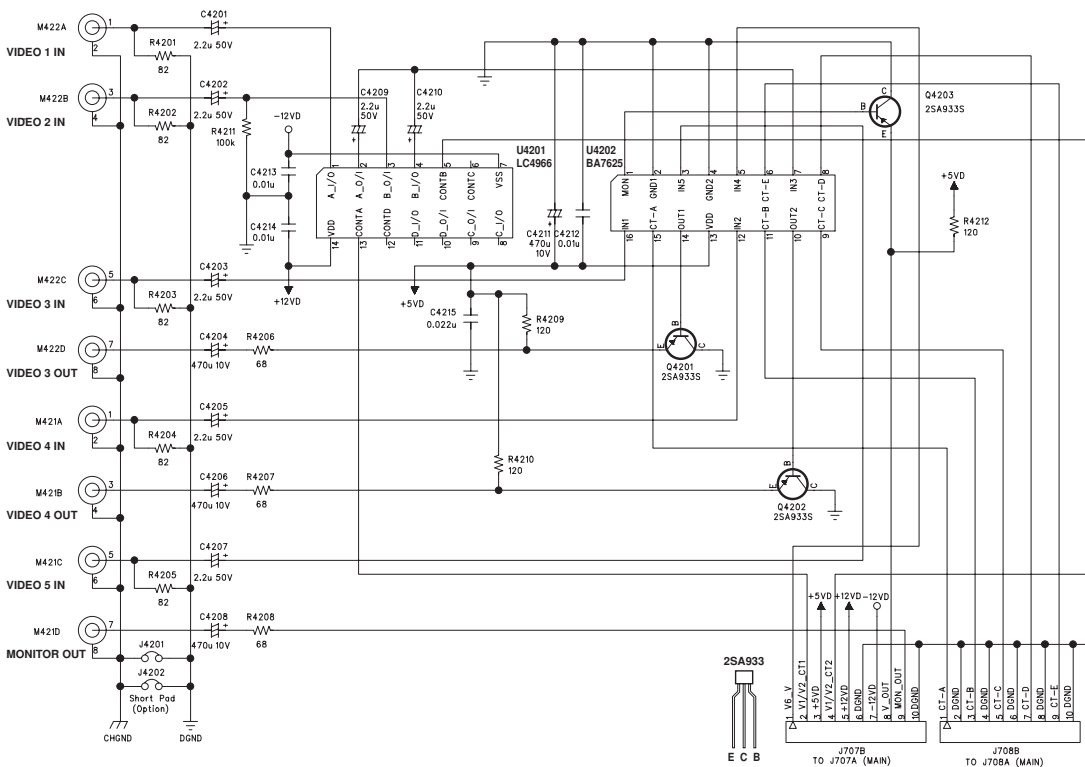
1. RESISTORS, UNLESS OTHERWISE SPECIFIED, ARE 1/8W, 5%.
2. ALL CERAMIC CAPACITORS, UNLESS OTHERWISE SPECIFIED, ARE 50V, 10%.

COMPONENT VIDEO



RESISTORS : UNLESS OTHERWISE SPECIFIED ARE CARBON FILM.
NOTE:
 1. RESISTORS, UNLESS OTHERWISE SPECIFIED, ARE 1/6W, 5%.
 2. ALL CERAMIC CAPACITORS, UNLESS OTHERWISE SPECIFIED, ARE 50V, 10%.

COMPOSITE VIDEO



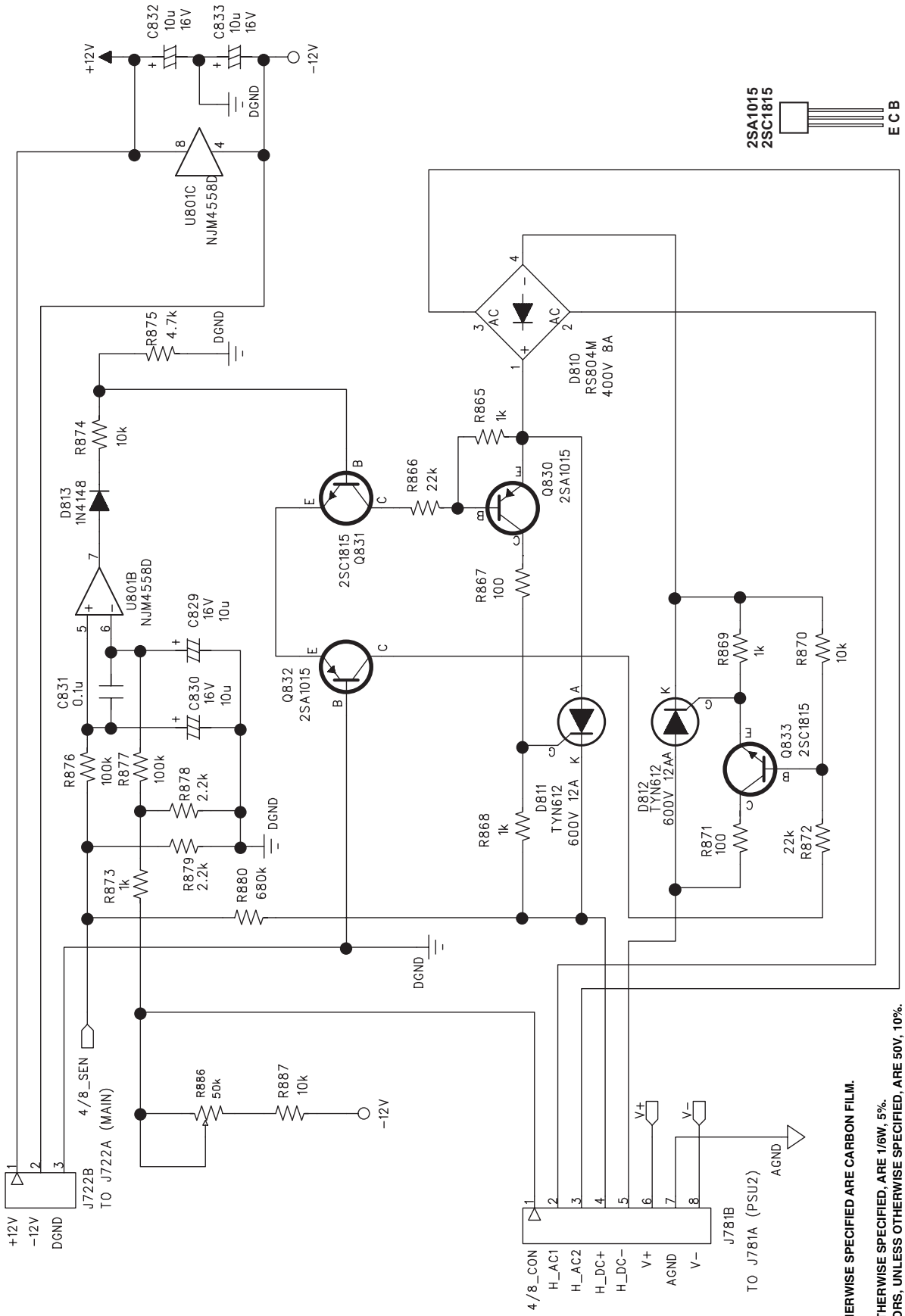
RESISTORS : UNLESS OTHERWISE SPECIFIED ARE CARBON FILM.
NOTE:
 1. RESISTORS, UNLESS OTHERWISE SPECIFIED, ARE 1/6W, 5%.
 2. ALL CERAMIC CAPACITORS, UNLESS OTHERWISE SPECIFIED, ARE 50V, 10%.

VIDEO IN	PIN NAME	PIN	REMARK
V1/V2	IN3	7	FROM LC4966
V3	IN1	16	
V4	IN2	12	
V5	IN5	3	
V6	IN4	5	FROM VIDEO 6 BOARD

VIDEO OUT	PIN NAME	PIN
V3	OUT1	14
V4	OUT2	10

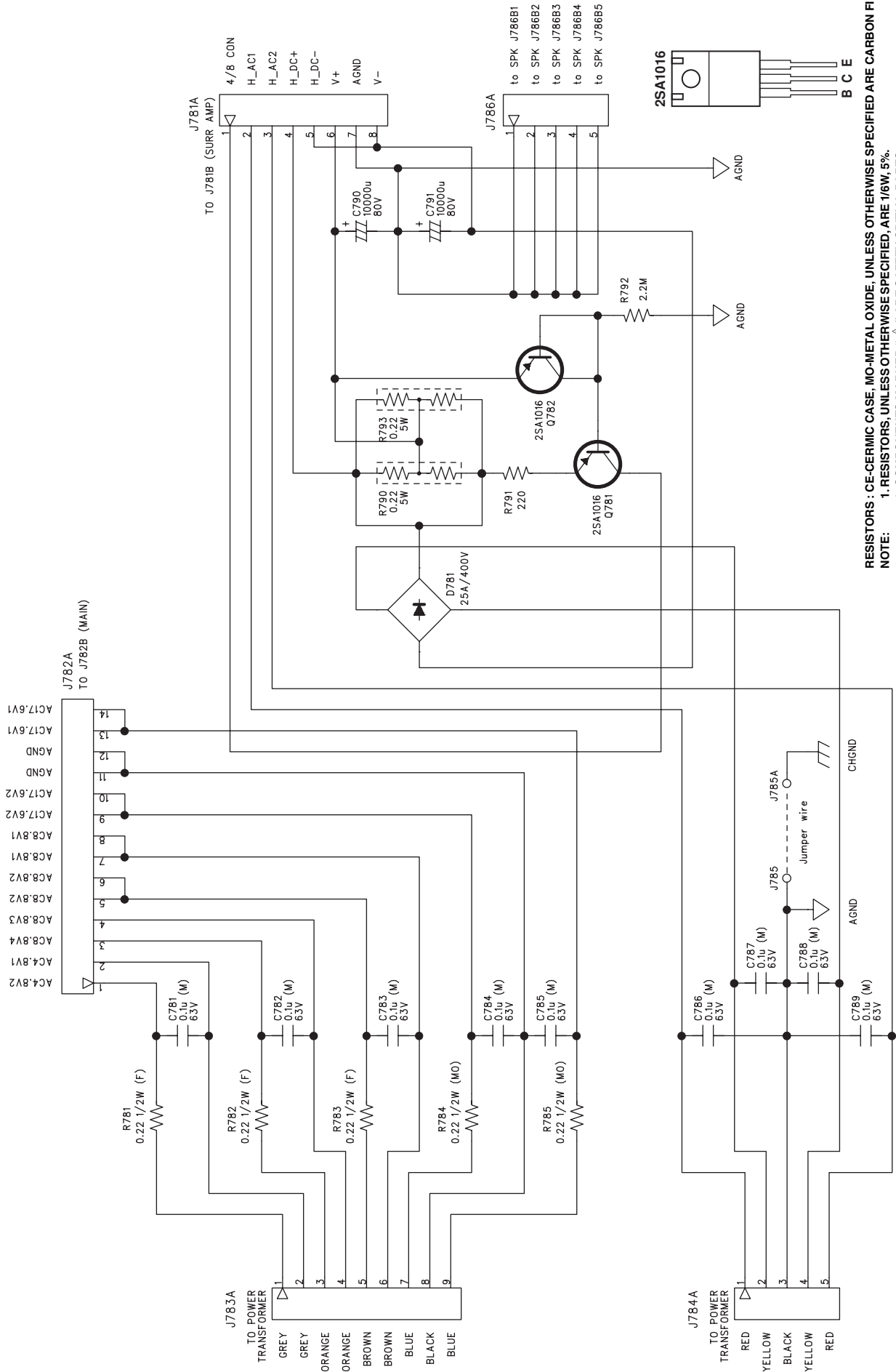
VIDEO IN	PIN NAME	PIN
V1	A_/O	1
V2	B_/O	3

VIDEO OUT	PIN NAME	PIN
V1/V2	A_/O	2
V1/V2	B_/O	4



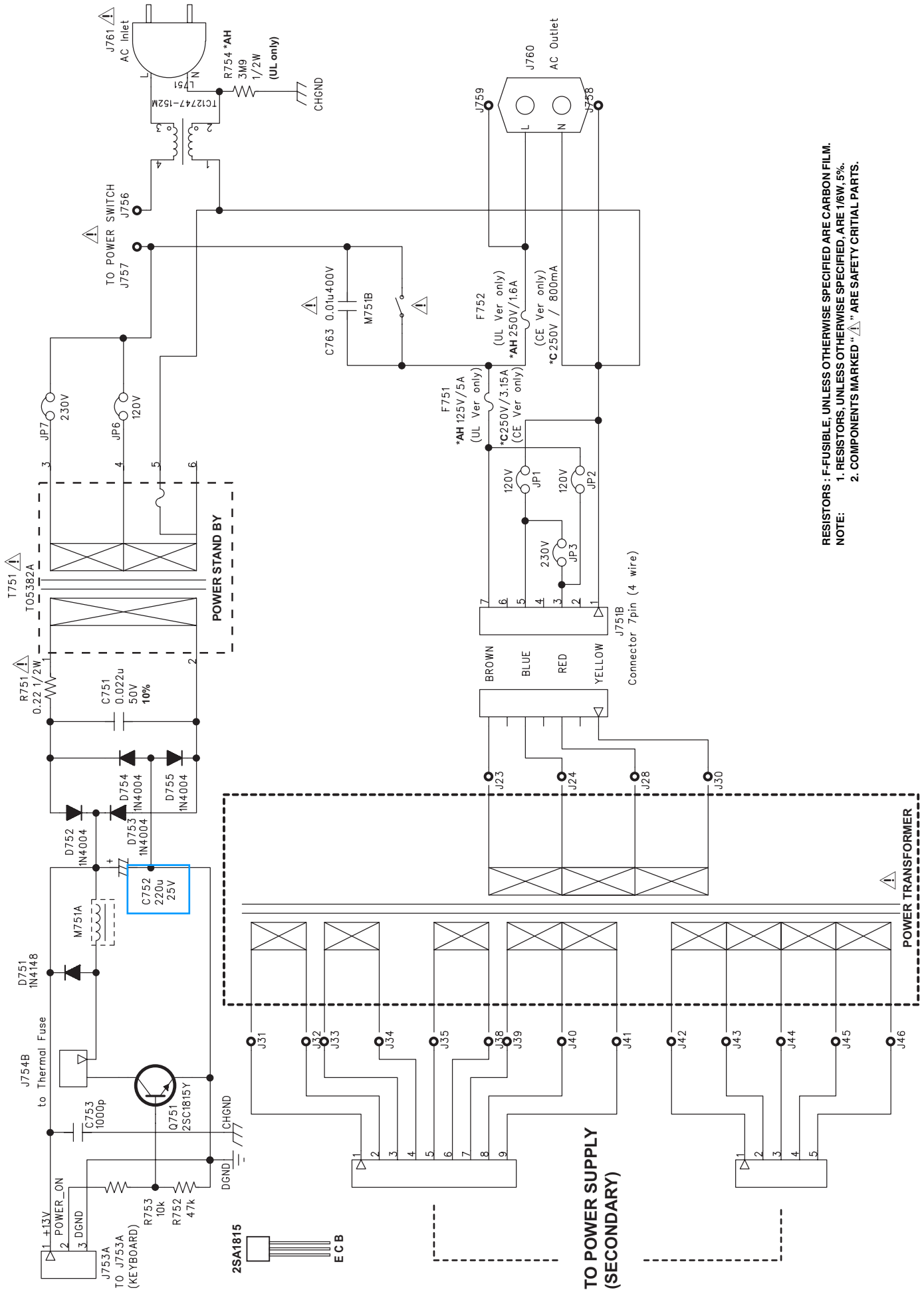
RESISTORS : UNLESS OTHERWISE SPECIFIED ARE CARBON FILM.
 NOTE:
 1. RESISTORS, UNLESS OTHERWISE SPECIFIED, ARE 1/6W, 5%.
 2. ALL CERAMIC CAPACITORS, UNLESS OTHERWISE SPECIFIED, ARE 50V, 10%.

POWER SUPPLY (SECONDARY)



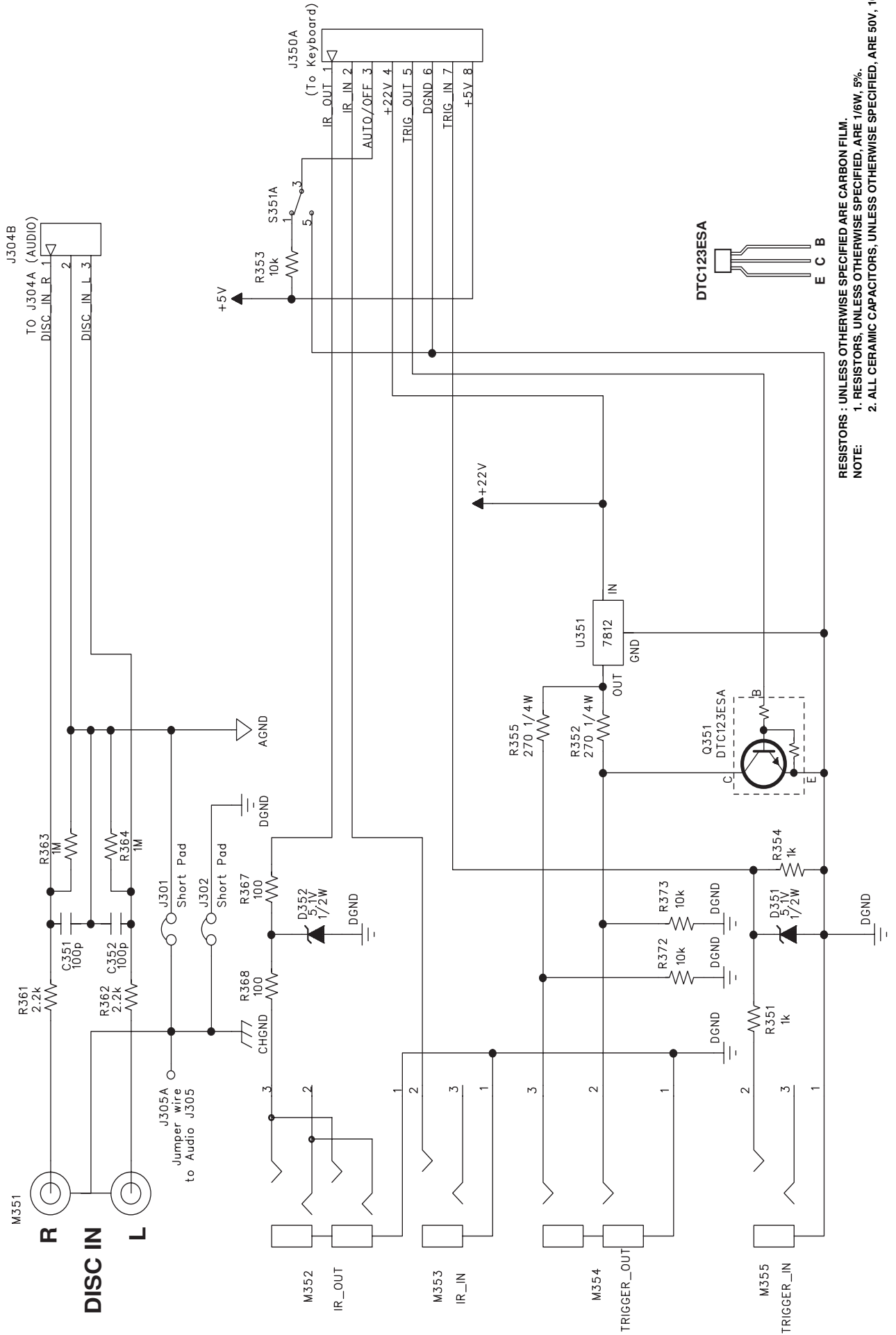
RESISTORS : CE-CERMIC CASE, MO-METAL OXIDE, UNLESS OTHERWISE SPECIFIED ARE CARBON FILM.
 NOTE: 1. RESISTORS, UNLESS OTHERWISE SPECIFIED, ARE 1/6W, 5%.
 2. COMPONENTS MARKED "A" ARE SAFETY CRITICAL PARTS.

POWER SUPPLY (STAND BY)

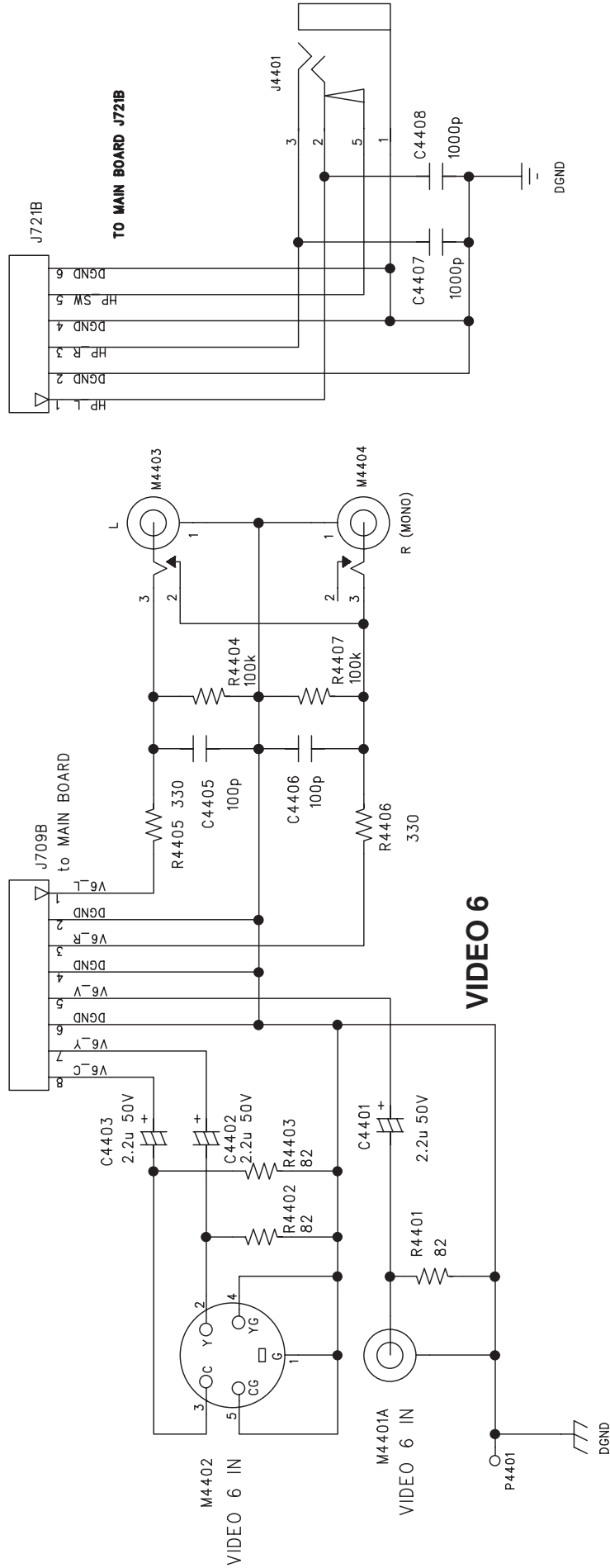


RESISTORS : F-FUSIBLE, UNLESS OTHERWISE SPECIFIED ARE CARBON FILM.
 NOTE: 1. RESISTORS, UNLESS OTHERWISE SPECIFIED, ARE 1/8W, 5%.
 2. COMPONENTS MARKED "UL" ARE SAFETY CRITICAL PARTS.

TRIGGER

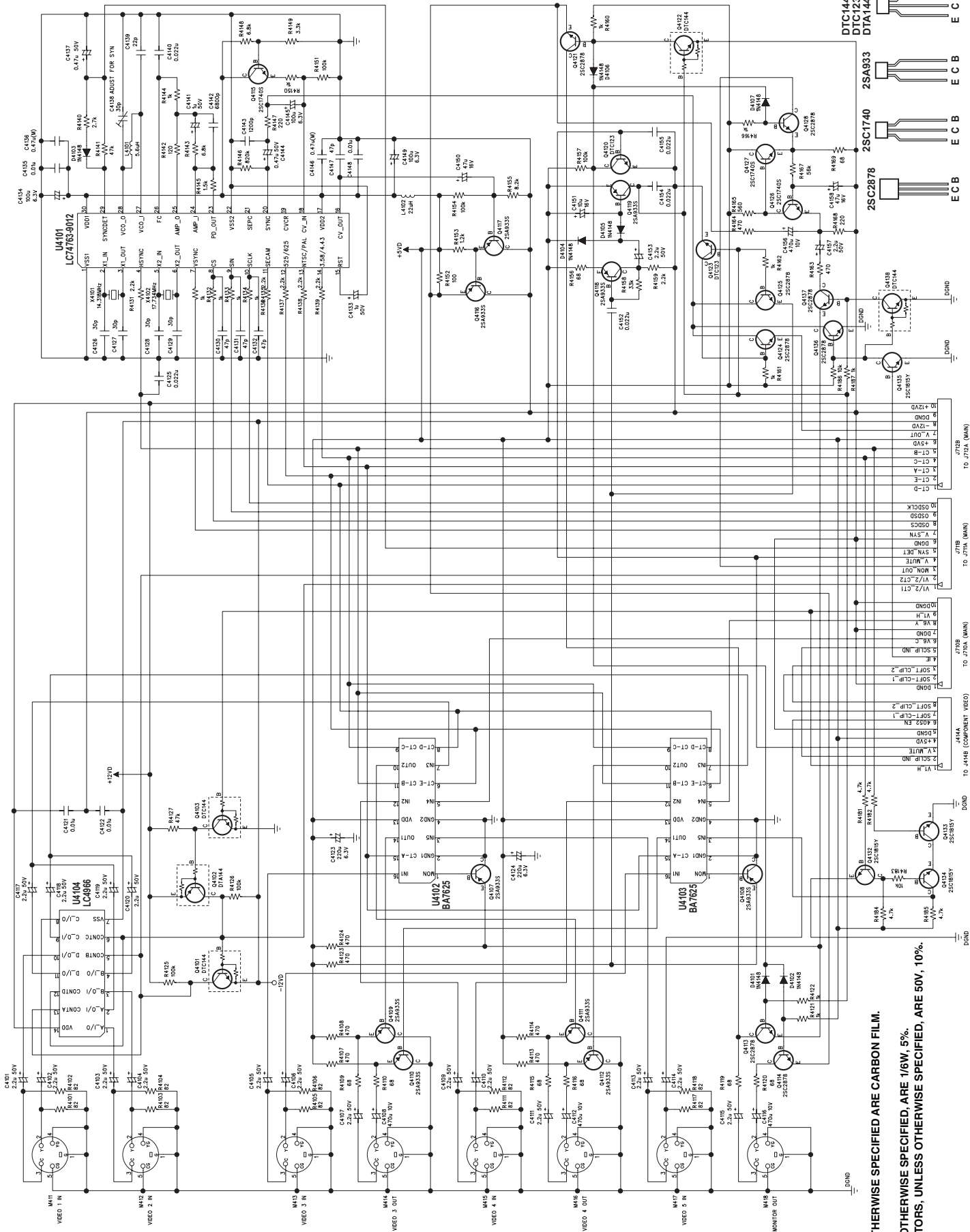


VIDEO 6



RESISTORS : UNLESS OTHERWISE SPECIFIED ARE CARBON FILM.
 NOTE:
 1. RESISTORS, UNLESS OTHERWISE SPECIFIED, ARE 1/6W, 5%.
 2. ALL CERAMIC CAPACITORS, UNLESS OTHERWISE SPECIFIED, ARE 50V, 10%.

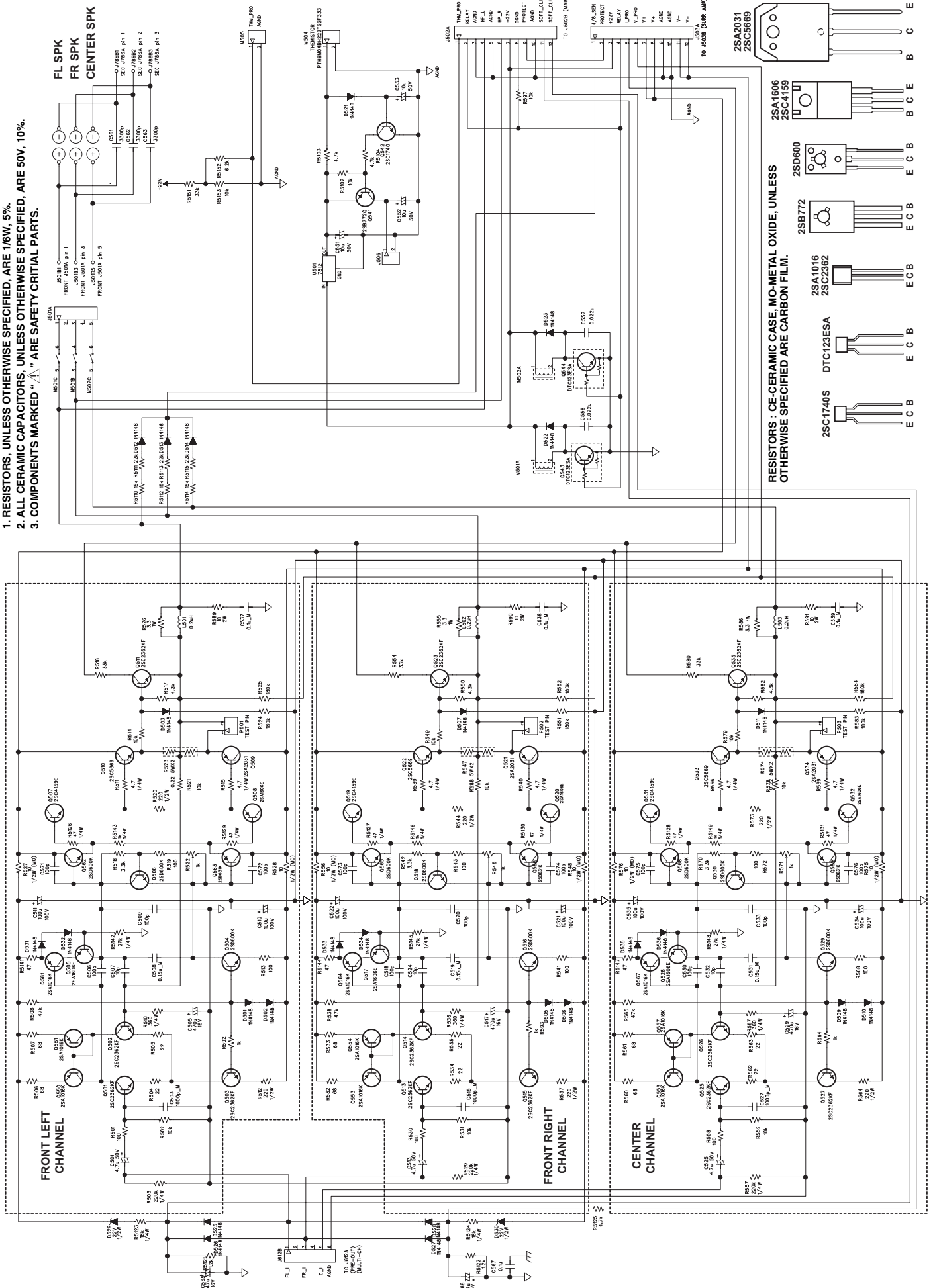
S-VIDEO



RESISTORS : UNLESS OTHERWISE SPECIFIED ARE CARBON FILM.
 NOTE:
 1. RESISTORS, UNLESS OTHERWISE SPECIFIED, ARE 1/6W, 5%.
 2. ALL CERAMIC CAPACITORS, UNLESS OTHERWISE SPECIFIED, ARE 50V, 10%.

FRONT / CENTER AMPLIFIER

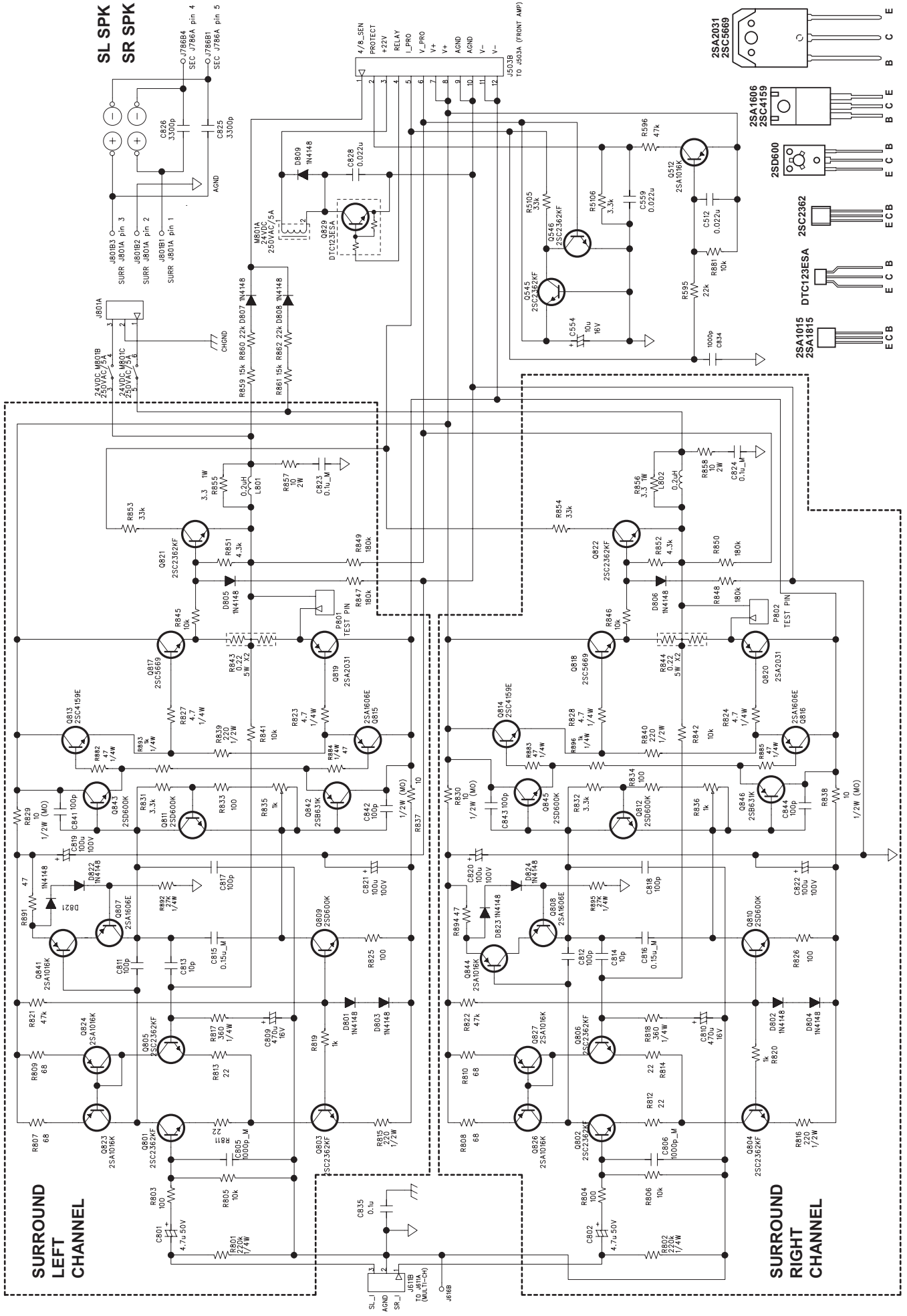
- NOTE:**
1. RESISTORS, UNLESS OTHERWISE SPECIFIED, ARE 1/6W, 5%.
 2. ALL CERAMIC CAPACITORS, UNLESS OTHERWISE SPECIFIED, ARE 50V, 10%.
 3. COMPONENTS MARKED "▲" ARE SAFETY CRITICAL PARTS.



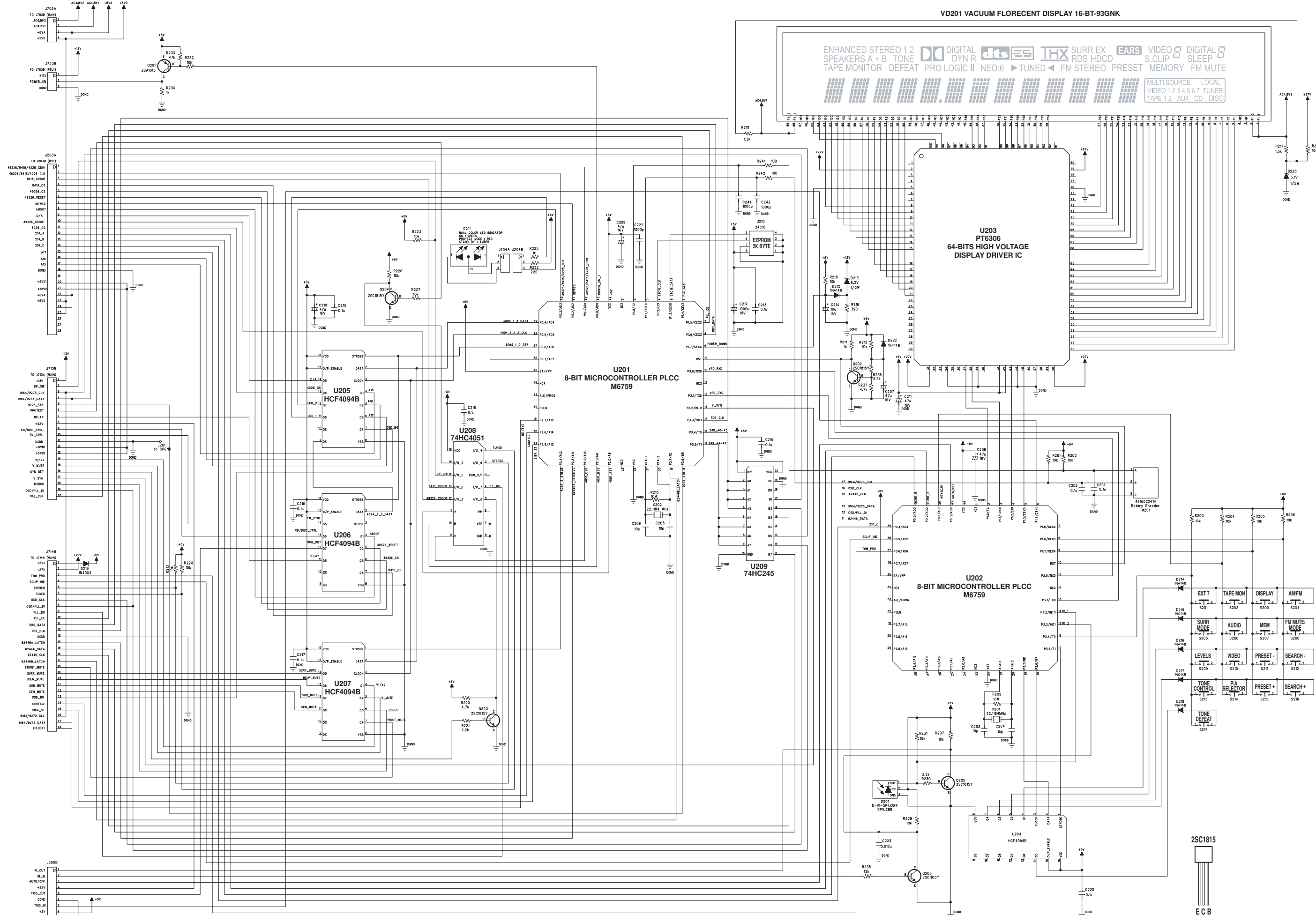
SURROUND AMPLIFIER

- NOTE:**
1. RESISTORS, UNLESS OTHERWISE SPECIFIED, ARE 1/6W, 5%.
 2. ALL CERAMIC CAPACITORS, UNLESS OTHERWISE SPECIFIED, ARE 50V, 10%.
 3. COMPONENTS MARKED "△" ARE SAFETY CRITICAL PARTS.

RESISTORS : CE-CERAMIC CASE, MO-METAL OXIDE, UNLESS OTHERWISE SPECIFIED ARE CARBON FILM.



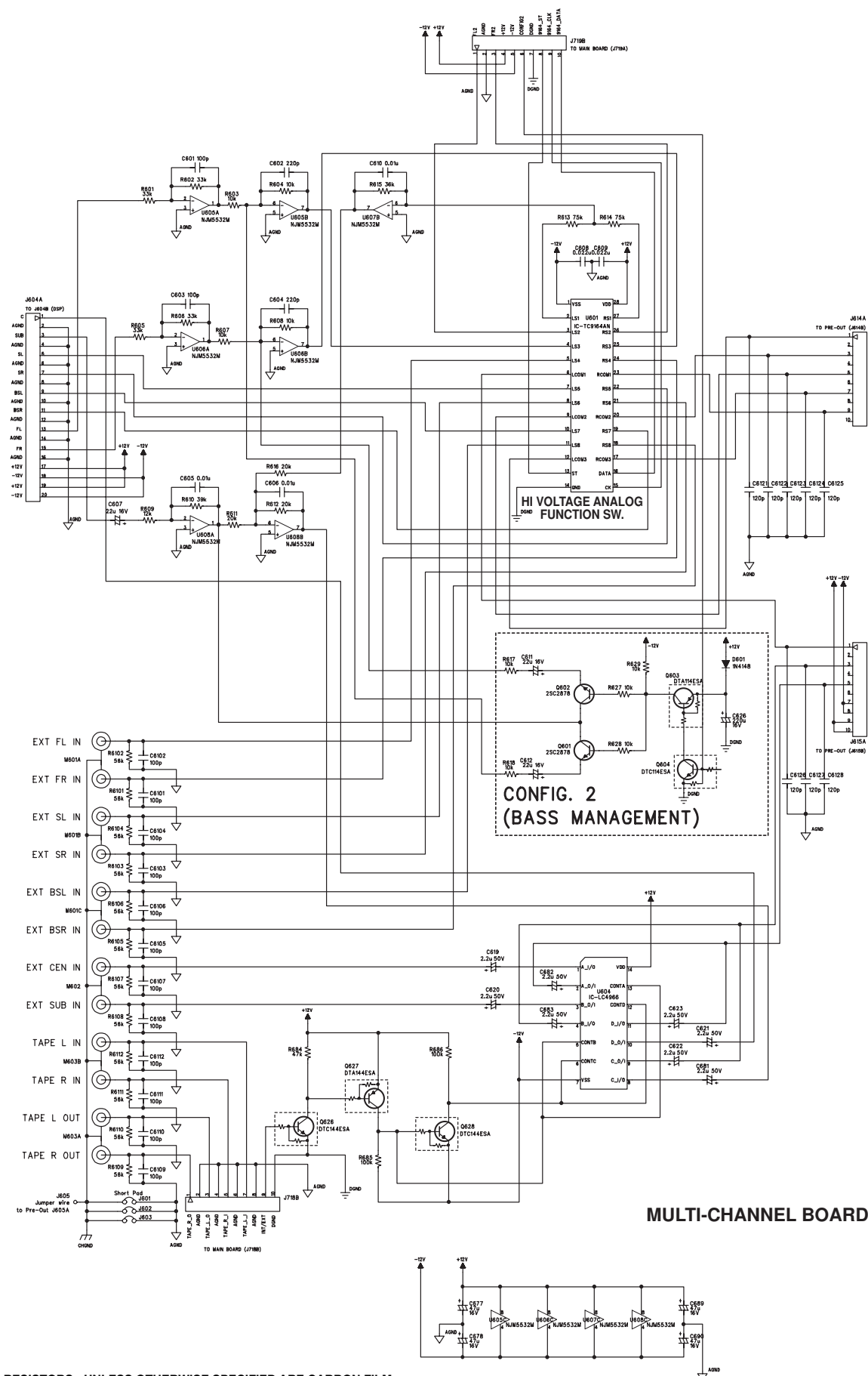
KEYBOARD



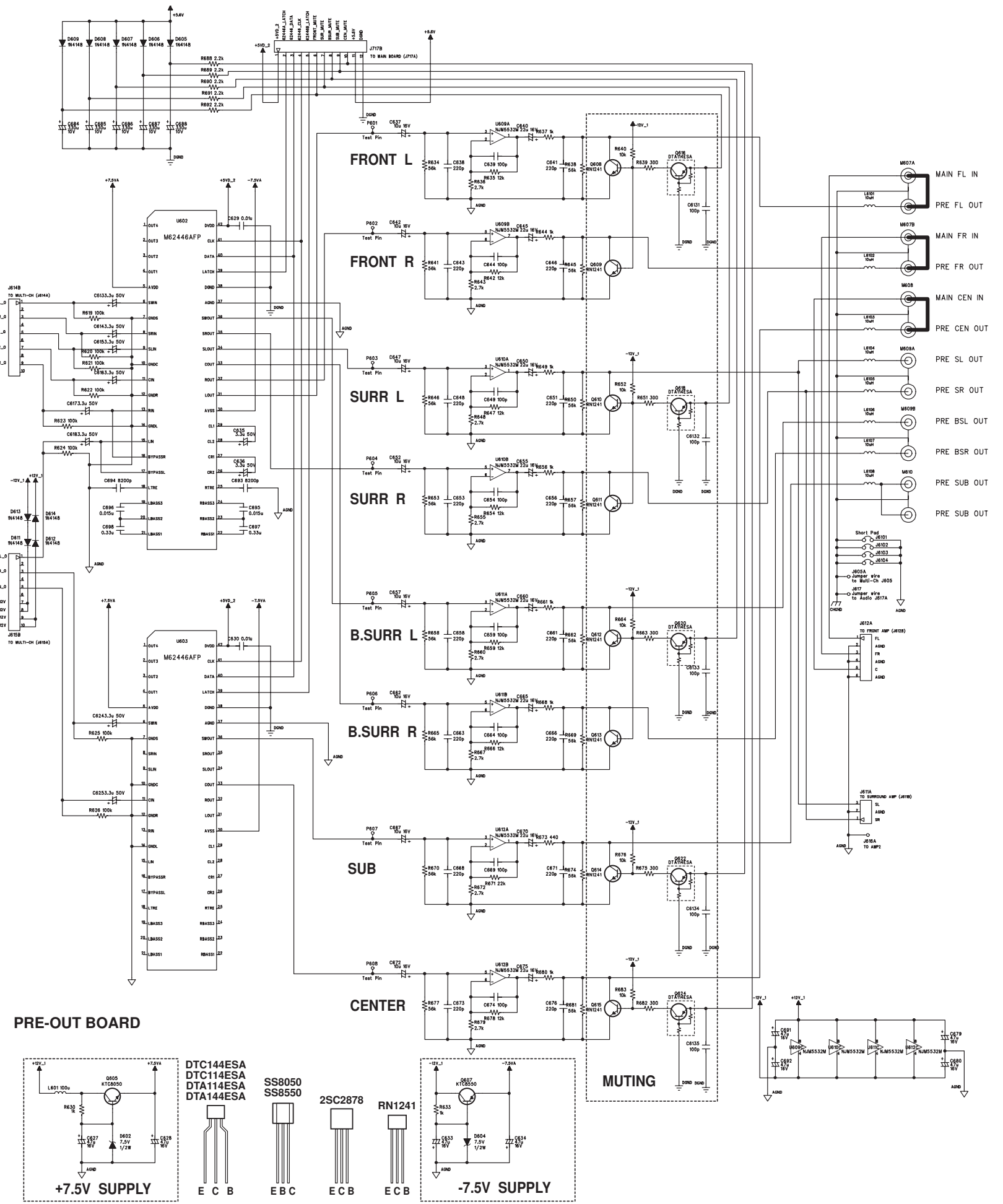
NOTE:
 1. RESISTORS, UNLESS OTHERWISE SPECIFIED, ARE 1/6W, 5%.
 2. ALL CERAMIC CAPACITORS, UNLESS OTHERWISE SPECIFIED, ARE 50V, 5%.

Cutting line for folded page!

MULTI-CH / PRE-OUT

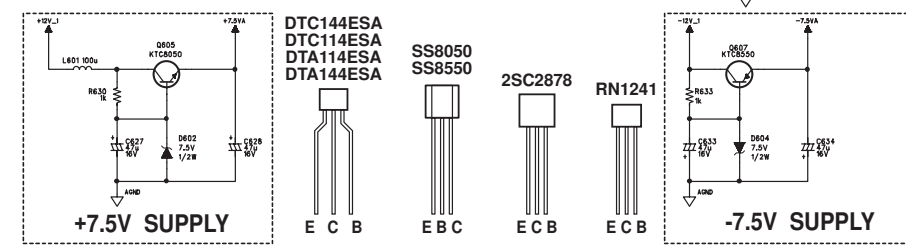


MULTI-CHANNEL BOARD

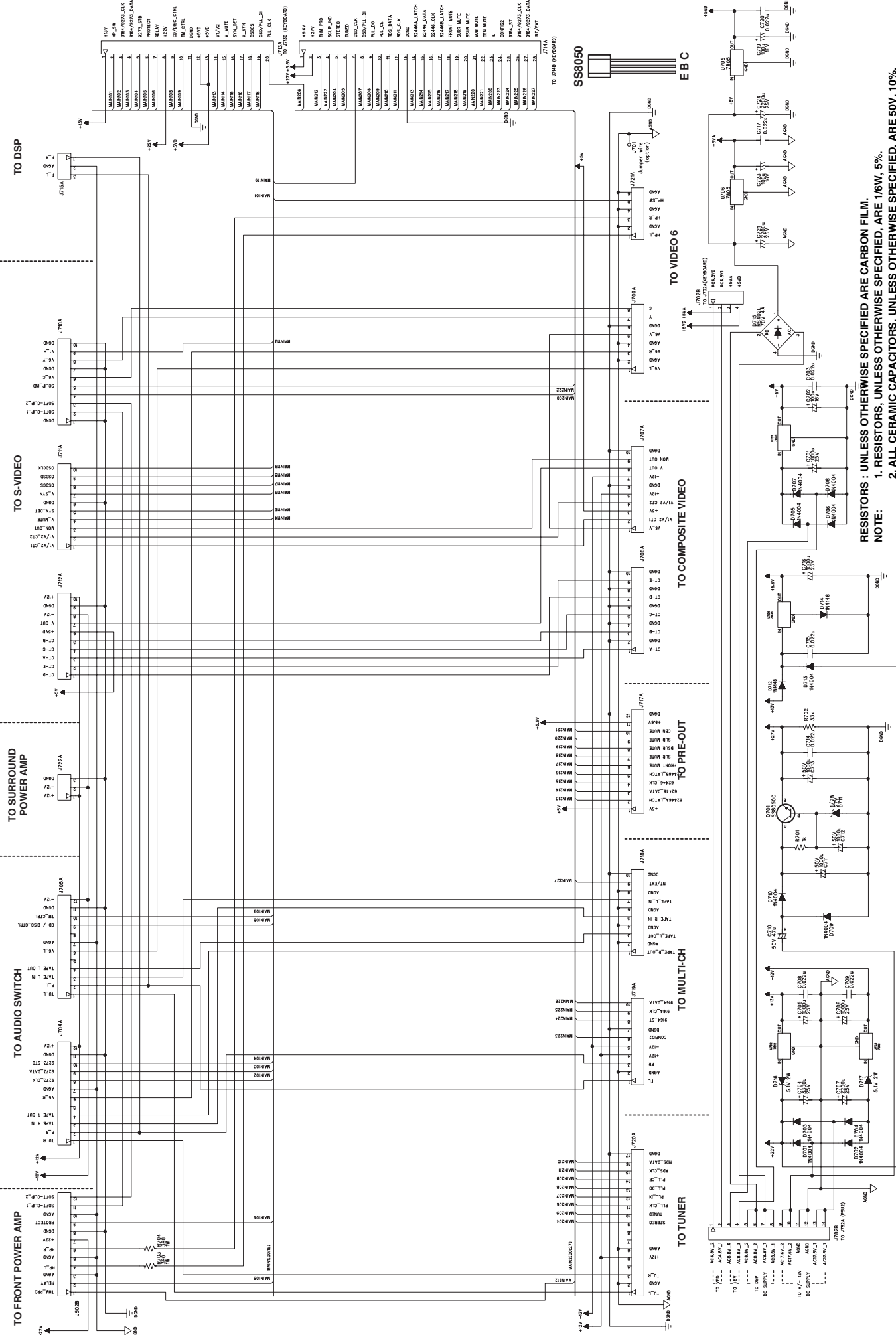


PRE-OUT BOARD

RESISTORS : UNLESS OTHERWISE SPECIFIED ARE CARBON FILM.
 NOTE:
 1. RESISTORS, UNLESS OTHERWISE SPECIFIED, ARE 1/6W, 5%.
 2. ALL CERAMIC CAPACITORS, UNLESS OTHERWISE SPECIFIED, ARE 50V, 10%.



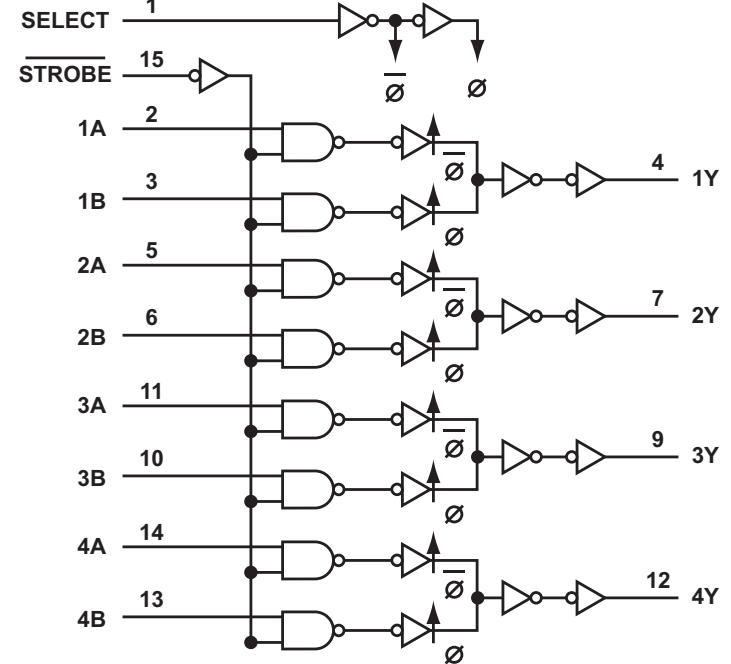
MAIN BOARD



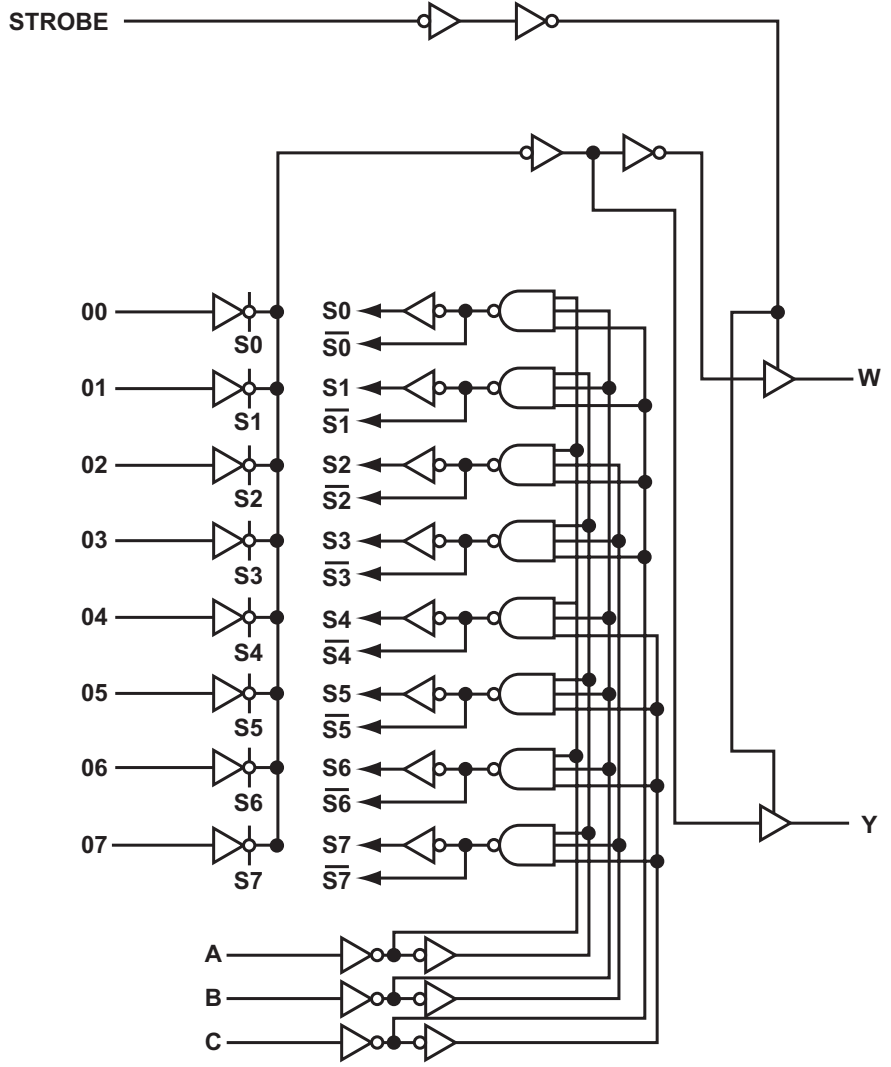
RESISTORS : UNLESS OTHERWISE SPECIFIED ARE CARBON FILM.
 NOTE: 1. RESISTORS, UNLESS OTHERWISE SPECIFIED, ARE 1/6W, 5%.
 2. ALL CERAMIC CAPACITORS, UNLESS OTHERWISE SPECIFIED, ARE 50V, 10%.

IC BLOCK DIAGRAM

74HC157
 DSP BOARD: U1004



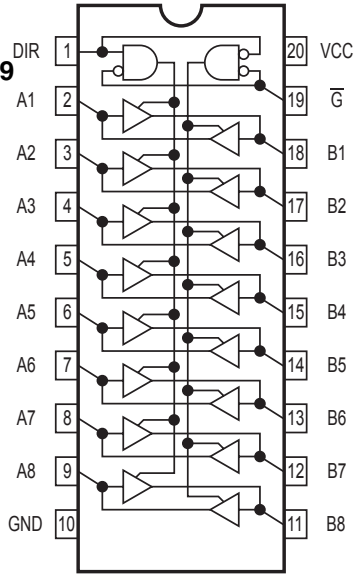
74HC251
 DSP BOARD: U1071



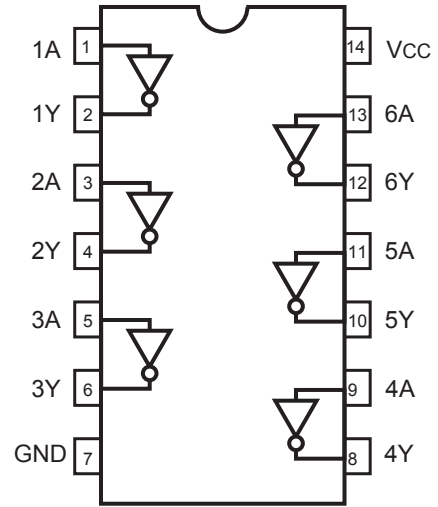
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74LVC245
DSP BOARD: U1002, U1003, U1014

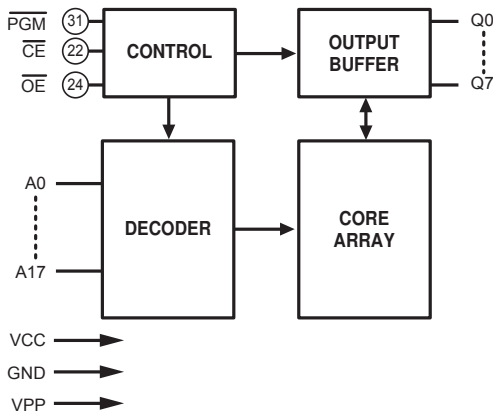
74VHC245
KEYBOARD: U209



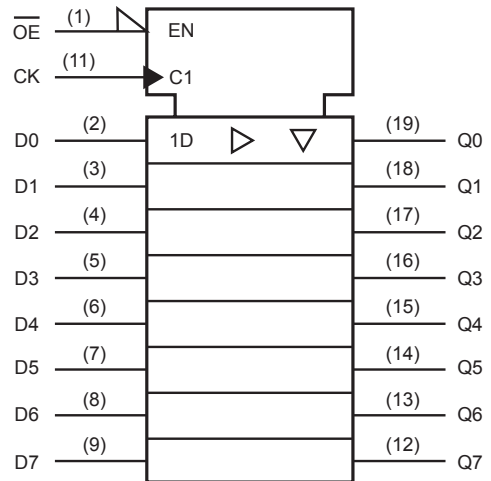
74HCU04
DSP BOARD: U1006 & U1016



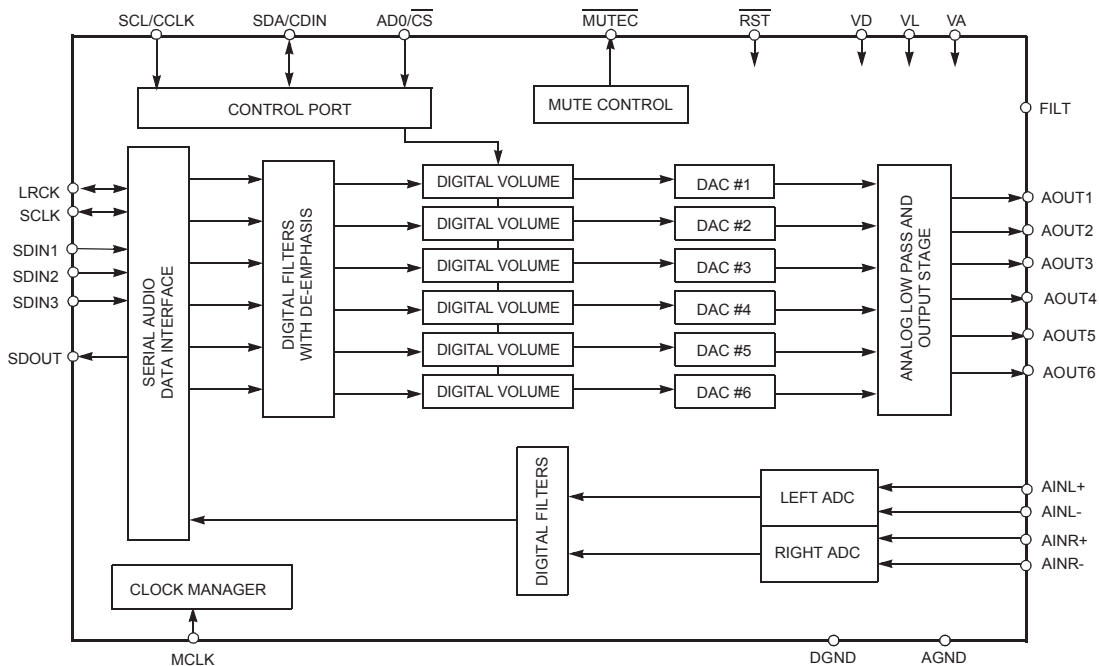
W27C020
DSP BOARD: U1007



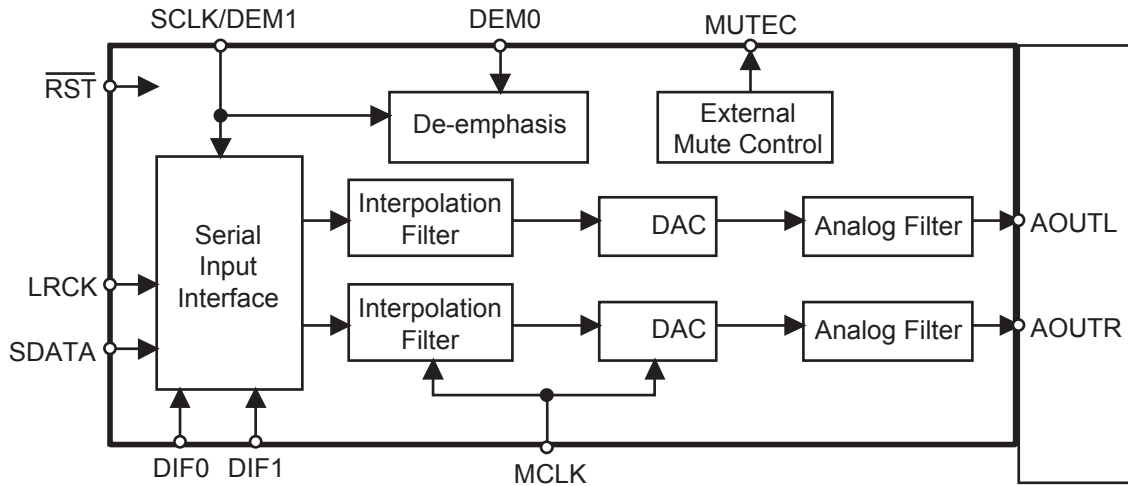
74LVC574
DSP BOARD: U1008, U1009



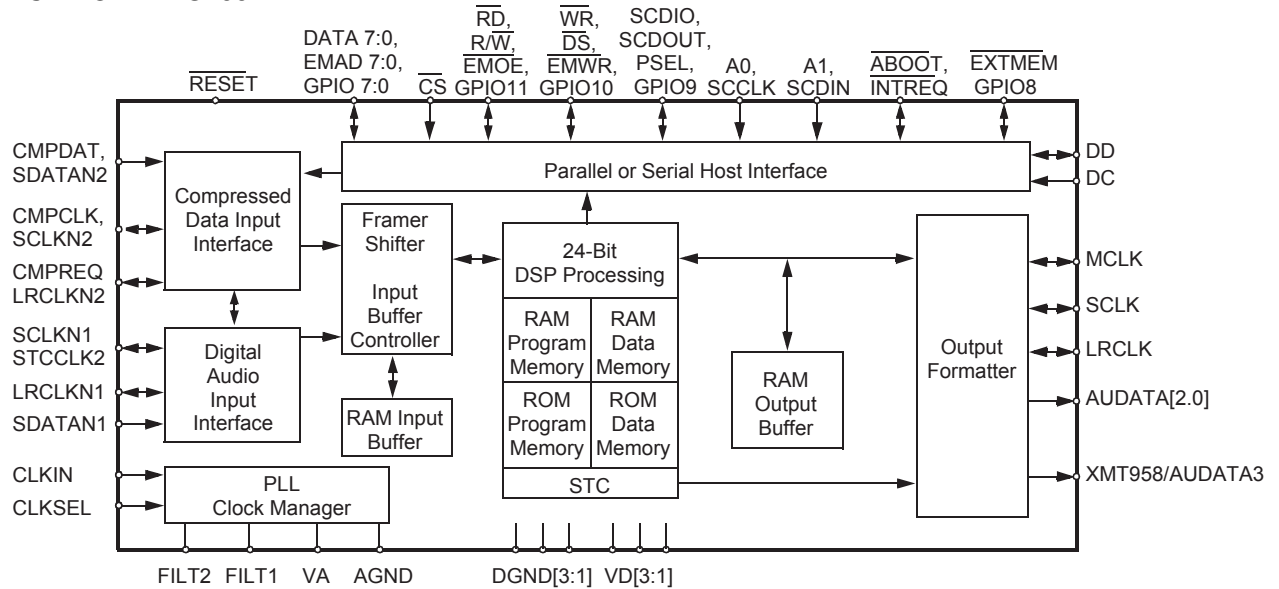
CS4228
DSP BOARD: U1021



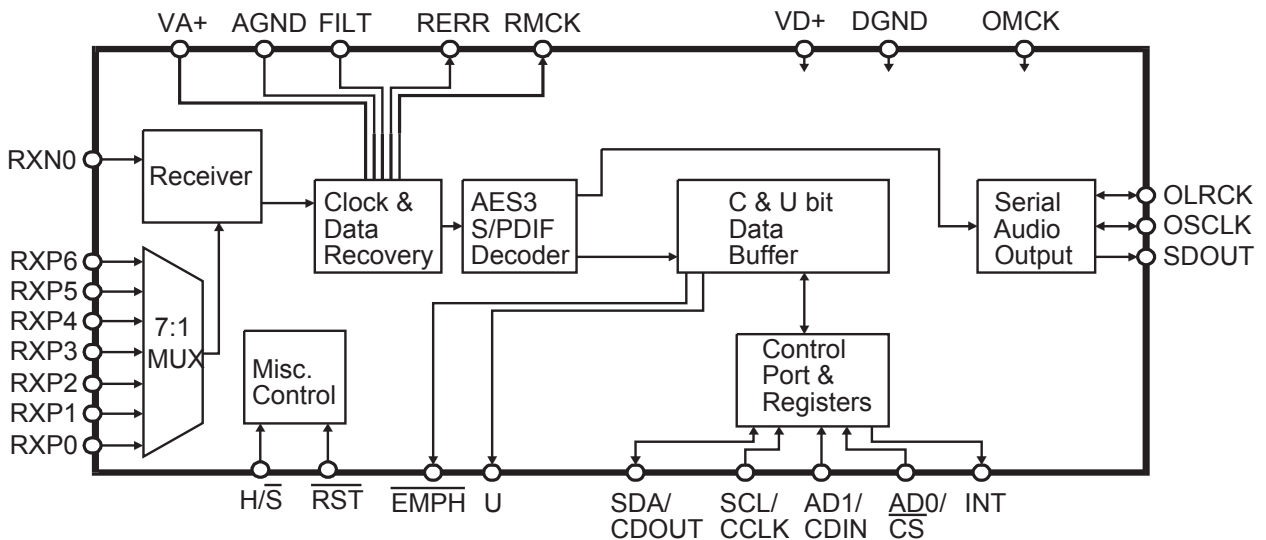
CS4340
DSP BOARD: U1022



CS49326
DSP BOARD: U1001



CS8415A
DSP BOARD: U1005



NJM5532

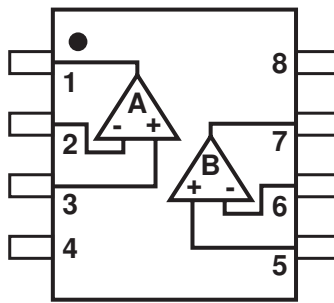
DSP BOARD: U1010~U1013, U1023 & U1025

MULTI-CHANNEL: U605~U608

PRE-OUT BOARD: U609~U612

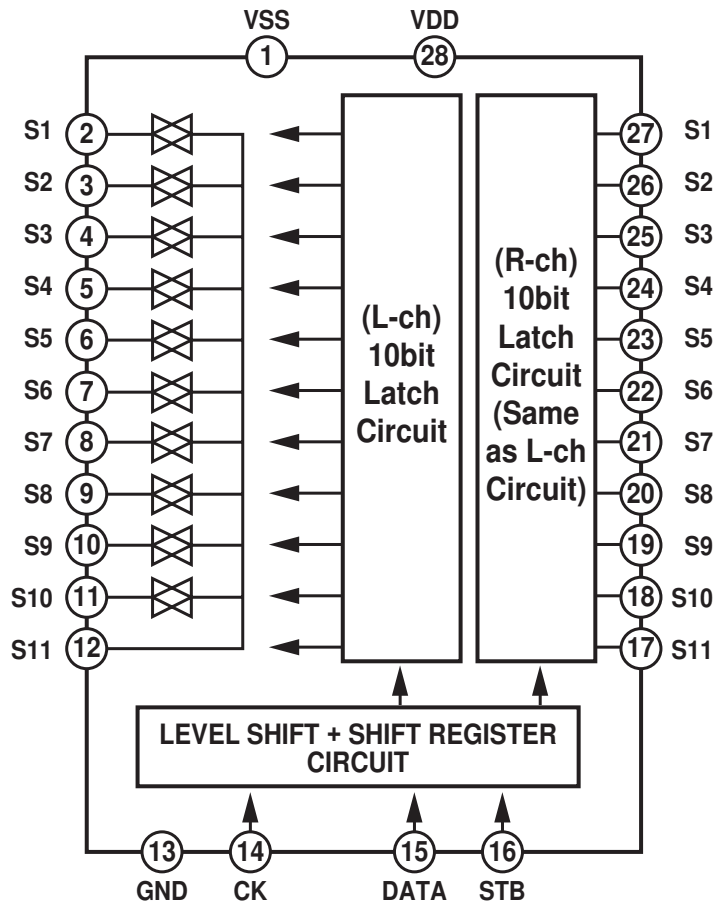
NJM4558D

SURROUND AMP BOARD: U801



TC9273

AUDIO BOARD: U301



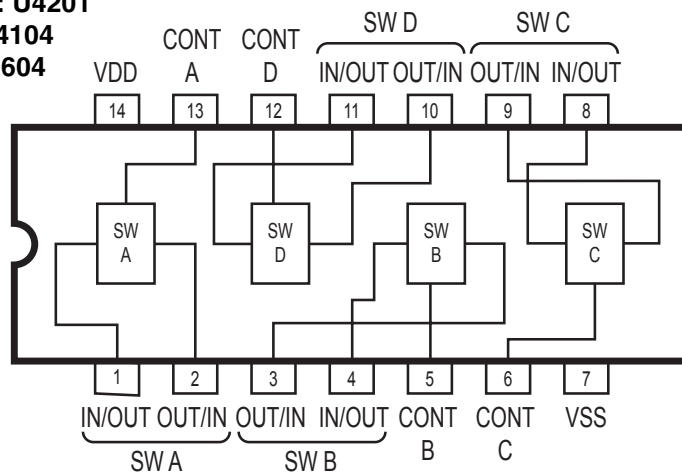
LC4966

AUDIO BOARD: U302 & U303

COMPOSITE VIDEO: U4201

S-VIDEO BOARD: U4104

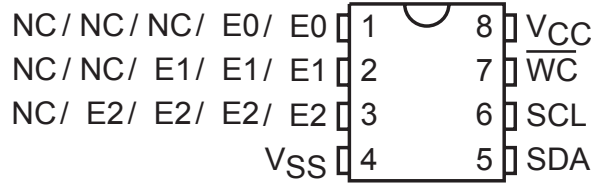
MULTI-CHANNEL: U604



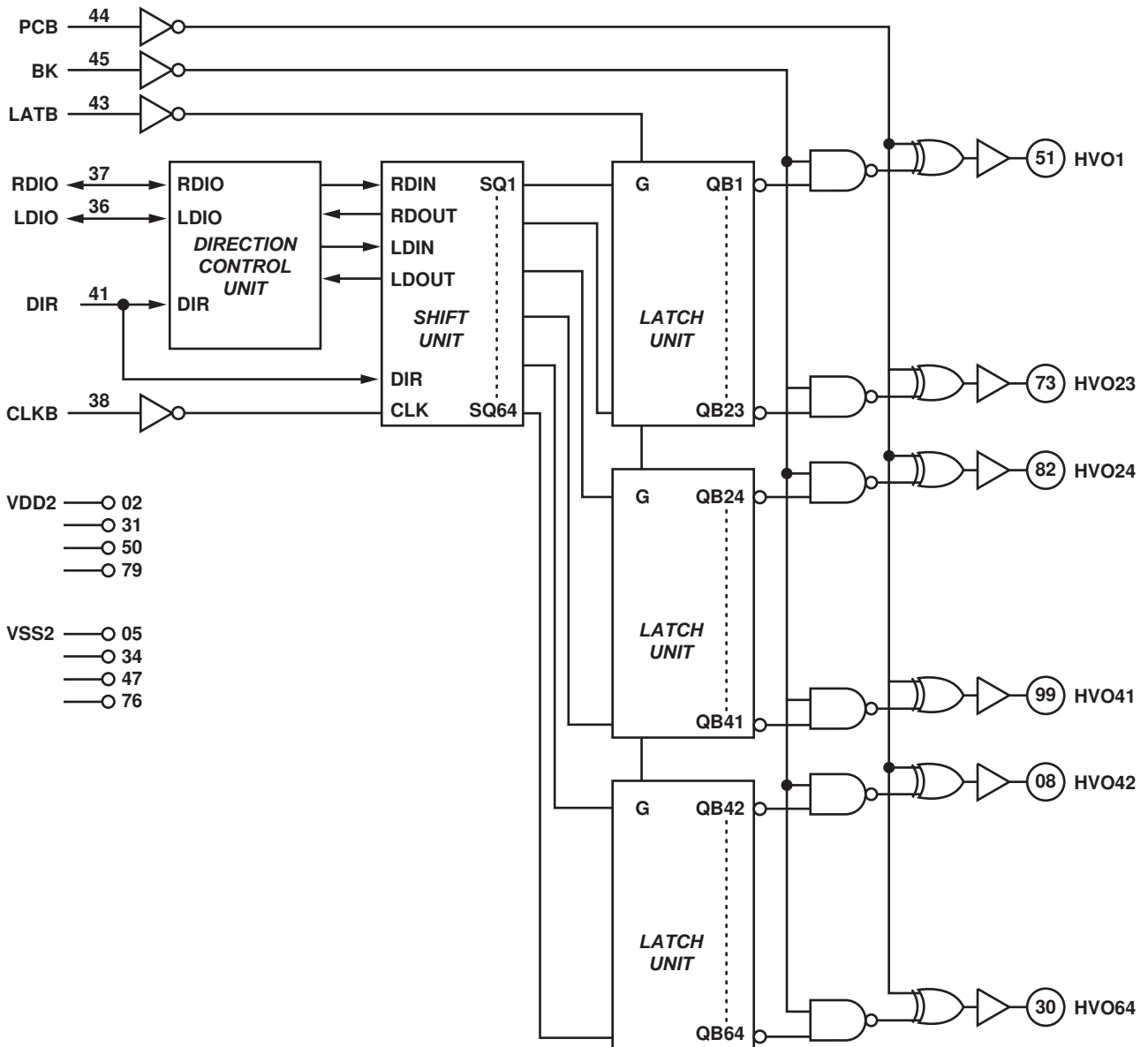
M24C16
KEYBOARD: U210

M24Cxx

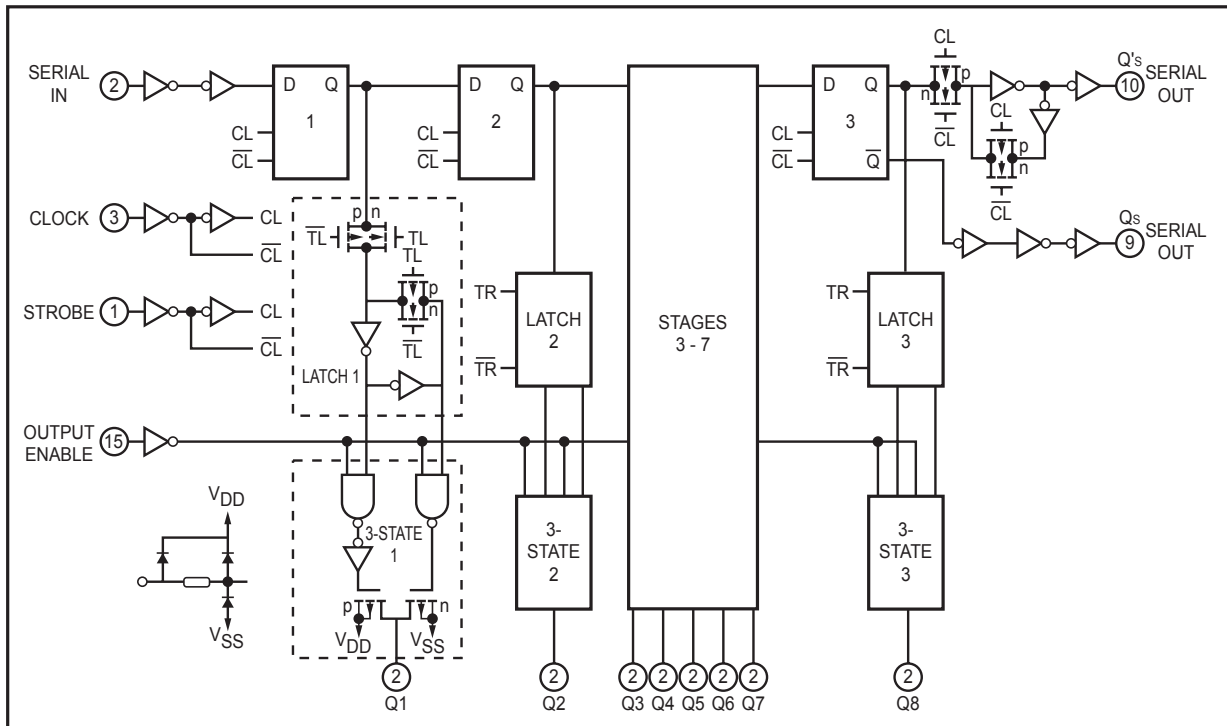
16Kb/8Kb/4Kb/2Kb/1Kb



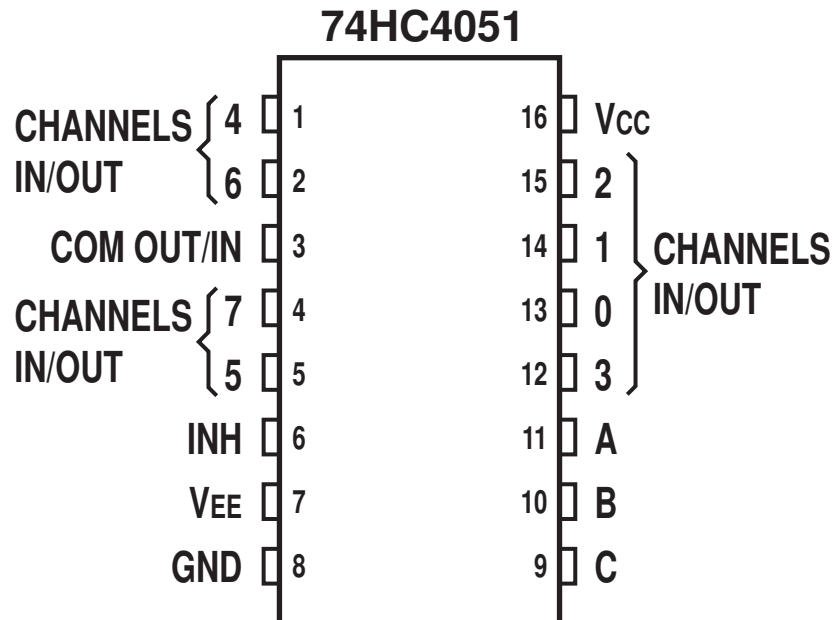
PT6306
KEYBOARD: U203



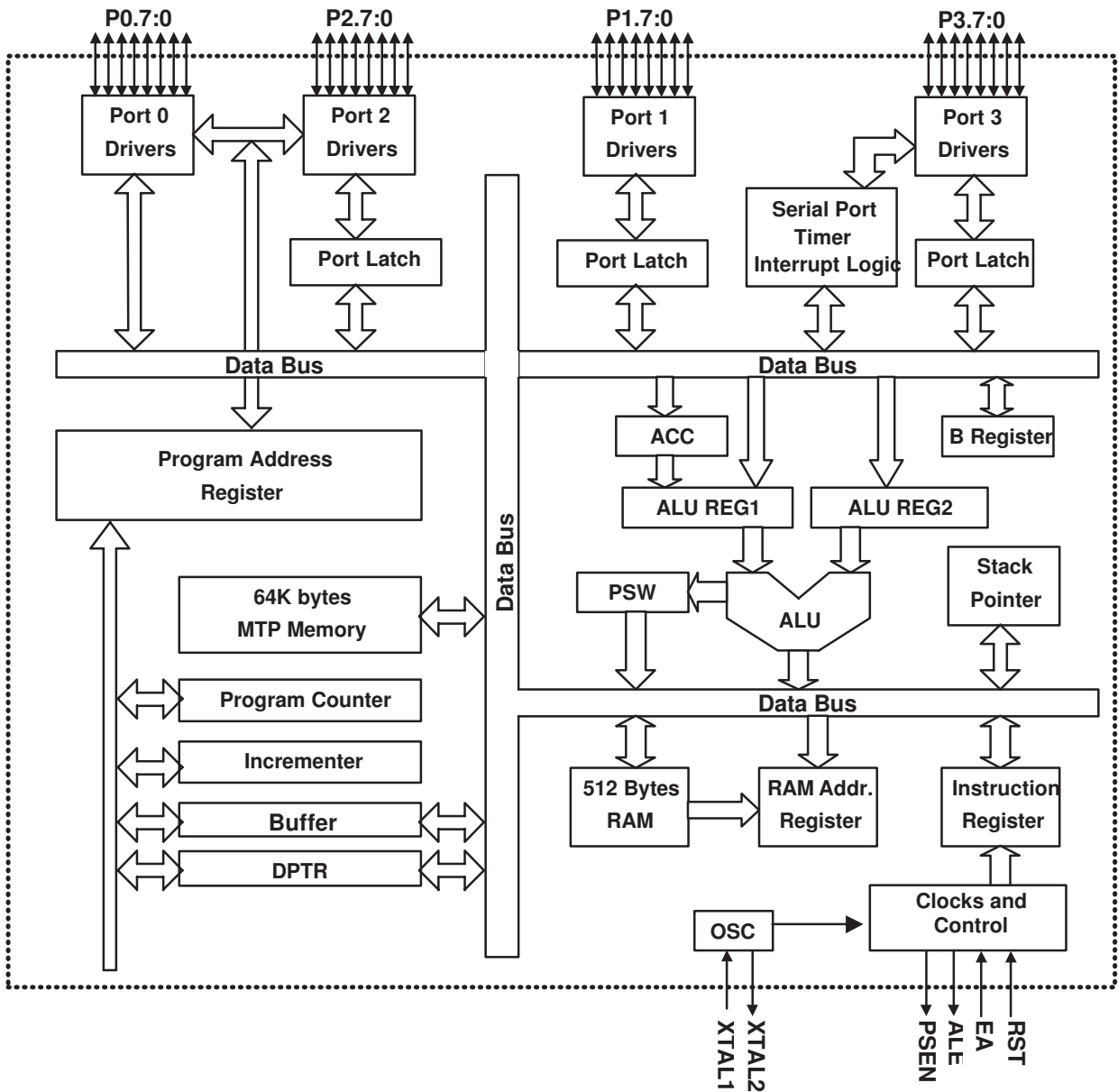
HCF4094B
KEYBOARD: U204~U207



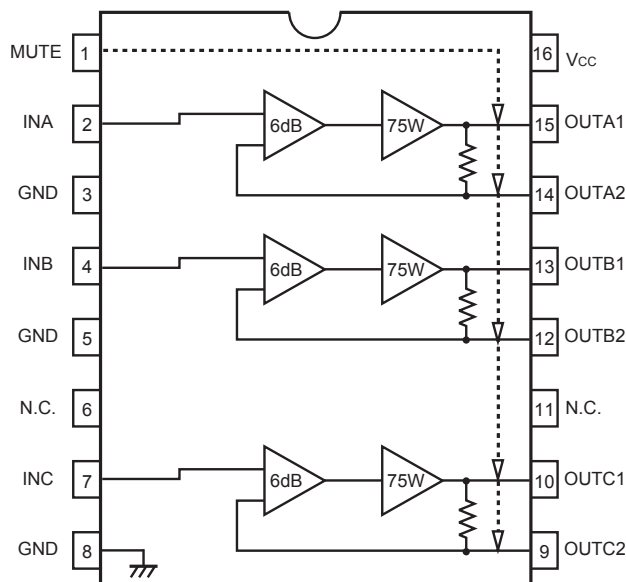
74HC4051
KEYBOARD: U208



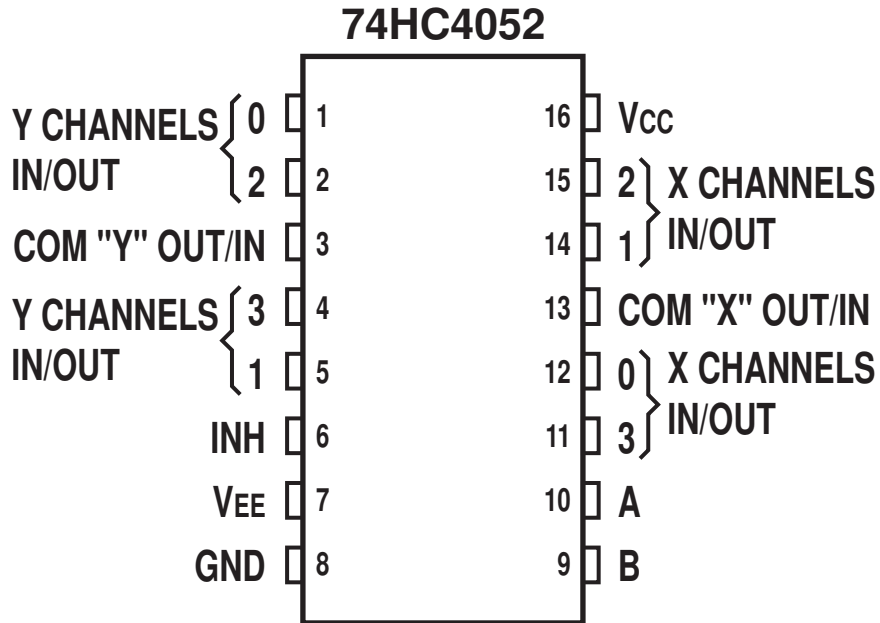
M6759
KEYBOARD: U201 & U202



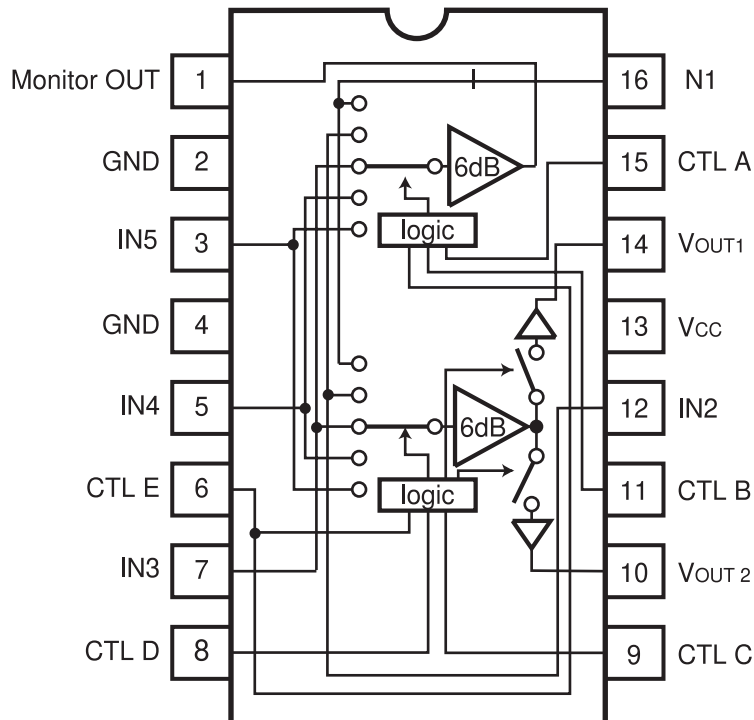
BA7660FS
COMPONENT VIDEO BOARD: U4301



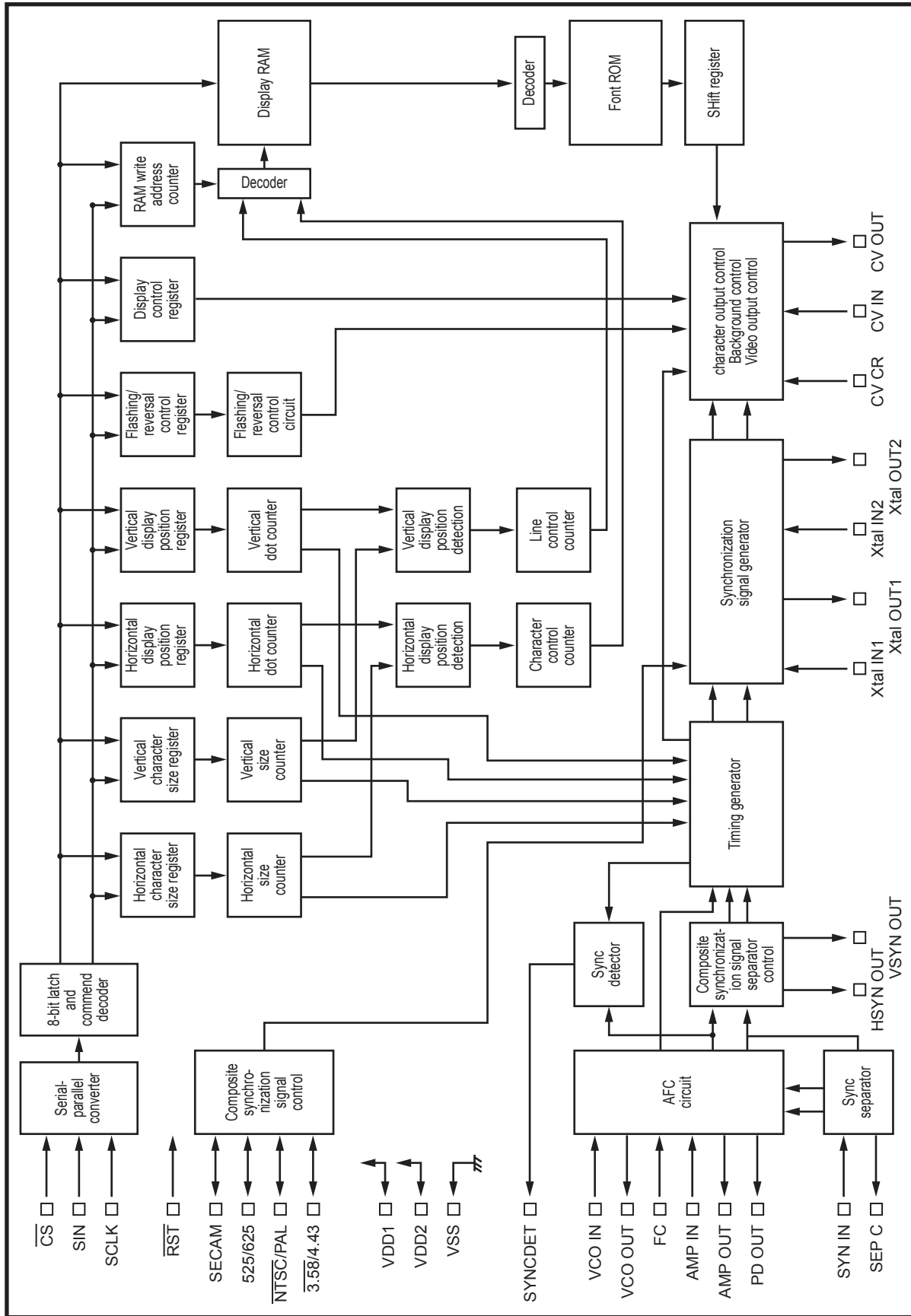
74HC4052
COMPONENT VIDEO BOARD: U4302 & U4303



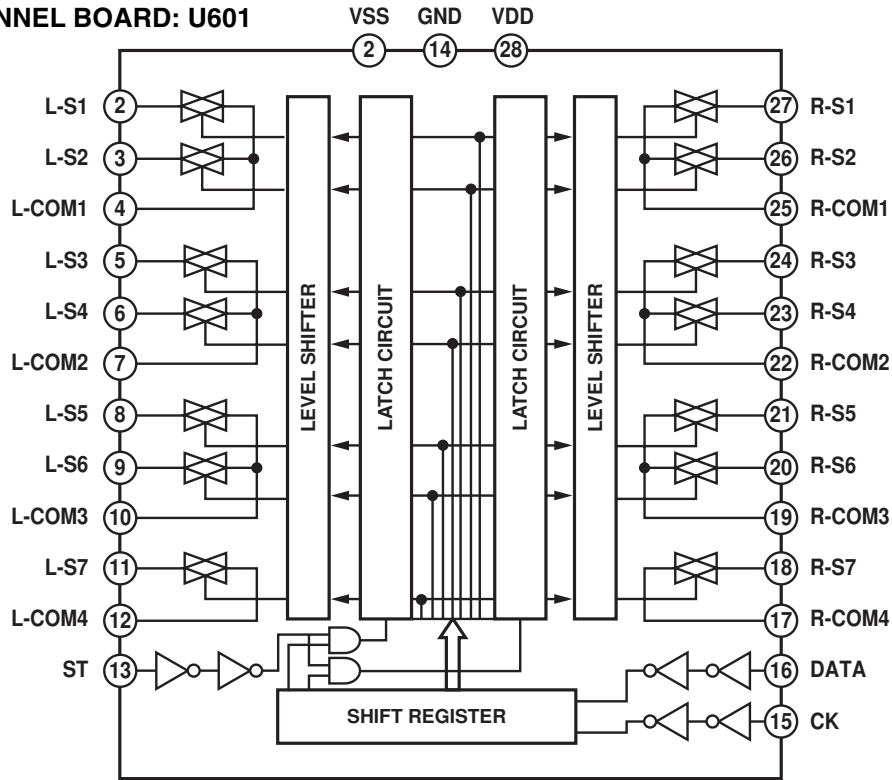
BA7625
COMPOSITE VIDEO BOARD: U4202
S-VIDEO BOARD: U4102 & U4103



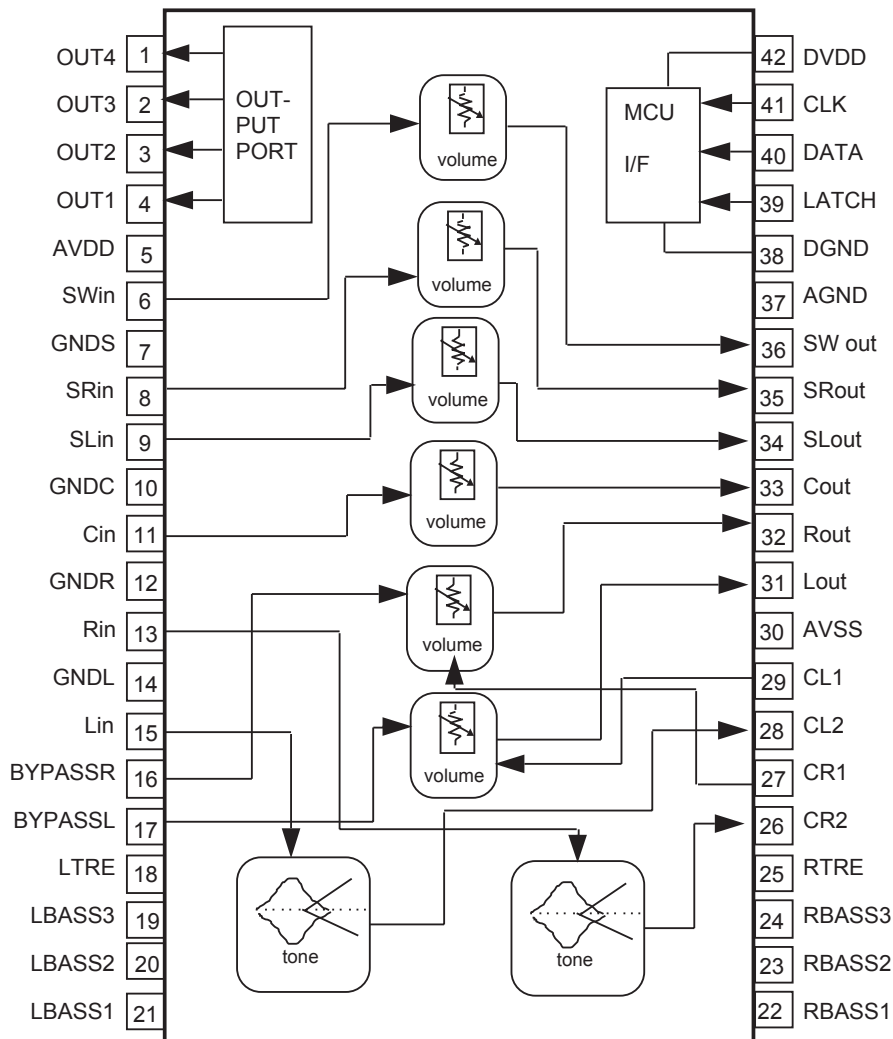
LC74763
S-VIDEO BOARD: U4101



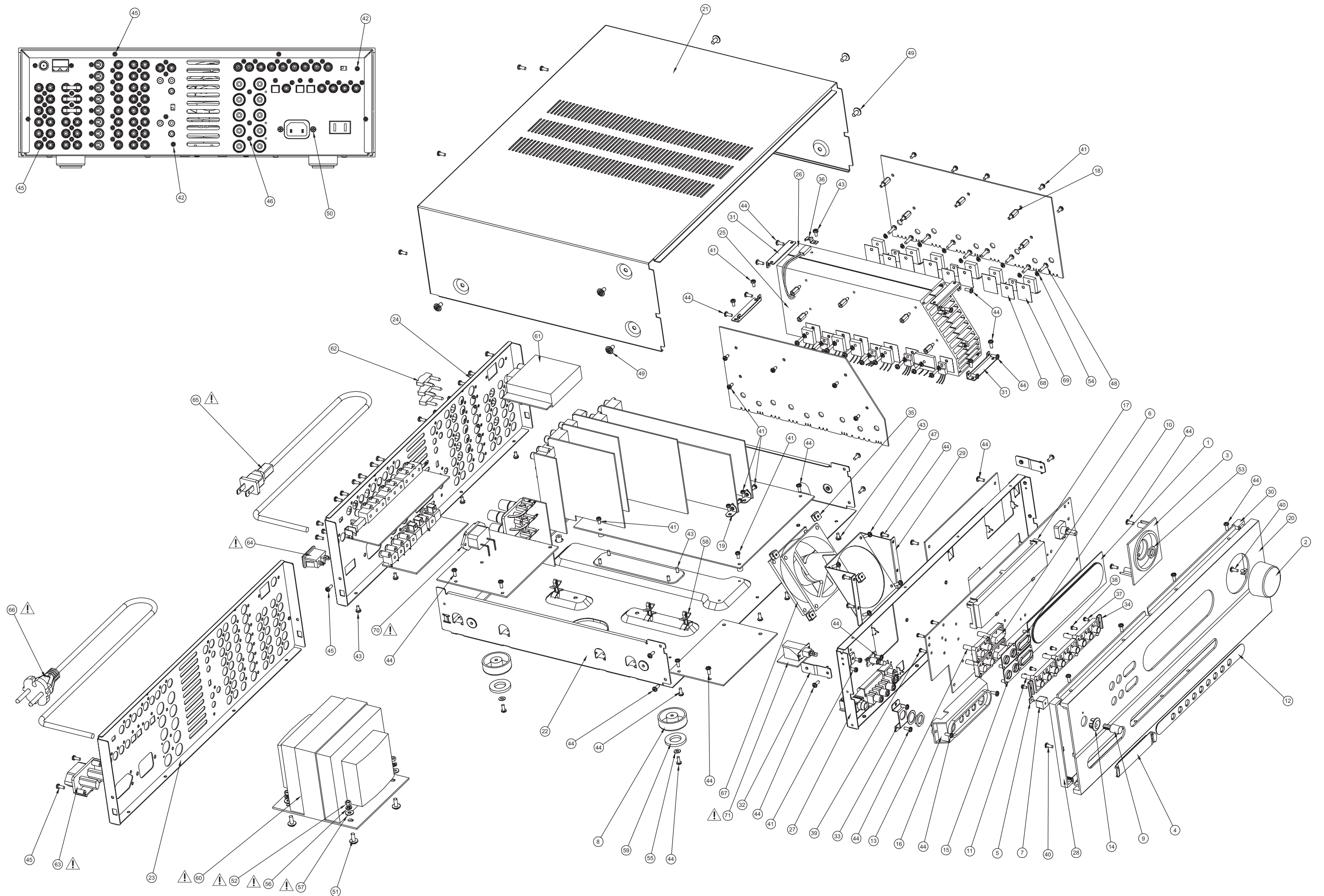
TC9164N
MULTI-CHANNEL BOARD: U601



M62446FP
PRE-OUT BOARD: U602 & U603



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

Item	Part No.	Description	Qty.
1	10-0752001-00-10	WINDOW LENS	1
2	10-0752002-71-00	VOLUME KNOB ASSEMBLY	1
3	10-0752005-71-00	VOLUME BEZEL	1
4	10-0752007-01-00	VIDEO COVER	1
5	10-0752011-00-00	LED LENS	1
6	10-0752012-01-00	RACKER BUTTON	2
7	10-0752015-01-00	LED BEZEL	1
8	10-0752017-01-00	PLASTIC FOOT	4
9	10-0752022-01-00	POWER BUTTON	1
10	10-0752025-01-00	RACKER BEZEL	2
11	10-0752032-01-00	INPUT BUTTON	3
12	10-0752035-71-00	INPUT BUTTON LOZENGE	1
13	10-0752042-01-00	DUO BUTTON	2
14	10-0752045-01-00	POWER BUTTON BEZEL	1
15	10-0752055-01-00	DUO BEZEL	2
16	10-0752065-01-00	VIDEO HOUSING	1
17	10-0752075-01-00	DISPLAY BRACKET	1
18	11-0570065-20-00	HEX SPACER	10
19	11-0570075-80-00	L BRACKET	2
20	11-0752000-95-10	FASCIA	1
21	11-0752003-85-10	TOP COVER	1
22	11-0752004-80-00	BOTTOM CHASSIS	1
23*C	11-0752006-94-10	REAR PANEL (C)	1
24*AH	11-0752006-94-10	REAR PANEL (AH)	1
25	11-0752008-80-00	EXTRUDED HEATSINK L	1
26	11-0752018-80-00	EXTRUDED HEATSINK R	1
27	11-0752025-80-00	SUBFASCIA	1
28	11-0752028-95-00	SIDE CAP L	1
29	11-0752035-80-00	FAN MOUNTING BRACKET	1
30	11-0752038-95-00	SIDE CAP R	1
31	11-0752045-80-00	HEATSINK MOUNTING BRACKET	4
32	11-0752055-80-00	SIDE MOUNTING BRACKET	2
33	11-0752065-80-00	PHONE BRACKET	1
34	11-0752075-80-00	DUMMY BRACKET	2
35	11-1500005-80-00	U-BRACKET	4
36	11-2100135-80-00	CLIP THERMAL SWITCH	1
37	13-0260500-02-00	SCREW 2.6 X 5 NI-PLT	2
38	13-0260600-02-00	SCREW 2.6 X 6 NI-PLT	6
39	13-0260803-02-00	SCREW 2.6 X 8 NI-PLT	14
40	13-0300803-04-00	SCREW 3.0 X 8 NI-PLT	2
41	14-0300600-02-00	SCREW M3 X 6 NI-PLT	21
42	14-0300600-04-00	SCREW M3 X 6 BLK-PLT	2
43	14-0300600-52-00	SCREW 3.0 X 6 NI-PLT	10
44	14-0300800-53-00	SCREW 3.0 X 8 ZINC-PLT	47
45*C	14-0300800-54-00	SCREW 3.0 X 8 BLK-PLT	54
45*AH	14-0300800-54-00	SCREW 3.0 X 8 BLK-PLT	52
46	14-0301000-54-00	SCREW 3.0 X 10 BLK-PLT	3
47	14-0301003-04-00	SCREW M3 X 10 BLK-PLT	4
48	14-0301203-02-00	SCREW M3 X 12 NI-PLT	18
49	14-0400802-04-00	SCREW M4 X 8 BLK-PLT	6
50	14-0400803-44-00	SCREW 4.0 X 8 BLK-PLT	2

Item	Part No.	Description	Qty.
51	14-0401002-04-00	SCREW M4 X 10 BLK-PLT	4
52	15-0400320-07-20	NUT M4 X 3.2	4
53	15-0900220-11-30	NUT M9 X 2.2	1
54	16-0320560-09-20	SPRING WASHER	18
55	16-0350080-04-35	STEEL WASHER	4
56	16-0400074-10-31	SPRING WASHER	4
57	16-0400100-08-25	STEEL WASHER	4
58	17-0500960-00-01	PCB SUPPOT H=9.6MM	3
59	17-1402600-30-22	RUBBER FOOT	4
60	⚠ 25-0220054-30-18	POWER TRANSFORMER EI-114 115/230V	1
61*C	⚠ 29-4000002-00-38	AM/FM TUNER MODULE KST-MB114MA-1-20	1
61*AH	⚠ 29-4000003-00-38	AM/FM TUNER MODULE KST-MB114MA-1-22	2
62	34-0061030-00-60	JUMPER PLUG	3
63*C	⚠ 34-0100002-00-78	AC OUTLET (C)	1
64*AH	⚠ 34-0101001-00-70	AC OUTLET (AH)	1
65*AH	⚠ 36-2061010-07-94	POWER CORD UL/CSA SPT-2 AWG 18X2	1
66*C	⚠ 36-2283110-07-96	POWER CORD EURO-PLUG 10A/250V	1
67	37-2011225-00-63	FAN 80mm x 80mm x 25mm; lead 300mm	1
68	38-1001500-00-65	SILICONE RUBBER	7
69	38-1030100-00-65	MICA 1.5KV 22 X 27 X 0.125MM	10
70	⚠ 34-0100002-00-70	AC INLET IEC 2 PIN 10A/250V	1
71	⚠ 35-0101109-00-67	POWER SW TV-8 10A 250V	1

NOTE:

THE COMPONENTS IDENTIFIED BY ⚠ 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.


ELECTRICAL PARTS LIST













<u>Reference No.</u>	<u>Part No.</u>	<u>Description</u>
<u>FRONT AND CENTER AMPLIFIER BOARD</u> <i>PCB ASSEMBLY</i>	80-0907520-40-00	FRONT AND CENTER AMP ASSEMBLY
<u>SURROUND AMPLIFIER BOARD</u> <i>PCB ASSEMBLY</i> COMPLETE HEAT SINK AND BOTH AMPLIFIER MODULES	80-0907520-18-00	SURROUND AMP ASSEMBLY
<u>DSP BOARD</u> <i>PCB ASSEMBLY</i>	95-0907525-12-01 80-0907520-65-00	DSP ASSEMBLY
<u>AUDIO BOARD</u> <i>TRANSISTORS</i> Q301,Q303,Q307,Q309 Q302,Q308	80-0907520-11-00 21-0000120-70-14 21-0000450-70-14	XTR NPN HFE 68 30MHz SPT DTC144ES XTR PNP 68 250MHz SPT DTA144ESA
<u>CAPACITORS</u> C317-C332 C333-C334	22-3226052-00-43 22-3470022-00-43	CAP ELEC SS 2.2uF 50V 20% CAP ELEC SS 47uF 16V 20%
<u>ICS</u> U301 U302,U303 U304	27-7892730-24-11 27-9496600-21-02 27-7055320-18-14	I.C. ANALOG SW SMD TC9273F-004 I.C. QUAD BILATERAL SWITCH LC4966 I.C. AUDIO LOW NOISE OP-AMP SMD NJM5532M
<u>RCA JACKS</u> M303 M301-M302	34-4040420-00-60 34-4060420-00-60	RCA JACK 4 R-R/W-W GOLD RS-453G-04 RCA JACK 6 R-R-R/W-W-W GOLD RCA-653D-04
<u>COMPONENT VIDEO BOARD</u> <i>TRANSISTOR</i> Q4301	80-0907520-66-00 21-0000120-70-14	XTR NPN HFE 68 30MHz SPT DTC144ES
<u>CAPACITORS</u> C4301-C4306 C4310-C4312,C4325 C4313-C4315 C4316,C4318,C4320 C4317,C4319,C4321	22-3226052-00-43 22-3100022-00-43 22-3106052-00-43 22-3101022-00-43 22-3220022-00-43	CAP ELEC SS 2.2uF 50V 20% CAP ELEC SS 10uF 16V 20% CAP ELEC SS 1uF 50V 20% CAP ELEC SS 100uF 16V 20% CAP ELEC GS 22uF 16V 20%
<u>ICS</u> U4301 U4302-U4303	27-5176600-18-23 27-0140520-18-00	I.C. VIDEO 3-CH 75 OHM DRIVER BA7660FS I.C. SINGLE DUAL TRIPLE M74HC4052MIR

<u>Reference No.</u>	<u>Part No.</u>	<u>Description</u>
RCS JACKS M431-M432,M434	34-4032020-00-60	RCA 3 G-BL-R GOLD RS-354G-18
SWITCH S4301	35-4102209-00-67	SW SLIDE 2P2T JSK022N09-G09
<u>DIGITAL BOARD</u> <u>FIBRE OPTICAL</u> J1008	80-0907520-47-00	
J1005-J1006	26-6691386-00-16	FIBRE OPTIC TRANSMITTER GP1FA550TZ
	26-6701380-01-16	FIBRE OPTIC RECEIVING UNIT GP1FA550RZ
CAPACITORS C1066, C1067	22-3226052-00-43	CAP ELEC SS 2.2uF 50V 20%
IC U1024, U1026	27-0804990-18-00	I.C. HEX INVERTER M74HCU04MIR
RCA JACKS J1001-J1004,J1007	34-4010320-00-60	RCA JACK 1 BLACK GOLD RS-146G/B
<u>KEYBOARD</u> <u>DIODES</u> D212,D214-D218 D213 D219 D220	80-0907520-02-00	
	20-0000000-00-13	DIODE SW 4NS DO35 IN4148
	20-3262902-00-01	DIODE ZENER BZX55 6.2V 1/2W 5%
	20-1001401-20-44	DIODE 1N4004 replaced by 1N5399
	20-3251902-00-01	DIODE ZENER BZX55 5.1V 1/2W 5%
TRANSISTORS Q202-Q206	21-0000010-00-46	XTR NPN HEF 100 200MHz C1815Y
CAPACITORS C203-C206 C207,C214 C208-C211 C212 C201, C202, C213, C215-C220 C222, C241, C242 C223	45-0100054-52-57 22-3100022-00-43 22-3470022-00-43 22-3102012-00-28 45-0104056-57-57 45-0102055-55-57 45-023055-55-57	CAP CER SMD 10pF 50V 5% CAP ELEC SS 10uF 16V 20% CAP ELEC SS 47uF 16V 20% CAP ELEC GR 1000uF 10V 20% CAP CER SMD 0.1uF 50V 20% CAP CER SMD 1nF 50V 10% CAP CER SMD 1nF 50V 10%
IR D201	26-0941380-00-00	IR RX 940nm 37.9KHz SHIELD ST FM-7138TE5
ICS U201(A/V-R)-U202(VFD)	27-1086400-04-87	I.C. MCU 8 BIT 64KROM 512 BYTE M6759 (sold as a pair)
U203	27-9630600-14-62	I.C. VFD DRIVER PT6306
U204-U207	27-0540940-18-00	I.C. 8-STAGE BUS REGISTER HCF4094BM1

Reference No.	Part No.	Description
U208	27-0140510-18-00	I.C. MUX/DEMUX M74HC4051MIR
U209	27-0324591-18-00	IC OCTAL BUS TRANSCEIVER 74VHC245M
U210	27-2300225-00-00	I.C. EEPROM 2K BYTE 250nS M24C16-BN6
CRYSTAL X201-X202	28-5221200-06-19	CRYSTAL 22.1184MHZ 30ppm HC-49S
IC SOCKET U201A	34-6244000-00-79	IC SOCKET PLCC 44 FT
TACT SWITCHES S201-S217	35-1001117-00-67	SW TACT 1PIT 50mA/12V TM114BFJ
ENCODER M201	35-6001219-00-08	ENCODER ROTATRY L=20mm W/O CLICK ECB16
VFD VFD	41-4340100-00-13	VFD 16-BT-93GNK
RESISTORS R201-R207, R212, R213, R215, R219, R223-R224, R226-R227, R229, R231-R232	44-0100220-51-00	RES SMD 10K OHM 5%
R209-R210	44-0100520-51-00	RES SMD 10M OHM 5%
R233	44-0470220-51-00	RES SMD 47K OHM 5%
R216	44-0390020-51-00	RES SMD 390 OHM 5%
R217-R218	44-0150120-51-00	RES SMD 1.5K OHM 5%
R220, R236, R237	44-0470120-51-00	RES SMD 4.7K OHM 5%
R221, R230	44-0220120-51-00	RES SMD 2.2K OHM 5%
R222	44-0220020-51-00	RES SMD 220 OHM 5%
R238	44-0120220-51-00	RES SMD 12K OHM 5%
R241, R242	44-0100020-51-00	RES SMD 100 OHM 5%
LED BOARD LED D211	80-0907520-32-00 26-0012305-01-17	 LED RED-GREEN 3RGSW-1-A
MAIN BOARD DIODES D701-D710,D713 D711 D712,D714 D715 D716-D717	80-0907520-00-00 20-1001401-20-44 20-3227002-00-47 20-0000000-00-13 20-5004700-50-02 20-3951943-50-01	 DIODE 1N4004 replaced by 1N5399 DIODE ZENER BZX55 27V 1/2W 5% DIODE SW 4NS DO35 IN4148 DIODE BRI 4A/70V RS402L DIODE ZENER ZY5.1 2W 10%
TRANSISTOR Q701	21-0000140-00-11	XTR NPN HFE 120 100MHz SS8050C

Reference No.	Part No.	Description
CAPACITORS		
C701,C705-C706,C716	22-3102032-00-28	CAP ELEC GR 1000uF 25V 20%
C702,C719,C723	22-3101022-00-43	CAP ELEC SS 100uF 16V 20%
C704	22-3332032-00-28	CAP ELEC GR 3300uF 25V 20%
C707,C721,C724	22-3222032-00-34	CAP ELEC GS 2200uF 25V 20%
C710	22-3470052-00-43	CAP ELEC SS 47uF 50V 20%
C711-C713	22-3102052-00-28	CAP ELEC GR 1000uF 50V 20%
REGULATORS		
U701,U704-U706	27-3000501-17-14	I.C. VOLT REG 5V 1A NJM7805FA
U702	27-3001201-17-14	I.C. VOLT REG 12V 1A NJM7812
U703	27-3101201-13-14	I.C. VOLT REG F NJM7912
MULTI-CHANNEL BOARD		
DIODE		
D601	20-0000000-00-13	DIODE SW 4NS DO35 IN4148
TRANSISTORS		
Q601-Q602	21-0000360-00-00	XTR NPN HFE200-700 30MHz 2SC2878A
Q603	21-0100390-70-14	XTR PNP HFE 30 250MHz SPT DTA 114ESA
Q604	21-0000400-70-14	XTR NPN HFE30 250MHz SPT DTC114ESA
Q626,Q628	21-0000120-70-14	XTR NPN HFE 68 30MHz SPT DTC144ES
Q627	21-0000450-70-14	XTR PNP 68 250MHz SPT DTA144ESA
CAPACITORS		
C607,C611-C612, C619-C622	22-3220022-00-43	CAP ELEC GS 22uF 16V 20%
C623,C681-C683	22-3221022-00-43	CAP ELEC SS 220uF 16V 20%
C626	22-3470022-00-43	CAP ELEC SS 47uF 16V 20%
C677-C690		
RESISTORS		
J601-J603	44-0000027-11-00	RES SMD 0 OHM 5%
ICS		
U601	27-7891640-21-11	I.C. ANALOG FUNCTION SW TC9164AN
U604	27-9496600-21-02	I.C. QUAD BILATERAL SW LC4966
U605-U608	27-7055320-18-14	I.C. LOW NOISE OP-AMP NJM5532M
RCA JACKS		
M601	34-4060420-00-60	RCA JACK 6 R-R-R/W-W-W GOLD RCA-653D-04
M602	34-4020320-00-60	RCA JACK 2 B/B GOLD RS-253G-02
M603	34-4040420-00-60	RCA JACK 4 R-R/W-W GOLD RS-453G-04

<u>Reference No.</u>	<u>Part No.</u>	<u>Description</u>
<u>PRE-OUT BOARD</u>	80-0907520-63-00	
<i>DIODES</i>		
D602,D604	20-3275902-00-01	DIODE ZENER BZX55 7.5V 1/2W 5%
D605-D609, D611-D615	20-0000000-00-13	DIODE SW 4NS DO35 IN4148
<i>TRANSISTORS</i>		
Q605	21-0000140-00-11	XTR NPN HFE 120 100MHz SS8050C
Q607	21-0100131-00-11	XTR PNP HFE 170 1.5A SS8550C
Q608-Q615	21-0000350-70-00	XTR NPN HFE200-700 30MHz SPT RN1241A
Q616,Q618,Q620,Q622,Q624	21-0100390-70-14	XTR PNP HFE 30 250MHz SPT DTA 114ESA
Q617,Q619,Q621,Q623,Q625	21-0000400-70-14	XTR NPN HFE30 250MHz SPT DTC114ESA
<i>CAPACITORS</i>		
C613-C618, C624-C625, C635-C636	22-3336052-00-43	CAP ELEC SS 3.3uF 50V 20%
C627-C628, C633-C634	22-3101022-00-43	CAP ELEC SS 100uF 16V 20%
C679-C680, C691-C692	22-3470022-00-43	CAP ELEC SS 47uF 16V 20%
C637, C642, C647, C652, C657, C662, C667,C672	22-3100022-00-43	CAP ELEC SS 10uF 16V 20%
C640, C645, C650,C655, C660, C665, C670, C675	22-3220022-00-43	CAP ELEC GS 22uF 16V 20%
C684-C688	22-3331022-00-28	CAP ELEC GR 330uF 16V 20%
C693-C694	22-4182203-10-10	CAP MYLAR KT-G 8.2nF 100V 10%
C695-C696	22-4115303-10-28	CAP MYLAR MCC-R 15nF 100V 10%
C697-C698	22-4233402-00-31	CAP MPF 0.33uF 63V 5%
<i>RESISTORS</i>		
J6101-J6104	44-0000027-11-00	RES SMD 0 OHM 5%
<i>INDUCTOR</i>		
L601	24-0101108-00-28	IND CHOKE 100uH 10%
<i>ICS</i>		
U602-U603	27-7262446-10-01	I.C. VOL/TONE CONTROL M62446FP
U609-U612	27-7055320-18-14	I.C. LOW NOISE OP-AMP NJM5532M
<i>RCA JACKS</i>		
M607	34-4040500-00-60	RCA JACK 4 R-W/R-W GOLD RS-413G-08
M608,M610	34-4020300-00-60	RCA JACK 2 B/B GOLD RS-213G-02
M609	34-4040400-00-60	RCA JACK 4 R-R/W-W GOLD RS-413G-04
<u>POWER SUPPLY BOARD</u>	80-0907520-01-00 AH	and 80-0907520-01-01 C-version
<i>CAPACITORS</i>		
C763 	2-1103470-35-45	CAP CER ECKDRS 10nF 400VAC +80/-20%

<u>Reference No.</u>	<u>Part No.</u>	<u>Description</u>
RESISTORS		
R751 	23-5228330-00-00	RES FUSIBLE 0.22 OHM 10% 1/2W
R754*AH 	23-0395230-00-00	RES CF 3.9M OHM 5% 1/2W
RELAY		
M751*C 	32-3112100-02-97	RELAY 12VDC/10A SPST PCB OMI-SS-112LM
M751*AH 	32-1012100-01-97	RELAY 12VDC/10A 1P1T
DIODE		
D751	20-0000000-00-13	DIODE SW 4NS D035 IN4148
D752-D755	20-1001401-20-44	DIODE 1N4004 replaced by 1N5399
TRANSISTOR		
Q751	21-0000010-00-46	XTR SS NPN HEF 100 200MHz TO-92 C1815Y
LINE FILTER		
L752 	24-5103050-01-25	LINE FILTER 10mH ET-24 NC-F0092-1
FUSES & FUSE HOLDERS		
F751*AH 	33-0181001-01-88	FUSE TIME-LAG 8A/250VAC 5x20mm UL/CSA 5S
F752*AH 	33-0111006-00-48	FUSE 1.6A 250V TIME LAG LBC 5x20mm UL/CSA/VDE/SEMKO
F751*C 	33-0161002-00-48	FUSE TIME-LAG 5A/250VAC 5 X 20mm VDE TSD
F752*C 	33-0151006-00-48	FUSE 800mA 250V TIME LAG LBC 5x20mm UL/CSA/VDE/SEMKO
FH751-FH752 	33-1000000-00-88	FUSE CLIP 0.05mm FC-53-11
<u>POWER SWITCH BOARD</u>		80-0907520-48-00
CAPACITORS		
C764 	22-1103470-35-45	CAP CER ECKDRS 10nF 400VAC +80/-20%
POWER SWITCH		
S751 	35-0101109-00-67	SW POWER TV-8 10A 250VAC PS3-22SPA-P7AZ
<u>SECONDARY BOARD</u>		80-0907520-27-00
JUMPER BAR		
JMP1-JMP4	11-0752007-80-01	JUMPER BAR DIA1.5 X 25 R.1
RECTIFIER		
D781	20-5125401-50-02	BRIDGE RECTIFIER 25A 400V MP254W BR-25W
TRANSISTORS		
Q781-Q782	21-0100410-00-12	XTR PNP HFE 480-960 110MHz 2SA1016KG-AA

<u>Reference No.</u>	<u>Part No.</u>	<u>Description</u>
CAPACITORS C790-C791 C781-C789	22-3123072-00-41 22-4210402-00-31	CAP ELEC LP 12000uF 80V 20% CAP MPF 0.1uF 63V 5%
RESISTORS R784-R785 R790,R793 R781-R783	23-2228232-00-00 23-4228280-08-20 23-5228330-00-00	RES MO 0.22 OHM 5% 1/2W RES CE 0.22 OHM 5% 5W RES FUSIBLE 0.22 OHM 10% 1/2W
SPEAKER BOARD SPEAKER TERMINALS M5101 M8101	80-0907520-67-00 34-3000022-00-60 34-3000021-00-60	 SPEAKER TER 4P R/B W/O PLUG PT-430A-03 SPEAKER TER 6P R/B W/O PLUG PT-630A-03
S-VIDEO BOARD DIODES D4101-D4107	80-0907520-26-00 20-0000000-00-13	 DIODE SW 4NS DO35 IN4148
TRANSISTORS Q4101,Q4103,Q4122 Q4102 Q4107-Q4112,Q4116-Q4119 Q4113-Q4114,Q4121,Q4124-Q4125, Q4128-Q4130 Q4115,Q4126-Q4127 Q4120,Q4123	21-0000120-70-14 21-0000450-70-14 21-0100370-70-14 21-0000360-00-00 21-0000390-70-14 21-0000380-70-14	XTR NPN HFE 68 30MHz SPT DTC144ES XTR NPN 68 250MHz SPT DTA144ESA XTR PNP HFE 270-560 140MHz 2SA933AS XTR NPN HFE200-700 30MHz 2SC2878A XTR NPN HFE270-560 180MHz 2SC1740S XTR NPN HFE20 250MHz DTC-123ESA
CAPACITORS C4101-C4107,C4109-C4111,C4113-C4115, C4117-C4120,C4153,C4157 C4108,C4112,C4116,C4156 C4123-C4124 C4133,C4141 C4134,C4145,C4149 C4136,C4146 C4137,C4144 C4138 C4150,C4158 C4151	22-3226052-00-43 22-3471012-00-28 22-3221012-00-43 22-3106052-00-43 22-3101012-00-43 22-4247402-00-31 22-3477052-00-43 22-7300210-00-01 22-3470022-00-43 22-3100022-00-43	CAP ELEC SS 2.2uF 50V 20% CAP ELEC GR 470uF 10V 20% CAP ELEC SS 220uF 10V 20% CAP ELEC SS 1uF 50V 20% CAP ELEC SS 100uF 10V 20% CAP MPF 0.47uF 63V 5% CAP ELEC SS 0.47uF 50 20% CAP VC 30pF 20% CAP ELEC SS 47uF 16V 20% CAP ELEC SS 10uF 16V 20%
INDUCTORS L4101 L4102	24-0569107-00-28 24-0220107-00-28	IND CHOKE 5.6uH 10% IND CHOKE 22uH 10%

Reference No.	Part No.	Description
ICS		
U4101	27-5574763-21-02	I.C. OSD LC74763-9012
U4102,U4103	27-5076250-21-23	I.C. AV SWITCH BA7625
U4104	27-9496600-21-02	I.C. QUAD BILATERAL SWITCH LC4966
CRYSTALS		
X4101	28-5143200-06-19	CRYSTAL 14.318MHz 30ppm HC-49S
X4102	28-5177200-06-19	CRYSTAL 17.73447MHz 30ppm HC-49S
DIN JACKS		
M411-M418	34-4110300-00-60	DIN JACK 1 BLACK MD-113
TRIGGER BOARD	80-0907520-68-00	
DIODE		
D351	20-3251902-00-01	DIODE ZENER BZX55 5.1V 1/2W 5%
TRANSISTOR		
Q351	21-0000380-70-14	XTR NPN HFE20 250MHz DTC-123ESA
REGULATORS		
U351-U352	27-3001291-07-14	I.C. VOLT REG 12V 100mA 78L12
JACKS		
M351	34-4020420-00-60	RCA JACK 2 R-W GOLD RS-253-04
M353,M355	34-4310300-00-60	PHONE JACK 1 BLACK 3.5mm RIGHT ST-030-07
M354,M352	34-4320300-00-67	PHONE JACK 3.5mm 2P RIGHT JY-3552-01-330
SWITCH		
S351	35-4102209-00-67	SW SLIDE 2P2T JSK022N09-G09
VIDEO-6 BOARD	80-0907520-45-00	
CAPACITORS		
C4401-C4403	22-3226052-00-44	CAP ELEC SS 2.2uF 50V 20%
JACKS		
J4401	34-4510302-00-60	PHONE JACK D6.3 1 ST-016S-01
M4401	34-4010000-01-60	RCA JACK 1 YELLOW GOLD RS-105G/Y
M4402	34-4110300-00-60	DIN JACK 1 BLACK MD-113
M4403	34-4010200-01-60	RCA 1 WHITE GOLD RS-105AG/W
M4404	34-4010100-01-60	RCA JACK 1 RED GOLD RS-105AG/R
VIDEO BOARD	80-0907520-42-00	
TRANSISTORS		
Q4201-Q4203	21-0100370-70-14	XTR PNP HFE 270-560 140MHz 2SA933AS

Reference No.	Part No.	Description
CAPACITORS C4201-C4203, C4205, C4207, C4209-C4210 C4204, C4206, C4208, C4211 ICS U4202 U4201 RCA JACKS M421-M422	22-3226052-00-43	CAP ELEC SS 2.2uF 50V 20%
	22-3471012-00-28	CAP ELEC GR 470uF 10V 20%
	27-5076250-21-23	I.C. AV SWITCH DIP BA7625
	27-9496600-21-02	I.C. QUAD BILATERAL SWITCH LC4966
	34-4040020-00-60	RCA JACK 4 Y-Y/Y-Y GOLD RS-454-03

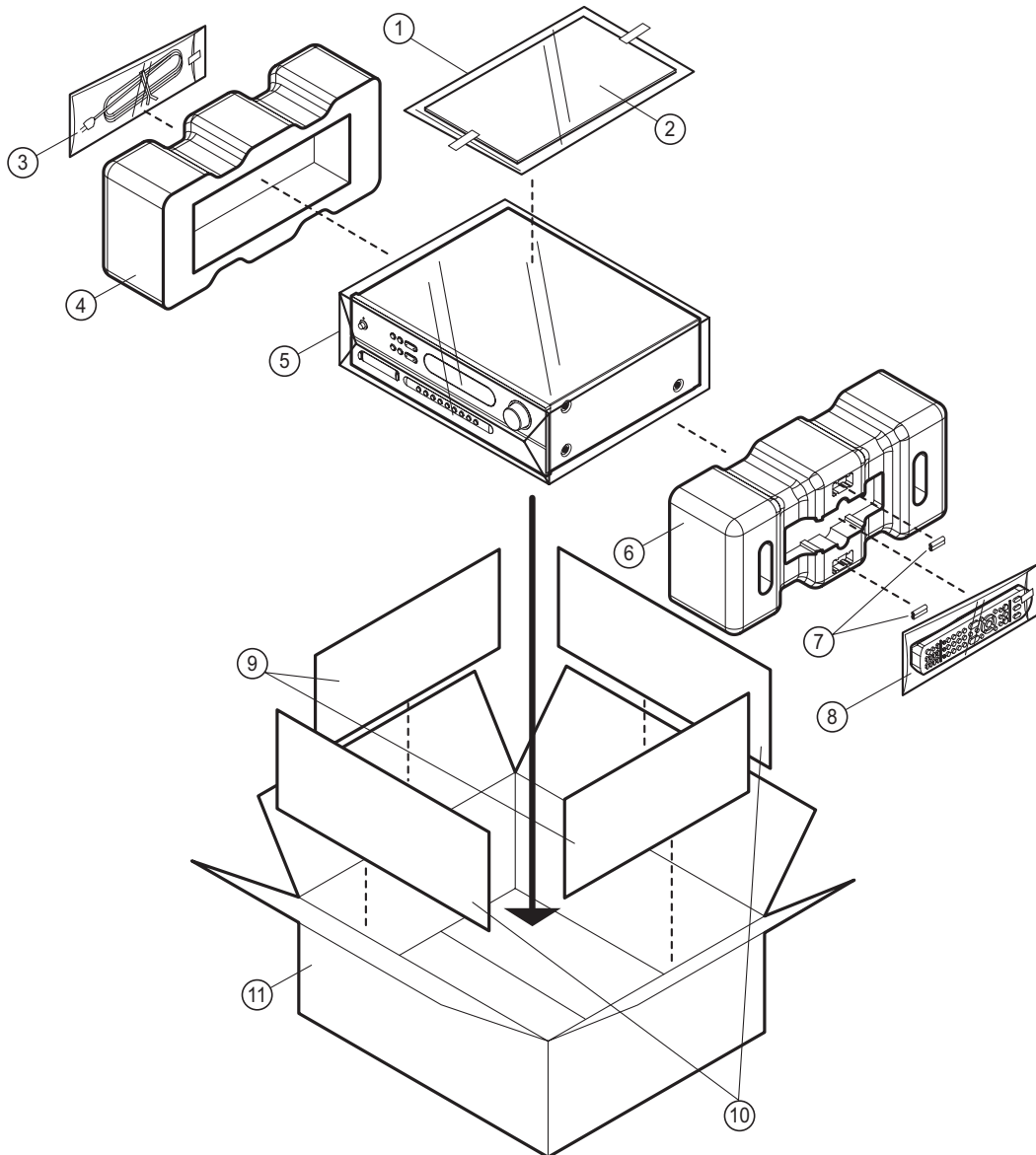
NOTE: THE COMPONENTS IDENTIFIED BY ⚠ MARK ARE CRITICAL FOR RISK OF FIRE AND ELECTRICAL SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

<*AH > : USA, CANADIAN MODEL ONLY.

<*C > : EUROPEAN MODEL ONLY.

RESISTORS: MO-METAL OXIDE, CE-CERAMIC CASE.

PACKING DIAGRAM



Item	Part No.	Description	Qty.
1	64-0200001-01-00	POLYBAG MANUAL	1
2	61-0752004-42-99	OWNER'S MANUAL GB/F/D/NL	1
	61-0752004-43-99	OWNER'S MANUAL E/I/P/S	1
	31-6472801-00-28	AM LOOP ANTENNA	1
	31-6407520-00-98	FM ANTENNA	1
	34-0081004-00-48	300 TO 75 OHM ADAPTOR	1
3	36-2061010-07-94 *AH	POWER CORD	1
	36-2283110-07-96 *C	POWER CORD	1
4	63-0752001-00-01	POLYFOAM ENDCAP L	1
5	64-0700001-00-01	POLYBAG UNIT	1
6	63-0752002-00-00	POLYFOAM ENDCAP R	1
7	37-0020200-00-79	BATTERY AAA 1.5V	4
8	83-0752000-00-04	REMOTE HANDSET NAD HTR-2	1
9	67-0752002-11-99	CARTON SHEET 490 X 225 MM	2
10	67-0752001-10-99	CARTON SHEET 560 X 225 MM	2
11	67-0752000-10-99	CARTON BOX	1

VERSION HISTORY

SERIAL NUMBER	SOFTWARE VER.	PCB ASSEMBLY VERSION
R28T75200001-R28T75200050	8.3	<p><u>A6 PCB ASSEMBLY</u> KEYBOARD, DSP BOARD, TRIGGER BOARD, MAIN BOARD, VIDEO 6 BOARD, PRE-OUT BOARD, MULTI-CHANNEL BOARD, SECONDARY BOARD, LED BOARD, DIGITAL BOARD, POWER SWITCH BOARD, COMPONENT VIDEO BOARD.</p> <p><u>A7 PCB ASSEMBLY</u> FRONT & CENTER AMP BOARD, SUR ROUND AMP BOARD, AUDIO BOARD, S-VIDEO BOARD, COMPOSITE VIDEO BOARD, POWER SUPPLY BOARD, SPEAKER BOARD.</p>
R28T75200051-R28T75200280	8.3	<p><u>A6 PCB ASSEMBLY</u> KEYBOARD, DSP BOARD, TRIGGER BOARD, MAIN BOARD, VIDEO 6 BOARD, PRE-OUT BOARD, MULTI-CHANNEL BOARD, SECONDARY BOARD, LED BOARD, DIGITAL BOARD, POWER SWITCH BOARD.</p> <p><u>A7 PCB ASSEMBLY</u> FRONT & CENTER AMP BOARD, SUR ROUND AMP BOARD, AUDIO BOARD, S-VIDEO BOARD, COMPOSITE VIDEO BOARD, POWER SUPPLY BOARD, SPEAKER BOARD, COMPONENT VIDEO BOARD.</p>
R28T75200401-R28T75200481	V1.02.A6	<p><u>A6 PCB ASSEMBLY</u> KEYBOARD, DSP BOARD, TRIGGER BOARD, MAIN BOARD, VIDEO 6 BOARD, PRE-OUT BOARD, MULTI-CHANNEL BOARD, SECONDARY BOARD, LED BOARD, DIGITAL BOARD, POWER SWITCH BOARD.</p> <p><u>A7 PCB ASSEMBLY</u> FRONT & CENTER AMP BOARD, SUR ROUND AMP BOARD, AUDIO BOARD, S-VIDEO BOARD, COMPOSITE VIDEO BOARD, POWER SUPPLY BOARD, SPEAKER BOARD, COMPONENT VIDEO BOARD.</p>
R28T75200281-R28T75200400 R28T75200482-R28T75200681	V1.04.07	ALL ARE A7 PCB ASSEMBLY
R29T75200682-R29T75201253	V1.06.07	ALL ARE A7 PCB ASSEMBLY
R29T75201254-R29T75202800	V1.06.07	ALL ARE A8 PCB ASSEMBLY
R2XT75203301-R2XT75203460	V1.06.07	ALL ARE A7 PCB ASSEMBLY
R2XT75202801-R2XT75203300 R2XT75203461-R2XT75203514	V1.06.07	ALL ARE A8 PCB ASSEMBLY
R2XT75203515-R2XT75204550	V1.06.07	ALL PCB ASSEMBLIES MARKED 55-0752XXX-XX-01
R2YT75204551-R2YT75205374 R2YT75205601-R2YT75206060	V1.06.07	ALL PCB ASSEMBLIES MARKED 55-0752XXX-XX-01

NOTES:

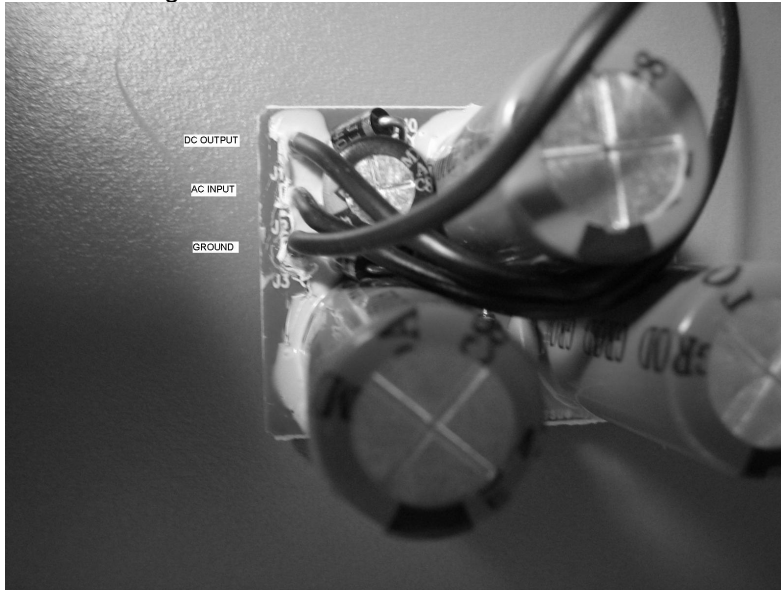
Original P/N	Interim P/N	Final P/N with Description
80-0907520-02-00	800-KEBD52-00	50-922-0752-90 - T752 KEYBOARD ASSEMBLY
80-0907520-63-00	800-POBD52-00	50-924-0752-90 - T752 PRE-OUT BOARD ASSEMBLY

Service Hint for replacing Q701 in T752/T762 with 95-0907627-12-01

- 1 Q701 module with flying leads
- 1 black foam block, with double sided tape on two sides
- 1 set of instructions

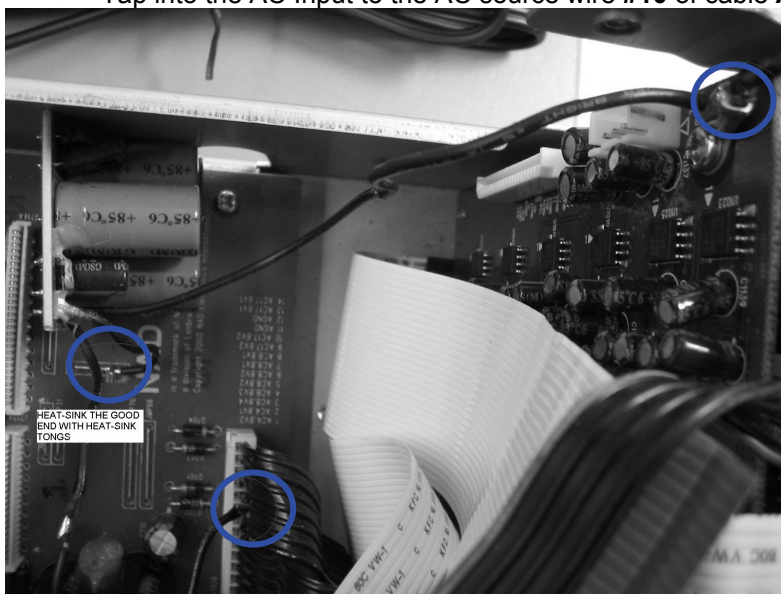
When Q701 becomes defective, the T752 will turn on, but the VFD will not light up. The purpose of replacing the transistor Q701 with a module is to facilitate a more reliable and quicker repair process with a minimum of parts disturbance, if and when Q701 becomes defective.

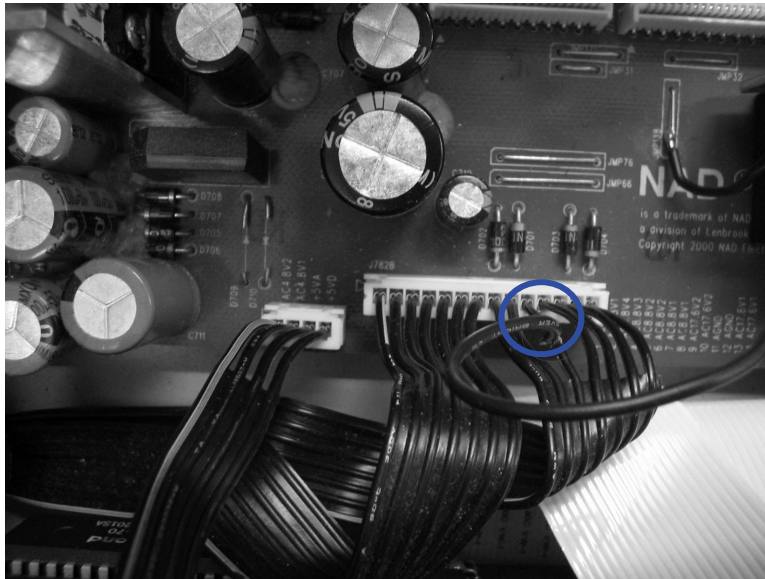
- **J1** is DC output
- **J2** is AC input
- **J3** is ground



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- Connect the long ground wire to the DSP ground, top right hand side of the DSP module
- Connect the DC Output to jumper **JMP138** be sure not to heat up the solder connections on the bottom of the main PCB: Use heat-sink tongs.
- Tap into the AC Input to the AC source wire **#10** of cable **AC17.6V2**





- Cut out the following parts:
 1. Diodes **D709** and **D710**
 2. **Q701** (cut out or pull out)
 3. Cut out **R702**



SERVICE MANUAL

T 752

**AV SURROUND
SOUND RECEIVER**

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