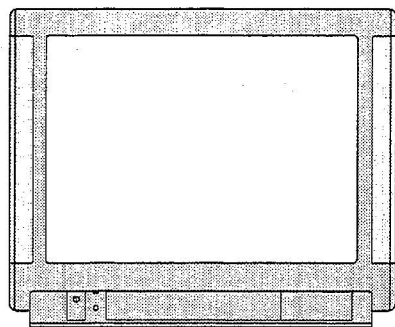




# Service Manual



## Colour TV Models

**CT-28AV1GS**

**CT-28AV1G-S**

**CT-28AV1GDS**

**CT-28AV1GD-S**

**CT-28AV1S-S**

**CT-28AV1SD-S**

**CT-28AV1ED-S**

## SPECIFICATIONS

Reception System .....	CCIR-BG/DK* PAL/SECAM (GS*, G-S*, GDS*, GD-S*, ED-S) CCIR-BG/DK/I/L PAL/SECAM (S-S*, SD-S*)	
Reception Frequency .....	UHF 470MHz~862MHz VHF 47~170MHz (VB1), 170~448MHz (VB2)	
Satellite Tuner .....	Fitted to 28AV1GS, GDS Optional tuner kit SA-95G available for 28AV1G-S, GD-S, S-S, SD-S, ED-S)	
Stereo System .....	ZWIETON (all models except <i>some</i> early SD-S* and S-S*) NICAM (S-S, SD-S)	
Mains Input .....	AC 230V 50Hz	
Power Consumption .....	110W (28AV1S-S, G-S) 114W (28AV1GD-S, SD-S, ED-S) 134W (28AV1GDS) 128W (28AV1GS)	} +18W for Satellite tuner when fitted.
Aerial Input .....	75 ohm	
Audio Output .....	12W + 12W + 15W (28AV1GS, G-S, S-S) 12W + 12W [Internal left + right = centre] 12W + 12W [External left + right] 6W + 6W [Rear] 15W [Sub woofer]	} (28AV1GDS, GD-S, SD-S, ED-S)
Speaker .....	2 x (ø10 + ø4) + ø10 (28AV1GS, G-S, S-S) 2 x (ø10 + ø4) + ø10 [Internal] 2 x (ø10.5 + ø5) [Front] 2 x ø10.5 [Rear]	} (28AV1GDS, GD-S, SD-S, ED-S)
Chassis .....	EE3	
Picture Tube .....	A66EGW83X101 66cm(V)/28", 110°	
Cabinet dimensions .....	67cm x 49.5cm x 55cm (approx. W x D x H)	
Weight .....	34Kg (approx.)	

\* See the table on page 8 for differences on early production sets. See page 25 or ask Mitsubishi Service Department for serial numbers of affected models

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# 1 GENERAL NOTES

## 1.1 SAFETY PRECAUTIONS

### 1.1.1 General Warnings

1. Observe any cautions and safety related notes located inside the receiver cabinet and on the receiver chassis.
2. An isolation transformer should be used between the television receiver and the AC power supply point before any test or servicing is performed on a LIVE chassis television receiver.
3. Operation of these receivers outside the cabinet or with the back cover removed involves a shock hazard from the receiver power supplies. Work on the receiver should not be attempted by anyone who is not familiar with the precautions necessary when working on high voltage equipment.
4. Do not install, remove or handle the picture tube in way unless shatterproof goggles are worn. People not so equipped should be kept away while the picture tube is being handled. Keep the picture tube away from the body while handling.
5. When service is required, observe the original lead dressing. Extra precaution should be given to assure correct lead dressing in the high voltage area. Where a short-circuit has occurred, replace those components that indicate evidence of overheating.

### 1.1.2 X-RAY Warning

Under fault conditions the CRT can generate X-rays. The use of a lead apron is recommended if available.

When replacing the CRT only use the designated replacement part as it is a critical component with regard to X-rays. No high-voltage adjustments are provided.

### 1.1.3 Leakage Current Check

Before returning the receiver to the customer it is recommended that the leakage current be measured according to the following method:

With the AC plug removed from the AC source, place a jumper across the live and neutral pins. Turn the receiver AC switch on. Using an OHMMETER, connect one lead to the shorted AC plug and touch the other lead to each exposed metal part (antennas, screw heads, etc.) in turn, particularly any exposed metal part having a return path to the chassis. Any resistance below a value of 1 MEG OHM indicates an abnormality which requires corrective action.

## 1.2 CONTROLS AND CONNECTORS

### 1.2.1 Front Panel

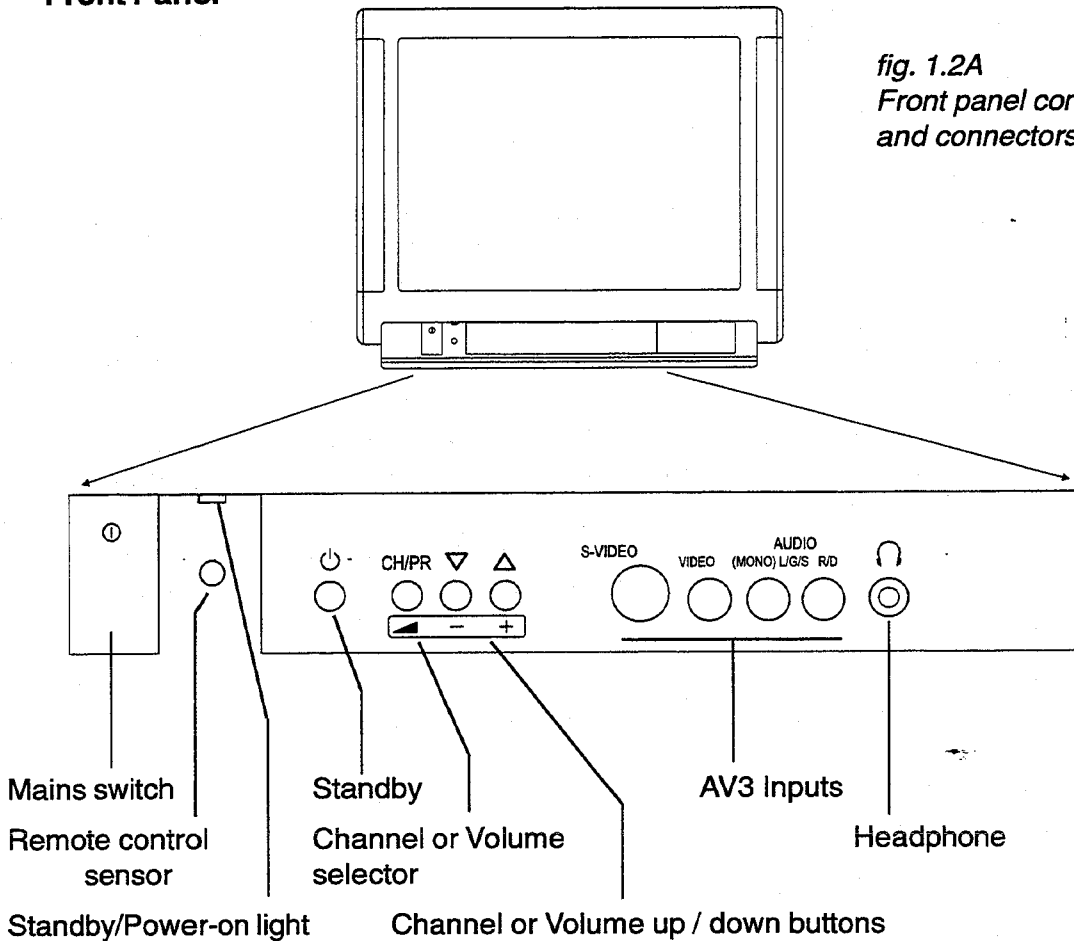


fig. 1.2A  
Front panel controls  
and connectors

### 1.2.2 Rear Panel

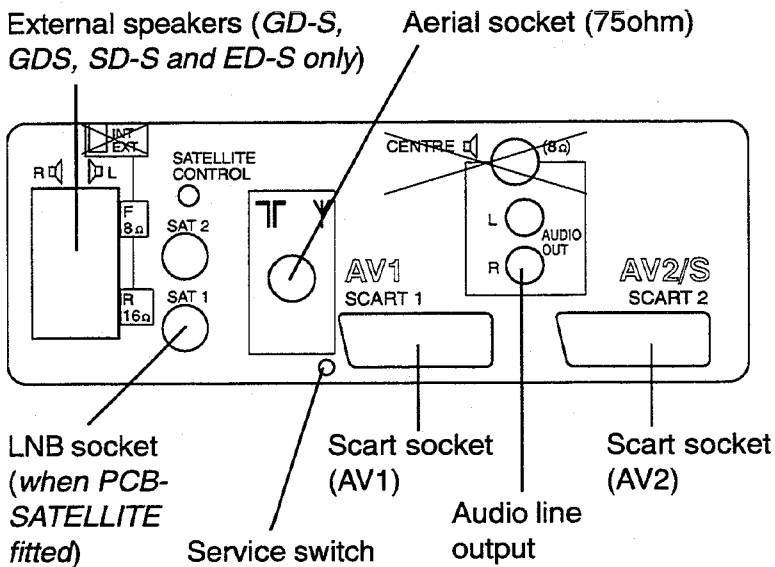


fig. 1.2B Rear panel connectors

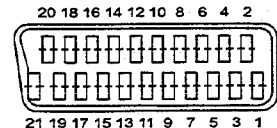


fig. 1.2C Scart socket pin details

Pin	AV1	AV2
1	Audio out - R	Audio out - R
2	Audio in - R	Audio in - R
3	Audio out - L	Audio out - L
4	Audio earth	Audio earth
5	Blue earth	Earth
6	Audio in - L	Audio in - L
7	Blue in	Not connected
8	Function switch	Function switch
9	Green earth	Earth
10	Not connected	Not connected
11	Green in	Not connected
12	Not connected	Not connected
13	Red earth	Chroma earth
14	Blanking earth	Earth
15	Red in	Chroma in
16	RGB blanking	Not connected
17	Video out earth	Video out earth
18	Video in earth	Y earth
19	Video out	Video out
20	Video in	Y in
21	Socket earth	Socket earth

### 1.3 REQUIRED EQUIPMENT

#### 1.3.1 Measuring equipment

- Oscilloscope
- Signal generator
- DC milliammeter
- DC voltmeter

#### 1.3.2 Test signals

- PAL Crosshatch
- PAL Monoscope (or a VCR playing a monoscope alignment tape)
- PAL Colour-bar with the specification as in figure 1.3A below:

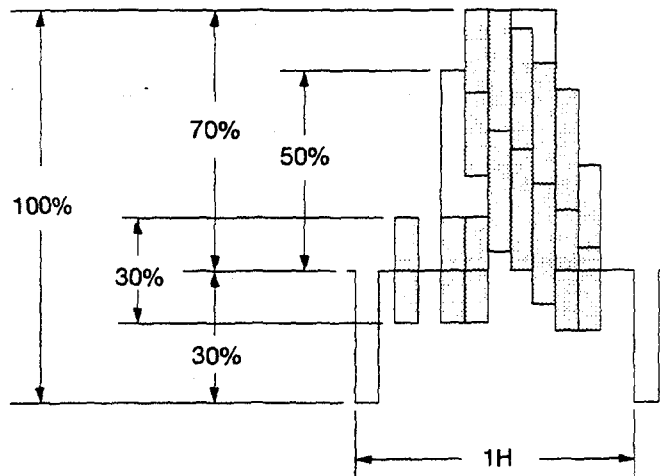


fig. 1.3A Split-field colour bars (with 100% window)

### 1.4 CONNECTING LEADS

#### 1.4.1 Identification

Connecting leads are identified by the colours of their wires according to figure 1.4A below:

Colour	Code
BLACK	A
BROWN	B
RED	C
ORANGE	D
YELLOW	E
GREEN	not used (earth)
BLUE	G
VIOLET	H
GREY	J
WHITE	K
PINK	L

Example:

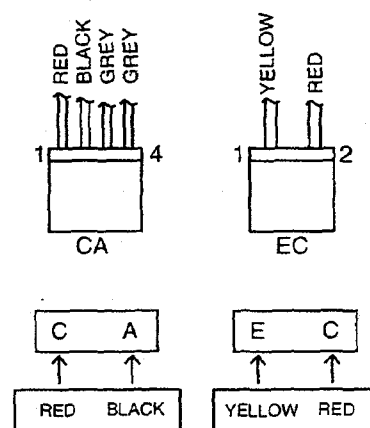


fig. 1.4A Connecting lead identification chart

## 1.4.2 Lead dressing

Leads must be dressed as shown in table 1.4B and the diagram (fig. 1.4C) below. The leads are routed or clamped so that they do not come close to any heat generating or high-tension parts.

The anode lead wire is routed such that no tension is applied to the anode cap. If the mounting angle of the anode cap and the route of the anode lead wires are changed, return them to the initial angle and route.

CLAMP	28AV1GS,G-S, S-S	28AV1GDS, GD-S, SD-S, ED-S
1	KB, KK	KB, KK
2	DA, (HJ)*	DA, (HJ)*
3	(HH), (HJ)	DM*, (HH), (HJ)
4		DE, DD
5		
6	DA, DF, (DG), (GB)	DA, DF, (DG), (GB)
7	GA, DA	GA, DE
8	DY**	DY**
9	KD, LB, SA, BA**	KD, LB, SA, BA**
10	GA*, (GB)	GA*, (GB)
11	LB*, SB, Focus	LB*, SB, Focus
12	Anode lead	Anode lead
13	BA, DA	BA, DF
14	DA 1 + 2	DF 1 + 2

\* Loop the lead in the clamber, \*\* Loop the lead twice in the clamber  
(brackets) indicate wiring for the Satellite PCB.

table 1.4B Lead-dressing table.

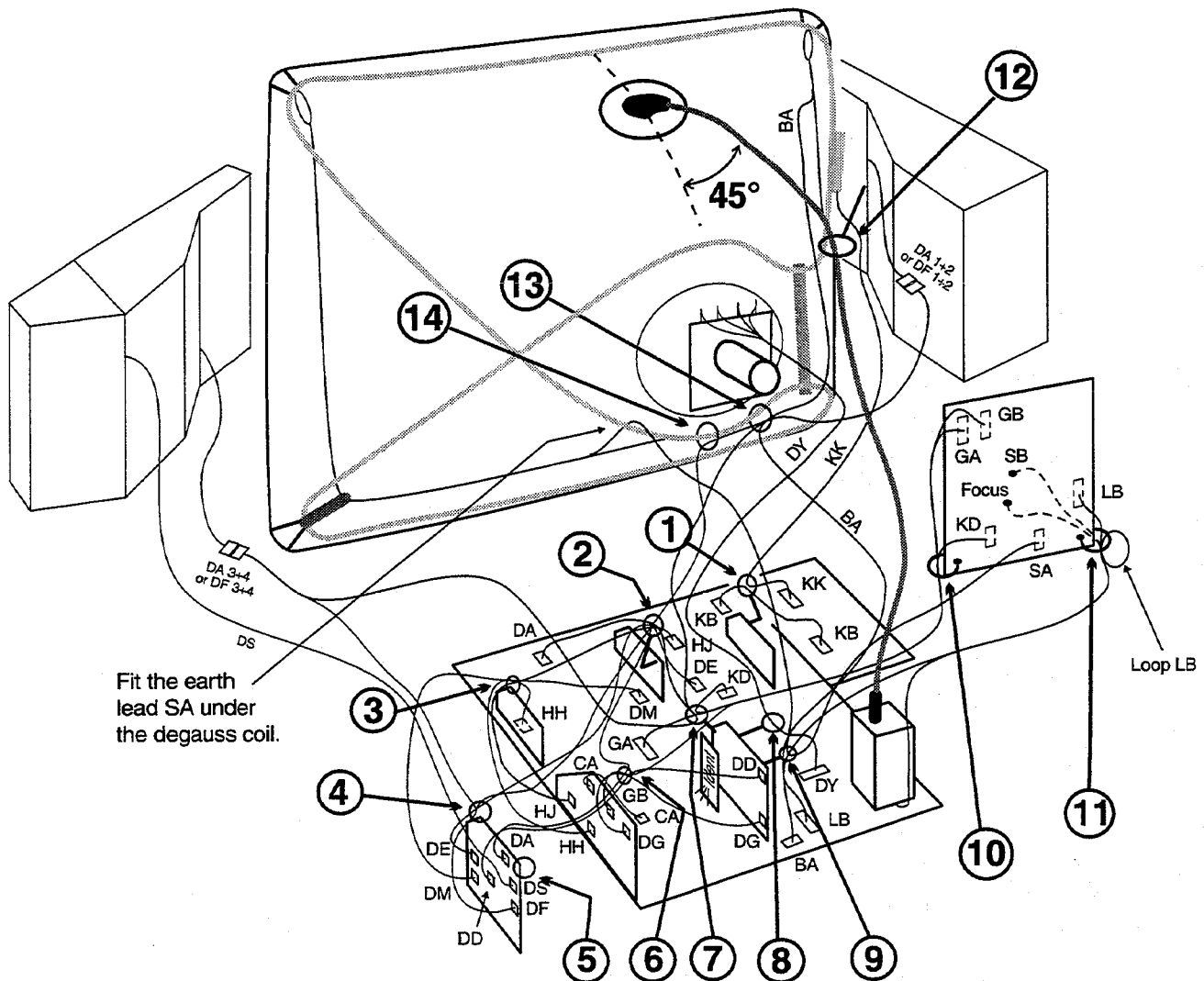


fig. 1.4C Lead-dressing diagram.

## 2 SERVICE ADJUSTMENT PROCEDURES

### 2.1 introduction

Most service adjustments to these models are made using the remote control (figure 2.1A) with the TV in service mode. The adjustment data is stored in an EEPROM.

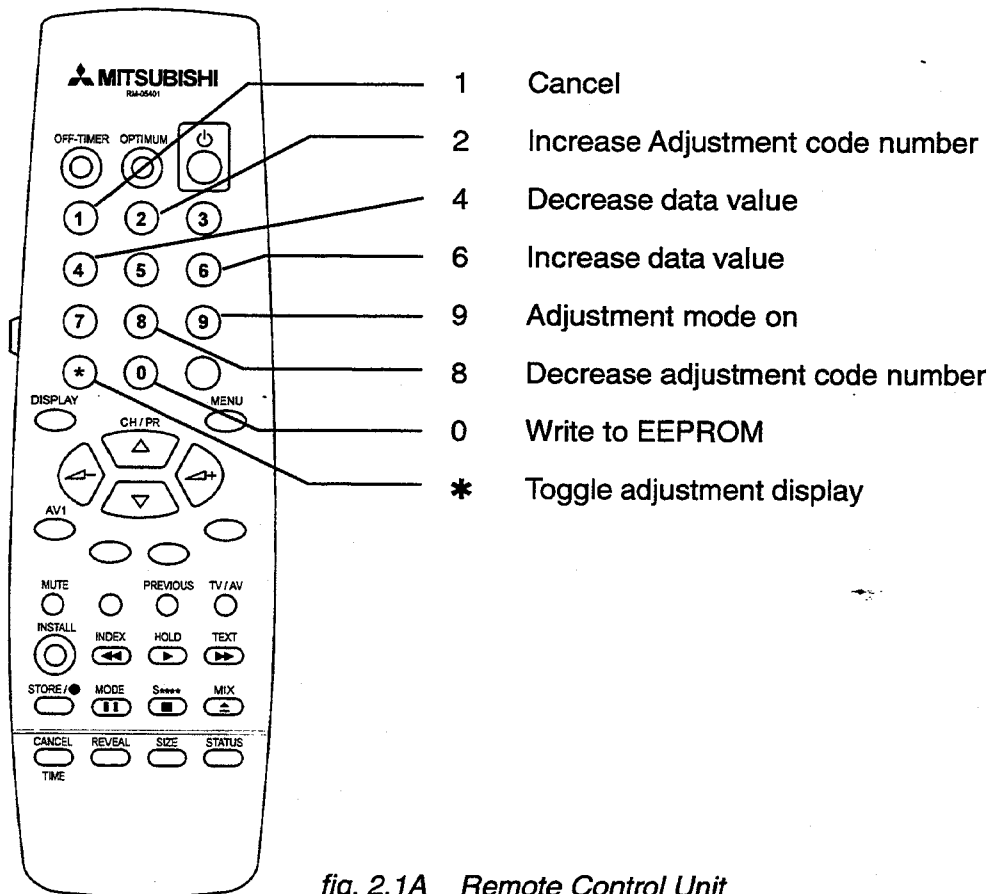


fig. 2.1A Remote Control Unit

#### 2.1.1 Basic adjustment procedure

1. Turn the power on. With a small screwdriver, press the Service switch (S701, next to the aerial socket) and then button "9" within 5 seconds to enter service mode.
2. Press the "\*" button to select either the VCJ or OPTION adjustment display (figs. 2.1B and C).

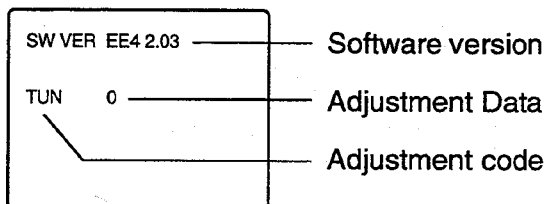


fig. 2.1B Options adjustment display

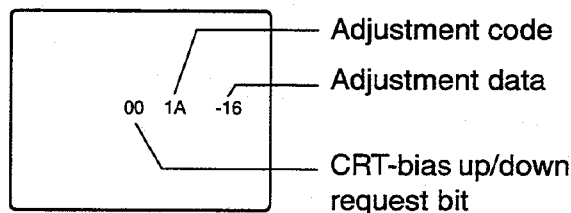


fig. 2.1C VCJ adjustment display

3. Press buttons "2" or "8" to increase or decrease the adjustment code number.
4. Press buttons "6" or "4" to increase or decrease the data value.
5. After completing your adjustments, press button "0" to write the adjustment data to the EEPROM.

To cancel a change, press button "1" (or the Standby button) before writing the adjustment to the EEPROM. All data adjusted since the last EEPROM write will be reset.

## 2.2 INITIALISING THE EEPROM

If you have replaced the EEPROM (IC702) or if for any reason the adjustment data has become corrupted it will be necessary to initialise the EEPROM.

### 2.2.1 Initialising the EEPROM

1. If necessary, switch off by the Main switch.
2. Hold in the service switch (S701, next to the aerial socket) while switching on by the Main switch.
3. Release the service switch after 3 seconds.
4. Switch off by the Main switch.

The EEPROM data values have now all been reset to their initial default values as shown in table 2.2C.

5. Switch on by the Main switch. Press the Service switch and then button "9" within 5 seconds to enter service mode.
6. Press the "\*" button to select the OPTIONS adjustment display.
7. Press buttons "2" or "8" on the remote control to select the adjustment code.
8. Adjust the data value for each code using buttons "2" or "4" on the remote control according to table 2.2A below:

(Other adjustment codes will be displayed but need not be changed on these models.)

CODE:	TUN	SAT	AUD	ATS	STD	SYS	AVI	SPK	ABG	AI	AL	ADK	MNP	FFT	VOL	HYP	SCP	FMP
28AV1GS	1	1	01	1	0/3 <sup>3</sup>	2	2	1	12	08	06	08	70	0	-	-	-	-
28AV1G-S	1	0 <sup>1</sup>	01	1	0/3 <sup>3</sup>	2	2	1	12	08	06	08	70	0	-	-	-	-
28AV1GDS	1	1	11	1	0/3 <sup>3</sup>	2	2	1	12	08	06	08	70	0	74	1	20	23
28AV1GD-S	1	0 <sup>1</sup>	11	1	0/3 <sup>3</sup>	2	2	1	12	08	06	08	70	0	74	1	20	23
28AV1S-S	1	0 <sup>1</sup>	00/02 <sup>4</sup>	0	3/5 <sup>2</sup>	2	2	1	12	08	06	08	70	1	-	-	-	-
28AV1SD-S	1	0 <sup>1</sup>	10/12 <sup>4</sup>	0	3/5 <sup>2</sup>	2	2	1	12	08	06	08	70	1	74	1	20	23
28AV1ED-S	1	0 <sup>1</sup>	12	0	3	2	2	1	12	08	06	08	70	1	74	1	20	23

<sup>1</sup> SAT = 1 when PCB-SATELLITE is fitted

<sup>2</sup> S-S and SD-S models only: STD = 3 for BG/DK (faster tuning), STD = 5 for BG/DK/IL

<sup>3</sup> 0 = BG only (for early production), 3 = BG/DK – ask Mitsubishi Service Dept. for affected Serial Numbers

<sup>4</sup> 00 or 10 = Nicam only (for early production), 02 or 12 = Nicam + Zwieton – ask Mitsubishi Service Dept. for affected Serial Numbers

table 2.2A Data values for the OPTIONS adjustments.

9. Press the "0" button to write the changes to the EEPROM.
10. Press the "\*" button to select the VCJ adjustment display.
11. Press buttons "2" or "8" on the remote control to select the adjustment code.
12. Adjust the data value of each code using buttons "2" or "4" on the remote control according to table 2.2B below:

(Other adjustment codes will be displayed but need not be changed on these models.)

CODE:	07	11	12	19	1B	1C
VALUE	-7	001	111	-1	-13	00

table 2.2B Data values for the VCJ adjustments.

13. Press the "0" button to write the changes to the EEPROM.



## 2.2.2 EEPROM Default data values.

These values are adequate to allow the set to be adjusted.

VCJ data values			OPTIONS data values		
CODE	FUNCTION	DATA VALUE	ITEM	DESCRIPTION	DATA VALUE
00	V-AMP	-16	TUN	TUNER TYPE	0
01	V-CORRECT	-31	SAT	SATELLITE ENABLE	0
02	P-AMP	+05	AUD	AUDIO SYSTEM	0
03	TILT	-12	ATS	AUTO TUNING SORT	0
04	V-LIN	+23	STD	RECEPTION STANDARD	0
05	C-CORRECT	-09	SYS	COLOUR SYSTEM	0
06	H-AMP	-22	AVI	NO. OF AV INPUTS	0
07	16x9 - SW.RGB-MATRIX	-7	AVD	AV DUBBING	-
08	V-SHIFT	+02	EEX	CHASSIS TYPE	-
09	H-PHASE	+10	SPK	SPEAKER SW ENABLED	1
0A	B-DRIVE	+01	EED	EEDROM SIZE	-
0B	G-DRIVE	+01	ABG	AGC GAIN - BG	10
0C	R-DRIVE	+01	AI	AGC GAIN - I	10
0D	CONTRAST	+14	AL	AGC GAIN - L	10
0E	BRIGHT	+01	ADK	AGC GAIN - DK	10
0F	COLOUR-SAT	+10	MNP	NICAM PRESCALE	70
10	NTSC-TINT	00	TXT	TELETEXT TYPE	-
11	SHARP	111	FFT	FAST / TOP TEXT	0
12	PAL-LUMA-DELAY	111	VOL	VOLUME PRESCALE *	70
13	SECAM-LUMA-DELAY	111	HYP	HYPERSOUND *	0
14	V-AMP-60	00	SCP	SCART PRESCALE *	1B
15	P-AMP	00	FMP	FM PRESCALE *	23
16	H-AMP-60	00			
17	V-SHIFT-60	00			
18	H-PHASE-60	00			
19	H-PHASE-TEXT	00			
1A	H-PHASE-SECAM	00			
1B	H-PHASE-RGB	00			
1C	P-AMP-16:9	00			
1D	358NTSC-LUMA-DELAY	111			
1E	443NTSC-LUMA-DELAY	111			

\* Dolby models only

table 2.2C EEPROM Default data values.

## 2.3 VIF CIRCUITS

### 2.3.1 RF-AGC

#### VR101 (adjacent to the tuner)

1. Connect an RF signal such as an off-air broadcast.
2. Check the AFT is on for the current channel.
3. Adjust VR101 so that the picture and sound exhibit no noise, beat or intermodulation distortion.

## 2.4 DEFLECTION CIRCUITS

### 2.4.1 Important notes

Before making any adjustments, if you have changed the CRT, FLYBACK TRANSFORMER or made any changes in the deflection circuits; adjust the CRT bias as described in 2.6.1 steps 1 ~ 6 (*Video Circuits – Screen control*).

Check the VERTICAL BREATHING CORRECTION as follows:

1. Select the VCJ adjustment display.
2. Set the adjustment code to "01" with buttons "2" or "8" on the remote control.
3. If necessary, adjust the data value to "-31" using buttons "4" or "6" on the remote control.

### 2.4.2 Horizontal centre

#### Code 09 (H-PHASE)

1. Connect a VCR and play a PAL-Monoscope alignment tape.
2. Select the VCJ adjustment display.
3. Set the adjustment code to "09" with buttons "2" or "8" on the remote control.
4. Adjust the horizontal position with buttons "4" or "6" on the remote control.

### 2.4.3 Horizontal width

#### Code 06 (H-AMP)

1. Connect a VCR and play a PAL-Monoscope alignment tape.
2. Select the VCJ adjustment display.
3. Set the adjustment code to "06" with buttons "2" or "8" on the remote control.
4. Adjust horizontal width with the buttons "4" or "6" on the remote control.

### 2.4.4 East-West PCC

#### Code 05 (CORNER CORRECTION)

#### Code 03 (PARABOLA TILT)

#### Code 02 (PARABOLA AMP)

1. Connect an RF PAL Crosshatch signal.
2. Select the VCJ adjustment display.
3. Set the adjustment code to "05" with buttons "2" or "8" on the remote control.
4. Adjust the data value to "-25" with buttons "4" or "6" on the remote control.

5. Set the adjustment code to "03" with buttons "2" or "8" on the remote control.
6. Watching the second vertical line in from both sides of the screen (figure 2.4A), make any upper and lower distortion symmetrical using buttons "4" or "6" on the remote control.
7. Set the adjustment code to "02" with buttons "2" or "8" on the remote control.
8. Adjust the straightness of both vertical lines (figure 2.4B) using buttons "4" or "6" on the remote control.
9. Repeat steps 1 to 8 above if necessary.
10. Connect a VCR and play a PAL-Monoscope alignment tape.
11. Make sure the horizontal width and horizontal centre are correct. If necessary readjust Horizontal Centre ("09") and Horizontal Width ("06") again.

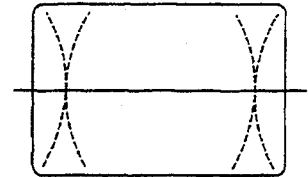


fig. 2.4A

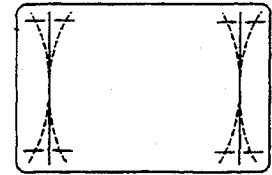


fig. 2.4B

### 2.4.5 Height and linearity

**Code 00 (V-AMP)**

**Code 04 (V-LIN)**

1. Connect a VCR and play a PAL-Monoscope alignment tape.
2. Select the VCJ adjustment display.
3. Set the adjustment code to "00" (V-AMP) with buttons "2" or "8" on the remote control.
4. Adjust the circle to a true circle with buttons "4" or "6" on the remote control.
5. Set the adjustment code to "04" (V-LIN) with buttons "2" or "8" on the remote control.
6. Adjust the linearity to be the same for the top and bottom halves of the circle using buttons "4" or "6" on the remote control.
7. Set the adjustment code to "00" (V-AMP) with buttons "2" or "8" on the remote control.
8. Readjust V-AMP with buttons "4" or "6".
9. Repeat the steps above, if necessary.

### 2.4.6 Vertical centre

**Code 08 (V-SHIFT)**

1. Connect a VCR and play a PAL-Monoscope alignment tape.
2. Select the VCJ adjustment display.
3. Set the adjustment code to "08" (V-SHIFT) with buttons "2" or "8" on the remote control.
4. Adjust the centre line of picture to be within +/- 3mm from the vertical centre on the screen using buttons "4" or "6" on the remote control.

### 2.4.7 60Hz Deflection circuit offsets

**Code 14 (V-AMP 60)**

**Code 15 (P-AMP 60)**

**Code 16 (H-AMP 60)**

**Code 17 (V-SHIFT 60)**

**Code 18 (H-PHASE 60)**

1. Connect an RF 60Hz Crosshatch signal.
2. Select the VCJ adjustment display.

- Select each adjustment code in turn with buttons "2" or "8" on the remote control and adjust each item to the figures shown in table 2.4C below using buttons "4" or "6" on the remote control.

<b>CODE:</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>
<b>VALUE:</b>	+7	+2	-2	+8	-5

table 2.4C 60Hz adjustment offsets

## 2.5 CRT CIRCUITS

### 2.5.1 White balance

**Code 0A (B-DRIVE)**

**Code 0B (G-DRIVE)**

**Code 0C (R-DRIVE)**

- Connect a VCR and play a PAL-Monoscope alignment tape.
- Select the VCJ adjustment display.
- Set the adjustment codes to "0A", "0B" and "0C" in turn and pre-adjust each to "+10".
- Adjust codes "0A" and "0C" to adjust the white balance.

### 2.5.2 Focus

**FOCUS control on the Flyback Transformer**

- Connect an RF signal such as an off-air broadcast.
- Adjust the FOCUS control for the best overall focus.

## 2.6 VIDEO CIRCUITS

*Perform the following adjustments after adjusting the Deflection circuits. Allow the TV to warm up for 20 minutes before proceeding*

### 2.6.1 Brightness and Contrast

**SCREEN control on the Flyback Transformer**

**Code 0F (COLOUR SATURATION)**

**Code 0E (BRIGHTNESS)**

**Code 0D (CONTRAST)**

**BEAM CURRENT (using connector TP adjacent to the Flyback Transformer)**

- Connect an RF Crosshatch signal.
- Select the VCJ adjustment display.
- Make sure that the Screen Up/Down Request Bit is set to "00". If not, adjust the SCREEN control on the Flyback Transformer.
- Change the external signal to a Colour-bar.
- Readjust the SCREEN control to give "00".
- Repeat steps 1 to 5 until the Screen Up/Down Request Bit is "00" for both signals.
- Connect an RF Colour-bar signal.
- Set the adjustment code to "0F" with buttons "2" or "8" on the remote control.
- Adjust the data value to "-32" with buttons "4" or "6" on the remote control.
- Set the adjustment code to "0E" with buttons "2" or "8" on the remote control.

11. Adjust using buttons "4" or "6" so that a slight difference in brightness can be seen between blue and black areas.
12. Set the adjustment code to "0D" with the buttons "2" or "8" on the remote control.
13. Connect a DC ammeter's "+" lead to connector TP pin 1 on the MAIN-PCB and the "-" lead to connector TP pin 2.
14. Adjust the beam current using buttons "4" or "6" on the remote control to  $1150 \pm 20 \mu\text{A}$ .
15. Check, and if necessary, readjust the BRIGHTNESS, code "0E".
16. Check that the Screen Up/Down Request Bit is "00". If not, repeat steps 1 to 13 above.
17. Now proceed to the Colour Output adjustment.

## 2.6.2 Colour output

*Make this adjustment only after adjusting the White Balance, Brightness and Contrast.*

### Code 0F (COLOUR SATURATION)

1. Connect an RF Colour-bar signal.
2. Select the VCJ adjustment display.
3. Set the adjustment code to "0F" with buttons "2" or "8" on the remote control.
4. Connect an oscilloscope to the junction of R673 and IC660 Pin 9 (BLUE-OUT) on the CRT PCB.
5. Make adjustments using buttons "4" or "6" on the remote control until the waveform is as shown in figure 2.6A.
6. Increase the resulting data value by five steps.

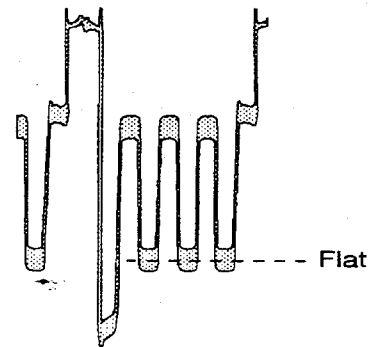


fig. 2.6A

## 2.7 POWER CIRCUIT

### 2.7.1 B4 Voltage

#### VR951 (on main PCB next to the SMT)

1. Connect a VCR and play a PAL-Monoscope alignment tape.
2. Push the OPTIMUM button on the remote control.
3. Connect a DC voltmeter's "+" lead to TP91 on the MAIN PCB and the "-" lead to GROUND.
4. Adjust VR951 so that the voltage is  $145 \pm 2\text{V}$ .

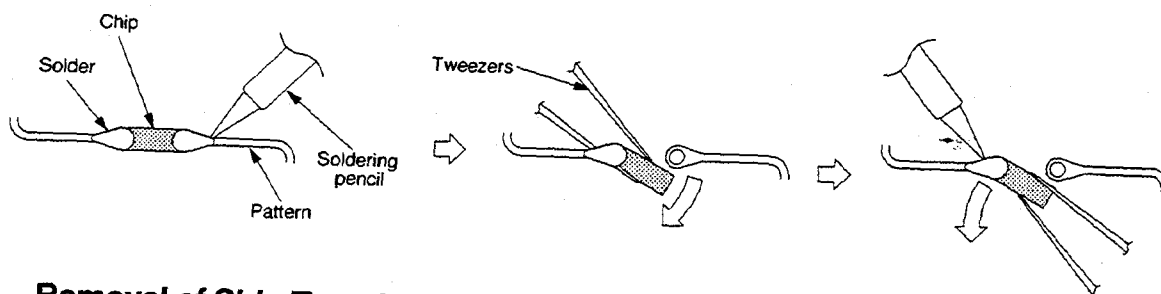
### 3 CHIP PARTS REPLACEMENT

Some resistors, shorting jumpers ( $0\Omega$  resistor), ceramic capacitors, transistors and diodes are chip parts (i.e. surface mount or SMD parts). When replacing these parts, note the following precautions:

- Use fine tipped, well insulated soldering iron of about 30 watts and tweezers.
- Melt the solder and remove the Chip Parts carefully so as not to tear off the copper foil from the printed circuit board.
- Discard removed chips, do not re-use them.
- Do not apply heat for more than 3 seconds to new Chip Parts.
- Avoid using a rubbing action when soldering.
- Take care not to scratch or damage the Chip Parts when soldering.
- Supplementary cementing is not required.

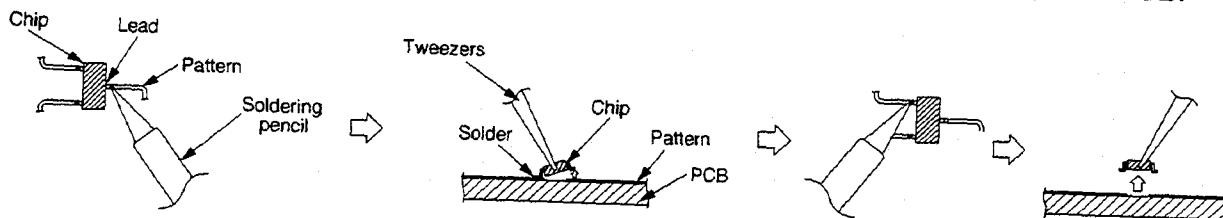
#### 3.1 Removal of Chip Resistors, capacitors, etc.

1. Grasp the part with tweezers. Melt the solder at both sides alternately and remove the one side of the part with a twisting motion.
2. Melt the solder at the other side and remove the part.



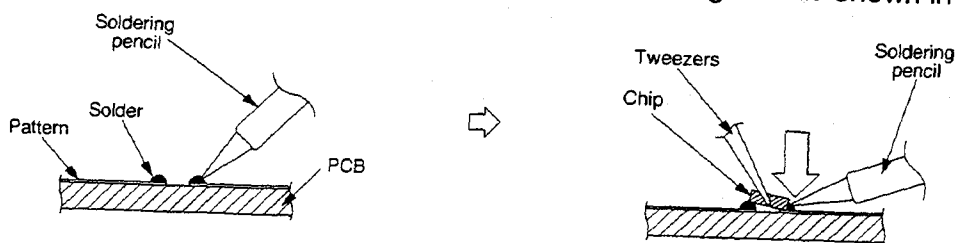
#### 3.2 Removal of Chip Transistors

1. Melt the solder of one lead, and lift the side of that lead upward.
2. Simultaneously melt the solder of the two remaining leads and lift the part from the PCB.



#### 3.3 Replacement

1. Pre-solder the contact points on the circuit pattern.
2. Press the part downward with tweezers and apply the soldering iron as shown in the figure.





# 4 PARTS LIST

## 4.1 NOTES

### 4.1.1 Model-specific parts

As this service manual covers more than one model, the Service Parts List indicates where certain parts are model-specific:

CODE	MODEL
1	28AV1GS
2	28AV1G-S
3	28AV1GDS
4	28AV1GD-S
5	28AV1S-S
6	28AV1SD-S
7	28AV1ED-S

If there is no such indication then the parts are common to *all* models covered by this manual.

### 4.1.2 Ordering

In order to expedite delivery of replacement parts, please specify:

1. Model number and Serial number
2. Part Number and Description
3. Quantity

Unless full information is provided a delay in execution of the order may result.

### 4.1.3 Safety

Safety Critical components are indicated thus:  $\triangle$  and must only be replaced with original Mitsubishi parts.

### 4.1.4 Component tolerances

Component value tolerances are coded as shown in table 3.1A below.

B	C	D	F	G	J	K	M	N	V	X	Z	P	Q
$\pm 0.1$	$\pm 0.025$	$\pm 0.5$	$\pm 1$	$\pm 2$	$\pm 5$	$\pm 10$	$\pm 20$	$\pm 30$	+10	+40	+80	+100	+30
									-10	-20	-20	-0	-10

table 3.1A Component tolerances



## 4.2 SERVICE PARTS LIST – TV parts, see page 23 for Satellite tuner parts

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
<b>CRT</b>					
△		255P807010	CRT-ASSY	A66EGW83X101	
<b>IC</b>					
IC101	MAIN	270P341020	IC	TDA4470 C	1, 2, 3, 4, 7
IC101	MAIN	270P341050	IC	TDA4472 A	5, 6
IC201	MAIN	270P254010	IC	MC44031	
IC202	MAIN	270P263010	IC	TEA6415C	
IC301	SOUND/DOLBY	270P209010	IC	MSP3410	
IC351	MAIN	270P259010	IC	TDA7263	
IC3A1	AUDIO-PWR	270P259010	IC	TDA7263	3, 4, 6, 7
IC3A2	AUDIO-PWR	270P259010	IC	TDA7263	3, 4, 6, 7
IC3B1	AUDIO-PWR	270P259010	IC	TDA7263	
IC3D1	DOLBY	274P682010	IC	DSP56004FJ40	3, 4, 6, 7
IC3D2	DOLBY	274P683010	IC	MCM6206DP25	3, 4, 6, 7
IC3D3	DOLBY	274P685010	IC	MC68HC05C8	3, 4, 6, 7
IC3D4	DOLBY	272P966020	IC	TDA1543	3, 4, 6, 7
IC3D5	DOLBY	270P269010	IC	MCT4558CPI	3, 4, 6, 7
IC3D6	DOLBY	270P269010	IC	MCT4558CPI	3, 4, 6, 7
IC3D7	DOLBY	263P066060	IC	HEF 4066 BP	3, 4, 6, 7
IC3D8	DOLBY	267P036030	IC	AFL87F15000E1	3, 4, 6, 7
IC3D9	DOLBY	270P355030	IC	MC7812CT	3, 4, 6, 7
IC3S1*	IDENT	H27P006010	IC	TDA9845	1, 2, 3, 4*
IC3S2*	IDENT	272P655010	IC	TA7337P	1, 2, 3, 4*
IC401	MAIN	270P261010	IC	TDA8171	
IC551	MAIN	272P406010	IC	TEA 2031A	
IC660	CRT	270P207010	IC-CRT-OUTPUT	TEA5101	
IC701**	MAIN	274P755010*	IC	ST9291N7B1ECS/B10	3, 4, 6, 7
IC701**	MAIN	274P755020*	IC	ST9291N7B1ECN/B20	1, 2, 5
IC702	MAIN	274P686010	IC	ST24C08	
IC7701	TEXT	274P571030	IC	SAA5281ZP/E	1, 2, 3, 4, 5, 6
IC7701	TEXT	274P571040	IC	SAA5281ZP/H	7
IC7702	TEXT	274P570020	IC	PCB83C654P	
IC7703	TEXT	274P171010	IC	ST24C02AB1	
IC901	MAIN	272P514010	IC	TEA 2261	
IC951	MAIN	270P260010	IC	TDA8137	
<b>TRANSISTORS</b>					
Q102	MAIN	260P748030	TRANSISTOR	JC501-R	
Q103	MAIN	260P748030	TRANSISTOR	JC501-R	5, 6
Q105	MAIN	260P748030	TRANSISTOR	JC501-R	
Q106	MAIN	260P749030	TRANSISTOR	JA101-Q	
Q107	MAIN	260P749030	TRANSISTOR	JA101-Q	
Q108	MAIN	260P749030	TRANSISTOR	JA101-Q	
Q251	MAIN	260P748030	TRANSISTOR	JC501-R	
Q252	MAIN	260P748030	TRANSISTOR	JC501-R	
Q253	MAIN	260P748030	TRANSISTOR	JC501-R	
Q256	MAIN	260P748030	TRANSISTOR	JC501-R	
* See page 25 for serial numbers affected.					
** If a capacitor is fitted on the copper side in parallel with R400, remove the capacitor when replacing IC701.					

1 28AV1GS      3 28AV1GDS      5 28AV1S-S      7 28AV1ED-S  
2 28AV1G-S      4 28AV1GD-S      6 28AV1SD-S

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
Q301	MAIN	260C604020	TRANSISTOR	DTC124ES	
Q302	MAIN	260C604020	TRANSISTOR	DTC124ES	
Q302	SOUND/DOLBY	260P748030	TRANSISTOR	JC501-R	
Q303	SOUND/DOLBY	260P748030	TRANSISTOR	JC501-R	
Q304	SOUND/DOLBY	260P748030	TRANSISTOR	JC501-R	
Q304	MAIN	260P748030	TRANSISTOR	JC501-R	
Q305	SOUND/DOLBY	260P748030	TRANSISTOR	JC501-R	
Q305	MAIN	260P749050	TRANSISTOR	JA101-Q,R	
Q306	SOUND/DOLBY	260P748030	TRANSISTOR	JC501-R	
Q307	DOLBY	260P749030	TRANSISTOR	JA101-Q	3, 4, 6, 7
Q308	DOLBY	260P749030	TRANSISTOR	JA101-Q	3, 4, 6, 7
Q3A03	AUDIO-PWR	260C604020	TRANSISTOR	DTC124ES	3, 4, 6, 7
Q3A04	AUDIO-PWR	260C604020	TRANSISTOR	DTC124ES	3, 4, 6, 7
Q3A05	AUDIO-PWR	260C604020	TRANSISTOR	DTC124ES	3, 4, 6, 7
Q3A06	AUDIO-PWR	260C604020	TRANSISTOR	DTC124ES	3, 4, 6, 7
Q3A07	AUDIO-PWR	260C604021	TRANSISTOR	DTC124ES	
Q3D1	DOLBY	260P748030	TRANSISTOR	JC501-R	3, 4, 6, 7
Q3D2	DOLBY	260P748030	TRANSISTOR	JC501-R	3, 4, 6, 7
Q3D3	DOLBY	260P356010	TRANSISTOR	2SC1906	3, 4, 6, 7
Q3D4	DOLBY	260P748030	TRANSISTOR	JC501-R	3, 4, 6, 7
Q3D5	DOLBY	260P748030	TRANSISTOR	JC501-R	3, 4, 6, 7
Q3D6	DOLBY	260P748030	TRANSISTOR	JC501-R	3, 4, 6, 7
Q3D7	DOLBY	260P748030	TRANSISTOR	JC501-R	3, 4, 6, 7
Q3D8	DOLBY	260P748030	TRANSISTOR	JC501-R	3, 4, 6, 7
Q3S01*	IDENT	260P543030	TRANSISTOR	JC501-R	1, 2, 3, 4*
Q3S02*	IDENT	260C003030	TRANSISTOR	2SC2058S-Q	1, 2, 3, 4*
Q3S03*	IDENT	260P544040	TRANSISTOR	JA101-R	1, 2, 3, 4*
Q3S04*	IDENT	260C003030	TRANSISTOR	2SC2058S-Q	1, 2, 3, 4*
Q3S05*	IDENT	260C003030	TRANSISTOR	2SC2058S-Q	1, 2, 3, 4*
Q450	MAIN	260P748030	TRANSISTOR	JC501-R	
Q451	MAIN	260P387010	TRANSISTOR	2SC2236-O,Y	
Q501	MAIN	260P748030	TRANSISTOR	JC501-R	
Q551	MAIN	260P422010	TRANSISTOR	2SC2482	
Q552	MAIN	261P007010	TRANSISTOR	S2055N	
Q6A1	CRT	260P749030	TRANSISTOR	JA101-Q	
Q6A2	CRT	260P748030	TRANSISTOR	JC501-R	
Q6A3	CRT	260P574020	TRANSISTOR	2SD1264A-P	
Q6A4	CRT	260P573020	TRANSISTOR	2SB940A-P	
Q6A5	CRT	260P748030	TRANSISTOR	JC501-R	
Q6A7	CRT	260P748030	TRANSISTOR	JC501-R	
Q6A8	CRT	260P748030	TRANSISTOR	JC501-R	
Q6A9	CRT	260P748030	TRANSISTOR	JC501-R	
Q6E2	CRT	260P748030	TRANSISTOR	JC501-R	
Q6E3	CRT	260P748030	TRANSISTOR	JC501-R	
Q6E4	CRT	260P748030	TRANSISTOR	JC501-R	
Q6E5	CRT	260P748030	TRANSISTOR	JC501-R	
Q6E7	CRT	260P748030	TRANSISTOR	JC501-R	
Q6E8	CRT	260C255040	TRANSISTOR	2SA950-Y (FORMED)	
Q701	MAIN	260C559050	TRANSISTOR	2SC1740S-E (FORMED)	
Q702	MAIN	260P748030	TRANSISTOR	JC501-R	
Q703	MAIN	260P749030	TRANSISTOR	JA101-Q	

\* See page 25 for serial numbers affected.

1 28AV1GS      3 28AV1GDS      5 28AV1S-S      7 28AV1ED-S  
2 28AV1G-S      4 28AV1GD-S      6 28AV1SD-S

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
Q704	MAIN	260P748030	TRANSISTOR	JC501-R	
Q705	MAIN	260P749030	TRANSISTOR	JA101-Q	
Q706	MAIN	260P749030	TRANSISTOR	JA101-Q	
Q707	MAIN	260P748030	TRANSISTOR	JC501-R	
Q708	MAIN	260P748030	TRANSISTOR	JC501-R	
Q710	MAIN	260P748030	TRANSISTOR	JC501-R	
Q711	MAIN	260P748030	TRANSISTOR	JC501-R	
Q713	MAIN	260P748020	TRANSISTOR	JC501-Q,R	
Q714	MAIN	260P748030	TRANSISTOR	JC501-R	
Q715	MAIN	260P748030	TRANSISTOR	JC501-R	
Q716	MAIN	260P748030	TRANSISTOR	JC501-R	
Q901	MAIN	261P006010	TRANSISTOR	S2000N	
Q902	MAIN	260P748030	TRANSISTOR	JC501-R	
Q951	MAIN	260P748030	TRANSISTOR	JC501-R	
Q952	MAIN	260P387010	TRANSISTOR	2SC2236-O,Y	
<b>DIODES</b>					
D102	MAIN	264P370010	DIODE	1N4148	
D201	MAIN	264P370010	DIODE	1N4148	
D251	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D252	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D253	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D254	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D255	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D256	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D257	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D258	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D301	MAIN	264P370010	DIODE	1N4148	
D302	SOUND/DOLBY	264P370010	DIODE	1N4148	
D303	SOUND/DOLBY	264P370010	DIODE	1N4148	
D304	SOUND/DOLBY	264P370010	DIODE	1N4148	
D3D1	DOLBY	264P370010	DIODE	1N4148	3, 4, 6, 7
D3D2	DOLBY	264P370010	DIODE	1N4148	3, 4, 6, 7
D3D3	DOLBY	264P370010	DIODE	1N4148	3, 4, 6, 7
D401	MAIN	264P374020	DIODE	1N4003ID	
D501	MAIN	264P463020	DIODE	EQA02-08C/RD8.2 EB2	
D502	MAIN	264P370010	DIODE	1N4148	
D503	MAIN	264P371010	DIODE	BYV95B	
D504	MAIN	264P371010	DIODE	BYV95B	
D505	MAIN	264P375020	DIODE	BY228 (FORMED)	
D506	MAIN	264P378020	DIODE	BYW96E (FORMED)	
D507	MAIN	264P371010	DIODE	BYV95B	
D508	MAIN	264P371010	DIODE	BYV95B	
D509	MAIN	264P371010	DIODE	BYV95B	
D560	MAIN	264P370010	DIODE	1N4148	
D561	MAIN	264P493020	DIODE	RD39FB2	
D562	MAIN	264P370010	DIODE	1N4148	
D563	MAIN	264P370010	DIODE	1N4148	
D601	CRT	264P370010	DIODE	1N4148	
D655	CRT	264P370010	DIODE	1N4148	
D656	CRT	264P370010	DIODE	1N4148	

\* See page 25 for serial numbers affected.

1 28AV1GS	3 28AV1GDS	5 28AV1S-S	7 28AV1ED-S
2 28AV1G-S	4 28AV1GD-S	6 28AV1SD-S	

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
D657	CRT	264P370010	DIODE	1N4148	
D6A1	CRT	264P370010	DIODE	1N4148	
D6A2	CRT	264P374020	DIODE	1N4003ID	
D6A3	CRT	264P374020	DIODE	1N4003ID	
D6A4	CRT	264P370010	DIODE	1N4148	
D701	MAIN	264P460020	DIODE	EQA02-05CD/RD5.EB1	
D702	MAIN	264P460020	DIODE	EQA02-05CD/RD5.EB1	
D703	MAIN	264P461070	DIODE	EQA02-06D/RD6.2EB2	
D704	MAIN	264P370010	DIODE	1N4148	
D705	MAIN	264P370010	DIODE	1N4148	
D706	MAIN	264P465040	DIODE	EQA02-12AB/RD13EB1	
D708	MAIN	264P370010	DIODE	1N4148	
D709	MAIN	264P370010	DIODE	1N4148	
D710	MAIN	264P370010	DIODE	1N4148	
D7701	TEXT	264P370010	DIODE	1N4148	
D791	LED	264P584020	DIODE LE	SML1216W-C,D	
D901	MAIN	264P376010	DIODE	BYW56	
D902	MAIN	264P376010	DIODE	BYW56	
D903	MAIN	264P376010	DIODE	BYW56	
D904	MAIN	264P376010	DIODE	BYW56	
D905	MAIN	264P371010	DIODE	BYV95B	
D906	MAIN	264P372010	DIODE	BYV96E	
D907	MAIN	264P481060	DIODE	RD3.0FB2	
D908	MAIN	264P370010	DIODE	1N4148	
D909	MAIN	264P481060	DIODE	RD3.0FB2	
D951	MAIN	264P378020	DIODE	BYW96E (FORMED)	
D952	MAIN	264P377020	DIODE	BYW95B (FORMED)	
D953	MAIN	264P377020	DIODE	BYW95B (FORMED)	
D955	MAIN	264P461080	DIODE	EQA02-06E/RD6.2EB3	
D956	MAIN	266P010020	IC-DIODE	$\mu$ PC574J-K	
D957	MAIN	264P463080	DIODE	EQA02-09C/RD9.1EB3	
D959	MAIN	264P377020	DIODE	BYW95B (FORMED)	
D968	MAIN	264P371010	DIODE	BYV95B	
<b>FILTERS</b>					
CF101	MAIN	296P084010	CERAMIC-TRAP	TPS5.5MW	
CF102	MAIN	296P024050	CERAMIC-TRAP	TPS6.5MB	
CF3S1*	IDENT	296P071020	CERAMIC-FILTER	STF5.74MA3	1, 2, 3, 4*
CF3S2*	IDENT	296P071020	CERAMIC-FILTER	STF5.74MA3	1, 2, 3, 4*
CF3S3*	IDENT	296P071010	CERAMIC-FILTER	STF5.5MA3	1, 2, 3, 4*
SF101	MAIN	296P138010	SAW-FILTER	G1968M 38.9MHz	1, 2, 3, 4, 5, 6
SF101	MAIN	296P144020	SAW-FILTER	OFWK3953M	7
SF301	MAIN	296P145010	SAW-FILTER	OFWK9350M	
<b>COILS</b>					
L101	MAIN	325C164070	COIL-PEAKING	0.47 $\mu$ H-J	
L102	MAIN	325C161010	COIL-PEAKING	6.8 $\mu$ H-K	
L103	MAIN	325C121030	COIL-PEAKING	10 $\mu$ H-K	
L104	MAIN	323P175040	COIL-VIF	VIF=38.9, 39.5MHz	
L106	MAIN	325C121030	COIL-PEAKING	10 $\mu$ H-K	
L201	MAIN	321C031090	COIL-RF	33 $\mu$ H-K	
* See page 25 for serial numbers affected.					

1 28AV1GS      3 28AV1GDS      5 28AV1S-S      7 28AV1ED-S  
2 28AV1G-S      4 28AV1GD-S      6 28AV1SD-S

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
L202	MAIN	325C120090	COIL-PEAKING	4.7μH-K	
L205	MAIN	325C120010	COIL-PEAKING	1μH-M	7
L301	SOUND/DOLBY	325C120010	COIL-PEAKING	1μH-M	
L302	SOUND/DOLBY	325C120010	COIL-PEAKING	1μH-M	
L303	SOUND/DOLBY	325C120010	COIL-PEAKING	1μH-M	
L304	SOUND/DOLBY	325C120070	COIL-PEAKING	3.3μH-K	
L305	SOUND/DOLBY	325C120070	COIL-PEAKING	3.3μH-K	
L306	MAIN	325C120070	COIL-PEAKING	3.3μH-K	
L307	MAIN	325C120070	COIL-PEAKING	3.3μH-K	
L308	MAIN	325C120070	COIL-PEAKING	3.3μH-K	
L308	SOUND/DOLBY	325C120070	COIL-PEAKING	3.3μH-K	
L309	MAIN	325C120070	COIL-PEAKING	3.3μH-K	
L309	SOUND/DOLBY	325C120070	COIL-PEAKING	3.3μH-K	
L310	MAIN	325C120070	COIL-PEAKING	3.3μH-K	
L311	MAIN	325C120070	COIL-PEAKING	3.3μH-K	
L314	MAIN	325C120070	COIL-PEAKING	3.3μH-K	
L315	MAIN	325C120070	COIL-PEAKING	3.3μH-K	
L316	MAIN	325C120070	COIL-PEAKING	3.3μH-K	
L317	MAIN	325C120070	COIL-PEAKING	3.3μH-K	
L3B01	AUDIO-PWR	325C108070	COIL-PEAKING	1000μH-J	
L3D1	DOLBY	325C120090	COIL-PEAKING	4.7μH-K	3, 4, 6, 7
L3D10	DOLBY	325C121030	COIL-PEAKING	10μH-K	3, 4, 6, 7
L3D11	DOLBY	325C121030	COIL-PEAKING	10μH-K	3, 4, 6, 7
L3D2	DOLBY	325C120090	COIL-PEAKING	4.7μH-K	3, 4, 6, 7
L3D3	DOLBY	325C120090	COIL-PEAKING	4.7μH-K	3, 4, 6, 7
L3D4	DOLBY	325C120090	COIL-PEAKING	4.7μH-K	3, 4, 6, 7
L3D5	DOLBY	325C120090	COIL-PEAKING	4.7μH-K	3, 4, 6, 7
L3D6	DOLBY	325C120090	COIL-PEAKING	4.7μH-K	3, 4, 6, 7
L3D7	DOLBY	325C120090	COIL-PEAKING	4.7μH-K	3, 4, 6, 7
L3D8	DOLBY	325C121030	COIL-PEAKING	10μH-K	3, 4, 6, 7
L3D9	DOLBY	325C121030	COIL-PEAKING	10μH-K	3, 4, 6, 7
L3S01*	IDENT	327P074010	COIL-VIF		1, 2, 3, 4*
L3S02*	IDENT	327P079010	COIL-SIF		1, 2, 3, 4*
L3S03*	IDENT	325C121030	COIL-PEAKING	10μH	1, 2, 3, 4*
L3S04*	IDENT	325C121030	COIL-PEAKING	10μH	1, 2, 3, 4*
L401	MAIN	411P001070	LEAD-FERRITE		
L501	MAIN	409P006080	COIL-FILTER	6800μH-J	
L502	MAIN	321C030010	COIL-RF	1μH-K	
L503	MAIN	411D009020	CORE-FERRITE		
L504	MAIN	409P749010	COIL-PCC-CHOKE	15μH	
L505	MAIN	409P748010	COIL-PCC	1μH	
L551	MAIN	333P012010	COIL-HORIZ-LIN		
L6A1	CRT	411P001070	LEAD-FERRITE		
L6A2	CRT	325C121050	COIL PEAKING	15μH-K	
L6A3	CRT	325C121050	COIL PEAKING	15μH-K	
L6A4	CRT	325C121050	COIL PEAKING	15μH-K	
L6A5	CRT	325C101040	COIL PEAKING	12μH-K	
L701	MAIN	325C121070	COIL PEAKING	22μH-K	
L702	MAIN	325C121070	COIL PEAKING	22μH-K	
L7701	TEXT	325C120010	COIL PEAKING	1μH-M	
L7702	TEXT	325C120070	COIL PEAKING	3.3μH-K	

\* See page 25 for serial numbers affected.

1 28AV1GS      3 28AV1GDS      5 28AV1S-S      7 28AV1ED-S  
2 28AV1G-S      4 28AV1GD-S      6 28AV1SD-S

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
L901	MAIN	321C030050	COIL-RF	2.2 $\mu$ H-K	
L903	MAIN	411P001070	LEAD-FERRITE		
L905	MAIN	411P001070	LEAD-FERRITE		
L951	MAIN	325D059060	COIL-PEAKING	390 $\mu$ H-K	
L955	MAIN	321C031090	COIL-RF	33 $\mu$ H-K	
L991	PWR-SUB	351P047020	LINE-FILTER		
L993	PWR-SUB	351P011020	LINE-FILTER		
△		409P564050	COIL-DEGAUSSING		
<b>TRANSFORMERS</b>					
△ T551	MAIN	334P243010	TRANS-FLYBACK		
T552	MAIN	336P017010	TRANS-HORIZ-DRIVE		
△ T901	MAIN	350P646020	TRANS POWER		1, 2, 5
△ T901	MAIN	350P663010	TRANS-POWER		3, 4, 6, 7
<b>VARIABLE RESISTORS</b>					
VR101	MAIN	127C380080	VR-SEMIFIXED	1/5W B10K-M	
VR951	MAIN	127C380090	VR-SEMIFIXED	1/5W B20K-M	
<b>RESISTORS</b>					
△ R352	MAIN	103P378060	R-FUSE	1/4W 3.3-J	
△ R353	MAIN	103P378060	R-FUSE	1/4W 3.3-J	
△ R3A09	AUDIO-PWR	103P378060	R-FUSE	1/4W 3.3-J	3, 4, 6, 7
△ R3A10	AUDIO-PWR	103P378060	R-FUSE	1/4W 3.3-J	3, 4, 6, 7
△ R3A11	AUDIO-PWR	103P378060	R-FUSE	1/4W 3.3-J	3, 4, 6, 7
△ R3A12	AUDIO-PWR	103P378060	R-FUSE	1/4W 3.3-J	3, 4, 6, 7
△ R3B01	AUDIO-PWR	103P378060	R-FUSE	1/4W 3.3-J	
△ R3B02	AUDIO-PWR	103P378060	R-FUSE	1/4W 3.3-J	
R3D64	DOLBY	103P544000	R-NETWORK	1/8W 18K-Jx4	3, 4, 6, 7
R508	MAIN	102P243050	R-CEMENT-METAL-SUS	5W 6.8K-K/J	
R511	MAIN	102P229010	R-CEMENT-WIRE-SUS	10W 8.2-K/J	
△ R512	MAIN	103P442020	R-FUSE-METAL	1W 560-K/J	
△ R513	MAIN	103P398040	R-FUSE	1/2W 2.2-J	
△ R514	MAIN	103P397090	R-FUSE	1/2W 0.82-J	
△ R516	MAIN	103P397090	R-FUSE	1/2W 0.82-J	
△ R671	CRT	103P447080	R-FUSE-METAL	1W 0.68-K/J	
△ R6B1	CRT	103P370010	R-FUSE	1/4W 10-J	
△ R6B4	CRT	103P392050	R-FUSE	1/2W 1.0K-J	
△ R6B6	CRT	103P370050	R-FUSE	1/4W 22-J	
△ R6B7	CRT	103P370010	R-FUSE	1/4W 10-J	
△ R6B8	CRT	103P392050	R-FUSE	1/2W 1.0K-J	
R921	MAIN	109D074010	R-CEMENT-METAL	5W 1.8K-K/J	
△ R981	MAIN	109P913050	R-COMPOSITION	1/2W 6.8M-J	
△ R982	MAIN	109P913050	R-COMPOSITION	1/2W 6.8M-J	
R991	POWER-SUB	102P087040	R-CEMENT-WIRE	10W 4.7-K	
△ R992	POWER-SUB	109P911090	R-COMPOSITION	1/2W 470K-J	
<b>CAPACITORS</b>					
C509	MAIN	172P171060	C-M-PLASTIC-PP	1600V 0.018 $\mu$ F-J	
C5A3	MAIN	172P942040	C-M-PLASTIC-PP	2000V 9100pF-J	
C5B1	MAIN	172P940090	C-M-PLASTIC-PP	2000V 2200pF-J	
C904	MAIN	185D059040	C-ELECTROLYTIC	385V/400V 150 $\mu$ F-M	
* See page 25 for serial numbers affected.					

1 28AV1GS      3 28AV1GDS      5 28AV1S-S      7 28AV1ED-S  
2 28AV1G-S      4 28AV1GD-S      6 28AV1SD-S

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
△	C981	MAIN	189P091010	C-CERAMIC-AC	AC400V E4700pF-M
△	C991	PWR-SUB	189P117030	C-M-POLYESTER-AC	AC275V 0.22μF-M
<b>SWITCHES</b>					
	S701	MAIN	432P066010	SW-KEY-BOARD	
	S702	MAIN	432P066030	SW-KEY-BOARD	
	S703	MAIN	432P066030	SW-KEY-BOARD	
	S704	MAIN	432P066030	SW-KEY-BOARD	
	S705	MAIN	432P066030	SW-KEY-BOARD	
△	S991	POWER-SUB	432C048010	SW-PUSH	AC250V 5A/80A
<b>MISCELLANEOUS</b>					
	CR5M1	MAIN	149P008010	CR-MULTIPLE	470pF, 3.6M-K
△	F991	PWR-SUB	283D047040	FUSE	T2A 7
△	F991	PWR-SUB	283D091060	FUSE	T3.15AH 1, 2, 3, 4, 5, 6
	J251	MAIN	452C080020	21 PIN-SCART	
	J252	MAIN	452C080020	21 PIN-SCART	
△	J601	CRT	449C126010	CRT SOCKET	
	J3A01	AUDIO-PWR	440C237020	TERMINAL-SP-8P	3, 4, 6, 7
△	PC951	MAIN	268P068010	PHOTO COUPLER	TCDT1124G
△	RP991	POWER-SUB	265P071050	POSISTOR	PTH451C41BG180N
	SP391/3		940B630001	ASSY-SPEAKER-SYSTEM	AV1 WITH WOOFER
	SP392		940B630002	ASSY-SPEAKER-SYSTEM	AV1 WITHOUT WOOFER
	TU101	MAIN	295P430020	TUNER-TV	UV1315/IEC
	X301	SOUND/DOLBY	285P225010	QUARTZ-CRYSTAL	AT-51 18.432MHz
	X3D1	DOLBY	MELX017010	QUARTZ-CRYSTAL	4MHz 3, 4, 6, 7
	X3S01*	IDENT	285P204020	QUARTZ-CRYSTAL	10MHz 1, 2, 3, 4*
	X601	MAIN	285P142020	QUARTZ-CRYSTAL	17.734475MHz
	X602	MAIN	285P143020	QUARTZ-CRYSTAL	14.31818MHz
	X701	MAIN	285P139040	QUARTZ-CRYSTAL	12MHz
	X7701	TEXT	285P157010	QUARTZ-CRYSTAL	27MHz
△	Z552	MAIN	299P193010	PROTECTOR	2000
	Z701	MAIN	939P580020	IR-PHOTO-MODULE	TFMK 5330
△	Z951	MAIN	299P193010	PROTECTOR	2000 1, 2, 5
△	Z951	MAIN	299P193030	PROTECTOR	3150 3, 4, 6, 7
△	Z952	MAIN	299P193070	PROTECTOR	5000
△	Z953	MAIN	299P193000	PROTECTOR	1600
△	Z968	MAIN	299P193000	PROTECTOR	1600
<b>PCB ASSEMBLIES</b>					
△			920A416005	ASSY-PCB-MAIN	4
△			920A416006	ASSY-PCB-MAIN	6
△			920A416007	ASSY-PCB-MAIN	7
△			920A416008	ASSY-PCB-MAIN	3
△			920A416009	ASSY-PCB-MAIN	1
△			920A416010	ASSY-PCB-MAIN	5
△			920A416012	ASSY-PCB-MAIN	2
△			930C899008	ASSY-PCB-VM/CRT	
△			930C900001	ASSY-PCB-POWER-SUB	7
△			930C900002	ASSY-PCB-POWER-SUB	1, 2, 3, 4, 5, 6
△			930C901001	ASSY-PCB-LED	
△			930C904002	ASSY-PCB-AUDIO-PWR	2, 1, 5

\* See page 25 for serial numbers affected.

1 28AV1GS      3 28AV1GDS      5 28AV1S-S      7 28AV1ED-S  
2 28AV1G-S      4 28AV1GD-S      6 28AV1SD-S

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
△		930C904003	ASSY-PCB-AUDIO-PWR		3, 4, 6, 7
△		930C909001	ASSY-PCB-TEXT		1, 2, 3, 4, 5, 6
△		930C909002	ASSY-PCB-TEXT		7
△		930C910012	ASSY-PCB-SOUND		1, 2
△		930C910014	ASSY-PCB-SOUND		5
△		930C911008	ASSY-PCB-DOLBY		4
△		930C911010	ASSY-PCB-DOLBY		7
△		930C911011	ASSY-PCB-DOLBY		3
△		930C911016	ASSY-PCB-DOLBY		6
<b>MECHANICAL AND COSMETIC</b>					
△		246C022070	AC-POWER-CORD/PLUG		
		669D212040	SCREW-TB-BIND	D=3 L=10 83AF	
		669D218070	SCREW SEMS M5x30	CRT fixing	
		669D220030	SCREW M3x10		
		669D221040	SCREW M4x12		
		669D221060	SCREW M4x16	Back Cover fixing	
△		700C605000	ASSY-BACK-COVER		2
△		700C605010	ASSY-BACK-COVER		4
△		700C605020	ASSY-BACK-COVER		3
△		700C605050	ASSY-BACK-COVER		5
△		700C605060	ASSY-BACK-COVER		6
△		700C607020	ASSY-BACK-COVER		7
△		700C607090	ASSY-BACK-COVER		1
		701D606010	ASSY-CABINET-FRONT		7
		701D606050	ASSY-CABINET-FRONT		2
		701D606060	ASSY-CABINET-FRONT		4
		701D606070	ASSY-CABINET-FRONT		3
		701D607050	ASSY-CABINET-FRONT		5
		701D607060	ASSY-CABINET-FRONT		6
		701D607090	ASSY-CABINET-FRONT		1
		702B962020	ASSY-DOOR-CONT		5
		702B963020	ASSY-DOOR-SAT		5
		752C602000	ASSY-DOOR-SAT		6
		752C602010	ASSY-DOOR-SAT		7
		752C602080	ASSY-DOOR-SAT		2
		752C602080	ASSY-DOOR-SAT		4
		752C602080	ASSY-DOOR-SAT		3
		752C602080	ASSY-DOOR-SAT		1
		752C603030	ASSY-DOOR-CONT		3, 4, 6, 7
		752C603040	ASSY-DOOR-CONT		2
		754C600050	ASSY-BUTTON-POWER		
		761C550010	DOOR-CATCH	DOOR CONT	
		761C573010	DOOR-CLIP	DOOR SAT	
<b>ACCESSORIES</b>					
		244D279020	SPEAKER CABLE		3, 4, 6, 7
		290P054070	TRANSMITTER-REMOTE-CONTROL		
		801C280010	PACKING-CASE		
		803A400010	CUSHION-SET		
		831D296040	PACKING-BAG		
* See page 25 for serial numbers affected.					

1 28AV1GS      3 28AV1GDS      5 28AV1S-S      7 28AV1ED-S  
 2 28AV1G-S      4 28AV1GD-S      6 28AV1SD-S



SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
		871C601050	SERVICE MANUAL		
		872C121050	IB COLOUR		2
		872C121080	IB COLOUR		5
		872C123050	IB-COLOUR		3, 4
		872C123060	IB-COLOUR		6
		872C123070	IB-COLOUR		7
		872C124020	IB-COLOUR		1
		926P035010	FRONT SURROUND SPEAKER 1 PIECE		3, 4, 6, 7
		926P035020	REAR SURROUND SPEAKER 1 PIECE		3, 4, 6, 7

\* PCB-IDENT (which disables DK reception) was only fitted to early models as shown:

MODEL	SERIAL NOS.
28AV1GS	30 001 ~ 30 050
28AV1G-S	30 001 ~ 30 700
28AV1GDS	30 001 ~ 30 050
28AV1GD-S	30 001 ~ 30 100

### SATELLITE TUNER PARTS

#### ICs

IC100	SAT	270P315010	IC SAT	STV0030
IC101	SAT	263P053060	IC	4053BP
IC102	SAT	263P053060	IC	4053BP
IC104	SAT	270P355030	IC	MC7812CT
IC105	SAT	274P681090	IC-C-MOS	ST9291J50A/A90
IC106	SAT	274P747010	IC-C-MOS	16K E <sup>T</sup> PROM
IC108	SAT	270P316010	IC REG (Includes insulator)	LM317T
IC109	SAT	270P355010	IC	MC7805CT

#### TRANSISTORS

Q102	SAT	260P748030	TRANSISTOR	JC501-R
Q103	SAT	260P749030	TRANSISTOR	JA101-Q
Q104	SAT	260P748030	TRANSISTOR	JC501-R
Q105	SAT	260P748030	TRANSISTOR	JC501-R
Q106	SAT	260P748030	TRANSISTOR	JC501-R
Q107	SAT	260P748030	TRANSISTOR	JC501-R
Q108	SAT	260P749030	TRANSISTOR	JA101-Q
Q112	SAT	260P749030	TRANSISTOR	JA101-Q
Q113	SAT	260P749030	TRANSISTOR	JA101-Q
Q114	SAT	260P748030	TRANSISTOR	JC501-R
Q115	SAT	260P749030	TRANSISTOR	JA101-Q
Q116	SAT	260P748030	TRANSISTOR	JC501-R
Q117	SAT	260P748030	TRANSISTOR	JC501-R
Q118	SAT	260P748030	TRANSISTOR	JC501-R
Q119	SAT	260P748030	TRANSISTOR	JC501-R
Q120	SAT	260P748030	TRANSISTOR	JC501-R
Q121	SAT	260P748030	TRANSISTOR	JC501-R
Q122	SAT	260P748030	TRANSISTOR	JC501-R
Q123	SAT	260P748030	TRANSISTOR	JC501-R
Q124	SAT	260P748030	TRANSISTOR	JC501-R
Q125	SAT	260P545010	TRANSISTOR	BC327
Q126	SAT	260P748030	TRANSISTOR	JC501-R
Q127	SAT	260P545010	TRANSISTOR	BC327
Q128	SAT	260P545010	TRANSISTOR	BC327
Q129	SAT	260P748030	TRANSISTOR	JC501-R
Q130	SAT	260P748030	TRANSISTOR	JC501-R
Q131	SAT	260P748030	TRANSISTOR	JC501-R

1 28AV1GS      3 28AV1GDS      5 28AV1S-S      7 28AV1ED-S  
2 28AV1G-S      4 28AV1GD-S      6 28AV1SD-S

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
Q132	SAT	260P749030	TRANSISTOR	JA101-Q	
Q135	SAT	260P748030	TRANSISTOR	JC501-R	
Q136	SAT	260P748030	TRANSISTOR	JC501-R	
Q137	SAT	260P748030	TRANSISTOR	JC501-R	
Q138	SAT	260P748030	TRANSISTOR	JC501-R	
Q139	SAT	260P748030	TRANSISTOR	JC501-R	
<b>DIODES</b>					
D100	SAT	264P370010	DIODE	1N4148	
D101	SAT	264P370010	DIODE	1N4148	
D102	SAT	264P370010	DIODE	1N4148	
D103	SAT	264P370010	DIODE	1N4148	
D109	SAT	264P370010	DIODE	1N4148	
D110	SAT	264P370010	DIODE	1N4148	
D111	SAT	264P370010	DIODE	1N4148	
D112	SAT	264P370010	DIODE	1N4148	
D113	SAT	264P370010	DIODE	1N4148	
<b>COILS</b>					
L100	SAT	325C105090	COIL-PEAKING	4.7 $\mu$ H-J	
L101	SAT	325C105090	COIL-PEAKING	4.7 $\mu$ H-J	
L103	SAT	325C120090	COIL-PEAKING	4.7 $\mu$ H-K	
L104	SAT	325C106060	COIL-PEAKING	18 $\mu$ H-J	
L105	SAT	325C106040	COIL-PEAKING	12 $\mu$ H-J	
<b>RESISTORS</b>					
R108	SAT	103P400090	R-M-CHIP	1/10W 47-J	
R109	SAT	103P400090	R-M-CHIP	1/10W 47-J	
R110	SAT	103P401030	R-M-CHIP	1/10W 100-J	
R111	SAT	103P404010	R-M-CHIP	1/10W 22K-J	
R112	SAT	103P403030	R-M-CHIP	1/10W 4.7K-J	
R113	SAT	103P404040	R-M-CHIP	1/10W 39K-J	
R114	SAT	103P404010	R-M-CHIP	1/10W 22K-J	
R115	SAT	103P404040	R-M-CHIP	1/10W 39K-J	
R116	SAT	103P403030	R-M-CHIP	1/10W 4.7K-J	
R117	SAT	103P404080	R-M-CHIP	1/10W 82K-J	
R118	SAT	103P405020	R-M-CHIP	1/10W 180K-J	
R119	SAT	103P402040	R-M-CHIP	1/10W 820-J	
R120	SAT	103P405020	R-M-CHIP	1/10W 180K-J	
R121	SAT	103P404080	R-M-CHIP	1/10W 82K-J	
R122	SAT	103P406000	R-M-CHIP	1/10W 820K-J	
R123	SAT	103P402040	R-M-CHIP	1/10W 820-J	
R126	SAT	103P406020	R-M-CHIP	1/10W 1.2M-J	
R127	SAT	103P404090	R-M-CHIP	1/10W 100K-J	
R128	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R129	SAT	103P404080	R-M-CHIP	1/10W 82K-J	
R130	SAT	103P403060	R-M-CHIP	1/10W 8.2K-J	
R131	SAT	103P404000	R-M-CHIP	1/10W 18K-J	
R132	SAT	103P404090	R-M-CHIP	1/10W 100K-J	
R133	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R134	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R135	SAT	103P406000	R-M-CHIP	1/10W 820K-J	
R136	SAT	103P402050	R-M-CHIP	1/10W 1K-J	
R137	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R138	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R139	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R140	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R142	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R143	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R144	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R145	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R146	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R147	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R148	SAT	103P404050	R-M-CHIP	1/10W 47K-J	

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
R149	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R150	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R151	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R152	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R153	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R154	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R155	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R156	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R157	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R158	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R159	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R160	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R161	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R162	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R163	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R164	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R165	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R166	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R167	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R168	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R169	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R170	SAT	103P401000	R-M-CHIP	1/10W 56-J	
R171	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R180	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R181	SAT	103P403030	R-M-CHIP	1/10W 4.7K-J	
R183	SAT	103P402040	R-M-CHIP	1/10W 820-J	
R184	SAT	MELX048010	R-M-CHIP	1/10W 6.2K-J	
R185	SAT	103P403080	R-M-CHIP	1/10W 12K-J	
R186	SAT	103P402020	R-M-CHIP	1/10W 560-J	
R187	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R188	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R189	SAT	103P402040	R-M-CHIP	1/10W 820-J	
R190	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R191	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R192	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R193	SAT	103P402020	R-M-CHIP	1/10W 560-J	
R194	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R195	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R196	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R197	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R199	SAT	103P401030	R-M-CHIP	1/10W 100-J	
R200	SAT	103P401030	R-M-CHIP	1/10W 100-J	
R201	SAT	103P401030	R-M-CHIP	1/10W 100-J	
R203	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R204	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R206	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R207	SAT	103P403000	R-M-CHIP	1/10W 2.7K-J	
R208	SAT	103P403000	R-M-CHIP	1/10W 2.7K-J	
R209	SAT	103P409050	R-M-CHIP	1/10W 00HM	
R210	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R211	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R212	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R213	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R214	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R215	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R216	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R217	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R218	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R219	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R220	SAT	103P404020	R-M-CHIP	1/10W 27K-J	
R221	SAT	103P403050	R-M-CHIP	1/10W 6.8K-J	
R222	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R223	SAT	103P401090	R-M-CHIP	1/10W 330-J	

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
R224	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R225	SAT	103P402000	R-M-CHIP	1/10W 390-J	
R226	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R227	SAT	103P404040	R-M-CHIP	1/10W 39K-J	
R228	SAT	103P404020	R-M-CHIP	1/10W 27K-J	
R229	SAT	103P403030	R-M-CHIP	1/10W 4.7K-J	
R230	SAT	103P901090	R-METAL	0.4W 560-F	
R231	SAT	103P902040	R-METAL	0.4W 910-F	
R232	SAT	MELX049010	R-METAL	1/4W 1.4K-F	
R233	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R234	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R235	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R236	SAT	103P900090	R-METAL	0.4W 220-F	
R239	SAT	103P402050	R-M-CHIP	1/10W 1K-J	
R240	SAT	103P404010	R-M-CHIP	1/10W 22K-J	
R241	SAT	103P403090	R-M-CHIP	1/10W 15K-J	
R242	SAT	103P403090	R-M-CHIP	1/10W 15K-J	
R245	SAT	103P402050	R-M-CHIP	1/10W 1K-J	
R246	SAT	103P404010	R-M-CHIP	1/10W 22K-J	
R247	SAT	103P404010	R-M-CHIP	1/10W 22K-J	
R248	SAT	103P404010	R-M-CHIP	1/10W 22K-J	
R249	SAT	103P404090	R-M-CHIP	1/10W 100K-J	
R250	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R251	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R252	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R253	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R260	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R261	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R262	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R263	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R264	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R265	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R266	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R267	SAT	103P401030	R-M-CHIP	1/10W 100-J	
R268	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R270	SAT	103P402060	R-M-CHIP	1/10W 1.2K-J	
R271	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R272	SAT	103P404000	R-M-CHIP	1/10W 18K-J	
R273	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
<b>CAPACITORS</b>					
C101	SAT	141P131050	C-CERAMIC-CHIP	CK50V 3300P-K	
C102	SAT	141P131030	C-CERAMIC-CHIP	CK50V 2200P-K	
C103	SAT	141P131050	C-CERAMIC-CHIP	CK50V 3300P-K	
C105	SAT	141P131030	C-CERAMIC-CHIP	CK50V 2200P-K	
C106	SAT	154P331090	C-CERAMIC-CHIP	CK50V 22P-J	
C107	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C108	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C109	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C110	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C111	SAT	154P333010	C-CERAMIC-CHIP	CK50V 68P-J	
C112	SAT	154P332050	C-CERAMIC-CHIP	CK50C 39P-J	
C113	SAT	154P333010	C-CERAMIC-CHIP	CK50V 68P-J	
C114	SAT	154P331090	C-CERAMIC-CHIP	CK50V 22P-J	
C115	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C116	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C118	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C119	SAT	141P135080	C-CERAMIC-CHIP	25V 0.1M-Z	
C121	SAT	141P137040	C-CERAMIC-CHIP	B50V 0.022M-Z	
C122	SAT	154P335010	C-CERAMIC-CHIP	CK50V 470P-J	
C123	SAT	141P137080	C-CERAMIC-CHIP	B50V 0.047M-K	
C124	SAT	141P130010	C-CERAMIC-CHIP	CK50V 220P-J	

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
C125	SAT	154P335010	C-CERAMIC-CHIP	CK50V 470P-J	
C126	SAT	141P132010	C-CERAMIC-CHIP	B50V 0.01M-K	
C127	SAT	154P331090	C-CERAMIC-CHIP	CK50V 22P-J	
C128	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C129	SAT	154P332070	C-CERAMIC-CHIP	CK50C 47P-J	
C131	SAT	141P135080	C-CERAMIC-CHIP	25V 0.1M-Z	
C132	SAT	141P135000	C-CERAMIC-CHIP	25V 0.22M-Z	
C147	SAT	154P333010	C-CERAMIC-CHIP	CK50C 68P-J	
C152	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C153	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C157	SAT	154P333010	C-CERAMIC-CHIP	CK50V 68P-J	
C158	SAT	154P333010	C-CERAMIC-CHIP	CK50V 68P-J	
C159	SAT	154P331030	C-CERAMIC-CHIP	CK50V 12P-J	
C160	SAT	154P333050	C-CERAMIC-CHIP	CK50V 100P-J	
C161	SAT	154P332070	C-CERAMIC-CHIP	CK50C 47P-J	
C163	SAT	154P332090	C-CERAMIC-CHIP	CK50V 56P-J	
C166	SAT	154P331010	C-CERAMIC-CHIP	CH50V 10P-C	
C167	SAT	154P333070	C-CERAMIC-CHIP	CK50V 120P-J	
C169	SAT	154P332070	C-CERAMIC-CHIP	CK50C 47P-J	
C170	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C171	SAT	141P132030	C-CERAMIC-CHIP	B50V 0.015M-K	
C172	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C174	SAT	154P331090	C-CERAMIC-CHIP	CK50V 22P-J	
C175	SAT	154P331090	C-CERAMIC-CHIP	CK50V 22P-J	
C176	SAT	141P130010	C-CERAMIC-CHIP	CK50V 220P-J	
C177	SAT	141P131030	C-CERAMIC-CHIP	CK50V 2200P-K	
C179	SAT	154P334030	C-CERAMIC-CHIP	CK50V 220P-J	
C181	SAT	141P132010	C-CERAMIC-CHIP	B50V 0.01M-K	
C182	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C193	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C194	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C195	SAT	141P130010	C-CERAMIC-CHIP	CK50V 220P-J	
C196	SAT	141P130030	C-CERAMIC-CHIP	CK50V 330P-K	
C197	SAT	154P331030	C-CERAMIC-CHIP	CK50V 12P-J	
C198	SAT	154P331030	C-CERAMIC-CHIP	CK50V 12P-J	
C199	SAT	141P131030	C-CERAMIC-CHIP	CK50V 2200P-K	
C241	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C242	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C244	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
<b>MISCELLANEOUS</b>					
SK100	SAT	451C129020	JACK-MICROPHONE	YKB21-5129	
TU100	SAT	295P432010	TUNER-SAT	25BSFK77G21	
XT100	SAT	MELX017010	CRYSTAL	4MHz	
XT101	SAT	285P139040	QUARTZ-CRYSTAL	12MHz	

# 5 SCHEMATIC DIAGRAMS

## 5.1 SERVICING PRECAUTIONS

The  $\Delta$  symbol indicates components with characteristics critical to safety and performance.

These parts **must** only be replaced with parts having identical values and characteristics – refer to the Service Parts List for the correct Mitsubishi part numbers.

**Do not compromise the safety of the receiver by improper servicing.**

## 5.2 GENERAL NOTES

- DC voltages are measured from the points indicated to circuit ground.
- Waveforms are for a PAL colour bar signal.
- Test Points are shown as: "TP6A", etc.
- This is a basic circuit diagram – receivers are subject to modification due to continuous engineering improvement.

## 5.3 COMPONENT INFORMATION

### SPECIFIC SYMBOLS

	Zener diode
	Varicap
	Posistor
	Thermistor
	Fusible resistor
	Crystal
	Air gap
	Part (e.g. resistor) on copper side of PCB
	Ceramic filter

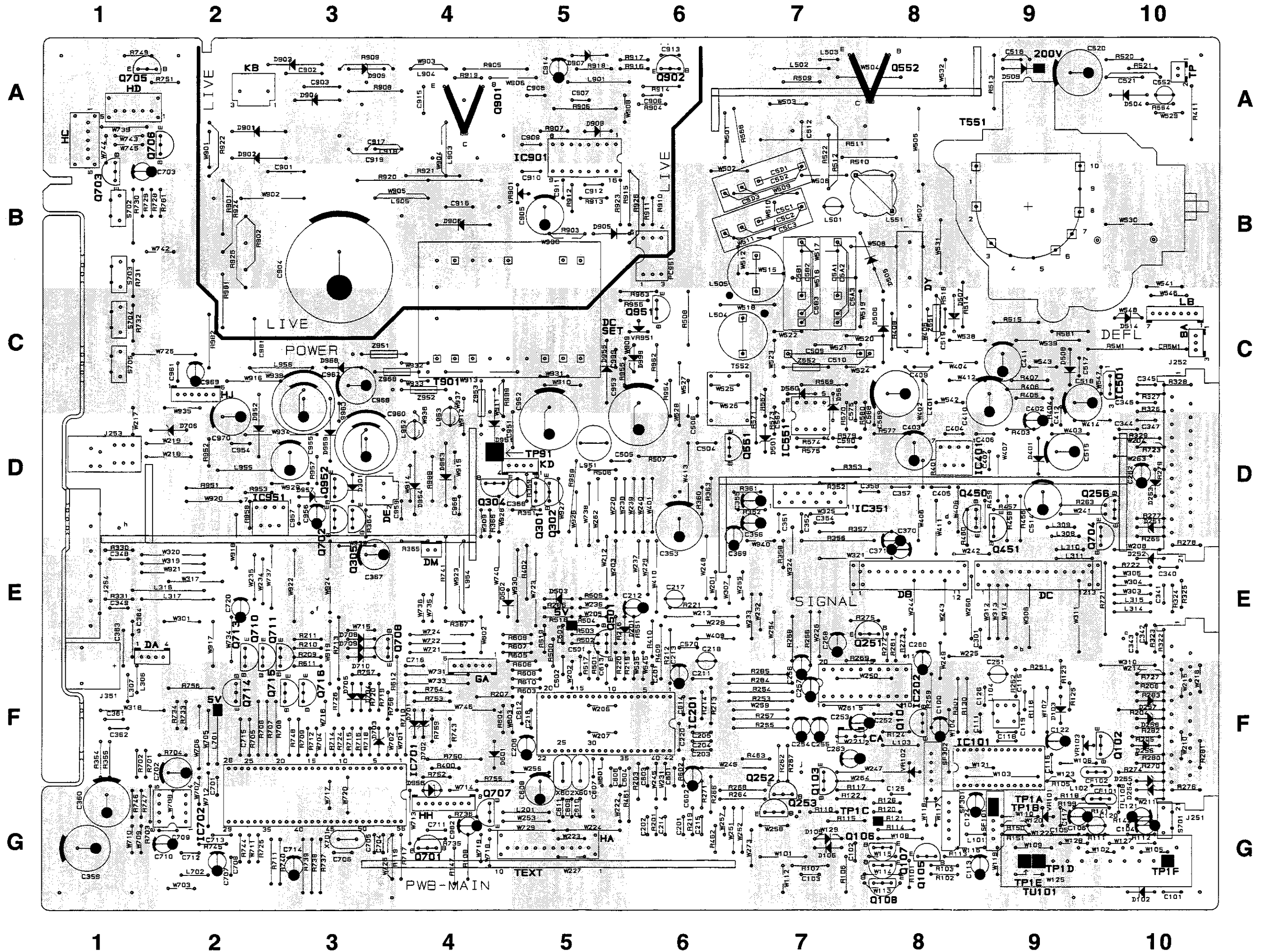
### RESISTORS

<b>Value</b>	without spec.	$\Omega$ , K = K $\Omega$ , M = M $\Omega$
<b>Wattage</b>	without spec.	1/4W or 1/6W (chips: 1/10W)
<b>Tolerance</b>	without spec.	$\pm 5\%$ D = $\pm 0.5\%$ , F = $\pm 1\%$ , J = $\pm 5\%$ , K = $\pm 10\%$ ,
<b>Type</b>	without spec.	Carbon film
	(S)	Composition
	(MB)	Metal oxide film
	(CE)	Cemented
	(W)	Wire wound
	(M)	Metal film
	(MPC)	Metal plate cement
	(ML)	Metal linear

### CAPACITORS

<b>Value</b>	without spec.	pF for values >1, $\mu$ F for values <1
<b>Voltage</b>	without spec.	50V
<b>Tolerance</b>	without spec.	electrolytic: $\pm 20\%$ , others $\pm 10\%$ G = $\pm 2\%$ , J = $\pm 5\%$ , K = $\pm 10\%$ , M = $\pm 20\%$ , P = +100 -0%, Z = +80 -20%, Q = +30 -10%, T = +200 -0%, C = $\pm 0.25$ pF, D = $\pm 0.5$ , F = $\pm 1$ pF, G = $\pm 2$ pF
<b>Type</b>	without spec.	Ceramic
	(MF)	Polyester
	(PP)	Polypropylene film
	(ALM)	Aluminum electrolytic
	(TF)	Twin film
	(SC)	Semiconductor ceramic
	(MP)	Metallised paper
	(MPP)	Metallised plastic film
	(MMF)	Metallised polyester
	(MFPP)	Polyester/polypropylene film
	(PS)	Polystyrene (styrol)
	(TAN) or (TANT)	Tantalum
	(N)	Electrolytic
	(BP) or (NP)	Non-polarised electrolytic
<b>Characteristic</b> (only ceramic capacitors)	without spec.	B or F (high dielectric) CH, SL, etc. Temperature compensating types

PCB-MAIN (AV1 series)



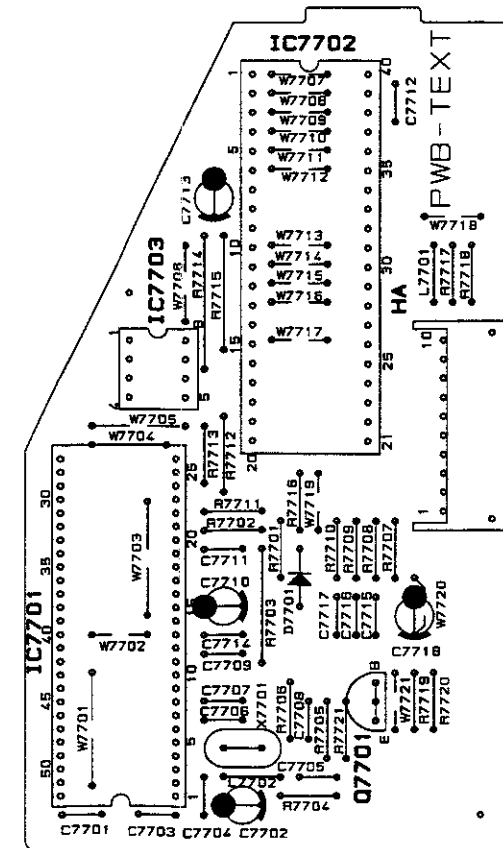
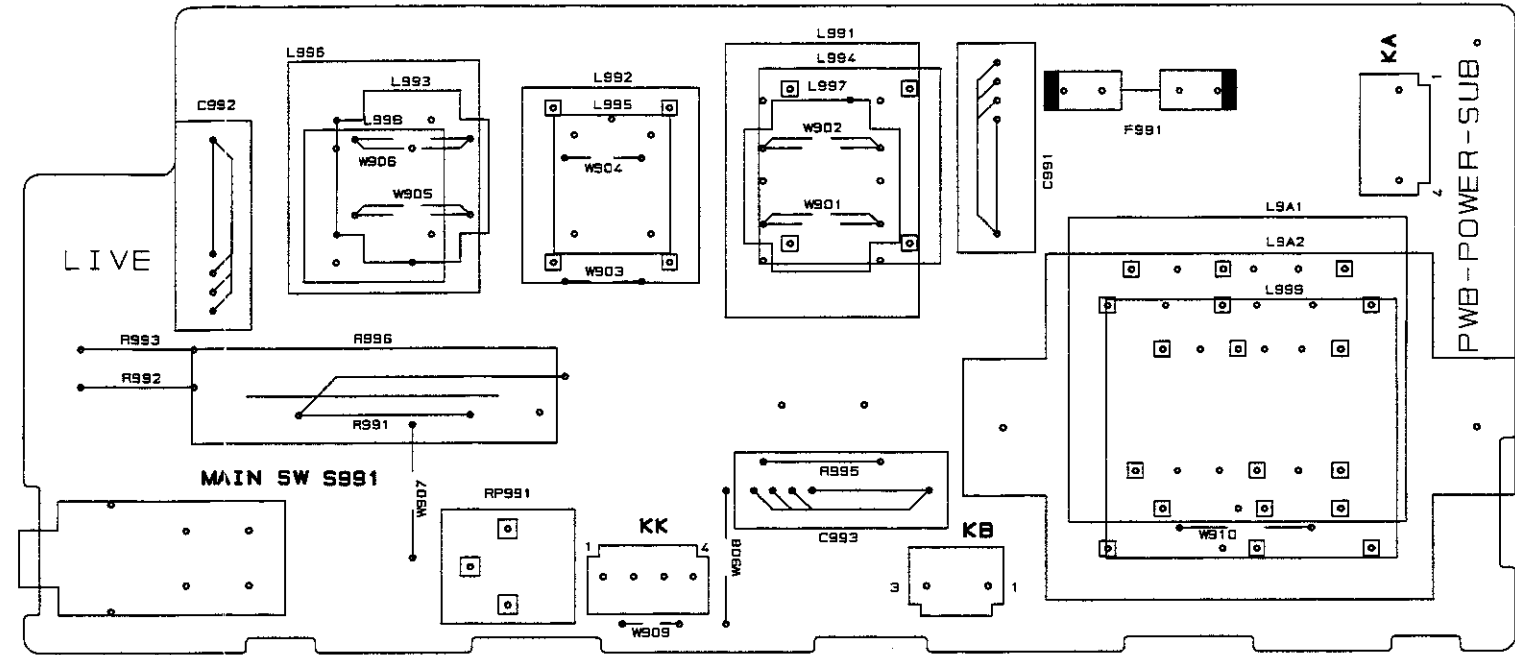
# MAIN PCB COMPONENT ADDRESSES

C509	C7
C5A1	B7
C5A2	B7
C5A3	C7
C5B1	B7
C5B2	B7
C5B3	C7
C5C1	B7
C5C2	B7
C5C3	B7
C5D1	B7
C5D2	B7
C5D3	B6
C904	B3
C981	C2
CF101	G9
CF102	F9
CR5M1	C10
D102	G10
D103	F9
D105	G7
D106	G7
D201	E6
D251	D10
D252	E10
D253	D10
D254	G10
D255	F10
D256	F10
D257	F10
D258	F10
D301	D3
D401	D9
D501	D7
D502	E4
D503	E5
D504	A10
D505	B9
D506	C8
D507	C8
D508	C9
D509	A9
D514	C10
D560	C7
D561	C7
D601	F4
D701	F4
D702	F4
D703	F3
D704	F3
D705	F3
D706	D2

D708	E3
D709	E3
D710	E3
D901	A2
D902	A2
D903	A3
D904	A3
D905	B5
D906	B4
D907	A5
D908	A5
D909	A3
D951	D4
D952	D2
D953	D4
D954	D4
D955	C5
D956	G4
D957	D3
D959	D3
D968	C3
D999	C6
IC101	F9
IC201	F6
IC202	F8
IC351	D7
IC401	D8
IC501	C10
IC551	D7
IC701	F4
IC702	G2
IC901	A5
IC951	D2
J251	G10
J252	C10
J253	D1
J254	E1
J351	F1
L101	G8
L102	G9
L103	F8
L104	F9
L106	G10
L201	G5
L306	F1
L307	F1
L308	D9
L309	D9
L310	E9
L311	E9
L314	E10
L315	E10

L316	E2
L317	E2
L401	C8
L501	B7
L502	A7
L503	A7
L504	C6
L505	B6
L551	B8
L701	F2
L702	G2
L901	A5
L903	A4
L904	A4
L905	B4
L951	D5
L952	D4
L953	D4
L954	E4
L955	D2
L956	C3
PC951	B6
Q102	F10
Q103	F7
Q104	F8
Q105	G8
Q106	G8
Q107	G8
Q108	G7
Q251	E8
Q252	G7
Q253	G7
Q256	D10
Q301	D5
Q302	D5
Q304	D4
Q305	D3
Q450	D8
Q451	D9
Q501	E5
Q551	D6
Q701	G4
Q702	D3
Q703	B1
Q704	D10
Q705	A1
Q706	A1
Q707	G4
Q708	E3
Q710	E2
Q711	E2

Q713	E2
Q714	F2
Q715	F3
Q716	F3
Q901	A4
Q902	A6
Q951	C6
Q952	D3
R352	D7
R353	D7
R406	C9
R508	C6
R511	A7
R512	A7
R513	A9
R514	C8
R516	C8
R573	D7
R574	D7
R575	D7
R5M1	C10
R921	B4
R954	C6
R955	C5
R981	C2
R982	C2
S701	G10
S702	B1
S703	B1
S704	C1
S705	C1
SF101	G9
SF301	G8
SF302	F8
T551	A8
T552	C6
T901	C4
TU101	G9
VR101	G9
VR102	F8
VR103	F9
VR901	B5
VR951	C6
X601	F5
X602	F5
X701	G3
Z551	C8
Z552	C7
Z951	C3
Z952	C4
Z953	C4
Z968	C3



## PCB TEXT

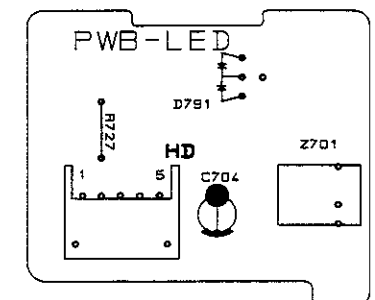
- IC7701
- IC7702
- Q7701
- D7701
- L7701
- L7702
- X7701

## PCB POWER SUB

- C991
- C993
- F991
- L991
- L992
- L993
- L994
- L995
- L996
- L997
- L998
- R991
- R992
- R993
- RP991
- S991

## PCB LED

- D791
- Z701





# PCB-SAT COMPONENT ADDRESSES

C101	D4
C102	C4
C103	C4
C104	D4
C105	C3
C106	D3
C107	D4
C108	D3
C109	D3
C110	D3
C111	D3
C112	D2
C113	D2
C114	E3
C115	D2
C116	E3
C117	D3
C118	E3
C119	D3
C120	E3
C121	E3
C122	F3
C123	E3
C124	F3
C125	F4
C126	E3
C127	D4
C128	E3
C129	E4
C130	D5
C131	E4
C132	E5
C133	G3
C134	H3
C135	H2
C136	H1
C137	H2
C138	J2
C139	H1
C140	J3
C141	J2
C142	H1
C143	H1
C144	J2
C145	J2
C146	F5
C147	G4
C148	F5
C149	A4
C151	B5
C152	B5
C153	B5
C154	B5
C155	E5

C156	E5
C157	E5
C158	F5
C159	F4
C160	G5
C161	G5
C162	G5
C163	G4
C164	F4
C165	G5
C166	G4
C167	G3
C168	G4
C169	G3
C170	G3
C171	F4
C172	E2
C174	G3
C175	F3
C176	E2
C177	E2
C178	E3
C179	F4
C180	F4
C181	A4
C182	A5
C183	C5
C189	G3
C192	D5
C193	J3
C194	J3
C195	E1
C196	E1
C197	D3
C198	D3
C199	F4
C241	C4
C242	C3
C243	H3
C244	H3
D100	D3
D101	D3
D102	D3
D103	D3
D109	C4
D110	C4
D111	F1
D112	F1
D113	E1
IC100	E4
IC101	G1
IC102	H2
IC103	B5
IC104	C4

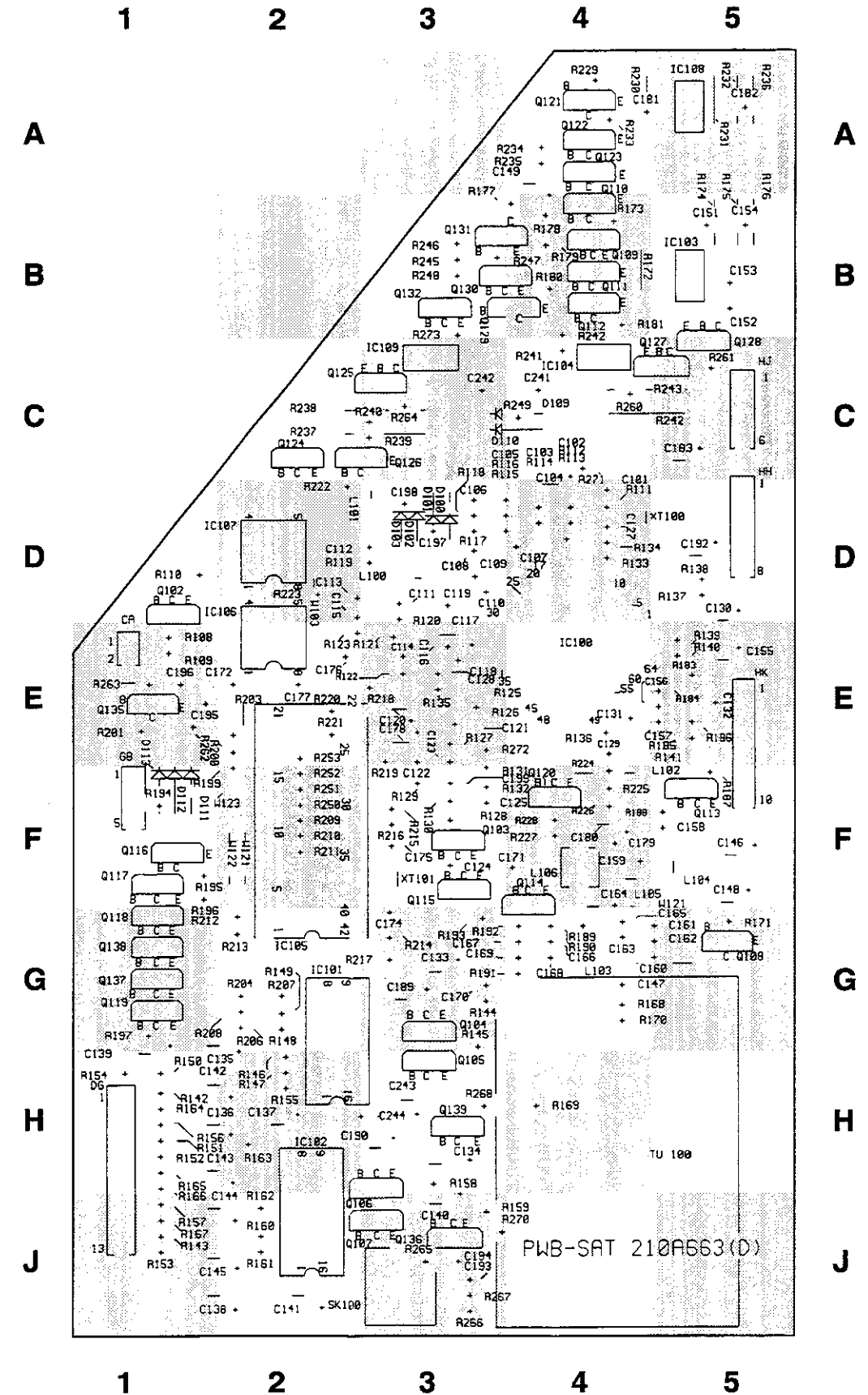
IC105	F2
IC106	E2
IC107	D2
IC108	A5
IC109	C3
L100	D3
L101	D2
L102	F5
L103	G4
L104	F5
L105	F4
L106	F4
Q102	D1
Q103	F3
Q104	G3
Q105	H3
Q106	J3
Q107	J3
Q108	G5
Q109	B4
Q110	B4
Q111	B4
Q112	B4
Q113	F5
Q114	F4
Q115	F3
Q116	F1
Q117	F1
Q118	G1
Q119	G1
Q120	F4
Q121	A4
Q122	A4
Q123	A4
Q124	C2
Q125	C3
Q126	C3
Q127	C5
Q128	C5
Q129	B3
Q130	B3
Q131	B3
Q132	B3
Q135	E1
Q136	J3
Q137	G1
Q138	G1
Q139	H3
R108	E1
R109	E1
R110	D1
R111	D4
R112	C4
R113	C4

R114	C4
R115	C3
R116	C3
R117	D3
R118	C3
R119	D2
R120	D3
R121	E3
R122	E2
R123	E2
R125	E3
R126	E3
R127	E3
R128	F3
R129	F3
R130	F3
R131	F4
R132	F4
R133	D4
R134	D4
R135	E3
R136	E4
R137	D5
R138	D5
R139	E5
R140	E5
R141	E5
R142	H1
R143	J1
R144	G3
R145	G3
R146	H2
R147	H2
R148	G1
R149	G1
R150	H1
R151	H1
R152	H1
R153	J1
R154	H1
R155	H2
R156	H1
R157	J1
R158	H3
R159	J4
R160	J2
R161	J2
R162	J2
R163	H2
R164	H1
R165	H1
R166	J1
R167	J1
R168	G4

R169	H4
R170	G4
R171	G5
R172	B4
R173	B4
R174	A5
R175	A5
R176	A5
R177	A3
R178	B4
R179	B4
R180	B4
R181	B4
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R187	F5
R189	G4
R190	G4
R191	G3
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R193	G3
R194	F1
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R196	G1
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R222	D2
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R225	F4
R226	F4
R227	F4

R228	F4
R229	A4
R230	A4
R231	A5
R232	A5
R233	A4
R234	A4
R235	A4
R236	A5
R237	C2
R238	C2
R239	C3
R240	C3
R241	C4
R242	C5
R243	C5
R244	B4
R245	B3
R246	B3
R247	B4
R248	B3
R249	C4
R250	F2
R251	F2
R252	F2
R253	E2
R260	C4
R261	C5
R262	E1
R263	E1
R264	C3
R265	J3
R266	J3
R267	J3
R268	H3
R270	J4
R271	D4
R272	E4
R273	B3
SK100	J3
TU100	H4
XT100	D5
XT101	F3

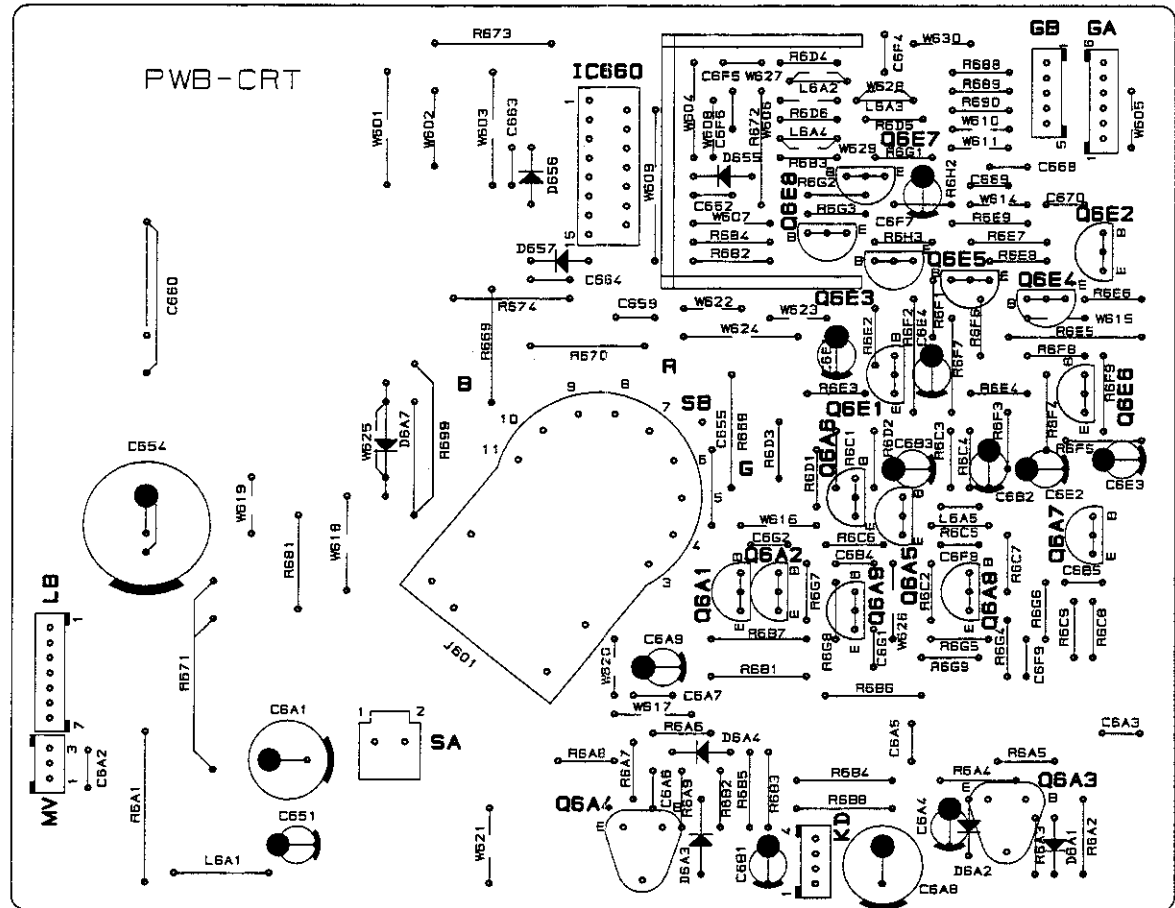
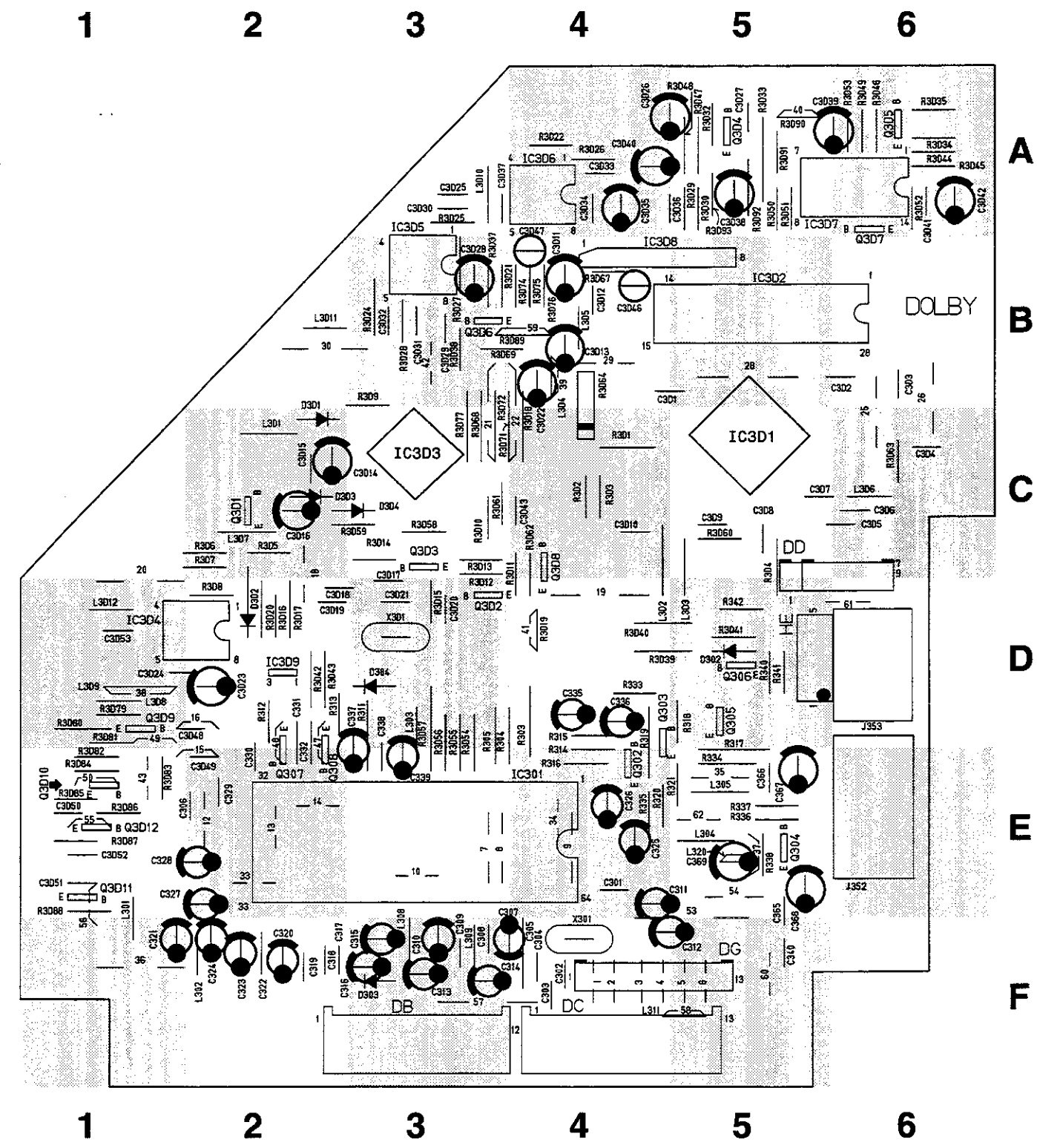
# PCB-SAT



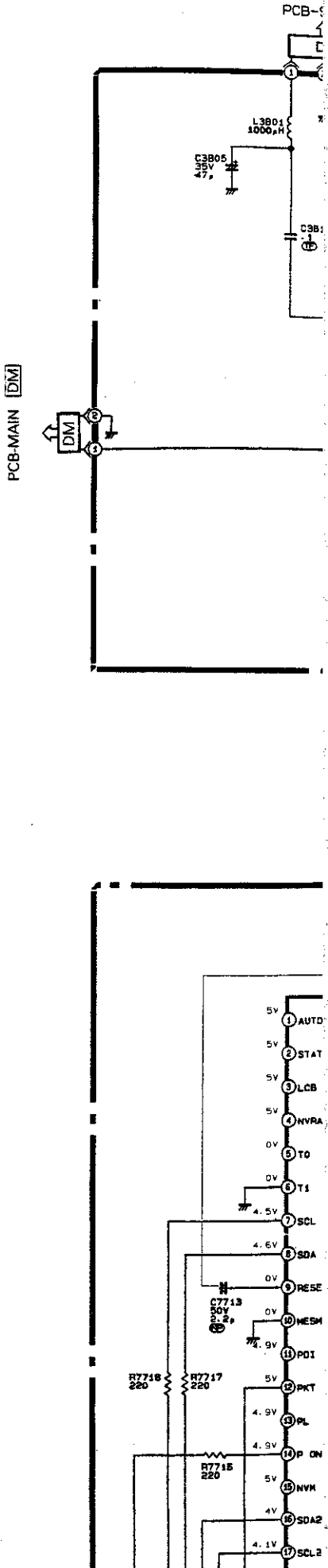
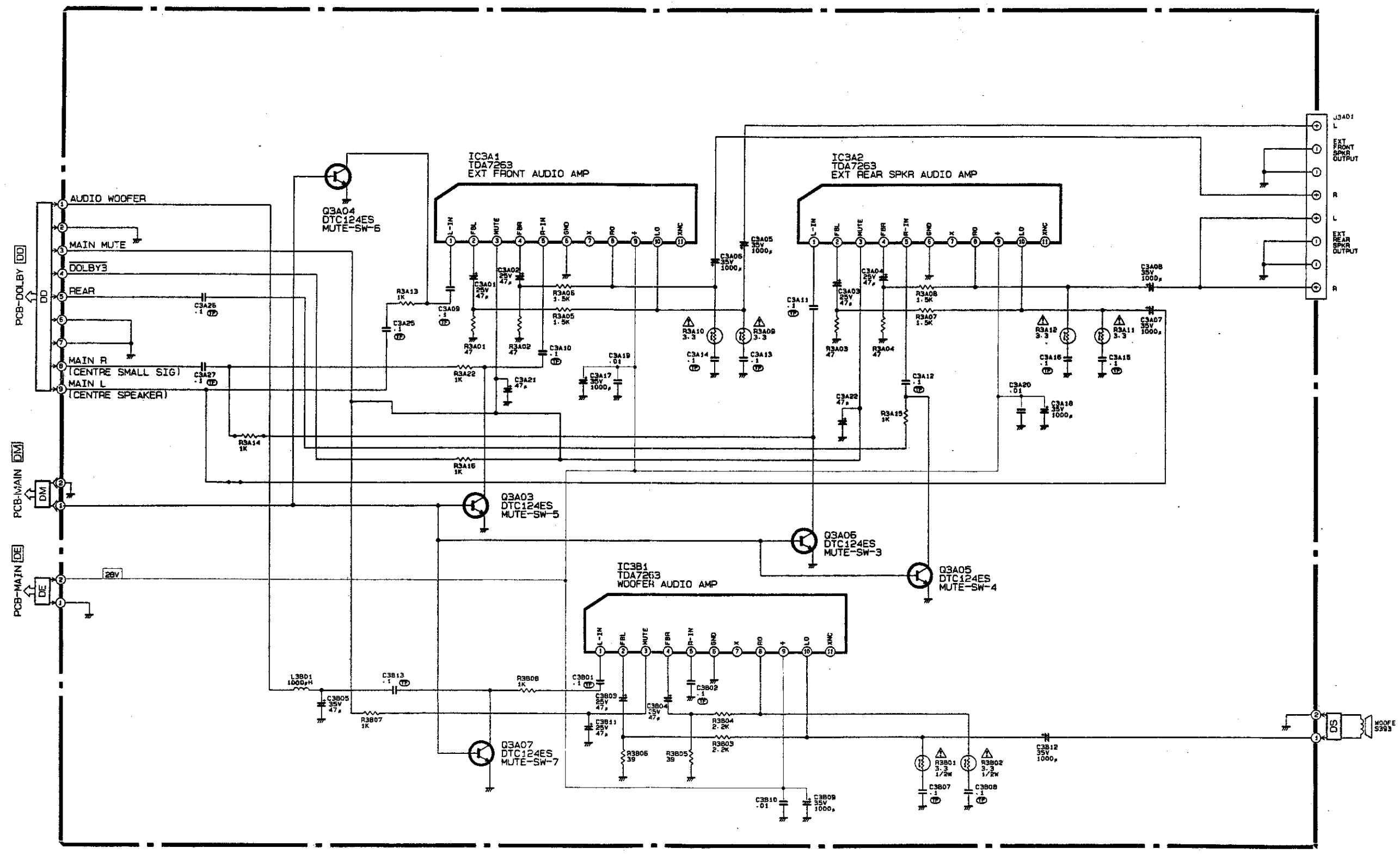
# PCB DOLBY ADDRESSES

PCB CRT	
D655	Q6A4
D656	Q6A5
D657	Q6A6
IC660	Q6A7
J601	Q6A8
R671	Q6A9
D6A1	Q6E1
D6A2	Q6E2
D6A3	Q6E3
D6A4	Q6E4
D6A7	Q6E5
L6A1	Q6E6
L6A2	Q6E7
L6A3	Q6E8
L6A4	R6B4
L6A5	R6B6
Q6A1	R6B7
Q6A2	R6B8
Q6A3	

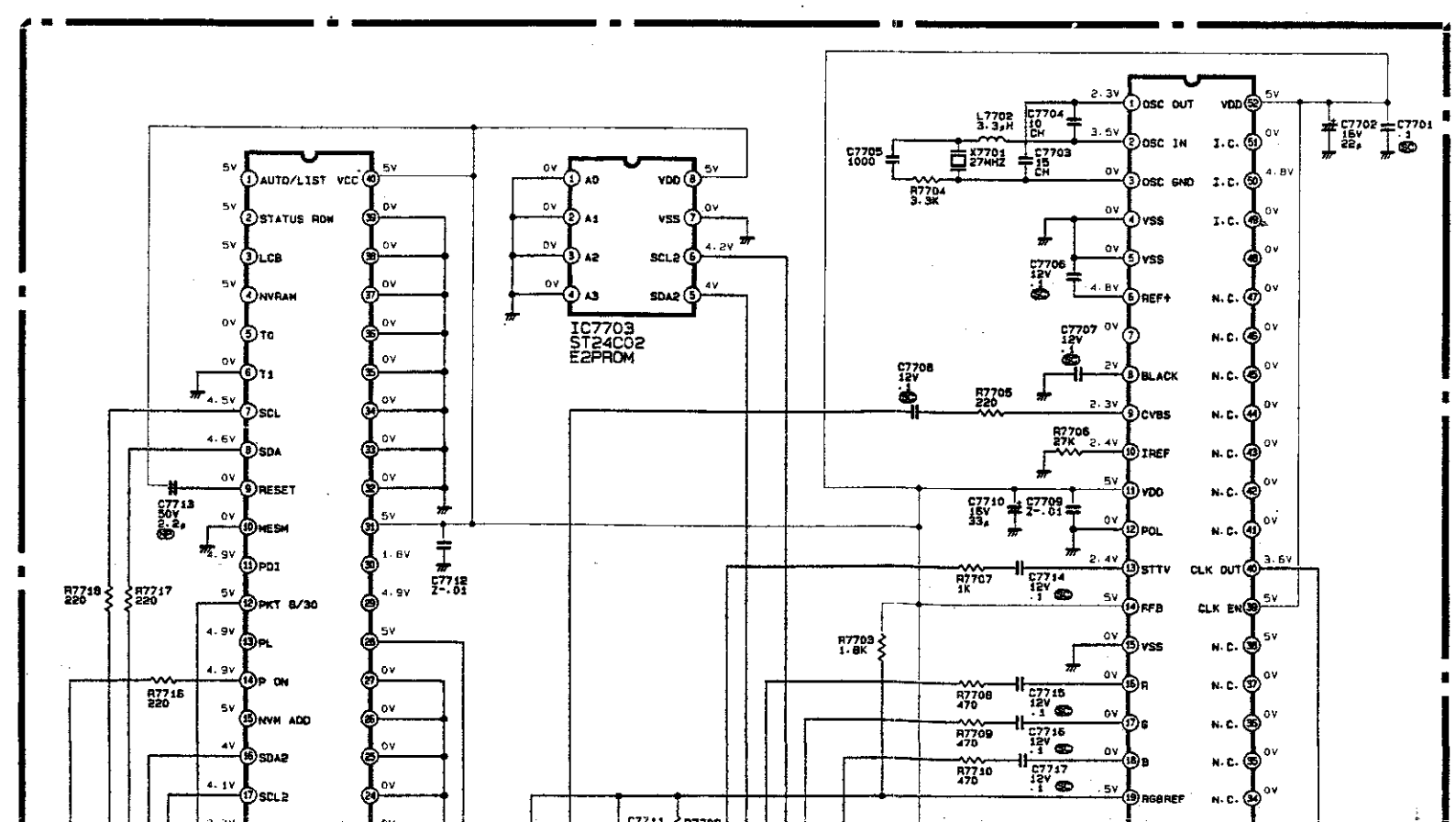
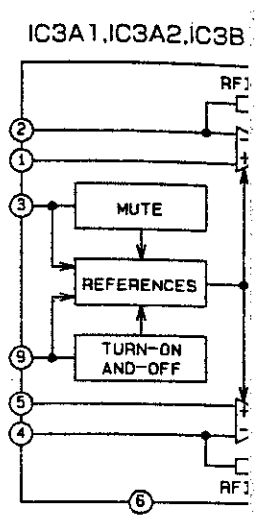
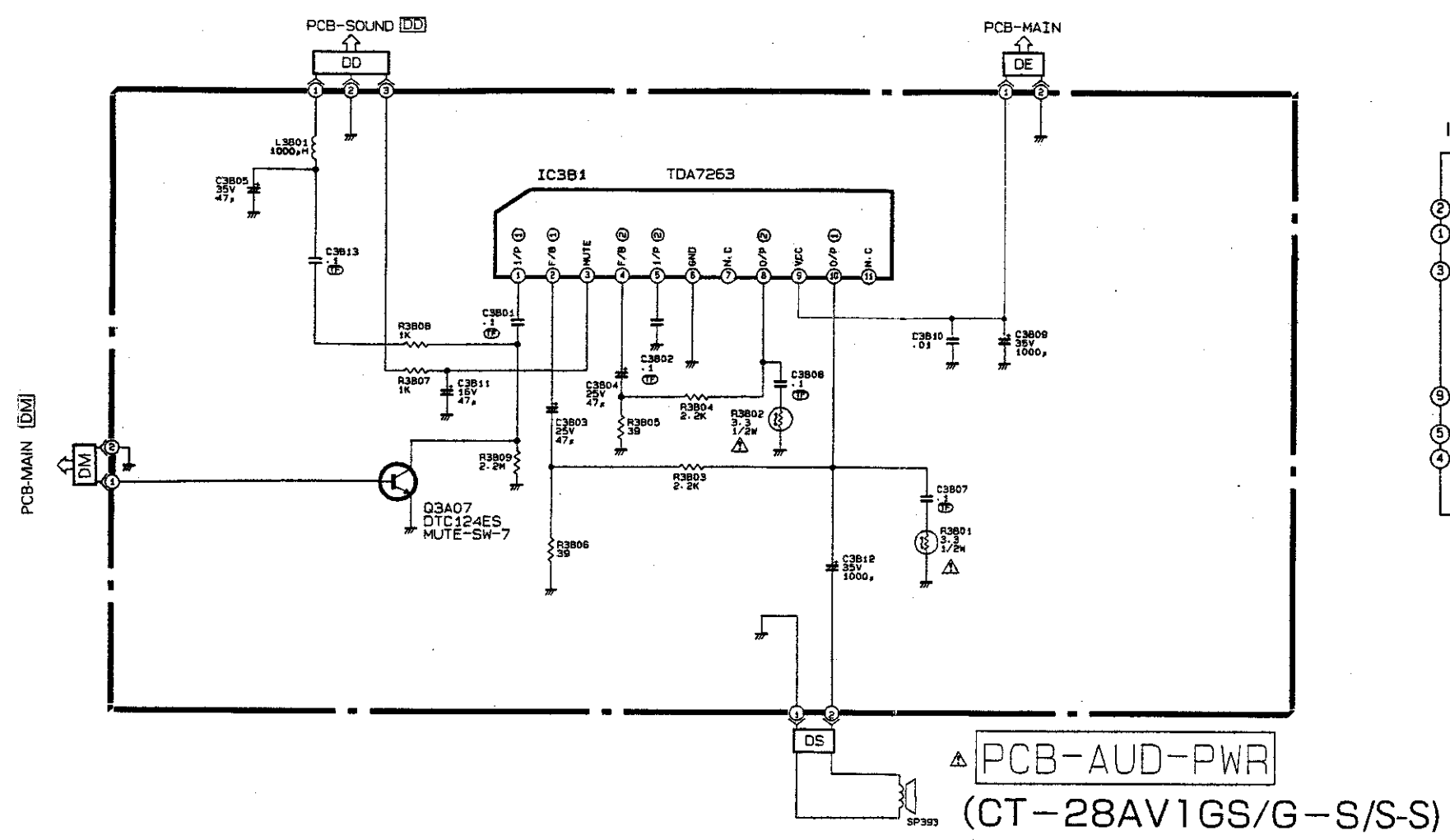
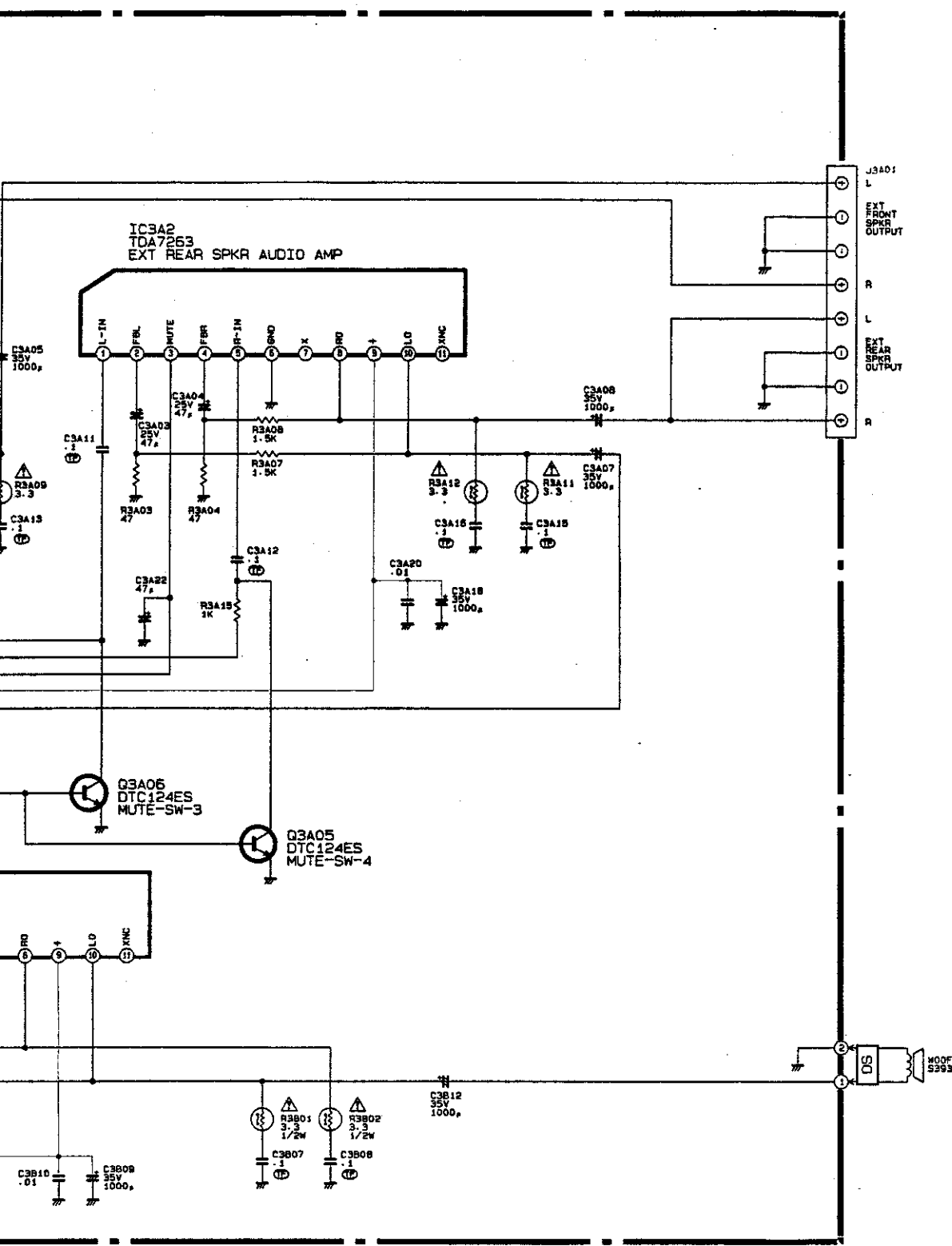
D302	D5	L303	D5	Q304	E5
D303	F3	L304	E5	Q305	D5
D304	D3	L305	E5	Q306	D5
D3D1	C2	L308	F3	Q307	E2
D3D2	D2	L309	F3	Q308	E2
D3D3	C2	L311	F4	Q3D1	C2
D3D4	C3	L320	E5	Q3D10	E1
IC301	E4	L3D1	C2	Q3D11	E1
IC3D1	C5	L3D10	A3	Q3D12	E1
IC3D2	B5	L3D11	B2	Q3D2	D3
IC3D3	C3	L3D12	D1	Q3D3	C3
IC3D4	D1	L3D2	D4	Q3D4	A5
IC3D5	B3	L3D4	B4	Q3D5	A6
IC3D6	A4	L3D5	B4	Q3D6	B3
IC3D7	A5	L3D6	C6	Q3D7	A6
IC3D8	B4	L3D7	C2	Q3D8	C4
IC3D9	D2	L3D8	D1	Q3D9	D1
L301	E1	L3D9	D1	X301	F4
L302	F2	Q302	E4	X3D1	D3
L303	D3	Q303	D4		



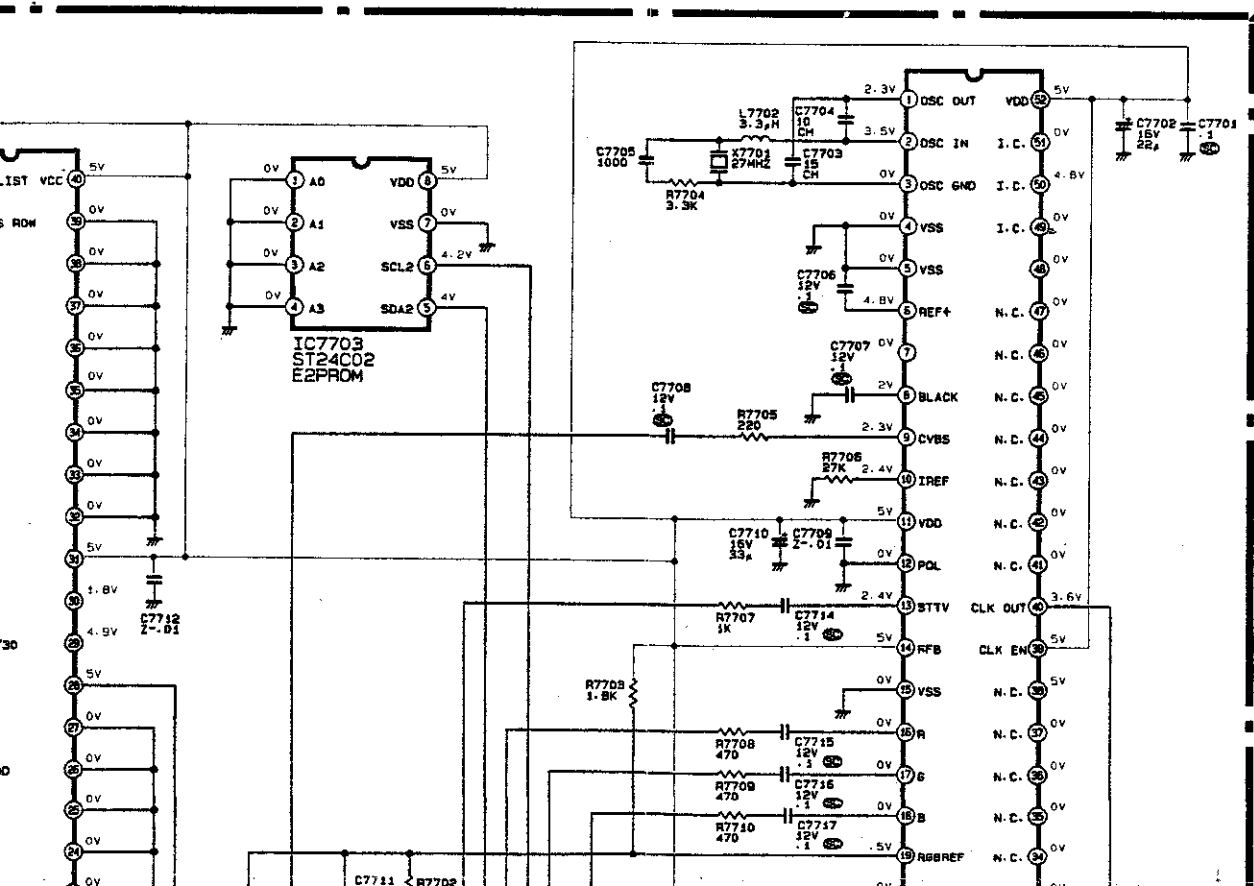
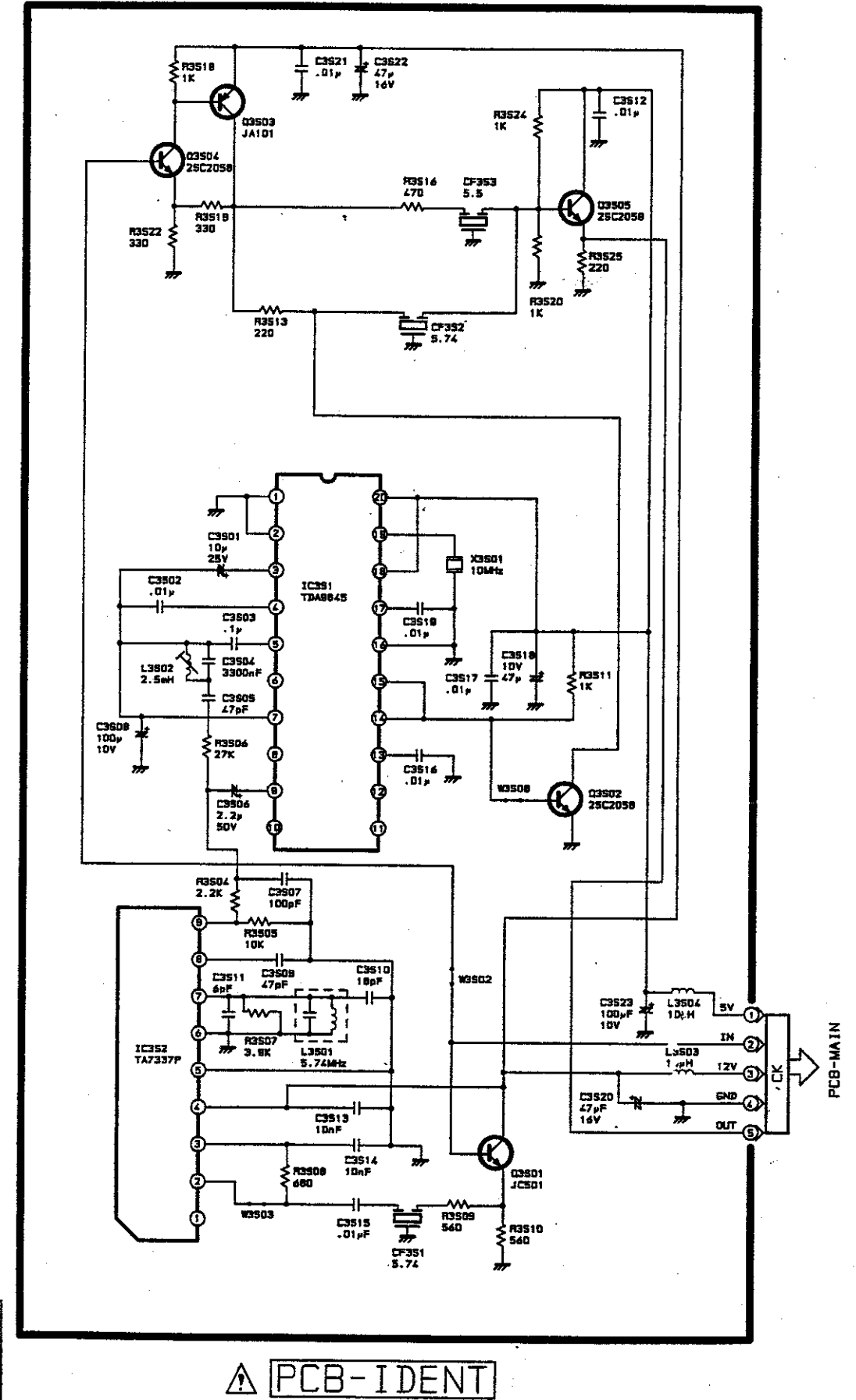
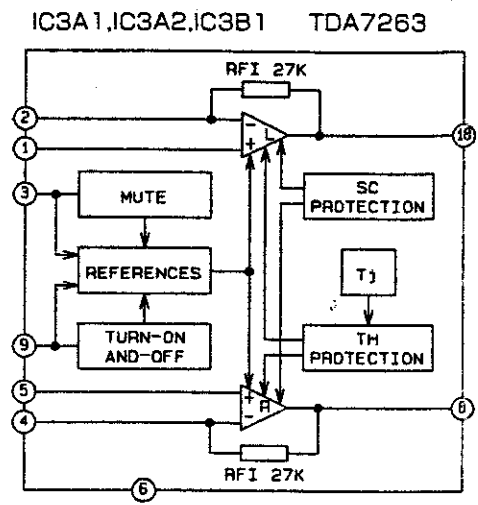
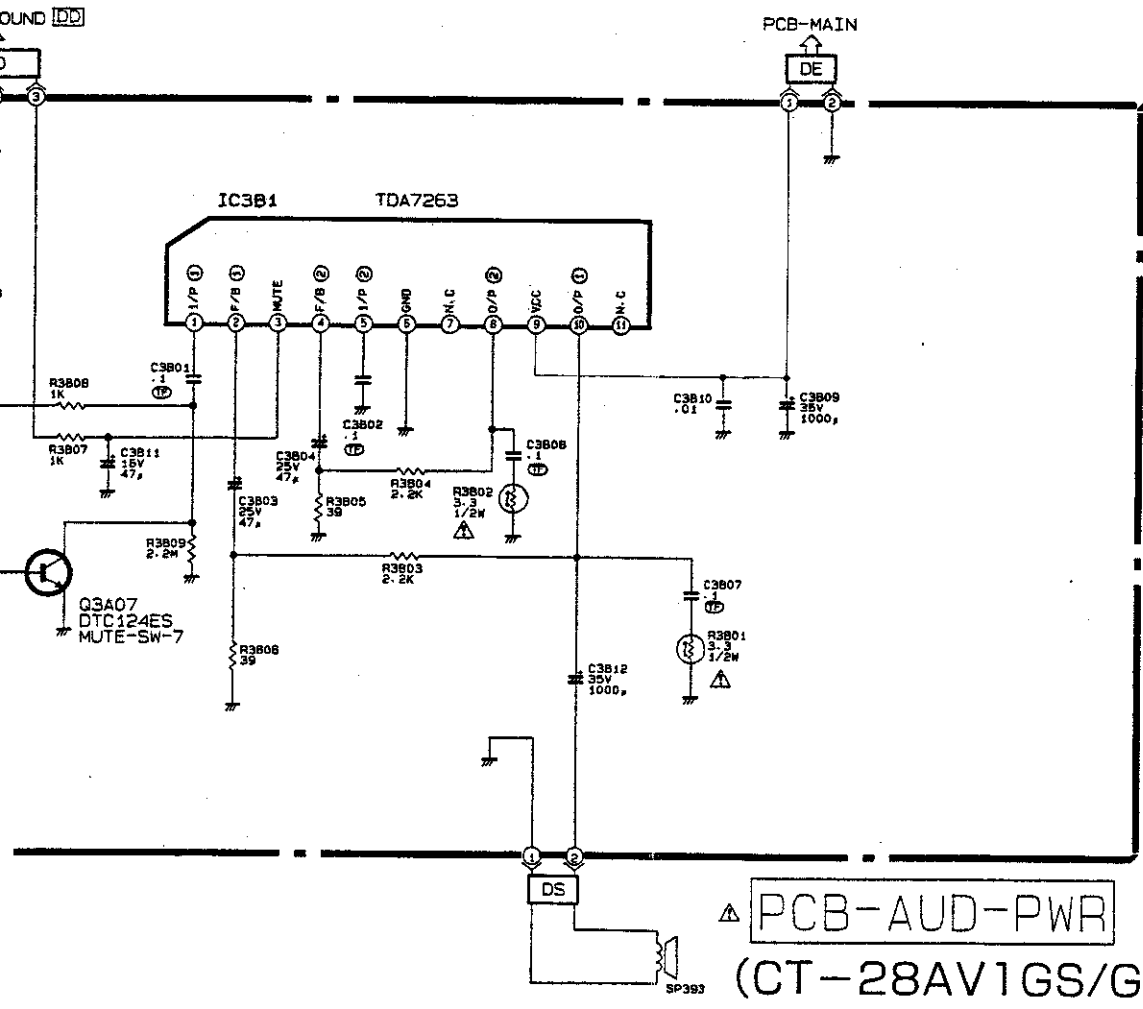
PCB-AUD-PWR (CT-28AV1 GDS/GD-S/SD-S/ED-S)

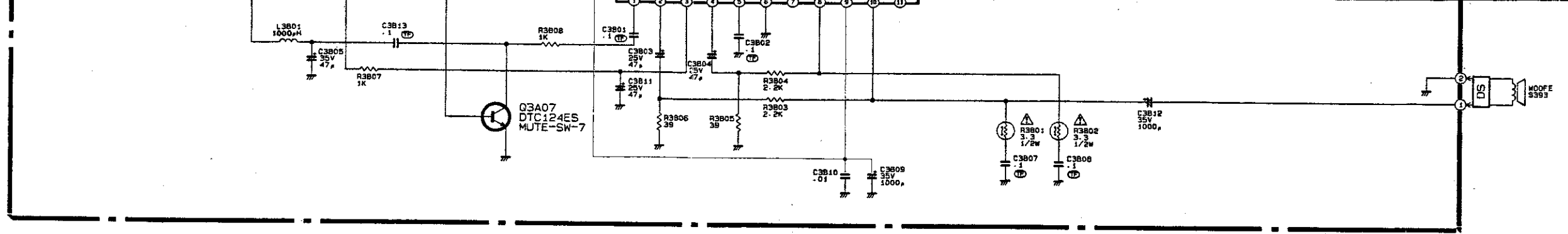


IC BLOCK DIAGRAMS OF PCB-MAIN AND CRT



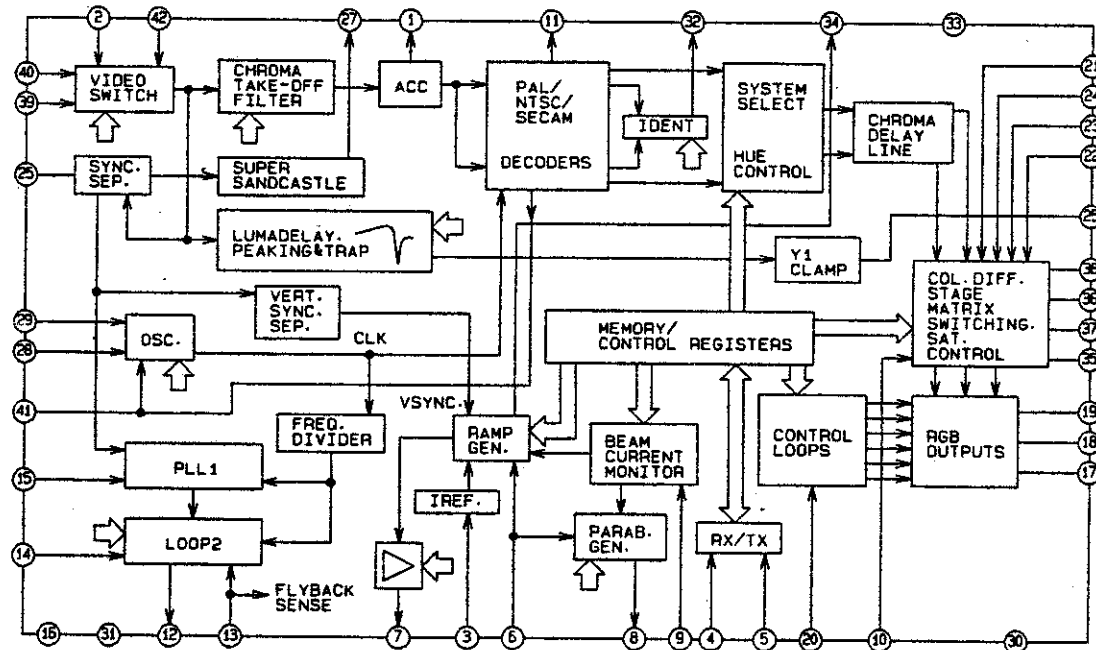
IS OF  
RT



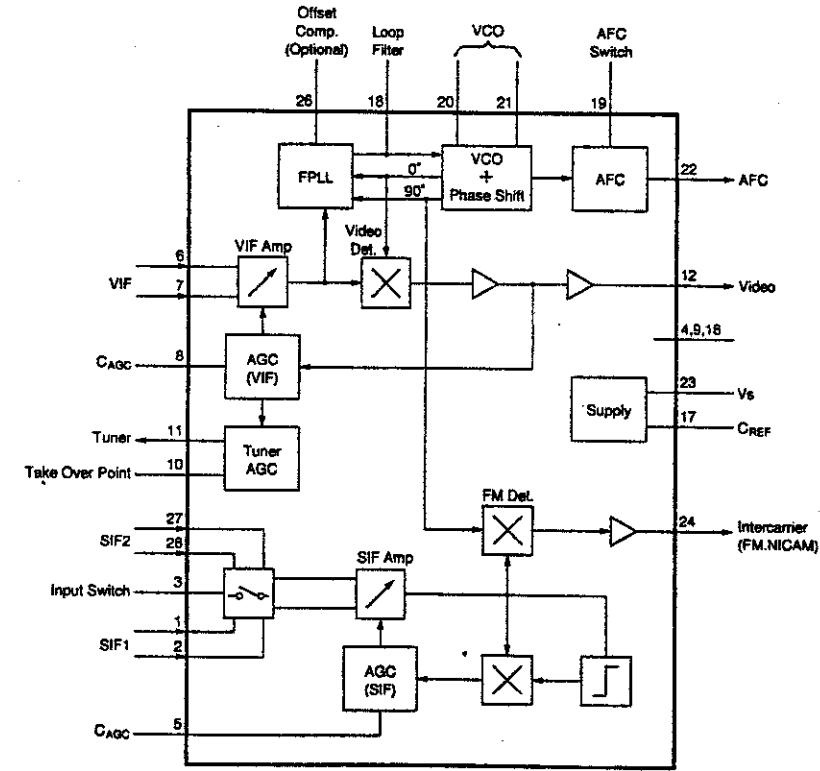


IC BLOCK DIAGRAMS OF PCB-MAIN AND CRT

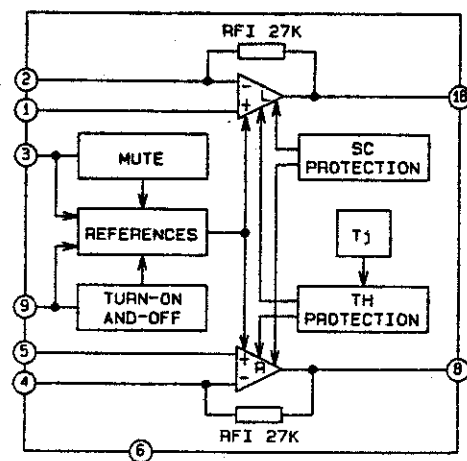
IC201 MC44031



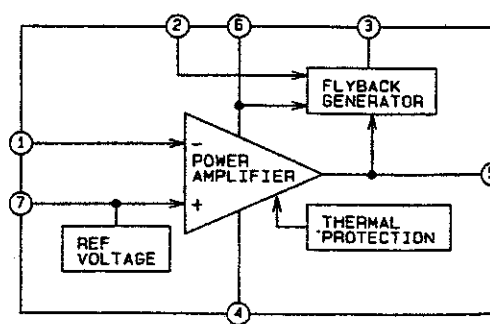
IC101 TDA4472-A



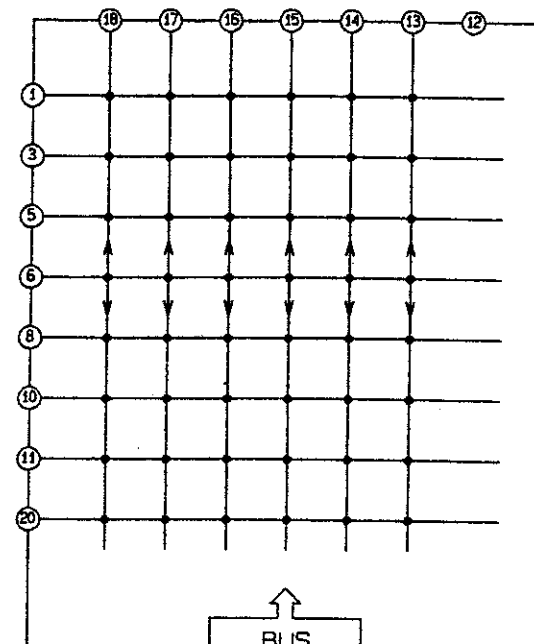
IC351 TDA7263



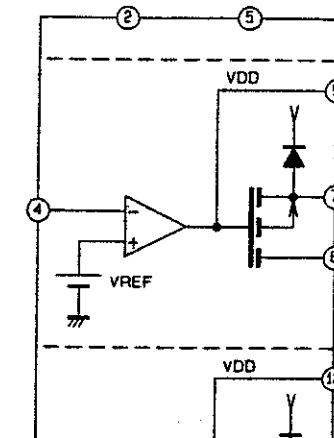
IC401 TDA8171



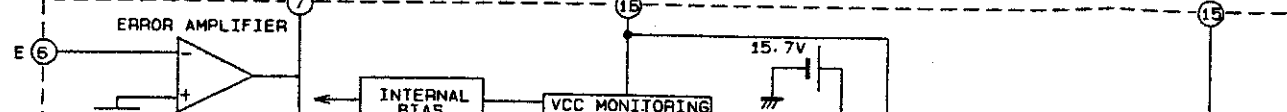
IC202 TEA6415C



IC660 TEA5101



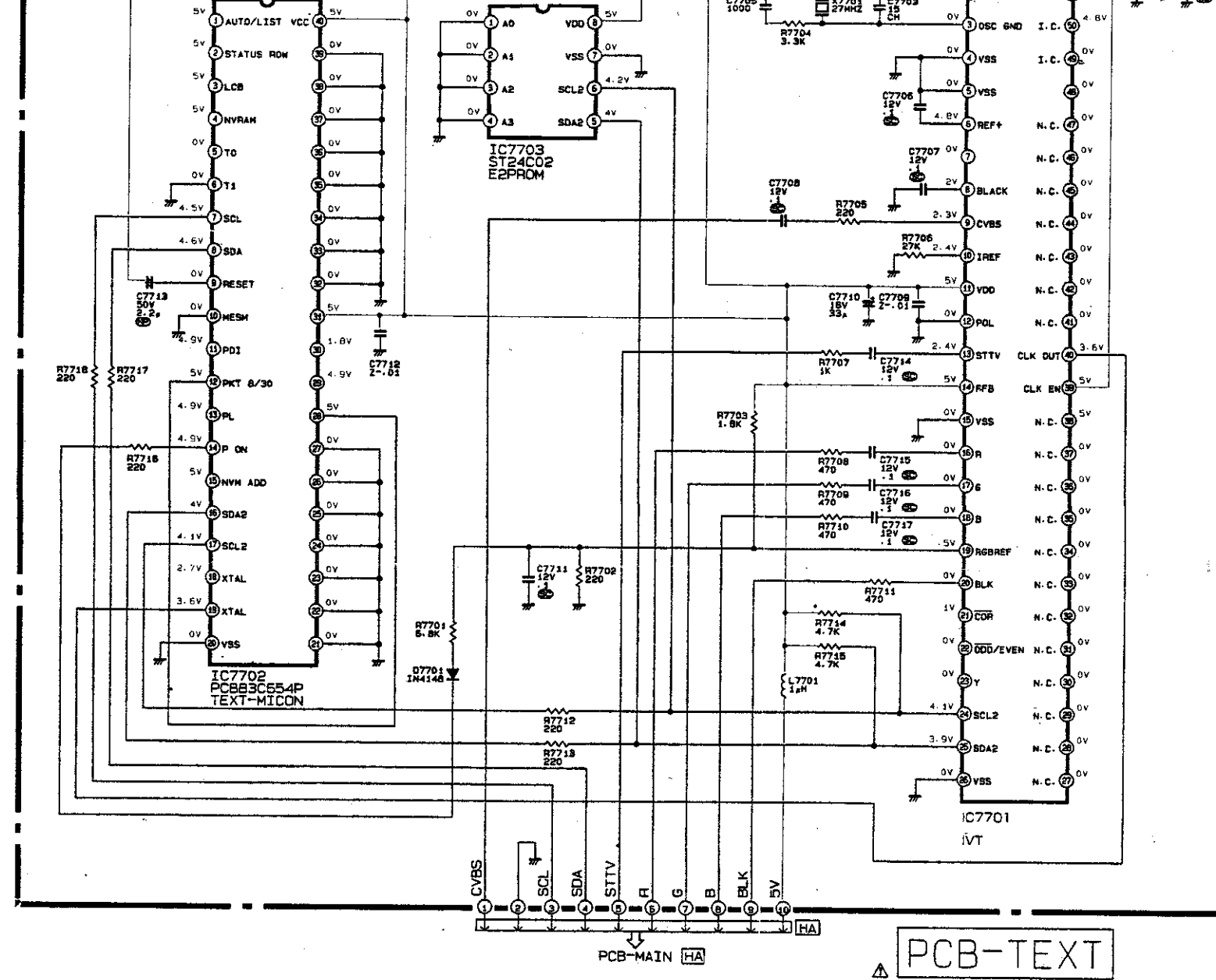
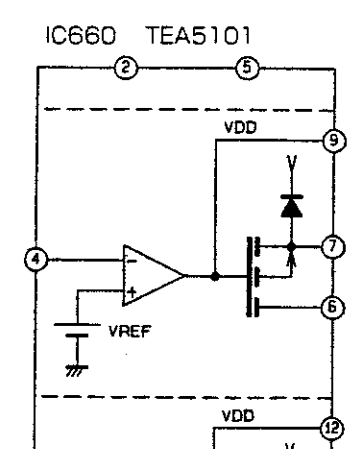
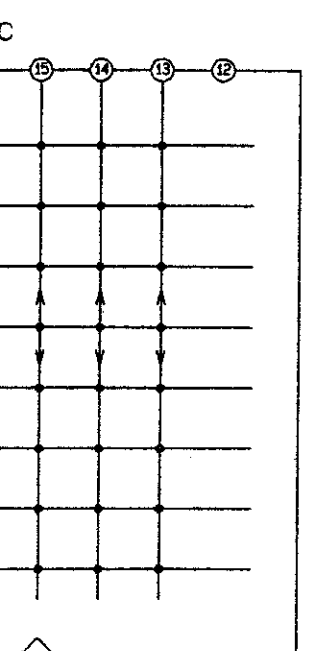
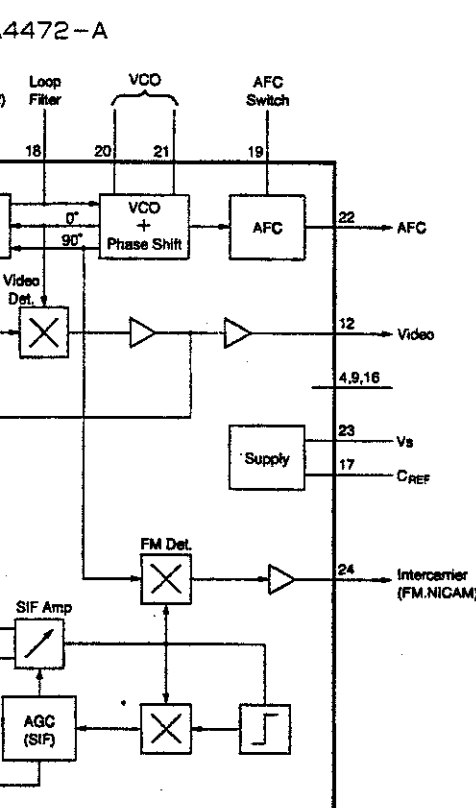
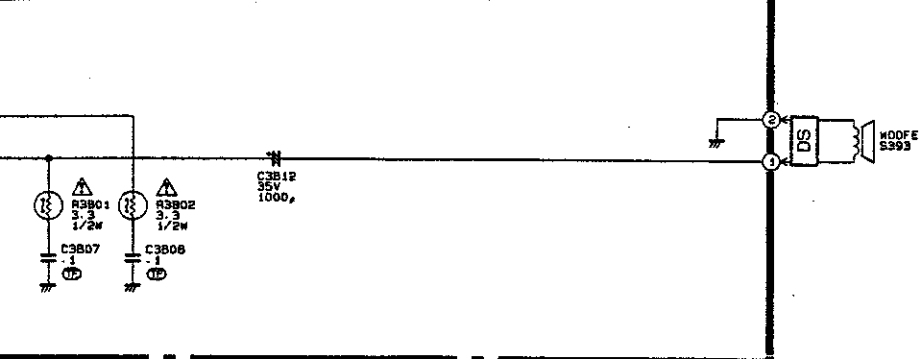
IC901 TEA2261



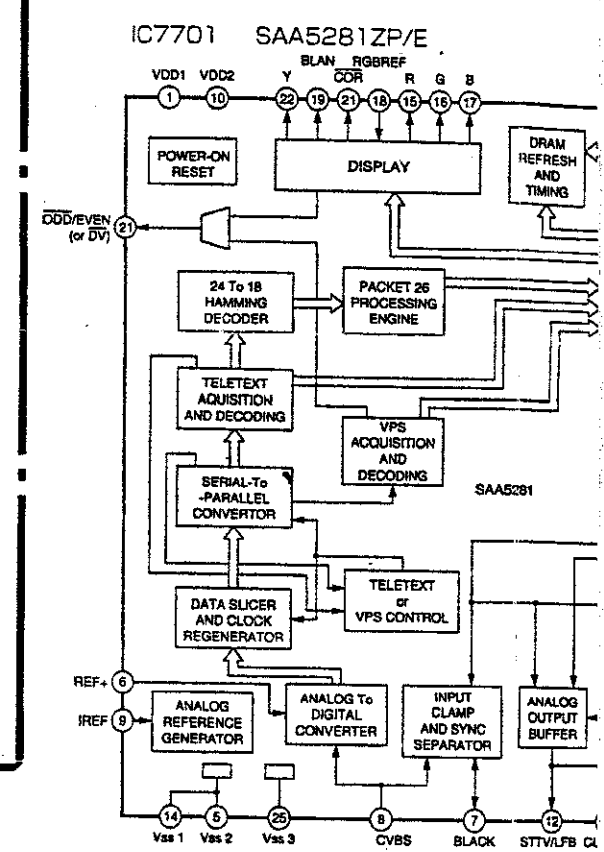
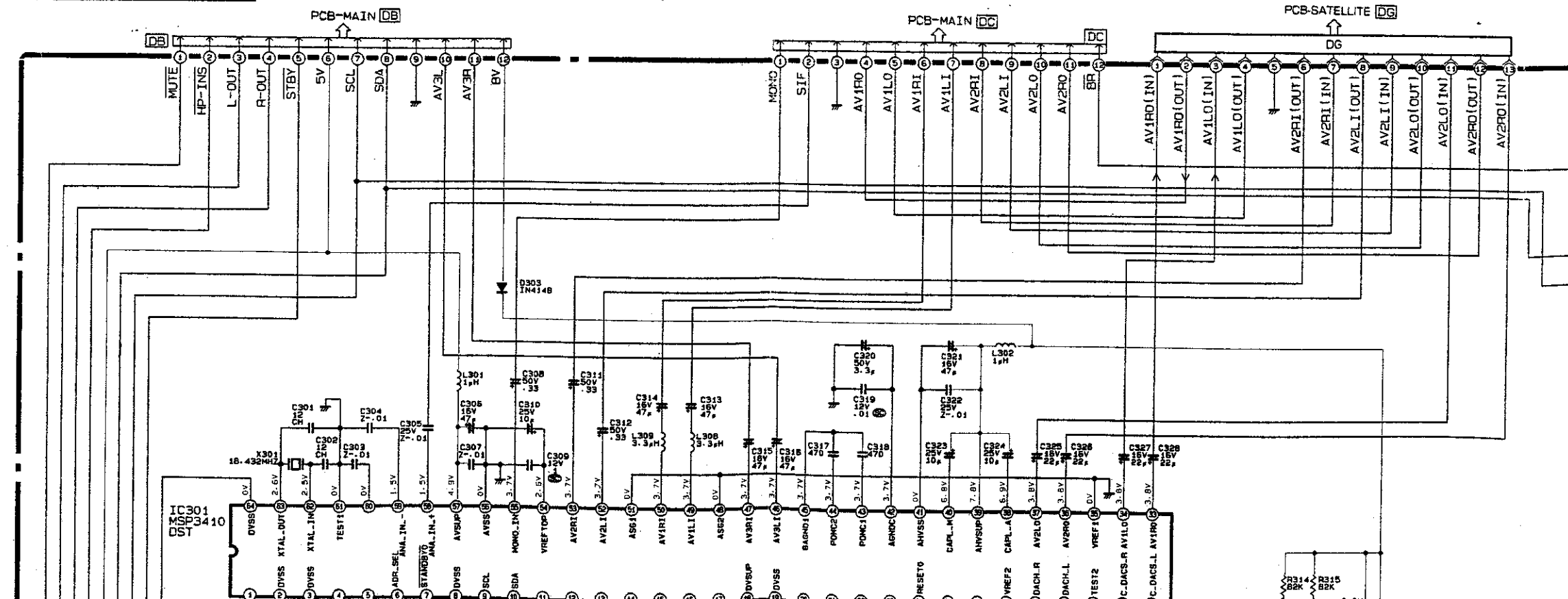
PCB-SOL

MUTE

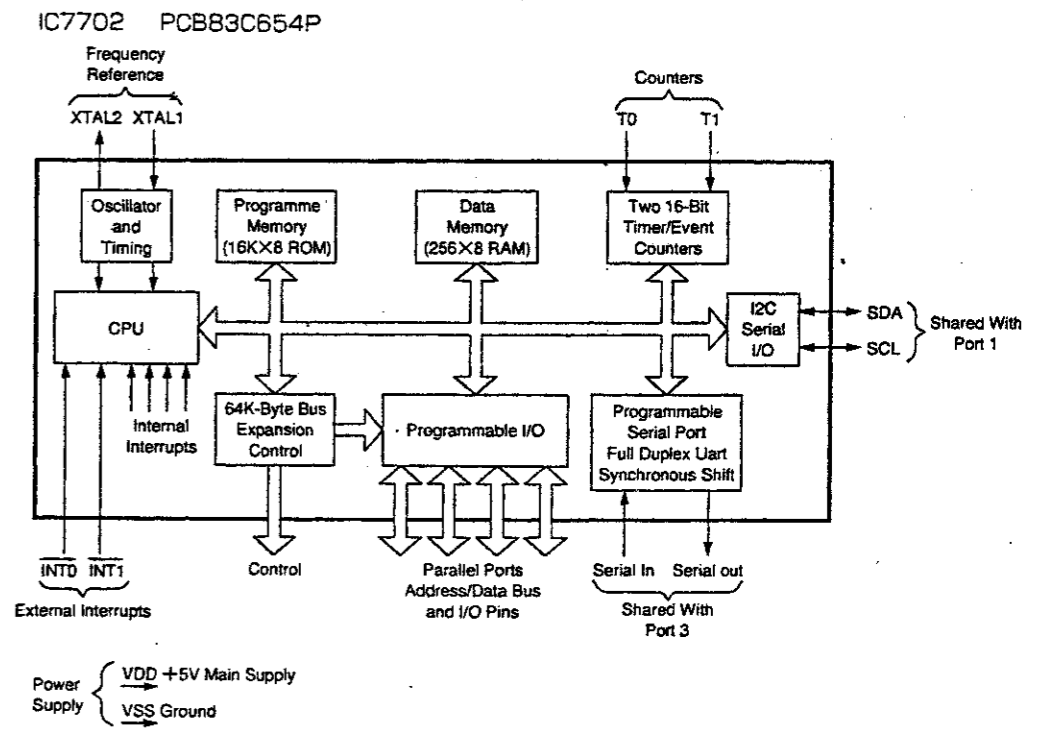
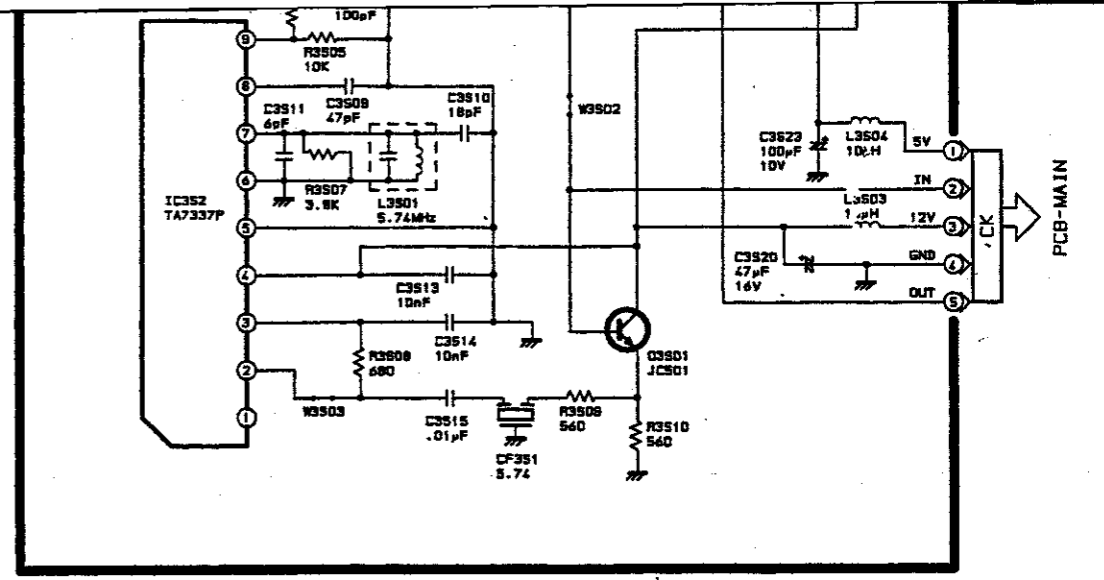
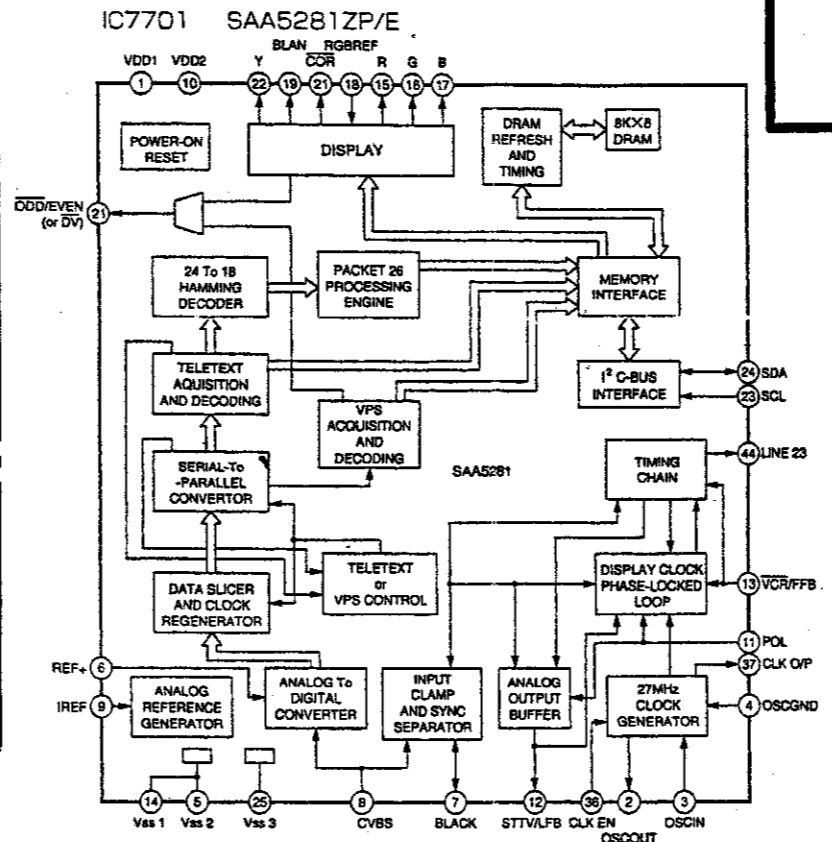
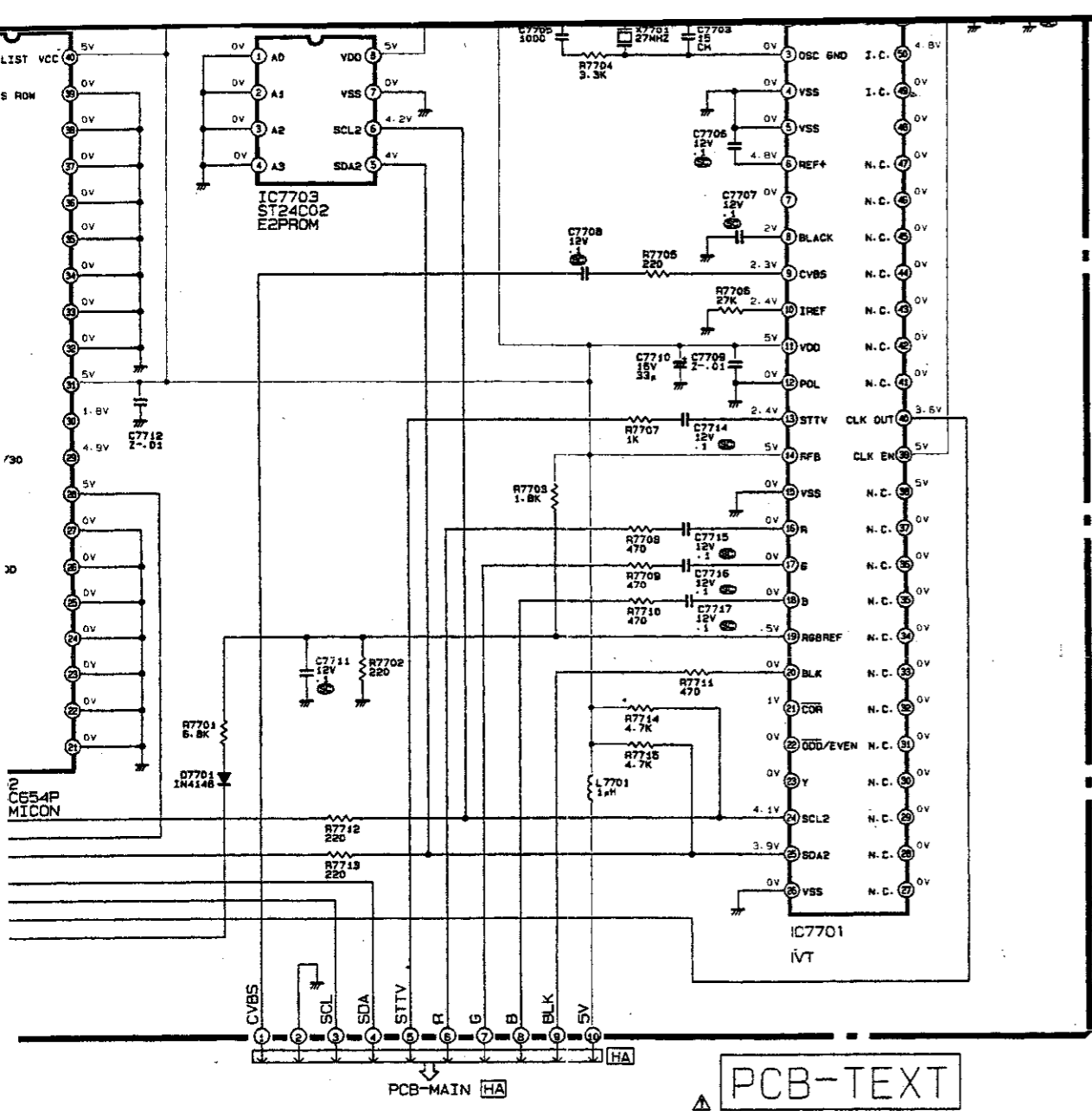
IC39 MSP DST



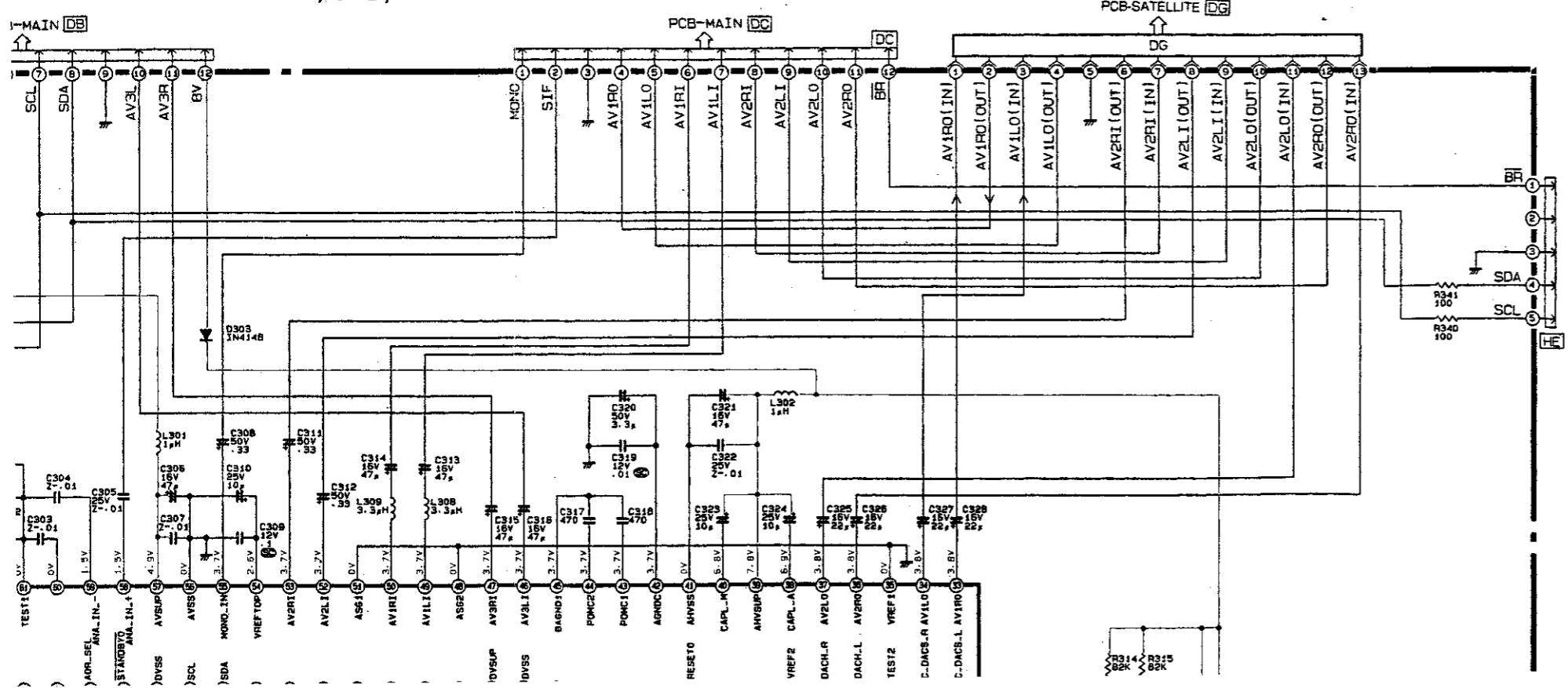
PCB-SOUND (CT-28AV1GS/G-S/S-S)





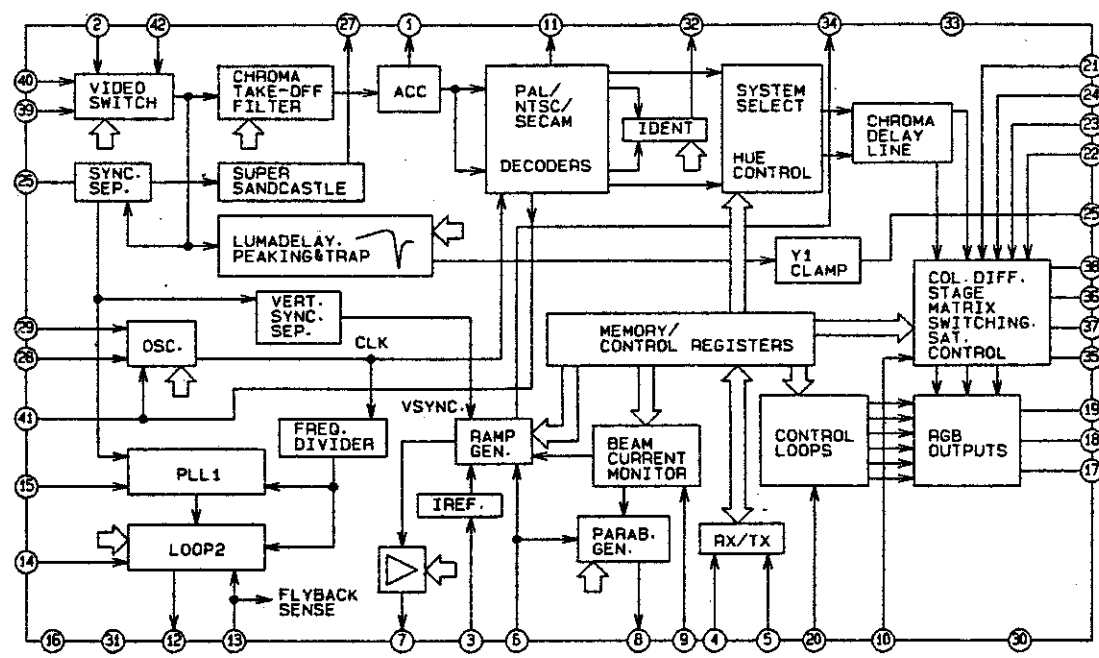


-28AV1GS/G-S/S-S)

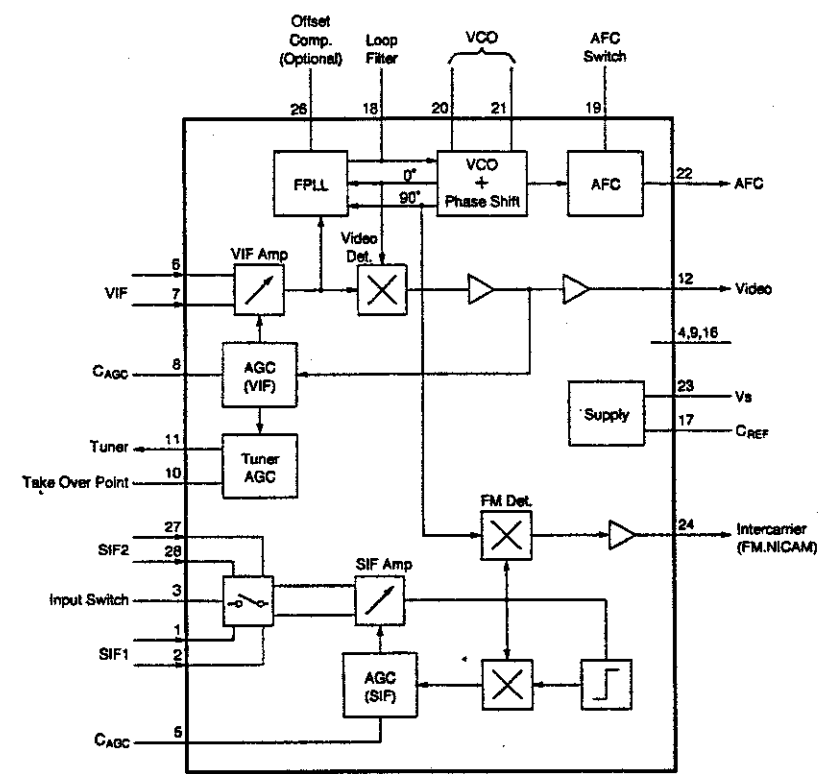




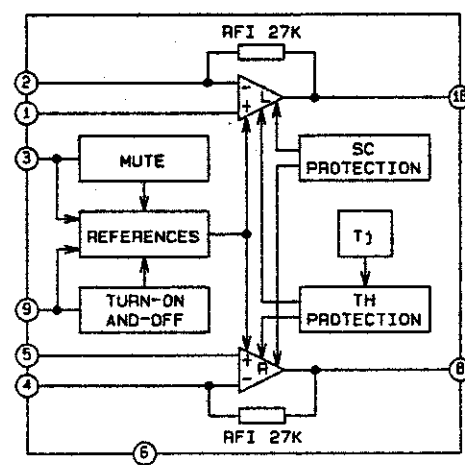
IC201 MC44031



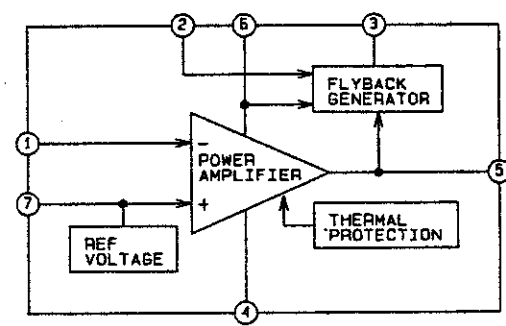
IC101 TDA4472-A



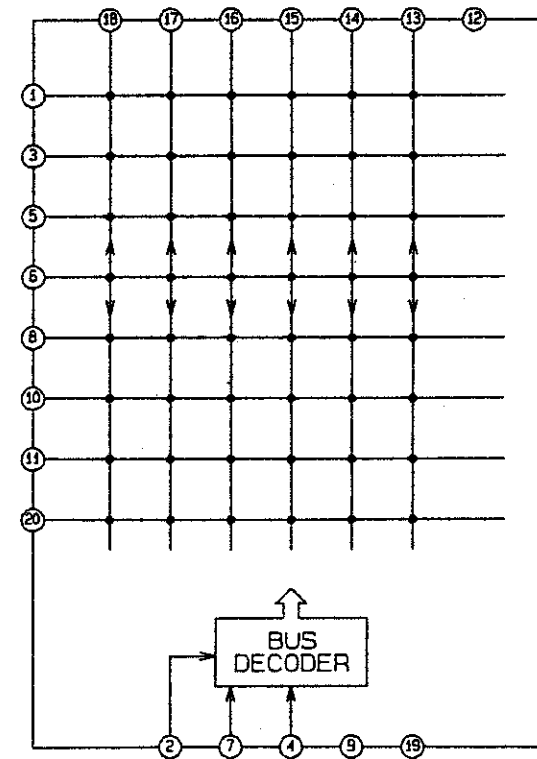
IC351 TDA7263



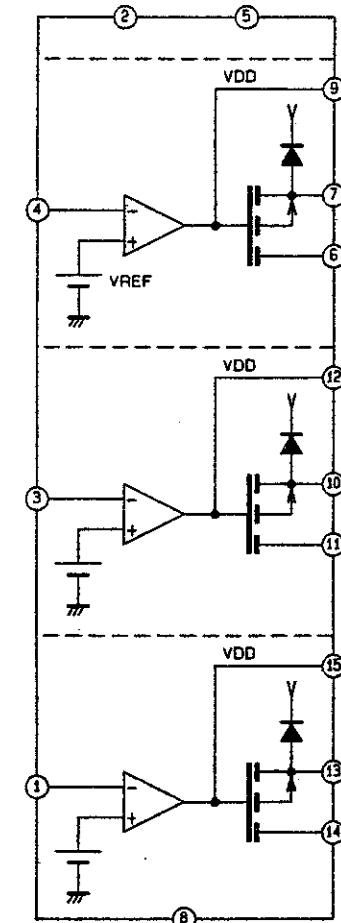
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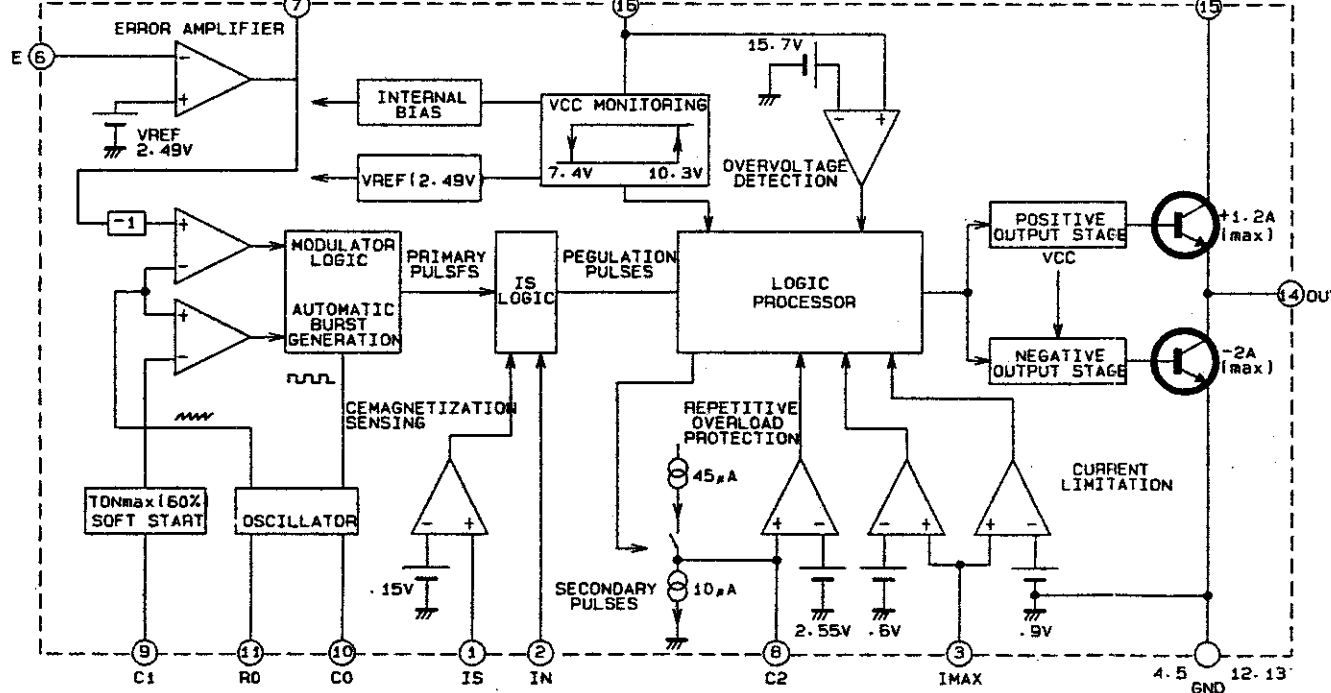
IC202 TEA6415C



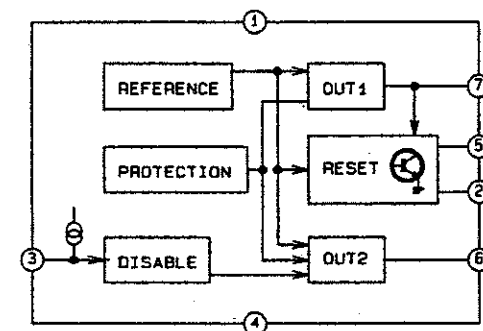
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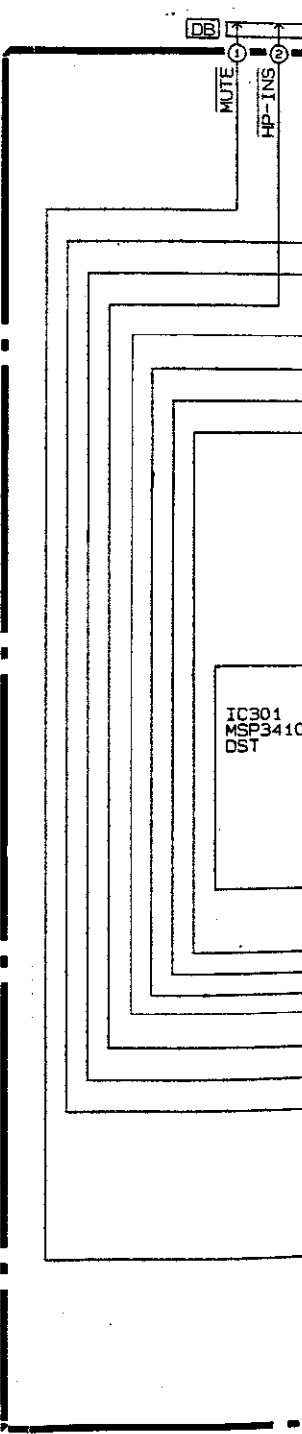
IC901 TEA2261

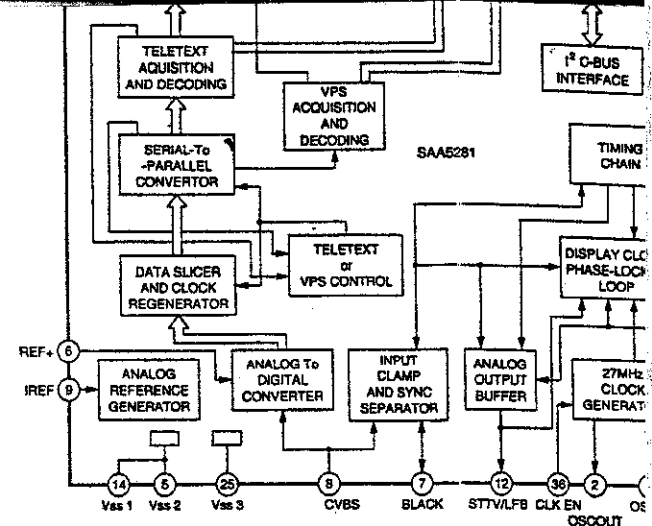
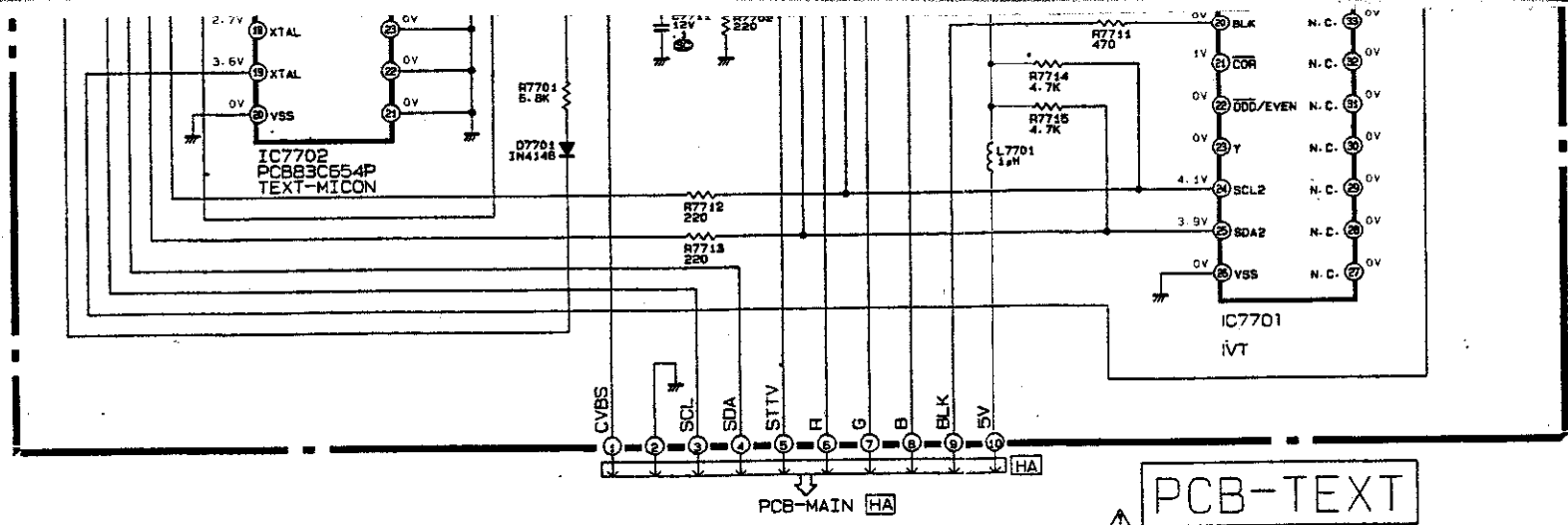
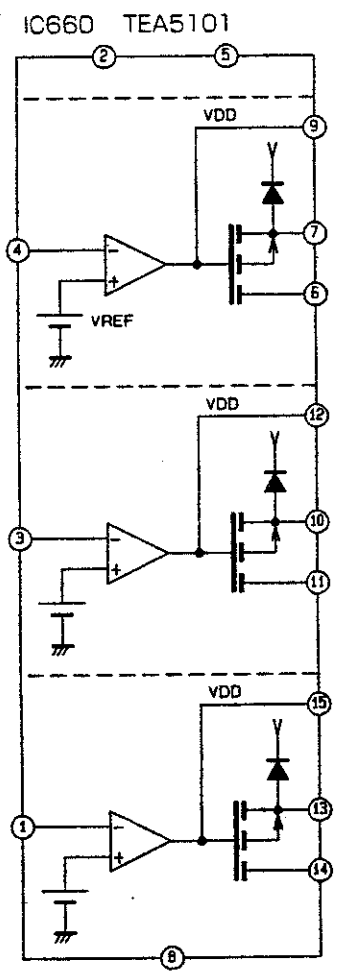
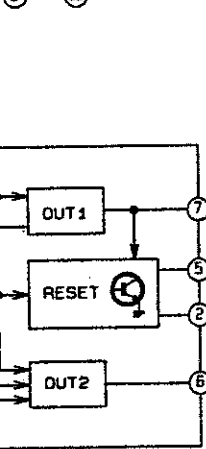
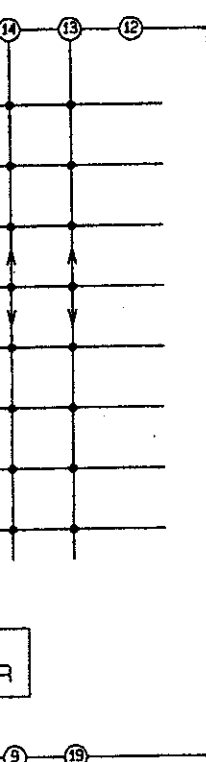
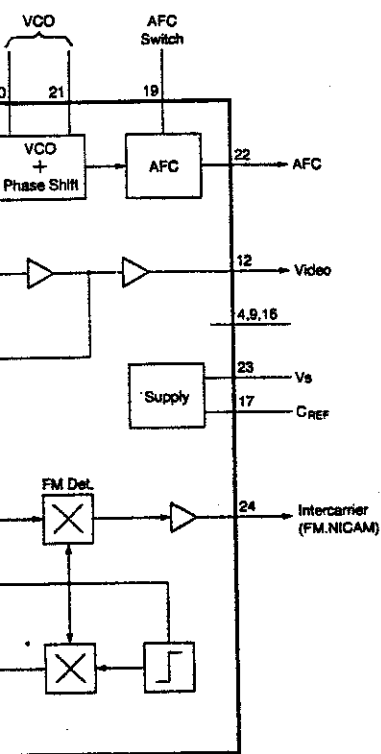


IC951 TDA8137

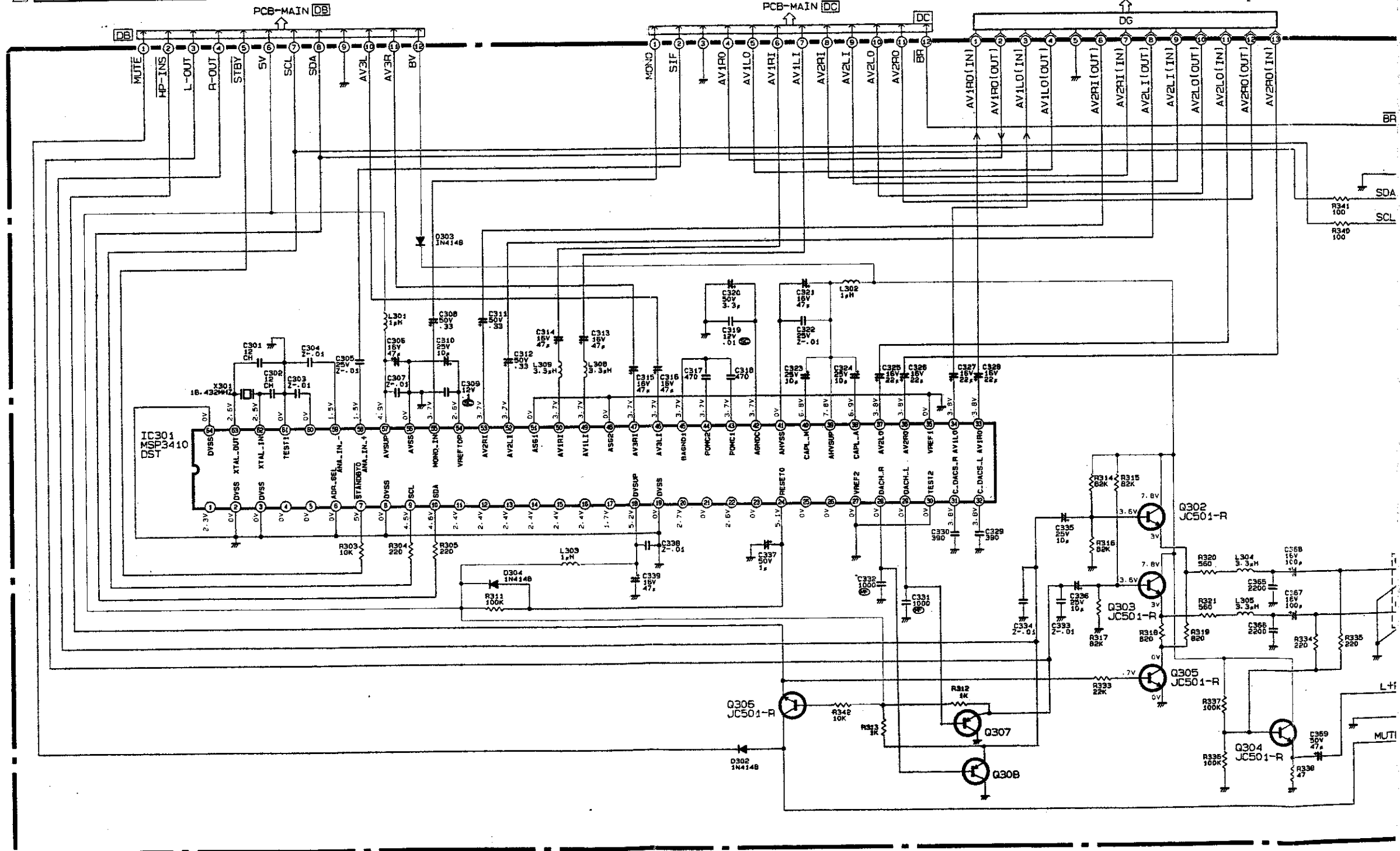


PCB-SOUND



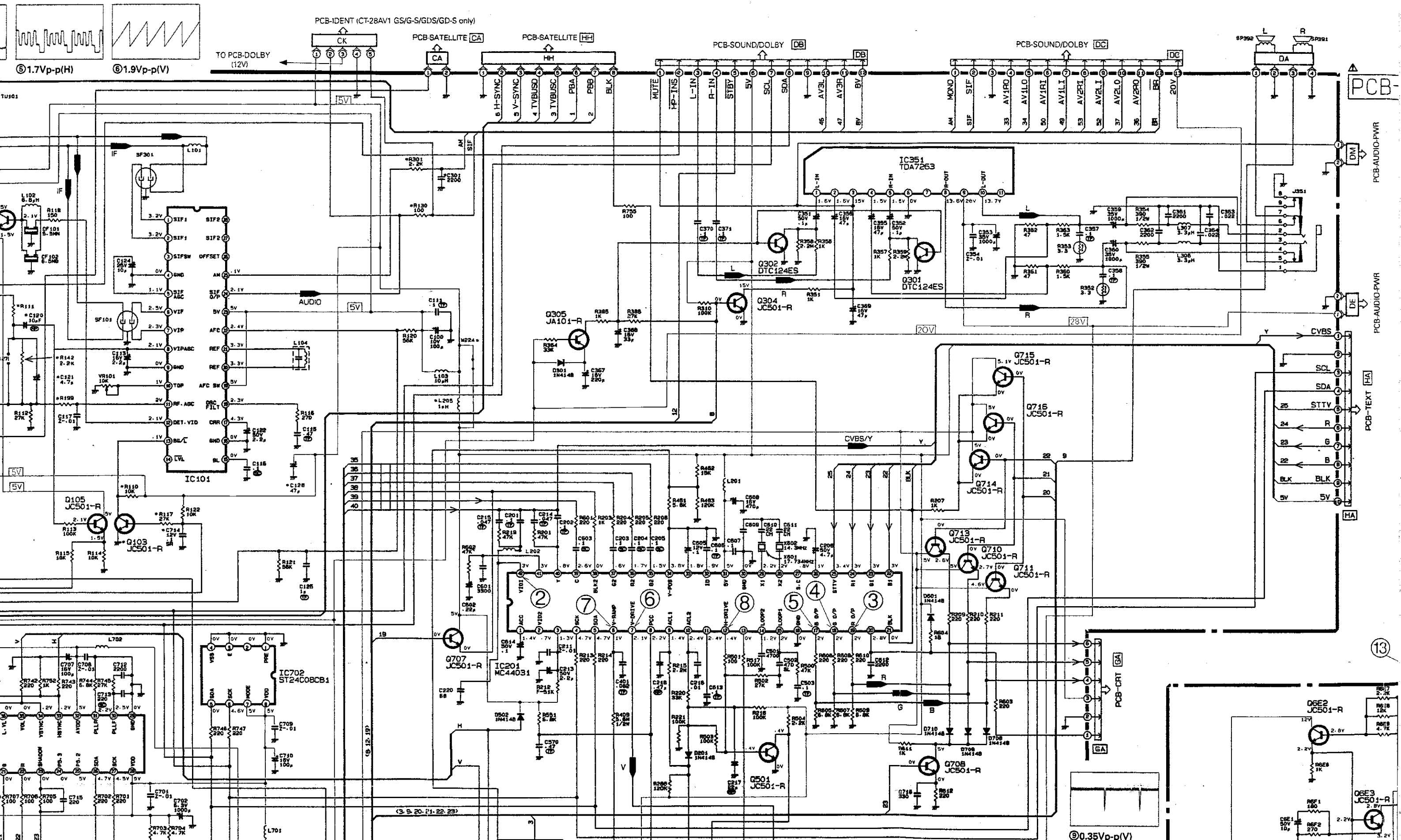


PCB-SOUND (CT-28AV1GS/G-S/S-S)









⑤ 1.7Vp-p(H)  
 ⑥ 1.9Vp-p(V)

PCB-IDENT (CT-28AV1 GS/G-S/GDS/GD-S only)

PCB-SATELLITE CA

PCB-SATELLITE HH

PCB-SOUND/DOLBY DB

PCB-SOUND/DOLBY DC

PCB-IDENT

PCB-AUDIO-PWR

PCB-AUDIO-PWR

PCB-TEXT

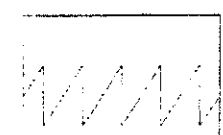
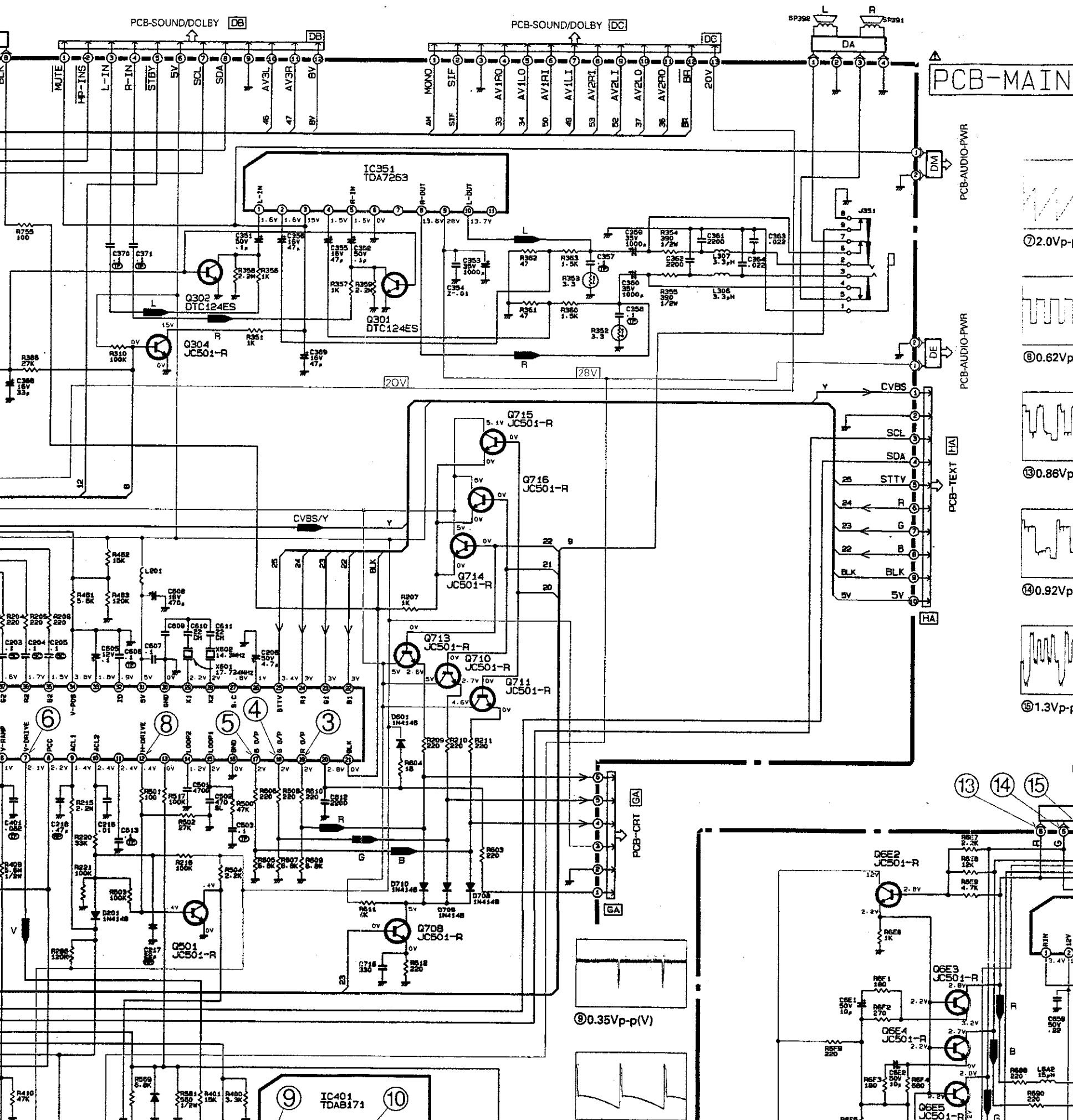
PCB-TEXT

PCB-CRT

PCB-CRT

⑨ 0.35Vp-p(V)

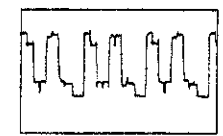
13



① 2.0Vp-p(V)



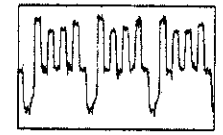
⑧ 0.62Vp-p(H)



⑬ 0.86Vp-p(H)



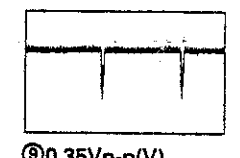
⑭ 0.92Vp-p(H)



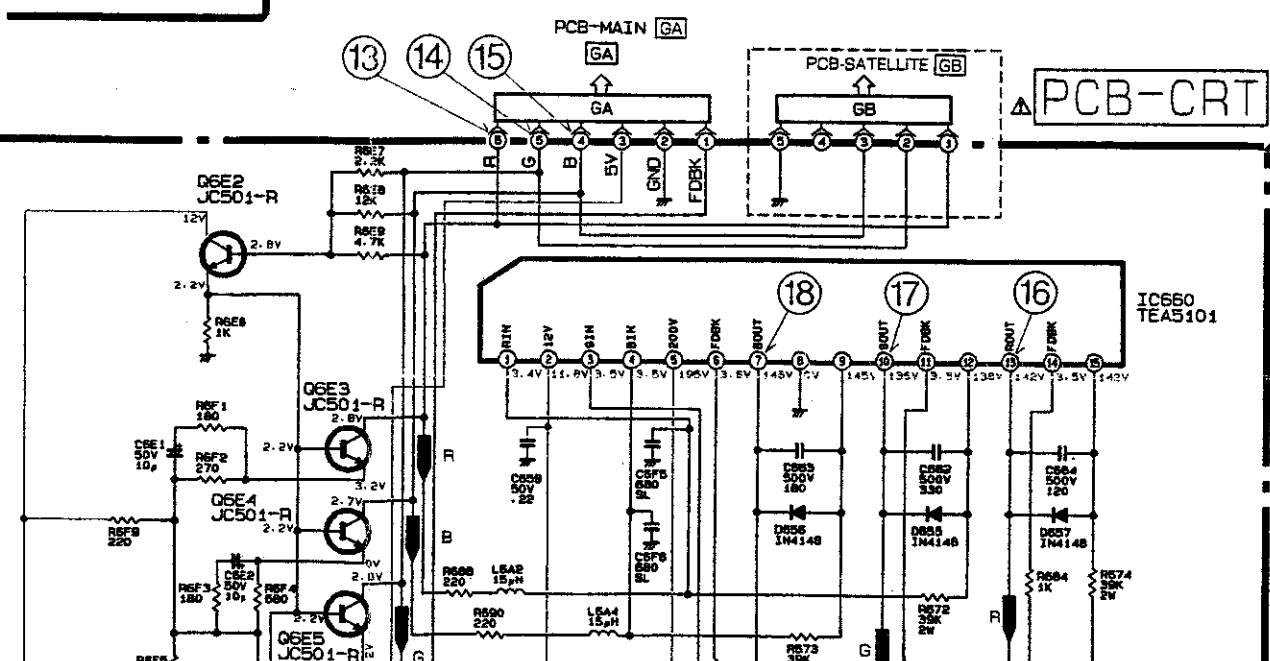
⑮ 1.3Vp-p(H)

\*DIFFERENCE TABLE

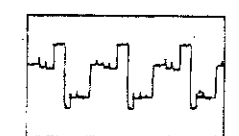
	GS, G-S, GDS, GD-S	S-S, SD-S	ED-S
C104	○	-	○
C120	-	○	-
C121	-	○	-
C126	-	-	○
C714	-	○	-
L205	-	-	○
Q103	-	○	-
R110	-	○	-
R111	6.8K	2.2K	6.8K
R117	-	○	-
R122	-	○	-
R130	-	○	○
R142	-	○	-
R199	100	1K	100
R251	180	180	220
R301	-	○	-
R740	-	○	-
W127	○	-	○
W224	○	○	-



⑨ 0.35Vp-p(V)



⑯ 86Vp-p(H)

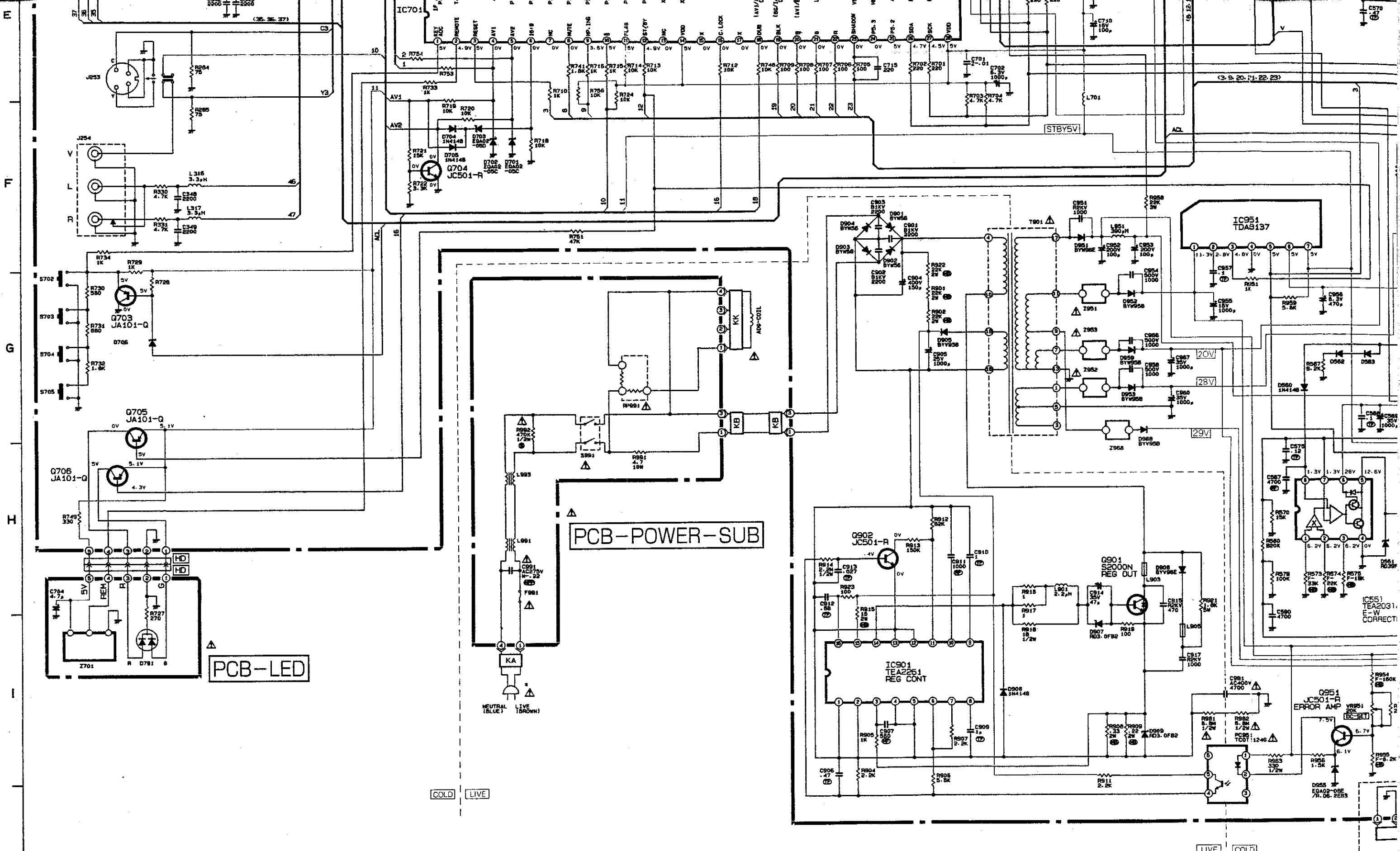


⑰ 87Vp-p(H)



⑱ 87Vp-p(H)

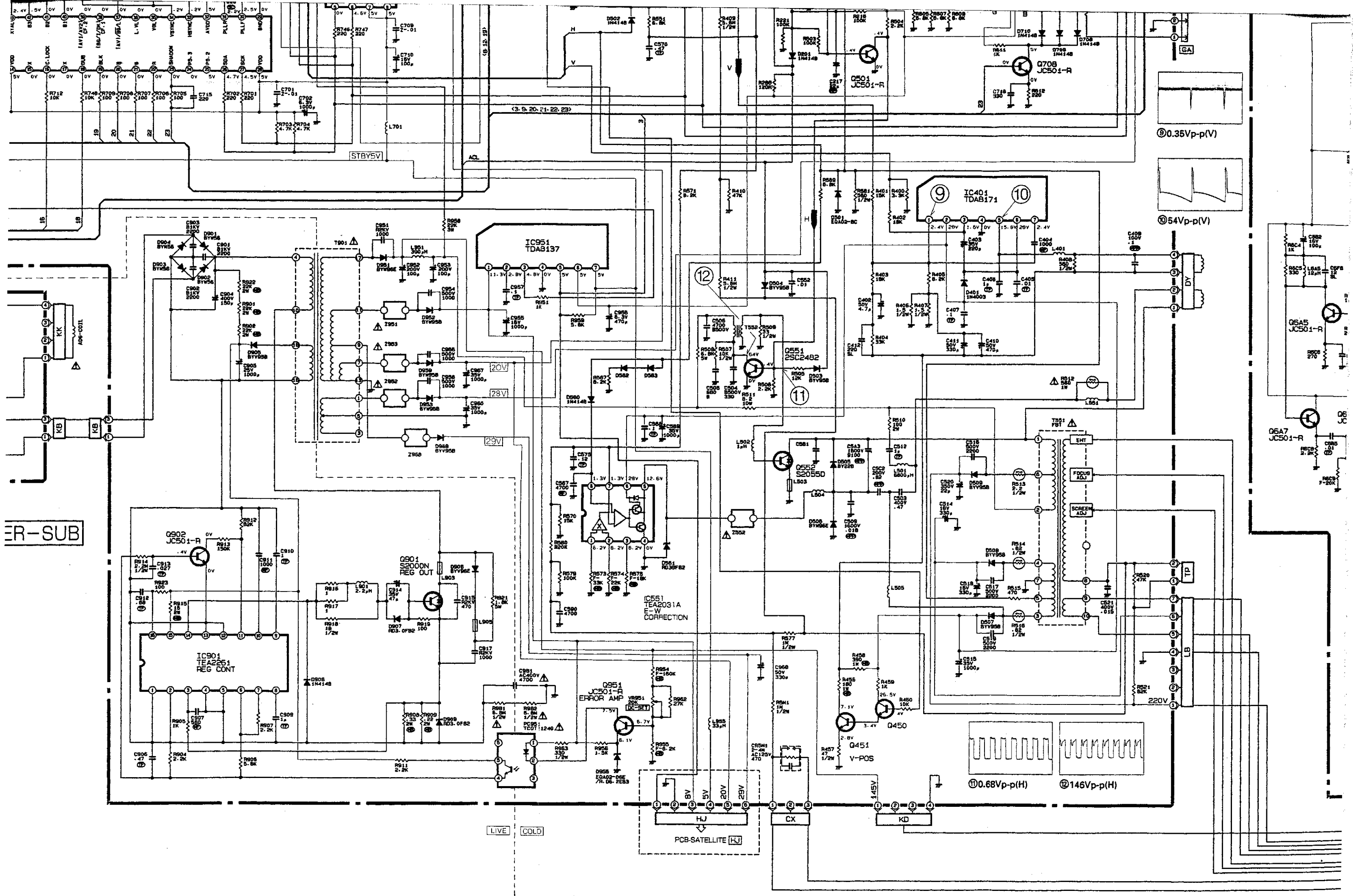




- CT-28AV1 G-S
- CT-28AV1 GS
- CT-28AV1 GD-S
- CT-28AV1 GDS
- CT-28AV1 SD-S
- CT-28AV1 S-S
- CT-28AV1 ED-S

②

LIVE COLD



ER-SUB

LIVE COLD

PCB-SATELLITE LJ

CX

KD

⑨0.35Vp-p(V)

⑩54Vp-p(V)

⑪0.68Vp-p(H)

⑫146Vp-p(H)

Q5A5 JC501-R

Q5A7 JC501-R

Q5A8 JC501-R

Q5A9 JC501-R

Q5A10 JC501-R

Q5A11 JC501-R

Q5A12 JC501-R

Q5A13 JC501-R

Q5A14 JC501-R

Q5A15 JC501-R

Q5A16 JC501-R

Q5A17 JC501-R

Q5A18 JC501-R

Q5A19 JC501-R

Q5A20 JC501-R

Q5A21 JC501-R

Q5A22 JC501-R

Q5A23 JC501-R

Q5A24 JC501-R

Q5A25 JC501-R

Q5A26 JC501-R

Q5A27 JC501-R

Q5A28 JC501-R

Q5A29 JC501-R

Q5A30 JC501-R

Q5A31 JC501-R

Q5A32 JC501-R

Q5A33 JC501-R

Q5A34 JC501-R

Q5A35 JC501-R

Q5A36 JC501-R

Q5A37 JC501-R

Q5A38 JC501-R

Q5A39 JC501-R

Q5A40 JC501-R

Q5A41 JC501-R

Q5A42 JC501-R

Q5A43 JC501-R

Q5A44 JC501-R

Q5A45 JC501-R

Q5A46 JC501-R

Q5A47 JC501-R

Q5A48 JC501-R

Q5A49 JC501-R

Q5A50 JC501-R

Q5A51 JC501-R

Q5A52 JC501-R

Q5A53 JC501-R

Q5A54 JC501-R

Q5A55 JC501-R

Q5A56 JC501-R

Q5A57 JC501-R

Q5A58 JC501-R

Q5A59 JC501-R

Q5A60 JC501-R

Q5A61 JC501-R

Q5A62 JC501-R

Q5A63 JC501-R

Q5A64 JC501-R

Q5A65 JC501-R

Q5A66 JC501-R

Q5A67 JC501-R

Q5A68 JC501-R

Q5A69 JC501-R

Q5A70 JC501-R

Q5A71 JC501-R

Q5A72 JC501-R

Q5A73 JC501-R

Q5A74 JC501-R

Q5A75 JC501-R

Q5A76 JC501-R

Q5A77 JC501-R

Q5A78 JC501-R

Q5A79 JC501-R

Q5A80 JC501-R

Q5A81 JC501-R

Q5A82 JC501-R

Q5A83 JC501-R

Q5A84 JC501-R

Q5A85 JC501-R

Q5A86 JC501-R

Q5A87 JC501-R

Q5A88 JC501-R

Q5A89 JC501-R

Q5A90 JC501-R

Q5A91 JC501-R

Q5A92 JC501-R

Q5A93 JC501-R

Q5A94 JC501-R

Q5A95 JC501-R

Q5A96 JC501-R

Q5A97 JC501-R

Q5A98 JC501-R

Q5A99 JC501-R

Q5A100 JC501-R

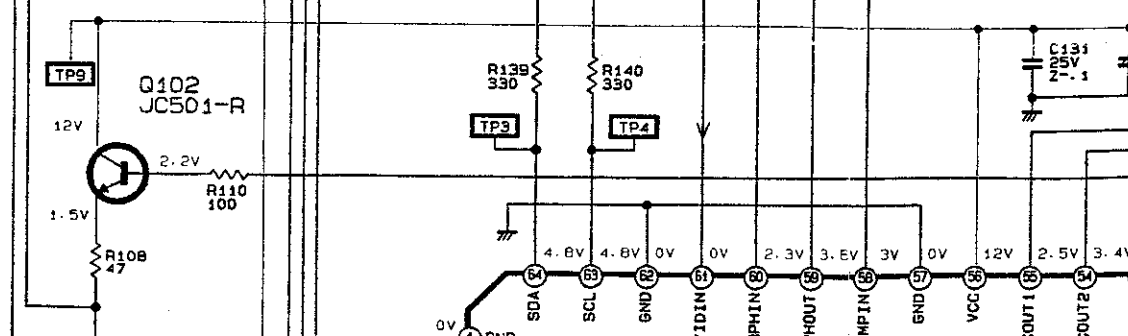
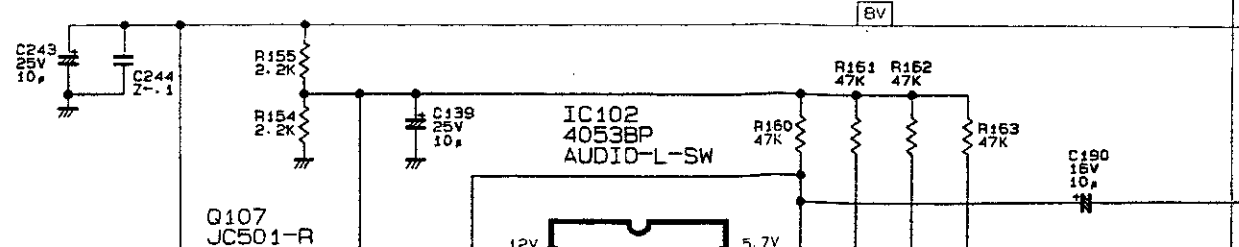
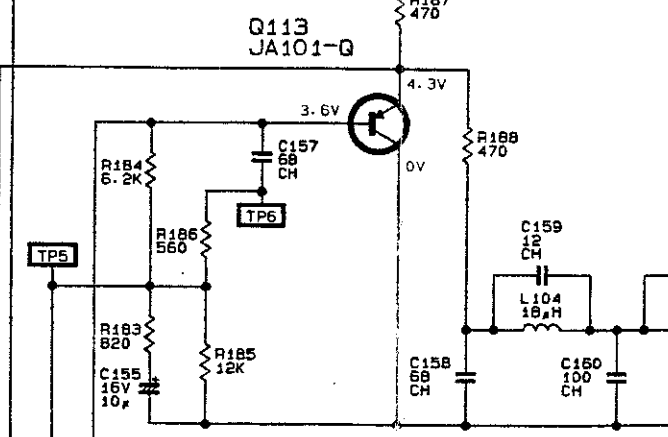
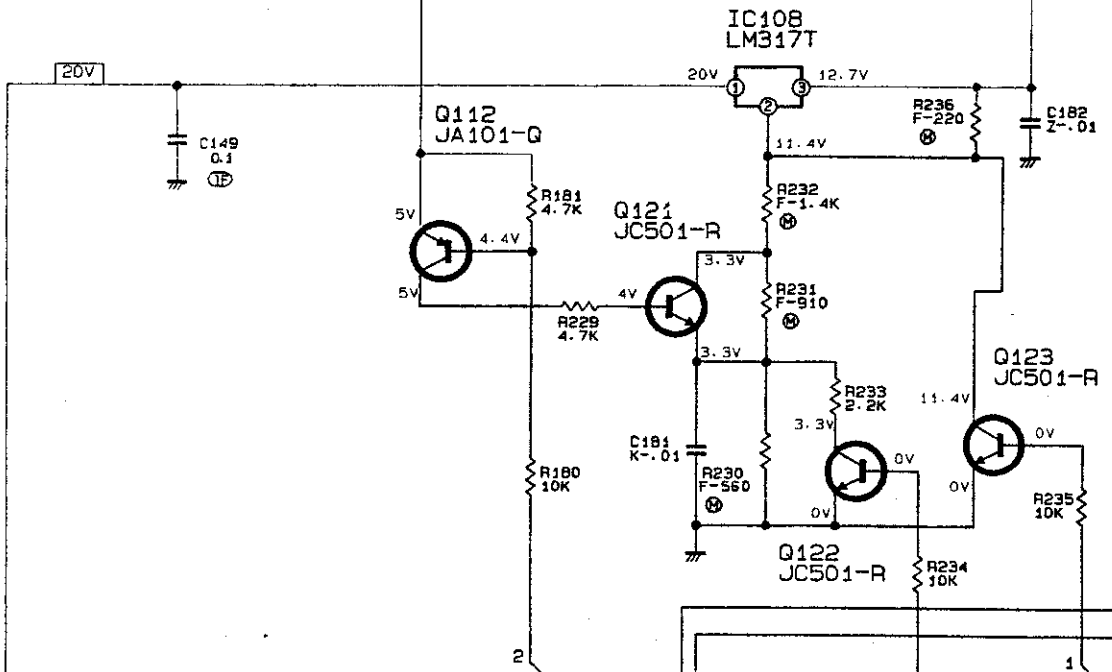
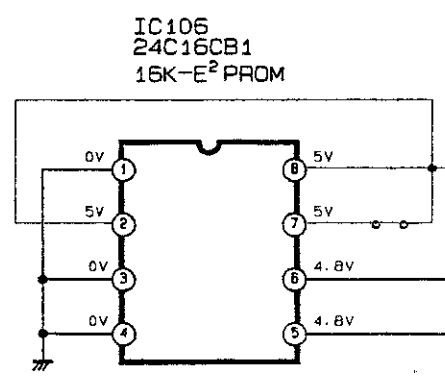
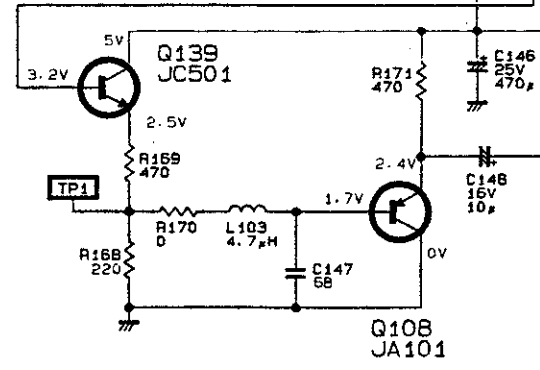
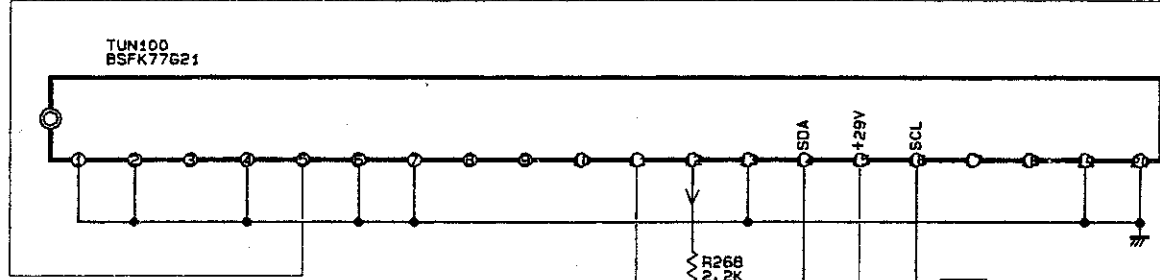




# PCB-SATELLITE

PCB-MAIN CA

CA



A

B

C

D

E

F

1

2

3

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11

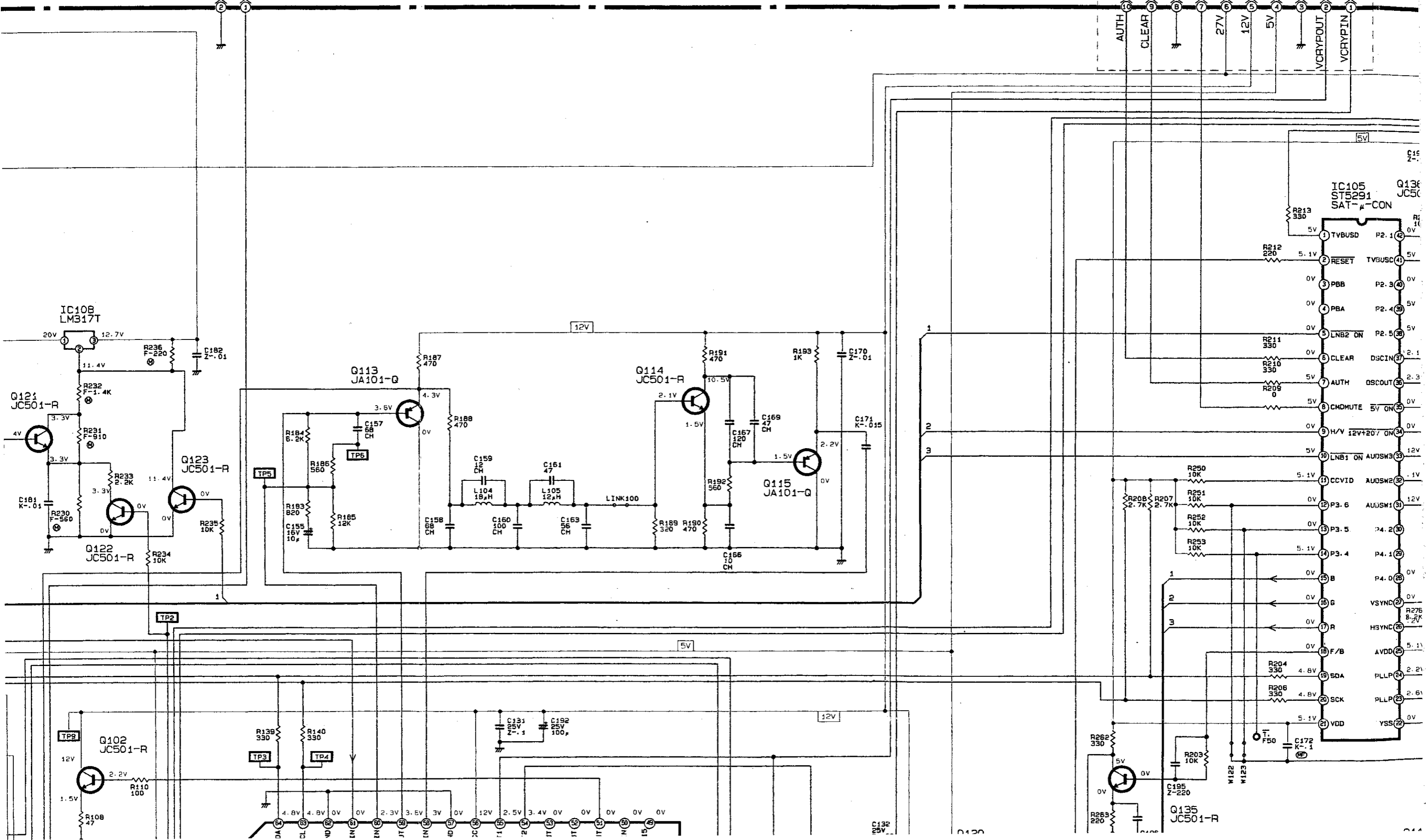
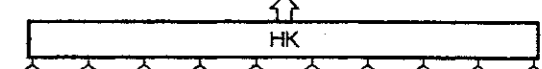
12

13

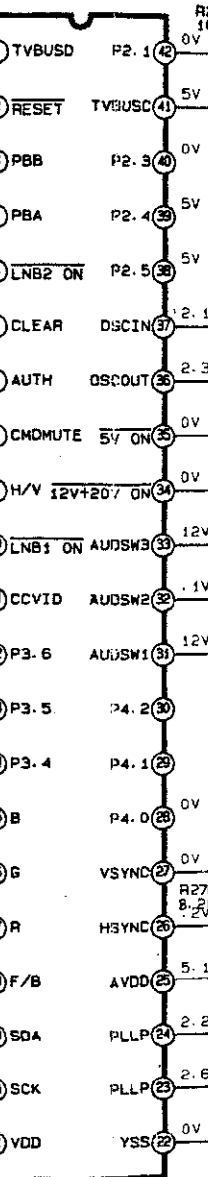
PCB-MAIN CA

PCB-VIDEO CRYPT HK

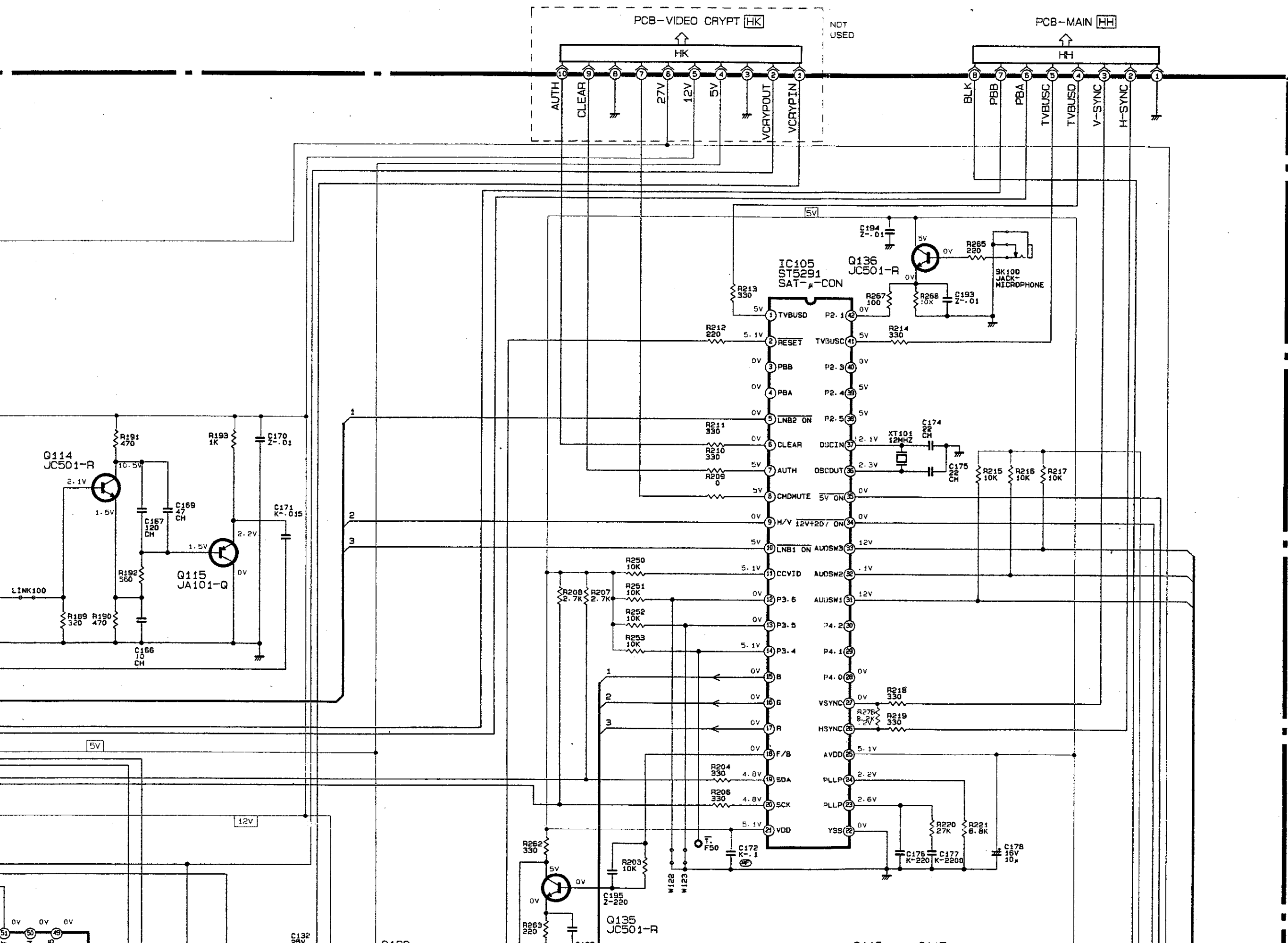
NOT USED



IC105  
ST5291  
SAT-CON

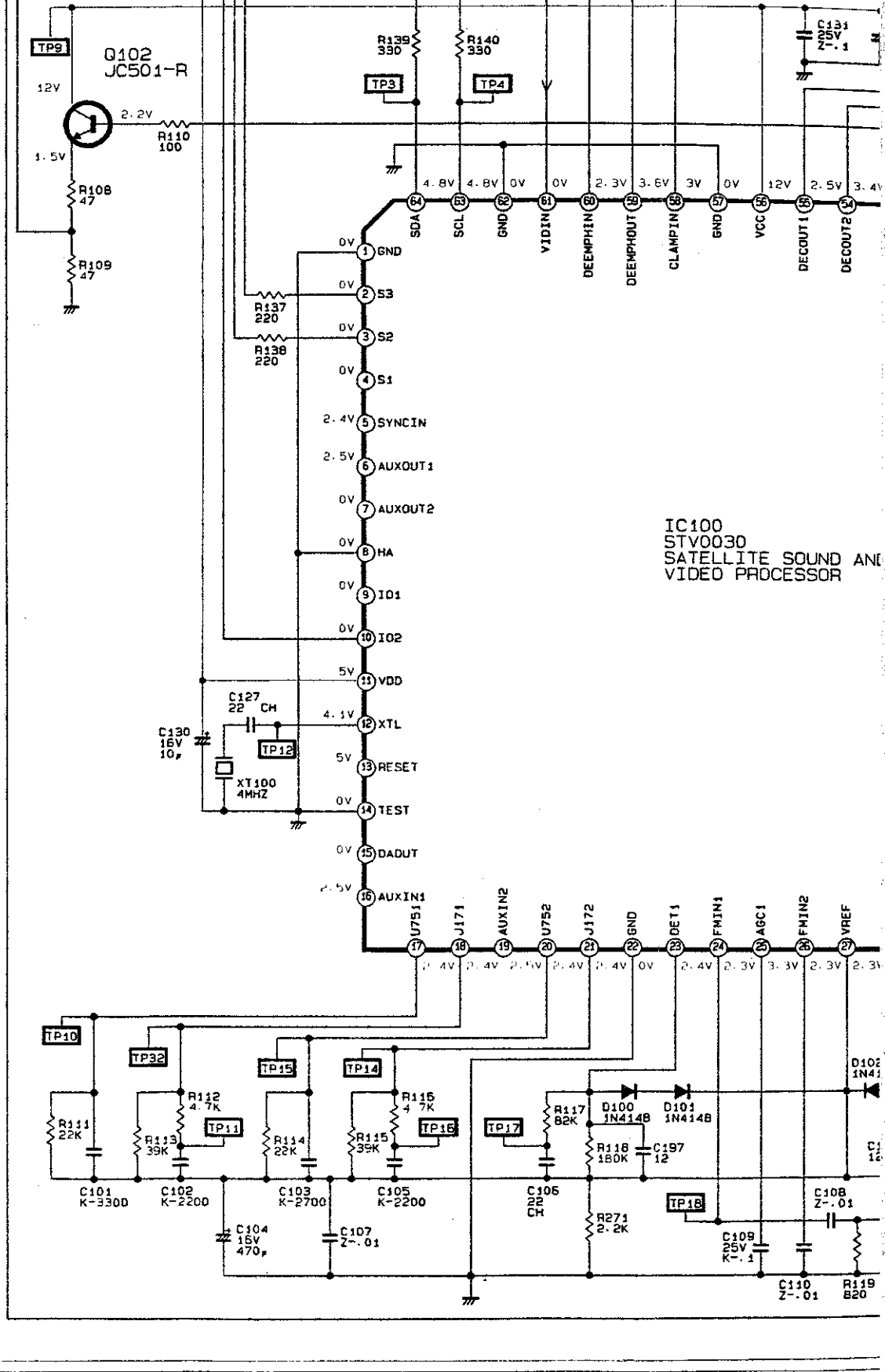
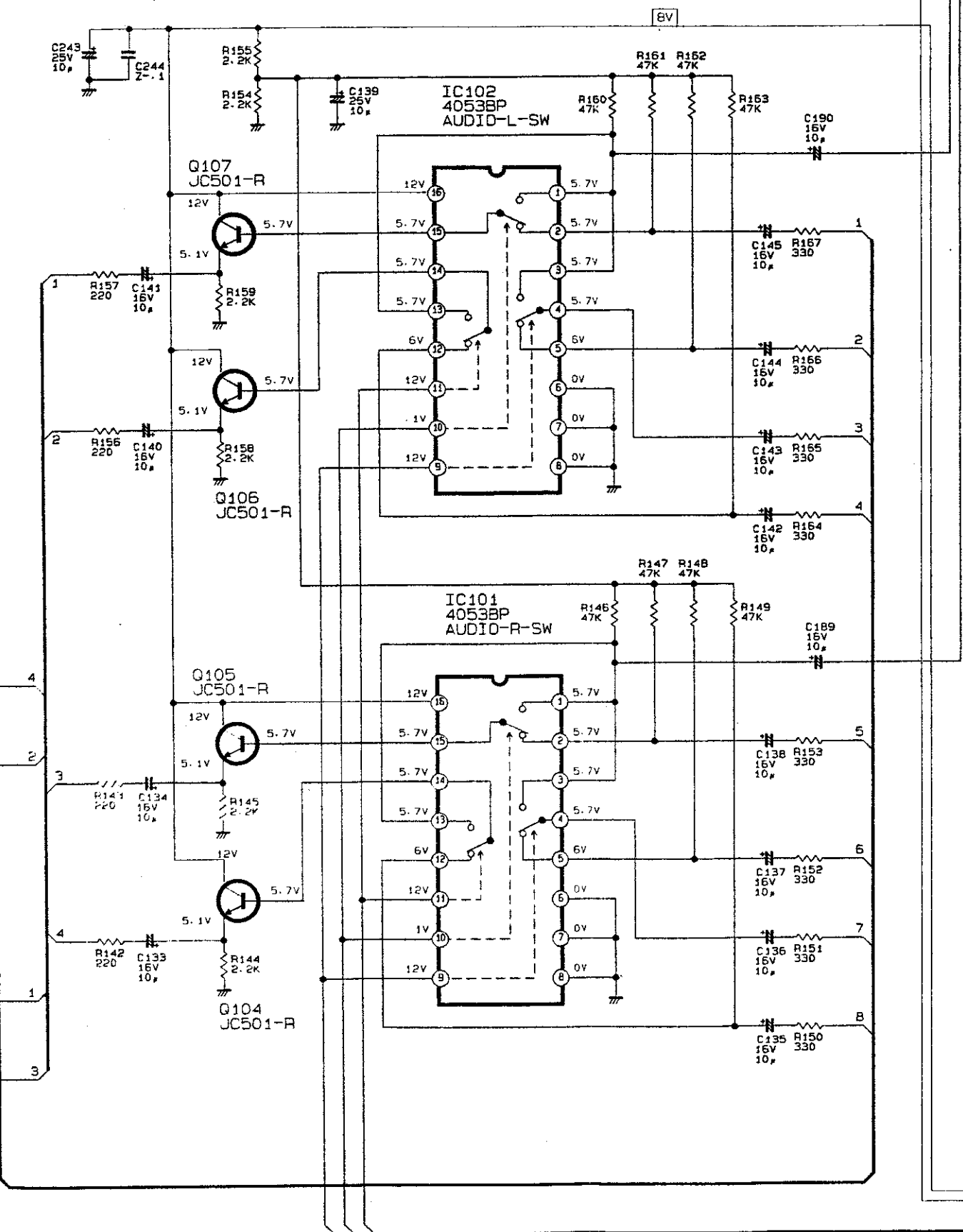
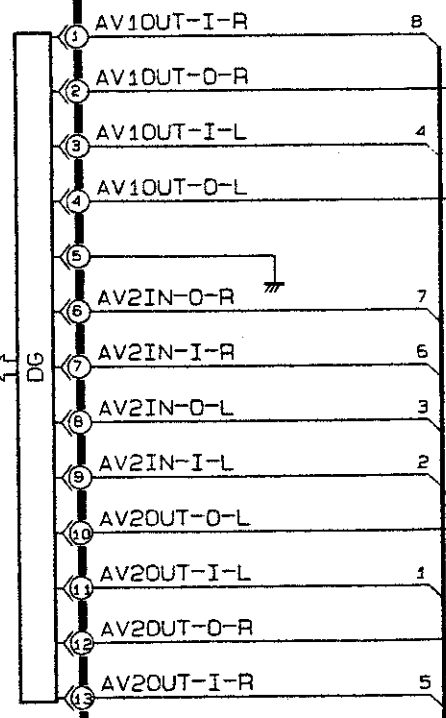


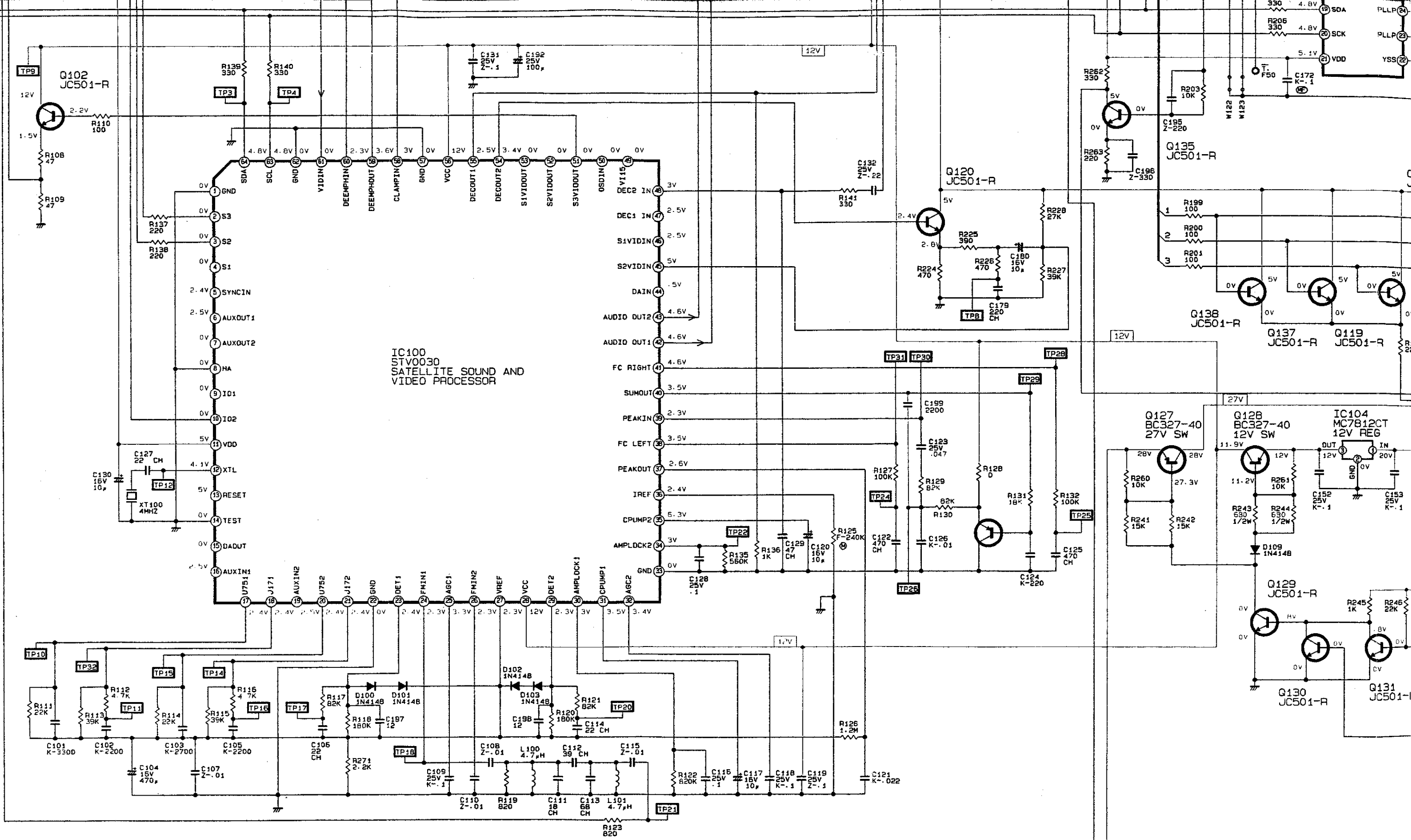
1	TVBUSD	P2.1	0V
2	RESET	TVBUSC	5V
3	PBB	P2.3	0V
4	PBA	P2.4	5V
5	LNBS ON	P2.5	5V
6	CLEAR	DISCIN	2.1
7	AUTH	DISCOUT	2.3
8	CMDMUTE	5V ON	0V
9	H/V 12V/20V ON		0V
10	LNBS ON	AUDSW3	12V
11	CCVID	AUDSW2	1.1V
12	P3.6	AUDSW1	12V
13	P3.5	P4.2	0V
14	P3.4	P4.1	0V
15	B	P4.0	0V
16	G	VSYNC	0V
17	R	HSYNC	0V
18	F/B	AVDD	5.1V
19	SDA	PLL_P	2.2V
20	SCK	PLL_P	2.6V
21	VDD	YSS	0V
22			



E  
T  
G  
H  
I

PCB-DOLBY SOUND DG

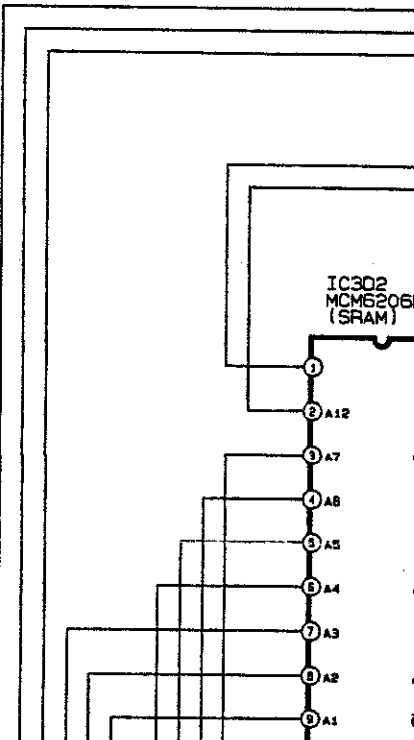
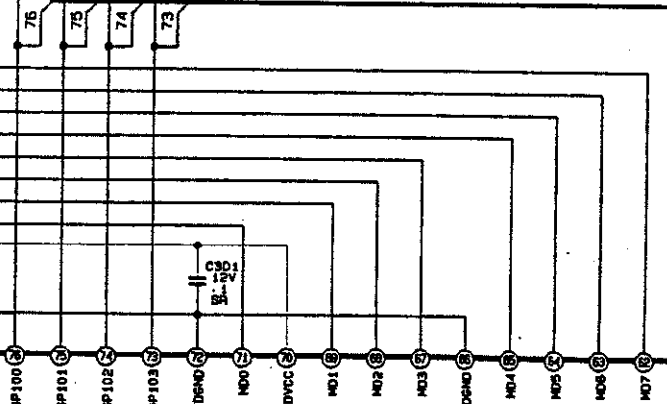
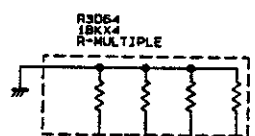
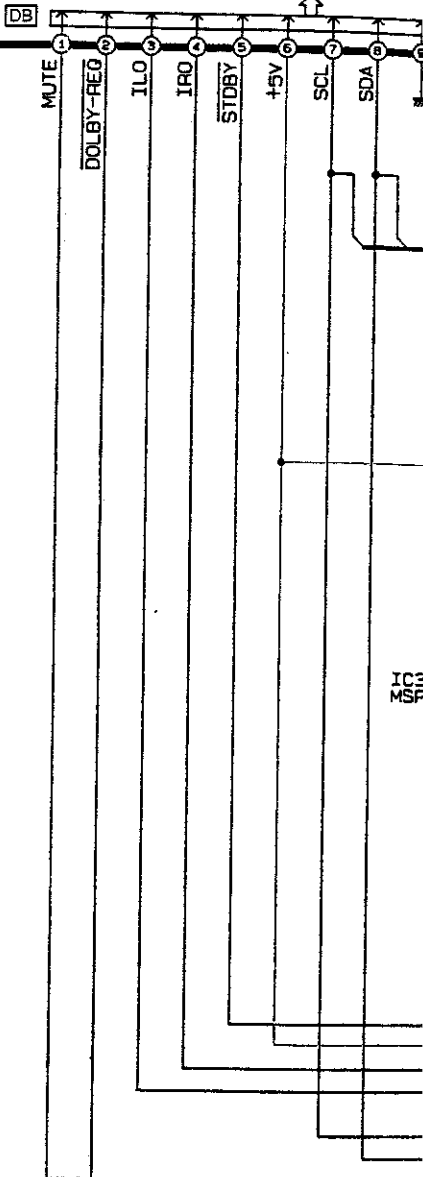






△ PCB-DOLBY (CT-28AV1 GD-S/GDS/SD-S/ED-S)

PCB-MAIN DB



IC301  
DSP56004FJ50





6

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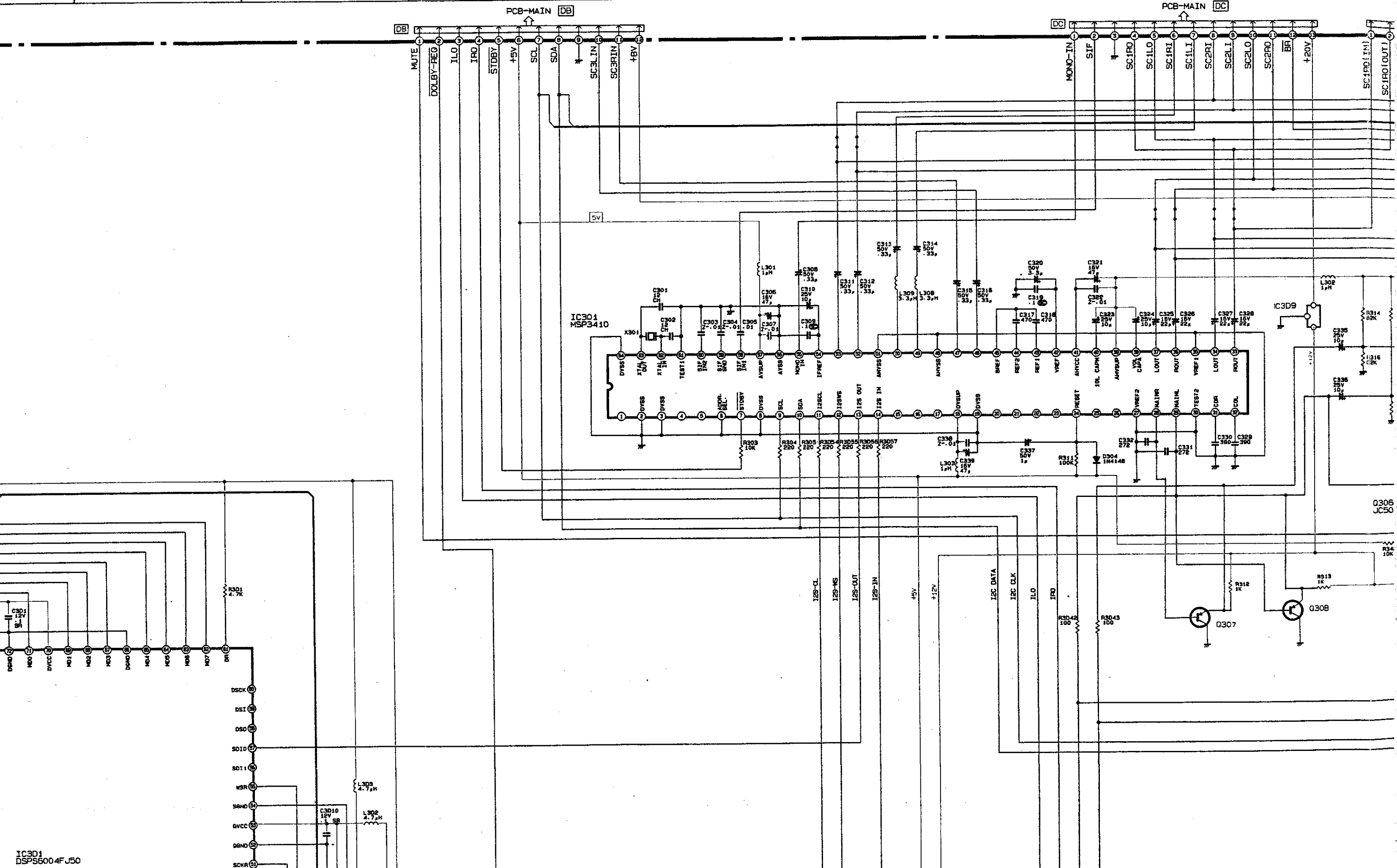
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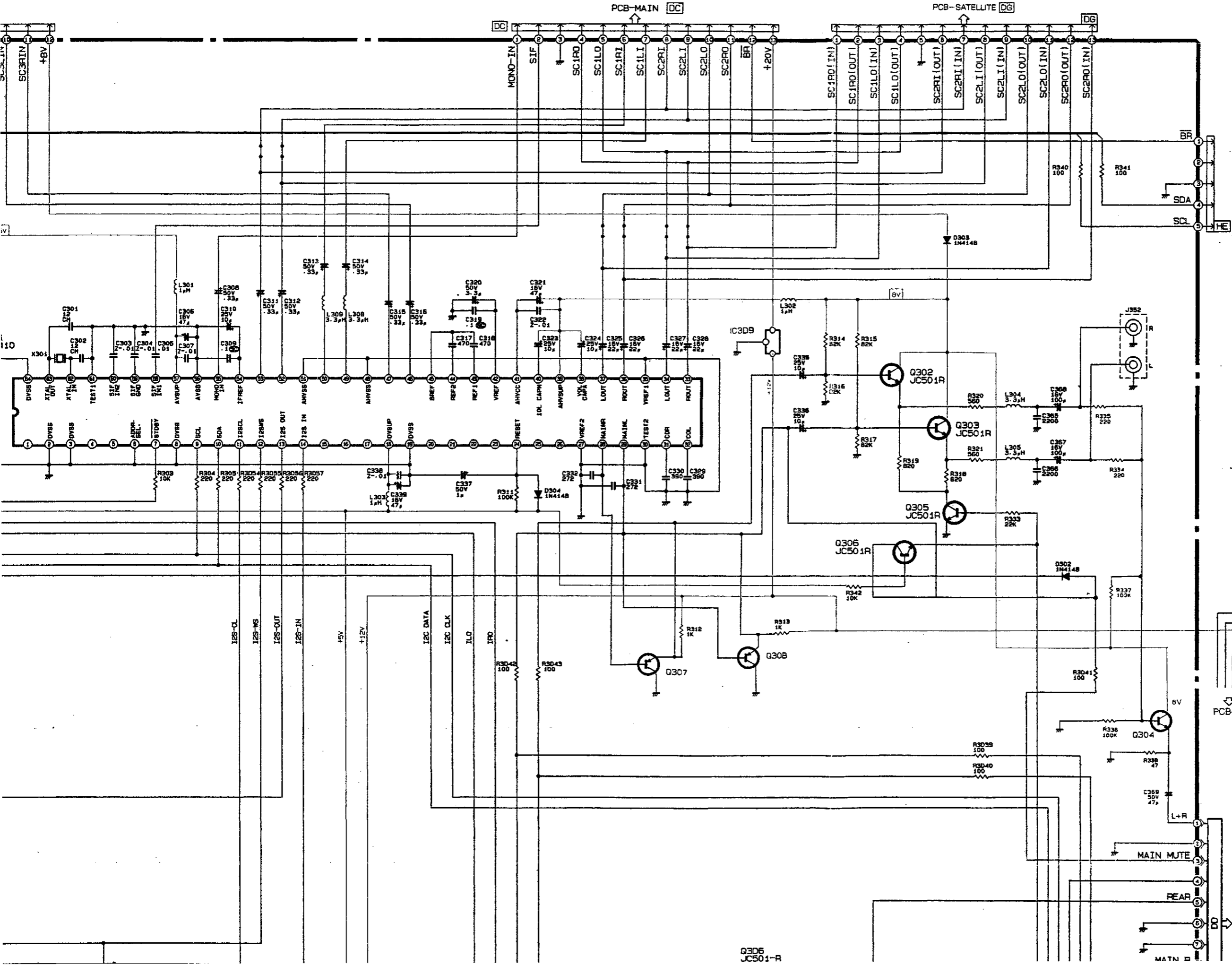
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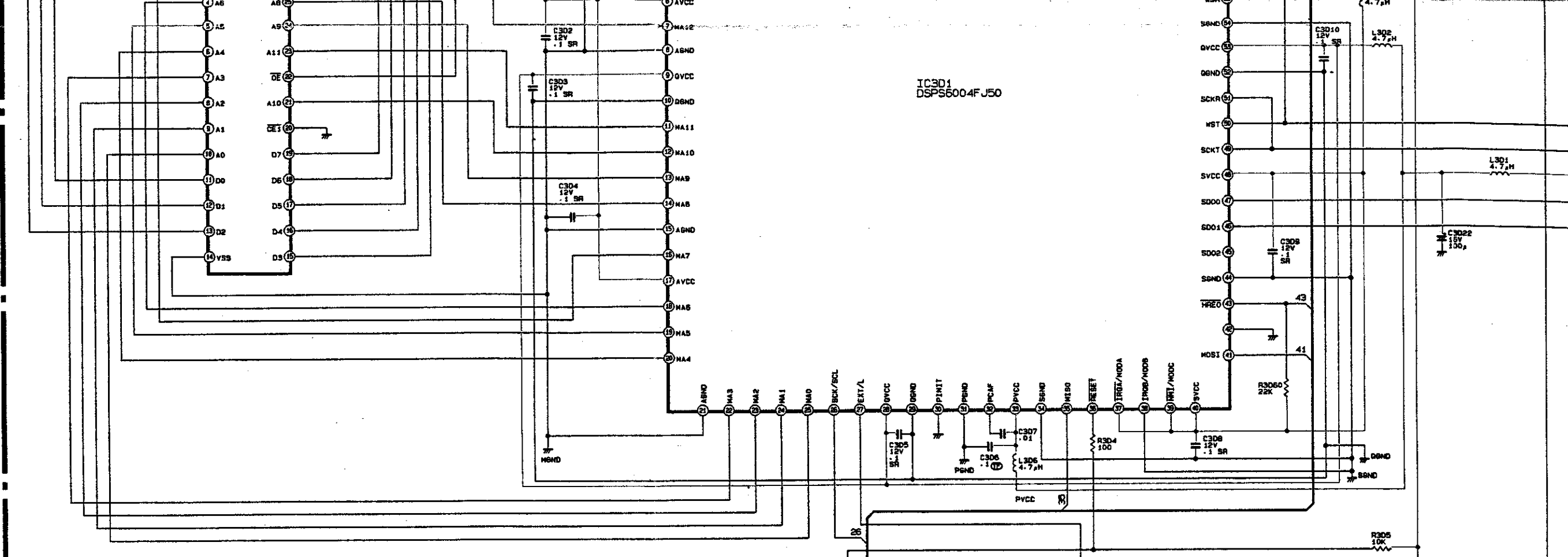


IC301  
DSP56004FJ50



PCB-INDENT  
 (ICT-28AV1 G-S/GS/GD-S only)

Q306  
 90CE  
 JC501-R



PB. 1 LOW = BASS LIFT DISABLED  
 HIGH = BASS LIFT ENABLED

PB. 2 LOW = CD. EFF. 1 USED  
 HIGH = CD. EFF. 2 USED

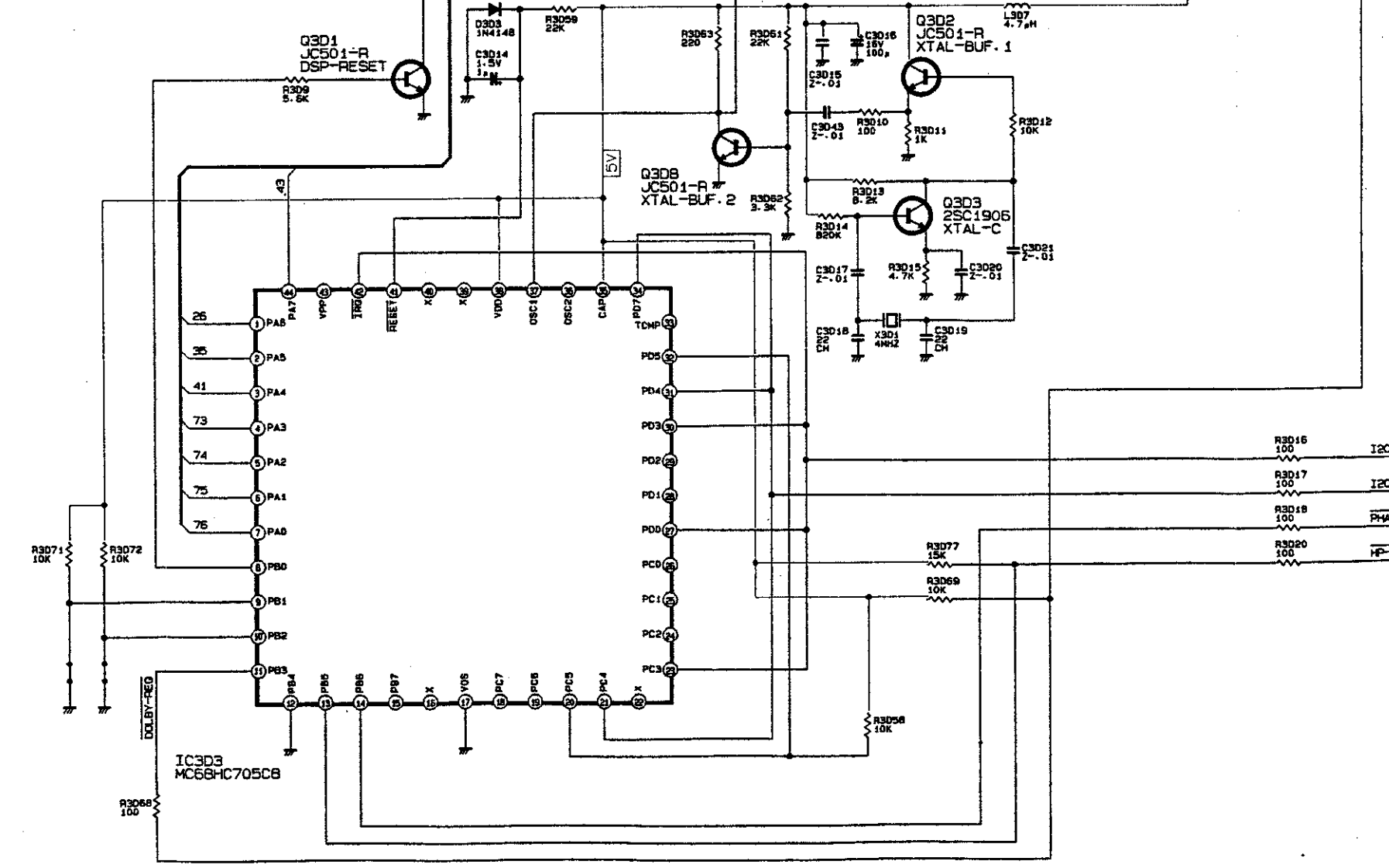
PB. 7 = DOLBY B (NOT USED ON EE3)

PB. 6 = PHANTOM OUTPUT

PB. 5 = H.P INS OUTPUT

CT-28AV1 GS  
 CT-28AV1 G-S  
 CT-28AV1 GDS  
 CT-28AV1 S-S  
 CT-28AV1 ED-S  
 CT-28AV1 GD-S  
 CT-28AV1 SD-S

4



T

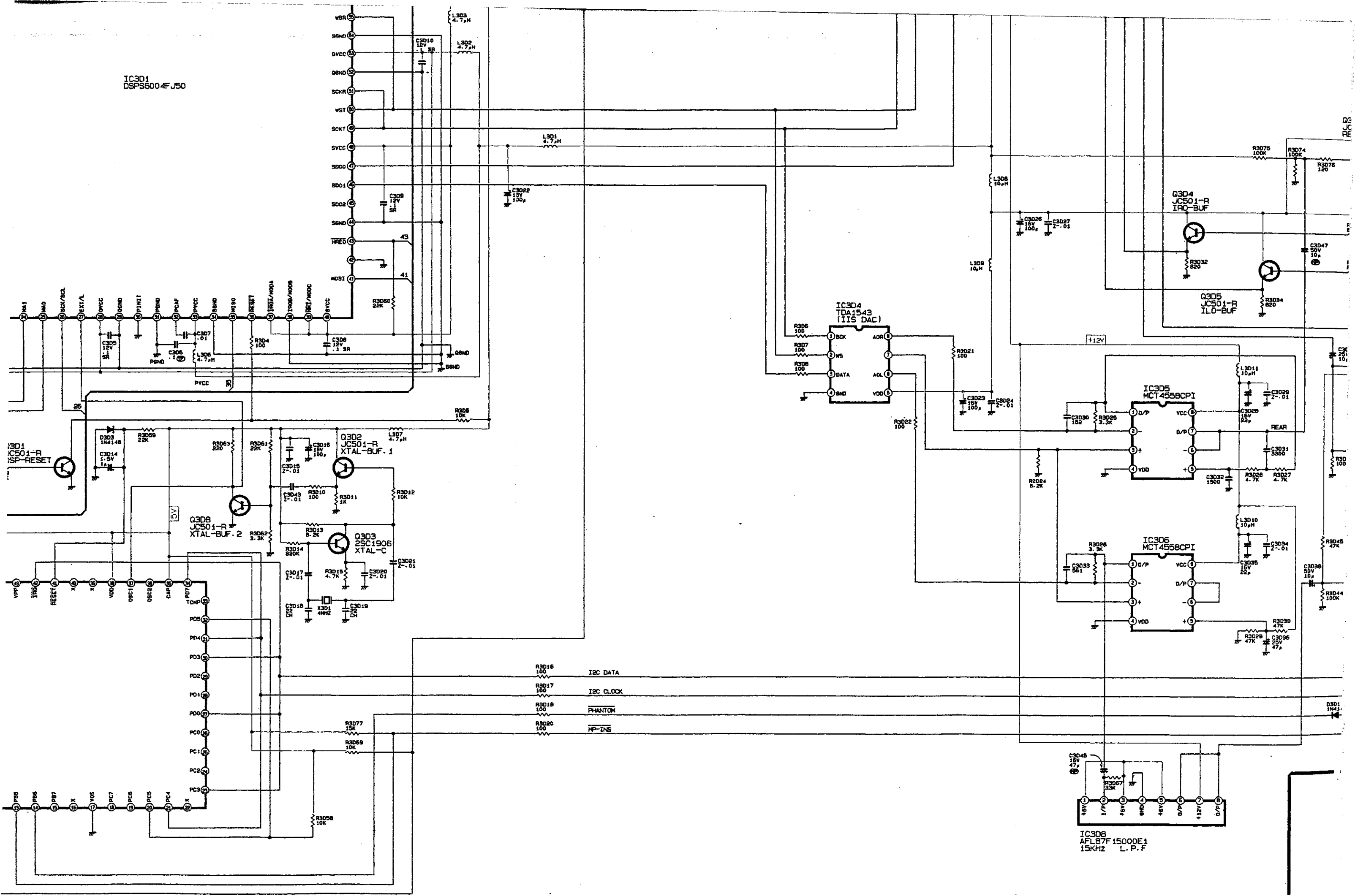
G

I

I

J

K



IC301  
DSPS6004FJ50

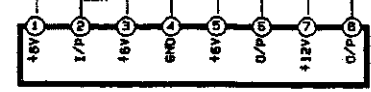
IC304  
TDA1543  
(IIS DAC)

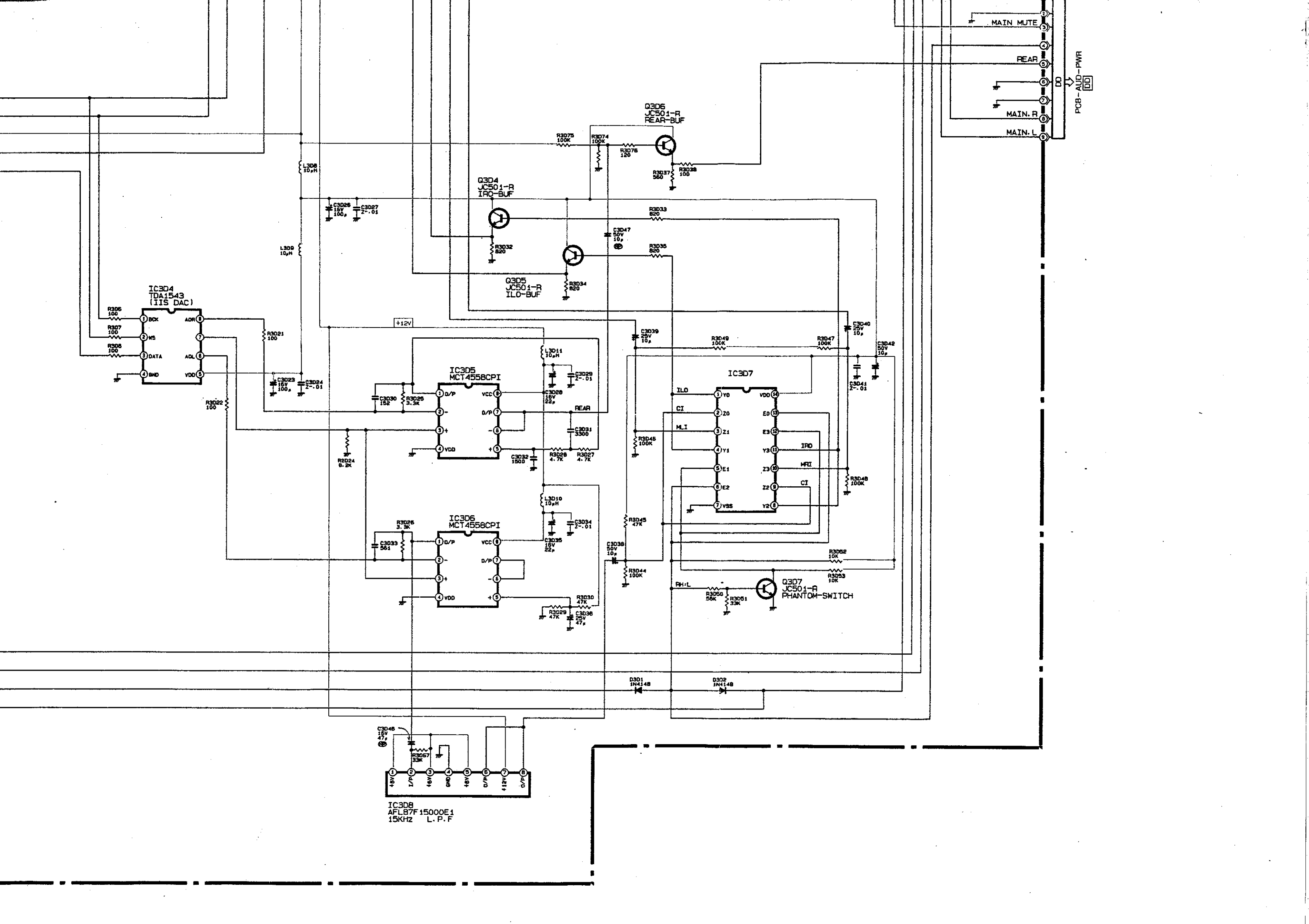
IC305  
MCT4558CPI

IC306  
MCT4558CPI

IC308  
AFL87F 15000E1  
15KHZ L.P.F

R3015 100 I2C DATA  
R3017 100 I2C CLOCK  
R3018 100 PHANTOM  
R3020 100 HP-INS





IC304  
TDA1543  
(IIS DAC)

IC305  
MCT4558CPI

IC306  
MCT4558CPI

IC307

IC308  
AFLB7F 15000E1  
15KHz L.P.F

MAIN MUTE

REAR

MAIN R

MAIN L

PCB-AUD-PWR

+8V I/P +8V GND +8V O/P +12V O/P