

Service  
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**Service**



# Service Manual



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**CLASS 1  
LASER PRODUCT**



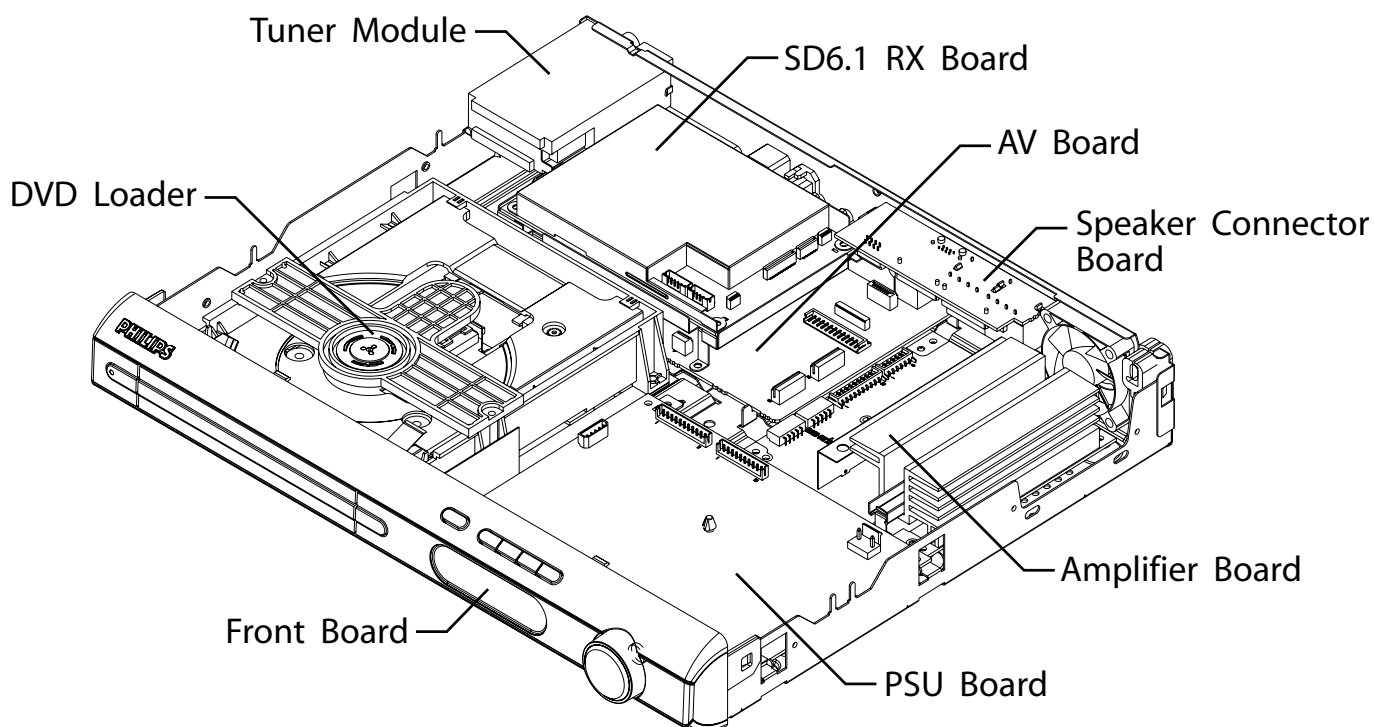
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Version 1.1



# PHILIPS

## LOCATION OF PC BOARDS



### VERSION VARIATIONS:

Type /Versions: Features & Board in used:	LX3900SA							
	/01	/05	/69	/75	/93			
Progressive Scan								
Voltage Selector			x					
Digital In	x	x	x	x	x			
TV-In			x	x	x			
Aux-In	x	x	x	x	x			
Line-Out	x	x	x	x	x			
CVBS Output	x	x	x	x	x			
S-Video Output	x	x	x	x	x			
SCART Output	x	x						
Y/Pb/Pr (YUV) Component Video Output			x	x	x			
ECO Standby	x	x	x	x	x			

## SPECIFICATIONS

### GENERAL:

Mains voltage : 120V for /17  
 220-240V for /01/05/75/93  
 110-127V/220-240V Switchable for /69  
 Mains frequency : 50/60Hz  
 Power consumption : < 0.6W at ECO Standby  
 < 80W at 1/8 P<sub>rated</sub>  
 Dimension centre unit : 360 x 55 x 325mm

### TUNER:

#### FM

Tuning range : 87.5-108MHz  
 Grid : 50kHz  
 100kHz for /17/69  
 IF frequency : 10.7MHz  $\pm$  25kHz  
 Aerial input : 75 $\Omega$  coaxial  
 Sensitivity at 26dB S/N : < 7 $\mu$ V  
 Selectivity at 600kHz bandwidth : > 25dB  
 IF rejection : > 60dB  
 Image rejection : > 25dB  
 Distortion at RF=1mV, dev. 75kHz : < 3%  
 -3dB Limiting point : 8 $\mu$ V  
 Crosstalk at RF=1mV, dev. 40kHz : > 18dB

#### MW

Tuning range : 531-1602kHz  
 530-1700kHz for /17/69  
 Grid : 9kHz  
 10kHz for /17/69  
 IF frequency : 450kHz  $\pm$  1kHz  
 Aerial input : Frame aerial  
 Sensitivity at 26dB S/N : < 4.0mV/M  
 Selectivity at 18kHz bandwidth : > 20dB  
 IF rejection : > 45dB  
 Image rejection : > 28dB  
 Distortion at RF=50mV, m=80% : < 5%

### AMPLIFIER:

#### Output power

Front : 50W RMS / channel  
 Rear : 50W RMS / channel  
 Centre : 50W RMS  
 Subwoofer : 75W RMS

Frequency response  $\pm$ 3dB : 20Hz-20kHz  
 Hum (Volume Minimum) : 200nW  
 Residual noise (Volume Minimum) : 40nW

#### Input sensitivity

Aux In : 1V  $\pm$  3dB at 39k $\Omega$   
 Scart In : 500mV  $\pm$  3dB at 39k $\Omega$

#### Output sensitivity

Line Out (Left/Right) : 0.7V  $\pm$  2dB at 47k $\Omega$   
 Scart Out (Left/Right) : 0.6V  $\pm$  2dB at 10k $\Omega$

### COMPACT DISC/VCD/DVD:

Video Decoding : MPEG-2/MPEG-1/MPEG-4/Div X 4 & 5  
 Video DAC : 12 Bits  
 Signal System : PAL / NTSC  
 Video Format : 4:3 / 16:9

#### CVBS Out <sup>1)</sup>

CVBS level : 1.0  $\pm$  0.1V<sub>p-p</sub>  
 Luminance S/N :  $\geq$  55dB

#### S-Video Out <sup>1)</sup>

Y level : 1.0  $\pm$  0.1V<sub>p-p</sub>  
 Y S/N :  $\geq$  60dB  
 C level (burst) : 286mV<sub>p-p</sub> +1/-4 dB

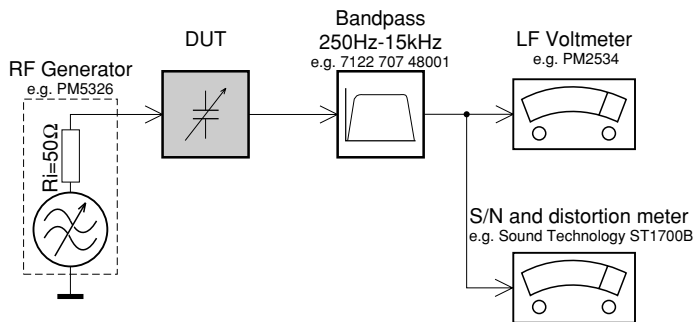
#### RGB/YUV Out <sup>1)</sup>

Amplitude : 0.7  $\pm$  0.1V<sub>p-p</sub>  
 S/N :  $\geq$  60dB

<sup>1)</sup> Output terminals to be terminated with 75 $\Omega$

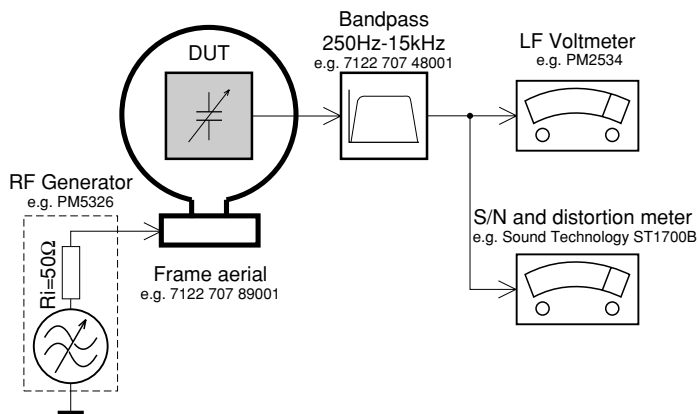
## MEASUREMENT SETUP

### Tuner FM



Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilotone (19kHz, 38kHz).

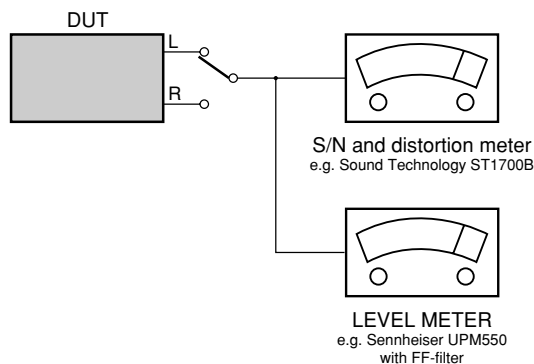
### Tuner AM (MW,LW)



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage.  
Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz, 100Hz).

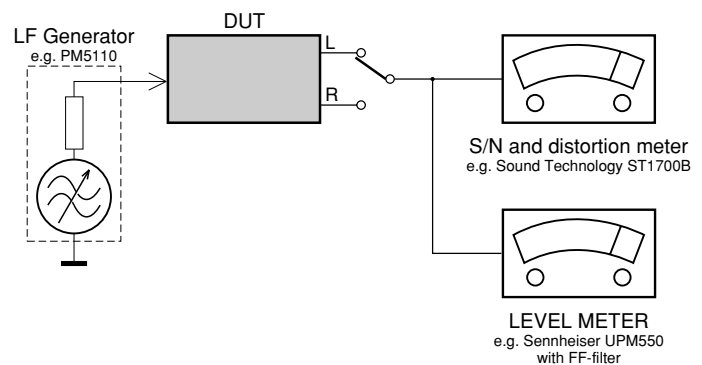
### CD

Use Audio Signal Disc SBC429 4822 397 30184  
(replaces test disc 3)



### Recorder

Use Universal Test Cassette **CrO2** SBC419 4822 397 30069  
or Universal Test Cassette **Fe** SBC420 4822 397 30071



## SERVICE AIDS

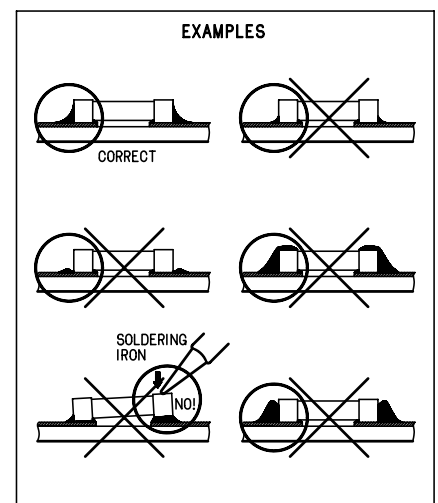
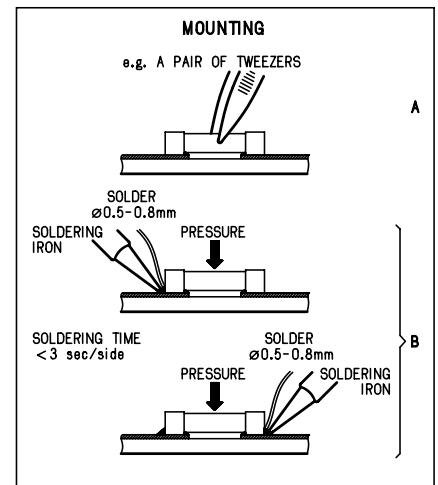
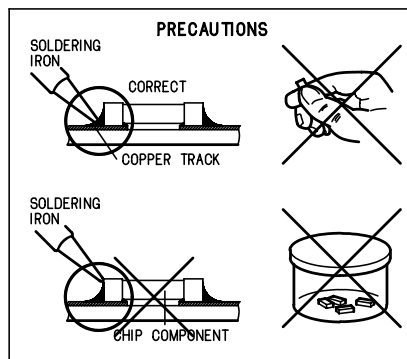
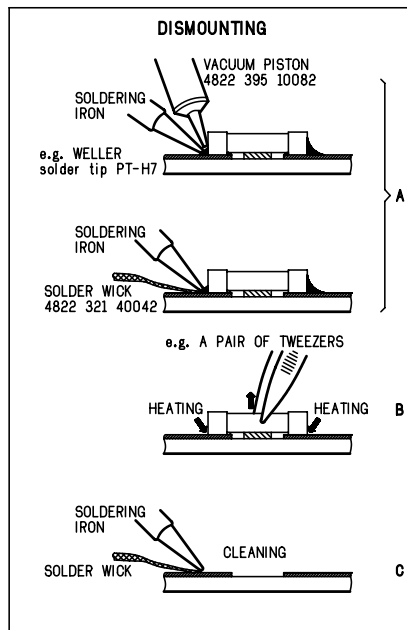
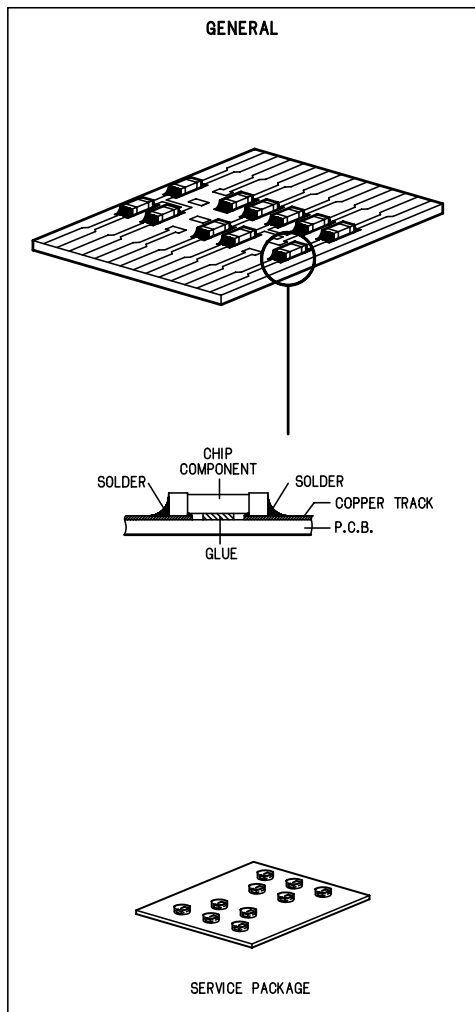
### Service Tools:

Universal Torx driver holder .....	4822 395 91019
Torx bit T10 150mm .....	4822 395 50456
Torx driver set T6 - T20 .....	4822 395 50145
Torx driver T10 extended .....	4822 395 50423

### Compact Disc:

SBC426/426A Test disc 5 + 5A .....	4822 397 30096
SBC442 Audio Burn-in Test disc 1kHz .....	4822 397 30155
SBC429 Audio Signals disc .....	4822 397 30184
Dolby Pro-logic Test Disc .....	4822 395 10216

## HANDLING CHIP COMPONENTS



**GB WARNING**

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.

When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

**ESD****NL WAARSCHUWING**

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD). Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.

Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat. Houd componenten en hulpmiddelen ook op hetzelfde potentiaal.

**F ATTENTION**

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).

Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.

Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.

Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

**D WARNUNG**

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).

Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.

Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.

Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

**I AVVERTIMENTO**

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).

La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cauzione alla loro manipolazione.

Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.


Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

**GB ESD PROTECTION EQUIPMENT:**

Complete Kit ESD3 (small tablemat, wristband, connection box, extension cable and earth cable) ..... 4822 310 10671  
Wristband tester ..... 4822 344 13999


**GB**

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used

Safety components are marked by the symbol .


**NL**

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

De Veiligheidsonderdelen zijn aangeduid met het symbool .

**F**

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisés les pièces de rechange identiques à celles spécifiées.

Less composants de sécurité sont marqués .


**D**

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

Sicherheitsbauteile sind durch das Symbol  markiert.

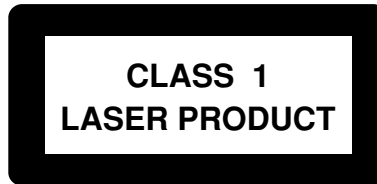
**I**

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

Componenti di sicurezza sono marcati con .

**GB**

After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist. The leakage current must not exceed 0.5mA.

**GB Warning !**

Invisible laser radiation when open.  
Avoid direct exposure to beam.

**S Varning !**

Osynlig laserstrålning när apparaten är öppnad och spärren är urkopplad. Betrakta ej strålen.

**SF Varoitut !**

Avatussa laitteessa ja suojalukituksen ohitettaessa olet alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen!

**DK Advarse !**

Usynlig laserstråling ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

**F**

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

## DISMANTLING INSTRUCTIONS

### Dismantling of the DVD Loader

- 1) The tray can be manually open by inserting a minus screw driver and push the lever in the direction as shown in Figure 1 to unlock the tray before sliding it out.
- 2) Slide out the tray and remove the Cover Tray assembly (pos 110 + pos 111 + pos 112) as shown in Figure 2.
- 3) Loosen 5 screws to remove the Cover Top (pos 240).
  - 1 screw each on the left & right side (pos 272)
  - 3 screws on the rear (pos 270)
- 4) Loosen 4 screws D (see Figure 5) to remove the DVD Loader (pos 1103-0001).

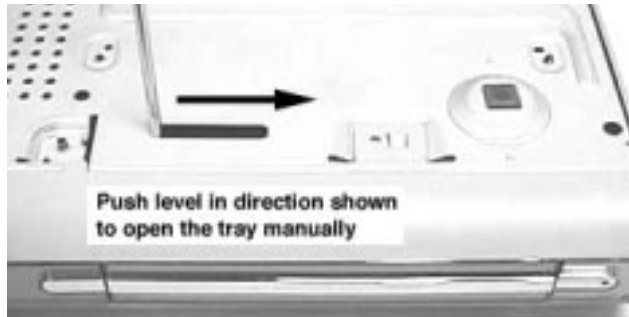


Figure 1

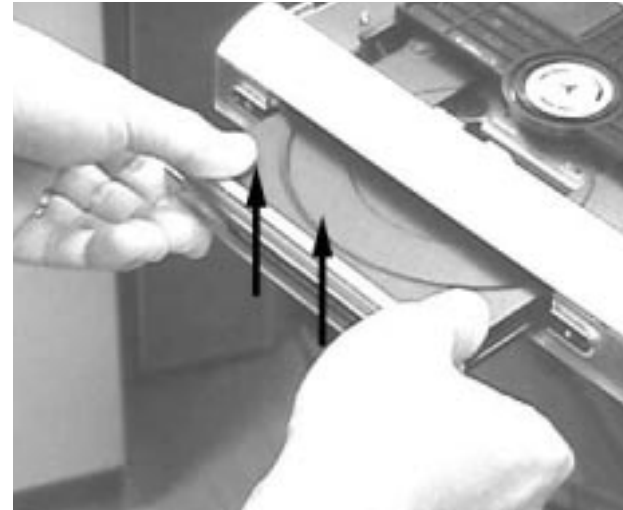


Figure 2

### Dismantling of the Tuner Module & Speaker Connector Board

- 1) Loosen 2 screws A (see Figure 4) to remove the Tuner Module (pos 1105).
- 2) When the Tuner Module (pos 1105) become defective and need to be replaced, make sure the Lug of the Tuner Module is bend as shown in Figure 3.

Note : The Lug of the Tuner Module is purposely bend in this way (see Figure 3) to prevent damage to the Flex Cable.

- 3) Loosen 2 screws B (see Figure 4) to remove the Speaker Connector Board (pos 1102).

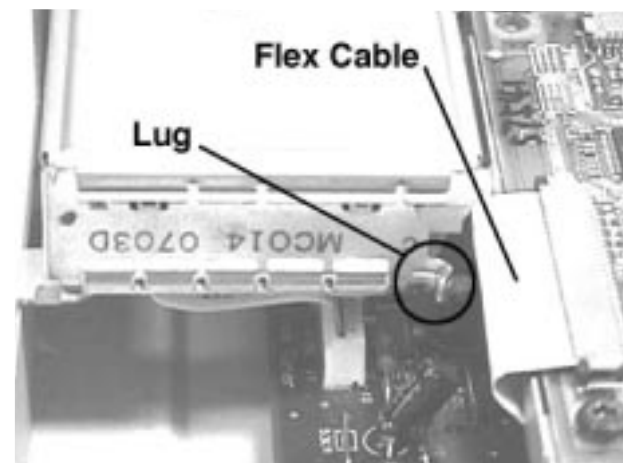


Figure 3

### Dismantling of the PSU Board, Amplifier Board, SD6.1 RX Board & AV Board

- 1) Loosen 4 screws E and uncatch C1 (see Figure 5) to remove the PSU Board (pos 1104).
- 2) Loosen 4 screws F (see Figure 5) to remove the Amplifier Board (pos 1107).
- 3) Loosen 2 screws G (see Figure 5) to remove the SD6.1 RX Board (1103-1001).
- 4) Loosen 2 screws H and uncatch C2 (see Figure 6) to remove the Shield AV (pos 180).
- 5) Loosen 5 screws C (see Figure 4) and uncatch 2 catches C3 (see Figure 7) to remove the AV Board (pos 1101).

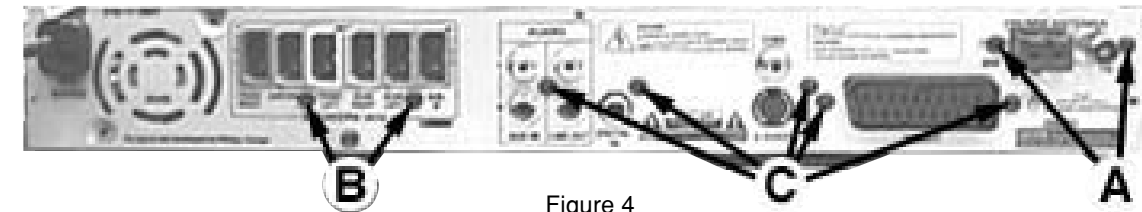


Figure 4

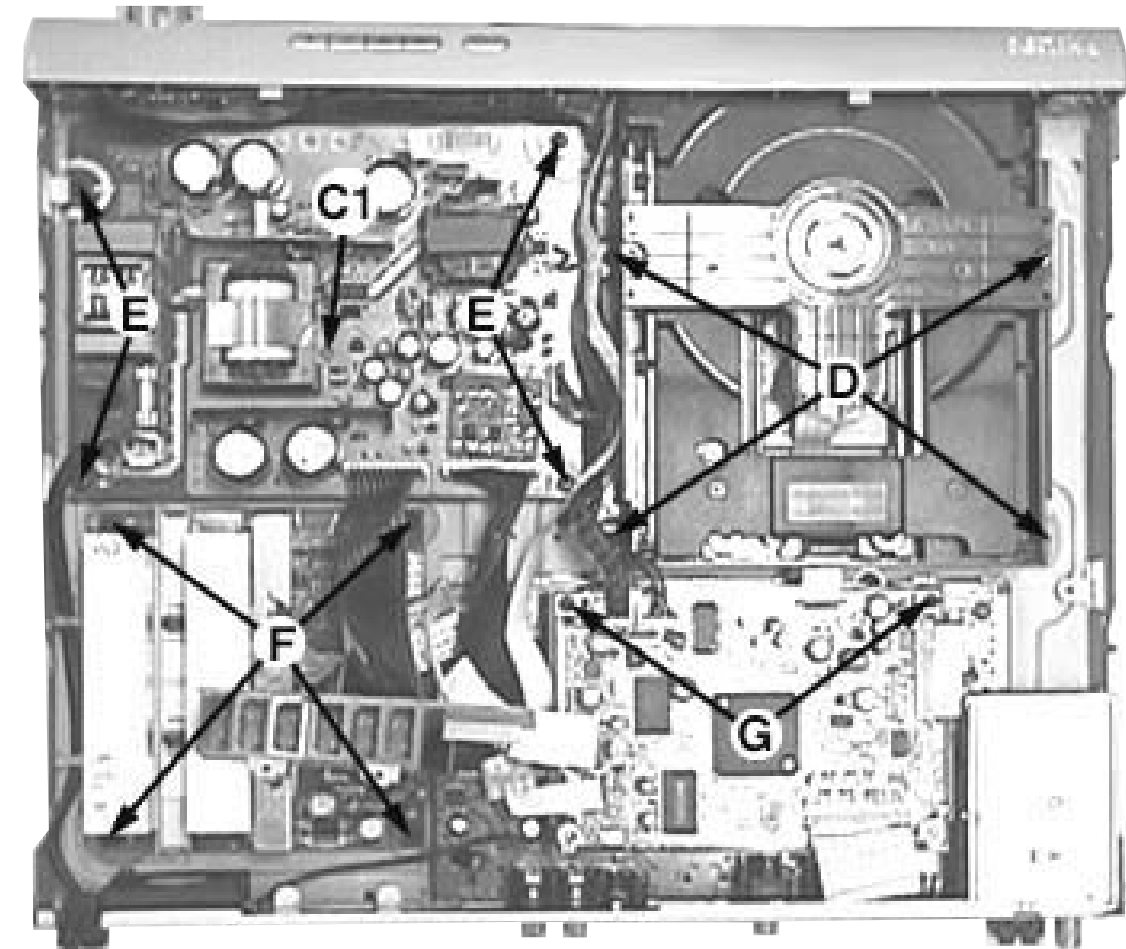


Figure 5

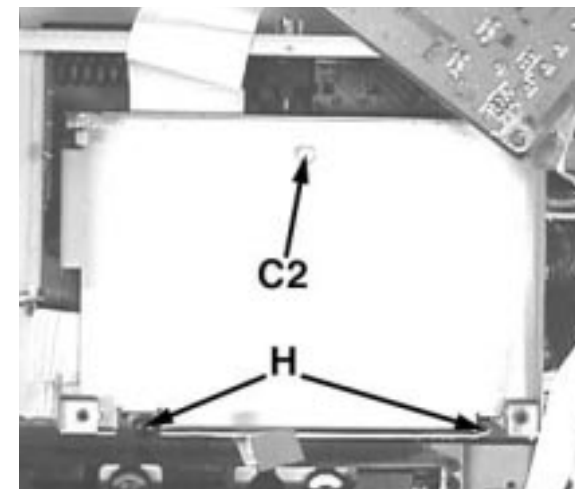


Figure 6

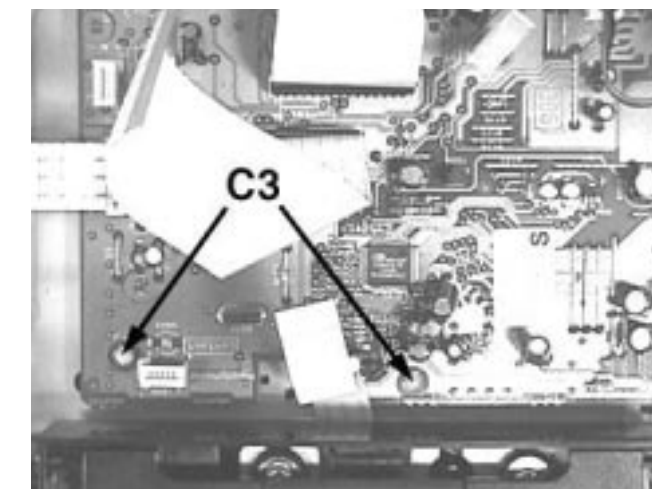
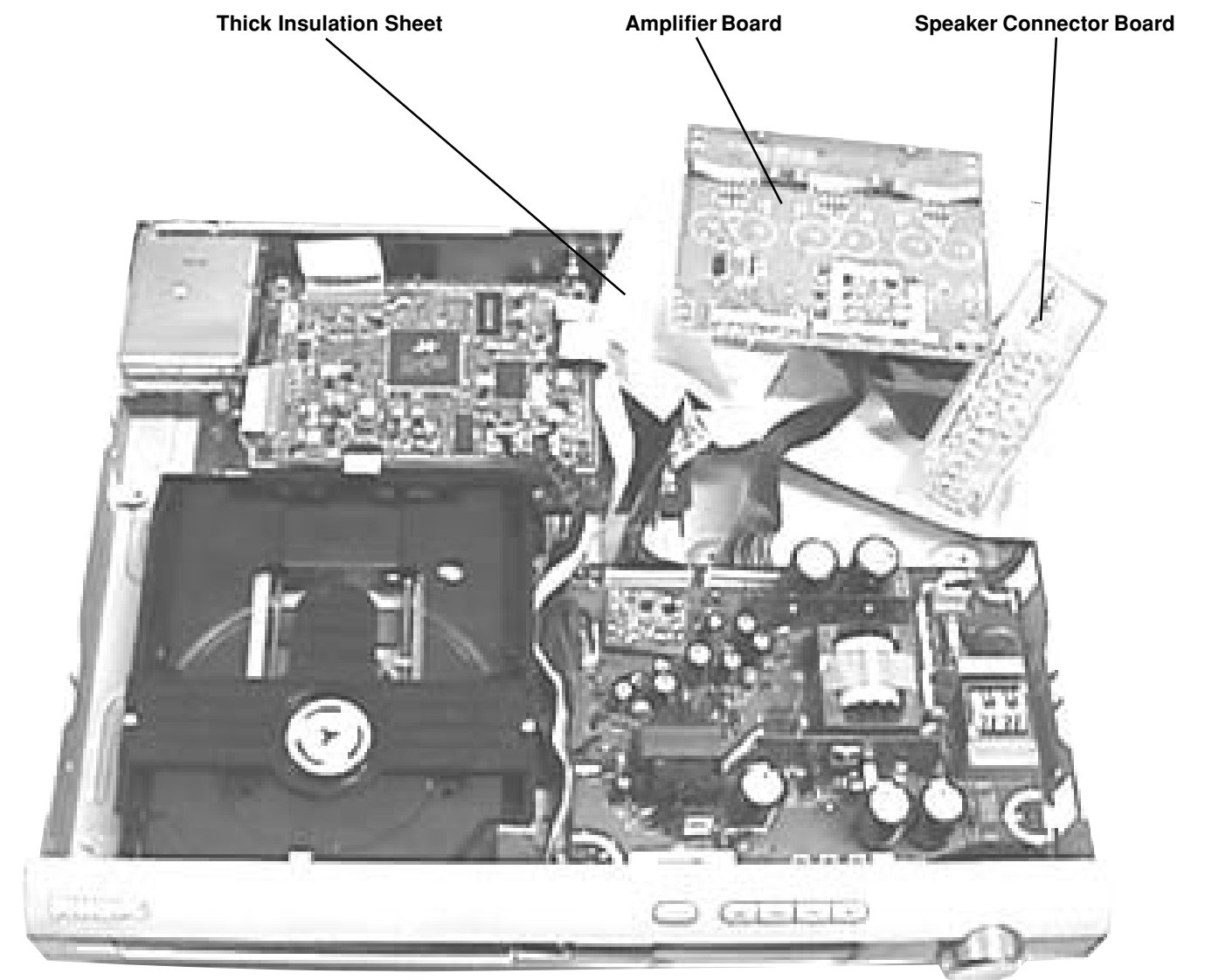
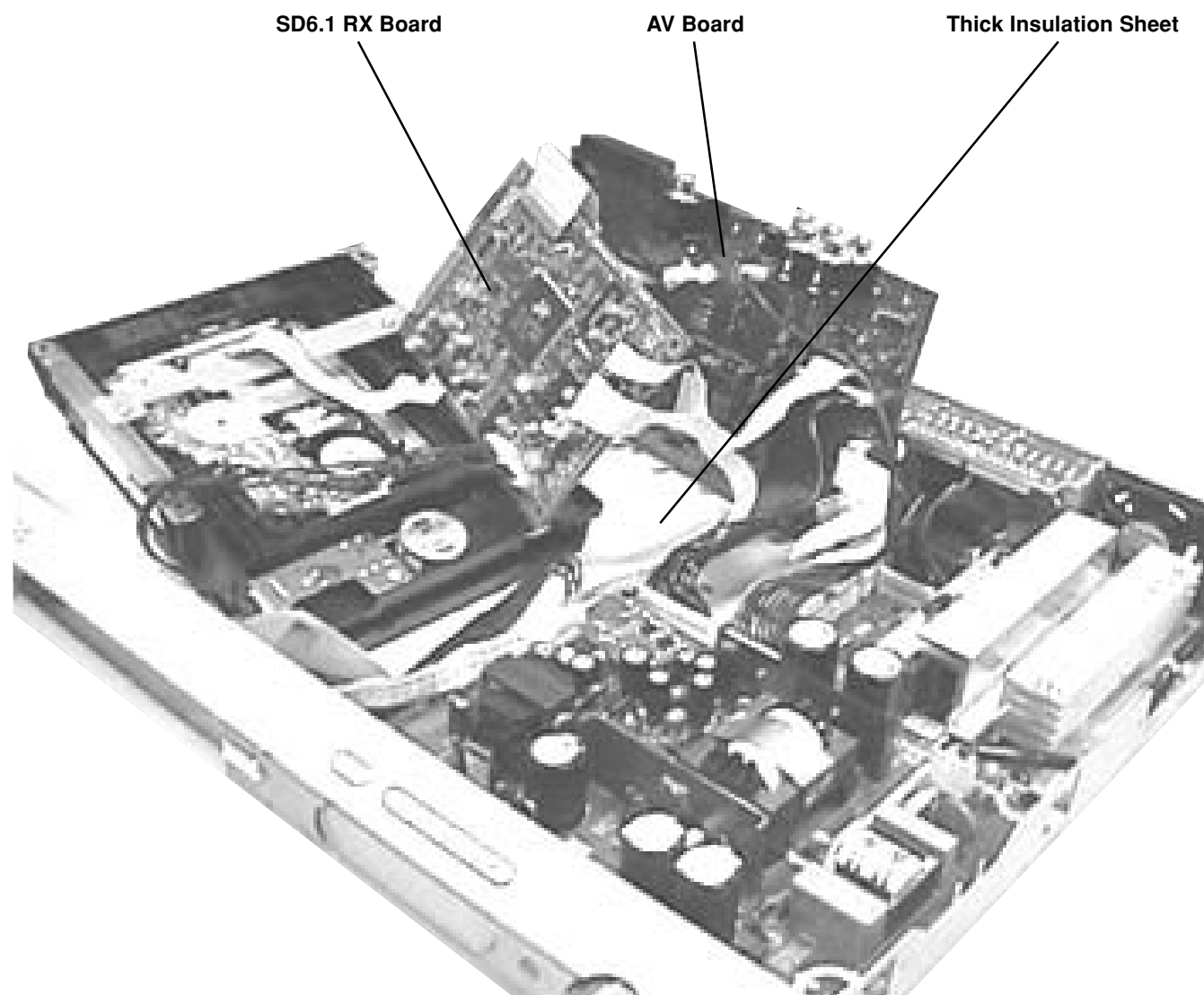


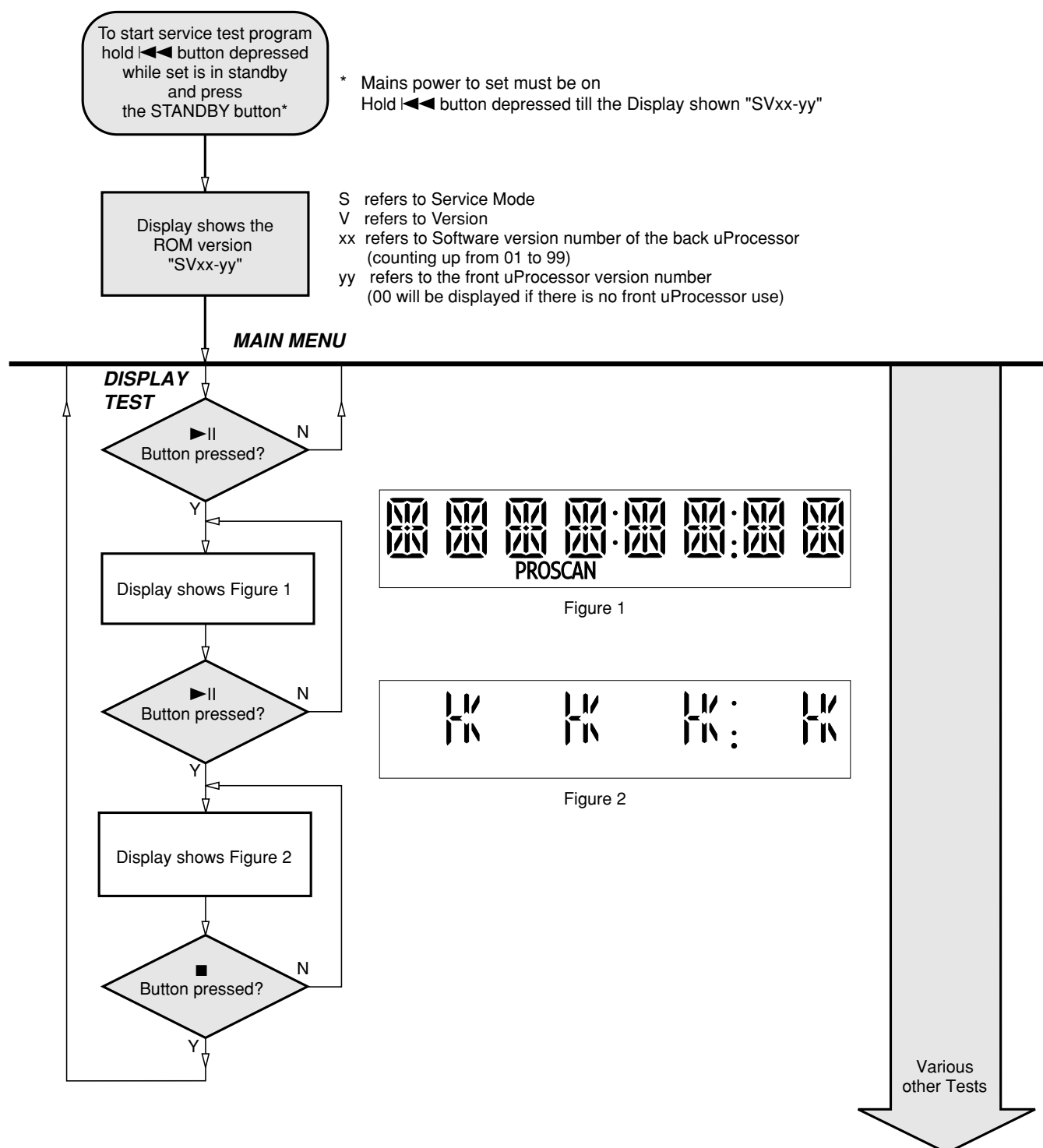
Figure 7



## SERVICE POSITIONS





## SERVICE TEST PROGRAM



<b>TEST</b>	<b>Activated with</b>	<b>ACTION</b>
EEPROM FORMAT TEST	  to Exit	Load default data. Display shows "NEW". <b>Caution!</b> <b><i>All presets from the customer will be lost!!</i></b>
ROTARY ENCODER TEST	VOLUME Knob	Display shows value for 2 seconds. Values increases or decreases in steps of 1 until 0 (VOL MIN) or 40 (VOL MAX) is reached.
LEAVE SERVICE TEST PROGRAM	Disconnect mains cord	

### Procedure to change Tuner Grid (not for all versions)

- 1) Power up the set and select **TUNER** source.
- 2) Hold "PLAY" button depressed while set is in standby and press the "STANDBY" button.
- 3) Hold "PLAY" button depressed till the display shown '**PHILIPS->FM**' followed by display the new tuning grid '**GRID 9**' or '**GRID 10**'.

*Note: Repeating the same action will toggle back to its previous tuning grid setting.*

### Reprogramming of DVD version Matrix

After repair, the customer setting and region code may be lost. Reprogramming will put the set back in the state in which it has left the factory, ie. with the default setting and the allowed region code.

To reprogram do as follows:

- 1) Power up the set and select **DISC** source.
- 2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
- 3) Press the following buttons on the Remote Control:  
 <9> <9> <9> <9> <AUDIO> <1> ..... for LX3900SA/01  
 <9> <9> <9> <9> <AUDIO> <2> ..... for LX3900SA/05  
 <9> <9> <9> <9> <AUDIO> <3> ..... for LX3900SA/69  
 <9> <9> <9> <9> <AUDIO> <4> ..... for LX3900SA/75  
 <9> <9> <9> <9> <AUDIO> <5> ..... for LX3950W/01  
 <9> <9> <9> <9> <AUDIO> <6> ..... for LX3950W/05  
 <9> <9> <9> <9> <AUDIO> <7> ..... for LX3900SA/93
- 4) The display shows '**YYYY-ZZ**' and the tray will close.  
 YYYY = model number (eg. 3900, 3950, etc.)  
 ZZ = stroke version (eg. 01, 05, etc.)

### Procedure for check Software version

- 1) Power up the set and select **DISC** source.
- 2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
- 3) Press "OSD" button on the Remote control.
- 4) The TV screen will shows:

**SD6.1 Vxx YYYY-ZZ P QQ**

**SERVO: GGGGGGGG REG:D**

xx = version number  
 YYYY = model number (eg. 3900, 3950, etc.)  
 ZZ = stroke version (eg. 01, 05, etc.)  
 P / D = region code  
 QQ = version number of front uProcessor  
 GGGGGGGG = version for servo code

### Procedure to upgrade software

- 1) Power up the set and select **DISC** source.
- 2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
- 3) Place upgrade CD-ROM onto tray and close.
- 4) The set will response and display the following:
  - **LOAD** [After the disc is read, the tray will open for you to remove the disc]
  - **ERASE**
  - **WRITE**
  - **ERROR** [if upgrade is unsuccessful]
  - **UPG END -> PHILIPS** [if upgrade is successful]
  - **DISC->CLOSE->LOAD** [Tray will close indicating that the upgrade process is completed]
- 5) The whole process should not take more than 5 minutes.

*Caution: Do not unplug the set until upgrade is completed.*

### Trade Mode

Trade mode is a feature that will block all set keys when enabled. It is for dealers to prevent customers from removing disc, changing source etc using the set keys. Rotary and Remote Control (RC) keys are still allowed in Trade mode.

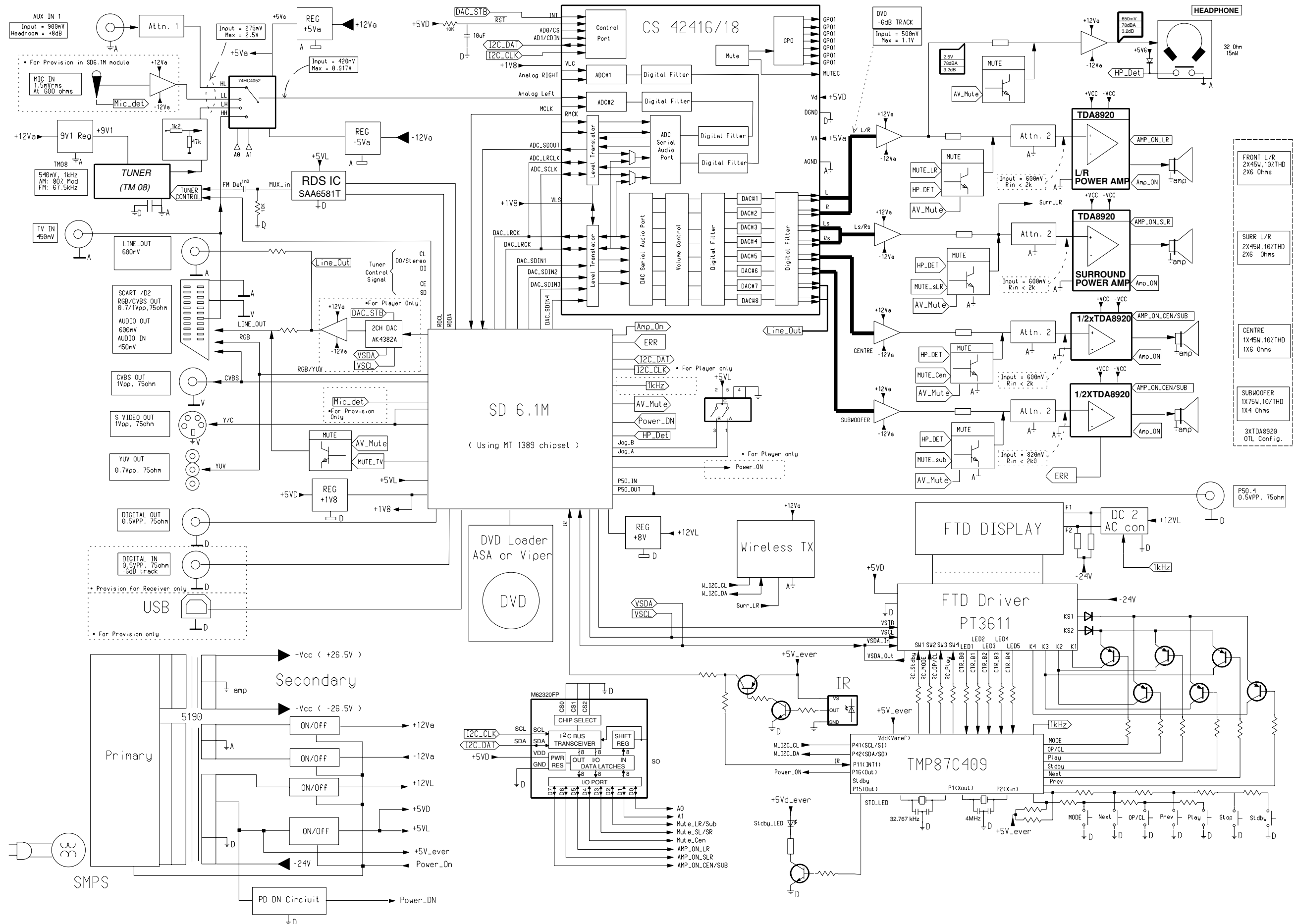
#### To activate Trade Mode:

- 1) Power up the set and select **DISC** source.
- 2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
- 3) Then press buttons <2> <5> <9> on the RC.
- 4) The display shows '**TRA ON**' and the tray will close.  
 Trade Mode is now enabled.

#### To deactivate Trade Mode:

- 1) Power up the set and select **DISC** source.
- 2) Open tray by press and hold "STOP" button on the RC.
- 3) Then press buttons <2> <5> <9> on the RC.
- 4) The display shows '**TRA OFF**' and the tray will close.  
 Trade Mode is now disabled.

## SET BLOCK DIAGRAM



5-1



# FRONT BOARD

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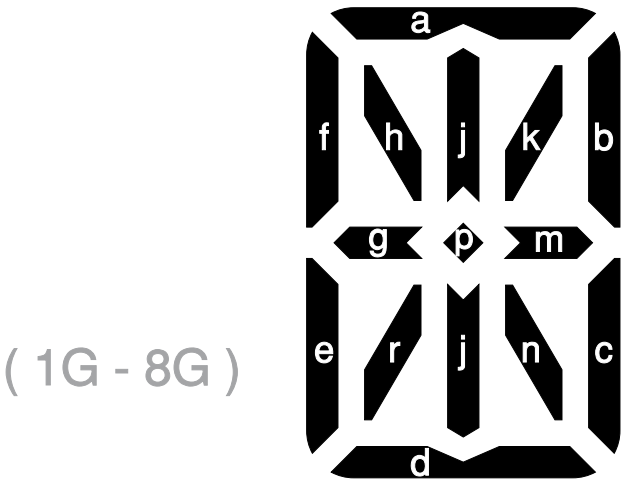
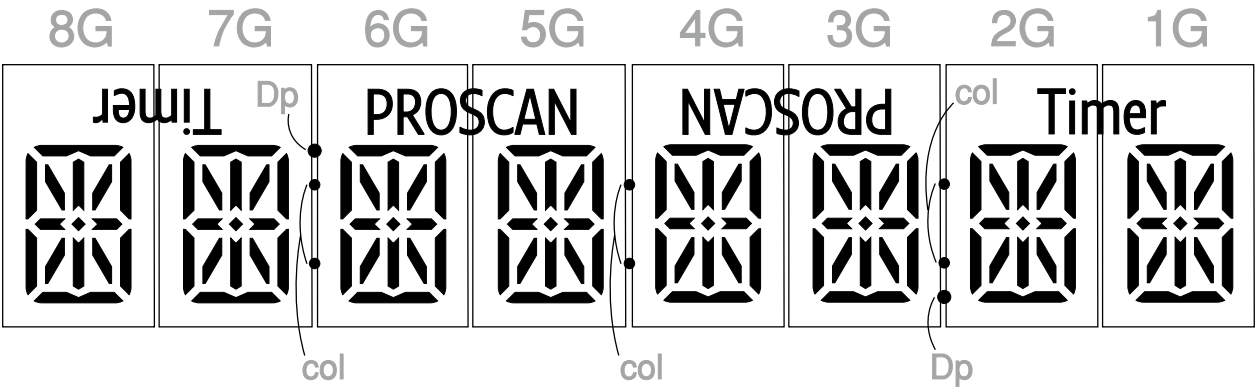
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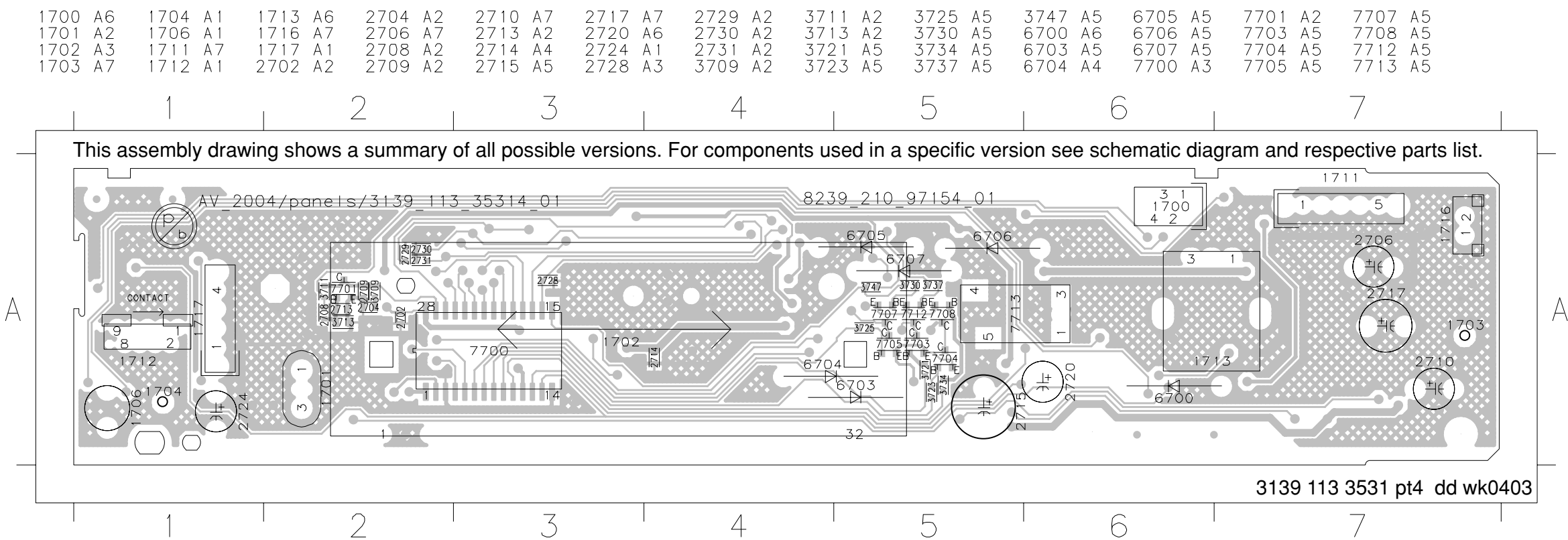
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FTD DISPLAY PIN CONNECTION

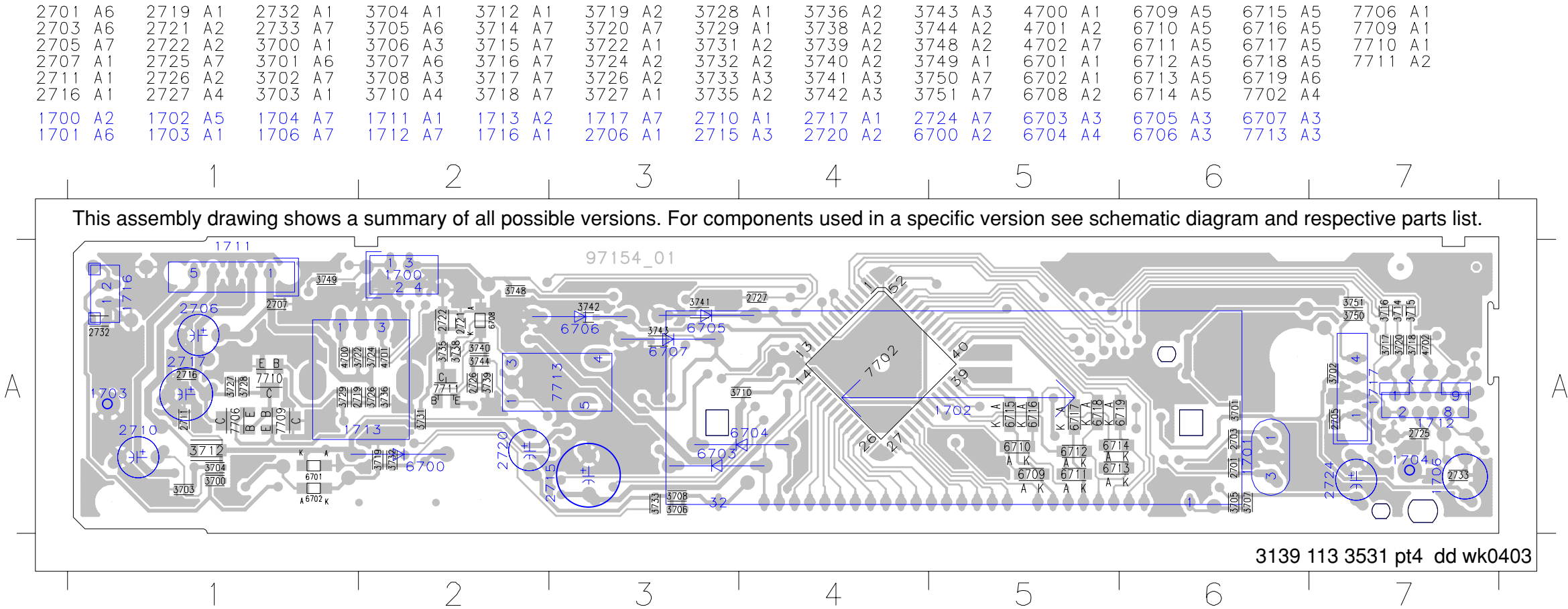


	8G	7G	6G	5G	4G	3G	2G	1G
P1	a	a	a	a	a	a	a	a
P2	j	j	j	j	j	j	j	j
P3	h	h	h	h	h	h	h	h
P4	k	k	k	k	k	k	k	k
P5	b	b	b	b	b	b	b	b
P6	f	f	f	f	f	f	f	f
P7	m	m	m	m	m	m	m	m
P8	g	g	g	g	g	g	g	g
P9	c	c	c	c	c	c	c	c
P10	e	e	e	e	e	e	e	e
P11	r	r	r	r	r	r	r	r
P12	n	n	n	n	n	n	n	n
P13	d	d	d	d	d	d	d	d
P14	-	col		col		col		-
P15	p	p	p	p	p	p	p	p
P16	Timer		PROSCAN		PROSCAN		Timer	
P17	-	Dp		-	-	Dp		-

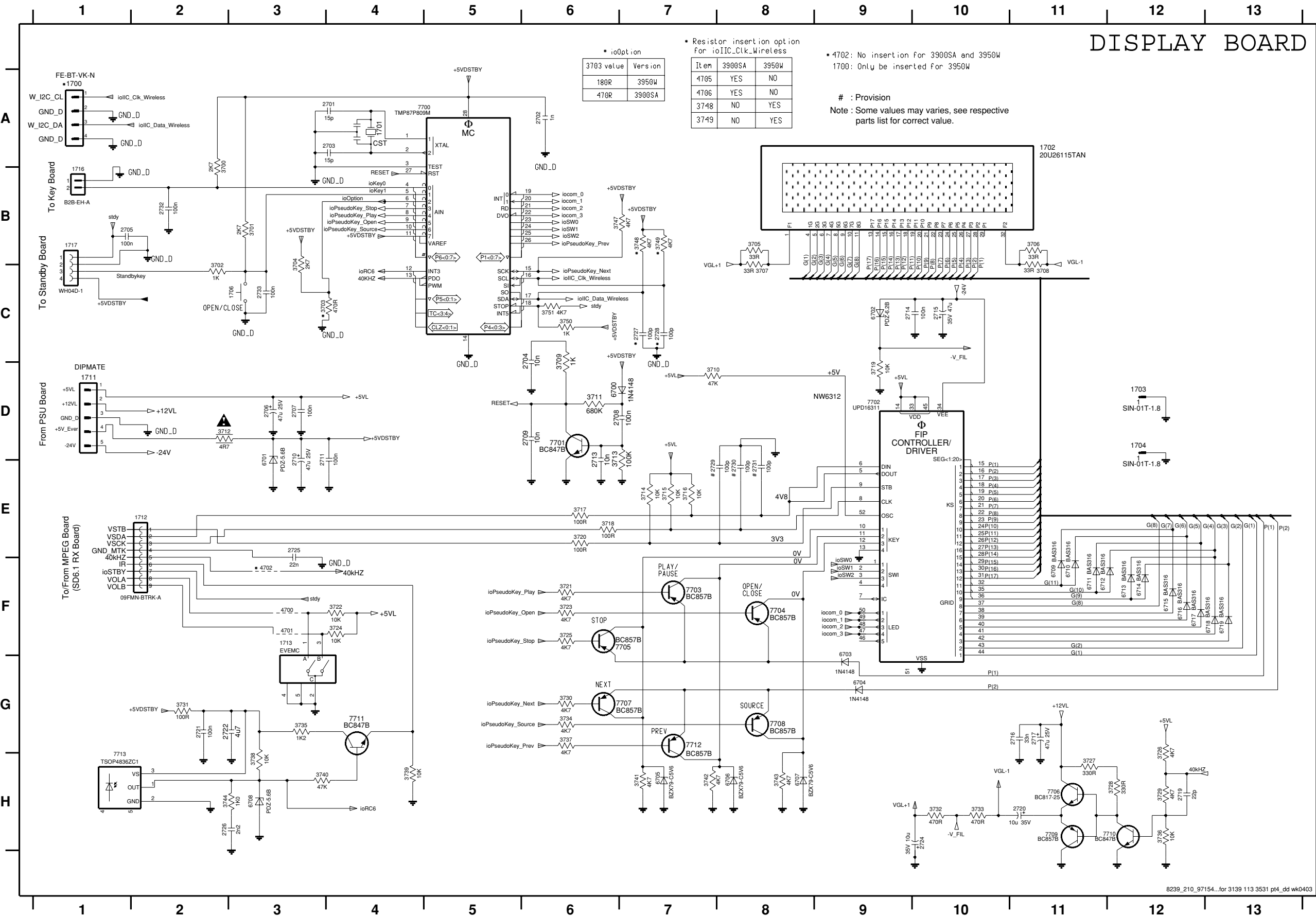
DISPLAY BOARD - TOP VIEW LAYOUT



DISPLAY BOARD - BOTTOM VIEW LAYOUT

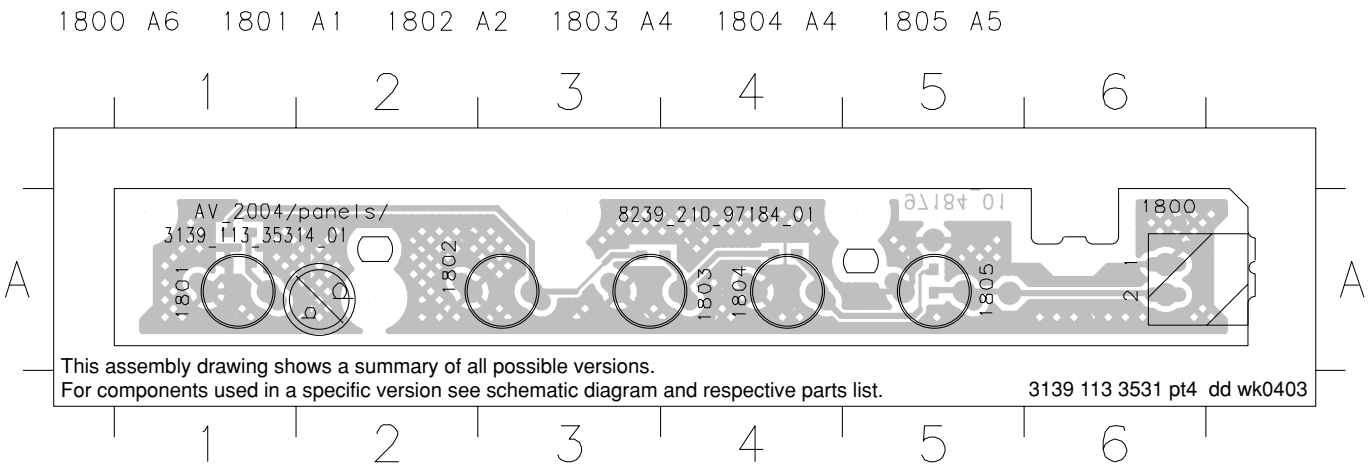


DISPLAY BOARD - CIRCUIT DIAGRAM

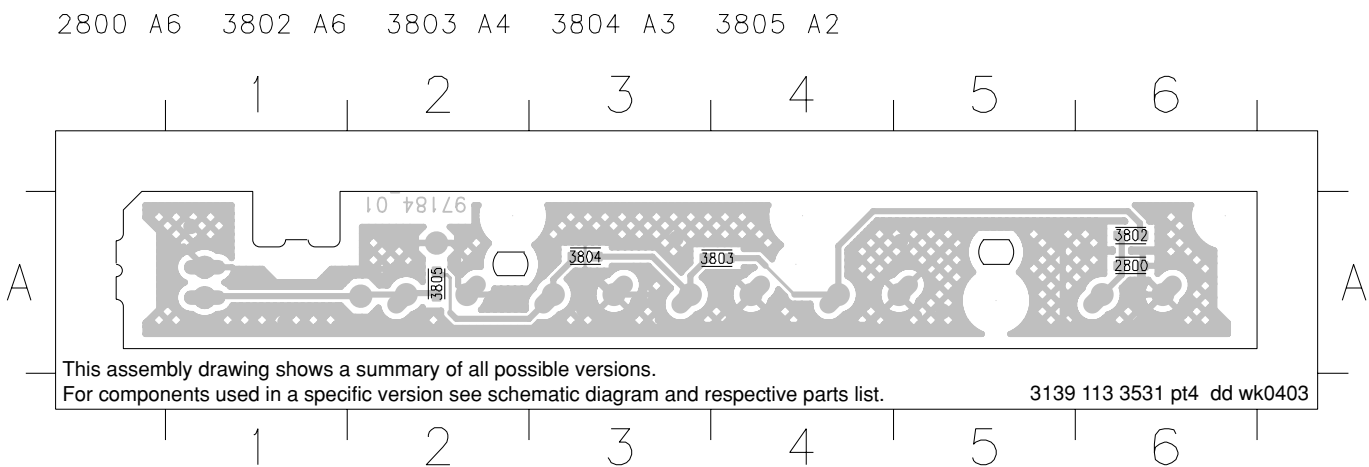


- 1700 A1
- 1701 A4
- 1702 A11
- 1703 D12
- 1704 D12
- 1706 C3
- 1711 D1
- 1712 E2
- 1713 F3
- 1716 B1
- 1717 B1
- 2701 A4
- 2702 A6
- 2703 A4
- 2704 C6
- 2705 B1
- 2706 D3
- 2707 D3
- 2708 D6
- 2709 D6
- 2710 D3
- 2711 D3
- 2713 D6
- 2714 C9
- 2715 C10
- 2716 G11
- 2717 G11
- 2719 H12
- 2720 H11
- 2721 G2
- 2722 G2
- 2724 H10
- 2725 E3
- 2726 H2
- 2727 C7
- 2728 C7
- 2729 E7
- 2730 E8
- 2731 E8
- 2732 B2
- 2733 C3
- 3700 A2
- 3701 B3
- 3702 C2
- 3703 C3
- 3704 B3
- 3705 B8
- 3706 B11
- 3707 C8
- 3708 C11
- 3709 C6
- 3710 D7
- 3711 D6
- 3712 D2
- 3713 D6
- 3714 E7
- 3715 E7
- 3716 E7
- 3717 E6
- 3718 E6
- 3719 D9
- 3720 E6
- 3721 F6
- 3722 F4
- 3723 F6
- 3724 F4
- 3725 F6
- 3726 G12
- 3727 H11
- 3728 H12
- 3729 H12
- 3730 G6
- 3731 G2
- 3732 H10
- 3733 H10
- 3734 G6
- 3735 G3
- 3736 H12
- 3737 G6
- 3738 H3
- 3739 H4
- 3740 H3
- 3741 H7
- 3742 H7
- 3743 H8
- 3744 H2
- 3747 B6
- 3748 B7
- 3749 B7
- 3750 C6
- 3751 C6
- 4700 F3
- 4701 F3
- 4702 F3
- 6700 D6
- 6701 D3
- 6702 C9
- 6703 G9
- 6704 G9
- 6705 H7
- 6706 H8
- 6707 H8
- 6708 H3
- 6709 E11
- 6710 E11
- 6711 E11
- 6712 E11
- 6713 F12
- 6714 F12
- 6715 F12
- 6716 F12
- 6717 F12
- 6718 F13
- 6719 F13
- 7700 A5
- 7701 D6
- 7702 D9
- 7703 F7
- 7704 F8
- 7705 F6
- 7706 H11
- 7707 G6
- 7708 G8
- 7709 H11
- 7710 H12
- 7711 G4
- 7712 G7
- 7713 H1

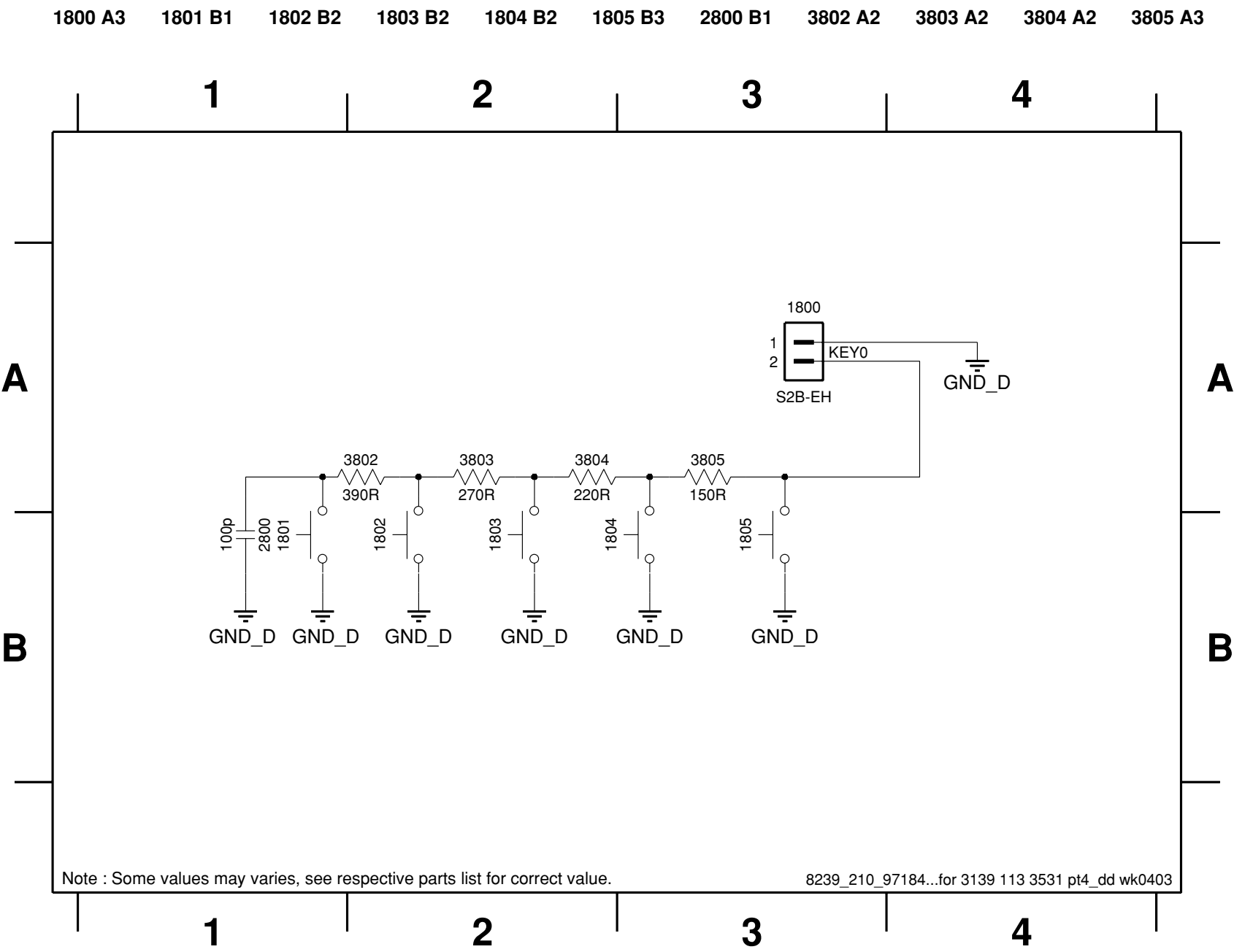
KEY BOARD - COMPONENT LAYOUT



KEY BOARD - CHIP LAYOUT

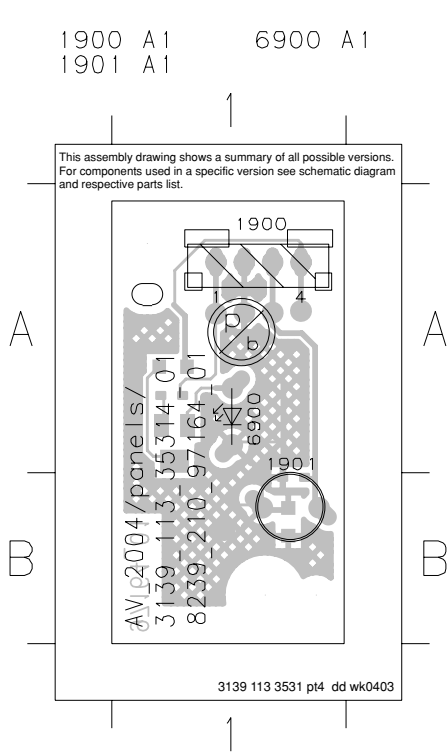


KEY BOARD - CIRCUIT DIAGRAM

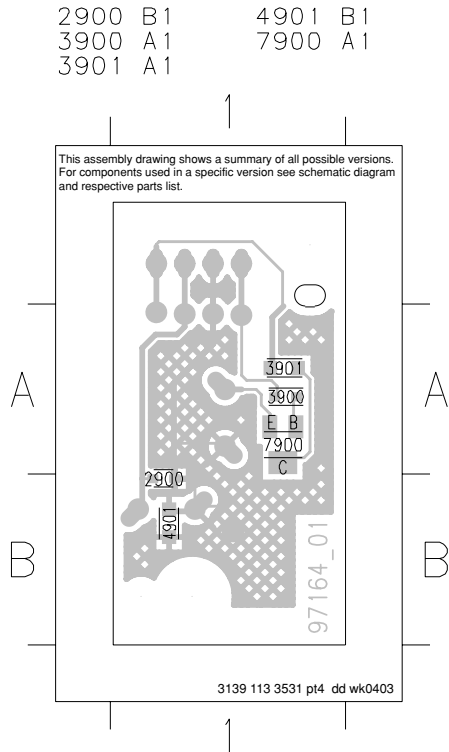




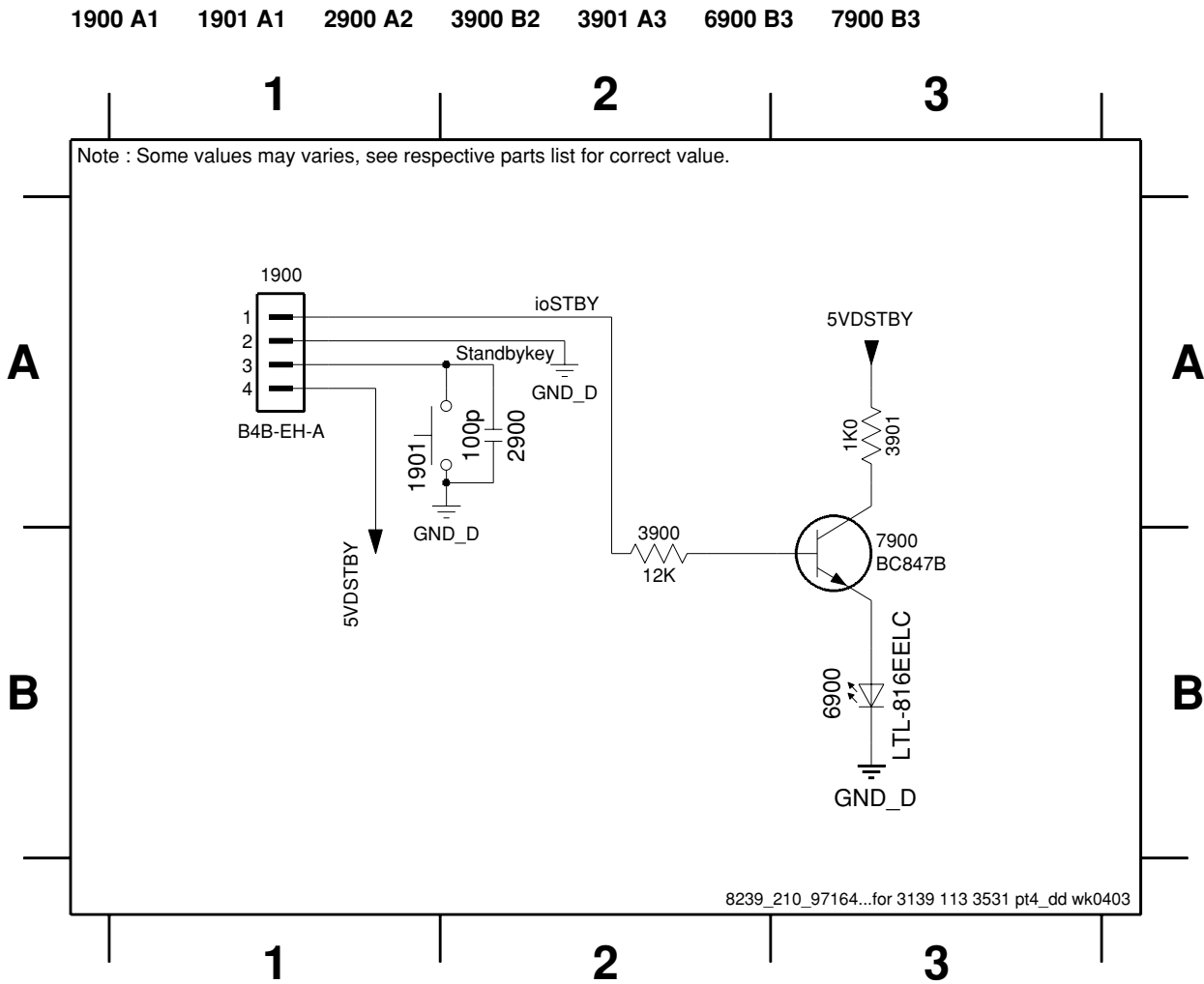
STANDBY BOARD - COMPONENT LAYOUT



STANDBY BOARD - CHIP LAYOUT



STANDBY BOARD - CIRCUIT DIAGRAM



ELECTRICAL PARTS LIST - FRONT BOARD

MISCELLANEOUS

1701	2422 540 98518	RES CER 8MHz
1702	3139 111 04131	FTD HUV-08SS57T
1702	3139 240 50731	FTD 20U26115TAN
1706	4822 276 13775	Tact Switch
1712	2422 025 16586	Flex Connector 9P
1713	2422 129 16975	Rotary Encoder 12P
1801	4822 276 13775	Tact Switch
1802	4822 276 13775	Tact Switch
1803	4822 276 13775	Tact Switch
1804	4822 276 13775	Tact Switch
1805	4822 276 13775	Tact Switch
1901	4822 276 13775	Tact Switch

CAPACITORS

2701	4822 122 33752	15pF 5% 50V
2702	3198 016 31020	1nF 25V
2703	4822 122 33752	15pF 5% 50V
2704	5322 126 11583	10nF 10% 50V
2705	4822 126 14585	100nF 10% 50V
2706	4822 124 40433	47uF 20% 25V
2707	2238 586 59812	100nF +80/-20% 50V
2708	2238 586 59812	100nF +80/-20% 50V
2709	5322 126 11583	10nF 10% 50V
2710	4822 124 40433	47uF 20% 25V
2711	2238 586 59812	100nF +80/-20% 50V
2713	5322 126 11583	10nF 10% 50V
2714	2238 586 59812	100nF +80/-20% 50V
2715	3198 028 44790	47uF 20% 35V
2716	4822 126 14549	33nF 16V
2717	4822 124 12233	47uF 20% 25V
2719	4822 122 33761	22pF 5% 50V
2720	3198 028 41090	10uF 20% 35V
2721	2238 586 59812	100nF +80/-20% 50V
2722	2020 552 96305	4,7uF +80/-20% 10V
2724	3198 028 41090	10uF 20% 35V
2725	2238 916 15641	22nF 10% 25V
2726	4822 126 14238	2,2nF 50V
2732	2238 586 59812	100nF +80/-20% 50V
2733	2238 586 59812	100nF +80/-20% 50V
2800	2020 552 94427	100pF 5% 50V
2900	2020 552 94427	100pF 5% 50V

RESISTORS

3700	4822 051 30272	2k7 5% 0,062W
3701	4822 051 30272	2k7 5% 0,062W
3702	4822 051 30102	1k 5% 0,062W
3703	4822 051 30471	470R 5% 0,062W
3704	4822 051 30272	2k7 5% 0,062W
3705	4822 051 30339	33R 5% 0,062W
3706	4822 051 30339	33R 5% 0,062W
3707	4822 051 30339	33R 5% 0,062W
3708	4822 051 30339	33R 5% 0,062W
3709	4822 051 30102	1k 5% 0,062W

3710	4822 117 12925	47k 1% 0,063W
3711	4822 051 30684	680k 5% 0,062W
3712	4822 117 11152	4R7 5%
3713	4822 117 10837	100k 1% 0,1W
3714	4822 051 30103	10k 5% 0,062W
3715	4822 051 30103	10k 5% 0,062W
3716	4822 051 30103	10k 5% 0,062W
3717	4822 051 30101	100R 5% 0,062W
3718	4822 051 30101	100R 5% 0,062W
3719	4822 051 30103	10k 5% 0,062W
3720	4822 051 30101	100R 5% 0,062W
3721	4822 051 30472	4k7 5% 0,062W
3722	4822 051 30103	10k 5% 0,062W
3723	4822 051 30472	4k7 5% 0,062W
3724	4822 051 30103	10k 5% 0,062W
3725	4822 051 30472	4k7 5% 0,062W
3726	4822 051 30472	4k7 5% 0,062W
3727	4822 051 30331	330R 5% 0,062W
3728	4822 051 30331	330R 5% 0,062W
3729	4822 051 30472	4k7 5% 0,062W
3730	4822 051 30472	4k7 5% 0,062W
3731	4822 051 30101	100R 5% 0,062W
3732	4822 051 30471	470R 5% 0,062W
3733	4822 051 30471	470R 5% 0,062W
3734	4822 051 30472	4k7 5% 0,062W
3735	4822 117 11817	1k2 1% 1/16W
3736	4822 051 30103	10k 5% 0,062W
3737	4822 051 30472	4k7 5% 0,062W
3738	4822 051 30103	10k 5% 0,062W
3739	4822 051 30103	10k 5% 0,062W
3740	4822 117 12925	47k 1% 0,063W
3741	4822 051 30472	4k7 5% 0,062W
3742	4822 051 30472	4k7 5% 0,062W
3743	4822 051 30472	4k7 5% 0,062W
3744	4822 051 30102	1k 5% 0,062W
3747	4822 051 30472	4k7 5% 0,062W
3750	4822 051 30102	1k 5% 0,062W
3751	4822 051 30472	4k7 5% 0,062W
3802	4822 051 30391	390R 5% 0,062W
3803	4822 051 30271	270R 5% 0,062W
3804	4822 051 30221	220R 5% 0,062W
3805	4822 051 30151	150R 5% 0,062W
3900	4822 051 30123	12k 5% 0,062W
3901	4822 051 10102	1k 2% 0,25W
4700	4822 051 30008	0R Jumper 0603
4701	4822 051 30008	0R Jumper 0603
4705	4822 051 30008	0R Jumper 0603
4706	4822 051 30008	0R Jumper 0603
4901	4822 051 20008	0R Jumper 0805

DIODES

6700	4822 130 30621	1N4148
6701	3198 020 55680	PDZ5.6B

**ELECTRICAL PARTS LIST - FRONT BOARD**

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**DIODES**

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6702	9340 548 54115	PDZ6.2B
6703	4822 130 30621	1N4148
6704	4822 130 30621	1N4148
6705	4822 130 34173	BZX79-C5V6
6706	4822 130 34173	BZX79-C5V6
6707	4822 130 34173	BZX79-C5V6
6708	3198 020 55680	PDZ5.6B
6709	4822 130 11397	BAS316
6710	4822 130 11397	BAS316
6711	4822 130 11397	BAS316
6712	4822 130 11397	BAS316
6713	4822 130 11397	BAS316
6714	4822 130 11397	BAS316
6715	4822 130 11397	BAS316
6716	4822 130 11397	BAS316
6717	4822 130 11397	BAS316
6718	4822 130 11397	BAS316
6719	4822 130 11397	BAS316
6900	9322 179 76676	LED VS LTL-816EELC

**TRANSISTORS & INTEGRATED CIRCUITS**

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7700	3139 110 53731	TMP87C809BM - 'LX3900S53731'
7701	5322 130 60159	BC847B
7702	9322 202 26671	IC SM UPD16311GC-AB6
7703	4822 130 60373	BC857B
7704	4822 130 60373	BC857B
7705	4822 130 60373	BC857B
7706	4822 130 42804	BC817-25
7707	4822 130 60373	BC857B
7708	4822 130 60373	BC857B
7709	4822 130 60373	BC857B
7710	5322 130 60159	BC847B
7711	5322 130 60159	BC847B
7712	4822 130 60373	BC857B
7713	9322 185 95667	IR RECEIVERTSOP4836ZC1
7900	5322 130 60159	BC847B

Note : Only the parts mentioned in this list are normal  
service spare parts.

**BRIEF INTRODUCTION OF THE AV BOARD**

The AV Board consists of the following features :

- a. IC CS42418  
IC CS42418 which includes functions such as ADC and DAC, sound control, volume control and muting function.  
Sound features such as DSC are controllable via I<sup>2</sup>C Bus from the SD6.1 module.

The IC caters for 2 channels analog input via a 4 stereo channels MUX HEF4052BT.  
The MUX multiplexed between Aux In, TV In, Tuner and Mic In.  
Input networks are included to provide appropriate attenuation for various sources.

- b. SCART (for /01 and /05 versions only)  
SCART input/output for audio/video (output only) connection to TV.

- c. LINE OUT  
Line out with cinch socket for connection to external amplifier.

- d. TV IN  
TV In cinch socket for connection to external TV input.

- e. Y/Pb/Pr (not for /01 and /05 versions)  
Y/Pb/Pr component video output with cinch socket for connection to TV.  
Progressive Y/Pb/Pr is selected through RC.

- f. IC M62320FP  
IC M62320FP which served as additional I/O port.

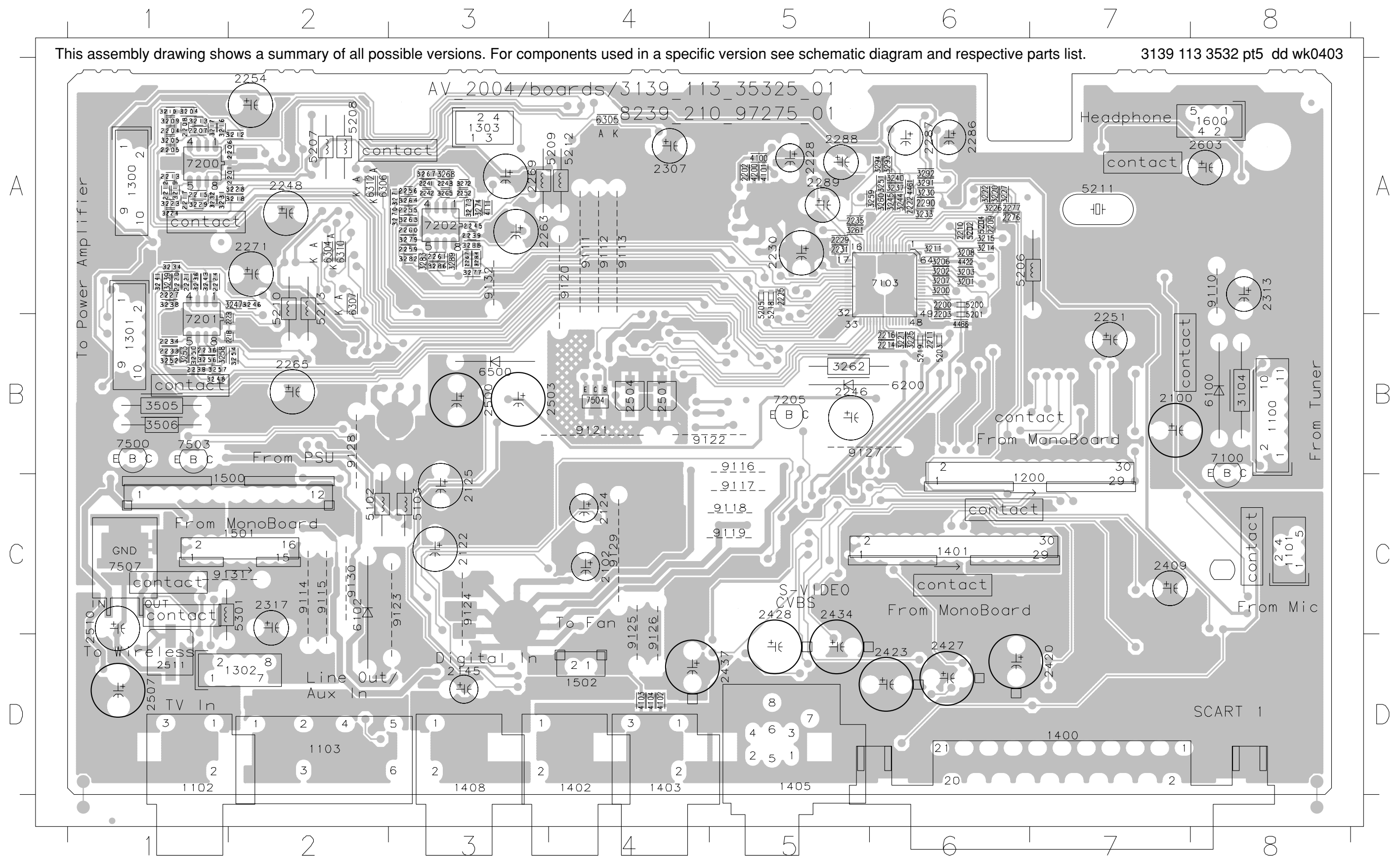
- g. DIGITAL IN  
Digital In with cinch socket for connection to Digital Out of other audio equipments.  
The Digital In source is fed to the SD6.1 module for audio decoding.

**AV BOARD**

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## AV BOARD - TOP VIEW LAYOUT



AV BOARD - TOP VIEW LAYOUT (MAPPING)

1100	B8	1600	A8	2211	B6	2231	A5	2259	A3	2409	C7	3202	A6	3220	A6	3239	A1	3260	A6	3286	A3	4466	B6	5219	B6	7500	B1	9124	C3
1101	C8	2100	B7	2212	A1	2233	B1	2260	A3	2420	D7	3203	A6	3221	B6	3240	A6	3261	A5	3288	A3	5102	C3	5301	C1	7503	B1	9125	C4
1102	D1	2102	C4	2213	A1	2234	B1	2261	A3	2423	D6	3204	A1	3222	A6	3241	A1	3262	B5	3289	A3	5103	C3	6100	B8	7504	B4	9126	C4
1103	D2	2122	C3	2214	B6	2235	A5	2263	A3	2427	D6	3205	A1	3223	A1	3243	A1	3263	A3	3291	A6	5200	A6	6102	C2	7507	C1	9127	B5
1200	C6	2124	C4	2215	A1	2236	B1	2265	B2	2428	C5	3206	A6	3224	A1	3244	A6	3264	A3	3292	A6	5201	B6	6200	B5	9110	A8	9128	B2
1300	A1	2125	C3	2216	B6	2238	B1	2267	A3	2434	C5	3207	A6	3225	B6	3245	A6	3265	A3	3293	A6	5202	A6	6304	A2	9111	A4	9129	C4
1301	B1	2145	D3	2217	A1	2239	A3	2269	A3	2437	D5	3208	A6	3226	A6	3246	A2	3267	A3	3294	A6	5203	B6	6305	A4	9112	A4	9130	C2
1302	D2	2200	A6	2218	B2	2241	A3	2271	A2	2500	B3	3209	A1	3227	A6	3247	A2	3268	A3	3505	B1	5204	A6	6306	A2	9113	A4	9131	C2
1303	A3	2201	A2	2220	A1	2242	A3	2276	A6	2501	B4	3210	A1	3228	A2	3248	B1	3270	A3	3506	B1	5205	A5	6307	A2	9114	C2	9132	A3
1400	D7	2202	A5	2221	A1	2243	A3	2277	A6	2503	B4	3211	A6	3229	A1	3250	B1	3271	A3	4100	A5	5206	A6	6310	A2	9115	C2		
1401	C6	2203	B6	2222	A6	2245	A3	2286	A6	2504	B4	3212	A2	3230	A6	3251	A6	3272	A3	4101	A5	5207	A2	6312	A2	9116	C5		
1402	D4	2204	A1	2223	B2	2246	B5	2287	A6	2507	D1	3213	A1	3231	A1	3252	B1	3273	A3	4102	D4	5208	A2	6500	B3	9117	C5		
1403	D4	2205	A1	2224	A1	2248	A2	2288	A5	2510	C1	3214	A6	3232	A1	3253	B1	3274	A3	4103	D4	5209	A3	7100	B8	9118	C5		
1405	D5	2206	A2	2225	A5	2251	B7	2289	A5	2511	D1	3215	A6	3233	A6	3254	B2	3277	A3	4104	D4	5210	A2	7103	A6	9119	C5		
1408	D3	2207	A1	2227	A1	2252	A3	2290	A6	2603	A8	3216	A1	3234	A1	3256	B1	3279	A3	4111	A3	5211	A7	7200	A1	9120	A4		
1500	C2	2208	A1	2228	A5	2254	A2	2307	A4	3104	B8	3217	A1	3236	A1	3257	B1	3282	A3	4200	A5	5212	A3	7201	B1	9121	B4		
1501	C2	2209	A6	2229	A5	2255	A3	2313	A8	3200	A6	3218	A2	3237	A6	3258	B1	3283	A3	4422	A6	5213	A2	7202	A3	9122	B4		
1502	D4	2210	A6	2230	A5	2256	A3	2317	C2	3201	A6	3219	A1	3238	A1	3259	A6	3284	A3	4461	A6	5218	A5	7205	B5	9123	C3		

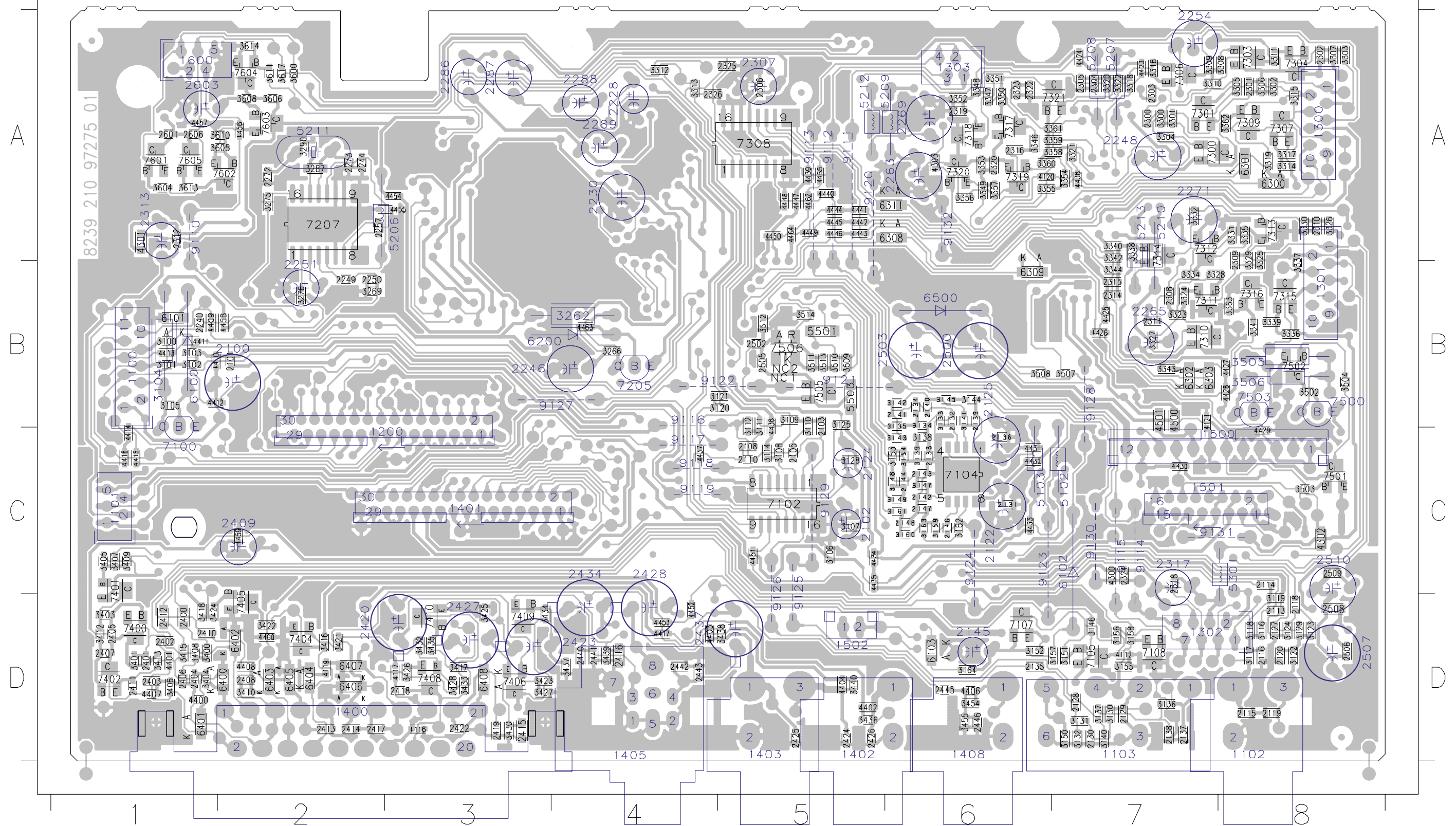
AV BOARD - BOTTOM VIEW LAYOUT (MAPPING)

2101	B2	2143	C6	2319	A6	2425	D5	3116	D8	3146	D7	3303	A8	3331	A8	3361	A7	3432	D3	3611	A2	4415	C1	4448	A5	6309	B6	7313	A8
2103	B5	2144	C6	2320	A6	2426	D5	3117	D8	3147	C6	3304	A7	3332	A7	3362	A8	3433	D3	3613	A1	4416	C1	4449	A5	6311	A6	7314	A7
2105	C5	2146	C6	2322	A6	2440	D4	3118	D8	3148	C6	3305	A8	3334	B7	3363	B8	3434	D3	3614	A2	4417	D4	4450	A5	6400	D2	7315	B8
2108	C5	2147	C6	2323	A6	2441	D4	3119	D8	3149	C6	3306	A8	3335	A8	3400	D1	3435	D3	3617	A2	4423	A7	4451	C5	6401	D1	7316	B8
2110	C5	2148	C6	2324	C7	2442	D4	3120	B5	3150	D7	3307	A8	3336	B8	3401	D1	3436	D5	4112	D7	4424	A7	4452	D4	6402	D2	7317	A6
2113	D8	2240	B1	2325	A5	2443	D4	3121	B5	3151	D7	3308	A8	3337	B8	3403	D1	3437	D4	4116	D3	4425	B7	4453	D4	6403	D2	7318	A6
2114	C8	2244	A2	2326	A4	2445	D6	3122	D8	3152	D6	3309	A7	3338	A7	3404	D1	3438	D5	4117	D3	4426	B7	4454	A3	6404	D2	7319	A6
2115	D8	2249	B2	2400	D1	2446	D6	3123	D8	3153	C6	3310	A7	3339	B8	3405	C1	3439	D4	4119	D2	4427	B8	4455	A3	6405	D2	7320	A6
2116	D8	2250	B2	2401	D1	2502	B5	3124	D8	3154	C6	3311	A8	3340	A7	3406	D1	3440	D5	4120	A6	4428	B8	4456	A2	6406	D2	7321	A7
2118	D8	2257	A2	2402	D1	2505	B5	3125	B5	3155	D7	3312	A4	3341	B8	3407	C1	3454	D6	4121	B7	4429	C8	4457	A1	6407	D2	7400	D1
2119	D8	2272	A2	2403	D1	2506	D8	3128	C5	3156	D7	3313	A4	3342	A7	3408	D1	3455	D6	4300	C7	4430	C7	4458	B2	6408	D3	7401	C1
2120	D8	2273	A2	2404	D1	2508	D8	3129	D8	3157	D7	3314	A8	3343	B7	3409	C1	3502	B8	4301	A1	4431	C6	4459	C2	7102	C5	7402	D1
2127	D8	2300	A7	2405	D1	2509	C8	3130	D7	3158	D7	3315	A8	3344	B7	3410	D2	3503	C8	4302	C8	4432	C6	4460	D2	7104	C6	7404	D2
2128	D7	2301	A8	2406	D1	2601	A1	3131	D7	3159	C6	3316	A7	3346	A6	3412	D1	3504	B8	4303	A6	4433	C6	4462	A5	7105	D7	7405	D2
2129	D7	2302	A8	2407	D1	2606	A1	3132	D7	3160	C6	3317	A8	3347	A6	3413	D1	3507	B7	4400	D1	4434	C5	4463	B4	7107	D6	7406	D3
2130	D7	2303	A7	2408	D2	3100	B1	3133	B6	3161	C6	3318	A7	3348	A6	3415	D1	3508	B6	4401	D1	4435	C5	4464	A5	7108	D7	7408	D3
2131	C6	2304	A7	2410	D1	3101	B1	3134	B6	3162	C6	3319	A8	3349	A6	3416	D2	3509	B5	4402	D5	4436	B5	4465	A5	7207	A2	7409	D3
2132	B6	2305	A7	2411	D1	3102	B1	3135	B6	3163	C6	3320	A7	3350	A6	3417	D3	3510	B5	4403	D4	4437	C4	4500	B7	7300	A7	7410	D3
2133	C6	2306	A5	2412	D1	3103	B1	3136	D7	3164	D6	3321	A7	3351	A6	3418	D1	3511	B5	4404	D5	4438	A7	4501	B7	7301	A7	7501	C8
2134	B6	2308	B7	2413	D2	3105	B1	3137	D7	3266	B4	3322	A7	3352	A6	3421	D2	3512	B5	4406	D6	4439	A5	5501	B5	7303	A8	7502	B8
2135	D6	2309	A8	2414	D2	3106	C5	3138	C6	3269	B2	3323	B7	3353	A6	3422	D2	3513	B5	4407	D1	4440	A5	5503	B5	7304	A8	7505	B5
2136	C6	2310	A8	2415	D3	3107	C5	3139	C6	3275	A2	3324	B7	3354	A7	3423	D3	3514	B5	4408	D2	4441	A5	6101	B1	7306	A7	7506	B5
2137	D7	2311	B7	2416	D4	3108	C5	3140	D7	3276	B2	3325	A8	3355	A6	3424	D1	3600	A2	4409	B1	4442	A5	6103	D6	7307	A8	7601	A1
2138	D7	2312	A1	2417	D2	3109	B5	3141	B6	3287	A2	3326	A8	3356	A6	3425	D3	3604	A1	4410	B1	4443	A5	6300	A8	7308	A5	7602	A2
2139	B6	2314	B7	2418	D3	3110	B5	3142	B6	3290	A2	3327	B7	3357	A6	3426	D3	3605	A2	4411	B1	4444	A5	6301	A8	7309	A8	7603	A2
2140	B6	2315	B7	2419	D3	3111	B5	3143	C6	3300	A7	3328	B7	3358	A7	3427	D3	3606	A2	4412	B1	4445	A5	6302	B7	7310	B7	7604	A2
2141	B6	2316	A6	2422	D3	3112	B5	3144	B6	3301	A7	3329	A8	3359	A7	3428	D3	3608	A2	4413	B1	4446	A5	6303	B7	7311	B7	7605	A1
2142	C6	2318	C7	2424	D5	3114	C5	3145	B6	3302	A8	3330	A8	3360	A6	3430	D3	3610	A2	4414	C1	4447	A5	6308	A6	7312	A7		
1100	B1	1302	D7	1408	D6	2122	C6	2248	A7	2286	A3	2409	C2	2500	B6	3505	B8	5209	A6	6102	C7	9110	A1	9117	C4	9124	C6	9131	C7
1101	C1	1303	A6	1500	C7	2124	C5	2251	B2	2287	A3	2420	D2	2503	B5	3506	B8	5210	A7	6200	B4	9111	A5	9118	C4	9125	C5	9132	A6
1102	D8	1400	D2	1501	C7	2125	C6	2254	A7	2288	A4	2423	D3	2507	D8	5102	C6	5211	A2	6500	B6	9112	A5	9119	C4	9126	C5		
1103	D7	1401	C3	1502	D5	2145	D6	2263	A6	2289	A4	2427	D3	2510	C8	5103	C6	5212	A6	7100	B1	9113	A5	9120	A5	9127	B4		
1200	C3	1402	D5	1600	A1	2228	A4	2265	B7	2307	A5	2428	C4	2603	A1	5206	A3	5213	A7	7205	B4	9114	C7	9121	B5	9128	B7		
1300	A8	1403	D5	2100	B2	2230	A4	2269	A6	2313	A1	2434	C4	3104	B1	5207	A7	5301	C8	7500	B8	9115	C7	9122	B4	9129	C5		
1301	B8	1405	D4	2102	C5	2246	B4	2271	A7	2317	C7	2437	D4	3262	B4	5208	A7	6100	B1	7503	B8	9116	C4	9123	C6	9130	C7		



## AV BOARD - BOTTOM VIEW LAYOUT

3139 113 3532 pt5 dd wk0403

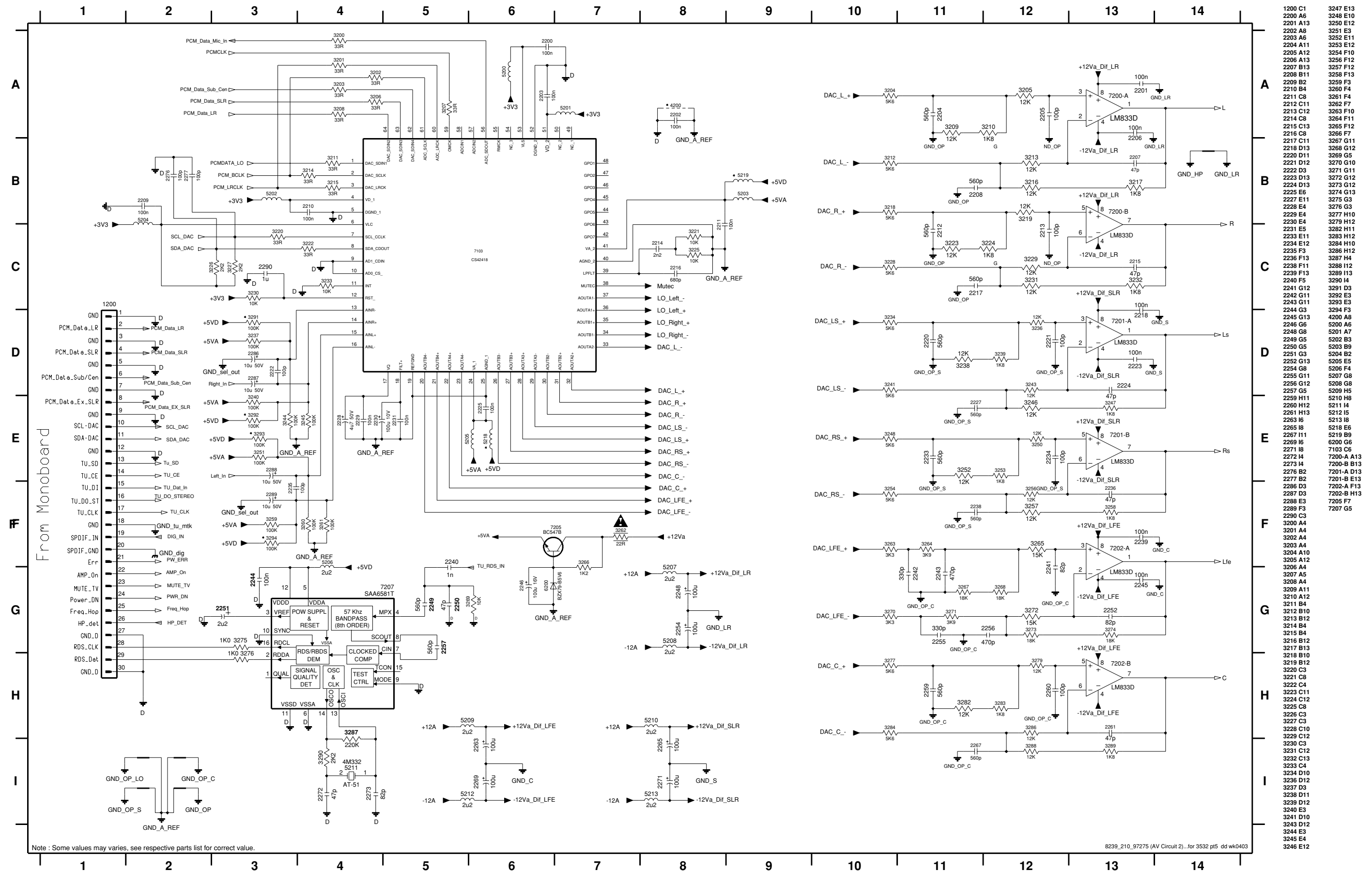


The diagram illustrates the internal circuitry of an AV receiver, organized into several functional blocks and sections:

- From Tuner:** Features an FE-BT-VK-N 1100 tuner IC with pins for CL, DO/Stereo, Data\_in, LCH, CE, Rch, RDS\_Mux, +9V1, SD, NC, and GND. It includes a BC547B transistor and various resistors (3100, 3101, 3102, 3103, 3104, 3105, 3106, 3107, 3108, 3109, 3110, 3111, 3112, 3113, 3114, 3115, 3116, 3117, 3118, 3119, 3120, 3121, 3122, 3123, 3124, 3125, 3126, 3127, 3128, 3129, 3130, 3131, 3132, 3133, 3134, 3135, 3136, 3137, 3138, 3139, 3140, 3141, 3142, 3143, 3144, 3145, 3146, 3147, 3148, 3149, 3150, 3151, 3152, 3153, 3154, 3155, 3156, 3157, 3158, 3159, 3160, 3161, 3162, 3163, 3164, 3165, 3166, 3167, 3168, 3169, 3170, 3171, 3172, 3173, 3174, 3175, 3176, 3177, 3178, 3179, 3180, 3181, 3182, 3183, 3184, 3185, 3186, 3187, 3188, 3189, 3190, 3191, 3192, 3193, 3194, 3195, 3196, 3197, 3198, 3199, 3200, 3201, 3202, 3203, 3204, 3205, 3206, 3207, 3208, 3209, 3210, 3211, 3212, 3213, 3214, 3215, 3216, 3217, 3218, 3219, 3220, 3221, 3222, 3223, 3224, 3225, 3226, 3227, 3228, 3229, 3230, 3231, 3232, 3233, 3234, 3235, 3236, 3237, 3238, 3239, 3240, 3241, 3242, 3243, 3244, 3245, 3246, 3247, 3248, 3249, 3250, 3251, 3252, 3253, 3254, 3255, 3256, 3257, 3258, 3259, 3260, 3261, 3262, 3263, 3264, 3265, 3266, 3267, 3268, 3269, 3270, 3271, 3272, 3273, 3274, 3275, 3276, 3277, 3278, 3279, 3280, 3281, 3282, 3283, 3284, 3285, 3286, 3287, 3288, 3289, 3290, 3291, 3292, 3293, 3294, 3295, 3296, 3297, 3298, 3299, 3300, 3301, 3302, 3303, 3304, 3305, 3306, 3307, 3308, 3309, 3310, 3311, 3312, 3313, 3314, 3315, 3316, 3317, 3318, 3319, 3320, 3321, 3322, 3323, 3324, 3325, 3326, 3327, 3328, 3329, 3330, 3331, 3332, 3333, 3334, 3335, 3336, 3337, 3338, 3339, 3340, 3341, 3342, 3343, 3344, 3345, 3346, 3347, 3348, 3349, 3350, 3351, 3352, 3353, 3354, 3355, 3356, 3357, 3358, 3359, 3360, 3361, 3362, 3363, 3364, 3365, 3366, 3367, 3368, 3369, 3370, 3371, 3372, 3373, 3374, 3375, 3376, 3377, 3378, 3379, 3380, 3381, 3382, 3383, 3384, 3385, 3386, 3387, 3388, 3389, 3390, 3391, 3392, 3393, 3394, 3395, 3396, 3397, 3398, 3399, 3400, 3401, 3402, 3403, 3404, 3405, 3406, 3407, 3408, 3409, 3410, 3411, 3412, 3413, 3414, 3415, 3416, 3417, 3418, 3419, 3420, 3421, 3422, 3423, 3424, 3425, 3426, 3427, 3428, 3429, 3430, 3431, 3432, 3433, 3434, 3435, 3436, 3437, 3438, 3439, 3440, 3441, 3442, 3443, 3444, 3445, 3446, 3447, 3448, 3449, 3450, 3451, 3452, 3453, 3454, 3455, 3456, 3457, 3458, 3459, 3460, 3461, 3462, 3463, 3464, 3465, 3466, 3467, 3468, 3469, 3470, 3471, 3472, 3473, 3474, 3475, 3476, 3477, 3478, 3479, 3480, 3481, 3482, 3483, 3484, 3485, 3486, 3487, 3488, 3489, 3490, 3491, 3492, 3493, 3494, 3495, 3496, 3497, 3498, 3499, 3500, 3501, 3502, 3503, 3504, 3505, 3506, 3507, 3508, 3509, 3510, 3511, 3512, 3513, 3514, 3515, 3516, 3517, 3518, 3519, 3520, 3521, 3522, 3523, 3524, 3525, 3526, 3527, 3528, 3529, 3530, 3531, 3532, 3533, 3534, 3535, 3536, 3537, 3538, 3539, 3540, 3541, 3542, 3543, 3544, 3545, 3546, 3547, 3548, 3549, 3550, 3551, 3552, 3553, 3554, 3555, 3556, 3557, 3558, 3559, 3560, 3561, 3562, 3563, 3564, 3565, 3566, 3567, 3568, 3569, 3570, 3571, 3572, 3573, 3574, 3575, 3576, 3577, 3578, 3579, 3580, 3581, 3582, 3583, 3584, 3585, 3586, 3587, 3588, 3589, 3590, 3591, 3592, 3593, 3594, 3595, 3596, 3597, 3598, 3599, 3600, 3601, 3602, 3603, 3604, 3605, 3606, 3607, 3608, 3609, 3610, 3611, 3612, 3613, 3614, 3615, 3616, 3617, 3618, 3619, 3620, 3621, 3622, 3623, 3624, 3625, 3626, 3627, 3628, 3629, 3630, 3631, 3632, 3633, 3634, 3635, 3636, 3637, 3638, 3639, 3640, 3641, 3642, 3643, 3644, 3645, 3646, 3647, 3648, 3649, 3650, 3651, 3652, 3653, 3654, 3655, 3656, 3657, 3658, 3659, 3660, 3661, 3662, 3663, 3664, 3665, 3666, 3667, 3668, 3669, 3670, 3671, 3672, 3673, 3674, 3675, 3676, 3677, 3678, 3679, 3680, 3681, 3682, 3683, 3684, 3685, 3686, 3687, 3688, 3689, 3690, 3691, 3692, 3693, 3694, 3695, 3696, 3697, 3698, 3699, 3700, 3701, 3702, 3703, 3704, 3705, 3706, 3707, 3708, 3709, 3710, 3711, 3712, 3713, 3714, 3715, 3716, 3717, 3718, 3719, 3720, 3721, 3722, 3723, 3724, 3725, 3726, 3727, 3728, 3729, 3730, 3731, 3732, 3733, 3734, 3735, 3736, 3737, 3738, 3739, 3740, 3741, 3742, 3743, 3744, 3745, 3746, 3747, 3748, 3749, 3750, 375

1100 A2	7100 B3
1101 C2	7102 C7
1102 E2	7104-A G9
1103 H3	
2100 C3	7105 I4
2101 C3	7107 H5
2102 C7	7108 I4
2103 C5	
2105 C5	
2108 D5	
2110 D5	
2113 E2	
2114 E5	
2115 E3	
2116 E4	
2118 E5	
2119 F3	
2120 F4	
2122 E11	
2124 F7	
2125 F11	
2127 F3	
2128 G6	
2129 G4	
2130 G5	
2131 G8	
2132 G9	
2133 G11	
2134 G11	
2135 G6	
2136 G8	
2137 H4	
2138 H5	
2139 H9	
2140 H10	
2141 H11	
2142 I9	
2143 I11	
2144 I11	
2145 I5	
2146 I9	
2147 I10	
2148 I11	
3100 A3	
3101 A3	
3102 A4	
3103 A4	
3104 B4	
3105 B4	
3106 B6	
3107 C6	
3108 D9	
3109 C4	
3110 C4	
3111 D4	
3112 D4	
3114 D8	
3116 D3	
3117 E3	
3118 E4	
3119 E4	
3120 E9	
3121 E8	
3122 E3	
3123 E4	
3124 F4	
3125 F7	
3128 F7	
3129 F3	
3130 G5	
3131 G5	
3132 G6	
3133 G10	
3134 G11	
3135 G11	
3136 G5	
3137 G5	
3138 G10	
3139 G10	
3140 H6	
3141 H10	
3142 H11	
3143 H11	
3144 H9	
3145 H10	
3146 H5	
3147 H10	
3148 H11	
3149 H11	
3150 I4	
3151 H5	
3152 I6	
3153 I10	
3154 I10	
3155 I4	
3156 I5	
3157 I6	
3158 I5	
3159 I10	
3160 I11	
3161 I11	
3162 I9	
3163 I10	
3164 I6	
4100 B12	
4101 B12	
4102 C11	
4103 C11	
4104 C11	
5102 E11	
5103 F11	
6100 C3	
6101 C4	
6102 I7	
6103 I7	

## AV BOARD - CIRCUIT DIAGRAM (PART 2)





Note : Some values may varies, see respective parts list for correct value.

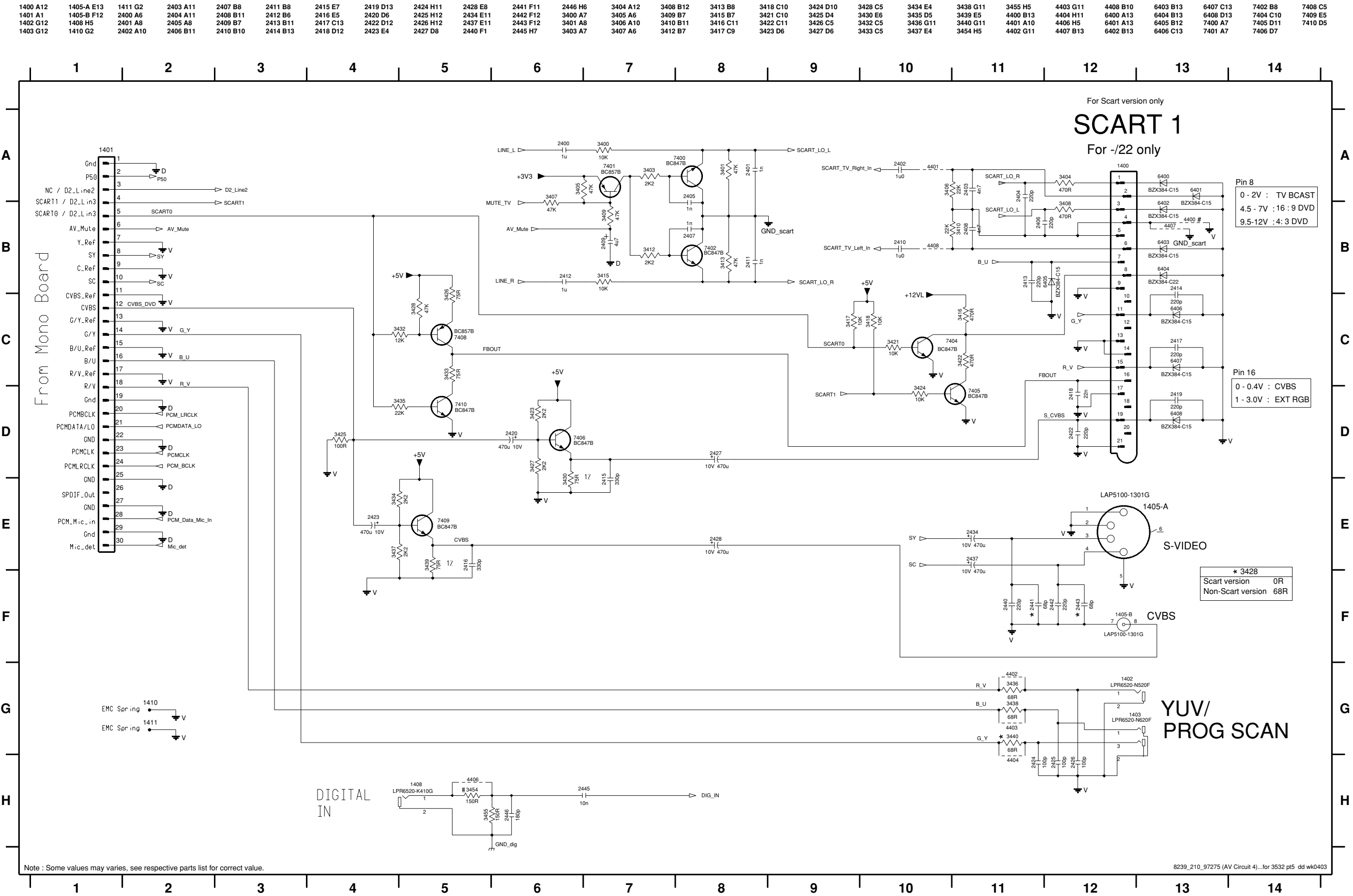
8239\_210\_97275 (AV Circuit 3)...for 3532 pt5 dd wk0403

Note : Some values may varies, see respective parts list for correct value.

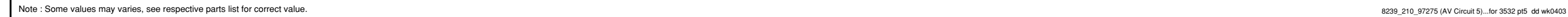
8239\_210\_97275 (AV Circuit 3)...for 3532 pt5 dd wk0403

2300 A12	7306 B7
1301 D12	7307 B9
1302 F2	7308 A3
1303 G3	7309 C9
2300 A6	7310 D7
2301 A9	7311 D9
2302 A9	7312 E7
2303 B6	7313 E9
2304 C8	7314 E8
2305 C8	7315 E9
2306 E2	7316 F9
2307 B2	7317 G7
2308 B6	7318 G9
2309 D9	7319 H7
2310 E9	7320 H9
2311 E6	7321 H7
2312 E3	
2313 E3	
2314 F8	
2315 F8	
2316 G7	
2317 G4	
2318 G4	
2319 G9	
2320 H9	
2322 I8	
2323 I8	
2324 H2	
2325 A2	
2326 A2	
3300 A7	
3301 A8	
3302 A10	
3303 A10	
3304 A8	
3305 A8	
3306 A10	
3307 A10	
3308 A8	
3309 A8	
3310 B7	
3311 B8	
3312 B2	
3313 B2	
3314 B9	
3315 B9	
3316 B7	
3317 C9	
3318 C7	
3319 C9	
3320 C7	
3321 C8	
3322 C7	
3323 D7	
3324 D8	
3325 D10	
3326 D10	
3327 D8	
3328 D8	
3329 D10	
3330 D10	
3331 E8	
3332 E8	
3334 E7	
3335 E8	
3336 F9	
3337 F9	
3338 F7	
3339 F9	
3340 F7	
3341 F9	
3342 F7	
3343 F9	
3344 F7	
3346 G7	
3347 G8	
3348 G11	
3349 G11	
3350 G8	
3351 G8	
3352 G10	
3353 G10	
3354 H8	
3355 H8	
3356 H7	
3357 H9	
3358 I7	
3359 I7	
3360 I7	
3361 I7	
3362 C9	
3363 F9	
3364 F2	
4301 E3	
4302 G5	
4303 H7	
5301 G4	
6300 C8	
6301 C8	
6302 F8	
6303 F8	
6304 C7	
6305 C7	
6306 C7	
6307 F7	
6308 F7	
6309 F7	
6310 I7	
6311 I7	
6312 I7	
7300 A7	
7301 A9	
7303 A7	
7304 A9	

AV BOARD - CIRCUIT DIAGRAM (PART 4)

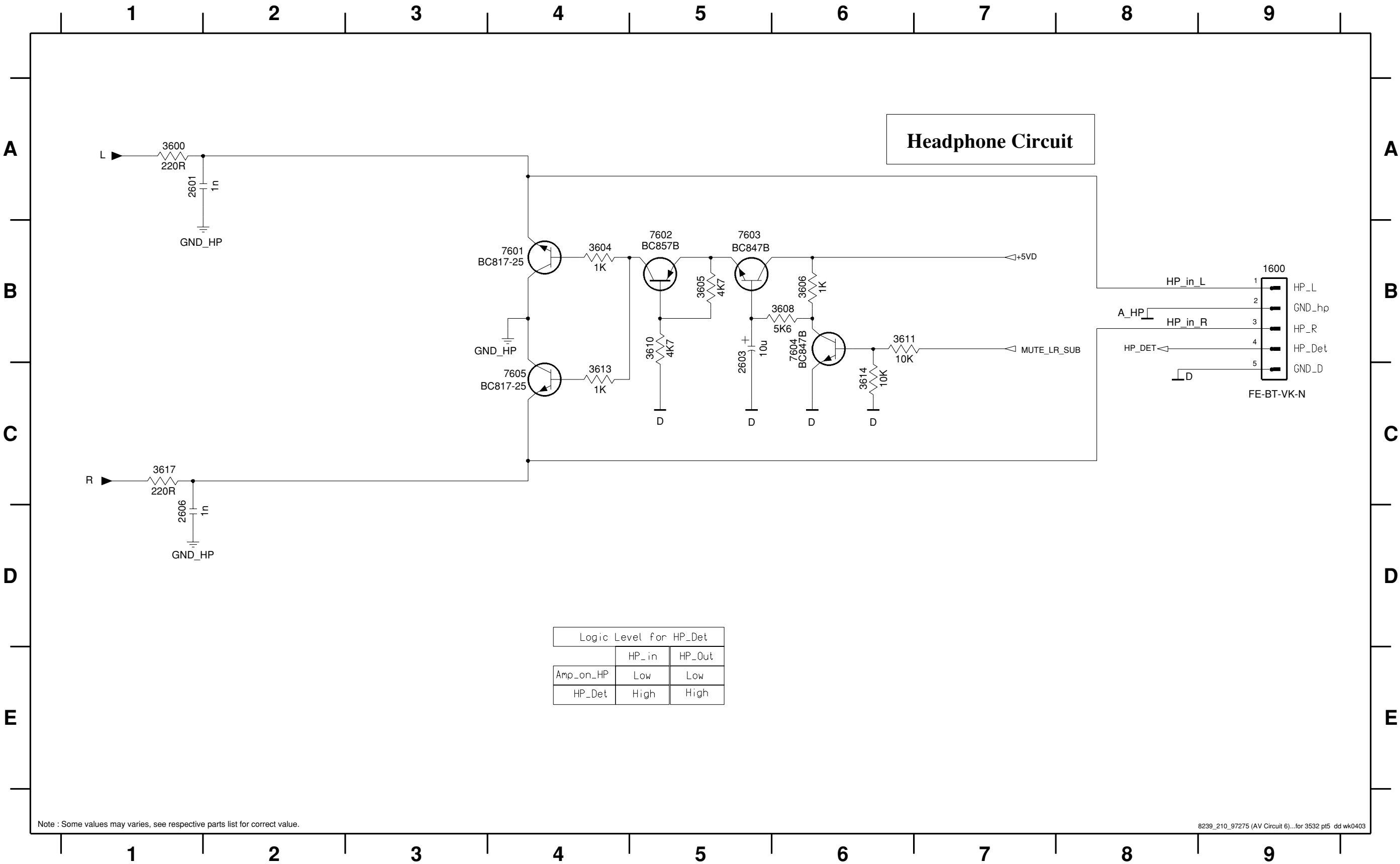


1500 A1	1502 D1	2501 D8	2503 D2	2505 E6	2507 E2	2509 E3	2511 E3	3503 B5	3505 C2	3507 C3	3509 D7	3511 E7	3513 E7	4500 A3	5501 C6	6500 C3	7501 C4	7503 C3	7505 D7	7507 D2
1501 A8	2500 D3	2502 D8	2504 E6	2506 E1	2508 E2	2510 E3	3502 B3	3504 C4	3506 C3	3508 C3	3510 D6	3512 E7	3514 E7	4501 B3	5503 C9	7500 C3	7502 C4	7504 C7	7506 D7	



AV BOARD - CIRCUIT DIAGRAM (PART 6)

1600 B9    2601 A1    2603 B5    2606 D1    3600 A1    3604 B4    3605 B5    3606 B6    3608 B6    3610 B5    3611 B6    3613 C4    3614 C6    3617 C1    7601 B4    7602 B5    7603 B5    7604 B6    7605 C4



**ELECTRICAL PARTS LIST - AV BOARD****MISCELLANEOUS**

1100	4822 267 11039	Flex Connector 11P
1101	4822 265 31205	Flex Connector 5P
1102	2422 026 04754	Soc. Cinch 2P (TV in) /69/75/93
1103	2422 026 05462	Socket Cinch 4P(Aux-in/Line-out)
1200	2422 025 17433	Flex Connector 30P
1300	4822 267 10729	Flex Connector 10P
1301	4822 267 10729	Flex Connector 10P
1400	2422 025 12352	Socket Scart 21P /01/05
1401	2422 025 17433	Flex Connector 30P
1402	2422 026 05531	Soc. Cinch 1P (Pr) /69/75/93
1403	2422 026 05529	Soc. Cinch 2P (Y/Pb) /69/75/93
1405	2422 033 00468	Socket 2P (S-Video/CVBS)
1408	2422 026 05427	Socket Cinch 1P (Digital in)
1410	3139 241 21102	EMC Spring
1411	3139 241 21102	EMC Spring
1501	2422 025 16525	Flex Connector 16P
1600	4822 265 31205	Flex Connector 5P

**CAPACITORS**

2100	4822 124 41643	100uF 20% 16V
2101	5322 126 11578	1nF 10% 50V
2102	4822 124 22651	1uF 20% 50V
2103	3198 017 41050	1uF 10V
2105	4822 126 13883	220pF 5% 50V
2108	3198 017 41050	1uF 10V
2110	4822 126 13883	220pF 5% 50V
2113	4822 126 14221	68pF 5% 50V /01/05
2114	3198 017 41050	1uF 10V
2115	4822 126 14221	68pF 5% 50V /69/75/93
2116	2020 552 94427	100pF 5% 50V
2118	3198 017 41050	1uF 10V
2119	4822 126 14221	68pF 5% 50V /69/75/93
2120	2020 552 94427	100pF 5% 50V
2122	4822 124 23052	100uF 20% 16V
2124	4822 124 22651	1uF 20% 50V
2125	4822 124 23052	100uF 20% 16V
2127	4822 126 14221	68pF 5% 50V /01/05
2128	3198 017 41050	1uF 10V
2129	4822 126 14221	68pF 5% 50V
2130	2020 552 94427	100pF 5% 50V
2131	2238 586 59812	100nF +80/-20% 50V
2132	4822 126 14226	82pF 5% 50V
2133	4822 126 13881	470pF 5% 50V
2134	4822 126 14241	330pF 50V
2135	3198 017 41050	1uF 10V
2136	2238 586 59812	100nF +80/-20% 50V
2137	4822 126 14221	68pF 5% 50V
2138	2020 552 94427	100pF 5% 50V
2139	4822 126 11785	47pF 5% 50V
2140	4822 126 13881	470pF 5% 50V
2141	4822 126 14241	330pF 50V
2142	4822 126 14226	82pF 5% 50V
2143	4822 126 13881	470pF 5% 50V

2144	4822 126 14241	330pF 50V
2145	4822 124 22652	2,2uF 20% 50V
2146	4822 126 11785	47pF 5% 50V
2147	4822 126 13881	470pF 5% 50V
2148	4822 126 14241	330pF 50V
2200	2238 586 59812	100nF +80/-20% 50V
2201	2238 586 59812	100nF +80/-20% 50V
2202	2238 586 59812	100nF +80/-20% 50V
2203	2238 586 59812	100nF +80/-20% 50V
2204	4822 126 14249	560pF 10% 50V
2205	2020 552 94427	100pF 5% 50V
2206	2238 586 59812	100nF +80/-20% 50V
2207	4822 126 11785	47pF 5% 50V
2208	4822 126 14249	560pF 10% 50V
2209	2238 586 59812	100nF +80/-20% 50V
2210	2238 586 59812	100nF +80/-20% 50V
2211	2238 586 59812	100nF +80/-20% 50V
2212	4822 126 14249	560pF 10% 50V
2213	2020 552 94427	100pF 5% 50V
2214	4822 126 14238	2,2nF 50V
2215	4822 126 11785	47pF 5% 50V
2216	3198 016 36810	680pF 25V
2217	4822 126 14249	560pF 10% 50V
2218	2238 586 59812	100nF +80/-20% 50V
2220	4822 126 14249	560pF 10% 50V
2221	2020 552 94427	100pF 5% 50V
2222	2020 552 94427	100pF 5% 50V
2223	2238 586 59812	100nF +80/-20% 50V
2224	4822 126 11785	47pF 5% 50V
2225	2238 586 59812	100nF +80/-20% 50V
2227	4822 126 14249	560pF 10% 50V
2228	4822 124 40769	4,7uF 20% 100V
2229	2238 586 59812	100nF +80/-20% 50V
2230	3198 037 11010	100uF 20% 10V
2231	2238 586 59812	100nF +80/-20% 50V
2233	4822 126 14249	560pF 10% 50V
2234	2020 552 94427	100pF 5% 50V
2235	2020 552 94427	100pF 5% 50V
2236	4822 126 11785	47pF 5% 50V
2238	4822 126 14249	560pF 10% 50V
2239	2238 586 59812	100nF +80/-20% 50V
2240	3198 016 31020	1nF 25V
2241	4822 126 14226	82pF 5% 50V
2242	4822 126 14241	330pF 50V
2243	4822 126 13881	470pF 5% 50V
2244	2238 586 59812	100nF +80/-20% 50V
2245	2238 586 59812	100nF +80/-20% 50V
2246	4822 124 23052	100uF 20% 16V
2248	4822 124 23052	100uF 20% 16V
2249	4822 126 14249	560pF 10% 50V
2250	4822 126 11785	47pF 5% 50V
2251	4822 124 22652	2,2uF 20% 50V
2252	4822 126 14226	82pF 5% 50V

**ELECTRICAL PARTS LIST - AV BOARD**

2254	4822 124 23052	100uF 20% 16V
2255	4822 126 14241	330pF 50V
2256	4822 126 13881	470pF 5% 50V
2257	4822 126 14249	560pF 10% 50V
2259	4822 126 14249	560pF 10% 50V
2260	2020 552 94427	100pF 5% 50V
2261	4822 126 11785	47pF 5% 50V
2263	4822 124 23052	100uF 20% 16V
2265	4822 124 23052	100uF 20% 16V
2267	4822 126 14249	560pF 10% 50V
2269	4822 124 23052	100uF 20% 16V
2271	4822 124 23052	100uF 20% 16V
2272	4822 126 11785	47pF 5% 50V
2273	4822 126 14226	82pF 5% 50V
2286	4822 124 40248	10uF 20% 63V
2287	4822 124 40248	10uF 20% 63V
2288	4822 124 40248	10uF 20% 63V
2289	4822 124 40248	10uF 20% 63V
2290	4822 126 14472	1uF 10% 10V
2300	3198 017 41050	1uF 10V
2301	2020 552 94427	100pF 5% 50V
2302	2020 552 94427	100pF 5% 50V
2303	3198 017 41050	1uF 10V
2304	3198 017 41050	1uF 10V
2305	3198 017 41050	1uF 10V
2306	2238 586 59812	100nF +80/-20% 50V
2307	4822 124 40433	47uF 20% 25V
2308	3198 017 41050	1uF 10V
2309	2020 552 94427	100pF 5% 50V
2310	2020 552 94427	100pF 5% 50V
2311	3198 017 41050	1uF 10V
2312	2238 916 15641	22nF 10% 25V
2313	4822 124 40433	47uF 20% 25V
2314	3198 017 41050	1uF 10V
2315	3198 017 41050	1uF 10V
2316	3198 017 41050	1uF 10V
2317	4822 124 40433	47uF 20% 25V
2318	2238 916 15641	22nF 10% 25V
2319	2020 552 94427	100pF 5% 50V
2320	2020 552 94427	100pF 5% 50V
2321	4822 051 30008	0R Jumper 0603
2322	3198 017 41050	1uF 10V
2323	3198 017 41050	1uF 10V
2324	2222 586 18812	100nF 10% 50V
2400	4822 126 14043	1uF +80/-20% 16V /01/05
2401	3198 016 31020	1nF 25V /01/05
2402	3198 017 41050	1uF 10V /01/05
2403	4822 126 13193	4,7nF 10% 63V /01/05
2404	4822 126 13883	220pF 5% 50V /01/05
2405	3198 016 31020	1nF 25V /01/05
2406	4822 126 13883	220pF 5% 50V /01/05
2407	3198 016 31020	1nF 25V /01/05
2408	4822 126 13193	4,7nF 10% 63V /01/05

2409	4822 124 40769	4,7uF 20% 100V /01/05
2410	3198 017 41050	1uF 10V /01/05
2411	3198 016 31020	1nF 25V /01/05
2412	4822 126 14043	1uF +80/-20% 16V /01/05
2413	4822 126 13883	220pF 5% 50V /01/05
2414	4822 126 13883	220pF 5% 50V /01/05
2417	4822 126 13883	220pF 5% 50V /01/05
2418	3198 017 42230	22nF 50V /01/05
2419	4822 126 13883	220pF 5% 50V /01/05
2420	4822 124 21732	10uF 20% 25V /01/05
2422	4822 126 13883	220pF 5% 50V
2423	4822 124 21732	10uF 20% 25V
2424	2020 552 94427	100pF 5% 50V /69/75/93
2425	2020 552 94427	100pF 5% 50V /69/75/93
2426	2020 552 94427	100pF 5% 50V /69/75/93
2427	4822 124 80195	470uF 20% 10V /01/05
2428	4822 124 80195	470uF 20% 10V
2434	4822 124 21732	10uF 20% 25V
2437	4822 124 21732	10uF 20% 25V
2440	4822 126 13883	220pF 5% 50V
2441	4822 126 14221	68pF 5% 50V
2442	4822 126 13883	220pF 5% 50V
2443	4822 126 14221	68pF 5% 50V
2445	5322 126 11583	10nF 10% 50V
2446	4822 126 14508	180pF 5% 50V
2500	4822 124 41643	100uF 20% 16V
2501	4822 124 23002	10uF 16V
2502	2238 586 59812	100nF +80/-20% 50V
2503	4822 124 41643	100uF 20% 16V
2504	4822 124 23002	10uF 16V
2505	2238 586 59812	100nF +80/-20% 50V
2506	2238 586 59812	100nF +80/-20% 50V
2507	3198 029 22210	220uF 20% 16V
2508	4822 126 14585	100nF 10% 50V
2509	2238 586 59812	100nF +80/-20% 50V
2510	4822 124 23052	100uF 20% 16V

**RESISTORS**

3100	4822 117 11817	1k2 1% 1/16W
3101	4822 117 11817	1k2 1% 1/16W
3102	4822 117 12925	47k 1% 0,063W
3103	4822 117 12925	47k 1% 0,063W
3104	4822 052 10478 Δ	4R7 5% 0,33W
3105	4822 051 30152	1k5 5% 0,062W
3106	4822 051 30562	5k6 5% 0,063W
3107	4822 051 30682	6k8 5% 0,062W
3108	4822 117 11817	1k2 1% 1/16W
3109	4822 051 30472	4k7 5% 0,062W
3110	4822 051 30563	56k 5% 0,062W
3111	4822 051 30472	4k7 5% 0,062W
3112	4822 051 30563	56k 5% 0,062W
3114	4822 117 13632	100k 1% 0,62W
3116	4822 051 30561	560R 5% 0,062W /01/05

**ELECTRICAL PARTS LIST - AV BOARD****RESISTORS**

3117	4822 051 30561	560R 5% 0,062W	/69/75/93	3207	4822 051 30339	33R 5% 0,062W	
3118	4822 051 30681	680R 5% 0,062W		3208	4822 051 30339	33R 5% 0,062W	
3119	4822 051 30563	56k 5% 0,062W		3209	4822 051 30123	12k 5% 0,062W	
3120	4822 117 11817	1k2 1% 1/16W		3210	4822 117 12903	1k8 1% 0,063W	
3121	4822 117 13632	100k 1% 0,62W		3211	4822 051 30339	33R 5% 0,062W	
3122	4822 051 30561	560R 5% 0,062W	/69/75/93	3212	4822 051 30562	5k6 5% 0,063W	
3123	4822 051 30681	680R 5% 0,062W		3213	4822 051 30123	12k 5% 0,062W	
3124	4822 051 30563	56k 5% 0,062W		3214	4822 051 30339	33R 5% 0,062W	
3125	4822 051 30562	5k6 5% 0,063W		3215	4822 051 30339	33R 5% 0,062W	
3128	4822 051 30682	6k8 5% 0,062W		3216	4822 051 30123	12k 5% 0,062W	
3129	4822 051 30561	560R 5% 0,062W	/01/05	3217	4822 117 12903	1k8 1% 0,063W	
3130	4822 051 30472	4k7 5% 0,062W		3218	4822 051 30562	5k6 5% 0,063W	
3131	4822 051 30562	5k6 5% 0,063W		3219	4822 051 30123	12k 5% 0,062W	
3132	4822 051 30273	27k 5% 0,062W		3220	4822 051 30339	33R 5% 0,062W	
3133	4822 051 30153	15k 5% 0,062W		3221	4822 051 30103	10k 5% 0,062W	
3134	4822 051 30103	10k 5% 0,062W		3222	4822 051 30339	33R 5% 0,062W	
3135	4822 051 30152	1k5 5% 0,062W		3223	4822 051 30123	12k 5% 0,062W	
3136	4822 051 30472	4k7 5% 0,062W		3224	4822 117 12903	1k8 1% 0,063W	
3137	4822 051 30562	5k6 5% 0,063W		3225	4822 051 30103	10k 5% 0,062W	
3138	4822 051 30123	12k 5% 0,062W		3226	4822 051 30222	2k2 5% 0,062W	
3139	4822 051 30123	12k 5% 0,062W		3227	4822 051 30222	2k2 5% 0,062W	
3140	4822 051 30273	27k 5% 0,062W		3228	4822 051 30562	5k6 5% 0,063W	
3141	4822 051 30153	15k 5% 0,062W		3229	4822 051 30123	12k 5% 0,062W	
3142	4822 051 30103	10k 5% 0,062W		3230	4822 051 30103	10k 5% 0,062W	
3143	4822 051 30152	1k5 5% 0,062W		3231	4822 051 30123	12k 5% 0,062W	
3144	4822 051 30123	12k 5% 0,062W		3232	4822 117 12903	1k8 1% 0,063W	
3145	4822 051 30123	12k 5% 0,062W		3233	4822 051 30103	10k 5% 0,062W	
3146	4822 051 30103	10k 5% 0,062W		3234	4822 051 30562	5k6 5% 0,063W	
3147	4822 051 30153	15k 5% 0,062W		3236	4822 051 30123	12k 5% 0,062W	
3148	4822 051 30103	10k 5% 0,062W		3237	4822 117 13632	100k 1% 0,62W	
3149	4822 051 30152	1k5 5% 0,062W		3238	4822 051 30123	12k 5% 0,062W	
3150	4822 117 12925	47k 1% 0,063W		3239	4822 117 12903	1k8 1% 0,063W	
3151	4822 051 30471	470R 5% 0,062W		3240	4822 117 13632	100k 1% 0,62W	
3152	4822 051 30471	470R 5% 0,062W		3241	4822 051 30562	5k6 5% 0,063W	
3153	4822 051 30123	12k 5% 0,062W		3243	4822 051 30123	12k 5% 0,062W	
3154	4822 051 30123	12k 5% 0,062W		3244	4822 117 13632	100k 1% 0,62W	
3155	4822 117 12925	47k 1% 0,063W		3245	4822 117 13632	100k 1% 0,62W	
3156	4822 051 30471	470R 5% 0,062W		3246	4822 051 30123	12k 5% 0,062W	
3157	4822 051 30471	470R 5% 0,062W		3247	4822 117 12903	1k8 1% 0,063W	
3158	4822 051 30103	10k 5% 0,062W		3248	4822 051 30562	5k6 5% 0,063W	
3159	4822 051 30153	15k 5% 0,062W		3250	4822 051 30123	12k 5% 0,062W	
3160	4822 051 30103	10k 5% 0,062W		3251	4822 117 13632	100k 1% 0,62W	
3161	4822 051 30152	1k5 5% 0,062W		3252	4822 051 30123	12k 5% 0,062W	
3162	4822 051 30123	12k 5% 0,062W		3253	4822 117 12903	1k8 1% 0,063W	
3163	4822 051 30123	12k 5% 0,062W		3254	4822 051 30562	5k6 5% 0,063W	
3164	4822 051 30471	470R 5% 0,062W		3256	4822 051 30123	12k 5% 0,062W	
3200	4822 051 30339	33R 5% 0,062W		3257	4822 051 30123	12k 5% 0,062W	
3201	4822 051 30339	33R 5% 0,062W		3258	4822 117 12903	1k8 1% 0,063W	
3202	4822 051 30339	33R 5% 0,062W		3259	4822 117 13632	100k 1% 0,62W	
3203	4822 051 30339	33R 5% 0,062W		3260	4822 117 13632	100k 1% 0,62W	
3204	4822 051 30562	5k6 5% 0,063W		3261	4822 117 13632	100k 1% 0,62W	
3205	4822 051 30123	12k 5% 0,062W		3262	4822 052 10229	22R 5% 0,33W	
3206	4822 051 30339	33R 5% 0,062W		3263	4822 051 30332	3k3 5% 0,062W	

**ELECTRICAL PARTS LIST - AV BOARD**

3264	4822 051 30392	3k9 5% 0,063W		3330	4822 117 12903	1k8 1% 0,063W	
3265	4822 051 30153	15k 5% 0,062W		3331	4822 051 30102	1k 5% 0,062W	
3266	4822 117 11817	1k2 1% 1/16W		3332	4822 051 30102	1k 5% 0,062W	
3267	4822 051 30183	18k 5% 0,062W		3334	4822 051 30681	680R 5% 0,062W	
3268	4822 051 30183	18k 5% 0,062W		3335	4822 051 30681	680R 5% 0,062W	
3269	4822 051 30103	10k 5% 0,062W		3336	4822 051 30102	1k 5% 0,062W	
3270	4822 051 30332	3k3 5% 0,062W		3337	4822 117 12925	47k 1% 0,063W	
3271	4822 051 30392	3k9 5% 0,063W		3338	4822 051 30273	27k 5% 0,062W	
3272	4822 051 30153	15k 5% 0,062W		3339	4822 051 30102	1k 5% 0,062W	
3273	4822 051 30183	18k 5% 0,062W		3340	4822 051 30102	1k 5% 0,062W	
3274	4822 051 30183	18k 5% 0,062W		3341	4822 051 30472	4k7 5% 0,062W	
3275	4822 051 30102	1k 5% 0,062W		3342	4822 051 30102	1k 5% 0,062W	
3276	4822 051 30102	1k 5% 0,062W		3343	4822 051 30472	4k7 5% 0,062W	
3277	4822 051 30562	5k6 5% 0,063W		3344	4822 051 30102	1k 5% 0,062W	
3279	4822 051 30123	12k 5% 0,062W		3346	4822 051 30681	680R 5% 0,062W	
3282	4822 051 30123	12k 5% 0,062W		3347	4822 051 30681	680R 5% 0,062W	
3283	4822 117 12903	1k8 1% 0,063W		3348	4822 051 30101	100R 5% 0,062W	
3284	4822 051 30562	5k6 5% 0,063W		3349	4822 051 30101	100R 5% 0,062W	
3286	4822 051 30123	12k 5% 0,062W		3350	4822 051 30102	1k 5% 0,062W	
3287	4822 117 12891	220k 1%		3351	4822 051 30102	1k 5% 0,062W	
3288	4822 051 30123	12k 5% 0,062W		3352	4822 117 12903	1k8 1% 0,063W	
3289	4822 117 12903	1k8 1% 0,063W		3353	4822 117 12903	1k8 1% 0,063W	
3290	4822 051 30222	2k2 5% 0,062W		3354	4822 051 30102	1k 5% 0,062W	
3300	4822 051 30681	680R 5% 0,062W		3355	4822 051 30102	1k 5% 0,062W	
3301	4822 051 30681	680R 5% 0,062W		3356	4822 051 30681	680R 5% 0,062W	
3302	4822 051 30101	100R 5% 0,062W		3357	4822 051 30681	680R 5% 0,062W	
3303	4822 051 30101	100R 5% 0,062W		3358	4822 051 30273	27k 5% 0,062W	
3304	4822 051 30102	1k 5% 0,062W		3359	4822 051 30102	1k 5% 0,062W	
3305	4822 051 30102	1k 5% 0,062W		3360	4822 051 30102	1k 5% 0,062W	
3306	4822 117 12903	1k8 1% 0,063W		3361	4822 051 30102	1k 5% 0,062W	
3307	4822 117 12903	1k8 1% 0,063W		3362	4822 051 30472	4k7 5% 0,062W	
3308	4822 051 30102	1k 5% 0,062W		3363	4822 051 30472	4k7 5% 0,062W	
3309	4822 051 30102	1k 5% 0,062W		3400	4822 051 30103	10k 5% 0,062W	/01/05
3310	4822 051 30681	680R 5% 0,062W		3401	4822 117 12925	47k 1% 0,063W	/01/05
3311	4822 051 30681	680R 5% 0,062W		3403	4822 051 30222	2k2 5% 0,062W	/01/05
3312	4822 051 30339	33R 5% 0,062W		3404	4822 051 30471	470R 5% 0,062W	/01/05
3313	4822 051 30339	33R 5% 0,062W		3405	4822 117 12925	47k 1% 0,063W	/01/05
3314	4822 051 30102	1k 5% 0,062W		3406	4822 051 30223	22k 5% 0,062W	/01/05
3315	4822 117 12925	47k 1% 0,063W		3407	4822 117 12925	47k 1% 0,063W	/01/05
3316	4822 051 30273	27k 5% 0,062W		3408	4822 051 30471	470R 5% 0,062W	/01/05
3317	4822 051 30102	1k 5% 0,062W		3409	4822 117 12925	47k 1% 0,063W	/01/05
3318	4822 051 30102	1k 5% 0,062W		3410	4822 051 30223	22k 5% 0,062W	/01/05
3319	4822 051 30472	4k7 5% 0,062W		3412	4822 051 30222	2k2 5% 0,062W	/01/05
3320	4822 051 30102	1k 5% 0,062W		3413	4822 117 12925	47k 1% 0,063W	/01/05
3321	4822 051 30472	4k7 5% 0,062W		3415	4822 051 30103	10k 5% 0,062W	/01/05
3322	4822 051 30102	1k 5% 0,062W		3416	4822 051 30471	470R 5% 0,062W	/01/05
3323	4822 051 30681	680R 5% 0,062W		3417	4822 051 30103	10k 5% 0,062W	/01/05
3324	4822 051 30681	680R 5% 0,062W		3418	4822 051 30103	10k 5% 0,062W	/01/05
3325	4822 051 30101	100R 5% 0,062W		3421	4822 051 30103	10k 5% 0,062W	/01/05
3326	4822 051 30101	100R 5% 0,062W		3422	4822 051 30471	470R 5% 0,062W	/01/05
3327	4822 051 30102	1k 5% 0,062W		3423	4822 051 30103	10k 5% 0,062W	/01/05
3328	4822 051 30102	1k 5% 0,062W		3424	4822 051 30103	10k 5% 0,062W	/01/05
3329	4822 117 12903	1k8 1% 0,063W		3425	5322 117 13055	75R 1% 0,063W	

## ***ELECTRICAL PARTS LIST - AV BOARD***

## DIODES

5103	4822 157 62552	FXDIND 2,2uH 5%		7200	4822 209 30095	IC SM LM833D	
5200	2422 549 43062	FXDIND 0603 100MHz 600R		7201	4822 209 30095	IC SM LM833D	
5201	2422 549 43062	FXDIND 0603 100MHz 600R		7202	4822 209 30095	IC SM LM833D	
5202	2422 549 43062	FXDIND 0603 100MHz 600R		7205	4822 130 40959	BC547B	
5203	2422 549 43062	FXDIND 0603 100MHz 600R		7207	9352 686 05118	IC SM SAA6581T	
5204	2422 549 43062	FXDIND 0603 100MHz 600R		7300	5322 130 60159	BC847B	
5205	2422 549 43062	FXDIND 0603 100MHz 600R		7301	5322 130 60159	BC847B	
5206	4822 157 62552	FXDIND 2,2uH 5%		7303	5322 130 60159	BC847B	
5207	4822 157 62552	FXDIND 2,2uH 5%		7304	5322 130 60159	BC847B	
5208	4822 157 62552	FXDIND 2,2uH 5%		7306	4822 130 60373	BC857B	
5209	4822 157 62552	FXDIND 2,2uH 5%		7307	4822 130 60373	BC857B	
5210	4822 157 62552	FXDIND 2,2uH 5%		7308	4822 209 17345	IC SM M62320FP	
5211	4822 242 11033	RES XTL 4,332MHz		7309	5322 130 60159	BC847B	
5212	4822 157 62552	FXDIND 2,2uH 5%		7310	5322 130 60159	BC847B	
5213	4822 157 62552	FXDIND 2,2uH 5%		7311	5322 130 60159	BC847B	
5301	4822 157 62552	FXDIND 2,2uH 5%		7312	5322 130 60159	BC847B	
5501	2422 086 11103	FUSE SM F 2A 125V UL R		7313	5322 130 60159	BC847B	
5503	4822 157 11717	INDFXD 1206 EMI 100MHz 50R		7314	4822 130 60373	BC857B	
				7315	4822 130 60373	BC857B	
DIODES				7316	5322 130 60159	BC847B	
6100	4822 130 30621	1N4148		7317	5322 130 60159	BC847B	
6101	9322 150 08685	BZX384-C9V1		7318	5322 130 60159	BC847B	
6102	4822 130 30621	1N4148		7319	5322 130 60159	BC847B	
6103	4822 130 11397	BAS316		7320	5322 130 60159	BC847B	
6200	4822 130 83206	BZX79-B5V6		7321	4822 130 60373	BC857B	
6300	4822 130 11397	BAS316		7400	5322 130 60159	BC847B	/01/05
6301	4822 130 11397	BAS316		7401	4822 130 60373	BC857B	/01/05
6302	4822 130 11397	BAS316		7402	5322 130 60159	BC847B	/01/05
6303	4822 130 11397	BAS316		7404	5322 130 60159	BC847B	/01/05
6304	4822 130 11397	BAS316		7405	5322 130 60159	BC847B	/01/05
6305	4822 130 11397	BAS316		7406	5322 130 60159	BC847B	/01/05
6306	4822 130 11397	BAS316		7408	4822 130 60373	BC857B	/01/05
6307	4822 130 11397	BAS316		7409	5322 130 60159	BC847B	
6308	4822 130 11397	BAS316		7410	5322 130 60159	BC847B	/01/05
6309	4822 130 11397	BAS316		7500	4822 130 41246	BC327-25	
6310	4822 130 11397	BAS316		7501	4822 130 60373	BC857B	
6311	4822 130 11397	BAS316		7502	5322 130 60159	BC847B	
6312	4822 130 11397	BAS316		7503	4822 130 41246	BC327-25	
6404	9340 548 67115	BZX384-C22	/01/05	7504	4822 130 11565	2SB1132	
6405	4822 130 11522	BZX384-C15	/01/05	7505	5322 130 60159	BC847B	
6406	4822 130 11522	BZX384-C15	/01/05	7506	9322 146 75685	IC SM TS431IL	
6407	4822 130 11522	BZX384-C15	/01/05	7507	9322 199 24668	IC SM L7808CD2T	
6408	4822 130 11522	BZX384-C15		7601	4822 130 42804	BC817-25	/01/05
6500	4822 130 34174	BZX79-B4V7		7602	4822 130 60373	BC857B	/01/05
				7603	5322 130 60159	BC847B	/01/05
TRANSISTORS & INTEGRATED CIRCUITS				7604	5322 130 60159	BC847B	/01/05
7100	4822 130 40959	BC547B		7605	4822 130 42804	BC817-25	/01/05
7102	5322 209 11102	IC SM HEF4052BT					
7103	9322 203 36668	IC SM CS42418-CQ		Note :	Only the parts mentioned in this list are normal service spare parts.		
7104	4822 209 31378	IC SM NJM4556AM					
7105	5322 130 60159	BC847B					
7107	4822 130 60373	BC857B					
7108	5322 130 60159	BC847B					

Note : Only the parts mentioned in this list are normal service spare parts.

# AMPLIFIER BOARD

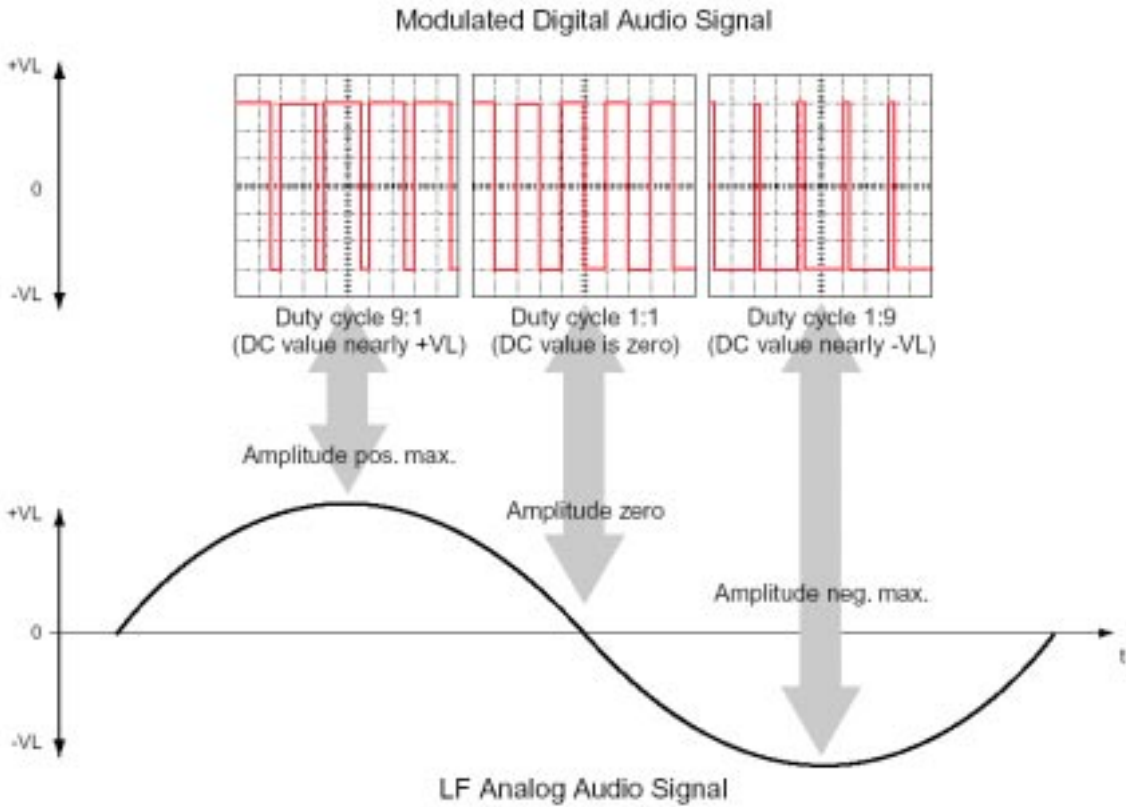
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## 6-channel class-D amplifier

Basic operation of a class-D amplifier

Basically, the output stage of a class-D amplifier outputs a continuous square wave swinging between positive and negative power supplies with a fixed frequency (“clock” frequency) far beyond the audible range. The duty cycle of this square wave is modulated with the audio signal. The output is followed by a low-pass filter which eliminates the clock frequency and allows only the audio signal going to the speaker. See simplified drawing below.



Compared to a conventional power amplifier the benefits of the Class-D amplifier are:

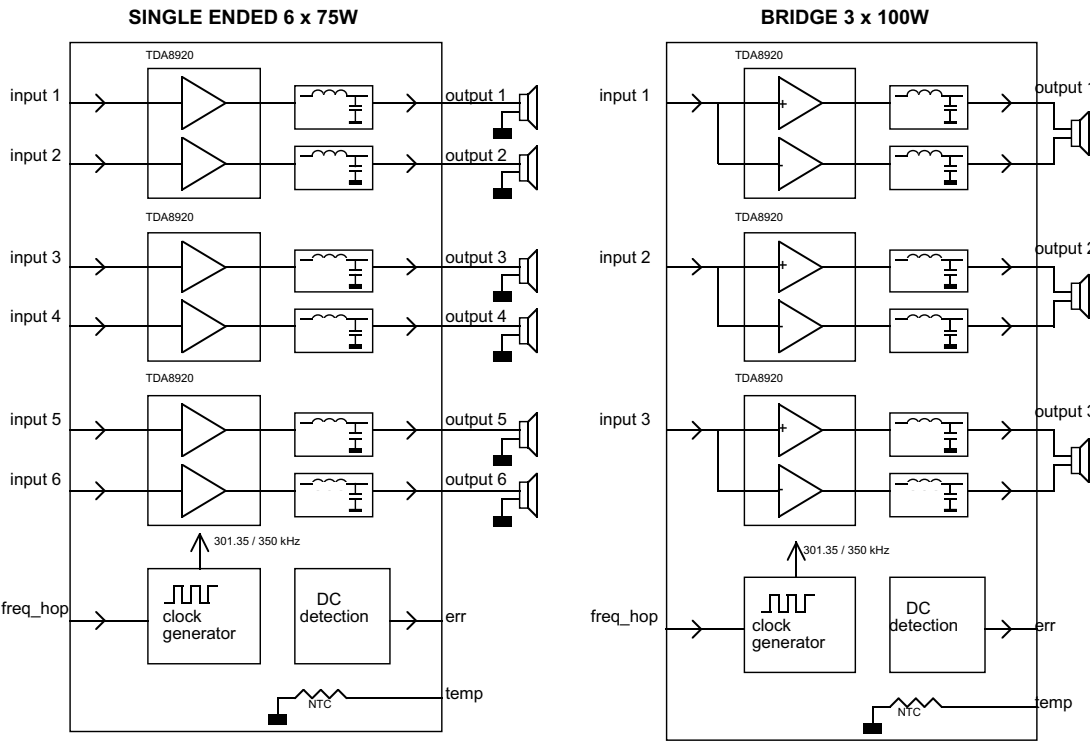
- higher efficiency
- lower power dissipation
- smaller heatsink required
- smaller mains transformer required

The main disadvantage of this concept is:

- The amplifier is operating with a high-frequency square wave at high amplitude and currents. This requires special precautions to prevent excessive electromagnetic radiation (EMC).



Block diagram and operation



• clock oscillator

The clock frequency is generated around IC7600. Using 2 extra transistors (7602 and 7608) and 2 ceramic resonators it can be operated at 2 frequencies: 602.7kHz and 700kHz. The frequency is selected by the signal “FREQ\_HOP” coming from connector 1301 pin 9. When FREQ\_HOP is low, the output of 7600-1 will be high. This switches transistor 7602 on, and connects resonator 1600 (602.7kHz) to inverter 7600-3. Similarly, when FREQ\_HOP is high, resonator 1601 is connected to 7600-3. The output frequency is divided by two by IC7607, resulting in 301.35kHz or 350kHz. The purpose of a selectable clock frequency is related to the disturbance of the tuner which is built-in together with this amplifier. In MW, the software of the set microprocessor will select the other clock frequency in case the amplifier clock interferes with the tuned station.

• Class-D amplifier TDA8920 and low-pass filter

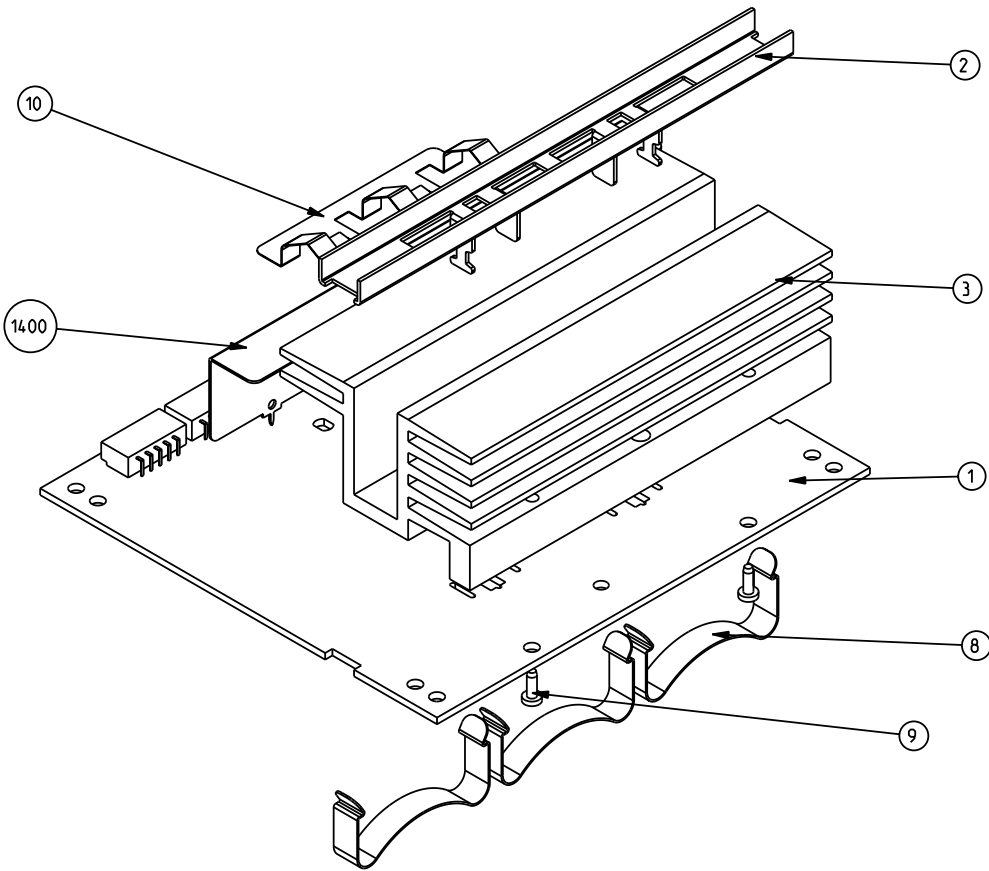
The TDA8920 is a two channel audio power amplifier using class-D technology. The audio input signal is converted into a digital Pulse Width Modulated (PWM) signal via an analog input stage and PWM modulator. It is then fed to the power stage which outputs a high power PWM signal which switches between the main supply lines. The TDA8920 is followed by a 2nd-order low-pass filter. It has a cut-off frequency around 50kHz and converts the PWM signal into analog audio signal across the loudspeaker. The TDA8920 has a temperature protection and a current limiter built-in. Furthermore, the IC can be put in active, mute and standby mode.

- Active mode (amplifier fully operational) with output signal.
- Mute mode; the amplifiers are operational, but the audio is muted
- Standby mode; with a very low supply current, the output stage is switched off.

• DC-detection

The DC-detection circuit monitors all 6 outputs for DC. Whenever one or more outputs contain DC for more than 1 second, the circuit will be activated. A positive voltage will activate transistor 7710 and pin 10 of connector 1301 will be pulled down. In case of a negative voltage, transistor 7716 will be activated, which in turn activates 7710. The set microprocessor will take further action.

MECHANICAL EXPLODED VIEW

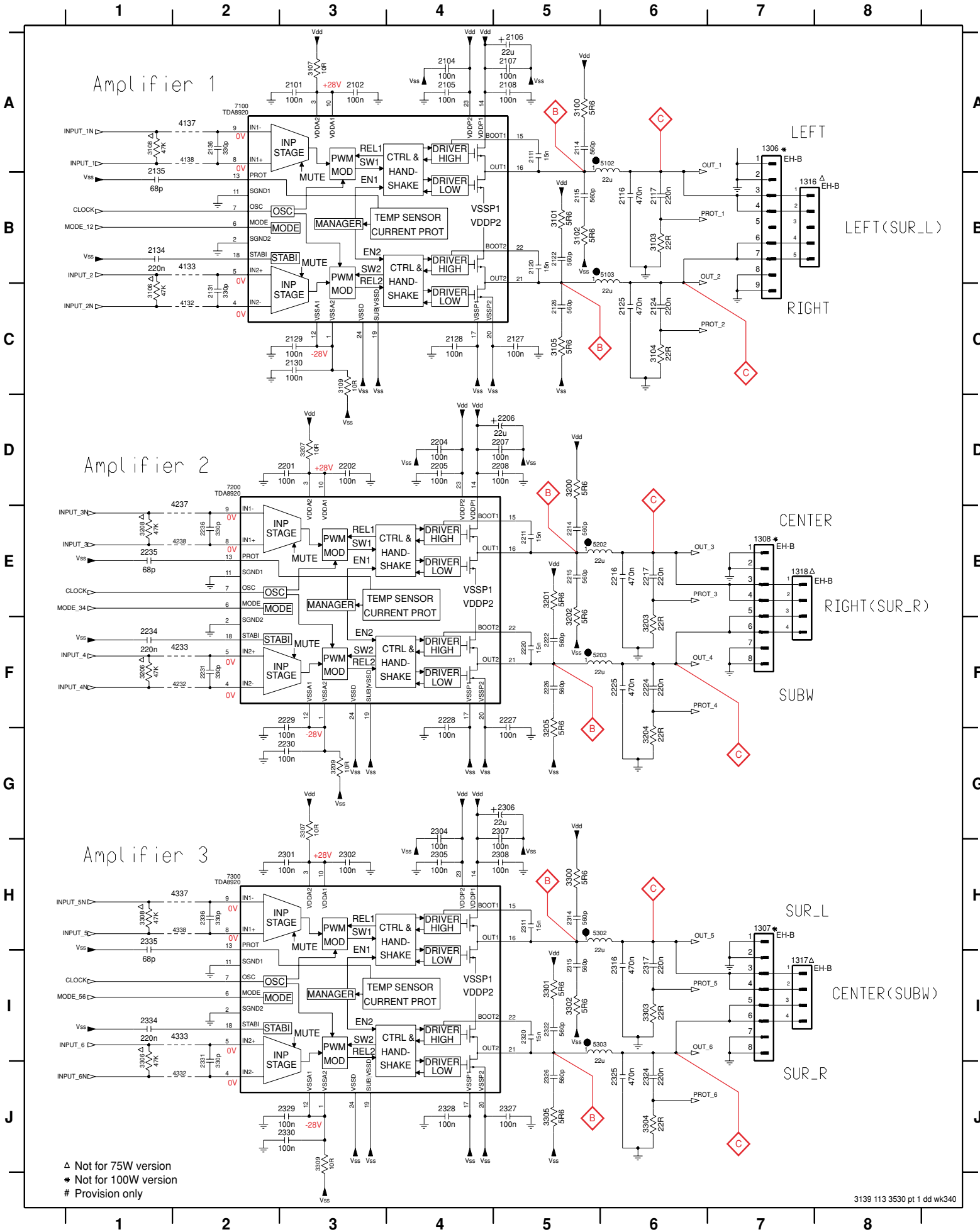
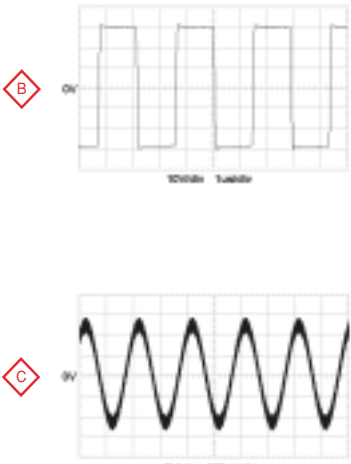


3104 217 07180 bl110

MECHANICAL PARTS LIST & SCREWS		
8	3104 211 29861	SPRING 6 CHANNEL
9	-	D2.3 x 8
10	3104 211 29881	EARTH SPRING

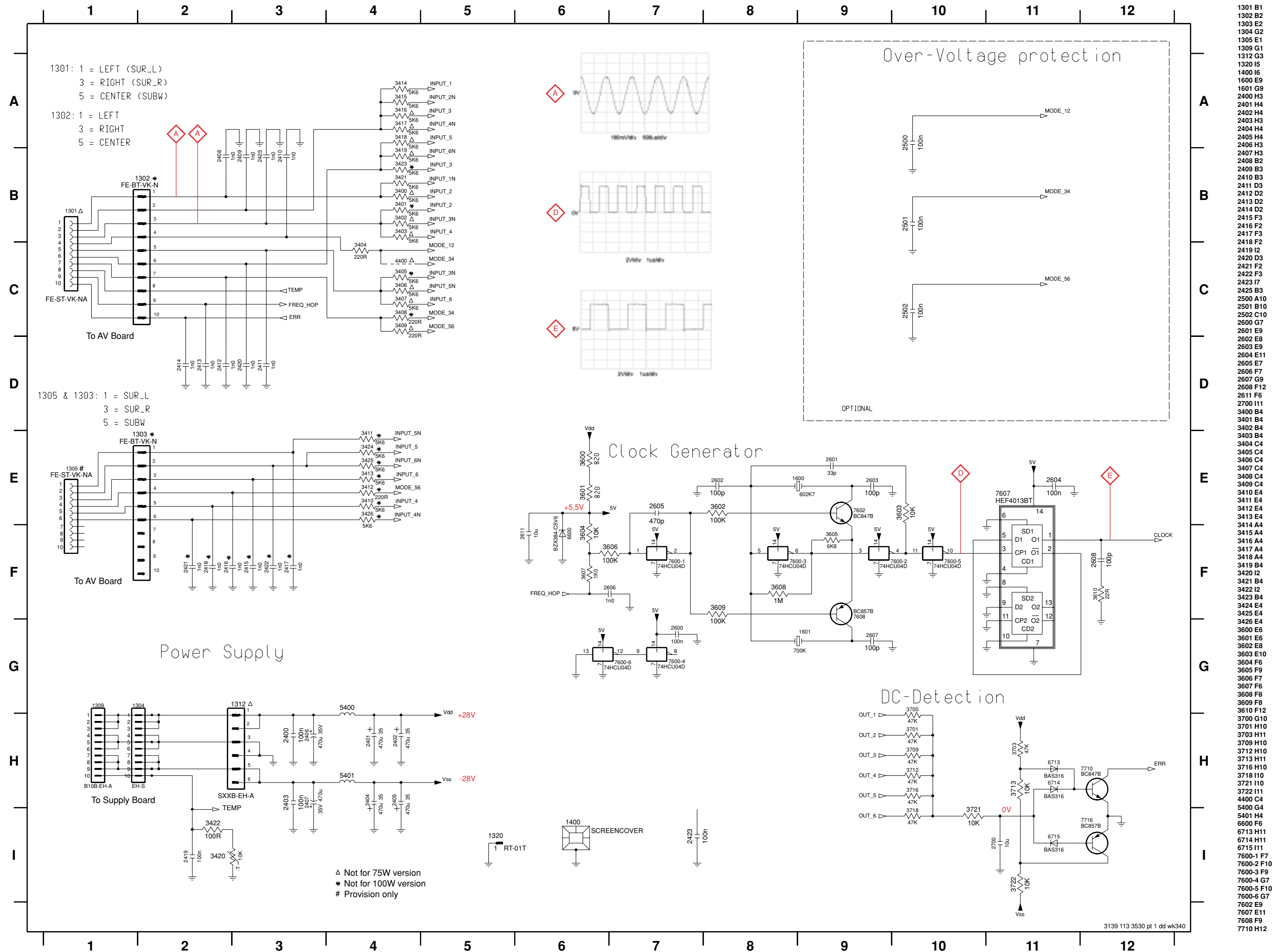
Note: Only the parts mentioned in this list are normal service spare parts.

AMPLIFIER CIRCUIT



1306 A7	5203 F5
1307 H7	5302 H5
1308 E7	5303 I5
1316 B7	7100 A2
1317 I7	7200 D2
1318 E7	7300 H2
2101 A3	
2102 A3	
2104 A4	
2105 A4	
2106 A5	
2107 A5	
2108 A5	
2111 A5	
2114 A5	
2115 B5	
2116 B6	
2117 B6	
2120 B5	
2122 B5	
2124 C6	
2125 C6	
2126 C5	
2127 C5	
2128 C4	
2129 C3	
2130 C3	
2131 C2	
2134 B1	
2135 B1	
2136 A2	
2201 D3	
2202 D3	
2204 D4	
2205 D4	
2206 D5	
2207 D5	
2208 D5	
2211 E5	
2214 E5	
2215 E5	
2216 E6	
2217 E6	
2220 F5	
2222 F5	
2224 F6	
2225 F6	
2226 F5	
2227 F5	
2228 F4	
2229 F3	
2230 G3	
2231 F2	
2234 F1	
2235 E1	
2236 E2	
2301 H3	
2302 H3	
2304 G4	
2305 H4	
2306 G5	
2307 G5	
2308 H5	
2311 H5	
2314 H5	
2315 I5	
2316 I6	
2317 I6	
2320 I5	
2322 I5	
2324 J6	
2325 J6	
2326 J5	
2327 J5	
2328 J4	
2329 J3	
2330 J3	
2331 I2	
2334 I1	
2335 H1	
2336 H2	
3100 A5	
3101 B5	
3102 B5	
3103 B6	
3104 C6	
3105 C5	
3106 C1	
3107 A3	
3108 A1	
3109 C3	
3200 D5	
3201 E5	
3202 F5	
3203 F6	
3204 G6	
3205 G5	
3206 F1	
3207 D3	
3208 E1	
3209 G3	
3300 H5	
3301 I5	
3302 I5	
3303 I6	
3304 J6	
3305 J5	
3306 I1	
3307 G3	
3308 H1	
3309 J3	
4132 C2	
4133 B2	
4137 A2	
4138 A2	
4232 F2	
4233 F2	
4237 E2	
4238 E2	
4332 J2	
4333 I2	
4337 H2	
4338 H2	
5102 A6	
5103 B6	
5202 E5	

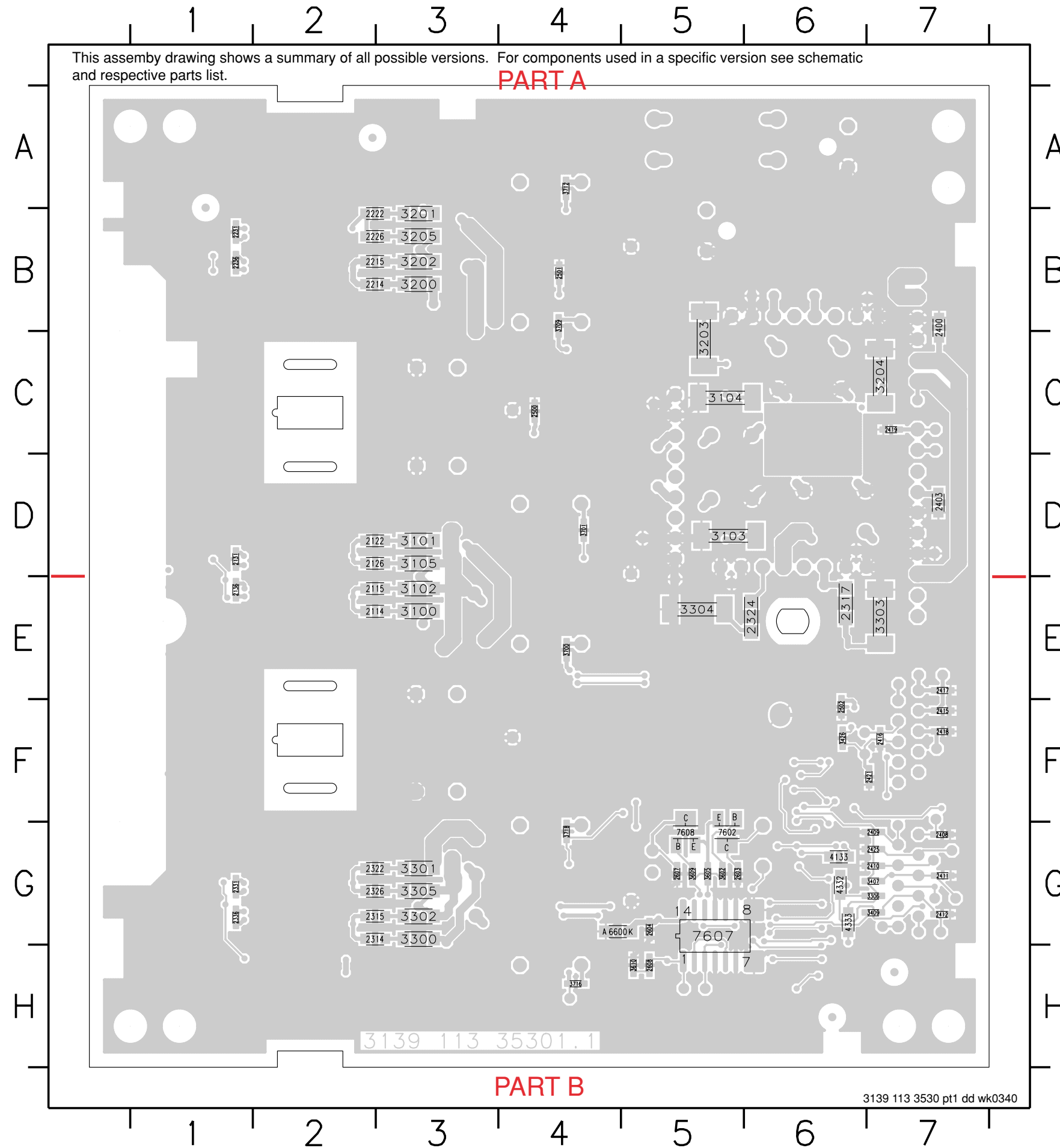
## CLOCK GENERATOR &amp; CONNECTOR CIRCUIT



1301 B1  
1302 B2  
1303 E2  
1304 G2  
1305 E1  
1309 G1  
1312 G3  
1320 I5  
1400 I6  
1600 E9  
1601 G9  
2400 H3  
2401 H4  
2402 H4  
2403 H3  
2404 H4  
2405 H4  
2406 H3  
2407 H3  
2408 B2  
2409 B3  
2410 B3  
2411 D3  
2412 D2  
2413 D2  
2414 D2  
2415 F3  
2416 F2  
2417 F3  
2418 F2  
2419 I2  
2420 D3  
2421 F2  
2422 F3  
2423 I7  
2425 B3  
2500 A10  
2501 B10  
2502 C10  
2600 G7  
2601 E9  
2602 E8  
2603 E9  
2604 E11  
2605 E7  
2606 F7  
2607 G9  
2608 F12  
2611 F6  
2700 I11  
3400 B4  
3401 B4  
3402 B4  
3403 B4  
3404 C4  
3405 C4  
3406 C4  
3407 C4  
3408 C4  
3409 C4  
3410 E4  
3411 E4  
3412 E4  
3413 E4  
3414 A4  
3415 A4  
3416 A4  
3417 A4  
3418 A4  
3419 B4  
3420 I2  
3421 B4  
3422 I2  
3423 B4  
3424 E4  
3425 E4  
3426 E4  
3600 E6  
3601 E6  
3602 E8  
3603 E10  
3604 F6  
3605 F9  
3606 F7  
3607 F6  
3608 F8  
3609 F8  
3610 F12  
3700 G10  
3701 H10  
3703 H11  
3709 H10  
3712 H10  
3713 H11  
3716 H10  
3718 I10  
3721 I10  
3722 I11  
4400 C4  
5400 G4  
5401 H4  
6600 F6  
6713 H11  
6714 H11  
6715 I11  
7600-1 F7  
7600-2 F10  
7600-3 F9  
7600-4 G7  
7600-5 F10  
7600-6 G7  
7602 E9  
7607 E11  
7608 F9  
7710 H12

7716 I12

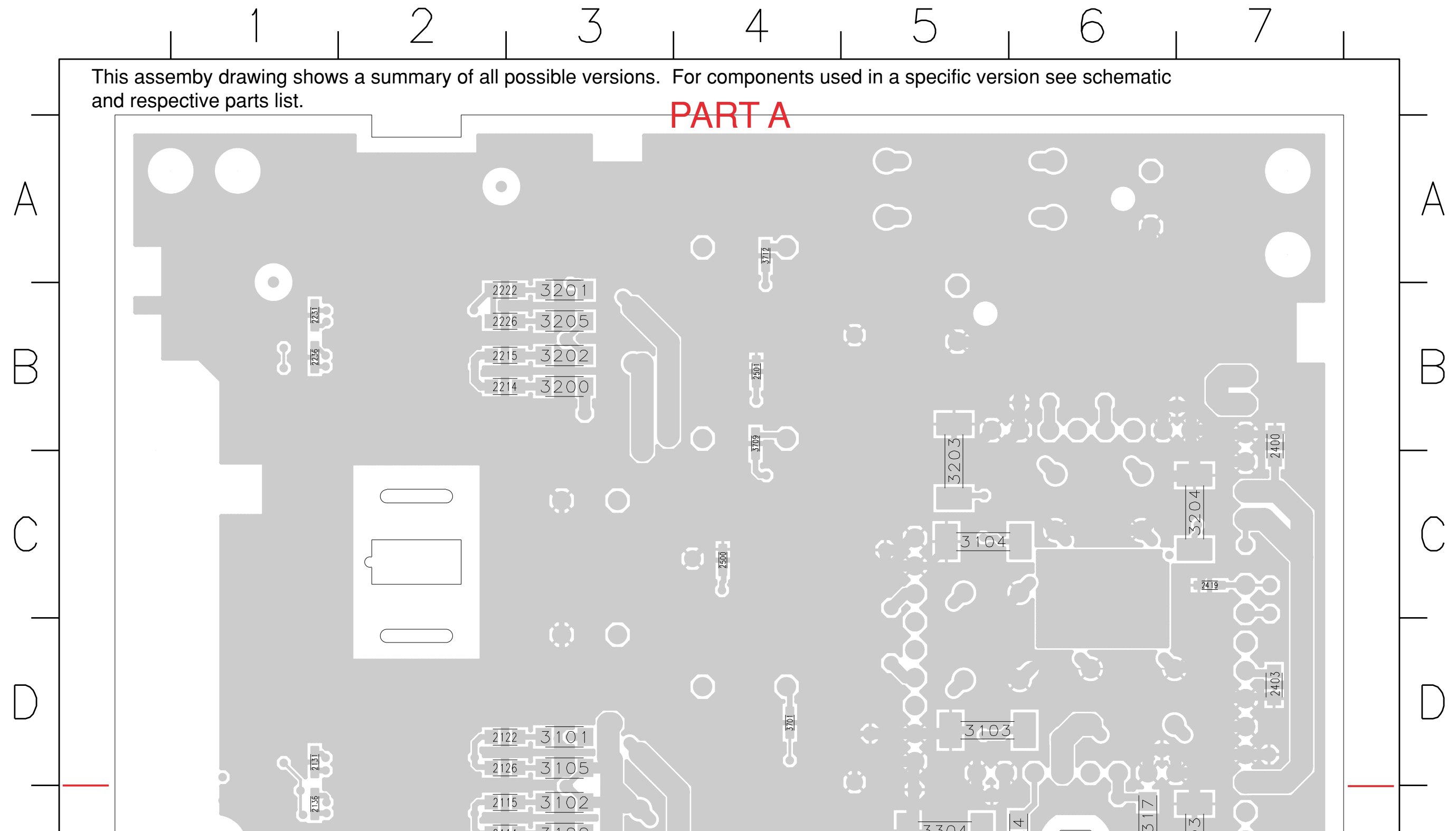
### BOTTOM VIEW LAYOUT



2	2	1	1	4	E	2	4	3	3	2	G
2	1	1	5	F	2	2	4	3	3	3	G
2	1	2	2	F	2	2	6	0	0	0	G
2	1	2	6	D	2	2	6	0	0	2	G
2	1	3	1	D	1	1	7	6	0	7	G
2	1	3	6	F	1	2	7	6	0	8	G
2	2	1	4	B	2	2	F	1	0	0	G
2	2	1	5	B	2	2	F	1	0	2	G
2	2	2	2	B	2	2	F	1	0	3	G
2	2	2	6	B	1	1	F	1	0	4	G
2	2	3	1	B	2	2	F	1	0	5	G
2	2	3	6	B	1	1	F	1	0	6	G
2	3	1	4	G	2	2	F	1	0	8	G
2	3	1	5	G	2	2	F	1	0	9	G
2	3	1	7	F	6	6	F	1	1	1	G
2	3	2	2	F	2	2	F	1	1	2	G
2	3	2	4	F	6	6	F	1	1	4	G
2	3	2	6	F	2	2	F	1	1	6	G
2	3	3	1	G	1	1	F	1	1	7	G
2	3	3	6	G	1	1	F	1	1	8	G
2	4	0	0	G	7	7	F	1	1	9	G
2	4	0	3	D	7	7	F	1	2	1	G
2	4	0	8	G	7	7	F	1	2	2	G
2	4	0	9	G	7	7	F	1	2	3	G
2	4	1	0	G	7	7	F	1	2	4	G
2	4	1	1	G	7	7	F	1	2	5	G
2	4	1	5	G	7	7	F	1	2	6	G
2	4	1	6	F	7	7	F	1	2	7	G
2	4	1	7	F	7	7	F	1	2	8	G
2	4	1	8	F	7	7	F	1	2	9	G
2	4	1	9	G	7	7	F	1	3	0	G
2	4	2	1	F	7	7	F	1	3	1	G
2	4	2	5	G	7	7	F	1	3	2	G
2	4	2	5	G	7	7	F	1	3	3	G
2	5	0	0	G	4	4	F	1	3	4	G
2	5	0	1	F	4	4	F	1	3	5	G
2	5	0	2	F	6	6	F	1	3	6	G
2	6	0	3	G	5	5	F	1	3	7	G
2	6	0	4	G	5	5	F	1	3	8	G
2	6	0	7	G	5	5	F	1	4	0	G
2	6	0	8	H	3	3	F	1	4	1	G
2	6	1	0	F	3	3	F	1	4	2	G
3	1	0	0	F	3	3	F	1	4	3	G
3	1	0	1	F	3	3	F	1	4	4	G
3	1	1	0	F	3	3	F	1	4	5	G
3	1	1	3	D	5	5	F	1	4	6	G
3	1	1	4	D	5	5	F	1	4	7	G
3	1	1	5	D	5	5	F	1	4	8	G
3	2	0	0	B	3	3	F	1	4	9	G
3	2	0	1	B	3	3	F	1	4	0	G
3	2	0	2	B	3	3	F	1	4	1	G
3	2	0	3	B	3	3	F	1	4	2	G
3	2	0	4	B	3	3	F	1	4	3	G
3	2	0	5	B	3	3	F	1	4	4	G
3	3	0	0	G	3	3	F	1	4	5	G
3	3	0	1	G	3	3	F	1	4	6	G



## BOTTOM VIEW LAYOUT - PART A



**PART B**

3139 113 3530 pt1 dd wk0340

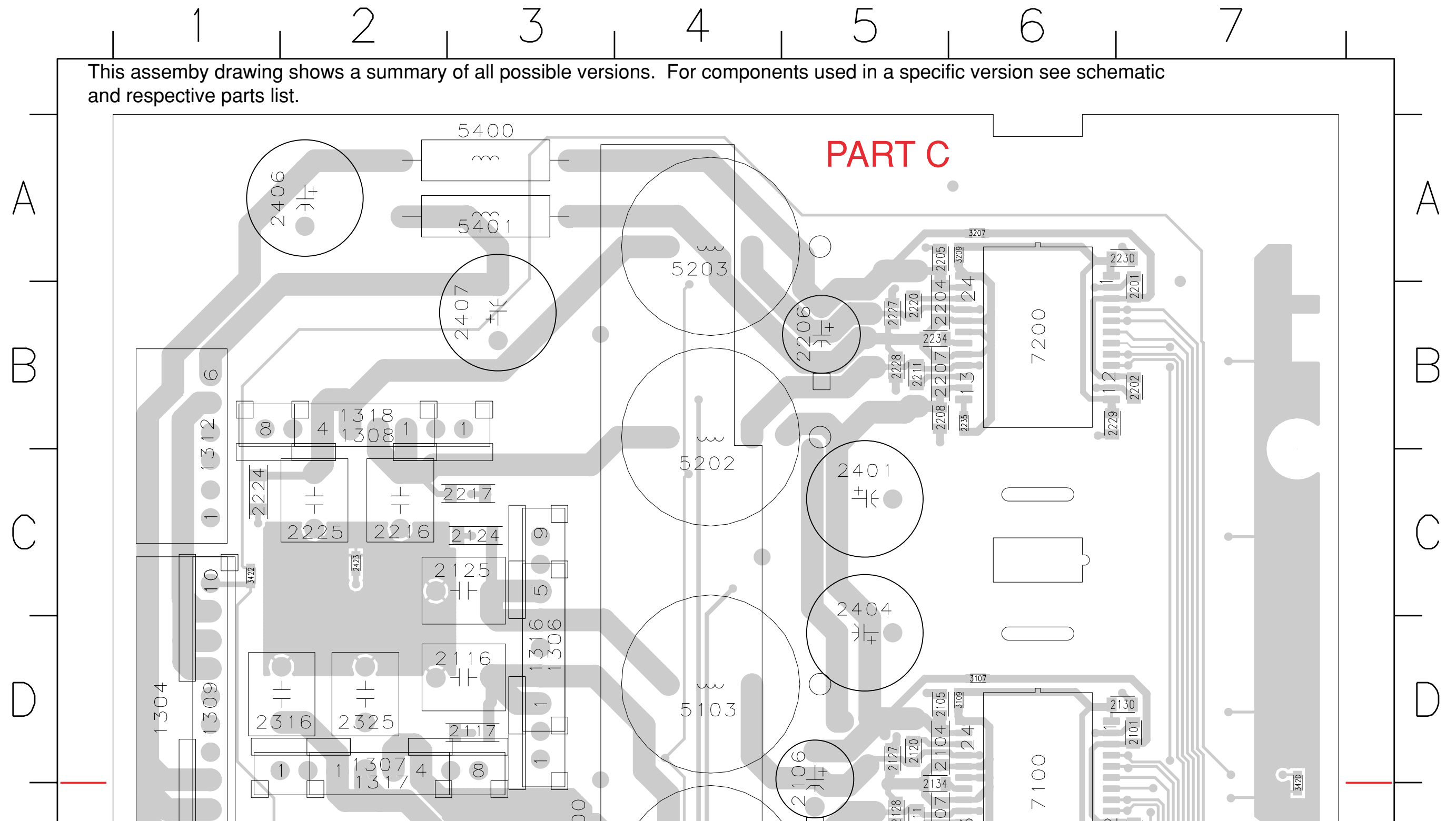
## PART B

3139 113 3530 pt1 dd wk0340

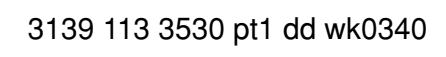


## PART C

This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic and respective parts list.







**ELECTRICAL PARTS LIST - AMPLIFIER BOARD****MISCELLANEOUS**

0008	3104 211 29861	Spring 6 Channel
0010	3104 211 29881	Earth Spring
1302	4822 267 10729	Flex Connector 10P
1303	4822 267 10729	Flex Connector 10P
1600	2422 540 98514	RES CER 602kHz7 CSB600F1 B
1601	2422 540 98568	RES CER 700kHz CSBLA* B

**CAPACITORS**

2101	2222 580 15649	100nF 10% 50V
2102	2222 580 15649	100nF 10% 50V
2104	2222 601 55649	100nF 10% 100V
2105	2222 580 15649	100nF 10% 50V
2106	2020 021 91431	22uF 20% 100V
2107	2222 601 55649	100nF 10% 100V
2108	2222 580 15649	100nF 10% 50V
2111	4822 126 13188	15nF 5% 63V
2114	2238 600 15619	560pF 10% 100V
2115	2238 600 15619	560pF 10% 100V
2116	4822 121 51252	470nF 5% 63V
2117	2222 601 55649	100nF 10% 100V
2120	4822 126 13188	15nF 5% 63V
2122	2238 600 15619	560pF 10% 100V
2124	2222 601 55649	100nF 10% 100V
2125	4822 121 51252	470nF 5% 63V
2126	2238 600 15619	560pF 10% 100V
2127	2222 580 15649	100nF 10% 50V
2128	2222 580 15649	100nF 10% 50V
2129	2222 580 15649	100nF 10% 50V
2130	2222 580 15649	100nF 10% 50V
2131	4822 126 14241	330pF 50V
2134	2238 780 55654	220nF 10% 16V
2135	4822 126 14221	68pF 5% 50V
2136	4822 126 14241	330pF 50V
2201	2222 580 15649	100nF 10% 50V
2202	2222 580 15649	100nF 10% 50V
2204	2222 601 55649	100nF 10% 100V
2205	2222 580 15649	100nF 10% 50V
2206	2020 021 91431	22uF 20% 100V
2207	2222 601 55649	100nF 10% 100V
2208	2222 580 15649	100nF 10% 50V
2211	4822 126 13188	15nF 5% 63V
2214	2238 600 15619	560pF 10% 100V
2215	2238 600 15619	560pF 10% 100V
2216	4822 121 51252	470nF 5% 63V
2217	2222 601 55649	100nF 10% 100V
2220	4822 126 13188	15nF 5% 63V
2222	2238 600 15619	560pF 10% 100V
2224	2222 601 55649	100nF 10% 100V
2225	4822 121 51252	470nF 5% 63V
2226	2238 600 15619	560pF 10% 100V
2227	2222 580 15649	100nF 10% 50V
2228	2222 580 15649	100nF 10% 50V

2229	2222 580 15649	100nF 10% 50V
2230	2222 580 15649	100nF 10% 50V
2231	4822 126 14241	330pF 50V
2234	2238 780 55654	220nF 10% 16V
2235	4822 126 14221	68pF 5% 50V
2236	4822 126 14241	330pF 50V
2301	2222 580 15649	100nF 10% 50V
2302	2222 580 15649	100nF 10% 50V
2304	2222 601 55649	100nF 10% 100V
2305	2222 580 15649	100nF 10% 50V
2306	2020 021 91431	22uF 20% 100V
2307	2222 601 55649	100nF 10% 100V
2308	2222 580 15649	100nF 10% 50V
2311	4822 126 13188	15nF 5% 63V
2314	2238 600 15619	560pF 10% 100V
2315	2238 600 15619	560pF 10% 100V
2316	4822 121 51252	470nF 5% 63V
2317	2222 601 55649	100nF 10% 100V
2320	4822 126 13188	15nF 5% 63V
2322	2238 600 15619	560pF 10% 100V
2324	2222 601 55649	100nF 10% 100V
2325	4822 121 51252	470nF 5% 63V
2326	2238 600 15619	560pF 10% 100V
2327	2222 580 15649	100nF 10% 50V
2328	2222 580 15649	100nF 10% 50V
2329	2222 580 15649	100nF 10% 50V
2330	2222 580 15649	100nF 10% 50V
2331	4822 126 14241	330pF 50V
2334	2238 780 55654	220nF 10% 16V
2335	4822 126 14221	68pF 5% 50V
2336	4822 126 14241	330pF 50V
2400	2222 580 15649	100nF 10% 50V
2401	4822 124 80062	470uF 20% 35V
2402	4822 124 80062	470uF 20% 35V
2403	2222 580 15649	100nF 10% 50V
2404	4822 124 80062	470uF 20% 35V
2405	4822 124 80062	470uF 20% 35V
2406	4822 123 14026	470uF 20% 35V
2407	4822 123 14026	470uF 20% 35V
2408	5322 126 11578	1nF 10% 50V
2409	5322 126 11578	1nF 10% 50V
2410	5322 126 11578	1nF 10% 50V
2411	5322 126 11578	1nF 10% 50V
2412	5322 126 11578	1nF 10% 50V
2413	5322 126 11578	1nF 10% 50V
2414	5322 126 11578	1nF 10% 50V
2415	5322 126 11578	1nF 10% 50V
2416	5322 126 11578	1nF 10% 50V
2417	5322 126 11578	1nF 10% 50V
2418	5322 126 11578	1nF 10% 50V
2419	2238 586 59812	100nF +80/-20% 50V
2420	5322 126 11578	1nF 10% 50V

**ELECTRICAL PARTS LIST - AMPLIFIER BOARD**

2421	5322 126 11578	1nF 10% 50V
2422	5322 126 11578	1nF 10% 50V
2423	2238 586 59812	100nF +80/-20% 50V
2425	5322 126 11578	1nF 10% 50V
2500	2238 586 59812	100nF +80/-20% 50V
2501	2238 586 59812	100nF +80/-20% 50V
2502	2238 586 59812	100nF +80/-20% 50V
2600	2238 586 59812	100nF +80/-20% 50V
2602	2020 552 94427	100pF 5% 50V
2603	2020 552 94427	100pF 5% 50V
2604	2238 586 59812	100nF +80/-20% 50V
2605	4822 126 13881	470pF 5% 50V
2606	5322 126 11578	1nF 10% 50V
2607	2020 552 94427	100pF 5% 50V
2608	2020 552 94427	100pF 5% 50V
2611	2020 552 96507	10uF +80/-20% 10V
2700	2020 552 96507	10uF +80/-20% 10V

**RESISTORS**

3100	4822 051 10568	5R6 5% 0,25W
3101	4822 051 10568	5R6 5% 0,25W
3102	4822 051 10568	5R6 5% 0,25W
3103	2322 762 60229	RST SM 2512 PRC221 22R 5%
3104	2322 762 60229	RST SM 2512 PRC221 22R 5%
3105	4822 051 10568	5R6 5% 0,25W
3107	4822 051 30109	10R 5% 0,062W
3109	4822 051 30109	10R 5% 0,062W
3200	4822 051 10568	5R6 5% 0,25W
3201	4822 051 10568	5R6 5% 0,25W
3202	4822 051 10568	5R6 5% 0,25W
3203	2322 762 60229	RST SM 2512 PRC221 22R 5%
3204	2322 762 60229	RST SM 2512 PRC221 22R 5%
3205	4822 051 10568	5R6 5% 0,25W
3207	4822 051 30109	10R 5% 0,062W
3209	4822 051 30109	10R 5% 0,062W
3300	4822 051 10568	5R6 5% 0,25W
3301	4822 051 10568	5R6 5% 0,25W
3302	4822 051 10568	5R6 5% 0,25W
3303	2322 762 60229	RST SM 2512 PRC221 22R 5%
3304	2322 762 60229	RST SM 2512 PRC221 22R 5%
3305	4822 051 10568	5R6 5% 0,25W
3307	4822 051 30109	10R 5% 0,062W
3309	4822 051 30109	10R 5% 0,062W
3401	4822 051 30562	5k6 5% 0,063W
3404	4822 051 30221	220R 5% 0,062W
3405	4822 051 30562	5k6 5% 0,063W
3408	4822 051 30221	220R 5% 0,062W
3410	4822 051 30562	5k6 5% 0,063W
3411	4822 051 30562	5k6 5% 0,063W
3412	4822 051 30221	220R 5% 0,062W
3413	4822 051 30562	5k6 5% 0,063W
3414	4822 051 30562	5k6 5% 0,063W

3415	4822 051 30562	5k6 5% 0,063W
3420	2322 615 23103	NTC SM 0603 0W125 10k 5%
3420	2322 615 33103	NTC SM 0603 0W125 10k 5%
3421	4822 051 30562	5k6 5% 0,063W
3422	4822 051 30101	100R 5% 0,062W
3423	4822 051 30562	5k6 5% 0,063W
3424	4822 051 30562	5k6 5% 0,063W
3425	4822 051 30562	5k6 5% 0,063W
3426	4822 051 30562	5k6 5% 0,063W
3600	4822 051 10821	820R 2% 0,25W
3601	4822 051 10821	820R 2% 0,25W
3602	4822 117 13632	100k 1% 0,62W
3604	4822 051 30103	10k 5% 0,062W
3605	4822 051 30682	6k8 5% 0,062W
3606	4822 117 13632	100k 1% 0,62W
3607	4822 051 30102	1k 5% 0,062W
3608	4822 051 30105	1M 5% 0,062W
3609	4822 117 13632	100k 1% 0,62W
3610	4822 117 12139	22R 5% 0,062W
3700	4822 117 12925	47k 1% 0,063W
3701	4822 117 12925	47k 1% 0,063W
3703	4822 117 12925	47k 1% 0,063W
3709	4822 117 12925	47k 1% 0,063W
3712	4822 117 12925	47k 1% 0,063W
3713	4822 051 30103	10k 5% 0,062W
3716	4822 117 12925	47k 1% 0,063W
3718	4822 117 12925	47k 1% 0,063W
3721	4822 051 30103	10k 5% 0,062W
3722	4822 051 30103	10k 5% 0,062W
4132	4822 126 14583	470nF 10% 16V
4133	4822 126 14583	470nF 10% 16V
4137	4822 126 14583	470nF 10% 16V
4138	4822 126 14583	470nF 10% 16V
4232	4822 126 14583	470nF 10% 16V
4233	4822 126 14583	470nF 10% 16V
4237	4822 126 14583	470nF 10% 16V
4238	4822 126 14583	470nF 10% 16V
4332	4822 126 14583	470nF 10% 16V
4333	4822 126 14583	470nF 10% 16V
4337	4822 126 14583	470nF 10% 16V
4338	4822 126 14583	470nF 10% 16V

**COILS & FILTERS**

5102	2422 536 00496	INDFXD 16RHBP S 22U PM10
5102	2422 536 00822	INDFXD 16RHBP S 22U P10M20
5103	2422 536 00496	INDFXD 16RHBP S 22U PM10
5103	2422 536 00822	INDFXD 16RHBP S 22U P10M20
5202	2422 536 00496	INDFXD 16RHBP S 22U PM10
5202	2422 536 00822	INDFXD 16RHBP S 22U P10M20
5203	2422 536 00496	INDFXD 16RHBP S 22U PM10
5203	2422 536 00822	INDFXD 16RHBP S 22U P10M20
5302	2422 536 00496	INDFXD 16RHBP S 22U PM10

ELECTRICAL PARTS LIST - AMPLIFIER BOARD

COILS & FILTERS

5302	2422 536 00822	INDFXD 16RHBP S 22U P10M20
5303	2422 536 00496	INDFXD 16RHBP S 22U PM10
5303	2422 536 00822	INDFXD 16RHBP S 22U P10M20
5400	4822 157 11411	FXDIND BEAD 100MHz 80R
5401	4822 157 11411	FXDIND BEAD 100MHz 80R

DIODES

6600	3198 020 55680	BZX384-C5V6
6713	4822 130 11397	BAS316
6714	4822 130 11397	BAS316
6715	4822 130 11397	BAS316

TRANSISTORS & INTEGRATED CIRCUITS

7100	9352 705 74518	IC SM TDA8920TH/N1
7200	9352 705 74518	IC SM TDA8920TH/N1
7300	9352 705 74518	IC SM TDA8920TH/N1
7600	5322 209 11517	IC SM 74HCU04D
7602	5322 130 60159	BC847B
7607	5322 209 14477	IC SM HEF4013BT
7608	4822 130 60373	BC857B
7710	5322 130 60159	BC847B
7716	4822 130 60373	BC857B

Note : Only the parts mentioned in this list are normal service spare parts.

# SPEAKER CONNECTOR BOARD

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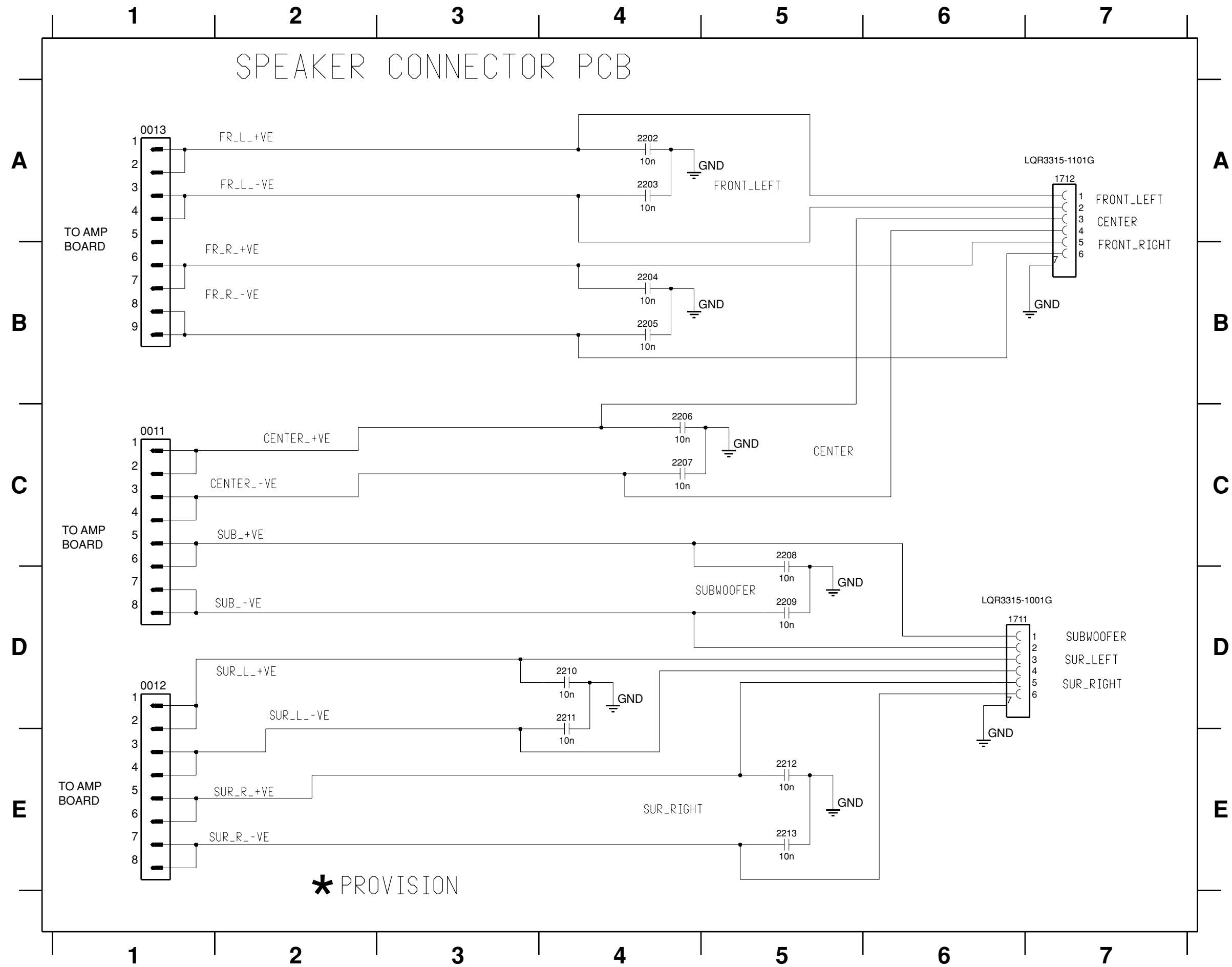
Component and Chip layouts ..... 9-3

ELECTRICAL PARTS LIST - SPEAKER CONNECTOR BOARD

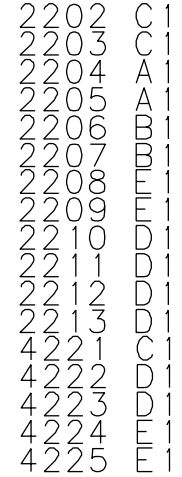
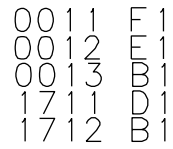
MISCELLANEOUS		
1711	2422 025 18178	Speaker Socket 6P Purple/Blue/Grey
1712	2422 025 18179	Speaker Socket 6P White/Green/Red
CAPACITORS		
2202	5322 126 11583	10nF 10% 50V
2203	5322 126 11583	10nF 10% 50V
2204	5322 126 11583	10nF 10% 50V
2205	5322 126 11583	10nF 10% 50V
2206	5322 126 11583	10nF 10% 50V
2207	5322 126 11583	10nF 10% 50V
2208	5322 126 11583	10nF 10% 50V
2209	5322 126 11583	10nF 10% 50V
2210	5322 126 11583	10nF 10% 50V
2211	5322 126 11583	10nF 10% 50V
2212	5322 126 11583	10nF 10% 50V
2213	5322 126 11583	10nF 10% 50V
RESISTORS		
4221	4822 051 20008	0R Jumper 0805
4222	4822 051 20008	0R Jumper 0805
4223	4822 051 20008	0R Jumper 0805
4224	4822 051 20008	0R Jumper 0805
4225	4822 051 20008	0R Jumper 0805

Note : Only the parts mentioned in this list are normal service spare parts.

SPEAKER CONNECTOR BOARD - CIRCUIT DIAGRAM



- 0011 C1
- 0012 D1
- 0013 A1
- 1711 D6
- 1712 A7
- 2202 A4
- 2203 A4
- 2204 B4
- 2205 B4
- 2206 C4
- 2207 C4
- 2208 C5
- 2209 D5
- 2210 D4
- 2211 D4
- 2212 E5
- 2213 E5



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# MODULE SD6.1 RX

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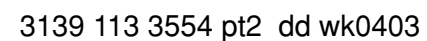
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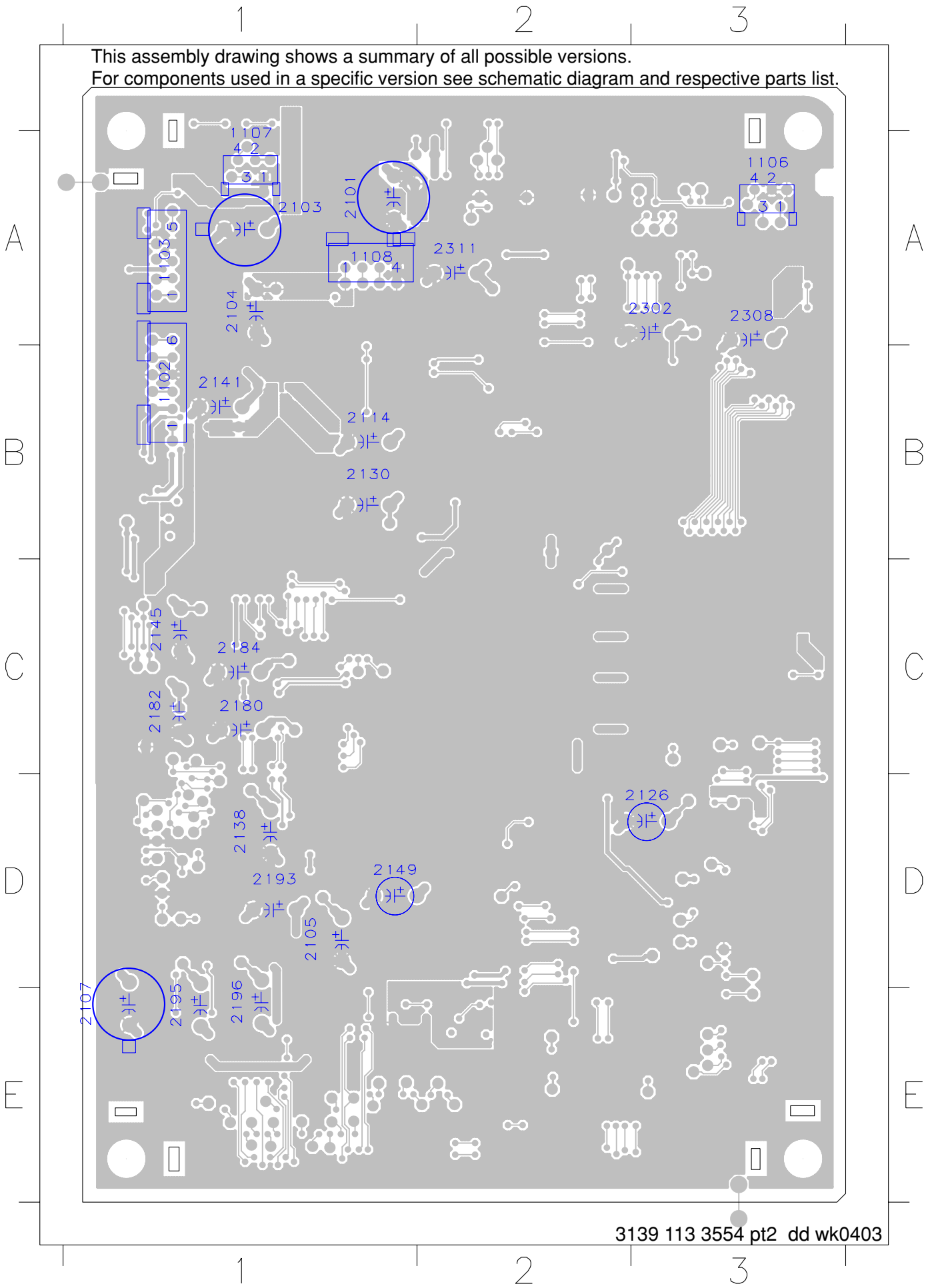
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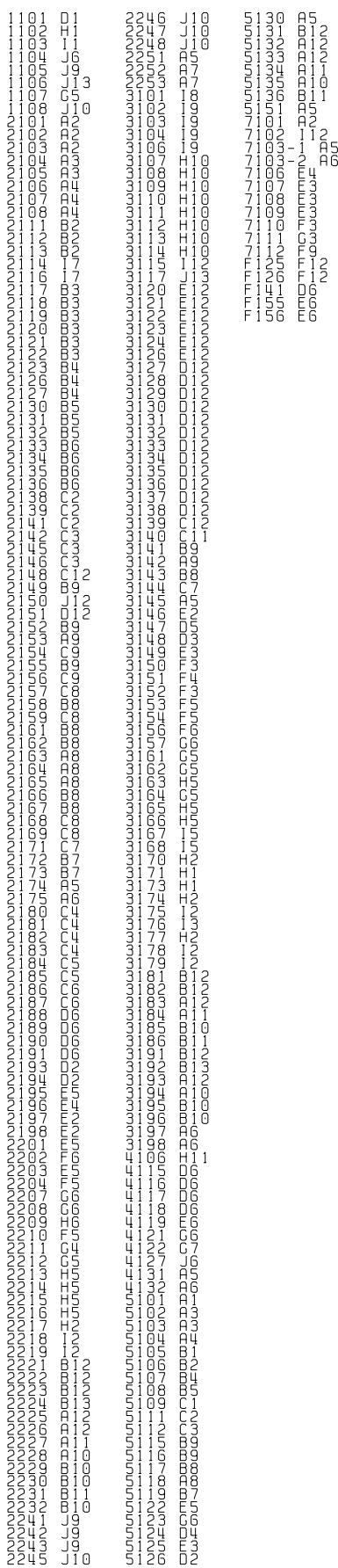
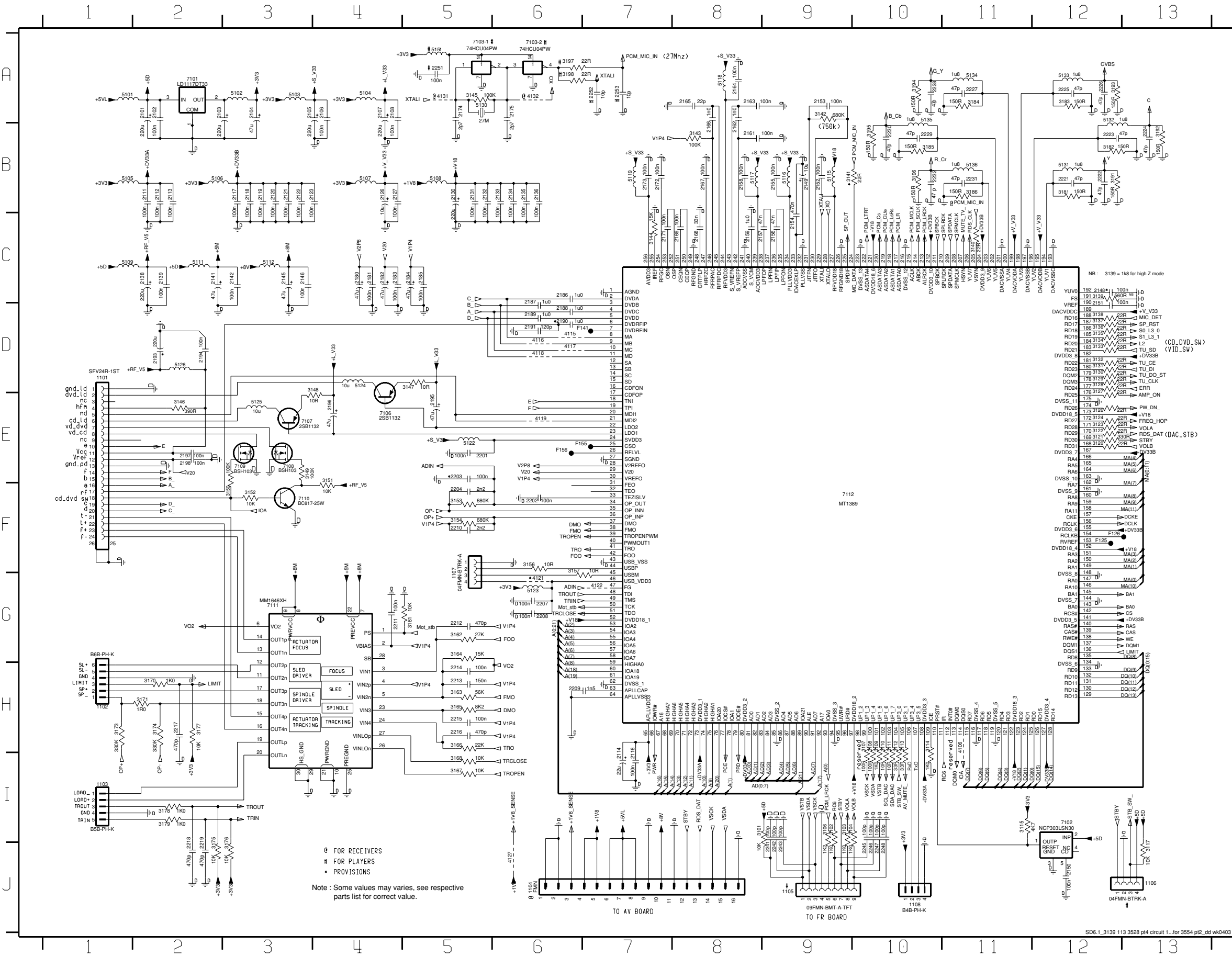


SD6.1 RX BOARD - BOTTOM VIEW LAYOUT

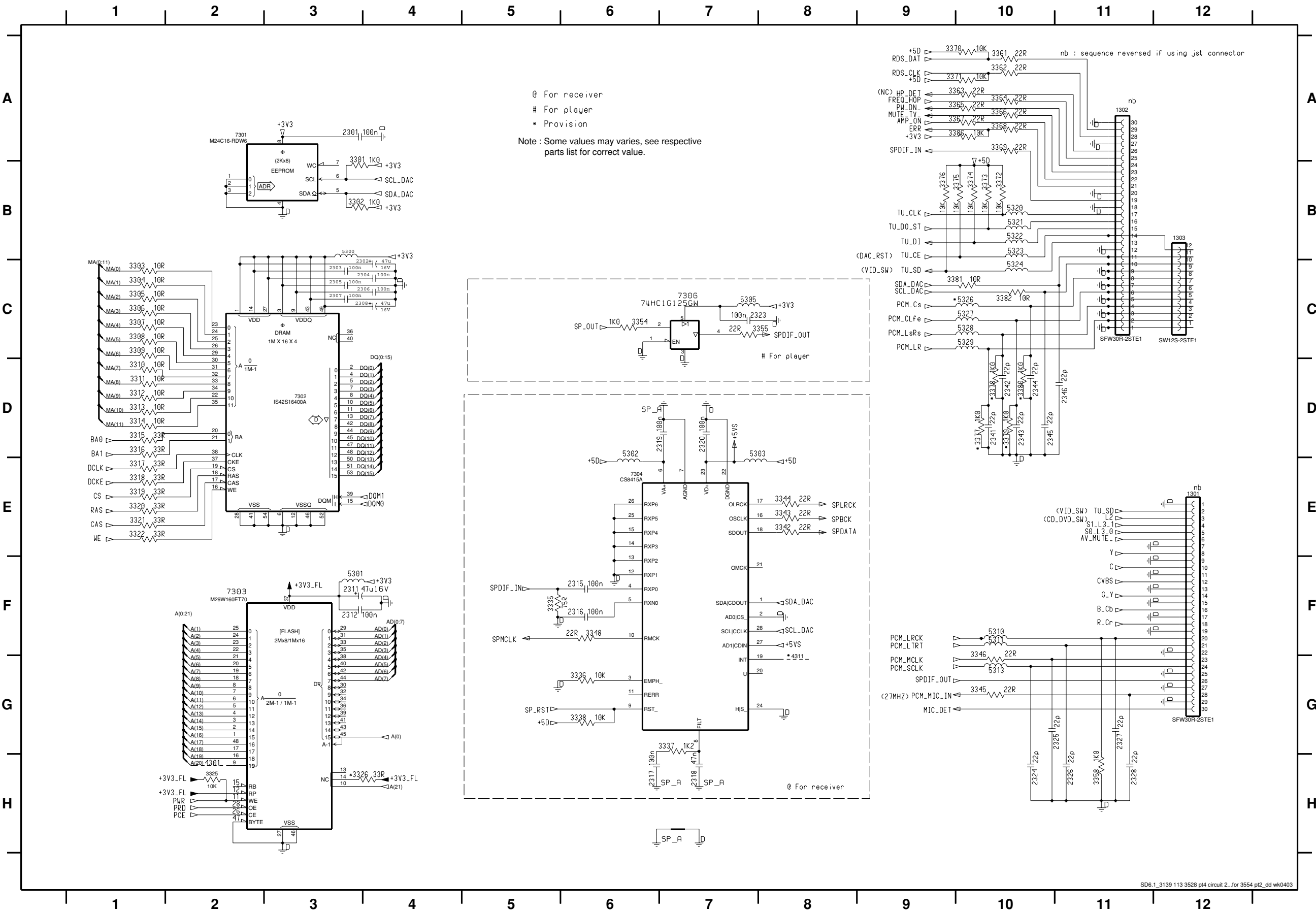


1102	B1
1103	A1
1106	A3
1107	A1
1108	A1
2101	A1
2103	A1
2104	A1
2105	D1
2107	E1
2114	B1
2126	D3
2130	B1
2138	D1
2141	B1
2145	C1
2149	D1
2180	C1
2182	C1
2184	C1
2193	D1
2195	E1
2196	E1
2302	A3
2308	A3
2311	A2

SD6.1 RX BOARD - CIRCUIT DIAGRAM (PART 1)

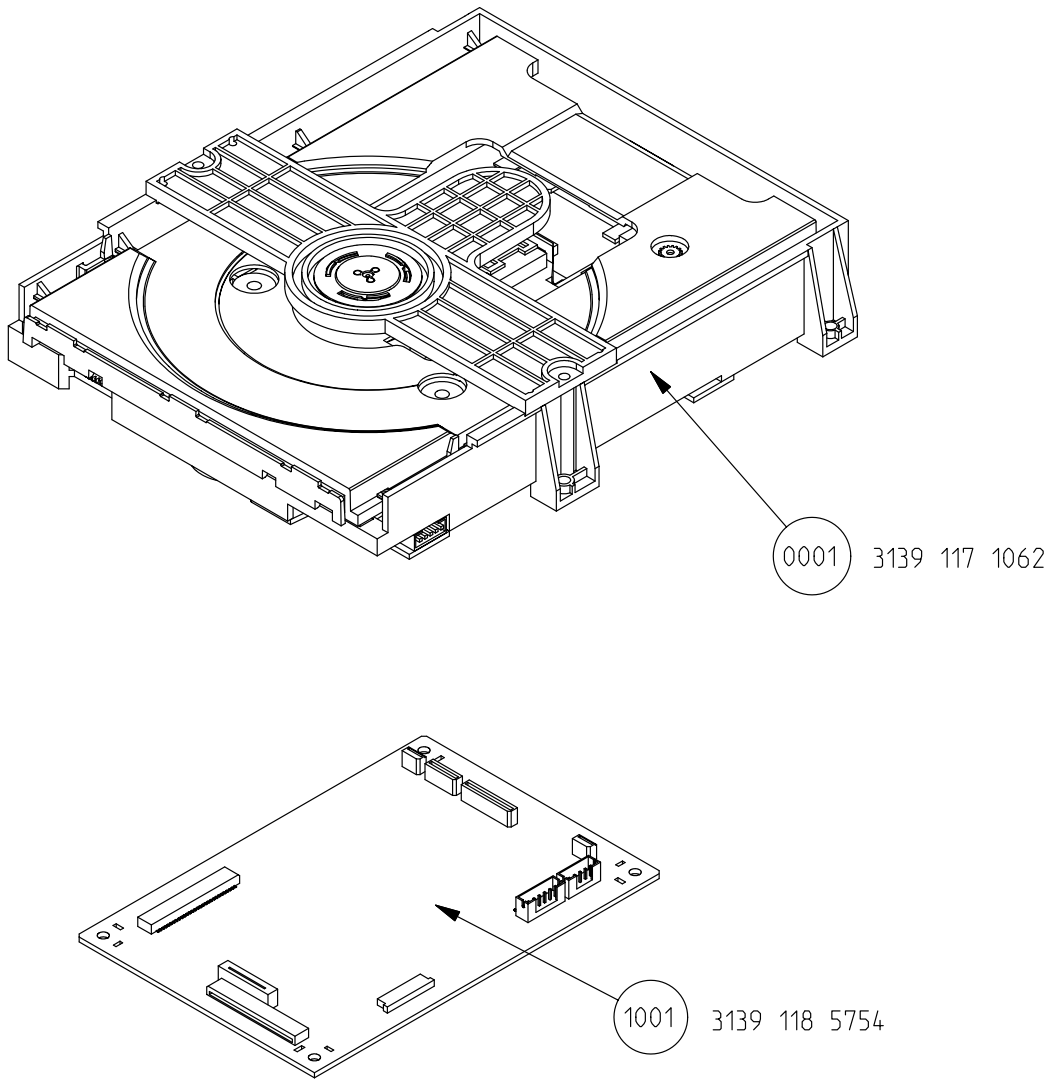


SD6.1 RX BOARD - CIRCUIT DIAGRAM (PART 2)



1301 E12	5323 B10
1302 A11	5324 C10
1303 B12	5326 C10
2301 A3	5327 C10
2302 C4	5328 C10
2303 C3	5329 C10
2304 C4	7301 A2
2305 C3	7302 D3
2306 C4	7303 F2
2307 C3	7304 E6
2308 C4	7306 C7
2311 F3	
2312 F3	
2315 F6	
2316 F6	
2317 H6	
2318 H7	
2319 D6	
2320 D7	
2323 C7	
2324 H10	
2325 G10	
2326 H11	
2327 G11	
2328 H11	
2341 D10	
2342 D10	
2343 D10	
2344 D10	
2345 D10	
2346 D11	
3301 B3	
3302 B3	
3303 C1	
3304 C1	
3305 C1	
3306 C1	
3307 C1	
3308 C1	
3309 C1	
3310 D1	
3311 D1	
3312 D1	
3313 D1	
3314 D1	
3315 D1	
3316 D1	
3317 E1	
3318 E1	
3319 E1	
3320 E1	
3321 E1	
3322 E1	
3325 H2	
3326 H3	
3335 F5	
3336 G6	
3337 G7	
3338 G6	
3342 E8	
3343 E8	
3344 E8	
3345 G10	
3346 G10	
3348 F6	
3354 C6	
3355 C8	
3358 H11	
3361 A10	
3362 A10	
3363 A10	
3364 A10	
3365 A10	
3366 A10	
3367 A10	
3368 A10	
3369 A10	
3370 A9	
3371 A9	
3372 B10	
3373 B10	
3374 B10	
3375 B9	
3376 B9	
3377 D10	
3378 D10	
3379 D10	
3380 D10	
3381 C9	
3382 C10	
3386 A10	
4301 H2	
4311 G8	
5300 B3	
5301 F3	
5302 D6	
5303 D7	
5305 C7	
5310 F10	
5311 F10	
5313 G10	
5320 B10	
5321 B10	
5322 B10	

EXPLODED VIEW - MODULE SD6.1 RX



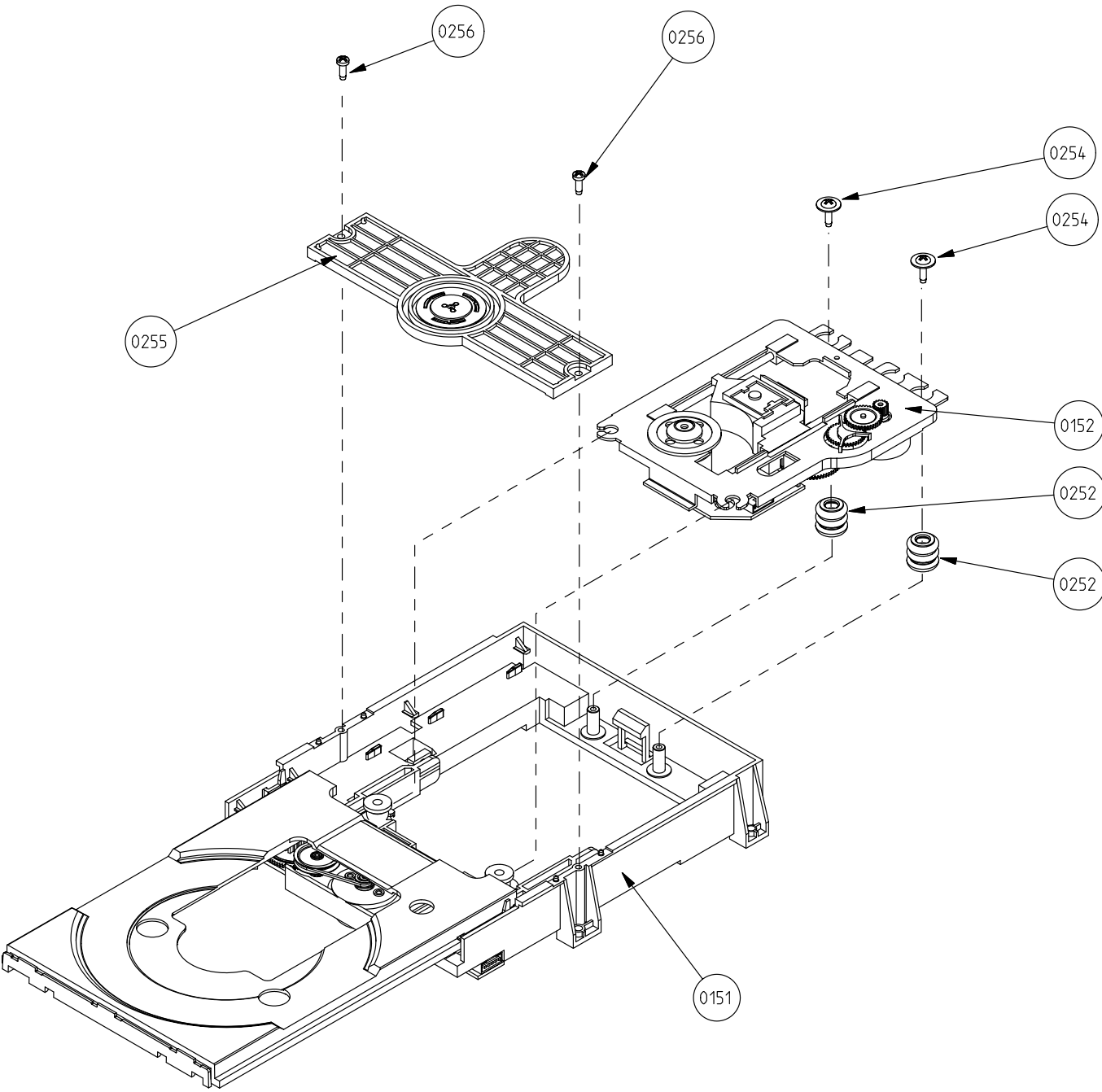
Module SD6.1 RX\_3139 117 10651\_dd wk0406

MODULE SD6.1 RX PARTS LIST

0001	3139 117 10621	Module DVD Loader ASA+DV34
1001	3139 118 57541	PCBAS SD6.1 RX
1101	3139 111 03851	FFCFoil24P/140/24PAD0.5MMP

Note : Only the parts mentioned in this list are normal service spare parts.

EXPLODED VIEW - MODULE DVD LOADER ASA+DV34



Module DVD Loader ASA+DV34\_3139 117 10621\_dd wk0406

**ELECTRICAL PARTS LIST - SD6.1 RX BOARD****MISCELLANEOUS**

1101	2422 025 17529	Flex Connector 24P
1104	2422 025 16388	Flex Connector 16P
1105	2422 025 17768	Flex Connector 9P
1301	2422 025 17451	Flex Connector 30P
1302	2422 025 17451	Flex Connector 30P

**CAPACITORS**

2101	3198 029 12210	220uF 20% 10V
2102	2238 586 59812	100nF +80/-20% 50V
2103	3198 029 12210	220uF 20% 10V
2104	4822 124 80231	47uF 20% 16V
2105	4822 124 40196	220uF 20% 16V
2106	2238 586 59812	100nF +80/-20% 50V
2107	3198 029 12210	220uF 20% 10V
2108	2238 586 59812	100nF +80/-20% 50V
2111	2238 586 59812	100nF +80/-20% 50V
2112	2238 586 59812	100nF +80/-20% 50V
2113	2238 586 59812	100nF +80/-20% 50V
2114	4822 124 81151	22uF 50V
2116	2238 586 59812	100nF +80/-20% 50V
2117	2238 586 59812	100nF +80/-20% 50V
2118	2238 586 59812	100nF +80/-20% 50V
2119	2238 586 59812	100nF +80/-20% 50V
2120	2238 586 59812	100nF +80/-20% 50V
2121	2238 586 59812	100nF +80/-20% 50V
2122	2238 586 59812	100nF +80/-20% 50V
2123	2238 586 59812	100nF +80/-20% 50V
2126	4822 124 21732	10uF 20% 25V
2127	2238 586 59812	100nF +80/-20% 50V
2130	4822 124 40196	220uF 20% 16V
2131	2238 586 59812	100nF +80/-20% 50V
2132	2238 586 59812	100nF +80/-20% 50V
2133	2238 586 59812	100nF +80/-20% 50V
2134	2238 586 59812	100nF +80/-20% 50V
2135	2238 586 59812	100nF +80/-20% 50V
2136	2238 586 59812	100nF +80/-20% 50V
2138	4822 124 40196	220uF 20% 16V
2139	2238 586 59812	100nF +80/-20% 50V
2141	4822 124 80231	47uF 20% 16V
2142	2238 586 59812	100nF +80/-20% 50V
2145	4822 124 80231	47uF 20% 16V
2146	2238 586 59812	100nF +80/-20% 50V
2149	4822 124 21732	10uF 20% 25V
2150	2238 586 59812	100nF +80/-20% 50V
2151	2238 586 59812	100nF +80/-20% 50V
2152	2238 586 59812	100nF +80/-20% 50V
2153	2238 586 59812	100nF +80/-20% 50V
2154	3198 017 44740	470nF 10V
2155	2238 586 59812	100nF +80/-20% 50V
2156	3198 017 34730	47nF 16V
2157	3198 017 34730	47nF 16V
2158	2238 586 59812	100nF +80/-20% 50V

2159	3198 017 41050	1uF 10V
2161	2238 586 59812	100nF +80/-20% 50V
2162	5322 126 11578	1nF 10% 50V
2163	2238 586 59812	100nF +80/-20% 50V
2164	2238 586 59812	100nF +80/-20% 50V
2165	4822 122 33761	22pF 5% 50V
2166	5322 126 11578	1nF 10% 50V
2167	2238 586 59812	100nF +80/-20% 50V
2168	4822 126 14549	33nF 16V
2169	2238 586 59812	100nF +80/-20% 50V
2171	2238 586 59812	100nF +80/-20% 50V
2172	2238 586 59812	100nF +80/-20% 50V
2173	2238 586 59812	100nF +80/-20% 50V
2174	4822 126 14223	2,2pF 50V
2175	4822 126 14223	2,2pF 50V
2180	4822 124 80231	47uF 20% 16V
2181	2238 586 59812	100nF +80/-20% 50V
2182	4822 124 80231	47uF 20% 16V
2183	2238 586 59812	100nF +80/-20% 50V
2184	4822 124 80231	47uF 20% 16V
2185	2238 586 59812	100nF +80/-20% 50V
2186	3198 017 41050	1uF 10V
2187	3198 017 41050	1uF 10V
2188	3198 017 41050	1uF 10V
2189	3198 017 41050	1uF 10V
2190	3198 017 41050	1uF 10V
2193	4822 124 40196	220uF 20% 16V
2194	2238 586 59812	100nF +80/-20% 50V
2195	4822 124 80231	47uF 20% 16V
2196	4822 124 80231	47uF 20% 16V
2197	2238 586 59812	100nF +80/-20% 50V
2198	2238 586 59812	100nF +80/-20% 50V
2201	2238 586 59812	100nF +80/-20% 50V
2202	2238 586 59812	100nF +80/-20% 50V
2204	4822 126 14238	2,2nF 50V
2209	4822 126 14247	1,5nF 50V
2210	4822 126 14238	2,2nF 50V
2211	2238 586 59812	100nF +80/-20% 50V
2212	4822 126 13881	470pF 5% 50V
2213	3198 017 31540	150nF 10V
2214	2222 586 18812	100nF 10% 50V
2215	2222 586 18812	100nF 10% 50V
2216	4822 126 13881	470pF 5% 50V
2217	4822 126 13881	470pF 5% 50V
2218	4822 126 13881	470pF 5% 50V
2219	4822 126 13881	470pF 5% 50V
2221	4822 126 11785	47pF 5% 50V
2222	4822 126 11785	47pF 5% 50V
2223	4822 126 11785	47pF 5% 50V
2224	4822 126 11785	47pF 5% 50V
2225	4822 126 11785	47pF 5% 50V
2226	4822 126 11785	47pF 5% 50V

**ELECTRICAL PARTS LIST - SD6.1 RX BOARD**

2227	4822 126 11785	47pF 5% 50V
2228	4822 126 11785	47pF 5% 50V
2229	4822 126 11785	47pF 5% 50V
2230	4822 126 11785	47pF 5% 50V
2231	4822 126 11785	47pF 5% 50V
2232	4822 126 11785	47pF 5% 50V
2241	2020 552 94427	100pF 5% 50V
2242	2020 552 94427	100pF 5% 50V
2243	2020 552 94427	100pF 5% 50V
2245	2020 552 94427	100pF 5% 50V
2246	2020 552 94427	100pF 5% 50V
2247	2020 552 94427	100pF 5% 50V
2248	2020 552 94427	100pF 5% 50V
2301	2238 586 59812	100nF +80/-20% 50V
2302	4822 124 80231	47uF 20% 16V
2303	2238 586 59812	100nF +80/-20% 50V
2304	2238 586 59812	100nF +80/-20% 50V
2305	2238 586 59812	100nF +80/-20% 50V
2306	2238 586 59812	100nF +80/-20% 50V
2307	2238 586 59812	100nF +80/-20% 50V
2308	4822 124 80231	47uF 20% 16V
2311	4822 124 80231	47uF 20% 16V
2312	2238 586 59812	100nF +80/-20% 50V
2315	2238 586 59812	100nF +80/-20% 50V
2316	2238 586 59812	100nF +80/-20% 50V
2317	2238 586 59812	100nF +80/-20% 50V
2318	3198 017 34730	47nF 16V
2319	2238 586 59812	100nF +80/-20% 50V
2320	2238 586 59812	100nF +80/-20% 50V
2323	2238 586 59812	100nF +80/-20% 50V
2324	4822 122 33761	22pF 5% 50V
2325	4822 122 33761	22pF 5% 50V
2326	4822 122 33761	22pF 5% 50V
2327	4822 122 33761	22pF 5% 50V
2328	4822 122 33761	22pF 5% 50V
2341	4822 122 33761	22pF 5% 50V
2342	4822 122 33761	22pF 5% 50V
2343	4822 122 33761	22pF 5% 50V
2344	4822 122 33761	22pF 5% 50V
2345	4822 122 33761	22pF 5% 50V
2346	4822 122 33761	22pF 5% 50V

**RESISTORS**

3101	4822 051 30103	10k 5% 0,062W
3102	4822 051 30102	1k 5% 0,062W
3103	4822 051 30102	1k 5% 0,062W
3104	4822 051 30102	1k 5% 0,062W
3106	4822 117 11817	1k2 1% 1/16W
3107	4822 051 30102	1k 5% 0,062W
3108	4822 051 30101	100R 5% 0,062W
3109	4822 051 30101	100R 5% 0,062W
3110	4822 051 30109	10R 5% 0,062W

3111	4822 051 30109	10R 5% 0,062W
3112	4822 051 30339	33R 5% 0,062W
3113	4822 051 30339	33R 5% 0,062W
3114	4822 051 30102	1k 5% 0,062W
3115	4822 051 30472	4k7 5% 0,062W
3120	4822 117 12139	22R 5% 0,062W
3122	4822 117 12139	22R 5% 0,062W
3123	4822 117 12139	22R 5% 0,062W
3124	4822 117 12139	22R 5% 0,062W
3126	4822 117 12139	22R 5% 0,062W
3127	4822 117 12139	22R 5% 0,062W
3128	4822 117 12139	22R 5% 0,062W
3129	4822 117 12139	22R 5% 0,062W
3130	4822 117 12139	22R 5% 0,062W
3131	4822 117 12139	22R 5% 0,062W
3132	4822 117 12139	22R 5% 0,062W
3133	4822 117 12139	22R 5% 0,062W
3134	4822 117 12139	22R 5% 0,062W
3135	4822 117 12139	22R 5% 0,062W
3136	4822 117 12139	22R 5% 0,062W
3137	4822 117 12139	22R 5% 0,062W
3138	4822 117 12139	22R 5% 0,062W
3139	4822 051 30561	560R 5% 0,062W
3140	4822 117 12139	22R 5% 0,062W
3142	2322 704 67504	RST SM 0603 RC22H 750k PM1
3143	4822 117 13632	100k 1% 0,62W
3144	4822 051 30153	15k 5% 0,062W
3145	4822 117 13632	100k 1% 0,62W
3146	4822 051 30391	390R 5% 0,062W
3147	4822 051 30109	10R 5% 0,062W
3148	4822 051 30109	10R 5% 0,062W
3149	4822 117 13632	100k 1% 0,62W
3150	4822 117 13632	100k 1% 0,62W
3151	4822 051 30103	10k 5% 0,062W
3152	4822 051 30103	10k 5% 0,062W
3153	4822 051 30684	680k 5% 0,062W
3154	4822 051 30684	680k 5% 0,062W
3161	4822 051 30103	10k 5% 0,062W
3162	4822 051 30273	27k 5% 0,062W
3163	4822 051 30563	56k 5% 0,062W
3164	4822 051 30153	15k 5% 0,062W
3165	5322 117 13056	8k2 1% 0,063W
3166	4822 051 30223	22k 5% 0,062W
3167	4822 051 30103	10k 5% 0,062W
3168	4822 051 30103	10k 5% 0,062W
3170	4822 051 30102	1k 5% 0,062W
3171	4822 051 20108	1R 5% 0,1W
3173	4822 051 30334	330k 5% 0,062W
3174	4822 051 30334	330k 5% 0,062W
3175	4822 051 30103	10k 5% 0,062W
3176	4822 051 30103	10k 5% 0,062W
3177	4822 051 30103	10k 5% 0,062W

**ELECTRICAL PARTS LIST - SD6.1 RX BOARD****RESISTORS**

3178	4822 051 30102	1k 5% 0,062W
3179	4822 051 30102	1k 5% 0,062W
3181	2322 704 61501	RST SM 0603 RC22H 150R PM1
3182	2322 704 61501	RST SM 0603 RC22H 150R PM1
3183	2322 704 61501	RST SM 0603 RC22H 150R PM1
3184	2322 704 61501	RST SM 0603 RC22H 150R PM1
3185	2322 704 61501	RST SM 0603 RC22H 150R PM1
3186	2322 704 61501	RST SM 0603 RC22H 150R PM1
3191	2322 704 61501	RST SM 0603 RC22H 150R PM1
3192	2322 704 61501	RST SM 0603 RC22H 150R PM1
3193	2322 704 61501	RST SM 0603 RC22H 150R PM1
3194	2322 704 61501	RST SM 0603 RC22H 150R PM1
3195	2322 704 61501	RST SM 0603 RC22H 150R PM1
3196	2322 704 61501	RST SM 0603 RC22H 150R PM1
3301	4822 051 30102	1k 5% 0,062W
3302	4822 051 30102	1k 5% 0,062W
3303	4822 051 30109	10R 5% 0,062W
3304	4822 051 30109	10R 5% 0,062W
3305	4822 051 30109	10R 5% 0,062W
3306	4822 051 30109	10R 5% 0,062W
3307	4822 051 30109	10R 5% 0,062W
3308	4822 051 30109	10R 5% 0,062W
3309	4822 051 30109	10R 5% 0,062W
3310	4822 051 30109	10R 5% 0,062W
3311	4822 051 30109	10R 5% 0,062W
3312	4822 051 30109	10R 5% 0,062W
3313	4822 051 30109	10R 5% 0,062W
3314	4822 051 30109	10R 5% 0,062W
3315	4822 051 30339	33R 5% 0,062W
3316	4822 051 30339	33R 5% 0,062W
3317	4822 051 30339	33R 5% 0,062W
3318	4822 051 30339	33R 5% 0,062W
3319	4822 051 30339	33R 5% 0,062W
3320	4822 051 30339	33R 5% 0,062W
3321	4822 051 30339	33R 5% 0,062W
3322	4822 051 30339	33R 5% 0,062W
3325	4822 051 30103	10k 5% 0,062W
3326	4822 051 30339	33R 5% 0,062W
3335	4822 051 30759	75R 5% 0,062W
3336	4822 051 30103	10k 5% 0,062W
3337	4822 117 11817	1k2 1% 1/16W
3338	4822 051 30103	10k 5% 0,062W
3342	4822 117 12139	22R 5% 0,062W
3343	4822 117 12139	22R 5% 0,062W
3344	4822 117 12139	22R 5% 0,062W
3345	4822 117 12139	22R 5% 0,062W
3346	4822 117 12139	22R 5% 0,062W
3348	4822 117 12139	22R 5% 0,062W
3354	4822 051 30102	1k 5% 0,062W
3355	4822 117 12139	22R 5% 0,062W
3358	4822 051 30102	1k 5% 0,062W
3361	4822 117 12139	22R 5% 0,062W

3362	4822 117 12139	22R 5% 0,062W
3363	4822 117 12139	22R 5% 0,062W
3364	4822 117 12139	22R 5% 0,062W
3365	4822 117 12139	22R 5% 0,062W
3366	4822 117 12139	22R 5% 0,062W
3367	4822 117 12139	22R 5% 0,062W
3368	4822 117 12139	22R 5% 0,062W
3369	4822 117 12139	22R 5% 0,062W
3370	4822 051 30103	10k 5% 0,062W
3371	4822 051 30103	10k 5% 0,062W
3372	4822 051 30103	10k 5% 0,062W
3373	4822 051 30103	10k 5% 0,062W
3374	4822 051 30103	10k 5% 0,062W
3375	4822 051 30103	10k 5% 0,062W
3376	4822 051 30103	10k 5% 0,062W
3381	4822 051 30109	10R 5% 0,062W
3382	4822 051 30109	10R 5% 0,062W
3386	4822 051 30103	10k 5% 0,062W
4106	4822 051 30008	0R Jumper 0603
4115	4822 051 30008	0R Jumper 0603
4116	4822 051 30008	0R Jumper 0603
4117	4822 051 30008	0R Jumper 0603
4118	4822 051 30008	0R Jumper 0603
4119	4822 051 30008	0R Jumper 0603
4122	4822 051 30008	0R Jumper 0603
4127	4822 051 30008	0R Jumper 0603
4131	4822 051 30008	0R Jumper 0603
4132	4822 051 30008	0R Jumper 0603
4301	4822 051 30008	0R Jumper 0603

**COILS & FILTERS**

5101	2422 549 45618	INDFXD 0603 EMI 100MHz 60R
5102	2422 549 45618	INDFXD 0603 EMI 100MHz 60R
5103	4822 157 71206	FXDIND 0805 100MHz 600R
5104	4822 157 71206	FXDIND 0805 100MHz 600R
5105	2422 549 43062	FXDIND 0603 100MHz 600R
5106	2422 549 43062	FXDIND 0603 100MHz 600R
5107	4822 157 71206	FXDIND 0805 100MHz 600R
5108	2422 549 45618	INDFXD 0603 EMI 100MHz 60R
5109	2422 549 43062	FXDIND 0603 100MHz 600R
5111	4822 157 71206	FXDIND 0805 100MHz 600R
5112	2422 549 45618	INDFXD 0603 EMI 100MHz 60R
5115	2422 549 43062	FXDIND 0603 100MHz 600R
5116	2422 549 43062	FXDIND 0603 100MHz 600R
5117	2422 549 43062	FXDIND 0603 100MHz 600R
5118	2422 549 43062	FXDIND 0603 100MHz 600R
5119	2422 549 43062	FXDIND 0603 100MHz 600R
5122	2422 549 43062	FXDIND 0603 100MHz 600R
5124	3198 018 31090	FXDIND SM 0805 10U PM10
5125	3198 018 31090	FXDIND SM 0805 10U PM10
5126	2422 549 43062	FXDIND 0603 100MHz 600R
5130	2422 543 01393	RES XTL SM 27MHz 10P CX8045

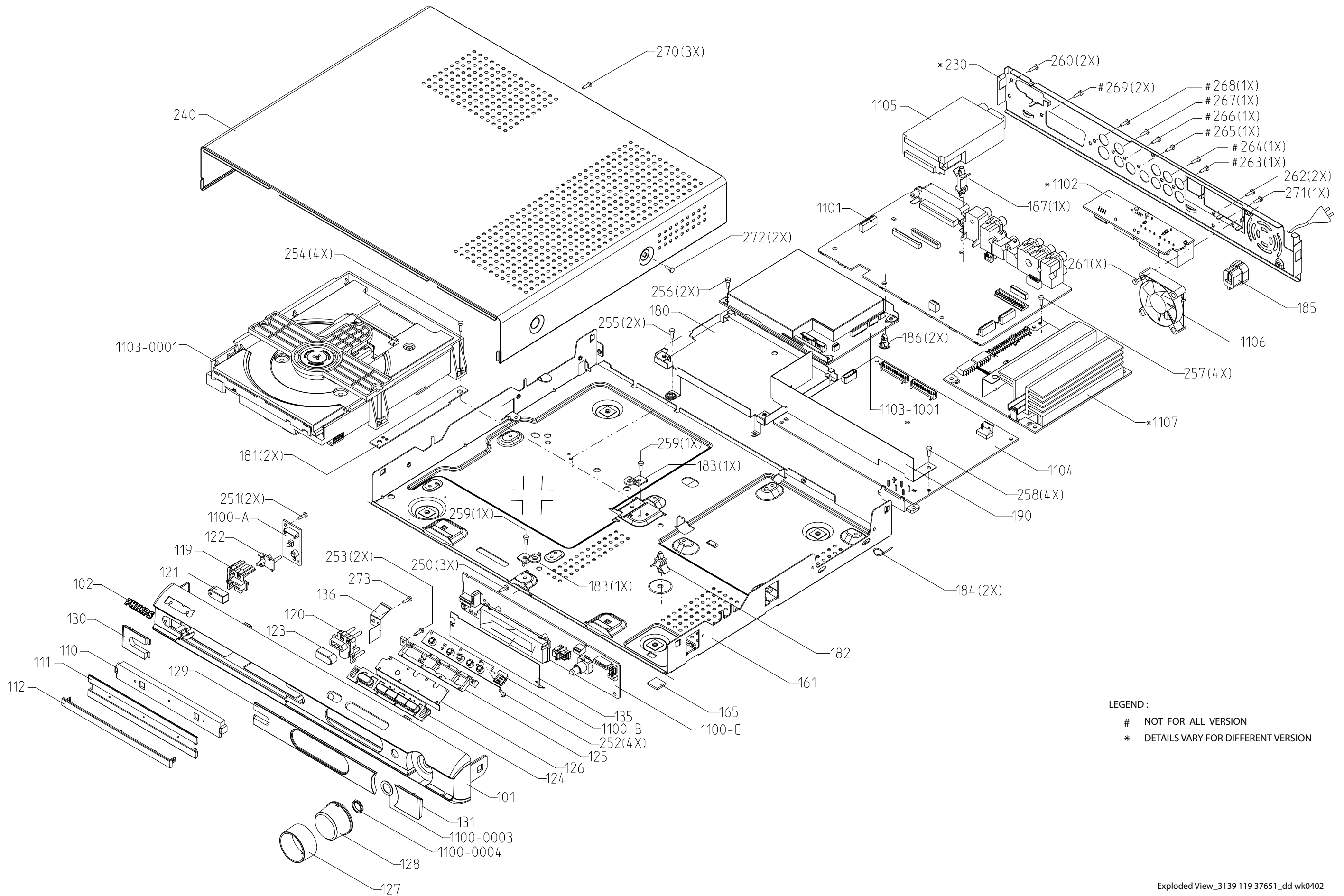
**ELECTRICAL PARTS LIST - SD6.1 RX BOARD**

5131	4822 157 11414	FXDIND SM 1210 1U8 PM5
5132	4822 157 11414	FXDIND SM 1210 1U8 PM5
5133	4822 157 11414	FXDIND SM 1210 1U8 PM5
5134	4822 157 11414	FXDIND SM 1210 1U8 PM5
5135	4822 157 11414	FXDIND SM 1210 1U8 PM5
5136	4822 157 11414	FXDIND SM 1210 1U8 PM5
5300	2422 549 43062	FXDIND 0603 100MHz 600R
5301	2422 549 43062	FXDIND 0603 100MHz 600R
5302	2422 549 43062	FXDIND 0603 100MHz 600R
5303	2422 549 43062	FXDIND 0603 100MHz 600R
5305	2422 549 43062	FXDIND 0603 100MHz 600R
5310	2422 549 43062	FXDIND 0603 100MHz 600R
5311	2422 549 43062	FXDIND 0603 100MHz 600R
5313	2422 549 43062	FXDIND 0603 100MHz 600R
5320	2422 549 43062	FXDIND 0603 100MHz 600R
5321	2422 549 43062	FXDIND 0603 100MHz 600R
5322	2422 549 43062	FXDIND 0603 100MHz 600R
5323	2422 549 43062	FXDIND 0603 100MHz 600R
5324	2422 549 43062	FXDIND 0603 100MHz 600R
5326	2422 549 43062	FXDIND 0603 100MHz 600R
5327	2422 549 43062	FXDIND 0603 100MHz 600R
5328	2422 549 43062	FXDIND 0603 100MHz 600R
5329	2422 549 43062	FXDIND 0603 100MHz 600R

**TRANSISTORS & INTEGRATED CIRCUITS**

7101	4822 209 17398	IC SM LD1117DT33
7102	9322 165 15685	IC SM NCP303LSN30
7106	4822 130 11565	2SB1132
7107	4822 130 11565	2SB1132
7108	9340 547 13215	FET SIG SM BSH103
7109	9340 547 13215	FET SIG SM BSH103
7110	9340 219 30115	BC817-25W
7111	9322 201 94668	IC SM MM1646XH
7112	9322 203 35671	IC SM MT1389E
7301	9322 189 04668	IC SM M24C16-RDW6
7302	9322 199 38671	IC SM IS42S16400A-7T
7303	3139 110 53721	FLASH + EMBEDDED SW
7304	9322 185 10668	IC SM CS8415A-CZ
7306	9352 456 90115	IC SM 74HC1G125GW

Note : Only the parts mentioned in this list are normal service spare parts.

**SET MECHANICAL EXPLODED VIEW****LEGEND :**

- # NOT FOR ALL VERSION
- \* DETAILS VARY FOR DIFFERENT VERSION

**MECHANICAL & ACCESSORIES PARTS LIST - MAIN UNIT****SCREW LISTS - MAIN UNIT**

0101	3139 114 79841	Cabinet Front	8004	3139 111 03811	FFC Foil 09P/340/09P AD 1MMP
0102	3139 247 51831	Badge Philips Assy Silver	8200	3139 111 03781	FFC Foil 10P/120/10P AD Fold
0110	3139 114 79831	Cover Tray Technical	8201	3139 111 03781	FFC Foil 10P/120/10P AD Fold
0111	3139 114 79821	Cover Tray Lens	8500	3139 241 00251	FFC Foil 30P/080/30P BD 1MMP
0112	3139 114 79811	Cover Tray Orn Chrome	8501	3139 111 04031	FFC Foil 16P/140/16P AD 1MMP

250	D3 x 8
251	D3 x 8
252	D2 x 6
253	D2 x 6
254	M3 x 8

0119	3139 254 00431	Button Frame Standby	8502	3139 111 03971	FFC Foil 30P/100 BD 1MMP Fold
0120	3139 254 00421	Button Frame Open/Close	8700	3139 111 03801	FFC Foil 11P/080/11P AD
0121	3139 114 79711	Cap Standby Chrome			
0122	3139 114 79721	Lightguide Standby			
0123	3139 114 79701	Cap Open/Close Chrome			

255	M3 x 6
256	M3 x 6
257	M3 x 6
258	M3 x 6
259	M3 x 4

**Satellite Speaker Boxes Breakdown (CS3900SA/01)**

0124	3139 114 79691	Button Function	4340 702 10491	Center Speaker Box
0125	3139 114 79801	Bracket Button Function	4340 702 10501	Front Speaker Box Right
0127	3139 114 79761	Knob Volume	4340 702 10551	Front Speaker Box Left
0128	3139 114 79751	Cap Volume Chrome	4340 702 10511	Rear Speaker Box Right
0129	3139 114 79791	Window Main	4340 702 10561	Rear Speaker Box Left
			4340 704 00641	Bracket

260	M3 x 4
261	M3x 12
262	D3 x 8
263	D3 x 8 /69/75/93
264	D3 x 8

0130	3139 114 79781	Window Left		
0131	3139 114 79771	Window Right		
0165	3139 243 10080	Cushion Foot	Note :	Only the parts mentioned in this list are normal
0182	8204 055 76161	Spacer Locking KGLS-4S		service spare parts.
0184	2422 015 16901	Saddle Mini Clamp		

265	D3 x 8
266	D3 x 8 /69/75/93
267	D3 x 8 /69/75/93
268	D3 x 8
269	D3 x 8 /01/05

0185	4822 532 60948	Bush
0186	3139 254 00451	Spacer PCB H6.0 KGLS-6RT
0186	3139 254 00981	Spacer H6.4 CRLCBSRE-4-01
0187	3139 254 00461	Spacer PCB H20.9 KGLS-10S
0325	3139 119 02361	Subwoofer (SW3900SA/01)

270	M3 x 4
271	M3 x 4
272	M3 x 6
273	D3 x 8

0326	3139 119 02351	Satellite Spk Boxes (CS3900SA/01)
0331	2422 076 00546	Cable FM Aerial
0332	2422 549 45386	Antenna AM Loop LAN-011
0332	2422 549 45813	Antenna AM Loop 039S20014
0333	3139 258 70031	Remote Control

0336	2422 070 98231	△ Mains Cord IEC 2A5 1M8	/01/69
0336	4822 321 11462	△ Mains Cord 20"/21"	/01/69
0336	2422 070 98236	△ Mains Cord UK 5A 1M8	/05
0336	3103 140 25882	△ Mains Cord 14"/20"/21"/GB	/05
0336	2422 070 98233	△ Mains Cord AUS 7A5 1M8	/75

0336	2422 070 98232	△ Mains Cord CHN 6A 1M8	/93
0338	3103 308 92610	Cable Audio 2x2 RCA Male	/69/75/93
0340	4822 263 21206	Cable Cinch/1M7/Cinch	/69/75/93
0342	2422 076 00468	△ Cable SCART 1M1 21P BK	/01/05
1104	3139 117 10671	Module SMPS03-02 150W EUR/01/05/75/93	

1104	3139 117 10681	Module SMPS03-02 150W AP	/69
1105	2422 542 90137	Tuner Mod. (A+F ENG07703Q)	/01/05
1105	2422 542 90138	Tuner Mod. (A+F ENG06703Q)	/69/75/93
1106	3139 118 79760	Fan KD1245PFS3	
8003	4822 320 12751	FFC Foil 04P/400/04P AD	



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# PSU BOARD

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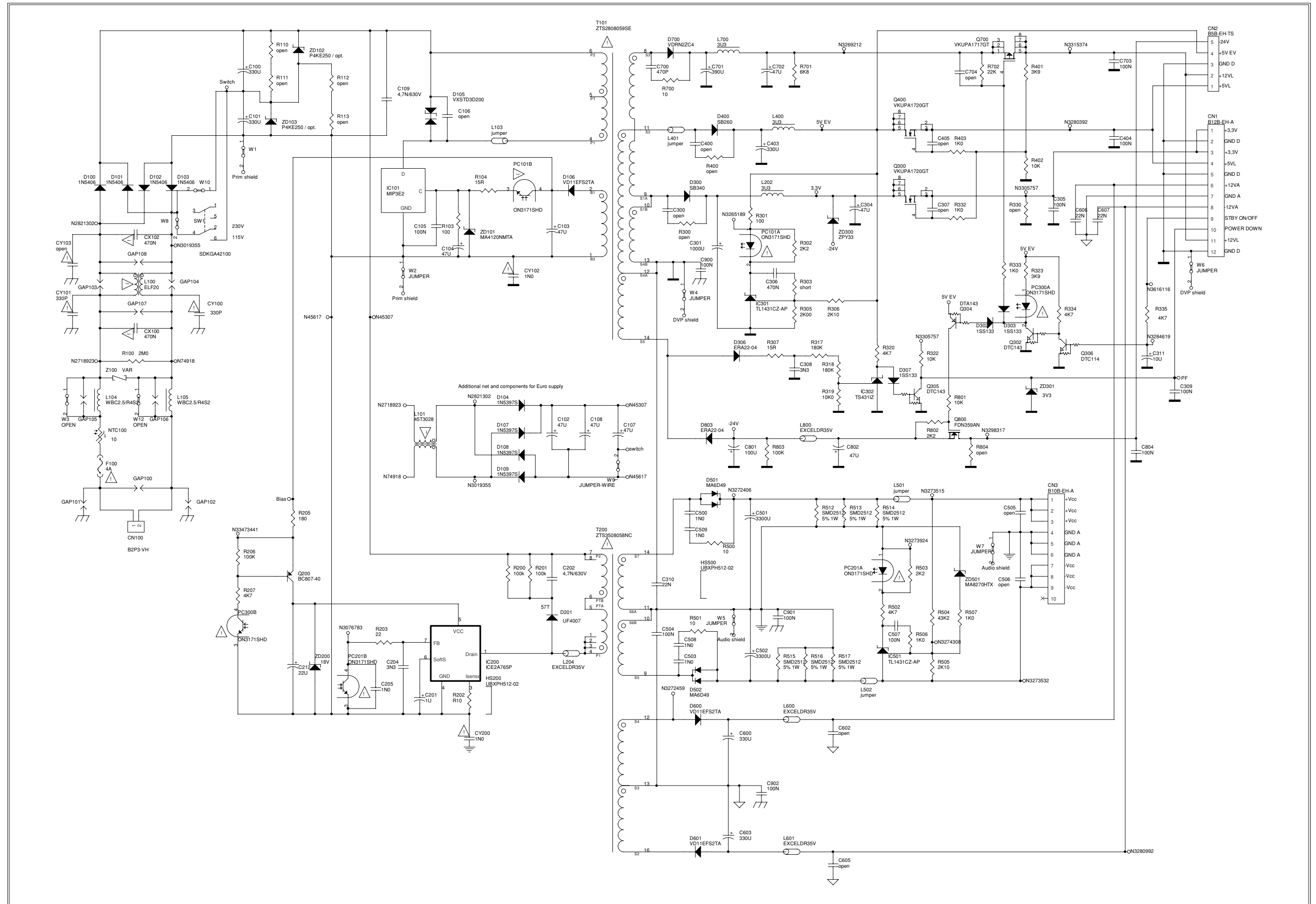
*(For Information only)*

It is not recommended for component repair on this board but to replace the board when it becomes defective.  
Therefore no service parts list is published in this chapter.

The only service part available for replacement is:  
Module SMPS03-02 150W EUR (/01/05/75/93) ... 3139 117 10671  
Module SMPS03-02 150W AP (/69) ..... 3139 117 10681

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**REVISION LIST****Version 1.0 (3139 785 30570)**

- \* Initial Release LX3900SA/01/05

**Version 1.1 (3139 785 30571)**

- \* Introduction of LX3900SA/69/75/93
- \* Page 3-2 : Reprogramming of DVD version Matrix adapted (additional of LX3900SA/93)
- \* Page 7-11 to 7-13 : AV Board - Electrical parts list adapted
- \* Page 11-2 : Mechanical & Accessories parts list adapted
- \* Chapter 12 : Additional of Chapter 12 (PSU Board - For Information only)