DVD Receiver

MRD300/37

Service
Service
Service

Service Manual

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CLASS 1
LASER PRODUCT

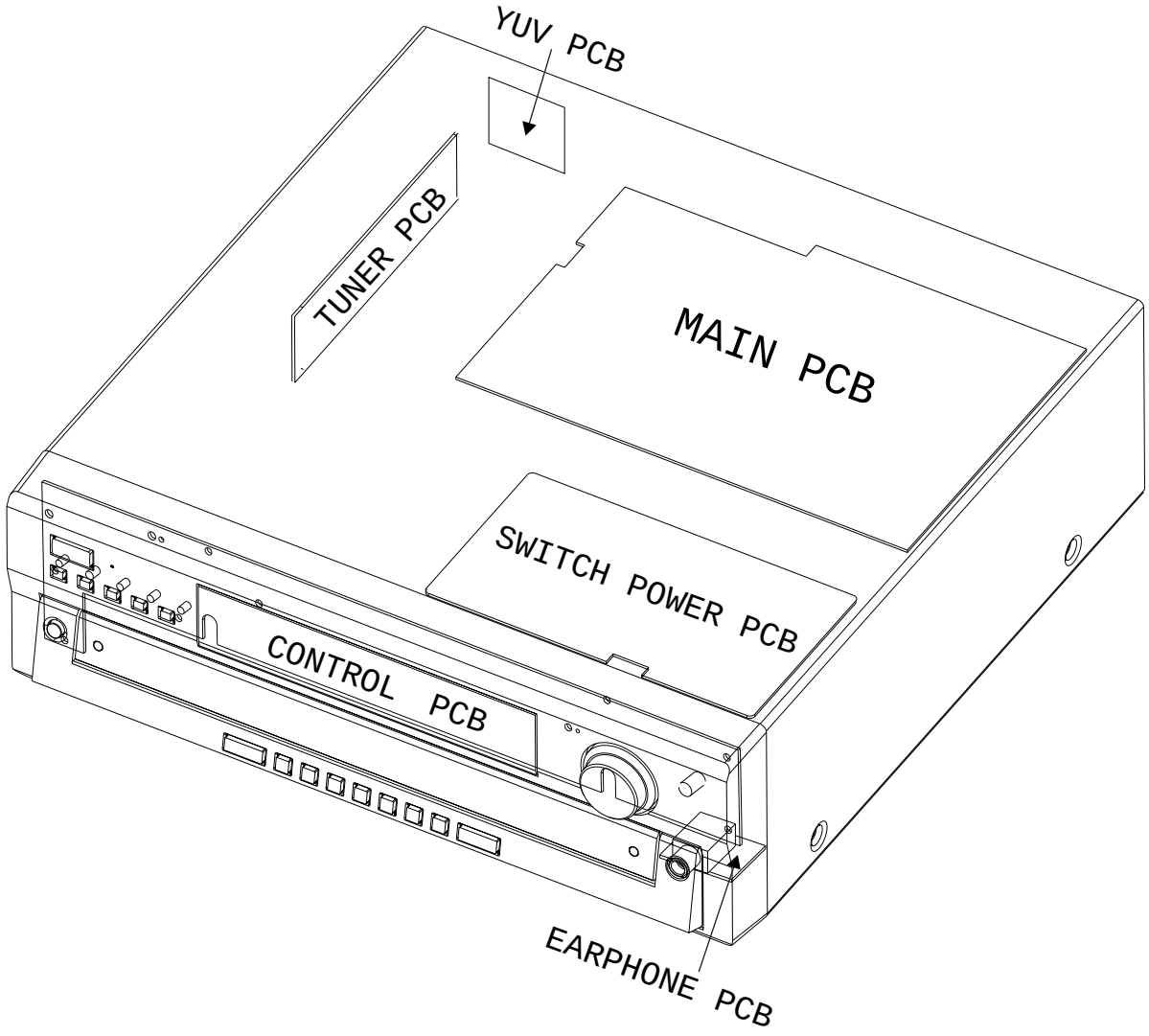
Published by KC-ET0332 Service Audio Printed in The Netherlands Subject to modification

GB 3139 785 30450

Version 1.0

PHILIPS

LOCATION OF PC BOARDS



VERSION VARIATION:

Type /Versions: / Features & Board in used	MRD300 /37
RDS function	
Progressive scan	x
YUV board	x
Power PCB (120V)	x

SPECIFICATIONS

AMPLIFIER SECTION

Power Output ..... 2 x 50W
- Stereo mode (DIN).....2 x15 W
- Surround mode (1 kHz).....10 W RMS/channel
Total Harmonic Distortion.....10 % at rated power (1 kHz)
Frequency Response .....180 Hz-14 kHz/±1 dB
Signal-to-Noise Ratio.....> 65dB(CCIR)
Input Sensitivity.....400 mV

TUNER SECTION

Tuning Range..... FM 87.5 -108 MHz (100 kHz steps)
.....AM 530 - 1710 kHz (10 kHz steps)
26 dB Quieting Sensitivity.....FM 20 dB
26 dB Quieting Sensitivity.....AM 3162 uV/m
Image Rejection Ratio.....FM 25 dB
.....AM 28 dB
IF Rejection Ratio.....FM 60 dB
.....AM 24 dB
Signal-to-Noise Ratio.....FM 60 dB
.....AM 40 dB
AM Suppression Ratio.....FM 30 dB
Harmonic Distortion.....FM Mono 3%
.....FM Stereo 3%
.....AM 5%
Frequency Response.....FM 180 Hz-10kHz/±6 dB
Stereo Separation.....FM 26 dB(1 kHz)
Stereo threshold.....FM 23.5 dB

DVD SECTION

Audio Performance :

Laser Type.....Semiconductor
Disc Diameter.....12cm/8cm
Video S/N ratio.....65 dB/A - WTD
Audio DAC.....24 Bits/96 kHz
Frequency Response.....4 Hz-20 kHz (44.1kHz)
..... 4 Hz-22 kHz (48 kHz)
..... 4 Hz-44 kHz (96 kHz)
Digital Output.....SPDIF Coaxial & Optical
Distortion.....0.5% (1kHz)

MP3 :

MP3 - CD bit rate.....32, 64, 96, 128, 192, 256(kbps)
MP3 - CD sampling frequencies.....32, 44.1, 48(KHz)
Recording format.....JPEG

Video Performances :

Video Decoding.....MPEG-2
Video DAC.....10 Bits
Signal System.....PAL/NTSC
Video Format.....4:3/16:9
Composite Video Output.....1.0Vp-p,75Ω
S-Video Output.....Y - 1.0Vp-p,75Ω
.....C - 0.286Vp-p,75Ω

MISCELLANEOUS / GENERAL SECTION

Power Supply Rating.....120V/60 Hz
Power Consumption..... 160 W
Dimensions (w x h x d)..... 430 mm x 140 mm x 420mm
Weight.....10 kg

IR REMOTE CONTROL

Effective Range.....> 8 Meter
Number of Keys.....52
Battery (1.5V).....AAA x 2

SPEAKERS

Front Speakers / Rear (Surround) speaker

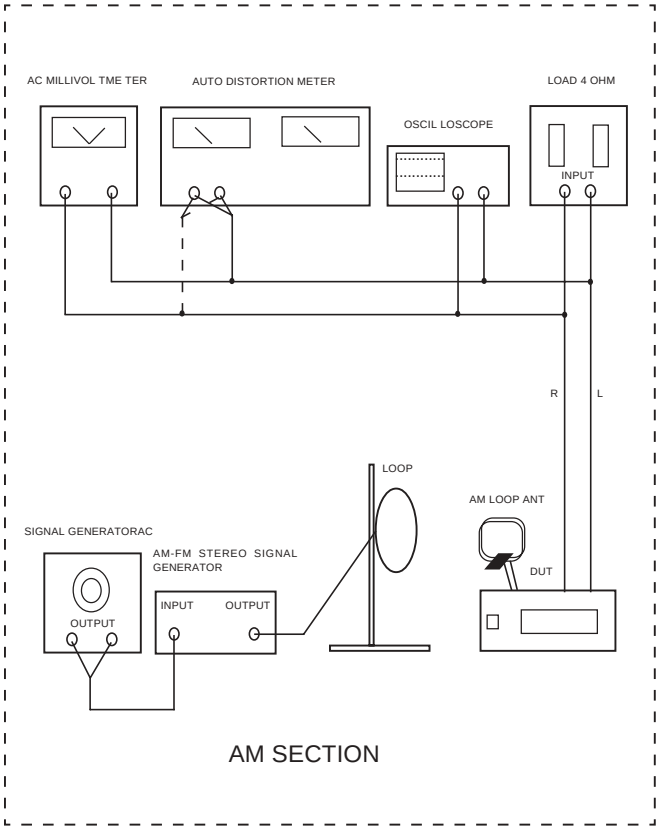
System.....2-way shielded
Impedance/ ohm.....8Ω
Speaker drivers.....3" full range
Dimensions (w x h x d)..... 94 mm x 155 mm x 88 mm
Weight..... 0.5 Kg/each

Center Speaker

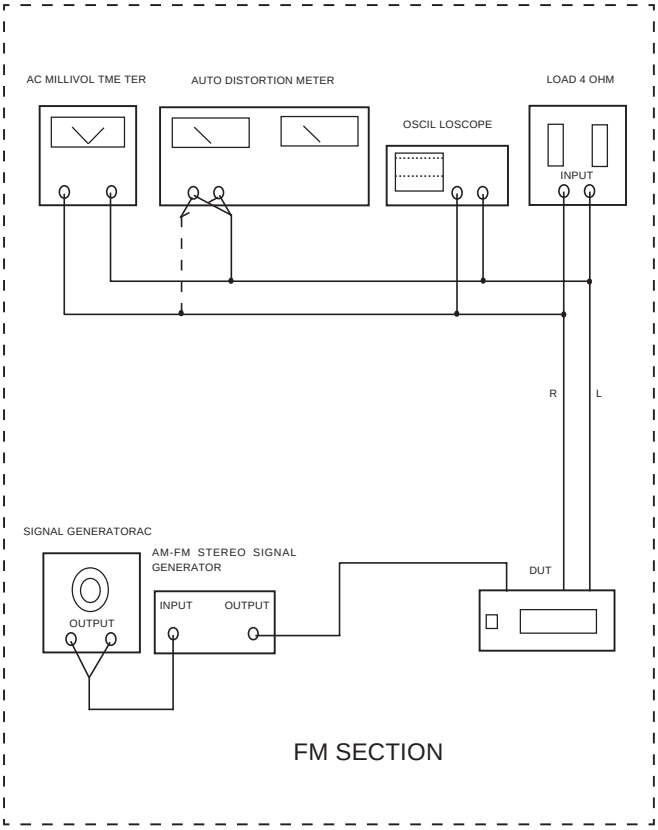
System.....2-way shielded
Impedance/ ohm.....8Ω
Speaker drivers.....2 x 3" woofer, piezo
Dimensions (w x h x d).....250mm x 95 mm x 88 mm
Weight..... 0.87 Kg/each

Passive Subwoofer

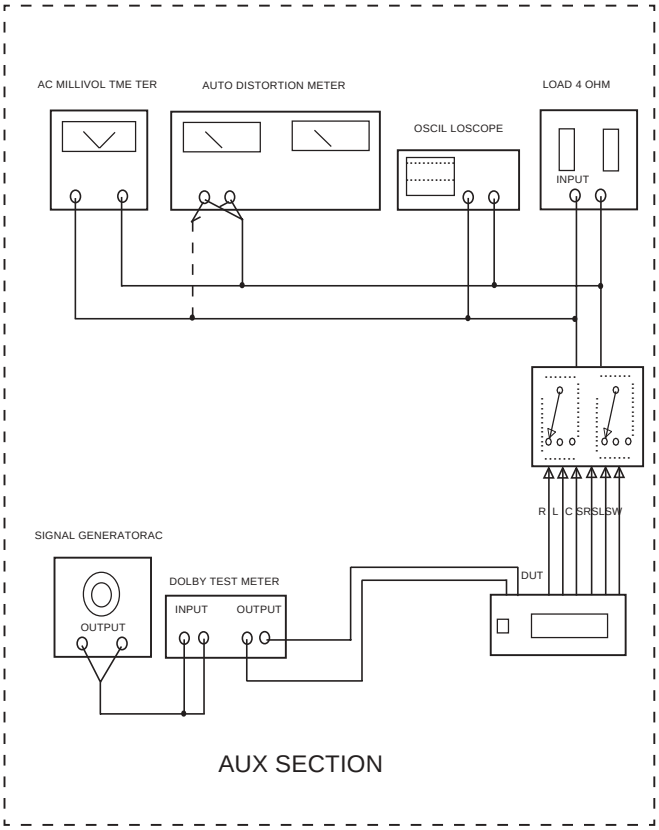
System.....2-way shielded
Impedance/ ohm.....8Ω
Speaker drivers.....2 x 3" woofer, piezo
Dimensions (w x h x d).....200mm x 319 mm x 345 mm
Weight..... 5.2 Kg/each



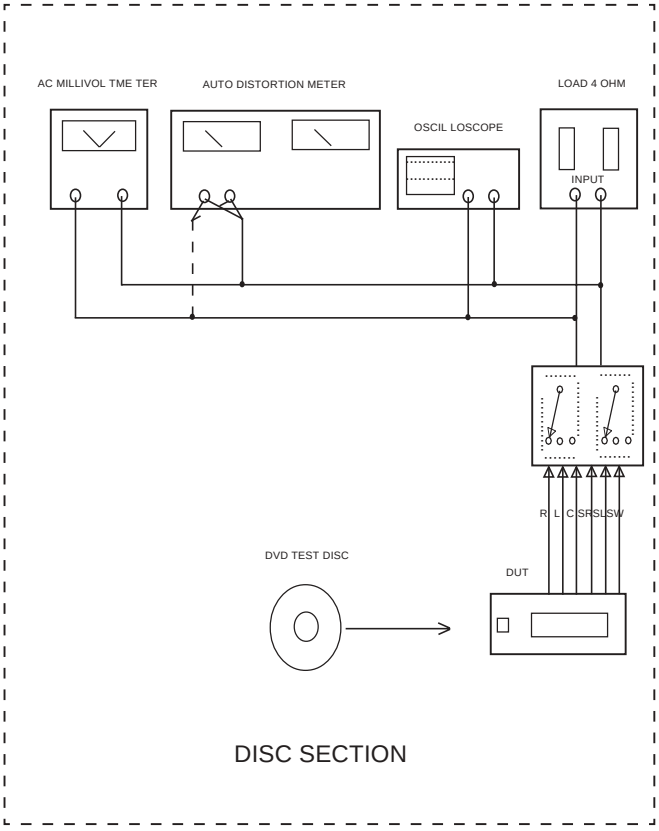
AM SECTION



FM SECTION



AUX SECTION



DISC SECTION

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

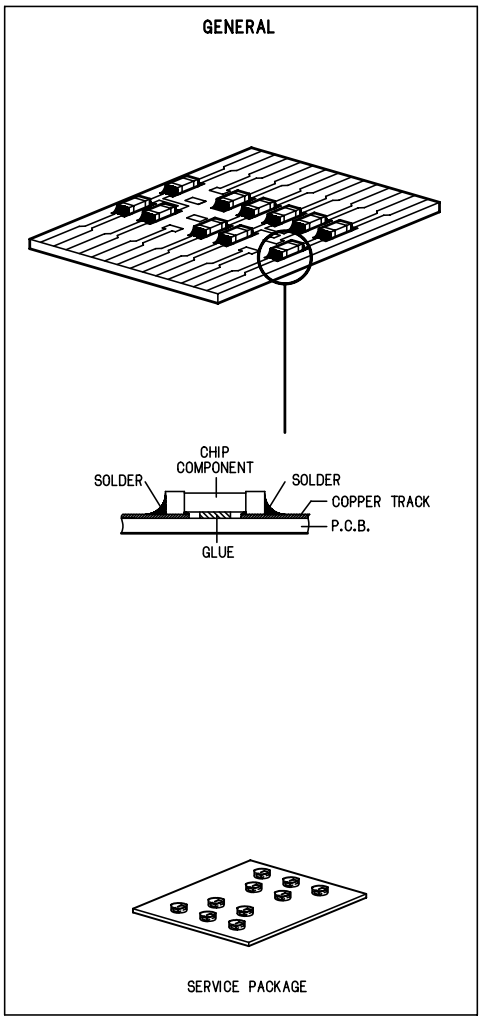
Compact Disc:

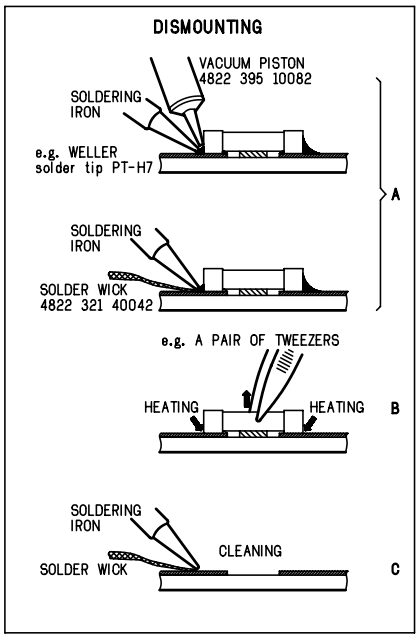
SBC426/426A Test disc 5 + 5A 4822 397 30096
SBC442 Audio Burn-in test disc 1kHz 4822 397 30155
SBC429 Audio Signals disc 4822 397 30184
Dolby Pro-logic Test Disc 4822 395 10216

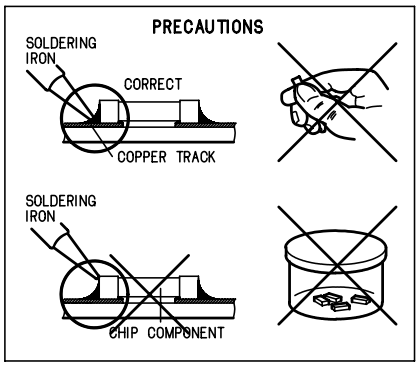
ESD Equipment:

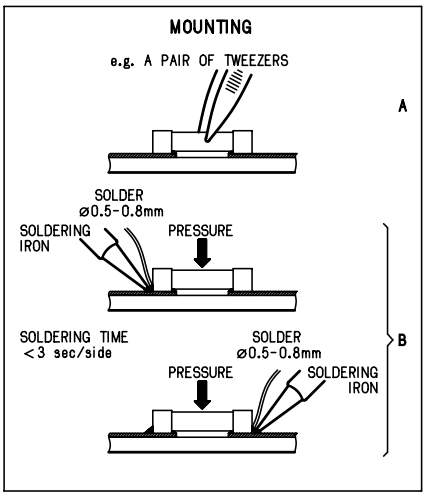
Anti-static table mat - large 1200x650x1.25mm ...4822 466 10953
anti-static table mat - small 600x650x1.25mm 4822 466 10958
Anti-static wristband 4822 395 10223
Connectorbox (1MΩ) 4822 395 11307
Extension cable
(to connect wristband to conn.box) 4822 320 11305
Connecting cable
(to connect table mat to conn.box) 4822 320 11306
Earth cable (to Connect product to mat or box) --4822 320 11308
Complete kit ESD3
(combining all above products) 4822 320 10671
Wristband tester 4822 344 13999

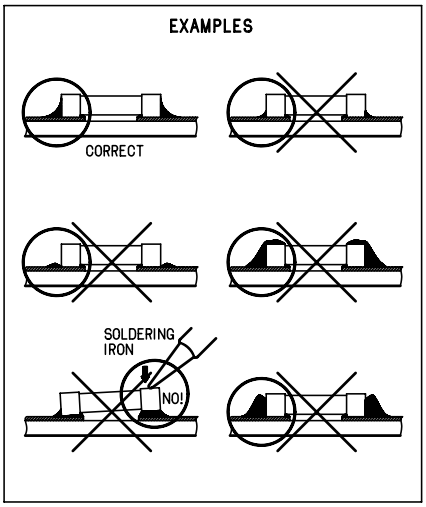
HANDLING CHIP COMPONENTS











ESD

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.

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).
Unsorgfältige Behandlung im Reparaturfall kan 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.

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 ditzelfde potentiaal.

I AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta 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

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

NL

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

F

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

D

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

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.

"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."

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

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 Varoitus !

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 udsaettelse for stråling.

2-1

System, Region code, Tuner, etc. setting procedure

1) System Reset

a) Press SETUP button on R/C. TV show setup menu
b) Select the menu using the ◄/►/▲/▼ buttons on R/C
c) Go Preference setup page to do system reset
d) Press OK or SETUP to confirm or exit setup menu

2) Region Code Change

a) Put the player in stop mode and no disc loaded.
b) Press the following key on remote control:

<LANGUAGE> <2> <3> <7> <9> <2> <2> <2>

c) The current region code is displayed on OSD.
d) Then press ▼ to select the region code you want.
e) Press OK to confirm your selection.

* After the Region Code is changed it is necessary to reset the system so that the new Region Code will be fully effective. All customer setting will be lost.

* On top of the maximum number of times allowed for changing the region code is changed to 25.

* When the counter reach 25, you will not be able to further change the code until you reset the timer by the Region Code timer reset procedure

CAUTION !

This information is confidencial and may not be distributed. Only a qualified service person should reprogram the Region Code.

3) Tuner area change

a) Put the player in stop mode and no disc loaded.
b) Press the following key on remote control:

<SUBTITLE> <2> <3> <7> <9> <8> <8> <8>

c) The current region code is displayed on OSD.
d) Then press ▼ to select the region code you want.
e) Press OK to confirm your selection, the system will remain original status if no any button is pressed within 5 seconds.

* Please refer to the above different tuner area.

AREA	BAND	FREQUENCY (Hz)		STEP (Hz)
USA	FM	87.5M	108M	100K
	AM	530K	1710K	10K
APAC	FM	87.5M	108M	50K
	AM	531K	1620K	9K
EUROPE	FM	87.5M	108M	50K
	AM	531K	1620K	9K
LATAM	FM	87.5M	108M	50K
	AM	530K	1710K	10K
AUSTRALIA N/Z	FM	87.5M	108M	50K
	AM	531K	1620K	9K

4) Video out change

a) Press SETUP on R/C button
b) Select the menu using the ◄/►/▲/▼ buttons on R/C
c) Go General setup page select Video out item
d) Press OK or SETUP to confirm or exit setup menu

5) Password Change

a) Press SETUP on R/C button
b) Select the menu using the ◄/►/▲/▼ buttons on R/C
c) Go Preference setup page select PASSWORD, press► to select CHANGE, Press OK.
d) Press the old password (1234) button on R/C.
e) Using the numeric keys (0~9) to enter the new password
f) Press OK or SETUP to confirm or exit setup menu

6) Set Parental Control Level

a) Press SETUP on R/C button
b) Select the menu using the ◄/►/▲/▼ buttons on R/C
c) Go Preference setup page select PARENAL, press ► to select 8 ADULT
d) Enter PASSWORD (1234)
* 1234 is the default password supplied.
e) Press OK or SETUP to confirm or exit setup menu

7) Checking on the Software version

a) In no disc mode, "NO DISC" will be shown on OSD
b) Press DISC NO, then press 1, 2, 3, OK on the remote control
c) TV will show the current software version Number on scree

- MCU 0.6
- VER 0721 1 US 0

8) Upgrading new software

a) Open the CD-door, then insert the CD-R program disc.
b) Close the CD-door.
c) TV will show:-
- "disc loading"
- "bank30.rom"
- "writing" about 6 seconds.
- "Done"

2-2

REPAIR INSTRUCTIONS

PILIPS MRD300 REPAIR CHART

MAIN UNIT REPAIR CHART

- A — ALL FUNCTION NO WORKING
- B — VFD DISPLAY NO SHOW AND KEY FUNCTION
- C — DVD NO SOUND
- D — POWER SUPPLY NO WORKING
- E — AUDIO OUTPUT NO SOUND
- F — AUX/TV IN NO SOUND
- G — TUNER NO SOUND
- H — EAR HEAD PHONE NO SOUND
- I — AUDIO LINE NO OUTPUPT
- J — DIGITAL LINE NO SOUND

A

ALL FUNCTION NO WORKING
→ NO
CHECK ALL SYSTEM ALL CABLE IS LOOSE OR BAD INT
→ YES: RE-INSERT AND FIX THE CABLE
→ NO
PANEL STANDBY LED SHOW WORKING OR NOT
→ YES: CHECK BACK POWER PCB F901 BAD CAUSE DAMAGE
→ BAD: CHANGE F901
→ YES
CHECK CN900 12V CN201 PIN13(PVCC) +5V RIGHT
→ NO: REPAIR BETWEEN RB906 TO CN 900 AND CN201 CIRCUIT
→ YES
CHECK REPAIR CONTROL PCB IC206 STANDBY CIRCUIT

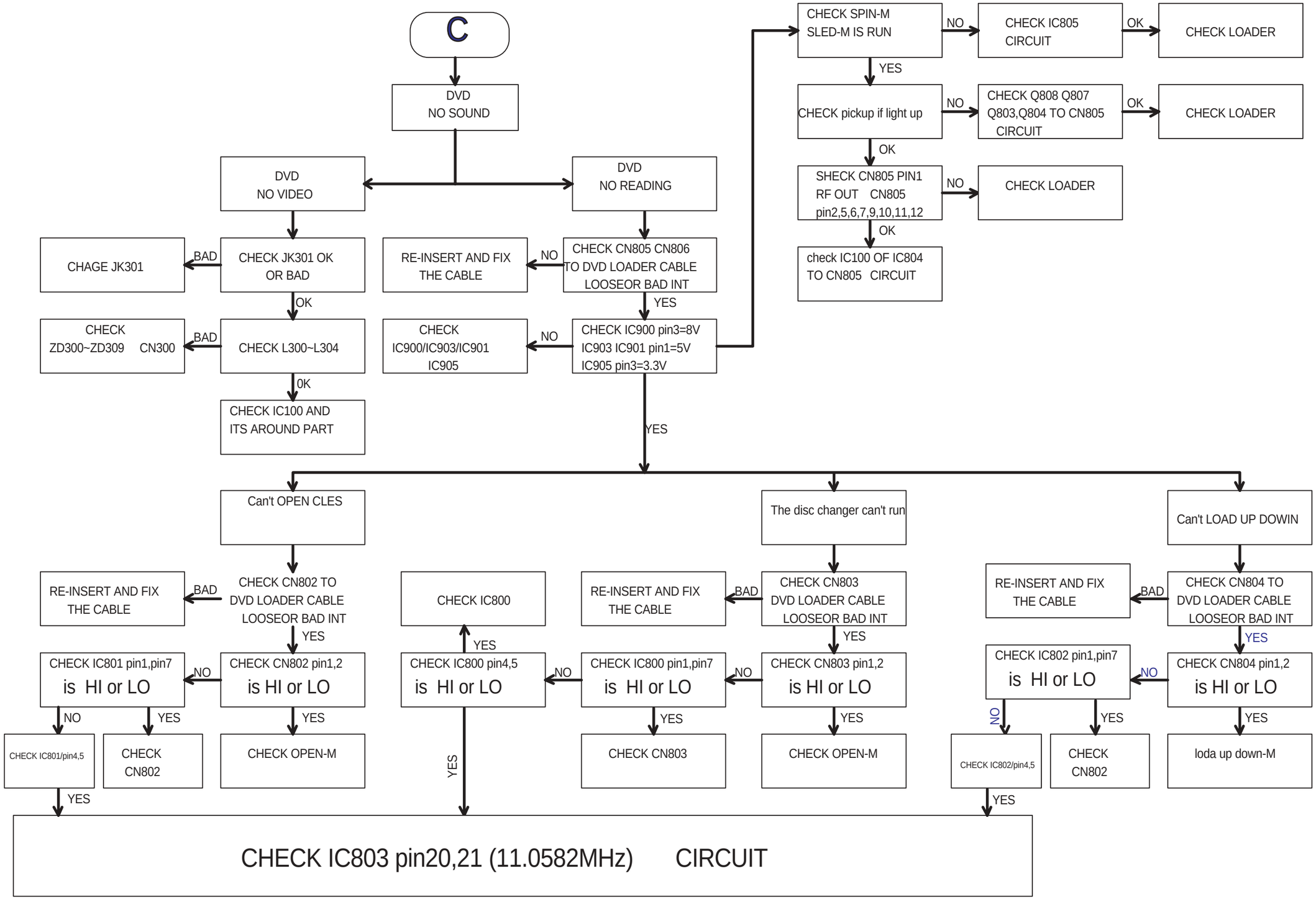
→ WORK
CHECK IC902 PIN3=+5V
CHECK IC904 PIN 3=3.3V
→ NO: CHECK REPAIR SWITCH POWER SUPPLY CIRCUIT(see B)
→ CORRECT
CHECKALL VOLTAGE 3.3V AND 5VGIVE CIRCUIT
→ NO: SHECK IC100 pin2 pin3(osc frequency 27MHz) pin51(121MHz)
→ NO: REPAIR MAIN PCB BETWEEN IC100 TO IC107/IC108 CIRCUIT

B

VFD DISPLAY NO SHOW AND KEY FUNCTION
→ YES: RE-INSERT AND FIX THE CABLE
rb201 and rb202CABLE LOOSE OR BAD INT
→ NO
CHECK CONTROL PCB RB201 pin5=+5V
→ NO: PCB POWER SUPPLY CIRCUIT
→ YES
CHECK +5V POWER SUPPLY CIRCUIT
→ NO
CHECK TEST CN201 pin6=-24v pin7,8=AC2V pin5=5V
← YES: CHECK TEST CN201 pin2/CE pin3/CLK pin4/DATA
→ NO: CHECK IC100 IC400
→ YES
→ YES
SCHECK VFD CONTROL PCB SECTION BAD CAUSE DAMAGE

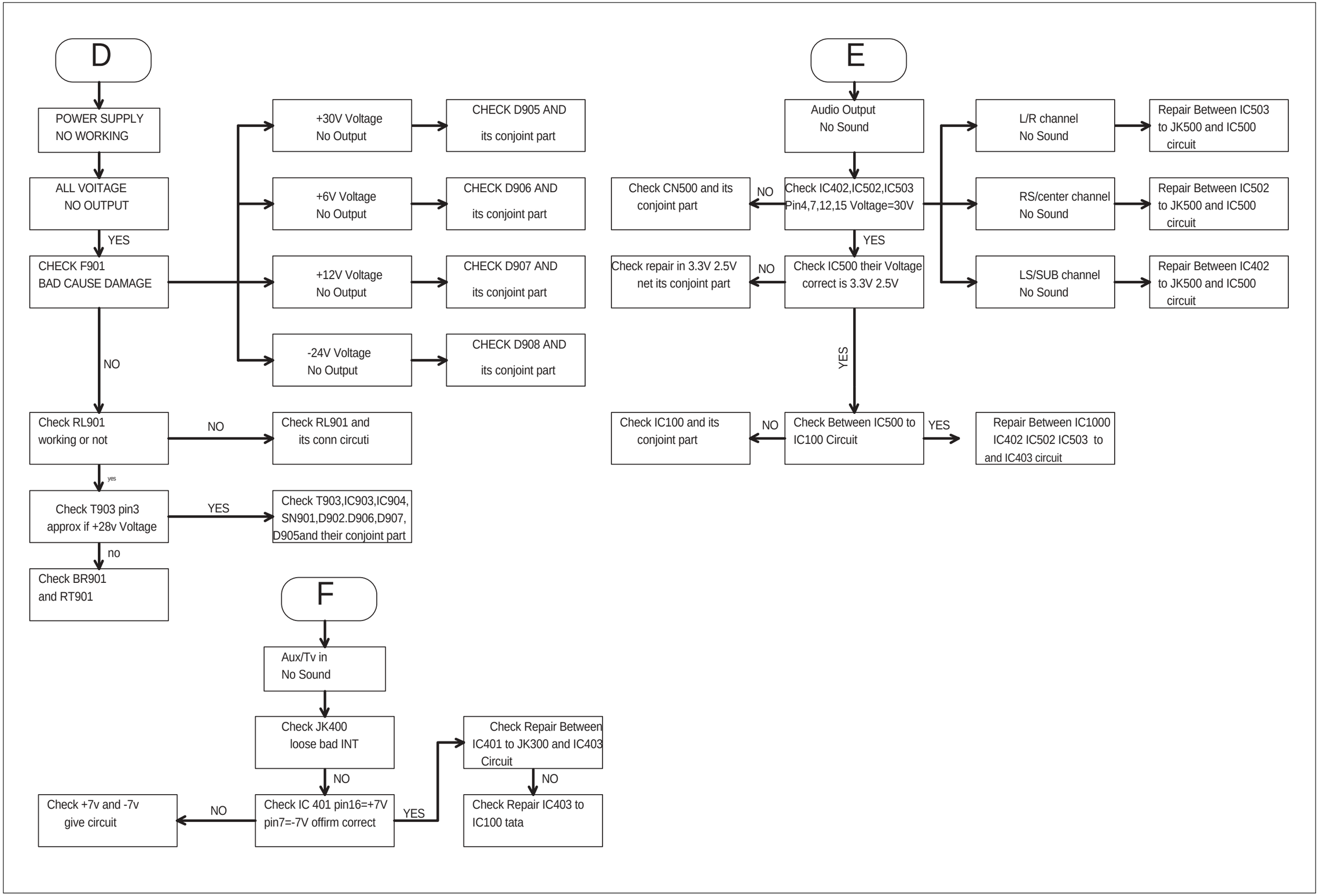
2-3

REPAIR INSTRUCTIONS



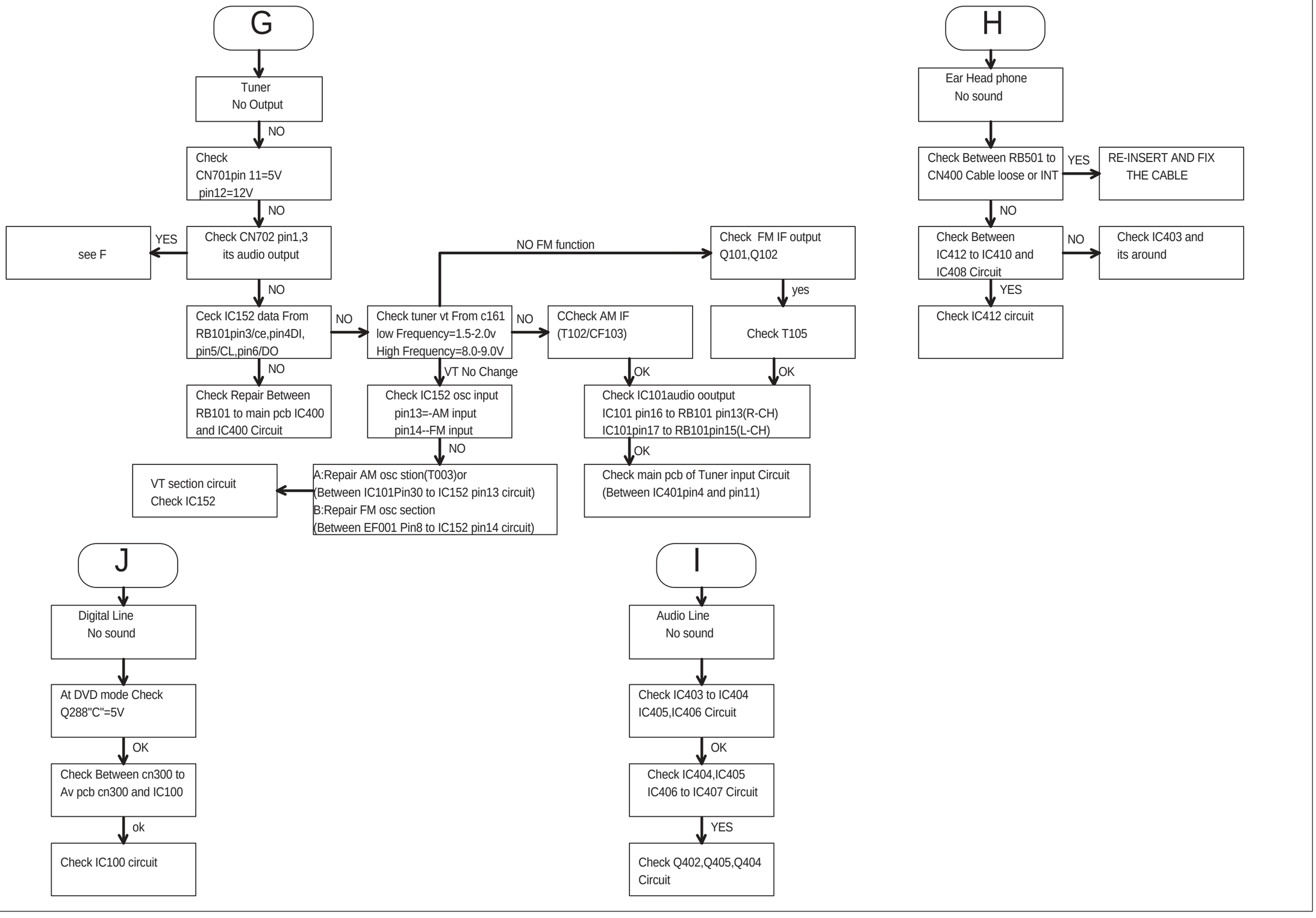
2-4

REPAIR INSTRUCTIONS



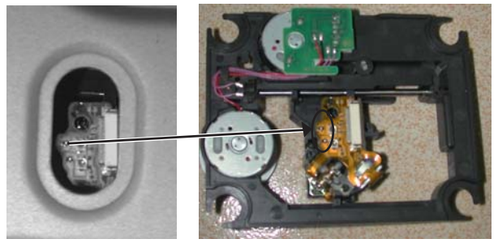
2-5

REPAIR INSTRUCTIONS



DISASSEMBLY INSTRUCTIONS

IMPORTANT!
To avoid of laser diode damage during repairing, please make sure short circuit the protect point first.



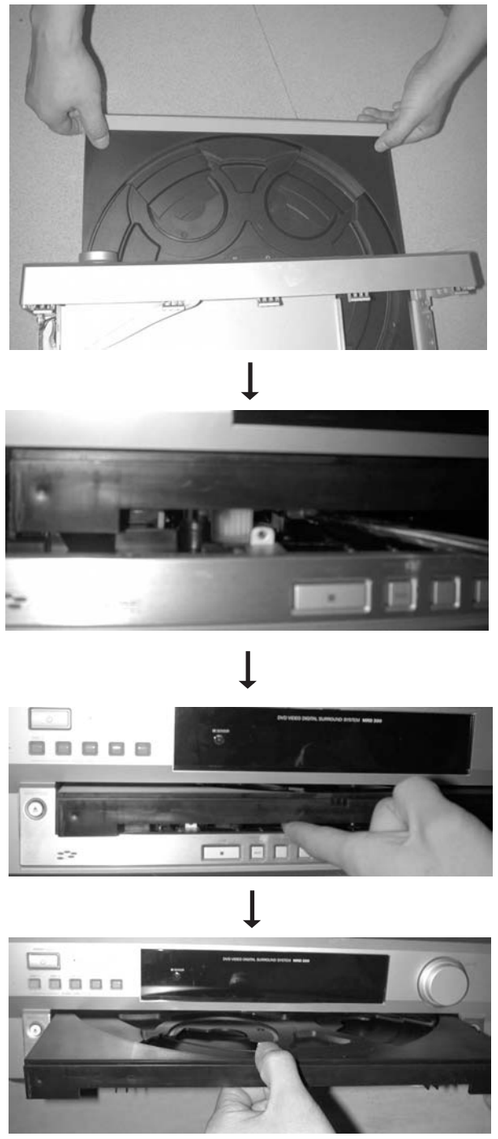


Figure 1

Dismantling of the Key Board Assembly

1) Open the DVD Tray by using the Open/Close Button while the Set is ON and disconnect the mains supply after removing the Tray Cover. (Figure 1)

   Note: If this is not possible, the DVD Tray has to be open manually.

   Take a mini screw driver about 2mm diameter and make a marking 24mm from the tip as shown in figure 2.

2) Remove the tray cover as shown in Figure 1 and close the tray manually by pushing it back in.

3) Loosen 9 screws and remove the Top Cover by lifting the rear portion upwards before sliding it out towards the rear.
   - 5 screws on the back
   - 2 screws each on the left & right side

4) Loosen 16 screws & lift up the top edge of Front Panel assembly to free some catches before sliding it out towards the front.
   - 3 screws on the bottom in figure 3 (A)
   - 1 screw each on the left & right side in figure 3 (A)
   - 11 screws in figure 4 (B) & (C)

Figure 3

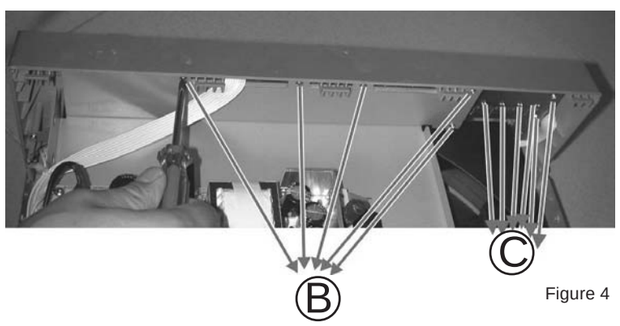


Figure 4

Figure 2

Dismantling of the Main Board (include servo & amplifier & MPEG)

1) At first, Should loosen 8 screws (D) on the back panel as shown in figure 6.

2) Loosen 5 screws (E) on the back panel as shown in figure 6.

3) Loosen 6 screws (F) on main board as shown in figure 5.

4) Remove the space support on main board (G) as shown in figure 5.

5) Remove connector at main board.

Dismantling of the Tuner Board & YUV Board

1) Loosen 3 screws (J) on the back panel and tuner board as shown in figure 6.

2) Loosen 4 screws (H) on the back panel as shown in figure 6.

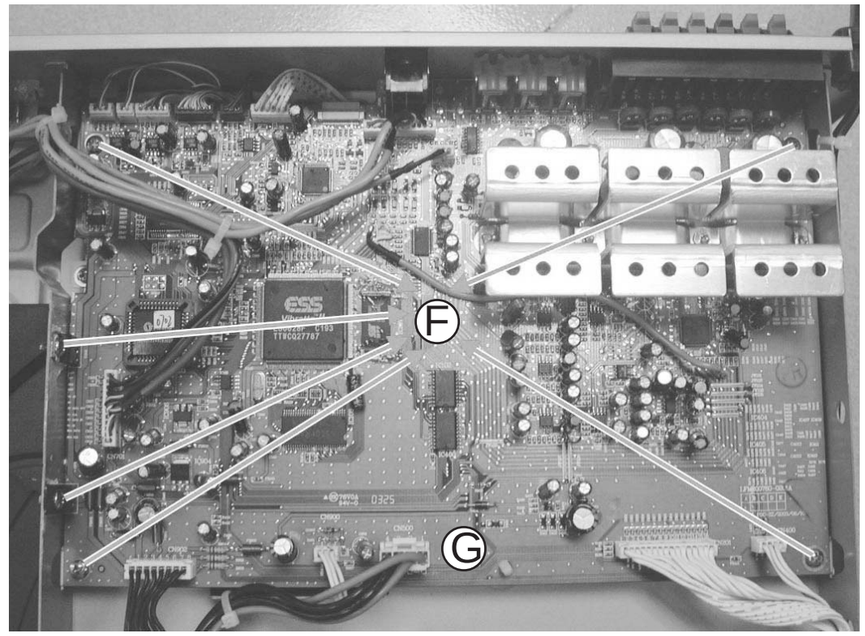


Figure 5

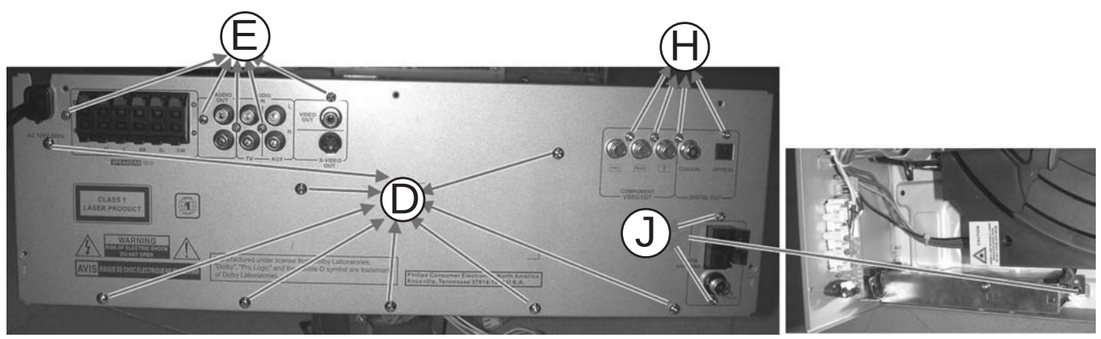


Figure 6

Dismantling of the Power board.

1) Loosen 4 screws (K) on power board as shown in figure 7.

2) Remove 2 spacer support in power board.

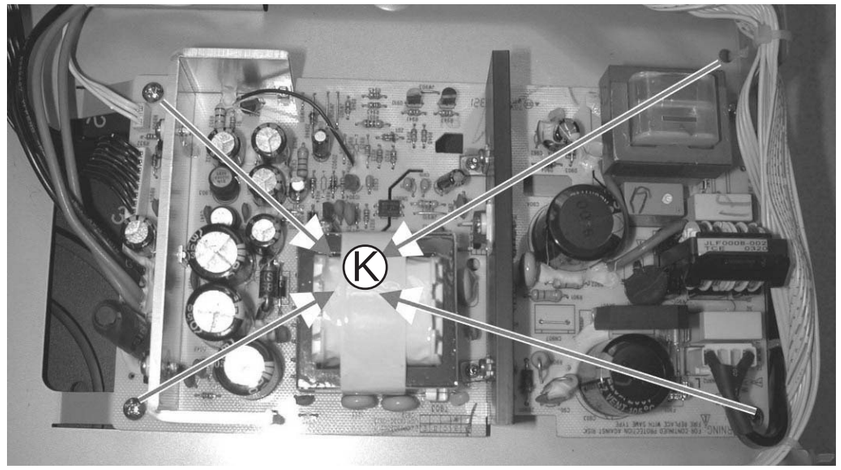


Figure 7

Dismantling of the DVD Moudle

1) Loosen 7 screws (L) as shown in figure 8.

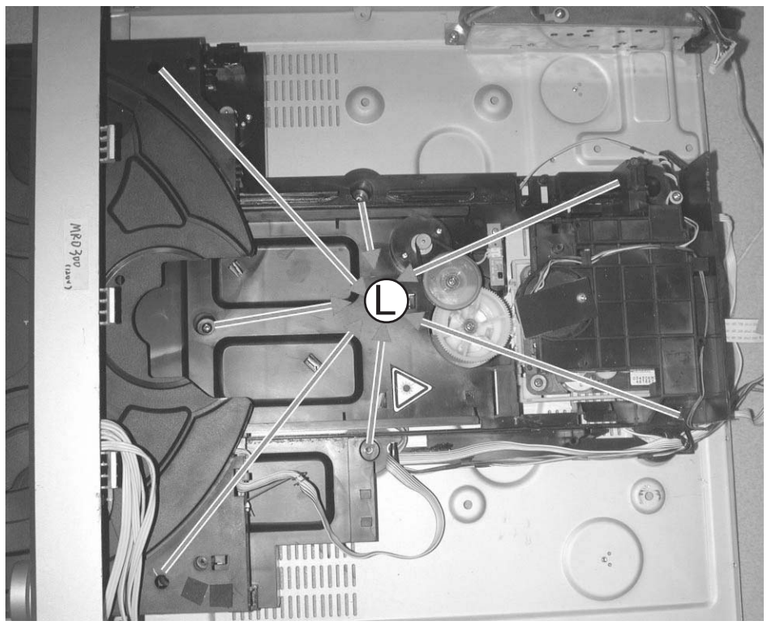


Figure 8

3-2

Dismantling of the Main Board & Power Board on the Bracket

1) Loosen 3 screws (M) as shown in figure 9.

2) Loosen 5 screws (B) as shown in figure 4.

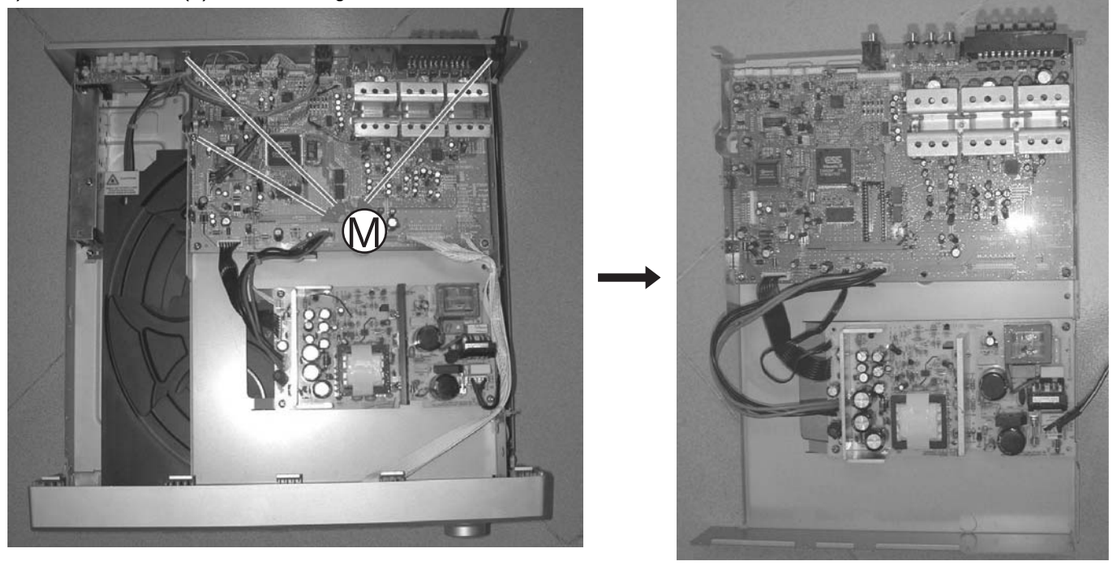
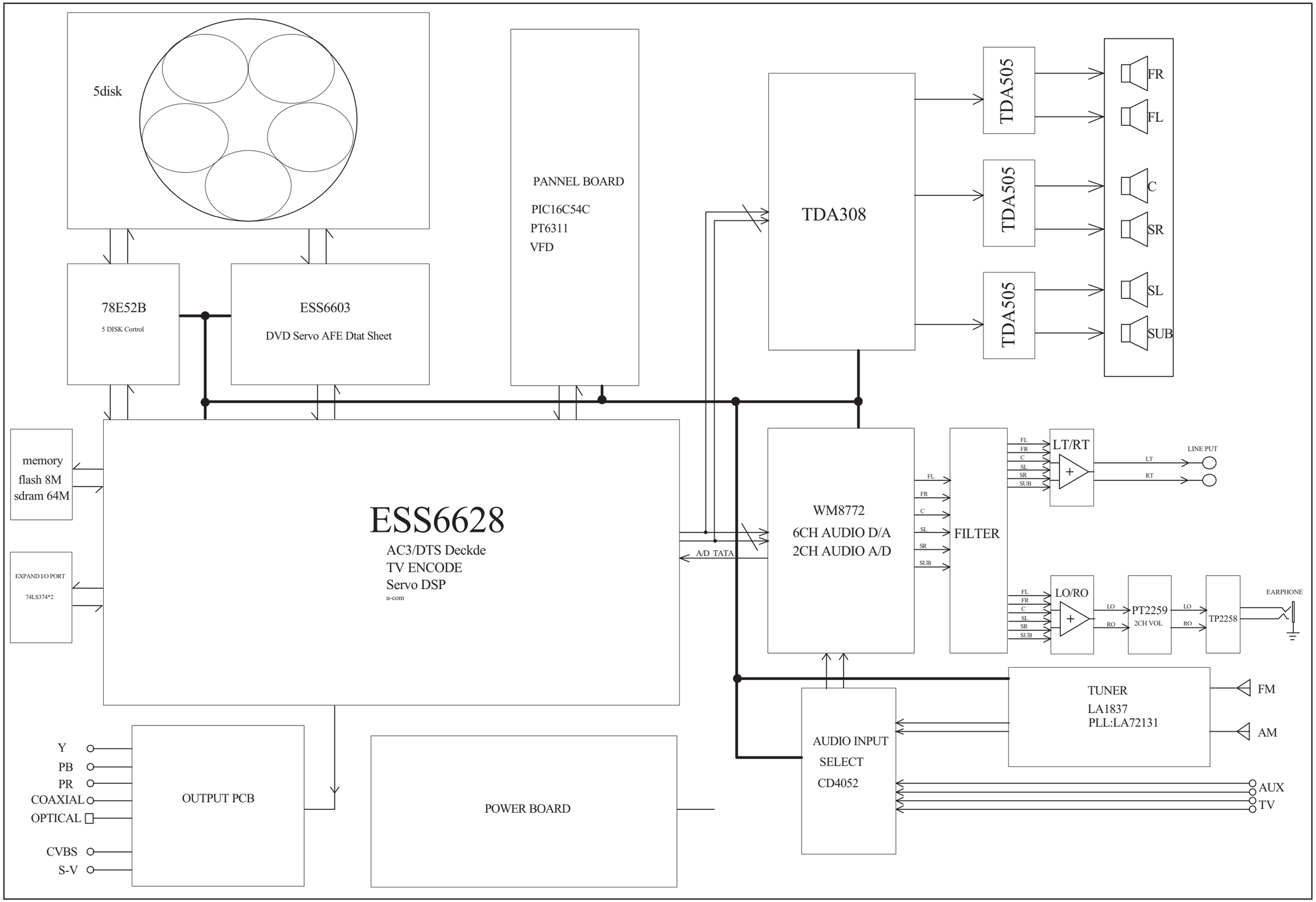


Figure 9

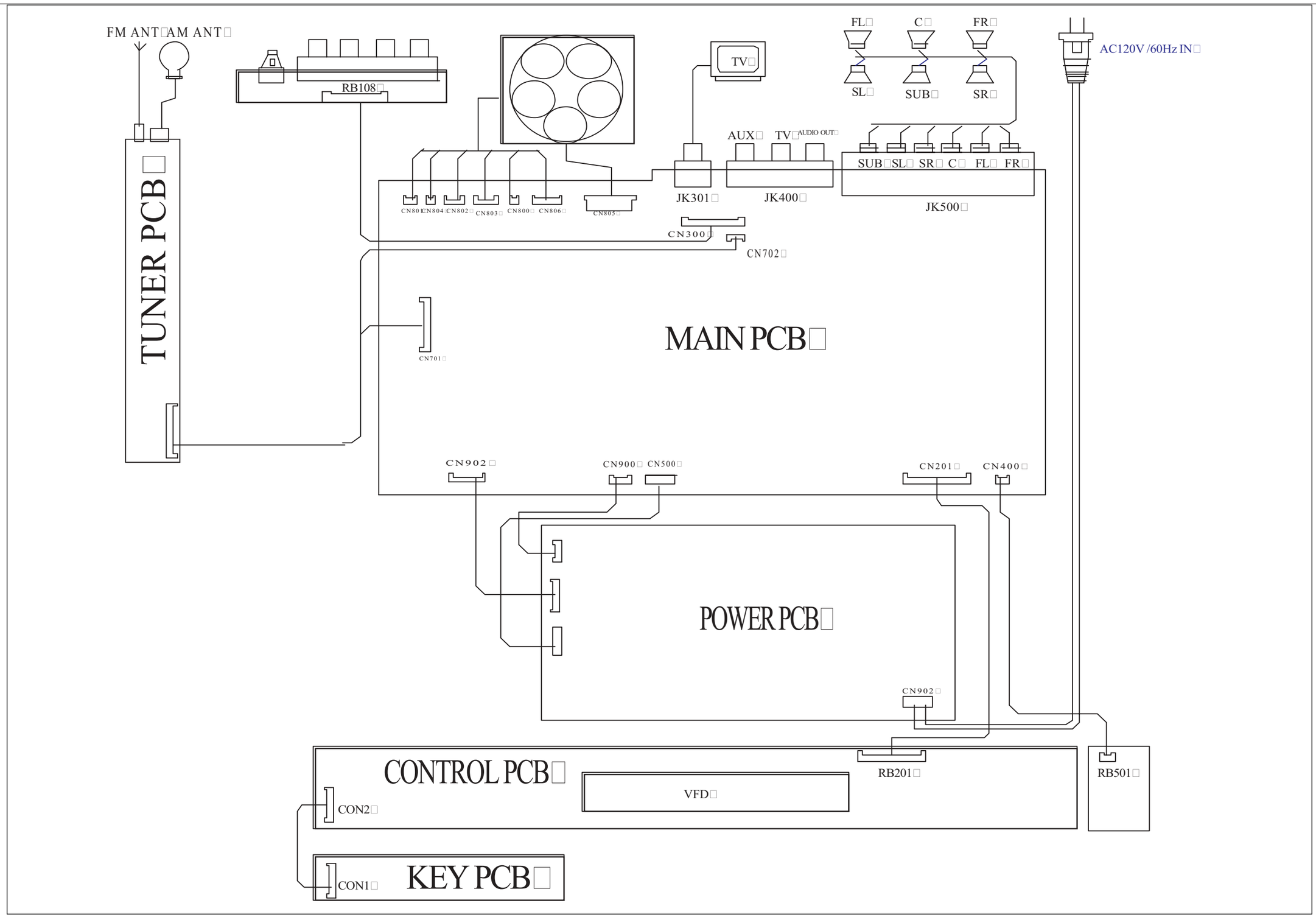
4-1

BLOCK DIAGRAM



4-2

WIRING DIAGRAM



CONTROL / EARPHONE / YUV / KEY BOARD

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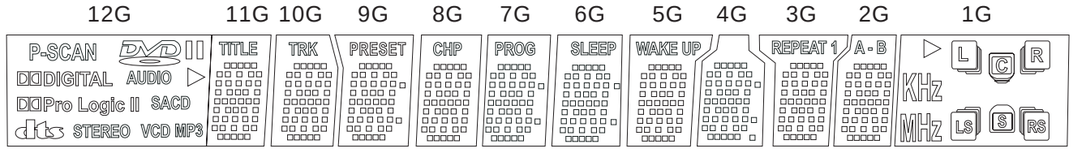
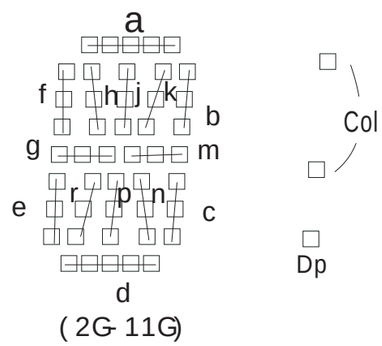
FTD DISPLAY PIN ASSIGNMENT





	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G
P1	L	A-	REPEAT	Col	WAKE UP	SLEEP	PROG	CHP	PRESET	TRK	TITLE	P-SCAN
P2	C	B	1	Dp		Col	Col		Col			
P3	R	a	a	a	a	a	a	a	a	a	a	
P4	RS	b	b	b	b	b	b	b	b	b	b	▷
P5	S	f	f	f	f	f	f	f	f	f	f	AUDIO
P6	LS	h	h	h	h	h	h	h	h	h	h	DIGITAL
P7	▶	j	j	j	j	j	j	j	j	j	j	Pro Logic
P8	KHz	k	k	k	k	k	k	k	k	k	k	II
P9	MHz	m	m	m	m	m	m	m	m	m	m	SACD
P10		g	g	g	g	g	g	g	g	g	g	MP3
P11		c	c	c	c	c	c	c	c	c	c	CD
P12		e	e	e	e	e	e	e	e	e	e	V
P13		r	r	r	r	r	r	r	r	r	r	STEREO
P14		p	p	p	p	p	p	p	p	p	p	dts
P15		n	n	n	n	n	n	n	n	n	n	
P16		d	d	d	d	d	d	d	d	d	d	

Pin Connection

Pin No.	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23
Connection	F2	F2	NP	NP	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NX

Pin No.	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Connection	NX	NX	NX	NX	NX	NX	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F1	F1

Note:

Fn: Filament pin nG: Grid pin Pn: Anode pin NP: No pin NX: No extended pin

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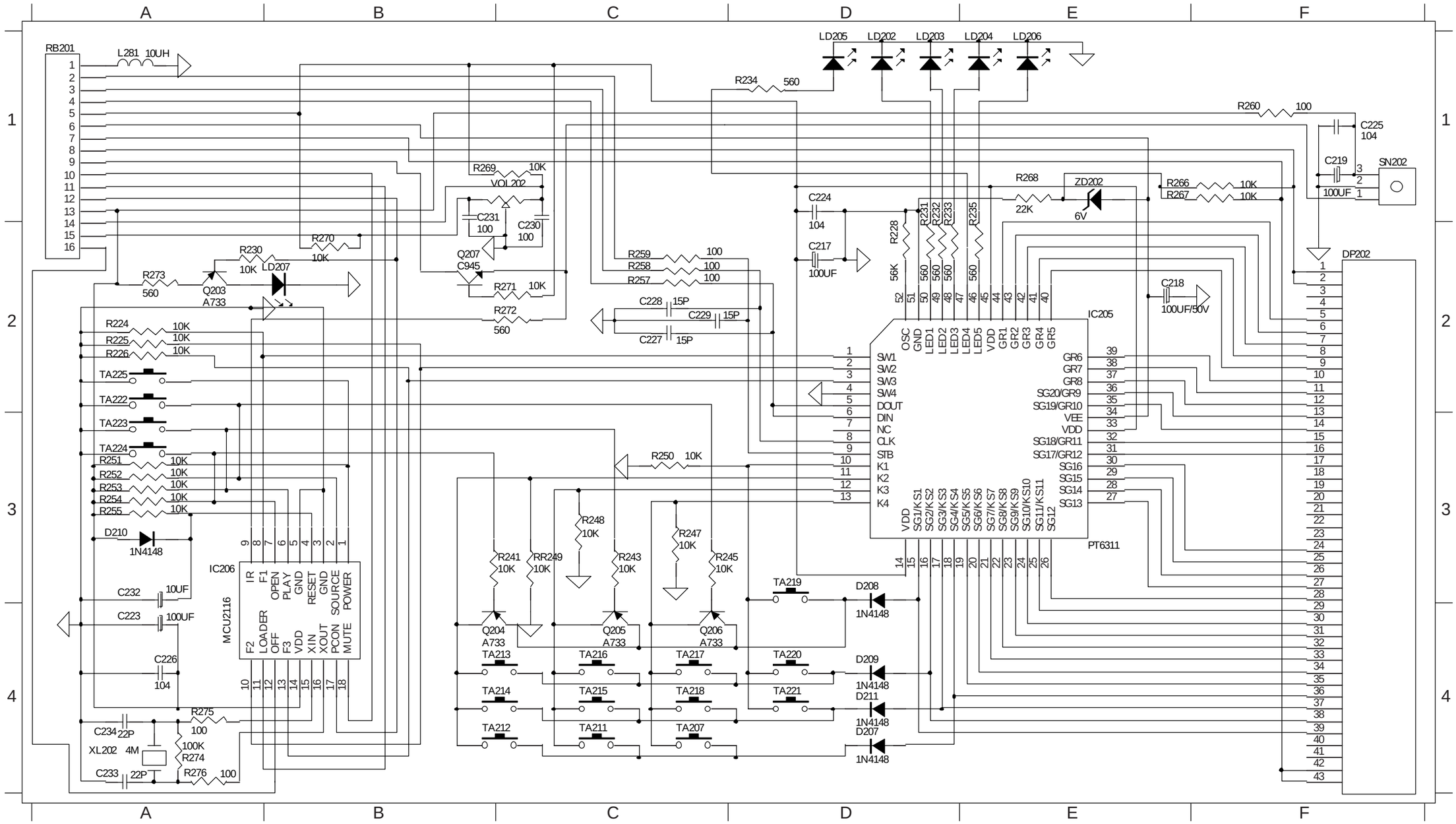
CIRCUIT DIAGRAM - CONTROL & EARPHONE & YUV & KEY BOARD

C217	D2	C228	C2	D208	D3	LD202	D1	Q205	C4	R231	D2	R247	C3	R255	A3	R269	B1	RA224	A3	TA215	C4	TA223	A3
C218	E2	C229	C2	D209	D4	LD203	D1	Q206	C4	R232	D2	R248	C3	R257	C2	R270	B2	RB201	A1	TA216	C4	TA224	A3
C219	F1	C230	C2	D210	A3	LD204	E1	Q207	B2	R233	D2	R249	C3	R258	C2	R271	C2	SN202	F1	TA217	C4	TA225	A2
C223	A4	C231	B1	D211	D4	LD205	D1	R224	A2	R234	D1	R250	C3	R259	C2	R272	C2	TA207	C4	TA218	C4	XL202	A4
C224	D1	C232	A3	DP202	F2	LD206	E1	R225	A2	R235	E1	R251	A3	R260	F1	R273	A2	TA211	C4	TA219	D3	ZD202	E1
C225	F1	C233	A4	IC205	E2	LD207	B2	R226	A2	R241	C3	R252	A3	R266	E1	R274	A4	TA212	C4	TA220	D4		
C226	A4	C234	A4	IC206	A3	Q203	A2	R228	D2	R243	C3	R253	A3	R267	E1	R275	A4	TA213	C4	TA221	D4		
C227	C2	D207	D4	L281	A1	Q204	C4	R230	A2	R245	C3	R254	A3	R268	E1	R276	A4	TA214	C4	TA222	A2		



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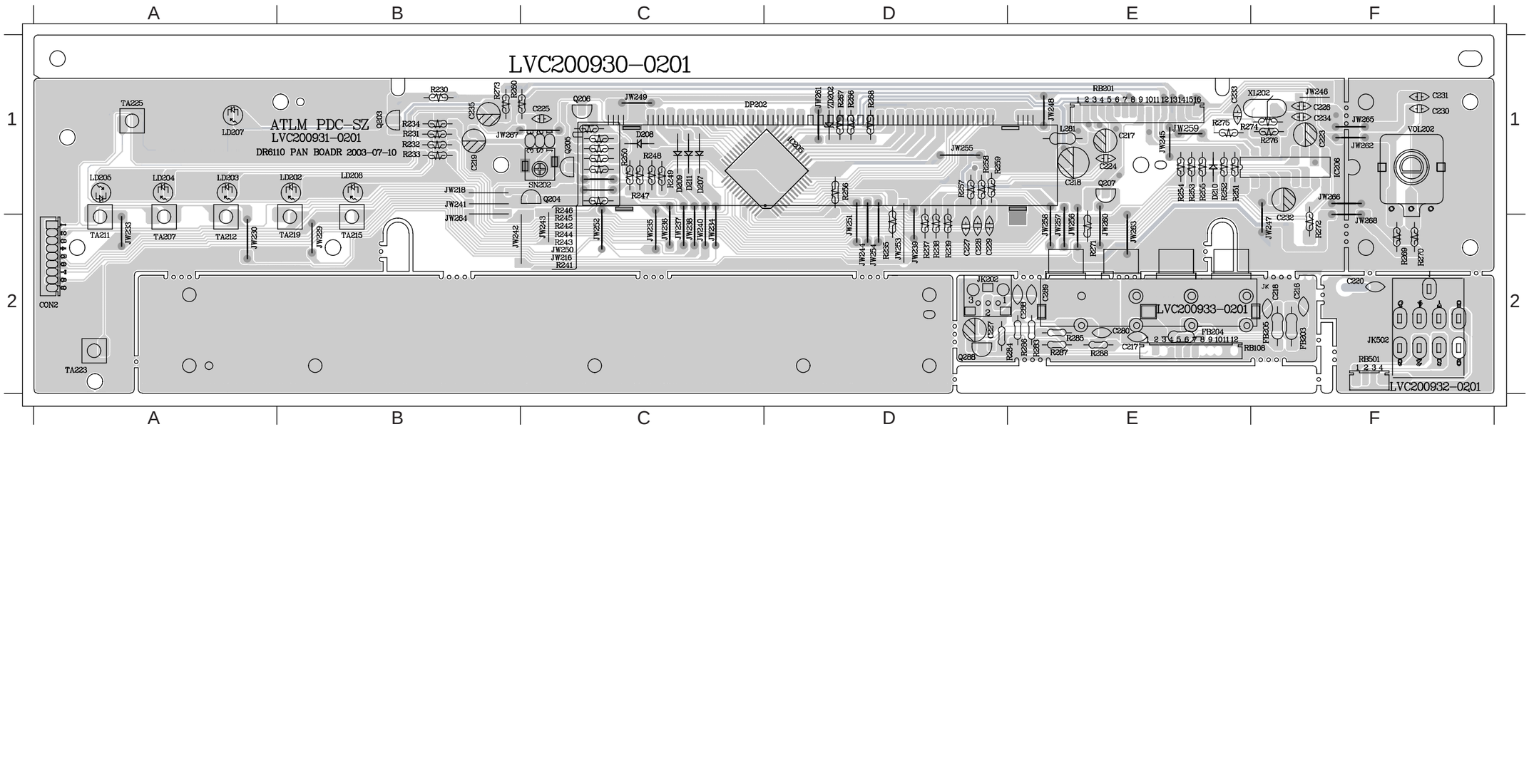
PCB LAYOUT - CONTROL & EARPHONE & YUV BOARD

C216	E2	C226	F1	C235	B1	FB203	E2	JW230	A2	JW242	B2	JW252	C2	JW262	F1	LD204	A1	R230	B1	R242	C2	R252	E1	R268	D1	R284	E2	TA211	A2
C217	E2	C227	D1	C280	E2	FB204	E2	JW233	A2	JW243	C2	JW253	D2	JW263	E2	LD205	A1	R231	B1	R243	C2	R253	E1	R269	E2	R285	E2	TA212	A2
C217	E1	C227	D2	C288	E2	FB205	E2	JW234	C2	JW244	D2	JW254	D2	JW264	B2	LD206	B1	R232	B1	R244	C2	R255	E1	R270	E2	R286	E2	TA215	B1
C218	E2	C228	D1	C289	E2	IC205	D1	JW235	C2	JW245	E1	JW255	D1	JW265	F1	LD207	A1	R233	B1	R245	C2	R256	D1	R271	E2	R287	E2	TA219	B2
C218	E1	C229	D1	D207	C1	IC206	F1	JW236	C2	JW246	F1	JW256	E2	JW266	F1	Q203	B1	R234	B1	R246	C1	R257	D1	R272	E2	R288	E2	TA233	A2
C219	B1	C230	F1	D208	C1	JK202	D2	JW237	C2	JW247	F2	JW257	E2	JW267	B1	Q204	C1	R235	D2	R247	C1	R258	D1	R273	B1	RB102	E2	TA225	A1
C220	E2	C231	F1	D209	C1	JK502	E2	JW238	C2	JW248	E1	JW258	E2	JW268	E2	Q205	C1	R237	D2	R248	C1	R259	D1	R274	F1	RB201	E1	XL202	F1
C223	F1	C232	F2	D210	E1	JW216	C2	JW239	D2	JW249	C1	JW259	E1	L281	E1	Q206	C1	R238	D2	R249	C1	R260	B1	R275	E1	RB501	E2	ZD202	D1
C224	E1	C233	E1	D211	C1	JW218	B1	JW240	C2	JW250	C2	JW260	E2	LD202	B1	Q207	E1	R239	D2	R250	C1	R266	D1	R276	F1	SN202	C1		
C225	C1	C234	F1	DP202	C1	JW229	B2	JW241	B1	JW251	D2	JW261	D1	LD203	A1	Q288	D2	R241	C2	R251	E1	R267	D1	R283	E2	TA207	A2		



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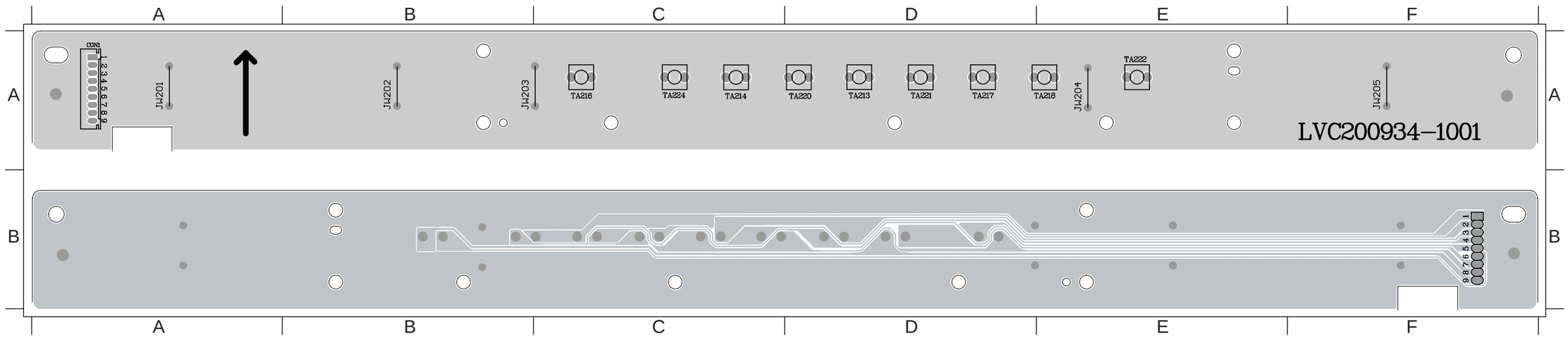
PCB LAYOUT TOP & BOTTOM VIEW- KEY BOARD

CON1	A1	JW203	B1	TA213	D1	TA217	D1	TA221	D1
JW201	A1	JW204	E1	TA214	C1	TA218	D1	TA222	E1
JW202	B1	JW205	F1	TA216	C1	TA220	D1	TA224	C1



VOLTAGES

IC101	(LA1837)																			
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	3.5	9.78	3.5	3.5	0	4.96	4.94	9.77	9.76	1.4	0.94	0	0.05	8.67	8.68	4.27	4.27	4.26	4.26	3.19
PIN NO	21	22	23	24	25	26	27	28	29	30										
Voltage	3.19	2.8	3.24	0.33	0.02	3.59	3.59	2.58	3.58	1.7										

IC152	(LC72131M)																			
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	2.5	0.17	0.17	4.2	4.96	4.18	0.05	0.05	0.05	4.95	0.01	4.95	0.01	2.4	4.95	1.05	1.05	3.47	0	2.45

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ELECTRICAL PARTS LIST - CONTROL & EARPHONE & YUV & KEY BOARDS

MISCELLANEOUS

DP202	9965 000 15923	VFD VA92.2X9mm HNAA12SM33
FB203	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHz
FB204	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHz
FB205	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHz
JK202	9965 000 20273	TDSK JACK DLT1111
JK203	9965 000 15924	RCA-414 JACK
JK502	9965 000 15925	PHONE JACK D6.4 9 PIN
L281	9965 000 15931	INDUCTOR 100uH 10%
LD202	9965 000 21187	LED 3DIA GREEN ROUND LEAD 10mm
LD203	9965 000 21187	LED 3DIA GREEN ROUND LEAD 10mm
LD204	9965 000 21187	LED 3DIA GREEN ROUND LEAD 10mm
LD205	9965 000 21187	LED 3DIA GREEN ROUND LEAD 10mm
LD206	9965 000 21187	LED 3DIA GREEN ROUND LEAD 10mm
LD207	9965 000 19404	LED 3DIA RED ROUND LEAD 10mm
TA207	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA211	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA212	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA213	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA214	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA215	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA216	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA217	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA218	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA219	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA220	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA221	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA222	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA223	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA224	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
TA225	4822 276 13648	AI TACT SW SKHVBE3520 ALPS
SN201	9965 000 15935	IRT SENSOR RIM B38F
VOL202	9965 000 12539	ROTARY ENCODER EC16B24204
XL202	9965 000 15932	CRYSTAL 4.5MHz HC-49/S

DIODES

D207	4822 130 30621	1N4148
D208	4822 130 30621	1N4148
D209	4822 130 30621	1N4148
D210	4822 130 30621	1N4148
D211	4822 130 30621	1N4148
ZD202	9965 000 12554	ZENER 3.8-4.0V 0.5W

TRANSISTORS & INTEGRATED CIRCUITS

Q203	4822 130 63876	2SA733R
Q204	4822 130 63876	2SA733R
Q205	4822 130 63876	2SA733R
Q206	4822 130 63876	2SA733R
Q207	4822 130 41198	2SC945P
Q288	4822 130 41198	2SC945P
IC205	9965 000 12550	PT6311(PTC)
IC206	9965 000 15934	IC CTM8B56EN

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

SWITCH POWER BOARD

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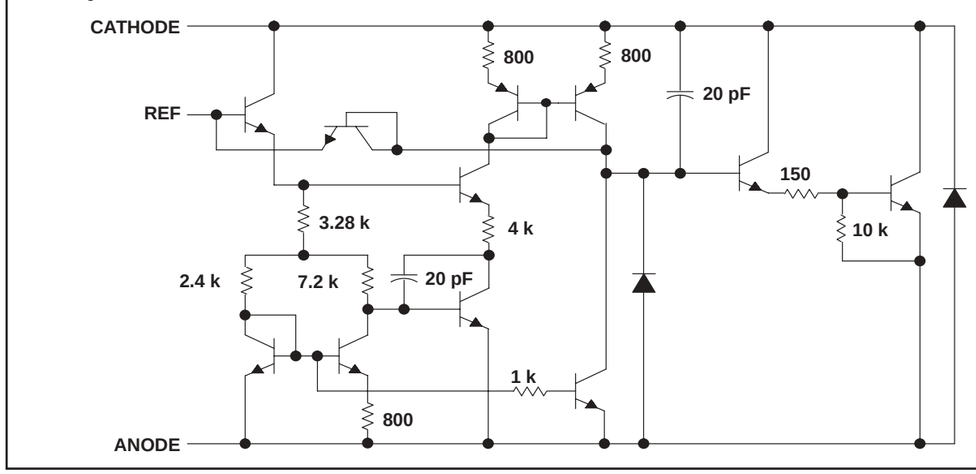
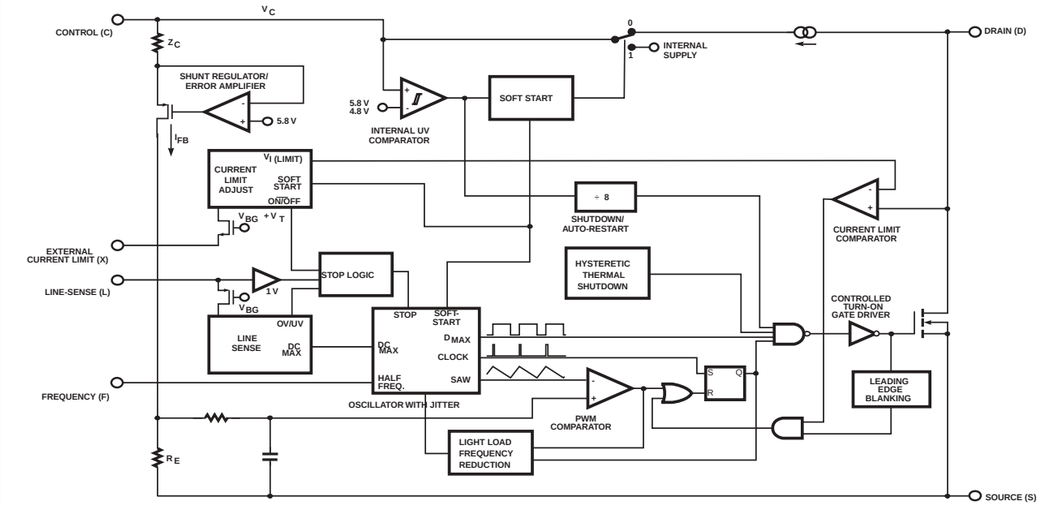
TL431 EQUIVALENT SCHEMATIC



TOP249 BLOCK DIAGRAM



VOLTAGE

IC903 (TOP249)

PIN NO	1	2	3	4	5	6														
Voltage	2.98	0	-0.6	0	2.6	154														

IC904 (TL431)

PIN NO	1	2	3																	
Voltage	2.48	0	5.1																	

SN901 (SFH615-3)

PIN NO	1	2	3	4																
Voltage	27.7	26.6	2.5	16.7																

Q903 (PN2222A)

PIN NO	b	c	e	
Voltage	0	31.5	0	

Q904 (TIP120)

PIN NO	b	c	e	
Voltage	6.68	31.5	7.2	

Q910 (2N7000)

PIN NO	b	c	e	
Voltage	-14.1	-4.49	-14.1	

Q912 (2N7000)

PIN NO	b	c	e	
Voltage	-14.1	-4.49	-14.1	

Q913 (2N7000)

PIN NO	b	c	e	
Voltage	0.7	0.06	0	

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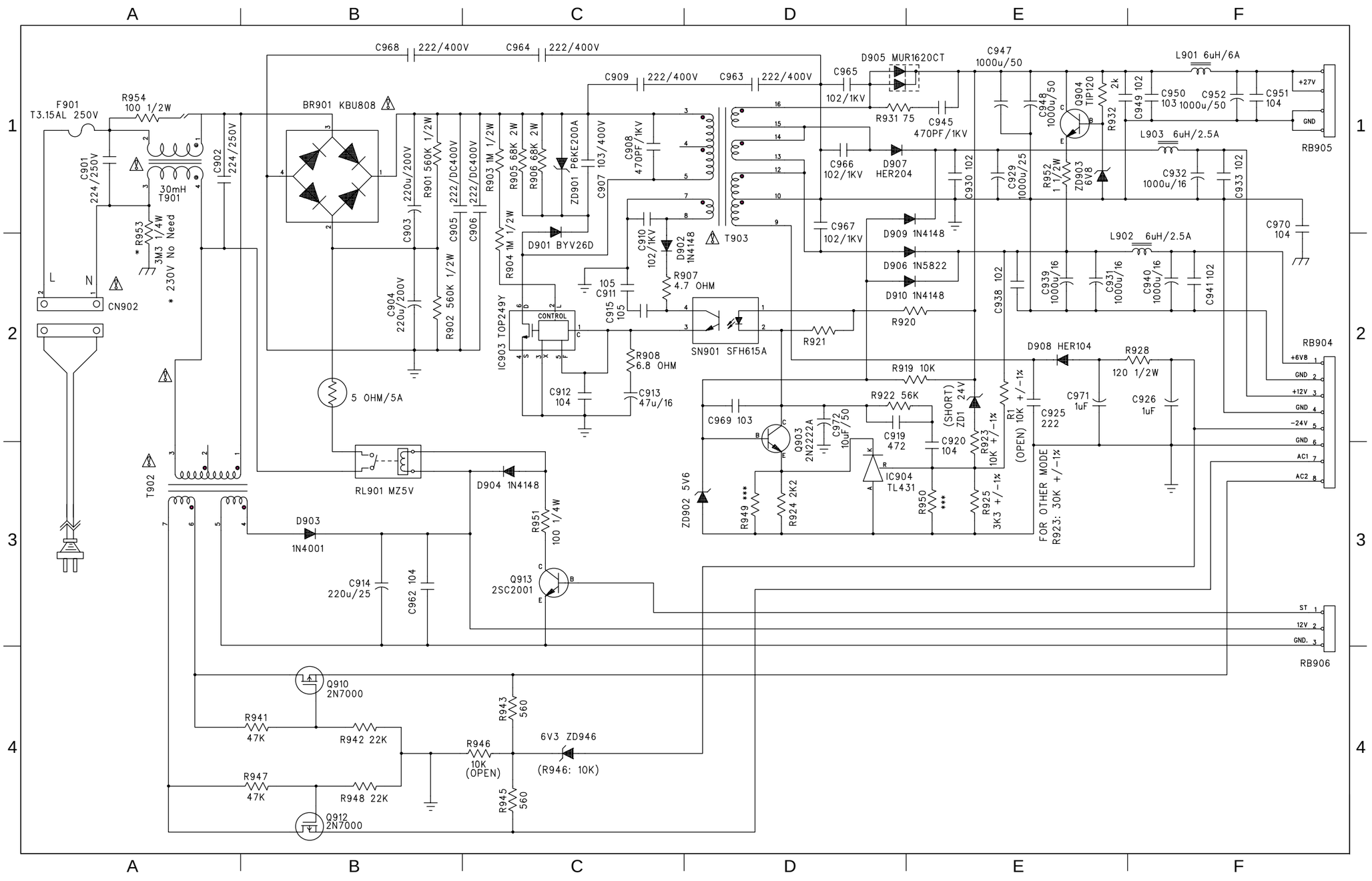
SWITCH POWER PCB SCHEMATIC

BR901	B1	C908	C1	C920	E3	C938	E1	C950	F1	C967	D1	D902	C2	D910	D2	Q904	E1	R904	C2	R922	D2	R942	B4	R953	A1	T902	A3
C901	A1	C909	C1	C925	E1	C939	E1	C951	F1	C968	B1	D903	B3	F901	A1	Q910	B4	R905	C1	R923	E3	R943	C4	R954	A1	T903	D2
C902	A1	C910	C2	C926	F2	C940	F2	C952	F1	C969	D2	D904	C3	IC903	C2	Q912	B4	R906	C1	R924	D3	R945	C4	RB904	F2	ZD1	E2
C903	B1	C911	C2	C929	E1	C941	F2	C962	B3	C970	F1	D905	D1	IC904	D3	Q913	C3	R907	C2	R925	E3	R946	C4	RB905	F1	ZD901	C1
C904	B2	C912	C2	C930	E1	C945	E1	C963	D1	C971	E1	D906	D2	L901	F1	R1	E2	R908	C2	R928	F2	R947	B4	RB906	F4	ZD902	D3
C905	B1	C913	C2	C931	E1	C947	E1	C964	C1	C972	D2	D907	D1	L902	F2	R901	B1	R919	D2	R931	D1	R948	B4	RL901	B3	ZD903	E1
C906	C1	C914	B3	C932	F1	C948	E1	C965	D1	CN902	A2	D908	E2	L903	F1	R902	B2	R920	D2	R932	E1	R951	C3	SN901	D2	ZD946	C4
C907	C1	C915	C2	C933	F1	C949	F1	C966	D1	D901	C2	D909	D1	Q903	D2	R903	C1	R921	D2	R941	B4	R952	E1	T901	A1		



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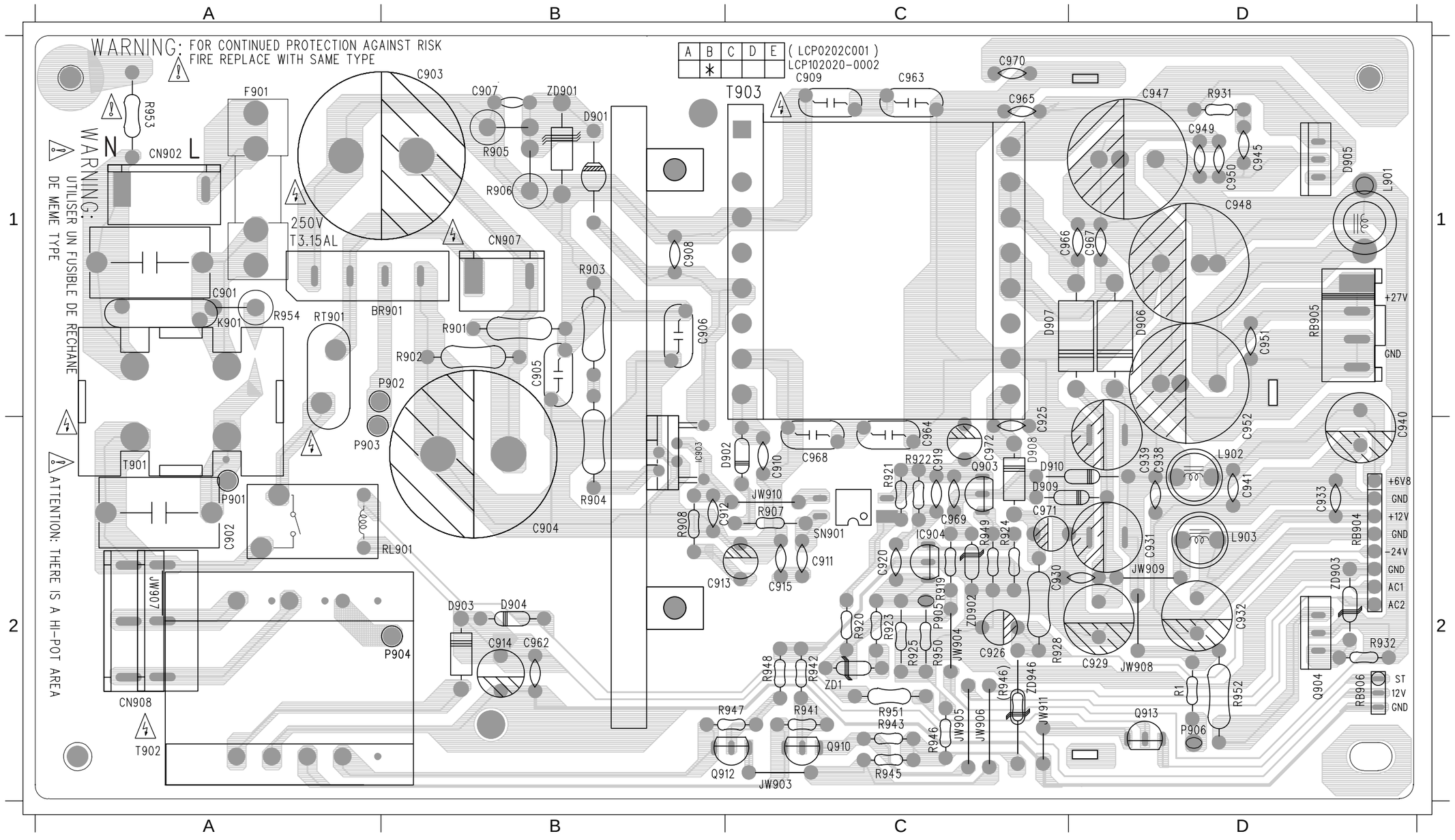
SWITCH POWER PCB LAYOUT VIEW

BR901	A1	C909	C1	C925	C2	C940	D2	C962	B2	C971	C2	D907	C1	JW905	C2	L903	D2	Q910	C2	R906	B1	R925	C2
C901	A1	C910	C2	C926	C2	C941	D2	C963	C1	C972	C2	D908	C2	JW906	C2	P901	A2	Q912	C2	R907	C2	R928	C2
C902	A2	C911	C2	C929	D2	C945	D1	C964	C2	CN902	A1	D909	C2	JW907	A2	P902	B1	Q913	D2	R908	B2	R931	D1
C903	B1	C912	B2	C930	C2	C947	D1	C965	C1	D901	B1	D910	C2	JW908	D2	P903	A2	R1	D2	R919	C2	R932	D2
C904	B2	C913	B2	C931	D2	C948	D1	C966	D1	D902	C2	F901	A1	JW909	D2	P904	B2	R901	B1	R920	C2	R941	C2
C905	B1	C914	B2	C932	D2	C949	D1	C967	D1	D903	B2	IC903	B2	JW910	C2	P905	C2	R902	B1	R921	C2	R942	C2
C906	B1	C915	C2	C933	D2	C950	D1	C968	C2	D904	B2	IC904	C2	JW911	C2	P906	D2	R903	B1	R922	C2	R943	C2
C907	B1	C919	C2	C938	D2	C951	D1	C969	C2	D905	D1	JW903	C2	L901	D1	Q903	C2	R904	B2	R923	C2	R945	C2
C908	B1	C920	C2	C939	D2	C952	D2	C970	C1	D906	D1	JW904	C2	L902	D2	Q904	D2	R905	B1	R924	C2	R946	C2



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ELECTRICAL PARTS LIST - POWER BOARD

MISCELLANEOUS

CN902	9965 000 15936	⚠	CONNECTOR 4 PIN P=3.96mm
F901	9965 000 12637	⚠	FUSE 3.15A 250V SLOW
L901	9965 000 16693		INDUCTOR 6uH 10.5TS 6A
L902	9965 000 16694		INDUCTOR 6uH 13.5TS 2UEW
L903	9965 000 16694		INDUCTOR 6uH 13.5TS 2UEW
RL901	9965 000 15937	⚠	RELAY GJ-SH-112DM
RT901	9965 000 17394	⚠	NTC 5R 5A
SN901	9965 000 15769	⚠	OTP SENSOR SFH615A-3
T901	9965 000 17395	⚠	AC FILTER 1.7A L1:86TS L2:86TS
T902	9965 000 19196	⚠	POWER TRANS 120V EI-35
T903	9965 000 20580	⚠	POWER TRANS EI-42 50W

CAPACITORS

C901	9965 000 16687	⚠	0.22uF 275V X2P 20%
C902	9965 000 16687	⚠	0.22uF 275V X2P 20%
C903	9965 000 20258		COND ELECT 220uF 200V 20%
C904	9965 000 20258		COND ELECT 220uF 200V 20%
C905	9965 000 20259	⚠	COND SAFETY 0.0022uF 250V 20%
C906	9965 000 20259	⚠	COND SAFETY 0.0022uF 250V 20%
C907	9965 000 18042		COND DISC 0.01uF 1kV 20%
C908	9965 000 20260		COND DISC 470pF 1kV 10%
C909	9965 000 20259	⚠	COND SAFETY 0.0022uF 250V 20%
C910	9965 000 20261		COND DISC 0.001uF 1kV 20%
C925	9965 000 20261		COND DISC 0.001uF 1kV 20%
C929	9965 000 16354		COND ELECT 1000uF 25V 20%
C931	9965 000 20262		COND ELECT 1000uF 16V 20%
C932	9965 000 20263		COND ELECT 1000uF 16V 20%
C939	9965 000 20263		COND ELECT 1000uF 16V 20%
C940	9965 000 20263		COND ELECT 1000uF 16V 20%
C945	9965 000 20264		COND DISC 470pF 1kV 10%
C947	9965 000 20265		COND ELECT 1000uF 50V 20%
C948	9965 000 20265		COND ELECT 1000uF 50V 20%
C952	9965 000 20265		COND ELECT 1000uF 50V 20%
C963	9965 000 20259	⚠	COND SAFETY 0.0022uF 250V 20%
C964	9965 000 20259	⚠	COND SAFETY 0.0022uF 250V 20%
C965	9965 000 20261		COND DISC 0.001uF 1kV 20%
C966	9965 000 20261		COND DISC 0.001uF 1kV 20%
C967	9965 000 20261		COND DISC 0.001uF 1kV 20%
C968	9965 000 20259	⚠	COND SAFETY 0.0022uF 250V 20%

RESISTORS

R901	9965 000 21183	560k OHM 1/2W 5% CF
R902	9965 000 21183	560k OHM 1/2W 5% CF
R903	9965 000 21184	1M OHM 1/2W 5% CF
R904	9965 000 21184	1M OHM 1/2W 5% CF
R905	9965 000 17393	68k 2W 5% W/KINK
R906	9965 000 17393	68k 2W 5% W/KINK
R928	9965 000 16691	120R 1/2W
R952	9965 000 12517	1 OHM 1/2W 5%

DIODES

BR901	9965 000 14176	⚠	BRIDGE KBU808 8A 800V
D901	4822 130 11044		BYV26D
D902	4822 130 30621		1N4148
D903	4822 130 31438		1N4001G
D904	4822 130 30621		1N4148
D905	9965 000 14186		BRIDGE MUR1620CT 8A 200V
D906	5322 130 32677		1N5822
D907	9965 000 14187		HER204 2A/300V 50NS
D908	9965 000 14188		HER104 1A/300V 50NS
D909	4822 130 30621		1N4148
D910	4822 130 30621		1N4148
ZD1	9965 000 17373		DIODE ZENER 23.6-24.7V 0.5W
ZD901	9965 000 14209		P6kE200A
ZD902	9965 000 15944		DIODE ZENER 5.6-5.9V 0.5W
ZD903	4822 130 80272		DIODE ZENER 6.9-7.2V 0.5W
ZD946	4822 130 34167		BZX79-B6V2

TRANSISTORS & INTEGRATED CIRCUITS

Q903	9965 000 17396	XISTR NPN PN2222A FAIRCHILD
Q904	9965 000 20581	XISTR NPN TIP122 TO-220
Q910	9965 000 16497	MOS FET 2N7000 60V 200mA
Q912	9965 000 16497	MOS FET 2N7000 60V 200mA
Q913	4822 130 41651	XISTR NPN 2SC2001L
IC903	9965 000 14189	IC 6 PIN TOP249 250W
IC904	9965 000 17387	IC 3 PIN TL431

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

TUNER BOARD

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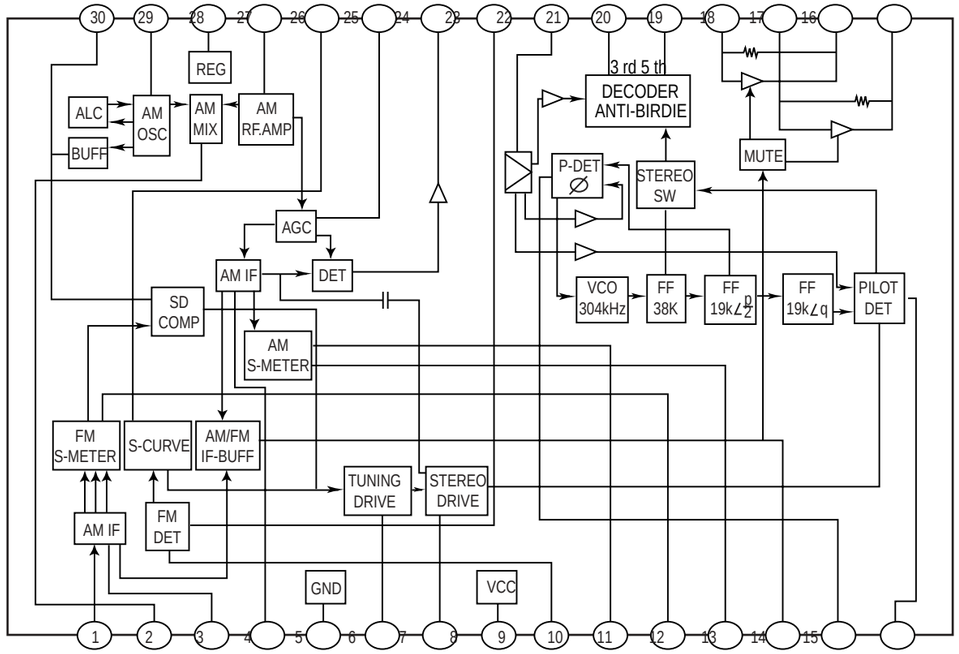
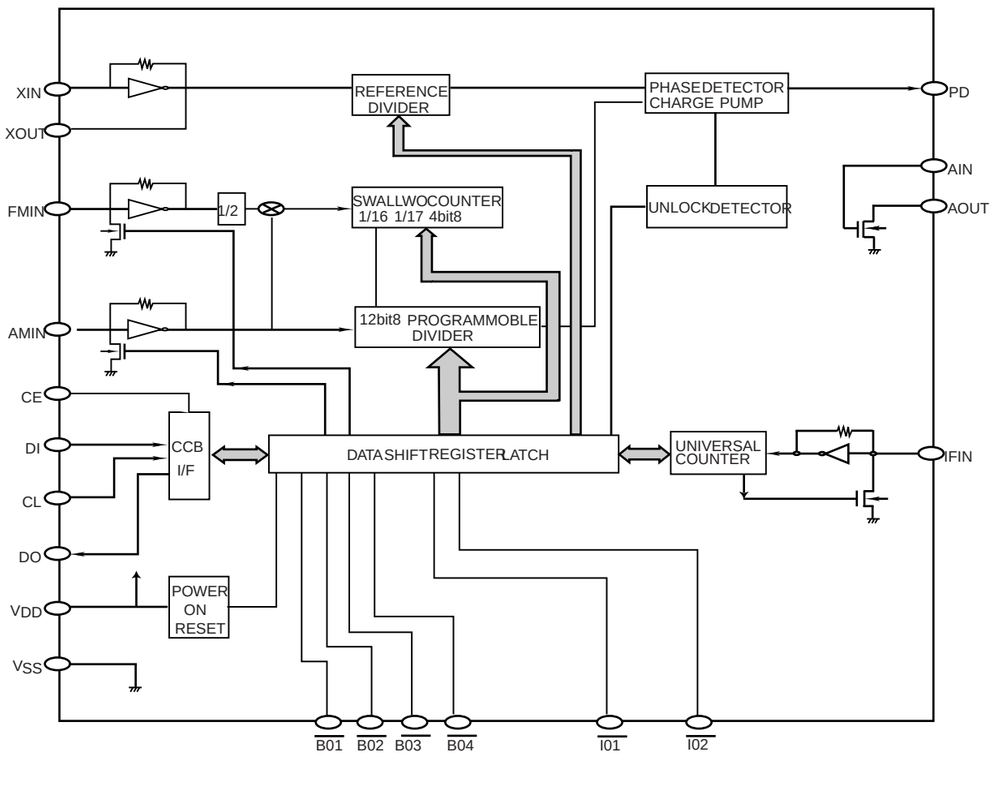
LA1837 EQUIVALENT SCHEMATIC



LA72131 BLOCK DIAGRAM



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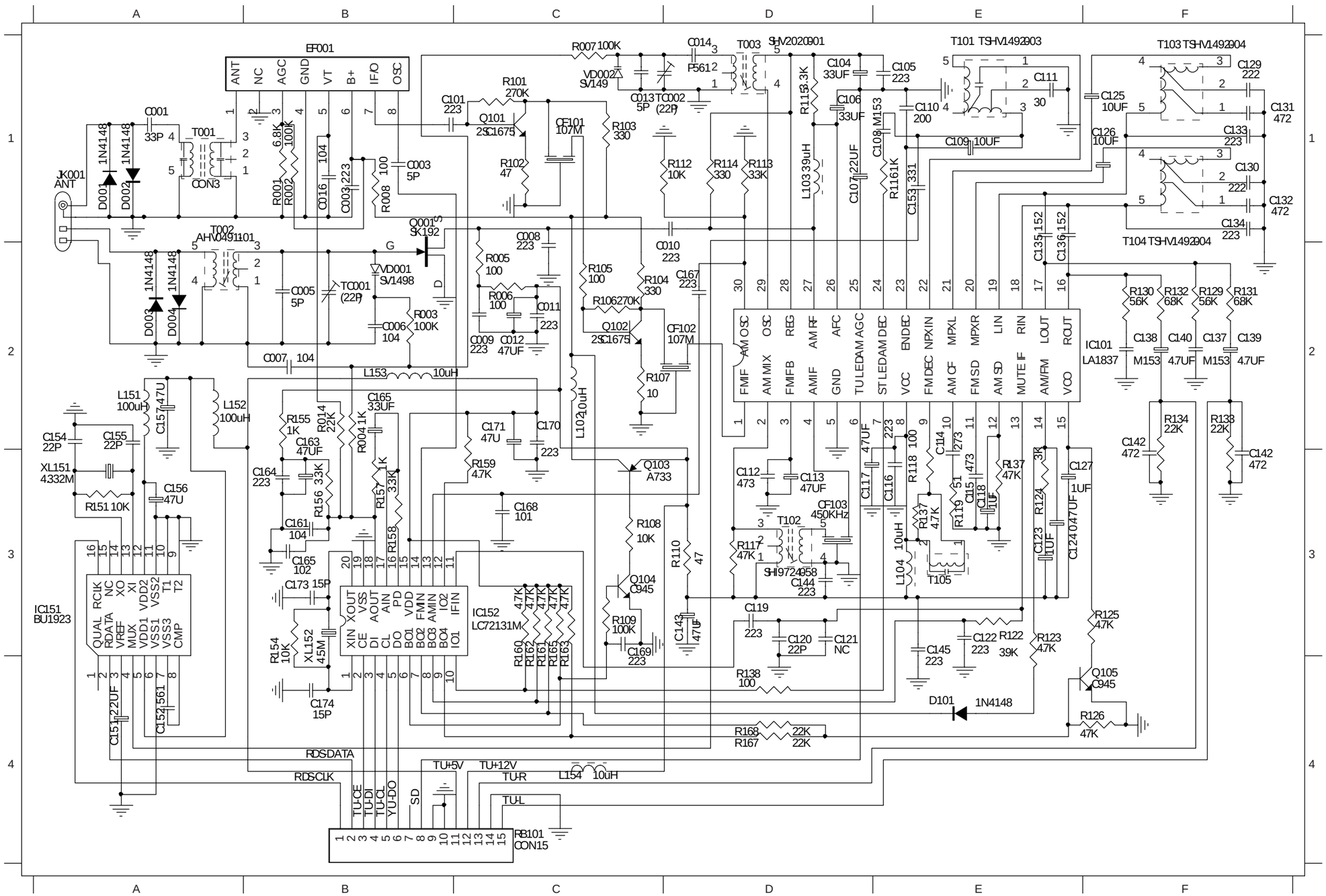
CIRCUIT DIAGRAM



C001	A1	CF103	D3	R161	C3
C003	B1	D001	A1	R162	C2
C005	B2	D002	A1	R163	C3
C006	B2	D003	A2	R165	C3
C007	B2	D004	A2	RB101	C4
C008	C1	D101	E4	T001	A1
C009	C2	EF001	B1	T002	A1
C010	D2	IC101	F2	T003	D1
C011	C2	IC151	A3	T101	E1
C012	C2	IC152	C3	T102	D3
C013	C1	JK001	A1	T103	F1
C014	D1	L102	C2	T104	F1
C016	B1	L103	D1	T105	E3
C101	C1	L104	E3	TC001	B2
C104	D1	L151	A2	TC003	D1
C105	E1	L152	A2	VD001	B2
C106	D1	L153	B2	VD002	C1
C107	D1	L154	C4	XL151	A3
C108	E1	Q001	B1	XL152	B3
C109	E1	Q101	C1		
C110	E1	Q102	C2		
C111	E1	Q103	C3		
C112	D3	Q104	C3		
C113	D3	Q105	F4		
C114	E2	R001	B1		
C115	E3	R002	B1		
C116	E3	R003	B2		
C117	D3	R004	B2		
C118	E3	R005	C2		
C119	D3	R006	C2		
C120	D3	R007	C1		
C121	D3	R008	B1		
C122	E3	R014	B2		
C123	E3	R101	C1		
C124	E3	R102	C1		
C125	F1	R103	C1		
C126	F1	R104	C2		
C127	E3	R105	C2		
C129	F1	R106	C2		
C130	F1	R107	C2		
C131	F1	R108	C3		
C132	F1	R109	C3		
C133	F1	R110	D3		
C134	F1	R112	D1		
C135	E1	R113	D1		
C136	E1	R114	D4		
C137	F2	R115	D1		
C138	F2	R116	E1		
C139	F2	R117	D3		
C140	F2	R118	E3		
C142	F3	R119	E3		
C143	D3	R122	E4		
C144	D3	R123	E4		
C145	E3	R124	E3		
C151	A4	R125	F3		
C152	A4	R126	F4		
C153	E1	R129	F2		
C154	A2	R130	F2		
C155	A2	R131	F2		
C156	A3	R132	F2		
C157	A2	R133	F2		
C161	B3	R134	F2		
C163	B2	R137	E3		
C164	B3	R138	D4		
C165	B2	R167	D4		
C167	D2	R168	D4		
C168	C3	R151	A3		
C169	C3	R154	B3		
C170	C2	R155	B2		
C171	C2	R156	B3		
C173	B3	R157	B3		
C174	B4	R158	B3		
CF101	C1	R159	C3		
CF102	D2	R160	C3		

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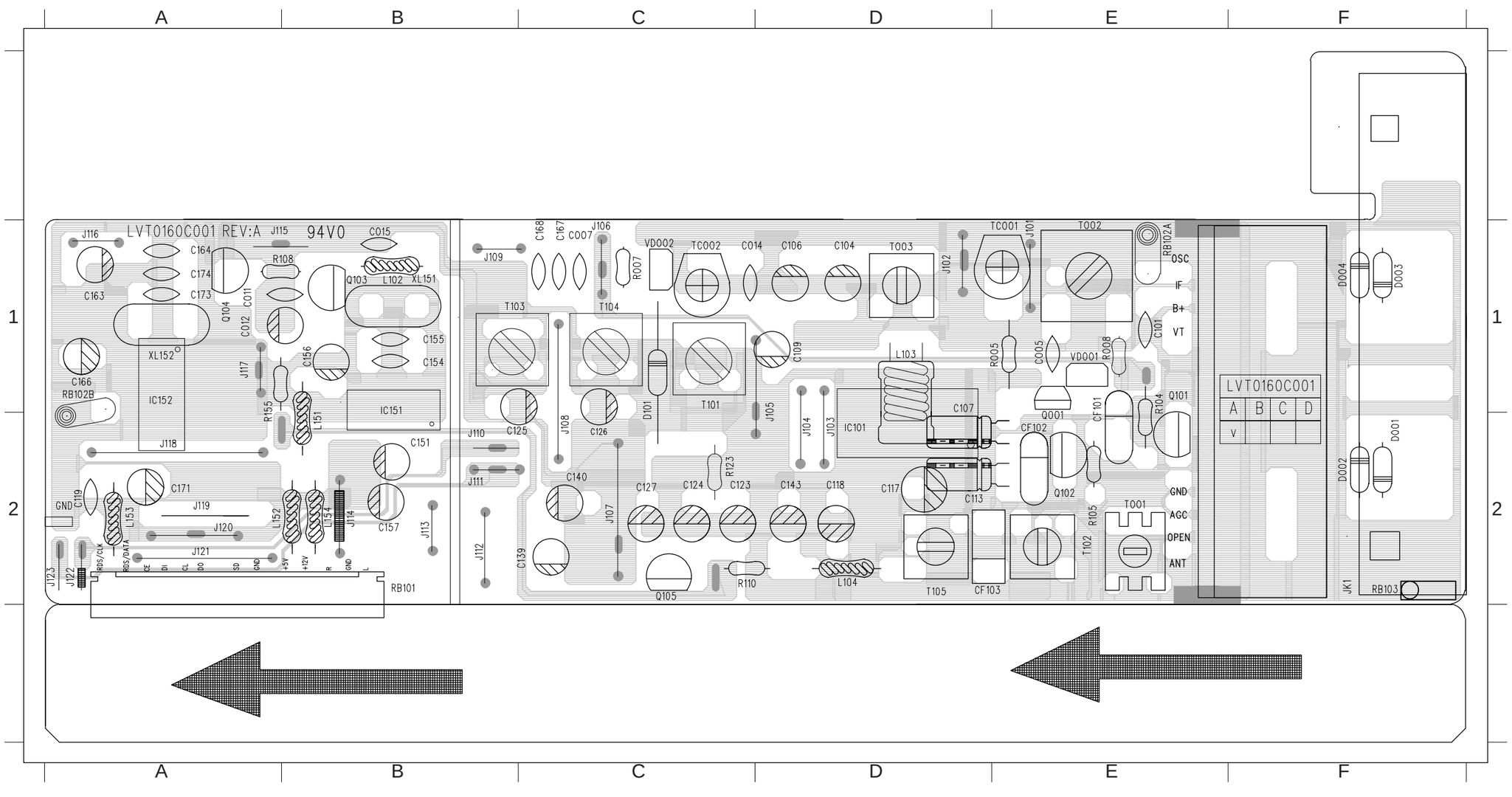
PCB LAYOUT TOP VIEW - TUNER BOARD

C005	E1	C106	D1	C124	C2	C154	B1	C171	A2	D003	F1	J103	D2	J111	B2	J119	A2	L104	D2	Q103	B1	R110	C2	T003	D1	VD002	C1
C007	C1	C107	D1	C125	B2	C155	B1	C173	A1	D004	F1	J104	D2	J112	B2	J120	A2	L151	B2	Q104	A1	R123	C2	T101	C1	XL151	B1
C011	A1	C109	D1	C126	C2	C156	B1	C174	A1	D101	C1	J105	D1	J113	B2	J121	A2	L152	A2	Q105	C2	R155	A1	T103	B1	XL152	A1
C012	A1	C113	D2	C127	C2	C163	A1	CF101	E1	IC101	D2	J106	C1	J114	B2	J122	A2	L153	A2	R005	E1	RB101	B2	T104	C1	C005	E1
C014	C1	C117	D2	C139	C2	C164	A1	CF102	E2	IC151	B1	J107	C2	J115	A1	J123	A2	L154	B2	R007	C1	RB102A	E1	T105	D2		
C015	B1	C118	D2	C140	C2	C166	A1	CF103	D2	IC152	A1	J108	C2	J116	A1	JK1	F2	Q001	E1	R104	E1	RB102B	A1	TC001	E1		
C101	E1	C119	A2	C143	D2	C167	C1	D001	F2	J101	E1	J109	B1	J117	A1	L102	B1	Q101	E1	R105	E1	RB103	F2	TC002	C1		
C104	D1	C123	C2	C151	B2	C168	C1	D002	F2	J102	D1	J110	B2	J118	A2	L103	D1	Q102	E2	R108	A1	T002	E1	VD001	E1		



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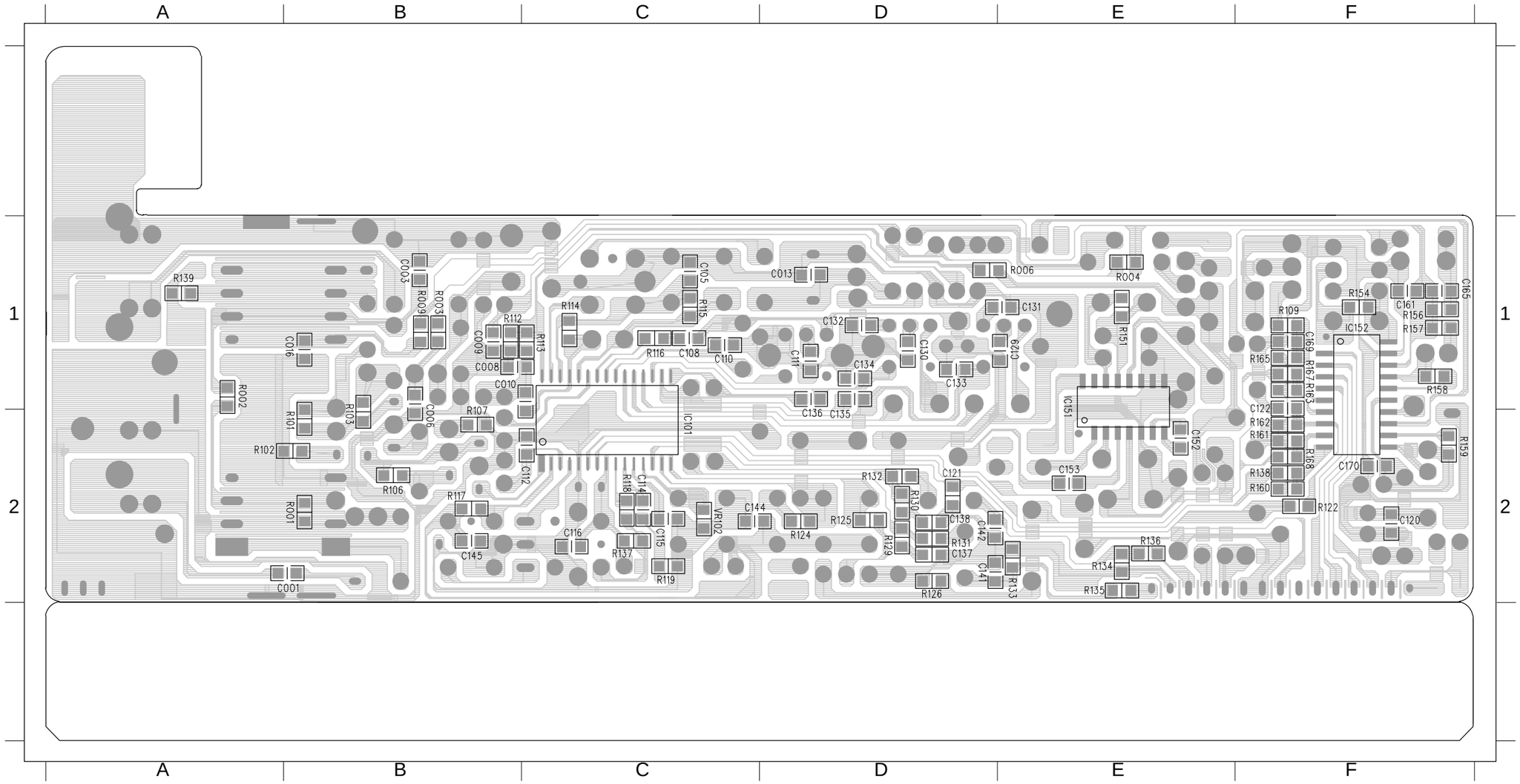
PCB LAYOUT BOTTOM VIEW - TUNER BOARD

C001	B2	C105	C1	C120	F2	C135	D2	C152	E2	IC152	F1	R102	A2	R115	C1	R129	D2	R137	C2	R159	F2	VR102	C2				
C003	B1	C108	C1	C122	F1	C136	D2	C153	E2	R001	B2	R103	B2	R116	C1	R130	D2	R138	F2	R160	F2						
C006	B2	C110	C1	C129	E1	C137	D2	C161	F1	R002	A1	R106	B2	R117	B2	R131	D1	R139	A1	R161	F2						
C008	B1	C111	D1	C130	D1	C138	D2	C165	F1	R003	B1	R107	B2	R119	C2	R132	D2	R151	E1	R162	F2						
C009	B1	C112	C2	C131	E1	C141	D2	C169	F1	R004	E1	R109	F1	R122	F2	R133	E2	R154	F1	R163	F1						
C010	B1	C114	C2	C132	D1	C142	D2	C170	F2	R006	E1	R112	B1	R124	D2	R134	E2	R156	F1	R165	F1						
C013	D1	C116	C2	C133	D1	C144	C2	IC101	C2	R009	B1	R113	C1	R125	D2	R135	E2	R157	F1	R167	F1						
C016	B1	C115	C2	C134	D1	C145	B2	IC151	E1	R101	B2	R114	C1	R126	D2	R136	E2	R158	F1	R168	F2						



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ELECTRICAL PARTS LIST - TUNER BOARD

MISCELLANEOUS

CF101	9965 000 17368	CER FILTER 10.7MHz
CF102	9965 000 15868	CER FILTER 10.7MHz
CF103	9965 000 15869	CER FILTER 450kHz
EF001	9965 000 21185	TUNER PACK SEO BONG FTE3-500H
JK1	9965 000 21186	ANTENNA JACK (FM/AM)
L102	9965 000 15871	CHOKE 10uH 10%
L103	9965 000 15872	COIL 39mH 10%
L104	9965 000 15871	CHOKE 10uH 10%
L153	9965 000 15871	CHOKE 10uH 10%
L154	9965 000 15871	CHOKE 10uH 10%
T001	9965 000 15880	OSC FM SUMIDA S-8N
T002	9965 000 15874	ANT OSC AM 4-6:10T 1-3:86T
T003	9965 000 17370	OSC COIL 108uH (796kHz) COIL
T101	9965 000 15877	BIAS COIL 78kHz
T102	9965 000 15875	AM IFT 455kHZ Q=130
T103	9965 000 15878	BIAS COIL 16kHz
T104	9965 000 15878	BIAS COIL 16kHz
T105	9965 000 15879	FM IFT 10.7MHz Q=60 MIN
TC001	9965 000 15865	COND TRIM 3 - 10pF NP0
TC002	9965 000 15866	COND TRIM 4.2 - 20pF N450
VR102	4822 051 20392	3k9 5% 0,1W
XL152	9965 000 15881	CRYSTAL 4.5MHz HC-49/U

DIODES

VD001	4822 130 81673	1SV149B
VD002	4822 130 81673	1SV149B
D001	4822 130 30621	1N4148
D002	4822 130 30621	1N4148
D003	4822 130 30621	1N4148
D004	4822 130 30621	1N4148
D101	4822 130 30621	1N4148

TRANSISTORS & INTEGRATED CIRCUITS

Q001	4822 130 63173	2SK192AY
Q101	4822 130 41595	2SC1675L
Q102	4822 130 41595	2SC1675L
Q103	4822 130 63876	2SA733R
Q104	4822 130 41198	2SC945P
Q105	4822 130 41198	2SC945P
IC101	9965 000 01369	IC 30 PIN LA1837
IC152	4822 209 15778	IC 20 PIN LC72131M

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

MAIN BOARD

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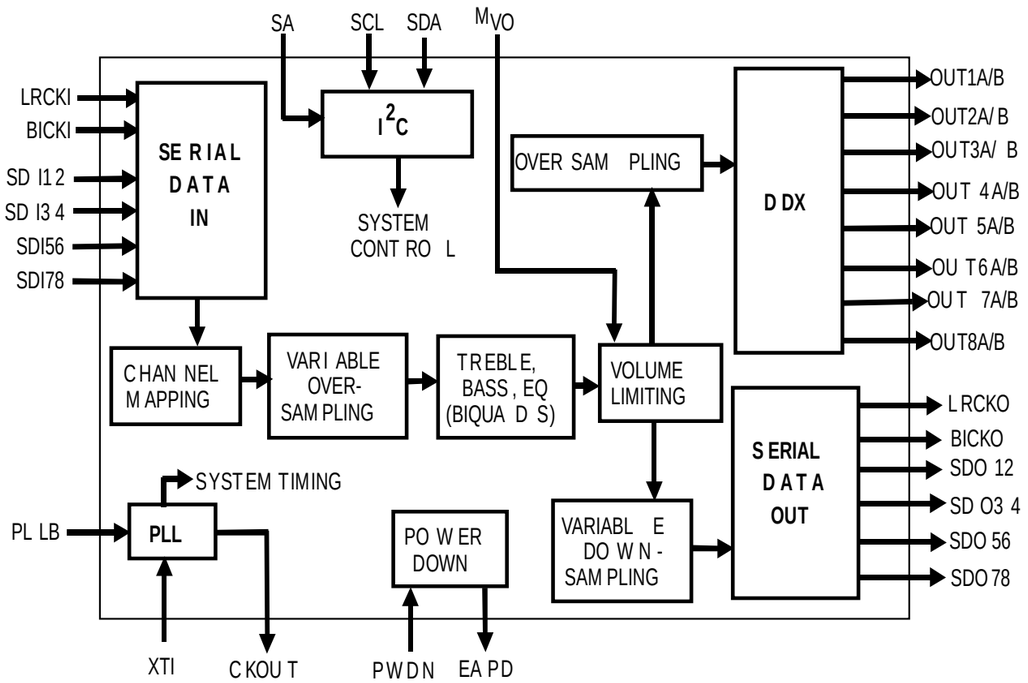
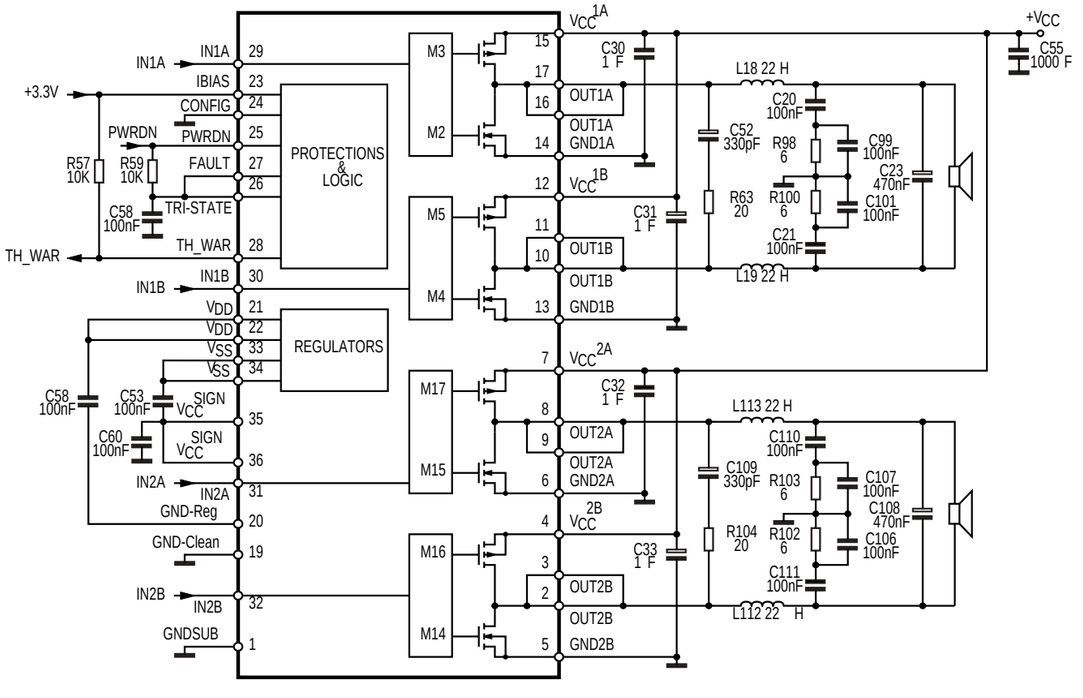
STA308 INTERNAL IC DIAGRAM



STA505 INTERNAL IC DIAGRAM



VOLTAGES

IC805	BA5954																			
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	1.53	2.45	2.46	1.5	1.51	1.52	2.45	8.03	4.99	0	3.95	4.03	2.45	2.53	2.48	2.51	1.6	3.44	0	2.51
PIN NO	21	22	23	24	25	26	27	28												
Voltage	4.99	0	1.23	2.5	2.53	1.51	1.51	3.3												

IC401	(PT5228)							
PIN NO	1	2	3	4	5	6	7	8
Voltage	2.8	0	2.8	0	2.8	2.8	2.8	6

IC412	(PT2259)							
PIN NO	1	2	3	4	5	6	7	8
Voltage	4.2	4.2	0	4.4	4.4	8.8	4.2	4.2

IC405	(4558)							
PIN NO	1	2	3	4	5	6	7	8
Voltage	0	0	0	-9.24	0	0	0	6.98

IC404	(4558)							
PIN NO	1	2	3	4	5	6	7	8
Voltage	0	0	0	-9.24	0	0	0	6.97

IC407	(4558)							
PIN NO	1	2	3	4	5	6	7	8
Voltage	0	0	0	-9.24	0	0	0	6.97

IC406/IC408	(4558)							
PIN NO	1	2	3	4	5	6	7	8
Voltage	0	0	0	-9.24	0	0	0	6.97

IC500	(STA308)																			
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	0	3.3	0	2.68	0	0.8	0.8	0.8	1.65	1.65	3.36	0	2.68	2.2	0	0	4.65	4.65	1.28
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	1.24	2.68	0	3.3	1.67	2.68	0	3.3	0	0	0	0	0.22	0.22	0	0	2.68	0.22	0.22	0.22
PIN NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Voltage	0.22	0.22	0.22	0	0	2.68	0.22	0.22	0.22	0.22	3.3	3.3	0	2.5	1.68	1.68	1.25	1.2	3.3	0
PIN NO	61	62	63	64																
Voltage	0	1.2	0	3.3																

IC402	(STA505)																			
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	1.93	1.93	31.5	0	0	31.4	-0.8	-0.8	1.8	1.8	31.5	0	0	31.5	0.2	0.2	0	0	0.02
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
Voltage	5	5	3.35	0	3.35	3.34	3.35	3.34	0.22	0.22	0.22	0.22	26.4	26.5	31.5	31.5				

IC502	(STA505)																			
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	1.93	1.93	31.5	0	0	31.4	-0.8	-0.8	1.8	1.8	31.5	0	0	31.5	0.2	0.2	0	0	0.02
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
Voltage	5	5	3.35	0	3.35	3.34	3.35	3.34	0.22	0.22	0.22	0.22	26.4	26.5	31.5	31.5				

IC503	(STA505)																			
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	1.93	1.93	31.5	0	0	31.4	-0.8	-0.8	1.8	1.8	31.5	0	0	31.5	0.2	0.2	0	0	0.02
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
Voltage	5	5	3.35	0	3.35	3.34	3.35	3.34	0.22	0.22	0.22	0.22	26.4	26.5	31.5	31.5				

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IC804	ES6603S																			
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	2.4	2.4	2.5	2.5	2.5	2.5	3.5	3.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	4.9	2.5
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	4.9	3.2	0	0	0	3.5	0	2.5	1.9	2.1	2.3	2.3	3.2	3.5	1.5	2.3	1.8	1.5	1.5	1.3
PIN NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Voltage	1.8	4	3.5	3.3	3.5	3.2	1.4	1.4	1.4	0	0	2.3	2.3	0	3.4	2.3	2.3	4.9	4.1	4.1
PIN NO	61	62	63	64																
Voltage	2.9	2.9	3.3	2.8																

IC100	ES6628																			
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	3.5	2	2.7	1.4	3.5	3.5	3.5	3.5	0	3.5	3.5	3.5	3.5	3.5	0	0	0	0	0	0
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	3.3	3.1	0	0	0	0	0	0	0	3.3	0	0	1.3	0	0	0	0.9	0	0	0
PIN NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Voltage	1.5	0	0	3.5	1.3	0	1	0	0	1.1	2.3	0	3.5	0	3.5	0	0	0	0	0
PIN NO	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Voltage	0	3.5	1.5	1.1	2.2	1.1	2.5	0	2.2	0	0	0	0	0	2.1	1.7	1.9	0	0	2.2
PIN NO	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Voltage	2	2.1	3.5	3.5	3.5	0	2	0	3.5	0	1.5	1.5	1.6	1.3	0	3.5	1.3	2	1.8	0
PIN NO	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Voltage	2.4	1.6	1.7	3.5	0	1.2	2.4	1.2	1.3	0	3.5	0	0	0.9	0.7	1.7	0.8	0	0	0
PIN NO	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
Voltage	0	1.4	1.6	1.6	1.7	0.5	0	3.8	3.7	3.7	3.6	0.7	0	0	0	0	0	2	1.3	0
PIN NO	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
Voltage	1.8	1.5	0	1.3	1.5	0	3.3	2.1	0.9	1.5	1.5	3.3	1.4	0.5	1.4	1.5	0	0	1.5	1.5
PIN NO	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Voltage	1.5	3.3	1.1	1.6	1.5	1.6	0	1.5	0	7.3	0.9	1.5	1.7	1.5	1.5	1.7	2.7	2.7	0	2.7
PIN NO	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
Voltage	3.5	0	3.5	0	3.5	0	0	4.8	0	5	4.2	3.2	5	5	5	5	0	2.1	4.1	4.1
PIN NO	201	202	203	204	205	206	207	208												
Voltage	4.1	4.1	4.1	0	4.1	0	3.5	0												

IC803	W78E52BP																			
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	5	5	0	5	5	0	0.36	4.06	0	0	5.04	5.03	1.66	5.04	5.03	5.03	5.03	5.03	5.03	5.03
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	0	0	5.03	0	2.3	2.29	5.03	5.03	5.03	5.03	5.03	5.03	5.03	5.03	5.03	0	0	0	0	0
PIN NO	41	42	43	44																
Voltage	0	5.03	5.04	5.03																

IC105	(24C02)							
PIN NO	1	2	3	4	5	6	7	8
Voltage	0	0	0	0	4.66	4.66	0	4.96

IC400	(74F374D)																			
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	4.2	1.75	1.8	4.1	4.1	1.8	1.8	3.7	0	3.3	4.1	1.9	1.9	3.6	4.3	1.9	2	4.2	5

IC102	(74F374D)																			
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	4.2	1.9	1.9	0.2	4.2	1.8	1.9	4.1	0	3.3	0.17	1.8	1.8	0.2	4.2	1.8	0	4.2	5

IC403	(WM8772)																			
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	1.27	1.64	1.65	3.31	0	0.83	0.8	0.84	1.71	3.79	3.78	0.16	0.01	1.64	0	3.29	1.64	1.64	1.63
PIN NO	21	22	23	24	25	26	27	28												
Voltage	1.64	1.64	1.64	1.64	1.64	1.65	0	3.29												

8-3

VOLTAGES

IC401 (TC4052BFN)																			
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
Voltage	0	0	0	0	0	0	-7.16	0	4.6	4.59	0	0	0	0	0	7.19				

IC800/IC801/IC802 BA6287FE2																			
PIN NO	1	2	3	4	5	6	7	8											
Voltage	0	8	5	0	0	5	2.3	0											

IC905 RT9164																			
PIN NO	1	2	3																
Voltage	4.98	0	3.3																

IC900 L7808																			
PIN NO	1	2	3																
Voltage	11.6	0	8.03																

IC901 RT9163																			
PIN NO	1	2	3																
Voltage	4.99	0	6.5																

IC904 B1117N				
PIN NO	1	2	3	
Voltage	2.25	3.5	5.04	

Q804 2SB1132				
PIN NO	1	2	3	
Voltage	3.6	2.18	4.25	

IC903 RT9163				
PIN NO	1	2	3	
Voltage	5	0	8.03	

IC902 BA05				
PIN NO	1	2	3	
Voltage	6.54	0	5.04	

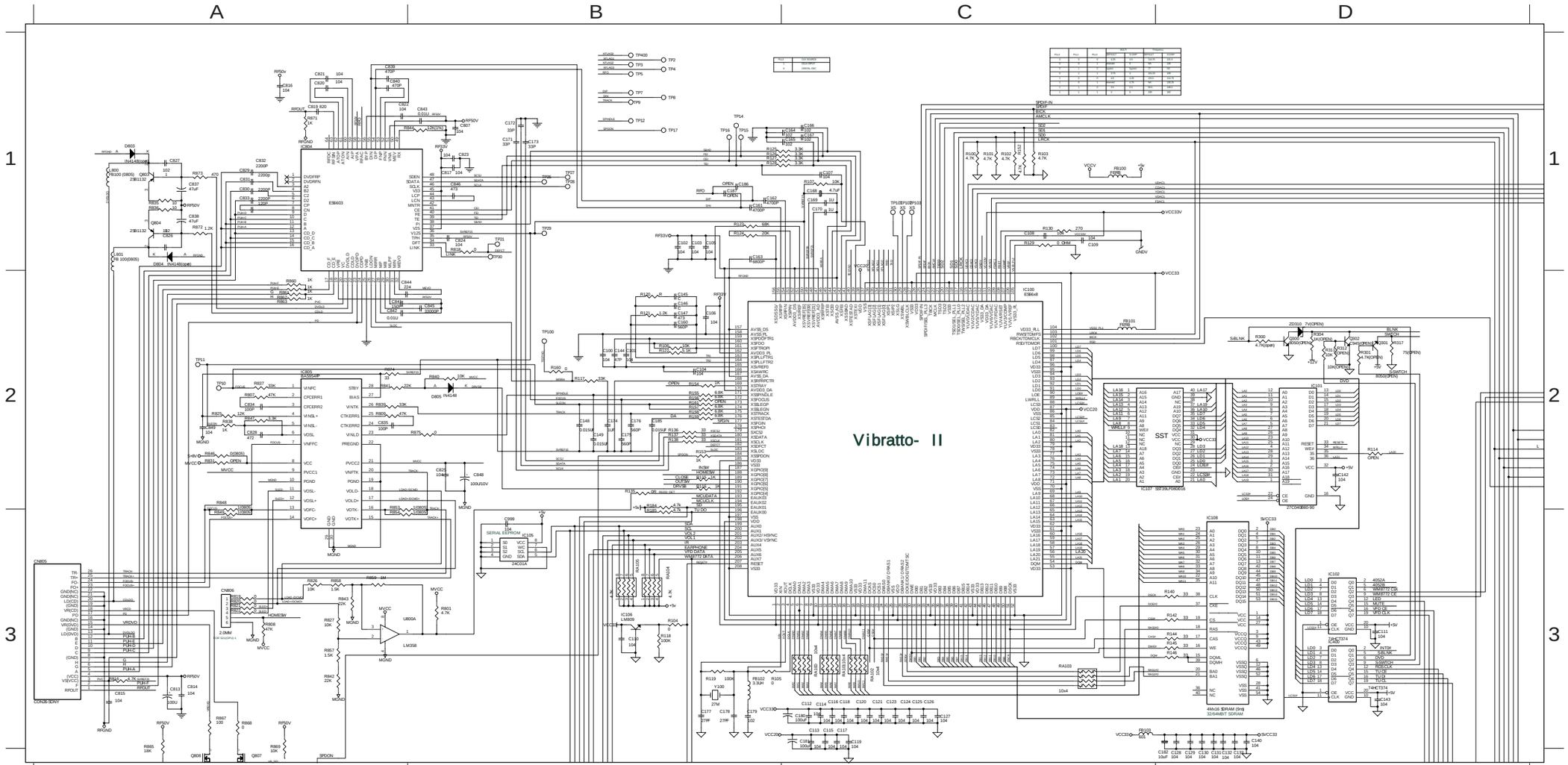
IC906 B1117N				
PIN NO	1	2	3	
Voltage	0.83	2.08	3.5	

Q803 2SB1132				
PIN NO	1	2	3	
Voltage	5	0	4.97	

8-4

CIRCUIT DIAGRAM (TOP LEFT)

C100	B2	C113	C3	C127	C3	C164	C1	C178	B3	C820	A1	C833	A1	C848	B2	IC102	D3	Q804	A1	R119	B3	R136	B2	R157	B2	R801	B3	R839	A2	R858	A3	RA101	C3
C101	B2	C114	C3	C142	D2	C165	C1	C179	B3	C821	A1	C834	A2	C849	A2	IC105	B3	R100	C1	R120	B2	R137	B2	R158	B2	R807	A2	R840	B2	R859	A3	RA102	C3
C102	B1	C115	C3	C143	D3	C166	C1	C180	C3	C822	A1	C835	A2	C999	B3	IC106	B3	R101	C1	R121	B2	R138	B2	R159	B2	R808	A3	R841	A2	R860	A2	RA103	C2
C103	B1	C116	C3	C144	B2	C167	C1	C181	C3	C823	B1	C837	A1	CN805	A3	IC107	C2	R102	C1	R122	B2	R140	D3	R160	B2	R816	A3	R842	A3	R861	A2	RA104	B3
C104	B2	C117	C3	C145	B2	C168	C1	C186	B1	C824	B1	C838	A1	CN806	A3	IC400	D3	R103	C1	R123	B1	R142	D3	R161	B2	R818	B1	R843	A3	R862	A2	RA105	B3
C105	B1	C118	C3	C146	B2	C169	C1	C187	B1	C825	B2	C839	A1	D803	A1	IC805	A2	R104	B3	R124	B1	R144	D3	R184	B2	R825	A2	R844	B1	R863	A2	ZD310	D1
C106	B2	C119	C3	C147	B2	C170	C1	C807	B1	C826	A1	C840	A1	D804	A1	L800	A1	R106	B2	R125	B1	R145	D3	R185	B3	R826	A3	R846	A2	R865	A3		
C107	C1	C120	C3	C148	B2	C171	B1	C813	A3	C827	A1	C841	A2	FB100	C1	L801	A1	R107	C1	R126	B1	R146	D3	R300	D1	R827	A3	R847	A2	R867	A3		
C108	C1	C121	C3	C149	B2	C172	B1	C814	A3	C828	A2	C842	A2	FB101	C2	Q300	D1	R114	D2	R127	B1	R152	C1	R301	D2	R831	A2	R848	A2	R868	A3		
C109	C1	C123	C3	C160	B2	C173	B1	C815	A3	C829	A1	C843	B1	FB102	B3	Q301	D1	R115	B2	R128	B1	R153	B2	R304	D1	R835	A1	R849	A3	R869	A3		
C110	B3	C124	C3	C161	B1	C174	B2	C816	A1	C830	A1	C844	A2	FB103	C3	Q302	D1	R116	B2	R129	C1	R154	B2	R311	D2	R836	A1	R853	A3	R872	A1		
D111	D3	C125	C3	C162	B1	C175	B2	C817	B1	C831	A1	C845	B2	IC100	D2	Q803	A1	R117	B2	R130	C1	R155	B2	R312	D2	R837	A2	R854	A3	R874	A2		
C112	C3	C126	C3	C163	B1	C177	B3	C819	A1	C832	A1	C846	B1	IC101	D2	IC108	D3	R118	B3	R135	B2	R156	B2	R317	D2	R838	A2	R857	A3	RA100	C3		



8-5

CIRCUIT DIAGRAM (TOP RIGHT)

C001	G2	C121	H3	C161	G3	C302	E1	C422	F2	C455	F3	C487	E2	C945	E3	D211	H2	IC409A	F2	LD206	H1	R104	H2	R155	G3	R231	H1	R275	G2	R418	F2
C003	G2	C122	H3	C163	G3	C303	E1	C423	F3	C456	F3	C489	F2	C954	F2	D400	E3	IC409B	F2	LD207	G1	R105	H2	R156	G3	R232	H1	R276	G2	R419	F2
C005	G2	C123	H3	C164	G3	C304	E1	C424	F3	C457	F2	C490	E3	C958	G1	D401	E3	IC410	F3	Q001	H2	R106	H2	R157	G3	R233	H1	R283	F1	R420	E3
C006	H3	C124	H3	C165	G3	C305	E1	C425	F2	C458	F3	C491	F2	C974	F3	D402	E3	IC411	F2	Q101	H2	R107	H3	R158	H3	R234	H1	R284	F1	R421	F2
C007	G3	C125	H2	C167	H2	C306	E2	C426	F3	C459	F3	C492	F3	C975	F3	D403	E3	IC412	F3	Q102	H3	R108	H3	R159	H3	R235	H1	R285	F1	R422	F2
C008	H2	C126	H2	C168	H3	C307	E1	C427	F2	C460	F3	C493	F2	C976	F3	D404	D3	JK001	G2	Q103	H3	R109	H3	R160	H3	R241	H1	R286	F1	R423	F2
C009	H3	C127	H3	C169	H3	C308	E1	C428	F2	C461	F1	C494	F2	C977	E2	DP202	H1	JK202	F1	Q105	H3	R110	H3	R161	H3	R243	H1	R287	F1	R424	F1
C010	H2	C129	H2	C170	H3	C309	E1	C429	F2	C462	F1	C495	F3	C1104	H2	EF001	G2	JK203	F1	Q203	G1	R112	H2	R162	H3	R245	H1	R288	F1	R425	F3
C011	H2	C130	H2	C171	H3	C310	E1	C430	F3	C463	F2	C496	F3	C4010	F3	FB203	F1	JK301	F1	Q204	H2	R113	H2	R163	H3	R247	H1	R306	E1	R426	F2
C012	H3	C131	H2	C173	G3	C311	E2	C431	E2	C464	F2	C497	F3	C4011	F3	FB204	F1	JK400	F1	Q205	H2	R114	H2	R165	H3	R248	H1	R307	E1	R427	F2
C013	H2	C132	H2	C174	G3	C400	F1	C432	E2	C465	F2	C498	F3	C4012	F2	FB205	F1	JK502	F3	Q206	H2	R115	H2	R167	H3	R249	H1	R308	E1	R429	F3
C014	H2	C133	H2	C216	F1	C401	F2	C433	E2	C466	F2	C499	E3	C4013	F2	FB400	E2	L102	H3	Q207	H1	R116	H2	R168	E2	R250	H1	R309	E1	R430	E2
C016	G2	C134	H2	C217	F1	C402	E2	C435	E2	C467	F1	C902	G1	CF101	H2	FB401	F3	L103	H2	Q288	F1	R117	H3	R169	E2	R251	G1	R310	E1	R431	E2
C101	H2	C135	H2	C218	F1	C403	E3	C436	E2	C468	F1	C904	G1	CF102	H3	IC101	H3	L104	H3	Q402	F2	R118	H3	R170	E2	R252	G1	R400	E3	R432	E2
C104	H2	C136	H2	C219	H1	C404	F3	C437	E2	C471	E2	C908	G1	CF103	H3	IC151	G3	L151	G3	Q403	E3	R119	H3	R171	E2	R253	G1	R401	F3	R433	E3
C105	H2	C137	H3	C223	G2	C405	F2	C438	E2	C472	E2	C909	G1	CN201	G1	IC152	H3	L152	G3	Q404	F2	R122	H3	R172	E2	R254	G1	R402	F2	R434	E3
C106	H2	C138	H3	C224	H1	C406	F3	C439	E3	C473	E3	C910	G1	CN300	F1	IC205	H1	L153	G3	Q405	F2	R123	H3	R173	E2	R255	G1	R403	F2	R435	E3
C107	H2	C139	H3	C225	H1	C407	F3	C440	E3	C474	E2	C911	G1	CN400	F3	IC206	G1	L154	H3	R2	E2	R124	H3	R174	E2	R257	H1	R404	F2	R436	E2
C108	H2	C140	H3	C226	G2	C408	F3	C441	E3	C475	E3	C912	G1	CN701	G3	IC401	F2	L281	G1	R001	G2	R125	H3	R175	E2	R258	H1	R405	F2	R437	E2
C109	H2	C142	H3	C227	F1	C409	F2	C442	E2	C476	E2	C913	G1	CN702	H3	IC403	E2	L300	E1	R002	G2	R126	H3	R178	F3	R259	H1	R407	F3	R438	E2
C111	H2	C143	H3	C228	H1	C411	E2	C443	E2	C477	E2	C914	G1	CN900	G1	IC404A	E2	L301	E1	R003	H2	R129	H2	R179	F3	R260	H1	R408	F3	R439	E2
C112	H3	C144	H3	C229	H1	C412	E2	C444	E3	C478	E2	C915	G1	D001	G2	IC404B	E2	L302	E1	R004	G3	R130	H2	R180	G1	R266	H1	R409	F2	R440	E3
C113	H3	C145	H3	C230	H1	C413	E2	C445	E3	C479	E3	C916	G1	D002	G2	IC405A	E2	L303	E1	R005	H2	R131	H2	R181	G1	R267	H1	R410	F2	R441	F2
C114	H3	C151	G3	C231	H1	C414	E2	C446	E2	C480	E3	C917	G1	D003	G2	IC405B	E3	L304	E2	R006	H2	R132	H2	R182	G1	R268	H1	R411	F2	R442	F2
C115	H3	C152	G3	C232	G2	C415	E2	C447	E3	C481	E3	C918	G1	D004	G3	IC406A	E3	L401	F3	R007	H2	R133	H3	R183	F2	R269	H1	R412	F2	R443	F1
C116	H3	C153	H2	C233	G2	C417	E2	C448	F2	C482	E3	C919	G1	D101	H3	IC406B	E3	L402	F3	R008	G2	R134	H3	R224	G1	R270	G1	R413	F2	R444	F1
C117	H3	C154	G3	C234	G2	C418	E2	C449	F2	C483	E2	C920	G1	D207	H2	IC407A	F2	LD202	H1	R014	G3	R137	H3	R225	G1	R271	H1	R414	F2	R445	F2
C118	H3	C155	C3	C280	F1	C419	E3	C452	F3	C484	E2	C921	G1	D208	H1	IC407B	F2	LD203	H1	R101	H2	R138	H3	R226	G1	R272	H1	R415	F3	R446	F2
C119	H3	C156	G3	C288	F1	C420	E3	C453	F2	C485	E3	C922	G1	D209	H2	IC408A	F3	LD204	H1	R102	H2	R151	G3	R228	H1	R273	G1	R416	F2	R447	F1
C120	H3	C157	G3	C289	F1	C421	E3	C454	F2	C486	E3	C936	G1	D210	G1	IC408B	F3	LD205	H1	R103	H2	R154	G3	R230	G1	R274	G2	R417	F2	R448	F1

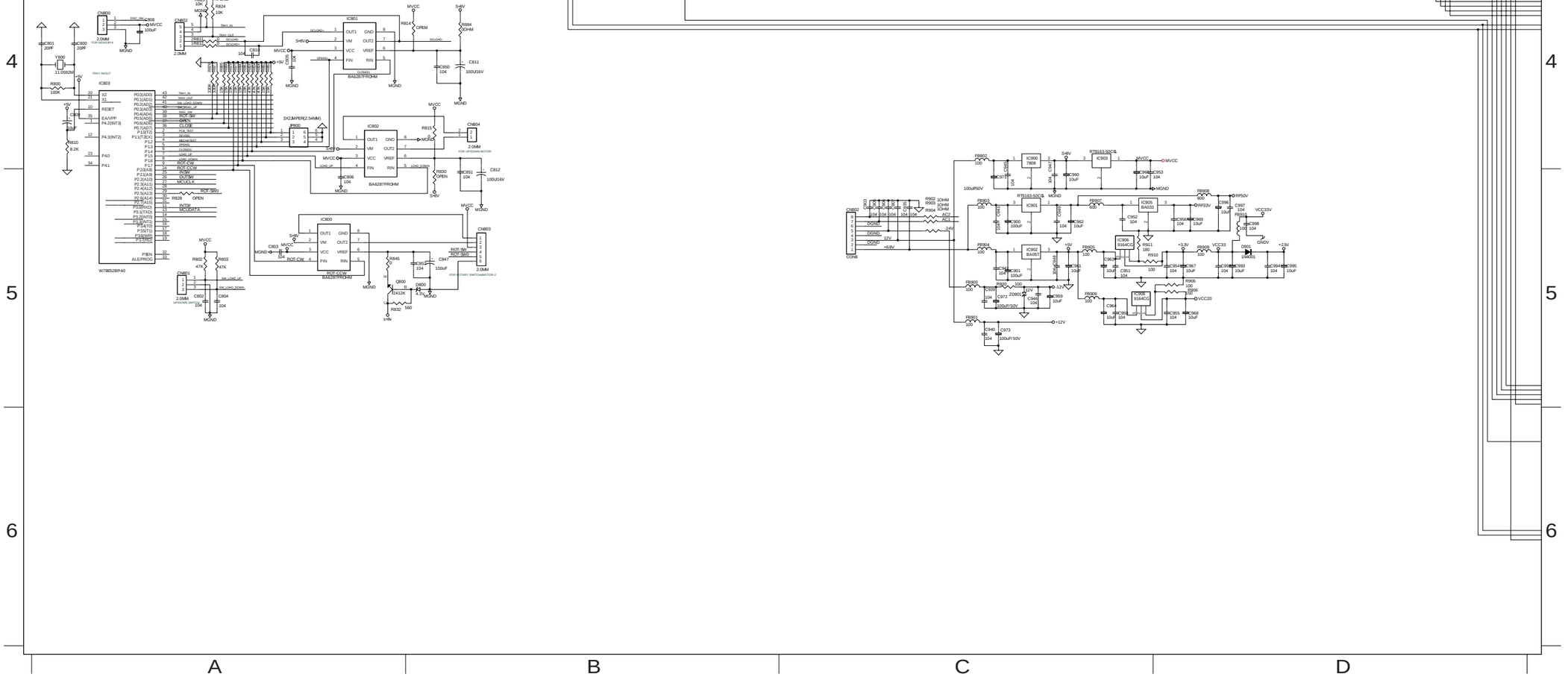
R449	F1	R480	E3	T104	H2	ZD304	E1																								
R450	F2	R481	E3	T105	H3	ZD305	E1																								
R451	F2	R483	F3	TA207	H2	ZD306	E1																								
R452	F1	R485	F2	TA211	H2	ZD307	E1																								
R453	F2	R486	F3	TA212	H2	ZD308	E2																								
R454	F2	R487	F3	TA213	H2	ZD309	E2																								
R455	F1	R488	F3	TA214	H2	ZD400	F1																								
R456	F1	R489	F3	TA215	H2	ZD401	F2																								
R457	F2	R490	F3	TA216	H2	ZD402	F3																								
R458	F2	R491	F3	TA217	H2	ZD900	G1																								
R459	F2	R492	F3	TA218	H2																										
R460	F2	R493	F3	TA219	H1																										
R461	E1	R494	F2	TA220	H2																										
R462	E2	R495	F3	TA221	H2																										
R463	E3	R496	F3	TA222	G1																										
R464	E2	R497	F3	TA223	G1																										
R465	F2	R498	E3	TA224	G1																										
R466	E2	R499	E3	TA255	G1																										
R467	E2	R901	G1	TC001	G2																										
R468	F3	R907	G1	TC002	H2																										
R469	E2	RB101	H3	VD001	G2																										
R470	E2	RB201	G1	VD002	H2																										
R471	E2	RB501	F3	XL151	G3																										
R472	E3	SN202	H1	XL152	G3																										
R473	E3	T001	G2	XL202	G2																										
R474	E3	T002	G2	ZD202	H1																										
R475	E3	T003	H2	ZD300	E1																										
R476	E2	T101	H2	ZD301	E1																										
R477	E2	T102	H3	ZD302	E1																										
R478	E3	T103	H2	ZD303	E1																										

E
F
G
H
1
2
3
VIDEO OUTPUT TABLE
IC403
WM8772
IC404A
IC404B
IC405A
IC405B
IC406A
IC406B
IC407A
IC407B
IC408A
IC408B
IC409A
IC409B
IC410
IC411
IC412
IC151
IC205
IC206
IC101
IC152
IC401
IC402
IC403
IC404
IC405
IC406
IC407
IC408
IC409

8-6

CIRCUIT DIAGRAM (BOTTOM LEFT)

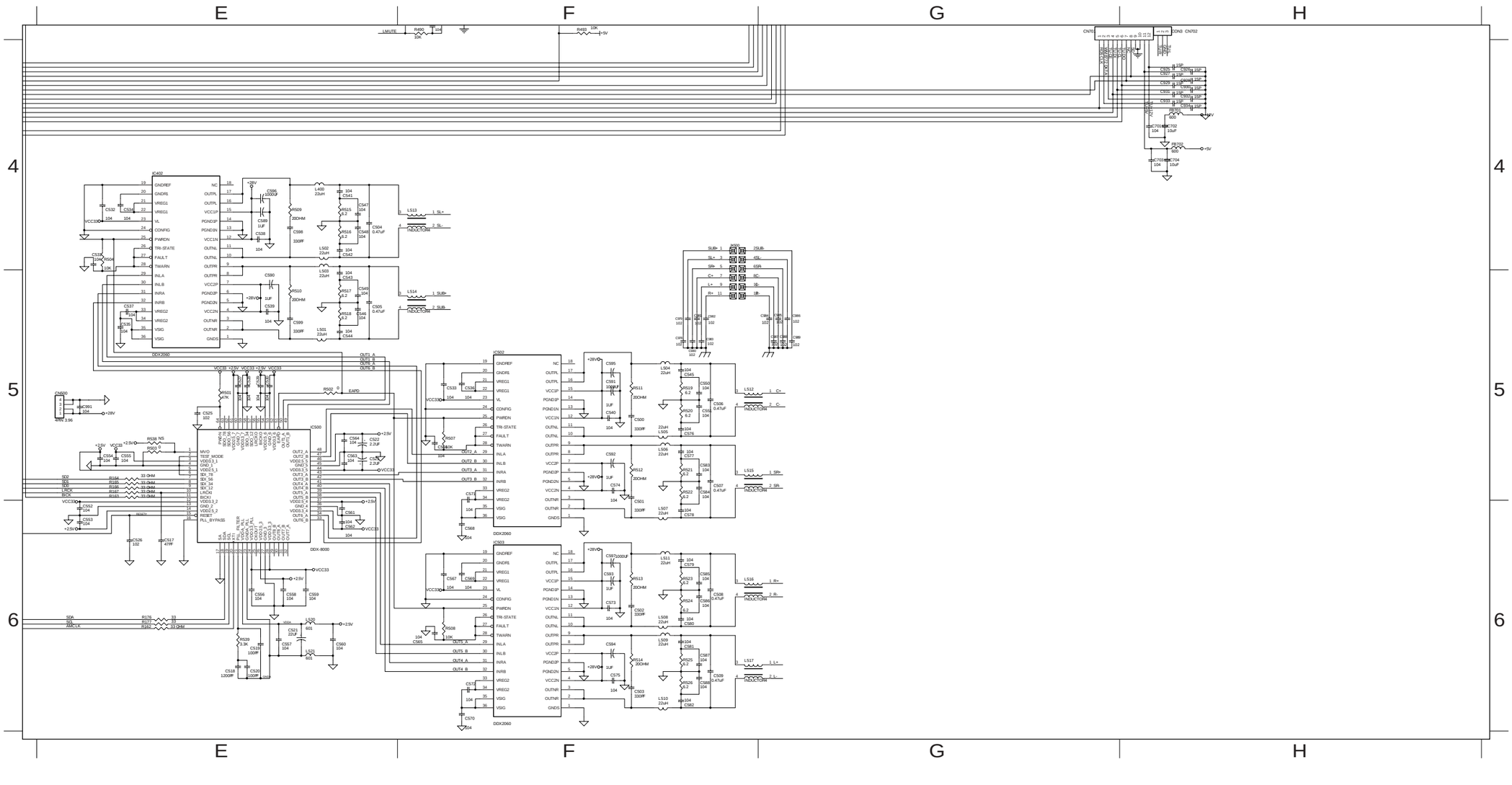
C128	D4	C802	A5	C847	B5	C935	C5	C950	C5	C962	C5	C992	D5	CN803	B5	FB905	C5	IC900	C4	Q807	A4	R812	A4	R870	A4	R885	A4	Y800	A4
C129	D4	C803	A5	C850	B4	C939	C5	C951	C5	C963	C5	C993	D5	CN804	B4	FB906	C5	IC901	C5	Q808	A4	R814	B4	R876	A4	R886	A4	ZD901	C5
C130	D4	C804	A5	C851	B5	C940	C5	C952	C5	C964	C5	C994	D5	CN902	C5	FB907	C5	IC902	C5	R800	A4	R815	B4	R877	A4	R900	C5		
C131	D4	C805	A4	C852	B5	C942	C5	C953	D4	C966	C5	C995	D5	D800	B5	FB908	D5	IC903	C4	R802	A5	R823	A4	R878	A4	R902	C5		
C132	D4	C806	A4	C900	C5	C943	C5	C954	D5	C967	D5	C996	D5	D901	D5	FB909	D5	IC905	C5	R803	A5	R824	A4	R879	A4	R903	C5		
C133	D4	C808	A4	C901	C5	C945	C5	C955	D5	C968	D5	C997	D5	FB900	C5	FB910	D5	IC906	C5	R804	A4	R828	A5	R880	A4	R904	C5		
C140	D4	C809	A4	C903	C5	C946	C5	C956	D5	C969	D5	C998	D5	FB901	C5	IC800	A5	JP800	A4	R805	A4	R830	B5	R881	A4	R905	D5		
C182	D4	C810	A4	C905	C5	C947	C5	C959	C5	C971	C5	CN800	A4	FB902	C4	IC801	A4	Q800	A5	R806	A4	R832	A5	R882	A4	R906	D5		
C800	A4	C811	B4	C906	C5	C948	C5	C960	C5	C972	C5	CN801	A5	FB903	C5	IC802	A4	Q805	A5	R810	A4	R845	A5	R883	A4	R910	D5		
C801	A4	C812	B5	C907	C5	C949	C5	C961	C5	C973	C5	CN802	A4	FB904	C5	IC803	A4	Q806	A4	R811	A4	R864	A4	R884	B4	R911	C5		


A
B
C
D
4
5
6
IC803
W78B52BP40
IC801
BA6287FRCHM
IC802
BA6287FRCHM
IC800
BA6287FRCHM
IC900
7808
IC901
IC902
BA033
IC903
RT9163-50CB
IC905
BA033
IC906
9164C02
IC907
9164C02
IC908
9164C02
MVCC
MGND
S+8V
+5V
+8V
+12V
VCC33
+3.3V
+2.5V
VCC20
GNDV
RF5V0
RF33V
ROT-CW
ROT-CCW
OUTPW
MODCLK
RESET
OPEN
CLOSE
LOAD-DOWN
LOAD-UP
MODDATA
3PDON
EA/VPP
P4.3(INT3)
P4.2(INT2)
P4.1
P4.0
P3.7(INT1)
P3.6(INT0)
P3.5(T1)
P3.4(T0)
P3.3(INT5)
P3.2(INT4)
P3.1(TXD)
P3.0(RXD)
P2.7(A15)
P2.6(A14)
P2.5(A13)
P2.4(A12)
P2.3(A11)
P2.2(A10)
P2.1(A9)
P2.0(A8)
P1.7(AD7)
P1.6(AD6)
P1.5(AD5)
P1.4(AD4)
P1.3
P1.2
P1.1(T2EX)
P1.0(T2)
P0.7(AD7)
P0.6(AD6)
P0.5(AD5)
P0.4(AD4)
P0.3(AD3)
P0.2(AD2)
P0.1(AD1)
P0.0(AD0)
P4.4(ALE/PROG)
X1
X2
R865 18K
R869 10K
R870 10K
R864 100K
R823 10K
R824 10K
R803 47K
R845 0
R814 OPEN
R815 OPEN
R830 OPEN
R822 160
R810 6.2K
R900 100K
R828 OPEN
R814 10OHM
R815 10OHM
R816 10OHM
R817 10OHM
R818 10OHM
R819 10OHM
R820 10OHM
R821 10OHM
R902 100
R903 100
R904 100
R905 100
R906 100
R907 100
R908 100
R909 100
R910 100
R911 180
R912 600
R913 600
R914 600
R915 600
R916 600
R917 600
R918 600
R919 100
R920 100
R921 100
R922 100
R923 100
R924 100
R925 100
R926 100
R927 100
R928 100
R929 100
R930 100
R931 100
R932 100
R933 100
R934 100
R935 100
R936 100
R937 100
R938 100

8-7

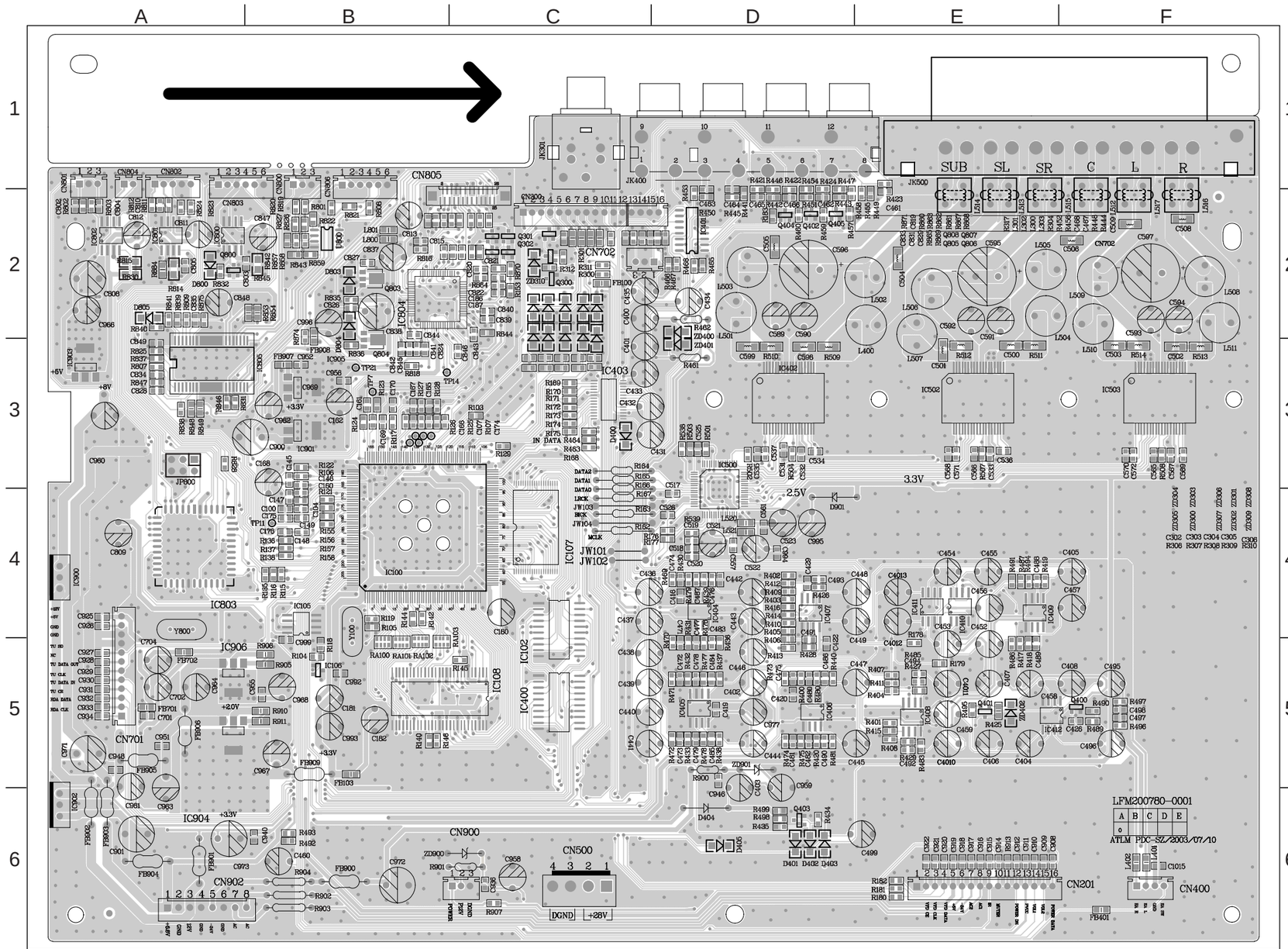
CIRCUIT DIAGRAM (BOTTOM RIGHT)

C500	F5	C521	E6	C535	E5	C548	E4	C561	E6	C574	F5	C587	F6	C702	H4	C978	F5	CN500	E5	L505	F5	L520	E6	R504	E4	R519	F5
C501	F6	C522	E5	C536	F5	C549	E5	C562	E6	C575	F6	C588	F6	C703	H4	C979	F5	FB701	H4	L506	F5	L521	E6	R507	F5	R520	F5
C502	F6	C523	E5	C537	E5	C550	F5	C563	E5	C576	F5	C589	E4	C704	H4	C980	F5	FB702	H4	L507	F6	R162	E6	R508	F6	R521	F5
C503	F6	C525	E5	C538	E4	C551	F5	C564	E5	C577	F5	C590	E5	C925	H4	C981	F5	IC402	E4	L508	F6	R163	E5	R509	E4	R522	F5
C505	E5	C526	E6	C539	E5	C552	E6	C565	F6	C578	F6	C591	F5	C926	H4	C982	F5	IC500	E5	L509	F6	R164	E5	R510	E5	R523	F6
C506	F5	C527	E5	C540	F5	C553	E6	C566	F5	C579	F6	C592	F5	C927	H4	C983	F5	IC502	F5	L510	F6	R165	E5	R511	F5	R524	F6
C507	F5	C528	E5	C541	E4	C554	E5	C567	F6	C580	F6	C593	F6	C928	H4	C984	G5	IC503	F6	L511	F6	R166	E5	R512	F5	R525	F6
C508	F6	C529	E5	C542	E4	C555	E5	C568	F6	C581	F6	C594	F6	C929	H4	C985	G5	JK500	F4	L512	F5	R167	E5	R513	F6	R526	F6
C509	F6	C530	E5	C543	E5	C556	E6	C569	F6	C582	F6	C595	F5	C930	H4	C986	G5	L400	E4	L513	F4	R176	E6	R514	F6	R538	E5
C517	E6	C531	E4	C544	E5	C557	E6	C570	F6	C583	F5	C596	E4	C931	H4	C987	G5	L501	E5	L514	F5	R177	E6	R515	E4	R539	E6
C518	E6	C532	E4	C545	F5	C558	E6	C571	F5	C584	F5	C598	E4	C932	H4	C988	G5	L502	E4	L515	F5	R501	E5	R516	E4		
C519	E6	C533	F5	C546	E5	C559	E6	C572	F6	C585	F6	C599	E5	C933	H4	C989	G5	L503	E5	L516	F6	R502	E5	R517	E4		
C520	E6	C534	E4	C547	E4	C560	E6	C573	F6	C586	F6	C701	H4	C934	H4	C991	E5	L504	F5	L517	F6	R503	E5	R518	E4		



8-8

PCB LAYOUT -TOP VIEW



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C104	B4	C488	E4	C849	A3	FB904	A6	R118	B5	R439	D4	R832	A2						
C107	C3	C489	E5	C900	B3	FB905	A5	R119	B4	R440	D5	R835	B2						
C145	B3	C490	D5	C901	A6	FB906	A5	R121	B4	R441	D2	R836	B3						
C146	B3	C491	D4	C908	E6	FB907	B3	R122	B3	R442	D2	R837	A3						
C147	B4	C492	E5	C909	E6	FB908	B3	R123	B3	R443	D2	R838	A3						
C148	B4	C493	D4	C910	E6	FB909	B5	R124	B3	R444	F2	R839	A2						
C149	B4	C494	E5	C911	E6	IC100	B4	R125	C3	R445	D2	R840	A2						
C160	B3	C495	F5	C912	E6	IC102	C5	R126	C3	R449	E2	R841	A2						
C161	B3	C496	F5	C914	E6	IC105	B4	R127	B3	R446	D2	R842	B2						
C162	B3	C497	F5	C915	E6	IC106	B5	R128	B3	R447	D2	R843	B2						
C165	B3	C498	F5	C916	E6	IC107	C4	R129	C3	R448	F2	R844	C2						
C167	B3	C499	E6	C917	E6	IC108	C5	R135	B4	R450	D2	R845	B2						
C168	B3	C500	E3	C918	E6	IC400	C5	R136	B4	R451	D2	R846	A3						
C169	B3	C501	E3	C919	E6	IC401	D2	R137	B4	R452	E2	R847	A3						
C170	B3	C502	F3	C921	E6	IC402	D3	R138	B4	R453	D2	R848	A3						
C174	C3	C503	F3	C921	E6	IC403	C3	R140	B5	R454	D2	R849	A3						
C175	B4	C504	E2	C922	E6	IC404	D4	R142	B4	R455	E2	R853	B2						
C176	B4	C505	D2	C925	A4	IC405	D5	R144	B4	R456	F2	R854	B2						
C180	C4	C506	F2	C926	A4	IC406	D5	R145	C5	R457	D2	R857	B2						
C181	B5	C508	F2	C927	A5	IC407	D4	R148	B5	R458	E2	R858	B2						
C182	B5	C509	F2	C928	A5	IC408	E5	R153	C2	R459	D2	R859	B2						
C186	C2	C517	D3	C929	A5	IC409	E4	R155	B4	R460	D2	R860	E2						
C187	C2	C518	D4	C930	A5	IC410	E4	R156	B4	R461	D3	R861	E2						
C302	F4	C519	D4	C931	A5	IC411	E4	R157	B4	R462	D2	R862	E2						
C303	F4	C520	D4	C932	A5	IC412	E5	R158	B4	R463	C3	R863	E2						
C304	F4	C521	D4	C933	A5	IC500	D3	R162	C4	R464	C3	R865	E2						
C305	F4	C522	D4	C934	A5	IC502	E3	R163	C4	R465	D2	R867	E2						
C306	F4	C523	D4	C936	C6	IC503	F3	R164	C3	R466	D2	R868	E2						
C400	C2	C525	D3	C940	B6	IC800	A2	R165	C3	R467	D2	R869	E2						
C401	C3	C526	D4	C946	D6	IC801	A2	R166	C3	R468	D2	R870	C2						
C402	D5	C531	D3	C948	A5	IC802	A2	R167	C4	R469	D4	R871	E2						
C403	D5	C532	D3	C951	A5	IC803	A4	R166	C3	R470	D5	R874	B2						
C404	E5	C533	E3	C952	B3	IC804	B2	R168	C3	R471	D5	R875	A2						
C405	F4	C534	D3	C955	B5	IC805	B3	R169	C3	R472	D5	R884	A2						
C406	E5	C536	E3	C956	B3	IC900	A4	R170	C3	R473	D5	R900	D5						
C407	E5	C537	D3	C958	C6	IC901	B3	R171	C3	R474	D5	R901	B6						
C408	F5	C557	D4	C959	D5	IC902	A6	R172	C3	R475	D5	R902	B6						
C416	D4	C561	D4	C960	A3	IC903	A3	R173	C3	R476	D4	R903	B6						
C419	D5	C565	F3	C961	A6	IC904	A6	R174	C3	R477	D5	R904	B6						
C420	D5	C566	E3	C962	B3	IC905	B3	R175	C3	R478	D5	R905	B5						
C422	D5	C567	F3	C963	A6	IC906	A5	R176	C4	R479	D4	R906	B5						
C426	F5	C568	E3	C964	A5	JK301	C1	R177	C4	R480	D5	R907	C6						
C429	D4	C569	F3	C966	A2	JK400	C1	R178	E4	R481	D5	R910	B5						
C431	D3	C570	F3	C967	B5	JK500	E1	R179	E5	R483	E5	R911	B5						
C432	C3	C571	E3	C968	B5	JW101	C4	R180	E6	R485	E5	R913	E6						
C433	C3	C572	F3	C969	B3	JW102	C4	R181	E6	R486	E5	RA100	B5						
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C435	C2	C590	D2	C972	B6	JW104	C4	R183	D2	R489	F5	RA102	B5						
C436	C4	C591	E2	C973	A6	L300	E2	R300	C2	R490	F5	RA103	C5						
C437	C4	C592	E2	C977	D5	L301	E2	R301	C2	R491	E4	U800	B2						
C438	C5	C593	F2	C992	B5	L302	E2	R304	E2	R492	B6	Y100	B4						
C439	C5	C594	F2	C993	B5	L303	E2	R306	F4	R493	B6	Y800	A4						
C440	C5	C595	E2	C994	D4	L400	E3	R307	F4	R494	E4	ZD300	F4						
C441	C5	C596	D2	C995	D4	L401	F6	R308	F4	R495	E5	ZD301	F4						
C442	D4	C597	F2	C996	B2	L402	F6	R309	F4	R496	F5	ZD302	F4						
C443	D4	C598	D3	C999	B5	L501	D2	R310	F4	R497	F5	ZD303	F4						
C444	D5	C599	D3	C1015	F6	L502	E2	R311	C2	R498	D6	ZD304	F4						
C445	E5	C701	A5	C4010	E5	L503	D2	R312	C2	R499	D6	ZD305	F4						
C446	D5	C702	A5	C4011	E5	L504	F2	R317	E2	R501	D3	ZD306	F4						
C447	E5	C704	A5	C4012	E5	L505	E2	R400	D5	R502	D3	ZD307	F4						
C448	E4	C802	A2	C4013	E4	L506	E2	R401	E5	R503	D3	ZD308	F4						
C449	E5	C803	A2	CN201	F6	L507	E3	R402	D4	R504	D3	ZD309	F4						
C452	E4	C804	A2	CN300	C1	L508	F2	R403	D4	R507	E3	ZD310	C2						
C453	E4	C805	A2	CN400	F6	L509	F2	R404	E5	R508	F3	ZD400	D2						
C454	E4	C808	A2	CN500	C6	L510	F3	R405	D4	R509	D3	ZD401	D3						
C455	E4	C809	A4	CN701	A5	L511	F3	R406	D5	R511	E3	ZD402	E5						
C456	E4	C810	A2	CN702	C2	L512	F2	R407	E5	R510	D3	ZD900	B6						
C457	F4	C811	A2	CN800	B1	L513	E2	R408	E5	R512	E3								
C458	E5	C812	A2	CN801	A1	L514	E2	R409	D4	R513	F3								
C459	E5	C813	B2	CN802	A1	L515	F2	R410	D4	R514	F3								
C460	B6	C815	B2	CN803	A2	L516	F2	R411	E5	R538	D3								
C461	E2	C819	E2	CN804	A1	L517	F2	R412	D4	R539	D4								
C462	D2	C820	C2	CN805	B1	L520	D4	R413	D5	R801	B2								
C463	D2	C821	C2	CN806	B1	L521	D4	R414	D4	R802	A2								
C464	D2	C822	C2	CN900	C6	L800	B2	R415	E5	R803	A2								
C465	D2	C824	B3	CN902	A6	L801	B2	R416	D4	R807	A3								
C466	D2	C827	B2	D400	C3	Q300	C2	R417	E5	R808	B2								
C467	F2	C828	A3	D401	D6	Q301	C2	R418	E5	R809	A2								
C468	F2	C829	E2	D402	D6	Q302	C2	R419	E4	R811	A2								
C471	D4	C831	E2	D403	D6	Q400	F5	R420	D5	R812	A2								
C472	D5	C833	E2	D404	D6	Q401	E5	R421	D2	R814	A2								
C473	D5	C834	A3	D405	D6	Q402	D2	R423	E2	R815	A2								
C474	D4	C826	B2	D800	A2	Q403	D6	R424	D2	R816	B2								
C475	D5	C835	A2	D803	B2	Q404	D2	R425	E5	R818	B3								
C476	D4	C837	B2	D805	A2	Q405	D2	R426	D4	R819	B2								
C477	D4	C838	B2	D901	D4	Q800	A2	R427	E5	R820	B2								
C478	D5	C839	C2	D904	B3	Q803	B2	R428	D5	R821	B2								
C479	D5	C840	C2	FB100	C2	Q804	B3	R430	D4	R822	B2								
C480	D5	C841	B3	FB103	B5	R103	C3	R431	D4	R823	A2								
C481	D5	C842	B3	FB401	F6	R104	B5	R432	D5	R824	A2								
C482	D5	C843	C3	FB701	A5	R105	B4	R433	D5	R825	A3								
C483	D4	C844	B2	FB702	A5	R106	B3	R434	D6	R827	B2								
C484	D5	C845	B3	FB900	B6	R107	C3	R435	D6	R828	B2								
C485	D5	C846	C3	FB901	A6	R115	B4	R436	D5	R828	A3								
C486	D5	C847	B2	FB902	A6	R116	B4	R437	D5	R830	A2								

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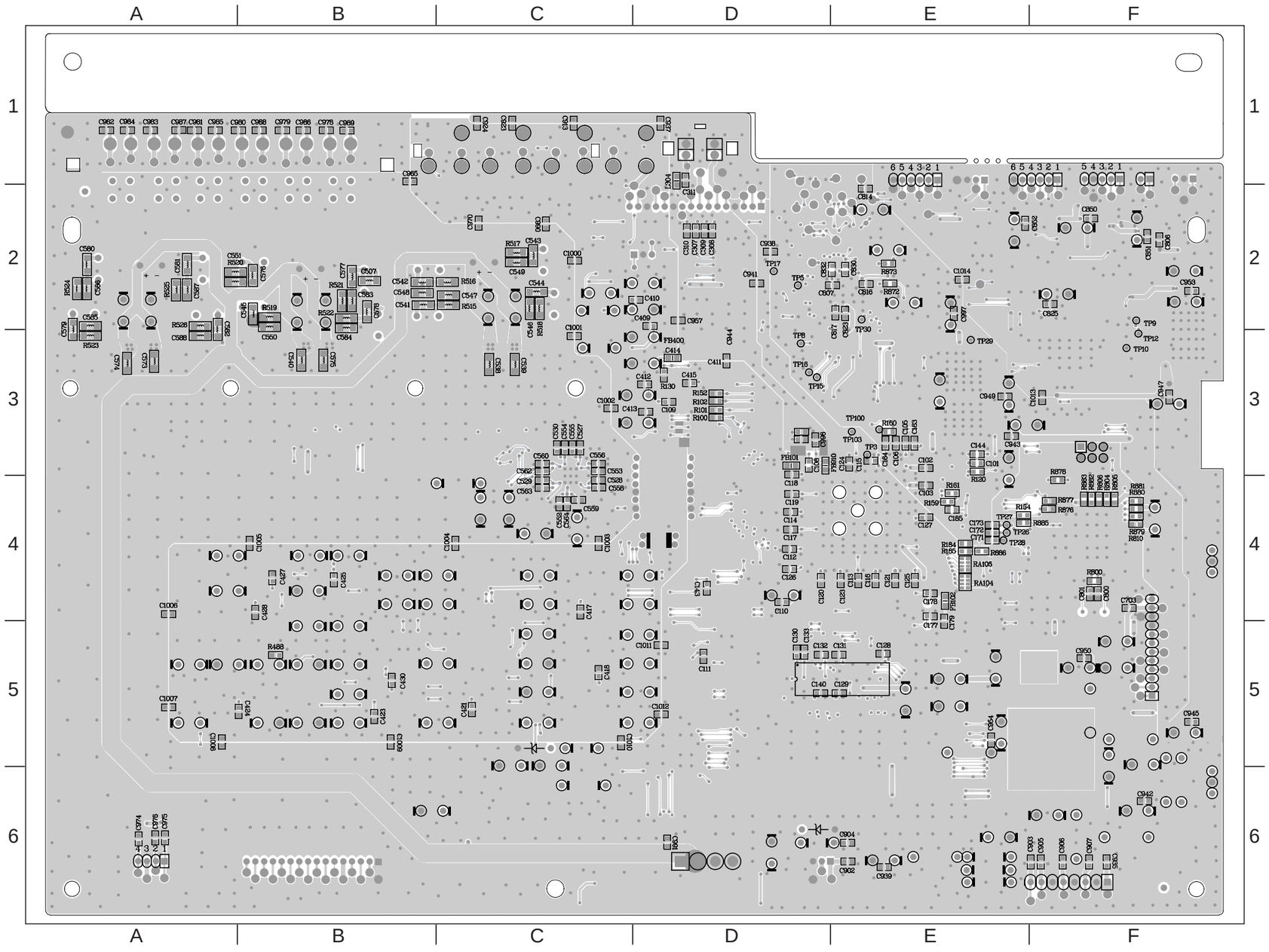
PCB LAYOUT -BOTTOM VIEW



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C103	E4	C579	A2	R154	E4
C105	E3	C580	A2	R159	E4
C106	E3	C581	A2	R161	E4
C108	D3	C582	A2	R184	E4
C109	D3	C583	B2	R185	E4
C110	D4	C584	B3	R488	B5
C111	D5	C585	A2	R519	B3
C112	D4	C586	A2	R515	C2
C113	E4	C587	A2	R516	C2
C114	D4	C588	A3	R517	C2
C115	E3	C703	F4	R518	C2
C116	E4	C800	F4	R520	A2
C117	D4	C801	F4	R521	B3
C118	D4	C807	D3	R522	B3
C119	D4	C808	F2	R523	A3
C120	D4	C814	E2	R524	A2
C121	E4	C816	E2	R525	A2
C123	E4	C817	E2	R526	A2
C124	E3	C823	E2	R800	F4
C125	E4	C925	F2	R804	F4
C126	D4	C830	E2	R805	F4
C127	E4	C832	D3	R806	F4
C128	E5	C850	F2	R810	F4
C129	E5	C851	F2	R872	E2
C130	D5	C852	F2	R873	E2
C131	E5	C902	E6	R876	F4
C132	D5	C903	F6	R877	F4
C133	D5	C904	E6	R878	F3
C140	D5	C905	F6	R879	F4
C143	D4	C906	F6	R880	F4
C144	E3	C907	F6	R881	F4
C163	E3	C913	C1	R882	F4
C164	E3	C923	C1	R883	F4
C171	E4	C924	C1	R885	F4
C172	E4	C935	F6	R886	E4
C173	E4	C937	D1	RA104	E4
C177	E4	C938	D3	RA105	E4
C178	E4	C939	E6		
C179	E4	C941	D3		
C185	E4	C942	F6		
C307	D3	C943	E3		
C308	D3	C944	D3		
C309	D3	C945	F5		
C310	D3	C947	F3		
C311	D2	C949	E3		
C409	D3	C950	F5		
C410	D3	C953	F2		
C411	D3	C954	E5		
C412	D3	C957	D3		
C413	C3	C965	B1		
C414	D3	C970	C2		
C415	D3	C974	A5		
C417	C4	C975	A5		
C418	C5	C976	A5		
C421	C5	C978	B1		
C423	B5	C979	B1		
C424	B5	C980	A1		
C425	B4	C981	A1		
C427	B4	C982	A1		
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C430	B5	C984	A1		
C507	B2	C985	A1		
C527	C3	C986	B1		
C528	C4	C987	A1		
C529	C4	C988	B1		
C530	C3	C989	B1		
C538	C3	C990	C2		
C539	C3	C991	D6		
C540	B3	C997	E2		
C541	B2	C998	D3		
C542	B2	C1000	C2		
C543	C2	C1001	C2		
C544	C2	C1002	C3		
C545	B2	C1003	C4		
C546	C2	C1004	C4		
C547	C2	C1005	B4		
C548	B2	C1006	A4		
C549	C2	C1007	A5		
C550	B3	C1008	A5		
C551	A2	C1009	B5		
C552	C4	C1010	C5		
C553	C3	C1011	D5		
C554	C3	C1012	D5		
C555	C3	C1013	F3		
C556	C3	C1014	E2		
C558	C4	FB101	D3		
C559	C4	FB102	E4		
C560	C3	FB400	D3		
C562	C3	FB910	E3		
C563	C4	L304	D1		
C564	C4	R100	D3		
C573	A3	R101	D3		
C574	A3	R102	D3		
C575	B3	R120	E4		

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ELECTRICAL PARTS LIST - MAIN BOARD

ELECTRICAL PARTS LIST - MAIN BOARD

MISCELLANEOUS

CN500	9965 000 17360	CONNECTOR 4P CL3962WVO
CN805	9965 000 21175	CHIP CONNECTOR 26 PIN P=0.5mm
CN902	9965 000 17359	CONNECTOR B8B-XH-A 8P
FB100	9965 000 17369	CHIP BEAD 100 OHM AT 100MHz
FB101	9965 000 17369	CHIP BEAD 100 OHM AT 100MHz
FB102	9965 000 19426	CHIP INDUCTOR 10uH 10%
FB103	9965 000 12471	CHIP BEAD 600 OHM AT 100MHz
FB400	9965 000 17369	CHIP BEAD 100 OHM AT 100MHz
FB401	9965 000 12471	CHIP BEAD 600 OHM AT 100MHz
FB701	9965 000 12471	CHIP BEAD 600 OHM AT 100MHz
FB702	9965 000 12471	CHIP BEAD 600 OHM AT 100MHz
FB900	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHz
FB901	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHz
FB902	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHz
FB903	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHz
FB904	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHz
FB905	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHz
FB906	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHz
FB907	9965 000 12471	CHIP BEAD 600 OHM AT 100MHz
FB908	9965 000 12471	CHIP BEAD 600 OHM AT 100MHz
FB909	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHz
FB910	9965 000 17369	CHIP BEAD 100 OHM AT 100MHz
JK301	9965 000 20654	RCA+DIN JACK (VIDEO/S-VIDEO OUT)
JK400	9965 000 12505	RCA JACK 6P WHITE/RED
JK500	9965 000 21176	SPK JACK 12P RD2-BU-GY2-GN/BK6
L300	9965 000 18025	CHIP INDUCTOR 2.4uH 5%
L301	9965 000 18025	CHIP INDUCTOR 2.4uH 5%
L302	9965 000 18025	CHIP INDUCTOR 2.4uH 5%
L303	9965 000 18025	CHIP INDUCTOR 2.4uH 5%
L304	9965 000 18025	CHIP INDUCTOR 2.4uH 5%
L400	9965 000 16695	IND 30uH 15% 1kHz 0.25V 2A
L401	9965 000 19426	CHIP INDUCTOR 10uH 10%
L402	9965 000 19426	CHIP INDUCTOR 10uH 10%
L501	9965 000 16695	IND 30uH 15% 1kHz 0.25V 2A
L502	9965 000 16695	IND 30uH 15% 1kHz 0.25V 2A
L503	9965 000 16695	IND 30uH 15% 1kHz 0.25V 2A
L504	9965 000 16695	IND 30uH 15% 1kHz 0.25V 2A
L505	9965 000 16695	IND 30uH 15% 1kHz 0.25V 2A
L506	9965 000 16695	IND 30uH 15% 1kHz 0.25V 2A
L508	9965 000 16695	IND 30uH 15% 1kHz 0.25V 2A
L512	9965 000 14158	CHOKE COIL 20uH 2A
L513	9965 000 14158	CHOKE COIL 20uH 2A
L514	9965 000 14158	CHOKE COIL 20uH 2A
L515	9965 000 14158	CHOKE COIL 20uH 2A
L516	9965 000 14158	CHOKE COIL 20uH 2A
L517	9965 000 14158	CHOKE COIL 20uH 2A
L520	9965 000 12471	CHIP BEAD 600 OHM AT 100MHz
L521	9965 000 12471	CHIP BEAD 600 OHM AT 100MHz
L800	9965 000 17369	CHIP BEAD 100 OHM AT 100MHz
L801	9965 000 17369	CHIP BEAD 100 OHM AT 100MHz
Y100	9965 000 17371	CRYSTAL 27MHz HC-49US +/-20PPM

CAPACITORS

C595	9965 000 20265	COND ELECT 1000uF 50V 20%
C596	9965 000 20265	COND ELECT 1000uF 50V 20%
C597	9965 000 20265	COND ELECT 1000uF 50V 20%

RESISTORS

RA100	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA101	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA102	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA103	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA104	9965 000 12488	RES ARRAY 4*4.7k OHM 1/10W 5%
RA105	9965 000 12488	RES ARRAY 4*4.7k OHM 1/10W 5%

DIODES

D400	9965 000 19409	DIODE CHIP BAV16W/IN4148W
D401	9965 000 19409	DIODE CHIP BAV16W/IN4148W
D402	9965 000 19409	DIODE CHIP BAV16W/IN4148W
D403	9965 000 19409	DIODE CHIP BAV16W/IN4148W
D404	4822 130 31438	1N4001G
D405	9965 000 19409	DIODE CHIP BAV16W/IN4148W
D800	9965 000 21177	CHIP ZENER 5.1V 5% 0.5W
D805	9965 000 19409	DIODE CHIP BAV16W/IN4148W
D901	4822 130 31438	1N4001G
ZD300	9965 000 19397	CHIP ZENER 5.6V 5% 0.5W
ZD301	9965 000 19397	CHIP ZENER 5.6V 5% 0.5W
ZD302	9965 000 19397	CHIP ZENER 5.6V 5% 0.5W
ZD303	9965 000 19397	CHIP ZENER 5.6V 5% 0.5W
ZD304	9965 000 19397	CHIP ZENER 5.6V 5% 0.5W
ZD305	9965 000 19397	CHIP ZENER 5.6V 5% 0.5W
ZD306	9965 000 19397	CHIP ZENER 5.6V 5% 0.5W
ZD307	9965 000 19397	CHIP ZENER 5.6V 5% 0.5W
ZD308	9965 000 19397	CHIP ZENER 5.6V 5% 0.5W
ZD309	9965 000 19397	CHIP ZENER 5.6V 5% 0.5W
ZD400	9965 000 19397	CHIP ZENER 5.6V 5% 0.5W
ZD401	9965 000 19397	CHIP ZENER 5.6V 5% 0.5W
ZD402	9965 000 21178	CHIP ZENER 6V 5% 1/6W
ZD900	4822 130 34233	BZX79-B5V1
ZD901	9965 000 17375	DIODE ZENER 11.9-12.4V 0.5W

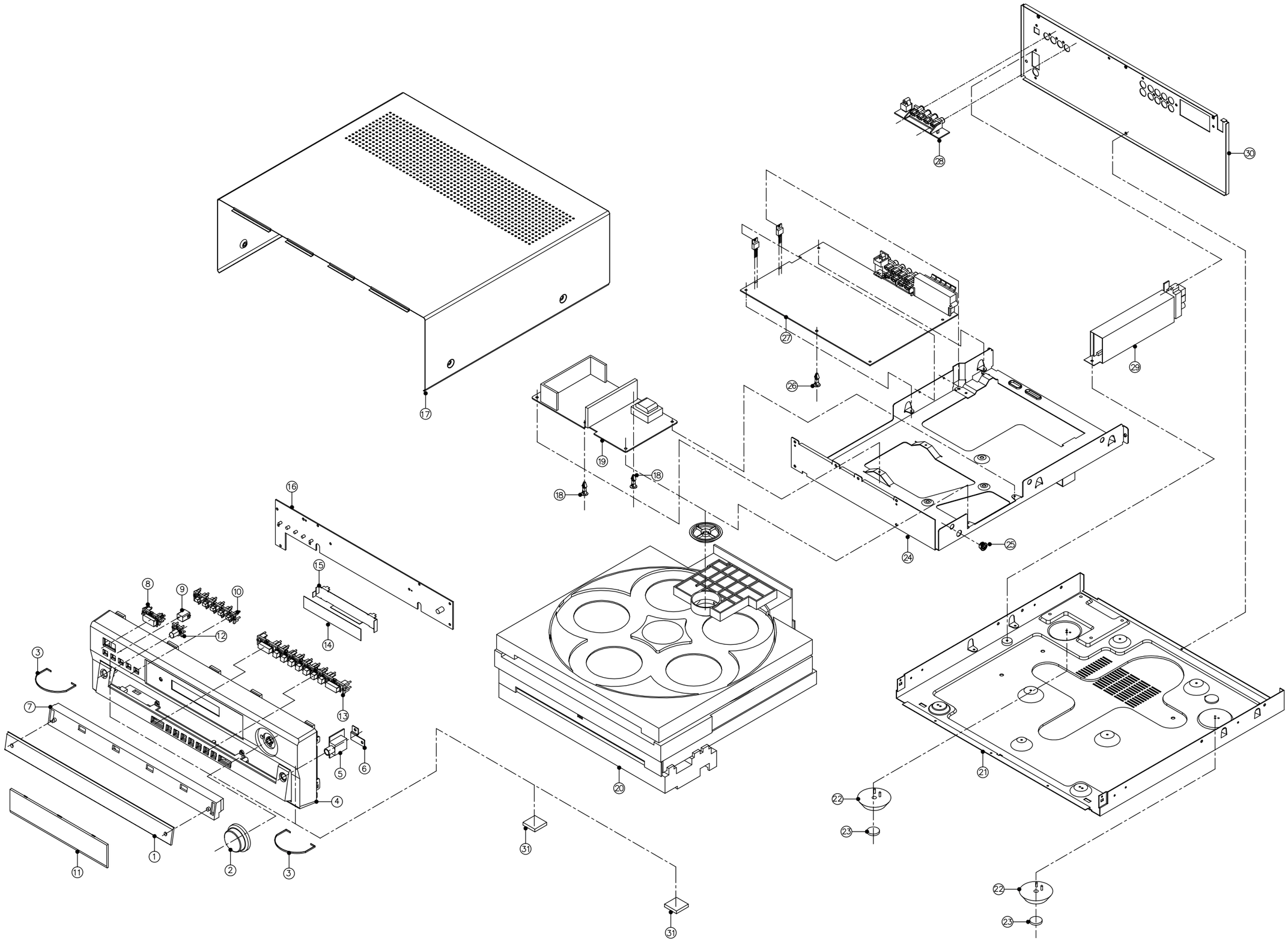
TRANSISTORS & INTEGRATED CIRCUITS

Q400	9965 000 20268	XISTR NPN SMT TYPE (2SC1623)
Q401	9965 000 20268	XISTR NPN SMT TYPE (2SC1623)
Q402	9965 000 20268	XISTR NPN SMT TYPE (2SC1623)
Q403	9965 000 20268	XISTR NPN SMT TYPE (2SC1623)
Q404	9965 000 14175	2SA733Q,P
Q405	9965 000 20268	XISTR NPN SMT TYPE (2SC1623)
Q800	4822 130 61272	XISTR NPN 2SC2412K-R-T146
Q803	9965 000 15914	2SB1132QT 100 ROHM
Q804	9965 000 15914	2SB1132QT 100 ROHM
Q805	9965 000 21179	XISTR NPN MMBT3904 SOT23
Q806	9965 000 21179	XISTR NPN MMBT3904 SOT23
Q807	3141 018 51690	FET 2SK3018
Q808	3141 018 51690	FET 2SK3018
IC100	9965 000 21180	IC 208 PIN ES6628F PQFP ESS
IC102	9965 000 12494	IC 20 PIN 74HC374
IC105	9965 000 15884	IC 8 PIN AT24C02N-10SI-2.7
IC106	9965 000 15890	IC 3 PIN IMP809SEUR-T SOT23
IC107	9965 000 19384	IC 40 PIN SST39VF080 3.3V
IC108	9965 000 12499	IC 54 PIN 4MX16Y3VTW
IC400	9965 000 12494	IC 20 PIN 74HC374
IC401	9965 000 12510	IC 16 PIN TC4052BFN CHIP
IC402	9965 000 14154	IC 36 PIN STA505 50Wx2
IC403	9965 000 20295	IC 28 PIN WM8772 TSOP WOLFSON
IC404	9965 000 15886	IC 8 PIN RC4558D
IC405	9965 000 15886	IC 8 PIN RC4558D
IC406	9965 000 15886	IC 8 PIN RC4558D
IC407	9965 000 15886	IC 8 PIN RC4558D
IC408	9965 000 15886	IC 8 PIN RC4558D
IC410	9965 000 17385	IC 8 PIN PT2259
IC412	9965 000 17384	IC 8 PIN TP5228
IC500	9965 000 17383	IC 64 PIN STA308
IC502	9965 000 14154	IC 36 PIN STA505 50Wx2
IC503	9965 000 14154	IC 36 PIN STA505 50Wx2
IC800	9965 000 15917	IC 8 PIN BA6287FE2 ROHM
IC801	9965 000 15917	IC 8 PIN BA6287FE2 ROHM
IC802	9965 000 15917	IC 8 PIN BA6287FE2 ROHM
IC803	9965 000 21181	IC 44 PIN W78E52BP
IC804	9965 000 21182	IC 64 PIN ES6603S LQFP ESS
IC805	9322 187 63668	IC 28 PIN BA5954FP
IC900	9965 000 15945	IC 3 PIN L7808 8V 1A
IC901	9965 000 15915	IC RT9163 5V SOT223
IC902	9965 000 12512	IC 3 PIN BA05T ROHM
IC903	9965 000 15915	IC RT9163 5V SOT223
IC904	9965 000 15887	IC 3 PIN RT9164-33CLR
IC905	9965 000 15887	IC 3 PIN RT9164-33CLR
IC906	9965 000 19385	IC 4 PIN B1117N-2.85 SOT-223 1A
U800	9965 000 20290	IC 8 PIN LM358MX NS

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

9-1

SET MECHANICAL EXPLODED VIEW



9-2

MECHANICAL & ACCESSORIES PARTS LIST - MAIN UNIT

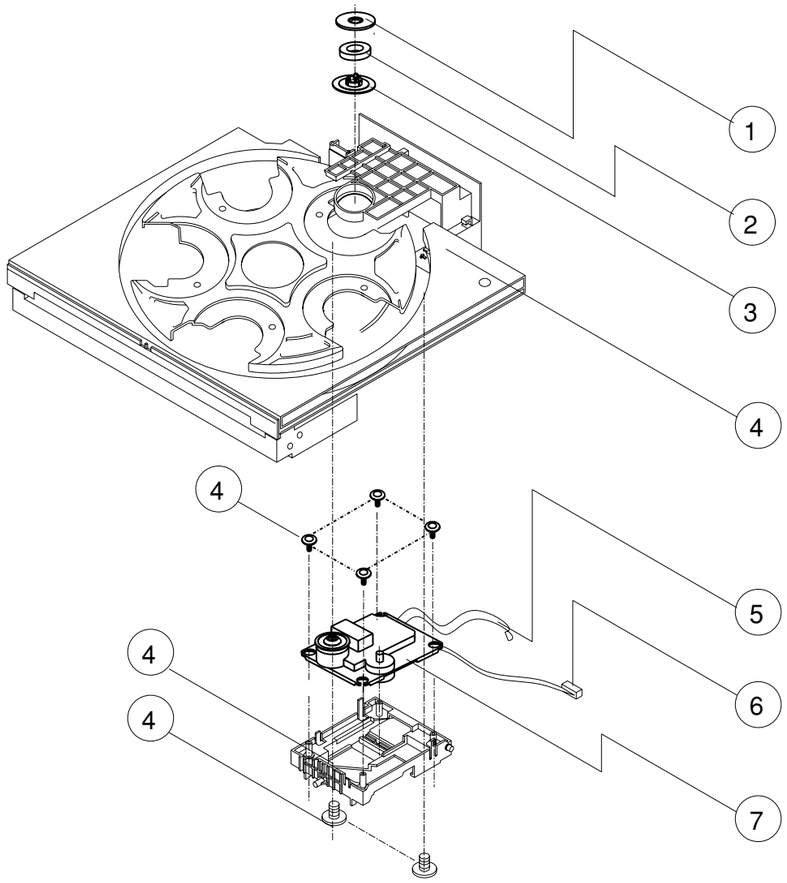
1	9965 000 21110		DVD DOOR LENS ACRYLIC SILVER
2	9965 000 15843		VOLUME KNOB
3	9965 000 21111		DECORATTON AL T=0.5mm
4	9965 000 21112		FRONT PANEL HIPS
7	9965 000 21113		DVD DOOR SILVER
8	9965 000 15838		POWER KEY
9	9965 000 15839		LED LENS
10	9965 000 15840		5 DISC KEY
11	9965 000 21114		DISPLAY LENS
12	9965 000 15841		OPEN/CLOSE KEY
13	9965 000 21115		9 FUNCTION KEY ABS SILVER
18	9965 000 17355		SPACER
20	9965 000 21116		5 DVD CHANGER ASSEMBLY
22	9965 000 21117		PLAS.FOOT ABS SILVER SHADOW
23	9965 000 15847		RUBBER FOOT
26	9965 000 15850		SPACER
31	9965 000 15829		RUBBER PAD
	9965 000 21118		FM HOLDER
	9965 000 15845		AC LINE BUSHING
	9965 000 21119	⚠	LINE CORD 2P 2150mm BLK
	9965 000 20577		RCA CABLE 1500mm (for Video out)
	9965 000 14636		RCA CABLE 1200mm (for Audio out)
	9965 000 20234		RCA CABLE 1500mm (for Pr/Pb/Y out)
	9965 000 14633		LOOP ANTENNA
	9965 000 14632		FM ANTENNA
	9965 000 21120		MANUAL (IFU)
	9965 000 21121		REMOTE CONTROL

SPEAKER BOX BREAKDOWN

9965 000 21168	FRONT L SPEAKER BOX
9965 000 21169	FRONT R SPEAKER BOX
9965 000 21170	REAR L SPEAKER BOX
9965 000 21171	REAR R SPEAKER BOX
9965 000 21172	CENTER SPEAKER BOX
9965 000 20243	FRAME ASSY(FRONT/REAR SPK BOX)
9965 000 20244	FRAME ASSY(CENTER SPEAKER BOX)
9965 000 20245	KEYHOLE BRACKET/SCREW PACKAGE
9965 000 21173	SUBWOOFER SPEAKER BOX
9965 000 20248	SPK 6,5" 8R 100W (SUBWOOFER)
9965 000 15949	SPK GRILLE (SUBWOOFER)
9965 000 21174	RUBBER FOOT (SUBWOOFWR)

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

EXPLODED VIEW - 5 DVD CHANGER ASSEMBLY



5 DVD CHANGER ASSEMBLY

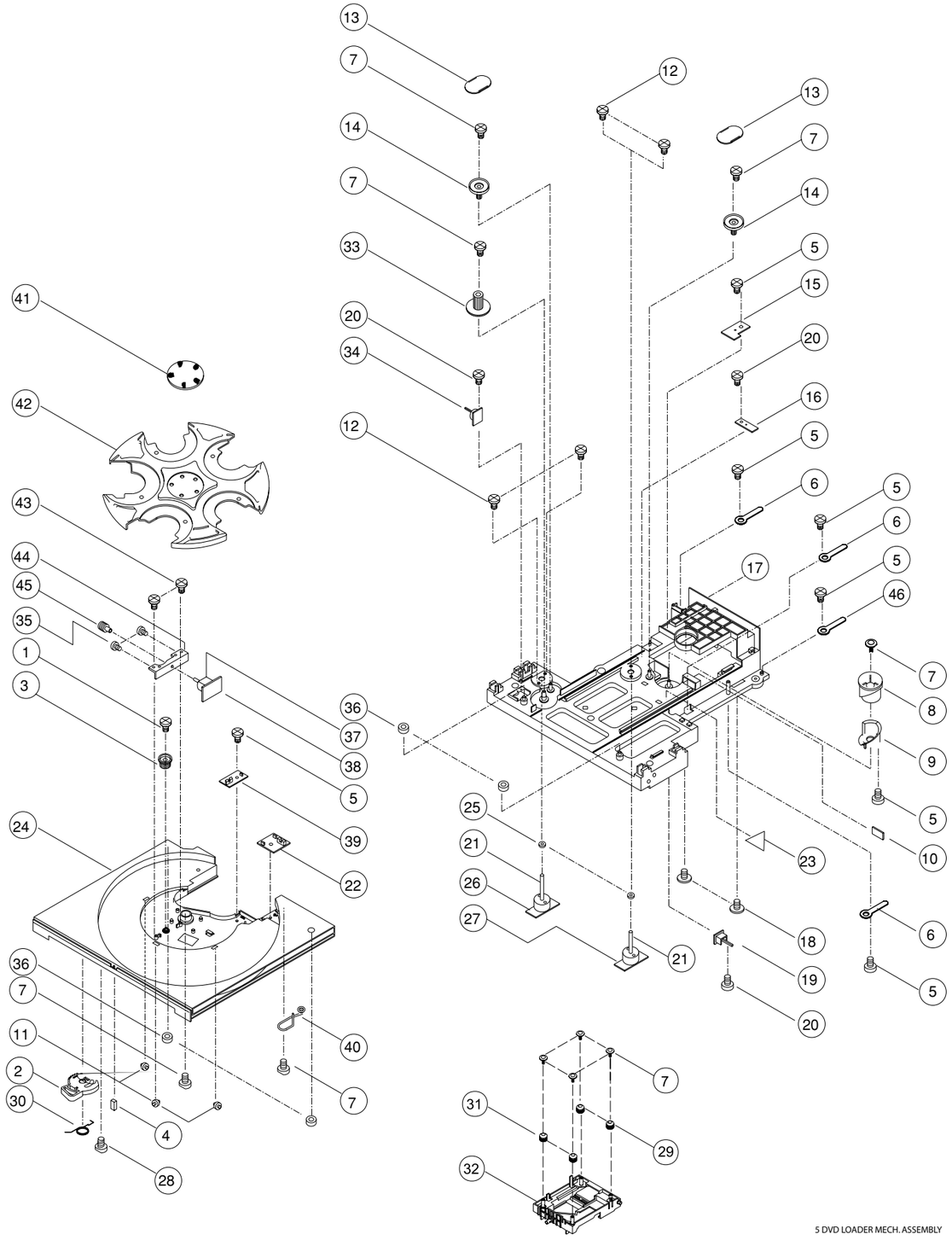
PARTS LIST - 5 DVD CHANGER ASSEMBLY

	9965 000 21116	5 DVD CHANGER ASSEMBLY
4	9965 000 21122	5 DVD LOADER MECH. ASSEMBLY
5	9965 000 21123	FFC CABLE 26P 200mm P=0.5mm
7	9965 000 21124	PICKUP SONNY KHM-280AAA

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

10-1

EXPLODED VIEW - 5 DVD LOADER MECH. ASSEMBLY



5 DVD LOADER MECH. ASSEMBLY