

Service  
Service  
**Service**



# Service Manual



## TABLE OF CONTENTS

Handling Chip Components ..... 1-1  
 Service Tools ..... 1-1  
 Leadfree and Safety Information ..... 1-2  
 Technical Specification ..... 2-1  
 Service Measurement Setup ..... 2-2  
 Alignment Instruction ..... 2-3  
 Connections and Controls ..... 3-1...3-3  
  
 IC Pins Description ..... 4-1...4-2  
 Set Block Diagram ..... 5-1  
 Set Wiring Diagram ..... 5-2  
  
 Circuit Diagram  
   Combi board (Tuner/Tape/AMP) ..... 6-1  
   Combi board (CD/Display) ..... 6-2  
  
 Layout Diagram  
   Combi board (Top view) ..... 7-1  
   Combi board (Bottom view) ..... 7-2  
  
 Exploded View Diagram ..... 8-1  
 Accessories and Mechanical Partslist ..... 8-2  
  
 Electrical Partslist ..... 9-1

**CLASS 1  
LASER PRODUCT**

© Copyright 2005 Philips Consumer Electronics B.V. Eindhoven, The Netherlands  
 All rights reserved. No part of this publication may be reproduced, stored in a retrieval  
 system or transmitted, in any form or by any means, electronic, mechanical, photocopying,  
 or otherwise without the prior permission of Philips.

Published by YT 0546 Service Audio Printed in The Netherlands Subject to modification

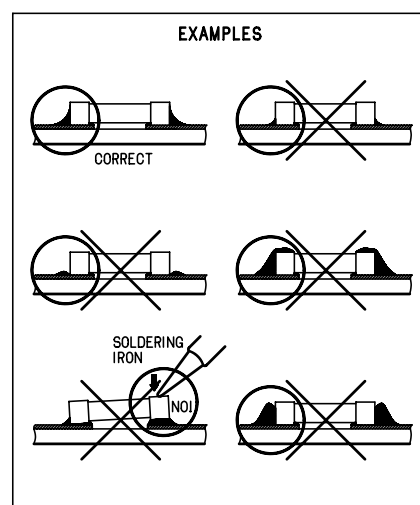
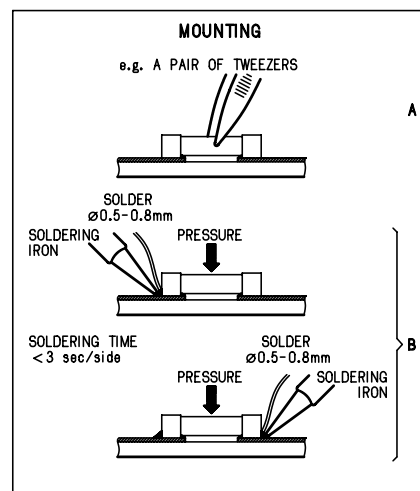
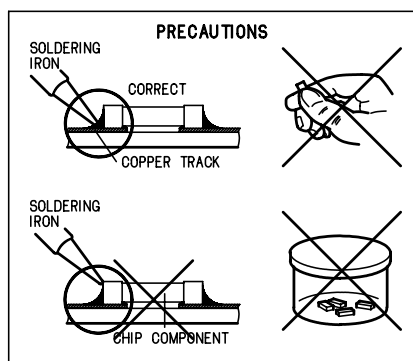
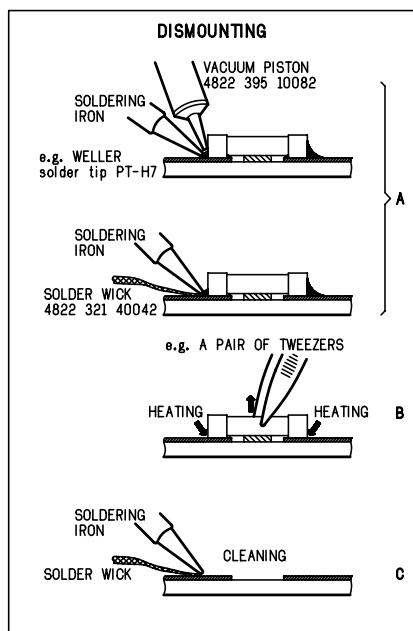
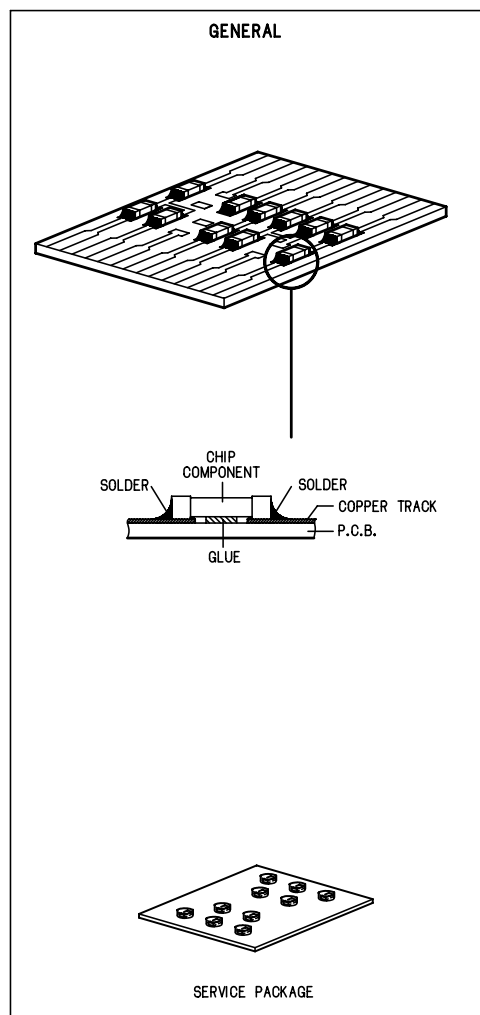
GB 3141 785 30670

Version 1.0



# PHILIPS

## HANDLING CHIP COMPONENTS



## SERVICE TOOLS

TORX T10 screwdriver with shaftlength 150mm.....	4822 395 50423
TORX screwdriver set SBC 163.....	4822 295 50145
Audio signal disc SBC 429.....	4822 397 30184
Playability test disc SBC 444.....	4822 397 30245
Test disc 5 (disc without errors) + Test disc 5A (disc with dropout errors, black spots and fingerprints) SBC 426/426A.....	4822 397 30096
Burn in test disc (65 min. 1kHz signal at -30 dB level without "pause").....	4822 397 30155
Universal test cassette Fe SBC 420.....	4822 397 30071

## AVAILABLE ESD PROTECTION EQUIPMENT

anti-static table mat large 1200x650x1.25mm	4822 466 10953
small 600x650x1.25mm	4822 466 10958
anti-static wristband	4822 395 10223
connection box (3 press stud connections, 1MΩ)	4822 320 11307
extendible cable (2m, 2MΩ, to connect wristband to connection box)	4822 320 11305
connecting cable (3m, 2MΩ, to connect table mat to connection box)	4822 320 11306
earth cable (1MΩ, to connect any product to mat or to connection box)	4822 320 11308
KIT ESD3 (combining all 6 prior products - small table mat)	4822 310 10671
wristband tester	4822 344 13999

## INFORMATION ABOUT LEAD-FREE SOLDERING

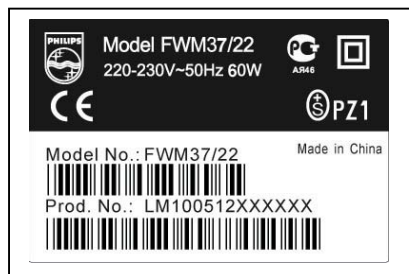
Philips CE is producing lead-free sets from 1.1.2005 onwards.

### IDENTIFICATION:

Regardless of special logo (not always indicated) one must treat all sets from 1 Jan 2005 onwards, according next rules:



### Example S/N:



Bottom line of typeplate gives a 14-digit S/N. Digit 5&6 is the year, digit 7&8 is the week number, so in this case 2005 wk12

So from 0501 onwards = from 1 Jan 2005 onwards

**Important note:** In fact also products of year 2004 must be treated in this way as long as you avoid mixing solder-alloys (lead/ lead-free). So best to always use SAC305 and the higher temperatures belong to this.

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free solder alloy Philips SAC305 with order code 0622 149 00106. If lead-free solder-paste is required, please contact the manufacturer of your solder-equipment. In general use of solder-paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for lead-free solder alloy. The solder tool must be able
  - To reach at least a solder-temperature of 400°C,
  - To stabilize the adjusted temperature at the solder-tip
  - To exchange solder-tips for different applications.
- Adjust your solder tool so that a temperature around 360°C – 380°C is reached and stabilized at the solder joint. Heating-time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C otherwise wear-out of tips will rise drastically and flux-fluid will be destroyed. To avoid wear-out of tips switch off un-used equipment, or reduce heat.
- Mix of lead-free solder alloy / parts with leaded solder alloy / parts is possible but PHILIPS recommends strongly to avoid mixed solder alloy types (leaded and lead-free).  
If one cannot avoid or does not know whether product is lead-free, clean carefully the solder-joint from old solder alloy and re-solder with new solder alloy (SAC305).
- Use only original spare-parts listed in the Service-Manuals. Not listed standard-material (commodities) has to be purchased at external companies.
- **Special information for BGA-ICs:**
  - always use the 12nc-recognizable soldering temperature profile of the specific BGA (for de-soldering always use the lead-free temperature profile, in case of doubt)
  - lead free BGA-ICs will be delivered in so-called 'dry-packaging' (sealed pack including a silica gel pack) to protect the IC against moisture. After opening, dependent of MSL-level seen on indicator-label in the bag, the BGA-IC possibly still has to be baked dry. (MSL=Moisture Sensitivity Level). This will be communicated via AYS-website. Do not re-use BGAs at all.
- For sets produced before 1.1.2005 (except products of 2004), containing leaded solder-alloy and components, all needed spare-parts will be available till the end of the service-period. For repair of such sets nothing changes.
- On our website [www.atyourservice.ce.Philips.com](http://www.atyourservice.ce.Philips.com) you find more information to:
  - BGA-de-/soldering (+ baking instructions)
  - Heating-profiles of BGAs and other ICs used in Philips-sets

You will find this and more technical information within the "magazine", chapter "workshop news".

For additional questions please contact your local repair-helpdesk.

## SERVICE INSTRUCTION

Safety regulations require that after a repair, the set must be returned in its original condition. Pay in particular attention to the following points:

- Route the wire trees correctly and fix them with the mounted cable clamps.
- Check the insulation of the AC Power lead for external damage.
- Check the strain relief of the AC Power cord for proper function.
- Check the electrical DC resistance between the AC Power Plug and the secondary side (only for sets which have a AC Power isolated power supply):
  1. Unplug the AC Power cord and connect a wire between the two pins of the AC Power plug.
  2. Set the AC Power switch to the "on" position (keep the AC Power cord unplugged!).
  3. Measure the resistance value between the pins of the AC Power plug and the metal shielding of the tuner or the aerial connection on the set. The reading should be larger than 4.5 Mohm (For U.S. it should be between 4.2 Mohm and 12 Mohm).
  4. Switch "off" the set, and remove the wire between the two pins of the AC Power plug.
- Check the cabinet for defects, to avoid touching of any inner parts by the customer.

## SPECIFICATIONS

### GENERAL:

Mains voltage	: 110-127/220-240V Switchable
Mains frequency	: 50/60 Hz
Power consumption	: < 20W max. < 5W at standby
Dimension center unit	: 168 x 220 x 210 mm
Dimension speaker	: 120 x 220 x 200 mm

### TUNER:

#### FM

Tuning range	: 87.5 – 108 MHz
IF Frequency	: 10.7 MHz ± 20kHz
Sensitivity at 26sb S/N	: < 18 $\mu$ V
Selectivity at 600 kHz	
Bandwidth	: > 45 dB
IF rejection	: > 50 dB
Image rejection	: > 20 dB
Distortion	: < 2%
Crosstalk	: > 22 dB

#### MW

Tuning range	: 530 – 1700 kHz
Grid	: 10 kHz
IF Frequency	: 455 kHz ± 1kHz
Aerial input	: Inner frame antenna
Sensitivity at 26sb S/N	: < 4.4 mV/M
Selectivity at 18 kHz	
Bandwidth	: > 18 dB
IF rejection	: > 45 dB
Image rejection	: > 28 dB
Distortion	: < 5%

### AMPLIFIER:

Output power	: 2 x 2 W RMS
Speaker impedance	: 8 ohm
Frequency response	
Within $\pm$ 3dB	: 60Hz – 16 kHz
Bass Boost ON	: 8dB $\pm$ 3dB at 60Hz
Headphone output	: 32 mW $\pm$ 2dB at 32 $\Omega$

### CASSETTE RECORDER:

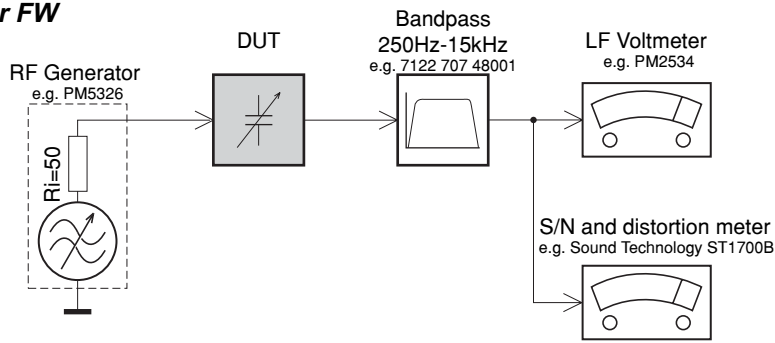
Number of tracks	: 2 x 2 stereo
Tape speed	: 4.76 cm/sec +2.5/-1.5%
Wow and flutter	: < 0.35% DIN
Fast-wind/rewind time	: < 130 sec. With C-60
Bias frequency	: 75 $\pm$ 10 kHz
Frequency response (PB)	: 125 – 8 kHz (8 dB)
Signal to noise ratio	: > 35 dB with type 1 tape

### COMPACT DISC:

Number of programming track	: 20
Frequency response	
Within $\pm$ 1.5 dB	: 63 Hz – 16 kHz
Signal/Noise ratio	: 50 dB/A-weighted
Distortion at 1 kHz	: < 3%
Channel separation at 1 kHz	: > 25 dB

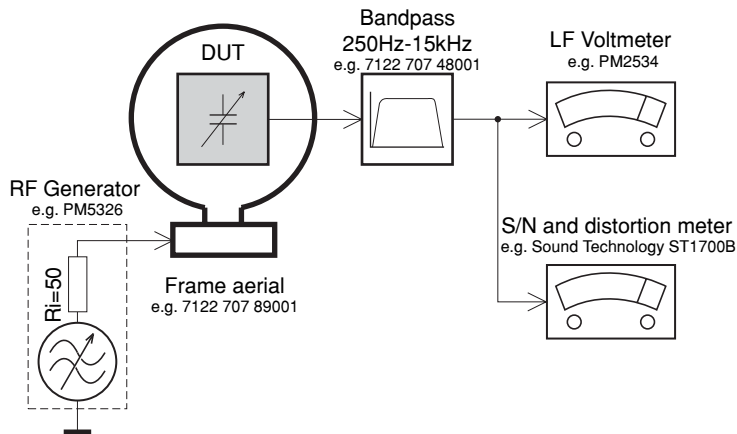
## SERVICE MEASUREMENT

### Tuner FW



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

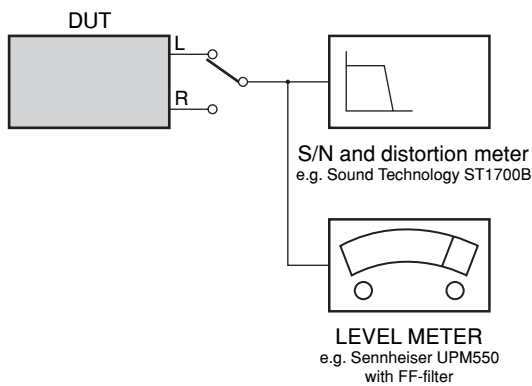
### Tuner AM (MW, LW)



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

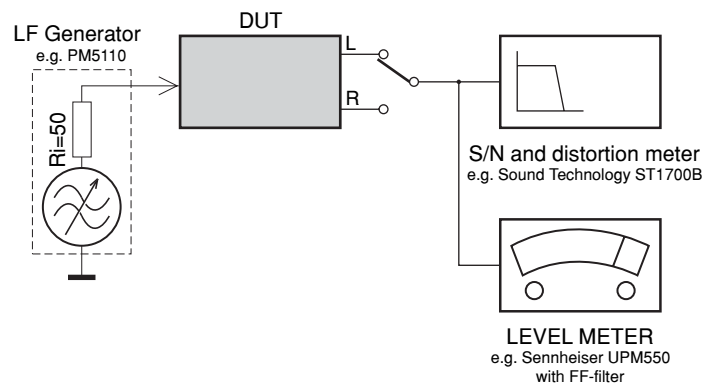
### CD

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



### RECORDER

Use Universal Test Cassette Fe SBC420 4822 397 30071



## ALIGNMENT INSTRUCTION

### AM I.F. ALIGNMENT

1. Set the FUNCTION SWITCH to RADIO
2. Set the BAND SELECTOR switch to AM .
3. Connect a SWEEPSCOPE OUTPUT to AM ant Terminal.
4. Connect a SWEEPSCOPE INPUT to pin18 of IC4 TA2111N through a 1uF capacitor and ground.

STEP	SET SIGNAL	SET DIAL	ADJUST	ADJUST FOR
1	455KHz	GANG OPEN	IF1 (AM IF)	CENTRE & MAXIMUM OUTPUT

### AM R.F. ALIGNMENT

1. Connect an RF generator to a standard radiating loop.
2. Connect a SCOPE VTVM across the speaker output.

STEP	SET SIGNAL	SET DIAL	ADJUST	ADJUST FOR
1	520KHz	GANG CLOSED	IF3 (AM OSC COIL)	MAXIMUM OUTPUT
2	1720KHz	GANG OPEN	PV1-D (AM OSC TRIM.)	
3	600KHz	600KHz	L6 (AM ANT COIL)	
4	1400KHz	1400KHz	PV1-C (AM ANT TRIM.)	
5	REPEAT STEPS 3 AND 4 TO OBTAIN BEST TRACKING.			

### FM I.F. ALIGNMENT

1. Set the FUNCTION SWITCH to RADIO
2. Set the BAND SELECTOR to FM position.
3. Connect a SWEEPSCOPE OUTPUT to pin 21 of IC4 TA2111N through a 20pF capacitor and ground.
4. Connect a SWEEPSCOPE INPUT to pin18 of IC4 TA2111N through a 1uF capacitor and ground.

STEP	SET SIGNAL	SET DIAL	ADJUST	ADJUST FOR
1	10.7MHz	GANG OPEN	Check	BALANCED CURVE WITH 10.7MHz AT ZERO CROSSOVER

### FM R.F. ALIGNMENT

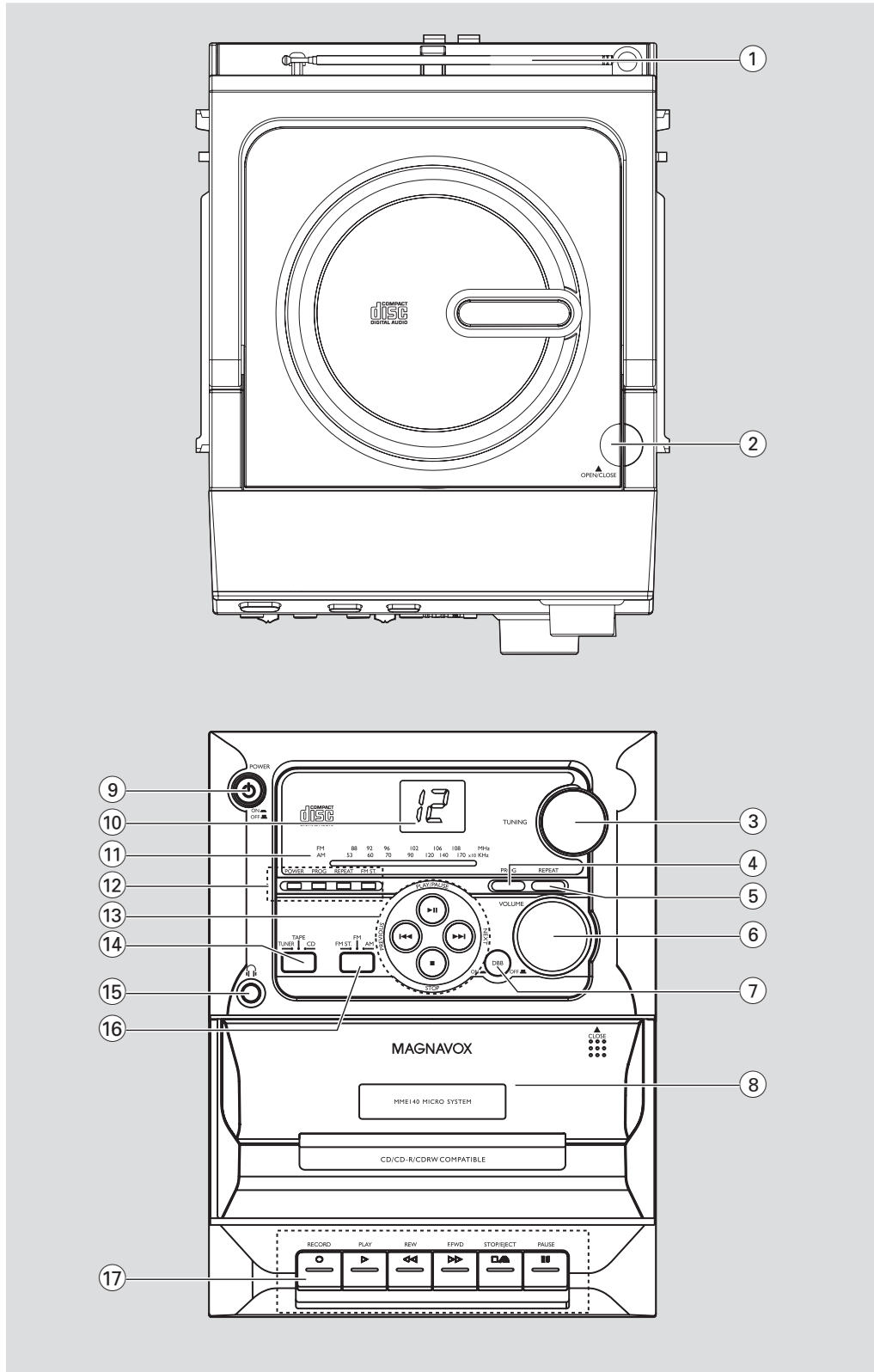
1. Connect an RF generator to the FM antenna terminal and ground.
2. Connect a SCOPE & VTVM across the speaker output.

STEP	SET SIGNAL	SET DIAL	ADJUST	ADJUST FOR
1	87MHz	GANG CLOSED	L3 (FM OSC COIL)	MAXIMUM OUTPUT
2	108.5.MHz	GANG OPEN	PV1-A (FM OSC TRIM.)	
3	90MHz	90MHz	L4 (FM RF COIL)	
4	106MHz	106MHz	PV1-B (FM RF TRIM.)	
5	REPEAT STEPS 3 AND 4 TO OBTAIN MAXIMUM OUTPUT.			

### CASSETTE ALIGNMENT

1. Set the FUNCTION SELECTOR switch to TAPE.
2. Connect a Scope & VTVM across the speaker output.
3. Insert the 8KHz tape in to cassette deck and push play button.
4. Adjusting HEAD for speaker maximum output.

CONNECTION AND CONTROLS



## CONNECTION AND CONTROLS

### Controls (illustrations on page 3)

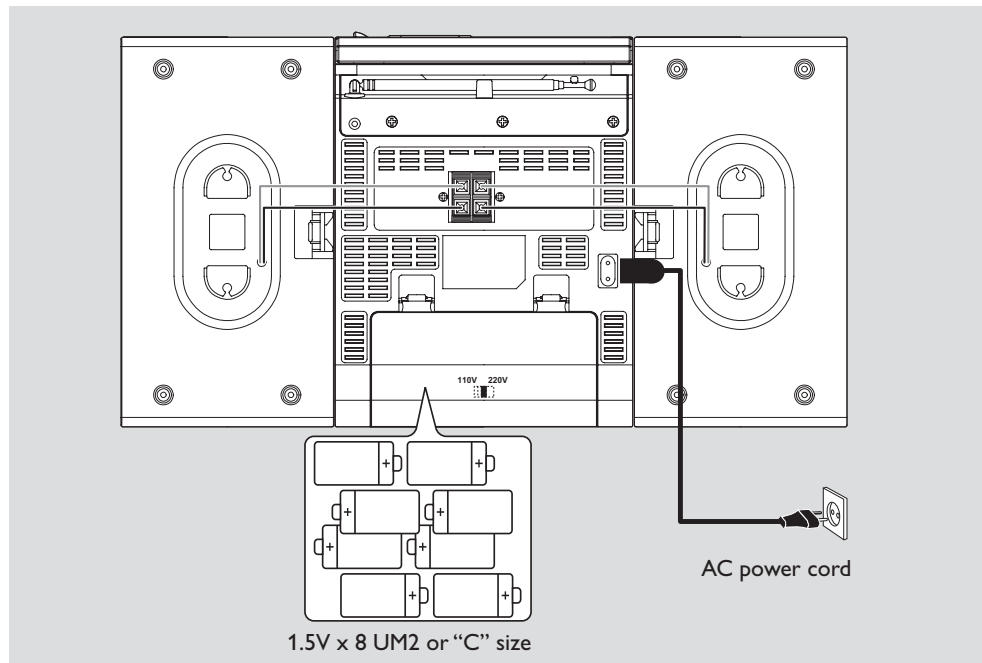
#### Controls on the system (Top and front panels)

- ① **Telescopic antenna**
  - improves FM reception
- ② **OPEN/CLOSE▲**
  - lifts here to open the CD door
- ③ **TUNING**
  - tunes to radio stations
- ④ **PROG/REPEAT**
  - programs tracks and reviews the program
- ⑤ **REPEAT**
  - repeats a track, disc or a program
- ⑥ **VOLUME rotary**
  - adjusts the volume
- ⑦ **DBB (D)ynamic B(ass) B(oo)st**
  - turns the bass enhancement on/off
- ⑧ **Tape deck**
- ⑨ **POWER**
  - switches the system on or off
- ⑩ **DISPLAY**
  - CD only: displays disc information
- ⑪ **Frequency indicator**
  - shows the radio frequency of your selected waveband
- ⑫ **Power indicator**
  - lights up when the system is powered on
- PROG indicator**
  - flashes when program is active
- REPEAT indicator**
  - flashes/lights up when repeat mode is active
- FM ST. indicator**
  - lights up when stereo FM signal is received
- ⑬ **PLAY/PAUSE ► II**
  - starts or pauses CD playback
- STOP ■**
  - stops playback; erase a program
- ◀◀ / ▶▶
- skips or searches tracks/passage backward/forward
- ⑭ **Source selector: CD, TUNER, TAPE**
  - selects CD, radio or tape
- ⑮ **🎧**
  - 3.5 mm headphone socket
- Helpful hints:*
  - Adjust the volume to a moderate level before you plug in the headphones.
  - Connecting headphones will switch off the speakers.
- ⑯ **Band selector**
  - selects wavebands, **AM**, **FM** or **FM ST.**
- ⑰ **Tape deck keys**
- RECORD ●** - starts recording
- PLAY ►** - starts playback
- REW◀◀ / F. FWD ▶▶** - fast rewinds/winds a tape
- STOP/EJECT ■ ▲** stops playback or recording; opens the tape holder
- PAUSE II** - interrupts playback or recording



## CONNECTION AND CONTROLS

### Installation

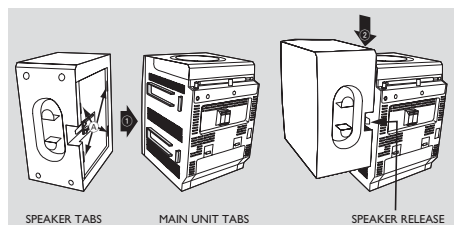


**Warning:**  
**Never make or change connections with the mains supply switched onv**

#### Speakers

##### Attaching the supplied speakers

As shown below, align the tabs between the speaker and the main unit, then slide the speakers downwards until it locks into place. Repeat the same steps to attach the other speaker.

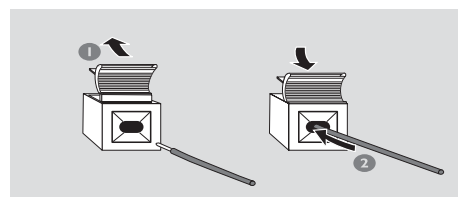


- To take off the speakers, keep the lever (found on the back of the speaker) pressed as **RELEASE** ► shown and slide the speaker upwards.

##### Connecting the speakers

Use the supplied speakers only. Using other speakers can damage the set or the sound quality will be negatively affected.

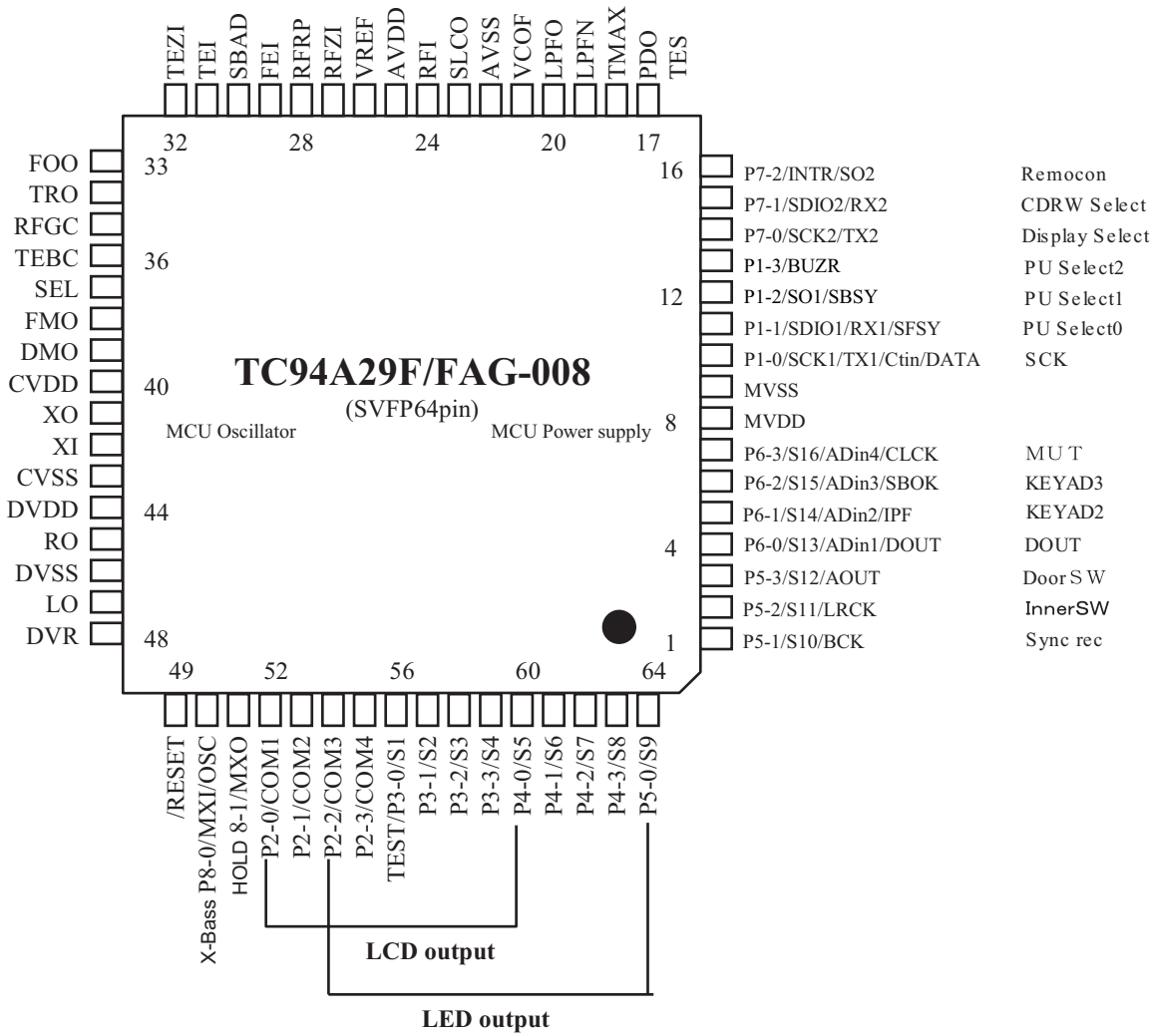
- Connect the wires of the left speaker to L (red and black) and the wires of the right speaker to R (red and black) as follows:



Open the clip of the red terminal and fully insert the stripped portion of the coloured (or marked) speaker wires into the socket, then close the clip.

Open the clip of the black terminal and fully insert the stripped portion of the black (or unmarked) speaker wires into the socket, then close the clip.

IC PINS DESCRIPTION



## IC PINS DESCRIPTION

**TOSHIBA**

TC94A29F/FA-008

**3.3 Pin Function Description**

Pin#	Name	Assignment	I/O	Function	Remark
1	P5-1/S10/BCK	Sync REC	Input	Sync recording	L = off; H = on
2	P5-2/S11/LRCK	INNER	Input	Pickup Inner Limit Switch	
3	P5-3/S12/AOUT	Door In SW	Input	Door SW	L=Open H=Close
4	P6-0/S13/ADin1 DOUT	DOUT	Output	SPDIF	
5	P6-1/S14/ADin2 IPF	KEYAD2	Input	AD KEY input	
6	P6-2/S15/ADin3 SBOK	KEYAD3	Input	AD KEY input	
7	P6-3/S16/ADin4 CLCK	Mute	Output	Mute control	
8	MVDD	3.3V		Controller Power	
9	MVSS	GND			
10	P1-0/SCK1/TX1 Ctin/DATA	SCK	Input		
11	P1-1/SDIO-1 RX1/SFSY	PU select0	Input	Pickup mechanism selection	Refer to Notes1
12	P1-2/SO-1/ SBSY	PU select1	Input	Pickup mechanism selection	
13	P1-3/BUZR	PU select2	Input	Pickup mechanism selection	
14	P7-0/SCK2/TX2	Display select	input	LED or LCD display selection	L = LCD; H = LED
15	P7-1/SDIO2/ RX2	CDRW select	Output	CDDA or CDRW selection	L = CDRW
16	P7-2/INTR/SO2	Remote control	Input	Remote control input	
17	PDO		Output	CD Control Port	
18	TMAX		Output		
19	LPFN		Input		
20	LPFO		Output		
21	VCOF		Output		
22	AVSS		GND		
23	SLCO		Input		
24	RFI		Input		
25	AVDD	CVDD			
26	VREF				
27	RFZI		Input		
28	RFRP		Input		
29	FEI		Input		

**TOSHIBA**

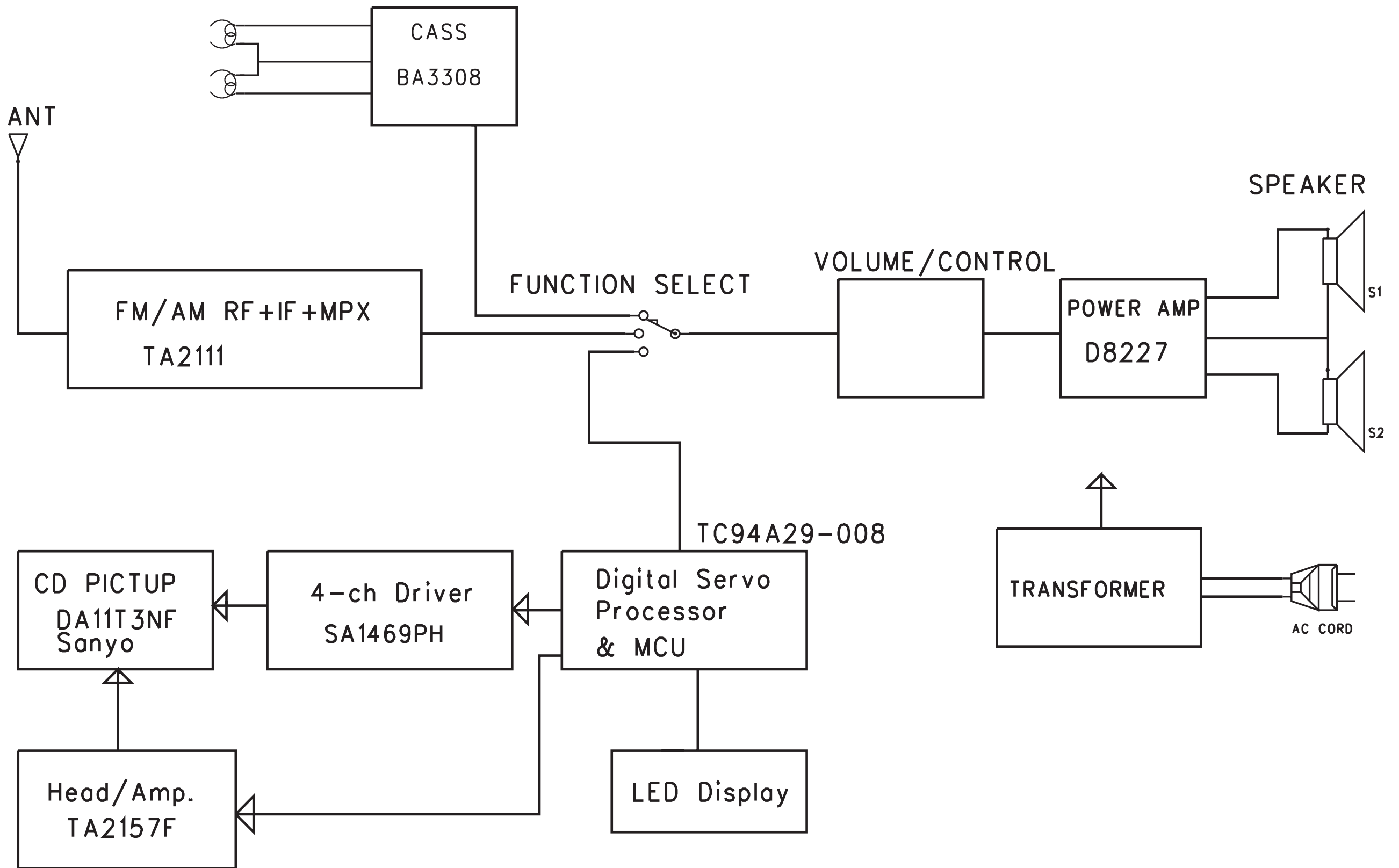
TC94A29F/FA-008

Pin#	Name	Assignment	I/O	Function	Remark
30	SBAD		Input	CD Control Port	
31	TEI		Input		
32	TEZI		Input		
33	FOO		Output		
34	TRO		Output		
35	RFGC		Output		
36	TEBC		Output		
37	SEL		Output		
38	FMO		Output		
39	DMO		Output		
40	CVDD	+3.3V		CD Control Power	
41	XO	XO	Output	16.9 kHz Crystal Connection	CD Control Clock
42	XI	XI	Input		
43	CVSS	GND			
44	DVDD	CVDD			
45	RO		Output		
46	DVSS	GND			
47	LO		Output		
48	DVR				
49	/RESET	RESET	Input	Reset Input	Active Low
50	P8-0/MXI/ OSC	X-Bass	Output	X-Bass on-off	Initial "H"
51	P8-1/MXO	HOLD	Input	Power-Det (built in pull-up ON)	L = X'tal stop
52	P2-0/COM1	COM1	Output	LED = not use; LCD = COM1	
53	P2-1/COM2	COM2	Output	LED = not use; LCD = COM2	
54	P2-2/COM3	COM3	Output	LED = COM1; LCD = COM3	
55	P2-3/COM4	COM4	Output	LED = COM2; LCD = COM4	
56	TEST/TX/ P3-0/S1	S1	Output	LED = SEG1; LCD = SEG1	
57	RX/P3-1/S2	S2	Output	LED = SEG2; LCD = SEG2	
58	P3-2/S3	S3	Output	LED = SEG3; LCD = SEG3	
59	P3-3/S4	S4	Output	LED = SEG4; LCD = SEG4	
60	P4-0/S5	S5	Output	LED = SEG5; LCD = SEG5	
61	P4-1/S6	S6	Output	LED = SEG6; LCD = not use	
62	P4-2/S7	S7	Output	LED = SEG7; LCD = not use	
63	P4-3/S8	S8	Output	LED = SEG8; LCD = not use	
64	P5-0/S9	S9	Output	LED = SEG9; LCD = not use	

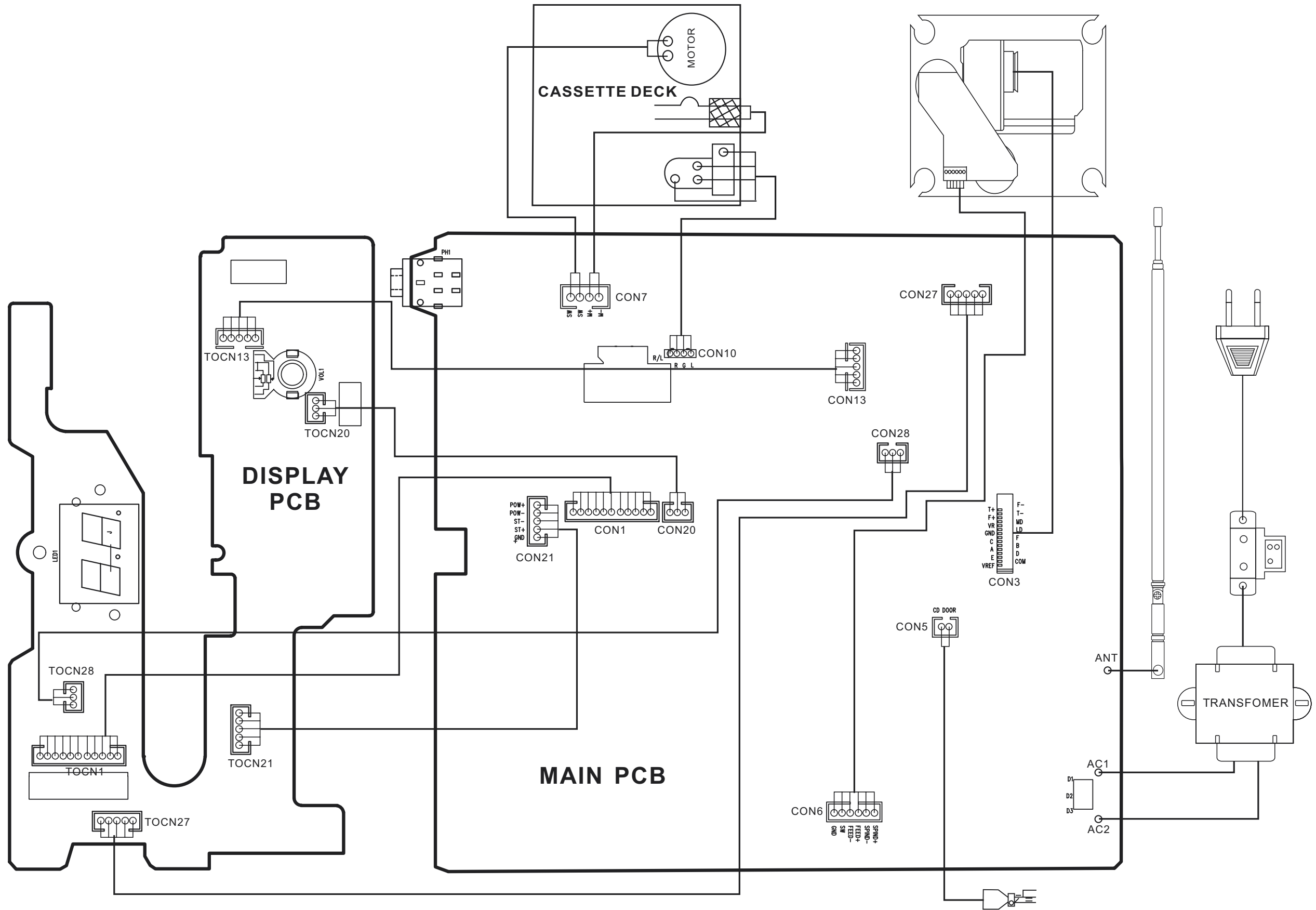
## Notes1

Pickup mecha	PU select0 (P1-1: pin 11)	PU select1 (P1-2: pin 12)	PU select2 (P1-3: pin 13)
SONY KSS-213C	L	L	L
SANYO DA11(SF-P101N)	H	L	L
SAMSUNG V75	L	H	L
THOMSON TCP11TK	H	H	L

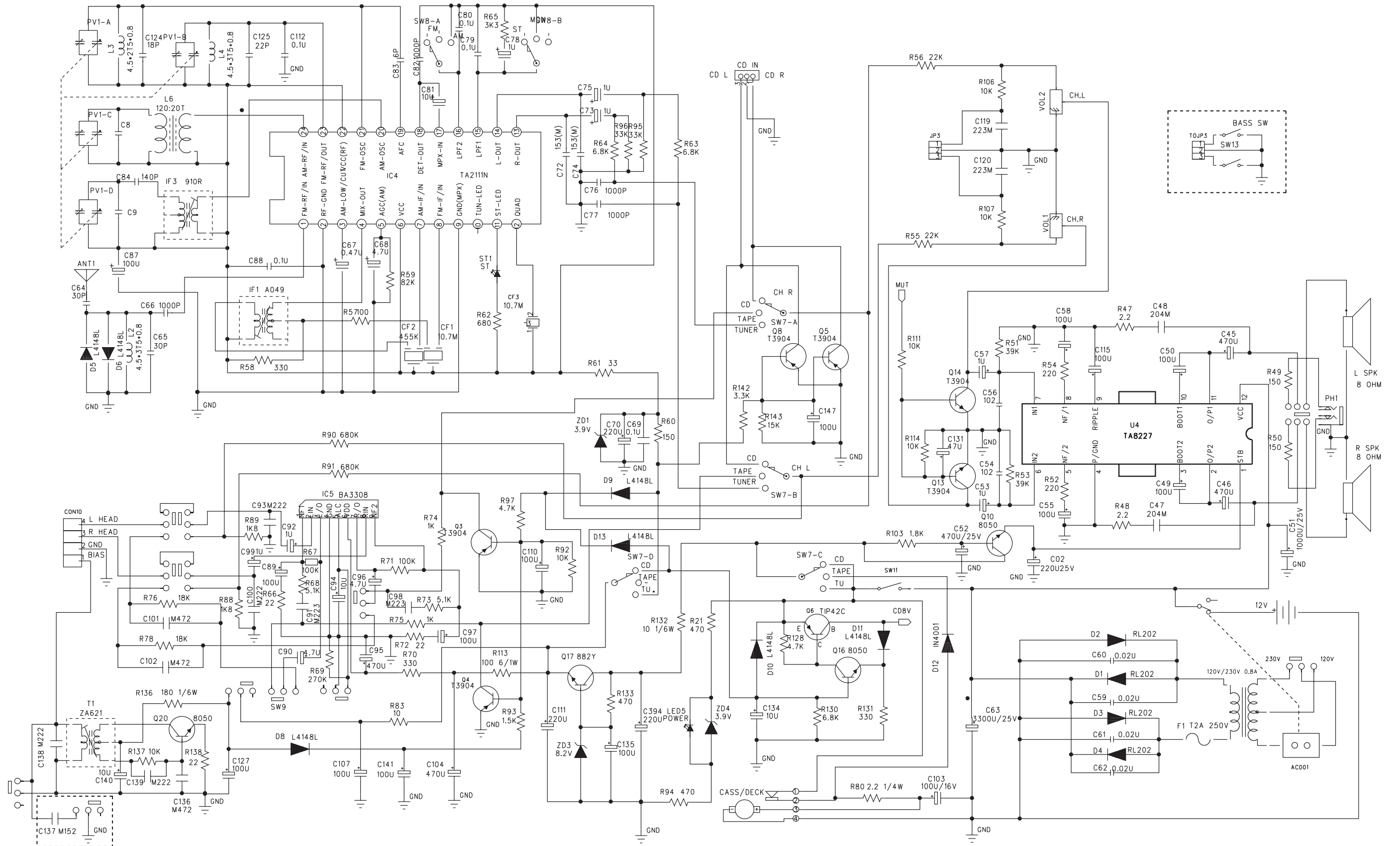
SET BLOCK DIAGRAM



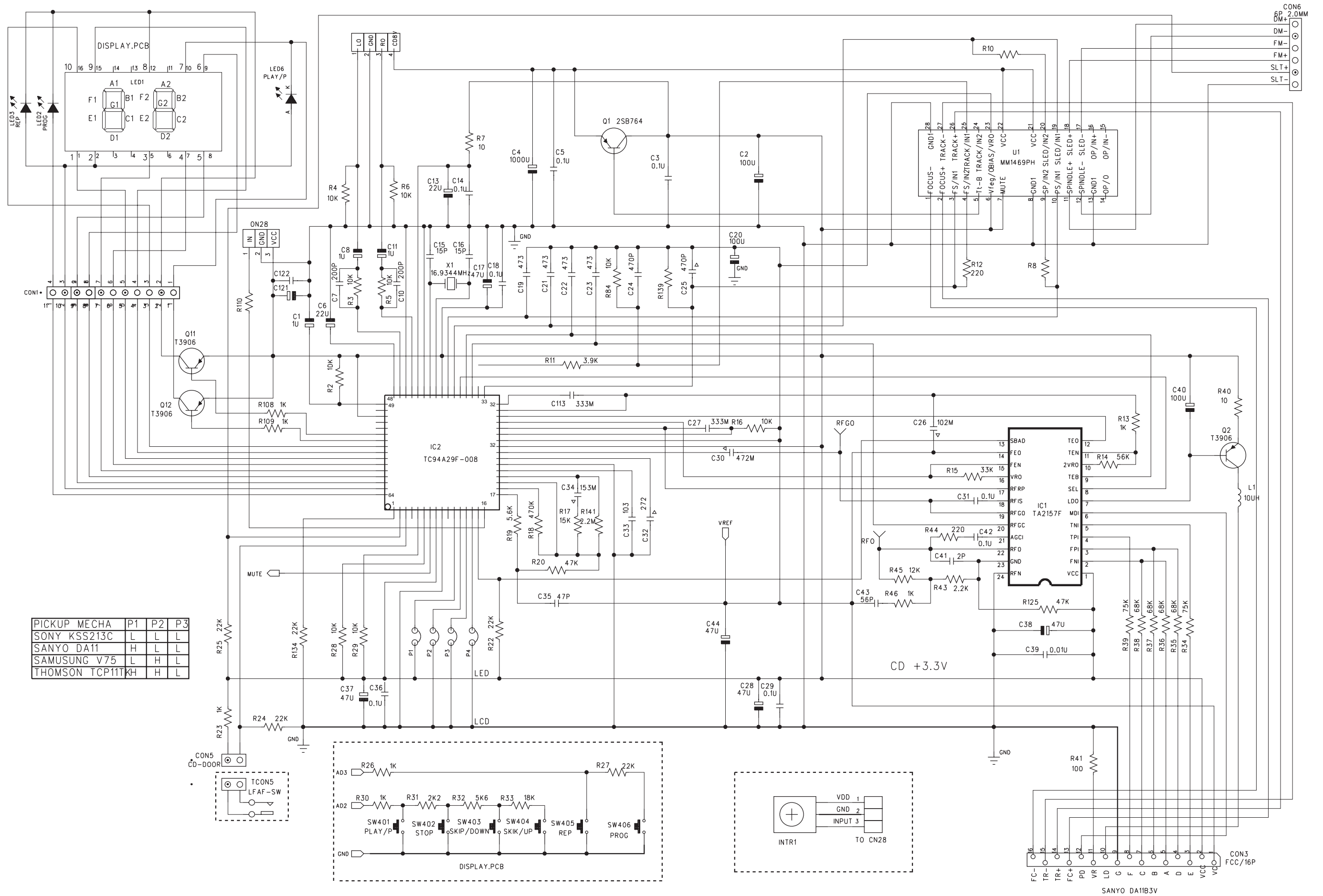
SET WIRING DIAGRAM



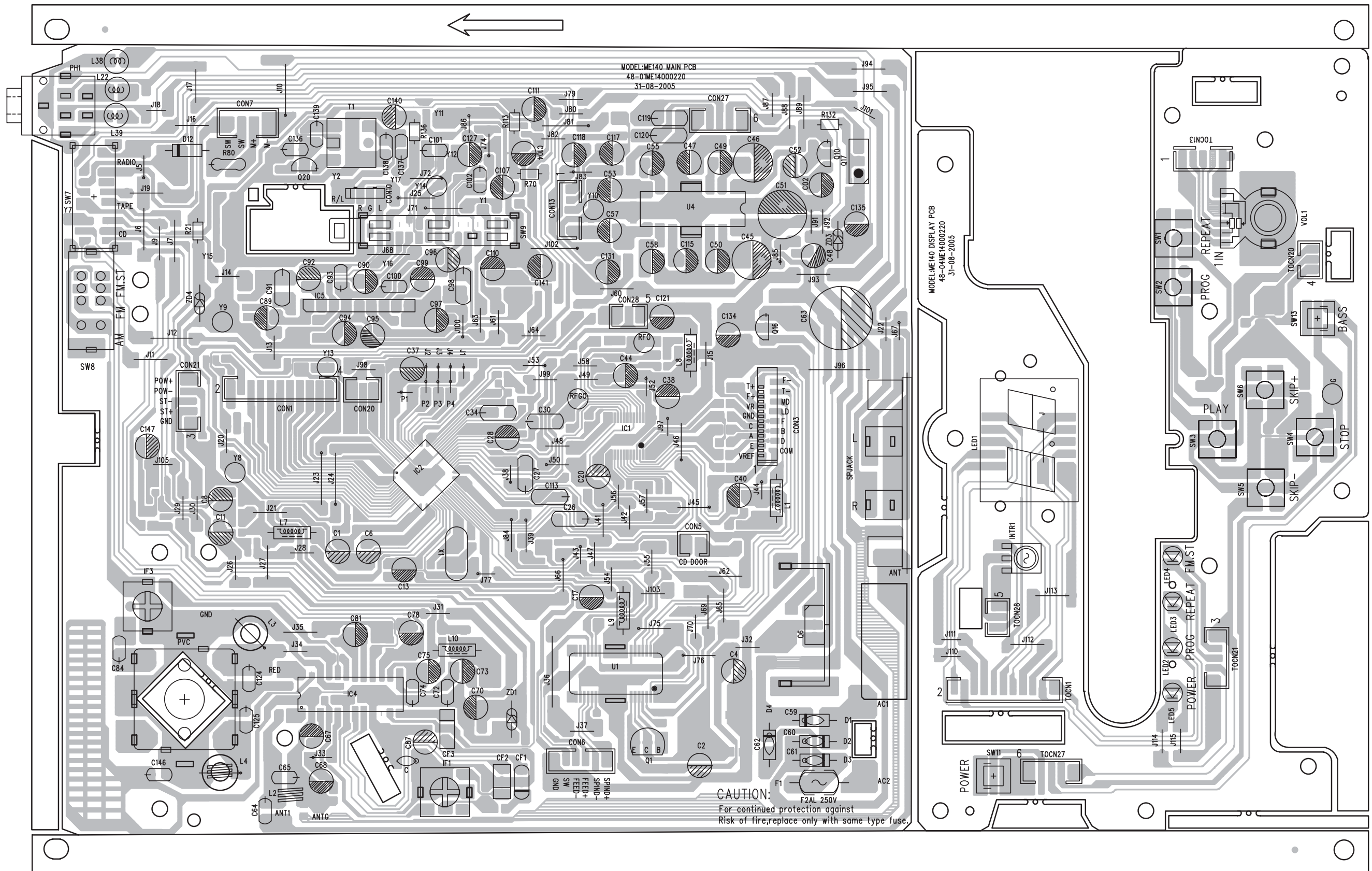
CIRCUIT DIAGRAM - COMBI BOARD (TUNER/TAPE/AMP)



CIRCUIT DIAGRAM - COMBI BOARD (CD/DISPLAY)

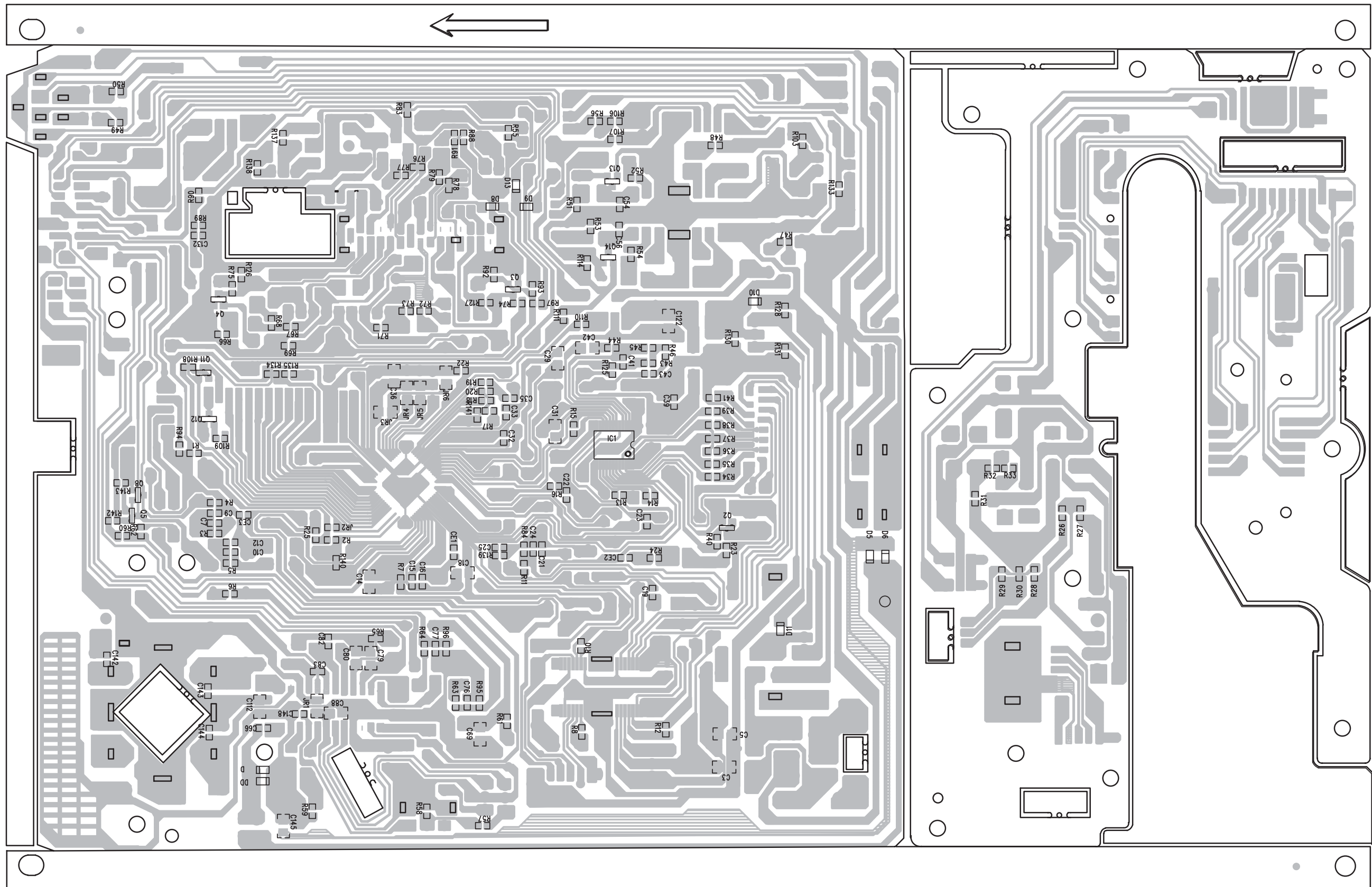


LAYOUT DIAGRAM - COMBI BOARD (TOP VIEW)

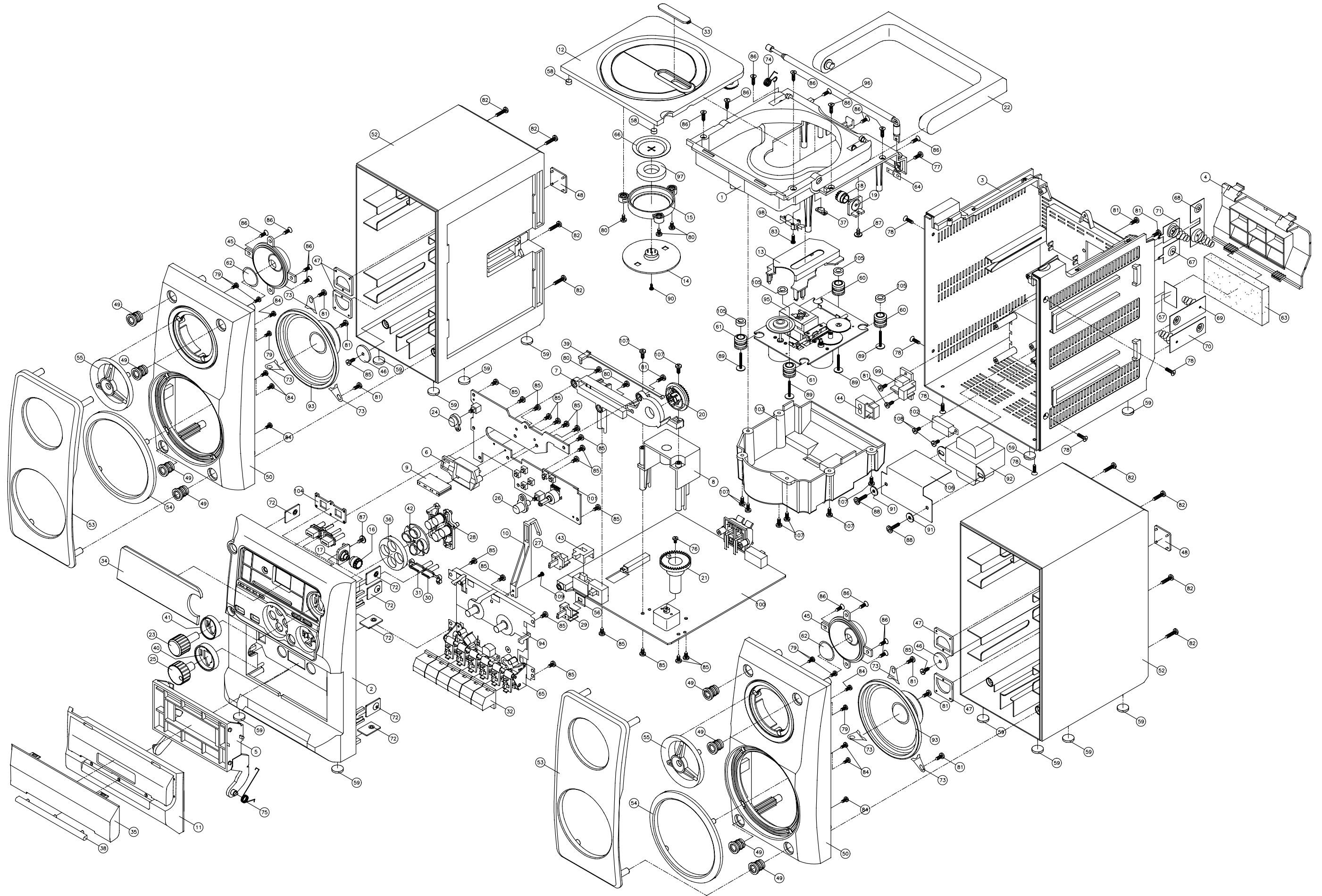




LAYOUT DIAGRAM - COMBI BOARD (BOTTOM VIEW)



EXPLODED VIEW DIAGRAM



**ACCESSORIES**

	9940 000 03632	SPK BOX ASS'Y (L+R)/21	
⚠	9940 000 01692	AC CORD SET BRAZIL (BLK)	MME140/78
⚠	9940 000 01706	AC CORD SET ARG (BLK)	MME140/77

**MECHANICAL PARTS LIST**

1	9940 000 03676	TOP CABINET
2	9940 000 03677	FRONT CAB
3	9940 000 03678	REAR CAB
4	9940 000 03679	BATTERY DOOR
11	9940 000 03681	CASSETTE DOOR
12	9940 000 03682	CD DOOR
13	9940 000 03683	LASER COVER
16	9940 000 03684	GEAR - CASS DOOR
17	9940 000 03685	GEAR HOLDER - CASS DOOR
18	9940 000 03686	GEAR - CD DOOR
19	9940 000 03687	GEAR HOLDER - CD DOOR
20	9940 000 03688	GEAR DRUM
21	9940 000 03689	GEAR SHAFT
22	9940 000 03691	HANDLE
23	9940 000 03692	TUNING KNOB
24	9940 000 03693	POWER KNOB
25	9940 000 03694	VOLUME KNOB
26	9940 000 03695	BASS KNOB
27	9940 000 03696	FUNCTION KNOB
28	9940 000 03697	CD KNOB
29	9940 000 03698	BAND KNOB
30	9940 000 03699	REPEAT KNOB
31	9940 000 03701	PROGRAMME KNOB
32	9940 000 03702	CASSETTE KNOB
33	9940 000 03703	CD DOOR LENS
34	9940 000 03704	DISPLAY LENS
35	9940 000 03705	CASS LENS
36	9940 000 03706	PLAY KNOB DECORATE RING
38	9940 000 03707	CASS DOOR ORNAMENT
39	9940 000 03708	POINTER
40	9940 000 03709	VOLUME KNOB RING
41	9940 000 03711	TUNING KNOB RING
42	9940 000 03712	PLAY KNOB RING
49	9940 000 03932	SPEAKER PANEL STUD
50	9940 000 03931	SPK FRONT CAB
51	9940 000 03933	SPK REAR CAB- L
52	9940 000 03934	SPK REAR CAB- R
53	9940 000 03935	SPK NET BRACKET
60	9940 000 00505	SHOCK ABSORBER (658 TA 30C)
61	9940 000 00506	SHOCK ABSORBER (658 TB 40C)
74	9940 000 03674	CD DOOR SPRING
75	9940 000 03675	CASS DOOR SPRING
94	9940 000 03668	CASS DECK CS-21SC-85T
95	9940 000 03669	CD MECHANISM DA11VF
96	9940 000 03671	ROD ANTENNA

**ELECTRICAL PARTS LIST****DIODE**

D1 9940 000 03938 RECTIFIER DIODE RL-202  
 D2 9940 000 03938 RECTIFIER DIODE RL-202  
 D3 9940 000 03938 RECTIFIER DIODE RL-202  
 D4 9940 000 03938 RECTIFIER DIODE RL-202  
 LED1 9940 000 03663 LED DISPLAY FD-R5615T-P10

LED2 9940 000 03662 LED 2X5MM (GN) MT-513VGD  
 LED3 9940 000 03662 LED 2X5MM (GN) MT-513VGD  
 LED4 9940 000 03662 LED 2X5MM (GN) MT-513VGD  
 LED5 9940 000 03662 LED 2X5MM (GN) MT-513VGD

**TRANSISTORS**

Q1 9940 000 03936 TRANS 2SB764-E (SANYO)  
 Q2 9940 000 03937 SMD TRANS PMBT3906  
 Q3 9940 000 02834 SMD TRANS MMBT3904LT1  
 Q4 9940 000 02834 SMD TRANS MMBT3904LT1  
 Q5 9940 000 02834 SMD TRANS MMBT3904LT1

Q6 9940 000 03634 TRANS TIP42C (TO-220)  
 Q8 9940 000 02834 SMD TRANS MMBT3904LT1  
 Q10 9940 000 02862 TRANS 2W 8050C  
 Q11 9940 000 03937 SMD TRANS PMBT3906  
 Q12 9940 000 03937 SMD TRANS PMBT3906

Q13 9940 000 02834 SMD TRANS MMBT3904LT1  
 Q14 9940 000 02834 SMD TRANS MMBT3904LT1  
 Q16 9940 000 02862 TRANS 2W 8050C  
 Q20 9940 000 02862 TRANS 2W 8050C

**INTEGRATED CIRCUITS**

IC1 9940 000 02844 IC TA2157FN  
 IC2 9940 000 03638 IC TC94A29FAG-008  
 IC4 9940 000 02694 IC RADIO TA2111N  
 IC5 9940 000 03635 IC PRE AMP BA3308  
 U1 9940 000 03637 IC SA1469PH

U4 9940 000 03636 IC D8227 DIP

**COILS AND FILTERS**

CF1 9940 000 03642 CER. FILTER LT10.7MA5-A RED  
 CF2 9940 000 03641 CERAMIC FILTER KTP455Y  
 CF3 9940 000 03643 DISC. FILTER JT10.7MG80-A  
 IF1 9940 000 03651 I.F.T 10MM A049 (YELLOW)  
 IF3 9940 000 03649 I.F.T 10MM 910 (RED)

L1 9940 000 03647 INDUCTOR 10UH 10% 160MA  
 L2 9940 000 03655 FM COIL 4.5X3.5T  
 L3 9940 000 03653 BOBBIN COIL WHITE 1 1/2T  
 L4 9940 000 03654 BOBBIN COIL ORANGE 3 1/2T  
 L6 9940 000 03652 AM COIL 120:20T 100MM

L7 9940 000 03647 INDUCTOR 10UH 10% 160MA  
 L8 9940 000 03647 INDUCTOR 10UH 10% 160MA  
 L9 9940 000 03647 INDUCTOR 10UH 10% 160MA  
 L10 9940 000 03647 INDUCTOR 10UH 10% 160MA  
 L22 9940 000 03646 INDUCTOR 10UH 10% 500MA

L38 9940 000 03646 INDUCTOR 10UH 10% 500MA  
 L39 9940 000 03646 INDUCTOR 10UH 10% 500MA  
 T1 9940 000 03648 I.F.T 10MM 621 (BLACK)  
 X1 9940 000 03644 RESONATOR 16.93MX (25PF)

**SWITCHES AND JACKS**

PH1 9940 000 03659 PHONE JACK TC-38-105-02-PT  
 SP2 9940 000 03661 SPK JACK PT-22V11  
 SW1 9940 000 03665 TACT SWITCH 6X6MM H=5MM  
 SW2 9940 000 03665 TACT SWITCH 6X6MM H=5MM  
 SW3 9940 000 03665 TACT SWITCH 6X6MM H=5MM

SW4 9940 000 03665 TACT SWITCH 6X6MM H=5MM  
 SW5 9940 000 03665 TACT SWITCH 6X6MM H=5MM  
 SW6 9940 000 03665 TACT SWITCH 6X6MM H=5MM  
 SW7 9940 000 03658 SWITCH SS-43D02-G7-D22  
 SW8 9940 000 03657 SWITCH SK-23E03-G6

SW9 9940 000 03656 PUSH SWITCH PS-102D13-NS  
 SW11 9940 000 03666 PUSH SWITCH 7X7MM PS-2203-L  
 SW12 9940 000 03666 PUSH SWITCH 7X7MM PS-2203-L  
 SW13 9940 000 03666 PUSH SWITCH 7X7MM PS-2203-L  
 9940 000 03672 LEAF SWITCH TC-48021-01

⚠ 9940 000 00587 VOLTAGE SWITCH SL1-22-62A  
 ⚠ 9940 000 03673 AC SOCKET TC08-115-02

**MISCELLANEOUS**

VOL 9940 000 03664 ROTARY VOLUME A50K  
 PVC 9940 000 03639 P.V.C 443DF-1DF (A/F)  
 9940 000 03645 FERRITE BAR D10X80MM  
 9940 000 03929 SPEAKER 3.5" 2W 8OHM  
 ⚠ 9940 000 03667 TRANSFORMER EI48 117/234V  
 9940 000 03939 16P FLAT FLEX CABLE 130MM