Service
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Service Manual

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PHILIPS

Specifications

STANDARD TEST CONDITIONS

SUPPLY VOLTAGE:	AC 230V, 50 Hz
REFERENCE OUTPUT:	500 mW (Into 8 ohm Load)
AM ANTENNA:	IRE Loop
AM STANDARD SIGNAL:	400 Hz, 30% Modulation at 1MHz
FM ANTENNA:	75 ohm Unbalanced
FM STANDARD SIGNAL:	1 kHz, 45 kHz Deviation at 98 MHz

AM BAND — NOMINAL

Frequency Range	522–1611 kHz
IF Frequency	450 kHz
Usable Sensitivity S/N @20dB	800 uV/m
IF Rejection at 603 kHz	50 dB
Image Rejection at 1404 kHz	40 dB
AGC Figure of Merit (Ref: 100 mV/m)	45 dB

FM BAND

Frequency Range	87.5–108 MHz
IF Frequency	10.7 MHz
Mono 26 dB/St. 46 dB Quieting Sensitivity	4/100 μV
IF Rejection at 90 MHz	70 dB
Image Rejection at 106 MHz	45 dB
AM Suppression	40 dB

AMPLIFIER SECTION

Speaker Impedance: 8 ohms front Channel.
Reference Level: 500 m Watt each Channel.

0.5% THD Power at 20~20 kHz	55 Watts
Total Harmonic Distortion	0.2% @ Reference level
S/N Ratio	95 dB
Channel Separation (at 1 kHz)	50 dB

Graphic Equalizer Effect:

Base 1 (at 100 Hz)	
Boost	+10 dB ± 3 dB
Cut	−10 dB ± 3 dB
Trable 1 (at 10 kHz)	
Boost	+10 dB ± 3 dB
Cut	−10 dB ± 3 dB

Controls & Connections

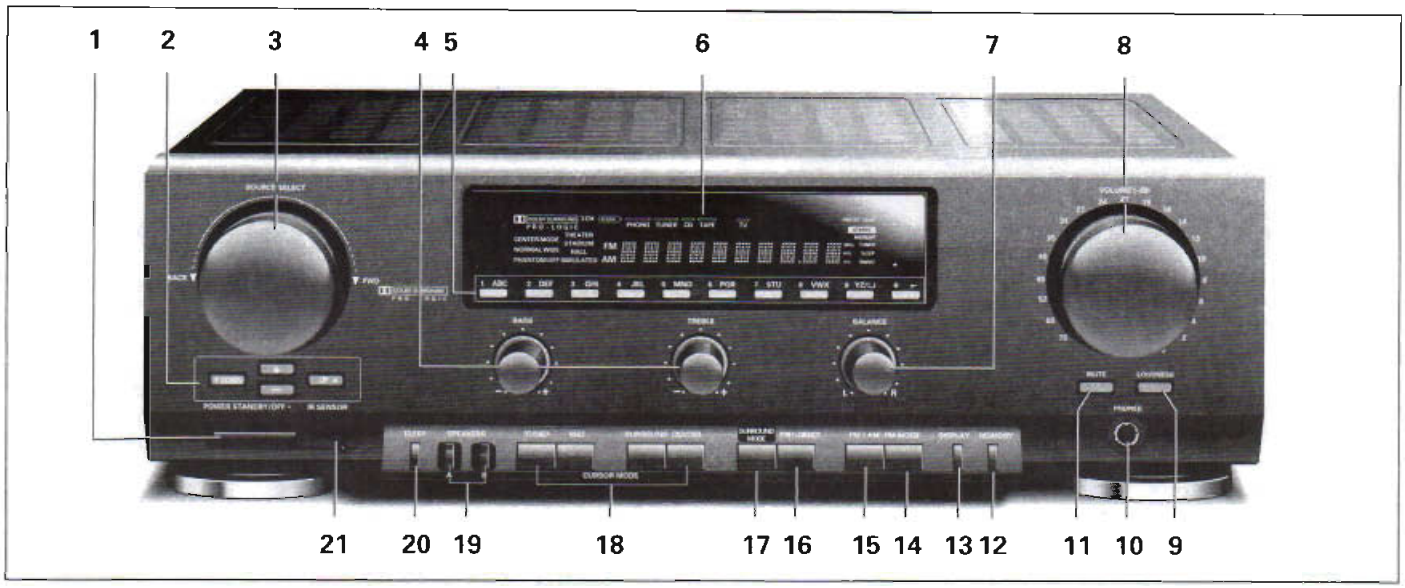


Figure 1

CONTROLS

① **POWER STANDBY/OFF** – for switching on to standby mode and for switching off.

② **CURSOR KEYS**
▽ **DOWN**, △ **UP**, **–**, **+** – to be used in combination with the CURSOR MODE keys **20**.
– to adjust the surround modes.
– frequency up/down.
– preset selection.
– selecting a name when using the SND function.

③ **SOURCE SELECT** – for selecting the desired listening source

④ **BASS** – for adjusting the bass tones.
TREBLE – for adjusting the high tones.

⑤ **DIGIT KEYS**
– for selecting 30 preset stations.
– for entering data when programming station name and when using the direct tuning function.

⑥ **DISPLAY**

⑦ **BALANCE** – for adjusting the balance of the volume between the left and right channels.

⑧ **VOLUME** – for adjusting the volume.

⑨ **LOUDNESS** – for increasing the trable and bass response at low volume setting to match human perception.

⑩ **PHONES** – socket for stereo headphones.
• You may connect a pair of stereo headphones with 6.3 mm plug to this socket.
Inserting the plug will ***not*** disconnect the speakers.

⑪ **MUTE** – for decreasing the volume by 20 dB (= factor 10).

⑫ **MEMORY** – for opening and closing the memory when programming preset stations.

⑬ **DISPLAY** – for selecting the frequency or the station name to be shown on the display.

⑭ **FM MODE** – for selecting mono or stereo reception.

⑮ **FM/AM** – selecting reception of FM or AM stations

⑯ **FREQ. DIRECT** – for direct tuning to the station frequency

⑰ **SURROUND MODE** – for selecting the surround modes: **□□ PRO LOGIC**, **...3 CH**, **HALL**, **STADIUM**, **THEATER**, **SIMULATED**, **OFF**.
Manufactured under license from Dolby Laboratories Licensing Corporation. 'Dolby' and the double D symbol □□ are trademarks of Dolby Laboratories Licensing Corporation.

⑱ **CURSOR MODE**
For selecting different cursor modes which can then be manipulated with the CURSOR keys **2** (▽ DOWN, △ UP, –, +).

– **CENTER**
Use the ▽ **DOWN**, △ **UP** keys to select the center channel mode: **NORMAL**, **PHANTOM**, **WIDE** or **CENTER OFF**.
Use the **–**, **+** keys to adjust the center level (related to the front level).

– **SURROUND**
Use the ▽ **DOWN**, △ **UP** keys to adjust the delay time of the rear channel.
Use the **–**, **+** keys to adjust the rear level (related to the front level.

– **SND** – for entering a station name for a tuner preset.
Use the ▽ **DOWN**, △ **UP** keys to move the cursor in the display to the next or previous position.
Use the **–**, **+** keys to select the desired character (A-Z, |_|, +, –, *).

– **TUNER**
Use the ▽ **DOWN**, △ **UP** keys to adjust the station frequency received down/up.
Use the **–**, **+** keys to select the next or previous tuner preset.

⑲ **SPEAKERS**
A – for switching on and off a pair of speakers connected to the SPEAKER A terminals.
B – for switching on and off a pair of speakers connected to the SPEAKER B terminals.

⑳ **SLEEP** – to set a time period after which the system will automatically be switched to standby.

㉑ **I**(nfra) **R**(ed) **SENSOR** – infrared remote control eye. For receiving signals from the remote control.

The display shows:

- the selected source: **PHONO, TUNER, CD, TAPE, TV.**
- **DD DOLBY PRO LOGIC, 3 CH, THEATER, STADIUM, HALL, SIMULATED, OFF** – indicate the selected surround mode.
- **CENTER MODE, NORMAL, WIDE, PHANTOM** – light up during the DOLBY PRO LOGIC, DOLBY 3 CH and THEATER mode.
- **FM, AM** – indicate the selected waveband.
- The frequency of the tuned station is indicated in **MHz** (for FM) or in **kHz** (for AM).
- ▪▪▪▪▪ – indicates the frequency or station name.
- **PRESET SCAN** – appears when the scanning function on the remote control is used.
- **STEREO** – lights up when an FM stereo transmission is received
- **MEMORY** – flashes when the memory has been opened to store a preferred station.
- **TUNED** – lights up when a station is found and tuned in correctly.
- **SLEEP** – lights up when the sleep timer is active.
- **MONO** – lights up when the FM MODE key has been pressed to receive a mono signal.

POWER STANDBY/OFF

- Press the POWER STANDBY/OFF key ① to switch on the power. The receiver will enter the standby mode and the indicator above this key will light up.
  When the receiver is switched to active mode (as described below in the chapters 'Wake-up from standby' and 'SOURCE SELECTION'), the respective indicators light up and the standby indicator is switched off. When a remote control command is received, this standby indicator flashes.
- To switch the receiver off press the POWER STANDBY/OFF ① key again.

STANDBY

- Switching the FR 931 or your whole system to standby can only be done via the remote control.
- To switch a single source (e.g. CD) to standby:
- Select the source using the source keys on the remote control.
- The selected source will be switched to standby if the standby key is pressed briefly.
- If the standby key is kept pressed for more than approx. 1 second, the whole system will be switched to standby. All light indicators will be switched off with the exception of the standby indicator on the receiver.
  Note: If the whole system is switched to standby when a recording is active, the recording (or CD-dubbing) will be cancelled.

Wake-up from standby

There are several options to switch your system from standby back to the operating mode:
- turning the rotary SOURCE SELECT knob ③;
- pressing one of the following keys: SLEEP ⑳, FM/AM ⑮ or digit keys ⑤.
- selecting a source with your remote control.
- Several keys on equipment connected via the ESI BUS sockets that activate a play function may also be used as wake-up keys (e.g. PLAY, SCAN, PRESET).

SOUND CONTROL

- Adjust the sound volume with VOLUME ⑱.
- Adjust the stereo balance between the left and the right channels with BALANCE ⑦.
- Adjust the bass tones with BASS ④ and the high tones with TREBLE ④.
  Warning: Extreme settings at high volume may damage your loudspeakers!
- Press LOUDNESS ⑨ if you want to increase the bass & treble response at low volume settings.
- Press SPEAKERS A ⑲ if you want to switch on the pair of speakers connected to the SPEAKERS A terminals and/or SPEAKERS B ⑲ to switch on the second pair connected to the SPEAKERS B terminals .
- Use the SURROUND MODE keys ⑰ to select the desired sound effect: DD PRO LOGIC, ... 3 CH, HALL, STADIUM, THEATER, SIMULATED, OFF.
- Press MUTE ⑪ if you want to decrease the volume by 20 dB.
- Press FM MODE ⑭ if you want to receive mono reception

SOURCE SELECTION

- When the receiver is in standby mode, it will be switched directly to operating mode as soon as the SOURCE SELECT knob ③ is turned.
- The receiver and the selected source (indicated on the display) will become active.
  Note: A selection is only made when you have stopped turning the knob ③ for more than one second (to prevent all sources becoming active while the knob is turning).
- By turning the SOURCE SELECT knob ③ one step to the left, you select the source to the left of the current source.
- By turning the SOURCE SELECT knob ③ one step to the right, you select the source to the right of the current source.
- You can also switch both the source and the receiver to the active mode by simply pressing 'PLAY' on CD or Deck or one of the tuner preset keys.

The sources that are selected at your receiver are indicated by the lighting of an indicator above the source name.
When a source is not selected, only the source name appears on the display.

Source selection via the remote-control handset

- Press (***for more than 1 second***) the respective source key on the remote control.
  The selected source and the receiver will become active.

Note: When VCR or LD is selected, the source indication TV will light up.

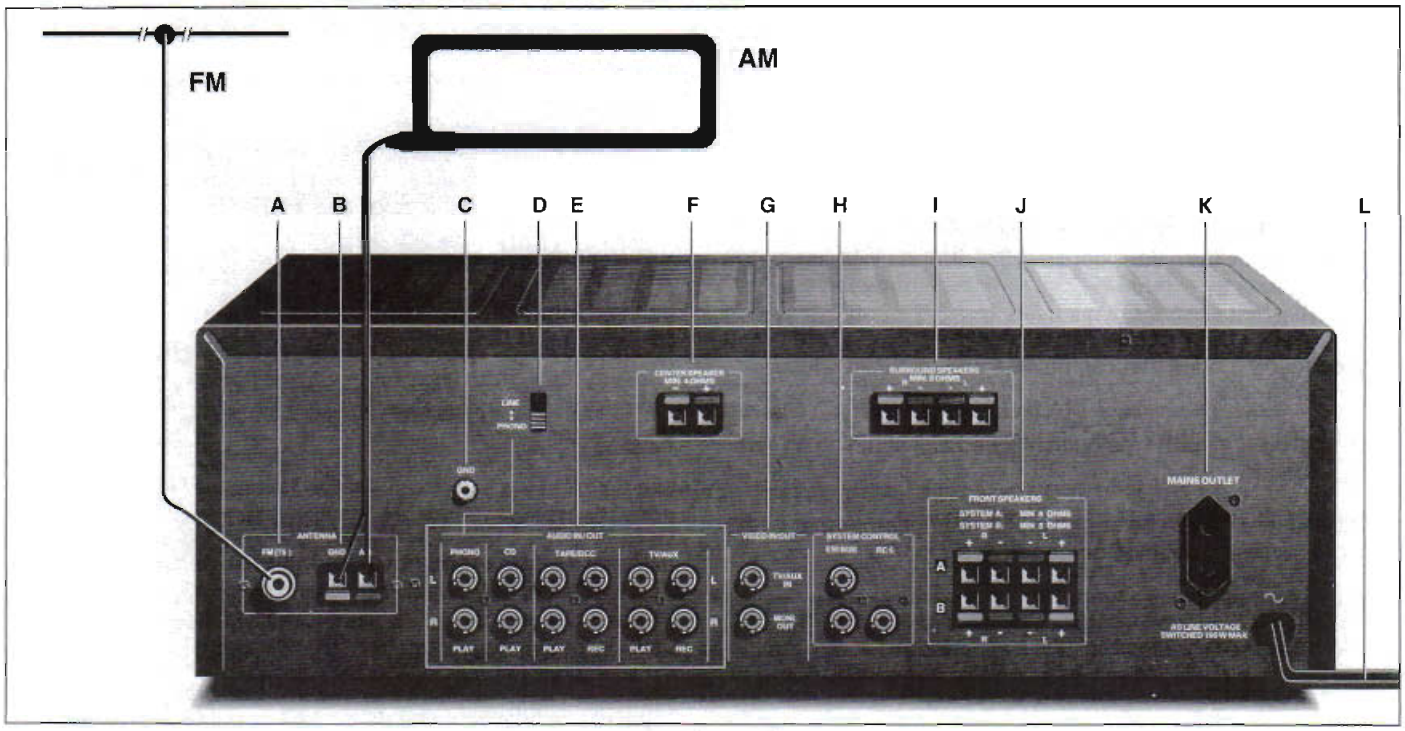


Figure 2

ALWAYS SWITCH OFF THE RECEIVER BEFORE MAKING ANY CONNECTIONS !

CONNECTIONS

Ⓐ **FM (75 Ω)**
The FM (75 Ω) socket is used for connection to the Community or Cable Antenna System or to a roof-mounted FM antenna with an impedance of 75 ohms. If none of these are available, you may use the wire supplied for nearby stations (reception could be poor).

Ⓑ **GND/AM**
For AM reception, connect the supplied wires to the GND and AM antenna terminals (one wire to GND and one wire to the AM terminal) and position the antenna for best reception.
Note: Do ***not*** place the AM loop antenna on the unit, as this unit employs a computing device which could cause interference.

Ⓒ **GND** ⏚ – for connecting the ground wire of a record player.

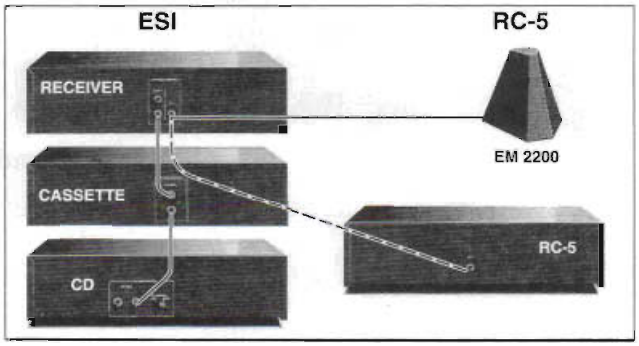
Ⓓ **PHONO/LINE** – input selector for the PHONO/LINE input sockets.

Ⓔ **AUDIO IN/OUT**
- **PHONO/LINE** – input sockets for connecting:
  - PHONO: a record player with an 'MM' (Moving Magnet) cartridge (set the PHONO/LINE input selector Ⓓ to PHONO); or
  - LINE: other equipment provided with a LINE output (set the PHONO/LINE input selector Ⓓ to LINE).
- **CD** – input sockets for connecting a CD player.
- **TAPE/DCC** – input and output sockets for connecting a cassette deck or a Digital Compact Cassette deck.
- **TV/AUX** – input and output sockets:
  - input for connecting the sound channel of a TV set;
  - input and output for connecting e.g. a video recorder or another cassette or tape deck (recording and playback).

Ⓕ **CENTER SPEAKER** – terminals for connecting a center speaker, impedance 4 to 6 Ohms (Ω).

Ⓖ **VIDEO IN/OUT**
- **TV/AUX IN** – input socket for connecting the video output of a TV set.
- **MONI. OUT** – output socket for connecting to the video input of a TV set.

Ⓗ **SYSTEM CONTROL**
- **ESI BUS** (Enhanced System Intelligence)(coloured green) Remote-control input/output sockets for connection to the corresponding ESI sockets of other components in your HiFi system (e.g. the Philips 900 series)
  Connect the ESI socket to the ESI socket of external equipment which use the ESI remote control system.
  By using the ESI Bus, you can operate other components via the FR 931's I(nfra) R(ed) sensor.
- **RC-5 BUS** (coloured orange) – remote-control input/output socket for connection to the corresponding RC-5 socket of a CD (Compact Disc) player or remote control receiver (e.g. EM 2200).
  Connect the RC-5 socket to the RC-5 socket of the external equipment that uses the RC-5 remote control system. (see figure below)
  This socket has been added to maintain compatibility with older Philips Audio equipment.

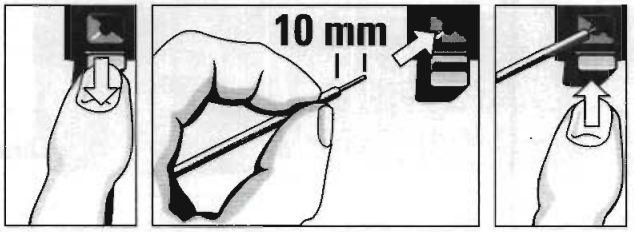


Ⓘ **SURROUND SPEAKERS** – terminals for connecting a pair of surround speakers, impedance 8 to 16 Ohms (Ω) each, to obtain a surround sound effect.
NOTE: Always connect ***two*** speakers to these terminals

Ⓙ **FRONT SPEAKERS A/B** – terminals for connecting two pairs of speakers, impedance 8-16 ohms (L = left, R = right).

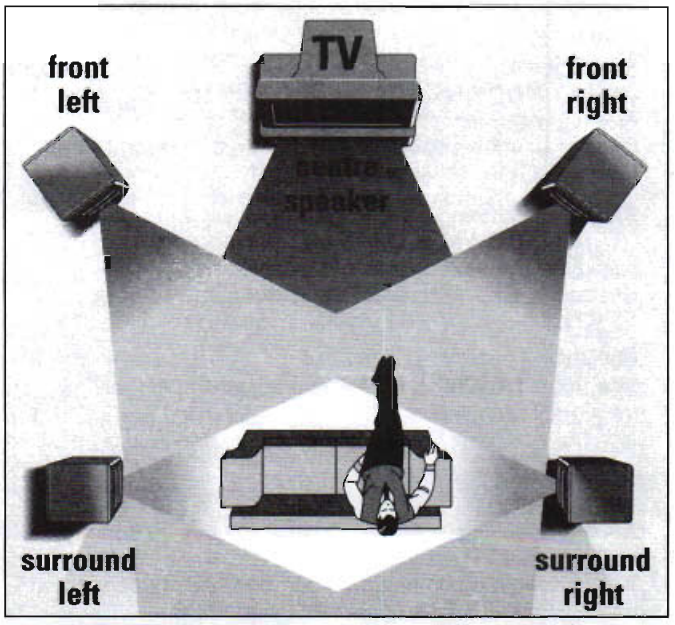
SPEAKER CONNECTION

- One of the wires of a loudspeaker cable is marked with a color or rib. Connect the marked wire to the red terminal, the non-marked wire to the black one.
  Make sure that all loudspeakers are connected in the same way.



SPEAKER POSITIONING

To get the best surround sound effect in your home, place the speakers as shown below.
The left and right speakers should be about 1 metre from the TV set.
The center speaker should be above or below the TV set.
The rear speakers should be placed at approx. 1 metre above normal listening ear level.
Note: to avoid interference with the TV picture, use only magnetically shielded speaker systems.



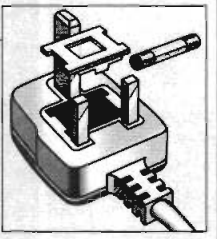
POWER

Ⓚ **MAINS OUTLET** – switched mains output for connecting mains plugs from various units such as cassette deck, CD player, etc. (maximum capacity is 100 W).

Ⓛ **MAINS LEAD**

Important notes for users in the U.K.

Mains plug



This apparatus is fitted with an approved moulded 13 Amp plug. To change a fuse in this type of plug proceed as follows:

- Remove fuse cover and fuse.
- Fix new fuse which should be a BS1362 5 Amp, A.S.T.A. or BSI approved type.
- Refit the fuse cover.

If the fitted plug is not suitable for your socket outlets, it should be cut off and an appropriate plug fitted in its place.

If the mains plug contains a fuse, this should have a value of 5 Amp. If a plug without a fuse is used, the fuse at the distribution board should not be greater than 5 Amp.

Note: The severed plug must be disposed to avoid a possible shock hazard should it be inserted into a 13 Amp socket elsewhere.

How to connect a plug

The wires in the mains lead are coloured with the following code: blue = neutral (N), brown = live (L).
As these colours may not correspond with the colour markings identifying the terminals in your plug, proceed as follows:

- Connect the blue wire to the terminal marked N or coloured black.
- Connect the brown wire to the terminal marked L or coloured red.
- Do not connect either wire to the earth terminal in the plug, marked E (or ⏚) or coloured green (or green and yellow).

Before replacing the plug cover, make certain that the cord grip is clamped over the sheath of the lead - not simply over the two wires.

(GB)

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

(F)

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

(NL)

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

(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."

(S) Varning!

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

(SF) Varo!

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

(GB) **WARNING**

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

ESD

(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.

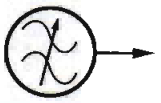
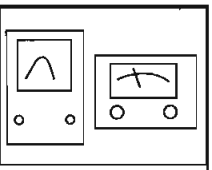
(NL) **WAARSCHUWING**

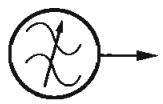
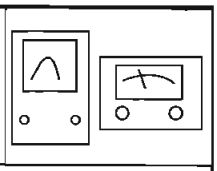
Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa 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.

Alignment & Adjustments

SK...						
IF Alignment IF Align						
AM	450kHz	A	450kHz	T102	*2	MAX
FM	10.7MHz	B	10.7MHz	T103	*2	0.0V
RF Alignment						
AM	522kHz	A	522kHz	L105	*1	1.2V ± 0.05V
AM	1611kHz	A	1611kHz	–	*1	CHECK 7.5V
FM	87.5MHz	B	87.5MHz	–	*1	CHECK 1.5V
FM	108MHz	B	108MHz	–	*1	CHECK 8.0V
Sensitivity Alignment						
AM	603kHz	A	603kHz	L104	*2	MAX.
AM	1404kHz	A	1404kHz	TC104	*2	MAX.

SK...						
T. H. D. Adjustment						
FM	98MHz MOD. = 1kHz DEV. = 45kHz	B #1		T103	*3	0.0V
FM	98MHz MOD. = 1kHz DEV. = 45kHz	B #1		FE417-G02 IFT	*3	T.H.D. MIN.
Auto Tuning Sensitivity Adjustment						
FM	98MHz/20dB	B	98MHz	SFR101	*3	LOCK AT 26dB
AM	999kHz/60dB	A	999kHz	SFR102	*2	LOCK AT 60dB
MPX Separation Adjustment						
FM	98MHz	B	98MHz	SFR103	*2	SEPARATION OVER 35dB

*1 Across TP1 & TP2
*2 Across Tape Out
*3 Across CN101
#1 See Fig. 3

Repeat

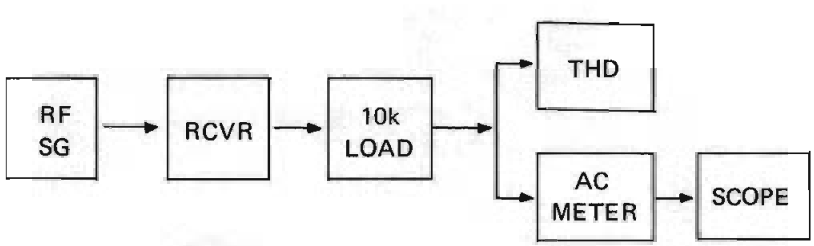
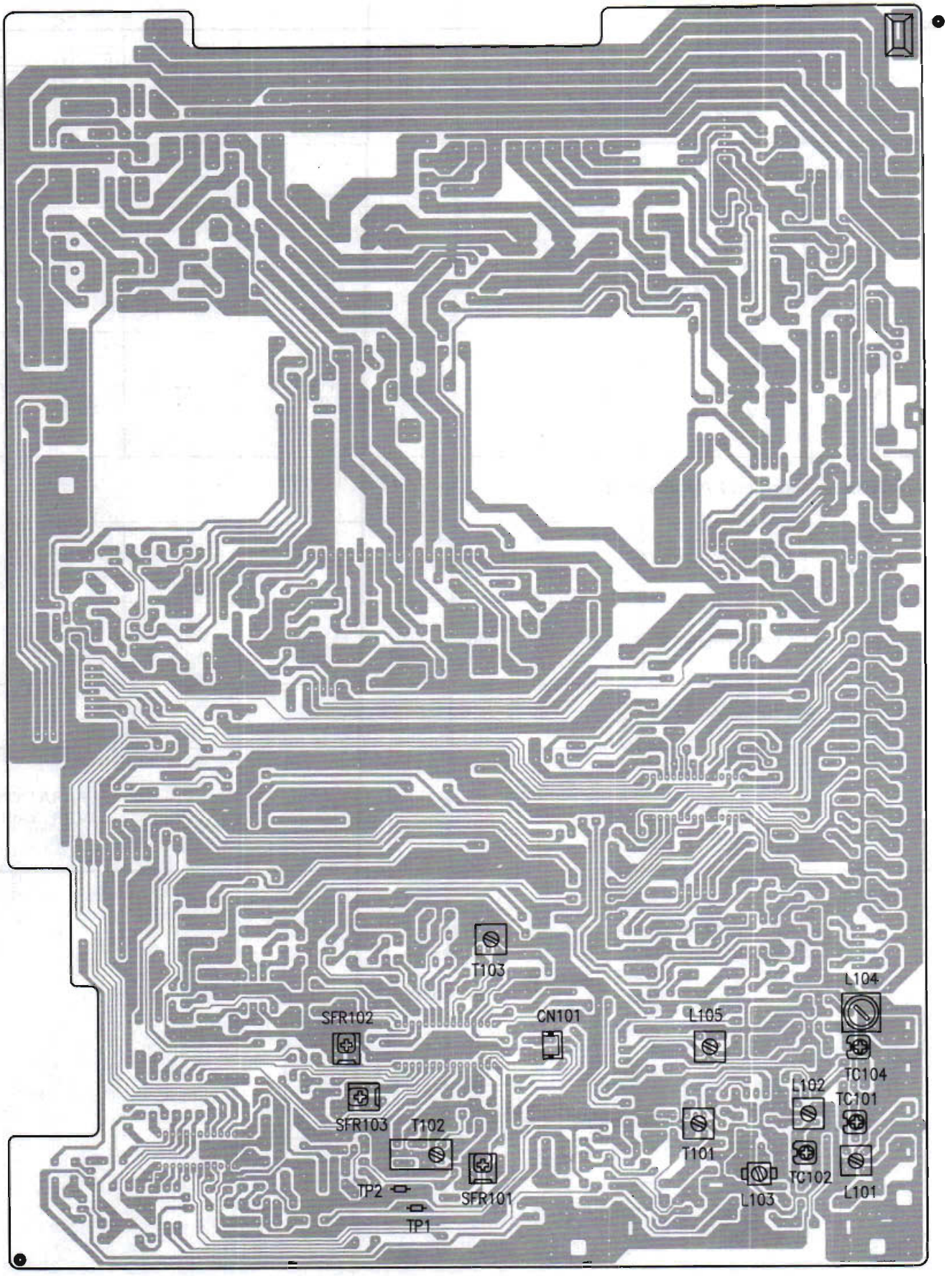


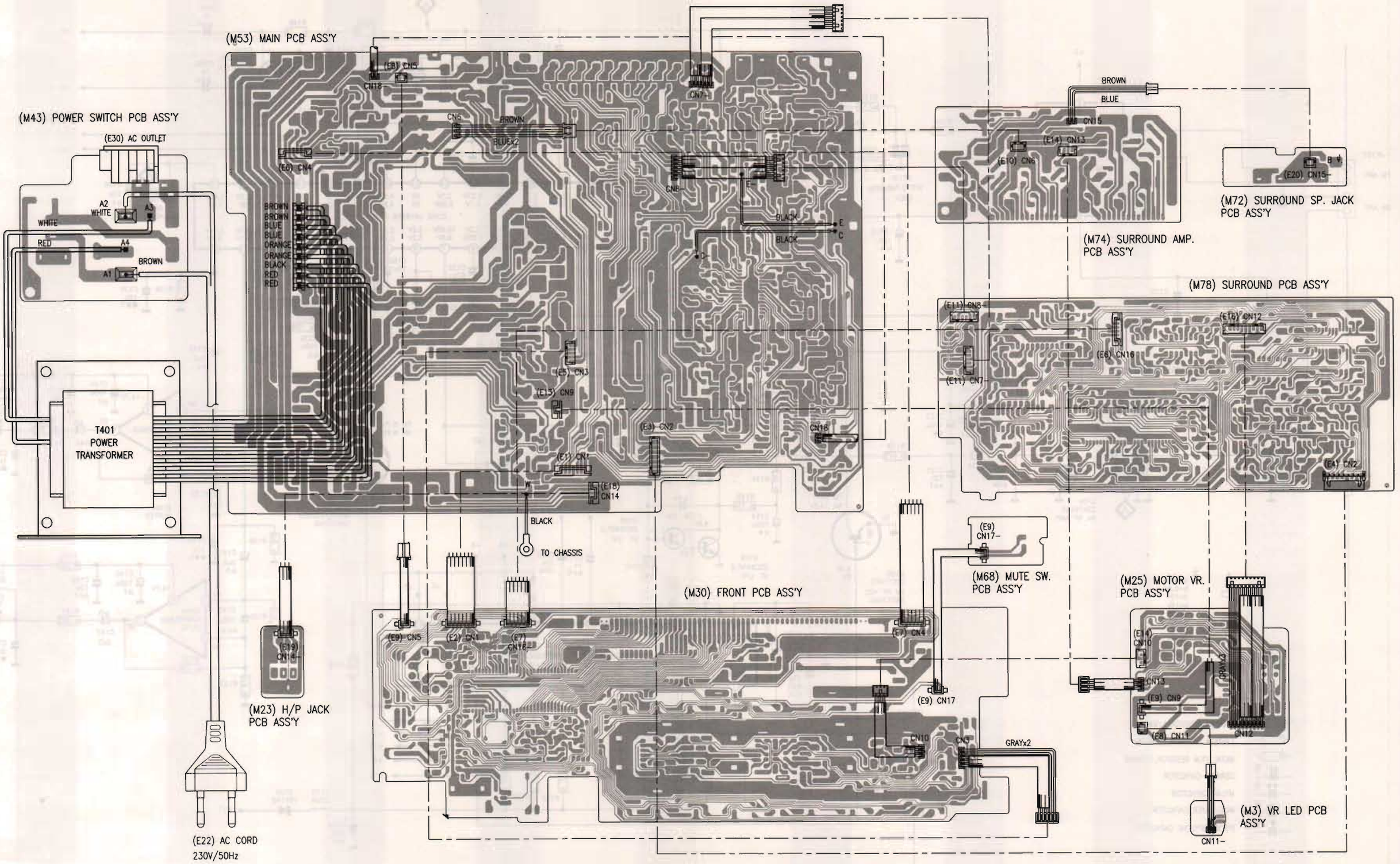
Figure 3

Main Board Test Point

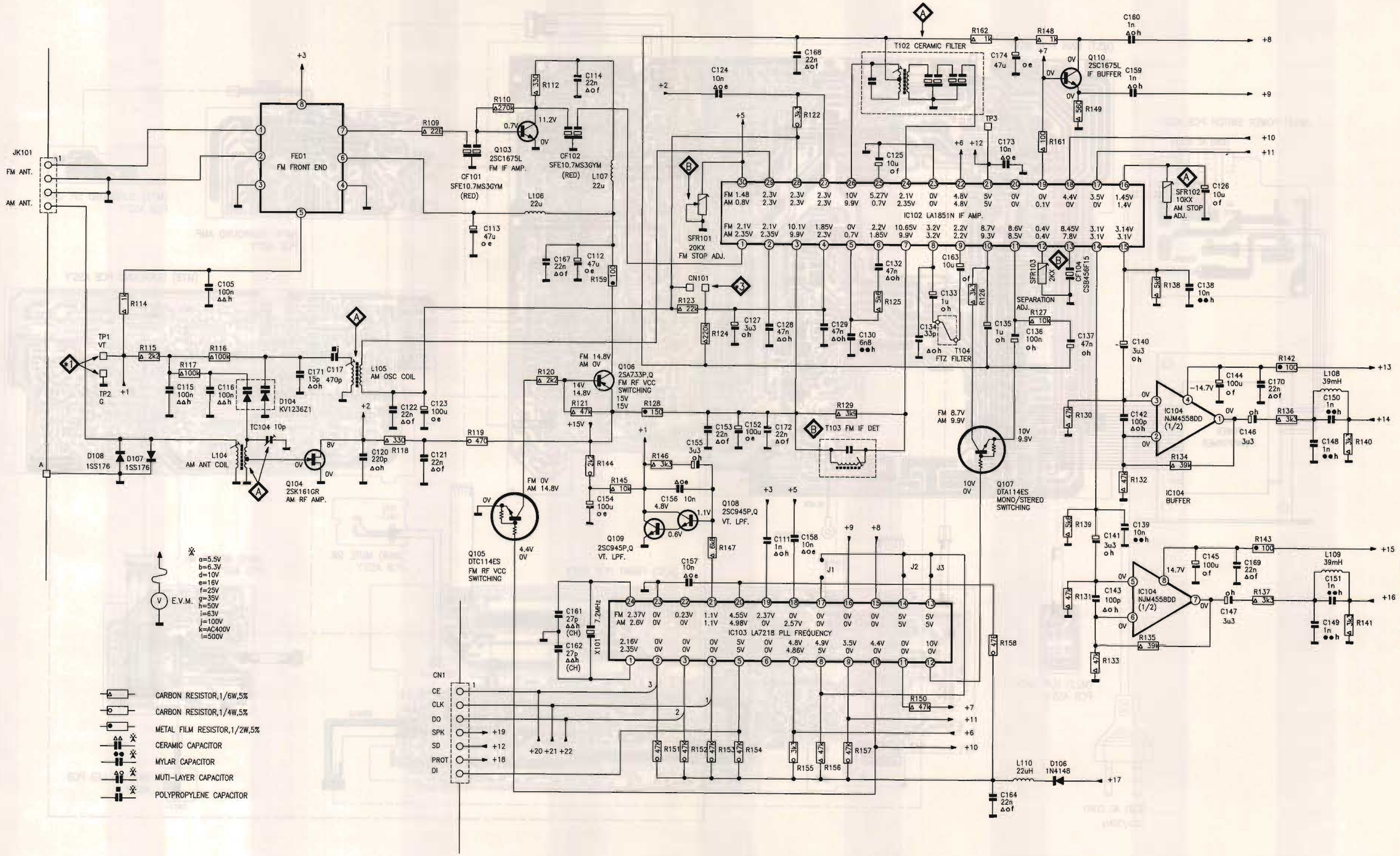
Main P C Board



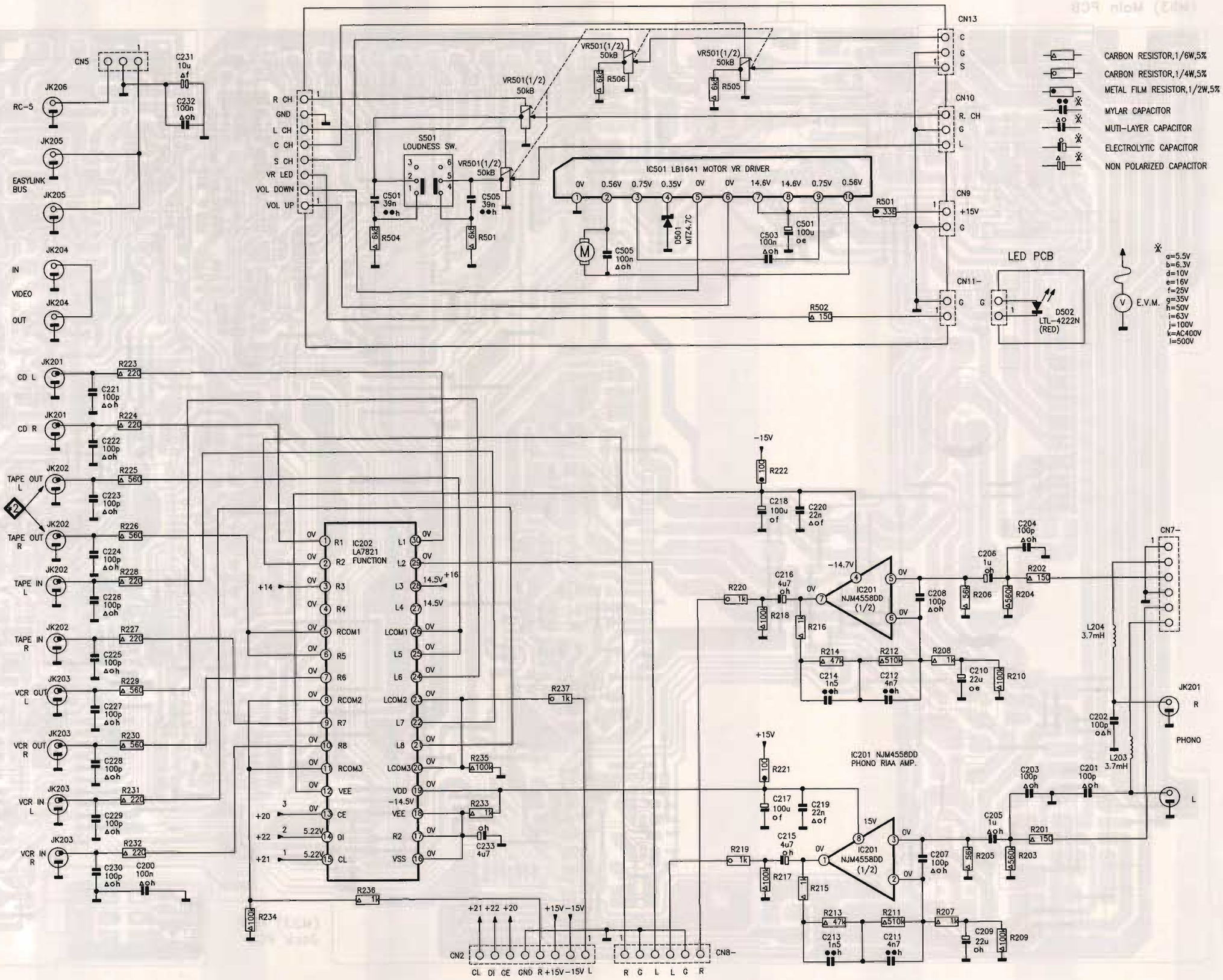
Wiring Diagram-Component Side



Schematic Diagram – Tuner

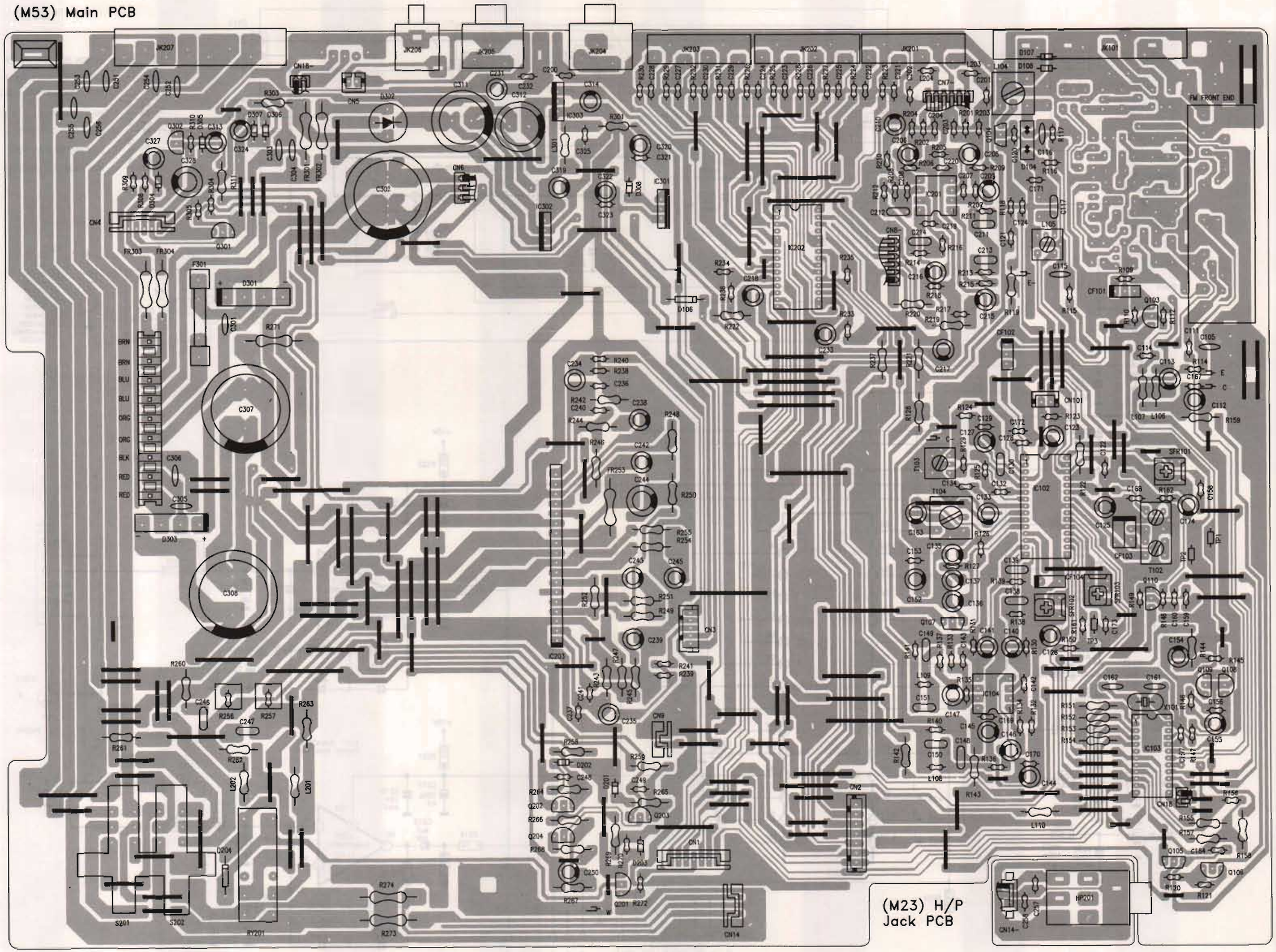


Schematic Diagram – Function Selector



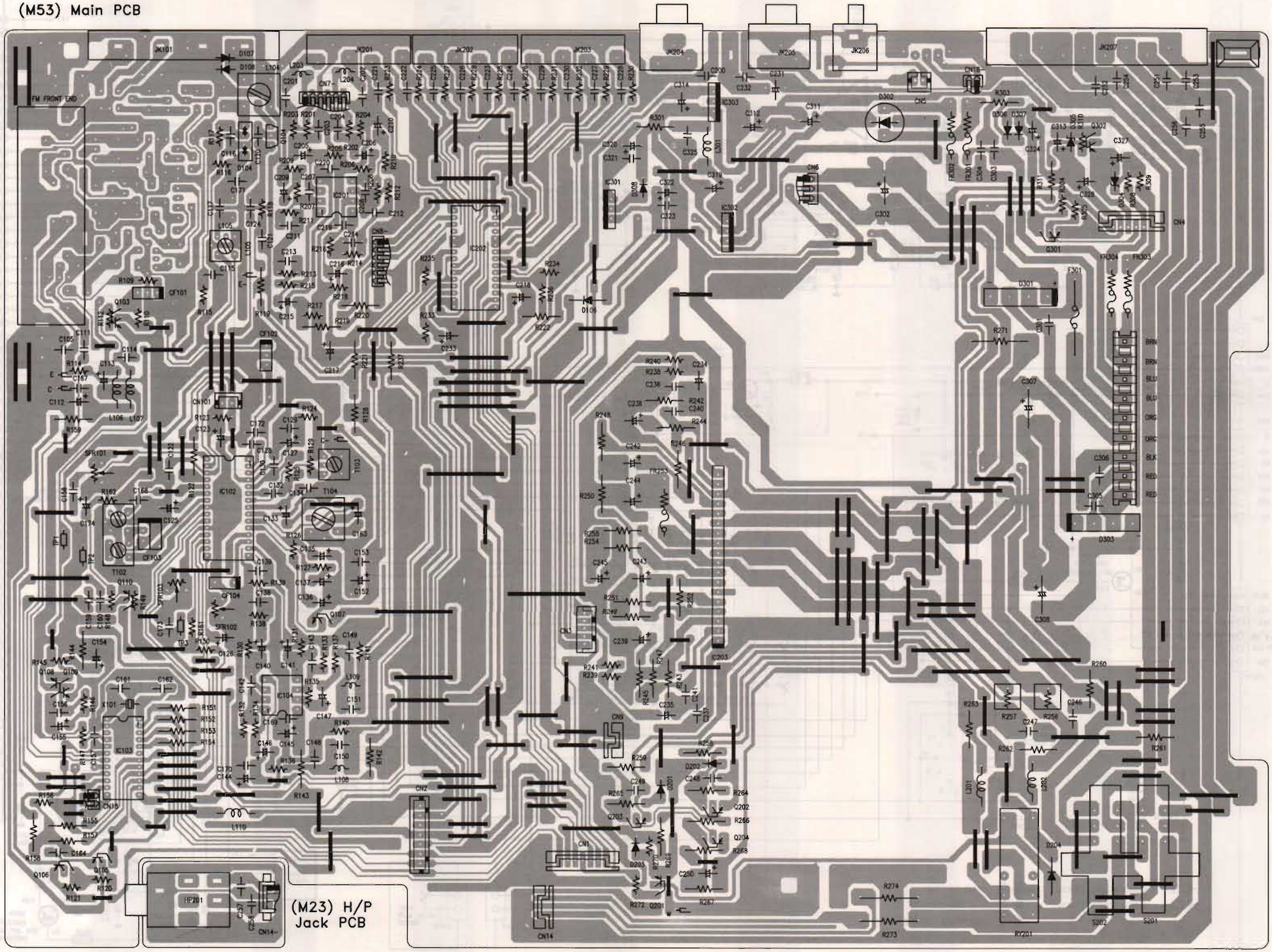
P C Board-Component Side

(M53) Main PCB

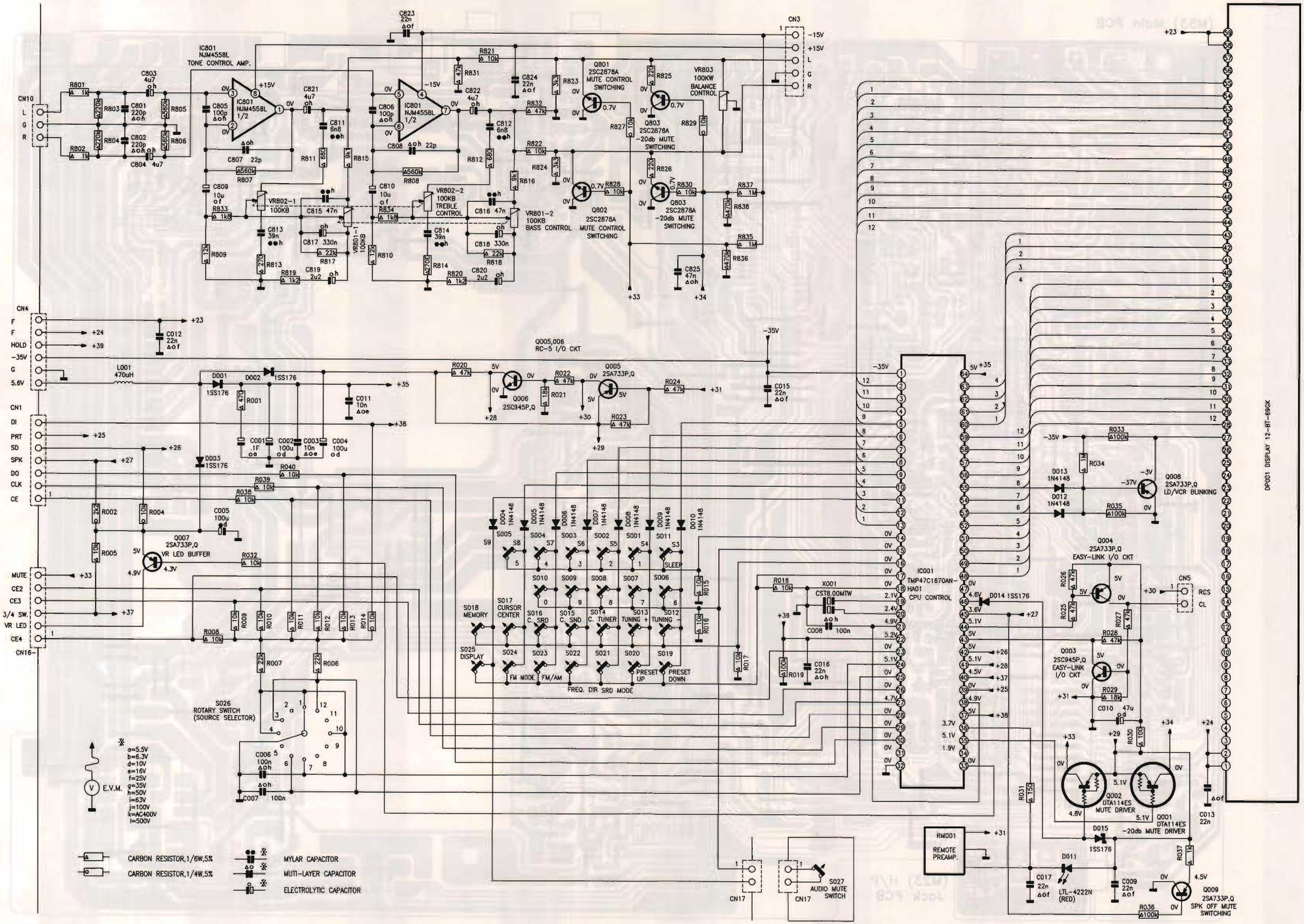


P C Board-Solder Side

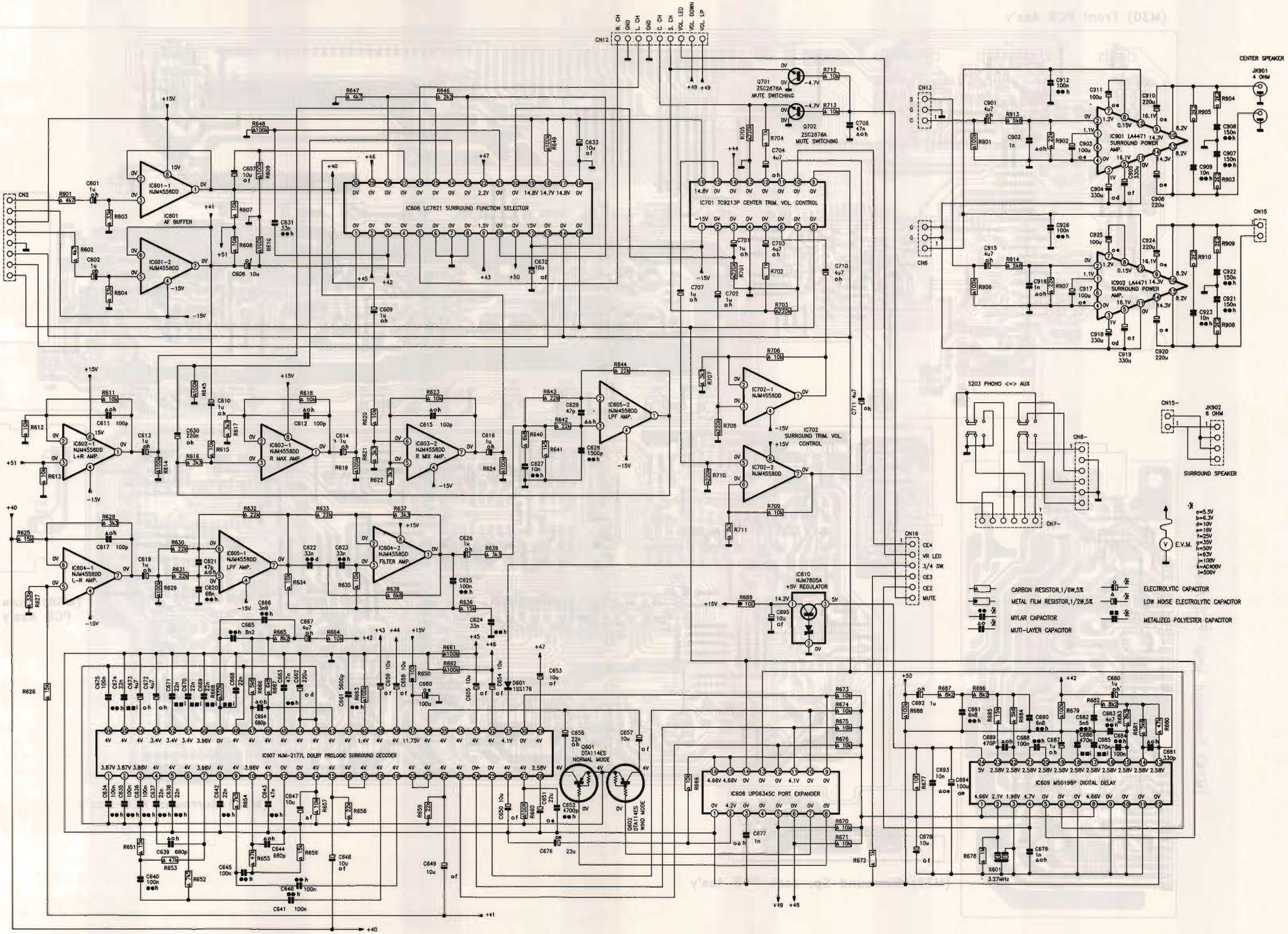
(M53) Main PCB



Schematic Diagram- Front

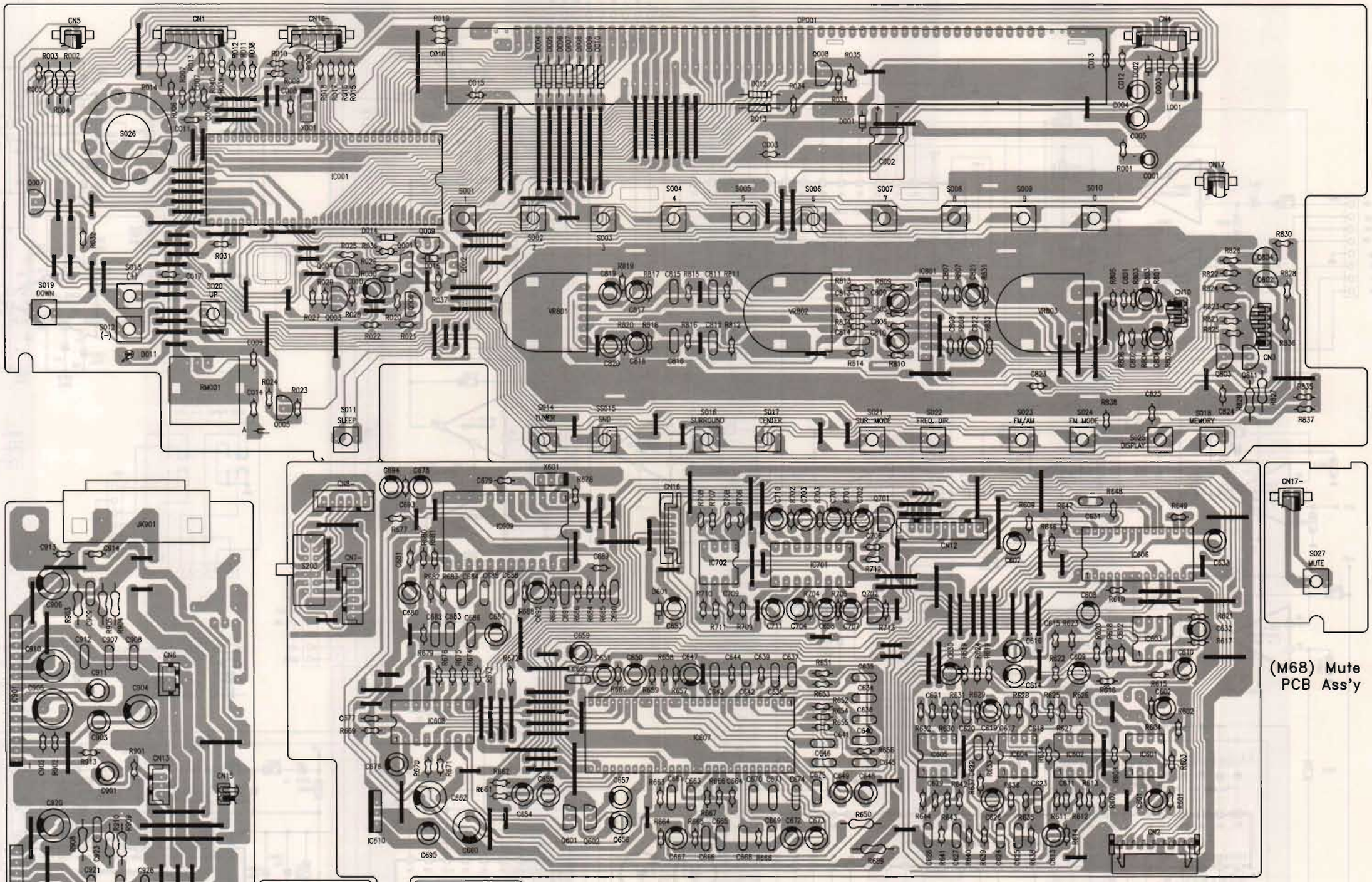


Schematic Diagram-Surround



P C Board-Component Side

(M30) Front PCB Ass'y



(M74) Surround Amp. PCB Ass'y

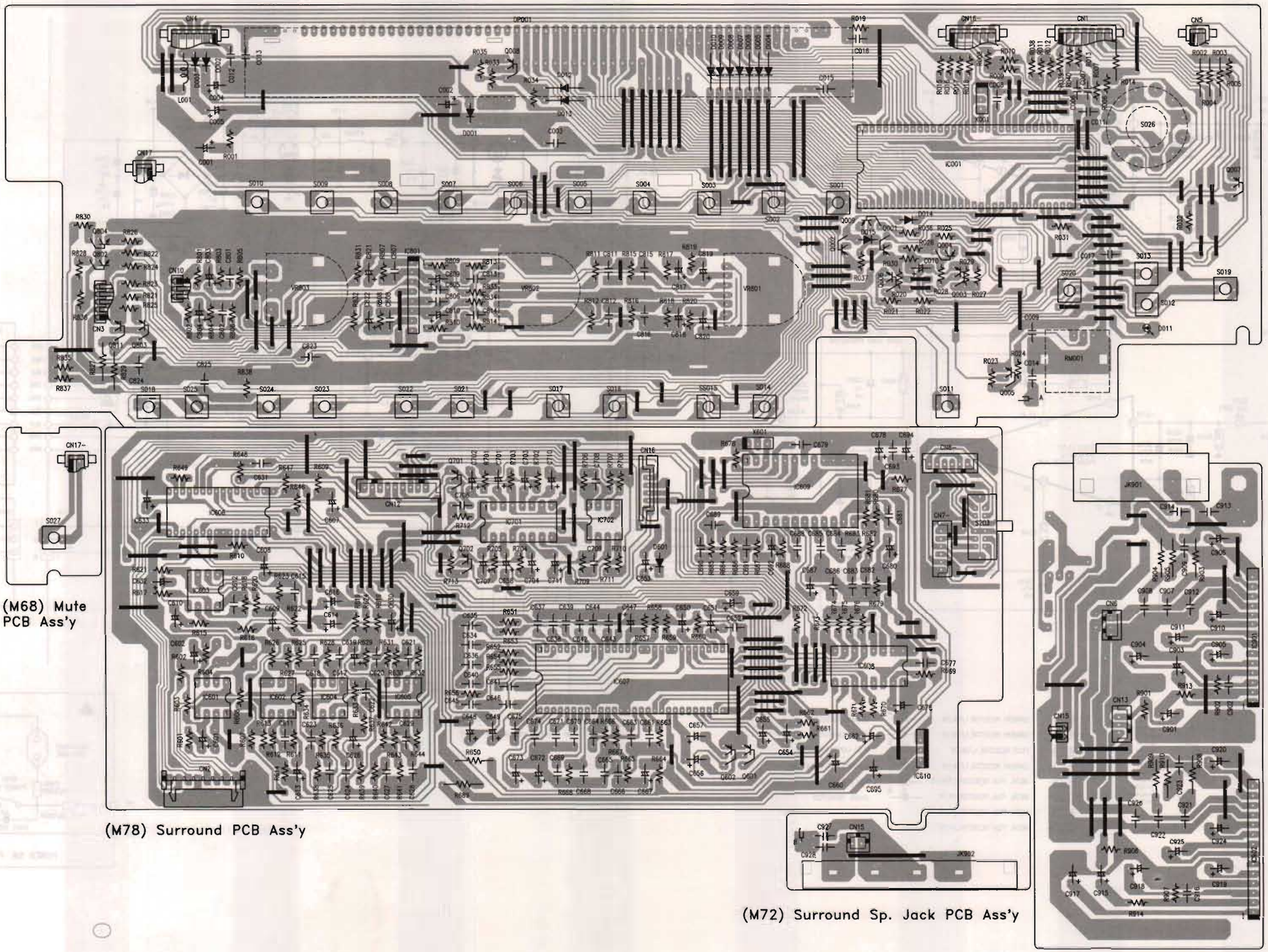
(M72) Surround Sp. Jack PCB Ass'y

(M78) Surround PCB Ass'y

(M68) Mute PCB Ass'y

P C Board-Solder Side

(M30) Front PCB Ass'y



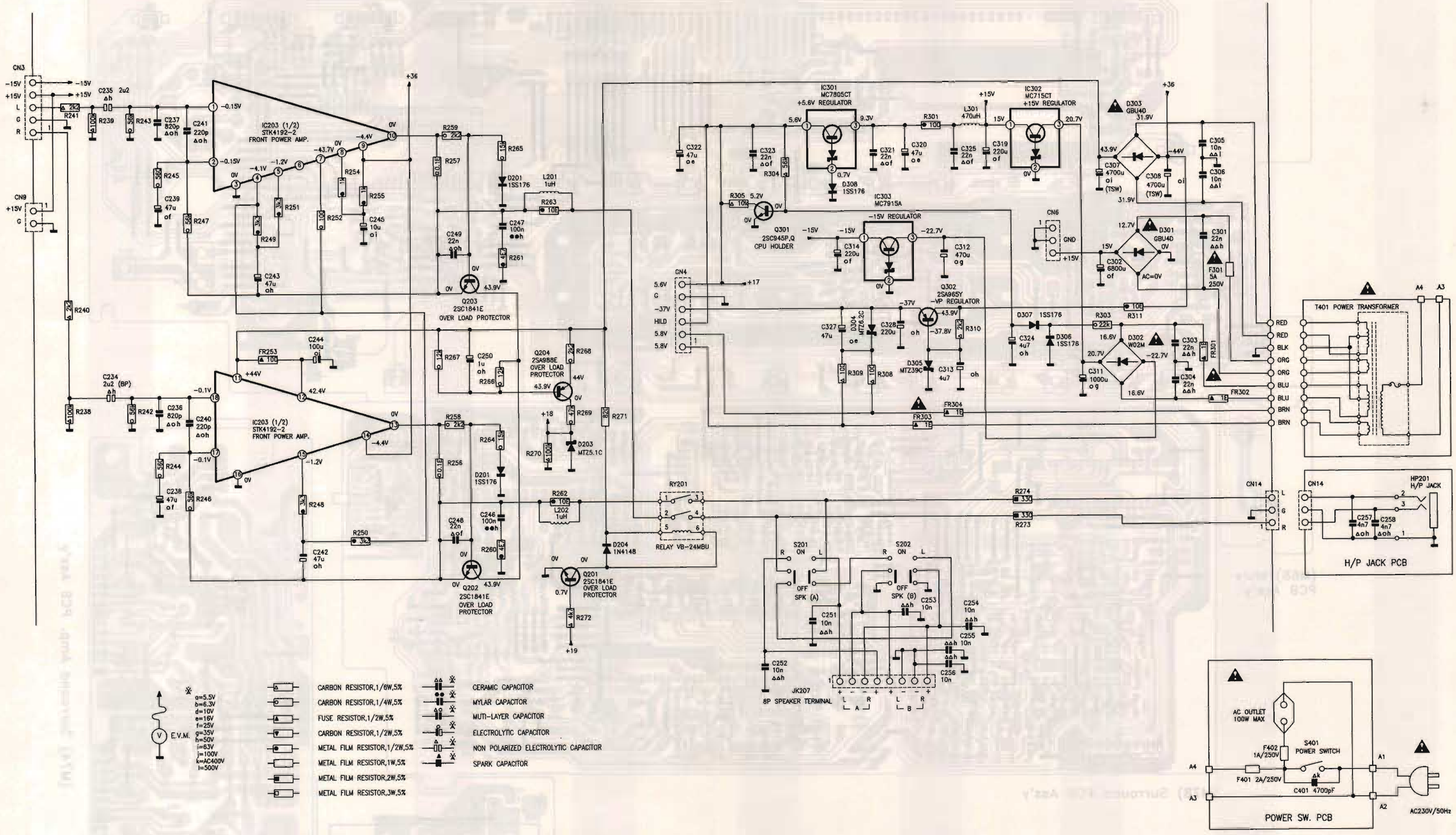
(M68) Mute PCB Ass'y

(M78) Surround PCB Ass'y

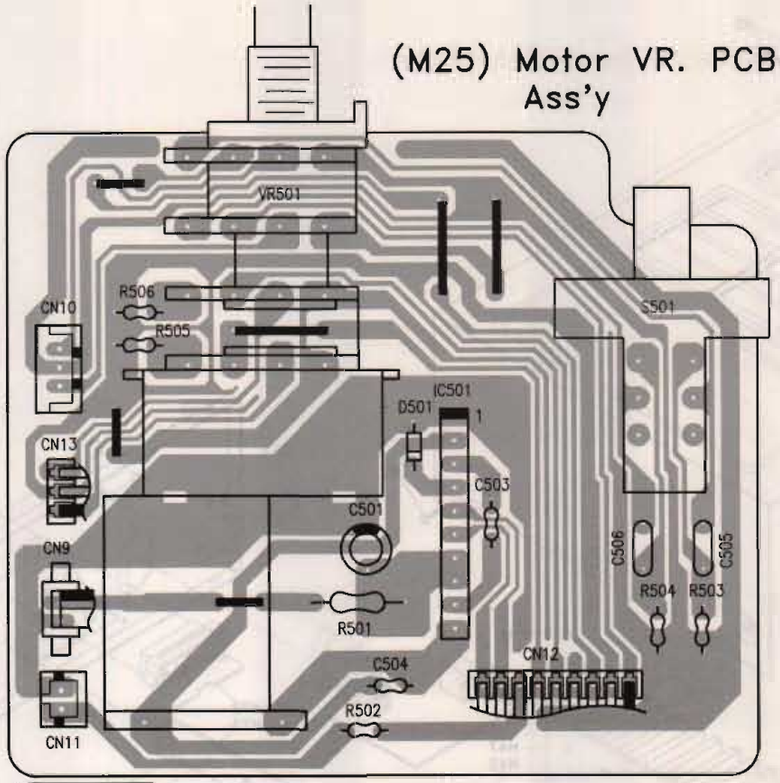
(M72) Surround Sp. Jack PCB Ass'y

(M74) Surround Amp. PCB Ass'y

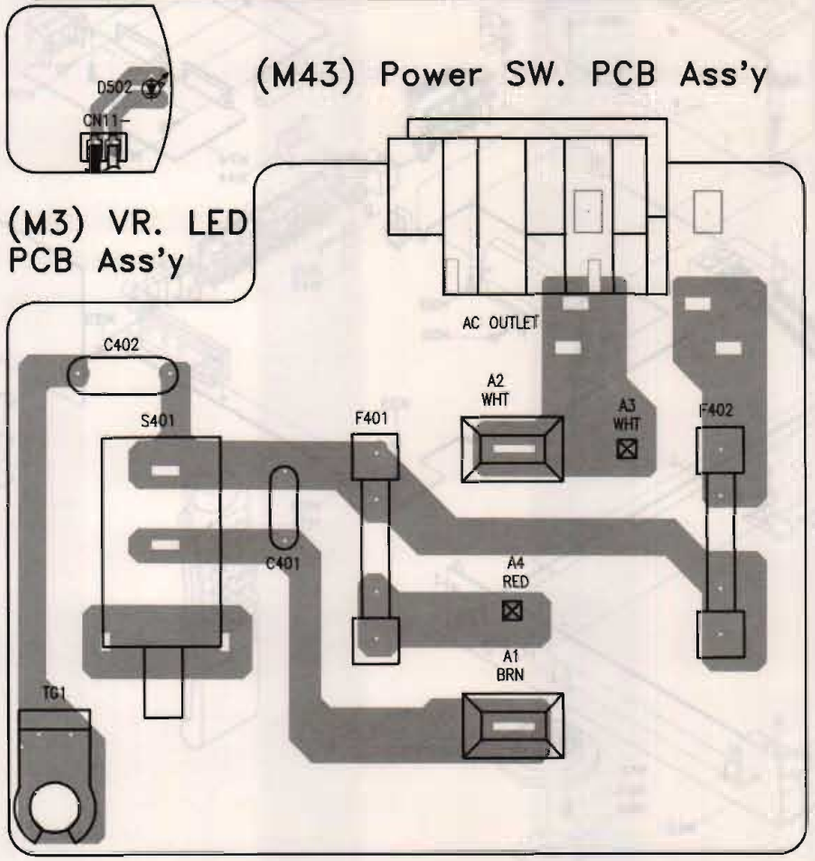
Schematic Diagram– Power



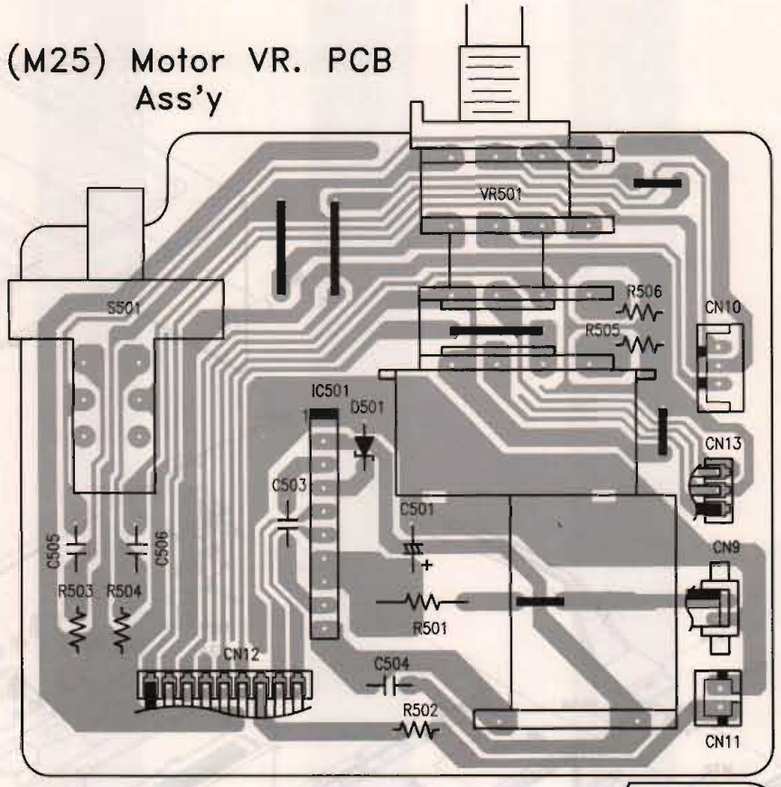
(M25) Motor VR. PCB Ass'y



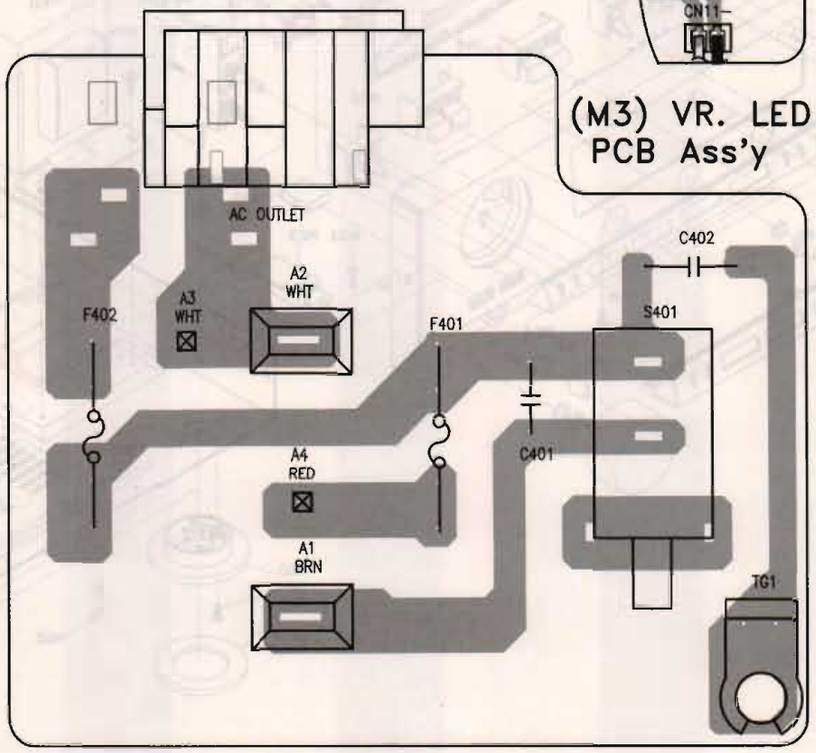
(M43) Power SW. PCB Ass'y



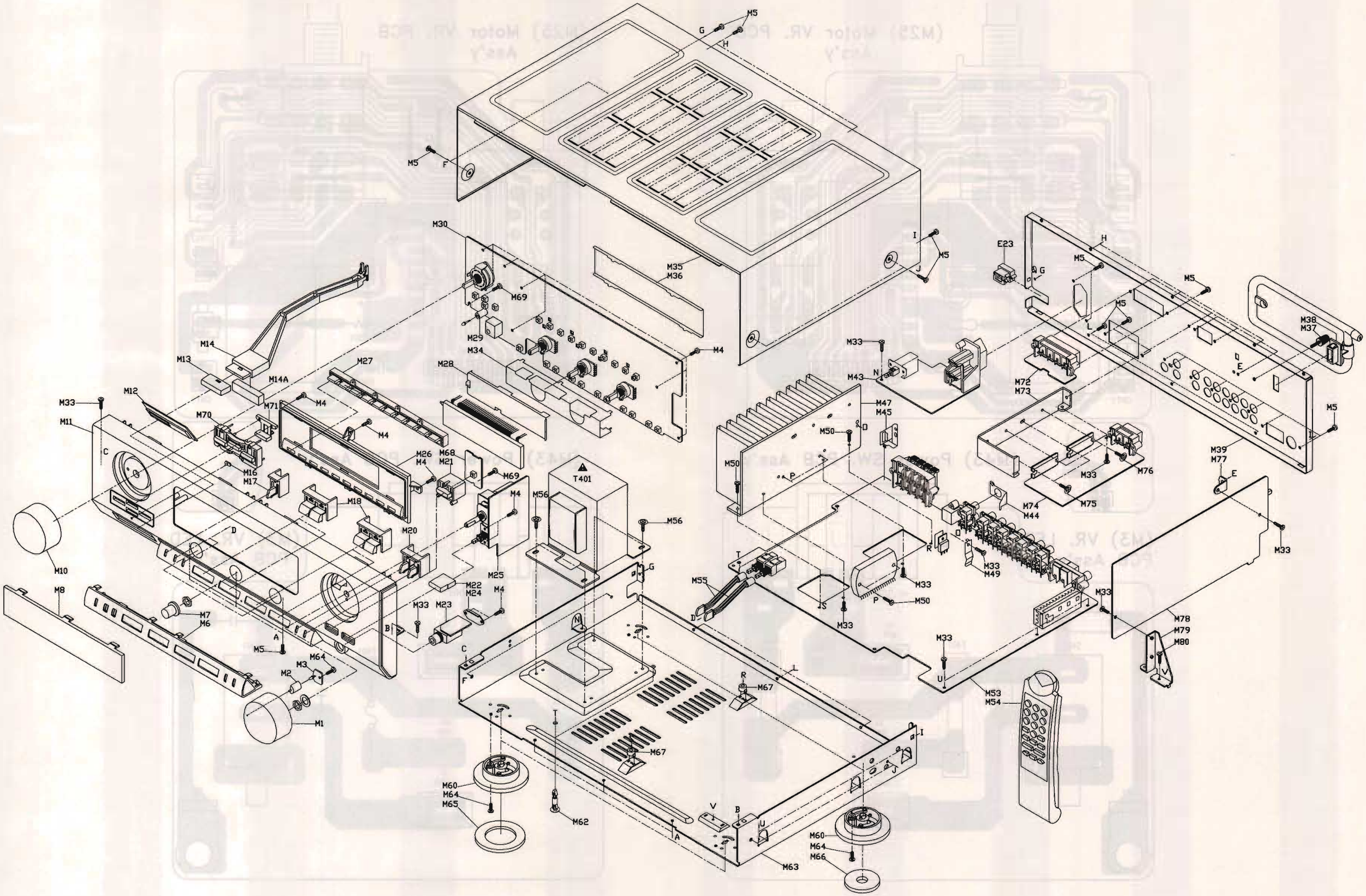
(M25) Motor VR. PCB Ass'y



(M43) Power SW. PCB Ass'y



Mechanical Exploded View



Mechanical Parts List

Ref.	Description	Part No.
M1	Volume knob	4822 413 51444
M2	Volume lens	4822 381 11388
M3	VR LED PCB assembly	---- --- -----
M6	Front nose	4822 426 90117
M7	Tone knob (3 used)	4822 413 41856
M8	Display window	4822 450 62018
M10	Select knob	4822 413 51445
M11	Front escutcheon	4822 413 51445
M12	IR window	4822 426 51741
M13	Power knob	4822 450 62247
M14	Power joint	4822 410 62451
M14A	Knob spacer	---- --- -----
M16	Power lens	4822 381 11387
M17	Sleep button	4822 410 63219
M18	Function button (A) (4 used)	4822 410 62452
M20	Memory button	4822 410 63221
M21	Muting button	4822 410 62456
M22	Loudness knob	4822 410 62473
M23	Headphone jack PCB assembly	---- --- -----
M24	Phone jack holder	---- --- -----
M25	Motor variable resistor PCB assembly	---- --- -----
M26	Window base	4822 459 40775
M27	Preset knob	4822 410 63253
M28	F.T.D. holder	---- --- -----
M29	LED holder (305)	---- --- -----
M30	Front PCB assembly	---- --- -----
M34	Shield cover 02	---- --- -----
M35	Top cover	---- --- -----
M36	Shield cover 03	---- --- -----
M37	GND knob 3Q	4822 413 90097
M38	Antenna holder	4822 256 92196
M39	Back board	---- --- -----
M43	Power switch PCB assembly	---- --- -----
M44	Earth terminal (S)	4822 290 40497
M45	Earth terminal (R)	---- --- -----
M47	Heat sink assembly	---- --- -----
M49	Transistor IC holder	4822 255 41328
M53	Main PCB assembly	---- --- -----
M54	Remote transmitter assembly	4822 218 10545
M55	Speaker knob (2 used)	4822 410 62474
M60	Foot (4 used)	4822 462 42093
M62	Spacer supporter A (2 used)	4822 404 21256
M63	Bottom chassis	---- --- -----
M65	Sole plate F (2 used)	4822 466 62491
M66	Sole plate R (2 used)	4822 466 62491
M67	Spacer supporter (2 used)	---- --- -----
M68	Mute switch PCB assembly	---- --- -----
M70	Cursor knob (U.D.)	4822 410 63251
M71	Cursor knob (-)	4822 410 63252
M72	Surround speaker jack PCB assembly	---- --- -----
M73	Heat sink	---- --- -----
M74	Surround amplifier PCB assembly	---- --- -----
M77	PCB bracket	---- --- -----
M78	Surround PCB assembly	---- --- -----
M79	ADD PCB bracket	---- --- -----

SCREWS

M4	7 (Taptite-P) BID3010 ZN3A (15 used)	---- --- -----
M5	9 (Taptite-B) BID3008 ZN3K (32 used)	---- --- -----
M33	9 (Taptite-B) BID3008 ZN3A (12 used)	---- --- -----
M50	9 (Taptite-B) BID3014 ZN3A (4 used)	---- --- -----
M56	6 (Taptite-S) CUP4006 ZN3A (4 used)	---- --- -----
M64	7 (Taptite-P) BID3008 ZN3A (5 used)	---- --- -----
M69	7 (Taptite-P) CUP3010 ZN3A (2 used)	---- --- -----
M75	9 (Taptite-B) CUP3012 ZN3A (2 used)	---- --- -----
M76	9 (Taptite-B) CUP3010 ZN3A (2 used)	---- --- -----
M80	9 (Taptite-B) BID3006 ZN3A	---- --- -----

MISCELLANEOUS

A1	Snow box (R)	---- --- -----
A2	Snow box (L)	---- --- -----
A3	Gift box	---- --- -----
A4	Soft sheet 60x110cm	---- --- -----
A5	Instruction book	4822 736 22216
A6	Poly bag (I/B) 23x40cm	---- --- -----
A7	Poly bag (AC cord) 5x20CM	---- --- -----
A19	Serial No. label (BLK)	---- --- -----
	Serial No. label (WHT)	---- --- -----
A21	G/B label	---- --- -----
A22	ES1 pop label	---- --- -----
A23	Warranty card	---- --- -----

Note: ---- --- ----- Indicates a not normally stocked item.

Replacement Parts List

Ref.	Description	Part No.
COILS & FILTERS		
L001	Peaking coil 470uH	4822 157 70363
L101	FM antenna coil PC-9269	4822 157 71193
L102	FM RF coil PC-8867	4822 157 60175
L103	FM oscillator coil R22-F036X	4822 156 10928
L104	AM antenna coil TWS-358-638	4822 156 21683
L105	AM oscillator coil TWS-358-673	4822 157 70979
L106	Peaking coil 22uH	4822 157 70206
L107	Peaking coil 22uH	4822 157 70206
L108	Inductance 39uH	4822 156 21684
L109	Inductance 39uH	4822 156 21684
L110	Peaking coil 22uH	4822 157 70206
L201	Spring coil 1.0uH	4822 157 70362
L202	Spring coil 1.0uH	4822 157 70362
L203	Ring coil 3.7uH	4822 157 70364
L204	Ring coil 3.7uH	4822 157 70364
L301	Peaking coil 470uH	4822 157 70363
T101	FM IFT TWS-358-425	4822 156 10938
T102	Ceramic filter TWS-358-679	4822 242 81643
T103	FM IF DET TWS-358-675	4822 157 70982
T104	FTZ L.P.F. 10FE01	4822 156 21682
T401 ▲	Power transformer EI-86 (T)	4822 146 31418
CF101	Ceramic filter SFE10.7MS3GYM RED	4822 242 72243
CF102	Ceramic filter SFE10.7MS3GYM RED	4822 242 72243
CF104	Resonator CSB456F15	4822 242 81644
X001	Ceramic resonator CST8.00MTW	4822 242 81758
X601	Ceramic resonator CST3.27MGW	4822 242 81757

CAPACITORS

Note: All capacitors are Mutli-layer ceramic, unless otherwise noted. C=±0.25pF D=±0.5pF J=±5%
K=±10% N=±30% Z=+80/-20% M=±20%
CH: Temperature compensation capacitor,temperature draft within 0±60PPM/°C

C001	0.1F/5.5V	(Z)	Gold	4822 124 22896
C002	100uF/10V	(M)	Electrolytic	4822 124 80824
C003	.01uF/16V	(K)		4822 126 12545
C004	100uF/10V	(M)	Electrolytic	4822 124 80426
C005	100uF/10V	(M)	Electrolytic	4822 124 80426
C006	.1uF/50V	(Z)		4822 126 12539
C007	.1uF/50V	(Z)		4822 126 12539
C008	.1uF/50V	(Z)		4822 126 12539
C009	.022uF/25V	(Z)		4822 126 12547
C010	47uF/10V	(M)	Electrolytic	4822 124 80429
C011	.01uF/16V	(K)		4822 126 12545
C012	.022uF/25V	(Z)		4822 126 12547
C013	.022uF/25V	(Z)		4822 126 12547
C014	.1uF/50V	(Z)		4822 126 12539
C015	.022uF/25V	(Z)		4822 126 12547
C016	.1uF/50V	(Z)		4822 126 12539
C105	.1uF/50V	(Z)	Ceramic	4822 126 13224
C111	.001uF/50V	(K)		4822 126 12533
C112	47uF/16V	(M)	Electrolytic	4822 124 40433
C113	47uF/16V	(M)	Electrolytic	4822 124 40433
C114	.022uF/25V	(Z)		4822 126 12547
C115	.1uF/50V	(Z)	Ceramic	4822 126 13224
C116	.1uF/50V	(Z)	Ceramic	4822 126 13224
C117	470pF/100V	(J)	Polypropylen	4822 121 43381
C120	220pF/50V	(K)		4822 126 12534
C121	.022uF/25V	(Z)		4822 126 12547
C122	.022uF/25V	(Z)		4822 126 12547

Ref.	Description	Part No.
CAPACITORS (Continued)		
C123	100uF/16V (M) Electrolytic	4822 124 80481
C124	.01uF/16V (K)	4822 126 12545
C125	10uF/25V (M) Electrolytic	4822 124 42417
C126	10uF/25V (M) Electrolytic	4822 124 42417
C127	3.3uF/50V (M) Electrolytic	4822 124 80428
C128	.047uF/50V (Z)	4822 126 12541
C129	.047uF/50V (Z)	4822 126 12541
C130	.0068uF/50V (J) Mylar	4822 121 70263
C132	.047uF/50V (Z)	4822 126 12541
C133	1uF/50V (M) Electrolytic	4822 124 40242
C134	33pF/50V (J)	4822 126 12595
C135	1uF/50V (M) Electrolytic	4822 124 40242
C136	0.1uF/50V (M) Electrolytic	5322 124 41473
C137	.47uF/50V (M) Electrolytic	4822 124 20719
C138	.01uF/50V (J) Mylar	4822 121 41857
C139	.01uF/50V (J) Mylar	4822 121 41857
C140	3.3uF/50V (M) Electrolytic	4822 124 80428
C141	3.3uF/50V (M) Electrolytic	4822 124 80428
C142	100pF/50V (K)	4822 126 12532
C143	100pF/50V (K)	4822 126 12532
C144	100uF/25V (M) Electrolytic	4822 124 40207
C145	100uF/25V (M) Electrolytic	4822 124 40207
C146	3.3uF/50V (M) Electrolytic	4822 124 80428
C147	3.3uF/50V (M) Electrolytic	4822 124 80428
C148	.001uF/50V (J) Mylar	4822 121 43897
C149	.001uF/50V (J) Mylar	4822 121 43897
C150	.001uF/50V (J) Mylar	4822 121 43897
C151	.001uF/50V (J) Mylar	4822 121 43897
C152	100uF/16V (M) Electrolytic	4822 124 80481
C153	.022uF/25V (Z)	4822 126 12547
C154	100uF/16V (M) Electrolytic	4822 124 80481
C155	3.3uF/50V (M) Electrolytic	4822 124 80428
C156	.01uF/16V (K)	4822 126 12545
C157	.01uF/16V (K)	4822 126 12545
C158	.01uF/16V (K)	4822 126 12545
C159	.001uF/50V (K)	4822 126 12533
C160	.001uF/50V (K)	4822 126 12533
C161	27pF/50V (J) Ceramic "CH"	5322 122 32776
C162	27pF/50V (J) Ceramic "CH"	5322 122 32776
C163	10uF/25V (M) Electrolytic	4822 124 40248
C164	.022uF/25V (Z)	4822 126 12547
C167	.022uF/25V (Z)	4822 126 12547
C168	.022uF/25V (Z)	4822 126 12547
C169	.022uF/25V (Z)	4822 126 12547
C170	.022uF/25V (Z)	4822 126 12547
C171	15pF/50V (J)	4822 122 31823
C172	.022uF/25V (Z)	4822 126 12547
C173	.01uF/16V (K)	4822 126 12545
C174	47uF/16V (M) Electrolytic	4822 124 40433
C200	.1uF/50V (Z)	4822 126 12539
C201	100pF/50V (K)	4822 126 12532
C202	100pF/50V (K)	4822 126 12532
C203	100pF/50V (K)	4822 126 12532
C204	100pF/50V (K)	4822 126 12532
C205	1uF/50V (M) Electrolytic	4822 124 40242
C206	1uF/50V (M) Electrolytic	4822 124 40242
C207	100pF/50V (K)	4822 126 12532
C208	100pF/50V (K)	4822 126 12532
C209	22uF/16V (M) Electrolytic	5322 124 41431
C210	22uF/16V (M) Electrolytic	5322 124 41431
C211	.0047uF/50V (J) Mylar	4822 121 70262
C212	.0047uF/50V (J) Mylar	4822 121 70262
C213	.0015uF/50V (J) Mylar	5322 121 70042
C214	.0015uF/50V (J) Mylar	5322 121 70042
C215	4.7uF/50V (M) Electrolytic	4822 124 80431
C216	4.7uF/50V (M) Electrolytic	4822 124 80431

Replacement Parts List (Continued)

Ref.	Description	Part No.
CAPACITORS (Continued)		
C217	100uF/25V (M) Electrolytic	4822 124 40207
C218	100uF/25V (M) Electrolytic	4822 124 40207
C219	.022uF/25V (Z)	4822 126 12547
C220	.022uF/25V (Z)	4822 126 12547
C221	100pF/50V (K)	4822 126 12532
C222	100pF/50V (K)	4822 126 12532
C223	100pF/50V (K)	4822 126 12532
C224	100pF/50V (K)	4822 126 12532
C225	100pF/50V (K)	4822 126 12532
C226	100pF/50V (K)	4822 126 12532
C227	100pF/50V (K)	4822 126 12532
C228	100pF/50V (K)	4822 126 12532
C229	100pF/50V (K)	4822 126 12532
C230	100pF/50V (K)	4822 126 12532
C231	10uF/25V (M) Electrolytic "NON"	4822 124 80434
C232	.1uF/50V (Z)	4822 126 12539
C233	4.7uF/50V (M) Electrolytic	4822 124 80431
C234	2.2uF/50V (M) Electrolytic "NON"	4822 124 80436
C235	2.2uF/50V (M) Electrolytic "NON"	4822 124 80436
C236	820pF/50V (K)	4822 126 12538
C237	820pF/50V (K)	4822 126 12538
C238	47uF/25V (M) Electrolytic	4822 124 40433
C239	47uF/25V (M) Electrolytic	4822 124 40433
C240	220pF/50V (K)	4822 126 12534
C241	220pF/50V (K)	4822 126 12534
C242	47uF/50V (M) Electrolytic	4822 124 40246
C243	47uF/50V (M) Electrolytic	4822 124 40246
C244	100uF/63V (M) Electrolytic	4822 124 40255
C245	10uF/63V (M) Electrolytic	4822 124 40248
C246	.1uF/50V (J) Mylar	4822 121 70259
C247	.1uF/50V (J) Mylar	4822 121 70259
C248	.022uF/25V (Z)	4822 126 12547
C249	.022uF/25V (Z)	4822 126 12547
C250	1uF/50V (M) Electrolytic	4822 124 40242
C251	.0022uF/50V (K) Ceramic	4822 126 13204
C252	.0022uF/50V (K) Ceramic	4822 126 13204
C253	.0022uF/50V (K) Ceramic	4822 126 13204
C254	.0022uF/50V (K) Ceramic	4822 126 13204
C255	.0022uF/50V (K) Ceramic	4822 126 13204
C256	.0022uF/50V (K) Ceramic	4822 126 13204
C257	.0047uF/16V (K)	4822 125 12601
C260	.1uF/50V (Z)	4822 126 12539
C301	.022uF/50V (Z) Ceramic	4822 126 13073
C302	6800uF/25V (M) Electrolytic	4822 124 80884
C303	.022uF/50V (Z) Ceramic	4822 126 13073
C304	.022uF/50V (Z) Ceramic	4822 126 13073
C305	.01uF/500V (Z) Ceramic F:5 mm	4822 124 80684
C306	.01uF/500V (Z) Ceramic F:5 mm	4822 124 80684
C307	4700uF/63V (M) Electrolytic "TSW"	4822 124 80432
C308	4700uF/63V (M) Electrolytic "TSW"	4822 124 80432
C311	1000uF/35V (M) Electrolytic	4822 124 80427
C312	470uF/35V (M) Electrolytic	4822 124 41334
C313	4.7uF/50V (M) Electrolytic	4822 124 80431
C314	220uF/25V (M) Electrolytic	4822 124 41716
C319	220uF/25V (M) Electrolytic	4822 124 41716
C320	47uF/16V (M) Electrolytic	4822 124 40433
C321	.022uF/25V (Z)	4822 126 12547
C322	47uF/16V (M) Electrolytic	4822 124 40433
C323	.022uF/25V (Z)	4822 126 12547
C324	4.7uF/50V (M) Electrolytic	4822 124 80431
C325	.022uF/25V (Z)	4822 126 40244

Ref.	Description	Part No.
CAPACITORS (Continued)		
C327	47uF/16V (M) Electrolytic	4822 124 40433
C328	220uF/50V (M) Electrolytic	4822 124 80526
▲ C401	4700pF/ AC400V (Z) Spark "L"	4822 124 22017
C501	100uF/16V (M) Electrolytic	4822 124 80481
C503	.1uF/50V (Z)	4822 126 12539
C504	.1uF/50V (Z)	4822 126 12539
C505	.039uF/50V (J) Mylar	4822 121 70261
C506	.039uF/50V (J) Mylar	4822 121 70261
C601	1uF/50V (M) Electrolytic	4822 124 40242
C602	1uF/50V (M) Electrolytic	4822 124 40242
C607	10uF/25V (M) Electrolytic	4822 124 42417
C608	10uF/25V (M) Electrolytic	4822 124 42417
C609	1uF/50V (M) Electrolytic	4822 124 40242
C610	1uF/50V (M) Electrolytic	4822 124 40242
C611	100pF/50V (K)	4822 126 12532
C612	100pF/50V (K)	4822 126 12532
C613	1uF/50V (M) Electrolytic	4822 124 40242
C614	1uF/50V (M) Electrolytic	4822 124 40242
C615	100pF/50V (K)	4822 126 12532
C616	1uF/50V (M) Electrolytic	4822 124 40242
C617	100pF/50V (K)	4822 126 12532
C619	1uF/50V (M) Electrolytic	4822 124 40242
C620	.068uF/50V (J) Mylar	5322 121 42662
C621	47pF/50V (J)	4822 126 12544
C622	.033uF/50V (J) Mylar	5322 121 42489
C623	.033uF/50V (J) Mylar	5322 121 42489
C624	.033uF/50V (J) Mylar	5322 121 42489
C625	.1uF/50V (J) Mylar	4822 121 70259
C626	1uF/50V (M) Electrolytic	4822 124 40242
C627	.01uF/50V (J) Mylar	4822 121 41857
C628	.0015uF/50V (J) Mylar	5322 121 70042
C629	47pF/50V (J)	4822 126 12544
C630	.22uF/50V (M) Electrolytic	4822 124 40746
C631	.033uF/50V (J) Mylar	5322 121 42489
C632	10uF/25V (M) Electrolytic	4822 124 42417
C633	10uF/25V (M) Electrolytic	4822 124 42417
C634	.1uF/50V (J) Mylar	4822 121 70259
C635	.1uF/50V (J) Mylar	4822 121 70259
C636	.1uF/50V (J) Mylar	4822 121 70259
C637	.022uF/50V (J) Mylar	4822 121 41856
C638	.022uF/50V (J) Mylar	4822 121 41856
C639	680pF/50V (K)	4822 126 12537
C640	.1uF/50V (J) Mylar	4822 121 70259
C641	.1uF/50V (J) Mylar	4822 121 70259
C642	.047uF/50V (J) Mylar	4822 121 43526
C643	.047uF/50V (J) Mylar	4822 121 43526
C644	680pF/50V (K)	4822 126 12537
C645	.1uF/50V (J) Mylar	4822 121 70259
C646	.1uF/50V (J) Mylar	4822 121 70259
C647	10uF/25V (M) Electrolytic "LN"	4822 124 80992
C648	10uF/25V (M) Electrolytic	4822 124 42417
C649	10uF/25V (M) Electrolytic	4822 124 42417
C650	10uF/25V (M) Electrolytic	4822 124 42417
C651	22uF/16V (M) Electrolytic	5322 124 41431
C652	.0047uF/50V (J) Mylar	4822 121 70262
C653	10uF/25V (M) Electrolytic	4822 124 42417
C654	10uF/25V (M) Electrolytic	4822 124 42417
C655	10uF/25V (M) Electrolytic	4822 124 42417
C656	.22uF/50V (M) Electrolytic	4822 124 40746
C657	10uF/25V (M) Electrolytic	4822 124 42417
C658	10uF/25V (M) Electrolytic	4822 124 42417
C659	10uF/25V (M) Electrolytic	4822 124 42417
C660	100uF/16V (M) Electrolytic	4822 124 80481
C661	.0056uF/50V (J) Mylar	4822 121 42469

Replacement Parts List (Continued)

Ref.	Description	Part No.
CAPACITORS (Continued)		
C662	220uF/10V (M) Electrolytic	4822 124 42418
C663	.047uF/50V (J) Mylar	4822 121 43526
C664	680pF/50V (K)	4822 126 12537
C665	.0082uF/50V (J) Mylar	4822 121 43898
C666	.0039uF/50V (J) Mylar	5322 121 42927
C667	4.7uF/50V (M) Electrolytic	4822 124 80431
C668	.68uF/63V (J) Metalized polyester	5322 121 42498
C669	.22uF/63V (J) Metalized polyester	4822 121 70328
C670	.22uF/63V (J) Metalized polyester	4822 121 70328
C671	.22uF/63V (J) Metalized polyester	4822 121 70328
C672	4.7uF/50V (M) Electrolytic	4822 124 80431
C673	4.7uF/50V (M) Electrolytic	4822 124 80431
C674	.22uF/63V (J) Metalized polyester	4822 121 70328
C675	.1uF/50V (J) Mylar	4822 121 70259
C676	22uF/16V (M) Electrolytic	5322 124 41431
C677	.001uF/50V (K)	4822 126 12533
C678	10uF/25V (M) Electrolytic	4822 124 42417
C679	.001uF/50V (K)	4822 126 12533
C680	1uF/50V (M) Electrolytic	4822 124 40242
C681	330pF/50V (K)	4822 126 13071
C682	.0047uF/50V (J) Mylar	4822 121 70262
C683	.0047uF/50V (J) Mylar	4822 121 70262
C684	.1uF/50V (J) Mylar	4822 121 70259
C685	.47uF/63V (J) Metalized polyester	4822 121 51252
C686	.47uF/63V (J) Metalized polyester	4822 121 51252
C687	1uF/50V (M) Electrolytic	4822 124 40242
C688	.1uF/50V (J) Mylar	4822 121 70259
C689	470pF/50V (K)	4822 126 12535
C690	.0068uF/50V (J) Mylar	4822 121 70263
C691	.0068uF/50V (J) Mylar	4822 121 70263
C692	1uF/50V (M) Electrolytic	4822 124 40242
C693	.01uF/16V (K)	4822 126 12545
C694	100uF/16V (M) Electrolytic	4822 124 80481
C695	10uF/25V (M) Electrolytic	4822 124 42417
C701	1uF/50V (M) Electrolytic	4822 124 40242
C702	1uF/50V (M) Electrolytic	4822 124 40242
C703	4.7uF/50V (M) Electrolytic	4822 124 80431
C704	4.7uF/50V (M) Electrolytic	4822 124 80431
C706	.047uF/50V (Z)	4822 126 12541
C707	1uF/50V (M) Electrolytic	4822 124 40242
C710	4.7uF/50V (M) Electrolytic	4822 124 80431
C711	4.7uF/50V (M) Electrolytic	4822 124 80431
C801	220pF/50V (K)	4822 126 12534
C802	220pF/50V (K)	4822 126 12534
C803	4.7uF/50V (M) Electrolytic	4822 124 80431
C804	4.7uF/50V (M) Electrolytic	4822 124 80431
C805	100pF/50V (K)	4822 126 12532
C806	100pF/50V (K)	4822 126 12532
C807	22pF/50V (J)	4822 126 12542
C808	22pF/50V (J)	4822 126 12542
C809	10uF/25V (M) Electrolytic	4822 124 42417
C810	10uF/25V (M) Electrolytic	4822 124 42417
C811	.0068uF/50V (J) Mylar	4822 121 70263
C812	.0068uF/50V (J) Mylar	4822 121 70263
C813	.039uF/50V (J) Mylar	4822 121 70261
C814	.039uF/50V (J) Mylar	4822 121 70261
C815	.047uF/50V (J) Mylar	4822 121 43526
C816	.047uF/50V (J) Mylar	4822 121 43526
C817	.33uF/50V (M) Electrolytic	4822 124 40748
C818	.33uF/50V (M) Electrolytic	4822 124 40748

Ref.	Description	Part No.
CAPACITORS (Continued)		
C819	2.2uF/50V (M) Electrolytic	4822 124 40244
C820	2.2uF/50V (M) Electrolytic	4822 124 40244
C821	4.7uF/50V (M) Electrolytic	4822 124 80431
C822	4.7uF/50V (M) Electrolytic	4822 124 80431
C823	.022uF/25V (Z)	4822 126 12547
C824	.022uF/25V (Z)	4822 126 12547
C825	.047uF/50V (Z)	4822 126 12541
C901	4.7uF/50V (M) Electrolytic	4822 124 80431
C902	.001uF/50V (K)	4822 126 12533
C903	100uF/16V (M) Electrolytic	4822 124 80814
C904	330uF/10V (M) Electrolytic	4822 124 40849
C905	330uF/25V (M) Electrolytic	4822 124 20705
C906	220uF/16V (M) Electrolytic	4822 124 20693
C907	.15uF/50V (J) Mylar	4822 121 41854
C908	.15uF/50V (J) Mylar	4822 121 41854
C909	.01uF/50V (J) Mylar	4822 121 41857
C910	220uF/16V (M) Electrolytic	4822 124 20693
C911	100uF/16V (M) Electrolytic	4822 124 80481
C912	.1uF/50V (J) Mylar	4822 121 70259
C915	4.7uF/50V (M) Electrolytic	4822 124 80431
C916	.001uF/50V (K)	4822 126 12533
C917	100uF/16V (M) Electrolytic	4822 124 80481
C918	330uF/10V (M) Electrolytic	4822 124 40849
C919	330uF/25V (M) Electrolytic	4822 124 20705
C920	220uF/16V (M) Electrolytic	4822 124 20693
C921	.15uF/50V (J) Mylar	4822 121 41854
C922	.15uF/50V (J) Mylar	4822 121 41854
C923	.01uF/50V (J) Mylar	4822 121 41857
C924	220uF/16V (M) Electrolytic	4822 124 20693
C925	100uF/16V (M) Electrolytic	4822 124 80481
C926	.1uF/50V (J) Mylar	4822 121 70259

RESISTORS

Note: All resistors are carbon film, ±5% and 1/6 watt, unless otherwise noted.

R001	470 ohm	4822 050 14701
R002	2.2K ohm, 1/4W	4822 050 22202
R004	10K ohm, 1/4W	4822 050 21003
R005	10K ohm	4822 050 11003
R006	22K ohm	4822 050 12203
R007	22K ohm	4822 050 12203
R008	10K ohm	4822 050 11003
R009	10K ohm	4822 050 11003
R010	10K ohm	4822 050 11003
R011	10K ohm	4822 050 11003
R012	10K ohm	4822 050 11003
R013	10K ohm	4822 050 11003
R014	10K ohm, 1/4W	4822 050 21003
R015	10K ohm	4822 050 11003
R016	10K ohm	4822 050 11003
R017	10K ohm	4822 050 11003
R018	10K ohm	4822 050 11003
R019	100K ohm	4822 050 11004
R020	47K ohm	4822 050 14703
R021	18K ohm	4822 050 11803
R022	47K ohm	4822 050 14703
R023	47K ohm	4822 050 14703
R024	47K ohm	4822 050 14703
R025	47K ohm	4822 050 14703
R026	47K ohm	4822 050 14703
R027	47K ohm	4822 050 14703
R028	47K ohm	4822 050 14703
R029	18K ohm	4822 050 11803
R030	100 ohm	4822 050 11001

Replacement Parts List (Continued)

Ref.	Description	Part No.
RESISTORS (Continued)		
R031	150 ohm	4822 050 11501
R032	10K ohm	4822 050 11003
R033	100K ohm	4822 050 11004
R034	1M ohm	4822 050 11005
R035	100K ohm	4822 050 11004
R036	100K ohm	4822 050 11004
R037	1K ohm	4822 050 11002
R038	10K ohm	4822 050 11003
R039	10K ohm	4822 050 11003
R040	10K ohm	4822 050 11003
R109	22 ohm	4822 050 12209
R110	270K ohm	4822 050 12704
R112	680 ohm	4822 050 16801
R114	1K ohm	4822 050 11002
R115	2.2K ohm	4822 050 12202
R116	100K ohm	4822 050 11004
R117	100K ohm	4822 050 11004
R118	330 ohm	4822 050 13301
R119	470 ohm, 1/4W	4822 116 52155
R120	2.2K ohm	4822 050 12202
R121	47K ohm	4822 050 14703
R122	3.3K ohm, 1/4W	4822 050 23302
R123	22K ohm	4822 050 12203
R124	220K ohm	4822 050 12204
R125	5.6K ohm	4822 050 15602
R126	3.3K ohm	4822 050 13302
R127	10K ohm	4822 050 11003
R128	150 ohm, 1/2W Metal (Flame-proof)	4822 117 11199
R129	3.9K ohm	4822 050 13902
R130	47K ohm	4822 050 14703
R131	47K ohm	4822 050 14703
R132	47K ohm	4822 050 14703
R133	47K ohm	4822 050 14703
R134	39K ohm	4822 050 13903
R135	39K ohm	4822 050 13903
R136	3.3K ohm	4822 050 13302
R137	3.3K ohm	4822 050 13302
R138	5.6K ohm	4822 050 15602
R139	5.6K ohm	4822 050 15602
R140	3.3K ohm	4822 050 13302
R141	3.3K ohm	4822 050 13302
R142	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189
R143	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189
R144	2.2K ohm, 1/4W	4822 050 22202
R145	10K ohm	4822 050 11003
R146	3.3K ohm	4822 050 13302
R147	6.8K ohm	4822 050 16802
R148	1K ohm	4822 050 11002
R149	560 ohm	4822 050 15601
R150	47K ohm	4822 050 14703
R151	47K ohm, 1/4W	4822 050 24703
R152	47K ohm, 1/4W	4822 050 24703
R153	47K ohm, 1/4W	4822 050 24703
R154	47K ohm, 1/4W	4822 050 24703
R155	3.3K ohm, 1/4W	4822 050 23302
R156	47K ohm	4822 050 14703
R157	47K ohm, 1/4W	4822 050 24703
R158	47 ohm, 1/4W	4822 050 24709
R159	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189
R161	100 ohm	4822 050 11001
R162	1K ohm	4822 050 11002
R201	150 ohm	4822 050 11501
R202	150 ohm	4822 050 11501

Ref.	Description	Part No.
RESISTORS (Continued)		
R203	560K ohm	4822 050 15604
R204	560K ohm	4822 050 15604
R205	56K ohm	4822 050 15603
R206	56K ohm	4822 050 15603
R207	1K ohm	4822 050 11002
R208	1K ohm	4822 050 11002
R209	100K ohm	4822 050 11004
R210	100K ohm	4822 050 11004
R211	510K ohm	4822 050 15104
R212	510K ohm	4822 050 15104
R213	47K ohm	4822 050 14703
R214	47K ohm	4822 050 14703
R215	1K ohm	4822 050 11002
R216	1K ohm	4822 050 11002
R217	100K ohm	4822 050 11004
R218	100K ohm	4822 050 11004
R219	1K ohm, 1/4W	4822 050 21002
R220	1K ohm, 1/4W	4822 050 21002
R221	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189
R222	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189
R223	220 ohm	4822 050 12201
R224	220 ohm	4822 050 12201
R225	560 ohm	4822 050 15601
R226	560 ohm	4822 050 15601
R227	220 ohm	4822 050 12201
R228	220 ohm	4822 050 12201
R229	560 ohm	4822 050 15601
R230	560 ohm	4822 050 15601
R231	220 ohm	4822 050 12201
R232	220 ohm	4822 050 12201
R233	1K ohm	4822 050 11002
R234	100K ohm	4822 050 11004
R235	100K ohm	4822 050 11004
R236	1K ohm	4822 050 11002
R237	1K ohm, 1/4W	4822 050 21002
R238	100K ohm	4822 050 11004
R239	100K ohm	4822 050 11004
R240	2.2K ohm	4822 050 12202
R241	2.2K ohm	4822 050 12202
R242	56K ohm, 1/4W	4822 050 25603
R243	56K ohm, 1/4W	4822 050 25603
R244	560 ohm, 1/4W	4822 050 25601
R245	560 ohm, 1/4W	4822 050 25601
R246	56K ohm, 1/4W	4822 050 25603
R247	56K ohm, 1/4W	4822 050 25603
R248	3.3K ohm, 1/2W Metal (Flame-proof)	4822 117 10192
R249	3.3K ohm, 1/2W Metal (Flame-proof)	4822 117 10192
R250	3.3K ohm, 1/2W Metal (Flame-proof)	4822 117 10192
R251	3.3K ohm, 1/2W Metal (Flame-proof)	4822 117 10192
R252	100 ohm, 1/4W	5322 116 55549
R254	1K ohm, 1/2W Metal (Flame-proof)	4822 117 10191
R255	1K ohm, 1/2W Metal (Flame-proof)	4822 117 10191
R256	.1 ohm, 3W Cement	4822 113 90241
R257	.1 ohm, 3W Cement	4822 113 90241
R258	2.2K ohm, 1/4W	4822 050 22202
R259	2.2K ohm, 1/4W	4822 050 22202
R260	4.7 ohm, 1/2W Metal (Flame-proof)	4822 117 10193

Replacement Parts List (Continued)

Ref.	Description	Part No.
RESISTORS (Continued)		
R261	4.7 ohm, 1/2W Metal (Flame-proof)	4822 117 10193
R262	10 ohm, 1/2W Metal (Flame-proof)	4822 117 10188
R263	10 ohm, 1/2W Metal (Flame-proof)	4822 117 10188
R264	15K ohm, 1/4W	4822 050 21503
R265	15K ohm, 1/4W	4822 050 21503
R266	12K ohm, 1/4W	4822 050 21203
R267	12K ohm, 1/4W	4822 050 21203
R268	2.2K ohm, 1/4W	4822 050 22202
R269	47K ohm, 1/4W	4822 050 24703
R270	100K ohm	4822 050 11004
R271	820 ohm, 1W Metal (Flame-proof)	4822 117 10198
R272	4.7K ohm	4822 050 14702
R273	330 ohm, 2W Metal (Flame-proof)	4822 117 10122
R274	330 ohm, 2W Metal (Flame-proof)	4822 117 10122
R301	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189
R303	22K ohm, 1/4W	4822 116 52257
R304	56K ohm	4822 050 15603
R305	10K ohm	4822 050 11003
R308	100 ohm	4822 050 11001
R309	100 ohm	4822 050 11001
R310	2.2K ohm	4822 050 12202
R311	10 ohm, 1/2W Metal (Flame-proof)	4822 117 10188
R501	33 ohm, 1/2W Metal (Flame-proof)	4822 117 11201
R502	150 ohm	4822 050 11501
R503	6.8K ohm	4822 050 16802
R504	6.8K ohm	4822 050 16802
R505	6.8K ohm	4822 050 16802
R506	6.8K ohm	4822 050 16802
R601	4.7K ohm	4822 050 14702
R602	4.7K ohm	4822 050 14702
R603	33K ohm	4822 050 13303
R604	33K ohm	4822 050 13303
R607	10K ohm	4822 050 11003
R608	10K ohm	4822 050 11003
R609	100K ohm	4822 050 11004
R610	100K ohm	4822 050 11004
R611	10K ohm	4822 050 11003
R612	10K ohm	4822 050 11003
R613	10K ohm	4822 050 11003
R614	100K ohm	4822 050 11004
R615	10K ohm	4822 050 11003
R616	3.3K ohm	4822 050 13302
R617	3.3K ohm	4822 050 13302
R618	10K ohm	4822 050 11003
R619	100K ohm	4822 050 11004
R620	10K ohm	4822 050 11003
R621	3.3K ohm	4822 050 13302
R622	3.3K ohm	4822 050 13302
R623	10K ohm	4822 050 11003
R624	100K ohm	4822 050 11004
R625	15K ohm	4822 050 11503
R626	15K ohm	4822 050 11503
R627	33K ohm	4822 050 13303
R628	33K ohm	4822 050 13303
R629	100K ohm	4822 050 11004
R630	22K ohm	4822 050 12203
R631	22K ohm	4822 050 12203
R632	22K ohm	4822 050 12203

Ref.	Description	Part No.
RESISTORS (Continued)		
R633	22K ohm	4822 050 12203
R634	10K ohm	4822 050 11003
R635	10K ohm	4822 050 11003
R636	15K ohm	4822 050 11503
R637	3.3K ohm	4822 050 13302
R638	6.8K ohm	4822 050 16802
R639	3.3K ohm	4822 050 13302
R640	6.8K ohm	4822 050 16802
R641	1.5K ohm	4822 050 11502
R642	22K ohm	4822 050 12203
R643	22K ohm	4822 050 12203
R644	22K ohm	4822 050 12203
R645	100K ohm	4822 050 11004
R646	2.2K ohm	4822 050 12202
R647	4.7K ohm	4822 050 14702
R648	100K ohm	4822 050 11004
R649	100K ohm	4822 050 11004
R650	100 ohm, 1/2W Metal (Flame-proof)	4822 117 10189
R651	15K ohm	4822 050 11503
R652	7.5K ohm	4822 116 52299
R653	47K ohm	4822 050 14703
R654	7.5K ohm	4822 116 52299
R655	47K ohm	4822 050 14703
R656	15K ohm	4822 050 11503
R657	10M ohm	4822 053 20106
R658	22K ohm	4822 050 12203
R659	22K ohm	4822 050 12203
R660	100K ohm	4822 050 11004
R661	100K ohm	4822 050 11004
R662	100K ohm	4822 050 11004
R663	100K ohm	4822 050 11004
R664	10K ohm	4822 050 11003
R665	8.2K ohm	4822 050 18202
R666	5.6K ohm	4822 050 15602
R667	6.8K ohm	4822 050 16802
R668	330K ohm	4822 116 52272
R669	10K ohm	4822 050 11003
R670	10K ohm	4822 050 11003
R671	10K ohm	4822 050 11003
R672	1K ohm	4822 050 11002
R673	10K ohm	4822 050 11003
R674	10K ohm	4822 050 11003
R675	10K ohm	4822 050 11003
R676	10K ohm	4822 050 11003
R677	10 ohm	4822 050 11009
R678	1M ohm	4822 050 11005
R679	100K ohm	4822 050 11004
R680	47K ohm	4822 050 14703
R681	5.6K ohm	4822 050 15602
R682	8.2K ohm	4822 050 18202
R683	8.2K ohm	4822 050 18202
R684	5.6K ohm	4822 050 15602
R685	15K ohm	4822 050 11503
R686	8.2K ohm	4822 050 18202
R687	8.2K ohm	4822 050 18202
R688	100K ohm	4822 050 11004
R689	10 ohm, 1/2W Metal (Flame-proof)	4822 117 10188
R701	220K ohm	4822 050 12204
R702	1K ohm	4822 050 11002
R703	220K ohm	4822 050 12204
R704	1K ohm	4822 050 11002
R705	220K ohm	4822 050 12204
R706	10K ohm	4822 050 11003
R707	3.3K ohm	4822 050 13302
R708	220K ohm	4822 050 12204

Replacement Parts List (Continued)

Ref.	Description	Part No.
RESISTORS (Continued)		
R709	10K ohm	4822 050 11003
R710	220K ohm	4822 050 12204
R711	3.3K ohm	4822 050 13302
R712	10K ohm	4822 050 11003
R713	10K ohm	4822 050 11003
R801	1K ohm	4822 050 11002
R802	1K ohm	4822 050 11002
R803	220K ohm	4822 050 12204
R804	220K ohm	4822 050 12204
R805	560K ohm	4822 050 15604
R806	560K ohm	4822 050 15604
R807	560K ohm	4822 050 15604
R808	560K ohm	4822 050 15604
R809	12K ohm	4822 050 11203
R810	12K ohm	4822 050 11203
R811	680 ohm	4822 050 16801
R812	680 ohm	4822 050 16801
R813	270 ohm	4822 116 52217
R814	270 ohm	4822 116 52217
R815	9.1K ohm	4822 050 19102
R816	9.1K ohm	4822 050 19102
R817	22K ohm	4822 050 12203
R818	22K ohm	4822 050 12203
R819	1.2K ohm	4822 050 11202
R820	1.2K ohm	4822 050 11202
R821	10K ohm	4822 050 11003
R822	10K ohm	4822 050 11003
R823	3.3K ohm	4822 050 13302
R824	3.3K ohm	4822 050 13302
R825	220 ohm	4822 050 12201
R826	220 ohm	4822 050 12201
R827	10K ohm, 1/4W	4822 050 21003
R828	10K ohm	4822 050 11003
R829	10K ohm, 1/4W	4822 050 21003
R830	10K ohm	4822 050 11003
R831	47K ohm	4822 050 14703
R832	47K ohm	4822 050 14703
R833	1.8K ohm	4822 051 51802
R834	1.8K ohm	4822 051 51802
R835	1M ohm	4822 050 11005
R836	470K ohm	4822 050 14704
R837	1M ohm	4822 050 11005
R838	470K ohm	4822 050 14704
R901	100K ohm	4822 050 11004
R902	22K ohm	4822 050 12203
R903	2.2 ohm, 1/4W	4822 050 22208
R904	2.2 ohm, 1/4W	4822 050 22208
R905	2.2 ohm, 1/4W	4822 050 22208
R906	100K ohm	4822 050 11004
R907	22K ohm	4822 050 12203
R908	2.2 ohm, 1/4W	4822 050 22208
R909	2.2 ohm, 1/4W	4822 050 22208
R910	2.2 ohm, 1/4W	4822 050 22208
R913	5.6K ohm	4822 050 15602
R914	5.6K ohm	4822 050 15602
TP1	0 ohm, 1/4W	4822 117 10797
TP2	0 ohm, 1/4W	4822 117 10797
TP3	0 ohm, 1/4W	4822 117 10797
⚠ FR253	100 ohm, 1/2W Fuse	4822 117 10197
⚠ FR301	1 ohm, 1/2W Fuse	4822 111 91493
⚠ FR302	1 ohm, 1/2W Fuse	4822 111 91493
⚠ FR303	1 ohm, 1/2W Fuse	4822 111 91493
⚠ FR304	1 ohm, 1/2W Fuse	4822 111 91493

Ref.	Description	Part No.
SEMICONDUCTORS		
IC001	TMP47C1670AN-HA01	4822 209 33487
IC102	LA1851N	4822 209 31001
IC103	LA7218	4822 209 30178
IC104	NJM4558DD	4822 209 83631
IC201	NJM4558DD	4822 209 83631
IC202	LA7821	4822 209 72748
IC203	STK4192-2	4822 209 70441
IC301	MC7805CT	4822 209 80891
IC302	MC7815CT	5322 209 71759
IC303	MC7915A	5322 209 86361
IC501	LB1641	4822 209 30193
IC601	NJM4558DD	4822 209 83631
IC602	NJM4558DD	4822 209 83631
IC603	NJM4558DD	4822 209 83631
IC604	NJM4558DD	4822 209 83631
IC605	NJM4558DD	4822 209 83631
IC606	LC7821	4822 209 72748
IC607	NJM-2177L	4822 209 32693
IC608	UPD6345C	4822 209 31574
IC609	M50198P	4822 209 31573
IC610	NJM7805A	4822 209 83824
IC701	TC9213P	4822 209 31575
IC702	NJM4558DD	4822 209 83631
IC801	NJM4558L	4822 209 30182
IC901	LA4471	4822 209 33486
IC902	LA4471	4822 209 33486
Q001	DTA114ES	4822 130 60766
Q002	DTA114ES	4822 130 60766
Q003	2SC945P,Q	4822 130 41198
Q004	2SA733P,Q	4822 130 61867
Q005	2SA733P,Q	4822 130 61867
Q006	2SC945P,Q	4822 130 41198
Q007	2SA733P,Q	4822 130 61867
Q008	2SA733P,Q	4822 130 61867
Q009	2SA733P,Q	4822 130 61867
Q103	2SC1675L	4822 130 41595
Q104	2SK161GR, FET	4822 130 61357
Q105	DTC114ES	4822 130 60588
Q106	2SA733P,Q	4822 130 61867
Q107	DTA114ES	4822 130 60766
Q108	2SC945P,Q	4822 130 41198
Q109	2SC945P,Q	4822 130 41198
Q110	2SC1675L	4822 130 41595
Q201	2SC1841E	4822 130 42388
Q202	2SC1841E	4822 130 42388
Q203	2SC1841E	4822 130 42388
Q204	2SC988E	4822 130 42386
Q301	2SC945P,Q	4822 130 41198
Q302	2SA965Y	4822 130 63221
Q601	DTA114ES	4822 130 60766
Q602	DTA114ES	4822 130 60766
Q701	2SC2878A	4822 130 62904
Q702	2SC2878A	4822 130 62904
Q801	2SC2878A	4822 130 62904
Q802	2SC2878A	4822 130 62904
Q803	2SC2878A	4822 130 62904
Q804	2SC2878A	4822 130 62904
X101	Crystal 7.2MHz	4822 242 71875
D001	1SS176	4822 130 33861
D002	1SS176	4822 130 33861
D003	1SS176	4822 130 33861
D004	1N4148	4822 130 30621

Replacement Parts List (Continued)

Ref.	Description	Part No.
SEMICONDUCTORS (Continued)		
D005	1N4148	4822 130 30621
D006	1N4148	4822 130 30621
D007	1N4148	4822 130 30621
D008	1N4148	4822 130 30621
D009	1N4148	4822 130 30621
D010	1N4148	4822 130 30621
D011	LTL-4222N (RED) LED	4822 130 83205
D012	1N4148	4822 130 30621
D013	1N4148	4822 130 30621
D014	1SS176	4822 130 33861
D015	1SS176	4822 130 33861
D104	KV1236Z1 (WHT)	4822 130 81197
D106	1N4148	4822 130 30621
D107	1SS176	4822 130 33861
D108	1SS176	4822 130 33861
D201	1SS176	4822 130 33861
D202	1SS176	4822 130 33861
D203	MTZ5.1C, Zener	4822 130 82667
D204	1N4148	4822 130 30621
D301 ▲	GBU4D	4822 130 83302
D302 ▲	W02M	4822 130 81634
D303 ▲	GBU4D	4822 130 83302
D304	MTZ6.2C, Zener	4822 130 83142
D305	MTZ39C, Zener	4822 130 83696
D306	1SS176	4822 130 33861
D307	1SS176	4822 130 33861
D308	1SS176	4822 130 33861
D501	MTZ4.7C, Zener	4822 130 82637
D502	LTL-4222N (RED) LED	4822 130 83205
D601	1SS176	4822 130 33861
DP001	Display 12-BT-69GK	4822 130 91362
VARIABLE RESISTORS		
SFR101	Semi-fised resistor 20KX (FM stop adjustment)	4822 101 90234
SFR102	Semi-fised resistor 10KX (AM stop adjustment)	4822 101 90232
SFR103	Semi-fised resistor 2KX (Separation adjustment)	4822 101 90233
VR501	Motor variable resistor 50KBx4 (Volume control)	4822 101 90251
VR801	Variable resistor 100KBx2 (Bass control)	4822 101 21215
VR802	Variable resistor 100KBx2 (Treble control)	4822 101 21215
VR803	Variable resistor 100KW (Balance control)	4822 101 21214
JACKS		
HP201	Headphone jack JY-6317-01-030G3	4822 267 31625
JK101	2P antenna terminal CJ-9020-02-040	4822 290 81552
JK201	4P RCA jack RJ1018-010	4822 267 41082
JK202	4P RCA jack RJ1018-010	4822 267 41082
JK203	4P RCA jack RJ1018-010	4822 267 41082
JK204	2P RCA jack RJ1020-050 (Y)	4822 267 41083
JK205	2P RCA jack RJ1020-110 (G)	4822 267 41084
JK206	1P RCA jack 0501015-C (O)	4822 267 31616
JK207	8P speaker terminal CJ-9019-02-080	4822 290 81562
JK901	2P speaker terminal CJ-9021-060	4822 290 81659

Ref.	Description	Part No.
JAKS (Continued)		
JK902	4P speaker terminal CJ-9020-02-080	4822 290 81541
SWITCHES		
S001	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372
S002	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372
S003	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372
S004	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372
S005	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372
S006	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372
S007	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372
S008	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372
S009	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372
S010	Tact switch SKHVBB3420-CP (Memory preset station)	4822 276 13372
S011	Tact switch SKHVBC3430-CP (Sleep)	4822 276 13373
S012	Tact switch SKHVBB3420-CP (Tuning -)	4822 276 13372
S013	Tact switch SKHVBB3420-CP (Tuning +)	4822 276 13372
S014	Tact switch SKHVBC3430-CP (Cursor tuner)	4822 276 13373
S015	Tact switch SKHVBC3430-CP (Cursor Station name display)	4822 276 13373
S016	Tact switch SKHVBC3430-CP (Cursor surround)	4822 276 13373
S017	Tact switch SKHVBC3430-CP (Cursor center)	4822 276 13373
S018	Tact switch SKHVBC3430-CP (Memory)	4822 276 13373
S019	Tact switch SKHVBB3420-CP (Preset down)	4822 276 13372
S020	Tact switch SKHVBB3420-CP (Preset up)	4822 276 13372
S021	Tact switch SKHVBC3430-CP (Surround mode)	4822 276 13373
S022	Tact switch SKHVBC3430-CP (Frequency director)	4822 276 13373
S023	Tact switch SKHVBC3430-CP (FM/AM)	4822 276 13373
S024	Tact switch SKHVBC3430-CP (FM mode)	4822 276 13373
S025	Tact switch SKHVBC3430-CP (Display)	4822 276 13373
S026	Rotary switch MSB1.12P-20L "C" (Source selector)	4822 273 20373
S027	Tact switch SKHVBB3420-CP (Audio mute)	4822 276 13372
S201	Push switch SPUL19C611-CP (Speaker A)	4822 276 13363
S202	Push switch SPUL19C611-CP (Speaker B)	4822 276 13363
S203	Slide switch SSSF142SB1-CP (Input selector)	4822 277 21742

Replacement Parts List (Continued)

Ref.	Description	Part No.
SWITCHES (Continued)		
S401	Power switch SDDLD1107U-CP (Power)	4822 276 13374
S501	Push switch SPUL12A207-CP (Loudness)	4822 276 13375
MISCELLANEOUS		
FE01	FM front end FE417-G02	4822 426 51787
RM001	Remote preamp LTM-9052A-L	4822 218 10499
RY201	Relay VB-24MBU	4822 280 80764
F301	Fuse BST5AL250V	4822 252 51176
F401	Fuse BST2L250V	4822 253 50162
F402	Fuse BST1AL250V	4822 253 50161
E1	7P FTW top base	---- --- -----
E2	Wire holder 7P20	---- --- -----
E3	XH 8P top base	---- --- -----
E4	8P side base 08JQ-ST	---- --- -----
E5	MT 5P top base	---- --- -----
E6	6P FTW top base	---- --- -----
E7	Wire holder 6P20	---- --- -----
E8	PH 2P top base	---- --- -----
E9	Wire holder 2P20	---- --- -----
E10	XH 3P top base	---- --- -----
E11	MT 6P top base	---- --- -----
E12	Long square terminal pin on PCB (2 used)	---- --- -----
E13	2P FTW top base	---- --- -----
E14	MT 3P top base	---- --- -----
E16	MT 9P top base	---- --- -----

Ref.	Description	Part No.
MISCELLANEOUS (Continued)		
E18	3P FTW top base	---- --- -----
E19	Wire holder 3P20	---- --- -----
E20	XH 2P top base	---- --- -----
E21	EH 2P top base	---- --- -----
E22	AC cord UL 6.5F BLK SPF2	4822 321 10926
E23	Cord stopper 2271	4822 325 80504
E24	Loop antenna coil	4822 303 40059
E25	Battery UM-4 (2 used)	---- --- -----
E26	FM indoor antenna	4822 303 50073
E27	RCA cable BLK-1M	4822 321 61875
E28	Insulator W/O hole (20x25)	---- --- -----
E30	AC outlet CCT1302-0202	4822 267 20437
E31	Square terminal pin on PCB (2 used)	---- --- -----
E32	Fuse holder PFC5000-0202T (6 used)	---- --- -----
E33	9P pin header 5016P09VG00	---- --- -----
E34	Headphone jack PCB (Blank)	---- --- -----
E35	VR LED PCB (Blank)	---- --- -----
E36	Main PCB (Blank)	---- --- -----
E37	Front PCB (Blank)	---- --- -----
E38	Mute switch PCB (Blank)	---- --- -----
E39	Surround PCB (Blank)	---- --- -----
E40	Surround amplifier PCB (Blank)	---- --- -----
E41	Surround speaker jack PCB (Blank)	---- --- -----
E42	Power swtich PCB (Blank)	---- --- -----
E43	Motor variable resistor PCB (Blank)	---- --- -----
E44	75 ohm antenna socket	4822 265 20621

Note: ---- --- ----- Indicates a not normally stocked item.