

# Service Manual

Portable CD Player

## SL-S401C

**COMPACT**  
**disc**  
**DIGITAL AUDIO**

**DIGITAL**  
**MASH**  
multi-stage noise shaping

**Colour**

(K)...Black Type

**Area**

Suffix for Model No.	Area	Colour
(P)	U.S.A.	(K)

※ • MASH is a trademark of NTT.



Please file and use this manual together with the service manual for Model No. SL-S600C, Order No. AD9602034C1.

**Note:** • This service manual is provided to indicate the main differences between the original model No. SL-S600C (P) and the subsequent model No. SL-S401C.

### ⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

# Panasonic®

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# CHANGES

## CHANGE IN REPLACEMENT PARTS LIST (SL-S600C Service Manual of pages 42~44.)

**Notes:** • Mentioned in this parts list is only those different from Model No. SL-S600C (P).

All other parts are the same as for SL-S600C (P).

• Important safety notice:

Components identified by  $\Delta$  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.

• The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)

Parts without these indications can be used for all areas.

Ref. No.	Change of Part No.		Part Name & Description	Remarks
	SL-S600C (P)	SL-S401C (P)		
TRANSISTOR(S)				
Q301	FMW1T98	—	TRANSISTOR	Deletion
Q304	2SD1819QRSTX	—	TRANSISTOR	Deletion
Q305	UN5211TX	—	TRANSISTOR	Deletion
Q307	2SD1819QRSTX	—	TRANSISTOR	Deletion
Q310	UN5115TX	—	TRANSISTOR	Deletion
Q901	2SD1819QRSTX	—	TRANSISTOR	Deletion
Q930, 931	UN5115TX	—	TRANSISTOR	Deletion
Q932	UN5210TX	—	TRANSISTOR	Deletion
Q933	UN5117TX	—	TRANSISTOR	Deletion
Q934, 935	2SD1819QRSTX	—	TRANSISTOR	Deletion
DIODE(S)				
D301	MA110TX	—	DIODE	Deletion
D302	MA8051MTX	—	DIODE	Deletion
D801—806	LNJ308G8LRA	—	L.E.D.	Deletion
D811, 812	LNJ308G8LRA	—	L.E.D.	Deletion
D902	MA143TX	—	DIODE	Deletion
D930	MA110TX	—	DIODE	Deletion
COMPONENT COMBINATION(S)				
Z301	RCDRS-52	—	REMOTE SENSOR	Deletion
COIL(S)				
L301	RLQU331KT-W	—	COIL	Deletion
RESISTORS				
R16	ERJ3GEYJ473V	—	1/16w 47kΩ	Deletion
R301	ERJ3GEYJ472V	—	1/16w 4.7kΩ	Deletion
R302	ERJ3GEYJ153V	—	1/16w 15kΩ	Deletion
R303	ERJ6GEYJ470V	—	1/10w 47Ω	Deletion
R305	ERJ6GEYJ102V	—	1/10w 1kΩ	Deletion
R801	ERJ3GEYJ151V	—	1/16w 150Ω	Deletion
R802	ERJ3GEYJ331V	—	1/16w 330Ω	Deletion
R803	ERJ8GEYJ151V	—	1/8w 150Ω	Deletion
R804, 805	ERJ3GEYJ331V	—	1/16w 330Ω	Deletion
R806	ERJ6GEYJ331V	—	1/10w 330Ω	Deletion
R811, 812	ERJ6GEYJ331V	—	1/10w 330Ω	Deletion
R901	ERJ3GEYJ274V	—	1/16w 270kΩ	Deletion
R913	ERJ6GEYJ473V	—	1/10w 47kΩ	Deletion

Ref. No.	Change of Part No.		Part Name & Description	Remarks
	SL-S600C (P)	SL-S401C (P)		
RESISTORS				
R920	ERJ6GEYJ221V	—	1/10w 220Ω	Deletion
R930	ERJ6GEYJ823	—	1/10w 82kΩ	Deletion
R931	ERJ6GEYJ104V	—	1/10w 100kΩ	Deletion
R932	ERJ6GEYJ333V	—	1/10w 33kΩ	Deletion
R933	ERJ6GEYJ103V	—	1/10w 10kΩ	Deletion
R935	ERJ6GEYJ104V	—	1/10w 100kΩ	Deletion
R936	ERJ6GEYJ334V	—	1/10w 330kΩ	Deletion
R937	ERJ6GEYJ104V	—	1/10w 100kΩ	Deletion
CHIP JUMPER(S)				
D801	—	ERJ3GEY0R00V	CHIP JUMPER	Addition
R801	—	ERJ3GEY0R00V	CHIP JUMPER	Addition
RJ301	—	ERJ6GEY0R00V	CHIP JUMPER	Addition
RJ303	—	ERJ6GEY0R00V	CHIP JUMPER	Addition
RJ803, 804	ERJ8GEY0R00V	—	CHIP JUMPER	Deletion
RJX901	ERJ3GEY0R00V	—	CHIP JUMPER	Deletion
CAPACITORS				
C16	ECEA1VKN2R2I	—	35V 2.2U	Deletion
C301	RCE0JKA220IG	—	6.3V 22U	Deletion
C302	ECUVNC104ZFV	—	16V 0.1U	Deletion
C303	RCST0JY475LE	—	6.3V 4.7U	Deletion
C307	ECUVNE104ZFN	—	25V 0.1U	Deletion
CABINET AND CHASSIS				
5	RFKJLS600CPK	RFKJLS401CPK	BOTTOM CABINET ASS'Y	
8	RFKLLS600CPK	RFKLLS401CPK	CD COVER ASS'Y	
9	RGU1375-C	RGU1375-K	OPERATION BUTTON (A)	
10	RGU1376-C	RGU1376-K	OPERATION BUTTON (B)	
11	RFKNLS400-A	RFKNLS401CPK	HOLD LOCK KNOB ASS'Y	
22	RGU1377-H	RGU1377-K	OPEN BUTTON	
23	RFKKLS600CPK	RFKKLS401CPK	INTERMEDIATE CABINET ASS'Y	
32	RKW0441-K	—	FILTER	Deletion
33	RMZ0396	—	SHIELD SHEET	Deletion
PACKING MATERIAL				
P1	RPK0757	RPK0756	PACKING CASE	
P4	RPF0046	—	PROTECTION BAG(F.B.)	Deletion
ACCESSORIES				
A1	RFKSLS600CPK	RFKSLS401CPK	INSTRUCTION MANUAL ASS'Y	
A6	EURNTR1026P	—	REMOTE CONTROL	Deletion
A7	RQA0113	—	WARRANTY CARD	Deletion
A8	RQX9028ZD	—	SERVICENTER LIST	Deletion

## SCHEMATIC DIAGRAM

(This schematic diagram may be modified at any time with the development of new technology.)


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
- **S201:** Laser ON/OFF switch in "OFF" position.  
(It turns "ON" with disc holder closed.)
- **S202:** Rest detector in "OFF" position.  
(It turns "ON" when optical pickup comes to innermost periphery.)
- **S305:** Play mode selector (MODE) switch in "RANDOM" position.  
(RANDOM ↔ NORMAL ↔ RESUME)
- **S306:** Hold lock (HOLD-LOCK) switch in "OFF" position.
- **S501:** Extra anti-shock (EXTRA ANTI-SHOCK) switch in "OFF" position.
- **S701:** High filter/XBS selector (HIGH FILTER, XBS, OFF) switch in "OFF" position.
- **S801:** Play/pause (▶ |||) switch.
- **S802, 803:** Skip/search (◀◀ -SKIP/-SEARCH ▶▶) switches.  
(S802: ◀◀, S803: ▶▶)
- **S804:** Repeat (REPEAT) switch.
- **S805:** Memory/recall (MEMORY/RECALL) switch.
- **S806:** Stop/power off (■ /POWER OFF) switch.
- The voltage value and waveforms are the reference voltage of this measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of GND terminal (DC IN Jack). Accordingly, there may arise some errors in the voltage values and waveforms depending upon the internal impedance of the

tester or measuring unit.


\* The parenthesized is the voltage for test disc (1 kHz, L+R, 0 dB) in play mode, and the other, for no disc in stop mode.

\* AC adaptor is used for power supply.

•  : Positive voltage lines.

•  : Audio signal lines.

• Important safety notice:

Components identified by  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.

### Caution!

IC and LSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

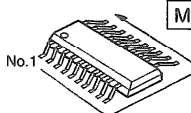
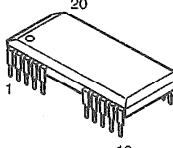
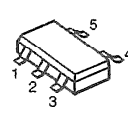
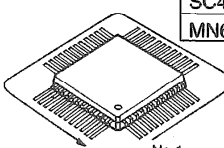
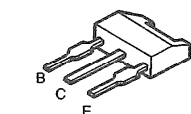
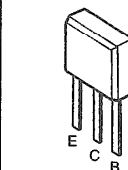
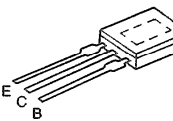
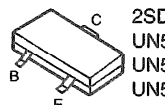
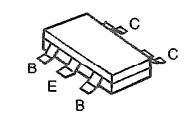
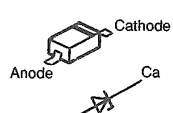
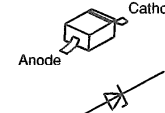
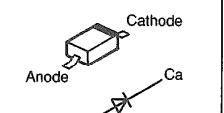
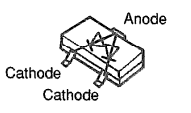
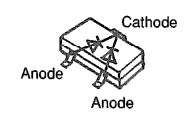
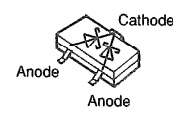
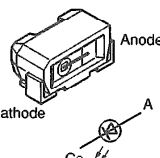
• Cover the parts boxes made of plastics with aluminum foil.

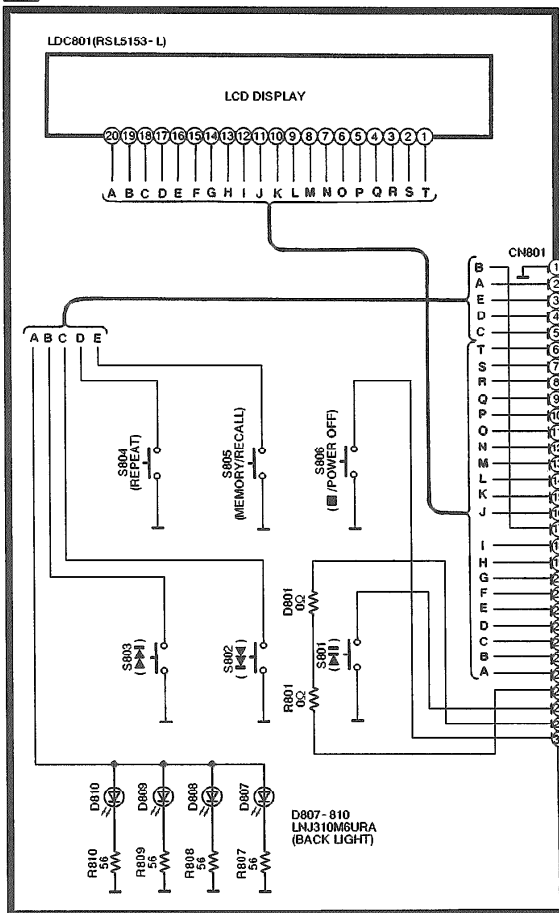
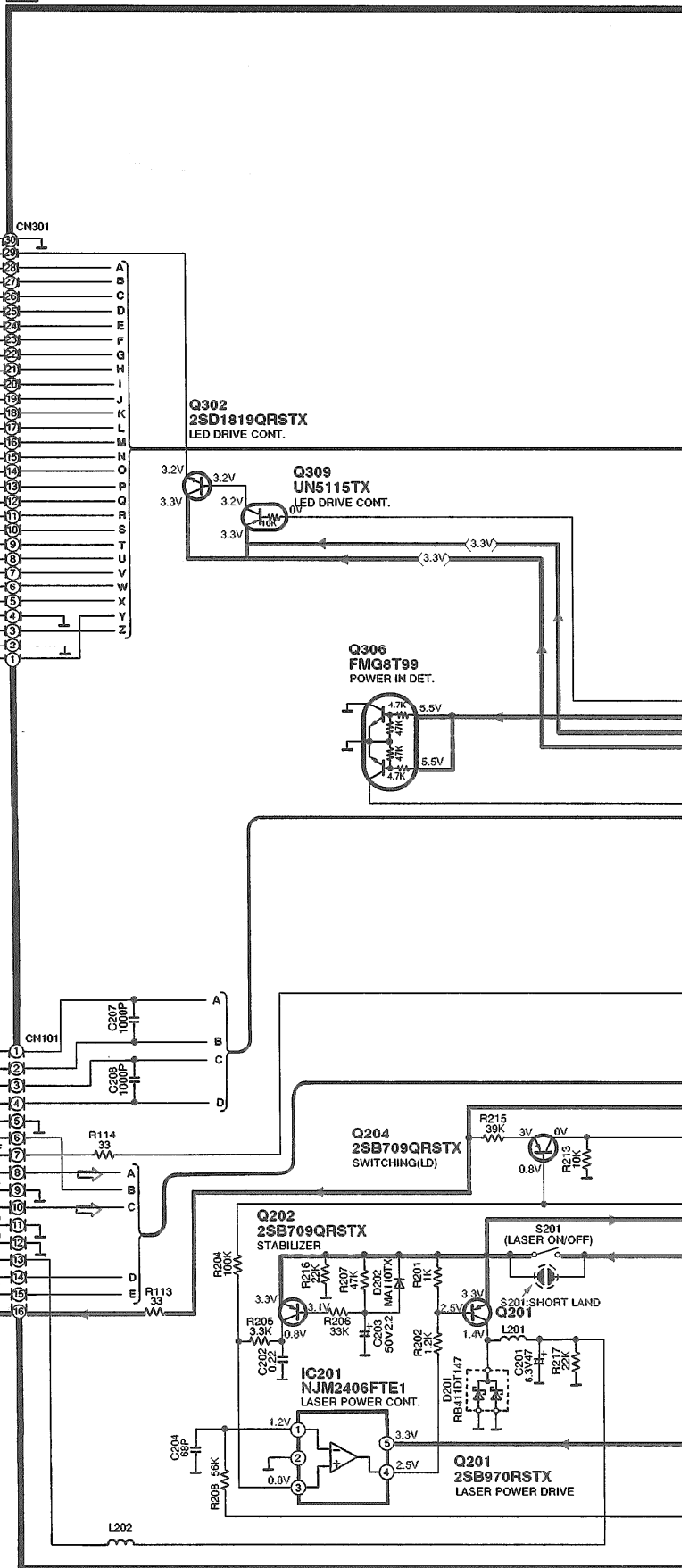
• Ground the soldering iron.

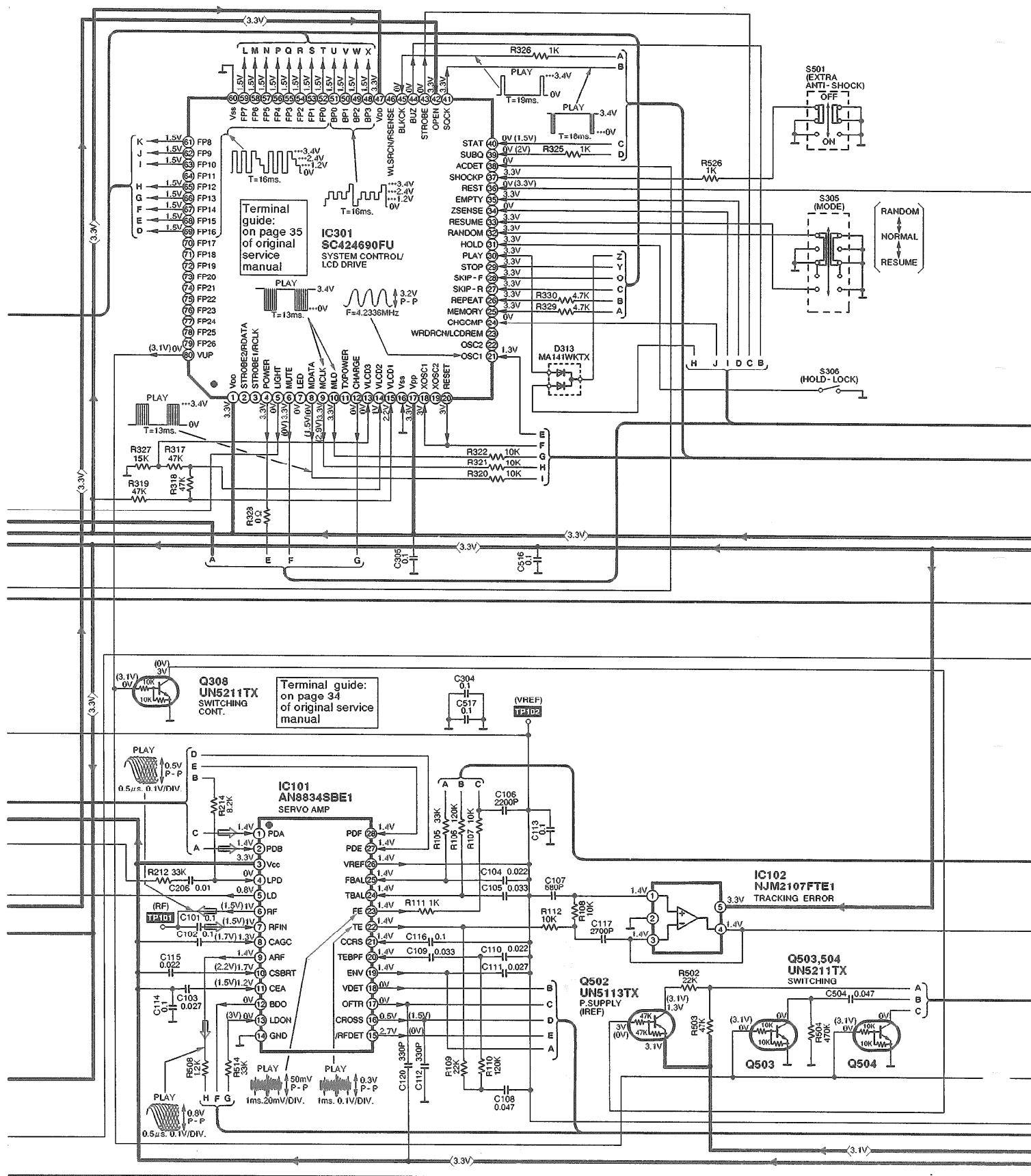
• Put a conductive mat on the work table.

• Do not touch the pins of IC or LSI with fingers directly.

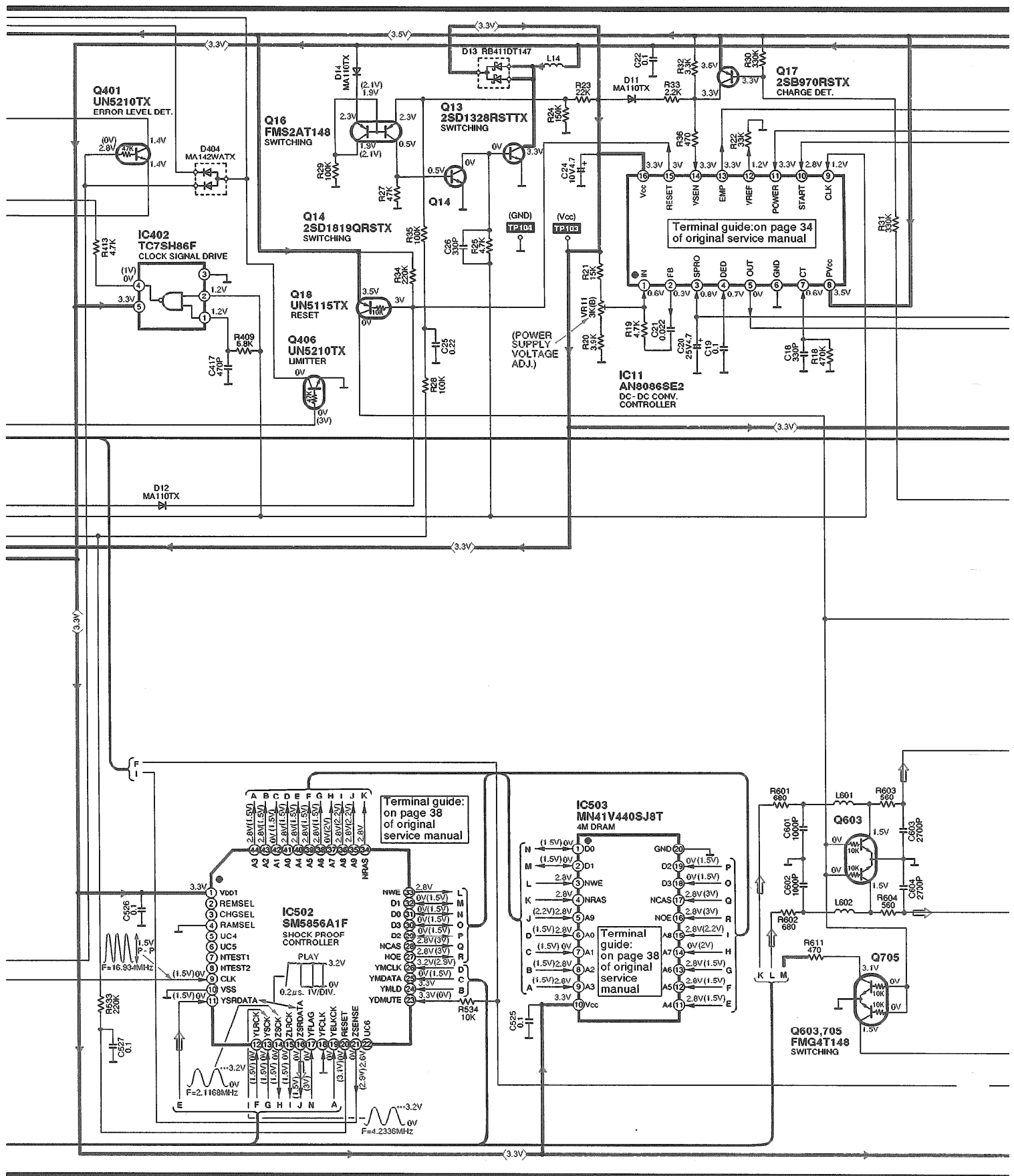
## Terminal guide of IC's, transistors and diodes

 <p>No.1</p>		 <p>10</p>		 <p>5</p>		 <p>No.1</p>															
<table><tr><td>NJU7082AMTE1</td><td>8PIN</td></tr><tr><td>AN8086SE2</td><td>16PIN</td></tr><tr><td>AN8834SBE1</td><td>28PIN</td></tr><tr><td>MPC17A50VMEL</td><td>36PIN</td></tr></table>		NJU7082AMTE1	8PIN	AN8086SE2	16PIN	AN8834SBE1	28PIN	MPC17A50VMEL	36PIN			<table><tr><td>SM5856A1F</td><td>44PIN</td></tr><tr><td>SC424690FU</td><td>80PIN</td></tr><tr><td>MN662745RPC</td><td>80PIN</td></tr></table>		SM5856A1F	44PIN	SC424690FU	80PIN	MN662745RPC	80PIN		
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MN662745RPC	80PIN																				
2SD2074HWSTT		2SD1450STTA		2SD2005PQRTA		2SB709QRSTX 2SB970RSTX 2SD1328RSTTX 2SD1819QRSTX UN5113TX UN5114TX UN5115TX UN5210TX															
 <p>B C E</p>		 <p>E C B</p>		 <p>E C B</p>		 <p>C B E</p>															
FMG2T148 FMG4T148 FMG6T148 FMG8T99 FMW1T98		MA8033LTX		MA8051MTX MA8082MTX		MA110TX															
 <p>B E B</p>		 <p>Cathode Anode Ca A</p>		 <p>Cathode Anode Ca A</p>		 <p>Cathode Anode Ca A</p>															
MA142WATX		MA141WKTX		RB411DT147		LNJ310M6URA															
 <p>Anode Cathode Cathode</p>		 <p>Cathode Anode Anode</p>		 <p>Cathode Anode Anode</p>		 <p>Anode Cathode Ca A</p>															

**A OPERATION CIRCUIT** (P.C.Board: on page 10)**B MAIN CIRCUIT** (P.C.Board: on pages 10,11)

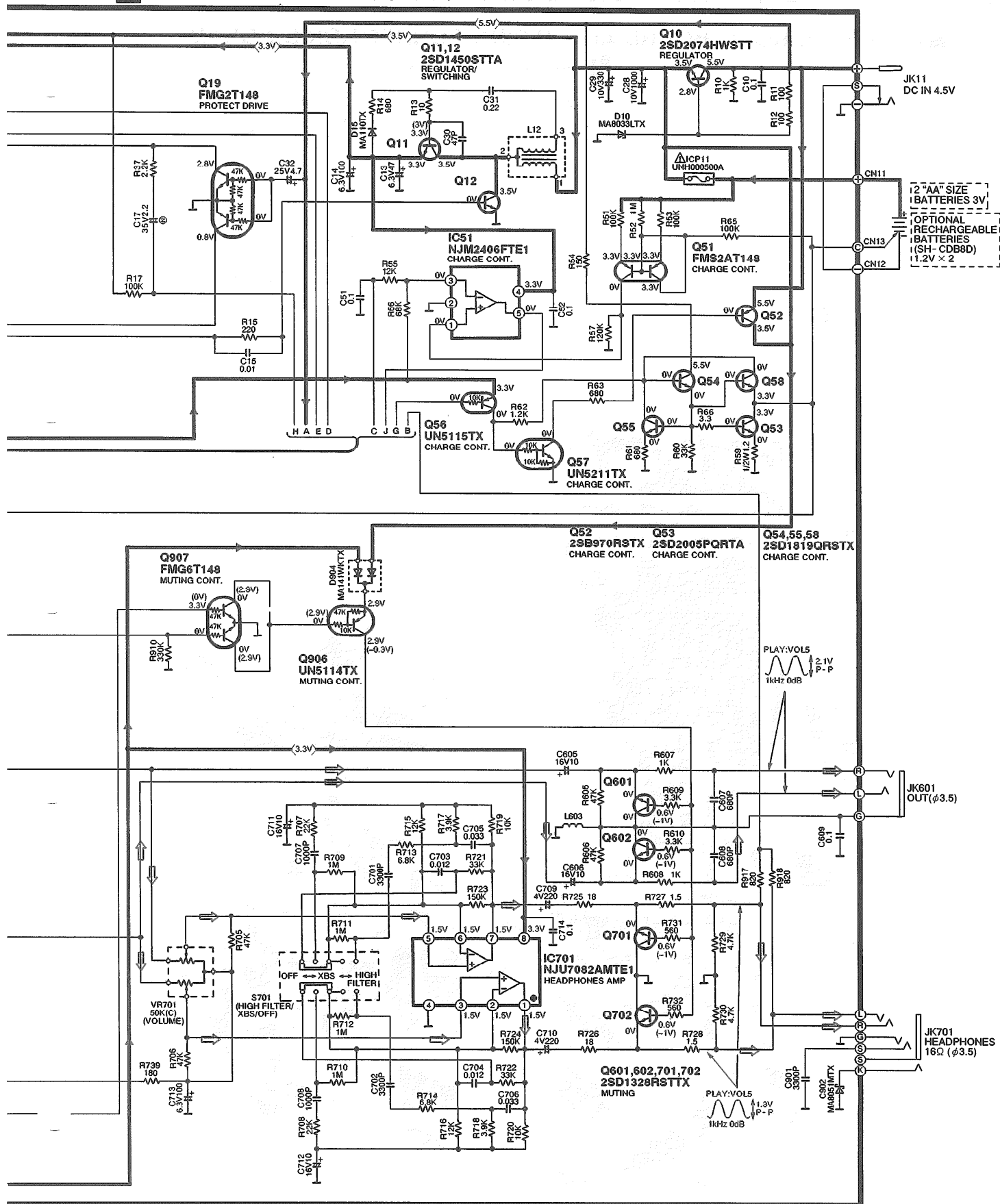






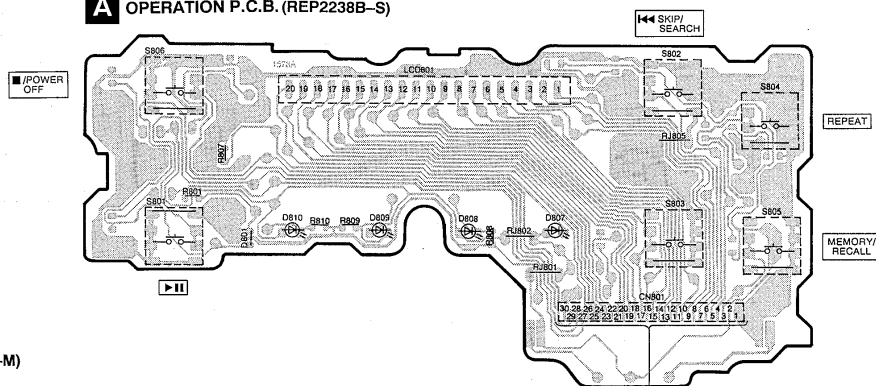
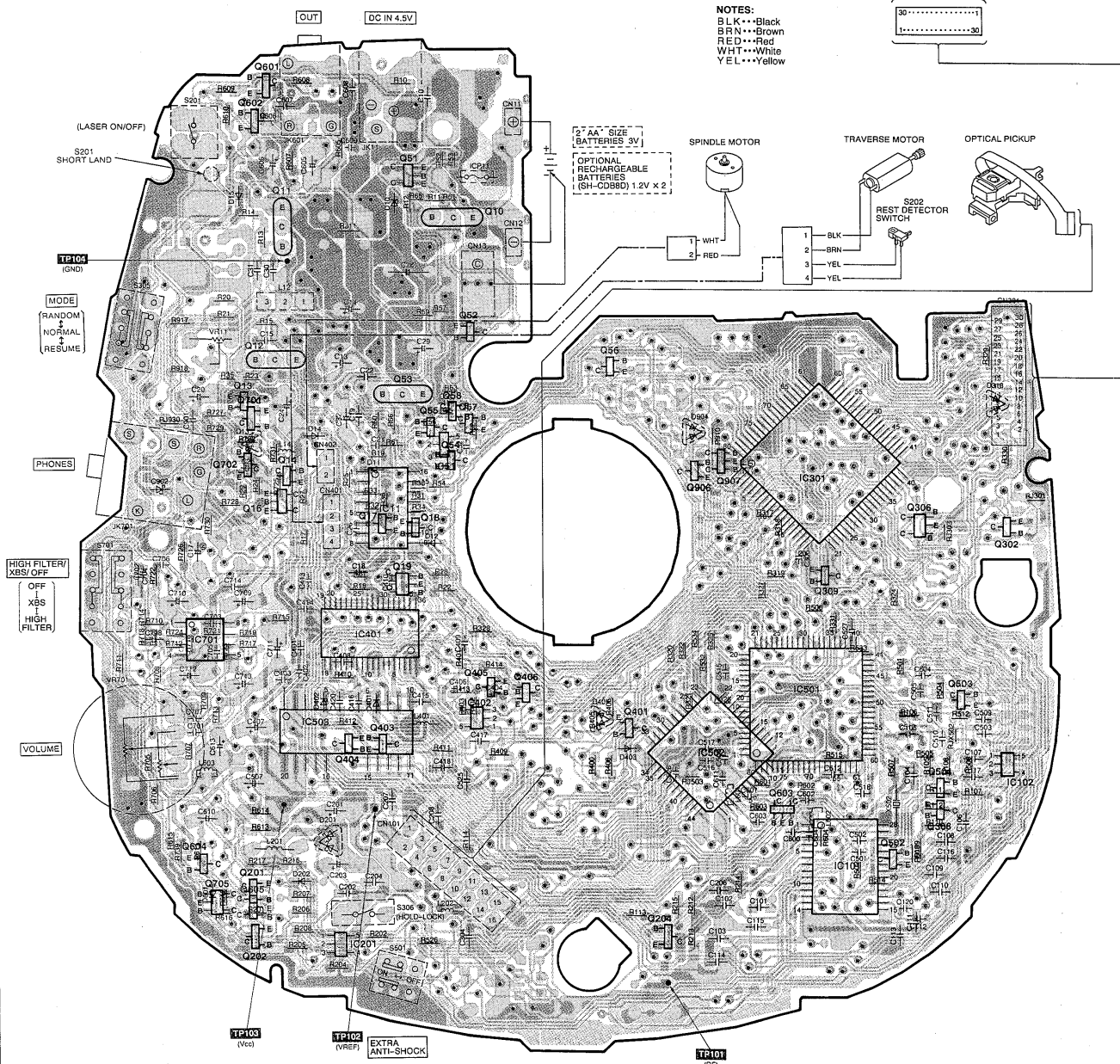


## B MAIN CIRCUIT (P.C.Board: on pages 10,11)



## ■ PRINTED CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM

## **A** OPERATION P.C.B. (REP2238B-S)

**B** MAIN P.C.B. (REP2237D-M)

**Notes:**

- In this printed circuit board diagram, the parts and foil patterns on the board facing toward you are printed in black.
- The opposite side is printed in blue.
- The “●” marks denote the connection points of double-faced foil patterns (through holes) on both sides of the printed circuit board.
- This printed circuit board diagram may be modified at any time with the development of new technology.

**B MAIN P.C.B.(REP2237D-M)**