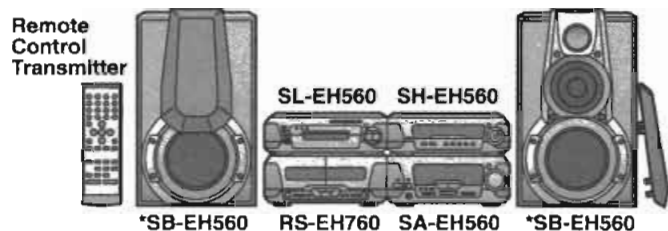


# Service Manual

## Sound Processor

VIRTUAL  
 DOLBY  
 SURROUND



### SH-EH560

Colour

(S).....Silver Type

Area

(E).....Europe.

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

| System          | SC-EH560        |
|-----------------|-----------------|
| Sound Processor | <b>SH-EH560</b> |
| Tuner/Amplifier | SA-EH560        |
| CD Player       | SL-EH560        |
| Cassette Deck   | RS-EH760        |
| Front Speakers* | SB-EH560        |

\*: Made in Spain.

## Specifications

### EQ/SFP section

#### MANUAL GEQ:

3-Band parametric EQ Center frequency;

High band 3.5 kHz, 5.3 kHz, 8 kHz, 12.5 kHz

Mid band 240 Hz, 390 Hz, 630 Hz, 1 kHz,  
1.5 kHz, 2.3 kHz, 3.5 kHz

Low band 70 Hz, 90 Hz, 143 Hz, 240 Hz  
± 1.2, 2.4, 3.6, 4.8, 6 dB

Level control;

EQ SPACE mode:

3 modes; HEAVY, CLEAR, HALL

3D acoustic image EQ:

3 modes; AI EQ, 3D AI 1, 3D AI 2

### Pre-amplifier section

Input sensitivity/impedance:

VCR (EXT); 250 mV/15 kΩ

Output level:

VCR REC OUT; 150 mV/1.5 kΩ

### VIRTUAL DOLBY SURROUND section

Mode: VIRTUAL DOLBY SURROUND

### AV SURROUND section

AV surround mode:

SIMULATED STEREO

### DSP CONTROL section

DSP control mode:

SEAT POSITION  
 CENTER EFFECT (1, 2, 3),  
 SURROUND EFFECT (1, 2, 3)

### Spectrum Analyzer section

Display mode:

NORMAL, PEAKHOLD, AURORA

### General

Dimensions (W×H×D):

293×89×269 mm

Mass:

1.4 kg

Notes: Specifications are subject to change without notice.

Mass and dimensions are approximate.

Manufactured under license from Dolby Laboratories Licensing Corporation.

DOLBY, the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

## 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.

# Technics®

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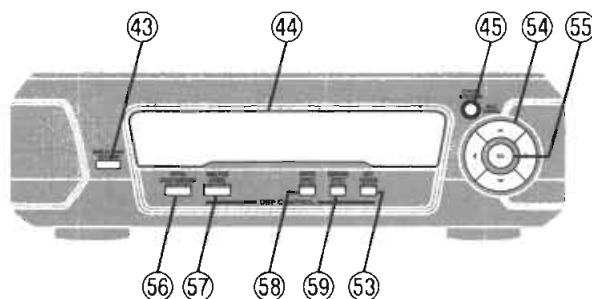
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## 1 Note

Refer to the service manual for Model No. SA-EH560 (ORDER No. AD0002043C2) for information on Packaging.

## 2 Location of Controls

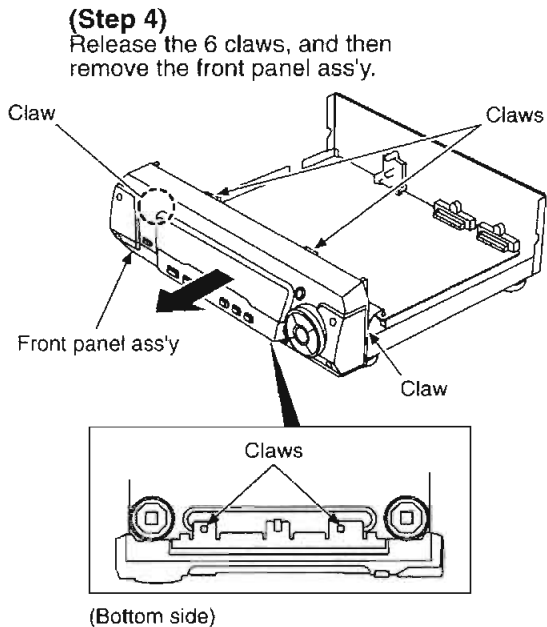
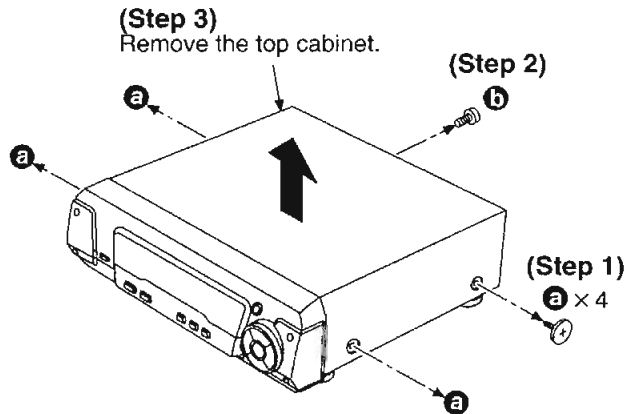


- ④③ Display mode, virtual speaker demo button (DISPLAY MODE, --□□V DEMO)
- ④④ Display
- ④⑤ 3D AI EQ, M.EQ BAND button (3D AI EQ/M.EQ BAND)
- ⑤③ Seat position button and indicator (SEAT POSITION)
- ⑤④ Multi control buttons (◀, ▶, ▲, ▼ MULTI CONTROL)
- ⑤⑤ EQ button (EQ)
- ⑤⑥ Virtual Dolby Surround button and indicator (VIRTUAL DOLBY SURROUND)
- ⑤⑦ Simulated stereo button and indicator (SIMULATED STEREO)
- ⑤⑧ Center effect button and indicator (CENTER EFFECT)
- ⑤⑨ Surround effect button and indicator (SURROUND EFFECT)

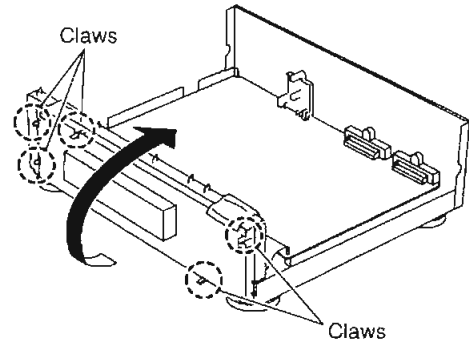
### 3 Operation Checks and Component Replacement Procedures

- This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
- For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

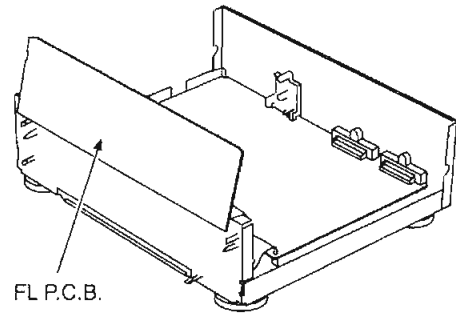
#### 3.1. Checking for the FL P.C.B.



- (Step 5)  
Release the 5 claws, and then remove the FL P.C.B..

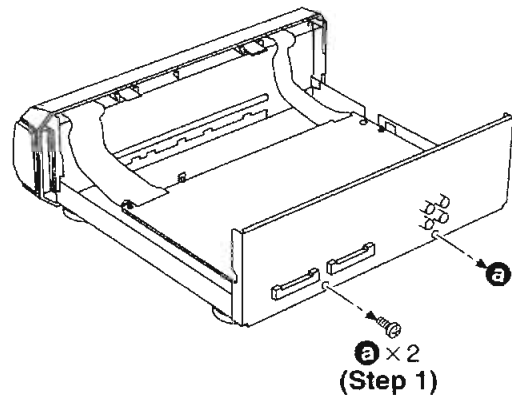


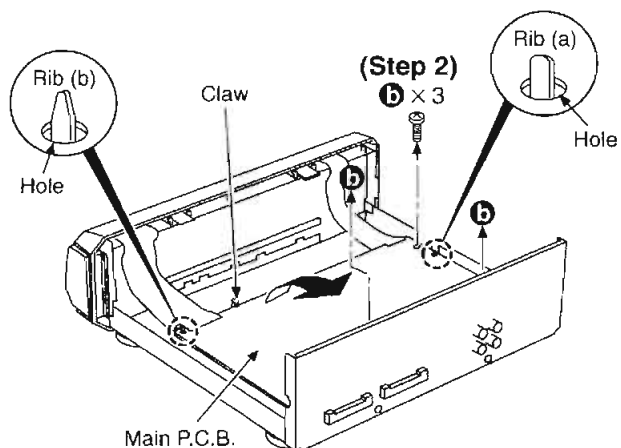
- Check the FL P.C.B. as shown below.



#### 3.2. Checking for the main P.C.B.

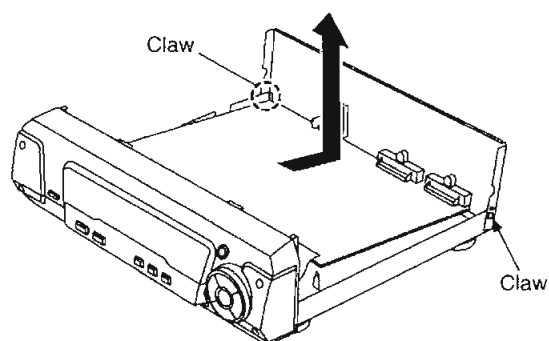
- Follow the (Step 1) - (Step 3) of item 3.1.





**(Step 3)**

Release the claw, and then lift up the main P.C.B..  
(Lift up the main P.C.B. until the rib (a) and rib (b) are released from the hole of main P.C.B..)



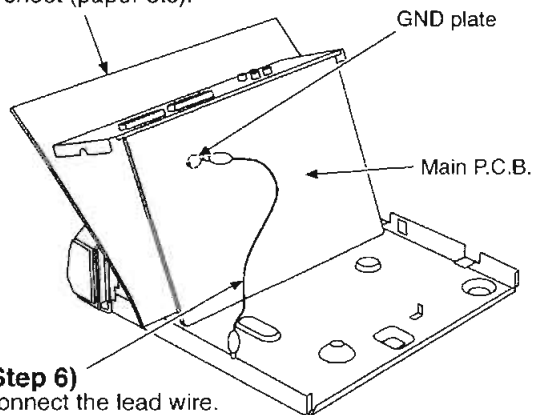
**(Step 4)**

Release the 2 claws, and then remove the main P.C.B. in the direction of arrow.

• Check the main P.C.B. as shown below.

**(Step 5)**

Insert the insulator sheet (paper etc).



**(Step 6)**

Connect the lead wire.

## 4 To Supply Power Source

This unit is designed to operate on power supplied from system connected.

When a component requires service, use the system connections to supply power source.

For system connections, refer to Fig. 4-1.

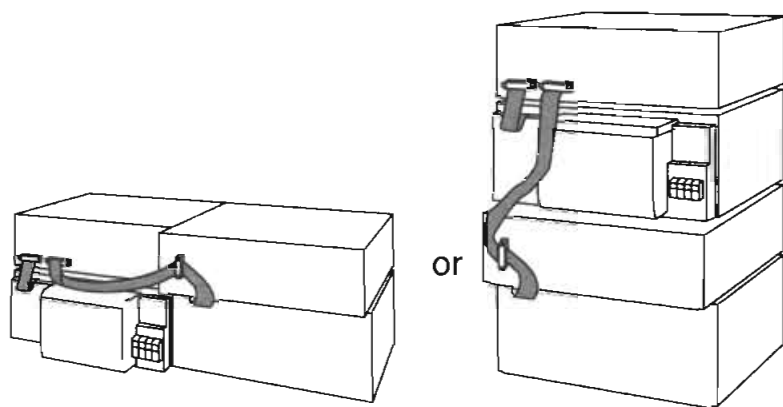


Fig. 4-1.

## 5 Schematic Diagram Notes

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

### Notes:

|              |                                                                      |
|--------------|----------------------------------------------------------------------|
| <b>S601:</b> | Display mode, virtual speaker demo switch<br>(DISPLAY MODE,  V DEMO) |
| <b>S602:</b> | Virtual Dolby Surround switch<br>(VIRTUAL DOLBY SURROUND)            |
| <b>S603:</b> | Simulated stereo switch<br>(SIMULATED STEREO)                        |
| <b>S605:</b> | Center effect switch (CENTER EFFECT)                                 |
| <b>S606:</b> | Surround effect switch<br>(SURROUND EFFECT)                          |
| <b>S607:</b> | Seat position switch (SEAT POSITION)                                 |
| <b>S608:</b> | Multi control switch (  )                                            |
| <b>S609:</b> | Multi control switch (  )                                            |
| <b>S610:</b> | Multi control switch (  )                                            |
| <b>S611:</b> | Multi control switch (  )                                            |
| <b>S612:</b> | 3D AI EQ, M.EQ BAND switch<br>(3D AI EQ/M.EQ BAND)                   |
| <b>S615:</b> | EQ switch (EQ)                                                       |

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

No mark : Power ON

- 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 manufacturer'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 legs of IC or LSI with the fingers directly.

### • Voltage and signal line

|  |                           |
|--|---------------------------|
|  | : Positive voltage line   |
|  | : Negative voltage line   |
|  | : CD playback signal line |

# 6 Schematic Diagram

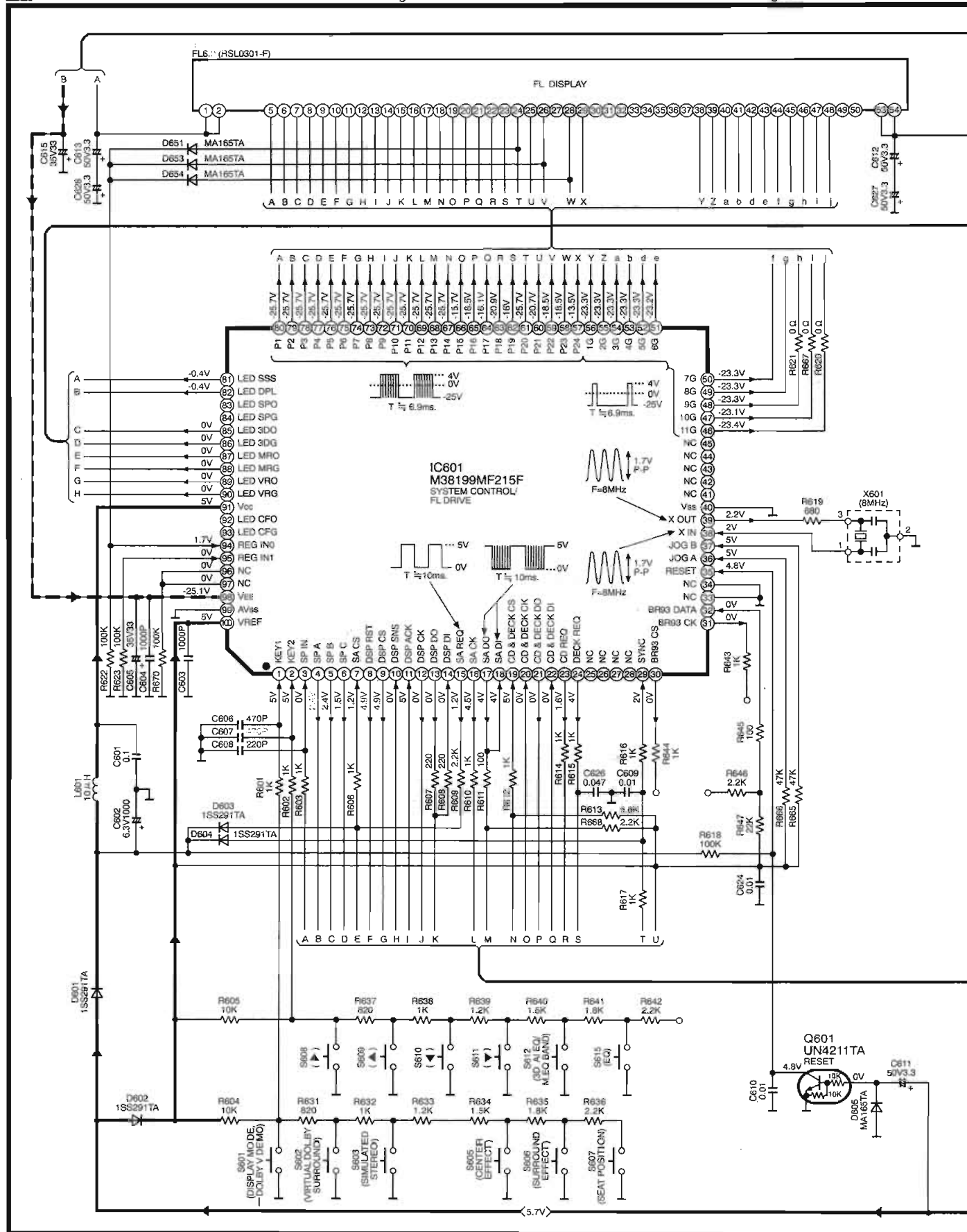
## SCHEMATIC DIAGRAM-1

### A FL CIRCUIT

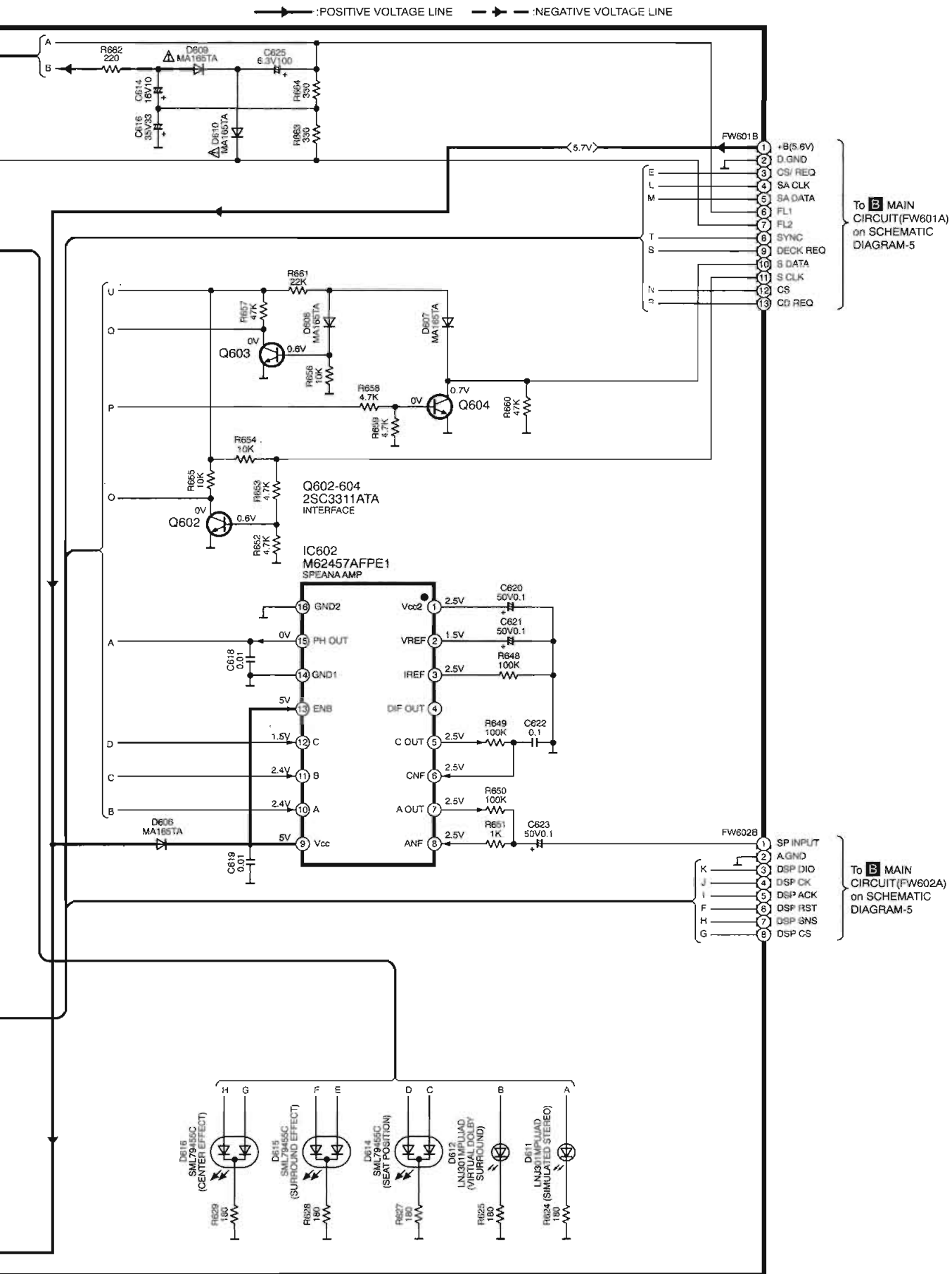
#### NOTE:

The number which noted at the connectors on the schematic diagram as "SCHEMATIC DIAGRAM-1" or "SCHEMATIC DIAGRAM-2" indicates the schematic diagram serial number located on the left corner in the schematic diagram.

→ POSITIVE VOLTAGE LINE  
→ NEGATIVE VOLTAGE LINE



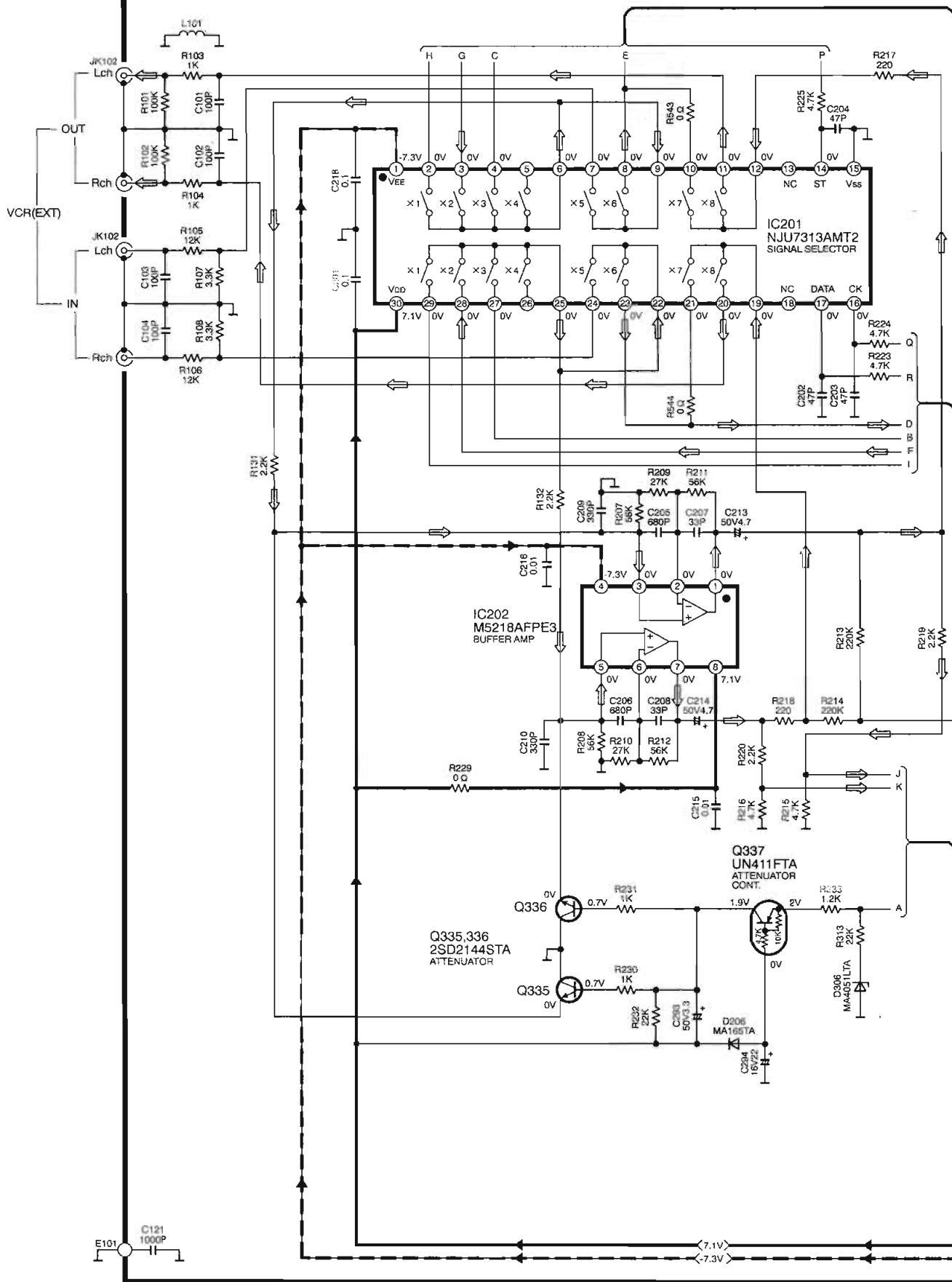
SCHEMATIC DIAGRAM-2



SCHEMATIC DIAGRAM-3

**B MAIN CIRCUIT**

→ : POSITIVE VOLTAGE LINE    - - - - - : NEGATIVE VOLTAGE LINE    ⇨ : CD PLAYBACK SIGNAL LINE

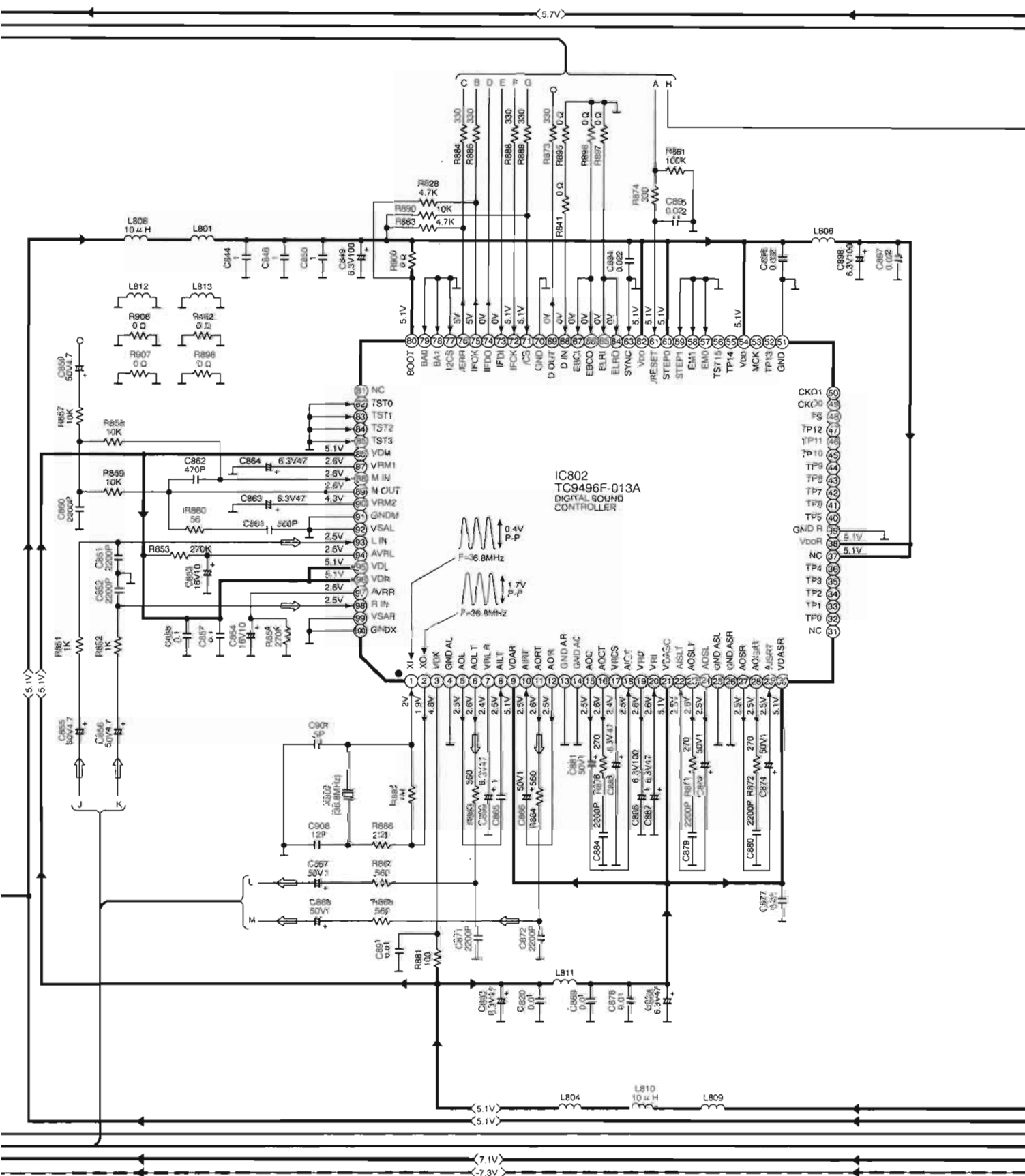






SCHEMATIC DIAGRAM-6

 : POSITIVE VOLTAGE LINE   
  : NEGATIVE VOLTAGE LINE   
  : CD PLAYBACK SIGNAL LINE

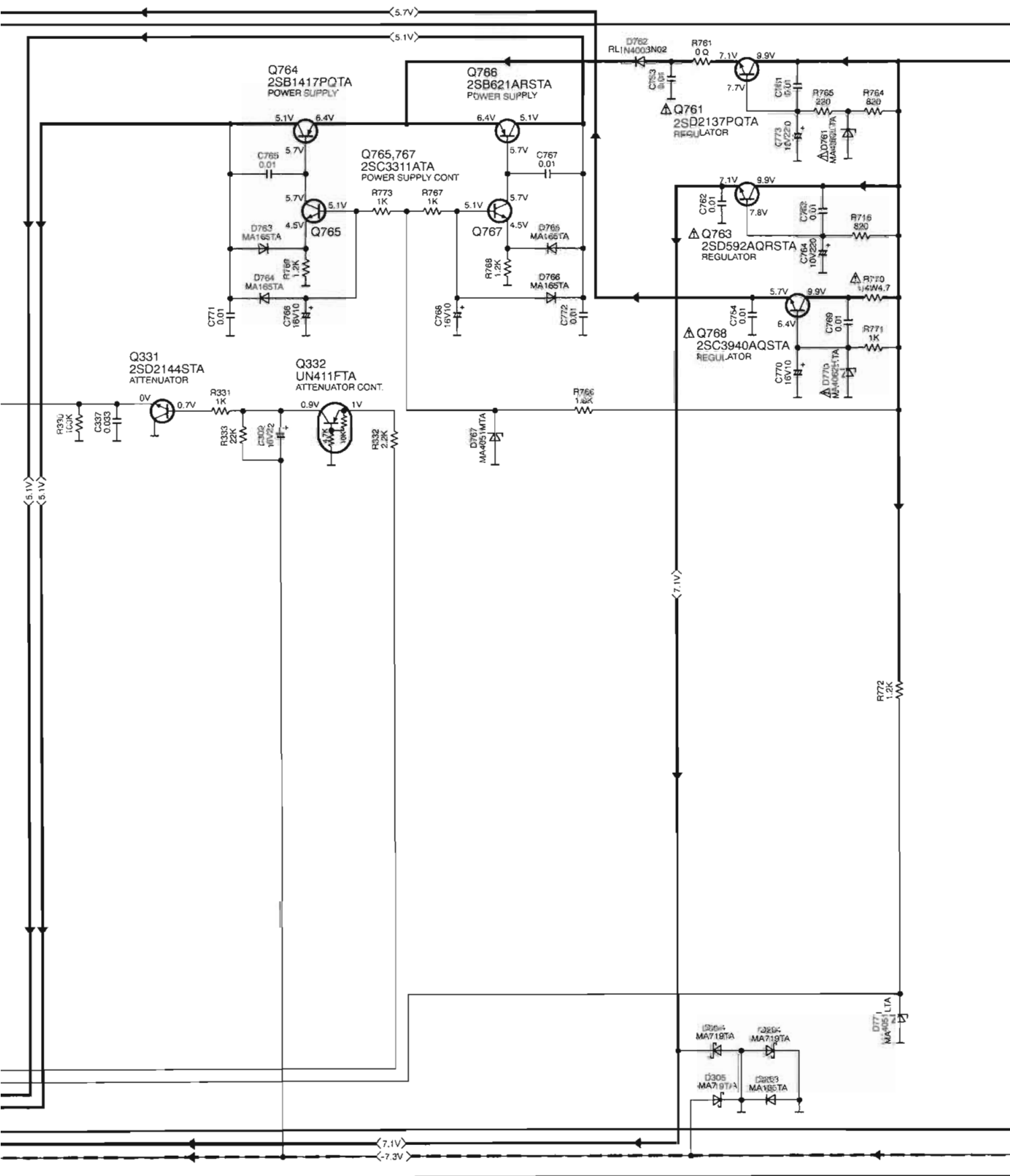


→ : POSITIVE VOLTAGE LINE    - - → : NEGATIVE VOLTAGE LINE    ⇨ : CD PLAYBACK SIGNAL LINE

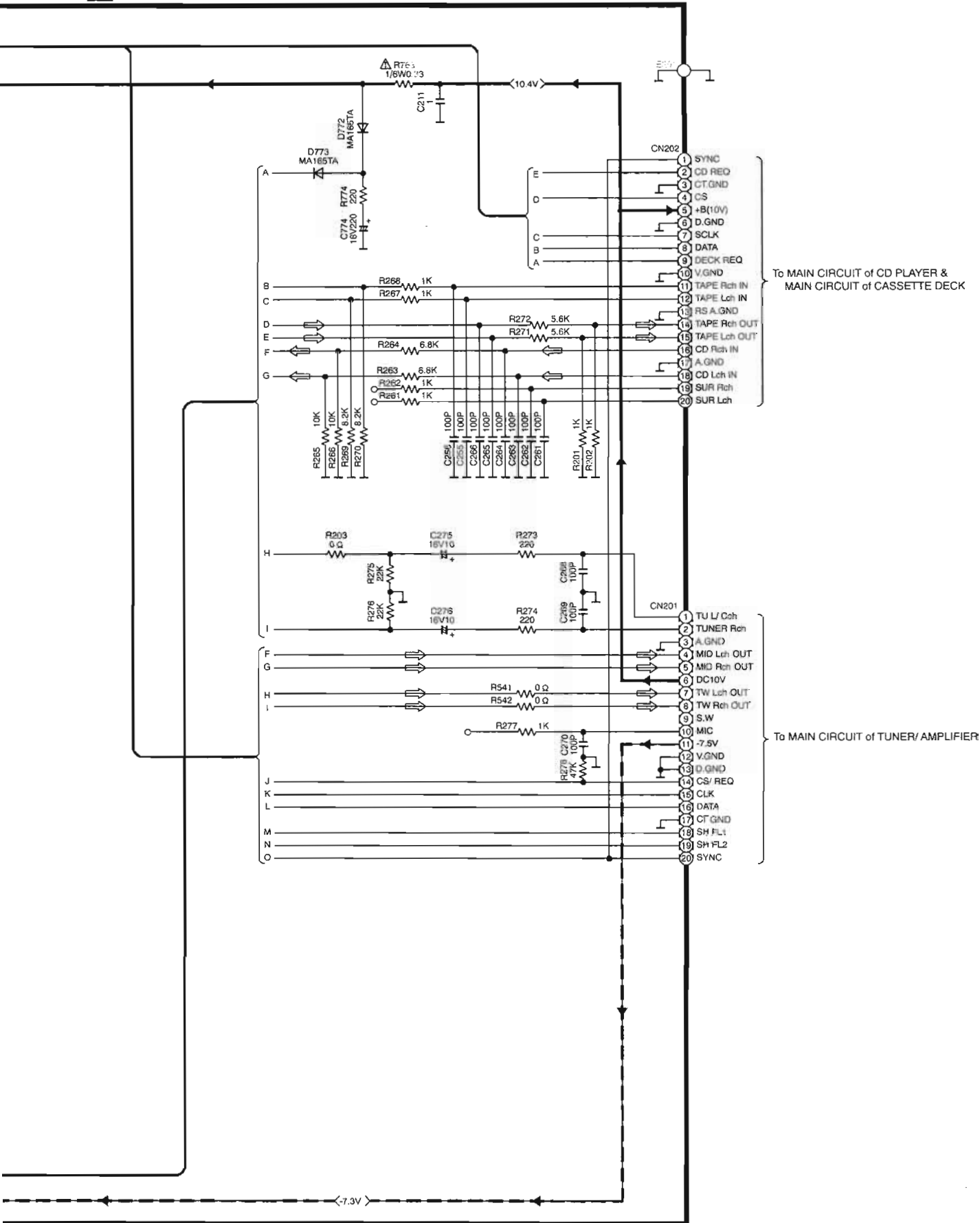


SCHEMATIC DIAGRAM-8

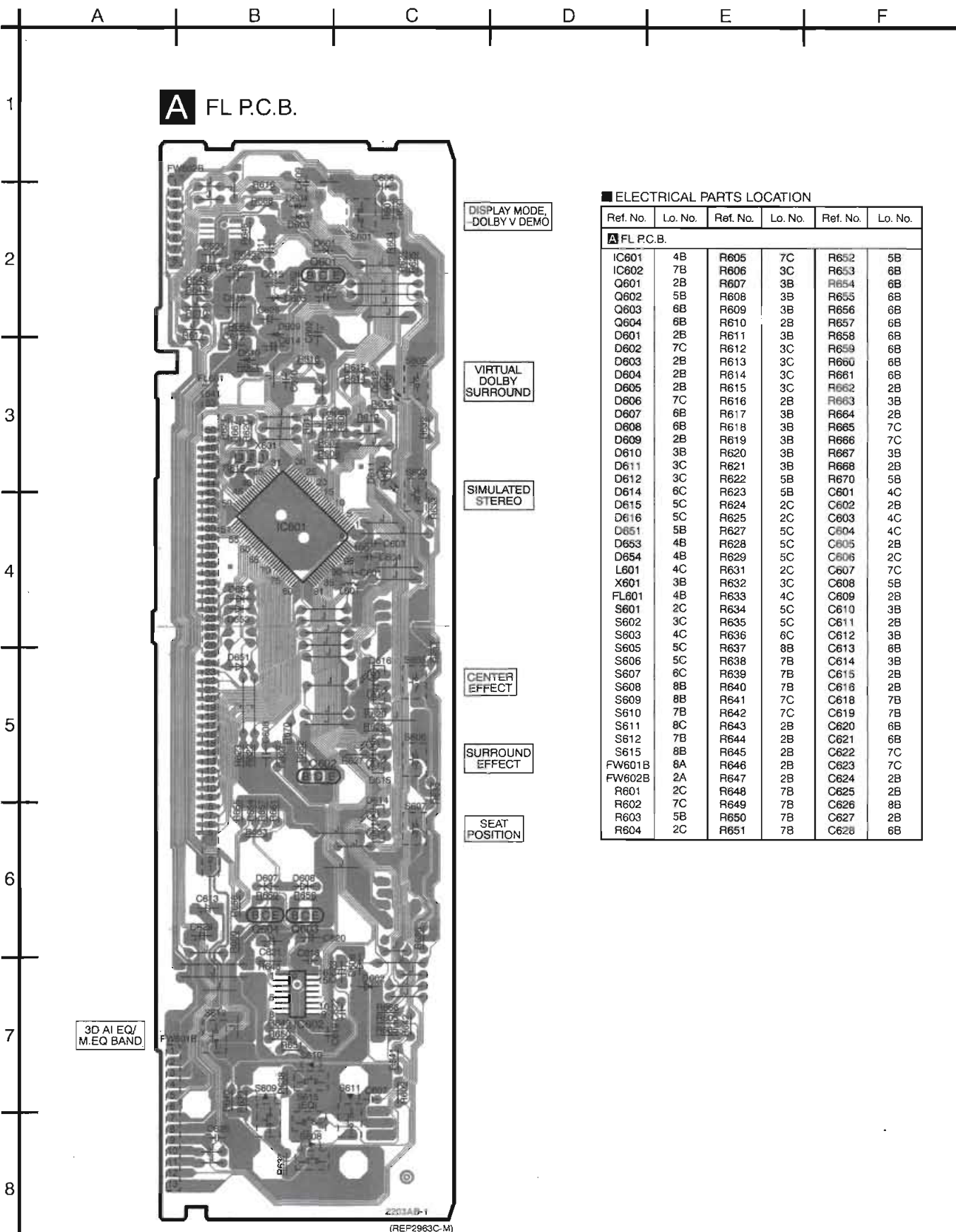
→ : POSITIVE VOLTAGE LINE    - → - : NEGATIVE VOLTAGE LINE



 : POSITIVE VOLTAGE LINE  
 : NEGATIVE VOLTAGE LINE     : CD PLAYBACK SIGNAL LINE



# 7 Printed Circuit Board Diagram



## ELECTRICAL PARTS LOCATION

| Ref. No.    | Lo. No. | Ref. No. | Lo. No. | Ref. No. | Lo. No. |
|-------------|---------|----------|---------|----------|---------|
| A FL P.C.B. |         |          |         |          |         |
| IC601       | 4B      | R605     | 7C      | R652     | 5B      |
| IC602       | 7B      | R606     | 3C      | R653     | 6B      |
| Q601        | 2B      | R607     | 3B      | R654     | 6B      |
| Q602        | 5B      | R608     | 3B      | R655     | 6B      |
| Q603        | 6B      | R609     | 3B      | R656     | 6B      |
| Q604        | 6B      | R610     | 2B      | R657     | 6B      |
| D601        | 2B      | R611     | 3B      | R658     | 6B      |
| D602        | 7C      | R612     | 3C      | R659     | 6B      |
| D603        | 2B      | R613     | 3C      | R660     | 6B      |
| D604        | 2B      | R614     | 3C      | R661     | 6B      |
| D605        | 2B      | R615     | 3C      | R662     | 2B      |
| D606        | 7C      | R616     | 2B      | R663     | 3B      |
| D607        | 6B      | R617     | 3B      | R664     | 2B      |
| D608        | 6B      | R618     | 3B      | R665     | 7C      |
| D609        | 2B      | R619     | 3B      | R666     | 7C      |
| D610        | 3B      | R620     | 3B      | R667     | 3B      |
| D611        | 3C      | R621     | 3B      | R668     | 2B      |
| D612        | 3C      | R622     | 5B      | R670     | 5B      |
| D614        | 6C      | R623     | 5B      | C601     | 4C      |
| D615        | 5C      | R624     | 2C      | C602     | 2B      |
| D616        | 5C      | R625     | 2C      | C603     | 4C      |
| D651        | 5B      | R627     | 5C      | C604     | 4C      |
| D653        | 4B      | R628     | 5C      | C605     | 2B      |
| D654        | 4B      | R629     | 5C      | C606     | 2C      |
| L601        | 4C      | R631     | 2C      | C607     | 7C      |
| X601        | 3B      | R632     | 3C      | C608     | 5B      |
| FL601       | 4B      | R633     | 4C      | C609     | 2B      |
| S601        | 2C      | R634     | 5C      | C610     | 3B      |
| S602        | 3C      | R635     | 5C      | C611     | 2B      |
| S603        | 4C      | R636     | 6C      | C612     | 3B      |
| S605        | 5C      | R637     | 8B      | C613     | 6B      |
| S606        | 5C      | R638     | 7B      | C614     | 3B      |
| S607        | 6C      | R639     | 7B      | C615     | 2B      |
| S608        | 8B      | R640     | 7B      | C616     | 2B      |
| S609        | 8B      | R641     | 7C      | C618     | 7B      |
| S610        | 7B      | R642     | 7C      | C619     | 7B      |
| S611        | 8C      | R643     | 2B      | C620     | 6B      |
| S612        | 7B      | R644     | 2B      | C621     | 6B      |
| S615        | 8B      | R645     | 2B      | C622     | 7C      |
| FW601B      | 6A      | R646     | 2B      | C623     | 7C      |
| FW602B      | 2A      | R647     | 2B      | C624     | 2B      |
| R601        | 2C      | R648     | 7B      | C625     | 2B      |
| R602        | 7C      | R649     | 7B      | C626     | 8B      |
| R603        | 5B      | R650     | 7B      | C627     | 2B      |
| R604        | 2C      | R651     | 7B      | C628     | 6B      |



G

H

I

J

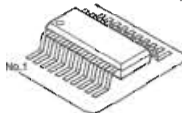
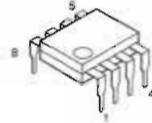
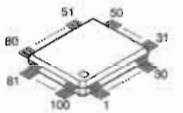
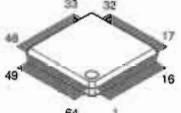
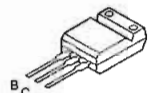
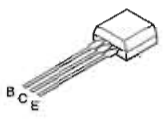
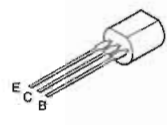
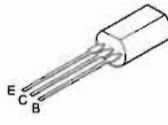
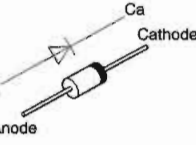
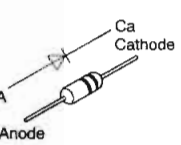
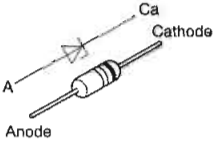
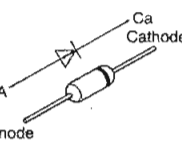
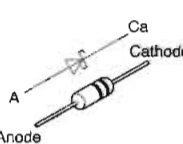
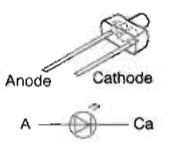
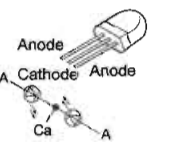
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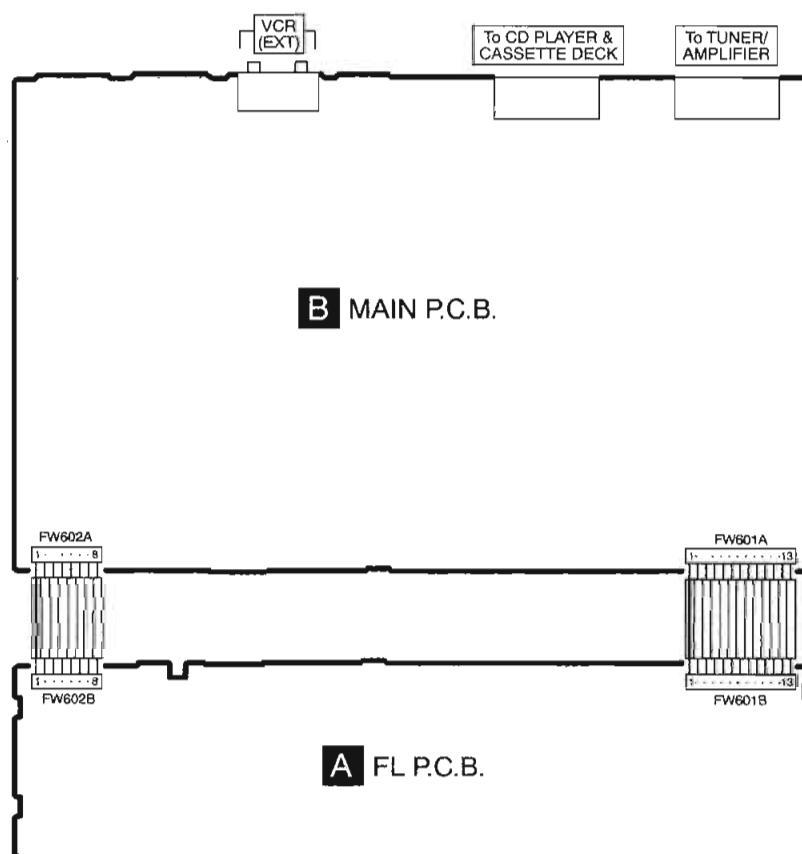
## ■ ELECTRICAL PARTS LOCATION

| Ref. No.      | Lo. No. | Ref. No. | Lo. No. | Ref. No. | Lo. No. | Ref. No. | Lo. No. | Ref. No. | Lo. No. | Ref. No. | Lo. No. | Ref. No. | Lo. No. |
|---------------|---------|----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|
| ■ MAIN P.C.B. |         |          |         |          |         |          |         |          |         |          |         |          |         |
| IC201         | 4C      | L809     | 2E      | R277     | 7B      | R429     | 5E      | R767     | 2F      | C263     | 6C      | C525     | 3C      |
| IC202         | 3B      | L810     | 3D      | R278     | 8B      | R430     | 5E      | R768     | 2F      | C264     | 6C      | C526     | 3D      |
| IC301         | 7C      | L811     | 4D      | R301     | 6C      | R431     | 5E      | R769     | 3F      | C265     | 5B      | C527     | 3C      |
| IC302         | 7D      | L812     | 4F      | R302     | 6C      | R432     | 5F      | R770     | 8D      | C266     | 4B      | C528     | 3C      |
| IC401         | 4E      | L813     | 3D      | R303     | 7C      | R433     | 5E      | R771     | 8D      | C268     | 7B      | C529     | 3C      |
| IC501         | 4D      | X401     | 4E      | R304     | 7D      | R434     | 5E      | R772     | 8C      | C269     | 7B      | C753     | 8C      |
| IC502         | 4D      | X802     | 4D      | R305     | 6C      | R439     | 5E      | R773     | 2F      | C270     | 7B      | C754     | 8E      |
| IC802         | 3E      | CN201    | 7B      | R306     | 6D      | R440     | 4F      | R774     | 8C      | C275     | 5B      | C761     | 8B      |
| Q301          | 6C      | CN202    | 6B      | R307     | 7C      | R441     | 4E      | R828     | 3E      | C276     | 5C      | C762     | 7C      |
| Q302          | 6D      | JK102    | 4B      | R308     | 7D      | R442     | 4E      | R841     | 3E      | C293     | 6C      | C763     | 7C      |
| Q303          | 7C      | E101     | 1C      | R309     | 7C      | R443     | 4E      | R851     | 3D      | C294     | 6C      | C764     | 7C      |
| Q304          | 7D      | E201     | 6C      | R310     | 7D      | R444     | 5D      | R852     | 3D      | C302     | 8D      | C765     | 3F      |
| Q307          | 7D      | FW601A   | 8F      | R311     | 7C      | R445     | 5D      | R853     | 3D      | C303     | 8D      | C766     | 3F      |
| Q308          | 8D      | FW602A   | 2F      | R312     | 7D      | R447     | 5F      | R854     | 3D      | C304     | 8D      | C767     | 2F      |
| Q310          | 7E      | R101     | 4B      | R313     | 6D      | R448     | 5D      | R857     | 3D      | C305     | 7C      | C768     | 2F      |
| Q311          | 7E      | R102     | 4B      | R314     | 6D      | R451     | 5E      | R858     | 3E      | C306     | 7D      | C769     | 8D      |
| Q312          | 6E      | R103     | 4B      | R319     | 7C      | R452     | 5E      | R859     | 3E      | C307     | 7C      | C770     | 8E      |
| Q313          | 6E      | R104     | 4B      | R320     | 7C      | R453     | 5E      | R860     | 3D      | C308     | 7C      | C771     | 3F      |
| Q314          | 6E      | R105     | 3B      | R321     | 8D      | R454     | 5F      | R861     | 3F      | C309     | 7C      | C772     | 2F      |
| Q315          | 7D      | R106     | 3B      | R322     | 8D      | R455     | 5F      | R863     | 3D      | C310     | 7C      | C773     | 8B      |
| Q316          | 7D      | R107     | 3B      | R323     | 7D      | R456     | 5E      | R864     | 4E      | C315     | 7D      | C774     | 8C      |
| Q317          | 7E      | R108     | 3B      | R327     | 8D      | R459     | 5E      | R867     | 3D      | C316     | 7D      | C820     | 4D      |
| Q318          | 7E      | R131     | 4C      | R328     | 7C      | R461     | 5F      | R868     | 4D      | C317     | 7D      | C844     | 3E      |
| Q320          | 7E      | R132     | 4C      | R329     | 7C      | R462     | 4E      | R871     | 4E      | C318     | 7D      | C846     | 3E      |
| Q331          | 8C      | R154     | 7E      | R330     | 8D      | R466     | 6F      | R872     | 4E      | C319     | 7D      | C849     | 3E      |
| Q332          | 8C      | R155     | 7E      | R331     | 8C      | R501     | 3D      | R873     | 3E      | C320     | 7D      | C850     | 3F      |
| Q335          | 3C      | R156     | 6E      | R332     | 8C      | R502     | 3D      | R874     | 3E      | C323     | 7E      | C851     | 3D      |
| Q336          | 4C      | R157     | 6E      | R333     | 8D      | R503     | 4C      | R876     | 4E      | C324     | 7E      | C852     | 3D      |
| Q337          | 6C      | R158     | 7E      | R337     | 6D      | R504     | 3D      | R881     | 4D      | C325     | 7D      | C853     | 3D      |
| Q501          | 5C      | R159     | 7E      | R338     | 6D      | R505     | 4C      | R882     | 3E      | C326     | 7D      | C854     | 3D      |
| Q502          | 5D      | R201     | 7B      | R339     | 7E      | R506     | 4D      | R883     | 3E      | C327     | 7E      | C855     | 4D      |
| Q503          | 5D      | R202     | 6B      | R340     | 6E      | R507     | 4C      | R884     | 3F      | C328     | 8E      | C856     | 3D      |
| Q504          | 5D      | R203     | 2D      | R341     | 7E      | R508     | 4D      | R885     | 3F      | C337     | 8C      | C857     | 3D      |
| Q505          | 5D      | R207     | 3C      | R342     | 6E      | R509     | 4C      | R886     | 4D      | C352     | 8C      | C858     | 3E      |
| Q506          | 5D      | R208     | 3B      | R343     | 6D      | R510     | 4D      | R888     | 3F      | C354     | 7D      | C859     | 3D      |
| Q508          | 3C      | R209     | 3C      | R344     | 6D      | R511     | 4C      | R889     | 4F      | C355     | 7C      | C860     | 3D      |
| Q509          | 3D      | R210     | 3B      | R345     | 6D      | R512     | 4D      | R890     | 3F      | C358     | 7C      | C861     | 3D      |
| Q761          | 7B      | R211     | 3C      | R346     | 6D      | R513     | 4C      | R895     | 3E      | C359     | 7C      | C862     | 3E      |
| Q763          | 7C      | R212     | 3B      | R347     | 7D      | R514     | 4D      | R896     | 3E      | C360     | 6C      | C863     | 3D      |
| Q764          | 3F      | R213     | 3C      | R348     | 7D      | R515     | 5C      | R897     | 3E      | C362     | 7E      | C864     | 3E      |
| Q765          | 3F      | R214     | 3C      | R349     | 7D      | R516     | 5D      | R898     | 3E      | C363     | 7E      | C865     | 4D      |
| Q766          | 2F      | R215     | 2C      | R350     | 7D      | R517     | 5C      | R900     | 3E      | C364     | 7E      | C866     | 4E      |
| Q767          | 2F      | R216     | 2C      | R351     | 7D      | R518     | 5D      | R901     | 5F      | C365     | 7D      | C867     | 3D      |
| Q768          | 8D      | R217     | 4C      | R352     | 7D      | R519     | 5C      | R902     | 4F      | C371     | 7C      | C868     | 4D      |
| D203          | 7B      | R218     | 3C      | R353     | 7D      | R520     | 5D      | R906     | 3D      | C372     | 7C      | C869     | 4D      |
| D204          | 7B      | R219     | 3C      | R354     | 7D      | R521     | 5C      | R907     | 2F      | C401     | 4E      | C871     | 3D      |
| D206          | 2C      | R220     | 2B      | R355     | 7D      | R522     | 5D      | C101     | 4B      | C402     | 5E      | C872     | 4D      |
| D301          | 7E      | R223     | 5F      | R356     | 7D      | R525     | 5D      | C102     | 4B      | C403     | 5F      | C873     | 4E      |
| D302          | 7E      | R224     | 5F      | R357     | 7D      | R526     | 5D      | C103     | 3B      | C404     | 5F      | C874     | 4E      |
| D304          | 7C      | R225     | 5C      | R358     | 7D      | R527     | 5D      | C104     | 3B      | C501     | 4C      | C877     | 4E      |
| D305          | 7C      | R229     | 3C      | R359     | 8E      | R528     | 5E      | C121     | 1B      | C502     | 4D      | C878     | 4E      |
| D306          | 6E      | R230     | 3C      | R360     | 7E      | R529     | 5E      | C201     | 4C      | C503     | 4C      | C879     | 4D      |
| D761          | 8B      | R231     | 4C      | R361     | 8E      | R530     | 5D      | C202     | 5C      | C504     | 4D      | C880     | 4D      |
| D762          | 3F      | R232     | 6C      | R362     | 7E      | R531     | 3C      | C203     | 4C      | C505     | 4D      | C881     | 4E      |
| D763          | 3F      | R233     | 6C      | R363     | 8E      | R532     | 3D      | C204     | 4C      | C506     | 4C      | C883     | 4D      |
| D764          | 3F      | R261     | 5B      | R364     | 8E      | R533     | 3D      | C205     | 3C      | C507     | 4D      | C884     | 4D      |
| D765          | 2F      | R262     | 5B      | R383     | 8E      | R534     | 3D      | C206     | 3B      | C508     | 4D      | C886     | 4D      |
| D766          | 2F      | R263     | 5B      | R400     | 7E      | R535     | 3C      | C207     | 3C      | C509     | 5C      | C887     | 4E      |
| D767          | 2F      | R264     | 6C      | R401     | 4F      | R536     | 2C      | C208     | 3B      | C510     | 4D      | C888     | 4D      |
| D770          | 8E      | R265     | 5B      | R402     | 4F      | R539     | 5C      | C209     | 3C      | C511     | 4D      | C891     | 3D      |
| D771          | 8E      | R266     | 5B      | R404     | 8E      | R540     | 5D      | C210     | 3B      | C512     | 4D      | C892     | 3D      |
| D772          | 8C      | R267     | 5B      | R405     | 8E      | R541     | 6C      | C211     | 7B      | C513     | 5C      | C894     | 3E      |
| D773          | 6C      | R268     | 5B      | R406     | 4F      | R542     | 7C      | C213     | 3C      | C514     | 4D      | C895     | 3E      |
| L101          | 4B      | R269     | 5B      | R407     | 4E      | R543     | 4C      | C214     | 3C      | C515     | 5C      | C896     | 3E      |
| L301          | 7C      | R270     | 3C      | R408     | 7D      | R544     | 4C      | C215     | 3B      | C516     | 5D      | C897     | 4E      |
| L302          | 7C      | R271     | 6B      | R416     | 5E      | R716     | 7C      | C216     | 3C      | C517     | 5D      | C898     | 4E      |
| L401          | 4F      | R272     | 6B      | R417     | 5E      | R761     | 8C      | C218     | 4C      | C518     | 5D      | C899     | 4D      |
| L801          | 2E      | R273     | 7B      | R418     | 5E      | R763     | 7B      | C255     | 6B      | C521     | 3C      | C907     | 3D      |
| L804          | 3D      | R274     | 7B      | R419     | 4F      | R764     | 8B      | C256     | 6B      | C522     | 3D      | C908     | 3D      |
| L806          | 4E      | R275     | 5B      | R420     | 4E      | R765     | 8B      | C261     | 6B      | C523     | 3C      |          |         |
| L808          | 2F      | R276     | 5C      | R428     | 5E      | R766     | 3F      | C262     | 6C      | C524     | 3D      |          |         |

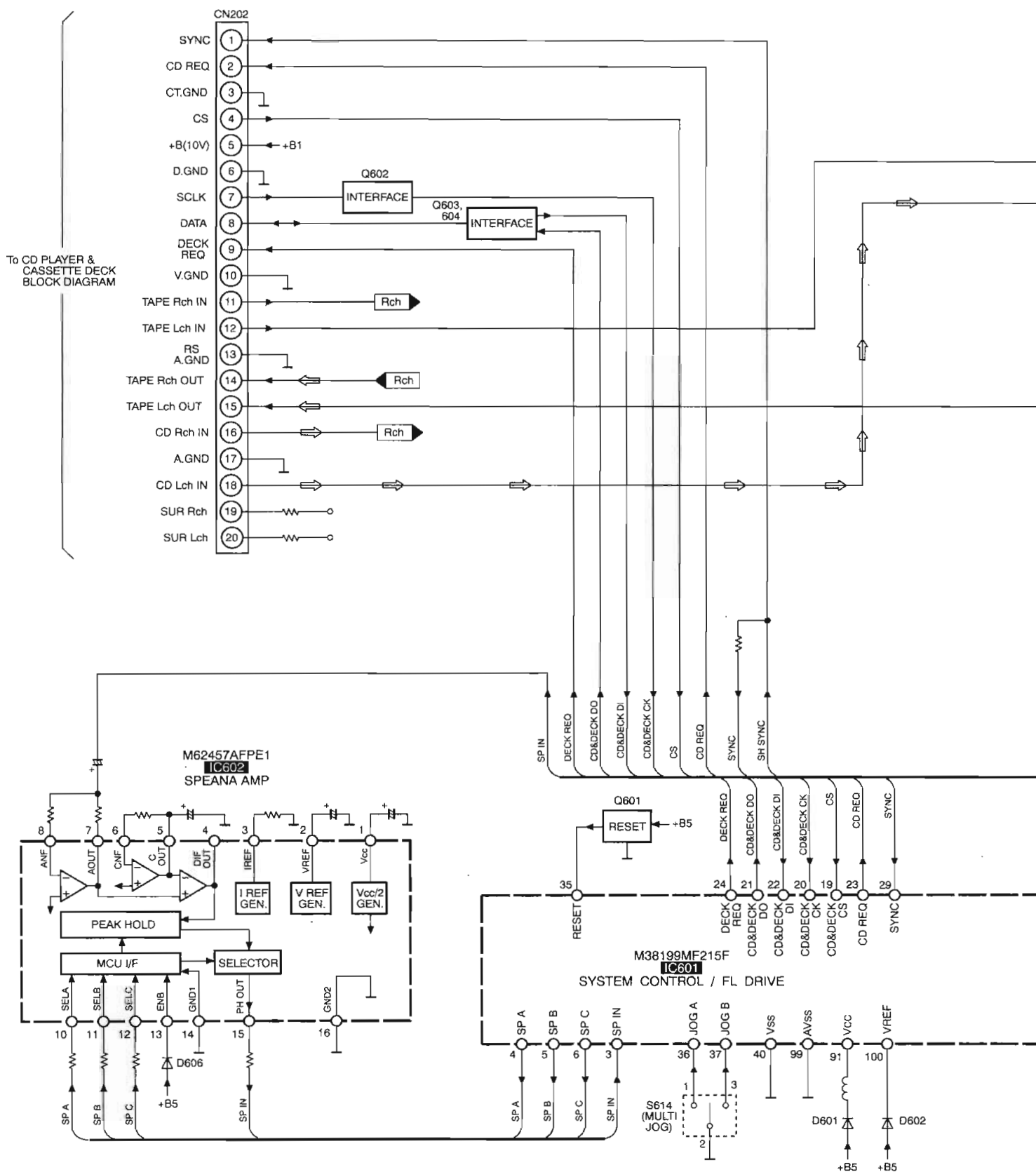
## 8 Type Illustration of ICs, Transistors and Diodes

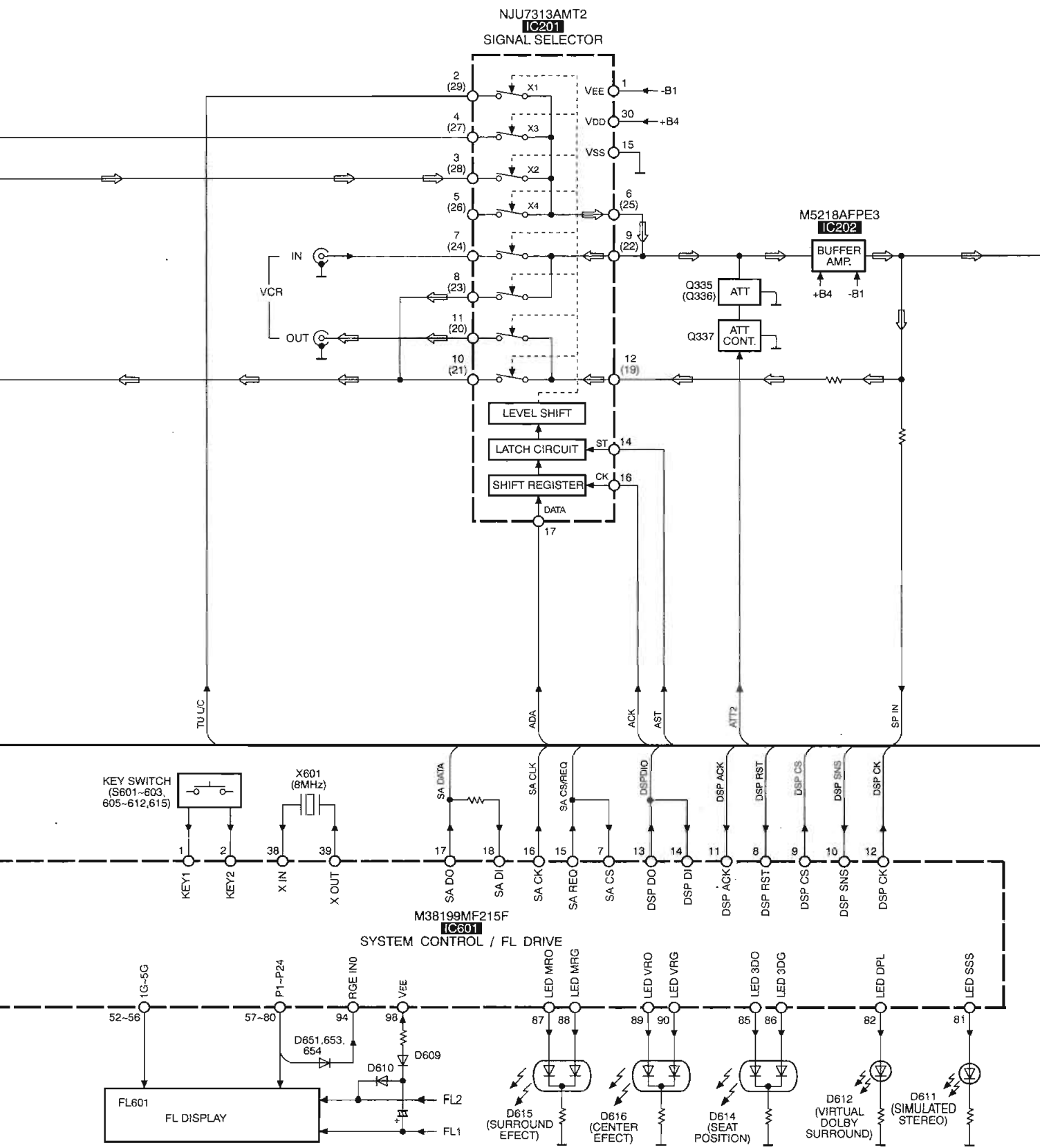
|                                                                                                                                                                                                                                                                         |                                                                                                 |                                                                                                                  |                                                                                                     |                                                                                                    |                                                                                                 |       |                                                                                              |                                                                                                                   |                                                                                                     |                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
|  <table border="1" data-bbox="293 177 518 253"><tr><td>M5218AFPE3</td><td>8PIN</td></tr><tr><td>M62457AFPE1</td><td>16PIN</td></tr><tr><td>NJU7313AMT2</td><td>30PIN</td></tr></table> | M5218AFPE3                                                                                      | 8PIN                                                                                                             | M62457AFPE1                                                                                         | 16PIN                                                                                              | NJU7313AMT2                                                                                     | 30PIN | M5218AP<br> | M38199MF215F<br>TC9496F-013A<br> | M38037M8108F<br> | 2SB1417PQTA<br>2SD2137PQTA<br> |
| M5218AFPE3                                                                                                                                                                                                                                                              | 8PIN                                                                                            |                                                                                                                  |                                                                                                     |                                                                                                    |                                                                                                 |       |                                                                                              |                                                                                                                   |                                                                                                     |                                                                                                                   |
| M62457AFPE1                                                                                                                                                                                                                                                             | 16PIN                                                                                           |                                                                                                                  |                                                                                                     |                                                                                                    |                                                                                                 |       |                                                                                              |                                                                                                                   |                                                                                                     |                                                                                                                   |
| NJU7313AMT2                                                                                                                                                                                                                                                             | 30PIN                                                                                           |                                                                                                                  |                                                                                                     |                                                                                                    |                                                                                                 |       |                                                                                              |                                                                                                                   |                                                                                                     |                                                                                                                   |
| 2SC3311ATA<br>UN4211TA<br>UN411FTA<br>                                                                                                                                                 | 2SD2144STA<br> | 2SB621ARSTA<br>2SD592AQRSTA<br> | 2SC3940AQSTA<br>   | RL1N4003N02<br> | 1SS291TA<br> |       |                                                                                              |                                                                                                                   |                                                                                                     |                                                                                                                   |
|  <p>MA4051LTA<br/>MA4062HTA<br/>MA4082LTA<br/>MA4051MTA</p>                                                                                                                            | MA165TA<br>    | MA719TA<br>                     | LNJ301MPUJAD<br> | SML79455C<br>   |                                                                                                 |       |                                                                                              |                                                                                                                   |                                                                                                     |                                                                                                                   |

## 9 Wiring Connection Diagram

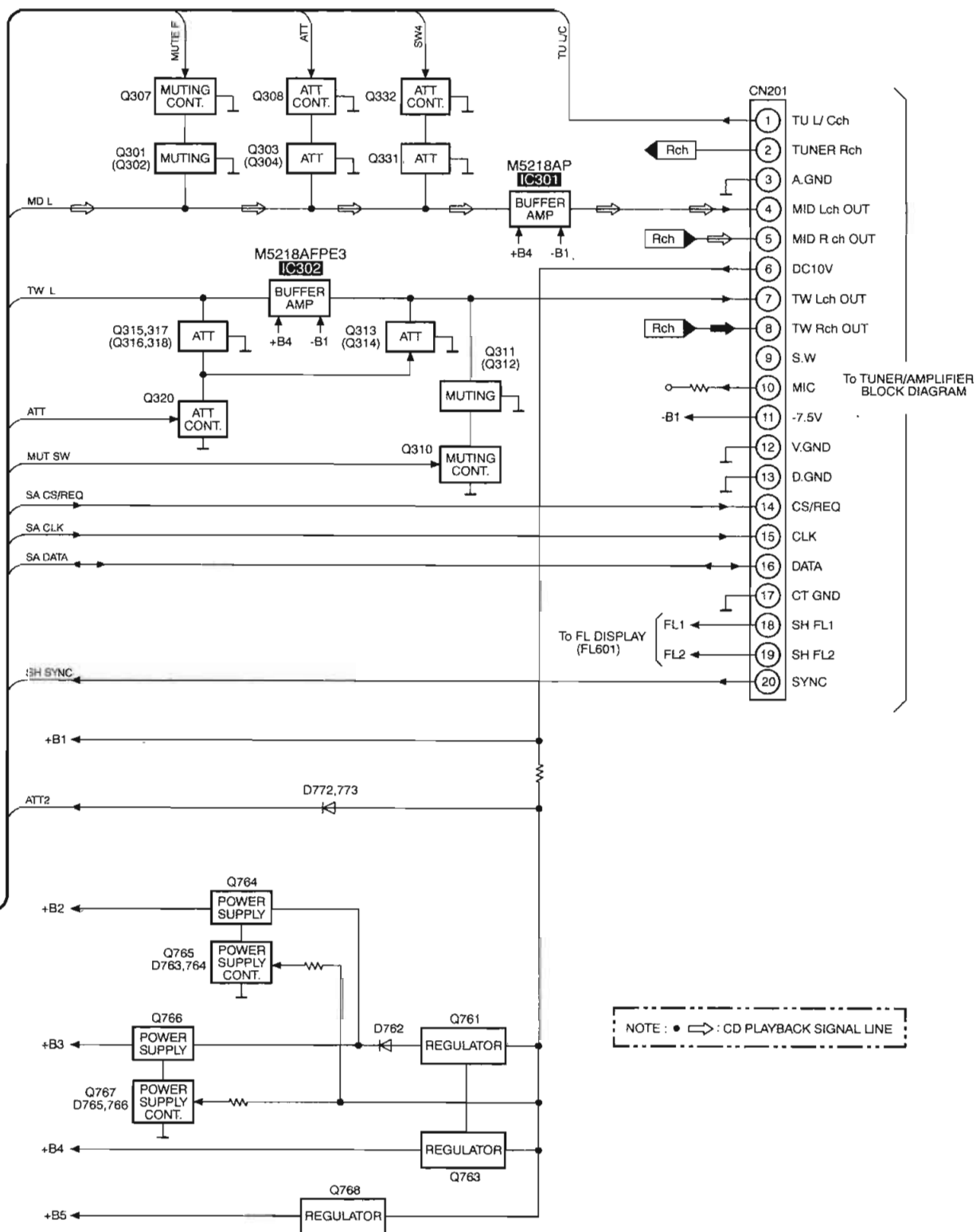


## 10 Block Diagram









# 11 Terminal Function of ICs

## 11.1. IC601 (M38199MF215F): System Control/FL Drive

| Pin No.       | Terminal Name   | I/O | Function                                                             |
|---------------|-----------------|-----|----------------------------------------------------------------------|
| 1             | KEY1            | I   | Operation key signal input                                           |
| 2             | KEY2            | I   | Operation key signal input                                           |
| 3             | SP IN           | I   | A/D signal input from IC602                                          |
| 4             | SP A            | O   | Band select signal output for IC602                                  |
| 5             | SP B            | O   | Band select signal output for IC602                                  |
| 6             | SP C            | O   | Band select signal output for IC602                                  |
| 7             | SA CS           | I   | Chip select signal input                                             |
| 8             | DSP RST         | O   | Reset signal output for IC401                                        |
| 9             | DSP CS          | O   | Chip select signal output for IC401                                  |
| 10            | DSP SNS         | I   | Sense signal input from IC401                                        |
| 11            | DSP ACK         | I   | Acknowledge signal input from IC401                                  |
| 12            | DSP CK          | O   | Clock signal output for IC401                                        |
| 13            | DSP DO          | O   | Data signal output for IC401                                         |
| 14            | DSP DI          | I   | Data signal input from IC401                                         |
| 15            | SA REQ          | O   | Request signal output for Tuner/Amplifier                            |
| 16            | SA CK           | O   | Serial communication signal to Tuner/Amplifier (Clock signal output) |
| 17            | SA DO           | O   | Serial communication signal to Tuner/Amplifier (Data signal output)  |
| 18            | SA DI           | I   | Serial communication signal to Tuner/Amplifier (Data signal input)   |
| 19            | CD&DECK CS      | I   | Chip select signal input (CD and Deck mechanism)                     |
| 20            | CD&DECK CK      | I   | Clock signal input (CD and Deck mechanism)                           |
| 21            | CD&DECK DO      | O   | Data signal output (CD and Deck mechanism)                           |
| 22            | CD&DECK DI      | I   | Data signal input (CD and Deck mechanism)                            |
| 23            | CD REQ          | O   | Serial data request signal output for CD                             |
| 24            | DECK REQ        | O   | Serial data request signal output for Deck mechanism                 |
| 25<br> <br>28 | NC              | -   | Not used, open                                                       |
| 29            | SYNC            | I   | Power failure detect signal input                                    |
| 30            | BR93 CS         | O   | Chip select signal output for EEPROM                                 |
| 31            | BR93 CK         | O   | Clock signal output for EEPROM                                       |
| 32            | BR93 DATA       | I   | Data signal input from EEPROM                                        |
| 33<br>34      | NC              | -   | Not used, open                                                       |
| 35            | RESET           | I   | System reset signal input                                            |
| 36            | JOG A           | I   | JOG A signal input                                                   |
| 37            | JOG B           | I   | JOG B signal input                                                   |
| 38            | X IN            | I   | Ceramic oscillator connected (f=8 MHz)                               |
| 39            | X OUT           | O   |                                                                      |
| 40            | V <sub>SS</sub> | -   | GND terminal                                                         |
| 41<br> <br>45 | NC              | -   | Not used, open                                                       |
| 46<br> <br>56 | 11G<br> <br>1G  | O   | Grid signal output                                                   |
| 57<br> <br>80 | P24<br> <br>P1  | O   | Segment signal output                                                |
| 81            | LED SSS         | O   | LED (SIMULATED STEREO) signal output                                 |
| 82            | LED DPL         | O   | LED (VIRTUAL DOLBY SURROUND) signal output                           |
| 83            | LED SPO         | -   | Not used, open                                                       |
| 84            | LED SPG         | -   |                                                                      |

| Pin No.  | Terminal Name    | I/O | Function                                   |
|----------|------------------|-----|--------------------------------------------|
| 85       | LED 3DO          | O   | ORANGE LED (SEAT POSITION) signal output   |
| 86       | LED 3DG          | O   | GREEN LED (SEAT POSITION) signal output    |
| 87       | LED MRO          | O   | ORANGE LED (SURROUND EFFECT) signal output |
| 88       | LED MRG          | O   | GREEN LED (SURROUND EFFECT) signal output  |
| 89       | LED VRO          | O   | ORANGE LED (CENTER EFFECT) signal output   |
| 90       | LED VRG          | O   | GREEN LED (CENTER EFFECT) signal output    |
| 91       | V <sub>CC</sub>  | I   | Power supply terminal                      |
| 92       | LED CFO          | -   | Not used, open                             |
| 93       | LED CFG          | -   |                                            |
| 94       | REG IN0          | I   | Destination select signal input            |
| 95       | REG IN1          | I   |                                            |
| 96<br>97 | NC               | -   | Not used, connected to GND via resistor    |
| 98       | V <sub>EE</sub>  | I   |                                            |
| 99       | AV <sub>SS</sub> | -   | GND terminal                               |
| 100      | VREF             | I   | Reference voltage input                    |

# 12 Replacement Parts List

## Notes:

- 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 marking [RTL] indicates that Retention Time is Limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
- All parts are supplied by MESA.

| Ref. No. | Part No.     | Part Name & Description | Pcs | Remarks |
|----------|--------------|-------------------------|-----|---------|
| 1        | RKMD400-1S   | TOP CABINET             | 1   |         |
| 2        | RHD30007-S   | SCREW                   | 4   |         |
| 3        | XTB3+8JFZ    | SCREW                   | 9   |         |
| 4        | RKA0105-K    | RUBBER                  | 4   |         |
| 5        | RKA0106-N    | FOOT RING               | 4   |         |
| 6        | RYP0947A-S   | FRONT PANEL             | 1   |         |
| 6-1      | RGB0025-A    | TECHNICS BADGE          | 1   |         |
| 6-2      | RKW0576A-1V  | FL WINDOW               | 1   |         |
| 6-3      | RGK1128-S    | RING ORNAMENT           | 1   |         |
| 6-4      | RGU1761-S    | BUTTON, CONTROL         | 1   |         |
| 6-5      | RGU1762-S    | BUTTON, CENTER          | 1   |         |
| 7        | RMQ0952      | RUBBER                  | 1   |         |
| C101-04  | ECBT1H101KB5 | 50V 100P                | 4   |         |
| C121     | ECBT1H102KB5 | 50V 1000P               | 1   |         |
| C201     | ECBT1H104KB5 | 50V 0.1U                | 1   |         |
| C202-04  | ECBT1H470J5  | 50V 47P                 | 3   |         |
| C205,06  | ECBA1H681KB5 | 50V 680P                | 2   |         |
| C207,08  | ECBT1H330J5  | 50V 33P                 | 2   |         |
| C209,10  | ECBT1H331KB5 | 50V 330P                | 2   |         |
| C211     | ECBT1C105ZF5 | 16V 1U                  | 1   |         |
| C213,14  | RCE1HKA4R7BG | 50V 4.7U                | 2   |         |
| C215,16  | ECBT1C103MS5 | 16V 0.01U               | 2   |         |
| C218     | ECBT1H104KB5 | 50V 0.1U                | 1   |         |
| C255,56  | ECBT1H101KB5 | 50V 100P                | 2   |         |
| C261-66  | ECBT1H101KB5 | 50V 100P                | 6   |         |
| C268-70  | ECBT1H101KB5 | 50V 100P                | 3   |         |
| C275,76  | ECA1CAK100XB | 16V 10U                 | 2   |         |
| C293     | RCE1HKA3R3BG | 50V 3.3U                | 1   |         |
| C294     | ECA1CAK220XB | 16V 22U                 | 1   |         |
| C302-04  | ECA1CAK220XB | 16V 22U                 | 3   |         |
| C305,06  | RCE1HKA4R7BG | 50V 4.7U                | 2   |         |
| C307,08  | ECBT1H101KB5 | 50V 100P                | 2   |         |
| C309,10  | ECBT1H120JC5 | 50V 12P                 | 2   |         |
| C315,16  | ECBT1H101KB5 | 50V 100P                | 2   |         |
| C317,18  | ECBT1H391KB5 | 50V 390P                | 2   |         |
| C319,20  | ECBT1C103MS5 | 16V 0.01U               | 2   |         |
| C323,24  | ECA1CAK220XB | 16V 22U                 | 2   |         |
| C325,26  | RCE1CKA470BG | 16V 47U                 | 2   |         |
| C327,28  | RCE1HKA3R3BG | 50V 3.3U                | 2   |         |
| C337     | ECBT1H333KB5 | 50V 0.033U              | 1   |         |
| C352     | RCE1CKA470BG | 16V 47U                 | 1   |         |
| C354     | RCE1CKA470BG | 16V 47U                 | 1   |         |
| C355     | ECBT1C103MS5 | 16V 0.01U               | 1   |         |
| C358     | ECBT1C103MS5 | 16V 0.01U               | 1   |         |
| C359,60  | RCE1HKA4R7BG | 50V 4.7U                | 2   |         |
| C362     | RCE1CKA470BG | 16V 47U                 | 1   |         |

| Ref. No. | Part No.     | Part Name & Description | Pcs | Remarks |
|----------|--------------|-------------------------|-----|---------|
| C363     | ECA1CAK100XB | 16V 10U                 | 1   |         |
| C364     | RCE1CKA470BG | 16V 47U                 | 1   |         |
| C365     | ECA1CAK100XB | 16V 10U                 | 1   |         |
| C371,72  | ECA1CAK100XB | 16V 10U                 | 2   |         |
| C401     | ECUV1E223KBN | 25V 0.022U              | 1   |         |
| C402     | ECUV1H103KBN | 50V 0.01U               | 1   |         |
| C403     | ECUVNA105KBN | 10V 1U                  | 1   |         |
| C404     | ECA0JAK470XB | 6.3V 47U                | 1   |         |
| C501-04  | ECBT1H563KB5 | 50V 0.056U              | 4   |         |
| C505,06  | ECBT1C103MS5 | 16V 0.01U               | 2   |         |
| C507-10  | ECBT1H563KB5 | 50V 0.056U              | 4   |         |
| C511,12  | ECBT1C562KR5 | 16V 5600P               | 2   |         |
| C513,14  | ECBT1C103MS5 | 16V 0.01U               | 2   |         |
| C515,16  | ECA1CAK220XB | 16V 22U                 | 2   |         |
| C517,18  | RCE1HKA3R3BG | 50V 3.3U                | 2   |         |
| C521,22  | ECBT1H473KB5 | 50V 0.047U              | 2   |         |
| C523,24  | ECBT1H104KB5 | 50V 0.1U                | 2   |         |
| C525,26  | ECBT1H220JC5 | 50V 22P                 | 2   |         |
| C527,28  | ECA1HAK010XI | 50V 1U                  | 2   |         |
| C529     | ECA1CAK101XB | 16V 100U                | 1   |         |
| C601     | ECBT1H104KB5 | 50V 0.1U                | 1   |         |
| C602     | ECA0JML02    | 6.3V 1000U              | 1   |         |
| C603,04  | ECBT1H102KB5 | 50V 1000P               | 2   |         |
| C605     | ECA1VAK330XB | 35V 33U                 | 1   |         |
| C606,07  | ECBT1H471KB5 | 50V 470P                | 2   |         |
| C608     | ECBT1H221KB5 | 50V 220P                | 1   |         |
| C609,10  | ECBT1C103MS5 | 16V 0.01U               | 2   |         |
| C611-13  | ECEA1HKS3R3  | 50V 3.3U                | 3   |         |
| C614     | ECA1CAK100XB | 16V 10U                 | 1   |         |
| C615     | ECA1VAK330XB | 35V 33U                 | 1   |         |
| C616     | ECEA1VKS330Q | 35V 33U                 | 1   |         |
| C618,19  | ECBT1C103MS5 | 16V 0.01U               | 2   |         |
| C620,21  | ECA1HAK0R1XB | 50V 0.1U                | 2   |         |
| C622     | ECBT1H104KB5 | 50V 0.1U                | 1   |         |
| C623     | ECA1HAK0R1XB | 50V 0.1U                | 1   |         |
| C624     | ECBT1C103MS5 | 16V 0.01U               | 1   |         |
| C625     | ECA0JAK101XB | 6.3V 100U               | 1   |         |
| C626     | ECBT1H473KB5 | 50V 0.047U              | 1   |         |
| C627,28  | ECEA1HKS3R3  | 50V 3.3U                | 2   |         |
| C753,54  | ECBT1C103MS5 | 16V 0.01U               | 2   |         |
| C761-63  | ECBT1C103MS5 | 16V 0.01U               | 3   |         |
| C764     | ECA1AAK221XB | 10V 220U                | 1   |         |
| C765     | ECBT1C103MS5 | 16V 0.01U               | 1   |         |
| C766     | ECA1CAK100XB | 16V 10U                 | 1   |         |
| C767     | ECBT1C103MS5 | 16V 0.01U               | 1   |         |
| C768     | ECA1CAK100XB | 16V 10U                 | 1   |         |
| C769     | ECBT1C103MS5 | 16V 0.01U               | 1   |         |
| C770     | ECA1CAK100XB | 16V 10U                 | 1   |         |
| C771,72  | ECBT1C103MS5 | 16V 0.01U               | 2   |         |
| C773     | ECA1AAK221XB | 10V 220U                | 1   |         |
| C774     | ECA1CAM221XB | 16V 220U                | 1   |         |
| C820     | ECUV1H103KBN | 50V 0.01U               | 1   |         |
| C844     | ECUVNA105KBN | 10V 1U                  | 1   |         |
| C846     | ECUVNA105KBN | 10V 1U                  | 1   |         |
| C849     | EEAFC0J101B  | 6.3V 100U               | 1   |         |
| C850     | ECUVNA105KBN | 10V 1U                  | 1   |         |
| C851,52  | ECUV1H222KBN | 50V 2200P               | 2   |         |
| C853,54  | ECA1CAK100XB | 16V 10U                 | 2   |         |
| C855,56  | RCE1HKA4R7BG | 50V 4.7U                | 2   |         |
| C857,58  | ECUVNE104KBN | 25V 0.1U                | 2   |         |
| C859     | RCE1HKA4R7BG | 50V 4.7U                | 1   |         |
| C860     | ECUV1H222KBN | 50V 2200P               | 1   |         |
| C861     | ECUV1H561KBN | 50V 560P                | 1   |         |
| C862     | ECUV1H471KBN | 50V 470P                | 1   |         |
| C863,64  | ECA0JAK470XB | 6.3V 47U                | 2   |         |
| C865     | ECUVNA105KBN | 10V 1U                  | 1   |         |
| C866-68  | ECA1HAK010XI | 50V 1U                  | 3   |         |
| C869     | ECUV1H103KBN | 50V 0.01U               | 1   |         |
| C871,72  | ECUV1H222KBN | 50V 2200P               | 2   |         |
| C873,74  | ECA1HAK010XI | 50V 1U                  | 2   |         |
| C877,78  | ECUV1H103KBN | 50V 0.01U               | 2   |         |

| Ref. No.  | Part No.     | Part Name & Description | Pcs | Remarks |
|-----------|--------------|-------------------------|-----|---------|
| C879, 80  | ECUV1H222KBN | 50V 2200P               | 2   |         |
| C881      | ECA1HAK010XI | 50V 1U                  | 1   |         |
| C883      | ECA0JAK470XH | 6.3V 47U                | 1   |         |
| C884      | ECUV1H222KBN | 50V 2200P               | 1   |         |
| C886      | EEAPC0J101B  | 6.3V 100U               | 1   |         |
| C887, 88  | ECA0JAK470XH | 6.3V 47U                | 2   |         |
| C891      | ECUV1H103KBN | 50V 0.01U               | 1   |         |
| C892      | ECA0JAK470XH | 6.3V 47U                | 1   |         |
| C894-97   | ECUV1E223KBN | 25V 0.022U              | 4   |         |
| C898      | EEAPC0J101B  | 6.3V 100U               | 1   |         |
| C899      | ECA0JAK470XH | 6.3V 47U                | 1   |         |
| C907      | ECUV1H050DCN | 50V 5P                  | 1   |         |
| C908      | ECUV1H120JCN | 50V 12P                 | 1   |         |
| CN201     | RJT065A20    | CONNECTOR (20P)         | 1   |         |
| CN202     | RJT065K20    | SYSTEM CONNECTOR (20P)  | 1   |         |
| D203      | MA165        | DIODE                   | 1   |         |
| D204      | MA719TA      | DIODE                   | 1   |         |
| D206      | MA165        | DIODE                   | 1   |         |
| D301, 02  | MA165        | DIODE                   | 2   |         |
| D304, 05  | MA719TA      | DIODE                   | 2   |         |
| D306      | MA165        | DIODE                   | 1   |         |
| D601-04   | 1SS291TA     | DIODE                   | 4   |         |
| D605-10   | MA165        | DIODE                   | 6   | △       |
| D611, 12  | LNJ301MPUJAD | LED                     | 2   |         |
| D614-16   | SML79455C    | LED                     | 3   |         |
| D651      | MA165        | DIODE                   | 1   |         |
| D653, 54  | MA165        | DIODE                   | 2   |         |
| D761      | MA4082LTA    | DIODE                   | 1   | △       |
| D762      | RLN4003N02   | DIODE                   | 1   |         |
| D763-66   | MA165        | DIODE                   | 4   |         |
| D767      | MA4051M      | DIODE                   | 1   |         |
| D770      | MA4062H      | DIODE                   | 1   | △       |
| D771      | MA4051-L     | DIODE                   | 1   |         |
| D772, 73  | MA165        | DIODE                   | 2   |         |
| FL601     | RSL0301-F    | FL                      | 1   |         |
| IC201     | NJU7313AMT2  | IC                      | 1   |         |
| IC202     | M5218AFPE3   | IC                      | 1   |         |
| IC301     | M5218AF      | IC                      | 1   |         |
| IC302     | M5218AFPE3   | IC                      | 1   |         |
| IC401     | M38037M8108F | IC                      | 1   |         |
| IC501, 02 | M5218AFPE3   | IC                      | 2   |         |
| IC601     | M38199MF215F | IC                      | 1   |         |
| IC602     | M62457AFPE1  | IC                      | 1   |         |
| IC802     | TC9496F-013  | IC                      | 1   |         |
| JKI02     | SJF3069-5N   | EXT OUT/IN              | 1   |         |
| L101      | BL02RN2R65T2 | COIL                    | 1   |         |
| L301, 02  | RLQA3R3JT1-Y | COIL                    | 2   |         |
| L401      | RLQB100JTD-D | COIL                    | 1   |         |
| L601      | RLQA100JT1-Y | COIL                    | 1   |         |
| L801      | RLBN102V-Y   | COIL                    | 1   |         |
| L804      | RLBN102V-Y   | COIL                    | 1   |         |
| L806      | RLBN102V-Y   | COIL                    | 1   |         |
| L808      | RLQB100JTD-D | INDUCTOR                | 1   |         |
| L809      | RLBN102V-Y   | COIL                    | 1   |         |
| L810      | RLQB100JTD-D | INDUCTOR                | 1   |         |
| L811      | RLBN102V-Y   | COIL                    | 1   |         |
| L812, 13  | RLS00050T-Y  | COIL                    | 2   |         |
| PCB1      | REP2963C-M   | PCB ASS'Y               | 1   | [RTL]   |
| Q301-06   | 2SC3327A     | TRANSISTOR              | 6   |         |
| Q307, 08  | UN411FTA     | TRANSISTOR              | 2   |         |
| Q310      | UN411FTA     | TRANSISTOR              | 1   |         |
| Q311, 12  | 2SC3311ATA   | TRANSISTOR              | 2   |         |
| Q313-16   | 2SC3327A     | TRANSISTOR              | 4   |         |
| Q317, 18  | 2SC3327A     | TRANSISTOR              | 2   |         |
| Q320      | UN411FTA     | TRANSISTOR              | 1   |         |
| Q331      | 2SC3327A     | TRANSISTOR              | 1   |         |

| Ref. No. | Part No.     | Part Name & Description | Pcs | Remarks |
|----------|--------------|-------------------------|-----|---------|
| Q332     | UN411FTA     | TRANSISTOR              | 1   |         |
| Q335, 36 | 2SC3327A     | TRANSISTOR              | 2   |         |
| Q337     | UN411FTA     | TRANSISTOR              | 1   |         |
| Q501-04  | 2SC3327A     | TRANSISTOR              | 4   |         |
| Q505, 06 | UN411FTA     | TRANSISTOR              | 2   |         |
| Q508, 09 | 2SC3311ATA   | TRANSISTOR              | 2   |         |
| Q601     | UN4211       | TRANSISTOR              | 1   |         |
| Q602-04  | 2SC3311ATA   | TRANSISTOR              | 3   |         |
| Q761     | 2SD2137PQTA  | TRANSISTOR              | 1   | △       |
| Q763     | 2SD592AR     | TRANSISTOR              | 1   | △       |
| Q764     | 2SB1417PQTA  | TRANSISTOR              | 1   |         |
| Q765     | 2SC3311ATA   | TRANSISTOR              | 1   |         |
| Q766     | 2SB621A-R    | TRANSISTOR              | 1   |         |
| Q767     | 2SC3311ATA   | TRANSISTOR              | 1   |         |
| Q768     | 2SC3940AQSTA | TRANSISTOR              | 1   | △       |
| R101, 02 | ERDS2FJ104   | 1/4W 100K               | 2   |         |
| R103, 04 | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R105, 06 | ERDS2FJ123   | 1/4W 12K                | 2   |         |
| R107, 08 | ERDS2FJ332   | 1/4W 3.3K               | 2   |         |
| R131, 32 | ERDS2FJ222   | 1/4W 2.2K               | 2   |         |
| R154, 55 | ERDS2FJ182   | 1/4W 1.8K               | 2   |         |
| R156, 57 | ERDS2FJ563   | 1/4W 56K                | 2   |         |
| R158, 59 | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R201, 02 | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R203     | ERD16TJ000T  | 1/4W 0                  | 1   |         |
| R207, 08 | ERDS2FJ563   | 1/4W 56K                | 2   |         |
| R209, 10 | ERDS2FJ273   | 1/4W 27K                | 2   |         |
| R211, 12 | ERDS2FJ563   | 1/4W 56K                | 2   |         |
| R213, 14 | ERDS2FJ224   | 1/4W 220K               | 2   |         |
| R215, 16 | ERDS2FJ472   | 1/4W 4.7K               | 2   |         |
| R217, 18 | ERDS2FJ221   | 1/4W 220                | 2   |         |
| R219, 20 | ERDS2FJ222   | 1/4W 2.2K               | 2   |         |
| R223-25  | ERDS2FJ472   | 1/4W 4.7K               | 3   |         |
| R229     | ERD16TJ000T  | 1/4W 0                  | 1   |         |
| R230, 31 | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R232     | ERDS2FJ223   | 1/4W 22K                | 1   |         |
| R233     | ERDS2FJ122   | 1/4W 1.2K               | 1   |         |
| R261, 62 | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R263, 64 | ERDS2FJ682   | 1/4W 6.8K               | 2   |         |
| R265, 66 | ERDS2FJ103   | 1/4W 10K                | 2   |         |
| R267, 68 | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R269, 70 | ERDS2FJ822   | 1/4W 8.2K               | 2   |         |
| R271, 72 | ERDS2FJ562   | 1/4W 5.6K               | 2   |         |
| R273, 74 | ERDS2FJ221   | 1/4W 220                | 2   |         |
| R275, 76 | ERDS2FJ223   | 1/4W 22K                | 2   |         |
| R277     | ERDS2FJ102   | 1/4W 1K                 | 1   |         |
| R278     | ERDS2FJ473   | 1/4W 47K                | 1   |         |
| R301, 02 | ERDS2FJ222   | 1/4W 2.2K               | 2   |         |
| R303, 04 | ERDS2FJ223   | 1/4W 22K                | 2   |         |
| R305, 06 | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R307, 08 | ERDS2FJ821   | 1/4W 820                | 2   |         |
| R309, 10 | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R311, 12 | ERDS2FJ682   | 1/4W 6.8K               | 2   |         |
| R313, 14 | ERDS2FJ223   | 1/4W 22K                | 2   |         |
| R319, 20 | ERDS2FJ394   | 1/4W 390K               | 2   |         |
| R321     | ERDS2FJ182   | 1/4W 1.8K               | 1   |         |
| R322     | ERDS2FJ223   | 1/4W 22K                | 1   |         |
| R323     | ERDS2FJ154   | 1/4W 150K               | 1   |         |
| R327     | ERDS2FJ472   | 1/4W 4.7K               | 1   |         |
| R328, 29 | ERDS2FJ124   | 1/4W 120K               | 2   |         |
| R330     | ERDS2FJ104   | 1/4W 100K               | 1   |         |
| R331     | ERDS2FJ102   | 1/4W 1K                 | 1   |         |
| R332     | ERDS2FJ222   | 1/4W 2.2K               | 1   |         |
| R333     | ERDS2FJ223   | 1/4W 22K                | 1   |         |
| R337, 38 | ERDS2FJ104   | 1/4W 100K               | 2   |         |
| R339, 40 | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R341, 42 | ERDS2FJ391   | 1/4W 390                | 2   |         |
| R343, 44 | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R345, 46 | ERDS2FJ822   | 1/4W 8.2K               | 2   |         |
| R347, 48 | ERDS2FJ120   | 1/4W 12                 | 2   |         |
| R349, 50 | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R351, 52 | ERDS2FJ561   | 1/4W 560                | 2   |         |
| R353, 54 | ERDS2FJ224   | 1/4W 220K               | 2   |         |

| Ref. No. | Part No.     | Part Name & Description | Pcs | Remarks |
|----------|--------------|-------------------------|-----|---------|
| R355,56  | ERDS2FJ222   | 1/4W 2.2K               | 2   |         |
| R357,58  | ERDS2FJ682   | 1/4W 6.8K               | 2   |         |
| R359,60  | ERDS2FJ103   | 1/4W 10K                | 2   |         |
| R361,62  | ERDS2FJ224   | 1/4W 220K               | 2   |         |
| R363     | ERDS2FJ102   | 1/4W 1K                 | 1   |         |
| R364     | ERDS2FJ154   | 1/4W 150K               | 1   |         |
| R383     | ERDS2FJ154   | 1/4W 150K               | 1   |         |
| R400     | ERD16TJ000T  | 1/4W 0                  | 1   |         |
| R401     | ERJ6GEYJ104V | 1/10W 100K              | 1   |         |
| R402     | ERJ6GEYJ221V | 1/10W 220               | 1   |         |
| R404,05  | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R406     | ERJ6GEYJ103V | 1/10W 10K               | 1   |         |
| R407     | ERJ6GEYJ471V | 1/10W 470               | 1   |         |
| R408     | ERDS2FJ472   | 1/4W 4.7K               | 1   |         |
| R416-18  | ERJ6GEYJ102V | 1/10W 1K                | 3   |         |
| R419     | ERJ6GEYJ331V | 1/10W 330               | 1   |         |
| R420     | ERJ6GEYJ102V | 1/10W 1K                | 1   |         |
| R428,29  | ERJ6GEYJ472V | 1/10W 4.7K              | 2   |         |
| R430     | ERJ6GEYJ104V | 1/10W 100K              | 1   |         |
| R431-34  | ERJ6GEYJ221V | 1/10W 220               | 4   |         |
| R439     | ERJ6GEYJ104V | 1/10W 100K              | 1   |         |
| R440     | ERJ6GEYJ102V | 1/10W 1K                | 1   |         |
| R441-45  | ERJ6GEYJ103V | 1/10W 10K               | 5   |         |
| R447,48  | ERJ6GEYJ102V | 1/10W 1K                | 2   |         |
| R451-53  | ERJ6GEYJ102V | 1/10W 1K                | 3   |         |
| R454,55  | ERJ6GEYJ103V | 1/10W 10K               | 2   |         |
| R456     | ERJ6GEYJ102V | 1/10W 1K                | 1   |         |
| R459     | ERJ6GEYOR00V | 1/10W 0                 | 1   |         |
| R461     | ERJ6GEYJ221V | 1/10W 220               | 1   |         |
| R462     | ERJ6GEYOR00V | 1/10W 0                 | 1   |         |
| R466     | ERDS2FJ101   | 1/4W 100                | 1   |         |
| R501,02  | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R503,04  | ERDS2FJ104   | 1/4W 100K               | 2   |         |
| R505,06  | ERDS2FJ184   | 1/4W 180K               | 2   |         |
| R507,08  | ERDS2FJ183   | 1/4W 18K                | 2   |         |
| R509,10  | ERDS2FJ103   | 1/4W 10K                | 2   |         |
| R511-14  | ERDS2FJ104   | 1/4W 100K               | 4   |         |
| R515,16  | ERDS2FJ331   | 1/4W 330                | 2   |         |
| R517,18  | ERDS2FJ152   | 1/4W 1.5K               | 2   |         |
| R519,20  | ERDS2FJ104   | 1/4W 100K               | 2   |         |
| R521,22  | ERDS2FJ561   | 1/4W 560                | 2   |         |
| R525,26  | ERDS2FJ121   | 1/4W 120                | 2   |         |
| R527     | ERDS2FJ104   | 1/4W 100K               | 1   |         |
| R528,29  | ERDS2FJ222   | 1/4W 2.2K               | 2   |         |
| R530     | ERDS2FJ104   | 1/4W 100K               | 1   |         |
| R531,32  | ERDS2FJ103   | 1/4W 10K                | 2   |         |
| R533,34  | ERDS2FJ222   | 1/4W 2.2K               | 2   |         |
| R535,36  | ERDS2FJ823   | 1/4W 82K                | 2   |         |
| R539,40  | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R541-44  | ERD16TJ000T  | 1/4W 0                  | 4   |         |
| R601-03  | ERDS2FJ102   | 1/4W 1K                 | 3   |         |
| R604,05  | ERDS2FJ103   | 1/4W 10K                | 2   |         |
| R606     | ERDS2FJ102   | 1/4W 1K                 | 1   |         |
| R607,08  | ERDS2FJ221   | 1/4W 220                | 2   |         |
| R609     | ERDS2FJ222   | 1/4W 2.2K               | 1   |         |
| R610     | ERDS2FJ102   | 1/4W 1K                 | 1   |         |
| R611     | ERDS2FJ101   | 1/4W 100                | 1   |         |
| R612     | ERDS2FJ102   | 1/4W 1K                 | 1   |         |
| R613     | ERDS2FJ562   | 1/4W 5.6K               | 1   |         |
| R614-17  | ERDS2FJ102   | 1/4W 1K                 | 4   |         |
| R618     | ERDS2FJ104   | 1/4W 100K               | 1   |         |
| R619     | ERDS2FJ681   | 1/4W 680                | 1   |         |
| R620,21  | ERD16TJ000T  | 1/4W 0                  | 2   |         |
| R622,23  | ERDS2FJ104   | 1/4W 100K               | 2   |         |
| R624,25  | ERDS2FJ181   | 1/4W 180                | 2   |         |
| R627-29  | ERDS2FJ181   | 1/4W 180                | 3   |         |
| R631     | ERDS2FJ821   | 1/4W 820                | 1   |         |
| R632     | ERDS2FJ102   | 1/4W 1K                 | 1   |         |
| R633     | ERDS2FJ122   | 1/4W 1.2K               | 1   |         |
| R634     | ERDS2FJ152   | 1/4W 1.5K               | 1   |         |
| R635     | ERDS2FJ182   | 1/4W 1.8K               | 1   |         |
| R636     | ERDS2FJ222   | 1/4W 2.2K               | 1   |         |
| R637     | ERDS2FJ821   | 1/4W 820                | 1   |         |
| R638     | ERDS2FJ102   | 1/4W 1K                 | 1   |         |

| Ref. No. | Part No.     | Part Name & Description | Pcs | Remarks |
|----------|--------------|-------------------------|-----|---------|
| R639     | ERDS2FJ122   | 1/4W 1.2K               | 1   |         |
| R640     | ERDS2FJ152   | 1/4W 1.5K               | 1   |         |
| R641     | ERDS2FJ182   | 1/4W 1.8K               | 1   |         |
| R642     | ERDS2FJ222   | 1/4W 2.2K               | 1   |         |
| R643,44  | ERDS2FJ102   | 1/4W 1K                 | 2   |         |
| R645     | ERDS2FJ101   | 1/4W 100                | 1   |         |
| R646     | ERDS2FJ222   | 1/4W 2.2K               | 1   |         |
| R647     | ERDS2FJ223   | 1/4W 22K                | 1   |         |
| R648-50  | ERDS2FJ104   | 1/4W 100K               | 3   |         |
| R651     | ERDS2FJ102   | 1/4W 1K                 | 1   |         |
| R652     | ERDS2FJ472   | 1/4W 4.7K               | 1   |         |
| R653     | ERDS2FJ472   | 1/4W 4.7K               | 1   |         |
| R654-56  | ERDS2FJ103   | 1/4W 10K                | 3   |         |
| R657     | ERDS2FJ473   | 1/4W 47K                | 1   |         |
| R658,59  | ERDS2FJ472   | 1/4W 4.7K               | 2   |         |
| R660     | ERDS2FJ473   | 1/4W 47K                | 1   |         |
| R661     | ERDS2FJ223   | 1/4W 22K                | 1   |         |
| R662     | ERDS2FJ221   | 1/4W 220                | 1   |         |
| R663,64  | ERDS2FJ331   | 1/4W 330                | 2   |         |
| R665,66  | ERDS2FJ473   | 1/4W 47K                | 2   |         |
| R667     | ERD16TJ000T  | 1/4W 0                  | 1   |         |
| R668     | ERDS2FJ222   | 1/4W 2.2K               | 1   |         |
| R670     | ERDS2FJ104   | 1/4W 100K               | 1   |         |
| R716     | ERDS2FJ821   | 1/4W 820                | 1   |         |
| R761     | ERD16TJ000T  | 1/4W 0                  | 1   |         |
| R763     | ERQ16NKR33E  | 1/6W 0.33               | 1   | △       |
| R764     | ERDS2FJ821   | 1/4W 820                | 1   |         |
| R765     | ERDS2FJ221   | 1/4W 220                | 1   |         |
| R766     | ERDS2FJ182   | 1/4W 1.8K               | 1   |         |
| R767     | ERDS2FJ102   | 1/4W 1K                 | 1   |         |
| R768,69  | ERDS2FJ122   | 1/4W 1.2K               | 2   |         |
| R770     | ERD2FCJ4R7   | 1/4W 4.7                | 1   | △       |
| R771     | ERDS2FJ102   | 1/4W 1K                 | 1   |         |
| R772     | ERDS2FJ152   | 1/4W 1.5K               | 1   |         |
| R773     | ERDS2FJ102   | 1/4W 1K                 | 1   |         |
| R774     | ERDS2FJ221   | 1/4W 220                | 1   |         |
| R828     | ERJ6GEYJ472V | 1/10W 4.7K              | 1   |         |
| R841     | ERJ6GEYOR00V | 1/10W 0                 | 1   |         |
| R851,52  | ERJ6GEYJ102V | 1/10W 1K                | 2   |         |
| R853,54  | ERJ6GEYJ274V | 1/10W 270K              | 2   |         |
| R857-59  | ERJ6GEYJ103V | 1/10W 10K               | 3   |         |
| R860     | ERJ6GEYJ560V | 1/10W 56                | 1   |         |
| R861     | ERJ6GEYJ104V | 1/10W 100K              | 1   |         |
| R863,64  | ERJ6GEYJ561V | 1/10W 560               | 2   |         |
| R867,68  | ERJ6GEYJ561V | 1/10W 560               | 2   |         |
| R871,72  | ERJ6GEYJ271V | 1/10W 270               | 2   |         |
| R873,74  | ERJ6GEYJ331V | 1/10W 330               | 2   |         |
| R876     | ERJ6GEYJ271V | 1/10W 270               | 1   |         |
| R881     | ERJ6GEYJ101V | 1/10W 100               | 1   |         |
| R882     | ERJ6GEYJ105  | 1/10W 1M                | 1   |         |
| R883     | ERJ6GEYJ472V | 1/10W 4.7K              | 1   |         |
| R884,85  | ERJ6GEYJ331V | 1/10W 330               | 2   |         |
| R886     | ERJ6GEYJ221V | 1/10W 220               | 1   |         |
| R888,89  | ERJ6GEYJ331V | 1/10W 330               | 2   |         |
| R890     | ERJ6GEYJ103V | 1/10W 10K               | 1   |         |
| R895-98  | ERJ6GEYOR00V | 1/10W 0                 | 4   |         |
| R900-02  | ERJ6GEYOR00V | 1/10W 0                 | 3   |         |
| R906,07  | ERJ6GEYOR00V | 1/10W 0                 | 2   |         |
| S601-03  | EVQ11G05R    | SW, PUSH                | 3   |         |
| S605-12  | EVQ11G05R    | SW, PUSH                | 8   |         |
| S615     | EVQ11G05R    | SW, EQ                  | 1   |         |
| X401     | RSXY8M00M06T | OSCILLATOR              | 1   |         |
| X601     | RSXY8M00M06T | OSCILLATOR              | 1   |         |
| X802     | RSXZ36M8M01T | OSCILLATOR              | 1   |         |

# 13 Cabinet Parts Location

