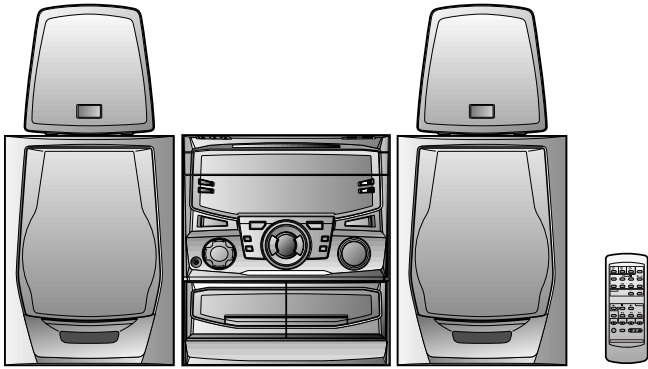


# SHARP SERVICE MANUAL

No. S5934CDC831W/



## CD-C831W

CD-C831W mini component system consisting of CD-C831W (Main unit), CP-C831 (Front speaker) and GBOXS0025AWM1 (Surround speaker).



• In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.

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## SAFETY PRECAUTION FOR SERVICE MANUAL

### WARNINGS

THE AEL (ACCESSIBLE EMISSION LEVEL) OF THE LASER POWER OUTPUT IS LESS THAN CLASS 1 BUT THE LASER COMPONENT IS CAPABLE OF EMITTING RADIATION EXCEEDING THE LIMIT FOR CLASS 1. THEREFORE IT IS IMPORTANT THAT THE FOLLOWING PRECAUTIONS ARE OBSERVED DURING SERVICING TO PROTECT YOUR EYES AGAINST EXPOSURE TO THE LASER BEAM.

- 1-WHEN THE CABINET IS REMOVED, THE POWER IS TURNED ON WITHOUT A COMPACT DISC IN POSITION AND THE PICK-UP IS ON THE OUTER EDGE THE LASER WILL LIGHT FOR SEVERAL SECONDS TO DETECT A DISC. DO NOT LOOK INTO THE PICK-UP LENS.
- 2-THE LASER POWER OUTPUT OF THE PICK-UP UNIT AND REPLACEMENT SERVICE PARTS ARE ALL FACTORY PRE-SET BEFORE SHIPMENT.  
DO NOT ATTEMPT TO RE-ADJUST THE LASER PICK-UP UNIT DURING REPLACEMENT OR SERVICING.
- 3-UNDER NO CIRCUMSTANCES STARE INTO THE PICK-UP LENS AT ANY TIME.
- 4-CAUTION-USE OF CONTROLS OR ADJUSTMENTS, OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

### CAUTION

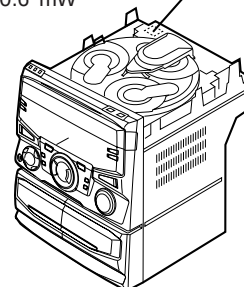
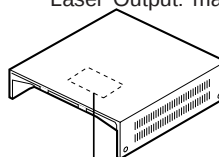
CLASS 1 LASER PRODUCT  
APPAREIL À LASER DE CLASSE 1  
PRODUCTO LASER DE CLASE 1

- This Mini Component System is classified as a CLASS 1 LASER product.
- The CLASS 1 LASER PRODUCT label is located on the rear cover.
- Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

As the laser beam used in this compact disc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

### Laser Diode Properties

Material: GaAlAs  
Wavelength: 780 nm  
Emission Duration: continuous  
Laser Output: max. 0.6 mW



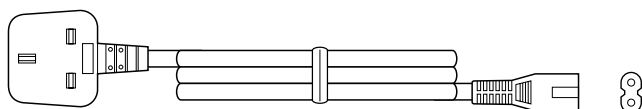
CAUTION-INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.  
VARNING-ÖSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRÄKTA EJ STRÅLEN MED OPTISKA INSTRUMENT.  
ADVERSEL-ÖSYNLIG LASERSTRÅLNING VED ÅBNING. SE IKKE IND I STRÅLEN-HELLER IKKE MED OPTISKE INSTRUMENTER.  
VARO! AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.  
VARNING-ÖSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRÄKTA EJ STRÅLEN GENOM OPTISKT INSTRUMENT.  
ADVERSEL-ÖSYNLIG LASERSTRÅLNING NÄR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN ELLER SE DIREKTE MED OPTISKE INSTRUMENTER.

VARO ! Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.  
VARNING! Ösynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

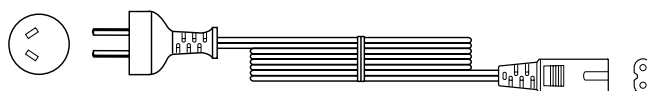
## VOLTAGE SELECTION

The voltage selector is located on the AC voltage selector box. If adjustment is necessary, use a screwdriver in order to turn the selector in either direction until the correct voltage figure is displayed in the window next to the adjustment screw.

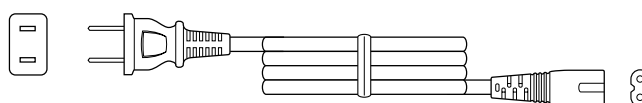
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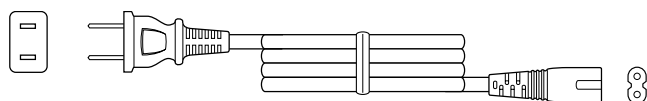
QACCL0002AW00



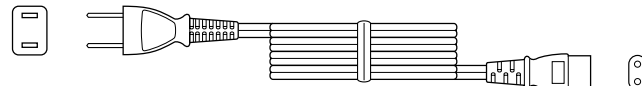
QACCE0011AW00



92LCöRD577B



92LCöRDZ1652A



92LPLUG027



92LPLUG155A



Figure 2 AC POWER SUPPLY CORD AND AC PLUG ADAPTOR

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

## SPECIFICATIONS

### CD-C831W

#### ● General

|                           |                                                                                    |
|---------------------------|------------------------------------------------------------------------------------|
| <b>Power source:</b>      | AC 110/127/220/230-240 V,<br>50/60 Hz                                              |
| <b>Power consumption:</b> | 89 W                                                                               |
| <b>Dimensions:</b>        | Width; 270 mm (10-5/8")<br>Height; 300 mm (11-13/16")<br>Depth; 351 mm (13-13/16") |
| <b>Weight:</b>            | 6.4 kg (14.1 lbs.)                                                                 |

#### ● Amplifier section

|                          |                                                                                                                                    |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Output power:</b>     | MPO; 144 W (72 W + 72 W)<br>(10 % T.H.D.)<br>RMS; 80 W (40 W + 40 W)<br>(10 % T.H.D.)<br>RMS; 66 W (33 W + 33 W)<br>(0.9 % T.H.D.) |
| <b>Input terminal:</b>   | Video/Auxiliary (audio signal);<br>500 mV/47 kohms                                                                                 |
| <b>Output terminals:</b> | Front speakers; 6 ohms<br>Surround Speakers; 16 ohms<br>Headphones; 16-50 ohms<br>(recommended; 32 ohms)                           |

#### ● Compact disc player section

|                            |                                                     |
|----------------------------|-----------------------------------------------------|
| <b>Type:</b>               | 3-disc multi-play compact disc<br>player            |
| <b>Signal readout:</b>     | Non-contact, 3-beam semi-<br>conductor laser pickup |
| <b>D/A Converter:</b>      | 1-bit D/A converter                                 |
| <b>Frequency response:</b> | 20 - 20,000 Hz                                      |
| <b>Dynamic range:</b>      | 90 dB (1 kHz)                                       |

#### ● Tuner section

|                         |                                         |
|-------------------------|-----------------------------------------|
| <b>Frequency range:</b> | FM; 88 - 108 MHz<br>AM; 531 - 1,602 kHz |
|-------------------------|-----------------------------------------|

#### ● Cassette deck section

|                                 |                                                                    |
|---------------------------------|--------------------------------------------------------------------|
| <b>Type:</b>                    | Compact cassette tape                                              |
| <b>Frequency response:</b>      | 50 - 14,000 Hz (Normal tape)                                       |
| <b>Motor:</b>                   | DC motor with electronic<br>governor x 1                           |
| <b>Signal/noise ratio:</b>      | 55 dB (TAPE 1, playback)<br>50 dB (TAPE 2, recording/<br>playback) |
| <b>Bias and erasure system:</b> | AC                                                                 |
| <b>Tape speed:</b>              | 4.76 cm/sec. (1-7/8 ips.)                                          |
| <b>Wow and flutter:</b>         | 0.15 % (WRMS)                                                      |
| <b>Heads:</b>                   | TAPE-1: Playback x 1<br>TAPE-2: Record/Playback x 1<br>Erase x 1   |

### CP-C831

#### ● Front speaker section

|                             |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|
| <b>Type:</b>                | 2-way [13 cm (5-1/4") woofer<br>and 5 cm (2") tweeter]                            |
| <b>Maximum input power:</b> | 60 W                                                                              |
| <b>Rated input power:</b>   | 30 W                                                                              |
| <b>Impedance:</b>           | 6 ohms                                                                            |
| <b>Dimensions:</b>          | Width; 220 mm (8-11/16")<br>Height; 300 mm (11-13/16")<br>Depth; 217 mm (8-9/16") |
| <b>Weight:</b>              | 2.6 kg (5.7 lbs.)/each                                                            |

### GBOXS0025AWM1

#### ● Surround speaker section

|                             |                                                                            |
|-----------------------------|----------------------------------------------------------------------------|
| <b>Type:</b>                | 10 cm (4") full range speaker                                              |
| <b>Maximum input power:</b> | 20 W                                                                       |
| <b>Rated input power:</b>   | 10 W                                                                       |
| <b>Impedance:</b>           | 16 ohms                                                                    |
| <b>Dimensions:</b>          | Width; 170 mm (6-3/4")<br>Height; 170 mm (6-3/4")<br>Depth; 88 mm (3-1/2") |
| <b>Weight:</b>              | 0.4 kg (0.9 lbs.)/each                                                     |

Specifications for this model are subject to change without prior notice.

## NAMES OF PARTS

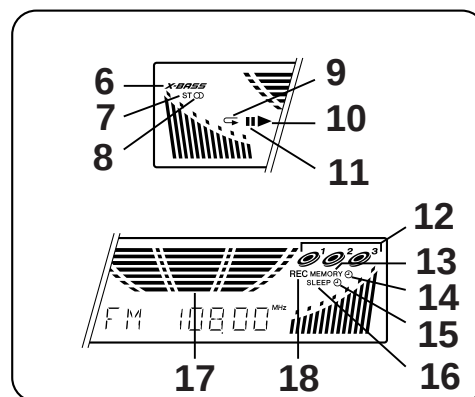
### CD-C831W

#### ■ Front Panel

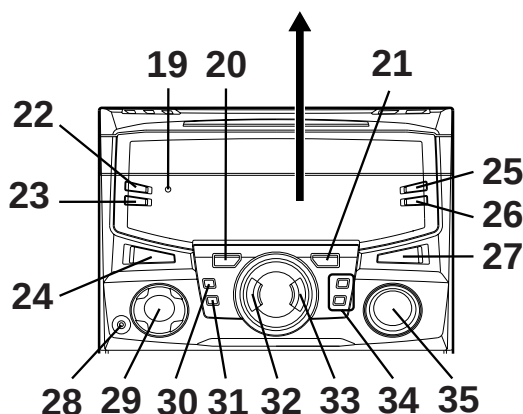
1. Disc Number Selector Buttons
2. Disc Tray
3. Multi Indicator
4. Disc Skip Button
5. Open/Close Button



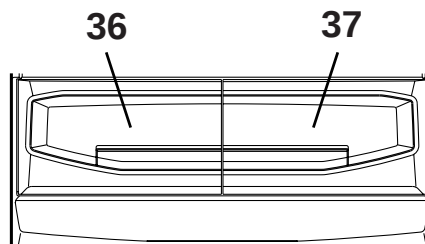
6. Extra Bass Indicator
7. FM Stereo Mode Indicator
8. FM Stereo Indicator
9. (CD) Repeat Indicator
10. (CD) Play Indicator
11. (CD) Pause Indicator
12. (CD) Disc Number Indicators
13. (CD/TUNER) Memory Indicator
14. Timer Play Indicator
15. Timer Record Indicator
16. Sleep Indicator
16. Dynamic PTY Indicator
17. Spectrum Analyzer/ Volume Level Indicator
18. (TAPE 2) Record Indicator



19. Timer Set Indicator
20. (CD) Track Down/Review Button  
(TUNER) Preset Down Button  
(TAPE 2) Rewind Button
21. (CD) Track Up/Cue Button  
(TUNER) Preset Up Button  
(TAPE 2) Fast Forward Button
22. Timer/Sleep Button
23. Clock Button
24. On/Stand-by Button
25. Equalizer Mode Selector Button
26. Dimmer Button
27. Extra Bass/Demo Mode Button
28. Headphone Socket
29. Function Selector Buttons
30. (TAPE 2) Record Pause Button
31. Memory/Set Button
32. (CD/TAPE) Stop Button
33. (TAPE) Play Button  
(CD) Play/Repeat Button
34. Tuning and Time Up/Down Buttons
35. Volume Up/Down Buttons

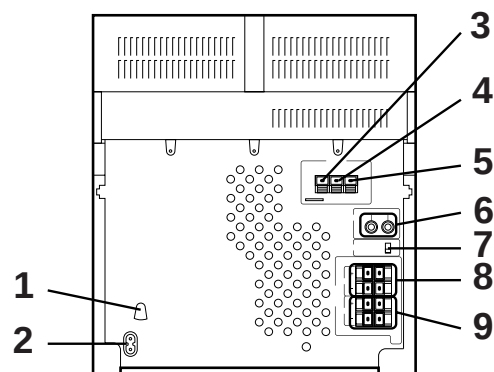


36. (TAPE 1) Cassette Compartment
37. (TAPE 2) Cassette Compartment



### ■ Rear Panel

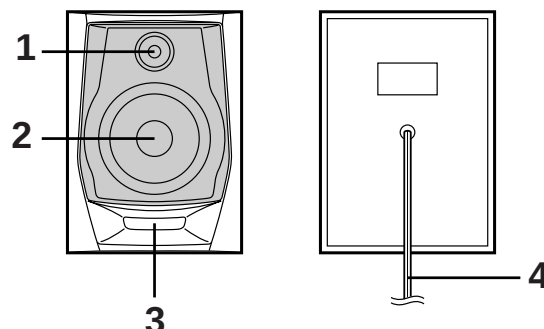
1. AC Voltage Selector
2. AC Power Input Socket
3. AM Aerial Terminal
4. Aerial Earth Terminal
5. FM 75 Ohms Aerial Socket
6. Video/Auxiliary (Audio Signal) Input Sockets
7. Span Selector Switch
8. Surround Speaker Terminals
9. Front Speaker Terminals



### CP-C831

### ■ Front Speaker

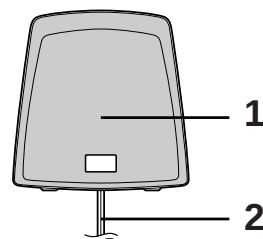
1. Tweeter
2. Woofer
3. Bass Reflex Ducts
4. Speaker Wire



### GBOXS0025AWM1

### ■ Surround Speaker

1. Full Range Speaker
2. Speaker Wire



### ■ Remote Control

1. Remote Control Transmitter LED

### ● CD Control section

2. Disc Number Select Buttons
3. Memory Button
4. Pause Button
5. Clear Button
6. Track Down/Review Button
7. Track Up/Cue Button
8. Disc Skip Button
9. Play/Repeat Button
10. Stop Button
11. Random Button

### ● Tuner control section

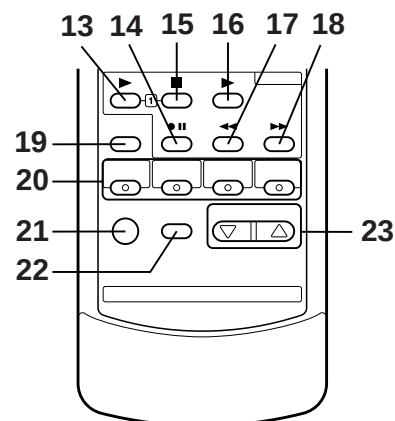
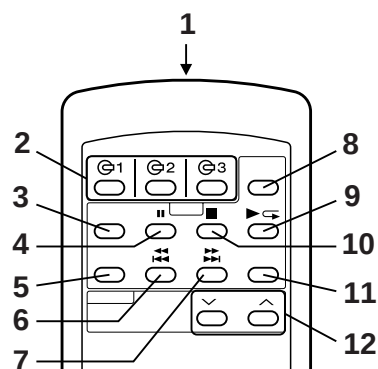
12. Preset Up/Down Buttons

### ● Tape control section

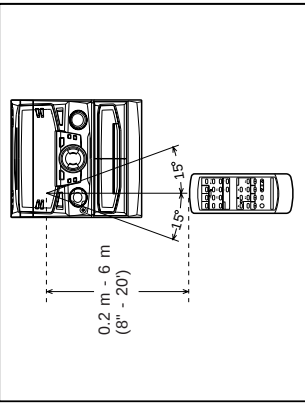
13. (TAPE 1) Play Button
14. (TAPE 2) Record Pause Button
15. (TAPE 1/2) Stop Button
16. (TAPE 2) Play Button
17. (TAPE 2) Rewind Button
18. (TAPE 2) Fast Forward Button

### ● Common section

19. Equalizer Mode Selector Button
20. Function Selector Buttons
21. On/Stand-by Button
22. Extra Bass Button
23. Volume Up/Down Buttons



PREPARATION FOR USE



Remote control

Notes concerning use:

- Replace the batteries if the operating distance is reduced or if the operation becomes erratic.
- Periodically clean the transmitter LED on the remote control and the sensor on the main unit with a soft cloth.
- Exposing the sensor on the main unit to strong light may interfere with operation. Change the lighting or the direction of the unit.
- Keep the remote control away from moisture, excessive heat, shock, and vibrations.

AM/FM interval (span)

The International Telecommunication Union (ITU) has established that member countries should maintain either a 10 kHz or a 9 kHz interval between broadcasting frequencies of any AM station. The illustration shows the 9 kHz interval zones (regions 1 and 3), and the 10 kHz interval zone (region 2).

Before using the unit, set the SPAN SELECTOR switch (on the rear panel) to AM tuning interval (span) of your area.

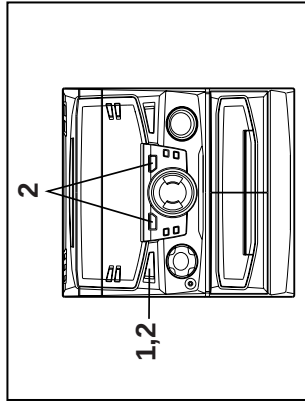
To change the tuning zone:

- 1 Press the ON/STAND-BY button to enter the stand-by mode.
- 2 Set the SPAN SELECTOR switch to "50/9" for 9 kHz AM interval (50 kHz FM interval), and "100/10" for 10 kHz AM interval (100 kHz FM interval).
- 3 Whilst pressing down the  $\blacktriangleleft/\blacktriangleleft$  button and the  $\blacktriangleright/\blacktriangleright$  button, hold down the ON/STAND-BY button for at least 1 second.

Caution:

- The operation explained above will erase all data stored in memory including clock and timer settings, and tuner and CD presets.

RESETTING THE MICROCOMPUTER



Reset the microcomputer under the following conditions:

- To erase all of the stored memory contents (clock and timer settings, and tuner and CD presets).
  - If the display is not correct.
  - If the operation is not correct.
- 1 Press the ON/STAND-BY button to enter the stand-by mode.
  - 2 Whilst pressing down the  $\blacktriangleleft/\blacktriangleleft$  button and the  $\blacktriangleright/\blacktriangleright$  button, hold down the ON/STAND-BY button for at least 1 second.

Caution:

- The operation explained above will erase all data stored in memory including clock and timer settings, and tuner and CD presets.

SETTING THE CLOCK

(Main unit operation)

In this example, the clock is set for the 24-hour (0:00) system.

- 1 Press the ON/STAND-BY button to enter the stand-by mode.
- 2 Press the CLOCK button.
- 3 Within 5 seconds, press the MEMORY/SET button.
- 4 Press the TUNING/TIME ( ^ or > ) button to select the time display mode.
- 5 The 24-hour display will appear.
- 6 Press the TUNING/TIME ( ^ or > ) button to adjust the hour.
- 7 Press the MEMORY/SET button.
- 8 Press the TUNING/TIME ( ^ or > ) button to adjust the minutes.
- 9 Press the TUNING/TIME ( ^ or > ) button once to advance the time by 1 minute. Hold it down to change the time in 5 minute intervals.

0:00  $\leftrightarrow$  AM 0:00  $\leftrightarrow$  AM 12:00

10:00

11:00

12:00

13:00

14:00

15:00

16:00

17:00

18:00

19:00

20:00

21:00

22:00

23:00

24:00

- 1 Press the ON/STAND-BY button to enter the stand-by mode.
  - 2 Press the CLOCK button.
  - 3 Within 5 seconds, press the MEMORY/SET button.
  - 4 Press the TUNING/TIME ( ^ or > ) button to select the time display mode.
  - 5 The 24-hour display will appear.
  - 6 Press the TUNING/TIME ( ^ or > ) button to adjust the hour.
  - 7 Press the MEMORY/SET button.
  - 8 Press the TUNING/TIME ( ^ or > ) button to adjust the minutes.
  - 9 Press the TUNING/TIME ( ^ or > ) button once to advance the time by 1 minute. Hold it down to change the time in 5 minute intervals.
- Note:
- The clock display will flash on and off at the push of the CLOCK button when the AC power supply is restored after a power failure occurs or after the AC power lead is disconnected. If this happens, follow the procedure below to change the clock time.
- To see the time display:
- Press the CLOCK button.
- The time display will appear for about 5 seconds.

To change the clock time:

- 1 Press the CLOCK button.
- 2 Within 5 seconds, press the MEMORY/SET button.
- 3 Perform steps 6 - 9 above.

To change the time display mode:

- 1 Perform steps 1 - 2 in the section "RESETTING THE MICRO-COMPUTER".
- 2 Perform steps 1 - 9 above.

## DISASSEMBLY

### Caution on Disassembly

Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep it safe and ensure excellent performance:

1. Take cassette tape and compact disc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need to be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

### CD-C831W

| STEP | REMOVAL                          | PROCEDURE                                                                                                                                                                | FIGURE |
|------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 1    | Top Cabinet                      | 1. Screw ..... (A1) x4                                                                                                                                                   | 7-1    |
| 2    | Side Panel (Left/right)          | 1. Screw ..... (B1) x6<br>2. Hook ..... (B2) x2                                                                                                                          | 7-1    |
| 3    | CD Player Unit/<br>CD Tray Cover | 1. Turn on the power supply, open the disc tray, take out the CD cover, and close. (Note 1)<br>2. Hook ..... (C1) x3<br>3. Hook ..... (C2) x2<br>4. Socket ..... (C3) x2 | 7-2    |
| 4    | Back Board                       | 1. Screw ..... (D1) x6                                                                                                                                                   | 7-2    |
| 5    | Tuner PWB                        | 1. Screw ..... (E1) x3<br>2. Socket ..... (E2) x1                                                                                                                        | 8-1    |
| 6    | Main PWB                         | 1. Screw ..... (F1) x4<br>2. Socket ..... (F2) x4<br>3. Flat Wire ..... (F3) x1<br>4. Tip Wire ..... (F4) x1<br>5. Flat Cable ..... (F5) x1                              | 8-1    |
| 7    | Front Panel                      | 1. Screw ..... (G1) x1<br>2. Socket ..... (G2) x1<br>3. Hook ..... (G3) x2                                                                                               | 8-1    |
| 8    | Headphones PWB                   | 1. Screw ..... (H1) x1<br>2. Support Bracket ..... (H2) x1                                                                                                               | 8-2    |
| 9    | Display PWB/<br>Switch PWB       | 1. Screw ..... (J1) x12<br>2. Hook ..... (J2) x2<br>3. Socket ..... (J3) x1                                                                                              | 8-2    |
| 10   | Tape Mechanism                   | 1. Open the cassette holder.<br>2. Screw ..... (K1) x5                                                                                                                   | 8-2    |
| 11   | Turntable                        | 1. Screw ..... (L1) x1<br>2. Cover ..... (L2) x1                                                                                                                         | 8-3    |
| 12   | Disc Tray                        | 1. Screw ..... (M1) x2<br>2. Guide ..... (M2) x2                                                                                                                         | 8-3    |
| 13   | CD Servo PWB (Note 2)            | 1. Screw ..... (N1) x1<br>2. Socket ..... (N2) x4                                                                                                                        | 8-4    |
| 14   | CD Changer Mechanism             | 1. Screw ..... (P1) x4                                                                                                                                                   | 8-5    |
| 15   | CD Mechanism                     | 1. Screw ..... (Q1) x1                                                                                                                                                   | 8-5    |

### Note 1:

How to open the changer manually. (Fig. 7-3)

1. Turn fully the lock lever in the arrow direction through the hole on the loading chassis bottom in this state.  
After that, push forward the CD player base.

### Note 2:

1. After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of connector to protect the optical pickup from electrostatic damage.

### CD-C831W

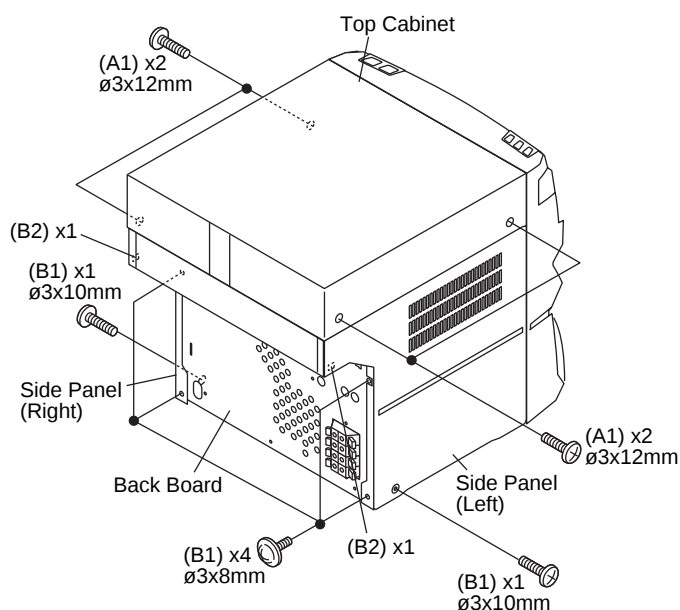


Figure 7-1

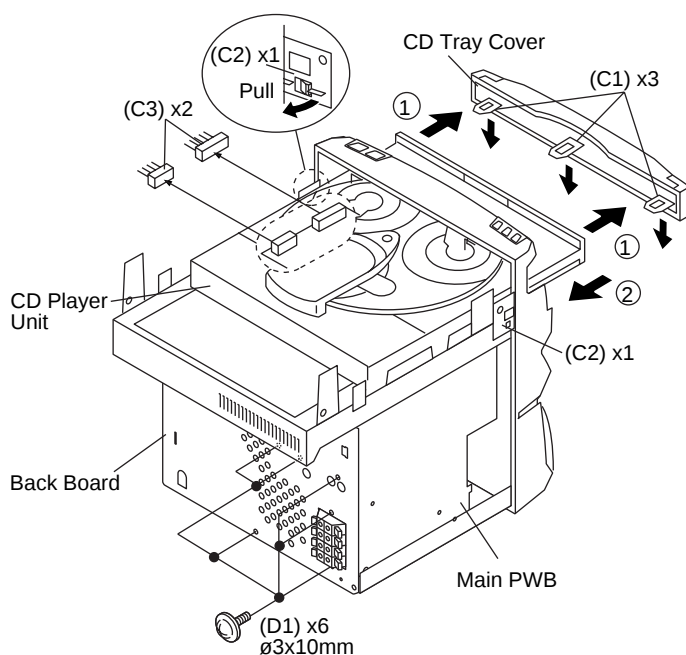


Figure 7-2

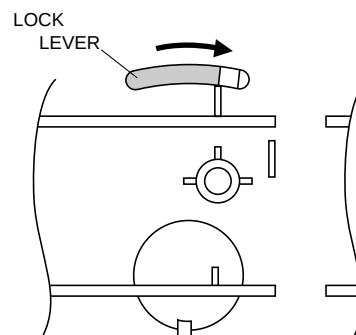


Figure 7-3

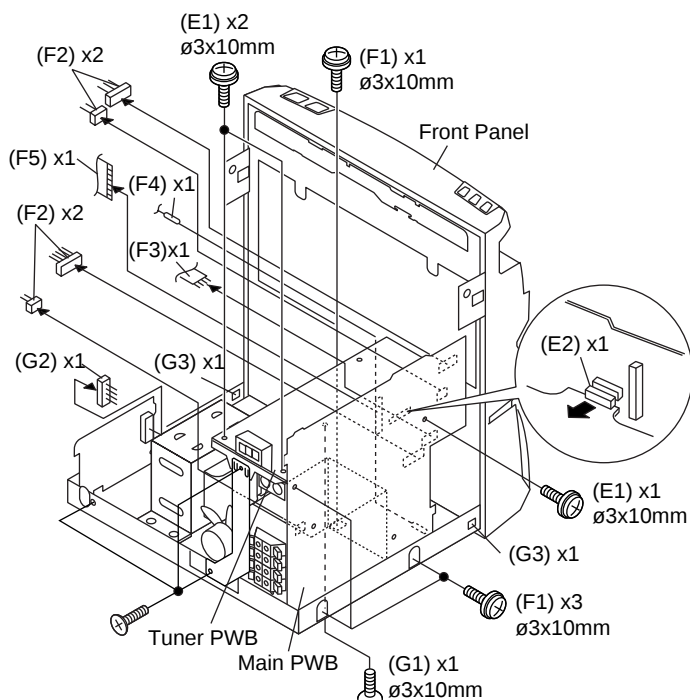


Figure 8-1

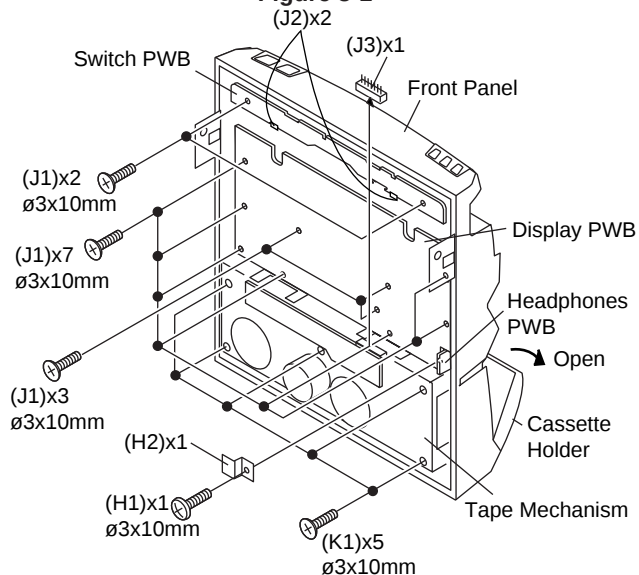


Figure 8-2

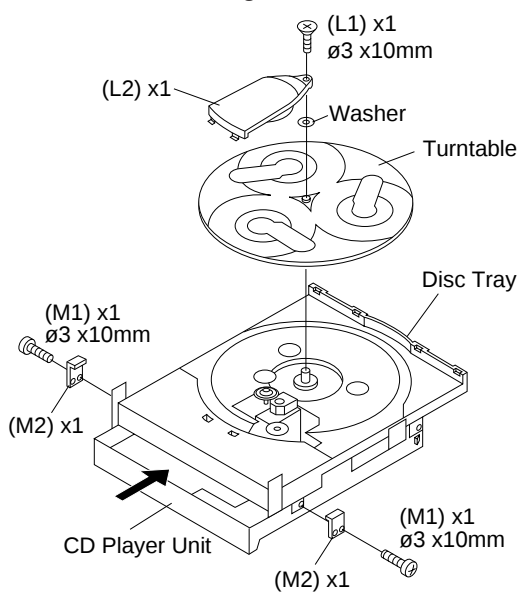


Figure 8-3

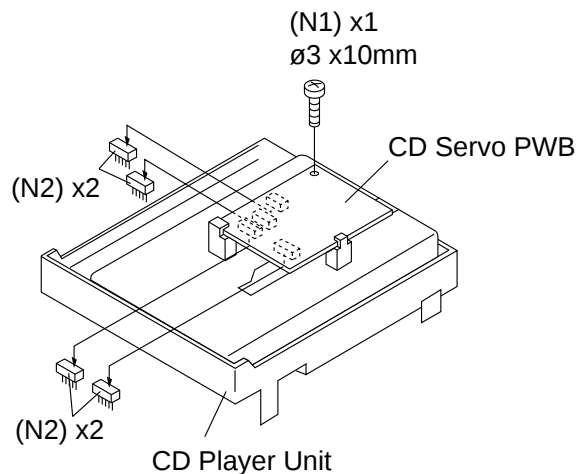


Figure 8-4

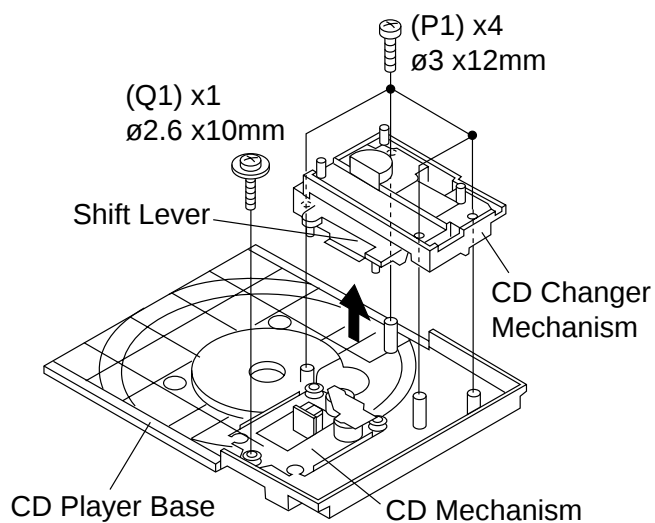


Figure 8-5

Be Careful when installing the CD changer mechanism. Install the CD changer mechanism on the CD player base after the shift lever has been set in the highest position.

| CP-C831 |               |                                                                                |        |
|---------|---------------|--------------------------------------------------------------------------------|--------|
| STEP    | REMOVAL       | PROCEDURE                                                                      | FIGURE |
| 1       | Front Speaker | 1. Front Panel ..... (A1) x1<br>2. Tip ..... (A2) x2<br>3. Screw ..... (A3) x6 | 9-1    |

**Note:**

The Surround speakers can be easily disassembled. Therefore the disassembling method is not described. For details refer to the disassembling drawing in the Parts Guide.

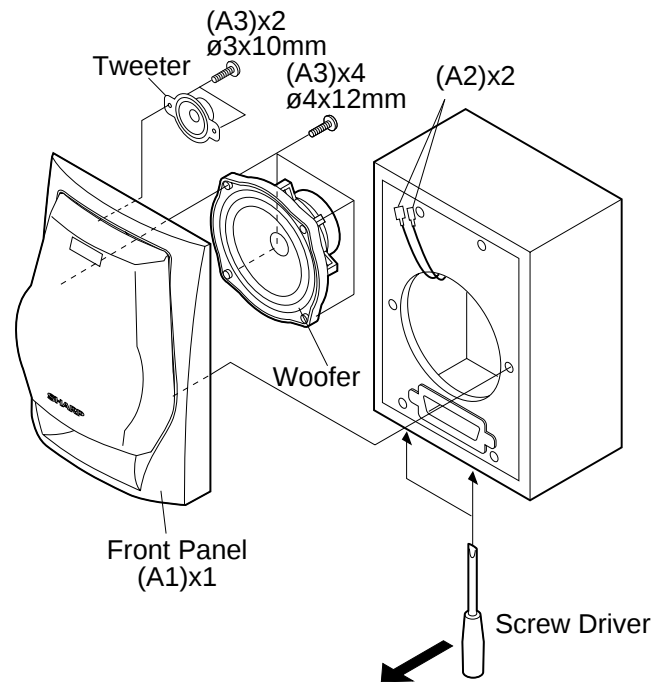


Figure 9-1

## REMOVING AND REINSTALLING THE MAIN PARTS

### CD MECHANISM SECTION

Perform steps 1, 2, 3, 11, 12, 13, 14 and 15 of the disassembly method to remove the CD mechanism.

#### How to remove the loading motor (See Fig. 9-2)

1. Remove the screws (A1) x 2 pcs., to remove the loading motor.

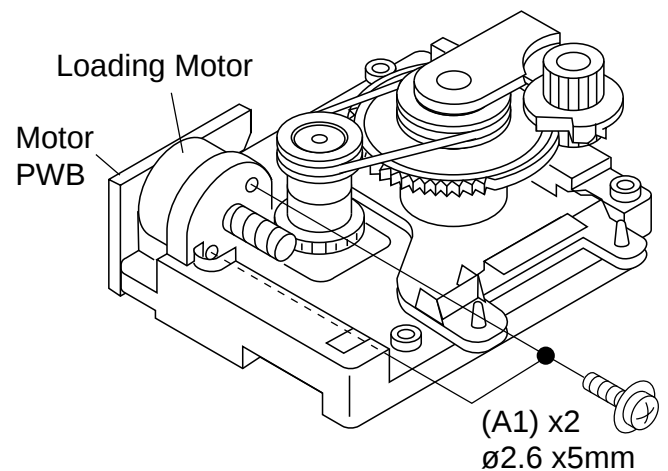


Figure 9-2

#### How to remove the pickup (See Fig. 9-3)

1. Remove the screws (B1) x 2 pcs., to remove the shaft (B2).
2. Remove the stop washer (B3) x 1 pc., to remove the gear (B4).
3. Remove the pickup.

**Note**

After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of connector to protect the optical pickup from electrostatic damage.

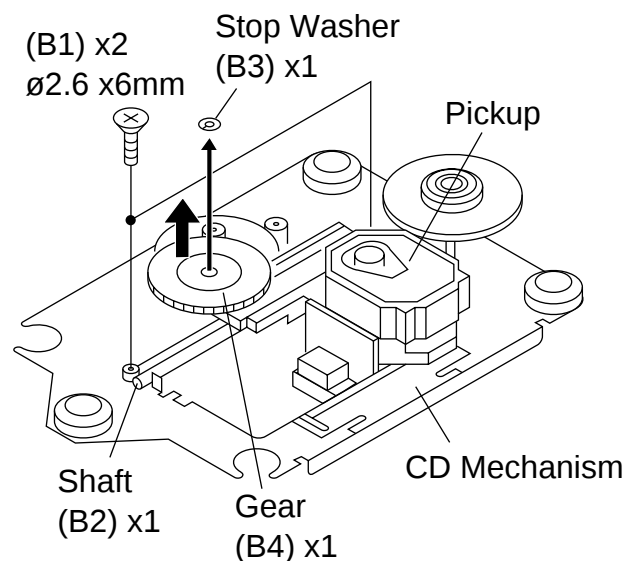


Figure 9-3

## ADJUSTMENT

### MECHANISM SECTION

#### • Driving Force Check

| Torque Meter  | Specified Value                        |
|---------------|----------------------------------------|
| Play: TW-2412 | Tape 1: Over 80 g<br>Tape 2: Over 80 g |

#### • Torque Check

| Torque Meter          | Specified Value |                |
|-----------------------|-----------------|----------------|
|                       | Tape 1          | Tape 2         |
| Play: TW-2111         | 30 to 60 g. cm  | 30 to 100 g.cm |
| Fast forward: TW-2231 | —               | 50 to 100 g.cm |
| Rewind: TW-2231       | —               | 50 to 100 g.cm |

#### • Tape Speed

|              | Test Tape | Adjusting Point | Specified Value | Instrument Connection |
|--------------|-----------|-----------------|-----------------|-----------------------|
| Normal speed | MTT-111   | VRM1            | 3,000 ± 30 Hz   | Speaker terminal      |

### TUNER SECTION

fL: Low-range frequency

fH: High-range frequency

#### • AM IF/RF

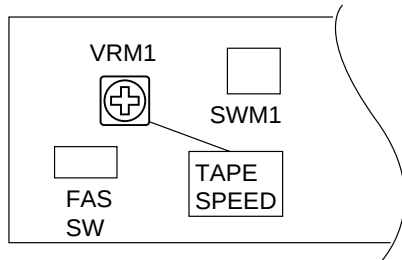
Signal generator: 400 Hz, 30%, AM modulated

| Test Stage       | Frequency | Frequency Display | Setting/ Adjusting Parts  | Instrument Connection |
|------------------|-----------|-------------------|---------------------------|-----------------------|
| IF               | 450 kHz   | 1,602 kHz         | T351                      | *1                    |
| AM Band Coverage | —         | 531 kHz           | (fL): T306<br>1.1 ± 0.1 V | *2                    |
| AM Tracking      | 990 kHz   | 990 kHz           | (fH): T302                | *1                    |

\*1. Input: Antenna, Output: TP302

\*2. Input: Antenna, Output: TP301

#### TAPE MECHANISM PWB



#### • FM

##### Notes:

1: Description of the "FM IF Adjustment" is not carried on this Manual. It is because the IF coil in the FM front end section has been best adjusted in the factory so that its further adjustment is not needed at the field. When replacing the FM front end assembly, no adjustment is needed either.

2: The parts in the FM front end section are prepared in a complete unit, so you can't obtain each part individually

#### • FM Mute Level

Signal generator: 1 kHz, 40 kHz dev., FM modulated

| Frequency              | Frequency Display | Adjusting Parts | Instrument Connection                      |
|------------------------|-------------------|-----------------|--------------------------------------------|
| 98.00 MHz<br>(25 dBμV) | 98.00 MHz         | VR351           | Input: Antenna<br>Output: Speaker Terminal |

### CD ERROR CODE DESCRIPTION

When a malfunction occurs during CD operation, an error code will be displayed to identify the function in CD operation which failed.

| Error | State Code                 |
|-------|----------------------------|
| 0001  | Cannot detect pickup-in SW |
| 0101  | Tray close operation error |
| 0105  | Tray close operation error |
| 0201  | Tray open operation error  |
| 0203  | Tray open operation error  |
| 0304  | Disc skip operation error  |
| 0305  | Disc skip operation error  |
| 0307  | Disc skip operation error  |

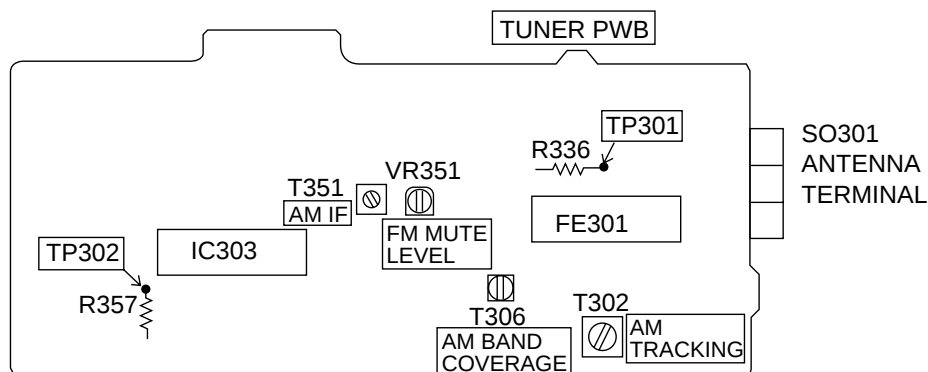


Figure 10 ADJUSTMENT POINTS

## TEST MODE

### • Setting the test mode

Any one of test mode can be set by pressing several keys as follows.

<REC. PAUSE> + <DISC. SKIP> + <POWER> TEST: CD operation test

### • TEST mode

#### Function — CD test mode

Setting of TEST mode

Indication of CD TST mode (Fig. 11-1)

OPEN/CLOSE operation is manual operation.

The pickup can be moved by using the (▶▶) or (◀◀) key.

IL is not performed.

<MEMORY> LASER ON — <MEMORY> Tracking on the spot. — <MEMORY> Tracking on the spot. — <STOP>  
SERVO OFF PLAY SERVO ON PLAY STOP

<PLAY> key input — TOC. IL is performed, and the ordinary PLAY is performed. — Press <STOP> key. — Stop  
If the following key is pressed during PLAY, it is possible to specify directly any Track No.  
<Disc Number 1> key: Track 4  
<Disc Number 2> key: Track 9  
<Disc Number 3> key: Track 15

#### Note:

Only in STOP state it is possible to slide the pickup with the (▶▶) or (◀◀) key.

VOL. --- Last memory

BAL. --- CENTER

R.GEQ. --- FLAT

X-BAS --- OFF

Canceling method - POWER OFF

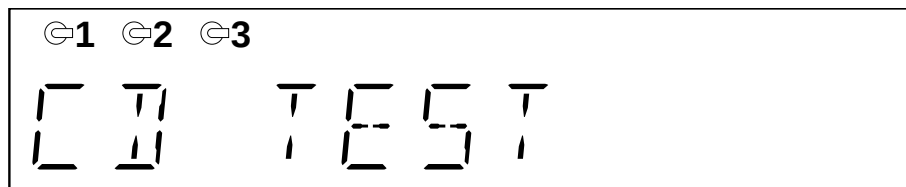


Figure 11-1

## CD SECTION

Since this CD system incorporates the following automatic adjustment function, when the pickup is replaced, it is not necessary to readjust it.

Since this CD unit does not need adjustment, the combination of PWB and laser pickup unit is not restricted.

### • Automatic adjustment item

1. Focus offset (Fig. 11-2)
2. Tracking offset (Fig. 11-3)
3. E/F balance (tracking error balance) (Fig. 11-4)
4. RF level AGC function (HF level: constant)
5. RF level automatic follow-up of the tracking gain

This automatic adjustment is performed each time a disc is changed. Therefore, each disc is played back using the optimal settings.

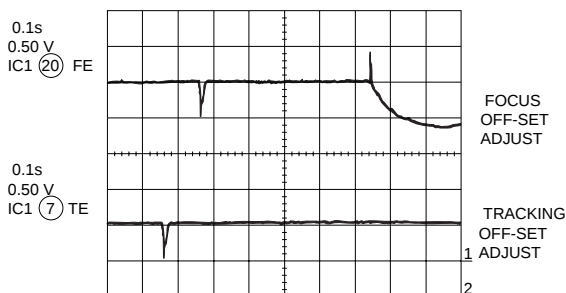


Figure 11-2

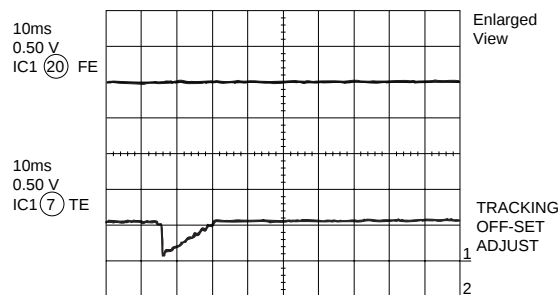


Figure 11-3

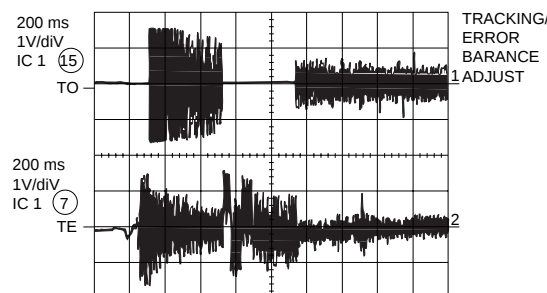


Figure 11-4

## NOTES ON SCHEMATIC DIAGRAM

- Resistor:

To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor. Besides, the one with "Fusible" is a fuse type.

- Capacitor:

To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-micro-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression "capacitance/withstand voltage" is used.

(CH), (TH), (RH), (UJ): Temperature compensation

(ML): Mylar type

(P.P.): Polypropylene type

- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.

- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.

1. In the tuner section,

( ) indicates AM

< > indicates FM stereo

2. In the main section, a tape is being played back.

3. In the deck section, a tape is being played back.

( ) indicates the record state.

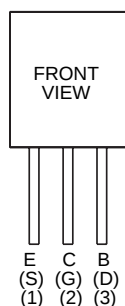
4. In the power section, a tape is being played back.

5. In the CD section, the CD is stopped.

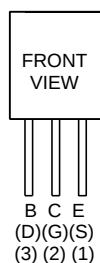
- Parts marked with "△" ( □ = = = □ ) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

| REF. NO | DESCRIPTION   | POSITION     |
|---------|---------------|--------------|
| SW1     | OPEN/CLOSE    | ON—OFF       |
| SW2     | MECHA UP      | ON—OFF       |
| SW3     | DISC NUMBER   | ON—OFF       |
| SW4     | PICKUP IN     | ON—OFF       |
| SW601   | SPAN SELECTOR | 100/10 —50/9 |
| SW701   | ON/STAND-BY   | ON—OFF       |
| SW703   | CLOCK         | ON—OFF       |
| SW704   | TIMER/SLEEP   | ON—OFF       |
| SW705   | DISC 1        | ON—OFF       |
| SW706   | DISC 2        | ON—OFF       |
| SW707   | DISC 3        | ON—OFF       |
| SW708   | DISC SKIP     | ON—OFF       |
| SW709   | OPEN/CLOSE    | ON—OFF       |
| SW710   | REV           | ON—OFF       |
| SW711   | REC PAUSE     | ON—OFF       |
| SW712   | MEMORY/SET    | ON—OFF       |
| SW713   | STOP          | ON—OFF       |
| SW714   | TUNER/BAND    | ON—OFF       |

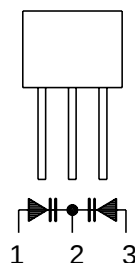
| REF. NO | DESCRIPTION      | POSITION                 |
|---------|------------------|--------------------------|
| SW715   | VIDEO            | ON—OFF                   |
| SW716   | TAPE             | ON—OFF                   |
| SW717   | CD               | ON—OFF                   |
| SW721   | DISPLAY MODE     | ON—OFF                   |
| SW722   | FF               | ON—OFF                   |
| SW723   | TUNING UP        | ON—OFF                   |
| SW724   | TUNING DOWN      | ON—OFF                   |
| SW725   | PLAY             | ON—OFF                   |
| SW726   | VOLUME DOWN      | ON—OFF                   |
| SW727   | VOLUME UP        | ON—OFF                   |
| SW728   | X-BASS/DEMO      | ON—OFF                   |
| SW729   | EQUALIZER        | ON—OFF                   |
| SW730   | DIMMER           | ON—OFF                   |
| SW801   | VOLTAGE SELECTOR | 110/127/220/<br>230—240V |
| SWM 3   | FOOL PROOF       | ON—OFF                   |
| SWM 4   | F.A.S.           | ON—OFF                   |
| SWM 5   | CAM              | ON—OFF                   |



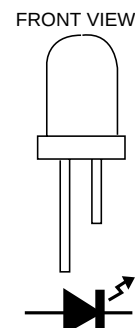
2SA1015 GR KTA1266 GR  
2SA1318 KTA1271 Y  
2SC2389 SE KTA1273 Y  
2SC3331 KTA1274 Y  
KRC102 M KTD2058 Y  
KRC104 M KTC3199 GR  
KRC107 M KTC3203 Y



2SA1318



SVC348S



L1154GT4  
SLI342YCB  
SLI342DCB  
SLI342UCB  
SLI342UCB  
SLI342YCB

Figure 12 TYPES OF TRANSISTOR AND LED

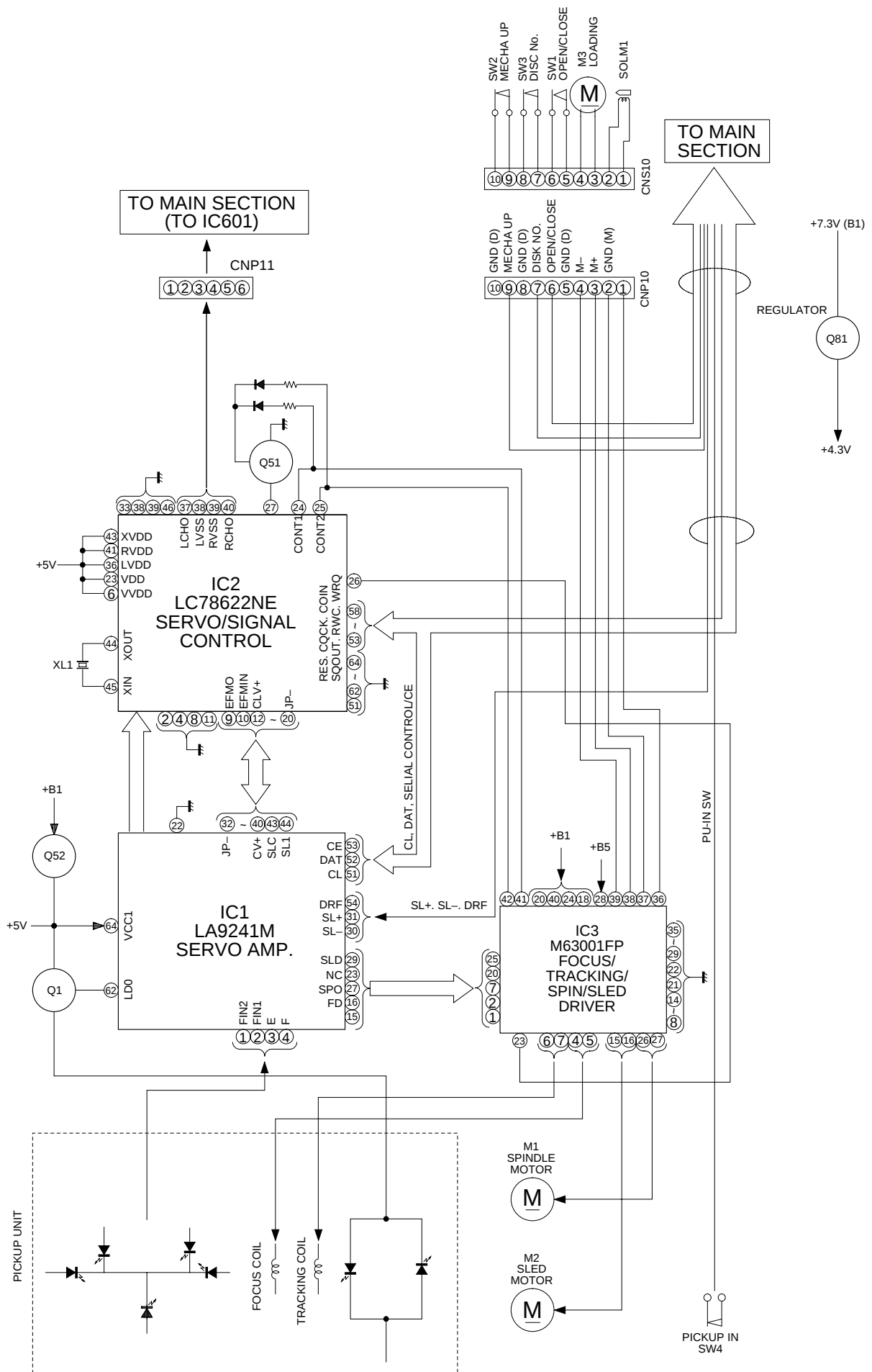
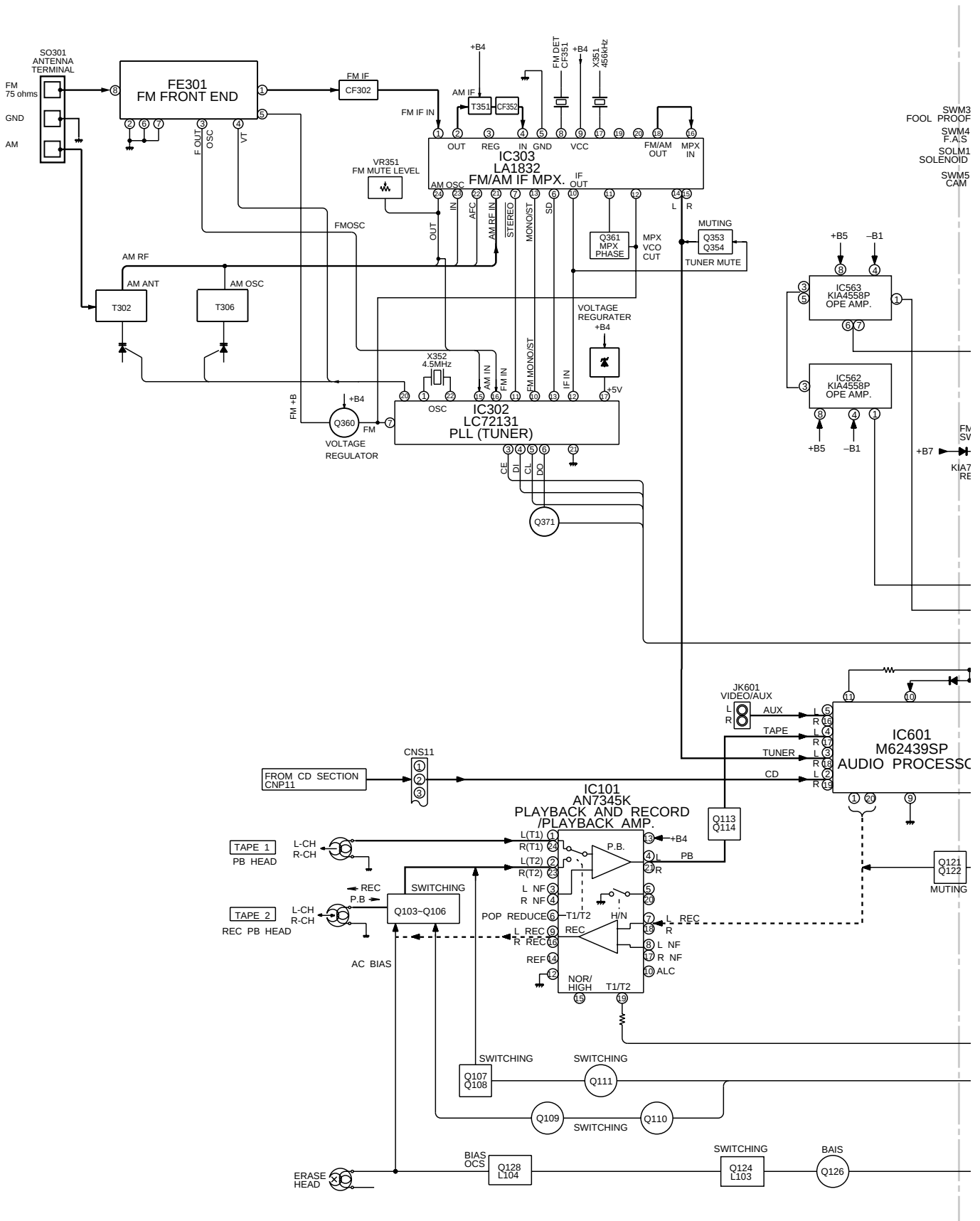


Figure 13 BLOCK DIAGRAM (1/3)

**CD-C831W**



**Figure 14 BLOCK DIAGRAM (2/3)**

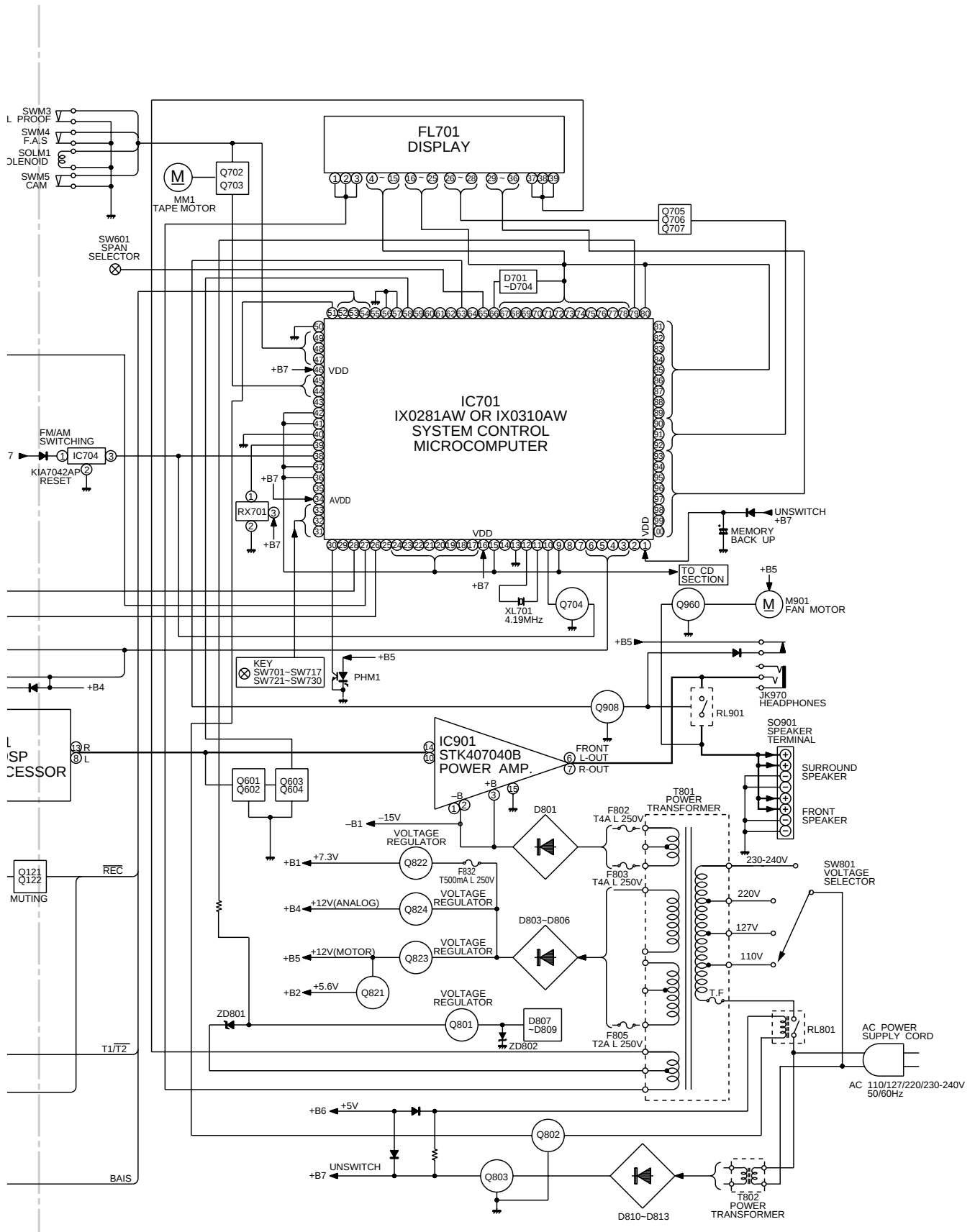


Figure 15 BLOCK DIAGRAM (3/3)

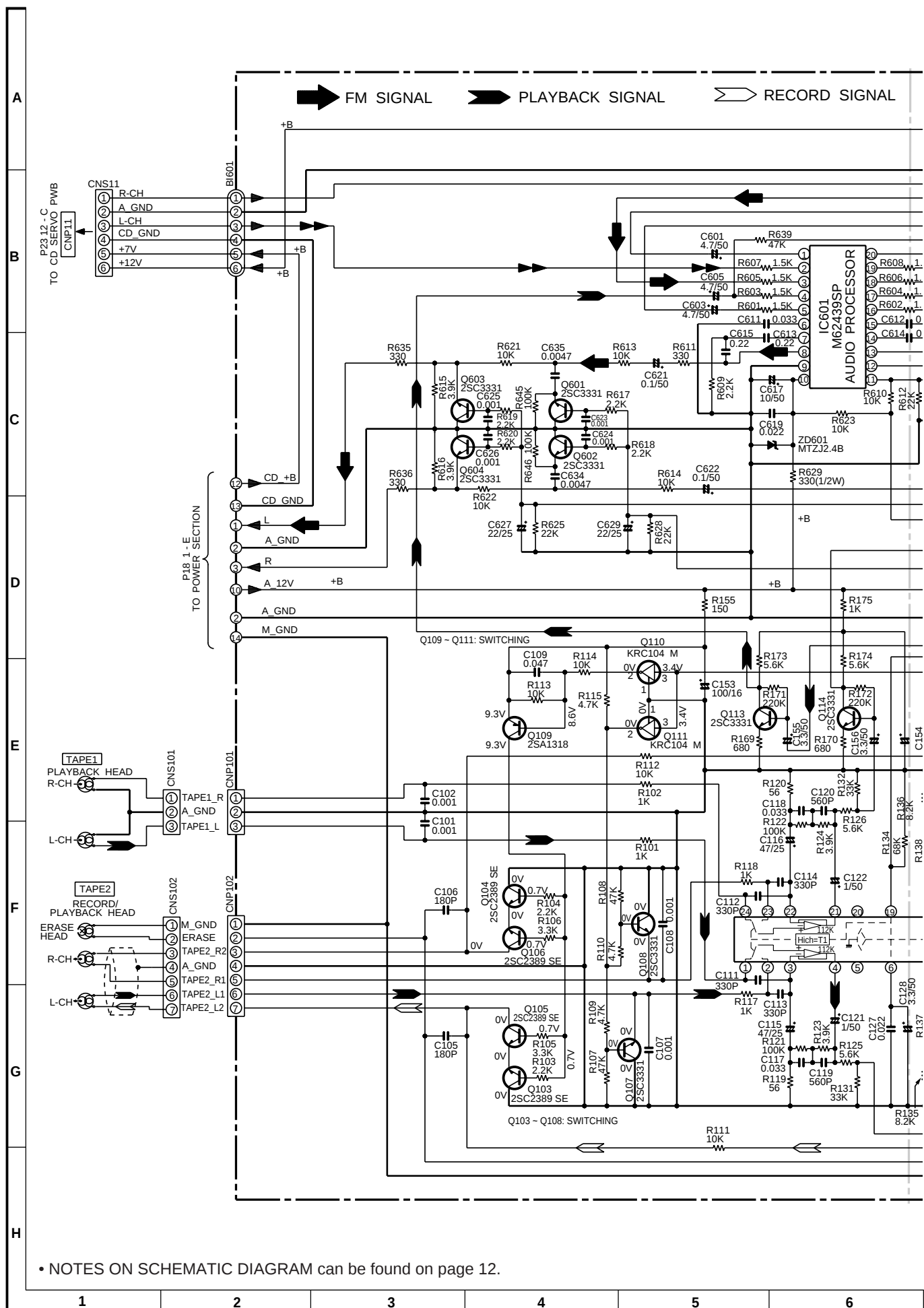


Figure 16 SCHEMATIC DIAGRAM (1/9)



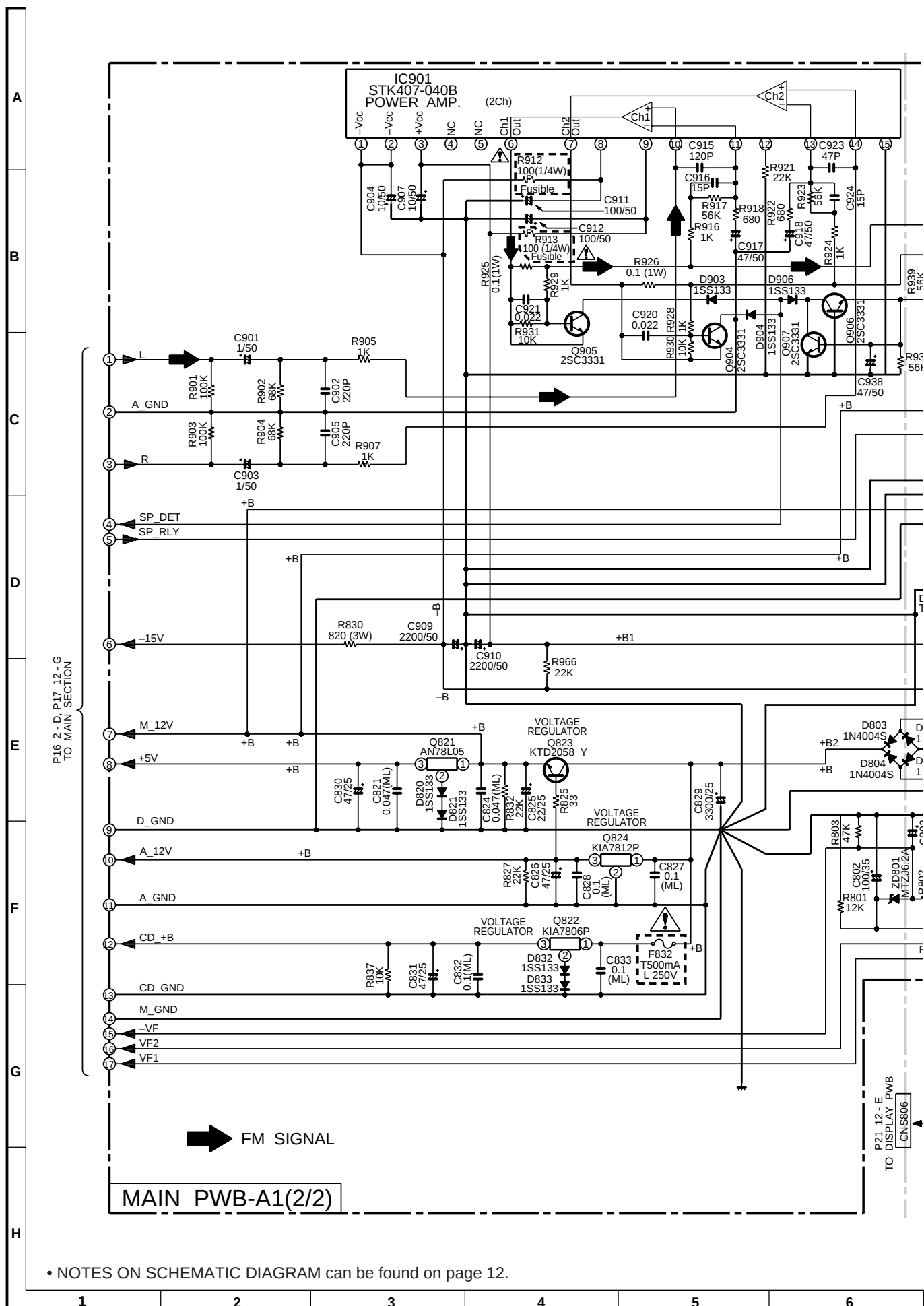


Figure 18 SCHEMATIC DIAGRAM (3/9)

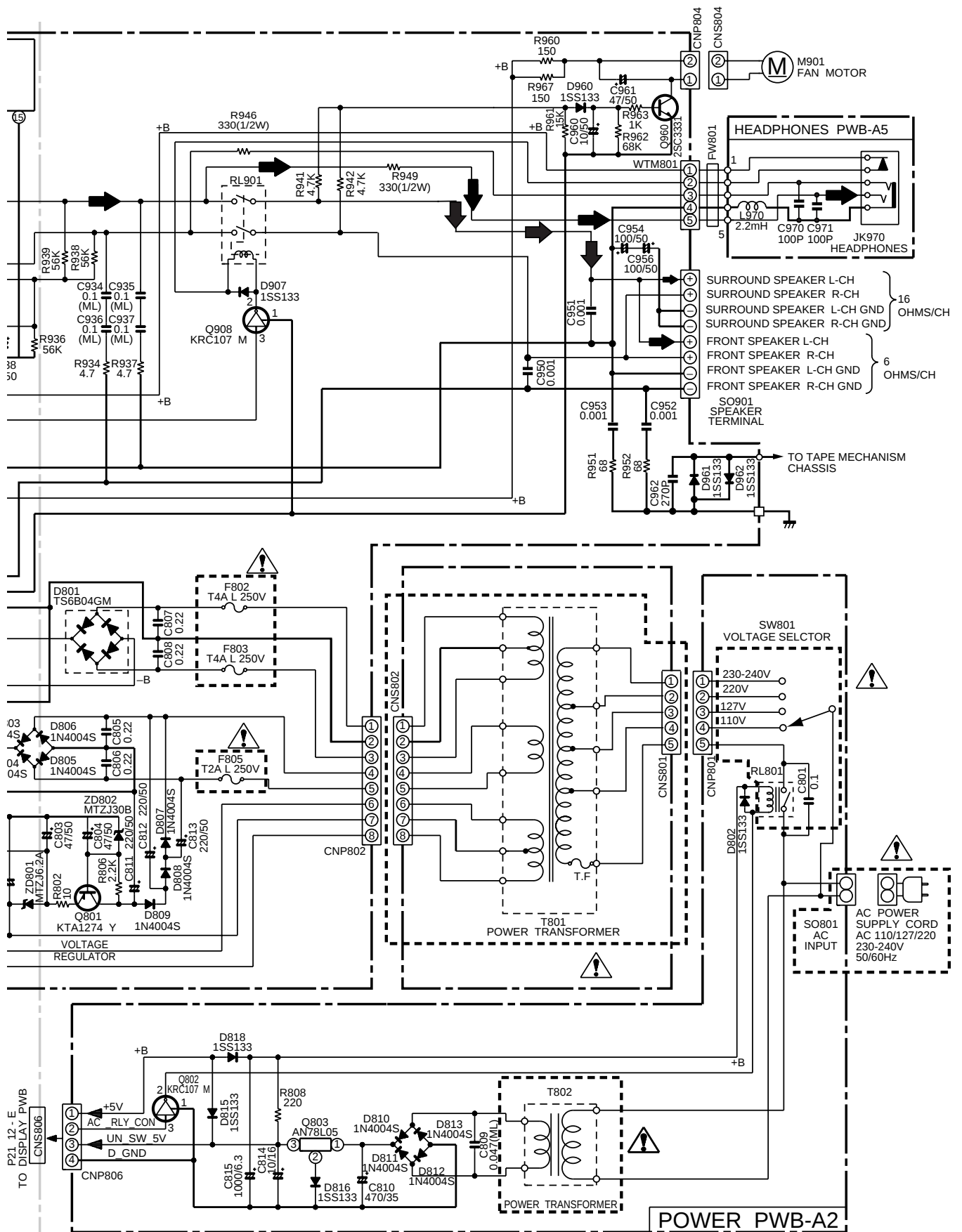


Figure 19 SCHEMATIC DIAGRAM (4/9)

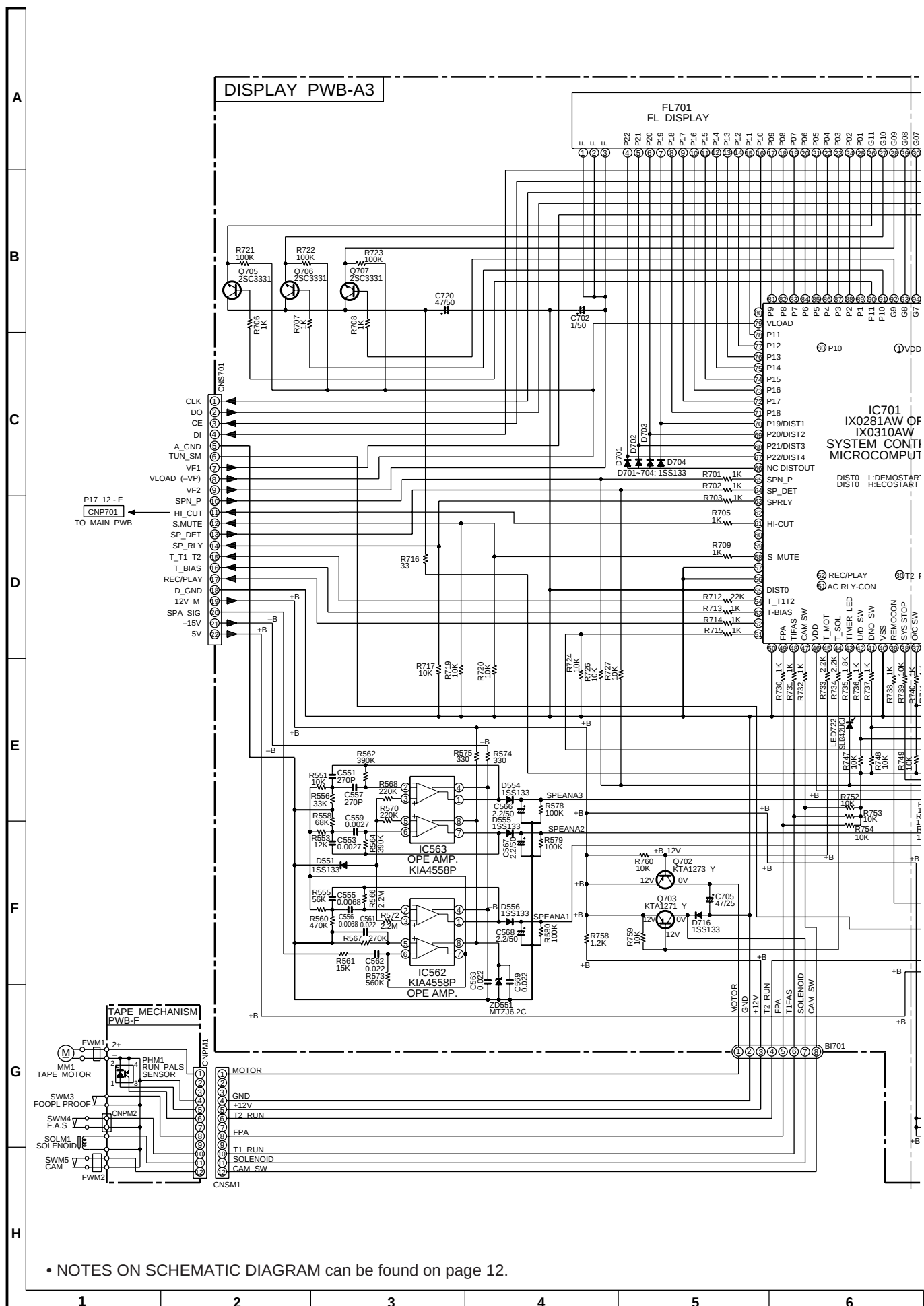
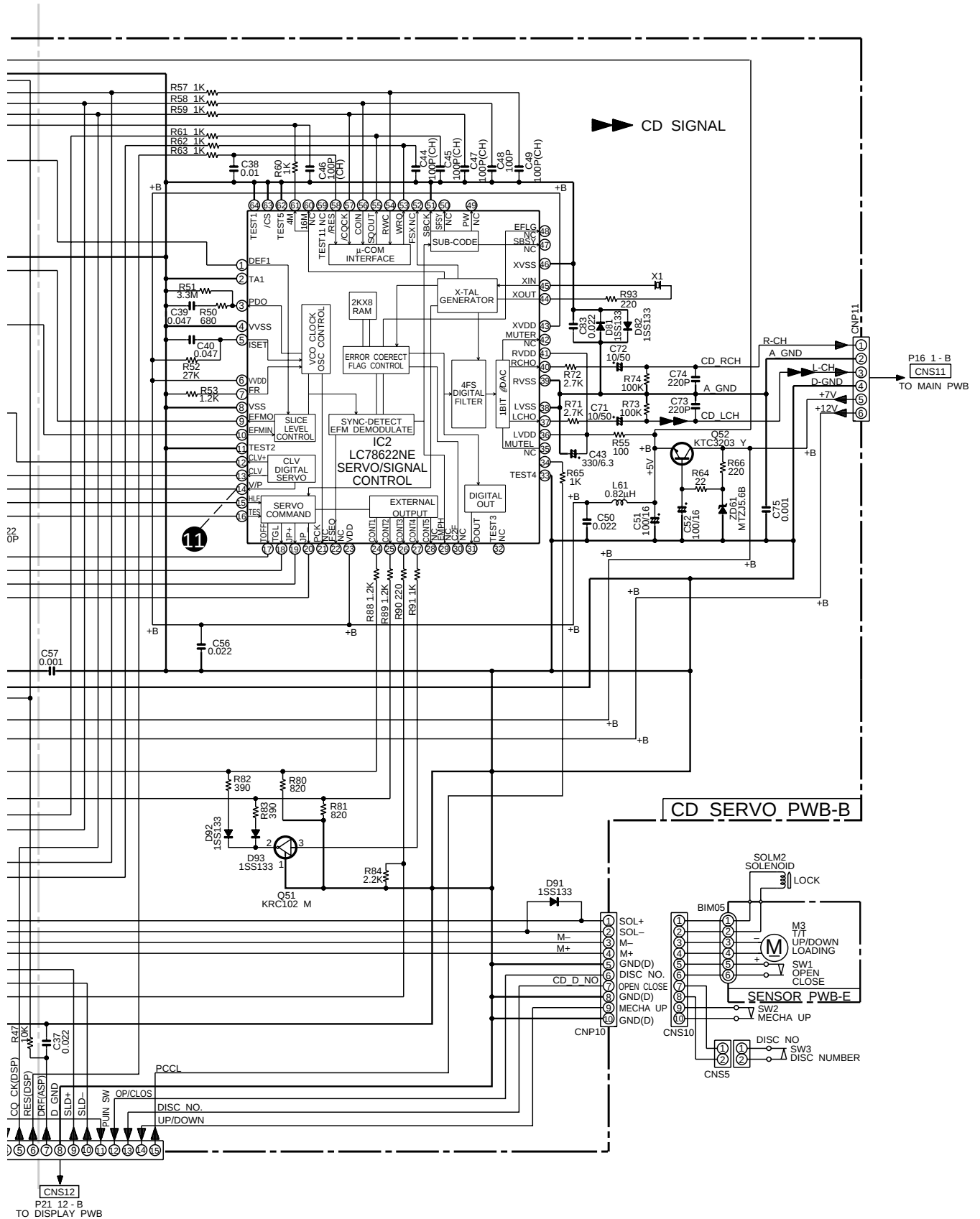


Figure 20 SCHEMATIC DIAGRAM (5/9)

- 21 -





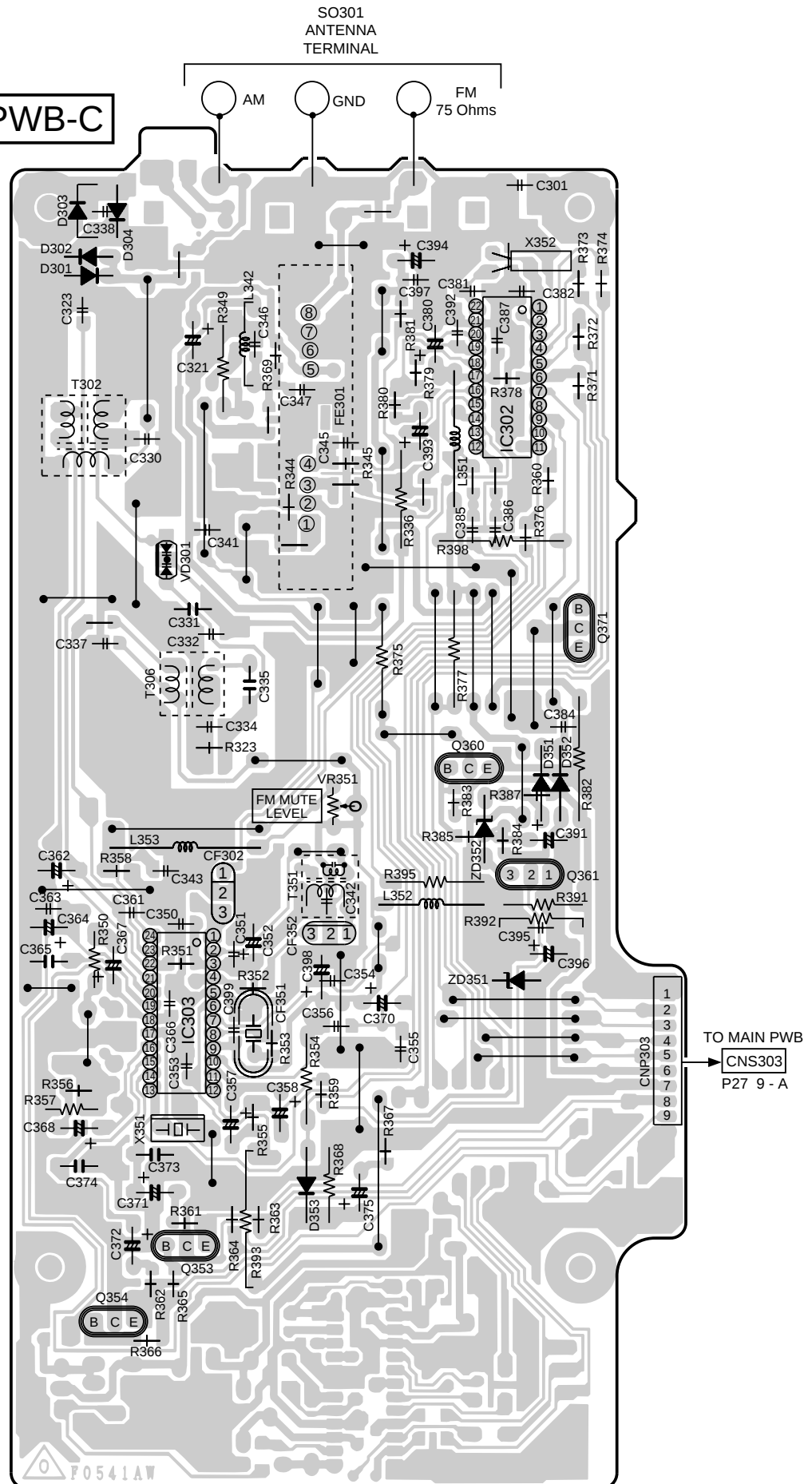
• The numbers 1 to 12 are waveform numbers shown in page 33.

|   |   |   |    |    |    |
|---|---|---|----|----|----|
| 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|----|----|----|

Figure 23 SCHEMATIC DIAGRAM (8/9)

- 24 -

## TUNER PWB-C



7

8

9

10

11

12

Figure 25 WIRING SIDE OF P.W.BOARD (1/7)

– 26 –

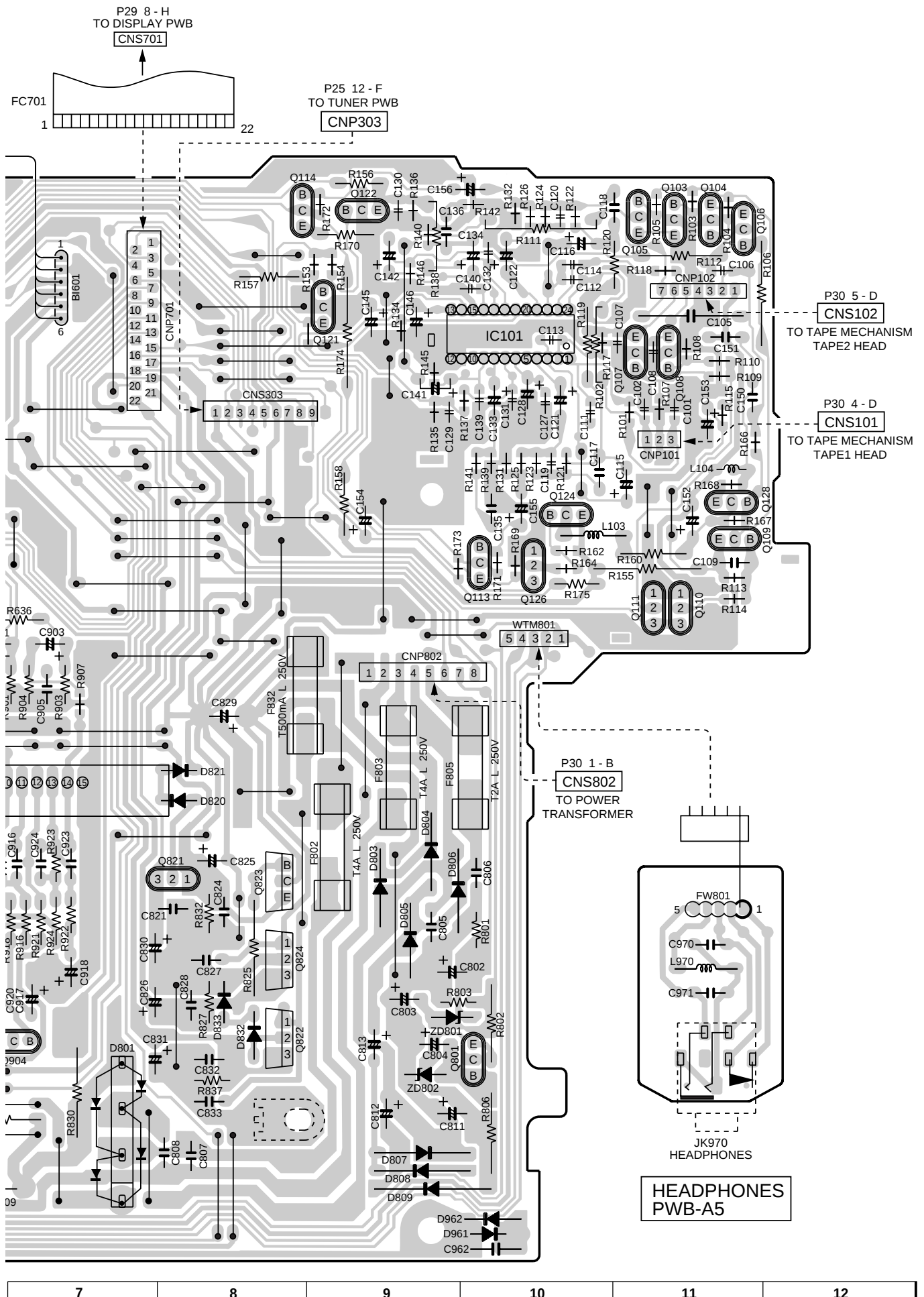


Figure 27 WIRING SIDE OF P.W.BOARD (3/7)

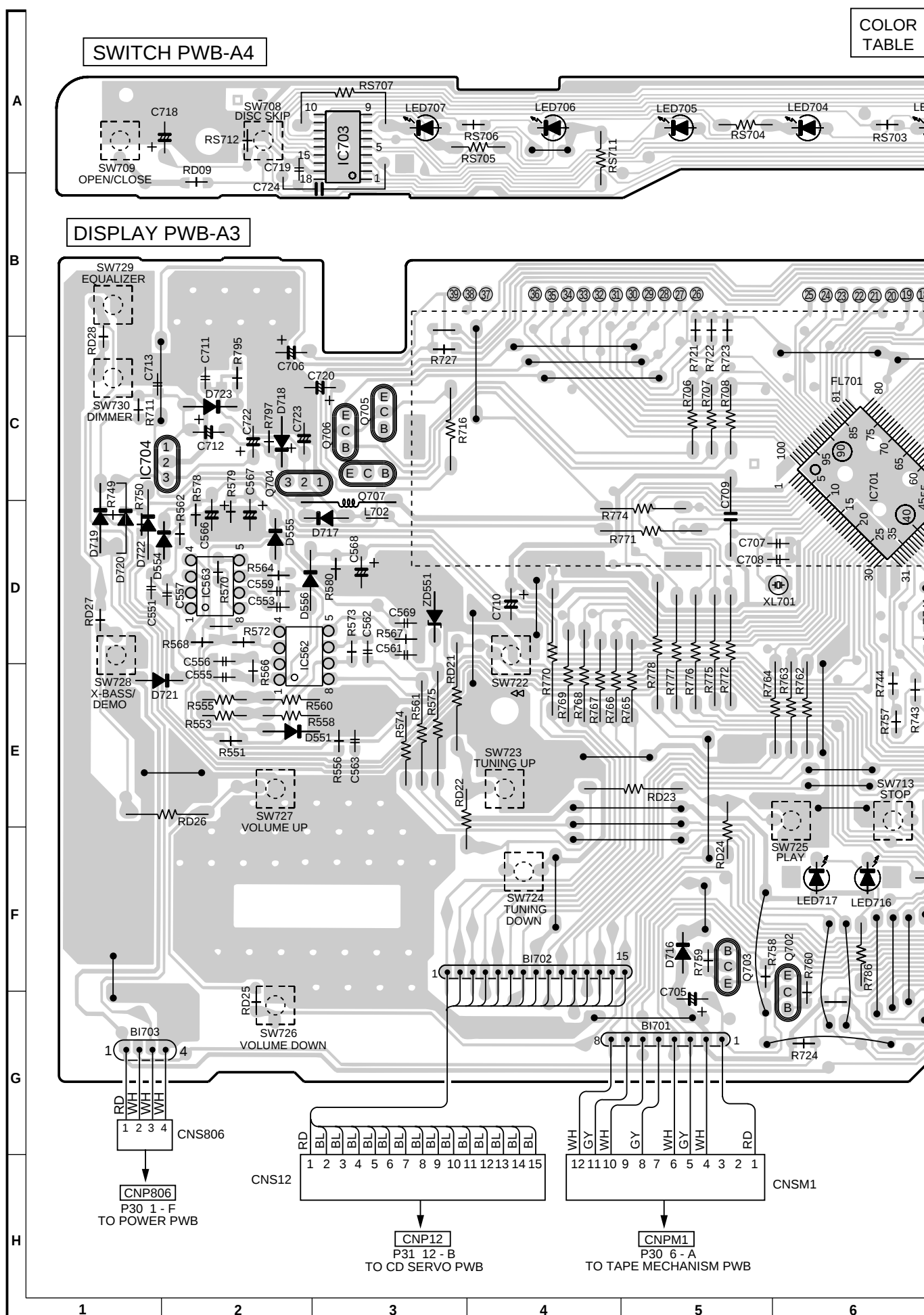


Figure 28 WIRING SIDE OF P.W.BOARD (4/7)

| COLOR | BR    | RD(R) | OR     | YL     | GR    | BL   | VL     | GY   | WH(W) | BK    | PK   |
|-------|-------|-------|--------|--------|-------|------|--------|------|-------|-------|------|
| TABLE | BROWN | RED   | ORANGE | YELLOW | GREEN | BLUE | VIOLET | GRAY | WHITE | BLACK | PINK |

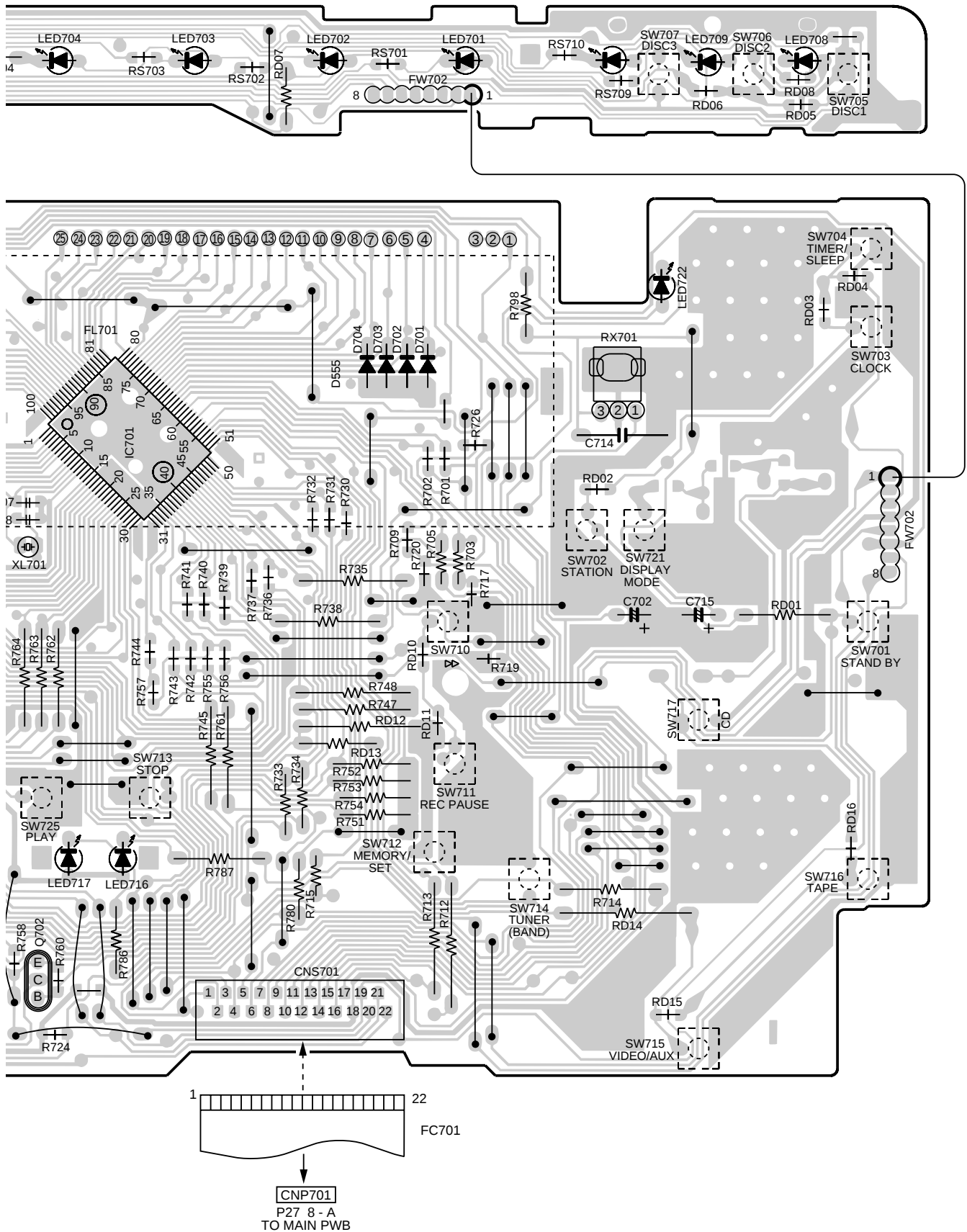


Figure 29 WIRING SIDE OF P.W.BOARD (5/7)

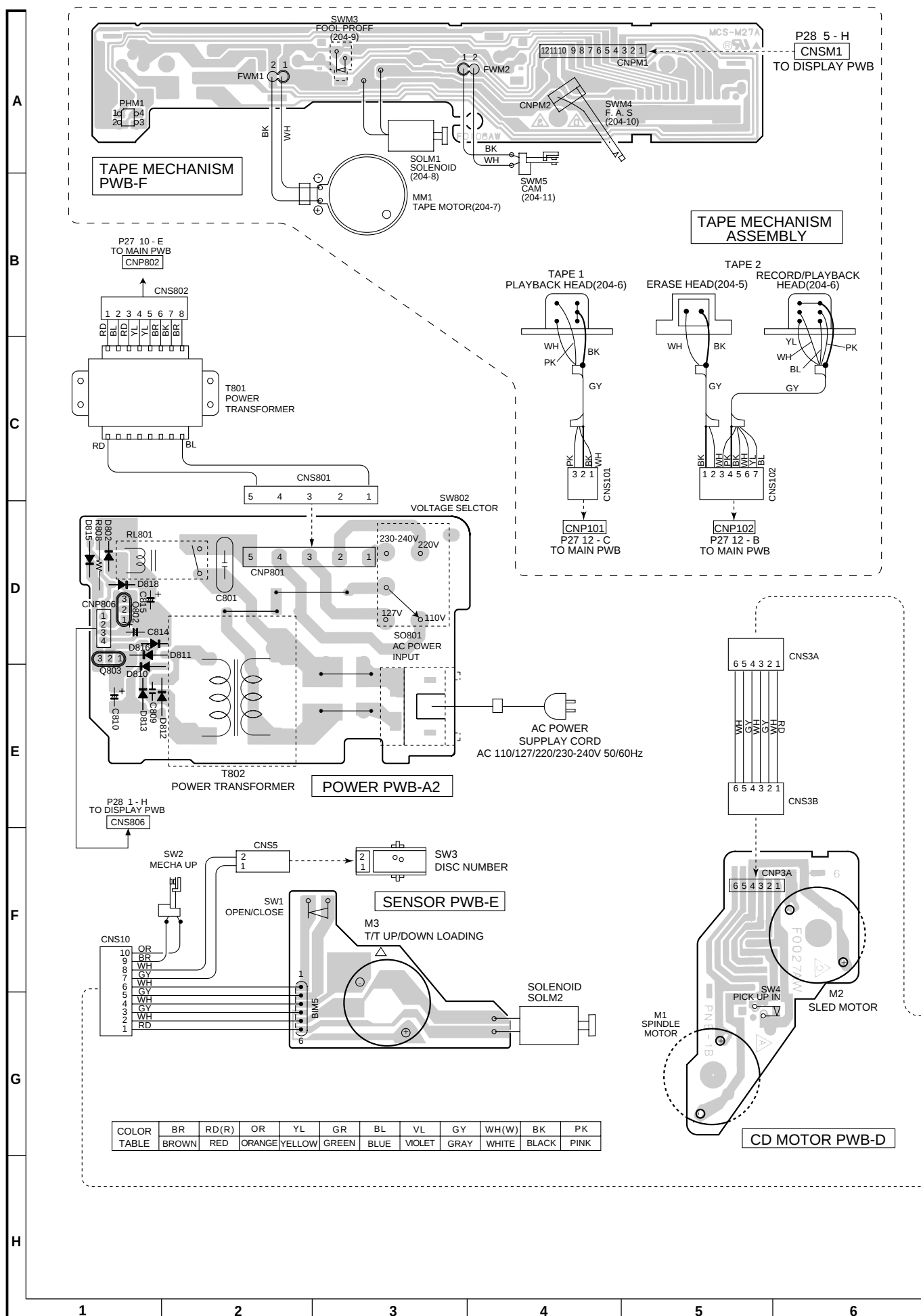
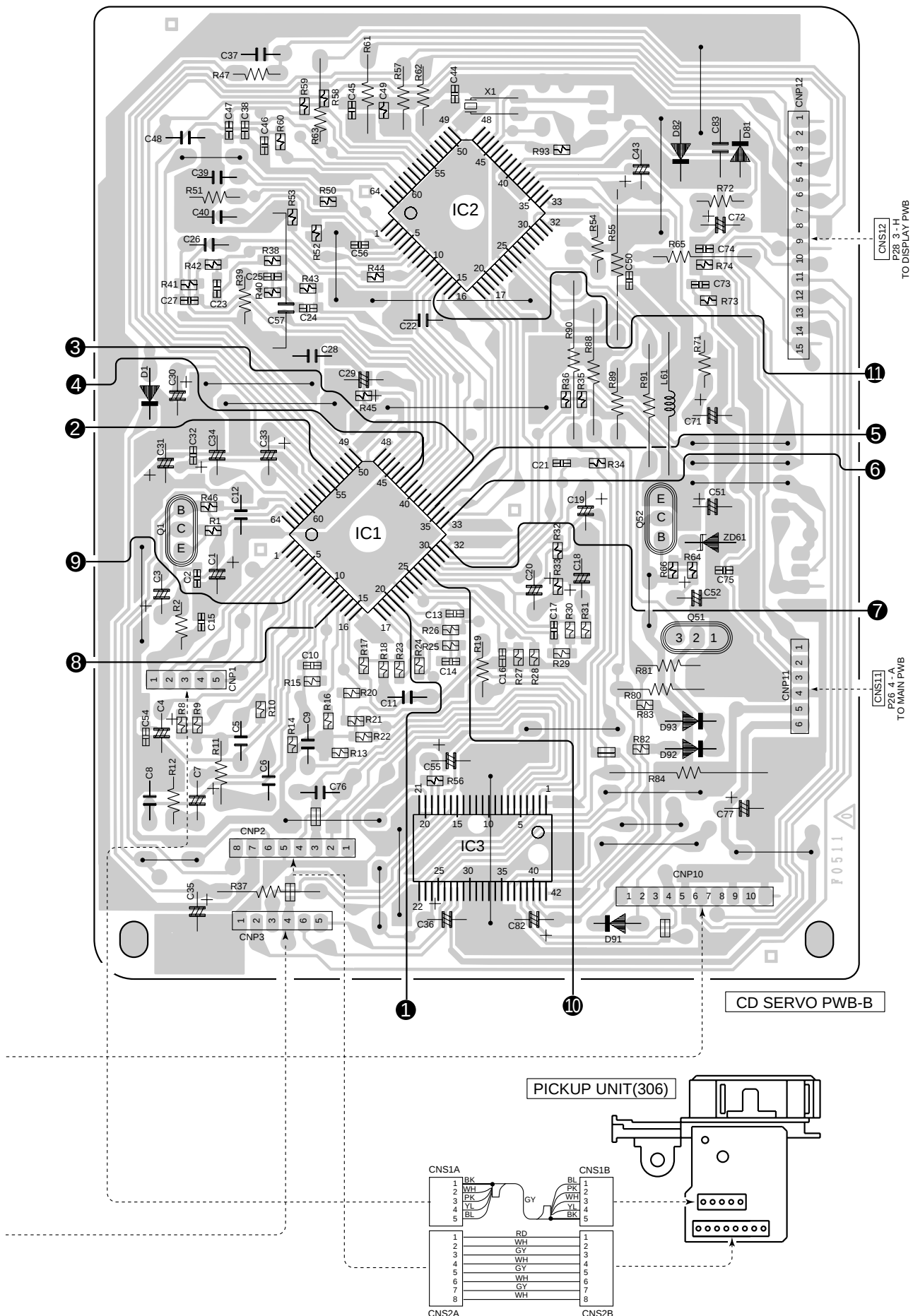


Figure 30 WIRING SIDE OF P.W.BOARD (6/7)



• The numbers ① to ⑫ are waveform numbers shown in page 33.

| 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|----|----|----|
|---|---|---|----|----|----|

Figure 31 WIRING SIDE OF P.W.BOARD (7/7)

## VOLTAGE

| IC1     |         |
|---------|---------|
| PIN NO. | VOLTAGE |
| 1       | 2.5V    |
| 2       | 2.5V    |
| 3       | 2.5V    |
| 4       | 2.5V    |
| 5       | 2.5V    |
| 6       | 2.5V    |
| 7       | 2.5V    |
| 8       | 2.5V    |
| 9       | 2.5V    |
| 10      | 2.5V    |
| 11      | 2.5V    |
| 12      | 2.5V    |
| 13      | 2.5V    |
| 14      | 2.5V    |
| 15      | 2.5V    |
| 16      | 2.5V    |
| 17      | 2.5V    |
| 18      | 2.5V    |
| 19      | 2.5V    |
| 20      | 2.5V    |
| 21      | 2.5V    |
| 22      | 0V      |
| 23      | 2.5V    |
| 24      | 2.5V    |
| 25      | 2.5V    |
| 26      | 2.5V    |
| 27      | 2.5V    |
| 28      | 2.5V    |
| 29      | 2.5V    |
| 30      | 2.3V    |
| 31      | 2.3V    |
| 32      | 0V      |
| 33      | 0V      |
| 34      | 5.0V    |
| 35      | 5.0V    |
| 36      | 0V      |
| 37      | 0V      |
| 38      | 5.0V    |
| 39      | 0V      |
| 40      | 0V      |
| 41      | 1.6V    |
| 42      | 2.4V    |
| 43      | 2.4V    |
| 44      | 2.4V    |
| 45      | 0V      |
| 46      | 2.5V    |
| 47      | 2.5V    |
| 48      | 0V      |
| 49      | 0V      |
| 50      | 2.4V    |
| 51      | 4.6V    |
| 52      | 4.6V    |
| 53      | 0V      |
| 54      | 0V      |
| 55      | 5.0V    |
| 56      | 5.0V    |
| 57      | 2.5V    |
| 58      | 2.5V    |
| 59      | 1.0V    |
| 60      | 1.0V    |
| 61      | 2.2V    |
| 62      | 4.2V    |
| 63      | 0V      |
| 64      | 5.0V    |

| IC2     |         |
|---------|---------|
| PIN NO. | VOLTAGE |
| 1       | 0V      |
| 2       | 0V      |
| 3       | 0V      |
| 4       | 0V      |
| 5       | 1.9V    |
| 6       | 5.0V    |
| 7       | 0V      |
| 8       | 0V      |
| 9       | 2.5V    |
| 10      | 2.4V    |
| 11      | 0V      |
| 12      | 0V      |
| 13      | 0V      |
| 14      | 5.0V    |
| 15      | 0V      |
| 16      | 0V      |
| 17      | 5.0V    |
| 18      | 5.0V    |
| 19      | 0V      |
| 20      | 0V      |
| 21      | 2.5V    |
| 22      | 0V      |
| 23      | 5.0V    |
| 24      | 0V      |
| 25      | 0V      |
| 26      | 0V      |
| 27      | 0V      |
| 28      | 0V      |
| 29      | 0V      |
| 30      | 5.0V    |
| 31      | 2.5V    |
| 32      | 0V      |
| 33      | 0V      |
| 34      | 0V      |
| 35      | 5.0V    |
| 36      | 4.6V    |
| 37      | 1.9V    |
| 38      | 0V      |
| 39      | 0V      |
| 40      | 1.9V    |
| 41      | 4.6V    |
| 42      | 5.0V    |
| 43      | 5.0V    |
| 44      | 2.1V    |
| 45      | 2.1V    |
| 46      | 0V      |
| 47      | 0.1V    |
| 48      | 2.3V    |
| 49      | 0V      |
| 50      | 2.5V    |
| 51      | 0V      |
| 52      | 2.5V    |
| 53      | 0V      |
| 54      | 0V      |
| 55      | 0V      |
| 56      | 4.6V    |
| 57      | 4.6V    |
| 58      | 4.7V    |
| 59      | 0V      |
| 60      | 2.3V    |
| 61      | 2.3V    |
| 62      | 0V      |
| 63      | 0V      |
| 64      | 0V      |

| IC3     |         |
|---------|---------|
| PIN NO. | VOLTAGE |
| 1       | 2.5V    |
| 2       | 2.6V    |
| 3       | 2.9V    |
| 4       | 3.3V    |
| 5       | 3.3V    |
| 6       | 3.3V    |
| 7       | 3.3V    |
| 8       | 0V      |
| 9       | 0V      |
| 10      | 0V      |
| 11      | 0V      |
| 12      | 0V      |
| 13      | 0V      |
| 14      | 0V      |
| 15      | 3.3V    |
| 16      | 3.3V    |
| 17      | 3.0V    |
| 18      | 7.2V    |
| 19      | 5.0V    |
| 20      | 2.5V    |
| 21      | 0V      |
| 22      | 0V      |
| 23      | 0V      |
| 24      | 7.2V    |
| 25      | 2.5V    |
| 26      | 3.3V    |
| 27      | 3.3V    |
| 28      | 11.2V   |
| 29      | 0V      |
| 30      | 0V      |
| 31      | 0V      |
| 32      | 0V      |
| 33      | 0V      |
| 34      | 0V      |
| 35      | 0V      |
| 36      | 5.3V    |
| 37      | 5.3V    |
| 38      | 3.3V    |
| 39      | 3.3V    |
| 40      | 7.2V    |
| 41      | 0.1V    |
| 42      | 0.1V    |

| IC101   |             |
|---------|-------------|
| PIN NO. | VOLTAGE     |
| 1       | 0V (0V)     |
| 2       | 0V (0V)     |
| 3       | 0.5V (0.5V) |
| 4       | 4.3V (4.3V) |
| 5       | 0.2V (0.3V) |
| 6       | 1.3V (1.3V) |
| 7       | 0V (0V)     |
| 8       | 0.6V (0.6V) |
| 9       | 4.1V (4.1V) |
| 10      | 4.0V (4.0V) |
| 11      | 0V (0V)     |
| 12      | 0V (0V)     |
| 13      | 8.1V (8.1V) |
| 14      | 4.8V (4.8V) |
| 15      | 0V (0V)     |
| 16      | 4.1V (4.1V) |
| 17      | 0.6V (0.6V) |
| 18      | 0V (0V)     |
| 19      | 2.5V (2.6V) |
| 20      | 0.2V (0.3V) |
| 21      | 4.3V (4.3V) |
| 22      | 0.5V (0.5V) |
| 23      | 0V (0V)     |
| 24      | 0V (0V)     |

| FE301   |           |
|---------|-----------|
| PIN NO. | VOLTAGE   |
| 1       | 0V (0V)   |
| 2       | 0V (0V)   |
| 3       | 2.6V (0V) |
| 4       | 2V (1.1V) |
| 5       | 8.5V (0V) |
| 6       | 0V (0V)   |
| 7       | 0V (0V)   |
| 8       | 0V (0V)   |

| IC562   |         |
|---------|---------|
| PIN NO. | VOLTAGE |
| 1       | 0.12V   |
| 2       | 0.1V    |
| 3       | 0.13V   |
| 4       | -11.2V  |
| 5       | 0.1V    |
| 6       | 0.1V    |
| 7       | 0.1V    |
| 8       | 6.2V    |

| IC563   |         |
|---------|---------|
| PIN NO. | VOLTAGE |
| 1       | 0.2V    |
| 2       | 0.2V    |
| 3       | 0.2V    |
| 4       | -9.8V   |
| 5       | 0.2V    |
| 6       | 0.2V    |
| 7       | 0.2V    |
| 8       | 6.2V    |

| IC302   |              |
|---------|--------------|
| PIN NO. | VOLTAGE      |
| 1       | 2.6V (2.6V)  |
| 2       | 0V (0V)      |
| 3       | 0V (0.5V)    |
| 4       | 0V (0V)      |
| 5       | 4.1V (4.1V)  |
| 6       | 4.7V (4.7V)  |
| 7       | 0.2V (11.8V) |
| 8       | 0.5V (0.1V)  |
| 9       | 0.2V (0.2V)  |
| 10      | 0V (0V)      |
| 11      | 5.1V (5.1V)  |
| 12      | 2.5V (2.5V)  |
| 13      | 5.1V (5.1V)  |
| 14      | 0V (0V)      |
| 15      | 0V (2.5V)    |
| 16      | 2.5V (0V)    |
| 17      | 5.1V (5.1V)  |
| 18      | 0.9V (0.9V)  |
| 19      | 0.9V (0.9V)  |
| 20      | 1.9V (1.1V)  |
| 21      | 0V (0V)      |
| 22      | 2.5V (2.5V)  |

| IC601   |         |
|---------|---------|
| PIN NO. | VOLTAGE |
| 1       | 0V      |
| 2       | 0V      |
| 3       | 0V      |
| 4       | 0V      |
| 5       | 0V      |
| 6       | 0V      |
| 7       | 0V      |
| 8       | 0V      |
| 9       | 0V      |
| 10      | 2.7V    |
| 11      | 0.2V    |
| 12      | -2.7V   |
| 13      | 0V      |
| 14      | 0V      |
| 15      | 0V      |
| 16      | 0V      |
| 17      | 0V      |
| 18      | 0V      |
| 19      | 0V      |
| 20      | 0V      |

| IC704   |         |
|---------|---------|
| PIN NO. | VOLTAGE |
| 1       | 5.0V    |
| 2       | 0V      |
| 3       | 5.0V    |

| IC303   |             |
|---------|-------------|
| PIN NO. | VOLTAGE     |
| 1       | 2V (2V)     |
| 2       | 5V (5V)     |
| 3       | 2V (2V)     |
| 4       | 0V (0V)     |
| 5       | 5V (5V)     |
| 6       | 5V (5V)     |
| 7       | 5.1V (5.1V) |
| 8       | 2.9V (3.5V) |
| 9       | 5.1V (5.1V) |
| 10      | 0.1V (0.1V) |
| 11      | 3.9V (1.2V) |
| 12      | 3.9V (1.2V) |
| 13      | 2.2V (2.2V) |
| 14      | 1.1V (1.1V) |
| 15      | 1.1V (1.1V) |
| 16      | 2V (2V)     |
| 17      | 0.2V (0.1V) |
| 18      | 2.0V (0.8V) |
| 19      | 0V (1.8V)   |
| 20      | 0.4V (0.8V) |
| 21      | 2.6V (2V)   |
| 22      | 2.6V (2V)   |
| 23      | 5.1V (5.1V) |
| 24      | 3.6V (3.6V) |

| IC901   |         |
|---------|---------|
| PIN NO. | VOLTAGE |
| 1       | -30.4V  |
| 2       | -30.4V  |
| 3       | 30.5V   |
| 4       | 0V      |
| 5       | 0V      |
| 6       | 0V      |
| 7       | 0V      |
| 8       | -29.4V  |
| 9       | 29.4V   |
| 10      | -0.1V   |
| 11      | -0.1V   |
| 12      | -28.0V  |
| 13      | -0.1V   |
| 14      | 0.1V    |
| 15      | 0V      |

| IC703   |         |
|---------|---------|
| PIN NO. | VOLTAGE |
| 1       | 0V      |
| 2       | 0V      |
| 3       | 0V      |
| 4       | 0V      |
| 5       | 0.8V    |
| 6       | 0.8V    |
| 7       | 0.9V    |
| 8       | 0.9V    |
| 9       | 0.8V    |
| 10      | 0.8V    |
| 11      | 0.7V    |
| 12      | 0V      |
| 13      | 0V      |
| 14      | 0V      |
| 15      | 9.8V    |
| 16      | 9.8V    |
| 17      | 0V      |
| 18      | 5.0V    |

| IC701   |         |         |         |
|---------|---------|---------|---------|
| PIN NO. | VOLTAGE | PIN NO. | VOLTAGE |
| 1       | 4.8V    | 51      | 4.8V    |
| 2       | 4.8V    | 52      | 4.8V    |
| 3       | 4.8V    | 53      | 0V      |
| 4       | 0V      | 54      | 4.8V    |
| 5       | 0V      | 55      | 0V      |
| 6       | 0V      | 56      | 0V      |
| 7       | 0V      | 57      | 0V      |
| 8       | 0V      | 58      | 4.7V    |
| 9       | 0V      | 59      | 4.8V    |
| 10      | 4.0V    | 60      | 4.7V    |
| 11      | 2.3V    | 61      | 0V      |
| 12      | 2.3V    | 62      | 4.8V    |
| 13      | 0V      | 63      | 5.0V    |
| 14      | 4.9V    | 64      | 5.0V    |
| 15      | 0V      | 65      | 5.0V    |
| 16      | 4.9V    | 66      | -28V    |
| 17      | 0V      | 67      | -28V    |
| 18      | 4.8V    | 68      | -28V    |
| 19      | 0V      | 69      | -28V    |
| 20      | 4.8V    | 70      | -28V    |
| 21      | 4.8V    | 71      | -28V    |
| 22      | 0V      | 72      | -28V    |
| 23      | 0V      | 73      | -28V    |
| 24      | 0V      | 74      | -20V    |
| 25      | 0V      | 75      | -28V    |
| 26      | 0V      | 76      | -22.6V  |
| 27      | 0V      | 77      | -25.4V  |
| 28      | 0V      | 78      | -22.6V  |
| 29      | 0V      | 79      | -27.8V  |
| 30      | 0V      | 80      | -25.4V  |
| 31      | 5.0V    | 81      | -25.3V  |
| 32      | 5.0V    | 82      | -25.3V  |
| 33      | 5.0V    | 83      | -22.5V  |
| 34      | 4.8V    | 84      | -25.3V  |
| 35      | 5.0V    | 85      | -22.7V  |
| 36      | 4.7V    | 86      | -27.3V  |
| 37      | 5.0V    | 87      | -22.7V  |
| 38      | 4.8V    | 88      | -17.4V  |
| 39      | 4.9V    | 89      | -20V    |
| 40      | 0V      | 90      | -25.4V  |
| 41      | 4.7V    | 91      | -25.4V  |
| 42      | 0V      | 92      | -25.4V  |
| 43      | 3.6V    | 93      | -25.4V  |
| 44      | 11.3V   | 94      | -25.4V  |
| 45      | 11.3V   | 95      | -25.4V  |
| 46      | 4.8V    | 96      | -25.4V  |
| 47      | 4.7V    | 97      | -25.4V  |
| 48      | 4.7V    | 98      | -25.4V  |
| 49      | 4.7V    | 99      | -25.4V  |
| 50      | 0V      | 100     | -25.4V  |

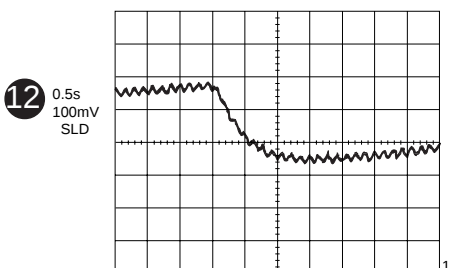
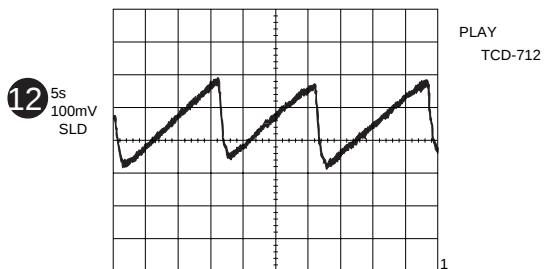
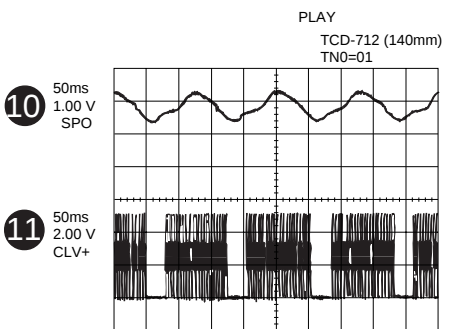
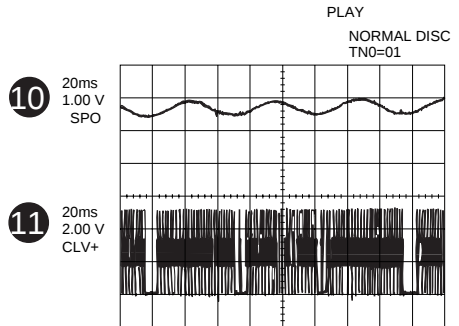
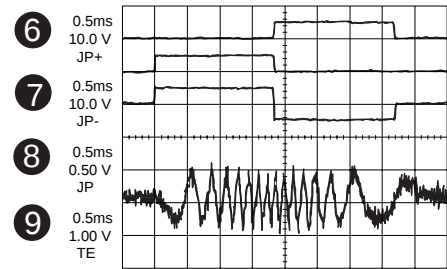
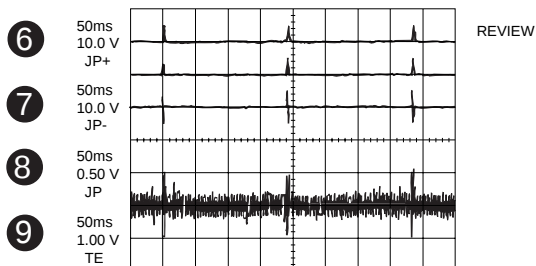
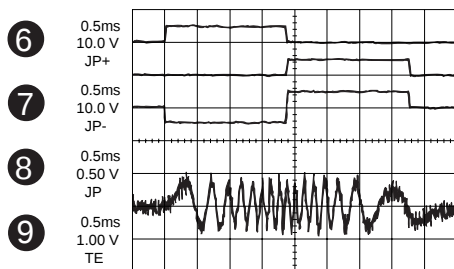
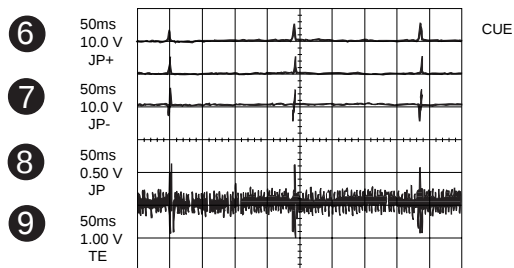
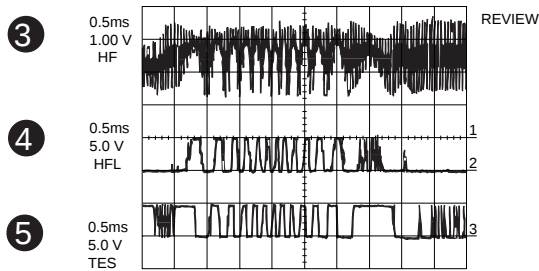
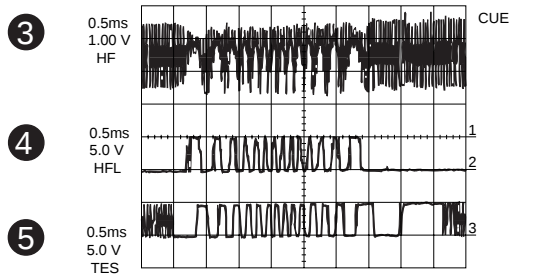
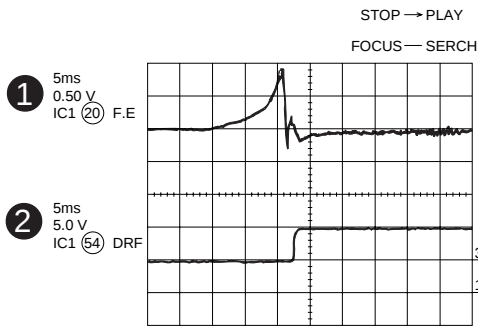
| Q821    |         |
|---------|---------|
| PIN NO. | VOLTAGE |
| 1       | 11.3V   |
| 2       | 6.2V    |
| 3       | 1.2V    |

| Q822    |         |
|---------|---------|
| PIN NO. | VOLTAGE |
| 1       | 19.6V   |
| 2       | 1.3V    |
| 3       | 7.3V    |

| Q823    |         |
|---------|---------|
| PIN NO. | VOLTAGE |
| 1       | 12V     |
| 2       | 19.6V   |
| 3       | 11.3V   |

| Q824    |         |
|---------|---------|
| PIN NO. | VOLTAGE |
| 1       | 19.6V   |
| 2       | 0V      |
| 3       | 12.0V   |

## WAVEFORMS OF CD CIRCUIT



## TROUBLESHOOTING (CD SECTION)

### When the CD does not function

When the CD section does not operate when the objective lens of the optical pickup is dirty, this section may not operate. Clean the objective lens, and check the playback operation. When this section does not operate even after the above step is taken, check the following items.

Remove the cabinet and follow the troubleshooting instructions.

"Track skipping and/or no TOC (Table Of Contents) may be caused by build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

Turn the power off.

Gently clean the lens with a lens cleaning tissue and a small amount of isopropyl alcohol.

Do not touch the lens with the bare hand.

Dust gradually accumulates on the objective lens during use, and it may degrade performance.

To avoid this problem, use a cleaning disc designed for CD optical pickup lenses.

#### HOW TO USE

1. Using the brush in the cleaner cap, apply 1 or 2 drops of the cleaning fluid to the brush on the CD cleaner disc which has ▲ the mark next to it.
2. Place the CD cleaner disc onto the CD disc tray with the brush side down, then press the play button.
3. You will hear music for about 20 seconds and the CD player will automatically stop. If it continues to turn, press the stop button.

#### CAUTION

- The CD lens cleaner should be effective for 30 - 50 operations, however if the brushes become worn out earlier then please replace the cleaner disc.
- If the CD cleaner brushes become very wet then wipe off any excess fluid with a soft cloth.
- Do not drink the cleaner fluid or allow it to come in contact with the eyes. In the event of this happening then drink and / or rinse with clean water and seek medical advice.
- The CD cleaner disc must not be used on car CD player or on computer CD ROM drives.

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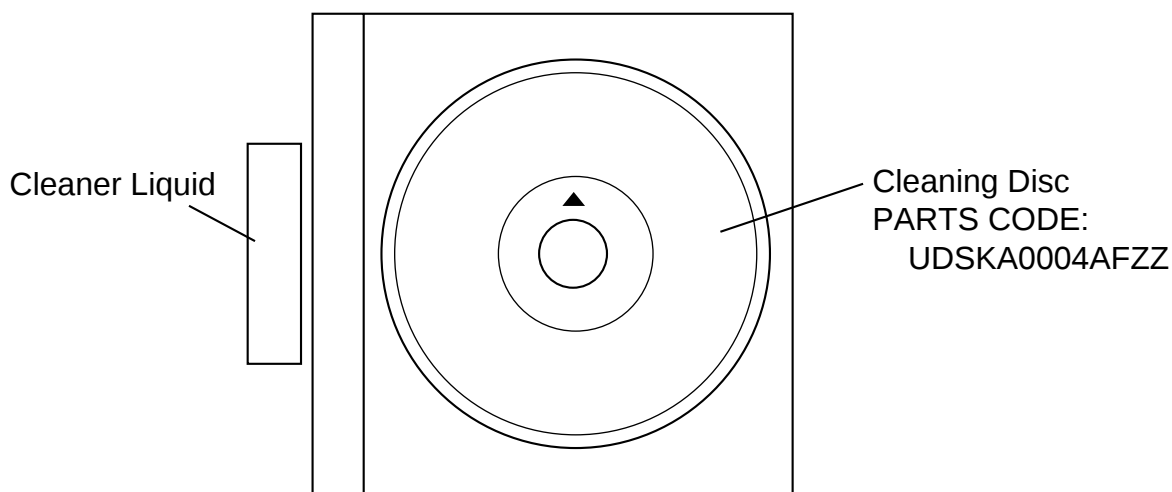
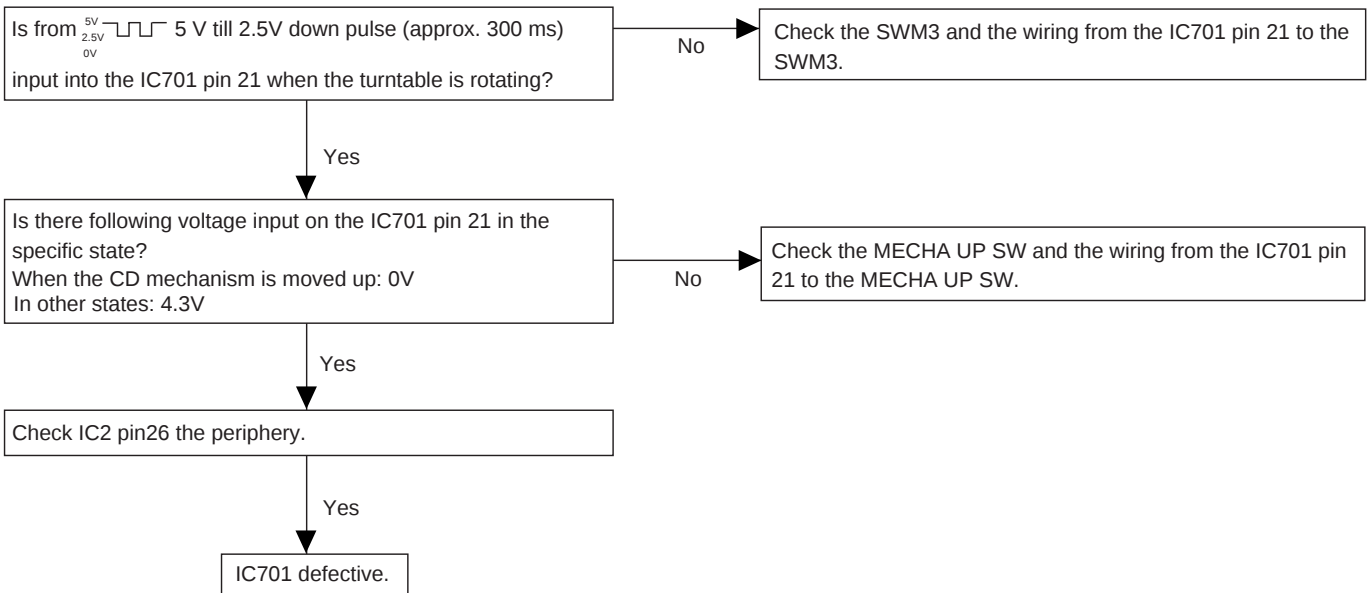


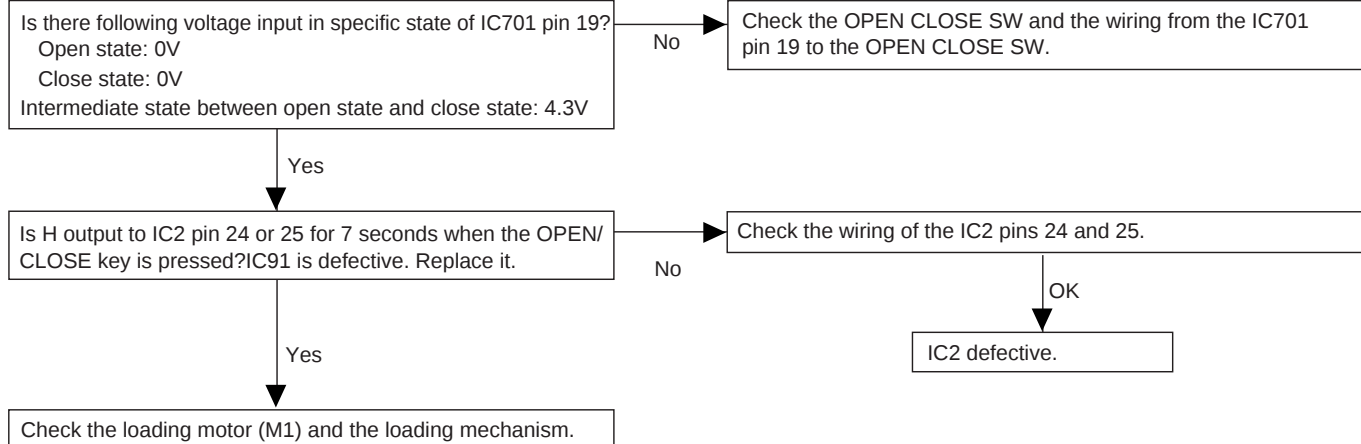
Figure 34

• When the turntable fails to stop.

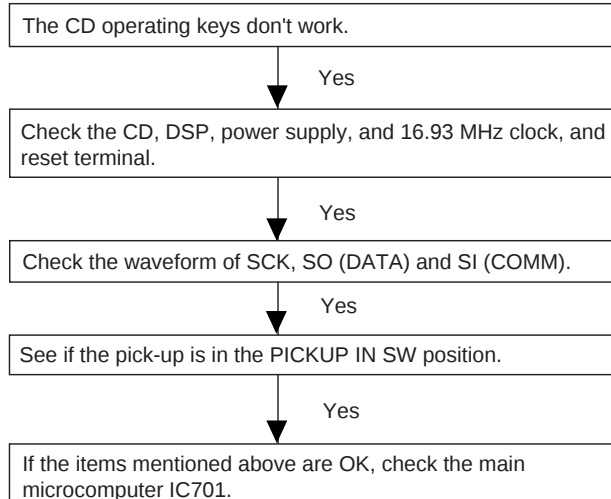


## CD-C831W

### • When the CD tray fails to open or close.



### • The CD function will not work.



### • The CD operating keys work.

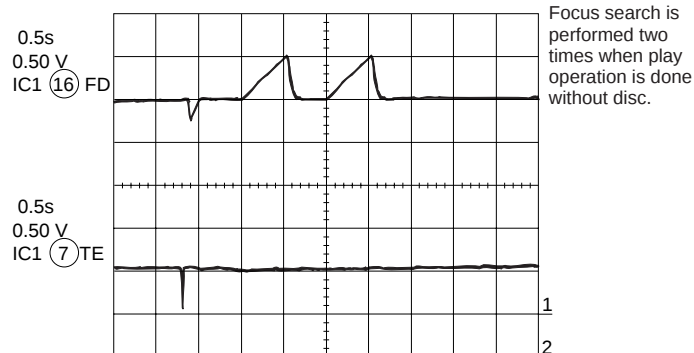
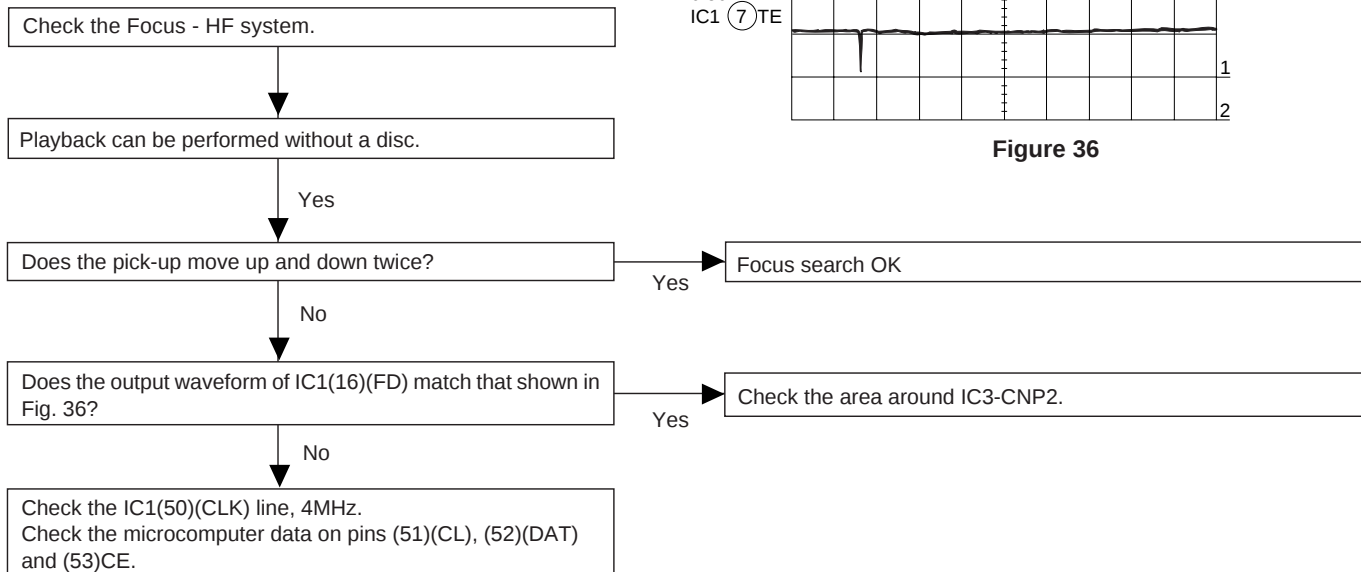
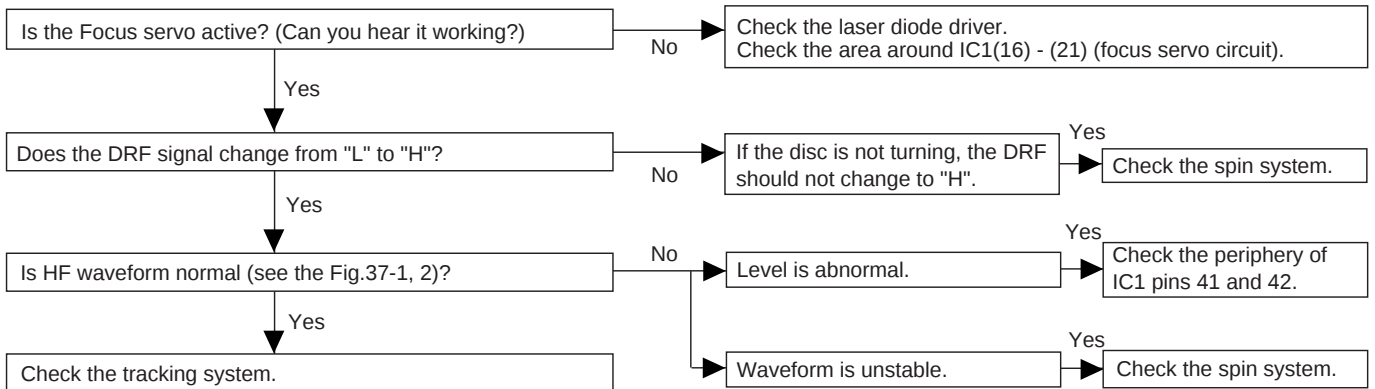


Figure 36

- Playback can only be performed when a disc is loaded.



HF  
1.0V/DIV  
0.5 $\mu$ sec/DIV(DC)  
IC1 (41)  
(When playing back the disc)

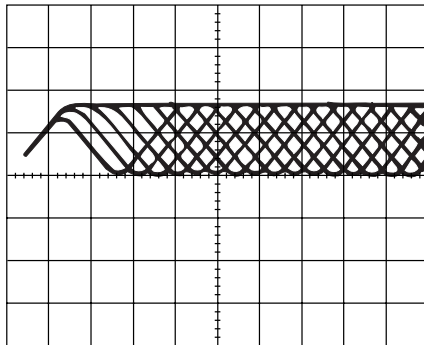


Figure 37-1

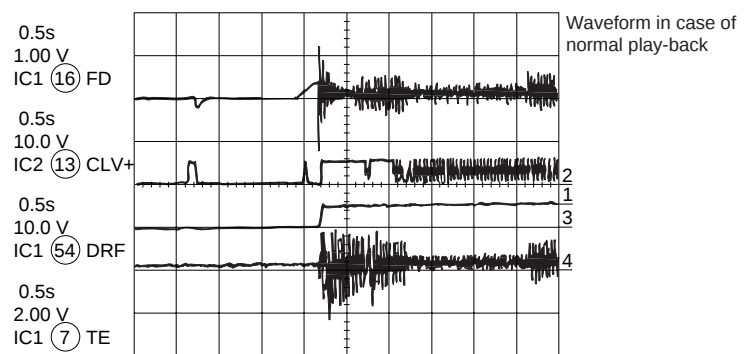


Figure 37-2

- Check the tracking system.

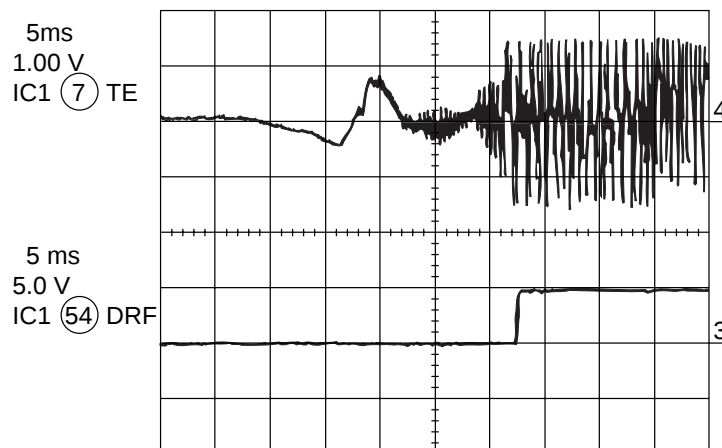
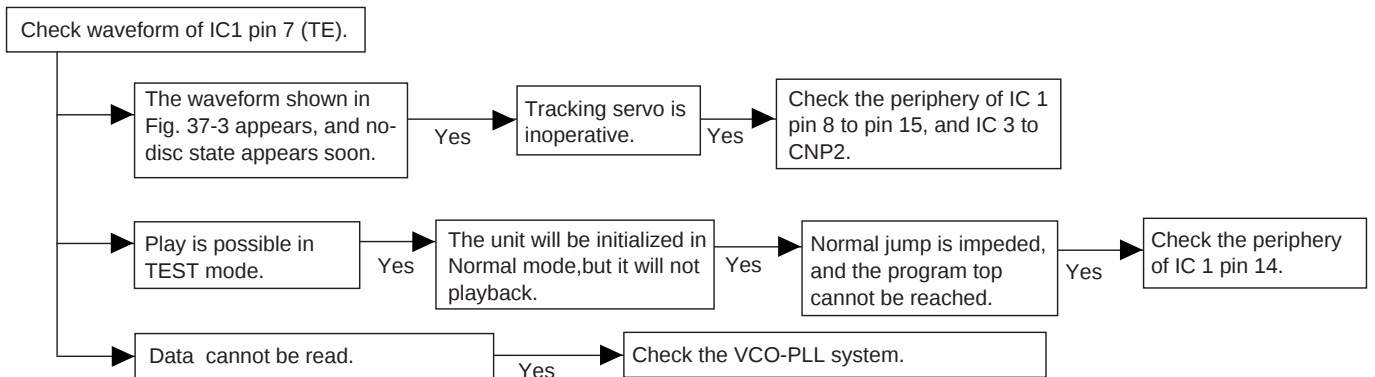


Figure 37-3

• **Checking the spin system.**

Play operation is performed without disc.

Yes

The turntable rotates a little.

Yes

The spin driver circuit is normal.

No

The turntable fails to rotate or rotates at high speed.

Yes

Check the periphery of IC1 pins 23 to 27, pin 39, and pin 40, IC2 pin 12 and pin 13, IC3 to CNP3.

• **Checking the VCO-PLL system**

Play operation is performed when disc exits.

Yes

Although HF waveform is normal, TOC data cannot be read.

Yes

Check PDO waveform (Fig. 38).

Abnormal

Check the IC1 pins 43 and 44, IC2 pins 3, 5, 7, 10, and 11.

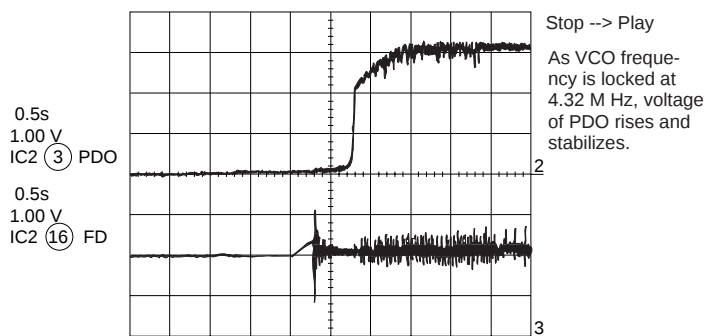


Figure 38

• **Although HF waveform is normal and the time indication is normal, no sound is emitted.**

Check IC 2 pin 48 (EFLG).

No

Usually, the number of pulses of flawless disc is 100 pulses/sec or less.

Yes

Check IC2 pins 37, 40.

## FUNCTION TABLE OF IC

## IC1 VHiLA9241M/-1: Servo Amp. (LA9241M) (1/2)

| Pin No. | Port Name | Function                                                                                                                                          |
|---------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | FIN2      | Connection pin for photodiode of pickup.<br>RF signal is generated through addition with FIN pin, and FE signal is generated through subtraction. |
| 2       | FIN1      | Connection pin for photodiode of pickup.                                                                                                          |
| 3       | E         | Connection pin for photodiode of pickup. TE signal is generated through subtraction with F pin.                                                   |
| 4       | F         | Connection pin for photodiode of pickup.                                                                                                          |
| 5       | TB        | Pin for input of DC component of TE signal.                                                                                                       |
| 6       | TE-       | Pin to connect gain setting resistor of TE signal to TE signal.                                                                                   |
| 7       | TE        | TE signal output pin.                                                                                                                             |
| 8       | TESI      | TES (Track error sense) comparator input pin. TE signal is band-passed and input.                                                                 |
| 9       | SCI       | Input pin for shock detection.                                                                                                                    |
| 10      | TH        | Pin to set time constant of tracking gain.                                                                                                        |
| 11*     | TA        | TA amplifier output pin.                                                                                                                          |
| 12      | TD-       | Pin to compose tracking phase compensation constant between TD and VR pins.                                                                       |
| 13      | TD        | Pin to set tracking phase compensation.                                                                                                           |
| 14      | JP        | Pin to set amplitude of tracking jump signal (kick pulse).                                                                                        |
| 15      | TO        | Tracking control signal output pin.                                                                                                               |
| 16      | FD        | Focusing control signal output pin.                                                                                                               |
| 17      | FD-       | Pin to compose focusing phase compensation constant between FD and FA pins.                                                                       |
| 18      | FA        | Pin to compose focusing phase compensation constant between FD-/FA-pins.                                                                          |
| 19      | FA-       | Pin to compose focusing phase compensation constant between FA and FE pins.                                                                       |
| 20      | FE        | Output pin of FE signal.                                                                                                                          |
| 21      | FE-       | Pin to connect gain setting resistor of FE signal across TE pin.                                                                                  |
| 22      | AGND      | GND for analog signal.                                                                                                                            |
| 23      | NC        | No connect.                                                                                                                                       |
| 24      | SPI       | Spindle amplifier input.                                                                                                                          |
| 25      | SPG       | Pin to connect gain setting resistor in the 12cm mode of spindle.                                                                                 |
| 26      | SP-       | Pin to connect spindle phase compensation constant together with SPD pin.                                                                         |
| 27      | SPD       | Spindle control signal output pin.                                                                                                                |
| 28      | SLEQ      | Pin to connect thread phase compensation constant.                                                                                                |
| 29      | SLD       | Thread control signal output pin.                                                                                                                 |
| 30      | SL-       | Input pin of thread feed signal from micro computer.                                                                                              |
| 31      | SL+       | Input pin of thread feed signal from micro computer.                                                                                              |
| 32      | JP-       | Input pin of tracking jump signal from DSP.                                                                                                       |
| 33      | JP+       | Input pin of tracking jump signal from DSP.                                                                                                       |
| 34      | TGL       | Input pin of tracking gain control signal from DSP. TGL = Gain low at "H"                                                                         |
| 35      | TOFF      | Input pin of tracking off control signal from DSP. TOFF = Off at "H"                                                                              |
| 36      | TES       | Output pin of TES signal to DSP.                                                                                                                  |
| 37      | HFL       | (HIGH FREQUENCY LEVEL) is used to judge whether main beam is positioned on the bit or on the mirror.                                              |
| 38      | SLOF      | Thread servo off control input pin.                                                                                                               |
| 39      | CV-       | Pin to input CLV error signal from DSP.                                                                                                           |
| 40      | CV+       | Pin to input CLV error signal from DSP.                                                                                                           |
| 41      | RFSM      | RF output pin.                                                                                                                                    |
| 42      | RFS-      | Pin to set gain of RF and set 3T compensation constant together with RFSM pin.                                                                    |
| 43      | SLC       | (SLICE LEVEL CONTROL) is the output pin to control of the level of the data slice with RF waveform DSP.                                           |
| 44      | SLI       | Input pin to control the level of data slice with DSP.                                                                                            |
| 45      | DGND      | GND pin in the digital system.                                                                                                                    |
| 46      | FSC       | Output pin for focus search smoothening capacitor.                                                                                                |
| 47      | TBC       | (Tracking Balance Control) Pin to set EF balance variable range.                                                                                  |
| 48*     | NC        | No connect.                                                                                                                                       |
| 49      | DEF       | Defect detection output pin of disk.                                                                                                              |
| 50      | CLK       | Reference clock input pin. 4.23MHz of DSP is input.                                                                                               |

In this unit, the terminal with asterisk mark (\*) is (open) terminal which is not connected to the outside.

CD-C831W

IC1 VHiLA9241M/-1:Servo Amp.(LA9241M) (2/2)

| Pin No. | Port Name | Function                                                                                             |
|---------|-----------|------------------------------------------------------------------------------------------------------|
| 51      | CL        | Micro computer command clock input pin.                                                              |
| 52      | DAT       | Micro computer command data input pin.                                                               |
| 53      | CE        | Micro computer command chip enable input pin.                                                        |
| 54      | DRF       | (DETECT RF) RF level detection output.                                                               |
| 55      | FSS       | (Focus Serch Select) Pin to switch focus search mode. ( $\pm$ search/+ search for reference voltage) |
| 56      | VCC2      | VCC pin for servo system and digital system.                                                         |
| 57      | REFI      | Pin to connect pass control for reference voltage.                                                   |
| 58      | VR        | Reference voltage output pin.                                                                        |
| 59      | LF2       | Pin to set defect detection time constant of disk.                                                   |
| 60      | PH1       | Pin to connect capacitor for peak hold of RF signal.                                                 |
| 61      | BH1       | Pin to connect capacitor for bottom hold of RF signal.                                               |
| 62      | LDD       | APC circuit output pin.                                                                              |
| 63      | LDS       | APC circuit output pin.                                                                              |
| 64      | VCC1      | RF system VCC pin.                                                                                   |

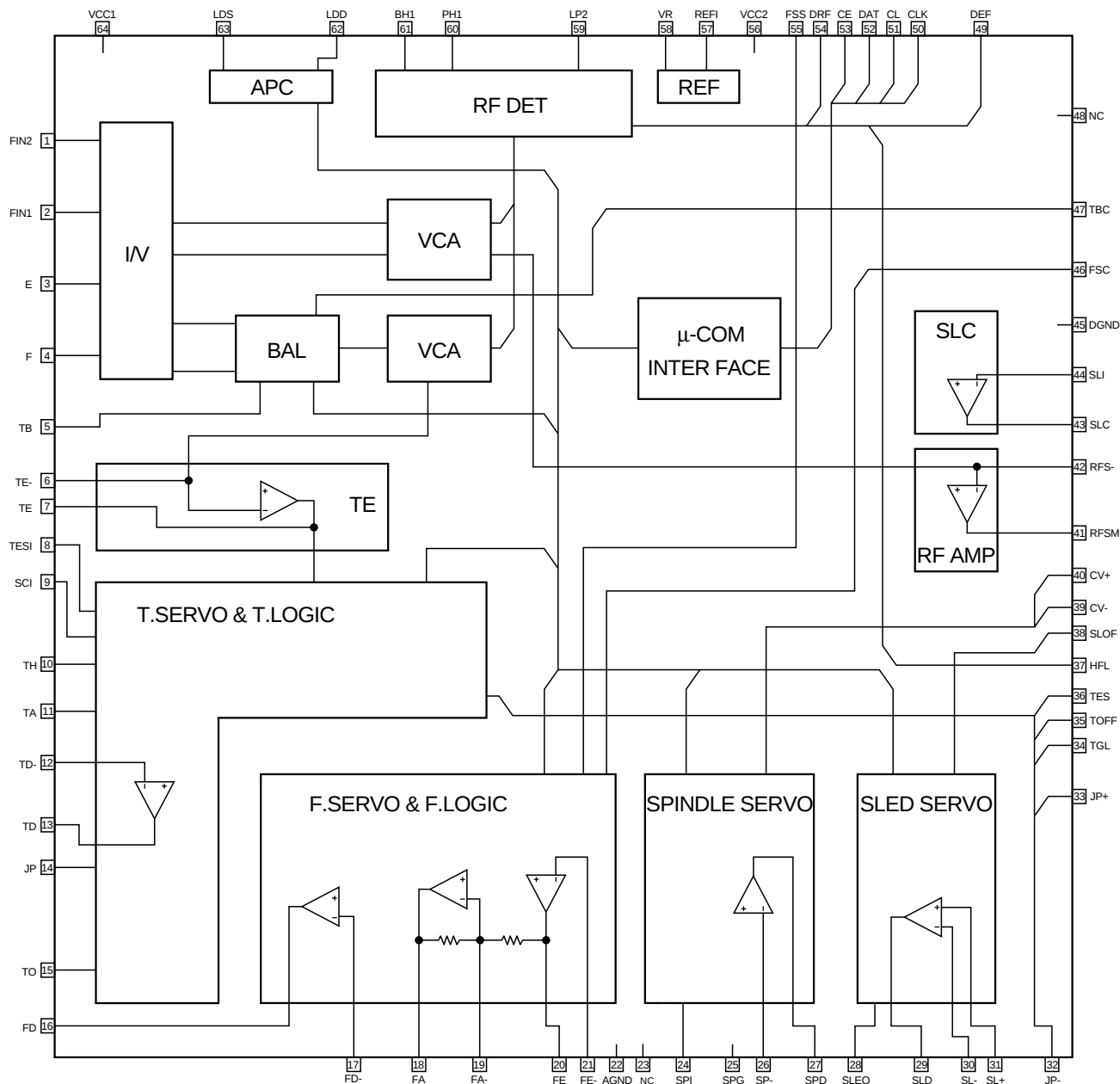


Figure 40 BLOCK DIAGRAM OF IC

## IC2 VHiLC78622N-1: Servo/Signal Control (LC78622NE) (1/2)

| Pin No. | Terminal Name | Input/Output | Function                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                 |
|---------|---------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | DEFI          | Input        | Defect detection signal (DFF) input terminal. (When this terminal is not used, connect it to 0V.)                                                                                                                                                                                                               |                                                                                                                                                                                 |
| 2       | TAI           | Input        | For PLL                                                                                                                                                                                                                                                                                                         | Input terminal for test. Pull-down resistor built in. Be sure to connect this terminal to 0V.                                                                                   |
| 3       | PDO           | Output       |                                                                                                                                                                                                                                                                                                                 | Phase comparison output terminal for external VCO control.                                                                                                                      |
| 4       | VVSS          | —            |                                                                                                                                                                                                                                                                                                                 | Grounding terminal for built-in VCO. Be sure to connect this terminal to 0V.                                                                                                    |
| 5       | ISET          | Input        |                                                                                                                                                                                                                                                                                                                 | Resistor connection terminal for adjustment of PDO output current.                                                                                                              |
| 6       | VVDD          | —            |                                                                                                                                                                                                                                                                                                                 | Power terminal for built-in VCO.                                                                                                                                                |
| 7       | FR            | Input        |                                                                                                                                                                                                                                                                                                                 | For VCO frequency range adjustment.                                                                                                                                             |
| 8       | VSS           | —            | Digital system grounding terminal. Be sure to connect this terminal to 0V.                                                                                                                                                                                                                                      |                                                                                                                                                                                 |
| 9       | EFMO          | Output       | For slice level control                                                                                                                                                                                                                                                                                         | EFM signal output terminal.                                                                                                                                                     |
| 10      | EFMIN         | Input        |                                                                                                                                                                                                                                                                                                                 | EFM signal input terminal.                                                                                                                                                      |
| 11      | TEST2         | Input        | Input terminal for test. Pull-down resistor built-in. Be sure to connect this terminal to 0V.                                                                                                                                                                                                                   |                                                                                                                                                                                 |
| 12      | CLV+          | Outout       | Output for disc motor control. 3-value output is enabled according to command.                                                                                                                                                                                                                                  |                                                                                                                                                                                 |
| 13      | CLV-          | Output       | Output for disc motor control. 3-value output is enabled according to command.                                                                                                                                                                                                                                  |                                                                                                                                                                                 |
| 14      | V/P           | Output       | Rough servo/phase control automatic selection monitor output terminal.<br>"H": Rough servo, "L": Phase servo                                                                                                                                                                                                    |                                                                                                                                                                                 |
| 15      | HLF           | Intput       | Track detection signal input terminal. Schmidt input.                                                                                                                                                                                                                                                           |                                                                                                                                                                                 |
| 16      | TES           | Input        | Tracking error signal input terminal. Schmidt input.                                                                                                                                                                                                                                                            |                                                                                                                                                                                 |
| 17      | TOFF          | Output       | Tracking OFF output terminal.                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                 |
| 18      | TGL           | Output       | Output terminal for tracking gain selection. "L": Gain raising.                                                                                                                                                                                                                                                 |                                                                                                                                                                                 |
| 19      | JP+           | Output       | Output for track jump control. 3-value output is enabled according to command.                                                                                                                                                                                                                                  |                                                                                                                                                                                 |
| 20      | JP-           | Output       | Output for track jump control. 3-value output is enabled according to command.                                                                                                                                                                                                                                  |                                                                                                                                                                                 |
| 21*     | PCK           | Output       | Clock monitor terminal for EFM data play-back. Phase lock: 4.3218 MHz.                                                                                                                                                                                                                                          |                                                                                                                                                                                 |
| 22*     | FSEQ          | Output       | Sync signal detection output terminal.<br>When the sync signal detected from the EFM signal coincides with the internally generated sync signal: "H"                                                                                                                                                            |                                                                                                                                                                                 |
| 23      | VDD           | —            | Digital system power terminal.                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                 |
| 24      | CONT1         | Input/Output | General-use input/output terminal 1.                                                                                                                                                                                                                                                                            | Control with serial data command from microcomputer.<br>When this terminal is not used, set it as an input terminal and connect to 0V or set it as an output terminal and open. |
| 25      | CONT2         | Input/Output | General-use input/output terminal 2.                                                                                                                                                                                                                                                                            |                                                                                                                                                                                 |
| 26      | CONT3         | Input/Output | General-use input/output terminal 3.                                                                                                                                                                                                                                                                            |                                                                                                                                                                                 |
| 27      | CONT4         | Input/Output | General-use input/output terminal 4.                                                                                                                                                                                                                                                                            |                                                                                                                                                                                 |
| 28*     | CONT5         | Input/Output | General-use input/output terminal 5.                                                                                                                                                                                                                                                                            |                                                                                                                                                                                 |
| 29*     | EMPH/CONT6    | Output       | Deemphasis monitor terminal. "H": Deemphasis disc play-back. General-use output terminal 6.                                                                                                                                                                                                                     |                                                                                                                                                                                 |
| 30*     | C2F           | Output       | C2 flag output terminal.                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                 |
| 31*     | DOUT          | Output       | Digital OUT output terminal. (EIAJ format)                                                                                                                                                                                                                                                                      |                                                                                                                                                                                 |
| 32*     | TEST3         | Input        | Input terminal for test. Pull-down resistor built-in. Be sure to connect this terminal to 0V.                                                                                                                                                                                                                   |                                                                                                                                                                                 |
| 33      | TEST4         | Input        | Input terminal for test. Pull-down resistor built-in. Be sure to connect this terminal to 0V.                                                                                                                                                                                                                   |                                                                                                                                                                                 |
| 34      | PCCL          | Input        | General-use input/output command recognition terminal. Pull-down resistor built in.<br>When this terminal is used for the same function as that of LC78622E, open or connect this terminal to 0V.<br>H: Only the general-use input/output port command is controllable.<br>L: All command controls are enabled. |                                                                                                                                                                                 |
| 35*     | MUTEL/CONT7   | Output       | L channel 1-bit DAC                                                                                                                                                                                                                                                                                             | Mute output terminal for L channel. General-use output terminal 7.                                                                                                              |
| 36      | LVDD          | —            |                                                                                                                                                                                                                                                                                                                 | Power terminal for L channel.                                                                                                                                                   |
| 37      | LCHO          | Output       |                                                                                                                                                                                                                                                                                                                 | L channel output terminal.                                                                                                                                                      |
| 38      | LVSS          | —            |                                                                                                                                                                                                                                                                                                                 | Grounding terminal for L channel. Be sure to connect this terminal to 0V.                                                                                                       |
| 39      | RVSS          | —            | R channel 1-bit DAC                                                                                                                                                                                                                                                                                             | Grounding terminal for R channel. Be sure to connect this terminal to 0V.                                                                                                       |
| 40      | RCHO          | Output       |                                                                                                                                                                                                                                                                                                                 | R channel output terminal.                                                                                                                                                      |
| 41      | RVDD          | —            |                                                                                                                                                                                                                                                                                                                 | Power terminal for R channel.                                                                                                                                                   |
| 42*     | MUTER/CONT8   | Output       |                                                                                                                                                                                                                                                                                                                 | Mute output terminal for R channel. General-use output terminal 8.                                                                                                              |
| 43      | XVDD          | —            | Power terminal for crystal oscillation.                                                                                                                                                                                                                                                                         |                                                                                                                                                                                 |
| 44      | XOUT          | Output       | 16.9344 MHz crystal oscillator connection terminal.                                                                                                                                                                                                                                                             |                                                                                                                                                                                 |
| 45      | XIN           | Input        | 16.9344 MHz crystal oscillator connection terminal.                                                                                                                                                                                                                                                             |                                                                                                                                                                                 |
| 46      | XVSS          | —            | Grounding terminal for crystal oscillation. Be sure to connect this terminal to 0V.                                                                                                                                                                                                                             |                                                                                                                                                                                 |

In this unit, the terminal with asterisk mark (\*) is (open) terminal which is not connected to the outside.

## IC2 VHiLC78622N-1: Servo/Signal Control (LC78622NE) (2/2)

| Pin No. | Terminal Name | Input/Output | Function                                                                                                     |
|---------|---------------|--------------|--------------------------------------------------------------------------------------------------------------|
| 47*     | SBSY          | Output       | Sub-code clock sync signal output terminal.                                                                  |
| 48*     | EFLG          | Output       | C1, C2, single, double correction monitor terminal.                                                          |
| 49*     | PW            | Output       | Sub-code P, Q, R, S, T, U, and W output terminal.                                                            |
| 50*     | SFSY          | Output       | Sub-code frame sync signal output terminal. Falling occurs when the sub-code is in standby state.            |
| 51      | SBCK          | Input        | Sub-code read clock input terminal. Schmidt input (When this terminal is not used, connect it to 0V.)        |
| 52*     | FSX           | Output       | 7.35 kHz sync signal (frequency-divided from crystal oscillation) output terminal.                           |
| 53      | WRQ           | Output       | Sub-code Q output standby output terminal.                                                                   |
| 54      | RWC           | Input        | Read/Write control input terminal. Schmidt input.                                                            |
| 55      | SQOUT         | Output       | Sub-code Q output terminal.                                                                                  |
| 56      | COIN          | Input        | Command input terminal from microcomputer.                                                                   |
| 57      | CQCK          | Input        | Command input taking-in clock or sub-code taking-out (from SQOUT) clock input terminal. Schmidt input        |
| 58      | RES           | Input        | LSI resetting input terminal. When power is turned on, once "L" is set.                                      |
| 59*     | TEST11        | Output       | Output terminal for test. Use this terminal in open state (usually "L" output).                              |
| 60*     | 16M           | Output       | 16.9344 MHz output terminal.                                                                                 |
| 61      | 4.2M          | Output       | 4.2336 MHz output terminal.                                                                                  |
| 62      | TEST5         | Input        | Input terminal for test. Pull-down resistor built-in. Be sure to connect this terminal to 0V.                |
| 63      | CS            | Input        | Chip selection input terminal. Pull-down resistor built-in. In noncontrol state connect this terminal to 0V. |
| 64      | TEST1         | Input        | Input terminal for test. Pull-down resistor is not provided. Be sure to connect this terminal to 0V.         |

**Note:** The same potential must be supplied to the power terminals (VDD, VVDD, LVDD, RVDD, XVDD).

In this unit, the terminal with asterisk mark (\*) is (open) terminal which is not connected to the outside.

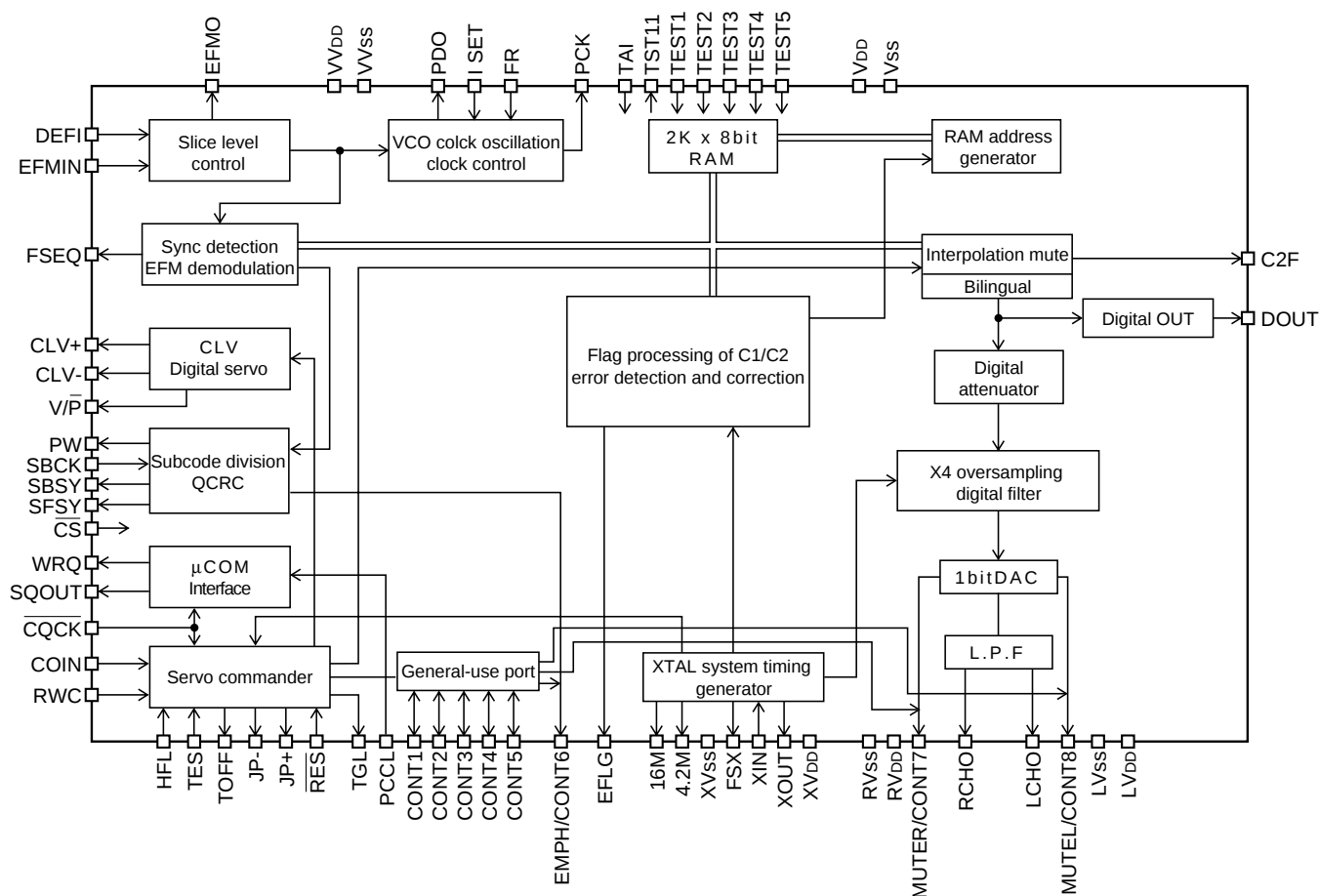


Figure 42 BLOCK DIAGRAM OF IC

**IC3 VHiM63001FP-1: Focus/Tracking/Spin/Slide Driver (M63001FP)**

| Pin No. | Terminal Name | Function                         |
|---------|---------------|----------------------------------|
| 1       | IN2-          | CH2 inverted input.              |
| 2       | IN1A-         | CH1 inverted input.              |
| 3       | IN1B-         | CH1 output offset control.       |
| 4       | OUT1-         | CH1 inverted output.             |
| 5       | OUT1+         | CH1 non-inverted output.         |
| 6       | OUT2-         | CH2 inverted output.             |
| 7       | OUT2+         | CH2 non-inverted output.         |
| 8-14    | GND           | GND                              |
| 15      | OUT3+         | CH3 non-inverted output.         |
| 16      | OUT3-         | CH3 inverted output.             |
| 17      | IN3-          | CH3 inverted input.              |
| 18      | VCC1          | Power supply 1 (CH1, CH2, CH3)   |
| 19      | STANDBY       | STANDBY signal input.            |
| 20      | VRFE          | CH1-CH4 Reference voltage input. |
| 21      | MUTE          | Mute signal input (CH6).         |
| 22      | IN5-          | CH5 inverted input.              |
| 23      | IN5+          | CH5 non-inverted input.          |
| 24      | VCC2          | Power supply 2 (CH4).            |
| 25      | IN4-          | CH4 inverted input.              |
| 26      | OUT4-         | CH4 inverted output.             |
| 27      | OUT4+         | CH4 non-inverted output.         |
| 28      | VCC3          | Power supply 3 (CH5).            |
| 29-35   | GND           | GND                              |
| 36      | OUT5+         | CH5 non-inverted output.         |
| 37      | OUT5-         | CH5 inverted output.             |
| 38      | OUT6+         | CH6 non-inverted output.         |
| 39      | OUT6-         | CH6 inverted output.             |
| 40      | VCC4          | Power supply 4 (CH6).            |
| 41      | IN6-          | CH6 inverted input.              |
| 42      | IN6+          | CH6 non-inverted input.          |

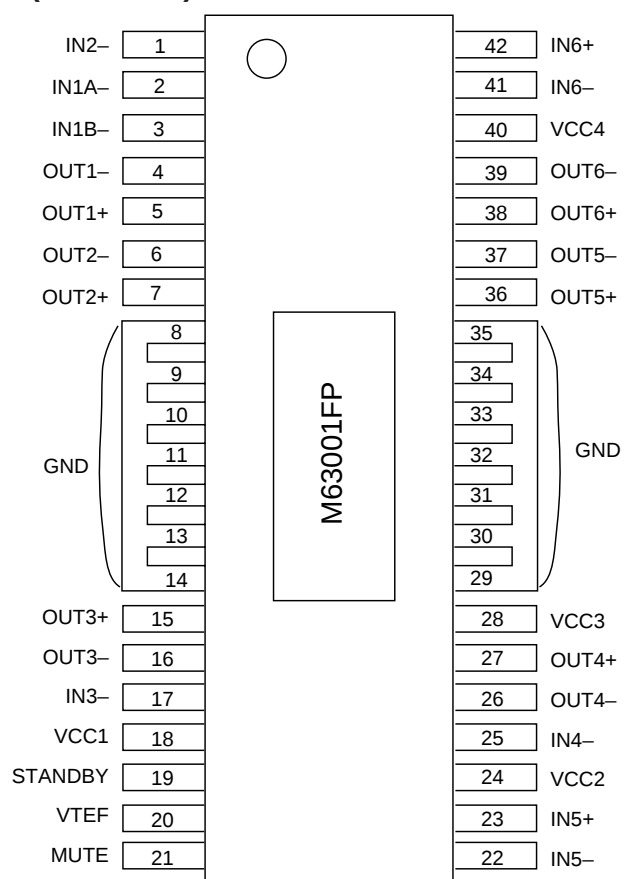
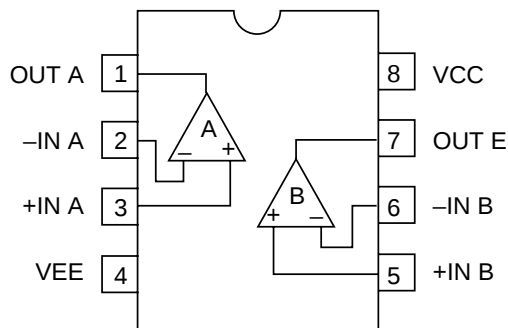
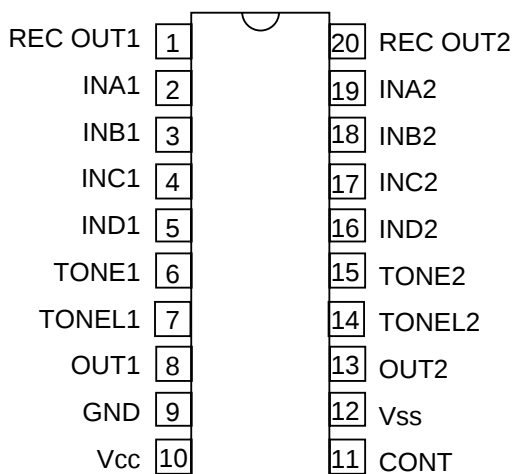
**IC562,563 VHiKiA4558P-1: Ope Amp. (KIA4558P)****IC601 VHiM62439SP-1: Audio Processor (M62439SP)**

Figure 43 BLOCK DIAGRAM OF IC

## CD-C831W

### IC701 RH-iX0281AWZZ: System Microcomputer (IX0281AW) (1/2) or IC701 RH-iX0310AWZZ: System Microcomputer (IX0310AW) (1/2)

| Pin No. | Port Name | Terminal Name | Input/Output | Function                        |
|---------|-----------|---------------|--------------|---------------------------------|
| 1       | VDD       | VDD           | —            | (+) POWER SUPPLY                |
| 2*      | P37       | ENA           | Output       | DOLBY PROLOGIC ENABLE TERMINAL  |
| 3       | P36       | DO            | Input        | DATA INPUT                      |
| 4       | P35       | DI            | Output       | DATA OUTPUT                     |
| 5       | P34       | CE            | Output       | CE OUTPUT                       |
| 6       | P33       | CLK           | Output       | CLOCK OUTPUT                    |
| 7,8*    | P32, P31  | LCK1, LCK2    | Output       |                                 |
| 9       | P30       | RWC           | Output       | CD DSP READ WRITE CONTROL       |
| 10      | RESET     | RESET         | Input        | RESET                           |
| 11      | X2        | X2            | Output       | MAIN CLOCK                      |
| 12      | X1        | X1            | Input        | MAIN CLOCK                      |
| 13      | Vpp       | VPP           | —            | POWER SUPPLY TERMINAL           |
| 14*     | XT2       | XT2           | —            | OPEN                            |
| 15      | P04       | WRQ           | Input        | CD DSP WRITE REQUEST            |
| 16      | VDD       | VDD           | —            | (+) POWER SUPPLY                |
| 17      | P27       | PCCL          | Output       | CD DSP PCCL                     |
| 18      | P26       | COIN          | Output       | CD DSP COMAND                   |
| 19      | P25       | SQOUT         | Input        | CD DSP CODE Q OUT               |
| 20      | P24       | CQCK          | Output       | CD DSP CLOCK                    |
| 21      | P23       | DSP RES       | Output       | CD DSP RESET                    |
| 22      | P22       | FRF (DRF)     | Input        | CD RF LEVEL DETECTION           |
| 23      | P21       | SLD+          | Output       | CD SLIDE MOTOR +                |
| 24      | P20       | SLD-          | Output       | CD SLIDE MOTOR -                |
| 25      | AVss      | AVSS          | —            | ANALOG GROUND                   |
| 26      | ANI7      | SPEANA3       | Input        | SPEANA DATA INPUT 16 KHz        |
| 27      | ANI6      | SPEANA2       | Input        | SPEANA DATA INPUT 1 KHz         |
| 28      | ANI5      | SPEANA1       | Input        | SPEANA DATA INPUT 63 Hz         |
| 29      | ANI4      | TUN SM        | Input        | TUNER SIGNAL METER INPUT        |
| 30      | ANI3      | T2 RUN        | Input        | TAPE2 RUN PULSE INPUT           |
| 31-33   | ANI2-ANI0 | KEYIN3-KEYIN1 | Input        | KEY INPUT                       |
| 34      | AVDD      | AVDD          | —            | ANALOG VDD                      |
| 35      | AVREF     | AVREF         | —            | ANALOG REF VOLTAGE              |
| 36      | P03       | PUIN SW       | Input        | CD PUIN SWITCH                  |
| 37      | P02       | O/C SW        | Input        | CD OPEN/CLOSE SWITCH            |
| 38      | INTP1     | SYS STOP      | Input        | SYSTEM STOP INPUT               |
| 39      | INTP0     | REMOCON       | Input        | REMOCON INPUT                   |
| 40      | Vss       | VSS           | —            | GROUND VOLTAGE                  |
| 41      | P74       | DNO SW        | Input        | CD DISC NO. SWITCH              |
| 42      | P73       | U/D SW        | Input        | CD UP/DOWN SWITCH               |
| 43      | P72       | TIMER LED     | Output       | TIMER LED CONTROL               |
| 44      | P71       | T_SOL         | Output       | TAPE SOLENOID CONTROL           |
| 45      | P70       | T_MOT         | Output       | TAPE MOTOR CONTROL              |
| 46      | VDD       | VDD           | —            | (+) POWER SUPPLY                |
| 47      | P127      | CAM SW        | Input        | TAPE CAM SWITCH                 |
| 48      | P126      | TIFAS         | Input        | TAPE1 FULL AUTOSTOP PULSE INPUT |
| 49      | P125      | FPA           | Input        | TAPE2 A-SIDE FULL PROOF         |
| 50      | P124      | H/P           | Input        | HEADPHONE INPUT                 |
| 51      | P123      | AC RLY_CONT   | Output       | AC RELAY CONTROL                |
| 52      | P122      | REC/PLAY      | Output       | TAPE REC/PLAY CHANGE            |
| 53      | P121      | T_BIAS        | Output       | TAPE Record bias control        |
| 54      | P120      | T_T1T2        | Output       | TAPE T1/T2 CHANGE               |

In this unit, the terminal with asterisk mark (\*) is (open) terminal which is not connected to the outside.

**IC701 RH-IX0281AWZZ: System Microcomputer (IX0281AW) (1/2) or  
IC701 RH-IX0310AWZZ: System Microcomputer (IX0310AW) (1/2)**

| Pin No. | Port Name   | Terminal Name  | Input/Output | Function                                       |
|---------|-------------|----------------|--------------|------------------------------------------------|
| 55      | P117        | DISTO          | Input        | DISTINATION INPUT]                             |
| 56      | P116        | KEY JOG A      | Input        | KEY JOG INPUT A                                |
| 57      | P115        | KEY JOG B      | Input        | KEY JOG INPUT B                                |
| 58      | P114        | S MUTE         | Output       | SYSTEM MUTE                                    |
| 59*     | P113        | C MUTE         | Output       | CENTER MUTE                                    |
| 60*     | P112        | SR MUTE        | Output       | SURROUND MUTE                                  |
| 61      | P111        | HI-CUT         | Output       | HI-CUT OUTPUT                                  |
| 62*     | P110        | POWER          | Output       | POWER OUTPUT                                   |
| 63      | P107        | SPRLY          | Output       | SPEAKER OUTPUT RELAY CONTROL                   |
| 64      | P106        | SP_DET         | Input        | SPEAKER OUTPUT DETECTION                       |
| 65      | P105        | SPN_P          | Input        | TUNER SPAN CHANGE                              |
| 66*     | P104        | DISTOUT        | Output       | DISTINATION OUTPUT                             |
| 67      | P103/FIP32  | DIAS4/P22      | Input/Output | FL DISPLAY SEGMENT DRIVER<br>DISTINATION INPUT |
| 68      | P102/FIP31  | DIAS3/P21      | Input/Output | FL DISPLAY SEGMENT DRIVER<br>DISTINATION INPUT |
| 69      | P101/FIP30  | DIAS2/P20/P15  | Input/Output | FL DISPLAY SEGMENT DRIVER<br>DISTINATION INPUT |
| 70      | P100/FIP29  | DIAS1/P19/P16  | Input/Output | FL DISPLAY SEGMENT DRIVER<br>DISTINATION INPUT |
| 71-78   | FIP28-FIP21 | P18/P13-P11/P7 | Output       | FL DISPLAY SEGMENT DRIVER                      |
| 79      | VLOAD       | VLOAD          | —            | FL DRIVER (–) POWER SUPP, –30V                 |
| 80-100  | FIP20-FIP0  | P10/P6-G1/9G   | Output       | FL DISPLAY SEGMENT DRIVER                      |

In this unit, the terminal with asterisk mark (\*) is (open) terminal which is not connected to the outside.

FL701 VVKBJ685GNK-1: FL Display

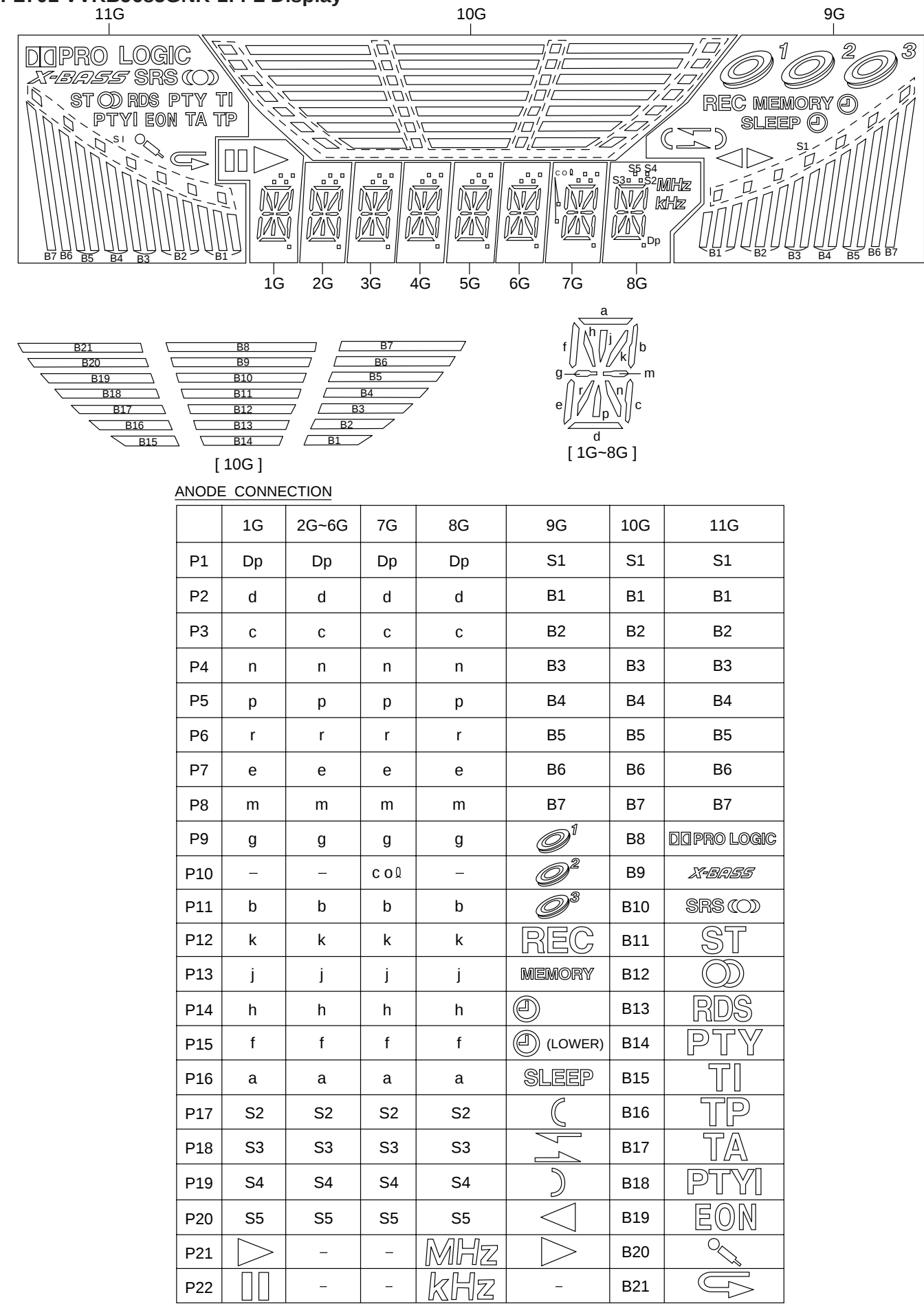


Figure 46 FL DISPLAY

# SHARP PARTS GUIDE

## MODEL CD-C831W

CD-C831W mini component system consisting of CD-C831W (Main unit), CP-C831 (Front speaker) and GBOXS0025AWM1 (Surround speaker).

### “HOW TO ORDER REPLACEMENT PARTS”

To have your order filled promptly and correctly, please furnish the following information.

- |                 |                |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. No.    |
| 3. PART NO.     | 4. DESCRIPTION |

★ MARK: SPARE PARTS-DELIVERY SECTION

#### For U.S.A. only

Contact your nearest SHARP Parts Distributor to order.

For location of SHARP Parts Distributor,  
Please call Toll-Free;  
1-800-BE-SHARP

### Explanation of capacitors/resistors parts codes

#### Capacitors

VCC ..... Ceramic type  
VCK ..... Ceramic type  
VCT ..... Semiconductor type  
VC •• MF ..... Cylindrical type (without lead wire)  
VC •• MN ..... Cylindrical type (without lead wire)  
VC •• TV ..... Square type (without lead wire)  
VC •• TQ ..... Square type (without lead wire)  
VC •• CY ..... Square type (without lead wire)  
VC •• CZ ..... Square type (without lead wire)  
VC ..... J .. The 13th character represents capacity difference.  
("J" ±5%, "K" ±10%, "M" ±20%, "N" ±30%,  
"C" ±0.25 pF, "D" ±0.5 pF, "Z" +80-20%.)

If there are no indications for the electrolytic capacitors, error is ±20%.

#### Resistors

VRD ..... Carbon-film type  
VRS ..... Carbon-film type  
VRN ..... Metal-film type  
VR •• MF ..... Cylindrical type (without lead wire)  
VR •• MN ..... Cylindrical type (without lead wire)  
VR •• TV ..... Square type (without lead wire)  
VR •• TQ ..... Square type (without lead wire)  
VR •• CY ..... Square type (without lead wire)  
VR •• CZ ..... Square type (without lead wire)  
VR ..... J .. The 13th character represents error.  
("J" ±5%, "F" ±1%, "D" ±0.5%.)

If there are no indications for other parts, the resistors are ±5% carbon-film type.

#### NOTE:

Parts marked with “” are important for maintaining the safety of the set.  
Be sure to replace parts with specified ones for maintaining the safety and performance of the set.

## CD-C831W

| NO.                        | PARTS CODE     | ★ | PRICE RANK | DESCRIPTION                               |
|----------------------------|----------------|---|------------|-------------------------------------------|
| <b>CD-C831W</b>            |                |   |            |                                           |
| <b>INTEGRATED CIRCUITS</b> |                |   |            |                                           |
| IC1                        | VHILA9241M/-1  | J | AS         | Servo Amp.,LA9241M                        |
| IC2                        | VHILC78622N/-1 | J | AY         | Servo/Signal Control,LC78622NE            |
| IC3                        | VHIM63001FP/-1 | J | AX         | Focus/Tracking/Spin/Slide Driver,M63001FP |
| IC101                      | VHIAN7345K/-1  | J | AM         | Playback and Record/Playback Amp.,AN7345K |
| IC302                      | VHILC72131/-1  | J | AP         | PLL (Tuner),LC72131                       |
| IC303                      | VHILA1832/-1   | J | AR         | FM IF Det./FM Mpx./AM IF, LA1832          |
| IC562,563                  | VHIKIA4558P/-1 | J | AC         | Ope Amp.,KIA4558P                         |
| IC601                      | VHIM62439SP/-1 | J | AG         | Audio Processor,M62439SP                  |
| IC701                      | RH-IX0281AWZZ  | J | AZ         | System Control Microcomputer, IX0281AW    |
| or                         | RH-IX0310AWZZ  | J |            | System Control Microcomputer, IX0310AW    |
| IC703                      | VHIBU2092F/-1  | J | AM         | Input/Output Expander,BU2092F             |
| IC704                      | VHIKIA7042AP1  | J | AC         | Reset,KIA7042AP                           |
| IC901                      | VHISTK4074B/-1 | J | AP         | Power Amp.,STK407-040B                    |

## TRANSISTORS

|          |                |   |    |                                     |
|----------|----------------|---|----|-------------------------------------|
| Q1       | VS2SA1318//-1  | J | AC | Silicon,PNP,2SA1318                 |
| Q51      | VSKRC102M//-1  | J | AC | Digital,NPN,KRC102 M                |
| Q52      | VSKTC3203Y/-1  | J | AC | Silicon,NPN,KTC3203 Y               |
| Q103~106 | VS2SC2389SE/-1 | J | AD | Silicon,NPN,2SC2389 SE              |
| Q107,108 | VS2SC3331//-1  | J | AB | Silicon,NPN,2SC3331                 |
| Q109     | VS2SA1318//-1  | J | AC | Silicon,PNP,2SA1318                 |
| Q110,111 | VSKRC104M//-1  | J | AC | Digital,NPN,KRC104 M                |
| Q113,114 | VS2SC3331//-1  | J | AB | Silicon,NPN,2SC3331                 |
| Q121,122 | VS2SC3331//-1  | J | AB | Silicon,NPN,2SC3331                 |
| Q124     | VS2SA1015GR/-1 | J | AB | Silicon,PNP,2SA1015 GR              |
| Q126     | VSKRC104M//-1  | J | AC | Digital,NPN,KRC104 M                |
| Q128     | VSKTC3203Y/-1  | J | AC | Silicon,NPN,KTC3203 Y               |
| Q353,354 | VSKTC3199GR/-1 | J | AB | Silicon,NPN,KTC3199 GR              |
| Q360     | VSKTA1266GR/-1 | J | AB | Silicon,PNP,KTA1266 GR              |
| Q361     | VSKRC107M//-1  | J | AC | Digital,NPN,KRC107 M                |
| Q371     | VSKTA1266GR/-1 | J | AB | Silicon,PNP,KTA1266 GR              |
| Q601~604 | VS2SC3331//-1  | J | AB | Silicon,NPN,2SC3331                 |
| Q650,651 | VS2SC3331//-1  | J | AB | Silicon,NPN,2SC3331                 |
| Q702     | VSKTA1273Y/-1  | J | AE | Silicon,PNP,KTA1273 Y               |
| Q703     | VSKTA1271Y/-1  | J | AC | Silicon,PNP,KTA1271 Y               |
| Q704     | VSKRC102M//-1  | J | AC | Digital,NPN,KRC102 M                |
| Q705~707 | VS2SC3331//-1  | J | AB | Silicon,NPN,2SC3331                 |
| Q801     | VSKTA1274Y/-1  | J | AE | Silicon,PNP,KTA1274 Y               |
| Q802     | VSKRC107M//-1  | J | AC | Digital,NPN,KRC107 M                |
| Q803     | VHIAN78L05/-1  | J | AE | Constant Voltage Regulator, AN78L05 |
| Q821     | VHIAN78L05/-1  | J | AE | Constant Voltage Regulator, AN78L05 |
| Q822     | VHIKIA7806P/-1 | J | AG | Voltage Regulator,KIA7806P          |
| Q823     | VSKTD2058Y/-1  | J | AF | Silicon,NPN,KTD2058 Y               |
| Q824     | VHIKIA7812P/-1 | J | AE | Voltage Regulator,KIA7812P          |
| Q904~907 | VS2SC3331//-1  | J | AB | Silicon,NPN,2SC3331                 |
| Q908     | VSKRC107M//-1  | J | AC | Digital,NPN,KRC107 M                |
| Q960     | VS2SC3331//-1  | J | AB | Silicon,NPN,2SC3331                 |

## DIODES

|          |                |   |    |                  |
|----------|----------------|---|----|------------------|
| D1       | VHD1SS133//-1  | J | AA | Silicon,1SS133   |
| D81,82   | VHD1SS133//-1  | J | AA | Silicon,1SS133   |
| D91~93   | VHD1SS133//-1  | J | AA | Silicon,1SS133   |
| D301~304 | VHDDS1SS133-1  | J | AB | Silicon,DS1SS133 |
| D351~353 | VHDDS1SS133-1  | J | AB | Silicon,DS1SS133 |
| D551     | VHD1SS133//-1  | J | AA | Silicon,1SS133   |
| D554~556 | VHD1SS133//-1  | J | AA | Silicon,1SS133   |
| D601~603 | VHD1SS133//-1  | J | AA | Silicon,1SS133   |
| D701~704 | VHD1SS133//-1  | J | AA | Silicon,1SS133   |
| D716~723 | VHD1SS133//-1  | J | AA | Silicon,1SS133   |
| D801     | VHDT56B04GM/-1 | J | AP | Silicon,TS6B04GM |
| D802     | VHD1SS133//-1  | J | AA | Silicon,1SS133   |
| D803~809 | VHD1N4004S/-1  | J | AB | Silicon,1N4004S  |
| D810~813 | VHD1SS133//-1  | J | AA | Silicon,1SS133   |
| D815,816 | VHD1SS133//-1  | J | AA | Silicon,1SS133   |
| D818     | VHD1SS133//-1  | J | AA | Silicon,1SS133   |
| D820,821 | VHD1SS133//-1  | J | AA | Silicon,1SS133   |
| D832,833 | VHD1SS133//-1  | J | AA | Silicon,1SS133   |
| D903,904 | VHD1SS133//-1  | J | AA | Silicon,1SS133   |

|            |               |   |    |                              |
|------------|---------------|---|----|------------------------------|
| D906,907   | VHD1SS133//-1 | J | AA | Silicon,1SS133               |
| D960~962   | VHD1SS133//-1 | J | AA | Silicon,1SS133               |
| LED701     | VHPL1154GT4-1 | J | AB | LED,Green,L1154GT4           |
| LED702     | VHPSLI342YCB1 | J | AC | LED,Orange,SLI342YCB         |
| LED703     | VHPSLI342DCB1 | J | AC | LED,Yellow,SLI342DCB         |
| LED704     | VHPSLI342UCB1 | J | AC | LED,Red,SLI342UCB            |
| LED705     | VHPSLI342DCB1 | J | AC | LED,Yellow,SLI342DCB         |
| LED706     | VHPSLI342YCB1 | J | AC | LED,Orange,SLI342YCB         |
| LED707~710 | VHPL1154GT4-1 | J | AB | LED,Green,L1154GT4           |
| LED716,717 | VHPSLI342YCJ1 | J | AC | LED,Yellow,SLI342YCJ         |
| LED722     | VHPSLI342UCJ1 | J | AC | LED,Red,SLI342UCJ            |
| VD301      | VHCSVC348S/-1 | J | AK | Variable Capacitance,SVC348S |
| ZD61       | VHEMTZJ5R6B-1 | J | AD | Zener,5.6V,MTZJ5.6B          |
| ZD351      | VHEDZ5R1BSB-1 | J | AC | Zener,5.1V,DZ5.1BSB          |
| ZD352      | VHEDZ3R9BSB-1 | J | AC | Zener,3.9V,DZ3.9BSB          |
| ZD551      | VHEMTZJ6R2C-1 | J | AC | Zener,6.2V,MTZJ6.2C          |
| ZD601,602  | VHEMTZJ2R4B-1 | J | AB | Zener,2.4V,MTZJ2.4B          |
| ZD801      | VHEMTZJ6R2A-1 | J | AA | Zener,6.2V,MTZJ6.2A          |
| ZD802      | VHEMTZJ300B-1 | J | AB | Zener,30V,MTZJ30B            |

## FILTERS

|       |               |   |    |                |
|-------|---------------|---|----|----------------|
| CF302 | RFILF0124AFZZ | J | AD | FM IF,10.7 MHz |
| CF351 | RFILF0003AWZZ | J | AK | FM IF          |
| CF352 | RFILA0009AWZZ | J | AE | AM IF          |
| FE301 | RTUNS0008AWZZ | J | AN | FM Front End   |

## TRANSFORMERS

|        |               |   |    |             |
|--------|---------------|---|----|-------------|
| T302   | RCILA1064AFZZ | J | AD | AM Tracking |
| T306   | RCILB1074AFZZ | J | AC | AM,OSC      |
| T351   | RCILIO011AWZZ | J | AD | AM IF       |
| △ T801 | RTRNP0243AWZZ | J | BF | Power       |
| △ T802 | RTRNP0239AWZZ | J | AP | Power       |

## COILS

|          |               |   |    |                 |
|----------|---------------|---|----|-----------------|
| L61      | VP-XHR82K0000 | J | AC | 0.82 μH,Choke   |
| L103     | VP-DH101K0000 | J | AB | 100 μH,Choke    |
| L104     | VP-MK331K0000 | J | AB | 330 μH,Choke    |
| L342     | VP-DH2R2K0000 | J | AB | 2.2 mmH,Peaking |
| L351,352 | VP-DH101K0000 | J | AB | 100 μH,Choke    |
| L353     | VP-DH102K0000 | J | AB | 1 mH,Choke      |
| L702     | VP-DH101K0000 | J | AB | 100 μH,Choke    |

## VARIABLE RESISTOR

|       |               |   |    |                                     |
|-------|---------------|---|----|-------------------------------------|
| VR351 | RVR-M0026AWZZ | J | AC | 10 kohm (B),Semi-VR [FM Mute Level] |
|-------|---------------|---|----|-------------------------------------|

## VIBRATORS

|       |               |   |    |                    |
|-------|---------------|---|----|--------------------|
| X351  | 92LCRSTL1425A | J | AF | Crystal,456 kHz    |
| X352  | RCRSP0002AWZZ | J | AH | Crystal,4.5 MHz    |
| XL1   | 92LCRSTL1764A | J |    | Crystal,16.934 MHz |
| XL701 | RCRSP0003AWZZ | J | AH | Crystal,4.19 MHz   |

## CAPACITORS

|        |               |   |    |                          |
|--------|---------------|---|----|--------------------------|
| C1     | VCEAZA1CW476M | J | AB | 47 μF,16V,Electrolytic   |
| C2     | VCKYTV1HB103K | J | AA | 0.01 μF,50V              |
| C3     | VCEAZA1HW105M | J | AB | 1 μF,50V,Electrolytic    |
| C4     | VCEAZA1HW104M | J | AB | 0.1 μF,50V,Electrolytic  |
| C5,6   | VCTYPA1CX333K | J | AA | 0.033 μF,16V             |
| C7     | VCEAZA1HW104M | J | AB | 0.1 μF,50V,Electrolytic  |
| C8     | VCTYPA1CX683K | J | AA | 0.068 μF,16V             |
| C9     | VCTYPA1CX473K | J | AA | 0.047 μF,16V             |
| C10    | VCCSTV1HL181J | J | AA | 180 pF,50V               |
| C11,12 | VCTYPA1CX104K | J | AB | 0.1 μF,16V               |
| C13    | VCKYTV1HB331K | J | AA | 330 pF,50V               |
| C14,15 | VCKYTV1HB103K | J | AA | 0.01 μF,50V              |
| C16    | VCKYTV1HB472K | J | AA | 0.0047 μF,50V            |
| C17    | VCKYTV1HB102K | J | AA | 0.001 μF,50V             |
| C18    | VCEAZA1HW474M | J | AB | 0.47 μF,50V,Electrolytic |
| C19    | VCEAZA1HW105M | J | AB | 1 μF,50V,Electrolytic    |
| C20    | VCEAZA1CW476M | J | AB | 47 μF,16V,Electrolytic   |
| C21    | VCKYTV1HB332K | J | AA | 0.0033 μF,50V            |
| C22    | VCCSPA1HL221J | J | AA | 220 pF,50V               |
| C23    | VCKYTV1HB272K | J | AA | 0.0027 μF,50V            |
| C24    | VCCSTV1HL2R2C | J | AB | 2.2 pF,50V               |
| C25    | VCCSTV1HL270J | J | AA | 27 pF,50V                |
| C26    | VCTYPA1CX333K | J | AA | 0.033 μF,16V             |

| NO.      | PARTS CODE    | ★ | PRICE RANK | DESCRIPTION                  | NO.      | PARTS CODE    | ★ | PRICE RANK | DESCRIPTION               |
|----------|---------------|---|------------|------------------------------|----------|---------------|---|------------|---------------------------|
| C27      | VCKYTV1HB102K | J | AA         | 0.001 μF,50V                 | C367,368 | VCEAZA1HW105M | J | AB         | 1 μF,50V,Electrolytic     |
| C28      | VCTYPA1CX104K | J | AB         | 0.1 μF,16V                   | C370     | VCEAZA1HW105M | J | AB         | 1 μF,50V,Electrolytic     |
| C29      | VCEAZA1HW475M | J | AB         | 4.7 μF,50V,Electrolytic      | C371,372 | VCEAZA1HW105M | J | AB         | 1 μF,50V,Electrolytic     |
| C30      | VCEAZA1HW104M | J | AB         | 0.1 μF,50V,Electrolytic      | C373,374 | VCTYPA1CX333K | J | AA         | 0.033 μF,16V              |
| C31      | VCEAZA0JW227M | J | AC         | 220 μF,6.3V,Electrolytic     | C375     | VCEAZA1HW335M | J | AB         | 3.3 μF,50V,Electrolytic   |
| C32      | VCKYTV1HB103K | J | AA         | 0.01 μF,50V                  | C380     | VCEAZA1CW106M | J | AC         | 10 μF,16V,Electrolytic    |
| C33      | VCEAZA1HW474M | J | AB         | 0.47 μF,50V,Electrolytic     | C381     | VCCCMN1HH120J | J | AA         | 12 pF (CH),50V            |
| C34      | VCEAZA1HW334M | J | AB         | 0.33 μF,50V,Electrolytic     | C382     | VCCCMN1HH150J | J | AA         | 15 pF (CH),50V            |
| C35      | VCEAZA1HW105M | J | AB         | 1 μF,50V,Electrolytic        | C384     | VCKYMN1HB102K | J | AA         | 0.001 μF,50V              |
| C36      | VCEAZA1CW107M | J | AC         | 100 μF,16V,Electrolytic      | C385     | VCTYMN1CY103K | J | AA         | 0.01 μF,16V               |
| C37      | VCKZPA1HF223Z | J | AA         | 0.022 μF,50V                 | C386     | VCKYMN1HB331K | J | AA         | 330 pF,50V                |
| C38      | VCKYTV1HB103K | J | AA         | 0.01 μF,50V                  | C387     | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V              |
| C39,40   | VCTYPA1CX473K | J | AA         | 0.047 μF,16V                 | C391     | VCEAZA1CW476M | J | AB         | 47 μF,16V,Electrolytic    |
| C43      | VCEAZA0JW337M | J | AC         | 330 μF,6.3V,Electrolytic     | C392     | VCKYMN1HB102K | J | AA         | 0.001 μF,50V              |
| C44~47   | VCCCTV1HH101J | J | AA         | 100 pF (CH),50V              | C393     | VCEAZA1HW105M | J | AB         | 1 μF,50V,Electrolytic     |
| C48      | VCCSPA1HL101J | J | AA         | 100 pF,50V                   | C394     | VCEAZA1CW476M | J | AB         | 47 μF,16V,Electrolytic    |
| C49      | VCCCTV1HH101J | J | AA         | 100 pF (CH),50V              | C395     | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V              |
| C50      | VCKYTV1EF223Z | J | AA         | 0.022 μF,25V                 | C396     | VCEAZA1AW107M | J | AB         | 100 μF,10V,Electrolytic   |
| C51,52   | VCEAZA1CW107M | J | AC         | 100 μF,16V,Electrolytic      | C397     | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V              |
| C54      | VCKYTV1HB102K | J | AA         | 0.001 μF,50V                 | C398     | VCEAZA1AW107M | J | AB         | 100 μF,10V,Electrolytic   |
| C55      | VCEAZA1CW107M | J | AC         | 100 μF,16V,Electrolytic      | C399     | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V              |
| C56      | VCKYTV1EF223Z | J | AA         | 0.022 μF,25V                 | C551     | VCKYMN1HB271K | J | AA         | 270 pF,50V                |
| C57      | VCKYBT1HB102K | J | AA         | 0.001 μF,50V                 | C553     | VCTYMN1CX272K | J | AA         | 0.0027 μF,16V             |
| C71,72   | VCEAZA1HW106M | J | AB         | 10 μF,50V,Electrolytic       | C555,556 | VCTYMN1CX682K | J | AA         | 0.0068 μF,16V             |
| C73,74   | VCKYTV1HB221K | J | AA         | 220 pF,50V                   | C557     | VCKYMN1HB271K | J | AA         | 270 pF,50V                |
| C75      | VCKYTV1HB102K | J | AA         | 0.001 μF,50V                 | C559     | VCTYMN1CX272K | J | AA         | 0.0027 μF,16V             |
| C76      | VCKZPA1HF223Z | J | AA         | 0.022 μF,50V                 | C561~563 | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V              |
| C77      | VCEAZA1CW107M | J | AC         | 100 μF,16V,Electrolytic      | C566~568 | VCEAZA1HW225M | J | AB         | 2.2 μF,50V,Electrolytic   |
| C82      | VCEAZA1CW107M | J | AC         | 100 μF,16V,Electrolytic      | C569     | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V              |
| C83      | VCTYBT1EF223Z | J | AA         | 0.022 μF,25V                 | C601~606 | VCEAZA1HW475M | J | AB         | 4.7 μF,50V,Electrolytic   |
| C101,102 | VCKYMN1HB102K | J | AA         | 0.001 μF,50V                 | C611,612 | VCTYPA1EX333K | J | AA         | 0.033 μF,25V              |
| C105     | VCKYBT1HB181K | J | AA         | 180 pF,50V                   | C613~615 | VCFYDA1HA224J | J | AB         | 0.22 μF,50V,Polyester     |
| C106     | VCKYMN1HB181K | J | AA         | 180 pF,50V                   | C616     | VCCSMN1HL100J | J | AA         | 10 pF,50V                 |
| C107,108 | VCKYMN1HB102K | J | AA         | 0.001 μF,50V                 | C617     | VCEAZA1HW106M | J | AB         | 10 μF,50V,Electrolytic    |
| C109     | VCKZPA1HF473Z | J | AA         | 0.047 μF,50V                 | C618,619 | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V              |
| C111~114 | VCKYMN1HB331K | J | AA         | 330 pF,50V                   | C620     | VCEAZA1HW106M | J | AB         | 10 μF,50V,Electrolytic    |
| C115,116 | VCEAZA1EW476M | J | AB         | 47 μF,25V,Electrolytic       | C621,622 | VCEAZA1HW104M | J | AB         | 0.1 μF,50V,Electrolytic   |
| C117,118 | VCTYPA1EX333K | J | AA         | 0.033 μF,25V                 | C623~626 | VCKYMN1HB102K | J | AA         | 0.001 μF,50V              |
| C119,120 | VCKYMN1HB561K | J | AA         | 560 pF,50V                   | C627     | VCEAZA1EW226M | J | AB         | 22 μF,25V,Electrolytic    |
| C121,122 | VCEAZA1HW105M | J | AB         | 1 μF,50V,Electrolytic        | C628     | VCFYDA1HA224J | J | AB         | 0.22 μF,50V,Polyester     |
| C127     | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V                 | C629     | VCEAZA1EW226M | J | AB         | 22 μF,25V,Electrolytic    |
| C128     | VCEAZA1HW335M | J | AB         | 3.3 μF,50V,Electrolytic      | C630     | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V              |
| C129,130 | VCKYMN1HB471K | J | AA         | 470 pF,50V                   | C631,632 | VCKYMN1HB391K | J | AA         | 390 pF,50V                |
| C131,132 | VCKYMN1HB102K | J | AA         | 0.001 μF,50V                 | C634,635 | VCKYMN1CX472K | J | AB         | 0.0047 μF,16V             |
| C133,134 | VCEAZA1EW226M | J | AB         | 22 μF,25V,Electrolytic       | C650,651 | VCEAZA1HW335M | J | AB         | 3.3 μF,50V,Electrolytic   |
| C135,136 | VCTYPA1CX683K | J | AA         | 0.068 μF,16V                 | C652     | VCEAZA1HW105M | J | AB         | 1 μF,50V,Electrolytic     |
| C139,140 | VCTYMN1CX332K | J | AA         | 0.0033 μF,16V                | C702     | VCEAZA1HW105M | J | AB         | 1 μF,50V,Electrolytic     |
| C141,142 | VCEAZA1HW105M | J | AB         | 1 μF,50V,Electrolytic        | C705     | VCEAZA1EW476M | J | AB         | 47 μF,25V,Electrolytic    |
| C145     | VCEAZA1EW226M | J | AB         | 22 μF,25V,Electrolytic       | C706     | VCEAZA1HW105M | J | AB         | 1 μF,50V,Electrolytic     |
| C146     | VCEAZA1AW227M | J | AC         | 220 μF,10V,Electrolytic      | C707     | VCCSMN1HL150J | J | AA         | 15 pF,50V                 |
| C150     | VCCPKA2AA392J | J | AB         | 0.0039 μF,100V,Polypropylene | C708     | VCCSMN1HL180J | J | AA         | 18 pF,50V                 |
| C151     | VCQYKA1HM273K | J | AB         | 0.027 μF,50V,Mylar           | C709     | VCTYBT1EF223Z | J | AA         | 0.022 μF,25V              |
| C152     | VCEAZA1EW476M | J | AB         | 47 μF,25V,Electrolytic       | C710     | VCEAZA1AW227M | J | AC         | 220 μF,10V,Electrolytic   |
| C153     | VCEAZA1CW107M | J | AC         | 100 μF,16V,Electrolytic      | C711     | VCTYMN1CY103N | J | AA         | 0.01 μF,16V               |
| C154     | VCEAZA1CW476M | J | AB         | 47 μF,16V,Electrolytic       | C712     | VCEAZA1HW335M | J | AB         | 3.3 μF,50V,Electrolytic   |
| C155,156 | VCEAZA1HW335M | J | AB         | 3.3 μF,50V,Electrolytic      | C713     | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V              |
| C301     | VCKYMN1HB102K | J | AA         | 0.001 μF,50V                 | C714     | VCTYBT1EF223Z | J | AA         | 0.022 μF,25V              |
| C321     | VCEAZA1CW107M | J | AC         | 100 μF,16V,Electrolytic      | C715     | VCEAZA1EW476M | J | AB         | 47 μF,25V,Electrolytic    |
| C323     | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V                 | C718     | VCEAZA1EW476M | J | AB         | 47 μF,25V,Electrolytic    |
| C330     | VCCUMN1HJ270J | J | AA         | 27 pF (UJ),50V               | C719     | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V              |
| C331     | VCKYPA1HF473Z | J | AB         | 0.047 μF,50V                 | C720     | VCEAZA1HW476M | J | AB         | 47 μF,50V,Electrolytic    |
| C332     | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V                 | C722     | VCEAZA1HW106M | J | AB         | 10 μF,50V,Electrolytic    |
| C334     | VCCUMN1HJ270J | J | AA         | 27 pF (UJ),50V               | C723     | VCEAZA1HW104M | J | AB         | 0.1 μF,50V,Electrolytic   |
| C335     | VCCSPA1HL561J | J | AA         | 560 pF,50V                   | C801     | RC-KZ0001AWZZ | J | AD         | 0.1 μF,25V                |
| C337     | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V                 | C802     | VCEAZA1VW107M | J | AC         | 100 μF,35V,Electrolytic   |
| C338     | VCKYMN1HB102K | J | AA         | 0.001 μF,50V                 | C803,804 | VCEAZA1HW476M | J | AB         | 47 μF,50V,Electrolytic    |
| C341,342 | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V                 | C805~808 | VCFYHA1HA224J | J | AC         | 0.22 μF,50V,Thin Film     |
| C343     | VCCSMN1HL330J | J | AA         | 33 pF,50V                    | C809     | VCQYKA1HM473K | J | AB         | 0.047 μF,50V,Mylar        |
| C345~347 | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V                 | C810     | VCEAZA1EW477M | J | AD         | 470 μF,25V,Electrolytic   |
| C350,351 | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V                 | C811~813 | VCEAZA1HW227M | J | AC         | 220 μF,50V,Electrolytic   |
| C352     | VCEAZA1CW106M | J | AC         | 10 μF,16V,Electrolytic       | C814     | VCEAZA1CW106M | J | AC         | 10 μF,16V,Electrolytic    |
| C353,354 | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V                 | C815     | VCEAZA0JW108M | J | AC         | 1000 μF,6.3V,Electrolytic |
| C355     | VCCSMN1HL220J | J | AA         | 22 pF,50V                    | C821     | VCQYKA1HM473K | J | AB         | 0.047 μF,50V,Mylar        |
| C356     | VCKYMN1HB102K | J | AA         | 0.001 μF,50V                 | C824     | VCQYKA1HM473K | J | AB         | 0.047 μF,50V,Mylar        |
| C357     | VCEAZA1HW225M | J | AB         | 2.2 μF,50V,Electrolytic      | C825     | VCEAZA1EW226M | J | AB         | 22 μF,25V,Electrolytic    |
| C358     | VCEAZA1HW105M | J | AB         | 1 μF,50V,Electrolytic        | C826     | VCEAZA1EW476M | J | AB         | 47 μF,25V,Electrolytic    |
| C361     | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V                 | C827,828 | VCQYKA1HM104K | J | AB         | 0.1 μF,50V,Mylar          |
| C362     | VCEAZA1EW335M | J | AB         | 3.3 μF,25V,Electrolytic      | C829     | VCEAZW1EW338M | J | AG         | 3300 μF,25V               |
| C363     | VCTYMN1EF223Z | J | AA         | 0.022 μF,25V                 | C830,831 | VCEAZA1EW476M | J | AB         | 47 μF,25V,Electrolytic    |
| C364     | VCEAZA1CW106M | J | AC         | 10 μF,16V,Electrolytic       | C832,833 | VCQYKA1HM104K | J | AB         | 0.1 μF,50V,Mylar          |
| C365     | VCTYPA1CX223K | J | AA         | 0.022 μF,16V                 | C901     | VCEAZA1HW105M | J | AB         | 1 μF,50V,Electrolytic     |
| C366     | VCKYMN1HB102K | J | AA         | 0.001 μF,50V                 | C902     | VCCSPA1HL221J | J | AA         | 220 pF,50V                |

## CD-C831W

| NO.      | PARTS CODE    | ★ | PRICE RANK | DESCRIPTION              |
|----------|---------------|---|------------|--------------------------|
| C903     | VCEAZA1HW105M | J | AB         | 1 μF,50V,Electrolytic    |
| C904     | VCEAZA1HW106M | J | AB         | 10 μF,50V,Electrolytic   |
| C905     | VCCSPA1HL221J | J | AA         | 220 pF,50V               |
| C907     | VCEAZA1HW106M | J | AB         | 10 μF,50V,Electrolytic   |
| C909,910 | VCEAZW1HW228M | J | AH         | 2200 μF,50V,Electrolytic |
| C911,912 | VCEAZA1HW107M | J | AC         | 100 μF,50V,Electrolytic  |
| C915     | VCCSPA1HL470J | J | AA         | 47 pF,50V                |
| C916     | VCCSPA1HL150J | J | AA         | 15 pF,50V                |
| C917,918 | VCEAZA1HW476M | J | AB         | 47 μF,50V,Electrolytic   |
| C920,921 | VCKZPA1HF223Z | J | AA         | 0.022 μF,50V             |
| C923     | VCCSPA1HL470J | J | AA         | 47 pF,50V                |
| C924     | VCCSPA1HL150J | J | AA         | 15 pF,50V                |
| C936,937 | VQCQKA1HM104K | J | AB         | 0.1 μF,50V,Mylar         |
| C938     | VCEAZA1HW476M | J | AB         | 47 μF,50V,Electrolytic   |
| C950-953 | VCKYPA1HB102K | J | AA         | 0.001 μF,50V             |
| C954     | VCEAZA1HW107M | J | AC         | 100 μF,50V,Electrolytic  |
| C956     | VCEAZA1HW107M | J | AC         | 100 μF,50V,Electrolytic  |
| C960     | VCEAZA1HW106M | J | AB         | 10 μF,50V,Electrolytic   |
| C961     | VCEAZA1HW476M | J | AB         | 47 μF,50V,Electrolytic   |

## RESISTORS

|        |               |   |    |                               |
|--------|---------------|---|----|-------------------------------|
|        | VRD-MN2BD000C | J | AA | 0 ohm,Jumper,ø1.4×3.5mm,Ivory |
|        | VRS-TV2AB000J | J | AA | 0 ohm,Jumper,1.25×2mm,Green   |
| R1     | VRS-TV2AB220J | J | AA | 22 ohms,1/10W                 |
| R2     | VRD-ST2CD102J | J | AA | 1 kohm,1/6W                   |
| R8     | VRS-TV2AB153J | J | AA | 15 kohms,1/10W                |
| R9     | VRS-TV2AB104J | J | AA | 100 kohm,1/10W                |
| R10    | VRS-TV2AB222J | J | AA | 2.2 kohms,1/10W               |
| R11    | VRD-ST2CD682J | J | AA | 6.8 kohms,1/6W                |
| R12    | VRD-ST2CD101J | J | AA | 100 ohm,1/6W                  |
| R13    | VRS-TV2AB102J | J | AA | 1 kohm,1/10W                  |
| R14    | VRS-TV2AB273J | J | AA | 27 kohms,1/10W                |
| R15    | VRS-TV2AB123J | J | AA | 12 kohms,1/10W                |
| R16    | VRS-TV2AB332J | J | AA | 3.3 kohms,1/10W               |
| R17    | VRS-TV2AB333J | J | AA | 33 kohms,1/10W                |
| R18    | VRS-TV2AB153J | J | AA | 15 kohms,1/10W                |
| R19    | VRD-ST2CD102J | J | AA | 1 kohm,1/6W                   |
| R20    | VRS-TV2AB102J | J | AA | 1 kohm,1/10W                  |
| R21    | VRS-TV2AB152J | J | AA | 1.5 kohms,1/10W               |
| R22    | VRS-TV2AB821J | J | AA | 820 ohms,1/10W                |
| R23    | VRS-TV2AB103J | J | AA | 10 kohm,1/10W                 |
| R24    | VRS-TV2AB473J | J | AA | 47 kohms,1/10W                |
| R25    | VRS-TV2AB152J | J | AA | 1.5 kohms,1/10W               |
| R26    | VRS-TV2AB823J | J | AA | 82 kohms,1/10W                |
| R27    | VRS-TV2AB393J | J | AA | 39 kohms,1/10W                |
| R28    | VRS-TV2AB103J | J | AA | 10 kohm,1/10W                 |
| R29    | VRS-TV2AB563J | J | AA | 56 kohms,1/10W                |
| R30    | VRS-TV2AB682J | J | AA | 6.8 kohms,1/10W               |
| R31    | VRS-TV2AB122J | J | AA | 1.2 kohms,1/10W               |
| R32    | VRS-TV2AB103J | J | AA | 10 kohm,1/10W                 |
| R33    | VRS-TV2AB122J | J | AA | 1.2 kohms,1/10W               |
| R34    | VRS-TV2AB332J | J | AA | 3.3 kohms,1/10W               |
| R35,36 | VRS-TV2AB224J | J | AA | 220 kohms,1/10W               |
| R37    | VRD-ST2CD823J | J | AA | 82 kohms,1/6W                 |
| R38    | VRS-TV2AB471J | J | AA | 470 ohms,1/10W                |
| R39    | VRD-ST2CD102J | J | AA | 1 kohm,1/6W                   |
| R40    | VRS-TV2AB562J | J | AA | 5.6 kohms,1/10W               |
| R41,42 | VRS-TV2AB473J | J | AA | 47 kohms,1/10W                |
| R43    | VRS-TV2AB563J | J | AA | 56 kohms,1/10W                |
| R44    | VRS-TV2AB333J | J | AA | 33 kohms,1/10W                |
| R45    | VRS-TV2AB472J | J | AA | 4.7 kohms,1/10W               |
| R46    | VRS-TV2AB561J | J | AA | 560 ohms,1/10W                |
| R47    | VRD-ST2CD103J | J | AA | 10 kohm,1/6W                  |
| R50    | VRS-TV2AB681J | J | AA | 680 ohms,1/10W                |
| R51    | VRD-ST2CD335J | J | AA | 3.3 Mohms,1/6W                |
| R52    | VRS-TV2AB273J | J | AA | 27 kohms,1/10W                |
| R53    | VRS-TV2AB122J | J | AA | 1.2 kohms,1/10W               |
| R55    | VRD-ST2CD101J | J | AA | 100 ohm,1/6W                  |
| R56    | VRS-TV2AB682J | J | AA | 6.8 kohms,1/10W               |
| R57    | VRD-ST2CD102J | J | AA | 1 kohm,1/6W                   |
| R58-60 | VRS-TV2AB102J | J | AA | 1 kohm,1/10W                  |
| R61-63 | VRD-ST2CD102J | J | AA | 1 kohm,1/6W                   |
| R64    | VRS-TV2AB220J | J | AA | 22 ohms,1/10W                 |
| R65    | VRD-ST2CD102J | J | AA | 1 kohm,1/6W                   |
| R66    | VRS-TV2AB221J | J | AA | 220 ohms,1/10W                |
| R71,72 | VRD-ST2CD272J | J | AA | 2.7 kohms,1/6W                |
| R73,74 | VRS-TV2AB104J | J | AA | 100 kohm,1/10W                |
| R80,81 | VRD-ST2CD821J | J | AA | 820 ohms,1/6W                 |
| R82,83 | VRS-TV2AB391J | J | AA | 390 ohms,1/10W                |
| R84    | VRD-ST2CD222J | J | AA | 2.2 kohms,1/6W                |
| R88,89 | VRD-ST2CD122J | J | AA | 1.2 kohms,1/6W                |

| NO.      | PARTS CODE    | ★ | PRICE RANK | DESCRIPTION    |
|----------|---------------|---|------------|----------------|
| R90      | VRD-ST2CD221J | J | AA         | 220 ohms,1/6W  |
| R91      | VRD-ST2CD102J | J | AA         | 1 kohm,1/6W    |
| R93      | VRS-TV2AB221J | J | AA         | 220 ohms,1/10W |
| R101     | VRD-MN2BD102J | J | AA         | 1 kohm,1/8W    |
| R102     | VRD-ST2CD102J | J | AA         | 1 kohm,1/6W    |
| R103,104 | VRD-MN2BD222J | J | AA         | 2.2 kohms,1/8W |
| R105,106 | VRD-MN2BD332J | J | AA         | 3.3 kohms,1/8W |
| R107,108 | VRD-MN2BD473J | J | AA         | 47 kohms,1/8W  |
| R109,110 | VRD-MN2BD472J | J | AA         | 4.7 kohms,1/8W |
| R111,112 | VRD-ST2CD103J | J | AA         | 10 kohm,1/6W   |
| R113,114 | VRD-MN2BD103J | J | AA         | 10 kohm,1/8W   |
| R115     | VRD-MN2BD472J | J | AA         | 4.7 kohms,1/8W |
| R117,118 | VRD-MN2BD102J | J | AA         | 1 kohm,1/8W    |
| R119,120 | VRD-ST2CD560J | J | AA         | 56 ohms,1/6W   |
| R121,122 | VRD-MN2BD104J | J | AA         | 100 kohm,1/8W  |
| R123,124 | VRD-MN2BD392J | J | AA         | 3.9 kohms,1/8W |
| R125,126 | VRD-MN2BD562J | J | AA         | 5.6 kohms,1/8W |
| R131,132 | VRD-MN2BD333J | J | AA         | 33 kohms,1/8W  |
| R134     | VRD-MN2BD683J | J | AA         | 68 kohms,1/8W  |
| R135,136 | VRD-MN2BD822J | J | AA         | 8.2 kohms,1/8W |
| R137     | VRD-MN2BD682J | J | AA         | 6.8 kohms,1/8W |
| R138     | VRD-ST2CD682J | J | AA         | 6.8 kohms,1/6W |
| R139,140 | VRD-MN2BD561J | J | AA         | 560 ohms,1/8W  |
| R141,142 | VRD-MN2BD560J | J | AA         | 56 ohms,1/8W   |
| R145,146 | VRD-MN2BD103J | J | AA         | 10 kohm,1/8W   |
| R153,154 | VRD-MN2BD103J | J | AA         | 10 kohm,1/8W   |
| R155     | VRD-ST2EE151J | J | AA         | 150 ohms,1/4W  |
| R156,157 | VRD-ST2CD224J | J | AA         | 220 kohms,1/6W |
| R158     | VRD-ST2EE221J | J | AA         | 220 ohms,1/4W  |
| R160     | VRD-ST2EE151J | J | AA         | 150 ohms,1/4W  |
| R162     | VRD-MN2BD473J | J | AA         | 47 kohms,1/8W  |
| R164     | VRD-MN2BD472J | J | AA         | 4.7 kohms,1/8W |
| R166     | VRD-MN2BD473J | J | AA         | 47 kohms,1/8W  |
| R167     | VRD-MN2BD104J | J | AA         | 100 kohm,1/8W  |
| R168     | VRD-MN2BD120J | J | AA         | 12 ohms,1/8W   |
| R169     | VRD-MN2BD681J | J | AA         | 680 ohms,1/8W  |
| R170     | VRD-ST2CD681J | J | AA         | 680 ohms,1/6W  |
| R171,172 | VRD-MN2BD224J | J | AA         | 220 kohms,1/8W |
| R173     | VRD-MN2BD562J | J | AA         | 5.6 kohms,1/8W |
| R174     | VRD-ST2CD562J | J | AA         | 5.6 kohms,1/6W |
| R175     | VRD-ST2CD102J | J | AA         | 1 kohm,1/6W    |
| R323     | VRD-MN2BD683J | J | AA         | 68 kohms,1/8W  |
| R336     | VRD-ST2CD102J | J | AA         | 1 kohm,1/6W    |
| R344     | VRD-MN2BD471J | J | AA         | 470 ohms,1/8W  |
| R345     | VRD-MN2BD472J | J | AA         | 4.7 kohms,1/8W |
| R350     | VRD-ST2CD272J | J | AA         | 2.7 kohms,1/6W |
| R351     | VRD-MN2BD562J | J | AA         | 5.6 kohms,1/8W |
| R352     | VRD-MN2BD102J | J | AA         | 1 kohm,1/8W    |
| R353     | VRD-MN2BD271J | J | AA         | 270 ohms,1/8W  |
| R354     | VRD-ST2CD392J | J | AA         | 3.9 kohms,1/6W |
| R355     | VRD-MN2BD332J | J | AA         | 3.3 kohms,1/8W |
| R356     | VRD-MN2BD102J | J | AA         | 1 kohm,1/8W    |
| R357     | VRD-ST2CD474J | J | AA         | 470 kohms,1/6W |
| R358     | VRD-MN2BD822J | J | AA         | 8.2 kohms,1/8W |
| R359     | VRD-MN2BD182J | J | AA         | 1.8 kohms,1/8W |
| R360     | VRD-MN2BD472J | J | AA         | 4.7 kohms,1/8W |
| R361,362 | VRD-MN2BD122J | J | AA         | 1.2 kohms,1/8W |
| R363,364 | VRD-MN2BD473J | J | AA         | 47 kohms,1/8W  |
| R365,366 | VRD-MN2BD103J | J | AA         | 10 kohm,1/8W   |
| R367     | VRD-MN2BD102J | J | AA         | 1 kohm,1/8W    |
| R368     | VRD-ST2CD333J | J | AA         | 33 kohms,1/6W  |
| R369     | VRD-MN2BD122J | J | AA         | 1.2 kohms,1/8W |
| R371-374 | VRD-MN2BD102J | J | AA         | 1 kohm,1/8W    |
| R375     | VRD-ST2EE680J | J | AA         | 68 ohms,1/4W   |
| R376     | VRD-MN2BD102J | J | AA         | 1 kohm,1/8W    |
| R377     | VRD-ST2CD473J | J | AA         | 47 kohms,1/6W  |
| R378     | VRD-MN2BD823J | J | AA         | 82 kohms,1/8W  |
| R379     | VRD-MN2BD222J | J | AA         | 2.2 kohms,1/8W |
| R380     | VRD-MN2BD152J | J | AA         | 1.5 kohms,1/8W |
| R381     | VRD-MN2BD103J | J | AA         | 10 kohm,1/8W   |
| R382     | VRD-ST2EE151J | J | AA         | 150 ohms,1/4W  |
| R383-385 | VRD-MN2BD562J | J | AA         | 5.6 kohms,1/8W |
| R387     | VRD-MN2BD223J | J | AA         | 22 kohms,1/8W  |
| R391,392 | VRD-ST2EE391J | J | AA         | 390 ohms,1/4W  |
| R393     | VRD-ST2CD102J | J | AA         | 1 kohm,1/6W    |
| R395     | VRD-ST2CD473J | J | AA         | 47 kohms,1/6W  |
| R398     | VRD-ST2CD122J | J | AA         | 1.2 kohms,1/6W |
| R551     | VRD-MN2BD103J | J | AA         | 10 kohm,1/8W   |
| R553     | VRD-ST2CD123J | J | AA         | 12 kohms,1/6W  |
| R555     | VRD-ST2CD563J | J | AA         | 56 kohms,1/6W  |
| R556     | VRD-MN2BD333J | J | AA         | 33 kohms,1/8W  |
| R558     | VRD-ST2CD683J | J | AA         | 68 kohms,1/6W  |

| NO.      | PARTS CODE    | ★ | PRICE<br>RANK | DESCRIPTION    |
|----------|---------------|---|---------------|----------------|
| R560     | VRD-ST2CD474J | J | AA            | 470 kohms,1/6W |
| R561     | VRD-ST2CD153J | J | AA            | 15 kohms,1/6W  |
| R562     | VRD-MN2BD394J | J | AA            | 390 kohms,1/8W |
| R564     | VRD-MN2BD394J | J | AA            | 390 kohms,1/8W |
| R566     | VRD-MN2BD225J | J | AA            | 2.2 Mohms,1/8W |
| R567     | VRD-MN2BD274J | J | AA            | 270 kohms,1/8W |
| R568     | VRD-MN2BD224J | J | AA            | 220 kohms,1/8W |
| R570     | VRD-MN2BD224J | J | AA            | 220 kohms,1/8W |
| R572     | VRD-MN2BD225J | J | AA            | 2.2 Mohms,1/8W |
| R573     | VRD-MN2BD564J | J | AA            | 560 kohms,1/8W |
| R574,575 | VRD-ST2EE331J | J | AA            | 330 ohms,1/4W  |
| R578-580 | VRD-MN2BD104J | J | AA            | 100 kohm,1/8W  |
| R601     | VRD-MN2BD152J | J | AA            | 1.5 kohms,1/8W |
| R602     | VRD-ST2CD152J | J | AA            | 1.5 kohms,1/6W |
| R603-605 | VRD-MN2BD152J | J | AA            | 1.5 kohms,1/8W |
| R606-608 | VRD-ST2CD152J | J | AA            | 1.5 kohms,1/6W |
| R609     | VRD-ST2CD222J | J | AA            | 2.2 kohms,1/6W |
| R610     | VRD-MN2BD103J | J | AA            | 10 kohm,1/8W   |
| R611     | VRD-ST2CD331J | J | AA            | 330 ohms,1/6W  |
| R612     | VRD-MN2BD223J | J | AA            | 22 kohms,1/8W  |
| R613     | VRD-ST2CD103J | J | AA            | 10 kohm,1/6W   |
| R614     | VRD-MN2BD103J | J | AA            | 10 kohm,1/8W   |
| R615,616 | VRD-MN2BD392J | J | AA            | 3.9 kohms,1/8W |
| R617-620 | VRD-MN2BD222J | J | AA            | 2.2 kohms,1/8W |
| R621,622 | VRD-MN2BD103J | J | AA            | 10 kohm,1/8W   |
| R623     | VRD-ST2CD103J | J | AA            | 10 kohm,1/6W   |
| R624     | VRD-MN2BD331J | J | AA            | 330 ohms,1/8W  |
| R625     | VRD-MN2BD223J | J | AA            | 22 kohms,1/8W  |
| R626     | VRD-MN2BD222J | J | AA            | 2.2 kohms,1/8W |
| R628     | VRD-MN2BD223J | J | AA            | 22 kohms,1/8W  |
| R629,630 | VRD-RT2HD331J | J | AA            | 330 ohms,1/2W  |
| R631-634 | VRD-MN2BD223J | J | AA            | 22 kohms,1/8W  |
| R635,636 | VRD-ST2CD331J | J | AA            | 330 ohms,1/6W  |
| R637,638 | VRD-MN2BD224J | J | AA            | 220 kohms,1/8W |
| R639-642 | VRD-MN2BD473J | J | AA            | 47 kohms,1/8W  |
| R645,646 | VRD-ST2CD104J | J | AA            | 100 kohm,1/6W  |
| R650,651 | VRD-ST2CD681J | J | AA            | 680 ohms,1/6W  |
| R652,653 | VRD-ST2CD224J | J | AA            | 220 kohms,1/6W |
| R654,655 | VRD-ST2CD562J | J | AA            | 5.6 kohms,1/6W |
| R656     | VRD-ST2CD102J | J | AA            | 1 kohm,1/6W    |
| R701,702 | VRD-MN2BD102J | J | AA            | 1 kohm,1/8W    |
| R703     | VRD-ST2CD102J | J | AA            | 1 kohm,1/6W    |
| R705-708 | VRD-ST2CD102J | J | AA            | 1 kohm,1/6W    |
| R709     | VRD-MN2BD102J | J | AA            | 1 kohm,1/8W    |
| R711     | VRD-MN2BD472J | J | AA            | 4.7 kohms,1/8W |
| R712-715 | VRD-ST2CD102J | J | AA            | 1 kohm,1/6W    |
| R716     | VRD-ST2CD330J | J | AA            | 33 ohms,1/6W   |
| R717     | VRD-MN2BD103J | J | AA            | 10 kohm,1/8W   |
| R719,720 | VRD-MN2BD103J | J | AA            | 10 kohm,1/8W   |
| R721-723 | VRD-MN2BD104J | J | AA            | 100 kohm,1/8W  |
| R724     | VRD-MN2BD103J | J | AA            | 10 kohm,1/8W   |
| R726,727 | VRD-MN2BD103J | J | AA            | 10 kohm,1/8W   |
| R730-732 | VRD-MN2BD102J | J | AA            | 1 kohm,1/8W    |
| R733,734 | VRD-ST2CD222J | J | AA            | 2.2 kohms,1/6W |
| R735     | VRD-ST2CD182J | J | AA            | 1.8 kohms,1/6W |
| R736,737 | VRD-MN2BD102J | J | AA            | 1 kohm,1/8W    |
| R738     | VRD-ST2CD102J | J | AA            | 1 kohm,1/6W    |
| R739     | VRD-MN2BD103J | J | AA            | 10 kohm,1/8W   |
| R740-744 | VRD-MN2BD102J | J | AA            | 1 kohm,1/8W    |
| R745     | VRD-ST2CD102J | J | AA            | 1 kohm,1/6W    |
| R747,748 | VRD-ST2CD103J | J | AA            | 10 kohm,1/6W   |
| R749,750 | VRD-MN2BD103J | J | AA            | 10 kohm,1/8W   |
| R751     | VRD-ST2CD332J | J | AA            | 3.3 kohms,1/6W |
| R752-754 | VRD-ST2CD103J | J | AA            | 10 kohm,1/6W   |
| R755-757 | VRD-MN2BD103J | J | AA            | 10 kohm,1/8W   |
| R758     | VRD-MN2BD122J | J | AA            | 1.2 kohms,1/8W |
| R759,760 | VRD-MN2BD103J | J | AA            | 10 kohm,1/8W   |
| R761-772 | VRD-ST2CD102J | J | AA            | 1 kohm,1/6W    |
| R774-778 | VRD-ST2CD102J | J | AA            | 1 kohm,1/6W    |
| R780     | VRD-ST2CD103J | J | AA            | 10 kohm,1/6W   |
| R786,787 | VRD-ST2CD102J | J | AA            | 1 kohm,1/6W    |
| R795     | VRD-MN2BD473J | J | AA            | 47 kohms,1/8W  |
| R797     | VRD-MN2BD104J | J | AA            | 100 kohm,1/8W  |
| R798     | VRD-ST2CD101J | J | AA            | 100 ohm,1/6W   |
| R801     | VRD-ST2CD123J | J | AA            | 12 kohms,1/6W  |
| R802     | VRD-ST2EE470J | J | AA            | 47 ohms,1/4W   |
| R803     | VRD-ST2CD473J | J | AA            | 47 kohms,1/6W  |
| R806     | VRD-ST2CD222J | J | AA            | 2.2 kohms,1/6W |
| R808     | VRD-ST2CD221J | J | AA            | 220 ohms,1/6W  |
| R825     | VRD-ST2CD330J | J | AA            | 33 ohms,1/6W   |
| R827     | VRD-ST2CD223J | J | AA            | 22 kohms,1/6W  |
| R830     | VRS-VV3LA821J | J | AB            | 820 ohms,3W    |

| NO.        | PARTS CODE    | ★ | PRICE<br>RANK | DESCRIPTION          |
|------------|---------------|---|---------------|----------------------|
| R832       | VRD-ST2CD223J | J | AA            | 22 kohms,1/6W        |
| R837       | VRD-ST2CD103J | J | AA            | 10 kohm,1/6W         |
| R901       | VRD-ST2CD104J | J | AA            | 100 kohm,1/6W        |
| R902       | VRD-ST2CD683J | J | AA            | 68 kohms,1/6W        |
| R903       | VRD-ST2CD104J | J | AA            | 100 kohm,1/6W        |
| R904       | VRD-ST2CD683J | J | AA            | 68 kohms,1/6W        |
| R905       | VRD-MN2BD102J | J | AA            | 1 kohm,1/8W          |
| R907       | VRD-MN2BD102J | J | AA            | 1 kohm,1/8W          |
| △ R912,913 | VRG-ST2EC101J | J | AB            | 100 ohm,1/4W,Fusible |
| R916       | VRD-ST2CD102J | J | AA            | 1 kohm,1/6W          |
| R917       | VRD-ST2CD563J | J | AA            | 56 kohms,1/6W        |
| R918       | VRD-ST2CD821J | J | AA            | 820 ohms,1/6W        |
| R921       | VRD-ST2CD223J | J | AA            | 22 kohms,1/6W        |
| R922       | VRD-ST2CD821J | J | AA            | 820 ohms,1/6W        |
| R923       | VRD-ST2CD563J | J | AA            | 56 kohms,1/6W        |
| R924       | VRD-ST2CD102J | J | AA            | 1 kohm,1/6W          |
| R925,926   | VRN-VV3AAR10J | J |               | 0.1 ohm,1W           |
| R928,929   | VRD-ST2CD102J | J | AA            | 1 kohm,1/6W          |
| R930,931   | VRD-ST2CD103J | J | AA            | 10 kohm,1/6W         |
| R934       | VRD-ST2EE4R7J | J | AA            | 4.7 ohms,1/4W        |
| R936       | VRD-ST2CD563J | J | AA            | 56 kohms,1/6W        |
| R937       | VRD-ST2EE4R7J | J | AA            | 4.7 ohms,1/4W        |
| R938,939   | VRD-ST2CD563J | J | AA            | 56 kohms,1/6W        |
| R941,942   | VRD-ST2CD472J | J | AA            | 4.7 kohms,1/6W       |
| R946       | VRD-RT2HD331J | J | AA            | 330 ohms,1/2W        |
| R949       | VRD-RT2HD331J | J | AA            | 330 ohms,1/2W        |
| R960       | VRD-RT2HD220J | J | AA            | 22 ohms,1/2W         |
| R961       | VRD-ST2CD153J | J | AA            | 15 kohms,1/6W        |
| R962       | VRD-ST2CD683J | J | AA            | 68 kohms,1/6W        |
| R963       | VRD-ST2CD102J | J | AA            | 1 kohm,1/6W          |
| R966       | VRD-ST2EE223J | J | AA            | 22 kohms,1/4W        |
| R967       | VRD-ST2EE151J | J | AA            | 150 ohms,1/4W        |
| RD01       | VRD-ST2CD821J | J | AA            | 820 ohms,1/6W        |
| RD02       | VRD-MN2BD122J | J | AA            | 1.2 kohms,1/8W       |
| RD03       | VRD-MN2BD152J | J | AA            | 1.5 kohms,1/8W       |
| RD04       | VRD-MN2BD182J | J | AA            | 1.8 kohms,1/8W       |
| RD05       | VRD-MN2BD222J | J | AA            | 2.2 kohms,1/8W       |
| RD06       | VRD-MN2BD332J | J | AA            | 3.3 kohms,1/8W       |
| RD07       | VRD-ST2CD392J | J | AA            | 3.9 kohms,1/6W       |
| RD09       | VRD-MN2BD682J | J | AA            | 6.8 kohms,1/8W       |
| RD10       | VRD-MN2BD821J | J | AA            | 820 ohms,1/8W        |
| RD11       | VRD-MN2BD122J | J | AA            | 1.2 kohms,1/8W       |
| RD12       | VRD-ST2CD152J | J | AA            | 1.5 kohms,1/6W       |
| RD13       | VRD-ST2CD182J | J | AA            | 1.8 kohms,1/6W       |
| RD14       | VRD-ST2CD222J | J | AA            | 2.2 kohms,1/6W       |
| RD15       | VRD-MN2BD332J | J | AA            | 3.3 kohms,1/8W       |
| RD16       | VRD-MN2BD392J | J | AA            | 3.9 kohms,1/8W       |
| RD21       | VRD-ST2CD821J | J | AA            | 820 ohms,1/6W        |
| RD22       | VRD-ST2CD122J | J | AA            | 1.2 kohms,1/6W       |
| RD23       | VRD-ST2CD152J | J | AA            | 1.5 kohms,1/6W       |
| RD24       | VRD-ST2CD182J | J | AA            | 1.8 kohms,1/6W       |
| RD25       | VRD-MN2BD222J | J | AA            | 2.2 kohms,1/8W       |
| RD26       | VRD-ST2CD332J | J | AA            | 3.3 kohms,1/6W       |
| RD27       | VRD-MN2BD392J | J | AA            | 3.9 kohms,1/8W       |
| RD28       | VRD-MN2BD682J | J | AA            | 6.8 kohms,1/8W       |
| RS701-703  | VRD-MN2BD471J | J | AA            | 470 ohms,1/8W        |
| RS704,705  | VRD-ST2CD471J | J | AA            | 470 ohms,1/6W        |
| RS706      | VRD-MN2BD471J | J | AA            | 470 ohms,1/8W        |
| RS707      | VRD-ST2CD471J | J | AA            | 470 ohms,1/6W        |
| RS708-710  | VRD-MN2BD102J | J | AA            | 1 kohm,1/8W          |
| RS711      | VRD-ST2CD152J | J | AA            | 1.5 kohms,1/6W       |
| RS712      | VRD-MN2BD122J | J | AA            | 1.2 kohms,1/8W       |

## OTHER CIRCUITRY PARTS

|                 |                |   |    |                           |
|-----------------|----------------|---|----|---------------------------|
| BI99/CNS99      | QCNWN1382AWZZ  | J | AF | Connector Ass'y,3/3Pin    |
| BI601/CNS11     | QCNWN1380AWZZ  | J | AF | Connector Ass'y,6/6Pin    |
| BI701/CNSM1     | QCNWN1386AWZZ  | J | AG | Connector Ass'y,8/12Pin   |
| BI702/CNS12     | QCNWN1381AWZZ  | J | AL | Connector Ass'y,15/15Pin  |
| BI703/CN806     | QCNWN1391AWZZ  | J | AF | Connector Ass'y,4/4Pin    |
| BIM5/CNS10/CNS5 | QCNWN1184AWZZ  | J | AL | Connector Ass'y,6/10/2Pin |
| CNP1            | 92LCONE5P53253 | J | AB | Plug,5Pin                 |
| CNP2            | QCNCM705HAFZZ  | J | AB | Plug,8Pin                 |
| CNP3            | 92LCONE6P53253 | J | AC | Plug,6Pin                 |
| CNP3A           | 92LCONE6P53254 | J | AC | Plug,6Pin                 |
| CNP10           | QCNCM705KAWZZ  | J | AC | Plug,10Pin                |
| CNP11           | QCNCM704FAWZZ  | J | AC | Plug,6Pin                 |
| CNP12           | QCNCM704QAWZZ  | J | AG | Plug,15Pin                |
| CNP101          | 92LCONE3P53253 | J | AB | Plug,3Pin                 |
| CNP102          | 92LCONE7P53253 | J | AC | Plug,7Pin                 |
| CNP301          | 92LCONE3P5268  | J | AC | Plug,3Pin                 |
| CNP303          | QCNCW0103AWZZ  | J |    | Plug,6Pin                 |

## CD-C831W

| NO.          | PARTS CODE     | ★ | PRICE<br>RANK | DESCRIPTION                                  |
|--------------|----------------|---|---------------|----------------------------------------------|
| CNP701       | QCNCWZG22AWZZ  | J | AE            | Socket,22Pin                                 |
| CNP801       | QCNCM042EAWZZ  | J | AB            | Plug,5Pin                                    |
| CNP802       | QCNCM035HAWZZ  | J | AB            | Plug,8Pin                                    |
| CNP804       | 92LCONE2P53253 | J | AB            | Plug,2Pin                                    |
| CNP806       | QCNCM705DAFZZ  | J | AB            | Plug,4Pin                                    |
| CNPM1        | QCNCM932MAFZZ  | J | AE            | Plug,12Pin                                   |
| CNPM2        | QCNCM030BAWZZ  | J | AB            | Pin Holder                                   |
| CNS1A/B      | QCNCWN1181AWZZ | J | AK            | Connector Ass'y,5/5Pin                       |
| CNS2A/B      | QCNCWN1182AWZZ | J | AH            | Connector Ass'y,8/8Pin                       |
| CNS3A/B      | QCNCWN1183AWZZ | J | AG            | Connector Ass'y,6/6Pin                       |
| CNS101       | QCNCWN1384AWZZ | J | AL            | Connector Ass'y,3Pin                         |
| CNS102       | QCNCWN1385AWZZ | J | AG            | Connector Ass'y,7Pin                         |
| CNS303       | QCNCM010JAWZZ  | J | J             | Connector Ass'y,9Pin                         |
| CNS701       | QCNCWZF22AWZZ  | J | AE            | Socket,22Pin                                 |
| CNS804       | QCNCWN1389AWZZ | J | AC            | Connector Ass'y,2Pin                         |
| △ F802,803   | 92LFUSE-T402E  | J | AD            | Fuse,T4.0A L 250V                            |
| △ F805       | 92LFUSE-T202E  | J | AD            | Fuse,T2.0A L 250V                            |
| △ F832       | 92LFUSE-T501E  | J | AD            | Fuse,T500mA L 250V                           |
| FFC701       | QCNCWN1467AWZZ | J | AG            | Flat Cable,22Pin                             |
| FL701        | VVKBJ685GNK-1  | J | AV            | FL Display                                   |
| FW702        | QCNCWN1387AWZZ | J | AF            | Flat Wire,8Pin                               |
| FW801        | QCNCWN1388AWZZ | J | AD            | Flat Wire,5Pin                               |
| FWM1         | QCNCWN1274AWZZ | J | AC            | Flat Wire,2Pin                               |
| FWM2         | QCNCWN0338AWZZ | J | AD            | Flat Wire,2Pin                               |
| IC99         | VHPGP1F32T/-1  | J | AP            | Optical Fiber Data Link,GP1F32T              |
| JK601        | QSOCJ0213AWZZ  | J | AE            | Jack,Video In                                |
| JK970        | QJAKM0010AWZZ  | J | AF            | Jack,Headphones                              |
| M1           | 92LMTR1858CASY | J | AS            | Motor with Chassis [Spindle]                 |
| M2           | 92LMTR1854BASY | J | AP            | Motor with Gear [Sled]                       |
| M3           | RMOTV0373AFZZ  | J | AL            | Motor with Worm Pulley [T/T Up/Down Loading] |
| M901         | 92LMTR1810A    | J | AK            | Motor,Air Cooling Fan                        |
| MM1(204-7)   | RMOTV0006AWM1  | J | AR            | Motor with Pulley [Tape]                     |
| PHM1         | VHPI31535CD-1  | J | J             | Photo Interrupter                            |
| RL801        | RRLYD0001SJZZ  | J | AQ            | Relay                                        |
| RL901        | RRLYD0004AWZZ  | J | AP            | Relay                                        |
| RX701        | VHLN63H380A-1  | J | AK            | Remote Sensor,N63H380A                       |
| SO301B       | QTANCO301AWZZ  | J | AH            | Terminal,Antenna                             |
| △ SO801      | QSOCA0209AWZZ  | J | AH            | Socket,AC Input                              |
| SO901        | QTANA0803AWZZ  | J | AH            | Terminal,Speaker                             |
| SOLM1(204-8) | RPLU-0002AWZZ  | J | AH            | Solenoid Ass'y [Tape]                        |
| SOLM2        | RPLU-0002AWZZ  | J | AH            | Solenoid Ass'y [CD]                          |
| SW1          | QSW-P0004AWZZ  | J | AE            | Switch,Push Type [Open/Close]                |
| SW2          | QSW-F0001AWZZ  | J | AD            | Switch,Leaf/Skeleton Type [Mecha Up]         |
| SW3          | QSW-P0005AWZZ  | J | AD            | Switch,Push Type [Disc Number]               |
| SW4          | QSW-F9001AW01  | J | AD            | Switch,Leaf Type [Pickup In]                 |
| SW601        | QSW-S0024AWZZ  | J | AE            | Switch,Slide Type [Span Selector]            |
| SW701        | 92LSWICH1401AT | J | AC            | Switch,Key Type [ON/STAND-BY]                |
| SW703        | 92LSWICH1401AT | J | AC            | Switch,Key Type [CLOCK]                      |
| SW704        | 92LSWICH1401AT | J | AC            | Switch,Key Type [TIMER/SLEEP]                |
| SW705        | 92LSWICH1401AT | J | AC            | Switch,Key Type [DISC 1]                     |
| SW706        | 92LSWICH1401AT | J | AC            | Switch,Key Type [DISC 2]                     |
| SW707        | 92LSWICH1401AT | J | AC            | Switch,Key Type [DISC 3]                     |
| SW708        | 92LSWICH1401AT | J | AC            | Switch,Key Type [DISC SKIP]                  |
| SW709        | 92LSWICH1401AT | J | AC            | Switch,Key Type [OPEN/CLOSE]                 |
| SW710        | 92LSWICH1401AT | J | AC            | Switch,Key Type [REV]                        |
| SW711        | 92LSWICH1401AT | J | AC            | Switch,Key Type [REC PAUSE]                  |
| SW712        | 92LSWICH1401AT | J | AC            | Switch,Key Type [MEMORY/SET]                 |
| SW713        | 92LSWICH1401AT | J | AC            | Switch,Key Type [STOP]                       |
| SW714        | 92LSWICH1401AT | J | AC            | Switch,Key Type [TUNER/BAND]                 |
| SW715        | 92LSWICH1401AT | J | AC            | Switch,Key Type [VIDEO]                      |
| SW716        | 92LSWICH1401AT | J | AC            | Switch,Key Type [TAPE]                       |
| SW717        | 92LSWICH1401AT | J | AC            | Switch,Key Type [CD]                         |
| SW722        | 92LSWICH1401AT | J | AC            | Switch,Key Type [FF]                         |
| SW723        | 92LSWICH1401AT | J | AC            | Switch,Key Type [TUNING UP]                  |
| SW724        | 92LSWICH1401AT | J | AC            | Switch,Key Type [TUNING DOWN]                |
| SW725        | 92LSWICH1401AT | J | AC            | Switch,Key Type [PLAY]                       |
| SW726        | 92LSWICH1401AT | J | AC            | Switch,Key Type [VOLUME DOWN]                |
| SW727        | 92LSWICH1401AT | J | AC            | Switch,Key Type [VOLUME UP]                  |
| SW728        | 92LSWICH1401AT | J | AC            | Switch,Key Type [X-BASS/DEMO]                |
| SW729        | 92LSWICH1401AT | J | AC            | Switch,Key Type [EQUALIZER]                  |

| NO.                       | PARTS CODE     | ★ | PRICE<br>RANK | DESCRIPTION                                   |
|---------------------------|----------------|---|---------------|-----------------------------------------------|
| SW730                     | 92LSWICH1401AT | J | AC            | Switch,Key Type [DIMMER]                      |
| △ SW801                   | QSOCE0008AWZZ  | J | AH            | Switch,Slide Type [Voltage Selector]          |
| SWM3(204-9)               | 92LM-SW1676A   | J | AC            | Switch,Leaf Type [Fool Proof]                 |
| SWM4(204-10)              | QSW-F9003AWZZ  | J | AG            | Switch,Leaf Type [F.A.S]                      |
| SWM5(204-11)              | 92LM-SW1658A   | J | AB            | Switch,Leaf Type [CAM]                        |
| WTM801                    | QCNCW012EAWZZ  | J | AC            | Plug,5Pin                                     |
| <b>CD MECHANISM PARTS</b> |                |   |               |                                               |
| 301                       | NGERH0011AWZZ  | J | AC            | Gear,Middle                                   |
| 302                       | NGERH0012AWZZ  | J | AC            | Gear,Drive                                    |
| 303                       | MLEVP0010AWZZ  | J | AC            | Rail,Guide                                    |
| 304                       | NSFTM0002AWFW  | J | AE            | Shaft,Guide                                   |
| 305                       | 92LM-CUSN1524A | J | AC            | Cushion                                       |
| △ 306                     | 92LHPC1MASY    | J | BG            | Pickup Unit Ass'y                             |
| 306- 1                    | —              | — | —             | Pickup Unit (Not Replacement Item)            |
| 306- 2                    | NGERR0043AFZZ  | J | AC            | Gear,Rack                                     |
| 306- 3                    | MSPRC0961AFZZ  | J | AA            | Spring,Rack                                   |
| 701                       | XBSSD26P06000  | J | AA            | Screw,ø2.6×6mm                                |
| 702                       | XHBSD20P05000  | J | AA            | Screw,ø2×5mm                                  |
| 703                       | XHBSD20P03000  | J | AA            | Screw,ø2×3mm                                  |
| 704                       | LX-WZ1070AFZZ  | J | AA            | Washer,ø1.5×ø3.8×0.25mm                       |
| M1                        | 92LMTR1858CASY | J | AS            | Motor with Chassis [Spindle]                  |
| M2                        | 92LMTR1854BASY | J | AP            | Motor with Gear [Sled]                        |
| SW4                       | QSW-F9001AW01  | J | AD            | Switch,Leaf Type [Pickup In]                  |
| <b>CABINET PARTS</b>      |                |   |               |                                               |
| 201                       | GCAB-1044AWSA  | J | AM            | CD Player Base                                |
| 202                       | GCAB-1052AWSA  | J | AP            | Top Cabinet                                   |
| 203                       | GITAR4050AWSA  | J | AK            | Back Board                                    |
| 204                       | 92LMEC2744AS1  | J | BK            | Tape Mechanism Ass'y                          |
| 204- 1                    | NBLTK0011AWZZ  | J | AC            | Belt,Main,Tape 1                              |
| 204- 2                    | NBLTK0012AWZZ  | J | AB            | Belt,Main,Tape 2                              |
| 204- 3                    | NBLTK0030AWZZ  | J | AC            | Belt,Sub                                      |
| 204- 4                    | NROLY0002AWZZ  | J | AF            | Pinch Roller Ass'y                            |
| 204- 5                    | RHEDA0001AWZZ  | J | AG            | Head,Erase                                    |
| 204- 6                    | 92LMRPH1746A   | J | AM            | Head,Record/Playback [Tape 1/Tape 2]          |
| 204- 7(MM1)               | RMOTV0006AWM1  | J | AR            | Motor with Pulley [Tape]                      |
| 204- 8(SOLM1)             | RPLU-0002AWZZ  | J | AH            | Solenoid Ass'y [Tape]                         |
| 204- 9(SWM3)              | 92LM-SW1676A   | J | AC            | Switch,Leaf Type [Fool Proof]                 |
| 204-10(SWM4)              | QSW-F9003AWZZ  | J | AG            | Switch,Leaf Type [F.A.S]                      |
| 204-11(SWM5)              | 92LM-SW1658A   | J | AB            | Switch,Leaf Type [CAM]                        |
| 205                       | LANGK0163AWFW  | J | AB            | Bracket,Fan Support                           |
| 206                       | LCHSM0082AWFW  | J | AP            | Main Chassis                                  |
| 207                       | LANGF0032AWZZ  | J | AC            | Support,T/T Lock Lever                        |
| 208                       | PCUSG0022AWZZ  | J | AB            | Cushion,Leg                                   |
| 209                       | PRDAR0130AWFW  | J | AM            | Heat Sink,Main                                |
| 210                       | LCHSZ0010AWZZ  | J | AM            | Chassis,Loading                               |
| 211                       | LCHSZ0011AWZZ  | J | AG            | Chassis,CD Mechanism                          |
| 212                       | PRDAR0127AWFW  | J | AM            | Heat Sink,Sub                                 |
| 213                       | LHLDZ1140AWZZ  | J | AB            | Guide                                         |
| 214                       | LHLDZ1141AWZZ  | J | AB            | Support,Pitch                                 |
| 215                       | LHLDZ1213AWZZ  | J | AE            | Holder,FL                                     |
| 216                       | MLEVP0066AWZZ  | J | AE            | Lever,Shift                                   |
| 217                       | MLEVP0067AWZZ  | J | AC            | Lever,Lock                                    |
| 218                       | MLEVP0068AWZZ  | J | AB            | Lever,Change                                  |
| 219                       | MLEVP0070AWZZ  | J | AB            | Lever,T/T Lock                                |
| 221                       | MSPRC0020AWFJ  | J | AB            | Spring,T/T Lock Lever                         |
| 222                       | MSPRC0024AWFW  | J | AB            | Spring,Solenoid                               |
| 223                       | MSPRD0044AWFJ  | J | AB            | Spring,Lock Lever                             |
| 224                       | 92LMEC3022CTS1 | J | AM            | Cassette Holder Ass'y,Tape 1                  |
| 224- 1                    | —              | — | —             | Cassette Holder,Tape 1 (Not Replacement Item) |
| 224- 2                    | GCOVA1221AWSA  | J | AH            | Cover,Cassette,Tape 1                         |
| 224- 3                    | HDECQ0408AWSA  | J | AD            | Panel,Cassette,Tape 1                         |
| 225                       | 92LMEC3022CTS2 | J | AM            | Cassette Holder Ass'y,Tape 2                  |
| 225- 1                    | —              | — | —             | Cassette Holder,Tape 2 (Not Replacement Item) |
| 225- 2                    | GCOVA1222AWSA  | J | AH            | Cover,Cassette,Tape 2                         |
| 225- 3                    | HDECQ0409AWSA  | J | AD            | Panel,Cassette,Tape 2                         |
| 226                       | NBLTK0033AWZZ  | J | AC            | Belt,Drive                                    |
| 227                       | LHLDZ1228AWZZ  | J | AC            | Holder,LED,A                                  |
| 228                       | NGERH0064AWZZ  | J | AD            | Gear,Cam                                      |
| 229                       | NGERH0065AWZZ  | J | AB            | Gear,Turntable                                |
| 230                       | NGERK0003AWZZ  | J | AC            | Gear,Drive                                    |
| 231                       | NGERK0004AWZZ  | J | AB            | Gear,Bevel                                    |
| 232                       | NGERK0005AWZZ  | J | AB            | Gear,Loading                                  |
| 233                       | 92LN-BAND1318A | J | AA            | Nylon Band,80mm                               |

| NO.    | PARTS CODE     | ★ PRICE RANK | DESCRIPTION                                |
|--------|----------------|--------------|--------------------------------------------|
| 234    | NGERW0006AWZZ  | J AC         | Gear,Worm Wheel                            |
| 235    | NPLYD0002AWZZ  | J AC         | Pulley                                     |
| 236    | NROLP0009AWZZ  | J AB         | Roller                                     |
| 237    | NTNT-0018AWSA  | J AK         | Turntable                                  |
| 238    | PCUSG0022AWZZ  | J AB         | Cushion,Leg                                |
| 239    | LHLDZ1229AWZZ  | J AC         | Holder,LED,B                               |
| △ 240  | QFSDH0001AWZZ  | J AB         | Holder,Fuse                                |
| 241    | QLUGP0001AWZZ  | J AC         | Lug                                        |
| 243    | LANGK0170AWFW  | J AC         | Bracket,Headphones Support                 |
| 244    | 92LCAB3073AS1  | J            | Front Panel Ass'y                          |
| 244- 1 | —              | —            | Front Panel<br>(Not Replacement Item)      |
| 244- 2 | HDECQ0484AWSA  | J            | Panel,AMP.                                 |
| 244- 3 | HDECQ0411AWSA  | J AE         | Volume Ring                                |
| 244- 4 | HDECQ0412AWSA  | J AC         | Operation Ring,A                           |
| 244- 5 | HDECQ0413AWSB  | J AB         | Operation Ring,B                           |
| 244- 6 | HDECQ0414AWSA  | J AD         | Center Cap,Operation                       |
| 244- 7 | HDECQ0415AWSA  | J AD         | Cover,LED                                  |
| 244- 8 | HDECQ0417AWSA  | J AE         | Panel,Center Cap                           |
| 244- 9 | HDECQ0418AWSB  | J AH         | Decoration Panel                           |
| 244-10 | HDECQ0419AWSA  | J AF         | Decoration,Play Knob                       |
| 244-11 | HDECQ0420AWSA  | J AE         | Decoration,Stop Knob                       |
| 244-12 | HDECQ0457AWSA  | J AC         | Decoration Panel,Play                      |
| 244-13 | HDECQ0458AWSA  | J AC         | Decoration Panel,Stop                      |
| 244-14 | JKNBZ0557AWSB  | J AD         | Knob,Disc No.                              |
| 244-15 | JKNBZ0558AWSA  | J AE         | Knob,Open/Close/Disc Skip                  |
| 244-16 | JKNBZ0628AWSA  | J AE         | Knob,ON/Stand-by                           |
| 244-17 | JKNBZ0560AWSA  | J AE         | Knob,X-BASS                                |
| 244-18 | JKNBZ0561AWSA  | J AF         | Knob,Operation                             |
| 244-19 | JKNBZ0563AWSB  | J AG         | Knob,FF/REW/Tuning                         |
| 244-20 | JKNBZ0565AWSA  | J AD         | Knob,Timer/Sleep/Clock                     |
| 244-21 | JKNBZ0567AWSA  | J AF         | Knob,Volume                                |
| 244-22 | JKNBZ0570AWSA  | J AD         | Knob,Dimmer/Equalizer                      |
| 244-23 | GCOVA1240AWZZ  | J AC         | Reflector                                  |
| 245    | LANGT0056AWFW  | J AE         | Bracket,Tuner PWB (A)                      |
| 246    | LANGT0057AWFW  | J AE         | Bracket,Tuner PWB (B)                      |
| 249    | 92LCAB3022BS1  | J AL         | Side Panel Ass'y,Left                      |
| 249- 1 | —              | —            | Side Panel,Left<br>(Not Replacement Item)  |
| 249- 2 | PCUSG0022AWZZ  | J AB         | Cushion,Leg                                |
| 250    | 92LCAB3022CS1  | J AL         | Side Panel Ass'y,Right                     |
| 250- 1 | —              | —            | Side Panel,Right<br>(Not Replacement Item) |
| 250- 2 | PCUSG0022AWZZ  | J AB         | Cushion,Leg                                |
| 251    | 92LCOV3022AS1  | J AM         | CD Tray Cover Ass'y                        |
| 251- 1 | —              | —            | Cover,CD Tray<br>(Not Replacement Item)    |
| 251- 2 | 92LBADGE1671A  | J AC         | Badge,SHARP                                |
| 251- 3 | GCOVA1224AWSA  | J AE         | Cover,CD Tray Panel,Left                   |
| 251- 4 | GCOVA1225AWSA  | J AE         | Cover,CD Tray Panel,Right                  |
| 254    | PCOVZ1013AWZZ  | J AB         | Cover,Wire                                 |
| 255    | 92LHOLD3022AS1 | J AB         | Stabilizer Ass'y                           |
| 255- 1 | —              | —            | Stabilizer<br>(Not Replacement Item)       |
| 255- 2 | PMAGF0001AWZZ  | J AF         | Magnet                                     |
| 255- 3 | 92LSUPT1749D   | J AA         | Bracket,Magnet                             |
| 256    | LHLDZ1204AWSA  | J AD         | Bracket,Stabilizer                         |
| 257    | 92LCSPR1431C   | J AA         | Ring,Spring                                |
| 258    | MLIFP0006AWZZ  | J AE         | Damper                                     |
| 259    | MSPRD0092AWFJ  | J AB         | Spring,Cassette,Tape 1                     |
| 260    | MSPRD0093AWFJ  | J AB         | Spring,Cassette,Tape 2                     |
| 261    | 92LCAUT1706A1  | J AC         | Label,Class 3                              |
| 262    | 92LCAUT1706B   | J AA         | Label,Laser                                |
| 263    | NFANP0001AWZZ  | J AD         | Rotary Fan                                 |
| 264    | LANGT0047AWFW  | J AE         | Bracket,PWB Support                        |
| 601    | LX-EZ0005AWFD  | J AA         | Screw,Special                              |
| 602    | XJBSF30P10000  | J AA         | Screw,ø3×8mm                               |
| 603    | LX-JZ0002AWFD  | J AA         | Screw,ø3×10mm                              |
| 604    | XESSD30P10000  | J AA         | Screw,ø3×10mm                              |
| 605    | XJBSD30P14000  | J AA         | Screw,ø3×14mm                              |
| 606    | XJBSD30P10000  | J AA         | Screw,ø3×10mm                              |
| 607    | LX-TZ0019AFZZ  | J AB         | Screw,Special                              |
| 609    | XBPSD26P05JSO  | J AB         | Screw,ø2.6×5mm                             |
| 610    | XEBSD26P12000  | J AA         | Screw,ø2.6×12mm                            |
| 611    | XEBSD30P10000  | J AA         | Screw,ø3×10mm                              |
| 612    | XEBSD30P12000  | J AA         | Screw,ø3×12mm                              |
| 613    | LX-JZ0010AFFD  | J AA         | Screw,ø3×10mm                              |
| 614    | LX-HZ0082AFZZ  | J AA         | Screw,ø4×8mm                               |
| 615    | XBBSD20P04000  | J AA         | Screw,ø2×4mm                               |
| 616    | XJSBD30P08000  | J AA         | Screw,ø3×10mm                              |
| 617    | XEBSF30P12000  | J AA         | Screw,ø3×12mm                              |
| 620    | XJSSF30P10000  | J AA         | Screw,ø3×10mm                              |

| NO. | PARTS CODE    | ★ PRICE RANK | DESCRIPTION           |
|-----|---------------|--------------|-----------------------|
| 621 | XWHJZ62-09510 | J AB         | Washer,ø6.2×ø10×0.9mm |
| 622 | LX-JZ0003AWFF | J AA         | Screw,Special         |

## PACKING PARTS

|               |      |                                   |
|---------------|------|-----------------------------------|
| SPAKA0203AWZZ | J AH | Packing Add.,Unit                 |
| SPAKC0778AWZZ | J AT | Packing Case                      |
| SPAKC0779AWZZ | J AT | Packing Case                      |
| SPAKP0013AWZZ | J AC | Polyethylene Bag,Unit             |
| TCAUA0032AWZZ | J AB | Label,Caution                     |
| TGANE0009AW15 | J    | Warranty Card [For Philippines]   |
| TGANZ0022AW17 | J AE | Warranty Card [For Taiwan]        |
| TLABG0006AWZZ | J AB | Label,Caution                     |
| TLABG0007AWZZ | J AC | Label,Set                         |
| TLABS0215AWZZ | J AB | Label,Safety [For Hong Kong]      |
| TLABZ0605AWZZ | J AB | Label,Saving Energy               |
| TSPC-0554AWZZ | J AC | Label,Specifications              |
| TSPC-0555AWZZ | J AD | Label,Specifications              |
| TSPC-0556AWZZ | J AC | Label,Specifications              |
| 92LBAG1460C1  | J AB | Polyethylene Bag,Operation Manual |
| 92L16-01-0002 | J AF | Polyethylene Bag,Surround Speaker |
| 92L17-01-0001 | J AN | Packing Add.,Surround Speaker     |
| 92L411-0108   | J AC | Polyethylene Bag,Front Speaker    |
| 92L412-0125   | J AN | Packing Add.,Front Speaker        |

## ACCESSORIES

|   |               |      |                                                                             |
|---|---------------|------|-----------------------------------------------------------------------------|
| △ | QACCB0008AW00 | J AW | AC Power Supply Cord<br>[For Hong Kong]                                     |
| △ | QACCE0011AW00 | J AM | AC Power Supply Cord<br>[Except for Australia/<br>New Zealand]              |
| △ | QACCL0002AW00 | J AN | AC Power Supply Cord<br>[For Australia/New Zealand]                         |
|   | QANTL0009AWZZ | J AH | AM Loop Antenna                                                             |
|   | TINST0049AWZZ | J AG | Operation Manual [For Thailand]                                             |
|   | TINSZ0432AWZZ | J AM | Operation Manual<br>[Except for Thailand/Australia/<br>New Zealand]         |
|   | TINSZ0433AWZZ | J AD | Operation Manual<br>[For Australia/New Zealand]                             |
|   | TLABE0317AWZZ | J AB | Label,Bar Code<br>[Except for Middle East]                                  |
|   | TLABE0318AWZZ | J AC | Label,Bar Code [Middle East]                                                |
|   | TLABZ0562AWZZ | J AC | Feature Label,Tape 1                                                        |
|   | TLABZ0563AWZZ | J AD | Feature Label,Tape 2                                                        |
| △ | 92LCORDZ1652A | J AM | AC Power Supply Cord<br>[For Taiwan]                                        |
| △ | 92LCORD577B   | J AM | AC Power Supply Cord<br>[For Saudi Arabia]                                  |
| △ | 92LFANT1746A  | J AD | FM Antenna                                                                  |
| △ | 92LPLUG027    | J AD | AC Plug Adaptor<br>[For Saudi Arabia]                                       |
| △ | 92LPLUG155A   | J AG | AC Plug Adaptor<br>[For Brasil/Philippines/Central<br>South America/Mexico] |
|   | RRMCG0178AWSA | J AS | Remote Control                                                              |
|   | GFTAB1022AWSA | J    | Battery Lid,Remote Control                                                  |

## P.W.B. ASSEMBLY (Not Replacement Item)

|          |                |      |                                                          |
|----------|----------------|------|----------------------------------------------------------|
| PWB-A1-6 | 92LPWB3073MANS | J —  | Main/Power/Display/Switch/<br>Headphone (Combined Ass'y) |
| PWB-B    | 92LPWB3022CDUS | J —  | CD Servo                                                 |
| PWB-C    | 92LPWB3073TUNS | J —  | Tuner PWB                                                |
| PWB-D    | QPWBF0027AWZZ  | J AD | CD Motor (PWB Only)                                      |
| PWB-E    | QPWBF0341AWZZ  | J AB | Sensor (PWB Only)                                        |
| PWB-F    | QPWBF0106AWZZ  | J AF | Tape Mechanism (PWB Only)                                |

## OTHER SERVICE PART

|               |      |                        |
|---------------|------|------------------------|
| UDSKA0004AFZZ | J AZ | CD Pickup Lens Cleaner |
|---------------|------|------------------------|

## CP-C831

## SPEAKER BOX PARTS (FRONT SPEAKER)

|     |             |      |                   |
|-----|-------------|------|-------------------|
| 901 | 92L051-0069 | J AX | Speaker Box Ass'y |
| 902 | 92L312-0075 | J AT | Front Panel       |

## CD-C831W

| NO.   | PARTS CODE    | ★ | PRICE<br>RANK | DESCRIPTION                          |
|-------|---------------|---|---------------|--------------------------------------|
| 903   | 92L121-0162   | J | AU            | Net Frame Ass'y                      |
| 904   | 92L122-0042   | J | AG            | Speaker Wire Ass'y<br>with Capacitor |
| 905   | 92L291-0079   | J | AG            | Speaker Cord                         |
| 906   | 92L316-0068   | J |               | Duct Pipe                            |
| 907   | 92L394-0045   | J | AC            | Port Cushion                         |
| 908   | 92L394-0049   | J | AB            | Cushion Wire                         |
| 909   | 92L351-0331   | J | AC            | Label, Specifications                |
| 910   | 92L372-0106   | J | AB            | Screw, $\varnothing 4 \times 12$ mm  |
| 911   | 92L372-0108   | J | AC            | Screw, $\varnothing 3 \times 10$ mm  |
| SP1,2 | VSP0013WB376A | J | AY            | Speaker, Woofer                      |
| SP3,4 | VSP0050TBM16A | J | AR            | Speaker, Tweeter                     |

### GBOXS0025AWM1

#### SPEAKER BOX PARTS (SURROUND SPEAKER)

|       |               |   |    |                                     |
|-------|---------------|---|----|-------------------------------------|
| 901   | 92L03-02-0005 | J | AQ | Bottom Cabinet                      |
| 902   | 92L02-02-0001 | J | AR | Net Frame Ass'y                     |
| 903   | 92L15-01-0005 | J |    | Label, Parts Code                   |
| 904   | 92L06-01-0001 | J | AK | Speaker Cord                        |
| 905   | 92L09-01-0001 | J | AC | Screw, $\varnothing 3 \times 14$ mm |
| SP1,2 | VSP0010PBX8WA | J | AS | Speaker, Full-range                 |

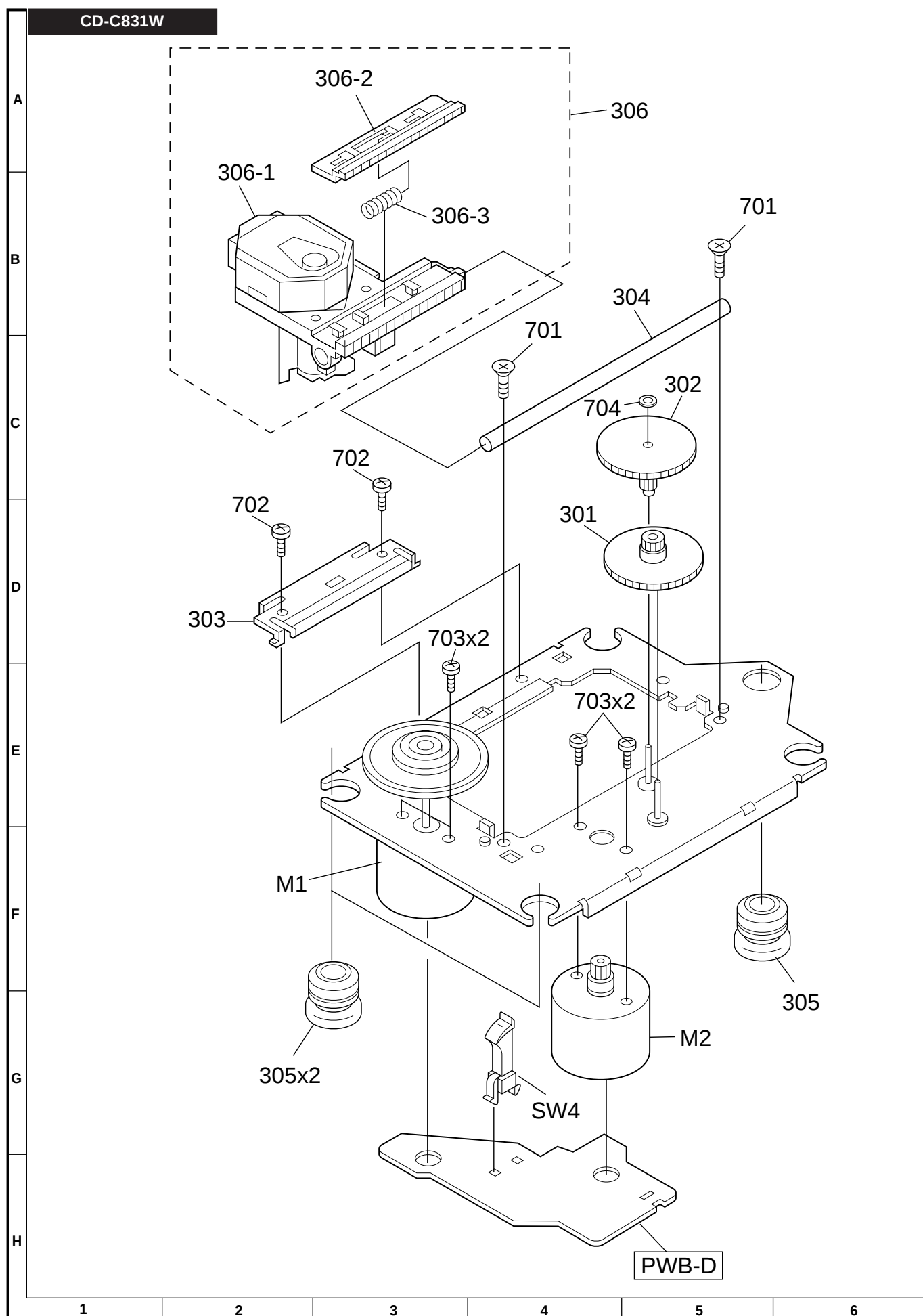


Figure 8 CD MECHANISM EXPLODED VIEW



CD-C831W

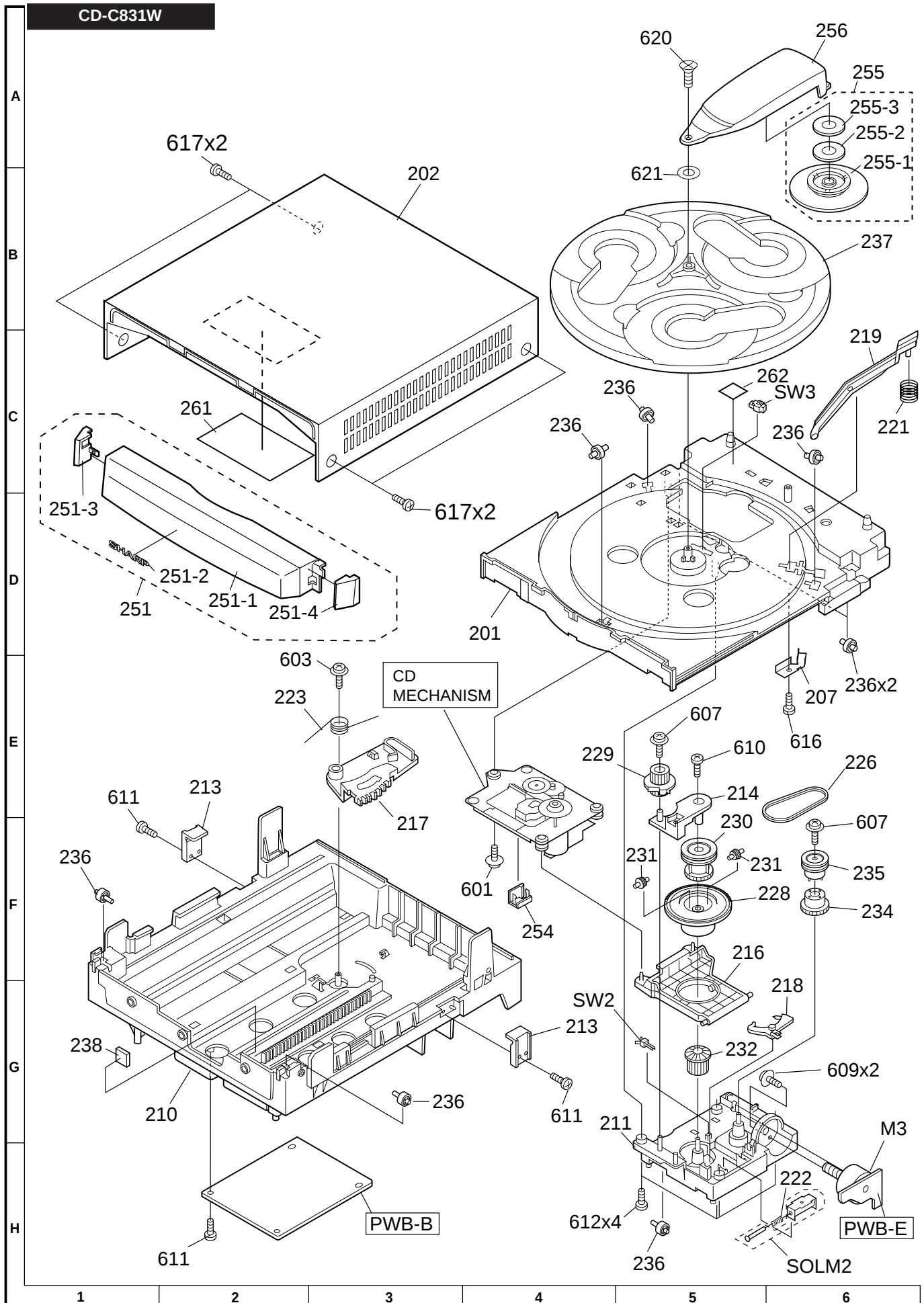


Figure 10 CABINET EXPLODED VIEW (2/2)

CP-C831

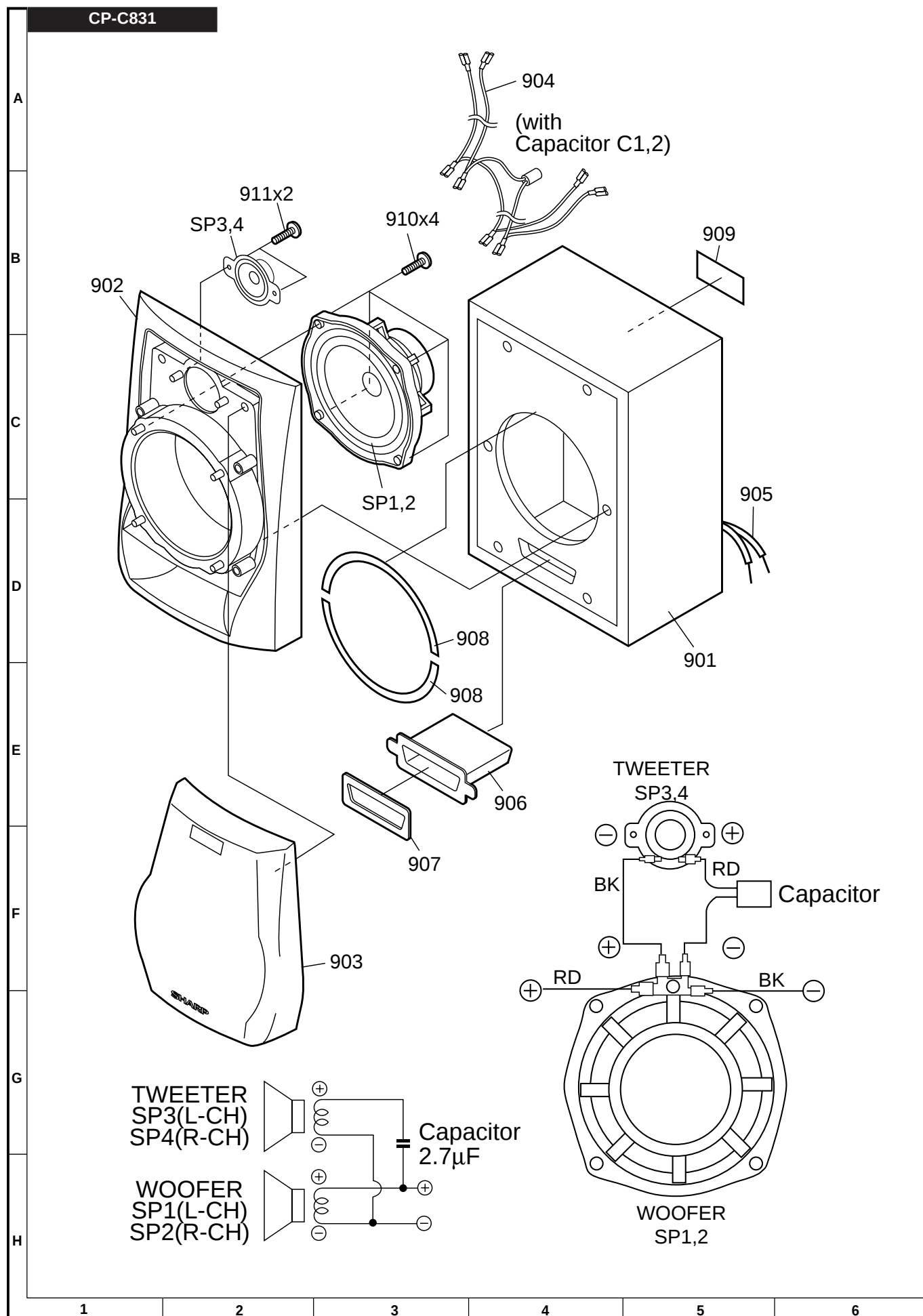


Figure 11 SPEAKER EXPLODED VIEW (1/2)

GBOXS0025AWM1

A

B

C

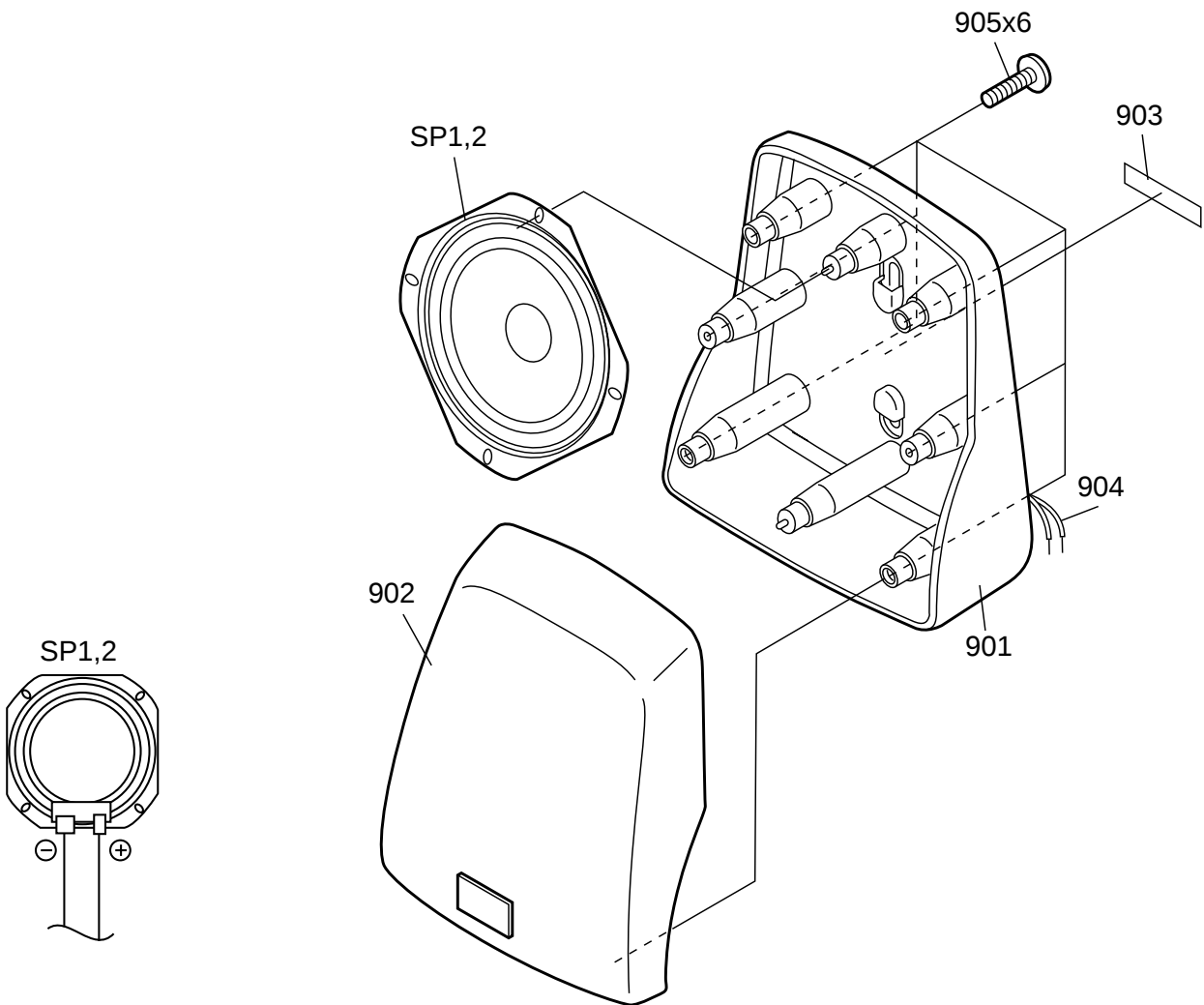
D

E

F

G

H



1

2

3

4

5

6

Figure 12 SPEAKER EXPLODED VIEW (2/2)

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SHARP CORPORATION  
Communication Systems Group  
Quality & Reliability Control Center  
Higashihiroshima, Hiroshima 739-0192, Japan  
Printed in Japan

A9905-1486NS•HA•M

SA • SZ • EX