SHARP SERVICE MANUAL

No. S5830CDC471H/

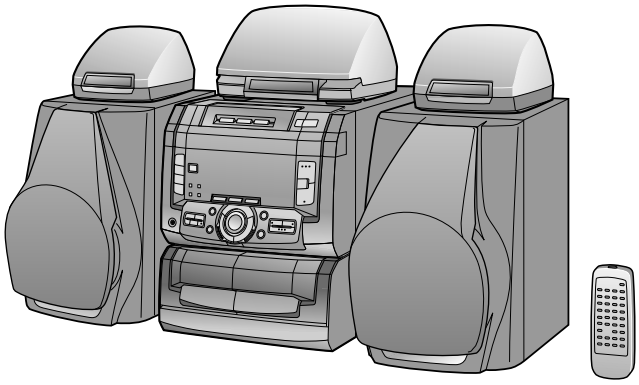


Illustration: CD-C471H

CD-C471H

CP-C471H, CENTER(GBOXS0006AWM5) and SURROUND(GBOXS0007AWM5) Speaker System Constitute CD-C471H.

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

COMPACT disc DIGITAL AUDIO

R·D·S EON

DOLBY SURROUND PRO • LOGIC

CONTENTS

SHARP CORPORATION

SAFETY PRECAUTION FOR SERVICE MANUAL

Precaution to be taken when replacing and servicing the Laser Pickup.

The AEL (Accessible Emission Level) of Laser Power Output for this model is specified to be lower than Class I Requirements. However, the following precautions must be observed during servicing to protect your eyes against exposure to the Laser beam

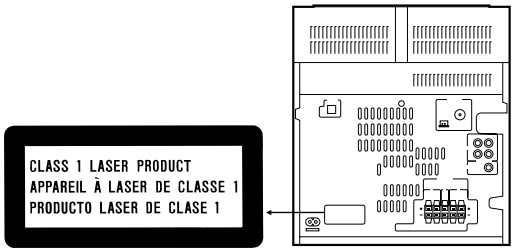
(1) When the cabinet has been removed, the power is turned on without a compact disc, and the Pickup is on a position outer than the lead-in position, the Laser will light for several seconds to detect a disc. Do not look into the Pickup Lens.
(2) The Laser Power Output of the Pickup inside the unit and replacement service parts have already been adjusted prior to shipping.
(3) No adjustment to the Laser Power should be attempted when replacing or servicing the Pickup.
(4) Under no circumstances look directly into the Pickup Lens at any time.
(5) CAUTION - Use of controls or adjustments, or performance of procedures other than those specified herein may result in hazardous radiation exposure.

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

VAROITUS! LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

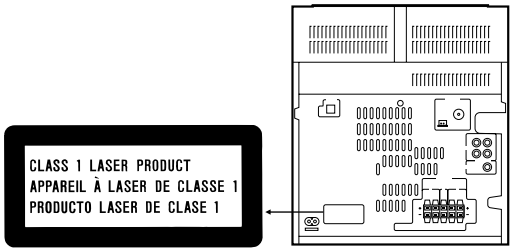
VARNING - OM APPARATEN ANVÄNDS PÅANNAT SÄTTÄN I DENNA BRUKSANVISNING SPECIFICERAS. KANANVÄNDAREN UTSÄTTAS FÖR OSYNLIG LASERSTRÅLNING, SOM ÖVERSKRIDER GRÄNSEN FÖR LASERKLASS 1.

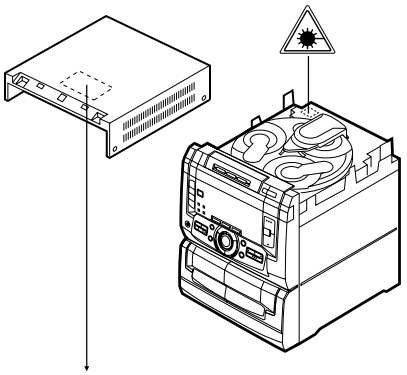
(FOR GERMANY)

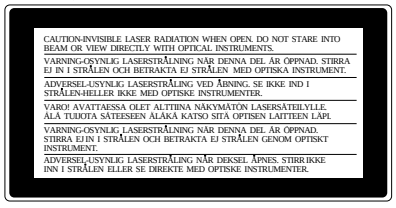


LASER KLASSE 1
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT
LASER TŘÍDY 1
LASER TRIEDY 1

(FOR U.K.)



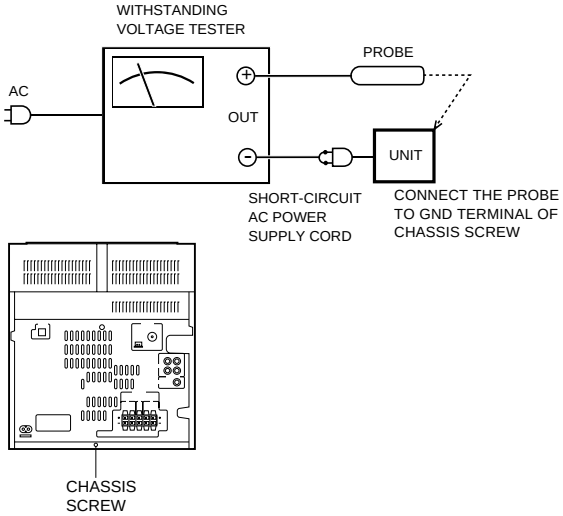




IMPORTANT SERVICE NOTES (FOR U.K. ONLY)

Before returning the unit to the customer after completion of a repair or adjustment it is necessary for the following withstand voltage test to be applied to ensure the unit is safe for the customer to use.
Setting of Withstanding Voltage Tester and set.

Set name	set value
Withstanding Voltage Tester	
Test voltage	4,240 VPEAK 3,000 VRMS
Set time	6 secs
Set current(Cutoff current)	4 mA
Unit	
Judgment	
OK: The “GOOD” lamp lights. NG: The “NG” lamp lights and the buzzor sounds.	



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

SPECIFICATIONS

CD-C471H

● General

Power source: AC 230 V, 50 Hz
Power consumption: 112 W
Dimensions: Width; 270 mm (10-5/8")
Height; 303 mm (11-13/16")
Depth; 350 mm (13-13/16")
Weight: 6.9 kg (14.8 lbs.)

● Amplifier section

Output power:
(CD-C471H) Front speakers;
MPO; 176 W (88 W + 88 W) (DIN 45 324)
RMS; 80 W (40 W + 40 W) (DIN 45 324)
72 W (36 W + 36 W) (DIN 45 500)
Center speaker;
MPO; 32 W (DIN 45 324)
RMS; 20 W (DIN 45 324)
14 W (DIN 45 500)
Surround speakers;
MPO; 32 W (DIN 45 324)
RMS; 20 W (DIN 45 324)
14 W (DIN 45 500)
(UK ONLY) Front speakers;
MPO; 176 W (88 W + 88 W) (10 % T.H.D)
RMS; 80 W (40 W + 40 W) (10 % T.H.D)
72 W (36 W + 36 W) (0.9 % T.H.D)
Center speaker;
MPO; 32 W (10 % T.H.D)
RMS; 20 W (10 % T.H.D)
14 W (0.9 % T.H.D)
Surround speakers;
MPO; 32 W (10 % T.H.D)
RMS; 20 W (10 % T.H.D)
14 W (0.9 % T.H.D)
Input terminals: Video/Auxiliary (audio signal) x 2;
500 mV/47 kohms
Output terminals: Front speakers; 6 ohms
Center speakers; 4 ohms
Surround Speakers; 8 ohms
Headphones; 16-50 ohms
(recommended; 32 ohms)

● Compact disc player section

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

● Tuner section

Frequency range: FM; 87.5 - 108 MHz
MW; 522 - 1,620 kHz
LW; 153 - 281 kHz

● Cassette deck section

Type: Compact cassette tape
Frequency response: 50 - 14,000 Hz (Normal tape)
Motor: DC motor with electronic governor x 1
Signal/noise ratio: 55 dB (TAPE 1, playback)
50 dB (TAPE 2, recording/playback)
Bias and erasure system: AC
Tape speed: 4.76 cm/sec. (1-7/8 ips)
Wow and flutter: (CD-C471H) 0.2 % (DIN 45 511, playback)
Wow and flutter: (UK ONLY) 0.15 % (WRMS)
Heads: TAPE-1: Playback x 1
TAPE-2: Record/playback x 1
Erase x 1

CP-C471H

Type: 3-way type [130 mm (5-1/8") woofer, 50 mm (2") tweeter and super tweeter]
Maximum input power: 80 W
Impedance: 6 ohms
Dimensions: Width; 200 mm (7-7/8")
Height; 300 mm (11-13/16")
Depth; 253 mm (10")
Weight: 2.7 kg (5.8 lbs.)/each

CENTER SPEAKER SYSTEM

Type: 100 mm (4") full-range speaker
Maximum input power: 40 W
Impedance: 4 ohms
Dimensions: Width; 262 mm (10-5/16")
Height; 145 mm (5-3/4")
Depth; 201 mm (7-15/16")
Weight: 1.2 kg (2.6 lbs.)/each

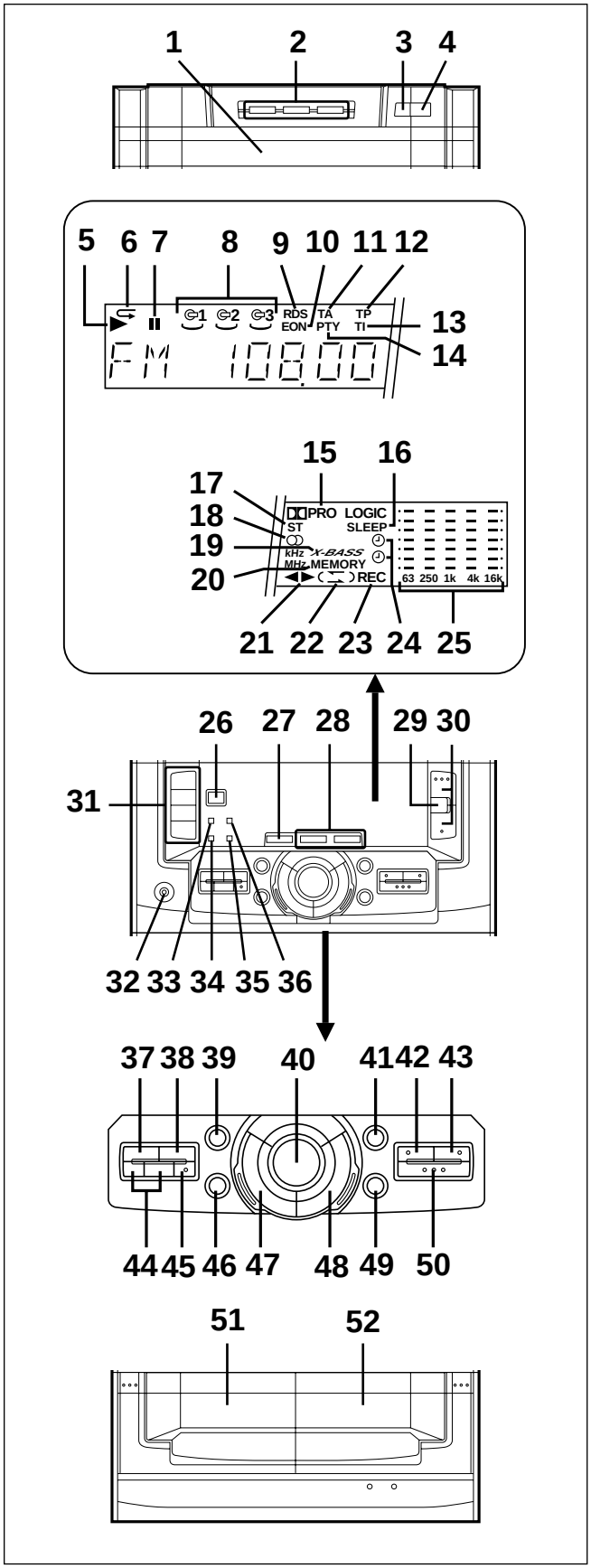
SURROUND SPEAKER SYSTEM

Type: 100 mm (4") full-range speaker
Maximum input power: 20 W
Impedance: 8 ohms
Dimensions: Width; 170 mm (6-3/4")
Height; 122 mm (4-13/16")
Depth; 176 mm (6-15/16")
Weight: 0.7 kg (1.5 lbs.)/each

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

NAMES OF PARTS

CD-C471H



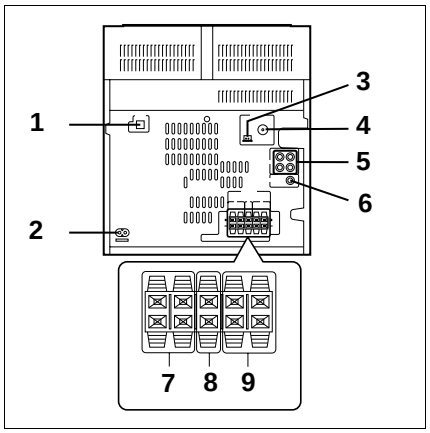
■ **Front Panel**

1. (CD) Disc Tray
2. (CD) Disc Number Selector Buttons
3. (CD) Disc Skip Button
4. (CD) Open/Close Button: ▲
5. (CD) Play Indicator: ▶
6. (CD) Repeat Indicator:
7. (CD) Pause Indicator: ❚❚
8. (CD) Disc Number Indicators
9. (TUNER) RDS Indicator
10. (TUNER) EON Indicator
11. (TUNER) Traffic Announcement Indicator: TA
12. (TUNER) Traffic Programme Indicator:TP
13. (TUNER) Traffic Information Indicator: TI
14. (TUNER) Programme Type Indicator: PTY
15. Dolby Pro Logic Indicator
16. Sleep Indicator
17. (TUNER) FM Stereo Mode Indicator: ST
18. (TUNER) FM Stereo Indicator:
19. Extra Bass Indicator: X-BASS
20. (CD/TUNER) Memory Indicator
21. (TAPE) Direction Indicators
22. (TAPE2) Reverse Mode indicator:
23. (TAPE2) Record indicator
24. Timer Indicator
25. Spectrum Analyzer/Volume Level/Balance Indicator
26. On/Stand-by Button
27. Bypass Button
28. Center Mode Buttons: NORMAL/PHANTOM
29. Extra Bass Button: X-BASS
30. Volume Up/Down Buttons: △/▽
31. Function Selector Buttons
32. Headphone Socket
33. (TUNER) Programme Type/Traffic Information Search Button
34. (TUNER) ASPM Button
35. (TUNER) Display Mode Selector Button
36. (TUNER) EON Button
37. Clock Button
38. Timer/Sleep Button
39. (TAPE2) Record Pause Button: ●❚❚
40. (CD/TAPE) Stop Button: ■
41. Equalizer Selector/Demo Mode Button
42. (CD) Synchro Record Button
    (TAPE) Dubbing Start Button
43. (TUNER) Beat Cancel Button
    (TAPE) Dubbing Start Button
44. Tuning and Time Up/Down Buttons: ▽/△
45. Memory/Set Button
46. (CD) Track Down/Review Button:
    (TUNER) Preset Down Button: ◀◀/I◀◀
47. (TAPE 2) Reverse Play Button: ◀
48. (TAPE 1) Play Button/(TAPE 2) Forward Play Button/
    (CD) Play/Repeat Button: ▶
49. (CD) Track Up/Cue Button/
    (TUNER) Preset Up Button: ▶▶/▶▶I
50. (TAPE2) Reverse Mode Button
51. (TAPE 1) Cassette Compartment
52. (TAPE 2) Cassette Compartment

CD-C471H

■ **Rear Panel**

1. CD Digital Output Socket
2. AC Power Input Socket
3. MW/LW Loop Aerial Input Socket
4. FM 75 ohms Aerial Socket
5. Video/Auxiliary (Audio Signal) Input Sockets
6. Sub Woofer Output Socket
7. Front Speaker Terminals
8. Center Speaker Terminals
9. Surround Speaker Terminals



■ **Speaker Section**

● **Front Speaker**

CP-C471H

1. Super Tweeter
2. Tweeter
3. Woofer
4. Bass Reflax Duct
5. Speaker Wire

● **Center Speaker**

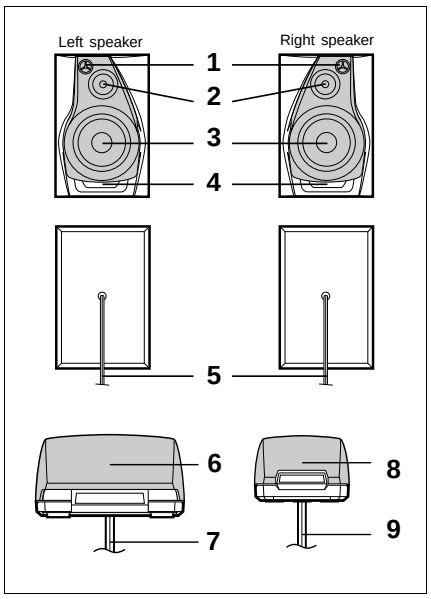
GBOXS0006AWM5

6. Full-Range Speaker
7. Speaker Wire

● **Surround Speaker**

GBOXS0007AWM5

8. Full-Range Speaker
9. Speaker Wire



CD-C471H

■ **Remote Control**

1. Remote Control Transmitter LED
2. Surround Level Buttons: ∨/∧
3. Center Level Buttons: ∨/∧
4. Dolby Pro Logic Button
5. Center Mode Button
6. Test Tone Button
7. Balance Control Buttons: 〈/〉

● **Tuner control section**

8. Programme Type/Traffic Information Search Button
9. Preset Up/Down Buttons: ∨/∧

● **CD Control section**

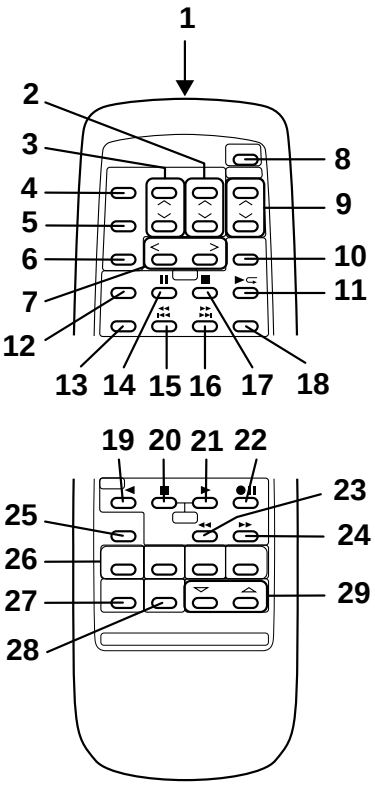
10. Disc Skip Button
11. Play/Repeat Button: ▶⊂
12. Memory Button
13. Clear Button
14. Pause Button: ❚❚
15. Track Down/Review Button: ◀◀/I◀◀
16. Track Up/Cue Button: ▶▶/▶▶I
17. Stop Button: ■
18. Random Button

● **Tape control section**

19. (TAPE 2) Reverse Play Button: ◀
20. (TAPE 1/2) Stop Button: ■
21. (TAPE 1) Play Button/ (TAPE 2) Forward Play Button: ▶
22. (TAPE 2) Record Pause Button: ●❚❚
23. (TAPE 2) Rewind Button: ◀◀
24. (TAPE 2) Fast Forward Button: ▶▶

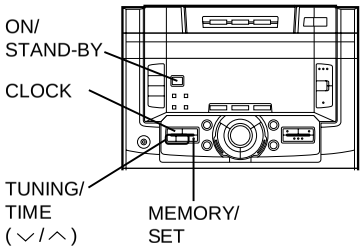
● **Common section**

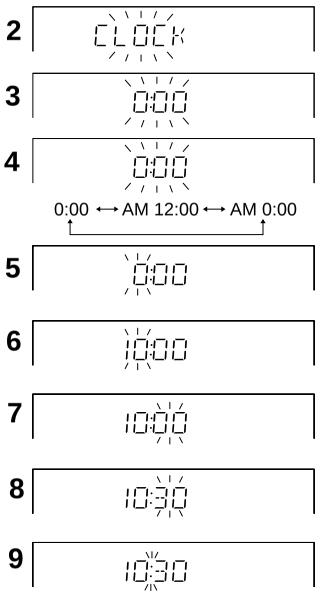
25. Equalizer Mode Button
26. Function Selector Buttons
27. On/Stand-by Button
28. Extra Bass Button: X-BASS
29. Volume Up/Down Buttons: ▽/△



SETTING THE CLOCK

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.

"0:00" → The 24-hour display will appear. (0:00 - 23:59)
"AM 12:00" → The 12-hour display will appear. (AM or PM 12:00 - 11:59)
"AM 0:00" → The 12-hour display will appear. (AM or PM 0:00 - 11:59)

- Note that this can only be set when the unit is first installed or it has been reset (see page 30).

5 Press the MEMORY/SET button.

6 Press the TUNING/TIME (∨ or ∧) button to adjust the hour.

- Press the TUNING/TIME (∨ or ∧) button once to advance the time by 1 hour. Press for more than 0.5 seconds to advance continuously.
- When the 12-hour display is selected, "AM" will change automatically to "PM".

7 Press the MEMORY/SET button.

8 Press the TUNING/TIME (∨ or ∧) button to adjust the minutes.

- Press the button for at least 0.5 seconds to change the time in 5-minute intervals.
- The hour setting will not advance even if minutes advance from "59" to "00".

9 Press the MEMORY/SET button.

- The clock starts operating from "0" seconds. (Seconds are not displayed.)

Note:

- In the event of a power failure or when the AC power lead is disconnected, the clock display will go out.
  When the AC power supply is restored, the clock display will flash on and off to indicate the time when the power failure occurred or when the AC power lead was disconnected.
  If this happens, follow the procedure below to change the clock time.

To change the clock time:

When the unit is in the stand-by mode:

- When the unit is in the demonstration mode, press the DEMO button to enter the clock mode.

① Press the MEMORY/SET button.
② Perform steps 6 - 9 above.

When the unit is on:

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

To see the time display:

Press the CLOCK button.

- The time display will appear for about 5 seconds.

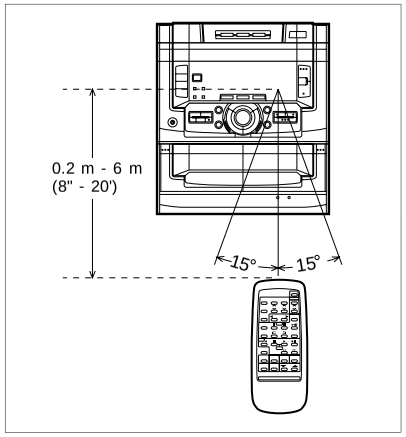
To change the time display mode:

① Press the ON/STAND-BY button to enter the stand-by mode.
② Whilst pressing down the VOLUME ∨ button and the TUNING/TIME ∧ button, hold down the ON/STAND-BY button for at least 1 second.
③ Perform steps 6 - 9 above.

Caution:

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

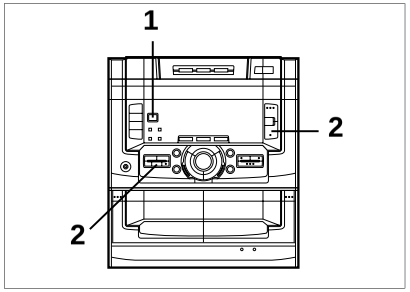
PREPARATION FOR USE



Notes concerning use:

- Replace the batteries if the operating distance becomes reduced or if 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.

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.

Note:

- To erase the tuner preset memory, see "To erase all of the contents of preset memory" on page 18.

1 Press the ON/STAND-BY button to enter the stand-by mode.

2 While pressing down the VOLUME ∨ button and the TUNING/TIME ∧ button, hold down the ON/STAND-BY button for at least 1 second.

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 suffcient care on static electricity of integrated circuits and other circuits when servicing.

CD-C471H

STEP	REMOVAL	PROCEDURE	FIGURE
1	Top Cabinet	1. Screw ..... (A1) x4	7-1
2	Side Panel (Left/right)	1. Screw ..... (B1) x6	7-1
3	CD Player Unit/ CD Tray Cover	1. Turn on the power supply, open the disc tray, take out the CD cover, and close. (Note 1) 2. Hook ..... (C1) x3 3. Hook ..... (C2) x2 4. Screw ..... (C3) x1 5. Socket ..... (C4) x3	7-2
4	Back Board	1. Screw ..... (D1) x12 2. Socket ..... (D2) x1	8-1
5	Tuner PWB	1. Screw ..... (E1) x1 2. Socet ..... (E2) x1	8-1
6	Main PWB	1. Screw ..... (F1) x1 2. Socket ..... (F2) x2 3. Flat Wire ..... (F3) x2 4. Tip Wire ..... (F4) x1 5. Socket ..... (F5) x1	8-2
7	Front Panel	1. Screw ..... (G1) x2 2. Hook ..... (G2) x2	8-2
8	Display PWB/ Switch PWB	1. Screw ..... (H1) x12	8-3
9	Tape Mechanism	1. Open the cassette holder. 2. Screw ..... (J1) x5	8-3
10	Power Amp. PWB	1. Screw ..... (K1) x4 2. Socket ..... (K2) x2 3. Push Rivet ..... (K3) x4	8-4
11	CD Servo PWB	1. Screw ..... (L1) x1 2. Cover ..... (L2) x4	8-5
12	Turntable	1. Screw ..... (M1) x1 2. Cover ..... (M2) x1	8-6
13	CD Player Base	1. Screw ..... (N1) x2 2. Guide ..... (N2) x2	8-6
14	CD Changer Mechanism	1. Screw ..... (P1) x4	8-7
15	CD Mechanism	1. Screw ..... (Q1) x1	8-7

Note 1:

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

1. Insert the tip of fine screwdriver into the hole of CD player base, and press down the worm wheel **< A >** .
2. Then, 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.

CD-C471H

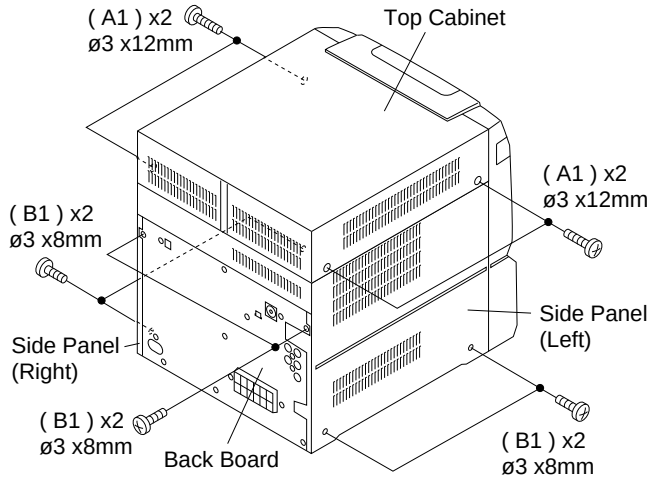


Figure 7-1

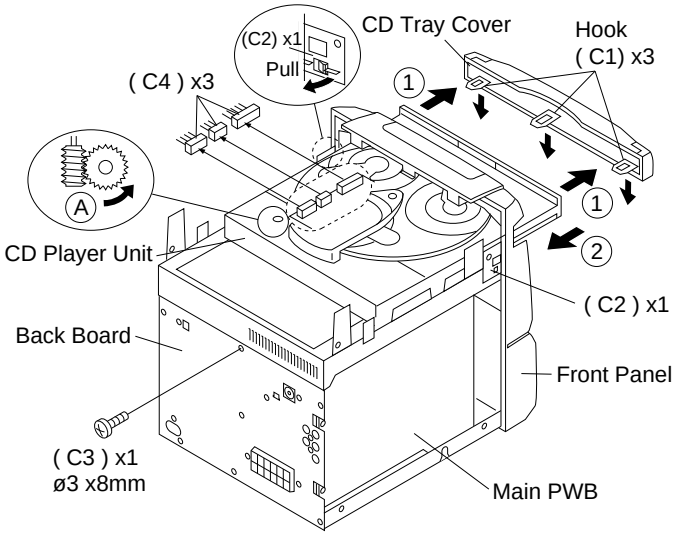


Figure 7-2

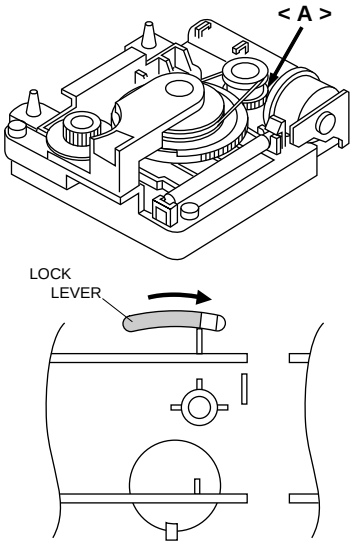


Figure 7-3

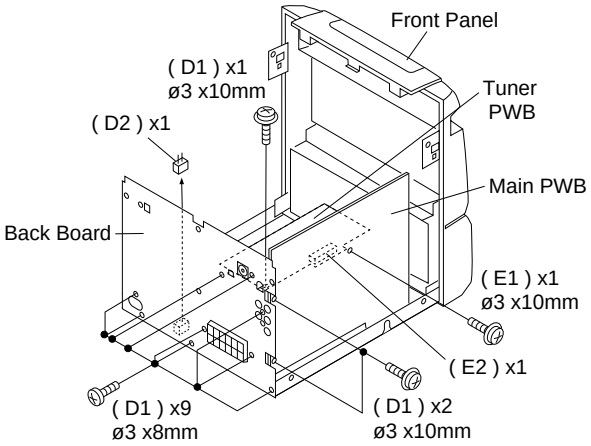


Figure 8-1

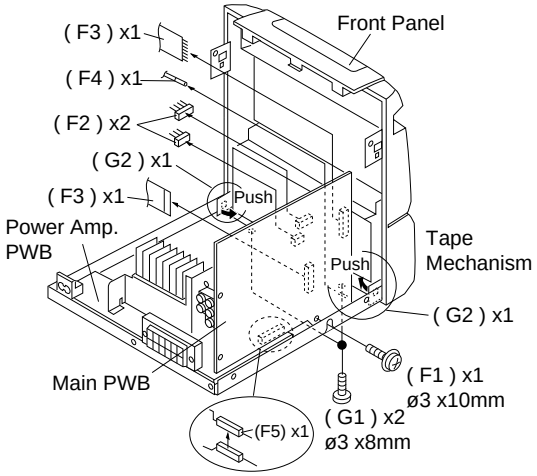


Figure 8-2

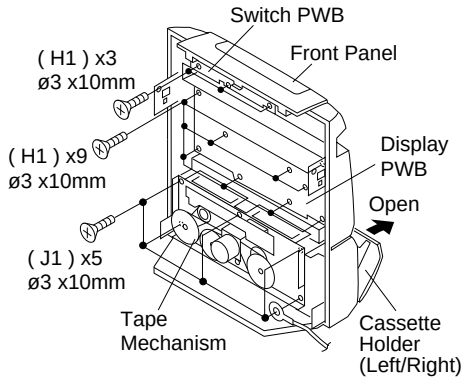


Figure 8-3

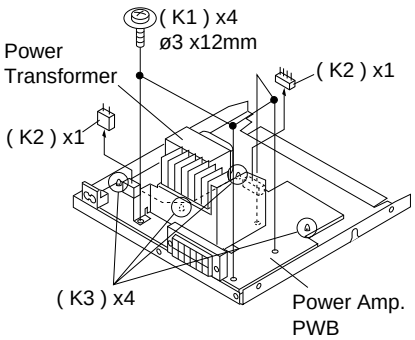


Figure 8-4

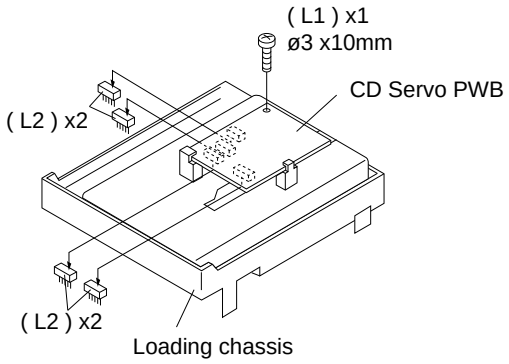


Figure 8-5

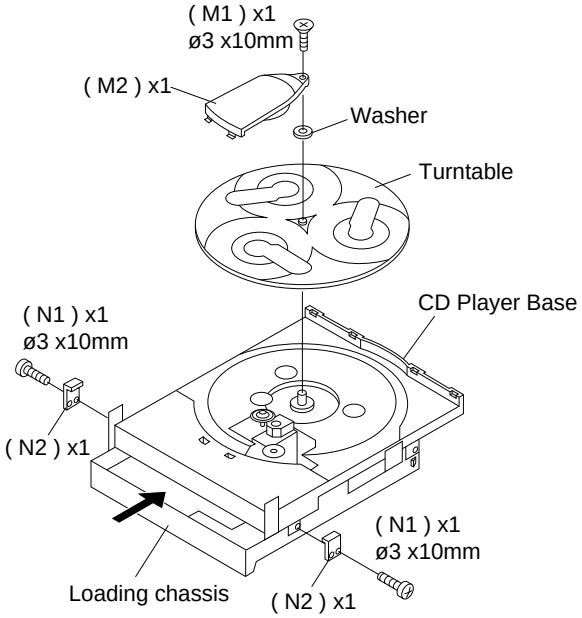
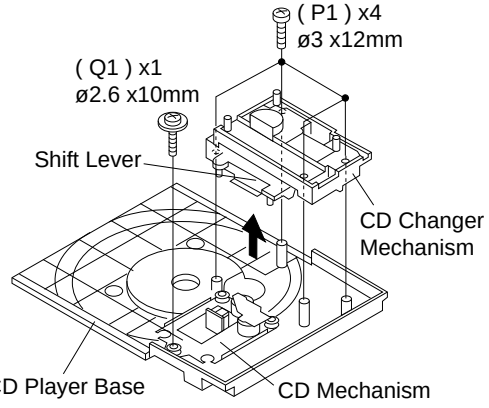


Figure 8-6



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.

Figure 8-7

CP-C471H

STEP	REMOVAL	PROCEDURE	FIGURE
1	Front Speaker	1. Net ..... (A1) x1 2. Fromt Panel ..... (A2) x1 3. Screw ..... (A3) x2 4. Screw ..... (A4) x4 5. Screw ..... (A5) x2	9-1 9-2

Note:
The center and SURROUND speakers can be easily disassembled. Therefore the disassembling method is not discribed. For details refer to the disassembling drawing in the Parts Guide.

CP-C471H

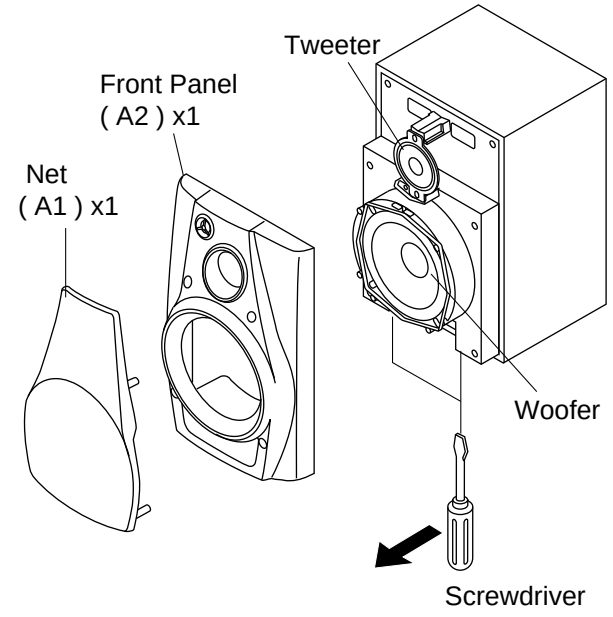


Figure 9-1

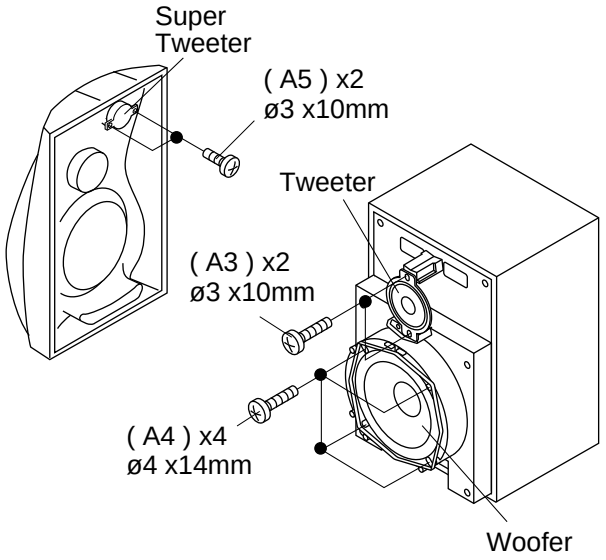


Figure 9-2

REMOVING AND REINSTALLING THE MAIN PARTS

CD MECHANISM SECTION

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

How to remove the turntable up/down motor (See Fig. 10-1)

1. Remove the screws (A1) x 2 pcs., to remove the turntable up/down motor.

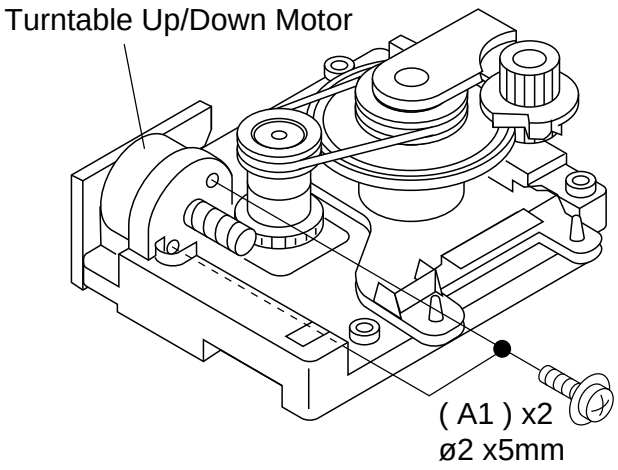


Figure 10-1

How to remove the pickup (See Fig. 10-2)

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

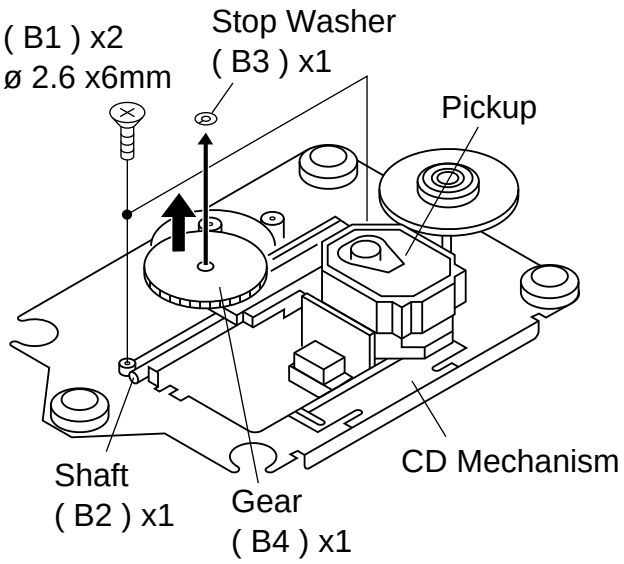


Figure 10-2

ADJUSTMENT

MECHANISM SECTION

• Driving Force Check

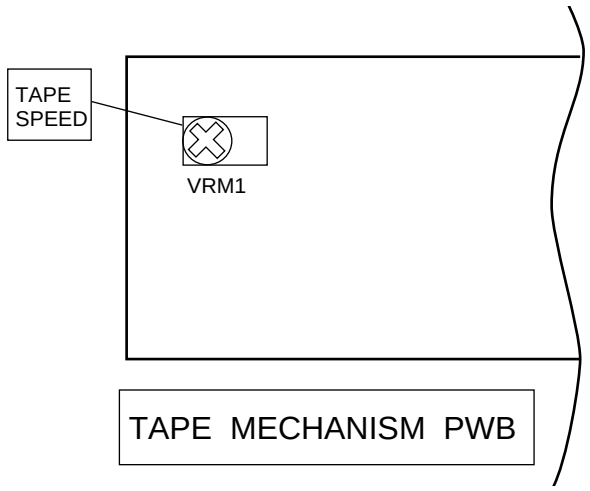
Torque Meter	Specified Value
Play: TW-2412	Tape 1: Over 80 g Tape 2: Over 80 g

• 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-renge frequency

• AM IF/RF

Signal generator: 400 Hz, 30%, AM modulated

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
IF	450 kHz	1,620 kHz	T351	*1
MW Band Coverage	—	522 kHz	(fL): T306 1.1 ± 0.1 V	*2
MW Tracking	990 kHz	990 kHz	(fL): T302	*1
LW Band Coverage	—	153 kHz	(fL): T305 1.5 ± 0.1 V	*2
LW Tracking	225 kHz	225 kHz	(fL): T301	*1

*1. Input: Antenna, Output: TP302
*2. Input: Antenna, Output: TP301

• 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 (25 dBμV)	98.00 MHz	VR351	Input: Antenna Output: Speaker Terminal

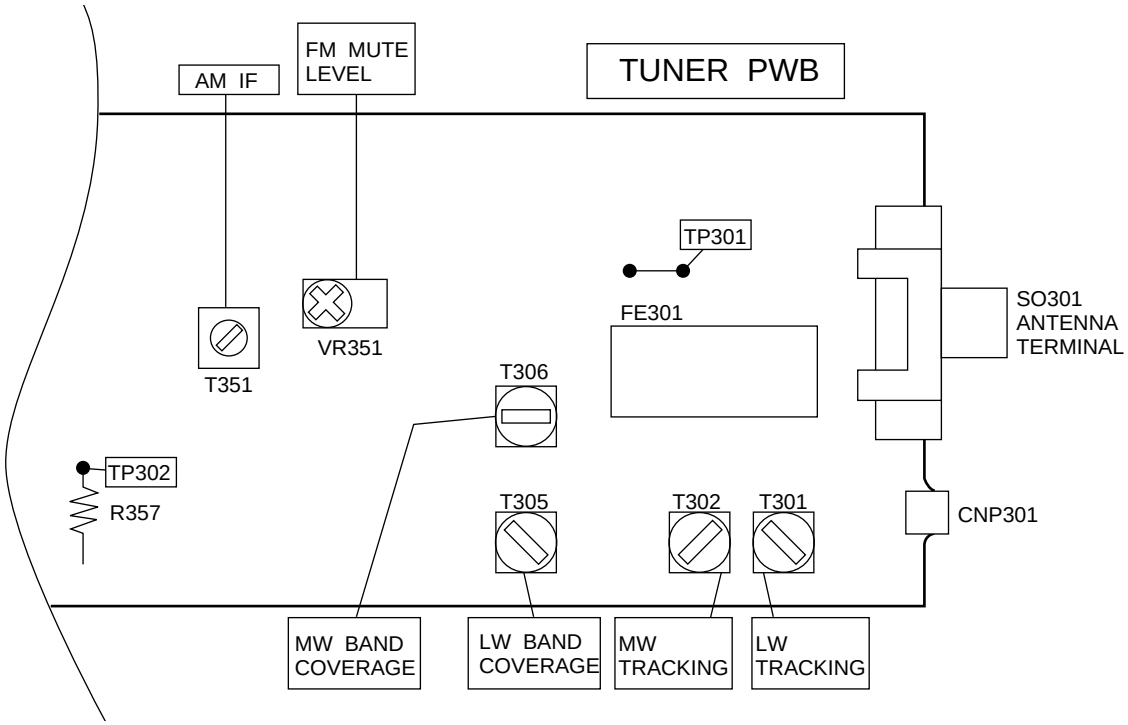


Figure 11 ADJUSTMENT POINTS

TEST MODE

• Setting the test mode

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

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

• TEST mode

Function — CD test mode

Setting of TEST mode
Indication of CD TST mode (Fig.12-1)
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. SERVO OFF PLAY — <MEMORY> Tracking on the spot. SERVO ON PLAY — <STOP> 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

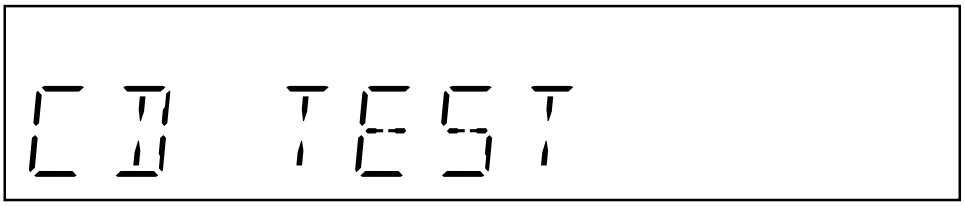


Figure 12-1

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.12-2)
2. Tracking offset (Fig.12-3)
3. E/F balance (tracking error balance) (Fig.12-4)
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.

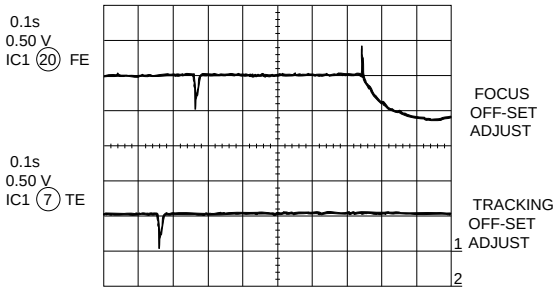


Figure 12-2

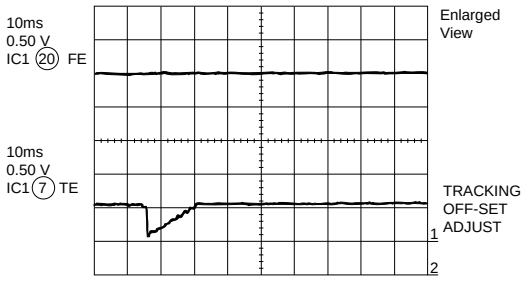


Figure 12-3

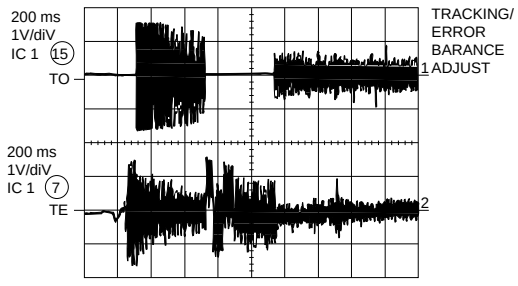


Figure 12-4

EXPLANATION OF DOLBY SURROUND PRO LOGIC AND EVALUATION METHOD

Outline

- Namely, two speakers are connected in parallel to one amplifier.
- In the Pro Logic BYPASS mode the amplifier for C-ch (center channel) and the amplifier for S-ch (surround channel) are in MUTE state. The SP output is cut.
- In the normal mode of Pro Logic ON mode the amplifiers for C-ch and S-ch are in operative state, so that the SP output appears.
- In the Phantom mode of Pro Logic ON mode the amplifier for C-ch is in MUTE state, so that the SP output is cut. The amplifier for S-ch (surround) is in operative state, so that the SP output appears

• State of element output and terminal output in specific mode

State of set / Output point		Dolby Pro Logic	Dolby Pro Logic On mode	
		Bypass mode	Normal mode	Phantom mode
IC501	12 pin L-out	Output enabled state	Output enabled state	Output enabled state
	11 pin R-out	Output enabled state	Output enabled state	Output enabled state
IC501	9 pin C-out	No output	Output enabled state	No output
IC501	10 pin S-out	No output	Output enabled state	Output enabled state
SP OUT (SO901)	L-ch	Output enabled state	Output enabled state	Output enabled state
	R-ch	Output enabled state	Output enabled state	Output enabled state
SP OUT C-ch (SO901)		No output in MUTE (Q604) state	Output enabled state	No output in MUTE (Q604) state
SP OUT S-ch (SO901)		No output in MUTE (Q603) state	Output enabled state	Output enabled state

Test tone output

• Pro Logic ON Normal mode

Press the remote control TEST TONE button.

→Output of only L-ch →Output of only C-ch
↑ ↓
Output of only S-ch ← Output of only R-ch

The test tone (noise) is repeatedly output for output period (2 sec).

In this case the following indication appears repeatedly.

→TEST →L-ch →C-ch
↑ ↓
S-ch ← R-ch

• Pro Logic ON Phantom mode

Press the remote control TEST TONE button.

→Output of only L-ch →Output of only R-ch
↑ ↓
← Output of only S-ch

The test tone (noise) is repeatedly output for output period (2 sec).

In this case the following indication appears repeatedly.

→TEST → L-ch → R-ch
↑ ↓
← S-ch←

Relation between VIDEO IN input and output in Pro Logic ON state

(1) L-ch/R-ch same phase input into VIDEO IN input jack in VIDEO Function mode

Output point		Normal mode
SP out (SO901)	L-ch	Almost no output (only omitting component)
	R-ch	Almost no output (only omitting component)
(SO901) SP out C-ch		Input signal is output.
(SO901) SP out S-ch		Almost no output (only omitting component)

Output point		Phantom mode
SP out (SO901)	L-ch	Input signal is output.
	R-ch	Input signal is output.
(SO901) SP out C-ch		SP cut, no output
(SO901) SP out S-ch		Almost no output (only omitting component)

(2) L-ch/R-ch reverse phase input into VIDEO IN input jack in VIDEO Function mode

(Reverse phase: Phase difference between L and R is 180°)

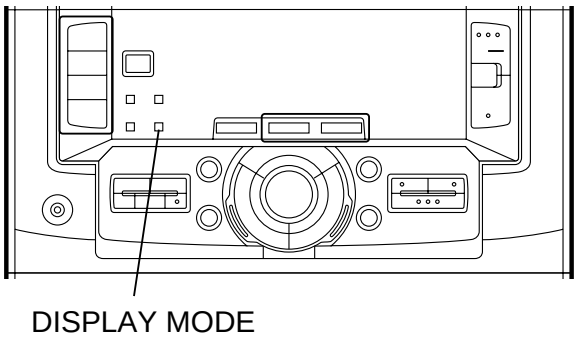
Output point		Normal mode
SP out (SO901)	L-ch	Almost no output (only omitting component)
	R-ch	Almost no output (only omitting component)
(SO901) SP out C-ch		Almost no output (only omitting component)
(SO901) SP out S-ch		Input signal is output.

Output point		Phantom mode
SP out (SO901)	L-ch	Almost no output (only omitting component)
	R-ch	Almost no output (only omitting component)
(SO901) SP out C-ch		SP cut, no output
(SO901) SP out S-ch		Input signal is output.

• Accordingly, if you want to output signal waveform to C-ch SP out, give the same phase input into L-ch/R-ch INPUT in the Pro Logic Normal mode.
If one of channels receives input, C-ch does not output. Only L-ch or R-ch outputs.

• If you want to output signal waveform to S-ch SP out, you can use either Normal mode or Phantom mode. However, 180° reverse phase input must be given to L-ch/R-ch INPUT.

RDS (Radio Data System) OPERATION



■ Receiving FM Stations with RDS (Radio Data System)

RDS is a broadcasting service which a growing number of FM stations are now providing. It allows these FM stqtions to send additional signals along with their regular programme signals. For example, the stations send their station names, and information about what type of programme they broadcast, such as sports or music, etc.
When tuned to an FM station which provide the RDS service, the RDS will appear, the station frequency (and then the station name if sent) is displayed.
The TP (Traffic Programme) will appear on the display when the received broadcast carries traffic annoucements, and the TA (Traffic Annoucement) will appear whilst a traffic announcement is being received. EON will appear whilst the EON (Enhanced Other Networks information) data is being broadcast.

Note:
When the TP and TA appear at the same time, an announcement is being made.
When only the TA appears, an announcement is not being made. (See page 17.)

■ Information Provided by RDS

With the CD-C471H, you can display two types of RDS service. To show them in the display, press the DISPLAY MODE button.
Each time you press the DISPLAY MODE button, the display will change to show the following information.

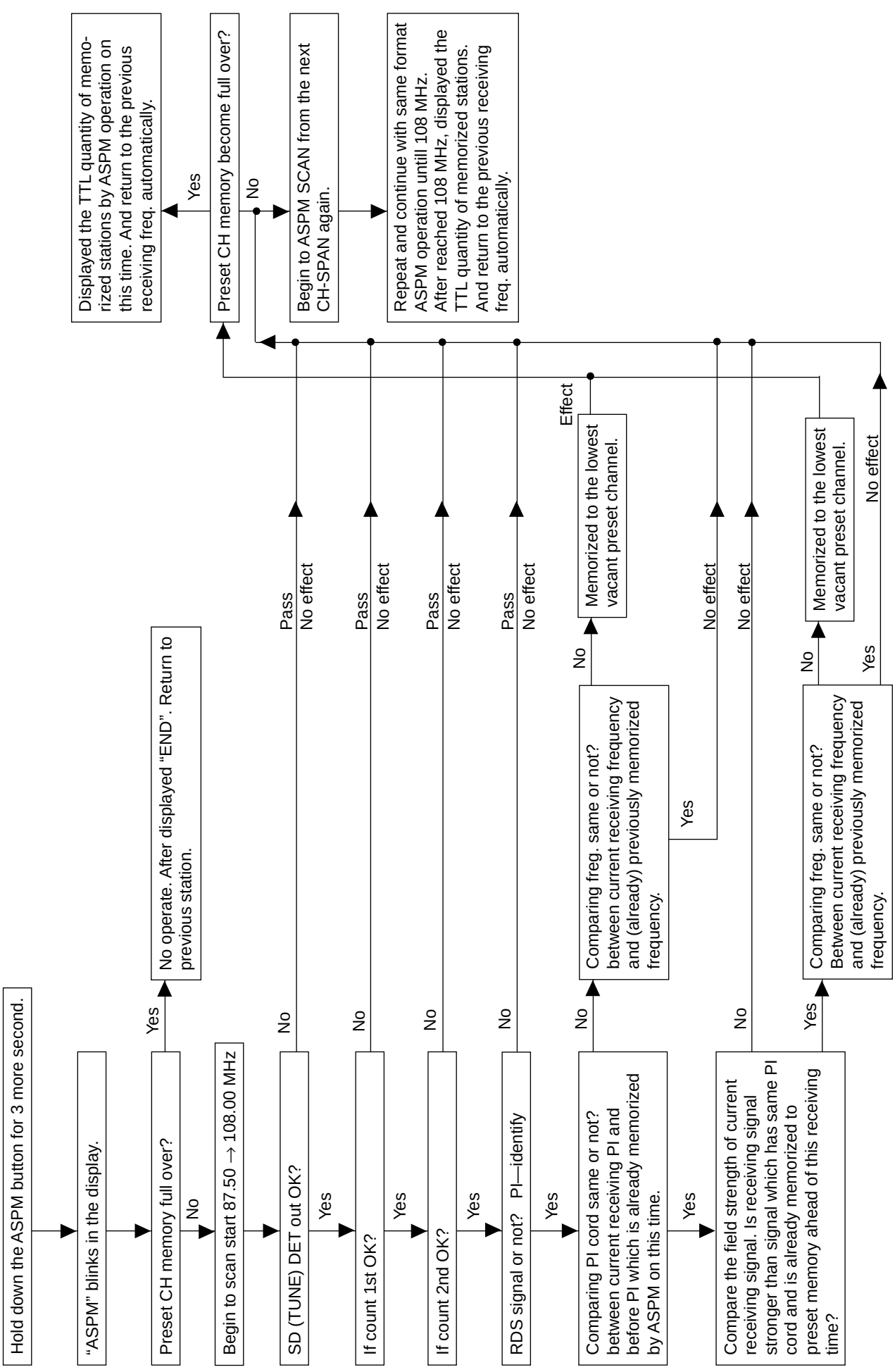
PS (Programme Service):	Station names commonly known will be diaplayed. "NO PS" appears if no signal is being sent.
PTY (Progamme Type):	Programme type will be diplayed. "NO PTY" appears if no signal is being sent.
Station Frequency:	Station frequencies.

Descriptions of the PTY (Programme Type) codes, TP (Traffic Programme) and TA (Traffic Announcement)
Eith the CD-C471H, you can search for and receive the forrowing PTY, TP and TA signals.

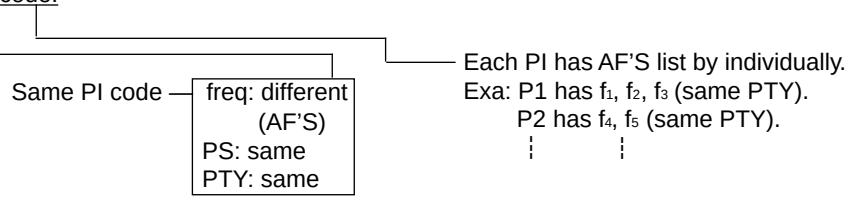
NEWS:	News
AFFAIRS:	Topical programme expanding on the current news or affairs
INFO:	Programmes on medical service, weather forecast, etc.
EDUCATE:	Educational programmes
DRAMA:	Radio plays
CULTURE:	Programmes on national or regional culture.
SCIENCE:	Programmes on national sciences and technology.
VARIED:	Other programmes like comedies or ceremonies
POP M:	Pop music
ROCK M:	Rock music
M.O.R. M:	Middle-of-the-road music (usually called "easy listening")
LIGHT M:	Light music
CLASSICS:	Classics
OTHER M:	Other music
ALARM:	Emergency broadcasts
NONE:	no Programme type (receive only)
TP:	Broadcasts which carry traffic announcements
TA:	Traffic announcements are being broadcast at present.

Note:
● When the unit is in the EON stand-by mode and a programme is selected, the unit will display "TI" instead of "TP" or "TA".

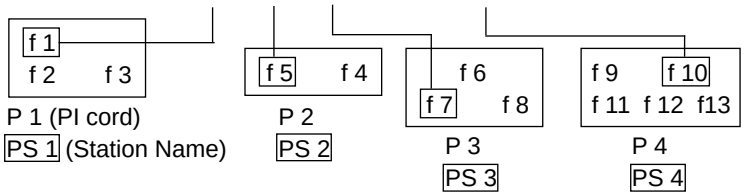
ASPM, summary operation



• ASPM SCAN: 87.50MHz → 108.00 MHz.
• Only RDS signal is memorized by ASPM because RDS signal has PI code and is suitable and convenient for ASPM operation.
ASPM
Comparing field strength, only one strongest RDS station is memorized of all stations (repeater relay stations) that have same PI code.



[For example] Pickup and memorized to preset CH.



Select signals (f1, f5, f7, f10) are memorized in the preset memory by ASPM.
• If tentative - ASPM operation is repeated intententionally, never memorized (over write) at the same frequecy. 1st time ASPM → strongest stations of each pi are memorized.

ASPM is not only very usefull for PTY search, but also EON operation.
2nd time ASPM → 2nd strong stations of each pi are memorized and so on.
PTY search function is equal to FM band search function as a result.

1. Introduction of RDS for CD-C471H

CD-C471H RDS function is equal to adding EON feature to the current CD-C75H RDS.
EON feature is EON—PTY and EON—TI.
Although PTY and TI indicators are separated, PTY contains TI in the PTY items (software) like current PTY search items.

EON—PTY and EON—TI are basically stand-by → receive the desired program of ON station.

2.The difference point from current CD-C75H RDS. (CD-C75H — CD-C471H)

1. PTY item: added TA.TTL 18 kind.
2. Each "TP", "TA" ind. light up or go out individually.
"TA" ind. doesn't light up on current model, CD-C75H due to none EON—TI.
3. Added 3 indicators(in FL) due to adding EON feature.
EON: Lights up only during receiving EON data (14A).
TI: During EON-TI stand-by → Light up
During receiving ON station. → blink.
PTY: During EON-PTY stanb-by → Light up
During receiving ON station. → blink.

4. No adjust type (None adjusting circuit.)
5. Added EON button.
6. Need to change RDS logo due to add EON feature.
7. Added EON—TI, EON—PTY function.

3. Summary of CD-C471H RDS—EON operation

EON—PTY: Select and set the desired "PTY" → stand-by → switch to ON(other network) Station at the start of desired PTY automatically → stay and listen to PTY of ON station → switch back to TN(This net) station automatically at the end of PTY(ON) i.e. after changing to another PTY(except AFFAIRS) or cancelling to receive PTY of ON station midway.
EON—TI: Select and set the "TI" → stand-by → switch to ON station at the start of traffic announcement automati cally → stay and listen to TA of ON station → switch back to TN station autmatically at the end of TA(ON). ie after TA(ON) is over or cancelled to receive TA of ON station midway.
When switching TN → ON station.
In case of exist 2 more stations having the desired(specified) "PTY" or "TI", the receiver will select and switch toON station comparing field strength at the same time. But when the frequency of ON station exists in the preset-memory, then reciver switches straight to that ON station(CH), without comparing field strength so can make a quick switching from TN—ON sta tion. Preset memory takes priority of switching TN—ON station.
therefore ASPM is usefull not only for PTY search but also for rapid EON switching. Anyway CD-C471H EON is basically stand-by and receiving method, along with the Guidelines for EON implementation.

EON summary notice for reference

1. EON-TI/PTY EON stand-by can be set, only when EON ind. lights up.
While EON ind. goes out (NO EON STATION), EON stand-by can't be set.
If the EON button is pressed, then “NO EON” is indication the display.
2. EON-TI/PTY Even if switch back ON→TN station continue to keep EON stand-by.
3. EON-TI Don’t switch TN→ON during TN broadcast TA. (same item)
4. EON-TI/PTY EON can be cancelled during receiving ON station by pressing EON button if necessary and switch back ON→TN.
5. EON-TI/PTY EON stand-by is perfectly cancelled (cleared) by pressing EON button 2 times during stand-by or powerOFF or Tun Up/ Down or change band or recall pre-set CH.
6. EON-TI/PTY After setting EON stand-by, stand-by items can be confirmed by pressing EON button one time.
7. EON-TI/PTY EON button function: •EON setting
•Confirm stand-by items
•Cancel (ON→TN)
•EON clear cancel (2 times)
8. EON-TI/PTY After setting EON-TI and EON-PTY stand-by, if when EON data is not transmitted, EON ind goes out and EON stand-by is automatically cancelled display “NO EON”.
9. EON-TI EON-TI stand-by can't be set. When TP=0,TA=0(TN) even if EON ind. lights up and the EON button is pressed then “NO TI” is indication the display.
10. EON-PTY Don’t switch TN→ON during TN broadcast same specified PTY. (same item of PTY)
11. EON-TI/PTY Switch TN→ON→ TN station one cycle.
Never switch TN→ON1→ON2→ Other net to other net station.
12. EON-TI/PTY After switch TN→ON station. When ON station is NO RDS, NO signal, TA=OFF or different PTY items. The receiver switch back ON→TN displaying “NO READY”.
13. During receive ON station. when ON station become to be NO RDS, NO signal, TA=ON to OFF or different PTY item, The receiver switch back ON→TN.
14. EON-TI/PTY Switch TN→ON in case of 2 more stations exist, comparing field strength and switch to the strongest station, if these signals are same strength, switch to the first previous station.
If same frequency as AF'Sexists in the preset memory, then switch TN→ON (preset memory station) straight.
In case of exist 2 more preset memories of AF’S,then switch to the preset CH which taken in EON DATA first, also in this case no concern to field strength.
15. Even if switch TN→ON preset memory straight, that ON station is very weak signal, then search another AF'S (ON) station comparing field strength and switch to the strongest station as a result. Of all atations of AF'S are very weak or no good condition, then, switch back ON→TN automatically display "NO READY".
16. EON-TI/PTY No linkage volume, power ON/OFF, and switch function.

Traffic Programme code (TP)	Traffic Announcement code (TA)	Applications
OFF	OFF	This programme does notcarry traffic announcements nor does it refer, via EON, to a programme that does.
OFF	ON	This programmecarries EON information about another programme which gives traffic information.
ON	OFF	This programme carries traffic announcements but none are being broadcast at present and may also carry EON information about other traffic announcements.
ON	ON	A traffic announcement is being broadcast on this programme at present.

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
SW701	ON/STAND-BY	ON—OFF
SW702	CLOCK	ON—OFF
SW703	TIMER/SLEEP	ON—OFF
SW704	DISC 1	ON—OFF
SW705	DISC 2	ON—OFF
SW706	DISC 3	ON—OFF
SW707	DISC SKIP	ON—OFF
SW708	OPEN/CLOSE	ON—OFF
SW709	CD	ON—OFF
SW710	TUNER/BAND	ON—OFF
SW711	TAPE	ON—OFF
SW712	VIDEO/AUX	ON—OFF
SW713	EON	ON—OFF
SW714	PTY. /TI SEARCH	ON—OFF
SW715	ASPM	ON—OFF
SW716	DISPLAY MODE	ON—OFF
SW718	CENTER MODE/PHANTOM	ON—OFF
SW719	CENTER MODE/NORMAL	ON—OFF
SW721	DOLBY PRO LOGIC BYPASS	ON—OFF

REF. NO	DESCRIPTION	POSITION
SW723	REC PAUSE	ON—OFF
SW724	TUNING UP/TIME	ON—OFF
SW725	VOLUME UP	ON—OFF
SW726	X-BASS	ON—OFF
SW728	STOP	ON—OFF
SW729	FWD	ON—OFF
SW730	FF/PRESET UP	ON—OFF
SW731	MEMORY SET	ON—OFF
SW732	TUNING DOWN/TIME	ON—OFF
SW733	VOLUME DOWN	ON—OFF
SW734	EQUALIZER/DEMO	ON—OFF
SW736	REVERSE MODE	ON—OFF
SW737	REV	ON—OFF
SW738	REW/PRESET DOWN	ON—OFF
SW739	CD/TAPE1 EDIT	ON—OFF
SW740	BEAT CANCEL (TAPE1 EDIT)	ON—OFF
SWM 3	REC FWD	ON—OFF
SWM 4	REC RVS	ON—OFF
SWM 5	F.A.S.	ON—OFF
SWM 6	CAM	ON—OFF

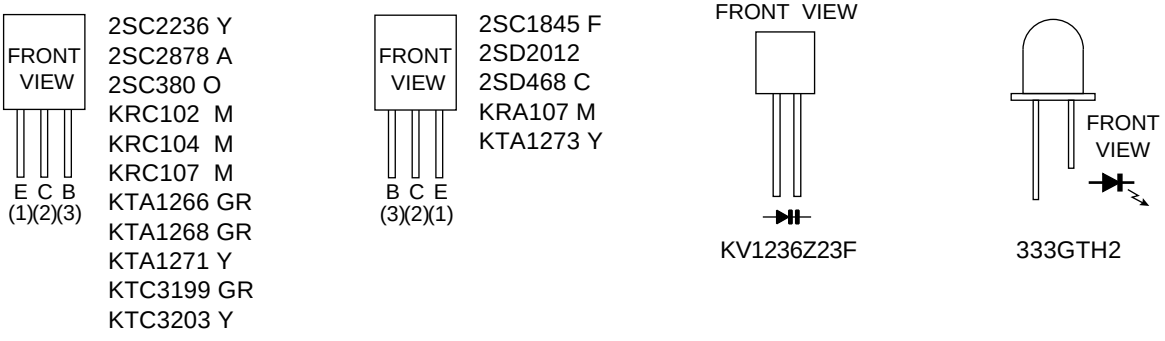


Figure 18 TYPES OF TRANSISTOR AND LED

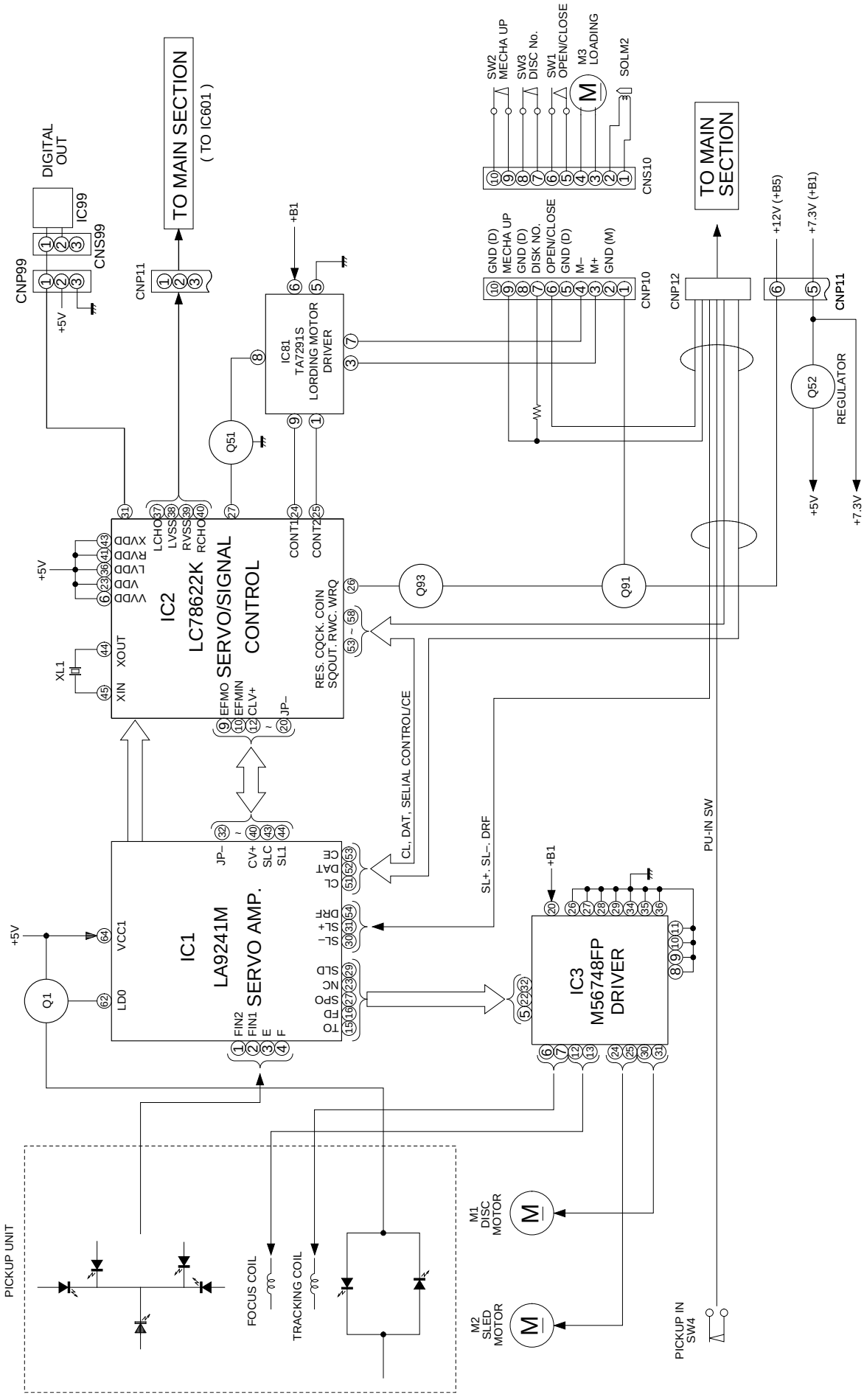


Figure 19 BLOCK DIAGRAM (1/3)

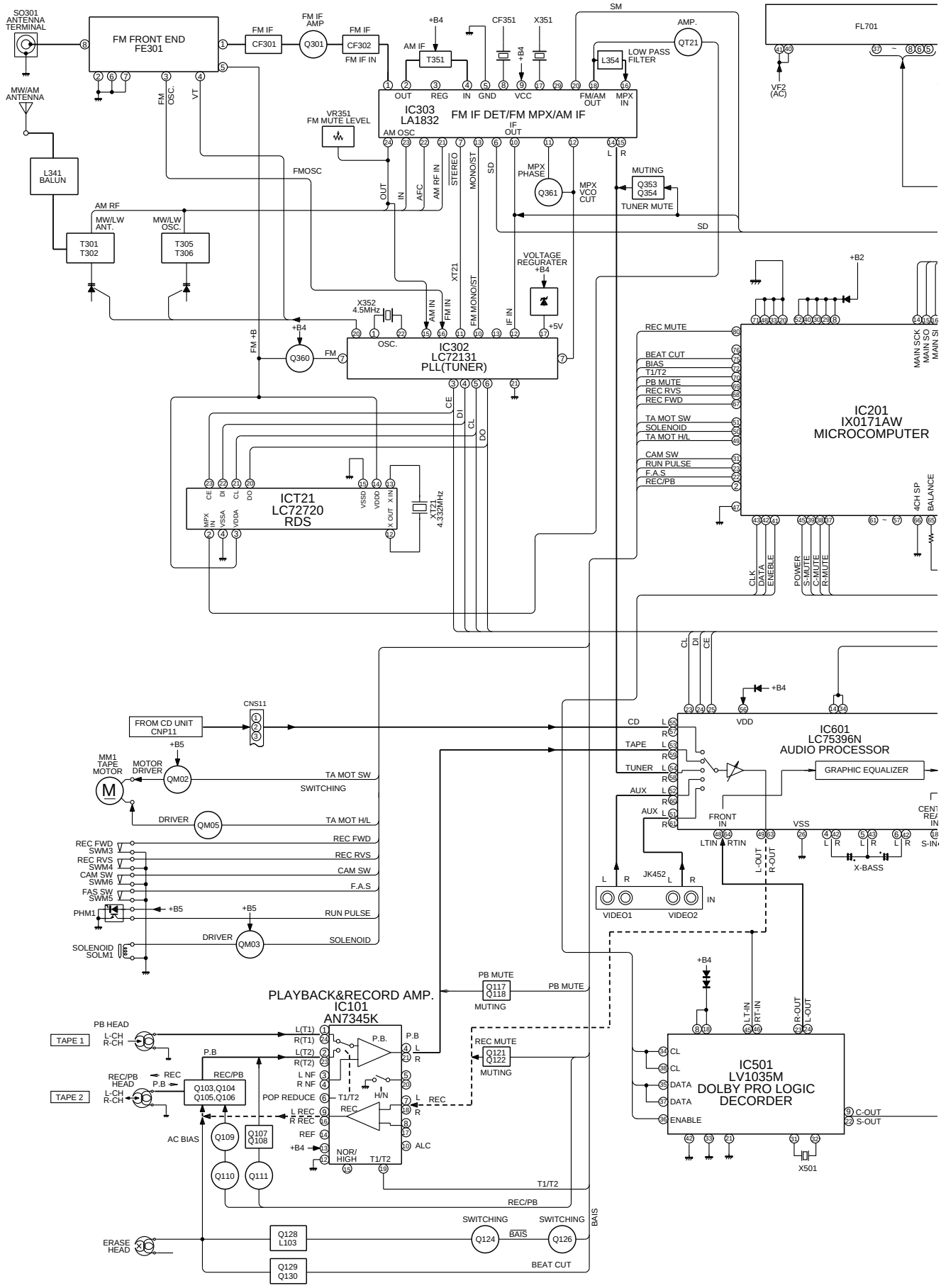


Figure 20 BLOCK DIAGRAM (2/3)

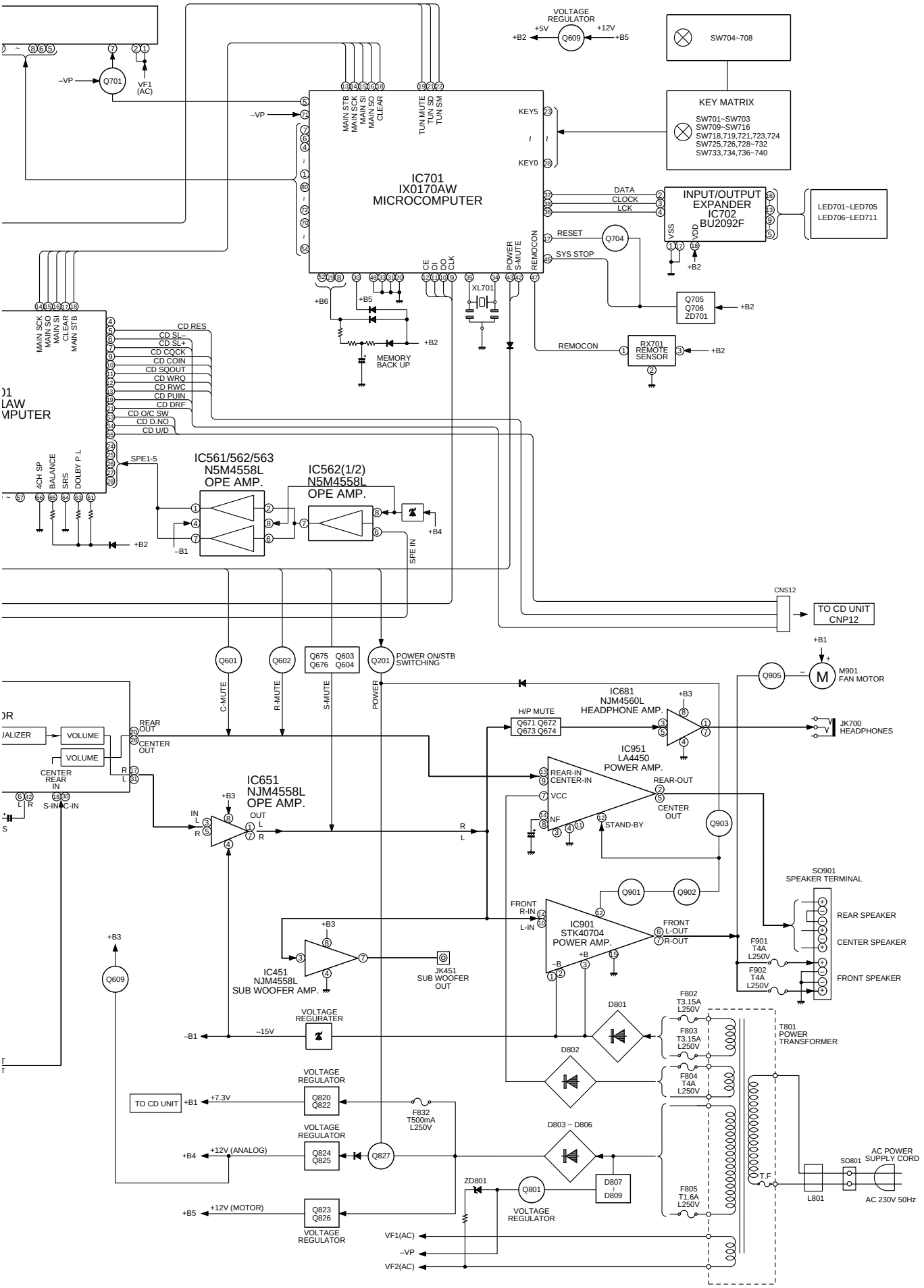
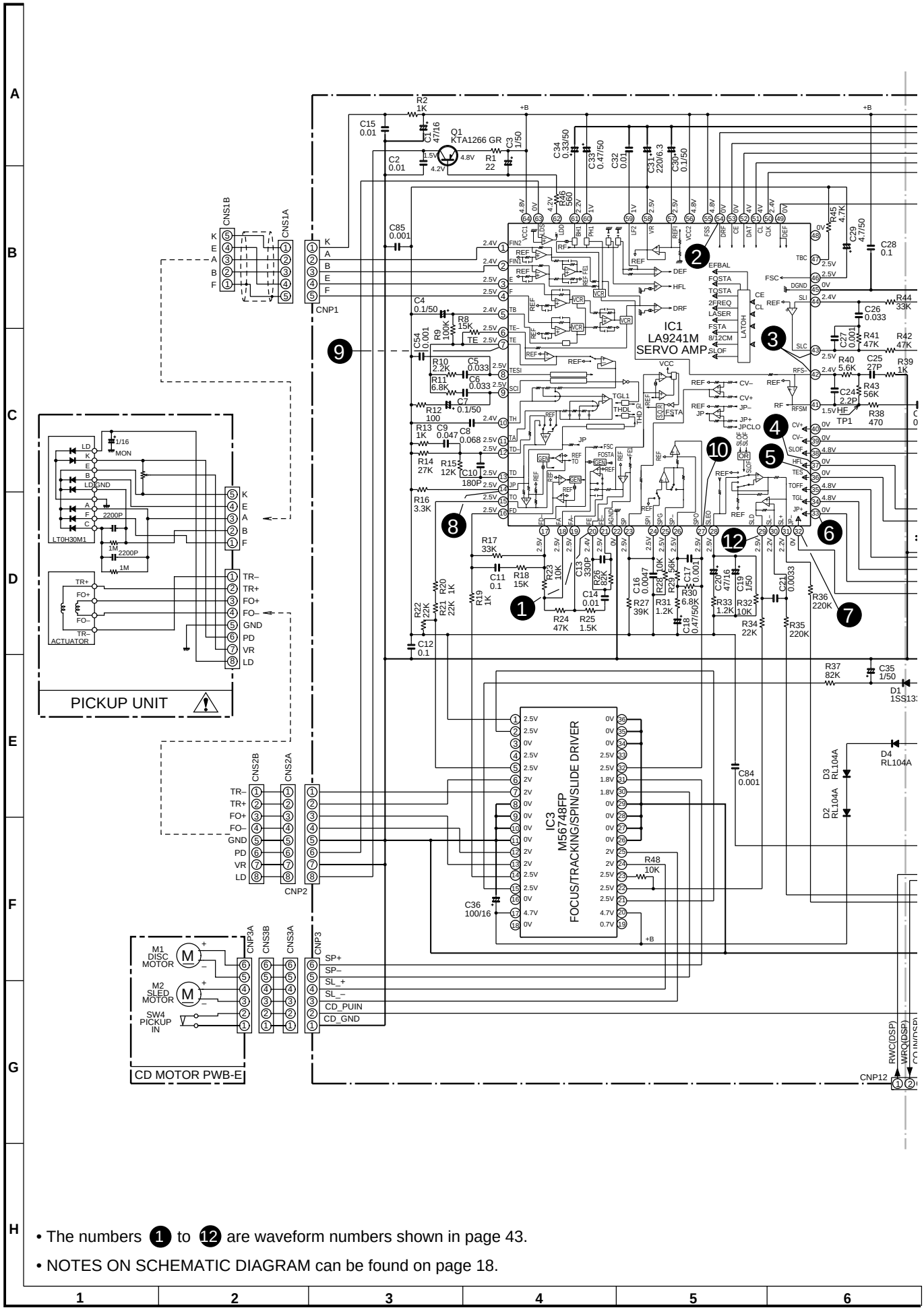
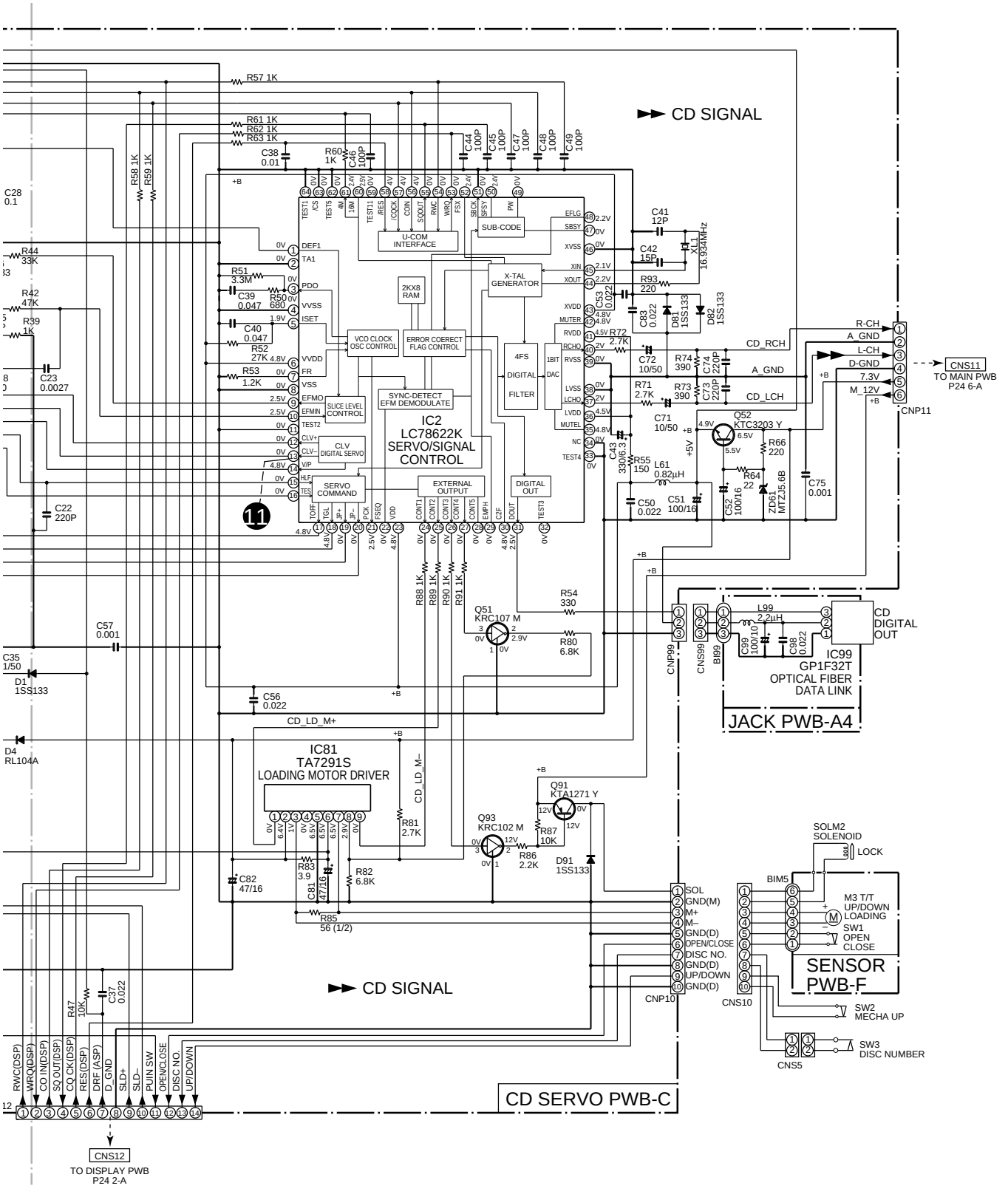


Figure 21 BLOCK DIAGRAM (3/3)



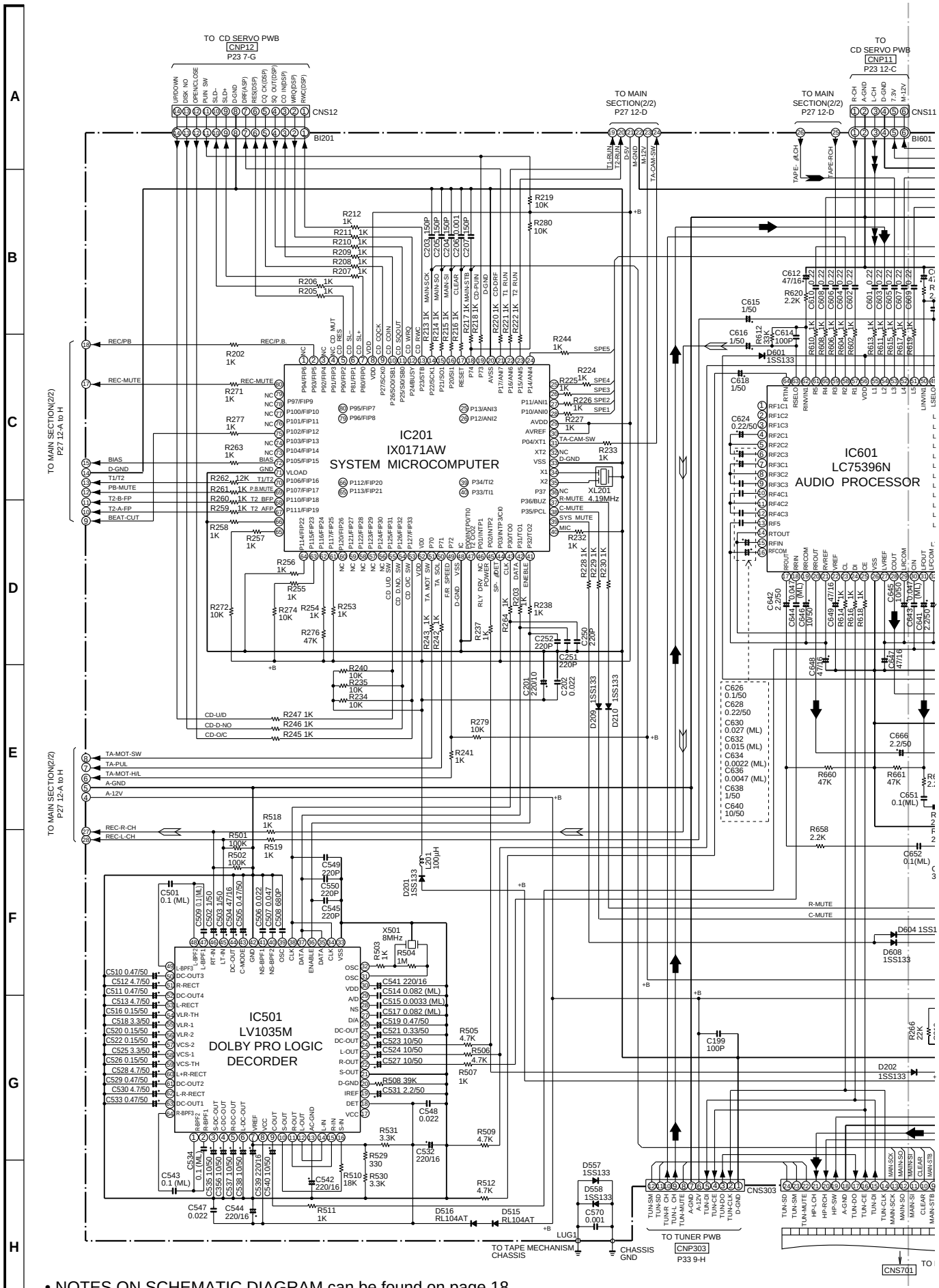
- The numbers ❶ to ⓬ are waveform numbers shown in page 43.
- NOTES ON SCHEMATIC DIAGRAM can be found on page 18.

Figure 22 SCHEMATIC DIAGRAM (1/13)



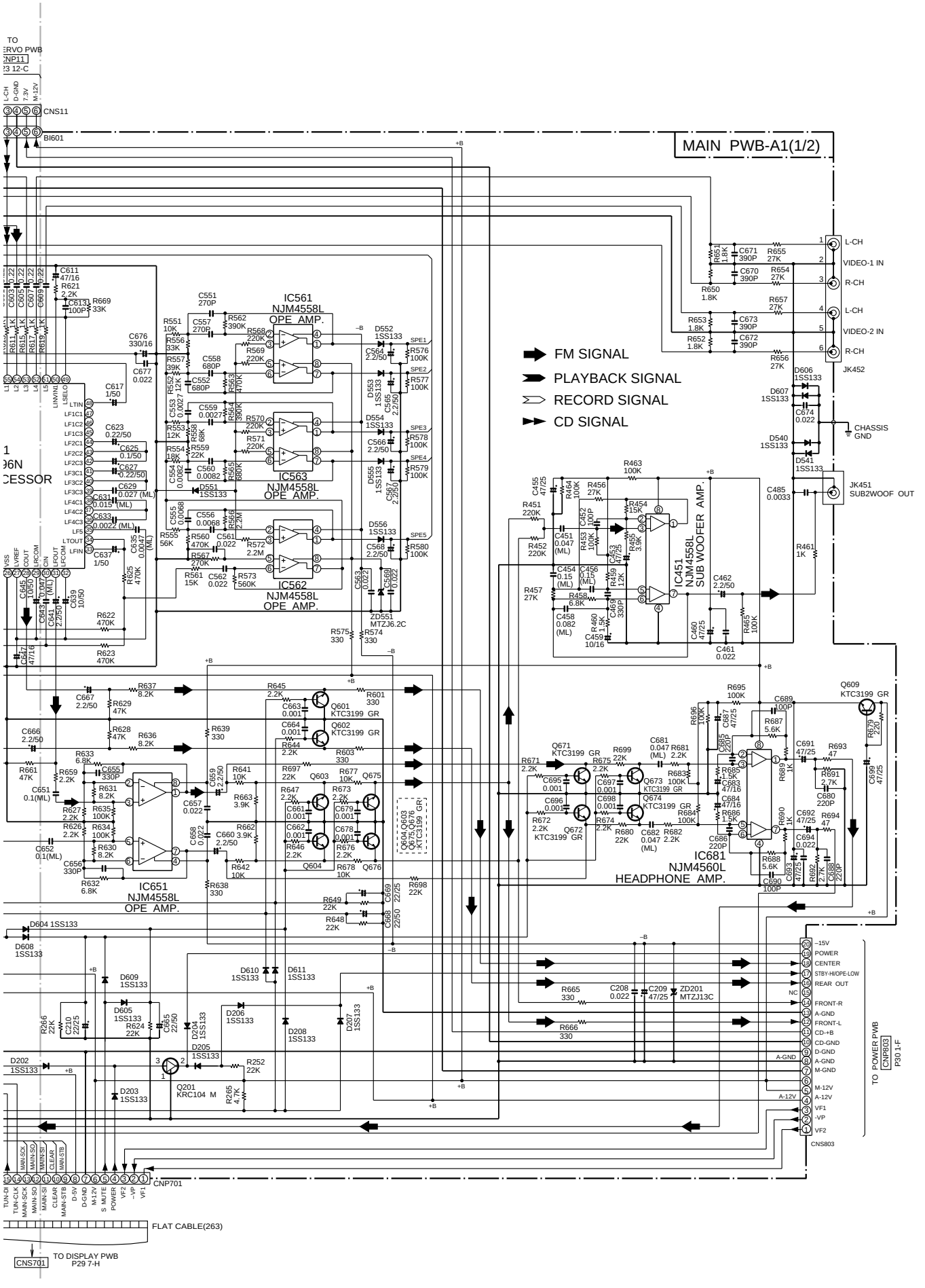
7	8	9	10	11	12

Figure 23 SCHEMATIC DIAGRAM (2/13)



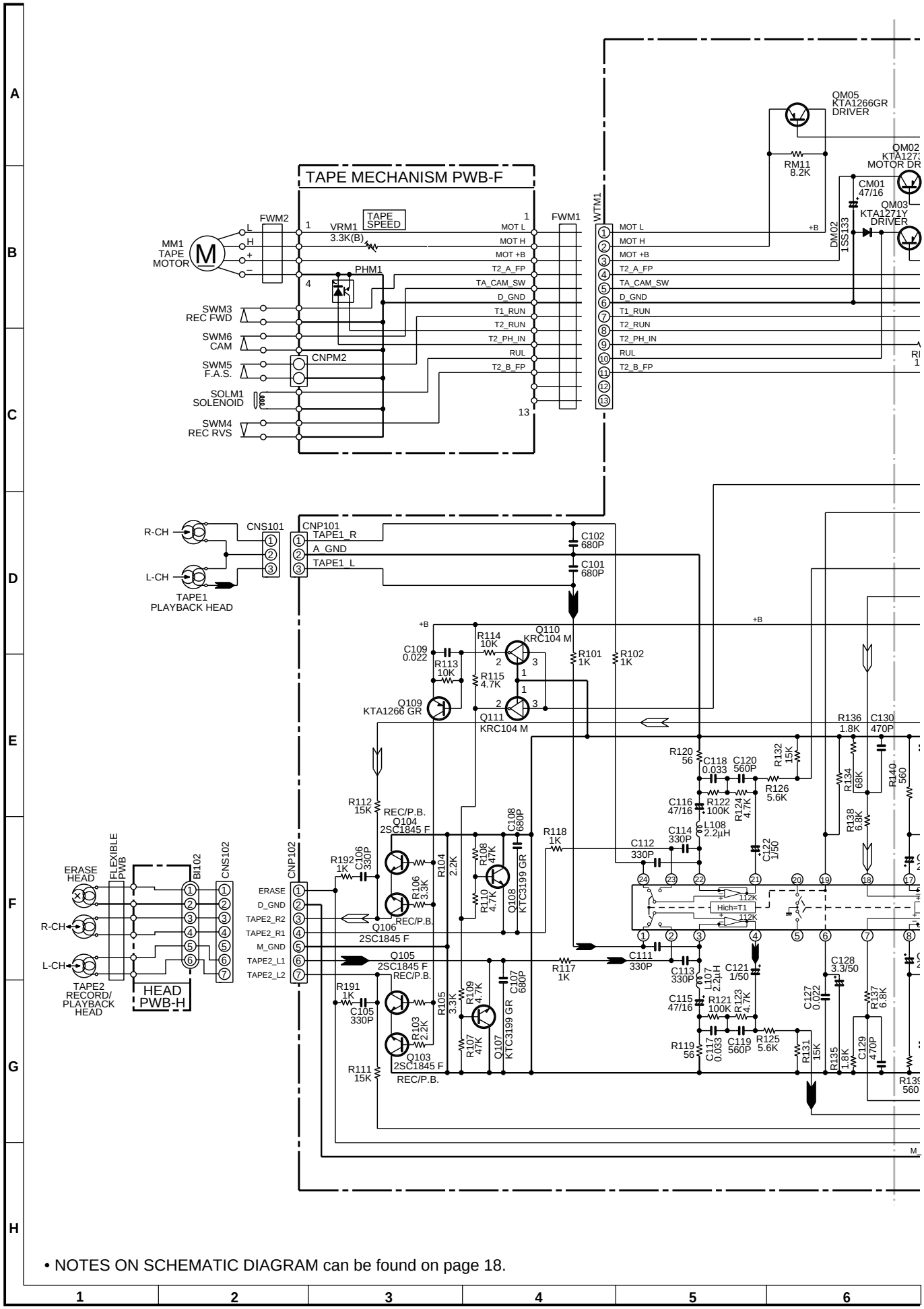
• NOTES ON SCHEMATIC DIAGRAM can be found on page 18.

Figure 24 SCHEMATIC DIAGRAM (3/13)



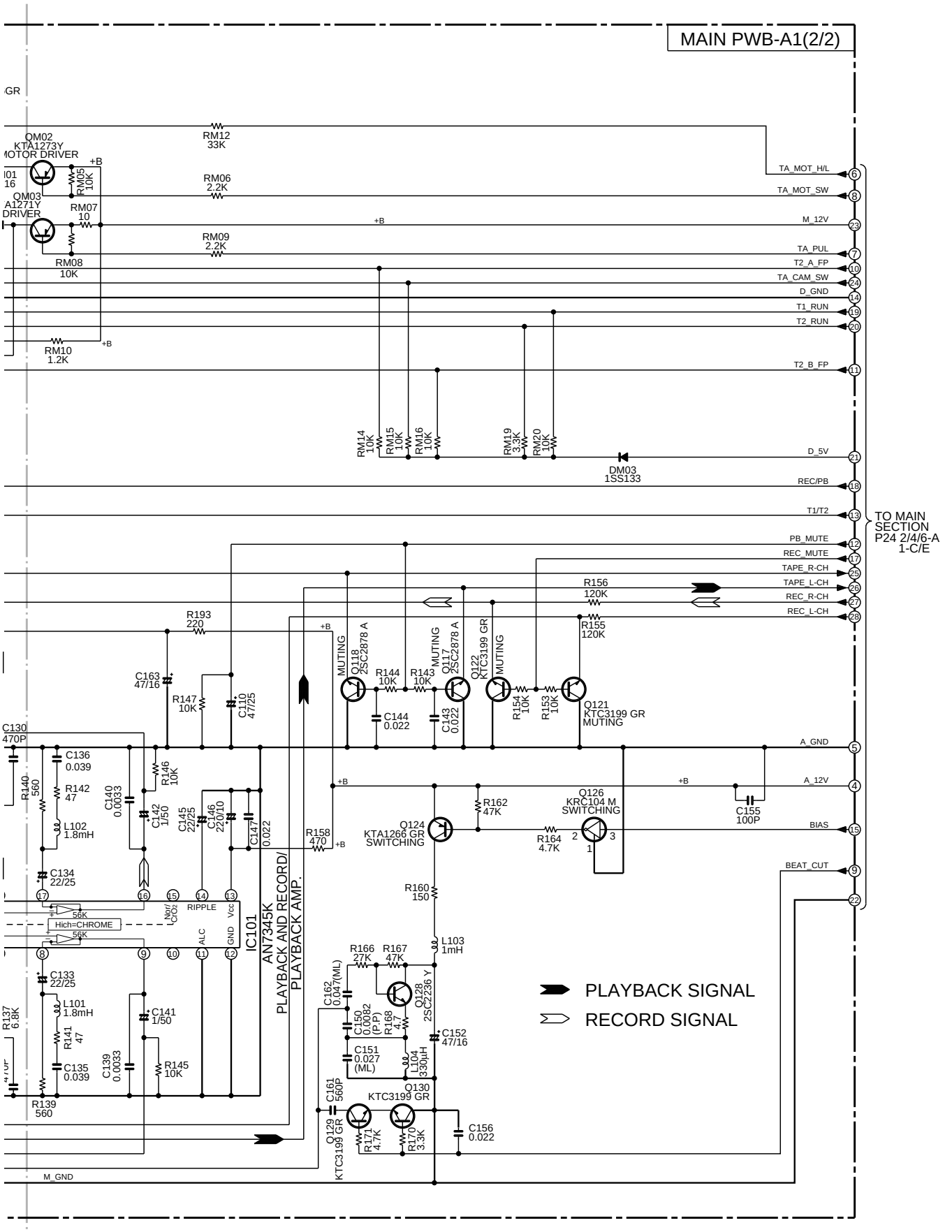
7	8	9	10	11	12

Figure 25 SCHEMATIC DIAGRAM (4/13)



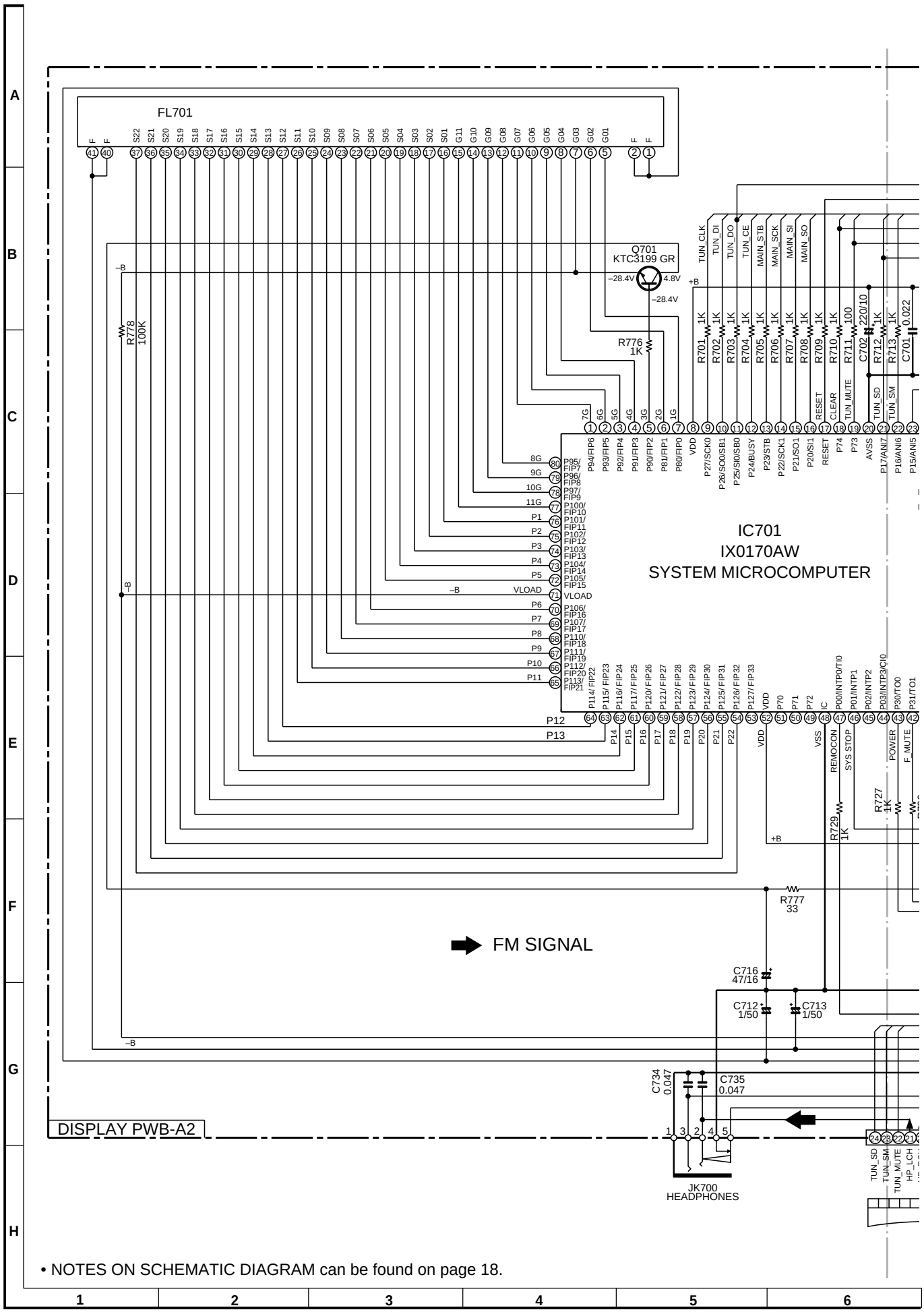
• NOTES ON SCHEMATIC DIAGRAM can be found on page 18.

Figure 26 SCHEMATIC DIAGRAM (5/13)



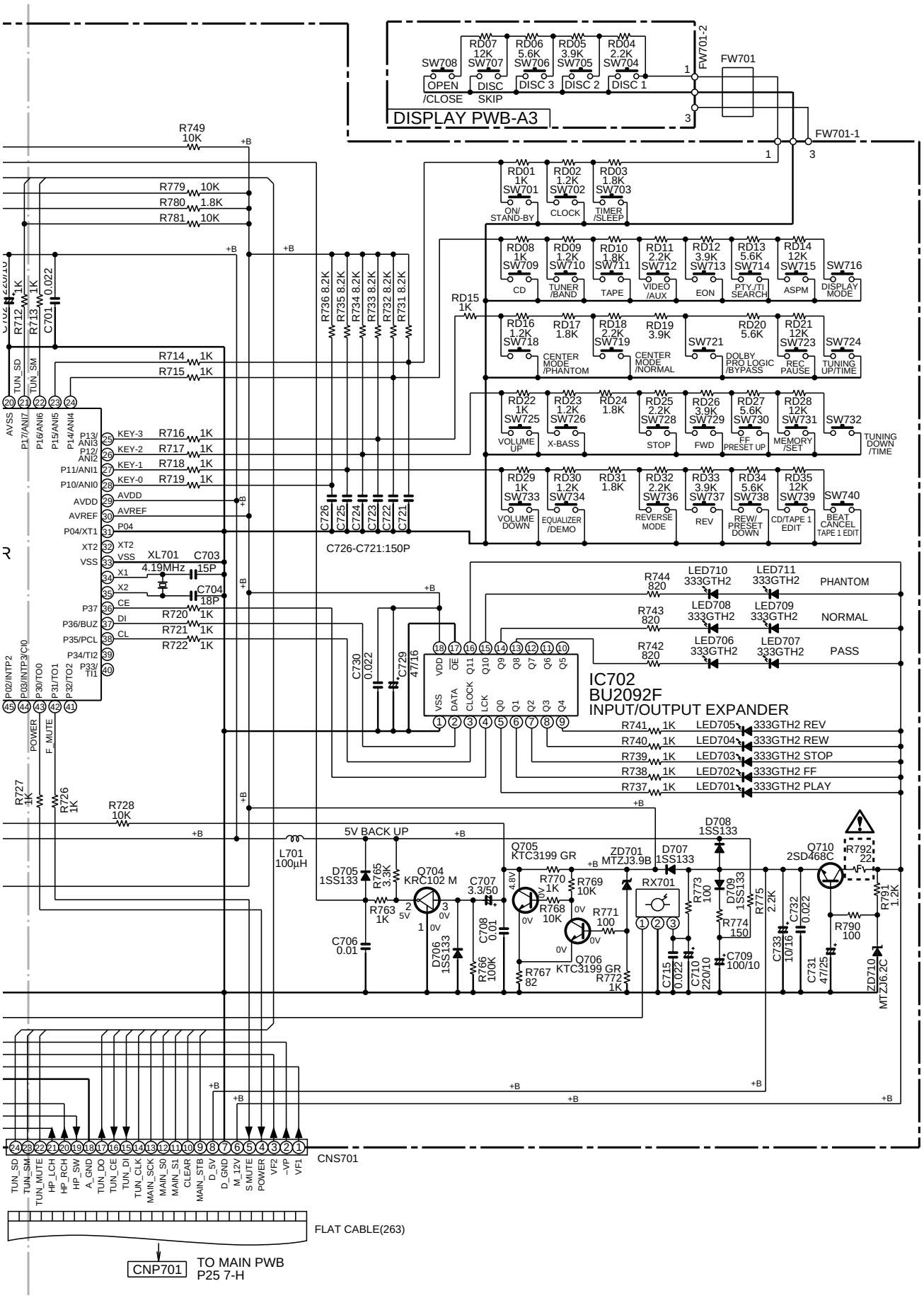
7	8	9	10	11	12

Figure 27 SCHEMATIC DIAGRAM (6/13)



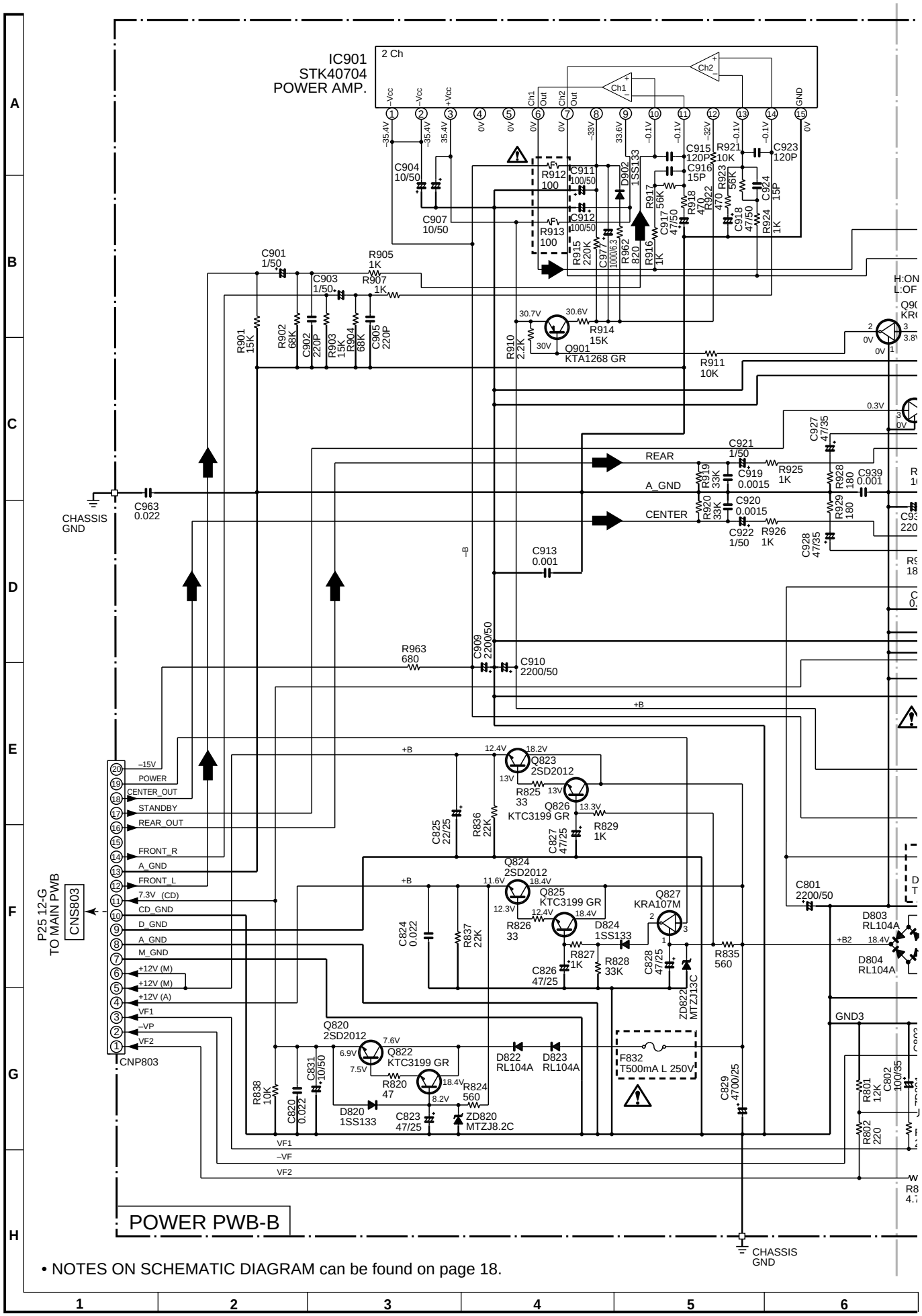
• NOTES ON SCHEMATIC DIAGRAM can be found on page 18.

Figure 28 SCHEMATIC DIAGRAM (7/13)



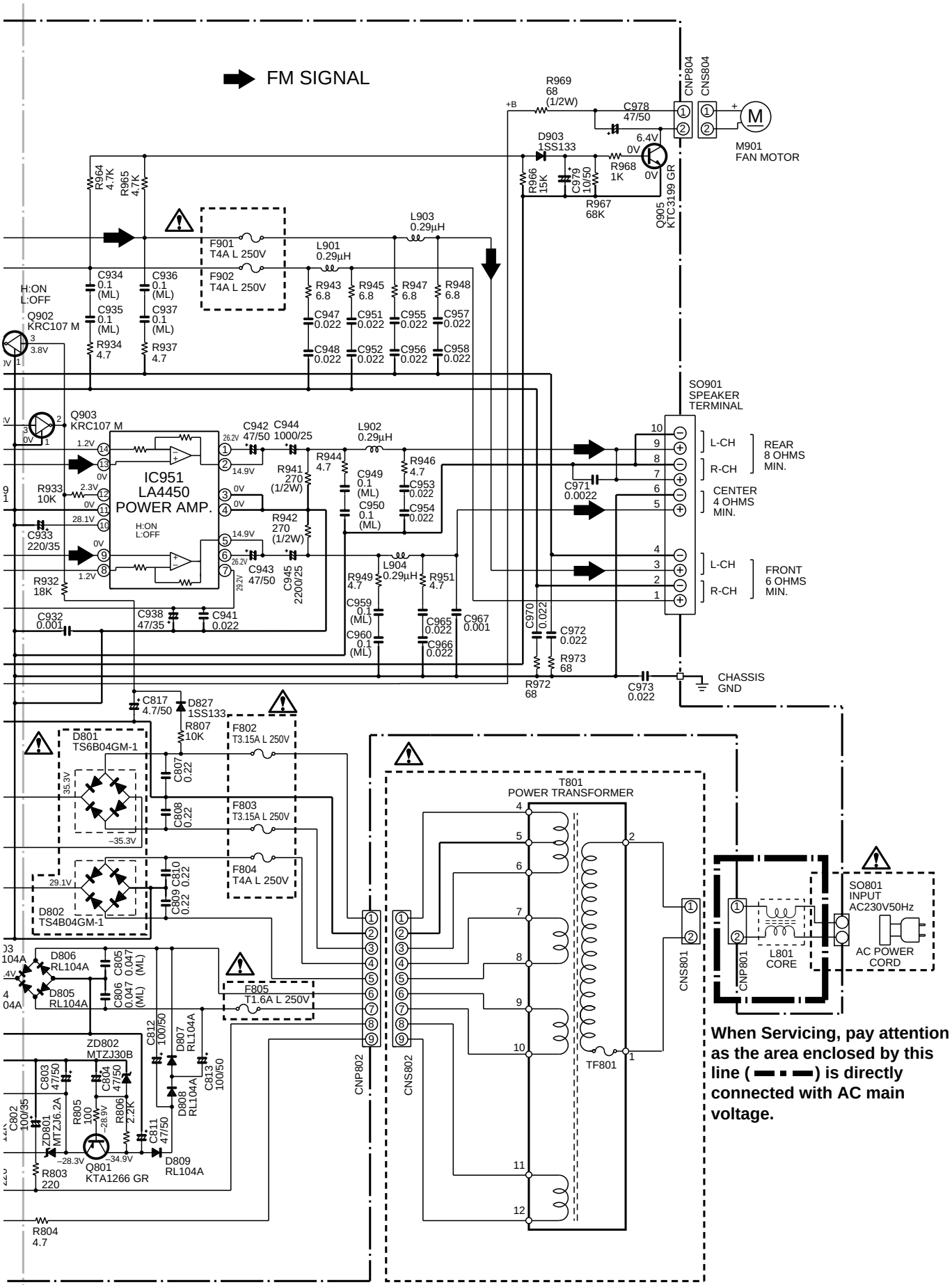
7	8	9	10	11	12

Figure 29 SCHEMATIC DIAGRAM (8/13)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 18.

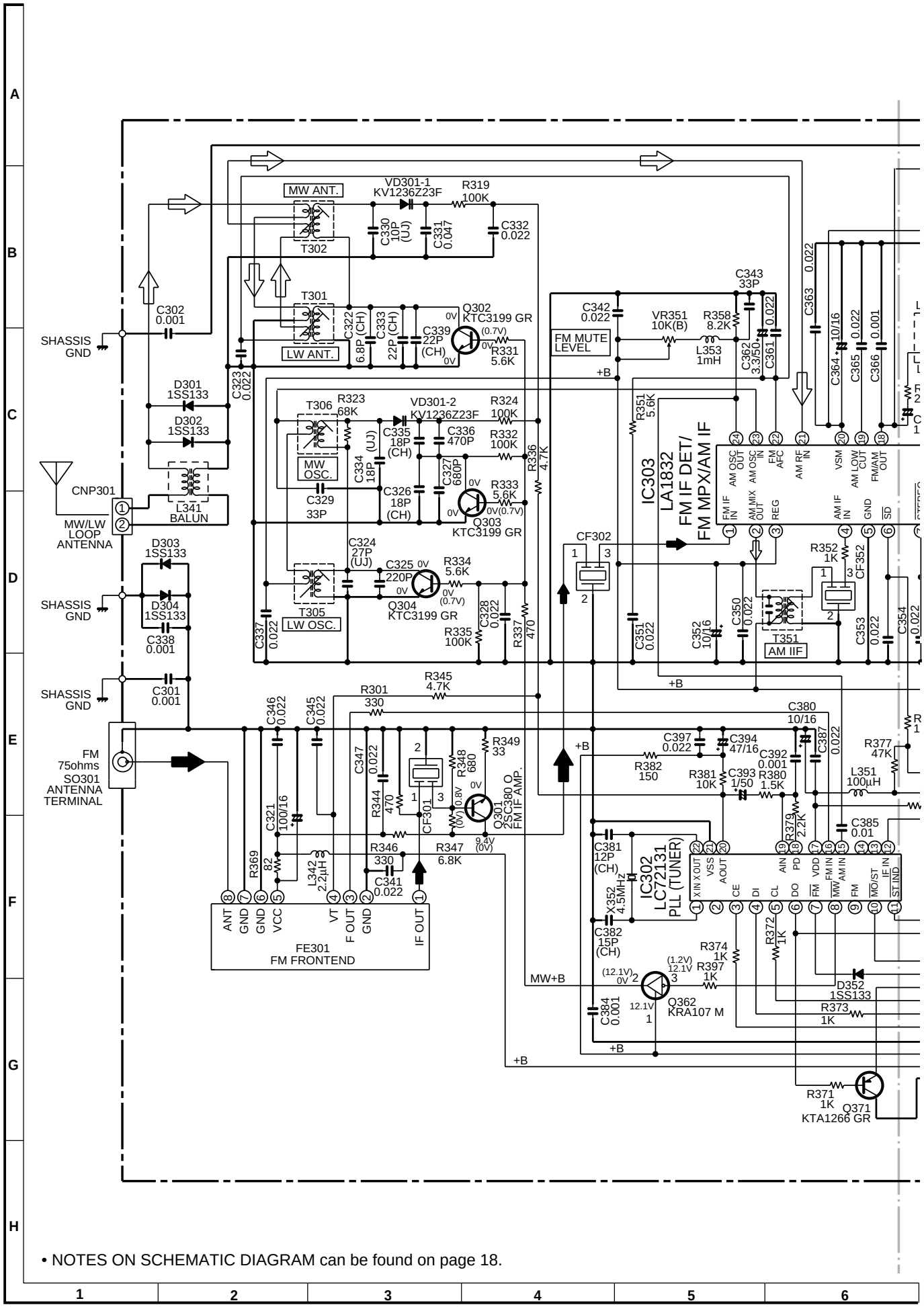
Figure 30 SCHEMATIC DIAGRAM (9/13)



When Servicing, pay attention as the area enclosed by this line (▬ ▪ ▬) is directly connected with AC main voltage.

7	8	9	10	11	12

Figure 31 SCHEMATIC DIAGRAM (10/13)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 18.

Figure 32 SCHEMATIC DIAGRAM (11/13)

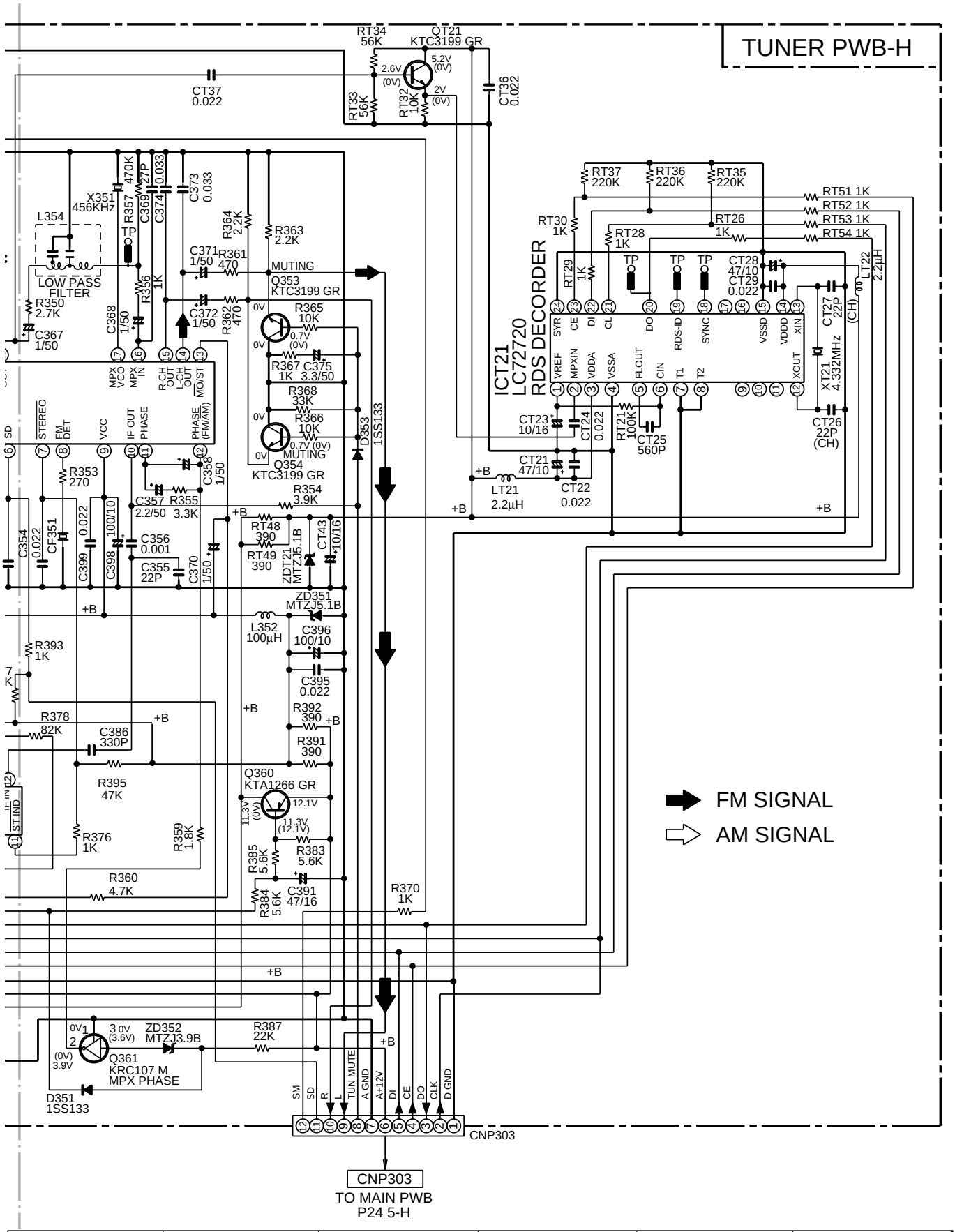
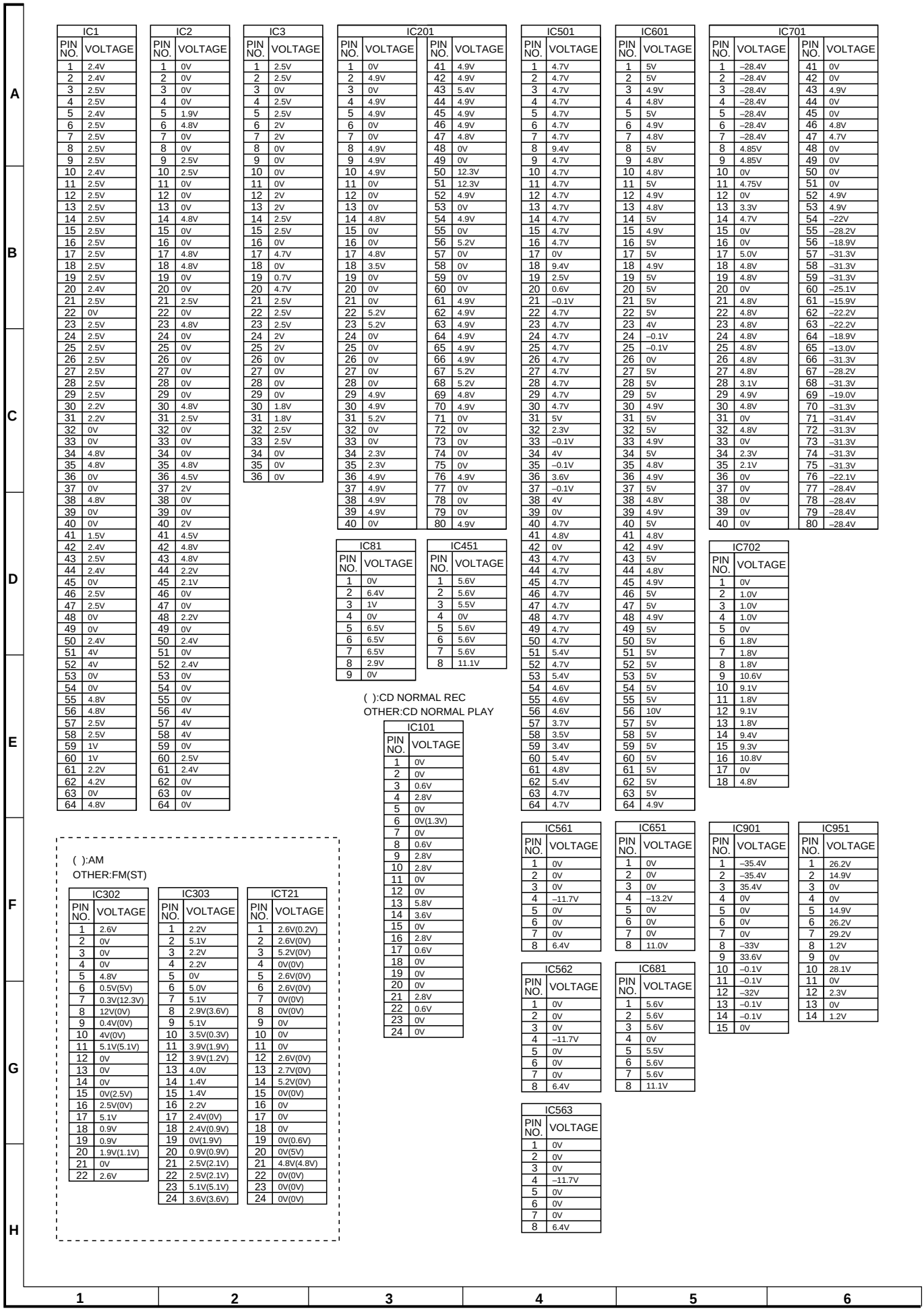


Figure 33 SCHEMATIC DIAGRAM (12/13)



IC1

PIN NO.	VOLTAGE
1	2.4V
2	2.4V
3	2.5V
4	2.5V
5	2.4V
6	2.5V
7	2.5V
8	2.5V
9	2.5V
10	2.4V
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	2.4V
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	2.2V
31	2.2V
32	0V
33	0V
34	4.8V
35	4.8V
36	0V
37	0V
38	4.8V
39	0V
40	0V
41	1.5V
42	2.4V
43	2.5V
44	2.4V
45	0V
46	2.5V
47	2.5V
48	0V
49	0V
50	2.4V
51	4V
52	4V
53	0V
54	0V
55	4.8V
56	4.8V
57	2.5V
58	2.5V
59	1V
60	1V
61	2.2V
62	4.2V
63	0V
64	4.8V

IC2

PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	0V
5	1.9V
6	4.8V
7	0V
8	0V
9	2.5V
10	2.5V
11	0V
12	0V
13	0V
14	4.8V
15	0V
16	0V
17	4.8V
18	4.8V
19	0V
20	0V
21	2.5V
22	0V
23	4.8V
24	0V
25	0V
26	0V
27	0V
28	0V
29	0V
30	4.8V
31	2.5V
32	0V
33	0V
34	0V
35	4.8V
36	4.5V
37	2V
38	0V
39	0V
40	2V
41	4.5V
42	4.8V
43	4.8V
44	2.2V
45	2.1V
46	0V
47	0V
48	2.2V
49	0V
50	2.4V
51	0V
52	2.4V
53	0V
54	0V
55	0V
56	4V
57	4V
58	4V
59	0V
60	2.5V
61	2.4V
62	0V
63	0V
64	0V

IC3

PIN NO.	VOLTAGE
1	2.5V
2	2.5V
3	0V
4	2.5V
5	2.5V
6	2V
7	2V
8	0V
9	0V
10	0V
11	0V
12	2V
13	2V
14	2.5V
15	2.5V
16	0V
17	4.7V
18	0V
19	0.7V
20	4.7V
21	2.5V
22	2.5V
23	2.5V
24	2V
25	2V
26	0V
27	0V
28	0V
29	0V
30	1.8V
31	1.8V
32	2.5V
33	2.5V
34	0V
35	0V
36	0V

IC201

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	0V	41	4.9V
2	4.9V	42	4.9V
3	0V	43	5.4V
4	4.9V	44	4.9V
5	4.9V	45	4.9V
6	0V	46	4.9V
7	0V	47	4.8V
8	4.9V	48	0V
9	4.9V	49	0V
10	4.9V	50	12.3V
11	0V	51	12.3V
12	0V	52	4.9V
13	0V	53	0V
14	4.8V	54	4.9V
15	0V	55	0V
16	0V	56	5.2V
17	4.8V	57	0V
18	3.5V	58	0V
19	0V	59	0V
20	0V	60	0V
21	0V	61	4.9V
22	5.2V	62	4.9V
23	5.2V	63	4.9V
24	0V	64	4.9V
25	0V	65	4.9V
26	0V	66	4.9V
27	0V	67	5.2V
28	0V	68	5.2V
29	4.9V	69	4.8V
30	4.9V	70	4.9V
31	5.2V	71	0V
32	0V	72	0V
33	0V	73	0V
34	2.3V	74	0V
35	2.3V	75	0V
36	4.9V	76	4.9V
37	4.9V	77	0V
38	4.9V	78	0V
39	4.9V	79	0V
40	0V	80	4.9V

IC81

PIN NO.	VOLTAGE
1	0V
2	6.4V
3	1V
4	0V
5	6.5V
6	6.5V
7	6.5V
8	2.9V
9	0V

IC451

PIN NO.	VOLTAGE
1	5.6V
2	5.6V
3	5.5V
4	0V
5	5.6V
6	5.6V
7	5.6V
8	11.1V

( ):CD NORMAL REC
OTHER:CD NORMAL PLAY

IC101

PIN NO.	VOLTAGE
1	0V
2	0V
3	0.6V
4	2.8V
5	0V
6	0V(1.3V)
7	0V
8	0.6V
9	2.8V
10	2.8V
11	0V
12	0V
13	5.8V
14	3.6V
15	0V
16	2.8V
17	0.6V
18	0V
19	0V
20	0V
21	2.8V
22	0.6V
23	0V
24	0V

IC501

PIN NO.	VOLTAGE
1	4.7V
2	4.7V
3	4.7V
4	4.7V
5	4.7V
6	4.7V
7	4.7V
8	9.4V
9	4.7V
10	4.7V
11	4.7V
12	4.7V
13	4.7V
14	4.7V
15	4.7V
16	4.7V
17	0V
18	9.4V
19	2.5V
20	0.6V
21	–0.1V
22	4.7V
23	4.7V
24	4.7V
25	4.7V
26	4.7V
27	4.7V
28	4.7V
29	4.7V
30	4.7V
31	5V
32	2.3V
33	–0.1V
34	4V
35	–0.1V
36	3.6V
37	–0.1V
38	4V
39	0V
40	4.7V
41	4.8V
42	0V
43	4.7V
44	4.7V
45	4.7V
46	4.7V
47	4.7V
48	4.7V
49	4.7V
50	4.7V
51	5.4V
52	4.7V
53	5.4V
54	4.6V
55	4.6V
56	4.6V
57	3.7V
58	3.5V
59	3.4V
60	5.4V
61	4.8V
62	5.4V
63	4.7V
64	4.7V

IC601

PIN NO.	VOLTAGE
1	5V
2	5V
3	4.9V
4	4.8V
5	5V
6	4.9V
7	4.8V
8	5V
9	4.8V
10	4.8V
11	5V
12	4.9V
13	4.8V
14	5V
15	4.9V
16	5V
17	5V
18	4.9V
19	5V
20	5V
21	5V
22	5V
23	4V
24	–0.1V
25	–0.1V
26	0V
27	5V
28	5V
29	5V
30	4.9V
31	5V
32	5V
33	4.9V
34	5V
35	4.8V
36	4.9V
37	5V
38	4.8V
39	4.9V
40	5V
41	4.8V
42	4.9V
43	5V
44	4.8V
45	4.9V
46	5V
47	5V
48	4.9V
49	5V
50	5V
51	5V
52	5V
53	5V
54	5V
55	5V
56	10V
57	5V
58	5V
59	5V
60	5V
61	5V
62	5V
63	5V
64	4.9V

IC701

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	–28.4V	41	0V
2	–28.4V	42	0V
3	–28.4V	43	4.9V
4	–28.4V	44	0V
5	–28.4V	45	0V
6	–28.4V	46	4.8V
7	–28.4V	47	4.7V
8	4.85V	48	0V
9	4.85V	49	0V
10	0V	50	0V
11	4.75V	51	0V
12	0V	52	4.9V
13	3.3V	53	4.9V
14	4.7V	54	–22V
15	0V	55	–28.2V
16	0V	56	–18.9V
17	5.0V	57	–31.3V
18	4.8V	58	–31.3V
19	4.8V	59	–31.3V
20	0V	60	–25.1V
21	4.8V	61	–15.9V
22	4.8V	62	–22.2V
23	4.8V	63	–22.2V
24	4.8V	64	–18.9V
25	4.8V	65	–13.0V
26	4.8V	66	–31.3V
27	4.8V	67	–28.2V
28	3.1V	68	–31.3V
29	4.9V	69	–19.0V
30	4.8V	70	–31.3V
31	0V	71	–31.4V
32	4.8V	72	–31.3V
33	0V	73	–31.3V
34	2.3V	74	–31.3V
35	2.1V	75	–31.3V
36	0V	76	–22.1V
37	0V	77	–28.4V
38	0V	78	–28.4V
39	0V	79	–28.4V
40	0V	80	–28.4V

IC702

PIN NO.	VOLTAGE
1	0V
2	1.0V
3	1.0V
4	1.0V
5	0V
6	1.8V
7	1.8V
8	1.8V
9	10.6V
10	9.1V
11	1.8V
12	9.1V
13	1.8V
14	9.4V
15	9.3V
16	10.8V
17	0V
18	4.8V

( ):AM
OTHER:FM(ST)

IC302

PIN NO.	VOLTAGE
1	2.6V
2	0V
3	0V
4	0V
5	4.8V
6	0.5V(5V)
7	0.3V(12.3V)
8	12V(0V)
9	0.4V(0V)
10	4V(0V)
11	5.1V(5.1V)
12	0V
13	0V
14	0V
15	0V(2.5V)
16	2.5V(0V)
17	5.1V
18	0.9V
19	0.9V
20	1.9V(1.1V)
21	0V
22	2.6V

IC303

PIN NO.	VOLTAGE
1	2.2V
2	5.1V
3	2.2V
4	2.2V
5	0V
6	5.0V
7	5.1V
8	2.9V(3.6V)
9	5.1V
10	3.5V(0.3V)
11	3.9V(1.9V)
12	3.9V(1.2V)
13	4.0V
14	1.4V
15	1.4V
16	2.2V
17	2.4V(0V)
18	2.4V(0.9V)
19	0V(1.9V)
20	0.9V(0.9V)
21	2.5V(2.1V)
22	2.5V(2.1V)
23	5.1V(5.1V)
24	3.6V(3.6V)

ICT21

PIN NO.	VOLTAGE
1	2.6V(0.2V)
2	2.6V(0V)
3	5.2V(0V)
4	0V(0V)
5	2.6V(0V)
6	2.6V(0V)
7	0V(0V)
8	0V(0V)
9	0V
10	0V
11	0V
12	2.6V(0V)
13	2.7V(0V)
14	5.2V(0V)
15	0V(0V)
16	0V
17	0V
18	0V
19	0V(0.6V)
20	0V(5V)
21	4.8V(4.8V)
22	0V(0V)
23	0V(0V)
24	0V(0V)

IC561

PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	–11.7V
5	0V
6	0V
7	0V
8	6.4V

IC562

PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	–11.7V
5	0V
6	0V
7	0V
8	6.4V

IC563

PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	–11.7V
5	0V
6	0V
7	0V
8	6.4V

IC651

PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	–13.2V
5	0V
6	0V
7	0V
8	11.0V

IC681

PIN NO.	VOLTAGE
1	5.6V
2	5.6V
3	5.6V
4	0V
5	5.5V
6	5.6V
7	5.6V
8	11.1V

IC901

PIN NO.	VOLTAGE
1	–35.4V
2	–35.4V
3	35.4V
4	0V
5	0V
6	0V
7	0V
8	–33V
9	33.6V
10	–0.1V
11	–0.1V
12	–32V
13	–0.1V
14	–0.1V
15	0V

IC951

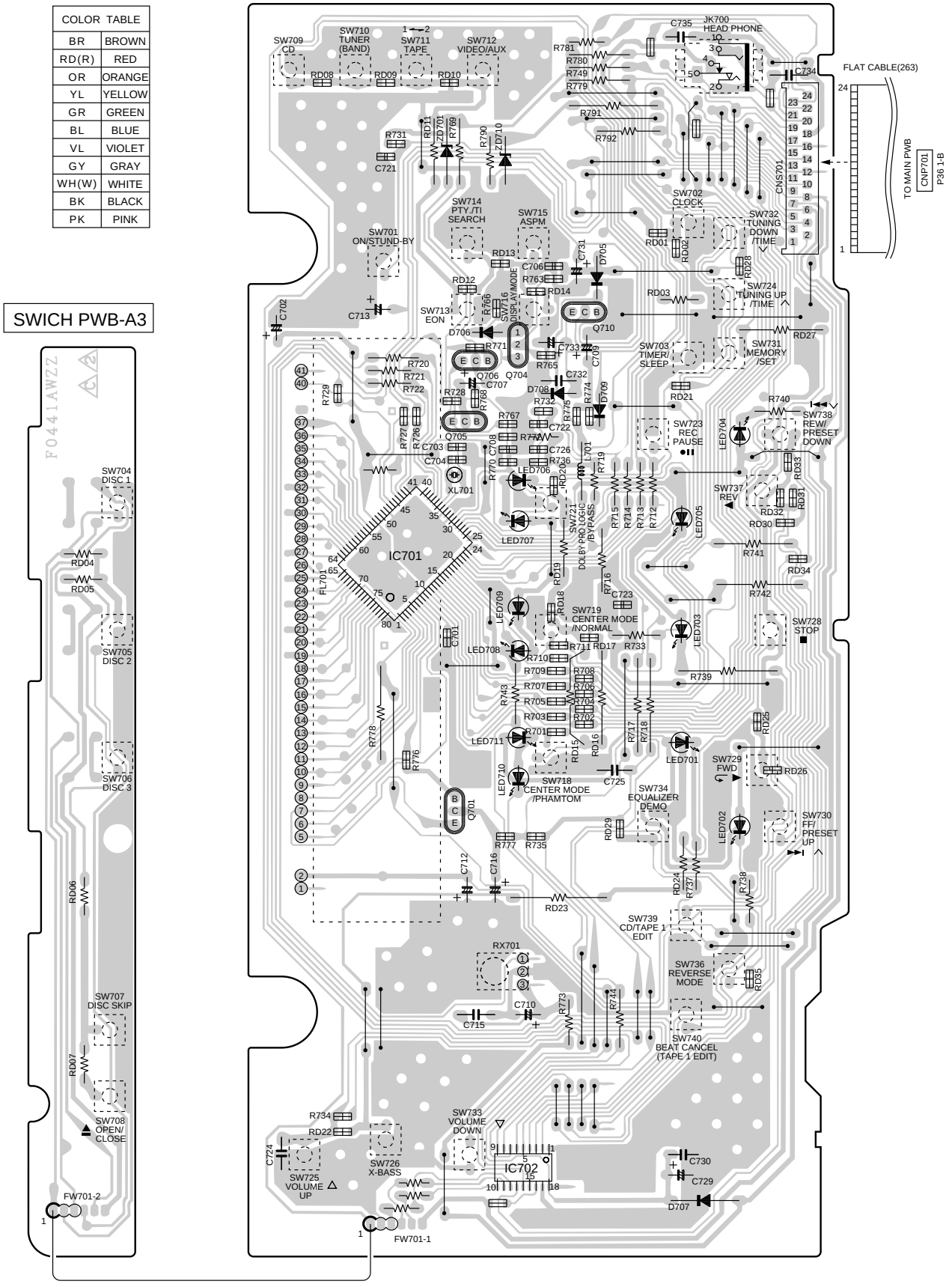
PIN NO.	VOLTAGE
1	26.2V
2	14.9V
3	0V
4	0V
5	14.9V
6	26.2V
7	29.2V
8	1.2V
9	0V
10	28.1V
11	0V
12	2.3V
13	0V
14	1.2V

Figure 34 SCHEMATIC DIAGRAM (13/13)

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

DISPLAY PWB-A2

SWICH PWB-A3



7	8	9	10	11	12

Figure 35 WIRING SIDE OF P.W.BOARD (1/8)

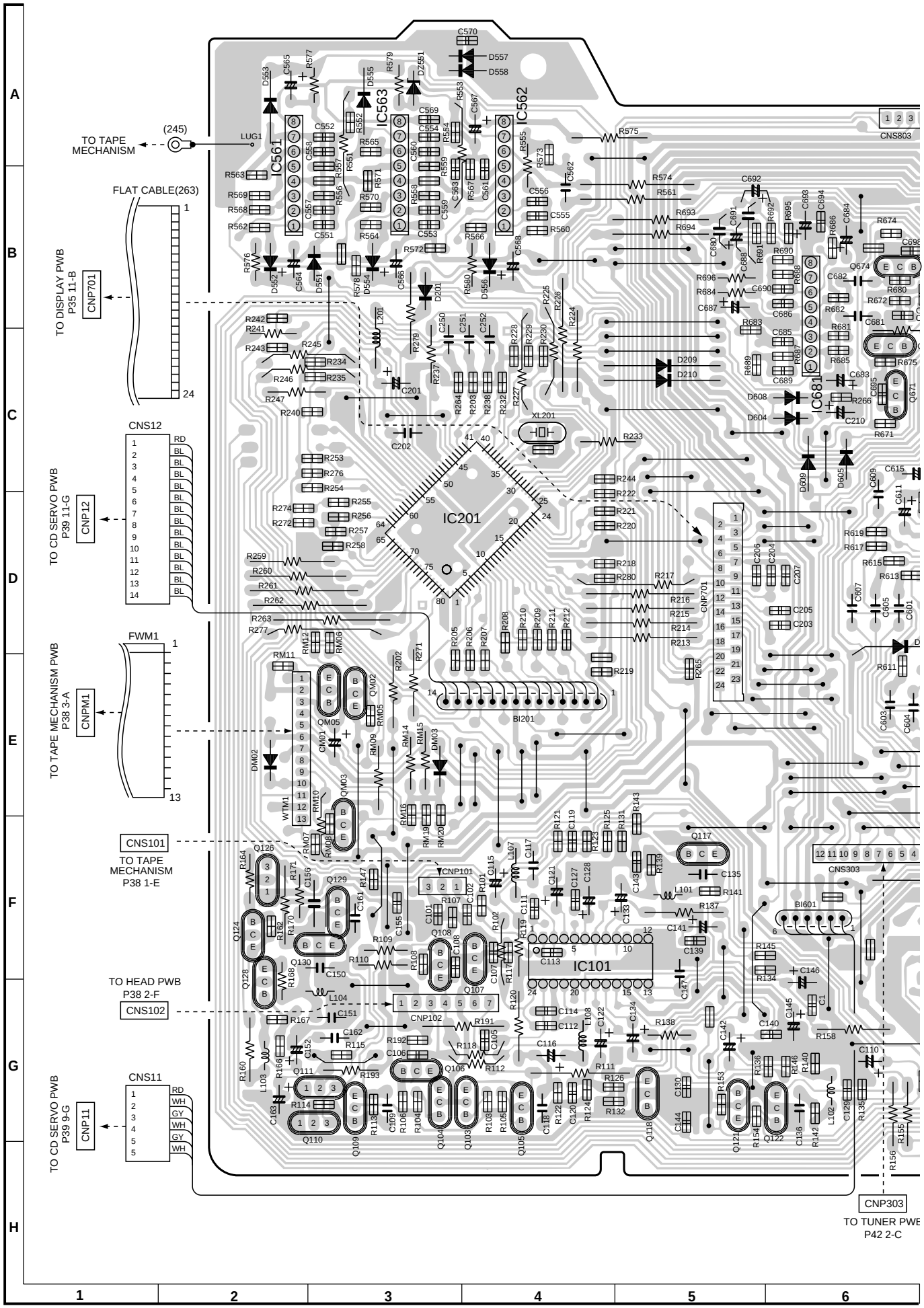
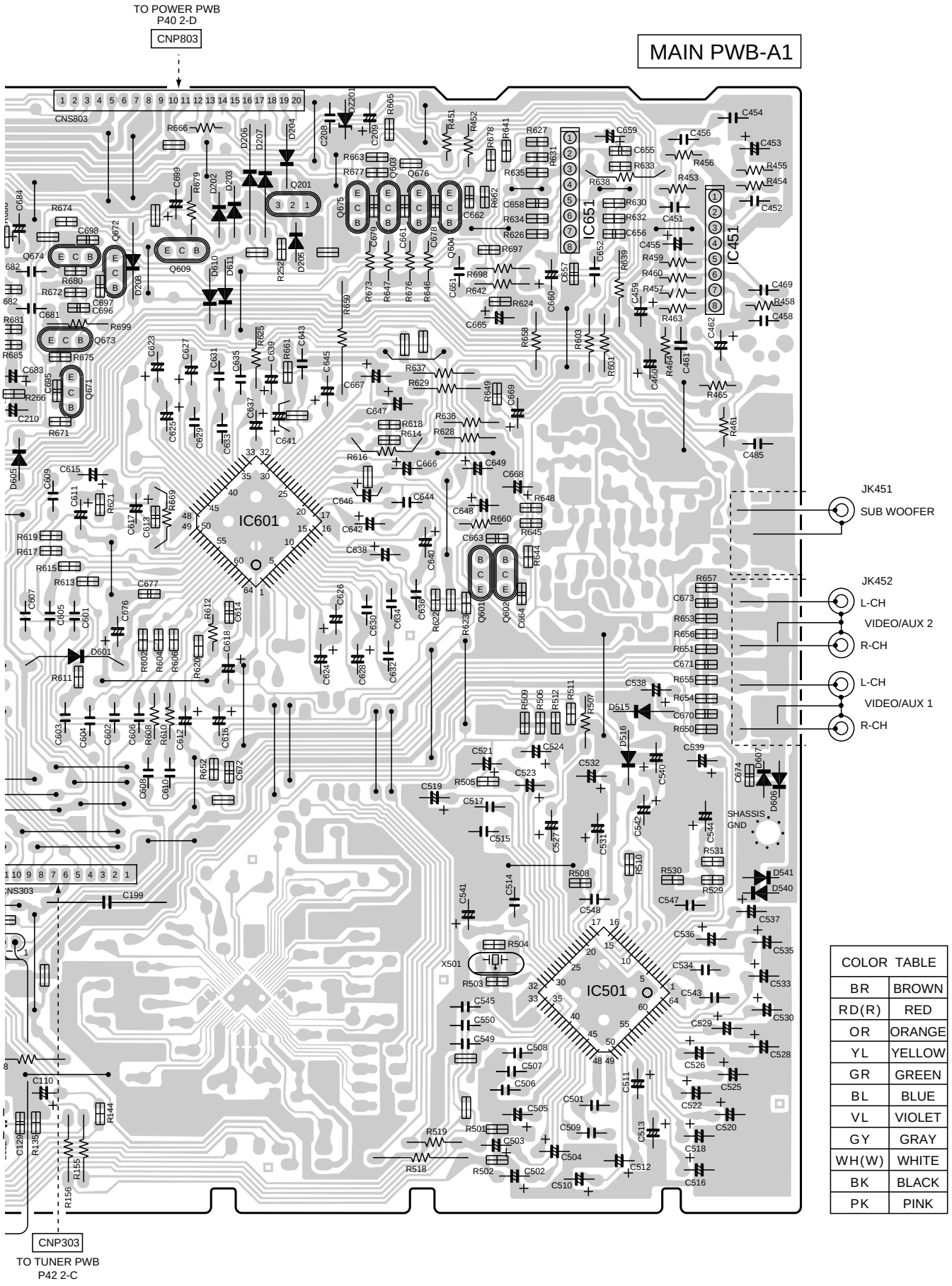


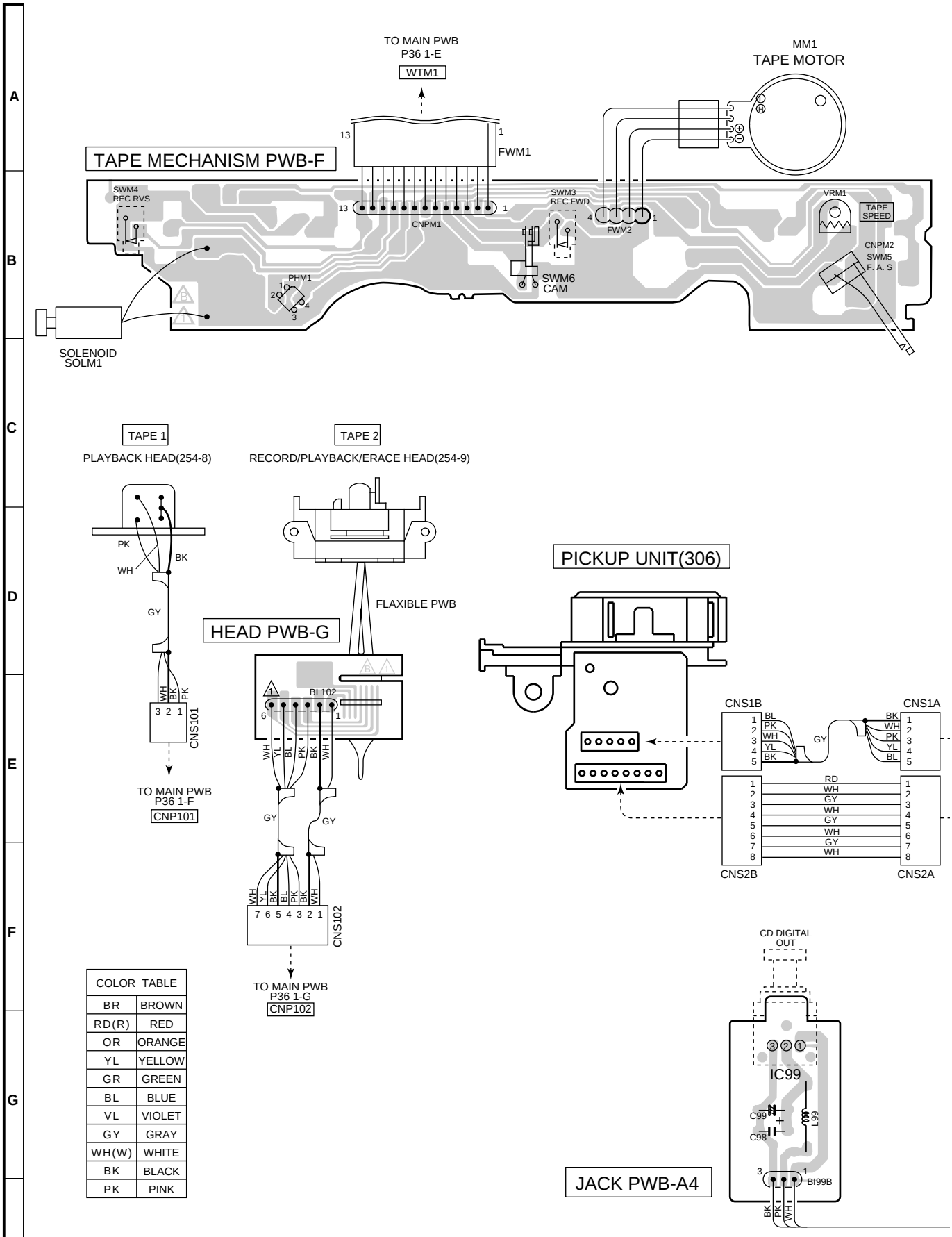
Figure 36 WIRING SIDE OF P.W.BOARD (2/8)



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

7	8	9	10	11	12

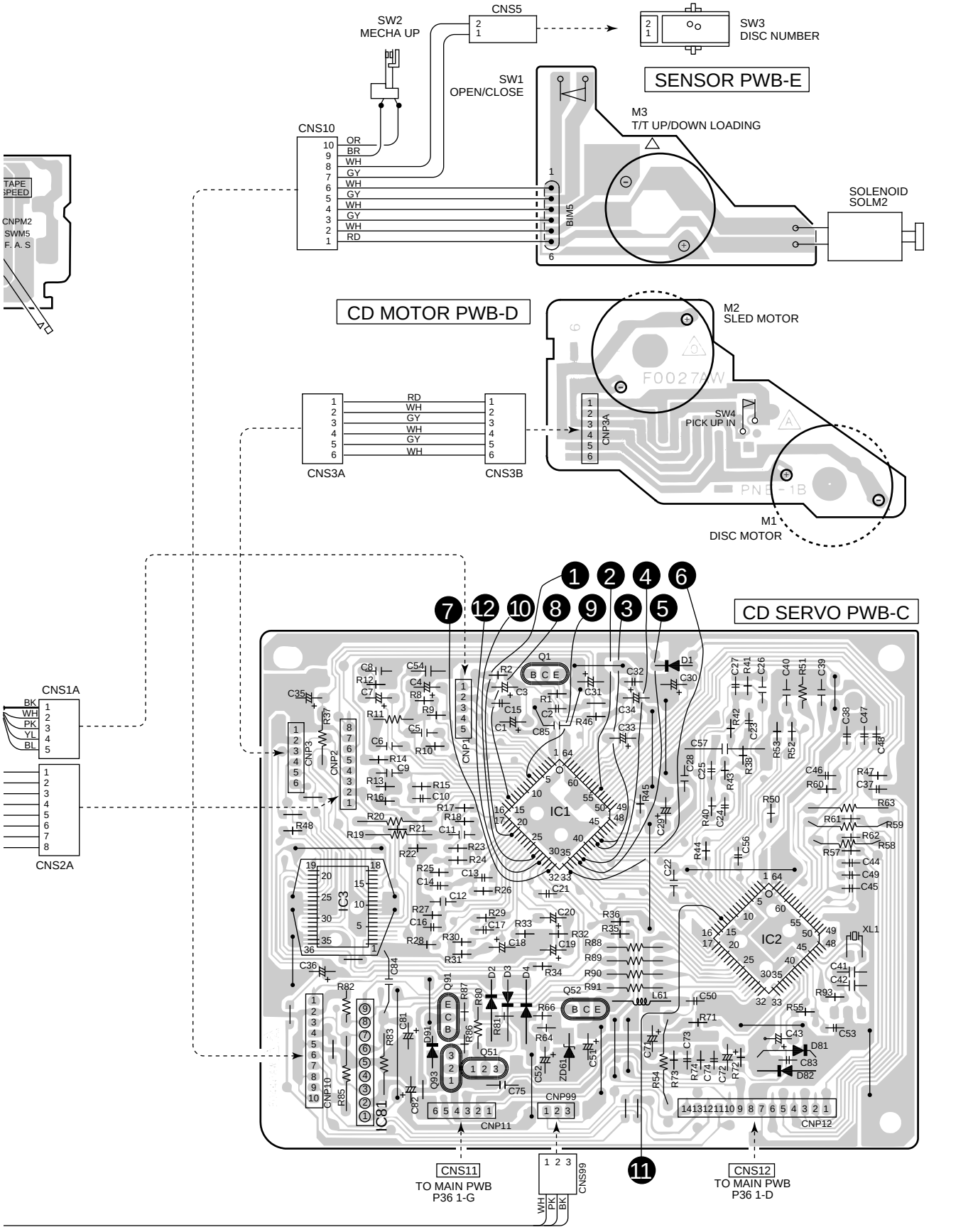
Figure 37 WIRING SIDE OF P.W.BOARD (3/8)



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

• The numbers ❶ to ⓬ are waveform numbers shown in page 43.

Figure 38 WIRING SIDE OF P.W.BOARD (4/8)



7	8	9	10	11	12

Figure 39 WIRING SIDE OF P.W.BOARD (5/8)

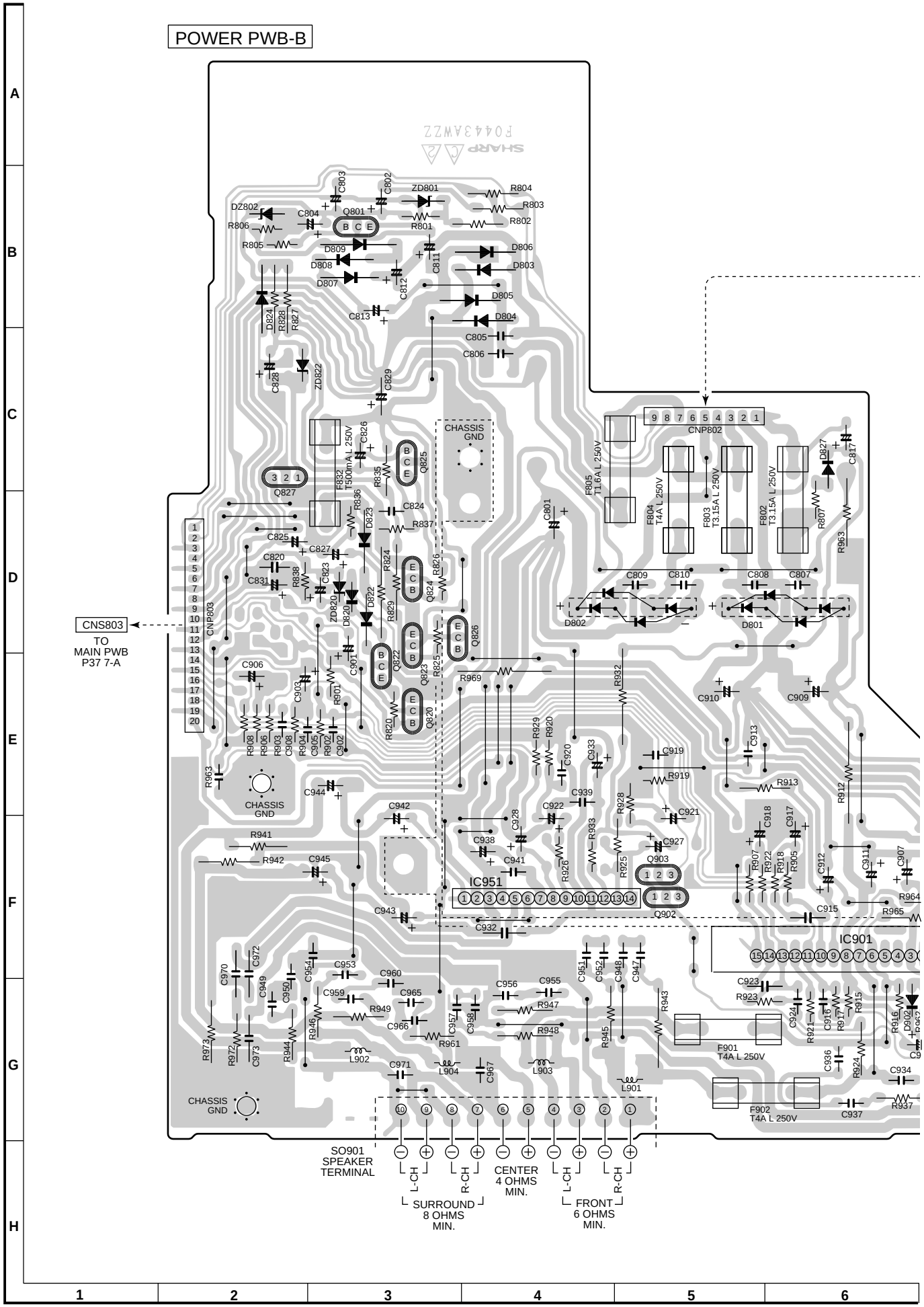
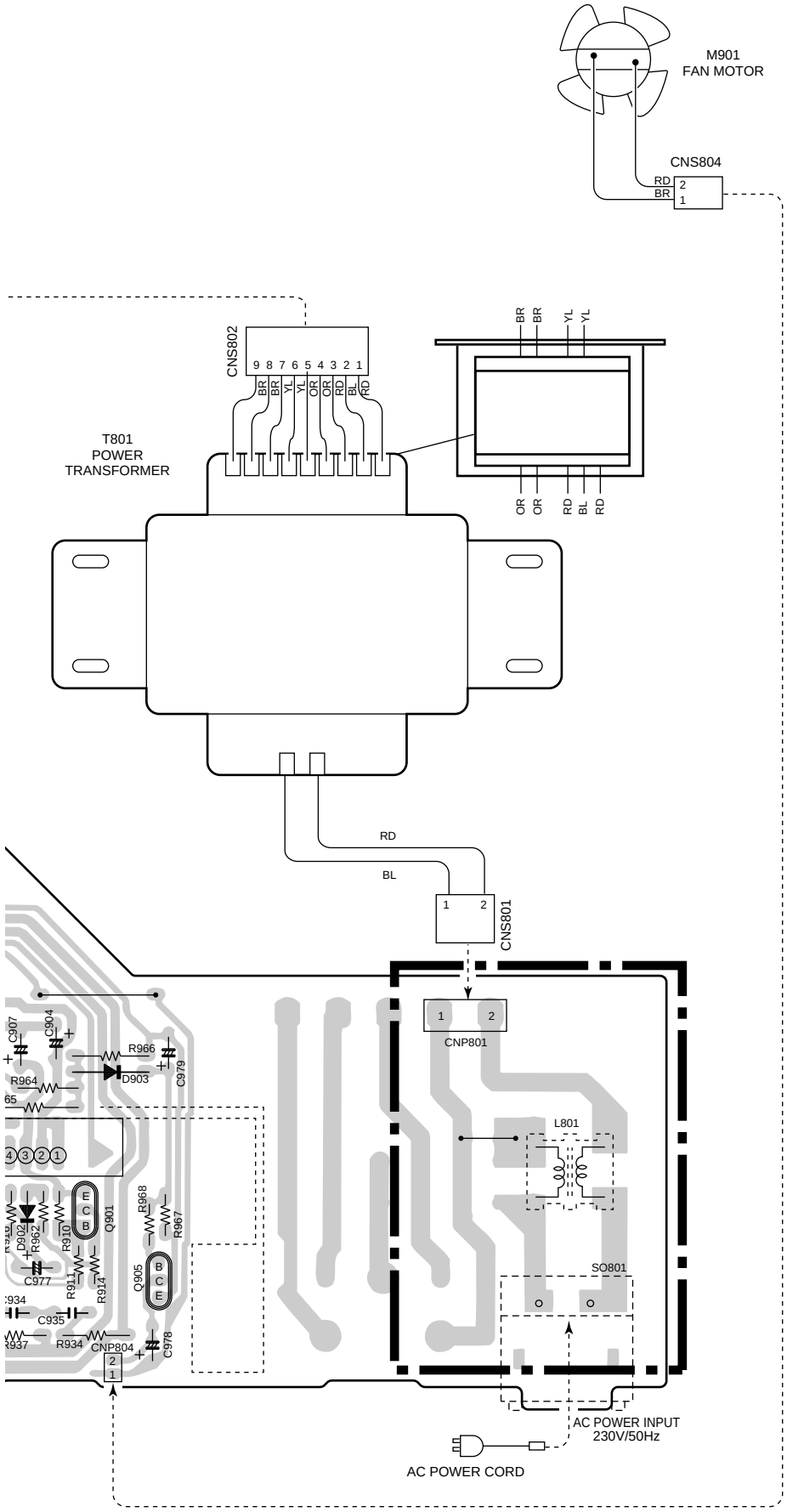


Figure 40 WIRING SIDE OF P.W.BOARD (6/8)



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

When Servicing, pay attention as the area enclosed by this line (▬ ▪ ▬) is directly connected with AC main voltage.

7	8	9	10	11	12

Figure 41 WIRING SIDE OF P.W.BOARD (7/8)

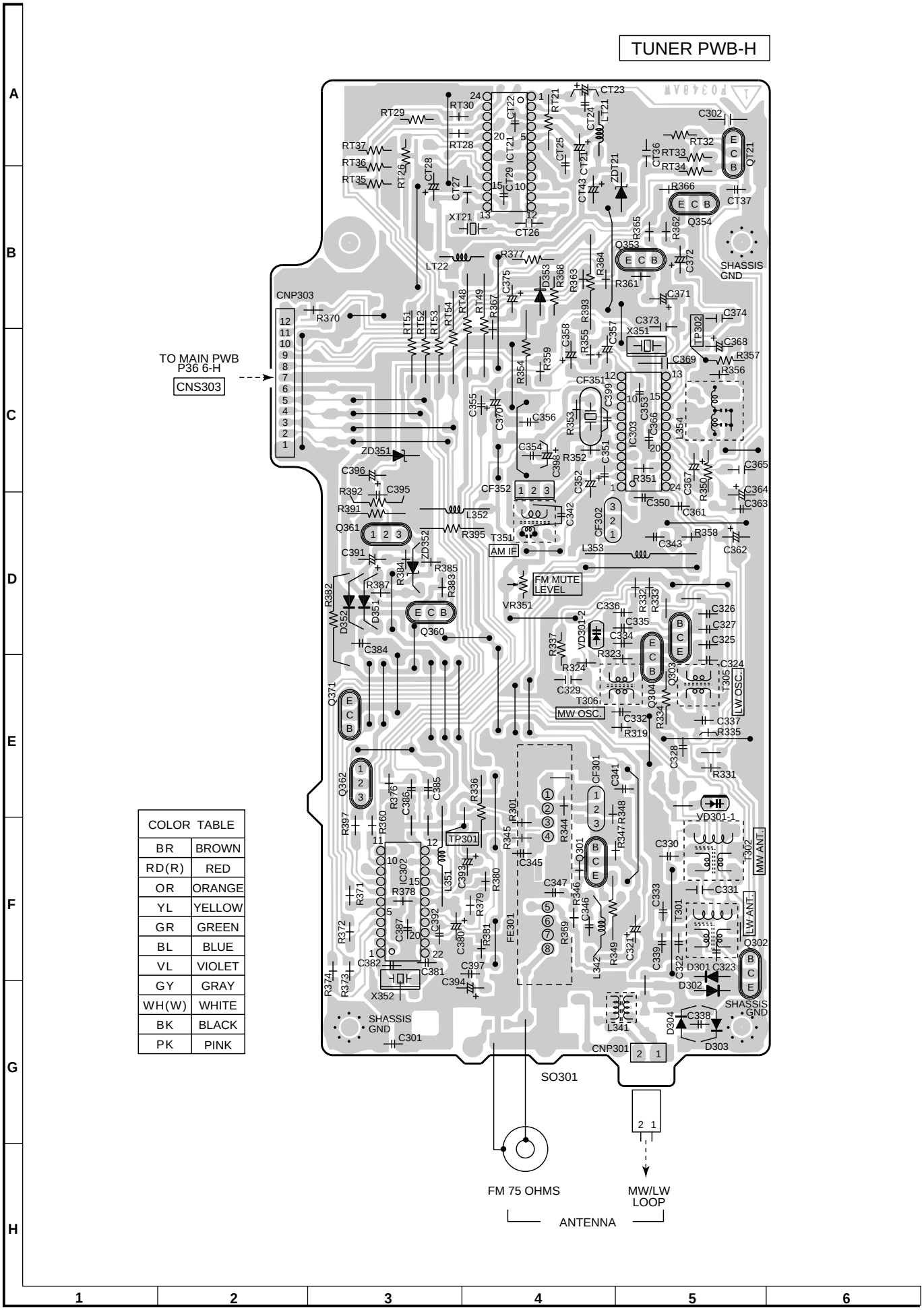
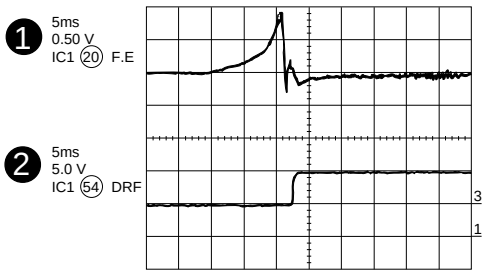


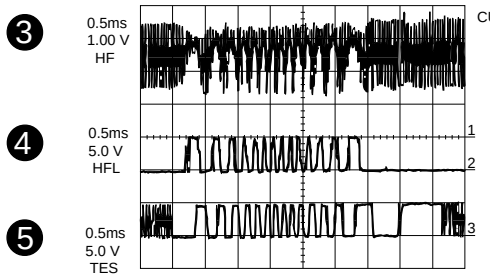
Figure 42 WIRING SIDE OF P.W.BOARD (8/8)

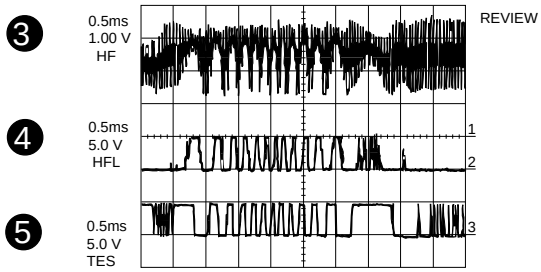
WAVEFORMS OF CD CIRCUIT

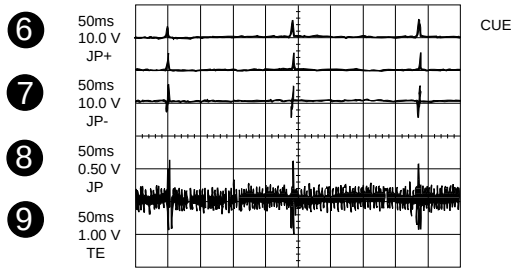
STOP → PLAY

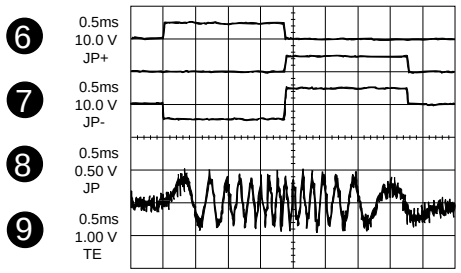
FOCUS — SERCH

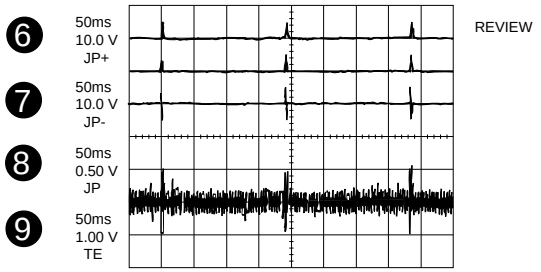


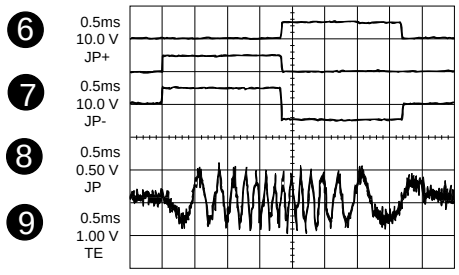








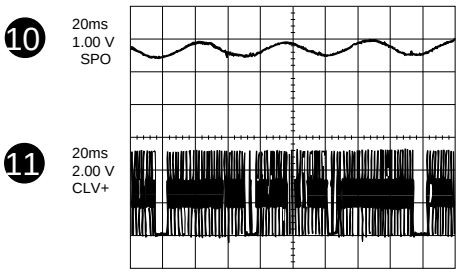




PLAY

NORMAL DISC

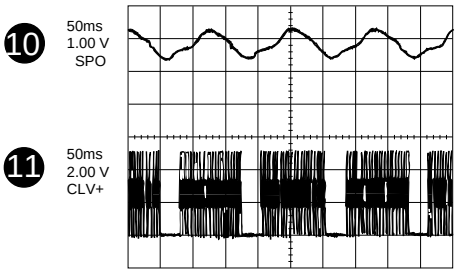
TN0=01



PLAY

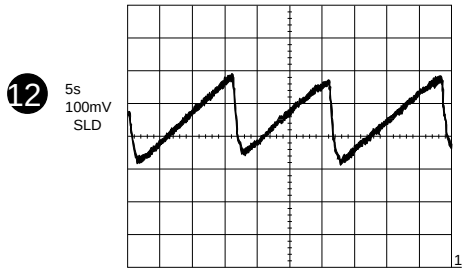
TCD-712 (140mm)

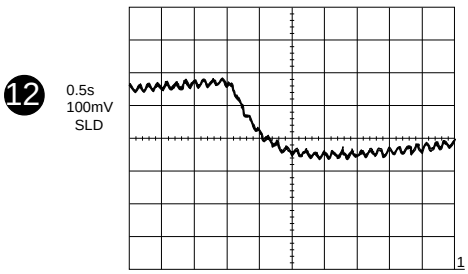
TN0=01



PLAY

TCD-712





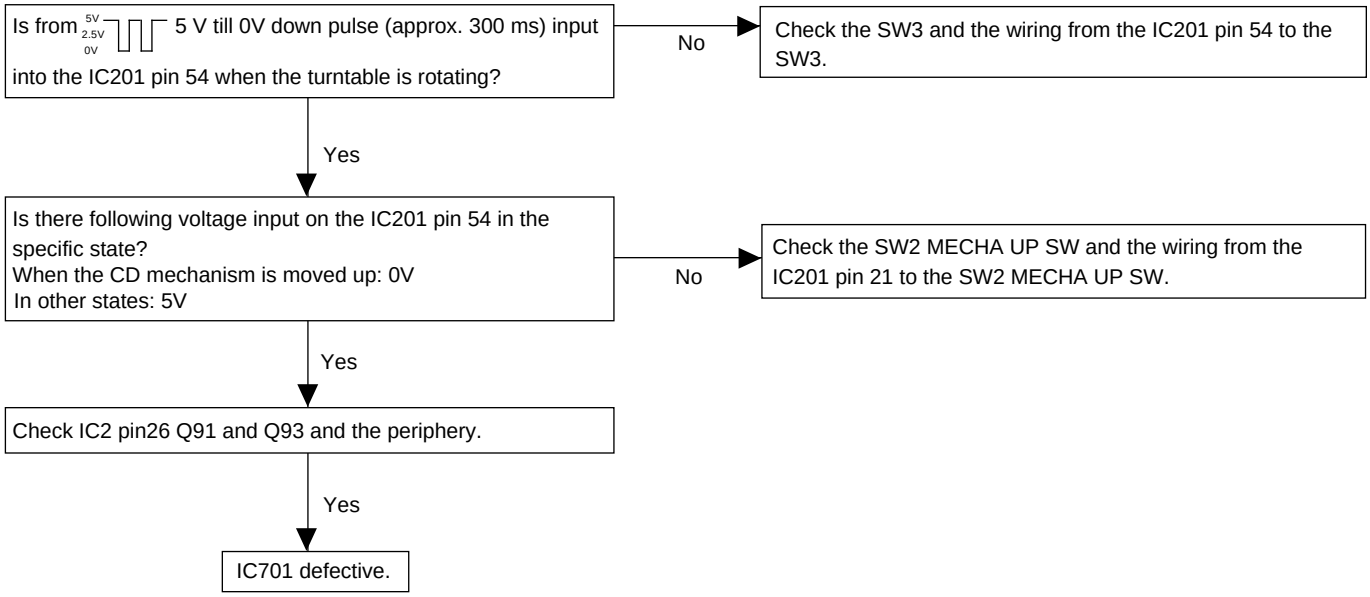
TROUBLESHOOTING (CD SECTION)

When the CD does not function

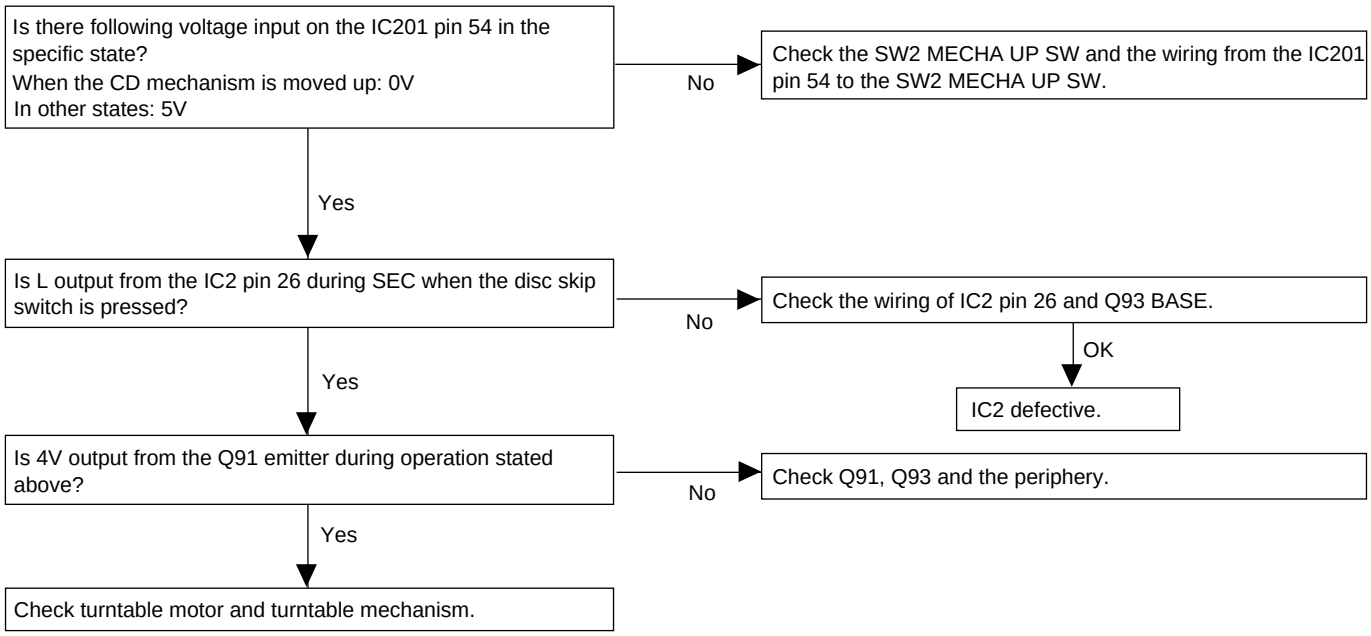
When the CD section does not operate When the objective lens of the optical pickup is dirty,this section may not operate.Clean the objective lens,and check the playback operation.When this section does not operate even after the above step is taken,check the following items.
Remove the cabinet and follow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

• When the turntable fails to stop.



• When turntable fails to move.



• When the CD tray fails to open or close.

Is there following voltage input in specific state of IC701 pin 53?
Open state: 0V
Close state: 0V
Intermediate state between open state and close state: 5V

No → Check the OPEN CLOSE SW and the wiring from the IC701 pin 53 to the OPEN CLOSE SW.

Yes ↓

Is H output to IC2 pin 24 or 25 for 7 seconds when the OPEN/CLOSE key is pressed?IC81 is defective. Replace it.

No → Check the wiring of the IC2 pins 24 and 25, IC81 pins 1 and 3.

OK ↓

IC2 defective.

Yes ↓

Is 4V output between IC81 pins 3 and 7 during operation stated above?

No → Check the periphery of IC81.

OK ↓

IC81 defective.

Yes ↓

Check the loading motor (M3) and the loading mechanism.

• The CD function will not work.

The CD operating keys don't work.

Yes ↓

Check the CD, DSP, power supply, and 16.93 MHz clock, and reset terminal.

Yes ↓

Check the waveform of SCK, SO (DATA) and SI (COMM).

Yes ↓

See if the pick-up is in the PICKUP IN SW position.

Yes ↓

If the items mentioned above are OK, check the main microcomputer IC701.

• The CD operating keys work.

Check the Focus - HF system.

Playback can be performed without a disc.

Yes ↓

Does the pick-up move up and down twice?

Yes → Focus search OK

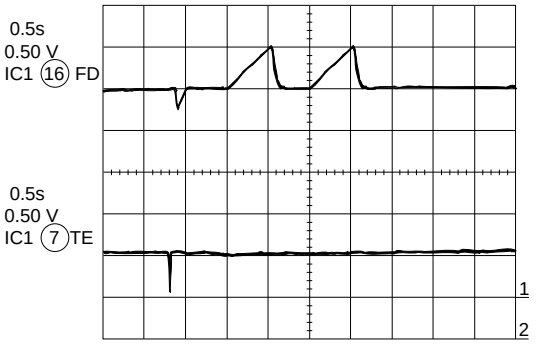
No ↓

Does the output waveform of IC1(16)(FD) match that shown in Fig. 45?

Yes → Check the area around IC3-CNP2.

No ↓

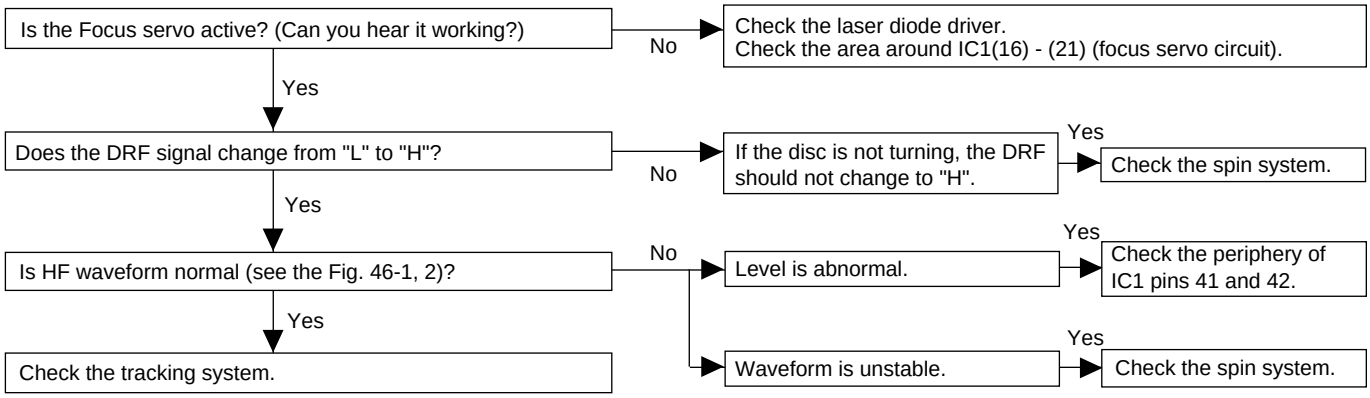
Check the IC1(50)(CLK) line, 4MHz.
Check the microcomputer data on pins (51)(CL), (52)(DAT) and (53)CE.



Focus search is performed two times when play operation is done without disc.

Figure 45

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



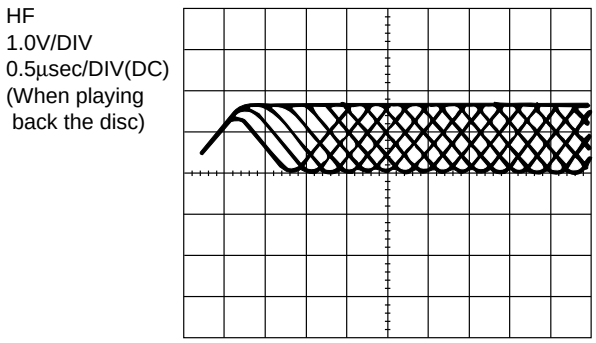


Figure 46-1

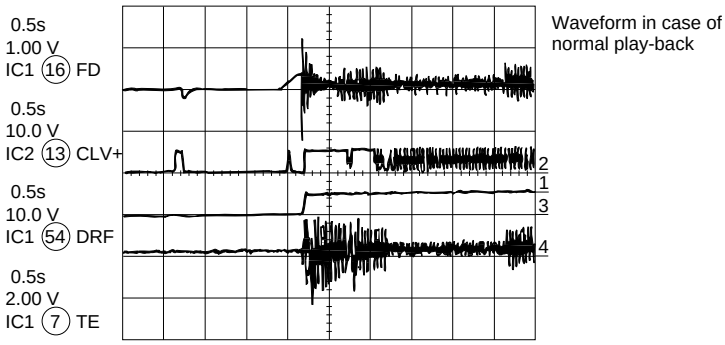
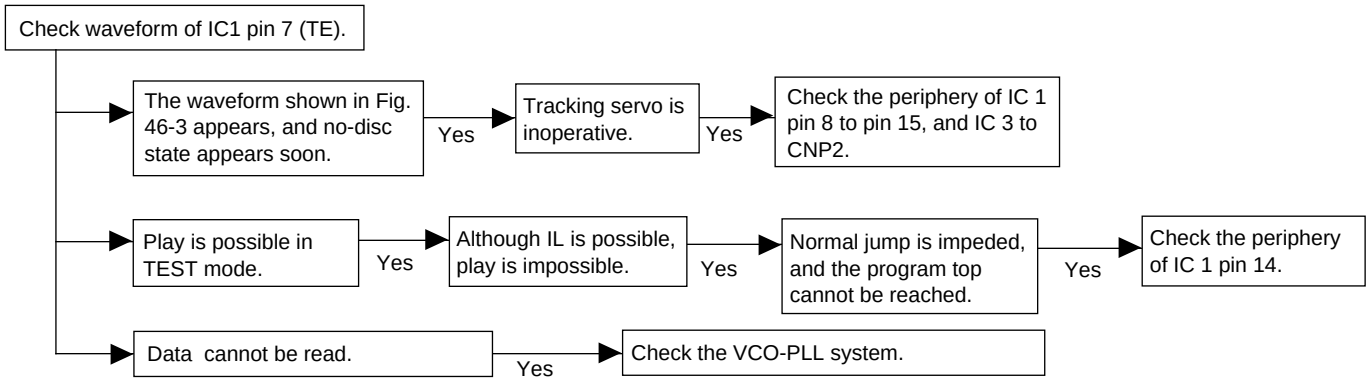


Figure 46-2

• Check the tracking system.



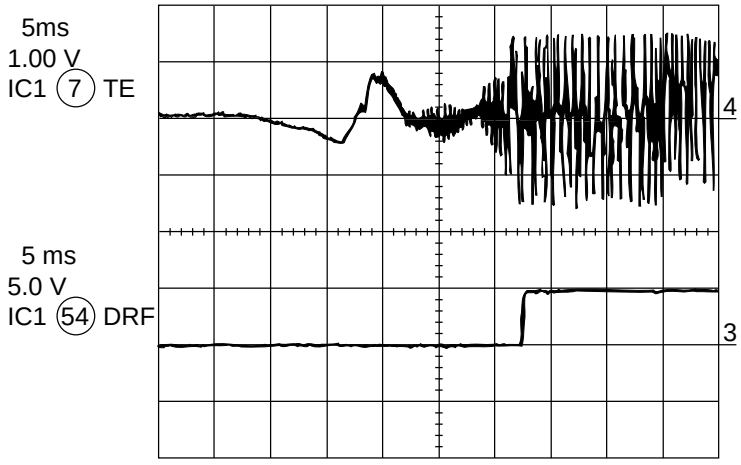


Figure 46-3

• 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. 47).

Abnormal

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

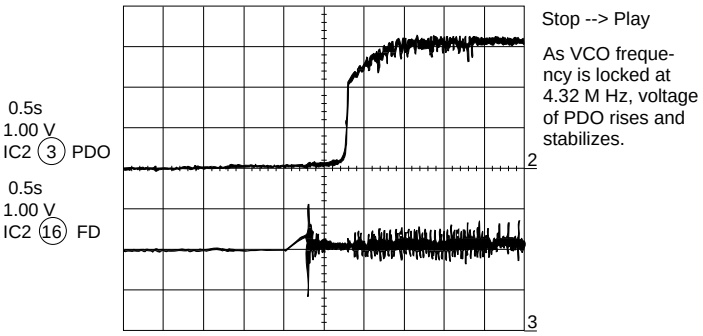


Figure 47

• 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.

Abnomal

Check IC 601 and POWER AMP IC 901.

FUNCTION TABLE OF IC

IC2 VHiLC78622K-1:Servo/Signal Control(LC78622K) (1/2)

Pin No.	Terminal Name	Input/Output	Function		
1	DEFI	Input	Input terminal of defect detection signal (DEF). (Connected to OV when not used.)		
2	TAI	Input	For PLL	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.	
3	PDO	Output		Output terminal of phase comparison for external VCO control.	
4	VVSS	—		Ground terminal for integrated VCO. Surely connected to 0V.	
5	ISET	Input		Resistance connection terminal for current adjustment of PDO output.	
6	VVDD	—		Power terminal for integrated VCO.	
7	FR	Input		VCO frequency range adjustment.	
8	VSS	—	Ground terminal of digital system. Surely connected 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 is integrated. Surely connected to 0V.		
12	CLV+	Outout	Output for disk motor control. 3 values can be output with the commands.		
13	CLV-	Output	Output for disk motor control. 3 values can be output with the commands.		
14	V/P	Output	Monitor output terminal for automatic switch of rough servo/phase control. "H" for rough servo, and "L" for phase servo.		
15	HLF	Intput	Input terminal of track detection signal. Schmit input.		
16	TES	Input	Input terminal of tracking error signal. Schmit input.		
17	TOFF	Output	Tracking OFF output terminal.		
18	TGL	Output	Output terminal for switch of tracking gain "L" increases the gain.		
19	JP+	Output	Output for track jump control. 3 values can be output with the commands.		
20	JP-	Output	Output for track jump control. 3 values can be output with the commands.		
21*	PCK	Output	Clock monitor terminal for EFM data replay. 4,3218MHz as the phase clock.		
22*	FSEQ	Output	Output terminal synchronous signal detection. "H" is output when synchronous signal detected by EFM signal matches synchronous signal internally generated.		
23	VDD	—	Power terminal of digital system.		
24	CONT1	Input/Output	General purpose input/output terminal 1	Controlled with serial data command from micro computer. When not used, set it as the input terminal and open it by connecting to 0V, or set it as the output terminal and open it.	
25	CONT2	Input/Output	General purpose input/output terminal 2		
26	CONT3	Input/Output	General purpose input/output terminal 3		
27	CONT4	Input/Output	General purpose input/output terminal 4		
28*	CONT5	Input/Output	General purpose input/output terminal 5		
29*	EMPH	Output	Difference monitor terminal At "H", deemphasis disk is being replayed.		
30*	C2F	Output	C2 flag output terminal.		
31	DOUT	Output	Output terminal of digital OUTPUT. (EIAJ format)		
32*	TEST3	Input	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.		
33	TEST4	Input	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.		
34	N.C.	—	Terminal not used. Open during operation.		
35*	MUTEL	Output	L channel 1 bit DAC	Mute output terminal for L channel.	
36	LVDD	—		Power terminal for L channel.	
37	LCHO	Output		L channel output terminal.	
38	LVSS	—		Ground terminal for L channel Surely connected to 0V.	
39	RVSS	—	R channel 1 bit DAC	Ground terminal for R channel Surely connected to 0V.	
40	RCH0	Output		R channel output terminal.	
41	RVDD	—		Power terminal for R channel.	
42*	MUTER	Output		Mute output terminal for R channel.	
43	XVDD	—	Power terminal for quartz oscillation.		
44	XOUT	Output	Ground terminal of 16.9344 MHz quartz oscillator.		
45	XIN	Input	Ground terminal of 16.9344 MHz quartz oscillator.		
46	XVSS	—	Ground terminal for quartz oscillation. Surely connected to 0V.		
47*	SBSY	Output	Output terminal of synchronous signal of subcode block.		
48*	EFLG	Output	Correction monitor terminal of C1, C2, single and double.		

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

IC2 VHiLC78622K-1:Servo/Signal Control(LC78622K) (1/2)

Pin No.	Terminal Name	Input/Output	Function
49*	PW	Output	Output terminal of subcodes P, A, R, S, T, U and W.
50*	SFSY	Output	Output terminal of synchronous signal of subcode frame. It drops when subcode stands by.
51	SBCK	Input	Clock input terminal to read subcode. Schmit input (Connected to 0V when not used.)
52*	FSX	Output	Output terminal of synchronous signal of 7.35kHz divided from quartz oscillation.
53	WRQ	Output	Output terminal to stand by output of subcode Q.
54	RWC	Input	Input terminal of read/write. Schmit input.
55	SQOUT	Output	Output terminal of subcode Q.
56	COIN	Input	Command input terminal from microcomputer.
57	$\overline{\text{CQCK}}$	Input	Clock input terminal to fetch command input, or pick up subcode from SQOUT. Schmit input
58	$\overline{\text{RES}}$	Input	Reset input terminal of LC78622. When turning on power, set it at "L".
59*	TST11	Output	Output terminal for test. Used in the open state ("L" output as ordinary).
60*	16M	Output	Output terminal of 16.9344Hz.
61	4.2M	Output	Output terminal of 4.2336MHz.
62	TEST5	Input	Input terminal for test Pull-down resistor is integrated. Surely connected to 0V.
63	$\overline{\text{CS}}$	Input	Chip selection input terminal. Pull-down resistor is integrated. Connected to 0when not controlled.
64	TEST1	Input	Input terminal for test Pull-down resistor is integrated. Surely connected 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.

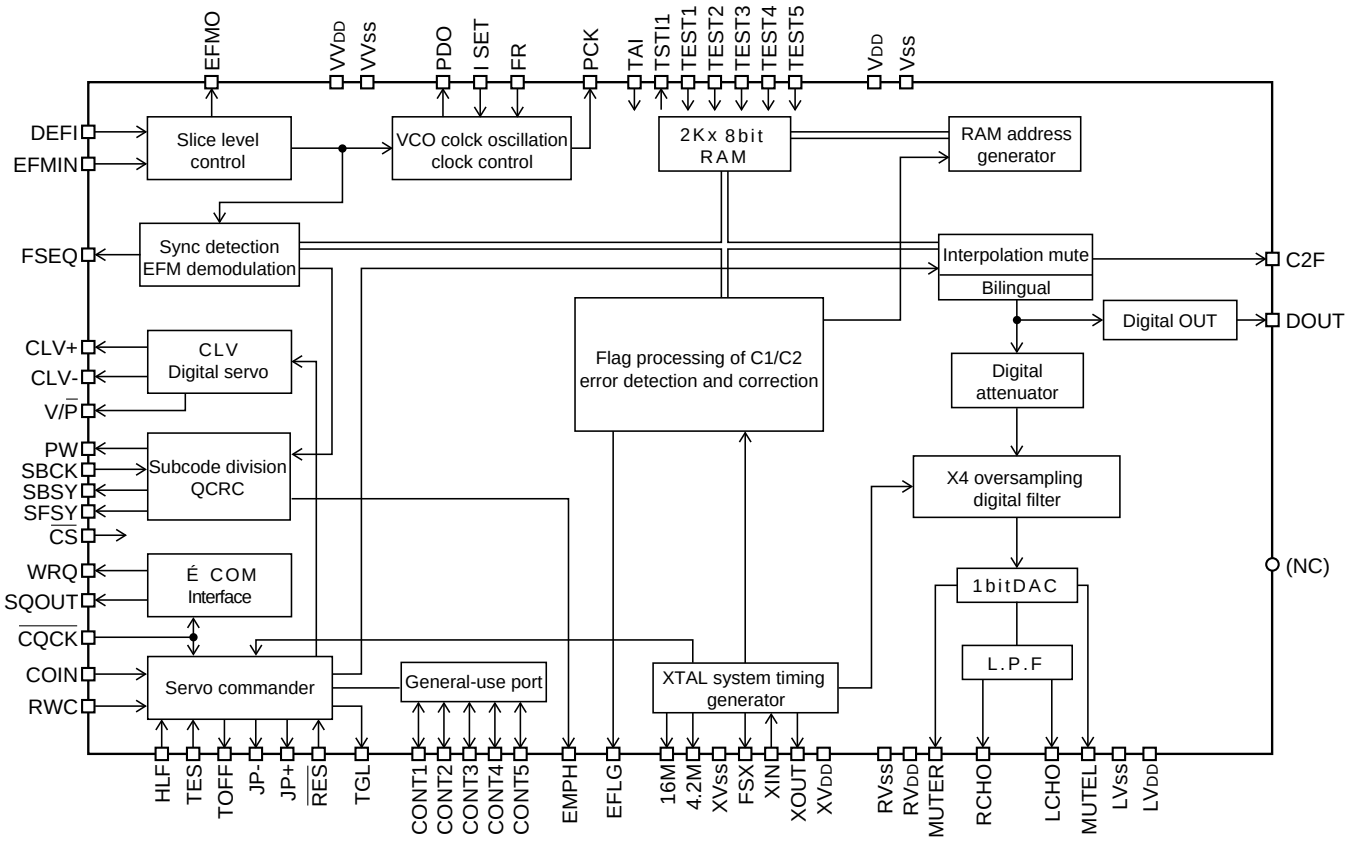


Figure 49 BLOCK DIAGRAM OF IC

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

Pin No.	Port Name	Function
1	FIN2	Connection pin for photodiode of pickup. 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	SP	Single end output for CV+ and CV- pin input.
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	————
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.

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. (± 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.

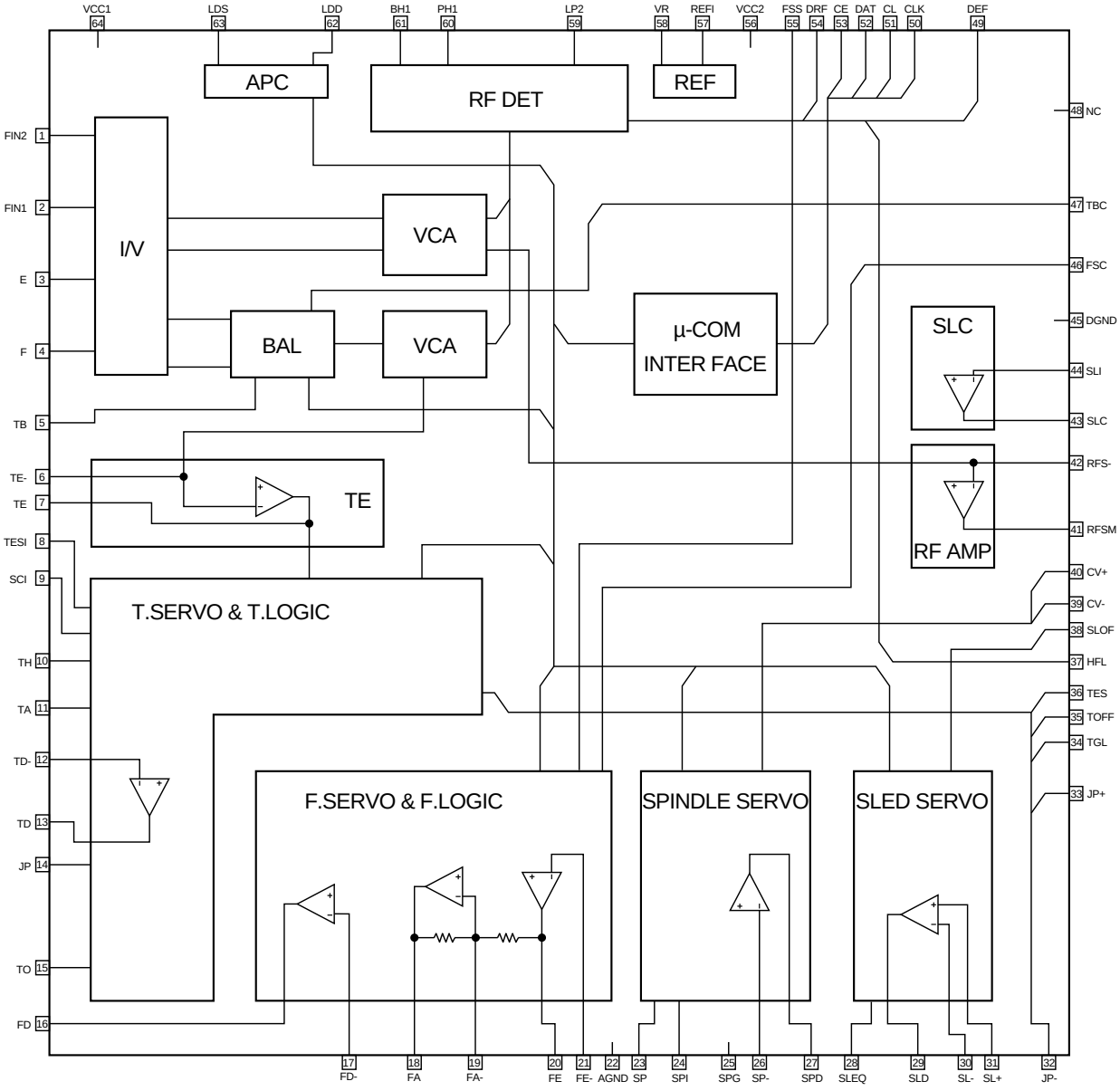


Figure 51 BLOCK DIAGRAM OF IC

IC201 RH-iX0171AWZZ:System Microcomputer (IX0171AW) (1/2)

Pin No.	Terminal Name	Input/Output	Function
1*	———————	Output	———————
2	REC/PB	—	Record/Playback selection signal
3*	———————	Output	———————
4*	CD MUT	Output	CD MUT signal
5	CD RES	Output	CD DSP RESET signal
6	CD SL-	Output	Slide return signal
7	CD SL+	Output	Slide feed signal
8	VDD	—	Power connection terminal
9	CD CQCK	Output	CD IC control signal
10	CD COIN	Output	CD IC control signal
11	CD SQOUT	Input	CD IC control signal
12	CD WRQ	Input	CD IC control signal
13	CD RWC	Output	CD IC control signal
14	SCK	Input	Main µCOM (RH-iX0170AWZZ) control signal
15	SO	Output	Main µCOM (RH-iX0170AWZZ) control signal
16	SI	Input	Main µCOM (RH-iX0170AWZZ) control signal
17	RESET	Input	Main µCOM (RH-iX0170AWZZ) control signal
18	STROBE	Input	Main µCOM (RH-iX0170AWZZ) control signal
19	CD PU-IN SW	Input	Pickup position detection
20	AVSS	—	To be connected to GND
21	CD DRF	Input	CD RF level detection input H: When RF level is H
22	T1 RUN	Input	Tape 1: Rotation pulse input
23	T2 RUN	Input	Tape 2: Rotation pulse input
24	SPEANA 5	Input	63Hz BPF spectrum analyzer input
25	SPEANA 4	Input	250Hz BPF spectrum analyzer input
26	SPEANA 3	Input	1kHz BPF spectrum analyzer input
27	SPEANA 2	Input	4kHz BPF spectrum analyzer input
28	SPEANA 1	Input	16kHz BPF spectrum analyzer input
29	AVDD	—	A/D converter analog positive power
30	AVREF	—	A/D converter reference power
31	TAPE CUM SW	Input	Tape mechanism cam SW input terminal
32*	———————	—	No connected
33	VSS	—	To be connected to GND
34	X1	—	Main clock terminal, not used
35	X2	—	Main clock terminal, not used
36*	LINE MUT	Output	Line mute output, not used
37	SURROUND MUT	Output	Surround mute output
38	CENTER MUT	Output	Center SP output mute output
39	SYSTEM MUT	Output	System mute output
40	MIC	Input	Mic input terminal (for detection)
41	EN	Output	DOLBY PRO logic IC control signal
42	DATA	Output	DOLBY PRO logic IC control signal
43	CLK	Output	DOLBY PRO logic IC control signal
44	SP DET	Input	Speaker output error detection input Occurrence of error: L
45	POWER	Output	Set power control output Power ON: H
46*	RELAY	Output	Speaker output relay control output Relay ON: H
47	TAPE TS CrO SW	Input	Tape mechanism 2 CrO_2 detection input CrO_2: H
48	VSS	Input	Digital GND terminal
49	TAPE F/R SPEED	Output	Tape feed/return
50	TAPE SOL	Output	Tape mechanism solenoid control output Attraction: L
51	TAPE MOTOR	Output	Tape mechanism motor control output

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

IC201 RH-iX0171AWZZ:System Microcomputer (IX0171AW) (2/2)

Pin No.	Terminal Name	Input/Output	Function
52	VDD	—	Positive power supply
53	CD O/C SW	Input	CD open-close switch input
54	DISC No. SW	Input	CD turntable position detection input
55	CD U/D SW	Input	CD mechanism UP/DOWN chucking detection input
56*	T1 CrO SW	Input	Tape 1 CrO_2 detection SW input
57*	SRS INH	Output	SRS (surround) position selection output
58*	SRS B	Output	SRS (surround) position selection output
59*	SRS A	Output	SRS (surround) position selection output
60*	SRS 3D	Output	SRS (surround) position selection output
61	SRS PASS	Output	SRS (surround) position selection output
62	SPAN 9K/10K	Input	Tuner span selector 9 kHz/10 kHz selection input
63	DOLBY	Input	DOLBY detection input, not applied in this machine
64	SRS	Input	SRS detection input, not applied in this machine
65	BALANCE	Input	BALANCE detection input, not applied in this machine
66	4SP	Input	4SP detection input, not applied in this machine
67	TAPE A-FP SW	Input	Tape A side miserase preventing SW input
68	TAPE B-FP SW	Input	Tape B side miserase preventing SW input
69	TAPE PB MUT	Output	Tape playback mute output
70	TAPE T1/T2	Output	Tape 1/2 selection
71	VLOAD	—	To be connected to GND
72	TAPE BIAS	Output	Tape bias circuit selection
73*	———	—	Not used
74*	———	—	Not used
75	TAPE BEET CUT	Output	Beat cancel signal control output
76*	TAPE HI SPEED	Output	Tape mechanism High-Low speed selection
77*	———	—	Not used
78*	———	—	Not used
79*	TAPE PB EQ	Output	Tape circuit playback Eq selection
80	TAPE REC MUT	Output	Tape circuit record muting output

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

IC701 RH-iX0170AWZZ:System Microcomputer (IX0170AW) (1/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
1-5	P94/FIP6-P90/FIP2	G06-G02	Output	FL display tube grid drive
6,7	P81/FIP1,P80/FIP0	G01,G00	Output	FL display tube grid drive
8	VDD	VDD	—	Positive power supply
9	P27/SCK0	C²B CLK	Output	C²B serial clock output
10	P26/SO0/SB1	C²B DO	Output	C²B serial data output
11	P25/SI0/SB0	C²B DI	Input	C²B serial data input
12	P24/BUSY	C²B CE	Output	C²B serial CE output
13	P23/STB	SUB STB	Output	Serial strobe output for CD/TAPE microcomputer
14	P22/SCK1	SUB SCK	Output	Serial clock output for CD/TAPE microcomputer
15	P21/SO1	SUB SO	Output	Serial data output for CD/TAPE microcomputer
16	P20/SI1	SUB SI	Input	Serial strobe input for CD/TAPE microcomputer
17	RESET	RESET	Input	Reset input
18	P74	SUB RES	Output	Reset output for CD/TAPE microcomputer
19	P73	TUN MUTE	Output	Tuner TUN MUT output
20	AVSS	AVSS	—	Analog power supply for A/D converter
21	P17/ANI7	TUN SD	Input	Tuner station detection input
22	P16/ANI6	TUN SM	Input	Tuner signal meter input
23	P15/ANI5	KEY IN5	Input	Key input 37-45
24	P14/ANI4	KEY IN4	Input	Key input 28-36
25	P13/ANI3	KEY IN3	Input	Key input 19-27
26	P12/ANI2	KEY IN2	Input	Key input 10-18
27	P11/ANI1	KEY IN1	Input	Key input 1-9
28	P10/ANI0	ENF IN	Input	Tuner initial setting input
29	AVDD	AVDD	—	Analog positive power supply for A/D converter
30	AVREF	AVREF	—	Reference power supply for A/D converter
31	P04/XT1	VSS	Input	Sub-clock input To be connected to Vss
32*	XT2	N.C	—	Sub-clock output OPEN
33	VSS	VSS	—	GND power
34	X1	X1	Input	Main clock 4.194304 MHz
35	X2	X2	Output	Main clock 4.194304 MHz
36	P37	LED LCK	Output	LED IC serial clock output BU2092 LCK
37	P36/BUZ	LED DATA	Output	LED IC serial data output BU2092 DATA
38	P35/PCL	LED CLK	Output	LED IC serial clock output BU2092CLK
39*	P34/TI2	RDS ID	Input	RDS RDS station detection input
40*	P33/TI1	RDS SYNC	Input	RDS Data sync detection input
41*	P32/TO2	RDS SYR	Output	RDS RAM reset output LC72720 SYR
42	P31/TO1	SYS MUTE	Output	System mute output
43	P30/TO0	POWER	Output	POWER output
44*	P03/INTP3/CI0		Output	No use
45*	P02/INTP2		Output	No use
46	P01/INTP1	SYS STOP	Input	Power failure input
47	P00/INTP0/TI0	REM IN	Input	Remote Control Input
48	IC	VSS	—	Connect with GND
49*	P72		Output	No use
50*	P71		Output	No use
51*	P70		Output	No use
52	VDD	VDD	—	Positive power supply
53*	P127/FIP33		—	No use
54-60	P126/FIP32-P120/FIP26	S21-S15	Output	FL display tube segment drive
61-68	P117/FIP25-P110/FIP18	S14-S07	Output	FL display tube segment drive
69,70	P107/FIP17,P106/FIP16	S06,S05	Output	FL display tube segment drive

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

IC701 RH-iX0170AWZZ:System Microcomputer (IX0170AW) (2/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
71	VLOAD	VLOAD	—	Negative power supply for FL drive To be connected to -30V
72-76	P105/FIP15-P101/FIP11	S04-S00	Output	FL display tube segment drive
77	P100/FIP10	G10	Output	FL display tube grid drive
78-80	P97/FIP9-P95/FIP7	G09-G07	Output	FL display tube grid drive

IC601 VHiLC75396N-1:Audio Processor (LC75396N)

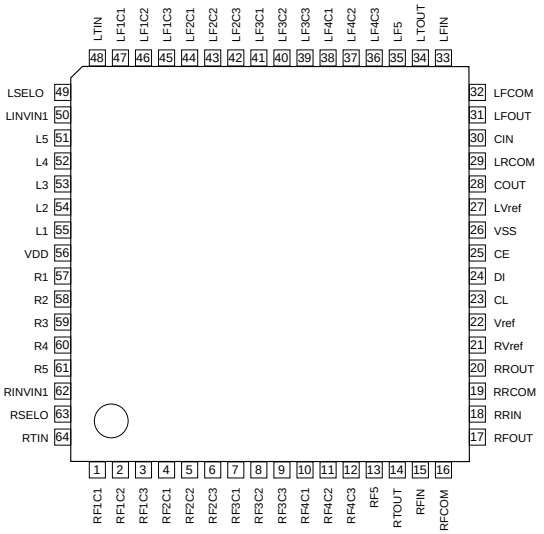


Figure 55-1 BLOCK DIAGRAM OF IC

IC501 VHiLV1035M/-1: Dolby Pro Logic Decorder (LV1035M)

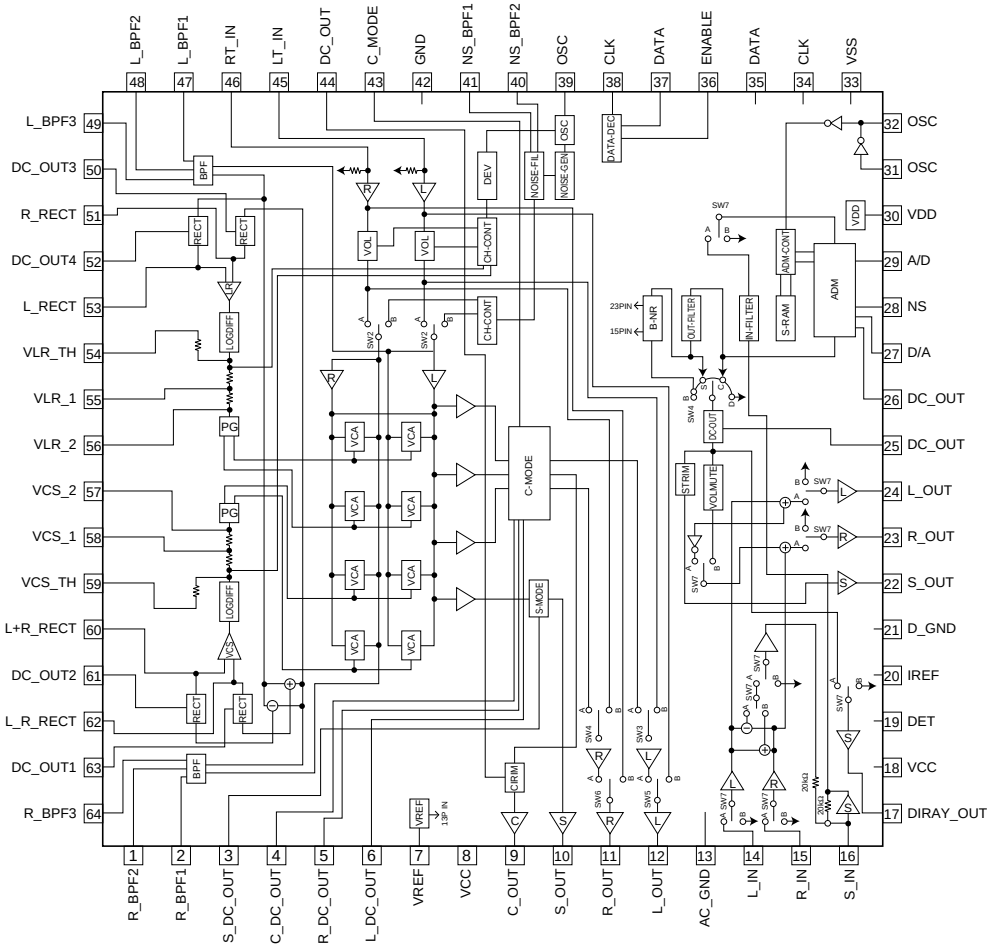


Figure 55-2 BLOCK DIAGRAM OF IC

IC601 VHiLC75396N-1:Audio Processor (LC75396N)

Pin No.	Terminal Name	Function
1-3*	RF1C1-RF1C3	Terminal to connect capacitor of filter configuration for equalizer F1 band Connect the capacitor between LF1C1(RF1C1) and LF1C2(RF1C2) between LF1C2 (RF1C2) and LF1C3(RF1C3).
4-6	RF2C1-RF2C3	Terminal to connect capacitor of filter configuration for equalizer F2 band Connect the capacitor between LF2C1(RF2C1) and LF2C2(RF2C2) between LF2C2 (RF2C2) and LF2C3(RF2C3).
7-9	RF3C1-RF3C3	Terminal to connect capacitor of filter configuration for equalizer F3 band Connect the capacitor between LF3C1(RF3C1) and LF3C2(RF3C2) between LF3C2 (RF3C2) and LF3C3(RF3C3).
10-12	RF4C1-RF4C3	Terminal to connect capacitor of filter configuration for equalizer F4 band Connect the capacitor between LF4C1(RF4C1) and LF4C2(RF4C2) between LF4C2 (RF4C2) and LF4C3(RF4C3).
13	RF5	Terminal to connect capacitor of filter configuration for equalizer F5 band Terminal to connect the externally provided capacitor
14	RTOUT	Equalizer output terminal
15	RFIN	Input terminal of Rch front side 4dB step control
16	RFCOM	Common terminal of Rch front side 1dB step control
17	RFOUT	Output terminal of Rch front side control
18	RRIN	Input terminal of Rch rear side 4dB step control
19	RRCOM	Common terminal of Rch rear side 1dB step control
20	RROUT	Output terminal of Rch rear side control
21	RVREF	Internal analog ground terminal
22	VREF	Connect the capacitor of about several 10 uF between Vref and AVSS (VSS) so as to prevent power supply ripple in the VDD/2 voltage generating section.
23	CL	Terminal to input serial data and clock for control
24	DI	Terminal to input serial data and clock for control
25	CE	Chip enable terminal. Data is written in the internal latch with a timing of changing H to L, and the specific analog switch is actuated. Data transfer is enabled on the H level.
26	VSS	GND
27	LVREF	Internal analog ground terminal
28	COUT	Output terminal of Lch rear side control
29	LRCOM	Common terminal of Lch rear side 1dB step control
30	CIN	Input terminal of Lch rear side 4dB step control
31	LFOUT	Output terminal of Lch front side control
32	LFCOM	Common terminal of Lch front side 1dB step control
33	LFIN	Input terminal of Lch front side 4dB step control
34	LTOUT	Equalizer output terminal
35	LF5	Terminal to connect capacitor of filter configuration for equalizer F5 band Terminal to connect the externally provided capacitor
36-38	LF4C3-LF4C1	Terminal to connect capacitor of filter configuration for equalizer F4 band Connect the capacitor between LF4C1(RF4C1) and LF4C2(RF4C2) between LF4C2 (RF4C2) and LF4C3(RF4C3).
39-41	LF3C3-LF3C1	Terminal to connect capacitor of filter configuration for equalizer F3 band Connect the capacitor between LF3C1(RF3C1) and LF3C2(RF3C2) between LF3C2 (RF3C2) and LF3C3(RF3C3).
42-44	LF2C3-LF2C1	Terminal to connect capacitor of filter configuration for equalizer F2 band Connect the capacitor between LF2C1(RF2C1) and LF2C2(RF2C2) between LF2C2 (RF2C2) and LF2C3(RF2C3).
45-47*	LF1C3-LF1C1	Terminal to connect capacitor of filter configuration for equalizer F1 band Connect the capacitor between LF1C1(RF1C1) and LF1C2(RF1C2) between LF1C2 (RF1C2) and LF1C3(RF1C3).
48	LTIN	Equalizer input terminal
49	LSELO	Input selector output terminal
50	LINVIN1	Operational amplifier reverse input terminal for input gain setting
51-55	L5-L1	Input signal terminal
56	VDD	Power terminal
57-61	R1-R5	Input signal terminal
62	RINVIN1	Operational amplifier reverse input terminal for input gain setting
63	RSELO	Input selector output terminal
64	RTIN	Equalizer input terminal

ICT21 VHiLC72720/-1:RDS Decorder (LC72720)

Pin No.	Terminal Name	Input/Output	Function
1	VREF	Output	Reference voltage output (Vdda/2)
2	MPXIN	Input	Base band (multiplex) signal input
3	Vdda	—	Analog system power supply (+5V)
4	Vssa	—	Analog system ground
5	FLOUT	Output	Sub-carrier input (comparator input)
6	CIN	Input	Sub-carrier output (filter output)
7	T1	Input	Test input (to be always connected to ground)
8	T2	Input	Test input (standby control) 0: Normal operation/1: Standby state (crystal oscillation stop)
9*	T3 (RDCL)	Input/Output	Test I/O (RDS clock output)
10*	T4 (RDDA)	Input/Output	Test I/O (RDS data output)
11 *	T5 (RSFT)	Input/Output	Test I/O (Soft judgment control data output)
12	XOUT	Output	Crystal oscillation output
13	XIN	Input	Crystal oscillation input (external reference signal input)
14	Vddd	—	Digital system power supply
15	Vssd	—	Digital system ground
16*	T6 (ERROR/57K/BE1)	Input/Output	Test I/O (Error existence/nonexistence output/playback carrier output/error block number output)
17*	T7 (CORREC/ARI-ID/BE0	Input/Output	Test I/O (Error existence/nonexistence output/SK detection output/error block number output)
18*	SYNC	Input/Output	Block sync detection output
19*	RDS-ID	Output	RDS detection output
20	DO	Output	Data output
21	CL	Input	Clock input
22	DI	Input	Data input
23	CE	Input	Chip enable
24	SYR	Input	Sync and RAM address reset (positive logic)

Serial data interface (CCB)

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

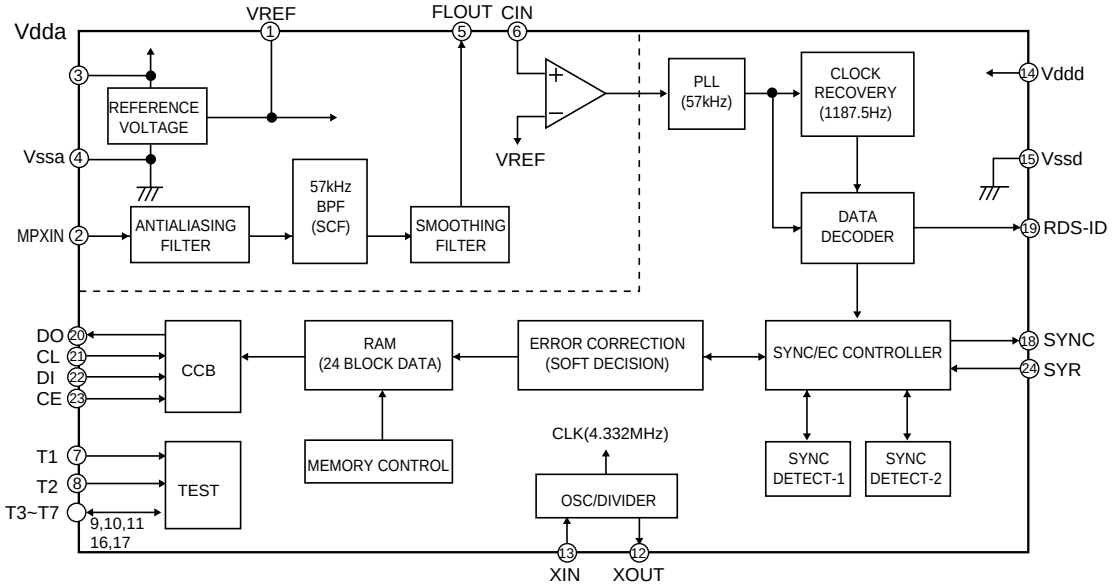


Figure 57 BLOCK DIAGRAM OF IC

IC3 VHiM56748FP-1: Focus/Tracking/Spin/Slide Driver (M56748FP)

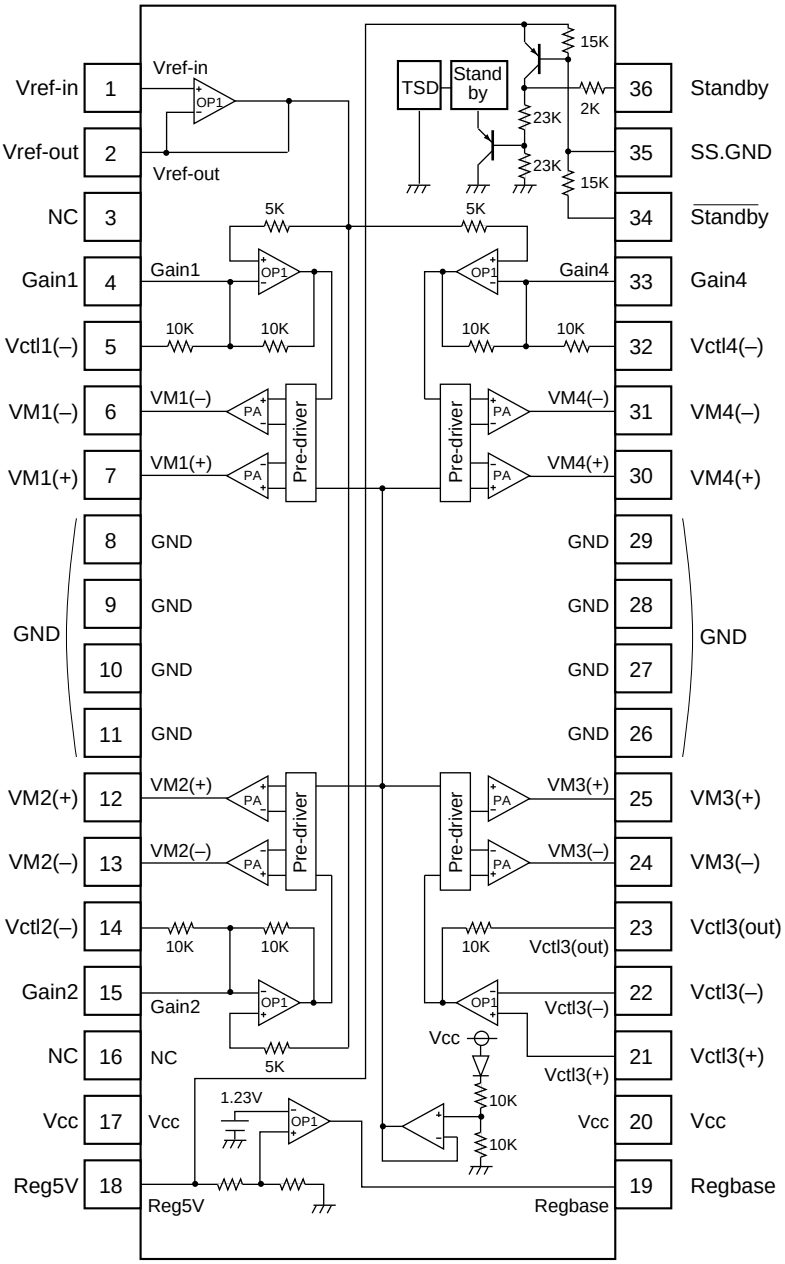


Figure 58 BLOCK DIAGRAM OF IC

FL701 : VVKBJ549GK/-1 FL Display

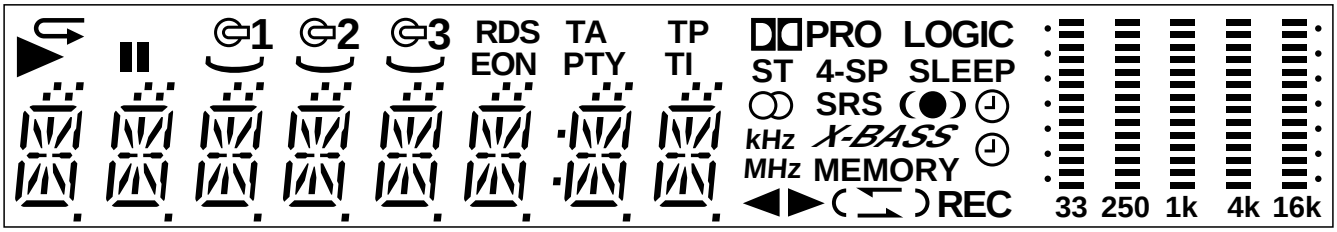


Figure 58 FL DISPLAY

SHARP

CD Stereo : CD-451H/C471H/C471W/C492/C492C

Date : Aug. 3, 1998

No. : EAA -883

Technical Report

Title

Ⓔ Correction of Service Manual
Ⓓ Korrektur der Service Anleitung
Ⓕ Correction du Manuel de Service

Model

MODEL	SERIAL No. (NEW)	QUANTITY (OLD)	ITEM
CD-C451H	----------	----------	1
CD-C471H	----------	----------	1
CD-C471W	----------	----------	1
CD-C492 CD-C492C	----------	----------	1

General

Ⓔ We inform you that there is a printing error in the parts list of Service Manual as follows.
Ⓓ Wir informieren Sie, daß es Druckfehler in der Teilliste von Service-Anleitung wie folgt gibt.
Ⓕ Nous vous informons qu'il y a une erreur d'impression dans la liste des pièces du Manuel de Service comme suit.

Refer to

Ⓔ Service Manual Ⓓ Service Anleitung Ⓕ Manuel de Service

Parts

ITEM	REF.No.	DESCRIPTION	REPLACEMENT PART No.				INTER-CHANGE-ABILITY	EFFEC-TIVE FROM	PRICE RANK
			WRONG No.	Q'ty	CORRECT No.	Q'ty			
1	------	Head,Playback[Tape]	RHEDK0002AWZZ	1	RHEDK0002AWM1	1	F	------	---

<Interchange>	
A: Interchangeable.	D: Not interchangeable.
B: Current type can be used in place of new type. New type cannot be used in place of current type.	E: Interchangeable if replaced with same types of related parts in use.
C: Current type cannot be used in place of new type. New type can be used in place of current type.	F: Others

SHARP

Date : Mar. 19, 1999

CD Stereo : CD-C471H/C471W

No. : EAA-915

Technical Report

Title

Ⓔ Correction of Service Manual
Ⓓ Korrektur der Service Anleitung
Ⓕ Correction du Manuel de Service

Model

MODEL	SERIAL No. (NEW)	QUANTITY (OLD)	ITEM
CD-C471H	----------	----------	1,2
CD-C471W	----------	----------	-----

General

Ⓔ We inform you that there is a printing error in the parts list of Service Manual as follows.
•Please order or supply parts using the part codes which have correct numbers.
Ⓓ Wir informieren Sie, daß es Druckfehler in der Teilliste von Service-Anleitung wie folgt gibt.
•Bitte bestellen oder liefern Sie Teile durch die Teilcodes mit korrekten Nummern.
Ⓕ Nous vous informons qu'il y a une erreur d'impression dans la liste des pièces du Manuel de Service comme suit.
•Commandez ou fournissez des pièces avec des codes de pièce ayant le numéro correct.

Refer to

Ⓔ Service Manual Ⓓ Service Anleitung Ⓕ Manuel de Service

Parts

ITEM	REF.No.	DESCRIPTION	REPLACEMENT PART No.				INTER-CHANGE-ABILITY	EFFEC-TIVE FROM	PRICE RANK
			WRONG No.	Q'ty	CORRECT No.	Q'ty			
1	F802 F803	Fuse,T3.15A L 200V	92LFUSET402E	1	92LFUSET312E	1	F	-----	AD
2	F804	Fuse,T4A L 250V	92LFUSE-T302-E	1	92LFUSE-T402-E	1	F	-----	AD

<Interchange>	
A: Interchangeable.	D: Not interchangeable.
B: Current type can be used in place of new type. New type cannot be used in place of current type.	E: Interchangeable if replaced with same types of related parts in use.
C: Current type cannot be used in place of new type. New type can be used in place of current type.	F: Others.

Blue
C

SHARP CORPORATION Audio-Visual Systems Group Q.R.C.C

SG•SA•SZ•EX

No	PARTS CODE	DESCRIPTION
F804	92LFUSE-T402-E	Fuse,T4AL 250V
F901 F902	92LFUSE-T402-E	Fuse,T4AL 250V

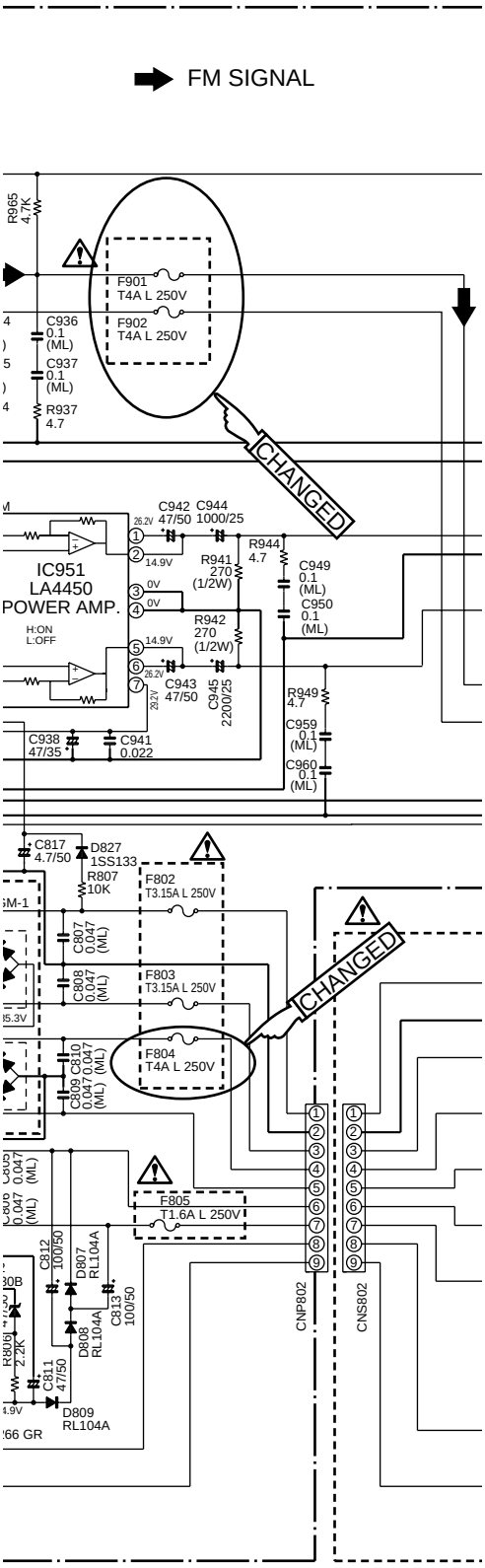


Figure 27 SCHEMATIC DIAGRAM(10/13)

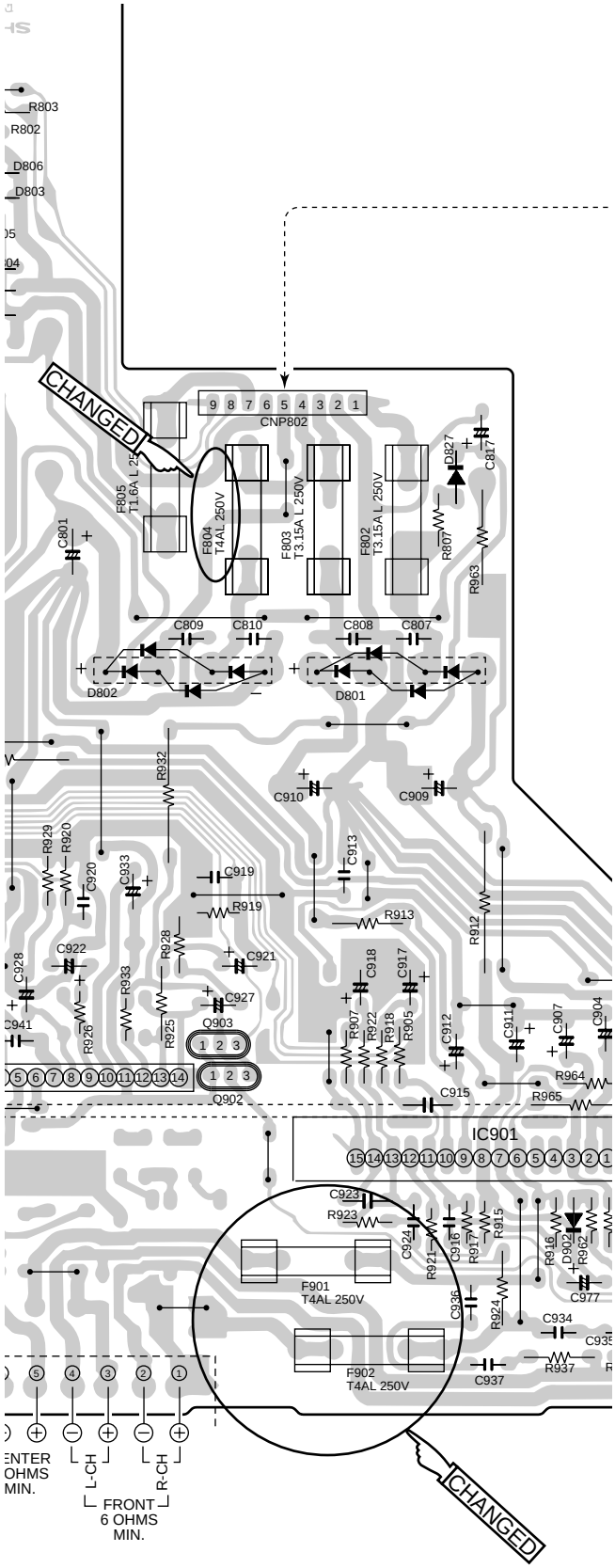


Figure 36 WIRING SIDE OF P.W.BBOARD(6/8)(10/13)

SHARP

Date : Mar. 26, 1999

CD Stereo : CD-C440/C470/C471 Series
CD-C451H/C445W

No. : EAA-921

Technical Report

Title

Ⓔ Change of Parts
Ⓓ Abänderung der Teile
Ⓕ Changement de pièces

Model

MODEL	SERIAL No. (NEW)	QUANTITY (OLD)	ITEM
CD-C440 Series/ CD-C445W	901✳✳✳✳✳~	----------	1
CD-C451H/ CD-C470 Series	901✳✳✳✳✳~	----------	1
CD-C471 Series	901✳✳✳✳✳~	----------	1

General

Ⓔ We inform you that the parts code of following Service Manual have been changed.
Ⓓ Wir teilen Ihnen mit, daß der Teilcode für die folgende Service-Anleitung geändert wurde.
Ⓕ Nous vous informons que nous changé les codes de pièce pour ie manuel de service suivant.

Refer to

Ⓔ Service Manual Ⓓ Service Anleitung Ⓕ Manuel de Service

Parts

ITEM	REF.No.	DESCRIPTION	REPLACEMENT PART No.				INTER-CHANGE-ABILITY	EFFEC-TIVE FROM	PRICE RANK
			OLD No.	Q'ty	NEW No.	Q'ty			
1	254-9	Head,Play back [TAPE2]	RHEDK0002AWM1	1	RHEDK0005AWM1	1	A	Jan. '99	AQ

<Interchange>	
A: Interchangeable.	D: Not interchangeable.
B: Current type can be used in place of new type. New type cannot be used in place of current type.	E: Interchangeable if replaced with same types of related parts in use.
C: Current type cannot be used in place of new type. New type can be used in place of current type.	F: Others.

Blue
C

SHARP CORPORATION Audio-Visual Systems Group Q.R.C.C

SC•SL•SG•SK•SA•SZ•EX

SHARP PARTS GUIDE

MODEL CD-C471H

**CP-C471H, CENTER(GBOXS0006AWM5)
and SURROUND(GBOXS0007AWM5) Speaker System
Constitute CD-C471H.**

"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.

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
INTEGRATED CIRCUITS				
IC1	VHILA9241M/-1	J	AS	Servo Amp.,LA9241M
IC2	VHILC78622K-1	J	AY	Servo/Signal Control,LC78622K
IC3	VHIM56748FP-1	J	AR	Focus/Tracking/Spin/Slide Driver,M56748FP
IC81	VHITA7291S/-1	J	AH	Loading Motor Driver, TA7291S
IC99	VHPGP1F32T/-1	J	AP	Optical Fiber Data Link, GP1F32T
IC101	VHIAN7345K/-1	J	AM	Playback and Record/ Playback Amp.,AN7345K
IC201	RH-IX0171AWZZ	J	AV	System Microcomputer, IX0171AW
IC302	VHILC72131/-1	J	AP	PLL (Tuner) LC72131
IC303	VHILA1832//-1	J	AR	FM IF Det./FM Mpx./ AM IF, LA1832
IC451	VHINJM4558L-1	J	AC	Sub Woofer Amp.,NJM4558L
IC501	VHILV1035M/-1	J	BC	Dolby Pro Logic Decorder, LV1035M
IC561~563	VHINJM4558L-1	J	AC	Ope Amp.,NJM4558L
IC601	VHILC75396N-1	J	AX	Audio Processor,LC75396N
IC651	VHINJM4558L-1	J	AC	Ope Amp.,NJM4558L
IC681	VHINJM4560L-1	J	AC	Headphone Amp.,NJM4560L
IC701	RH-IX0170AWZZ	J	AW	System Microcomputer, IX0170AW
IC702	VHIBU2092F/-1	J	AM	Input/Output Expander, BU2092F
IC901	VHISTK40704-1	J	AZ	Power Amp.,STK40704
IC951	VHILA4450//-1	J	AH	Power Amp.,LA4450
ICT21	VHILC72720/-1	J	AW	RDS Decorder,LC72720
TRANSISTORS				
Q1	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q51	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q52	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q91	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
Q93	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q103~106	VS2SC1845F/-1	J	AC	Silicon,NPN,2SC1845 F
Q107,108	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q109	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q110,111	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q117,118	VS2SC2878A/-1	J	AE	Silicon,NPN,2SC2878 A
Q121,122	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q124	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q126	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q128	VS2SC2236-Y-1	J	AB	Silicon,NPN,2SC2236 Y
Q129,130	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q201	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q301	VS2SC380-O/-1	J	AC	Silicon,NPN,2SC380 O
Q302~304	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
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
Q362	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
Q371	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q601~604	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q609	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q671~676	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q701	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q704	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q705,706	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q710	VS2SD468-C/-1	J	AD	Silicon,NPN,2SD468 C
Q801	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q820	VS2SD2012//-1	J	AD	Silicon,NPN,2SD2012
Q822	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q823,824	VS2SD2012//-1	J	AD	Silicon,NPN,2SD2012
Q825,826	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q827	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
Q901	VSKTA1268GR-1	J	AC	Silicon,PNP,KTA1268 GR
Q902,903	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q905	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QM02	VSKTA1273Y/-1	J	AE	Silicon,PNP,KTA1273 Y
QM03	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
QM05	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
QT21	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
DIODES				
D1	VHD1SS133//-1	J	AA	Silicon,1SS133
D2~4	VHDRL104A//-1	J	AB	Silicon,RL104A
D81,82	VHD1SS133//-1	J	AA	Silicon,1SS133
D91	VHD1SS133//-1	J	AA	Silicon,1SS133
D201~210	VHD1SS133//-1	J	AA	Silicon,1SS133
D301~304	VHD1SS133//-1	J	AA	Silicon,1SS133
D351~353	VHD1SS133//-1	J	AA	Silicon,1SS133
D515,516	VHDRL104A//-1	J	AB	Silicon,RL104A
D540,541	VHD1SS133//-1	J	AA	Silicon,1SS133
D551~558	VHD1SS133//-1	J	AA	Silicon,1SS133
D601	VHD1SS133//-1	J	AA	Silicon,1SS133
D604~611	VHD1SS133//-1	J	AA	Silicon,1SS133
D705~709	VHD1SS133//-1	J	AA	Silicon,1SS133
⚠ D801,802	VHDTS6B04GM-1	J	AP	Silicon,TS6B04GM-1
D803~809	VHDRL104A//-1	J	AB	Silicon,RL104A
D820	VHD1SS133//-1	J	AA	Silicon,1SS133
D822,823	VHDRL104A//-1	J	AB	Silicon,RL104A
D824	VHD1SS133//-1	J	AA	Silicon,1SS133
D827	VHD1SS133//-1	J	AA	Silicon,1SS133
D902,903	VHD1SS133//-1	J	AA	Silicon,1SS133
DM02,03	VHD1SS133//-1	J	AA	Silicon,1SS133
LED701~711	VHP333GTH2/-1	J	AD	LED,Green,333GTH2
VD301	VHCKV1236Z23F	J	AS	Variable Capacitance, KV1236Z23F
ZD61	VHEMTZJ5R6B-1	J	AD	Zener,5.6V,MTZJ5.6B
ZD201	VHEMTZJ130C-1	J	AB	Zener,13V,MTZJ13C
ZD351	VHEMTZJ5R1B-1	J	AC	Zener,5.1V,MTZJ5.1B
ZD352	VHEMTZJ3R9B-1	J	AC	Zener,3.9V,MTZJ3.9B
ZD551	VHEMTZJ6R2C-1	J	AC	Zener,6.2V,MTZJ6.2C
ZD701	VHEMTZJ3R9B-1	J	AC	Zener,3.9V,MTZJ3.9B
ZD710	VHEMTZJ6R2C-1	J	AC	Zener,6.2V,MTZJ6.2C
ZD801	VHEMTZJ6R2A-1	J	AA	Zener,6.2V,MTZJ6.2A
ZD802	VHEMTZJ300B-1	J	AB	Zener,MTZJ300B
ZD820	VHEMTZJ8R2C-1	J	AB	Zener,8.2V,MTZJ8.2C
ZD822	VHEMTZJ130C-1	J	AB	Zener,13V,MTZJ13C
ZDT21	VHEMTZJ5R1B-1	J	AC	Zener,5.1V,MTZJ5.1B
FILTERS				
CF301,302	RFILF0072AFZZ	J	AG	FM IF
CF351	RFILF0003AWZZ	J	AK	FM IF
CF352	RFILA0009AWZZ	J	AE	AM IF
TRANSFORMERS				
T301	RCILA1074AFZZ	J	AD	LW Antenna
T302	RCILA1064AFZZ	J	AD	MW Antenna
T305	RCILB1073AFZZ	J	AC	OSC,LW
T306	RCILB1074AFZZ	J	AC	OSC,MW
T351	RCILI0011AWZZ	J	AD	AM IF
⚠ T801	RTRNP0198AWZZ	J	BC	Power
COILS				
L61	VP-XHR82K0000	J	AC	0.82 µH
L99	VP-DH2R2K0000	J	AB	2.2 mmH,Peaking
L101,102	VP-MK182K0000	J	AC	1.8 mH,Choke
L103	VP-MK102K0000	J	AB	1 mH,Choke
L104	VP-MK331K0000	J	AB	330 µH,Choke
L107,108	VP-XH2R2K0000	J	AB	2.2 µH,Choke
L201	VP-DH101K0000	J	AB	100 µH,Choke
L341	RBLN-0001AWZZ	J	AD	Balun
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
L354	RFILL0001AWZZ	J	AE	Low Pass Filter
L701	VP-DH101K0000	J	AB	100 µH,Choke
L801	RCILZ0008AWZZ	J	AH	Core
L901~904	RCILZ0137AFZZ	J	AA	0.29 µH
LT21,22	VP-XH2R2K0000	J	AB	2.2 µH,Choke
VARIABLE RESISTORS				
VR351	RVR-M0999AFZZ	J	AB	10 kohm (B),Semi-VR [VCC]
VRM1	RVR-M0556AFZZ	J	AB	3,3 kohms (B),Semi-VR [TAPE]
VIBRATORS				
X351	92LCRSTL1425A	J	AF	Crystal,456 kHz
X352	RCRSP0002AWZZ	J	AH	Crystal,4.5 MHz
X501	RCRM-0173AFZZ	J	AE	Ceramic,8 MHz
XL1	RCRSP0005AWZZ	J	AF	Crystal,16.934 MHz
XL201	RCRM-0147AFZZ	J	AD	Ceramic,4.19 MHz
XL701	RCRSP0003AWZZ	J	AH	Crystal,4.19 MHz
XT21	RCRSB0030AWZZ	J	AH	Crystal,4.332 MHz

CAPACITORS

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
C1	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C2	VCTYMN1CY103N	J	AA	0.01 µF,16V
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	VCKYMN1HB181K	J	AA	180 pF,50V
C11,12	VCTYPA1CX104K	J	AB	0.1 µF,16V
C13	VCKYMN1HB331K	J	AA	330 pF,50V
C14,15	VCTYMN1CY103N	J	AA	0.01 µF,16V
C16	VCTYMN1CX472K	J	AA	0.0047 µF,16V
C17	VCKYMN1HB102K	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	VCTYMN1CX332K	J	AA	0.0033 µF,16V
C22	VCCSPA1HL221J	J	AA	220 pF,50V
C23	VCTYMN1CX272K	J	AA	0.0027 µF,16V
C24	VCCSMN1HL2R2C	J	AB	2.2 pF,50V
C25	VCCSMN1HL270J	J	AA	27 pF,50V
C26	VCTYPA1CX333K	J	AA	0.033 µF,16V
C27	VCKYMN1HB102K	J	AA	0.001 µF,50V
C28	VCTYPA1CX104K	J	AB	0.1 µF,16V
C29	VCEAZA1HW475M	J	AB	4.7 µF,50V,Electrolytic
C30	VCEAZA1HW104M	J	AB	0.1 µF,50V,Electrolytic
C31	VCEAZA0JW227M	J	AC	220 µF,6.3V,Electrolytic
C32	VCTYMN1CY103N	J	AA	0.01 µF,16V
C33	VCEAZA1HW474M	J	AB	0.47 µF,50V,Electrolytic
C34	VCEAZA1HW334M	J	AB	0.33 µF,50V,Electrolytic
C35	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C36	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
C37	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C38	VCTYMN1CY103N	J	AA	0.01 µF,16V
C39,40	VCKZPA1HF473Z	J	AA	0.047 µF,50V
C41	VCCSPA1HL120J	J	AA	12 pF,50V
C42	VCCSPA1HL150J	J	AA	15 pF,50V
C43	VCEAZA0JW337M	J	AC	330 µF,6.3V,Electrolytic
C44~49	VCKYMN1HB101K	J	AA	100 pF,50V
C50	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C51,52	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
C53	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C54	VCKYBT1HB102K	J	AA	0.001 µF,50V
C56	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C57	VCKYBT1HB102K	J	AA	0.001 µF,50V
C71,72	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C73,74	VCKYMN1HB221K	J	AA	220 pF,50V
C75	VCKYBT1HB102K	J	AA	0.001 µF,50V
C81,82	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C83	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C84,85	VCKYBT1HB102K	J	AA	0.001 µF,50V
C98	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C99	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C101,102	VCKYMN1HB681K	J	AA	680 pF,50V
C105,106	VCKYMN1HB331K	J	AA	330 pF,50V
C107,108	VCKYMN1HB681K	J	AA	680 pF,50V
C109	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C110	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C111~114	VCKYMN1HB331K	J	AA	330 pF,50V
C115,116	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C117,118	VCTYPA1EX333K	J	AA	0.033 µF,25V
C119,120	VCKYMN1HB561K	J	AA	560 pF,50V
C121,122	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C127	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C128	VCEAZA1HW335M	J	AB	3.3 µF,50V,Electrolytic
C129,130	VCKYMN1HB471K	J	AA	470 pF,50V
C133,134	VCEAZA1EW226M	J	AB	22 µF,25V,Electrolytic
C135,136	VCTYPA1CX393K	J	AB	0.039 µF,16V
C139,140	VCTYMN1CX332K	J	AA	0.0033 µF,16V
C141,142	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C143,144	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C145	VCEAZA1EW226M	J	AB	22 µF,25V,Electrolytic
C146	VCEAZA1AW227M	J	AC	220 µF,10V,Electrolytic
C147	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C150	VCQPKA2AA822J	J	AA	0.0082 µF,100V,Polypropylene
C151	VCQYKA1HM273K	J	AB	0.027 µF,50V,Mylar
C152	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C155	VCKYMN1HB101K	J	AA	100 pF,50V
C156	VCTYBT1EF223Z	J	AA	0.022 µF,25V

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C161	VCCSPA1HL561J	J	AA	560 pF,50V
C162	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C163	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C199	VCKYBT1HB101K	J	AA	100 pF,50V
C201	VCEAZA1AW227M	J	AC	220 µF,10V,Electrolytic
C202	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C203~205	VCKYMN1HB151K	J	AA	150 pF,50V
C206	VCKYMN1HB102K	J	AA	0.001 µF,50V
C207	VCKYMN1HB151K	J	AA	150 pF,50V
C208	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C209	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C210	VCEAZA1EW226M	J	AB	22 µF,25V,Electrolytic
C250~252	VCCSPA1HL221J	J	AA	220 pF,50V
C301	VCKYMN1HB102K	J	AA	0.001 µF,50V
C302	VCKYBT1HB102K	J	AA	0.001 µF,50V
C321	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic
C322	VCCCMN1HH6R8D	J	AA	6.8 pF (CH),50V
C323	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C324	VCCUMN1HJ270J	J	AA	27 pF (UJ),50V
C325	VCKYMN1HB221K	J	AA	220 pF,50V
C326	VCCCMN1HH180J	J	AA	18 pF (CH),50V
C327	VCKYMN1HB681K	J	AA	680 pF,50V
C328	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C329	VCCSPA1HL330J	J	AA	33 pF,50V
C330	VCCUMN1HJ100J	J	AA	10 pF (UJ),50V
C331	VCKYPA1HF473Z	J	AB	0.047 µF,50V
C332	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C333	VCCCMN1HH220J	J	AA	22 pF (CH),50V
C334	VCCUMN1HJ180J	J	AA	18 pF (UJ),50V
C335	VCCCMN1HH180J	J	AA	18 pF (CH),50V
C336	VCKYMN1HB471K	J	AA	470 pF,50V
C337	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C338	VCKYMN1HB102K	J	AA	0.001 µF,50V
C339	VCCCMN1HH220J	J	AA	22 pF (CH),50V
C341,342	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C343	VCCSMN1HL330J	J	AA	33 pF,50V
C345~347	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C350,351	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C352	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C353,354	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C355	VCCSMN1HL220J	J	AA	22 pF,50V
C356	VCKYMN1HB102K	J	AA	0.001 µF,50V
C357	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C358	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C361	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C362	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C363	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C364	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C365	VCTYPA1CX223K	J	AA	0.022 µF,16V
C366	VCKYMN1HB102K	J	AA	0.001 µF,50V
C367,368	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C369	VCCSBT1HL270J	J	AA	27 pF,50V
C370~372	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C373,374	VCTYPA1CX333K	J	AA	0.033 µF,16V
C375	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C380	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C381	VCCCMN1HH120J	J	AA	12 pF (CH),50V
C382	VCCCMN1HH150J	J	AA	15 pF (CH),50V
C384	VCKYMN1HB102K	J	AA	0.001 µF,50V
C385	VCTYMN1CY103K	J	AA	0.01 µF,16V
C386	VCKYMN1HB331K	J	AA	330 pF,50V
C387	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C391	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C392	VCKYMN1HB102K	J	AA	0.001 µF,50V
C393	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C394	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C395	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C396	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C397	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C398	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C399	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C451	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C452	VCCSPA1HL101J	J	AA	100 pF,50V
C453	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C454	VCQYKA1HM154K	J	AB	0.15 µF,50V,Mylar
C455	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C456	VCQYKA1HM154K	J	AB	0.15 µF,50V,Mylar
C458	VCQYKA1HM823K	J	AC	0.082 µF,50V,Mylar
C459	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
C460	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C461	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C462	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
C469	VCCSPA1HL331J	J	AA	330 pF,50V
C485	VCTYPA1EX332K	J	AA	0.0033 µF,25V
C501	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C502,503	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C504	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C505	VCEAZA1HW474M	J	AB	0.47 µF,50V,Electrolytic
C506	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C507	VCKZPA1HF473Z	J	AA	0.047 µF,50V
C508	VCCSPA1HL681J	J	AA	680 pF,50V
C509	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C510,511	VCEAZA1HW474M	J	AB	0.47 µF,50V,Electrolytic
C512,513	VCEAZA1HW475M	J	AB	4.7 µF,50V,Electrolytic
C514	VCQYKA1HM823K	J	AC	0.082 µF,50V,Mylar
C515	VCQYKA1HM332K	J	AA	0.0033 µF,50V,Mylar
C516	VCEAZA1HW154M	J	AB	0.15 µF,50V,Electrolytic
C517	VCQYKA1HM823K	J	AC	0.082 µF,50V,Mylar
C518	VCEAZA1HW335M	J	AB	3.3 µF,50V,Electrolytic
C519	VCEAZA1HW474M	J	AB	0.47 µF,50V,Electrolytic
C520	VCEAZA1HW154M	J	AB	0.15 µF,50V,Electrolytic
C521	VCEAZA1HW334M	J	AB	0.33 µF,50V,Electrolytic
C522	VCEAZA1HW154M	J	AB	0.15 µF,50V,Electrolytic
C523,524	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C525	VCEAZA1HW335M	J	AB	3.3 µF,50V,Electrolytic
C526	VCEAZA1HW154M	J	AB	0.15 µF,50V,Electrolytic
C527	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C528~530	VCEAZA1HW475M	J	AB	4.7 µF,50V,Electrolytic
C531	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C532	VCEAZA1CW227M	J	AC	220 µF,16V,Electrolytic
C533	VCEAZA1HW474M	J	AB	0.47 µF,50V,Electrolytic
C534	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C535	RC-EZY106AF1H	J	AB	10 µF,50V,Electrolytic
C536	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C537	RC-EZY106AF1H	J	AB	10 µF,50V,Electrolytic
C538	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C539	VCEAZA1CW227M	J	AC	220 µF,16V,Electrolytic
C540	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C541,542	VCEAZA1CW227M	J	AC	220 µF,16V,Electrolytic
C543	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C544	VCEAZA1CW227M	J	AC	220 µF,16V,Electrolytic
C545	VCCSPA1HL221J	J	AA	220 pF,50V
C547,548	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C549,550	VCCSPA1HL221J	J	AA	220 pF,50V
C551	VCKYMN1HB271K	J	AA	270 pF,50V
C552	VCKYMN1HB681K	J	AA	680 pF,50V
C553	VCTYMN1CX272K	J	AA	0.0027 µF,16V
C554	VCTYMN1CX822K	J	AA	0.0082 µF,16V
C555,556	VCTYMN1CX682K	J	AA	0.0068 µF,16V
C557	VCKYMN1HB271K	J	AA	270 pF,50V
C558	VCKYMN1HB681K	J	AA	680 pF,50V
C559	VCTYMN1CX272K	J	AA	0.0027 µF,16V
C560	VCTYMN1CX822K	J	AA	0.0082 µF,16V
C561	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C562	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C563	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C564~568	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C569	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C570	VCKYMN1HB102K	J	AA	0.001 µF,50V
C601~610	VCFYHA1HA224J	J	AC	0.22 µF,50V,Thin Film
C611,612	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C613,614	VCKYMN1HB101K	J	AA	100 pF,50V
C615~618	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C623,624	VCEAZA1HW224M	J	AB	0.22 µF,50V,Electrolytic
C625,626	VCEAZA1HW104M	J	AB	0.1 µF,50V,Electrolytic
C627,628	VCEAZA1HW224M	J	AB	0.22 µF,50V,Electrolytic
C629,630	VCQYKA1HM273K	J	AB	0.027 µF,50V,Mylar
C631,632	VCQYKA1HM153K	J	AB	0.015 µF,50V,Mylar
C633,634	VCQYKA1HM222K	J	AA	0.0022 µF,50V,Mylar
C635,636	VCQYKA1HM472K	J	AB	0.0047 µF,50V,Mylar
C637,638	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C639,640	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C641,642	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C643,644	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C645,646	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C647~649	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C651,652	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C655,656	VCKYMN1HB331K	J	AA	330 pF,50V
C657,658	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C659,660	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C661~664	VCKYMN1HB102K	J	AA	0.001 µF,50V
C665	VCEAZA1HW226M	J	AB	22 µF,50V,Electrolytic
C666,667	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C668	VCEAZA1HW226M	J	AB	22 µF,50V,Electrolytic

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C669	VCEAZA1EW226M	J	AB	22 µF,25V,Electrolytic
C670~673	VCKYMN1HB391K	J	AA	390 pF,50V
C674	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C676	VCEAZA1CW337M	J		330 µF,16V,Electrolytic
C677	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C678,679	VCKYMN1HB102K	J	AA	0.001 µF,50V
C680	VCKYBT1HB221K	J	AA	220 pF,50V
C681,682	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C683,684	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C685,686	VCKYMN1HB221K	J	AA	220 pF,50V
C687	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C688	VCKYBT1HB221K	J	AA	220 pF,50V
C689,690	VCKYMN1HB101K	J	AA	100 pF,50V
C691~693	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C694	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C695~698	VCKYMN1HB102K	J	AA	0.001 µF,50V
C699	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C701	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C702	VCEAZA1AW227M	J	AC	220 µF,10V,Electrolytic
C703	VCCSMN1HL150J	J	AA	15 pF,50V
C704	VCCSMN1HL180J	J	AA	18 pF,50V
C706	VCTYMN1CY103N	J	AA	0.01 µF,16V
C707	VCEAZA1HW335M	J	AB	3.3 µF,50V,Electrolytic
C708	VCTYMN1CY103N	J	AA	0.01 µF,16V
C709	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C710	VCEAZA1AW227M	J	AC	220 µF,10V,Electrolytic
C712,713	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C715	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C716	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C721~723	VCKYMN1HB151K	J	AA	150 pF,50V
C724,725	VCKYBT1HB151K	J	AA	150 pF,50V
C726	VCKYMN1HB151K	J	AA	150 pF,50V
C729	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C730	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C731	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C732	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C733	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
C734,735	VCTYBT1CX472M	J	AA	0.0047 µF,16V
C801	VCEAZW1HW228M	J		2200 µF,50V,Electrolytic
C802	VCEAZA1VW107M	J	AC	100 µF,35V,Electrolytic
C803,804	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C805,806	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C807~810	VCFYHA1HA224J	J	AC	0.22 µF,50V,Thin Film
C811	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C812,813	VCEAZA1HW107M	J	AC	100 µF,50V,Electrolytic
C817	VCEAZA1HW475M	J	AB	4.7 µF,50V,Electrolytic
C820	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C823	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C824	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C825	VCEAZA1EW226M	J	AB	22 µF,25V,Electrolytic
C826~828	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C829	VCEAZW1EW478M	J	AK	4700 µF,25V,Electrolytic
C831	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C901	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C902	VCCSPA1HL221J	J	AA	220 pF,50V
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		2200 µF,50V,Electrolytic
C911,912	VCEAZA1HW107M	J	AC	100 µF,50V,Electrolytic
C913	VCKYPA1HB102K	J	AA	0.001 µF,50V
C915	VCCSBT1HL121J	J		120 pF,50V
C916	VCCSPA1HL150J	J	AA	15 pF,50V
C917,918	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C919,920	VCTYPA1EX152K	J	AA	0.0015 µF,25V
C921,922	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C923	VCCSBT1HL121J	J		120 pF,50V
C924	VCCSPA1HL150J	J	AA	15 pF,50V
C927,928	VCEAZA1VW476M	J	AC	47 µF,35V,Electrolytic
C932	VCKYBT1HB102K	J	AA	0.001 µF,50V
C933	VCEAZA1VW227M	J	AC	220 µF,35V,Electrolytic
C934~937	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C938	VCEAZA1VW476M	J	AC	47 µF,35V,Electrolytic
C939	VCKYBT1HB102K	J	AA	0.001 µF,50V
C941	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C942,943	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C944	VCEAZV1EW108M	J	AE	1000 µF,25V,Electrolytic
C945	VCEAZV1EW228M	J	AG	2200 µF,25V,Electrolytic
C947,948	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C949,950	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C951~958	VCKZPA1HF223Z	J	AA	0.022 µF,50V

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
C959,960	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C963	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C965,966	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C967	VCKYPA1HB102K	J	AA	0.001 µF,50V
C970	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C971	VCKYPA1HB222K	J	AA	0.0022 µF,50V
C972,973	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C977	VCEAZA0JW108M	J	AC	1000 µF,6.3V,Electrolytic
C978	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C979	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
CM01	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
CT21	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
CT22	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CT23	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
CT24	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CT25	VCKYMN1HB561K	J	AA	560 pF,50V
CT26,27	VCCCPA1HH220J	J	AA	22 pF (CH),50V
CT28	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
CT29	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CT36	VCKYPA1HF223Z	J	AB	0.022 µF,50V
CT37	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CT43	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic

RESISTORS

	VRD-MN2BD000C	J	AA	0 ohm,Jumper,ø1.4×3.5mm,Ivory
R1	VRD-MN2BD220J	J	AA	22 ohms,1/8W
R2	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R8	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R9	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R10	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R11	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R12	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R13	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R14	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R15	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R16	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R17	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R18	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R19,20	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R21,22	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R23	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R24	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R25	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R26	VRD-MN2BD823J	J	AA	82 kohms,1/8W
R27	VRD-MN2BD393J	J	AA	39 kohms,1/8W
R28	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R29	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R30	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R31	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R32	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R33	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R34	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R35,36	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R37	VRD-ST2CD823J	J	AA	82 kohms,1/6W
R38	VRD-MN2BD471J	J	AA	470 ohms,1/8W
R39	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R40	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R41,42	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R43	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R44	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R45	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R46	VRD-MN2BD561J	J	AA	560 ohms,1/8W
R47,48	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R50	VRD-MN2BD681J	J	AA	680 ohms,1/8W
R51	VRD-ST2CD335J	J	AA	3.3 Mohms,1/6W
R52	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R53	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R54	VRD-ST2CD331J	J	AA	330 ohms,1/6W
R55	VRD-MN2BD151J	J	AA	150 ohms,1/8W
R57	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R58,59	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R60~62	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R63	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R64	VRD-MN2BD220J	J	AA	22 ohms,1/8W
R66	VRD-MN2BD221J	J	AA	220 ohms,1/8W
R71,72	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R73,74	VRD-MN2BD391J	J	AA	390 ohms,1/8W
R80	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R81	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R82	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R83	VRD-ST2EE3R9J	J	AA	3.9 ohms,1/4W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R85	VRD-RT2HD560J	J	AA	56 ohms,1/2W
R86	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R87	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R88~91	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R93	VRD-MN2BD221J	J	AA	220 ohms,1/8W
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-ST2CD472J	J	AA	4.7 kohms,1/6W
R111,112	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R113,114	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R115	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R117	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R118	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R119,120	VRD-ST2CD560J	J	AA	56 ohms,1/6W
R121,122	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R123,124	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R125,126	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R131,132	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R134	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R135,136	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R137,138	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R139,140	VRD-MN2BD561J	J	AA	560 ohms,1/8W
R141,142	VRD-MN2BD470J	J	AA	47 ohms,1/8W
R143~147	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R153,154	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R155,156	VRD-ST2CD124J	J	AA	120 kohms,1/6W
R158	VRD-ST2EE471J	J	AA	470 ohms,1/4W
R160	VRD-ST2EE151J	J	AA	150 ohms,1/4W
R162	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R164	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R166	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R167	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R168	VRD-ST2CD4R7J	J	AA	4.7 ohms,1/6W
R170	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R171	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R191	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R192	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R193	VRD-ST2EE221J	J	AA	220 ohms,1/4W
R202	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R203	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R205~212	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R213~217	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R218	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R219	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R220~222	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R224~227	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R228~230	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R232	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R233	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R234,235	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R237	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R238	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R240	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R241	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R242~244	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R245~247	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R252	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R253~258	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R259~261	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R262	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R263	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R264	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R265	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R266	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R271	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R272	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R274	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R276	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R277	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R279	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R280	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R301	VRD-MN2BD331J	J	AA	330 ohms,1/8W
R319	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R323	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R324	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R331	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R332	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R333	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R334	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
R335	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R336	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R337	VRD-ST2CD471J	J	AA	470 ohms,1/6W
R344	VRD-MN2BD471J	J	AA	470 ohms,1/8W
R345	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R346	VRD-MN2BD331J	J	AA	330 ohms,1/8W
R347	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R348	VRD-MN2BD681J	J	AA	680 ohms,1/8W
R349	VRD-ST2CD330J	J	AA	33 ohms,1/6W
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-MN2BD471J	J	AA	470 ohms,1/8W
R363,364	VRD-MN2BD222J	J	AA	2.2 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-MN2BD820J	J	AA	82 ohms,1/8W
R370~374	VRD-MN2BD102J	J	AA	1 kohm,1/8W
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
R397	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R451,452	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R453	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R454	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R455	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R456,457	VRD-ST2CD273J	J	AA	27 kohms,1/6W
R458	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R459	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R460	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R461	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R463~465	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R501,502	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R503	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R504	VRD-MN2BD105J	J	AA	1 Mohm,1/8W
R505,506	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R507	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R508	VRD-MN2BD393J	J	AA	39 kohms,1/8W
R509	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R510	VRD-MN2BD183J	J	AA	18 kohms,1/8W
R511	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R512	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R518,519	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R529	VRD-MN2BD331J	J	AA	330 ohms,1/8W
R530,531	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R551	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R552	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R553	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R554	VRD-MN2BD183J	J	AA	18 kohms,1/8W
R555	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R556	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R557	VRD-MN2BD393J	J	AA	39 kohms,1/8W
R558	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R559	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R560	VRD-MN2BD474J	J	AA	470 kohms,1/8W
R561	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R562	VRD-MN2BD394J	J	AA	390 kohms,1/8W
R563	VRD-MN2BD474J	J	AA	470 kohms,1/8W
R564	VRD-MN2BD394J	J	AA	390 kohms,1/8W
R565	VRD-MN2BD684J	J	AA	680 kohms,1/8W
R566	VRD-MN2BD225J	J	AA	2.2 Mohms,1/8W
R567	VRD-MN2BD274J	J	AA	270 kohms,1/8W
R568~571	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R572	VRD-MN2BD225J	J	AA	2.2 Mohms,1/8W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R573	VRD-MN2BD564J	J	AA	560 kohms,1/8W
R574,575	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R576,577	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R578	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R579,580	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R601	VRD-ST2CD331J	J	AA	330 ohms,1/6W
R602	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R603	VRD-ST2CD331J	J	AA	330 ohms,1/6W
R604	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R606	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R608	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R610	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R611	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R612	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R613~615	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R616	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R617	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R618	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R619	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R620,621	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R622,623	VRD-MN2BD474J	J	AA	470 kohms,1/8W
R624	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R625	VRD-ST2CD474J	J	AA	470 kohms,1/6W
R626,627	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R628,629	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R630,631	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
R632,633	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R634,635	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R636,637	VRD-ST2CD822J	J	AA	8.2 kohms,1/6W
R638,639	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R641	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R642	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R644,645	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R646,647	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R648,649	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R650~653	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R654~657	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R658,659	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R660	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R661	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R662,663	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R665	VRD-MN2BD331J	J	AA	330 ohms,1/8W
R666	VRD-ST2CD331J	J	AA	330 ohms,1/6W
R669	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R671,672	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R673	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R674,675	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R676	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R677,678	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R679	VRD-ST2CD221J	J	AA	220 ohms,1/6W
R680	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R681,682	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R683	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R684	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R685,686	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R687,688	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R689,690	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R691,692	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R693,694	VRD-ST2CD470J	J	AA	47 ohms,1/6W
R695	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R696	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R697	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R698	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R699	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R701~710	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R711	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R712~722	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R726~729	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R731,732	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
R733	VRD-ST2CD822J	J	AA	8.2 kohms,1/6W
R734~736	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
R737~741	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R742~744	VRD-ST2CD821J	J	AA	820 ohms,1/6W
R749	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R763	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R765	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R766	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R767	VRD-MN2BD820J	J	AA	82 ohms,1/8W
R768	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R769	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R770	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R771	VRD-MN2BD101J	J	AA	100 ohm,1/8W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
R772	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R773	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R774	VRD-MN2BD151J	J	AA	150 ohms,1/8W
R775	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R776	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R777	VRD-MN2BD330J	J	AA	33 ohms,1/8W
R778	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R779	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R780	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
R781	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R790	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R791	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
⚠R792	VRG-ST2EC220J	J	AB	22 ohms,1/4W,Fusible
R801	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R802,803	VRD-ST2EE221J	J	AA	220 ohms,1/4W
R804	VRD-ST2EE4R7J	J	AA	4.7 ohms,1/4W
R805	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R806	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R807	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R820	VRD-ST2CD470J	J	AA	47 ohms,1/6W
R824	VRD-ST2EE561J	J	AA	560 ohms,1/4W
R825,826	VRD-ST2CD330J	J	AA	33 ohms,1/6W
R827	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R828	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R829	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R835	VRD-ST2EE561J	J	AA	560 ohms,1/4W
R836,837	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R838	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R901	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R902	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R903	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R904	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R905	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R907	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R910	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R911	VRD-ST2CD103J	J	AA	10 kohm,1/6W
⚠R912,913	VRG-ST2EC101J	J	AB	100 ohm,1/4W,Fusible
R914	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R915	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R916	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R917	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R918	VRD-ST2CD471J	J	AA	470 ohms,1/6W
R919,920	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R921	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R922	VRD-ST2CD471J	J	AA	470 ohms,1/6W
R923	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R924~926	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R928,929	VRD-ST2CD181J	J	AA	180 ohms,1/6W
R932	VRD-ST2CD183J	J	AA	18 kohms,1/6W
R933	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R934	VRD-ST2EE4R7J	J	AA	4.7 ohms,1/4W
R937	VRD-ST2EE4R7J	J	AA	4.7 ohms,1/4W
R941,942	VRD-RT2HD271J	J	AA	270 ohms,1/2W
R943	VRD-ST2EE6R8J	J	AA	6.8 ohms,1/4W
R944	VRD-ST2EE4R7J	J	AA	4.7 ohms,1/4W
R945	VRD-ST2EE6R8J	J	AA	6.8 ohms,1/4W
R946	VRD-ST2EE4R7J	J	AA	4.7 ohms,1/4W
R947,948	VRD-ST2EE6R8J	J	AA	6.8 ohms,1/4W
R949	VRD-ST2EE4R7J	J	AA	4.7 ohms,1/4W
R951	VRD-ST2EE4R7J	J	AA	4.7 ohms,1/4W
R962	VRD-ST2CD821J	J	AA	820 ohms,1/6W
R963	VRS-VV3DA681J	J	AC	680 ohms,2W
R964,965	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R966	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R967	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R968	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R969	VRD-RT2HD680J	J	AA	68 ohms,1/2W
R972,973	VRD-ST2EE680J	J	AA	68 ohms,1/4W
RD01	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD02	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
RD03	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
RD04	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RD05	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
RD06	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
RD07	VRD-ST2CD123J	J	AA	12 kohms,1/6W
RD08	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD09	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
RD10	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
RD11	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RD12	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
RD13	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
RD14	VRD-MN2BD123J	J	AA	12 kohms,1/8W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
RD15	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD16	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
RD17	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
RD18	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RD19	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
RD20	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
RD21	VRD-MN2BD123J	J	AA	12 kohms,1/8W
RD22	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD23	VRD-ST2CD122J	J	AA	1.2 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-MN2BD392J	J	AA	3.9 kohms,1/8W
RD27	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
RD28	VRD-MN2BD123J	J	AA	12 kohms,1/8W
RD29	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD30	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
RD31	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
RD32	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RD33	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
RD34	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
RD35	VRD-MN2BD123J	J	AA	12 kohms,1/8W
RM05	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RM06	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RM07	VRD-MN2BD100J	J	AA	10 ohm,1/8W
RM08	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RM09	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RM10	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
RM11	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
RM12	VRD-MN2BD333J	J	AA	33 kohms,1/8W
RM14,15	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RM16	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RM19	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
RM20	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RT21	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RT26	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RT28	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RT29	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RT30	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RT32	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RT33,34	VRD-ST2CD563J	J	AA	56 kohms,1/6W
RT35~37	VRD-ST2CD224J	J	AA	220 kohms,1/6W
RT48,49	VRD-ST2EE391J	J	AA	390 ohms,1/4W
RT51~54	VRD-ST2CD102J	J	AA	1 kohm,1/6W

OTHER CIRCUITRY PARTS

BI99/CNS99	QCNWN1262AWZZ	J	AK	Connector Ass'y,3-3Pin
BI102/CNS102	QCNWN0941AWZZ	J	AK	Connector Ass'y,6-7Pin
BI201/CNS12	QCNWN1258AWZZ	J	AN	Connector Ass'y,14-14Pin
BI601/CNS11	QCNWN1185AWZZ	J	AG	Connector Ass'y,6-6Pin
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	QCNCM704PAWZZ	J	AE	Plug,14Pin
CNP99	QCNCM704CAWZZ	J	AC	Plug,3Pin
CNP101	92LCONE3P5267X	J	AB	Plug,3Pin
CNP102	92LCONE7P5267X	J	AC	Plug,7Pin
CNP301	92LCONE2P5268	J	AB	Plug,2Pin
CNP303	QCNCW010MAWZZ	J	AD	Socket,12Pin
CNP701	QCNCWZG24AWZZ	J	AE	Socket,24Pin
CNP801	QCNCM036BAWZZ	J	AC	Plug,2Pin
CNP802	QCNCM035JAWZZ	J	AC	Plug,9Pin
CNP803	QCNCM010VAWZZ	J	AD	Plug,20Pin
CNP804	92LCONE2P53253	J	AB	Plug,2Pin
CNPM1	QCNCW025NAWZZ	J	AB	Flat Wire Holder
CNPM2	QCNCM030BAWZZ	J	AB	Pin Holder,2Pin
CNS1A/B	QCNWN1181AWZZ	J	AK	Connector Ass'y,5-5Pin
CNS2A/B	QCNWN1182AWZZ	J	AH	Connector Ass'y,8-8Pin
CNS3A/B	QCNWN1183AWZZ	J	AG	Connector Ass'y,6-6Pin
CNS101	QCNWN0939AWZZ	J	AF	Connector Ass'y,3Pin
CNS303	QCNCM010MAFZZ	J		Plug,12Pin
CNS701	QCNCWZF24AWZZ	J	AE	Socket,24Pin
CNS803	QCNCW010VAWZZ	J	AE	Socket,20Pin
CNS804	QCNWN1200AWZZ	J	AD	Connector Ass'y,2Pin
⚠F802,803	92LFUSET402E	J		Fuse,T3.15A L 250V
⚠F804	92LFUSE-T302-E	J		Fuse,T4A L 250V
⚠F805	92LFUSE-T162-E	J	AD	Fuse,T1.6A L 250V
⚠F832	92LFUSE-T501E	J	AD	Fuse,T500mA L 250V

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
⚠ F901,902	92LFUSE-T252-E	J	AD	Fuse,T4A L 250V
FE301	RTUNS0012AWZZ	J	AV	FM Front End
FL701	VVKBJ549GK/-1	J	AX	FL Display
FW701	QCNWN1191AWZZ	J	AD	Flat Cable,3Pin
FWM1	QCNWN0943AWZZ	J	AF	Flat Wire,13Pin
FWM2	QCNWN0942AWZZ	J	AC	Flat Wire,4Pin
JK451	QSOCJ0104AWZZ	J	AD	Jack,Sub Woofer
JK452	QSOCJ0403AWZZ	J	AL	Jack,VIDEO/AUX
JK700	QJAKM0008AWZZ	J	AF	Jack,Headphones
M1	92LMTR1858CASY	J	AS	Motor with Chassis [Disc]
M2	92LMTR1854BASY	J	AP	Motor with Gear [Side]
M3	RMOTV0373AFZZ	J	AL	Motor with Worm Gear Pulley [T/T Up/Down Loading]
M901	92LMTR1810A	J	AK	Motor,Air Cooling Fan
MM1	92LMTR2512AASY	J	AT	Motor with Pulley [Tape]
PHM1	VHPI31535CD-1	J	AG	Phote Interrupter
RX701	VHLN63H380A-1	J	AK	Remote Sensor,N63H380A
SO301	QTANC0101AWZZ	J	AF	Terminal,Antenna
SO801	QSOCA0204AWZZ	J	AF	Socket,AC Power Input
SO901	QTANA1001AWZZ	J	AC	Terminal,Speaker
SOLM1	92LM-SOL1676A	J	AK	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]
SW701	92LSWICH1401AT	J	AC	Switch,Key Type [ON/STAND-BY]
SW702	92LSWICH1401AT	J	AC	Switch,Key Type [CLOCK]
SW703	92LSWICH1401AT	J	AC	Switch,Key Type [TIMER/SLEEP]
SW704	92LSWICH1401AT	J	AC	Switch,Key Type [DISC 1]
SW705	92LSWICH1401AT	J	AC	Switch,Key Type [DISC 2]
SW706	92LSWICH1401AT	J	AC	Switch,Key Type [DISC 3]
SW707	92LSWICH1401AT	J	AC	Switch,Key Type [DISC SKIP]
SW708	92LSWICH1401AT	J	AC	Switch,Key Type [OPEN/CLOSE]
SW709	92LSWICH1401AT	J	AC	Switch,Key Type [CD]
SW710	92LSWICH1401AT	J	AC	Switch,Key Type [TUNER,BAND]
SW711	92LSWICH1401AT	J	AC	Switch,Key Type [TAPE]
SW712	92LSWICH1401AT	J	AC	Switch,Key Type [VIDEO/AUX]
SW713	92LSWICH1401AT	J	AC	Switch,Key Type [EON]
SW714	92LSWICH1401AT	J	AC	Switch,Key Type [RTY.TI SEARCH]
SW715	92LSWICH1401AT	J	AC	Switch,Key Type [ASPM]
SW716	92LSWICH1401AT	J	AC	Switch,Key Type [DISPLAY MODE]
SW718	92LSWICH1401AT	J	AC	Switch,Key Type [CENTER MODE/PHAMTOM]
SW719	92LSWICH1401AT	J	AC	Switch,Key Type [CENTER MODE/NORMAL]
SW721	92LSWICH1401AT	J	AC	Switch,Key Type [DOLBY PRO LOGIC/BYPASS]
SW723	92LSWICH1401AT	J	AC	Switch,Key Type [REC PAUSE]
SW724	92LSWICH1401AT	J	AC	Switch,Key Type [TUNING UP/TIME]
SW725	92LSWICH1401AT	J	AC	Switch,Key Type [VOLUME UP]
SW726	92LSWICH1401AT	J	AC	Switch,Key Type [X-BASS]
SW728	92LSWICH1401AT	J	AC	Switch,Key Type [STOP]
SW729	92LSWICH1401AT	J	AC	Switch,Key Type [FWD]
SW730	92LSWICH1401AT	J	AC	Switch,Key Type [FF,PRESET UP]
SW731	92LSWICH1401AT	J	AC	Switch,Key Type [MEMORY/SET]
SW732	92LSWICH1401AT	J	AC	Switch,Key Type [TUNING DOWN/TIME]
SW733	92LSWICH1401AT	J	AC	Switch,Key Type [VOLUME DOWN]
SW734	92LSWICH1401AT	J	AC	Switch,Key Type [EQUALIZER,DEMO]
SW736	92LSWICH1401AT	J	AC	Switch,Key Type [REVERSE MODE]
SW737	92LSWICH1401AT	J	AC	Switch,Key Type [REV]
SW738	92LSWICH1401AT	J	AC	Switch,Key Type [REW/PRESET DOWN]
SW739	92LSWICH1401AT	J	AC	Switch,Key Type [CD/TAPE 1 EDIT]
SW740	92LSWICH1401AT	J	AC	Switch,Key Type [BEAT CANCEL,TAPE 1 EDIT]
SWM3	92LM-SW1676A	J	AC	Switch,Leaf Type [REC FWD]
SWM4	92LM-SW1676A	J	AC	Switch,Leaf Type [REC RVS]
SWM5	QSW-F9003AWZZ	J	AG	Switch,Leaf Type [F.A.S]
SWM6	92LM-SW1676B	J	AD	Switch,Leaf Type [CAM]
WTM1	QCNCW012NAWZZ	J	AE	Socket,Wire Trap,13Pin

CD MECHANISM PARTS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
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	XBBSD20P03000	J	AA	Screw,ø2×3mm
704	LX-WZ1070AFZZ	J	AA	Washer,ø1.5×ø3.8×0.25mm
M1	92LMTR1858CASY	J	AS	Motor with Chassis [Disc]
M2	92LMTR1854BASY	J	AP	Motor with Gear [Sled]
SW4	QSW-F9001AW01	J	AD	Switch,Leaf Type [Pickup In]

CABINET PARTS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
201	GCAB-1044AWSA	J	AM	Cabinet,CD Player Base
202	GCAB-1050AWSB	J	AS	Top Cabinet
203	GITAR0353AWSA	J	AP	Back Board,For U.K.
203	GITAR0354AWSA	J	AS	Back Board,For Europe
204	JKNBZ0532AWSA	J	AE	Button [R•D•S]
207	LANGF0032AWZZ	J	AC	Support,T/T Lock Lever
208	LANGK0114AWFW	J	AF	Bracket,Fan
209	LCHSM0068AWFW1J			Main Chassis
210	LCHSZ0010AWZZ	J	AM	Chassis,Loading
211	LCHSZ0011AWZZ	J	AG	Chassis,CD Mechanism
212	LHLDZ1139AWSA	J	AD	Cover,Stabilizer
213	LHLDZ1140AWZZ	J	AB	Guide
214	LHLDZ1141AWZZ	J	AB	Support,Pitch
215	LHLDZ1183AWZZ	J	AE	Holder,FL Display
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
220	MLIFP0003AWZZ	J	AE	Damper
221	MSPRC0020AWFJ	J	AB	Spring,T/T Lock Lever
222	MSPRC0024AWFW	J	AB	Spring,Solenoid
223	MSPRD0044AWFJ	J	AB	Spring,Lock Lever
224	MSPRD0092AWFJ	J	AB	Spring,Cassette,Tape 1
225	MSPRD0093AWFJ	J	AB	Spring,Cassette,Tape 2
226	NBLTK0029AWZZ	J	AB	Belt,Drive
227	NFANP0001AWZZ	J	AD	Rotary Fan
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
234	NGERW0006AWZZ	J	AC	Gear,Worm Wheel
235	NPLYD0001AWZZ	J	AB	Pulley
236	NROLP0009AWZZ	J	AB	Roller
237	NTNT-0018AWSA	J	AK	Turntable
238	PCUSG0038AWZZ	J		Cushion
239	PRDAR0115AWFW	J	AY	Heat Sink A
240	PRDAR0107AWFW	J	AP	Heat Sink B
241	PRDAR0112AWFW	J		Heat Sink C
242	PSLDM3049AWFW	J		Shield Plate
243	PCUSG0022AWZZ	J	AB	Cushion
244	92LCAB2891AS1	J	BB	Front Panel Ass'y
244-1	———		—	Front Panel (Not Replacement Item)
244-2	HDECQ0299AWSA	J	AG	CD Top Panel
244-3	92LBADGE1671A	J	AC	Badge,SHARP
244-4	JKNBZ0472AWSA	J	AF	Button,CD Disk Number
244-5	JKNBZ0473AWSA	J	AD	Button,Open/Close
244-6	JKNBZ0474AWSB	J	AG	Button,Function
244-7	JKNBZ0476AWSA	J	AF	Button,DOLBY/CENTER MODE]
244-8	JKNBZ0477AWSA	J	AD	Button,CLOCK/TIMER/SLEEP
244-9	JKNBZ0478AWSA	J	AE	Button,TUNING/TIME/MEMORY/SET

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
244-10	JKNBZ0479AWSA	J	AD	Button,CLEAR/RANDOM
244-11	JKNBZ0480AWSA	J	AE	Button,CD PAUSE
244-12	JKNBZ0481AWSA	J	AE	Button,OPERATION A
244-13	JKNBZ0482AWSB	J	AK	Button,OPERATION B
244-14	JKNBZ0483AWSB	J	AN	Button,OPERATION C
244-15	PCUSG0022AWZZ	J	AB	Cushion,Leg
244-16	HDECQ0364AWSA	J	AK	Display Panel
244-17	JKNBZ0475AWSB	J	AF	Button [X-Bass]
245	QCNWN0769AWZZ	J	AD	Wire Lug
246	QLUGP0001AWZZ	J	AC	Lug
247	QLUGP0002AWZZ	J	AB	LugTerminal [Lug 1]
⚠248	QFSHD0001AWZZ	J	AB	Holder,Fuse
249	92LCAB2781BS1	J	AP	Side Panel Ass'y,Left
249-1	————		—	Side Panel,Left (Not Replacement Item)
249-2	PCUSG0022AWZZ	J	AB	Cushion,Leg
250	92LCAB2781CS1	J	AP	Side Panel Ass'y,Right
250-1	————		—	Side Panel,Right (Not Replacement Item)
250-2	PCUSG0022AWZZ	J	AB	Cushion,Leg
251	92LCOV2891AS1	J	AK	Cover Ass'y,CD Tray
251-1	————		—	Cover,CD Tray (Not Replacement Item)
251-2	GCOVA1186AWSB	J	AF	Cover,CD Tray Panel Left
251-3	GCOVA1187AWSB	J	AF	Cover,CD Tray Panel Right
252	92LCScPR1431C	J	AA	Ring,Spring
254	92LMECHA2512A	J	BL	Cassette Mechanism Ass'y
254-1(MM1)	92LMTR2512AASY	J	AT	Motor with Pulley [Tape]
254-2	NBLTH0003AWZZ	J	AC	Belt,Main [Tape1]
254-3	NBLTH0004AWZZ	J	AC	Belt,Main [Tape2]
254-4	NBLTK0021AWZZ	J	AB	Belt,Sub
254-5	NROLY0003AWM1	J	AF	Pinch Roller Forward Ass'y.
254-6	NROLY0004AWM1	J	AF	Pinch Roller Reverse Ass'y.
254-7(SWM5)	QSW-F9003AWZZ	J	AG	Switch,Leaf Type [F.A.S]
254-8	92LMRPH1746A	J	AM	Head,Record/Playback/Erase [TAPE 1]
254-9	RHEDK0002AWZZ	J		Head,Playback [TAPE 2]
255	92LMEC2891CTS1	J	AN	Cassette Holder Ass'y.,Tape 1
255-1	————		—	Cassette Holder Ass'y.,Tape 1 (Not Replacement Item)
255-2	HDECQ0346AWSA	J	AH	Panel,Cassette,Tape 1
256	92LMEC2891CTS2	J	AN	Cassette Holder Ass'y.,Tape 2
256-1	————		—	Cassette Holder Ass'y.,Tape 2 (Not Replacement Item)
256-2	HDECQ0347AWSA	J	AH	Panel,Cassette,Tape 2
257	92LHOLD2037AS1	J	AK	Stabilizer Ass'y.
257-1	————		—	Stabilizer (Not Replacement Item)
257-2	PMAGF0001AWZZ	J	AF	Magnet
257-3	92LSUPT1749D	J	AA	Support,Magnet
258	92LN-BAND1318A	J	AA	Nylon Band,80mm
260	LANGT0047AWFW	J	AE	Bracket,Tuner PWB.
261	LANGT0048AWFW	J		Bracket,Tuner PWB.
262	LHLDZ1187AWZZ	J	AC	Holder,LED
263	QCNWN1260AWZZ	J	AL	Flat Cable,24Pin
264	92LCAUT1706A1	J	AC	Label,CD Laser Caution
265	92LCAUT1706B	J	AA	Label,CD Laser Caution Mark
266	LANGF0039AWFW1	J		Support Power Transformer
601	LX-EZ0005AWFD	J	AA	Screw,Special
602	LX-HZ0082AFZZ	J	AA	Screw,ø4x8mm
603	LX-JZ0002AWFD	J	AA	Screw,ø3x10mm
604	LX-JZ0010AFFD	J	AA	Screw,ø3x10mm
605	LX-JZ0039AFFD	J	AA	Screw,ø3x12mm
606	LX-LZ0006AWZZ	J	AC	Push Rivet
607	LX-TZ0019AFZZ	J	AB	Screw,Special
608	XBBSD20P04000	J	AA	Screw,ø2x4mm
609	XBPSD26P05JS0	J	AB	Screw,ø2.6x5mm
610	XEBSD26P12000	J	AA	Screw,ø2.6x12mm
611	XEBSD30P10000	J	AA	Screw,ø3x10mm
612	XEBSD30P12000	J	AA	Screw,ø3x12mm
613	XEBSF30P10000	J	AA	Screw,ø3x10mm
614	XEBSF30P12000	J	AA	Screw,ø3x12mm
615	XESSD30P10000	J	AA	Screw,ø3x10mm
616	XJBSD30P08000	J	AA	Screw,ø3x8mm
617	XJBSD30P10000	J	AA	Screw,ø3x10mm
618	XJBSD30P14000	J	AA	Screw,ø3x14mm
619	XJBSF30P08000	J	AA	Screw,ø3x8mm
620	XJSSF30P10000	J	AA	Screw,ø3x10mm
621	XWHJZ62-09510	J		Washer,ø6.2xø10x0.9mm

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
ACCESSORIES/PACKING PARTS				
1	SPAKP0013AWZZ1	J	AC	Polyethylene Bag,Unit
2	SPAKA0192AWZZ	J	AP	Packing Add.,Unit
3	SPAKC0665AWZZ	J	AV	Packing Case for Russia
3	SPAKC0692AWZZ	J		Packing Case for U.K.
4	92LBAG1460C1	J	AB	Polyethylene Bag,Accessories
5	TGAN-3170UMZZ	J	AE	Warranty Card
6	TINSE0218AWZZ	J	AF	Operation Manual for U.K.
6	TINSZ0320AWZZ	J	AV	Operation Manual for Germany
6	TINSZ0344AWZZ	J		Operation Manual for Russia
7	92LBAG1770A	J	AB	Polyethylene Bag,AC Cord
⚠8	QACCB0004AW00	J	BB	AC Power Supply Cord for U.K.
⚠8	QACCE0007AW00	J	AR	AC Power Supply Cord for Germany
9	QANTL0005AWZZ	J	AG	AM Loop Antenna
10	92LF-ANT1535A	J	AF	FM Antenna
11	UBATU0001AWZZ	J	AE	Battery,UM/SUM-3 [Germany Only]
12	RRMCG0151AWSA	J	AU	Remote Control
12-1	92LLID1782A	J	AQ	Battery Lid,Remote Control
13	SPAKZ0438AWZZ	J		Bottom Pad
14	TLABE0247AWZZ	J	AB	Label,Bar Code
P.W.B. ASSEMBLY FOR U.K. ONLY (Not Replacement Item)				
PWB-A1~4	92LPWB2891MANS	J	—	Main/Display/Switch/Jack (Combined Ass'y)
⚠PWB-B	92LPWB2891PWRS	J	—	Power
PWB-C	92LPWB2891CDUS	J	—	CD Servo
PWB-D	QPWBF0027AWZZ	J	AD	CD Motor (PWB Only)
PWB-E	QPWBF0341AWZZ	J	AB	Sensor (PWB Only)
PWB-F	QPWBF0314AWZZ	J	AD	Tape Mechanism (PWB Only)
PWB-G	QPWBF0313AWZZ	J	AB	Head (PWB Only)
PWB-H	92LPWB2891TUNS	J	—	Tuner
SPEAKER BOX PARTS (CP-C471H)				
900	92L10002C47110	J	BG	Wood Box Cabinet Ass'y.
901	92L201L0C46210	J	AV	Net Frame Ass'y.,Left
901	92L201R0C46210	J	AV	NetFrameAss'y.,Right
902	92L200L0C47110	J	AZ	Front Panel,Left
902	92L200R0C47110	J	AZ	Front Panel,Right
903	92LPCAT1XL12	J	AC	Holder,Catcher
904	92L303R0300110	J	AN	SuperTweeterAss'y
905	92L3141PC46210	J	AL	SpeakerCord Ass'y
906	92L04010056	J	AC	Screw,ø4x14mm
907	92L411B930100P	J	AC	Screw,ø3x10mm
908	92L44010213300	J	AH	Port Cushion
909	92LG53-1203-08	J	AD	WireCushion
910	92L6000C471H00	J	AD	Label,Specifications
SP1,2	VSP0013WBL06R	J	BF	Woofer
SP3,4	VSP0050TB266R	J	AW	Tweeter
PACKING PARTS				
15	92L70032001600	J		Polyethylene Bag
16	92L71525003200	J		Sheet
17	92L720BPC46200	J	AM	Packing Add.,Bottom
18	92L720TPC46200	J	AM	Packing Add.,Top
19	92L74231121000	J		Shield Pad
20	92L6100C471H00	J		Label,feature
SPEAKER BOX PARTS CENTER SPEAKER (GBOXS0006AWM5)				
900	92L60-00-0150	J		Net Frame Ass'y
901	92L37-03-0010	J		Speaker Cord
902	92L32-01-0230	J	AS	Bottom Cabinet Ass'y
903	92L33-01-0610	J		Label,Part Code
904	92L35-02-0070	J		Screw,ø3x20mm
905	92L35-02-0080	J		Screw,ø3x20mm
906	92L39-01-0010	J		Leg,Cushion
SP1	VSP0010PBV84S	J	BB	Speaker,Full-range

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
PACKING PARTS				
21	92L41-08-0120	J	AC	Polyethylene Bag
22	92L41-05-0080	J	AL	Packing Add.,Front
23	92L41-05-0090	J	AL	Packing Add.,Rear
SPEAKER BOX PARTS SURROUND (GBOXS0007AWM5)				
900	92L60-00-0160	J	AW	Net Frame Ass'y
901	92L37-03-0040	J	AN	Speaker Cord
902	92L32-01-0240	J	AL	Bottom Cabinet
903	92L35-02-0070	J		Screw,ø3x20mm
904	92L33-01-0620	J		Label,Part Code
SP1,2	VSP0010PBV88S	J	BD	Speaker,Full-range
PACKING PARTS				
20	92L41-08-0140	J		Polyethylene Bag
21	92L41-05-0080	J	AL	Packing Add.,Front
22	92L41-05-0090	J	AL	Packing Add.,Rear

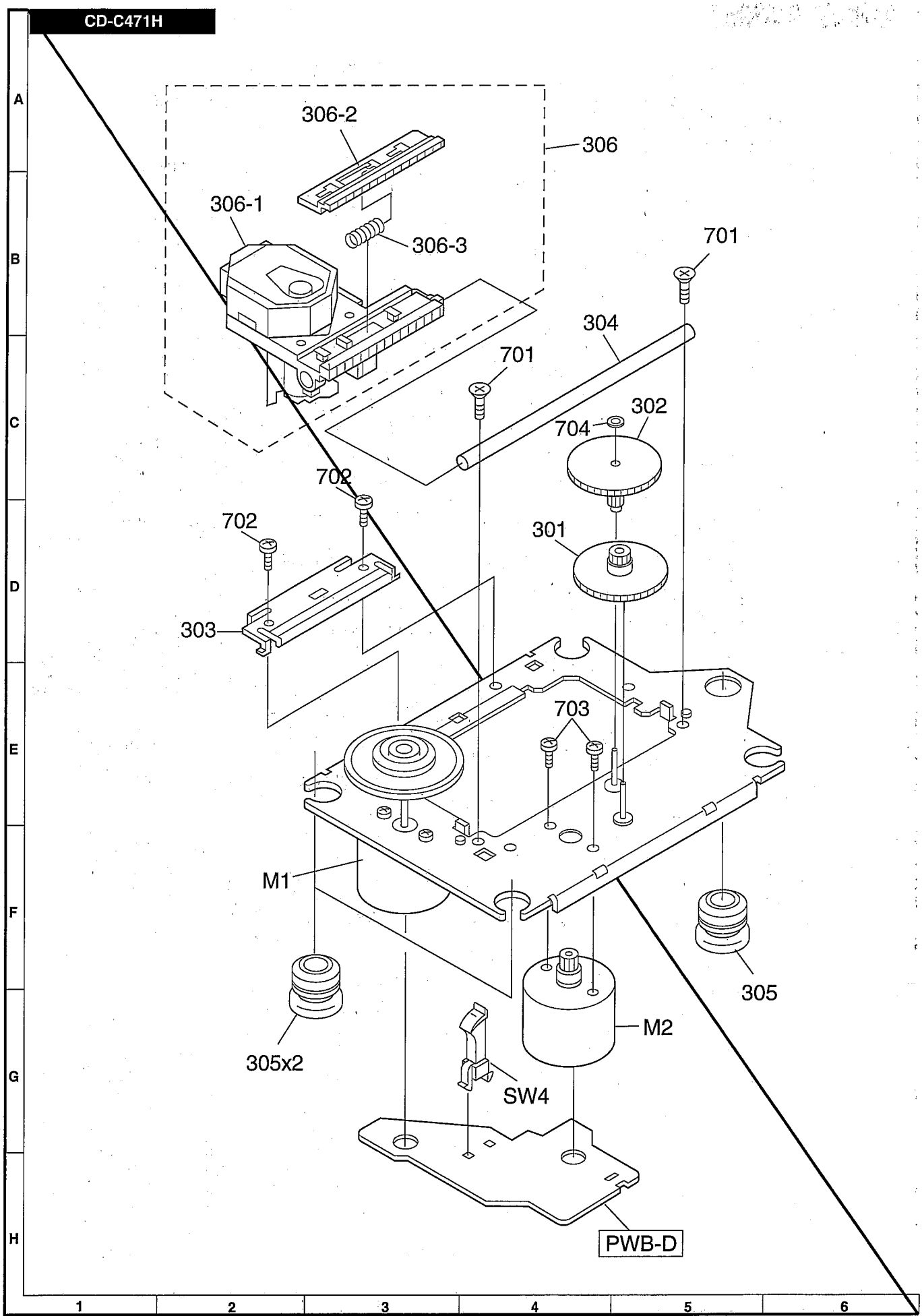


Figure 10 CD MECHANISM EXPLODED VIEW

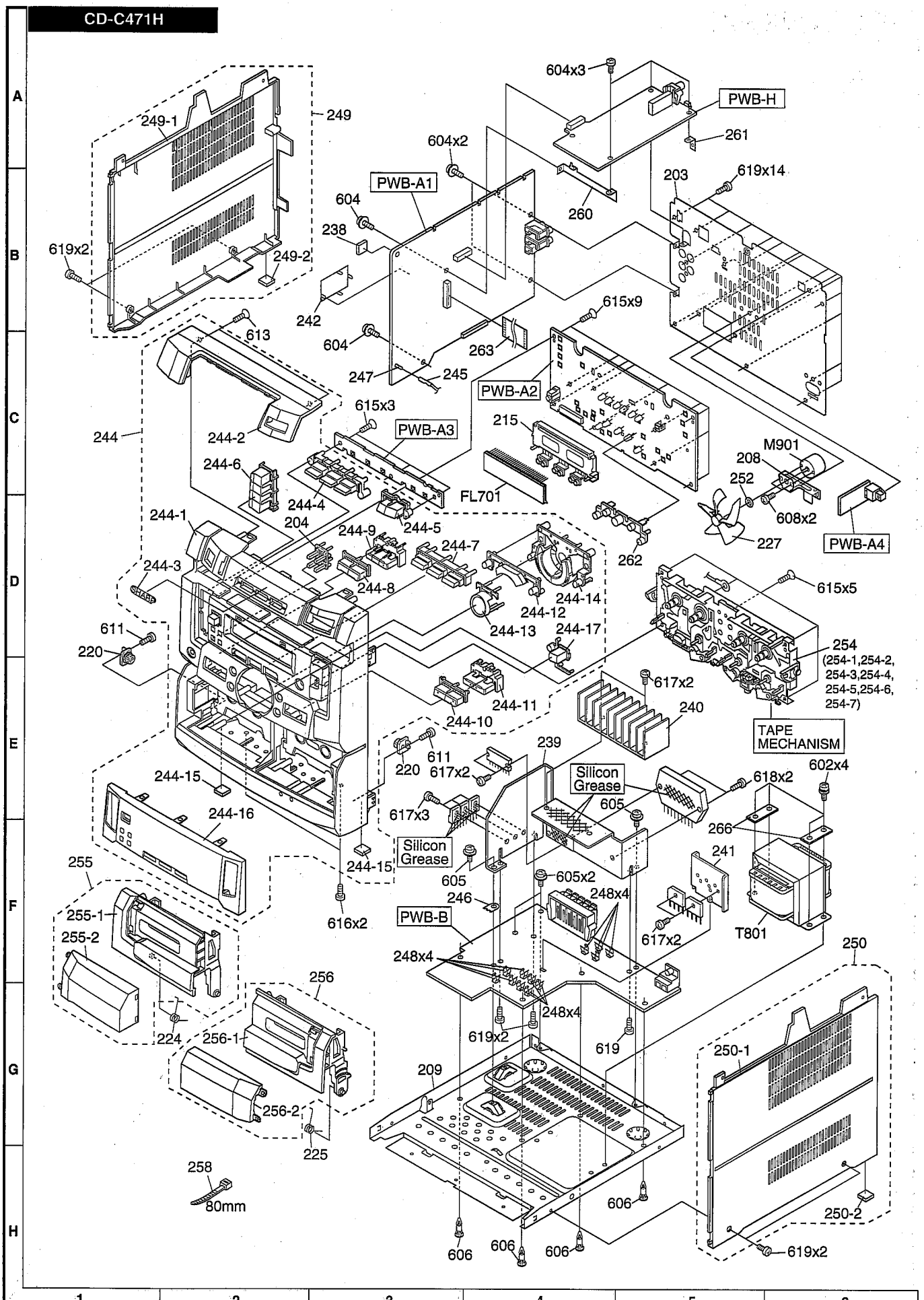


Figure 11 CABINET, EXPLODED VIEW (1/2)

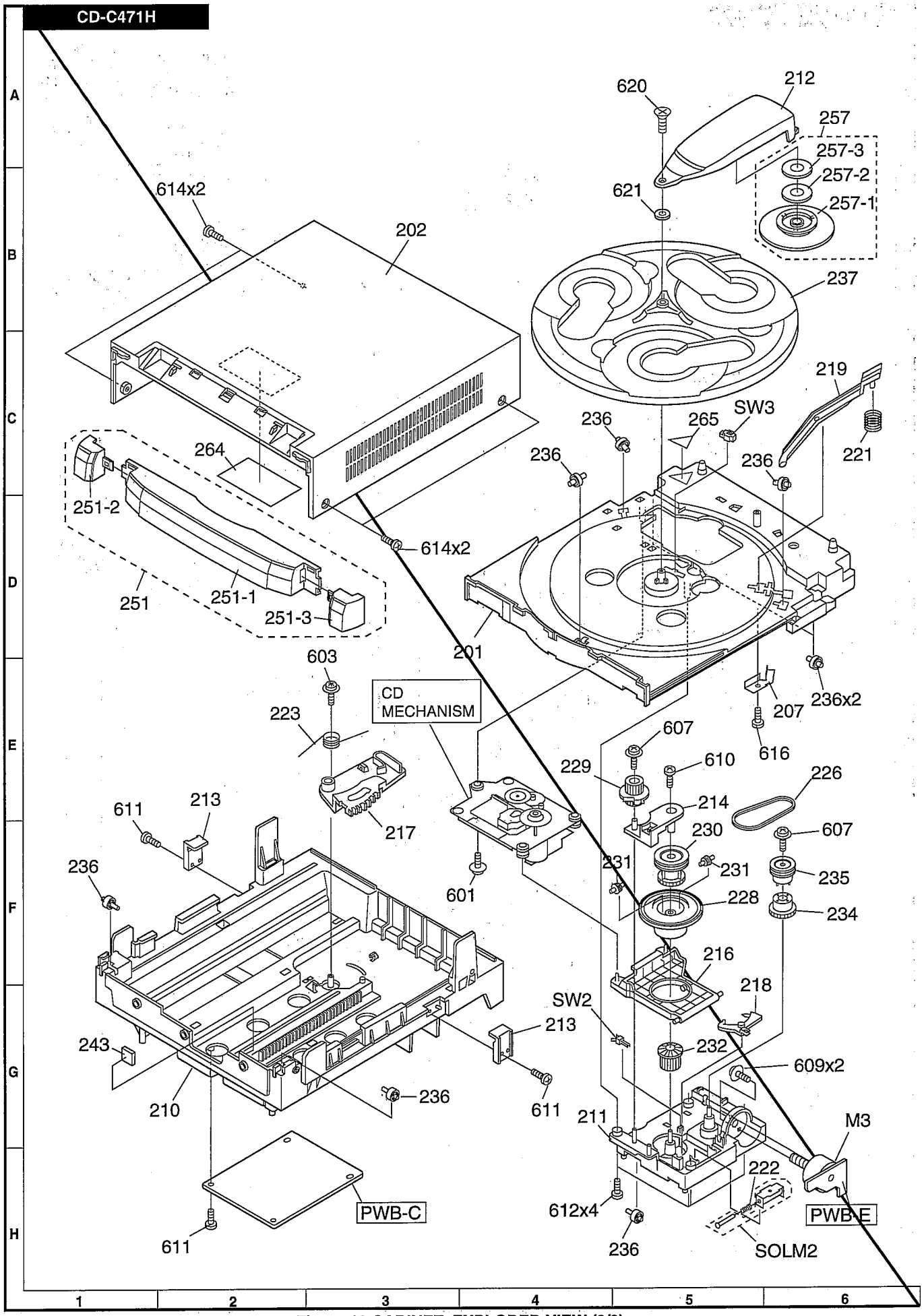


Figure 12 CABINET EXPLODED VIEW (2/2)

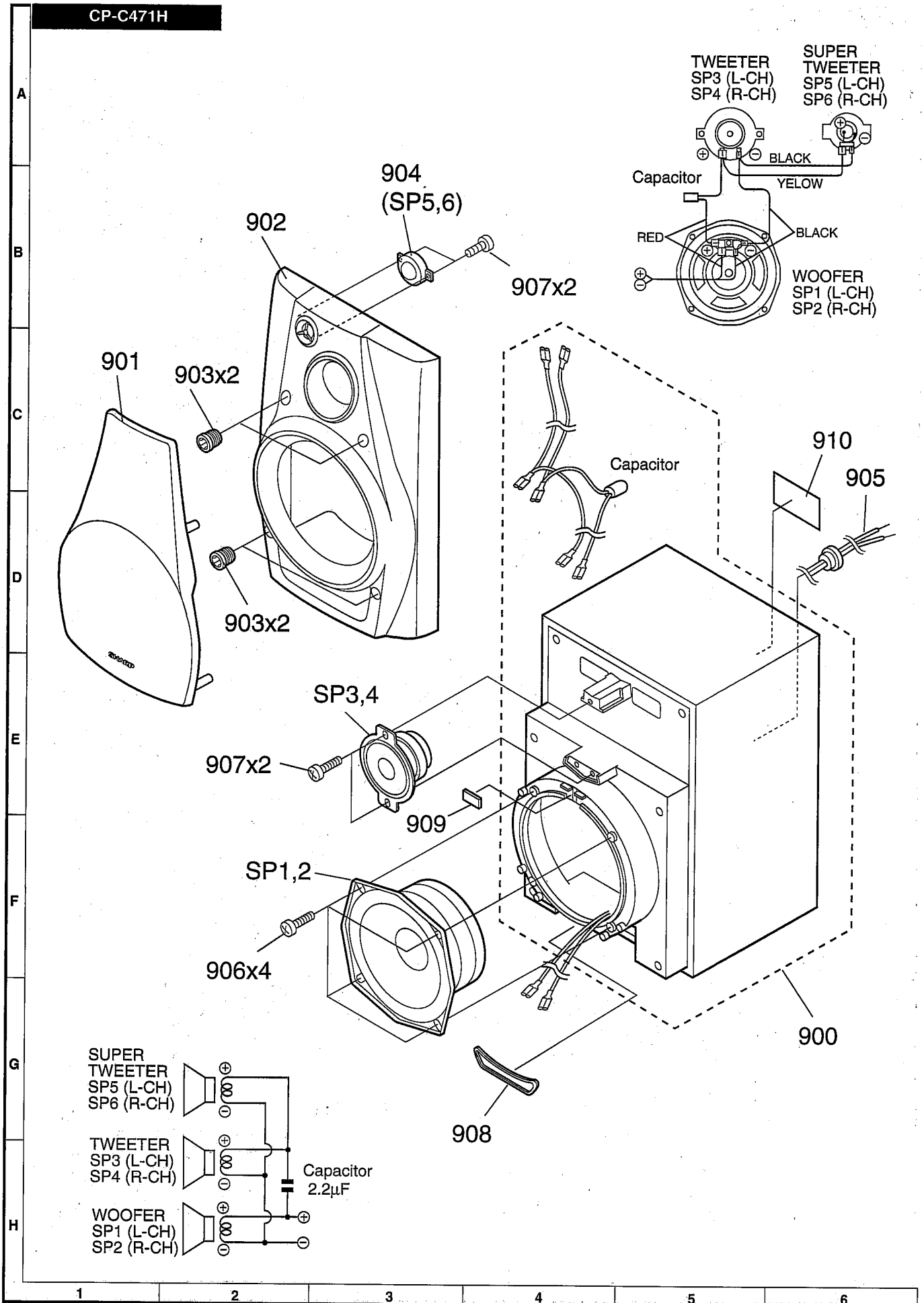


Figure 13 SPEAKER EXPLODED VIEW (1/2)

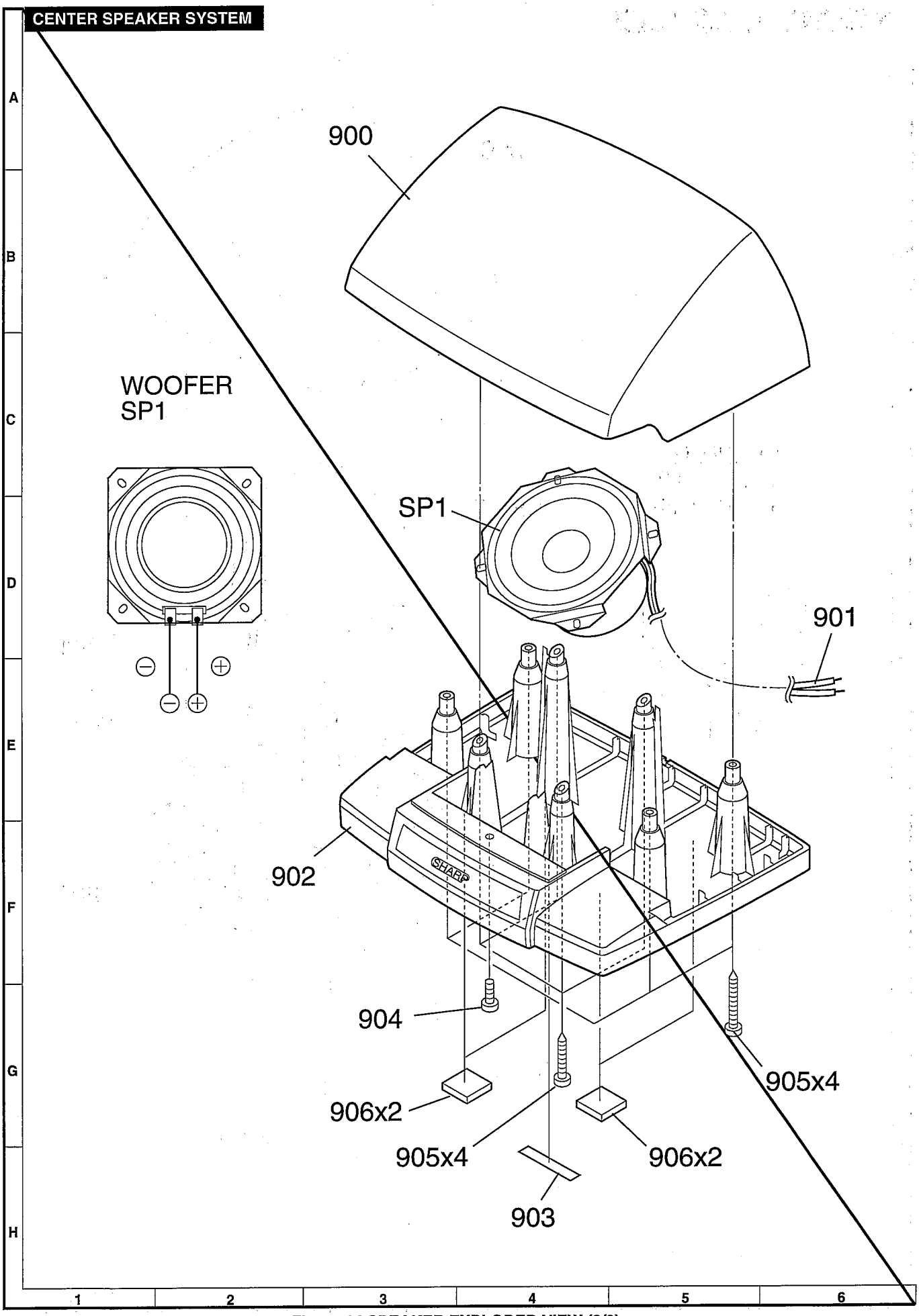


Figure 14 SPEAKER EXPLODED VIEW (2/2)

SURROUND SPEAKER SYSTEM

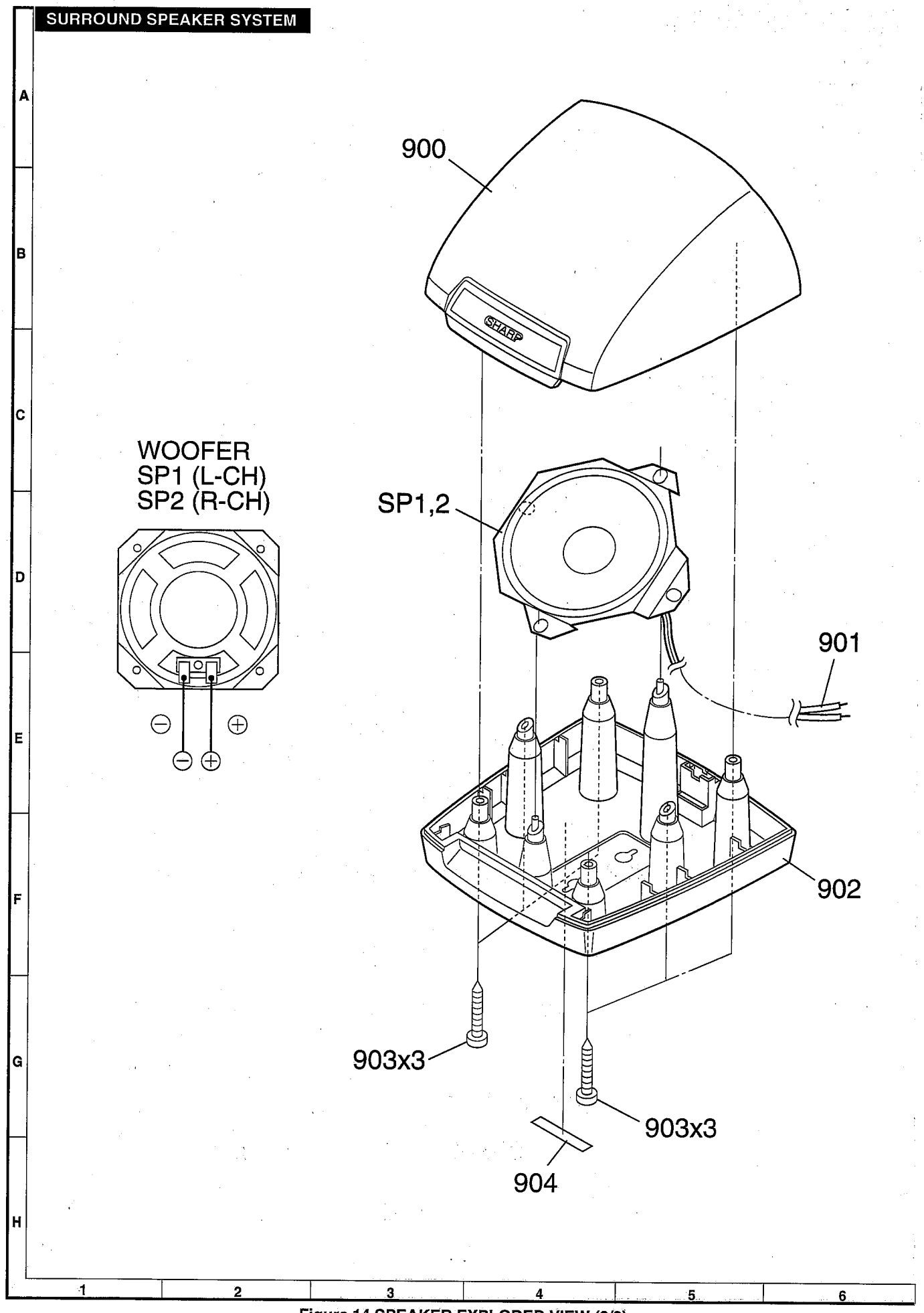
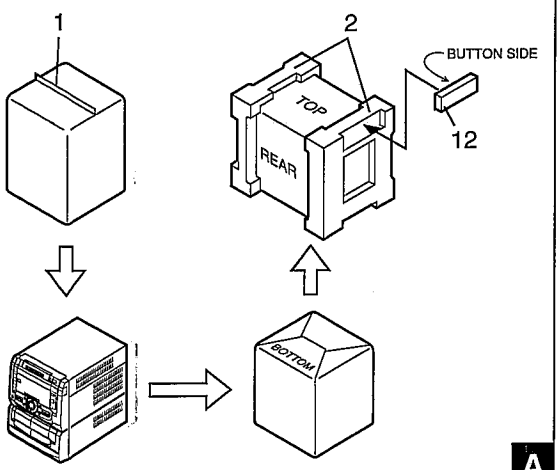


Figure 14 SPEAKER EXPLODED VIEW (2/2)

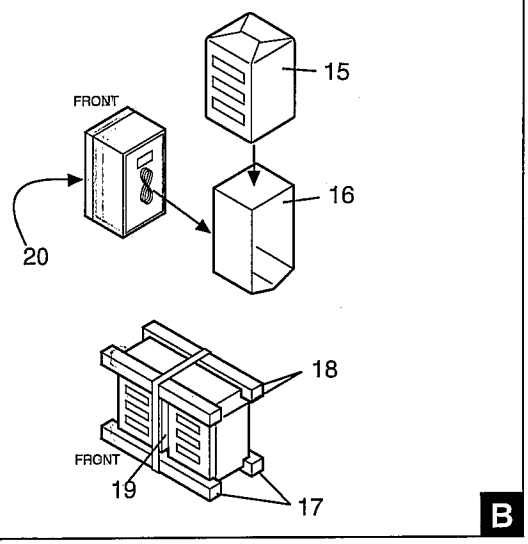
PACKING OF METHOD (FOR U.K. ONLY)

Setting position of switches and knobs	
Tape Mechanism	STOP

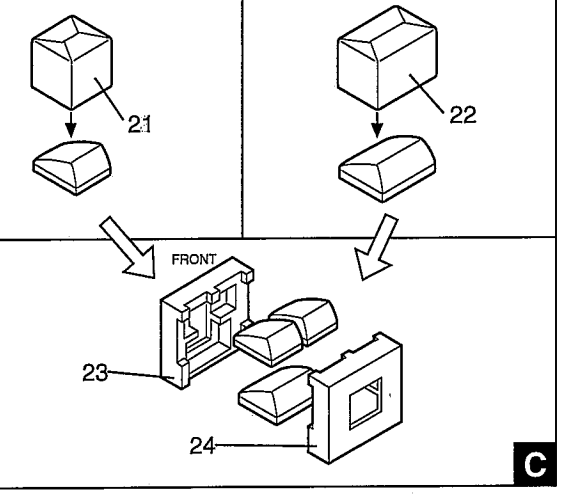
Unit



Front Speaker(L/R)



Surround Speaker(L/R) | Center Speaker



CD-C471H

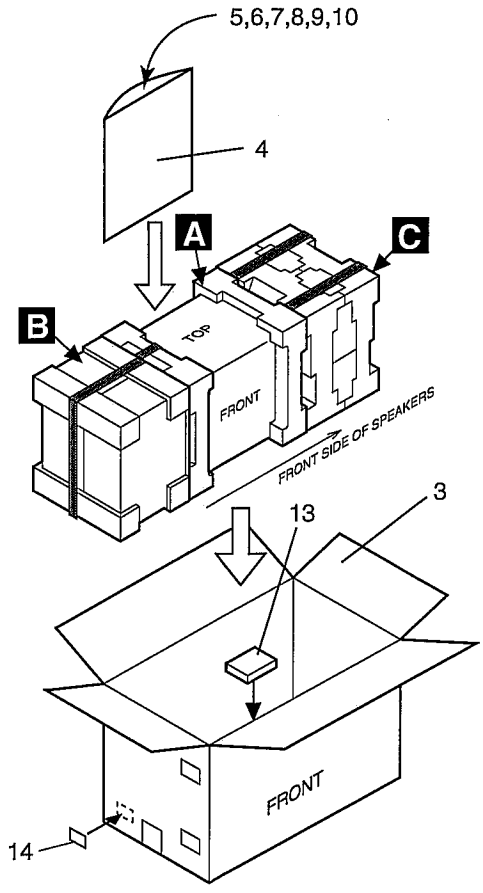
1.Polyethylene Bag,Unit	SPAKP0013AWZZ1
2.Packing Add.,Unit	SPAKA0192AWZZ
3.Packing Case	SPAKC0692AWZZ
4.Polyethylene Bag,Accessories	92LBAG1460C1
5.Warranty Card	TGAN-3170UMZZ
6.Operaton Manual	TiNSE0218AWZZ
7.Polyethylene Bag,AC Cord	92LBAG1770A
8.AC Power Supply Cord	QACCB0004AW00
9.AM Loop Antenna	QANTL0005AWZZ
10.FM Antenna	92LF-ANT1535A
12.Remote Control	RRMCG0151AWSA
13.Bottom Pad	SPAKZ0438AWZZ
14.Bar Code Label	TLABE0247AWZZ

CP-C471H

15.Polyethylene Bag	92L70032001600
16.Sheet	92L71525003200
17.Packing Add.,Bottom	92L720BPC46200
18.Packing Add.,Top	92L720TPC46200
19.Shield Pad	92L74231121000
20.Label,feature	92L6100C471H00

CENTER AND SURROUND SPEAKER SYSTEM

21.Polyethylene Bag	92L41-08-0120
22.Polyethylene Bag	92L41-08-0140
23.Packing Add.,Front	92L41-05-0080
24.Packing Add.,Rear	92L41-05-0090



CD-C471H

SHARP

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