SHARP SERVICE MANUAL

No. S4032CDBP2000

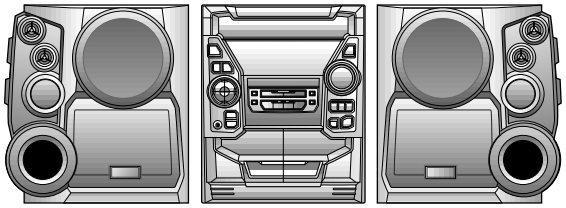


Illustration: CD-BP2000W

CD-BP2000W
CD-BP210W

CD-BP2000W/BP210W mini component system consisting of CD-BP2000W/BP210W (main unit) and CP-BP2000/210 (speaker system).

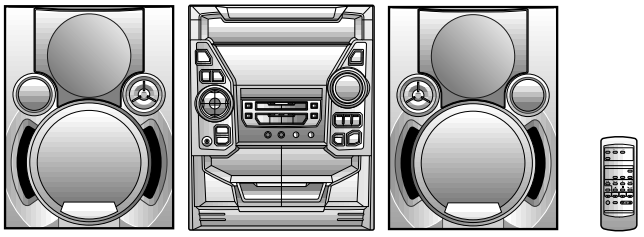


Illustration: CD-BK210W

CD-BK2000W
CD-BK210W

CD-BK2000W/BK210W mini component system consisting of CD-BK2000W/BK210W (main unit) and CP-BP2000/210 (speaker system).

COMPACT disc DIGITAL AUDIO

SAVING ENERGY STAND-BY POWER CONSUMPTION 0.8W

CD-BP2000A

CD-BP2000W mini component system consisting of CD-BP2000W (main unit) and CP-BP2000A (speaker system).

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

CONTENTS

DIFFERENCE BETWEEN CD-BP2000W/2000A/210W AND CD-BK2000W/210W

	CD-BP2000W/2000A/210W	CD-BK2000W/210W
Karaoke	None	Used

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

SAFETY PRECAUTION FOR SERVICE MANUAL

WARNINGS

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

1-WHEN THE CABINET IS REMOVED, THE POWER IS TURNED ON WITHOUT A COMPACT DISC IN POSITION AND THE PICK-UP IS ON THE OUTER EDGE THE LASER WILL LIGHT FOR SEVERAL SECONDS TO DETECT A DISC. DO NOT LOOK INTO THE PICK-UP LENS.

2-THE LASER POWER OUTPUT OF THE PICK-UP UNIT AND REPLACEMENT SERVICE PARTS ARE ALL FACTORY PRE-SET BEFORE SHIPMENT.
DO NOT ATTEMPT TO RE-ADJUST THE LASER PICK-UP UNIT DURING REPLACEMENT OR SERVICING.

3-UNDER NO CIRCUMSTANCES STARE INTO THE PICK-UP LENS AT ANY TIME.

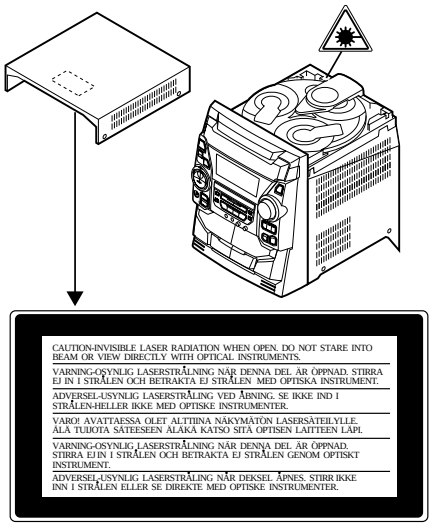
4-CAUTION-USE OF CONTROLS OR ADJUSTMENTS, OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION

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

- This Mini Component System is classified as a CLASS 1 LASER product.
- The CLASS 1 LASER PRODUCT label is located on the rear cover.
- Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. As the laser beam used in this compact disc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

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



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

VOLTAGE SELECTION

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

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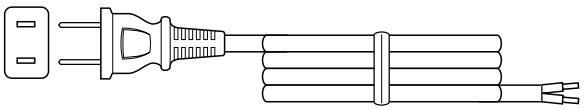

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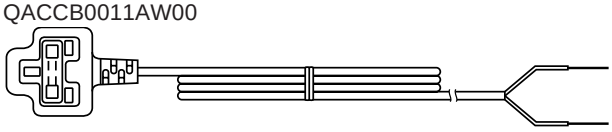

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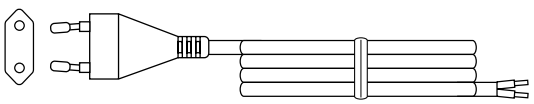

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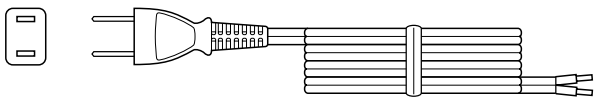

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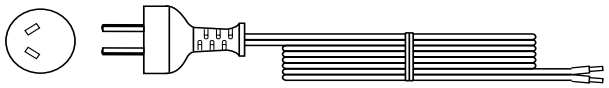

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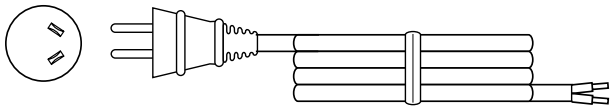

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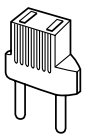


QPLGA0004AWZZ

Figure 2 AC POWER SUPPLY CORD

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

SPECIFICATIONS

CD-BP2000W/BK2000W/BP2000A/BP210W/BK210W

● General

Power source: AC 110/127/220/230-240 V, 50/60 Hz

Power consumption: 154 W

Dimensions: Width; 270 mm (10-5/8")
Height; 330 mm (13")
Depth; 355 mm (14")

Weight: **(CD-BP2000W/BK2000W/BP210W/BK210W)**
8.7 kg (19.1 lbs.)

Weight: **(CD-BP2000A)**
8.6 kg (19.0 lbs.)

● Amplifier section

Output power: **(CD-BP2000W/BK2000W)**
MPO; 334 W (167 W + 167 W) (10 % T.H.D.) [Main speaker (woofer, tweeter and super tweeters); 134 W (67 W + 67 W), Subwoofer; 200 W (100 W + 100 W)]
RMS; 200 W (100 W + 100 W) (10 % T.H.D.) [Main speaker (woofer, tweeter and super tweeters); 80 W (40 W + 40 W), Subwoofer; 120 W (60 W + 60 W)]
RMS; 184 W (92 W + 92 W) (0.9 % T.H.D.) [Main speaker (woofer, tweeter and super tweeters); 74 W (37 W + 37 W), Subwoofer; 110 W (55 W + 55 W)]
(CD-BP210W/BP2000A/BK210W)
MPO; 334 W (167 W + 167 W) (10 % T.H.D.) [Main speaker (woofer, tweeter and super tweeter); 134 W (67 W + 67 W), Subwoofer; 200 W (100 W + 100 W)]
RMS; 200 W (100 W + 100 W) (10 % T.H.D.) [Main speaker (woofer, tweeter and super tweeter); 80 W (40 W + 40 W), Subwoofer; 120 W (60 W + 60 W)]
RMS; 184 W (92 W + 92 W) (0.9 % T.H.D.) [Main speaker (woofer, tweeter and super tweeter); 74 W (37 W + 37 W), Subwoofer; 110 W (55 W + 55 W)]

Output terminals: Speakers; 6 ohms
Headphones; 16 - 50 ohms (recommended; 32 ohms)

Input terminals: Video/Auxiliary (audio signal); 500 mV/47 kohms

(CD-BK2000W/BK210W Only)
Microphone 1/2; 1 mV/600 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; 88 - 108 MHz
AM; 531 - 1,602 kHz

● Cassette deck section

Frequency response: 50 - 14,000 Hz (Normal tape)

Signal/noise ratio: 55 dB (TAPE 1, playback)
50 dB (TAPE 2, recording/playback)

Wow and flutter: 0.3 % (WRMS)

CP-BP2000

Type: 5-way type [13 cm (5-1/4") subwoofer, 13 cm (5-1/4") woofer, 5 cm (2") tweeter and super tweeter × 2]

Maximum input power (total): 200 W

Rated input power (total): 100 W

Impedance: 6 ohms

Dimensions: Width; 310 mm (12-3/16")
Height; 330 mm (13")
Depth; 270 mm (10-5/8")

Weight: 5.3 kg (11.7 lbs.)/each

CP-BP210

Type: 4-way type [16 cm (6-5/16") subwoofer, 10 cm (3-15/16") woofer, 5 cm (2") tweeter and super tweeter]

Maximum input power (total): 200 W

Rated input power (total): 100 W

Impedance: 6 ohms

Dimensions: Width; 250 mm (9-13/16")
Height; 330 mm (13")
Depth; 240 mm (9-7/16")

Weight: 4.9 kg (10.8 lbs.)/each

CP-BP2000A

Type: 4-way type [13 cm (5-1/4") subwoofer, 13 cm (5-1/4") woofer, 5 cm (2") tweeter and super tweeter]

Maximum input power (total): 200 W

Rated input power (total): 100 W

Impedance: 6 ohms

Dimensions: Width; 270 mm (10-5/8")
Height; 330 mm (13")
Depth; 264.6 mm (10-3/8")

Weight: 4.7 kg (10.3 lbs.)/each

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

NAMES OF PARTS

CD-BP2000W/210W/2000A/BK2000W/210W

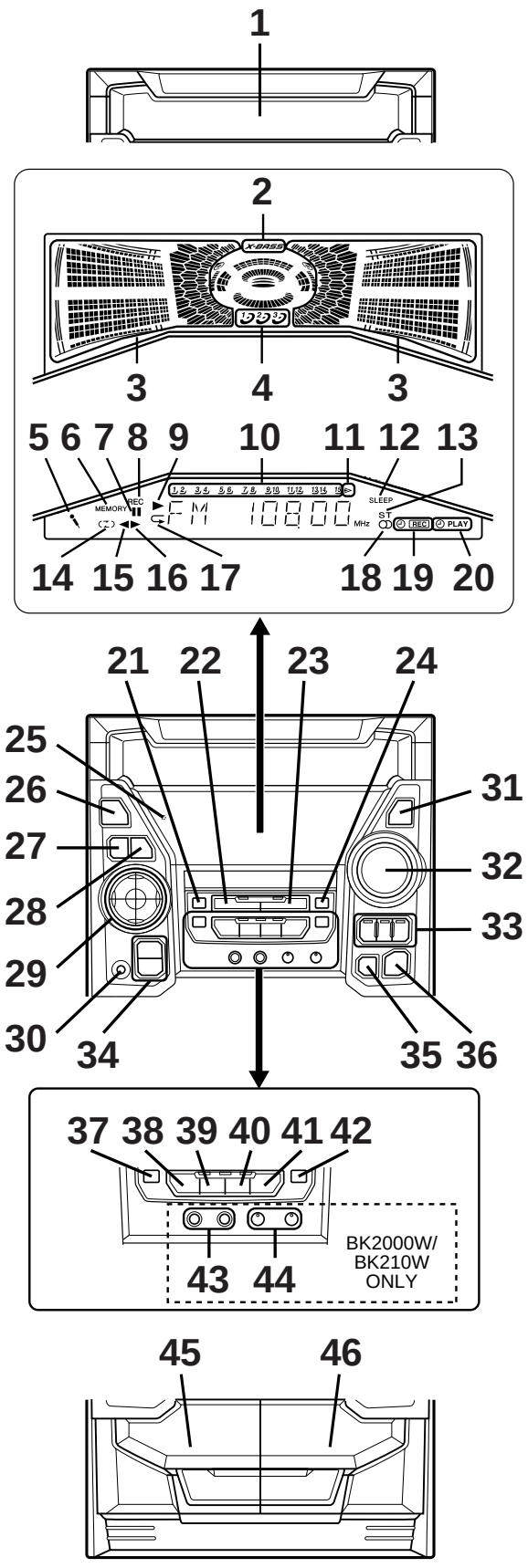
■ Front panel

1. (CD) Disc Tray

2. Extra Bass Indicator
3. Spectrum Analyzer/Volume Level Indicator
4. (CD) Disc Number Indicators
5. Karaoke Maker Indicator
6. (CD/TUNER) Memory Indicator
7. (CD) Pause Indicator
8. (TAPE 2) Record Indicator
9. (CD) Play Indicator
10. (CD) Music Schedule Indicators
11. (CD) More Tracks Indicator
12. Sleep Indicator
13. FM Stereo Mode Indicator
14. (TAPE) Reverse Mode Indicator
15. (TAPE 2) Reverse Play Indicator
16. (TAPE 1) Play Indicator
    (TAPE 2) Forward Play Indicator
17. (CD) Repeat Indicator
18. FM Stereo Indicator
19. Timer Record Indicator
20. Timer Play Indicator

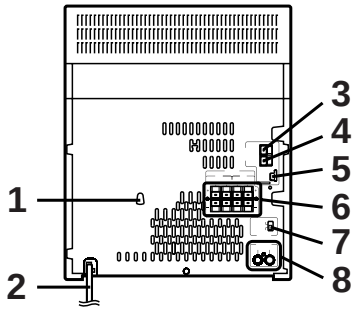
21. Memory/Set Button
22. (CD) Track Down/Review Button
    (TUNER) Preset Down Button
    (TAPE 2) Fast Wind Button
23. (CD) Track Up/Cue Button
    (TUNER) Preset Up Button
    (TAPE 2) Fast Wind Button
24. Equalizer Mode Selector Button
25. Timer Set Indicator
26. On/Stand-by Button
27. Clock Button
28. Timer/Sleep Button
29. Function Selector Buttons
30. Headphone Socket
31. Dimmer Button
32. Volume Control
33. (CD) Disc Number Select Buttons
34. Tuning and Time Up/Down Buttons
35. (CD) Disc Skip Button
36. (CD) Open/Close Button
37. (TAPE 2) Record Pause Button
38. (TAPE 2) Reverse Play Button
39. (CD/TAPE) Stop Button
40. (TAPE 2) Reverse Mode Button
41. (CD) Play/Repeat Button
    (TAPE 1) Play Button
    (TAPE 2) Forward Play Button
42. Extra Bass/Demo Mode Button
43. Microphone Sockets
    (BK2000W/BK210W Only)
44. Microphone Level Controls
    (BK2000W/BK210W Only)

45. (TAPE 1) Cassette Compartment
46. (TAPE 2) Cassette Compartment



■ Rear panel

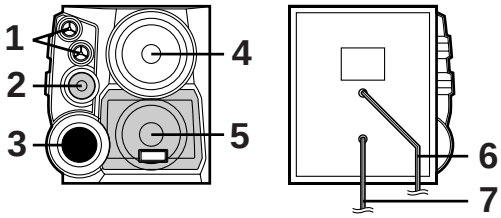
1. AC Voltage Selector
2. AC Power Lead
3. FM 75 Ohms Aerial Terminal
4. FM Aerial Earth Terminal
5. AM Loop Aerial Input Socket
6. Speaker Terminals
7. Span Selector Switch
8. Video/Auxiliary (Audio Signal) Input Sockets



■ Speaker

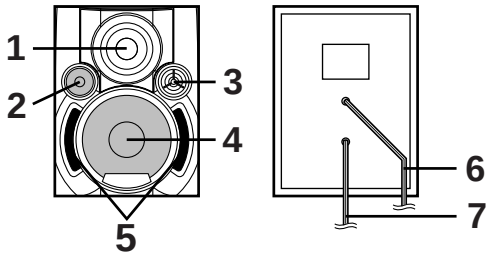
CP-BP2000

1. Super Tweeters
2. Tweeter
3. Bass Reflex Duct
4. Woofer
5. Subwoofer
6. Main Speaker (Woofer, Tweeter and Super Tweeters) Wire
7. Subwoofer Wire



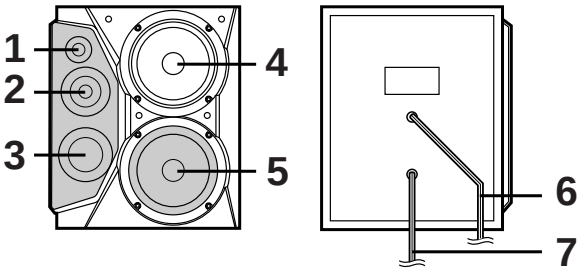
CP-BP210

1. Woofer
2. Tweeter
3. Super Tweeter
4. Subwoofer
5. Bass Reflex Ducts
6. Main Speaker (Woofer, Tweeter and Super Tweeter) Wire
7. Subwoofer Wire



CP-BP2000A

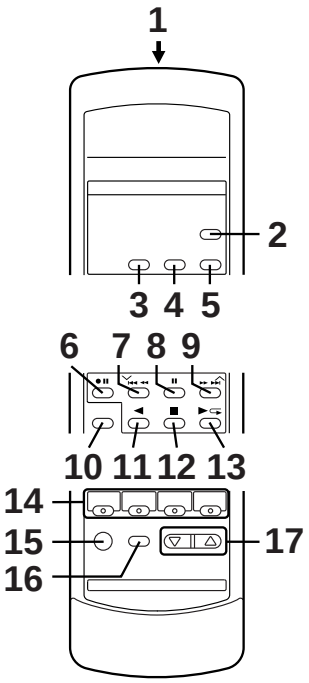
1. Super Tweeter
2. Tweeter
3. Bass Reflex Duct
4. Woofer
5. Subwoofer
6. Main Speaker (Woofer, Tweeter and Super Tweeter) Wire
7. Subwoofer Wire



CD-BP2000W/BP210W/BP2000A

■ Remote control

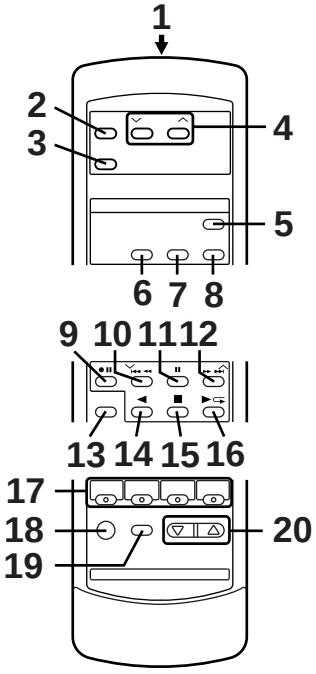
1. Remote Control Transmitter LED
2. (CD) Disc Skip Button
3. (CD) Clear Button
4. (CD) Memory Button
5. (CD) Random Button
6. (TAPE 2) Record Pause Button
7. (CD) Track Down/Review Button
   (TUNER) Preset Down Button
   (TAPE 2) Fast Wind Button
8. (CD) Pause Button
9. (CD) Track Up/Cue Button
   (TUNER) Preset Up Button
   (TAPE 2) Fast Wind Button
10. Equalizer Mode Selector Button
11. (TAPE 2) Reverse Play Button
12. (CD/TAPE) Stop Button
13. (CD) Play/Repeat Button
    (TAPE 1) Play Button
    (TAPE 2) Forward Play Button
14. Function Selector Buttons
15. On/Stand-by Button
16. Extra Bass Button
17. Volume Up/Down Buttons



CD-BK2000W/BK210W

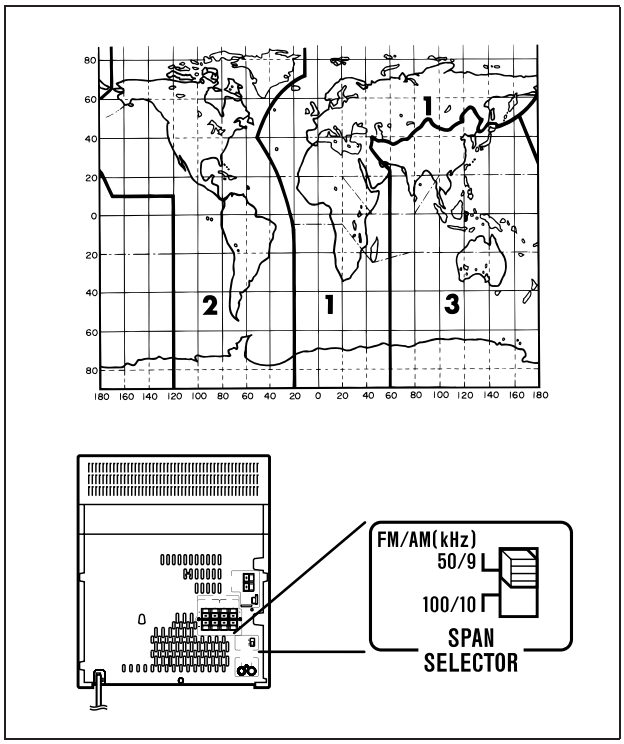
■ Remote control

1. Remote Control Transmitter LED
2. Karaoke Mode Button
3. Vocal Replacer Button
4. Echo Level Up/Down Buttons
5. (CD) Disc Skip Button
6. (CD) Clear Button
7. (CD) Memory Button
8. (CD) Random Button
9. (TAPE 2) Record Pause Button
10. (CD) Track Down/Review Button
    (TUNER) Preset Down Button
    (TAPE 2) Fast Wind Button
11. (CD) Pause Button
12. (CD) Track Up/Cue Button
    (TUNER) Preset Up Button
    (TAPE 2) Fast Wind Button
13. Equalizer Mode Selector Button
14. (TAPE 2) Reverse Play Button
15. (CD/TAPE) Stop Button
16. (CD) Play/Repeat Button
    (TAPE 1) Play Button
    (TAPE 2) Forward Play Button
17. Function Selector Buttons
18. On/Stand-by Button
19. Extra Bass Button
20. Volume Up/Down Buttons



OPERATION MANUAL

■ AM/FM interval (span)



The International Telecommunication Union (ITU) has established that member countries should maintain either a 10 kHz or a 9 kHz interval between broadcasting frequencies of any AM station. The illustration shows the 9 kHz interval zones (regions 1 and 3), and the 10 kHz interval zone (region 2).
Before using the unit, set the SPAN SELECTOR switch (on the rear panel) to AM tuning interval (span) of your area.

To change the tuning zone:

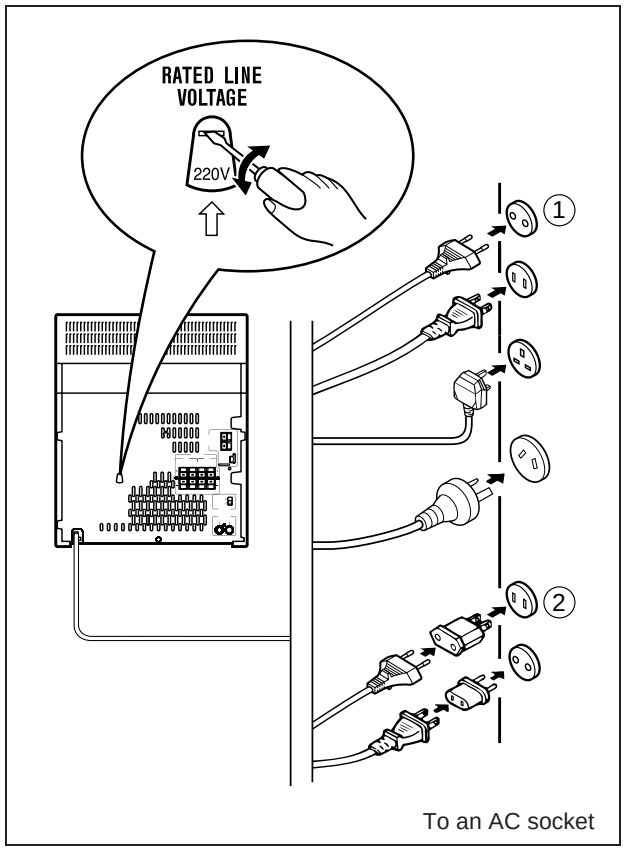
1. **Press the ON/STAND-BY button to enter the stand-by mode.**
2. **Set the SPAN SELECTOR switch to "50/9" for 9 kHz AM interval (50 kHz FM interval), and "100/10" for 10 kHz AM interval (100 kHz FM interval).**
3. **Whilst pressing down the ► button and the X-BASS/DEMO button, hold down the ON/STAND-BY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

- "CLEAR AL" will appear.

Caution:

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

■ Connecting the AC power lead



To an AC socket

Check the setting of the AC voltage selector located on the rear panel before plugging the unit into an AC socket. If necessary, adjust the selector to correspond to the AC power voltage used in your area.

Selector adjustment:
Turn the selector with a screwdriver until the appropriate voltage number appears in the window (110 V, 127 V, 220 V or 230 V - 240 V AC).

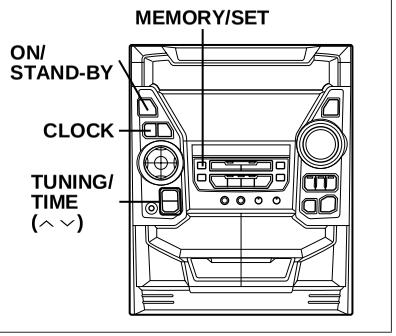
Notes:

- Plug the AC power lead into an AC socket, after any connections.
- Unplug the AC power lead from the AC socket if the unit will not be in use for a prolonged period of time.

● AC Plug Adaptor
In areas (or countries) where an AC socket as shown in illustration ② is used, connect the unit using the AC plug adaptor supplied with the unit, as illustrated. The AC plug adaptor is not included in areas where the AC wall socket and AC power plug can be directly connected (see illustration ①).

SETTING THE CLOCK

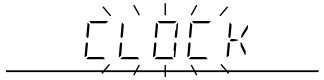
(Main unit operation)



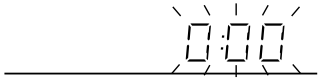
In this example, the clock is set for the 24-hour (0:00) system.

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

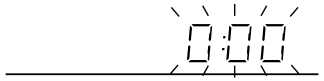
2 Press the CLOCK button.



3 Within 5 seconds, press the MEMORY/SET button.



4 Press the TUNING/TIME (∨ or ∧) button to select the time display mode.

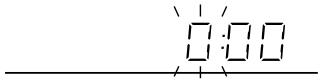


0:00 ⟷ AM 0:00 ⟷ AM 12:00

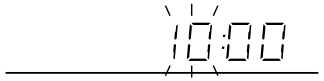
"0:00" → The 24-hour display will appear. (0:00 - 23:59)
"AM 0:00" → The 12-hour display will appear. (AM 0:00 - PM 11:59)
"AM 12:00" → The 12-hour display will appear. (AM 12:00 - PM 11:59)

● Note that this can only be set when the unit is first installed or it has been reset (see page 29).

5 Press the MEMORY/SET button.

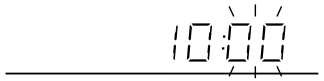


6 Press the TUNING/TIME (∨ or ∧) button to adjust the hour.

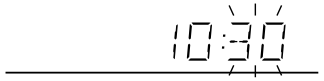


● Press the TUNING/TIME (∨ or ∧) button once to advance the time by 1 hour. Hold it down to advance continuously.
● When the 12-hour display is selected, "AM" will change automatically to "PM".

7 Press the MEMORY/SET button.

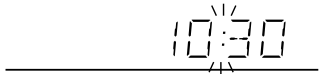


8 Press the TUNING/TIME (∨ or ∧) button to adjust the minutes.



● Press the TUNING/TIME (∨ or ∧) button once to advance the time by 1 minute. Hold it down 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" second. (Seconds are not displayed.) And then the clock display will disappear after a few seconds.

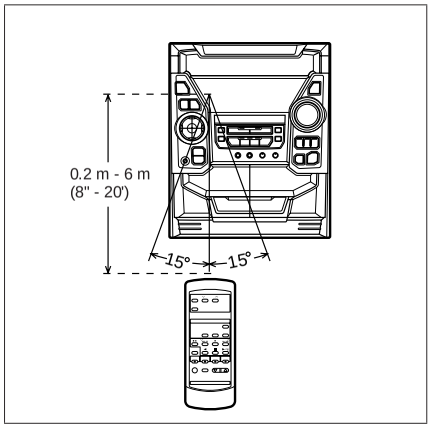
To see the time display:
Press the CLOCK button.
● The time display will appear for about 5 seconds.

Note:
● The clock display will flash on and off at the push of the CLOCK button when the AC power supply is restored after a power failure occurs or after the AC power lead is disconnected. If this happens, follow the procedure below to change the clock time.

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

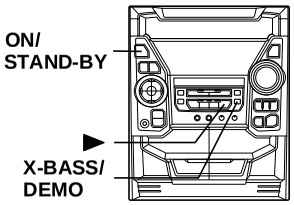
To change the time display mode:
1 Perform steps 1 - 2 in "RESETTING THE MICROCOMPUTER", on page 29.
2 Perform steps 1 - 9 above.

■ Remote control



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

RESETTING THE MICROCOMPUTER



Reset the microcomputer under the following conditions:
- To erase all of the stored memory contents (clock and timer settings, and tuner and CD presets).
- If the display is not correct.
- If the operation is not correct.

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

2 Whilst pressing down the ► button and the X-BASS/DEMO button, hold down the ON/STAND-BY button for at least 1 second.
- "CLEAR AL" will appear.

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

DISASSEMBLY

Caution on Disassembly

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

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

CD-BP2000W/210W/2000A/BK2000W/210W

STEP	REMOVAL	PROCEDURE	FIGURE
1	Top Cabinet	1. Screw ..... (A1) x4	9-1
2	Side Panel (Left/right)	1. Screw ..... (B1) x8	9-1
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. Screw ..... (C1) x1 3. Hook ..... (C2) x3 4. Hook ..... (C3) x2 5. Socket ..... (C4) x2	9-2
4	Rear Panel	1. Screw ..... (D1) x10	9-2
5	Main PWB	1. Screw ..... (E1) x3 2. Socket ..... (E2) x4 3. Flat Cable ..... (E3) x1 4. Tip Wire ..... (E4) x1	9-2 10-2
6	Power Supply PWB	1. Screw ..... (F1) x2 2. Socket ..... (F2) x4 3. Flat Wire ..... (F3) x1	10-2 10-3
7	Karaoke PWB BK2000W/210W Only	1. Screw ..... (G1) x2	10-3
8	Front Panel	1. Screw ..... (H1) x2	10-2
9	Display PWB	1. Screw ..... (J1) x13 2. Socket ..... (J2) x1	10-4
10	Tape Mechanism	1. Open the cassette holder. 2. Screw..... (K1) x5	10-4
11	Headphones PWB	1. Screw ..... (L1) x1	10-4
12	Turntable	1. Hook ..... (M1) x2 2. Cover ..... (M2) x1	10-5
13	Disc Tray	1. Turn fully the lock lever in the arrow direction. 2. While holding the lock lever,rotate the cam gear until the cam gear rib engages with the clamp lever. 3. Push the slide holder backward to engage the claw with the groove and remove it in the direction of the arrow. ..... (N1) x6	9-3 10-1 10-6
14	CD Servo PWB (Note 2)	1. Screw ..... (P1) x1 2. Hook ..... (P2) x2 3. Socket ..... (P3) x4	11-1
15	CD Mechanism	1. Hook ..... (Q1) x2 2. Hook ..... (Q2) x3	11-2
16	Loading Motor PWB	1. Hook ..... (R1) x5	11-2

Note 1:

How to open the changer manually. (Fig. 9-3)

1. In this state, turn fully the lock lever in the arrow direction through the hole on the loading chassis bottom.
2. While holding the lock lever, rotate the cam gear anticlockwise until the cam gear rib engages with the clamp lever. (Fig. 10-1)
3. After that, push forward the CD slide holder.

CD-BP2000W/210W/2000A/BK2000W/210W

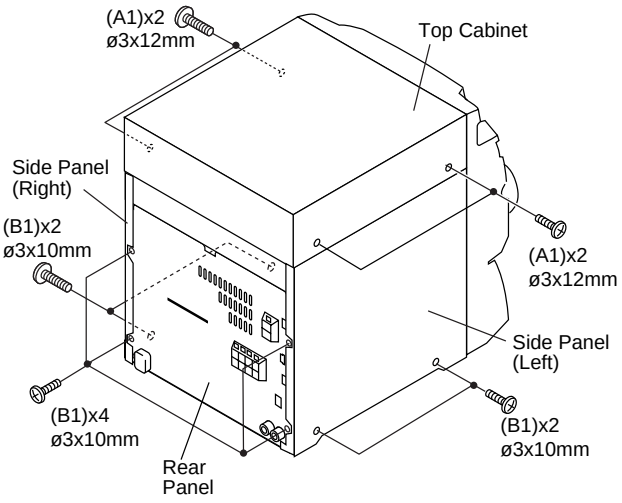


Figure 9-1

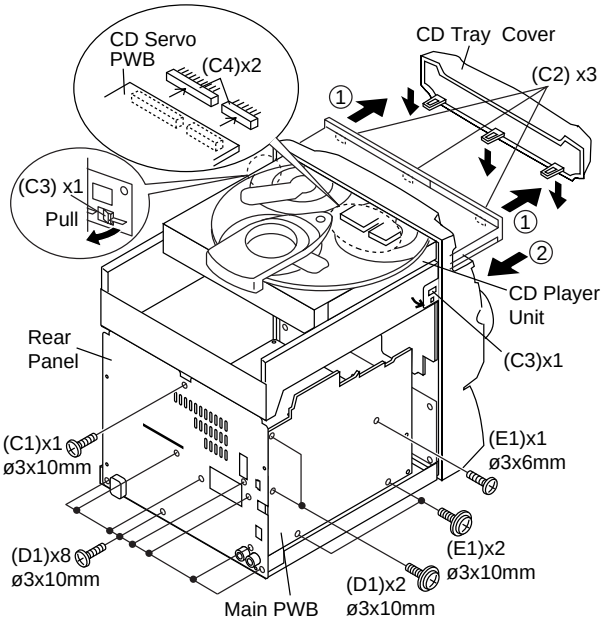


Figure 9-2

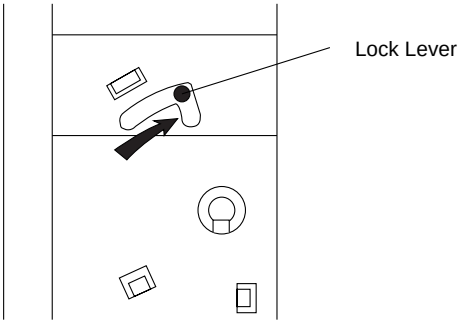


Figure 9-3

Note 2:

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

Note 3:

1. Be careful not to break the claw of the CD mechanism.
2. When fining back the cam gear assembly, let it lock by front movement.

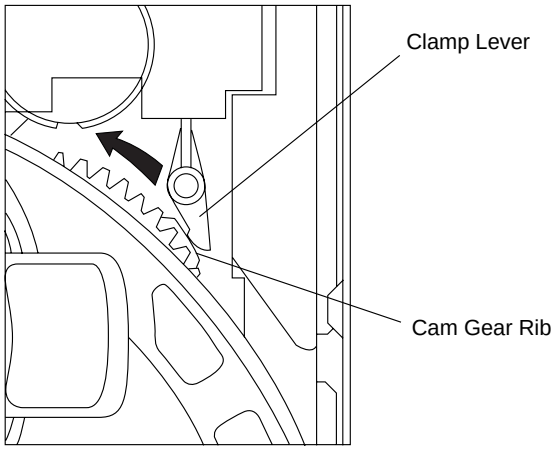


Figure 10-1

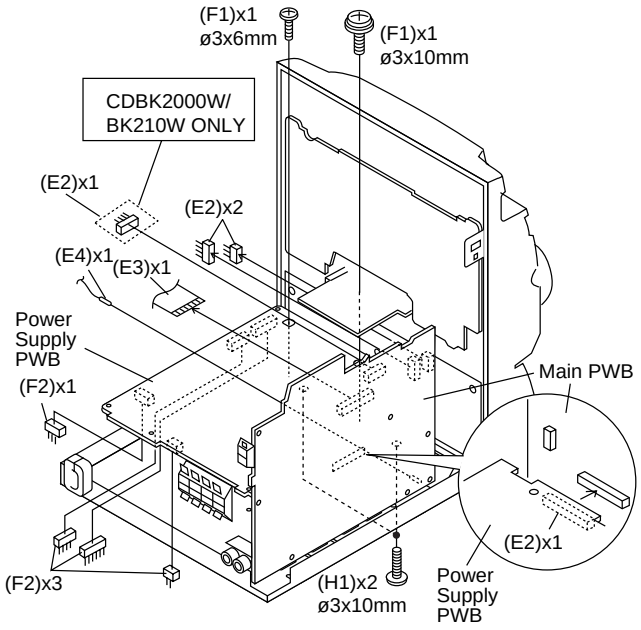


Figure 10-2

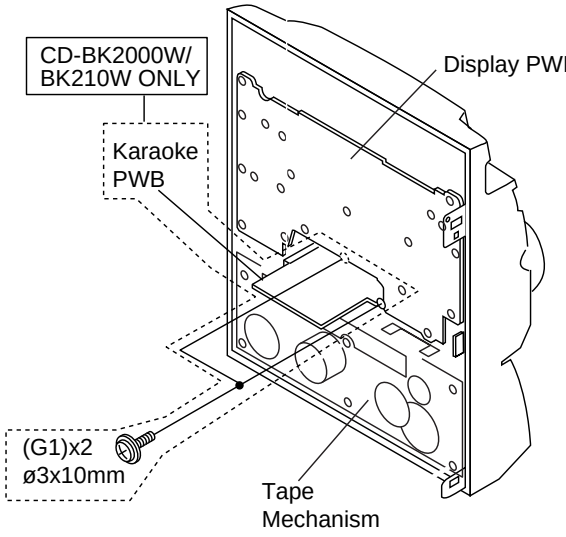


Figure 10-3

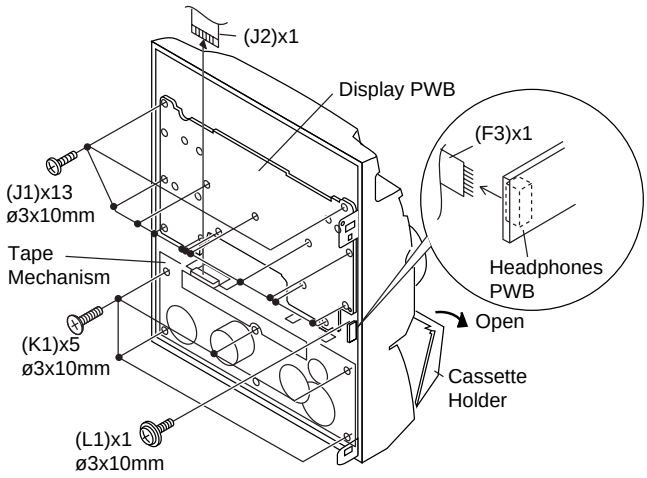


Figure 10-4

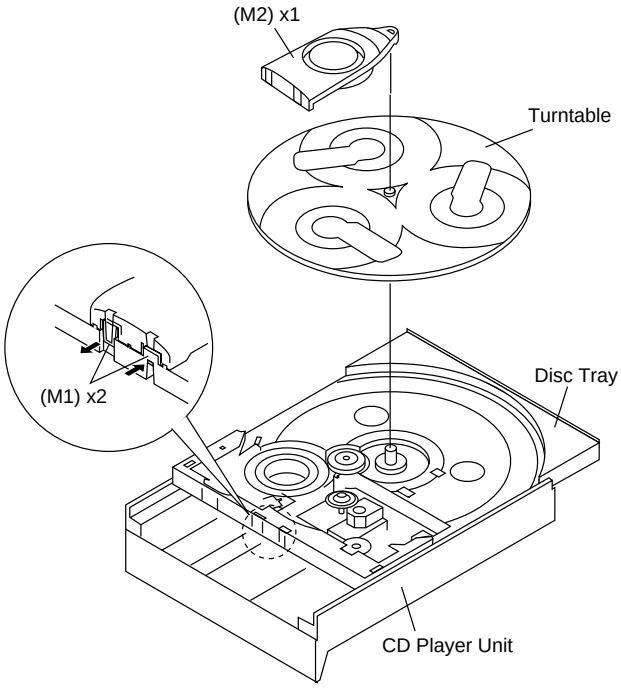


Figure 10-5

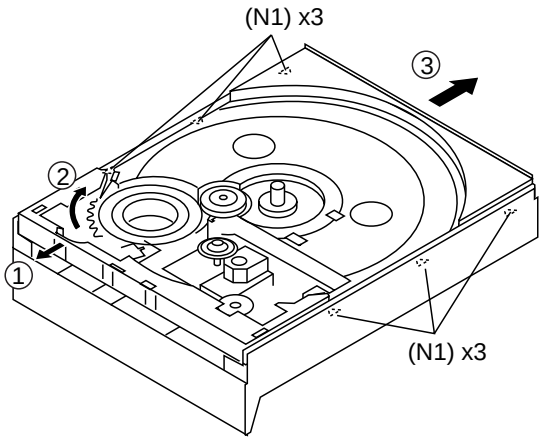


Figure 10-6

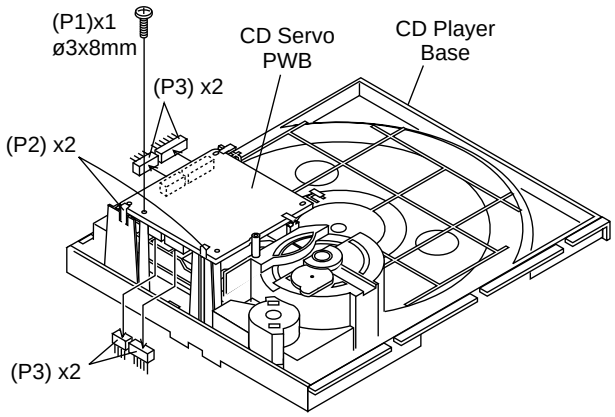


Figure 11-1

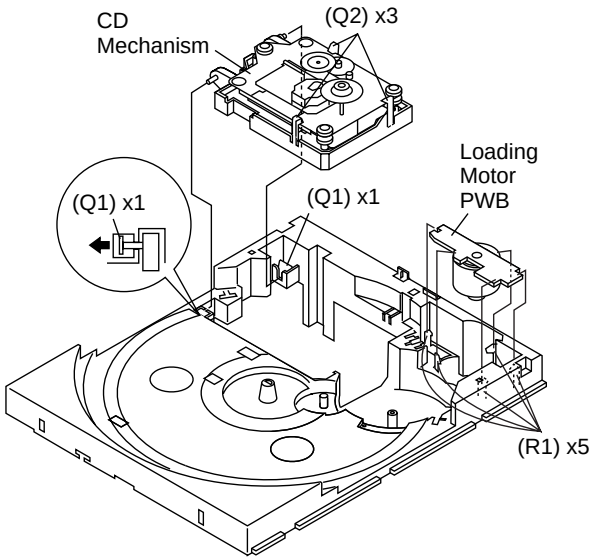


Figure 11-2

CP-BP2000			
STEP	**REMOVAL**	**PROCEDURE**	**FIGURE**
1	Front Panel	1. Front Panel 2. Tip ..... (A1) x4	11-3 11-4
2	Woofer	1. Screw ..... (B1) x4	11-5
3	Subwoofer	1. Screw ..... (C1) x4 2. Sub Woofer Ring ... (C2) x1	11-5
4	Tweeter	1. Screw ..... (D1) x2	11-5
5	Super Tweeter	1. Screw ..... (E1) x4	11-4

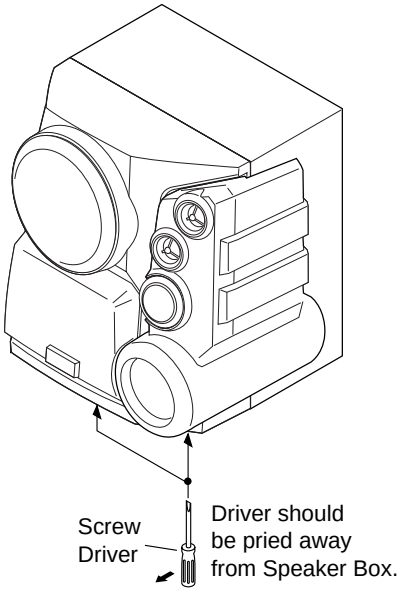


Figure 11-3

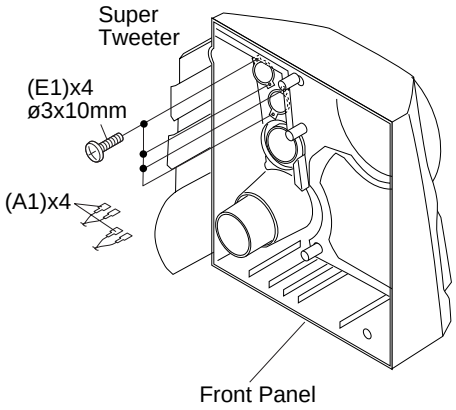


Figure 11-4

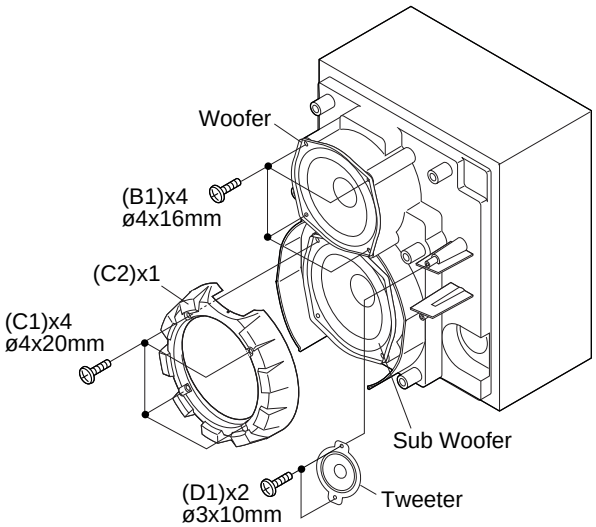


Figure 11-5

CP-BP210

STEP	REMOVAL	PROCEDURE	FIGURE
1	Front Panel	1. Net ..... (A1) x1	12-1
2	Woofer	1. Screw ..... (B1) x4	12-2
3	Subwoofer	1. Screw ..... (C1) x4	12-2
4	Tweeter	1. Screw ..... (D1) x2	12-2
5	Super Tweeter	1. Screw ..... (E1) x2	12-2

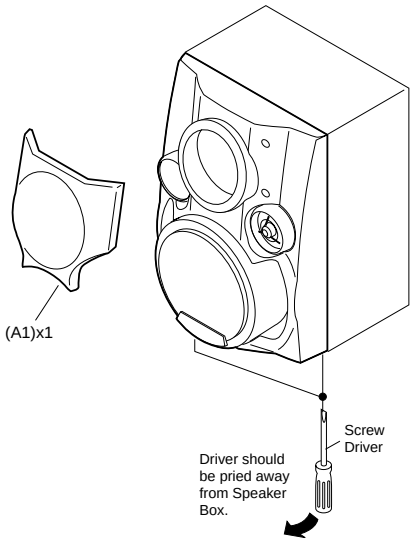


Figure 12-1

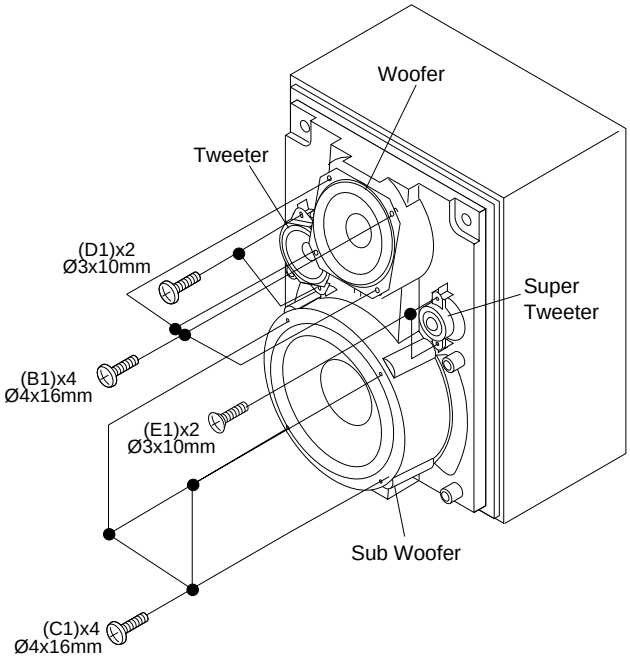


Figure 12-2

CP-BP2000A

STEP	REMOVAL	PROCEDURE	FIGURE
1	Front Panel	1. Net ..... (A1) x1 2. Rubber ..... (A2) x4 3. Screw ..... (A3) x4 4. Tip ..... (A4) x2	12-3 12-4
2	Woofer	1. Screw ..... (B1) x4	12-4
3	Subwoofer	1. Screw ..... (C1) x4	12-4
4	Tweeter	1. Screw ..... (D1) x2	12-4
5	Super Tweeter	1. Screw ..... (E1) x2	12-4

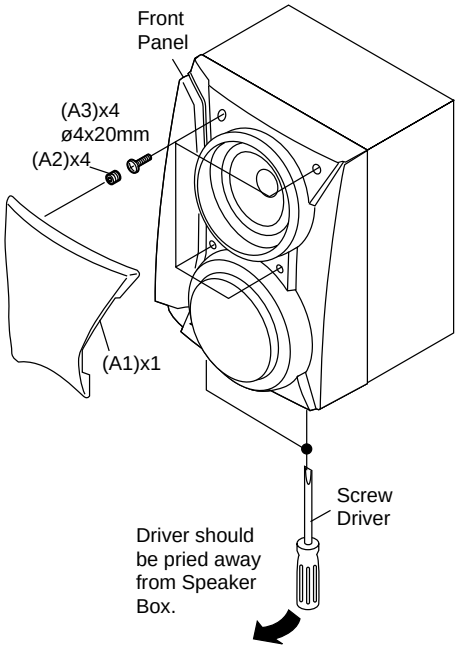


Figure 12-3

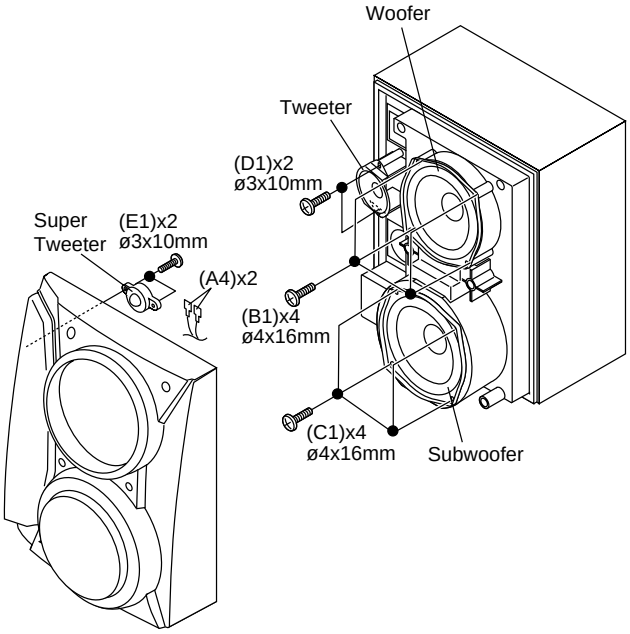


Figure 12-4

REMOVING AND REINSTALLING THE MAIN PARTS

TAPE MECHANISM SECTION

Perform steps 1 to 8 and 10 of the disassembly method to remove the tape mechanism.

How to remove the record/playback and erase heads (TAPE 2) (See Fig. 13-1)

1. When you remove the screw (A1) x 2 pcs., the recording/playback head and three-dimensional head of the erasing head can be removed.

How to remove the playback head (TAPE 1) (See Fig. 13-2)

1. When you remove the screw (B1) x 2 pcs., the playback head.

How to remove the pinch roller (Tape 1/2) (See Fig. 13-3)

1. Carefully bend the pinch roller pawl in the direction of the arrow **<A>**, and remove the pinch roller (C1) x 1 pc., in the direction of the arrow **<B>.**

Note:

When installing the pinch roller, pay attention to the spring mounting position.

How to remove the belt (TAPE 1) (See Fig. 13-4)

1. Remove the main belt (D1) x 1 pc., from the motor side.
2. Remove the FF/REW belt (D2) x 1 pc.

How to remove the belt (TAPE 2) (See Fig. 13-4)

1. Remove the main belt (E1) x 1 pc., from the motor side.
2. Remove the FF/REW belt (E2) x 1 pc.

How to remove the motor (See Fig. 13-5)

1. Remove the screws (F1) x 2 pcs., to remove the motor.

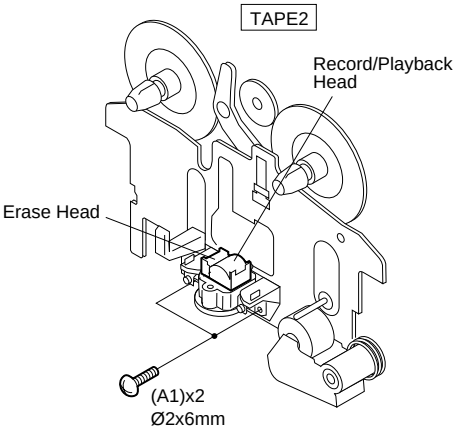


Figure 13-1

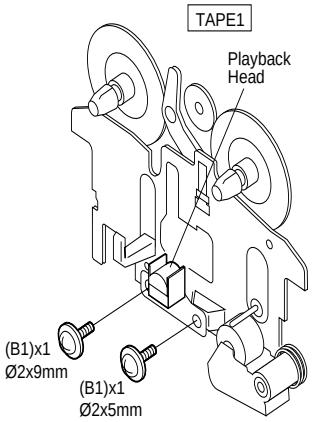


Figure 13-2

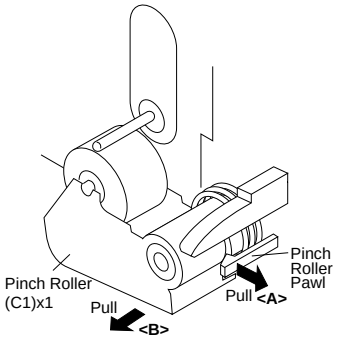


Figure 13-3

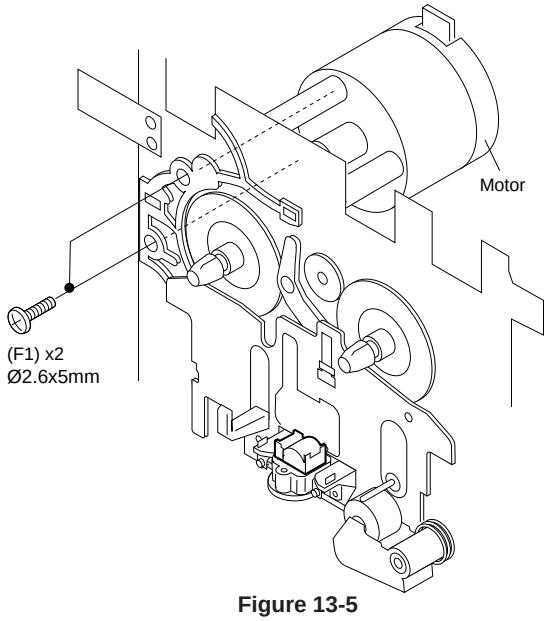


Figure 13-5

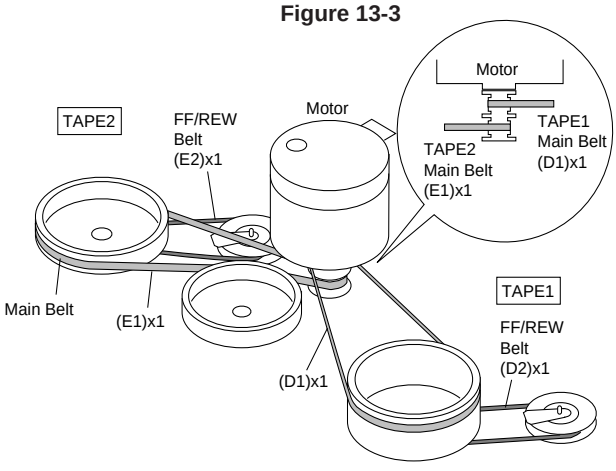


Figure 13-4

CD MECHANISM SECTION

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

How to remove the loading motor (See Fig. 14-1)

1. Bend the hooks (A1) x 5 pcs., to remove the loading motor.

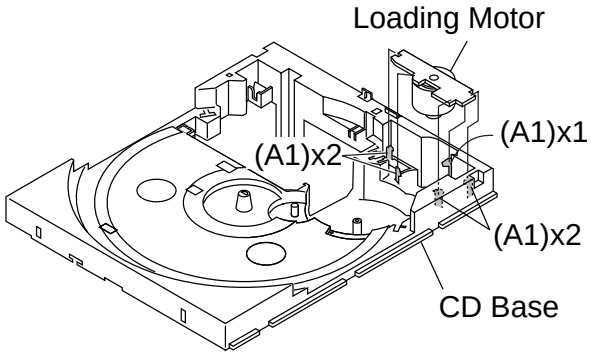


Figure 14-1

How to remove the pickup (See Fig. 14-2)

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

Note

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

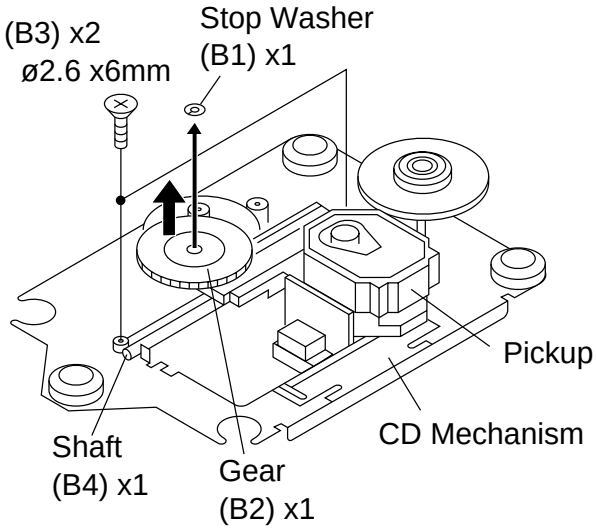


Figure 14-2

ADJUSTMENT

MECHANISM SECTION

• Driving Force Check

Torque Meter	Specified Value
Play: TW-2111	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 80 g. cm	30 to 80 g.cm
Fast forward: TW-2231	—	70 to 180 g.cm
Rewind: TW-2231	—	70 to 180 g.cm

• Tape Speed

	Test Tape	Adjusting Point	Specified Value	Instrument Connection
Normal speed	MTT-111	Variable Resistor in motor. (MM1)	3,000 ± 30 Hz	Speaker terminal (Load resistance: 6 ohms)

TAPE MECHANISM

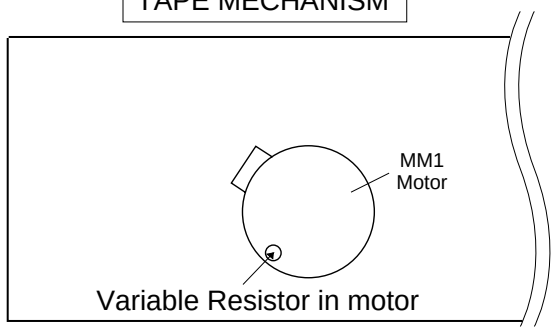


Figure 14-3

TUNER SECTION

fL: Low-range frequency
fH: High-range frequency

- **AM IF/RF**

Signal generator: 400 Hz, 30%, AM modulated

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
AM IF	450 kHz	1,602 kHz	T351	*1
AM Band Coverage	—	531 kHz	(fL): T306 1.1 ± 0.1 V	*2
AM Tracking	990 kHz	990 kHz	(fL): T303	*1

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

- **FM RF**

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

Test Stage	Frequency	Frequency Display	Serring/ Adjusting Point	Instrument Connection
FM Band Coverage	—	87.50 MHz	T301(fL); 1.3 V ± 50 mV	*1
FM RF	98.00 MHz (10-30 dB)	98.00 MHz	L312	*2

*1. Input: Antenna, Output: TP301
*2. Input: Antenna, Output: Speaker terminal

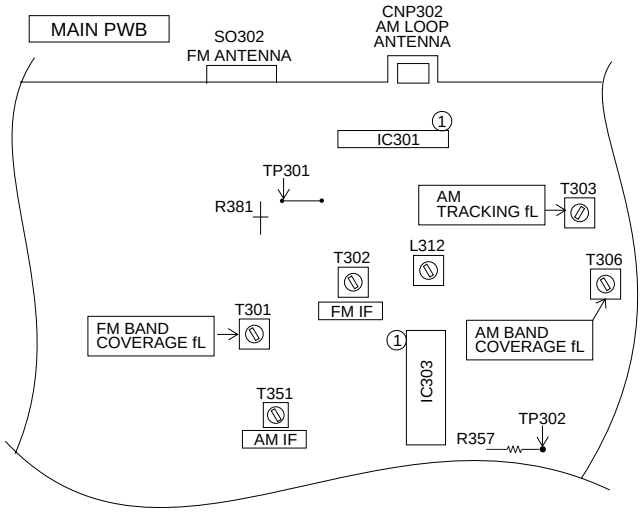


Figure 15-1 ADJUSTMENT POINT

CD SECTION

Adjustment

Since this CD system incorporates the following automatic adjustment functions, readjustment is not needed when replacing the pickup. Therefore, different PWBs and pickups can be combined freely.
Each time a disc is changed, these adjustments are performed automatically. Therefore, playback of each disc can be performed under optimum conditions.

Items adjusted automatically

(1) Offset adjustment (The offset voltage between the head amplifier output and the VREF reference voltage is compensated inside the IC.)
  * Focus offset adjustment
  * Tracking offset adjustment
(2) Tracking balance adjustment (waveform drawing 15-2 EFBL)
(3) Gain adjustment (The gain is compensated inside the IC so that the loop gain at the gain crossover frequency will be 0dB.)
  * Focus gain adjustment
  * Tracking gain adjustment

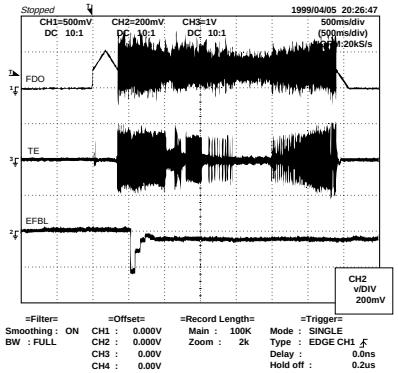


Figure 15-2

CD ERROR CODE DESCRIPTION

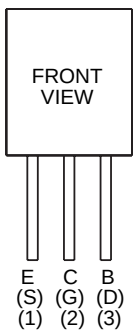
Error	State Code
	[Servo System Error]
0001	Cannot detect Pickup-in SW
0002	DSP access error
	[Error during close operation]
0101	Open/Close SW not functioning (Low → High)
0103	Open/Close SW not functioning (High → Low)
	[Error during open operation]
0201	Open/Close SW not functioning (Low → High)
0203	Open/Close SW not functioning (High → Low)
	[Error during skip operation]
0302	Pickup-in SW is not detected
0306	During Disc 1 search, Open/Close SW or Clamp SW or Disc SW do not change to low.
0307	Clamp SW not function (Low → High)
0308	Clamp SW not function (High → Low)

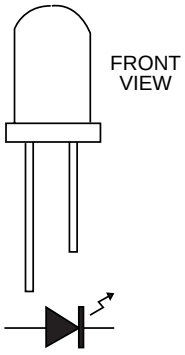
NOTES ON SCHEMATIC DIAGRAM

- 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 “ ⚠ ” (⊏ ニ ニ ニ ⊐) 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	CLAMP	ON—OFF
SW3	DISC NUMBER	ON—OFF
SW4	PICKUP IN	ON—OFF
SW601	SPAN SELECTOR	9kHz/50kHz
SW701	ON/STAND-BY	ON—OFF
SW702	CLOCK	ON—OFF
SW703	TIMER	ON—OFF
SW709	DISC 1	ON—OFF
SW710	DISC 2	ON—OFF
SW711	DISC 3	ON—OFF
SW712	DISC SKIP	ON—OFF
SW713	OPEN/CLOSE	ON—OFF
SW714	DIMMER	ON—OFF
SW715	X-BASS/MEMO	ON—OFF
SW716	EQUALIZER	ON—OFF

REF. NO	DESCRIPTION	POSITION
SW722	CD	ON—OFF
SW723	TAPE	ON—OFF
SW724	TUNING DOWN	ON—OFF
SW725	MEMORY/SET	ON—OFF
SW726	PRESET DOWN	ON—OFF
SW727	PRESET UP	ON—OFF
SW728	PLAY	ON—OFF
SW729	STOP	ON—OFF
SW730	REV PLAY	ON—OFF
SW731	REC/PAUSE	ON—OFF
SW732	TUNING/TIME UP	ON—OFF
SW733	VIDEO/AUX	ON—OFF
SW734	TUNER (BAND)	ON—OFF
SW735	REV MODE	ON—OFF
SW801	VOLTAGE SELECTOR	230-240V





2SC3203 Y
2SA1015 GR
2SC1845 F
KTC3203 Y
KTA1266 GR
KRC102 M
KTC3194 Y

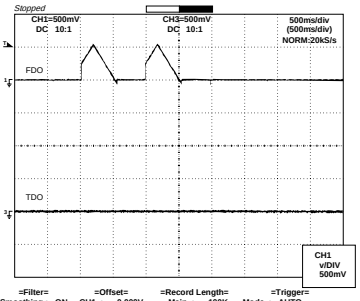
KRC104 M
KTA1271 Y
KTA1273 Y
KTA1274 Y
KTC2026
KTC3199 GR

4204UYT7
4204UGT7
4204SRT7

Figure 16 TYPES OF TRANSISTOR AND LED

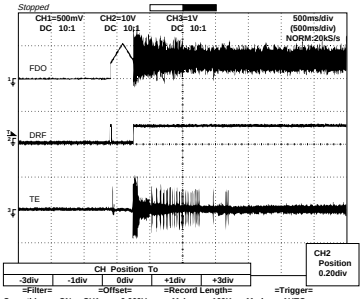
WAVEFORMS OF CD CIRCUIT

1 IC2 (24)
2 IC2 (23)



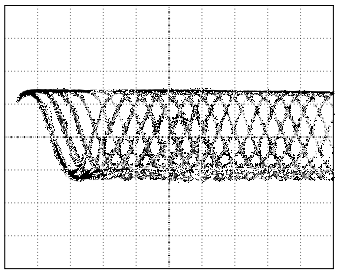
=Filter= Smoothing : ON BW : FULL
=Offset= CH1 : 0.000V CH2 : 0.0V CH3 : 0.000V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 2K
=Trigger= Mode : AUTO Type : EDGE CH1 ↓ Delay : 0.0ns Hold off : 0.2us

1 IC2 (24)
3 IC2 (72)
4 IC1 (18), IC2 (16)



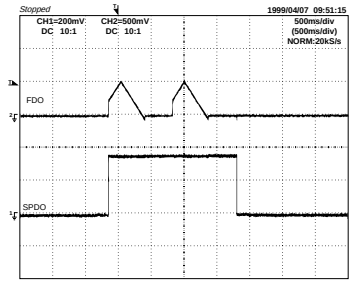
=Filter= Smoothing : ON BW : FULL
=Offset= CH1 : 0.000V CH2 : 0.0V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 2K
=Trigger= Mode : AUTO Type : EDGE CH1 ↓ Delay : 0.0ns Hold off : 0.2us

5 IC1 (27)



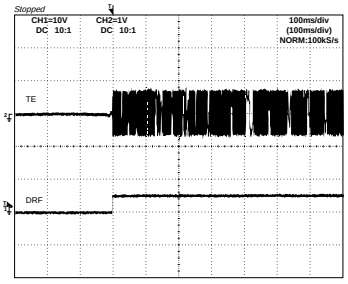
Vp-p=1.0V~1.3V
0.5mV/div,0.5μsec/div

1 IC2 (24)
6 IC2 (25)



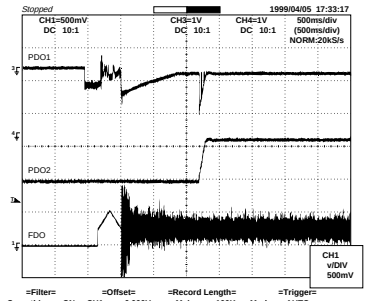
=Filter= Smoothing : ON BW : FULL
=Offset= CH1 : 0.000V CH2 : 0.000V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 2K
=Trigger= Mode : NORMAL Type : EDGE CH2 ↓ Delay : 2.924ms Hold off : 0.2us

4 IC1 (18), IC2 (16)
3 IC2 (72)



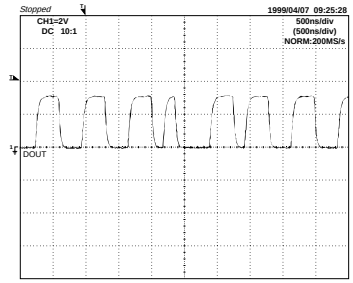
=Filter= Smoothing : ON BW : FULL
=Offset= CH1 : 0.0V CH2 : 0.00V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 2K
=Trigger= Mode : NORMAL Type : EDGE CH1 ↓ Delay : 2.924ms Hold off : 0.2us

7 IC2 (1)
8 IC2 (2)
1 IC2 (24)



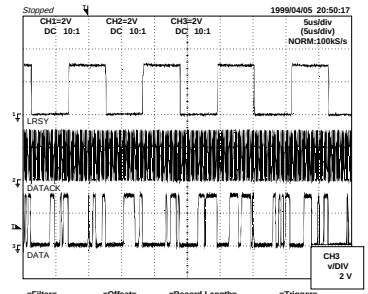
=Filter= Smoothing : ON BW : FULL
=Offset= CH1 : 0.000V CH2 : 0.0V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 2K
=Trigger= Mode : AUTO Type : EDGE CH2 ↓ Delay : 0.0ns Hold off : 0.2us

9 IC2 (37)



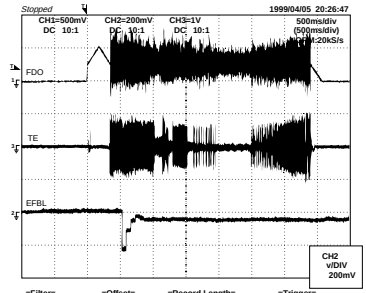
=Filter= Smoothing : ON BW : FULL
=Offset= CH1 : 0.00V CH2 : 0.00V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 1K Zoom : 100
=Trigger= Mode : NORMAL Type : EDGE CH1 ↓ Delay : 2.887ms Hold off : 0.2us

10 IC2 (57)
11 IC2 (58)
12 IC2 (59)



=Filter= Smoothing : ON BW : FULL
=Offset= CH1 : 0.00V CH2 : 0.00V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 5K Zoom : 100
=Trigger= Mode : AUTO Type : EDGE CH3 ↓ Delay : 0.0ns Hold off : 0.2us

1 IC2 (24)
4 IC1 (18), IC2 (16)
13 IC1 (13), IC2 (22)



=Filter= Smoothing : ON BW : FULL
=Offset= CH1 : 0.000V CH2 : 0.000V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 2k
=Trigger= Mode : SINGLE Type : EDGE CH1 ↓ Delay : 0.0ns Hold off : 0.2us

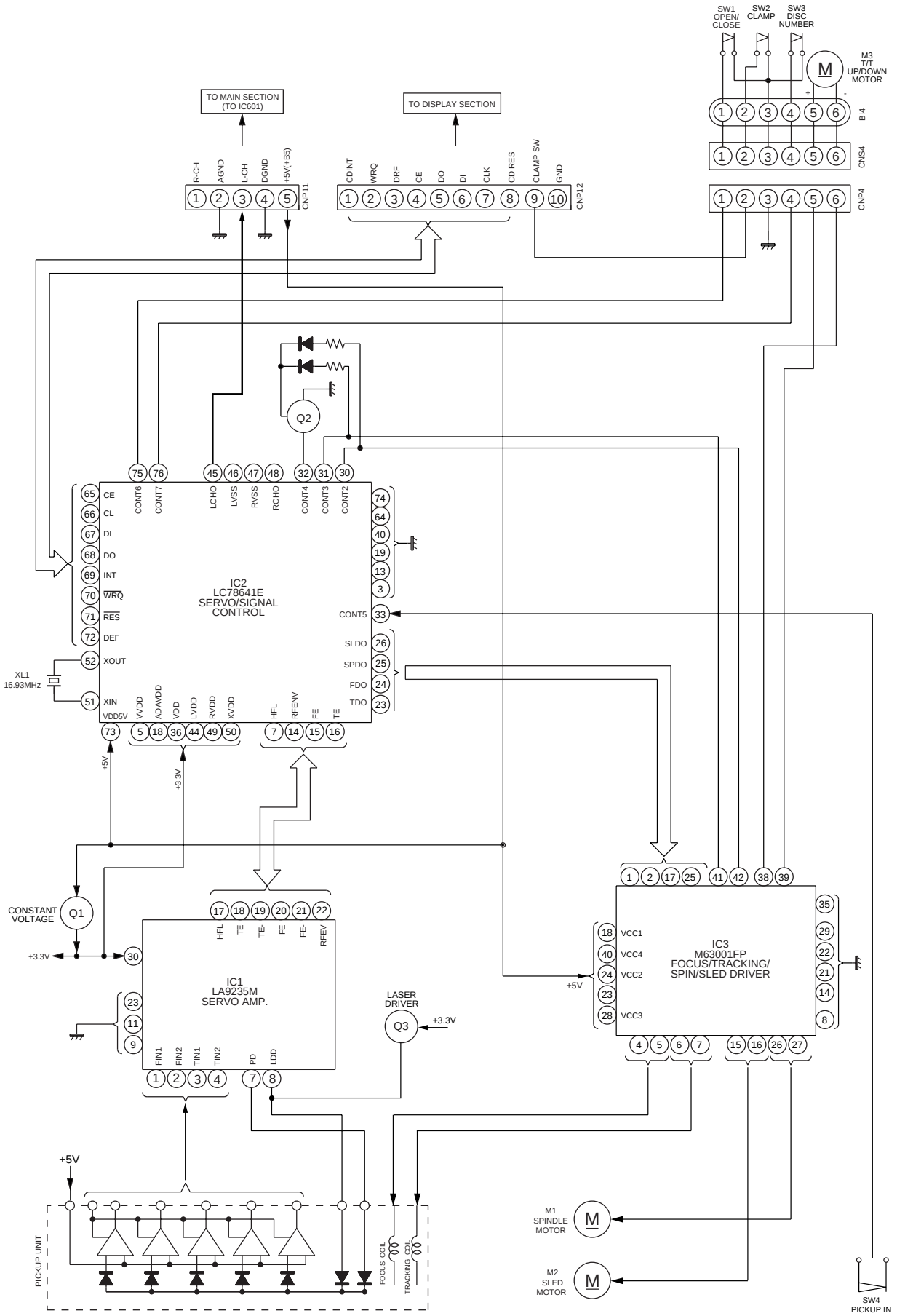


Figure 18 BLOCK DIAGRAM (1/4)

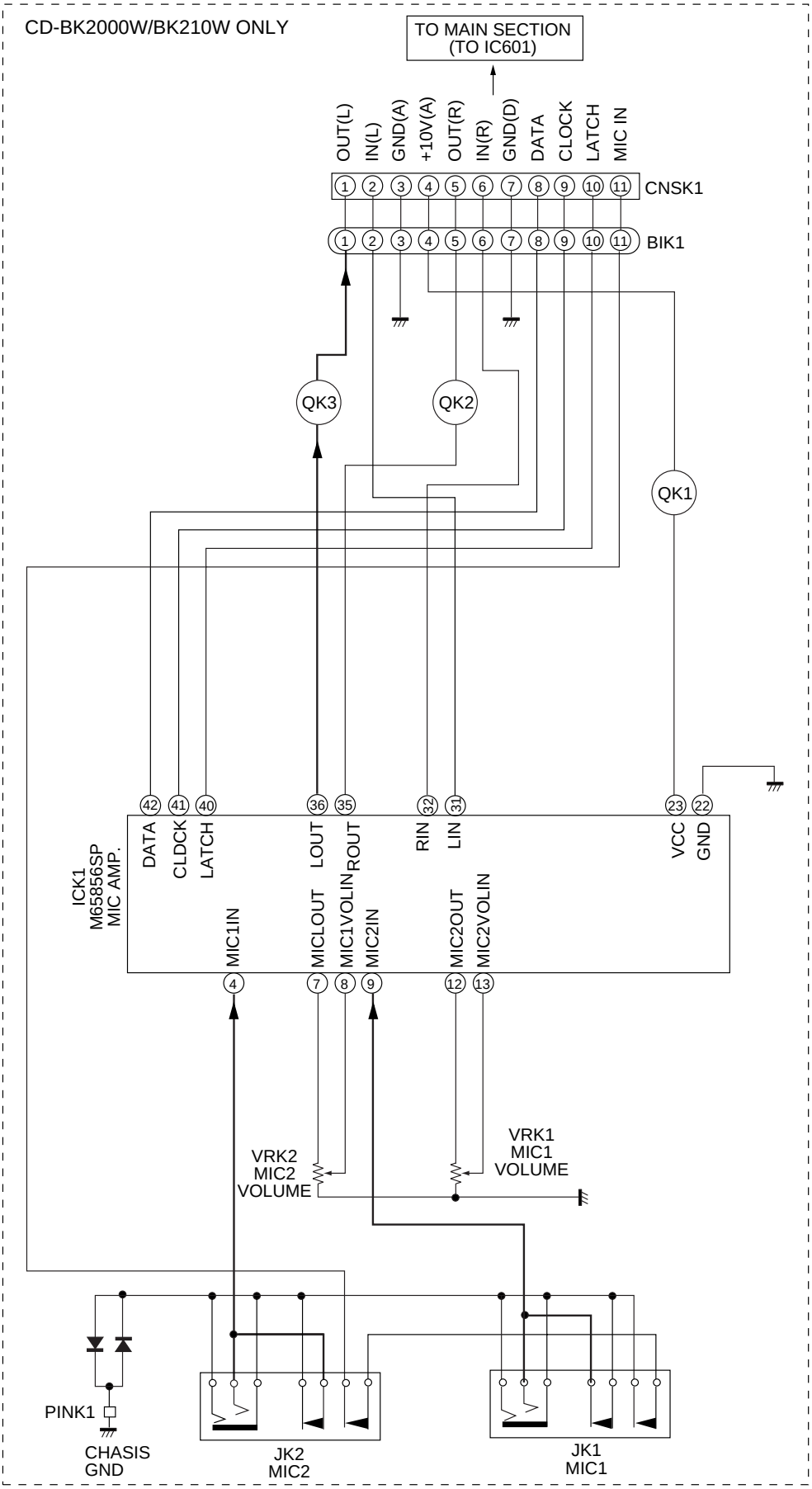


Figure 19 BLOCK DIAGRAM (2/4)

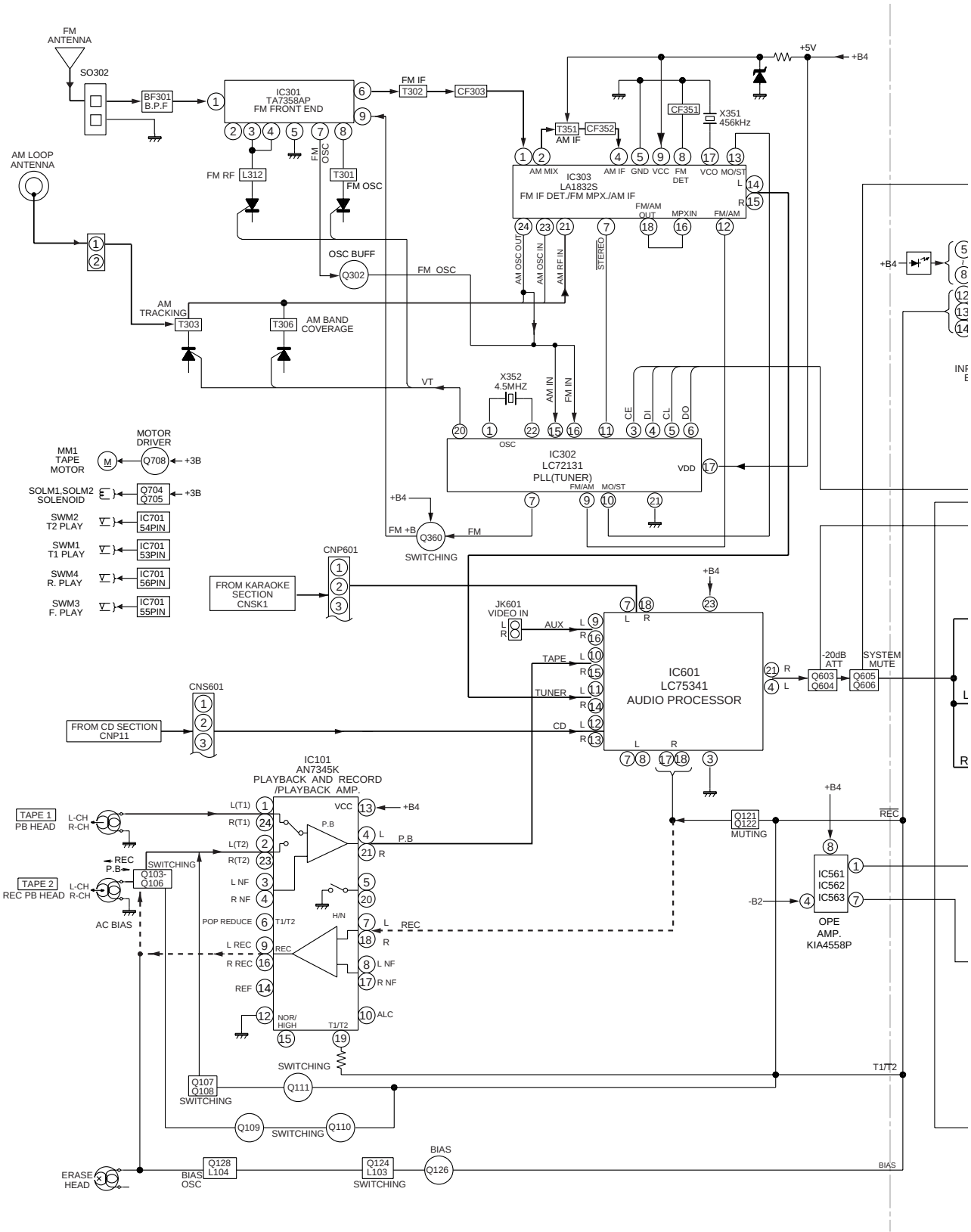


Figure 20 BLOCK DIAGRAM (3/4)

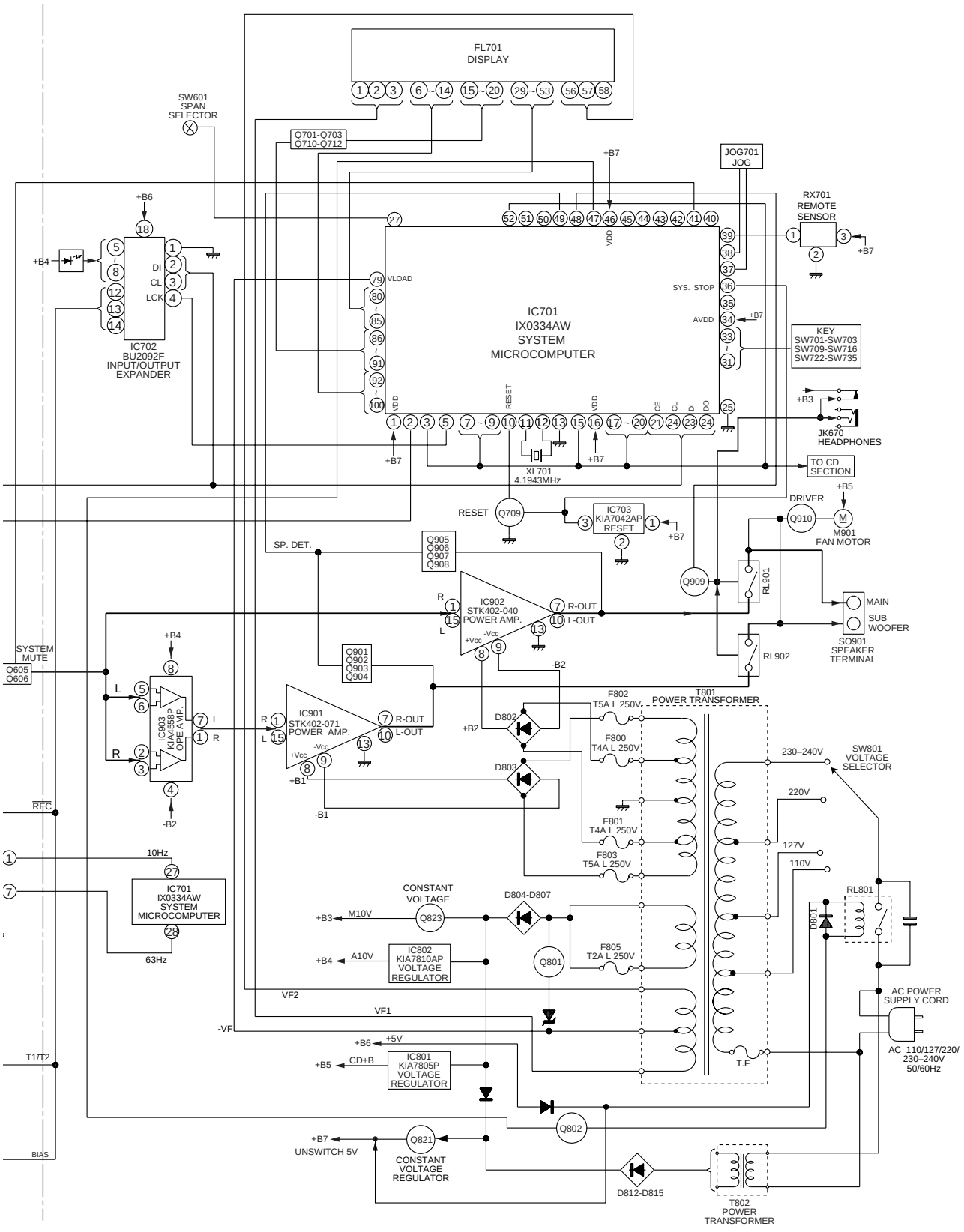
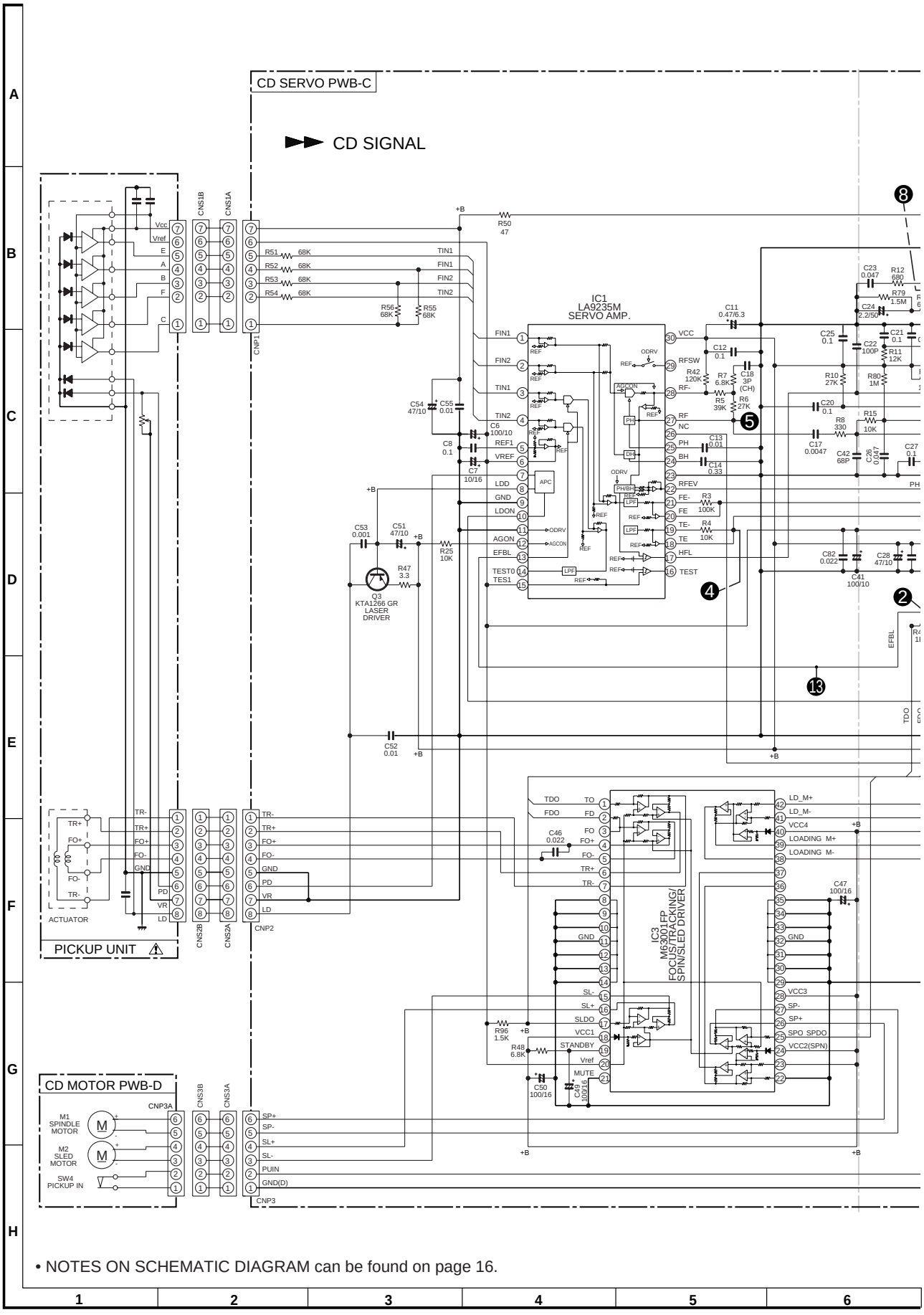
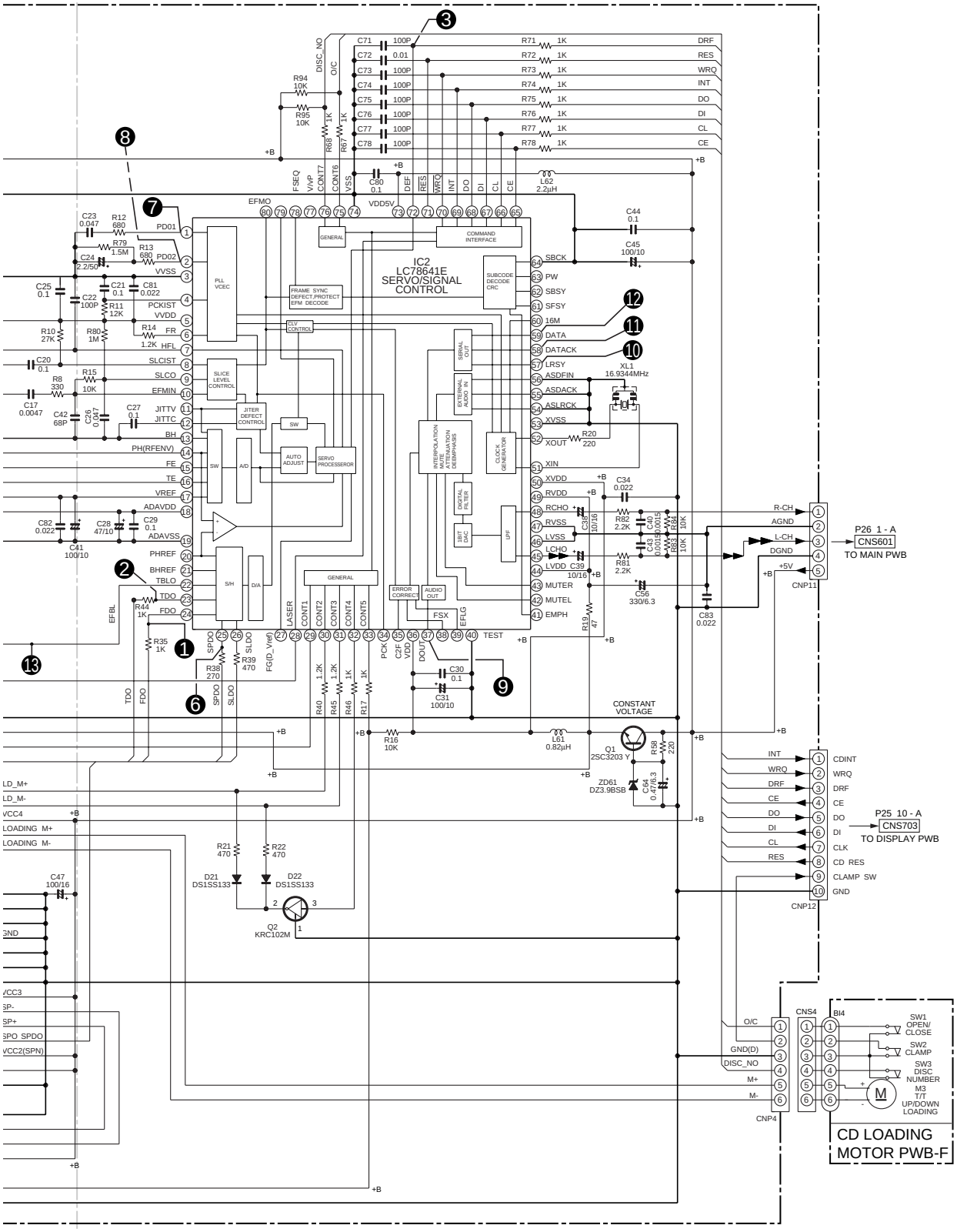


Figure 21 BLOCK DIAGRAM (4/4)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 16.

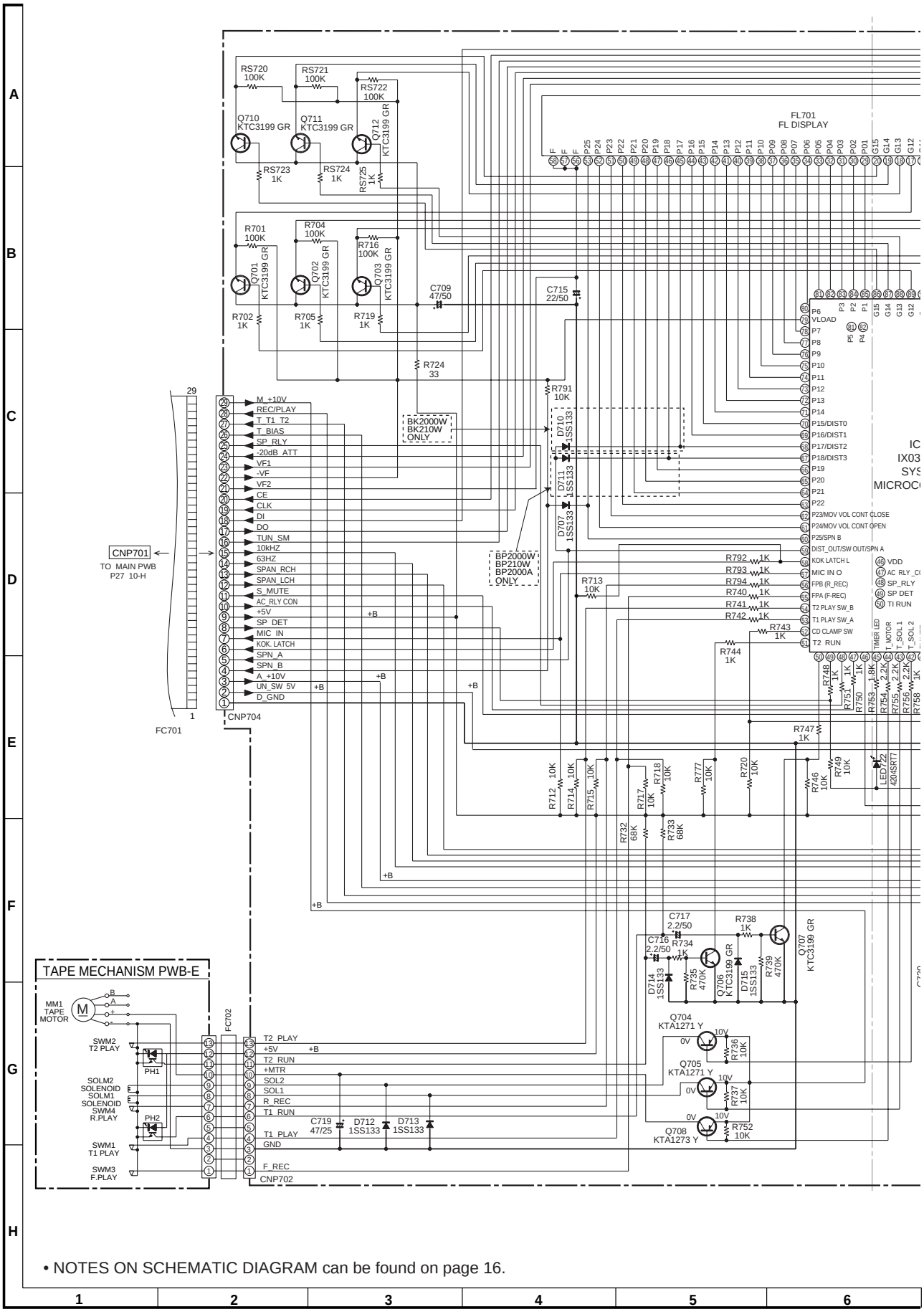
Figure 22 SCHEMATIC DIAGRAM (1/11)



• The numbers ❶ to ⓭ are waveform numbers shown in page 17.

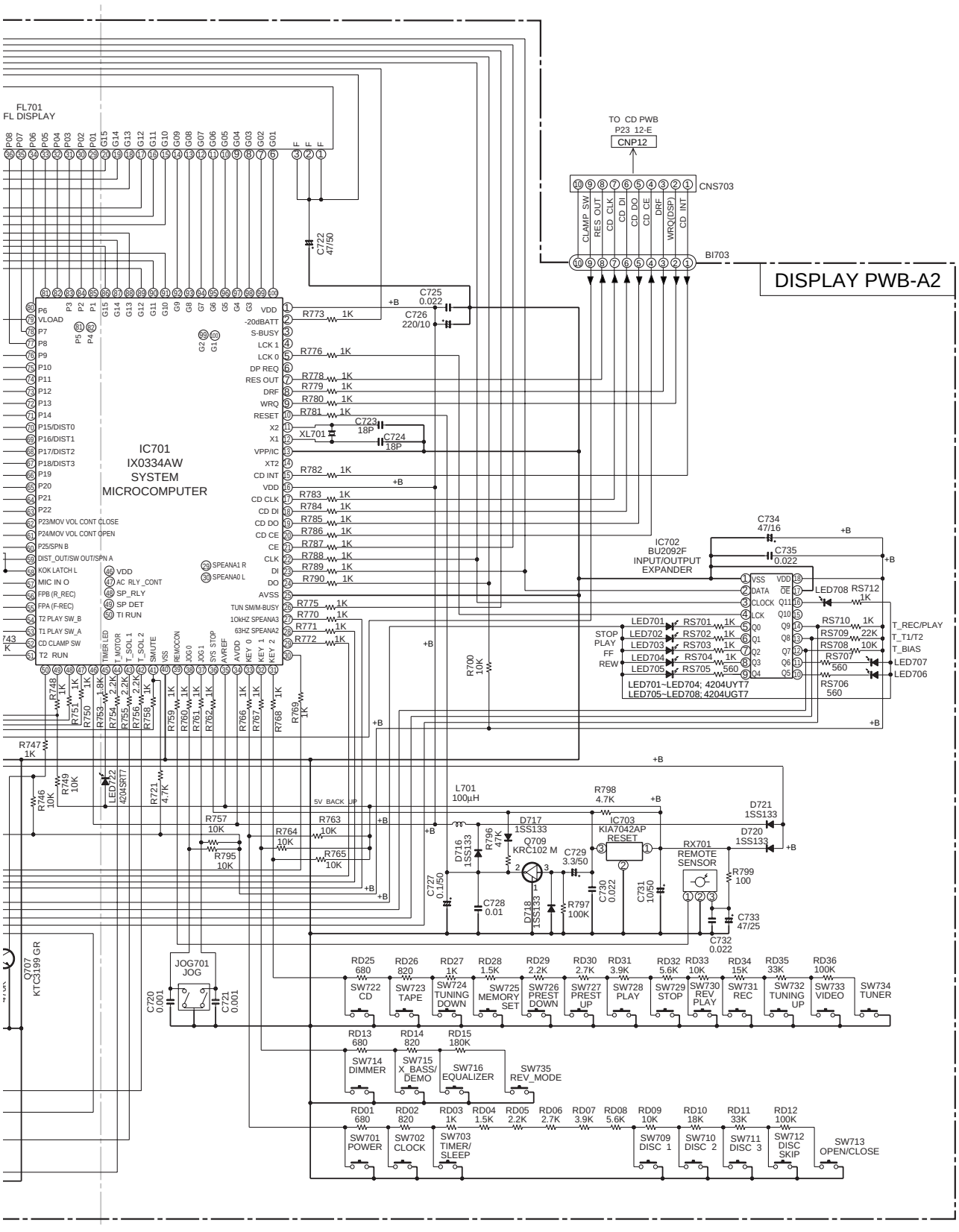
7	8	9	10	11	12

Figure 23 SCHEMATIC DIAGRAM (2/11)



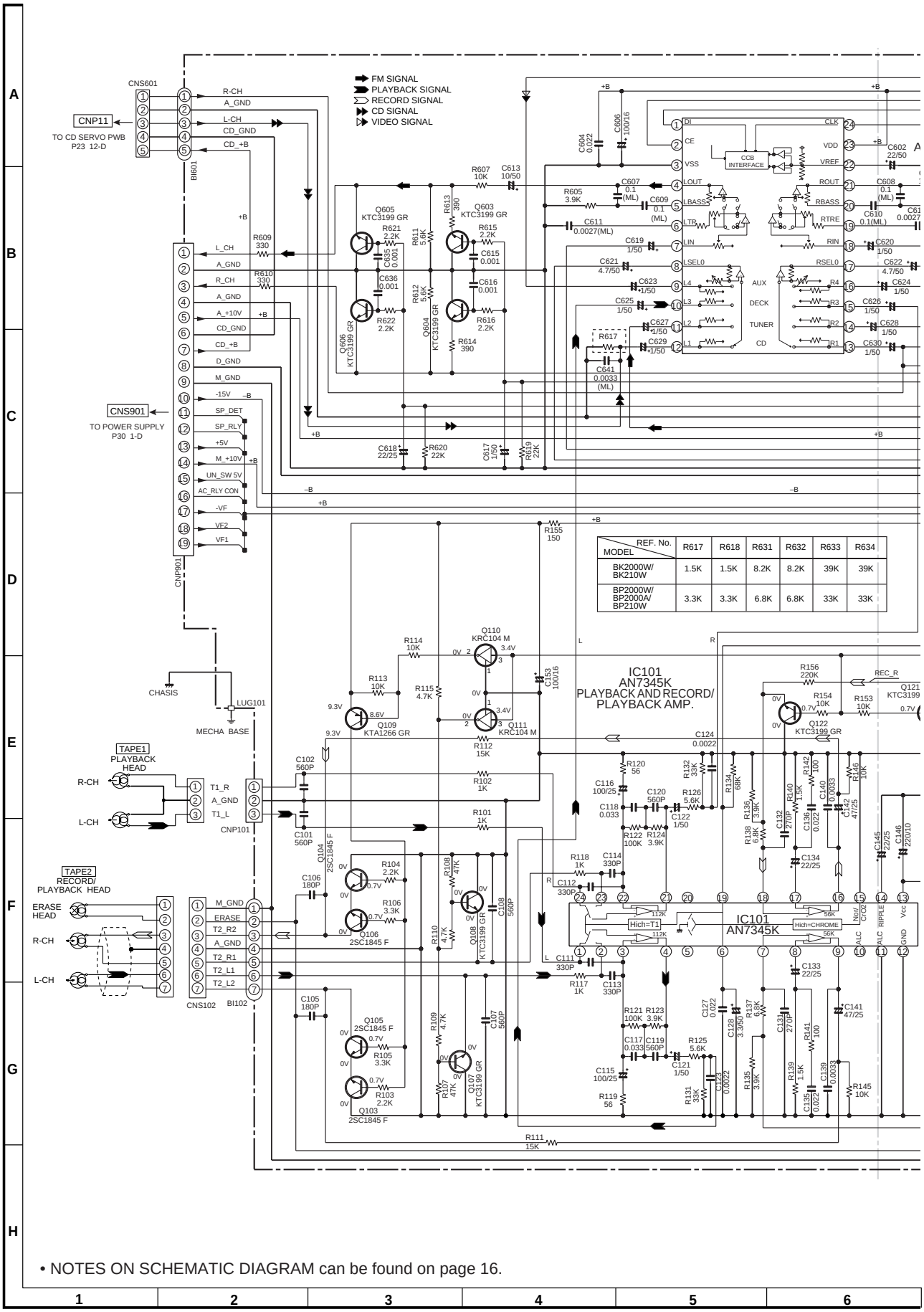
• NOTES ON SCHEMATIC DIAGRAM can be found on page 16.

Figure 24 SCHEMATIC DIAGRAM (3/11)



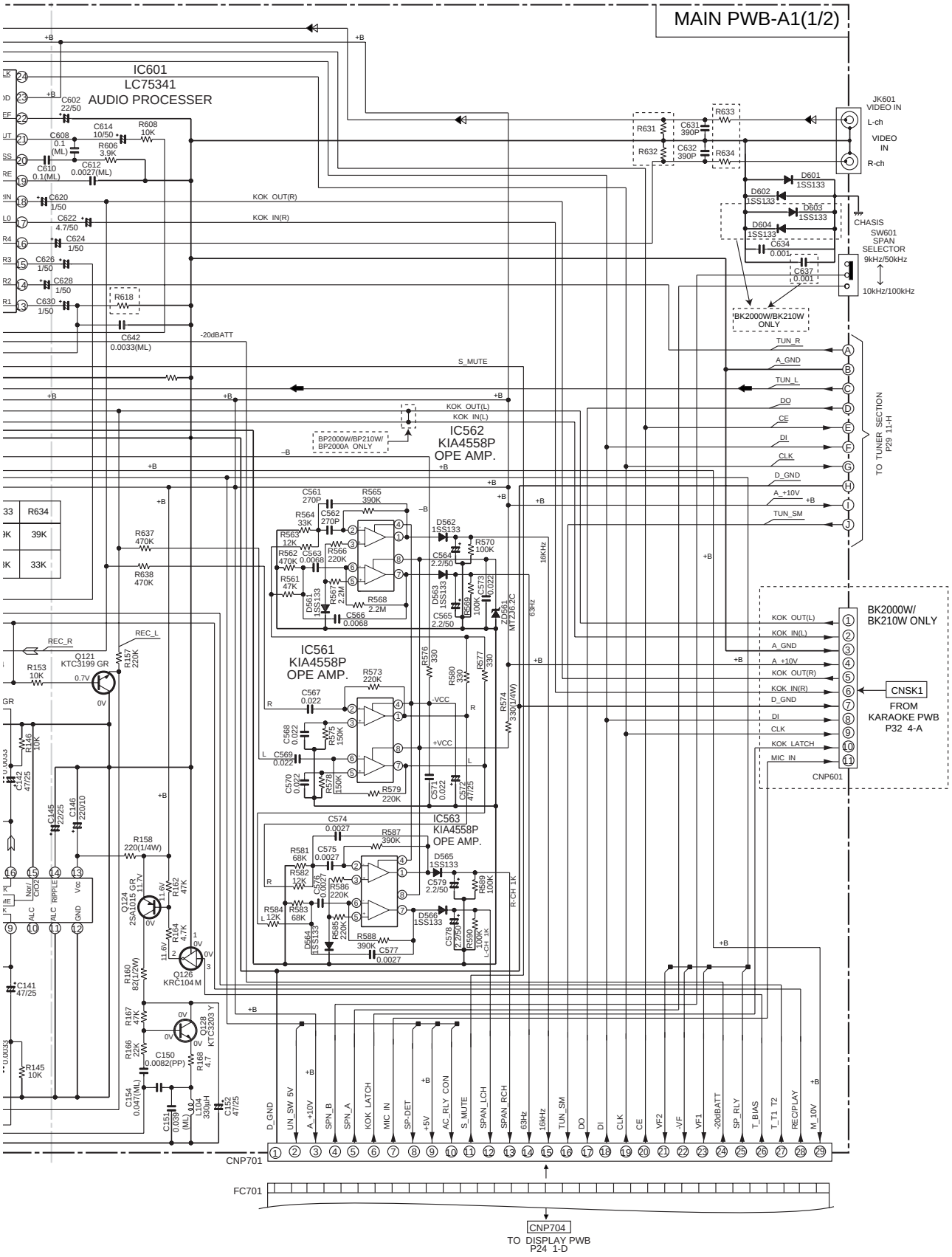
7	8	9	10	11	12

Figure 25 SCHEMATIC DIAGRAM (4/11)



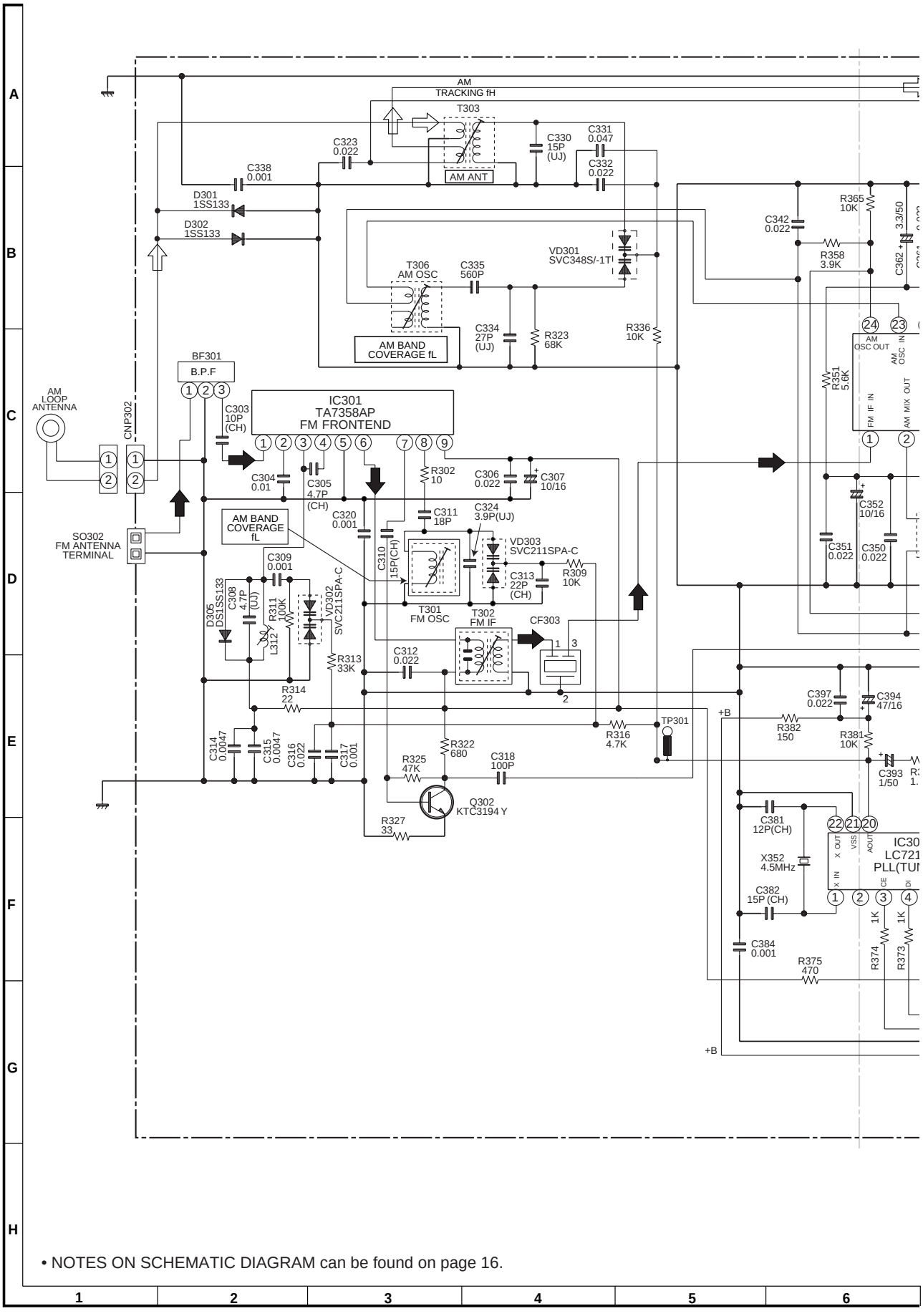
• NOTES ON SCHEMATIC DIAGRAM can be found on page 16.

Figure 26 SCHEMATIC DIAGRAM (5/11)



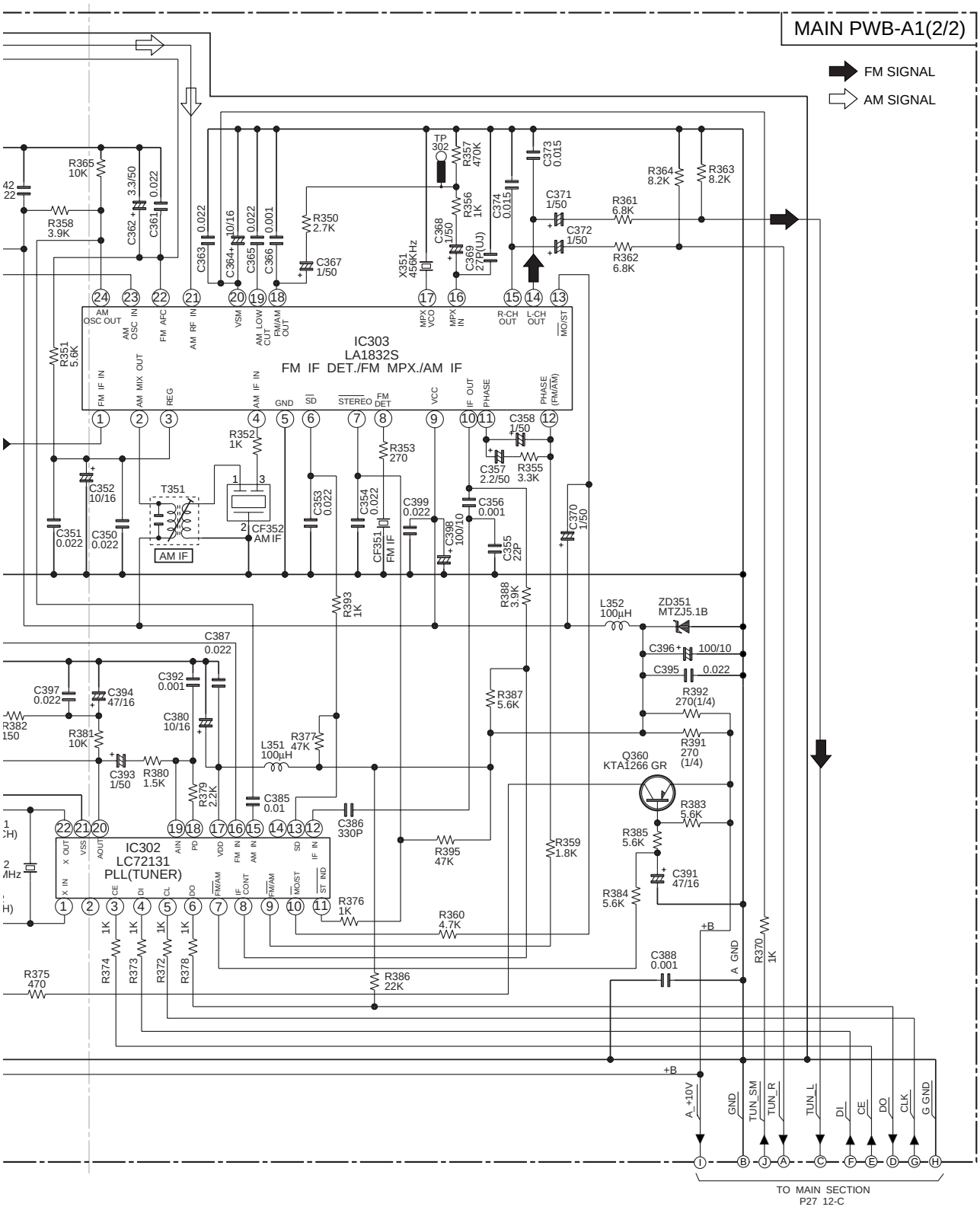
7	8	9	10	11	12

Figure 27 SCHEMATIC DIAGRAM (6/11)



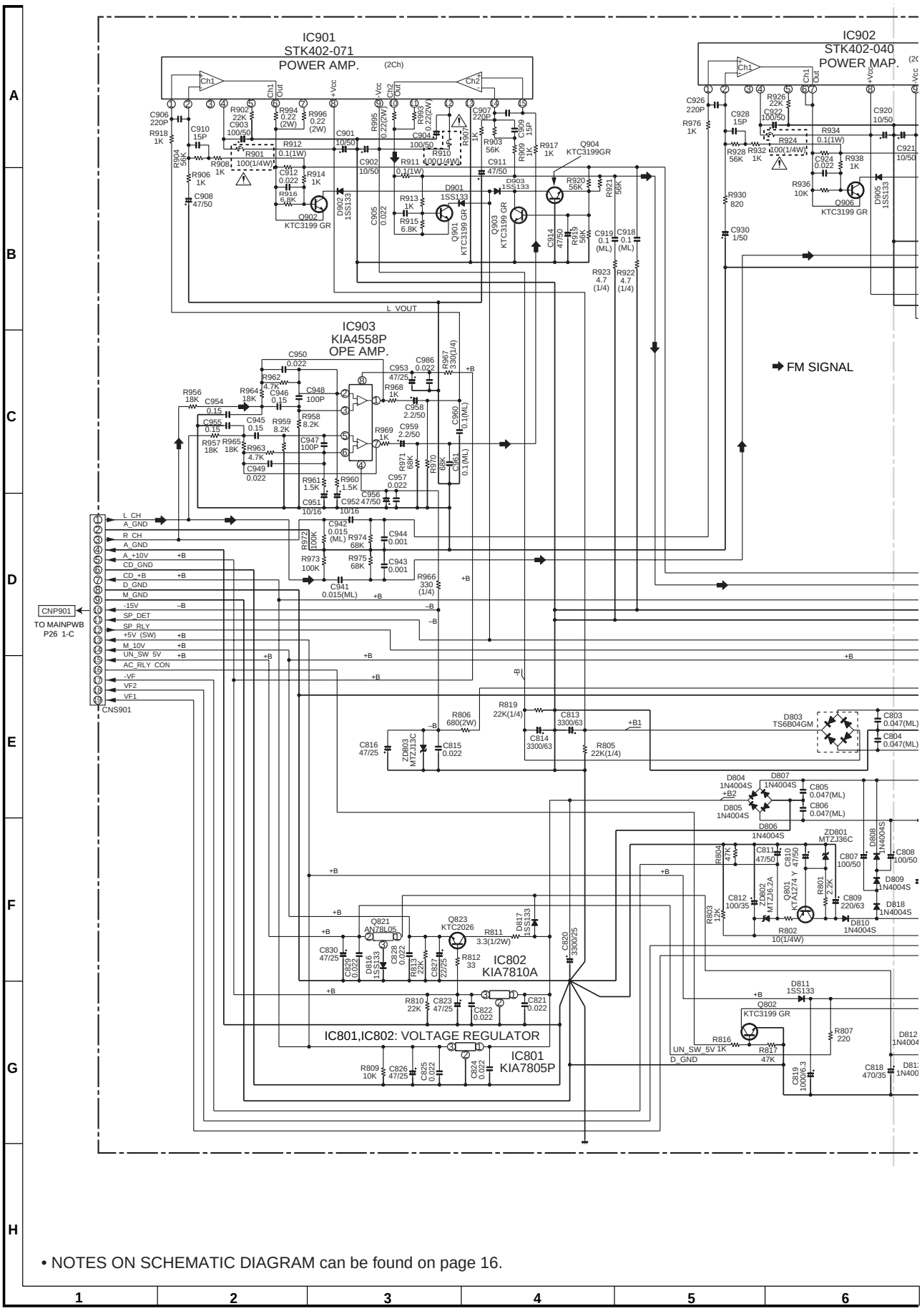
• NOTES ON SCHEMATIC DIAGRAM can be found on page 16.

Figure 28 SCHEMATIC DIAGRAM (7/11)



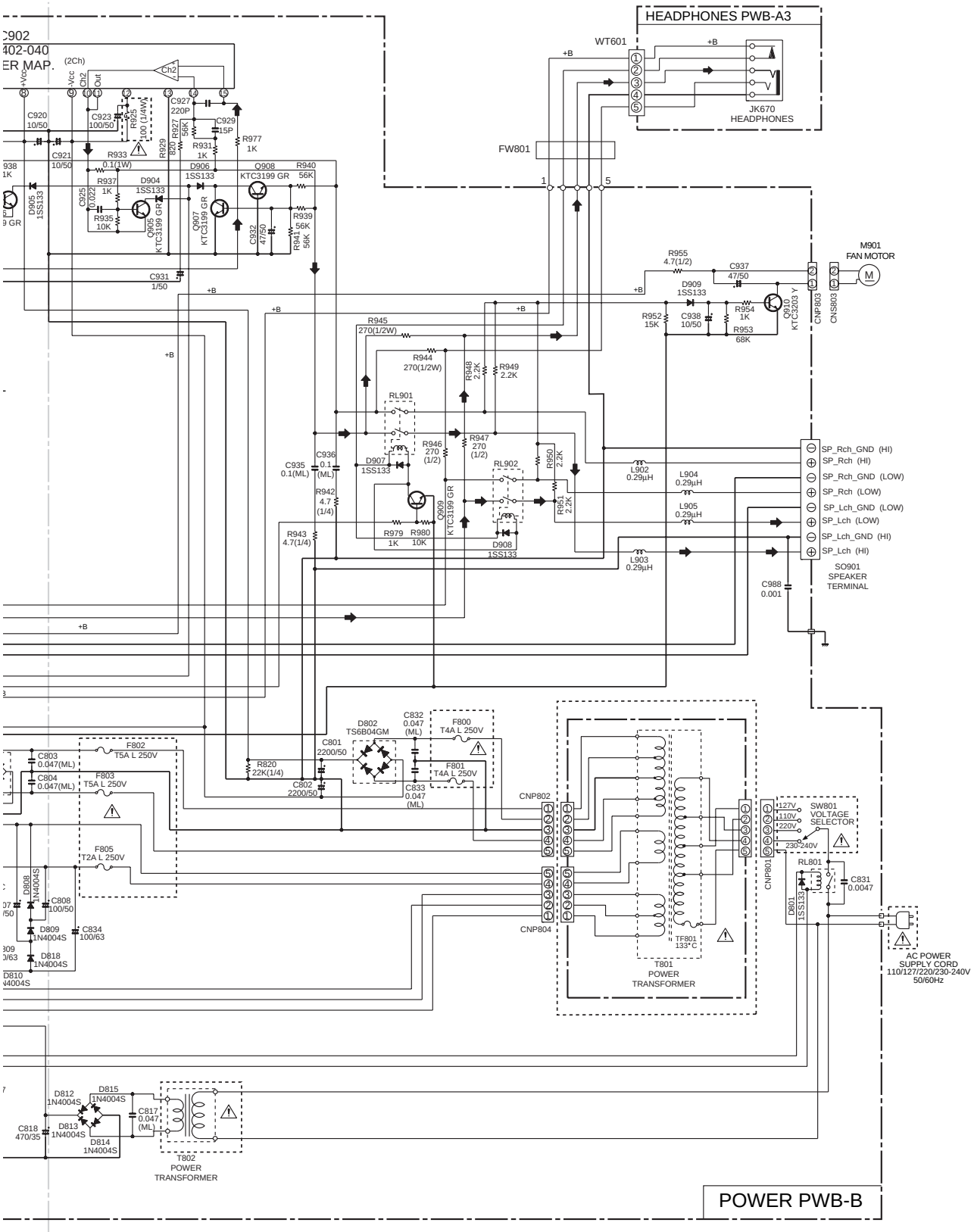
7	8	9	10	11	12

Figure 29 SCHEMATIC DIAGRAM (8/11)



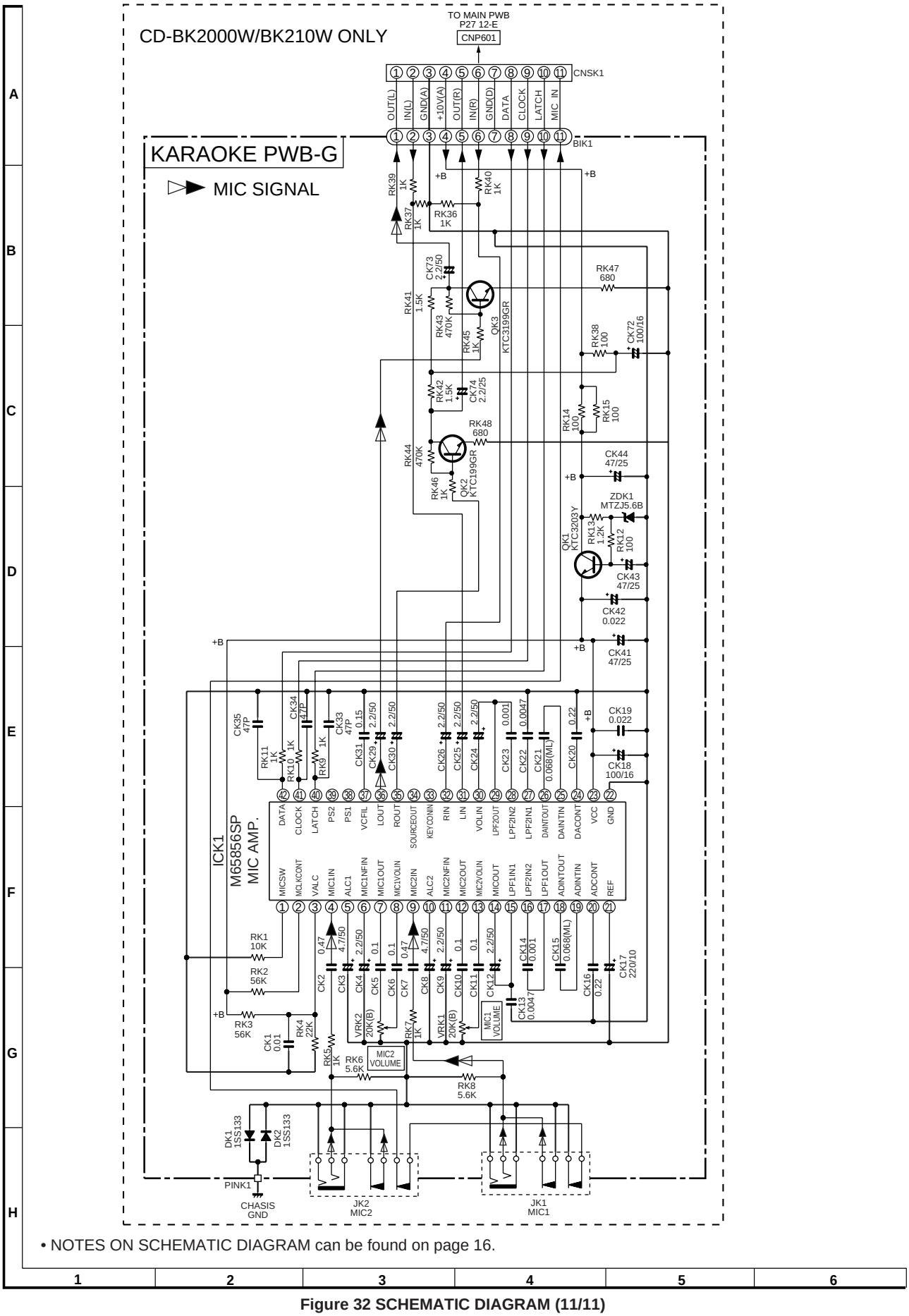
• NOTES ON SCHEMATIC DIAGRAM can be found on page 16.

Figure 30 SCHEMATIC DIAGRAM (9/11)



7	8	9	10	11	12

Figure 31 SCHEMATIC DIAGRAM (10/11)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 16.

Figure 32 SCHEMATIC DIAGRAM (11/11)

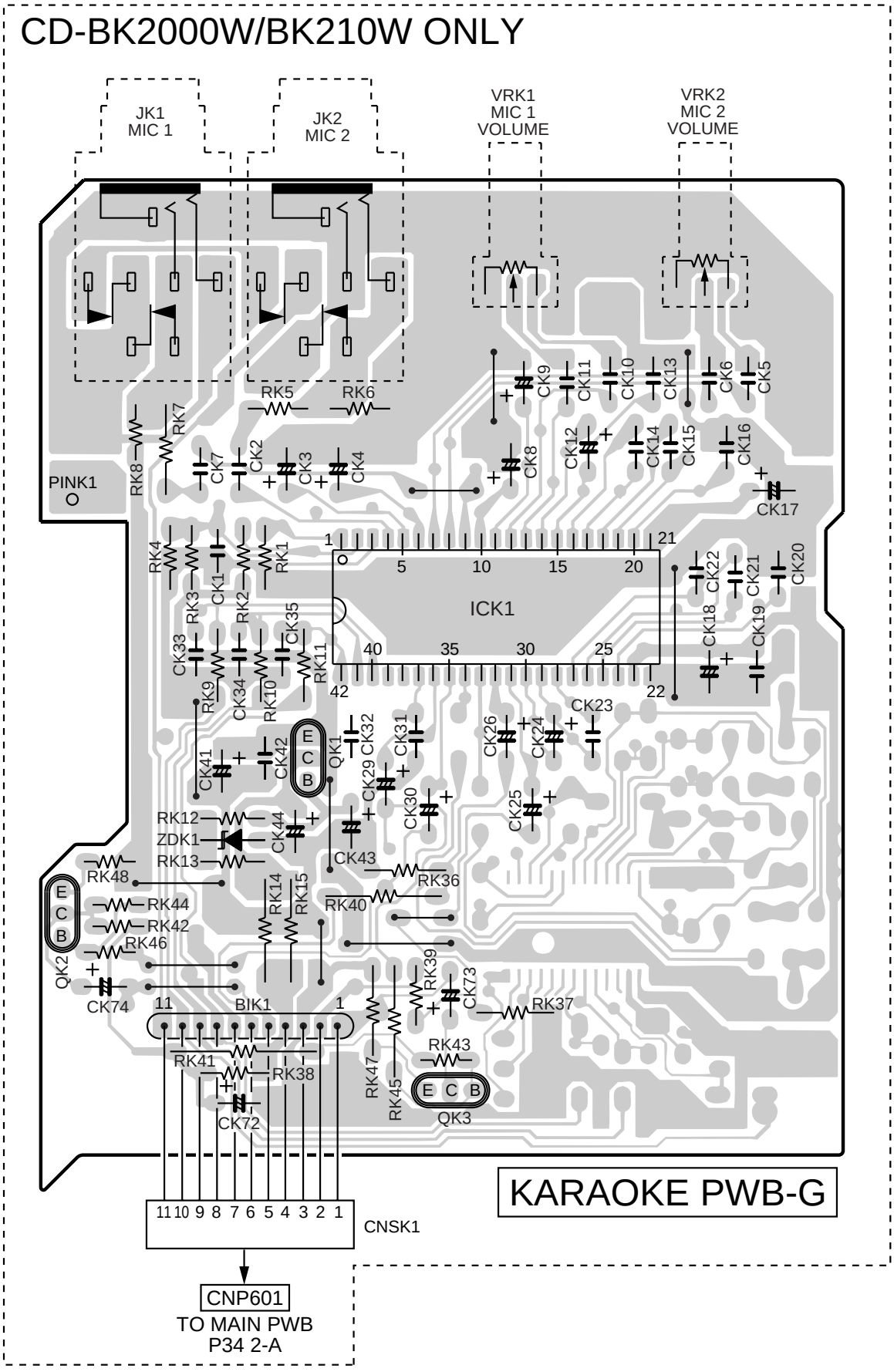


Figure 33 WIRING SIDE OF P.W.BOARD (1/9)

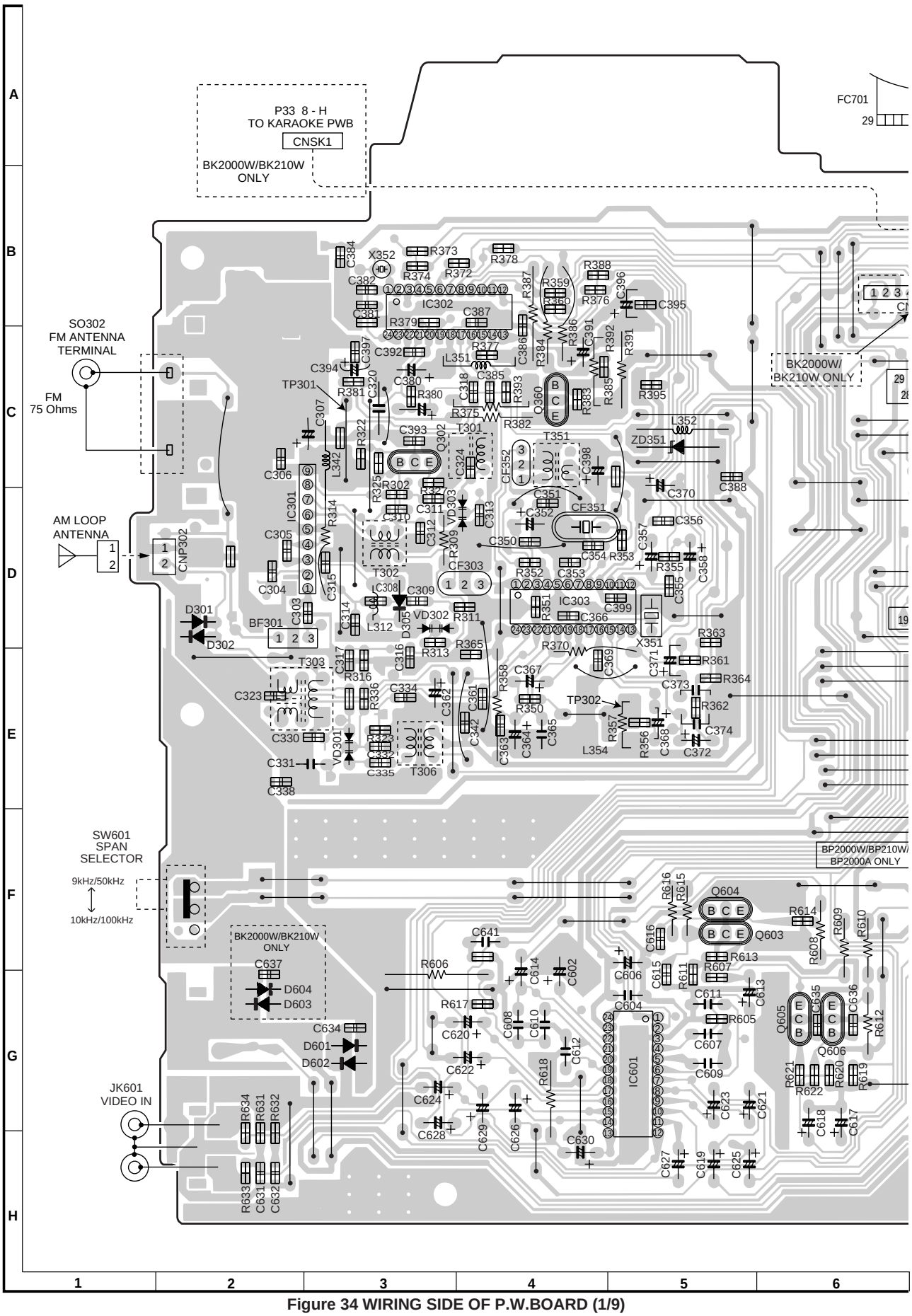
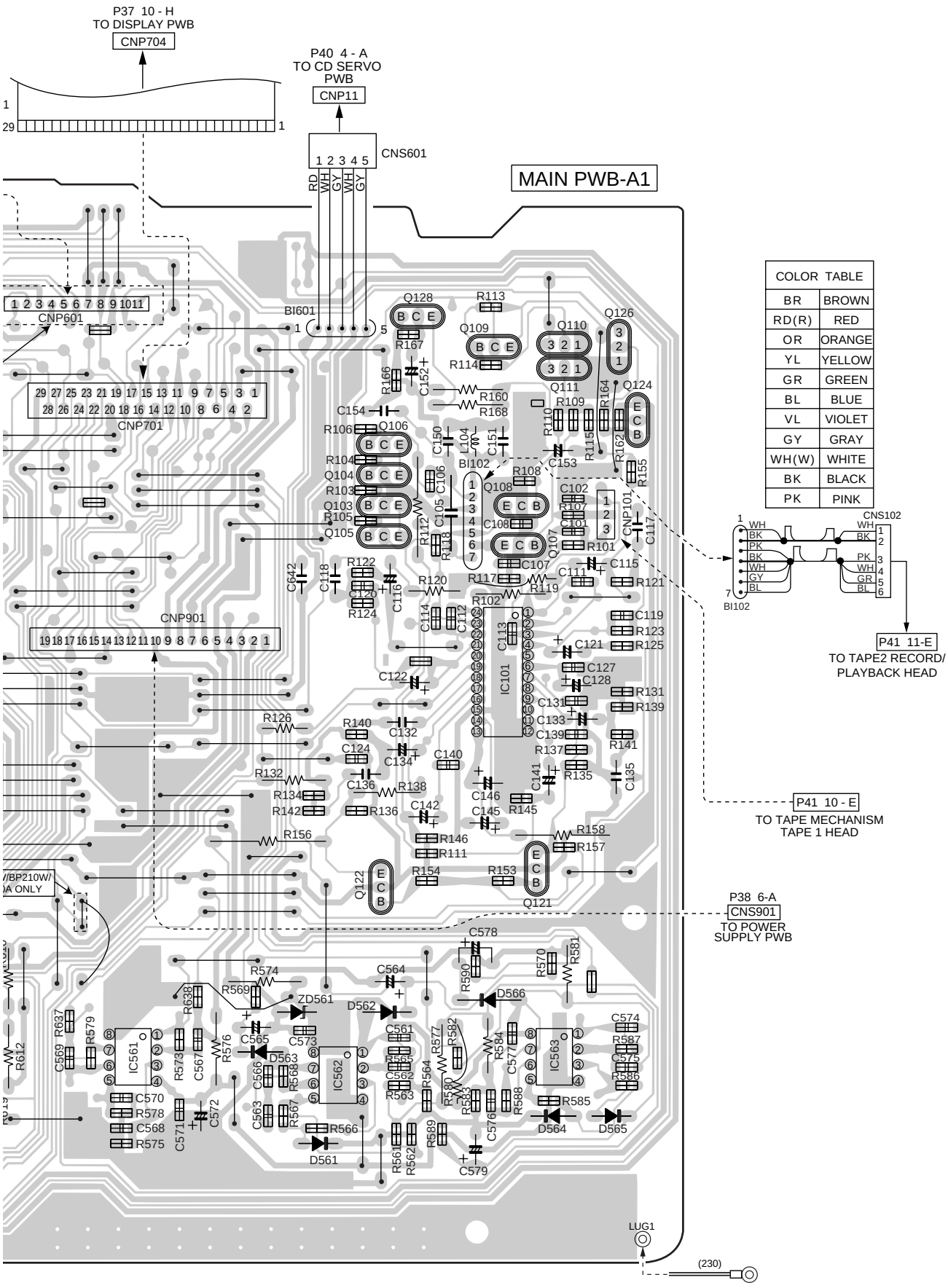


Figure 34 WIRING SIDE OF P.W.BOARD (1/9)



7	8	9	10	11	12

Figure 35 WIRING SIDE OF P.W.BOARD (2/9)

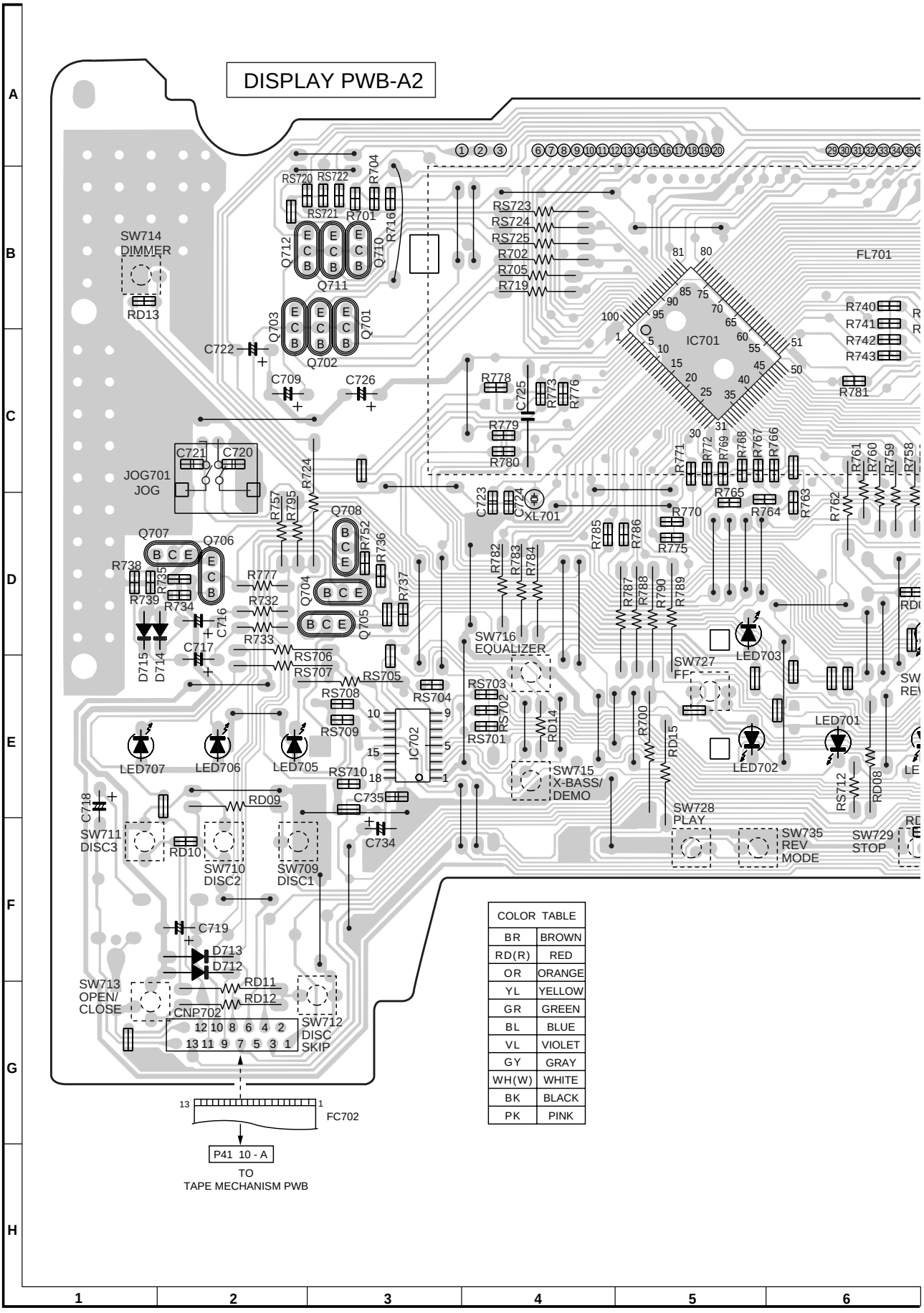
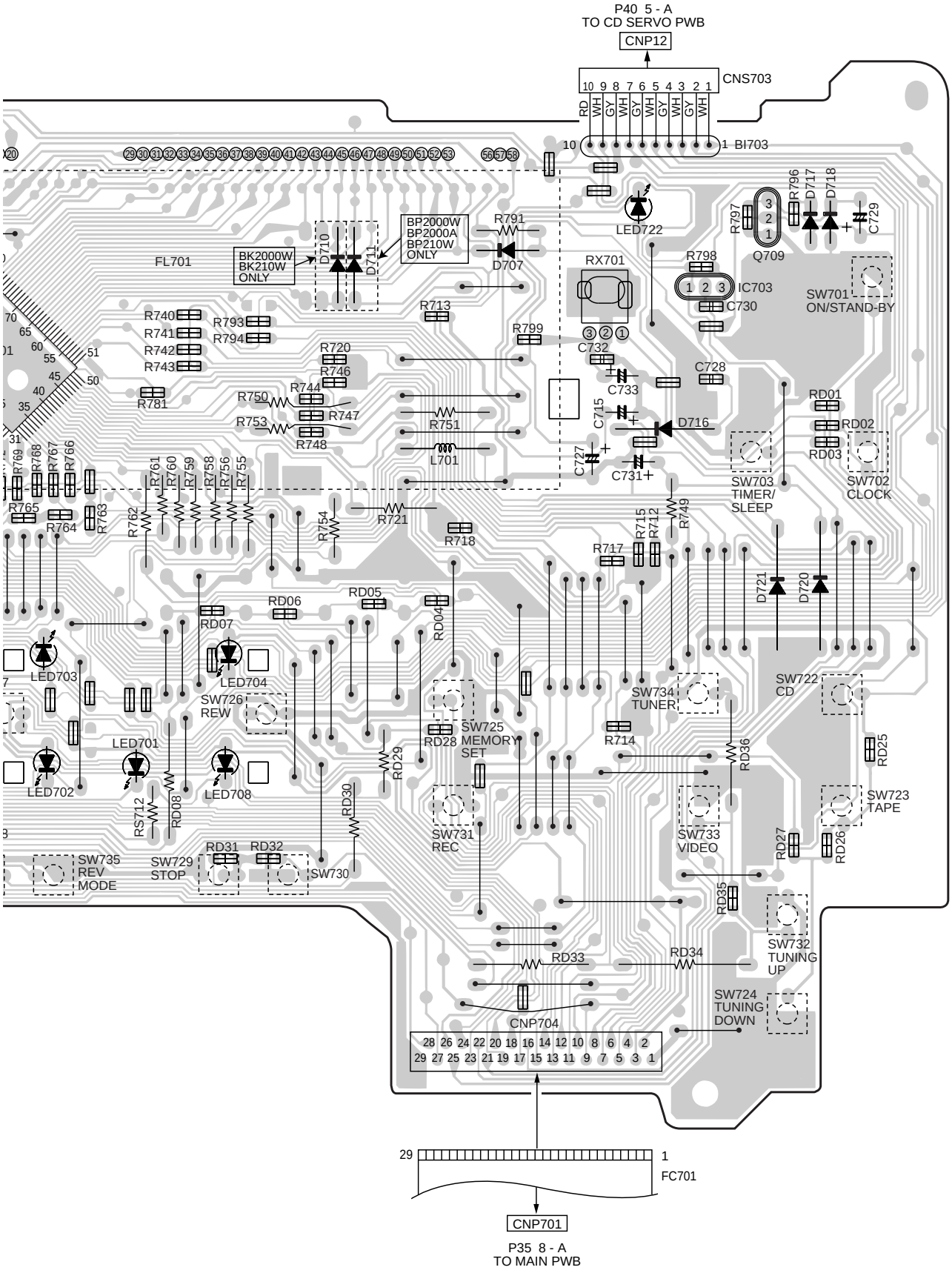


Figure 36 WIRING SIDE OF P.W.BOARD (3/9)



7	8	9	10	11	12

Figure 37 WIRING SIDE OF P.W.BOARD (4/9)

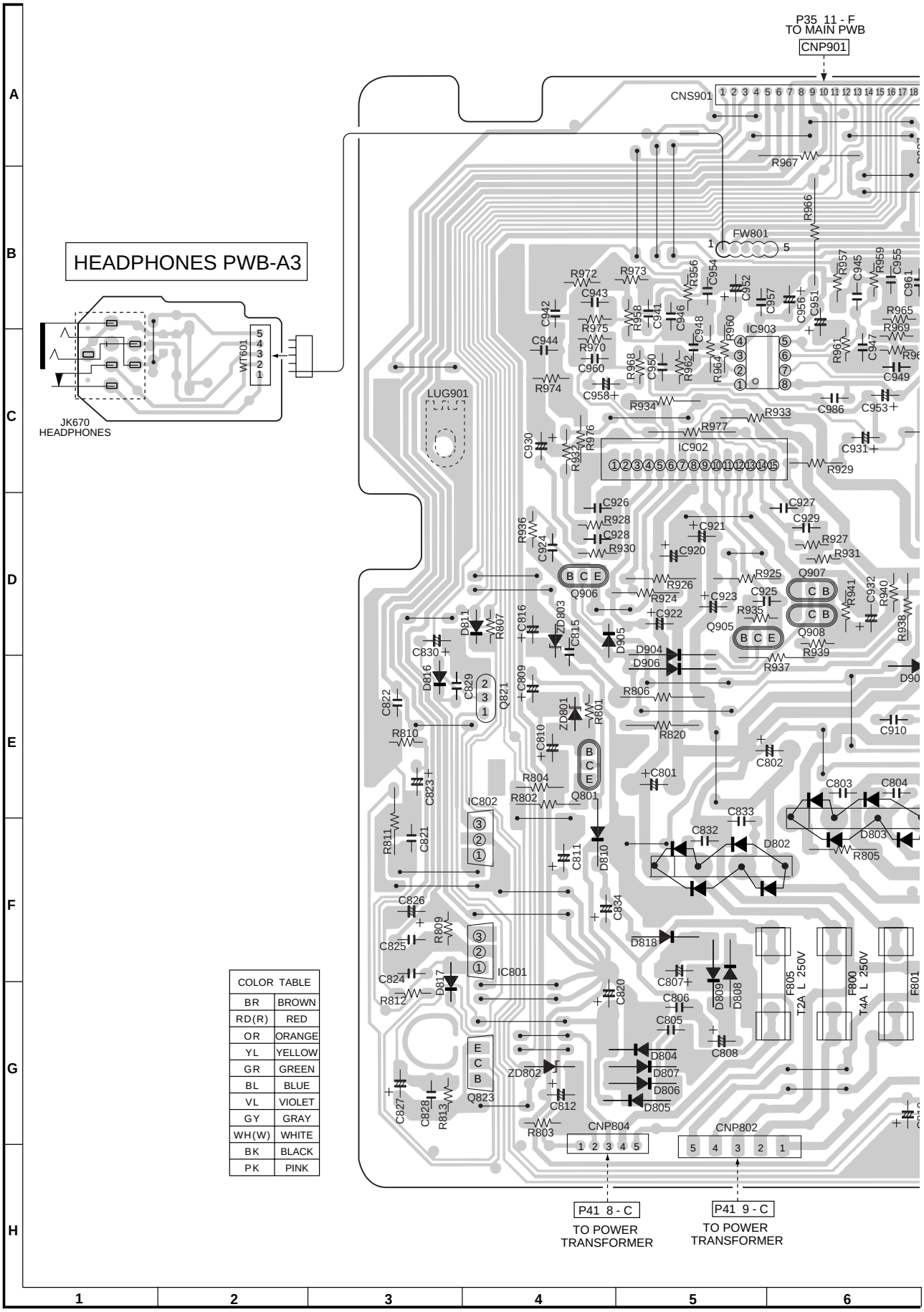
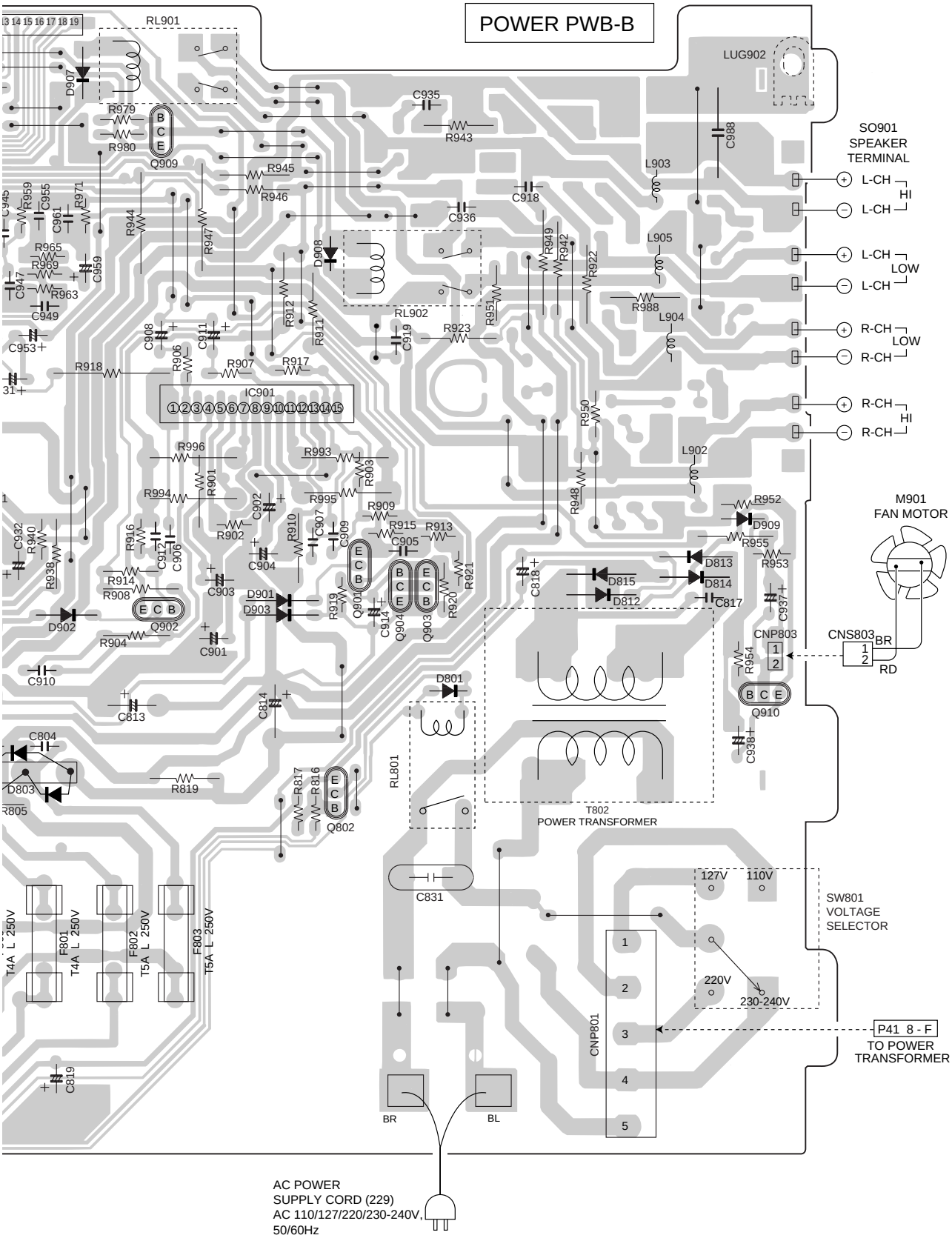


Figure 38 WIRING SIDE OF P.W.BOARD (5/9)



7	8	9	10	11	12

Figure 39 WIRING SIDE OF P.W.BOARD (6/9)

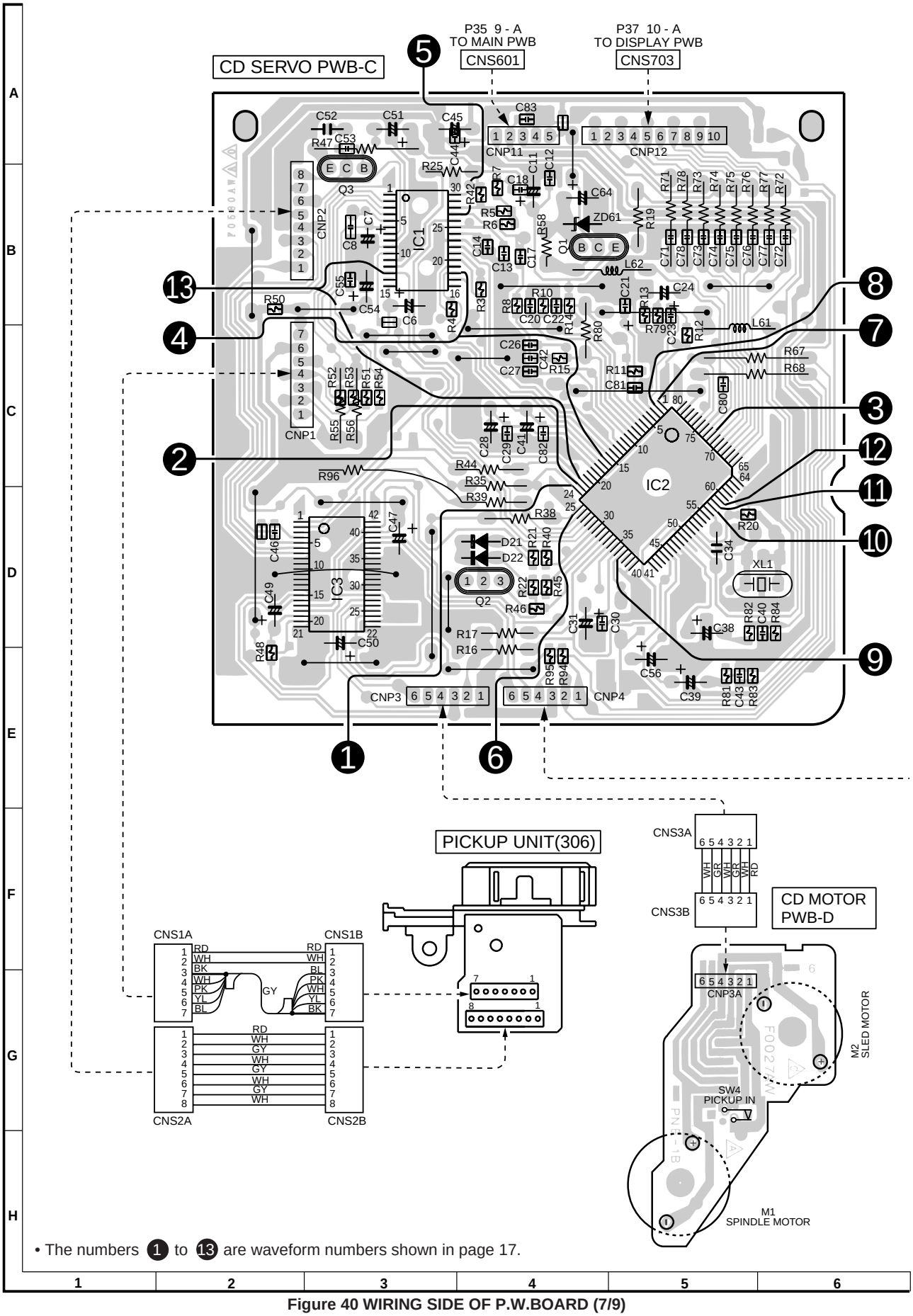
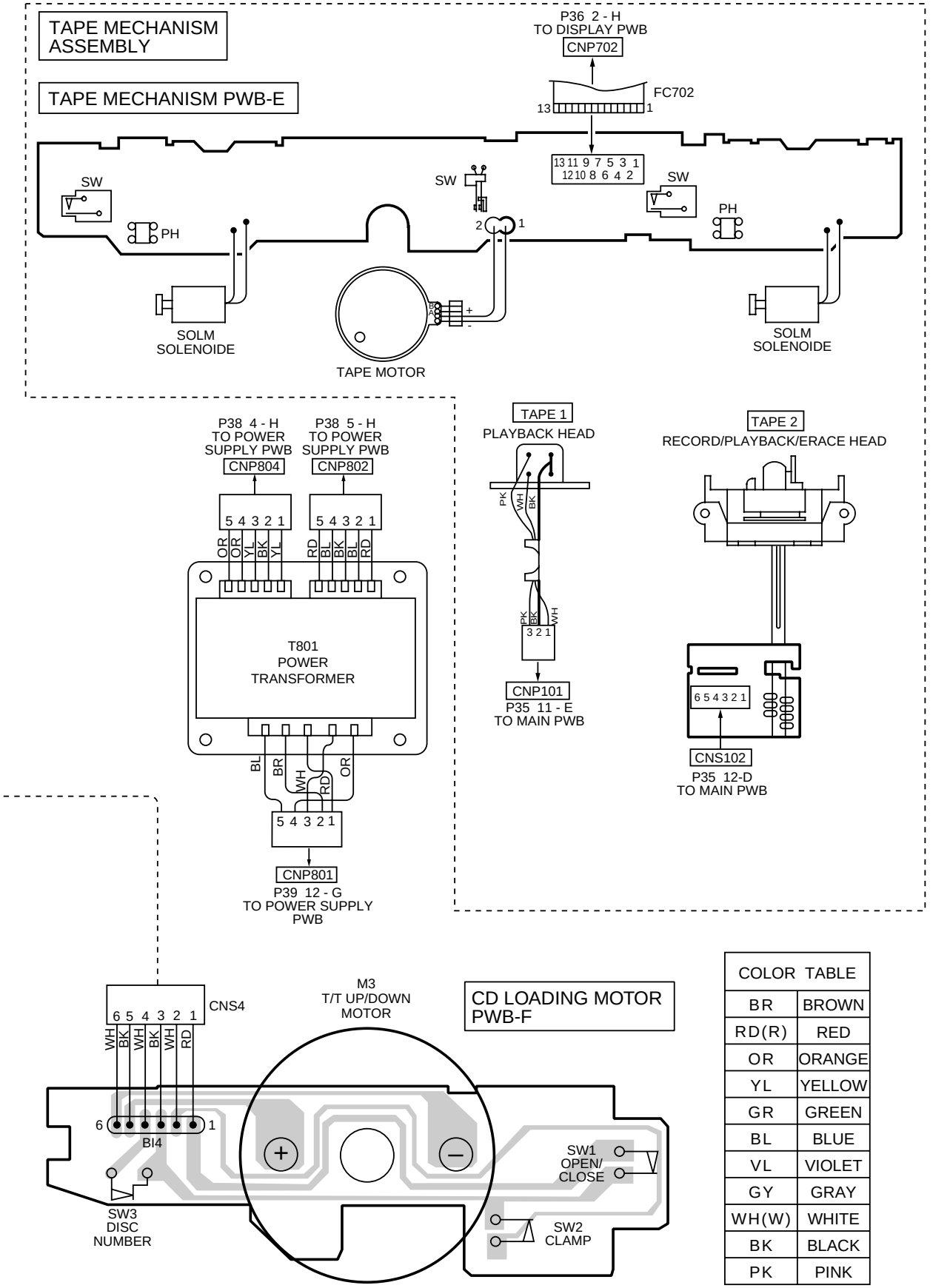


Figure 40 WIRING SIDE OF P.W.BOARD (7/9)



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 41 WIRING SIDE OF P.W.BOARD (8/9)

VOLTAGE

IC1

PIN NO.	VOLTAGE
1	1.6V
2	1.6V
3	1.6V
4	1.6V
5	1.6V
6	1.6V
7	0V
8	2.6V
9	0V
10	0V
11	0V
12	3.3V
13	1.6V
14	1.6V
15	1.6V
16	0V
17	0V
18	1.6V
19	1.6V
20	1.6V
21	1.6V
22	1.6V
23	0V
24	1.6V
25	0V
26	0V
27	0V
28	1.6V
29	1.6V
30	3.3V

IC3

PIN NO.	VOLTAGE
1	1.6V
2	1.6V
3	1.8V
4	2.1V
5	2.1V
6	2.1V
7	2.1V
8	0V
9	0V
10	0V
11	0V
12	0V
13	0V
14	0V
15	2.1V
16	2.1V
17	1.6V
18	4.9V
19	3.5V
20	1.6V
21	0V
22	0V
23	4.9V
24	4.9V
25	1.6V
26	2.1V
27	2.1V
28	1.9V
29	0V
30	0V
31	0V
32	0V
33	0V
34	0V
35	0V
36	4.2V
37	0V
38	2.1V
39	2.1V
40	4.9V
41	2.1V
42	2.1V

IC2

PIN NO.	VOLTAGE
1	0.7V
2	0V
3	0V
4	0V
5	3.3V
6	2.4V
7	0V
8	0V
9	1.6V
10	0V
11	4.7V
12	1.7V
13	0V
14	1.6V
15	1.6V
16	1.6V
17	1.6V
18	3.3V
19	0V
20	1.6V
21	1.6V
22	1.6V
23	1.6V
24	1.6V
25	1.6V
26	1.6V
27	1.6V
28	0V
29	0V
30	2.1V
31	2.1V
32	0V
33	3.3V
34	3.5V
35	3.3V
36	3.3V
37	3.3V
38	1.6V
39	1.6V
40	0V
41	0V
42	3.3V
43	3.3V
44	3.0V
45	1.5V
46	0V
47	0V
48	1.5V
49	3.0V
50	3.3V
51	1.8V
52	3.0V
53	0V
54	0V
55	0V
56	0V
57	1.7V
58	3.3V
59	0V
60	3.0V
61	1.6V
62	0V
63	2.4V
64	0V
65	0V
66	0V
67	0V
68	4.8V
69	4.9V
70	4.9V
71	4.6V
72	0V
73	4.9V
74	0V
75	0V
76	0V
77	3.2V
78	0V
79	0V
80	3.4V

IC101

PIN NO.	VOLTAGE
1	0V (0V)
2	0V (0V)
3	0.5V (0.5V)
4	1.9V (1.9V)
5	0V (0V)
6	0V (0V)
7	0V (0V)
8	0.6V (0.6V)
9	3.3V (3.3V)
10	3.3V (3.3V)
11	0V (0V)
12	0V (0V)
13	6.7V (6.7V)
14	4.0V (4.0V)
15	0V (0V)
16	3.3V (3.3V)
17	0.6V (0.6V)
18	0V (0V)
19	0V (0V)
20	0V (0V)
21	1.9V (1.9V)
22	0.5V (0.5V)
23	0V (0V)
24	0V (0V)

IC302

PIN NO.	VOLTAGE
1	2.4V (2.4V)
2	0V (0V)
3	0V (0V)
4	0V (0V)
5	2.9V (2.9V)
6	4.8V (4.9V)
7	0.1V (9.9V)
8	4.2V (0V)
9	3.3V (0V)
10	0V (3.9V)
11	5.1V (5.1V)
12	2.2V (0V)
13	5.0V (5.0V)
14	0V (0V)
15	0V (2.4V)
16	2.3V (0V)
17	5.0V (5.0V)
18	0.6V (4.8V)
19	0.8V (1.8V)
20	2.0V (1.0V)
21	0V (0V)
22	2.5V (3.0V)

IC561

PIN NO.	VOLTAGE
1	13.1V
2	13.1V
3	1.3V
4	0V
5	1.3V
6	13.1V
7	13.1V
8	18.3V

IC801

PIN NO.	VOLTAGE
1	18.3V
2	0V
3	5.0V

Q823

PIN NO.	VOLTAGE
1	16.6V
2	5.6V
3	0V

IC303

PIN NO.	VOLTAGE
1	2.1V (2.1V)
2	4.5V (4.5V)
3	2.1V (2.1V)
4	2.1V (2.1V)
5	0V (0V)
6	4.6V (4.9V)
7	4.6V (4.9V)
8	2.4V (3.2V)
9	4.5V (4.8V)
10	3.9V (0V)
11	3.3V (1.8V)
12	3.3V (1.1V)
13	3.5V (2.0V)
14	1.2V (1.2V)
15	1.2V (1.2V)
16	2.0V (2.0V)
17	2.7V (0V)
18	2.1V (0.9V)
19	0V (1.9V)
20	0.3V (0.9V)
21	2.6V (2.0V)
22	2.6V (2.0V)
23	4.5V (4.8V)
24	3.0V (3.3V)

IC562

PIN NO.	VOLTAGE
1	13.0V
2	13.0V
3	12.8V
4	0V
5	12.8V
6	13.0V
7	13.0V
8	18.3V

IC563

PIN NO.	VOLTAGE
1	13.1V
2	13.1V
3	1.4V
4	0V
5	1.4V
6	13.1V
7	13.1V
8	18.3V

IC702

PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	0V
5	0.3V
6	8.4V
7	0.3V
8	0.3V
9	0V
10	0V
11	0V
12	0V
13	0V
14	4.1V
15	0V
16	0.1V
17	0V
18	4.9V

IC701

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	4.6V	51	4.9V
2	4.6V	52	0V
3	4.6V	53	0V
4	0V	54	4.9V
5	0V	55	4.9V
6	0V	56	4.9V
7	4.6V	57	4.9V
8	0V	58	0V
9	4.9V	59	–34.3V
10	4.7V	60	–20.1V
11	4.9V	61	–16.4V
12	2.6V	62	–12.2V
13	0V	63	–16.5V
14	0V	64	–14.2V
15	4.8V	65	–31.9V
16	4.6V	66	–29.7V
17	4.6V	67	–31.9V
18	0V	68	–29.7V
19	4.9V	69	–18.5V
20	0V	70	–29.7V
21	0V	71	–27.5V
22	0V	72	–29.8V
23	0V	73	–18.8V
24	4.8V	74	–18.8V
25	0V	75	–27.7V
26	0V	76	–23.4V
27	0V	77	–23.1V
28	0V	78	–20.9V
29	0V	79	–34.1V
30	0V	80	–18.9V
31	4.9V	81	–28.7V
32	5.0V	82	–26.0V
33	4.9V	83	29.8V
34	4.6V	84	–27.6V
35	5.0V	85	–29.7V
36	4.9V	86	–20.6V
37	4.9V	87	–20.5V
38	0V	88	–31.9V
39	4.8V	89	–31.8V
40	0V	90	–31.8V
41	1.9V	91	–32.0V
42	9.1V	92	–31.9V
43	9.1V	93	–31.9V
44	0V	94	–31.9V
45	3.8V	95	–31.9V
46	4.6V	96	–31.9V
47	4.5V	97	–31.9V
48	4.5V	98	–31.9V
49	4.9V	99	–31.9V
50	3.0V	100	–31.9V

ICT21

PIN NO.	VOLTAGE
1	2.6V(2.6V)
2	2.6V (2.6V)
3	5.2V (5.2V)
4	0V (0V)
5	2.6V (2.6V)
6	2.6V (2.6V)
7	0V (0V)
8	0V (0V)
9	0V (0V)
10	0V (0V)
11	0V (0V)
12	2.6V (2.6V)
13	2.5V (2.5V)
14	5.2V (5.2V)
15	0V (0V)
16	0V (0V)
17	0V (0V)
18	0V (0V)
19	0V (0V)
20	0V (0V)
21	2.9V (0V)
22	0V (0V)
23	0V (0V)
24	0V (0V)

IC802

PIN NO.	VOLTAGE
1	18.7V
2	0V
3	10V

IC703

PIN NO.	VOLTAGE
1	5.0V
2	0V
3	5.0V

IC901

PIN NO.	VOLTAGE
1	–0.1V
2	0.1V
3	0V
4	40.2V
5	–38.5V
6	0V
7	0V
8	41.4V
9	–41.4V
10	0V
11	0V
12	–32.4V
13	0V
14	–0.1V
15	–0.1V

IC902

PIN NO.	VOLTAGE
1	–0.1V
2	0.1V
3	0V
4	32.8V
5	–31.3V
6	0V
7	0V
8	33.9V
9	33.9V
10	0V
11	0V
12	–32.4V
13	0V
14	–0.1V
15	–0.1V

IC903

PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	12.1V
5	0V
6	0V
7	0V
8	8.6V

TROUBLE SHOOTING

When the CD does not function

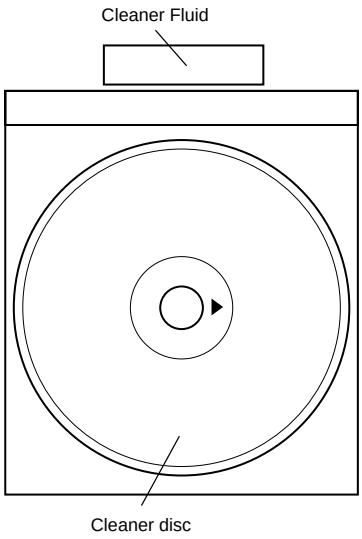
When the CD section does not operate when the objective lens of the optical pickup is dirty, this section may not operate. Clean the objective lens, and check the playback operation. When this section does not operate even after the above step is taken, check the following items.
Remove the cabinet and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

		Parts code
1.	CD optical pickup Lens cleaner disc	UDSKA0004AFZZ

HOW TO USE

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



CAUTION

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

When a CD cannot be played

1. "E-CD01" is displayed.

(1) Check the power to IC2 (LC78641E), the presence of the clock signal (16.93 MHz) and the status of the RESET terminal (pin 71 on IC2).
(2) Did the pickup move to the PICKUP-IN Switch (SW4) position?

If (1) and (2) are OK, check the system microcomputer (especially the communication line with the DSP).

2. Pressing the CD operation key is accepted, but playback does not occur.

(1) Focus-HF system check
(2) Tracking system check
(3) Spin system check
(4) PLL system check
(5) Others

(1) Focus-HF system check

Although a CD is inserted and the cover is closed, "NO DISC" is displayed.

Press the OPEN/CLOSE switch (SW1) without inserting a disc, and try starting the playback operation.

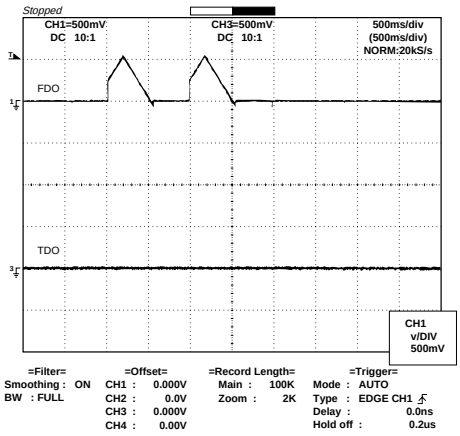


Figure 44-1

1. Did the pickup move to the PICKUP-IN Switch (SW4) position?
   - No → Sled motor (M2)
   - Yes ↓
2. Does the focus (lens) move up and down? (Waveform drawing 44-1).
   - No → Check the focus peripheral circuit.
   - Yes ↓
3. Is the laser lit?
   - No → Check the laser diode driver Q3 peripheral circuit.
   - Yes ↓
4. Is the turntable rotating?
   - No → Spindle motor (M1).

When a disc is loaded, start playback operation.

1. Is focus servo activated? (Waveform drawing 44-2)
   - No → Pins 1~11 on IC1
Check the laser diode driver Q3 peripheral circuit.
Focus error circuit (pins 20 and 21 on IC1)
   - Yes ↓
2. Does DRF change from "L" to "H"?
   - No → Is the disc rotating?
     - No → Check the spin system.
If the disc is spinning and a HF waveform is generated, DRF will go H.
   - Yes ↓
3. Is the HF waveform normal? (Waveform drawing 44-3)
   - No → If the level is not normal, check around pins 27~29 on IC1.

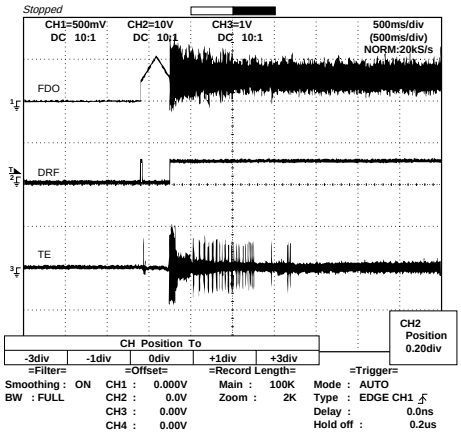


Figure 44-2

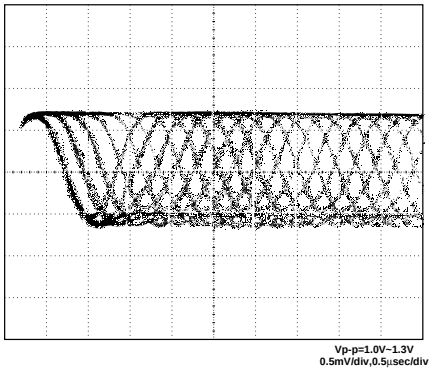


Figure 44-3

(2) Tracking system check

Check the TE waveform at pin 18 on IC1.

If the waveform shown in Figure 45-1 appears and soon after NO DISC appears.
- Yes → The tracking servo is not activated. Check the peripheral circuits at pins 18 and 19 on IC1, pin 23 on IC2, and CNS1A/B.
- No ↓

"Initialization" is possible, but play is not possible.
- Yes → A normal jump operation cannot be completed or the beginning of the track cannot be found. Check the around pin 23 on IC2.
- No ↓

"Initialization" is not possible. → Data cannot be read. Check the VCO-PLL system.

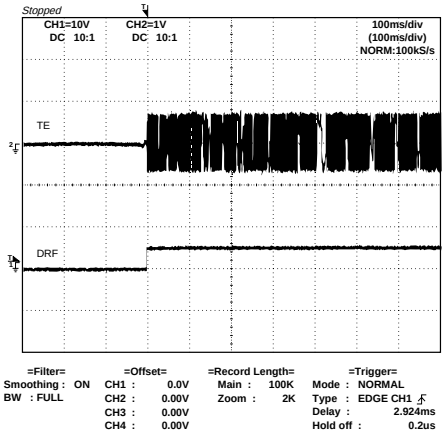


Figure 45-1

(3) Spin system check

Press the OPEN/CLOSE switch without inserting a disc, and then try starting the play operation.

1. The turntable rotates a little. (Waveform drawing 45-2)
- Yes → The spin driver circuit is OK.
- No ↓

2. The turntable doesn't rotate. → Check around pin 25 on IC2, pins 15 and 16 on IC3, and CNS3A/B.

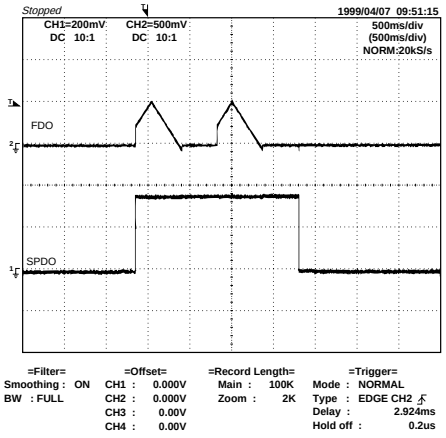


Figure 45-2

(4) PLL system check

When a disc is loaded, start play operation.

↓

The HF waveform is normal, but the TOC data cannot be read.

↓

Check the PDO waveform. (Figure 46-1)

↓

Check around pins 1~6 on IC2.

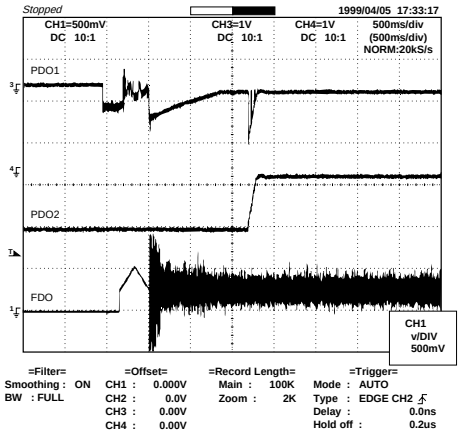


Figure 46-1

(5) Others

The HF waveform is normal and the time is displayed normally, but no sound is produced. Or the sound has dropouts.

Is pin 35 (C2F) on IC2 "L"? — No → There are too many error flags on a damaged disc which makes error correction impossible.

↓ Yes

1. When playing at normal speed
   Check the peripheral circuit at pin 37 (DOUT) on IC2 and the waveform (Figure 46-2).

↓

If both 1. and 2. are OK.

There are too many error flags on a damaged disc which makes error correction impossible.

↓

Check again using a known good disc.

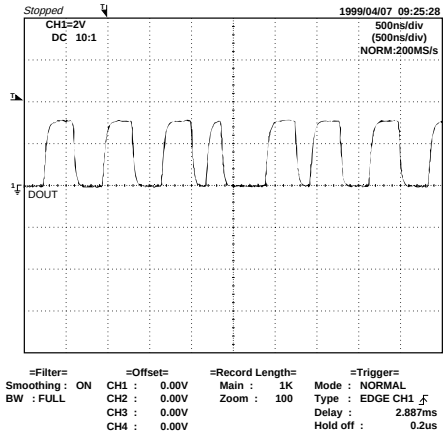
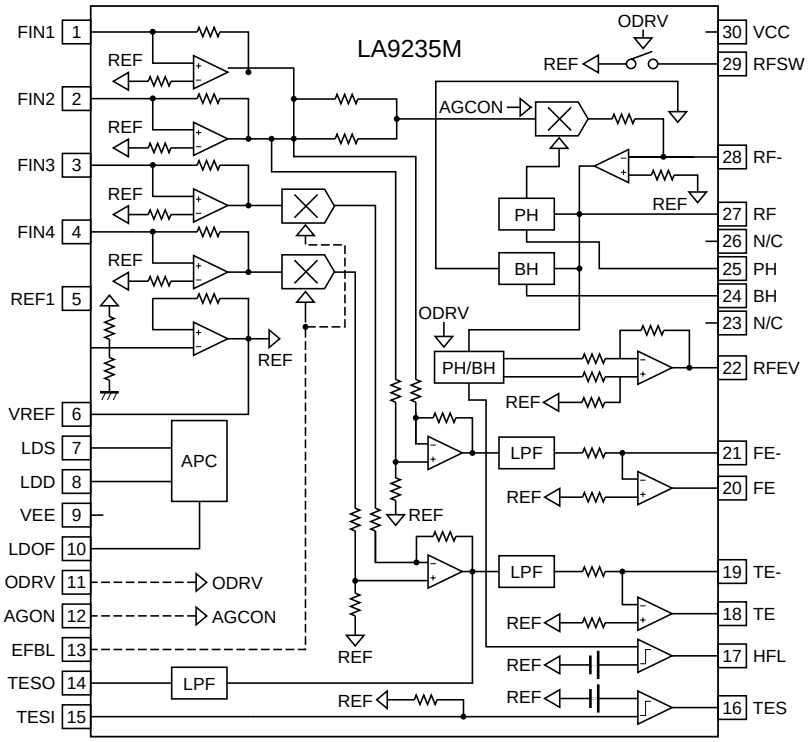


Figure 46-2

FUNCTION TABLE OF IC

IC1 VHiLA9235M/-1: Servo Amp. (LA9235M)



IC2 VHiLC78641E-1: Servo/Signal Control (LC78641E)

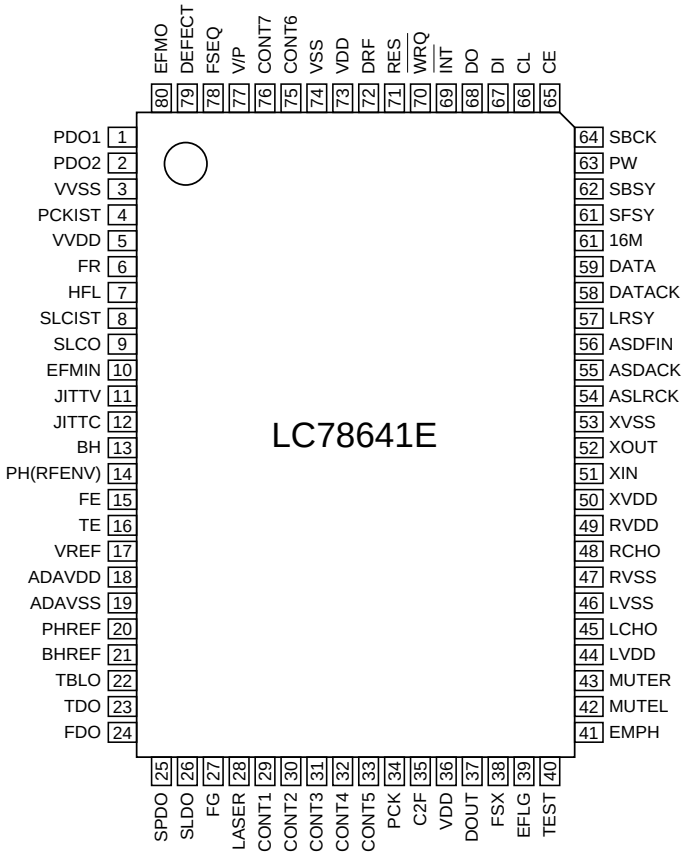


Figure 47 BLOCK DIAGRAM OF IC

IC2 VHiLC78641E-1: Servo/Signal Control (LC78641E) (1/2)

Pin No.	Terminal Name	Input/Output	Setting in Reset	Function		
1	PDO1	Output	–	For PULL	Phase-comparison output terminal for built-in VOC control.	
2	PDO2	Output	–		Phase-comparison output terminal for built-in VOC control. Rough servo : OFF, phase servo : ON.	
3	VVSS	–	–		Ground terminal for built-in VCO.	
4	PCKIST	AI	–		Resistor terminal for setting the PDO output current.	
5	VVDD	–	–		Power terminal for built-in VCO.	
6	FR	AI	–		Resistor terminal for setting the VCO frequency range.	
7	HFL	Input	–	Mirror detection signal input terminal.		
8	SLCIST	AI	–	For slice level control	Resistance connection terminal for current adjustment of SLCO output.	
9	SLCO	Output	–		Control output.	
10	EFMIN	Input	–		EFM signal input terminal.	
11*	JITTV	Output	Unfixed	Jitter detection/monitor terminal.		
12	JITTC	Output	–	Jitter detection/adjustment terminal.		
13	BH	Input	–	BH signal input terminal. A/D input.		
14	PH(RFENV)	Input	–	PH signal or RFENV signal input terminal. A/D input.		
15	FE	Input	–	FE signal input terminal. A/D input.		
16	TE	Input	–	TE signal input terminal. A/D input.		
17	VREF	Input	–	VREF signal input terminal. A/D input.		
18	ADAVDD	–	–	AD for servo, D/A power terminal.		
19	ADAVSS	–	–	AD for servo, D/A ground terminal.		
20*	PHREF	Output	(1/2VDD)	PH reference output terminal. D/A output.		
21*	BHREF	Output	(1/2VDD)	BH reference output terminal. D/A output.		
22	TBLO	Output	(1/2VDD)	Output terminal for tracking balance. D/A output.		
23	TDO	Output	(1/2VDD)	Output terminal for tracking control. D/A output.		
24	FDO	Output	(1/2VDD)	Output terminal for focus control. D/A output.		
25	SPDO	Output	(1/2VDD)	Output terminal for spindle control. D/A output.		
26	SLDO	Output	(1/2VDD)	Output terminal for sled control. D/A output.		
27*	FG	Input	–	FG signal input terminal. (When not used,connect to 0V)		
28	LASER	Output	L	LASER ON/OFF control terminal.		
29	CONT1	In/Output	Input mode	General purpose input/output terminal 1.	Controlled with serial data command from microcomputer. 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.	
30	CONT2	In/Output	Input mode	General purpose input/output terminal 2.		
31	CONT3	In/Output	Input mode	General purpose input/output terminal 3.		
32	CONT4	In/Output	Input mode	General purpose input/output terminal 4.		
33	CONT5	In/Output	Input mode	General purpose input/output terminal 5.		
34*	PCK	Output	H	Clock monitor terminal for EFM data replay. 4.3218MHz as phase clock.		
35*	C2F	Output	H	C2 flag output terminal.		
36	VDD	–	–	Power terminal of digital system.		
37*	DOUT	Output	L	Output terminal of digital OUT. (EIAJ format)		
38*	FSX	Output	L	Output terminal of synchronous signal of 7.35kHz divided from quartz oscillation.		
39*	EFLG	Output	L	C1,C2 correct monitor terminal.		
40	TEST	Input	–	Input terminal for test. Surely connected to 0V.		
41*	EMPH	In/Output	Input mode	Emphasis terminal. After resetting, it is configured as an input terminal. It can be controlled from the outside. It is also becomes a emphasis monitor terminal under command control.		
42*	MUTEL	Output	H	Mute output terminal for L channel.		
43*	MUTER	Output	H	Mute output terminal for R channel.		

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

IC2 VHiLC78641E-1: Servo/Signal Control (LC78641E) (2/2)

Pin No.	Terminal Name	Input/Output	Setting in Reset	Function	
44	LVDD	–	–	L channel	Power terminal for L channel.
45	LCHO	Output	1/2VDD	D/A converter	L channel output terminal.
46	LVSS	–	–		Ground terminal for L channel. Surely connected to 0V.
47	RVSS	–	–	R channel	Ground terminal for R channel. Surely connected to 0V.
48	RCHO	OUTPUT	1/2VDD	D/A converter	R channel output terminal.
49	RVDD	–	–		Power terminal for R channel.
50	XVDD	–	–	For quartz	Power terminal for quartz oscillation.
51	XIN	Input	Oscillation	oscillation	Ground terminal of 16.9344MHz quartz oscillation.
52	XOUT	Output	Oscillation		
53	XVSS	–	–		Ground terminal for quartz oscillation. Surely connected to 0V.
54	ASLRCK	Input	–	For anti	L/R clock input terminal. (When not used,connect to 0V)
55	ASDACK	Input	–	shock mode	Bit clock input terminal. (When not used,connect to 0V)
56	ASDFIN	Input	–		L/R channel data input terminal. (When not used,connect to 0V)
57*	LRSY	Output	L	For digital	L/R clock output terminal.
58*	DATACK	Output	L	data output	Bit clock output terminal.
59*	DATA	Output	L		L/R channel data output terminal.
60*	16M	Output	Clock output	16.9344MHz output terminal.	
61*	SFSY	Output	L	Output terminal of synchronous signal of subcode frame. It drops when subcode stand by.	
62*	SBSY	Output	L	Output terminal of synchronous signal of subcode block.	
63*	PW	Output	L	Output terminal of subcodes P,A,R,S,T,U and W.	
64	SBCK	Input	–	Clock input terminal to read subcode. (When not used,connect to 0V)	
65	CE	Input	–	For	Chip enable signal input terminal.
66	CL	Input	–	microcomputer	Data transmission clock input terminal.
67	DI	Input	–	interface	Data input terminal.
68	DO	Output	L		Data output terminal.
69	INT	Output	H		Interruption signal output terminal.
70	WRQ	Output	H		Interruption signal output terminal.
71	RES	Input	–	Reset input terminal of LC78640. When turning on power, set it at "L".	
72	DRF	Output	L	Focus ON detection terminal.	
73	VDD5V	–	–	Power terminal for microcomputer interface.	
74	VSS	–	–	Ground terminal of digital system. Surely connected to 0V.	
75	CONT6	In/Output	Input mode	General purpose input/output terminal 6.	Controlled with serial data command from microcomputer. 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.
76	CONT7	In/Output	Input mode	General purpose input/output terminal 7.	
77*	V/ *P	Output	H	Monitor output terminal for automatic switch of rough servo/phase control. "H" for rough servo, and "L" for phase servo.	
78*	FSEQ	Output	L	Output terminal synchronous signal detection. "H" is output when synchronous signal detected by EFM signal matches synchronous signal internally generated.	
79*	DEFECT	In/Output	Input mode	Defect terminal. After resetting, it is configured as an input terminal. It can be controlled from the outside. It also becomes a defect monitor terminal under command control	
80*	EFMO	Output	Unfixed	EFM signal output terminal.	

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

Be sure to supply the same potential to each power terminal. (VVDD,ADAVDD,VDD,LVDD,RVDD,XVDD)
Terminal witch is controlled by the power terminal (VDD5V) for a microcomputer interface :
CE (65pin), CL (66pin), DI (67pin), DO (68pin), INT (69pin), WRQ (70pin), RES (71pin), DRF (72pin), CONT6 (75pin), CONT7 (76pin)

IC701 RH-iX0334AWZZ: System Microcomputer (IX0334AW) (1/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
1	VDD	VDD	—	(+) POWER SUPPLY
2	P37	-20dBATT	Output	-20dB ATTENUATOR
3*	P36	S-BUSY	Output	Not used
4*	P35	LCK1	Output	LED DRIVER LCK (BU2092-2)
5	P34	LCK0	Output	LED DRIVER LCK (BU2092-1)
6*	P33	DP REQ	Output	DOLBY PROLOGIC REQ TERMINAL
7	P32	RES OUT	Output	CD DSP RESET&MPEG µCOM RESET
8	P31	DRF	Input	CD RF LEVEL DETECTION
9	P30	WRQ	Input	CD DSP WRITE REQUEST
10	RESET	RESET	Input	µCOM RESET
11	X2	X2	Output	MAIN CLOCK
12	X1	X1	Input	MAIN CLOCK
13	Vpp/IC	Vpp/IC	—	GND
14*	XT2	XT2	—	OPEN
15	P04	CD INT	Input	CD DSP INTERRUPT
16	VDD	VDD	—	(+) POWER SUPPLY
17	P27	CD CLK/MCLK	Output	CD DSP CLOCK/MPEG µCOM CLOCK
18	P26	CD DI/MDI	Output	CD DSP COMMAND/MPEG µCOM COMMAND
19	P25	CD DO/MDO	Input	CD DSP CODE Q OUT/MPEG µCOM DATA INPUT
20	P24	CD CE	Output	CD DSP CE OUTPUT
21	P23	CE	Output	CE OUTPUT
22	P22	CLK	Output	CLOCK OUTPUT
23	P21	DI	Output	DATA OUTPUT
24	P20	DO	Input	DATA INPUT
25	AVss	AVSS	—	ANALOG GROUND
26	ANI7	TUN SMIM-BUSY	Input	TUNER SIGNAL METER INPUT
27	ANI6	SPEANA3	Input	SPEANA DATA INPUT L, R 16 kHz
28	ANI5	SPEANA2	Input	SPEANA DATA INPUT L, R 63Hz
29	ANI4	SPEANA1	Input	SPEANA DATA INPUT R-CH 1kHz
30	ANI3	SPEANA0	Input	SPEANA DATA INPUT L-CH 1kHz
31-33	ANI2-ANI0	KEY2-KEY0	Input	KEY INPUT
34	AVDD	AVDD	—	ANALOG VDD
35	AVREF	AVREF	—	ANALOG REF VOLTAGE
36	INTP3	SYS STOP	Input	SYSTEM STOP INPUT
37	INTP2	JOG1	Input	KEY JOG INPUT 1
38	INTP1	JOG0	Input	KEY JOG INPUT 2
39	INTP0	REMOCON	Input	REMOCON INPUT
40	Vss	Vss	—	GROUND VOLTAGE
41	P74	SMUTE	Output	SYSTEM MUTE CONTROL
42	P73	T_SOL B	Output	TAPE2 SOLENOID CONTROL
43	P72	T_SOL A	Output	TAPE1 SOLENOID CONTROL
44	P71	T_MOTOR	Output	TAPE MOTOR CONTROL
45	P70	TIMER LED	Output	TIMER OED CONTROL
46	VDD	VDD	—	(+) POWER SUPPLY
47	P127	AC PLY_CONT	Output	AC RELAY CONTROL
48	P126	SPRLY	Output	SPEAKER OUTPUT RELAY CONTROL
49	P125	SP DET	Input	SPEAKER OUTPUT DETECTION
50	P124	T1 RUN	Input	TAPE1 RUN PULSE TNPUT
51	P123	T2 RUN	Input	TAPE2 RUN PULSE TNPUT
52	P122	CD CLAMP SW	Input	CD CHANGER CLAMP SWITCH
53	P121	PLAY SW_A	Input	PLAY SWITCH FOR T1

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

IC701 RH-iX0334AWZZ: System Microcomputer (IX0334AW) (2/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
54	P120	PLAY SW_B	Input	PLAY SWITCH FOR T2
55	P119	FPA	Input	TAPE2 A-SIDE FULL PROOF
56	P118	FPB	Input	TAPE2 B-SIDE FULL PROOF
57	P117	MIC SW	Input	MIC SWITCH
58	P116	KARAOKE LATCH	Output	KARAOKE LATCH
59	P115	DIST_OUT/SW OUT	Output	DISTINATION OUTPUT/SWITCH OUTPUT
60	P112	SPN	Input	TUNER SPAN CHANGE
	FIP39	P25	Output	FL DISPLAY SEGMENT DRIVER
61	P111	MOV VOL COM OPN SW	Input	MOVING VOLUME CONTROL OPEN SWITCH
	FIP38	P24	Output	FL DISPLAY SEGMENT DRIVER
62	P110	MOV VOL COM CLS SW	Input	MOVING VOLUME CONTROL CLOSE SWITCH
	FIP37	P23	Output	FL DISPLAY SEGMENT DRIVER
63-66	FIP36-FIP33	P22-P19	Output	FL DISPLAY SEGMENT DRIVER
67	P103	DIST3	Input	DISTINATION INPUT
	FIP32	P18	Output	FL DISPLAY SEGMENT DRIVER
68	P102	DIST2	Input	DISTINATION INPUT
	FIP31	P17	Output	FL DISPLAY SEGMENT DRIVER
69	P101	DIST1	Input	DISTINATION INPUT
	FIP30	P16	Output	FL DISPLAY SEGMENT DRIVER
70	P100	DIST0	Input	DISTINATION INPUT
	FIP29	P15	Output	FL DISPLAY SEGMENT DRIVER
71-78	FIP28-FIP21	P14-P7	Output	FL DISPLAY SEGMENT DRIVER
79	VLOAD	VLOAD	—	FL DRIVER (-) POWER SUPP. -30V
80-85	FIP20-FIP15	P9-P1	Output	FL DISPLAY SEGMENT DRIVER
86-100	FIP14-FIP0	G15-G1	Output	FL DISPLAY SEGMENT DRIVER

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

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

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

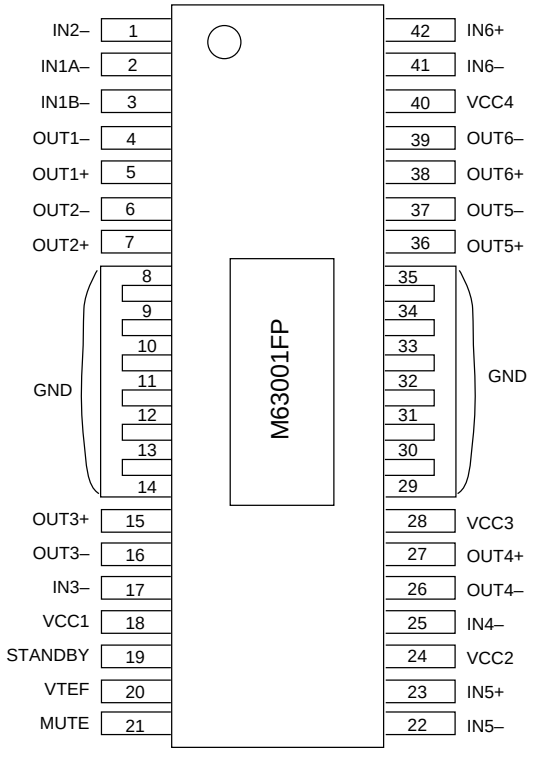


Figure 51 BLOCK DIAGRAM OF IC

IC601 VHiLC75341/-1: Audio Processor (LC75341)

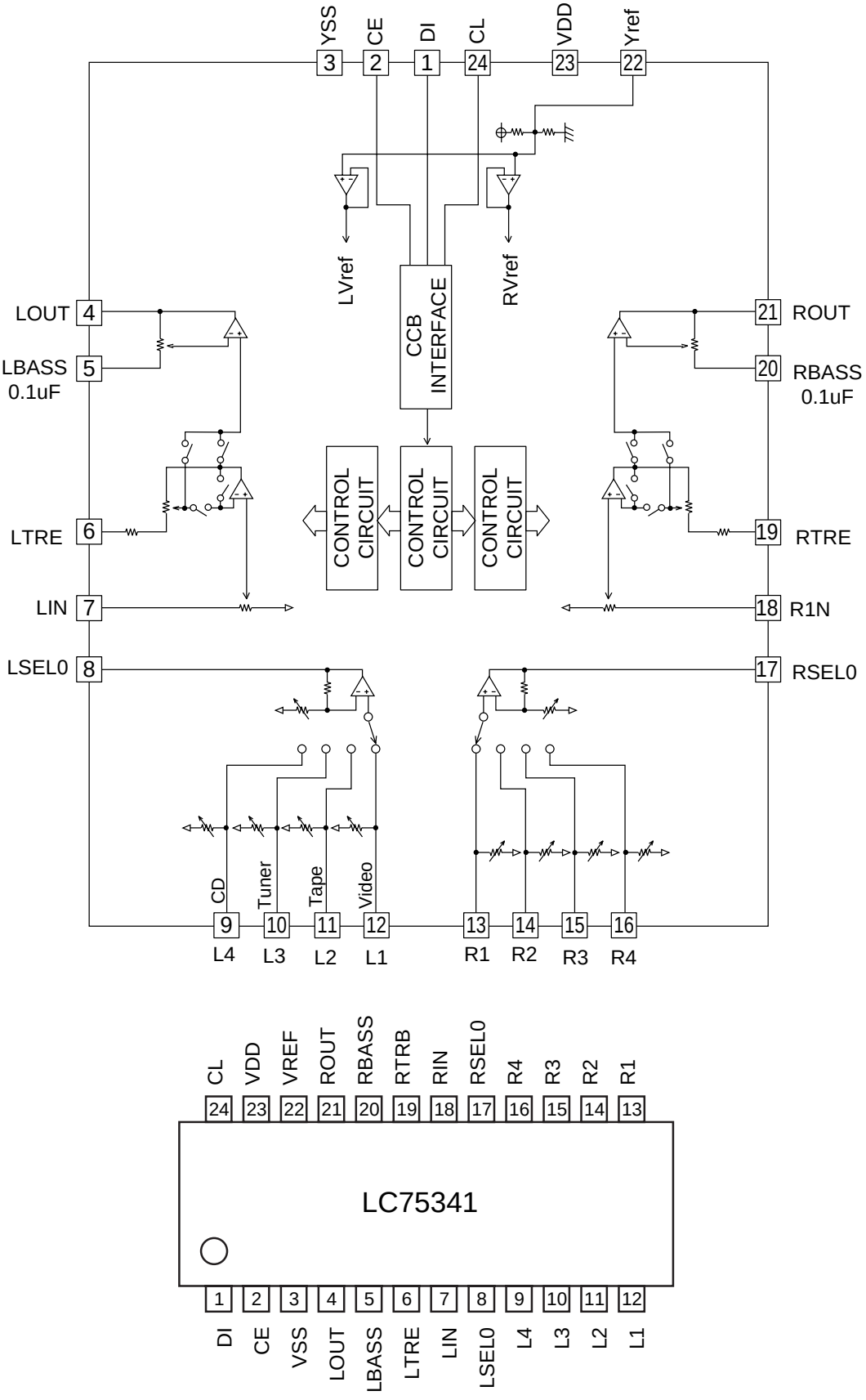


Figure 52 BLOCK DIAGRAM OF IC

ICK1 VHiM65856SP-1: Mic Amp. (M65856SP) (1/2)

Pin No.	Port Name	Input/Output	Function
1	MIC SW	Input	Microphone SW L: MIC OFF, H: MIC ON
2	MCLKCONT	—	Clock Control Controls built-in clock generation circuit with external R
3	VALC	—	ALC operating voltage setting terminal To set ALC operating voltage according to applied voltage
4	MIC1IN	Input	Microphone 1 input To connect MIC1
5	ALC1	—	ALC1 control To connect ALC1 attack/recovery time setting capacitor
6	MIC1NFIN	Input	Microphone 1 negative feedback input To connect low cut-off frequency of MIC1 amplifier setting capacitor
7	MIC1OUT	Output	Microphone 1 output
8	MIC1VOLIN	Input	Microphone 1 volume input To connect capacitor to reduce noise generated at time of volume change
9	MIC2IN	Input	Microphone 2 input To connect MIC2
10	ALC2	—	ALC2 control To connect ALC2 attack/recovery time setting capacitor
11	MIC2NFIN	Input	Microphone 2 negative feedback input To connect low cut-off frequency of MIC2 amplifier setting capacitor
12	MIC2OUT	Output	Microphone 2 output
13	MIC2VOLIN	Input	Microphone 2 volume input To connect capacitor to reduce noise generated at time of volume change
14	MICOUT	Output	Microphone output Mixing output of MIC1 and MIC2
15	LPF1IN1	Input	Low pass filter 1 input 1 Pre-filter before A/D convertor for digital delay
16	LPF1IN2	Input	Low pass filter 1 input 2 Pre-filter before A/D convertor for digital delay
17	LPF1OUT	Output	Low pass filter 1 output Pre-filter before A/D convertor for digital delay
18	ADINTOUT	Output	A/D integrator output Composes D/A conversion integrator with external capacitor
19	ADINTIN	Input	A/D integrator input Composes D/A conversion integrator with external capacitor
20	ADCONT	—	A/D control To determine adaptive time constant of A/D convertor with ADM system
21	REF	—	Reference power output To connect 1/2 Vcc output and filter capacitor
22	GND	—	Ground
23	VCC	—	Power supply
24	DACONT	—	D/A control To determine adaptive time constant of D/A convertor with ADM system
25	DAINTIN	Input	D/A Integrator input Composes D/A conversion integrator with external capacitor
26	DAINTOUT	Output	D/A Integrator output Composes D/A conversion integrator with external capacitor
27	LPF2IN1	Input	Low pass filter 2 input 1 Post-filter after D/A convertor for digital delay
28	LPF2IN2	Input	Low pass filter 2 input 2 Post-filter after D/A convertor for digital delay
29	LPF2OUT	Output	Low pass filter 2 output Post-filter after D/A convertor for digital delay
30	VOLIN	Input	Echo effect/Echo feed back volume input To connect capacitor to reduce noise generated at time of volume change
31	LIN	Input	Lch line input
32	RIN	Input	Rch line input

ICK1 VHiM65856SP-1: Mic Amp. (M65856SP) (2/2)

Pin No.	Port Name	Input/Output	Function
33*	KEYCONIN	Input	Monaural input for external KEYCONTROL IC Input/Output interface terminal for external KEYCONTROL IC
34*	SOURCEOUT	Output	Monaural input for external KEYCONTROL IC Input/Output interface terminal for external KEYCONTROL IC
35	ROUT	Output	Rch mixing output
36	LOUT	Output	Lch mixing output
37	VCFIL	—	Vocal cut filter Processes frequencies lower then the vocal band
38*	PS1	Input	Phase shift input 1 Determines a constant at time of phase shift
39*	PS2	Input	Phase shift input 2 Determines a constant at time of phase shift
40	LATCH	Input	Latch input via serial bus
41	CLOCK	Input	Clock input via serial bus
42	DATA	Input	Data input via serial bus

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

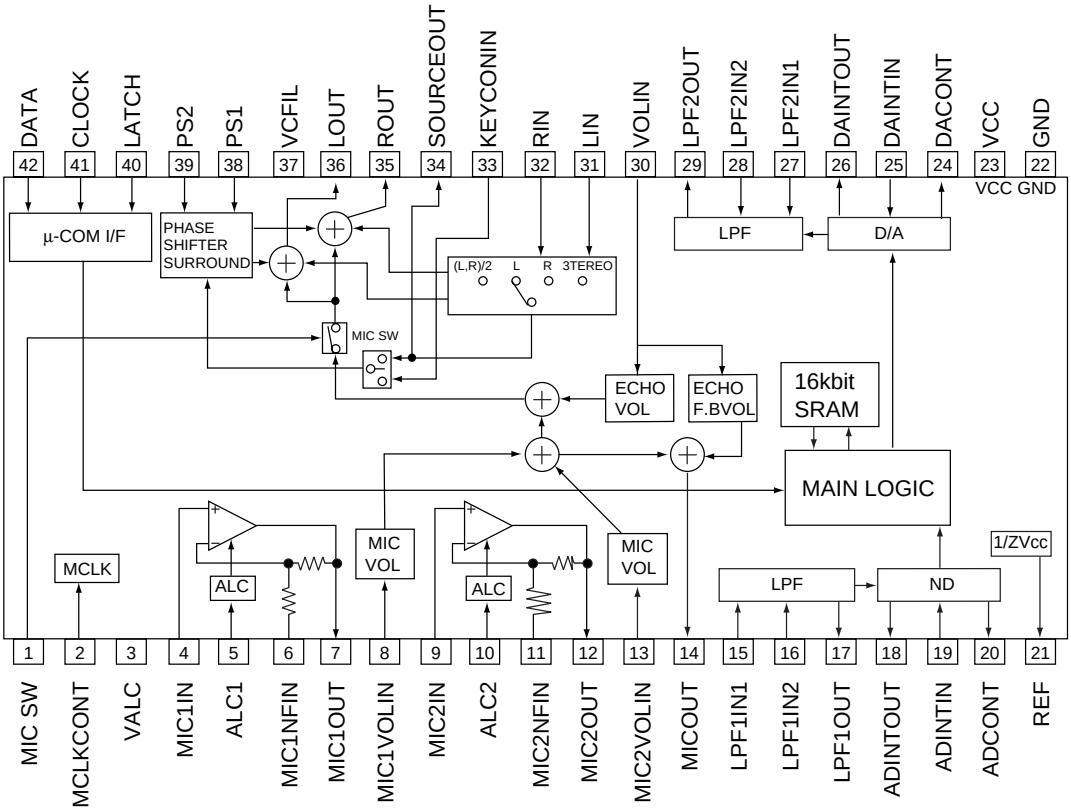
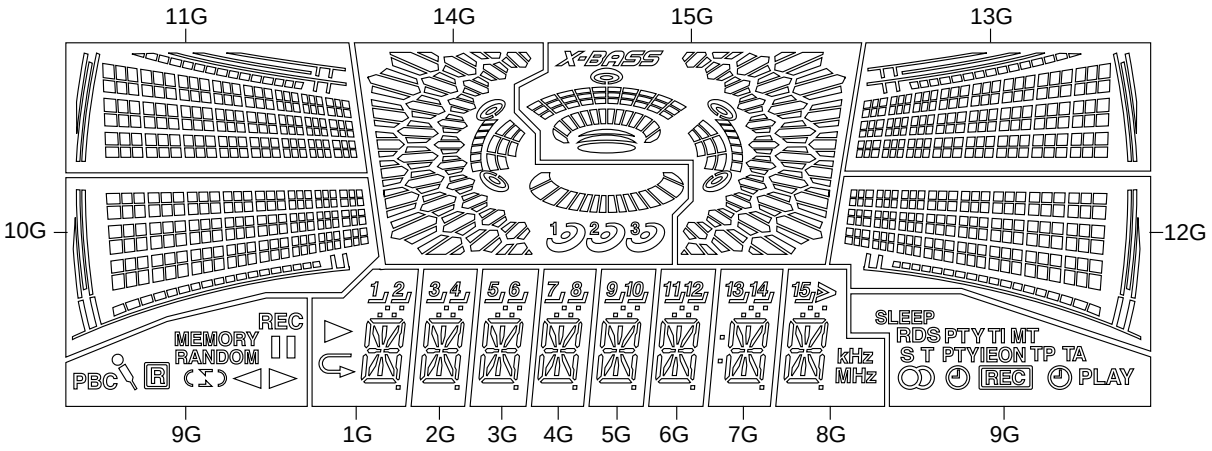
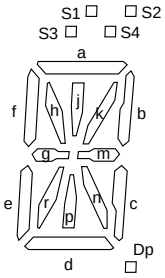


Figure 54 BLOCK DIAGRAM OF IC

FL701 VVKBJ744GNK-1: FL Display





(1G~8G)

PIN CONNECTION

PIN NO.	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	15G	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F1	F1	F1

PIN NO.	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
CONNECTION	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NX	NX	NX	NX	NX	NX	NX	NX

PIN NO.	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
CONNECTION	F2	F2	F2	NP	NP	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13

Figure 55 FL DISPLAY

— MEMO —

SHARP PARTS GUIDE

MODEL CD-BP2000W CD-BP210W

CD-BP2000W/CD-BP210W mini component system consisting of CD-BP2000W/CD-BP210W (main unit) and CP-BP2000/CP-BP210 (speaker system).

CD-BK2000W CD-BK210W

CD-BK2000W/CD-BK210W mini component system consisting of CD-BK2000W/CD-BK210W (main unit) and CP-BP2000/CP-BP210 (speaker system).

CD-BP2000A

CD-BP2000A mini component system consisting of CD-BP2000A (main unit) and CP-BP2000A (speaker system).

"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.	PARTS CODE	★	PRICE RANK	DESCRIPTION

CD-BP2000W/210W/2000A/BK2000W/210W

INTEGRATED CIRCUITS

IC1	VHILA9235M/-1	J	AQ	Servo Amp.,LA9235M
IC2	VHILC78641E-1	J	AV	Servo/Signal Control,LC78641E
IC3	VHIM63001FP-1	J	AX	Focus/Tracking/Spin/Sled Driver,M63001FP
IC101	VHIAN7345K/-1	J	AM	Playback and Record/Playback Amp.,AN7345K
IC301	VHITA7358AP-1	J	AG	FM Front End,TA7358AP
IC302	VHILC72131/-1	J	AP	PLL (Tuner),LC72131
IC303	VHILA1832S/-1	J	AN	FM IF Det./FM Mpx./AM IF, LA1832S
IC561~563	VHIKIA4558P-1	J	AC	Ope Amp.,KIA4558P
IC601	VHILC75341/-1	J	AM	Audio Processor,LC75341
IC701	RH-IX0334AWZZ	J	AX	System Microcomputer, IX0334AW
IC702	VHIBU2092/F-1	J		Input/Output Expander,BU2092
IC703	VHIKIA7042AP1	J	AC	Reset,KIA7042AP
IC801	VHIKIA7805P-1	J	AF	Voltage Regulator,KIA7805P
IC802	VHIKIA7810AP1	J	AF	Voltage Regulator,KIA7810AP
IC901	VHISTK40271-1	J	AZ	Power AMP.,STK40271
IC902	VHISTK40204-1	J	AX	Power AMP.,STK40204
IC903	VHIKIA4558P-1	J	AC	Ope Amp.,KIA4558P
ICK1	VHIM65856SP-1	J	AX	Mic Amp.,M65856SP [BK2000W/BK210W Only]

TRANSISTORS

Q1	VS2SC3203Y/-1	J		Silicon,NPN,2SC3203 Y
Q2	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q3	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
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
Q121,122	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q124	VS2SA1015GR-1	J	AB	Silicon,PNP,2SA1015 GR
Q126	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q128	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q302	VSKTC3194Y/-1	J	AD	Silicon,NPN,KTC3194 Y
Q360	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q603~606	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q701~703	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q704,705	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
Q706,707	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q708	VSKTA1273Y/-1	J	AE	Silicon,PNP,KTA1273 Y
Q709	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q710~712	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q801	VSKTA1274Y-1T	J		Silicon,PNP,KTA1274 Y
Q802	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q821	VHIAN78L05/-1	J	AE	Constant Voltage Regulator, AN78L05
Q823	VSKTC2026//-1	J	AF	Silicon,NPN,KTC2026
Q901~909	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q910	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
QK1	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y [BK2000W/BK210W Only]

DIODES

D21,22	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D301,302	VHD1SS133//-1	J	AA	Silicon,1SS133
D305	VHD1SS133//-1	J	AA	Silicon,1SS133
D561~566	VHD1SS133//-1	J	AA	Silicon,1SS133
D601,602	VHD1SS133//-1	J	AA	Silicon,1SS133
D603,604	VHD1SS133//-1	J	AA	Silicon,1SS133 [BK2000W/BK210W Only]
D707	VHD1SS133//-1	J	AA	Silicon,1SS133
D710~718	VHD1SS133//-1	J	AA	Silicon,1SS133
D720,721	VHD1SS133//-1	J	AA	Silicon,1SS133
D801	VHD1SS133//-1	J	AA	Silicon,1SS133
D802,803	VHDTS6B04GM-1	J	AP	Silicon,TS6B04GM
D804~810	VHD1N4004S/-1	J	AB	Silicon,1N4004S
D811	VHD1SS133//-1	J	AA	Silicon,1SS133
D812~815	VHD1N4004S/-1	J	AB	Silicon,1N4004S
D816,817	VHD1SS133//-1	J	AA	Silicon,1SS133
D818	VHD1N4004S/-1	J	AB	Silicon,1N4004S
D901~909	VHD1SS133//-1	J	AA	Silicon,1SS133
LED701~704	VHP4204UYT7-1	J	AD	LED,Yellow,4204UYT7
LED705~707	VHP4204UGT7-1	J	AD	LED,Green,4204UGT7
LED708	VHP4204UYT7-1	J	AD	LED,Yellow,4204UYT7
LED722	VHP4204SRT7-1	J	AD	LED,Red,4204SRT7
ZD61	VHEDZ3R9BSB-1	J	AC	Zener,3.9V,DZ3.9BSB
ZD351	VHEMTZJ5R1B-1	J	AC	Zener,5.1V,MTZJ5.1B
ZD561	VHEMTZJ6R2C-1	J	AC	Zener,6.2V,MTZJ6.2C
ZD801	VHEMTZJ360C-1	J	AB	Zener,36V,MTZJ36C
ZD802	VHEMTZJ6R2A-1	J	AA	Zener,6.2V,MTZJ6.2A
ZD803	VHEMTZJ130C-1	J	AB	Zener,13V,MTZJ13C
ZDK1	VHEMTZJ5R6B-1	J	AD	Zener,5.6V,MTZJ5.6B [BK2000W/BK210W Only]

FILTERS

BF301	RFILR0008AWZZ	J	AE	Band Pass Filter
CF303	RFILF0124AFZZ	J	AD	FM IF,10.7 MHz
CF351	RFILF0003AWZZ	J	AK	FM IF
CF352	RFILA0009AWZZ	J	AE	AM IF

TRANSFORMERS

T301	RCILB0065AWZZ	J	AC	FM,OSC
T302	RCILI0017AWZZ	J	AB	FM IF
T303	RCILA0052AWZZ	J	AE	AM Tracking
T306	RCILB0058AWZZ	J	AC	AM,OSC
T351	RCILI0019AWZZ	J	AD	AM IF
⚠T801	RTRNP0304AWZZ	J		Power
⚠T802	RTRNP0239AWZZ	J	AP	Power

COILS

L61	VP-XHR82K0000	J	AC	0.82 µH
L62	VP-XH2R2K0000	J	AB	2.2 µH,Choke
L104	VP-MK331K0000	J	AB	330 µH,Choke
L312	RCILR0056AWZZ	J	AB	FM RF
L351,352	VP-DH101K0000	J	AB	100 µH,Choke
L701	VP-DH101K0000	J	AB	100 µH,Choke
L902~905	RCILZ0137AFZZ	J	AA	0.29 µH

VARIABLE RESISTORS

VRK1	92LVRR1674A	J	AF	20 kohms (B) [Mic 1 Volume] [BK2000W/BK210W Only]
VRK2	92LVRR1674A	J	AF	20 kohms (B) [Mic 2 Volume] [BK2000W/BK210W Only]

VARIABLE CAPACTORS

VD301	VHCSVC348S/-1	J	AK	Variable Capacitance,SVC348S
VD302,303	VHCSVC211C/-1	J	AG	Variable Capacitance,SVC211C

VIBRATORS

X351	92LCRSTL1425A	J	AF	Crystal,456 kHz
X352	RCRSP0002AWZZ	J	AH	Crystal,4.5 MHz
XL1	92LCRSTL1746AT	J	AH	Crystal,16.93 MHz
XL701	RCRSP0003AWZZ	J	AH	Crystal,4.1943 MHz

CAPACITORS

C6	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C7	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
C8	VCKYTV1HB104K	J	AB	0.1 µF,50V
C11	RC-EZY474AF0J	J		0.47 µF,6.3V,Electrolytic
C12	VCKYTV1HB104K	J	AB	0.1 µF,50V
C13	VCKYTV1HB103K	J	AA	0.01 µF,50V
C14	VCKYTV1EF334Z	J	AB	0.33 µF,25V
C16	VCCSPA1HL6R0J	J	AA	6 pF,50V
C17	VCKYTV1HB472K	J	AA	0.0047 µF,50V
C18	VCCCTV1HH3R0C	J	AA	3 pF (CH),50V
C19	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C20,21	VCKYTV1HB104K	J	AB	0.1 µF,50V
C22	VCKYTV1HB101K	J	AA	100 pF,50V
C23	VCKYTV1HB473K	J	AA	0.047 µF,50V
C24	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C25	VCKYTV1HB104K	J	AB	0.1 µF,50V
C26	VCKYTV1HB473K	J	AA	0.047 µF,50V
C27	VCKYTV1HB104K	J	AB	0.1 µF,50V

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C28	VCEAZA1AW476M	J	AB	47 µF,10V,Electrolytic
C29,30	VCKYTV1HB104K	J	AB	0.1 µF,50V
C31	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C34	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C38,39	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
C40	VCKYTV1HB152K	J	AA	0.0015 µF,50V
C41	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C42	VCCSTV1HL680J	J	AA	68 pF,50V
C43	VCKYTV1HB152K	J	AA	0.0015 µF,50V
C44	VCKYTV1HB104K	J	AB	0.1 µF,50V
C45	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C46	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C47	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
C49,50	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
C51	VCEAZA1AW476M	J	AB	47 µF,10V,Electrolytic
C52	VCTYPA1CX103K	J	AA	0.01 µF,16V
C53	VCKYTV1HB102K	J	AA	0.001 µF,50V
C54	VCEAZA1AW476M	J	AB	47 µF,10V,Electrolytic
C55	VCKYTV1HB103K	J	AA	0.01 µF,50V
C56	VCEAZA0JW337M	J	AC	330 µF,6.3V,Electrolytic
C64	RC-EZY474AF0J	J		0.47 µF,6.3V,Electrolytic
C71	VCKYTV1HB101K	J	AA	100 pF,50V
C72	VCKYTV1HB103K	J	AA	0.01 µF,50V
C73~78	VCKYTV1HB101K	J	AA	100 pF,50V
C79	VCKYTV1HB103K	J	AA	0.01 µF,50V
C80	VCKYTV1HB104K	J	AB	0.1 µF,50V
C81~83	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C101,102	VCKYMN1HB561K	J	AA	560 pF,50V
C105	VCKYBT1HB181K	J	AA	180 pF,50V
C106	VCKYMN1HB181K	J	AA	180 pF,50V
C107,108	VCKYMN1HB561K	J	AA	560 pF,50V
C111~114	VCKYMN1HB331K	J	AA	330 pF,50V
C115,116	VCEAZA1EW107M	J	AB	100 µF,25V,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
C124	VCTYMN1CX222K	J	AA	0.0022 µF,16V
C127	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C128	VCEAZA1HW335M	J	AB	3.3 µF,50V,Electrolytic
C131	VCKYMN1HB271K	J	AA	270 pF,50V
C132	VCKYPA1HB271K	J	AA	270 pF,50V
C133,134	VCEAZA1EW226M	J	AB	22 µF,25V,Electrolytic
C135,136	VCTYPA1CX223K	J	AA	0.022 µF,16V
C139,140	VCTYMN1CX332K	J	AA	0.0033 µF,16V
C141,142	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C145	VCEAZA1EW226M	J	AB	22 µF,25V,Electrolytic
C146	VCEAZA1AW227M	J	AC	220 µF,10V,Electrolytic
C150	VCQPKA2AA822J	J	AA	0.0082 µF,100V,Polypropylene
C151	VCQYKA1HM393K	J	AB	0.039 µF,50V,Mylar
C152	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C153	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
C154	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C303	VCCCMN1HH100J	J	AA	10 pF (CH),50V
C304	VCTYMN1CY103N	J	AA	0.01 µF,16V
C305	VCCCMN1HH4R7C	J	AA	4.7 pF (CH),50V
C306	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C307	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
C308	VCCUMN1HJ4R7D	J	AA	4.7 pF (UJ),50V
C309	VCKYMN1HB102K	J	AA	0.001 µF,50V
C310	VCCCMN1HH150J	J	AA	15 pF (CH),50V
C311	VCCSMN1HL180J	J	AA	18 pF,50V
C312	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C313	VCCCMN1HH220J	J	AA	22 pF (CH),50V
C314,315	VCTYMN1CX472K	J	AA	0.0047 µF,16V
C316	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C317	VCKYMN1HB102K	J	AA	0.001 µF,50V
C318	VCKYMN1HB101K	J	AA	100 pF,50V
C320	VCKYMN1HB102K	J	AA	0.001 µF,50V
C323	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C324	VCCUMN1HJ3R9K	J	AA	3.9 pF (UJ),50V
C330	VCCUMN1HJ150J	J	AA	15 pF (UJ),50V
C331	VCKZPA1HF473Z	J	AA	0.047 µF,50V
C332	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C334	VCCUMN1HJ270J	J	AA	27 pF (UJ),50V
C335	VCKYMN1HB561K	J	AA	560 pF,50V
C338	VCKYMN1HB102K	J	AA	0.001 µF,50V
C342	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C350,351	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C352	VCEAZA1CW106M	J	AC	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	VCEAEA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C358	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
C361	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C362	VCEAZA1HW335M	J	AB	3.3 µF,50V,Electrolytic
C363	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C364	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
C365	VCTYPA1CX223K	J	AA	0.022 µF,16V
C366	VCKYMN1HB102K	J	AA	0.001 µF,50V
C367,368	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
C369	VCCUMN1HJ270J	J	AA	27 pF (UJ),50V
C370~372	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
C373,374	VCTYPA1CX153K	J	AA	0.015 µF,16V
C380	VCEAZA1CW106M	J	AC	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	VCTYMN1CY103N	J	AA	0.01 µF,16V
C386	VCKYMN1HB331K	J	AA	330 pF,50V
C387	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C388	VCKYMN1HB102K	J	AA	0.001 µF,50V
C391	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C392	VCKYMN1HB102K	J	AA	0.001 µF,50V
C393	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
C394	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C395	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C396	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C397	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C398	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C399	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C561,562	VCKYMN1HB271K	J	AA	270 pF,50V
C563	VCTYMN1CX682K	J	AA	0.0068 µF,16V
C564,565	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C566	VCTYMN1CX682K	J	AA	0.0068 µF,16V
C567~571	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C572	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C573	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C574~577	VCTYMN1CX272K	J	AA	0.0027 µF,16V
C578,579	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C602	VCEAZA1HW226M	J	AB	22 µF,50V,Electrolytic
C604	VCTYPA1CX223K	J	AA	0.022 µF,16V
C606	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
C607~610	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C611,612	VCQYKA1HM272K	J	AA	0.0027 µF,50V,Mylar
C613,614	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C615,616	VCKYMN1HB102K	J	AA	0.001 µF,50V
C617	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C618	VCEAZA1EW226M	J	AB	22 µF,25V,Electrolytic
C619,620	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C621,622	VCEAZA1HW475M	J	AB	4.7 µF,50V,Electrolytic
C623~630	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C631,632	VCKYMN1HB391K	J	AA	390 pF,50V
C634~636	VCKYMN1HB102K	J	AA	0.001 µF,50V
C637	VCKYMN1HB102K	J	AA	0.001 µF,50V [BK2000W/ BK210W Only]
C641,642	VCQYKA1HM332K	J	AA	0.0033 µF,50V,Mylar
C709	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C715	VCEAZA1HW226M	J	AB	22 µF,50V,Electrolytic
C716,717	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C719	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C720,721	VCKYMN1HB102K	J	AA	0.001 µF,50V
C722	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C723,724	VCCSMN1HL180J	J	AA	18 pF,50V
C725	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C726	VCEAZA1AW227M	J	AC	220 µF,10V,Electrolytic
C727	VCEAZA1HW104M	J	AB	0.1 µF,50V,Electrolytic
C728	VCTYMN1CY103N	J	AA	0.01 µF,16V
C729	VCEAEA1HW335M	J	AB	3.3 µF,50V,Electrolytic
C730	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C731	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C732	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C733	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C734	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C735	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C801,802	VCEAZW1HW228M	J	AH	2200 µF,50V,Electrolytic
C803~806	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C807,808	VCEAZA1HW107M	J	AC	100 µF,50V,Electrolytic
C809	VCEAZV1JW227M	J	AC	220 µF,63V,Electrolytic
C810,811	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C812	VCEAZA1VW107M	J	AC	100 µF,35V,Electrolytic
C813,814	RC-EZ0027AWZZ	J	AN	3300 µF,63V,Electrolytic
C815	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C816	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C817	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C818	VCEAZA1VW477M	J		470 µF,35V,Electrolytic
C819	VCEAZA0JW108M	J	AC	1000 µF,6.3V,Electrolytic
C820	VCEAZW1EW338M	J	AG	3300 µF,25V,Electrolytic
C821,822	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C823	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C824,825	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C826	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C827	VCEAZA1EW226M	J	AB	22 µF,25V,Electrolytic
C828,829	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C830	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C831	RC-KZ002LAWZZ	J	AE	0.0047 µF,250V,Ceramic
C832,833	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C834	VCEAZV1JW107M	J		100 µF,63V,Electrolytic
C901,902	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C903,904	VCEAZA1HW107M	J	AC	100 µF,50V,Electrolytic
C905	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C906,907	VCCSPA1HL221J	J	AA	220 pF,50V
C908	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C909,910	VCCSPA1HL150J	J	AA	15 pF,50V
C911	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C912	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C914	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C918,919	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C920,921	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C922,923	VCEAZA1HW107M	J	AC	100 µF,50V,Electrolytic
C924,925	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C926,927	VCCSPA1HL221J	J	AA	220 pF,50V
C928,929	VCCSPA1HL150J	J	AA	15 pF,50V
C930,931	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C932	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C935,936	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C937	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C938	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C941,942	VCQYKA1HM153K	J	AB	0.015 µF,50V,Mylar
C943,944	VCTYPA1CX102K	J	AA	0.001 µF,16V
C945,946	VCFYHA1HA154K	J		0.15 µF,50V,Thin Film
C947,948	VCCSPA1HL101J	J	AA	100 pF,50V
C949,950	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C951,952	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
C953	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C954,955	VCFYHA1HA154K	J		0.15 µF,50V,Thin Film
C956	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C957	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C958,959	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C960,961	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C986	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C988	VCKYBT1HB102K	J	AA	0.001 µF,50V
CK1	VCTYPA1CX103K	J	AA	0.01 µF,16V [BK2000W/BK210W Only]
CK2	VCFYHA1HA474J	J	AD	0.47 µF,50V,Thin Film [BK2000W/BK210W Only]
CK3	RC-EZY475AF1H	J	AB	4.7 µF,50V,Electrolytic [BK2000W/BK210W Only]
CK4	RC-EZY225AF1H	J	AB	2.2 µF,50V,Electrolytic [BK2000W/BK210W Only]
CK5,6	VCFYDA1HA104J	J	AB	0.1 µF,50V,Thin Film [BK2000W/BK210W Only]
CK7	VCFYHA1HA474J	J	AD	0.47 µF,50V,Thin Film [BK2000W/BK210W Only]
CK8	RC-EZY475AF1H	J	AB	4.7 µF,50V,Electrolytic [BK2000W/BK210W Only]
CK9	RC-EZY225AF1H	J	AB	2.2 µF,50V,Electrolytic [BK2000W/BK210W Only]
CK10,11	VCFYDA1HA104J	J	AB	0.1 µF,50V,Thin Film [BK2000W/BK210W Only]
CK12	RC-EZY225AF1H	J	AB	2.2 µF,50V,Electrolytic [BK2000W/BK210W Only]
CK13	VCTYPA1CX472K	J	AA	0.0047 µF,16V [BK2000W/BK210W Only]
CK14	VCTYPA1CX102K	J	AA	0.001 µF,16V [BK2000W/BK210W Only]
CK15	VCQYKA1HM683K	J	AB	0.068 µF,50V,Mylar [BK2000W/BK210W Only]
CK16	VCFYHA1HA224J	J	AC	0.22 µF,50V,Thin Film [BK2000W/BK210W Only]
CK17	VCEAZA1AW227M	J	AC	220 µF,10V,Electrolytic [BK2000W/BK210W Only]
CK18	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic [BK2000W/BK210W Only]
CK19	VCKZPA1HF223Z	J	AA	0.022 µF,50V [BK2000W/BK210W Only]
CK20	VCFYHA1HA224J	J	AC	0.22 µF,50V,Thin Film [BK2000W/BK210W Only]
CK21	VCQYKA1HM683K	J	AB	0.068 µF,50V,Mylar [BK2000W/BK210W Only]
CK22	VCTYPA1CX472K	J	AA	0.0047 µF,16V [BK2000W/BK210W Only]
CK23	VCTYPA1CX102K	J	AA	0.001 µF,16V [BK2000W/BK210W Only]
CK24~26	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic [BK2000W/BK210W Only]
CK29,30	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic [BK2000W/BK210W Only]
CK31	VCFYDA1HA154J	J	AB	0.15 µF,50V,Polyester [BK2000W/BK210W Only]
CK32	VCQYKA1HM223K	J	AB	0.022 µF,50V,Mylar [BK2000W/BK210W Only]
CK33~35	VCCSPA1HL470J	J	AA	47 pF,50V [BK2000W/BK210W Only]
CK41	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic [BK2000W/BK210W Only]
CK42	VCKZPA1HF223Z	J	AA	0.022 µF,50V [BK2000W/BK210W Only]
CK43,44	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic [BK2000W/BK210W Only]
CK72	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic [BK2000W/BK210W Only]
CK73,74	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic [BK2000W/BK210W Only]

RESISTORS

	VRD-MN2BD000C	J	AA	0 ohm,Jumper,ø1.4×3.5mm,Ivory
	VRD-MN2BD000J	J		0 ohms,1/8W
	VRS-TV2AB000J	J	AA	0 ohm,Jumper,1.25×2mm,Green
R3	VRS-TV2AB104J	J	AA	100 kohm,1/10W
R4	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R5	VRS-TV2AB393J	J	AA	39 kohms,1/10W
R6	VRS-TV2AB273J	J	AA	27 kohms,1/10W
R7	VRS-TV2AB682J	J	AA	6.8 kohms,1/10W
R8	VRS-TV2AB331J	J	AA	330 ohms,1/10W
R10	VRS-TV2AB273J	J	AA	27 kohms,1/10W
R11	VRS-TV2AB123J	J	AA	12 kohms,1/10W
R12,13	VRS-TV2AB681J	J	AA	680 ohms,1/10W
R14	VRS-TV2AB122J	J	AA	1.2 kohms,1/10W
R15	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R16	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R17	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R19	VRD-ST2CD470J	J	AA	47 ohms,1/6W
R20	VRS-TV2AB221J	J	AA	220 ohms,1/10W
R21,22	VRS-TV2AB471J	J	AA	470 ohms,1/10W
R25	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R35	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R38	VRD-ST2CD271J	J	AA	270 ohms,1/6W
R39	VRD-ST2CD471J	J	AA	470 ohms,1/6W
R40	VRS-TV2AB122J	J	AA	1.2 kohms,1/10W
R42	VRS-TV2AB124J	J	AA	120 kohms,1/10W
R43	VRS-TV2AB224J	J	AA	220 kohms,1/10W
R44	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R45	VRS-TV2AB122J	J	AA	1.2 kohms,1/10W
R46	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R47	VRD-ST2EE3R3J	J	AA	3.3 ohms,1/4W
R48	VRS-TV2AB682J	J	AA	6.8 kohms,1/10W
R50	VRS-TV2AB470J	J	AA	47 ohms,1/10W
R51~54	VRS-TV2AB683J	J	AA	68 kohms,1/10W
R55,56	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R58	VRD-ST2CD221J	J	AA	220 ohms,1/6W
R71~78	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R79	VRS-TV2AB155J	J	AA	1.5 Mohms,1/10W
R80	VRD-ST2CD105J	J	AA	1 Mohm,1/6W
R81,82	VRS-TV2AB222J	J	AA	2.2 kohms,1/10W
R83,84	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R88	VRS-TV2AB682J	J	AA	6.8 kohms,1/10W
R94,95	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R101	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R102	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R103,104	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R105,106	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R107,108	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R109,110	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R111	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R112	VRD-ST2CD153J	J	AA	15 kohms,1/6W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R113,114	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R115	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R117,118	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R119,120	VRD-ST2CD560J	J	AA	56 ohms,1/6W
R121,122	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R123,124	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R125	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R126	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R131	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R132	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R134	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R135,136	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R137	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R138	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R139,140	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R141,142	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R145,146	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R153,154	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R155	VRD-MN2BD151J	J	AA	150 ohms,1/8W
R156	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R157	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R158	VRD-ST2EE221J	J	AA	220 ohms,1/4W
R160	VRD-RT2HD820J	J	AA	82 ohms,1/2W
R162	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R164	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R166	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R167	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R168	VRD-ST2CD4R7J	J	AA	4.7 ohms,1/6W
R302	VRD-MN2BD100J	J	AA	10 ohm,1/8W
R309	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R311	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R313	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R314	VRD-ST2CD220J	J	AA	22 ohms,1/6W
R316	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R322	VRD-MN2BD681J	J	AA	680 ohms,1/8W
R323	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R325	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R327	VRD-MN2BD330J	J	AA	33 ohms,1/8W
R336	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R350	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
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
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-ST2CD392J	J	AA	3.9 kohms,1/6W
R359	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R360	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R361,362	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R363,364	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
R365	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R370	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R372~374	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R375	VRD-ST2CD471J	J	AA	470 ohms,1/6W
R376	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R377	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R378	VRD-MN2BD102J	J	AA	1 kohm,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	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R384	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R385	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R386	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R387	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R388	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R391,392	VRD-ST2EE271J	J	AA	270 ohms,1/4W
R393	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R395	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R561	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R562	VRD-MN2BD474J	J	AA	470 kohms,1/8W
R563	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R564	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R565	VRD-MN2BD394J	J	AA	390 kohms,1/8W
R566	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R567,568	VRD-MN2BD225J	J	AA	2.2 Mohms,1/8W
R569,570	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R573	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R574	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R575	VRD-MN2BD154J	J	AA	150 kohms,1/8W
R576	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R577	VRD-ST2CD331J	J	AA	330 ohms,1/6W
R578	VRD-MN2BD154J	J	AA	150 kohms,1/8W
R579	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R580	VRD-ST2CD331J	J	AA	330 ohms,1/6W
R581	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R582	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R583	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R584	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R585,586	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R587,588	VRD-MN2BD394J	J	AA	390 kohms,1/8W
R589,590	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R605	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R606	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R607	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R608	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R609,610	VRD-ST2CD331J	J	AA	330 ohms,1/6W
R611	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R612	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R613,614	VRD-MN2BD391J	J	AA	390 ohms,1/8W
R615,616	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R617	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W [BK2000W/BK210W]
R617	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W [BP2000W/BP210W/BP2000A]
R618	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W [BK2000W/BK210W]
R618	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W [BP2000W/BP210W/BP2000A]
R619,620	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R621,622	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R631	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W [BP2000W/BP210W/BP2000A]
R631	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W [BK2000W/BK210W]
R632	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W [BP2000W/BP210W/BP2000A]
R632	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W [BK2000W/BK210W]
R633	VRD-MN2BD333J	J	AA	33 kohms,1/8W [BP2000W/BP210W/BP2000A]
R633	VRD-MN2BD393J	J	AA	39 kohms,1/8W [BK2000W/BK210W]
R634	VRD-MN2BD333J	J	AA	33 kohms,1/8W [BP2000W/BP210W/BP2000A]
R634	VRD-MN2BD393J	J	AA	39 kohms,1/8W [BK2000W/BK210W]
R637,638	VRD-MN2BD474J	J	AA	470 kohms,1/8W
R700	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R701	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R702	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R704	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R705	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R712~715	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R716	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R717,718	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R719	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R720	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R721	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R724	VRD-ST2CD330J	J	AA	33 ohms,1/6W
R732,733	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R734	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R735	VRD-MN2BD474J	J	AA	470 kohms,1/8W
R736,737	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R738	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R739	VRD-MN2BD474J	J	AA	470 kohms,1/8W
R740~744	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R746	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R747,748	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R749	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R750,751	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R752	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R753	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
R754~756	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R757	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R758~762	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R763~765	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R766~776	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R777	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R778~781	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R782~784	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R785,786	VRD-MN2BD102J	J	AA	1 kohm,1/8W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R787~790	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R791	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R793,794	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R795	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R796	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R797	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R798	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R799	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R801	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R802	VRD-ST2EE100J	J	AA	10 ohm,1/4W
R803	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R804	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R805	VRD-ST2EE223J	J	AA	22 kohms,1/4W
R806	VRS-VV3DA681J	J	AC	680 ohms,2W
R807	VRD-ST2CD221J	J	AA	220 ohms,1/6W
R809	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R810	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R811	VRD-RT2HD3R3J	J	AA	3.3 ohms,1/2W
R812	VRD-ST2CD330J	J	AA	33 ohms,1/6W
R813	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R816	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R817	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R818	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R819,820	VRD-ST2EE223J	J	AA	22 kohms,1/4W
⚠R901	VRG-ST2EC101J	J	AB	100 ohm,1/4W,Fusible
R902	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R903,904	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R906~909	VRD-ST2CD102J	J	AA	1 kohm,1/6W
⚠R910	VRG-ST2EC101J	J	AB	100 ohm,1/4W,Fusible
R911,912	VRN-VV3AAR10J	J		0.1 ohm,1W
R913,914	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R915,916	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R917,918	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R919~921	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R922,923	VRD-ST2EE4R7J	J	AA	4.7 ohms,1/4W
⚠R924,925	VRG-ST2EC101J	J	AB	100 ohm,1/4W,Fusible
R926	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R927,928	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R929,930	VRD-ST2CD821J	J	AA	820 ohms,1/6W
R931,932	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R933,934	VRN-VV3AAR10J	J		0.1 ohm,1W
R935,936	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R937,938	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R939~941	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R942,943	VRD-ST2EE4R7J	J	AA	4.7 ohms,1/4W
R944~947	VRD-RT2HD271J	J	AA	270 ohms,1/2W
R948~951	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R952	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R953	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R954	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R955	VRD-RT2HD4R7J	J	AA	4.7 ohms,1/2W
R956,957	VRD-ST2CD183J	J	AA	18 kohms,1/6W
R958,959	VRD-ST2CD822J	J	AA	8.2 kohms,1/6W
R960,961	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R962,963	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R964,965	VRD-ST2CD183J	J	AA	18 kohms,1/6W
R966,967	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R968,969	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R970,971	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R972,973	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R974,975	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R976,977	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R979	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R980	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R993~996	VRN-VV3DAR22J	J	AC	0.22 ohms,2W
RD01	VRD-MN2BD681J	J	AA	680 ohms,1/8W
RD02	VRD-MN2BD821J	J	AA	820 ohms,1/8W
RD03	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD04	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
RD05	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RD06	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
RD07	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
RD08	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
RD09	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RD10	VRD-MN2BD183J	J	AA	18 kohms,1/8W
RD11	VRD-ST2CD333J	J	AA	33 kohms,1/6W
RD12	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RD13	VRD-MN2BD681J	J	AA	680 ohms,1/8W
RD14	VRD-ST2CD821J	J	AA	820 ohms,1/6W
RD15	VRD-ST2CD184J	J	AA	180 kohms,1/6W
RD25	VRD-MN2BD681J	J	AA	680 ohms,1/8W
RD26	VRD-MN2BD821J	J	AA	820 ohms,1/8W
RD27	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD28	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
RD29	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RD30	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
RD31	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
RD32	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
RD33	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RD34	VRD-ST2CD153J	J	AA	15 kohms,1/6W
RD35	VRD-MN2BD333J	J	AA	33 kohms,1/8W
RD36	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RK1	VRD-ST2CD103J	J	AA	10 kohm,1/6W [BK2000W/BK210W Only]
RK2,3	VRD-ST2CD563J	J	AA	56 kohms,1/6W [BK2000W/BK210W Only]
RK4	VRD-ST2CD223J	J	AA	22 kohms,1/6W [BK2000W/BK210W Only]
RK5	VRD-ST2CD102J	J	AA	1 kohm,1/6W [BK2000W/BK210W Only]
RK6	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W [BK2000W/BK210W Only]
RK7	VRD-ST2CD102J	J	AA	1 kohm,1/6W [BK2000W/BK210W Only]
RK8	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W [BK2000W/BK210W Only]
RK9~11	VRD-ST2CD102J	J	AA	1 kohm,1/6W [BK2000W/BK210W Only]
RK12	VRD-ST2CD101J	J	AA	100 ohm,1/6W [BK2000W/BK210W Only]
RK13	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W [BK2000W/BK210W Only]
RK14,15	VRD-RT2HD101J	J	AA	100 ohm,1/2W [BK2000W/BK210W Only]
RK36,37	VRD-ST2CD102J	J	AA	1 kohm,1/6W [BK2000W/BK210W Only]
RK38	VRD-ST2CD101J	J	AA	100 ohm,1/6W [BK2000W/BK210W Only]
RK39,40	VRD-ST2CD102J	J	AA	1 kohm,1/6W [BK2000W/BK210W Only]
RK41,42	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W [BK2000W/BK210W Only]
RK43,44	VRD-ST2CD474J	J	AA	470 kohms,1/6W [BK2000W/BK210W Only]
RK45,46	VRD-ST2CD102J	J	AA	1 kohm,1/6W [BK2000W/BK210W Only]
RK47,48	VRD-ST2CD681J	J	AA	680 ohms,1/6W [BK2000W/BK210W Only]
RS701~704	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RS705~707	VRD-ST2CD561J	J	AA	560 ohms,1/6W
RS708	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RS709	VRD-MN2BD223J	J	AA	22 kohms,1/8W
RS710	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RS712	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RS720~722	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RS723~725	VRD-ST2CD102J	J	AA	1 kohm,1/6W

OTHER CIRCUITRY PARTS

BI4/CNS4	QCNWN1572AWZZ	J	AF	Connector Ass'y,6/6Pin
BI102/CNS102	QCNWN1624AWZZ	J		Connector Ass'y,7/6Pin
BI601/CNS601	QCNWN1540AWZZ	J	AF	Connector Ass'y,5/5Pin
BI703/CNS703	QCNWN1541AWZZ	J	AH	Connector Ass'y,10/10Pin
BIK1/CNSK1	QCNWN1573AWZZ	J		Connector Ass'y,11/11Pin [BK2000W/BK210W Only]
CNP1	QCNCM704GAWZZ	J	AC	Plug,7Pin
CNP2	QCNCM704HAFZZ	J	AC	Plug,8Pin
CNP3	92LCONE6P53253	J	AC	Plug,6Pin
CNP4	QCNCM705FAFZZ	J	AB	Plug,6Pin
CNP11	QCNCM704EAWZZ	J		Plug,5Pin
CNP12	92LCONEAP53254	J	AD	Plug,10Pin
CNP101	QCNCM705CAFZZ	J	AA	Plug,3Pin
CNP302	92LCONE2P5268	J	AB	Plug,2Pin
CNP601	92LCONEBP53252	J		Plug,11Pin [BK2000W/BK210W Only]
CNP701	QCNCWZX29AWZZ	J	AE	Plug,29Pin
CNP702	QCNCWZY13AWZZ	J	AC	Plug,13Pin
CNP704	QCNCWZF29AWZZ	J	AE	Plug,29Pin
CNP801	QCNCM049EAWZZ	J	AD	Plug,5Pin
CNP802	QCNCM051EAWZZ	J	AD	Plug,5Pin
CNP803	92LCONE2P53253	J	AB	Plug,2Pin
CNP804	92LCONE5P5267X	J	AB	Plug,5Pin
CNP901	QCNCM010UAWZZ	J	AD	Plug,19Pin
CNS1A/B	QCNWN1537AWZZ	J	AG	Connector Ass'y,7/7Pin
CNS2A/B	QCNWN1538AWZZ	J	AG	Connector Ass'y,8/8Pin

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
CNS3A/B	QCNWN1539AWZZ	J	AE	Connector Ass'y,6/6Pin
CNS803	QCNWN1542AWZZ	J	AC	Connector,2Pin
CNS901	QCNCW010UAWZZ	J	AD	Socket,19Pin
⚠F800,801	92LFUSET402E	J	AD	Fuse,T4A L 250V
⚠F802,803	92LFUSET502E	J	AC	Fuse,T5A L 250V
⚠F805	92LFUSE-T202E	J	AD	Fuse,T2A L 250V
FC701	QCNWN1545AWZZ	J	AG	Flat Cable,29Pin
FC702	QCNWN1544AWZZ	J	AE	Flat Cable,13Pin
FL701	VVKBJ744GNK-1	J	BD	FL Display
FW801	QCNWN1543AWZZ	J	AD	Flat Wire,5Pin
JK1,2	QJAKJ0007AWZZ	J	AF	Jack,Mic 1,2
JK601	QSOCJ0213AWZZ	J	AE	Jack,Video In
JK670	QJAKM0010AWZZ	J	AF	Jack,Headphones
JOG701	QSW-Z0010AWZZ	J	AF	Switch,Push Type [JOG]
LG901,902	QLUGP0001AWZZ	J	AC	Lug
LUG1	QLUGP0002AWZZ	J	AB	Lug
M1	92LMTR2790CASY	J	BB	Motor with Chassis [Spindle]
M2	92LMTR1854BASY	J	AP	Motor with Gear [Sled]
M3	92LTWMEN7E6Y	J	AR	Motor with Worm Pulley [T/T Up/Down Loading]
M901	RMOTV0027AWZZ	J	AM	Motor,Air Cooling Fan
RL801	RRLYD0001SJZZ	J	AQ	Relay
RL901,902	RRLYD0004AWZZ	J	AP	Relay
RX701	VHLN63H380A-1	J	AK	Remote Sensor,N63H380A
SO302	QTANC0204AWZZ	J		Terminal,Antenna
SO901	QTANA0806AWZZ	J	AG	Terminal,Speaker
SW1	SWMPU10780MLB	J		Switch,Push Type [Open/Close]
SW2	SWMPU11470MLB	J		Switch,Push Type [Clamp]
SW3	SWMPU11470MLB	J		Switch,Push Type [Disc Number]
SW4	QSW-F9001AW01	J	AD	Switch,Leaf Type [Pickup In]
SW601	QSW-S0024AWZZ	J	AE	Switch,Slide Type [Span Selector]
SW701	92LSWICH1401AT	J	AC	Switch,Key Type [ON/STAND-BY]
SW702	92LSWICH1401AT	J	AC	Switch,Key Type [CLOCK]
SW703	92LSWICH1401AT	J	AC	Switch,Key Type [TIMER]
SW709	92LSWICH1401AT	J	AC	Switch,Key Type [DISC 1]
SW710	92LSWICH1401AT	J	AC	Switch,Key Type [DISC 2]
SW711	92LSWICH1401AT	J	AC	Switch,Key Type [DISC 3]
SW712	92LSWICH1401AT	J	AC	Switch,Key Type [DISC SKIP]
SW713	92LSWICH1401AT	J	AC	Switch,Key Type [OPEN/CLOSE]
SW714	92LSWICH1401AT	J	AC	Switch,Key Type [DIMMER]
SW715	92LSWICH1401AT	J	AC	Switch,Key Type [X-BASS/MEMO]
SW716	92LSWICH1401AT	J	AC	Switch,Key Type [EQUALIZER]
SW722	92LSWICH1401AT	J	AC	Switch,Key Type [CD]
SW723	92LSWICH1401AT	J	AC	Switch,Key Type [TAPE]
SW724	92LSWICH1401AT	J	AC	Switch,Key Type [TUNING DOWN]
SW725	92LSWICH1401AT	J	AC	Switch,Key Type [MEMORY/SET]
SW726	92LSWICH1401AT	J	AC	Switch,Key Type [PRESET DOWN]
SW727	92LSWICH1401AT	J	AC	Switch,Key Type [PREST UP]
SW728	92LSWICH1401AT	J	AC	Switch,Key Type [PLAY]
SW729	92LSWICH1401AT	J	AC	Switch,Key Type [STOP]
SW730	92LSWICH1401AT	J	AC	Switch,Key Type [REV PLAY]
SW731	92LSWICH1401AT	J	AC	Switch,Key Type [REC/PAUSE]
SW732	92LSWICH1401AT	J	AC	Switch,Key Type [TUNING UP]
SW733	92LSWICH1401AT	J	AC	Switch,Key Type [VIDEO/AUX]
SW734	92LSWICH1401AT	J	AC	Switch,Key Type [TUNER]
SW735	92LSWICH1401AT	J	AC	Switch,Key Type [REV MODE]
⚠SW801	QSOCE0008AWZZ	J	AH	Switch,Slide Type [Voltage Selector]
WT601	QCNCW012EAWZZ	J	AC	Plug,5Pin

CD MECHANISM PARTS

301	NGERH0011AWZZ	J	AC	Gear,Middle
302	NGERH0012AWZZ	J	AC	Gear,Drive
303	MLEVP0080AWZZ	J	AC	Rail,Guide
304	NSFTM0020AWFW	J	AD	Shaft,Guide
305	92LM-CUSN1524A	J	AC	Cushion
⚠306	92LHPC1LXASY	J	BD	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	92LMTR2790CASY	J	BB	Motor with Chassis [Spindle]
M2	92LMTR1854BASY	J	AP	Motor with Gear [Sled]
SW4	QSW-F9001AW01	J	AD	Switch,Leaf Type [Pickup In]

CABINET PARTS

201	92LCAB3338AASY	J		Front Cabinet Ass'y [BP2000W]
201	92LCAB3339AASY	J		Front Cabinet Ass'y [BK2000W]
201	92LCAB3341AASY	J		Front Cabinet Ass'y [BP210W]
201	92LCAB3342AASY	J		Front Cabinet Ass'y [BK210W]
201	92LCAB3349AASY	J		Front Cabinet Ass'y [BP2000A]
201- 1	————		—	Front Panel (Not Replacement Item)
201- 2	GDORF0074AWSA	J	AE	Holder,Cassette,Tape 1
201- 3	GDORF0075AWSA	J	AE	Holder,Cassette,Tape 2
201- 4	GCOVA1251AWSA	J	AH	Cover,Cassette,Tape 1
201- 5	GCOVA1298AWSA	J	AE	Cover,Cassette,Tape 2
201- 6	HDECQ0521AWSA	J	AD	Panel,Cassette,Tape 1
201- 7	HDECQ0522AWSA	J	AD	Panel,Cassette,Tape 2
201- 8	HDECQ0579AWSA	J		Panel,Amp [BP2000A/BP2000W]
201- 8	HDECQ0583AWSA	J		Panel Amp [BP210W]
201- 8	HDECQ0584AWSA	J		Panel Amp [BK210W]
201- 8	HDECQ0585AWSA	J		Panel,Amp. [BK2000W]
201- 9	HDECQ0566AWSA	J		Decoration Plate
201-10	JKNBZ0665AWSA	J	AF	Knob,Disc Control
201-11	JKNBZ0683AWSA	J	AG	Knob,Center Operation
201-12	JKNBZ0714AWSA	J	AF	Knob,On/Stand-By/Clock
201-13	JKNBZ0658AWSA	J	AF	Knob,Function,A
201-14	JKNBZ0659AWSA	J	AF	Knob,Function,B
201-15	JKNBZ0660AWSA	J	AF	Knob,Tuning
201-16	JKNBZ0661AWSA	J	AE	Knob,Dimmer
201-17	HDECQ0525AWSA	J	AC	Volume Ring
201-19	GCOVA1256AWSA	J	AB	Cover,LED,Preset
201-20	GCOVA1258AWSA	J	AB	Cover,LED,Power
201-21	MLIFP0008AWZZ	J	AD	Damper
201-22	MSPRD0138AWFJ	J		Spring,Cassette,Tape 1
201-23	MSPRD0127AWFJ	J	AB	Spring,Cassette,Tape 2
201-24	92LBADGE1671A	J	AC	Badge,SHARP
201-25	GCOVA1277AWSA	J	AB	Cover,LED,Operation
201-26	PSHEM0008AWZZ	J		Sheet,Shield
201-27	GCOVA1260AWSA	J	AB	Cover,LED,Disc Control A
201-28	GCOVA1275AWSA	J	AB	Cover,LED,Disc Control B
201-29	GCOVA1276AWSA	J	AB	Cover,LED,Disc Control C
201-30	PSHEP0042AWZZ	J		Spacer,Operation Knob A
201-31	PSHEP0043AWZZ	J		Spacer,Operation Knob B
202	92LCAB3303BASY	J		Side Panel Ass'y,Left
202- 1	————		—	Side Panel,Left (Not Replacement Item)
202- 2	PCUSG0022AWZZ	J	AB	Cushion,Leg
203	92LCAB3303CASY	J		Side Panel Ass'y,Right
203- 1	————		—	Side Panel,Right (Not Replacement Item)
203- 2	PCUSG0022AWZZ	J	AB	Cushion,Leg
204	92LCOV3303AASY	J		CD Tray Cover Ass'y
204- 1	————		—	Cover,CD Tray (Not Replacement Item)
204- 2	GCOVA1254AWSA	J	AE	Cover,CD Tray Panel,Left
204- 3	GCOVA1255AWSA	J	AE	Cover,CD Tray Panel,Right
205	GCAB-1184AWSA	J	AP	Top Cabinet
206	GITAR0586AWSA	J		Rear Panel [BP2000W]
206	GITAR0595AWSA	J		Rear Panel [BP210W]
206	GITAR0587AWSA	J		Rear Panel [BK2000W]
206	GITAR0597AWSA	J		Rear Panel [BK210W]
206	GITAR0605AWSA	J		Rear Panel [BP2000A]
207	JKNBK0072AWSA	J	AE	Knob,Volume
208	LANGK0110AWFW1	J	AD	Bracket,Cassette Lock,Tape 1
209	LANGK0111AWFW1	J	AD	Bracket,Cassette Lock,Tape 2
210	LANGK0188AWFW	J	AF	Bracket,Fan Support
211	LANGT0042AWFW	J	AC	Bracket,PWB Support A
212	LBSHC0002AWZZ	J	AD	Bushing,AC Power Supply Cord
213	LCHSM0096AWFW	J	AR	Main Chassis
214	LHLDZ1242AWZZ	J	AE	Holder,FL Display
219	MLOKC0003AWZZ	J	AD	Lock Lever,Cassette,Tape 1
220	MLOKC0004AWZZ	J	AD	Lock Lever,Cassette,Tape 2
221	MSPRD0109AWFJ	J	AB	Spring,Cassette Lock,Tape 1
222	MSPRD0110AWFJ	J	AB	Spring,Cassette Lock,Tape 2
223	NFANP0001AWZZ	J	AD	Rotary Fan
224	92LPT0331105	J	AM	Turntable
225	PCUSG0022AWZZ	J	AB	Cushion,Leg
226	PRDAR0149AWFW	J	AP	Heat Sink,Main
227	PRDAR0150AWFW	J	AS	Heat Sink,Sub,A

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
228	PRDAR0167AWFW	J		Heat Sink,Sub,B
⚠229	QACCA0003AW00	J		AC Power Supply Cord [For Saudi Arabia]
⚠229	QACCB0011AW00	J		AC Power Supply Cord [Hong Kong]
⚠229	QACCE0010AW00	J	AK	AC Power Supply Cord [Except for Taiwan/Saudi Arabia]
⚠229	QACCJ0007AW00	J		AC Power Supply Cord [For Taiwan]
⚠229	QACCL0005AW00	J	AN	AC Power Supply Cord [BP2000A/BP210W For Australia/New Zealand]
⚠229	QACCZ0007AW00	J		AC Power Supply Cord [BP2000W For Argentine]
230	QCNWN1615AWZZ	J	AC	Lug Wire [BP2000W/BP2000A/BP210W]
230	QCNWN1654AWZZ	J		Lug Wire [BK2000W/BK210W]
⚠231	QFSHD0001AWZZ	J	AB	Holder,Fuse
232	92LBE241414	J	AD	Belt
233	92LCSPR1431C	J	AA	Spring,Ring
234	92LEVA0330702	J		Velvet Carpet,Cushion
235	92LMAG0104302	J		Magnet
237	92LNBAND1318A	J	AA	Nylon Band,80mm
238	92LNM0305401	J		Velvet Carpet
239	92LPT0303002	J	AB	Roller
240	92LPT0304303	J	AB	Lever,Stop
241	92LPT0304304	J		Stopper
242	92LPT0304305	J	AE	Lever,Lock
243	92LPT0304306	J		Stabilizer
244	92LPT0304307	J	AC	Support,Cam
245	92LPT0304308	J		Lock Gear Pin
246	92LPT0304309	J		Cap,Pulley Stopper
247	92LPT0305413	J		Cam Gear Lower
248	92LPT0309506	J	AD	Gear,Turntable Drive
249	92LPT0309507	J	AD	Gear,Open/Close Drive
250	92LPT0309508	J	AD	Gear,Planet
251	92LPT0309509	J	AD	Gear,Drive
252	92LPT0309510	J	AE	Gear,Pulley
253	92LPT0309511	J	AD	Gear,Middle
254	92LPT0311101	J	AB	Lever,Clamp
255	92LPT0311102	J	AC	Lever,Disc
256	92LPT0312005	J		Gear,Cam
257	92LPT0320201	J	AE	Support,Stabilizer
258	92LPT0330301	J	AU	Chassie
259	92LPT0330803	J	AK	CD,Chassis
260	92LPT0331003	J	AT	Chassis,Slide
262	92LSP0304303	J		Spring,Stopper
263	92LSP0304305	J	AB	Spring,Lock Lever
264	92LSP0304306	J		Spring,Lock Gear
265	KMECB0013AWZZ	J	BK	Tape Mechanism Ass'y
266	92LMT0304302	J		Metal Plate
267	LANGK0189AWFW	J	AC	Support Bracket,Sub Heat Sink A
268	LANGK0208AWFW	J		Bracket,PWB Support B
269	92LCAUT1706A1	J	AC	Label,Class 3A Laser
270	92LCAUT1706B	J	AA	Label,Laser
271	JKNBK0012AWSG	J	AK	Knob,Karaoke [BK2000W/BK210W Only]
272	LHLDZ1252AWZZ	J		Holder,LED,Disc No.
273	LHLDZ1253AWZZ	J		Holder,LED,Operation
601	XBBSD20P04000	J	AA	Screw,ø2×4mm
604	XEBSF30P12000	J	AA	Screw,ø3×12mm
605	XESSD30P10000	J	AA	Screw,ø3×10mm
606	XHBSD26P04000	J	AA	Screw,ø2.6×4mm
607	XHBSD30P06000	J	AA	Screw,ø3×6mm
608	XJBSD30P10000	J	AA	Screw,ø3×10mm
609	XJBSD30P14000	J	AA	Screw,ø3×14mm
611	XJSSD30P10000	J	AA	Screw,ø3×10mm
612	LX-BZ2222AXZZ	J		Screw,Special
613	LX-HZ0082AFZZ	J	AA	Screw,ø4×8mm
614	LX-JZ0010AFFD	J	AA	Screw,ø3×10mm
615	LX-JZ0022AFFD	J	AA	Screw,ø3×10mm
616	92LSC0308MBZI	J	AB	Screw,ø3×8mm

ACCESSORIES/PACKING PARTS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
	QANTL0008AWZZ	J	AH	AM Loop Antenna
⚠	QPLGA0003AWZZ	J	AF	Adaptor,AC Plug [For Asia/Middle and Near East/Africa/Saudi Arabia]
⚠	QPLGA0004AWZZ	J	AF	Adaptor,AC Plug [Except for Asia/Middle and Near East/Africa/Saudi Arabia]
	SPAKA0236AWZZ	J		Packing Add.,Left/Right
	SPAKC0998AWZZ	J		Packing Case [BP210W,For Australia/New Zealand]
	SPAKC0999AWZZ	J		Packing Case [BP210W,Except for Australia/New Zealand]
	SPAKC1001AWZZ	J		Packing Case [BK210W]
	SPAKC1002AWZZ	J		Packing Case [BP2000A]
	SPAKC1003AWZZ	J		Packing Case [BP2000W,Except for Turkey]
	SPAKC1026AWZZ	J		Packing Case [BK2000W]
	SPAKC1050AWZZ	J		Packing Case [BP2000W,For Turkey Only]
	SPAKP0013AWZZ1	J	AC	Polyethylene Bag,Unit
	SPAKZ0507AWZZ	J	AB	Protection Sheet
	SPAKZ0610AWZZ	J		Center Pad
	TCAUA0049AWZZ	J		Caution Sheet [For Taiwan]
	TCAUS0019AWZZ	J	AD	Label,Warning [Except for BK2000A,For Thailand]
	TCAUS0042AWZZ	J	AB	Caution,Energy Star
	TGANE0011AW39	J		Warranty Card [BP2000W,For Philippines]
	TGANE0011AW43	J		Warranty Card [BK2000W,For Philippins]
	TGANE0011AW44	J		Warranty Card [BP210W,For Philippines]
	TGANE0011AW45	J		Warranty Card [BK210W,For Philippines]
	TGANZ0028AW43	J		Warranty Card [BP2000W,For Taiwan]
	TGANZ0028AW48	J		Warranty Card [BK2000W,For Taiwan]
	TGANZ0028AW49	J		Warranty Card [BK210W,For Taiwan]
	TGANZ0028AW50	J		Warranty Card [BP210W,For Taiwan]
	TINST0068AWZZ	J		Operation Manual [BP2000W,For Thailand]
	TINST0073AWZZ	J		Operation Manual [BK2000W,For Thailand]
	TINST0074AWZZ	J		Operation Manual [BP210W,For Thailand]
	TINST0075AWZZ	J		Operation Manual [BK210W,For Thailand]
	TINSZ0545AWZZ	J		Operation Manual [BP2000W/BP210W,Except for Thailand/Australia/New Zealand]
	TINSZ0563AWZZ	J		Operation Manual [BK2000W/BK210W,Except for Thailand]
	TINSZ0565AWZZ	J		Operation Manual [BP210W For Australia/New Zealand]
	TINSZ0575AWZZ	J		Operation Manual [BP2000A]
	TLABB0001AWZZ	J	AB	Label,SHARP Corporation Japan [BK2000W/BP2000W/BK210W/BP210W]
	TLABE0391AWZZ	J		Label,Bar Code [BP2000W,For Union of Arab Emirates/Thiland/Taiwan]
	TLABE0392AWZZ	J		Label,Bar Code [BK2000W,For Union of Arab Emirates/Thiland/Taiwan]
	TLABE0393AWZZ	J		Label,Bar Code [BP210W,For Australia/New Zealand/Thiland/Taiwan]
	TLABE0394AWZZ	J		Label,Bar Code [BK210W,For Thiland/Taiwan]
	TLABE0397AWZZ	J		Label,Bar Code [BP2000W,For Malaysia/Turkey]
	TLABE0398AWZZ	J		Label,Bar Code [BK2000W,For Malaysia/Turkey]
	TLABE0399AWZZ	J		Label,Bar Code [BP210W,For Malaysia]
	TLABE0400AWZZ	J		Label,Bar Code [BK210W,For Malaysia]
	TLABE0413AWZZ	J		Label,Bar Code [BP2000A]
	TLABG0002AWZZ	J	AB	Label,Hong Kong
	TLABG0006AWZZ	J	AB	Label,Carton [BP2000W,For Argentine]

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
	TLABN0112AWZZ	J		Label,Serlal Number [BK2000W/A]
	TLABR1092AWZZ	J		Label,Bar Code [BP2000W,For Central & South America/Chile/Argentine]
	TLABS0256AWZZ	J		Label,Safety [BK2000W/ BP2000W/BK210W/ BP210W,For Hong Kong]
	TLABZ0620AWZZ	J	AB	Label,Saving Energy (Set)
	TLABZ0714AWZZ	J		Label,Feature,Tape 2 [Except for BP2000A]
	TLABZ0714AWZZ	J		Label,Feature,Tape 2 [BP2000A]
	TLABZ0725AWZZ	J		Label,Feature,Tape 1 [BP2000A,Except for Australia/ New Zealand/Turkey]
	TLABZ0727AWZZ	J		Label,Carton [BP2000W,For Taiwan Only]
	TLABZ0743AWZZ	J		Label,Corton [BK2000W,For Taiwan Only]
	TLABZ0754AWZZ	J		Label,Carton [BP210W,For Taiwan Only]
	TLABZ0758AWZZ	J		Label,Carton [BK210W,For Taiwan Only]
	TLABZ0776AWZZ	J		Label,Feature,Tape 1 [BP2000A/BP210W,For Australia/New Zealand/Turkey]
	92LBAG1460C1	J	AB	Polyethylene Bag,Accessories
	92LBAG1770A	J	AB	Polyethylene Bag,AC Cord
	92LBAG760C	J	AA	Polyethylene Bag,Plug
	92LFANT1746A	J	AD	FM Antenna
	92LGCARD1266E1	J	AC	Warranty Card [BP2000A/BP210W,For Australia]
	92LLABL1507B	J	AA	Label,Made in Malaysia [BP2000W/BP210W]
	92LPANEL713A	J	AB	Panel Made in Malaysia [BK2000W/BK210W/BP2000W/ BP210W]
1	RRMCG0221AWSA	J	AR	Remote Control [BP2000A/BP2000W/BP210W]
1	RRMCG0223AWSA	J	AS	Remote Control [BK2000W/BK210W]
1- 1	GFTAB1022AWSB	J	AK	Battery Lid,Remote Control

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

PWB-A1~3	92LPWB3338MANS	J	—	Main/Display/Headphones (Combined Ass'y) [BP2000A/ BP2000W/BP210W]
PWB-A1~3	92LPWB3339MANS	J	—	Main/Display/Headphones (Combined Ass'y) [BK2000W/ BK210W]
PWB-B	92LPWB3338PWRS	J	—	Power Supply [BP2000A/BP2000W/BP210W]
PWB-B	92LPWB3339PWRS	J	—	Power Supply [BK2000W/BK210W]
PWB-C	92LPWB3303CDUS	J	—	CD Servo
PWB-D	QPWBF0027AWZZ	J	AD	CD Motor (PWB Only)
PWB-E	————			Tape Mechanism
PWB-F	92LPC99C017	J		CD Loading Motor (PWB Only)
PWB-G	92LPWB3352MICS	J	—	Mic

OTHER SERVICE PART

	UDSKA0004AFZZ	J	AZ	CD Optical Pickup Lens Cleaner Disc

CP-BP2000

SPEAKER BOX PARTS

901	92L200L0200030	J		Front Panel Ass'y,Left
902	92L200R0200030	J		Front Panel Ass'y,Right
903	92L20100200010	J		Net Fram Ass'y
905	92L100L2200010	J		Speaker Box Ass'y,Left (With Speaker Cord)
906	92L100R2200010	J		Speaker Box Ass'y,Right (With Speaker Cord)
907	92L600A2000W00	J		Label,Specification
908	92L44290510900	J		Felt
909	92L44190210300	J	AC	Cushion,Foot
911	92L314A2000W10	J		Tweeter Cord (With Capacitor C1,C2)
912	92L23036099000	J		Catching Holder
913	92L411B840160P1	J		Screw,ø4×16mm
915	92L411B930100P1	J		Screw,ø3×10mm
916	92L411B840200P1	J		Screw,ø4×20mm
917	92L203L0200010	J		Panel, Port, Left
918	92L203R0200010	J		Panel, Port,Right
919	92L2160020SW00	J		Ring, Sub Woofer
920	92L2160020WF00	J		Ring, Woofer
SP1,2	92L303R0300610	J	AH	Super Tweeter
SP3,4	VSP0051TBN36A	J	AQ	Tweeter
SP5,6	VSP0013WB496A	J		Woofer
SP7,8	VSP0013WB506A	J		Sub Woofer
SP9,10	92L303R0300610	J		Super Tweeter

PACKING PARTS

92L70032001210	J		Polyethylene Bag,Speaker
92L72002000W00	J		Packing Add.

CP-BP210

SPEAKER BOX PARTS

901	92L200L0210030	J	BB	Front Panel Ass'y,Left
902	92L200R0210030	J	BB	Front Panel Ass'y,Right
903	92L20100210010	J		Net Fram Ass'y
905	92L100L2210W10	J	BK	Speaker Box Ass'y,Left (With Speaker Cord)
906	92L100R2210W10	J	BK	Speaker Box Ass'y,Right (With Speaker Cord)
907	92L600PBP21000	J		Label,Specification
913	92L411B840160P	J		Screw,ø4×16mm
914	92L411B930100P	J	AC	Screw,ø3×10mm
915	92L411F830100P	J		Screw,ø3×10mm
916	92L411B830120P	J	AB	Screw,ø3 ×12mm
SP1,2	92L303R0300810	J	AH	Super Tweeter
SP3,4	VSP0051TBN36A	J	AQ	Tweeter
SP5,6	VSPA010WB186A	J	AX	Woofer
SP7,8	VSP0016WBF26A	J	BA	Sub Woofer

PACKING PARTS

92L70032002210	J		Polyethylene Bag,Speaker
92L7200A210000	J		Packing Add.

CP-BP2000A

SPEAKER BOX PARTS

901	92L200L0A20030	J		Front Panel Ass'y,Left
902	92L200R0A20030	J		Front Panel Ass'y,Right
903	92L201L0A20010	J	AR	Net Frame Ass'y,Left
904	92L201R0A20010	J	AR	Net Frame Ass'y,Right
905	92L100L2000A10	J	BE	Speaker Box Ass'y,Left (With Speaker Cord)
906	92L100R2000A10	J	BE	Speaker Box Ass'y,Right (With Speaker Cord)
907	92L6000BA20000	J		Label,Specification
908	92L44290510900	J		Felt
909	92L44190210300	J	AC	Cushion,Foot
910	92L44010214100	J	AC	Port Cushion
911	92L314CBA20010	J	AH	Speaker Cord Ass'y (With Capacitor C1,C2)
912	92L23036099030	J		Catching Holder
913	92L411B840160P1	J		Screw,ø4×16mm
914	92L411P140200P1	J		Screw,ø4×20mm
915	92L411F930100P1	J		Screw,ø3×10mm
SP1,2	92L303R0300810	J	AH	Super Tweeter
SP3,4	VSP0051TBN36A	J	AQ	Tweeter
SP5,6	VSP0013WB466A	J	AX	Woofer
SP7,8	VSP0013WB476A	J	AY	Sub Woofer

PACKING PARTS

92L74231005300	J		Layer Pad
92L70032002510	J		Polyethylene Bag,Speaker

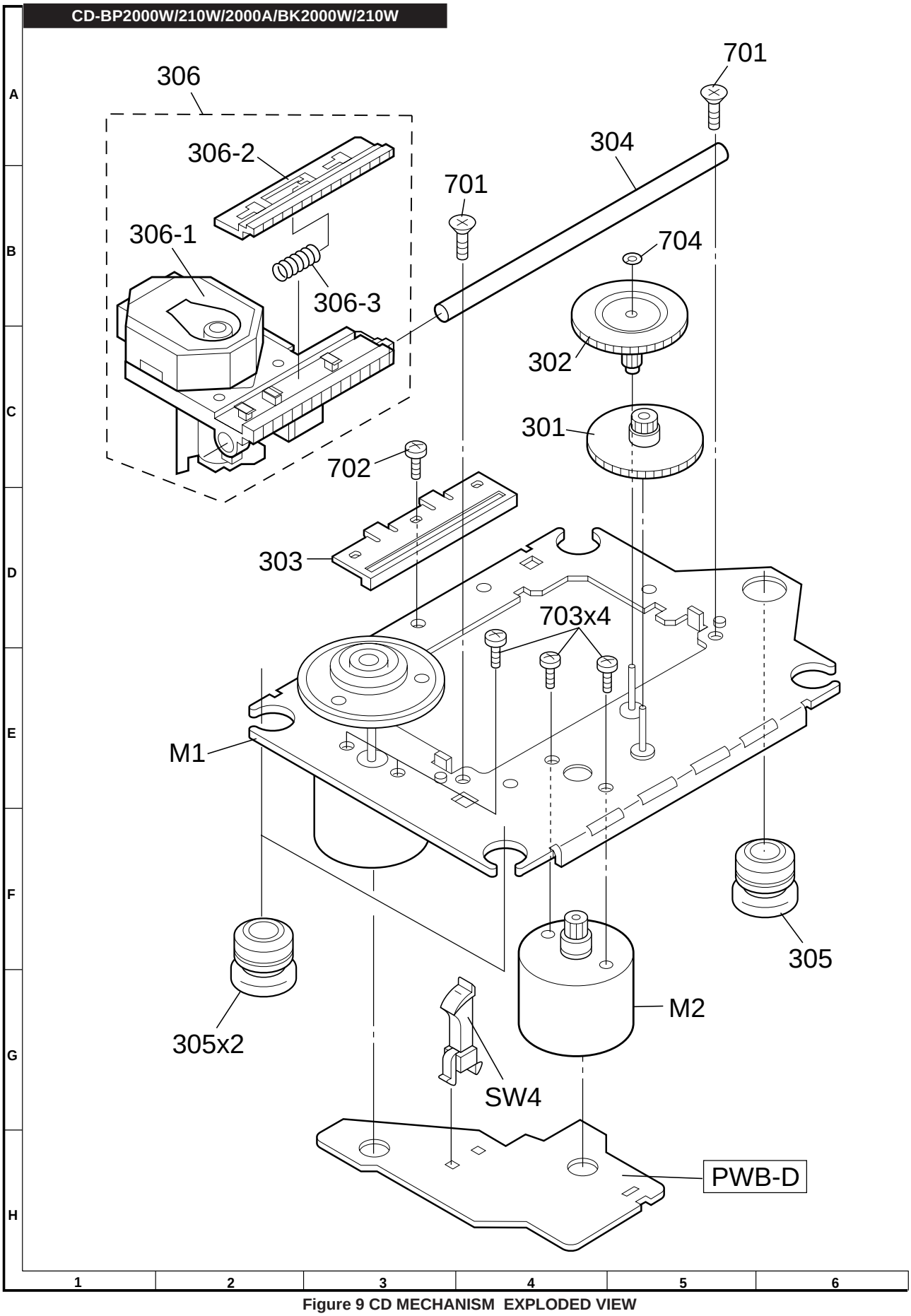
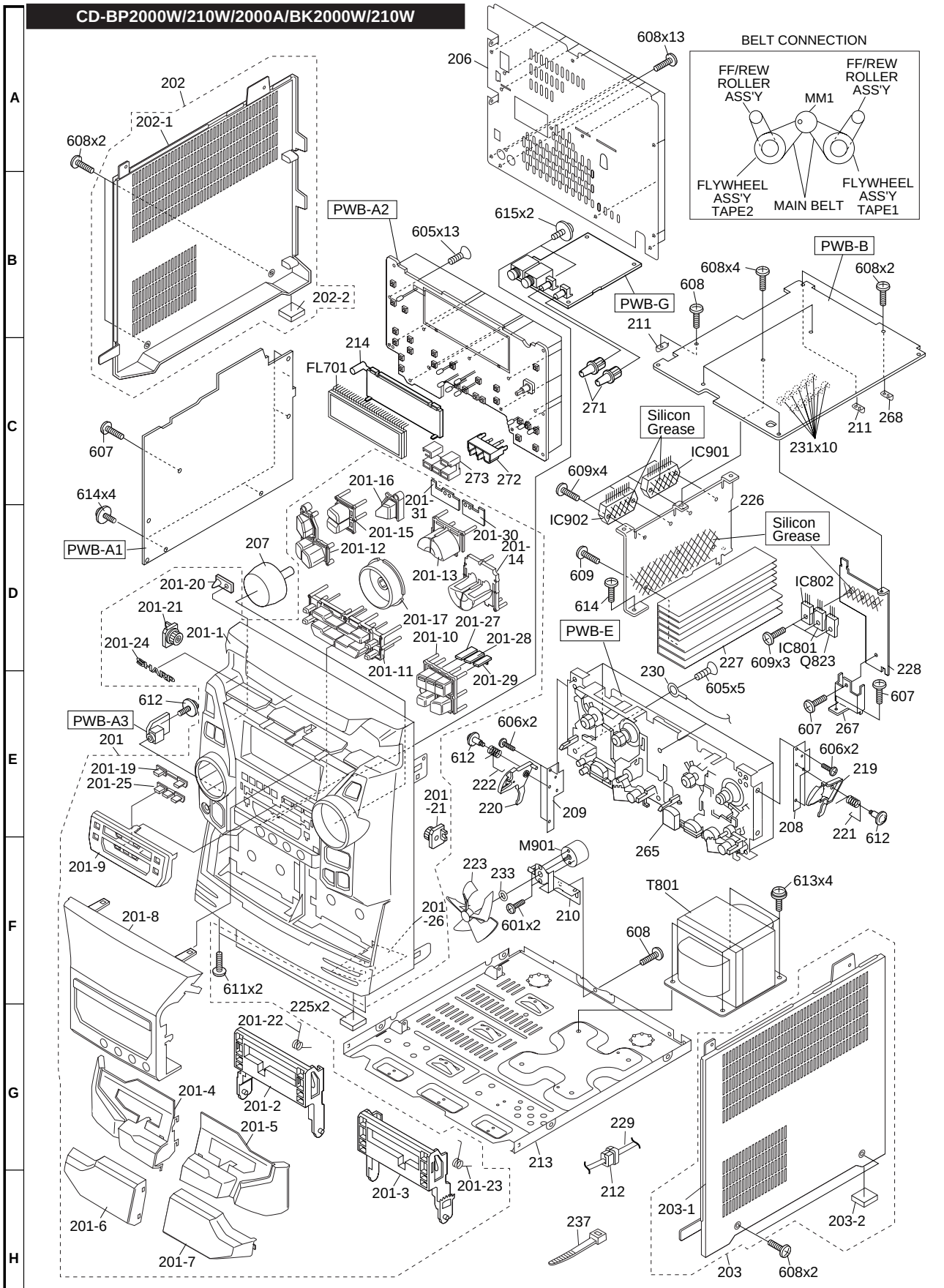


Figure 9 CD MECHANISM EXPLODED VIEW



Note: Only tape mechanism assembly and consumable parts are supplied for replacement purposes.

Figure 10 CABINET EXPLODED VIEW (1/2)

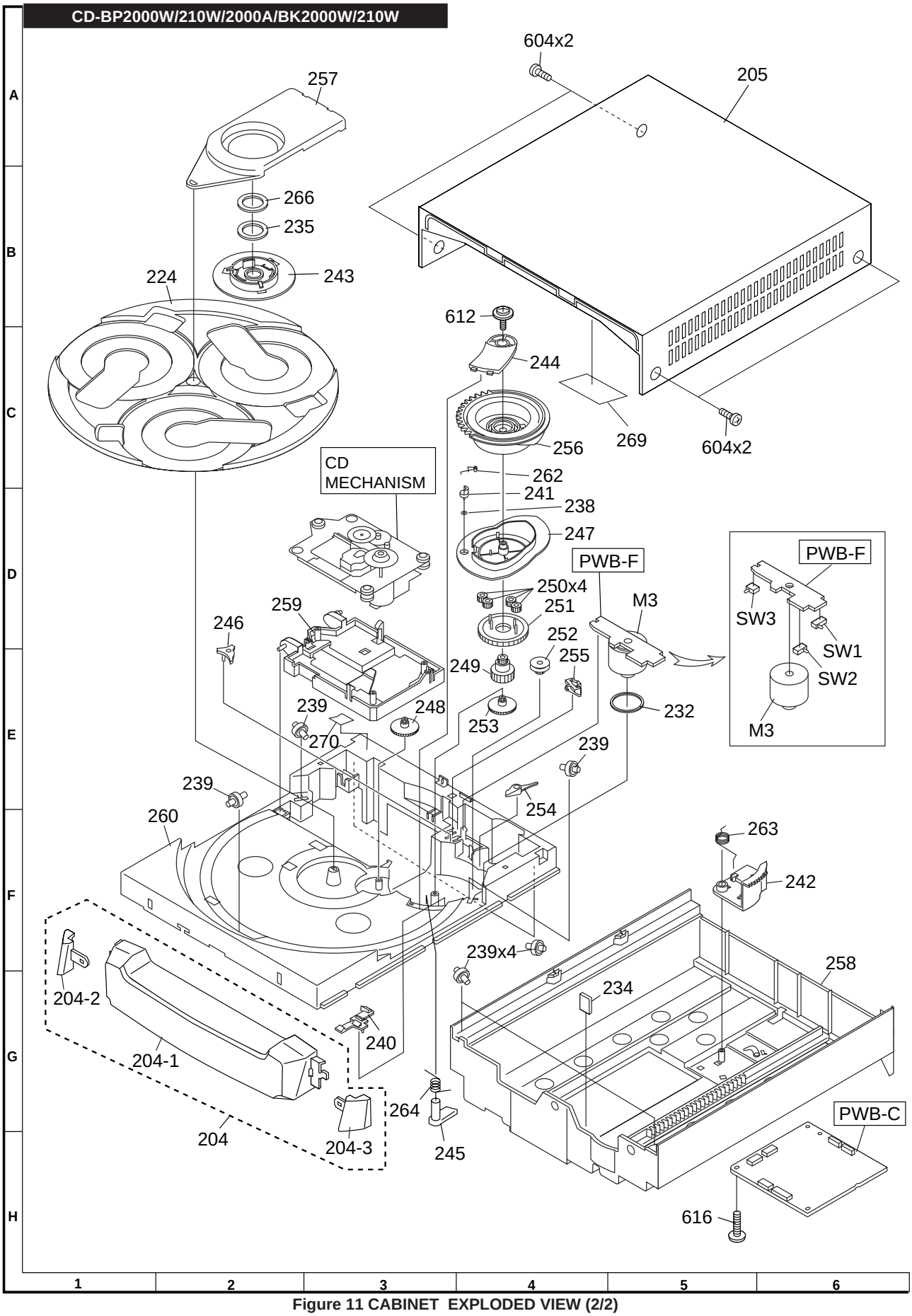


Figure 11 CABINET EXPLODED VIEW (2/2)

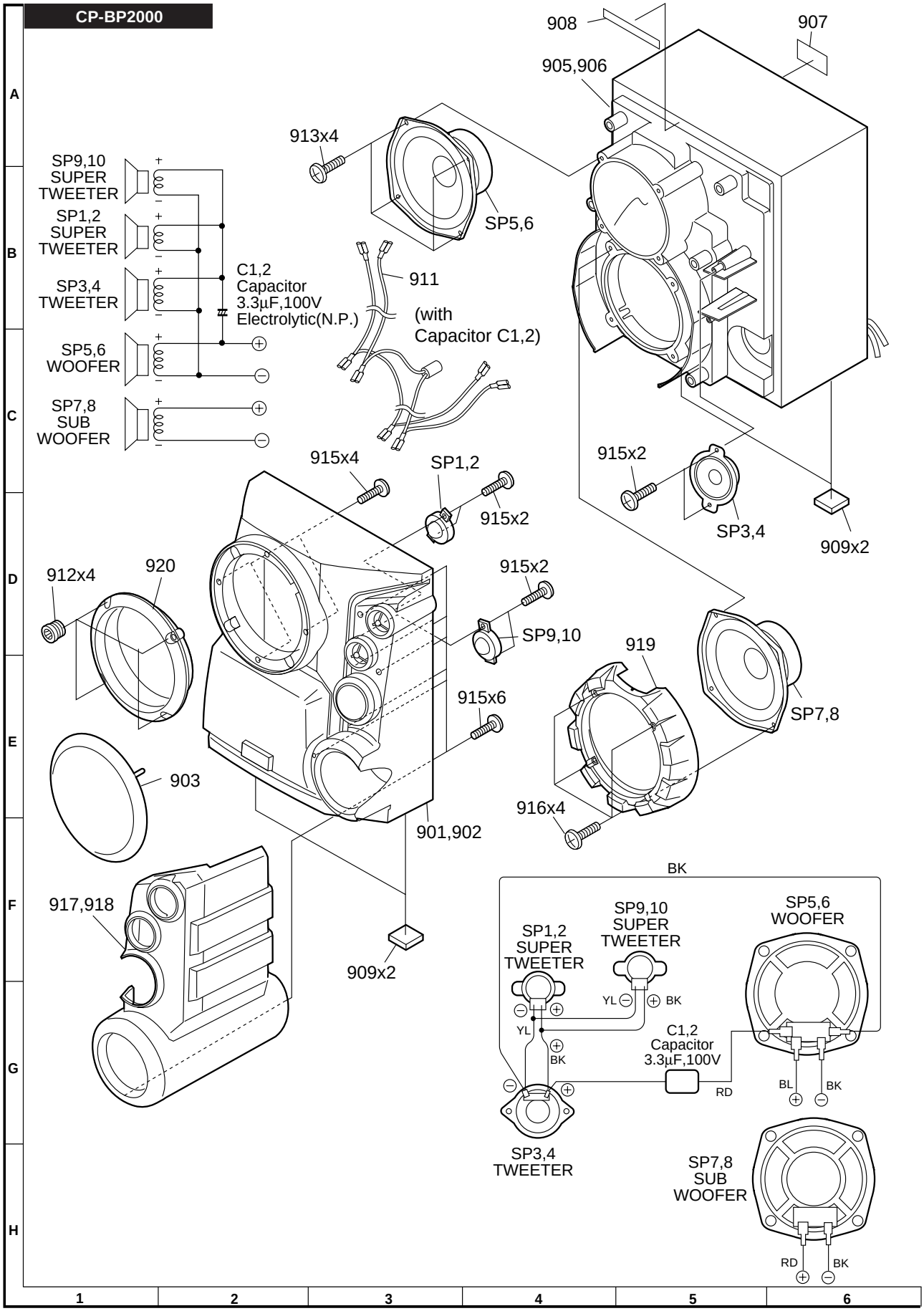


Figure 12 SPEAKER EXPLODED VIEW (1/3)

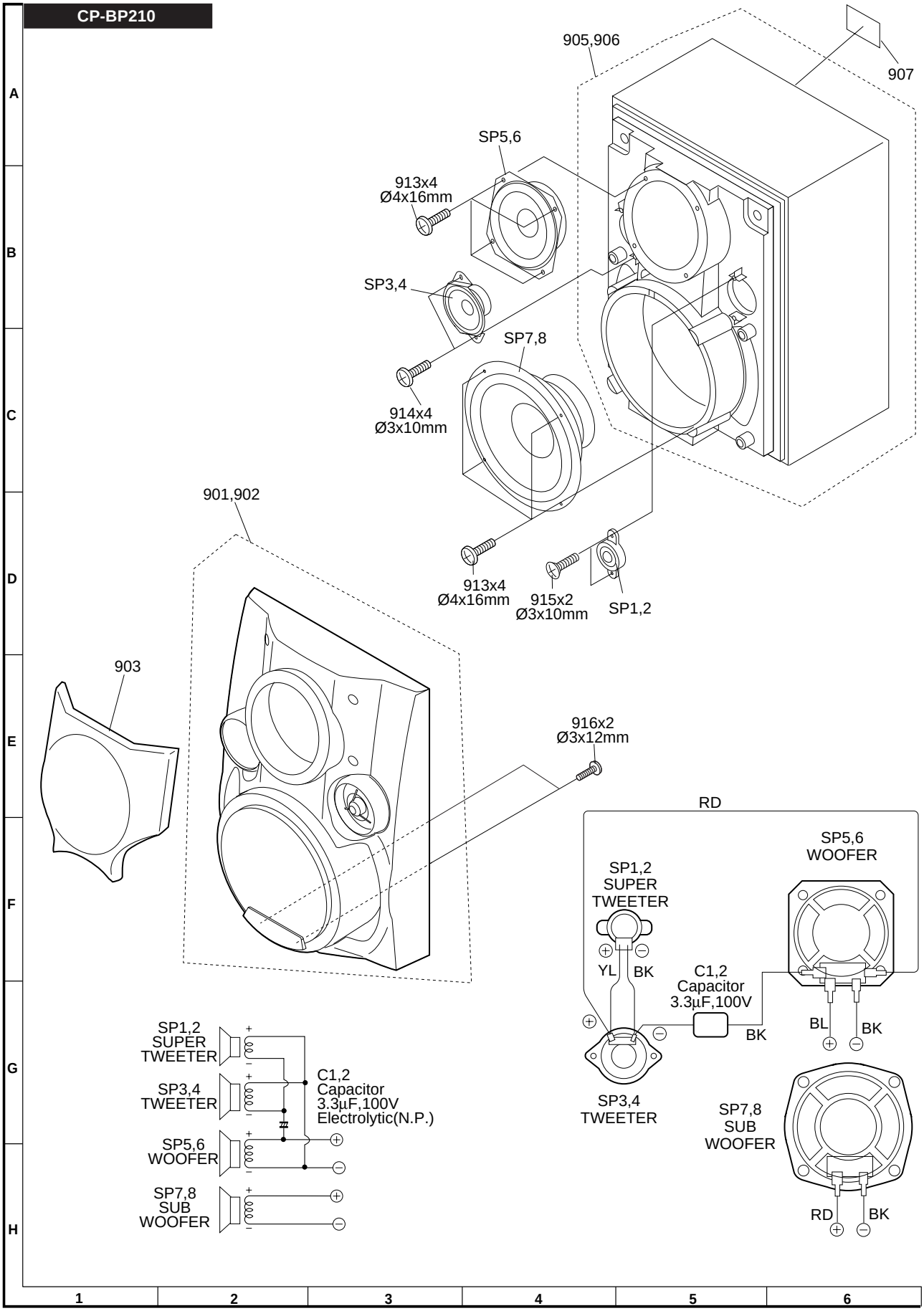


Figure 13 SPEAKER EXPLODED VIEW (2/3)

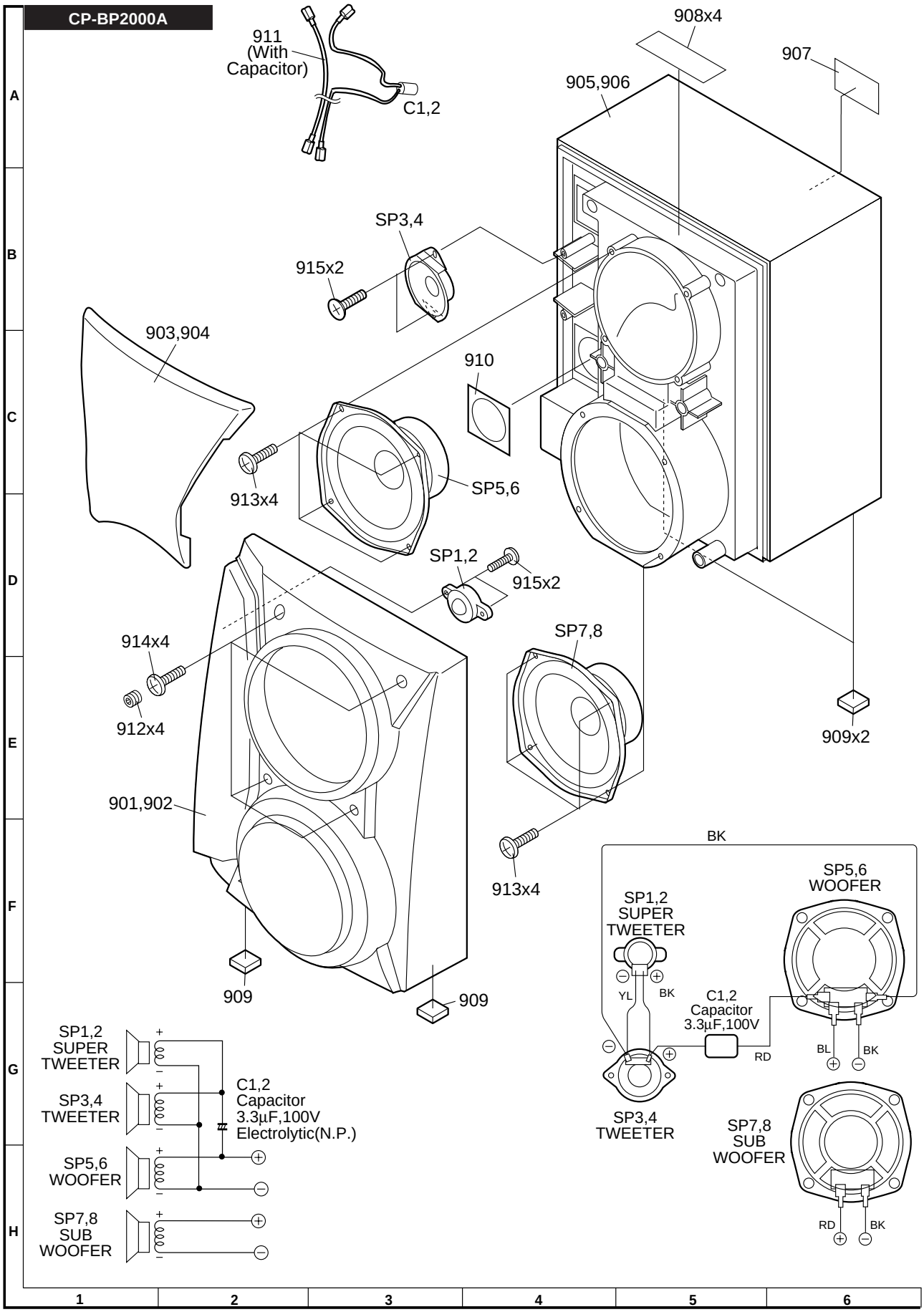


Figure 14 SPEAKER EXPLODED VIEW (3/3)

SHARP

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