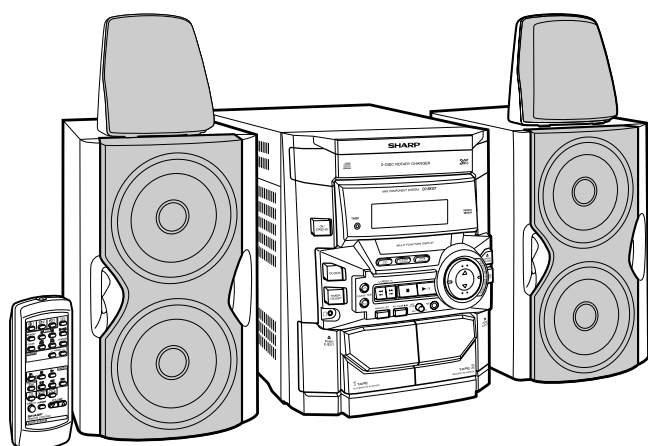


SHARP SERVICE MANUAL

No. SY179CDBK137W



MINI COMPONENT SYSTEM

MODEL CD-BK137W

CD-BK137W Mini Component System consisting of CD-BK137W (main unit), CP-BK137 (front speakers) and 92L2390137W010 (surround speakers).



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

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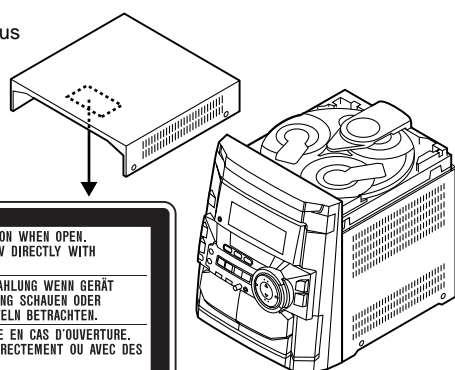
SAFETY PRECAUTION FOR SERVICE MANUAL

WARNINGS

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

- 1-WHEN THE CABINET IS REMOVED, THE POWER IS TURNED ON WITHOUT A COMPACT DISC IN POSITION AND THE PICKUP IS ON THE OUTER EDGE THE LASER WILL LIGHT FOR SEVERAL SECONDS TO DETECT A DISC. DO NOT LOOK INTO THE PICKUP LENS.
- 2-THE LASER POWER OUTPUT OF THE PICKUP UNIT AND REPLACEMENT SERVICE PARTS ARE ALL FACTORY PRESET BEFORE SHIPMENT.
DO NOT ATTEMPT TO READJUST THE LASER PICKUP UNIT DURING REPLACEMENT OR SERVICING.
- 3-UNDER NO CIRCUMSTANCES STARE INTO THE PICKUP 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.

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



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

SPECIFICATIONS

CD-BK137W

General

Power source	AC 110/127/220/230 - 240 V, 50/60 Hz
Power consumption	82 W
Dimensions	Width: 270 mm (10-5/8") Height: 300 mm (11-4/5") Depth: 344 mm (13-1/2")
Weight	6.2 kg (13.7 lbs.)

Amplifier

Output power	MPO: 104 W (52 W + 52 W) (10 % T.H.D.) RMS: 66 W (33 W + 33 W) (10 % T.H.D.)
Output terminals	Front speakers: 8 ohms Surround speakers: 16 ohms Headphones: 16 - 50 ohms (recommended: 32 ohms)

CD player

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

Tuner

Frequency range	FM: 88 - 108 MHz AM: 531 - 1,602 kHz
-----------------	---

Cassette deck

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-BK137

Type	Twin-Drive speaker system 10 cm (4") full-range speaker x 2
Maximum input power	66 W
Rated input power	33 W
Impedance	8 ohms
Dimensions	Width: 200 mm (7-9/10") Height: 300 mm (11-4/5") Depth: 229 mm (9")
Weight	2.9 kg (6.4 lbs.)/each

92L2390137W010

Type	8 cm (3-3/32") full-range speaker
Maximum input power	30 W
Rated input power	15 W
Impedance	16 ohms
Dimensions	Width: 150 mm (6") Height: 150 mm (6") Depth: 78 mm (3")
Weight	0.4 kg (0.9 lbs.)/each

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

NAMES OF PARTS

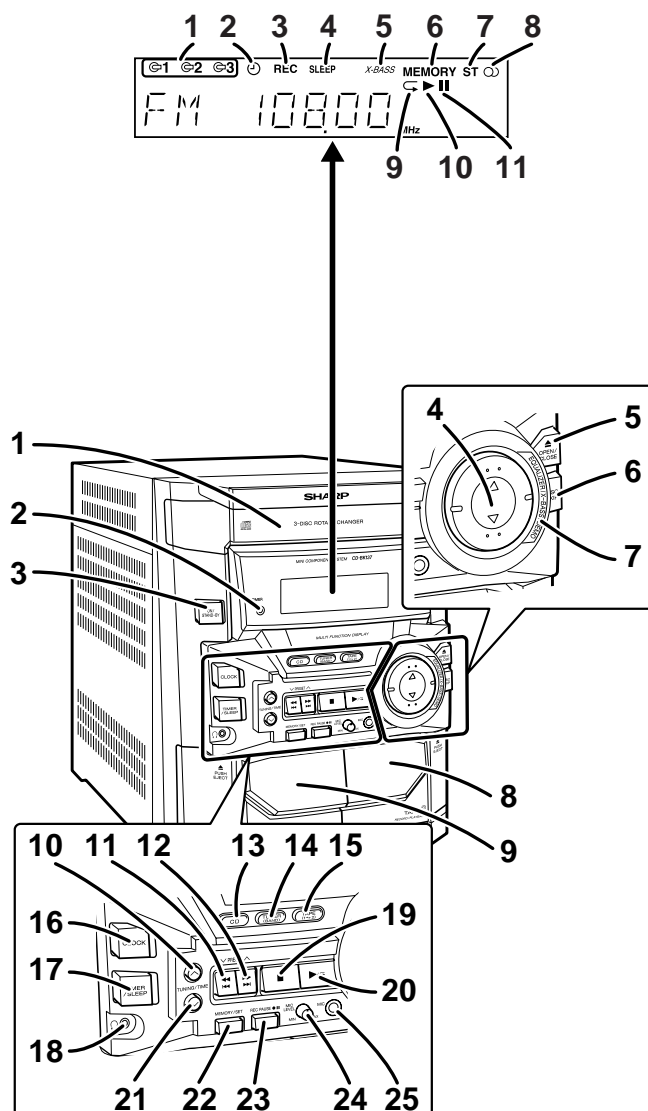
CD-BK137W

■ Display

1. Disc Number Indicators
2. Timer Indicator
3. Tape 2 Record Indicator
4. Sleep Indicator
5. Extra Bass Indicator
6. CD or Tuner Memory Indicator
7. FM Stereo Mode Indicator
8. FM Stereo Receiving Indicator
9. CD Repeat Play Indicator
10. CD or Tape Play Indicator
11. CD Pause Indicator

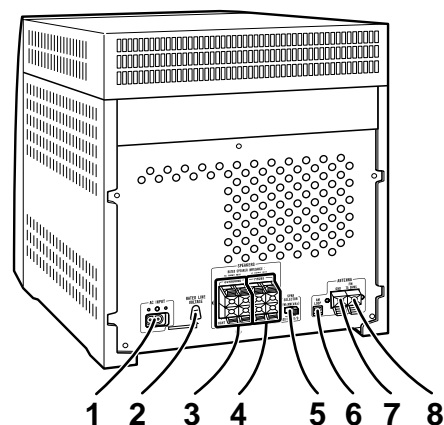
■ Front panel

1. Disc Tray
2. Timer Set Indicator
3. On/Stand-by Button
4. Volume Up and Down Buttons
5. Disc Tray Open/Close Button
6. Disc Skip Button
7. Equaliser Mode Select/Extra Bass/Demo Mode Button
8. Tape 2 Cassette Compartment
9. Tape 1 Cassette Compartment
10. Tuning and Time Up Button
11. CD Track Down or Fast Reverse, Tape 2 Rewind, Tuner Preset Down Button
12. CD Track Up or Fast Forward, Tape 2 Fast Forward, Tuner Preset Up Button
13. CD Button
14. Tuner (Band) Button
15. Tape (1 ~ 2) Button
16. Clock Button
17. Timer/Sleep Button
18. Headphone Socket
19. CD or Tape Stop Button
20. CD Play or Repeat, Tape Play Button
21. Tuning and Time Down Button
22. Memory/Set Button
23. Tape 2 Record Pause Button
24. Microphone Level Control
25. Microphone Socket



■ Rear panel

1. AC Power Input Socket
2. AC Voltage Selector
3. Surround Speaker Terminals
4. Front Speaker Terminals
5. Span Selector Switch
6. AM Loop Aerial Socket
7. FM Aerial Earth Terminal
8. FM 75 Ohms Aerial Terminal



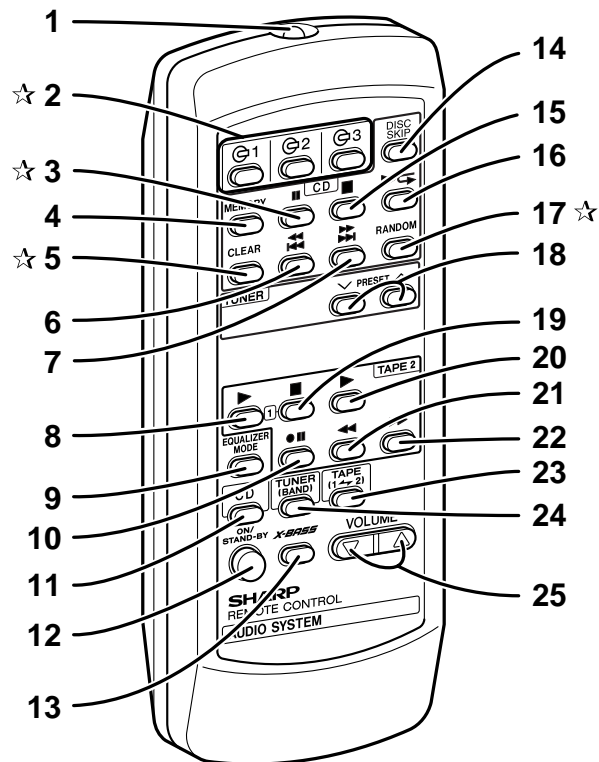
CD-BK137W

CD-BK137W

■ Remote control

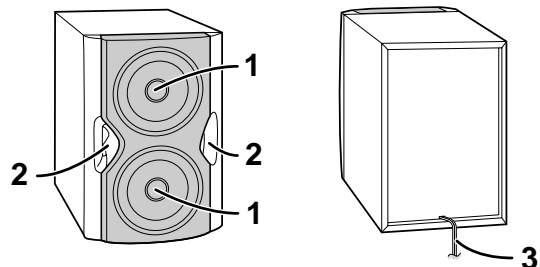
1. Remote Control Transmitter
2. Disc Number Select Buttons
3. CD Pause Button
4. CD Memory Button
5. CD Clear Button
6. CD Track Down or Fast Reverse Button
7. CD Track Up or Fast Forward Button
8. Tape 1 Play Button
9. Equaliser Mode Select Button
10. Tape 2 Record Pause Button
11. CD Button
12. On/Stand-by Button
13. Extra Bass Button
14. Disc Skip Button
15. CD Stop Button
16. CD Play or Repeat Button
17. CD Random Button
18. Tuner Preset Up and Down Buttons
19. Tape 1/Tape 2 Stop Button
20. Tape 2 Play Button
21. Tape 2 Rewind Button
22. Tape 2 Fast Forward Button
23. Tape (1 ~ 2) Button
24. Tuner (Band) Button
25. Volume Up and Down Buttons

Buttons with "☆" mark in the illustration can be operated on the remote control only.
Other buttons can be operated both on the main unit and the remote control.



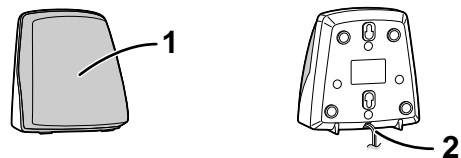
CP-BK137

1. Full-Range Speaker
2. Bass Reflex Duct
3. Speaker Wire



92L2390137W010

1. Full-Range Speaker
2. Speaker Wire



OPERATION MANUAL

System connections

■ Setting the AC voltage selector

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.

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).

■ Connecting the AC power lead

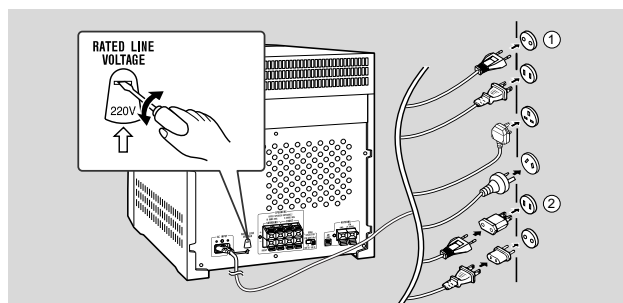
After making all connections, connect the AC power lead to the unit and then into the wall socket. If you plug in the unit first, it will enter the demonstration mode.

Notes:

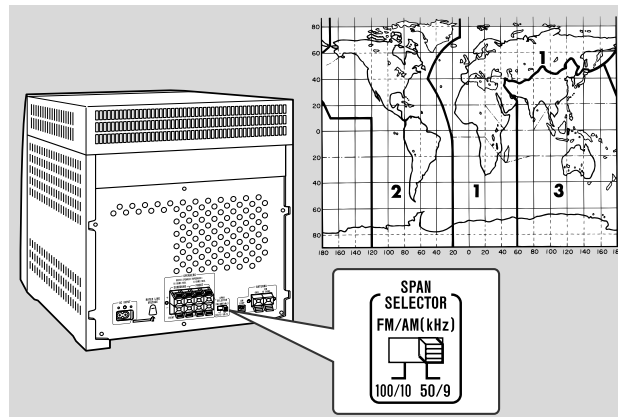
- Unplug the AC power lead from the AC socket if the unit will not be in use for a prolonged period of time.
- **Never use a power lead other than the one supplied. Use of a power lead other than the one supplied may cause an electric shock or fire.**

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 FM/AM span selector



The International Telecommunication Union (ITU) has established that member countries should maintain either a 100 kHz or a 50 kHz interval between broadcasting frequencies of FM stations and 10 kHz or 9 kHz for AM station. The illustration shows the 50/9 kHz zones (regions 1 and 3), and the 100/10 kHz zone (region 2).

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

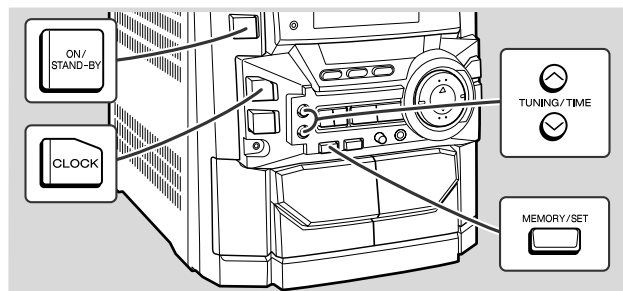
To change the tuning zone:

- 1 Press the ON/STAND-BY button to enter the stand-by mode.
- 2 Set the SPAN SELECTOR switch (on the rear panel) as follows.
 - For 50 kHz FM interval (9 kHz in AM) → 50/9
 - For 100 kHz FM interval (10 kHz in AM) → 100/10
- 3 Whilst pressing down the ►/◄ button and the EQUALIZER/X-BASS/DEMO button, press the ON/STAND-BY button until "CLEAR AL" appears.

Caution:

This operation will erase all data stored in memory including clock, timer settings, tuner preset, and CD programme.

Setting the clock



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

1 Press the ON/STAND-BY button to turn the power on.

2 Press the CLOCK button and within 5 seconds, press the MEMORY/SET button.



3 Press the TUNING/TIME (▼ or ▲) button to select 24-hour or 12-hour display and then press the MEMORY/SET button.



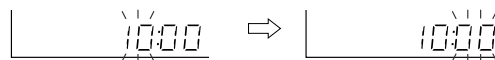
"0:00" → The 24-hour display will appear.
(0:00 - 23:59)

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

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

Note that this can only be set when the unit is first installed or it has been reset. [Refer to "Clearing all the memory (reset)".]

4 Press the TUNING/TIME (▼ or ▲) button to adjust the hour and then press the MEMORY/SET button.



- 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".

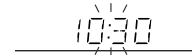
5 Press the TUNING/TIME (▼ or ▲) button to adjust the minutes and then press the MEMORY/SET button.



- 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 will not advance even if minutes advance from "59" to "00".
- The clock begins counting from "0" seconds. (Seconds are not displayed.) The time display will disappear after a few seconds.

To confirm the time display:

Press the CLOCK button.
The time display will appear for about 5 seconds.



Note:

The "CLOCK" or time will flash at the push of the CLOCK button when the AC power supply is restored after a power failure or unplugging the unit. Readjust the clock as follows.

To readjust the clock:

Perform "Setting the clock" from the beginning. If the time display is flashing, step 3 (for selecting the 24-hour or 12-hour display) will be skipped.

To change the 24-hour or 12-hour display:

- 1 Clear all the programmed contents. [Refer to "Clearing all the memory (reset)".]
- 2 Perform "Setting the clock" from the beginning.

Troubleshooting

■ If trouble occurs

When this product is subjected to strong external interference (mechanical shock, excessive static electricity, abnormal supply voltage due to lightning, etc.) or if it is operated incorrectly, it may malfunction.

If such a problem occurs, do the following:

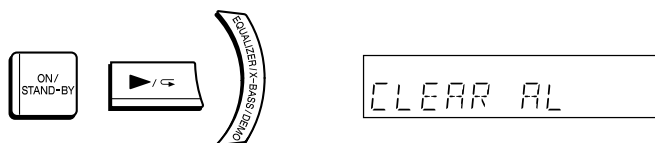
- 1 Set the unit to the stand-by mode and turn the power on again.
- 2 If the unit is not restored in the previous operation, unplug and plug in the unit, and then turn the power on.

Note:

If neither operation above restores the unit, clear all the memory by resetting it.

■ Clearing all the memory (reset)

- 1 Press the ON/STAND-BY button to enter the power stand-by mode.
- 2 Whilst pressing down the ► / ◀ button and the EQUALIZER/X-BASS/DEMO button, press the ON/STAND-BY button until "CLEAR AL" appears.



Caution:

This operation will erase all data stored in memory including clock, timer settings, tuner preset, and CD programme.

■ Before transporting the unit

- 1 Press the ON/STAND-BY button to turn the power on.
- 2 Press the CD button.
- 3 Press the ▲ OPEN/CLOSE button to open the disc tray.
Remove all discs from the unit.
- 4 Press the ▲ OPEN/CLOSE button to close the disc tray.
Make sure that "NO DISC" is displayed.
- 5 Press the ON/STAND-BY button to enter the stand-by mode, and then unplug the AC power lead from the wall socket.

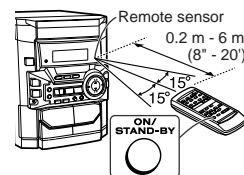
Remote control

■ Test of the remote control

Face the remote control directly to the remote sensor on the unit.

The remote control can be used within the range shown:

Press the ON/STAND-BY button. Does the power turn on? Now, you can enjoy the music.



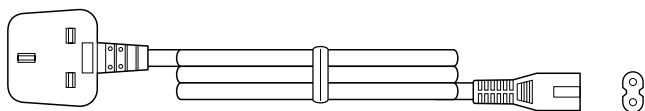
VOLTAGE SELECTION

Before operating the unit on mains, check the preset voltage. If the voltage is different from your local voltage, adjust the voltage as follows.

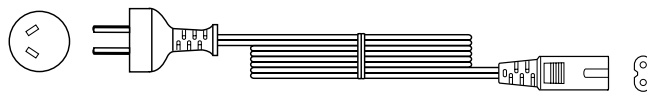
Turn the selector with a screwdriver until the appropriate voltage number appears in the window (110 V, 127 V, 220 V or 230 V-240 V AC).

AC POWER SUPPLY CORD AND AC PLUG ADAPTOR

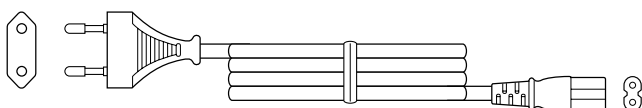
QACCB0012AW00



92L24802131030



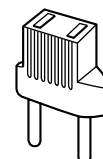
QACCE0007AW00



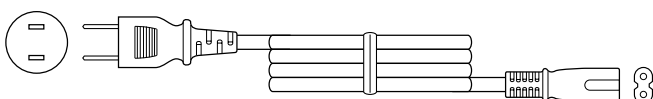
QPLGA0004AWZZ



QPLGA0003AWZZ



92L24801800222



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.

Note 1: How to open the changer manually. (Fig. 8-1)

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. 8-2)
3. After that, push forward the slide chassis.

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 so as 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.

CD-BK137W			
STEP	REMOVAL	PROCEDURE	FIGURE
1	Top Cabinet	1. Screw (A1) x4	7-1
2	Side Panel (Left/Right)	1. Screw (B1) x8	7-1
3	CD Tray Cover/ CD Player Unit	1. Turn on the power supply, open the disc tray, take out the CD tray cover, and close. (Note 1) 2. Hook (C1) x3 3. Screw (C2) x1 4. Hook (C3) x2 5. Socket (C4) x2	7-2
4	Rear Panel	1. Screw (D1) x6	7-2
5	Front Panel	1. Flat Cable (E1) x1 2. Socket (E2) x4 3. Tip (E3) x1 4. Screw (E4) x3 5. Hook (E5) x2	8-3
6	Main PWB	1. Socket (F1) x3 2. Screw (F2) x8	8-3
7	Mic PWB	1. Screw (G1) x1 2. Bracket (G2) x1	8-4
8	Display PWB	1. Screw (H1) x11 2. Flat Cable (H2) x1	8-4
9	Headphones PWB	1. Screw (J1) x1 2. Bracket (J2) x1	8-4
10	Tape Mechanism	1. Open the cassette holder. 2. Screw (K1) x6	8-4
11	Turntable	1. Hook (L1) x2 2. Cover (L2) x1	8-5
12	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 chassis backward to engage the claw with the groove and remove it in the direction of the arrow. (M1) x6	8-1 8-2 8-6
13	CD Servo PWB (Note 2)	1. Screw (N1) x1 2. Socket (N2) x4 3. Hook (N3) x2	9-1
14	CD Mechanism	1. Hook (P1) x2 2. Hook (P2) x3	9-2

CD-BK137W

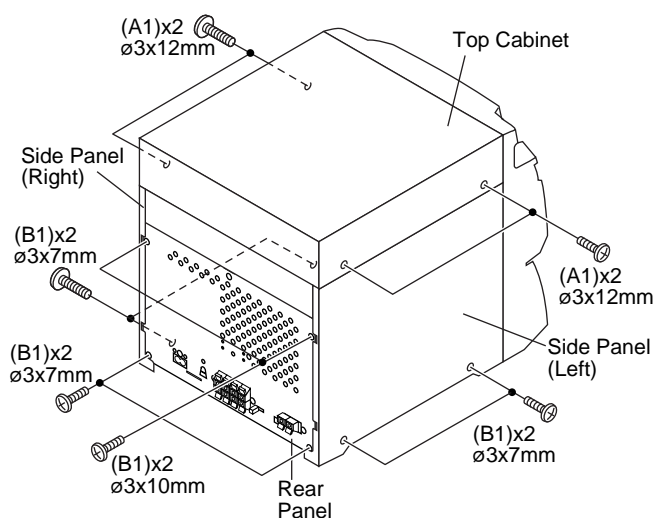


Figure 7-1

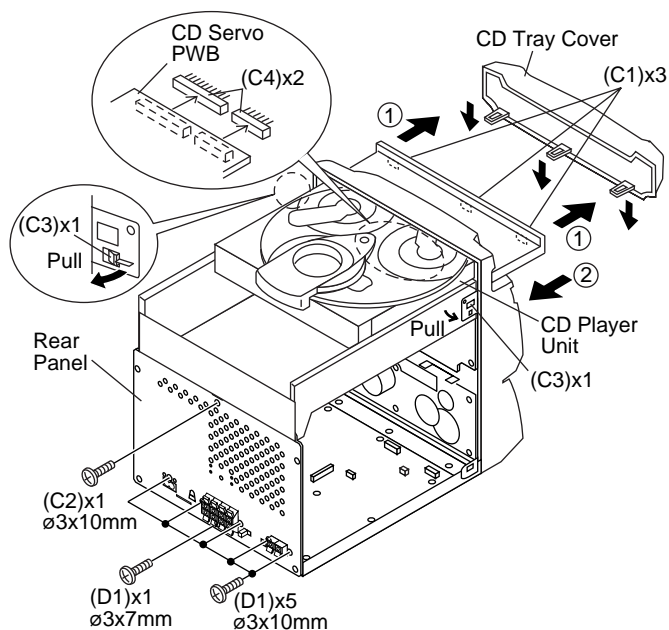


Figure 7-2

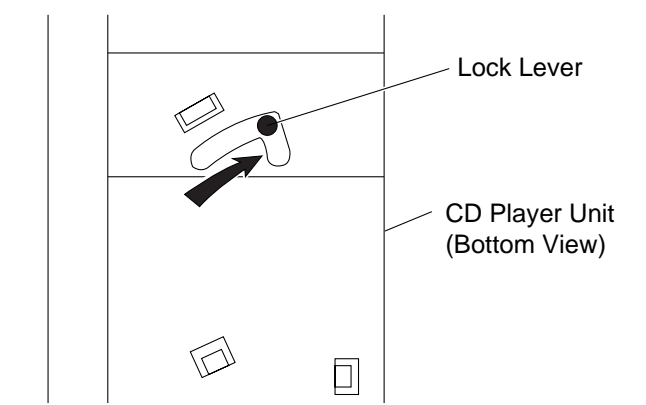


Figure 8-1

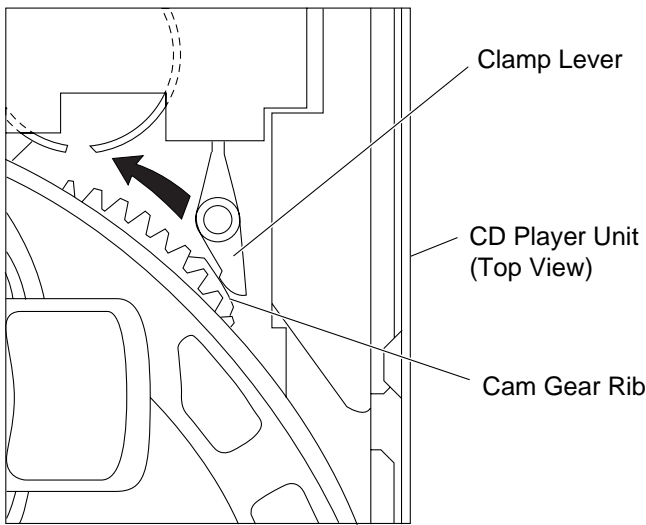


Figure 8-2

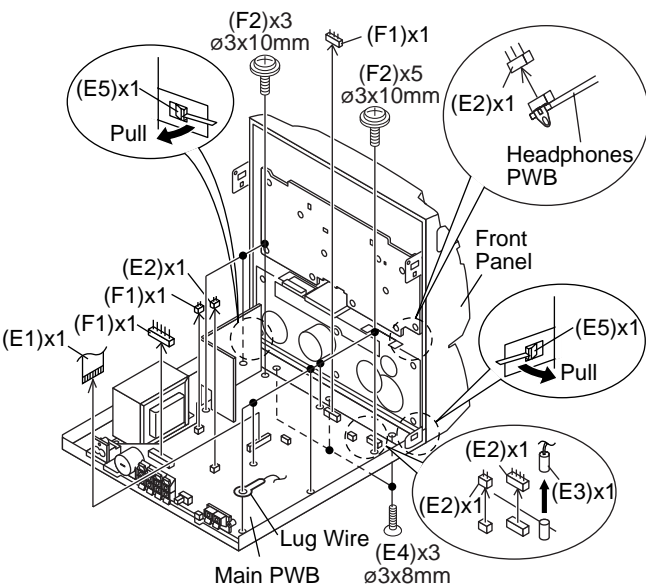


Figure 8-3

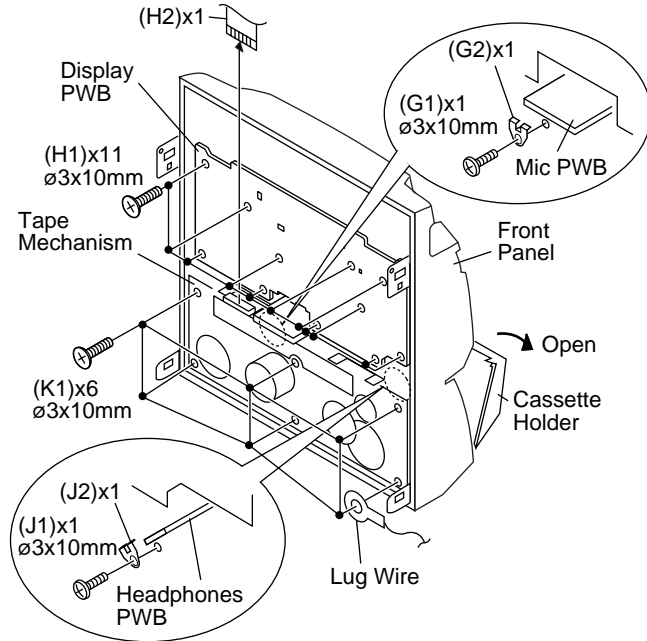


Figure 8-4

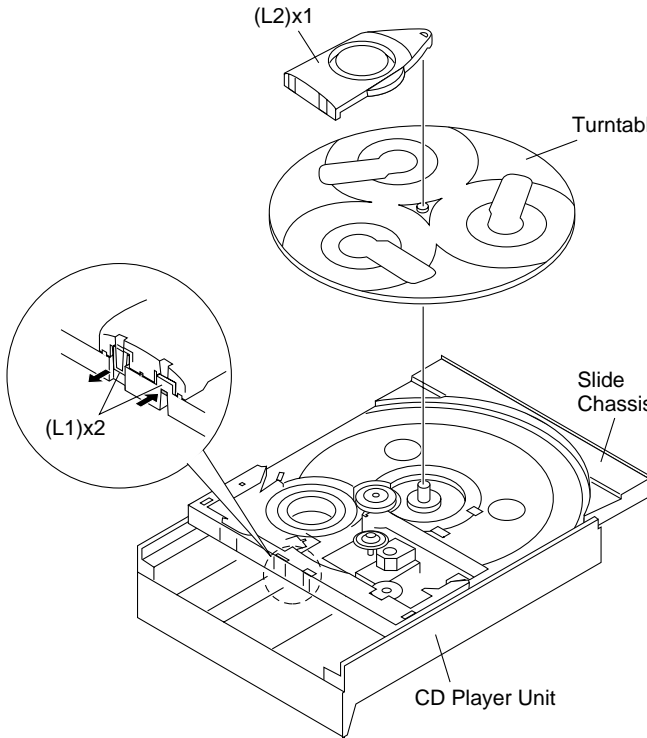


Figure 8-5

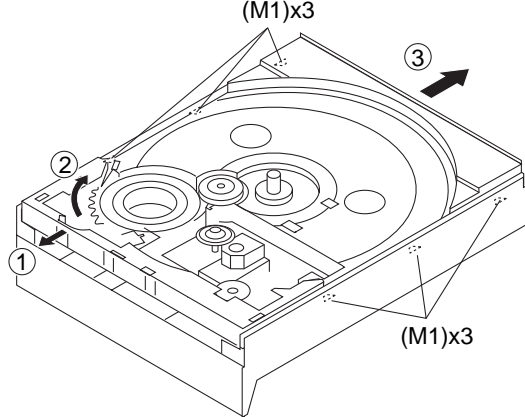


Figure 8-6

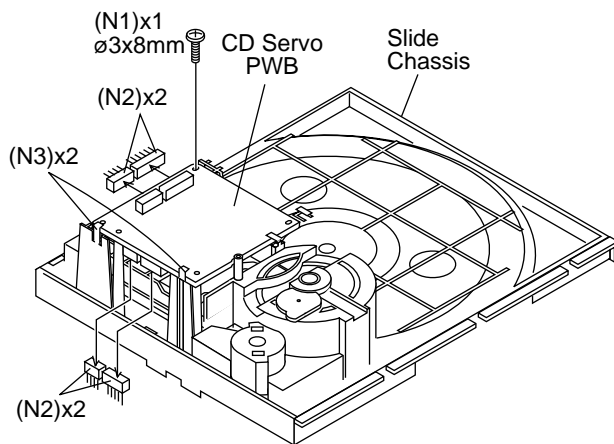


Figure 9-1

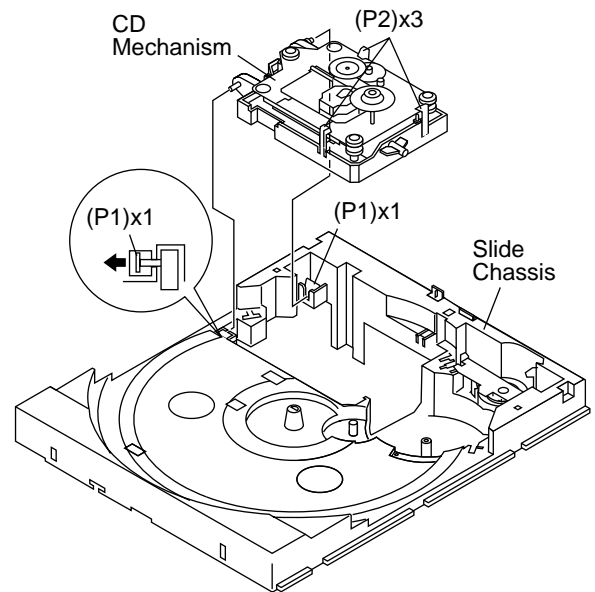


Figure 9-2

CP-BK137/92L2390137W010

These speakers CP-BK137 and 92L2390137W010 are available in assemblies only and may not be disassembled.

REMOVING AND REINSTALLING THE MAIN PARTS

TAPE MECHANISM SECTION

Perform steps 1 to 5 and 10 of the disassembly method to remove the tape mechanism.

How to remove the record/playback and erase heads (TAPE 2) (See Fig. 10-1)

1. When you remove the screws (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. 10-2)

1. When you remove the screws (B1) x 2 pcs., the playback head can be removed.

How to remove the pinch roller (TAPE 1/2) (See Fig. 10-3)

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 .

Note:

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

How to remove the belt (TAPE 2) (See Fig. 10-4)

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 1) (See Fig. 10-4)

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. 10-5)

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

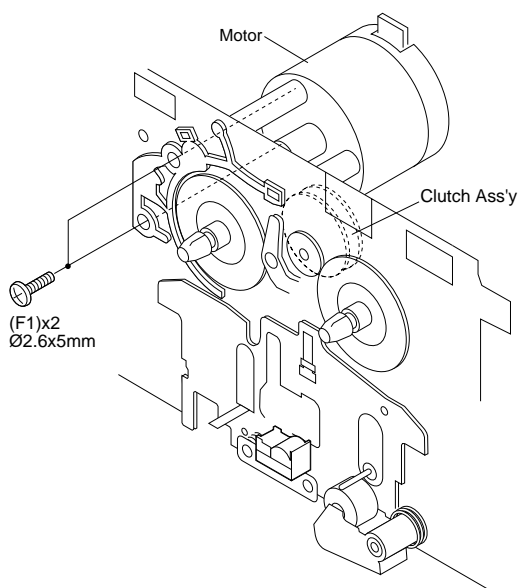


Figure 10-5

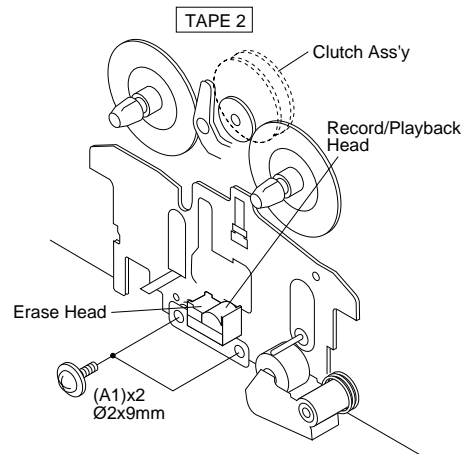


Figure 10-1

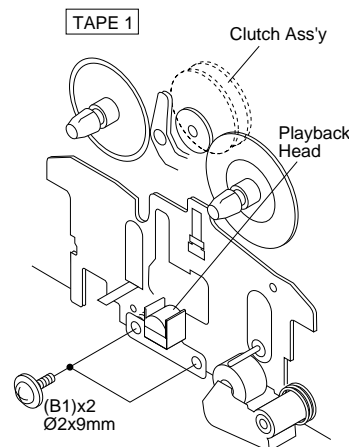


Figure 10-2

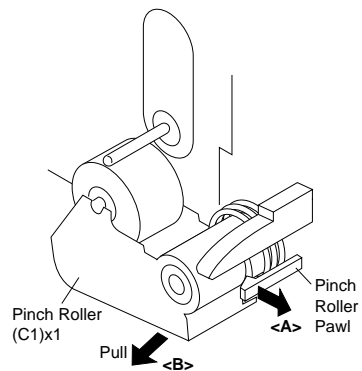


Figure 10-3

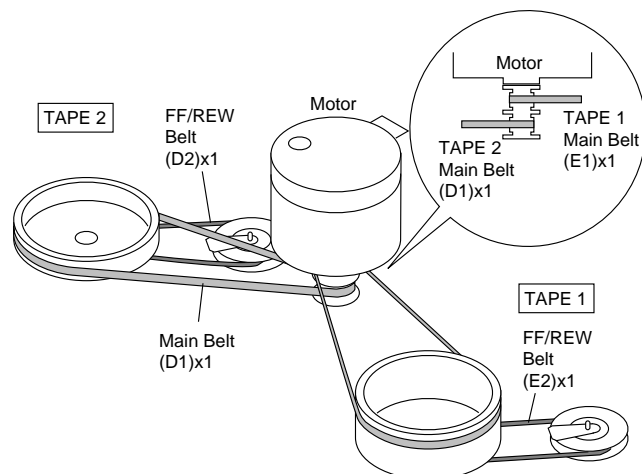


Figure 10-4

CD MECHANISM SECTION

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

How to remove the loading motor

(See Fig. 11-1)

1. Bend the hooks (A1) x 5 pcs., to remove the loading motor.
2. Remove the drive belt (A2) x 1 pc.

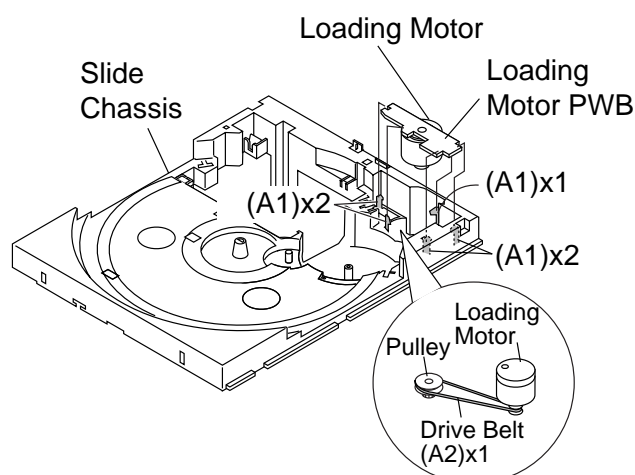


Figure 11-1

How to remove the pickup (See Fig. 11-2)

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 so as to protect the optical pickup from electrostatic damage.

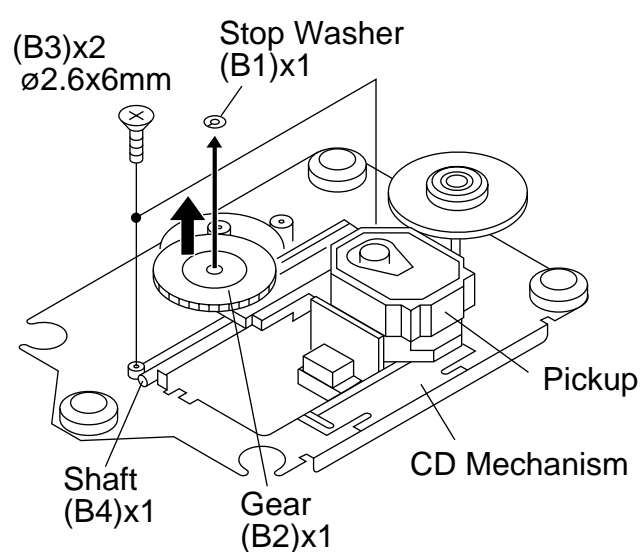


Figure 11-2

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.	3,000 ± 30 Hz	Speaker Terminal (Load resistance: 6 ohms)

TAPE MECHANISM

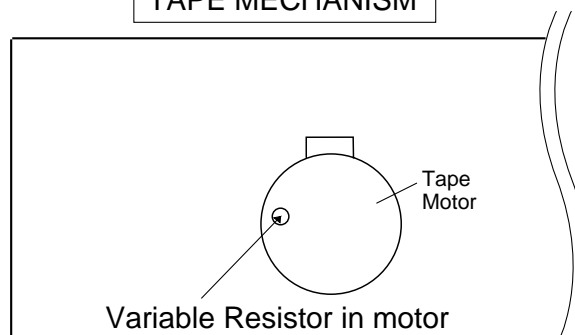


Figure 11-3

CD-BK137W

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

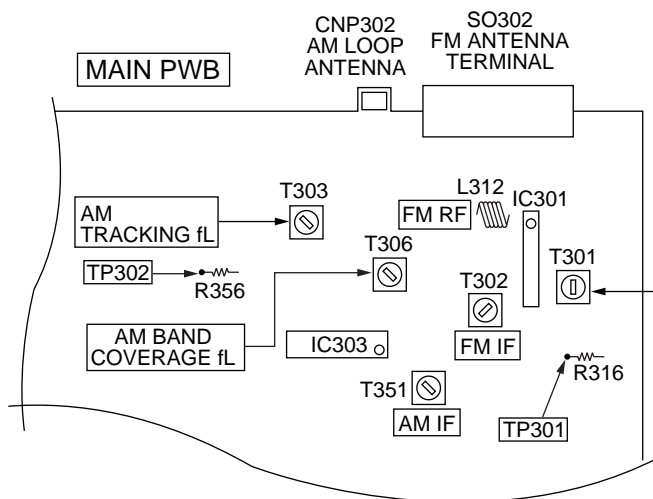


Figure 12-1 ADJUSTMENT POINTS

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 Fig.12-2 EFBL)
- (3) Gain adjustment (The gain is compensated inside the IC so that the loop gain at the gain crossover frequency will be 0 dB.)
 - * Focus gain adjustment
 - * Tracking gain adjustment

• FM RF

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

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Point	Instrument Connection
FM Band Coverage	—	87.50 MHz	T301(fL): 1.3 V ± 0.1 V	*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

• FM IF

Signal generator: 10.7 MHz, FM modulated

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Point	Instrument Connection
IF	10.7 MHz	98 MHz	T302 (Turn the core of transformer T302 fully counter-clock wise)	*1

*1. Input: Antenna

Output: TP301

CD ERROR CODE DESCRIPTION

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

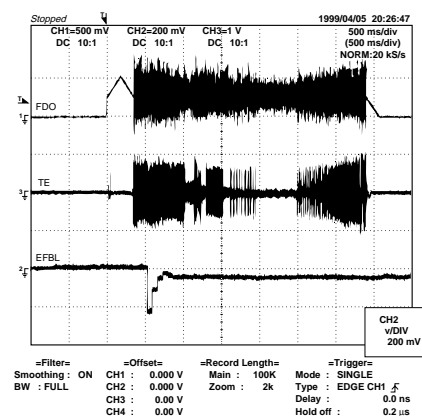


Figure 12-2

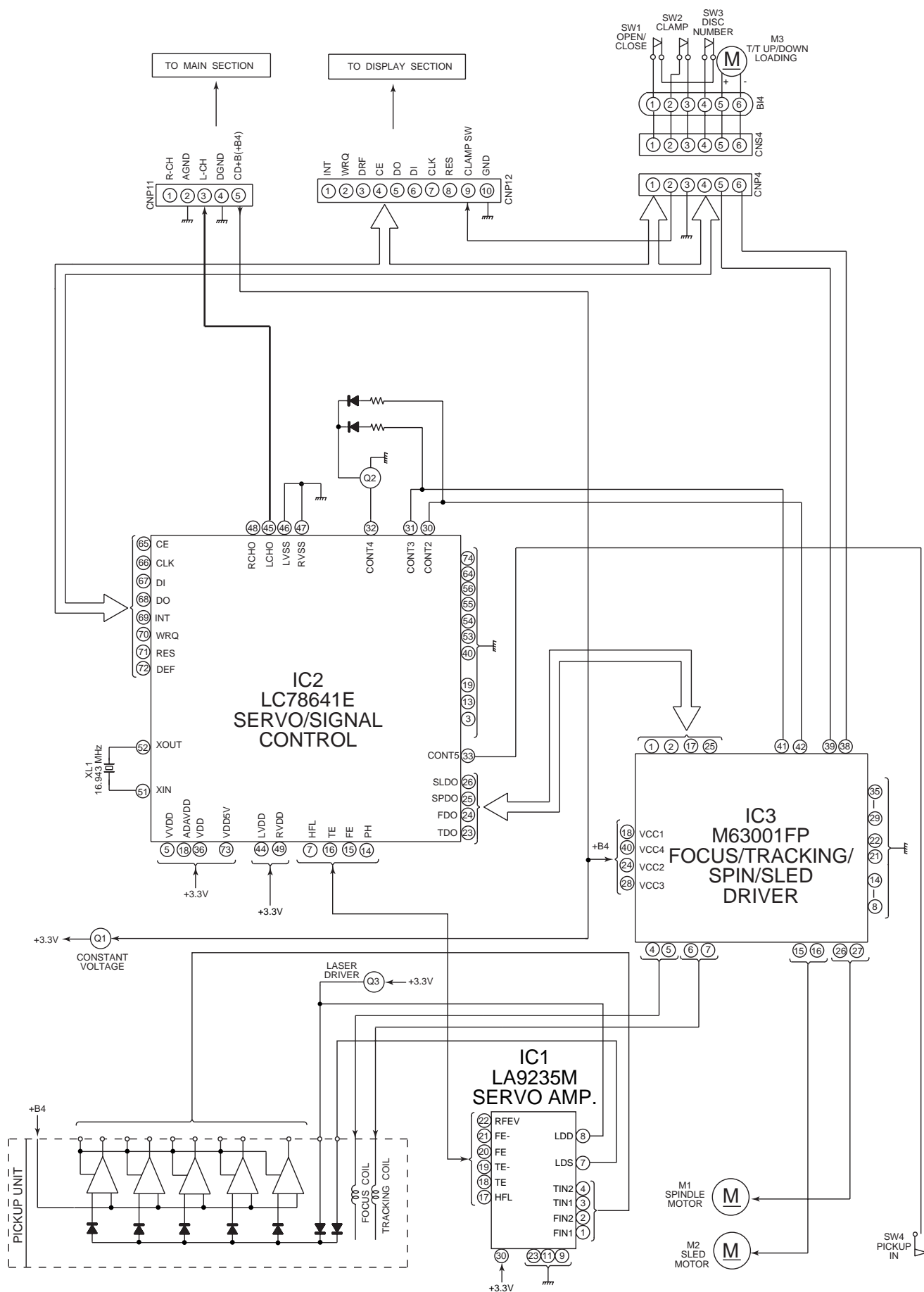


Figure 13 BLOCK DIAGRAM (1/3)

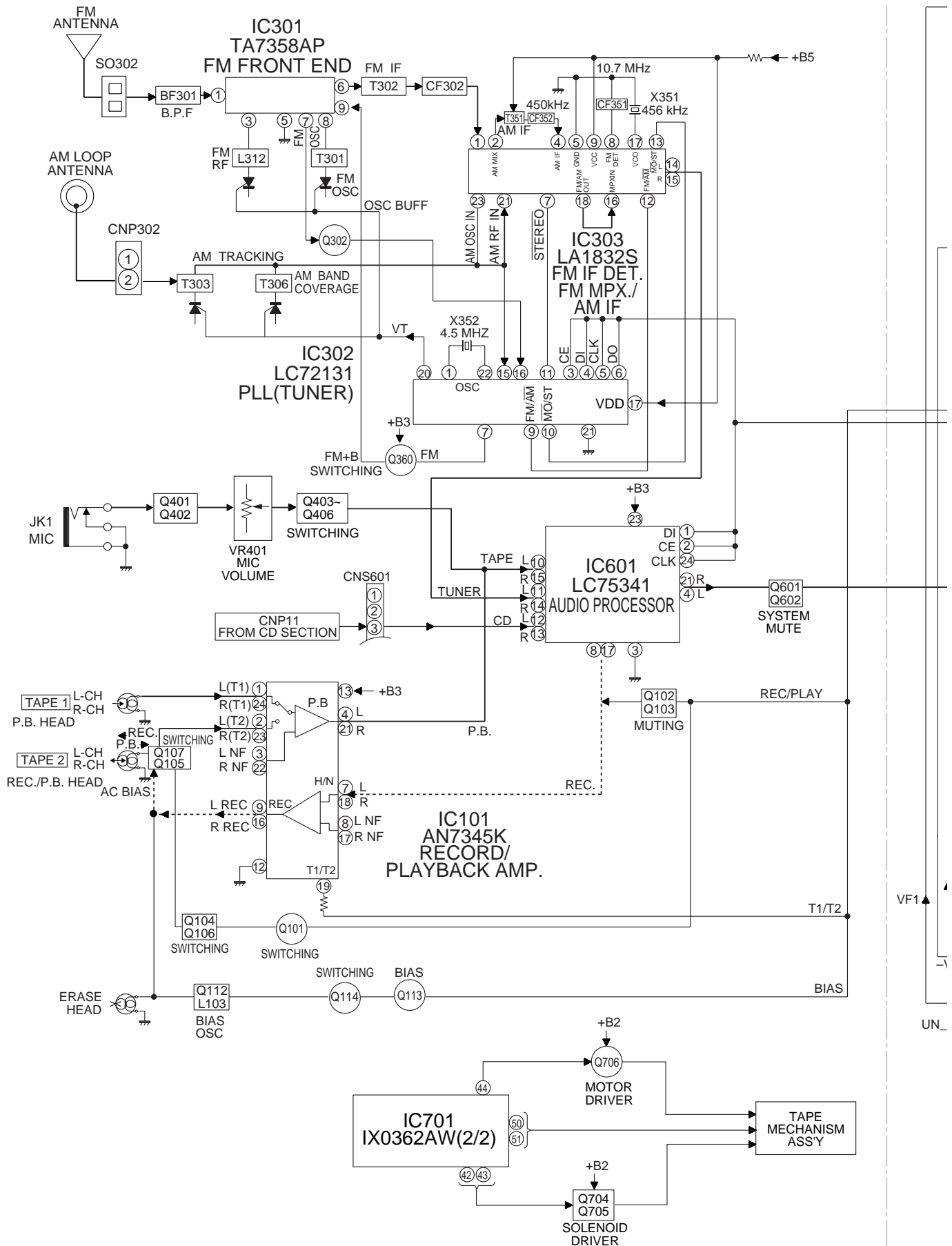


Figure 14 BLOCK DIAGRAM (2/3)

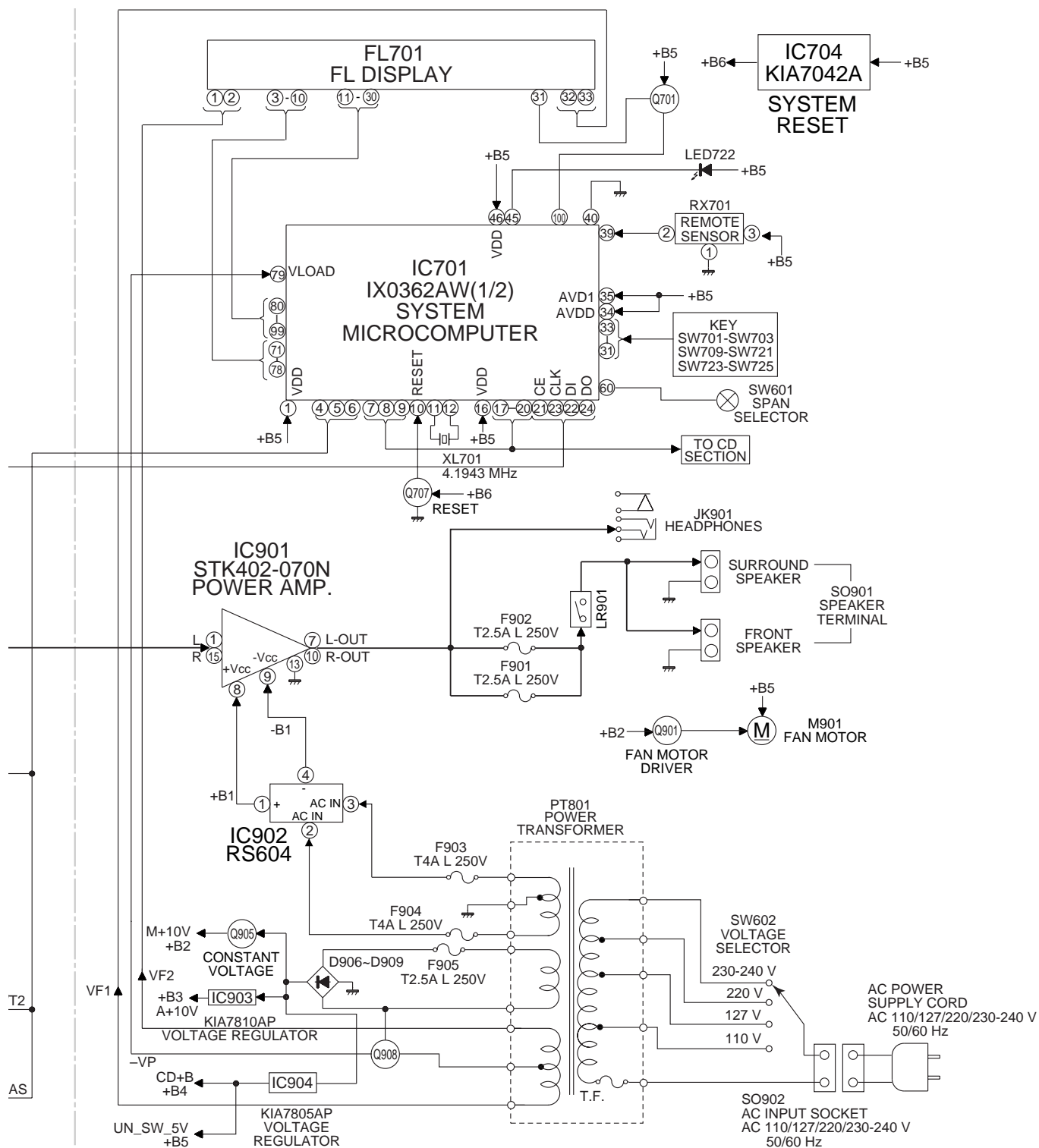
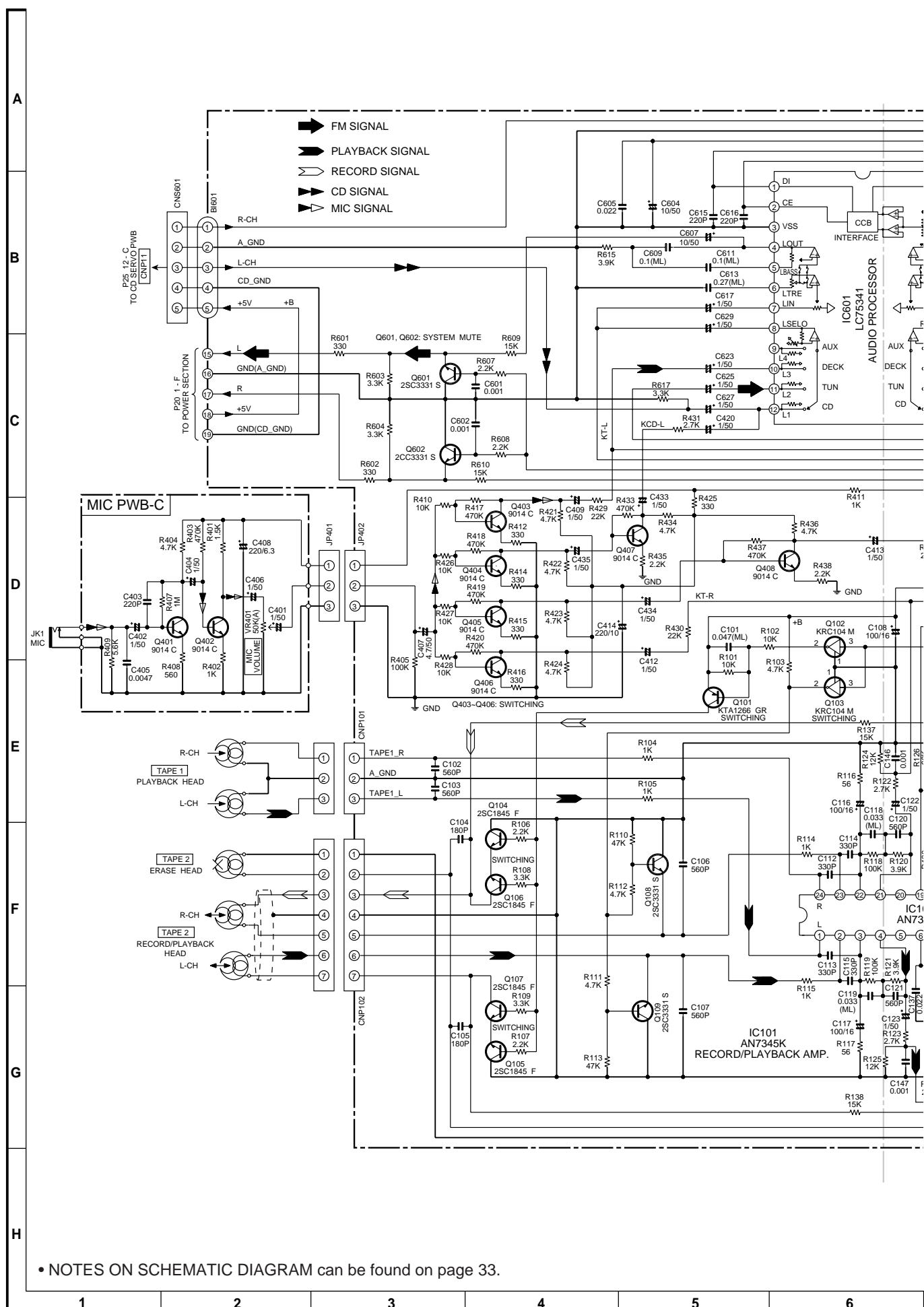


Figure 15 BLOCK DIAGRAM (3/3)



- 17 -



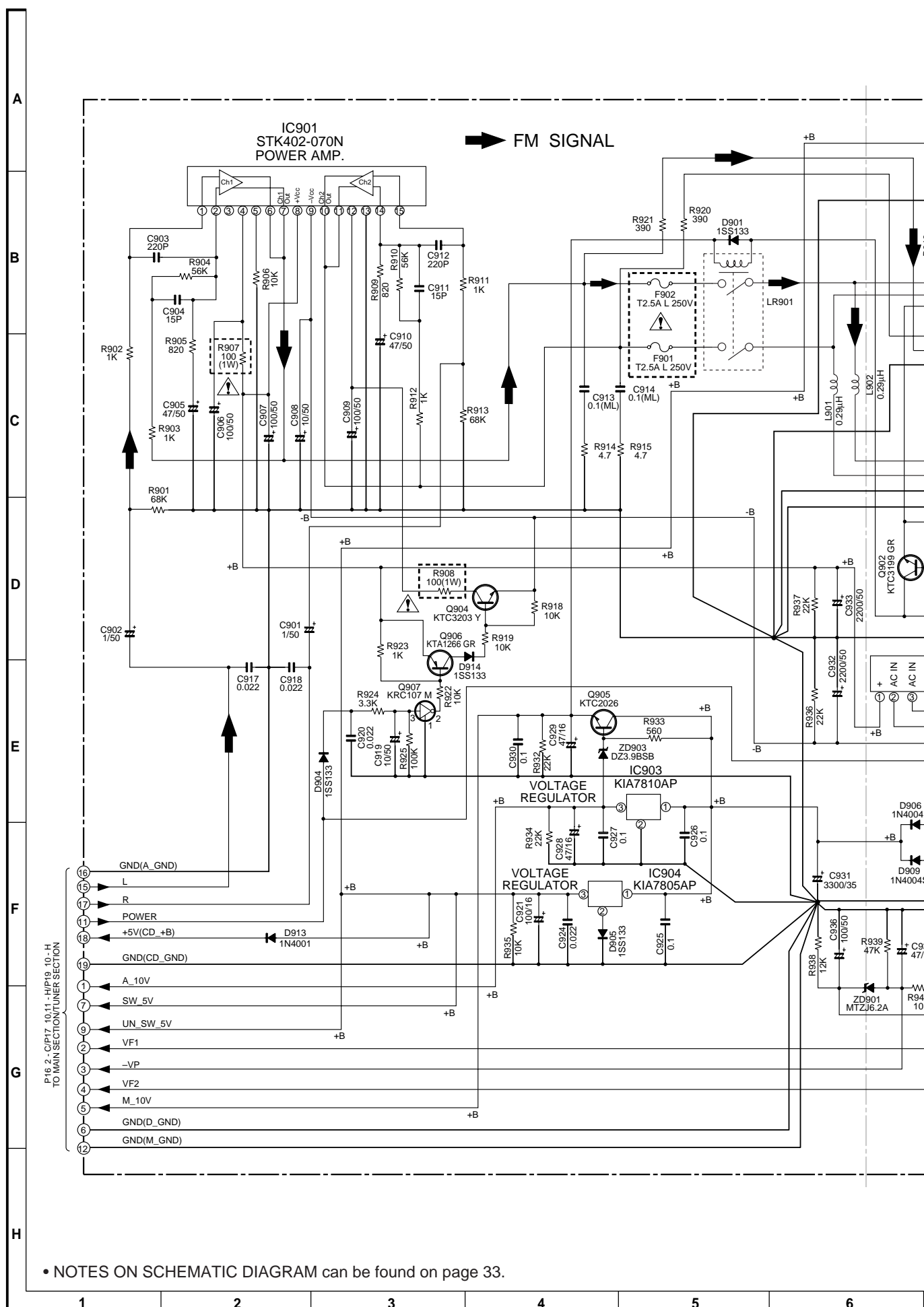


Figure 20 SCHEMATIC DIAGRAM (5/10)

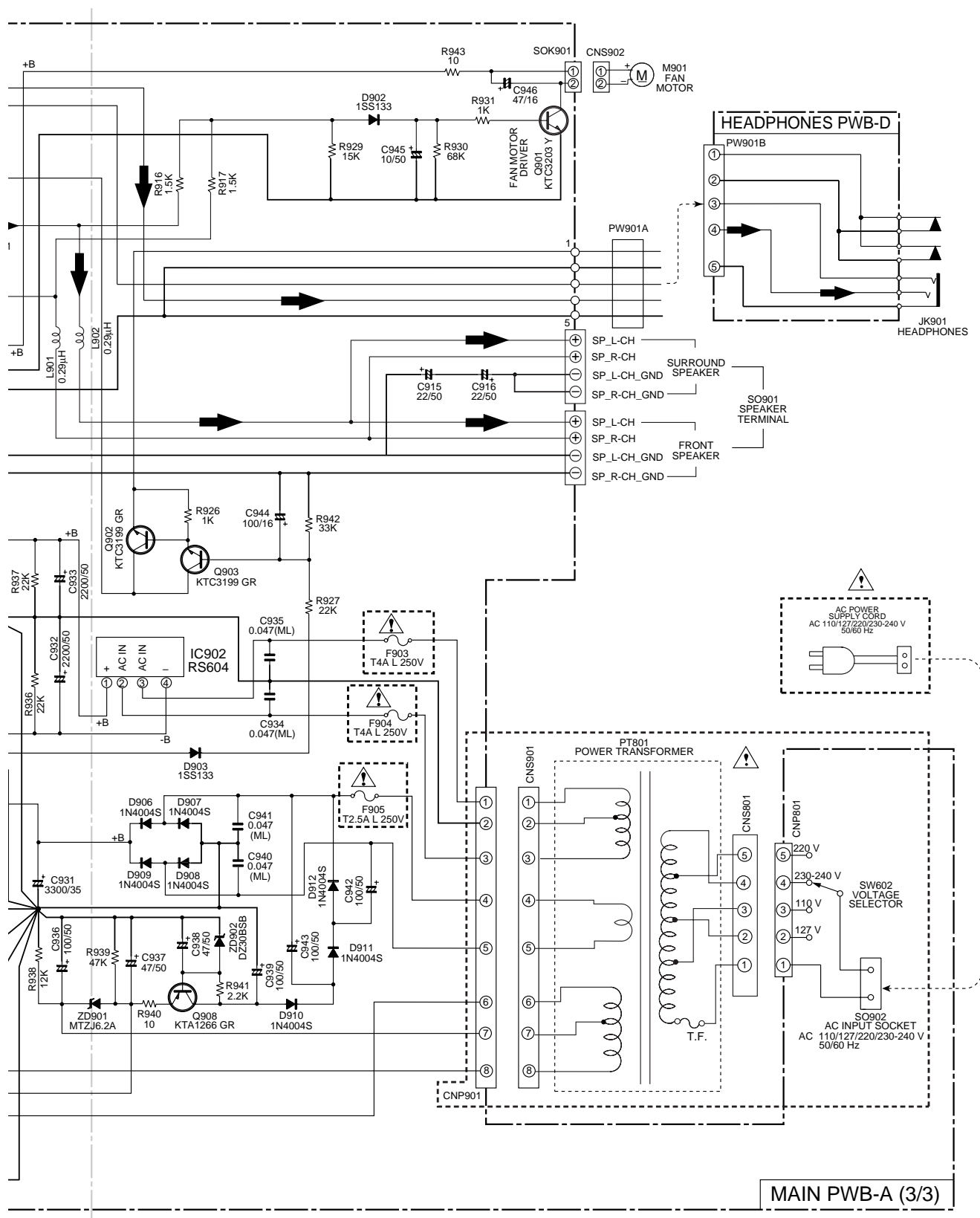


Figure 21 SCHEMATIC DIAGRAM (6/10)

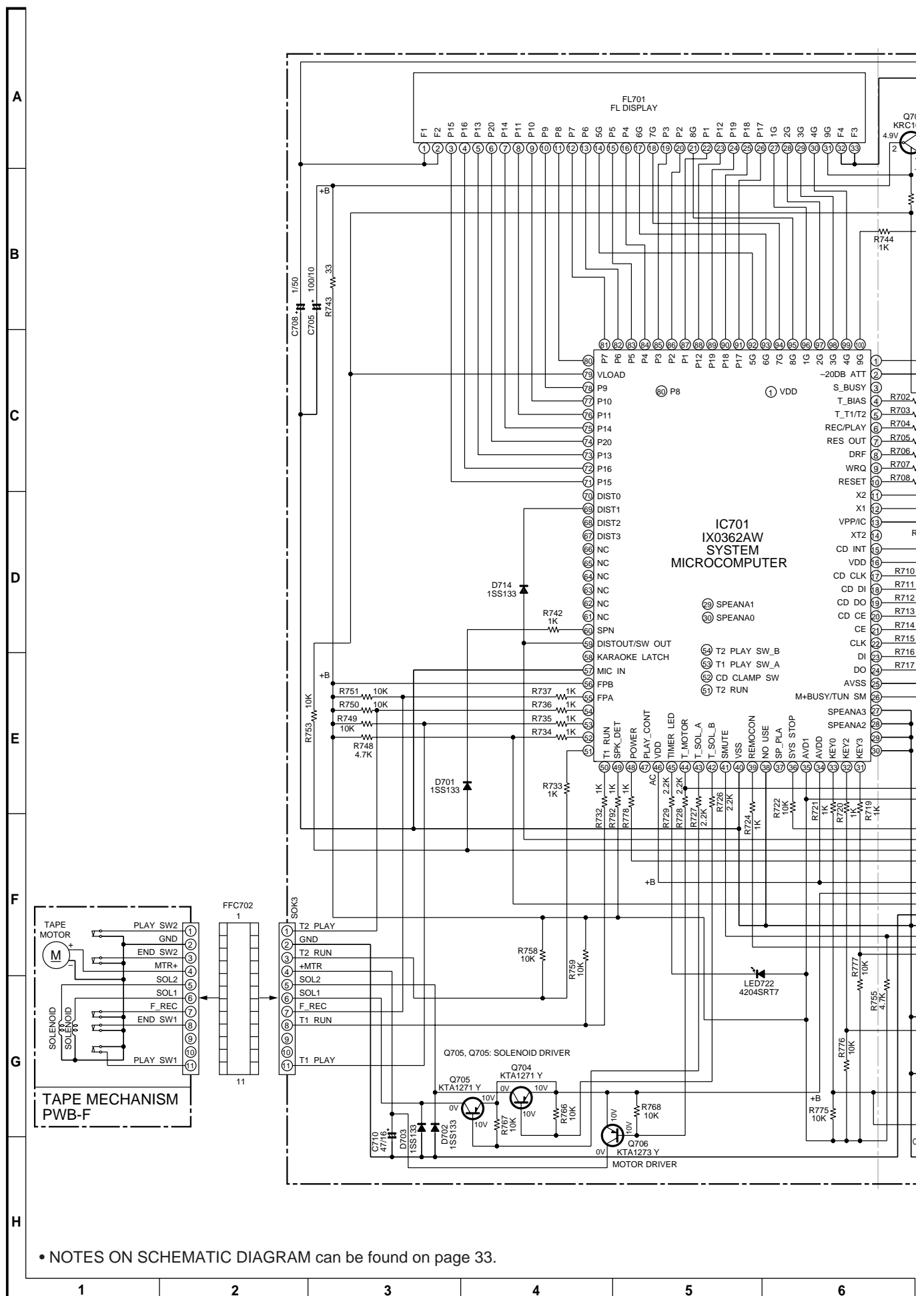


Figure 22 SCHEMATIC DIAGRAM (7/10)

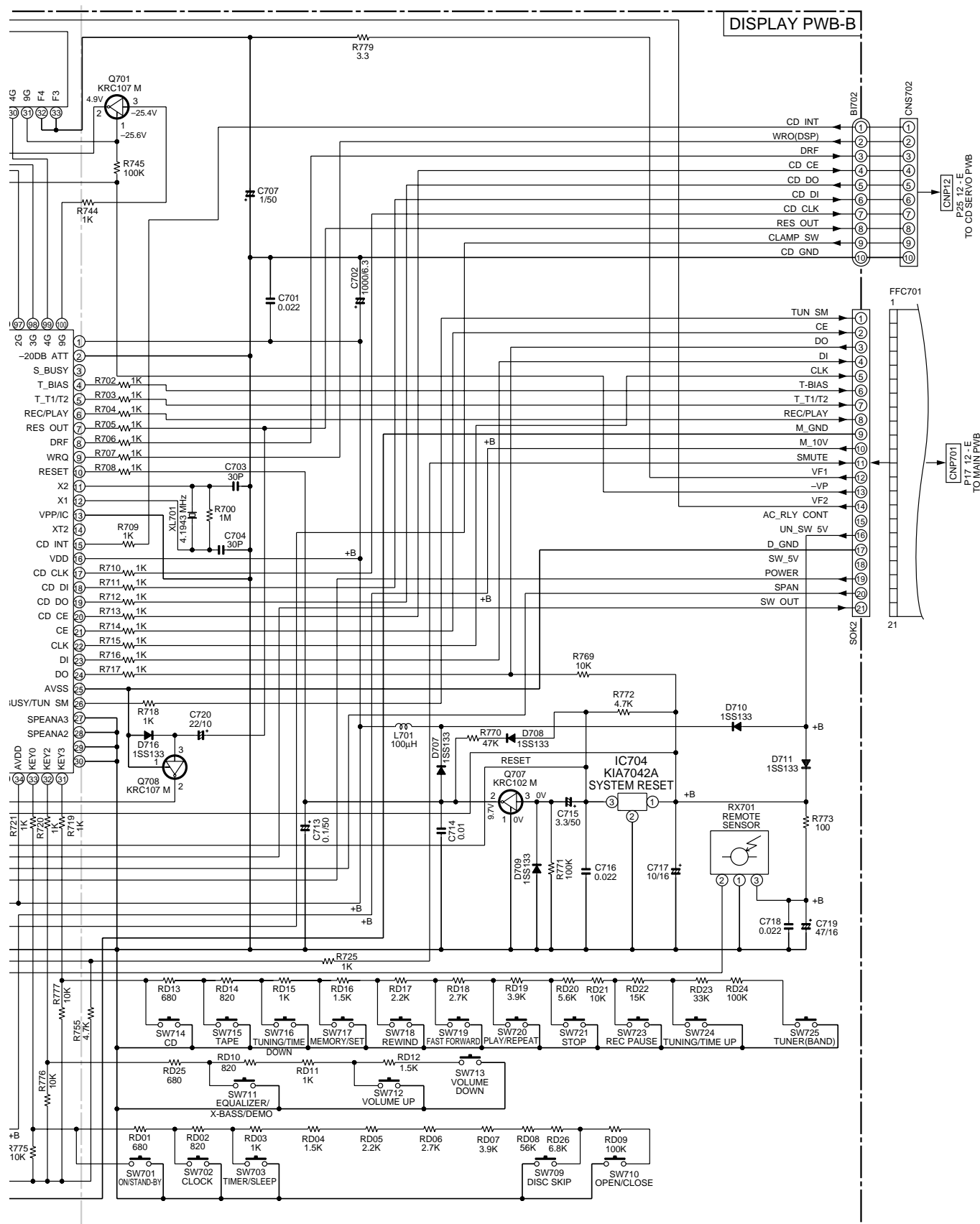


Figure 23 SCHEMATIC DIAGRAM (8/10)

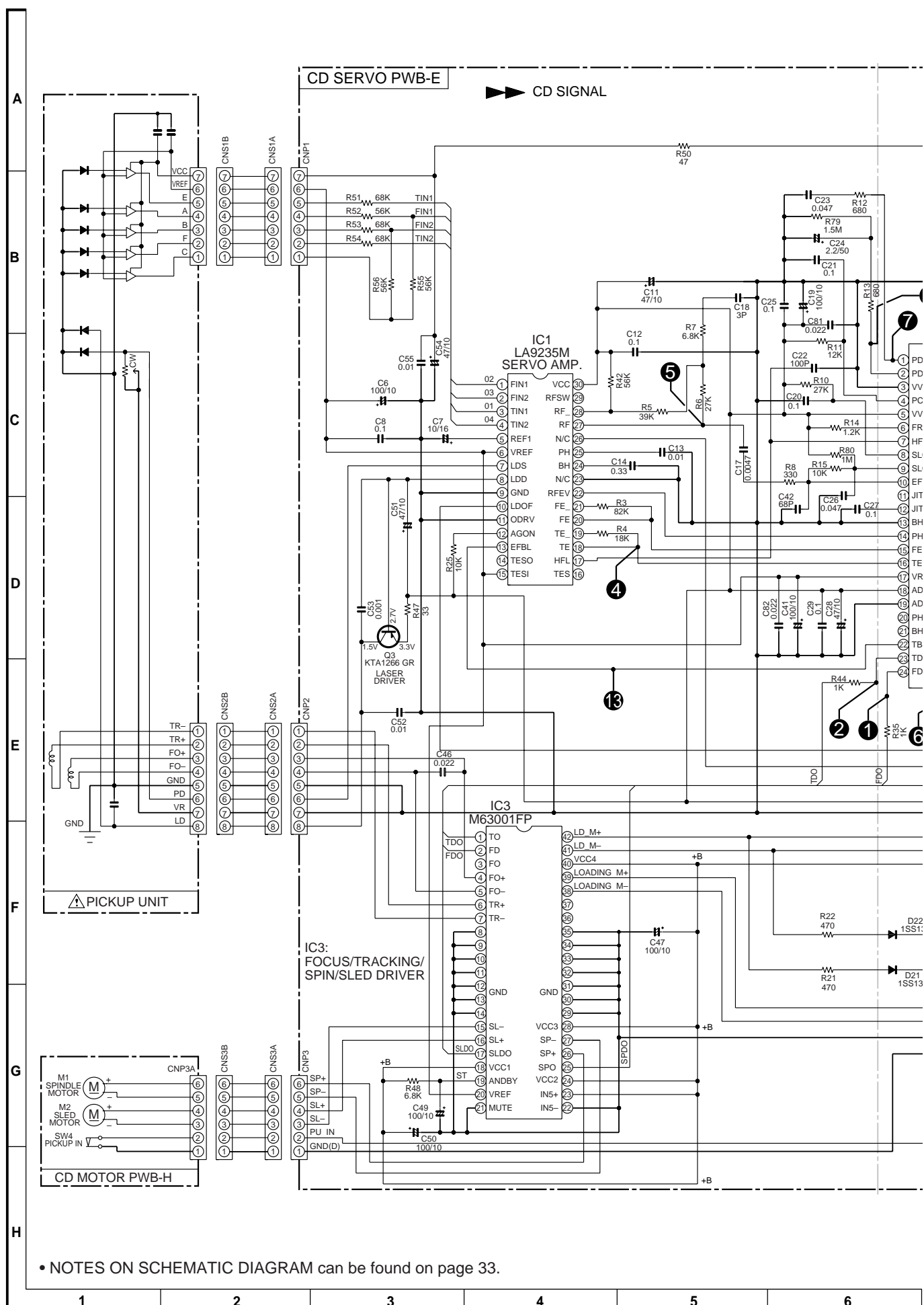
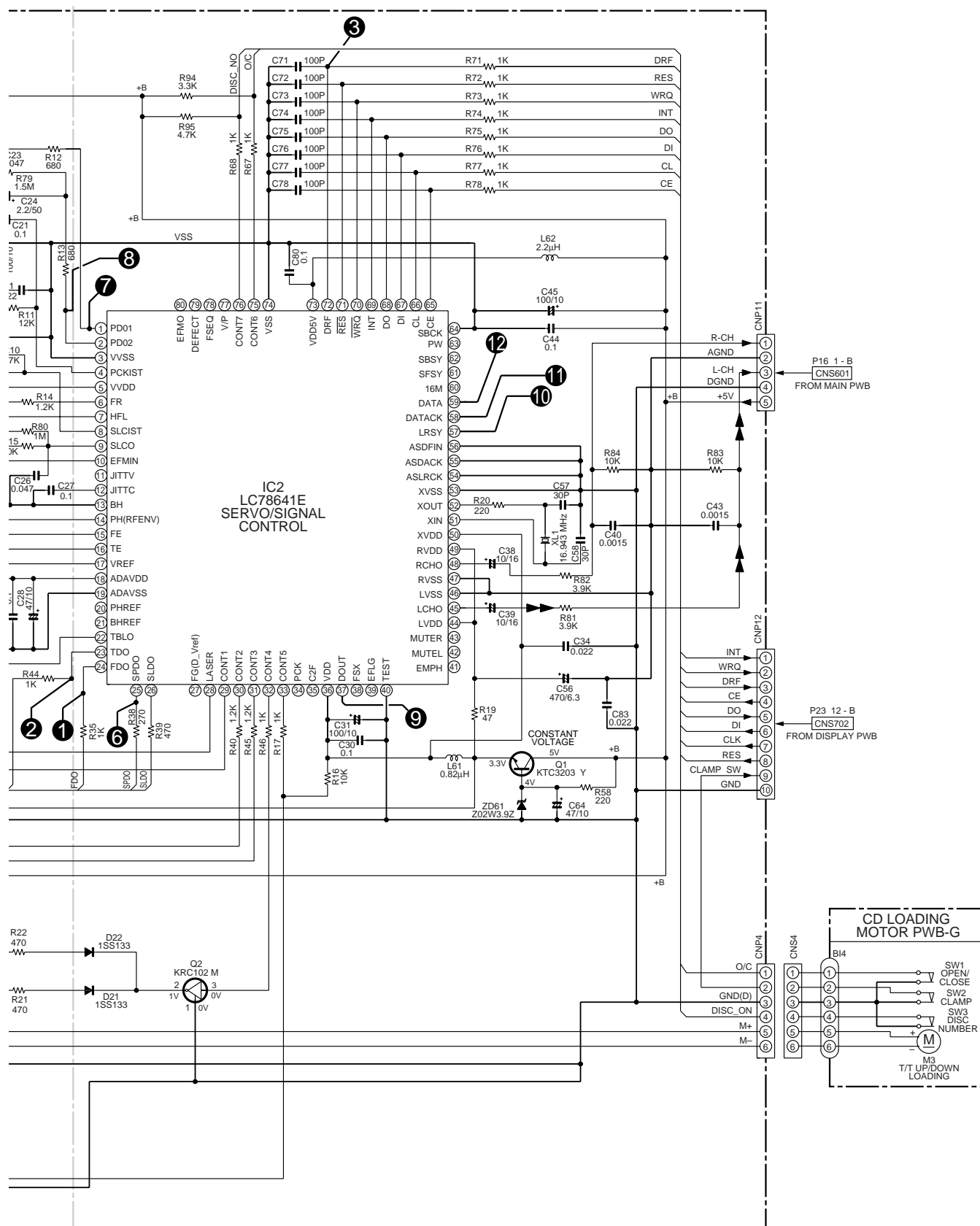


Figure 24 SCHEMATIC DIAGRAM (9/12)



• The numbers ① to ⑬ are waveform numbers shown in page 34.

7	8	9	10	11	12
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Figure 25 SCHEMATIC DIAGRAM (10/10)

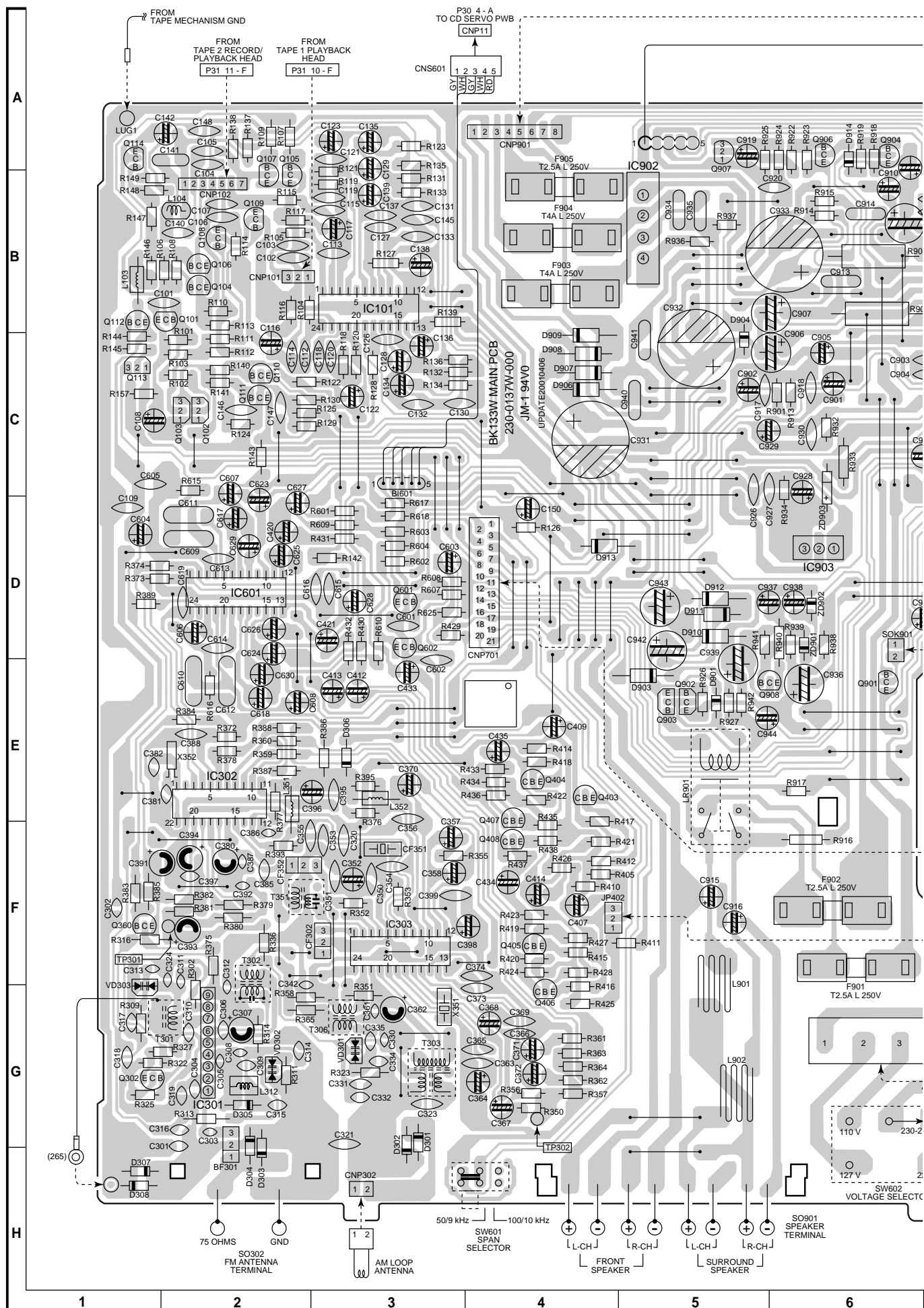


Figure 26 WIRING SIDE OF P.W.BOARD (1/6)

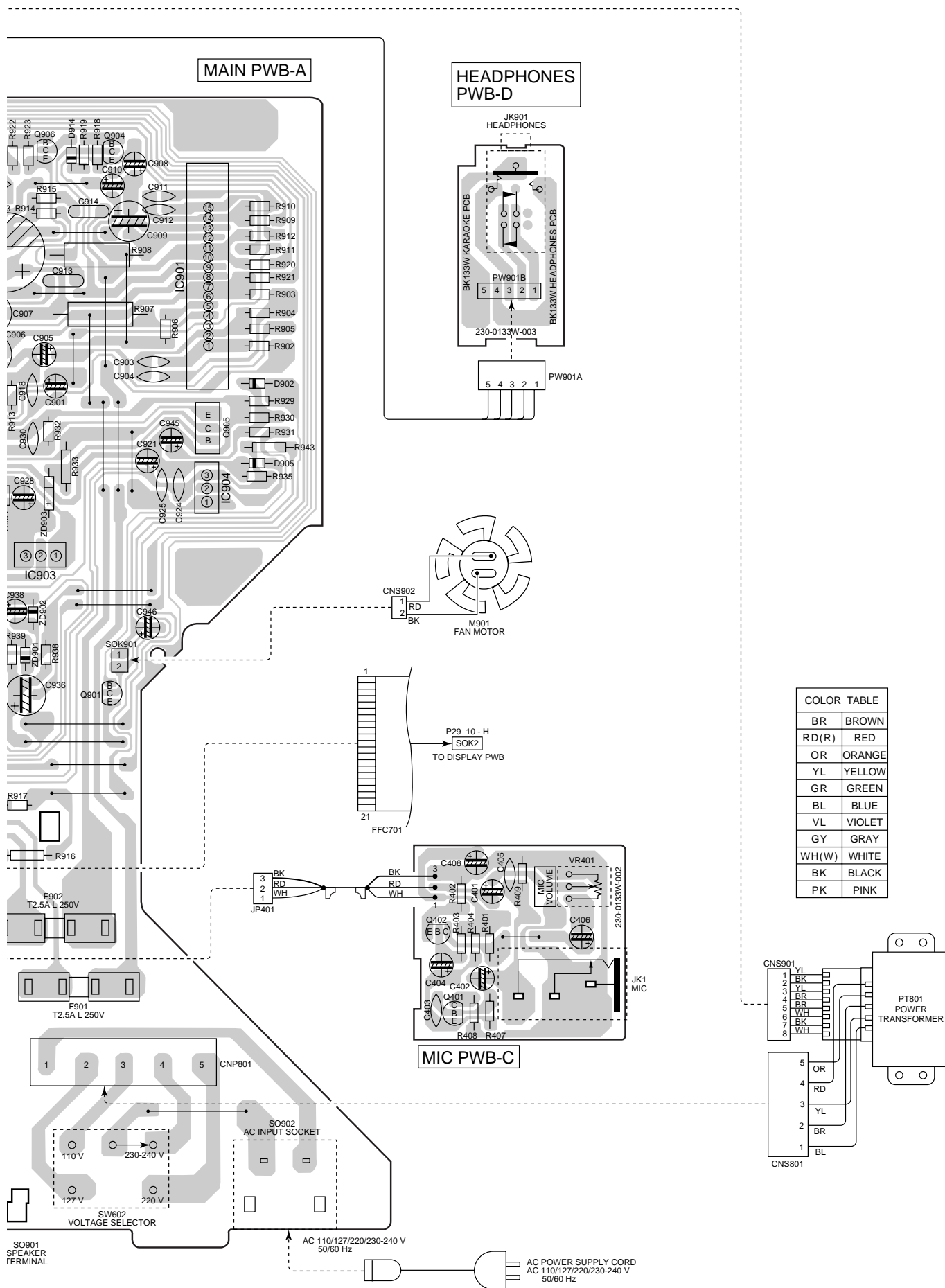


Figure 27 WIRING SIDE OF P.W.BOARD (2/6)

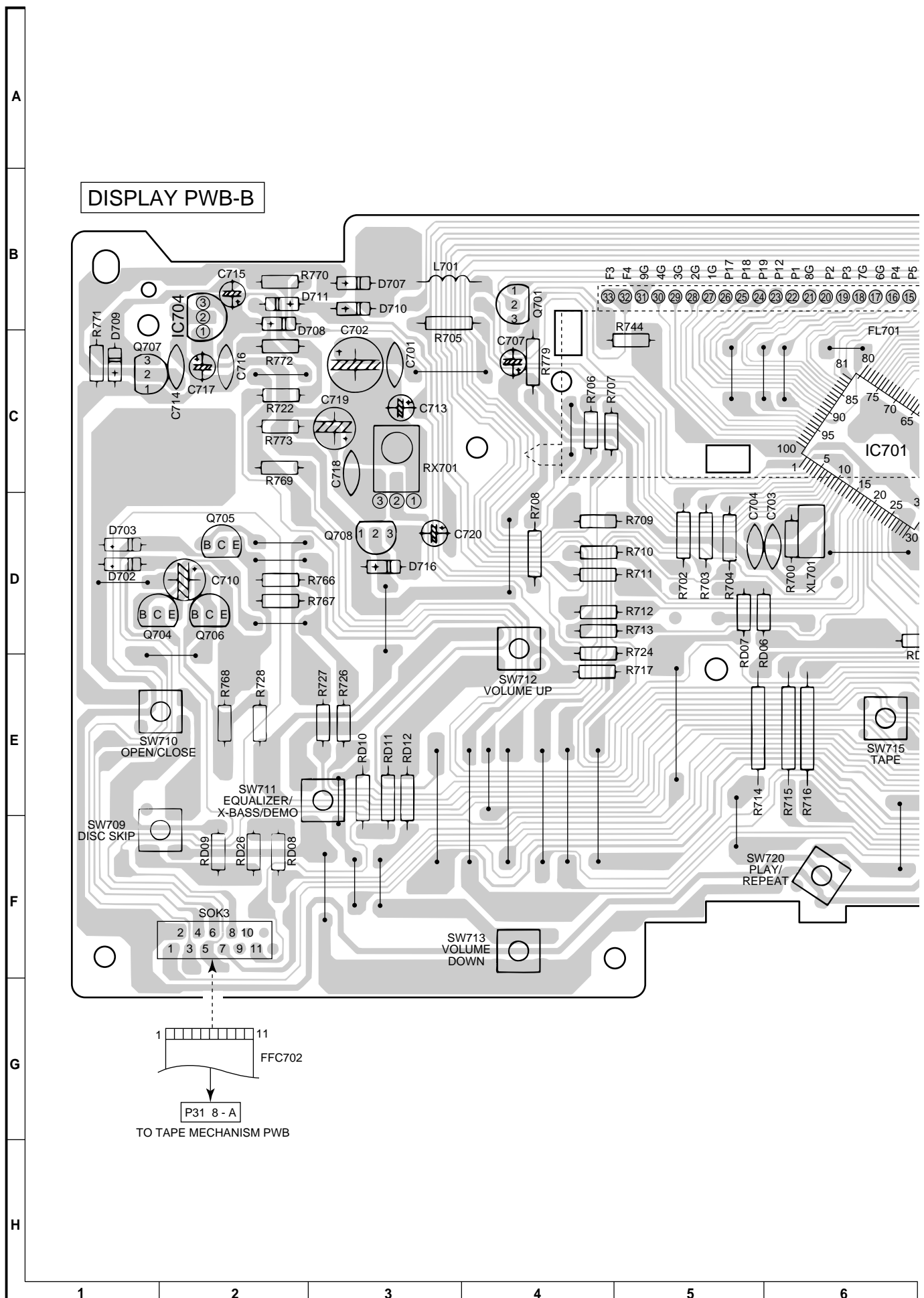


Figure 28 WIRING SIDE OF P.W.BOARD (3/6)

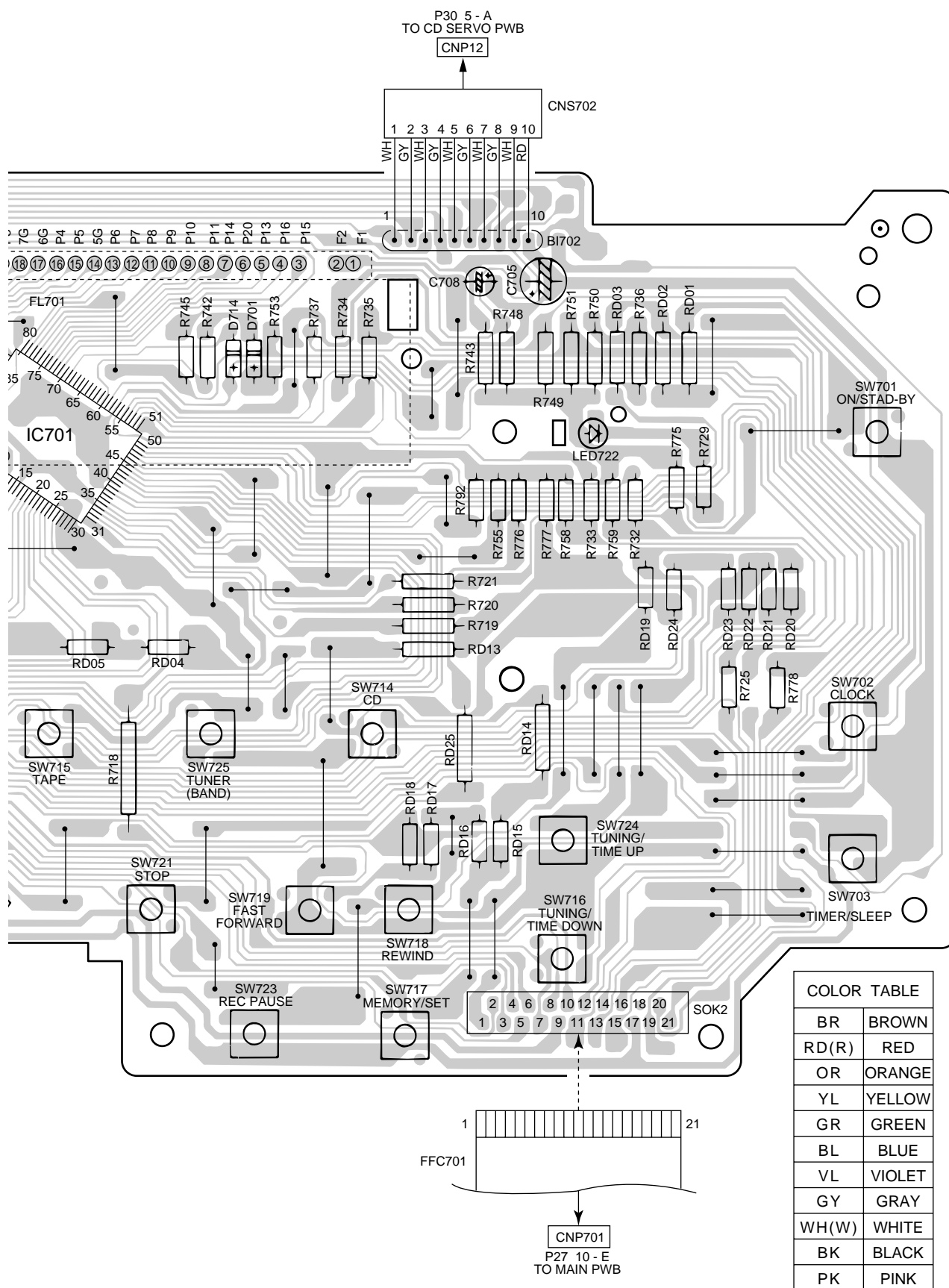
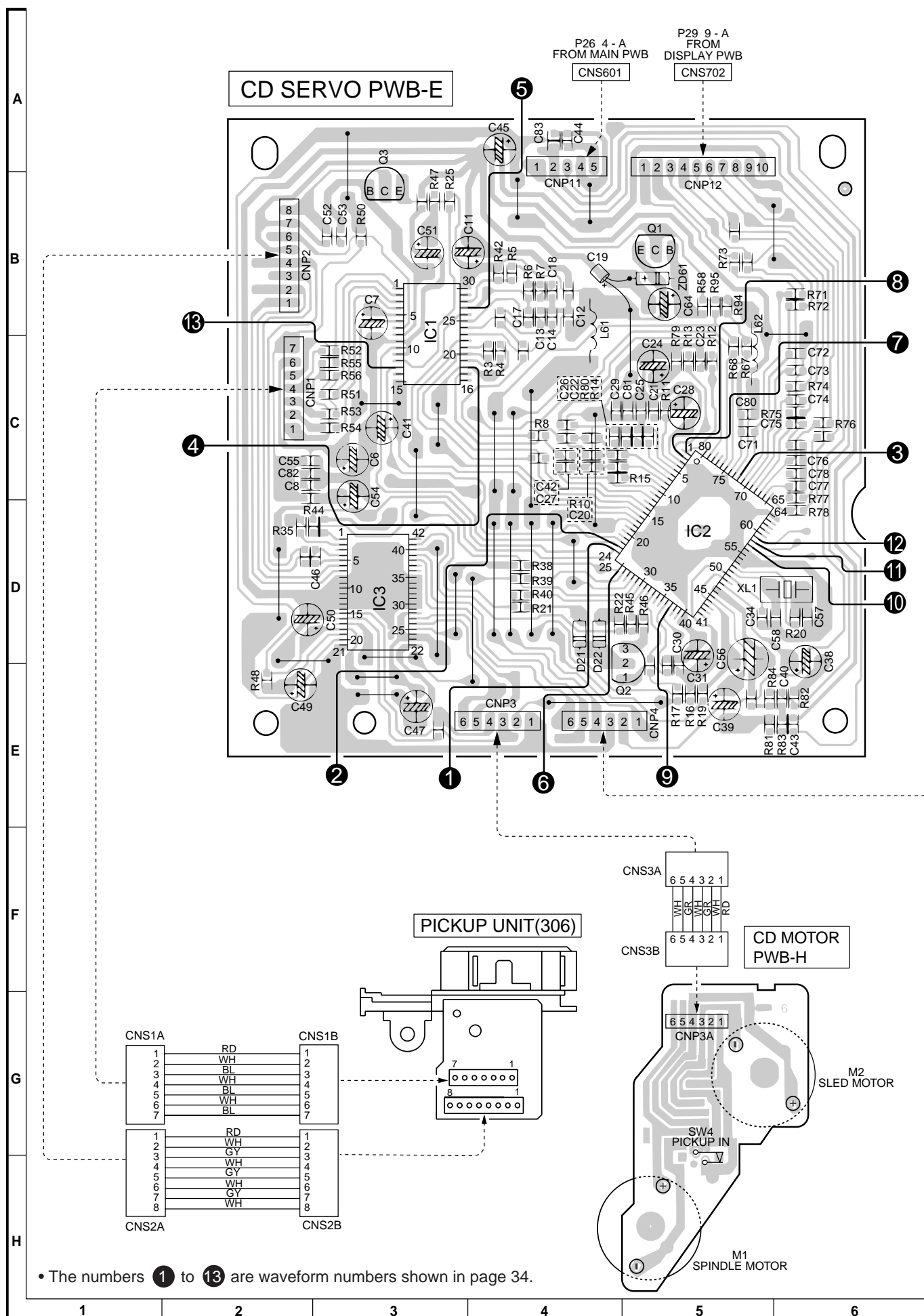


Figure 29 WIRING SIDE OF P.W.BOARD (4/6)



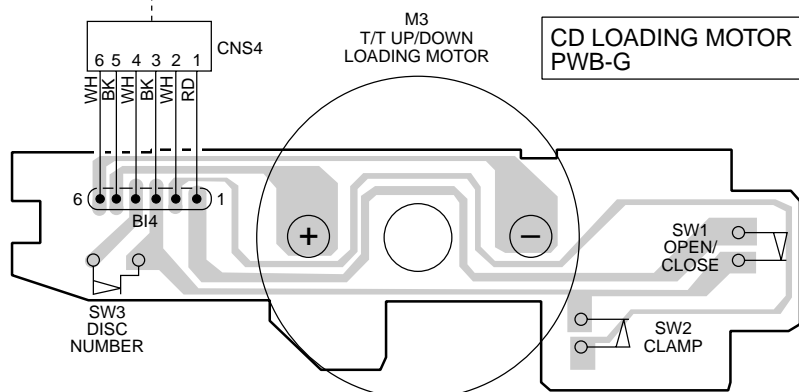
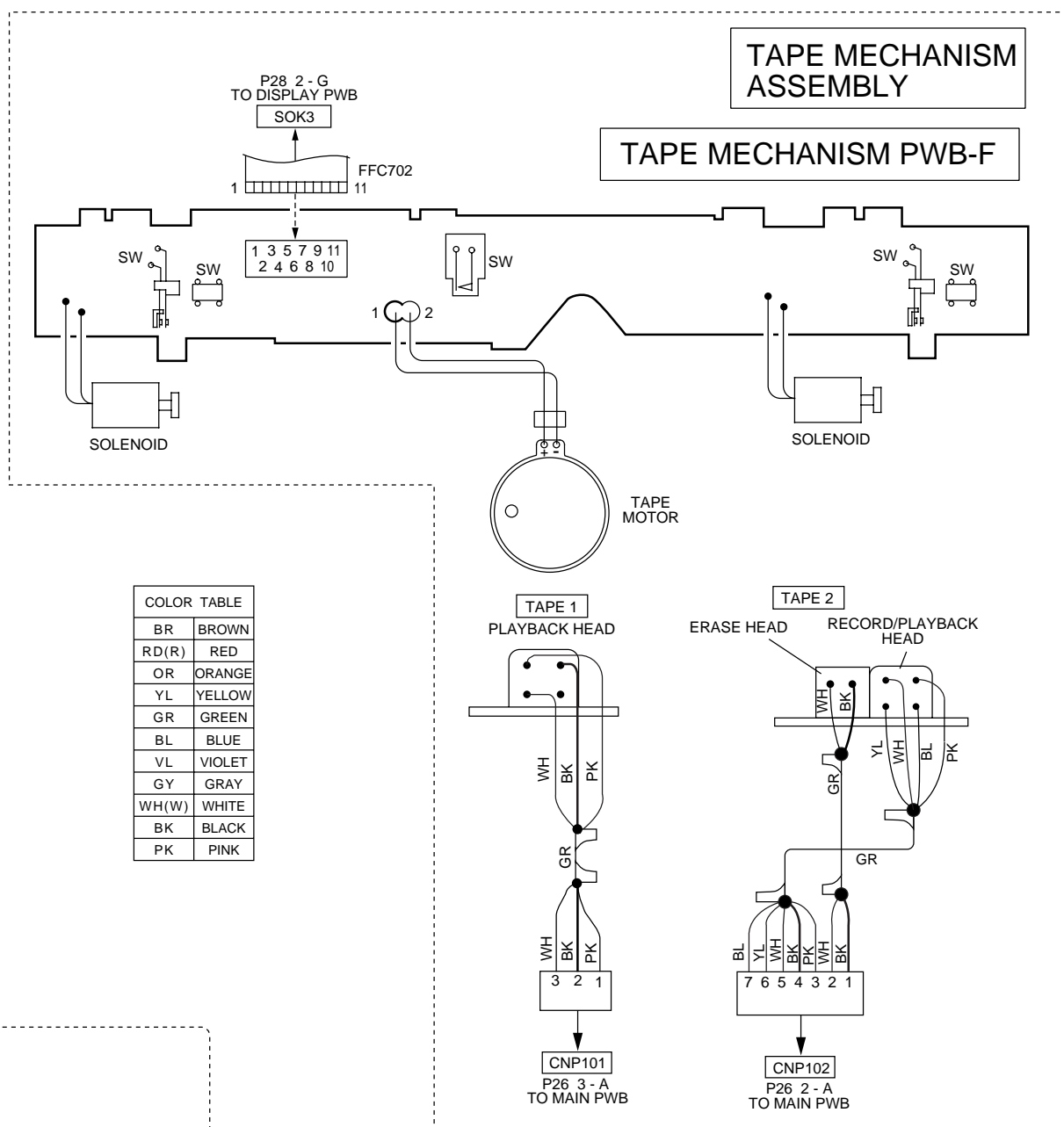


Figure 31 WIRING SIDE OF P.W.BOARD (6/6)

VOLTAGE

IC1	
PIN NO.	VOLTAGE
1	1.6 V
2	1.6 V
3	1.6 V
4	1.6 V
5	1.6 V
6	1.6 V
7	0 V
8	2.6 V
9	0 V
10	0 V
11	0 V
12	3.3 V
13	1.6 V
14	1.6 V
15	1.6 V
16	0 V
17	0 V
18	1.6 V
19	1.6 V
20	1.6 V
21	1.6 V
22	1.6 V
23	0 V
24	1.6 V
25	0 V
26	0 V
27	0 V
28	1.6 V
29	1.6 V
30	3.3 V

IC301	
PIN NO.	VOLTAGE
1	0.8 V (0V)
2	1.5 V (0V)
3	3.6 V (0.4V)
4	1.5 V (0V)
5	0 V (0V)
6	3.6 V (0.4V)
7	2.8 V (0.2V)
8	3.5 V (0.3V)
9	3.6 V (0.3V)

IC303	
PIN NO.	VOLTAGE
1	2.12 V
2	4.78 V
3	2.12 V
4	2.11 V
5	0 V
6	4.65 V
7	4.65 V
8	3.02 V
9	4.78 V
10	4.08 V
11	1.63 V
12	1.13 V
13	2.08 V
14	1.31 V
15	1.29 V
16	2.07 V
17	0 V
18	1.43 V
19	1.99 V
20	1.44 V
21	2.08 V
22	2.08 V
23	4.48 V
24	3.35 V

IC2			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	0.7 V	41	0 V
2	0 V	42	3.3 V
3	0 V	43	3.3 V
4	0 V	44	3.0 V
5	3.3 V	45	1.5 V
6	2.4 V	46	0 V
7	0 V	47	0 V
8	0 V	48	1.5 V
9	1.6 V	49	3.0 V
10	0 V	50	3.3 V
11	4.7 V	51	1.8 V
12	1.7 V	52	3.0 V
13	0 V	53	0 V
14	1.6 V	54	0 V
15	1.6 V	55	0 V
16	1.6 V	56	0 V
17	1.6 V	57	1.7 V
18	3.3 V	58	3.3 V
19	0 V	59	0 V
20	1.6 V	60	3.0 V
21	1.6 V	61	1.6 V
22	1.6 V	62	2.4 V
23	1.6 V	63	0 V
24	1.6 V	64	0 V
25	1.6 V	65	0 V
26	1.6 V	66	0 V
27	1.6 V	67	0 V
28	0 V	68	4.8 V
29	0 V	69	4.9 V
30	2.1 V	70	4.9 V
31	2.1 V	71	4.6 V
32	0 V	72	0 V
33	3.3 V	73	4.9 V
34	3.5 V	74	0 V
35	3.3 V	75	0 V
36	3.3 V	76	0 V
37	3.3 V	77	3.2 V
38	1.6 V	78	0 V
39	1.6 V	79	0 V
40	0 V	80	3.4 V

IC101		IC601	
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	0 V	1	0 V
2	0 V	2	0 V
3	0.55 V	3	0 V
4	2.16 V	4	4.96 V
5	0 V	5	4.96 V
6	1.25 V	6	4.96 V
7	0 V	7	4.96 V
8	0.58 V	8	4.89 V
9	3.17 V	9	4.78 V
10	3.55 V	10	4.78 V
11	0 V	11	4.78 V
12	0 V	12	4.78 V
13	4.72 V	13	4.78 V
14	4.37 V	14	4.78 V
15	0 V	15	4.78 V
16	3.67 V	16	4.78 V
17	0.38 V	17	5.1 V
18	0 V	18	5.5 V
19	0 V	19	5.0 V
20	0 V	20	4.66 V
21	2.16 V	21	5.03 V
22	0.55 V	22	4.97 V
23	0 V	23	10.0 V
24	0 V	24	0 V

IC3	
PIN NO.	VOLTAGE
1	1.6 V
2	1.6 V
3	1.8 V
4	2.1 V
5	2.1 V
6	2.1 V
7	2.1 V
8	0 V
9	0 V
10	0 V
11	0 V
12	0 V
13	0 V
14	0 V
15	2.1 V
16	2.1 V
17	1.6 V
18	4.9 V
19	3.5 V
20	1.6 V
21	0 V
22	0 V
23	4.9 V
24	4.9 V
25	1.6 V
26	2.1 V
27	2.1 V
28	1.9 V
29	0 V
30	0 V
31	0 V
32	0 V
33	0 V
34	0 V
35	0 V
36	4.2 V
37	0 V
38	2.1 V
39	2.1 V
40	4.9 V
41	2.1 V
42	2.1 V

IC302	
PIN NO.	VOLTAGE
1	2.15 V
2	0 V
3	0 V
4	0 V
5	0 V
6	4.83 V
7	9.87 V
8	4.4 V
9	0 V
10	0 V
11	4.64 V
12	2.27 V
13	4.66 V
14	0 V
15	2.13 V
16	0 V
17	4.86 V
18	0.73 V
19	0.73 V
20	6.3 V
21	0 V
22	2.33 V

IC701			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	4.86 V	51	0 V
2	0 V	52	0 V
3	4.85 V	53	4.97 V
4	0 V	54	4.97 V
5	4.78 V	55	4.97 V
6	4.82 V	56	4.97 V
7	4.84 V	57	0 V
8	0 V	58	0 V
9	4.91 V	59	-29.7 V
10	4.72 V	60	-29.5 V
11	2.34 V	61	-29.5 V
12	2.31 V	62	-29.5 V
13	0 V	63	-29.5 V
14	0 V	64	-29.5 V
15	4.91 V	65	-29.5 V
16	4.88 V	66	-29.5 V
17	4.88 V	67	-29.5 V
18	0 V	68	-29.5 V
19	4.91 V	69	-29.5 V
20	0 V	70	-29.5 V
21	0 V	71	-26.4 V
22	0 V	72	-20.2 V
23	0 V	73	-26.4 V
24	4.95 V	74	-29.5 V
25	0 V	75	-20.2 V
26	0.37 V	76	-20.2 V
27	0 V	77	-29.5 V
28	0 V	78	-26.4 V
29	0 V	79	-29.5 V
30	0 V	80	-29.5 V
31	4.97 V	81	-20.2 V
32	4.97 V	82	-17.3 V
33	4.97 V	83	-29.5 V
34	4.87 V	84	-29.5 V
35	4.98 V	85	-29.5 V
36	4.97 V	86	-29.5 V
37	0 V	87	-26.4 V
38	0 V	88	-20.2 V
39	4.83 V	89	-23.3 V
40	0 V	90	-29.5 V
41	1.94 V	91	-29.5 V
42	13.76 V	92	-26.4 V
43	13.76 V	93	-26.4 V
44	13.76 V	94	-26.4 V
45	3.55 V	95	-26.4 V
46	4.85 V	96	-26.4 V
47	4.85 V	97	-26.4 V
48	4.72 V	98	-26.4 V
49	4.97 V	99	-26.4 V
50	0 V	100	-26.4 V

IC902		Q905	
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	20.3 V	1	14.33 V
2	0 V	2	20.3 V
3	9.97 V	3	13.8 V

IC904		IC704	
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	20.3 V	1	5 V
2	0.67 V	2	0 V
3	5.7 V	3	5 V

IC901	
PIN NO.	VOLTAGE
1	0 V
2	0 V
3	0 V
4	16.72 V
5	0 V
6	0 V
7	0 V
8	16.72 V
9	16.72 V
10	0 V
11	0 V
12	16.72 V
13	0 V
14	0 V
15	0 V

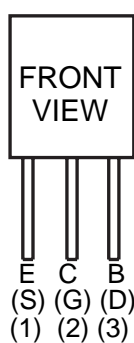
NOTES ON SCHEMATIC DIAGRAM

- 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 pico-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression "capacitance/withstand voltage" is used.
(CH), (TH), (RH), (UJ): Temperature compensation
(ML): Mylar type
(P.P.): Polypropylene type
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
 1. In the tuner section, indicates AM indicates FM stereo
 2. In the main section, a tape is being played back.
 3. In the deck section, a tape is being played back. () indicates the record state.
 4. In the power section, a tape is being played back.
 5. In the CD section, the CD is stopped.
- Parts marked with "△" (□ = = = □) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

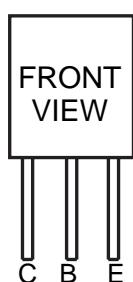
REF. NO	DESCRIPTION	POSITION
SW1	OPEN/CLOSE	ON—OFF
SW2	CLAMP	ON—OFF
SW3	DISC NUMBER	ON—OFF
SW4	PICKUP IN	ON—OFF
SW601	SPAN SELECTOR	50/9 Hz—100/10 Hz
SW602	VOLTAGE SELECTOR	110 V—127 V— 220 V—230-240 V
SW701	ON/STAND-BY	ON—OFF
SW702	CLOCK	ON—OFF
SW703	TIMER/SLEEP	ON—OFF
SW709	DISC SKIP	ON—OFF
SW710	OPEN/CLOSE	ON—OFF
SW711	EQUALIZER/X-BASS/DEMO	ON—OFF

REF. NO	DESCRIPTION	POSITION
SW712	VOLUME UP	ON—OFF
SW713	VOLUME DOWN	ON—OFF
SW714	CD	ON—OFF
SW715	TAPE	ON—OFF
SW716	TUNING/TIME DOWN	ON—OFF
SW717	MEMORY/SET	ON—OFF
SW718	REWIND	ON—OFF
SW719	FAST FORWARD	ON—OFF
SW720	PLAY/REPEAT	ON—OFF
SW721	STOP	ON—OFF
SW723	REC/PAUSE	ON—OFF
SW724	TUNING/TIME UP	ON—OFF
SW725	TUNER (BAND)	ON—OFF

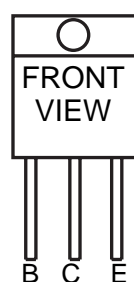
TYPES OF TRANSISTOR AND LED



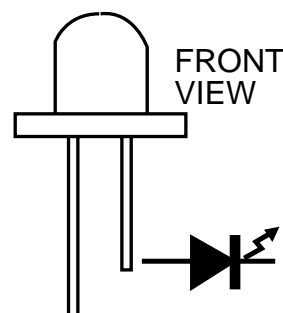
2SC1845 F
2SC3331 S
KRC102 M
KRC104 M
KRC107 M



9014 C

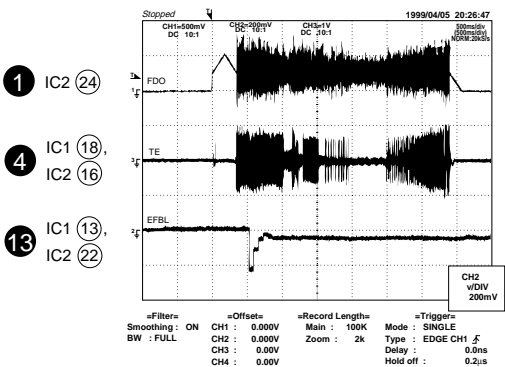
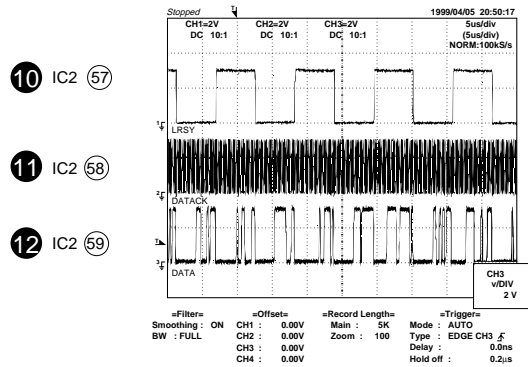
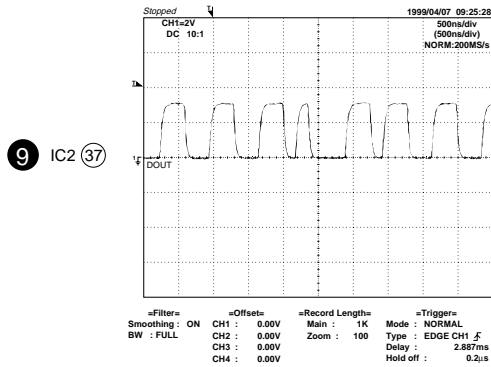
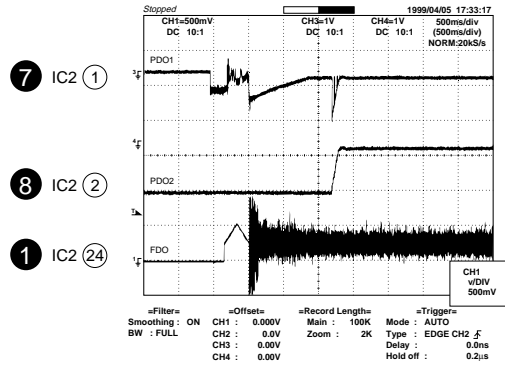
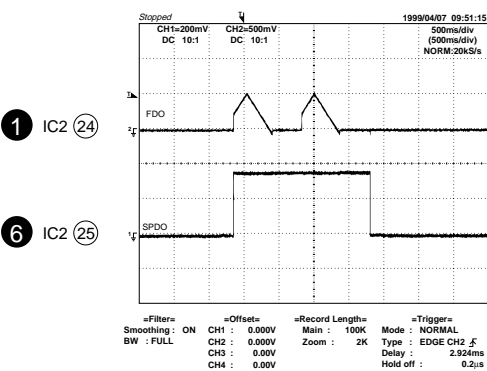
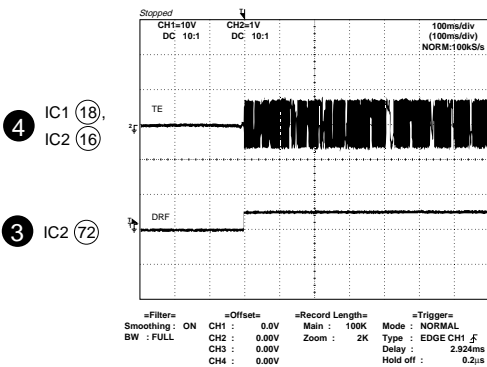
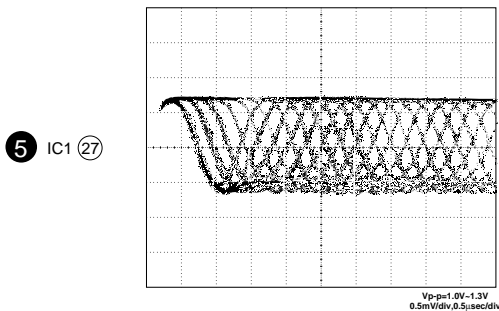
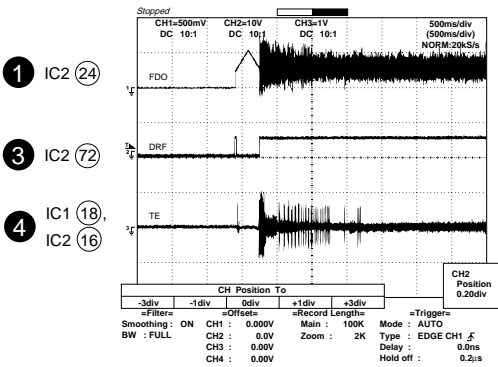
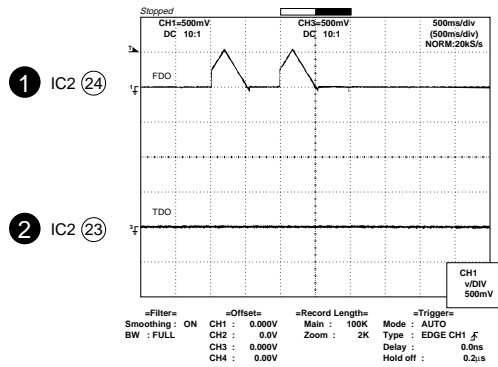


KTC2026



4204SRT7

WAVEFORMS OF CD CIRCUIT



TROUBLESHOOTING

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 off the power, and wipe the lens softly using a cleaning paper moistened with commercially available cleaning solution so as not to damage it. Be careful not to touch the lens with bare hands.

Dust gradually accumulates on the objective lens during use, and it may degrade performance. To avoid this problem, use a cleaning disc designed for CD optical pickup lenses.

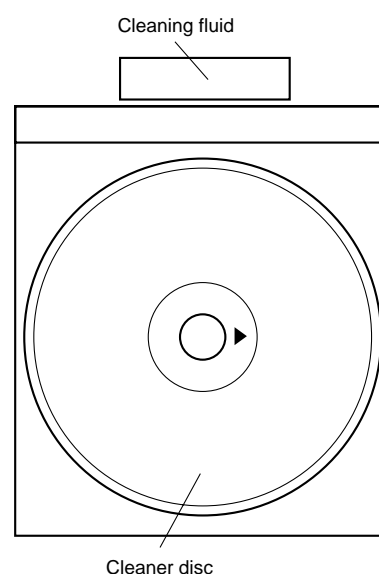
		Parts code
1.	CD optical pickup Lens cleaner disc	UDSKA0004AFZZ

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 disc must not be used on car CD players or on computer CD-ROM drives.
- All rights reserved. Unauthorized duplicating, broadcasting and renting this product is prohibited by law.



When a CD cannot be played

1. "E-CD01" is displayed.

- (1) Check the power to IC2 (LC78641E), the presence of the clock signal (16.943 MHz) and the status of the RESET terminal (pin 71 on IC2).
- (2) Does 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.

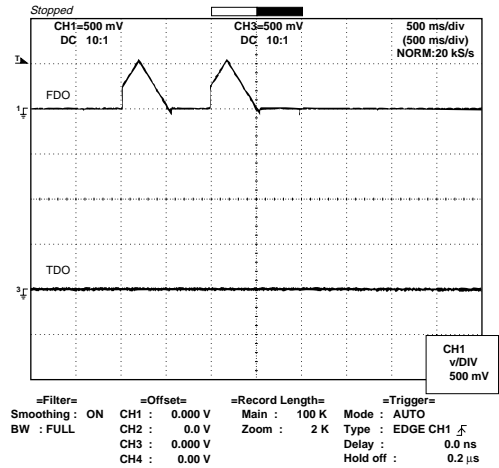


Figure 36-1

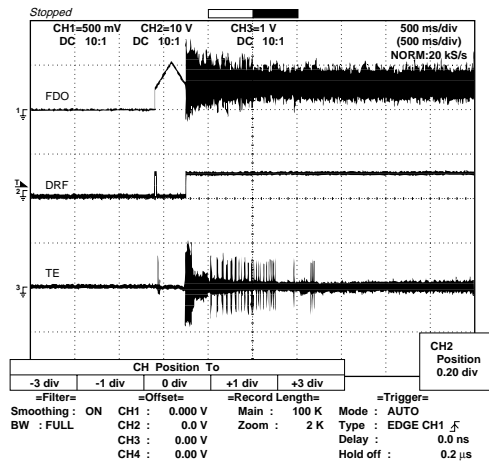
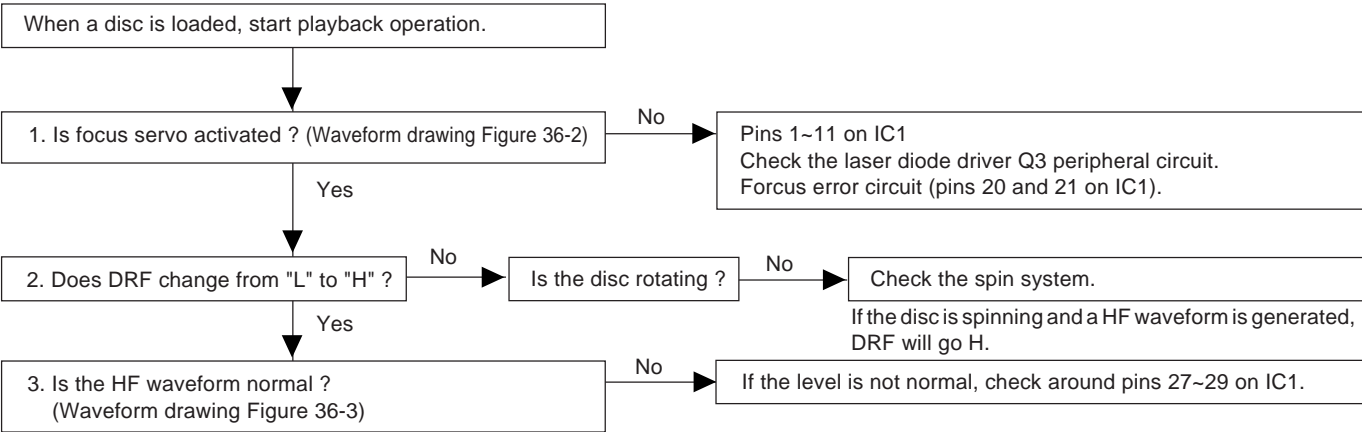
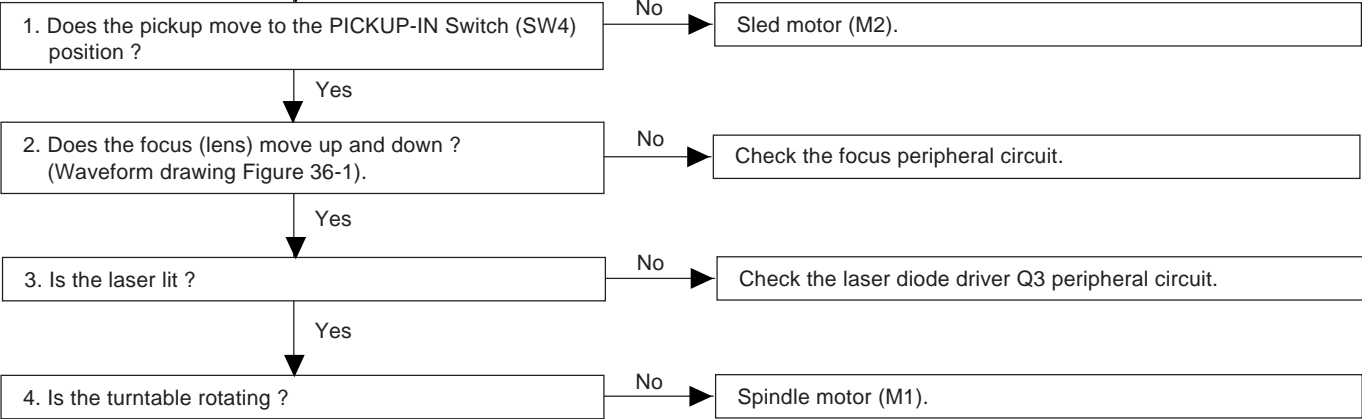


Figure 36-2

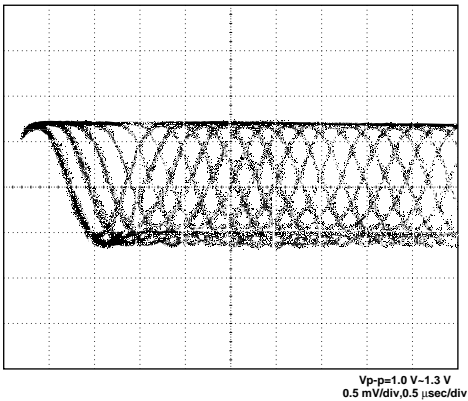


Figure 36-3

(2) Tracking system check.

Check the TE waveform at pin 18 on IC1.

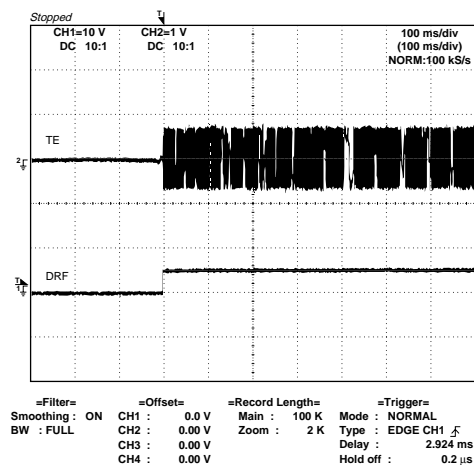
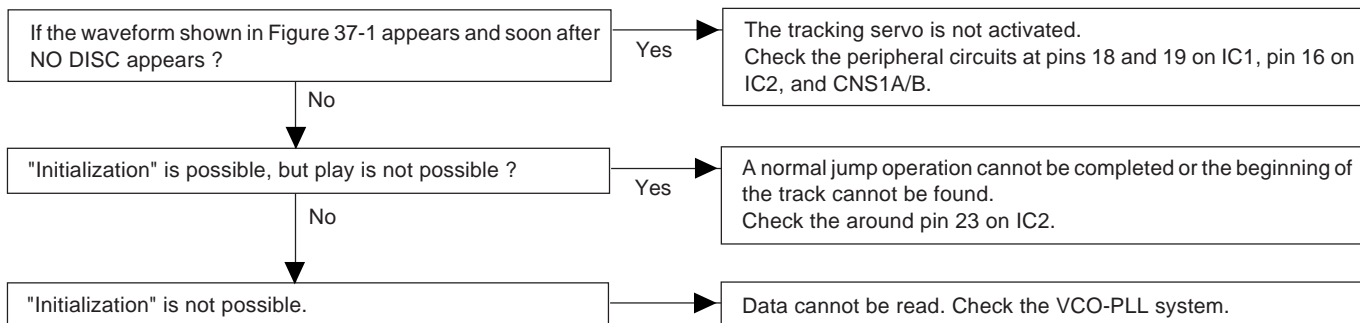


Figure 37-1

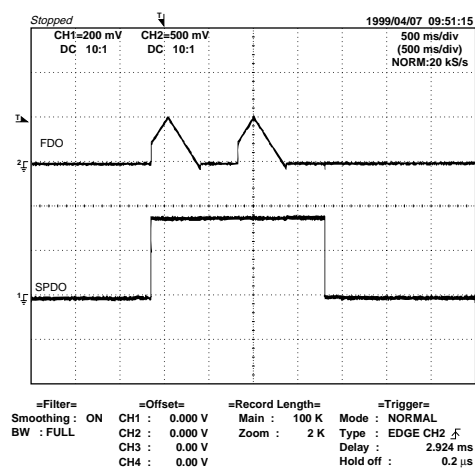
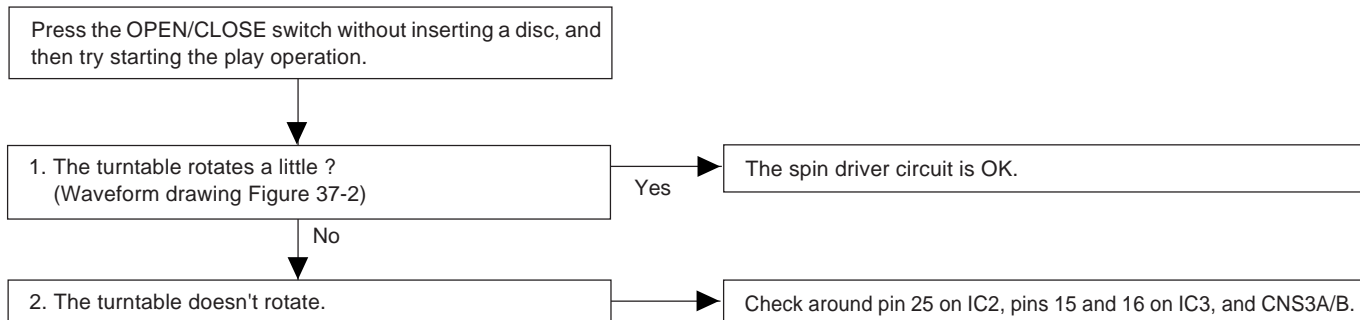
(3) Spin system check.

Figure 37-2

(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 38-1)

Check around pins 1~6 on IC2.

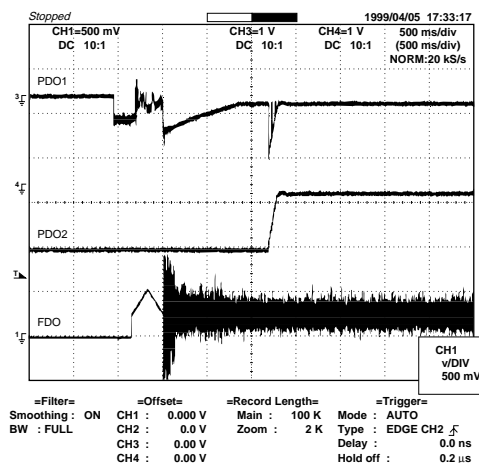


Figure 38-1

(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" ?

Yes

1. When playing at normal speed.
Check the peripheral circuit at pin 37 (DOUT) on IC2 and the waveform (Figure 38-2).

If OK, Check the unit.

No

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

Check again using a known good disc.

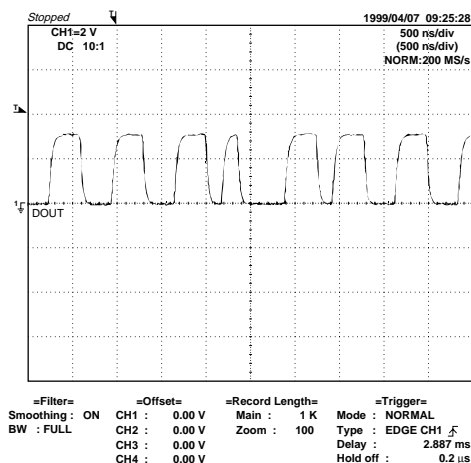


Figure 38-2

FUNCTION TABLE OF IC

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

Pin No.	Terminal Name	Input/Output	Setting in Reset	Function	
1	PD01	Output	—	For PULL	Phase-comparison output terminal for built-in VCO control.
2	PD02	Output	Input		Phase-comparison output terminal for built-in VCO control. Rough servo : OFF, phase servo : ON.
3	VVSS	—	—		Ground terminal for built-in VCO.
4	PCKIST	Input	—		Resistor terminal for setting the PDO output current.
5	VVDD	Input	—		Power terminal for built-in VCO.
6	FR	Input	—		Resistor terminal for setting the VCO frequency range.
7	HFL	Input	—	Mirror detection signal input terminal.	
8	SLCIST	Input	—	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	Input	—	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 0 V)	
28	LASER	Output	L	LASER ON/OFF control terminal.	
29	CONT1	Input/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 0 V, or set it as the output terminal and open it.
30	CONT2	Input/Output	Input mode	General purpose input/output terminal 2.	
31	CONT3	Input/Output	Input mode	General purpose input/output terminal 3.	
32	CONT4	Input/Output	Input mode	General purpose input/output terminal 4.	
33	CONT5	Input/Output	Input mode	General purpose input/output terminal 5.	
34*	PCK	Output	H	Clock monitor terminal for EFM data replay. 4.3218 MHz as phase clock.	
35*	C2F	Output	H	C2 flag output terminal.	
36	VDD	Input	—	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 7.35 kHz divided from quartz oscillation.	
39*	EFLG	Output	L	C1, C2 correct monitor terminal.	
40	TEST	Input	—	Input terminal for test. Surely connected to 0 V.	
41*	EMPH	Input/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)

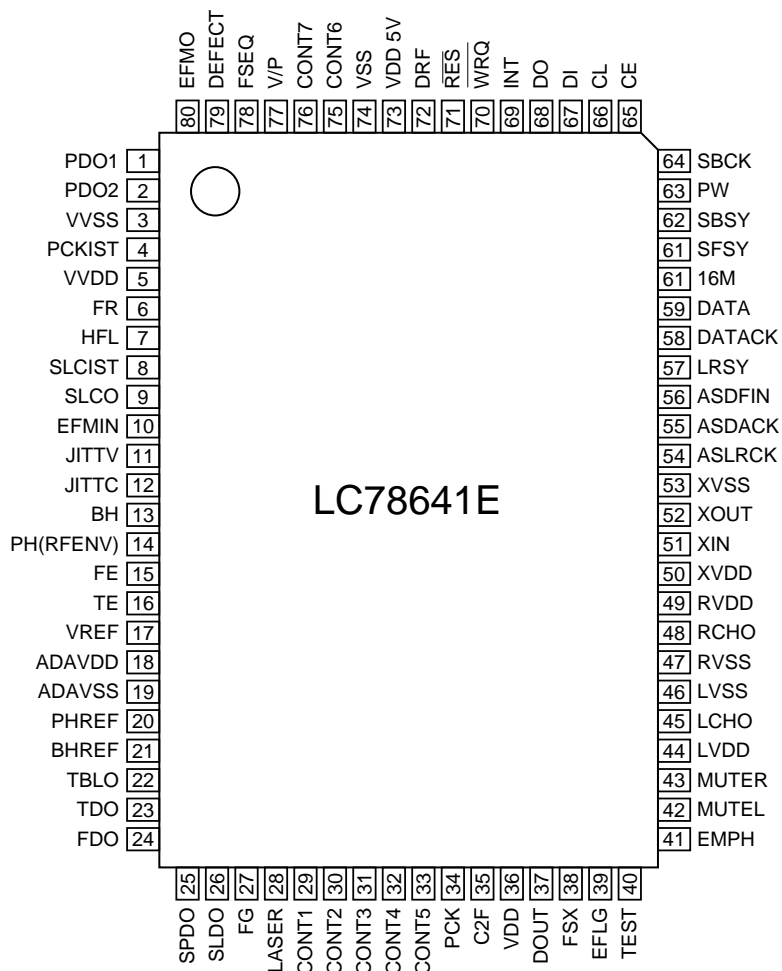
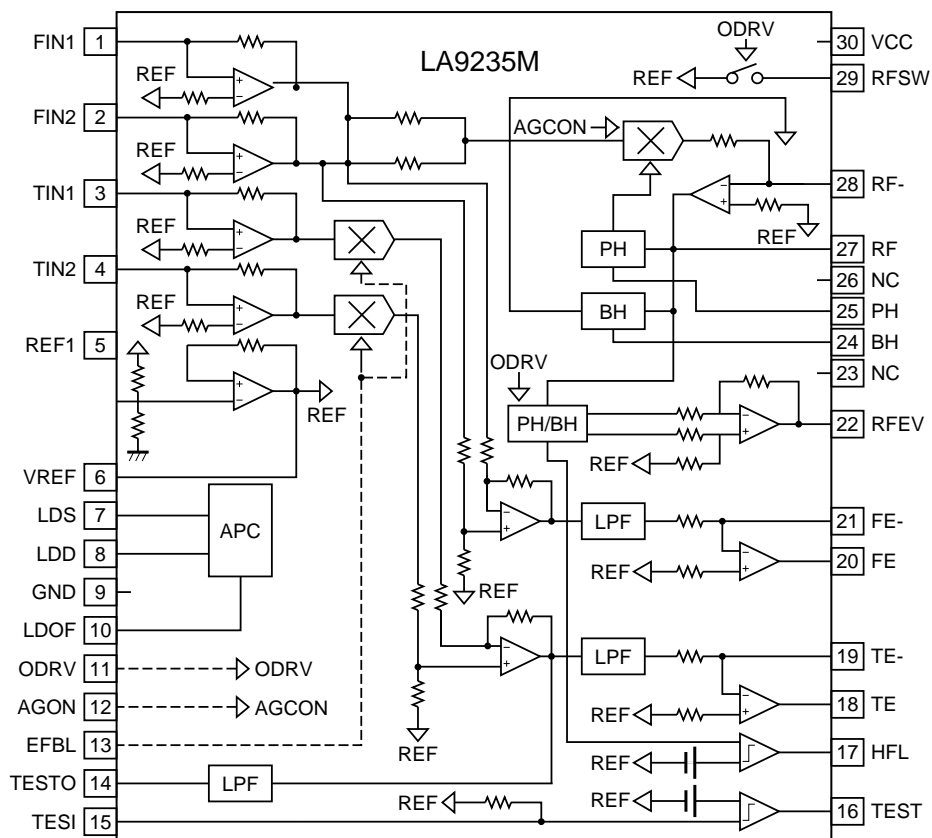
Pin No.	Terminal Name	Input/Output	Setting in Reset	Function	
44	LVDD	Input	—	L channel	Power terminal for L channel.
45	LCHO	Output	1/2VDD	D/A converter	L channel output terminal.
46	LVSS	—	—		Ground terminal for L channel. Surely connected to 0 V.
47	RVSS	—	—	R channel	Ground terminal for R channel. Surely connected to 0 V.
48	RCHO	Output	1/2VDD	D/A converter	R channel output terminal.
49	RVDD	Input	—		Power terminal for R channel.
50	XVDD	Input	—	For quartz oscillation	Power terminal for quartz oscillation.
51	XIN	Input	Oscillation		Ground terminal of 16.9344 MHz quartz oscillation.
52	XOUT	Output	Oscillation		
53	XVSS	—	—		Ground terminal for quartz oscillation. Surely connected to 0 V.
54	ASLRCK	Input	—	For anti shock mode	L/R clock input terminal. (When not used, connect to 0 V)
55	ASDACK	Input	—		Bit clock input terminal. (When not used, connect to 0 V)
56	ASDFIN	Input	—		L/R channel data input terminal. (When not used, connect to 0 V)
57*	LSRY	Output	L	For digital data output	L/R clock output terminal.
58*	DATAACK	Output	L		Bit clock output terminal.
59*	DATA	Output	L		L/R channel data output terminal.
60*	16M	Output	Clock output		16.9344 MHz 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 sub codes P,A,R,S,T,U and W.
64	SBCK	Input	—		Clock input terminal to read sub code. (When not used, connect to 0 V)
65	CE	Input	—	For microcomputer interface	Chip enable signal input terminal.
66	CL	Input	—		Data transmission clock input terminal.
67	DI	Input	—		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	Input	—		Power terminal for microcomputer interface.
74	VSS	—	—		Ground terminal of digital system. Surely connected to 0 V.
75	CONT6	Input/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 0 V, or set it as the output terminal and open it.
76	CONT7	Input/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*	DETECT	Input/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 (VDD5 V) for a microcomputer interface :

CE (65 pin), CL (66 pin), DI (67 pin), DO (68 pin), INT (69 pin), WRQ (70 pin), RES (71 pin), DRF (72 pin), CONT6 (75 pin), CONT7 (76 pin)

IC2 VHiLC78641E-1: Servo/Signal Control (LC78641E)**IC1 VHiLA9235M/-1: Servo Amp. (LA9235M)****Figure 41 BLOCK DIAGRAM OF IC**

CD-BK137W

IC701 RH-IX0362AWZZ: System Microcomputer (IX0362AW) (1/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
1	VDD	VDD	Input	(+) POWER SUPPLY.
2	P37	-20 dB ATT	Output	-20 dB ATTENUATOR.
3*	P36	NO USE	Output	GND
		DSA_STB	Input/Output	DSA STRUBE
4	P35	T_BIAS	Output	TAPE RECORD BIAS.
5	P34	T_T1/T2	Output	TAPE T1/T2 CHANGE.
6	P33	REC/PLAY	Output	TAPE REC/PLAY CHANGE.
7	P32	RES OUT	Output	CD DSP RESET & MPEG MICROCOMPUTER RESET.
8	P31	DRF	Input	CD RF LEVEL DETECTION.
9	P30	WRQ	Input	CD DSP WRITE REQUEST.
10	RESET	RESET	Input	RESET.
11	X2	X2	Output	MAIN CLOCK.
12	X1	X1	Input	MAIN CLOCK.
13	VPP/IC	XVPP/IC	—	GND
14*	XT2	XT2	—	OPEN.
15	P04	SPN	Input	TUNER SPAN CHANGE.
16	VDD	VDD	Input	(+) POWER SUPPLY.
17	P27	CD CLK	Output	CD DSP CLOCK.
18	P26	CD DI	Output	CD DSP COMMAND.
19	P25	CD DO	Input	CD DSP CODE Q OUT.
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	O/C SW	Input	CD OPEN/CLOSE SWITCH.
		DISC NO SW	Input	CD DISC NUMBER SWITCH.
		DSA_DATA	Input/Output	DS DATA INPUT.
27	ANI6	NO USE	Input	GND
		TUNER SM	Input	TUNER SIGNAL METER INPUT.
		DSA_ACK	Input/Output	DSA ACR.
28	ANI5	SPEANA 2	Input	SPEANA DATA INPUT 16 kHz.
29	ANI4	SPEANA 1	Input	SPEANA DATA INPUT 1 kHz.
30	ANI3	SPEANA 0	Input	SPEANA DATA INPUT 63 kHz.
31-33	ANI2-ANI0	KEY 2-KEY 0	Input	KEY INPUT.
34	AVDD	AVDD	Input	ANALOG VDD.
35	AVREF	AVREF	Input	ANALOG REF VOLTAGE.
36	INTP3	P_IN	Input	POWER FAILURE DETECT.
37*	P02	JOG 1	Input	JOG VOLUME INPUT 1.
38	P01	JOG 0	Input	JOG VOLUME INPUT 0.
39	INTP0	REMOCON	Input	REMOCON INPUT.
40	VSS	VSS	—	GROUND VOLTAGE.
41	P74	SMUTE	Output	SYSTEM MUTE CONTROL.
42	P73	T_SOL_B	Output	TAPE 2 SOLENOID CONTROL.
43	P72	T_SOL_A	Output	TAPE 1 SOLENOID CONTROL.
44	P71	T_MOTOR	Output	TAPE MOTOR CONTROL.
45	P70	TIMER LED	Output	TIMER LED CONTROL.
46	VDD	VDD	Input	(+) POWER SUPPLY.
47*	P127	AC RLY_CONT	Output	AC RELAY CONTROL.
48	P126	SP-RLY	Output	SPEAKER OUTPUT RELAY CONTROL.
49	P125	SP_DET	Input	SPEAKER OUTPUT DETECTION.

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

IC701 RH-iX0362AWZZ: System Microcomputer (IX0362AW) (2/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
50	P124	T 1 RUN	Input	TAPE 1 RUN PULSE INPUT.
51	P123	T 2 RUN	Input	TAPE 2 RUN PULSE INPUT.
52	P122	CD CLAMP SW	Input	CD CHANGER CLAMP SWITCH.
53	P121	NO USE	Input	GND
54	P120	PLAY SW_B	Input	PLAY SWITCH FOR T 2.
55	P117	FPA	Input	TAPE 2 A-SIDE FULL PROOF.
56	P116	FPB	Input	TAPE 2 B-SIDE FULL PROOF.
57	P115	MIC SW	Input	MIC SWITCH.
58*	P114	LCK 0	Output	LED DRIVER LCK.
59	P113	DISTOUT	Output	DESTINATION OUTPUT.
60	FIP39	NO USE	Output	GND
61*	FIP38	KARAOKE LATCH	Output	KARAOKE LATCH.
62*	FIP37	NO USE	Output	GND
		MPEG_POW	Output	MPEG POWER CONTROL.
63*	FIP36	NO USE	Output	GND
		RDS RST/ESS_ACK	Output	RDS FAN RESET.
64*	FIP35	NO USE	Input	GND
		RDS RDDA/ESS_STB	Input	RDS TRANSMIT DATA INPUT/DSA STROBE.
65*	FIP34	NO USE	Output	GND
		RDS RDCL/ESS_DI	Output	RDS CLOCK/DSA DATA OUTPUT.
66*	FIP33	NO USE	Input	GND
		RDS READY/ESS_DO	Input	RDS READY/DSA DATA INPUT.
67*	P103	DIST3	Input	DESTINATION INPUT.
	FIP32	P22	Output	FL DISPLAY DRIVER.
68*	P102	DIST2	Input	DESTINATION INPUT.
	FIP31	P21	Output	FL DISPLAY DRIVER.
69	P101	DIST1	Input	DESTINATION INPUT.
	FIP30	P20	Output	FL DISPLAY DRIVER.
70*	P100	DIST0	Input	DESTINATION INPUT.
	FIP29	P19	Output	FL DISPLAY DRIVER.
71-78	FIP28-FIP21	P18-P11	Output	FL DISPLAY DRIVER.
79	VLOAD	VLOAD	Input	FL DRIVER (-) POWER SUPP. -30 V
80-89	FIP20-FIP11	P10-P1	Output	FL DISPLAY DRIVER.
90-100	FIP10-FIP0	G11-G1	Output	FL DISPLAY DRIVER.

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

IC601 VHiLC75341/-1: Audio Processor (LC75341)

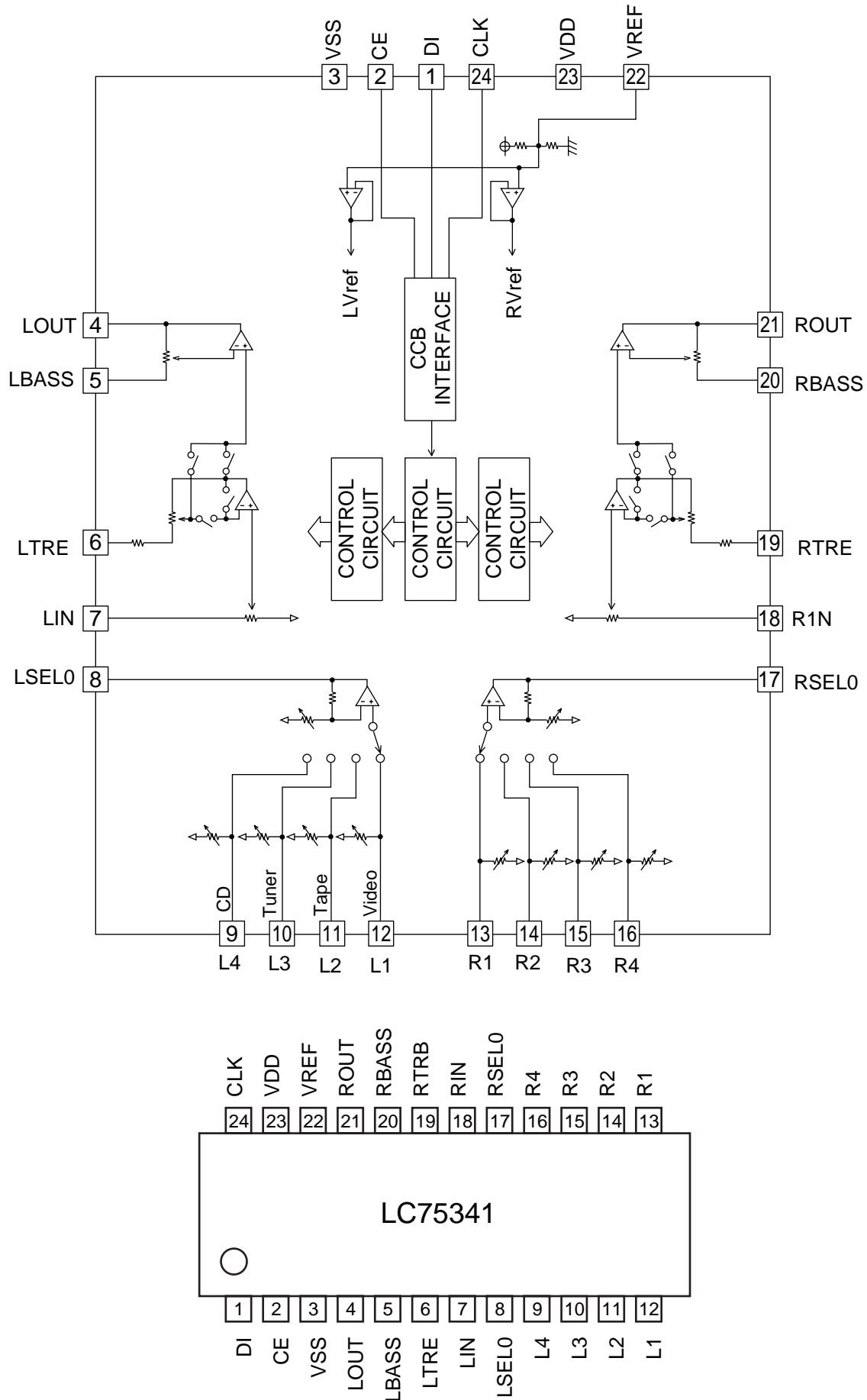


Figure 44 BLOCK DIAGRAM OF IC

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

Pin No.	Terminal Name	Function
1	TO	CH2 inverted input.
2	FD	CH1 inverted input.
3*	FO	CH1 output offset control.
4	FO+	CH1 inverted output.
5	FO-	CH1 non-inverted output.
6	TR+	CH2 inverted output.
7	TR-	CH2 non-inverted output.
8-14	GND	GND
15	SL-	CH3 non-inverted output.
16	SL+	CH3 inverted output.
17	SLDO	CH3 inverted input.
18	VCC1	Power supply 1 (CH1, CH2, CH3)
19	STANDBY	STAND-BY 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	SPO SPDO	CH4 inverted input.
26	SP+	CH4 inverted output.
27	SP-	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	LOADING M-	CH6 non-inverted output.
39	LOADING M+	CH6 inverted output.
40	VCC4	Power supply 4 (CH6).
41	LD_M-	CH6 inverted input.
42	LD_M+	CH6 non-inverted input.

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

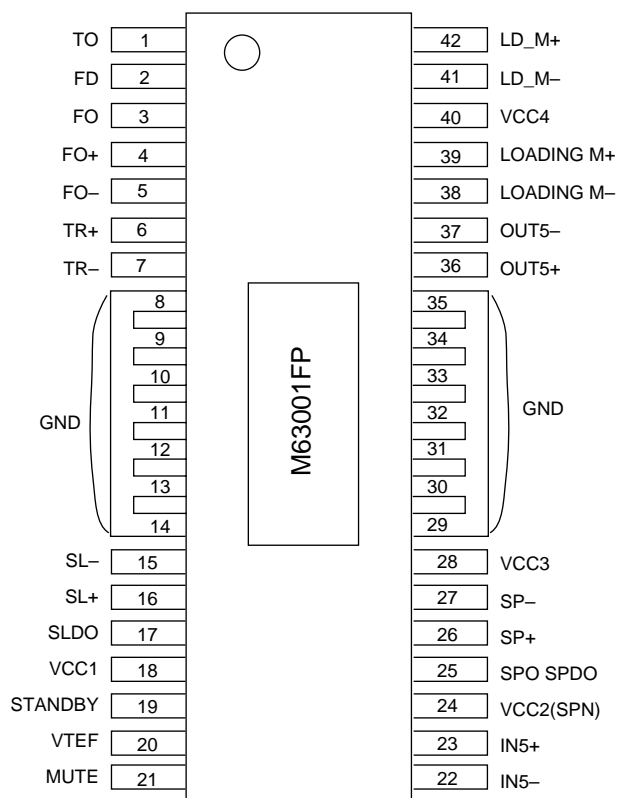
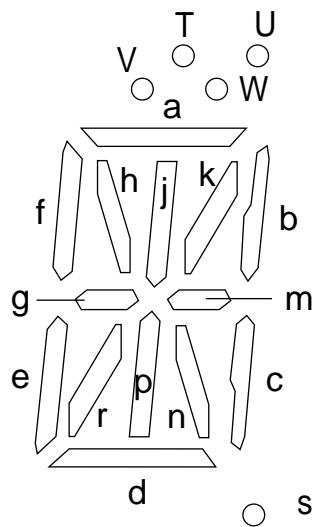
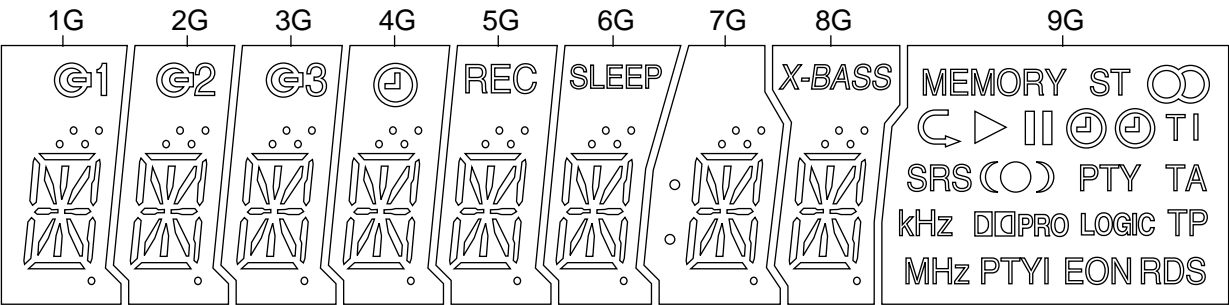


Figure 45 BLOCK DIAGRAM OF IC

FL DISPLAY

FL701 VVKSA9MS13-1: FL Display



	1G	2G	3G	4G	5G	6G	7G	8G	9G
P1	G1	G2	G3	G4	REC	SLEEP	:	X-BASS	PTYI
P2	U	U	U	U	U	U	U	U	
P3	T	T	T	T	T	T	T	T	
P4	V	V	V	V	V	V	V	V	
P5	W	W	W	W	W	W	W	W	
P6	a	a	a	a	a	a	a	a	TI
P7	b	b	b	b	b	b	b	b	ST
P8	k	k	k	k	k	k	k	k	MEMORY
P9	j	j	j	j	j	j	j	j	PTY
P10	h	h	h	h	h	h	h	h	↶
P11	f	f	f	f	f	f	f	f	
P12	m	m	m	m	m	m	m	m	MHz
P13	d	d	d	d	d	d	d	d	▷
P14	g	g	g	g	g	g	g	g	kHz
P15	p	p	p	p	p	p	p	p	EON
P16	e	e	e	e	e	e	e	e	DIPROLOGIC
P17	n	n	n	n	n	n	n	n	SRS (○)
P18	r	r	r	r	r	r	r	r	⊕ (L)
P19	c	c	c	c	c	c	c	c	⊕ (R)
P20	s	s	s	s	s	s	s	s	

SHARP PARTS GUIDE

MINI COMPONENT SYSTEM

MODEL CD-BK137W

CD-BK137W Mini Component System consisting of CD-BK137W (main unit), CP-BK137 (front speakers) and 92L2390137W010 (surround speakers).

“HOW TO ORDER REPLACEMENT PARTS”

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

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

★ MARK: SPARE PARTS-DELIVERY SECTION

For U.S.A. only

Contact your nearest SHARP Parts Distributor to order.

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

Explanation of capacitors/resistors parts codes

Capacitors

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

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

Resistors

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

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

NOTE:

Parts marked with “△” are important for maintaining the safety of the set.

Be sure to replace parts with specified ones for maintaining the safety and performance of the set.

CD-BK137W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
CD-BK137W				
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	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
IC601	VHILC75341/-1	J	AM	Audio Processor,LC75341
IC701	RH-IX0362AWZZ	J	AV	System Microcomputer, IX0362AW
IC704	VHIKIA7042AP1	J	AC	System Reset,KIA7042A
IC901	VHISTK40270N1	J	AY	Power Amp.,STK402-070N
IC902	92L5660100W000	J		Silicon,RS604
IC903	VHIKIA7810AP1	J	AF	Voltage Regulator,KIA7810AP
IC904	VHIKIA7805AP1	J	AF	Voltage Regulator,KIA7805AP

TRANSISTORS

Q1	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q2	VSKRC102M/-1	J	AC	Digital,NPN,KRC102 M
Q3	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q101	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q102,103	VSKRC104M/-1	J	AC	Digital,NPN,KRC104 M
Q104~107	VS2SC1845F/-1	J	AC	Silicon,NPN,2SC1845 F
Q108~111	VS2SC3331/-1	J	AB	Silicon,NPN,2SC3331 S
Q112	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q113	VSKRC104M/-1	J	AC	Digital,NPN,KRC104 M
Q114	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
Q401~408	92L2830901403	J		Silicon,NPN,9014 C
Q601,602	VS2SC3331/-1	J	AB	Silicon,NPN,2SC3331 S
Q701	VSKRC107M/-1	J	AC	Digital,NPN,KRC107 M
Q704,705	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
Q706	VSKTA1273Y/-1	J	AE	Silicon,PNP,KTA1273 Y
Q707	VSKRC102M/-1	J	AC	Digital,NPN,KRC102 M
Q708	VSKRC107M/-1	J	AC	Digital,NPN,KRC107 M
Q901	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q902,903	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q904	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q905	VSKTC2026/-1	J	AF	Silicon,NPN,KTC2026
Q906	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q907	VSKRC107M/-1	J	AC	Digital,NPN,KRC107 M
Q908	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR

DIODES

D21,22	VHD1SS133/-1	J	AA	Silicon,1SS133
D301~308	VHD1SS133/-1	J	AA	Silicon,1SS133
D701~703	VHD1SS133/-1	J	AA	Silicon,1SS133
D707~711	VHD1SS133/-1	J	AA	Silicon,1SS133
D714	VHD1SS133/-1	J	AA	Silicon,1SS133
D716	VHD1SS133/-1	J	AA	Silicon,1SS133
D901~905	VHD1SS133/-1	J	AA	Silicon,1SS133
D906~912	VHD1N4004S/-1	J	AB	Silicon,1N4004S
D913	92L2810400130	J		Silicon,1N4001
D914	VHD1SS133/-1	J	AA	Silicon,1SS133
LED722	VHP4204SRT7-1	J	AD	LED,Red,4204SRT7
ZD61	VHEZ02W3R9Z-1	J	AC	Zener,3.9V,Z02W3.9Z
ZD901	VHEMTZJ6R2A-1	J	AA	Zener,6.2V,MTZJ6.2A
ZD902	VHEDZ300BSB-1	J	AB	Zener,30V,DZ30BSB
ZD903	VHEDZ3R9BSB-1	J	AC	Zener,3.9V,DZ3.9BSB

FILTERS

BF301	RFILR0008AWZZ	J	AE	Band Pass Filter
CF302	RFILF0124AFZZ	J	AD	FM IF,10.7 MHz
CF351	RFILF0003AWZZ	J	AK	FM IF,10.7 MHz
CF352	RFILA0009AWZZ	J	AE	AM IF,450 kHz

TRANSFORMERS

△ PT801	92L29517250140	J	BN	Power with CNS801/CNS901
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NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
T301	RCILB0065AWZZ	J	AC	FM OSC.
T302	RCILI0017AWZZ	J	AB	FM IF
T303	RCILA0052AWZZ	J	AE	AM Antenna
T306	RCILB0058AWZZ	J	AC	AM OSC.
T351	RCILI0019AWZZ	J	AD	AM IF

COILS

L61	VP-XHR82K0000	J	AC	0.82 μH,Choke
L62	VP-XH2R2K0000	J	AB	2.2 μH,Choke
L103	VP-DH101K0000	J	AB	100 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
L901,902	RCILZ0137AWZZ	J		0.29 μH

VARIABLE RESISTOR

VR401	92L29200503030	J	AG	50 kohms (A) [Mic Volume]
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VARIABLE CAPACITORS

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	92LCRSTL1746A	J	AC	Crystal,16.943 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	92L27100104108	J		0.1 μF,25V
C11	VCEAZA1AW476M	J	AB	47 μF,10V,Electrolytic
C12	92L27100104108	J		0.1 μF,25V
C13	92L27100103108	J		0.01 μF,50V
C14	92L27100334008	J		0.33 μF,50V
C17	92L27100472108	J		0.0047 μF,50V
C18	92L27100030108	J		3 pF,50V
C19	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
C20,21	92L27100104108	J		0.1 μF,25V
C22	92L27100101108	J		100 pF,50V
C23	92L27100473108	J		0.047 μF,50V
C24	VCEAZA1HW225M	J	AB	2.2 μF,50V,Electrolytic
C25	92L27100104108	J		0.1 μF,25V
C26	92L27100473108	J		0.047 μF,50V
C27	92L27100104108	J		0.1 μF,25V
C28	VCEAZA1AW476M	J	AB	47 μF,10V,Electrolytic
C29,30	92L27100104108	J		0.1 μF,25V
C31	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
C34	92L27100223108	J		0.022 μF,50V
C38,39	VCEAZA1CW106M	J	AC	10 μF,16V,Electrolytic
C40	92L27100152108	J		0.0015 μF,50V
C41	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
C42	92L27100680508	J		68 pF,50V
C43	92L27100152108	J		0.0015 μF,50V
C44	92L27100104108	J		0.1 μF,25V
C45	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
C46	92L27100223108	J		0.022 μF,50V
C47	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
C49,50	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
C51	VCEAZA1AW476M	J	AB	47 μF,10V,Electrolytic
C52	92L27100103108	J		0.01 μF,50V
C53	92L27100102108	J		0.001 μF,50V
C54	VCEAZA1AW476M	J	AB	47 μF,10V,Electrolytic
C55	92L27100103108	J		0.01 μF,50V
C56	VCEAZA0JW477M	J	AC	470 μF,6.3V,Electrolytic
C57,58	92L27100300508	J		30 pF,50V
C64	VCEAZA1AW476M	J	AB	47 μF,10V,Electrolytic
C71~78	92L27100101108	J		100 pF,50V
C80	92L27100104108	J		0.1 μF,25V
C81~83	92L27100223108	J		0.022 μF,50V
C101	VCQYKA1HM473K	J	AB	0.047 μF,50V,Mylar
C102,103	92L2700056143	J		560 pF,50V
C104,105	VCCSPA1HL181J	J	AA	180 pF,50V

NO.	PART CODE	★	PRICE RANK	DESCRIPTION	NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C106,107	92L2700056143	J		560 pF,50V	C404	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic
C108	VCEAZA1CW107M	J	AC	100 μF,16V,Electrolytic	C405	92L2700047243	J		0.0047 μF,50V
C109	92L2700010243	J		0.001 μF,50V	C406	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic
C112~115	92L2700033143	J		330 pF,50V	C407	VCEAZA1HW475M	J	AB	4.7 μF,50V,Electrolytic
C116,117	VCEAZA1CW107M	J	AC	100 μF,16V,Electrolytic	C408	VCEAZA0JW227M	J	AC	220 μF,6.3V,Electrolytic
C118,119	VCQYKA1HM333K	J	AB	0.033 μF,50V,Mylar	C409	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic
C120,121	92L2700056143	J		560 pF,50V	C412,413	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic
C122,123	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic	C414	VCEAZA1AW227M	J	AC	220 μF,10V,Electrolytic
C126,127	92L2700027143	J		270 pF,50V	C420,421	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic
C128,129	VCEAZA1HW226M	J	AB	22 μF,50V,Electrolytic	C433	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic
C130,131	VCKZPA1HF223Z	J	AA	0.022 μF,50V	C434,435	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic
C132,133	92L2700033243	J		0.0033 μF,50V	C601,602	92L2700010243	J		0.001 μF,50V
C134,135	VCEAZA1HW476M	J	AB	47 μF,50V,Electrolytic	C603	VCEAZA1HW475M	J	AB	4.7 μF,50V,Electrolytic
C136	VCEAZA1HW226M	J	AB	22 μF,50V,Electrolytic	C604	VCEAZA1HW106M	J	AB	10 μF,50V,Electrolytic
C137	VCKZPA1HF223Z	J	AA	0.022 μF,50V	C605	VCKZPA1HF223Z	J	AA	0.022 μF,50V
C138	VCEAZA1AW227M	J	AC	220 μF,10V,Electrolytic	C606	VCEAZA1HW226M	J	AB	22 μF,50V,Electrolytic
C139	VCEAZA1HW335M	J	AB	3.3 μF,50V,Electrolytic	C607,608	VCEAZA1HW106M	J	AB	10 μF,50V,Electrolytic
C140	VCQPKA2AA822J	J	AA	0.0082 μF,100V,Polypropylene	C609~612	VCQYKA1HM104K	J	AB	0.1 μF,50V,Mylar
C141	VCQYKA1HM393K	J	AB	0.039 μF,50V,Mylar	C613,614	VCQYKA1HM274K	J	AB	0.27 μF,50V,Mylar
C142	VCEAZA1HW476M	J	AB	47 μF,50V,Electrolytic	C615,616	VCCSPA1HL221J	J	AA	220 pF,50V
C145~147	92L2700010243	J		0.001 μF,50V	C617,618	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic
C148	VCQYKA1HM473K	J	AB	0.047 μF,50V,Mylar	C619	VCCSPA1HL221J	J	AA	220 pF,50V
C150	VCEAZA1HW106M	J	AB	10 μF,50V,Electrolytic	C623~630	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic
C301,302	92L2700010243	J		0.001 μF,50V	C701	VCKZPA1HF223Z	J	AA	0.022 μF,50V
C303	92L2691010043	J		10 pF,50V	C702	VCEAZA0JW108M	J	AC	1000 μF,6.3V,Electrolytic
C304	92L2700010243	J		0.001 μF,50V	C703,704	92L2691030043	J		30 pF,50V
C305	92L2691005043	J		5 pF,50V	C705	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
C306	VCKZPA1HF223Z	J	AA	0.022 μF,50V	C707,708	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic
C307	VCEAZA1HW106M	J	AB	10 μF,50V,Electrolytic	C710	VCEAZA1CW476M	J	AB	47 μF,16V,Electrolytic
C308	92L2691005043	J		5 pF,50V	C713	RC-EZD104AF1H	J	AB	0.1 μF,50V,Electrolytic
C309	92L2700010243	J		0.001 μF,50V	C714	92L2700010363	J		0.01 μF,50V
C310,311	92L2691015043	J		15 pF,50V	C715	VCEAZA1HW335M	J	AB	3.3 μF,50V,Electrolytic
C312	VCKZPA1HF223Z	J	AA	0.022 μF,50V	C716	VCKZPA1HF223Z	J	AA	0.022 μF,50V
C313	92L2691022043	J		22 pF,50V	C717	VCEAZA1CW106M	J	AC	10 μF,16V,Electrolytic
C314,315	92L2700047243	J		0.0047 μF,50V	C718	VCKZPA1HF223Z	J	AA	0.022 μF,50V
C316,317	92L2700010243	J		0.001 μF,50V	C719	VCEAZA1CW476M	J	AB	47 μF,16V,Electrolytic
C318,319	92L2691010143	J		100 pF,50V	C720	VCEAZA1AW226M	J		22 μF,10V,Electrolytic
C320	VCKZPA1HF223Z	J	AA	0.022 μF,50V	C901,902	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic
C321	92L2700010243	J		0.001 μF,50V	C903	VCCSPA1HL221J	J	AA	220 pF,50V
C323	VCKZPA1HF223Z	J	AA	0.022 μF,50V	C904	92L2691015043	J		15 pF,50V
C324	92L2691004043	J		4 pF,50V	C905	VCEAZA1HW476M	J	AB	47 μF,50V,Electrolytic
C330	92L2691015043	J		15 pF,50V	C906,907	VCEAZA1HW107M	J	AC	100 μF,50V,Electrolytic
C331	VCQYKA1HM473K	J	AB	0.047 μF,50V,Mylar	C908	VCEAZA1HW106M	J	AB	10 μF,50V,Electrolytic
C332	VCKZPA1HF223Z	J	AA	0.022 μF,50V	C909	VCEAZA1HW107M	J	AC	100 μF,50V,Electrolytic
C334	92L2691027043	J		27 pF,50V	C910	VCEAZA1HW476M	J	AB	47 μF,50V,Electrolytic
C335	92L2700056143	J		560 pF,50V	C911	92L2691015043	J		15 pF,50V
C342	VCKZPA1HF223Z	J	AA	0.022 μF,50V	C912	VCCSPA1HL221J	J	AA	220 pF,50V
C350,351	VCKZPA1HF223Z	J	AA	0.022 μF,50V	C913,914	VCQYKA1HM104K	J	AB	0.1 μF,50V,Mylar
C352	VCEAZA1HW106M	J	AB	10 μF,50V,Electrolytic	C915,916	VCEAZA1HW226M	J	AB	22 μF,50V,Electrolytic
C353,354	VCKZPA1HF223Z	J	AA	0.022 μF,50V	C917,918	VCKZPA1HF223Z	J	AA	0.022 μF,50V
C355	92L2691022043	J		22 pF,50V	C919	VCEAZA1HW106M	J	AB	10 μF,50V,Electrolytic
C356	92L2700010243	J		0.001 μF,50V	C920	VCKZPA1HF223Z	J	AA	0.022 μF,50V
C357	VCEAZA1HW225M	J	AB	2.2 μF,50V,Electrolytic	C921	VCEAZA1CW107M	J	AC	100 μF,16V,Electrolytic
C358	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic	C924	VCKZPA1HF223Z	J	AA	0.022 μF,50V
C361	VCKZPA1HF223Z	J	AA	0.022 μF,50V	C925~927	92L2700010463	J		0.1 μF,50V
C362	VCEAZA1HW335M	J	AB	3.3 μF,50V,Electrolytic	C928,929	VCEAZA1CW476M	J	AB	47 μF,16V,Electrolytic
C363	VCKZPA1HF223Z	J	AA	0.022 μF,50V	C930	92L2700010463	J		0.1 μF,50V
C364	VCEAZA1HW335M	J	AB	3.3 μF,50V,Electrolytic	C931	VCEAZW1VW338M	J		3300 μF,35V,Electrolytic
C365	VCKZPA1HF223Z	J	AA	0.022 μF,50V	C932,933	VCEAZW1HW228M	J	AH	2200 μF,50V,Electrolytic
C366	92L2700010243	J		0.001 μF,50V	C934,935	VCQYKA1HM473K	J	AB	0.047 μF,50V,Mylar
C367,368	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic	C936	VCEAZA1HW107M	J	AC	100 μF,50V,Electrolytic
C369	92L2691027043	J		27 pF,50V	C937,938	VCEAZA1HW476M	J	AB	47 μF,50V,Electrolytic
C370~372	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic	C939	VCEAZA1HW107M	J	AC	100 μF,50V,Electrolytic
C373,374	VCQYKA1HM153K	J	AB	0.015 μF,50V,Mylar	C940,941	VCQYKA1HM473K	J	AB	0.047 μF,50V,Mylar
C380	VCEAZA1HW106M	J	AB	10 μF,50V,Electrolytic	C942,943	VCEAZA1HW107M	J	AC	100 μF,50V,Electrolytic
C381	92L2691012043	J		12 pF,50V	C944	VCEAZA1CW107M	J	AC	100 μF,16V,Electrolytic
C382	92L2691015043	J		15 pF,50V	C945	VCEAZA1HW106M	J	AB	10 μF,50V,Electrolytic
C385	92L2700010343	J		0.01 μF,50V	C946	VCEAZA1CW476M	J	AB	47 μF,16V,Electrolytic
C386	92L2700033143	J		330 pF,50V					
C387	VCKZPA1HF223Z	J	AA	0.022 μF,50V					
C388	92L2691010143	J		100 pF,50V					
C391	VCEAZA1CW476M	J	AB	47 μF,16V,Electrolytic					
C392	92L2700010243	J		0.001 μF,50V					
C393	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic					
C394	VCEAZA1CW476M	J	AB	47 μF,16V,Electrolytic					
C395	VCKZPA1HF223Z	J	AA	0.022 μF,50V					
C396	VCEAZA1CW107M	J	AC	100 μF,16V,Electrolytic					
C397	VCKZPA1HF223Z	J	AA	0.022 μF,50V					
C398	VCEAZA1CW107M	J	AC	100 μF,16V,Electrolytic					
C399	VCKZPA1HF223Z	J	AA	0.022 μF,50V					
C401,402	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic					
C403	VCCSPA1HL221J	J	AA	220 pF,50V					

RESISTORS

R3	92L32100000008	J		0 ohm,Jamper,ø1.25×2mm,Green
R4	92L32150823008	J		82 kohms,1/10W
R5	92L32150183008	J		18 kohms,1/10W
R6	92L32150393008	J		39 kohms,1/10W
R7	92L32150273008	J		27 kohms,1/10W
R8	92L32150682008	J		6.8 kohms,1/10W
R10	92L32150331008	J		330 ohms,1/10W
R11	92L32150273008	J		27 kohms,1/10W
R12,13	92L32150123008	J		12 kohms,1/10W
R14	92L32150681008	J		680 ohms,1/10W
	92L32150122008	J		1.2 kohms,1/10W

CD-BK137W

NO.	PART CODE	★ PRICE RANK	DESCRIPTION	NO.	PARTS CODE	★ PRICE RANK	DESCRIPTION
R15,16	92L32150103008	J	10 kohm,1/10W	R361,362	VRD-ST2CD152J	J AA	1.5 kohms,1/6W
R17	92L32150102008	J	1 kohm,1/10W	R363,364	VRD-ST2CD682J	J AA	6.8 kohms,1/6W
R19	92L32150470008	J	47 ohms,1/10W	R365	VRD-ST2CD103J	J AA	10 kohm,1/6W
R20	92L32150221008	J	220 ohms,1/10W	R372~374	VRD-ST2CD102J	J AA	1 kohm,1/6W
R21,22	92L32150471008	J	470 ohms,1/10W	R375	VRD-ST2CD821J	J AA	820 ohms,1/6W
R25	92L32150103008	J	10 kohm,1/10W	R376	VRD-ST2CD102J	J AA	1 kohm,1/6W
R35	92L32150102008	J	1 kohm,1/10W	R377	VRD-ST2CD473J	J AA	47 kohms,1/6W
R38	92L32150271008	J	270 ohms,1/10W	R378	VRD-ST2CD102J	J AA	1 kohm,1/6W
R39	92L32150471008	J	470 ohms,1/10W	R379	VRD-ST2CD222J	J AA	2.2 kohms,1/6W
R40	92L32150122008	J	1.2 kohms,1/10W	R380	VRD-ST2CD152J	J AA	1.5 kohms,1/6W
R42	92L32150563008	J	56 kohms,1/10W	R381	VRD-ST2CD103J	J AA	10 kohm,1/6W
R44	92L32150102008	J	1 kohm,1/10W	R382	VRD-ST2CD151J	J AA	150 ohms,1/6W
R45	92L32150122008	J	1.2 kohms,1/10W	R383~385	VRD-ST2CD562J	J AA	5.6 kohms,1/6W
R46	92L32150102008	J	1 kohm,1/10W	R386	VRD-ST2CD223J	J AA	22 kohms,1/6W
R47	92L32159330008	J	3.3 ohms,1/10W	R387	VRD-ST2CD562J	J AA	5.6 kohms,1/6W
R48	92L32150682008	J	6.8 kohms,1/10W	R388	VRD-ST2CD392J	J AA	3.9 kohms,1/6W
R50	92L32150470008	J	47 ohms,1/10W	R389	VRD-ST2CD101J	J AA	100 ohm,1/6W
R51	92L32150683008	J	68 kohms,1/10W	R393	VRD-ST2CD102J	J AA	1 kohm,1/6W
R52	92L32150563008	J	56 kohms,1/10W	R395	VRD-ST2CD473J	J AA	47 kohms,1/6W
R53,54	92L32150683008	J	68 kohms,1/10W	R401	VRD-ST2CD152J	J AA	1.5 kohms,1/6W
R55,56	92L32150563008	J	56 kohms,1/10W	R402	VRD-ST2CD102J	J AA	1 kohm,1/6W
R58	92L32150221008	J	220 ohms,1/10W	R403	VRD-ST2CD474J	J AA	470 kohms,1/6W
R67,68	92L32150102008	J	1 kohm,1/10W	R404	VRD-ST2CD472J	J AA	4.7 kohms,1/6W
R71~78	92L32150102008	J	1 kohm,1/10W	R405	VRD-ST2CD104J	J AA	100 kohm,1/6W
R79	92L32150155008	J	1.5 Mohms,1/10W	R407	VRD-ST2CD105J	J AA	1 Mohm,1/6W
R80	92L32150105008	J	1 Mohm,1/10W	R408	VRD-ST2CD561J	J AA	560 ohms,1/6W
R81,82	92L32150392008	J	3.9 kohms,1/10W	R409	VRD-ST2CD562J	J AA	5.6 kohms,1/6W
R83,84	92L32150103008	J	10 kohm,1/10W	R410	VRD-ST2CD103J	J AA	10 kohm,1/6W
R94	92L32150332008	J	3.3 kohms,1/10W	R411	VRD-ST2CD102J	J AA	1 kohm,1/6W
R95	92L32150472008	J	4.7 kohms,1/10W	R412	VRD-ST2CD331J	J AA	330 ohms,1/6W
R101,102	VRD-ST2CD103J	J AA	10 kohm,1/6W	R414~416	VRD-ST2CD331J	J AA	330 ohms,1/6W
R103	VRD-ST2CD472J	J AA	4.7 kohms,1/6W	R417~420	VRD-ST2CD474J	J AA	470 kohms,1/6W
R104,105	VRD-ST2CD102J	J AA	1 kohm,1/6W	R421~424	VRD-ST2CD472J	J AA	4.7 kohms,1/6W
R106,107	VRD-ST2CD222J	J AA	2.2 kohms,1/6W	R425	VRD-ST2CD331J	J AA	330 ohms,1/6W
R108,109	VRD-ST2CD332J	J AA	3.3 kohms,1/6W	R426~428	VRD-ST2CD103J	J AA	10 kohm,1/6W
R110	VRD-ST2CD473J	J AA	47 kohms,1/6W	R429,430	VRD-ST2CD223J	J AA	22 kohms,1/6W
R111,112	VRD-ST2CD472J	J AA	4.7 kohms,1/6W	R431,432	VRD-ST2CD272J	J AA	2.7 kohms,1/6W
R113	VRD-ST2CD473J	J AA	47 kohms,1/6W	R433	VRD-ST2CD474J	J AA	470 kohms,1/6W
R114,115	VRD-ST2CD102J	J AA	1 kohm,1/6W	R434	VRD-ST2CD472J	J AA	4.7 kohms,1/6W
R116,117	VRD-ST2CD560J	J AA	56 ohms,1/6W	R435	VRD-ST2CD222J	J AA	2.2 kohms,1/6W
R118,119	VRD-ST2CD104J	J AA	100 kohm,1/6W	R436	VRD-ST2CD472J	J AA	4.7 kohms,1/6W
R120,121	VRD-ST2CD392J	J AA	3.9 kohms,1/6W	R437	VRD-ST2CD474J	J AA	470 kohms,1/6W
R122,123	VRD-ST2CD272J	J AA	2.7 kohms,1/6W	R438	VRD-ST2CD222J	J AA	2.2 kohms,1/6W
R124,125	VRD-ST2CD123J	J AA	12 kohms,1/6W	R601,602	VRD-ST2CD331J	J AA	330 ohms,1/6W
R126	VRD-ST2CD683J	J AA	68 kohms,1/6W	R603,604	VRD-ST2CD332J	J AA	3.3 kohms,1/6W
R127,128	VRD-ST2CD682J	J AA	6.8 kohms,1/6W	R607,608	VRD-ST2CD222J	J AA	2.2 kohms,1/6W
R129,130	VRD-ST2CD272J	J AA	2.7 kohms,1/6W	R609,610	VRD-ST2CD153J	J AA	15 kohms,1/6W
R131,132	VRD-ST2CD102J	J AA	1 kohm,1/6W	R615,616	VRD-ST2CD392J	J AA	3.9 kohms,1/6W
R133,134	VRD-ST2CD101J	J AA	100 ohm,1/6W	R617,618	VRD-ST2CD332J	J AA	3.3 kohms,1/6W
R135,136	VRD-ST2CD103J	J AA	10 kohm,1/6W	R625	VRD-ST2CD223J	J AA	22 kohms,1/6W
R137,138	VRD-ST2CD153J	J AA	15 kohms,1/6W	R700	VRD-ST2CD105J	J AA	1 Mohm,1/6W
R139	VRD-ST2CD221J	J AA	220 ohms,1/6W	R702~721	VRD-ST2CD102J	J AA	1 kohm,1/6W
R140,141	VRD-ST2CD103J	J AA	10 kohm,1/6W	R722	VRD-ST2CD103J	J AA	10 kohm,1/6W
R142,143	VRD-ST2CD224J	J AA	220 kohms,1/6W	R724,725	VRD-ST2CD102J	J AA	1 kohm,1/6W
R144	VRD-ST2CD473J	J AA	47 kohms,1/6W	R726~729	VRD-ST2CD222J	J AA	2.2 kohms,1/6W
R145	VRD-ST2CD472J	J AA	4.7 kohms,1/6W	R732~737	VRD-ST2CD102J	J AA	1 kohm,1/6W
R146	VRD-ST2EE820J	J AA	82 ohms,1/4W	R742	VRD-ST2CD102J	J AA	1 kohm,1/6W
R147	VRD-ST2CD473J	J AA	47 kohms,1/6W	R743	VRD-ST2CD330J	J AA	33 ohms,1/6W
R148	VRD-ST2CD223J	J AA	22 kohms,1/6W	R744	VRD-ST2CD102J	J AA	1 kohm,1/6W
R149	VRD-ST2CD477J	J AA	4.7 ohms,1/6W	R745	VRD-ST2CD104J	J AA	100 kohm,1/6W
R157	VRD-ST2CD101J	J AA	100 ohm,1/6W	R748	VRD-ST2CD472J	J AA	4.7 kohms,1/6W
R302	VRD-ST2CD220J	J AA	22 ohms,1/6W	R749~751	VRD-ST2CD103J	J AA	10 kohm,1/6W
R309	VRD-ST2CD103J	J AA	10 kohm,1/6W	R753	VRD-ST2CD103J	J AA	10 kohm,1/6W
R311	VRD-ST2CD104J	J AA	100 kohm,1/6W	R755	VRD-ST2CD472J	J AA	4.7 kohms,1/6W
R313	VRD-ST2CD333J	J AA	33 kohms,1/6W	R758,759	VRD-ST2CD103J	J AA	10 kohm,1/6W
R314	VRD-ST2CD220J	J AA	22 ohms,1/6W	R766~769	VRD-ST2CD103J	J AA	10 kohm,1/6W
R316	VRD-ST2CD472J	J AA	4.7 kohms,1/6W	R770	VRD-ST2CD473J	J AA	47 kohms,1/6W
R322	VRD-ST2CD681J	J AA	680 ohms,1/6W	R771	VRD-ST2CD104J	J AA	100 kohm,1/6W
R323	VRD-ST2CD683J	J AA	68 kohms,1/6W	R772	VRD-ST2CD472J	J AA	4.7 kohms,1/6W
R325	VRD-ST2CD473J	J AA	47 kohms,1/6W	R773	VRD-ST2CD101J	J AA	100 ohm,1/6W
R327	VRD-ST2CD330J	J AA	33 ohms,1/6W	R775~777	VRD-ST2CD103J	J AA	10 kohm,1/6W
R336	VRD-ST2CD103J	J AA	10 kohm,1/6W	R778	VRD-ST2CD102J	J AA	1 kohm,1/6W
R350	VRD-ST2CD272J	J AA	2.7 kohms,1/6W	R779	VRD-ST2EE3R3J	J AA	3.3 ohms,1/4W
R351	VRD-ST2CD562J	J AA	5.6 kohms,1/6W	R792	VRD-ST2CD102J	J AA	1 kohm,1/6W
R352	VRD-ST2CD102J	J AA	1 kohm,1/6W	R901	VRD-ST2CD683J	J AA	68 kohms,1/6W
R353	VRD-ST2CD391J	J AA	390 ohms,1/6W	R902,903	VRD-ST2CD102J	J AA	1 kohm,1/6W
R355	VRD-ST2CD332J	J AA	3.3 kohms,1/6W	R904	VRD-ST2CD563J	J AA	56 kohms,1/6W
R356	VRD-ST2CD102J	J AA	1 kohm,1/6W	R905	VRD-ST2CD821J	J AA	820 ohms,1/6W
R357	VRD-ST2CD474J	J AA	470 kohms,1/6W	R906	VRD-ST2CD103J	J AA	10 kohm,1/6W
R358	VRD-ST2CD392J	J AA	3.9 kohms,1/6W	△ R907,908	92L3240103305	J	100 ohms,1W
R359	VRD-ST2CD182J	J AA	1.8 kohms,1/6W	R909	VRD-ST2CD821J	J AA	820 ohms,1/6W
R360	VRD-ST2CD472J	J AA	4.7 kohms,1/6W	R910	VRD-ST2CD563J	J AA	56 kohms,1/6W

NO.	PART CODE	★ PRICE RANK	DESCRIPTION
R911,912	VRD-ST2CD102J	J AA	1 kohm,1/6W
R913	VRD-ST2CD683J	J AA	68 kohms,1/6W
R914,915	VRD-ST2CD4R7J	J AA	4.7 ohms,1/6W
R916,917	VRD-ST2CD152J	J AA	1.5 kohms,1/6W
R918,919	VRD-ST2CD103J	J AA	10 kohm,1/6W
R920,921	VRD-ST2CD391J	J AA	390 ohms,1/6W
R922	VRD-ST2CD103J	J AA	10 kohm,1/6W
R923	VRD-ST2CD102J	J AA	1 kohm,1/6W
R924	VRD-ST2CD332J	J AA	3.3 kohms,1/6W
R925	VRD-ST2CD104J	J AA	100 kohm,1/6W
R926	VRD-ST2CD102J	J AA	1 kohm,1/6W
R927	VRD-ST2CD223J	J AA	22 kohms,1/6W
R929	VRD-ST2CD153J	J AA	15 kohms,1/6W
R930	VRD-ST2CD683J	J AA	68 kohms,1/6W
R931	VRD-ST2CD102J	J AA	1 kohm,1/6W
R932	VRD-ST2CD223J	J AA	22 kohms,1/6W
R933	VRD-ST2EE561J	J AA	560 ohms,1/4W
R934	VRD-ST2CD223J	J AA	22 kohms,1/6W
R935	VRD-ST2CD103J	J AA	10 kohm,1/6W
R936,937	VRD-ST2CD223J	J AA	22 kohms,1/6W
R938	VRD-ST2CD123J	J AA	12 kohms,1/6W
R939	VRD-ST2CD473J	J AA	47 kohms,1/6W
R940	VRD-ST2EE100J	J AA	10 ohm,1/4W
R941	VRD-ST2CD222J	J AA	2.2 kohms,1/6W
R942	VRD-ST2CD333J	J AA	33 kohms,1/6W
R943	VRD-ST2EE100J	J AA	10 ohm,1/4W
RD01	VRD-ST2CD681J	J AA	680 ohms,1/6W
RD02	VRD-ST2CD821J	J AA	820 ohms,1/6W
RD03	VRD-ST2CD102J	J AA	1 kohm,1/6W
RD04	VRD-ST2CD152J	J AA	1.5 kohms,1/6W
RD05	VRD-ST2CD222J	J AA	2.2 kohms,1/6W
RD06	VRD-ST2CD272J	J AA	2.7 kohms,1/6W
RD07	VRD-ST2CD392J	J AA	3.9 kohms,1/6W
RD08	VRD-ST2CD563J	J AA	56 kohms,1/6W
RD09	VRD-ST2CD104J	J AA	100 kohm,1/6W
RD10	VRD-ST2CD821J	J AA	820 ohms,1/6W
RD11	VRD-ST2CD102J	J AA	1 kohm,1/6W
RD12	VRD-ST2CD152J	J AA	1.5 kohms,1/6W
RD13	VRD-ST2CD681J	J AA	680 ohms,1/6W
RD14	VRD-ST2CD821J	J AA	820 ohms,1/6W
RD15	VRD-ST2CD102J	J AA	1 kohm,1/6W
RD16	VRD-ST2CD152J	J AA	1.5 kohms,1/6W
RD17	VRD-ST2CD222J	J AA	2.2 kohms,1/6W
RD18	VRD-ST2CD272J	J AA	2.7 kohms,1/6W
RD19	VRD-ST2CD392J	J AA	3.9 kohms,1/6W
RD20	VRD-ST2CD562J	J AA	5.6 kohms,1/6W
RD21	VRD-ST2CD103J	J AA	10 kohm,1/6W
RD22	VRD-ST2CD153J	J AA	15 kohms,1/6W
RD23	VRD-ST2CD333J	J AA	33 kohms,1/6W
RD24	VRD-ST2CD104J	J AA	100 kohm,1/6W
RD25	VRD-ST2CD681J	J AA	680 ohms,1/6W
RD26	VRD-ST2CD682J	J AA	6.8 kohms,1/6W

OTHER CIRCUITRY PARTS

BI4/CNS4	92L33528111060	J	Connector Ass'y,6/6Pin
BI601/CNS601	92L33530260500	J	Connector Ass'y,5/5Pin
BI702/CNS702	92L33528361100	J	Connector Ass'y,10/10Pin
CNP1	92L33607150000	J	Plug,7Pin
CNP2	92L33608170000	J	Plug,8Pin
CNP3	92L33660100000	J	Plug,6Pin
CNP3A	92LCONE6P53254	J AC	Plug,6Pin
CNP4	92L33606130000	J	Plug,6Pin
CNP11	92L33605110100	J	Plug,5Pin
CNP12	92L33610210010	J	Plug,10Pin
CNP101	92L33603210100	J	Plug,3Pin
CNP102	92L33607210100	J	Plug,7Pin
CNP302	92L33602170000	J	Plug,2Pin
CNP701	92L33609604210	J	Socket,21Pin
CNP801	92L33680010500	J	Plug,5Pin
△ CNP901	92L3362501081B	J	Plug,8Pin
CNS1A/B	92L33528780070	J	Connector Ass'y,7/7Pin
CNS2A/B	92L33528780080	J	Connector Ass'y,8/8Pin
CNS3A/B	92L33528610060	J	Connector Ass'y,6/6Pin
CNS902	92L33517180020	J	Connector Ass'y,2Pin
△ F901,902	92LFUSET252E	J AD	Fuse,T2.5A L 250V
△ F903,904	92LFUSET402E	J AD	Fuse,T4A L 250V
△ F905	92LFUSET252E	J AD	Fuse,T2.5A L 250V
FFC701	92L33557240210	J	Flat Cable,21Pin
FFC702	92L33557130110	J	Flat Cable,11Pin
FL701	VVKSA9MS13-1	J AZ	FL Display
JK1	92L26410100310	J AF	Socket,Mic

NO.	PARTS CODE	★ PRICE RANK	DESCRIPTION
JK901	92L26402100040	J AF	Socket,Headphones
JP401	92L33428260030	J	Connector Ass'y,3Pin
JP402	92L33603210100	J	Plug,3Pin
LR901	92L5650133W000	J AN	Relay
LUG1	92L16310130000	J	Lug Terminal
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	92L26201650100	J AT	Motor,Air Cooling Fan
PW901A	92L33426190050	J	Flat Wire,5Pin
PW901B	92L3362501051B	J	Socket,5Pin
RX701	VHLN63H380A-1	J AK	Remote Sensor,N63H380A
SO302	QTANC0206AWZZ	J AD	Terminal,FM Antenna
SO901	92L26400147800	J AL	Terminal,Speaker
△ SO902	QSOCA0204AWZZ	J AF	AC Input Socket
SOK2	92L33628210100	J	Socket,21Pin
SOK3	92L33620110100	J	Socket,11Pin
SOK901	92L3362501021A	J	Plug,2Pin
SW1	SWMPU10780MLB	J AH	Switch,Push Type [Open/Close]
SW2	SWMPU11470MLB	J AE	Switch,Push Type [Clamp]
SW3	SWMPU11470MLB	J AE	Switch,Push Type [Disc Number]
SW4	QSW-F9001AW01	J AD	Switch,Push Type [Pickup In]
SW601	QSW-S0024AWZZ	J AE	Switch,Slide Type [Span Selector]
△ SW602	QSOCE0008AWZZ	J AH	Switch,Slide Type [Voltage Selector]
SW701	92LSWICHT1663T	J AC	Switch,Key Type [ON/Stand-by]
SW702	92LSWICHT1663T	J AC	Switch,Key Type [Clock]
SW703	92LSWICHT1663T	J AC	Switch,Key Type [Timer/Sleep]
SW709	92LSWICHT1663T	J AC	Switch,Key Type [Disc Skip]
SW710	92LSWICHT1663T	J AC	Switch,Key Type [Open/Close]
SW711	92LSWICHT1663T	J AC	Switch,Key Type [Equalizer/X-Bass/Demo]
SW712	92LSWICHT1663T	J AC	Switch,Key Type [Volume Up]
SW713	92LSWICHT1663T	J AC	Switch,Key Type [Volume Down]
SW714	92LSWICHT1663T	J AC	Switch,Key Type [CD]
SW715	92LSWICHT1663T	J AC	Switch,Key Type [Tape]
SW716	92LSWICHT1663T	J AC	Switch,Key Type [Tuning/Time Down]
SW717	92LSWICHT1663T	J AC	Switch,Key Type [Memory/Set]
SW718	92LSWICHT1663T	J AC	Switch,Key Type [Rewind]
SW719	92LSWICHT1663T	J AC	Switch,Key Type [Fast Forward]
SW720	92LSWICHT1663T	J AC	Switch,Key Type [Play/Repeat]
SW721	92LSWICHT1663T	J AC	Switch,Key Type [Stop]
SW723	92LSWICHT1663T	J AC	Switch,Key Type [REC Pause]
SW724	92LSWICHT1663T	J AC	Switch,Key Type [Tuning/Time Up]
SW725	92LSWICHT1663T	J AC	Switch,Key Type [Tuner (Band)]

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,ø1.5×3.8×0.25mm
M1	92LMTR2790CASY	J BB	Motor with Chassis [Spindle]
M2	92LMTR1854BASY	J AP	Motor with Gear [Sled]
SW4	QSW-F9001AW01	J AD	Switch,Push Type [Pickup In]

CABINET PARTS

201	92LCAB133WASSY	J	Front Panel Ass'y
201- 1	—	—	Front Panel (Not Replacement Item)
201- 2	92L60100100002	J AG	Cassette Holder [Tape 1]
201- 3	92L60110100002	J AG	Cassette Holder [Tape 2]
201- 4	92L62600100001	J	Cover,Cassette Holder [Tape 1]
201- 5	92L62610100001	J	Cover,Cassette Holder [Tape 2]
201- 6	92L60300100001	J AE	Panel,Cassette Holder [Tape 1]
201- 7	92L60310100001	J AE	Panel,Cassette Holder [Tape 2]

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NO.	PART CODE	★ PRICE RANK	DESCRIPTION
201- 8	92L60320100006	J	Panel,Display
201- 9	92L80200100002	J AD	Button,ON/Stand-by
201-10	92L80420100002	J AE	Button,Timer/Sleep
201-11	92L80210100001	J AE	Button,Function
201-12	92L80410100001	J AC	Volume Ring
201-13	92L80230100002	J AE	Button,Disk Skip
201-14	92L80220100001	J AG	Button,Operation
201-15	92L80250100002	J AC	Button,Tuning/Time
201-16	92L13820100000	J	Damper
201-17	92L54000100010	J	Spring,Cassette Holder [Tape 1]
201-18	92L54010100010	J	Spring,Cassette Holder [Tape 2]
201-19	92L80430100001	J AE	Button,Equalizer
201-20	92L18100100010	J AB	Cover,Remote Sensor
201-21	92L62630100010	J	Bracket,Cassette Holder Lock Lever [Tape 1]
201-22	92L54020100010	J	Spring,Cassette Holder Lock
201-23	92L62400100001	J	Lock Lever,Cassette Holder [Tape 1]
201-24	92L62410100001	J	Lock Lever,Cassette Holder [Tape 2]
201-25	92L80400100001	J AE	Button,Volume
201-26	92L80600100001	J	Badge,SHARP
201-28	92L62660100010	J	Bracket,Cassette Holder Lock Lever [Tape 2]
202	92LLSD100WASSY	J	Side Panel Ass'y,Left
202- 1	—	—	Side Panel,Left (Not Replacement Item)
202- 2	92L13800100000	J	Cushion,Leg
203	92LRSD100WASSY	J	Side Panel Ass'y,Right
203- 1	—	—	Side Panel,Right (Not Replacement Item)
203- 2	92L13800100000	J	Cushion,Leg
204	92L60010100002	J	Top Cabinet
205	92L80440100001	J AB	Knob,Mic Volume
206	92L60120100001	J AG	Cover,CD Tray
207	92L15800137010	J	Rear Panel
208	92L15600100010	J	Bracket,PWB
209	92L62640100010	J	Holder,LED
210	92LBTM133WASSY	J	Main Chassis Ass'y
210- 1	—	—	Main Chassis (Not Replacement Item)
210- 2	92L62650100010	J	Holder,PWB
214	92L62620100010	J	Holder,Display
219	92L13800100000	J	Cushion,Leg
220	92L1510133W010	J	Heat Sink
223	92L33426120110	J	Lug Wire
△ 224	QFSDH0001AWZZ	J AB	Fuse Holder
225	92LBE231616	J AD	Belt
227	92LEVA0330702	J AD	Velvet Carpet,Chassis
228	92LMAG0104302	J AE	Magnet
229	92LMT0304302	J AB	Plate,Metal
230	92LNBAND1318A	J AA	Nylon Band,80mm
231	92LTWPT0312005	J AL	Cam Gear Ass'y
231-1	92LNM0305401	J AB	Velvet Carpet
231-2	92LPT0304304	J AB	Stopper
231-3	92LPT0305413	J AG	Cam Gear Lower
231-4	92LPT0312005	J AL	Gear,Cam
231-5	92LSP0304303	J AB	Spring,Stopper
232	92LPT0303002	J AB	Roller
233	92LPT0304303	J AB	Lever,Stop
235	92LPT0304305	J AE	Lever,Lock
236	92LPT0304306	J AG	Stabilizer
237	92LPT0304307	J AC	Support,Cam
238	92LPT0304308	J AB	Lock Gear Pin
239	92LPT0304309	J AB	Cap,Pulley Stopper
241	92LPT0309506	J AD	Gear,Turntable Drive
242	92LPT0309507	J AD	Gear,Open/Close Drive
243	92LPT0309508	J AD	Gear,Planet
244	92LPT0309509	J AD	Gear,Drive
245	92LPT0309510	J AE	Gear,Pulley
246	92LPT0309511	J AD	Gear,Middle
247	92LPT0311101	J AB	Lever,Clamp
248	92LPT0311102	J AC	Lever,Disc
250	92LPT0320201	J AE	Support,Stabilizer
251	92LPT0330301	J AU	Chassis>Loading
252	92LPT0330803	J AK	Chassis,CD
253	92LPT0331003	J AT	Chassis,Slide
254	92LPT0331105	J AM	Turntable
256	92LSP0304305	J AB	Spring,Lock
257	92LSP0304306	J AB	Spring,Lock Gear
258	KMECB0023AWZZ	J	Tape Mechanism Ass'y
258- 1	92PF513-853	J BL	Head Plate Block [Tape 2]

NO.	PARTS CODE	★ PRICE RANK	DESCRIPTION
258- 2	92PF525-336	J BE	Motor with Pulley [Tape]
258- 3	92PF567-677	J BA	Tape Mechanism PWB Ass'y
258- 4	92PFF19N-21	J AL	Belt,Main [Tape 2]
258- 5	92PF514-133	J AL	Pinch Roller
258- 6	92PF19S-31	J AL	Belt,FF/REW [Tape 2]
258- 7	92PFF19N-11	J AL	Belt,Main [Tape 1]
258- 8	92PF522-061	J AG	Clutch Ass'y Block [Tape 1]
258- 9	92PFF19S-52	J AL	Belt,FF/REW [Tape 1]
258-10	92PF513-861	J AG	Head Plate Block [Tape 1]
258-11	92PF522-063	J AZ	Clutch Ass'y Block [Tape 2]
261	92L2032100W020	J	Label,Laser
262	92L15600133000	J	Bracket,Wire
263	92L15800133000	J	Bracket,Fan Motor
264	92L62420100001	J	Rotary Fan
265	92L16300035141	J	Lug Wire
266	92L54000133000	J	Spring,Ring
601	92L12930080444	J	Screw,ø3×8mm
602	92L12930100434	J	Screw,ø3×10mm
603	92L1293010434A	J	Screw,ø3×10mm
604	92L1293012434A	J	Screw,ø3×12mm
605	92L1304008434A	J	Screw,ø4×8mm
606	92L13126100437	J	Screw,ø2.6×10mm
607	92L13130100437	J	Screw,ø3×10mm
608	92L13130100447	J	Screw,ø3×10mm
609	92L13130120437	J	Screw,ø3×12mm
610	92L12930070434	J	Screw,ø3×7mm
611	92LSC0308MBZI	J AB	Screw,ø3×8mm
612	92LSC0308RBZI	J AB	Screw,ø3×8mm
614	92L13020040434	J	Screw,ø2×4mm

ACCESSORIES/PACKING PARTS

△	QACCB0012AW00	J AS	AC Power Supply Cord
△	QACCE0007AW00	J AH	AC Power Supply Cord
△	QPLGA0003AWZZ	J AF	Adaptor,AC Plug
△	QPLGA0004AWZZ	J AF	Adaptor,AC Plug
	92L1350133W010	J	Packing Add.,Left
	92L1351133W010	J	Packing Add.,Right
	92L1352133W010	J	Packing Add.,Top
	92L1353133W010	J	Packing Add.,Bottom
	92L1940100W010	J	Polyethylene Bag,Accessories
	92L19409816010	J	Polyethylene Bag,Remote Control
	92L19418470000	J	Mirror Mat
	92L19465650401	J	Polyethylene Bag,Unit
	92L2010137W010	J	Operation Manual [Except for Australia/New Zealand]
	92L2010137W020	J	Operation Manual [For Australia/New Zealand]
	92L20200196000	J	Warranty Card [For Australia/New Zealand Only]
	92L2033137W010	J	Label,Feature [Tape 2]
	92L2033137W020	J	Label,Feature [Tape 1]
	92L2034090W010	J	VM No.Label
	92L2034090W020	J	Label,Packing Case Mark
	92L2060137W020	J	Packing Case
	92L2080133W010	J	Paper Sheet A
	92L2080133W020	J	Paper Sheet B
△	92L24801800222	J	AC Power Supply Cord
△	92L24802131030	J AP	AC Power Supply Cord
	92L33324152100	J	FM Antenna
	92L47300100010	J AM	AM Loop Antenna
	RRMCG0229AWSA	J AR	Remote Control
	GFTAB1022AWSB	J AK	Battery Lid,Remote Control

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

PWB-A	92L2370137W000	J —	Main
PWB-B	92L2370100W600	J —	Display
PWB-C	92L2370133W100	J —	Mic
PWB-D	92L2370133W200	J —	Headphones
PWB-E	92L2370100W300	J —	CD Servo
PWB-F	92PF567-649	J —	Tape Mechanism
PWB-G	92LPC99C017	J AE	CD Loading Motor (PWB Only)
PWB-H	QPWBF0027AWZZ	J AD	CD Motor (PWB Only)

OTHER SERVICE PART

UDSKA0004AFZZ	J	AZ	CD Pickup Lens Cleaner
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NO.	PART CODE	★ PRICE RANK	DESCRIPTION
CP-BK137			
SPEAKER BOX PART			
901	92L2392137W000	J	Front Speaker Box Ass'y
PACKING PARTS			
	92LPA044	J	Packing Add.
	92L19450600201	J	Polyethylene Bag,Speaker
92L2390137W010			
SPEAKER BOX PART			
901	92L2391137W000	J	Surround Speaker Ass'y

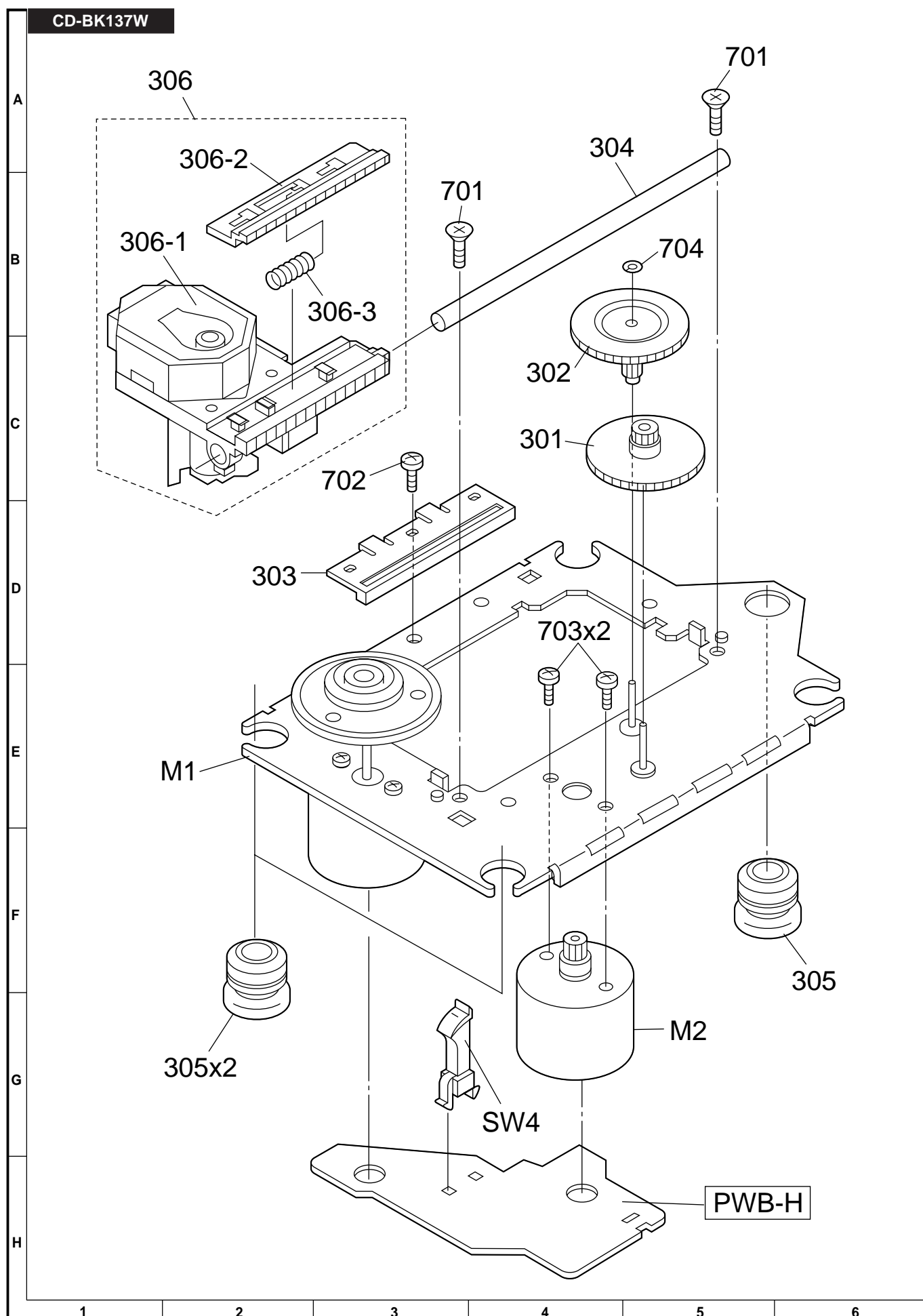


Figure 7 CD MECHANISM EXPLODED VIEW

CD-BK137W

A

B

C

D

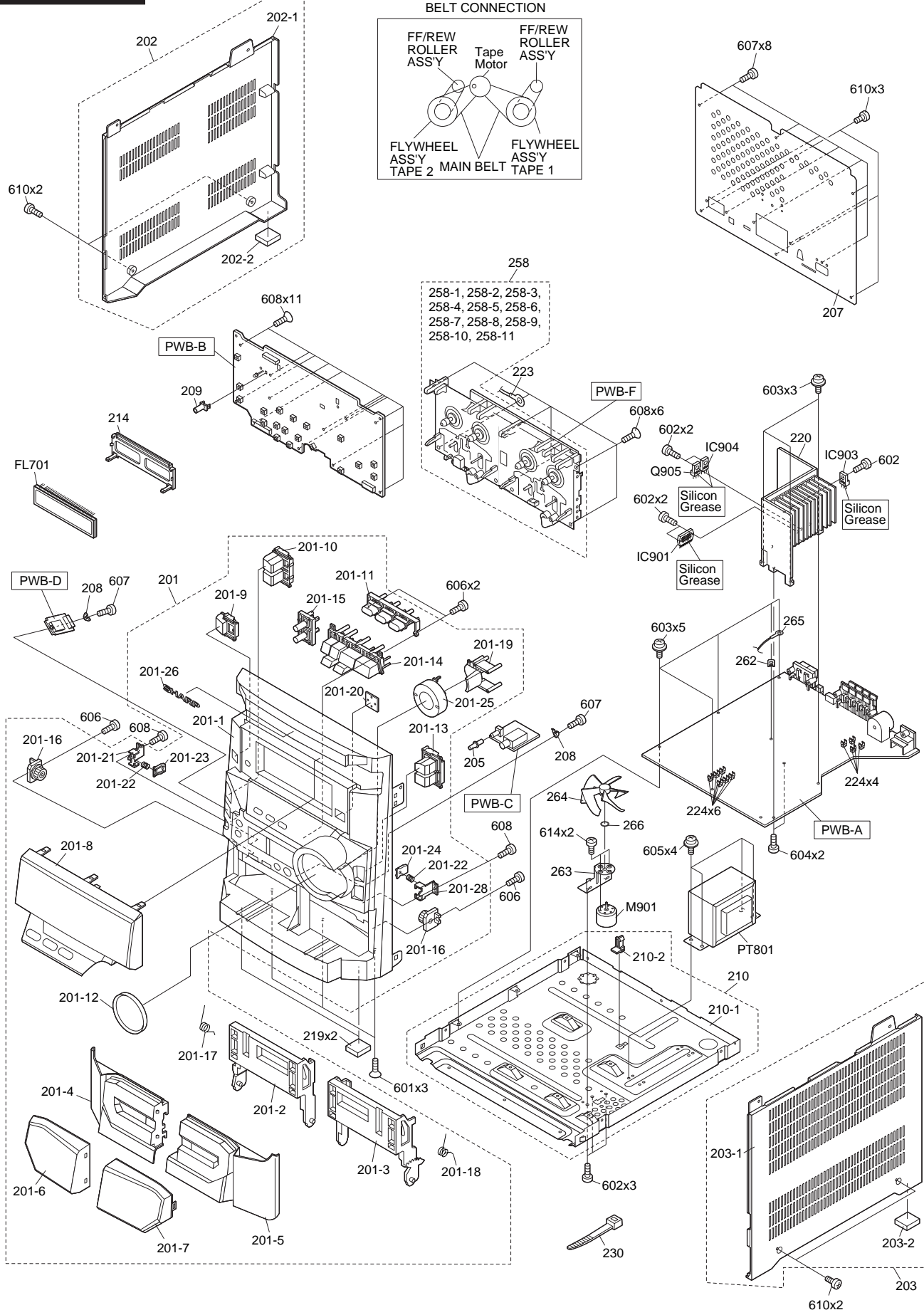
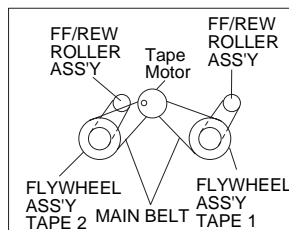
E

F

G

H

BELT CONNECTION



Note: Only the unit and consumable parts are supplied as parts supply for the Tape mechanism.

Figure 8 CABINET EXPLODED VIEW (1/2)

SHARP

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