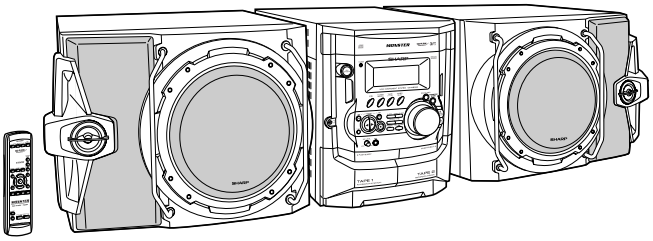
SHARP SERVICE MANUAL

No. S4228CDM8000W



MINI COMPONENT SYSTEM

MODEL CD-M8000W

SPEAKER SYSTEM

MODEL CP-M8000

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

CONTENTS

SHARP CORPORATION

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.

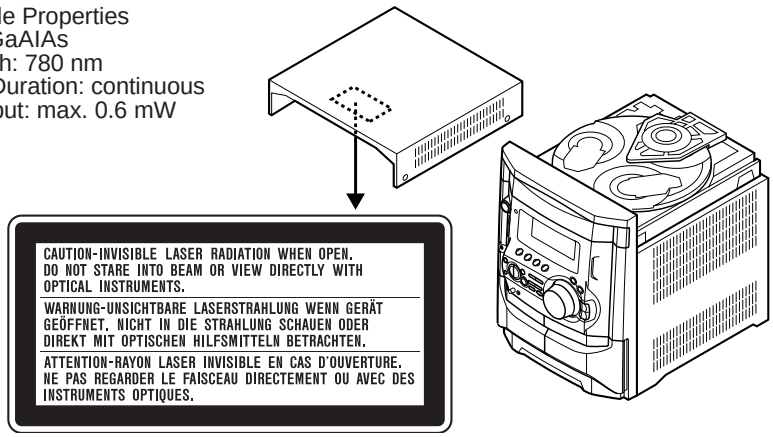
1-WHEN THE CABINET IS REMOVED, THE POWER IS TURNED ON WITHOUT A COMPACT DISC IN POSITION AND THE PICKUP IS ON THE OUTER EDGE THE LASER WILL LIGHT FOR SEVERAL SECONDS TO DETECT A DISC. DO NOT LOOK INTO THE PICKUP LENS.

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

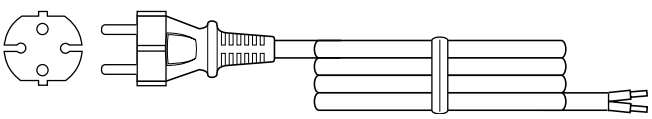


VOLTAGE SELECTION

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

QACCE0014AW00



QPLGA0005AWZZ

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

SPECIFICATIONS

CD-M8000W

■ General

Power source	AC 110/127/220/230 - 240 V, 50/60 Hz
Power consumption	180 W
Dimensions	Width: 270 mm (10-5/8") Height: 330 mm (13") Depth: 360 mm (14-3/16")
Weight	11.7 kg (25.7 lbs.)

■ Amplifier

Output power	MPO: 860 W (430 W + 430 W) (10 % T.H.D.) RMS: 500 W (250 W + 250 W) (10 % T.H.D.) RMS: 360 W (180 W + 180 W) (0.9 % T.H.D.)
Output terminals	Speakers: 6 ohms Headphones: 16 - 50 ohms (recommended: 32 ohms)
Input terminals	Video/Auxiliary (audio signal): 500 mV/47 k ohms Microphone: 1 mV/600 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-M8000

Type	4-way type speaker system Super Tweeter 10 cm (4") Tweeter 10 cm (4") Midrange 25 cm (10") Woofer
Maximum input power (Total)	500 W
Rated input power (Total)	250 W
Impedance	6 ohms
Dimensions	Width: 465 mm (18-5/16") Height: 330 mm (13") Depth: 373 mm (14-11/16")
Weight	10.1 kg (22.2 lbs.)/each

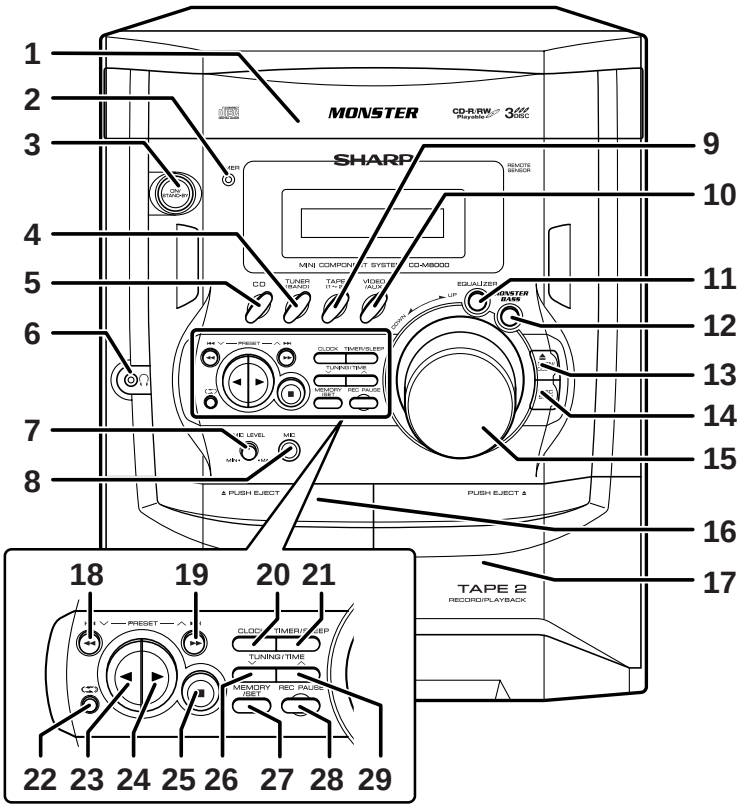
Specifications for this model are subject to change without prior notice.

NAMES OF PARTS

CD-M8000W

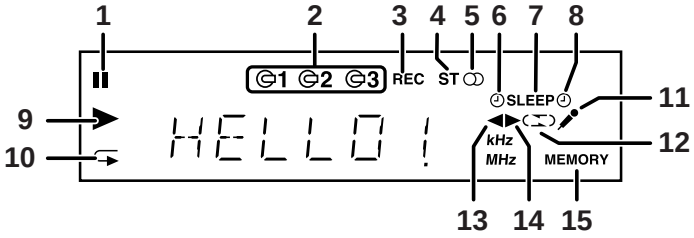
■ Front panel

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



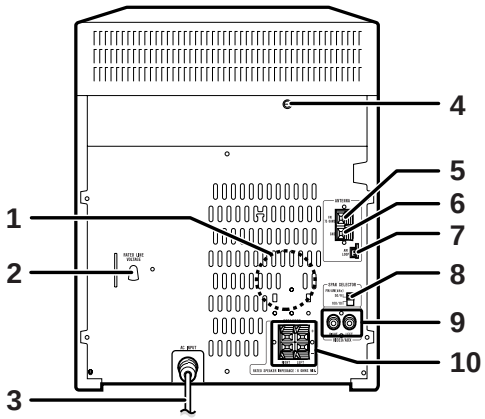
■ Display

1. CD Pause Indicator
2. Disc Number Indicators
3. Tape 2 Record Indicator
4. FM Stereo Mode Indicator
5. FM Stereo Receiving Indicator
6. Timer Play Indicator
7. Sleep Indicator
8. Timer Recording Indicator
9. CD Play Indicator
10. CD Repeat Play Indicator
11. Karaoke Mode Indicator
12. Tape Reverse Mode Indicator
13. Tape 2 Reverse Play Indicator
14. Tape 1 Play or Tape 2 Forward Play Indicator
15. Memory Indicator



CD-M8000W

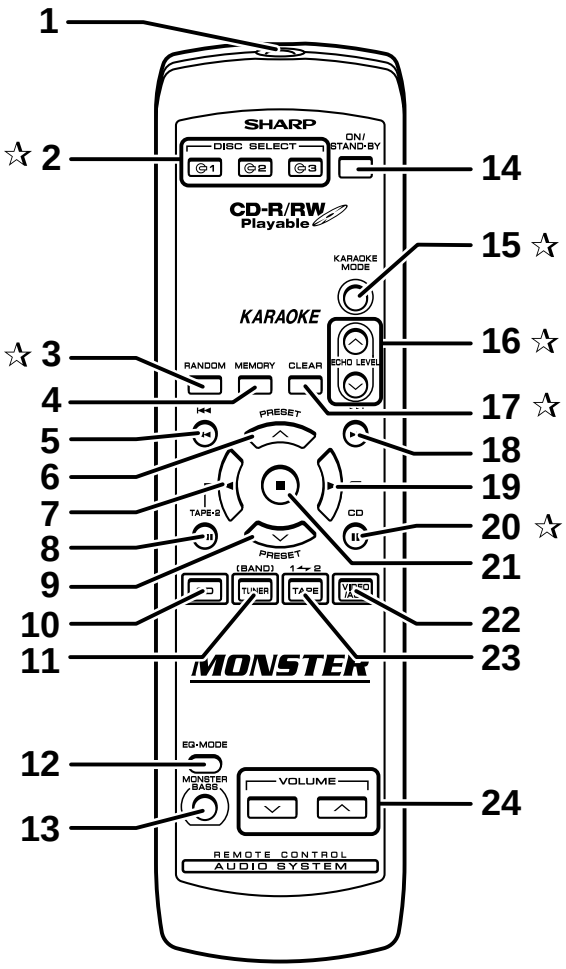
■ Rear panel



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

Note:
This product is equipped with a cooling fan inside, which begins to run at a specified volume level for better heat radiation.

■ Remote control



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

Buttons with "☆" mark in the illustration can be operated on the remote control only.

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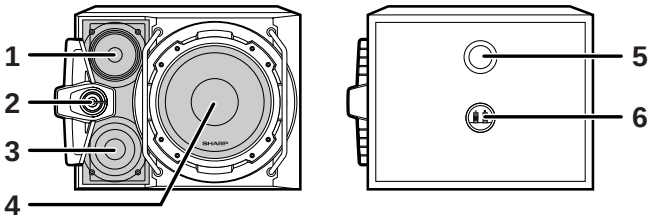


1. Tweeter
2. Super Tweeter
3. Midrange
4. Woofer
5. Bass Reflex Duct
6. Speaker Terminals

DISASSEMBLY

Caution on Disassembly

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

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

CD-M8000W

STEP	REMOVAL	PROCEDURE	FIGURE
1	Top Cabinet	1. Screw ..... (A1) x4	6-1
2	Side Panel (Left/Right)	1. Screw ..... (B1) x8	6-1
3	CD Player Unit/ CD Tray Cover	1. Turn on the power supply, open the loading tray, take out the CD tray cover, and close. (Note 1) 2. Screw ..... (C1) x1 3. Hook ..... (C2) x3 4. Hook ..... (C3) x2 5. Socket ..... (C4) x2	6-2
4	Rear Panel with Fan Motor	1. Screw ..... (D1) x9 2. Socket ..... (D2) x1	6-2
5	Main PWB	1. Screw ..... (E1) x2 2. Flat Cable ..... (E2) x1 3. Socket ..... (E3) x4	6-2 7-1
6	Amp. PWB	1. Screw ..... (F1) x6 2. Socket ..... (F2) x4 3. PWB Holder ..... (F3) x5 4. Flat Wire ..... (F4) x1	7-2
7	Front Panel	1. Screw ..... (G1) x3 2. Hook ..... (G2) x2	7-2 7-1
8	Mic PWB	1. Screw ..... (H1) x2 2.Tip ..... (H2) x1	7-3
9	Display PWB	1. Knob ..... (J1) x1 2. Screw ..... (J2) x15 3. Flat Cable ..... (J3) x1	7-3
10	Tape Mechanism	1. Open the cassette holder. 2. Screw ..... (K1) x5	7-3
11	Headphones PWB	1. Screw ..... (L1) x1	7-3
12	Turntable	1. Hook ..... (M1) x2 2. Cover ..... (M2) x1	7-4
13	Loading Tray	1. Turn fully the lock lever in the . arrow direction. 2. Push the loading tray backward to engage the claw with the groove and remove it in the direction of the arrow. ..... (N1) x6	6-3 7-5
14	CD Servo PWB (Note 2)	1. Screw ..... (P1) x2 2. Hook ..... (P2) x1 3. Socket ..... (P3) x4	7-6
15	CD Mechanism	1. Hook ..... (Q1) x2 2. Hook ..... (Q2) x2	8-1

Note 1: How to open the changer manually. (Fig. 6-3)

1. In this state, turn fully the lock lever in the arrow direction through the hole on the loading tray bottom.
2. After that, push forward the Loading tray.

CD-M8000W

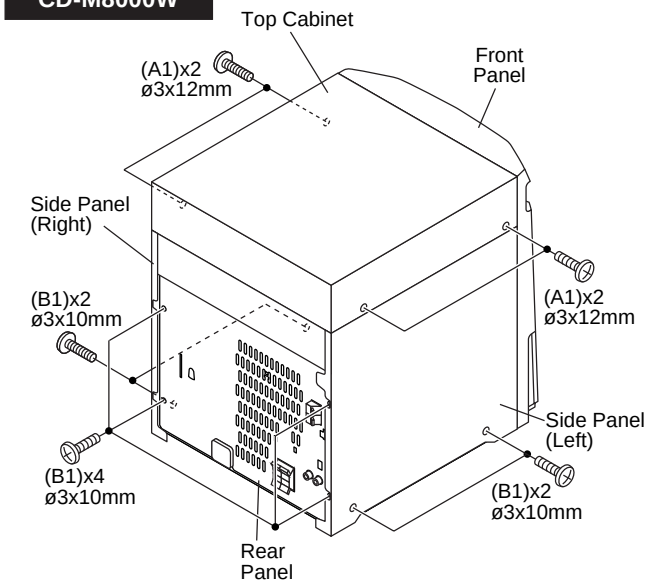


Figure 6-1

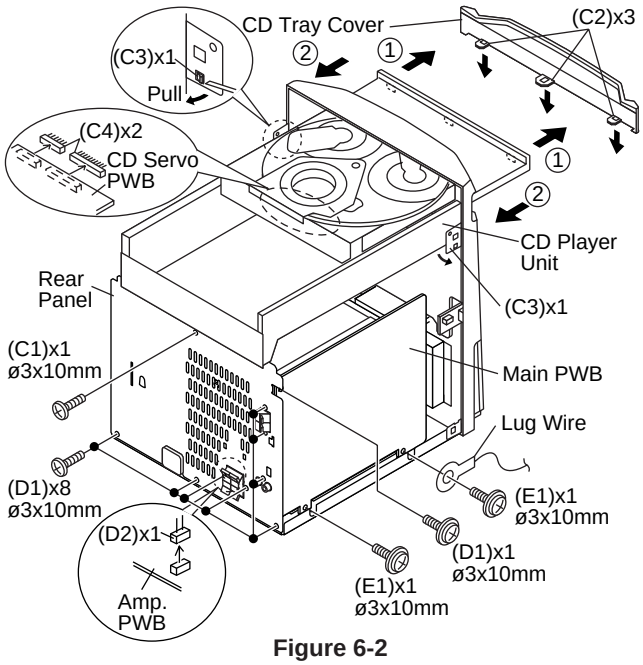


Figure 6-2

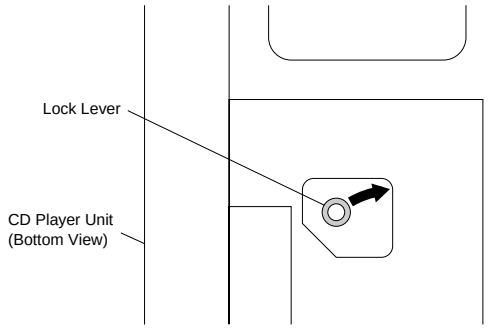


Figure 6-3

Note 2:

1. After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of the connector so as to protect the optical pickup from electro-static damage.

Note 3:

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

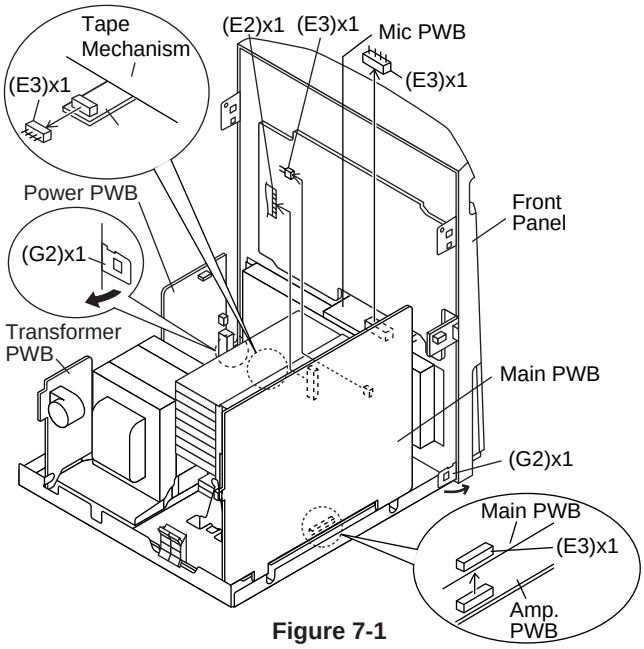


Figure 7-1

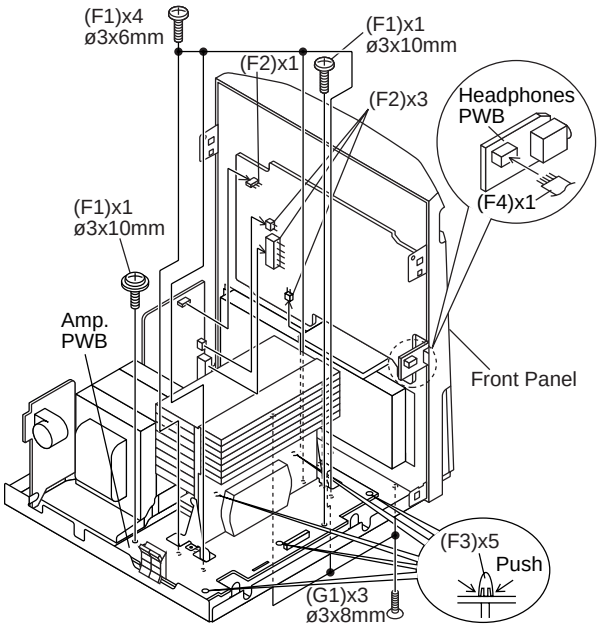


Figure 7-2

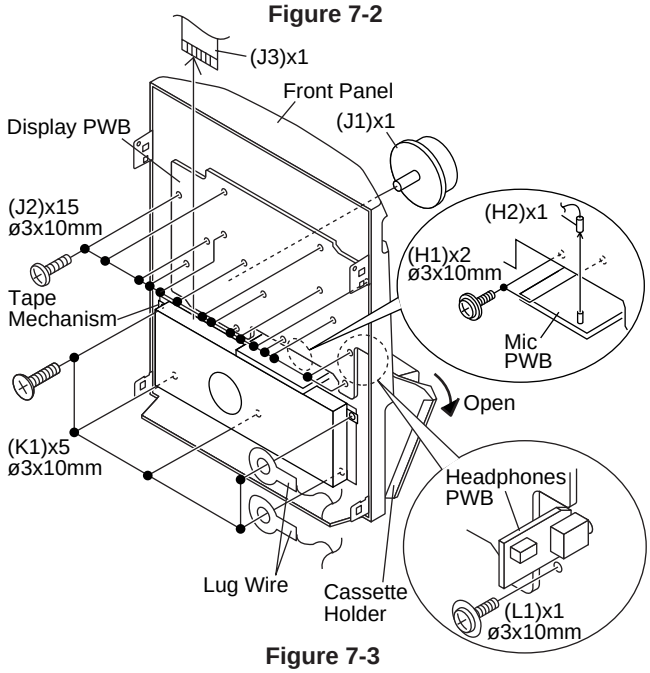


Figure 7-3

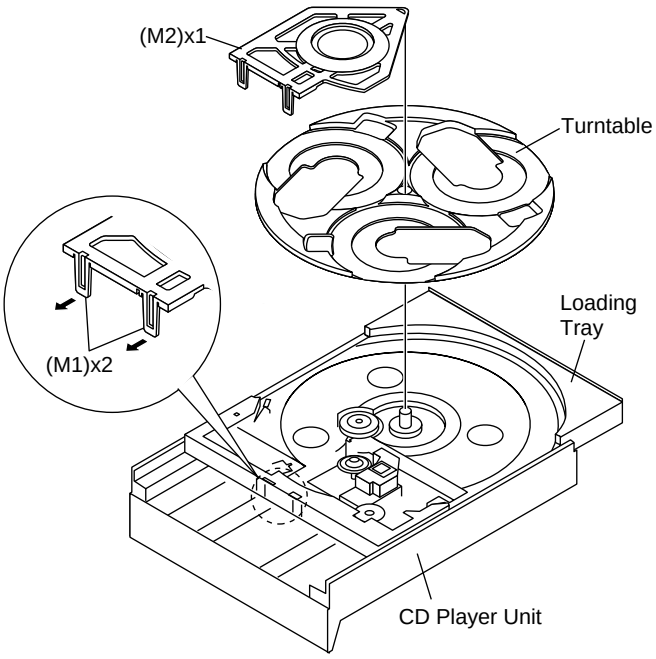


Figure 7-4

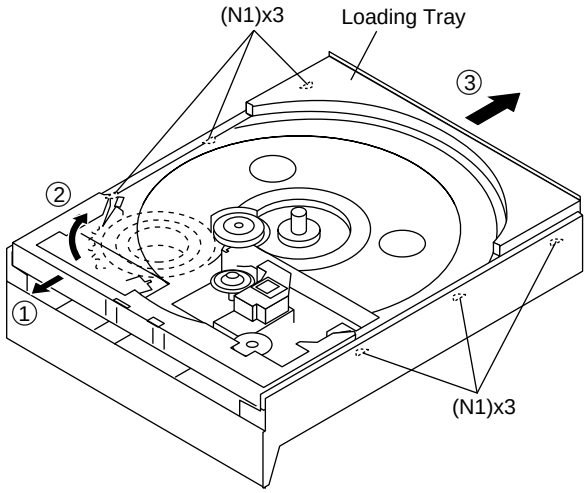


Figure 7-5

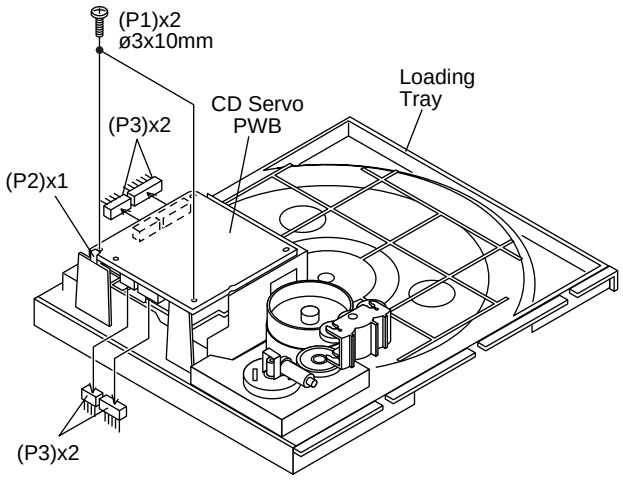


Figure 7-6

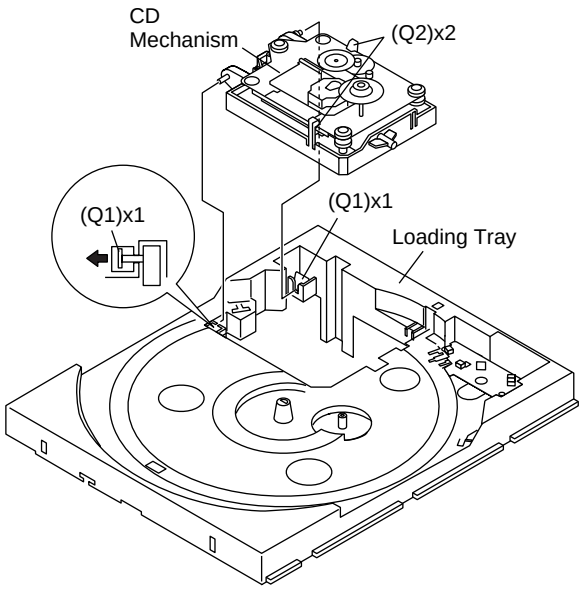


Figure 8-1

CP-M8000

STEP	REMOVAL	PROCEDURE	FIGURE
1	Front Panel/ Supper Tweeter	1. Net Ass'y ..... (A1) x1 2. Catching Holder ..... (A2) x4 3. Screw ..... (A3) x4 4. Screw ..... (A4) x2	8-2 8-3
2	Woofer	1. Screw ..... (B1) x4	8-3
3	Tweeter	1. Screw ..... (C1) x4	8-3
4	Midrange	1. Screw ..... (D1) x4	8-3

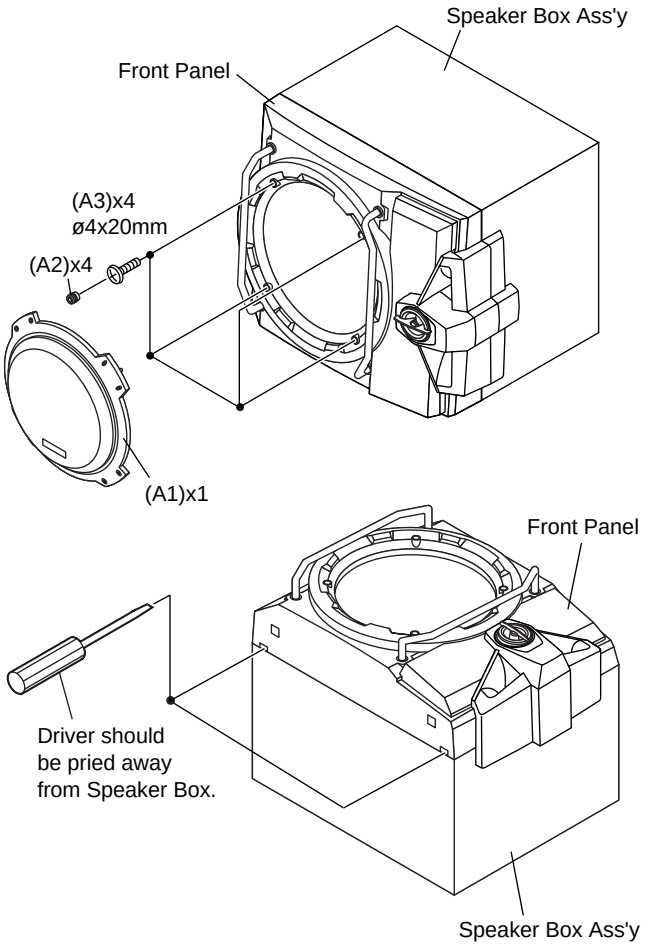


Figure 8-2

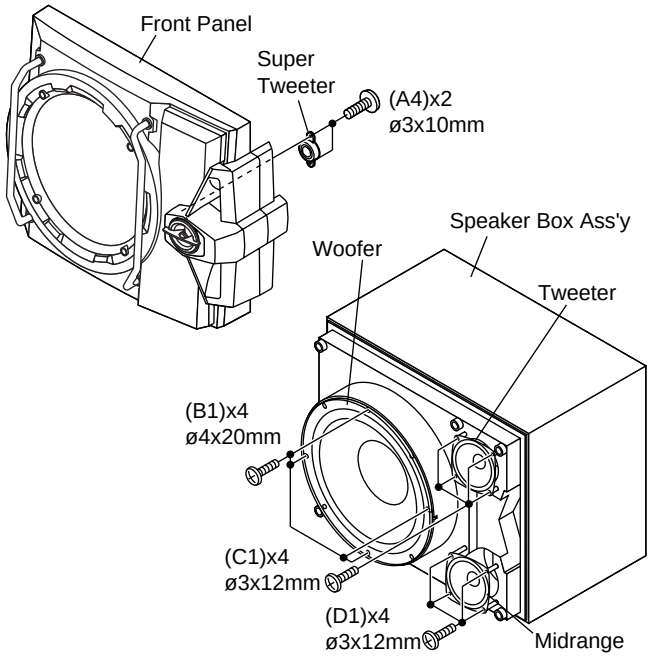


Figure 8-3

REMOVING AND REINSTALLING THE MAIN PARTS

TAPE MECHANISM SECTION

Perform steps 1 to 7 and 10 of the disassembly method to remove the tape mechanism.

How to remove the record/playback and erase heads (TAPE 2) (See Fig. 9-1)

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

How to remove the playback head (TAPE 1) (See Fig. 9-2)

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. 9-3)

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

Note:

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

How to remove the belt (TAPE 2) (See Fig. 9-4)

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. 9-4)

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. 9-5)

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

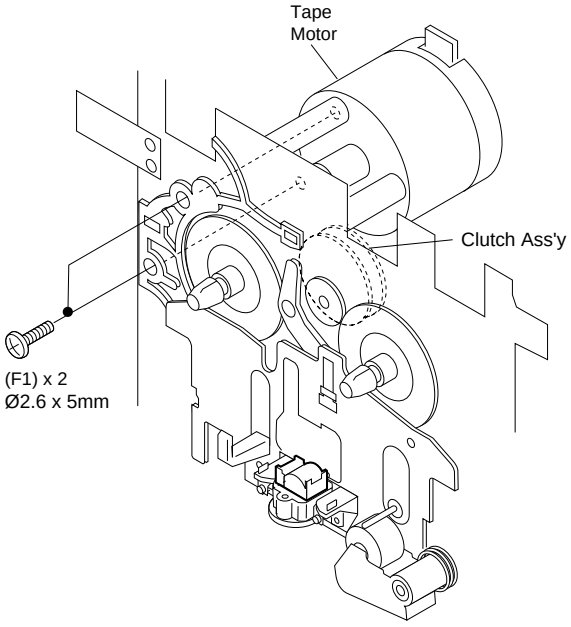


Figure 9-5

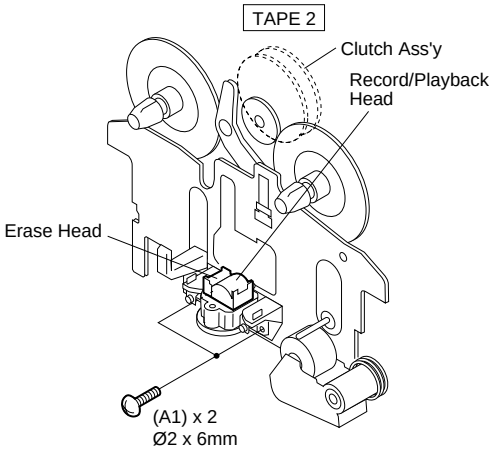


Figure 9-1

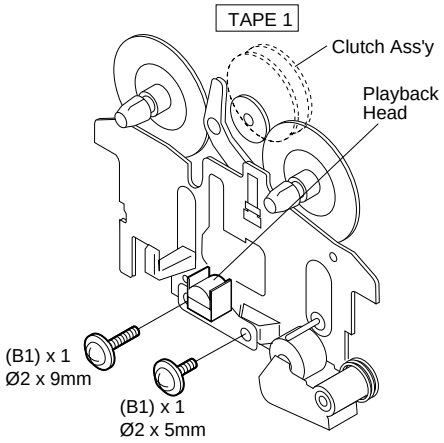


Figure 9-2

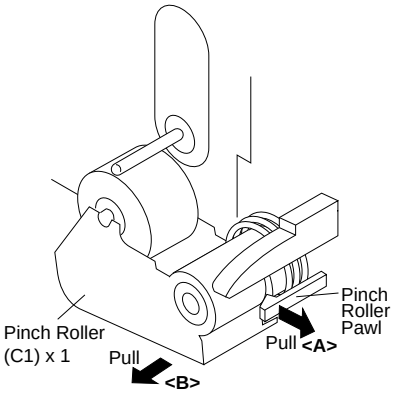


Figure 9-3

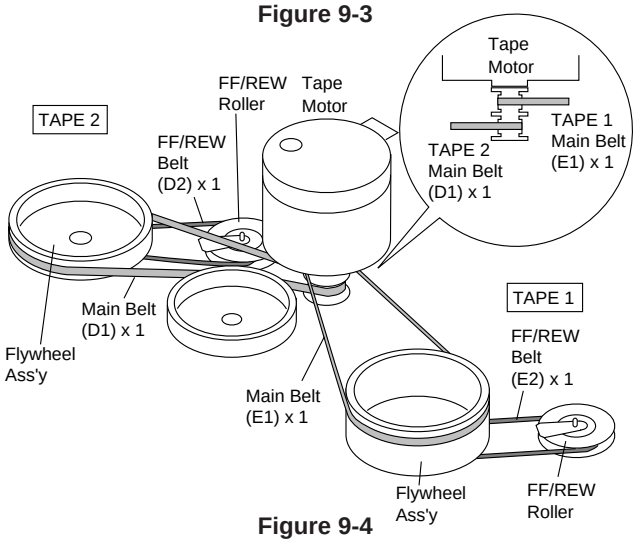


Figure 9-4

CD MECHANISM SECTION

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

How to remove the loading motor (See Fig. 10-1)

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

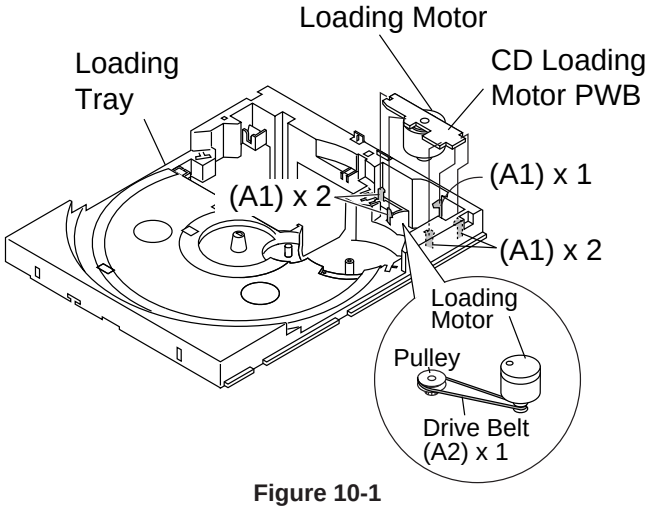


Figure 10-1

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

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).
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.

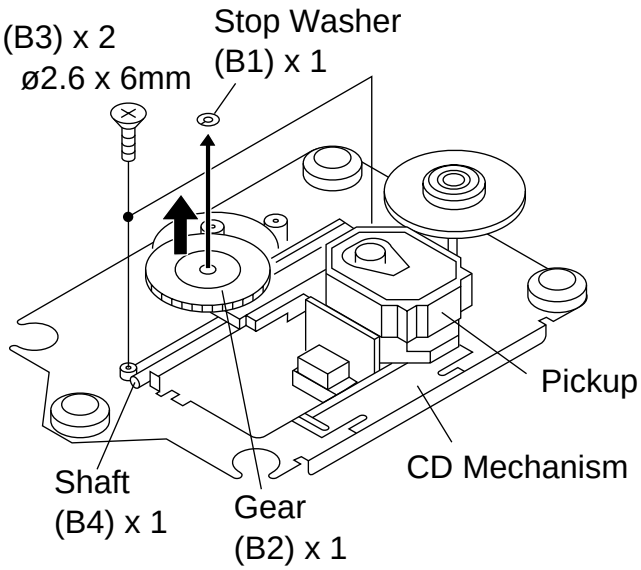


Figure 10-2

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)

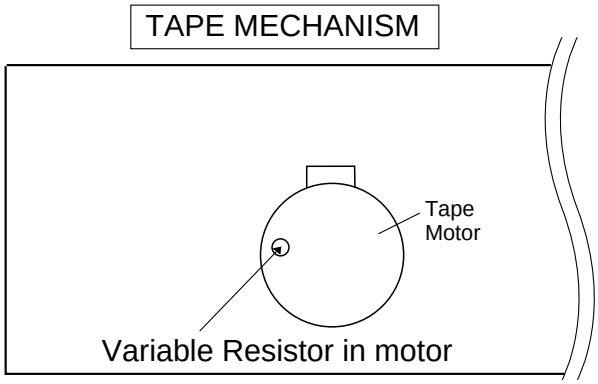


Figure 10-3

TUNER SECTION

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

- **AM IF/RF**

Signal generator: 400 Hz, 30%, AM modulated

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

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

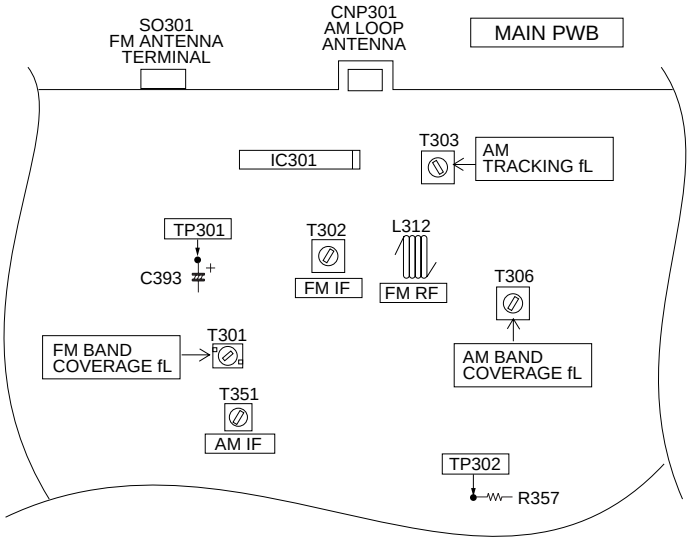


Figure 11-1 ADJUSTMENT POINTS

- **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): 3.4 V ± 50 mV	*1
FM RF	98.00 MHz (10-30 dB)	98.00 MHz	L312	*2

*1. Input: Antenna Output: TP301
*2. Input: Antenna Output: Speaker Terminal

- **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 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. 11-2 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

CD ERROR CODE DESCRIPTION

Error	Explanation
01	When Pickup set inner position, inner switch cannot detect 'ON' level for 10 secs.
10*	When tray moves to Open/Close, Open/Close switch cannot detect 'ON' level for 7 secs. When disc table rotate to target position. Clamp switch cannot detect 'ON' level for 7 secs.
11*	When disc table set to Disc1 position for 1 st time, "CLAMP SW", "DISC NO SW" and "OPEN/CLOSE" cannot detect 'ON' level for 14 secs.
31	When it changes to CD function, DSP cannot read initial data.

* 'CHECKING'
If Error is detected, 'CHECKING' will be display instead of 'ER-CD**' display. 'ER-CD**' display will only be display when error had been detected for the 5 th times.

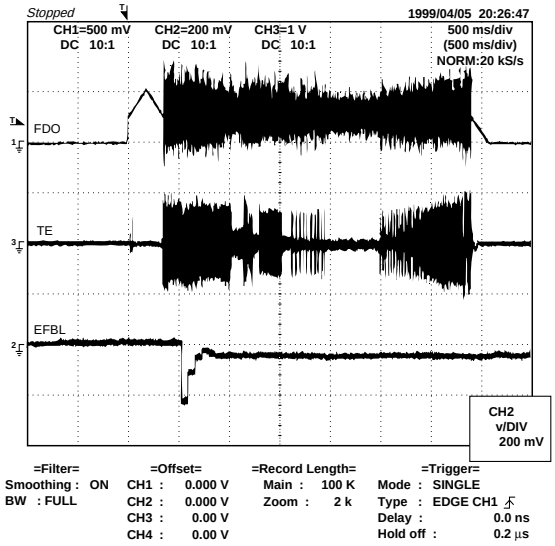
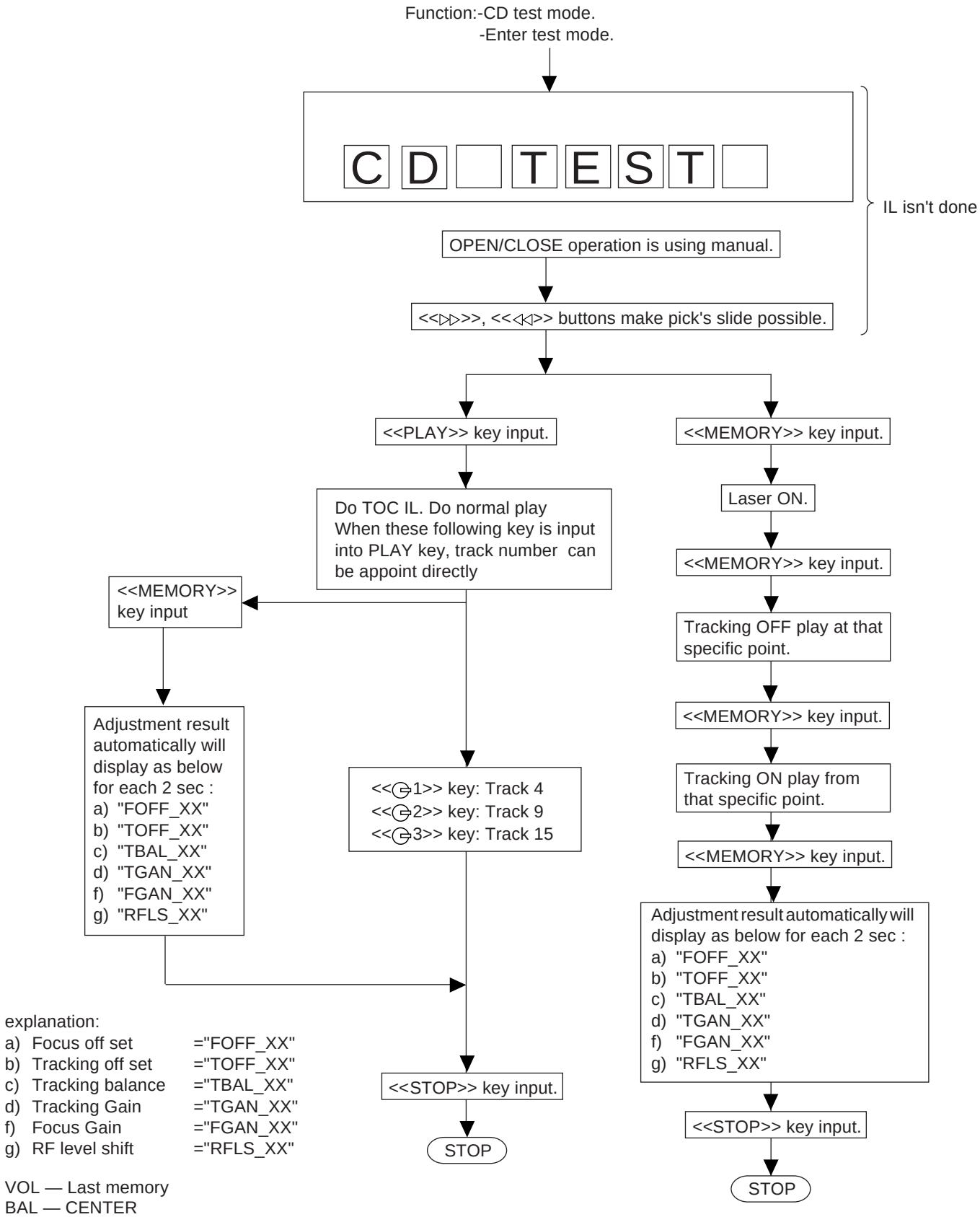


Figure 11-2

TEST MODE

- **Setting the test mode**

Any one of test mode can be set by pressing several keys as follows.
<X-BASS> + <CD> + <POWER> TEST:CD operation test



explanation:

a)	Focus off set	="FOFF_XX"
b)	Tracking off set	="TOFF_XX"
c)	Tracking balance	="TBAL_XX"
d)	Tracking Gain	="TGAN_XX"
f)	Focus Gain	="FGAN_XX"
g)	RF level shift	="RFLS_XX"

VOL — Last memory
BAL — CENTER
P.GEQ — FLAT
X-BASS — OFF

To cancel : Power OFF

Standard Specification of Stereo System Error Message Display Contents

Error Contents		DISPLAY	Notes
TAPE	Mechanism Error.	'ER-TA**'	00: Tape Mechanism Error. 01: Initial Error. 02: 03:
CD	Pickup Mechanism Error.	'ER-CD**'	01: PU-IN SW Detection NG. 02: 03: 04:
	CD Changer Mechanism Error.	'ER-CD**' (*)	10: Changer Error. 11: Initial Error. 12: 13:
	CD DSP Communication Error	'ER-CD**'	31: DSP COMMUNICATION ERROR
	Focus Not Match.	'NO DISC'	
	IL Time Over.	'NOT READ'	
TUN	PLL Unlock.	'ER-TU**'	00: TUN Error. 01: PLL Unlock. 02: 03:

(*) CHECKING:
If CD changer mechanism error is detected, 'CHECKING' will be display instead of 'ER-CD**' display 'ER-CD**' will only be display when CD changer mechanism error had been detected for the 5 th times.

Speaker abnormal detection and +B PROTECTION display
In case speaker abnormal detection or +B PROTECTION had occured, it can be check by pressing 'POWER', 'VIDEO' and 'X-BASS' key twice. Display will show "S** B**". S is referring to speaker abnormal detection and B is referring to +B PROTECTION. ** is in hex valve.

+B PROTECTION is condition when irregular process occur on power supply line.

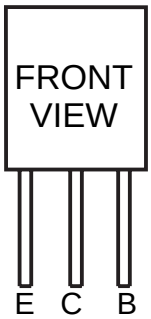
NOTES ON SCHEMATIC DIAGRAM

- 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.

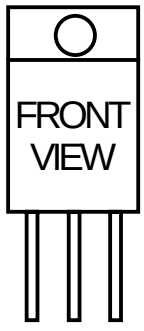
REF. NO	DESCRIPTION	POSITION
SW1	OPEN/CLOSE	ON—OFF
SW2	CLAMP	ON—OFF
SW3	DISC NUMBER	ON—OFF
SW4	PICKUP IN	ON—OFF
SW601	SPAN SELECTOR	50 kHz/9 kHz
SW701	ON/STAND-BY	ON—OFF
SW702	FAST REWIND/PRESET DOWN	ON—OFF
SW703	FAST FORWARD/PRESET UP	ON—OFF
SW704	STOP	ON—OFF
SW705	PLAY	ON—OFF
SW706	REVERSE PLAY	ON—OFF
SW707	REVERSE MODE	ON—OFF
SW711	CD	ON—OFF
SW712	TUNER (BAND)	ON—OFF

REF. NO	DESCRIPTION	POSITION
SW713	TAPE	ON—OFF
SW714	VIDEO/AUX	ON—OFF
SW715	TIMER/SLEEP	ON—OFF
SW716	TUNING/TIME UP	ON—OFF
SW717	REC PAUSE	ON—OFF
SW718	MEMORY/SET	ON—OFF
SW719	TUNING/TIME DOWN	ON—OFF
SW720	CLOCK	ON—OFF
SW723	DISC SKIP	ON—OFF
SW724	OPEN/CLOSE	ON—OFF
SW725	EQUALIZER	ON—OFF
SW726	MONSTER BASS	ON—OFF
SW801	VOLTAGE SELECTOR	230-240 V

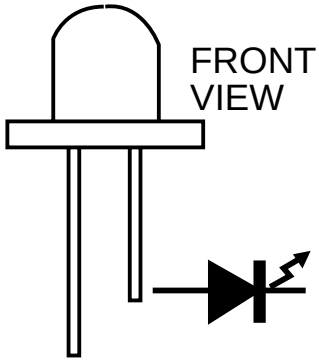
TYPES OF TRANSISTOR AND LED



KTA1266 GR
KTA1273 Y
KTA1274 Y
KTC3194 Y
KTC3199 GR
KTC3203 Y
KRC102 M
KRC104 M
KRA107 M
2SA1015 GR
2SC1845 F



KTC2026



SRL342VCJ
4204UYT7
A503BC2E

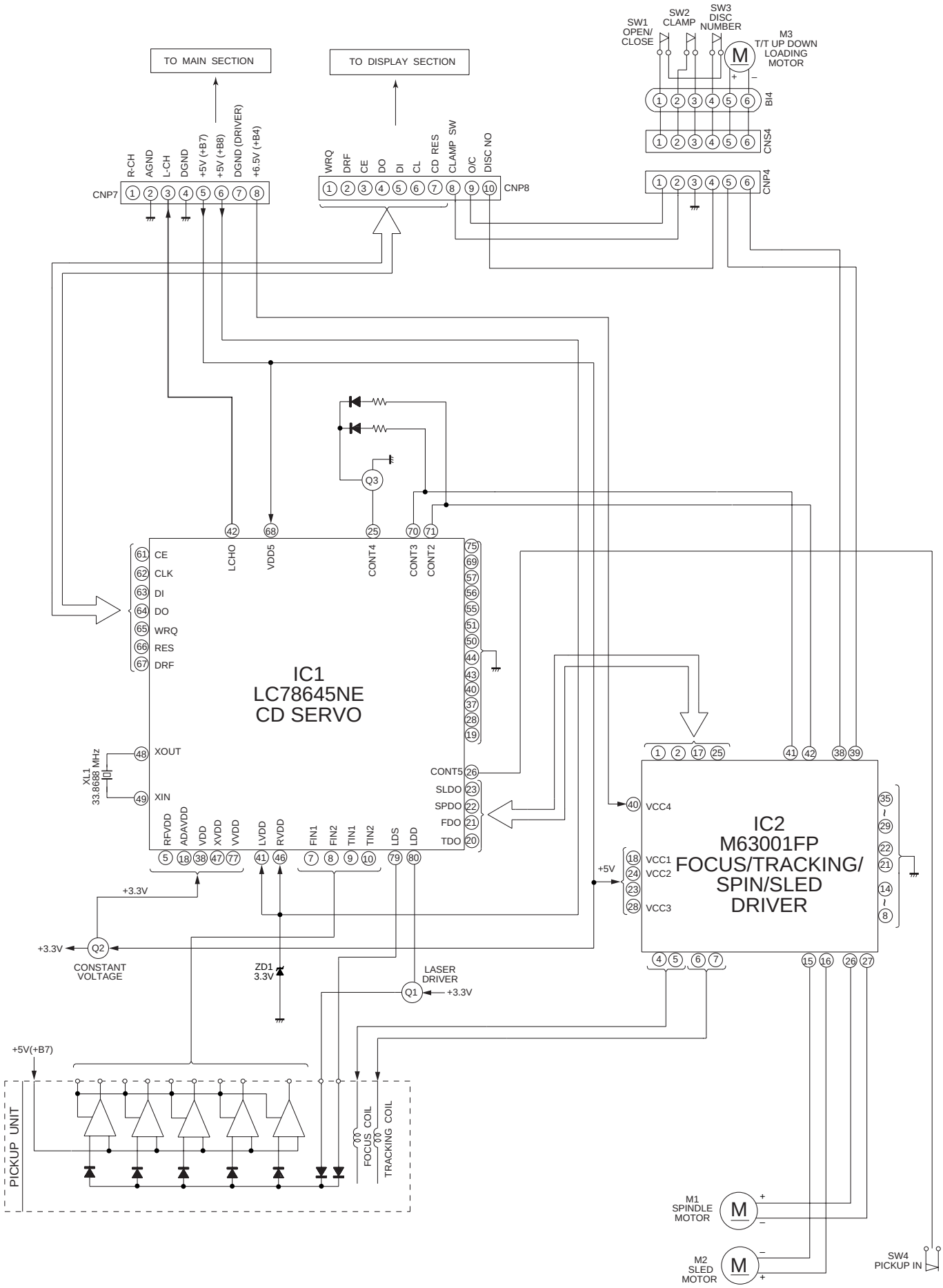


Figure 15 BLOCK DIAGRAM (1/3)

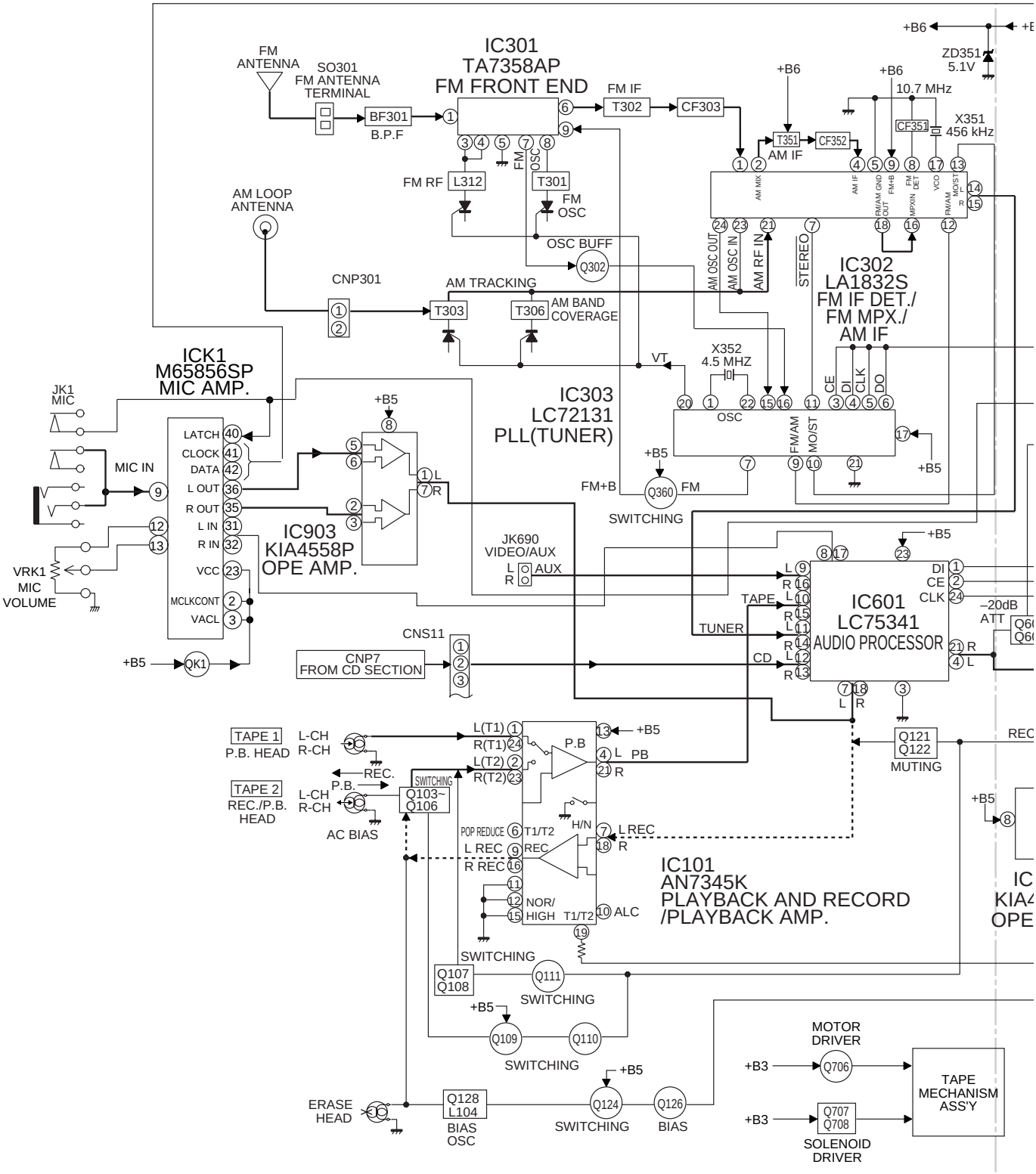


Figure 16 BLOCK DIAGRAM (2/3)

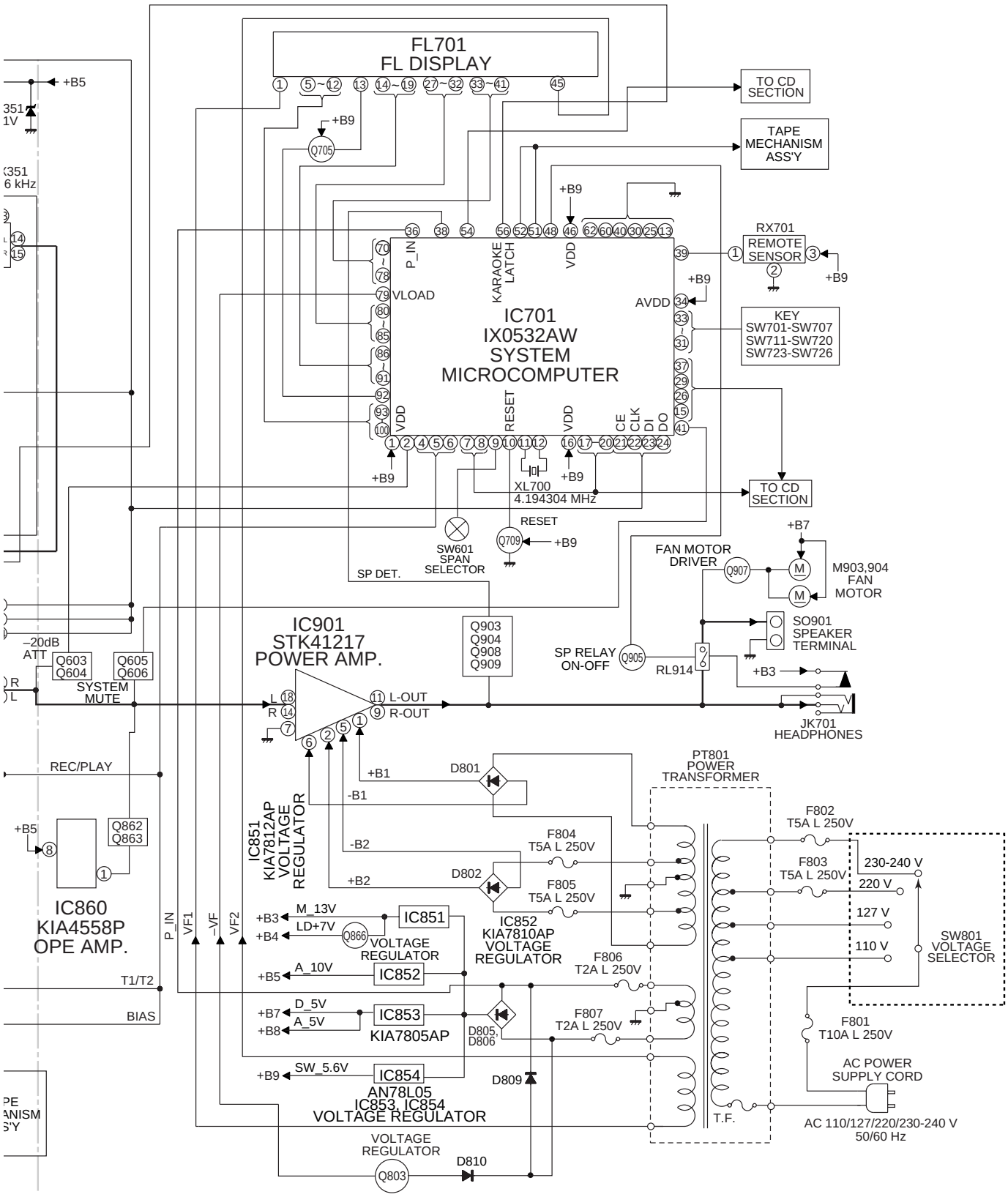


Figure 17 BLOCK DIAGRAM (3/3)

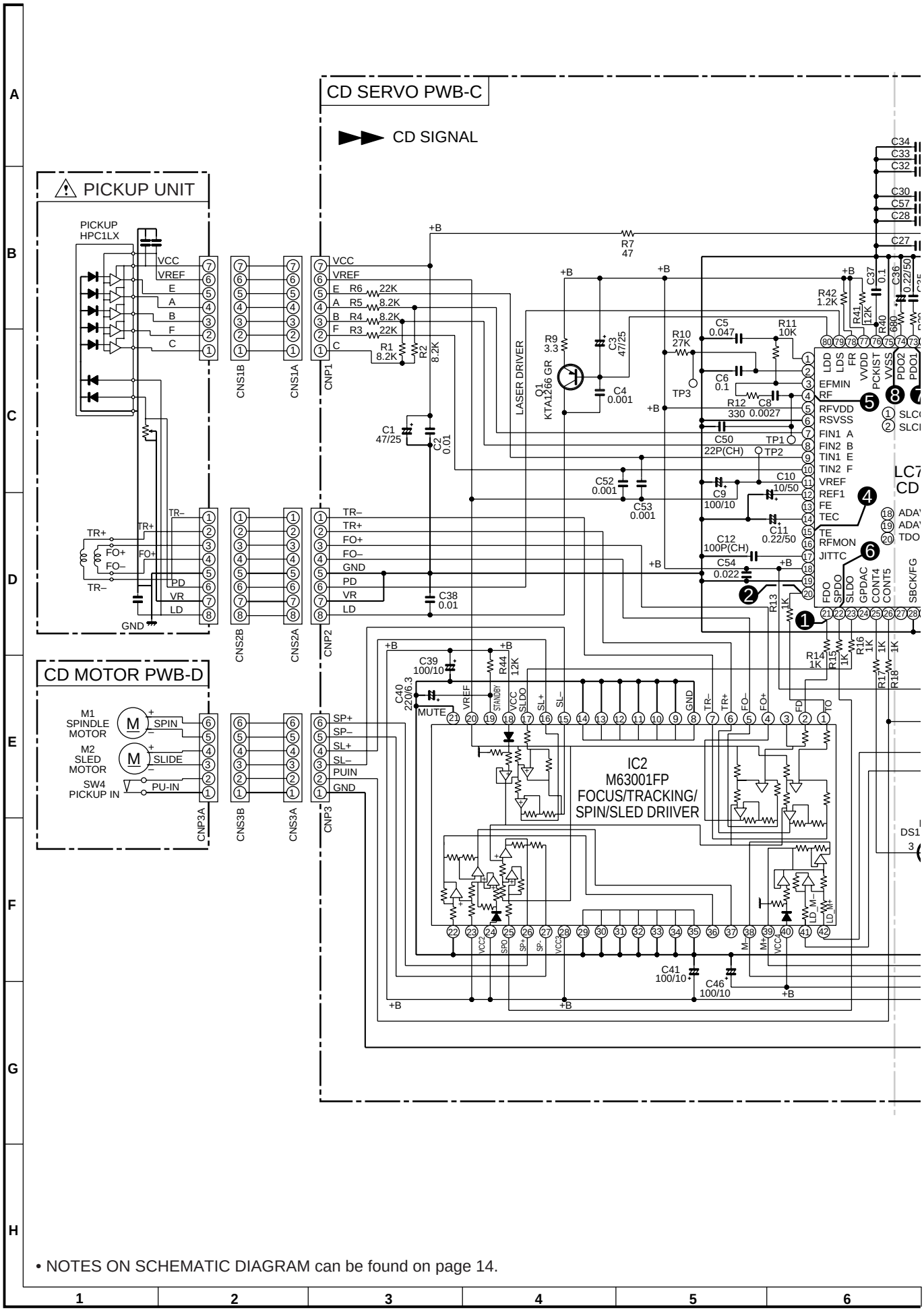
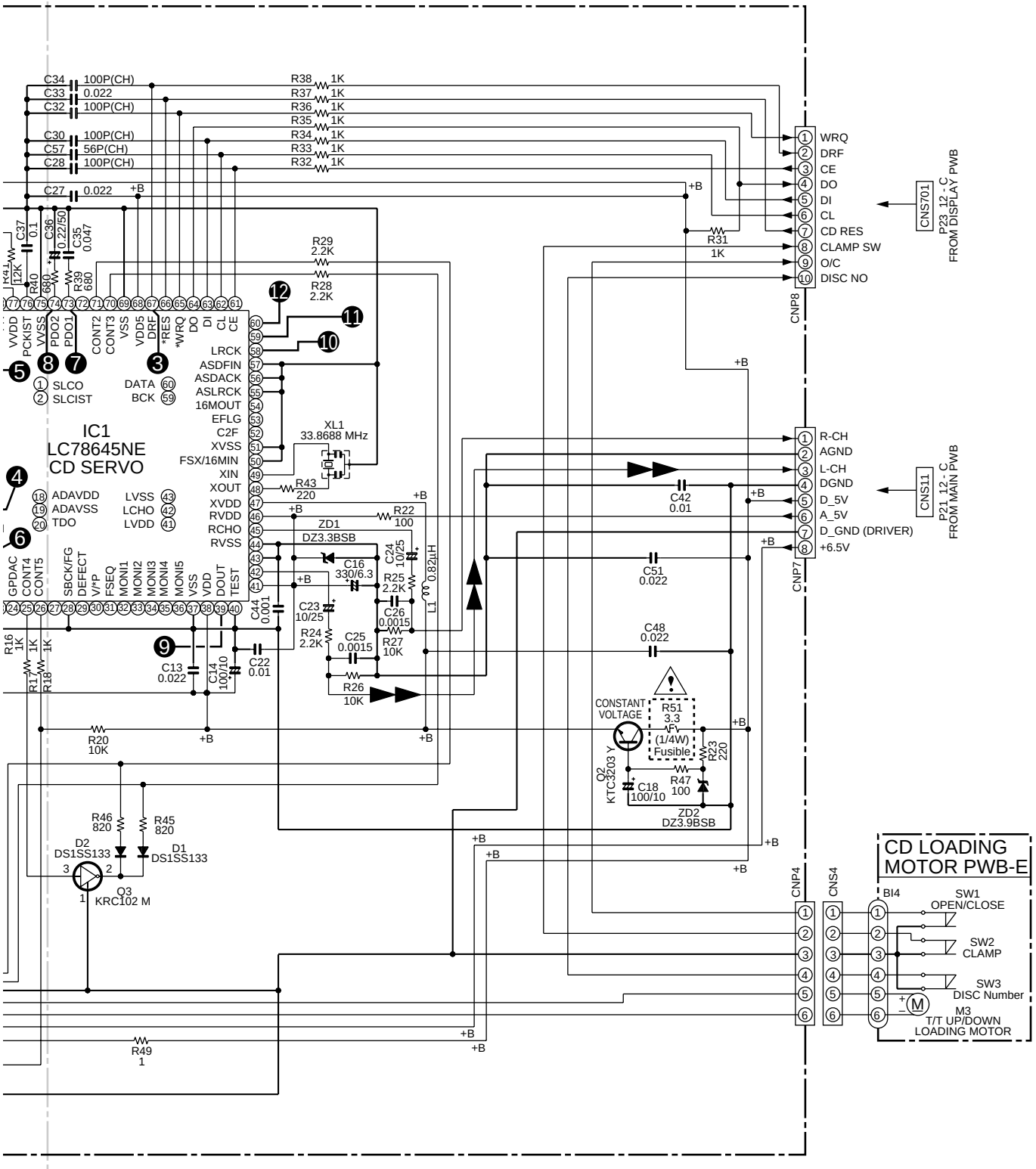


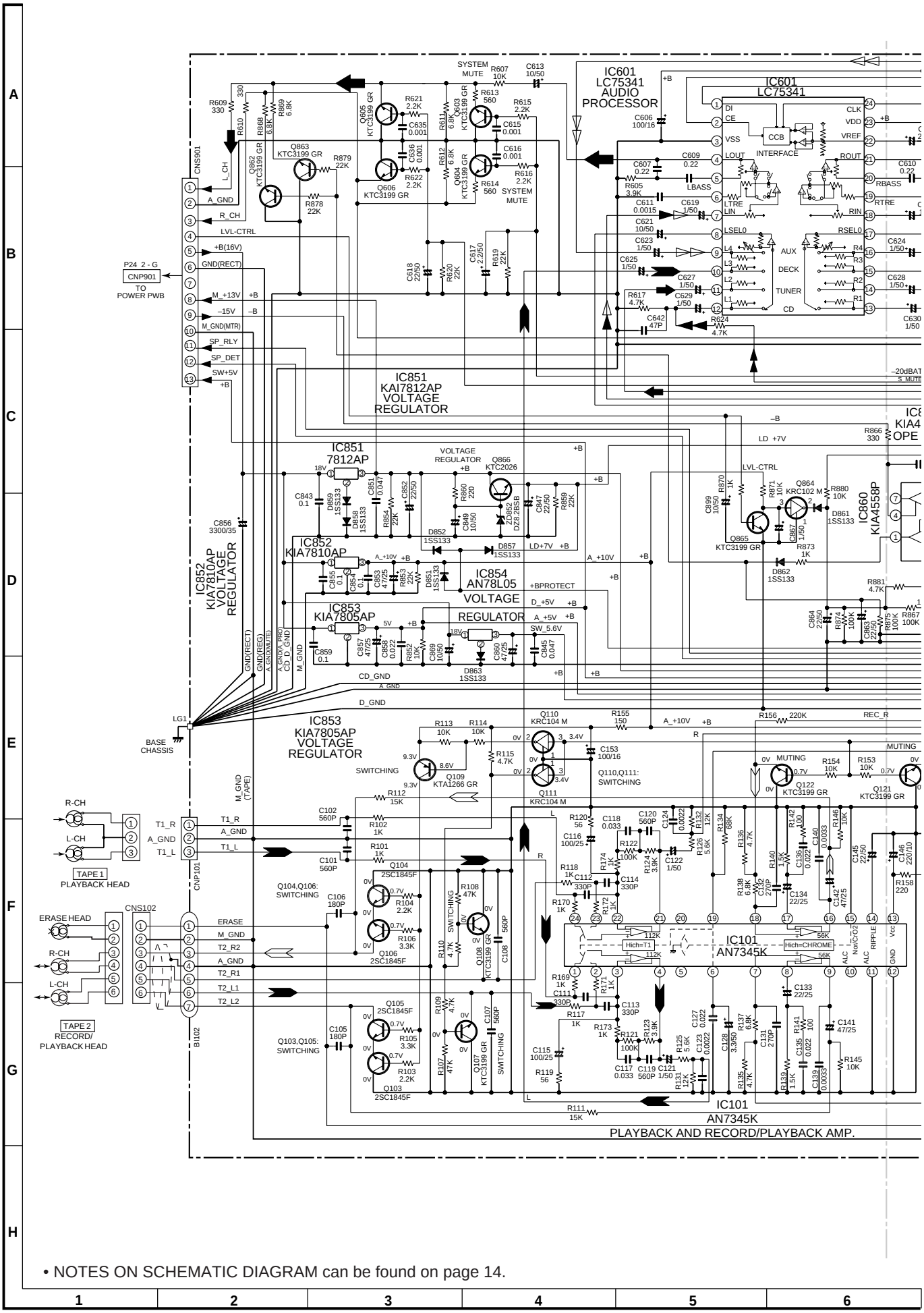
Figure 18 SCHEMATIC DIAGRAM (1/10)



• The numbers ❶ to ⓬ are waveform numbers shown in page 37.

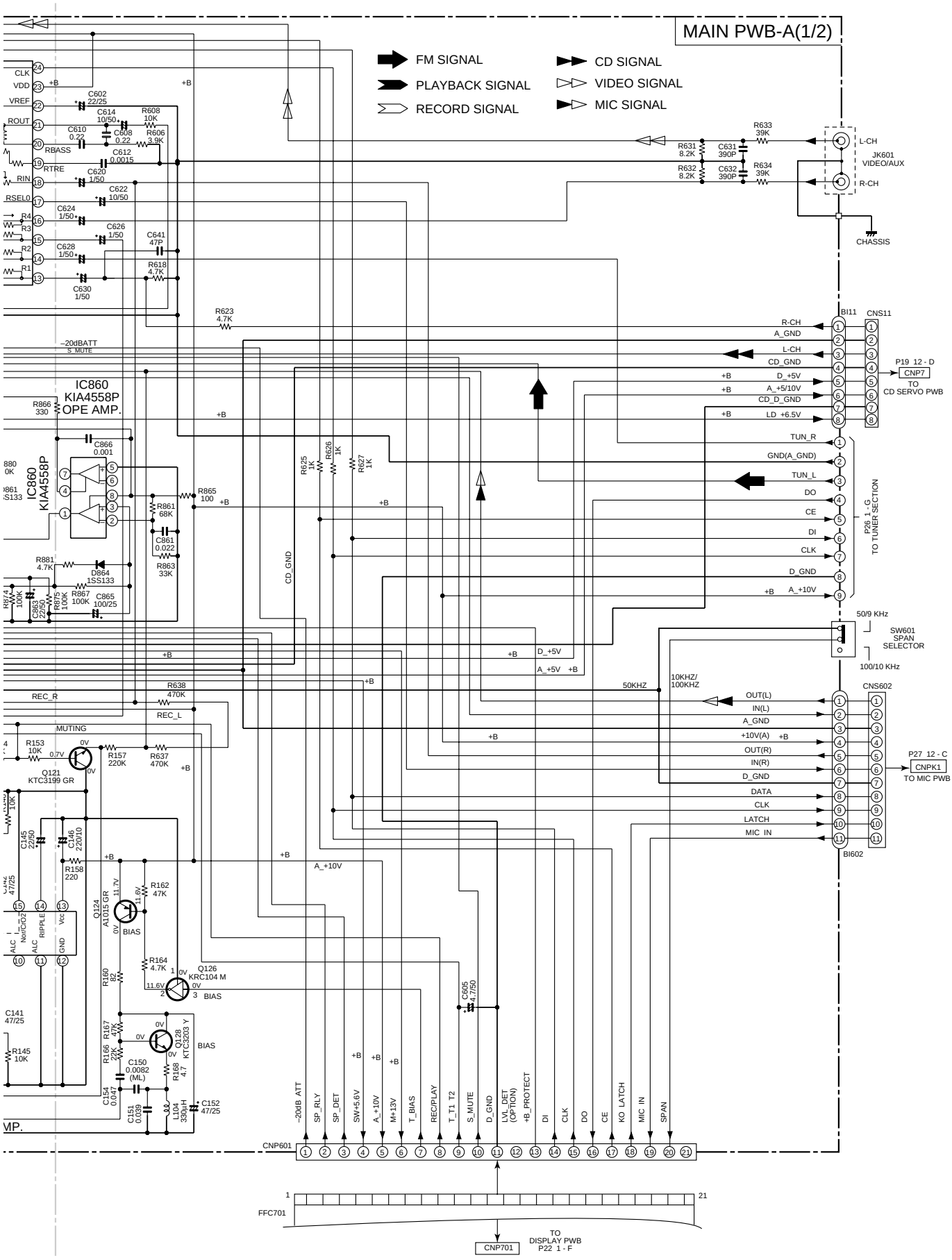
7	8	9	10	11	12

Figure 19 SCHEMATIC DIAGRAM (2/10)



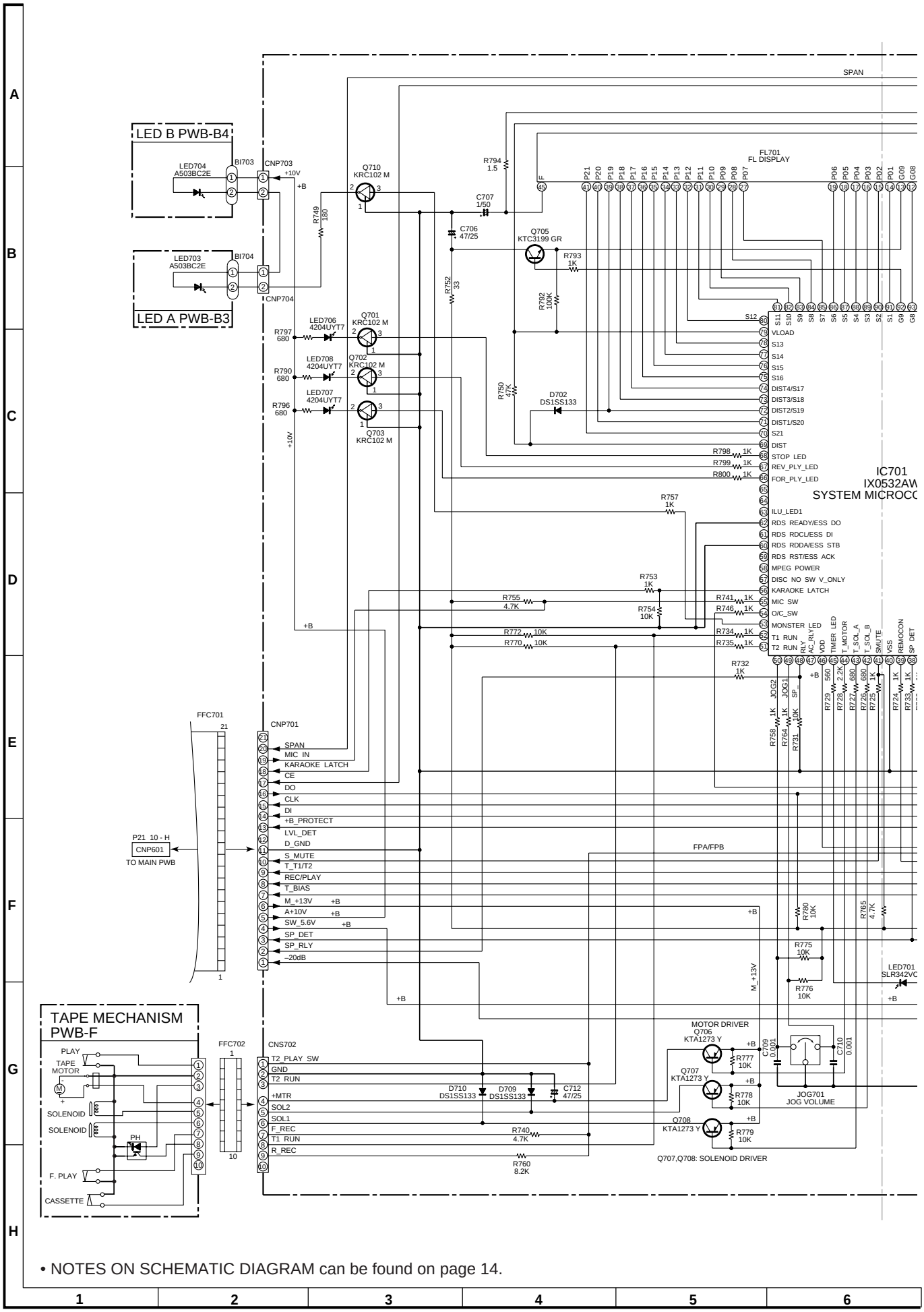
• NOTES ON SCHEMATIC DIAGRAM can be found on page 14.

Figure 20 SCHEMATIC DIAGRAM (3/10)



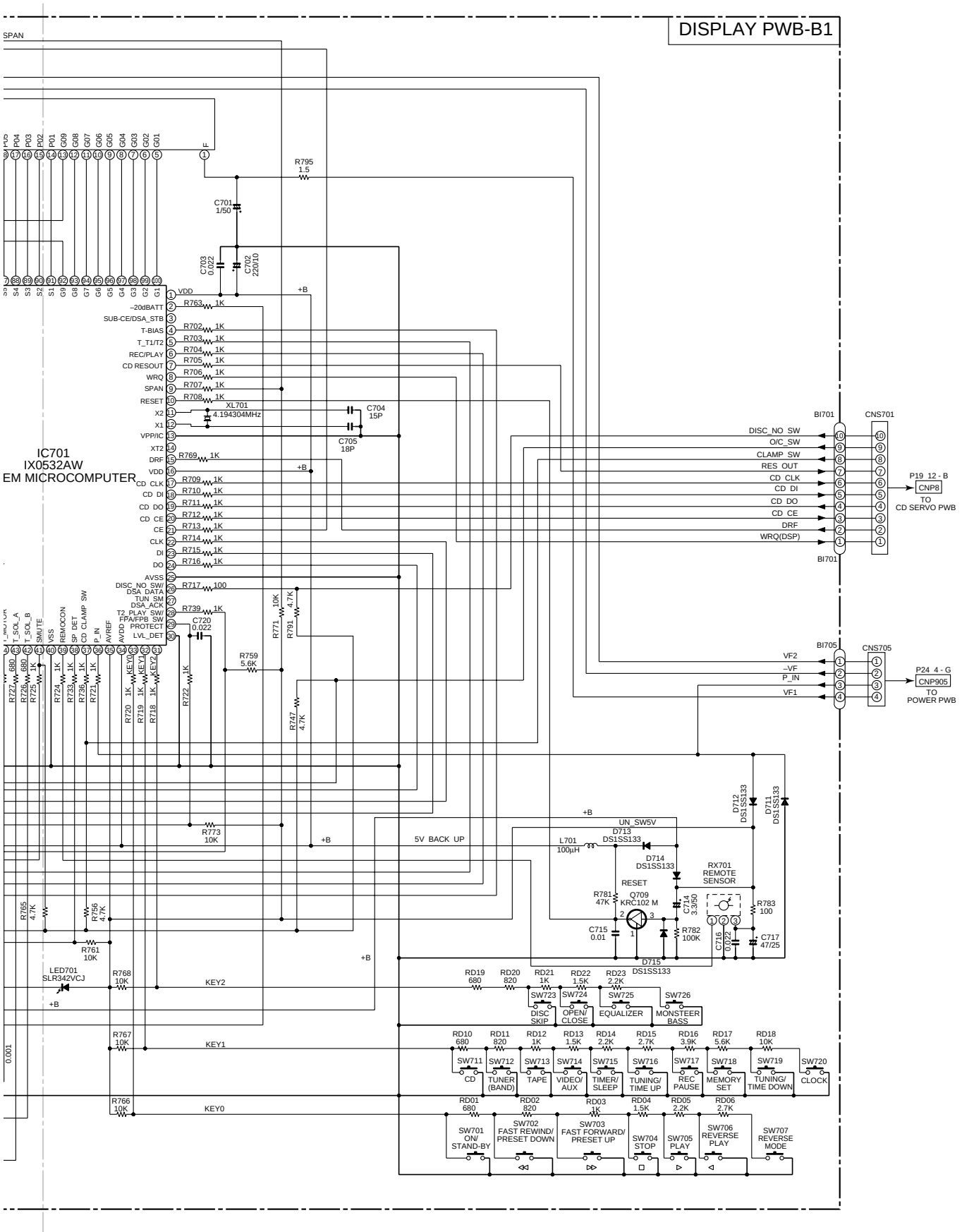
7	8	9	10	11	12

Figure 21 SCHEMATIC DIAGRAM (4/10)



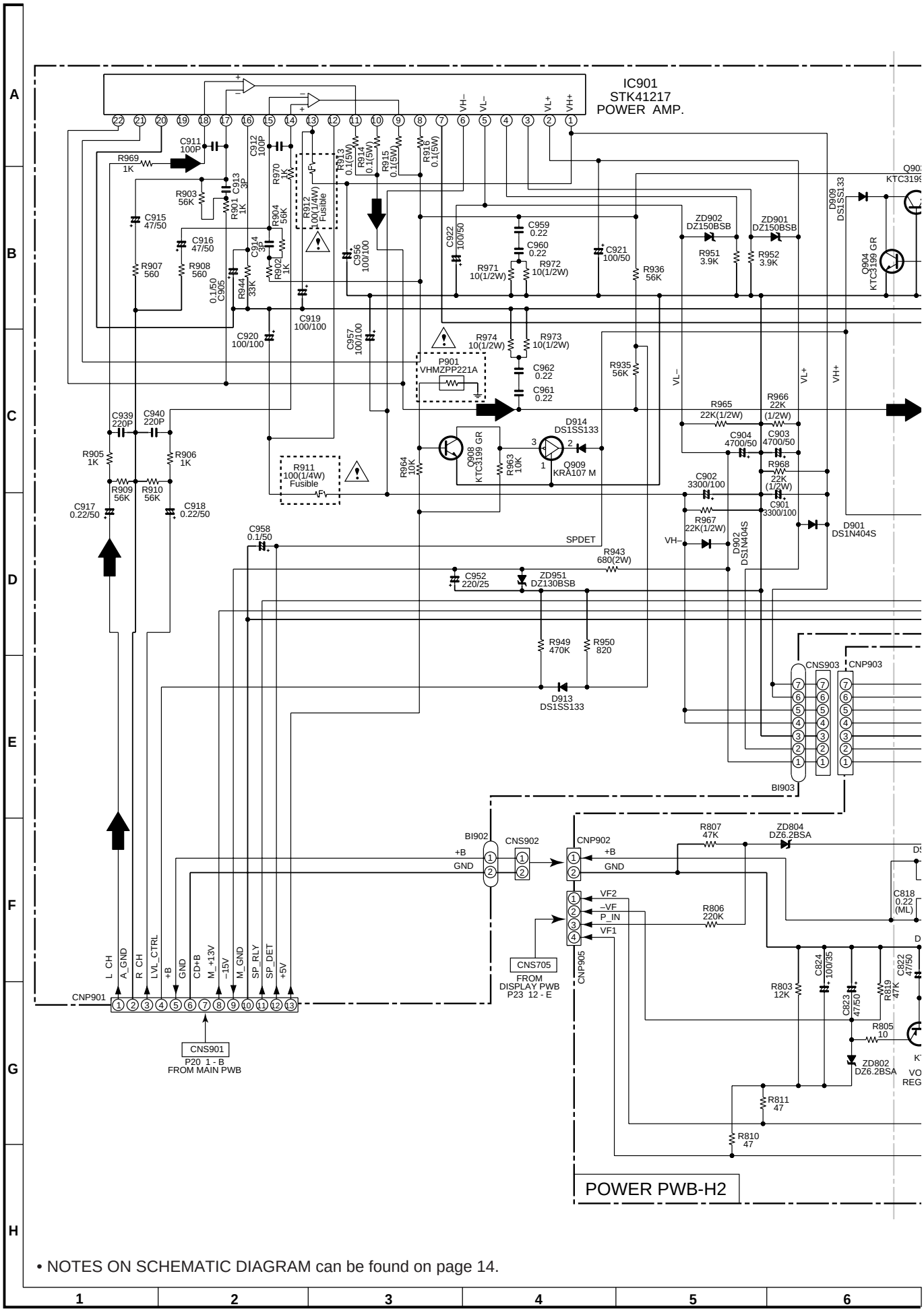
• NOTES ON SCHEMATIC DIAGRAM can be found on page 14.

Figure 22 SCHEMATIC DIAGRAM (5/10)



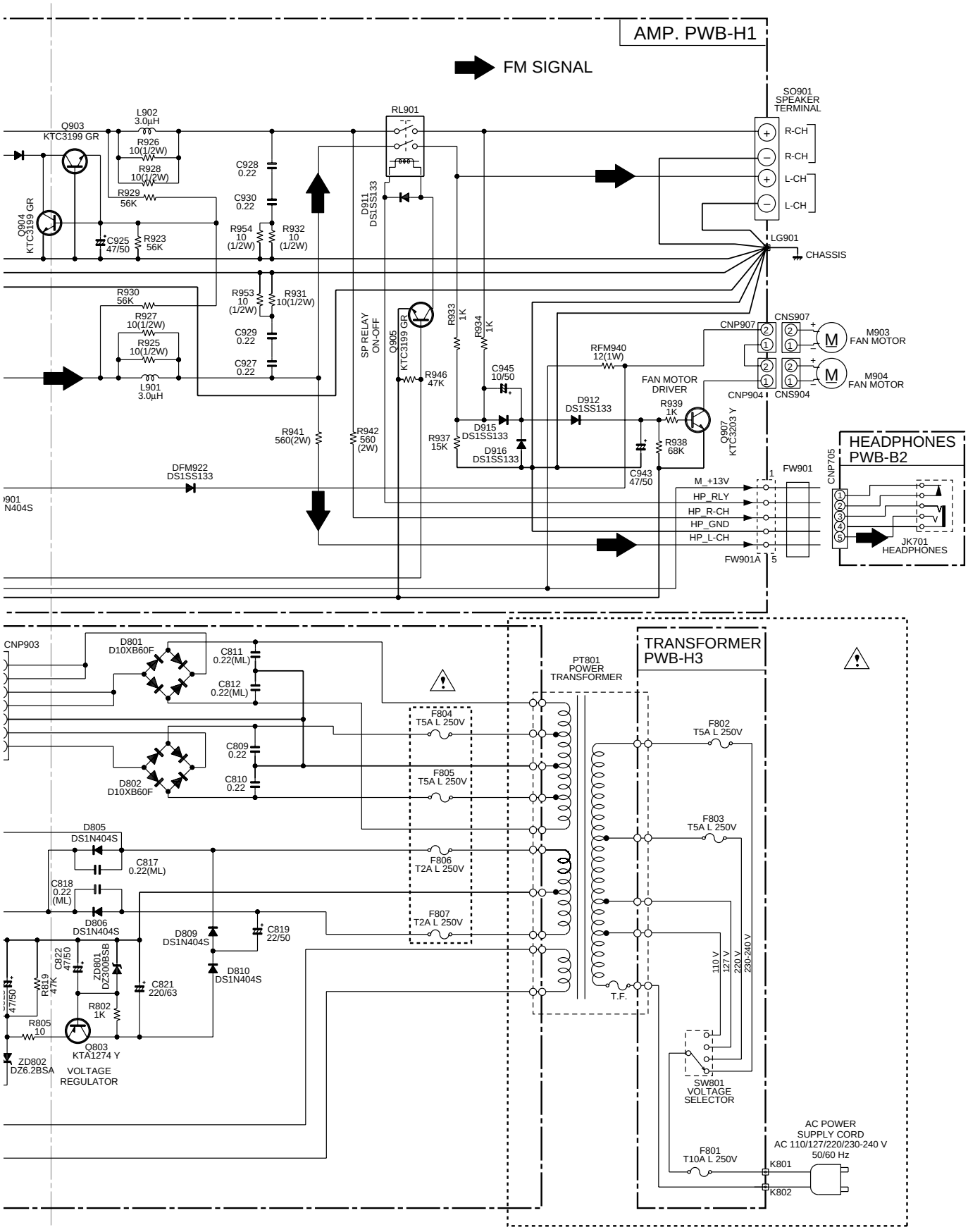
7	8	9	10	11	12

Figure 23 SCHEMATIC DIAGRAM (6/10)



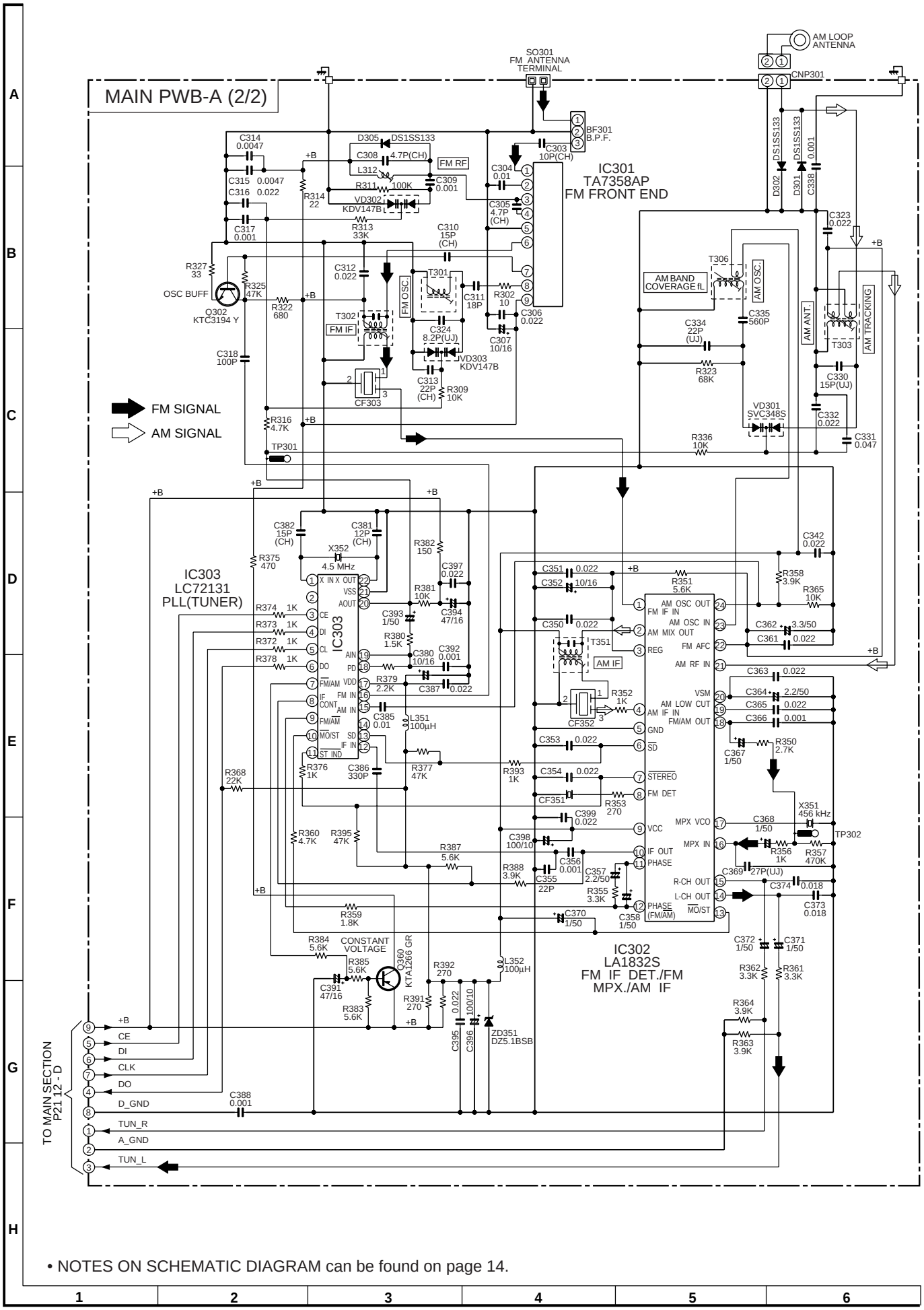
• NOTES ON SCHEMATIC DIAGRAM can be found on page 14.

Figure 24 SCHEMATIC DIAGRAM (7/10)



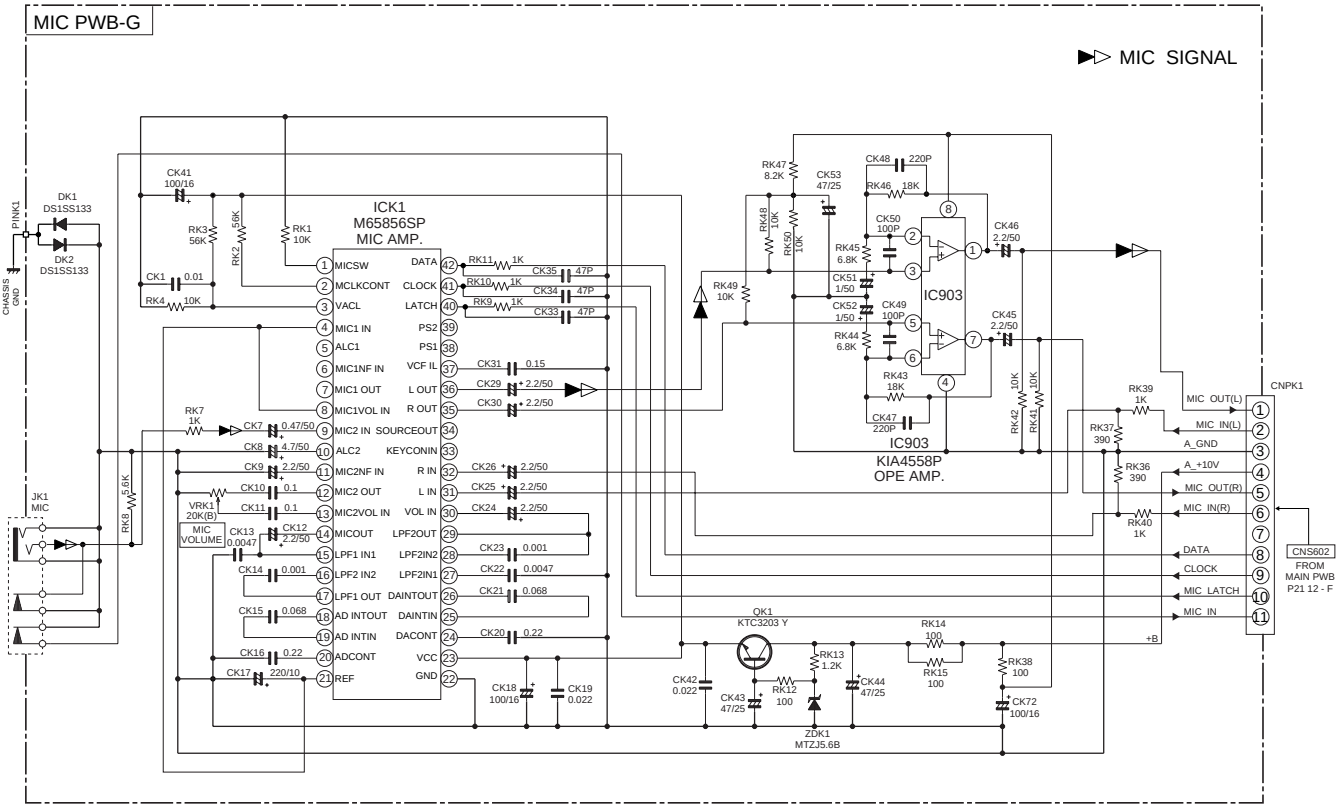
7	8	9	10	11	12

Figure 25 SCHEMATIC DIAGRAM (8/10)



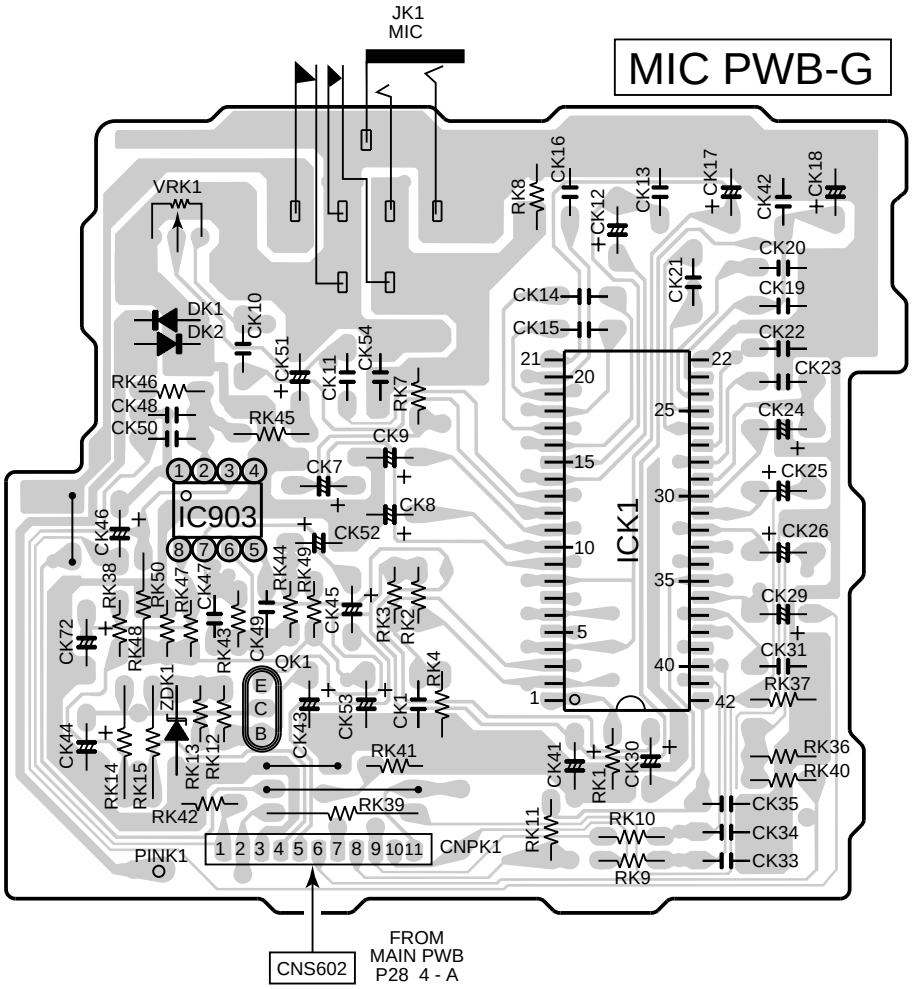
• NOTES ON SCHEMATIC DIAGRAM can be found on page 14.

Figure 26 SCHEMATIC DIAGRAM (9/10)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 14.

Figure 27 SCHEMATIC DIAGRAM (10/10)



7	8	9	10	11	12

Figure 27 WIRING SIDE OF P.W.BOARD (1/9)

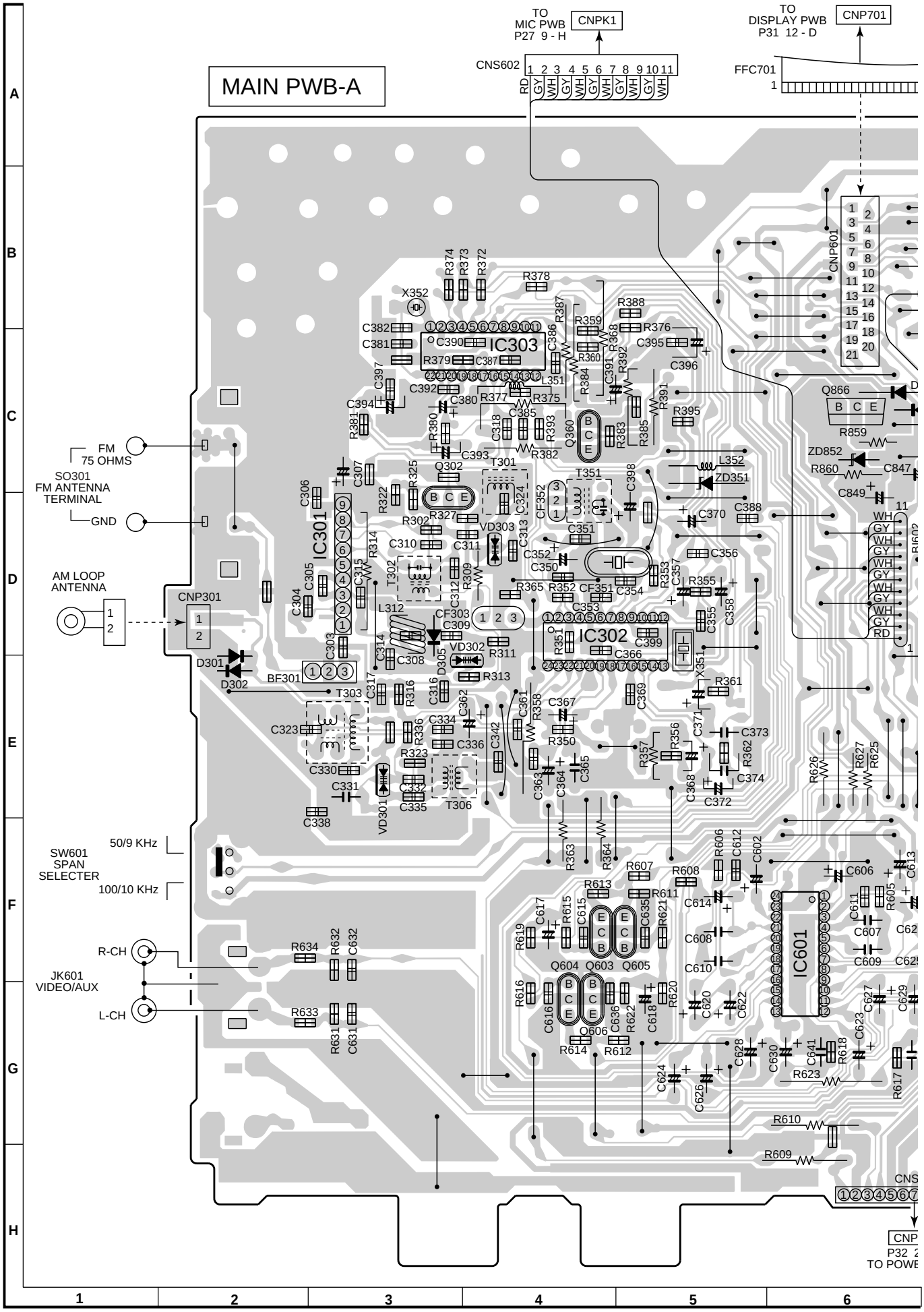
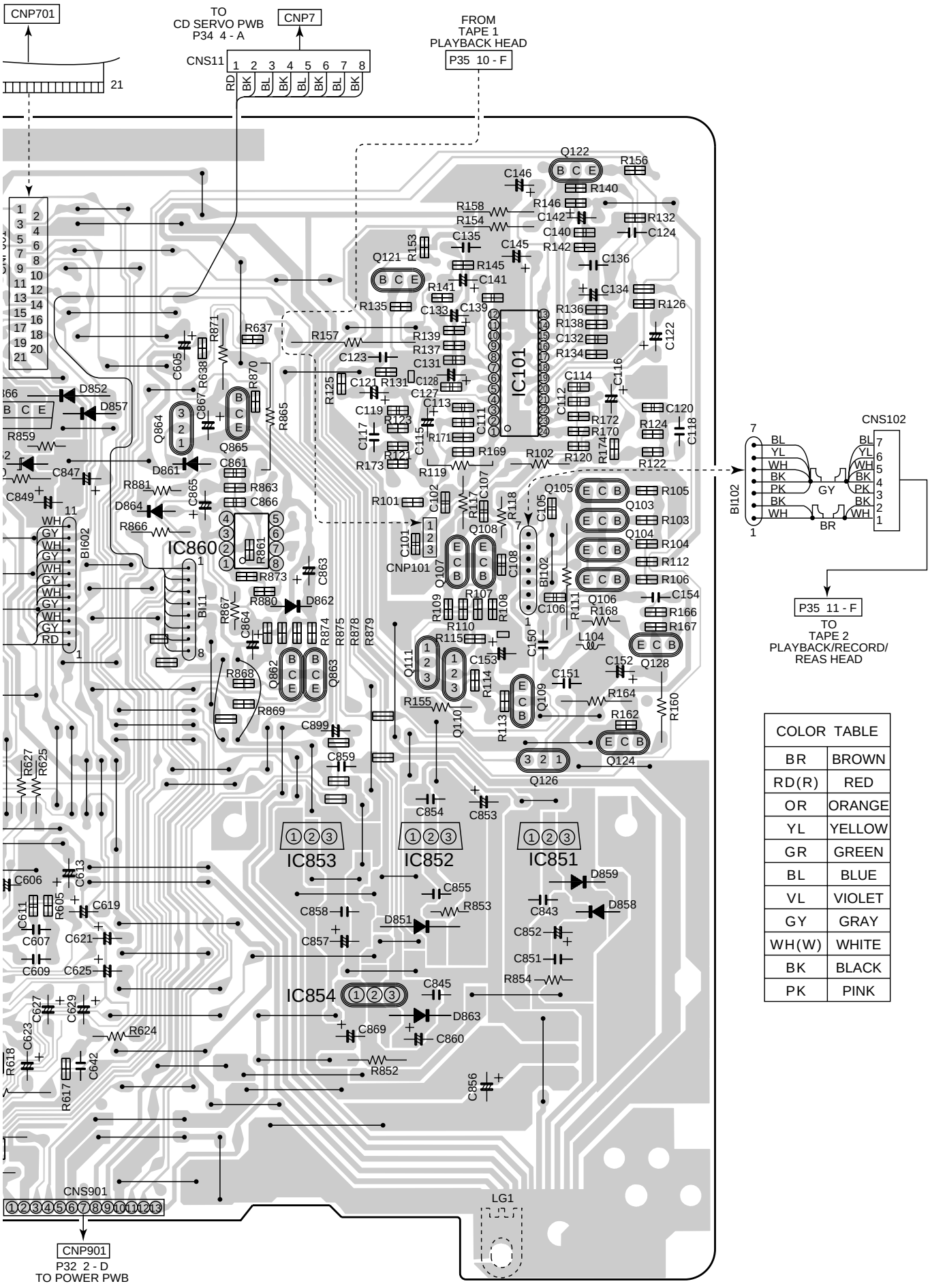


Figure 28 WIRING SIDE OF P.W.BOARD (2/9)



7	8	9	10	11	12

Figure 29 WIRING SIDE OF P.W.BOARD (3/9)

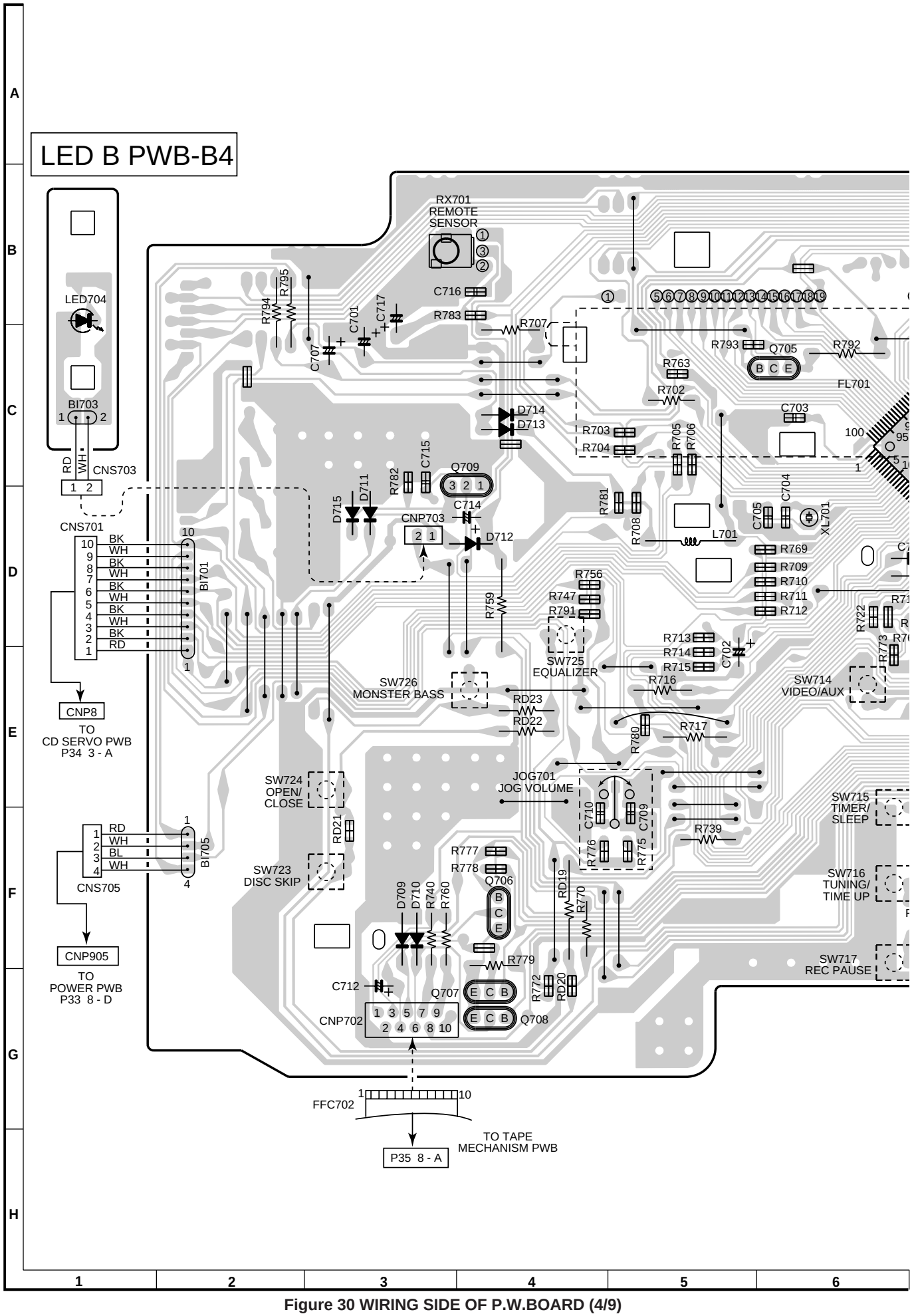
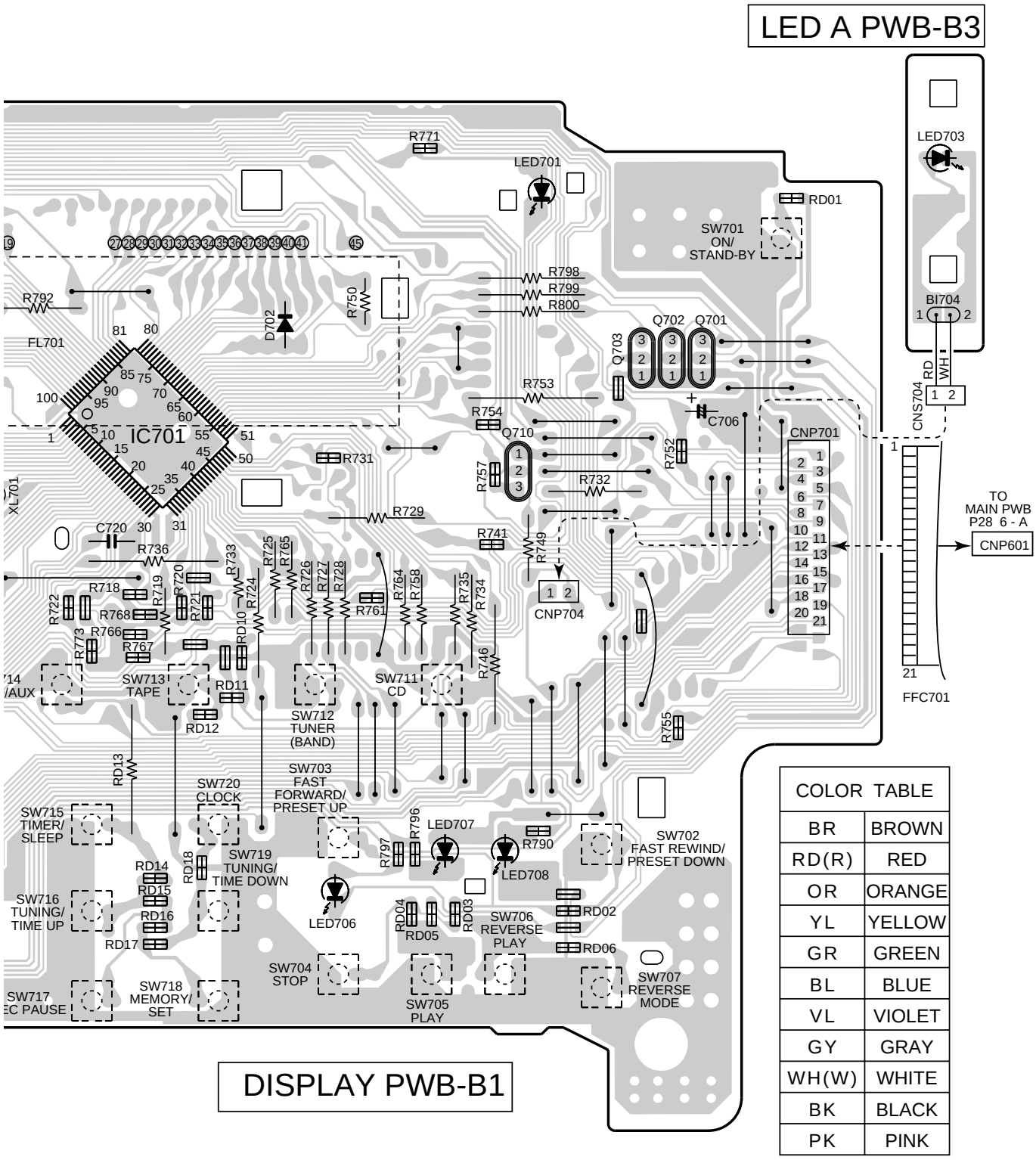


Figure 30 WIRING SIDE OF P.W.BOARD (4/9)



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

7	8	9	10	11	12

Figure 31 WIRING SIDE OF P.W.BOARD (5/9)

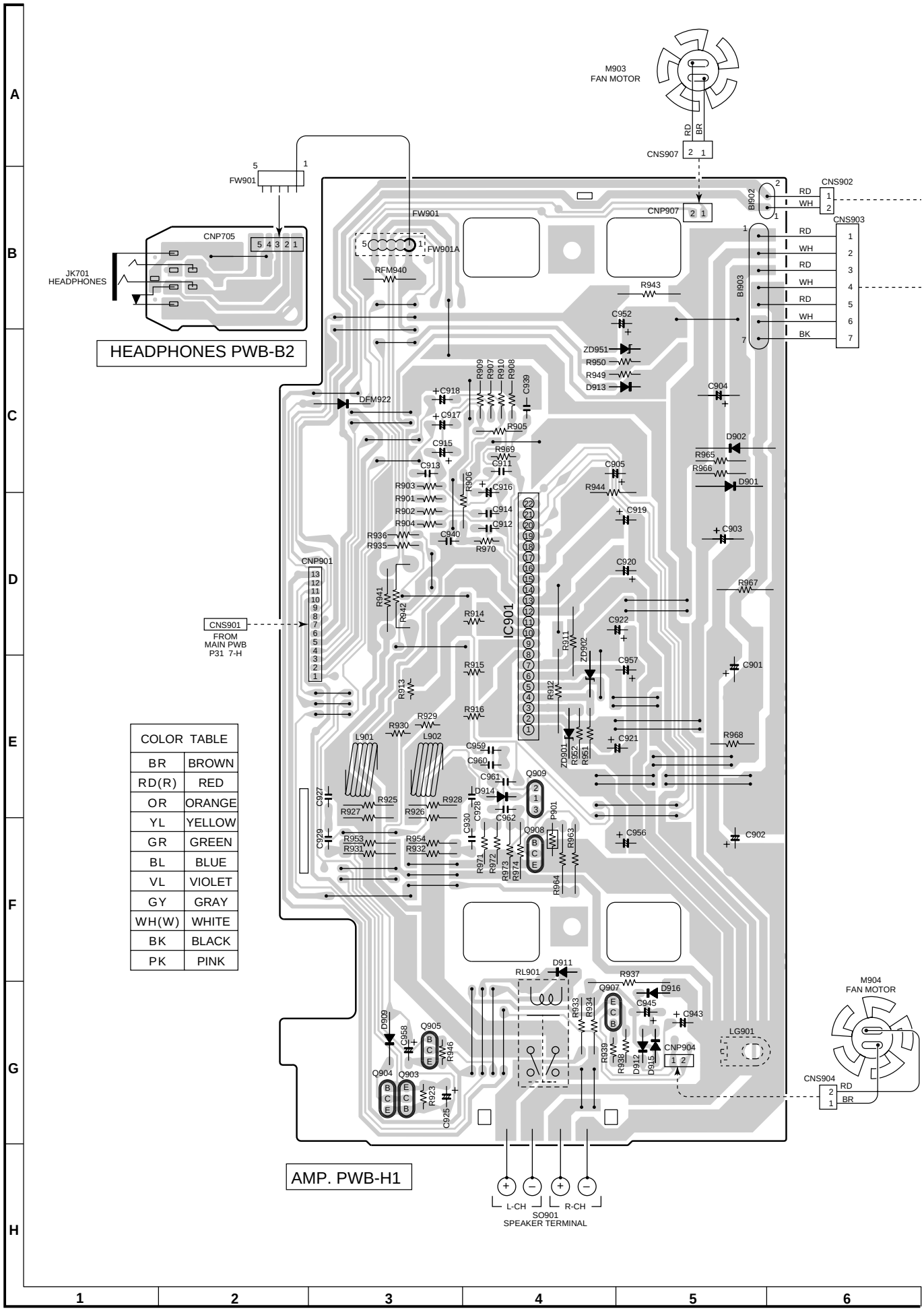
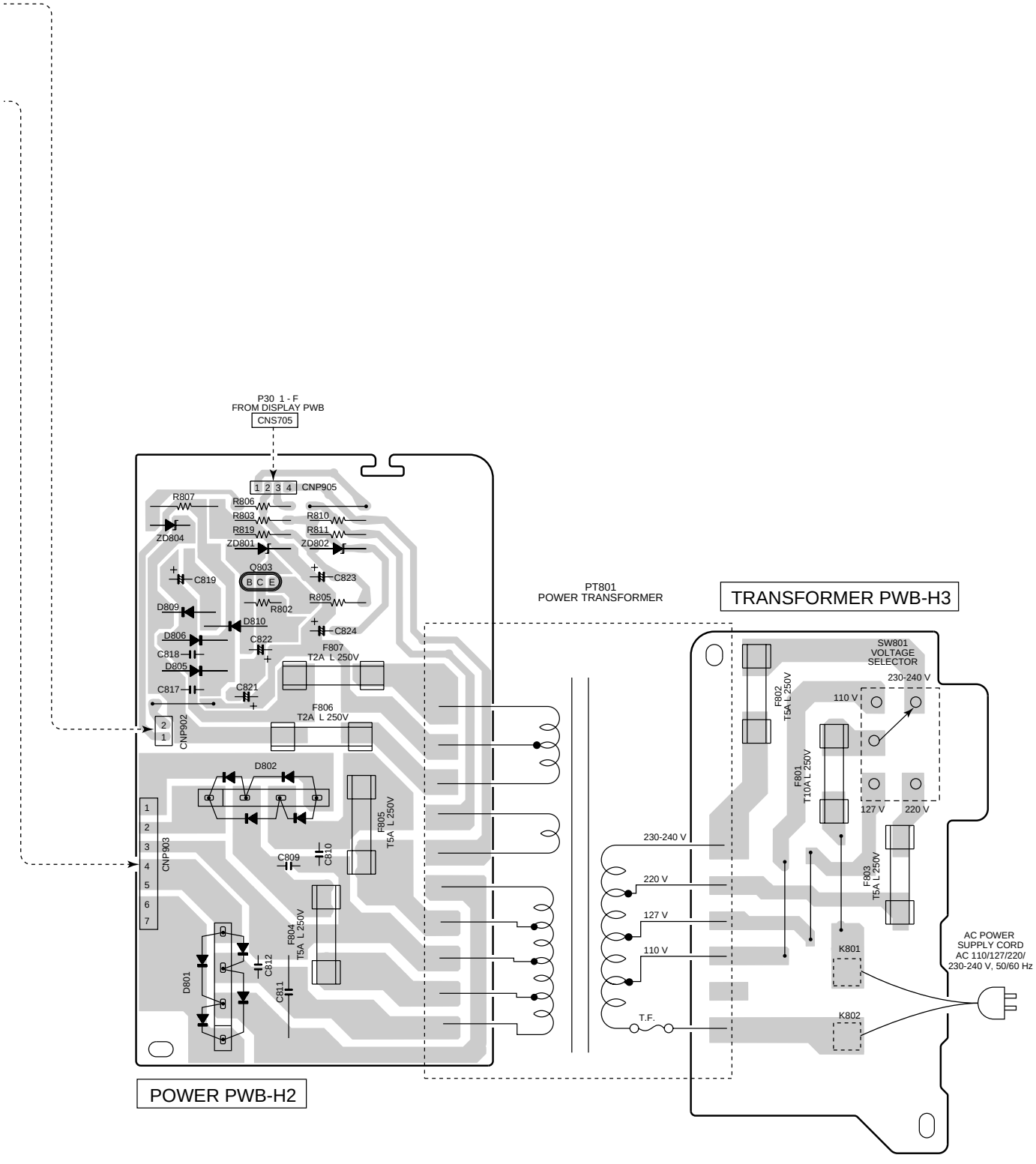
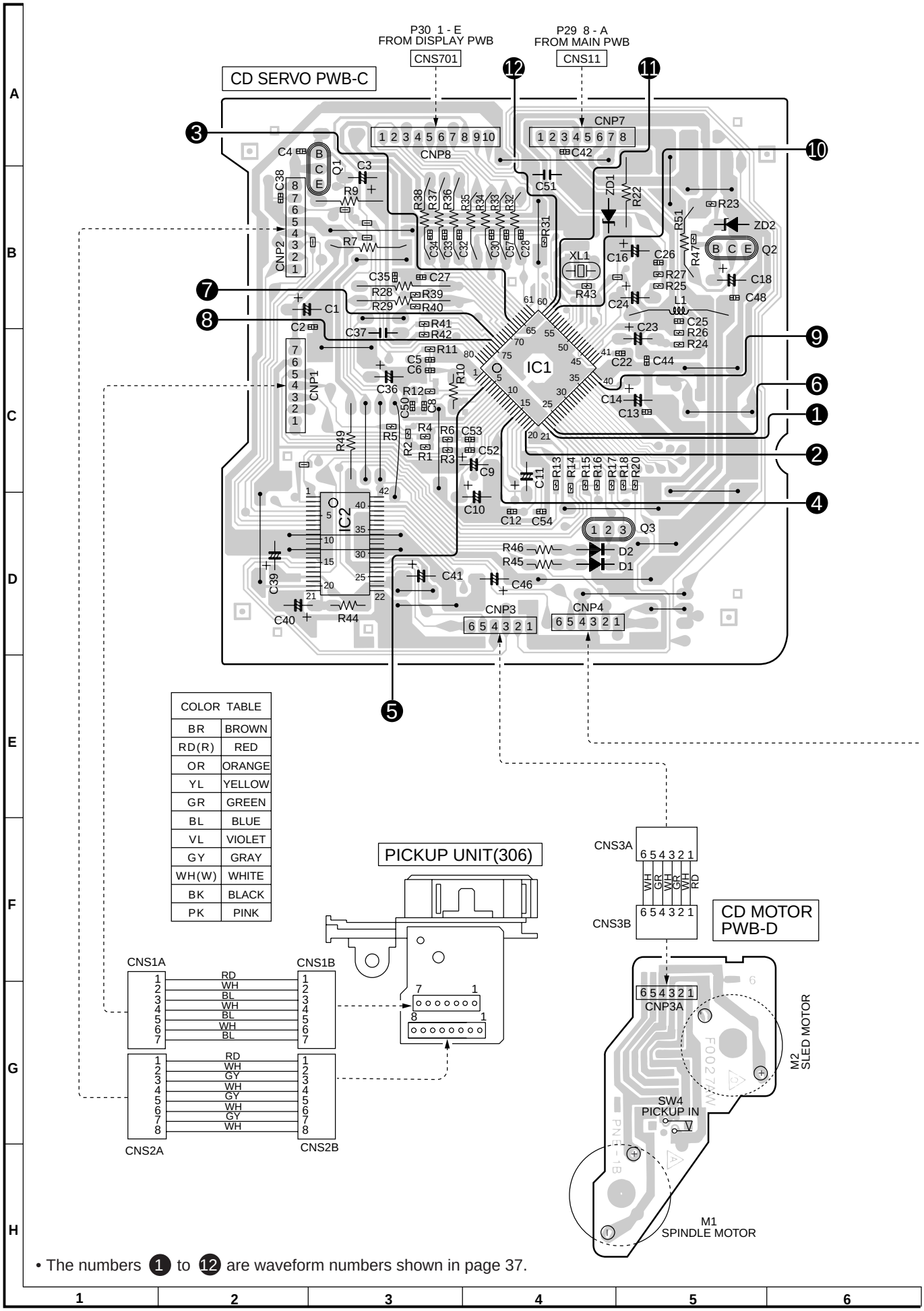


Figure 32 WIRING SIDE OF P.W.BOARD (6/9)



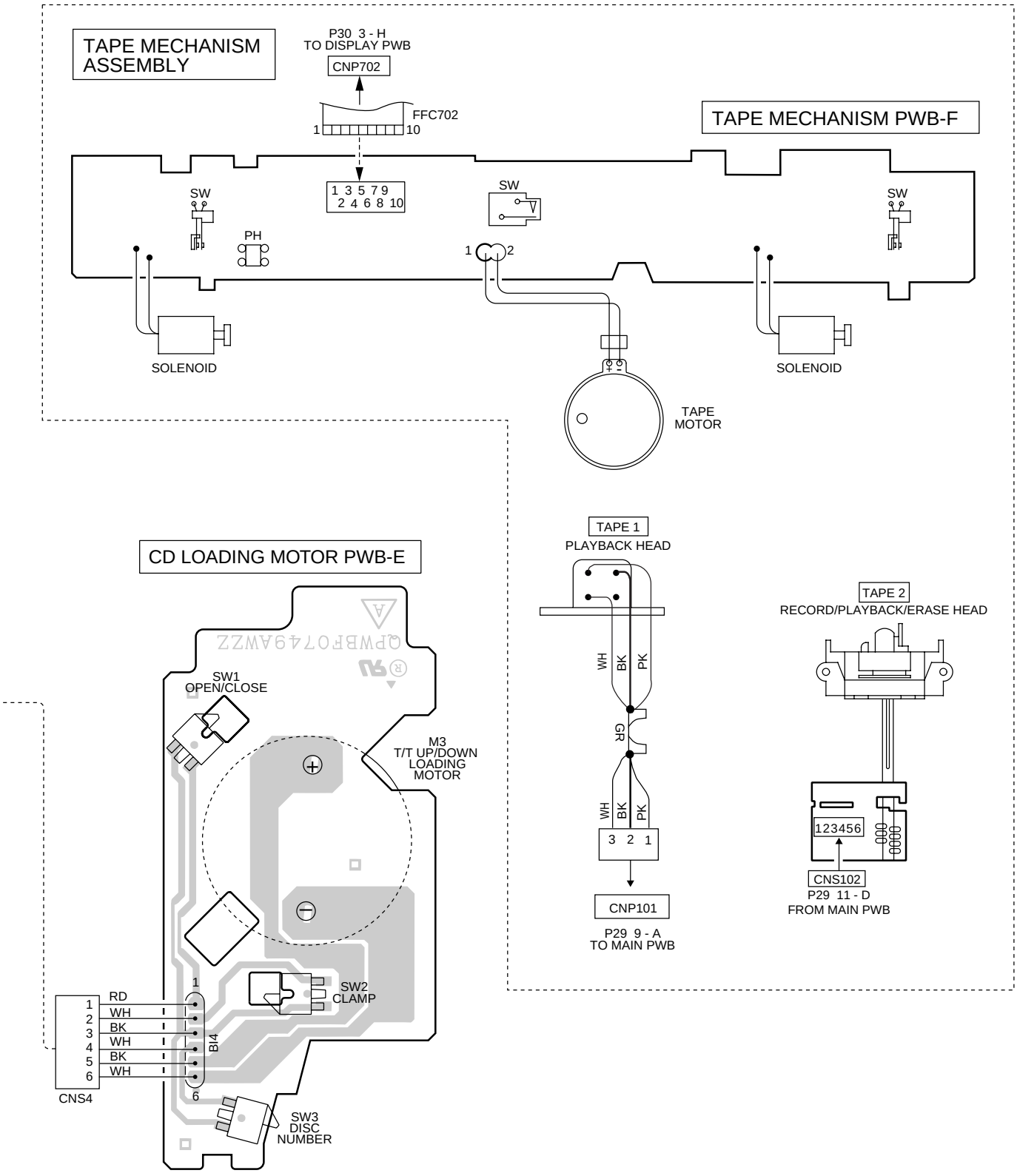
7	8	9	10	11	12

Figure 33 WIRING SIDE OF P.W.BOARD (7/9)



• The numbers ❶ to ⓬ are waveform numbers shown in page 37.

Figure 34 WIRING SIDE OF P.W.BOARD (8/9)



7	8	9	10	11	12

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

VOLTAGE

IC101	
PIN NO.	VOLTAGE
1	0 V
2	0 V
3	0.5 V
4	2 V
5	0 V
6	1.3 V
7	0 V
8	0.6 V
9	3.5 V
10	3.4 V
11	0 V
12	0 V
13	7 V
14	4.1 V
15	0 V
16	3.4 V
17	0.6 V
18	0 V
19	0.7 V
20	0 V
21	2 V
22	0.5 V
23	0 V
24	0 V

IC851	
PIN NO.	VOLTAGE
1	22 V
2	0 V
3	12 V

IC852	
PIN NO.	VOLTAGE
1	22 V
2	0 V
3	10 V

IC853	
PIN NO.	VOLTAGE
1	22 V
2	0 V
3	5 V

IC854	
PIN NO.	VOLTAGE
1	22 V
2	0 V
3	5.6 V

IC302	
PIN NO.	VOLTAGE
1	2.4 V
2	0 V
3	0 V
4	0 V
5	2.9 V
6	4.8 V
7	0.1 V
8	4.2 V
9	3.3 V
10	0 V
11	5.1 V
12	2.2 V
13	5 V
14	0 V
15	0 V
16	2.3 V
17	5 V
18	0.6 V
19	0.8 V
20	2 V
21	0 V
22	2.5 V

IC301	
PIN NO.	VOLTAGE
1	0 V
2	0 V
3	0.3 V
4	0 V
5	0 V
6	0 V
7	0 V
8	0 V
9	0 V

Q866	
PIN NO.	VOLTAGE
E	8.8 V
C	13.2 V
B	8.2 V

ICK1	
PIN NO.	VOLTAGE
1	0.81 V
2	1 V
3	0.75 V
4	2.5 V
5	4.6 V
6	2.5 V
7	2.5 V
8	2.5 V
9	2.5 V
10	2.5 V
11	2.5 V
12	2.5 V
13	2.5 V
14	2.5 V
15	2.5 V
16	2.5 V
17	2.5 V
18	2.5 V
19	2.5 V
20	0.5 V
21	2.5 V
22	0 V
23	5 V
24	0 V
25	2.5 V
26	2.5 V
27	2.5 V
28	2.5 V
29	2.5 V
30	2.5 V
31	2.5 V
32	2.5 V
33	2.5 V
34	2.5 V
35	2.5 V
36	2.5 V
37	2.5 V
38	0 V
39	0 V
40	0 V
41	0 V
42	0 V

IC601	
PIN NO.	VOLTAGE
1	0 V
2	0 V
3	0 V
4	5.3 V
5	5.3 V
6	5 V
7	5 V
8	5.3 V
9	5 V
10	5 V
11	5 V
12	5 V
13	5 V
14	5 V
15	5 V
16	5 V
17	5 V
18	5 V
19	5 V
20	5 V
21	5 V
22	5 V
23	10.2 V
24	0 V

IC303	
PIN NO.	VOLTAGE
1	2.1 V
2	5 V
3	2.1 V
4	2.1 V
5	0 V
6	5.1 V
7	5.1 V
8	2.9 V
9	5 V
10	4.3 V
11	3.9 V
12	3.9 V
13	3.5 V
14	1.3 V
15	1.3 V
16	2.1 V
17	2.4 V
18	2.3 V
19	0 V
20	0.4 V
21	2.7 V
22	2.7 V
23	5 V
24	3.5 V

IC701			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	4.23 V	51	0 V
2	4.14 V	52	0 V
3	0 V	53	4.6 V
4	0 V	54	5 V
5	4.15 V	55	5 V
6	4.2 V	56	5 V
7	4.2 V	57	0 V
8	0 V	58	0 V
9	0 V	59	-33.1 V
10	4.23 V	60	0 V
11	2.34 V	61	0 V
12	1.86 V	62	0 V
13	0 V	63	4.82 V
14	3.87 V	64	0 V
15	4.45 V	65	0 V
16	0 V	66	0 V
17	0 V	67	-37.4 V
18	0 V	68	-32.6 V
19	0 V	69	-32.7 V
20	0 V	70	-29.8 V
21	0 V	71	-29.9 V
22	0 V	72	-32.7 V
23	0 V	73	-19.2 V
24	0 V	74	-22 V
25	0 V	75	-32.8 V
26	4.63 V	76	-30.1 V
27	4.23 V	77	-32.8 V
28	0 V	78	-17.6 V
29	0 V	79	-32.8 V
30	0 V	80	-32.3 V
31	4.48 V	81	-24.9 V
32	4.25 V	82	-19.5 V
33	4.5 V	83	-22.2 V
34	4.3 V	84	-33 V
35	4.44 V	85	-33 V
36	2.13 V	86	-19.6 V
37	4.88 V	87	-19.6 V
38	4.9 V	88	-14.41 V
39	4.36 V	89	-22.8 V
40	0 V	90	-27.2 V
41	0 V	91	-27.2 V
42	12.66 V	92	-27.5 V
43	12.78 V	93	-27.7 V
44	12.3 V	94	-27.7 V
45	4.9 V	95	-27.7 V
46	4.42 V	96	-27.6 V
47	4.33 V	97	-26.7 V
48	4.32 V	98	-27.7 V
49	4.48 V	99	-27.7 V
50	4.78 V	100	-30.2 V

IC1			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	1.6 V	41	3.7 V
2	1.0 V	42	3.7 V
3	1.6 V	43	0 V
4	1.8 V	44	0 V
5	3.3 V	45	3.7 V
6	0 V	46	3.2 V
7	1.6 V	47	3.2 V
8	1.6 V	48	3.2 V
9	1.6 V	49	0 V
10	1.6 V	50	0 V
11	1.6 V	51	0 V
12	1.6 V	52	3.2 V
13	1.5 V	53	0 V
14	1.5 V	54	0 V
15	1.5 V	55	0 V
16	1.5 V	56	0 V
17	0.8 V	57	0 V
18	0.8 V	58	3.2 V
19	0 V	59	0 V
20	1.6 V	60	0 V
21	1.6 V	61	0 V
22	1.6 V	62	4.7 V
23	1.6 V	63	0 V
24	0 V	64	4.9 V
25	0 V	65	4.9 V
26	3.2 V	66	4.9 V
27	0 V	67	0 V
28	0 V	68	4.9 V
29	0 V	69	0 V
30	0 V	70	0 V
31	0 V	71	0 V
32	0 V	72	0 V
33	0 V	73	0 V
34	0 V	74	0 V
35	0 V	75	0 V
36	0 V	76	3.2 V
37	0 V	77	3.2 V
38	3.2 V	78	3.2 V
39	3.2 V	79	0 V
40	0 V	80	3.2 V

IC901	
PIN NO.	VOLTAGE
1	71.58 V
2	31.25 V
3	16.82 V
4	-17.12 V
5	-31.45 V
6	-71.51 V
7	0 V
8	0 V
9	0 V
10	0 V
11	0 V
12	-70 V
13	-70 V
14	-0.15 V
15	-0.15 V
16	-68.54V
17	-0.15V
18	-0.15 V
19	-0.15 V
20	0 V
21	0 V
22	0 V

IC903	
PIN NO.	VOLTAGE
1	5 V
2	5 V
3	5 V
4	0 V
5	5 V
6	5 V
7	5 V
8	10 V

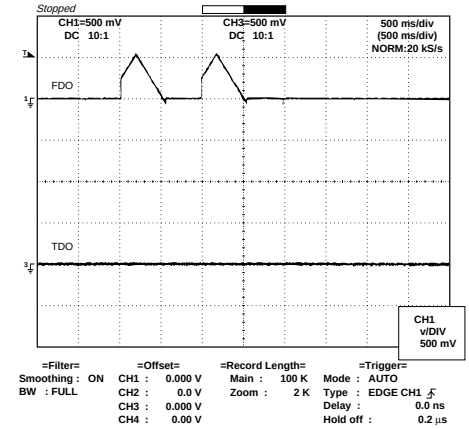
IC860	
PIN NO.	VOLTAGE
1	-10.34 V
2	3.22 V
3	0.6 V
4	-12.12 V
5	0 V
6	0.4 V
7	-10.9 V
8	10.1 V

IC2	
PIN NO.	VOLTAGE
1	1.7 V
2	1.7 V
3	1.8 V
4	2.1 V
5	2.1 V
6	2.1 V
7	2.0 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	3.0 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	0 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	3.7 V
42	3.7 V

WAVEFORMS OF CD CIRCUIT

1 IC1 (21)

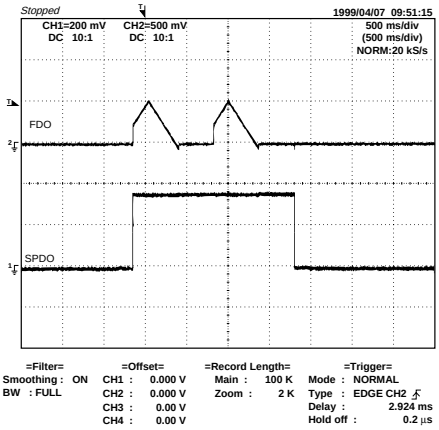
2 IC1 (20)



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

1 IC1 (21)

6 IC1 (22)

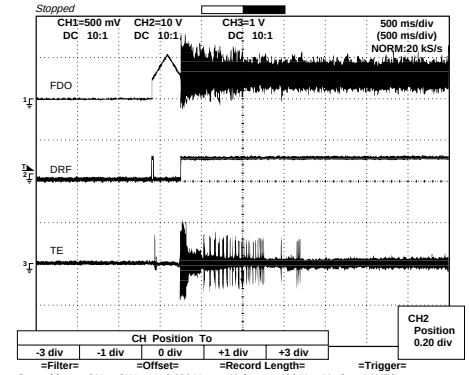


=Filter=		=Offset=		=Record Length=		=Trigger=	
Smoothing :	ON	CH1 :	0.000 V	Main :	100 K	Mode :	NORMAL
BW :	FULL	CH2 :	0.000 V	Zoom :	2 K	Type :	EDGE CH2
		CH3 :	0.00 V			Delay :	2.924 ms
		CH4 :	0.00 V			Hold off :	0.2 µs

1 IC1 (21)

3 IC1 (67)

4 IC1 (15)

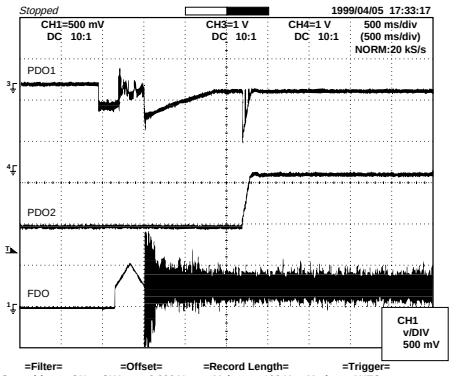


=Filter=		=Offset=		=Record Length=		=Trigger=	
Smoothing :	ON	CH1 :	0.000 V	Main :	100 K	Mode :	AUTO
BW :	FULL	CH2 :	0.0 V	Zoom :	2 K	Type :	EDGE CH1
		CH3 :	0.00 V			Delay :	0.0 ns
		CH4 :	0.00 V			Hold off :	0.2 µs

7 IC1 (73)

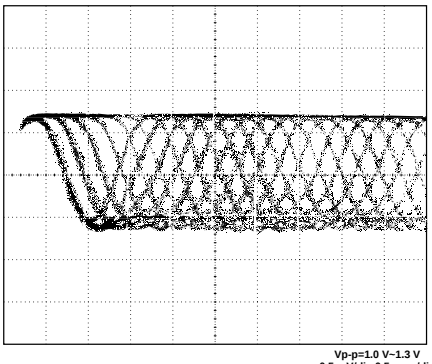
8 IC1 (74)

1 IC1 (21)



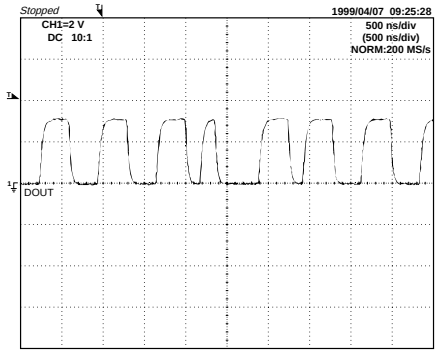
=Filter=		=Offset=		=Record Length=		=Trigger=	
Smoothing :	ON	CH1 :	0.000 V	Main :	100 K	Mode :	AUTO
BW :	FULL	CH2 :	0.0 V	Zoom :	2 K	Type :	EDGE CH2
		CH3 :	0.00 V			Delay :	0.0 ns
		CH4 :	0.00 V			Hold off :	0.2 µs

5 IC1 (4)



Vp-p=1.0 V~1.3 V
0.5 mV/div,0.5 µsec/div

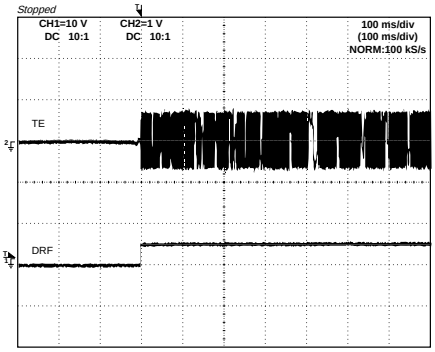
9 IC1 (39)



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

4 IC1 (15)

3 IC1 (67)

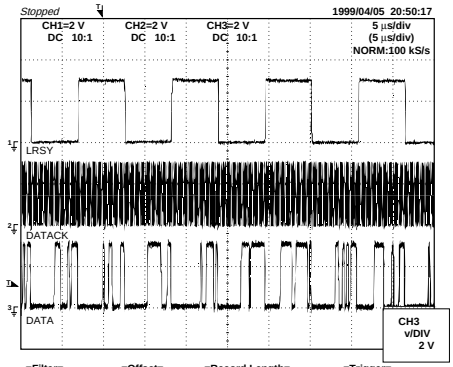


=Filter=		=Offset=		=Record Length=		=Trigger=	
Smoothing :	ON	CH1 :	0.0 V	Main :	100 K	Mode :	NORMAL
BW :	FULL	CH2 :	0.00 V	Zoom :	2 K	Type :	EDGE CH1
		CH3 :	0.00 V			Delay :	2.924 ms
		CH4 :	0.00 V			Hold off :	0.2 µs

10 IC1 (58)

11 IC1 (59)

12 IC1 (60)



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

TROUBLESHOOTING

When the CD does not function

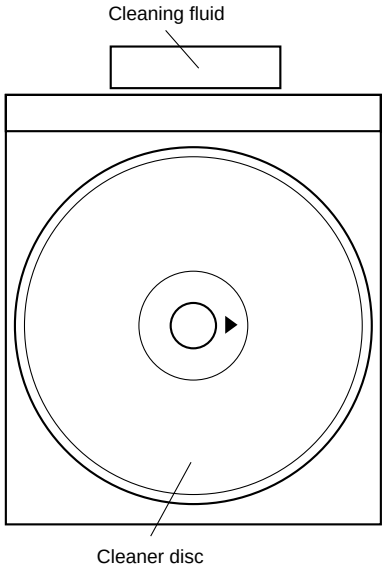
When the CD section does not operate when the objective lens of the optical pickup is dirty, this section may not operate. Clean the objective lens, and check the playback operation. When this section does not operate even after the above step is taken, check the following items.
Remove the cabinet and 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 the power off.
Gently clean the lens with a lens cleaning tissue and a small amount of isopropyl alcohol.
Do not touch the lens with the bare hand.

		Parts code
1.	CD optical pickup Lens cleaner disc	UDSKA0004AFZZ

HOW TO USE

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



CAUTION

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

When a CD cannot be played

1. "E-CD01" is displayed.

(1) Check the power to IC1 (LC78645NE), the presence of the clock signal (33.8688 MHz) and the status of the RESET terminal (pin 66 on IC1).
(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.

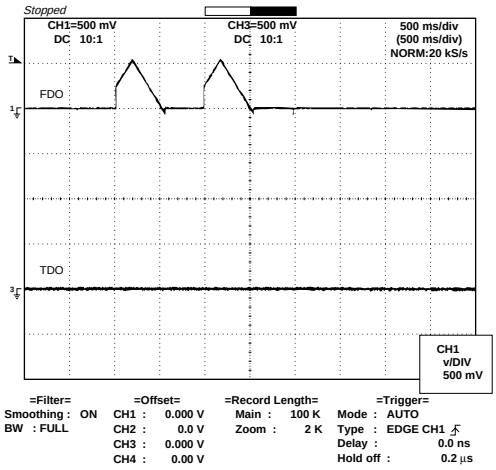


Figure 39-1

1. Does the pickup move to the PICKUP-IN Switch (SW4) position ?
   - No → Sled motor (M2).
   - Yes ↓
2. Does the focus (lens) move up and down ? (Waveform drawing Figure 39-1)
   - No → Check the focus peripheral circuit.
   - Yes ↓
3. Is the laser lit ?
   - No → Check the laser diode driver Q1 peripheral circuit.
   - Yes ↓
4. Is the turntable rotating ?
   - No → Spindle motor (M1).

When a disc is loaded, start playback operation.

1. Is focus servo activated ? (Waveform drawing Figure 39-2)
   - No → Pins 7~11, 79 and 80 on IC1 Check the laser diode driver Q1 peripheral circuit.
   - Yes ↓
2. Does DRF change from "L" to "H" ?
   - No → Is the disc rotating ?
     - No → Check the spin system.
     - Yes → If the disc is spinning and a HF waveform is generated, DRF will go H.
   - Yes ↓
3. Is the HF waveform normal ? (Waveform drawing Figure 39-3)
   - No → If the level is not normal.

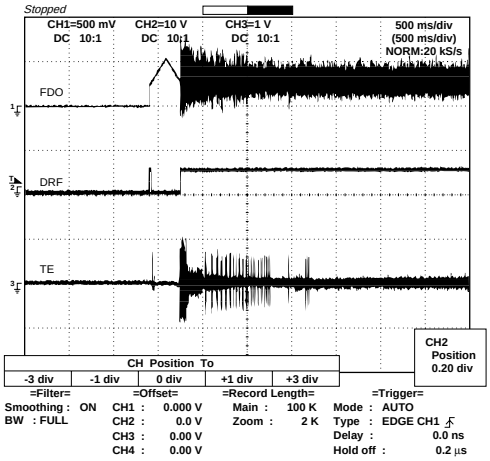


Figure 39-2

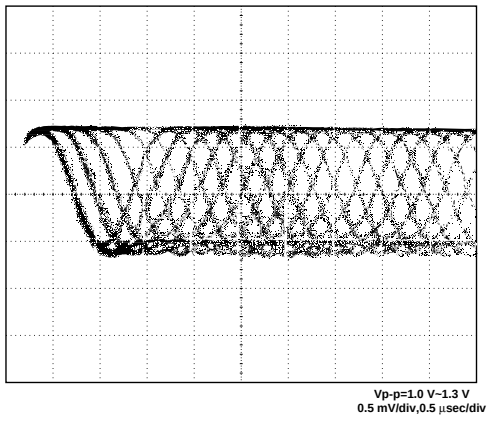


Figure 39-3

(2) Tracking system check.

Check the TE waveform at pin 15 on IC1.

If the waveform shown in Figure 40-1 appears and soon after NO DISC appears ?

Yes → The tracking servo is not activated.
Check the peripheral circuits at pins 14, 15 and 20 on IC1, and CNS1A/B.

No ↓

"Initialization" is possible, but play is not possible ?

Yes → A normal jump operation cannot be completed or the beginning of the track cannot be found.
Check the around pin 20 on IC1.

No ↓

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

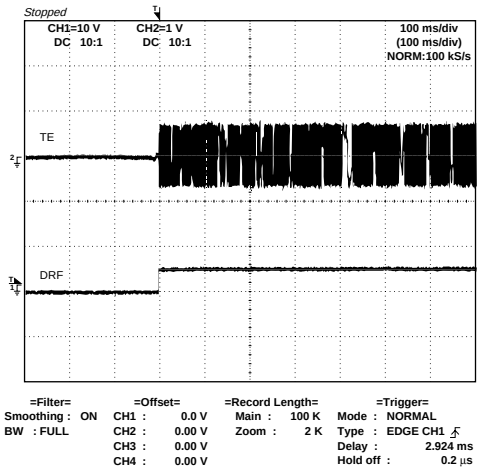


Figure 40-1

(3) Spin system check.

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

1. The turntable rotates a little ? (Waveform drawing Figure 40-2)

Yes → The spin driver circuit is OK.

No ↓

2. The turntable doesn't rotate. → Check around pin 22 on IC1, pins 15 and 16 on IC2, and CNS3A/B.

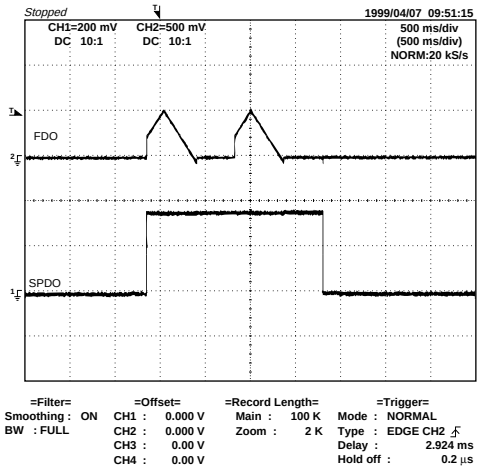


Figure 40-2

(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 41-1)

↓

Check around pins 73~78 on IC1.

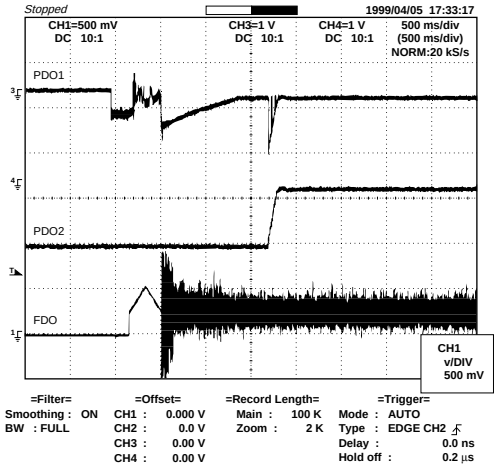


Figure 41-1

(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 52 (C2F) on IC1 "L" ?

No → There are too many error flags on a damaged disc which makes error correction impossible.

↓

Check again using a known good disc.

Yes

↓

1. When playing at normal speed
   Check the peripheral circuit at pin 39 (DOUT) on IC1 and the waveform (Figure 41-2).

↓

If OK, Check the unit.

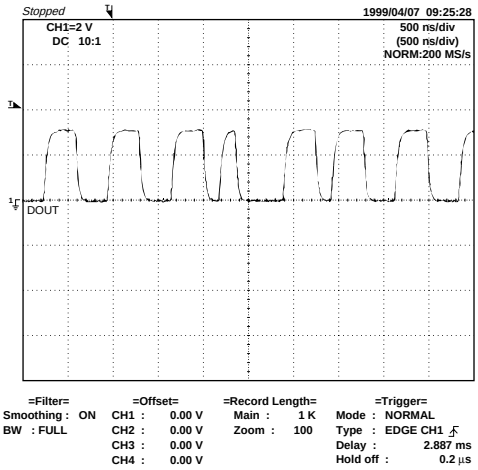


Figure 41-2

FUNCTION TABLE OF IC

IC1 VHiLC78645NE1: CD Servo (LC78645NE) (1/2)

Pin No.	Terminal Name	Input/Output	Setting in Reset	Function	
1	SLCO	Output	—	For slice level control.	Control output.
2	SLCIST	Input	—		Resistor connection terminal for SLCO output current setting.
3	EFMIN	Input	—		RF signal input terminal.
4	RF	Output	—	RF signal monitor terminal.	
5	RFVDD	Input	—	RF power terminal.	
6	RFVSS	—	—	RF earth terminal. To be connected to 0 V.	
7	FIN1	Input	—	A+C signal input terminal.	
8	FIN2	Input	—	B+D signal input terminal.	
9	TIN1	Input	—	E signal input terminal.	
10	TIN2	Input	—	F signal input terminal.	
11	VREF	Output	RFVDD/2	VREF voltage output terminal.	
12	REF1	Input	—	Reference supply setting terminal.	
13*	FE	Output	ZHI	FE signal monitor terminal.	
14	TEC	Output	–	LPF capacitor connection terminal for TE signal.	
15*	TE	Output	ZHI	TE signal monitor terminal.	
16*	RFMON	Output	ZHI	RF internal signal monitor terminal.	
17	JITTC	—	—	Capacitor connection terminal for jitter detection.	
18	ADAVDD	Input	—	Power terminal for servo A/D, D/A.	
19	ADAVSS	—	—	Earth terminal for serve A/D, D/A. To be connected to 0 V.	
20	TDO	Output	ADAVDD/2	Output terminal for tracking control. D/A output.	
21	FDO	Output	ADAVDD/2	Output terminal for focus control. D/A output.	
22	SPDO	Output	ADAVDD/2	Output terminal for spindle control. D/A output.	
23	SLDO	Output	ADAVDD/2	Output terminal for sled control. D/A output.	
24*	GPDAC	Output	ADAVDD/2	Servo D/A general-purpose output terminal.	
25	CONT4	Input/Output	Input Mode	General-purpose I/O terminal 4.	Controlled by commands from the microcomputer. When not used, set them as input terminals and connect to 0 V, or set them as output terminals and leave open.
26	CONT5	Input/Output	Input Mode	General-purpose I/O terminal 5.	
27*	SBCK/CONT6	Input/Output	Input Mode	General-purpose I/O terminal 6 or Subcode reading clock input terminal.	
28	SBCK/FG	Input	—	Subcode reading clock input terminal/FG signal input terminal/external emphasis setting terminal. Terminal functions are set by commands. When not used, connect to 0 V.	
29*	DEFECT	Output	L	Defect terminal.	
30*	V/*P	Output	H	Auto switching monitor output terminal for rough servo phase control. “H”: rough servo, “L”: phase servo.	
31*	FSEQ	Output	L	Sync signal detection output terminal. The status changes to “H” when the sync signal detected in EFM and the sync signal of internal generation are identified.	
32*	MONI1	Output	L	Internal signal monitor terminal 1.	
33*	MONI2	Output	L	Internal signal monitor terminal 2.	
34*	MONI3	Output	L	Internal signal monitor terminal 3.	
35*	MONI4	Output	L	Internal signal monitor terminal 4.	
36*	MONI5	Output	L	Internal signal monitor terminal 5.	
37	VSS	—	—	Digital system earth terminal. To be connected to 0 V.	
38	VDD	Input	—	Digital system power terminal.	
39*	DOUT	Output	L	Digital OUT output terminal. (EIAJ format)	
40	TEST	Input	L	Input terminal for test. To be connected to 0 V.	
41	LVDD	Input	—	Left channel D/A converter	Power supply for Left channel.
42	LCHO	Output	LVDD/2		Left channel output.
43	LVSS	—	—		GND for Left channel. Must be connected to 0 V.

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

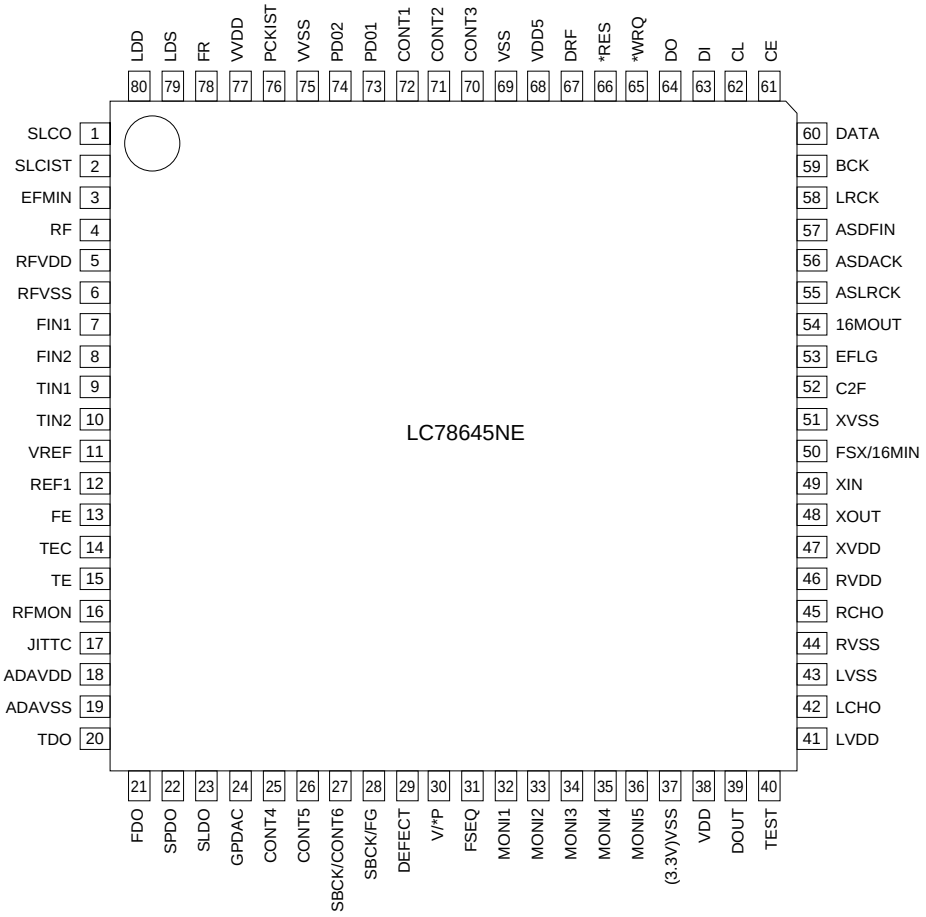
IC1 VHiLC78645NE1: CD Servo (LC78645NE) (2/2)

Pin No.	Terminal Name	Input/Output	Setting in Reset	Function	
44	RVSS	—	—	Right channel D/A converter	GND for Right channel. Must be connected to 0 V.
45	RCHO	Output	LVDD /2		Right channel output.
46	RVDD	Input	—		Power supply for Right channel.
47	XVDD	Input	—	Crystal Oscillator	Power supply for crystal oscillator.
48	XOUT	Output	—		Connected for the 33.8688 MHz crystal oscillator ciement.
49	XIN	Input	—		
50	FSX/16MIN	Input/Output	Input	7.35 kHz Synchronization signal monitor port. or Clock input port for Digital filter & D/A	
51	XVSS	—	—	Crystal Oscillator	GND for crystal oscillator. Must be connected to 0 V.
52*	C2F	Output	H	C2 FLAG monitor port.	
53*	EFLG	Output	L	C1, C2 error corrected monitor port.	
54*	16MOUT	Output	Clock	16.9344 MHz output port.	
55	ASLRCK	Input	—	Anti-shock	Word clock input port. (If this port does not use, must be connect to 0 V.)
56	ASDACK	Input	—		Bit clock input port. (If this port does not use, must be connect to 0 V.)
57	ASDFIN	Input	—		Left/Right channel data input port. (If this port does not use, must be connect to 0 V.)
58*	LRCK	Output	L	Digital data	Word clock output port.
59*	BCK	Output	L		Bit clock output port.
60*	DATA	Output	L		Left/Right channel data output port.
61	CE	Input	—	Microcomputer Interface	Chip enable signal input port.
62	CL	Input	—		Data transfer clock input port.
63	DI	Input	—		Data input port.
64	DO	Output	(H)		Data output port. (N-ch. open drain output.)
65	*WRQ	Output	H		Interruption signal output.
66	*RES	Input	—	Chip reset signal input port. This port must be set LOW after first applied power on.	
67	DRF	Output	L	Focus detection output port.	
68	VDD5	Input	—	Power supply for Microprocessor.	
69	VSS	—	—	GND for digital circuit. Must be connected to 0 V.	
70	CONT3	Input/Output	Input	General purpose port 1.	Controlled with serial data command from micro-computer. When not used, General purpose input/ output terminal 7. set it as the input terminal and open it by connecting to 0 V, or set it as the output terminal and open it.
71	CONT2	Input/Output	Input	General purpose port 2.	
72*	CONT1	Input/Output	Input	General purpose port 3.	
73	PDO1	Output	—	PLL	Internal VCO control phase comparator output port 1.
74	PDO2	Output	Input		Internal VCO control phase comparator output port 2.
75	VVSS	—	—		GND for internal VCO. Must be connected to 0 V.
76	PCKIST	Input	—		PDO output current adjustment resistor connection port.
77	VVDD	Input	—		Power supply for internal VCO.
78	FR	Input	—		VCO frequency range adjustment port.
79	LDS	Input	—	LASER power detected signal input port.	
80	LDD	Output	—	LASER power control signal output port.	

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 (61 pin), CL (62 pin), DI (63 pin), DO (64 pin), WRQ (65 pin), RES (66 pin), DRF (67 pin)

IC1 VHiLC78645NE1: CD Servo (LC78645NE)



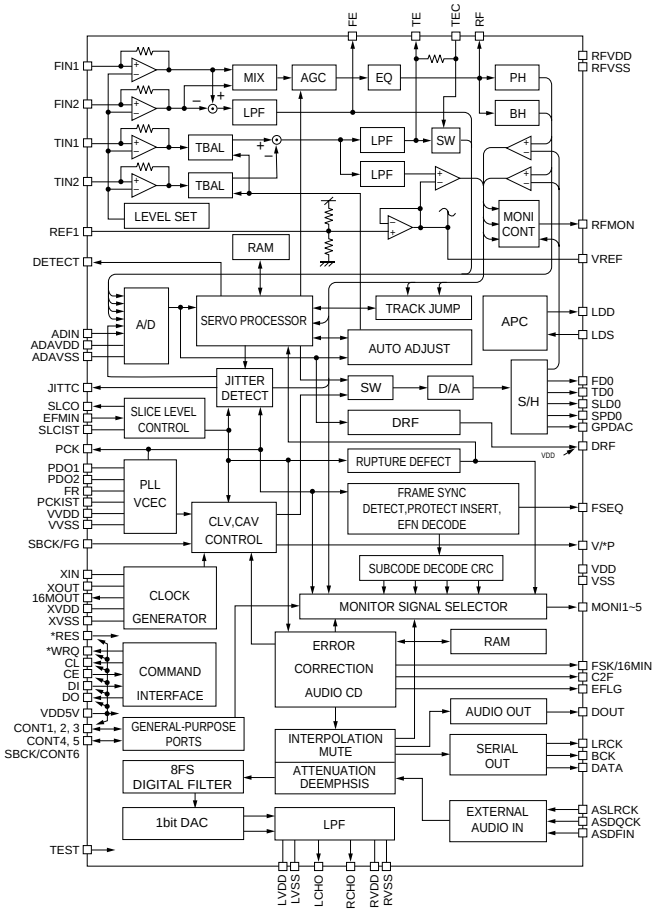
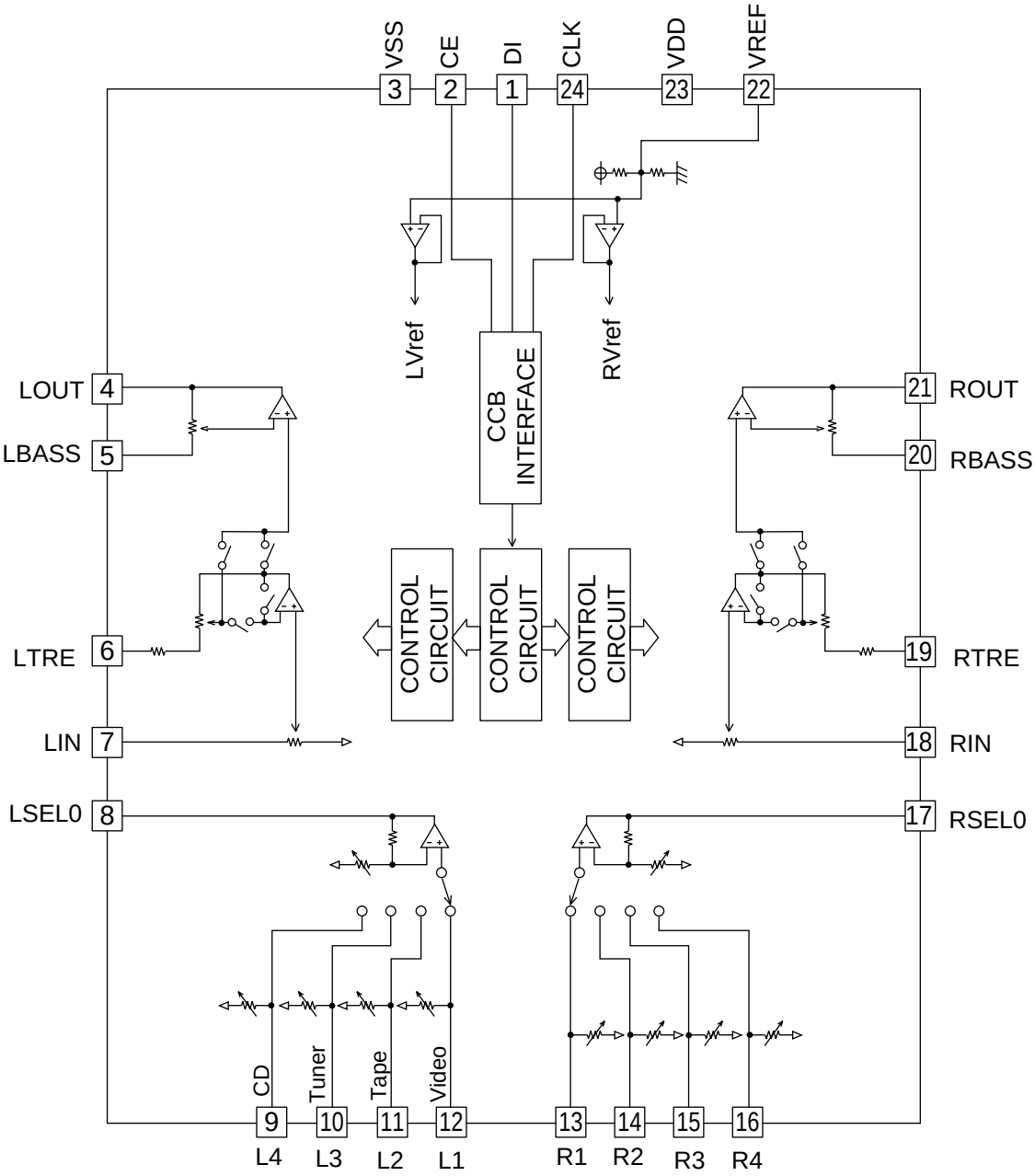


Figure 44 BLOCK DIAGRAM OF IC

IC601 VHiLC75341/-1: Audio Processor (LC75341)



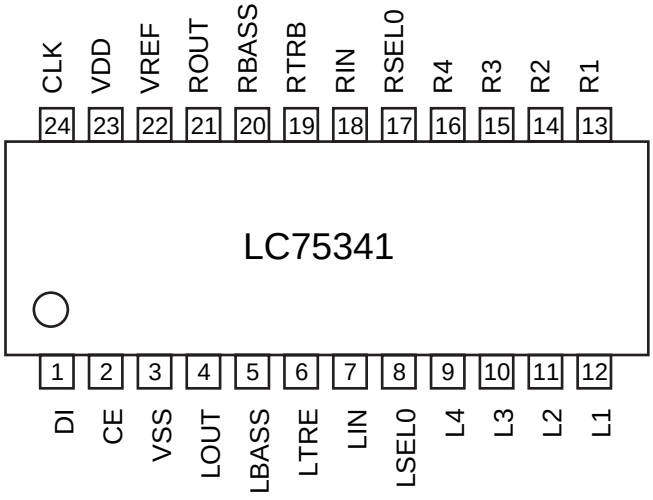


Figure 45 BLOCK DIAGRAM OF IC

IC701 RH-iX0532AWZZ: System Microcomputer (IX0532AW) (1/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
1	VDD	VDD	Input	(+) Power supply.
2	P37	-20dBATT	Output	-20dB Attenuator.
3*	P36	SUB_CE	Output	MP3 sub microcomputer.
4	P35	T_BIAS	Output	Tape record bias.
5	P34	T_T1/T2	Output	Tape T1/T2 change.
6	P33	T_REC/PLY	Output	Tape REC/PLAY change.
7	P32	CD_RESOUT	Output	CD DSP reset.
8	P31	CD WRQ	Input	CD write read request..
9	P30	NO USE	Input	Connect to GND.
10	RESET	RESET	Input	Reset.
11	X2	X2	Output	Main clock.
12	X1	X1	Input	Main clock.
13	VPP/IC	VPP/IC	—	GND
14*	XT2	XT2	—	Open
15	P04	CD_DRF	Input	CD DRF level detection.
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	Input	Analog ground.
26	P17	D.NO SW	Input	CD DISC No. SW
27*	ANI6	NO USE	Input	Connect to GND.
28	ANI5	PLAY2/FPA/FPB SW	Input	Tape F.P A/B SW & PLAY 2 SW.
29	ANI4	PROTECT	Input	Power abnormal detect.
30	ANI3	LVL_DET	Input	Speaker output level detect.
31-33	ANI2-ANI0	KEY 2-KEY 0	Input	Key input.
34	AVDD	AVDD	Input	Analog VDD.
35	AVREF	AVREF	—	Analog ref voltage.
36	INTP3	P_IN	Input	Power failure detect.
37	P02	CLAMP SW	Input	CD CLAMP SW.
38	INTP1	SP_DET	Input	Speaker abnormal detect.
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	Output	AC relay control.
48	P126	SP_RLY	Output	Speaker relay control.
49	P125	JOG 1	Input	Volume jog input 1.
50	P124	JOG 2	Input	Volume jog input 2.
51	P123	T 2_RUN	Input	TAPE 2 RUN PULSE input.
52	P122	T 1_RUN	Input	TAPE 1 RUN PULSE input.
53	P121	MONST LED	Output	Monster LED.

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

IC701 RH-iX0532AWZZ: System Microcomputer (IX0532AW) (2/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
54	P120	O/C SW	Input	CD OPEN/CLOSE SW.
55	P117	MIC SW	Input	Mic switch input.
56	P116	KARA_LATCH	Output	Karaoke latch.
57*	P115	NO USE	Output	Open
58*	P114	MPEG POWER	Output	MPEG power control.
59*	P113	NO USE	Output	Open
60	P112	NO USE	Input	Open
61*	P111	NO USE	Output	Open
62	P110	NO USE	Input	Open
63*	P107	ILU_LED1	Output	Illumination LED1.
64*	P106	ILU_LED2	Output	Illumination LED2.
65*	P105	ILU_LED3	Output	Illumination LED3.
66	P104	FOR PLY_LED	Output	Forward play LED.
67	P103	REV PLY_LED	Output	Reverse play LED.
68	P102	STOP_LED	Output	Stop LED.
69	FIP30	DIST	Input	Distination input.
70	FIP29	S21	Output	FL segment driver.
71-74	P97-P94	DIST 0-DIST 3	Output	Distination output.
75-78	FIP24-FIP21	S16-S13	Output	FL segment driver.
79	VLOAD	VLOAD	Input	FL driver power supp. -30 V
80-91	FIP20-FIP9	S12-S1	Output	FL segment driver.
92-100	FIP8-FIP0	G9-G1	Output	FL grid driver.

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

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

Pin No.	Port Name	Input/Output	Function
1	MIC SW	Input	Microphone SW L: MIC OFF, H: MIC ON
2	MCLKCONT	—	Clock Control. Controls built-in clock generation circuit with external R.
3	VALC	—	ALC operating voltage setting terminal. To set ALC operating voltage according to applied voltage.
4	MIC1 IN	Input	Microphone 1 input. To connect MIC 1.
5*	ALC1	—	ALC1 control. To connect ALC1 attack/recovery time setting capacitor.
6*	MIC1NFIN	Input	Microphone 1 negative feedback input. To connect low cut-off frequency of MIC1 amplifier setting capacitor.
7*	MIC1 OUT	Output	Microphone 1 output.
8	MIC1 VOLIN	Input	Microphone 1 volume input. To connect capacitor to reduce noise generated at time of volume change.
9	MIC2 IN	Input	Microphone 2 input. To connect MIC 2.
10	ALC2	—	ALC2 control. To connect ALC2 attack/recovery time setting capacitor.
11	MIC2 NFIN	Input	Microphone 2 negative feedback input. To connect low cut-off frequency of MIC2 amplifier setting capacitor.
12	MIC2 OUT	Output	Microphone 2 output.
13	MIC2 VOLIN	Input	Microphone 2 volume input. To connect capacitor to reduce noise generated at time of volume change.
14	MICOUT	Output	Microphone output. Mixing output of MIC 1 and MIC 2.
15	LPF1IN1	Input	Low pass filter 1 input 1. Pre-filter before A/D convertor for digital delay.
16	LPF1 IN2	Input	Low pass filter 1 input 2. Pre-filter before A/D convertor for digital delay.
17	LPF1 OUT	Output	Low pass filter 1 output. Pre-filter before A/D convertor for digital delay.
18	AD INTOUT	Output	A/D integrator output. Composes D/A conversion integrator with external capacitor.
19	AD INTIN	Input	A/D integrator input. Composes D/A conversion integrator with external capacitor.
20	ADCONT	—	A/D control. To determine adaptive time constant of A/D convertor with ADM system.
21	REF	—	Reference power output. To connect 1/2 Vcc output and filter capacitor.
22	GND	—	Ground.
23	VCC	Input	Power supply.
24	DACONT	—	D/A control. To determine adaptive time constant of D/A convertor with ADM system .
25	DAINTIN	Input	D/A Integrator input. Composes D/A conversion integrator with external capacitor.
26	DAINTOUT	Output	D/A Integrator output. Composes D/A conversion integrator with external capacitor.
27	LPF2IN1	Input	Low pass filter 2 input 1. Post-filter after D/A convertor for digital delay.
28	LPF2IN2	Input	Low pass filter 2 input 2. Post-filter after D/A convertor for digital delay.
29	LPF2OUT	Output	Low pass filter 2 output. Post-filter after D/A convertor for digital delay.
30	VOLIN	Input	Echo effect/Echo feed back volume input. To connect capacitor to reduce noise generated at time of volume change.
31	L IN	Input	Lch line input.
32	R IN	Input	Rch line input.

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

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

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

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

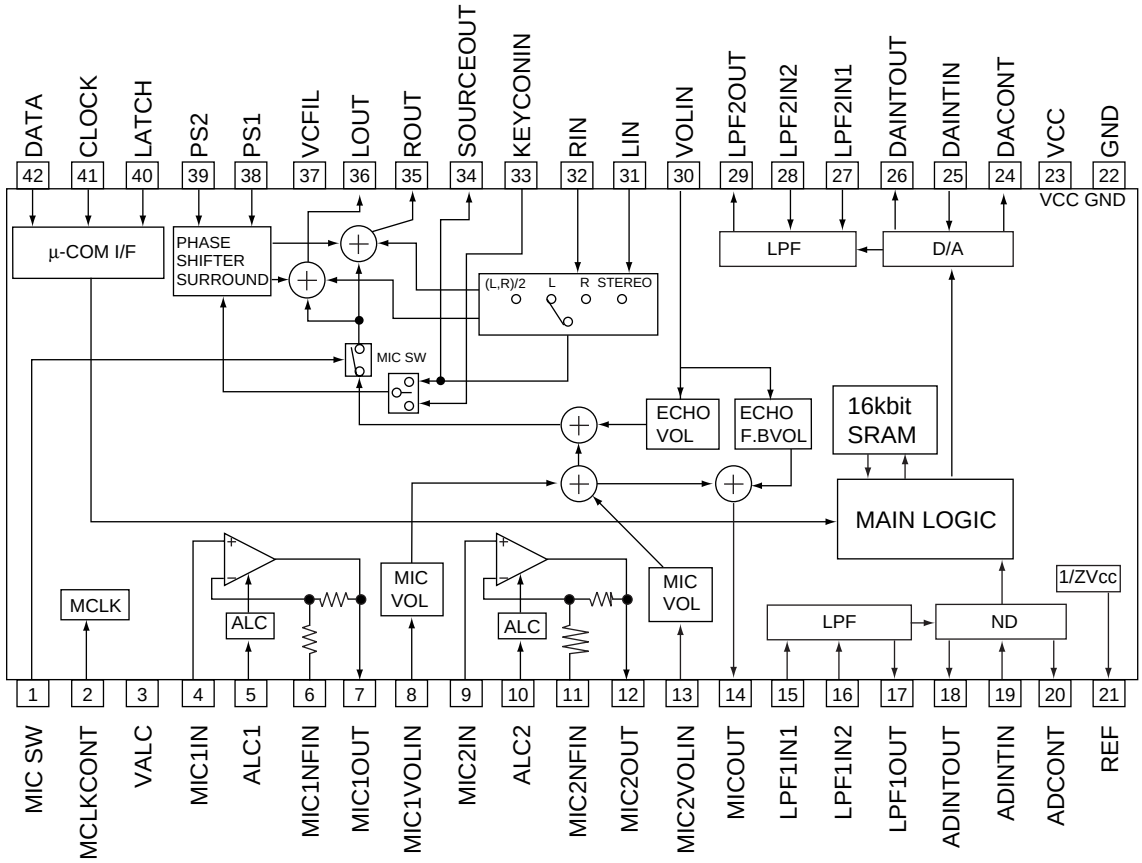
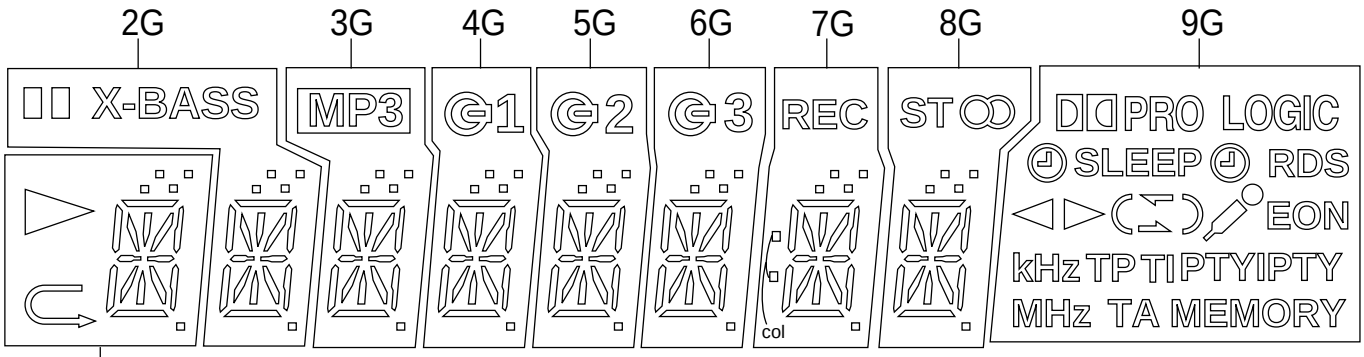


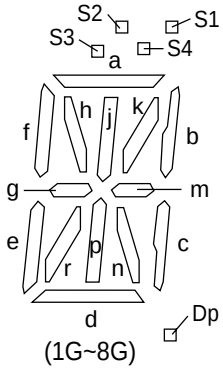
Figure 49 BLOCK DIAGRAM OF IC

FL DISPLAY

FL701 VVKNA09SS29-1

GRID ASSIGNMENT





ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G
P1	▷	X-BASS	MP3	G1	G2	G3	col	∞	PTYI
P2	S1	S1	S1	S1	S1	S1	S1	S1	—
P3	S2	S2	S2	S2	S2	S2	S2	S2	TA
P4	S3	S3	S3	S3	S3	S3	S3	S3	TP
P5	S4	S4	S4	S4	S4	S4	S4	S4	RDS
P6	a	a	a	a	a	a	a	a	TI
P7	b	b	b	b	b	b	b	b	▷
P8	k	k	k	k	k	k	k	k	◁
P9	j	j	j	j	j	j	j	j	MEMORY
P10	h	h	h	h	h	h	h	h	PTY
P11	f	f	f	f	f	f	f	f	)
P12	m	m	m	m	m	m	m	m	(
P13	d	d	d	d	d	d	d	d	MHz
P14	g	g	g	g	g	g	g	g	⇄
P15	p	p	p	p	p	p	p	p	kHz
P16	e	e	e	e	e	e	e	e	EON
P17	n	n	n	n	n	n	n	n	PRO LOGIC
P18	r	r	r	r	r	r	r	r	
P19	c	c	c	c	c	c	c	c	(L)
P20	Dp	Dp	Dp	Dp	Dp	Dp	Dp	Dp	(R)
P21	⊂	□□	—	—	—	—	REC	ST	SLEEP

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Explanation of capacitors/resistors parts codes

Capacitors

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

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

Resistors

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

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

NOTE:
Parts marked with "⚠" are important for maintaining the safety of the set.
Be sure to replace parts with specified ones for maintaining the safety and performance of the set.

NO.	PART CODE	★	PRICE RANK	DESCRIPTION

CD-M8000W

INTEGRATED CIRCUITS

IC1	VHILC78645NE1	J	AY	CD Servo,LC78645NE
IC2	VHIM63001FP-1	J	AX	Focus/Tracking/Spin/Sled Driver, M63001FP
IC101	VHIAN7345K/-1	J	AM	Playback and Record/Playback Amp.,AN7345K
IC301	VHITA7358AP-1	J	AG	FM Front End,TA7358AP
IC302	VHILA1832S/-1	J	AN	FM IF Det./FM Mpx./AM IF, LA1832S
IC303	VHILC72131/-1	J	AP	PLL (Tuner),LC72131
IC601	VHILC75341/-1	J	AM	Audio Processor,LC75341
IC701	RH-IX0532AWZZ	J	AZ	System Microcomputer, IX0532AW
IC851	VHIKIA7812AP1	J	AF	Voltage Regulator,KIA7812AP
IC852	VHIKIA7810AP1	J	AF	Voltage Regulator,KIA7810AP
IC853	VHIKIA7805AP1	J	AF	Voltage Regulator,KIA7805AP
IC854	VHIAN78L05/-1	J	AE	Voltage Regulator,AN78L05
IC860	VHIKIA4558P-1	J	AC	Ope Amp.,KIA4558P
IC901	VHISTK41217-1	J	BP	Power Amp.,STK41217
IC903	VHIKIA4558P-1	J	AC	Ope Amp.,KIA4558P
ICK1	VHIM65856SP-1	J	AX	Mic Amp.,M65856SP

TRANSISTORS

Q1	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q2	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q3	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q103~106	VS2SC1845F/-1	J	AC	Silicon,NPN,2SC1845 F
Q107,108	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q109	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q110,111	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q121,122	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q124	VS2SA1015GR-1	J	AB	Silicon,PNP,2SA1015 GR
Q126	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q128	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q302	VSKTC3194Y/-1	J	AD	Silicon,NPN,KTC3194 Y
Q360	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q603~606	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q701~703	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q705	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q706~708	VSKTA1273Y/-1	J	AE	Silicon,PNP,KTA1273 Y
Q709,710	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q803	VSKTA1274Y/-1	J	AE	Silicon,PNP,KTA1274 Y
Q862,863	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q864	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q865	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q866	VSKTC2026//-1	J	AF	Silicon,NPN,KTC2026
Q903~905	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q907	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q908	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q909	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
QK1	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y

DIODES

D1,2	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D301,302	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D305	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D702	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D709~715	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D801,802	VHDD10XB60F-1	J	AL	Silicon,D10XB60F
D805,806	VHDDS1N404S-1	J	AB	Silicon,DS1N404S
D809,810	VHDDS1N404S-1	J	AB	Silicon,DS1N404S
D851,852	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D857~859	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D861,862	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D863	VHDDS1N404S-1	J	AB	Silicon,DS1N404S
D864	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D901,902	VHDDS1N404S-1	J	AB	Silicon,DS1N404S
D909	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D911~916	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DFM922	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DK1,2	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
LED701	VHPSLR342VCJ1	J	AC	LED,Red,SLR342VCJ
LED703,704	VHPA503BC2E-1	J	AN	LED,White,A503BC2E
LED706~708	VHP4204UYT7-1	J	AD	LED,Yellow,4204UYT7
ZD1	VHEDZ3R3BSB-1	J	AB	Zener,3.3V,DZ3.3BSB

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
ZD2	VHEDZ3R9BSB-1	J	AC	Zener,3.9V,DZ3.9BSB
ZD351	VHEDZ5R1BSB-1	J	AC	Zener,5.1V,DZ5.1BSB
ZD604	VHEDZ6R2BSA-1	J	AB	Zener,6.2V,DZ6.2BSA
ZD801	VHEDZ300BSB-1	J	AB	Zener,30V,DZ30BSB
ZD802	VHEDZ6R2BSA-1	J	AB	Zener,6.2V,DZ6.2BSA
ZD804	VHEDZ6R2BSA-1	J	AB	Zener,6.2V,DZ6.2BSA
ZD852	VHEDZ8R2BSB-1	J	AB	Zener,8.2V,DZ8.2BSB
ZD901,902	VHEDZ150BSB-1	J	AB	Zener,15V,DZ15BSB
ZD951	VHEDZ130BSB-1	J	AB	Zener,13V,DZ130BSB
ZDK1	VHEMTZJ5R6B-1	J	AD	Zener,5.6V,MTZJ5.6B

FILTERS

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

TRANSFORMERS

⚠	PT801	RTRNP0410AWZZ	J		Power
	T301	RCILB0065AWZZ	J	AC	FM OSC.
	T302	RCILI0017AWZZ	J	AB	FM IF
	T303	RCILA0052AWZZ	J	AE	AM Antenna
	T306	RCILB0067AWZZ	J	AD	AM OSC.
	T351	RCILI0019AWZZ	J	AD	AM IF

COILS

L1	VP-XHR82K0000	J	AC	0.82 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	RCILZ0024AWZZ	J	AC	3 µH,Choke

VARIABLE RESISTOR

VRK1	92LVRR1674A	J	AF	20 kohms (B),Semi-VR [Mic Volume]

VARIABLE CAPACITORS

VD301	VHCSVC348S/-1	J	AK	Variable Capacitance,SVC348S
VD302,303	VHCKDV147B/-1	J	AH	Variable Capacitanse,KDV147B

VIBRATORS

X351	92LCRSTL1425A	J	AF	Crystal,456 kHz
X352	RCRSP0019AWZZ	J	AF	Crystal,4.5 MHz
XL1	RCRM-0041AWZZ	J	AF	Ceramic,33.8688 MHz
XL701	RCRSP0003AWZZ	J	AH	Crystal,4.194304 MHz

THERMISTOR

⚠	P901	VHHZPP221A+-1	J	AL	Posistor

CAPACITORS

C1	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C2	VCKYCY1CB103K	J	AA	0.01 µF,16V
C3	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C4	VCKYCY1HB102K	J	AA	0.001 µF,50V
C5	VCKYCY1HB473K	J	AB	0.047 µF,50V
C6	VCKYCY1CB104K	J	AB	0.1 µF,16V
C8	VCKYCY1HB272K	J	AA	0.0027 µF,50V
C9	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C10	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C11	VCEAZA1HW224M	J	AB	0.22 µF,50V,Electrolytic
C12	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C13	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C14	RC-EZY107AF1A	J	AB	100 µF,10V,Electrolytic
C16	RC-EZY337AF0J	J	AA	330 µF,6.3V,Electrolytic
C18	RC-EZY107AF1A	J	AB	100 µF,10V,Electrolytic
C22	VCKYCY1CB103K	J	AA	0.01 µF,16V
C23,24	RC-EZY106AF1E	J	AB	10 µF,25V,Electrolytic
C25,26	VCKYCY1HB152K	J	AA	0.0015 µF,50V
C27	VCKYCY1EF223Z	J	AB	0.022 µF,25V

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
C28	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C30	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C32	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C33	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C34	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C35	VCKYCY1HB473K	J	AB	0.047 µF,50V
C36	VCEAZA1HW224M	J	AB	0.22 µF,50V,Electrolytic
C37	VCTYPA1CX104K	J	AB	0.1 µF,16V
C38	VCKYCY1CB103K	J	AA	0.01 µF,16V
C39	RC-EZY107AF1A	J	AB	100 µF,10V,Electrolytic
C40	VCEAZA0JW227M	J	AC	220 µF,6.3V,Electrolytic
C41	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C42	VCKYCY1CB103K	J	AA	0.01 µF,16V
C44	VCKYCY1HB102K	J	AA	0.001 µF,50V
C46	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C48	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C50	VCCCCY1HH220J	J	AA	22 pF (CH),50V
C51	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C52,53	VCKYCY1HB102K	J	AA	0.001 µF,50V
C54	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C57	VCCCCY1HH560J	J	AA	56 pF (CH),50V
C101,102	VCKYMN1HB561K	J	AA	560 pF,50V
C105,106	VCKYMN1HB181K	J	AA	180 pF,50V
C107,108	VCKYMN1HB561K	J	AA	560 pF,50V
C111~114	VCKYMN1HB331K	J	AA	330 pF,50V
C115,116	VCEAZA1EW107M	J	AB	100 µF,25V,Electrolytic
C117,118	VCTYPA1EX333K	J	AA	0.033 µF,25V
C119,120	VCKYMN1HB561K	J	AA	560 pF,50V
C121,122	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C123,124	VCTYPA1EX222K	J	AA	0.0022 µF,25V
C127	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C128	VCEAZA1HW335M	J	AB	3.3 µF,50V,Electrolytic
C131,132	VCKYMN1HB271K	J	AA	270 pF,50V
C133,134	VCEAZA1EW226M	J	AB	22 µF,25V,Electrolytic
C135,136	VCTYPA1CX223K	J	AA	0.022 µF,16V
C139,140	VCTYMN1CX332K	J	AA	0.0033 µF,16V
C141,142	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C145	VCEAZA1HW226M	J	AB	22 µF,50V,Electrolytic
C146	VCEAZA1AW227M	J	AC	220 µF,10V,Electrolytic
C150	VCQPKA2AA822J	J	AA	0.0082 µF,100V,Polypropylene
C151	VCQYKA1HM393K	J	AB	0.039 µF,50V,Mylar
C152	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C153	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
C154	VCKYPA1HF473Z	J	AB	0.047 µF,50V
C303	VCCCMN1HH100J	J	AA	10 pF (CH),50V
C304	VCTYMN1CY103N	J	AA	0.01 µF,16V
C305	VCCCMN1HH4R7C	J	AA	4.7 pF (CH),50V
C306	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C307	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
C308	VCCCMN1HH4R7C	J	AA	4.7 pF (CH),50V
C309	VCKYMN1HB102K	J	AA	0.001 µF,50V
C310	VCCCMN1HH150J	J	AA	15 pF (CH),50V
C311	VCCSMN1HL180J	J	AA	18 pF,50V
C312	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C313	VCCCMN1HH220J	J	AA	22 pF (CH),50V
C314,315	VCTYMN1CX472K	J	AA	0.0047 µF,16V
C316	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C317	VCKYMN1HB102K	J	AA	0.001 µF,50V
C318	VCKYMN1HB101K	J	AA	100 pF,50V
C323	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C324	VCCUMN1HJ8R2D	J	AA	8.2 pF (UJ),50V
C330	VCCUMN1HJ150J	J	AA	15 pF (UJ),50V
C331	VCKYPA1HF473Z	J	AB	0.047 µF,50V
C332	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C334	VCCUMN1HJ220J	J	AA	22 pF (UJ),50V
C335	VCKYMN1HB561K	J	AA	560 pF,50V
C338	VCKYMN1HB102K	J	AA	0.001 µF,50V
C342	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C350,351	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C352	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
C353,354	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C355	VCCSMN1HL220J	J	AA	22 pF,50V
C356	VCKYMN1HB102K	J	AA	0.001 µF,50V
C357	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C358	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C361	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C362	VCEAZA1HW335M	J	AB	3.3 µF,50V,Electrolytic
C363	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C364	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C365	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C366	VCKYMN1HB102K	J	AA	0.001 µF,50V
C367,368	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C369	VCCUMN1HJ270J	J	AA	27 pF (UJ),50V
C370~372	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C373,374	VCTYPA1CX183K	J	AA	0.018 µF,16V
C380	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
C381	VCCCMN1HH120J	J	AA	12 pF (CH),50V
C382	VCCCMN1HH150J	J	AA	15 pF (CH),50V
C385	VCTYMN1CY103N	J	AA	0.01 µF,16V
C386	VCKYMN1HB331K	J	AA	330 pF,50V
C387	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C388	VCKYMN1HB102K	J	AA	0.001 µF,50V
C390	VCCSMN1HL470J	J	AA	47 pF,50V
C391	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C392	VCKYMN1HB102K	J	AA	0.001 µF,50V
C393	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C394	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
C395	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C396	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C397	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C398	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C399	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C602	VCEAZA1EW226M	J	AB	22 µF,25V,Electrolytic
C605	VCEAZA1HW475M	J	AB	4.7 µF,50V,Electrolytic
C606	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
C607~610	VCFYHA1HA224J	J	AC	0.22 µF,50V,Thin Film
C611,612	VCTYMN1CX152K	J	AA	0.0015 µF,16V
C613,614	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C615,616	VCKYMN1HB102K	J	AA	0.001 µF,50V
C617	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C618	VCEAZA1HW226M	J	AB	22 µF,50V,Electrolytic
C619,620	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C621,622	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C623~630	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C631,632	VCKYMN1HB391K	J	AA	390 pF,50V
C635,636	VCKYMN1HB102K	J	AA	0.001 µF,50V
C641,642	VCCSPA1HL470J	J	AA	47 pF,50V
C701	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C702	VCEAZA1AW227M	J	AC	220 µF,10V,Electrolytic
C703	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C704	VCCSMN1HL150J	J	AA	15 pF,50V
C705	VCCSMN1HL180J	J	AA	18 pF,50V
C706	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C707	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C709,710	VCKYMN1HB102K	J	AA	0.001 µF,50V
C712	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C714	VCEAZA1HW335M	J	AB	3.3 µF,50V,Electrolytic
C715	VCTYMN1CY103N	J	AA	0.01 µF,16V
C716	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C717	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C720	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C809,810	VCFYDA1HA224J	J	AB	0.22 µF,50V,Polyester
C811,812	VCQYKU2AM224K	J	AB	0.22 µF,100V,Mylar
C817,818	VCQYKA1HM224J	J	AC	0.22 µF,50V,Mylar
C819	VCEAZA1HW226M	J	AB	22 µF,50V,Electrolytic
C821	VCEAZV1JW227M	J	AC	220 µF,63V,Electrolytic
C822,823	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C824	VCEAZA1VW107M	J	AC	100 µF,35V,Electrolytic
C843	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C845	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C847	VCEAZA1HW226M	J	AB	22 µF,50V,Electrolytic
C849	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C851	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C852	VCEAZA1HW226M	J	AB	22 µF,50V,Electrolytic
C853	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C854,855	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C856	VCEAZW1VW338M	J	AH	3300 µF,35V,Electrolytic
C857	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C858	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C859	VCQYKA1HM104K	J	AB	0.1 µF,50V,Mylar
C860	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C861	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C863,864	VCEAZA1HW226M	J	AB	22 µF,50V,Electrolytic
C865	VCEAZA1EW107M	J	AB	100 µF,25V,Electrolytic
C866	VCKYMN1HB102K	J	AA	0.001 µF,50V
C867	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
C869	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C899	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C901,902	VCEAZW2AW338M	J	AR	3300 µF,100V,Electrolytic
C903,904	RC-GZW478AF1H	J	AH	4700 µF,50V,Electrolytic
C905	VCEAZA1HW104M	J	AB	0.1 µF,50V,Electrolytic
C911,912	VCCSPA1HL101J	J	AA	100 pF,50V
C913,914	VCCSPA1HL3R0C	J	AA	3 pF,50V
C915,916	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
C917,918	VCEAZA1HW224M	J	AB	0.22 µF,50V,Electrolytic
C919,920	VCEAZV2AW107M	J	AE	100 µF,100V,Electrolytic
C921,922	VCEAZA1HW107M	J	AC	100 µF,50V,Electrolytic
C925	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C927~930	VCFYHA1HA224J	J	AC	0.22 µF,50V,Thin Film
C939,940	VCCSPA1HL221J	J	AA	220 pF,50V
C943	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C945	VCEAZA1HW106M	J	AB	10 µF,50V,Electrolytic
C952	VCEAZA1EW227M	J	AC	220 µF,25V,Electrolytic
C956,957	VCEAZV2AW107M	J	AE	100 µF,100V,Electrolytic
C958	VCEAZA1HW104M	J	AB	0.1 µF,50V,Electrolytic
C959~962	VCFYHA1HA224J	J	AC	0.22 µF,50V,Thin Film
CK1	VCTYPA1CX103K	J	AA	0.01 µF,16V
CK7	VCEAZA1HW474M	J	AB	0.47 µF,50V,Electrolytic
CK8	VCEAZA1HW475M	J	AB	4.7 µF,50V,Electrolytic
CK9	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
CK10,11	VCFYDA1HA104J	J	AB	0.1 µF,50V,Thin Film
CK12	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
CK13	VCTYPA1CX472K	J	AA	0.0047 µF,16V
CK14	VCKYBT1HB102K	J	AA	0.001 µF,50V
CK15	VCFYDA1HA683J	J	AB	0.068 µF,50V,Polyester
CK16	VCFYDA1HA224J	J	AB	0.22 µF,50V,Polyester
CK17	VCEAZA1AW227M	J	AC	220 µF,10V,Electrolytic
CK18	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
CK19	VCKZPA1HF223Z	J	AA	0.022 µF,50V
CK20	VCFYDA1HA224J	J	AB	0.22 µF,50V,Polyester
CK21	VCFYDA1HA683J	J	AB	0.068 µF,50V,Polyester
CK22	VCTYPA1CX472K	J	AA	0.0047 µF,16V
CK23	VCKYPA1HB102K	J	AA	0.001 µF,50V
CK24~26	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
CK29,30	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
CK31	VCFYDA1HA154J	J	AB	0.15 µF,50V,Polyester
CK33~35	VCCSPA1HL470J	J	AA	47 pF,50V
CK41	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
CK42	VCKZPA1HF223Z	J	AA	0.022 µF,50V
CK43,44	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
CK45,46	VCEAZA1HW225M	J	AB	2.2 µF,50V,Electrolytic
CK47,48	VCCSPA1HL221J	J	AA	220 pF,50V
CK49,50	VCCSPA1HL101J	J	AA	100 pF,50V
CK51,52	VCEAZA1HW105M	J	AB	1 µF,50V,Electrolytic
CK53	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
CK54	VCCSPA1HL470J	J	AA	47 pF,50V
CK72	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic

RESISTORS

	VRD-MN2BD000C	J	AA	0 ohm,Jumper,ø1.4×3.5mm,Ivory
	VRS-CY1JB000J	J	AA	0 ohm,Jumper,0.8×1.55mm,Green
R1,2	VRS-CY1JB822J	J	AA	8.2 kohms,1/16W
R3	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R4,5	VRS-CY1JB822J	J	AA	8.2 kohms,1/16W
R6	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R7	VRD-ST2CD470J	J	AA	47 ohms,1/6W
R9	VRD-ST2CD3R3J	J	AA	3.3 ohms,1/6W
R10	VRD-ST2CD273J	J	AA	27 kohms,1/6W
R11	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R12	VRS-CY1JB331J	J	AA	330 ohms,1/16W
R13~18	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R20	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R22	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R23	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R24,25	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R26,27	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R28,29	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R31	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R32~38	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R39,40	VRS-CY1JB681J	J	AA	680 ohms,1/16W
R41	VRS-CY1JB123J	J	AA	12 kohms,1/16W
R42	VRS-CY1JB122J	J	AA	1.2 kohms,1/16W
R43	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R44	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R45,46	VRD-ST2CD821J	J	AA	820 ohms,1/6W
R47	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R49	VRD-ST2EE1R0J	J	AA	1 ohm,1/4W
⚠ R51	VRG-ST2EG3R3J	J	AB	3.3 ohms,1/4W,Fusible
R101	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R102	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R103,104	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R105,106	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R107,108	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R109,110	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R111	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R112	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R113,114	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R115	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R117,118	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R119	VRD-ST2CD560J	J	AA	56 ohms,1/6W
R120	VRD-MN2BD560J	J	AA	56 ohms,1/8W
R121,122	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R123,124	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R125,126	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R131,132	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R134	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R135,136	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R137,138	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R139,140	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R141,142	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R145,146	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R153	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R154	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R155	VRD-ST2EE151J	J	AA	150 ohms,1/4W
R156	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R157	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R158	VRD-ST2EE221J	J	AA	220 ohms,1/4W
R160	VRD-ST2EE820J	J	AA	82 ohms,1/4W
R162	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R164	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R166	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R167	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R168	VRD-ST2CD4R7J	J	AA	4.7 ohms,1/6W
R169~174	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R302	VRD-MN2BD100J	J	AA	10 ohm,1/8W
R309	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R311	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R313	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R314	VRD-ST2CD220J	J	AA	22 ohms,1/6W
R316	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R322	VRD-MN2BD681J	J	AA	680 ohms,1/8W
R323	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R325	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R327	VRD-MN2BD330J	J	AA	33 ohms,1/8W
R336	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R350	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R351	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R352	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R353	VRD-MN2BD271J	J	AA	270 ohms,1/8W
R355	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R356	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R357	VRD-ST2CD474J	J	AA	470 kohms,1/6W
R358	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R359	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R360	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R361,362	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R363,364	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R365	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R368	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R372~374	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R375	VRD-ST2CD471J	J	AA	470 ohms,1/6W
R376	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R377	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R378	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R379	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R380	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R381	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R382	VRD-ST2EE151J	J	AA	150 ohms,1/4W
R383	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R384	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R385	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R387	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R388	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R391,392	VRD-ST2EE271J	J	AA	270 ohms,1/4W
R393	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R395	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R605,606	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R607,608	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R609,610	VRD-ST2CD331J	J	AA	330 ohms,1/6W
R611,612	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R613,614	VRD-MN2BD561J	J	AA	560 ohms,1/8W
R615,616	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R617,618	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R619,620	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R621,622	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R623,624	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
R625~627	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R631,632	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
R633,634	VRD-MN2BD393J	J	AA	39 kohms,1/8W
R637,638	VRD-MN2BD474J	J	AA	470 kohms,1/8W
R702	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R703~706	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R707	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R708~715	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R716	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R717	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R718	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R719	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R720~722	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R724,725	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R726,727	VRD-ST2CD681J	J	AA	680 ohms,1/6W
R728	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R729	VRD-ST2CD561J	J	AA	560 ohms,1/6W
R731	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R732~736	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R739	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R740	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R741	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R746	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R747	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R749	VRD-ST2CD181J	J	AA	180 ohms,1/6W
R750	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R752	VRD-MN2BD330J	J	AA	33 ohms,1/8W
R753	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R754	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R755	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R756	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R757	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R758	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R759	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R760	VRD-ST2CD822J	J	AA	8.2 kohms,1/6W
R761	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R763	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R764	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R765	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R766~768	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R769	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R770	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R771	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R772,773	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R775~778	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R779	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R780	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R781	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R782	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R783	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R790	VRD-MN2BD681J	J	AA	680 ohms,1/8W
R791	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R792	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R793	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R794,795	VRD-ST2EE1R5J	J	AA	1.5 ohms,1/4W
R796,797	VRD-MN2BD681J	J	AA	680 ohms,1/8W
R798~800	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R802	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R803	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R805	VRD-ST2EE100J	J	AA	10 ohm,1/4W
R806	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R807	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R810,811	VRD-ST2EE470J	J	AA	47 ohms,1/4W
R819	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R852	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R853,854	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R859	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R860	VRD-ST2EE221J	J	AA	220 ohms,1/4W
R861	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R863	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R865	VRD-ST2EE101J	J	AA	100 ohm,1/4W
R866	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R867	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R868,869	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R870	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R871	VRD-ST2EE103J	J	AA	10 kohm,1/4W
R873	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R874,875	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R878,879	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R880	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R881	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R901,902	VRD-ST2CD102J	J	AA	1 kohm,1/6W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R903,904	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R905,906	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R907,908	VRD-ST2CD561J	J	AA	560 ohms,1/6W
R909,910	VRD-ST2CD563J	J	AA	56 kohms,1/6W
⚠ R911,912	VRG-ST2EC101J	J	AB	100 ohm,1/4W,Fusible
R913~916	VRN-CM05N0R1J	J	AD	0.1 ohm,(5W)
R923	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R925~928	VRD-RT2HD100J	J	AA	10 ohm,1/2W
R929,930	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R931,932	VRD-RT2HD100J	J	AA	10 ohm,1/2W
R933,934	VRD-ST2EE102J	J	AA	1 kohm,1/4W
R935,936	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R937	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R938	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R939	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R941,942	VRS-VV3DA561J	J	AC	560 ohms,2W
R943	VRS-VV3DA681J	J	AC	680 ohms,2W
R944	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R946	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R949	VRD-ST2CD474J	J	AA	470 kohms,1/6W
R950	VRD-ST2CD821J	J	AA	820 ohms,1/6W
R951,952	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R953,954	VRD-RT2HD100J	J	AA	10 ohm,1/2W
R963,964	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R965~968	VRD-RT2HD223J	J	AA	22 kohms,1/2W
R969,970	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R971~974	VRD-RT2HD100J	J	AA	10 ohm,1/2W
RD01	VRD-MN2BD681J	J	AA	680 ohms,1/8W
RD02	VRD-MN2BD821J	J	AA	820 ohms,1/8W
RD03	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD04	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
RD05	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RD06	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
RD10	VRD-MN2BD681J	J	AA	680 ohms,1/8W
RD11	VRD-MN2BD821J	J	AA	820 ohms,1/8W
RD12	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD13	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
RD14	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RD15	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
RD16	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
RD17	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
RD18	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RD19	VRD-ST2CD681J	J	AA	680 ohms,1/6W
RD20	VRD-MN2BD821J	J	AA	820 ohms,1/8W
RD21	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD22	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
RD23	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RFM940	VRS-VV3AA120J	J	AB	12 ohms,1W
RK1	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RK2,3	VRD-ST2CD563J	J	AA	56 kohms,1/6W
RK4	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RK7	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RK8	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
RK9~11	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RK12	VRD-ST2CD101J	J	AA	100 ohm,1/6W
RK13	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
RK14,15	VRD-RT2HD101J	J	AA	100 ohm,1/2W
RK36,37	VRD-ST2CD391J	J	AA	390 ohms,1/6W
RK38	VRD-ST2CD101J	J	AA	100 ohm,1/6W
RK39,40	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RK41,42	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RK43	VRD-ST2CD183J	J	AA	18 kohms,1/6W
RK44,45	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
RK46	VRD-ST2CD183J	J	AA	18 kohms,1/6W
RK47	VRD-ST2CD822J	J	AA	8.2 kohms,1/6W
RK48~50	VRD-ST2CD103J	J	AA	10 kohm,1/6W

OTHER CIRCUITRY PARTS

BI4/CNS4	QCNWN1572AWZZ	J	AF	Connector Ass'y,6/6Pin
BI11/CNS11	QCNWN2259AWZZ	J	AH	Connector Ass'y,8/8Pin
BI602/CNS602	QCNWN2300AWZZ	J		Connector Ass'y,11/11Pin
BI701/CNS701	QCNWN2172AWZZ	J	AH	Connector Ass'y,10/10Pin
BI703/CNS703	QCNWN2174AWZZ	J	AD	Connector Ass'y,2/2Pin
BI704/CNS704	QCNWN2174AWZZ	J	AD	Connector Ass'y,2/2Pin
BI705/CNS705	QCNWN2033AWZZ	J	AC	Connector Ass'y,4/4Pin
BI902/CNS902	QCNWN2302AWZZ	J		Connector Ass'y,2/2Pin
BI903/CNS903	QCNWN2301AWZZ	J		Connector Ass'y,7/7Pin
CNP1	QCNCM704GAWZZ	J	AC	Plug,7Pin
CNP2	QCNCM704HAWZZ	J	AC	Plug,8Pin
CNP3	92LCONE6P53253	J	AC	Plug,6Pin

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
CNP3A	92LCONE6P53254	J	AC	Plug,6Pin
CNP4	QCNCM705FAFZZ	J	AB	Plug,6Pin
CNP7	92LCONE8P53254	J	AC	Plug,8Pin
CNP8	92LCONEAP53254	J	AD	Plug,10Pin
CNP101	QCNCM705CAFZZ	J	AA	Plug,3Pin
CNP102	QCNCM705GAFZZ	J	AB	Plug,7Pin
CNP301	92LCONE2P5268	J	AB	Plug,2Pin
CNP601	QCNCWZX21AWZZ	J	AD	Plug,21Pin
CNP701	QCNCWZF21AWZZ	J	AF	Plug,21Pin
CNP703,704	92LCONE2P53253	J	AB	Plug,2Pin
CNP705	QCNCW026EAWZZ	J	AE	Plug,5Pin
CNP901	QCNCM010NAWZZ	J	AC	Plug,13Pin
CNP902	92LCONE2P5267	J	AB	Plug,2Pin
CNP903	QCNCM050GAWZZ	J	AD	Plug,7Pin
CNP904	92LCONE2P53253	J	AB	Plug,2Pin
CNP905	92LCONE4P53253	J	AB	Plug,5Pin
CNP907	92LCONE2P53253	J	AB	Plug,2Pin
CNPK1	QCNCM705KAWZZ	J	AC	Plug,11Pin
CNS1A/B	QCNWN1537AWZZ	J	AG	Connector Ass'y,7/7Pin
CNS2A/B	QCNWN1538AWZZ	J	AG	Connector Ass'y,8/8Pin
CNS3A/B	QCNWN1539AWZZ	J	AE	Connector Ass'y,6/6Pin
CNS702	QCNCWZY10AWZZ	J	AC	Plug,10Pin
CNS901	QCNCW010NAWZZ	J	AC	Socket,13Pin
CNS904	QCNWN1452AWZZ	J	AC	Socket,2Pin
CNS907	QCNWN1452AWZZ	J	AC	Connector Ass'y,2Pin
⚠ F801	QFS-D103EAWNI	J		Fuse,T10A L 250V
⚠ F802~805	QFS-D502CAWNI	J	AC	Fuse,T5A L 250V
⚠ F806,807	QFS-D202CAWNI	J	AC	Fuse,T2A L 250V
FFC701	QCNWN2035AWZZ	J	AD	Flat Cable,21Pin
FFC702	QCNWN1845AWZZ	J	AE	Flat Cable,10Pin
FL701	VVKNA09SS29-1	J	AX	FL Display
FW901	QCNWN2254AWZZ	J	AD	Flat,Wire,5Pin
FW901A	QCNCW019EAWZZ	J	AB	Holder,Flat Wire
JK1	QJAKJ0007AWZZ	J	AF	Jack,Mic
JK601	QSOCJ0224AWZZ	J	AC	Jack,Video/AUX
JK701	QJAKM0004AWZZ	J	AK	Jack,Headphones
JOG701	QSW-Z0013AWZZ	J	AF	Switch,Push Type [Jog Volume]
⚠ K801,802	QLUGP0004AWZZ	J	AC	Lug Terminal
LG1	QLUGP0001AWZZ	J	AC	Lug
LG901	QLUGP0001AWZZ	J	AC	Lug
M1	92LMTR2790CASY	J	BB	Motor with Chassis [Spindle]
M2	92LMTR1854BASY	J	AP	Motor with Gear [Sled]
M3	RMOTV0373AFZZ	J	AL	Motor with Worm Pulley [T/T Up/Down Loading]
M903,904	RMOTV0027AWZZ	J	AM	Motor,Air Cooling Fan
PINK1	QLUGP0002AWZZ	J	AB	Lug
RL901	RRLYD0004AWZZ	J	AP	Relay
RX701	VHLGP1UM271-1	J	AH	Remote Sensor,GP1UM271
SO301	QTANC0206AWZZ	J	AD	Terminal,FM Antenna
SO901	QTANA0426AWZZ	J		Terminal,Speaker
SW1	QSW-M0012AWZZ	J	AM	Switch,Leaf Type [Open/Close]
SW2	QSW-M0012AWZZ	J	AM	Switch,Leaf Type [Clamp]
SW3	QSW-M0012AWZZ	J	AM	Switch,Leaf Type [Disc Number]
SW4	QSW-F9001AW01	J	AD	Switch,Leaf Type [Pickup In]
SW601	QSW-S0024AWZZ	J	AE	Switch,Slide Type [Span Selector]
SW701	92LSWICH1401AT	J	AC	Switch,Key Type [ON/Stand-by]
SW702	92LSWICH1401AT	J	AC	Switch,Key Type [Fast Rewind/Preset Down]
SW703	92LSWICH1401AT	J	AC	Switch,Key Type [Fast Forward/Preset Up]
SW704	92LSWICH1401AT	J	AC	Switch,Key Type [Stop]
SW705	92LSWICH1401AT	J	AC	Switch,Key Type [Play]
SW706	92LSWICH1401AT	J	AC	Switch,Key Type [Reverse Play]
SW707	92LSWICH1401AT	J	AC	Switch,Key Type [Reverse Mode]
SW711	92LSWICH1401AT	J	AC	Switch,Key Type [CD]
SW712	92LSWICH1401AT	J	AC	Switch,Key Type [Tuner (Band)]
SW713	92LSWICH1401AT	J	AC	Switch,Key Type [Tape]
SW714	92LSWICH1401AT	J	AC	Switch,Key Type [Video/Aux]
SW715	92LSWICH1401AT	J	AC	Switch,Key Type [Timer/Sleep]
SW716	92LSWICH1401AT	J	AC	Switch,Key Type [Tuning/Time Up]
SW717	92LSWICH1401AT	J	AC	Switch,Key Type [Rec Pause]
SW718	92LSWICH1401AT	J	AC	Switch,Key Type [Memory/Set]
SW719	92LSWICH1401AT	J	AC	Switch,Key Type [Tuning/Time Down]
SW720	92LSWICH1401AT	J	AC	Switch,Key Type [Clock]
SW723	92LSWICH1401AT	J	AC	Switch,Key Type [Disc Skip]
SW724	92LSWICH1401AT	J	AC	Switch,Key Type [Open/Close]
SW725	92LSWICH1401AT	J	AC	Switch,Key Type [Equalizer]
SW726	92LSWICH1401AT	J	AC	Switch,Key Type [Monster Bass]

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
⚠ SW801	QSOCE0010AWZZ	J	AH	Switch,Slide Type [Voltage Selector]

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,Leaf Type [Pickup In]

CABINET PARTS

201	92LCAB4577AASY	J		Front Panel Ass'y
201- 1	————		—	Front Panel (Not Replacement Item)
201- 2	GCOVA1417AWSA	J	AH	Cover,Cassette [Tape 1]
201- 3	GCOVA1418AWSA	J	AH	Cover,Cassette [Tape 2]
201- 4	GCOVA1421AWSA	J	AC	Cover,Remote Sensor
201- 5	GCOVA1422AWSA	J	AB	Cover,LED,Timer
201- 6	GDORF0112AWSA	J	AE	Holder,Cassette [Tape 1]
201- 7	GDORF0113AWSA	J	AE	Holder,Cassette [Tape 2]
201- 8	HDECQ0834AWSA	J	AE	Panel,Cassette [Tape 1]
201- 9	HDECQ0835AWSA	J	AE	Panel,Cassette [Tape 2]
201-10	HDECQ0866AWSA	J		Panel,Amp.
201-11	HDECQ0844AWSC	J	AE	Ring,Play/Stop
201-12	JKNBZ0879AWSA	J	AG	Button,Open/Close
201-13	JKNBZ0876AWSA	J	AD	Button,X-Bass/Equalizer
201-14	JKNBZ0865AWSA	J	AD	Button,Function
201-15	JKNBZ0866AWSA	J	AF	Button,Power
201-16	MLIFP0008AWZZ	J	AD	Damper
201-17	MSPRD0167AWFJ	J	AB	Spring,Cassette [Tape 1]
201-18	MSPRD0168AWFJ	J	AB	Spring,Cassette [Tape 2]
201-19	JKNBZ0889AWSA	J		Button,Operation
201-20	GCOVA1442AWSA	J		Cover,LED,Play (A)
201-21	GCOVA1443AWSA	J		Cover,LED,Play (B)
201-22	GCOVA1435AWSA	J	AD	Cover,LED,Stop
201-23	PSHEM0019AWZZ	J		Sheet
202	92LCAB3838BASY	J	AN	Side Panel Ass'y,Left
202- 1	————		—	Side Panel,Left (Not Replacement Item)
202- 2	PCUSG0022AWZZ	J	AB	Cushion,Leg
203	92LCAB3838CASY	J	AN	Side Panel Ass'y,Right
203- 1	————		—	Side Panel,Right (Not Replacement Item)
203- 2	PCUSG0022AWZZ	J	AB	Cushion,Leg
204	GCAB-1197AWZZ	J	AM	Loading Tray
205	GCAB-1215AWSA	J	AT	Top Cabinet
206	GCOVA1416AWSC	J	AM	Cover,CD Tray
207	GITAR0948AWSA	J	AN	Rear Panel
207	GITAR0992AWSA	J	AN	Rear Panel
207	GITAR1009AWSA	J	AN	Rear Panel
208	KMECB0025AWZZ	J	BG	Tape Mechanism Ass'y
208- 1	92PF513-853	J	BL	Head Plate Block [Tape 2]
208- 2	92PF525-336	J	BE	Motor with Pulley [Tape]
208- 3	92PF567-677	J	—	Tape Mechanism PWB Ass'y
208- 4	92PFF19N-21	J	AL	Belt,Main [Tape 2]
208- 5	92PF514-133	J	AL	Pinch Roller
208- 6	92PF19S-31	J	AL	Belt,FF/REW [Tape 2]
208- 7	92PFF19N-11	J	AL	Belt,Main [Tape 1]
208- 8	92PF522-061	J	AZ	Clutch Ass'y Block [Tape 1]
208- 9	92PFF19S-52	J	AL	Belt,FF/REW [Tape 1]
208-10	92PF513-861	J	AG	Head Plate Block [Tape 1]
208-11	92PF522-063	J	AZ	Clutch Ass'y Block [Tape 2]
208-12	92PFD60F-11	J	AK	Cam Gear [Tape 1]
208-13	92PFR26C-11	J	AN	Flywheel [Tape 1]
208-14	92PFR26D-11	J	AN	Flywheel [Tape 2]
208-15	92PF765-292	J	AS	Solenoid Ass'y
208-16	92PFD58M-14	J	AK	Cam Gear [Tape 2]

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
209	LANGK0110AWFW	J	AE	Bracket,Cassette Lock,Tape 1
210	LANGK0111AWFW	J	AE	Bracket,Cassette Lock,Tape 2
211	LANGK0317AWFW	J	AF	Bracket,Fan Support
212	LBSHC0002AWZZ	J	AD	Bushing,AC Power Supply Cord
213	LCHSM0158AWFW	J		Chassis,Main
214	LCHSM0155AWZZ	J	AS	Chassis,Loading
215	LHLDM1018AWZZ	J	AE	Stabilizer
216	LHLDZ1357AWZZ	J	AH	Holder,CD Mechanism
217	LHLDZ1358AWZZ	J	AF	Holder,Stabilizer
218	LHLDZ1359AWZZ	J	AD	Holder,Gear
219	LHLDZ1410AWZZ	J	AD	Holder,FL Display
220	LHLDZ1412AWZZ	J	AC	Holder,LED
221	MCAMP0010AWZZ	J	AE	Gear,Can Upper
222	MCAMP0011AWZZ	J	AE	Gear,Can Lower
223	MLEVP0109AWZZ	J	AB	Lever,Cam Lock
224	MLEVP0110AWZZ	J	AB	Lever,Switch A
225	MLEVP0111AWZZ	J	AB	Lever,Switch B
226	MLEVP0112AWZZ	J	AB	Turntable Actuator
227	MLOKC0003AWZZ	J	AD	Lock Lever,Cassette,Tape 1
228	MLOKC0004AWZZ	J	AD	Lock Lever,Cassette,Tape 2
229	MSPRC0033AWFJ	J	AB	Spring,Friction
230	MSPRD0109AWFJ	J	AB	Spring,Cassette Lock,Tape 1
231	MSPRD0110AWFJ	J	AB	Spring,Cassette Lock,Tape 2
232	MSPRP0057AWFW	J	AC	Spring,Tray Lock
233	MSPRP0068AWFW	J	AB	Spring,Motor Gear
234	NFANP0001AWZZ	J	AD	Rotary Fan
235	NGERH0152AWZZ	J	AC	Gear,Turntable Drive
236	NGERH0153AWZZ	J	AC	Gear,Drive
237	NGERW0020AWZZ	J	AC	Gear,Center
238	NGERW0021AWZZ	J	AC	Gear,Idler
239	NGERW0022AWZZ	J	AD	Gear,Worm
240	NGERW0023AWZZ	J	AC	Gear,Motor
241	NTNT-0022AWZZ	J	AK	Turntable
242	PCUSG0022AWZZ	J	AB	Cushion,Leg
243	PMAGF0001AWZZ	J	AF	Magnet
244	PRDAR0233AWFW	J		Heat Sink
⚠ 245	QACCE0014AW00	J	AR	AC Power Supply Cord
⚠ 247	QFSHD0001AWZZ	J	AB	Holder,Fuse
248	92LCSPR1431C	J	AA	Spring,Ring
249	92LMT0304302	J	AB	Plate,Metal
250	92LNBAND1318A	J	AA	Nylon Band,80mm
251	92LPT0303002	J	AB	Roller
254	HDECQ0837AWSA	J	AF	Light Panel
255	LHLDZ1411AWZZ	J	AE	Holder,Light Panel
256	GCOVA1419AWSA	J	AC	Light Cover,Right
257	GCOVA1420AWSA	J	AC	Light Cover,Left
258	PSHEP0086AWZZ	J	AE	Light Sheet
259	LHLDZ1422AWZZ	J		Block,Button
260	JKNBK0092AWSA	J	AL	Knob,Volume
261	LANGK0311AWFW	J	AE	Bracket,Heat Sink,Left
263	LHLDZ1418AWZZ	J	AC	Holder,LED
264	TSPC-1053AWZZ	J		Label,Specifications
265	TLABS0354AWZZ	J	AC	Label,Class 3A
266	PCOVQ3005AWZZ	J	AK	Dust Cover,Mechanism
267	QCNWN2030AWZZ	J	AD	Lug Wire
268	QCNWN1844AWZZ	J	AC	Lug Wire
269	JKNBK0012AWSG	J	AK	Knob,Karaoke
270	LANGK0318AWFW	J	AE	Bracket,Heat Sink,Right
271	PCUSG0096AWZZ	J	AC	Cushion,Karaoke PWB
272	PFLT-0069AWZZ	J		Felt
273	LHLDF1019AWSA	J		Main PWB Support
274	LANGK-331AWFW	J		Bracket,Fan Support
601	LX-BZ0076AWF2	J	AE	Screw,Transport
602	LX-EZ0010AWFD	J	AA	Screw,Special
603	LX-HZ0009AWFD	J	AC	Screw,ø2×13mm
604	LX-JZ0010AFFD	J	AA	Screw,ø3×10mm
605	XBBSD20P04000	J	AA	Screw,ø2×4mm
606	XEBSD26P08000	J	AA	Screw,ø2.6×8mm
607	XHBSD30P06000	J	AA	Screw,ø3×6mm
608	XEBSD30P10000	J	AA	Screw,ø3×10mm
609	XEBSD30P12000	J	AA	Screw,ø3×12mm
610	XESSD30P10000	J	AA	Screw,ø3×10mm
611	XHBSD26P04000	J	AA	Screw,ø2.6×4mm
612	XHBSD40P08000	J	AA	Screw,ø4×8mm
613	XJBSD20P05000	J	AA	Screw,ø2×5mm
614	XJBSD30P10000	J	AA	Screw,ø3×10mm
616	XJBSD30P08000	J	AA	Screw,ø3×8mm
617	LX-LZ0012AWZZ	J	AB	Holder,PWB
618	XJSSD30P10000	J	AA	Screw,ø3×10mm
619	92LSC0310RBZI	J	AB	Screw,ø3×10mm
620	92LSC0314WBZI	J	AB	Screw,ø3×14mm
623	XJBSD30P14000	J	AA	Screw,ø3×14mm

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
ACCESSORIES/PACKING PARTS				
	QANTL0008AWZZ	J	AH	AM Loop Antenna
⚠	QPLGA0005AWZZ	J	AG	Adaptor,AC Plug
	SPAKA0378AWZZ	J		Packing Add.,Left/Right
	SPAKC1466AWZZ	J		Packing Case
	SPAKP0013AWZZ	J	AC	Polyethylene Bag,Unit
	SSAKA0007AWZZ	J	AB	Polyethylene Bag,Accessories
	TCAUZ0129AWZZ	J	AB	Caution,Transport
	TINSZ0808AWZZ	J		Operation Manual
	TLABR1277AWZZ	J		Label,Bar Code
	TLABZ1137AWZZ	J		Label,Feature [Tape 1]
	TLABZ1138AWZZ	J		Label,Feature [Tape 2]
	92LFANT1746A	J	AD	FM Antenna
	RRMCG0316AWSA	J	AW	Remote Control
•		J		Battery Lid,Remote Control
P.W.B. ASSEMBLY (Not Replacement Item)				
PWB-A	92LPWB4577MANS	J	—	Main
PWB-B1~4	92LPWB4577DPLS	J	—	Display/Headphones/LED A/LED B (Combined Ass'y)
PWB-C	92LPWB3838CDUS	J	—	CD Servo
PWB-D	QPWBF0027AWZZ	J	AD	CD Motor (PWB Only)
PWB-E	QPWBF0749AWZZ	J	AD	CD Loading Motor (PWB Only)
PWB-F	92PF567-677	J	—	Tape Mechanism
PWB-G	92LPWB3844MICS	J	—	Mic
⚠ PWB-H1~3	92LPWB4577PWRS	J	—	Amp./Power/Transformer (Combined Ass'y)
OTHER SERVICE PART				
	UDSKA0004AFZZ	J	AZ	CD Pickup Lens Cleaner

CP-M8000

SPEAKER BOX PARTS				
901	HPNLS1064AWSA	J		Front Panel,Right
901	HPNLS1063AWSA	J		Front Panel,Left
902	CWAKP1063AWSB	J		Net Ass'y
903	GBOXS2019AWSA	J		Speaker Box Ass'y,Right
903	GBOXS4019AWSA	J		Speaker Box Ass'y,Left
904	HDECQ0896AWSA	J		Super Tweeter Cover,Right
904	HDECQ0895AWSA	J		Super Tweeter Cover,Left
905	HDECQ0770AWSA	J		Super Tweeter Ring,Left
905	HDECQ0796AWSA	J	AR	Super Tweeter Ring,Right
906	HDECA0011AWSA	J	AR	Decoration Bar,Left
907	HDECA0012AWSA	J	AU	Decoration Bar,Right
908	HDECQ0907AWSA	J	AU	Speaker Back Cover,Left
908	HDECQ0908AWSA	J		Speaker Back Cover,Right
909	TSPC-1060AWZZ	J		Label,Specification
910	QCNWN2353AWZZ	J		Speaker Cord Ass'y (With Capacitor C1,2,3,4)
911	QTANA9010AWZZ	J	AG	Input Terminal
912	PCUSG0022AWZZ	J	AB	Foot Cushion
913	LHLDZ8001AWSA	J	AD	Catching Holder
914	XJBSD40P20000	J	AA	Screw,ø4×20mm
915	XJBSD40P16000	J	AB	Screw,ø4×16mm
916	XJBSD60P20000	J	AC	Screw,ø6×20mm
917	XJBSD30P10000	J	AA	Screw,ø3×10mm
918	LX-JZ0038AWF6	J		Screw,ø3×10mm
919	EXBSF30X42000	J		Screw,ø3×42mm
920	XJBSD30P12000	J	AA	Screw,ø3×12mm
SP1,2	RSPA20004AW6W	J		Woofer
SP3,4	RSPA10062AW6S	J		Midrange
SP5,6	RSPA10063AW6T	J		Tweeter
SP7,8	LHLDZ1369AWM1	J	AL	Super Tweeter
ACCESSORIES/PACKING PARTS				
	SPAKA0376AWZZ	J		Packing Add.,Left
	SPAKA0377AWZZ	J		Packing Add.,Right
	SPAKC1465AWZZ	J		Packing Case,Speaker
	SPAKZ0789AWZZ	J	AE	Mirror Mat Sheet,Speaker
	SSAKH0068AWZZ	J	AD	Polyethylene Bag,Speaker

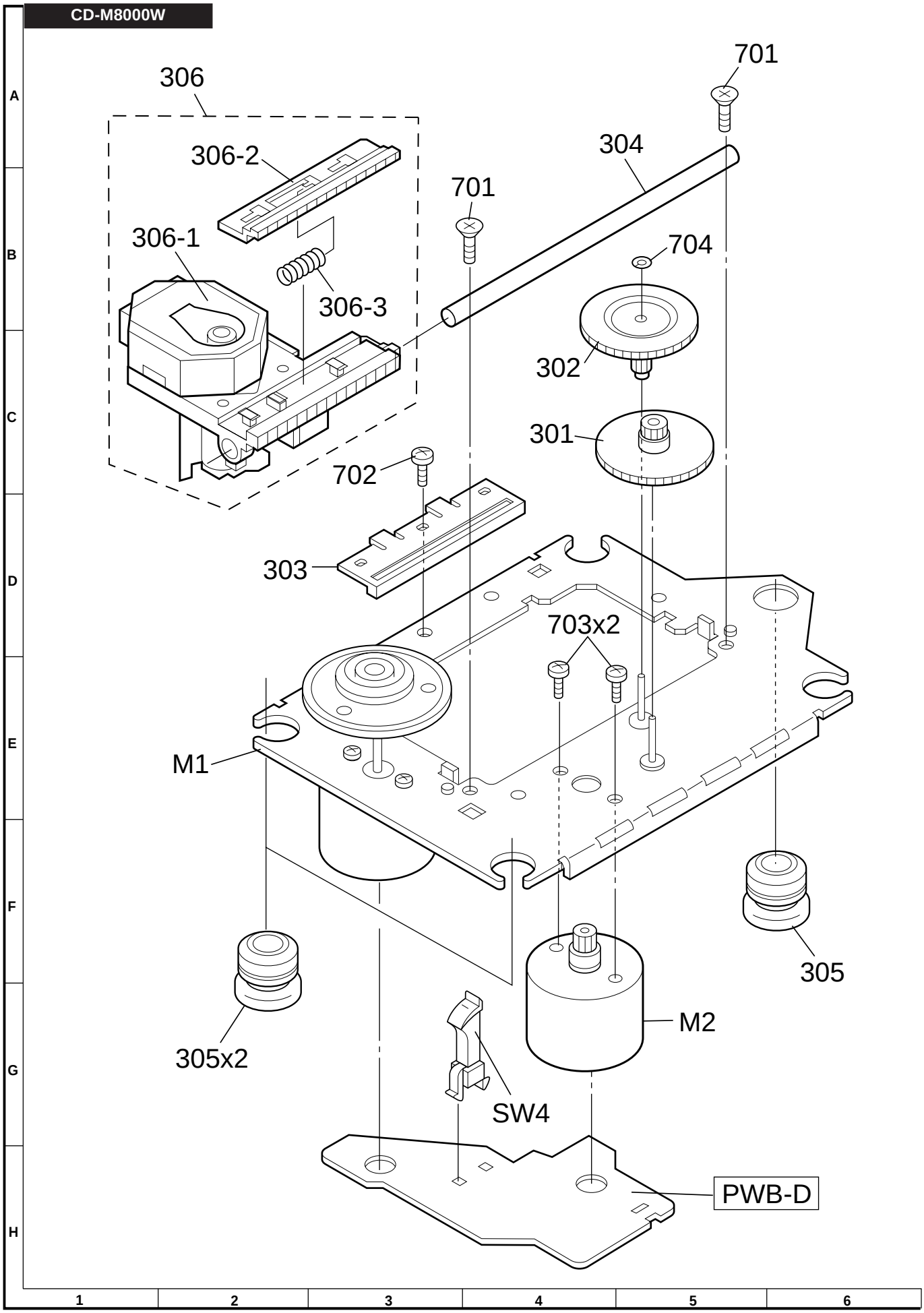
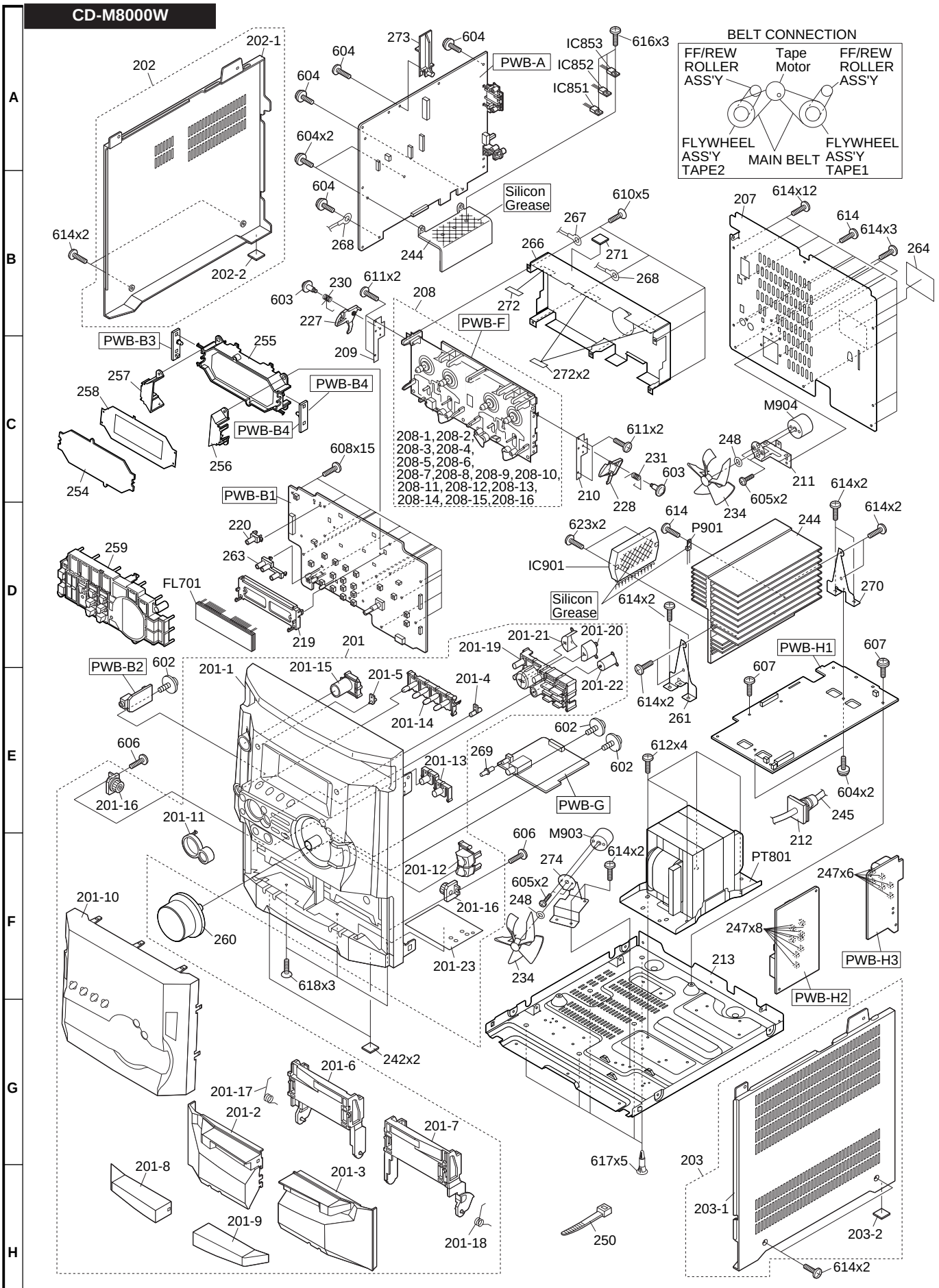


Figure 7 CD MECHANISM EXPLODED VIEW



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

Figure 8 CABINET EXPLODED VIEW (1/2)

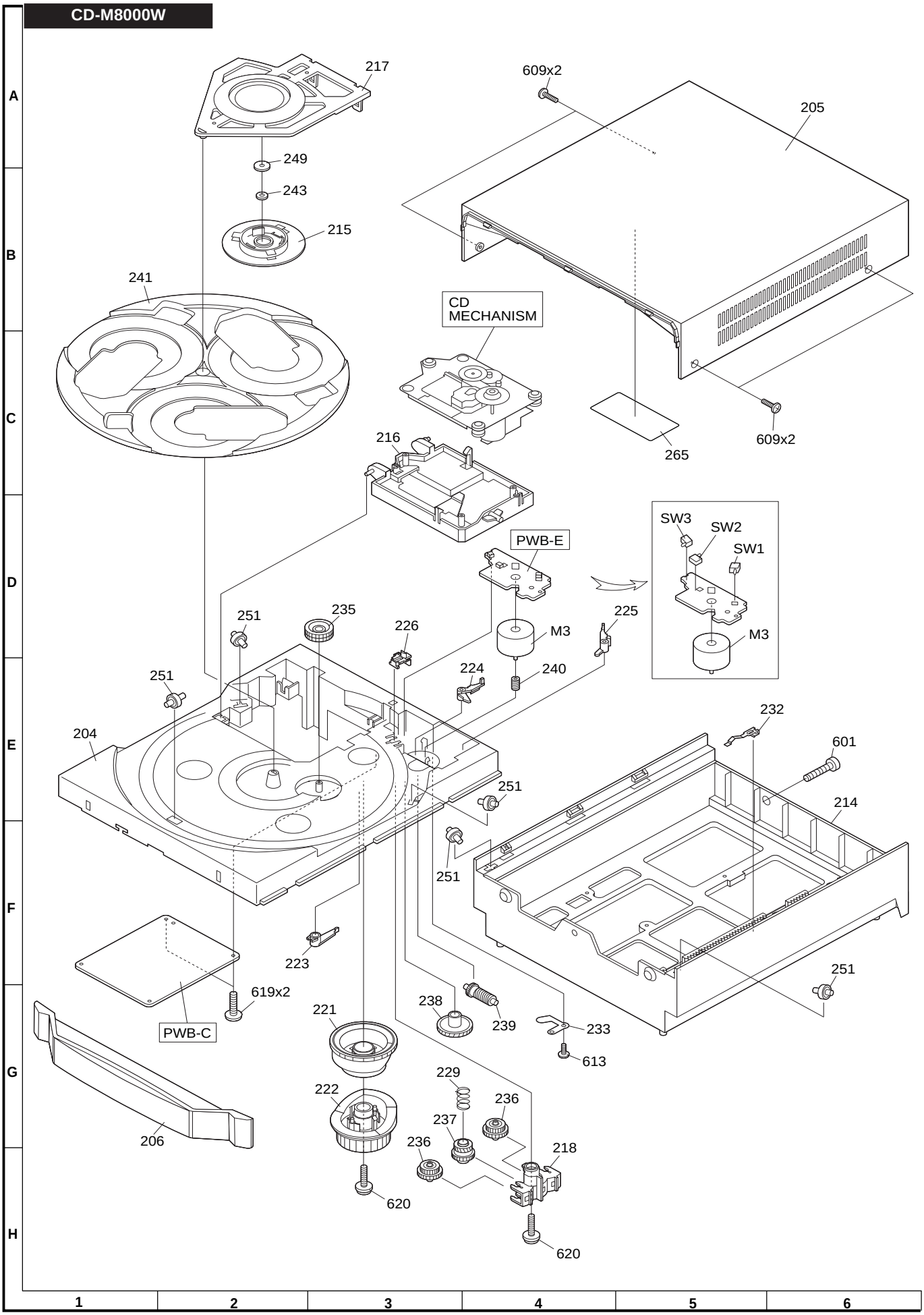


Figure 9 CABINET EXPLODED VIEW (2/2)

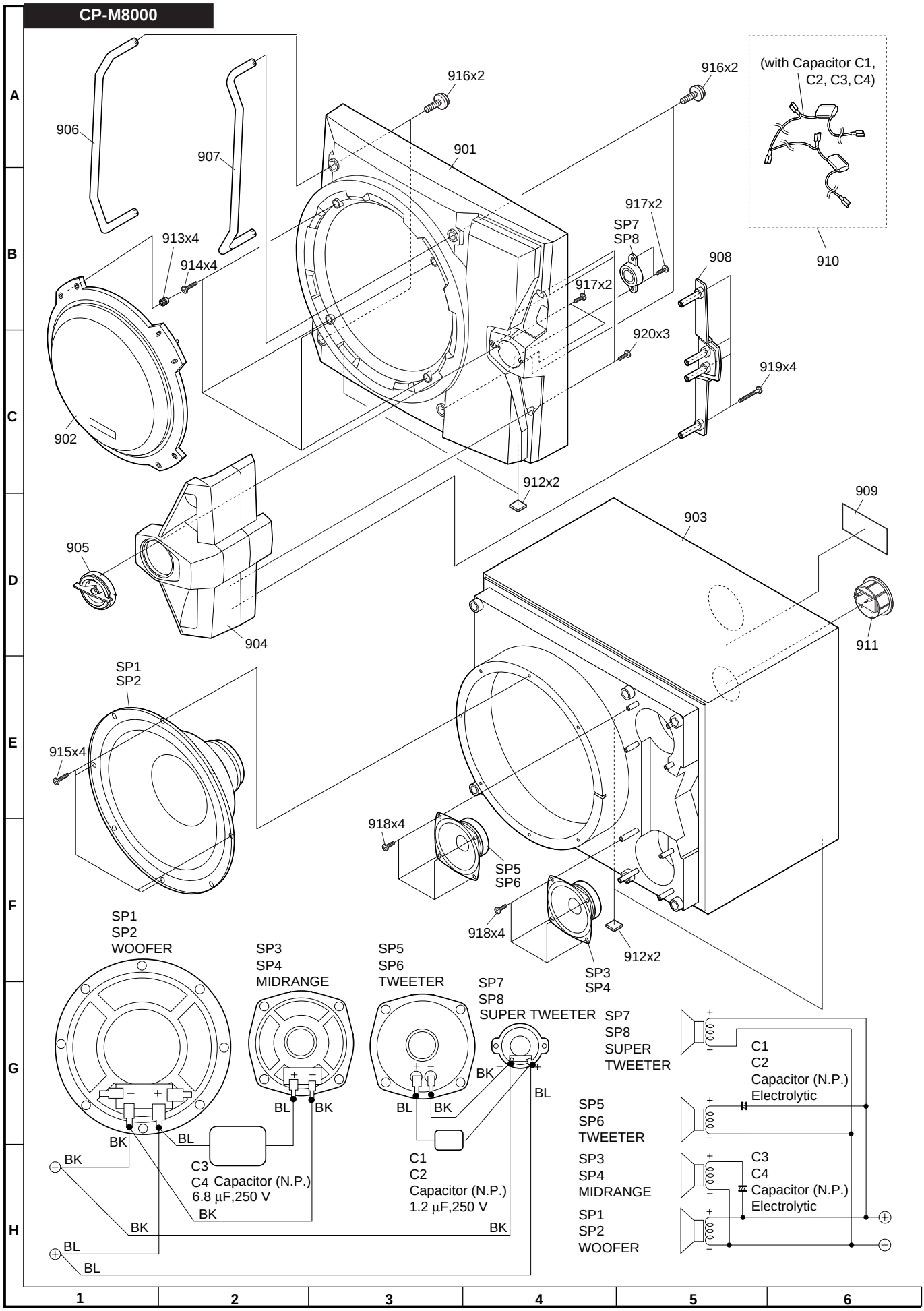


Figure 10 SPEAKER EXPLODED VIEW

— MEMO —

— MEMO —

SHARP

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