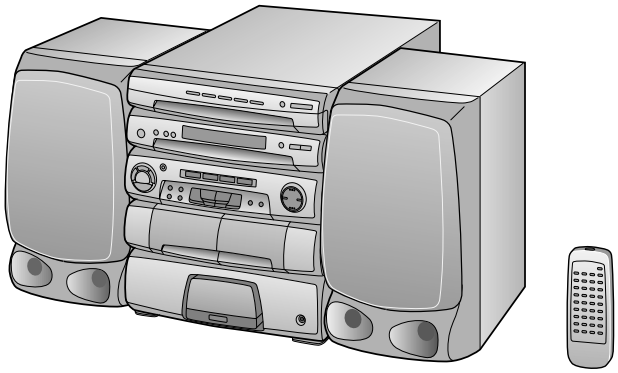
SHARP SERVICE MANUAL

No. S8644CMSR600X



CMS-R600X(BK)
CMS-R600XT(BK)

Illustration: CMS-R600X(BK)

COMPACT disc DIGITAL AUDIO (●) SOUND RETRIEVAL SYSTEM

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

CONTENTS

DIFFERENCE BETWEEN CMS-R600X(BK) AND CMS-R600XT(BK)

	CMS-R600X(BK)	CMS-R600XT(BK)
POWER SOURCE	AC 110/127/220/230-240 V, 50/60 Hz	AC 220 V, 50 Hz
SPEAKER	○	×
SRS	○	×

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

SPECIFICATIONS

● General

Power source: (CMS-R600X) AC 110/127/220/230-240 V, 50/60 Hz
Power source: (CMS-R600XT) AC 220 V, 50 Hz
Power consumption: 170 W
Dimensions: Width; 360 mm (14-3/16")
Height; 390 mm (15-3/8")
Depth; 379 mm (14-15/16")
Weight: 7.3 kg (16.1 lbs.)

● Amplifier section

Output power: PMPO; 300 W (total)
MPO; 84 W (42 W + 42 W) (10 % T.H.D.)
RMS; 50 W (25 W +25 W) (10 % T.H.D.)
Input terminals: VIDEO/AUX; 245 mV/47 kohms
Output terminals: Speakers; 8 ohms
Headphones; 8 - 50 ohms (recommended; 32 ohms)

● Tuner section

Frequency range: FM; 88 - 108 MHz
AM; 531 - 1,620 kHz

● Cassette deck section

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

● Compact disc player section

Type: 5-disc multi-play compact disc player
Signal readout: Non-contact; semiconductor laser
Rotational speed: 200 - 500 rpm CLV, Approx.
Error correction: CIRC (Cross Interleave Reed-Solomon Code)
Quantization: 16-bit linear
Filter: 4-times oversampling digital filter
D/A Converter: 1-bit D/A converter
Frequency response: 20 - 20,000 Hz
Dynamic range: 90 dB (1 kHz)
Wow and flutter: Unmeasurable (less than 0.001% W. peak)

● Speaker system (CMS-R600X ONLY)

Type: 3-way type [13 cm (5-1/8") woofer, 5 cm (2") tweeter and super tweeter]
Maximum input power: 50 W
Rated power: 25 W
Impedance: 8 ohms
Dimensions: Width; 215 mm (8-1/2")
Height; 390 mm (15-3/8")
Depth; 195 mm (7-11/16")
Weight: 3.4 kg (7.5 lbs.)/each

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

VOLTAGE SELECTION

Before operating the unit on mains, check the preset voltage. If the votage is different from your local voltage. Slide the AC power supply socket cover by slightly loosing the screw to the visible indication of the side of your local voltage.

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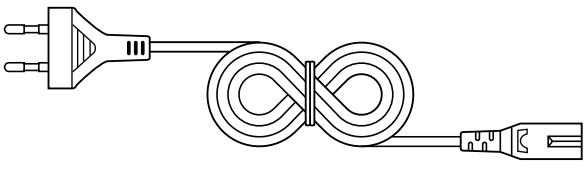

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92LPLUG027

92LCōRD577B

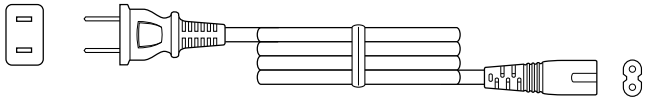
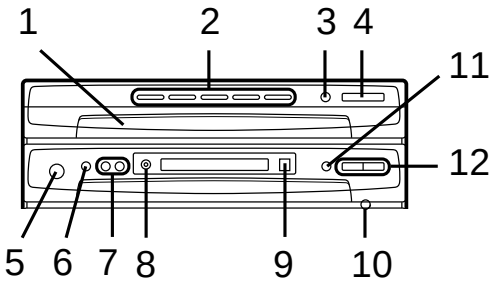


Figure 2 AC POWER SUPPLY CORD AND AC PLUG ADAPTOR

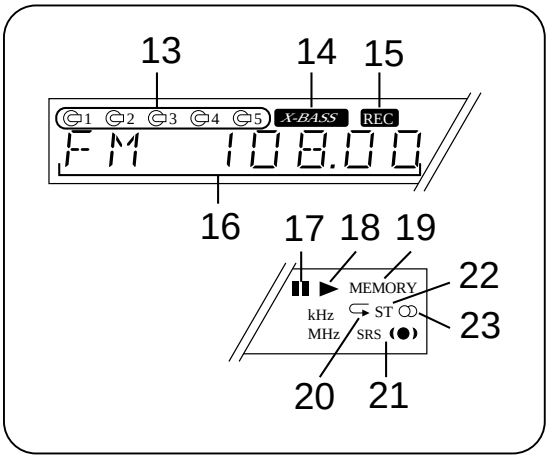
NAMES OF PARTS

■ Front panel

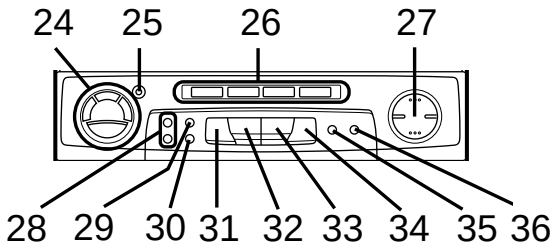
1. Disc Tray
2. Disc Number Select Buttons
3. Disc Skip Button
4. Open/Close Button: ▲
5. Power Switch
6. (TUNER) Memory Button
7. Tuning Up/Down Buttons: ∨/∧
8. Timer Indicator
9. Remote Control Sensor
10. Reset Button
11. Band Selector Button
12. Preset and Time Up/Down Buttons: ∨/∧



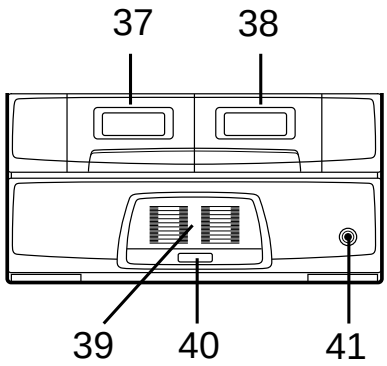
13. Disc Number Indicator
14. Extra Bass Indicator: X-BASS
15. Record Indicator: REC
16. Function/CD Track/CD Counter/Frequency/ Preset Channel/Volume Indicator
17. CD Pause Indicator: ▮▮
18. CD Play Indicator: ▶
19. Memory Indicator
20. CD Repeat Indicator: ⮌
21. SRS Indicator (CMS-R600X ONLY)
22. FM Stereo Mode Indicator: ST
23. FM Stereo Indicator: ◌◌



24. Equalizer Mode Buttons
25. Extra Bass Button: X-BASS
26. Function Selector Buttons
27. Volume Up/Down Buttons: ∨/∧
28. Editing Speed Selector Buttons
29. CD Pause Button
30. Record Pause Button
31. (CD/TAPE) Stop Button: ■
32. (CD) Track Down/Review Button: ◀◀/I◀◀
    (TAPE) Rewind Button: ◀◀
33. (CD) Track Up/Cue Button: ▶▶/▶▶I
    (TAPE) Fast Forward Button: ▶▶
34. (CD) Play/Repeat Button: ▶⮌
    (TAPE) Play Button: ▶
35. Memory/Set Button
36. Clock/Timer Button



37. (TAPE 1) Cassette Compartment
38. (TAPE 2) Cassette Compartment
39. Level Meters
40. 3D Surround Mode Button (CMS-R600X ONLY)
41. Headphone Socket

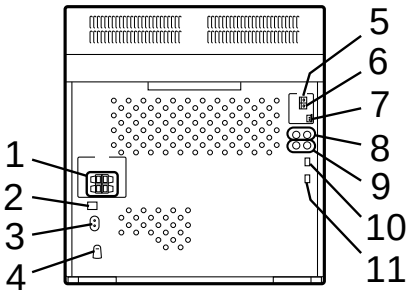


(Illustration: CMS-R600X)

CMS-R600X/R600XT

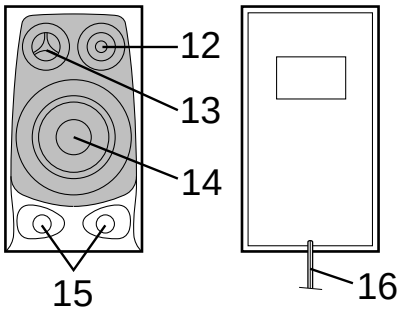
■ Rear panel

1. Speaker Terminals
2. Phono Power Supply Socket (DC 12V) (CMS-R600X ONLY)
3. AC Power Input Socket
4. AC Voltage Selector (CMS-R600X ONLY)
5. FM 75 ohns Aerial Terminal
6. Aerial Earth Terminal
7. AM Loop Aerial Socket
8. Phono Input Sockets (CMS-R600X ONLY)
9. Video (Audio Signal) / Auxiliary Input Sockets
10. Phono/Auxiliary/Video Input Selector Switch (CMS-R600X ONLY)
11. Span Selector Switch (CMS-R600X ONLY)



■ Speaker Section

12. Tweeter
13. Super Tweeter
14. Woofer
15. Bass Reflex Ducts
16. Speaker Wire



■ Remote Control

1. Remote Control Transmitter LED
2. 3D Surround Mode Button (CMS-R600X ONLY)

● CD control section

3. Disc Number Select Buttons
4. Track Down/Review Button: ◀◀/I◀◀
5. Disc Skip Button
6. Pause Button: ▮▮
7. Random Button
8. Play/Repaet Button: ▶
9. Stop Button: ■
10. Memory Button
11. Track Up/Cue Button: ▶▶/▶▶I
12. Clear Button

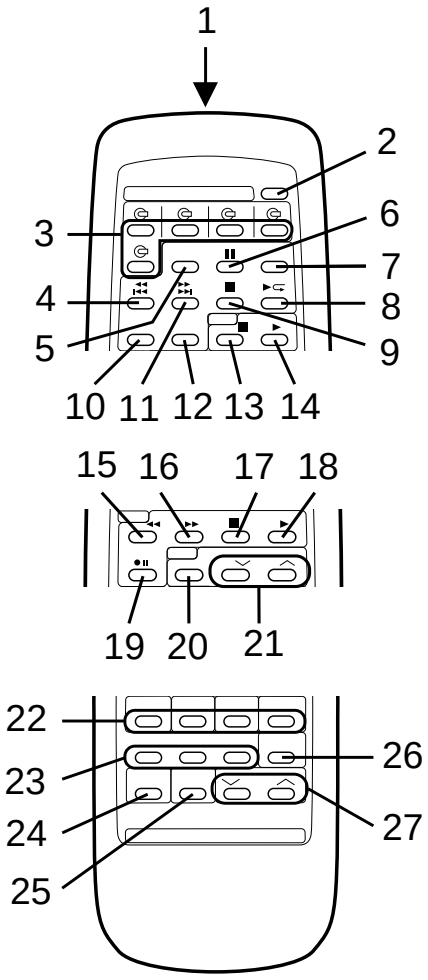
● Tape Control Section

13. (TAPE 1) Stop Button: ■
14. (TAPE 1) Play Button: ▶
15. (TAPE 2) Rewind Button: ◀◀
16. (TAPE 2) Fast Forward Button: ▶▶
17. (TAPE 2) Stop Button: ■
18. (TAPE 2) Play Button: ▶
19. (TAPE 2) Record Pause Button: ● ▮▮

● Tuner control section

20. Band Selector Button
21. Preset Up/Down Buttons: ∨/∧

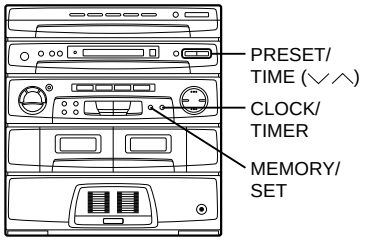
22. Function Selector Buttons
23. Balance Control Buttons
24. Power Button
25. Extra Bass Button: X-BASS
26. Equalizer Mode Selector Button
27. Volume Up/Down Buttons: ∨/∧

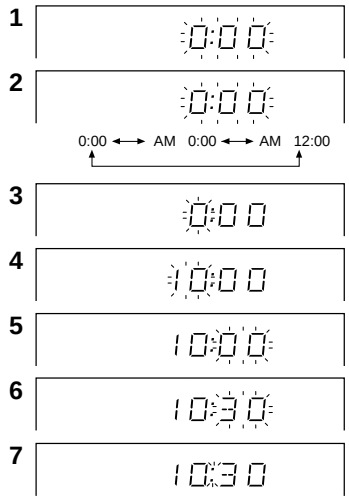


(Illustration: CMS-R600X)

SETTING THE CLOCK

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





- Setting method when the POWER switch is in the STAND-BY position.

1 Press the MEMORY/SET button.

- When the power is ON, press the CLOCK/TIMER button. Then, within 5 seconds, press the MEMORY/SET button.

2 Press the PRESET/TIME (∨or∧) button to select the time display.

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

3 Press the MEMORY/SET button.

4 Press the PRESET/TIME (∨or∧) button to adjust the hour.

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

5 Press the MEMORY/SET button.

6 Press the PRESET/TIME (∨or∧) button to adjust the minutes.

- Press the button for at least 0.5 seconds to advance continuously.
- The hour setting will not advance even if minutes advance from "59" to "00".

7 Press the MEMORY/SET button.

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

Note:

- In the event of a power failure or when the AC power lead is disconnected, the clock display will go out.
  When the AC power supply is resumed, the clock display will flash on and off to indicate that the time must be reset.
  If this happens, follow steps 1 and 4 - 7 in the procedure described above.

To change the clock time:

1 Whilst the clock is displayed, press the MEMORY/SET button.

- When the power is ON, press the CLOCK/TIMER button. Then, within 5 seconds, press the MEMORY/SET button.

2 Perform steps 4 - 7 above.

To see the time display: (When the power is ON)

Press the CLOCK/TIMER button.

- The time display will appear for about 5 seconds.

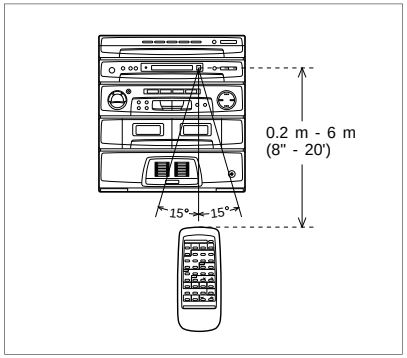
To switch the time display mode:

1 Set the POWER switch to STAND-BY.

2 Whilst holding down the CLOCK/TIMER button, press the POWER switch twice.

3 Perform steps 1 - 7 above.

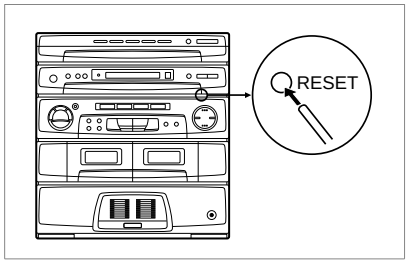
PREPARATION FOR USE



Notes concerning use:

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

RESETTING THE MICROCOMPUTER



Reset the microcomputer by performing the following procedure for the cases shown below:

- To erase all of the stored memory contents, or
- If the display does not function properly, or
- The unit does not operate properly.

1 Set the POWER switch to STAND-BY.

2 Disconnect the AC power lead from the AC socket.

3 Press the RESET button for at least 3 seconds.

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 be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take suffcient care on static electricity of integrated circuits and other circuits when servicing.

MAIN UNIT

STEP	REMOVAL	PROCEDURE	FIGURE
1	Top Cabinet	1. Screw ..... (A1) x4	6-1
2	Side Panel (Left/Right)	1. Screw ..... (B1) x6	6-1
3	CD Player Unit/ CD Tray Cover	1. Turn on the power supply, . open the disc tray, take out the CD cover, and close. (Note 1) 2. Hook ..... (C1) x2 3. Screw ..... (C2) x5 4. Flat Wire ..... (C3) x1 5. Socket ..... (C4) x2	 6-2 6-3
4	Back Board	1. Screw ..... (D1) x8	6-2
5	Front Panel	1. Screw ..... (E1) x3 2. Socket ..... (E2) x4 3. Flat Cable ..... (E3) x3	6-3
6	Main PWB/ SRS PWB	1. Screw ..... (F1) x3 2. Socket ..... (F2) x1 3. Flat Wire ..... (F3) x1	6-3
7	Power PWB	1. Screw ..... (G1) x5	6-3
8	Tape Mechanism	1. Open the cassette holder. 2. Flat Wire ..... (H1) x1 3. Screw ..... (H2) x6	7-1
9	Switch PWB	1. Screw ..... (J1) x4	7-1
10	Display PWB	1. Screw ..... (K1) x9	7-1
11	Headphones PWB	1. Screw ..... (L1) x1	7-1
12	Level Meter PWB	1. Screw ..... (M1) x2	7-2
13	Switch PWB	1. Screw ..... (P1) x2	7-2
14	Turntable	1. Screw ..... (Q1) x2 2. Cover ..... (Q2) x1	7-3
15	CD Tray	1. Screw ..... (R1) x4 2. Guide ..... (R2) x2	7-3
16	CD Servo PWB	1. Screw ..... (S1) x2	7-4
17	Sensor PWB	1. Screw ..... (T1) x1 2. Hook ..... (T2) x2	7-4
18	CD Mechanism	1. Screw ..... (U1) x2	7-5

Note 1: If the power supply cannot be turned on, **<A>** turn the pulley by hand as shown in Figure 6-2 to open the disc tray.

SPEAKER BOX [CMS-R600X ONLY]

STEP	REMOVAL	PROCEDURE	FIGURE
1	Speaker	1. Front Panel ..... (A1) x1 2. Screw ..... (A2) x4 3. Screw ..... (A3) x2	7-6 7-7

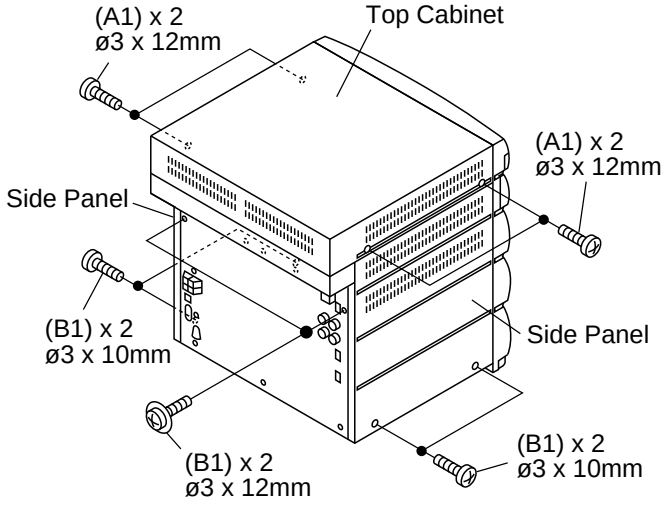


Figure 6-1

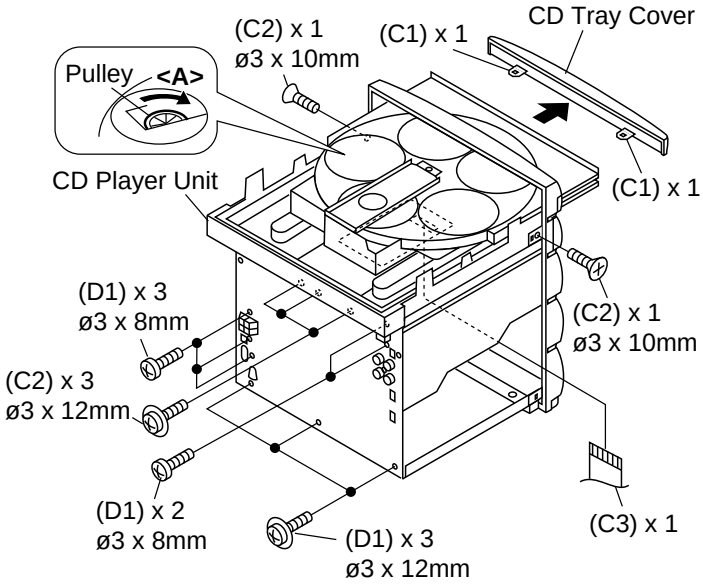


Figure 6-2

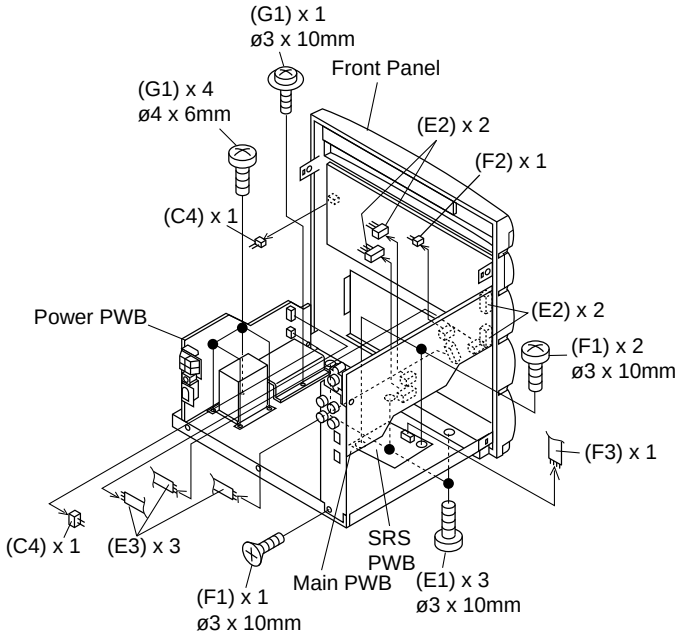


Figure 6-3

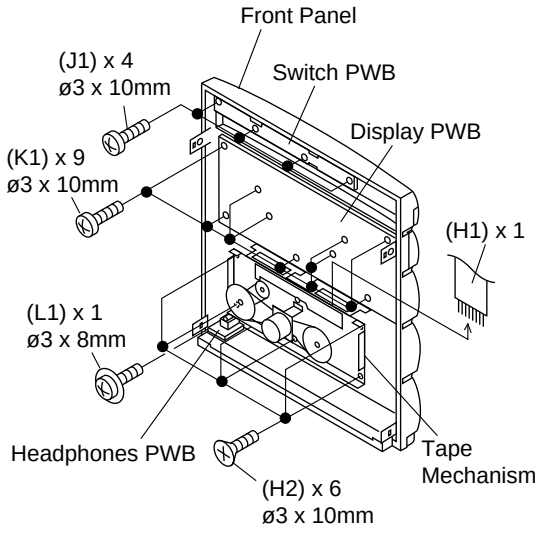


Figure 7-1

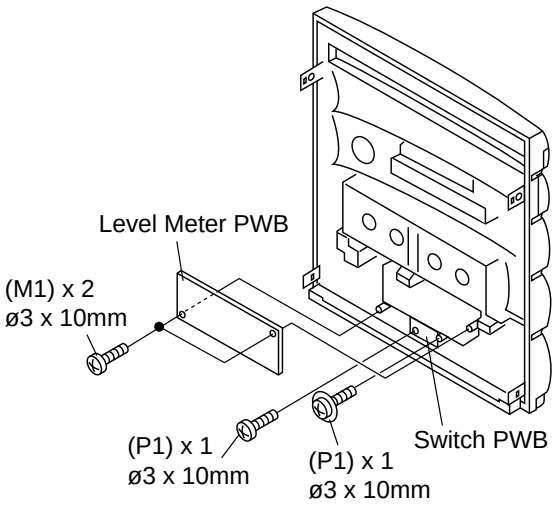


Figure 7-2

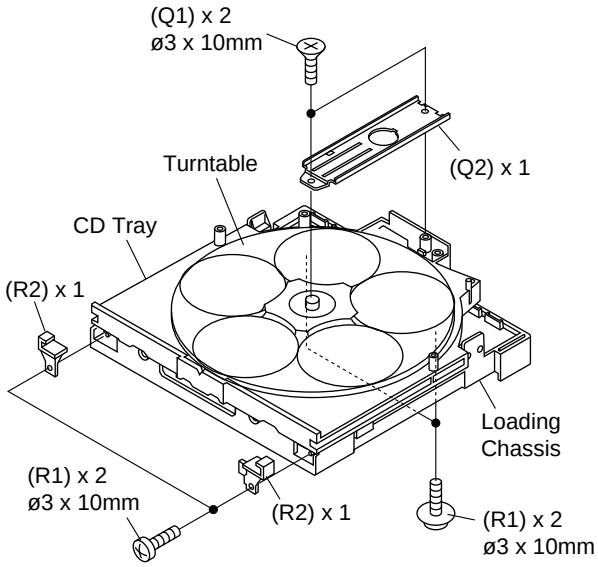


Figure 7-3

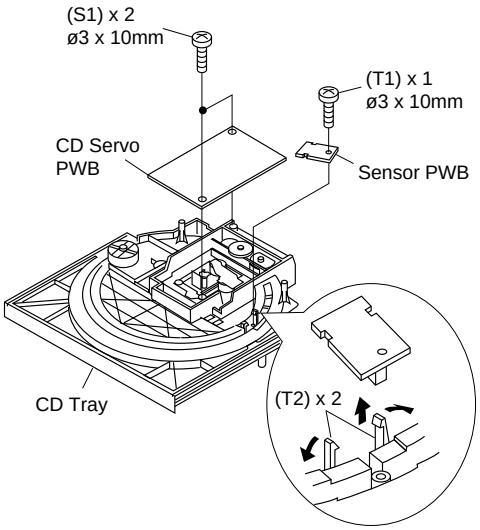


Figure 7-4

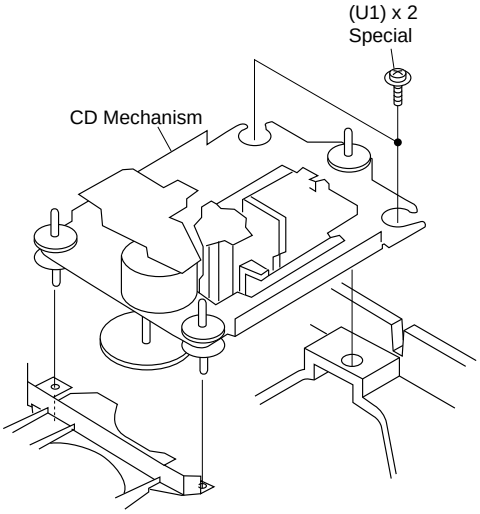


Figure 7-5

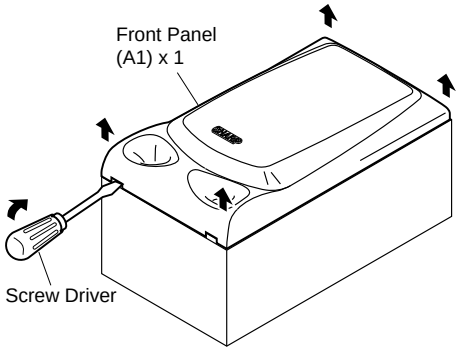


Figure 7-6

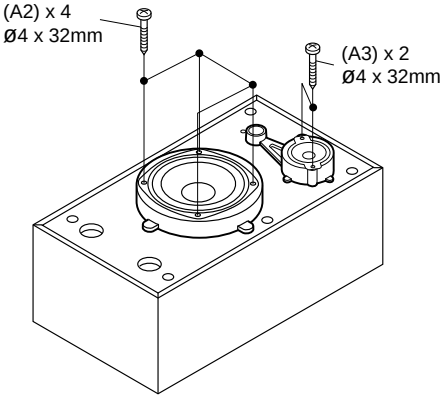


Figure 7-7

REMOVING AND REINSTALLING THE MAIN PARTS

TAPE MECHANISM SECTION

Perform steps 1, 2, 3, 4, 5 and 8 of the disassembly method to remove the tape mechanism.

How to remove the record/playback and erase heads (TAPE 2) (See Fig. 8-1.)

1. Carefully bend the record/playback head pawls (A1) x 2 pcs., in the direction of the arrow **<A>** , and remove the record/playback head upwards.
2. Carefully bend the three pawls (B1) x 3 pcs., in the arrow direction **<B>**, and remove the erase head upward.

How to remove the playback head (TAPE 1) (See Fig. 8-2.)

1. Carefully bend the playback head pawls (C1) x 2 pcs., in the direction of the arrow **<C>**, and remove the playback head upwards.

How to remove the pinch roller (TAPE 1/2) (See Fig. 8-3.)

1. Carefully bend the pinch roller pawl in the direction of the arrow **<D>**, and remove the pinch roller (D1) upwards.

Note:
When installing the pinch roller, pay attention to the spring mounting method.

How to remove the belt (TAPE 1) (See Fig. 8-4.)

1. Remove the main belt (E1) x 1 pc., from the motor side.

How to remove the belt (TAPE 2) (See Fig. 8-4.)

1. Remove the tape 1 main belt (E1) x 1pc., from the motor side.
2. Remove the tape 2 main belt (F1) x 1pc., from the motor side.
3. Remove the FF/REW belt (F2) x 1 pc.

How to remove the motor (See Figs. 8-4 and 8-5.)

1. Remove the belt.
2. Remove the screws (G1) x 2 pcs., to remove the motor fixture.
3. Remove the screws (G2) x 2 pcs., to remove the motor.

Note:
When mounting the motor, pay attention to the motor mounting angle.

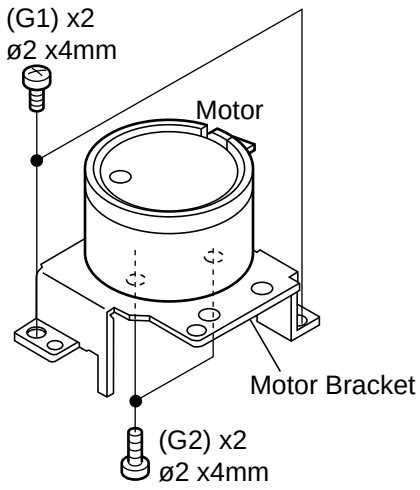


Figure 8-5

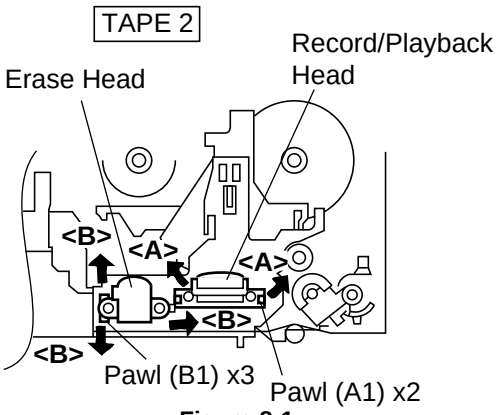


Figure 8-1

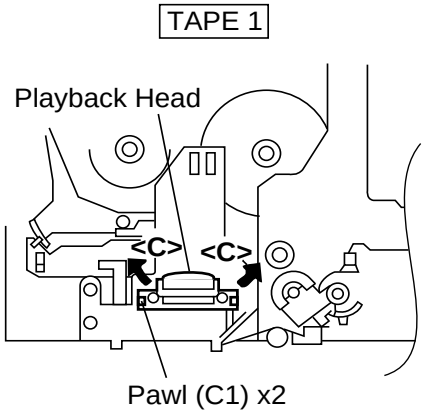


Figure 8-2

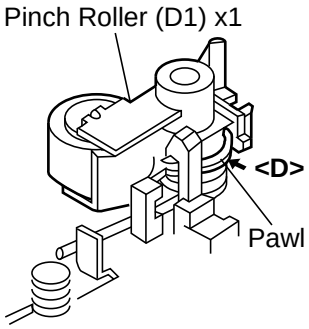


Figure 8-3

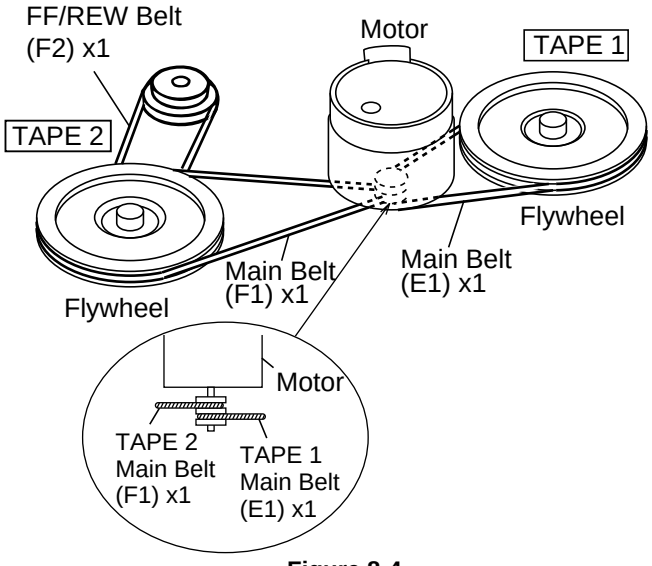


Figure 8-4

CD MECHANISM SECTION

Perform steps 1, 2, 3, 14, 15 and 16 of the disassembly method to remove the CD mechanism.

How to remove the loading motor (See Fig. 9-1)

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

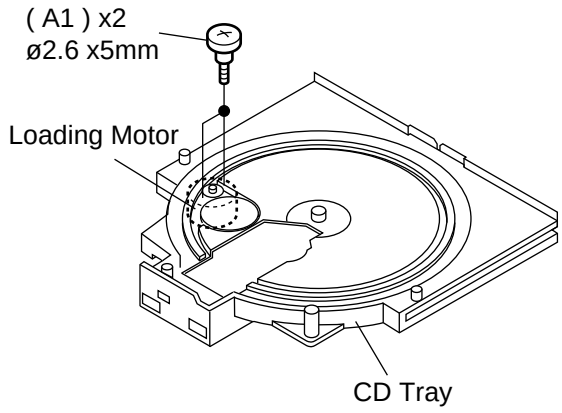


Figure 9-1

How to remove the turntable up/down motor (See Fig. 9-2)

1. Remove the screws (B1) x 2 pcs., to remove the turntable up/down motor.

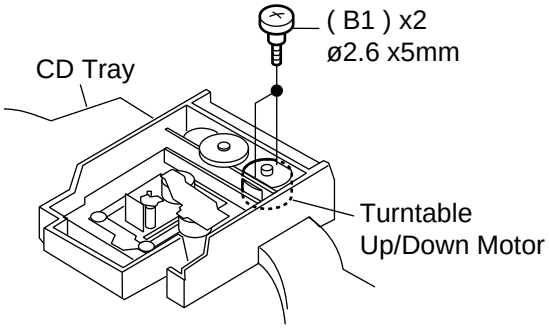


Figure 9-2

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

1. Remove the screws (C1) x 2 pcs., to remove the shaft (C2).
2. Remove the stop washer (C3) x 1 pc., to remove the gear (C4).
3. Remove the pickup.

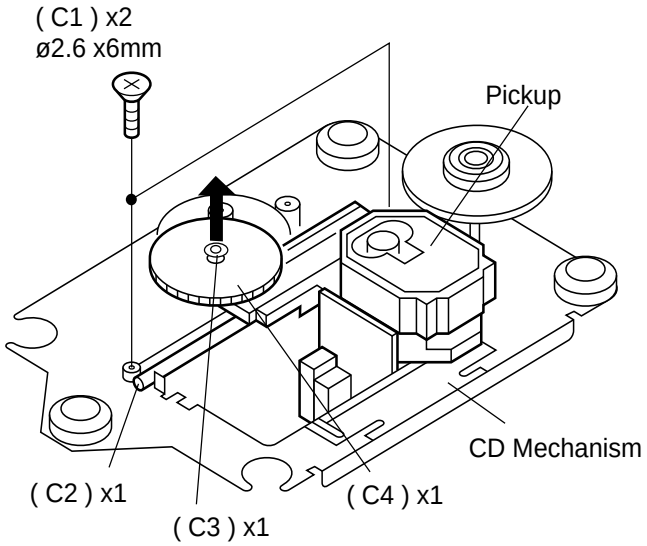


Figure 9-3

ADJUSTMENT

TAPE MECHANISM SECTION

• Driving Force Check

Torque Meter	Specified Value
Play: TW-2412	Tape 1: Over 50 g Tape 2: Over 100 g

• Torque Check

Torque Meter	Specified Value	
	Tape 1	Tape 2
Play: TW-2111	30 to 60 g. cm	30 to 60 g.cm
Fast forward: TW-2231	—	80 to 135 g.cm
Rewind: TW-2231	—	80 to 135 g.cm

• Tape Speed

	Test Tape	Adjusting Point	Specified Value	Instrument Connection
Normal speed	MTT-111	VRM1	3,000 ± 30 Hz	Speaker terminal (Load resistance: 8 ohms)

TUNER SECTION

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

• AM IF/RF

Signal generator: 400 Hz, 30%, AM modulated

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
IF	450 kHz	1,720 kHz	T351	*1
Band Coverage	—	530 kHz	(fL): T333 3.4 V ± 0.1 V	*2
Tracking	990 kHz	990 kHz	(fL): T331	*1

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

• FM RF

Signal generator: 1 kHz, 75 kHz dev., FM modulated

Test Stage	Frequency	Frequency Display	Serring/ Adjusting Point	Instrument Connection
Band Coverage	—	87.50 MHz	L303(fL): 1.85 V ± 50 mV	*1
RF	98.00 MHz (10-30 dB)	98.00 MHz	L302	*2

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

• Detection

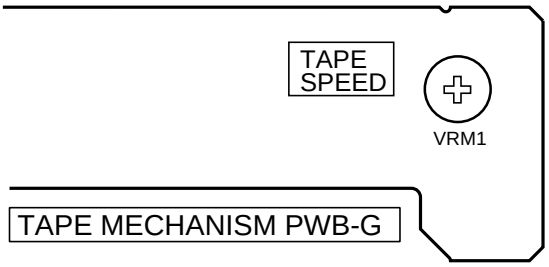
Signal generator: 10.7 MHz, FM sweep generator

Test Stage	Frequency	Frequency Display	Adjusting Parts	Instrument Connection
IF	10.7 MHz	98.00 MHz	T301(Turn the core of transformer T301 fully counter-clookwise.)	Input: Pin 1 of IC301 Output: TP302

• FM Mute Level

Frequency	Frequency Display	Adjusting Parts	Instrument Connection
98.00 MHz (25 dBμV)	98.00 MHz	VR351 *1	Input: SO301 Output: Speaker Terminal

*1 Adjust so that an output signal appears.



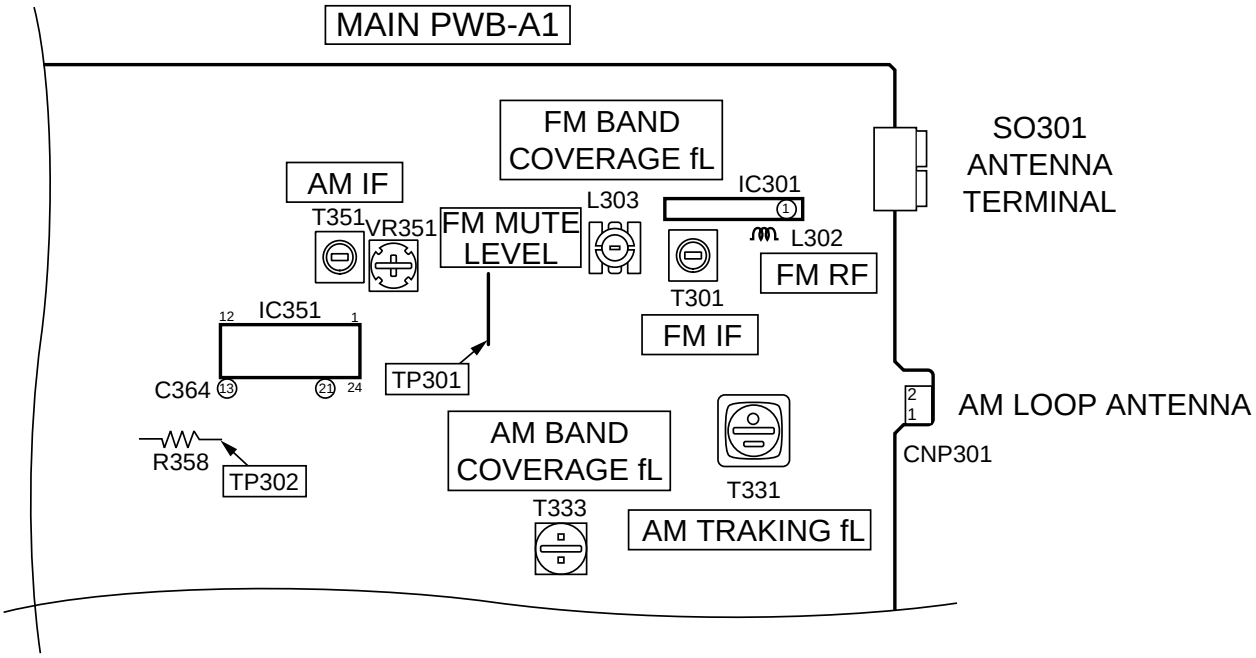


Figure 10 ADJUSTMENT POINTS

CD SECTION

Since this CD system incorporates the following automatic adjustment function, when the pickup is replaced, it is not necessary to readjust it.
Since this CD unit does not need adjustment, the combination of PWB and laser pickup unit is not restricted.

• Automatic adjustment item

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

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

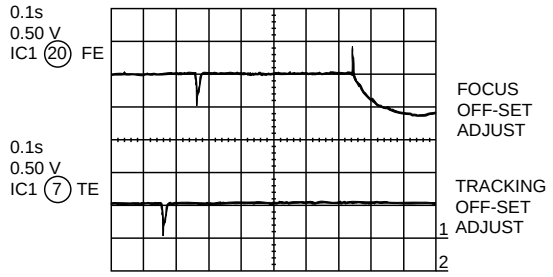


Figure 11-1

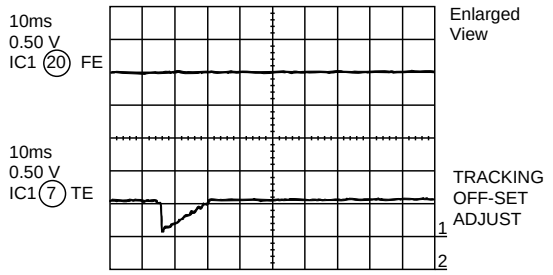


Figure 11-2

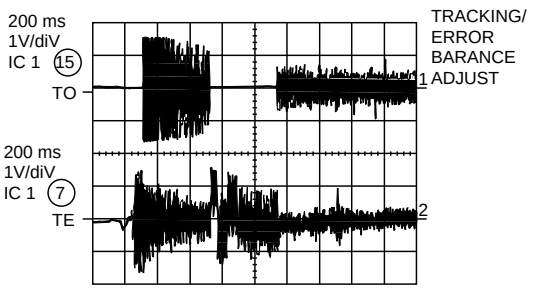


Figure 11-3

CD TEST MODE

When the CD, STOP and POWER keys are pressed at the same time, to turn on the power, the unit will enter the test mode.
↓
"VOL" will appear. After "CD" has appeared, all of the LCDs will light up.
↓
The OPEN/CLOSE operation can be performed manually.
↓ It is OK if the display does not change.
Use of the ►► or ◄◄ key allows you to slide the pickup.

Initialization (IL) is not performed.

→ Press the PLAY key.
↓ All of the LCDs will go out.
A TOC and IL will be performed and normal playback can be performed. When the following keys are pressed during playback, the track numbers can be specified directly.

The display will look the same as usual.

↓
DISC 1 → Track 3
DISC 2 → Track 8
DISC 3 → Track 15
↓
Press the STOP key.
↓
Stop

→ Press the APMS MEMORY key. ←
↓ All of the LCDs will go out.
The tracking servo will turn on, and playback will begin.
↓ The track No. and time will appear.
Press the STOP key.
↓ "01 0:00" will appear.
The pickup will return normally to the STOP position.
↓
Press the APMS MEMORY key.
↓ "01 0:00" will appear.
The tracking servo will turn off, and playback will begin.
↓
Press the STOP key.
↓ "01 0:00" will appear.
The pickup will return normally to the STOP position.

Cancel method: POWER OFF

LCD display: After the PLAY or APMS MEMORY key has been pressed, the track No. and time only will appear (valid). The other items are optional.

Note: The pickup can be slid using the ►► or ◄◄ key only while in the stop mode.

INITIALIZING THE CD CHANGER MECHANISM

When the CD, DOWN and POWER keys are pressed at the same time to turn on the power, the CD changer mechanism will be initialized.

- The entire CD APMS memory will be cleared.
- The FUNCTION button can be used to start the CD. The other initializations are the same as usual.
- The CD changer mechanism will be initialized. DISC 1 will be chucked, initialized, and stopped.
- "INITIAL" will flash on the LCD. After initialization, the LCD will return from the display of DISC 1 being initialized to the normal display.

ALL CLEAR AND RE-START FUNCTION

When the CLEAR and POWER keys are pressed to turn on the power, the entire internal memory will be cleared and the mechanism will run from address 0.
All of the tuner presets, APMS, TOC and disc numbers which were last stored in memory will be cleared, and the tuner, changer mechanism and all of the other items will be initialized.

NOTES ON SCHEMATIC DIAGRAM

• Resistor:
To differentiate the units of resistors, the 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 an ohm resistor. The resistor designated "Fusible" is a fuse type resistor.

• 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

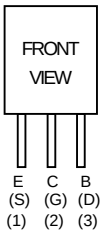
• Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.

• 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.

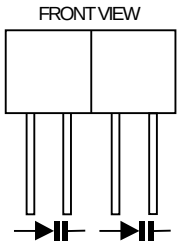
REF. NO	DESCRIPTION	POSITION
SW2	DISC UP	ON—OFF
SW4	PICKUP IN	ON—OFF
SW291	SPAN SELECTOR [CMS-R600X ONLY]	100/10—50/9
SW421	PHONO/VIDEO/AUX [CMS-R600X ONLY]	PHONO—VIDEO/AUX.
SW561	3D SURROUND	ON—OFF
SW702	CD DISC1	ON—OFF
SW703	CD DISC2	ON—OFF
SW704	CD DISC3	ON—OFF
SW705	CD DISC4	ON—OFF
SW706	CD DISC5	ON—OFF
SW707	CD DISC SKIP	ON—OFF
SW708	CD OPEN/CLOSE	ON—OFF
SW709	FLAT	ON—OFF
SW710	BGM	ON—OFF
SW711	VOCAL	ON—OFF
SW712	HEAVY	ON—OFF
SW713	X-BASS	ON—OFF
SW714	TUNING UP	ON—OFF
SW715	MEMORY	ON—OFF
SW716	POWER	ON—OFF
SW717	FORWARD	ON—OFF
SW718	PRESET UP/TIME UP	ON—OFF
SW719	STOP	ON—OFF

REF. NO	DESCRIPTION	POSITION
SW720	REC PAUSE	ON—OFF
SW721	CD PAUSE	ON—OFF
SW722	TUNING DOWN	ON—OFF
SW723	EDIT HIGH	ON—OFF
SW724	EDIT NORMAL	ON—OFF
SW725	REWIND	ON—OFF
SW726	PRESET DOWN/TIME DOWN	ON—OFF
SW728	VOLUME UP	ON—OFF
SW729	CLEAR/TIMER	ON—OFF
SW730	MEMORY/SET	ON—OFF
SW732	PLAY/REPEAT	ON—OFF
SW734	BAND	ON—OFF
SW735	VOLUME DOWN	ON—OFF
SW736	VIDEO/AUX	ON—OFF
SW737	TAPE1↔2	ON—OFF
SW738	TUNER	ON—OFF
SW739	CD	ON—OFF
SW740	RESET	ON—OFF
SW801	OPEN/CLOSE	ON—OFF
SW901	VOLTAGE SELECTOR [CMS-R600X ONLY]	110—127—220—230-240
SWM3	FULL PROOF	ON—OFF
SWM4	F.A.S.	ON—OFF
SWM5	CAM	ON—OFF

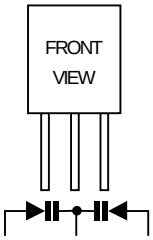


2SD468 C
2SK246 GR
KRC102 M
KRC104 M
KTA1266 GR
KTA1270 Y

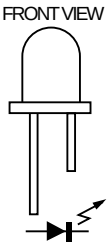
KTA1271 Y
KTC3194 Y
KTC3199 GR
KTC3200 GR
KTC3203 Y
KTD2058 Y



KV1236Z23



KDV147C



5N4GTN52

Figure 12 TYPES OF TRANSISTOR AND LED

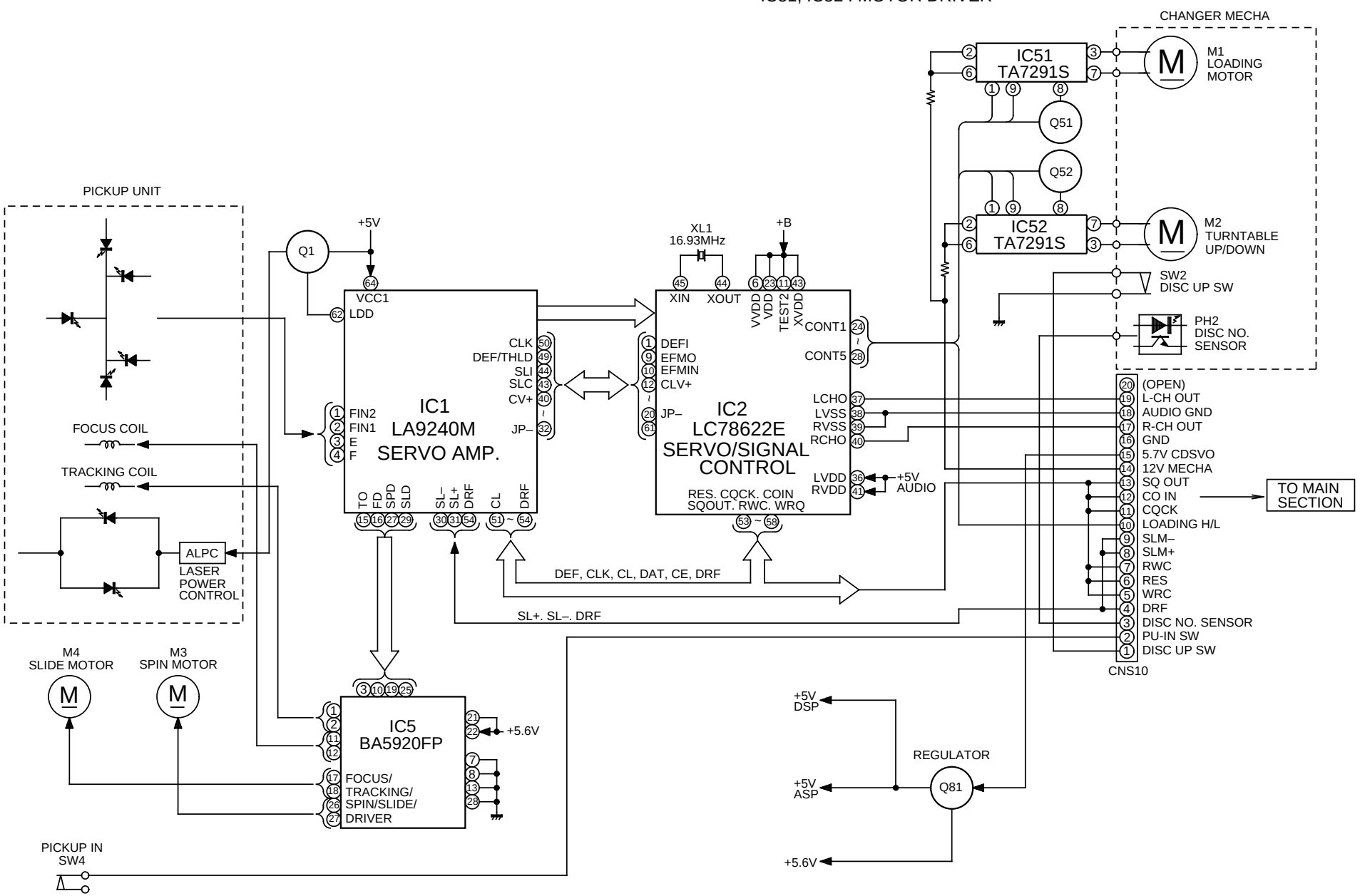


Figure 13 BLOCK DIAGRAM (1/3)

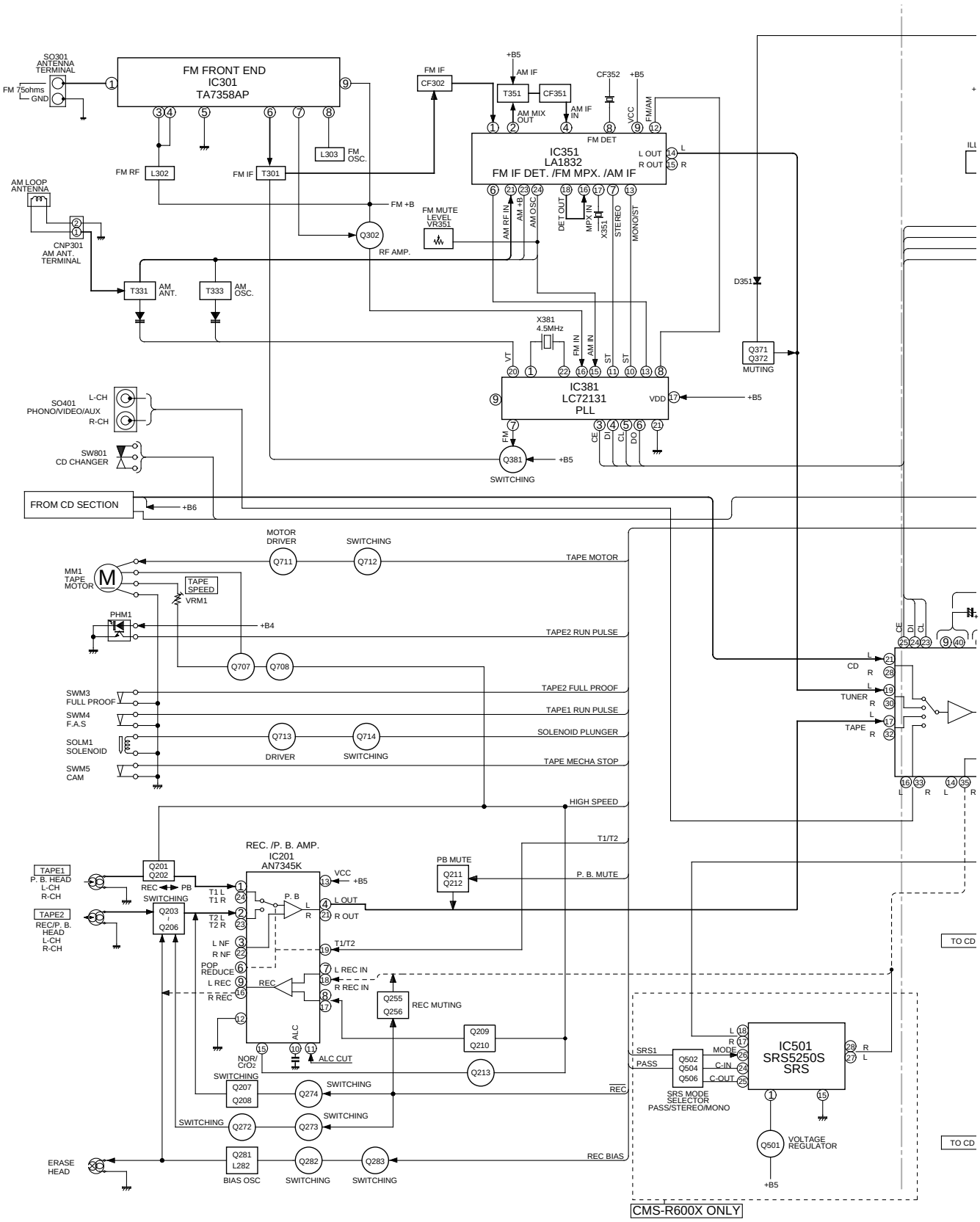


Figure 14 BLOCK DIAGRAM (2/3)

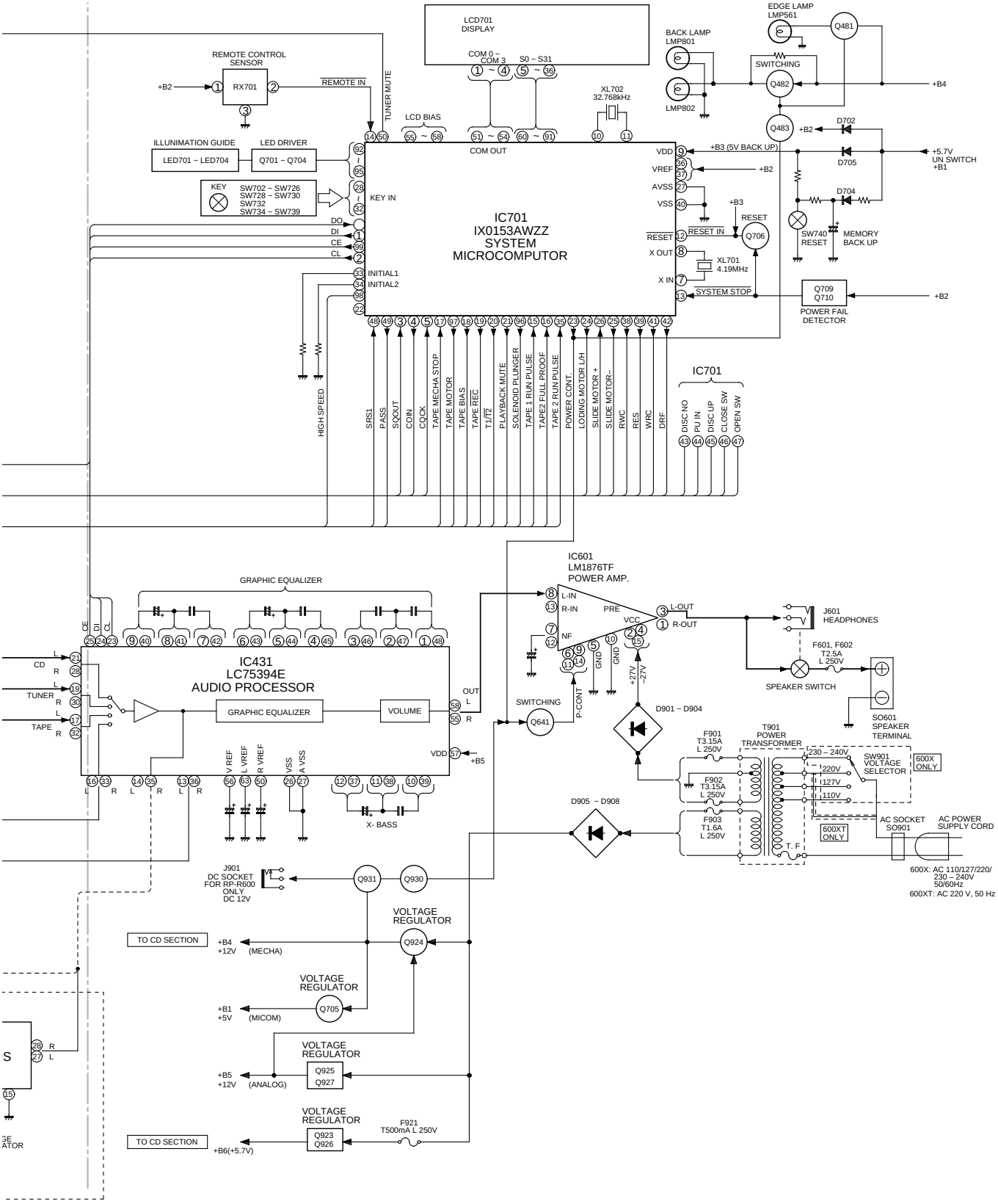


Figure 15 BLOCK DIAGRAM (3/3)

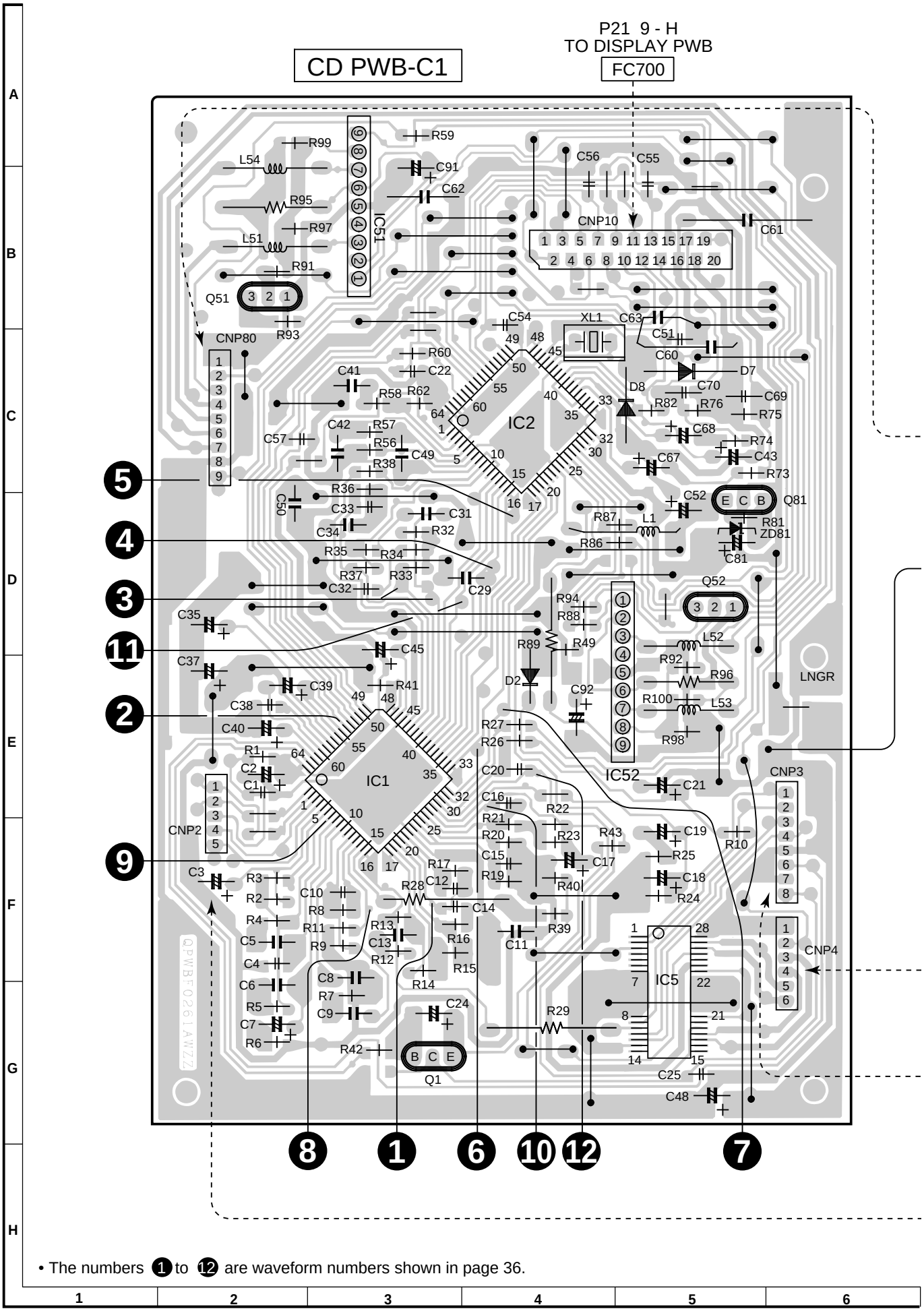
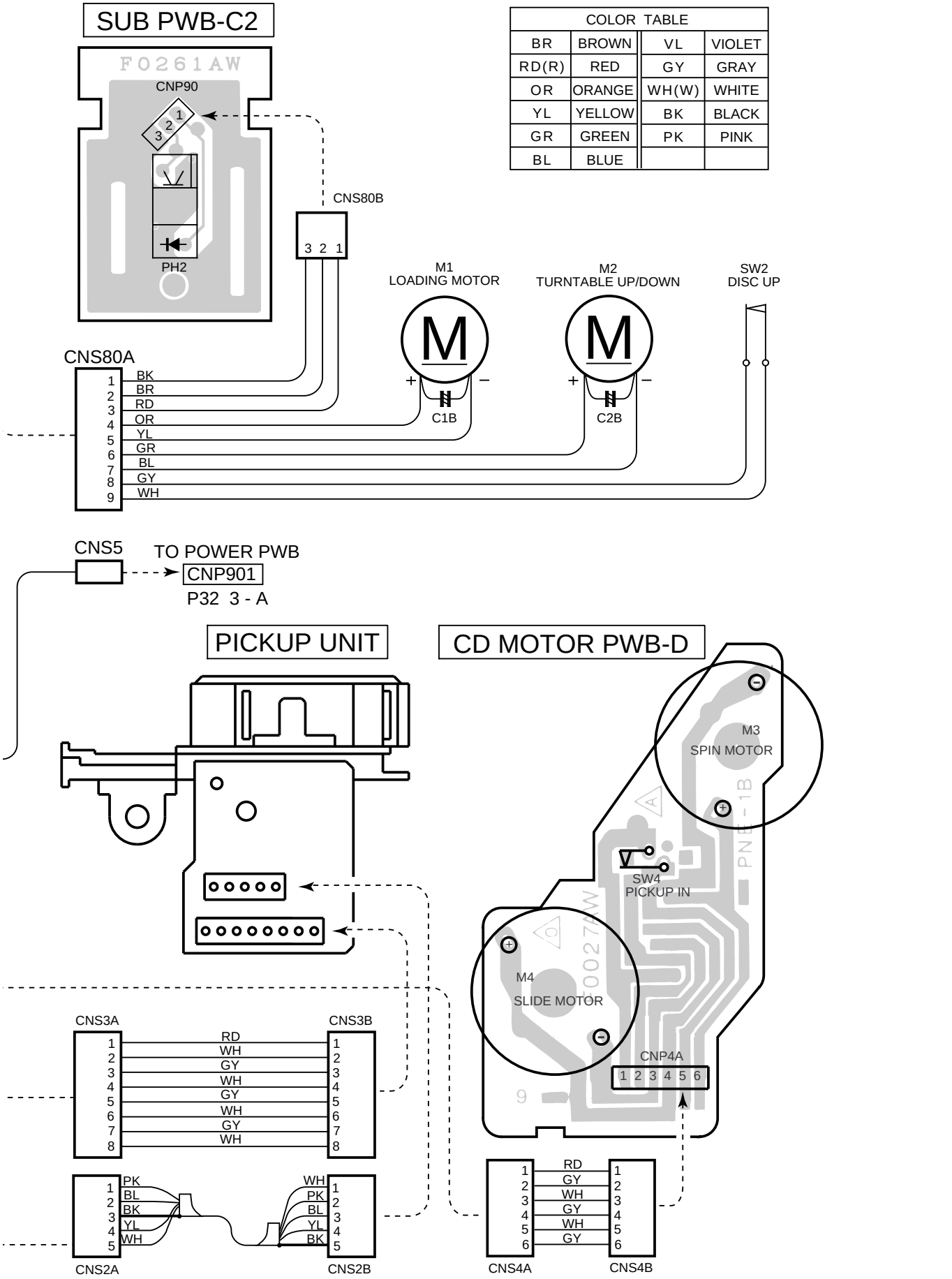
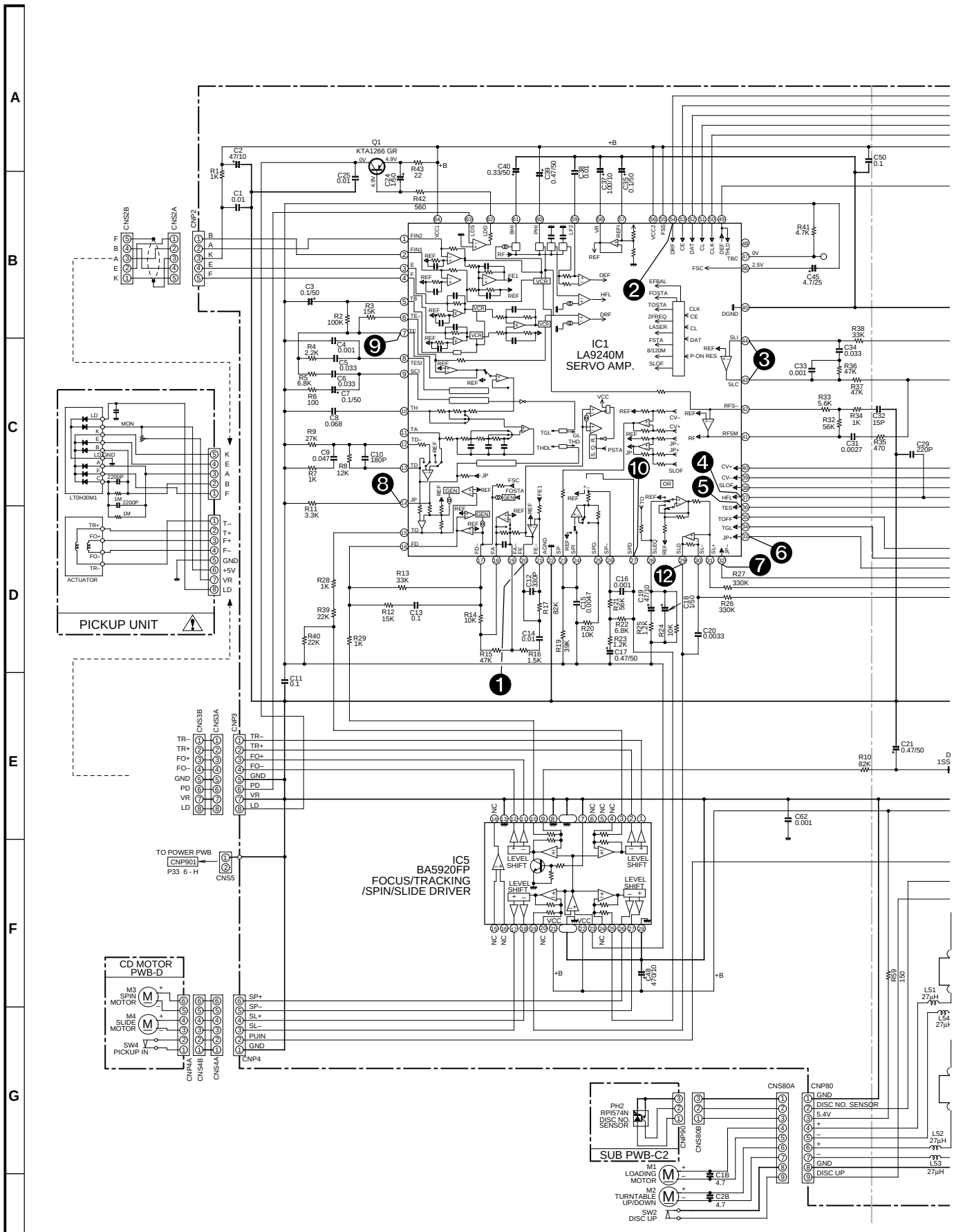


Figure 15 WIRING SIDE OF P.W.BOARD (1/7)



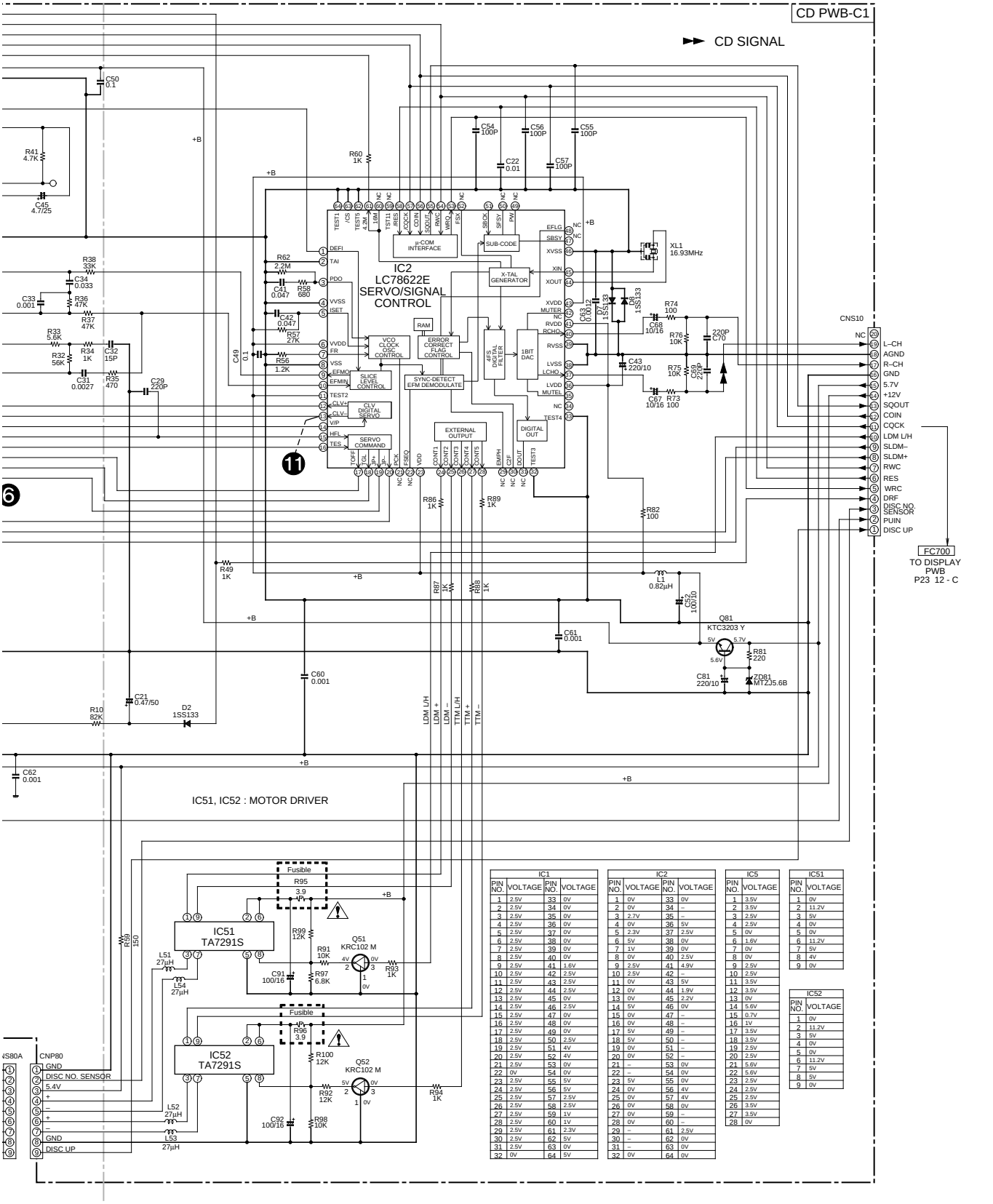
7	8	9	10	11	12

Figure 17 WIRING SIDE OF P.W.BOARD (2/7)



• The numbers ❶ to ⓬ are waveform numbers shown in page 36.

Figure 18 SCHEMATIC DIAGRAM (1/14)



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

IC2			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	0V	33	0V
2	0V	34	–
3	2.7V	35	–
4	0V	36	5V
5	2.3V	37	2.5V
6	5V	38	0V
7	1V	39	0V
8	0V	40	2.5V
9	2.5V	41	4.9V
10	2.5V	42	–
11	0V	43	5V
12	0V	44	1.9V
13	0V	45	2.2V
14	5V	46	0V
15	0V	47	–
16	0V	48	–
17	5V	49	–
18	5V	50	–
19	0V	51	–
20	0V	52	–
21	–	53	0V
22	–	54	0V
23	5V	55	0V
24	0V	56	4V
25	0V	57	4V
26	0V	58	0V
27	0V	59	–
28	0V	60	–
29	–	61	2.5V
30	–	62	0V
31	–	63	0V
32	0V	64	0V

IC5	
PIN NO.	VOLTAGE
1	3.5V
2	3.5V
3	2.5V
4	2.5V
5	0V
6	1.6V
7	0V
8	0V
9	2.5V
10	2.5V
11	3.5V
12	3.5V
13	0V
14	5.6V
15	0.7V
16	1V
17	3.5V
18	3.5V
19	2.5V
20	2.5V
21	5.6V
22	5.6V
23	2.5V
24	2.5V
25	2.5V
26	3.5V
27	3.5V
28	0V

IC51	
PIN NO.	VOLTAGE
1	0V
2	11.2V
3	5V
4	0V
5	0V
6	11.2V
7	5V
8	4V
9	0V

IC52	
PIN NO.	VOLTAGE
1	0V
2	11.2V
3	5V
4	0V
5	0V
6	11.2V
7	5V
8	5V
9	0V

• NOTES ON SCHEMATIC DIAGRAM can be found on page 12.

7	8	9	10	11	12

Figure 19 SCHEMATIC DIAGRAM (2/14)

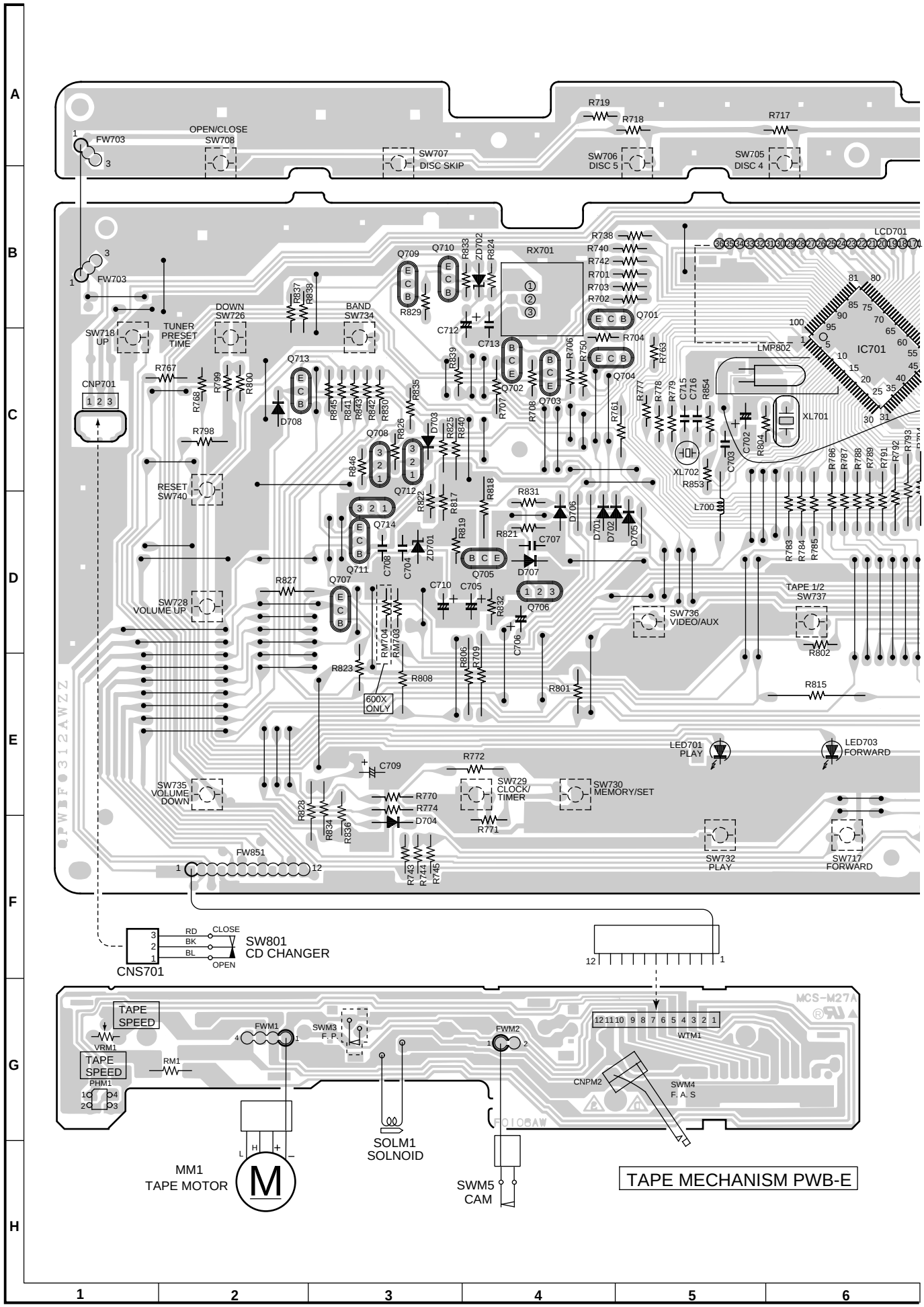
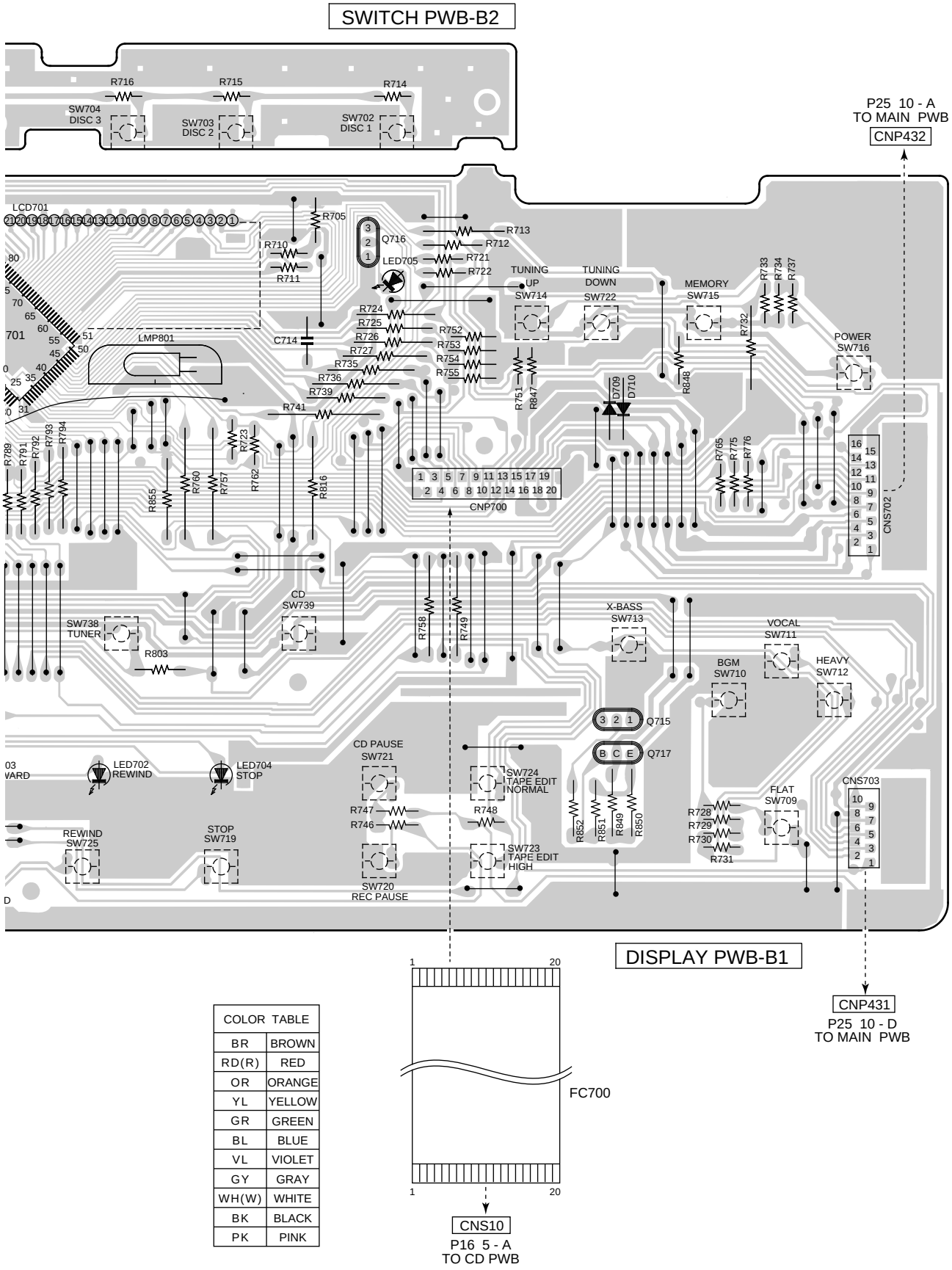


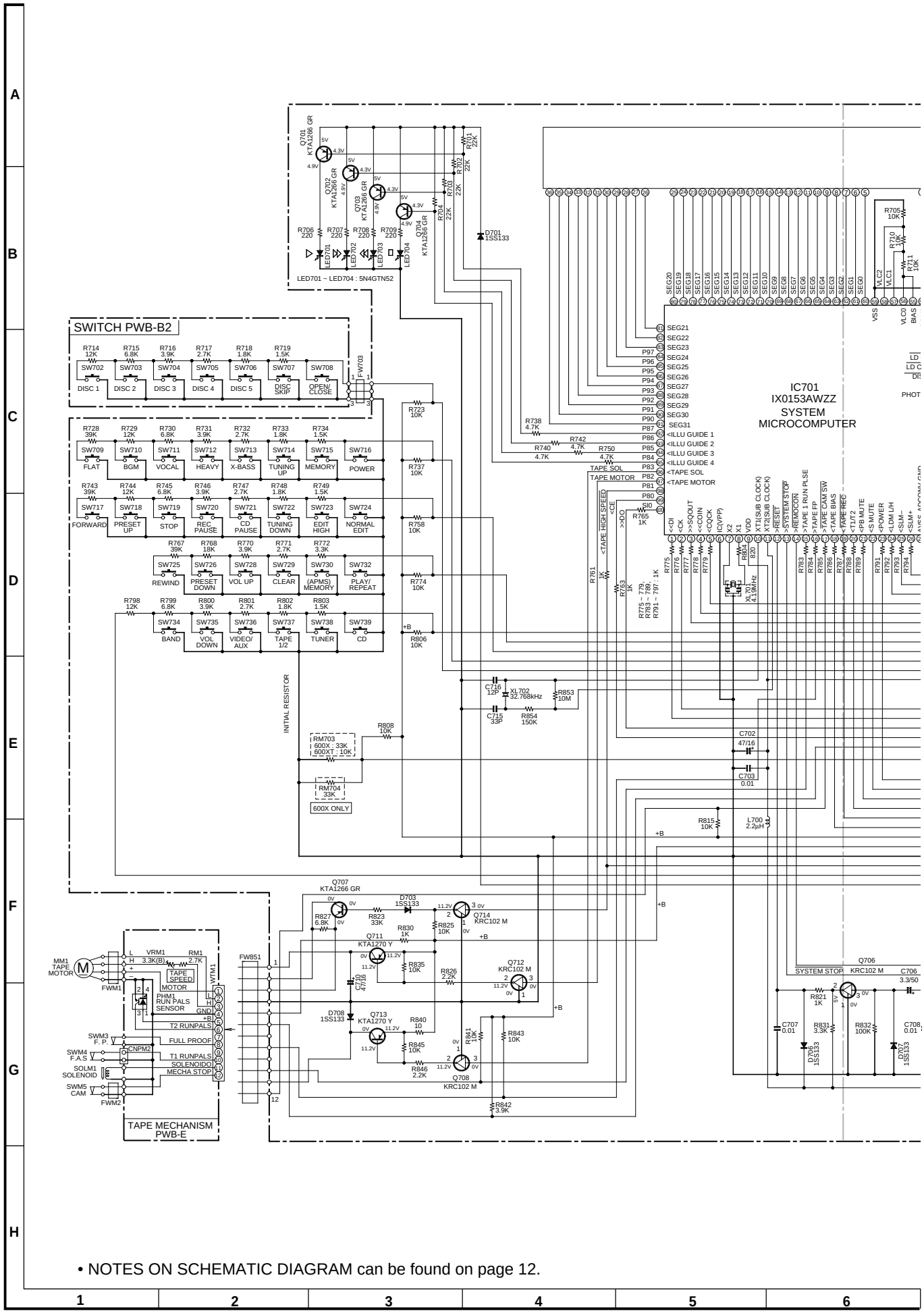
Figure 20 WIRING SIDE OF P.W.BOARD (3/7)



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

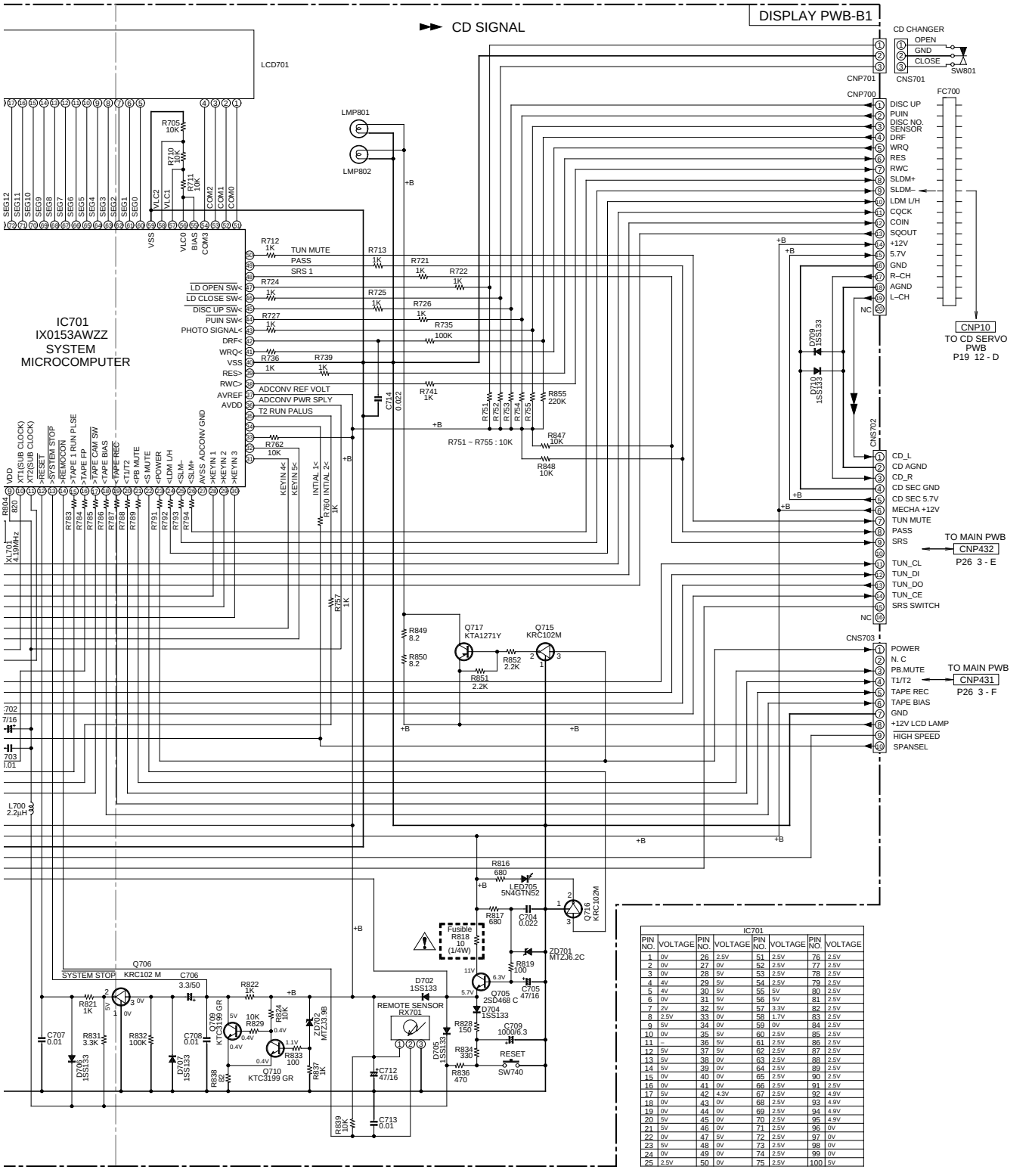
7	8	9	10	11	12

Figure 21 WIRING SIDE OF P.W.BOARD (4/7)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 12.

Figure 22 SCHEMATIC DIAGRAM (3/14)



IC701							
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	0V	26	2.5V	51	2.5V	76	2.5V
2	0V	27	0V	52	2.5V	77	2.5V
3	0V	28	5V	53	2.5V	78	2.5V
4	4V	29	5V	54	2.5V	79	2.5V
5	4V	30	5V	55	5V	80	2.5V
6	0V	31	5V	56	5V	81	2.5V
7	2V	32	5V	57	3.3V	82	2.5V
8	2.5V	33	0V	58	1.7V	83	2.5V
9	5V	34	0V	59	0V	84	2.5V
10	0V	35	5V	60	2.5V	85	2.5V
11	–	36	5V	61	2.5V	86	2.5V
12	5V	37	5V	62	2.5V	87	2.5V
13	5V	38	0V	63	2.5V	88	2.5V
14	5V	39	0V	64	2.5V	89	2.5V
15	0V	40	0V	65	2.5V	90	2.5V
16	0V	41	0V	66	2.5V	91	2.5V
17	5V	42	4.3V	67	2.5V	92	4.9V
18	0V	43	0V	68	2.5V	93	4.9V
19	0V	44	0V	69	2.5V	94	4.9V
20	5V	45	0V	70	2.5V	95	4.9V
21	5V	46	0V	71	2.5V	96	0V
22	0V	47	5V	72	2.5V	97	0V
23	5V	48	0V	73	2.5V	98	0V
24	0V	49	0V	74	2.5V	99	0V
25	2.5V	50	0V	75	2.5V	100	5V

7	8	9	10	11	12

Figure 23 SCHEMATIC DIAGRAM (4/14)

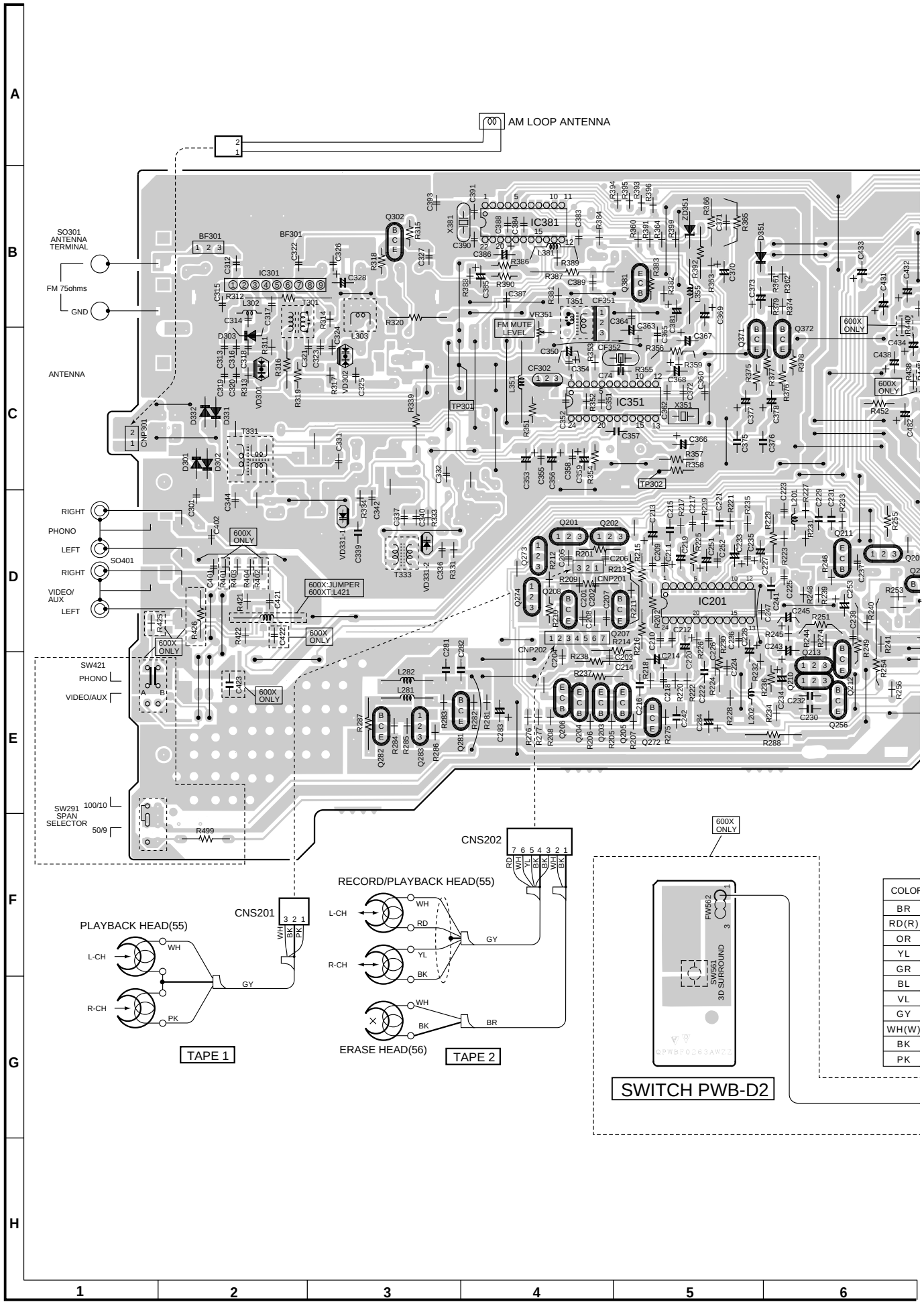
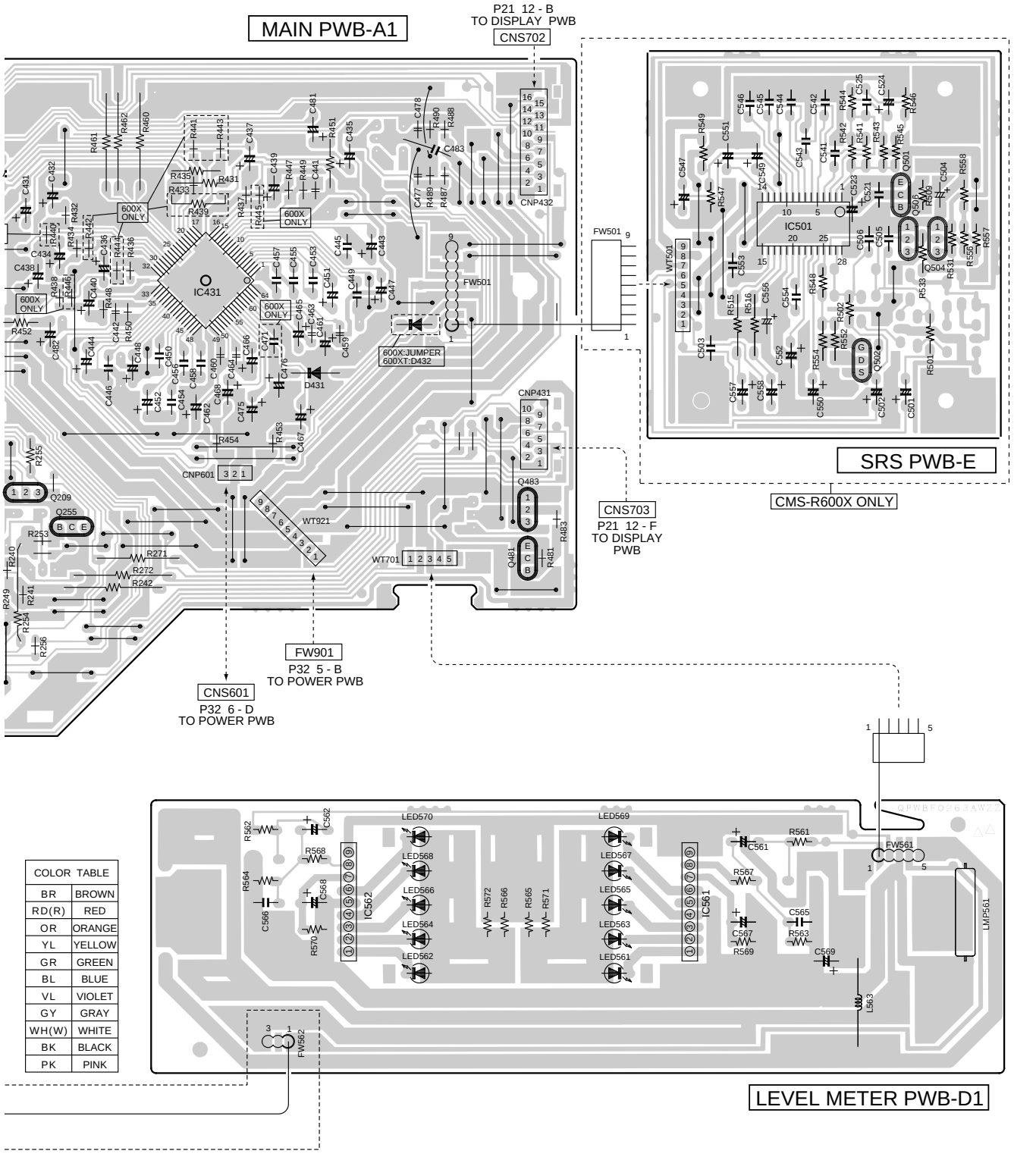


Figure 24 WIRING SIDE OF P.W.BOARD (5/7)



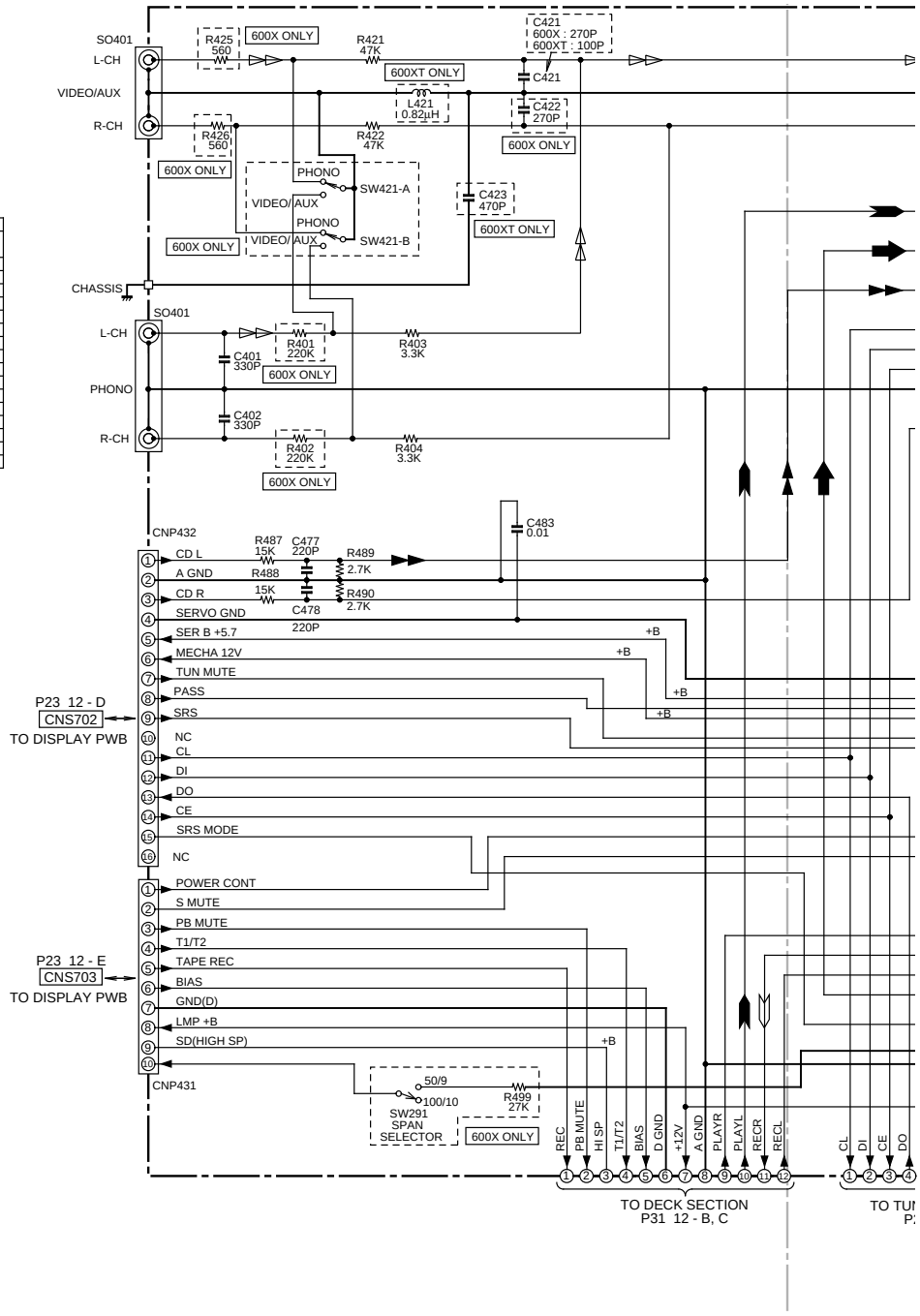
COLOR TABLE	
BR	BROWN
RD(R)	RED
OR	ORANGE
YL	YELLOW
GR	GREEN
BL	BLUE
VL	VIOLET
GY	GRAY
WH(W)	WHITE
BK	BLACK
PK	PINK

7	8	9	10	11	12

Figure 25 WIRING SIDE OF P.W.BOARD (6/7)

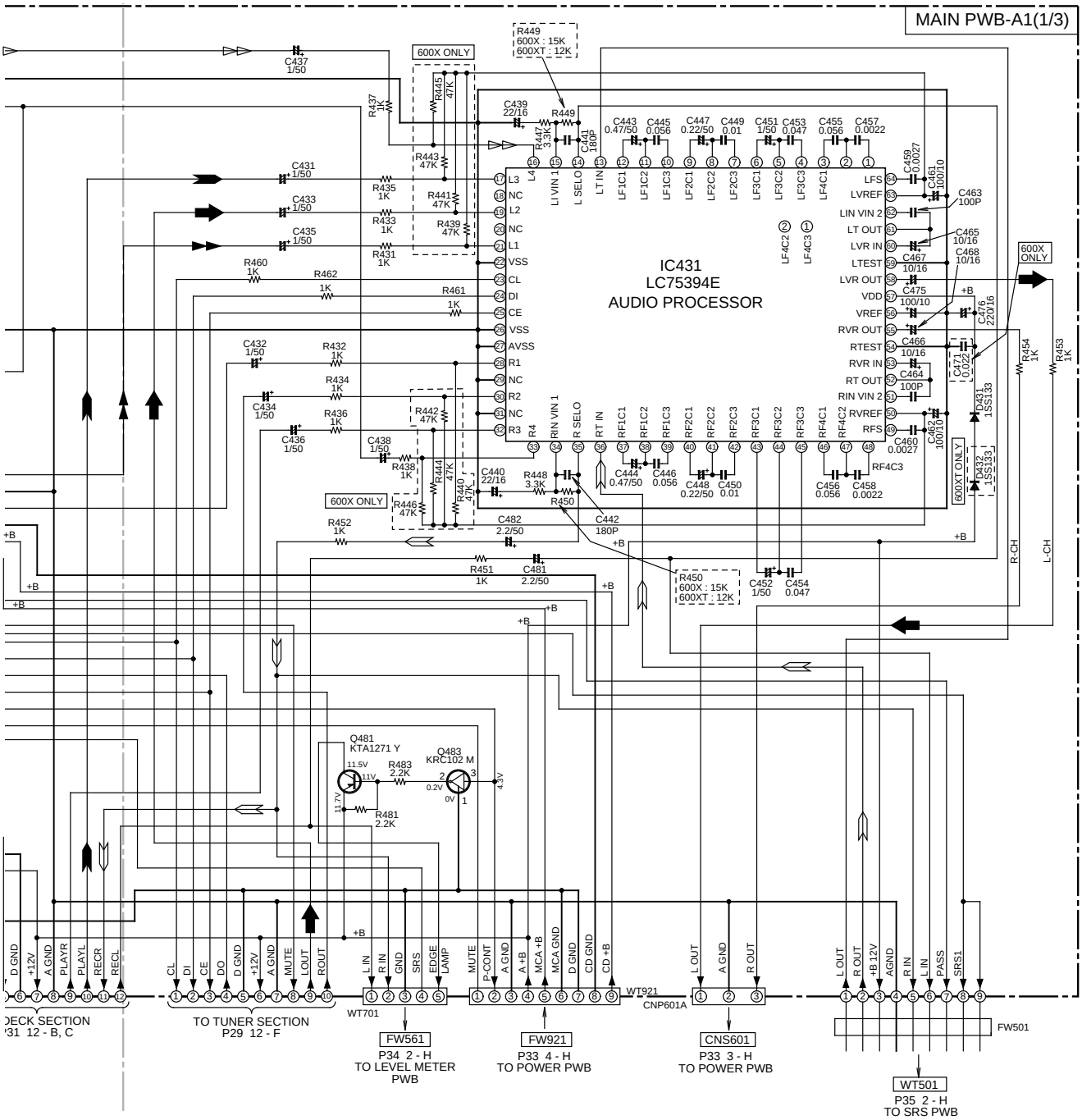
FM SIGNAL
PLAYBACK SIGNAL
RECORD SIGNAL
CD SIGNAL
VIDEO/AUX SIGNAL

IC431							
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	5.6V	17	5.6V	33	5.6V	49	5.6V
2	5.6V	18	0V	34	5.6V	50	5.6V
3	5.6V	19	5.6V	35	5.6V	51	5.6V
4	5.6V	20	0V	36	5.6V	52	0V
5	5.6V	21	5.6V	37	5.6V	53	5.6V
6	5.6V	22	0V	38	5.6V	54	0V
7	5.6V	23	0V	39	5.6V	55	5.6V
8	5.6V	24	0V	40	5.6V	56	5.6V
9	5.6V	25	0V	41	5.6V	57	11V
10	5.6V	26	0V	42	5.6V	58	5.6V
11	5.6V	27	0V	43	5.6V	59	0V
12	5.6V	28	5.6V	44	5.6V	60	5.6V
13	5.6V	29	0V	45	5.6V	61	0V
14	5.6V	30	5.6V	46	5.6V	62	5.6V
15	5.6V	31	0V	47	5.6V	63	5.6V
16	5.6V	32	5.6V	48	5.6V	64	5.6V



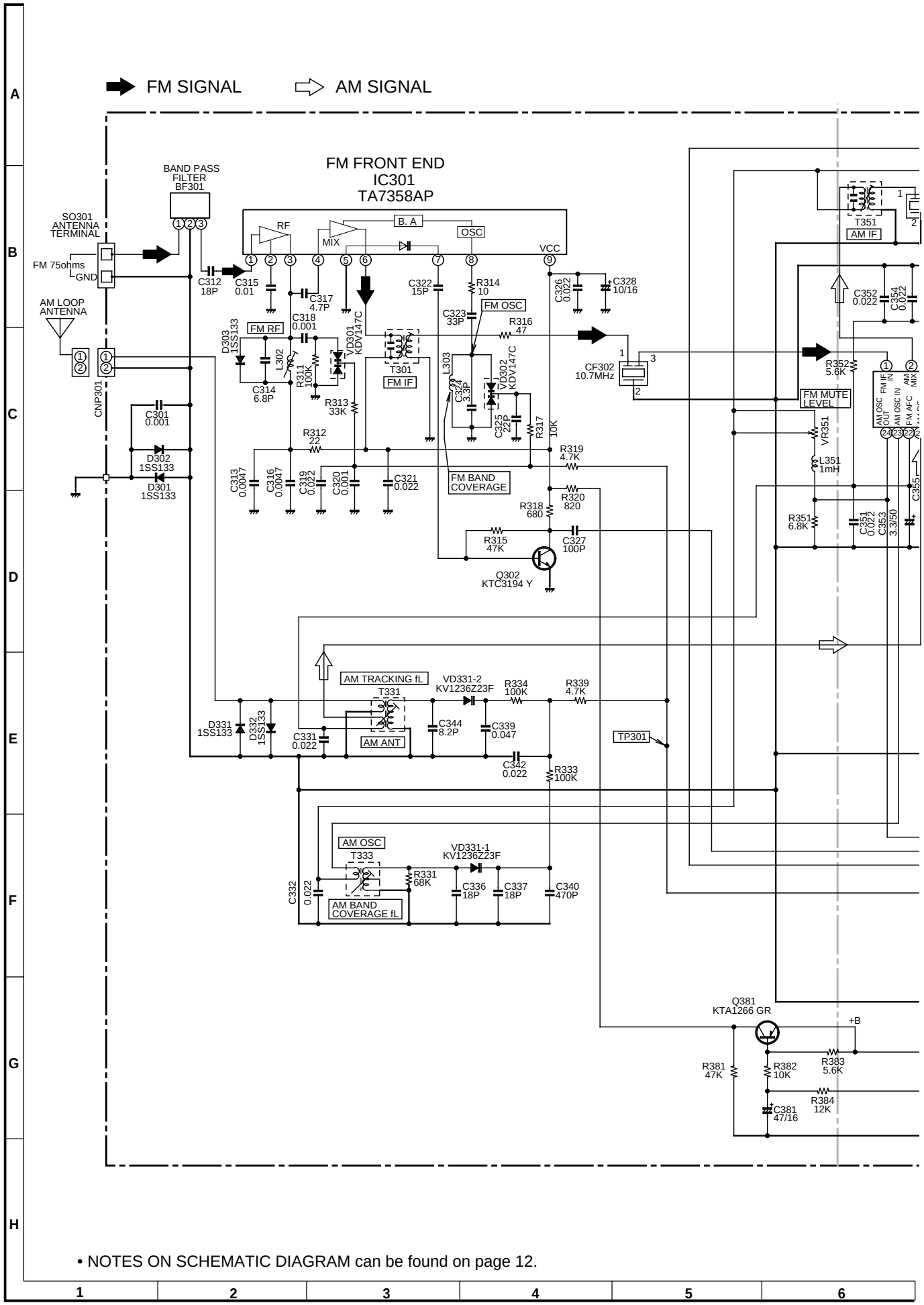
• NOTES ON SCHEMATIC DIAGRAM can be found on page 12.

Figure 26 SCHEMATIC DIAGRAM (5/14)



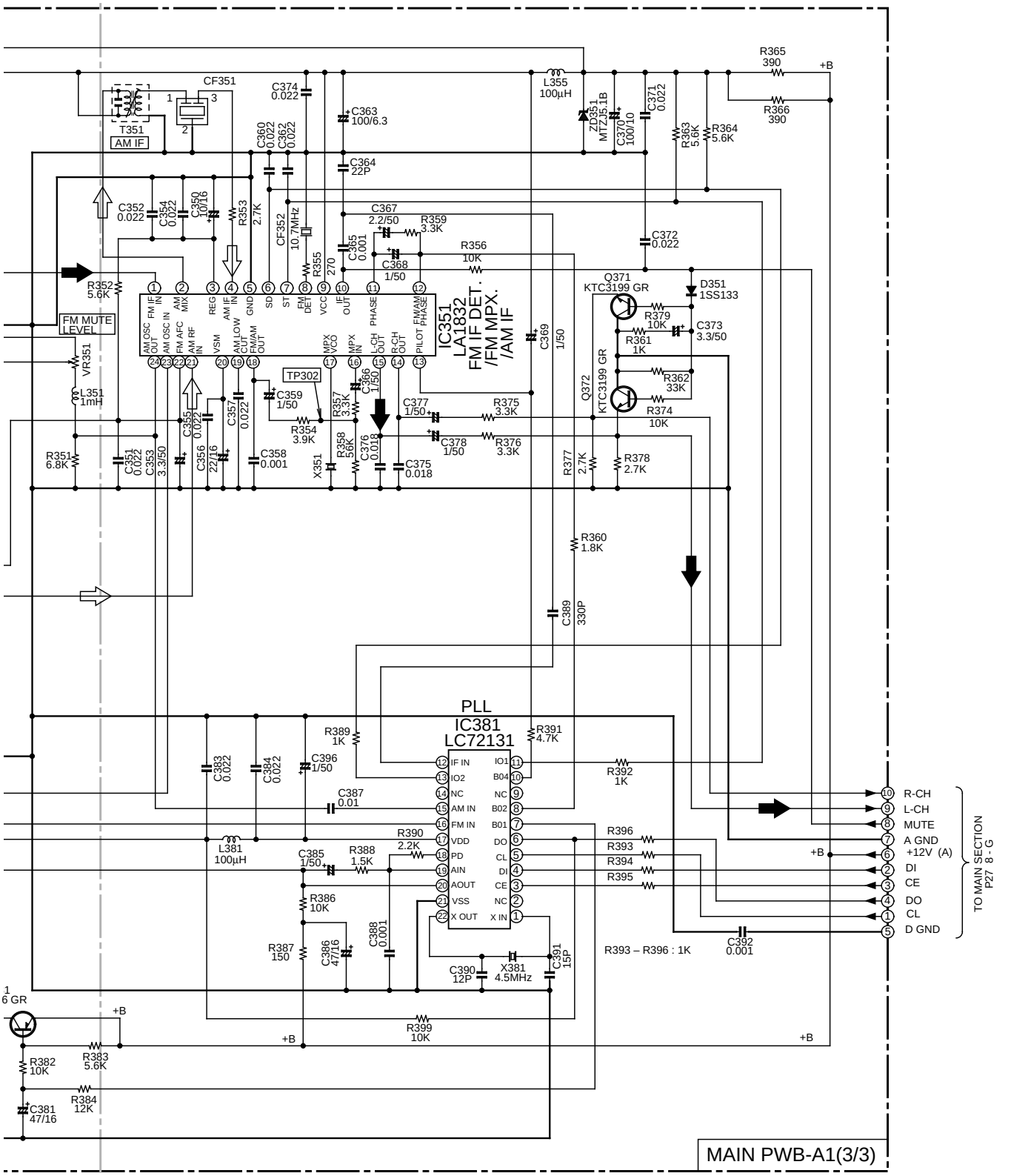
7	8	9	10	11	12

Figure 27 SCHEMATIC DIAGRAM (6/14)



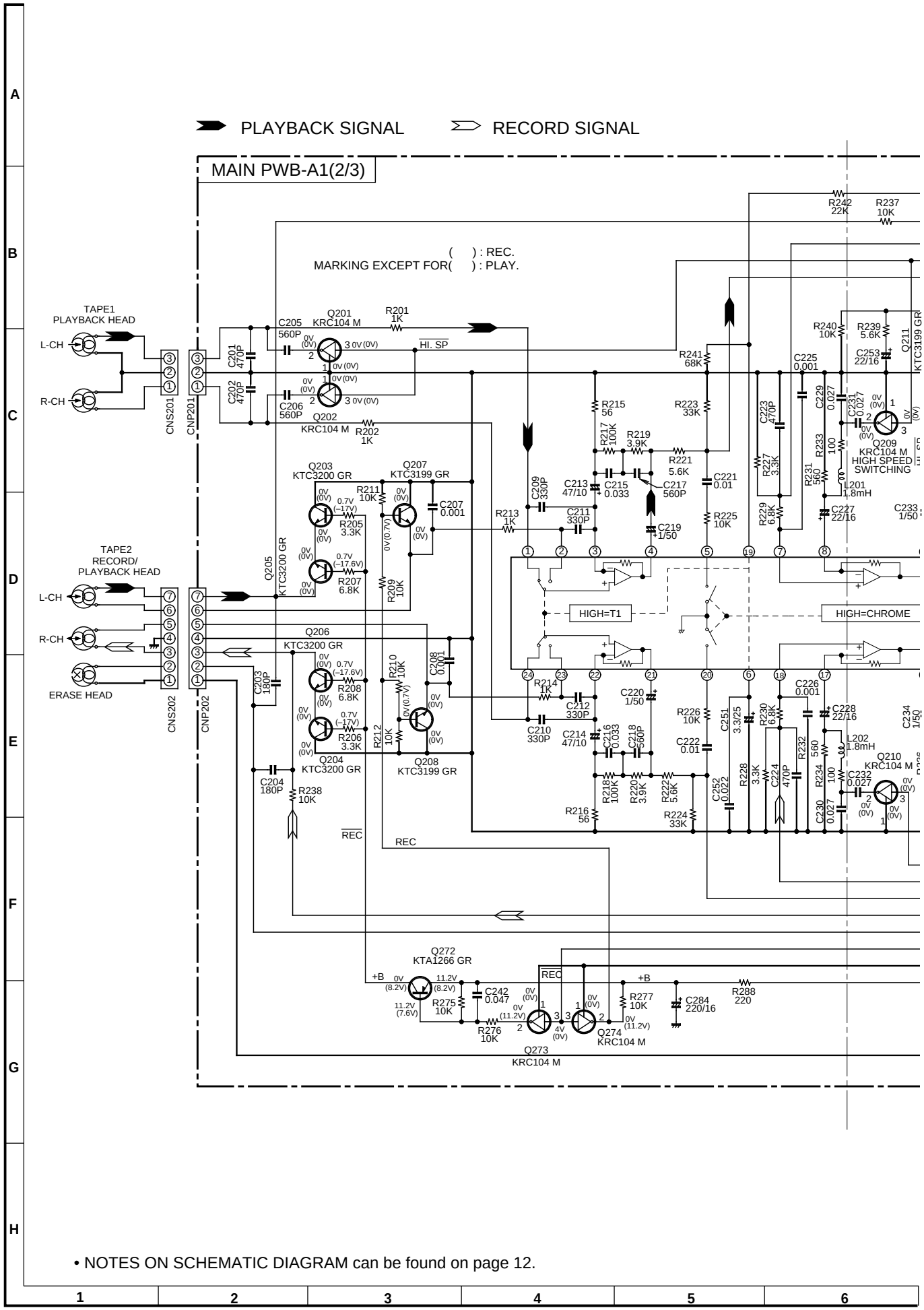
• NOTES ON SCHEMATIC DIAGRAM can be found on page 12.

Figure 28 SCHEMATIC DIAGRAM (7/14)



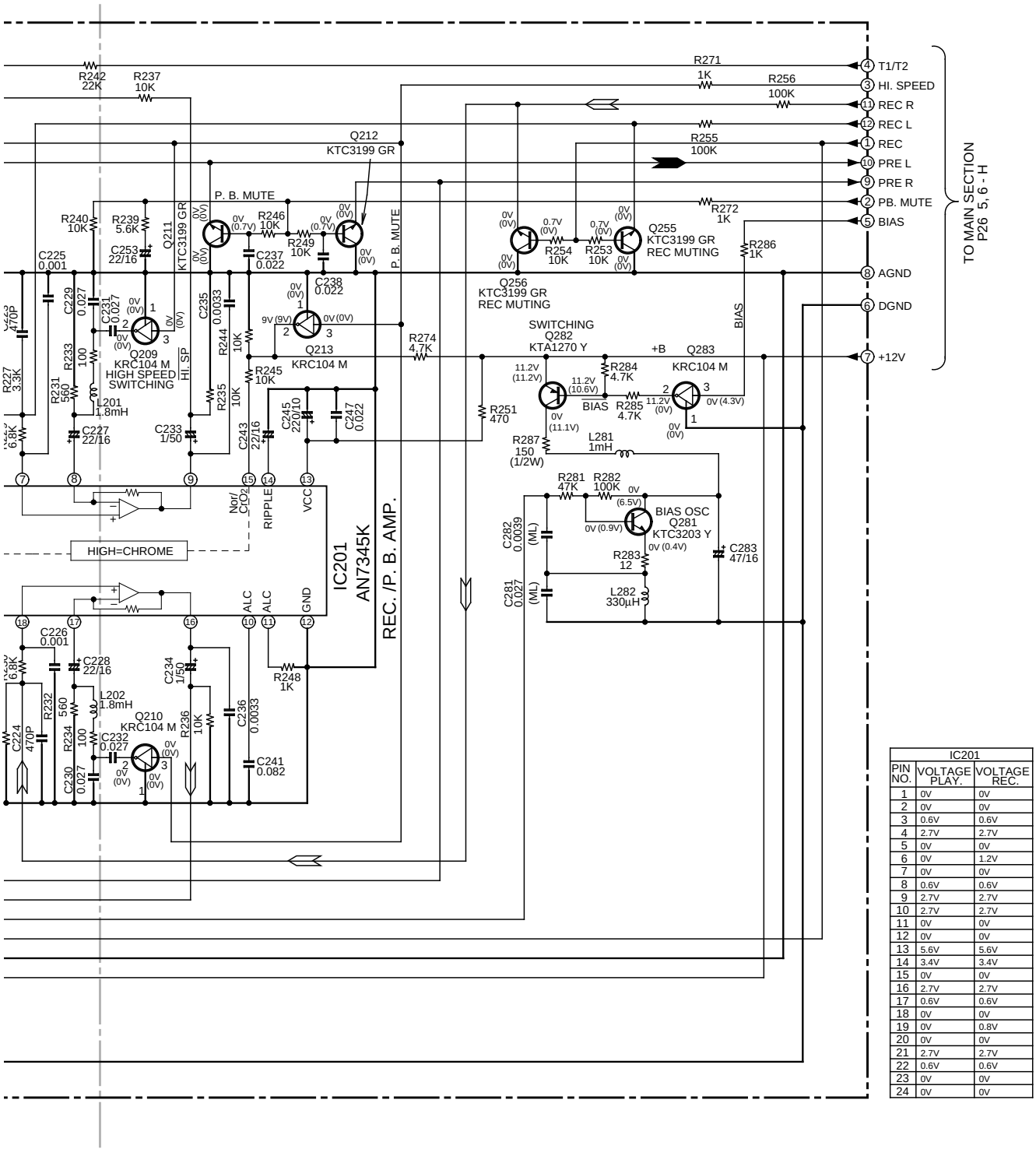
7	8	9	10	11	12

Figure 29 SCHEMATIC DIAGRAM (8/14)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 12.

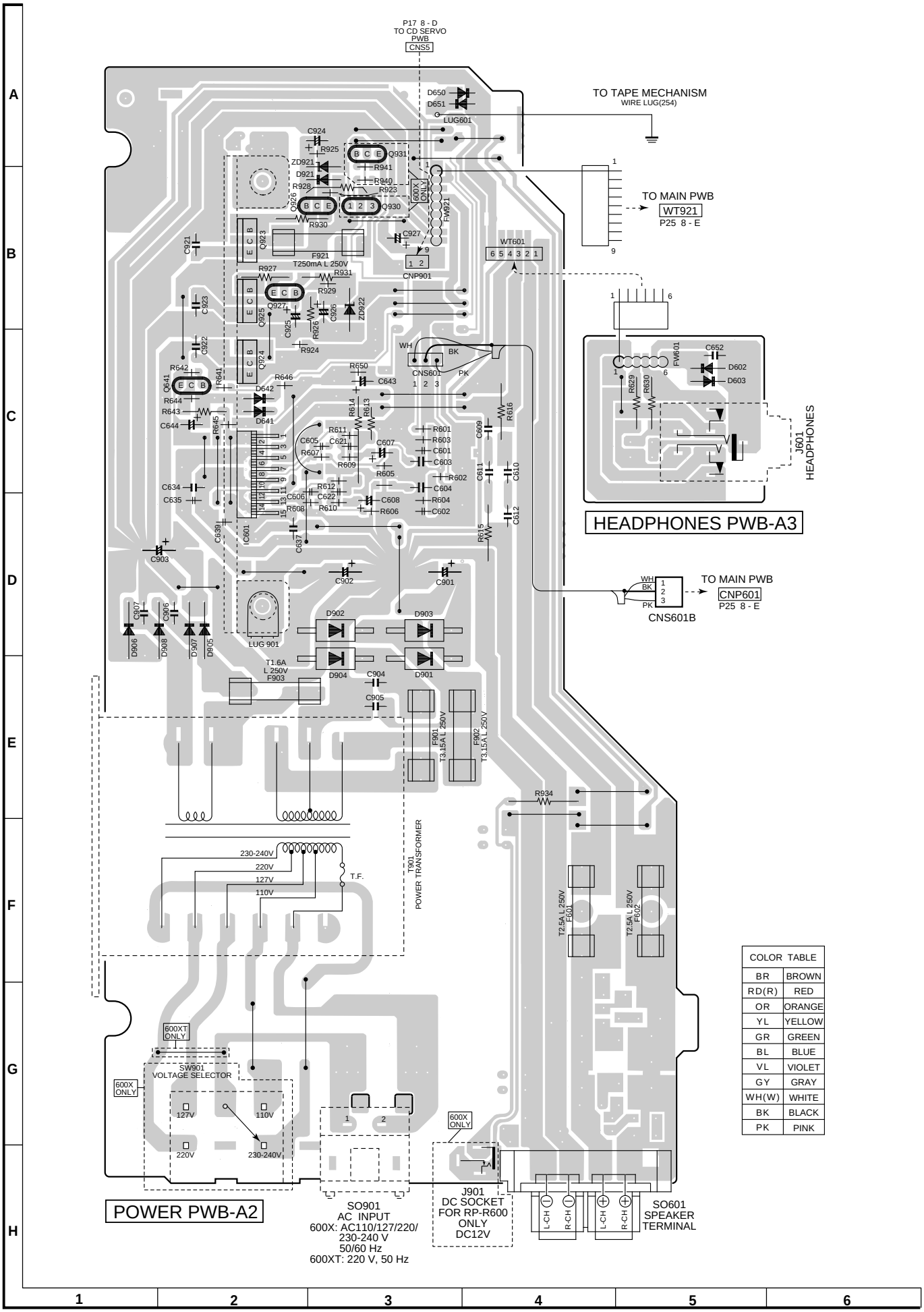
Figure 30 SCHEMATIC DIAGRAM (9/14)



IC201		
PIN NO.	VOLTAGE PLAY.	VOLTAGE REC.
1	0V	0V
2	0V	0V
3	0.6V	0.6V
4	2.7V	2.7V
5	0V	0V
6	0V	1.2V
7	0V	0V
8	0.6V	0.6V
9	2.7V	2.7V
10	2.7V	2.7V
11	0V	0V
12	0V	0V
13	5.6V	5.6V
14	3.4V	3.4V
15	0V	0V
16	2.7V	2.7V
17	0.6V	0.6V
18	0V	0V
19	0V	0.8V
20	0V	0V
21	2.7V	2.7V
22	0.6V	0.6V
23	0V	0V
24	0V	0V

7	8	9	10	11	12

Figure 31 SCHEMATIC DIAGRAM (10/14)



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

Figure 32 WIRING SIDE OF P.W.BOARD (7/7)

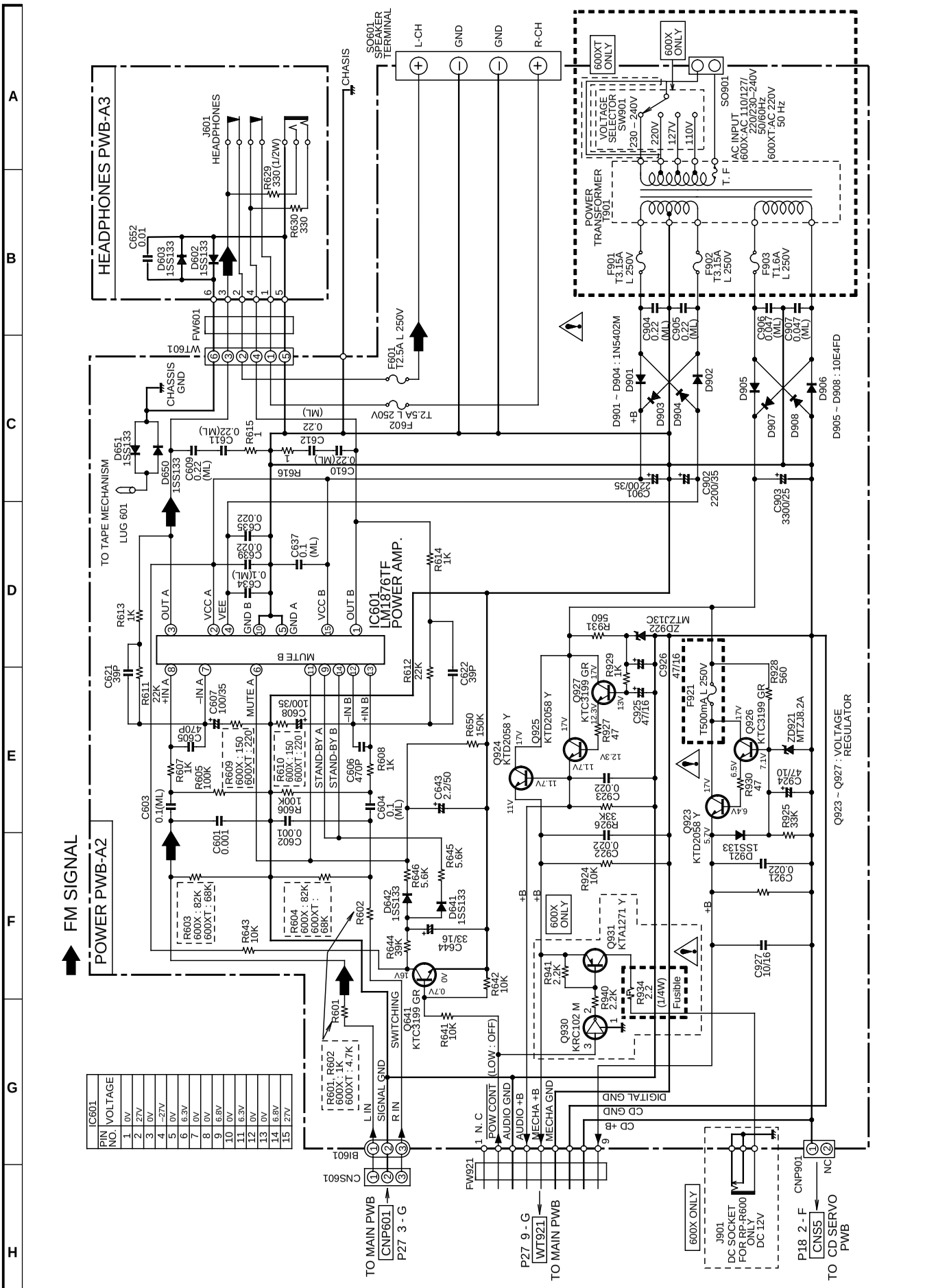
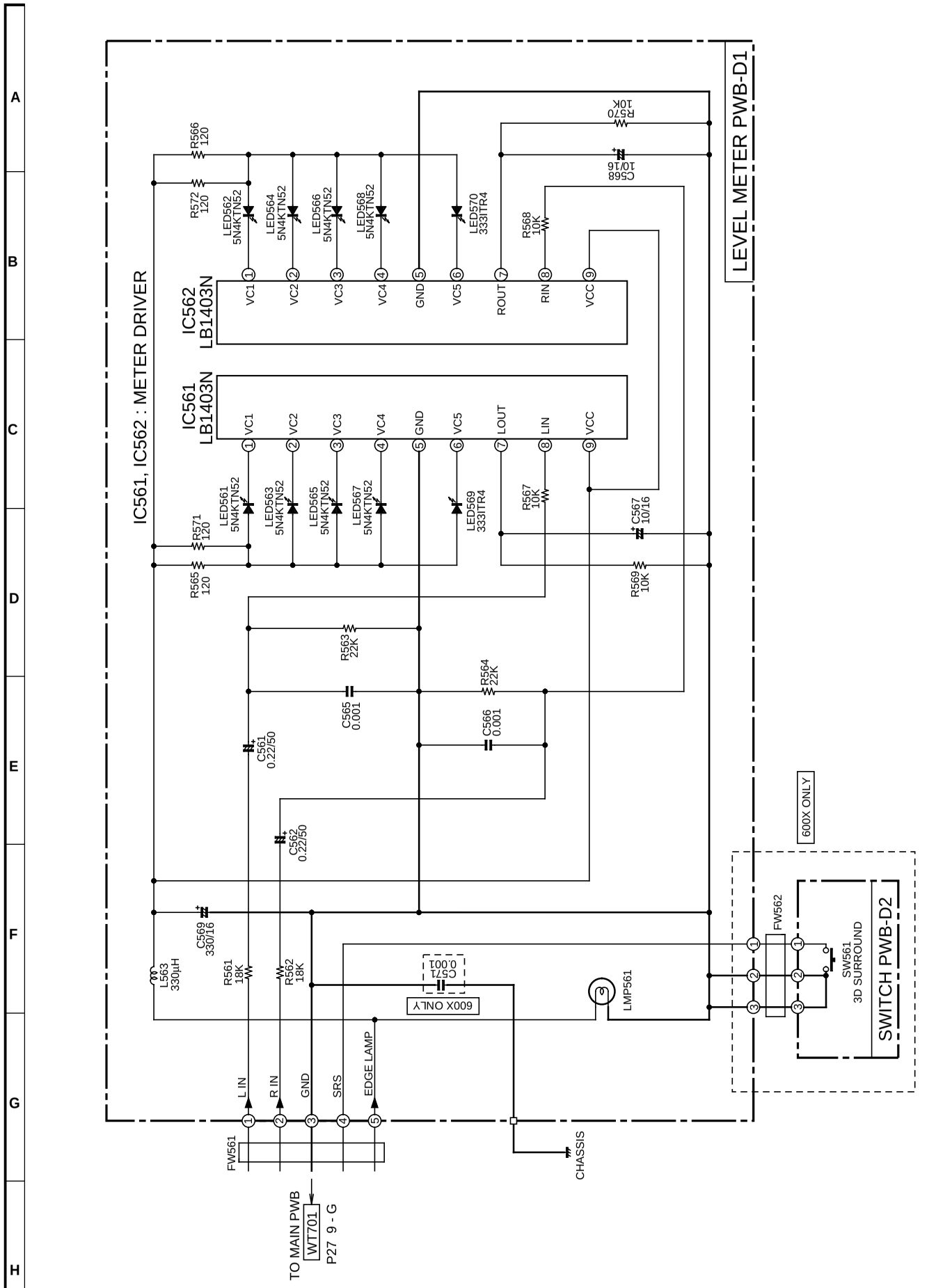


Figure 33 SCHEMATIC DIAGRAM (11/14)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 12.

Figure 34 SCHEMATIC DIAGRAM (13/14)

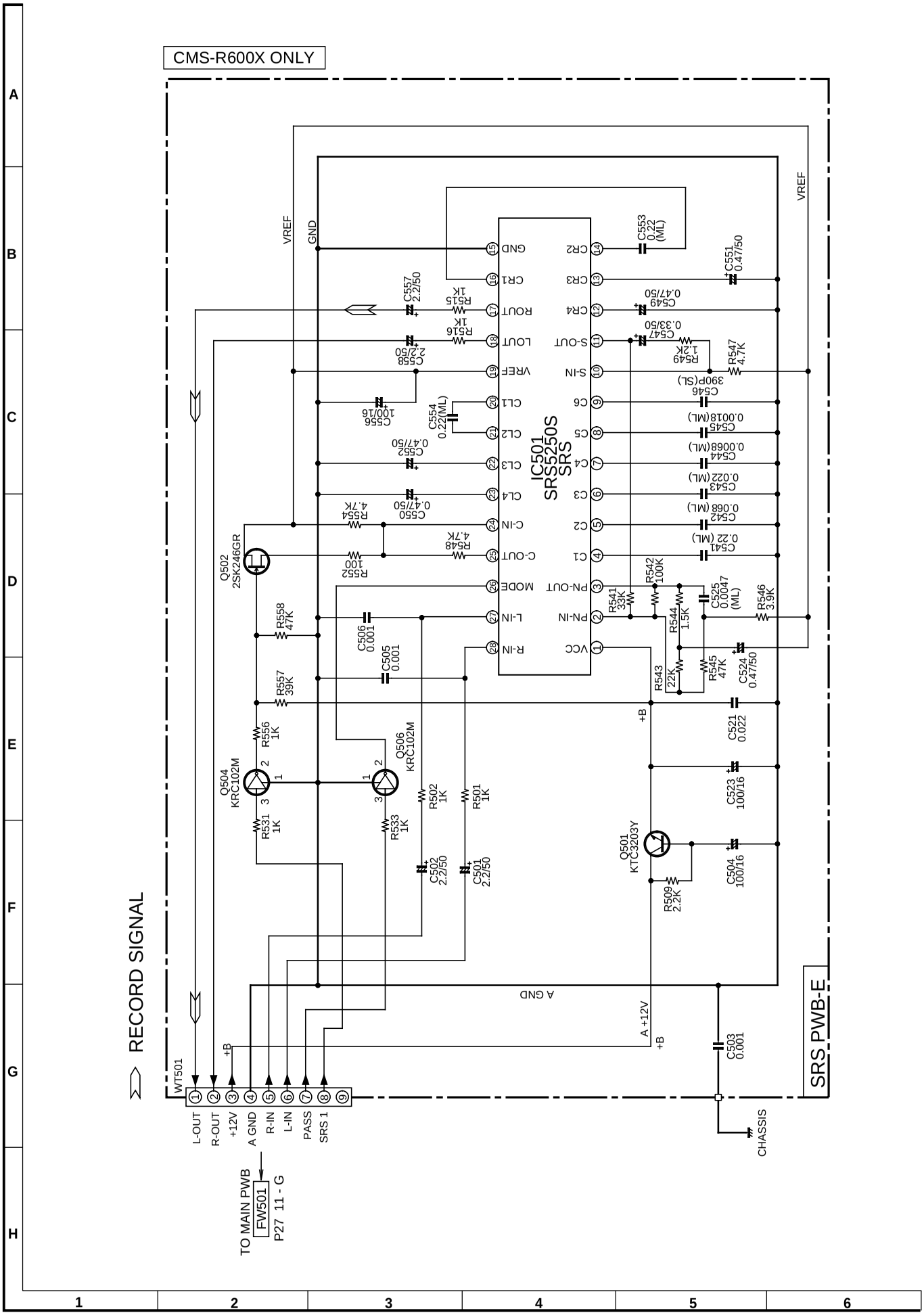


Figure 35 SCHEMATIC DIAGRAM (14/14)

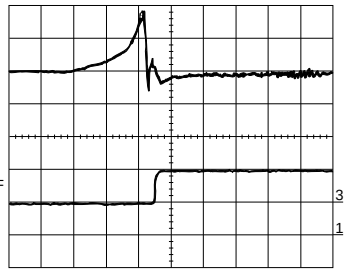
WAVEFORMS OF CD CIRCUIT

STOP → PLAY

FOCUS — SERCH

❶ 5ms 0.50 V IC1 (20) F.E

❷ 5ms 5.0 V IC1 (54) DRF

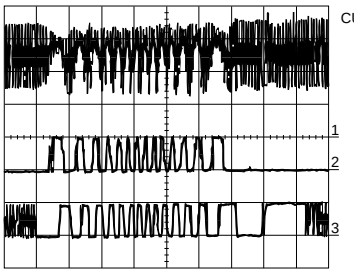


❸ 0.5ms 1.00 V HF

❹ 0.5ms 5.0 V HFL

❺ 0.5ms 5.0 V TES

CUE

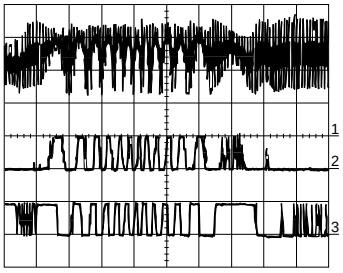


❸ 0.5ms 1.00 V HF

❹ 0.5ms 5.0 V HFL

❺ 0.5ms 5.0 V TES

REVIEW



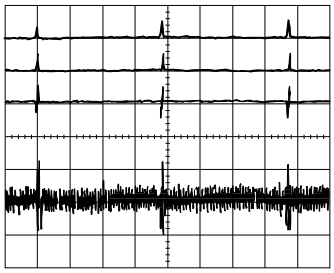
❻ 50ms 10.0 V JP+

❼ 50ms 10.0 V JP-

❽ 50ms 0.50 V JP

❾ 50ms 1.00 V TE

CUE

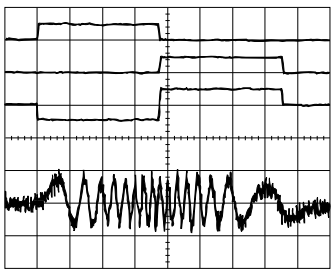


❻ 0.5ms 10.0 V JP+

❼ 0.5ms 10.0 V JP-

❽ 0.5ms 0.50 V JP

❾ 0.5ms 1.00 V TE



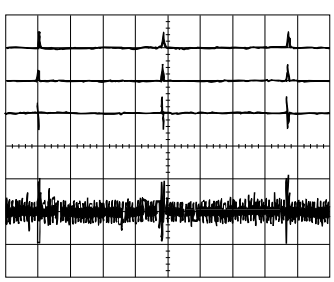
❻ 50ms 10.0 V JP+

❼ 50ms 10.0 V JP-

❽ 50ms 0.50 V JP

❾ 50ms 1.00 V TE

REVIEW

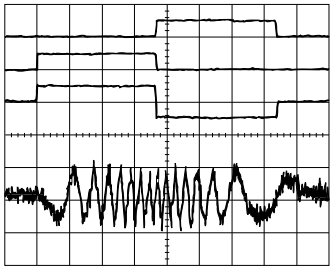


❻ 0.5ms 10.0 V JP+

❼ 0.5ms 10.0 V JP-

❽ 0.5ms 0.50 V JP

❾ 0.5ms 1.00 V TE



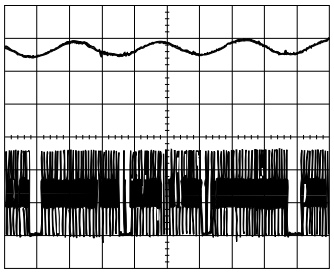
PLAY

NORMAL DISC

TN0=01

❿ 20ms 1.00 V SPO

⓫ 20ms 2.00 V CLV+



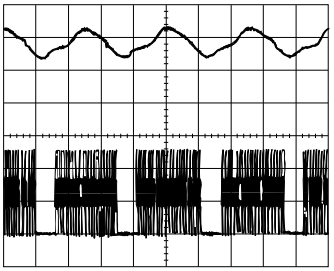
PLAY

TCD-712 (140mm)

TN0=01

❿ 50ms 1.00 V SPO

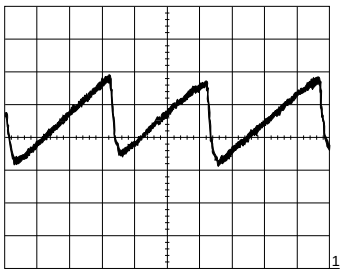
⓫ 50ms 2.00 V CLV+



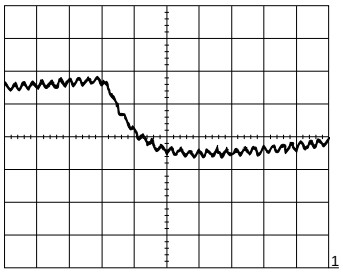
PLAY

TCD-712

⓬ 5s 100mV SLD

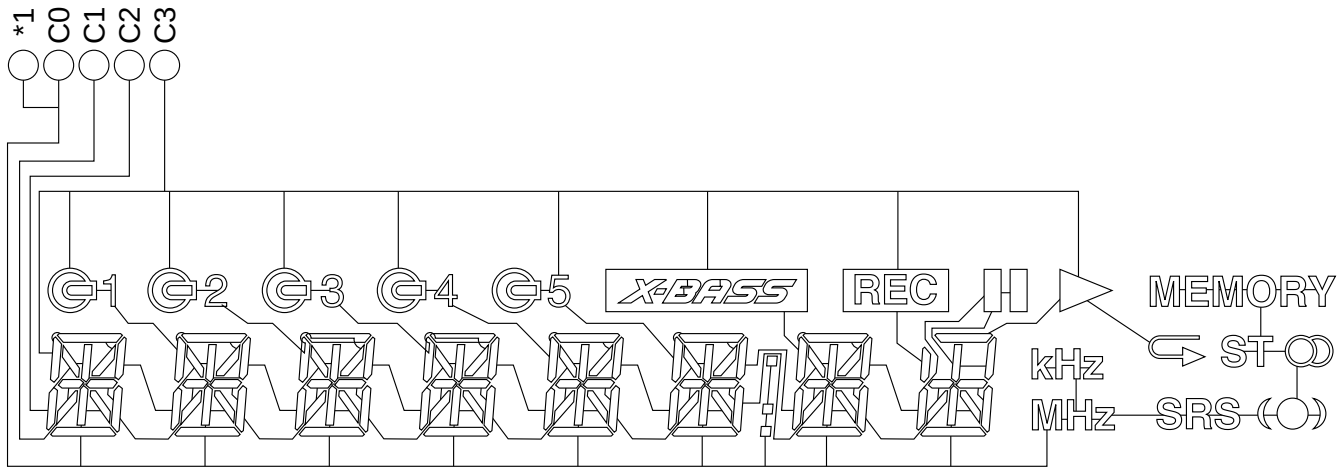


⓬ 0.5s 100mV SLD

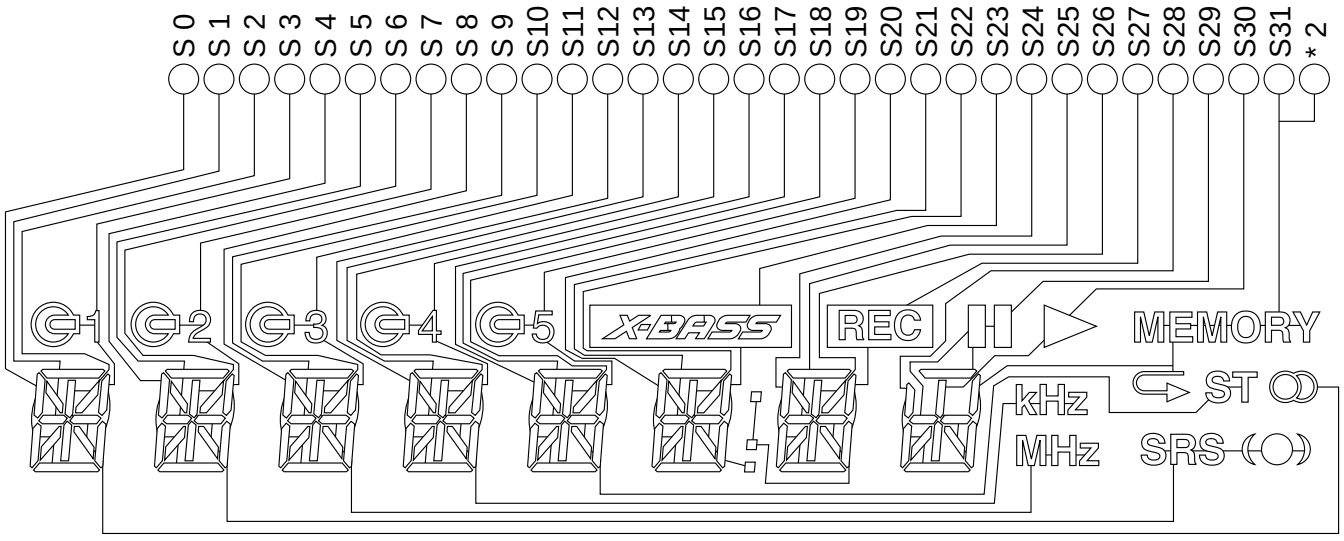


LCD701 : RV-LX0019AWZZ LCD Display

COMMON



SEGMENT



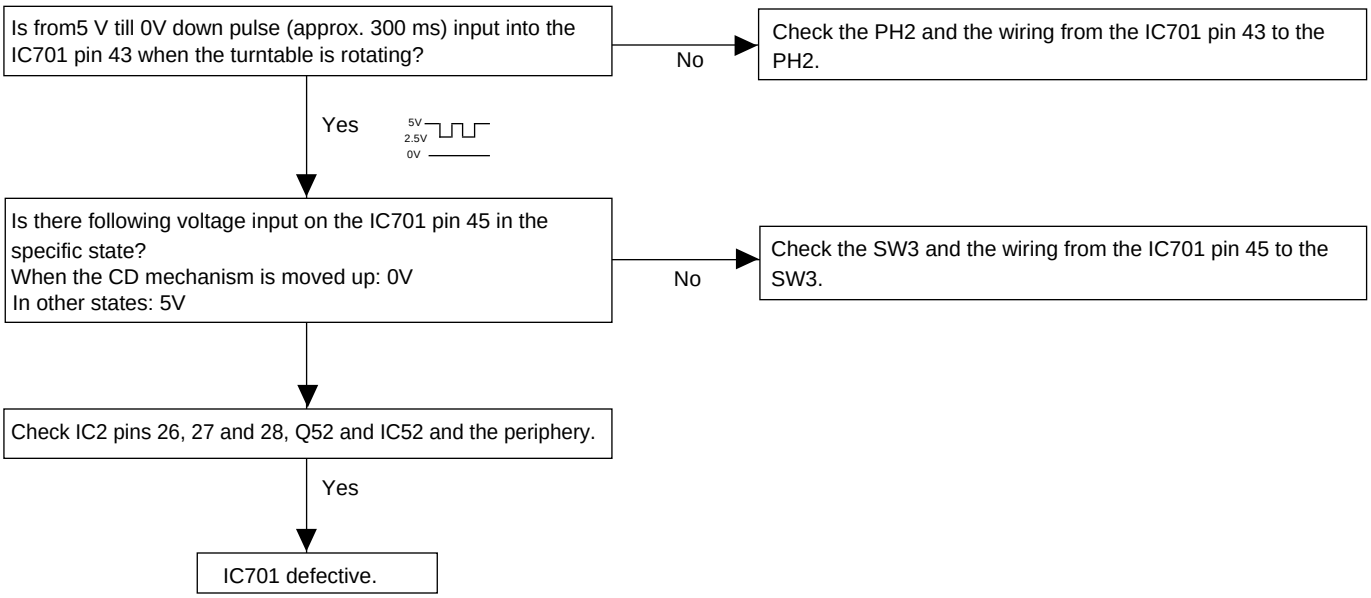
TROUBLESHOOTING (CD SECTION)

When the CD does not function

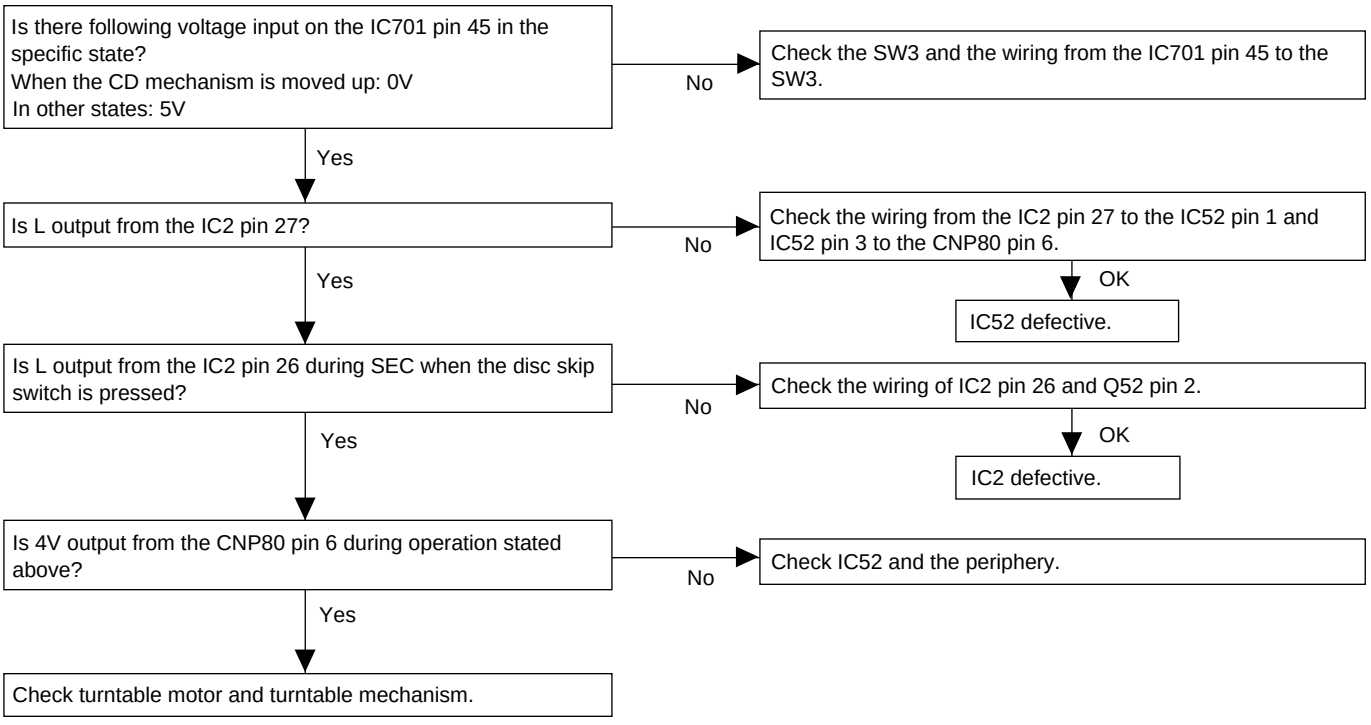
When the CD section does not operate When the objective lens of the optical pickup is dirty,this section may not operate.Clean the objective lens,and check the playback operation.When this section does not operate even after the above step is taken,check the following items.
Remove the cabinet and follow the troubleshooting instructions.
"Track skipping and/or no TOC(Table Of Contents) may be caused by build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

Turn the power off.
Gently clean the lens with a lens cleaning tissue and a small amount of isopropyl alcohol.
Do not touch the lens with the bare hand.

• When the turntable fails to stop.



• When turntable fails to move.



• When the CD tray fails to open or close.

Is there following voltage input in specific state of IC701 pin 46 and 47 pin?
Open state: 0V (IC701 pin 47)
Close state: 0V (IC701 pin 46)
Intermediate state between open state and close state: 5V

No → Check the wiring of the IC2 pins 24 and 25, IC91 pins 1 and 3.

Yes ↓

Check the SW801 and the wiring from the IC701 pin 46 and pin 47 to the SW801.

No → Is H output to IC2 pin 24 or 25 for 7 seconds when the OPEN/CLOSE key is pressed? IC51 is defective. Replace it.

OK → IC2 defective.

Yes ↓

Is 4V output between IC51 pin 3 and pin 7 during operation stated above?

No → Check the periphery of IC51.

OK → IC51 defective.

Yes ↓

Check the loading motor (M1) and the loading mechanism.

• The CD function will not work.

The CD operating keys don't work.

Yes ↓

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

Yes ↓

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

Yes ↓

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

Yes ↓

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

• The CD operating keys work.

Check the Focus - HF system.

Playback can be performed without a disc.

Yes ↓

Does the pick-up move up and down twice?

Yes → Focus search OK

No ↓

Does the output waveform of IC1(16)(FD) match that shown in Fig. 39?

Yes → Check the area around IC5-CNP3.

No ↓

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

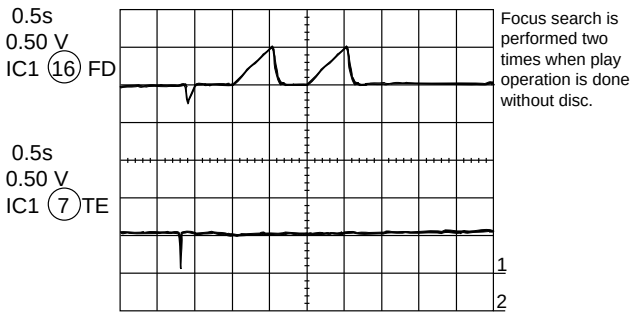


Figure 39

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

Is the Focus servo active? (Can you hear it working?)
- No → Check the laser diode driver. Check the area around IC1(16) - (21) (focus servo circuit).
- Yes ↓

Does the DRF signal change from "L" to "H"?
- No → If the disc is not turning, the DRF should not change to "H".
  - Yes → Check the spin system.
- Yes ↓

Is HF waveform normal (see the Fig. 40-1,2)?
- No → Level is abnormal.
  - Yes → Check the periphery of IC1 pins 41 and 42.
- No → Waveform is unstable.
  - Yes → Check the spin system.
- Yes ↓

Check the tracking system.

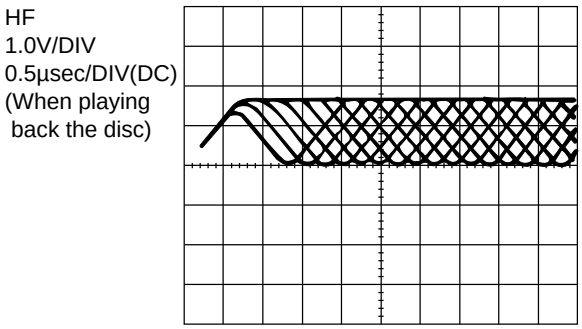


Figure 40-1

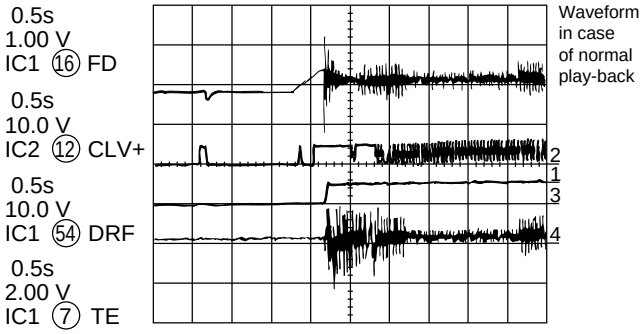


Figure 40-2

• Check the tracking system.

Check waveform of IC1 pin 7 (TE).
- Yes → The waveform shown in Fig. 40-3 appears, and no-disc state appears soon.
  - Yes → Tracking servo is inoperative.
    - Yes → Check the periphery of IC 1 pin 8 to pin 15, and IC 5 to CNP3.
- Yes → Play is possible in TEST mode.
  - Yes → Although IL is possible, play is impossible.
    - Yes → Normal jump is impeded, and the program top cannot be reached.
      - Yes → Check the periphery of IC 1 pin 14.
- Yes → Data cannot be read.
  - Yes → Check the VCO-PLL system.

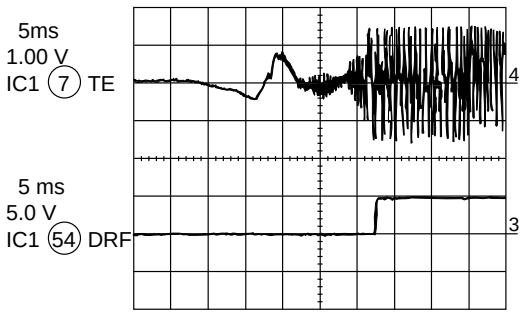


Figure 40-3

• Checking the spin system.

Play operation is performed without disc.

Yes

The turntable rotates a little. — Yes → The spin driver circuit is normal.

No

The turntable fails to rotate or rotates at high speed. — Yes → Check the periphery of IC1 pins 23 to 27, pin 39, and pin 40, IC2 pin 12 and pin 13, IC5 to CNP4.

• Checking the VCO-PLL system

Play operation is performed when disc exits.

Yes

Although HF waveform is normal, TOC data cannot be read. — Yes → Check PDO waveform (Fig. 41).

Abnormal

Check the IC1 pins 43 and 44, IC2 pins 3, 5, 7, 9, and 10.

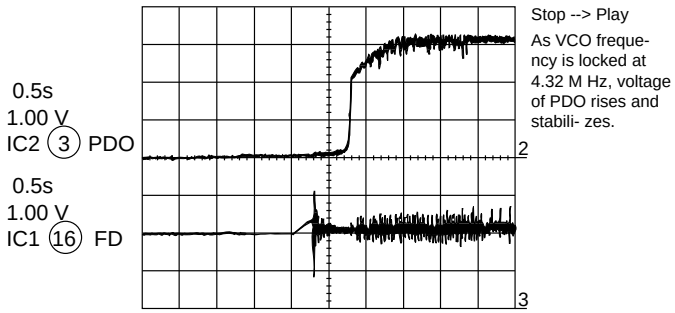


Figure 41

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

Check IC2 pin 48 (EFLG). — No → Usually, the number of pulses of flawless disc is 100 pulses/sec or less.

Yes

Check IC2 pins 37, 40.

Normal

Check IC431 and POWER AMP IC601.

FUNCTION TABLE OF IC

IC2 VHiLC78622E-1:Servo/Signal Control (1/2)

Pin No.	Terminal Name	Input/Output	Function		
1	DEFI	Input	Input terminal of defect detection signal (DEF). (Connected to OV when not used.)		
2	TAI	Input	For PLL	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.	
3	PDO	Output		Output terminal of phase comparison for external VCO control.	
4	VVSS	—		Ground terminal for integrated VCO. Surely connected to 0V.	
5	ISET	Input		Resistance connection terminal for current adjustment of PDO output.	
6	VVDD	—		Power terminal for integrated VCO.	
7	FR	Input		VCO frequency range adjustment.	
8	VSS	—	Ground terminal of digital system. Surely connected to 0V.		
9	EFMO	Output	For slice level control	EFM signal output terminal.	
10	EFMIN	Input		EFM signal input terminal.	
11	TEST2	Input	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.		
12	CLV+	Outout	Output for disk motor control. 3 values can be output with the commands.		
13	CLV-	Output	Output for disk motor control. 3 values can be output with the commands.		
14	V/P	Output	Monitor output terminal for automatic switch of rough servo/phase control. "H" for rough servo, and "L" for phase servo.		
15	HFL	Intput	Input terminal of track detection signal. Schmit input.		
16	TES	Input	Input terminal of tracking error signal. Schmit input.		
17	TOFF	Output	Tracking OFF output terminal.		
18	TGL	Output	Output terminal for switch of tracking gain "L" increases the gain.		
19	JP+	Output	Output for track jump control. 3 values can be output with the commands.		
20	JP-	Output	Output for track jump control. 3 values can be output with the commands.		
21*	PCK	Output	Clock monitor terminal for EFM data replay. 4,3218MHz as the phase clock.		
22*	FSEQ	Output	Output terminal synchronous signal detection. "H" is output when synchronous signal detected by EFM signal matches synchronous signal internally generated.		
23	VDD	—	Power terminal of digital system.		
24	CONT1	Input/Output	General purpose input/output terminal 1	Controlled with serial data command from micro computer. When not used, set it as the input terminal and open it by connecting to 0V, or set it as the output terminal and open it.	
25	CONT2	Input/Output	General purpose input/output terminal 2		
26	CONT3	Input/Output	General purpose input/output terminal 3		
27	CONT4	Input/Output	General purpose input/output terminal 4		
28	CONT5	Input/Output	General purpose input/output terminal 5		
29*	EMPH	Output	Difference monitor terminal At "H", deemphasis disk is being replayed.		
30*	C2F	Output	C2 flag output terminal.		
31*	DOUT	Output	Output terminal of digital OUTPUT. (EIAJ format)		
32	TEST3	Input	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.		
33	TEST4	Input	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.		
34*	N.C.	—	Terminal not used. Open during operation.		
35*	MUTEL	Output	L channel 1 bit DAC	Mute output terminal for L channel.	
36	LVDD	—		Power terminal for L channel.	
37	LCHO	Output		L channel output terminal.	
38	LVSS	—		Ground terminal for L channel Surely connected to 0V.	
39	RVSS	—	R channel 1 bit DAC	Ground terminal for R channel Surely connected to 0V.	
40	RCH0	Output		R channel output terminal.	
41	RVDD	—		Power terminal for R channel.	
42*	MUTER	Output		Mute output terminal for R channel.	
43	XVDD	—	Power terminal for quartz oscillation.		
44	XOUT	Output	Ground terminal of 16.9344 MHz quartz oscillator.		
45	XIN	Input	Ground terminal of 16.9344 MHz quartz oscillator.		
46	XVSS	—	Ground terminal for quartz oscillation. Surely connected to 0V.		
47*	SBSY	Output	Output terminal of synchronous signal of subcode block.		
48*	EFLG	Output	Correction monitor terminal of C1, C2, single and double.		

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

IC2 VHiLC78622E-1:Servo/Signal Control (2/2)

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

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

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

IC2 VHiLC78622E-1:Servo/Signal Control

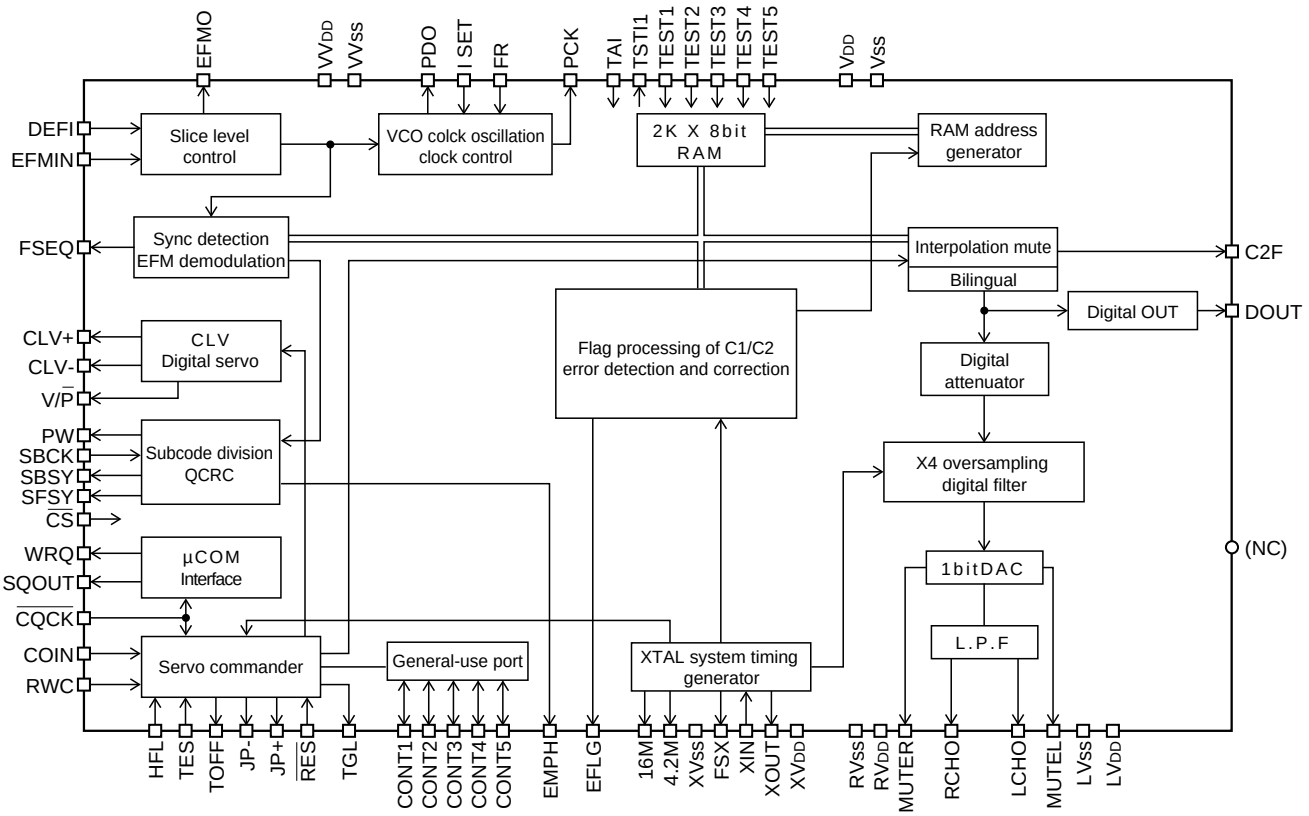


Figure 43 BLOCK DIAGRAM OF IC

IC1 VHiLA9240M/-1:Servo Amp. (1/2)

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

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

IC1 VHiLA9240M/-1:Servo Amp. (2/2)

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

IC1 VHiLA9240M/-1:Servo Amp.

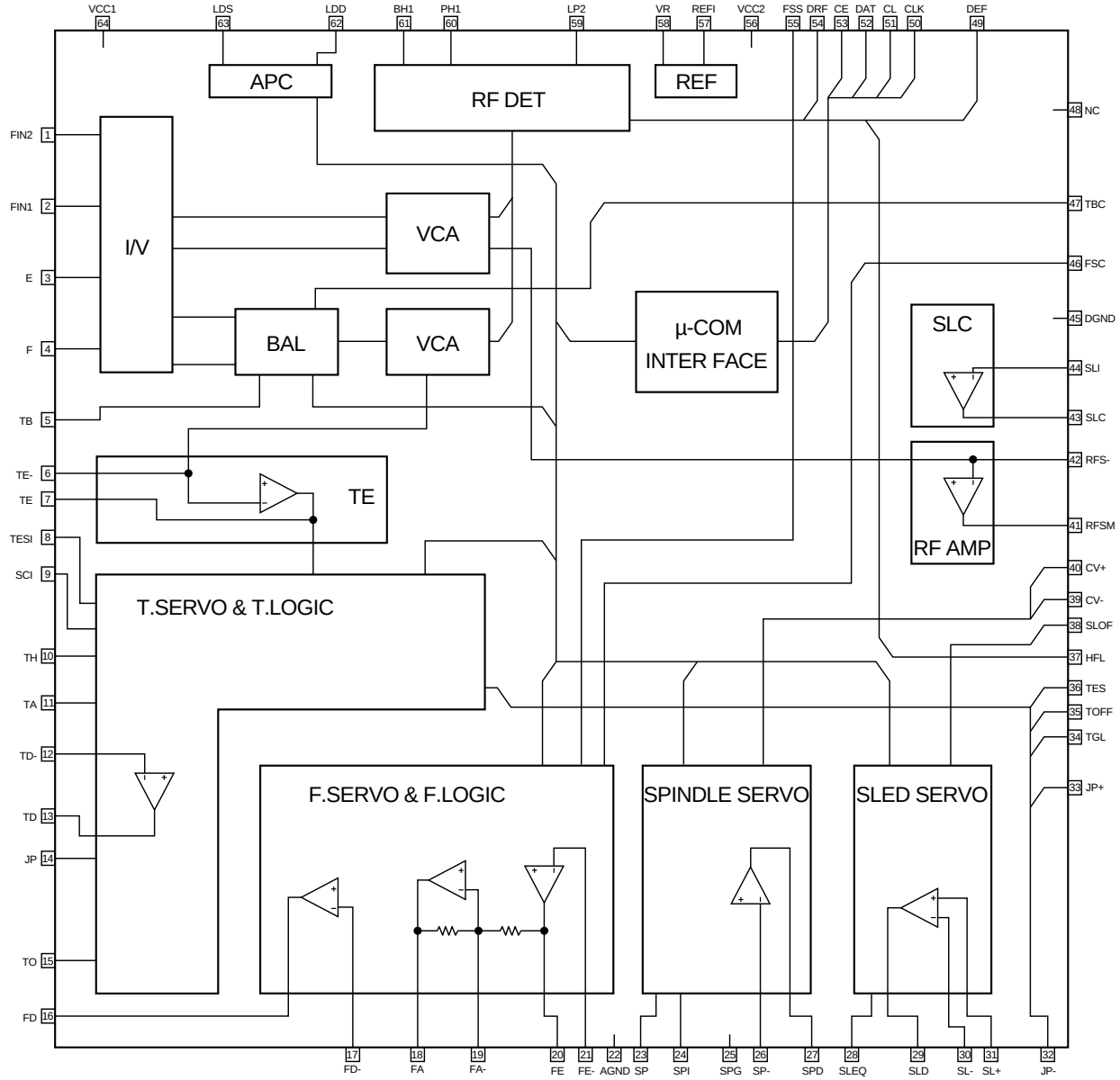


Figure 45 BLOCK DIAGRAM OF IC

IC701 RH-iX0153AWZZ:System Microcomputer (1/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function		Active
1	SO0	C²B DI	Output	C²B Data output	(Normal: LO)	L/H
2	$\overline{SCK0}$	C²B CK	Output	C²B Clock output	(Normal: LO)	L/H
3	RXD	SQOUT	Input	CD Sub-Q data input		L/H
4	TXD	COIN	Output	CD System Command data output	(Function "CD": H)	L/H
5	ASCK	CQCK	Output	CD Clock for system command	(Function "CD": H)	L/H
6	ICV_{PP}	—	—	GND		—
7	X2	—	Output	System clock 4.19 MHz		—
8	X1	—	Input	System clock 4.19 MHz		—
9	V_{DD}	—	—	+5V (Back-up)		—
10	XT1	SUB CLOCK	Input	32.768 kHz OSC		—
11	XT2	SUB CLOCK	Output	32.768 kHz OSC		—
12	$\overline{RESET}$	$\overline{RESET}$	Input	System reset		L
13	INTP0	$\overline{SYSTEM\ STOP}$	Input	System stop detection	L: STOP	L
14	INTP1	$\overline{REMOCON}$	Input	Remocon serial data input		L
15	P02	T1 RUN PLSE	Input	T1 Play detection	H/L: Rotation fixed: STOP	L/H
16	P03	TAPE FP	Input	T2 FP SW detection H: Recording inhibited L: Recording enabled		L/H
17	P04	$\overline{CAM\ SW}$	Input	Tape stop mode detection	L: STOP	L
18	P05	TAPE BIAS	Outout	TAPE Recording BIAS control	H: BIAS OSC on	H
19	P110	$\overline{TAPE\ REC}$	Output	Record/Playback control	H: Playback L: Recording	L
20	P111	T1/T2	Output	T1/T2 Mode selector	H: T1 L: T2	L/H
21	P112	PB MUTE	Output	Playback muting	L: Playback H: Mute ON	H
22	P113	S MUTE	Output	System muting H: Mute ON		H
23	P114	POWER	Output	Power control H: Power ON		H
24	P115	LDM L/H	Output	Tray open/close motor speed control	L: HIgh H: Low	L/H
25	P116	SLM-	Output	CD Pick-up slide motor control	H: To inside	H
26	P117	SLM+	Output	CD Pick-up slide motor control	H: To outside	H
27	AV_{SS}	—	—	AD converter GND		—
28 - 32	ANI0 - 4	KEYIN 1 - 5	Input	AD Input for key-in		—
33	ANI5	INITIAL 1	Input	AD Input for auto scan set	0V: Without auto scan	—
34	ANI6	INITIAL 2	Input	AD Input for tuner band	See(KEY ARRANGEMENT TABLE)	—
35	ANI7	T2 RUN PALSE	Input	TAPE2 Rotation detection	Voltage changing: Rotation	—
36	AV_{DD}	—	—	AD Converter +B(5V)		—
37	AV_{REF}	—	—	AD Converter refarence voltage (5V)		—
38	P100	RWC	Output	CD DSP Chip enable		H
39	P101	RES	Output	CD DSP Reset	L: Reset	H
40	V_{SS}	V_{SS}	—	GND		—
41	P102	WRQ	Input	Write request from CD DSP		H
42	P103	DRF	Input	Data read flug from CD DSP	H: Focus OK	H
43	P30	PHT	Input	CD Disc No. detection		H
44	P31	$\overline{PUIN\ SW}$	Input	CD Pick-up detection	L: inside	L
45	P32	$\overline{DISC\ UP\ SW}$	Input	CD traverce mecha detection	L: UP complete	L
46	P33	$\overline{CLOSE\ SW}$	Input	CD Tray close detection	L: Close complete	L
47	P34	$\overline{OPEN\ SW}$	Input	CD Tray open detection	L: Open complete	L
48	P35	SRS 1	Output	SRS mode control	L: MODE1 H: MODE2	L/H
49	P36	PASS	Output	SRS ON/OFF control	H: PASS L: SRS ON	L/H
50	P37	TUN MUTE	Output	Tuner Muting	H: Mute ON	H
51 - 54	COM0 - 3	COM0 - 3	Output	LCD Common drive out		—
55	BIAS	BIAS	Output	LCD Bias voltage output		—
56 - 58	VLC0 - 2	VLC0 - 2	—	LCD Bias voltage input		—
59	V_{SS}	V_{SS}	—	GND		—

IC701 RH-iX0132AWZZ:System Microcomputer (2/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function		Active
60 - 91	SEG0 - 31	SEG0 - 31	Output	LCD Segment driver output		—
92	P87	$\overline{\text{ILLU GUIDE 1}}$	Output	LED Control ▶	L: ON	L
93	P86	$\overline{\text{ILLU GUIDE 2}}$	Output	LED Control ▶▶	L: ON	L
94	P85	$\overline{\text{ILLU GUIDE 3}}$	Output	LED Control ◀◀	L: ON	L
95	P84	$\overline{\text{ILLU GUIDE 4}}$	Output	LED Control ■	L: ON	L
96	P83	TAPE SOL	Output	Tape solenoid control	H: Pull L: Release	H
97	P82	TAPE MOTOR	Output	Tape motor control	H: ON	H
98	P81	$\overline{\text{HI SPEED}}$	Output	Tape speed control	H: Normal L: High	L
99	P80	C^2B CE	Output	C^2B Chip enable output		H
100	SI0	C^2B DO	Input	C^2B Data input		L/H

KEY ARRANGEMENT TABLE

	KEY POSITION PORT VOLTAGE	KN0 0V(0.0)	KN1 0.65V(0.13)	KN2 1.24V(0.248)	KN3 1.88V(0.375)	KN4 2.49V(0.497)	KN5 3.13V(0.625)	KN6 3.71V(.0625)	KN7 4.36V(0.871)	OPEN 5V(1.0)
PIN.NO.	ADDATA PORT									
(28)	KEYIN 1 (ANI 0)	K01 CD	K02 TUNER	K03 TAPE 1/2	K04 VIDEO	K05 VOL DOWN	K06 BAND	K07 SRS	K08 BAL L	NO KEY INPUT
(29)	KEYIN 2 (ANI 1)	K11 REPEAT PLAY ▶	K12 RANDOM	K13 APMS MEMORY	K14 CLEAR	K15 VOL UP	K16	K17 PRESET DOWN	K18 REWIND ◀◀	NO KEY INPUT
(30)	KEYIN 3 (ANI 2)	K21 NOR EDIT	K22 HIGH EDIT	K23 TUNING DOWN	K24 CD PAUSE	K25 REC PAUSE	K26 STOP ■	K27 PRESET UP	K28 FF ▶▶	NO KEY INPUT
(31)	KEYIN 4 (ANI 3)	K31 POWER	K32 PRESET MEMORY	K33 TUNING UP	K34 X-BASS	K35 HEAVY	K36 VOCAL	K37 BGM	K38 FLAT	NO KEY INPUT
(32)	KEYIN 5 (ANI 4)	K41 OPEN/ CLOSE	K42 DISC SKIP	K43 DISC 5	K44 DISC 4	K45 DISC 3	K46 DISC 2	K47 DISC 1	K48 BALANCE R	NO KEY INPUT
(33)	AUTO SCAN (ANI 5)	INITIAL-1 w/o AUTO SCAN	INITIAL-2 w/o AUTO SCAN							NO KEY INPUT
(34)	TUNER (ANI 6)	TUNER USA	TUNER EU 1 FM,MW	TUNER EU 2 FM,MW,LW	TUNER JAPAN	TUNER EX 1 9K	TUNER EX 2 10K	TUNER KOREA	TUNER OIRT	NO KEY INPUT
(35)	T2 RUN PALUS									NO KEY INPUT

IC5 VHiBA5920FP-1:Focus/Tracking/Spin/Slide Driver

Pin No.	Terminal Name	Function
1	VO1(-)	Driver CH1 Negative output.
2	VO1(+)	Driver CH1 Positive output.
3	VIN1	Driver CH1 input.
4*	VIN1'	Input terminal to adjust driver CH1 gain.
5*	NC	Not Used
6*	NC	Not Used
7	MUTE	Mute control terminal.
8	GND	GND
9	VIN2'	Input terminal to adjust driver CH2 gain.
10	VIN2	Driver CH2 input.
11	VO2(+)	Driver CH2 Positive output.
12	VO2(-)	Driver CH2 Negative output.
13	GND	Substraigth GND.
14*	OP OUT	Operation amplifier output.
15*	OP IN(-)	Operation amplifier negative input.
16*	OP IN(+)	Operation amplifier positive input.
17	VO3(-)	Driver CH3 Negative output.
18	VO3(+)	Driver CH3 Positive output.
19	VIN3	Driver CH3 input.
20*	VIN3'	Input terminal to adjust driver CH3 gain.
21	VCC	VCC
22	VCC	VCC
23	BIAS IN	Vias amplifier input terminal.
24*	VIN4'	Input terminal to adjust driver CH4 gain.
25	VIN4	Driver CH4 input.
26	VO4(+)	Driver CH4 Positive output.
27	VO4(-)	Driver CH4 Negative output.
28	GND	Substraigth GND.

Note: Positive output and negative output in the driver section are polarities for input.

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

IC5 VHiBA5920FP-1:Focus/Tracking/Spin/Slide Driver

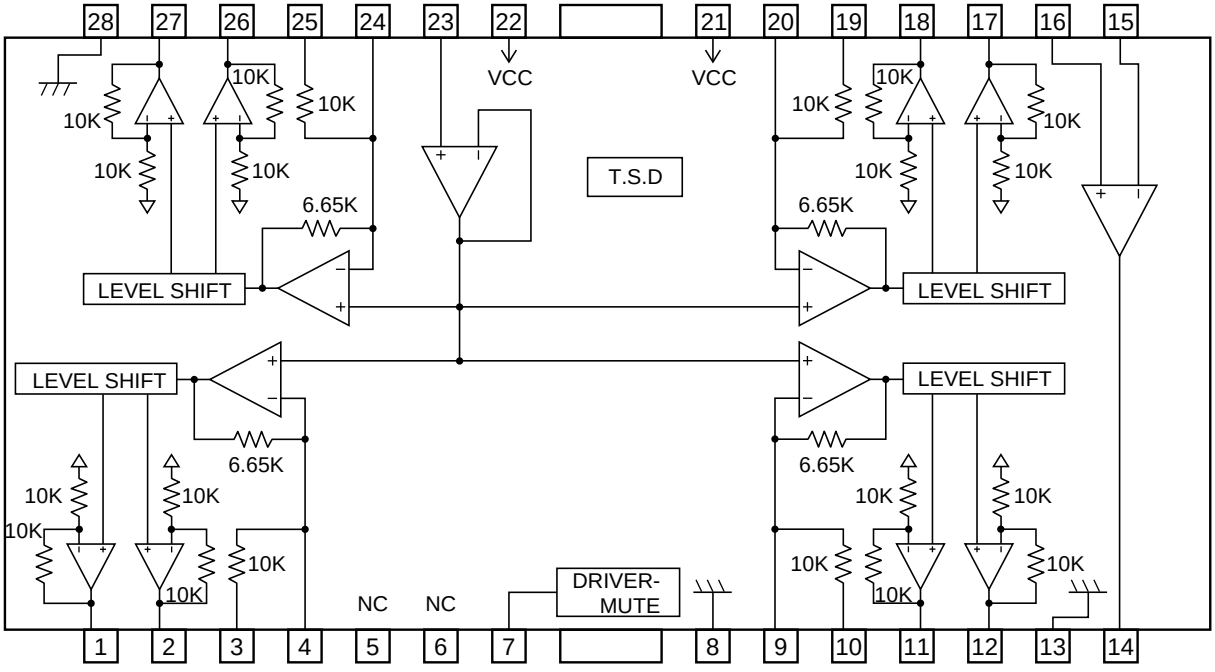


Figure 48 BLOCK DIAGRAM OF IC

SHARP PARTS GUIDE

MODEL CMS-R600X(BK)
CMS-R600XT(BK)

"HOW TO ORDER REPLACEMENT PARTS"

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

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

★ MARK: SPARE PARTS-DELIVERY SECTION

For U.S.A. only

Contact your nearest SHARP Parts Distributor to order.

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

Explanation of capacitors/resistors parts codes

Capacitors

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

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

Resistors

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

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

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

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
INTEGRATED CIRCUITS				
IC1	VHILA9240M/-1	J	AV	Servo Amp.,LA9240M
IC2	VHILC78622E-1	J	BA	Servo/Signal Control, LC78622E
IC5	VHIBA5920FP-1	J	AR	Focus/Tracking/Spin/ Slide Driver,BA5920FP
IC51,52	VHITA7291S/-1	J	AH	Motor Driver,TA7291S
IC201	VHIAN7345K/-1	J	AM	REC./P.B.Amp.,AN7345K
IC301	VHITA7358AP-1	J	AG	FM Front End,TA7358AP
IC351	VHILA1832//-1	J	AR	FM IF Det./FM MPX./AM IF, LA1832
IC381	VHILC72131/-1	J	AP	PLL (Tuner),LC72131
IC431	VHILC75394E-1	J	AX	Audio Processor,LC75394E
IC501	VHISRS5250S-1	J	BL	SRS,SRS5250S [600X Only]
IC561,562	VHILB1403N/-1	J	AG	Meter Driver,LB1403N
IC601	VHILM1876TF-1	J	BD	Power Amp.,LM1876TF
IC701	RH-IX0153AWZZ	J		System Microcomputer, IX0153AW
TRANSISTORS				
Q1	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q51,52	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q81	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q201,202	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q203~206	VSKTC3200GR-1	J	AC	Silicon,NPN,KTC3200 GR
Q207,208	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q209,210	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q211,212	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q213	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q255,256	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q272	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q273,274	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q281	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q282	VSKTA1270Y/-1	J	AD	Silicon,PNP,KTA1270 Y
Q283	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q302	VSKTC3194Y/-1	J	AD	Silicon,NPN,KTC3194 Y
Q371,372	VSKTC3199GR-1	J	AB	Digital,NPN,KTC3199 GR
Q381	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q481	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
Q483	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q501	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y [600X ONLY]
Q502	VS2SK246GR/-1	J	AB	FET,2SK246 GR [600X Only]
Q504	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M [600X ONLY]
Q506	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M [600X ONLY]
Q641	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q701~704	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q705	VS2SD468-C/-1	J	AD	Silicon,NPN,2SD468 C
Q706	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q707	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q708	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q709,710	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q711	VSKTA1270Y/-1	J	AD	Silicon,PNP,KTA1270 Y
Q712	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q713	VSKTA1270Y/-1	J	AD	Silicon,PNP,KTA1270 Y
Q714~716	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q717	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
Q923~925	VSKTD2058Y/-1	J	AF	Silicon,NPN,KTD2058 Y
Q926,927	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q930	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M [600X Only]
Q931	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y [600X Only]
DIODES				
D2	VHD1SS133//-1	J	AA	Silicon,1SS133
D7,8	VHD1SS133//-1	J	AA	Silicon,1SS133
D301~303	VHD1SS133//-1	J	AA	Silicon,1SS133
D331,332	VHD1SS133//-1	J	AA	Silicon,1SS133
D351	VHD1SS133//-1	J	AA	Silicon,1SS133
D431	VHD1SS133//-1	J	AA	Silicon,1SS133
D432	VHD1SS133//-1	J	AA	Silicon,1SS133 [600XT Only]
D602,603	VHD1SS133//-1	J	AA	Silicon,1SS133
D641,642	VHD1SS133//-1	J	AA	Silicon,1SS133
D650,651	VHD1SS133//-1	J	AA	Silicon,1SS133
D701~710	VHD1SS133//-1	J	AA	Silicon,1SS133
D901~904	VHD1N5402M/-1	J	AE	Silicon,1N5402M
D905~908	VHD10E4FD//-1	J	AB	Silicon,10E4FD

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
D921	VHD1SS133//-1	J	AA	Silicon,1SS133
LED561~568	VHP5N4KTN52-1	J	AD	LED,Green,5N4KTN52
LED569,570	VHP333ITR4/-2	J		LED,Red,333ITR4
LED701~705	VHP5N4GTN52-1	J	AD	LED,Green,5N4GTN52
PH2	VHPRPI574N/-1	J	AN	Photo Interrupter,RPi574N
PHM1	VHPI31535CD-1	J	AG	Photo Interrupter
VD301,302	VHCKDV147C/-1	J	AH	Variable Capacitance,KDV147C
VD331	VHCKV1236Z23F	J	AS	Variable Capacitance, KV1236Z23F
ZD81	VHEMTZJ5R6B-1	J	AD	Zener,5.6V,MTZJ5.6B
ZD351	VHEMTZJ5R1B-1	J	AC	Zener,5.1V,MTZJ5.1B
ZD701	VHEMTZJ6R2C-1	J	AC	Zener,6.2V,MTZJ6.2C
ZD702	VHEMTZJ3R9B-1	J	AC	Zener,3.9V,MTZJ3.9B
ZD921	VHEMTZJ8R2A-1	J	AA	Zener,8.2V,MTZJ8.2A
ZD922	VHEMTZJ130C-1	J	AB	Zener,13V,MTZJ13C
FILTERS				
BF301	92LFILTF1759AT	J	AD	FM Antenna
CF302	RFILF0124AFZZ	J	AD	FM IF,10.7 MHz
CF351	RFILA0008AWZZ	J	AE	AM IF
CF352	RFILF0003AWZZ	J	AK	FM Detection
TRANSFORMERS				
T301	RCILI0007AWZZ	J	AD	FM IF
T331	RCILA1064AFZZ	J	AD	AM Antenna
T333	RCILB1074AFZZ	J	AC	AM OSC
T351	RCILI0011AWZZ	J	AD	AM IF
⚠T901	RTRNP0067AWZZ	J	BE	Power [600X]
⚠T901	RTRNP0098AWZZ	J		Power [600XT]
COILS				
L1	VP-XHR82K0000	J	AC	0.82 µH,Choke
L51~54	VP-CH270K0000	J	AB	27 µH,Choke
L201,202	VP-MK182K0000	J	AC	1.8 mH,Choke
L281	VP-CH102K0000	J	AB	1 mH,Choke
L282	VP-CH331K0000	J	AB	330 µH,Choke
L302	RCILR0029AWZZ	J	AA	FM RF
L303	RCILB0046AWZZ	J	AF	FM OSC
L351	VP-DH102K0000	J	AB	1 mH,Choke
L355	VP-DH101K0000	J	AB	100 µH,Choke
L381	VP-DH101K0000	J	AB	100 µH,Choke
L421	VP-XHR82K0000	J	AC	0.82 µH,Choke [600XT Only]
L563	VP-CH331K0000	J	AB	330 µH,Choke
L700	VP-XH2R2K0000	J	AB	2.2 µH,Choke
VARIABLE RESISTORS				
VR351	92LVRS103NBMT	J		10 kohm (B),Semi-VR [FM Mute Level]
VRM1	RVR-M0556AFZZ	J	AB	3.3 kohms (B),Semi-VR [Tape Speed]
VIBRATORS				
X351	92LCRSTL1425A	J	AF	Crystal,456 kHz
X381	92LCRSTL1587B	J	AK	Crystal,4.5 MHz
XL1	RCRM-0008AWZZ	J	AF	Ceramic,16.93 MHz
XL701	RCRM-0147AFZZ	J	AD	Ceramic,4.19 MHz
XL702	RCRSP0051AFZZ	J	AK	Crystal,32.768 kHz
CAPACITORS				
C1	VCTYMN1CY103K	J	AA	0.01 µF,16V
C1B,2B	RC-EZ0005AWZZ	J	AC	4.7 µF,25V,Electrolytic Non-Polar
C2	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C3	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
C4	VCKYMN1HB102K	J	AA	0.001 µF,50V
C5,6	VCTYPA1CX333K	J	AA	0.033 µF,16V
C7	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
C8	VCTYPA1CX683K	J	AA	0.068 µF,16V
C9	VCTYPA1CX473K	J	AA	0.047 µF,16V
C10	VCKYMN1HB181K	J	AA	180 pF,50V
C11	VCTYPA1CX104K	J	AB	0.1 µF,16V
C12	VCKYMN1HB331K	J	AA	330 pF,50V
C13	VCTYPA1CX104K	J	AB	0.1 µF,16V
C14	VCTYMN1CY103K	J	AA	0.01 µF,16V
C15	VCTYMN1CX472K	J	AA	0.0047 µF,16V
C16	VCKYMN1HB102K	J	AA	0.001 µF,50V

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C17	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C18	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C19	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C20	VCTYMN1CX332K	J	AA	0.0033 µF,16V
C21	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C22	VCTYMN1CY103K	J	AA	0.01 µF,16V
C24	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C25	VCTYMN1CY103K	J	AA	0.01 µF,16V
C29	VCKYPA1HB221K	J	AA	220 pF,50V
C31	VCTYPA1EX272K	J	AA	0.0027 µF,25V
C32	VCCSMN1HL150J	J	AA	15 pF,50V
C33	VCKYMN1HB102K	J	AA	0.001 µF,50V
C34	VCTYPA1CX333K	J	AA	0.033 µF,16V
C35	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
C37	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C38	VCTYMN1CY103K	J	AA	0.01 µF,16V
C39	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C40	RC-GZA334AF1H	J	AA	0.33 µF,50V,Electrolytic
C41,42	VCTYPA1CX473K	J	AA	0.047 µF,16V
C43	RC-GZA227AF1A	J	AB	220 µF,10V,Electrolytic
C45	RC-GZA475AF1E	J	AB	4.7 µF,25V,Electrolytic
C48	RC-GZA477AF1A	J	AC	470 µF,10V,Electrolytic
C49,50	VCTYPA1CX104K	J	AB	0.1 µF,16V
C52	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C54~57	VCKYMN1HB101K	J	AA	100 pF,50V
C60~62	VCKYBT1HB102K	J	AA	0.001 µF,50V
C63	VCKYBT1HB102K	J	AA	0.001 µF,50V
C67,68	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C69,70	VCKYMN1HB221K	J	AA	220 pF,50V
C81	RC-GZA227AF1A	J	AB	220 µF,10V,Electrolytic
C91,92	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic
C201,202	VCKYMN1HB471K	J	AA	470 pF,50V
C203,204	VCKYMN1HB181K	J	AA	180 pF,50V
C205,206	VCKYMN1HB561K	J	AA	560 pF,50V
C207,208	VCKYMN1HB102K	J	AA	0.001 µF,50V
C209~212	VCKYMN1HB331K	J	AA	330 pF,50V
C213,214	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C215,216	VCTYPA1CX333K	J	AA	0.033 µF,16V
C217,218	VCKYMN1HB561K	J	AA	560 pF,50V
C219,220	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C221,222	VCTYPA1EX103K	J	AA	0.01 µF,25V
C223,224	VCKYMN1HB471K	J	AA	470 pF,50V
C225,226	VCKYMN1HB102K	J	AA	0.001 µF,50V
C227,228	RC-GZA226AF1C	J	AB	22 µF,16V,Electrolytic
C229~232	VCTYPA1CX273K	J	AA	0.027 µF,16V
C233,234	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C235,236	VCTYMN1CX332K	J	AA	0.0033 µF,16V
C237,238	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C241	VCTYPA1CX823K	J	AB	0.082 µF,16V
C242	VCKZPA1HF473Z	J	AA	0.047 µF,50V
C243	RC-GZA226AF1C	J	AB	22 µF,16V,Electrolytic
C245	RC-GZA227AF1A	J	AB	220 µF,10V,Electrolytic
C247	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C251	RC-GZA335AF1E	J	AB	3.3 µF,25V,Electrolytic
C252	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C253	RC-GZA226AF1C	J	AB	22 µF,16V,Electrolytic
C281	RC-QZA273AFYK	J	AB	0.027 µF,50V,Mylar
C282	RC-QZA392AFYJ	J	AB	0.0039 µF,50V,Mylar
C283	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C284	RC-GZA227AF1C	J	AB	220 µF,16V,Electrolytic
C301	VCKYMN1HB102K	J	AA	0.001 µF,50V
C312	VCCSMN1HL180J	J	AA	18 pF,50V
C313	VCTYMN1CX472K	J	AA	0.0047 µF,16V
C314	VCCUMN1HJ6R8D	J	AB	6.8 pF (UJ),50V
C315	VCTYMN1CY103M	J	AA	0.01 µF,16V
C316	VCTYMN1CX472K	J	AA	0.0047 µF,16V
C317	VCCSMN1HL4R7C	J	AA	4.7 pF,50V
C318	VCKYMN1HB102K	J	AA	0.001 µF,50V
C319	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C320	VCKYMN1HB102K	J	AA	0.001 µF,50V
C321	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C322	VCCCMN1HH150J	J	AA	15 pF (CH),50V
C323	VCCSMN1HL330J	J	AA	33 pF,50V
C324	VCCUMN1HJ3R3K	J	AB	3.3 pF (UJ),50V
C325	VCCCMN1HH220J	J	AA	22 pF (CH),50V
C326	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C327	VCKYMN1HB101K	J	AA	100 pF,50V
C328	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C331,332	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C336	VCCUMN1HJ180J	J	AA	18 pF (UJ),50V
C337	VCCCMN1HH180J	J	AA	18 pF (CH),50V
C339	VCKZPA1HF473Z	J	AA	0.047 µF,50V

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C340	VCKYMN1HB471K	J	AA	470 pF,50V
C342	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C344	VCCUMN1HJ8R2D	J	AA	8.2 pF (UJ),50V
C350	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C351,352	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C353	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C354,355	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C356	RC-GZA226AF1C	J	AB	22 µF,16V,Electrolytic
C357	VCTYPA1CX223K	J	AA	0.022 µF,16V
C358	VCKYMN1HB102K	J	AA	0.001 µF,50V
C359	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C360	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C362	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C363	RC-GZA107AF0J	J	AB	100 µF,6.3V,Electrolytic
C364	VCCSMN1HL220J	J	AA	22 pF,50V
C365	VCKYMN1HB102K	J	AA	0.001 µF,50V
C366	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C367	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C368,369	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C370	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C371,372	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C373	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C374	VCTYPA1EX223K	J	AA	0.022 µF,25V
C375,376	VCTYPA1CX183K	J	AA	0.018 µF,16V
C377,378	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C381	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C383,384	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C385	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C386	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C387	VCTYMN1CY103M	J	AA	0.01 µF,16V
C388	VCKYMN1HB102K	J	AA	0.001 µF,50V
C389	VCKYMN1HB331K	J	AA	330 pF,50V
C390	VCCCMN1HH120J	J	AA	12 pF (CH),50V
C391	VCCCMN1HH150J	J	AA	15 pF (CH),50V
C392	VCKYMN1HB102K	J	AA	0.001 µF,50V
C396	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C401,402	VCKYMN1HB331K	J	AA	330 pF,50V
C421	VCKYMN1HB101K	J	AA	100 pF,50V [600XT]
C421	VCKYMN1HB271K	J	AA	270 pF,50V [600X]
C422	VCKYMN1HB271K	J	AA	270 pF,50V [600X Only]
C423	VCKYMN1HB471K	J	AA	470 pF,50V [600XT Only]
C431~438	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C439,440	RC-GZA226AF1C	J	AB	22 µF,16V,Electrolytic
C441,442	VCKYMN1HB181K	J	AA	180 pF,50V
C443,444	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C445,446	VCTYPA1CX563K	J	AB	0.056 µF,16V
C447,448	RC-GZA224AF1H	J	AA	0.22 µF,50V,Electrolytic
C449,450	VCTYPA1CX103K	J	AA	0.01 µF,16V
C451,452	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C453,454	VCTYPA1CX473K	J	AA	0.047 µF,16V
C455,456	VCTYPA1CX563K	J	AB	0.056 µF,16V
C457,458	VCTYPA1EX222K	J	AA	0.0022 µF,25V
C459,460	VCTYMN1CX272K	J	AA	0.0027 µF,16V
C461,462	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C463,464	VCKYMN1HB101K	J	AA	100 pF,50V
C465~468	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C471	VCKZPA1HF223Z	J	AA	0.022 µF,50V [600X Only]
C475	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C476	RC-GZA227AF1C	J	AB	220 µF,16V,Electrolytic
C477,478	VCKYMN1HB221K	J	AA	220 pF,50V
C481,482	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C483	VCKZPA1HF103Z	J	AA	0.01 µF,50V
C501,502	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic [600X Only]
C503	VCKYPA1HB102K	J	AA	0.001 µF,50V [600X Only]
C504	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic [600X Only]
C505,506	VCKYPA1HB102K	J	AA	0.001 µF,50V [600X Only]
C521	VCKYPA1HF223Z	J	AB	0.022 µF,50V [600X Only]
C523	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic [600X Only]
C524	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic [600X Only]
C525	RC-QZA472AFYJ	J	AA	0.0047 µF,50V,Mylar [600X Only]
C541	RC-QZA224AFYJ	J	AB	0.22 µF,50V,Mylar [600X Only]
C542	RC-QZA683AFYJ	J	AB	0.068 µF,50V,Mylar [600X Only]
C543	RC-QZA223AFYJ	J	AB	0.022 µF,50V,Mylar [600X Only]
C544	RC-QZA682AFYJ	J	AA	0.0068 µF,50V,Mylar [600X Only]
C545	RC-QZA182AFYJ	J	AB	0.0018 µF,50V,Mylar [600X Only]

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C546	VCCSPA1HL391J	J	AA	390 pF,50V [600X Only]
C547	RC-GZA334AF1H	J	AA	0.33 µF,50V,Electrolytic [600X Only]
C549~552	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic [600X Only]
C553,554	RC-QZA224AFYJ	J	AB	0.22 µF,50V,Mylar [[600X Only]
C556	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic [600X Only]
C557,558	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic [600X Only]
C561,562	RC-GZA224AF1H	J	AA	0.22 µF,50V,Electrolytic
C565,566	VCKYPA1HB102K	J	AA	0.001 µF,50V
C567,568	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C569	RC-GZA337AF1C	J	AC	330 µF,16V,Electrolytic
C571	VCKYPA1HB102K	J	AA	0.001 µF,50V [600X Only]
C601,602	VCKYMN1HB102K	J	AA	0.001 µF,50V
C603,604	RC-QZA104AFYK	J	AB	0.1 µF,50V,Mylar
C605,606	VCKYMN1HB471K	J	AA	470 pF,50V
C607,608	RC-GZA107AF1V	J	AB	100 µF,35V,Electrolytic
C609~612	RC-QZA224AFYK	J	AB	0.22 µF,50V,Mylar
C621,622	VCCSMN1HL390J	J	AA	39 pF,50V
C634	RC-QZA104AFYK	J	AB	0.1 µF,50V,Mylar
C635	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C637	RC-QZA104AFYK	J	AB	0.1 µF,50V,Mylar
C639	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C643	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C644	RC-GZA336AF1C	J	AB	33 µF,16V,Electrolytic
C652	VCKZPA1HF103Z	J	AA	0.01 µF,50V
C702	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C703	VCTYPA1CX103K	J	AA	0.01 µF,16V
C704	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C705	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C706	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C707,708	VCTYPA1CX103K	J	AA	0.01 µF,16V
C709	RC-GZA108AF0J	J	AC	1000 µF,6.3V,Electrolytic
C710	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C712	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C713	VCTYPA1CX103K	J	AA	0.01 µF,16V
C714	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C715	VCCSPA1HL330J	J	AA	33 pF,50V
C716	VCCCPA1HH120J	J	AA	12 pF (CH),50V
C901,902	RC-GZW228AF1V	J	AF	2200 µF,35V,Electrolytic
C903	RC-GZW338AF1E	J	AG	3300 µF,25V,Electrolytic
C904,905	RC-QZA224AFYK	J	AB	0.22 µF,50V,Mylar
C906,907	RC-QZA473AFYK	J	AB	0.047 µF,50V,Mylar
C921~923	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C924	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C925,926	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C927	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic

RESISTORS

	VRD-MN2BD000C	J	AA	0 ohm,Jumper,ø1.4×3.5mm,Ivory
R1	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R2	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R3	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R4	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R5	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R6	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R7	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R8	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R9	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R10	VRD-MN2BD823J	J	AA	82 kohms,1/8W
R11	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R12	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R13	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R14	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R15	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R16	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R17	VRD-MN2BD823J	J	AA	82 kohms,1/8W
R19	VRD-MN2BD393J	J	AA	39 kohms,1/8W
R20	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R21	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R22	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R23	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R24	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R25	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R26,27	VRD-MN2BD334J	J	AA	330 kohms,1/8W
R28,29	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R32	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R33	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R34	VRD-MN2BD102J	J	AA	1 kohm,1/8W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R35	VRD-MN2BD471J	J	AA	470 ohms,1/8W
R36,37	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R38	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R39,40	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R41	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R42	VRD-MN2BD561J	J	AA	560 ohms,1/8W
R43	VRD-MN2BD220J	J	AA	22 ohms,1/8W
R49	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R56	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R57	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R58	VRD-MN2BD681J	J	AA	680 ohms,1/8W
R59	VRD-MN2BD151J	J	AA	150 ohms,1/8W
R60	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R62	VRD-MN2BD225J	J	AA	2.2 Mohms,1/8W
R73,74	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R75,76	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R81	VRD-MN2BD221J	J	AA	220 ohms,1/8W
R82	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R86~88	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R89	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R91	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R92	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R93,94	VRD-MN2BD102J	J	AA	1 kohm,1/8W
⚠ R95,96	VRG-ST2EG3R9J	J	AB	3.9 ohms,1/4W,Fusible
R97	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R98	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R99,100	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R201,202	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R205,206	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R207,208	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R209,210	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R211,212	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R213,214	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R215,216	VRD-ST2CD560J	J	AA	56 ohms,1/6W
R217,218	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R219,220	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R221,222	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R223,224	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R225	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R226	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R227,228	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R229,230	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R231,232	VRD-MN2BD561J	J	AA	560 ohms,1/8W
R233,234	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R235	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R236~238	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R239	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R240	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R241	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R242	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R244~246	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R248	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R249	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R251	VRD-ST2EE471J	J	AA	470 ohms,1/4W
R253	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R254	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R255	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R256	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R271,272	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R274	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R275~277	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R281	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R282	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R283	VRD-MN2BD120J	J	AA	12 ohms,1/8W
R284,285	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R286	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R287	VRD-RT2HD151J	J	AA	150 ohms,1/2W
R288	VRD-ST2EE221J	J	AA	220 ohms,1/4W
R311	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R312	VRD-ST2CD220J	J	AA	22 ohms,1/6W
R313	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R314	VRD-MN2BD100J	J	AA	10 ohm,1/8W
R315	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R316	VRD-ST2CD470J	J	AA	47 ohms,1/6W
R317	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R318	VRD-ST2CD681J	J	AA	680 ohms,1/6W
R319	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R320	VRD-ST2EE821J	J	AA	820 ohms,1/4W
R331	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R333,334	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R339	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R351	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
R352	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R353	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R354	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R355	VRD-MN2BD271J	J	AA	270 ohms,1/8W
R356	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R357	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R358	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R359	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R360	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R361	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R362	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R363,364	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R365,366	VRD-ST2EE391J	J	AA	390 ohms,1/4W
R374	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R375,376	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R377,378	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
R379	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R381	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R382	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R383	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R384	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R386	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R387	VRD-ST2EE151J	J	AA	150 ohms,1/4W
R388	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R389	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R390	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R391	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R392	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R393~396	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R399	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R401,402	VRD-MN2BD224J	J	AA	220 kohms,1/8W [600X Only]
R403,404	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R421,422	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R425	VRD-MN2BD561J	J	AA	560 ohms,1/8W [600X Only]
R426	VRD-ST2CD561J	J	AA	560 ohms,1/6W [600X Only]
R431	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R432~434	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R435	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R436~438	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R439	VRD-ST2CD473J	J	AA	47 kohms,1/6W [600X Only]
R440~446	VRD-MN2BD473J	J	AA	47 kohms,1/8W [600X Only]
R447,448	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R449,450	VRD-MN2BD123J	J	AA	12 kohms,1/8W [600XT]
R449,450	VRD-MN2BD153J	J	AA	15 kohms,1/8W [600X]
R451,452	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R453,454	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R460~462	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R481	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R483	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R487,488	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R489,490	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R499	VRD-ST2CD273J	J	AA	27 kohms,1/6W [600X Only]
R501,502	VRD-ST2CD102J	J	AA	1 kohm,1/6W [600X Only]
R509	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W [600X Only]
R515,516	VRD-ST2CD102J	J	AA	1 kohm,1/6W [600X Only]
R531	VRD-ST2CD102J	J	AA	1 kohm,1/6W [600X Only]
R533	VRD-ST2CD102J	J	AA	1 kohm,1/6W [600X Only]
R541	VRD-ST2CD333J	J	AA	33 kohms,1/6W [600X Only]
R542	VRD-ST2CD104J	J	AA	100 kohm,1/6W [600X Only]
R543	VRD-ST2CD223J	J	AA	22 kohms,1/6W [600X Only]
R544	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W [600X Only]
R545	VRD-ST2CD473J	J	AA	47 kohms,1/6W [600X Only]
R546	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W [600X Only]
R547,548	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W [600X Only]
R549	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W [600X Only]
R552	VRD-ST2CD101J	J	AA	100 ohm,1/6W [600X Only]
R554	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W [600X Only]
R556	VRD-ST2CD102J	J	AA	1 kohm,1/6W [600X Only]
R557	VRD-ST2CD393J	J	AA	39 kohms,1/6W [600X Only]
R558	VRD-ST2CD473J	J	AA	47 kohms,1/6W [600X Only]
R561,562	VRD-SA2CD183J	J	AA	18 kohms,1/6W
R563,564	VRD-SA2CD223J	J	AA	22 kohms,1/6W
R565,566	VRD-SA2CD121J	J	AA	120 ohms,1/6W
R567~570	VRD-SA2CD103J	J	AA	10 kohm,1/6W
R571,572	VRD-SA2CD121J	J	AA	120 ohms,1/6W
R601,602	VRD-MN2BD102J	J	AA	1 kohm,1/8W [600X]
R601,602	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W [600XT]
R603,604	VRD-MN2BD683J	J	AA	68 kohms,1/8W [600XT]
R603,604	VRD-MN2BD823J	J	AA	82 kohms,1/8W [600X]
R605,606	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R607,608	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R609,610	VRD-MN2BD151J	J	AA	150 ohms,1/8W [600X]

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R609,610	VRD-MN2BD221J	J	AA	220 ohms,1/8W [600XT]
R611,612	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R613,614	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R615,616	VRD-ST2EE1R0J	J	AA	1 ohm,1/4W
R629,630	VRD-RT2HD331J	J	AA	330 ohms,1/2W
R641,642	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R643	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R644	VRD-MN2BD393J	J	AA	39 kohms,1/8W
R645,646	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R650	VRD-MN2BD154J	J	AA	150 kohms,1/8W
R701~704	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R705	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R706~709	VRD-ST2CD221J	J	AA	220 ohms,1/6W
R710,711	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R712,713	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R714	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R715	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R716	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R717	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
R718	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
R719	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R721,722	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R723	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R724~727	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R728	VRD-ST2CD393J	J	AA	39 kohms,1/6W
R729	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R730	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R731	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R732	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
R733	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
R734	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R735	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R736	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R737	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R738	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R739	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R740	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R741	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R742	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R743	VRD-ST2CD393J	J	AA	39 kohms,1/6W
R744	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R745	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R746	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R747	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
R748	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
R749	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R750	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R751~755	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R757	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R758	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R760,761	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R762	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R763	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R765	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R767	VRD-ST2CD393J	J	AA	39 kohms,1/6W
R768	VRD-ST2CD183J	J	AA	18 kohms,1/6W
R770	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R771	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
R772	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R774	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R775~779	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R783~789	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R791~794	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R798	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R799	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R800	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R801	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
R802	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
R803	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R804	VRD-ST2CD821J	J	AA	820 ohms,1/6W
R806	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R808	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R815	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R816	VRD-ST2EE681J	J	AA	680 ohms,1/4W
R817	VRD-ST2CD681J	J	AA	680 ohms,1/6W
⚠R818	VRG-ST2EF100J	J	AB	10 ohm,1/4W,Fusible
R819	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R821,822	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R823	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R824,825	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R826	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R827	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
R828	VRD-ST2CD151J	J	AA	150 ohms,1/6W
R829	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R830	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R831	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R832	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R833	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R834	VRD-ST2CD331J	J	AA	330 ohms,1/6W
R835	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R836	VRD-ST2CD471J	J	AA	470 ohms,1/6W
R837	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R838	VRD-ST2CD820J	J	AA	82 ohms,1/6W
R839	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R840	VRD-ST2CD100J	J	AA	10 ohm,1/6W
R841	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R842	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R843	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R845	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R846	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R847,848	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R849,850	VRD-ST2EE8R2J	J	AA	8.2 ohms,1/4W
R851,852	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R853	VRD-ST2CD106J	J	AA	10 Mohm,1/6W
R854	VRD-ST2CD154J	J	AA	150 kohms,1/6W
R855	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R923,924	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R925	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R926	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R927	VRD-ST2EE470J	J	AA	47 ohms,1/4W
R928	VRD-ST2EE561J	J	AA	560 ohms,1/4W
R929	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R930	VRD-ST2EE470J	J	AA	47 ohms,1/4W
R931	VRD-ST2EE561J	J	AA	560 ohms,1/4W
⚠ R934	VRG-ST2EG2R2J	J	AB	2.2 ohms,1/4W,Fusible [600X Only]
R940,941	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W [600X Only]
RM1	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
RM703	VRD-ST2CD103J	J	AA	10 kohm,1/6W [600XT]
RM703	VRD-ST2CD333J	J	AA	33 kohms,1/6W [600X]
RM704	VRD-ST2CD333J	J	AA	33 kohms,1/6W [600X Only]

OTHER CIRCUITRY PARTS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
BI601/CNS601	QCNWN0641AWZZ	J	AM	Socket,3-3Pin
CNP2	92LCON5PTXLPB1	J	AB	Plug,5Pin
CNP3	92LCONE8P53253	J	AC	Plug,8Pin
CNP4	92LCONE6P53253	J	AC	Plug,6Pin
CNP4A	92LCONE6P53254	J	AC	Plug,6Pin
CNP10	QCNCWZX20AWZZ	J	AG	Socket,20Pin
CNP80	92LCONE9P53253	J	AC	Plug,9Pin
CNP90	92LCONE3P53254	J	AB	Plug,3Pin
CNP201	92LCONE3P53253	J	AB	Plug,3Pin
CNP202	92LCONE7P53253	J	AC	Plug,7Pin
CNP301	92LCONE2P5268	J	AB	Plug,2Pin
CNP431	QCNCWZS10AWZZ	J	AK	Socket,10Pin
CNP432	QCNCWZS16AWZZ	J	AM	Socket,16Pin
CNP601	92LCON3PTXLPB1	J	AB	Connector Ass'y,3Pin
CNP700	QCNCWZY20AWZZ	J	AG	Socket,20Pin
CNP701	QCNCM808CAFZZ	J	AC	Plug,3Pin
CNP901	92LCONE2P5267X	J	AB	Plug,2Pin
CNPM2	QCNCM011BAWZZ	J	AC	Pin Header
CNS2A/B	QCNWN0629AWZZ	J	AN	Connector Ass'y,5-5Pin
CNS3A/B	QCNWN0630AWZZ	J	AM	Connector Ass'y,8-8Pin
CNS4A/B	QCNWN0631AWZZ	J	AK	Connector Ass'y,6-6Pin
CNS5	QCNWN0803AWZZ	J	AD	CD Ground Wire
CNS80A/B	QCNWN0632AWZZ	J	AM	Connector Ass'y,9-3Pin
CNS201	QCNWN0634AWZZ	J	AK	Connector Ass'y,3Pin
CNS202	QCNWN0635AWZZ	J	AQ	Connector Ass'y,7Pin
CNS701	QCNWN0633AWZZ	J	AG	Connector Ass'y,3Pin
CNS702	QCNCMZS16AWZZ	J	AM	Plug,16Pin
CNS703	QCNCMZS10AWZZ	J	AK	Plug,10Pin
⚠ F601,602	92LFUSET252B	J		Fuse,T2.5A L 250V
⚠ F901,902	92LFUSET312B	J		Fuse,T3.15A L 250V
⚠ F903	92LFUSET162B	J		Fuse,T1.6A L 250V
⚠ F921	92LFUSET501B	J		Fuse,T500mA L 250V
FC700	QCNWN0637AWZZ	J	AQ	Flat Cable,20Pin
FW501	QCNWN0762AWZZ	J		Flat Wire,9Pin [600X Only]
FW561	QCNWN0816AWZZ	J	AD	Flat Wire,5Pin
FW562	QCNWN0639AWZZ	J	AD	Flat Wire,3Pin [600X Only]
FW601	QCNWN0640AWZZ	J	AF	Flat Wire,6Pin
FW703	QCNWN0639AWZZ	J	AD	Flat Wire,3Pin
FW851	QCNWN0636AWZZ	J	AH	Flat Wire,12Pin
FW921	QCNWN0642AWZZ	J	AK	Flat Wire,9Pin
FWM1	QCNWN0333AWZZ	J	AD	Flat Wire,4Pin
FWM2	QCNWN0338AWZZ	J	AD	Flat Wire,2Pin
J601	QJAKJ0003AWZZ	J	AM	Jack,Headphones
J901	QJAKC0004AWZZ	J		Jack,DC Input [600X Only]
LCD701	RV-LX0019AWZZ	J	AZ	LCD
LMP561	RLMPP0001AWZZ	J	AK	Lamp
LMP801,802	RLMPM0001AWZZ	J	AF	Lamp
LUG601	QLUGP0002AWZZ	J	AB	Lug
M1	92LMTR2228AS1	J	AP	Loading Motor Ass'y
M2	92LMTR2228AS1	J	AP	Motor with Pulley [Turntable Up/Down]
M3	92LMTR1858CASY	J	AS	Motor with Chassis [Spin]
M4	92LMTR1854BASY	J	AP	Motor with Gear [Slide]
MM1	92LMTR1746AASY	J	AP	Motor with Pulley [Tape]
RX701	VHLSPS4201C-1	J	AN	Remote Sensor,LSPS4201C
RX701	VHL12043TH2-1	J		Remote Sensor,12043TH2
SO301	QTANC0202AWZZ	J	AF	Terminal,Antenna
SO401	92LJACKL1676A	J	AF	Jack,VIDEO/AUX. [600XT]
SO401	92LJACKL1706A	J	AH	Jack,RCA Type,2Pin [Phono/AUX./Video] [600X]
SO601	QTANA0406AWZZ	J	AK	Terminal,Speaker
⚠ SO901	QSOCA0204AWZZ	J		Socket,AC Input
SOLM1	RPLU-0002AWZZ	J	AH	Solenoid Ass'y
SW2	92LSWICHL1746A	J	AC	Switch,Leaf Type [Disc Up]
SW4	QSW-F9001AWZZ	J	AE	Switch,Push Type [Pickup In]
SW291	QSW-S0024AWZZ	J	AE	Switch,Slide Type [Span Selector] [600X Only]
SW421	QSW-S0026AWZZ	J	AF	Switch,Slide Type [Phono/Video/AUX.] [600X Only]
SW561	QSW-K0003AWZZ	J	AD	Switch,Key Type [3D Surround] [600X Only]
SW702	QSW-K0003AWZZ	J	AD	Switch,Key Type [Disk 1]
SW703	QSW-K0003AWZZ	J	AD	Switch,Key Type [Disk 2]
SW704	QSW-K0003AWZZ	J	AD	Switch,Key Type [Disc 3]
SW705	QSW-K0003AWZZ	J	AD	Switch,Key Type [Disc 4]
SW706	QSW-K0003AWZZ	J	AD	Switch,Key Type [Disc 5]
SW707	QSW-K0003AWZZ	J	AD	Switch,Key Type [Disc Skip]
SW708	QSW-K0003AWZZ	J	AD	Switch,Key Type [Open/Close]
SW709	QSW-K0003AWZZ	J	AD	Switch,Key Type [Flat]
SW710	QSW-K0003AWZZ	J	AD	Switch,Key Type [BGM]
SW711	QSW-K0003AWZZ	J	AD	Switch,Key Type [Vocal]
SW712	QSW-K0003AWZZ	J	AD	Switch,Key Type [Heavy]
SW713	QSW-K0003AWZZ	J	AD	Switch,Key Type [X-BASS]
SW714	QSW-K0003AWZZ	J	AD	Switch,Key Type [Tuning Up]
SW715	QSW-K0003AWZZ	J	AD	Switch,Key Type [Memory]
SW716	QSW-K0003AWZZ	J	AD	Switch,Key Type [Power]
SW717	QSW-K0003AWZZ	J	AD	Switch,Key Type [Forward]
SW718	QSW-K0003AWZZ	J	AD	Switch,Key Type [Preset Up/Time Up]
SW719	QSW-K0003AWZZ	J	AD	Switch,Key Type [Stop]
SW720	QSW-K0003AWZZ	J	AD	Switch,Key Type [Rec Pause]
SW721	QSW-K0003AWZZ	J	AD	Switch,Key Type [CD Pause]
SW722	QSW-K0003AWZZ	J	AD	Switch,Key Type [Tuning Down]
SW723	QSW-K0003AWZZ	J	AD	Switch,Key Type [Edit High]
SW724	QSW-K0003AWZZ	J	AD	Switch,Key Type [Edit Normal]
SW725	QSW-K0003AWZZ	J	AD	Switch,Key Type [Rewind]
SW726	QSW-K0003AWZZ	J	AD	Switch,Key Type [Preset Down/Time Down]
SW728	QSW-K0003AWZZ	J	AD	Switch,Key Type [Volume Up]
SW729	QSW-K0003AWZZ	J	AD	Switch,Key Type [Clear Timer]
SW730	QSW-K0003AWZZ	J	AD	Switch,Key Type [Memory/Set]
SW732	QSW-K0003AWZZ	J	AD	Switch,Key Type [Play/Repeat]
SW734	QSW-K0003AWZZ	J	AD	Switch,Key Type [Band]
SW735	QSW-K0003AWZZ	J	AD	Switch,Key Type [Volume Down]
SW736	QSW-K0003AWZZ	J	AD	Switch,Key Type [Video/AUX]
SW737	QSW-K0003AWZZ	J	AD	Switch,Key Type [Tape (12)]
SW738	QSW-K0003AWZZ	J	AD	Switch,Key Type [Tuner]
SW739	QSW-K0003AWZZ	J	AD	Switch,Key Type [CD]
SW740	QSW-K0003AWZZ	J	AD	Switch,Key Type [Reset]
SW801	92LSWICHL1749A	J	AD	Switch,Leaf Type [CD Changer]
SW901	QSOCE0005AWZZ	J	AH	Switch,Slide Type [Voltage Selector] [600X Only]
SWM3	92LM-SW1676A	J	AC	Switch,Leaf Type [Fool Proof]
SWM4	QSW-F9003AWZZ	J	AG	Switch,Leaf Type [F.A.S.]
SWM5	92LM-SW1658A	J	AB	Switch,Leaf Type [CAM]
WT501	92LCONE9P52287	J	AC	Wire Trap,9Pin [600X Only]
WT601	92LCONE6P52287	J	AC	Wire Trap,6Pin
WT701	92LCONE5P52287	J	AC	Wire Trap,5Pin
WT921	92LCONE9P52287	J	AC	Wire Trap,9Pin
WTM1	QCNCW026MAWZZ	J	AG	Wire Trap,12Pin

CASSETTE MECHANISM PARTS

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
1	LCHSM0014AW01	J	AN	Main Chassis Ass'y
2	LPLTP0001AWZZ	J	AD	Plate,Head [Tape 1]
3	LPLTP0002AWZZ	J	AD	Plate,Head [Tape 2]
4	NDAIR0004AW01	J	AG	Take-Up Reel Ass'y [Tape 1]
5	NDAIR0005AW01	J	AG	Take-Up Reel Ass'y [Tape 2]
6	NGERH0024AWZZ	J	AB	Gear,Supply Reel
7	NROLY0002AWZZ	J	AF	Pinch Roller Ass'y
8	NFLYC0002AWZZ	J	AG	Flywheel Ass'y [Tape 1]
9	NFLYC0003AWZZ	J	AH	Flywheel Ass'y [Tape 2]
10	MLEVP0024AW01	J	AH	Lever,FF/REW Roller Ass'y
11	NGERH0027AWZZ	J	AE	Gear,Cam
12	NGERH0028AWZZ	J	AB	Gear,Flywheel
13	NGERH0030AWZZ	J	AE	Gear,Play Idler
14	NGERH0032AWZZ	J	AC	Gear,FF
15	NPLYB0004AWZZ	J	AB	Sensor,Wing
16	MLEVP0026AWZZ	J	AC	Lever,Trigger
17	MLEVP0027AWZZ	J	AC	Lever,Lock [Tape 1]
18	MLEVP0028AWZZ	J	AC	Lever,Eject Obstruct [Tape 1]
19	MLEVP0029AWZZ	J	AC	Lever,Eject Obstruct [Tape 2]
20	LHLDS1001AW01	J	AE	Holder,Bearing
21	PGIDM0007AWZZ	J	AC	Guide,Cassette [Tape 2]
22	PGIDM0009AWZZ	J	AC	Guide,Cassette [Tape 1]
23	MLEVF0004AWFW	J	AB	Lever,Over Strok [Tape 1]
24	MLEVF0005AW01	J	AE	Lever,Over Strok Ass'y [Tape 2]
25	MLEVF0006AW01	J	AD	Lever,Mode Ass'y
26	MLEVF0007AW01	J	AC	Lever,Idler Ass'y [Tape 1]
27	MLEVF0008AW01	J	AD	Lever,Idler Ass'y [Tape 2]
28	LANGT0025AWFW	J	AD	Bracket Motor
29	LANGT0026AWFW	J	AC	Bracket Hold
30	LANGT0033AWFW	J	AB	Bracket,Switch
31	MSPRP0005AWFW	J	AB	Spring,Cassette
32	MSPRC0008AWFJ	J	AB	Spring,Back Tention
33	MSPRD0031AWFJ	J	AB	Spring,Lock Lever [Tape 1]
34	MSPRD0032AWFJ	J	AB	Spring,Mode Lever
35	MSPRD0033AWFJ	J	AB	Spring,Play Idler Lever
36	MSPRD0034AWFJ	J	AB	Spring,Play Roller
37	MSPRD0035AWFJ	J	AB	Spring,Eject Obstruct [Tape 1]
38	MSPRD0036AWFJ	J	AB	Spring,Play Return
39	MSPRD0037AWFJ	J	AB	Spring,Over Strok Lever
40	MSPRD0038AWFJ	J	AB	Spring,Trigger Lever
41	MSPRD0039AWFJ	J	AB	Spring,FR Lever
42	MSPRD0040AWFJ	J	AB	Spring,Eject Obstruct [Tape 2]
43	NBLTK0009AWZZ	J	AC	Belt,Sub
44	NBLTK0007AWZZ	J	AC	Belt,Main [Tape 1]
45	NBLTK0015AWZZ	J	AC	Belt,Main [Tape 2]
52	92LM-LEV1756A	J	AB	Lever,Lock [Tape 2]
53	92LM-TSPR1756C	J	AB	Spring,Lock Lever [Tape 2]
54	92LM-CSPR1676C	J	AA	Spring,Solenoid
55	92LMRPH1746A	J	AM	Head,Record/Playback
56	92LM-EH1658A	J	AG	Head,Erase
57	92LM-REL1676B	J	AB	Cap,Supply Reel
58	92LM-CSPR1676B	J	AA	Spring,Supply Cap
59	92LN-BAND1318A	J	AA	Nylon Band,80mm
501	92LS2R6S1746A	J	AA	Screw,ø2.6×2.5mm
502	92L2TTS+4BZ	J	AA	Screw,ø2×4mm
503	92L2TTS+5BZ	J	AA	Screw,ø2×5mm
504	92L1R5WC3R8R5P	J	AA	Washer,ø1.5×ø3.8×0.5mm
505	XWVSD22-03000	J	AA	Washer,ø2mm
506	LX-BZ0004AWFD	J	AC	Screw,Lock Lever
507	XHPSD20P05000	J	AA	Screw,ø2×5mm
508	92L2R3W3R4R25P	J	AA	Washer,ø2.3×ø3.4×0.25mm
510	92L1R8WC4-R5P	J	AA	Washer,ø1.8×ø4×0.5mm
MM1	92LMTR1746AASY	J	AP	Motor with Pulley [Tape]
SOLM1	RPLU-0002AWZZ	J	AH	Solenoid Ass'y
SWM3	92LM-SW1676A	J	AC	Switch,Leaf Type [Fool Proof]
SWM4	QSW-F9003AWZZ	J	AG	Switch,Leaf Type [F.A.S.]
SWM5	92LM-SW1658A	J	AB	Switch,Leaf Type [CAM]

CD MECHANISM PARTS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
301	NGERH0011AWZZ	J	AC	Gear,Middle
302	NGERH0012AWZZ	J	AC	Gear,Drive
303	MLEVP0010AWZZ	J	AC	Rail,Guide
304	NSFTM0002AWFW	J	AE	Shaft,Guide
305	92LHPC1MASY	J	BG	Pickup Unit Ass'y
305- 1	————		—	Pickup Unit (Not Replacement Item)
305- 2	NGERR0043AFZZ	J	AC	Gear,Rack
305- 3	MSPRC0961AFZZ	J	AA	Spring,Rack
701	92L2R6S+6CZ	J	AB	Screw,ø2.6×6mm
702	92L2TTS+5BB	J	AB	Screw,ø2×5mm
703	92L2S+3PZ	J	AA	Screw,ø2×3mm
704	92L1R5WC3R8R25	J	AA	Washer,ø1.5×ø3.8×0.25mm
M3	92LMTR1858CASY	J	AS	Motor with Chassis [Spin]
M4	92LMTR1854BASY	J	AP	Motor with Gear [Slide]
SW4	QSW-F9001AWZZ	J	AE	Switch,Push Type [Pickup In]

CABINET PARTS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
201	92LCAB2231AS1	J		Front Panel Ass'y [600X]
201	92LCAB2372AS1	J		Front Panel Ass'y [600XT]
201- 1	————		—	Front Panel (Not Replacement Item)
201- 2	92LCUSN1746A	J	AA	Cushion,Leg
201- 3	GCOVA1084AWSA	J	AF	Cover,Play Knob [600X]
201- 3	GCOVA1084AWSC	J		Cover,Play Knob [600XT]
201- 4	GCOVA1085AWSA	J	AF	Cover,Stop Knob [600X]
201- 4	GCOVA1085AWSC	J		Cover,Stop Knob [600XT]
201- 5	GCOVA1086AWSA	J	AF	Cover,Up Knob [600X]
201- 5	GCOVA1086AWSC	J		Cover,Up Knob [600XT]
201- 6	GCOVA1087AWSA	J	AF	Cover,Down Knob [600X]
201- 6	GCOVA1087AWSC	J		Cover,Down Knob [600XT]
201- 7	JKNBZ0211AWSA	J	AK	Knob,Disc Selector [600X]
201- 7	JKNBZ0211AWSB	J	AK	Knob,Disc Selector [600XT]
201- 8	JKNBZ0212AWSA	J	AF	Knob,CD Open/Close
201- 9	JKNBZ0213AWSA	J	AA	Knob,Equalizer Mode/X-Bass [600X]
201- 9	JKNBZ0213AWSB	J	AH	Knob,Equalizer Mode/X-Bass [600XT]
201-10	JKNBZ0214AWSC	J	AH	Knob,Function [600XT]
201-10	JKNBZ0294AWSA	J	AE	Knob,Function [600X]
201-11	JKNBZ0215AWSA	J	AH	Knob,Volume [600X]
201-11	JKNBZ0215AWSB	J	AH	Knob,Volume [600XT]
201-12	JKNBZ0216AWSA	J	AE	Knob,Edit
201-13	JKNBZ0217AWSA	J	AK	Knob,Mechanism
201-14	JKNBZ0218AWSA	J	AE	Knob,Memory
201-15	JKNBZ0219AWSA	J	AF	Knob,SRS [600X Only]
202	92LCAB2228BS1	J	AX	Top Cabinet Ass'y [600X]
202	92LCAB2234BS1	J	AX	Top Cabinet Ass'y [600XT]
202- 1	————		—	Top Cabinet (Not Replacement Item)
202- 2	HDECP0035AWSA	J	AE	Decoration Plate,SHARP [600X]
202- 2	HDECP0035AWSB	J	AE	Decoration Plate,SHARP [600XT]
203	92LBELT1746A	J	AC	Belt,Drive
204	GCAB-1038AWSA	J	BA	CD Tray
205	GCOVA1083AWSA	J	AS	Cover,CD Tray
206	GDORF0021AWSA	J	AK	Cassette Holder,Tape 1
207	GDORF0022AWSA	J	AK	Cassette Holder,Tape 2
208	92LGEAR1746A	J	AC	Gear,Driving Gear Cam
209	92LGEAR1746B	J	AC	Gear,Turntable
210	92LGEAR1746C	J	AC	Gear,Driving
211	GITAR0114AWSA	J		Back Board [600XT]
211	GITAR0115AWSA	J	AL	Back Board [600X]
212	GITAS0024AWSA	J	AW	Side Panel
213	HDECA0001AWSA	J	AD	Decoration Plate,Leg [600X]
213	HDECA0001AWSB	J		Decoration Plate,Leg [600XT]
214	HDECP0036AWSA	J	AF	Back Panel,Level Meter
215	HDECP0034AWSA	J	AF	Sheet,LCD Colour
216	HDECQ0158AWSA	J	AK	Panel,Tuner
217	HDECQ0129AWSA	J	AH	Panel,LCD
218	HDECQ0107AWSA	J	AK	Cover,Cassette (Tape 1)
219	HDECQ0108AWSA	J	AK	Cover,Cassette (Tape 2)
220	HDECQ0109AWSA	J	AH	Panel,Display
221	HDECQ0120AWSA	J	AG	Panel,Level Meter
223	LANGQ0007AWFW	J	AH	Support,Terminal
224	LANGZ0010AWFW	J	AL	Bracket,Stabilizer
225	LCHSM0031AWFW	J	AZ	Main Chassis
226	LCHSZ0008AWZZ	J	BA	Chassis,Loading
227	92LHOLD2228AS1	J		Stabilizer Ass'y
227-1	LHLDM1005AWSB	J	AG	Stabilizer
227-2	PMAGF0001AWZZ	J	AF	Magnet
227-3	PCOVS3016AWFW	J	AB	Support,Magnet
228	LHLDZ1043AWSA	J	AD	Holder,LED
229	LHLDZ1100AWZZ	J	AB	Holder,Cassette Leg
230	LHLDZ3004AWFW	J	AG	Holder,LCD
231	LHLDZ3006AWFW	J	AD	Holder,Edge Light
232	MCAMP0003AWZZ	J	AG	Cam,Driving Gear
233	MLEVP0049AWZZ	J	AK	Lever,Shift
234	MLIFP0003AWZZ	J	AE	Damper
235	MSPRD0068AWFP	J	AE	Spring,Shift Lever
236	MSPRD0069AWFP	J	AC	Spring,Cassette (Tape 1)

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
237	MSPRD0070AWFP	J	AC	Spring,Cassette (Tape 2)
238	92LN-BAND1318A	J	AA	Nylon Band,80mm
239	NBLT-0017AWZZ	J	AE	Belt,Drive
240	NGEAH0049AWFW	J	AE	Gear,Tray Lock
241	NGERH0048AWZZ	J	AG	Pulley,Gear
242	NROLP0004AWZZ	J	AC	Roller,Tray
243	NROLP0005AWZZ	J	AB	Roller,Loading
244	NROLP0006AWZZ	J	AC	Support Roller Ass'y,Turntable
245	NTNT-0016AWSA	J	AW	CD Turntable
247	PCUSG0017AWZZ	J	AE	Cushion,CD Mechanism
248	PGIDM0015AWZZ	J	AE	Guide,Rail (Left)
249	PGIDM0016AWZZ	J	AD	Guide,Rail (Right)
251	PRDAR0046AWFW	J	AS	Heat Sink
252	PRDAR0047AWFW	J	AT	Heat Sink (Sub)
253	92LPULLY1746A	J	AD	Pulley,Gear
254	QCNWN0769AWZZ	J	AD	Wire Lug
255	QFSHD0001AWZZ	J	AB	Holder,Fuse
256	QLUGP0001AWZZ	J	AC	Lug
257	LHLDF1013AWZZ	J		Bracket,PWB
258	PFLT-0030AWZZ	J		Felt,Level Meter
259	LHLDZ1136AWZZ	J		Holder,LED
260	LHLDZ1101AWSA	J	AF	Holder,LED
261	92LLABL1204C	J	AA	Label,Made in Malaysia [For Australia/New Zealand]
261	92LPANEL713A	J	AB	Label,Made in Malaysia [Except for Australia/New Zealand]
262	TSPC-0395AWZZ	J		Label,Specifications [600XT Only]
601	LX-EZ0005AWFD	J	AA	Screw,Special
602	LX-HZ0210AFFD	J	AA	Screw,ø3×10mm
603	LX-JZ0039AFFD	J	AA	Screw,ø3×10mm
604	LX-JZ0002AWFD	J	AA	Screw,ø3×10mm
606	LX-JZ0012AWFD	J	AC	Screw,ø3×24mm
607	LX-JZ0022AFFD	J	AA	Screw,ø3×8mm
608	XBPSD26P05JS0	J	AA	Screw,ø2.6×5mm
609	XEBSD20P08000	J	AA	Screw,ø2×8mm
610	XEBSF30P12000	J	AA	Screw,ø3×12mm,Black
611	XHBSD40P06000	J	AA	Screw,ø4×6mm
612	XJBSD30P10000	J	AA	Screw,ø3×10mm
613	XJBSD30P12000	J	AA	Screw,ø3×12mm
614	XJBSF30P08000	J	AA	Screw,ø3×8mm,Black
615	XJBSF30P10000	J	AA	Screw,ø3×10mm,Black
617	XJSSD30P10000	J	AA	Screw,ø3×10mm
618	XWHSD32-10130	J	AA	Washer,ø3.2×ø13×1mm
619	XWHSD32-10080	J	AA	Washer,ø3.2×ø8×1mm
620	92LSPAC1746A	J	AA	Washer,ø3.2×ø8×0.1mm
621	XJBSD30P08000	J	AA	Screw,ø3×8mm
622	LX-JZ0003AWFF	J	AA	Screw,ø3×12mm

ACCESSORIES/PACKING PARTS

	QACCE0005AW00	J	AM	AC Power Supply Cord [Except for Saudi Arabia/ Australia/New Zealand]
	QACCL0002AW00	J	AN	AC Power Supply Cord [For Australia/New Zealand]
	QANTL0001AWZZ	J	AL	AM Loop Antenna
	SPAKA0096AWZZ	J	AR	Packing Add.,Left/Right
	SPAKC0359AWZZ	J	AX	Packing Case [600X]
	SPAKC0430AWZZ	J		Packing Case [600XT]
	SSAKH0016AWZZ	J		Polyethylene Bag,Unit
	TINST0015AWZZ	J		Operation Manual [600XT]
	TINSZ0138AWZZ	J	AS	Operation Manual [600X]
	92LBAG1460C1	J	AB	Polyethylene Bag,Accessories
	92LBAG760C	J	AA	Polyethylene Bag,AC Plug Adaptor
	92LCORD577B	J	AM	AC Power Supply Cord [For Saudi Arabia]
	92LFANT1746A	J	AD	FM Antenna
	92LGCARD1266E1	J	AC	Warranty Card [For Australia/New Zealand Only]
	92LPLUG027	J	AD	AC Plug Adaptor [For Saudi Arabia]
	92LPLUG155A	J	AG	AC Plug Adaptor [Except for Saudi Arabia]
	RRMCG0075AWSA	J	AX	Remote Control
	92LLID1782A	J	AQ	Battery Lid,Remote Control

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION

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

PWB-A1~4	92LPWB2231MANS	J	—	Main/Power/Headphones/Spacer (Combined Ass'y) [600X for Australia/New Zealand Only]
PWB-B1~3	92LPWB2231DPLS	J	—	Display/Switch/Lamp (Combined Ass'y) [600X for Australia/New Zealand Only]
PWB-C1,2	92LPWB2228CDUS	J	—	CD Servo/Sensor (Combined Ass'y) [600X for Australia/New Zealand Only]
PWB-D1,2	92LPWB2231LVLS	J	—	Level Meter/Switch (Combined Ass'y) [600X for Australia/New Zealand Only]
PWB-E	92LPWB2230SRSS	J	—	SRS [600X for Australia/New Zealand Only]
PWB-F	QPWBF0027AWZZ	J	AD	CD Motor (PWB Only) [600X for Australia/New Zealand Only]
PWB-G	QPWBF0106AWZZ	J	AF	Tape Mechanism (PWB Only) [600X for Australia/New Zealand]

SPEAKER BOX PARTS

701	92L126-0001	J	AW	Front Panel Ass'y
702	92L121-0049	J	AS	Net Frame Ass'y
703	92L051-0011	J	AX	Cabinet Ass'y
704	92L394-0015	J	AB	Port Cushion
705	92L291-0019	J	AH	Cord,Speaker
706	92L302-0001	J	AE	Support,Tweeter
707	92L302-0002	J	AG	Support,Woofer
708	92L351-0083	J		Label,Specifications
709	92L319-0006	J	AC	Holder,Catching
710	92L372-0023	J	AB	Screw,ø4×32mm
C1,2	92L293-0034	J		1.0 µF,50V,Electrolytic, Non-Polar
SP1,2	VSP0013WB098A	J	AZ	Speaker,Woofer
SP3,4	VSP0050TBG48A	J	AR	Speaker,Tweeter
SP5,6	92L124-0006	J	AQ	Super Tweeter Ass'y

ACCESSORIES/PACKING PARTS

	92L353-0018	J		Label,Feature [600X for Australia/New Zealand]
	92L353-0020	J		Label,Feature [600X except for Australia/New Zealand]
	92L411-0038	J		Polyethylene Bag,Speaker
	92L412-0040	J	AK	Packing Add.,Top/Bottom

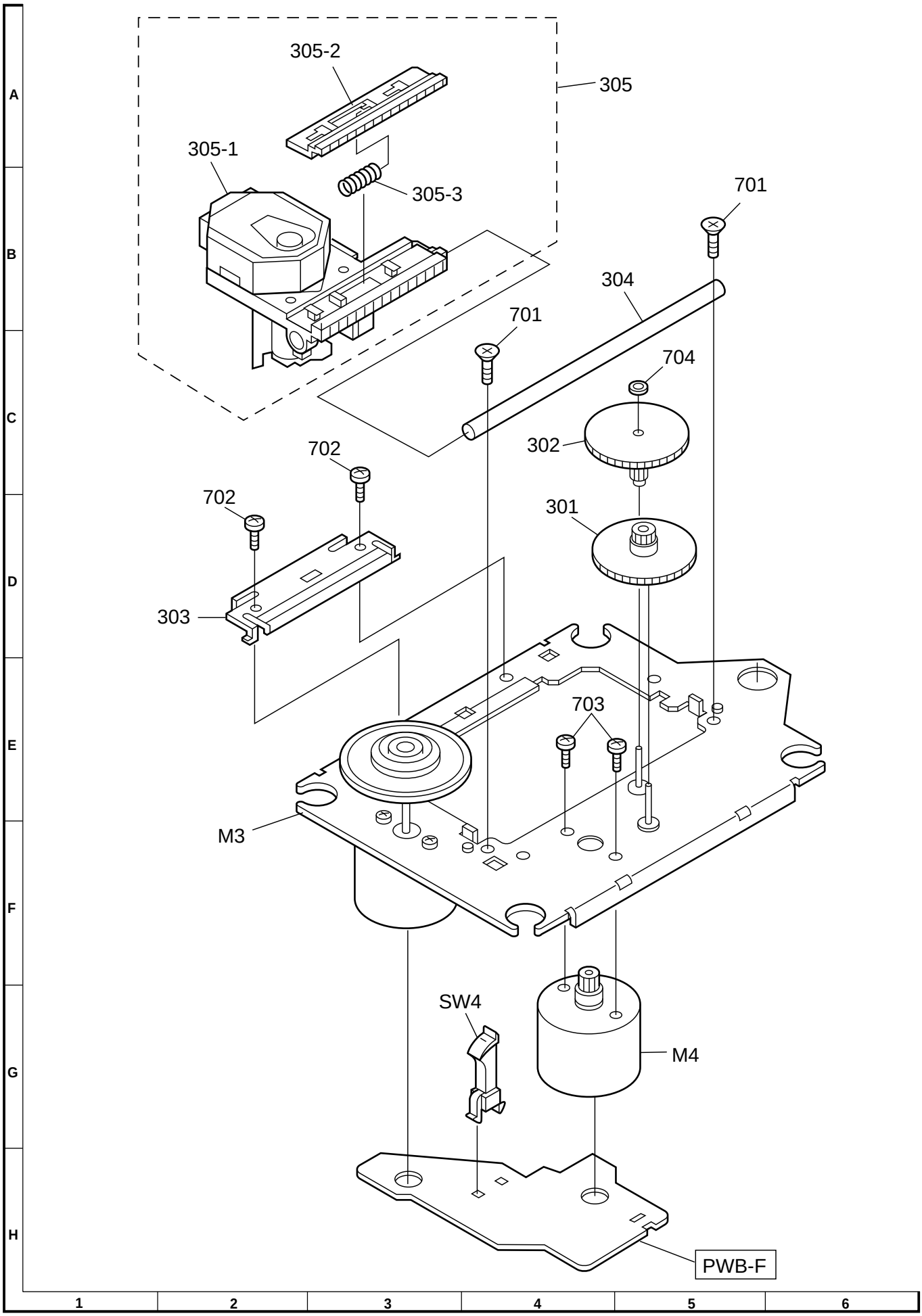

Figure 8 CD MECHANISM EXPLODED VIEW

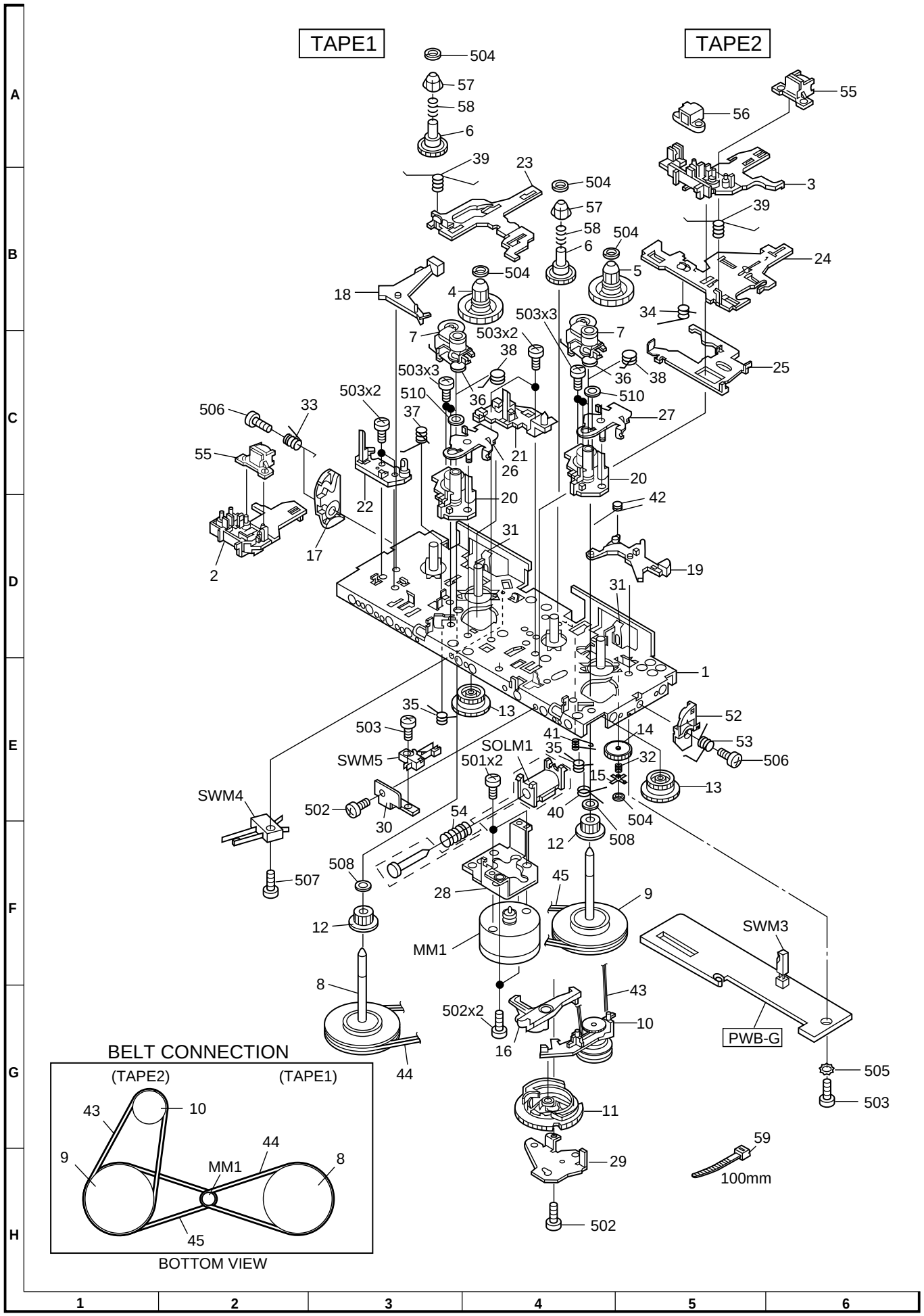

Figure 9 TAPE MECHANISM EXPLODED VIEW

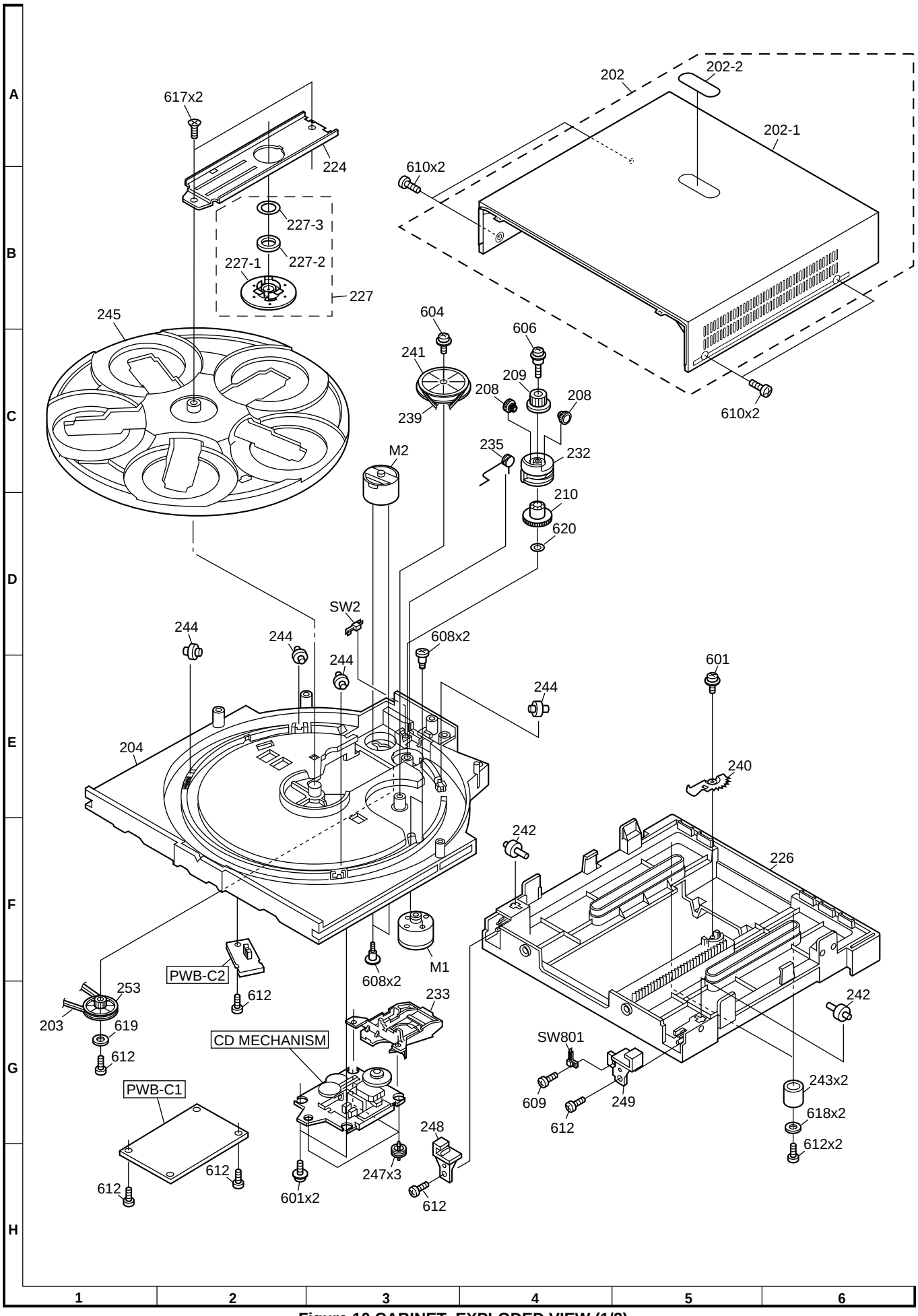

Figure 10 CABINET EXPLODED VIEW (1/2)

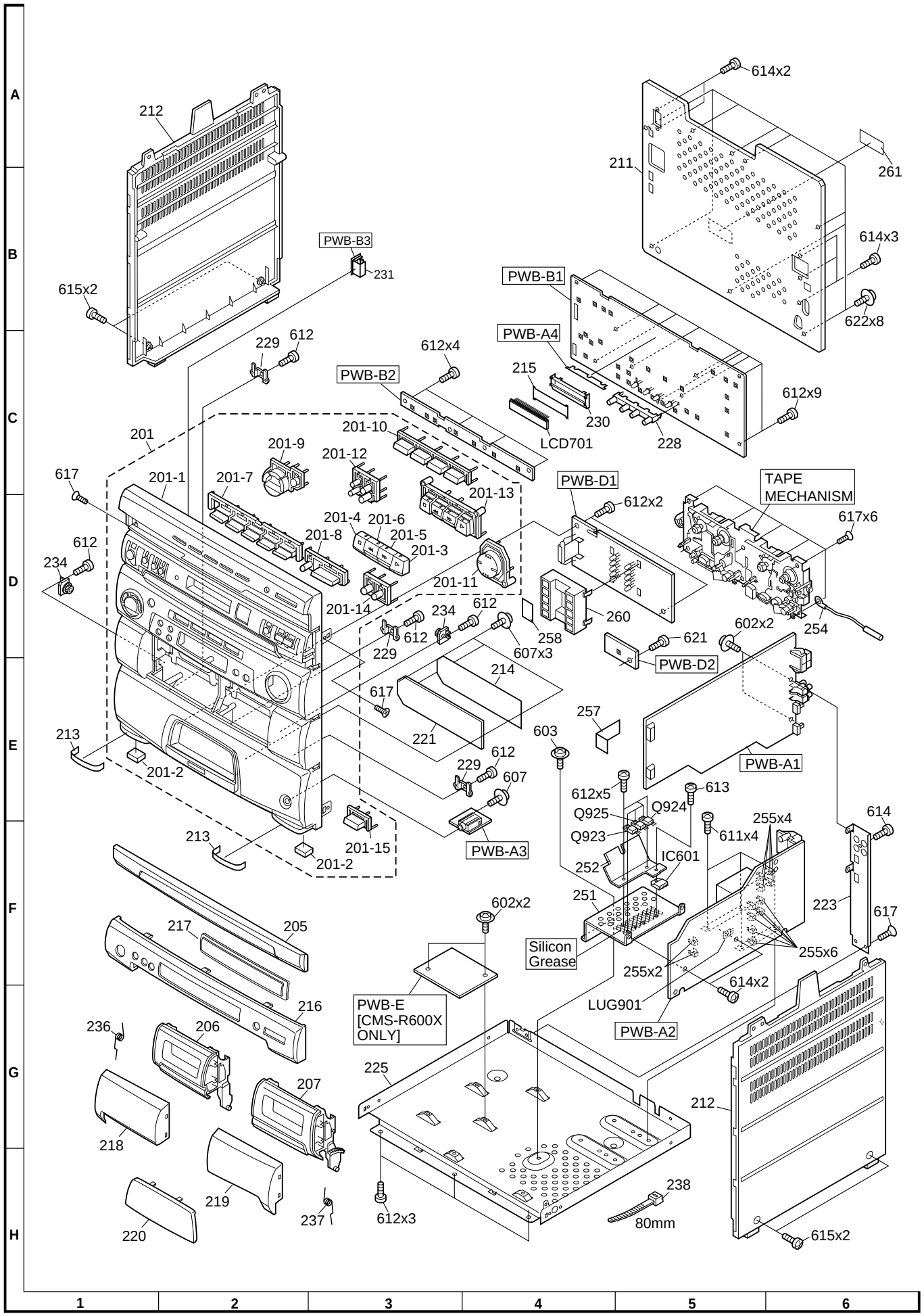

Figure 11 CABINET EXPLODED VIEW (2/2)

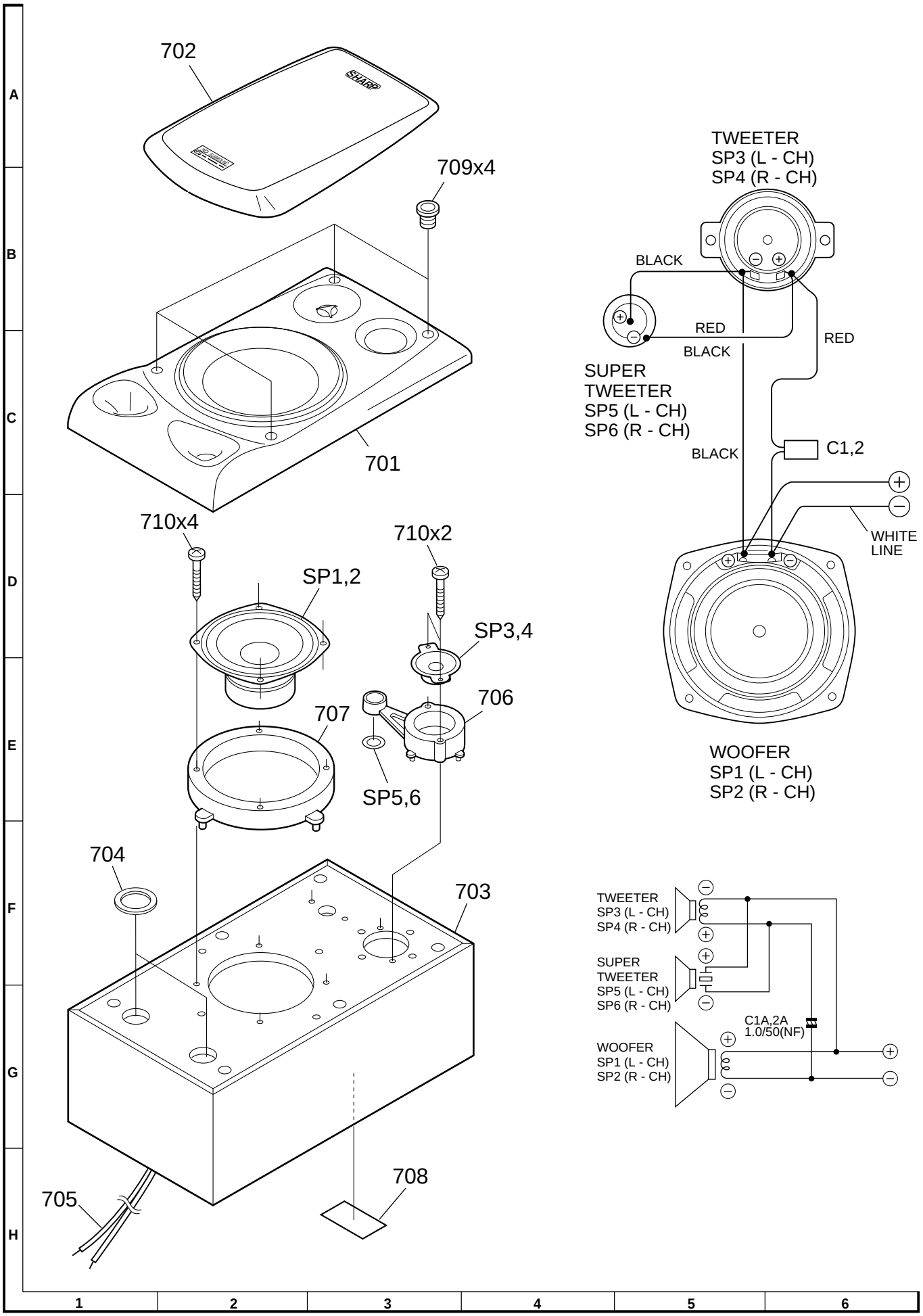

Figure 12 SPEAKER EXPLODED VIEW

— M E M O —

— M E M O —

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