

CFD-W57L

SERVICE MANUAL

AEP Model
UK Model

Ver 1.2 2000.07
With SUPPLEMENT-1
(9-923-385-81)



CD Section	Model Name Using Similar Mechanism	CFD-222L
	CD Loading Mechanism Type	KSL-213CGP
	CD Mechanism Type	KSM-213CGP
	Optical Pick-up Name	KSS-213C
TC Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	MF-W57

SPECIFICATIONS

CD player section

System

Compact disc digital audio system

Laser diode properties

Material: GaAlAs

Wave length: 780 nm

Emission duration: Continuous

Laser output: Less than 44.6 μ W

(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)

Spindle speed

200 r/min (rpm) to 500 r/min (rpm) (CLV)

Number of channels

2

Frequency response

20 - 20,000 Hz $\pm 1/-2$ dB

Wow and flutter

Below measurable limit

Radio section

Frequency range

FM	UK, German model	87.6 - 107 MHz
	Italian model	87.5 - 108 MHz
	East European model	65 - 74 MHz
		87.5 - 108 MHz
MW		531 - 1,602 kHz
LW		153 - 279 kHz

IF

FM: 10.7 MHz

MW/LW: 450 kHz

Aerials

FM: Telescopic aerial

MW/LW: Built-in ferrite bar aerial

Cassette-corder section

Recording system

4-track 2 channel stereo

Fast winding time

Approx. 120 s (sec.) with Sony cassette C-60

Frequency response

TYPE I (normal): 70 - 12,500 Hz

General

Speaker

Full range: 8 cm (3 1/4 in.) dia.,
3.2 ohms, cone type (2)

Outputs

Headphones jack (stereo minijack)

For 16 - 64 ohms impedance headphones

Maximum power output

4.5 W + 4.5 W

Power requirements

For CD radio cassette-corder:

230 V AC, 50 Hz

12 V DC, 8 R20 (size D) batteries

For memory back-up:

6 V DC, 4 R6 (size AA) batteries

For remote control:

3 V DC, 2 R6 (size AA) batteries

Power consumption

AC 25 W

- Continued on next page -

CD RADIO CASSETTE-CORDER



SONY®

Battery life

For CD radio cassette-corder:

FM recording

Sony R20P: approx. 4.5 h

Sony alkaline LR20: approx. 12 h

Tape playback

Sony R20P: approx. 2 h

Sony alkaline LR20: approx. 4.5 h

CD playback

Sony R20P: approx. 2 h

Sony alkaline LR20: approx. 4.5 h

Dimensions

Approx. 444 × 180 × 256 mm (w/h/d)

(17 1/2 × 7 1/8 × 10 1/8 inches) (incl. projecting parts)

Mass

Approx. 7.0 kg (15 lb. 7 oz.) (incl. batteries)

Supplied accessories

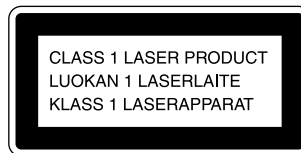
AC power cord (1)

Remote control (RMT-CW57AD) (1)
(Except East European model)

Remote control (RMT-CW57A) (1)
(East European model)

Conversion plug adaptor (1) (UK)

Design and specifications are subject to change without notice.



This Compact Disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the bottom exterior.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts. The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

NOTES ON CABINETS ASSEMBLY

Put flat cable and wires between the cabinets and push them in the grooves located at A to E in the figure to prevent disconnection before assembling the set.

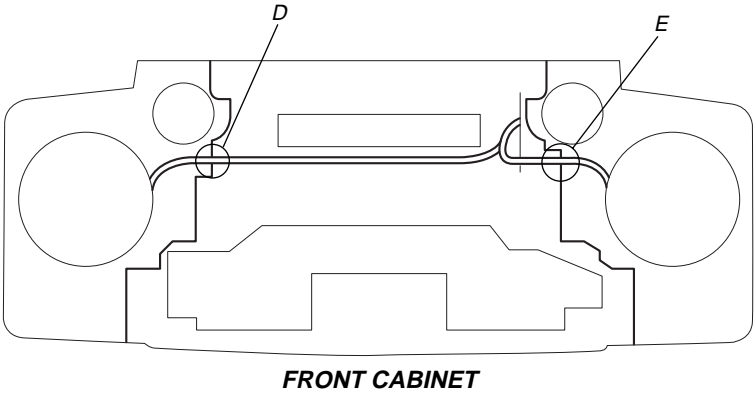
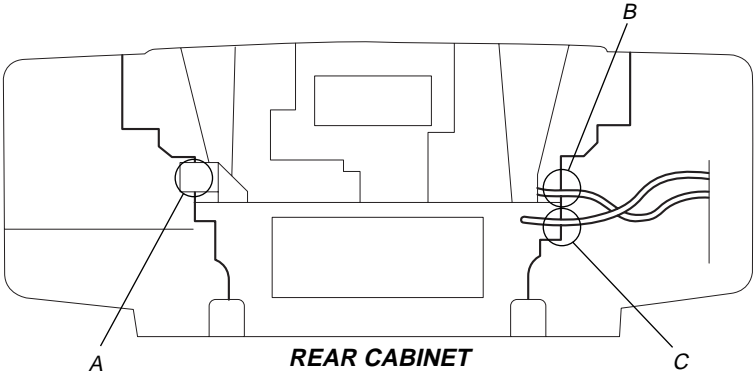


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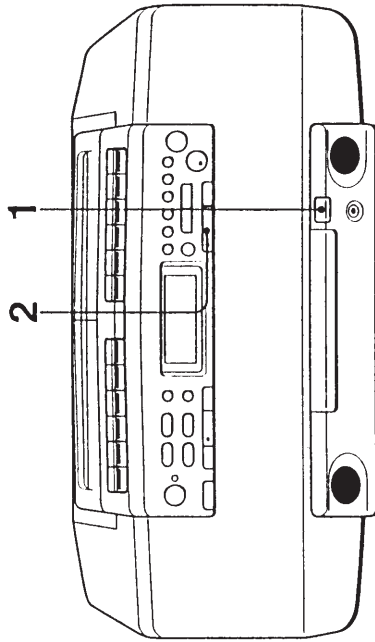
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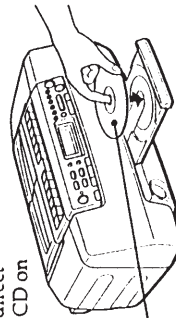
Playing a CD



Connect the supplied AC power cord (see page 25).

- 

Press **OPEN/CLOSE** (direct power-on) and place the CD on the CD tray.

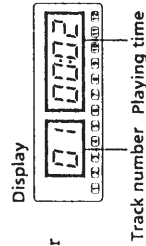


With the label side up

- 

Press **▶||**.

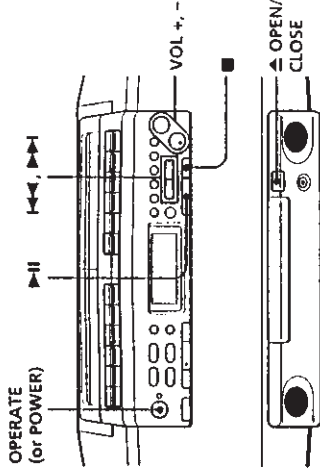
The CD tray closes and the player plays all the tracks once.



Track number Playing time

Tip
Next time you want to listen to a CD, just press **▶||**. The player turns on automatically and starts playing the CD.

Use these buttons for additional operations



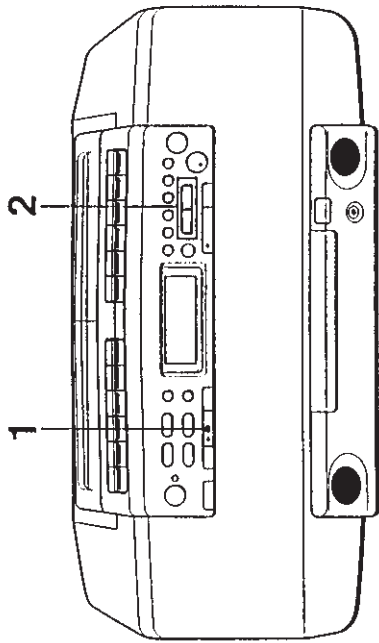
To	Press
adjust the volume	VOL +, -
stop playback	■
pause playback	▶ (II on the remote) Press the button again to resume play after pause.
go to the next track	▶▶
go back to the previous track	◀◀
remove the CD	◀ OPEN/CLOSE
turn on/off the player	OPERATE (or POWER, see page 2)

SECTION 1 GENERAL

This section is extracted from instruction manual.

Basic Operations

Listening to the radio

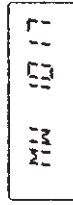


Connect the supplied AC power cord (see page 25).



1 Press **BAND** until the band you want appears in the display (direct power-on).

Display



2 Hold down **TUNING/TIME SET** + or - (**TUNE** + or - on the remote) until the frequency digits begin to change in the display.

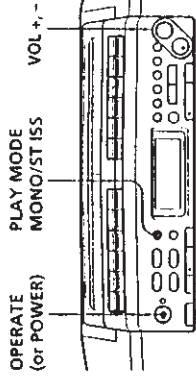
The player automatically scans the radio frequencies and stops when it finds a clear station.

If you can't tune in a station, press the button repeatedly to change the frequency step by step.



Indicates an FM stereo broadcast

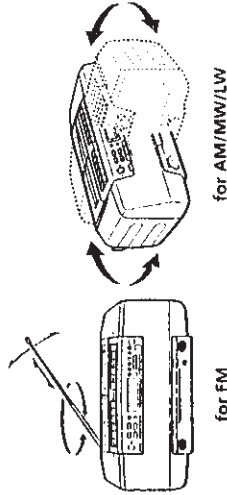
Use these buttons for additional operations



To	Press
adjust the volume	VOL +, -
turn on / off the radio	OPERATE (or POWER, see page 2)

To improve broadcast reception

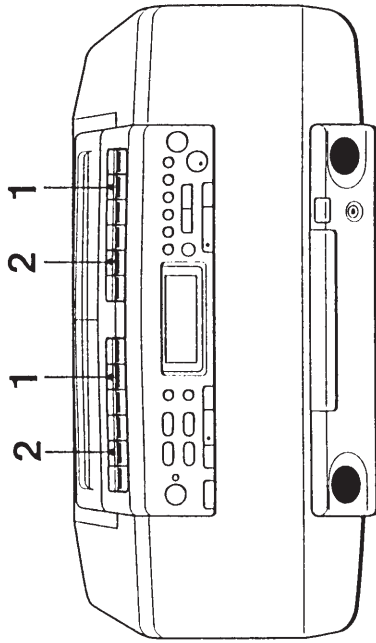
Reorient the antenna for FM. Reorient the player itself for AM or MW/LW.



Tips

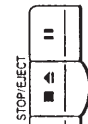
- If the FM broadcast is noisy, press **PLAY MODE** MONO/ST/ISS until "Mono" appears in the display and the radio will play in monaural.
- Next time you want to listen to the radio, just press **BAND**. The player turns on automatically and starts playing the previous station.
- CFD-W57 only:** If you need to change the AM tuning interval (preset to 9 kHz at the factory), see page 26.

Playing a tape

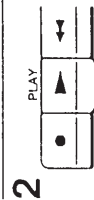
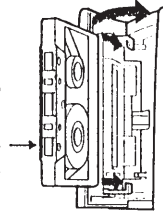



Connect the supplied AC power cord (see page 25).

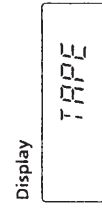


Press  to open the tape compartment and insert a recorded tape. Use TYPE I (normal) tape only. Close the compartment.

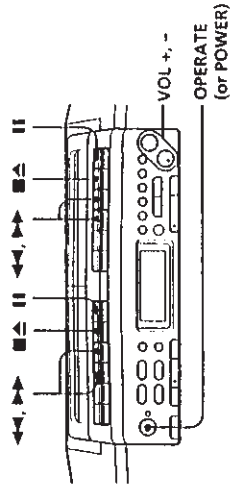
With the side you want to play facing upward



Press . The player turns on (direct power-on) and starts playing.



Use these buttons for additional operations



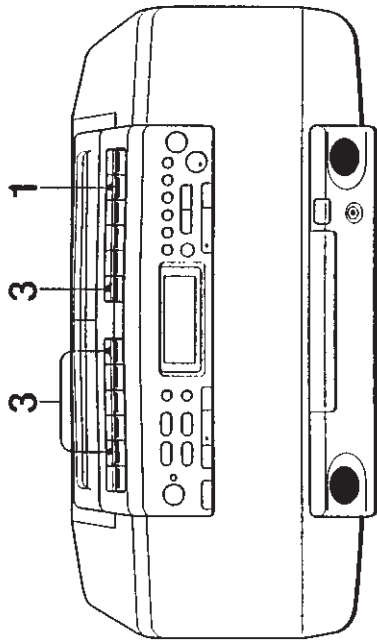
Basic Operations

To	Press
adjust the volume	VOL +, -
stop playback	■
fast-forward or rewind the tape	▶▶ or ◀◀
pause playback	
Press the button again to resume play after pause.	■
eject the cassette	■
turn on/off the player	OPERATE (or POWER, see page 2)

Note
During playback, do not press buttons on the other deck. Otherwise the playback speed may change.

Tip
Next time you want to listen to a tape, just press ▶. The player turns on automatically and starts playing the tape.

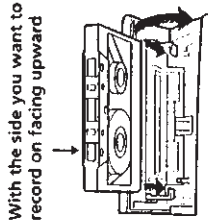
Recording on a tape



Connect the supplied AC power cord (see page 25).



Press **STOP/EJECT** to open the tape compartment on deck B and insert a blank tape. Use **TYPE I** (normal) tape only.



With the side you want to record on facing upward



Select the program source you want to record.

To record from the CD player, insert a CD (see page 4) and press **CD** on the CD section.



To record from the radio, press **BAND** and tune in the station you want (see page 6).

To record from the tape, insert a recorded tape into deck A (see page 8).

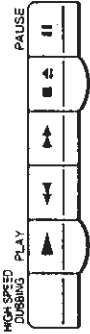
3 Deck B



Start recording.

To record from the CD player and the radio, press **REC** on deck B (**REC** is depressed automatically).

Deck A



To record from the tape, press **PAUSE** and **PLAY** on deck A. (For high speed dubbing, press **PAUSE** and **HIGH SPEED DUBBING**.) Then press **REC** on deck B (**REC** is depressed automatically).

Deck B



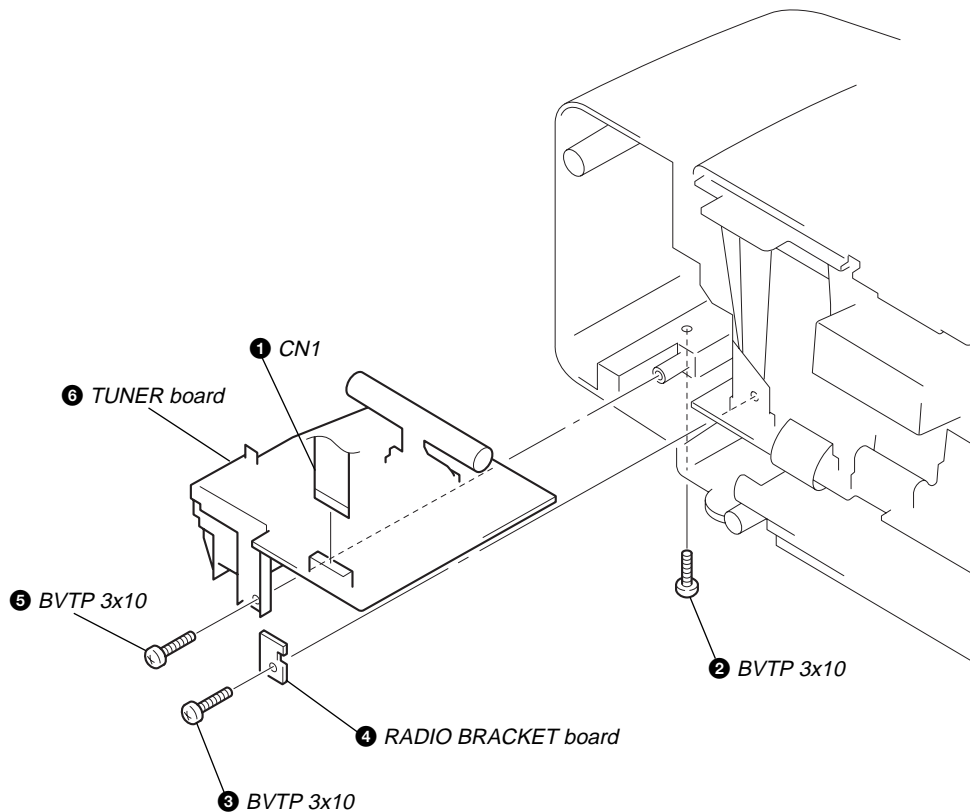
Tips

- Adjusting the volume or the audio emphasis (see page 28) will not affect the recording level.
- If the AM or MW/LW program makes a whistling sound after you've pressed **PLAY** in step 3, press **PLAY MODE**, **MONO/STEREO** (Interference Suppress switch) repeatedly until the noise is at a minimum.
- For the best results, use the AC power as a power source.
- To erase a recording, proceed as follows:
 - 1 Insert the tape whose recording you want to erase into deck B.
 - 2 Press **REC** on deck B.

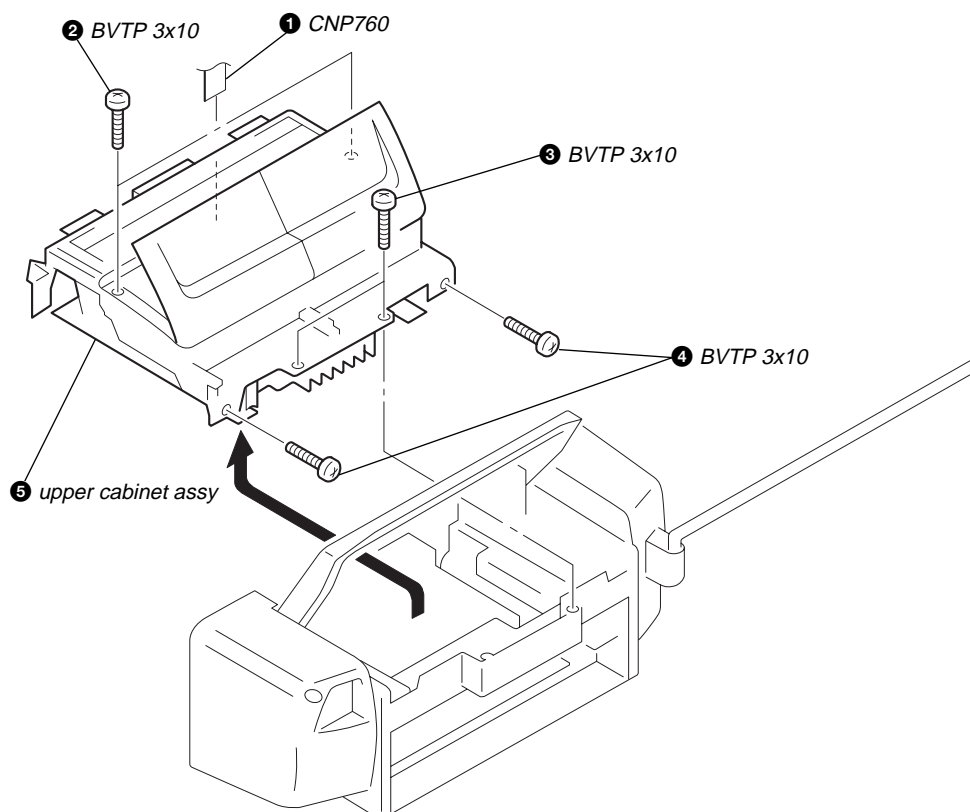
Use these buttons for additional operations

To	OPERATE (or POWER)	PLAY MODE
stop recording	STOP	MONO/STEREO
pause recording	PAUSE	PAUSE
turn on/off the player	OPERATE (or POWER , see page 2)	

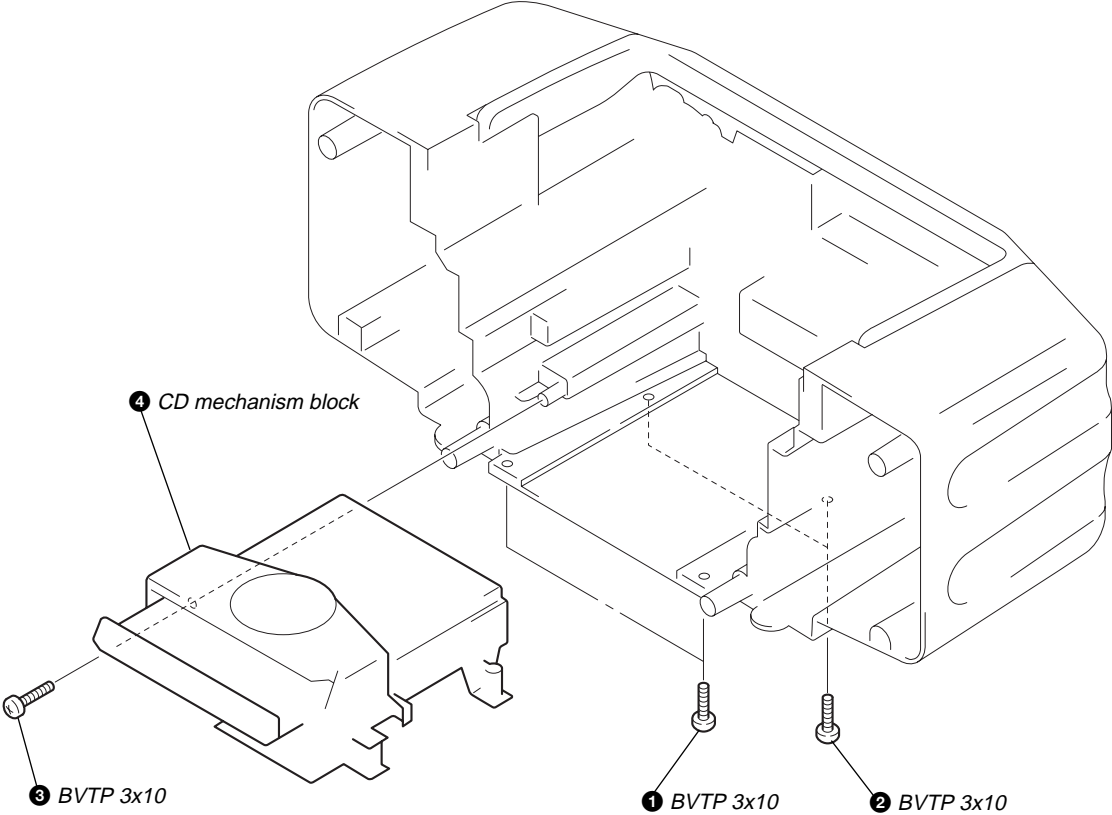
2-3. TUNER BOARD



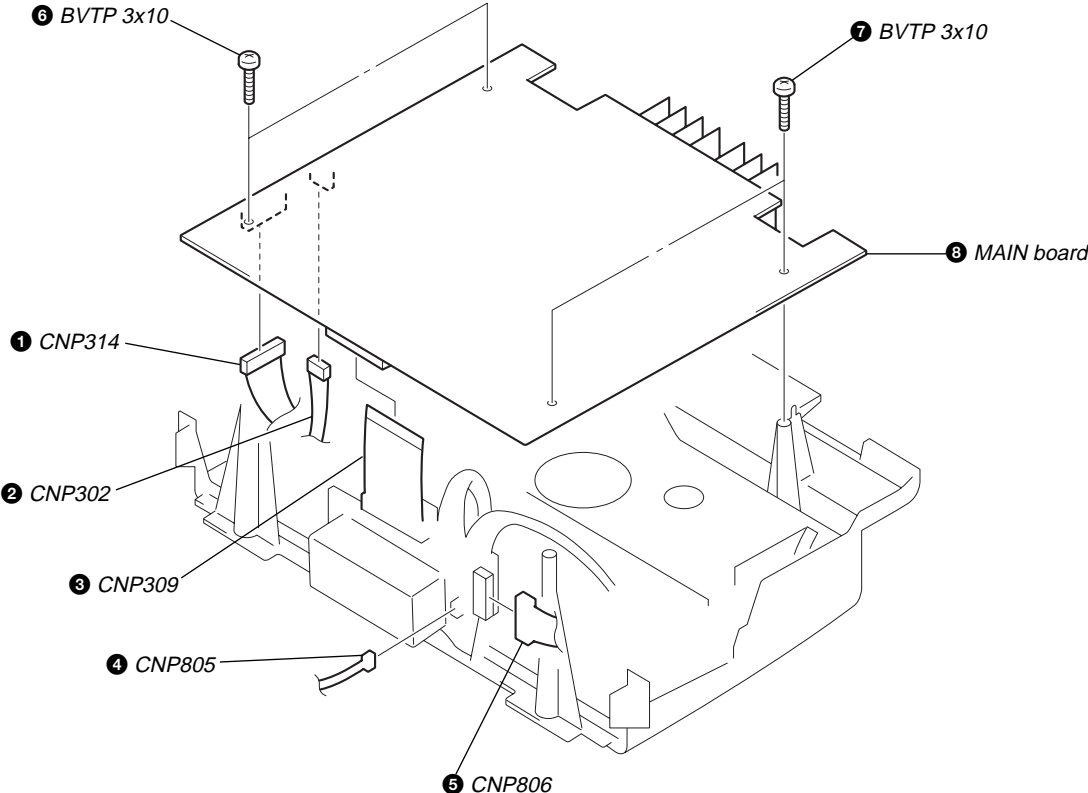
2-4. UPPER CABINET ASSY



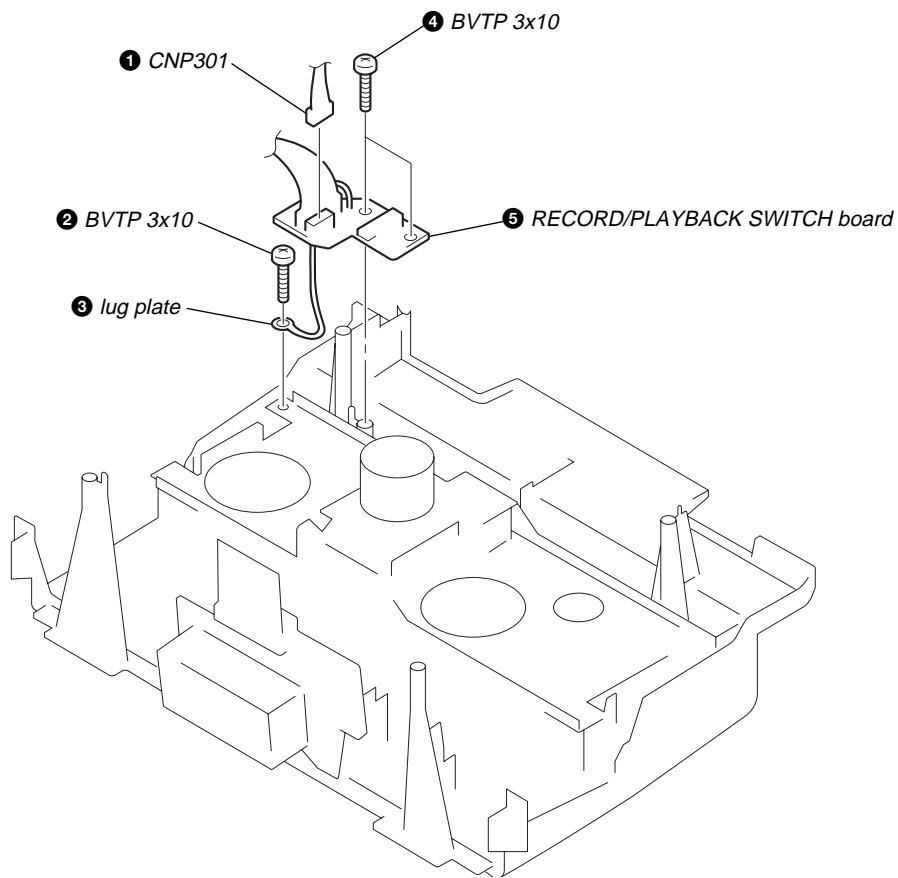
2-5. CD MECHANISM BLOCK



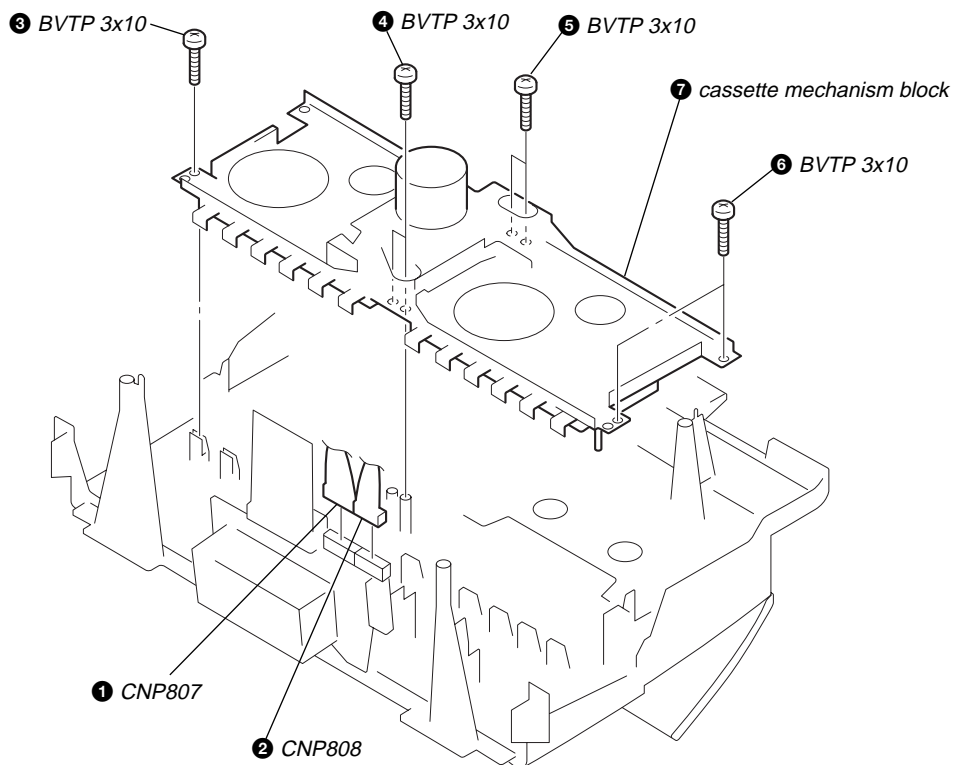
2-6. MAIN BOARD



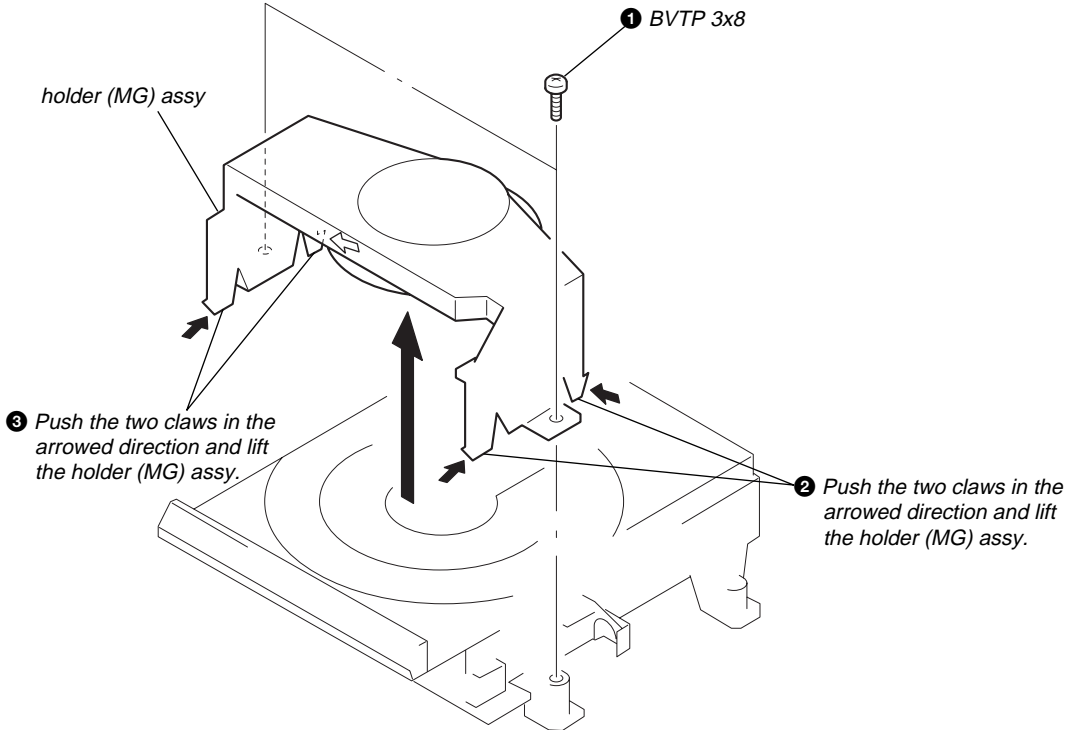
2-7. RECORD/PLAYBACK SWITCH BOARD



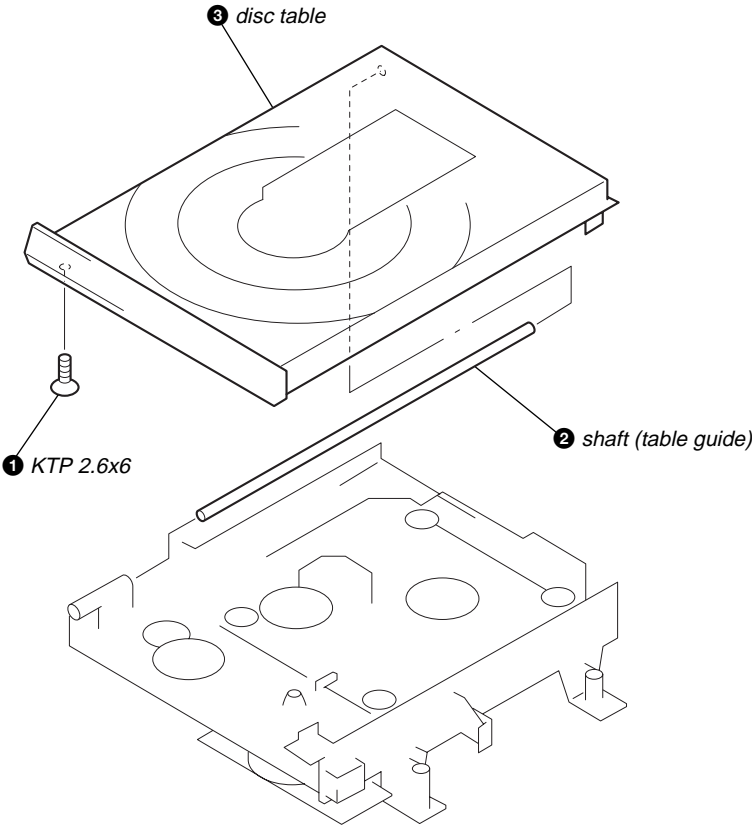
2-8. CASSETTE MECHANISM BLOCK



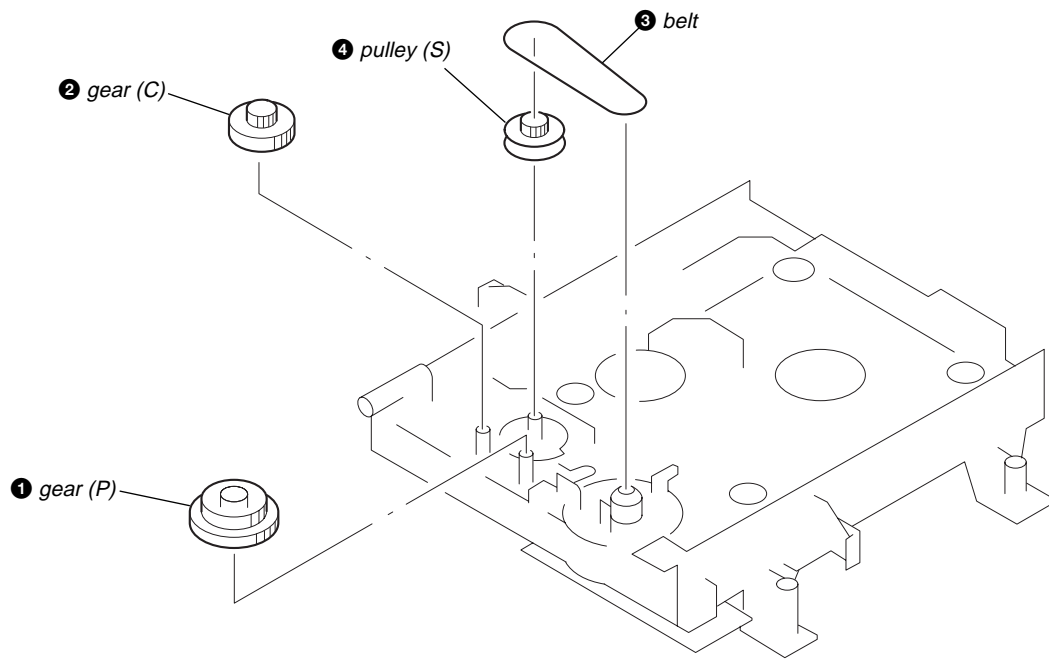
2-9. HOLDER (MG) ASSY



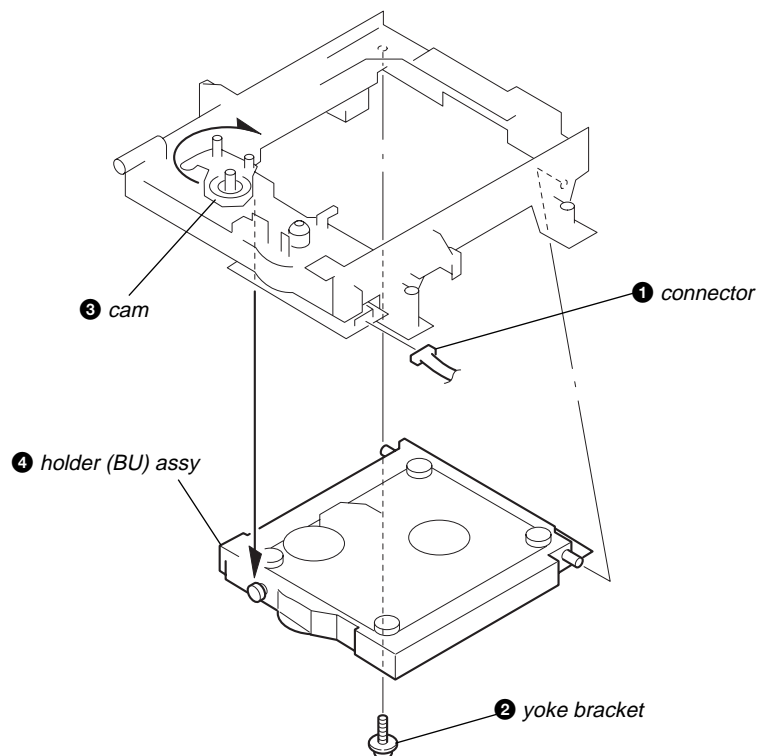
2-10. DISC TABLE



2-11. PULLEY (S)



2-12. HOLDER (BU) ASSY



SECTION 3 MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured alcohol-moistened swab :

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
6. Power supply voltage: 12 V dc.

Torque Measurement DECK A DECK B

Mode	Torque meter	Meter reading
Forward	CQ-102C	22.5 to 55 g • cm (0.31 to 0.76 oz • inch)
Forward back tension	CQ-102C	2 to 5 g • cm (0.03 to 0.07 oz • inch)
Fast Forward and Rewind	CQ-201B	60 to 120 g • cm (0.83 to 1.67 oz • inch)

Tape Tension Measurement DECK A DECK B

Mode	Tension meter	Meter reading
Forward	CQ-403A	more than 150 g (more than 5.29 oz)

SECTION 4 ELECTRICAL ADJUSTMENTS

TAPE SECTION

0 dB = 0.775 V

Standard Input Level

Input terminal	MIX MIC
source impedance	300 Ω
input signal level	3.085 mV (−48 dB)

Standard Output Level

Output terminal	SP OUT	PHONES OUT
load impedance	6 Ω	32 Ω
output signal level	0.775 V (0 dB)	0.25 V (−10 dB)

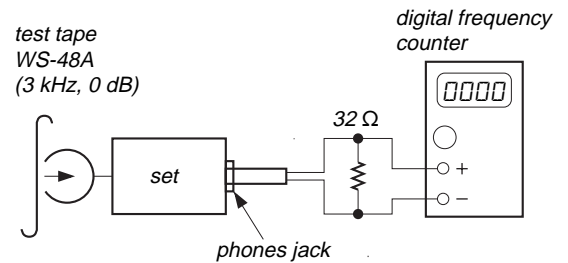
Test Tape

Tape	Signal	Used for
WS-48A	3 kHz, 0 dB	tape speed adjustment
P-4-A063	6.3 kHz, −10 dB	head azimuth adjustment

Tape Speed Adjustment DECK A

Procedure:

- Perform normal speed adjustment before high speed check.
- Mode: playback (deck A)
record (deck B)

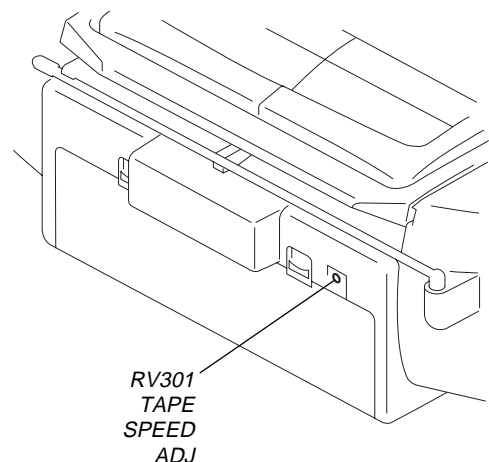


Deck	Tape speed	Adjustment point	Frequency counter
A	Normal (playback)	RV301	2,970 to 3,000 Hz
A	HI-SPEED DUBBING (playback)	(confirmation)	5,500 to 5,900 Hz
B	HI-SPEED DUBBING (record)	—	—

Frequency difference between the beginning and the end of the tape should be within ± 1.5% (both Normal and Hi-speed).

Adjustment Location:

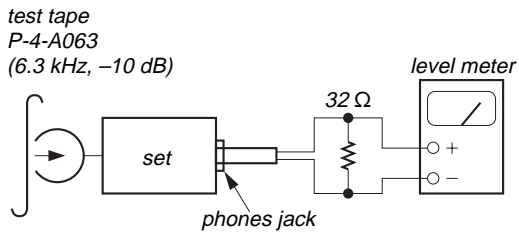
—set rear view—



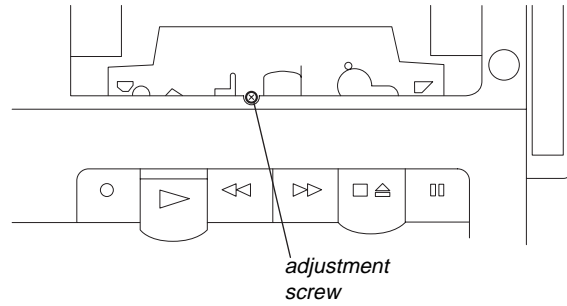
REC/PB Head Azimuth Adjustment DECK A DECK B

Procedure:

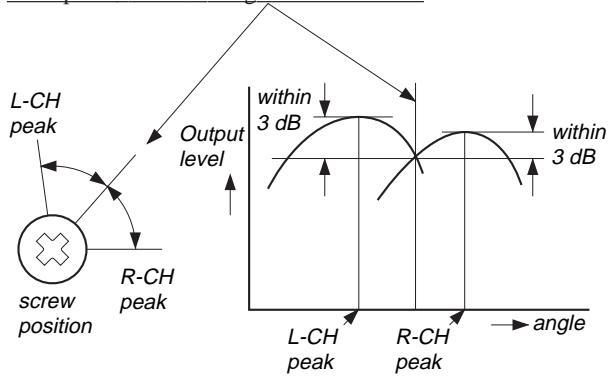
1. Mode: playback



Adjustment Location: playback head (deck A)
record/playback head (deck B)



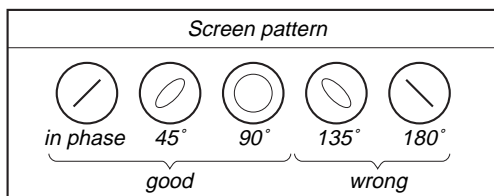
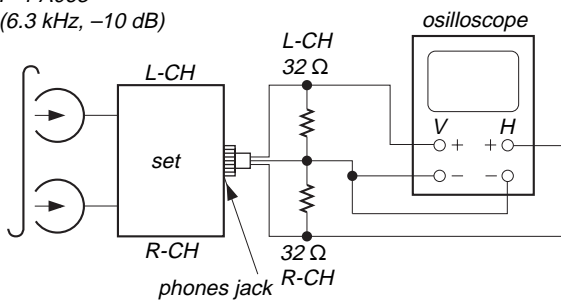
2. Turn the adjustment screw for the maximum output levels. If these levels do not match. Turn the adjustment screw until both of output levels match together within 3 dB.



3. Phase Check

Mode: playback

test tape
P-4-A063
(6.3 kHz, -10 dB)



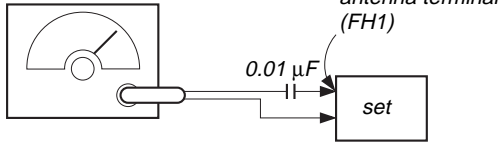
Note: Finish the screw adjustment with a turn in the clockwise direction.

After the adjustment, lock the adjustment screw.

TUNER SECTION **0 dB = 1 μ V**

- **FM Section**
Setting:
 BAND switch: FM

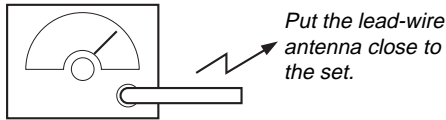
FM RF signal generator



22.5 kHz frequency deviation by 400 Hz signal
 Output level : as low as possible

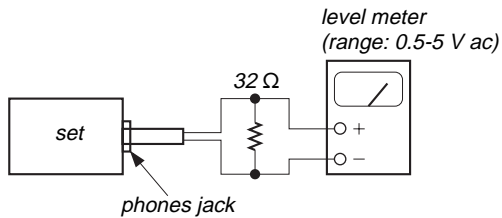
- **MW/LW Section**
Setting:
 BAND switch: MW or LW

AM RF signal generator

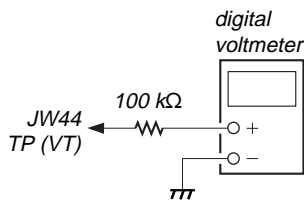


30% amplitude modulation by 400 Hz signal
 Output level : as low as possible

- **Connecting Level Meter (FM, MW and LW)**



- **Connecting Digital Voltmeter (FM, MW and LW)**



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

FM FREQUENCY COVERAGE ADJUSTMENT		
Frequency Display	87.5 MHz (65 MHz)	108 MHz
Reading on Digital voltmeter	1.4 \pm 0.2 V	3.5 \pm 0.1 V (7.3 \pm 0.2 V)
Adjustment Part	<confirmation>	L2

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L1	CT1
87.5 MHz (68 MHz)	108 MHz (102 MHz)

MW FREQUENCY COVERAGE ADJUSTMENT		
Frequency Display	531 kHz	1,611 kHz
Reading on Digital voltmeter	0.9 \pm 0.1 V	5.7 \pm 0.1 V
Adjustment Part	L4	CT2

MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L3-1	CT4
621 kHz	1,404 kHz

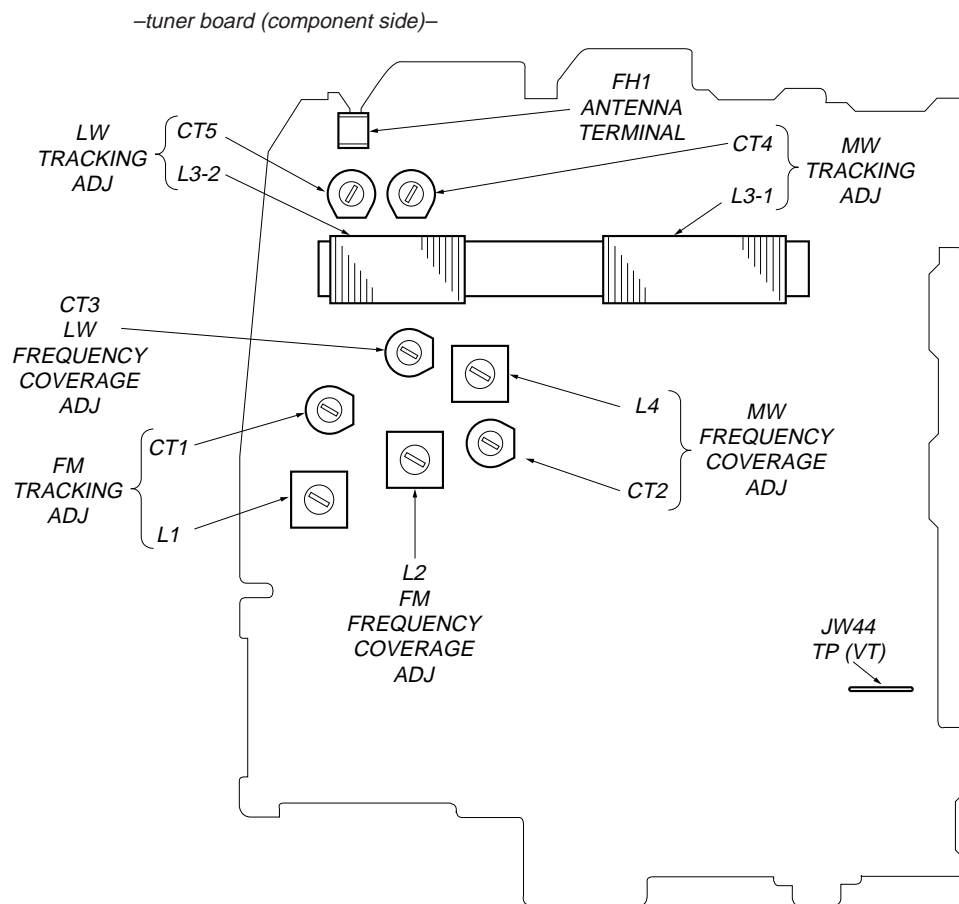
LW FREQUENCY COVERAGE ADJUSTMENT		
Frequency Display	153 kHz	279 kHz
Reading on Digital voltmeter	0.6 \pm 0.15 V	5.7 \pm 0.1 V
Adjustment Part	<confirmation>	CT3

LW TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L3-2	CT5
162 kHz	261 kHz

() : East European model

Adjustment Location: See page 18.

Adjustment Location: tuner board



CD SECTION

CD section adjustments are done automatically in this set.

SECTION 5 DIAGRAMS

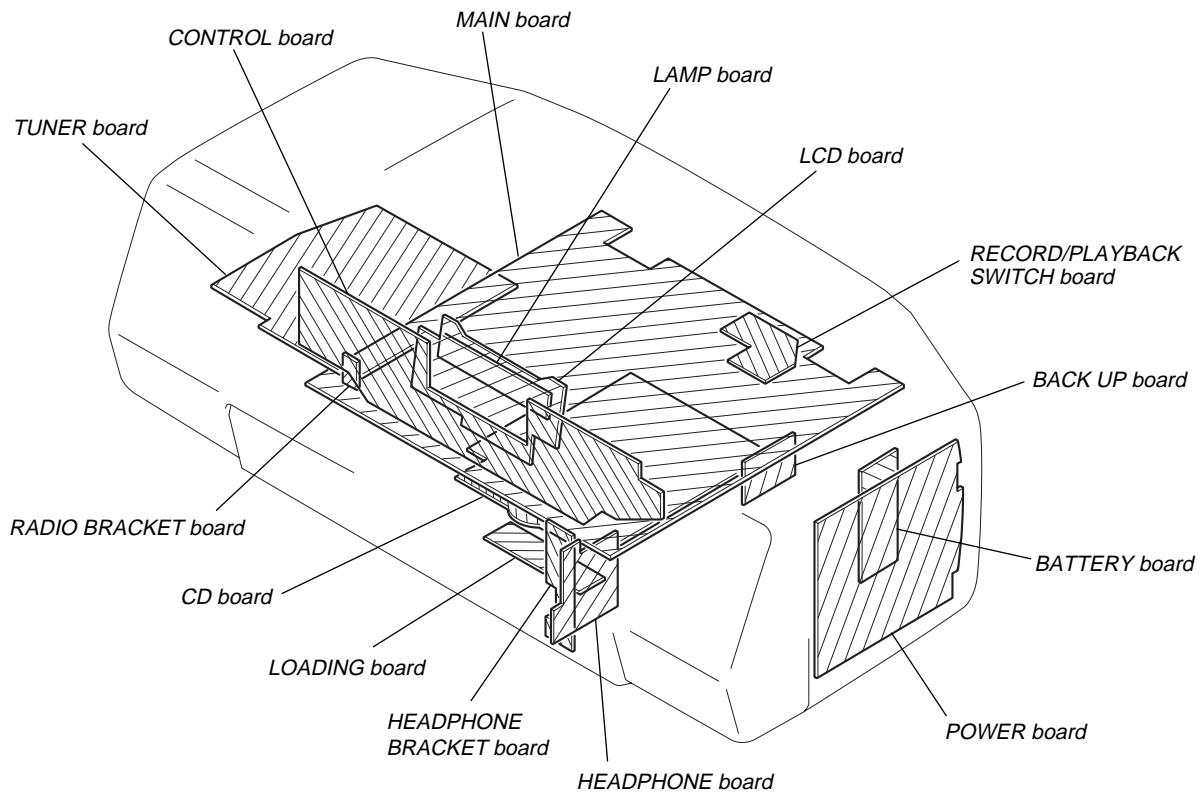
5-1. IC PIN DESCRIPTION

• IC801 CXP83120A-029Q (SYSTEM CONTROL)

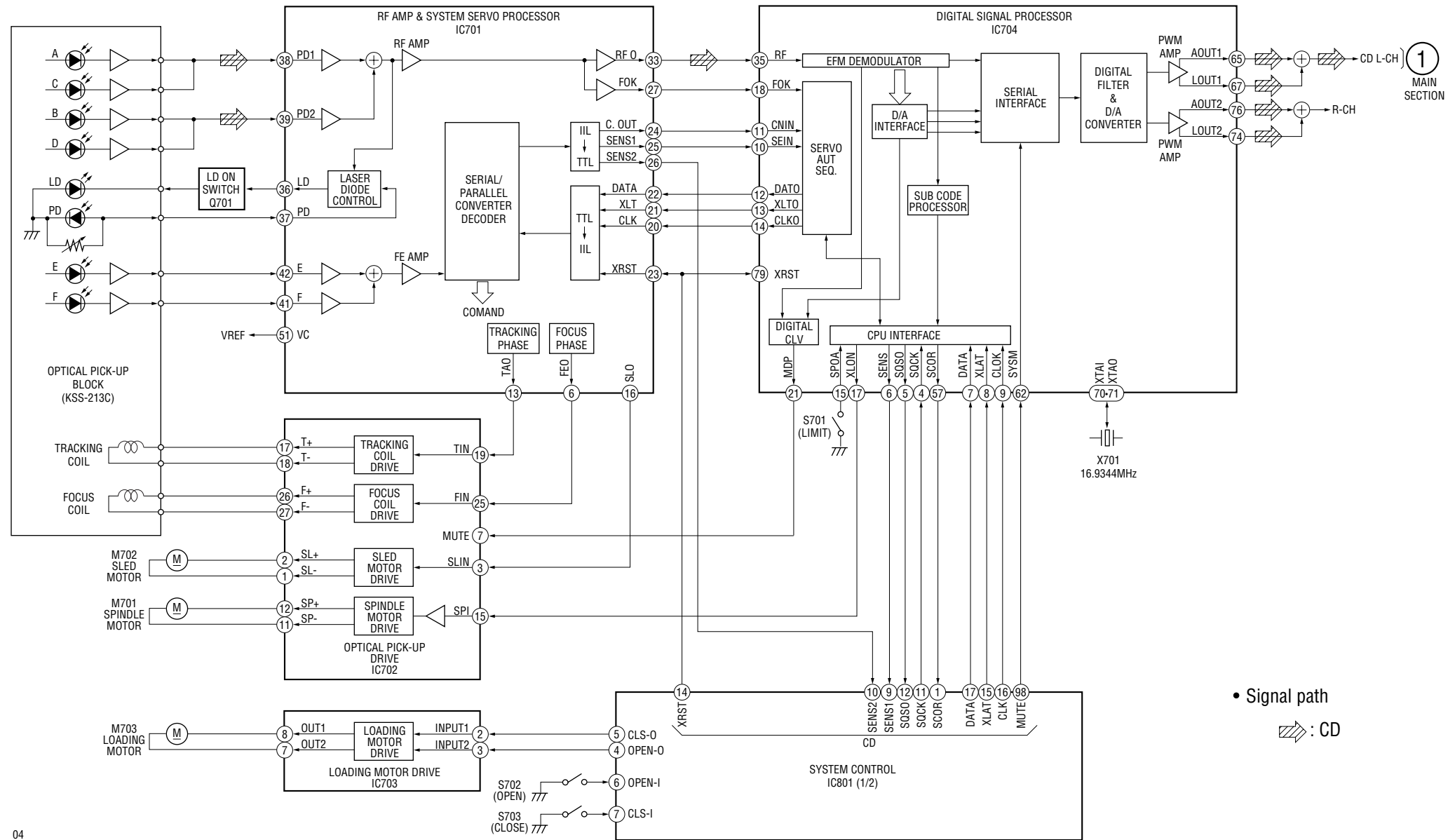
Pin No.	Pin Name	I/O	Pin Description
1	C-SCOR	I	CD SCOR input
2	W/UP	I	Wake-up input
3	RMC	I	Sircs receiver input
4	OPEN-O	O	CD loading motor control output (Eject direction)
5	CLS-O	O	CD loading motor control output (Loading direction)
6	OPEN-I	I	CD open switch input
7	CLS-I	I	CD close switch input
8	—	—	Not used.
9	C-SENS1	I	CD SENSE-1 input
10	C-SENS2	I	CD SENSE-2 input
11	C-SQCK	O	CD Sub-Q read clock output
12	C-SQSO	I	CD Sub-Q data input
13	—	—	Not used.
14	C-XRST	O	CD reset output
15	C-XLAT	O	CD serial latch output
16	C-CLK	O	CD serial clock output
17	C-DATA	O	CD serial data output
18	R-ST	O	Stereo indicator output
19	R-DATA	O	Tuner PLL data output
20	R-CLK	O	Tuner PLL clock output
21	R-COUNT	I	Tuner PLL data input
22	R-CE	O	Tuner PLL chip enable output
23	P.CON	O	System power control output
24	V-DATA	O	Volume serial data output
25	V-CLOCK	O	Volume serial clock output
26	V-CE	O	Volume serial chip enable output
27	REG-CHK	I	Low voltage detection input
28	BL-CONT	O	Back light control output
29	REC	I	Tape record signal input
30	INI	O	Tuner select initial setting output
31	SET 9k/10k	I	Tuner band 9k/10k select input
32	VERSION	I	Tuner destination band select input
33 – 36	KEY-1 – 4	I	Key input
37	SFT-CLK	O	Shift clock output
38	RESET	I	System reset input
39	EXTAL1	I	Oscillation input (4.19 MHz)
40	XTAL1	O	Oscillation output (4.19 MHz)
41	VSS	—	GND
42	XTAL2	—	Not used.
43	EXTAL2	—	Not used (Conected to GND).
44	AVREF	I	A/D converter VREF input
45	AVSS	—	Analog GND
46	VL	O	LCD drive port ON/OFF output
47 – 49	VLC-3 – 1	O	LCD drive voltege terminal
50 – 53	COM0 – 3	O	LCD drive common output
54 – 76	SEG0 – 22	O	LCD drive segment output
77 – 80	—	—	Not used.
81, 82	NC	—	Not used.
83	ROCK-LED	O	Not used.
84	POP-LED	O	Not used.
85	LIVE-LED	O	Not used.

Pin No.	Pin Name	I/O	Pin Description
86	VOCAL-LED	O	Not used.
87, 88	NC	—	Not used.
89	VDD	—	Power supply pin (+5 V)
90	NC	—	Not used.
91	VSS	—	GND
92	TX	O	Oscillation output (32.768 kHz)
93	TXE	I	Oscillation input (32.768 kHz)
94	ISS1	O	Tape ISS1 control output
95	ISS2	O	Tape ISS2 control output
96	A-MUTE	O	Audio mute output
97	R-MUTE	O	Tuner mute output
98	C-MUTE	O	CD mute output
99	$\overline{TC2}$	I	Tape play switch input (Deck A)
100	$\overline{TC1}$	I	Tape play switch input (Deck B)

5-2. CIRCUIT BOARDS LOCATION

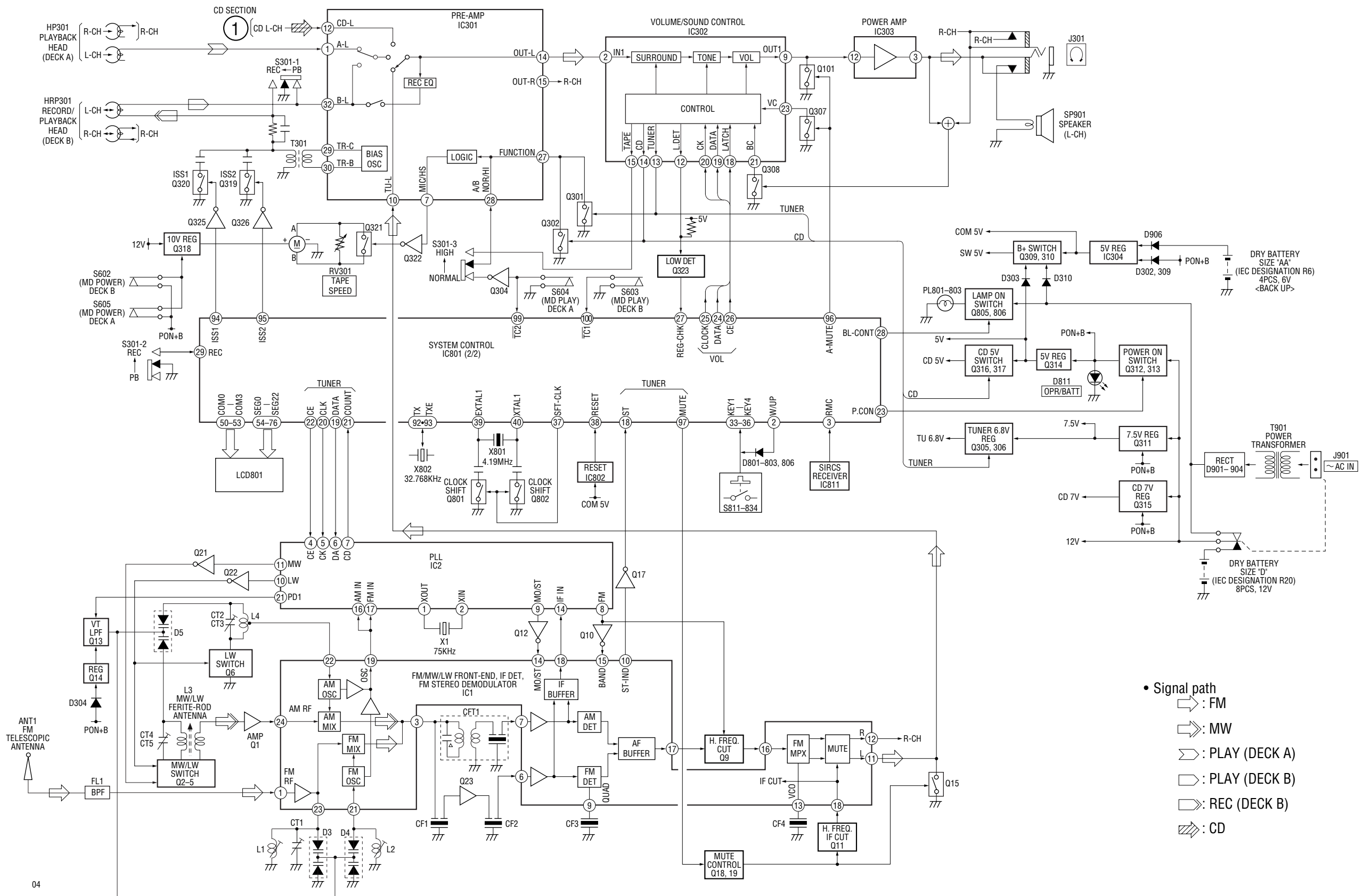


5-3. BLOCK DIAGRAM — CD SECTION —



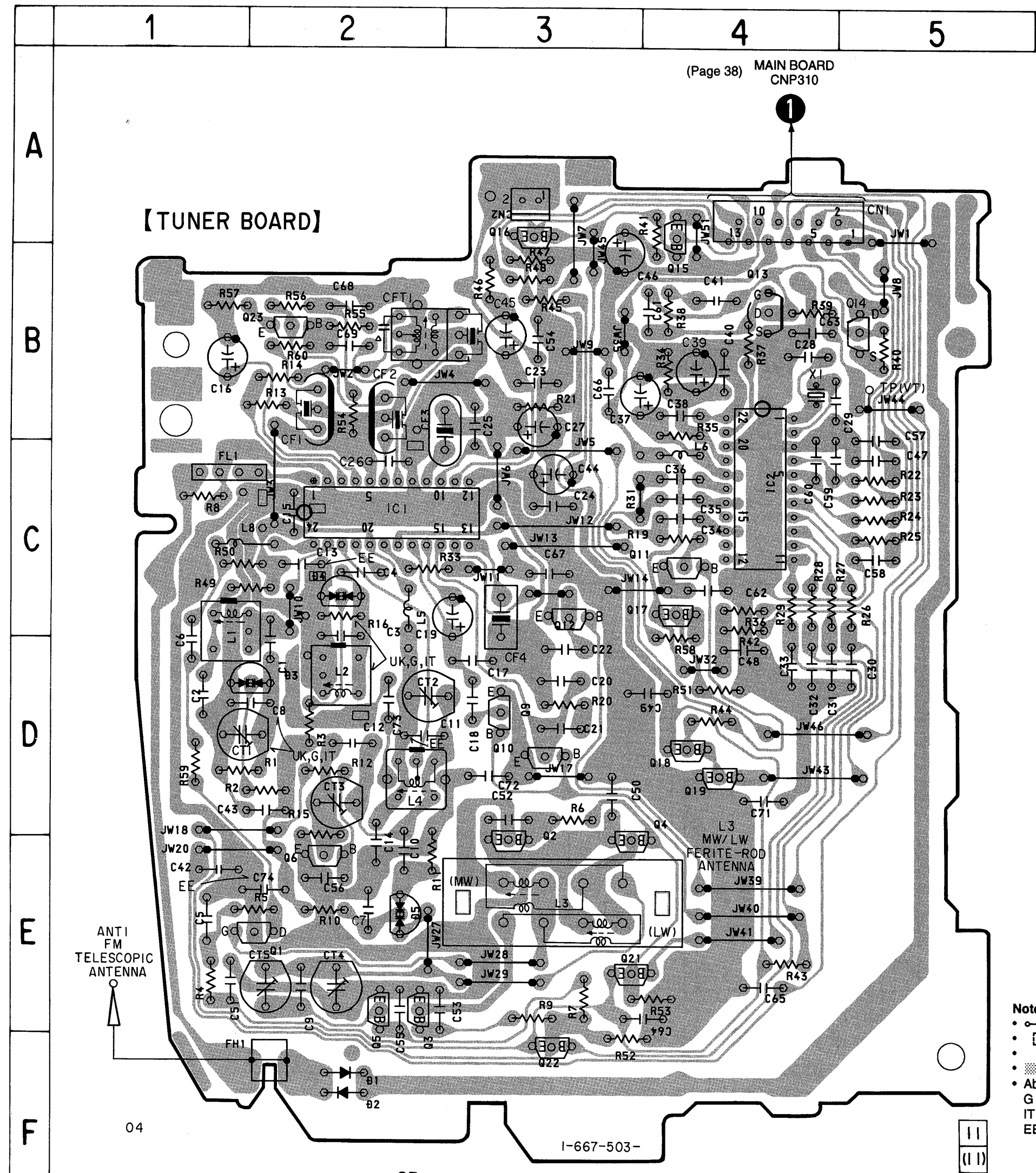
04

5-4. BLOCK DIAGRAM — MAIN SECTION —



- Signal path
- ◁ : FM
- ◁ : MW
- ▷ : PLAY (DECK A)
- ▷ : PLAY (DECK B)
- ▷ : REC (DECK B)
- ◁ : CD

5-5. PRINTED WIRING BOARD — TUNER SECTION —

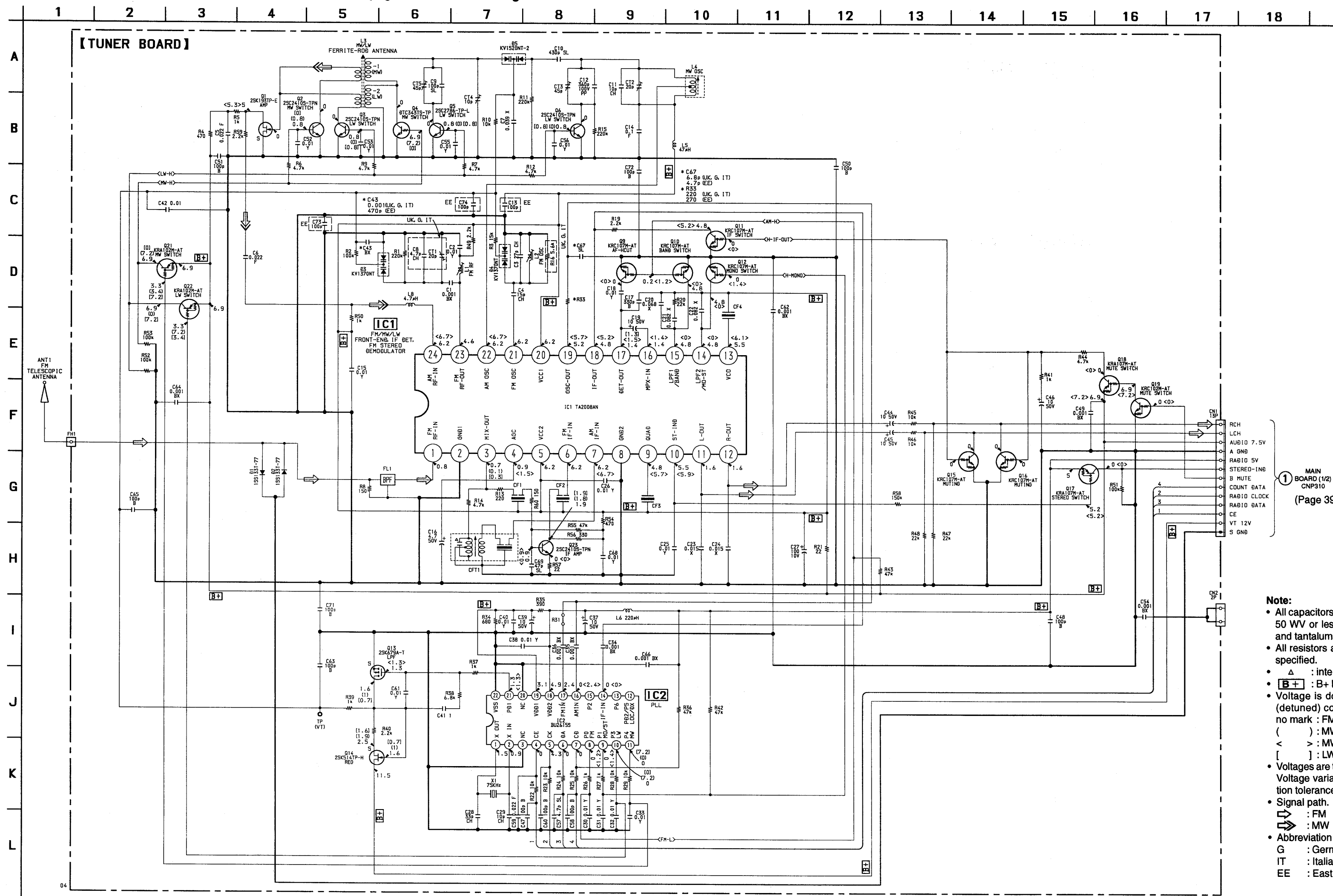


• Semiconductor Location

Ref. No.	Location
D1	F-2
D2	F-2
D3	D-2
D4	C-2
D5	E-2
IC1	C-2
IC2	C-4
Q1	F-2
Q2	D-3
Q3	F-2
Q4	D-4
Q5	F-2
Q6	F-2
Q9	D-3
Q10	D-3
Q11	D-3
Q12	C-3
Q13	B-4
Q14	B-5
Q15	B-4
Q16	A-3
Q17	C-3
Q18	D-4
Q19	D-4
Q21	F-3
Q22	F-3
Q23	B-2

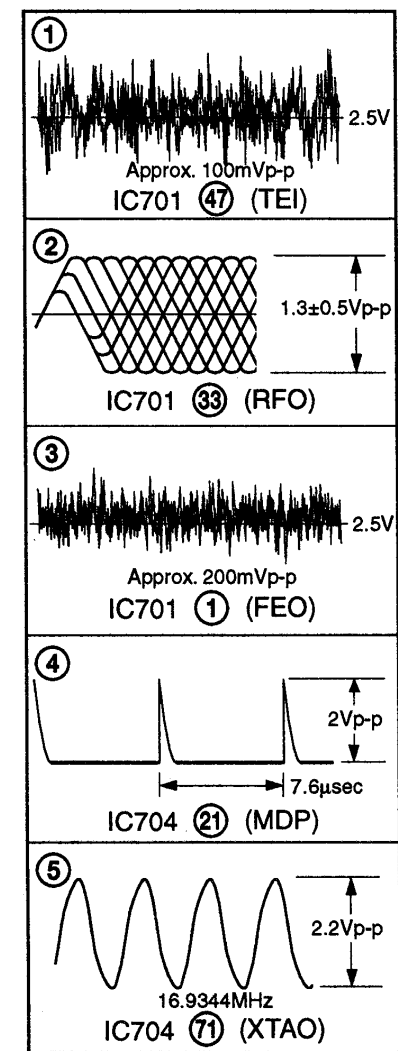
- Note:
- : parts extracted from the component side.
 - : indicates side identified with part number.
 - △ : internal component.
 - ▨ : Pattern from the side which enables seeing.
- Abbreviation
- G : German model.
 - IT : Italian model.
 - EE : East European model.

5-6. SCHEMATIC DIAGRAM — TUNER SECTION — • Refer to page 49 for IC Block Diagrams.



- Note:
- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
 - Δ : internal component.
 - \square : B+ Line.
 - Voltage is dc with respect to ground under no-signal (detuned) condition.
 - no mark : FM
 - () : MW
 - < > : MW/LW
 - [] : LW
 - Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
 - Signal path
 - \Rightarrow : FM
 - \Rightarrow : MW
 - \Rightarrow : LW
 - Abbreviation
 - G : German model.
 - IT : Italian model.
 - EE : East European model.

• Waveforms (MODE:PLAY)

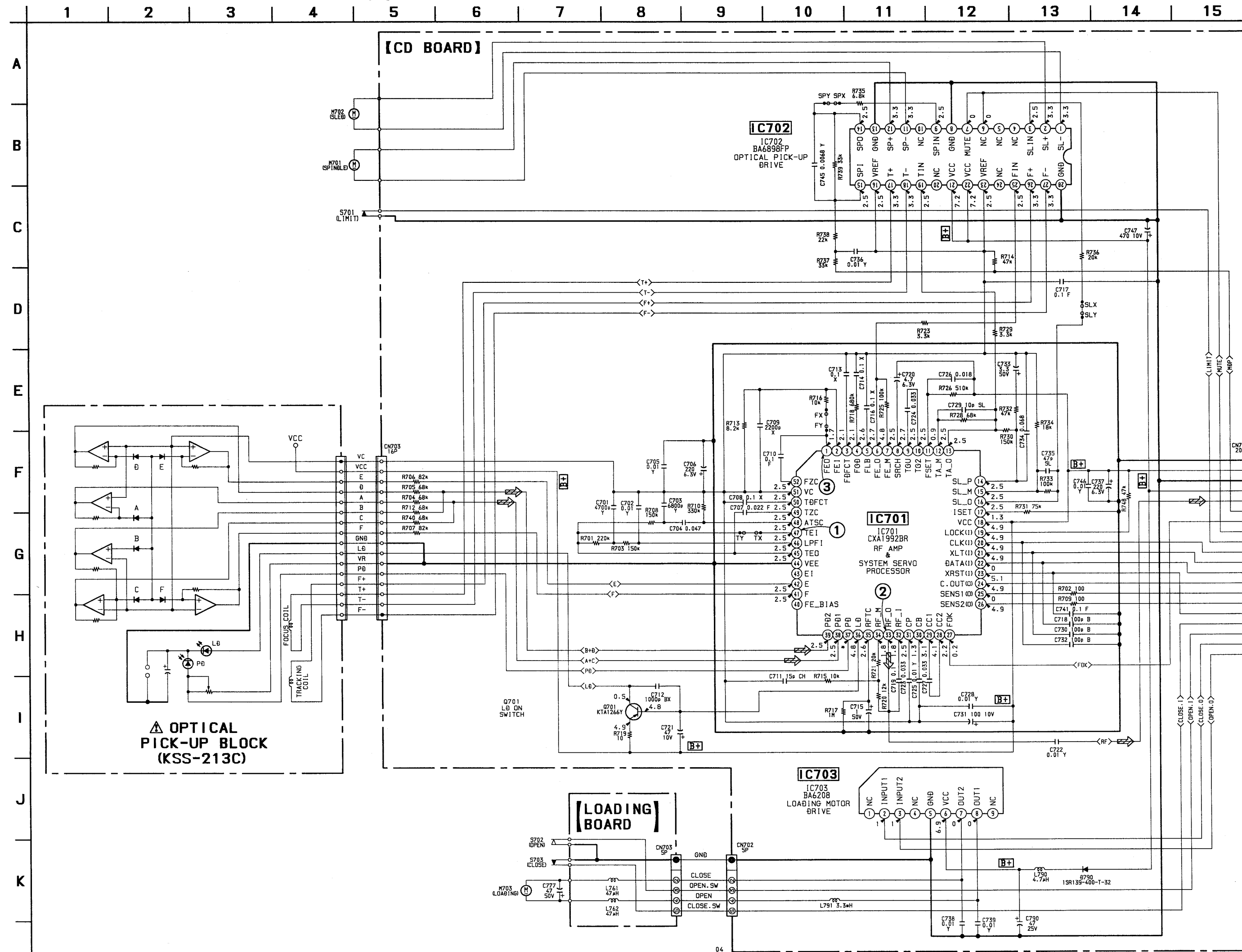


- Note:**
- All capacitors are in µF unless otherwise noted. pF: µF 50 WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and ¼W or less unless otherwise specified.

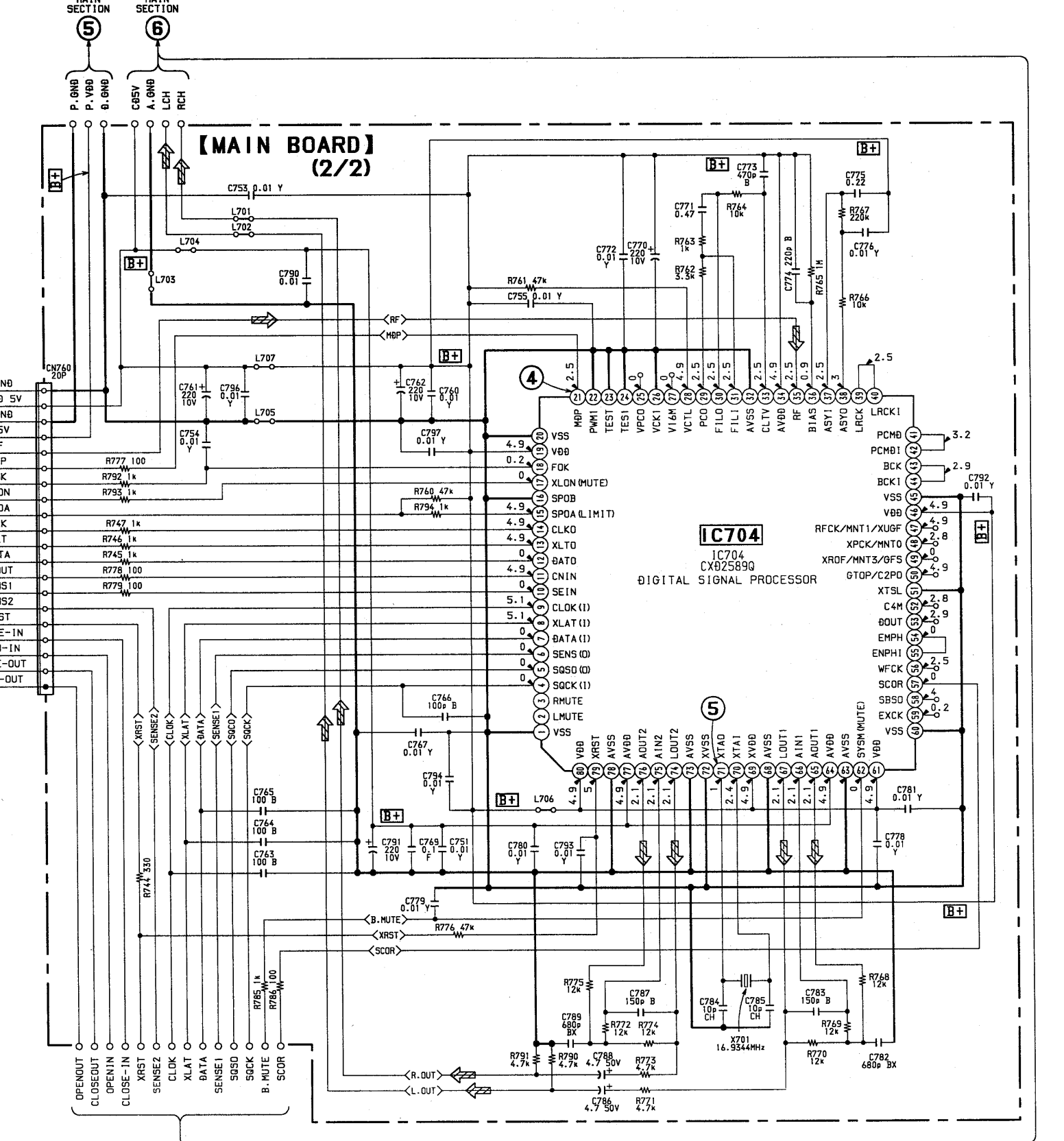
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- [B+] : B+ Line.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions. no mark : CD STOP
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- ⇒ : CD

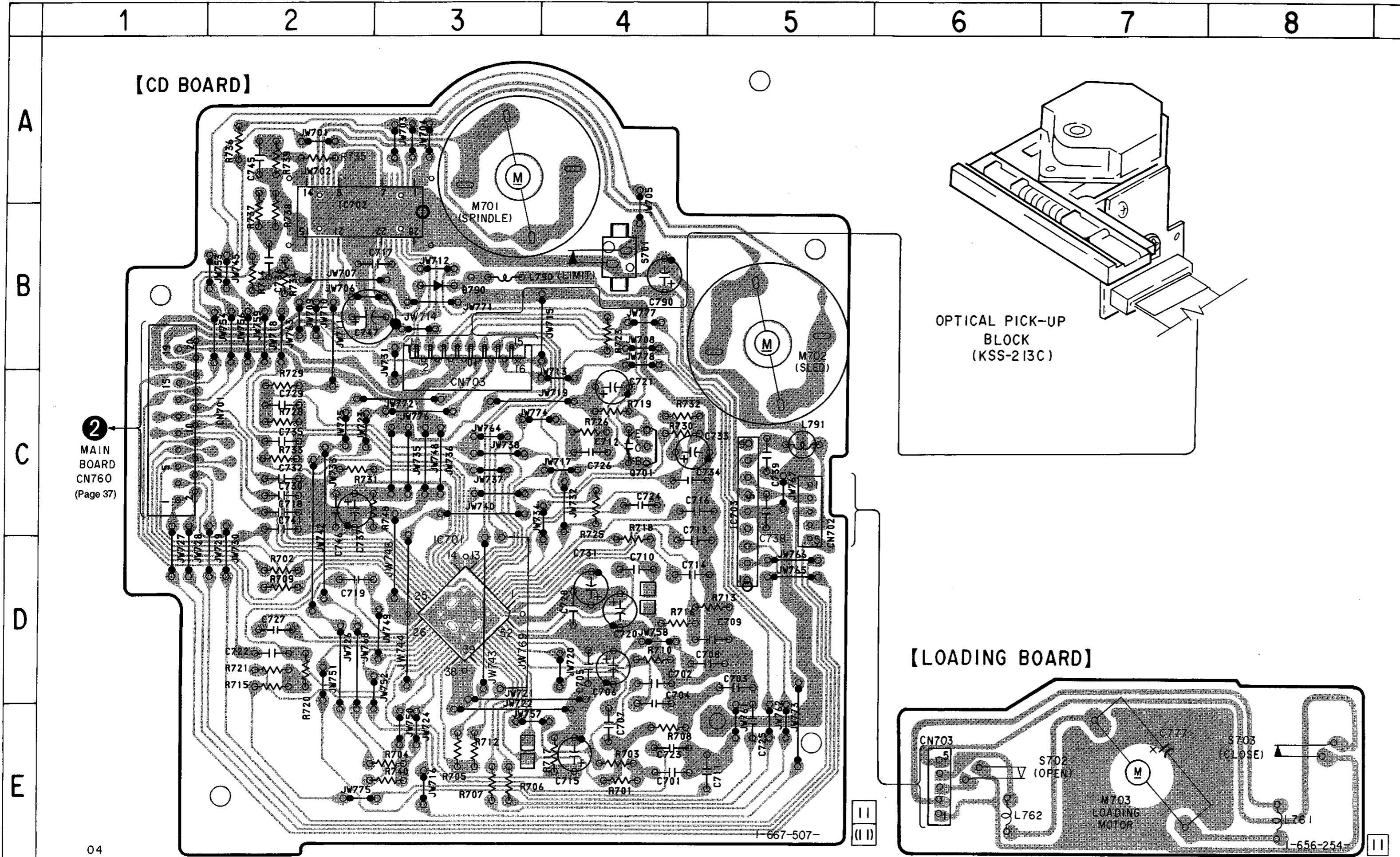
5-7. SCHEMATIC DIAGRAM — CD SECTION — • Refer to page 50 for IC Block Diagrams.



(Page 42) (Page 39)



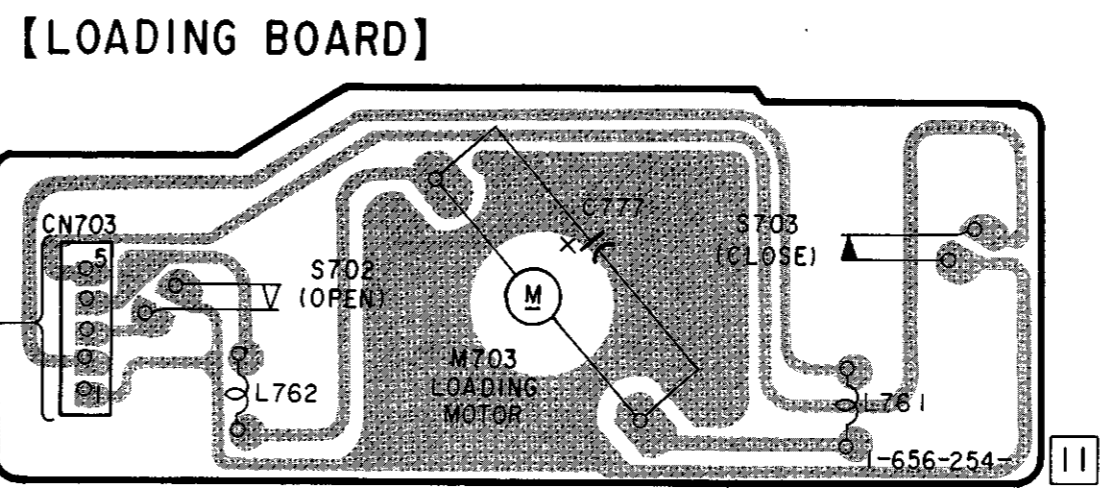
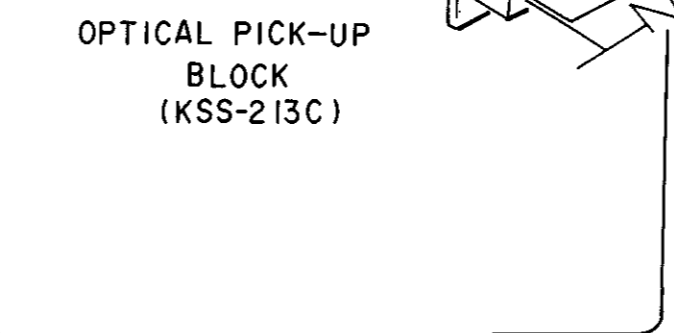
5-8. PRINTED WIRING BOARDS — CD SECTION —



• Semiconductor Location

Ref. No.	Location
D790	B-3
IC701	D-3
IC702	B-2
IC703	C-5
Q701	C-4

2
MAIN BOARD
CN760
(Page 37)

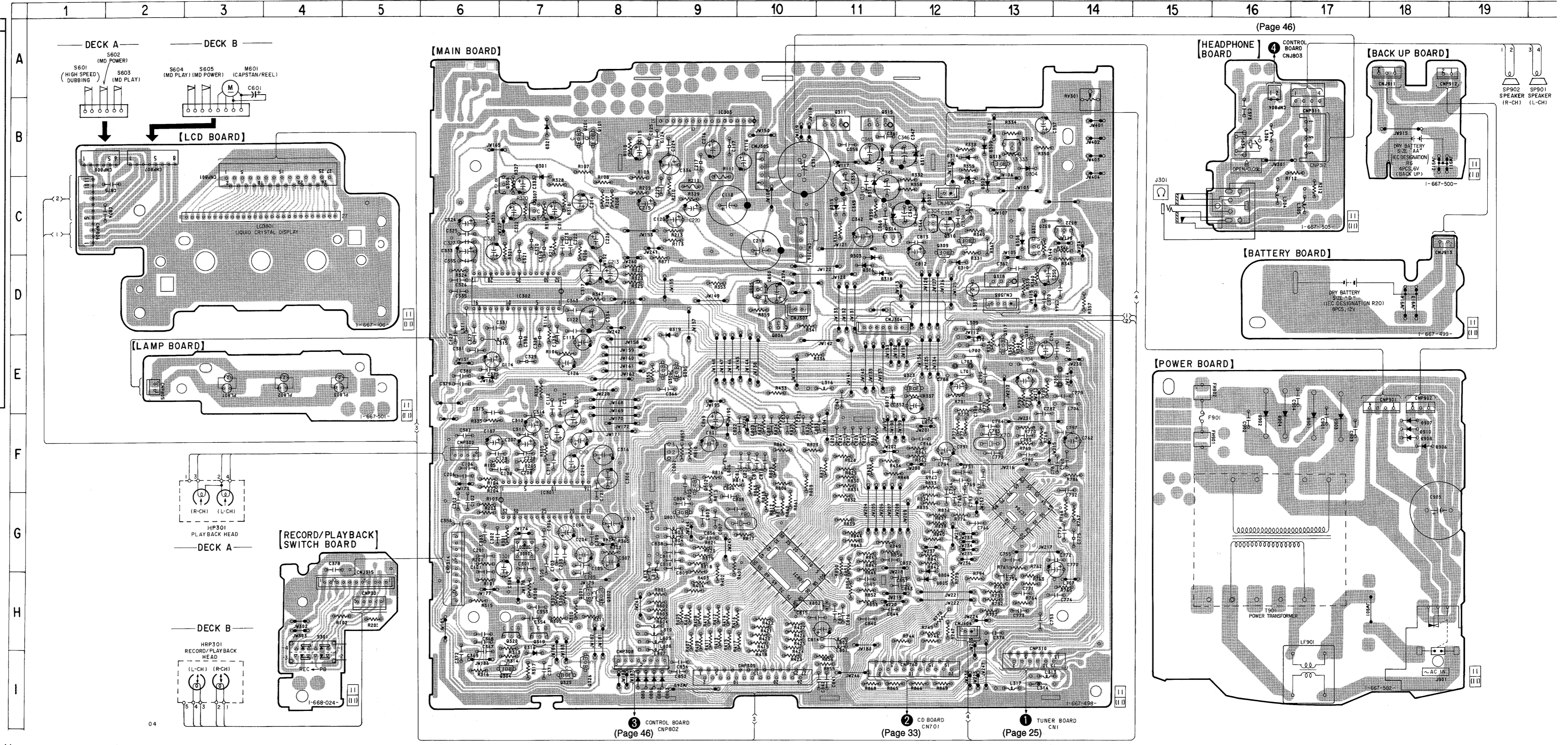


Note:
 • — : parts extracted from the component side.
 • - - - : Pattern from the side which enables seeing.

5-9. PRINTED WIRING BOARDS — MAIN SECTION —

• Semiconductor Location

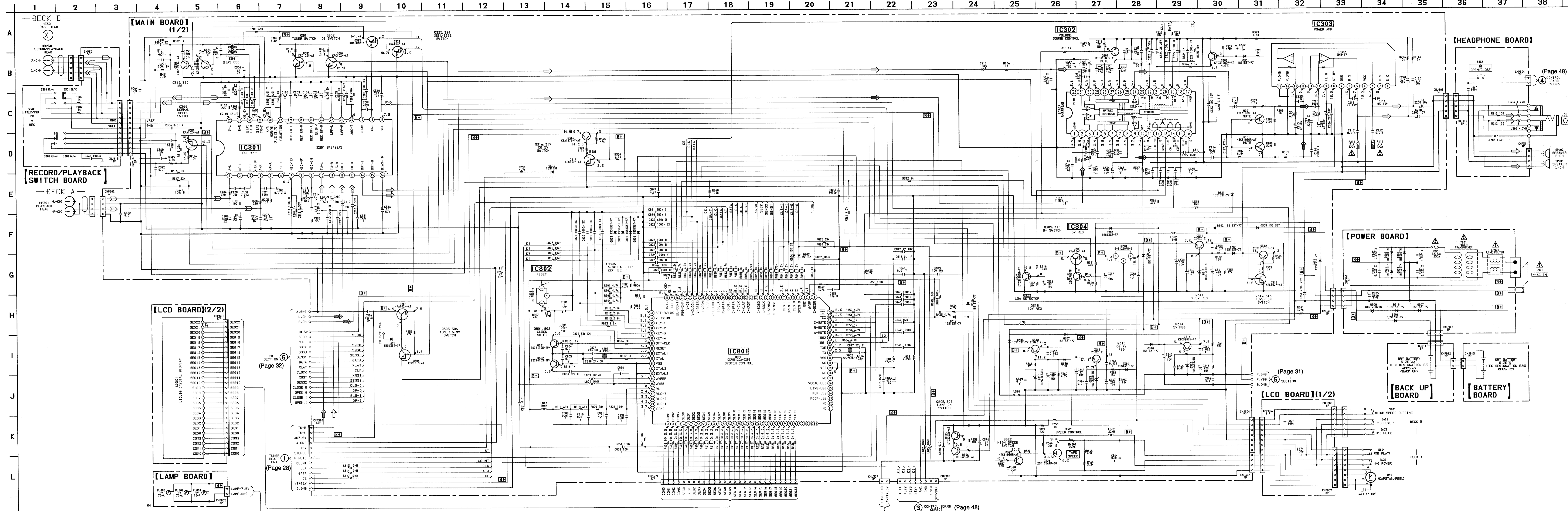
Ref. No.	Location	Ref. No.	Location
D301	B-7	IC303	B-9
D302	C-13	IC304	C-12
D303	D-11	IC704	G-13
D304	B-13	IC801	H-10
D305	C-12	IC802	F-9
D306	D-11		
D307	C-12	Q101	B-8
D308	C-13	Q201	B-8
D309	B-13	Q301	H-7
D310	D-12	Q302	H-8
D311	C-11	Q304	I-7
D312	C-11	Q305	E-9
D313	B-12	Q306	E-9
D314	B-12	Q307	C-7
D315	C-11	Q308	C-7
D316	H-7	Q309	C-12
D317	E-11	Q310	C-12
D318	D-11	Q311	B-11
D319		Q312	B-13
D321	B-7	Q313	B-13
D801	I-8	Q314	C-11
D802	I-8	Q315	B-11
D803	I-9	Q316	D-13
D804	H-12	Q317	D-13
D805	H-12	Q318	D-13
D806	I-8	Q319	H-7
D901	F-17	Q320	H-7
D902	F-16	Q321	C-13
D903	F-17	Q322	C-14
D904	F-16	Q323	E-12
D906	F-18	Q325	I-7
D907	F-18	Q326	I-8
D908	F-18	Q801	G-9
D910	F-18	Q802	F-9
		Q805	D-10
		Q806	D-10
IC301	F-7		
IC302	D-7		



Note:

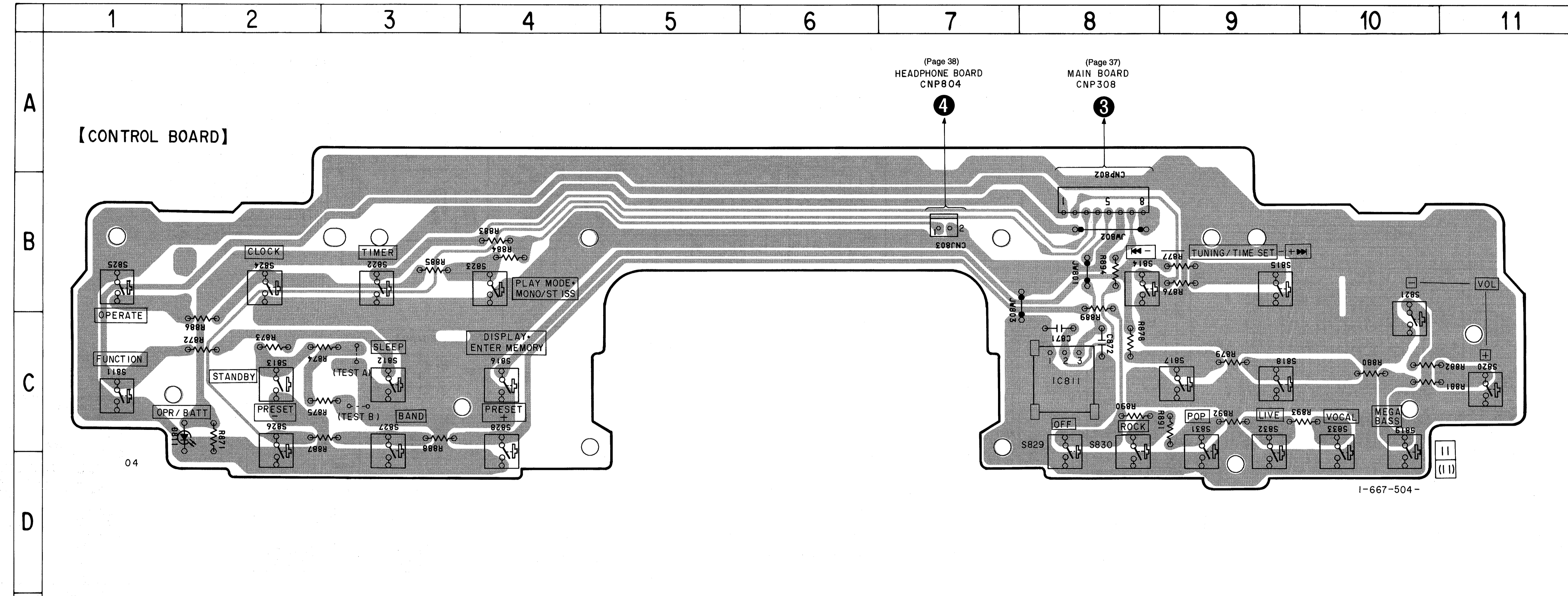
- : parts extracted from the component side.
- ◐ : Pattern from the side which enables seeing.
- Abbreviation
 - G : German model.
 - IT : Italian model.
 - EE : East European model.

5-10. SCHEMATIC DIAGRAM — MAIN SECTION — • Refer to page 49 for IC Block Diagrams.

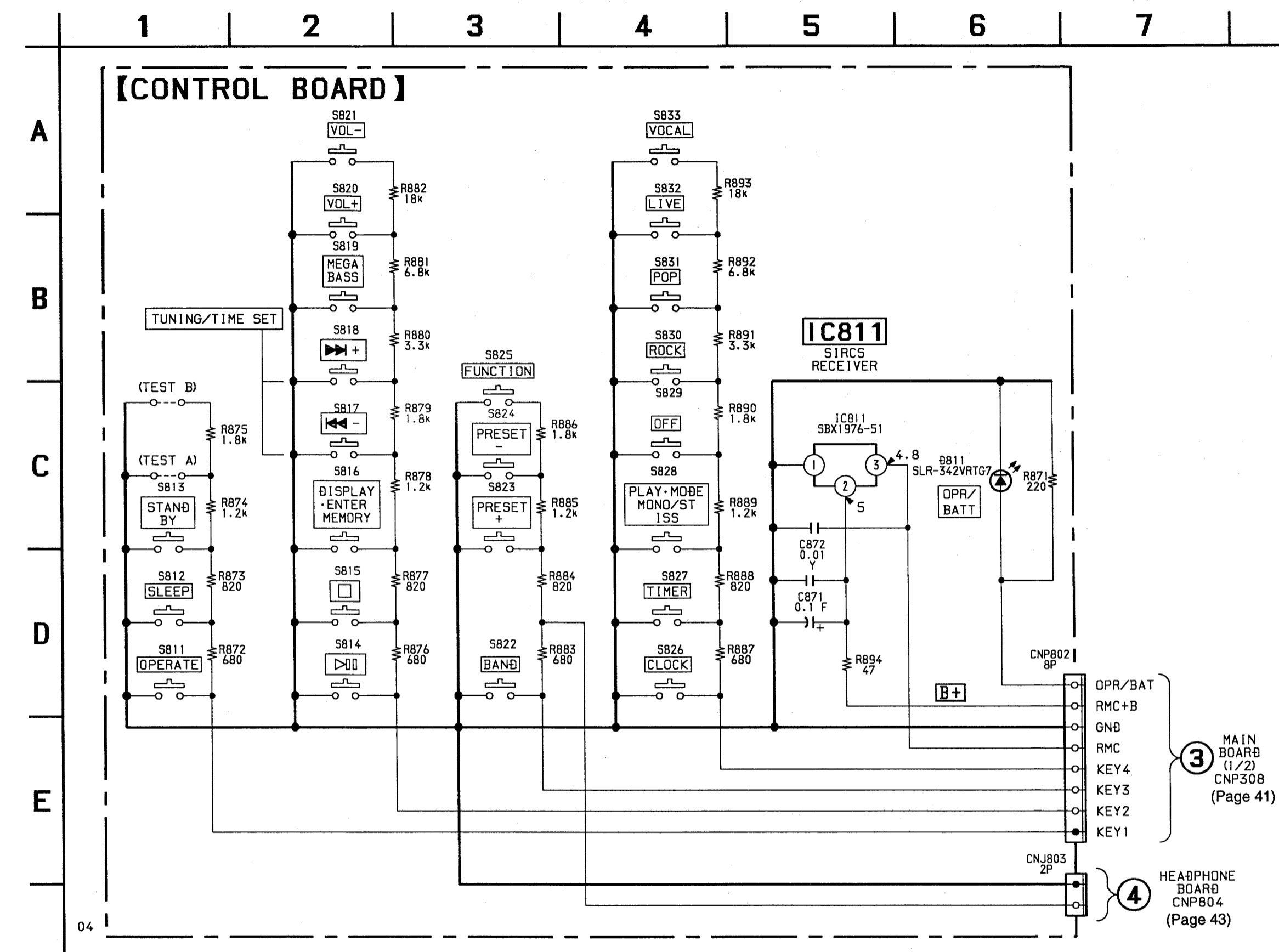


- Note:**
- All capacitors are in μF unless otherwise noted. pF: μF 50 WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
 - \square : fusible resistor.
 - \square : panel designation.
- Note:** The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.
- \square B+: B+ Line.
 - \square : adjustment for repair.
 - Voltage is dc with respect to ground under no-signal (detuned) condition.
 - no mark : FM
 - () : REC
 - < > : CD
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
 - Signal path.
 - FM
 - PB (DECK A)
 - PB (DECK B)
 - REC (DECK B)
 - CD
- Abbreviation
 - G : German model.
 - IT : Italian model.
 - EE : East European model.

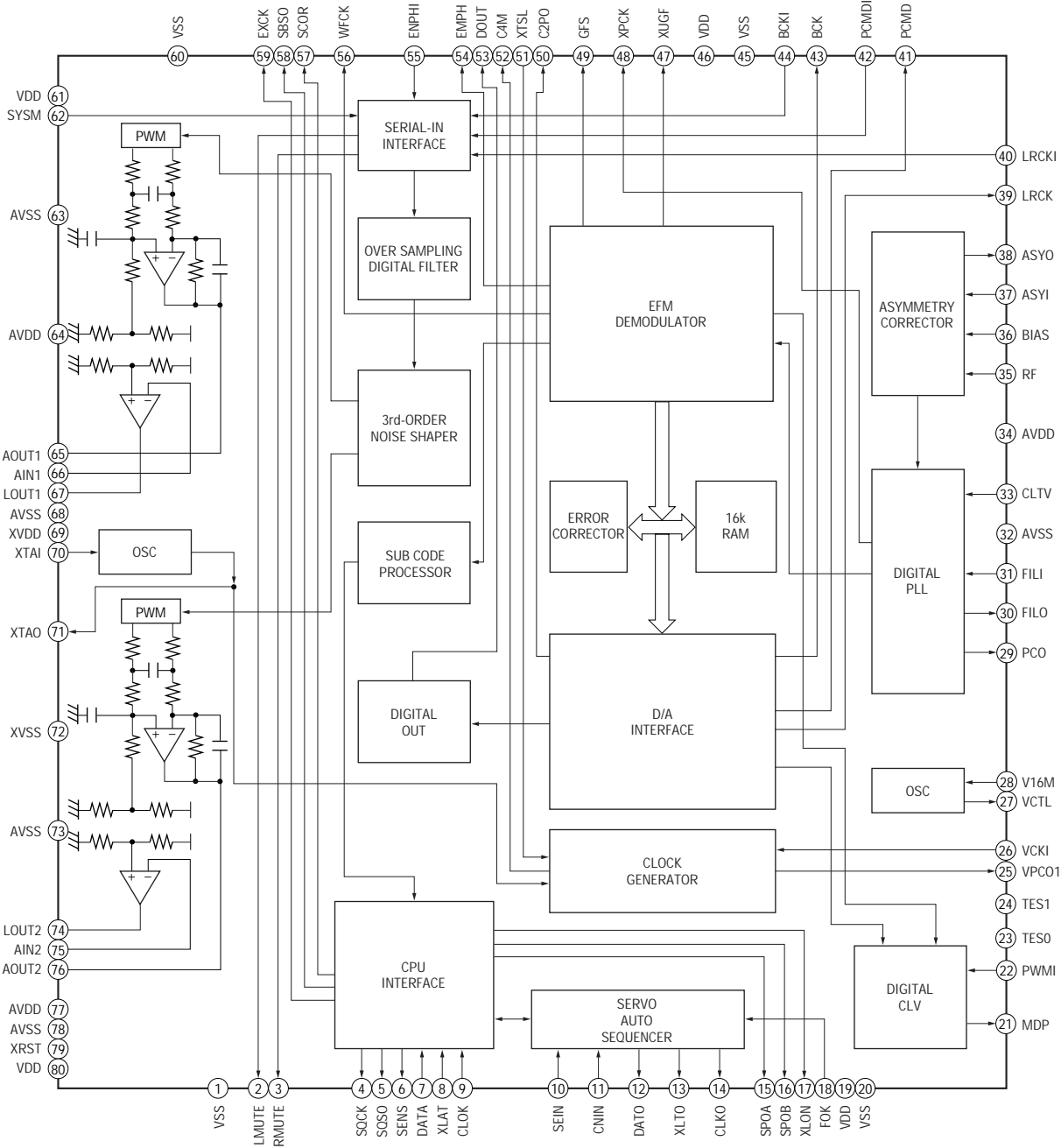
5-11. PRINTED WIRING BOARD — PANEL SECTION —



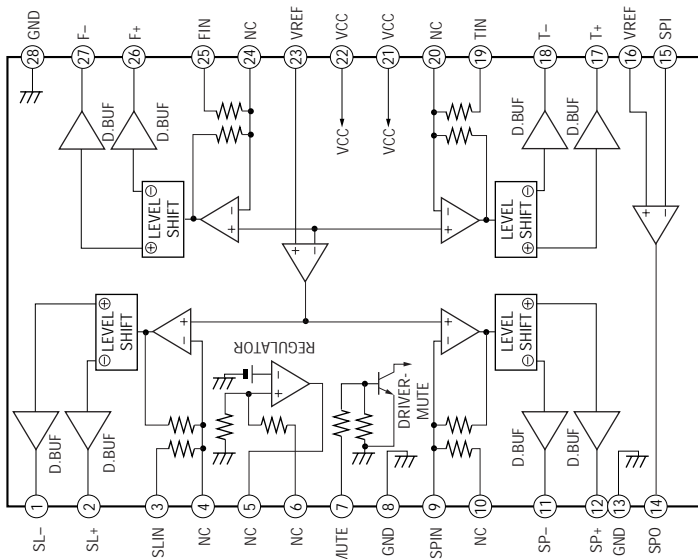
5-12. SCHEMATIC DIAGRAM — PANEL SECTION —



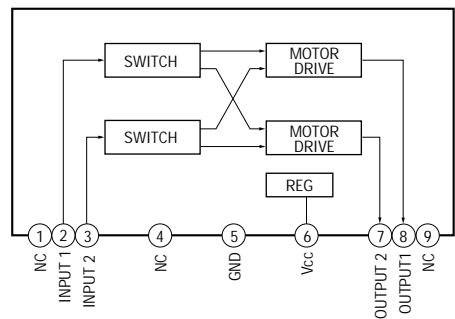
IC704 CXD2589Q



IC702 BA6898FP



IC703 BA6208



SECTION 6 EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation
IT : Italian model
EE : East European model

- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts

Example :

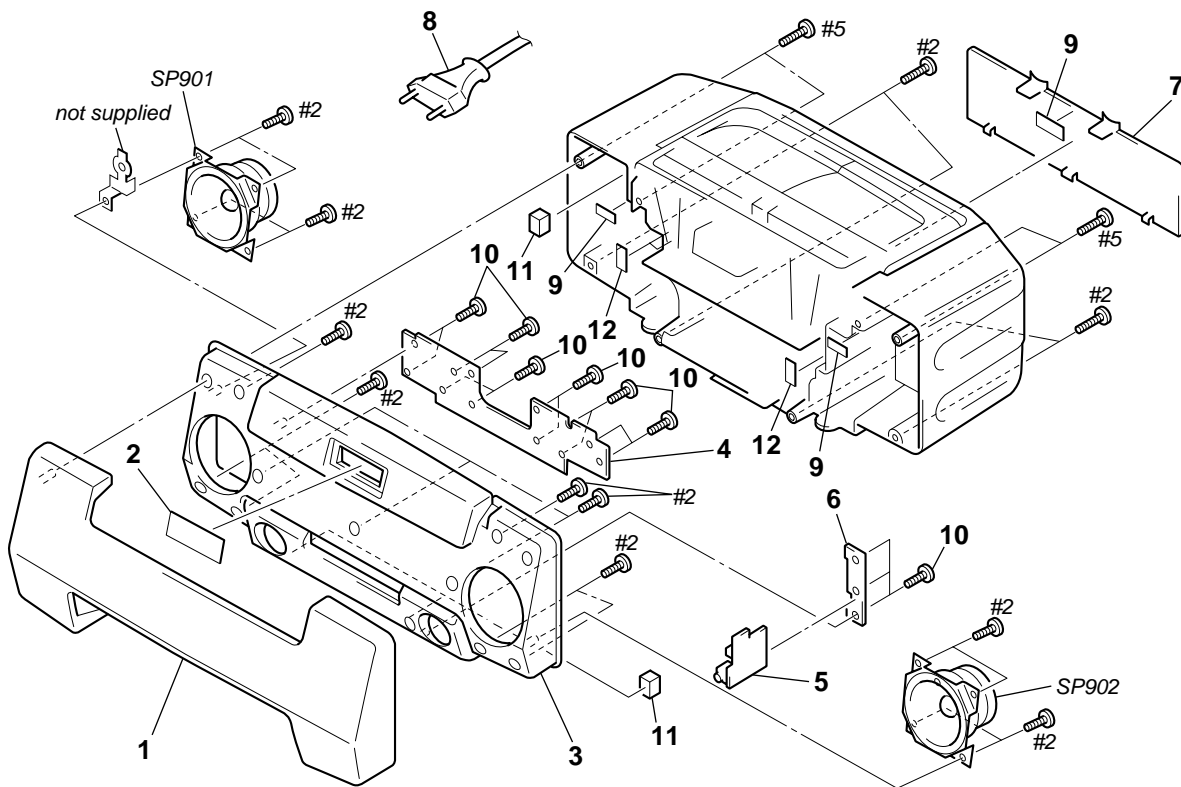
KNOB, BALANCE (WHITE) ... (RED)

Parts Color Cabinet's Color

- Accessories and packing materials and hardware (# mark) list are given in the last of this parts list.

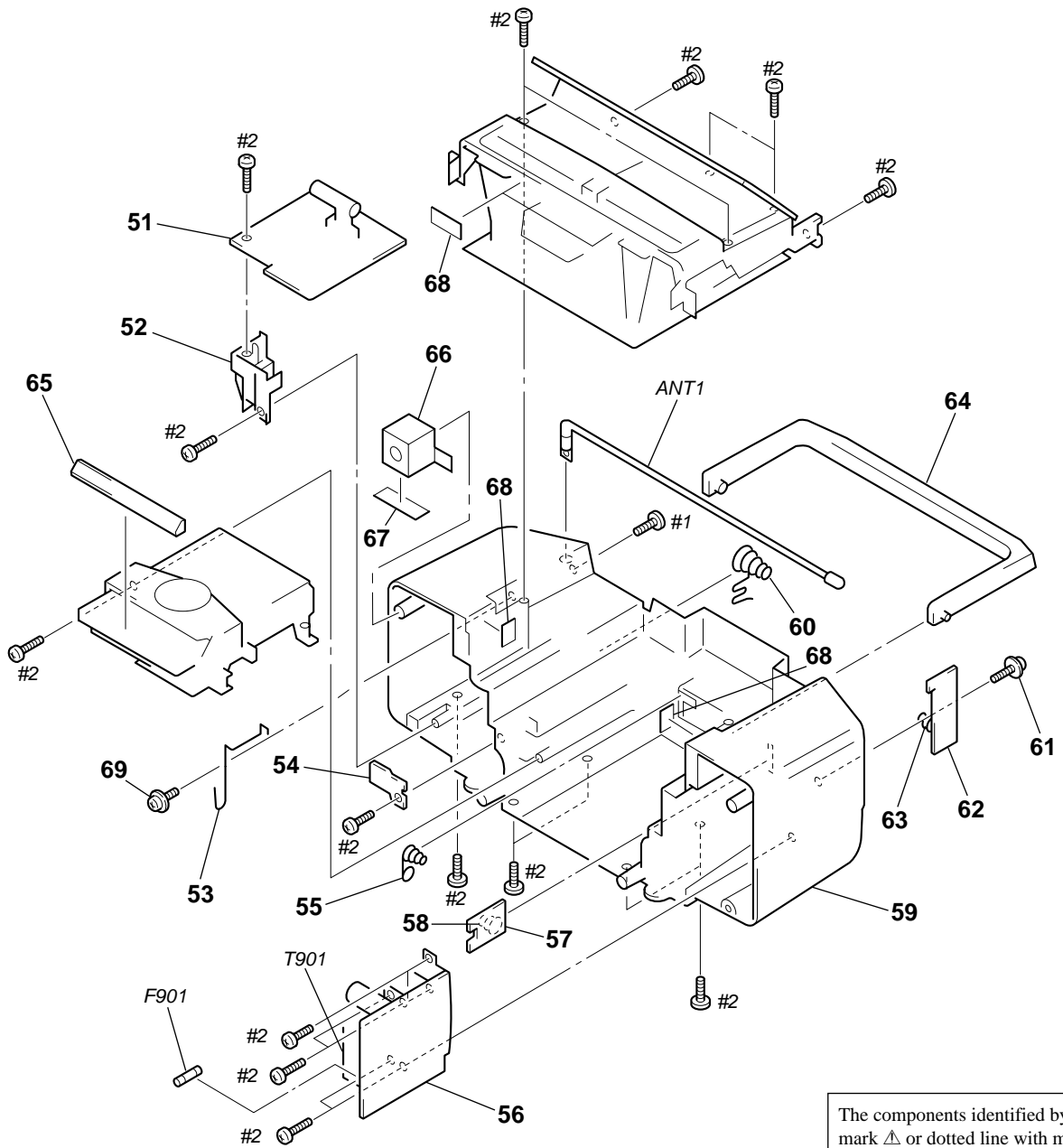
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

6-1. FRONT CABINET SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-3374-962-1	NET SUB ASSY, SPEAKER		Δ 8	1-696-820-21	CORD, POWER	
2	3-021-487-01	WINDOW, LCD		9	3-831-441-99	CUSHION, SPEAKER	
3	X-3374-961-1	CABINET SUB ASSY, FRONT (AEP,UK,IT)		10	4-951-620-01	SCREW (2.6X8), +BVTP	
3	X-3376-249-1	CABINET SUB ASSY, FRONT (EE)		11	3-028-399-01	RUBBER (R)	
* 4	A-3322-237-A	CONTROL BOARD, COMPLETE		* 12	3-028-222-02	CUSHION, MAIN	
* 5	1-667-505-11	HEADPHONE BOARD		SP901	1-505-608-11	SPEAKER (8cm) (L-CH)	
* 6	1-668-026-11	H/P RETAINER BOARD		SP902	1-505-608-11	SPEAKER (8cm) (R-CH)	
7	3-017-470-01	LID, BATTERY CASE					

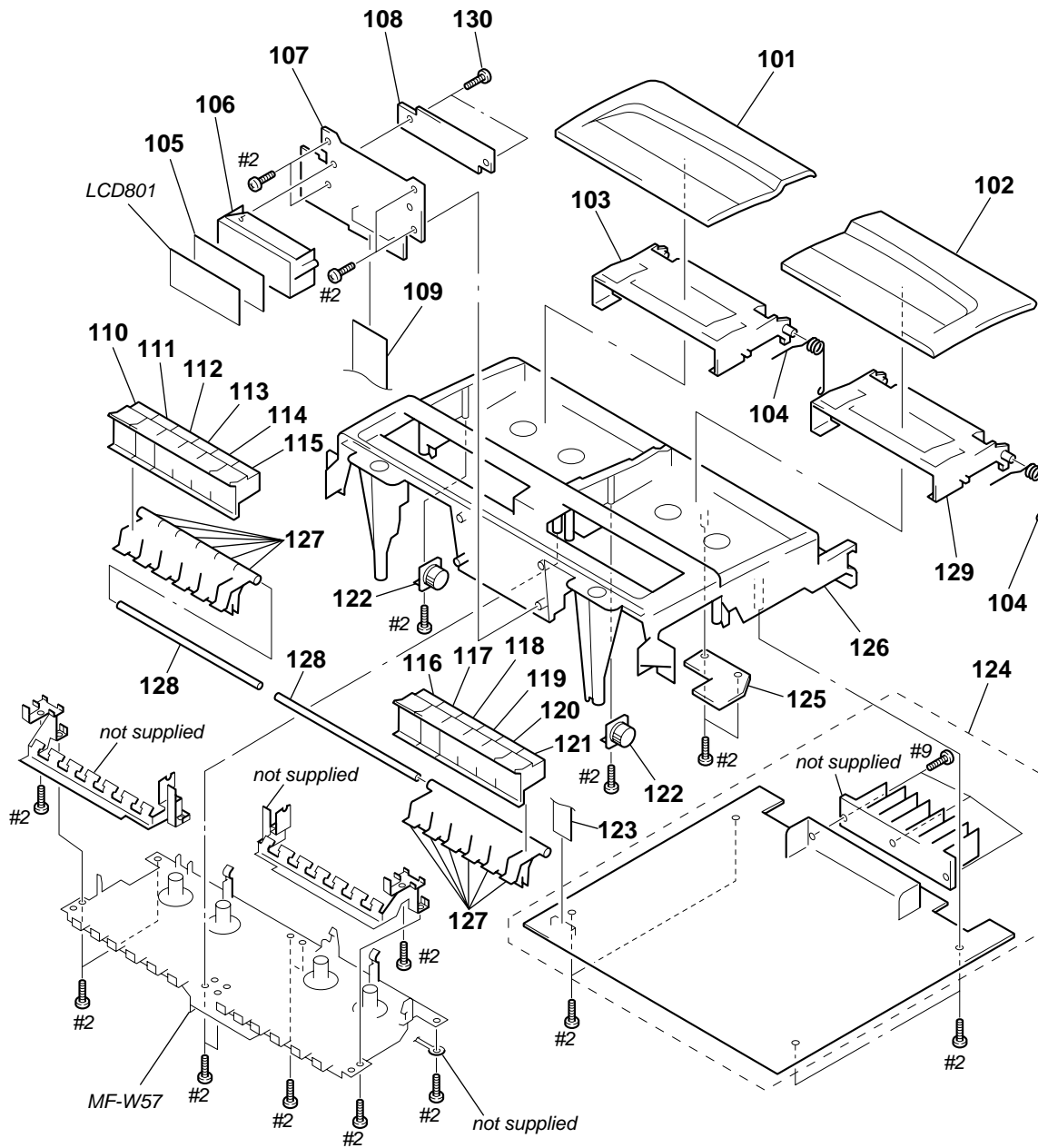
6-2. REAR CABINET SECTION



The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

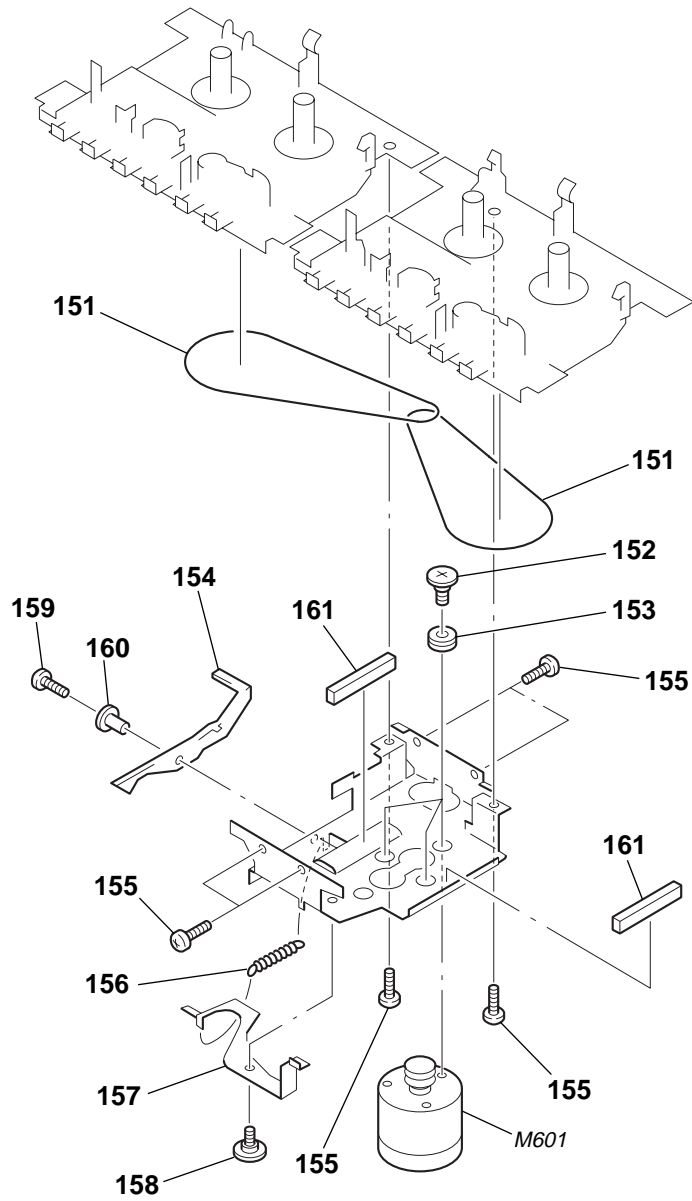
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 51	A-3322-240-A	TUNER BOARD, COMPLETE (AEP,UK,IT)		61	3-911-135-01	SCREW (2,6X10), (+PWH) TAPPING	
* 51	A-3322-248-A	TUNER BOARD, COMPLETE (EE)		* 62	1-667-499-11	BATTERY BOARD	
* 52	3-021-492-01	CHASSIS, TUNER		63	3-025-889-01	SPRING (-) (L), BATTERY	
53	3-021-488-01	TERMINAL, ANTENNA		64	3-021-490-01	HANDLE	
* 54	1-668-025-11	TUNER STOPPER BOARD		65	3-021-486-01	LID, CD	
55	3-025-891-01	SPRING (+,-) (S), BATTERY		66	3-025-892-01	BRACKET (REAR)	
* 56	1-667-502-11	POWER BOARD		67	3-028-222-01	CUSHION, MAIN	
* 57	1-667-500-11	BACK UP BATTERY BOARD		68	3-831-441-99	CUSHION, SPEAKER	
58	3-025-890-01	SPRING, BACK UP (-)		69	4-917-583-71	BRACKET, YOKE	
59	3-021-489-01	CABINET, REAR (AEP,UK,IT)		ANT1	1-501-918-21	ANTENNA, TELESCOPIC	
59	3-021-489-11	CABINET, REAR (EE)		Δ F901	1-532-464-21	FUSE, TIME-LAG (T2.5AL/250V)	
60	3-024-945-01	SPRING (+ -), BATTERY		Δ T901	1-435-078-11	TRANSFORMER, POWER	

6-3. UPPER CABINET SECTION



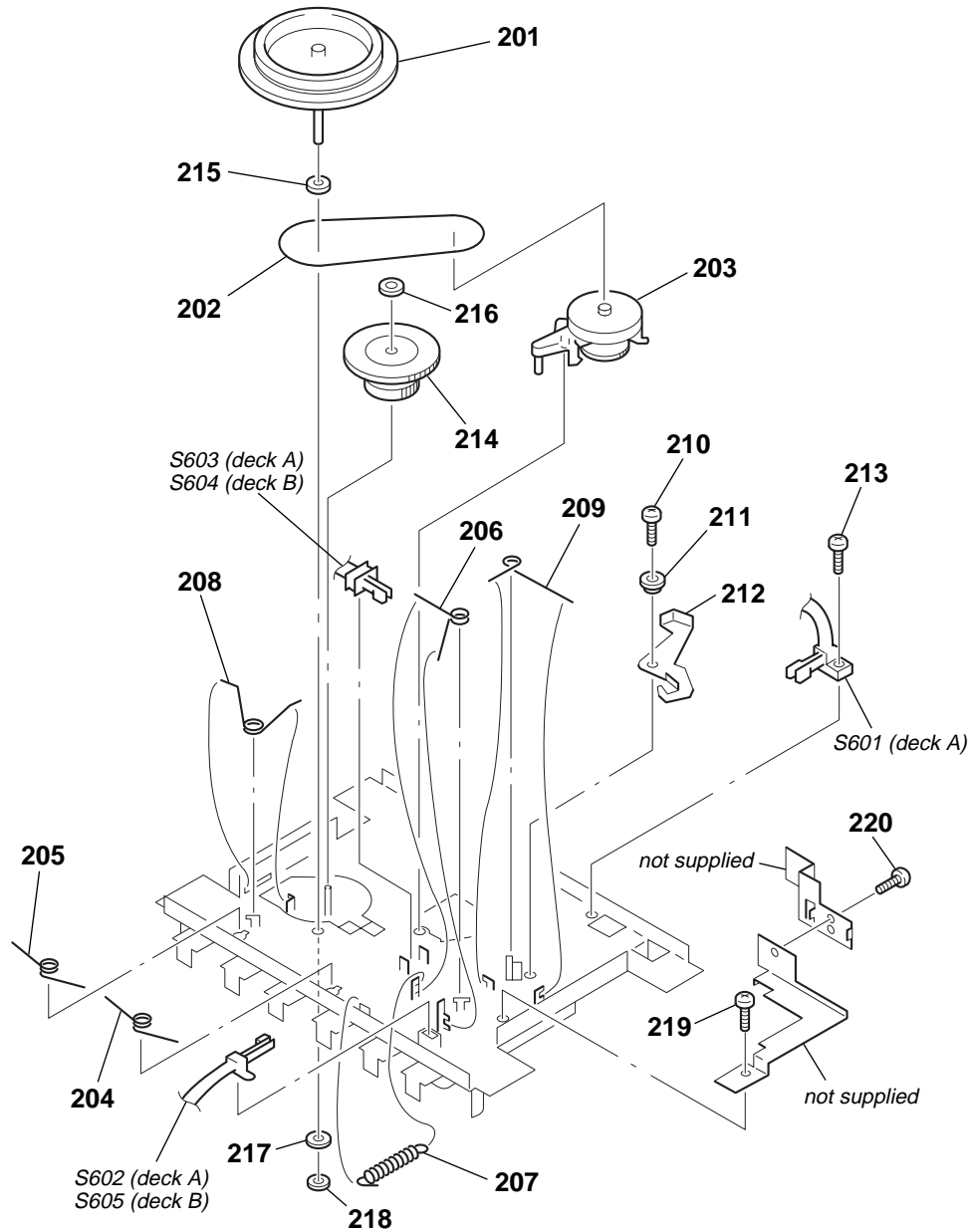
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	X-3374-963-1	LID SUB ASSY (A), CASSETTE		117	3-021-473-01	BUTTON (PLAY-B), MD	
102	X-3374-964-1	LID SUB ASSY (B), CASSETTE		118	3-021-474-01	BUTTON (REW-B), MD	
103	3-029-935-01	HOLDER (A), CASSETTE		119	3-021-475-01	BUTTON (FF-B), MD	
104	3-021-485-01	SPRING, CASSETTE OPEN		120	3-021-476-01	BUTTON (S/EJECT-B), MD	
105	3-021-465-01	ILLUMINATOR		121	3-021-477-01	BUTTON (PAUSE-B), MD	
106	3-021-484-01	HOLDER, LCD		122	3-922-112-21	DAMPER	
* 107	1-667-506-11	LCD BOARD		123	1-791-643-11	CABLE, FLAT (13 CORE)	
* 108	1-667-501-11	LAMP BOARD		* 124	A-3323-330-A	MAIN BOARD, COMPLETE (AEP,UK,IT)	
109	1-791-648-11	CABLE, FLAT (27 CORE)		* 124	A-3323-332-A	MAIN BOARD, COMPLETE (EE)	
110	3-021-466-01	BUTTON (HI-SPEED-A), MD		* 125	1-668-024-11	REC BOARD	
111	3-021-467-01	BUTTON (PLAY-A), MD		126	3-021-464-01	CABINET, UPPER	
112	3-021-468-01	BUTTON (REW-A), MD		127	3-024-946-01	BUTTON, LEVER	
113	3-021-469-01	BUTTON (FF-A), MD		128	3-026-331-01	SHAFT, MD	
114	3-021-470-01	BUTTON (S/EJECT-A), MD		129	3-029-936-01	HOLDER (B), CASSETTE	
115	3-021-471-01	BUTTON (PAUSE-A), MD		130	4-951-620-11	SCREW (2.6X10), +BVTP	
116	3-021-472-01	BUTTON (REC-B), MD		LCD801	1-801-909-11	DISPLAY PANEL, LIQUID CRYSTAL	

**6-4. TAPE MECHANISM SECTION-1
(MF-W57)**



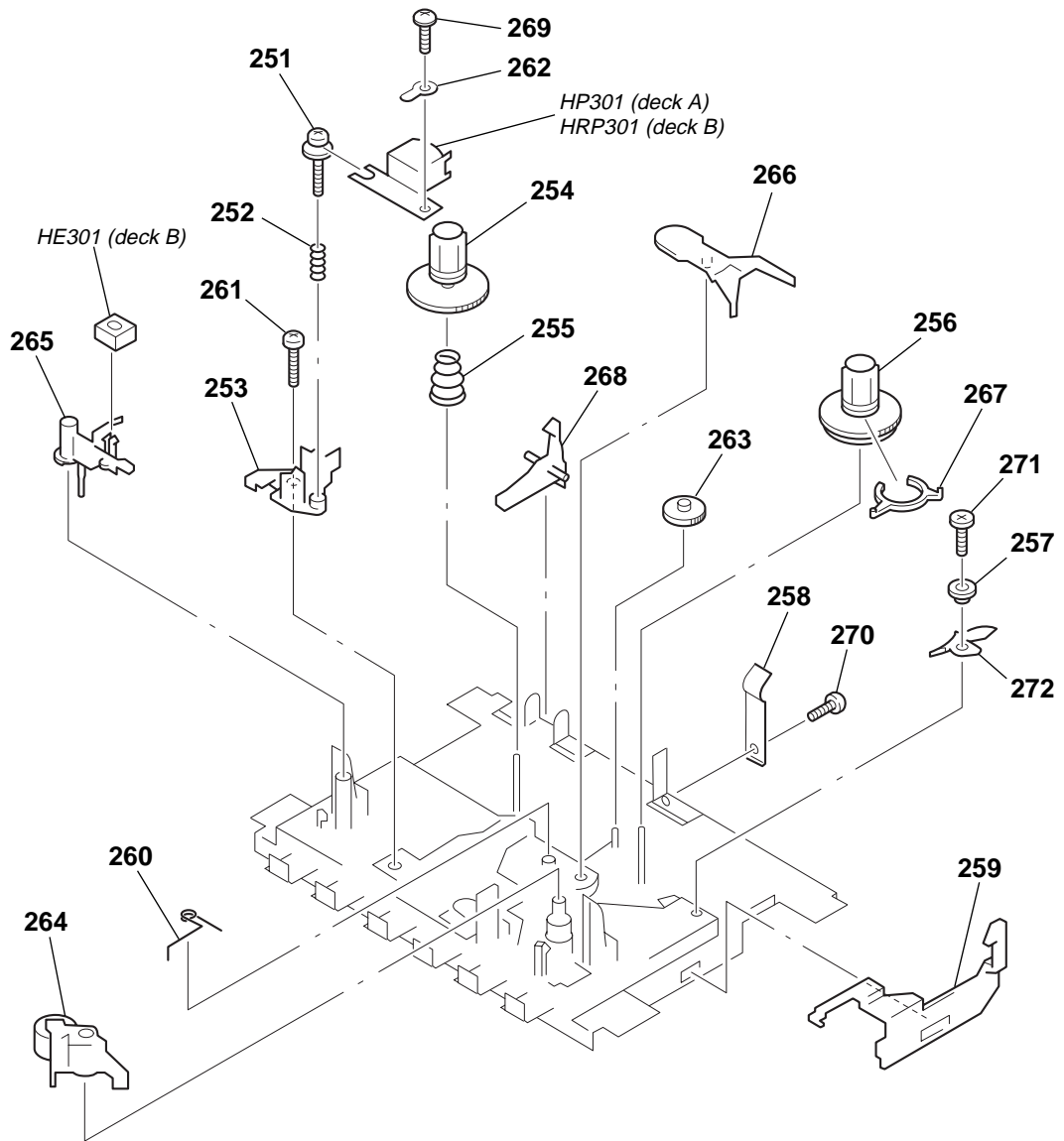
<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
151	3-014-775-01	BELT, M		157	3-014-791-01	LEVER (A), P KICK	
152	3-014-773-01	SCREW, M COLLAR		158	3-014-792-01	SCREW (A), PK COLLAR	
153	3-014-772-01	RUBBER, MOTOR		159	3-915-809-01	C TAPPING SCREW M2X6	
154	3-014-790-01	LEVER (B), P KICK		160	3-915-827-01	COLLAR (B)	
155	3-014-780-01	C SCREW 2X4		161	3-014-776-01	MAT, VIBRATION PROOF	
156	3-014-794-01	SPRING, P KICK LEVER		M601	X-3369-087-1	MOTOR (CAPSTAN/REEL)	

**6-5. TAPE MECHANISM SECTION-2
(MF-W57)**



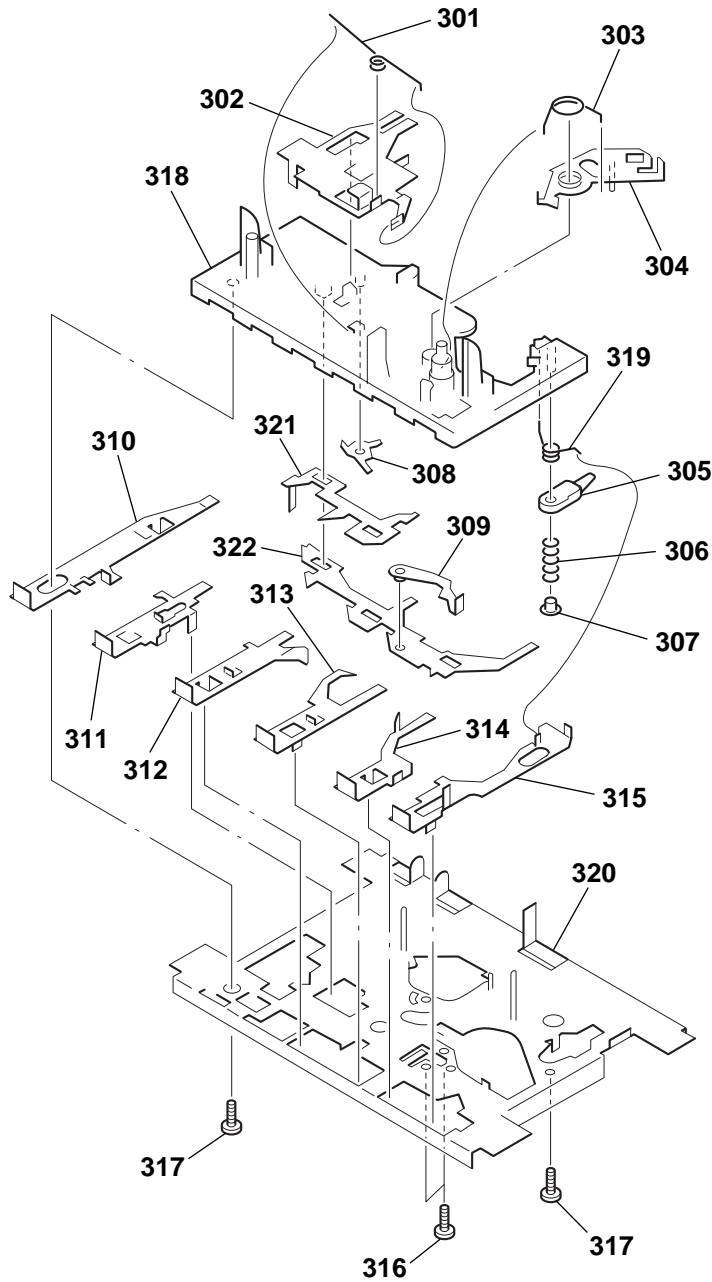
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-014-764-01	FLYWHEEL (DECK B)		214	3-915-792-01	GEAR, CAM	
201	3-014-765-01	FLYWHEEL (DECK A)		215	3-920-350-01	P WASHER 2X3.5X0.4	
202	3-014-763-01	F BELT (W)		216	3-014-787-01	C WASHER	
203	3-014-762-01	CLUTCH, RF		217	3-014-788-01	C WASHER	
204	3-014-747-01	BUTTON LEVER SPRING (A)		218	3-920-346-01	N.W 1.7X3.2X0.4	
205	3-014-752-01	BUTTON LEVER SPRING (B)		219	3-014-779-01	C SCREW 2X3 (DECK B)	
206	3-014-749-01	PS LEVER SPRING		220	3-014-783-01	SCREW 2X6 (DECK B)	
207	3-014-754-01	PLAY BUTTON LEVER SPRING		S601	1-771-134-11	SWITCH, REC (HIGH SPEED DUBBING)	(DECK A)
208	3-014-748-01	E ACTUATOR SPRING		S602	1-771-135-11	SWITCH, LEAF (MD POWER) (DECK A)	
209	3-014-751-01	REC BUTTON SPRING		S603	1-762-023-11	SWITCH, LEAF (MD PLAY) (DECK A)	
210	3-014-780-01	C SCREW 2X4 (DECK A)		S604	1-762-023-11	SWITCH, LEAF (MD PLAY) (DECK B)	
211	3-014-759-01	P ARM COLLAR (DECK A)		S605	1-771-135-11	SWITCH, LEAF (MD POWER) (DECK B)	
212	3-014-758-01	RECORD ARM (DECK A)					
213	3-014-784-01	C SCREW 2X5 (DECK A)					

**6-6. TAPE MECHANISM SECTION-3
(MF-W57)**



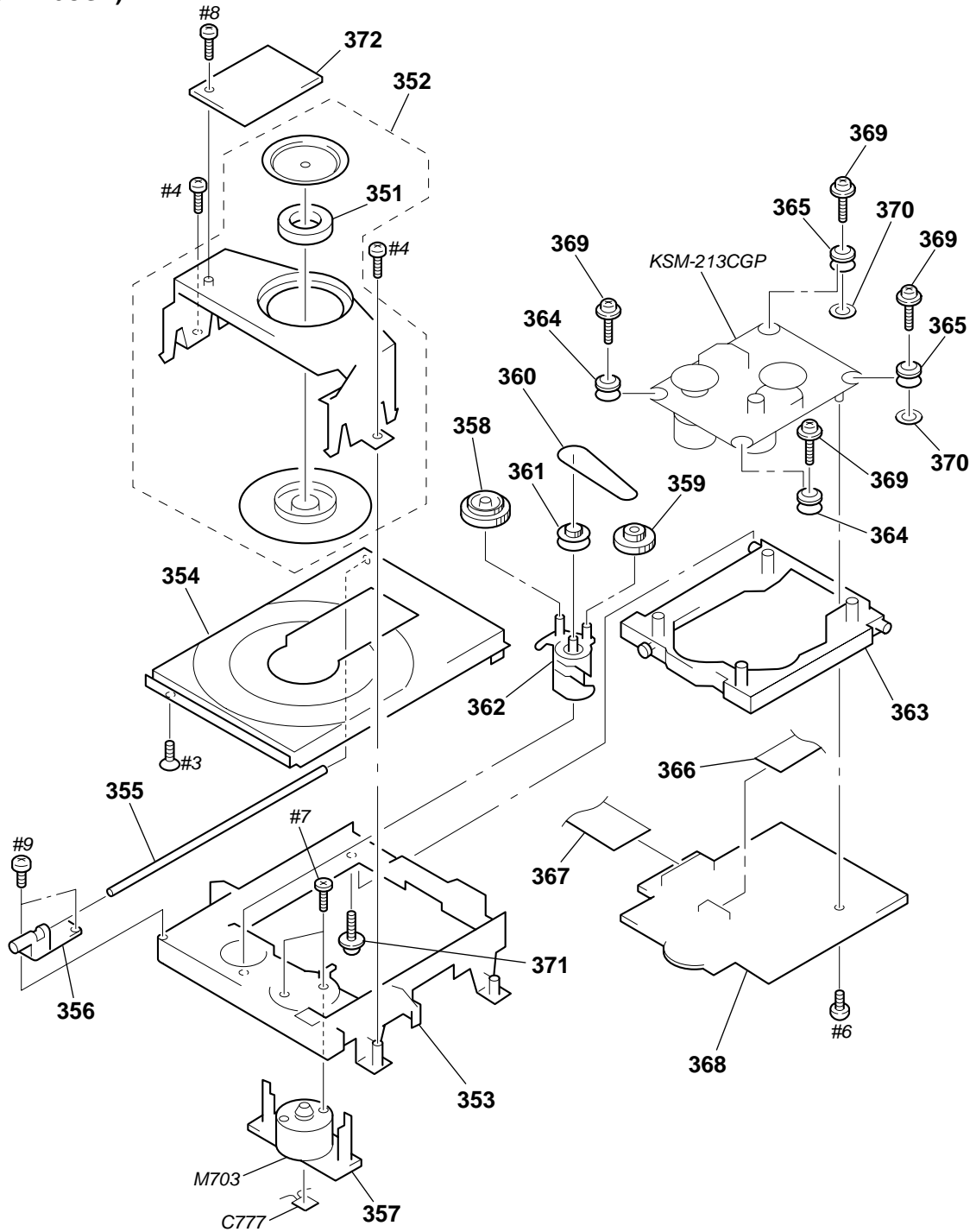
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	3-014-786-01	A SCREW 2X7		264	3-913-436-01	ARM ASSY, PINCH ROLLER	
252	3-014-760-01	AZIMUTH SPRING		265	3-915-782-01	ARM, MG (DECK B)	
253	3-014-755-01	HEAD BASE		266	3-915-785-01	LEVER, SENSING	
254	3-014-769-01	S REEL HUB		267	3-915-797-01	SENSOR	
255	3-014-768-01	SPRING, BACK TENSION		* 268	3-920-405-01	LEVER, REC SAFETY (DECK B)	
256	3-014-770-01	REEL, T.U.		269	3-014-785-01	B SCREW 2X3	
257	3-014-759-01	P ARM COLLAR		270	3-014-779-01	C SCREW 2X3	
* 258	3-014-778-01	PACK SPRING PLATE		271	3-915-816-01	PS TAPPING SCREW M2X3	
259	3-014-777-01	EJECT SLIDE LEVER		272	3-915-873-01	P ARM	
260	3-014-757-01	M CONTROL SPRING		HE301	1-500-139-11	HEAD, ERASE (DECK B)	
261	3-014-783-01	SCREW 2X6		HP301	1-500-138-11	HEAD, PLAYBACK (DECK A)	
* 262	3-014-789-01	B3 LUG		HRP301	1-500-138-11	HEAD, RECORD/PLAYBACK (DECK B)	
263	3-348-357-01	GEAR, FF					

**6-7. TAPE MECHANISM SECTION-4
(MF-W57)**



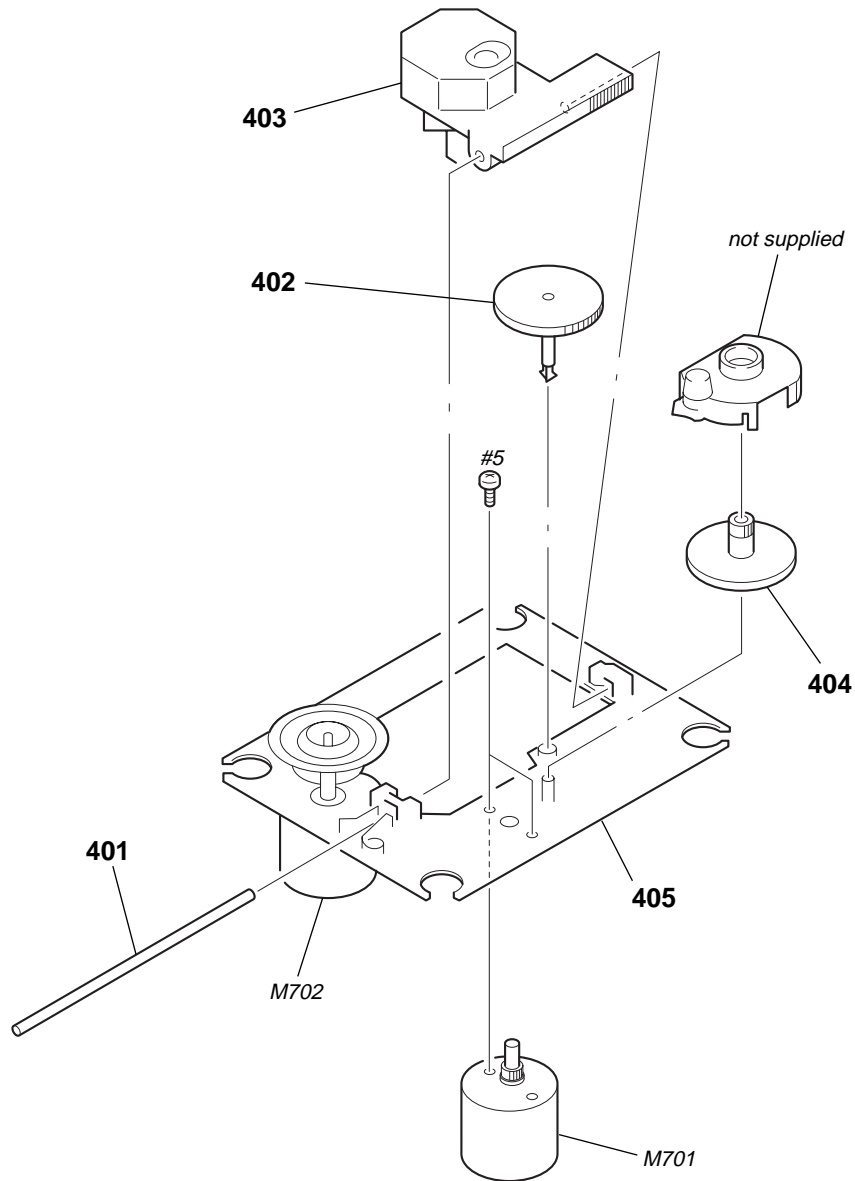
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301	3-014-756-01	PANEL P SPRING		* 312	3-014-740-01	REW BUTTON LEVER	
* 302	3-014-753-01	HEAD PANEL		* 313	3-014-741-01	FF BUTTON LEVER	
303	3-014-766-01	GEAR PLATE SPRING		* 314	3-014-742-01	STOP BUTTON LEVER	
304	3-014-767-01	GEAR PLATE		* 315	3-014-743-01	PAUSE BUTTON LEVER	
305	3-014-744-01	LEVER (F), PAUSE		316	3-014-782-01	CT SCREW 2X4.5	
306	3-014-745-01	P LEVER SPRING		317	3-014-781-01	PB SCREW 2X5	
307	3-014-746-01	PAUSE STOPPER		318	3-915-740-01	BASE ASSY (A)	
308	3-014-761-01	PR STOPPER		319	3-915-752-01	SPRING, P CONTROL	
* 309	3-014-750-01	E KICK LEVER		* 320	3-915-757-01	CHASSIS ASSY	
* 310	3-014-738-01	REC BUTTON LEVER		* 321	3-014-736-01	SW ACTUATOR	
* 311	3-014-739-01	PLAY BUTTON LEVER		* 322	3-014-737-01	PUSH BUTTON ACTUATOR	

**6-8. CD MECHANISM SECTION
(KSL-213CGP)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	351	1-452-493-21	MAGNET		* 363	X-2625-879-1	HOLDER (BU) ASSY
*	352	X-2625-880-1	HOLDER (MG) ASSY		364	3-910-095-01	RUBBER, VIBRATION PROOF
*	353	2-627-169-01	CHASSIS		365	3-910-095-11	RUBBER, VIBRATION PROOF
	354	2-627-170-01	TABLE, DISC		366	1-791-641-11	CABLE, FLAT (16 CORE)
*	355	2-627-171-01	SHAFT (TABLE GUIDE)		367	1-791-647-11	CABLE, FLAT (20 CORE)
	356	2-627-164-01	BEARING		* 368	A-3322-241-A	CD BOARD, COMPLETE
*	357	1-656-254-11	LOADING BOARD		369	3-916-006-01	SCREW (2.6X16)
	358	2-627-163-01	GEAR (P)		370	3-179-652-01	WASHER
	359	2-627-162-01	GEAR (C)		* 371	4-917-583-21	BRACKET, YOKE
	360	4-927-649-01	BELT		* 372	1-670-439-11	CD BRACKET BOARD
	361	2-627-172-01	PULLEY (S)		C777	1-136-165-00	FILM 0.1uF 5%
	362	2-627-166-01	CAM		M703	X-2625-878-1	MOTOR ASSY, LOADING

**6-9. OPTICAL PICK-UP SECTION
(KSM-213CGP)**



The components identified by mark Δ or dotted line with mark. Δ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
401	2-626-908-01	SHAFT, SLED		405	X-2625-770-1	CHASSIS ASSY (MB), MOTOR (INCLUDING M702) (SPINDLE)	
402	2-626-907-01	GEAR (A)		M701	X-2625-769-1	MOTOR GEAR ASSY (SLED)	
Δ 403	8-848-483-05	PICK-UP, OPTICAL KSS-213C/Q-RP					
404	2-627-003-02	GEAR (B)					

CD	CONTROL
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Ref. No.	Part No.	Description	Remark
R706	1-249-440-11	CARBON 82K 5%	1/4W
R707	1-249-440-11	CARBON 82K 5%	1/4W
R708	1-247-883-00	CARBON 150K 5%	1/4W
R709	1-247-807-11	CARBON 100 5%	1/4W
R710	1-247-891-00	CARBON 330K 5%	1/4W
R712	1-249-439-11	CARBON 68K 5%	1/4W
R713	1-249-428-11	CARBON 8.2K 5%	1/4W
R714	1-249-437-11	CARBON 47K 5%	1/4W
R715	1-249-429-11	CARBON 10K 5%	1/4W
R716	1-249-429-11	CARBON 10K 5%	1/4W
R717	1-247-903-00	CARBON 1M 5%	1/4W
R718	1-247-899-11	CARBON 680K 5%	1/4W
R719	1-249-393-11	CARBON 10 5%	1/4W
R720	1-249-430-11	CARBON 12K 5%	1/4W
R721	1-247-862-11	CARBON 20K 5%	1/4W
R723	1-247-843-11	CARBON 3.3K 5%	1/4W
R725	1-249-441-11	CARBON 100K 5%	1/4W
R726	1-247-896-11	CARBON 510K 5%	1/4W
R728	1-249-439-11	CARBON 68K 5%	1/4W
R729	1-247-843-11	CARBON 3.3K 5%	1/4W
R730	1-247-883-00	CARBON 150K 5%	1/4W
R731	1-247-876-11	CARBON 75K 5%	1/4W
R732	1-249-437-11	CARBON 47K 5%	1/4W
R733	1-249-441-11	CARBON 100K 5%	1/4W
R734	1-249-432-11	CARBON 18K 5%	1/4W
R735	1-249-427-11	CARBON 6.8K 5%	1/4W
R736	1-247-862-11	CARBON 20K 5%	1/4W
R737	1-249-435-11	CARBON 33K 5%	1/4W
R738	1-247-863-00	CARBON 22K 5%	1/4W
R739	1-249-435-11	CARBON 33K 5%	1/4W
R740	1-249-439-11	CARBON 68K 5%	1/4W
R748	1-249-437-11	CARBON 47K 5%	1/4W
< SWITCH >			
S701	1-762-812-11	SWITCH, LEAF (LIMIT)	

*	A-3321-221-A	CONTROL BOARD, COMPLETE	

< CAPACITOR >			
C871	1-164-159-21	CERAMIC 0.1uF	50V
C872	1-162-306-11	CERAMIC 0.01uF 20%	16V
< DIODE >			
D811	8-719-048-90	LED SLR-342VR3F (OPR/BATT)	
< IC >			
IC811	8-742-012-11	IC SBX1976-51	
< RESISTOR >			
R871	1-247-815-11	CARBON 220 5%	1/4W

Ref. No.	Part No.	Description	Remark
R872	1-249-415-11	CARBON 680 5%	1/4W
R873	1-249-416-11	CARBON 820 5%	1/4W
R874	1-249-418-11	CARBON 1.2K 5%	1/4W
R875	1-249-420-11	CARBON 1.8K 5%	1/4W
R876	1-249-415-11	CARBON 680 5%	1/4W
R877	1-249-416-11	CARBON 820 5%	1/4W
R878	1-249-418-11	CARBON 1.2K 5%	1/4W
R879	1-249-420-11	CARBON 1.8K 5%	1/4W
R880	1-247-843-11	CARBON 3.3K 5%	1/4W
R881	1-249-427-11	CARBON 6.8K 5%	1/4W
R882	1-249-432-11	CARBON 18K 5%	1/4W
R883	1-249-415-11	CARBON 680 5%	1/4W
R884	1-249-416-11	CARBON 820 5%	1/4W
R885	1-249-418-11	CARBON 1.2K 5%	1/4W
R886	1-249-420-11	CARBON 1.8K 5%	1/4W
R887	1-249-415-11	CARBON 680 5%	1/4W
R888	1-249-416-11	CARBON 820 5%	1/4W
R889	1-249-418-11	CARBON 1.2K 5%	1/4W
R890	1-249-420-11	CARBON 1.8K 5%	1/4W
R891	1-247-843-11	CARBON 3.3K 5%	1/4W
R892	1-249-427-11	CARBON 6.8K 5%	1/4W
R893	1-249-432-11	CARBON 18K 5%	1/4W
R894	1-249-401-11	CARBON 47 5%	1/4W
< SWITCH >			
S811	1-692-014-11	SWITCH, KEY BOARD (OPERATE)	
S812	1-692-014-11	SWITCH, KEY BOARD (SLEEP)	
S813	1-692-014-11	SWITCH, KEY BOARD (STANDBY)	
S814	1-692-014-11	SWITCH, KEY BOARD (▷ II)	
S815	1-692-014-11	SWITCH, KEY BOARD (π)	
S816	1-692-014-11	SWITCH, KEY BOARD (DISPLAY• ENTER MEMORY)	
S817	1-692-014-11	SWITCH, KEY BOARD (TUNING/ TIME SET ◀◀ -)	
S818	1-692-014-11	SWITCH, KEY BOARD (TUNING/ TIME SET ▶▶ +)	
S819	1-692-014-11	SWITCH, KEY BOARD (MEGA BASS)	
S820	1-692-014-11	SWITCH, KEY BOARD (VOL +)	
S821	1-692-014-11	SWITCH, KEY BOARD (VOL -)	
S822	1-692-014-11	SWITCH, KEY BOARD (BAND)	
S823	1-692-014-11	SWITCH, KEY BOARD (PRESET +)	
S824	1-692-014-11	SWITCH, KEY BOARD (PRESET -)	
S825	1-692-014-11	SWITCH, KEY BOARD (FUNCTION)	
S826	1-692-014-11	SWITCH, KEY BOARD (CLOCK)	
S827	1-692-014-11	SWITCH, KEY BOARD (TIMER)	
S828	1-692-014-11	SWITCH, KEY BOARD (PLAY MODE• MONO/ST ISS)	
S829	1-692-014-11	SWITCH, KEY BOARD (SOUND MODE OFF)	
S830	1-692-014-11	SWITCH, KEY BOARD (SOUND MODE ROCK)	
S831	1-692-014-11	SWITCH, KEY BOARD (SOUND MODE POP)	
S832	1-692-014-11	SWITCH, KEY BOARD (SOUND MODE LIVE)	
S833	1-692-014-11	SWITCH, KEY BOARD (SOUND MODE VOCAL)	

HEADPHONE

LAMP

LCD

LOADING

MAIN

Ref. No.	Part No.	Description	Remark		
*	1-667-505-11	HEADPHONE BOARD (UK,G,IT)			
*	1-669-900-11	HEADPHONE BOARD (EE)	*****		
		< CAPACITOR >			
C373	1-162-282-31	CERAMIC	100PF	10%	50V
		< CONNECTOR >			
* CNP311	1-564-519-11	PLUG, CONNECTOR 4P			
* CNP312	1-564-520-11	PLUG, CONNECTOR 5P			
CNP804	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P			
		< JACK >			
J301	1-566-891-11	JACK (♁)			
		< COIL >			
L304	1-410-324-11	INDUCTOR	4.7uH		
L305	1-410-324-11	INDUCTOR	4.7uH		
L306	1-410-509-11	INDUCTOR	10uH		
		< RESISTOR >			
R112	1-247-807-11	CARBON	100	5%	1/4W
R212	1-247-807-11	CARBON	100	5%	1/4W
		< SWITCH >			
S834	1-554-088-00	SWITCH, KEY BOARD (≡ OPEN/CLOSE)			

*	1-667-501-11	LAMP BOARD	*****		
		< CONNECTOR >			
* CNP805	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
		< PILOT LAMP >			
PL801	1-517-474-31	LAMP, PILOT (8V/75mA)			
PL802	1-517-474-31	LAMP, PILOT (8V/75mA)			
PL803	1-517-474-31	LAMP, PILOT (8V/75mA)			

*	1-667-506-11	LCD BOARD	*****		
	3-021-465-01	ILLUMINATOR			
	3-021-484-01	HOLDER, LCD			
		< CAPACITOR >			
C874	1-162-282-31	CERAMIC	100PF	10%	50V
C875	1-162-282-31	CERAMIC	100PF	10%	50V
		< CONNECTOR >			
CNP801	1-695-388-21	PIN, CONNECTOR (PC BOARD) 27P			
* CNP806	1-564-713-11	PIN, CONNECTOR (SMALL TYPE) 11P			
* CNP807	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			

Ref. No.	Part No.	Description	Remark		
* CNP808	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
		< LIQUID CRYSTAL DISPLAY >			
LCD801	1-801-909-11	DISPLAY PANEL, LIQUID CRYSTAL	*****		
		< CONNECTOR >			
*	1-656-254-11	LOADING BOARD	*****		
		< CONNECTOR >			
* CN703	1-695-107-11	PIN, CONNECTOR (PC BOARD) 5P			
		< COIL >			
L761	1-412-852-11	INDUCTOR	47uH		
L762	1-412-852-11	INDUCTOR	47uH		
		< SWITCH >			
S702	1-572-086-11	SWITCH, LEAF (OPEN)			
S703	1-572-086-11	SWITCH, LEAF (CLOSE)			

*	A-3293-892-A	MAIN BOARD, COMPLETE (UK,G,IT)			
*	A-3321-414-A	MAIN BOARD, COMPLETE (EE)	*****		
	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3			
		< CAPACITOR >			
C101	1-162-294-31	CERAMIC	0.001uF	10%	50V
C102	1-162-293-31	CERAMIC	820PF	10%	50V
C103	1-162-851-11	CERAMIC	0.1uF	10%	16V
C104	1-126-233-11	ELECT	22uF	20%	50V
C105	1-162-294-31	CERAMIC	0.001uF	10%	50V
C106	1-162-293-31	CERAMIC	820PF	10%	50V
C107	1-126-233-11	ELECT	22uF	20%	50V
C108	1-162-840-11	CERAMIC	0.012uF	10%	16V
C109	1-124-903-11	ELECT	1uF	20%	50V
C110	1-124-903-11	ELECT	1uF	20%	50V
C112	1-162-286-21	CERAMIC	220PF	10%	50V
C113	1-124-903-11	ELECT	1uF	20%	50V
C114	1-124-902-00	ELECT	0.47uF	20%	50V
C115	1-104-664-11	ELECT	47uF	20%	10V
C116	1-124-443-00	ELECT	100uF	20%	10V
C117	1-136-155-00	FILM	0.015uF	5%	50V
C118	1-126-927-11	ELECT	2200uF	20%	10V
C120	1-126-963-11	ELECT	4.7uF	20%	50V
C121	1-162-286-21	CERAMIC	220PF	10%	50V
C122	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C123	1-162-282-31	CERAMIC	100PF	10%	50V
C124	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C125	1-162-282-31	CERAMIC	100PF	10%	50V
C126	1-124-903-11	ELECT	1uF	20%	50V
C127	1-162-290-31	CERAMIC	470PF	10%	50V
C128	1-162-282-31	CERAMIC	100PF	10%	50V

MAIN

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				<u>Remark</u>
C201	1-162-294-31	CERAMIC	0.001uF	10%	50V	C330	1-136-153-00	FILM	0.01uF	5%	50V		
C202	1-162-293-31	CERAMIC	820PF	10%	50V	C331	1-136-165-00	FILM	0.1uF	5%	50V		
C203	1-162-851-11	CERAMIC	0.1uF	10%	16V	C332	1-124-903-11	ELECT	1uF	20%	50V		
C204	1-126-233-11	ELECT	22uF	20%	50V	C333	1-124-443-00	ELECT	100uF	20%	10V		
C205	1-162-294-31	CERAMIC	0.001uF	10%	50V	C334	1-124-472-11	ELECT	470uF	20%	10V		
C206	1-162-293-31	CERAMIC	820PF	10%	50V	C335	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C207	1-126-233-11	ELECT	22uF	20%	50V	C336	1-104-666-11	ELECT	220uF	20%	10V		
C208	1-162-840-11	CERAMIC	0.012uF	10%	16V	C337	1-124-903-11	ELECT	1uF	20%	50V		
C209	1-124-903-11	ELECT	1uF	20%	50V	C338	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C210	1-124-903-11	ELECT	1uF	20%	50V	C339	1-124-443-00	ELECT	100uF	20%	10V		
C212	1-162-286-21	CERAMIC	220PF	10%	50V	C340	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C213	1-124-903-11	ELECT	1uF	20%	50V	C341	1-124-472-11	ELECT	470uF	20%	10V		
C214	1-124-902-00	ELECT	0.47uF	20%	50V	C342	1-104-664-11	ELECT	47uF	20%	10V		
C215	1-104-664-11	ELECT	47uF	20%	10V	C343	1-104-666-11	ELECT	220uF	20%	10V		
C216	1-124-443-00	ELECT	100uF	20%	10V	C344	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C217	1-136-155-00	FILM	0.015uF	5%	50V	C345	1-104-664-11	ELECT	47uF	20%	10V		
C218	1-126-927-11	ELECT	2200uF	20%	10V	C346	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C220	1-126-963-11	ELECT	4.7uF	20%	50V	C347	1-104-666-11	ELECT	220uF	20%	10V		
C222	1-162-302-11	CERAMIC	0.0022uF	30%	16V	C349	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C223	1-162-282-31	CERAMIC	100PF	10%	50V	C350	1-126-233-11	ELECT	22uF	20%	50V		
C224	1-162-302-11	CERAMIC	0.0022uF	30%	16V	C351	1-126-943-11	ELECT	2200uF	20%	25V		
C225	1-162-282-31	CERAMIC	100PF	10%	50V	C352	1-124-443-00	ELECT	100uF	20%	10V		
C226	1-124-903-11	ELECT	1uF	20%	50V	C353	1-162-284-31	CERAMIC	150PF	10%	50V		
C228	1-162-282-31	CERAMIC	100PF	10%	50V	C354	1-162-282-31	CERAMIC	100PF	10%	50V		
C301	1-130-471-00	MYLAR	0.001uF	5%	50V	C355	1-164-159-21	CERAMIC	0.1uF		50V		
C302	1-130-483-00	MYLAR	0.01uF	5%	50V	C356	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C303	1-130-483-00	MYLAR	0.01uF	5%	50V	C357	1-104-664-11	ELECT	47uF	20%	16V		
C304	1-124-443-00	ELECT	100uF	20%	10V	C359	1-161-494-00	CERAMIC	0.022uF		25V		
C305	1-162-306-11	CERAMIC	0.01uF	20%	16V	C360	1-161-494-00	CERAMIC	0.022uF		25V		
C306	1-162-306-11	CERAMIC	0.01uF	20%	16V	C361	1-161-494-00	CERAMIC	0.022uF		25V		
C307	1-124-907-11	ELECT	10uF	20%	50V	C362	1-161-494-00	CERAMIC	0.022uF		25V		
C308	1-104-666-11	ELECT	220uF	20%	10V	C363	1-164-159-21	CERAMIC	0.1uF		50V		
C309	1-162-286-21	CERAMIC	220PF	10%	50V	C364	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C310	1-104-666-11	ELECT	220uF	20%	10V	C366	1-162-294-31	CERAMIC	0.001uF	10%	50V		
C311	1-162-282-31	CERAMIC	100PF	10%	50V	C367	1-162-282-31	CERAMIC	100PF	10%	50V		
C312	1-124-903-11	ELECT	1uF	20%	50V	C368	1-162-282-31	CERAMIC	100PF	10%	50V		
C313	1-162-286-21	CERAMIC	220PF	10%	50V	C369	1-162-282-31	CERAMIC	100PF	10%	50V		
C314	1-162-851-11	CERAMIC	0.1uF	10%	16V	C370	1-162-282-31	CERAMIC	100PF	10%	50V		
C315	1-161-020-11	CERAMIC	0.039uF	10%	16V	C371	1-162-282-31	CERAMIC	100PF	10%	50V		
C316	1-124-907-11	ELECT	10uF	20%	50V	C372	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C317	1-104-666-11	ELECT	220uF	20%	10V	C374	1-124-443-00	ELECT	100uF	20%	10V		
C318	1-126-233-11	ELECT	22uF	20%	50V	C375	1-162-851-11	CERAMIC	0.1uF	10%	16V		
C319	1-136-161-00	FILM	0.047uF	5%	50V	C376	1-162-851-11	CERAMIC	0.1uF	10%	16V		
C320	1-136-161-00	FILM	0.047uF	5%	50V	C377	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C321	1-136-153-00	FILM	0.01uF	5%	50V	C379	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C322	1-124-907-11	ELECT	10uF	20%	50V	C380	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C323	1-126-963-11	ELECT	4.7uF	20%	50V	C381	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C324	1-126-966-11	ELECT	33uF	20%	25V	C382	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C325	1-162-282-31	CERAMIC	100PF	10%	50V	C751	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C326	1-162-294-31	CERAMIC	0.001uF	10%	50V	C753	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C327	1-162-282-31	CERAMIC	100PF	10%	50V	C754	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C328	1-136-161-00	FILM	0.047uF	5%	50V	C755	1-162-306-11	CERAMIC	0.01uF	20%	16V		
C329	1-136-161-00	FILM	0.047uF	5%	50V	C760	1-162-306-11	CERAMIC	0.01uF	20%	16V		

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D315	8-719-929-15	DIODE HZS9.1NB2		Q309	8-729-037-17	TRANSISTOR KRA104M-AT	
D316	8-719-991-33	DIODE 1SS133T-77		Q310	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D317	8-719-991-33	DIODE 1SS133T-77		Q311	8-729-209-15	TRANSISTOR 2SD2012	
D318	8-719-991-33	DIODE 1SS133T-77		Q312	8-729-801-84	TRANSISTOR 2SB1013-4	
D319	8-719-991-33	DIODE 1SS133T-77		Q313	8-729-036-58	TRANSISTOR KRC102M-AT	
D321	8-719-991-33	DIODE 1SS133T-77		Q314	8-729-036-86	TRANSISTOR KTC3203Y-AT	
D801	8-719-991-33	DIODE 1SS133T-77		Q315	8-729-209-15	TRANSISTOR 2SD2012	
D802	8-719-991-33	DIODE 1SS133T-77		Q316	8-729-040-76	TRANSISTOR KTA1273-Y-AT	
D803	8-719-991-33	DIODE 1SS133T-77		Q317	8-729-036-77	TRANSISTOR KRC107M	
D804	8-719-991-33	DIODE 1SS133T-77		Q318	8-729-209-15	TRANSISTOR 2SD2012	
D805	8-719-991-33	DIODE 1SS133T-77		Q319	8-729-036-89	TRANSISTOR KTC3198GR-AT	
D806	8-719-991-33	DIODE 1SS133T-77		Q320	8-729-036-89	TRANSISTOR KTC3198GR-AT	
		< IC >		Q321	8-729-011-94	FET 2SK105ATP-3040	
IC301	8-759-457-58	IC BA3426AS		Q322	8-729-036-89	TRANSISTOR KTC3198GR-AT	
IC302	8-759-432-41	IC BH3854AS		Q323	8-729-036-89	TRANSISTOR KTC3198GR-AT	
IC303	8-759-426-51	IC BA5417		Q325	8-729-037-17	TRANSISTOR KRA104M-AT	
IC304	8-759-095-60	IC S-81250PG		Q326	8-729-037-17	TRANSISTOR KRA104M-AT	
IC704	8-752-384-13	IC CXD2589Q		Q801	8-729-922-66	TRANSISTOR 2SC2410SN	
IC801	8-752-897-59	IC CXP83120A-029Q		Q802	8-729-922-66	TRANSISTOR 2SC2410SN	
IC802	8-759-165-86	IC PST600I-T		Q805	8-729-036-86	TRANSISTOR KTC3203Y-AT	
		< COIL >		Q806	8-729-036-86	TRANSISTOR KTC3203Y-AT	
L307	1-412-848-11	INDUCTOR 22uH				< RESISTOR >	
L312	1-410-509-11	INDUCTOR 10uH		R101	1-247-852-11	CARBON 7.5K 5% 1/4W	
L313	1-410-509-11	INDUCTOR 10uH		R103	1-247-815-11	CARBON 220 5% 1/4W	
L314	1-410-509-11	INDUCTOR 10uH		R104	1-247-815-11	CARBON 220 5% 1/4W	
L315	1-410-509-11	INDUCTOR 10uH		R105	1-247-807-11	CARBON 100 5% 1/4W	
L316	1-410-509-11	INDUCTOR 10uH		R106	1-249-417-11	CARBON 1K 5% 1/4W	
L317	1-410-509-11	INDUCTOR 10uH		R107	1-249-427-11	CARBON 6.8K 5% 1/4W	
L801	1-410-517-11	INDUCTOR 47uH		R108	1-249-421-11	CARBON 2.2K 5% 1/4W	
L802	1-414-146-31	INDUCTOR 2.2uH		R109	1-249-417-11	CARBON 1K 5% 1/4W	
L803	1-410-521-11	INDUCTOR 100uH		R110	1-247-816-11	CARBON 240 5% 1/4W	
L804	1-410-509-11	INDUCTOR 10uH		△R111	1-202-958-11	FUSIBLE 2.2 5% 1/2W F	
L806	1-410-521-11	INDUCTOR 100uH		R113	1-249-429-11	CARBON 10K 5% 1/4W	
L807	1-410-509-11	INDUCTOR 10uH		R114	1-247-863-11	CARBON 22K 5% 1/4W	
L808	1-410-509-11	INDUCTOR 10uH		R201	1-247-852-11	CARBON 7.5K 5% 1/4W	
L809	1-410-509-11	INDUCTOR 10uH		R203	1-247-815-11	CARBON 220 5% 1/4W	
L810	1-410-509-11	INDUCTOR 10uH		R204	1-247-815-11	CARBON 220 5% 1/4W	
L812	1-410-509-11	INDUCTOR 10uH		R205	1-247-807-11	CARBON 100 5% 1/4W	
L813	1-410-509-11	INDUCTOR 10uH		R206	1-249-417-11	CARBON 1K 5% 1/4W	
L815	1-410-509-11	INDUCTOR 10uH		R207	1-249-427-11	CARBON 6.8K 5% 1/4W	
		< TRANSISTOR >		R208	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q101	8-729-036-89	TRANSISTOR KTC3198GR-AT		R209	1-249-417-11	CARBON 1K 5% 1/4W	
Q201	8-729-036-89	TRANSISTOR KTC3198GR-AT		R210	1-247-816-11	CARBON 240 5% 1/4W	
Q301	8-729-036-58	TRANSISTOR KRC102M-AT		△R211	1-202-958-11	FUSIBLE 2.2 5% 1/2W F	
Q302	8-729-036-58	TRANSISTOR KRC102M-AT		R213	1-249-429-11	CARBON 10K 5% 1/4W	
Q304	8-729-037-29	TRANSISTOR KRA102M		R214	1-247-863-11	CARBON 22K 5% 1/4W	
Q305	8-729-037-29	TRANSISTOR KRA102M		R301	1-249-429-11	CARBON 10K 5% 1/4W	
Q306	8-729-036-57	TRANSISTOR KRC101M-AT		R302	1-247-895-11	CARBON 470K 5% 1/4W	
Q307	8-729-036-89	TRANSISTOR KTC3198GR-AT		R304	1-249-417-11	CARBON 1K 5% 1/4W	
Q308	8-729-036-89	TRANSISTOR KTC3198GR-AT		R305	1-249-414-11	CARBON 560 5% 1/4W	
				R306	1-249-417-11	CARBON 1K 5% 1/4W	
				R307	1-249-417-11	CARBON 1K 5% 1/4W	

The components identified by mark △ or dotted line with mark. △ are critical for safety. Replace only with part number specified.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>
R308	1-249-411-11	CARBON	330	5%	1/4W	R404	1-249-429-11	CARBON	10K	5%	1/4W
R309	1-249-427-11	CARBON	6.8K	5%	1/4W	R405	1-249-429-11	CARBON	10K	5%	1/4W
R310	1-249-417-11	CARBON	1K	5%	1/4W	R406	1-249-429-11	CARBON	10K	5%	1/4W
R311	1-249-427-11	CARBON	6.8K	5%	1/4W	R407	1-249-429-11	CARBON	10K	5%	1/4W
R313	1-247-863-11	CARBON	22K	5%	1/4W	R408	1-249-429-11	CARBON	10K	5%	1/4W
R314	1-249-429-11	CARBON	10K	5%	1/4W	R409	1-249-429-11	CARBON	10K	5%	1/4W
R315	1-249-425-11	CARBON	4.7K	5%	1/4W	R410	1-249-429-11	CARBON	10K	5%	1/4W
R316	1-249-429-11	CARBON	10K	5%	1/4W	R411	1-249-429-11	CARBON	10K	5%	1/4W
R317	1-247-863-11	CARBON	22K	5%	1/4W	R412	1-249-429-11	CARBON	10K	5%	1/4W
R318	1-249-417-11	CARBON	1K	5%	1/4W	R413	1-249-429-11	CARBON	10K	5%	1/4W
R319	1-249-437-11	CARBON	47K	5%	1/4W	R414	1-249-429-11	CARBON	10K	5%	1/4W
R320	1-247-903-00	CARBON	1M	5%	1/4W	R415	1-249-429-11	CARBON	10K	5%	1/4W
R321	1-247-807-11	CARBON	100	5%	1/4W	R416	1-249-429-11	CARBON	10K	5%	1/4W
R322	1-249-429-11	CARBON	10K	5%	1/4W	R417	1-249-429-11	CARBON	10K	5%	1/4W
R323	1-249-429-11	CARBON	10K	5%	1/4W	R418	1-249-429-11	CARBON	10K	5%	1/4W
R324	1-247-903-00	CARBON	1M	5%	1/4W	R419	1-249-429-11	CARBON	10K	5%	1/4W
R325	1-249-429-11	CARBON	10K	5%	1/4W	R420	1-249-429-11	CARBON	10K	5%	1/4W
R326	1-247-843-11	CARBON	3.3K	5%	1/4W	R421	1-249-429-11	CARBON	10K	5%	1/4W
R327	1-247-895-11	CARBON	470K	5%	1/4W	R422	1-249-429-11	CARBON	10K	5%	1/4W
R328	1-249-417-11	CARBON	1K	5%	1/4W	R423	1-249-429-11	CARBON	10K	5%	1/4W
R329	1-249-419-11	CARBON	1.5K	5%	1/4W	R424	1-249-429-11	CARBON	10K	5%	1/4W
R330	1-249-407-11	CARBON	150	5%	1/4W	R425	1-249-429-11	CARBON	10K	5%	1/4W
R331	1-249-437-11	CARBON	47K	5%	1/4W	R426	1-249-429-11	CARBON	10K	5%	1/4W
R332	1-249-407-11	CARBON	150	5%	1/4W	R427	1-249-429-11	CARBON	10K	5%	1/4W
R333	1-249-417-11	CARBON	1K	5%	1/4W	R433	1-249-425-11	CARBON	4.7K	5%	1/4W
R334	1-249-437-11	CARBON	47K	5%	1/4W	R434	1-249-425-11	CARBON	4.7K	5%	1/4W
R335	1-247-815-11	CARBON	220	5%	1/4W	R435	1-249-425-11	CARBON	4.7K	5%	1/4W
R336	1-249-437-11	CARBON	47K	5%	1/4W	R744	1-249-411-11	CARBON	330	5%	1/4W
R337	1-249-429-11	CARBON	10K	5%	1/4W	R745	1-249-417-11	CARBON	1K	5%	1/4W
R338	1-249-407-11	CARBON	150	5%	1/4W	R746	1-249-417-11	CARBON	1K	5%	1/4W
R339	1-247-807-11	CARBON	100	5%	1/4W	R747	1-249-417-11	CARBON	1K	5%	1/4W
R340	1-249-429-11	CARBON	10K	5%	1/4W	R760	1-249-437-11	CARBON	47K	5%	1/4W
R341	1-249-425-11	CARBON	4.7K	5%	1/4W	R761	1-249-437-11	CARBON	47K	5%	1/4W
R344	1-249-441-11	CARBON	100K	5%	1/4W	R762	1-247-843-11	CARBON	3.3K	5%	1/4W
R345	1-249-415-11	CARBON	680	5%	1/4W	R763	1-249-417-11	CARBON	1K	5%	1/4W
R346	1-247-843-11	CARBON	3.3K	5%	1/4W	R764	1-249-429-11	CARBON	10K	5%	1/4W
R347	1-249-393-11	CARBON	10	5%	1/4W	R765	1-247-903-00	CARBON	1M	5%	1/4W
R348	1-249-437-11	CARBON	47K	5%	1/4W	R766	1-249-429-11	CARBON	10K	5%	1/4W
R349	1-249-425-11	CARBON	4.7K	5%	1/4W	R767	1-247-887-00	CARBON	220K	5%	1/4W
R350	1-249-425-11	CARBON	4.7K	5%	1/4W	R768	1-249-430-11	CARBON	12K	5%	1/4W
R353	1-249-417-11	CARBON	1K	5%	1/4W	R769	1-249-430-11	CARBON	12K	5%	1/4W
R354	1-249-425-11	CARBON	4.7K	5%	1/4W	R770	1-249-430-11	CARBON	12K	5%	1/4W
R355	1-247-863-11	CARBON	22K	5%	1/4W	R771	1-249-425-11	CARBON	4.7K	5%	1/4W
R357	1-249-437-11	CARBON	47K	5%	1/4W	R772	1-249-430-11	CARBON	12K	5%	1/4W
R358	1-249-437-11	CARBON	47K	5%	1/4W	R773	1-249-425-11	CARBON	4.7K	5%	1/4W
R359	1-249-429-11	CARBON	10K	5%	1/4W	R774	1-249-430-11	CARBON	12K	5%	1/4W
R360	1-249-425-11	CARBON	4.7K	5%	1/4W	R775	1-249-430-11	CARBON	12K	5%	1/4W
R361	1-249-425-11	CARBON	4.7K	5%	1/4W	R776	1-249-437-11	CARBON	47K	5%	1/4W
R362	1-249-417-11	CARBON	1K	5%	1/4W	R777	1-247-807-11	CARBON	100	5%	1/4W
R366	1-249-401-11	CARBON	47	5%	1/4W	R778	1-247-807-11	CARBON	100	5%	1/4W
R401	1-249-429-11	CARBON	10K	5%	1/4W	R779	1-247-807-11	CARBON	100	5%	1/4W
R402	1-249-429-11	CARBON	10K	5%	1/4W	R785	1-249-417-11	CARBON	1K	5%	1/4W
R403	1-249-429-11	CARBON	10K	5%	1/4W	R786	1-247-807-11	CARBON	100	5%	1/4W

MAIN

POWER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R790	1-249-425-11	CARBON	4.7K 5% 1/4W	R848	1-249-441-11	CARBON	100K 5% 1/4W
R791	1-249-425-11	CARBON	4.7K 5% 1/4W	R849	1-249-441-11	CARBON	100K 5% 1/4W
R792	1-249-417-11	CARBON	1K 5% 1/4W	R850	1-249-425-11	CARBON	4.7K 5% 1/4W
R793	1-249-417-11	CARBON	1K 5% 1/4W	R851	1-249-425-11	CARBON	4.7K 5% 1/4W
R794	1-249-417-11	CARBON	1K 5% 1/4W	R852	1-249-417-11	CARBON	1K 5% 1/4W
R801	1-249-425-11	CARBON	4.7K 5% 1/4W	R853	1-249-417-11	CARBON	1K 5% 1/4W
R802	1-249-425-11	CARBON	4.7K 5% 1/4W	R854	1-249-425-11	CARBON	4.7K 5% 1/4W
R803	1-249-425-11	CARBON	4.7K 5% 1/4W	R855	1-249-425-11	CARBON	4.7K 5% 1/4W
R804	1-249-425-11	CARBON	4.7K 5% 1/4W	R856	1-249-425-11	CARBON	4.7K 5% 1/4W
R805	1-249-425-11	CARBON	4.7K 5% 1/4W	R857	1-249-437-11	CARBON	47K 5% 1/4W
R806	1-247-863-11	CARBON	22K 5% 1/4W	R858	1-249-441-11	CARBON	100K 5% 1/4W
			(EE)	R859	1-249-429-11	CARBON	10K 5% 1/4W
R806	1-249-427-11	CARBON	6.8K 5% 1/4W	R860	1-249-441-11	CARBON	100K 5% 1/4W
			(UK,G,IT)	R861	1-249-429-11	CARBON	10K 5% 1/4W
R809	1-249-429-11	CARBON	10K 5% 1/4W	R862	1-249-425-11	CARBON	4.7K 5% 1/4W
R810	1-249-413-11	CARBON	470 5% 1/4W	R863	1-249-421-11	CARBON	2.2K 5% 1/4W
R811	1-249-421-11	CARBON	2.2K 5% 1/4W	R864	1-249-441-11	CARBON	100K 5% 1/4W
R812	1-249-421-11	CARBON	2.2K 5% 1/4W	R865	1-249-425-11	CARBON	4.7K 5% 1/4W
R813	1-249-421-11	CARBON	2.2K 5% 1/4W	R866	1-247-895-11	CARBON	470 5% 1/4W
R814	1-249-417-11	CARBON	1K 5% 1/4W	R868	1-249-425-11	CARBON	4.7K 5% 1/4W
R815	1-249-429-11	CARBON	10K 5% 1/4W	R869	1-247-895-11	CARBON	470 5% 1/4W
R816	1-249-417-11	CARBON	1K 5% 1/4W	R871	1-247-815-11	CARBON	220 5% 1/4W
R817	1-249-417-11	CARBON	1K 5% 1/4W			< VARIABLE RESISTOR >	
R818	1-249-439-11	CARBON	68K 5% 1/4W				
R819	1-249-439-11	CARBON	68K 5% 1/4W	RV301	1-230-495-11	RES, ADJ, CARBON	2.2K
R820	1-249-439-11	CARBON	68K 5% 1/4W			< TRANSFORMER >	
R821	1-247-881-00	CARBON	120K 5% 1/4W				
R822	1-249-421-11	CARBON	2.2K 5% 1/4W	T301	1-433-346-11	TRANSFORMER, BIAS OSCILLATOR	
R823	1-249-425-11	CARBON	4.7K 5% 1/4W			< VIBRATOR >	
R824	1-249-425-11	CARBON	4.7K 5% 1/4W	X701	1-579-345-11	VIBRATOR, CERAMIC (16.9344MHz)	
R825	1-249-425-11	CARBON	4.7K 5% 1/4W	X801	1-767-184-11	VIBRATOR, CERAMIC (4.19MHz)	
R826	1-249-425-11	CARBON	4.7K 5% 1/4W	X802	1-760-105-11	VIBRATOR, CRYSTAL (32.768kHz)	
R827	1-249-429-11	CARBON	10K 5% 1/4W	*****			
R828	1-249-425-11	CARBON	4.7K 5% 1/4W	*	1-667-502-11	POWER BOARD	*****
R829	1-249-417-11	CARBON	1K 5% 1/4W				
R830	1-249-425-11	CARBON	4.7K 5% 1/4W				
R831	1-249-417-11	CARBON	1K 5% 1/4W				
R832	1-249-425-11	CARBON	4.7K 5% 1/4W				
R833	1-249-417-11	CARBON	1K 5% 1/4W				
R834	1-249-417-11	CARBON	1K 5% 1/4W				
R835	1-249-417-11	CARBON	1K 5% 1/4W				
R836	1-249-417-11	CARBON	1K 5% 1/4W				
R837	1-249-417-11	CARBON	1K 5% 1/4W				
R838	1-249-417-11	CARBON	1K 5% 1/4W				
R839	1-249-417-11	CARBON	1K 5% 1/4W				
R840	1-249-417-11	CARBON	1K 5% 1/4W				
R841	1-249-425-11	CARBON	4.7K 5% 1/4W				
R842	1-249-425-11	CARBON	4.7K 5% 1/4W				
R843	1-249-425-11	CARBON	4.7K 5% 1/4W				
R844	1-249-425-11	CARBON	4.7K 5% 1/4W				
R845	1-249-417-11	CARBON	1K 5% 1/4W				
R846	1-249-417-11	CARBON	1K 5% 1/4W				
R847	1-249-425-11	CARBON	4.7K 5% 1/4W				
						< CAPACITOR >	
				C901	1-161-055-00	CERAMIC	0.022uF 10% 50V
				C902	1-161-055-00	CERAMIC	0.022uF 10% 50V
				C903	1-161-055-00	CERAMIC	0.022uF 10% 50V
				C904	1-161-055-00	CERAMIC	0.022uF 10% 50V
				C905	1-124-636-00	ELECT	3300uF 20% 25V
						< CONNECTOR >	
				*	CNP901	1-564-507-11	PLUG, CONNECTOR 4P
					CNP902	1-564-506-11	PLUG, CONNECTOR 3P
						< DIODE >	
				D901	8-719-046-47	DIODE	1N5401TM

POWER

RECORD/PLAYBACK SWITCH

TUNER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D902	8-719-046-47	DIODE 1N5401TM		C9	1-102-973-00	CERAMIC 100PF 5%	50V
D903	8-719-046-47	DIODE 1N5401TM		C10	1-102-823-11	CERAMIC 430PF 5%	50V
D904	8-719-046-47	DIODE 1N5401TM		C11	1-162-199-31	CERAMIC 10PF 5%	50V
D906	8-719-991-33	DIODE 1SS133T-77		C12	1-107-734-11	FILM 360PF 5%	100V
D907	8-719-991-33	DIODE 1SS133T-77		C13	1-162-282-31	CERAMIC 100PF 10%	50V
D908	8-719-153-42	DIODE RD2.7EB2TN					(EE)
D910	8-719-991-33	DIODE 1SS133T-77		C14	1-164-159-21	CERAMIC 0.1uF	50V
		< FUSE >		C15	1-162-306-11	CERAMIC 0.01uF 20%	16V
△F901	1-532-464-31	FUSE, TIME-LAG (T2.5AL/250V)		C16	1-126-963-11	ELECT 4.7uF 20%	50V
		< AC INLET >		C17	1-162-288-31	CERAMIC 330PF 10%	50V
△J901	1-526-838-11	INLET, AC 2P (~ AC IN)		C18	1-162-306-11	CERAMIC 0.01uF 20%	16V
		< LINE FILTER >		C19	1-124-907-11	ELECT 10uF 20%	50V
△LF901	1-424-150-11	TRANSFORMER, LINE FILTER		C20	1-162-849-11	CERAMIC 0.068uF 10%	16V
		< TRANSFORMER >		C21	1-162-850-11	CERAMIC 0.082uF 10%	16V
△T901	1-431-621-11	TRANSFORMER, POWER		C22	1-162-850-11	CERAMIC 0.082uF 10%	16V
		*****		C23	1-161-053-00	CERAMIC 0.015uF 10%	50V
*	1-668-024-11	RECORD/PLAYBACK SWITCH BOARD		C24	1-161-053-00	CERAMIC 0.015uF 10%	50V
		*****		C25	1-162-306-11	CERAMIC 0.01uF 20%	16V
		< CAPACITOR >		C26	1-162-306-11	CERAMIC 0.01uF 20%	16V
C378	1-162-294-31	CERAMIC 0.001uF 10% 50V		C27	1-124-443-00	ELECT 100uF 20%	10V
		< CONNECTOR >		C28	1-102-518-11	CERAMIC 33PF 5%	50V
CNP301	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P		C29	1-162-199-31	CERAMIC 10PF 5%	50V
		< RESISTOR >		C30	1-162-306-11	CERAMIC 0.01uF 20%	16V
R102	1-249-417-11	CARBON 1K 5% 1/4W		C31	1-162-306-11	CERAMIC 0.01uF 20%	16V
R202	1-249-417-11	CARBON 1K 5% 1/4W		C32	1-162-306-11	CERAMIC 0.01uF 20%	16V
		< SWITCH >		C33	1-162-306-11	CERAMIC 0.01uF 20%	16V
S301	1-692-167-11	SWITCH, SLIDE (REC/PB)		C34	1-162-294-31	CERAMIC 0.001uF 10%	50V
		*****		C35	1-162-294-31	CERAMIC 0.001uF 10%	50V
*	A-3321-226-A	TUNER BOARD, COMPLETE (UK,G,IT)		C36	1-162-294-31	CERAMIC 0.001uF 10%	50V
*	A-3321-413-A	TUNER BOARD, COMPLETE (EE)		C37	1-124-907-11	ELECT 10uF 20%	50V
		*****		C38	1-162-306-11	CERAMIC 0.01uF 20%	16V
		< CAPACITOR >		C39	1-124-907-11	ELECT 10uF 20%	50V
C1	1-162-294-31	CERAMIC 0.001uF 10% 50V		C40	1-162-306-11	CERAMIC 0.01uF 20%	16V
C2	1-162-306-11	CERAMIC 0.01uF 20% 16V		C41	1-136-177-00	FILM 1uF 5%	50V
C3	1-102-516-11	CERAMIC 27PF 5% 50V		C42	1-130-483-00	MYLAR 0.01uF 5%	50V
C4	1-162-203-31	CERAMIC 15PF 5% 50V		C43	1-162-290-31	CERAMIC 470PF 10%	50V
C5	1-161-494-00	CERAMIC 0.022uF 25V					(EE)
C6	1-161-494-00	CERAMIC 0.022uF 25V		C43	1-162-294-31	CERAMIC 0.001uF 10%	50V
C7	1-161-020-11	CERAMIC 0.039uF 10% 16V					(UK,G,IT)
C8	1-162-195-31	CERAMIC 4.7PF 10% 50V		C44	1-124-907-11	ELECT 10uF 20%	50V
		(UK,G,IT)		C45	1-124-907-11	ELECT 10uF 20%	50V
				C46	1-124-907-11	ELECT 10uF 20%	50V
				C47	1-162-282-31	CERAMIC 100PF 10%	50V
				C48	1-162-282-31	CERAMIC 100PF 10%	50V
				C49	1-162-294-31	CERAMIC 0.001uF 10%	50V
				C50	1-162-282-31	CERAMIC 100PF 10%	50V
				C51	1-162-282-31	CERAMIC 100PF 10%	50V
				C52	1-162-306-11	CERAMIC 0.01uF 20%	16V
				C53	1-162-306-11	CERAMIC 0.01uF 20%	16V
				C54	1-162-294-31	CERAMIC 0.001uF 10%	50V
				C55	1-162-306-11	CERAMIC 0.01uF 20%	16V
				C56	1-162-306-11	CERAMIC 0.01uF 20%	16V
				C57	1-162-195-31	CERAMIC 4.7PF 10%	50V

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

TUNER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C58	1-162-282-31	CERAMIC	100PF 10% 50V			< BPF >	
C59	1-161-494-00	CERAMIC	0.022uF 25V				
C60	1-162-282-31	CERAMIC	100PF 10% 50V	FL1	1-234-024-11	FILTER, BAND PASS (UK,G,IT)	
C61	1-162-306-11	CERAMIC	0.01uF 20% 16V	FL1	1-239-813-21	FILTER, BAND PASS (EE)	
C62	1-162-294-31	CERAMIC	0.001uF 10% 50V			< IC >	
C63	1-162-282-31	CERAMIC	100PF 10% 50V				
C64	1-162-294-31	CERAMIC	0.001uF 10% 50V	IC1	8-759-386-02	IC TA2008AN	
C65	1-162-282-31	CERAMIC	100PF 10% 50V	IC2	8-759-290-61	IC BU2615S	
C66	1-162-294-31	CERAMIC	0.001uF 10% 50V			< COIL >	
C67	1-162-195-31	CERAMIC	4.7PF 10% 50V				
			(EE)				
C67	1-162-197-31	CERAMIC	6.8PF 10% 50V	L1	1-406-995-41	COIL, FM OSC (EE)	
			(UK,G,IT)	L1	1-409-905-31	COIL, FM RF (UK,G,IT)	
C68	1-162-306-11	CERAMIC	0.01uF 20% 16V	L2	1-406-994-41	COIL, FM RF (EE)	
C69	1-162-215-31	CERAMIC	47PF 5% 50V	L2	1-409-904-31	COIL, FM OSC (UK,G,IT)	
C71	1-162-282-31	CERAMIC	100PF 10% 50V	L3	1-501-924-11	ANTENNA, FERRITE-ROD (MW/LW)	
C72	1-162-282-31	CERAMIC	100PF 10% 50V				
C73	1-162-282-31	CERAMIC	100PF 10% 50V	L4	1-411-199-31	COIL, MW/LW OSC	
			(EE)	L5	1-410-517-11	INDUCTOR 47uH	
C74	1-162-282-31	CERAMIC	100PF 10% 50V	L6	1-410-336-11	INDUCTOR 220uH	
			(EE)	L8	1-410-324-11	INDUCTOR 4.7uH	
			(EE)			< TRANSISTOR >	
		< FILTER >		Q1	8-729-119-32	FET 2SK193	
CF1	1-760-468-11	FILTER, CERAMIC		Q2	8-729-922-66	TRANSISTOR 2SC2410SN	
CF2	1-760-468-11	FILTER, CERAMIC		Q3	8-729-922-66	TRANSISTOR 2SC2410SN	
CF3	1-760-468-11	FILTER, CERAMIC		Q4	8-729-905-50	TRANSISTOR DTC343TS	
CF4	1-767-096-11	VIBRATOR, CERAMIC		Q5	8-729-178-62	TRANSISTOR 2SC2786-L	
		< ENCAPSULATED COMPONENT >		Q6	8-729-922-66	TRANSISTOR 2SC2410SN	
CFT1	1-233-885-11	ENCAPSULATED COMPONENT		Q9	8-729-036-77	TRANSISTOR KRC107M	
		< CONNECTOR >		Q10	8-729-036-77	TRANSISTOR KRC107M	
CN1	1-695-336-31	PIN, CONNECTOR (PC BOARD) 13P		Q11	8-729-036-77	TRANSISTOR KRC107M	
* CN2	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P		Q12	8-729-036-77	TRANSISTOR KRC107M	
		< TRIMMER >		Q13	8-729-012-83	FET 2SK679A	
CT1	1-141-227-00	CAP, TRIMMER 20PF (UK,G,IT)		Q14	8-729-106-07	FET 2SK514-H	
CT2	1-141-411-11	CAP, ADJ 20PF		Q15	8-729-036-77	TRANSISTOR KRC107M	
CT3	1-141-459-11	CAP, TRIMMER (SEAL TYPE) 45PF		Q16	8-729-036-77	TRANSISTOR KRC107M	
CT4	1-141-410-11	CAP, ADJ 10PF		Q17	8-729-037-34	TRANSISTOR KRA107M	
CT5	1-141-459-11	CAP, TRIMMER (SEAL TYPE) 45PF		Q18	8-729-037-34	TRANSISTOR KRA107M	
		< DIODE >		Q19	8-729-036-58	TRANSISTOR KRC102M-AT	
D1	8-719-991-33	DIODE 1SS133T-77		Q21	8-729-037-29	TRANSISTOR KRA102M	
D2	8-719-991-33	DIODE 1SS133T-77		Q22	8-729-037-29	TRANSISTOR KRA102M	
D3	8-719-050-72	DIODE KV1370NT		Q23	8-729-922-66	TRANSISTOR 2SC2410SN	
D4	8-719-050-72	DIODE KV1370NT				< RESISTOR >	
D5	8-719-050-69	DIODE KV1520N		R1	1-247-887-00	CARBON 220K 5% 1/4W	
		< FUSE HOLDER >		R2	1-249-441-11	CARBON 100K 5% 1/4W	
FH1	1-533-233-21	HOLDER, FUSE		R3	1-249-431-11	CARBON 15K 5% 1/4W	
				R4	1-249-413-11	CARBON 470 5% 1/4W	
				R5	1-249-417-11	CARBON 1K 5% 1/4W	
				R6	1-249-425-11	CARBON 4.7K 5% 1/4W	
				R7	1-249-425-11	CARBON 4.7K 5% 1/4W	
				R8	1-249-407-11	CARBON 150 5% 1/4W	
				R9	1-249-425-11	CARBON 4.7K 5% 1/4W	
				R10	1-249-429-11	CARBON 10K 5% 1/4W	

CFD-W57L

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<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
		***** HARDWARE LIST *****	
#1	7-682-548-09	SCREW +B 3X8	
#2	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
#3	7-685-233-19	SCREW +KTP 2.6X6 TYPE2 NON-SLIT	
#4	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#5	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
#6	7-621-283-00	SCREW +P 2X5	
#7	7-621-775-10	SCREW +B 2.6X4	
#8	7-685-546-14	SCREW +BTP 3X8 TYPE2 N-S	
#9	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	

CFD-W57L

SONY[®]

AEP Model
UK Model

SERVICE MANUAL

Ver 1.1 1999. 10

SUPPLEMENT-1

File this supplement with the service manual.

Subject : Change of Boards

(ECN-RCA00409)

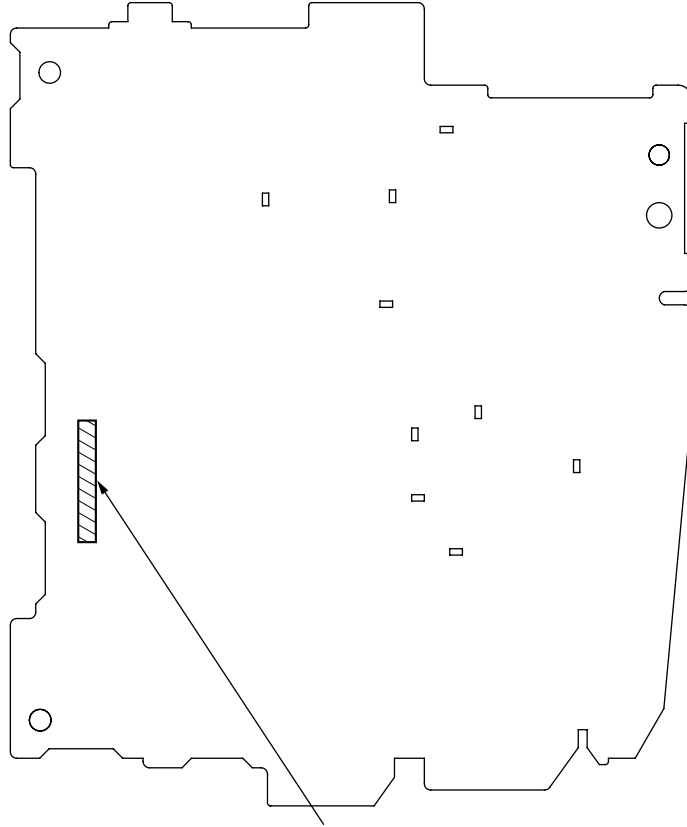
Printed wiring board and schematic diagram of new type, and changed parts list are described in this Supplement-1.

Refer to original service manual (9-923-385-11) previously issued for the other information.

When performing service and inspection, check the suffix of the part number of the main boards.

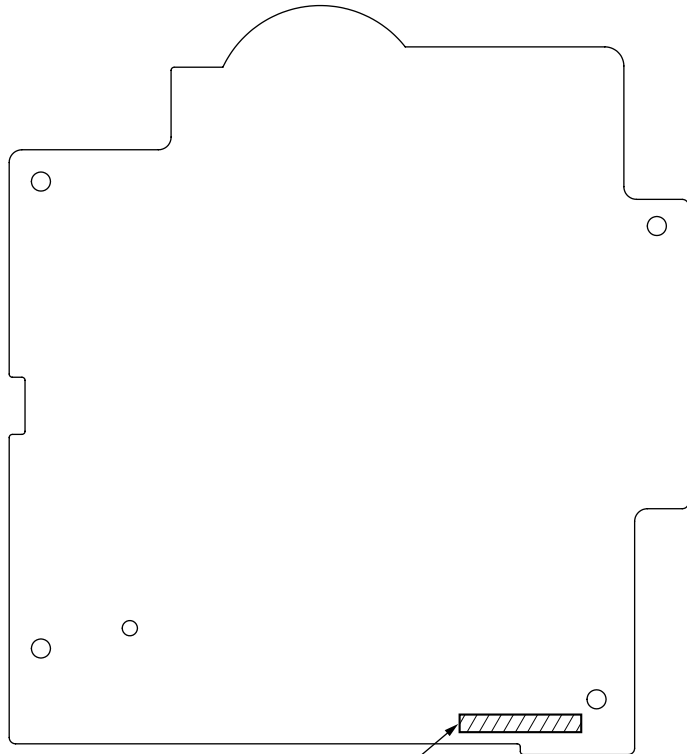
Refer to the service manual for a board with a suffix number of -14 when repairing a board with a suffix number of -12 or -13 for the following boards:
TUNER, MAIN, LAMP, RECORD/PLAYBACK SWITCH, HEADPHONE and POWER boards.

- TUNER BOARD (COMPONENT SIDE) -



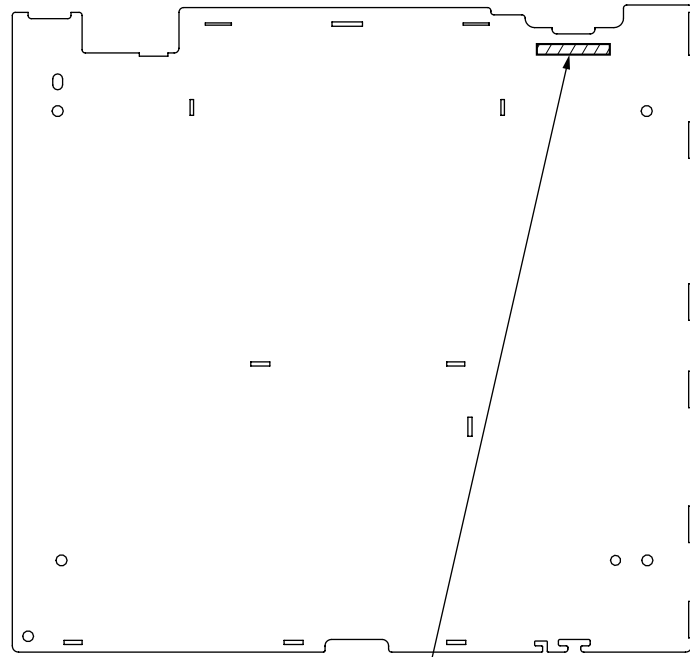
TUNER Board Part No.
Former type : 1-667-503-11
New type : 1-667-503-14

- CD BOARD (COMPONENT SIDE) -



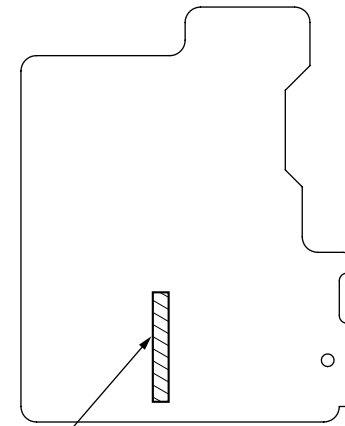
CD Board Part No.
Former type : 1-667-507-11
New type : 1-667-507-12

– MAIN BOARD (COMPONENT SIDE) –



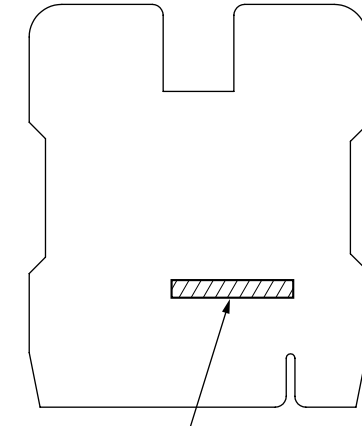
MAIN Board Part No.
Former type : 1-667-498-11
New type : 1-667-498-14

– HEADPHONE BOARD (COMPONENT SIDE) –



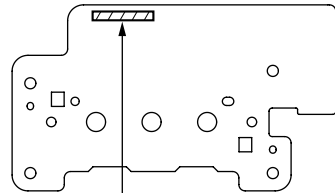
HEADPHONE Board Part No.
Former type : 1-667-505-11
New type : 1-667-505-14

– BACK UP BOARD (COMPONENT SIDE) –



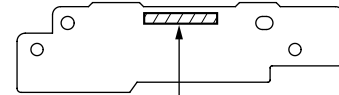
BACK UP Board Part No.
Former type : 1-667-500-11
New type : 1-667-500-12

– LCD BOARD (COMPONENT SIDE) –



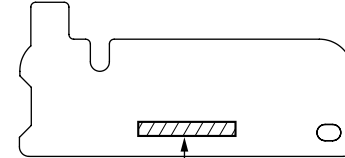
LCD Board Part No.
Former type : 1-667-506-11
New type : 1-667-506-12

– LAMP BOARD (COMPONENT SIDE) –



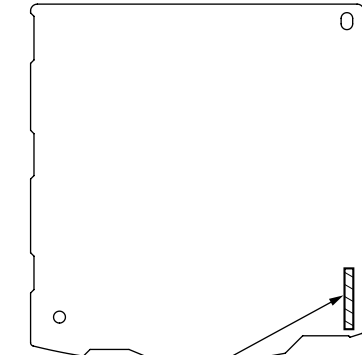
LAMP Board Part No.
Former type : 1-667-501-11
New type : 1-667-501-14

– BATTERY BOARD (COMPONENT SIDE) –



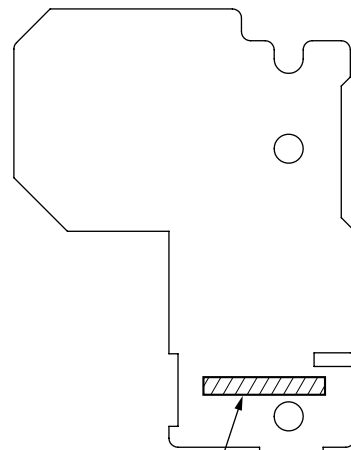
BATTERY Board Part No.
Former type : 1-667-499-11
New type : 1-667-499-12

– POWER BOARD (COMPONENT SIDE) –



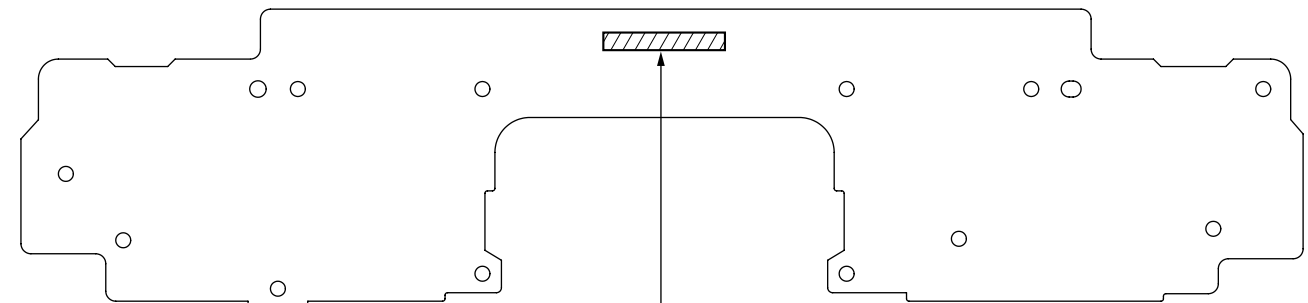
POWER Board Part No.
Former type : 1-667-502-11
New type : 1-667-502-14

– RECORD/PLAYBACK
SWITCH BOARD (COMPONENT SIDE) –



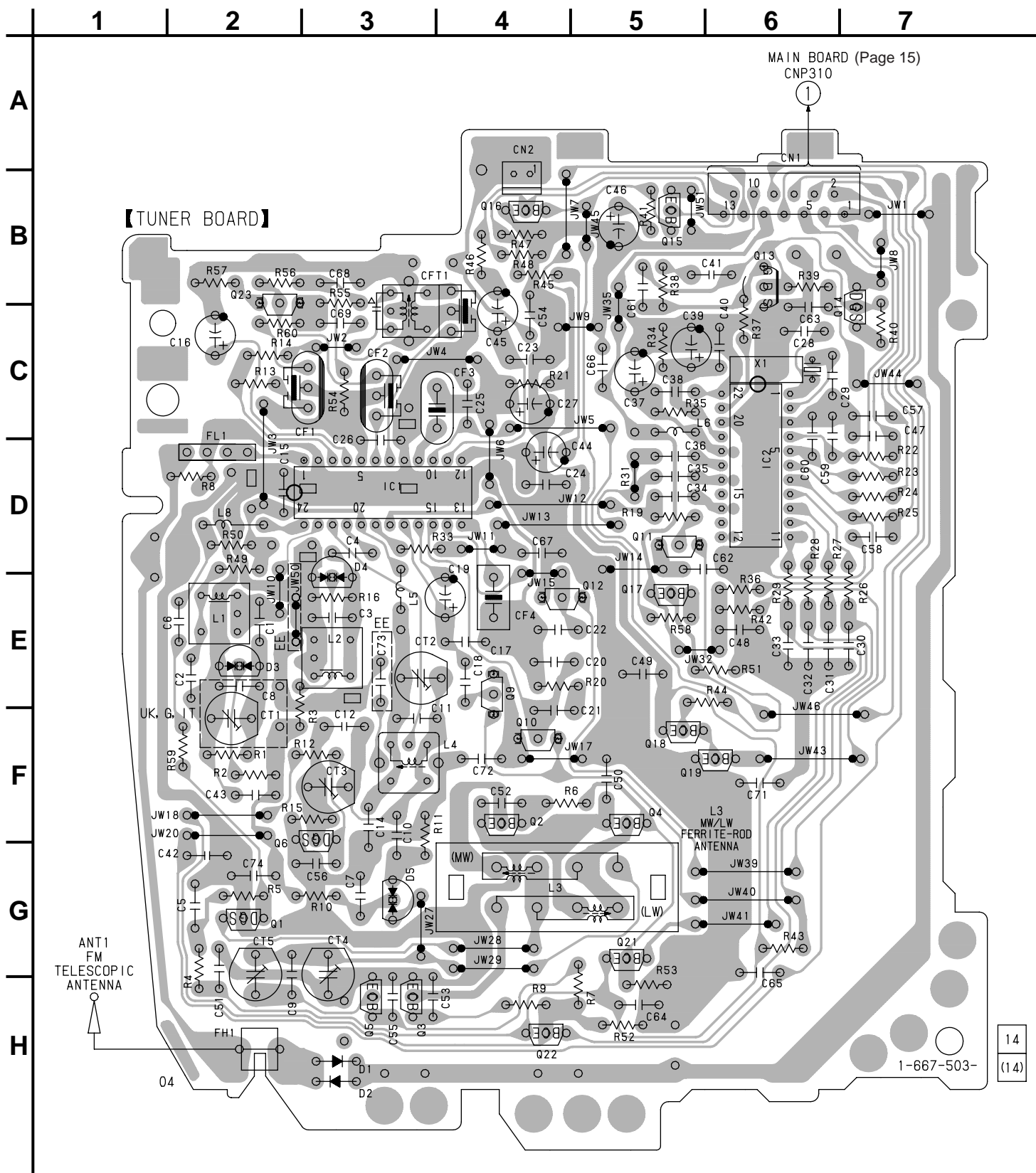
RECORD/PLAYBACK
SWITCH Board Part No.
Former type : 1-668-024-11
New type : 1-668-024-14

– CONTROL BOARD (COMPONENT SIDE) –



CONTROL Board Part No.
Former type : 1-667-504-11
New type : 1-667-504-12

1. PRINTED WIRING BOARD — TUNER SECTION —



• Semiconductor Location

Ref. No.	Location
D1	H-3
D2	H-3
D3	E-2
D4	D-3
D5	G-3
IC1	D-3
IC2	D-6
Q1	G-2
Q2	F-4
Q3	H-3
Q4	F-5
Q5	H-3
Q6	F-3
Q9	E-4
Q10	F-4
Q11	D-5
Q12	E-4
Q13	B-6
Q14	B-7
Q15	B-5
Q16	B-4
Q17	E-5
Q18	F-5
Q19	F-6
Q21	G-5
Q22	H-4
Q23	B-2

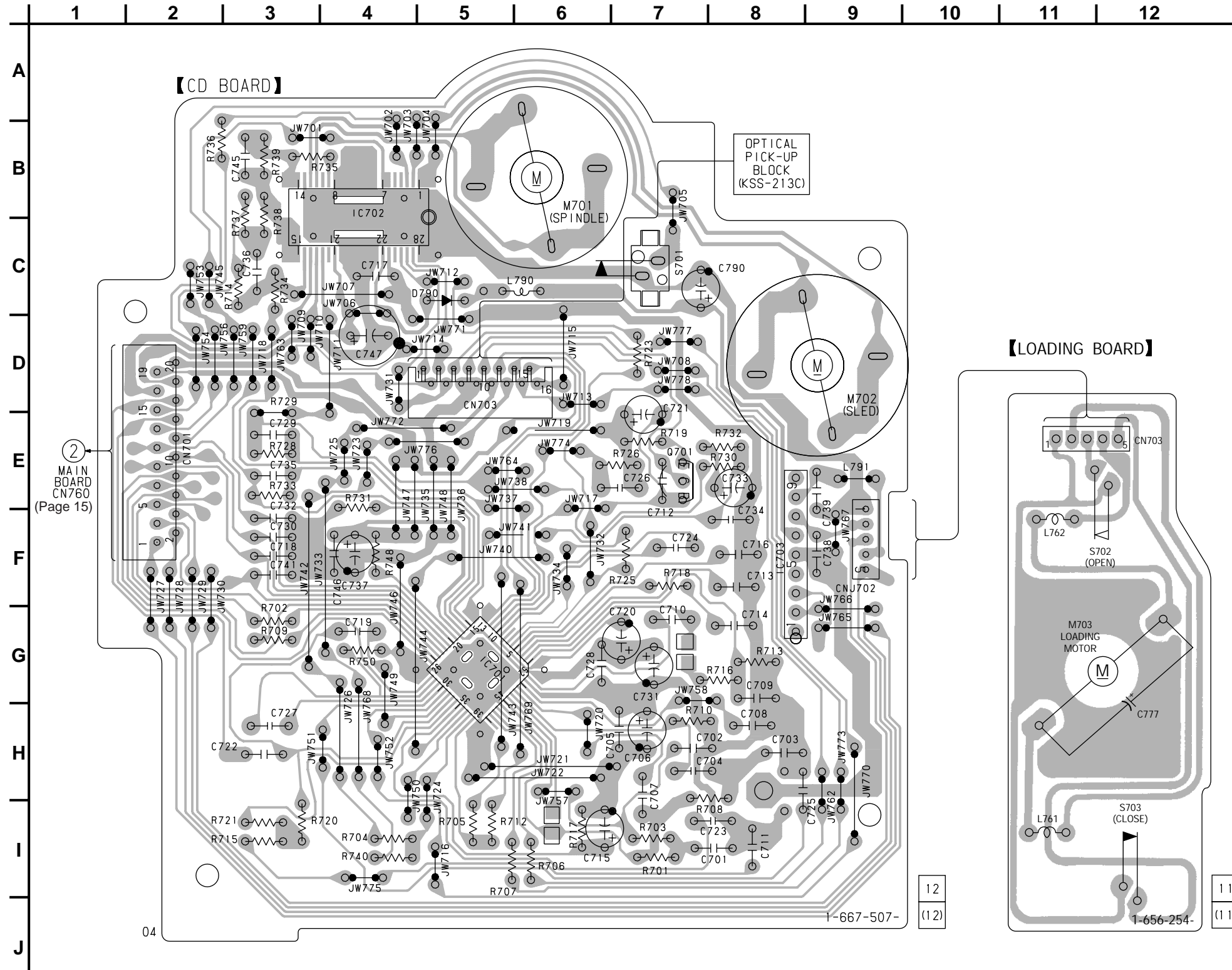
Note on Printed Wiring Boards:

- : parts extracted from the component side.
- : indicates side identified with part number.
- △ : internal component.
- ▨ : Pattern from the side which enables seeing.
- Abbreviation
 - G : German model.
 - IT : Italian model.
 - EE : East European model.

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- △ : internal component.
- B+** : B+ Line.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
 - no mark : FM
 - () : MW
 - < > : MW/LW
 - [] : LW
- Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Signal path.
 - ⇨ : FM
 - ⇨ : MW
- Abbreviation
 - G : German model.
 - IT : Italian model.
 - EE : East European model.

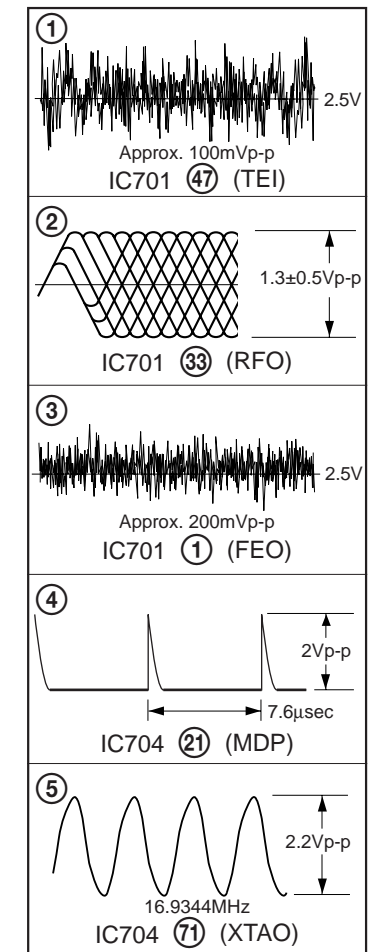
3. PRINTED WIRING BOARD — CD SECTION —



• Semiconductor Location

Ref. No.	Location
D790	C-5
IC701	G-5
IC702	B-4
IC703	F-8
Q701	E-7

• Waveforms (MODE:PLAY)



Note on Printed Wiring Boards:

- : parts extracted from the component side.
- ▨ : Pattern from the side which enables seeing.

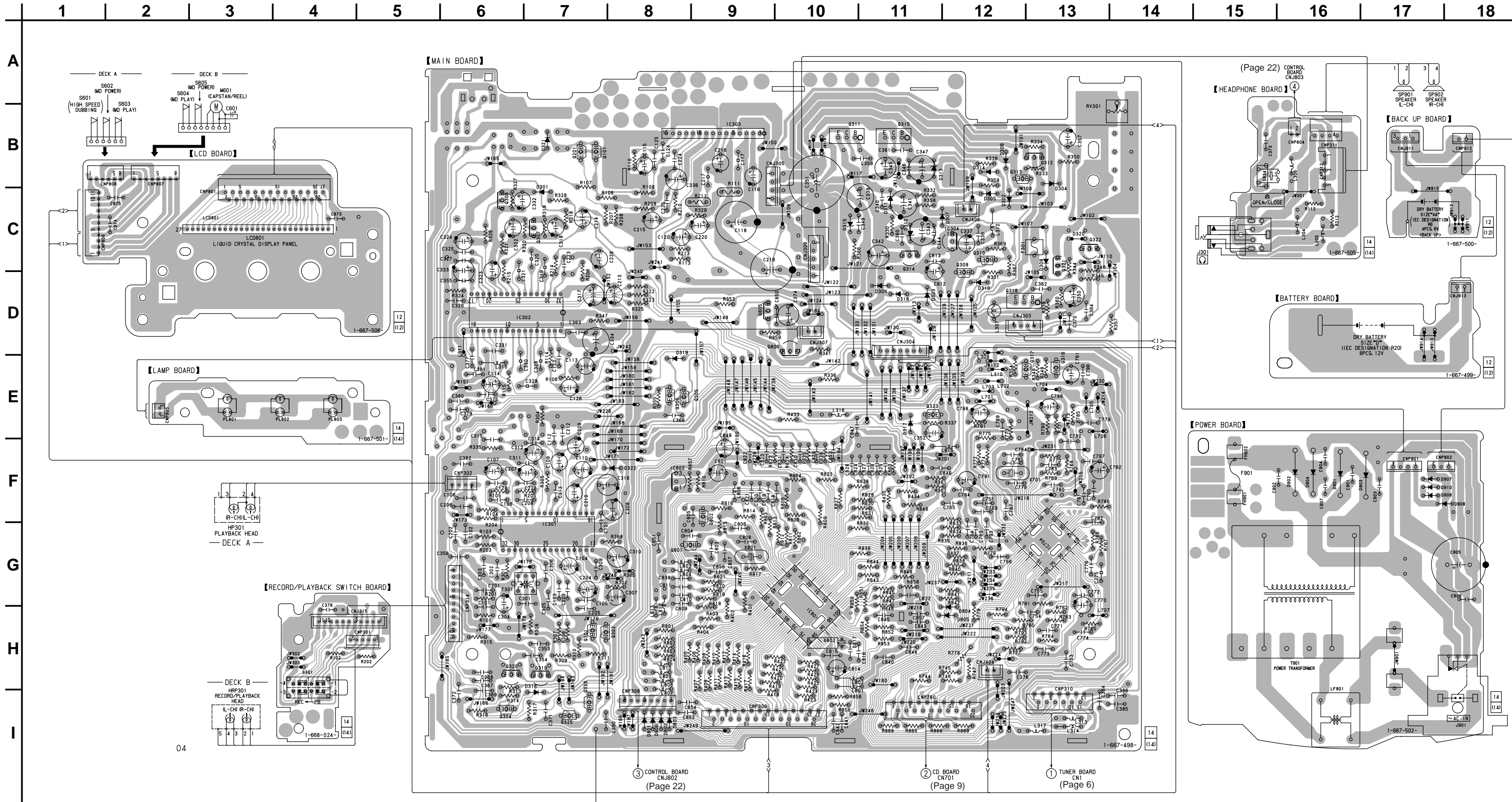
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µpF
- 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

- [B+] : B+ Line.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : CD STOP
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- ▨ : CD

5. PRINTED WIRING BOARDS — MAIN SECTION —



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D301	B-7	IC302	D-6
D302	C-12	IC303	B-9
D303	D-11	IC304	C-12
D304	B-13	IC704	G-13
D305	C-12	IC801	H-10
D306	D-11	IC802	F-8
D307	C-11		
D308	C-13	Q101	B-7
D309	B-12	Q201	B-7
D310	D-12	Q301	H-7
D311	C-11	Q302	H-8
D312	C-11	Q304	I-6
D313	B-11	Q305	E-8
D314	B-12	Q306	E-8
D315	C-10	Q307	C-7
D316	I-7	Q308	C-6
D317	E-11	Q309	C-12
D318	D-11	Q310	C-12
D319	D-8	Q311	B-10
D321	B-7	Q312	B-13
D322	F-8	Q313	B-13
D801	I-8	Q314	C-11
D802	I-8	Q315	B-11
D803	I-8	Q316	D-13
D804	H-12	Q317	D-13
D805	H-12	Q318	D-13
D806	I-8	Q319	H-7
D901	F-16	Q320	H-6
D902	F-16	Q321	C-13
D903	F-17	Q322	C-13
D904	F-16	Q323	E-12
D906	F-18	Q325	I-7
D907	F-18	Q326	I-7
D908	F-18	Q801	G-8
D910	F-18	Q802	F-9
		Q805	D-9
		Q806	D-10

Note on Printed Wiring Boards:

- : parts extracted from the component side.
- ▨ : Pattern from the side which enables seeing.
- Abbreviation
 - G : German model.
 - IT : Italian model.
 - EE : East European model.

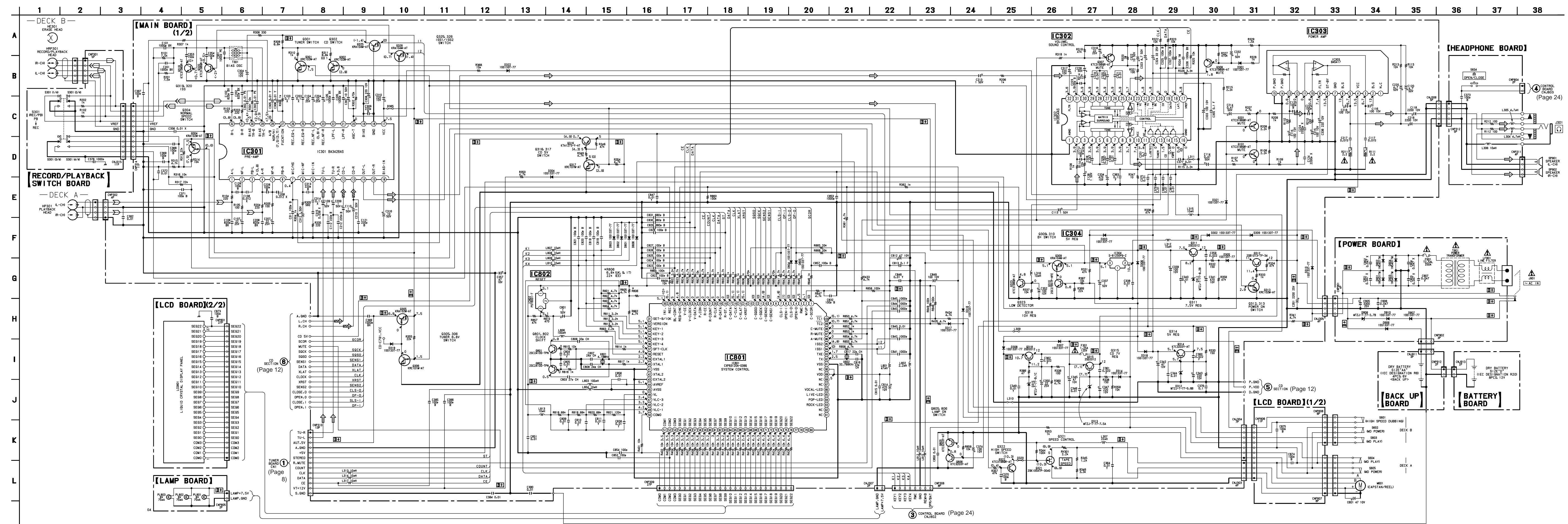
Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μpF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{ W}$ or less unless otherwise specified.
- ⊞ : fusible resistor.
- : panel designation.

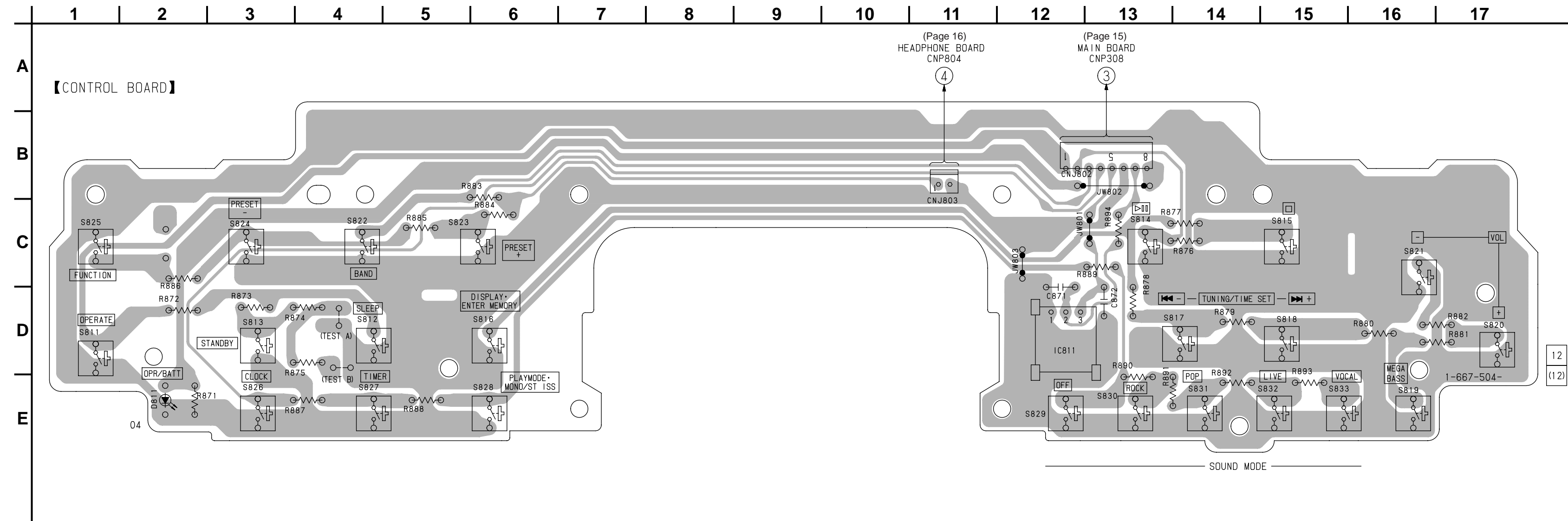
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- B+** : B+ Line.
- ⊞ : adjustment for repair.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
 - () : PB
 - < > : REC
 - [] : CD
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path
 - ⊞ : FM
 - ⊞ : PB (DECK A)
 - ⊞ : PB (DECK B)
 - ⊞ : REC (DECK B)
 - ⊞ : CD
- Abbreviation
 - G : German model.
 - IT : Italian model.
 - EE : East European model.

6. SCHEMATIC DIAGRAM — MAIN SECTION —



7. PRINTED WIRING BOARD — PANEL SECTION —



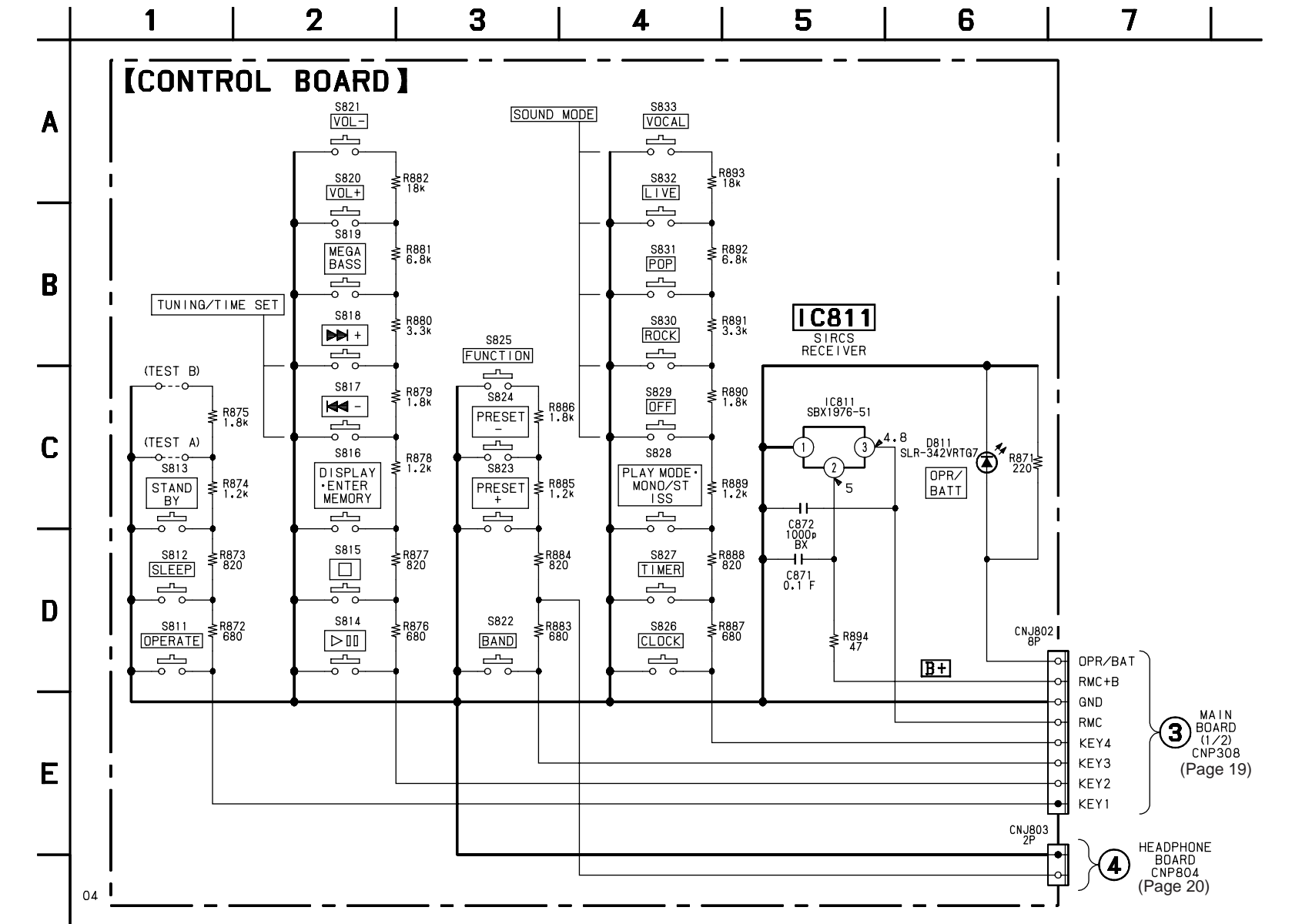
• Semiconductor Location

Ref. No.	Location
D811	E-2
IC811	D-12

Note:

- : parts extracted from the component side.
- ▨ : Pattern from the side which enables seeing.

8. SCHEMATIC DIAGRAM — PANEL SECTION —



Note:

- All capacitors are in μF unless otherwise noted. pF : μpF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- : panel designation.
- [B±] : B+ Line.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
- no mark : FM
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.

9. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- Abbreviation
G : German model
IT : Italian model
EE : East European model

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example:
uA.. : μ A.. uPA.. : μ PA..
uPB.. : μ PB.. uPC.. : μ PC.. uPD.. : μ PD..
- CAPACITORS
uF : μ F
- COILS
uH : μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-667-500-11	BACK UP BOARD *****		C728	1-162-306-11	CERAMIC 0.01uF 20%	16V
	3-025-890-01	SPRING , BACK UP (-) < CONNECTOR >		C729	1-162-199-31	CERAMIC 10PF 5%	50V
				C730	1-162-282-31	CERAMIC 100PF 10%	50V
				C731	1-126-934-11	ELECT 220uF 20%	10V
				C732	1-162-282-31	CERAMIC 100PF 10%	50V
				C733	1-126-162-11	ELECT 3.3uF 20%	50V
* CNP912	1-564-505-11	PLUG, CONNECTOR 2P *****		C734	1-136-495-11	MYLAR 0.068uF 5%	50V
				C735	1-162-215-31	CERAMIC 47PF 5%	50V
*	1-667-499-11	BATTERY BOARD *****		C736	1-162-306-11	CERAMIC 0.01uF 20%	16V
	3-025-889-01	SPRING (-) (L), BATTERY *****		C737	1-126-934-11	ELECT 220uF 20%	10V
				C738	1-162-306-11	CERAMIC 0.01uF 20%	16V
				C739	1-162-306-11	CERAMIC 0.01uF 20%	16V
				C741	1-164-159-21	CERAMIC 0.1uF	50V
				C745	1-162-305-11	CERAMIC 0.0068uF 30%	16V
*	A-3322-241-A	CD BOARD, COMPLETE *****		C746	1-162-306-11	CERAMIC 0.01uF 20%	16V
		< CAPACITOR >		C747	1-124-472-11	ELECT 470uF 20%	10V
				C790	1-124-589-11	ELECT 47uF 20%	16V
C701	1-162-600-11	CERAMIC 0.0047uF 30%	16V			< CONNECTOR >	
C702	1-162-306-11	CERAMIC 0.01uF 20%	16V				
C703	1-162-305-11	CERAMIC 0.0068uF 30%	16V	CN701	1-691-079-31	HOUSING, CONNECTOR 20P	
C704	1-136-161-00	MYLAR 0.047uF 5%	50V	CN703	1-779-553-11	CONNECTOR, FFC (LIF(NON-ZIF)) 16P	
C705	1-162-306-11	CERAMIC 0.01uF 20%	16V			< DIODE >	
C706	1-126-934-11	ELECT 220uF 20%	10V	D790	8-719-970-02	DIODE 1SR139-400	
C707	1-136-157-00	MYLAR 0.022uF 5%	50V			< IC >	
C708	1-162-851-11	CERAMIC 0.1uF 10%	16V	IC701	8-752-082-14	IC CXA1992BR	
C709	1-162-302-11	CERAMIC 0.0022uF 30%	16V	IC702	8-759-473-42	IC BA6898FP	
C710	1-162-851-11	CERAMIC 0.1uF 10%	16V	IC703	8-759-962-08	IC BA6208	
C711	1-162-198-31	CERAMIC 8.2PF 10%	50V			< COIL >	
C712	1-162-294-31	CERAMIC 0.001uF 10%	50V	L790	1-410-324-11	INDUCTOR 4.7uH	
C713	1-162-851-11	CERAMIC 0.1uF 10%	16V			< TRANSISTOR >	
C714	1-162-851-11	CERAMIC 0.1uF 10%	16V	Q701	8-729-037-02	TRANSISTOR KTA1266Y-AT	
C715	1-124-465-00	ELECT 0.47uF 20%	50V			< RESISTOR >	
C716	1-136-165-00	MYLAR 0.1uF 5%	50V	R701	1-247-887-00	CARBON 220K 5%	1/4W
C717	1-164-159-21	CERAMIC 0.1uF	50V	R702	1-247-807-11	CARBON 100 5%	1/4W
C718	1-162-282-31	CERAMIC 100PF 10%	50V	R703	1-247-883-00	CARBON 150K 5%	1/4W
C719	1-136-165-00	MYLAR 0.1uF 5%	50V	R704	1-249-439-11	CARBON 68K 5%	1/4W
C720	1-131-375-00	TANTALUM 4.7uF 10%	10V	R705	1-249-439-11	CARBON 68K 5%	1/4W
C721	1-124-589-11	ELECT 47uF 20%	16V				
C722	1-162-306-11	CERAMIC 0.01uF 20%	16V	R706	1-249-440-11	CARBON 82K 5%	1/4W
C723	1-136-159-00	MYLAR 0.033uF 5%	50V				
C724	1-136-159-00	MYLAR 0.033uF 5%	50V				
C725	1-162-306-11	CERAMIC 0.01uF 20%	16V				
C726	1-136-156-00	MYLAR 0.018uF 5%	50V				
C727	1-130-489-00	MYLAR 0.033uF 5%	50V				

CD	CD BRACKET	CONTROL
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Ref. No.	Part No.	Description	Remark
R707	1-249-440-11	CARBON	82K 5% 1/4W
R708	1-247-883-00	CARBON	150K 5% 1/4W
R709	1-247-807-11	CARBON	100 5% 1/4W
R710	1-247-891-00	CARBON	330K 5% 1/4W
R712	1-249-439-11	CARBON	68K 5% 1/4W
R713	1-249-428-11	CARBON	8.2K 5% 1/4W
R714	1-249-437-11	CARBON	47K 5% 1/4W
R715	1-249-429-11	CARBON	10K 5% 1/4W
R716	1-249-429-11	CARBON	10K 5% 1/4W
R717	1-247-903-00	CARBON	1M 5% 1/4W
R718	1-247-899-11	CARBON	680K 5% 1/4W
R719	1-249-393-11	CARBON	10 5% 1/4W
R720	1-249-430-11	CARBON	12K 5% 1/4W
R721	1-247-862-11	CARBON	20K 5% 1/4W
R723	1-249-427-11	CARBON	6.8K 5% 1/4W
R725	1-249-441-11	CARBON	100K 5% 1/4W
R726	1-247-896-11	CARBON	510K 5% 1/4W
R728	1-249-439-11	CARBON	68K 5% 1/4W
R730	1-247-883-00	CARBON	150K 5% 1/4W
R731	1-247-876-11	CARBON	75K 5% 1/4W
R732	1-249-437-11	CARBON	47K 5% 1/4W
R733	1-249-441-11	CARBON	100K 5% 1/4W
R734	1-249-432-11	CARBON	18K 5% 1/4W
R735	1-249-427-11	CARBON	6.8K 5% 1/4W
R736	1-247-862-11	CARBON	20K 5% 1/4W
R737	1-249-435-11	CARBON	33K 5% 1/4W
R738	1-247-863-11	CARBON	22K 5% 1/4W
R739	1-249-435-11	CARBON	33K 5% 1/4W
R740	1-249-439-11	CARBON	68K 5% 1/4W
R748	1-249-437-11	CARBON	47K 5% 1/4W
R750	1-247-885-00	CARBON	180K 5% 1/4W
< SWITCH >			
S701	1-762-812-11	SWITCH, LEAF (LIMIT)	

*	1-670-439-14	CD BRACKET BOARD	*****

*	A-3322-237-A	CONTROL BOARD, COMPLETE	*****
< CAPACITOR >			
C871	1-164-159-21	CERAMIC	0.1uF 50V
C872	1-162-294-31	CERAMIC	0.001uF 10% 50V
< DIODE >			
D811	8-719-048-90	LED SLR-342VR3F (OPR/BATT)	
< IC >			
IC811	8-742-132-00	HYBRID IC SBX1976-51P	

Ref. No.	Part No.	Description	Remark
< RESISTOR >			
R871	1-247-815-11	CARBON	220 5% 1/4W
R872	1-249-415-11	CARBON	680 5% 1/4W
R873	1-249-416-11	CARBON	820 5% 1/4W
R874	1-249-418-11	CARBON	1.2K 5% 1/4W
R875	1-247-837-11	CARBON	1.8K 5% 1/4W
R876	1-249-415-11	CARBON	680 5% 1/4W
R877	1-249-416-11	CARBON	820 5% 1/4W
R878	1-249-418-11	CARBON	1.2K 5% 1/4W
R879	1-247-837-11	CARBON	1.8K 5% 1/4W
R880	1-247-843-11	CARBON	3.3K 5% 1/4W
R881	1-249-427-11	CARBON	6.8K 5% 1/4W
R882	1-249-432-11	CARBON	18K 5% 1/4W
R883	1-249-415-11	CARBON	680 5% 1/4W
R884	1-249-416-11	CARBON	820 5% 1/4W
R885	1-249-418-11	CARBON	1.2K 5% 1/4W
R886	1-247-837-11	CARBON	1.8K 5% 1/4W
R887	1-249-415-11	CARBON	680 5% 1/4W
R888	1-249-416-11	CARBON	820 5% 1/4W
R889	1-249-418-11	CARBON	1.2K 5% 1/4W
R890	1-247-837-11	CARBON	1.8K 5% 1/4W
R891	1-247-843-11	CARBON	3.3K 5% 1/4W
R892	1-249-427-11	CARBON	6.8K 5% 1/4W
R893	1-249-432-11	CARBON	18K 5% 1/4W
R894	1-249-401-11	CARBON	47 5% 1/4W
< SWITCH >			
S811	1-692-014-11	SWITCH, KEY BOARD (OPERATE)	
S812	1-692-014-11	SWITCH, KEY BOARD (SLEEP)	
S813	1-692-014-11	SWITCH, KEY BOARD (STANDBY)	
S814	1-692-014-11	SWITCH, KEY BOARD (▷ ▢)	
S815	1-692-014-11	SWITCH, KEY BOARD (□)	
S816	1-692-014-11	SWITCH, KEY BOARD (DISPLAY• ENTER MEMORY)	
S817	1-692-014-11	SWITCH, KEY BOARD (TUNING/ TIME SET ◀◀ -)	
S818	1-692-014-11	SWITCH, KEY BOARD (TUNING/ TIME SET ▶▶ +)	
S819	1-692-014-11	SWITCH, KEY BOARD (MEGA BASS)	
S820	1-692-014-11	SWITCH, KEY BOARD (VOL +)	
S821	1-692-014-11	SWITCH, KEY BOARD (VOL -)	
S822	1-692-014-11	SWITCH, KEY BOARD (BAND)	
S823	1-692-014-11	SWITCH, KEY BOARD (PRESET +)	
S824	1-692-014-11	SWITCH, KEY BOARD (PRESET -)	
S825	1-692-014-11	SWITCH, KEY BOARD (FUNCTION)	
S826	1-692-014-11	SWITCH, KEY BOARD (CLOCK)	
S827	1-692-014-11	SWITCH, KEY BOARD (TIMER)	
S828	1-692-014-11	SWITCH, KEY BOARD (PLAY MODE• MONO/ST ISS)	
S829	1-692-014-11	SWITCH, KEY BOARD (SOUND MODE OFF)	
S830	1-692-014-11	SWITCH, KEY BOARD (SOUND MODE ROCK)	
S831	1-692-014-11	SWITCH, KEY BOARD (SOUND MODE POP)	
S832	1-692-014-11	SWITCH, KEY BOARD (SOUND MODE LIVE)	

CONTROL

HEADPHONE

H/P RETAINER

LAMP

LCD

LOADING

MAIN

Ref. No.	Part No.	Description	Remark
S833	1-692-014-11	SWITCH, KEY BOARD (SOUND MODE VOCAL)	

*	1-667-505-14	HEADPHONE BOARD	

< CAPACITOR >			
C373	1-162-282-31	CERAMIC 100PF 10% 50V	
< CONNECTOR >			
* CNP311	1-564-519-11	PLUG, CONNECTOR 4P	
* CNP312	1-564-520-11	PLUG, CONNECTOR 5P	
CNP804	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P	
< JACK >			
J301	1-779-050-11	JACK (㊦)	
< COIL >			
L304	1-410-324-11	INDUCTOR 4.7uH	
L305	1-410-324-11	INDUCTOR 4.7uH	
L306	1-410-509-11	INDUCTOR 10uH	
< RESISTOR >			
R112	1-247-807-11	CARBON 100 5% 1/4W	
R212	1-247-807-11	CARBON 100 5% 1/4W	
< SWITCH >			
S834	1-554-088-00	SWITCH, KEY BOARD (≡ OPEN/CLOSE)	

*	1-668-026-11	H/P RETAINER BOARD	

*	1-667-501-14	LAMP BOARD	

	4-951-620-11	SCREW (2.6X10), +BVTP	
< CONNECTOR >			
* CNP805	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P	
< PILOT LAMP >			
PL801	1-517-474-31	LAMP, PILOT (8V/75mA)	
PL802	1-517-474-31	LAMP, PILOT (8V/75mA)	
PL803	1-517-474-31	LAMP, PILOT (8V/75mA)	

Ref. No.	Part No.	Description	Remark
*	1-667-506-11	LCD BOARD	

	1-791-648-11	WIRE, PARALLEL (FFC) (27 CORE)	
	3-021-465-01	ILLUMINATOR	
	3-021-484-01	HOLDER, LCD	
< CAPACITOR >			
C873	1-162-282-31	CERAMIC 100PF 10% 50V	
C874	1-162-282-31	CERAMIC 100PF 10% 50V	
C875	1-162-282-31	CERAMIC 100PF 10% 50V	
< CONNECTOR >			
CNP801	1-695-388-21	PIN, CONNECTOR (PC BOARD) 27P	
* CNP807	1-564-724-11	PIN, CONNECTOR (SMALL TYPE) 8P	
CNP808	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P	
< LIQUID CRYSTAL DISPLAY >			
LCD801	1-801-909-11	DISPLAY PANEL, LIQUID CRYSTAL	

*	1-656-254-11	LOADING BOARD	

< CONNECTOR >			
* CN703	1-695-107-11	PIN, CONNECTOR (PC BOARD) 5P	
< COIL >			
L761	1-412-852-11	INDUCTOR 47uH	
L762	1-412-852-11	INDUCTOR 47uH	
< SWITCH >			
S702	1-572-086-11	SWITCH, LEAF (OPEN)	
S703	1-572-086-11	SWITCH, LEAF (CLOSE)	

*	A-3323-330-A	MAIN BOARD, COMPLETE (UK,G,IT)	
*	A-3323-332-A	MAIN BOARD, COMPLETE (EE)	

	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
< CAPACITOR >			
C101	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C102	1-162-293-31	CERAMIC 820PF 10% 50V	
C103	1-162-851-11	CERAMIC 0.1uF 10% 16V	
C104	1-126-233-11	ELECT 22uF 20% 50V	
C105	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C106	1-162-293-31	CERAMIC 820PF 10% 50V	
C107	1-126-233-11	ELECT 22uF 20% 50V	
C108	1-162-840-11	CERAMIC 0.012uF 10% 16V	
C109	1-124-903-11	ELECT 1uF 20% 50V	
C110	1-124-903-11	ELECT 1uF 20% 50V	
C112	1-162-286-21	CERAMIC 220PF 10% 50V	

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C113	1-124-903-11	ELECT	1uF	20%	50V	C318	1-126-233-11	ELECT	22uF	20%	50V
C114	1-124-902-00	ELECT	0.47uF	20%	50V	C319	1-136-161-00	MYLAR	0.047uF	5%	50V
C115	1-104-665-11	ELECT	100uF	20%	10V	C320	1-136-161-00	MYLAR	0.047uF	5%	50V
C116	1-104-665-11	ELECT	100uF	20%	10V	C321	1-136-153-00	FILM	0.01uF	5%	50V
C117	1-136-155-00	FILM	0.015uF	5%	50V	C322	1-124-907-11	ELECT	10uF	20%	50V
C118	1-126-927-11	ELECT	2200uF	20%	10V	C323	1-126-963-11	ELECT	4.7uF	20%	50V
C120	1-126-963-11	ELECT	4.7uF	20%	50V	C324	1-126-966-11	ELECT	33uF	20%	25V
C121	1-162-286-21	CERAMIC	220PF	10%	50V	C325	1-162-282-31	CERAMIC	100PF	10%	50V
C123	1-162-282-31	CERAMIC	100PF	10%	50V	C326	1-162-294-31	CERAMIC	0.001uF	10%	50V
C124	1-162-302-11	CERAMIC	0.0022uF	30%	16V	C327	1-162-282-31	CERAMIC	100PF	10%	50V
C125	1-162-282-31	CERAMIC	100PF	10%	50V	C328	1-136-161-00	MYLAR	0.047uF	5%	50V
C126	1-124-903-11	ELECT	1uF	20%	50V	C329	1-136-161-00	MYLAR	0.047uF	5%	50V
C128	1-162-282-31	CERAMIC	100PF	10%	50V	C330	1-136-153-00	FILM	0.01uF	5%	50V
C201	1-162-294-31	CERAMIC	0.001uF	10%	50V	C331	1-136-165-00	MYLAR	1uF	5%	50V
C202	1-162-293-31	CERAMIC	820PF	10%	50V	C332	1-124-903-11	ELECT	1uF	20%	50V
C203	1-162-851-11	CERAMIC	0.1uF	10%	16V	C333	1-104-665-11	ELECT	100uF	20%	10V
C204	1-126-233-11	ELECT	22uF	20%	50V	C334	1-124-472-11	ELECT	470uF	20%	10V
C205	1-162-294-31	CERAMIC	0.001uF	10%	50V	C336	1-104-666-11	ELECT	220uF	20%	10V
C206	1-162-293-31	CERAMIC	820PF	10%	50V	C337	1-124-903-11	ELECT	1uF	20%	50V
C207	1-126-233-11	ELECT	22uF	20%	50V	C338	1-162-306-11	CERAMIC	0.01uF	20%	16V
C208	1-162-840-11	CERAMIC	0.012uF	10%	16V	C339	1-104-665-11	ELECT	100uF	20%	10V
C209	1-124-903-11	ELECT	1uF	20%	50V	C340	1-162-306-11	CERAMIC	0.01uF	20%	16V
C210	1-124-903-11	ELECT	1uF	20%	50V	C341	1-124-472-11	ELECT	470uF	20%	10V
C212	1-162-286-21	CERAMIC	220PF	10%	50V	C342	1-104-664-11	ELECT	1uF	20%	10V
C213	1-124-903-11	ELECT	1uF	20%	50V	C343	1-104-666-11	ELECT	220uF	20%	10V
C214	1-124-902-00	ELECT	0.47uF	20%	50V	C344	1-162-306-11	CERAMIC	0.01uF	20%	16V
C215	1-104-665-11	ELECT	100uF	20%	10V	C345	1-104-664-11	ELECT	47uF	20%	10V
C216	1-104-665-11	ELECT	100uF	20%	10V	C346	1-162-306-11	CERAMIC	0.01uF	20%	16V
C217	1-136-155-00	FILM	0.015uF	5%	50V	C347	1-104-666-11	ELECT	220uF	20%	10V
C218	1-126-927-11	ELECT	2200uF	20%	10V	C349	1-162-306-11	CERAMIC	0.01uF	20%	16V
C220	1-126-963-11	ELECT	4.7uF	20%	50V	C350	1-126-233-11	ELECT	22uF	20%	50V
C223	1-162-282-31	CERAMIC	100PF	10%	50V	C351	1-126-943-11	ELECT	2200uF	20%	25V
C224	1-162-302-11	CERAMIC	0.0022uF	30%	16V	C352	1-104-665-11	ELECT	100uF	20%	10V
C225	1-162-282-31	CERAMIC	100PF	10%	50V	C353	1-162-284-31	CERAMIC	150PF	10%	50V
C226	1-124-903-11	ELECT	1uF	20%	50V	C354	1-162-282-31	CERAMIC	100PF	10%	50V
C228	1-162-282-31	CERAMIC	100PF	10%	50V	C355	1-164-159-21	CERAMIC	0.1uF		50V
C301	1-130-471-00	MYLAR	0.001uF	5%	50V	C356	1-162-306-11	CERAMIC	0.01uF	20%	16V
C302	1-130-483-00	MYLAR	0.01uF	5%	50V	C357	1-104-664-11	ELECT	47uF	20%	16V
C303	1-130-483-00	MYLAR	0.01uF	5%	50V	C359	1-161-494-00	CERAMIC	0.022uF		25V
C304	1-104-665-11	ELECT	100uF	20%	10V	C360	1-161-494-00	CERAMIC	0.022uF		25V
C305	1-162-306-11	CERAMIC	0.01uF	20%	16V	C361	1-161-494-00	CERAMIC	0.022uF		25V
C306	1-162-306-11	CERAMIC	0.01uF	20%	16V	C362	1-161-494-00	CERAMIC	0.022uF		25V
C307	1-124-907-11	ELECT	10uF	20%	50V	C363	1-164-159-21	CERAMIC	0.1uF		50V
C308	1-104-666-11	ELECT	220uF	20%	10V	C364	1-162-306-11	CERAMIC	0.01uF	20%	16V
C309	1-162-286-21	CERAMIC	220PF	10%	50V	C366	1-162-294-31	CERAMIC	0.001uF	10%	50V
C310	1-104-666-11	ELECT	220uF	20%	10V	C367	1-162-282-31	CERAMIC	100PF	10%	50V
C311	1-162-282-31	CERAMIC	100PF	10%	50V	C368	1-162-282-31	CERAMIC	100PF	10%	50V
C312	1-124-903-11	ELECT	1uF	20%	50V	C369	1-162-282-31	CERAMIC	100PF	10%	50V
C313	1-162-286-21	CERAMIC	220PF	10%	50V	C370	1-162-282-31	CERAMIC	100PF	10%	50V
C314	1-162-851-11	CERAMIC	0.1uF	10%	16V	C371	1-162-282-31	CERAMIC	100PF	10%	50V
C315	1-161-020-11	CERAMIC	0.039uF	10%	16V	C372	1-162-306-11	CERAMIC	0.01uF	20%	16V
C316	1-124-907-11	ELECT	10uF	20%	50V	C374	1-104-665-11	ELECT	100uF	20%	10V
C317	1-104-666-11	ELECT	220uF	20%	10V	C375	1-162-306-11	CERAMIC	0.01uF	20%	16V

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C376	1-164-159-21	CERAMIC	0.1uF		50V	C808	1-102-960-00	CERAMIC	24PF	5%	50V
C377	1-162-306-11	CERAMIC	0.01uF	20%	16V	C809	1-162-306-11	CERAMIC	0.01uF	20%	16V
C379	1-162-306-11	CERAMIC	0.01uF	20%	16V	C810	1-162-306-11	CERAMIC	0.01uF	20%	16V
C380	1-162-306-11	CERAMIC	0.01uF	20%	16V	C811	1-162-306-11	CERAMIC	0.01uF	20%	16V
C381	1-162-306-11	CERAMIC	0.01uF	20%	16V	C812	1-104-664-11	ELECT	47uF	20%	10V
C382	1-162-306-11	CERAMIC	0.01uF	20%	16V	C813	1-164-159-21	CERAMIC	0.1uF		50V
C384	1-162-306-11	CERAMIC	0.01uF	20%	16V	C814	1-124-472-11	ELECT	470uF	20%	10V
C385	1-162-282-31	CERAMIC	100PF	10%	50V	C815	1-162-306-11	CERAMIC	0.01uF	20%	16V
C386	1-162-282-31	CERAMIC	100PF	10%	50V	C816	1-102-514-11	CERAMIC	22PF	5%	50V
C390	1-162-306-11	CERAMIC	0.01uF	20%	16V	C817	1-102-514-11	CERAMIC	22PF	5%	50V
C751	1-162-306-11	CERAMIC	0.01uF	20%	16V	C818	1-162-282-31	CERAMIC	100PF	10%	50V
C753	1-162-306-11	CERAMIC	0.01uF	20%	16V	C819	1-162-282-31	CERAMIC	100PF	10%	50V
C754	1-162-306-11	CERAMIC	0.01uF	20%	16V	C820	1-162-282-31	CERAMIC	100PF	10%	50V
C755	1-162-306-11	CERAMIC	0.01uF	20%	16V	C821	1-162-282-31	CERAMIC	100PF	10%	50V
C760	1-162-306-11	CERAMIC	0.01uF	20%	16V	C822	1-162-282-31	CERAMIC	100PF	10%	50V
C761	1-104-666-11	ELECT	220uF	20%	10V	C823	1-162-282-31	CERAMIC	100PF	10%	50V
C762	1-104-666-11	ELECT	220uF	20%	10V	C824	1-162-282-31	CERAMIC	100PF	10%	50V
C763	1-162-282-31	CERAMIC	100PF	10%	50V	C825	1-162-282-31	CERAMIC	100PF	10%	50V
C764	1-162-294-31	CERAMIC	0.001uF	10%	50V	C826	1-162-282-31	CERAMIC	100PF	10%	50V
C765	1-162-282-31	CERAMIC	100PF	10%	50V	C827	1-162-282-31	CERAMIC	100PF	10%	50V
C766	1-162-282-31	CERAMIC	100PF	10%	50V	C828	1-162-282-31	CERAMIC	100PF	10%	50V
C769	1-164-159-21	CERAMIC	0.1uF		50V	C829	1-162-292-31	CERAMIC	680PF	10%	50V
C770	1-104-666-11	ELECT	220uF	20%	10V	C830	1-162-292-31	CERAMIC	680PF	10%	50V
C771	1-137-194-11	MYLAR	0.47uF	5%	50V	C831	1-162-292-31	CERAMIC	680PF	10%	50V
C772	1-162-306-11	CERAMIC	0.01uF	20%	16V	C832	1-162-282-31	CERAMIC	100PF	10%	50V
C773	1-162-290-31	CERAMIC	470PF	10%	50V	C838	1-162-306-11	CERAMIC	0.01uF	20%	16V
C774	1-162-286-21	CERAMIC	220PF	10%	50V	C840	1-162-306-11	CERAMIC	0.01uF	20%	16V
C775	1-130-499-00	MYLAR	0.22uF	5%	50V	C841	1-162-294-31	CERAMIC	0.001uF	10%	50V
C776	1-162-306-11	CERAMIC	0.01uF	20%	16V	C842	1-162-294-31	CERAMIC	0.001uF	10%	50V
C778	1-162-306-11	CERAMIC	0.01uF	20%	16V	C843	1-162-294-31	CERAMIC	0.001uF	10%	50V
C779	1-162-306-11	CERAMIC	0.01uF	20%	16V	C844	1-162-294-31	CERAMIC	0.001uF	10%	50V
C780	1-162-306-11	CERAMIC	0.01uF	20%	16V	C845	1-162-294-31	CERAMIC	0.001uF	10%	50V
C781	1-162-306-11	CERAMIC	0.01uF	20%	16V	C846	1-162-306-11	CERAMIC	0.01uF	20%	16V
C782	1-162-292-31	CERAMIC	680PF	10%	50V	C847	1-162-306-11	CERAMIC	0.01uF	20%	16V
C783	1-162-284-31	CERAMIC	150PF	10%	50V	C849	1-104-665-11	ELECT	100uF	20%	10V
C784	1-162-199-31	CERAMIC	10PF	5%	50V	C850	1-162-306-11	CERAMIC	0.01uF	20%	16V
C785	1-162-199-31	CERAMIC	10PF	5%	50V	C851	1-162-306-11	CERAMIC	0.01uF	20%	16V
C786	1-126-963-11	ELECT	4.7uF	20%	50V	C852	1-162-282-31	CERAMIC	100PF	10%	50V
C787	1-162-284-31	CERAMIC	150PF	10%	50V	C853	1-162-294-31	CERAMIC	0.001uF	10%	50V
C788	1-126-963-11	ELECT	4.7uF	20%	50V	C854	1-162-282-31	CERAMIC	100PF	10%	50V
C789	1-162-292-31	CERAMIC	680PF	10%	50V	C856	1-162-306-11	CERAMIC	0.01uF	20%	16V
C791	1-104-666-11	ELECT	220uF	20%	10V	C857	1-162-282-31	CERAMIC	100PF	10%	50V
C792	1-162-306-11	CERAMIC	0.01uF	20%	16V						
C793	1-162-306-11	CERAMIC	0.01uF	20%	16V			< CONNECTOR >			
C794	1-162-306-11	CERAMIC	0.01uF	20%	16V						
C796	1-162-306-11	CERAMIC	0.01uF	20%	16V	* CNP302	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
C797	1-162-306-11	CERAMIC	0.01uF	20%	16V	* CNP308	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
C801	1-124-903-11	ELECT	1uF	20%	50V	CNP309	1-695-350-11	PIN, CONNECTOR (PC BOARD) 27P			
C803	1-102-516-11	CERAMIC	27PF	5%	50V	CNP310	1-695-336-31	PIN, CONNECTOR (PC BOARD) 13P			
C804	1-162-306-11	CERAMIC	0.01uF	20%	16V	* CNP314	1-564-713-11	PIN, CONNECTOR (SMALL TYPE) 11P			
C805	1-162-306-11	CERAMIC	0.01uF	20%	16V	* CNP760	1-569-936-11	PIN, CONNECTOR (PC BOARD) 20P			
C806	1-102-518-11	CERAMIC	33PF	5%	50V						
C807	1-102-960-00	CERAMIC	24PF	5%	50V						

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< DIODE >					
D301	8-719-991-33	DIODE 1SS133T-77		L804	1-410-509-11	INDUCTOR 10uH	
D302	8-719-991-33	DIODE 1SS133T-77		L806	1-410-521-11	INDUCTOR 100uH	
D303	8-719-991-33	DIODE 1SS133T-77		L807	1-410-509-11	INDUCTOR 10uH	
D304	8-719-991-33	DIODE 1SS133T-77		L808	1-410-509-11	INDUCTOR 10uH	
D305	8-719-991-33	DIODE 1SS133T-77		L809	1-410-509-11	INDUCTOR 10uH	
D306	8-719-991-33	DIODE 1SS133T-77		L810	1-410-509-11	INDUCTOR 10uH	
D307	8-719-991-33	DIODE 1SS133T-77		L812	1-410-509-11	INDUCTOR 10uH	
D308	8-719-991-33	DIODE 1SS133T-77		L813	1-410-509-11	INDUCTOR 10uH	
D309	8-719-991-33	DIODE 1SS133T-77		L815	1-410-509-11	INDUCTOR 10uH	
D310	8-719-991-33	DIODE 1SS133T-77				< TRANSISTOR >	
D311	8-719-110-08	DIODE RD8.2ES-B2		Q101	8-729-036-89	TRANSISTOR KTC3198GR-AT	
D312	8-719-109-89	DIODE RD5.6ESB2		Q201	8-729-036-89	TRANSISTOR KTC3198GR-AT	
D313	8-719-110-03	DIODE RD7.5ESB2		Q301	8-729-036-58	TRANSISTOR KRC102M-AT	
D314	8-719-991-33	DIODE 1SS133T-77		Q302	8-729-036-58	TRANSISTOR KRC102M-AT	
D315	8-719-110-14	DIODE RD9.1ES-B3		Q304	8-729-037-29	TRANSISTOR KRA102M	
D316	8-719-991-33	DIODE 1SS133T-77		Q305	8-729-037-29	TRANSISTOR KRA102M	
D317	8-719-991-33	DIODE 1SS133T-77		Q306	8-729-036-57	TRANSISTOR KRC101M-AT	
D318	8-719-991-33	DIODE 1SS133T-77		Q307	8-729-036-89	TRANSISTOR KTC3198GR-AT	
D319	8-719-991-33	DIODE 1SS133T-77		Q308	8-729-036-89	TRANSISTOR KTC3198GR-AT	
D321	8-719-991-33	DIODE 1SS133T-77		Q309	8-729-037-17	TRANSISTOR KRA104M-AT	
D322	8-719-991-33	DIODE 1SS133T-77		Q310	8-729-119-78	TRANSISTOR 2SC403SP-51	
D801	8-719-991-33	DIODE 1SS133T-77		Q311	8-729-209-15	TRANSISTOR 2SD2012	
D802	8-719-991-33	DIODE 1SS133T-77		Q312	8-729-801-84	TRANSISTOR 2SB1013-4	
D803	8-719-991-33	DIODE 1SS133T-77		Q313	8-729-036-58	TRANSISTOR KRC102M-AT	
D804	8-719-991-33	DIODE 1SS133T-77		Q314	8-729-036-86	TRANSISTOR KTC3203Y-AT	
D805	8-719-991-33	DIODE 1SS133T-77		Q315	8-729-209-15	TRANSISTOR 2SD2012	
D806	8-719-991-33	DIODE 1SS133T-77		Q316	8-729-040-76	TRANSISTOR KTA1273-Y-AT	
		< FUSE >		Q317	8-729-036-77	TRANSISTOR KRC107M	
△F301	1-533-905-11	FUSE, MICRO (1.25A/125V)		Q318	8-729-209-15	TRANSISTOR 2SD2012	
		< IC >		Q319	8-729-036-89	TRANSISTOR KTC3198GR-AT	
IC301	8-759-457-58	IC BA3426AS		Q320	8-729-036-89	TRANSISTOR KTC3198GR-AT	
IC302	8-759-432-41	IC BH3854AS		Q321	8-729-011-94	FET 2SK105ATP-3040	
IC303	8-759-426-51	IC BA5417		Q322	8-729-036-89	TRANSISTOR KTC3198GR-AT	
IC304	8-759-095-60	IC S-81250PG		Q323	8-729-036-89	TRANSISTOR KTC3198GR-AT	
IC704	8-752-384-13	IC CXD2589Q		Q325	8-729-037-17	TRANSISTOR KRA104M-AT	
IC801	8-752-909-94	IC CXP83120A-039Q		Q326	8-729-037-17	TRANSISTOR KRA104M-AT	
IC802	8-759-165-86	IC PST600I-T		Q801	8-729-922-66	TRANSISTOR 2SC2410SN	
		< COIL >		Q802	8-729-922-66	TRANSISTOR 2SC2410SN	
L307	1-412-848-11	INDUCTOR 22uH		Q805	8-729-036-86	TRANSISTOR KTC3203Y-AT	
L312	1-410-509-11	INDUCTOR 10uH		Q806	8-729-036-86	TRANSISTOR KTC3203Y-AT	
L313	1-410-509-11	INDUCTOR 10uH				< RESISTOR >	
L314	1-410-509-11	INDUCTOR 10uH		R101	1-247-852-11	CARBON 7.5K 5% 1/4W	
L315	1-410-509-11	INDUCTOR 10uH		R103	1-247-815-11	CARBON 220 5% 1/4W	
L316	1-410-509-11	INDUCTOR 10uH		R104	1-247-815-11	CARBON 220 5% 1/4W	
L317	1-410-509-11	INDUCTOR 10uH		R105	1-247-807-11	CARBON 100 5% 1/4W	
L801	1-410-517-11	INDUCTOR 47uH		R106	1-247-831-11	CARBON 1K 5% 1/4W	
L802	1-414-146-31	INDUCTOR 2.2uH		R107	1-249-425-11	CARBON 4.7K 5% 1/4W	
L803	1-410-521-11	INDUCTOR 100uH		R108	1-249-421-11	CARBON 2.2K 5% 1/4W	
				R109	1-247-831-11	CARBON 1K 5% 1/4W	
				R110	1-247-816-11	CARBON 240 5% 1/4W	
				△R111	1-202-958-11	FUSIBLE 2.2 5% 1/4W F	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R113	1-249-429-11	CARBON	10K	5%	1/4W	R341	1-249-425-11	CARBON	4.7K	5%	1/4W
R114	1-247-863-11	CARBON	22K	5%	1/4W	R344	1-249-441-11	CARBON	100K	5%	1/4W
R115	1-249-421-11	CARBON	2.2K	5%	1/4W	R345	1-249-418-11	CARBON	1.2K	5%	1/4W
R201	1-247-852-11	CARBON	7.5K	5%	1/4W	R346	1-247-843-11	CARBON	3.3K	5%	1/4W
R203	1-247-815-11	CARBON	220	5%	1/4W	R347	1-249-393-11	CARBON	10	5%	1/4W
R204	1-247-815-11	CARBON	220	5%	1/4W	R348	1-249-437-11	CARBON	47K	5%	1/4W
R205	1-247-807-11	CARBON	100	5%	1/4W	R349	1-249-425-11	CARBON	4.7K	5%	1/4W
R206	1-247-831-11	CARBON	1K	5%	1/4W	R350	1-249-425-11	CARBON	4.7K	5%	1/4W
R207	1-249-425-11	CARBON	4.7K	5%	1/4W	R353	1-247-831-11	CARBON	1K	5%	1/4W
R208	1-249-421-11	CARBON	2.2K	5%	1/4W	R354	1-249-425-11	CARBON	4.7K	5%	1/4W
R209	1-247-831-11	CARBON	1K	5%	1/4W	R355	1-247-863-11	CARBON	22K	5%	1/4W
R210	1-247-816-11	CARBON	240	5%	1/4W	R357	1-249-437-11	CARBON	47K	5%	1/4W
△R211	1-202-958-11	FUSIBLE	2.2	5%	1/4W F	R358	1-249-437-11	CARBON	47K	5%	1/4W
R213	1-249-429-11	CARBON	10K	5%	1/4W	R359	1-249-429-11	CARBON	10K	5%	1/4W
R214	1-247-863-11	CARBON	22K	5%	1/4W	R360	1-249-425-11	CARBON	4.7K	5%	1/4W
R215	1-249-421-11	CARBON	2.2K	5%	1/4W	R361	1-249-425-11	CARBON	4.7K	5%	1/4W
R301	1-249-429-11	CARBON	10K	5%	1/4W	R362	1-247-831-11	CARBON	1K	5%	1/4W
R302	1-247-895-11	CARBON	470K	5%	1/4W	R366	1-249-401-11	CARBON	47	5%	1/4W
R304	1-247-831-11	CARBON	1K	5%	1/4W	R367	1-249-429-11	CARBON	10K	5%	1/4W
R305	1-249-414-11	CARBON	560	5%	1/4W	R368	1-249-431-11	CARBON	15K	5%	1/4W
R306	1-247-831-11	CARBON	1K	5%	1/4W	R369	1-247-863-11	CARBON	22K	5%	1/4W
R307	1-247-831-11	CARBON	1K	5%	1/4W	R401	1-249-429-11	CARBON	10K	5%	1/4W
R308	1-249-411-11	CARBON	330	5%	1/4W	R402	1-249-429-11	CARBON	10K	5%	1/4W
R309	1-249-427-11	CARBON	6.8K	5%	1/4W	R403	1-249-429-11	CARBON	10K	5%	1/4W
R310	1-247-831-11	CARBON	1K	5%	1/4W	R404	1-249-429-11	CARBON	10K	5%	1/4W
R311	1-249-427-11	CARBON	6.8K	5%	1/4W	R405	1-249-429-11	CARBON	10K	5%	1/4W
R313	1-247-863-11	CARBON	22K	5%	1/4W	R406	1-249-429-11	CARBON	10K	5%	1/4W
R314	1-249-429-11	CARBON	10K	5%	1/4W	R407	1-249-429-11	CARBON	10K	5%	1/4W
R315	1-249-425-11	CARBON	4.7K	5%	1/4W	R408	1-249-429-11	CARBON	10K	5%	1/4W
R316	1-249-429-11	CARBON	10K	5%	1/4W	R409	1-249-429-11	CARBON	10K	5%	1/4W
R317	1-247-863-11	CARBON	22K	5%	1/4W	R410	1-249-429-11	CARBON	10K	5%	1/4W
R318	1-247-831-11	CARBON	1K	5%	1/4W	R411	1-249-429-11	CARBON	10K	5%	1/4W
R319	1-249-437-11	CARBON	47K	5%	1/4W	R412	1-249-429-11	CARBON	10K	5%	1/4W
R320	1-247-903-00	CARBON	1M	5%	1/4W	R413	1-249-429-11	CARBON	10K	5%	1/4W
R321	1-247-807-11	CARBON	100	5%	1/4W	R414	1-249-429-11	CARBON	10K	5%	1/4W
R322	1-249-429-11	CARBON	10K	5%	1/4W	R415	1-249-429-11	CARBON	10K	5%	1/4W
R323	1-249-429-11	CARBON	10K	5%	1/4W	R416	1-249-429-11	CARBON	10K	5%	1/4W
R324	1-247-903-00	CARBON	1M	5%	1/4W	R417	1-249-429-11	CARBON	10K	5%	1/4W
R325	1-249-429-11	CARBON	10K	5%	1/4W	R418	1-249-429-11	CARBON	10K	5%	1/4W
R326	1-247-843-11	CARBON	3.3K	5%	1/4W	R419	1-249-429-11	CARBON	10K	5%	1/4W
R327	1-247-895-11	CARBON	470K	5%	1/4W	R420	1-249-429-11	CARBON	10K	5%	1/4W
R328	1-247-831-11	CARBON	1K	5%	1/4W	R421	1-249-429-11	CARBON	10K	5%	1/4W
R329	1-249-419-11	CARBON	1.5K	5%	1/4W	R422	1-249-429-11	CARBON	10K	5%	1/4W
R330	1-249-407-11	CARBON	150	5%	1/4W	R423	1-249-429-11	CARBON	10K	5%	1/4W
R331	1-249-437-11	CARBON	47K	5%	1/4W	R424	1-249-429-11	CARBON	10K	5%	1/4W
R332	1-249-407-11	CARBON	150	5%	1/4W	R425	1-249-429-11	CARBON	10K	5%	1/4W
R333	1-247-831-11	CARBON	1K	5%	1/4W	R426	1-249-429-11	CARBON	10K	5%	1/4W
R334	1-249-437-11	CARBON	47K	5%	1/4W	R427	1-249-429-11	CARBON	10K	5%	1/4W
R335	1-247-815-11	CARBON	220	5%	1/4W	R433	1-249-425-11	CARBON	4.7K	5%	1/4W
R336	1-249-437-11	CARBON	47K	5%	1/4W	R434	1-249-425-11	CARBON	4.7K	5%	1/4W
R337	1-249-429-11	CARBON	10K	5%	1/4W	R435	1-249-425-11	CARBON	4.7K	5%	1/4W
R338	1-249-407-11	CARBON	150	5%	1/4W	R744	1-249-411-11	CARBON	330	5%	1/4W
R339	1-247-807-11	CARBON	100	5%	1/4W	R745	1-247-831-11	CARBON	1K	5%	1/4W

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R746	1-247-831-11	CARBON	1K	5%	1/4W	R824	1-249-425-11	CARBON	4.7K	5%	1/4W
R747	1-247-831-11	CARBON	1K	5%	1/4W	R825	1-249-425-11	CARBON	4.7K	5%	1/4W
R760	1-249-437-11	CARBON	47K	5%	1/4W	R826	1-249-425-11	CARBON	4.7K	5%	1/4W
R761	1-249-437-11	CARBON	47K	5%	1/4W	R827	1-249-429-11	CARBON	10K	5%	1/4W
R762	1-247-843-11	CARBON	3.3K	5%	1/4W	R828	1-249-425-11	CARBON	4.7K	5%	1/4W
R763	1-247-831-11	CARBON	1K	5%	1/4W	R829	1-247-831-11	CARBON	1K	5%	1/4W
R764	1-249-429-11	CARBON	10K	5%	1/4W	R830	1-249-425-11	CARBON	4.7K	5%	1/4W
R765	1-247-903-00	CARBON	1M	5%	1/4W	R831	1-247-831-11	CARBON	1K	5%	1/4W
R766	1-249-429-11	CARBON	10K	5%	1/4W	R832	1-249-425-11	CARBON	4.7K	5%	1/4W
R767	1-247-887-00	CARBON	220K	5%	1/4W	R833	1-247-831-11	CARBON	1K	5%	1/4W
R768	1-249-430-11	CARBON	12K	5%	1/4W	R834	1-247-831-11	CARBON	1K	5%	1/4W
R769	1-249-430-11	CARBON	12K	5%	1/4W	R835	1-247-831-11	CARBON	1K	5%	1/4W
R770	1-249-430-11	CARBON	12K	5%	1/4W	R836	1-247-831-11	CARBON	1K	5%	1/4W
R771	1-249-425-11	CARBON	4.7K	5%	1/4W	R837	1-247-831-11	CARBON	1K	5%	1/4W
R772	1-249-430-11	CARBON	12K	5%	1/4W	R838	1-247-831-11	CARBON	1K	5%	1/4W
R773	1-249-425-11	CARBON	4.7K	5%	1/4W	R839	1-247-831-11	CARBON	1K	5%	1/4W
R774	1-249-430-11	CARBON	12K	5%	1/4W	R840	1-247-831-11	CARBON	1K	5%	1/4W
R775	1-249-430-11	CARBON	12K	5%	1/4W	R841	1-249-425-11	CARBON	4.7K	5%	1/4W
R776	1-249-437-11	CARBON	47K	5%	1/4W	R842	1-249-425-11	CARBON	4.7K	5%	1/4W
R777	1-247-807-11	CARBON	100	5%	1/4W	R843	1-249-425-11	CARBON	4.7K	5%	1/4W
R778	1-247-807-11	CARBON	100	5%	1/4W	R844	1-249-425-11	CARBON	4.7K	5%	1/4W
R779	1-247-807-11	CARBON	100	5%	1/4W	R845	1-247-831-11	CARBON	1K	5%	1/4W
R785	1-247-831-11	CARBON	1K	5%	1/4W	R846	1-247-831-11	CARBON	1K	5%	1/4W
R786	1-247-807-11	CARBON	100	5%	1/4W	R847	1-249-425-11	CARBON	4.7K	5%	1/4W
R790	1-249-425-11	CARBON	4.7K	5%	1/4W	R848	1-249-441-11	CARBON	100K	5%	1/4W
R791	1-249-425-11	CARBON	4.7K	5%	1/4W	R849	1-249-441-11	CARBON	100K	5%	1/4W
R792	1-247-831-11	CARBON	1K	5%	1/4W	R850	1-249-425-11	CARBON	4.7K	5%	1/4W
R793	1-247-831-11	CARBON	1K	5%	1/4W	R851	1-249-425-11	CARBON	4.7K	5%	1/4W
R794	1-247-831-11	CARBON	1K	5%	1/4W	R852	1-247-831-11	CARBON	1K	5%	1/4W
R801	1-249-425-11	CARBON	4.7K	5%	1/4W	R853	1-247-831-11	CARBON	1K	5%	1/4W
R802	1-249-425-11	CARBON	4.7K	5%	1/4W	R854	1-249-425-11	CARBON	4.7K	5%	1/4W
R803	1-249-425-11	CARBON	4.7K	5%	1/4W	R855	1-249-425-11	CARBON	4.7K	5%	1/4W
R804	1-249-425-11	CARBON	4.7K	5%	1/4W	R856	1-249-425-11	CARBON	4.7K	5%	1/4W
R805	1-249-425-11	CARBON	4.7K	5%	1/4W	R857	1-249-437-11	CARBON	47K	5%	1/4W
R806	1-247-863-11	CARBON	22K	5%	1/4W	R858	1-249-441-11	CARBON	100K	5%	1/4W
					(EE)	R859	1-249-429-11	CARBON	10K	5%	1/4W
R806	1-249-427-11	CARBON	6.8K	5%	1/4W (UK,G,IT)	R860	1-249-441-11	CARBON	100K	5%	1/4W
R809	1-249-429-11	CARBON	10K	5%	1/4W	R862	1-249-425-11	CARBON	4.7K	5%	1/4W
R810	1-249-413-11	CARBON	470	5%	1/4W	R863	1-249-421-11	CARBON	2.2K	5%	1/4W
R811	1-249-421-11	CARBON	2.2K	5%	1/4W	R864	1-249-441-11	CARBON	100K	5%	1/4W
R812	1-249-421-11	CARBON	2.2K	5%	1/4W	R865	1-249-435-11	CARBON	33K	5%	1/4W
R813	1-249-421-11	CARBON	2.2K	5%	1/4W	R866	1-247-895-11	CARBON	470K	5%	1/4W
R814	1-247-831-11	CARBON	1K	5%	1/4W	R868	1-249-435-11	CARBON	33K	5%	1/4W
R815	1-249-429-11	CARBON	10K	5%	1/4W	R869	1-247-895-11	CARBON	470K	5%	1/4W
R816	1-247-831-11	CARBON	1K	5%	1/4W						< VARIABLE RESISTOR >
R817	1-247-831-11	CARBON	1K	5%	1/4W	RV301	1-230-495-11	RES, ADJ, CARBON	2.2K		
R818	1-249-439-11	CARBON	68K	5%	1/4W						< TRANSFORMER >
R819	1-249-439-11	CARBON	68K	5%	1/4W						
R820	1-249-439-11	CARBON	68K	5%	1/4W						
R821	1-247-881-00	CARBON	120K	5%	1/4W	T301	1-433-346-11	TRANSFORMER, BIAS OSCILLATOR			
R822	1-249-421-11	CARBON	2.2K	5%	1/4W						
R823	1-249-425-11	CARBON	4.7K	5%	1/4W						

MAIN

POWER

RECORD/PLAYBACK SWITCH

TUNER

Ref. No.	Part No.	Description	Remark
		< VIBRATOR >	
X701	1-579-345-11	VIBRATOR, CERAMIC (16.9344MHz)	
X801	1-767-184-11	VIBRATOR, CERAMIC (4.19MHz)	
X802	1-760-105-11	VIBRATOR, CRYSTAL (32.768kHz)	

*	1-667-502-14	POWER BOARD	*****
	1-533-233-31	HOLDER, FUSE	
		< CAPACITOR >	
C901	1-161-021-11	CERAMIC	0.047uF 10% 25V
C902	1-161-021-11	CERAMIC	0.047uF 10% 25V
C903	1-161-021-11	CERAMIC	0.047uF 10% 25V
C904	1-161-021-11	CERAMIC	0.047uF 10% 25V
C905	1-126-944-11	ELECT	3300uF 20% 25V
C906	1-161-021-11	CERAMIC	0.047uF 10% 25V
C907	1-161-059-00	CERAMIC	0.047uF 10% 50V
		< CONNECTOR >	
* CNP901	1-564-507-11	PLUG, CONNECTOR 4P	
* CNP902	1-564-506-11	PLUG, CONNECTOR 3P	
		< DIODE >	
D901	8-719-046-47	DIODE 1N5401TM	
D902	8-719-046-47	DIODE 1N5401TM	
D903	8-719-046-47	DIODE 1N5401TM	
D904	8-719-046-47	DIODE 1N5401TM	
D906	8-719-991-33	DIODE 1SS133T-77	
D907	8-719-991-33	DIODE 1SS133T-77	
D908	8-719-981-95	DIODE MTZJ-2.7B	
D910	8-719-991-33	DIODE 1SS133T-77	
		< FUSE >	
△F901	1-532-464-31	FUSE, TIME-LAG (T2.5AL/250V)	
		< AC INLET >	
△J901	1-526-838-11	INLET, AC 2P (～ AC IN)	
		< LINE FILTER >	
△LF901	1-424-150-11	TRANSFORMER, LINE FILTER	
		< TRANSFORMER >	
△T901	1-435-078-11	TRANSFORMER, POWER	

Ref. No.	Part No.	Description	Remark
*	1-668-024-14	RECORD/PLAYBACK SWITCH BOARD	*****
		< CAPACITOR >	
C378	1-162-294-31	CERAMIC	0.001uF 10% 50V
		< CONNECTOR >	
CNP301	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P	
		< RESISTOR >	
R102	1-247-831-11	CARBON	1K 5% 1/4W
R202	1-247-831-11	CARBON	1K 5% 1/4W
		< SWITCH >	
S301	1-692-167-11	SWITCH, SLIDE (REC/PB)	

*	A-3322-240-A	TUNER BOARD, COMPLETE (UK,G,IT)	
*	A-3322-248-A	TUNER BOARD, COMPLETE (EE)	*****
		< CAPACITOR >	
C1	1-162-294-31	CERAMIC	0.001uF 10% 50V
C2	1-162-306-11	CERAMIC	0.01uF 20% 16V
C3	1-102-516-11	CERAMIC	27PF 5% 50V
		(UK,G,IT)	
C3	1-162-195-31	CERAMIC	4.7PF 10% 50V
		(EE)	
C4	1-162-203-31	CERAMIC	15PF 5% 50V
C5	1-161-494-00	CERAMIC	0.022uF 25V
C6	1-161-494-00	CERAMIC	0.022uF 25V
C7	1-161-020-11	CERAMIC	0.039uF 10% 16V
C8	1-162-195-31	CERAMIC	4.7PF 10% 50V
		(UK,G,IT)	
C9	1-102-973-00	CERAMIC	100PF 5% 50V
C10	1-102-823-11	CERAMIC	430PF 5% 50V
C11	1-162-199-31	CERAMIC	10PF 5% 50V
C12	1-107-734-11	FILM	360PF 5% 100V
C14	1-164-159-21	CERAMIC	0.1uF 50V
C15	1-162-306-11	CERAMIC	0.01uF 20% 16V
C16	1-126-963-11	ELECT	4.7uF 20% 50V
C17	1-162-288-31	CERAMIC	330PF 10% 50V
C18	1-162-306-11	CERAMIC	0.01uF 20% 16V
C19	1-124-907-11	ELECT	10uF 20% 50V
C20	1-162-849-11	CERAMIC	0.068uF 10% 16V
C21	1-162-850-11	CERAMIC	0.082uF 10% 16V
C22	1-162-850-11	CERAMIC	0.082uF 10% 16V
C23	1-161-053-00	CERAMIC	0.015uF 10% 50V
C24	1-161-053-00	CERAMIC	0.015uF 10% 50V
C25	1-162-306-11	CERAMIC	0.01uF 20% 16V
C26	1-162-306-11	CERAMIC	0.01uF 20% 16V
C27	1-104-665-11	ELECT	100uF 20% 10V
C28	1-102-518-11	CERAMIC	33PF 5% 50V

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

TUNER

TUNER STOPPER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark				
Q3	8-729-922-66	TRANSISTOR	2SC2410SN	R33	1-247-815-11	CARBON	220 5% 1/4W				
Q4	8-729-905-50	TRANSISTOR	DTC343TS				(UK,G,IT)				
Q5	8-729-178-62	TRANSISTOR	2SC2786-L	R33	1-249-410-11	CARBON	270 5% 1/4W				
Q6	8-729-922-66	TRANSISTOR	2SC2410SN				(EE)				
Q9	8-729-036-77	TRANSISTOR	KRC107M	R34	1-249-415-11	CARBON	680 5% 1/4W				
Q10	8-729-036-77	TRANSISTOR	KRC107M	R35	1-249-412-11	CARBON	390 5% 1/4W				
Q11	8-729-036-77	TRANSISTOR	KRC107M	R36	1-249-437-11	CARBON	47K 5% 1/4W				
Q12	8-729-036-77	TRANSISTOR	KRC107M	R37	1-247-831-11	CARBON	1K 5% 1/4W				
Q13	8-729-012-83	FET	2SK679A	R38	1-249-427-11	CARBON	6.8K 5% 1/4W				
Q14	8-729-106-07	FET	2SK514-H	R39	1-247-831-11	CARBON	1K 5% 1/4W				
Q15	8-729-036-77	TRANSISTOR	KRC107M	R40	1-249-421-11	CARBON	2.2K 5% 1/4W				
Q16	8-729-036-77	TRANSISTOR	KRC107M	R41	1-247-831-11	CARBON	1K 5% 1/4W				
Q17	8-729-037-34	TRANSISTOR	KRA107M	R42	1-249-437-11	CARBON	47K 5% 1/4W				
Q18	8-729-037-34	TRANSISTOR	KRA107M	R43	1-249-437-11	CARBON	47K 5% 1/4W				
Q19	8-729-036-58	TRANSISTOR	KRC102M-AT	R44	1-249-425-11	CARBON	4.7K 5% 1/4W				
Q21	8-729-037-29	TRANSISTOR	KRA102M	R45	1-249-429-11	CARBON	10K 5% 1/4W				
Q22	8-729-037-29	TRANSISTOR	KRA102M	R46	1-249-429-11	CARBON	10K 5% 1/4W				
Q23	8-729-922-66	TRANSISTOR	2SC2410SN	R47	1-247-863-11	CARBON	22K 5% 1/4W				
		< RESISTOR >		R48	1-247-863-11	CARBON	22K 5% 1/4W				
R1	1-247-887-00	CARBON	220K	5%	1/4W	R49	1-249-421-11	CARBON	2.2K	5%	1/4W
R2	1-249-441-11	CARBON	100K	5%	1/4W	R50	1-247-831-11	CARBON	1K	5%	1/4W
R3	1-249-431-11	CARBON	15K	5%	1/4W	R51	1-249-441-11	CARBON	100K	5%	1/4W
R4	1-249-413-11	CARBON	470	5%	1/4W	R52	1-249-441-11	CARBON	100K	5%	1/4W
R5	1-247-831-11	CARBON	1K	5%	1/4W	R53	1-249-441-11	CARBON	100K	5%	1/4W
R6	1-249-425-11	CARBON	4.7K	5%	1/4W	R54	1-249-413-11	CARBON	470	5%	1/4W
R7	1-249-425-11	CARBON	4.7K	5%	1/4W	R55	1-249-437-11	CARBON	47K	5%	1/4W
R8	1-249-407-11	CARBON	150	5%	1/4W	R56	1-249-411-11	CARBON	330	5%	1/4W
R8	1-249-411-11	CARBON	330	5%	1/4W	R57	1-247-791-11	CARBON	22	5%	1/4W
					(EE)	R58	1-247-883-00	CARBON	150K	5%	1/4W
					(UK,G,IT)	R59	1-249-421-11	CARBON	2.2K	5%	1/4W
R9	1-249-425-11	CARBON	4.7K	5%	1/4W	R60	1-249-407-11	CARBON	150	5%	1/4W
R10	1-249-429-11	CARBON	10K	5%	1/4W				< VIBRATOR >		
R11	1-247-887-00	CARBON	220K	5%	1/4W	X1	1-760-130-11	VIBRATOR, CRYSTAL (75kHz)			
R12	1-249-425-11	CARBON	4.7K	5%	1/4W	*****					
R13	1-247-815-11	CARBON	220	5%	1/4W	*	1-668-025-11	TUNER STOPPER BOARD			
R14	1-249-425-11	CARBON	4.7K	5%	1/4W	*****					
R15	1-247-887-00	CARBON	220K	5%	1/4W						
R16	1-249-426-11	CARBON	5.6K	5%	1/4W						
R16	1-249-429-11	CARBON	10K	5%	1/4W						
					(EE)						
R19	1-249-421-11	CARBON	2.2K	5%	1/4W						
R20	1-247-863-11	CARBON	22K	5%	1/4W						
R21	1-249-404-00	CARBON	82	5%	1/4W						
R22	1-249-429-11	CARBON	10K	5%	1/4W						
R23	1-249-429-11	CARBON	10K	5%	1/4W						
R24	1-249-429-11	CARBON	10K	5%	1/4W						
R25	1-249-429-11	CARBON	10K	5%	1/4W						
R26	1-247-831-11	CARBON	1K	5%	1/4W						
R27	1-247-831-11	CARBON	1K	5%	1/4W						
R28	1-249-429-11	CARBON	10K	5%	1/4W						
R29	1-249-429-11	CARBON	10K	5%	1/4W						

