PMC-DR50L/DR70L

SERVICE MANUAL

Ver 1.0 1999.09

AEP Model
UK Model
E Model
PMC-DR50L/DR70L
Tourist Model
PMC-DR50L

Photo : PMC-DR70L

TAPE Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	MF-PMCDR50
CD Section	Model Name Using Similar Mechanism	NEW
	MD Mechanism Type	KSM-213CCP
	Optical Pick-up Type	KSS-213C

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 μW (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 +0/–2.5 dB
Wow and flutter
Below measurable limit

Radio section

Frequency range

FM	87.5 - 108 MHz
MW	531 - 1,602 kHz
LW	153 - 279 kHz

IF
FM: 10.7 MHz
MW/LW: 450 kHz
Aerials
FM: Lead aerial
MW/LW: Loop aerial

Cassette-corder section

Recording system
4-track 2 channel stereo
Fast winding time
Approx. 130s (sec.) with Sony cassette C-60
Frequency response
TYPE I (normal): 50 - 15,000 Hz

General

Speaker
Full range: 10 cm (4 in.) dia., 6 ohms, cone type x 2
Input
LINE IN jack (stereo minijack)
Minimum input level 250 mV

– Continued on page 2 –

PERSONAL COMPONENT SYSTEM

MICROFILM

SONY®

Outputs
Headphones jack (stereo minijack)
For 16 - 68 ohms impedance headphones
LINE OUT jack (stereo minijack)
Rated output level 250 mV at load impedance 47 kilohms
OPTICAL DIGITAL OUT (CD) (optical output connector)
Wavelength: 630 - 690 nm
Maximum power output
10 W + 10 W
Power requirements
For personal component system:
230V AC, 50 Hz
For remote controller:
3 V DC, 2 R6 (size AA) batteries
Power consumption
PMC-DR50L: AC 35 W
PMC-DR70L: AC 65 W
Dimensions (incl. projecting parts)
Player: approx. 152 × 133 × 275 mm (w/h/d) (6 × 5 ¼ × 10 ⅞ inches)
Left speaker: approx. 132 × 209 × 281 mm (w/h/d) (5 ¼ × 8 ¼ × 11 ⅛ inches)
Right speaker: approx. 132 × 209 × 281 mm (w/h/d) (5 ¼ × 8 ¼ × 11 ⅛ inches)
Mass
PMC-DR50L:
Player: approx. 2 kg (4 lb. 7 oz.)
Left speaker: approx. 1.8 kg (3 lb. 15 oz.)
Right speaker: approx. 3.4 kg (7 lb. 8 oz.)
PMC-DR70L:
Player: approx. 2 kg (4 lb. 7 oz.)
Left speaker: approx. 3.4 kg (7 lb. 8 oz.)
Right speaker: approx. 3.4 kg (7 lb. 8 oz.)
Supplied accessories
Remote controller (1)
FM lead aerial (1)
MW/LW loop aerial (1)
Audio connecting cord (2)

Super woofer (PMC-DR70L only)
Speaker
Woofer: 10 cm (4 in.) dia., 4.0 ohms, cone type
Power output
30 W (at 100 Hz)
Power consumption
AC 30 W
Dimensions (incl. projecting parts)
Approx. 162 × 209 × 281 mm (w/h/d) (6 ½ × 8 ¼ × 11 ⅛ inches)
Mass
Approx. 2.6 kg (5 lb. 12 oz.)

Design and specifications are subject to change without notice.

TABLE OF CONTENTS

SECTION 1
SERVICE NOTE

Information
For customers in Europe

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

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

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.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ 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 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

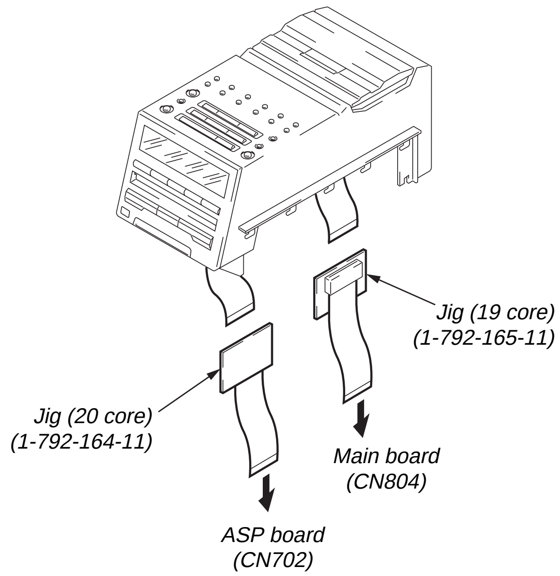
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Close the Tray for CD.
2. Press CD ▶II button.
3. Confirm the laser diode emission while observing the objecting lens. When there is no emission, Auto Power Control circuit or Optical Pick-up is broken.
   Objective lens moves up and down once for the focus search.

ABOUT THE EXTENSION CABLE JIG

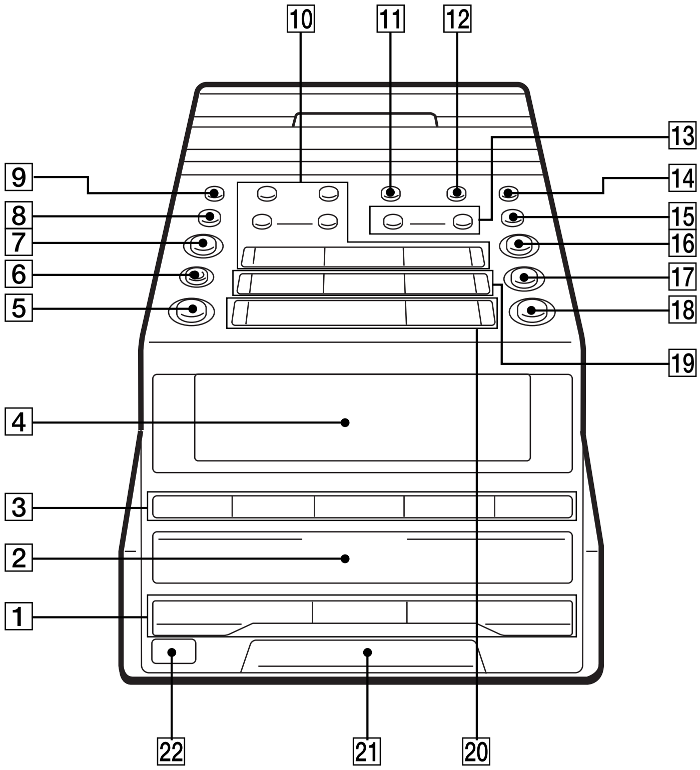
Extention cable jigs (1-792-164-11 and 1-792-165-11) are necessary when repair this unit.



SECTION 2
GENERAL

LOCATION AND FUNCTION OF CONTROLS

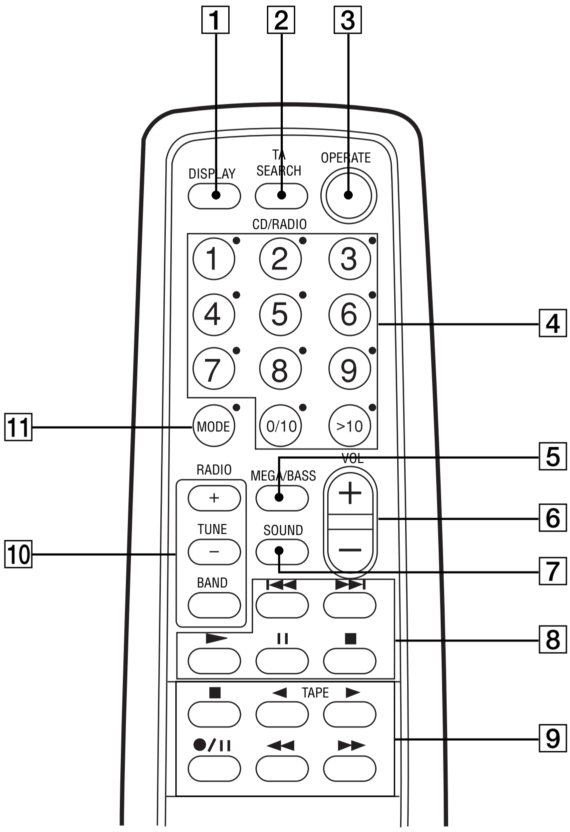
MAIN UNIT



1 VOLUME +, – buttons
2 CD tray
3 Timer buttons
STANDBY
SLEEP
CLOCK
TIMER
DISPLAY
4 Display window
5 OPERATE button
6 RDS button
7 🎧 (Headphones) Jack
8 DIR MODE button
9 COUNTER RESET button
10 TAPE operation buttons
●/❚❚ (rec/pause)
DUBBING
◀◀, ▶▶ (FF, REW)
◁, ▷ (play)
☐ (stop)

11 PLAY MODE, MONO/ST ISS button
12 ENTER/MEM, PGM SET button
13 ❙◀◀ (–) , ▶▶❙(+) TUNE TIME SET button
14 LINE IN button
15 SUMER TIME button
16 MEGA BASS button
17 SOUND button
18 ⏏ CD OPEN/CLOSE button
19 RADIO operation buttons
PRESET +
BAND
PRESET–
20 CD operation buttons
▷❚❚ (play/pause)
☐ (stop)
21 SNOOZE button
22 Remote sensor

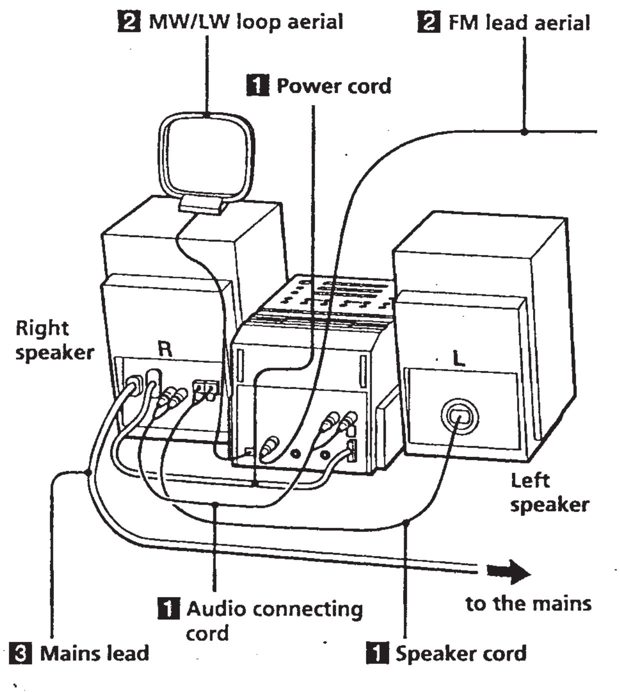
Remote commander



1 DISPLAY button
2 TA SEARCH button
3 OPERATE button
4 Number buttons
5 MEGA BASS button
6 VOLUME +, – buttons
7 SOUND button
8 CD operation buttons
  ⏮, ⏭(AMS, search)
  ► (play)
  ❚❚ (pause)
  ■ (stop)
9 TAPE operation buttons
  ■ (stop)
  ◄, ► (play)
  ●/❚❚ (rec/pause)
  ◄◄, ►► (FF, REW)
10 RADIO operation buttons
  TUNE +
  TUNE –
  BAND
11 MODE button

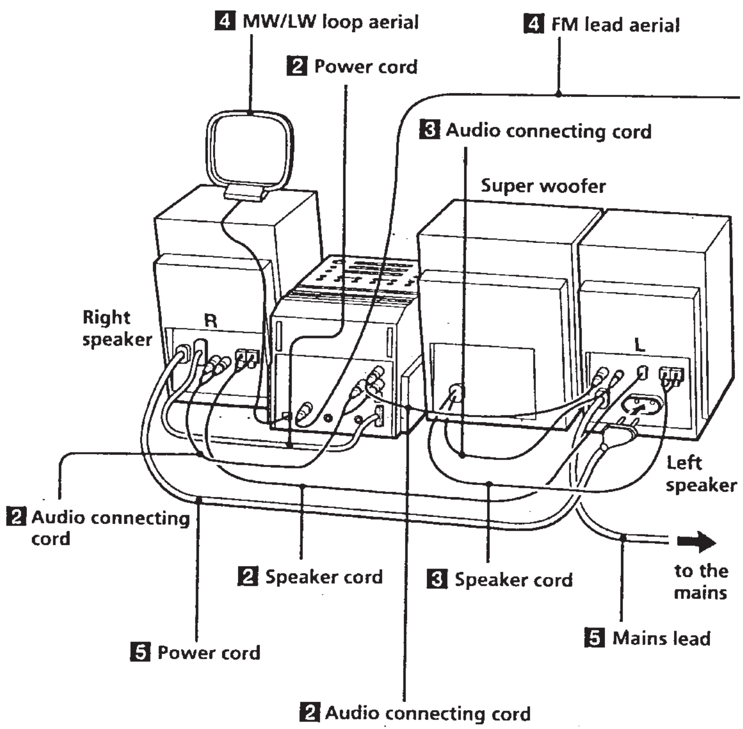
HOOKING UP THE SYSTEM

(PMC-DR50L)



1 Hooking up the speakers

(PMC-DR70L)



SECTION 3
DISASSEMBLY

● The equipment can be removed using the following procedure.

Main unit
- → Case(bottom) → CD ASSY
  - → Main board, Jack board
  - → Tray → ASP board → Belt → Motor board, Loading motor (M651) → Optical pick-up block
- → Cover ASSY, top
  - → Mechanism deck → TC RF board, Head relay board, Capstan/reel motor (M160)
  - → Control board
    - → Display board → DSP board, CPU board
    - → VOL board

Speaker unit (R-CH)
- → Cabinet, wood → Speaker (R-CH) (SP101) → Power board
- → Cabinet (R) bottom → AMP board, AMP IC board → Speaker board

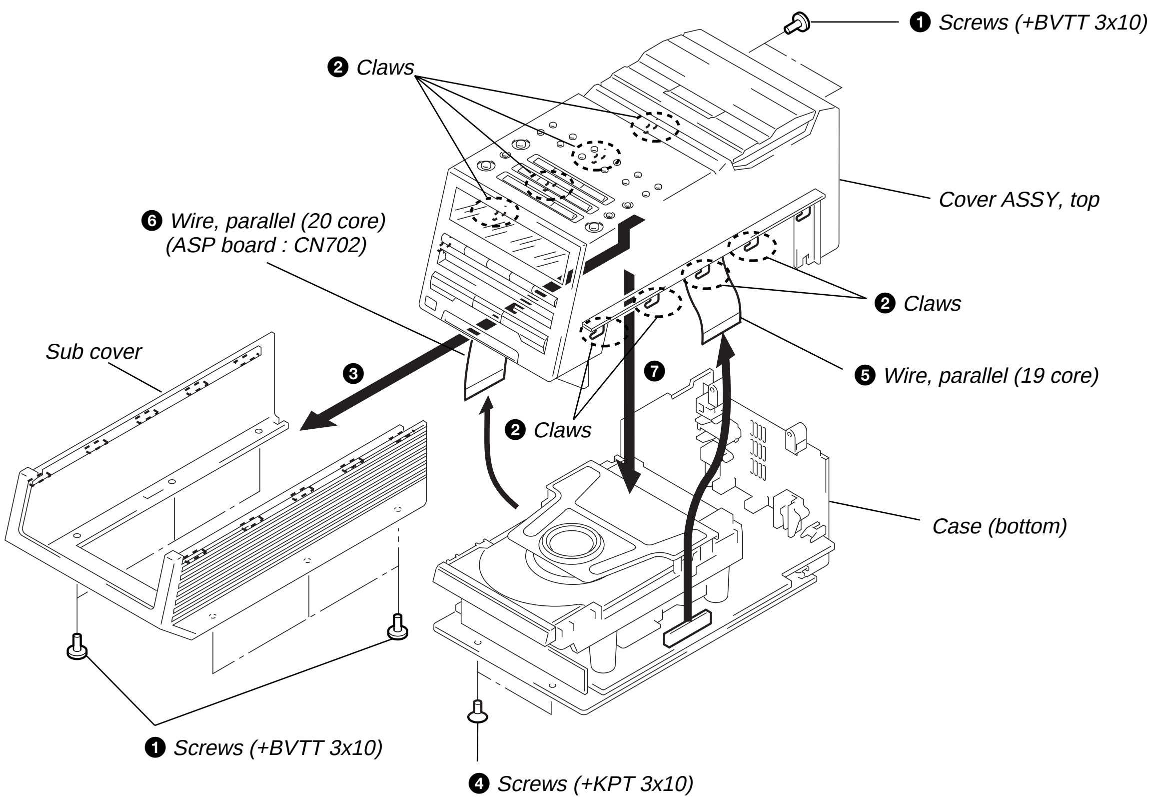
Speaker unit (L-CH) (DR70L)
- → Cabinet, wood → Speaker (L-CH) (SP201) → Power transfomer board
- → Cabinet (L) bottom → SP main board → SP AMP IC board → AC outlet board, SP jack board

Super woofer unit (DR70L) → Cabinet (SWF) bottom → Speaker (SP601), “Cabinet, front” → LED board, volume board

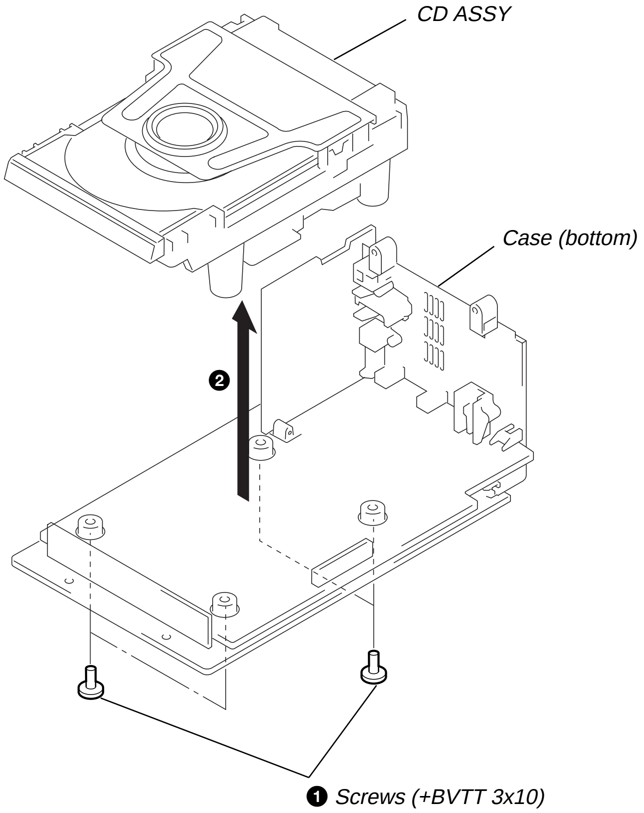
Note : Follow the disassembly procedure in the numerical order given.

< MAIN UNIT >

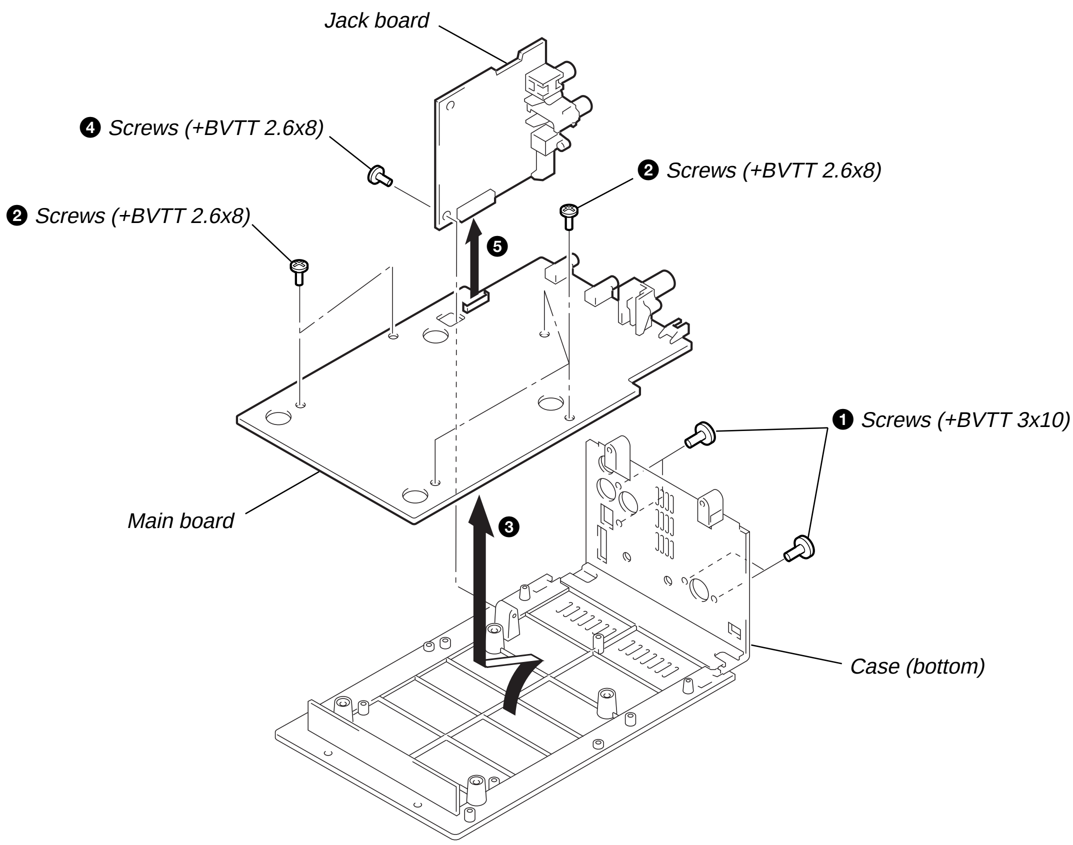
3-1. CASE (BOTTOM) , “COVER ASSY, TOP”



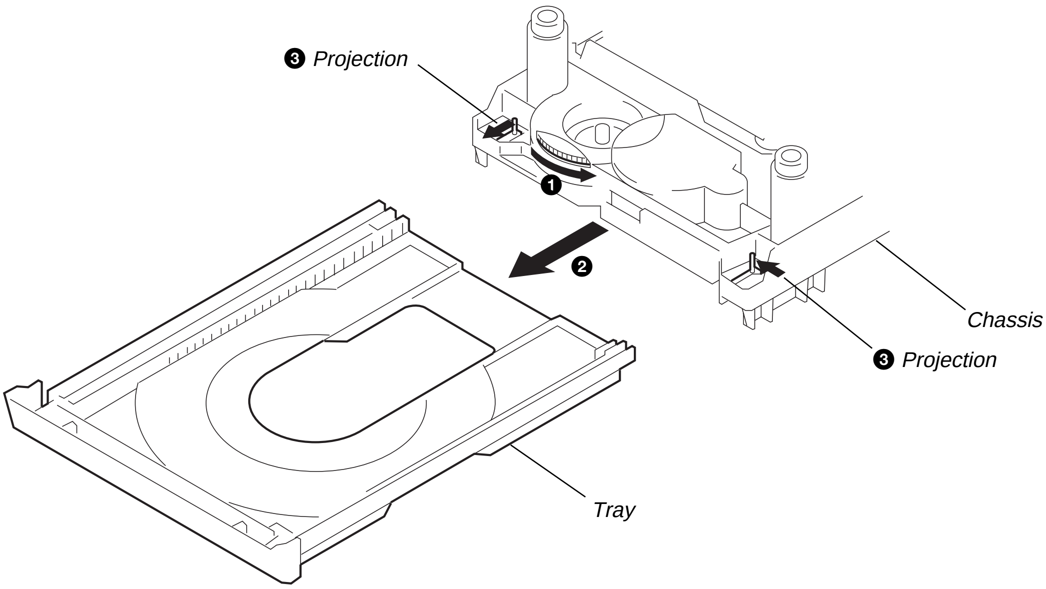
3-2. CD ASSY



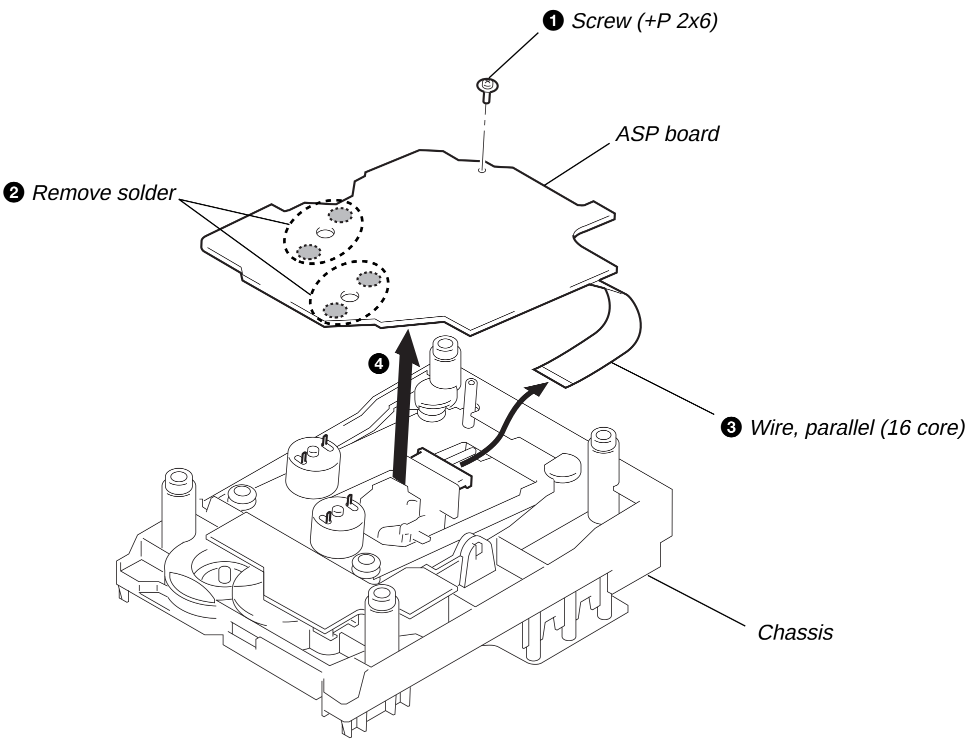
3-3. MAIN BOARD, JACK BOARD



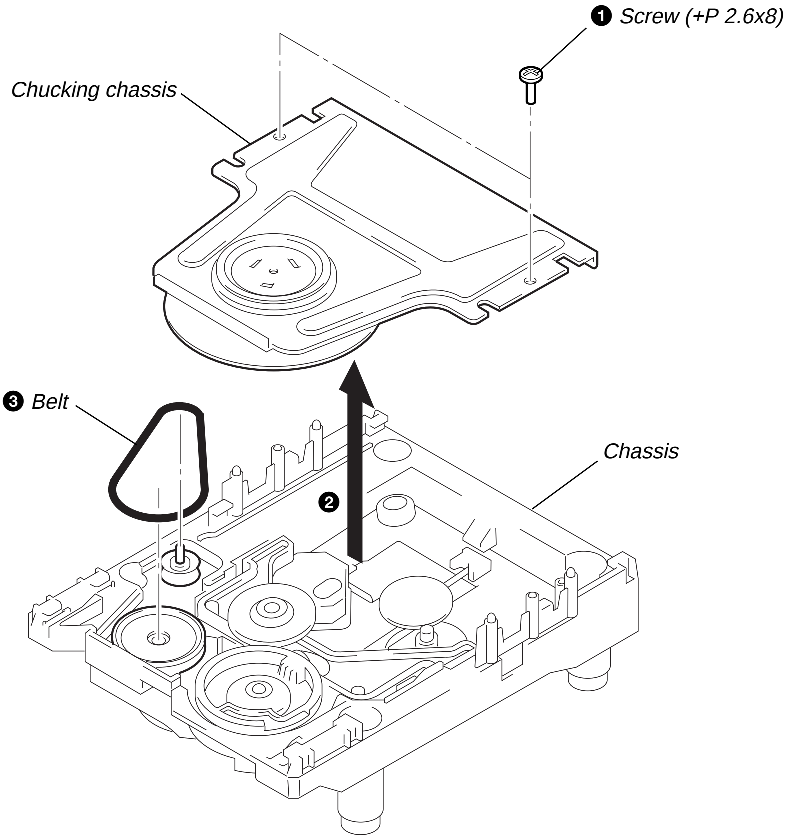
3-4. TRAY



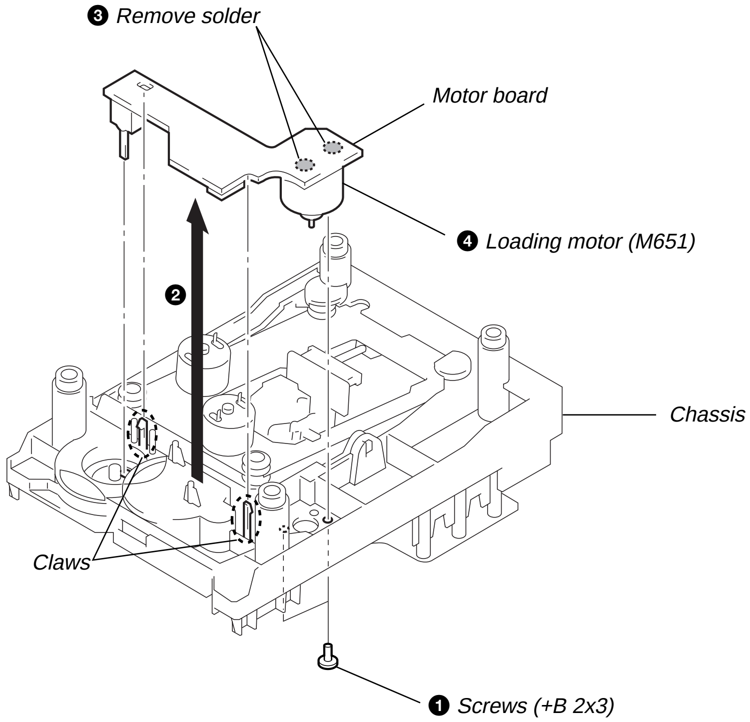
3-5. ASP BOARD



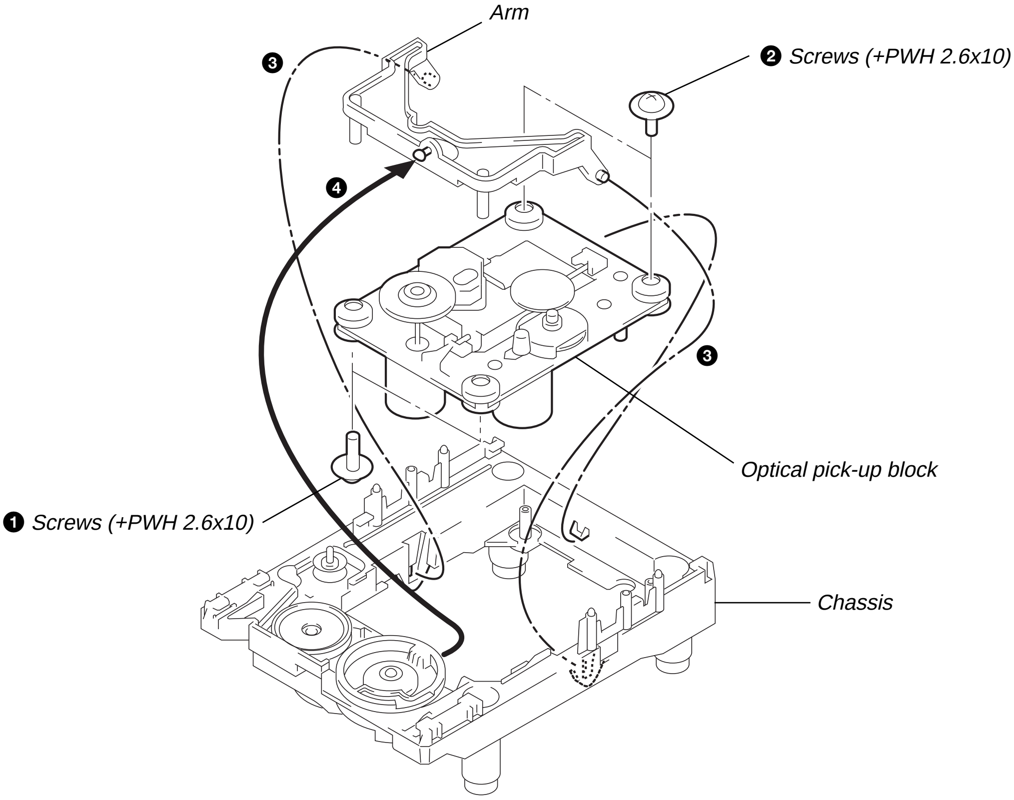
3-6. BELT



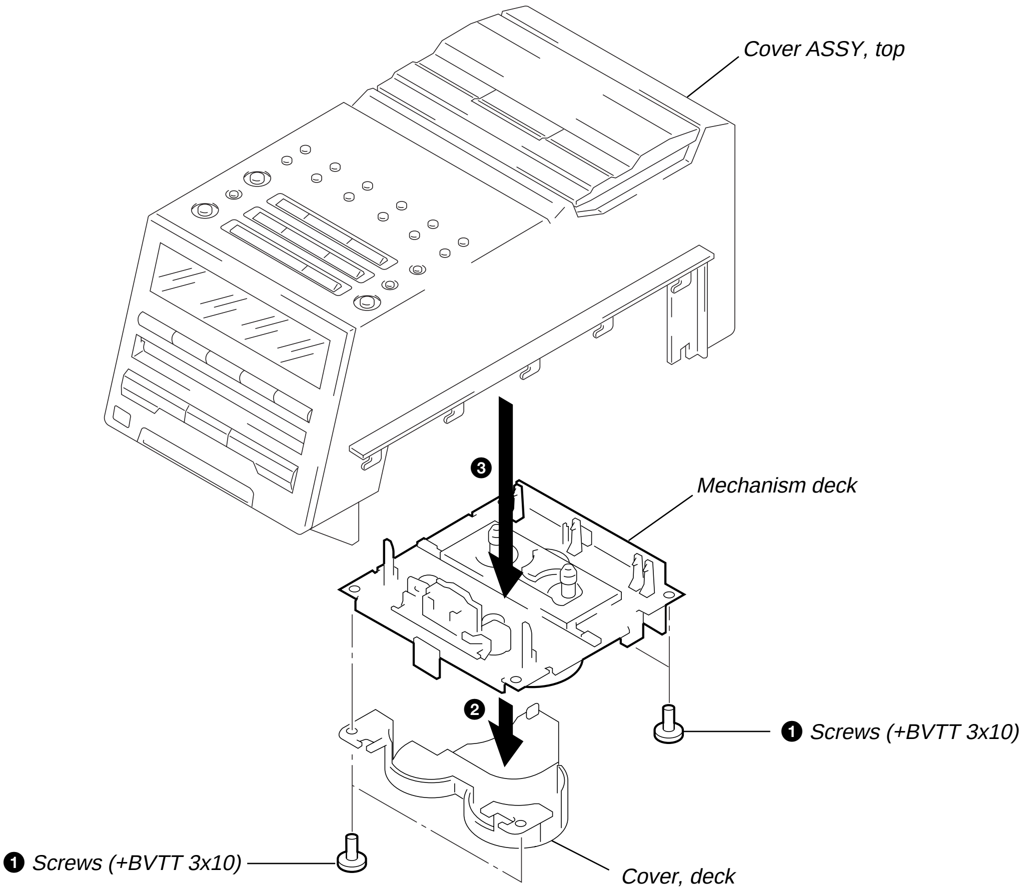
3-7. MOTOR BOARD, LOADING MOTOR (M651)



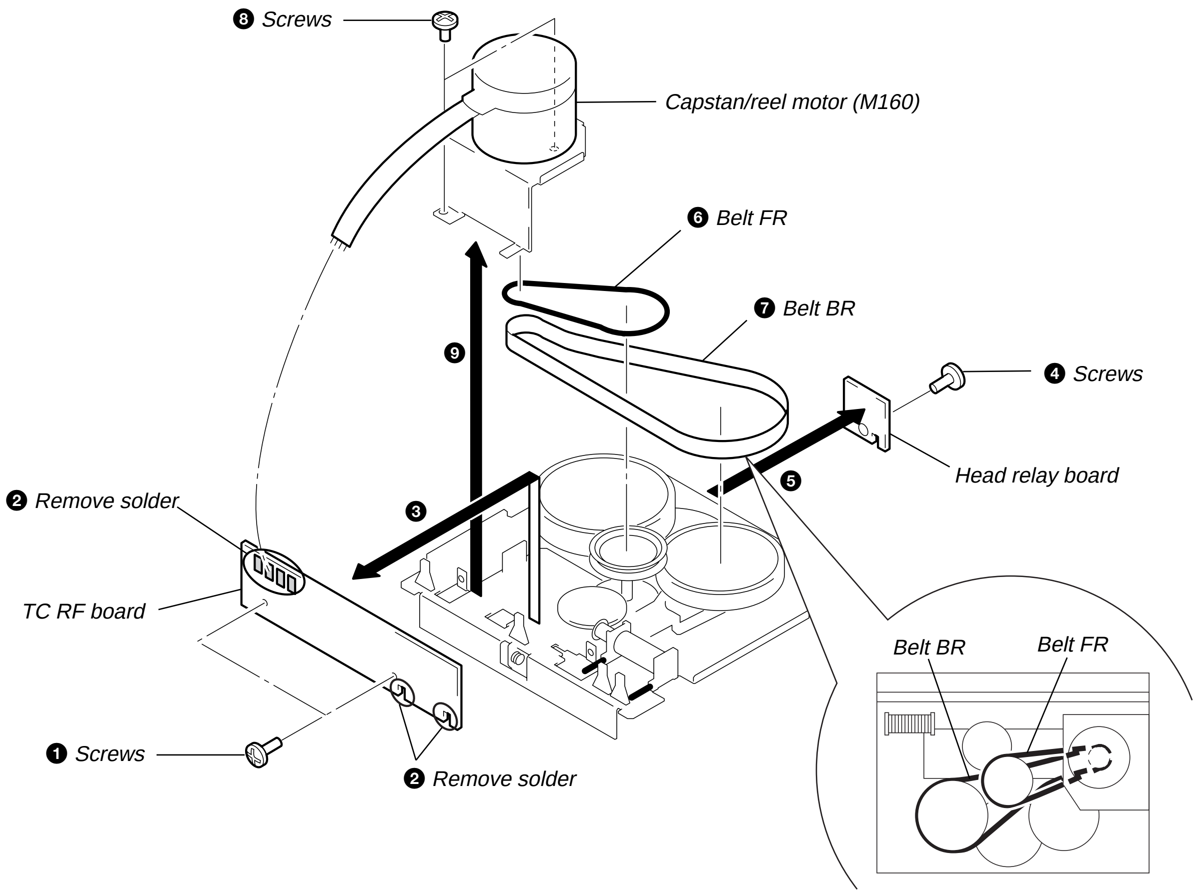
3-8. OPTICAL PICK-UP BLOCK



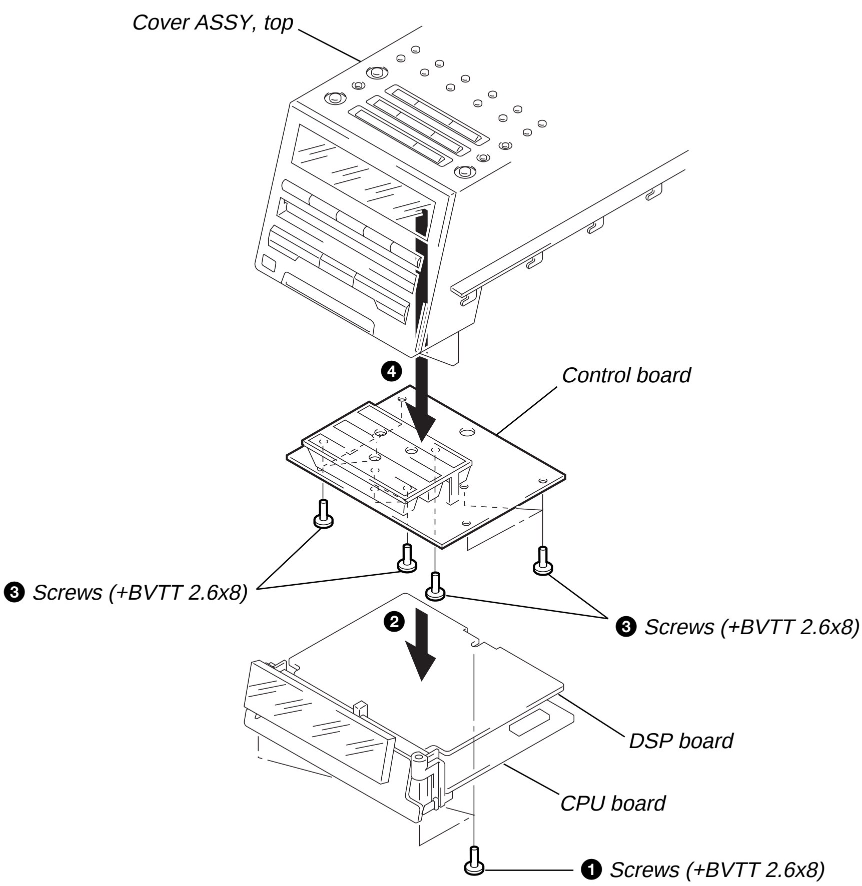
3-9. MECHANISM DECK



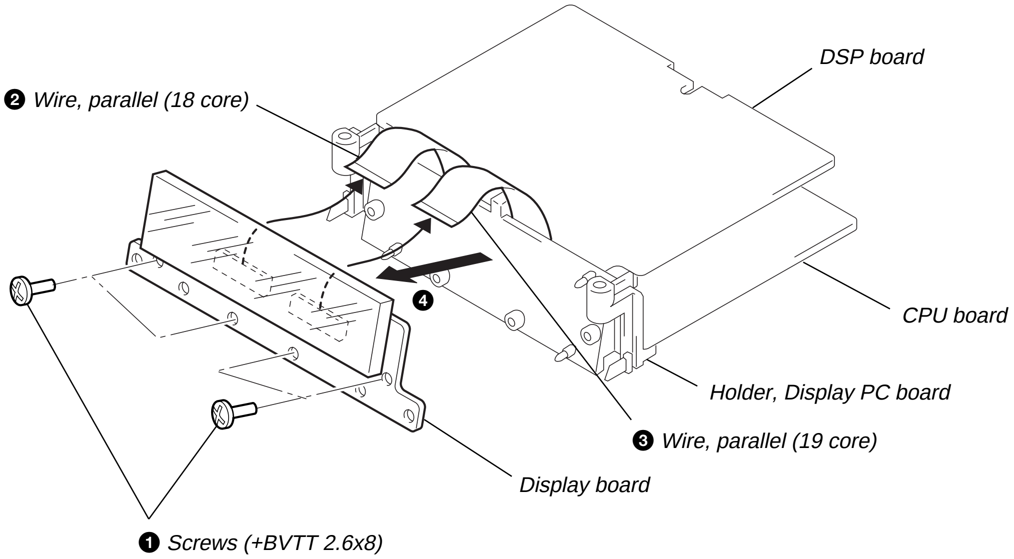
3-10. TC RF BOARD, HEAD RELAY BOARD, CAPSTAN/REEL MOTOR (M160)



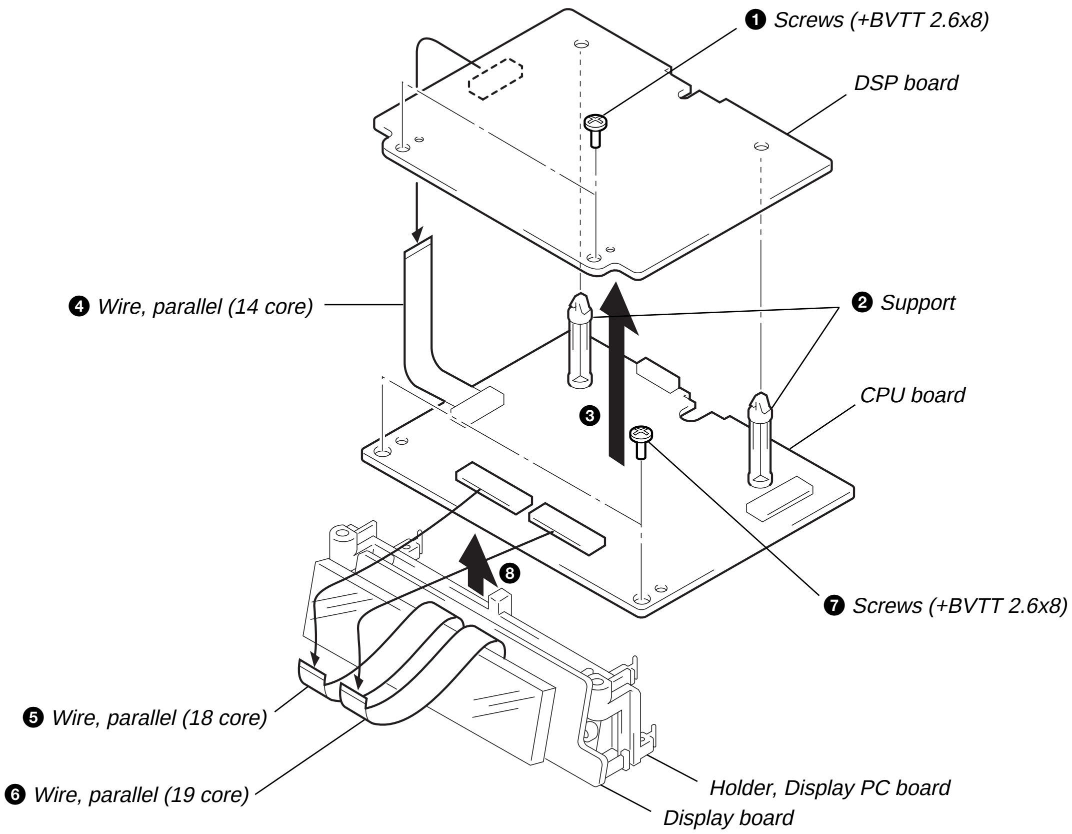
3-11. CONTROL BOARD



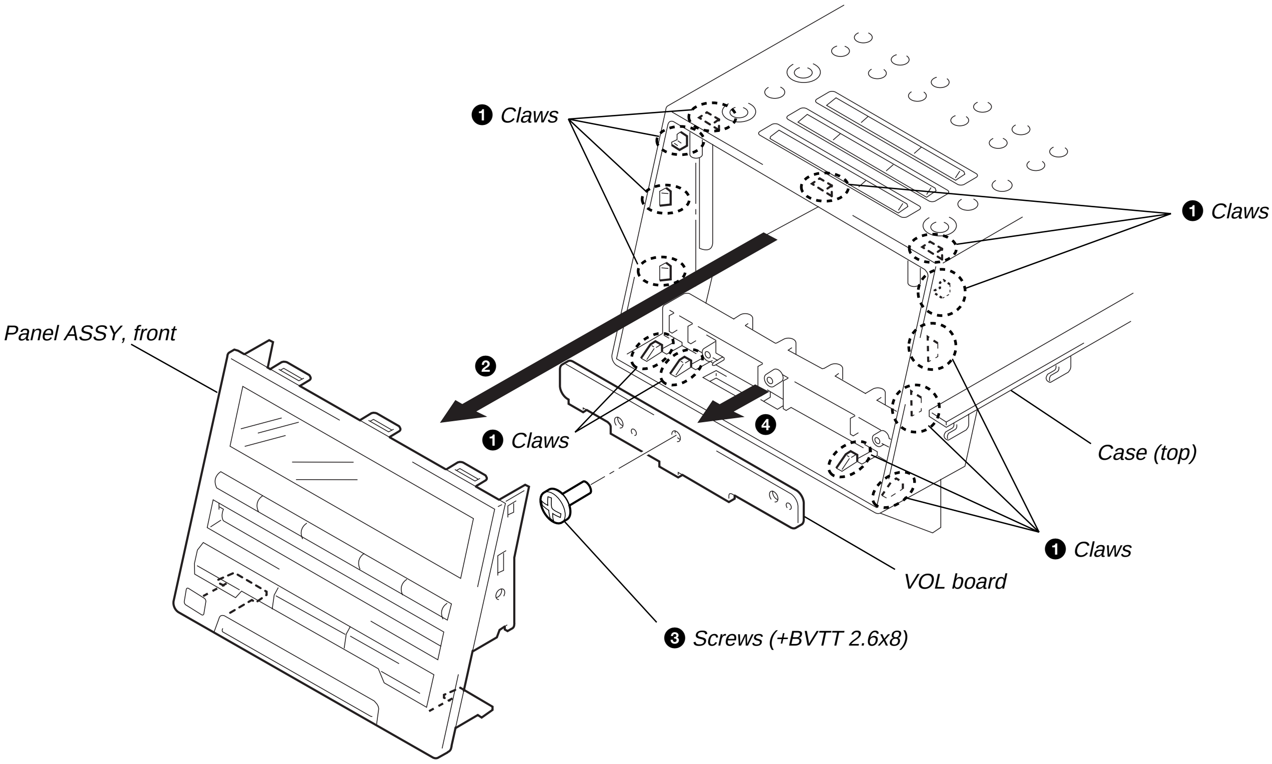
3-12. DISPLAY BOARD



3-13. DSP BOARD, CPU BOARD

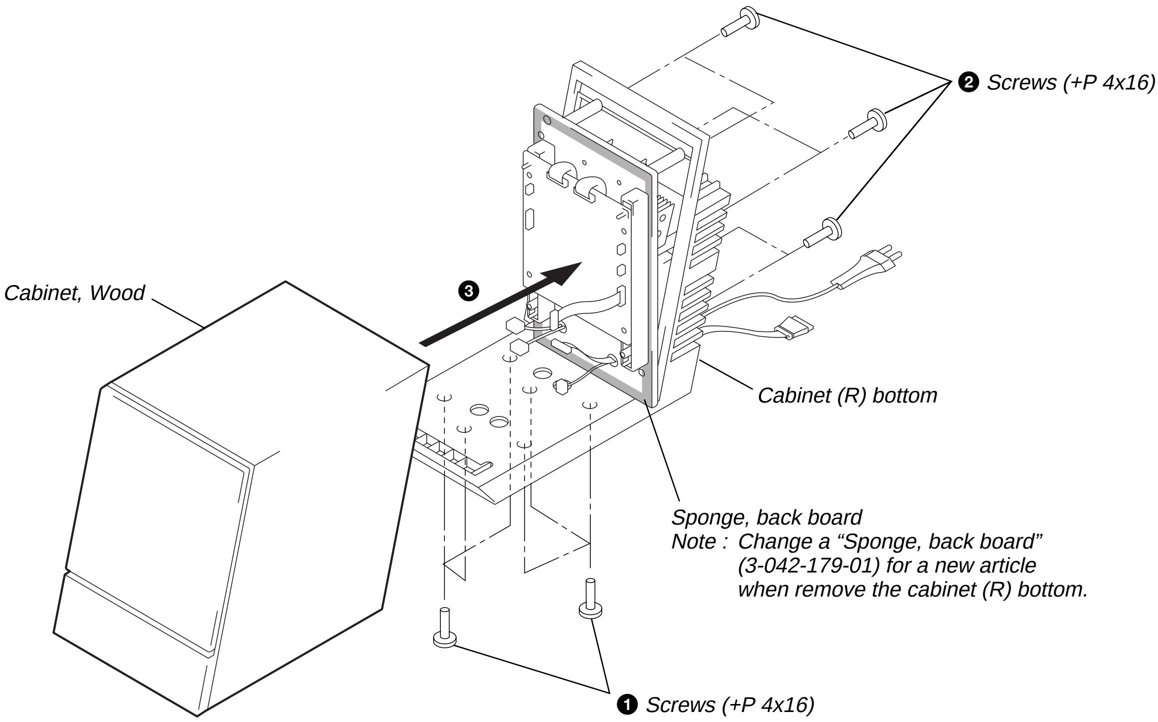


3-14. VOL BOARD

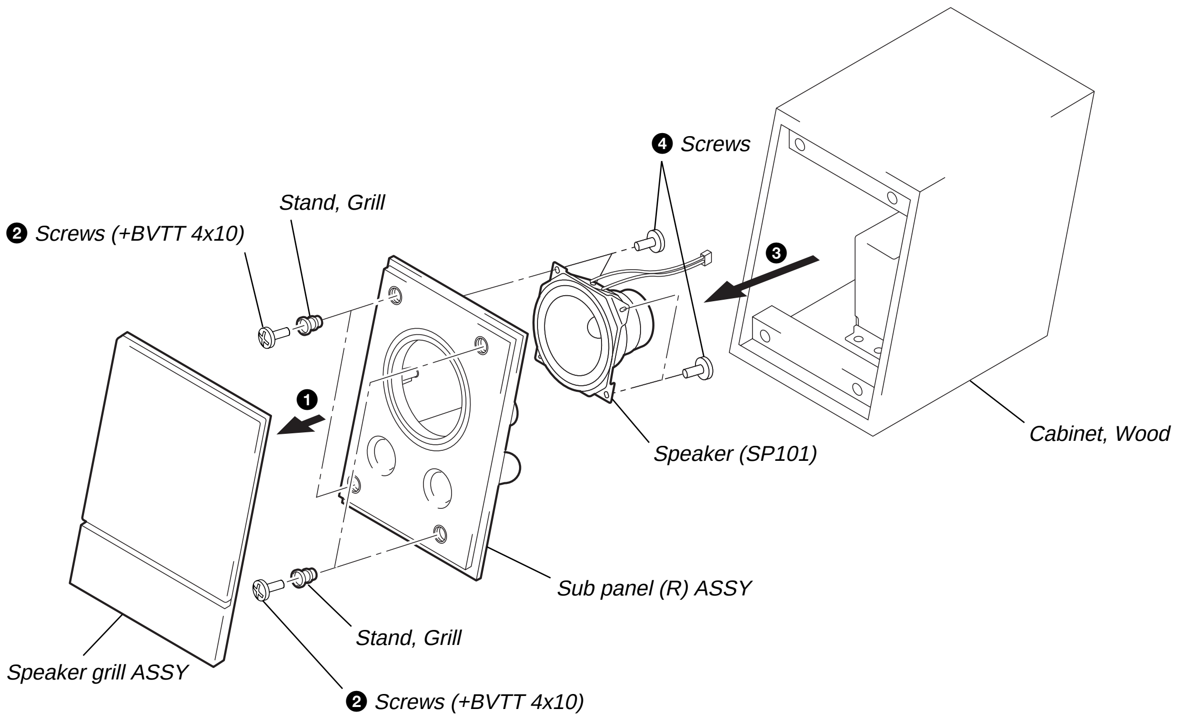


< SPEAKER UNIT (R-CH) >

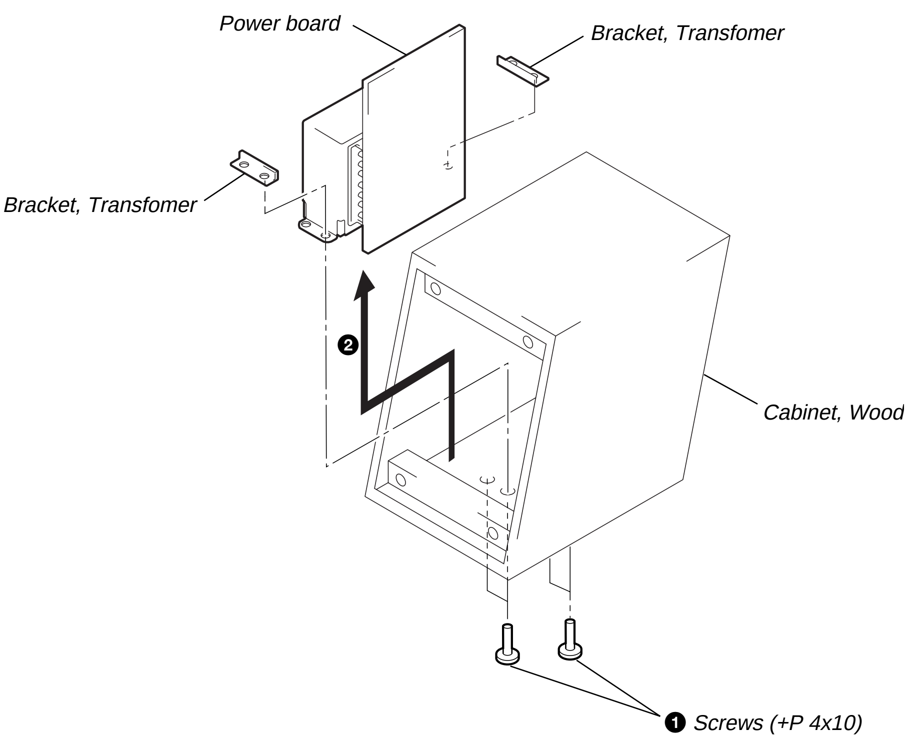
3-15. “CABINET, WOOD”, “CABINET (R) BOTTOM”



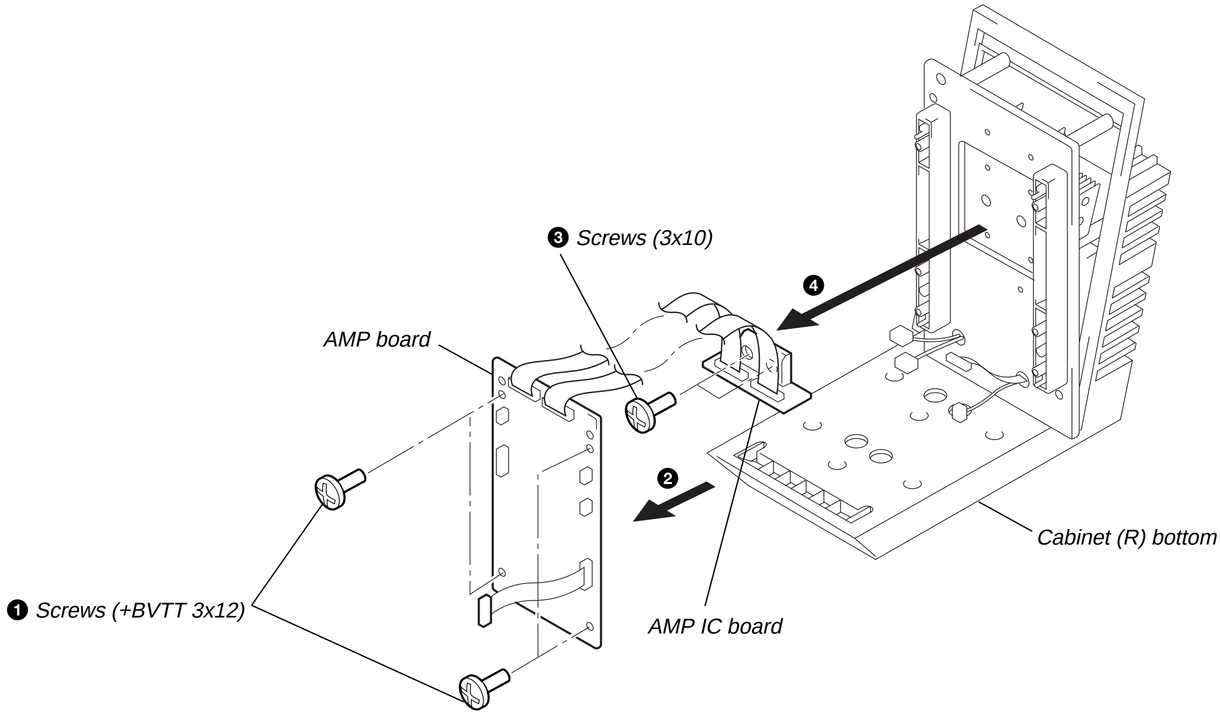
3-16. SPEAKER (R-CH) (SP101)



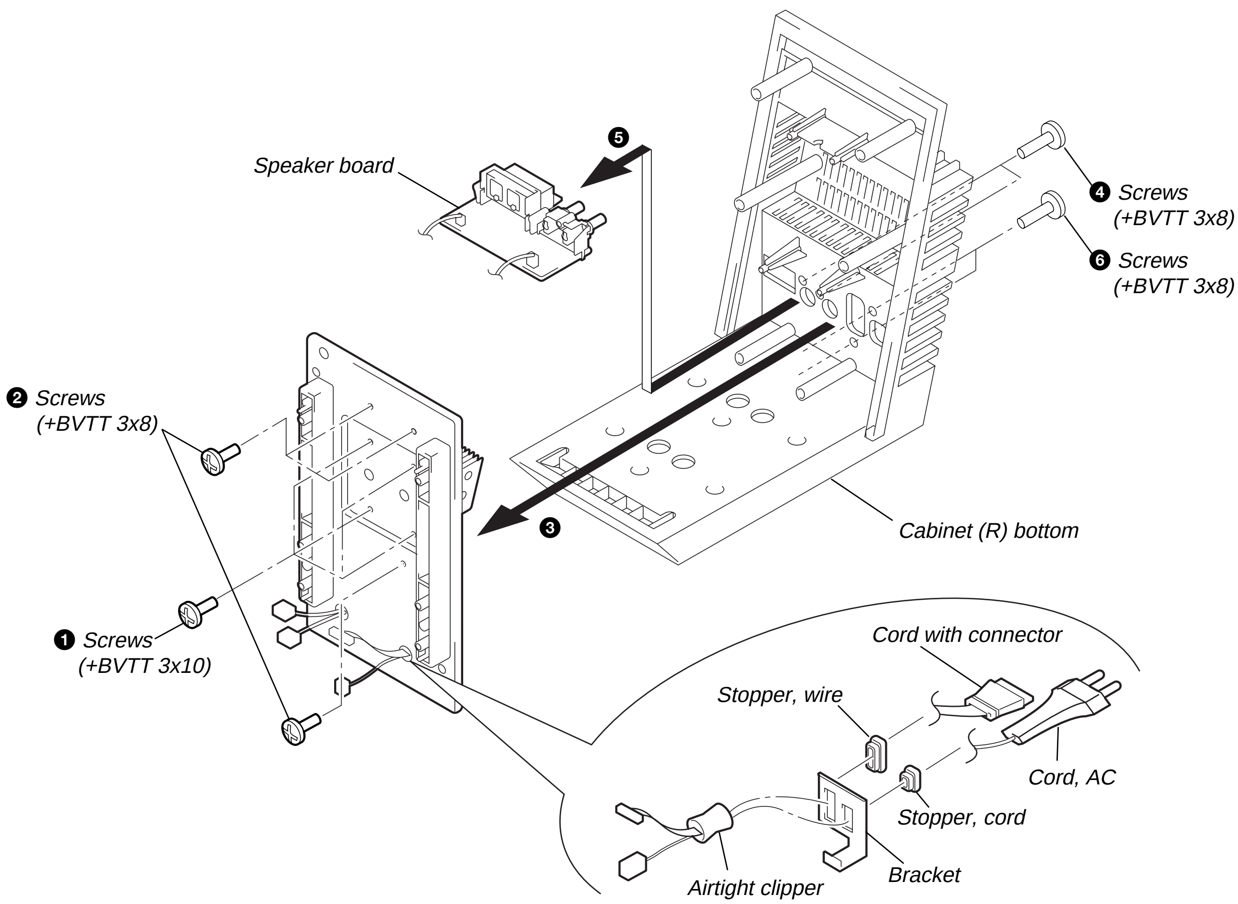
3-17. POWER BOARD



3-18. AMP BOARD, AMP IC BOARD

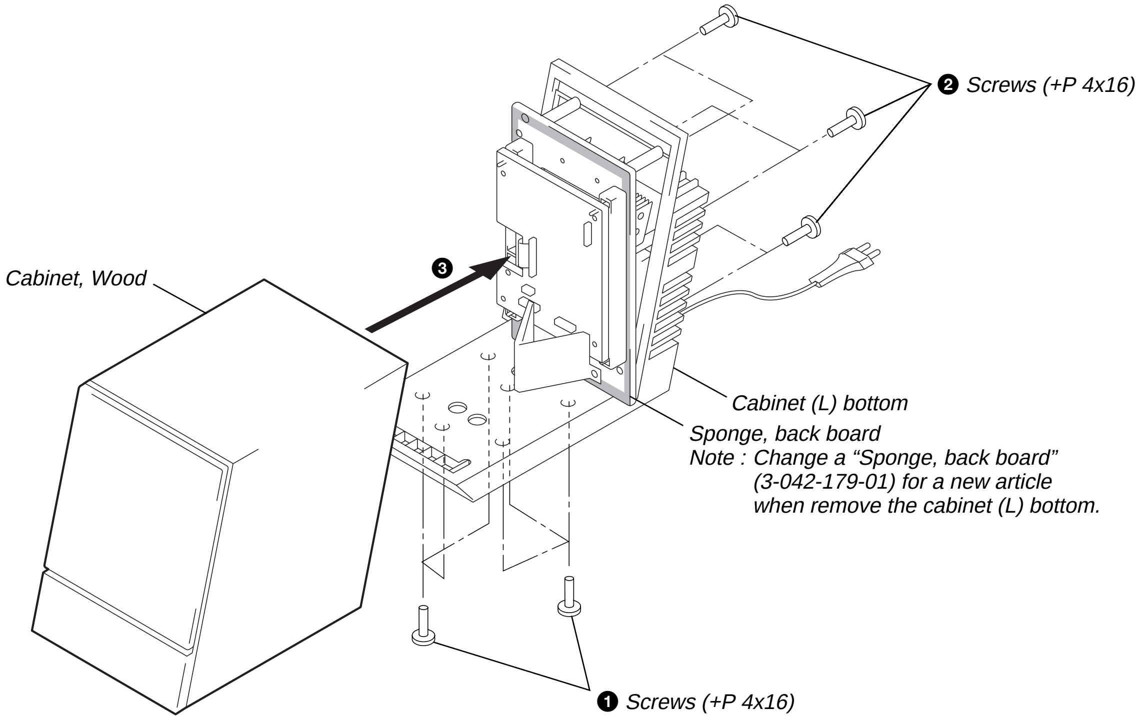


3-19. SPEAKER BOARD

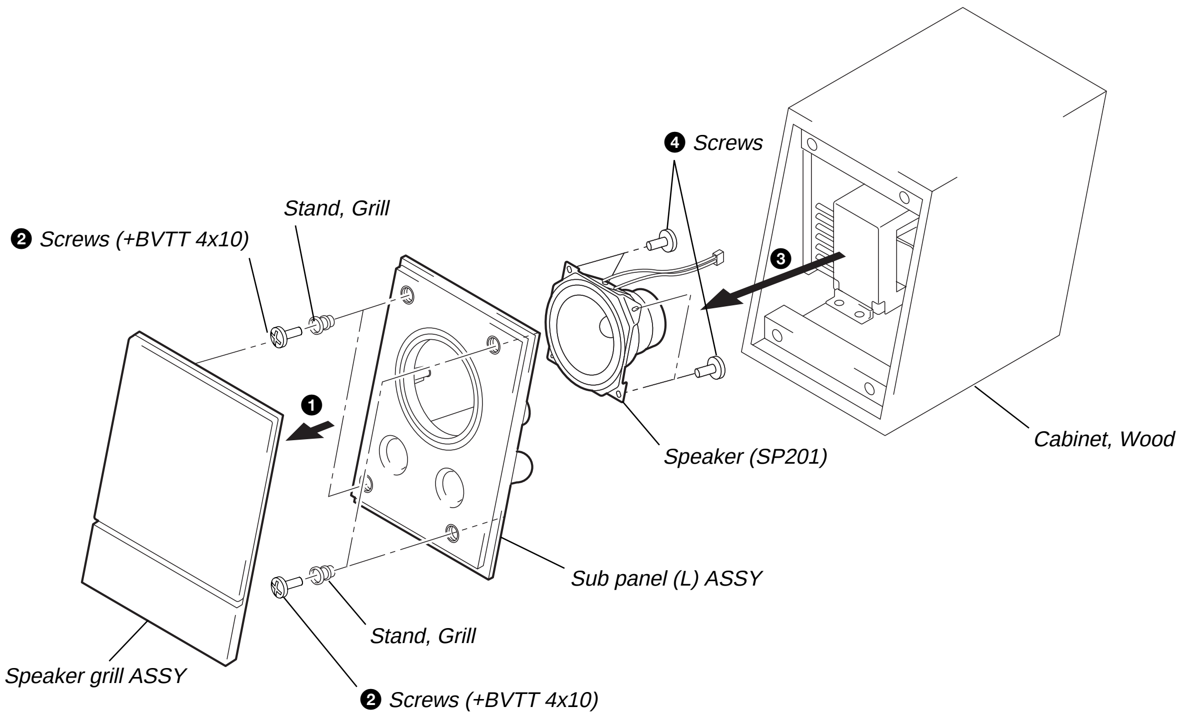


< SPEAKER UNIT (L-CH) > (DR70L)

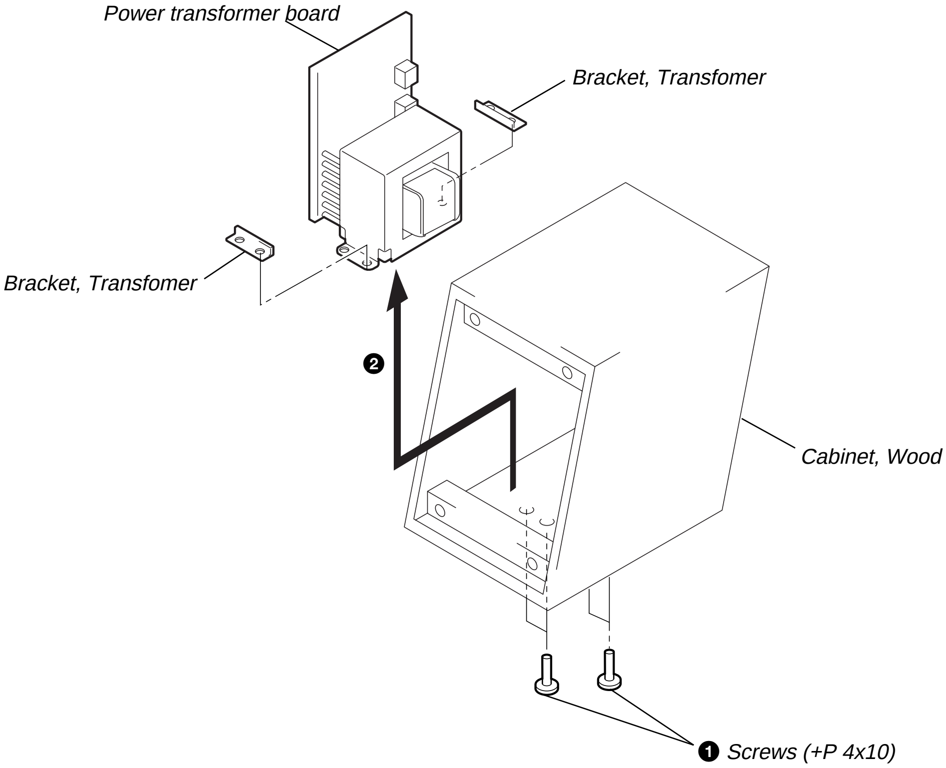
3-20. "CABINET, WOOD", "CABINET (L) BOTTOM"



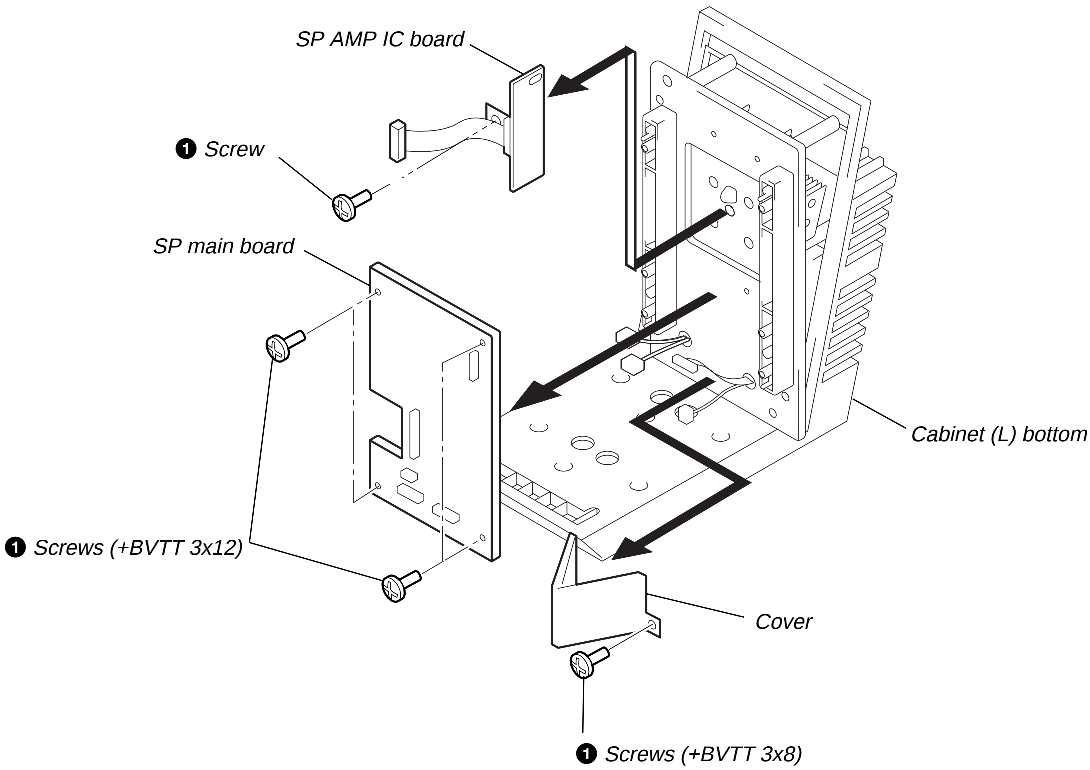
3-21. SPEAKER (L-CH) (SP201)



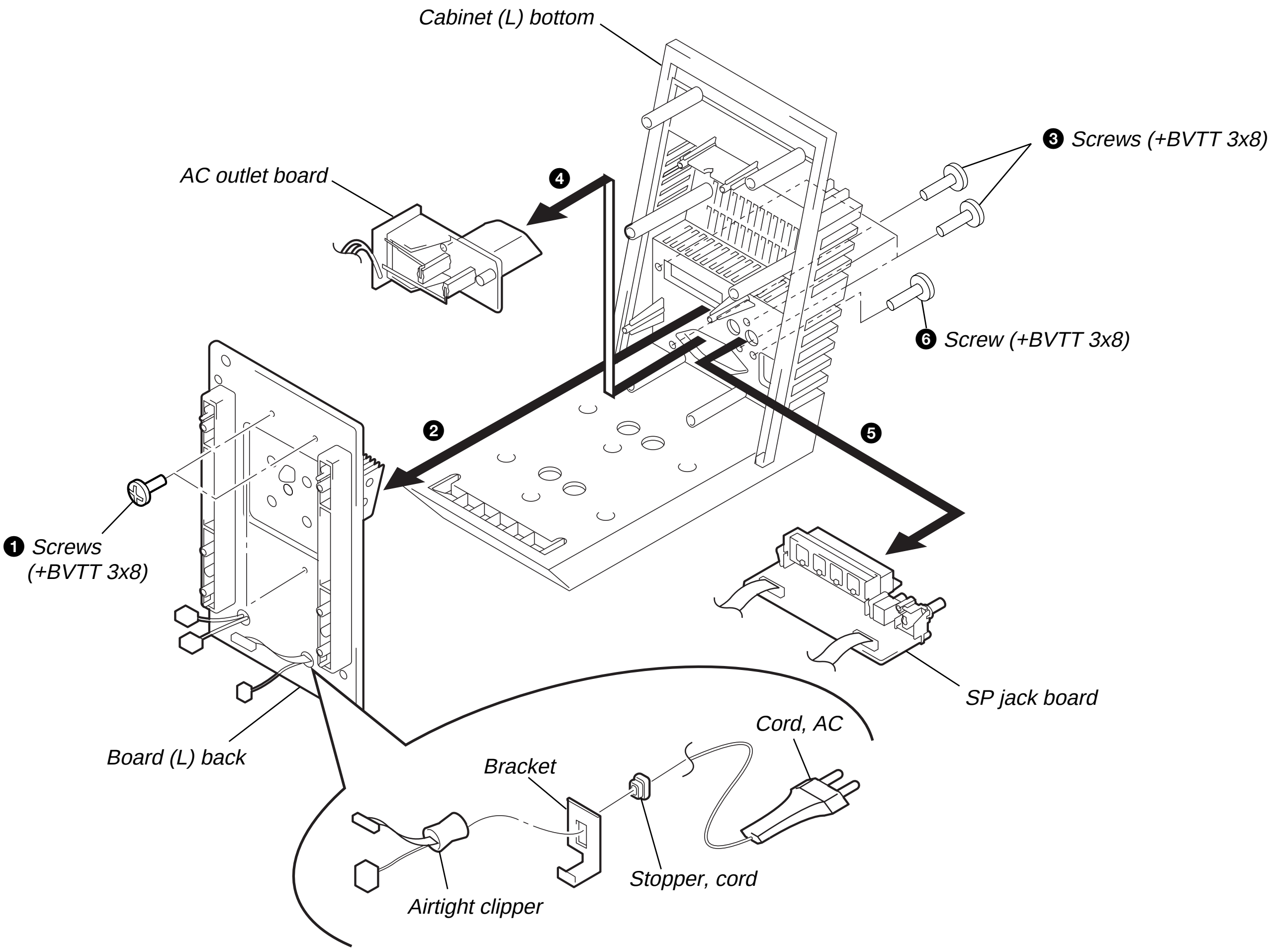
3-22. POWER TRANSFOMER BOARD



3-23. SP MAIN BOARD, SP AMP IC BOARD

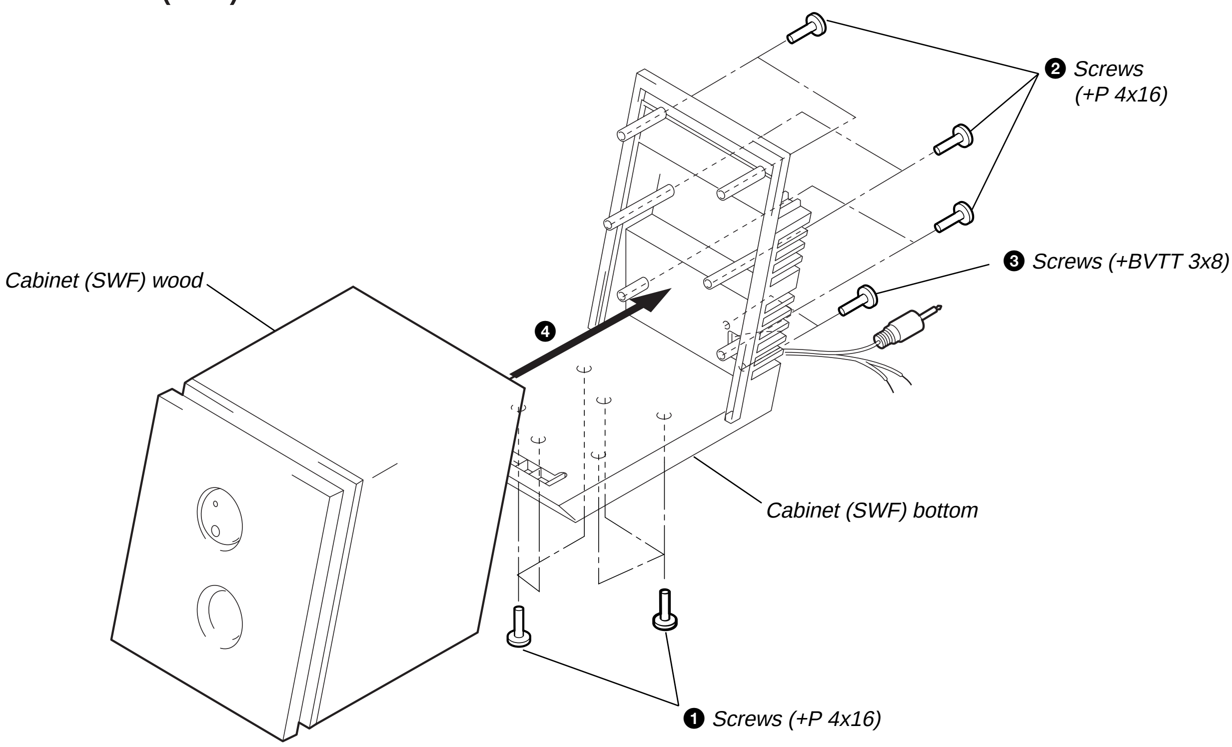


3-24. AC OUTLET BOARD, SP JACK BOARD

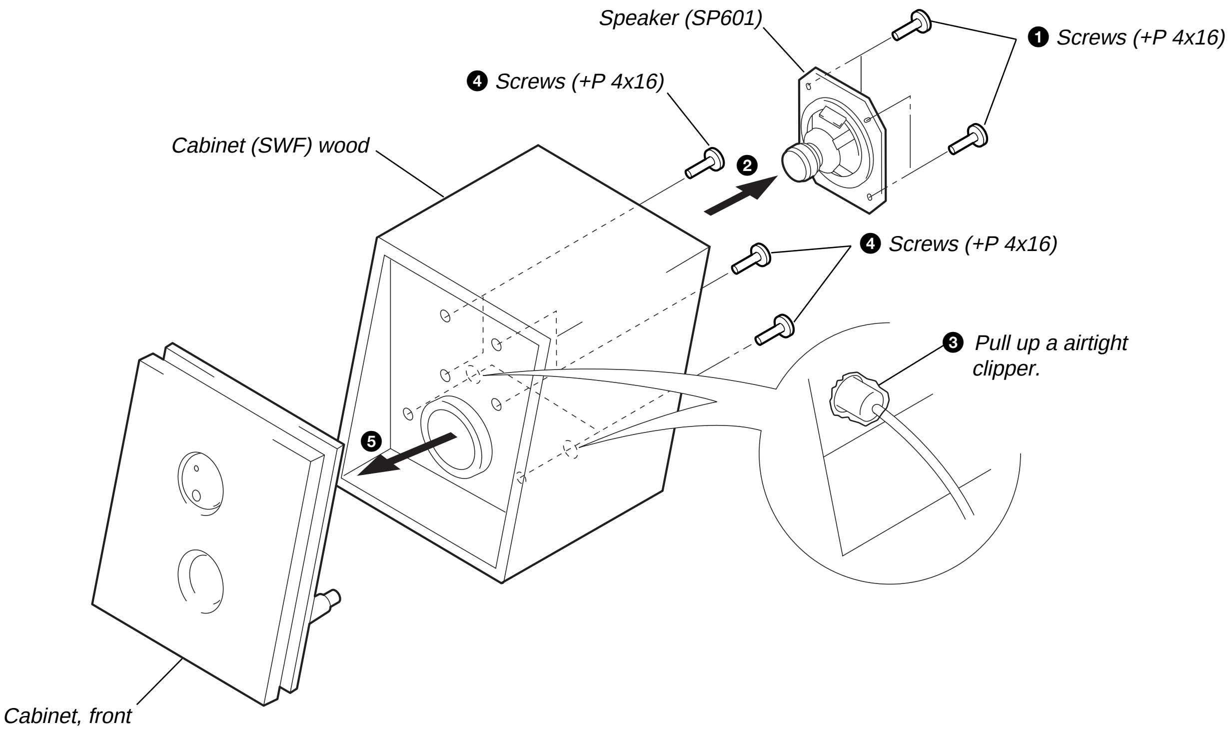


< SUPER WOOFER UNIT > (DR70L)

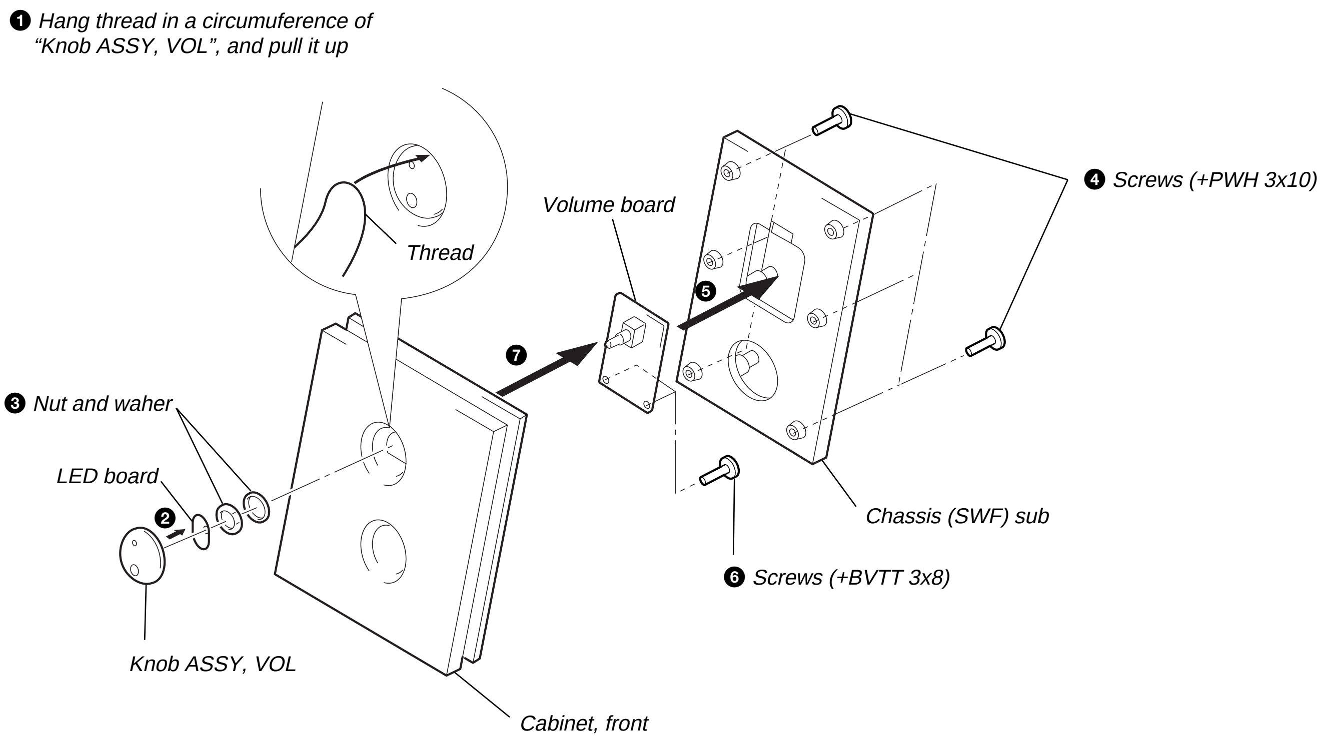
3-25. CABINET (SWF) BOTTOM



3-26. SPEAKER (SP601), "CABINET, FRONT"



3-27. LED BOARD, VOLUME BOARD



SECTION 4
ADJUSTMENTS

4-1. MECHANICAL ADJUSTMENTS

TAPE RECORDER SECTION

PRECAUTION

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

   record/playback/erase head pinch roller
   rubber belts capstan

2. Demagnetize the record/playback head with a head demagnetizer.
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.

Torque Measurement

Torque	Torque Meter	Meter Reading
Forward	CQ-102C	36 to 61 g • cm (0.5 to 0.84 oz • inch)
Forward Back Tension	CQ-102C	2 to 6 g • cm (0.028 to 0.083 oz • inch)
Reverse	CQ-102RC	36 to 61 g • cm (0.5 to 0.84 oz • inch)
Reverse Back Tension	CQ-102RC	2 to 6 g • cm (0.028 to 0.083 oz • inch)
FF/REW	CQ-201B	61 to 143 g • cm (0.85 to 1.98 oz • inch)

Tape Tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 100g (more than 3.53 oz)
REV	CQ-403A	more than 100g (more than 3.53 oz)

4-2. ELECTRICAL ADJUSTMENTS

TAPE RECORDER SECTION 0dB = 0.775V

1. The adjustnemts should be performed in the order in the service manual. (As a general rule playback circuit adjustment should be completed beforeming recording circuit adjustment.)
2. The adjustments should be performed for bothe L-CH and R-CH unless otherwise indicated.

Standard Intput Level

Input terminal	LINE IN
source impedance	10kΩ
input signal level	0.5V (–3.8dB)

Standard Output Level

Output terminal	LINE OUT
load impedance	47kΩ
output signal level	0.5V (–3.8dB)

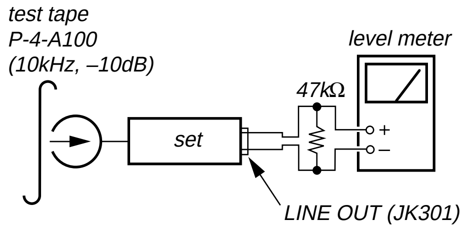
Test Tape

Type	Signal	Used for
P-4-A100	10kHz, –10dB	Azimuth Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

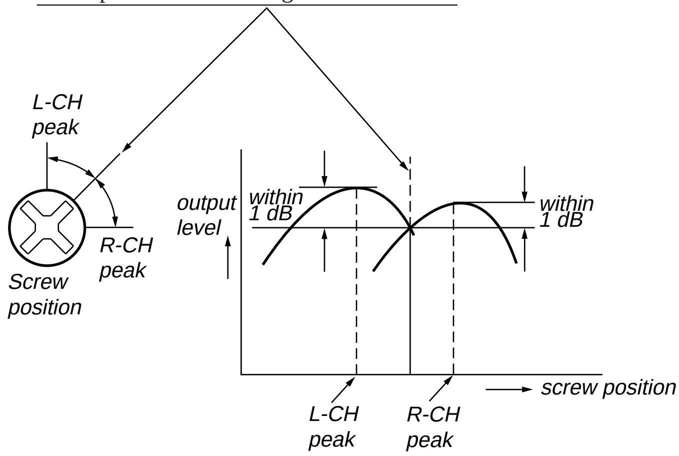
Record/Playback/Erase Head Azimuth Adjustment

Procedure :

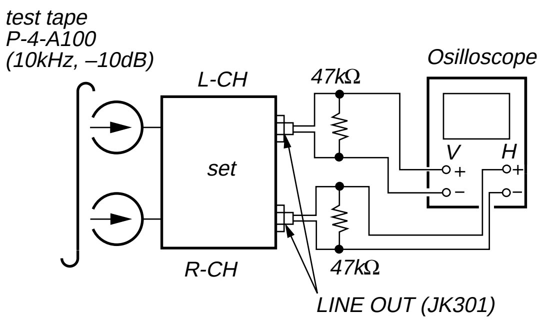
1. Mode : FWD playback

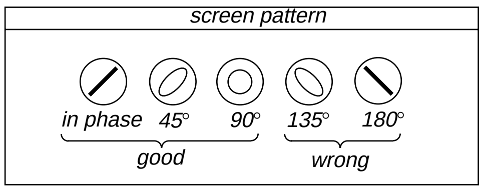


2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw <u>until both of output levels match together within 1dB</u>.



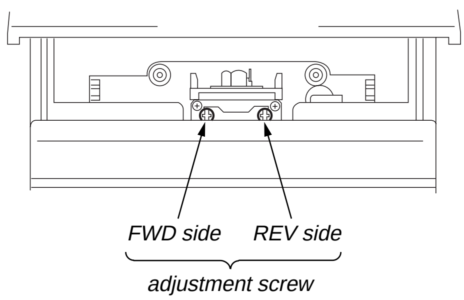
3. Phase Check
   Mode : FWD playback





4. Change the reverse playback mode and repeat the step 1 to 3.
5. After the adjustment, lock the adjustment screw with suitable locking compound.

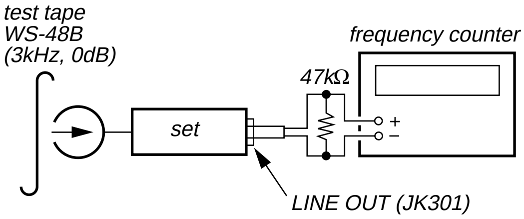
Adjustment Location : – record/playback/erase head –



Tape Speed Adjustment

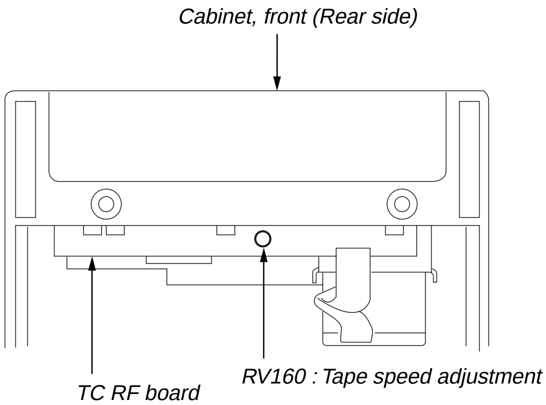
Procedure :

– FWD Playback Mode –



1. Set to FWD playback mode.
2. Adjust RV160 so that the frequency counter reading becomes 3,000Hz.
   Standard value : 2,970 to 3,030Hz
3. Set to REV playback mode.
   Confirm the frequency should be within the standard value.
4. Confirm the frequency difference between beginning and the end of tape should be within 1.5% (45Hz).

Adjustment Location : TC RF board

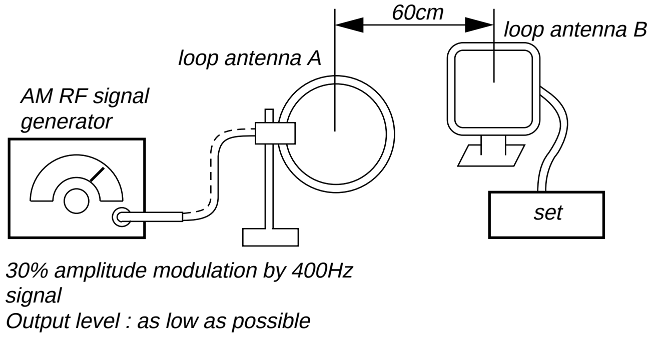


TUNER SECTION

0dB=1μV

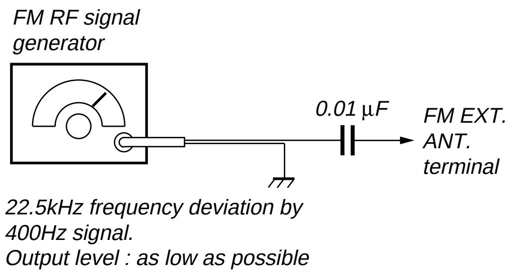
AM Section

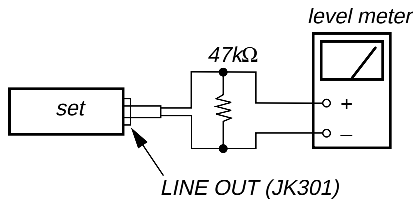
BAND button : MW or LW
Volume : MIN



FM Section

BAND button : FM
Volume : MIN





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

MW/LW IF ADJUSTMENT	
Adjust for a maximum reading on level meter.	
T2	450kHz

MW FREQUENCY COVERAGE ADJUSTMENT		
Adjust part	Frequency display	reading on digital voltmeter.
L5	531kHz	Adjustment value :1.4V Standard value : 1.2 – 1.6V
CT4	1,611kHz	Adjustment value :7.5V Standard value : 7.1 – 8.0V

MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L4	621kHz
CT102	1,404kHz

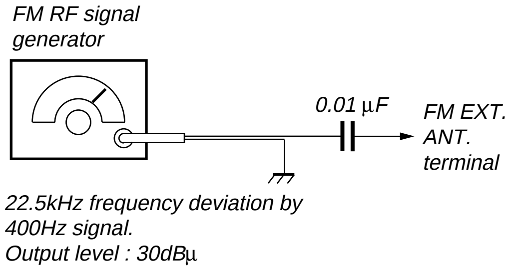
LW FREQUENCY COVERAGE ADJUSTMENT		
Adjust part	Frequency display	reading on digital voltmeter
L10	153kHz	Adjustment value :1.4V Standard value : 1.2 – 1.6V
CT5	297kHz	Adjustment value :5.5V Standard value : 5.4 – 5.6V

LW TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L7	162kHz
CT3	261kHz

FM FREQUENCY COVERAGE CONFIRMATION		
Adjust part	Frequency display	reading on digital voltmeter
Confirmation	87.5MHz	1.2 – 1.8V
Confirmation	108MHz	7.7 – 7.9V

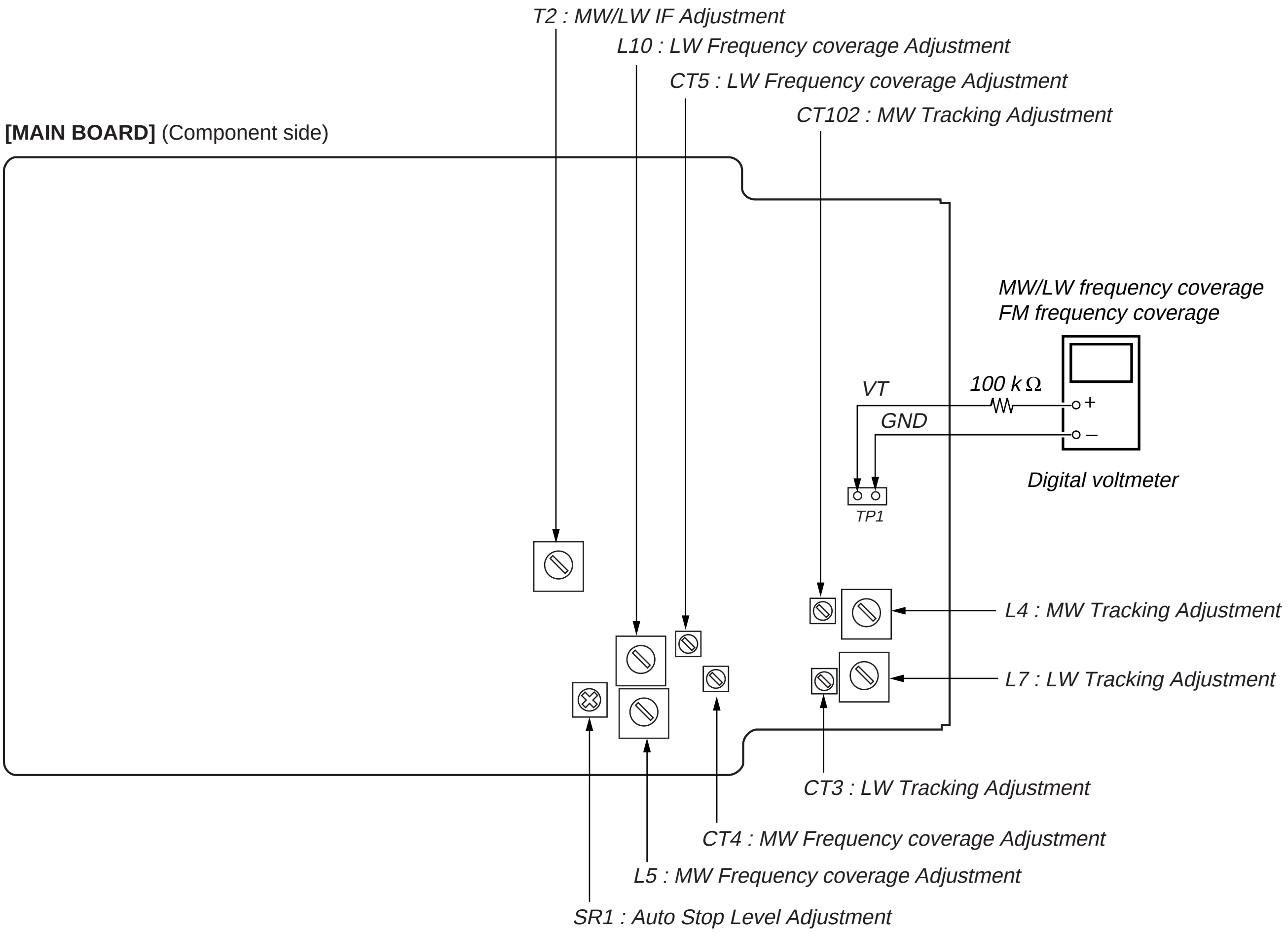
Auto Stop Level Adjustment

BAND button : FM
Volume : MIN



1. Set the frequency of FM SSG to 98MHz.
2. Press the TUNE button of the unit to start the AUTO TUNING.
3. Adjustment the SR1 to stop the auto tuning at 30dBµ SSG output.

Connect and Adjustment Location :



SECTION 5
DIAGRAMS

5-1. EXPLANATION OF IC TERMINALS

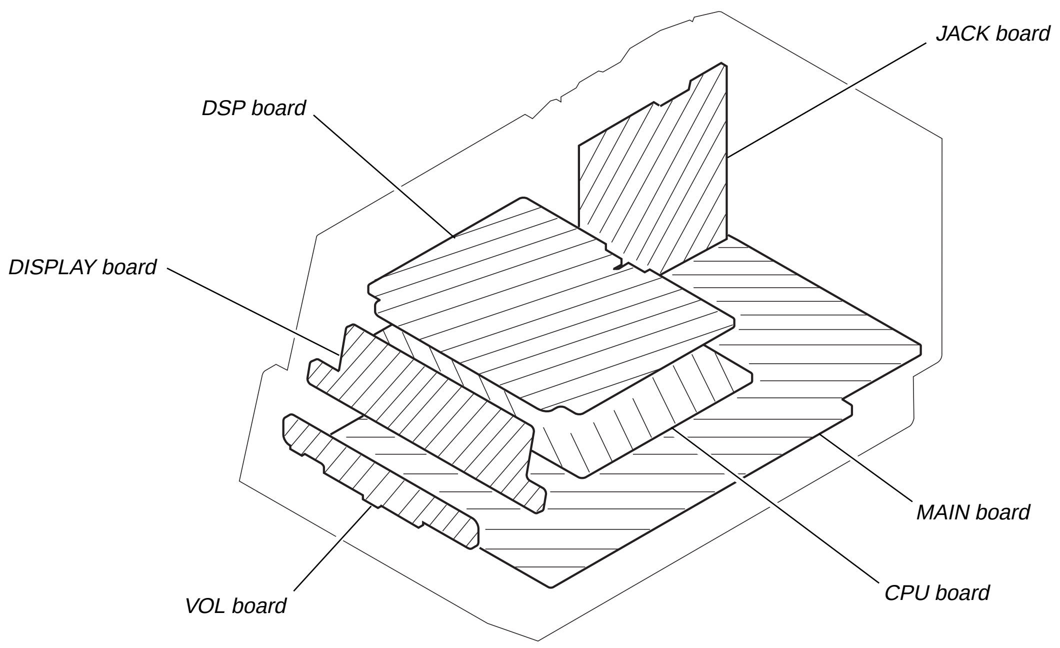
IC801 CXP82832-023Q (SYSTEM CONTROL, FL DRIVE)

Pin No.	Pin name	I/O	Description
1	G02	O	FL grid drive output.
2	G01	O	FL grid drive output.
3	NC	–	Not used (OPEN).
4	CD SCOR	I	CD SCOR input.
5	T-COUNT	I	Tape rotation detect input.
6	P.DOWN IN (BACK UP)	I	Power ON detect input.
7	TAPE AMS IN	I	AMS signal input.
8	REMOTE IN	I	Remote control signal input.
9	FM STEREO IN	I	FM STEREO signal input.
10	RADIO SHFT CLK	O	Clock shift signal output.
11	LC72131 CE	O	Radio PLL IC chip enable output.
12	LC72131 CLK	O	Radio PLL IC clock output.
13	LC72131 DATA IN	I	Radio PLL IC data input.
14	LC72131 DATA OUT	O	Radio PLL IC data output.
15	CXD2589Q XRST	O	CD system reset output.
16	CXD2589Q XLAT	O	CD DSP IC command latch output.
17	CXD2589Q CLOCK	O	Clock output for CD DSP IC.
18	CXD2589Q DATA	O	CD DSP IC command data output.
19	CD OPEN SW IN	I	CD tray open switch input.
20	CD CLOSE SW IN	I	CD tray close switch input.
21	CXD2589Q SENS1	I	CD SENS input.
22	BU1924F RCLK IN	I	Radio RDS IC clock input.
23	BU1924F RADIO DATA IN	I	Radio RDS IC data input.
24	BU1924F QUARTY IN	I	Radio RDS IC quarity input.
25	CXD2589 SQCK	O	Clock output for CD SUB-Q.
26	CXD2589 SQSO	I	CD SUB-Q input.
27	CXD2589 SENS2	I	CD SENS input.
28	AVREF	I	Reference voltage input (for A/D converter).
29-33	KEY1-5	I	Key return signal input.
34	TAPE STATUS	I	Tape detection input.
35	TAPE MECHA MODE SW	I	FWD/REV detection input.
36	VER	I	Destination setting terminal (fixed at “H”).
37	AVSS	–	Ground.
38	RESET	I	System reset input.
39	EXTAL	O	System clock output (8MHz).
40	XTAL1	I	System clock input (8MHz).
41	VSS	–	Ground.
42	XTAL 32.768kHz	I	Real clock input (32.768kHz).
43	XTAL 32.768kHz	O	Real clock output (32.768kHz).
44	VDD	–	Power supply terminal.
45	VFDP	–	FL power supply terminal.
46	IN I	I	Initial setting input.
47	CD OPEN OUT	O	CD tray open signal output.
48	CD CLOSE OUT	O	CD tray close signal output.
49	P03	–	Not used (OPEN).
50	P04	–	Not used (OPEN).

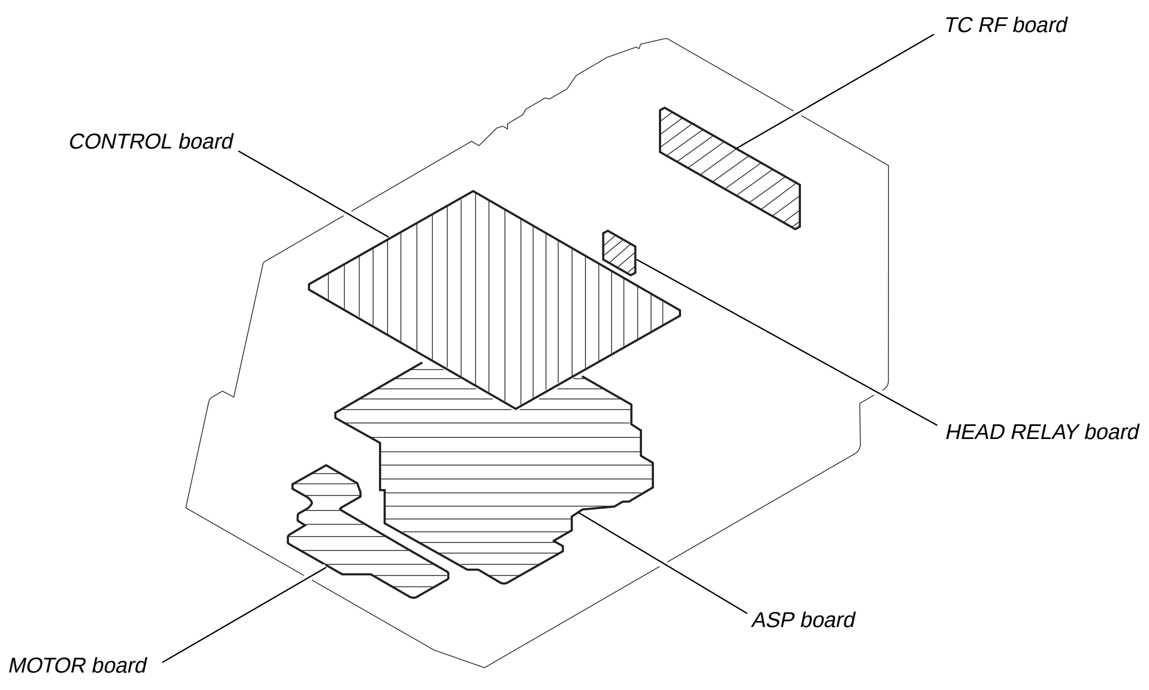
Pin No.	Pin name	I/O	Description
51	SYS MUTE	O	Mute signal output.
52	TUNER MUTE	O	Tuner mute signal output.
53	CD MUTE	O	CD mute signal output.
54	LINE MUTE	O	Line mute signal output.
55	TAPE REC MUTE	O	Tape mute signal output.
56	TAPE REC	O	Tape REC output.
57	TAPE BIAS	O	Tape REC bias select output.
58	TAPE SOL	O	Plunger control output.
59	TAPE MECHA VCC OUT	O	Tape mechanism B+ ON/OFF output.
60	ISS 1	O	ISS 1 ON/OFF output.
61	ISS 2	O	ISS 2 ON/OFF output.
62	MEGA BASS	O	Mega bass ON/OFF output.
63	POWER CONT OUT	O	Power ON/OFF output.
64	SUMMER LED	–	Not used. (OPEN)
65	SOUND LED	O	SOUND LED ON/OFF output.
66	RDS LED	O	RDS LED ON/OFF output.
67	BH3854 CK	O	Clock output for electrical volume IC.
68	BH3854 DATA	O	Data output for electrical volume IC.
69	BH3854 LACH	O	LACH output for electrical volume IC.
70	RESERVE	–	Not used (OPEN).
71-88	SEG 1-18	O	FL segment drive output.
89	VDD	–	Power supply terminal.
90-100	G03-13	O	FL grid drive output.

● **Circuit Boards Location.**

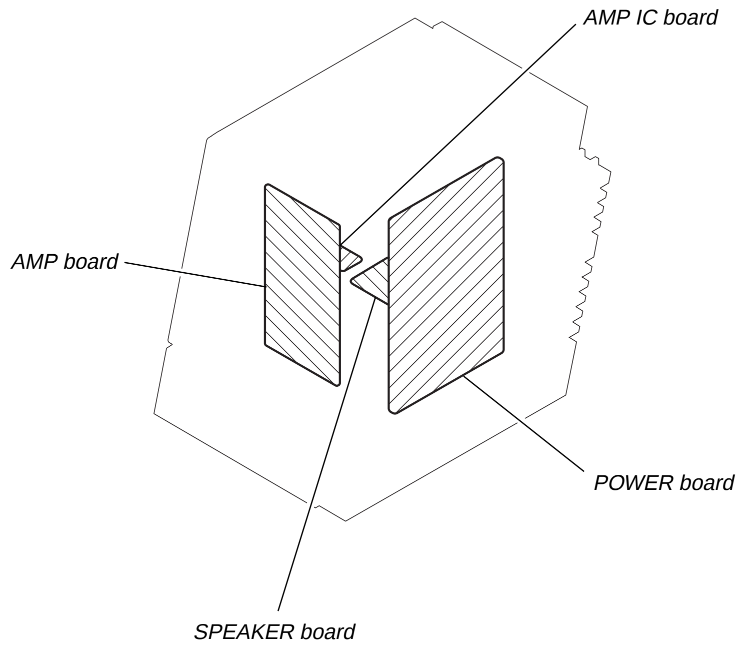
MAIN UNIT-1



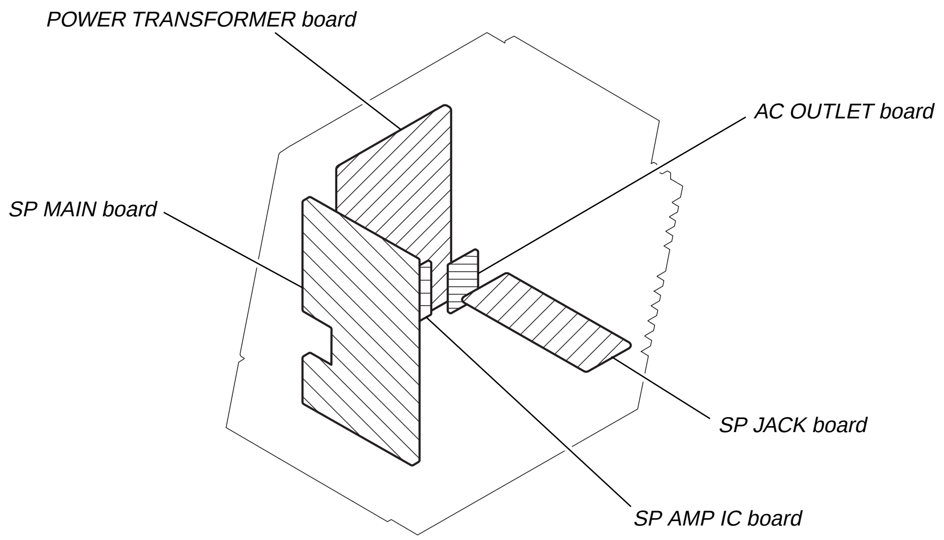
MAIN UNIT-2



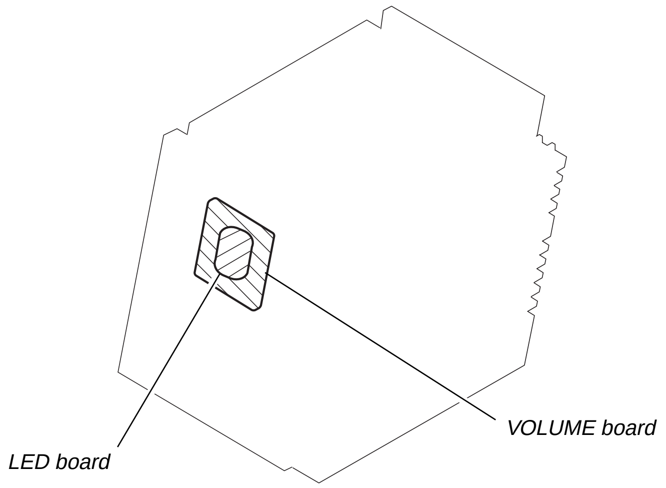
R-CH SPEAKER UNIT



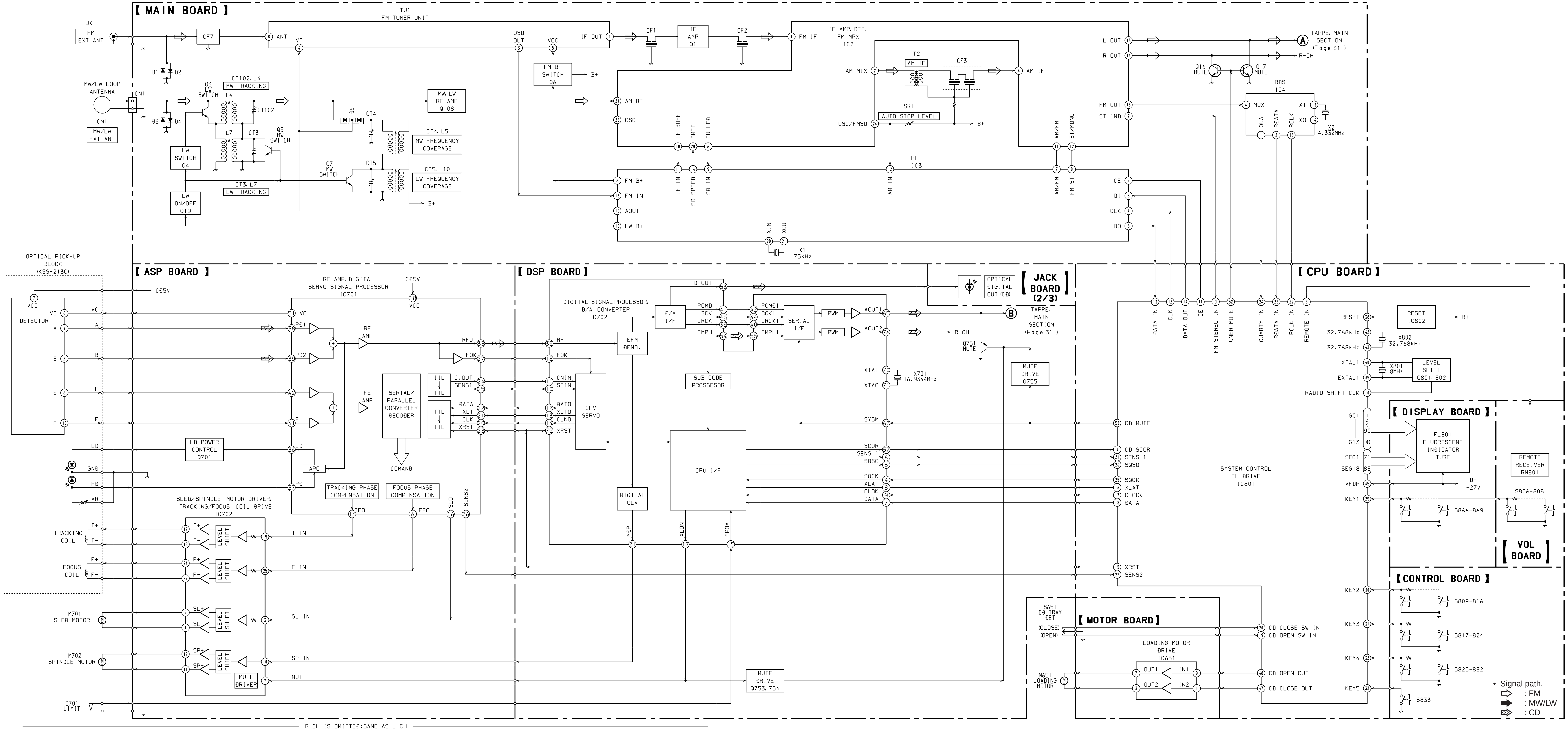
L-CH SPEAKER UNIT (DR70L only)



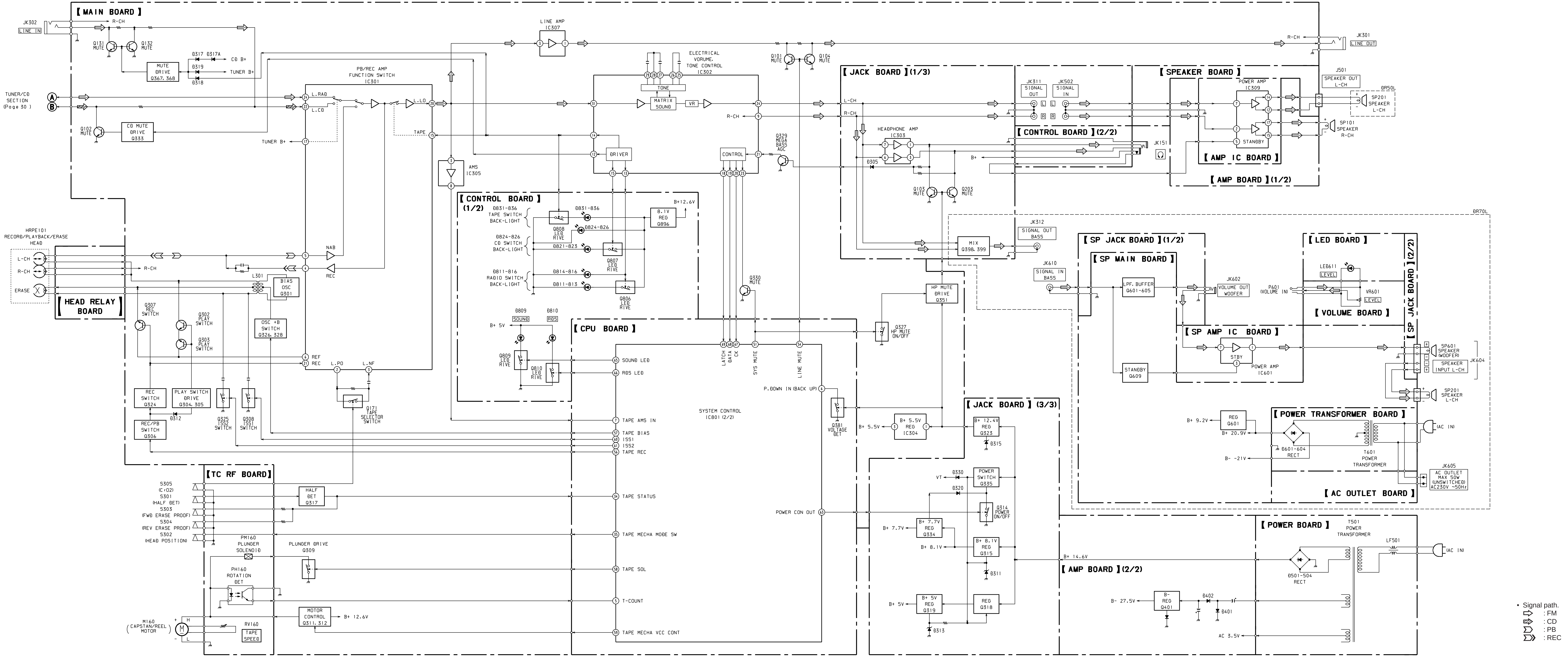
WOOFER UNIT (DR70L only)



5-2. BLOCK DIAGRAMS – CD, TUNER SECTION –



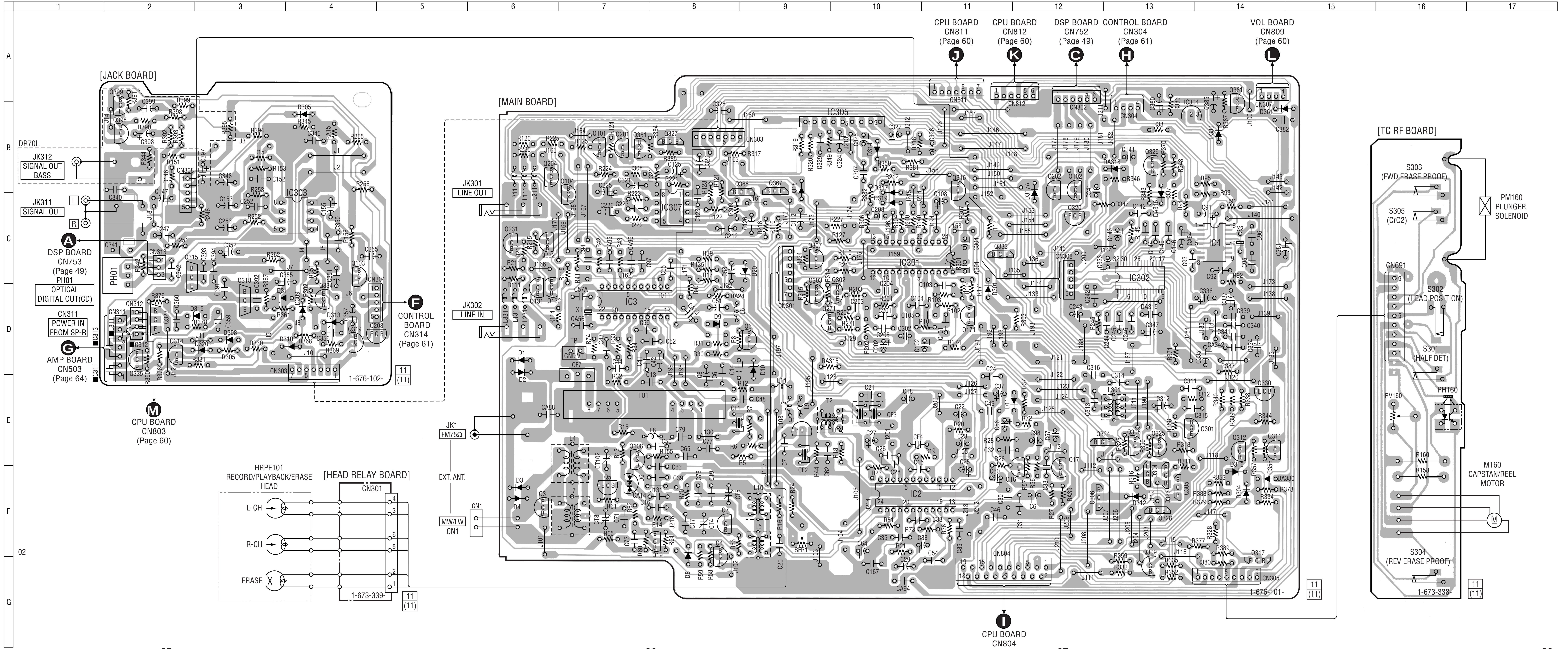
02



MAIN BOARD
HEAD RELAY BOARD
TC RF BOARD
CONTROL BOARD (1/2)
CPU BOARD
JACK BOARD (1/3)
CONTROL BOARD (2/2)
SPEAKER BOARD
AMP IC BOARD
AMP BOARD (1/2)
SP JACK BOARD (1/2)
SP MAIN BOARD
LED BOARD
SP JACK BOARD (2/2)
VOLUME BOARD
SP AMP IC BOARD
POWER TRANSFORMER BOARD
AC OUTLET BOARD
JACK BOARD (3/3)
POWER BOARD
AMP BOARD (2/2)
JK302 LINE IN
JK301 LINE OUT
TUNER/CD SECTION (Page 30)
HRPE101 RECORD/PLAYBACK/ERASE HEAD
LINE AMP IC307
PB/REC AMP FUNCTION SWITCH IC301
ELECTRICAL VORUME, TONE CONTROL IC302
SYSTEM CONTROL IC801 (2/2)
HEADPHONE AMP IC303
POWER AMP IC309
POWER AMP IC601
M160 (CAPSTAN/REEL) MOTOR
PM160 PLUNGER SOLENOID
PH160 ROTATION DET
DR50L
DR70L
Signal path.
: FM
: CD
: PB
: REC

5-4. PRINTED WIRING BOARDS – MAIN SECTION –

• Refer to page 25 for Circuit Boards Location.

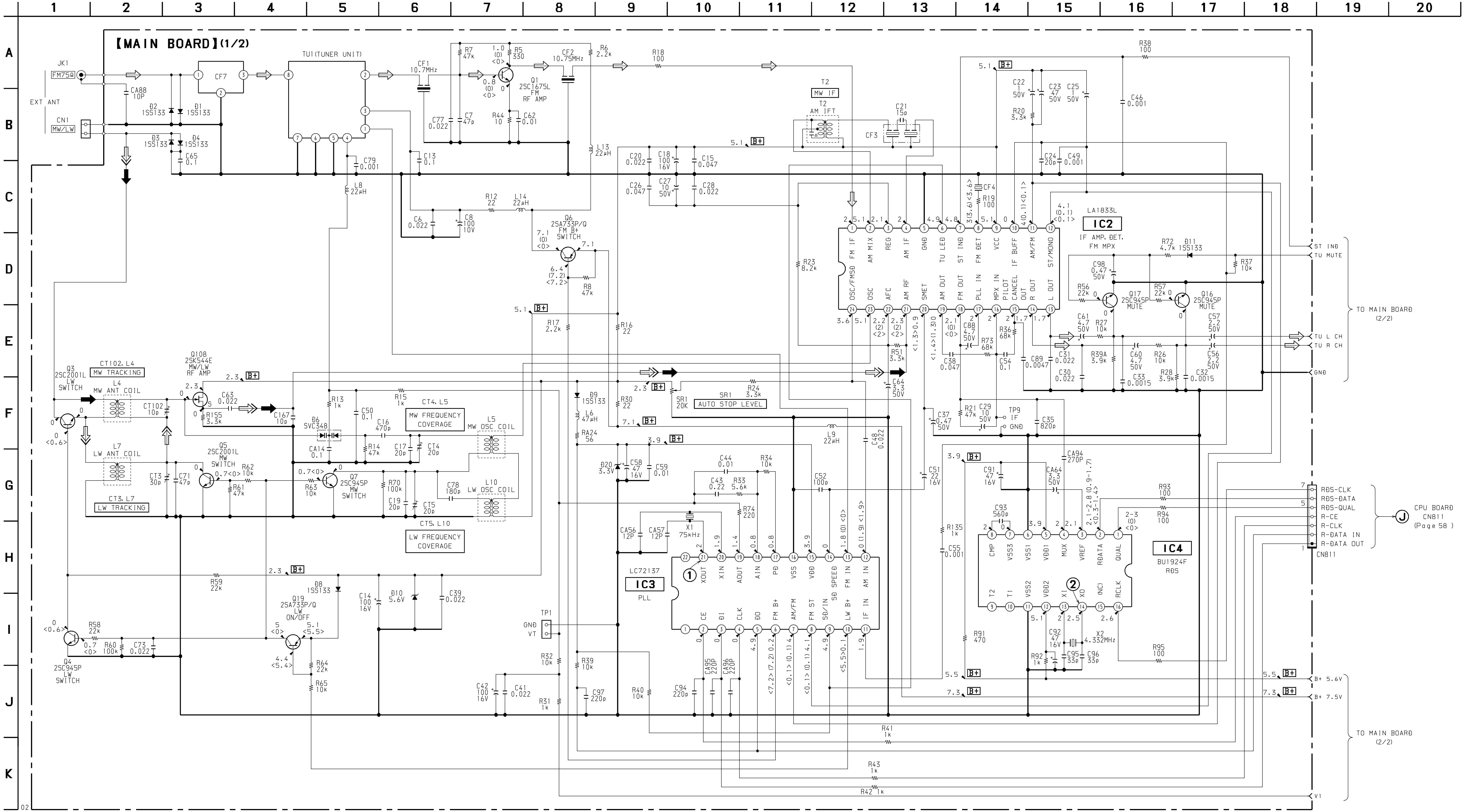


- **Semiconductor Location**

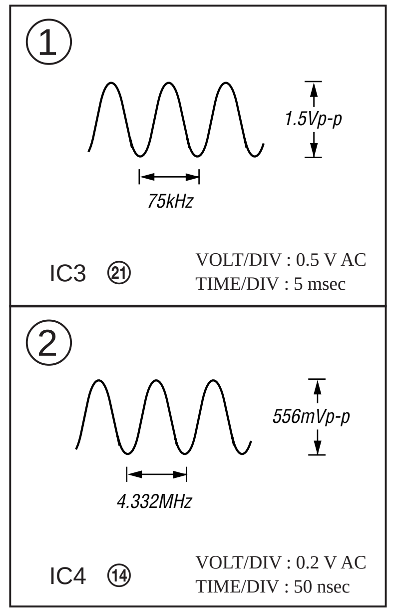
Ref. No.	Location	Ref. No.	Location
D1	D-6	Q102	B-12
D2	D-6	Q103	C-4
D3	F-6	Q104	B-7
D4	F-6	Q108	E-7
D6	F-7	Q131	D-6
D8	G-8	Q132	D-6
D9	D-8	Q171	D-11
D10	D-9	Q201	B-7
D11	E-12	Q202	B-12
D20	C-9	Q203	D-4
D301	D-11	Q204	B-6
D304	F-14	Q231	C-6
D305	B-4	Q232	C-6
D308	D-3	Q271	D-9
D309	D-4	Q301	E-13
D310	D-4	Q302	D-10
D311	D-3	Q303	D-9
D312	F-13	Q304	F-13
D313	D-4	Q305	F-13
D314	B-10	Q306	F-12
D315	D-3	Q307	C-9
D316	F-14	Q308	E-13
D317	B-10	Q309	G-13
D318	B-9	Q311	E-14
D319	C-10	Q312	E-14
D320	D-3	Q314	D-2
D361	B-14	Q315	C-2
D380	B-14	Q316	B-11
DA10	D-8	Q317	G-14
DA315		Q318	D-3
DA316	C-13	Q319	D-4
DA317	B-12	Q320	C-12
DA318	B-13	Q323	D-2
DA380	F-14	Q324	E-12
		Q325	E-13
IC2	F-10	Q326	F-13
IC3	D-7	Q327	B-8
IC4	C-14	Q328	F-13
IC301	C-10	Q329	B-13
IC302	C-13	Q330	E-14
IC303	C-4	Q333	C-11
IC304	B-13	Q334	D-4
IC305	B-10	Q335	D-2
IC307	C-8	Q351	B-7
		Q367	B-9
PH01	C-2	Q368	B-9
PH160	E-16	Q381	A-14
		Q398	B-2
		Q399	B-2
Q1	E-9		
Q3	F-6		
Q4	F-8		
Q5	F-7		
Q6	D-9		
Q7	F-8		
Q16	F-12		
Q17	E-12		
Q19	F-8		
Q101	B-7		

Note:
- o——— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- △ : internal component.
- ░░░ : Pattern from the side which enables seeing.

5-5. SCHEMATIC DIAGRAM – MAIN SECTION (1/3) – • Refer to page 74 for IC Block Diagram.



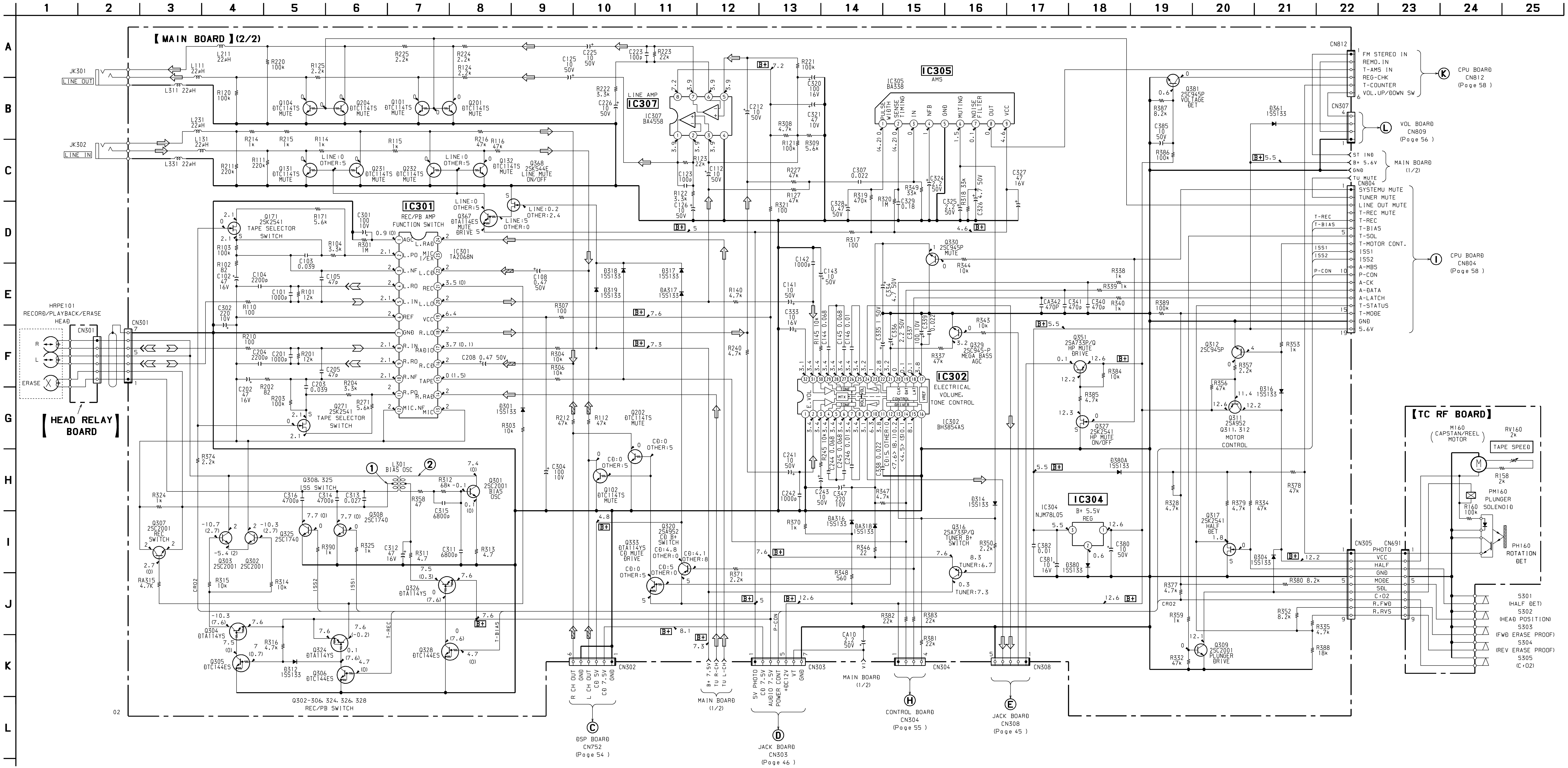
• Waveforms – MAIN SECTION (1/3) –



Note:

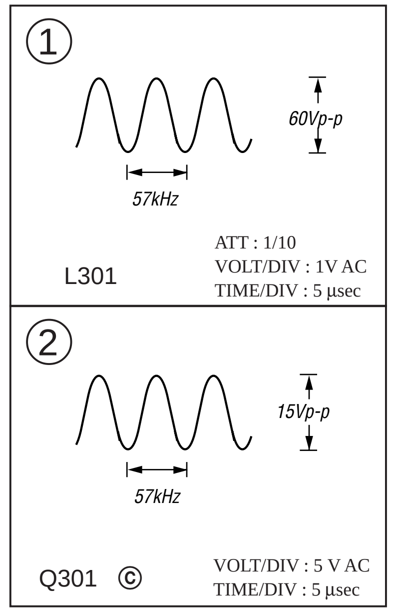
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- B+ : B+ Line.
- ☐ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : MW
  < > : LW
- 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.
  ⇨ : FM
  ➡ : MW
  ⇛ : LW

5-6. SCHEMATIC DIAGRAM – MAIN SECTION (2/3) – • Refer to page 74 for IC Block Diagrams. • Refer to page 45 for Waveforms. • Refer to page 45 for Notes.



5-7. SCHEMATIC DIAGRAM – MAIN SECTION (3/3) –

● Waveforms – MAIN SECTION (2/3) –



Note on Schematic Diagram – Main Section (2/3) – :

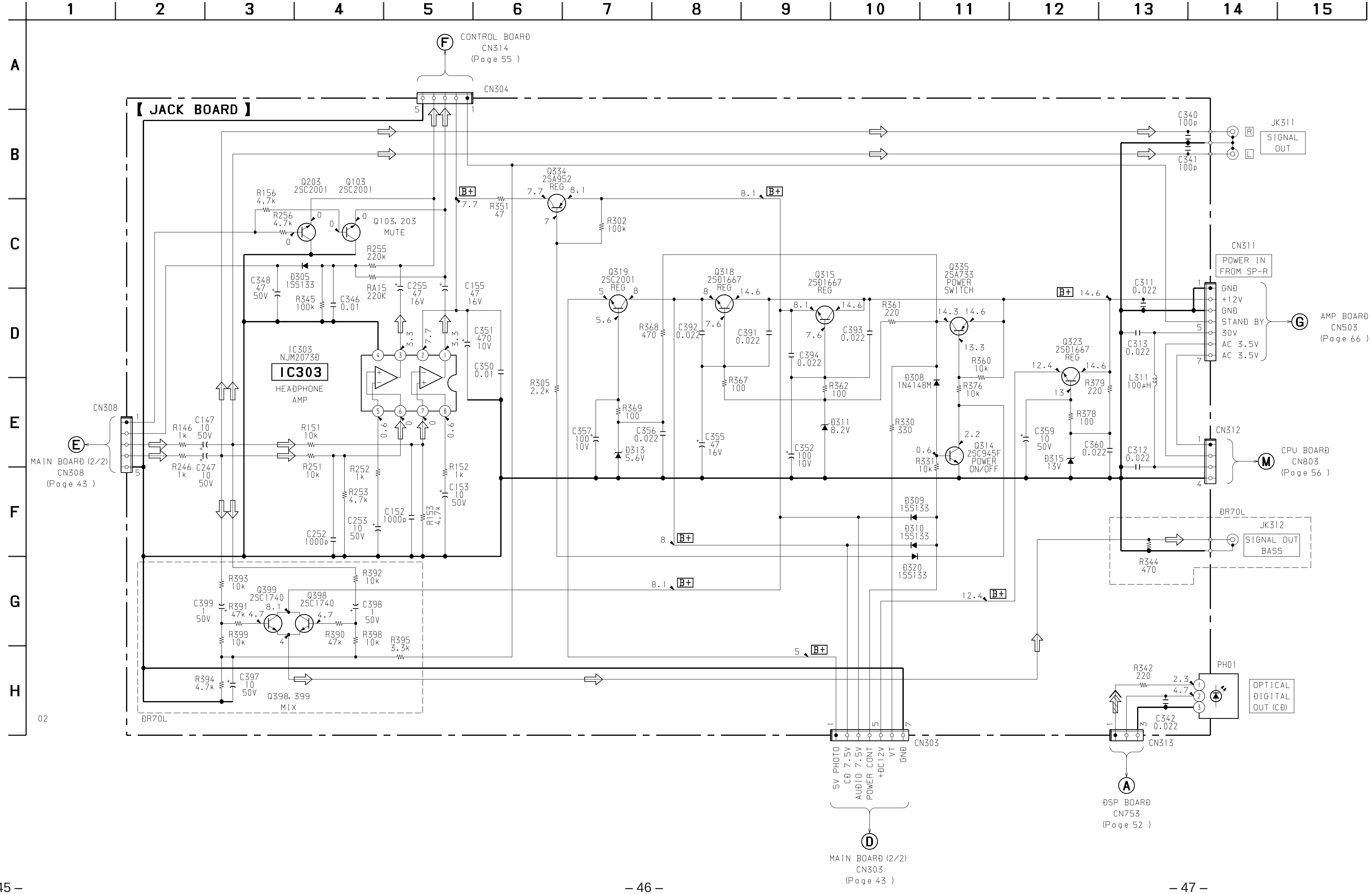
Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 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.
- B+ : B+ Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : COMMON (REC)
  ( ) : PLAY
- 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.
  : FM
  : PB
  : REC
  : CD

Note on Schematic Diagram – Main Section (3/3) – :

Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 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.
- B+ : B+ Line.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  : FM
  : digital out

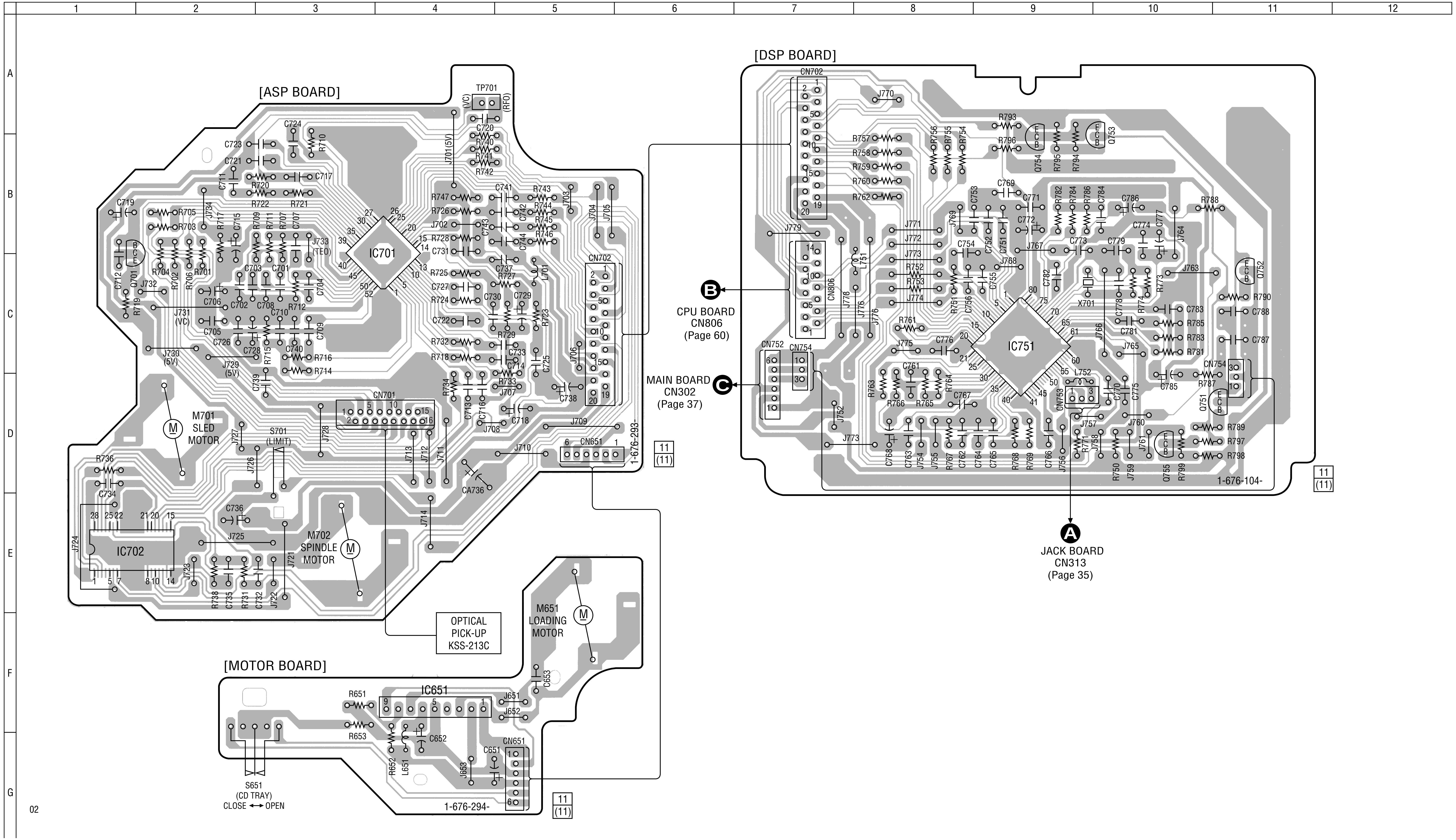


5-8. PRINTED WIRING BOARDS – CD SECTION –

• Refer to page 25 for Circuit Boards Location.

● Semiconductor Location

Ref. No.	Location
IC651	F-4
IC701	B-4
IC702	E-1
IC751	C-9
Q701	C-1
Q751	D-11
Q752	C-11
Q753	B-10
Q754	B-9
Q755	D-10

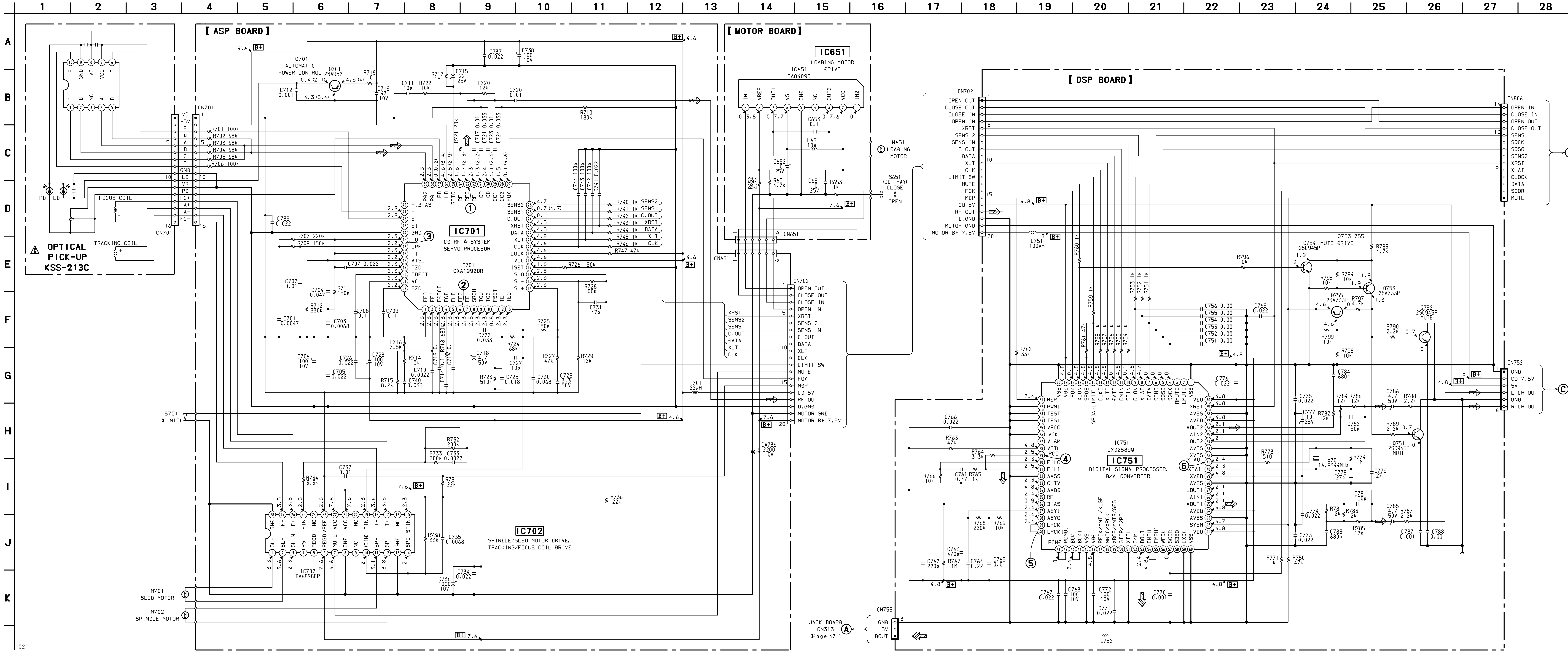


Note on Printed Wiring Boards:

Note:

- ○——— : parts extracted from the component side.
- ░░░ : Pattern from the side which enables seeing.

5-9. SCHEMATIC DIAGRAM – CD SECTION – • Refer to page 75 -76 for IC Block Diagrams. • Refer to page 55 for Waveforms.

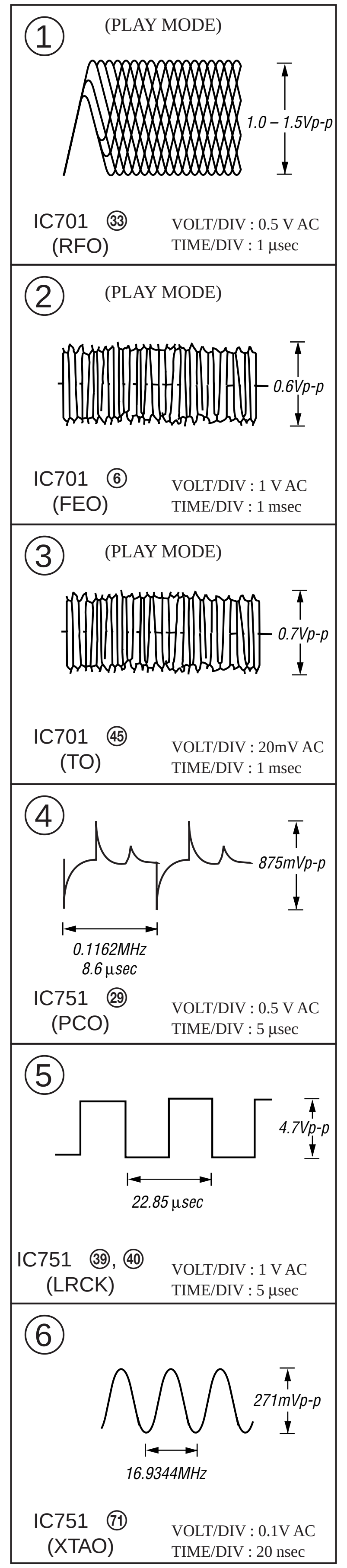


Note:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.

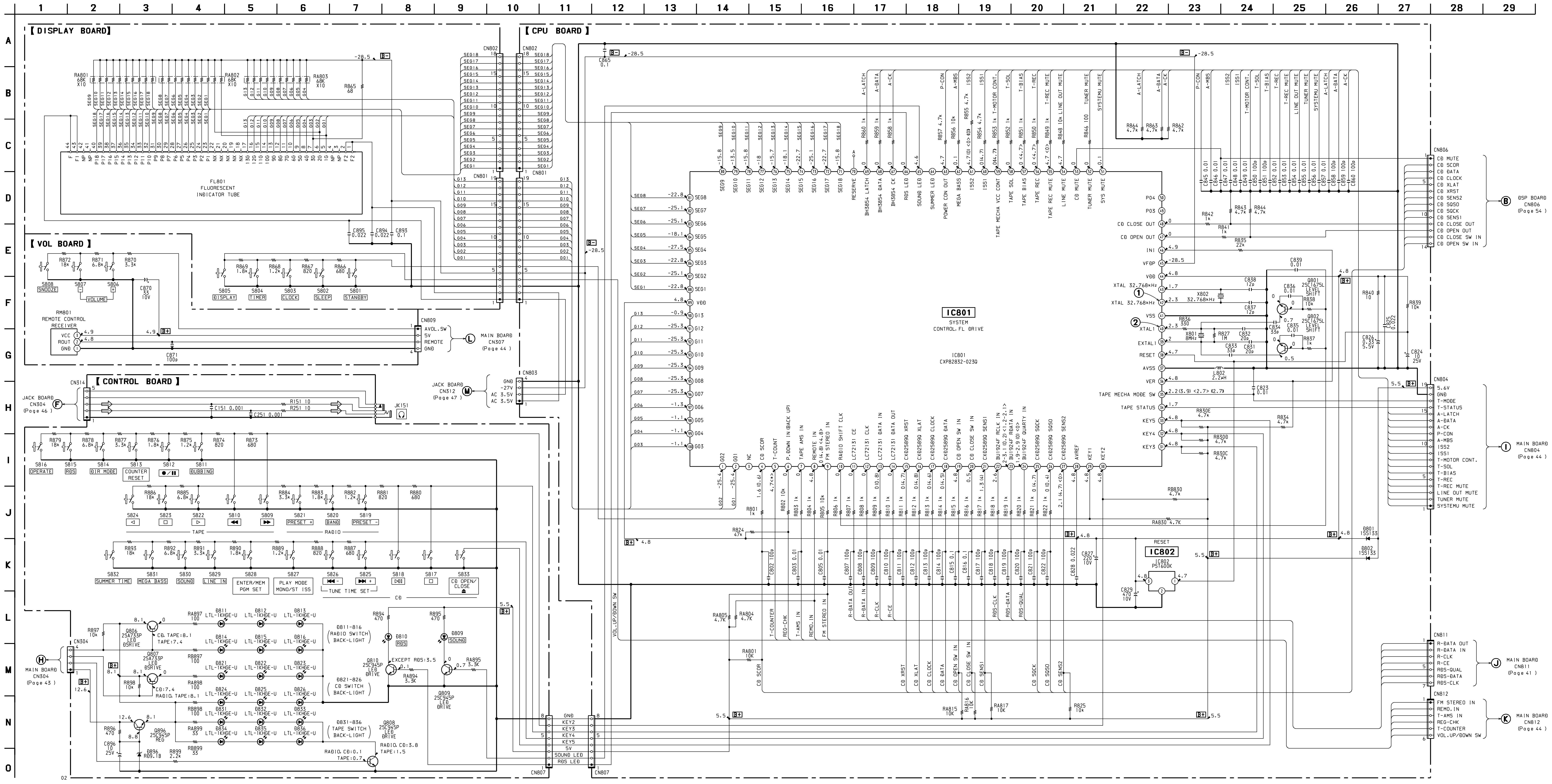
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- $\boxed{B+}$: B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : CD STOP
  ( ) : CD PLAY
- 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
  ⇨⇨ : digital out

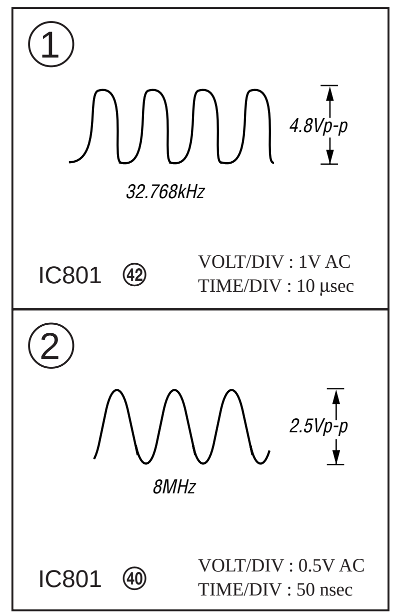
• Waveforms (CD SECTION)



5-10. SCHEMATIC DIAGRAM – CONTOROL SECTION –



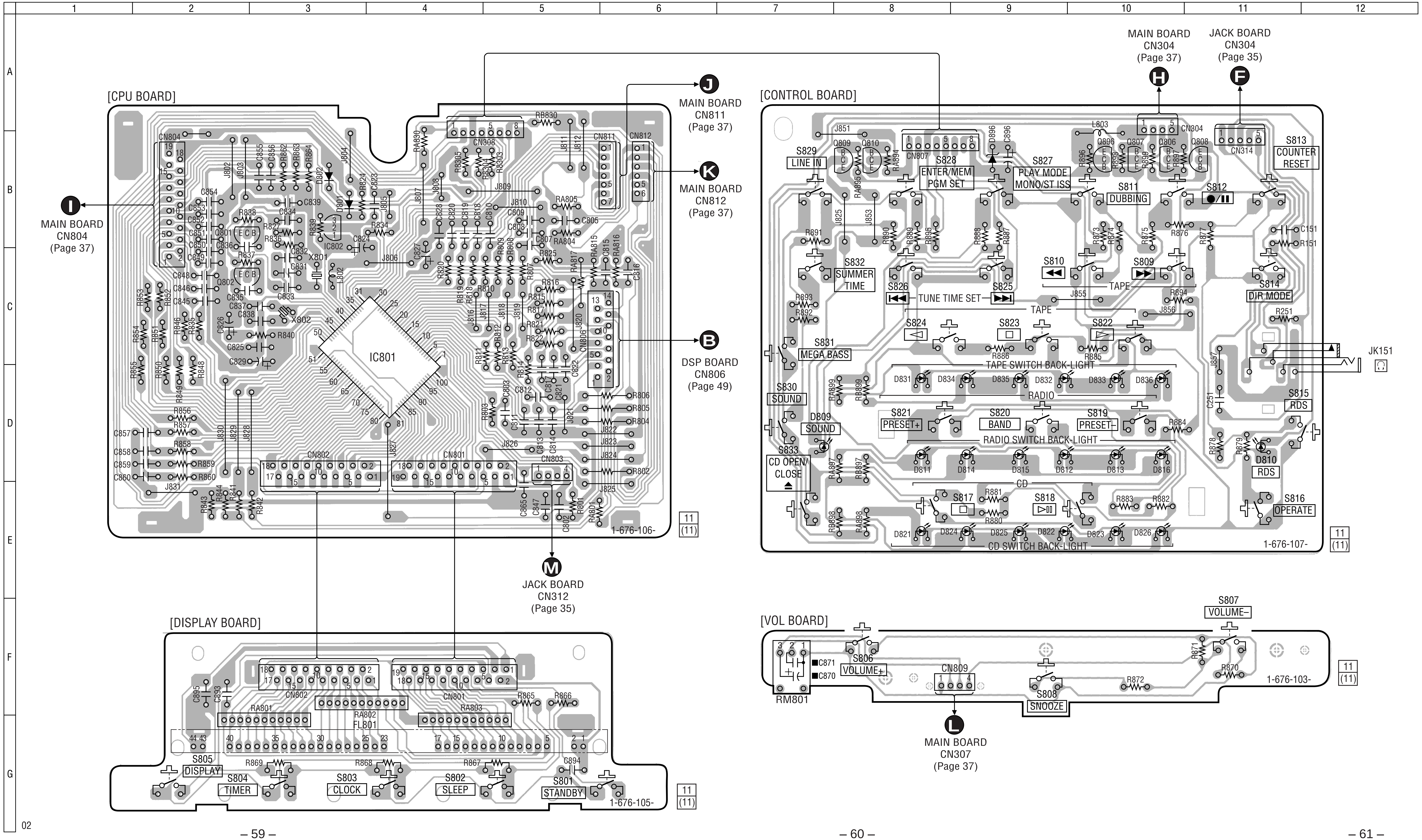
• Waveforms – CONTROL SECTION –



Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 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.
- B+ : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : RADIO (COMMON)
  ( ) : CD
  < > : REC
  [ ] : PLAY
- 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.

5-11. PRINTED WIRING BOARDS – CONTOROL SECTION – • Refer to page 25 for Circuit Boards Location.



• Semiconductor Location

Ref. No.	Location
D801	B-3
D802	B-3
D809	D-7
D810	D-11
D811	D-8
D812	D-9
D813	D-10
D814	D-9
D815	D-9
D816	D-10
D821	E-8
D822	E-9
D823	E-10
D824	E-9
D825	E-9
D826	E-10
D831	D-8
D832	D-9
D833	D-10
D834	D-9
D835	D-9
D836	D-10
D896	B-9
D936	
IC801	C-4
IC802	B-3
Q801	B-2
Q802	C-2
Q806	B-10
Q807	B-10
Q808	B-11
Q809	B-8
Q810	B-8
Q896	B-10

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

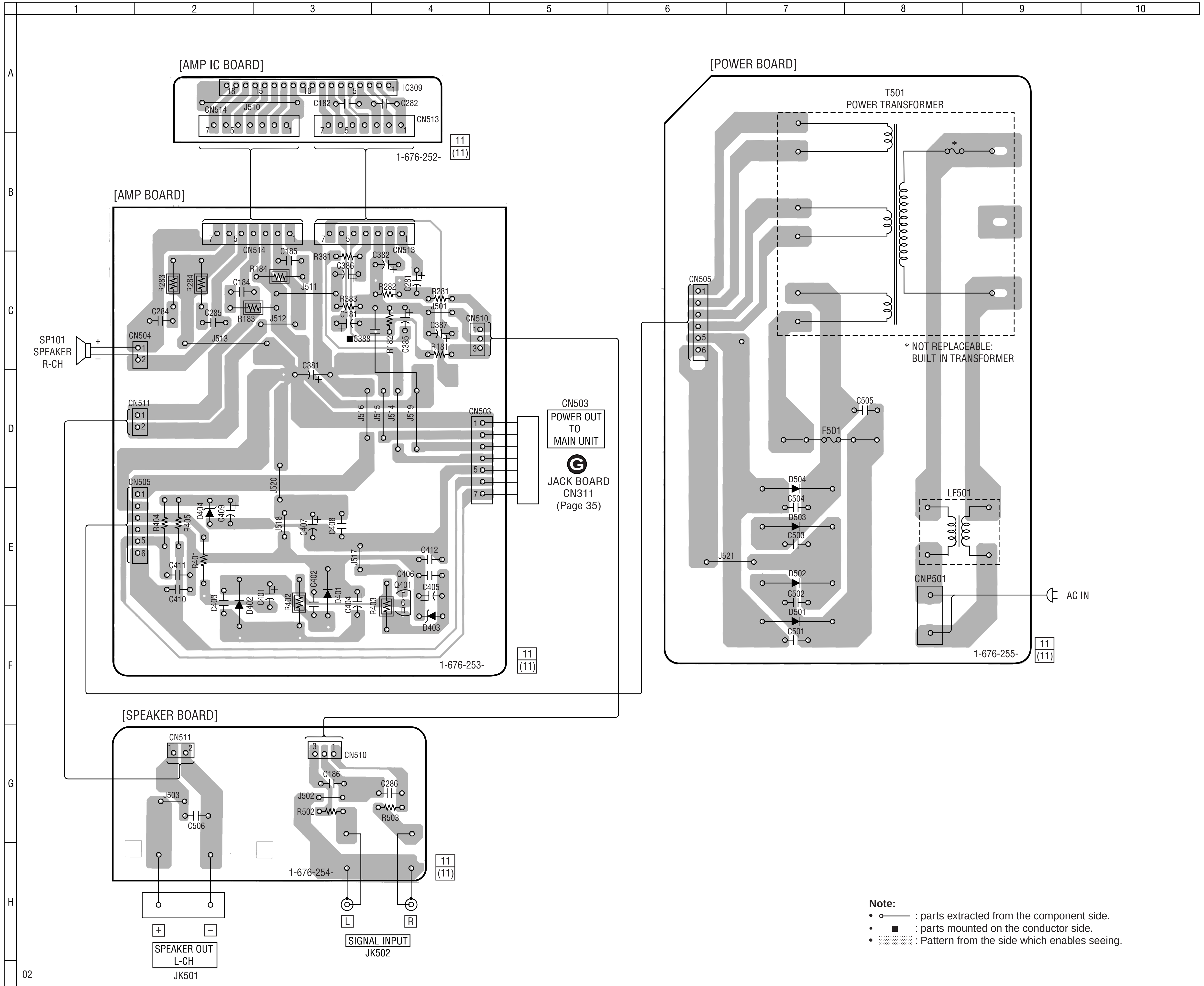
02

5-12. PRINTED WIRING BOARDS – AMP SECTION –

• Refer to page 26 for Circuit Boards Location.

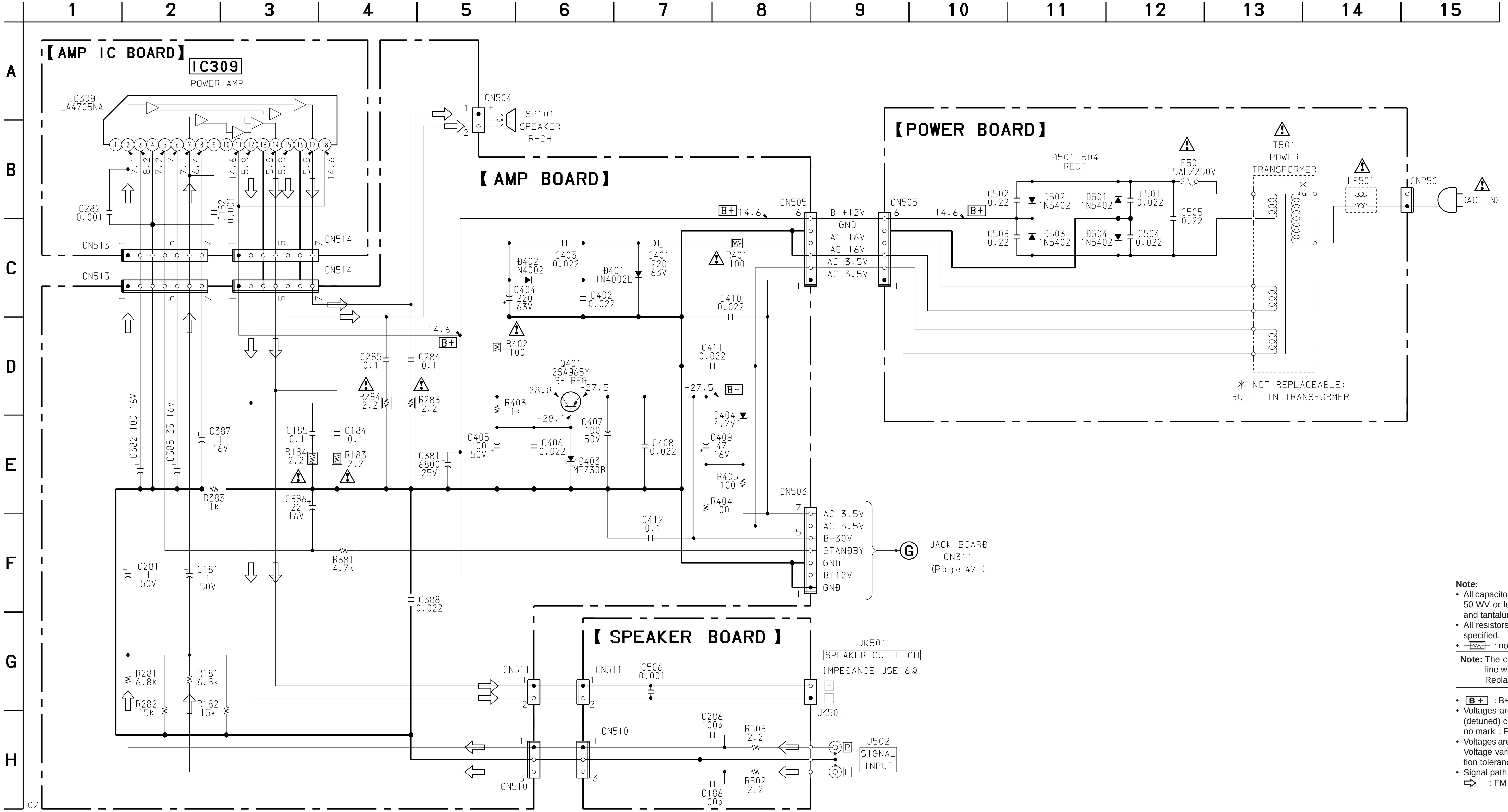
• **Semiconductor Location**

Ref. No.	Location
D401	E-3
D402	E-2
D403	F-4
D404	E-2
D501	F-7
D502	E-7
D503	E-7
D504	E-7
IC309	A-3
Q401	E-4



Note:
- : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- : Pattern from the side which enables seeing.

5-13. SCHEMATIC DIAGRAM – AMP SECTION –



Note:
- All capacitors are in μF unless otherwise noted. pF: μμF 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.
- : nonflammable resistor.

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

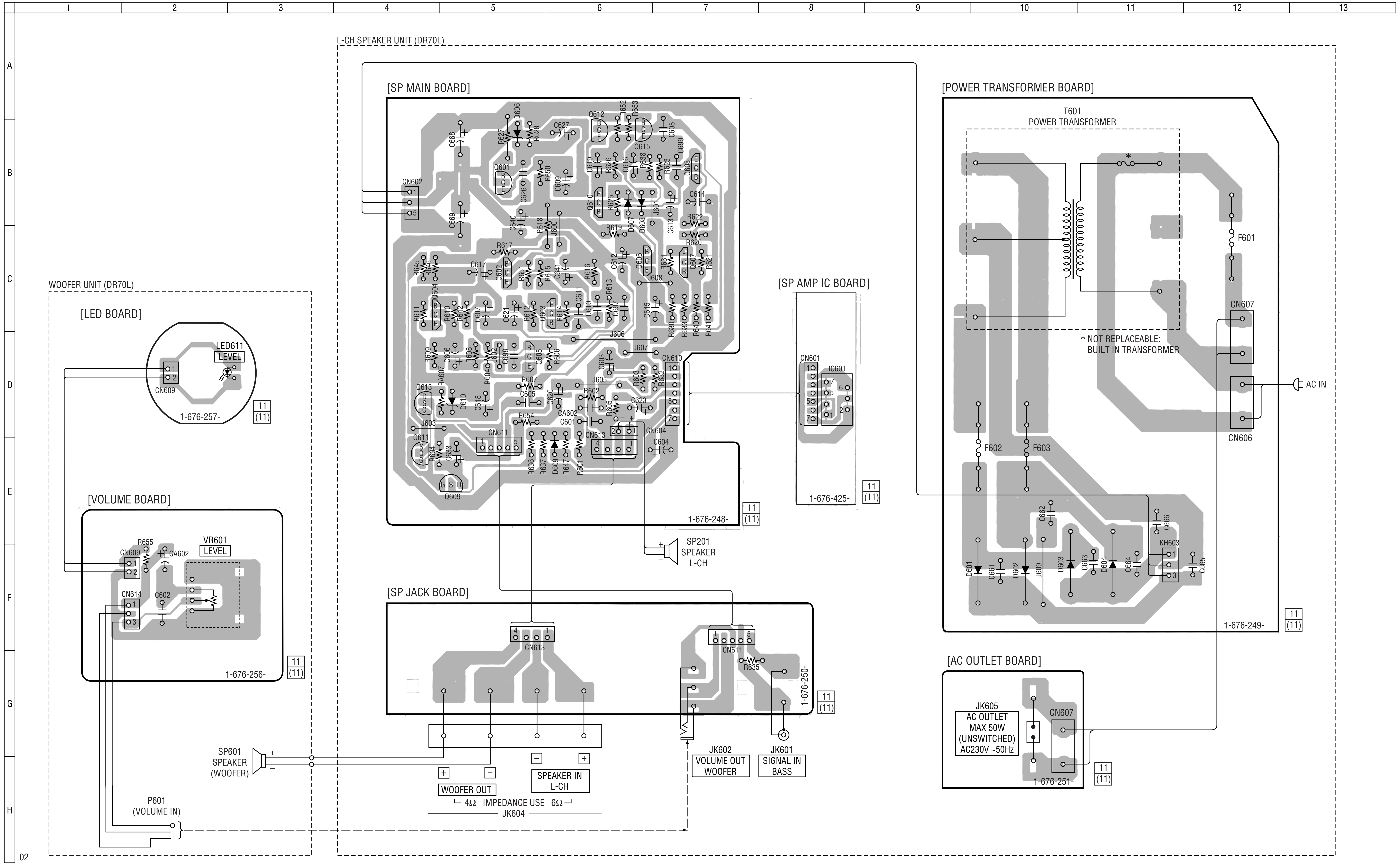
- B+ : B+ Line.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

5-14. PRINTED WIRING BOARDS – WOOFER AMP SECTION – (DR70L ONLY)

• Refer to page 25 for Circuit Boards Location.

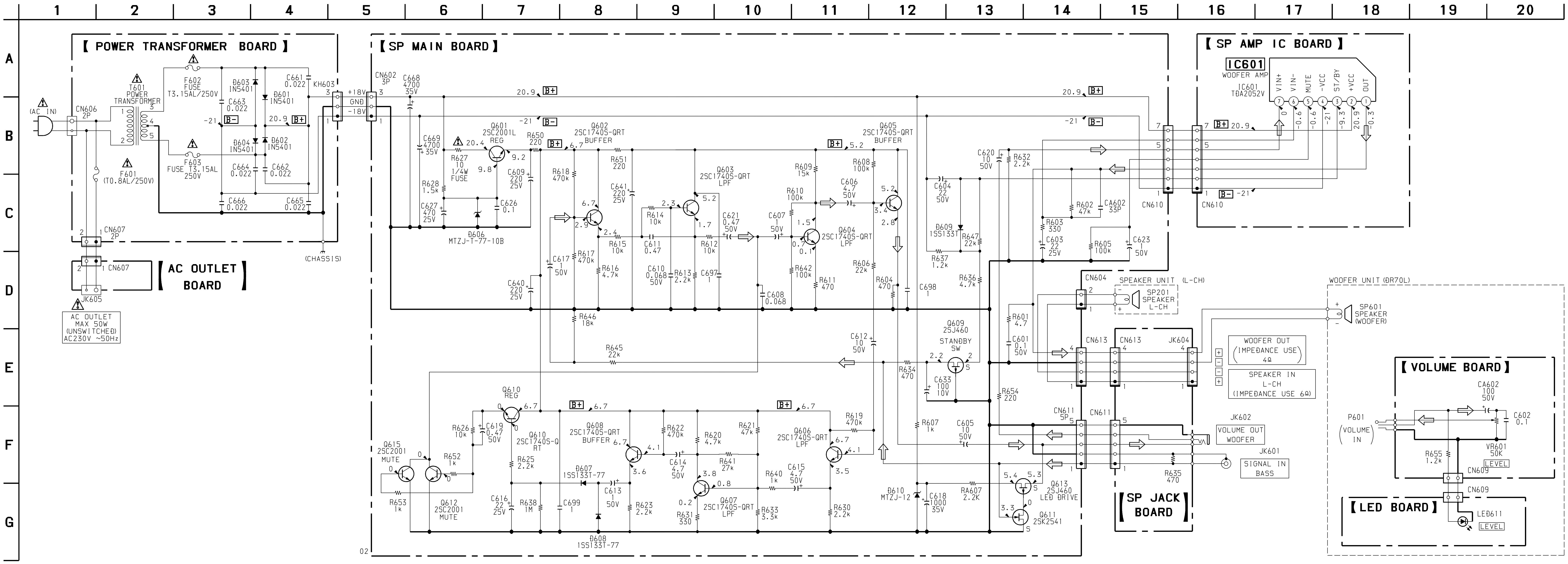
- **Semiconductor Location**

Ref. No.	Location
D601	F-9
D602	F-10
D603	F-10
D604	F-11
D606	B-5
D607	B-6
D608	B-6
D609	E-6
D610	D-5
LED611	D-3
IC601	D-8
Q601	B-5
Q602	C-5
Q603	C-6
Q604	C-4
Q605	D-5
Q606	C-6
Q607	C-7
Q608	B-7
Q609	E-5
Q610	B-6
Q611	E-4
Q612	B-6
Q613	D-4
Q615	B-6



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

5-15. SCHEMATIC DIAGRAM – WOOFER AMP SECTION – (DR70L ONLY) • **Refer to page 76 for IC Block Diagram.**

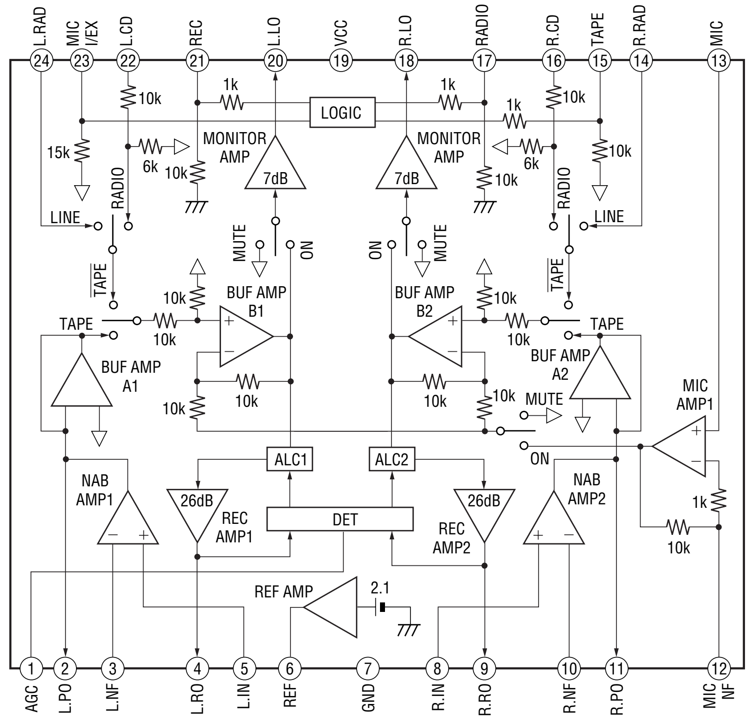


Note:

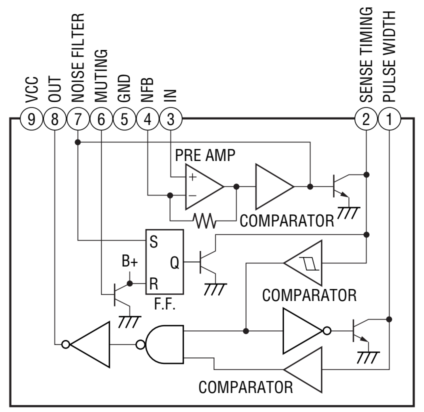
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- B+ : B+ Line.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

● IC Block Diagrams – MAIN SECTION (2/3) –

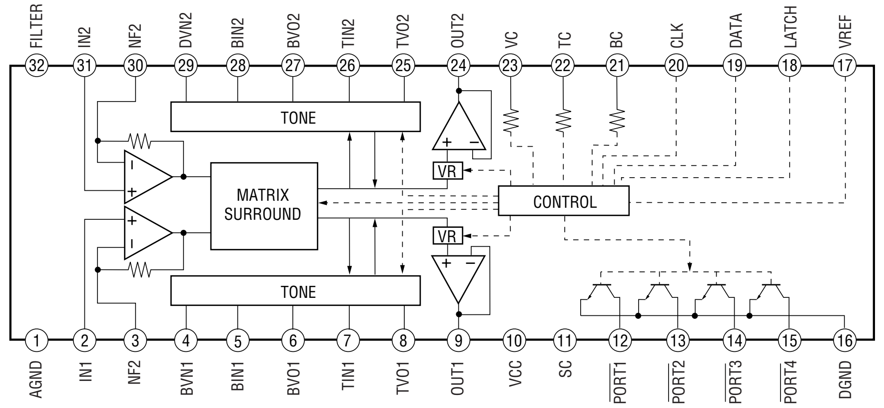
IC301 TA2068N



IC305 BA338

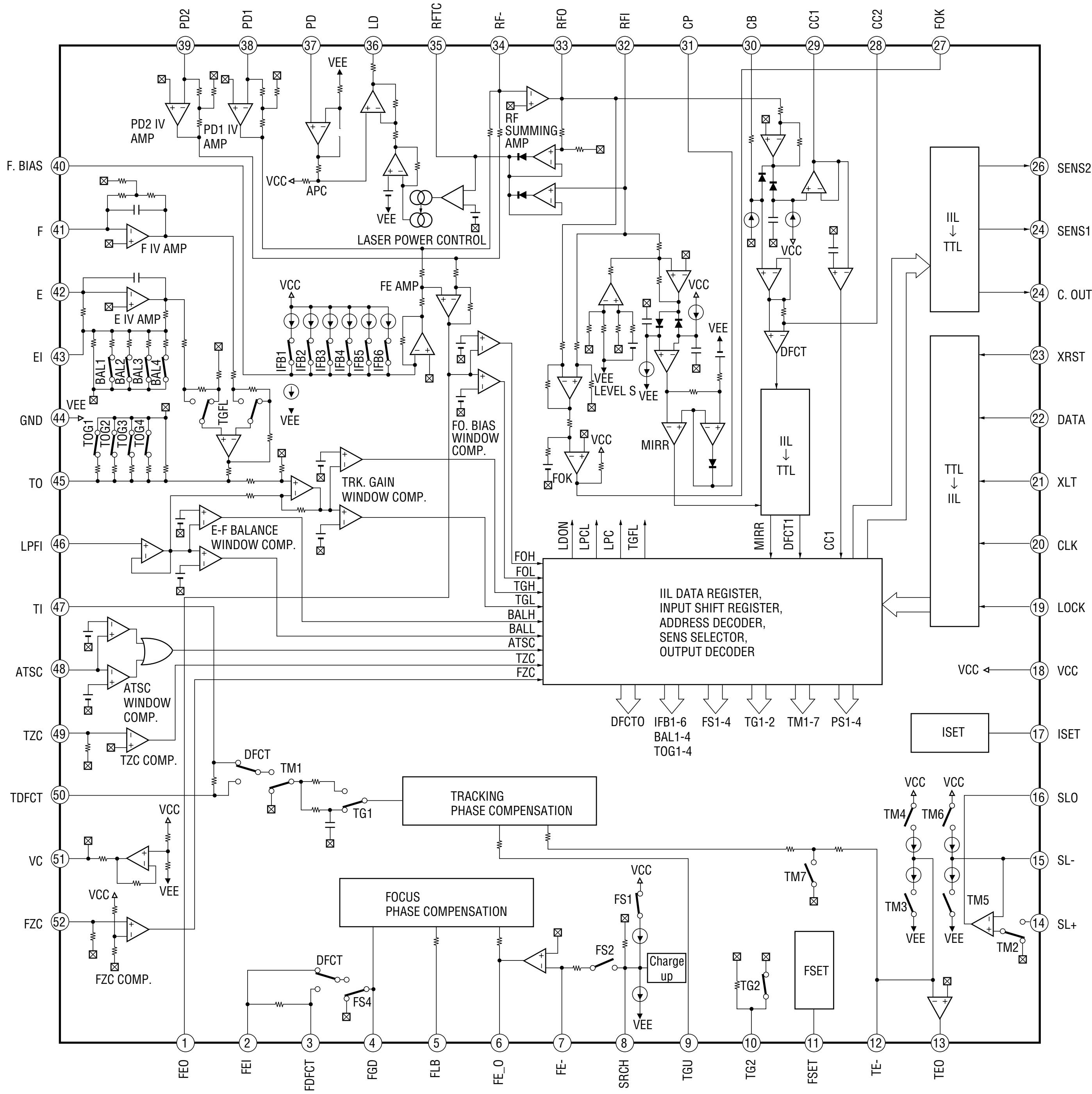


IC302 BH3854AFS

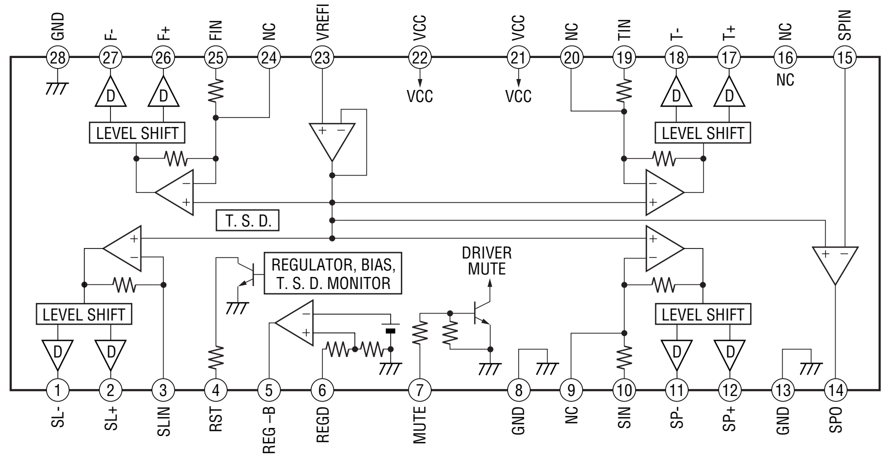


● IC Block Diagrams – CD SECTION –

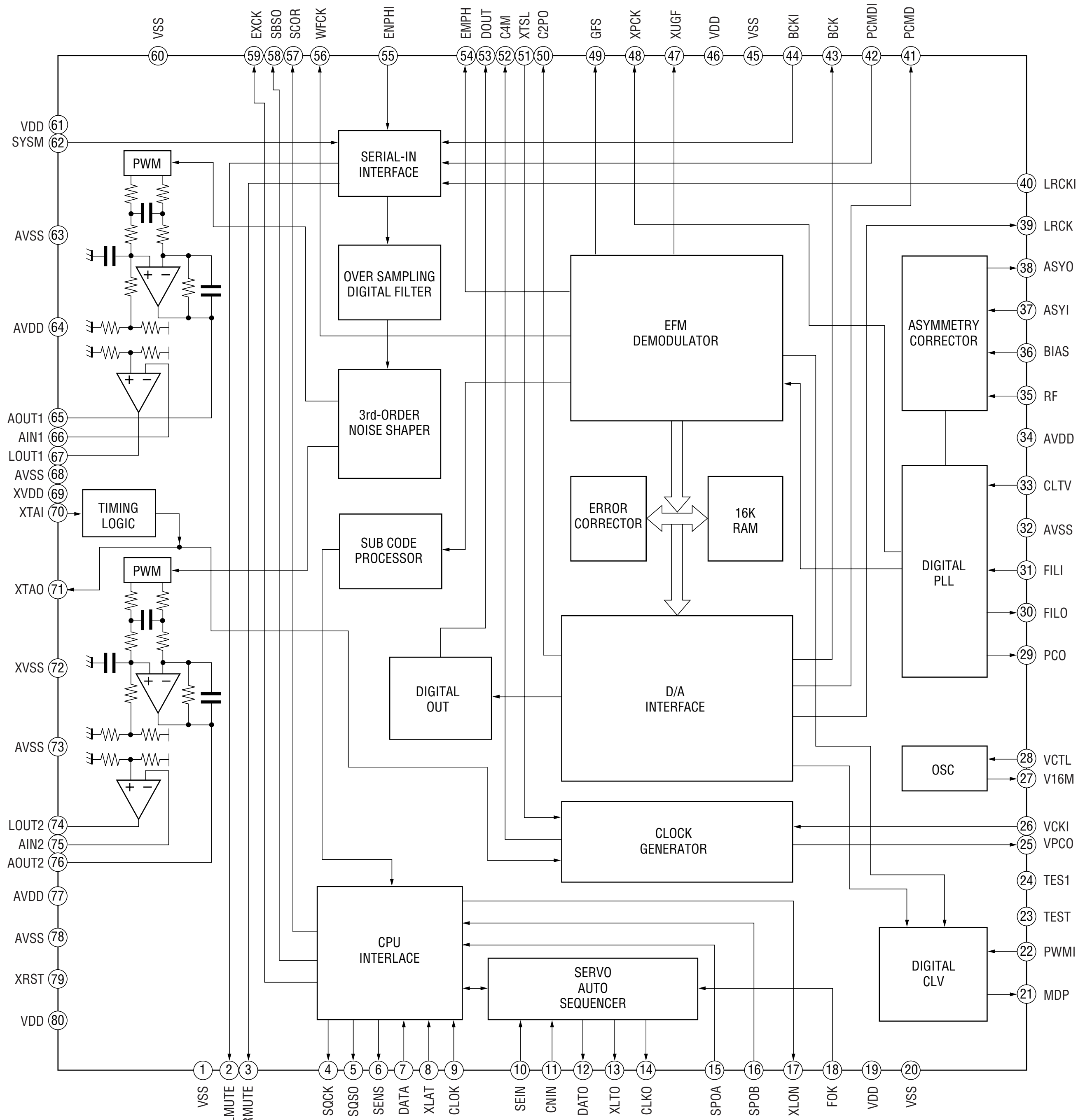
IC701 CXA1992BR



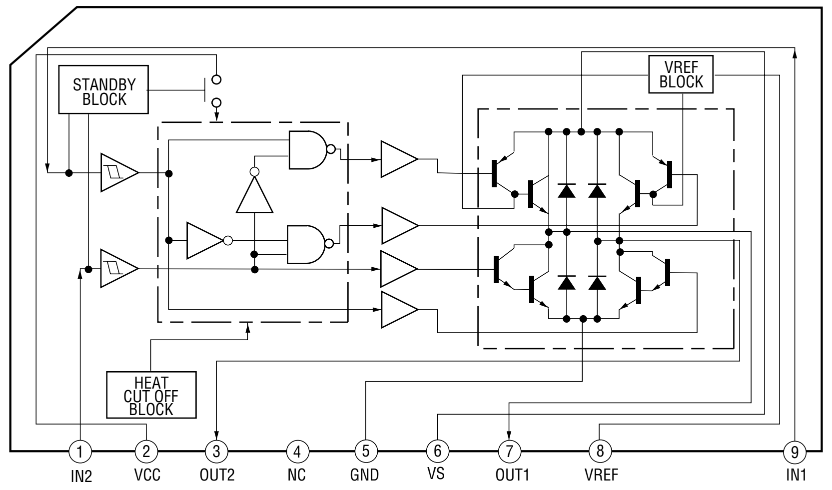
IC702 BA6898FP



IC751 CXD2589Q

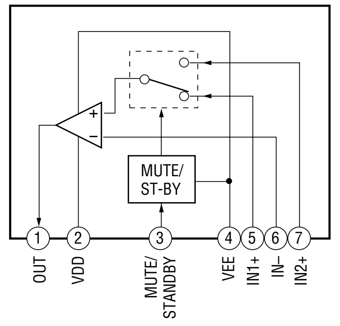


IC651 TA8409S



● IC Block Diagrams – WOOFER AMP SECTION –

IC601 TDA2052



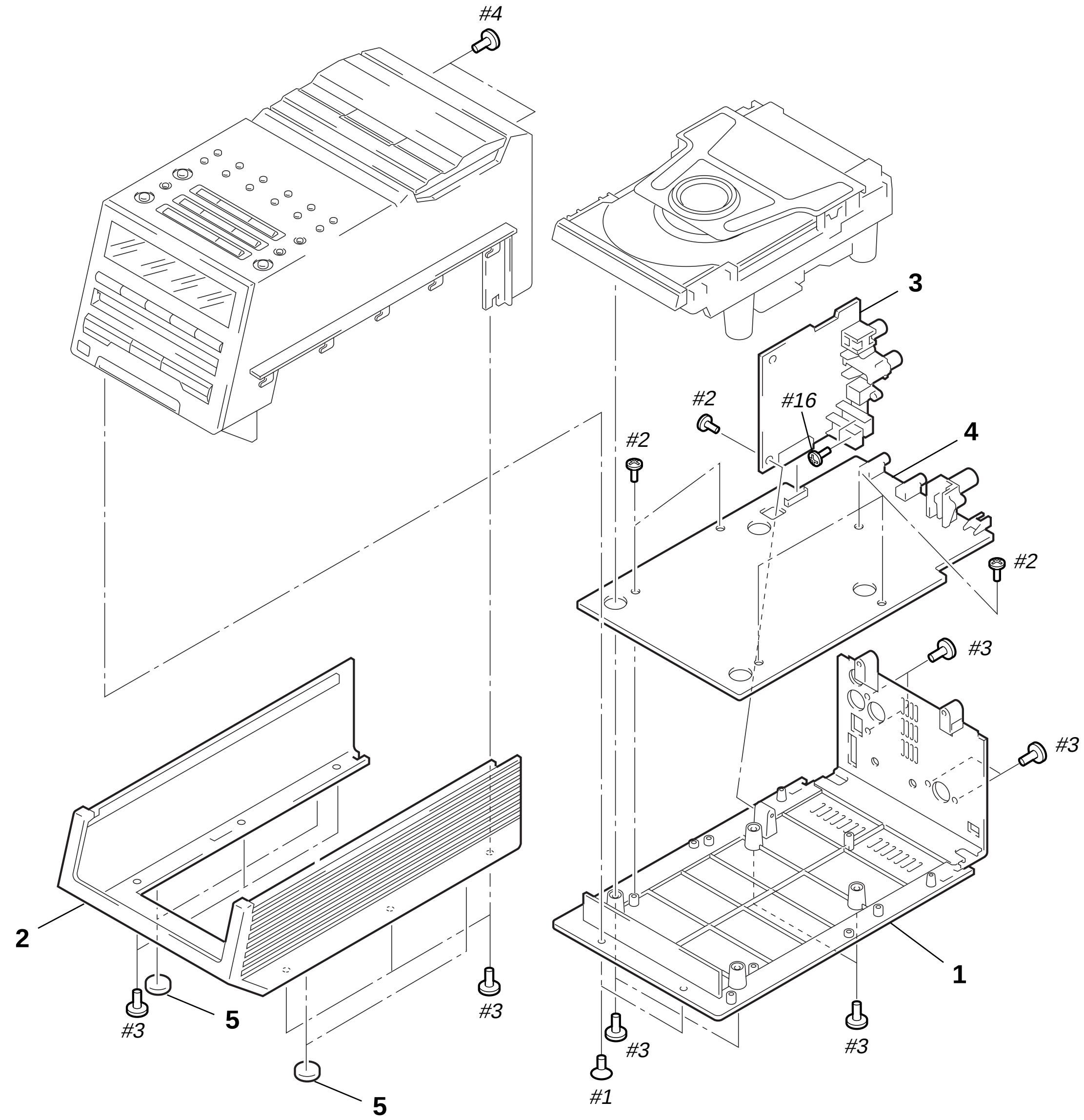
SECTION 6
EXPLODED VIEWS

NOTE :

- -XX, -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
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

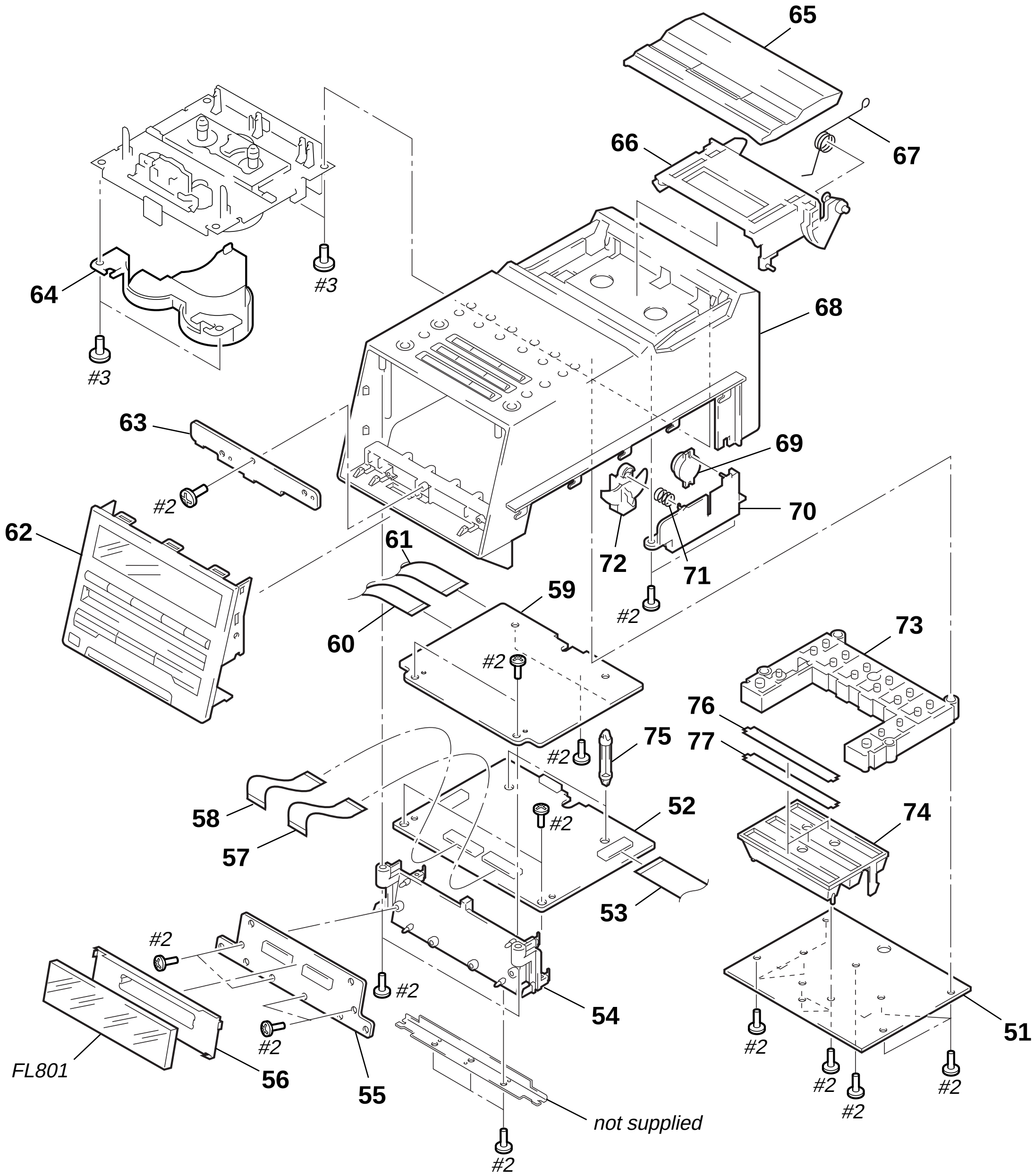
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. CASE SECTION



Ref. No.	Part No.	Description	Remark
1	3-043-306-01	CASE(BOTTOM)	
2	3-043-304-01	SUB COVER	
* 3	A-3323-378-A	JACK BOARD, COMPLETE (DR70L)	
* 3	A-3323-406-A	JACK BOARD, COMPLETE (DR50L)	
* 4	A-3323-377-A	MAIN BOARD, COMPLETE	
* 5	3-042-178-01	FOOT, RUBBER	

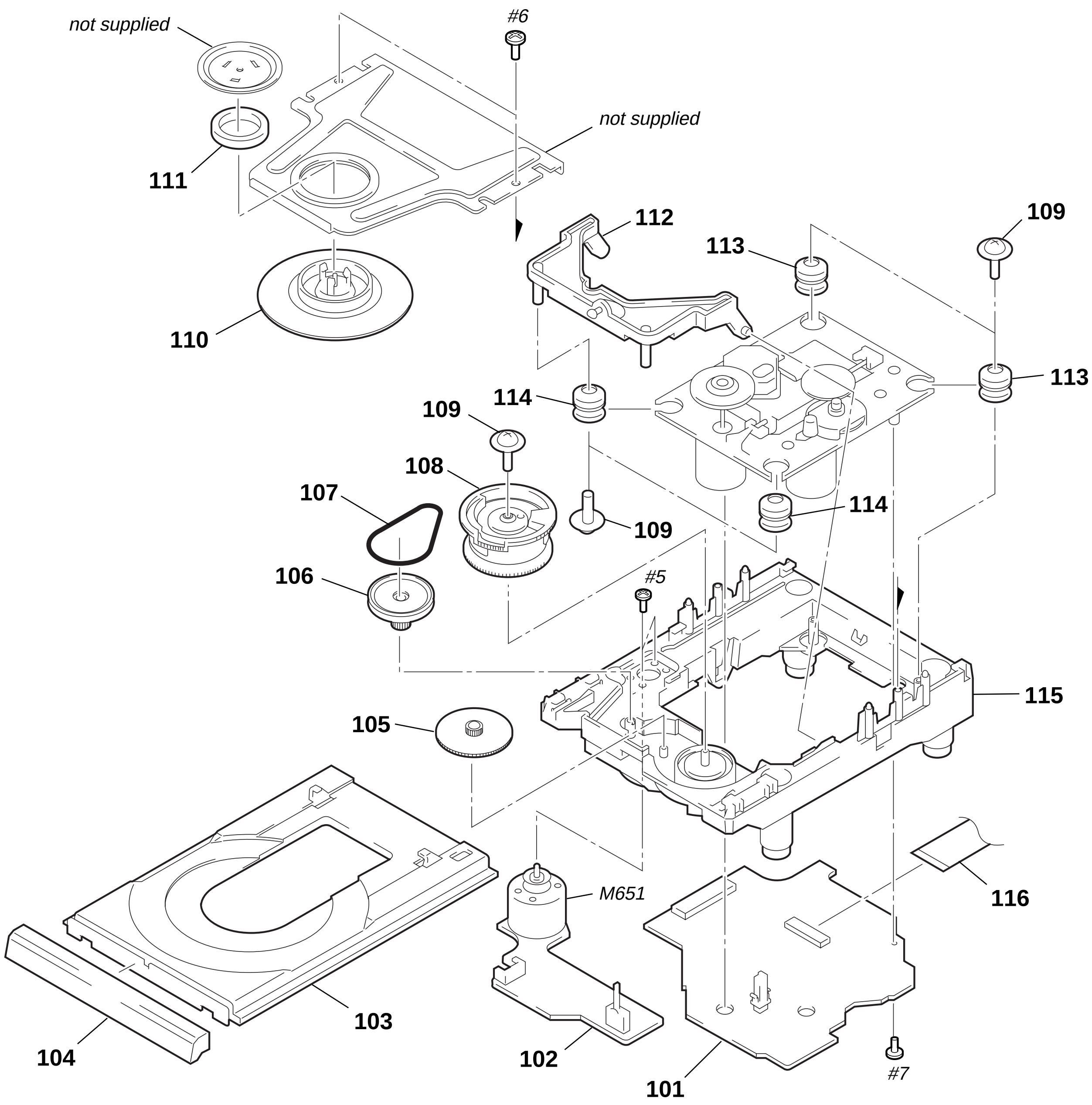
6-2. CONTROL SECTION



Ref. No.	Part No.	Description	Remark
* 51	A-3323-379-A	CONTROL BOARD, COMPLETE	
* 52	A-3323-381-A	CPU BOARD, COMPLETE	
53	1-794-036-11	WIRE(FLATTYPE) (19 CORE) (90mm)	
* 54	3-042-156-01	HOLDER, DISPLAY PC BOARD	
* 55	A-3323-382-A	DISPLAY BOARD, COMPLETE	
* 56	3-042-161-01	HOLDER, DISPLAY	
57	1-794-037-11	WIRE(FLATTYPE) (18 CORE)	
58	1-794-038-11	WIRE(FLATTYPE) (19 CORE) (70mm)	
* 59	A-3323-380-A	DSP BOARD, COMPLETE	
60	1-794-039-11	WIRE(FLATTYPE) (14 CORE)	
61	1-794-040-11	WIRE(FLATTYPE) (20 CORE)	
62	X-3378-277-1	PANEL ASSY, FRONT (DR50L)	
62	X-3378-278-1	PANEL ASSY, FRONT (DR70L)	
* 63	1-676-103-11	VOL BOARD	
* 64	3-042-163-01	COVER, DECK	

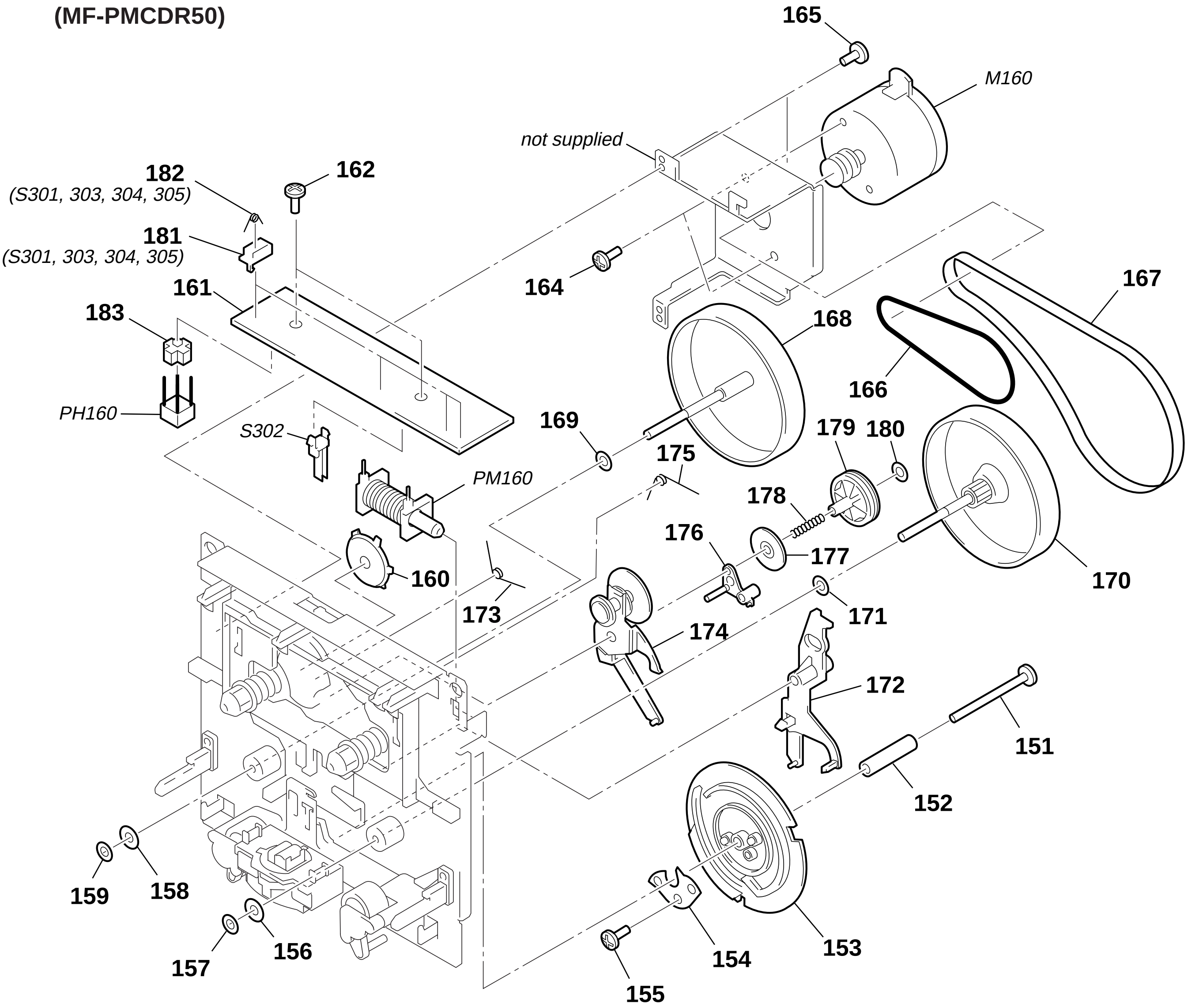
Ref. No.	Part No.	Description	Remark
65	3-042-149-01	DOOR, CASSETTE	
66	3-042-150-01	HOLDER, CASSETTE	
67	3-042-159-01	SPRING, CASSETTE DOOR	
68	X-3378-276-1	COVER ASSY, TOP	
69	3-043-307-01	GEAR,DUMPER	
* 70	3-042-155-01	BASE, DOOR LOCK	
71	3-042-160-01	SPRING, DOOR LOCK	
72	3-042-158-01	PLATE, CASSETTE LOCK	
73	X-3378-360-1	OPERATE BUTTON ASSY	
* 74	3-042-165-01	COVER, LED	
* 75	3-042-154-01	SPACE, PC BOARD	
76	3-042-153-01	FILM, BUTTON	
77	3-042-164-01	PLATE, PVC	
FL801	1-517-921-11	INDICATOR TUBE, FLUORESCENT	

6-3. CD MECHANISM SECTION



Ref. No.	Part No.	Description	Remark
* 101	A-3322-390-A	ASP BOARD, COMPLETE	
* 102	1-676-294-11	MOTOR BOARD	
103	3-028-010-01	TRAY	
104	3-042-210-01	DOOR, CD	
105	3-028-014-01	GEAR	
106	3-028-015-01	PULLEY	
107	3-933-020-01	BELT	
108	3-028-013-01	GEAR, DRIVE	
109	3-921-725-01	SCREW (2.6X10), +PWH	
110	3-028-019-01	PLATE, CHUCK	
111	1-452-899-21	MAGNET	
112	3-028-011-01	ARM	
113	3-931-379-01	RUBBER, VIBRATION PROOF (PINK)	
114	3-910-095-31	RUBBER, VIBRATION PROOF (GREEN)	
* 115	3-028-009-01	CHASSIS	
116	1-783-888-11	WIRE (FLAT TYPE) (16 CORE)	
M651	A-3320-538-A	MOTOR ASSY (LOADING) (INCLUDING PULLEY)	

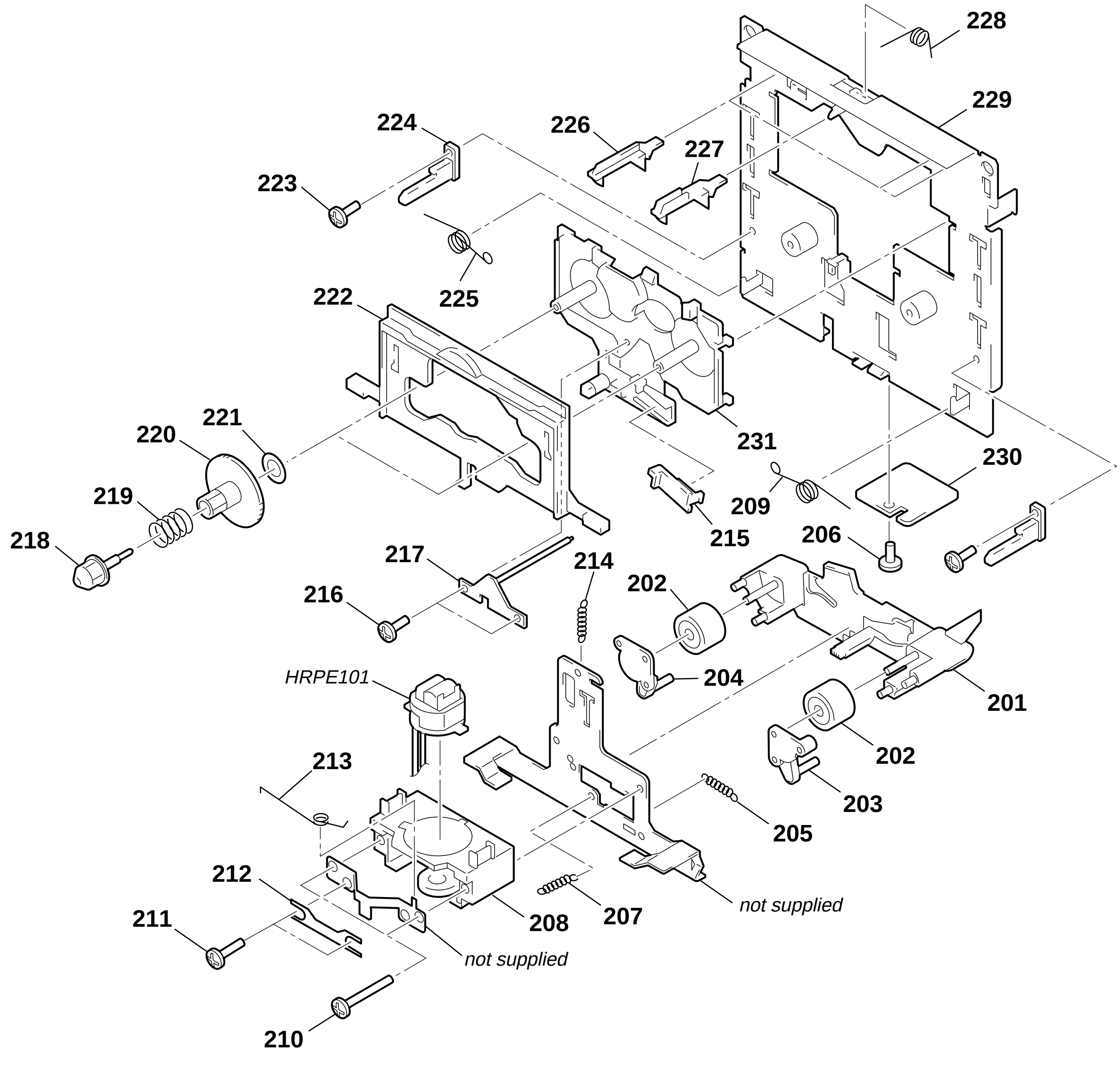
6-4. MECHANISM DECK SECTION -1
(MF-PMCDR50)



Ref. No.	Part No.	Description	Remark
151	3-029-619-01	SCREW	
152	3-029-591-01	COLLAR	
153	3-029-590-01	CAM, GEAR	
154	3-034-597-01	CAM, ARM	
155	3-704-418-14	SCREW (M1.7X4), TAPPING	
156	3-029-623-01	WASHER	
157	3-029-622-01	WASHER	
158	3-029-621-01	WASHER	
159	3-029-620-01	WASHER	
160	3-029-587-01	COVER	
* 161	1-673-338-11	TC RF BOARD	
162	3-938-944-01	SCREW (D)	
164	3-029-618-01	SCREW	
165	3-029-614-01	SCREW	
166	3-029-599-01	BELT (FR)	
167	3-029-598-01	BELT (BR)	
168	3-029-588-01	FLYWHEEL (L)	
169	3-029-625-01	WASHER	
170	3-029-592-01	FLYWHEEL (R)	

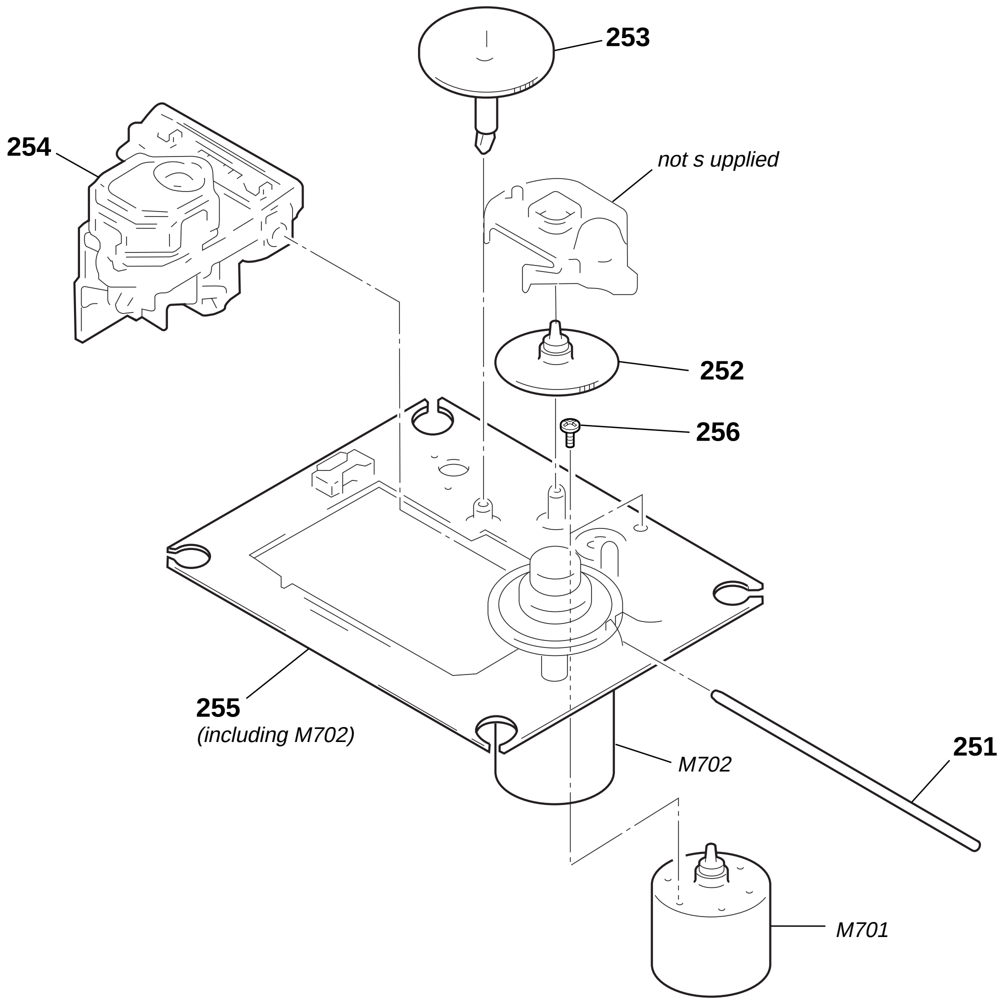
Ref. No.	Part No.	Description	Remark
171	3-029-626-01	WASHER	
172	3-029-589-01	TRIGGER, ARM	
173	3-029-611-01	SPRING	
174	3-029-593-01	CLUTCH	
175	3-029-612-01	SPRING	
176	3-029-594-01	ARM(UD B)	
177	3-029-595-01	GEAR (UD)	
178	3-029-613-01	SPRING	
179	3-029-596-01	PULLEY (D)	
180	3-029-627-01	WASHER	
181	3-034-694-01	BOX(SW) (S301, 303, 304, 305)	
182	3-034-693-01	SPRING (SW) (S301, 303, 304, 305)	
183	3-029-600-01	SPACER	
M160	3-034-599-01	MOTOR ASSY (CAPSTAN/REEL) (INCLUDING PULLEY)	
PH160	8-729-021-62	PHOTO INTERRUPTOR SG-211	
PM160	1-454-896-11	SOLENOID, PLUNGER	
S302	1-771-661-11	SWITCH, LEAF (HEAD POSITION)	

6-5. MECHANISM DECK SECTION-2
(MF-PMCDR50)



Ref. No.	Part No.	Description	Remark
201	3-029-573-01	LEVER (HD)	
202	3-029-576-01	PINCH, ROLLER	
203	3-029-574-01	PINCH (R), CAP	
204	3-029-575-01	PINCH (L), CAP	
205	3-029-608-01	SPRING	
206	3-029-617-01	SCREW	
207	3-029-607-01	SPRING	
208	3-029-570-01	FRAME (HD)	
209	3-029-604-01	SPRING	
210	3-029-616-01	SCREW	
211	3-938-941-01	SCREW (A)	
212	3-034-598-01	SPRING, AZIMUTH	
213	3-029-606-01	SPRING	
214	3-029-609-01	SPRING	
215	3-029-580-01	LEVER (ST)	
216	3-029-614-01	SCREW	
217	3-029-577-01	PLATE (D)	
218	3-029-578-01	REEL, CAP	
219	3-029-602-01	SPRING	
220	3-029-579-01	REEL, GEAR	
221	3-029-624-01	WASHER	
222	3-029-582-01	BRAKE, LEVER	
223	3-029-615-01	SCREW	
224	3-029-581-01	GUIDE (C)	
225	3-029-603-01	SPRING	
226	3-029-585-01	ARM(SW)	
227	3-029-584-01	ARM(CS)	
228	3-029-610-01	SPRING	
* 229	3-029-586-01	CHASSIS, MECHANISM	
* 230	1-673-339-11	HEAD RELAY BOARD	
231	3-029-583-01	FRAME (A)	
HRPE101	1-500-601-11	HEAD, REC/PB (RECORD/PLAYBACK/ERASE)	

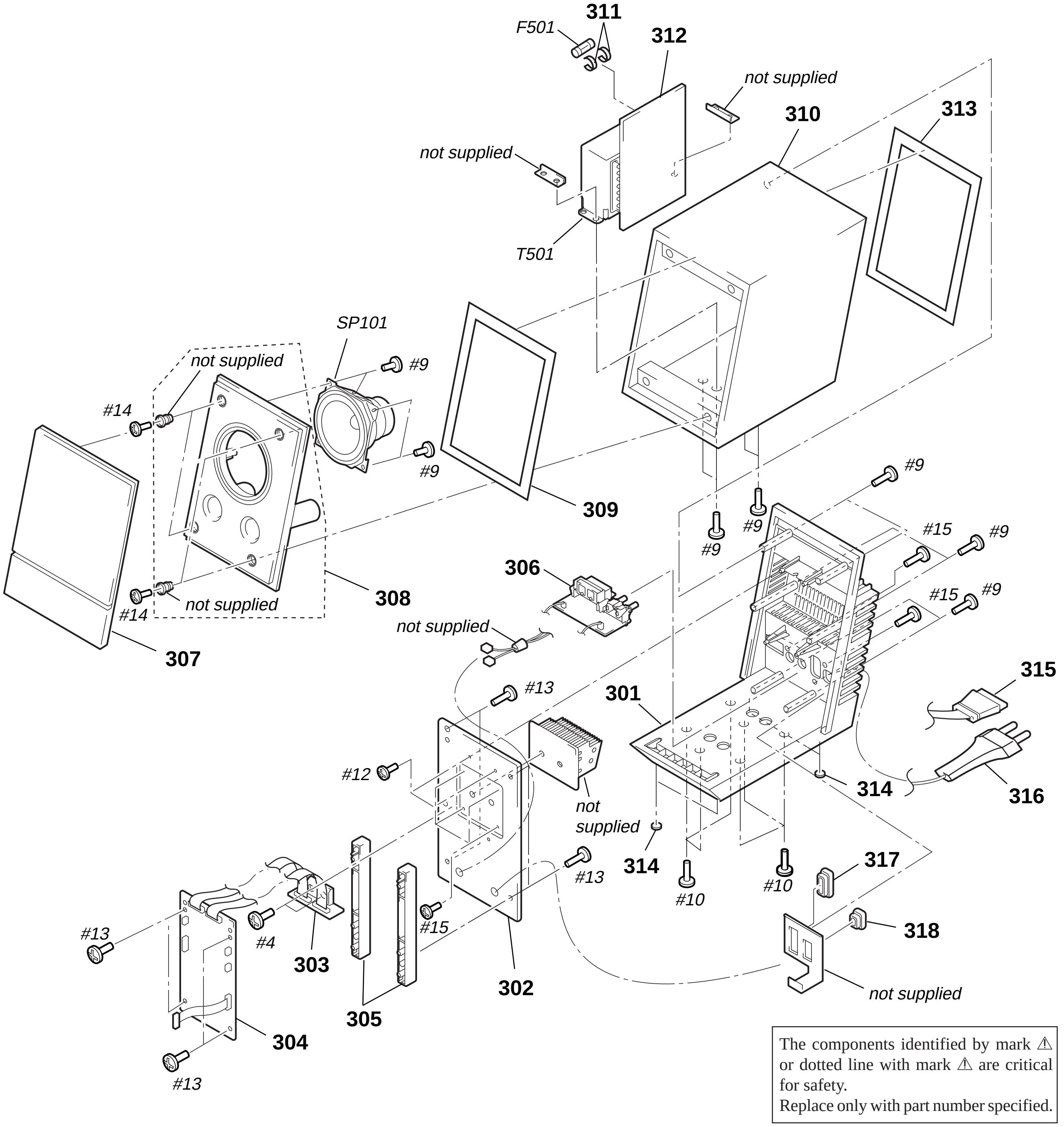
6-6. CD OPTICAL PICK-UP SECTION (KSM-213CCP)



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
251	2-626-908-01	SHAFT, SLED	
252	2-627-003-02	GEAR (B) (RP)	
253	2-626-907-02	GEAR (A)	
⚠254	8-848-483-05	OPTICAL PICK-UP KSS-213C	
255	X-2626-202-1	MOTOR SHASSIS ASSY (MB) (INCLUDING M702) (SPINDLE)	
256	3-713-786-51	SCREW +P 2X3	
M701	X-2625-769-1	MOTOR GEAR ASSY (MB) (INCLUDING GEAR) (SLED)	

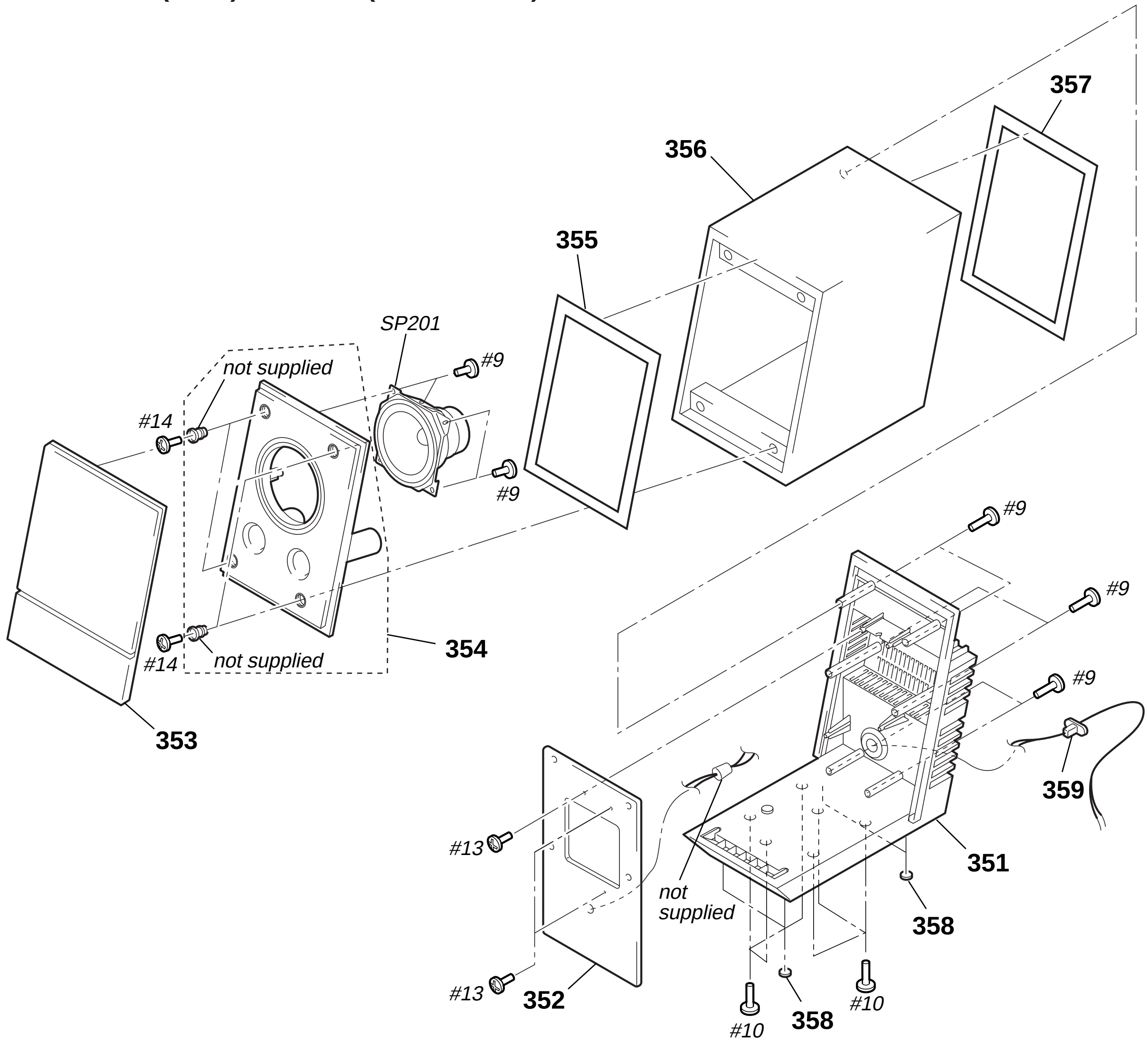
6-7. SPEAKER (R-CH) SECTION



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

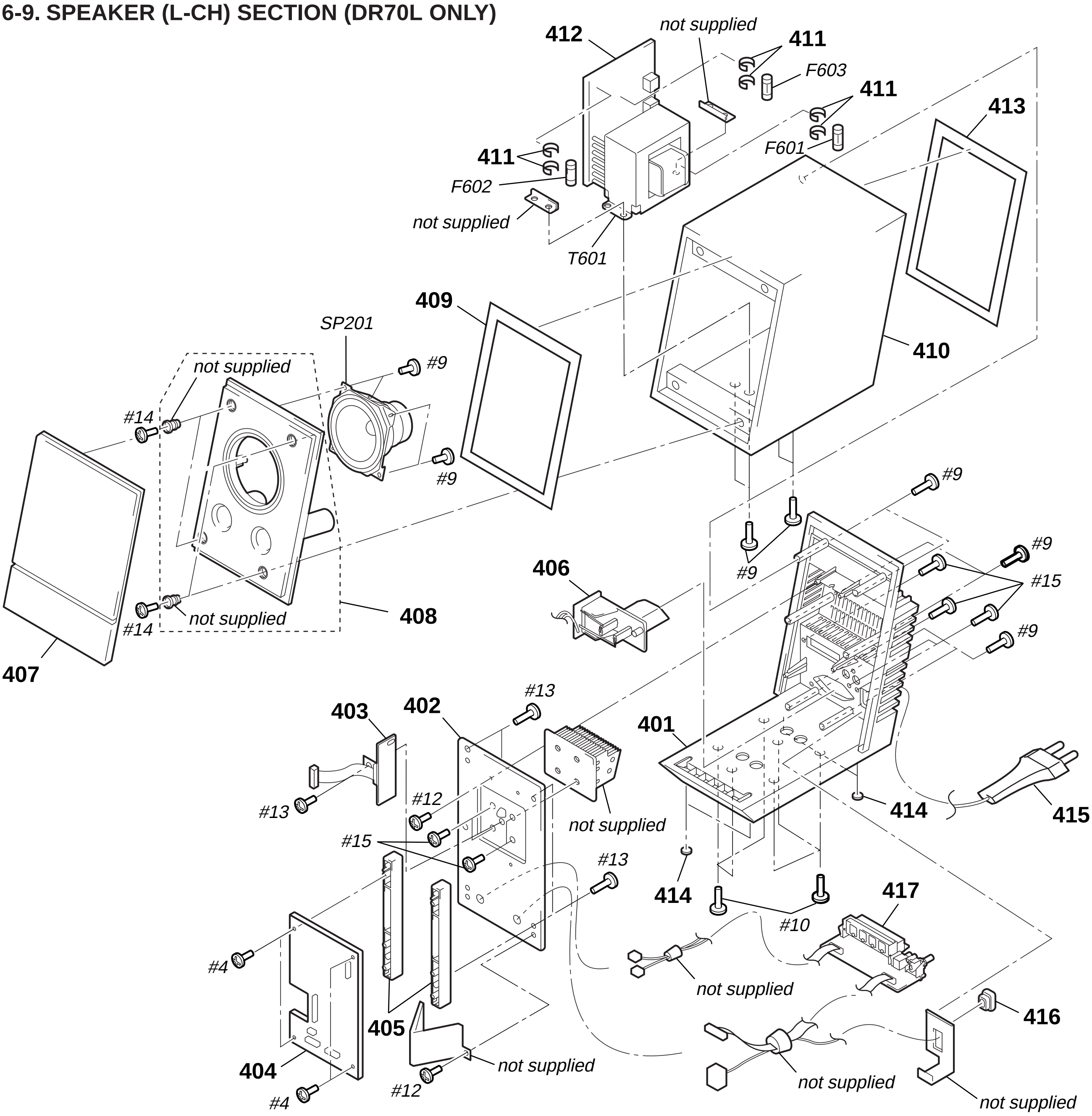
Ref. No.	Part No.	Description	Remark
301	3-042-183-01	CABINET (R), BOTTOM	
302	3-042-184-01	BOARD (R), BACK	
* 303	1-676-252-11	AMP IC BOARD	
* 304	A-3322-397-A	AMP BOARD, COMPLETE	
* 305	3-042-177-01	HOLDER, PC BOARD	
* 306	1-676-254-11	SPEAKER BOARD	
307	X-3378-357-1	SPEAKER GRILLE ASSY	
308	X-3378-358-1	SUB PANEL (R) ASSY	
* 309	3-042-180-01	SPONGE, WOOD CABINET	
310	3-042-174-01	CABINET, WOOD	
311	1-533-233-31	HOLDER, FUSE	
* 312	1-676-255-11	POWER BOARD	
* 313	3-042-179-01	SPONGE, BACK BOARD	
* 314	3-042-178-01	FOOT, RUBBER	
315	1-792-188-11	CORD WITH CONNECTOR	
⚠316	1-791-929-11	CORD, AC	
317	3-042-186-01	STOPPER, WIRE	
318	3-042-181-01	STOPPER, CORD	
⚠F501	1-532-505-11	FUSE,TIMELUG (T5AL/250V)	
SP101	1-529-581-11	SPEAKER (15W) (R-CH)	
⚠T501	1-453-339-11	POWER TRANSFORMER	

6-8. SPEAKER (L-CH) SECTION (DR50L ONLY)



Ref. No.	Part No.	Description	Remark
351	3-042-252-01	CABINET (L), BOTTOM (DR50L)	
352	3-042-194-01	BOARD (L), BACK (DR50L)	
353	X-3378-357-1	SPEAKER GRILLE ASSY (DR50L)	
354	X-3378-359-1	SUBPANEL (L) ASSY (DR50L)	
* 355	3-042-180-01	SPONGE, WOOD CABINET (DR50L)	
356	3-042-174-01	CABINET, WOOD (DR50L)	
* 357	3-042-179-01	SPONGE, BACK BOARD (DR50L)	
* 358	3-042-178-01	FOOT, RUBBER (DR50L)	
359	3-042-181-01	STOPPER, CORD (DR50L)	
SP201	1-529-581-11	SPEAKER (15W) (L-CH) (DR50L)	

6-9. SPEAKER (L-CH) SECTION (DR70L ONLY)

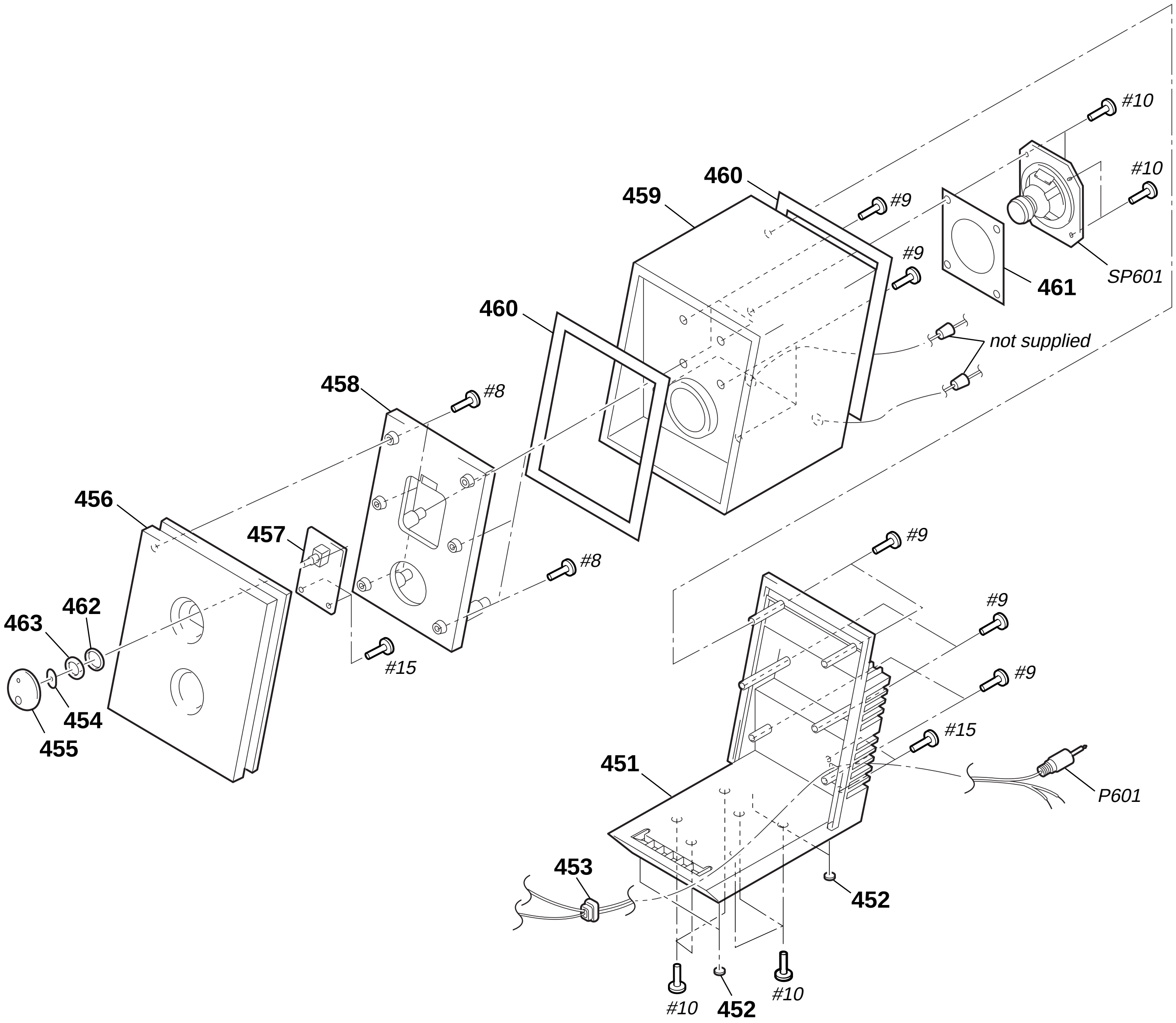


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
401	3-042-252-01	CABINET (L), BOTTOM (DR70L)	
402	3-042-194-01	BOARD (L), BACK (DR70L)	
* 403	1-676-425-11	SP AMP IC BOARD (DR70L)	
* 404	A-3322-400-A	SP MAIN BOARD, COMPLETE (DR70L)	
* 405	3-042-177-01	HOLDER, PC BOARD (DR70L)	
* 406	1-676-251-11	AC OUTLET BOARD (DR70L)	
407	X-3378-357-1	SPEAKER GRILLE ASSY (DR70L)	
408	X-3378-359-1	SUB PANEL (L) ASSY (DR70L)	
* 409	3-042-180-01	SPONGE, WOOD CABINET (DR70L)	
410	3-042-191-01	CABINET, WOOD (DR70L)	
411	1-533-233-31	HOLDER, FUSE (DR70L)	

Ref. No.	Part No.	Description	Remark
* 412	1-676-249-11	POWER TRANSFORMER BOARD (DR70L)	
* 413	3-042-179-01	SPONGE, BACK BOARD (DR70L)	
* 414	3-042-178-01	FOOT, RUBBER (DR70L)	
⚠415	1-791-929-11	CORD, AC (DR70L)	
416	1-793-863-11	HOLDER, WIRE (DR70L)	
* 417	1-676-250-11	SP JACK BOARD (DR70L)	
⚠F601	1-532-501-11	FUSE,TIMELUG (T0.8AL/250V) (DR70L)	
⚠F602	1-532-465-11	FUSE,TIMELUG (T3.15AL/250V) (DR70L)	
⚠F603	1-532-465-11	FUSE,TIMELUG (T3.15AL/250V) (DR70L)	
SP201	1-529-581-11	SPEAKER (15W) (L-CH) (DR70L)	
⚠T601	1-435-239-11	TRANSFORMER, POWER (DR70L)	

6-10. SUPER WOOFER SECTION (DR70L ONLY)



Ref. No.	Part No.	Description	Remark
451	3-043-078-01	CABINET (SWF) BOTTOM (DR70L)	
* 452	3-042-178-01	FOOT, RUBBER (DR70L)	
453	3-043-085-01	STOPPER, CORD (DR70L)	
* 454	1-676-257-11	LED BOARD (DR70L)	
455	X-3378-361-1	KNOB ASSY, VOL (DR70L)	
456	3-043-076-01	CABINET, FRONT (DR70L)	
* 457	1-676-256-11	VOLUME BOARD (DR70L)	

Ref. No.	Part No.	Description	Remark
458	3-043-079-01	CHISSIS (SWF) SUB (DR70L)	
459	3-043-077-01	CABINET (SWF) WOOD (DR70L)	
460	3-043-084-01	SPONGE, WOOD CABINET (DR70L)	
461	3-043-083-01	SPONGE, SPEAKER (DR70L)	
462	3-182-957-01	WASHER (DR70L)	
463	3-043-435-01	NUT (DR70L)	
P601	1-793-868-11	PLUG (STEREO) (DR70L)	
SP601	1-529-134-11	SPEAKER (10cm) (WOOFER) (DR70L)	

SECTION 7
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, -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
- 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
- Abbreviation
  IT : Italian
  SP : Singapore

The components identified by mark ⚠ or dotted line with mark ⚠ 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	
*	1-676-251-11	AC OUTLET BOARD (DR70L)				
		****************				
		<AC OUTLET >				
⚠JK605	1-794-077-11	AC OUTLET (AC230V ～50Hz)				

****

Ref. No.	Part No.	Description			Remark	
*	A-3322-397-A	AMP BOARD, COMPLETE				
		********************				
		< CAPACITOR >				
C181	1-124-903-11	ELECT	1uF	20%	50V	
C184	1-137-399-11	MYLAR	0.1uF	5%	50V	
C185	1-137-399-11	MYLAR	0.1uF	5%	50V	
C281	1-124-903-11	ELECT	1uF	20%	50V	
C284	1-137-399-11	MYLAR	0.1uF	5%	50V	
C285	1-137-399-11	MYLAR	0.1uF	5%	50V	
C381	1-126-946-11	ELECT	6800uF	20%	25V	
C382	1-104-665-11	ELECT	100uF	20%	16V	
C385	1-104-663-11	ELECT	33uF	20%	16V	
C386	1-126-233-11	ELECT	22uF	20%	50V	
C387	1-124-903-11	ELECT	1uF	20%	50V	
C388	1-130-487-00	FLIM	0.022uF		50V	
C401	1-128-553-11	ELECT	220uF	20%	63V	
C402	1-164-097-11	CERAMIC	0.022uF		50V	
C403	1-164-097-11	CERAMIC	0.022uF		50V	
C404	1-128-553-11	ELECT	220uF	20%	63V	
C405	1-126-968-11	ELECT	100uF	20%	50V	
C406	1-164-097-11	CERAMIC	0.022uF		50V	
C407	1-126-968-11	ELECT	100uF	20%	50V	
C408	1-164-097-11	CERAMIC	0.022uF		50V	
C409	1-104-664-11	ELECT	47uF	20%	16V	
C410	1-164-097-11	CERAMIC	0.022uF	50V		
C411	1-164-097-11	CERAMIC	0.022uF	50V		
C412	1-161-485-00	CERAMIC	0.1uF		50V	
		< CONNECTOR >				
* CN504	1-793-898-11	CONNECTOR (BASE, TOP) 2P				
* CN505	1-793-899-11	CONNECTOR (BASE, TOP) 6P				
* CN510	1-793-901-11	CONNECTOR (BASE, TOP) 3P				
* CN511	1-793-895-11	CONNECTOR (BASE, TOP) 2P				
* CN513	1-793-900-11	HOLDER, WIRE 7P				
* CN514	1-793-900-11	HOLDER, WIRE 7P				
		< DIODE >				
D401	8-719-031-35	DIODE RD3.9HS				
D402	8-719-031-35	DIODE RD3.9HS				
D403	8-719-982-15	DIODE MTZJ-27B				
D404	8-719-921-40	DIODE MTZJ-4.7C				
		< TRANSISTOR >				
Q401	8-729-232-32	TRANSISTOR 2SA965				
		< RESISTOR >				
R181	1-249-427-11	CARBON	6.8K	5%	1/4W	
R182	1-249-431-11	CARBON	15K	5%	1/4W	
⚠R183	1-249-385-11	CARBON	2.2	5%	1/6W	F
⚠R184	1-249-385-11	CARBON	2.2	5%	1/6W	F
R281	1-249-427-11	CARBON	6.8K	5%	1/4W	
R282	1-249-431-11	CARBON	15K	5%	1/4W	
⚠R283	1-249-385-11	CARBON	2.2	5%	1/6W	F
⚠R284	1-249-385-11	CARBON	2.2	5%	1/6W	F
R381	1-247-847-11	CARBON	4.7K	5%	1/4W	
R383	1-249-417-11	CARBON	1K	5%	1/4W	
⚠R401	1-212-881-11	FUSIBLE	100	5%	1/4W	F
⚠R402	1-212-881-11	FUSIBLE	100	5%	1/4W	F
R403	1-249-417-11	CARBON	1K	5%	1/4W	
R404	1-247-807-11	CARBON	100	5%	1/4W	
R405	1-247-807-11	CARBON	100	5%	1/4W	

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Ref. No.	Part No.	Description			Remark
*	1-676-252-11	AMP IC BOARD			
		************			
		< CAPACITOR >			
C182	1-164-085-11	CERAMIC	0.001uF	10%	50V
C282	1-164-085-11	CERAMIC	0.001uF	10%	50V
		< CONNECTOR >			
* CN514	1-793-865-11	CONNECTOR (WIRE HOLDER) (P2.5)			

Ref. No.	Part No.	Description			Remark
		< IC >			
IC309	8-759-333-16	IC LA4705NA			

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Ref. No.	Part No.	Description			Remark
*	A-3322-390-A	ASP BOARD, COMPLETE			
		********************			
		< CAPACITOR >			
C701	1-162-600-11	CERAMIC	0.0047uF	20%	16V
C702	1-162-306-11	CERAMIC	0.01uF	20%	16V
C703	1-162-305-11	CERAMIC	0.0068uF	20%	16V
C704	1-130-491-00	MYLAR	0.047uF	5%	50V
C705	1-130-487-00	FILM	0.022uF	5%	50V
C706	1-104-665-11	ELECT	100uF	20%	10V
C707	1-161-494-00	CERAMIC	0.022uF		25V
C708	1-136-165-00	MYLAR	0.1uF	5%	50V
C709	1-136-165-00	MYLAR	0.1uF	5%	50V
C710	1-162-302-11	CERAMIC	0.0022uF	20%	16V
C711	1-162-232-31	CERAMIC	10PF	5%	50V
C712	1-162-294-31	CERAMIC	0.001uF	10%	50V
C713	1-136-165-00	MYLAR	0.1uF	5%	50V
C714	1-136-165-00	MYLAR	0.1uF	5%	50V
C715	1-126-233-11	ELECT	22uF	20%	50V
C716	1-136-165-00	MYLAR	0.1uF	5%	50V
C717	1-136-153-00	FILM	0.01uF	5%	50V
C718	1-131-375-00	TANTALUM	4.7uF	10%	10V
C719	1-104-664-11	ELECT	47uF	20%	10V
C720	1-162-306-11	CERAMIC	0.01uF	20%	16V
C721	1-136-159-00	MYLAR	0.033uF	5%	50V
C722	1-130-489-00	MYLAR	0.033uF	5%	50V
C723	1-162-306-11	CERAMIC	0.01uF	20%	16V
C724	1-130-489-00	MYLAR	0.033uF	5%	50V
C725	1-130-486-00	MYLAR	0.018uF	10%	50V
C726	1-130-487-00	FILM	0.022uF	5%	50V
C727	1-162-199-31	CERAMIC	10PF	5%	50V
C728	1-104-665-11	ELECT	100uF	20%	10V
C729	1-126-962-11	ELECT	3.3uF	20%	50V
C730	1-130-493-00	MYLAR	0.068uF	5%	50V
C731	1-162-215-31	CERAMIC	47PF	5%	50V
C732	1-162-306-11	CERAMIC	0.01uF	20%	16V
C733	1-136-684-51	FILM	0.0022uF	5%	100V
C734	1-130-487-00	FILM	0.022uF	5%	50V
C735	1-162-305-11	CERAMIC	0.0068uF	20%	16V
C736	1-126-926-11	ELECT	1000uF	20%	10V
C737	1-130-487-00	FILM	0.022uF	5%	50V
C738	1-104-665-11	ELECT	100uF	20%	10V
C739	1-130-487-00	FILM	0.022uF	5%	50V
C740	1-106-379-12	MYLAR	0.033uF	5%	200V
C741	1-130-487-00	FILM	0.022uF	5%	50V
C742	1-164-070-11	CERAMIC	100PF	5%	50V
C743	1-164-070-11	CERAMIC	100PF	5%	50V
C744	1-164-070-11	CERAMIC	100PF	5%	50V
CA736	1-126-927-11	ELECT	2200uF	20%	10V
		< CONNECTOR >			
* CN701	-779-466-11	ONNECTOR, FFC/FPC 16P			
CN702	-770-527-31	ONNECTOR, FFC/FPC 20P			

Ref. No.	Part No.	Description			Remark
		< IC >			
IC701	8-752-082-14	IC CXA1992BR			
IC702	8-759-473-42	IC BA6898FP			
		< COIL >			
L701	1-419-152-11	COIL, PEAKING			
		< TRANSISTOR >			
Q701	8-729-195-23	TRANSISTOR 2SA952			
		< RESISTOR >			
R701	1-249-441-11	CARBON	100K	5%	1/4W
R702	1-249-439-11	CARBON	68K	5%	1/4W
R703	1-249-439-11	CARBON	68K	5%	1/4W
R704	1-249-439-11	CARBON	68K	5%	1/4W
R705	1-249-439-11	CARBON	68K	5%	1/4W
R706	1-249-441-11	CARBON	100K	5%	1/4W
R707	1-247-887-00	CARBON	220K	5%	1/4W
R709	1-247-883-00	CARBON	150K	5%	1/4W
R710	1-247-885-00	CARBON	180K	5%	1/4W
R711	1-247-883-00	CARBON	150K	5%	1/4W
R712	1-247-891-00	CARBON	330K	5%	1/4W
R714	1-249-429-11	CARBON	10K	5%	1/4W
R715	1-249-428-11	CARBON	8.2K	5%	1/4W
R716	1-247-780-00	CARBON	7.5K	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
R722	1-249-429-11	CARBON	10K	5%	1/4W
R723	1-247-896-11	CARBON	510K	5%	1/4W
R724	1-249-439-11	CARBON	68K	5%	1/4W
R725	1-247-883-00	CARBON	150K	5%	1/4W
R726	1-247-883-00	CARBON	150K	5%	1/4W
R727	1-249-437-11	CARBON	47K	5%	1/4W
R728	1-249-441-11	CARBON	100K	5%	1/4W
R729	1-249-430-11	CARBON	12K	5%	1/4W
R731	1-247-863-11	CARBON	22K	5%	1/4W
R732	1-247-886-11	CARBON	200K	5%	1/4W
R733	1-247-890-11	CARBON	300K	5%	1/4W
R734	1-247-843-11	CARBON	3.3K	5%	1/4W
R736	1-247-863-11	CARBON	22K	5%	1/4W
R738	1-249-435-11	CARBON	33K	5%	1/4W
R740	1-249-417-11	CARBON	1K	5%	1/4W
R741	1-249-417-11	CARBON	1K	5%	1/4W
R742	1-249-417-11	CARBON	1K	5%	1/4W
R743	1-249-417-11	CARBON	1K	5%	1/4W
R744	1-249-417-11	CARBON	1K	5%	1/4W
R745	1-249-417-11	CARBON	1K	5%	1/4W
R746	1-249-417-11	CARBON	1K	5%	1/4W
R747	1-249-437-11	CARBON	47K	5%	1/4W
		< SWITCH >			
S701	1-571-936-11	SWITCH, LEAF (LIMIT)			

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Ref. No.	Part No.	Description	Remark
*	A-3323-379-A	CONTROL BOARD, COMPLETE **************************	
		< CAPACITOR >	
C151	1-106-343-00	MYLAR 0.001	200V
C251	1-106-343-00	MYLAR 0.001	200V
C896	1-124-907-11	ELECT 10uF 20%	50V
		< CONNECTOR >	
* CN807	1-793-856-11	CONNECTOR (SIDE BASE) 8P	
		< DIODE >	
D809	8-719-074-94	LED LTL-1CHEE (SOUND)	
D810	8-719-074-94	LED LTL-1CHEE (RDS)	
D811	8-719-074-95	LED LTL-1KHGE-U (RADIO SWITCH BACK LIGHT)	
D812	8-719-074-95	LED LTL-1KHGE-U (RADIO SWITCH BACK LIGHT)	
D813	8-719-074-95	LED LTL-1KHGE-U (RADIO SWITCH BACK LIGHT)	
D814	8-719-074-95	LED LTL-1KHGE-U (RADIO SWITCH BACK LIGHT)	
D815	8-719-074-95	LED LTL-1KHGE-U (RADIO SWITCH BACK LIGHT)	
D816	8-719-074-95	LED LTL-1KHGE-U (RADIO SWITCH BACK LIGHT)	
D821	8-719-074-95	LED LTL-1KHGE-U (CD SWITCH BACK-LIGHT)	
D822	8-719-074-95	LED LTL-1KHGE-U (CD SWITCH BACK-LIGHT)	
D823	8-719-074-95	LED LTL-1KHGE-U (CD SWITCH BACK-LIGHT)	
D824	8-719-074-95	LED LTL-1KHGE-U (CD SWITCH BACK-LIGHT)	
D825	8-719-074-95	LED LTL-1KHGE-U (CD SWITCH BACK-LIGHT)	
D826	8-719-074-95	LED LTL-1KHGE-U (CD SWITCH BACK-LIGHT)	
D831	8-719-074-95	LED LTL-1KHGE-U (TAPE SWITCH BACK-LIGHT)	
D832	8-719-074-95	LED LTL-1KHGE-U (TAPE SWITCH BACK-LIGHT)	
D833	8-719-074-95	LED LTL-1KHGE-U (TAPE SWITCH BACK-LIGHT)	
D834	8-719-074-95	LED LTL-1KHGE-U (TAPE SWITCH BACK-LIGHT)	
D835	8-719-074-95	LED LTL-1KHGE-U (TAPE SWITCH BACK-LIGHT)	
D836	8-719-074-95	LED LTL-1KHGE-U (TAPE SWITCH BACK-LIGHT)	
D896	8-719-929-15	DIODE HZS9.1NB2	
		< JACK >	
JK151	1-793-855-11	JACK, HEADPHONE (🎧)	
		< TRANSISTOR >	
Q806	8-729-049-00	TRANSISTOR 2SA733P	
Q807	8-729-049-00	TRANSISTOR 2SA733P	
Q808	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q809	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q810	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q896	8-729-119-78	TRANSISTOR 2SC403SP-51	
		< RESISTOR >	
R151	1-249-393-11	CARBON 10 5%	1/4W
R251	1-249-393-11	CARBON 10 5%	1/4W
R873	1-247-827-11	CARBON 680 5%	1/4W
R874	1-249-416-11	CARBON 820 5%	1/4W
R875	1-249-418-11	CARBON 1.2K 5%	1/4W
R876	1-249-420-11	CARBON 1.8K 5%	1/4W
R877	1-247-843-11	CARBON 3.3K 5%	1/4W
R878	1-249-427-11	CARBON 6.8K 5%	1/4W
R879	1-249-432-11	CARBON 18K 5%	1/4W
R880	1-247-827-11	CARBON 680 5%	1/4W
R881	1-249-416-11	CARBON 820 5%	1/4W
R882	1-249-418-11	CARBON 1.2K 5%	1/4W
R883	1-249-420-11	CARBON 1.8K 5%	1/4W
R884	1-247-843-11	CARBON 3.3K 5%	1/4W
R885	1-249-427-11	CARBON 6.8K 5%	1/4W
R886	1-249-432-11	CARBON 18K 5%	1/4W
R887	1-247-827-11	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	1-249-411-11	CARBON 330 5%	1/4W
R895	1-249-411-11	CARBON 330 5%	1/4W
R896	1-249-411-11	CARBON 330 5%	1/4W
R897	1-247-855-11	CARBON 10K 5%	1/4W
R898	1-247-855-11	CARBON 10K 5%	1/4W
R899	1-247-839-11	CARBON 2.2K 5%	1/4W
RA894	1-247-843-11	CARBON 3.3K 5%	1/4W
RA895	1-247-843-11	CARBON 3.3K 5%	1/4W
RA897	1-247-807-11	CARBON 100 5%	1/4W
RA898	1-247-807-11	CARBON 100 5%	1/4W
RA899	1-249-399-11	CARBON 33 5%	1/4W
RB897	1-247-807-11	CARBON 100 5%	1/4W
RB898	1-247-807-11	CARBON 100 5%	1/4W
RB899	1-249-399-11	CARBON 33 5%	1/4W
		< SWITCH >	
S809	1-771-839-11	SWITCH, TACT (TAPE ►►)	
S810	1-771-839-11	SWITCH, TACT (TAPE ◄◄)	
S811	1-771-839-11	SWITCH, TACT (DUBBING)	
S812	1-771-839-11	SWITCH, TACT (●/❚❚)	
S813	1-771-839-11	SWITCH, TACT (COUNTER RESET)	
S814	1-771-839-11	SWITCH, TACT (DIR MODE)	
S815	1-771-839-11	SWITCH, TACT (RDS)	
S816	1-771-839-11	SWITCH, TACT (OPERATE)	
S817	1-771-839-11	SWITCH, TACT (CD □)	
S818	1-771-839-11	SWITCH, TACT (CD ▷❙❙)	
S819	1-771-839-11	SWITCH, TACT (PRESET -)	
S820	1-771-839-11	SWITCH, TACT (BAND)	
S821	1-771-839-11	SWITCH, TACT (PRESET +)	

CONTROL CPU

Ref. No.	Part No.	Description			Remark
S822	1-771-839-11	SWITCH, TACT (TAPE ▷)			
S823	1-771-839-11	SWITCH, TACT (TAPE □)			
S824	1-771-839-11	SWITCH, TACT (TAPE ◁)			
S825	1-771-839-11	SWITCH, TACT (TUNE TIME SET ▶▶I)			
S826	1-771-839-11	SWITCH, TACT (TUNE TIME SET I◀◀)			
S827	1-771-839-11	SWITCH, TACT (PLAY MODE MONO/ST ISS)			
S828	1-771-839-11	SWITCH, TACT (ENTER/MEM PGM SET)			
S829	1-771-839-11	SWITCH, TACT (LINE IN)			
S830	1-771-839-11	SWITCH, TACT (SOUND)			
S831	1-771-839-11	SWITCH, TACT (MEGA BASS)			
S832	1-771-839-11	SWITCH, TACT (SUMMER TIME)			
S833	1-771-839-11	SWITCH, TACT (⏏ CD OPEN/CLOSE)			

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Ref. No.	Part No.	Description			Remark
*	A-3323-381-A	CPU BOARD, COMPLETE ********************			
		< CAPACITOR >			
C802	1-102-106-00	CERAMIC	100PF	10%	50V
C803	1-164-095-11	CERAMIC	0.01uF	10%	16V
C805	1-164-095-11	CERAMIC	0.01uF	10%	16V
C807	1-102-106-00	CERAMIC	100PF	10%	50V
C808	1-102-106-00	CERAMIC	100PF	10%	50V
C809	1-102-106-00	CERAMIC	100PF	10%	50V
C810	1-102-106-00	CERAMIC	100PF	10%	50V
C811	1-102-106-00	CERAMIC	100PF	10%	50V
C812	1-102-106-00	CERAMIC	100PF	10%	50V
C813	1-102-106-00	CERAMIC	100PF	10%	50V
C814	1-102-106-00	CERAMIC	100PF	10%	50V
C815	1-137-399-11	FILM	0.1		100V
C816	1-137-399-11	FILM	0.1		100V
C817	1-102-106-00	CERAMIC	100PF	10%	50V
C818	1-102-106-00	CERAMIC	100PF	10%	50V
C819	1-102-106-00	CERAMIC	100PF	10%	50V
C820	1-102-106-00	CERAMIC	100PF	10%	50V
C821	1-102-106-00	CERAMIC	100PF	10%	50V
C822	1-102-106-00	CERAMIC	100PF	10%	50V
C823	1-164-095-11	CERAMIC	0.01uF	10%	16V
C824	1-124-907-11	ELECT	10uF	20%	50V
C825	1-164-097-11	CERAMIC	0.022uF	50V	
C826	1-128-956-11	DOUBLE LAYER	0.33uF		5.5V
C827	1-104-666-11	ELECT	220uF	20%	10V
C828	1-164-097-11	CERAMIC	0.022uF	50V	
C829	1-124-472-11	ELECT	470uF	20%	10V
C831	1-162-206-31	CERAMIC	20PF	5%	50V
C832	1-162-206-31	CERAMIC	20PF	5%	50V
C833	1-162-211-31	CERAMIC	33PF	5%	50V
C834	1-162-211-31	CERAMIC	33PF	5%	50V
C835	1-164-095-11	CERAMIC	0.01uF	10%	16V
C836	1-164-095-11	CERAMIC	0.01uF	10%	16V
C837	1-162-201-31	CERAMIC	12PF	5%	50V
C838	1-162-201-31	CERAMIC	12PF	5%	50V
C839	1-164-095-11	CERAMIC	0.01uF	10%	16V
C845	1-164-095-11	CERAMIC	0.01uF	10%	16V
C846	1-164-095-11	CERAMIC	0.01uF	10%	16V
C847	1-164-095-11	CERAMIC	0.01uF	10%	16V
C848	1-164-095-11	CERAMIC	0.01uF	10%	16V
C849	1-164-095-11	CERAMIC	0.01uF	10%	16V
C850	1-102-106-00	CERAMIC	100PF	10%	50V
C851	1-102-106-00	CERAMIC	100PF	10%	50V
C852	1-164-095-11	CERAMIC	0.01uF	10%	16V
C853	1-164-095-11	CERAMIC	0.01uF	10%	16V
C854	1-164-095-11	CERAMIC	0.01uF	10%	16V
C855	1-164-095-11	CERAMIC	0.01uF	10%	16V
C856	1-164-095-11	CERAMIC	0.01uF	10%	16V
C857	1-164-095-11	CERAMIC	0.01uF	10%	16V
C858	1-102-106-00	CERAMIC	100PF	10%	50V
C859	1-102-106-00	CERAMIC	100PF	10%	50V
C860	1-102-106-00	CERAMIC	100PF	10%	50V
C865	1-161-485-00	CERAMIC	0.1uF		50V
		< CONNECTOR >			
* CN801	1-793-854-11	BASE, FFC SIDE 19P			
* CN802	1-793-853-11	BASE, FFC SIDE 18P			
* CN804	1-793-854-11	BASE, FFC SIDE 19P			
* CN806	1-793-852-11	BASE, FFC SIDE 14P			
		< DIODE >			
D801	8-719-991-33	DIODE 1SS133T-77			
D802	8-719-991-33	DIODE 1SS133T-77			
		< IC >			
IC801	8-752-910-37	IC CXP82832-023			
IC802	8-759-165-88	IC PST600K-T			
		< COIL >			
L802	1-419-406-11	COIL, PEAKING			
		< TRANSISTOR >			
Q801	8-729-672-42	TRANSISTOR 2SC2724-C			
Q802	8-729-672-42	TRANSISTOR 2SC2724-C			
		< RESISTOR >			
R801	1-249-417-11	CARBON	1K	5%	1/4W
R802	1-247-855-11	CARBON	10K	5%	1/4W
R803	1-249-417-11	CARBON	1K	5%	1/4W
R804	1-249-417-11	CARBON	1K	5%	1/4W
R805	1-247-855-11	CARBON	10K	5%	1/4W
R806	1-249-417-11	CARBON	1K	5%	1/4W
R807	1-249-417-11	CARBON	1K	5%	1/4W
R808	1-249-417-11	CARBON	1K	5%	1/4W
R809	1-249-417-11	CARBON	1K	5%	1/4W
R810	1-249-417-11	CARBON	1K	5%	1/4W
R811	1-249-417-11	CARBON	1K	5%	1/4W
R812	1-249-417-11	CARBON	1K	5%	1/4W
R813	1-249-417-11	CARBON	1K	5%	1/4W
R814	1-249-417-11	CARBON	1K	5%	1/4W
R815	1-249-417-11	CARBON	1K	5%	1/4W
R816	1-249-417-11	CARBON	1K	5%	1/4W
R817	1-249-417-11	CARBON	1K	5%	1/4W
R818	1-249-417-11	CARBON	1K	5%	1/4W
R819	1-249-417-11	CARBON	1K	5%	1/4W
R820	1-249-417-11	CARBON	1K	5%	1/4W
R821	1-249-417-11	CARBON	1K	5%	1/4W
R822	1-249-417-11	CARBON	1K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R824	1-247-871-11	CARBON	47K	5%	1/4W
R825	1-247-855-11	CARBON	10K	5%	1/4W
R827	1-247-903-00	CARBON	1M	5%	1/4W
R834	1-247-847-11	CARBON	4.7K	5%	1/4W
R835	1-247-863-11	CARBON	22K	5%	1/4W
R836	1-249-411-11	CARBON	330	5%	1/4W
R837	1-249-417-11	CARBON	1K	5%	1/4W
R838	1-247-855-11	CARBON	10K	5%	1/4W
R839	1-247-855-11	CARBON	10K	5%	1/4W
R840	1-249-393-11	CARBON	10	5%	1/4W
R841	1-249-417-11	CARBON	1K	5%	1/4W
R842	1-249-417-11	CARBON	1K	5%	1/4W
R843	1-247-847-11	CARBON	4.7K	5%	1/4W
R844	1-247-847-11	CARBON	4.7K	5%	1/4W
R846	1-247-807-11	CARBON	100	5%	1/4W
R848	1-247-855-11	CARBON	10K	5%	1/4W
R849	1-249-417-11	CARBON	1K	5%	1/4W
R850	1-249-417-11	CARBON	1K	5%	1/4W
R851	1-249-417-11	CARBON	1K	5%	1/4W
R852	1-249-417-11	CARBON	1K	5%	1/4W F
R853	1-249-417-11	CARBON	1K	5%	1/4W
R854	1-247-847-11	CARBON	4.7K	5%	1/4W
R855	1-247-847-11	CARBON	4.7K	5%	1/4W
R856	1-247-855-11	CARBON	10K	5%	1/4W
R857	1-247-847-11	CARBON	4.7K	5%	1/4W
R858	1-249-417-11	CARBON	1K	5%	1/4W
R859	1-249-417-11	CARBON	1K	5%	1/4W
R860	1-249-417-11	CARBON	1K	5%	1/4W
R862	1-247-847-11	CARBON	4.7K	5%	1/4W
R863	1-247-847-11	CARBON	4.7K	5%	1/4W
R864	1-247-847-11	CARBON	4.7K	5%	1/4W
RA801	1-247-855-11	CARBON	10K	5%	1/4W
RA804	1-247-855-11	CARBON	10K	5%	1/4W
RA805	1-247-847-11	CARBON	4.7K	5%	1/4W
RA815	1-247-855-11	CARBON	10K	5%	1/4W
RA816	1-247-855-11	CARBON	10K	5%	1/4W
RA817	1-247-855-11	CARBON	10K	5%	1/4W
RA830	1-247-847-11	CARBON	4.7K	5%	1/4W
RB830	1-247-847-11	CARBON	4.7K	5%	1/4W
R8303	1-247-847-11	CARBON	4.7K	5%	1/4W
R8304	1-247-847-11	CARBON	4.7K	5%	1/4W
R8305	1-247-847-11	CARBON	4.7K	5%	1/4W
		< VIBRATOR >			
X801	1-781-689-11	VIBRATOR, CERAMIC (FCR8.0) (8MHz)			
X802	1-781-512-11	CRYSTAL (32.768kHz)			

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Ref. No.	Part No.	Description			Remark
*	A-3323-382-A	DISPLAY BOARD, COMPLETE			
		*************************			
		< CAPACITOR >			
C893	1-161-485-00	CERAMIC	0.1uF		50V
C894	1-164-097-11	CERAMIC	0.022uF		50V
C895	1-164-097-11	CERAMIC	0.022uF		50V
		< CONNECTOR >			
* CN801	1-793-850-11	BASE, FFC SIDE 19P			
* CN802	1-793-849-11	BASE, FFC SIDE 18P			
		< FLUORESCENT INDICATOR TUBE >			
FL801	1 -517-921-11	INDICATOR TUBE, FLUORESCENT			
		< RESISTOR >			
R865	1-249-403-11	CARBON	68	5%	1/4W
R866	1-247-827-11	CARBON	680	5%	1/4W
R867	1-249-416-11	CARBON	820	5%	1/4W
R868	1-249-418-11	CARBON	1.2K	5%	1/4W
R869	1-249-420-11	CARBON	1.8K	5%	1/4W
RA801	1-242-960-11	REGISTER	0		
RA802	1-242-960-11	REGISTER	0		
RA803	1-242-960-11	REGISTER	0		
		<SWITCH >			
S801	1-771-838-11	SWITCH, TACT (STANDBY)			
S802	1-771-838-11	SWITCH, TACT (SLEEP)			
S803	1-771-838-11	SWITCH, TACT (CLOCK)			
S804	1-771-838-11	SWITCH, TACT (TIMER)			
S805	1-771-838-11	SWITCH, TACT (DISPLAY)			

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Ref. No.	Part No.	Description			Remark
*	A-3323-380-A	DSP BOARD, COMPLETE			
		********************			
		< CAPACITOR >			
C751	1-164-085-11	CERAMIC	0.001uF	10%	50V
C752	1-164-085-11	CERAMIC	0.001uF	10%	50V
C753	1-164-085-11	CERAMIC	0.001uF	10%	50V
C754	1-164-085-11	CERAMIC	0.001uF	10%	50V
C755	1-164-085-11	CERAMIC	0.001uF	10%	50V
C756	1-164-085-11	CERAMIC	0.001uF	10%	50V
C761	1-137-194-11	MYLAR	0.47uF	5%	50V
C762	1-164-077-11	CERAMIC	220PF	10%	50V
C763	1-164-081-11	CERAMIC	470PF	10%	50V
C764	1-136-169-00	MYLAR	0.22uF	5%	50V
C765	1-164-095-11	CERAMIC	0.01uF	10%	16V
C766	1-164-097-11	CERAMIC	0.022uF		50V
C767	1-164-097-11	CERAMIC	0.022uF		50V
C768	1-104-665-11	ELECT	100uF	20%	10V
C769	1-164-097-11	CERAMIC	0.022uF		50V
C770	1-164-085-11	CERAMIC	0.001uF	10%	50V
C771	1-164-097-11	CERAMIC	0.022uF		50V
C772	1-104-665-11	ELECT	100uF	20%	10V
C773	1-164-097-11	CERAMIC	0.022uF		50V
C774	1-164-097-11	CERAMIC	0.022uF		50V
C775	1-164-097-11	CERAMIC	0.022uF		50V
C776	1-164-097-11	CERAMIC	0.022uF		50V
C777	1-126-964-11	ELECT	10uF	20%	50V
C778	1-162-209-31	CERAMIC	27PF	5%	50V
C779	1-162-209-31	CERAMIC	27PF	5%	50V
C781	1-102-108-00	CERAMIC	150PF	10%	50V
C782	1-102-108-00	CERAMIC	150PF	10%	50V

Ref. No.	Part No.	Description			Remark
C783	1-164-083-11	CERAMIC	680PF	10%	50V
C784	1-164-083-11	CERAMIC	680PF	10%	50V
C785	1-126-963-11	ELECT	4.7uF	20%	50V
C786	1-126-963-11	ELECT	4.7uF	20%	50V
C787	1-164-085-11	CERAMIC	0.001uF	10%	50V
C788	1-164-085-11	CERAMIC	0.001uF	10%	50V
		< CONNECTOR >			
* CN702	1-793-848-11	BASE, FFC SIDE 20P			
CN752	1-779-605-11	CONNECTOR (WIRE HOLDER) 6P			
* CN806	1-793-847-11	BASE, FFC SIDE 14P			
		< IC >			
IC751	8-752-384-13	IC CXD2589Q			
		< COIL >			
L751	1-419-159-11	INDUCTOR	100uH		
L752	1-469-447-11	FERRITE	0uH		
		< TRANSISTOR >			
Q751	8-729-119-78	TRANSISTOR 2SC403SP-51			
Q752	8-729-119-78	TRANSISTOR 2SC403SP-51			
Q753	8-729-049-00	TRANSISTOR 2SA733P			
Q754	8-729-119-78	TRANSISTOR 2SC403SP-51			
Q755	8-729-049-00	TRANSISTOR 2SA733P			
		< RESISTOR >			
R750	1-247-871-11	CARBON	47K	5%	1/4W
R751	1-249-417-11	CARBON	1K	5%	1/4W
R752	1-249-417-11	CARBON	1K	5%	1/4W
R753	1-249-417-11	CARBON	1K	5%	1/4W
R754	1-249-417-11	CARBON	1K	5%	1/4W
R755	1-249-417-11	CARBON	1K	5%	1/4W
R756	1-249-417-11	CARBON	1K	5%	1/4W
R757	1-249-417-11	CARBON	1K	5%	1/4W
R758	1-249-417-11	CARBON	1K	5%	1/4W
R759	1-249-417-11	CARBON	1K	5%	1/4W
R760	1-249-417-11	CARBON	1K	5%	1/4W
R761	1-247-871-11	CARBON	47K	5%	1/4W
R762	1-247-867-11	CARBON	33K	5%	1/4W
R763	1-247-871-11	CARBON	47K	5%	1/4W
R764	1-247-843-11	CARBON	3.3K	5%	1/4W
R765	1-249-417-11	CARBON	1K	5%	1/4W
R766	1-247-855-11	CARBON	10K	5%	1/4W
R767	1-247-903-00	CARBON	1M	5%	1/4W
R768	1-247-887-00	CARBON	220K	5%	1/4W
R769	1-247-855-11	CARBON	10K	5%	1/4W
R771	1-249-417-11	CARBON	1K	5%	1/4W
R773	1-249-442-11	CARBON	510	5%	1/4W
R774	1-247-903-00	CARBON	1M	5%	1/4W
R781	1-249-430-11	CARBON	12K	5%	1/4W
R782	1-249-430-11	CARBON	12K	5%	1/4W
R783	1-249-430-11	CARBON	12K	5%	1/4W
R784	1-249-430-11	CARBON	12K	5%	1/4W
R785	1-249-430-11	CARBON	12K	5%	1/4W
R786	1-249-430-11	CARBON	12K	5%	1/4W
R787	1-247-839-11	CARBON	2.2K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R788	1-247-839-11	CARBON	2.2K	5%	1/4W
R789	1-247-839-11	CARBON	2.2K	5%	1/4W
R790	1-247-839-11	CARBON	2.2K	5%	1/4W
R793	1-247-847-11	CARBON	4.7K	5%	1/4W
R794	1-247-855-11	CARBON	10K	5%	1/4W
R795	1-247-855-11	CARBON	10K	5%	1/4W
R796	1-247-855-11	CARBON	10K	5%	1/4W
R797	1-247-847-11	CARBON	4.7K	5%	1/4W
R798	1-247-855-11	CARBON	10K	5%	1/4W
R799	1-247-855-11	CARBON	10K	5%	1/4W
		< VIBRATOR >			
X701	1-781-688-11	CRYSTAL (16.9344MHz)			

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*	1-673-339-11	HEAD RELAY BOARD			

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*	A-3323-378-A	JACK BOARD, COMPLETE (DR70L)			
*	A-3323-406-A	JACK BOARD, COMPLETE (DR50L)			

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	7-685-645-79	SCREW +BVTP	3X6	TYPE2 SLIT	
		< CAPACITOR >			
C147	1-124-907-11	ELECT	10uF	20%	50V
C152	1-164-085-11	CERAMIC	0.001uF	10%	50V
C153	1-124-907-11	ELECT	10uF	20%	50V
C155	1-104-664-11	ELECT	47uF	20%	16V
C247	1-124-907-11	ELECT	10uF	20%	50V
C252	1-164-085-11	CERAMIC	0.001uF	10%	50V
C253	1-124-907-11	ELECT	10uF	20%	50V
C255	1-104-664-11	ELECT	47uF	20%	16V
C311	1-130-487-00	FILM	0.022uF		50V
C312	1-130-487-00	FILM	0.022uF		50V
C313	1-130-487-00	FILM	0.022uF		50V
C340	1-102-106-00	CERAMIC	100PF	10%	50V
C341	1-102-106-00	CERAMIC	100PF	10%	50V
C342	1-164-097-11	CERAMIC	0.022uF		50V
C346	1-164-096-11	CERAMIC	0.01uF		50V
C348	1-126-967-11	ELECT	47	20%	50V
C350	1-164-096-11	CERAMIC	0.01uF		50V
C351	1-124-472-11	ELECT	470uF	20%	10V
C352	1-104-665-11	ELECT	100uF	20%	10V
C355	1-104-664-11	ELECT	47uF	20%	16V
C356	1-164-097-11	CERAMIC	0.022uF		50V
C357	1-104-665-11	ELECT	100uF	20%	10V
C359	1-124-907-11	ELECT	100uF	20%	10V
C360	1-164-097-11	CERAMIC	0.022uF		50V
C391	1-164-097-11	CERAMIC	0.022uF		50V (DR70L)
C392	1-164-097-11	CERAMIC	0.022uF		50V (DR70L)
C393	1-164-097-11	CERAMIC	0.022uF		50V (DR70L)
C394	1-164-097-11	CERAMIC	0.022uF		50V (DR70L)
C397	1-124-907-11	ELECT	10uF	20%	50V (DR70L)

Ref. No.	Part No.	Description			Remark
C398	1-126-960-11	ELECT	1uF	20%	50V (DR70L)
C399	1-126-960-11	ELECT	1uF	20%	50V (DR70L)
		< CONNECTOR >			
* CN303	1-517-942-11	SOCKET 7P			
CN304	1-779-615-11	CONNECTOR (TOP BASE) 5P			
CN308	1-779-615-11	CONNECTOR (TOP BASE) 5P			
* CN311	1-793-841-11	CONNECTOR (SIDE BASE) 7P (POWER IN FROM SP-R)			
* CN312	1-793-104-11	CONNECTOR (TOP BASE) 4P			
CN313	1-779-616-11	CONNECTOR (TOP BASE) 3P			
		< DIODE >			
D305	8-719-991-33	DIODE 1SS133T-77			
D308	8-719-991-33	DIODE 1SS133T-77			
D309	8-719-991-33	DIODE 1SS133T-77			
D310	8-719-991-33	DIODE 1SS133T-77			
D311	8-719-110-08	DIODE RD8.2ES-B2			
D313	8-719-109-89	DIODE RD5.6ESB2			
D315	8-719-921-88	DIODE MTZJ-13B			
D320	8-719-991-33	DIODE 1SS133T-77			
		< IC >			
IC303	8-759-701-54	IC NJM2073D			
		< JACK >			
JK311	1-793-843-11	JACK, RCA 2P (SIGNAL OUT L/R)			
JK312	1-793-842-11	JACK, RCA 1P (SIGNAL OUT BASS) (DR70L)			
		< COIL >			
L311	1-419-508-11	INDUCTOR	100uH		
		< PHOTO SOCKET>			
PH01	1-251-862-11	PHOTO SOCKET (OPTICAL DIGITAL OUT, CD)			
		< TRANSISTOR >			
Q103	8-729-142-46	TRANSISTOR 2SC2001-LK			
Q203	8-729-142-46	TRANSISTOR 2SC2001-LK			
Q314	8-729-119-78	TRANSISTOR 2SC403SP-51			
Q315	8-729-822-89	TRANSISTOR 2SD1667-R			
Q318	8-729-822-89	TRANSISTOR 2SD1667-R			
Q319	8-729-142-46	TRANSISTOR 2SC2001-LK			
Q323	8-729-822-89	TRANSISTOR 2SD1667-R			
Q334	8-729-195-23	TRANSISTOR 2SA952			
Q335	8-729-049-00	TRANSISTOR 2SA733P			
Q398	8-729-901-08	TRANSISTOR 2SC1740S (DR70L)			
Q399	8-729-901-08	TRANSISTOR 2SC1740S (DR70L)			
		< RESISTOR >			
R146	1-249-417-11	CARBON	1K	5%	1/4W
R151	1-247-855-11	CARBON	10K	5%	1/4W
R152	1-249-417-11	CARBON	1K	5%	1/4W
R153	1-247-847-11	CARBON	4.7K	5%	1/4W
R156	1-247-847-11	CARBON	4.7K	5%	1/4W
R246	1-249-417-11	CARBON	1K	5%	1/4W
R251	1-247-855-11	CARBON	10K	5%	1/4W
R252	1-249-417-11	CARBON	1K	5%	1/4W
R253	1-247-847-11	CARBON	4.7K	5%	1/4W
R255	1-247-887-00	CARBON	220K	5%	1/4W
R256	1-247-847-11	CARBON	4.7K	5%	1/4W
R302	1-247-879-11	CARBON	100K	5%	1/4W
R305	1-247-839-11	CARBON	2.2K	5%	1/4W
R330	1-249-411-11	CARBON	330	5%	1/4W
R331	1-247-855-11	CARBON	10K	5%	1/4W
R342	1-249-409-11	CARBON	220	5%	1/4W
R344	1-249-413-11	CARBON	470	5%	1/4W (DR70L)
R345	1-247-879-11	CARBON	100K	5%	1/4W
R351	1-249-401-11	CARBON	47	5%	1/4W
R360	1-247-855-11	CARBON	10K	5%	1/4W
R361	1-249-409-11	CARBON	220	5%	1/4W
R362	1-247-807-11	CARBON	100	5%	1/4W
R367	1-247-807-11	CARBON	100	5%	1/4W
R368	1-249-413-11	CARBON	470	5%	1/4W
R369	1-247-807-11	CARBON	100	5%	1/4W
R376	1-247-855-11	CARBON	10K	5%	1/4W
R378	1-247-807-11	CARBON	100	5%	1/4W
R379	1-249-409-11	CARBON	220	5%	1/4W
R390	1-247-871-11	CARBON	47K	5%	1/4W (DR70L)
R391	1-247-871-11	CARBON	47K	5%	1/4W (DR70L)
R392	1-247-855-11	CARBON	10K	5%	1/4W (DR70L)
R393	1-247-855-11	CARBON	10K	5%	1/4W (DR70L)
R394	1-247-847-11	CARBON	4.7K	5%	1/4W
R395	1-247-843-11	CARBON	3.3K	5%	1/4W (DR70L)
R398	1-247-855-11	CARBON	10K	5%	1/4W (DR70L)
R399	1-247-855-11	CARBON	10K	5%	1/4W (DR70L)
RA15	1-247-887-00	CARBON	220K	5%	1/4W

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*	1-676-257-11	LED BOARD (DR70L) **********			
		< DIODE >			
LED611	8-719-074-94	LED LTL-1CHEE (LEVEL)			

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*	A-3323-377-A	MAIN BOARD, COMPLETE *********************			
		< CAPACITOR >			
C6	1-164-097-11	CERAMIC	0.022uF		50V
C7	1-164-062-11	CERAMIC	47PF	5%	50V
C8	1-104-665-11	ELECT	100uF	20%	10V
C13	1-161-485-00	CERAMIC	0.1uF		50V
C14	1-104-665-11	ELECT	100uF	20%	25V
C15	1-164-098-11	CERAMIC	0.047uF		12V
C16	1-130-467-00	MYLAR	470PF	5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C17	1-162-206-31	CERAMIC	20PF	5%	50V
C18	1-104-665-11	ELECT	100uF	20%	10V
C19	1-162-206-31	CERAMIC	20PF	5%	50V
C20	1-164-097-11	CERAMIC	0.022uF		50V
C21	1-164-050-11	CERAMIC	15PF	5%	50V
C22	1-126-960-11	ELECT	1uF	20%	50V
C23	1-104-644-11	ELECT	47uF	20%	25V
C24	1-164-053-11	CERAMIC	20PF	5%	50V
C25	1-126-960-11	ELECT	1uF	20%	50V
C26	1-164-098-11	CERAMIC	0.047uF		12V
C27	1-124-907-11	ELECT	10uF	20%	50V
C28	1-164-097-11	CERAMIC	0.022uF		50V
C29	1-124-907-11	ELECT	10uF	20%	50V
C30	1-161-474-00	CERAMIC	0.022uF	10%	50V
C31	1-161-474-00	CERAMIC	0.022uF	10%	50V
C32	1-164-087-11	CERAMIC	0.0015uF	10%	50V
C33	1-164-087-11	CERAMIC	0.0015uF	10%	50V
C35	1-164-084-11	CERAMIC	820PF	10%	50V
C37	1-126-959-11	ELECT	0.47uF	20%	50V
C38	1-164-098-11	CERAMIC	0.047uF		12V
C39	1-164-097-11	CERAMIC	0.022uF		50V
C41	1-164-097-11	CERAMIC	0.022uF		50V
C42	1-104-665-11	ELECT	100uF	20%	25V
C44	1-130-483-00	MYLAR	0.01uF	5%	50V
C46	1-164-085-11	CERAMIC	0.001uF	10%	50V
C48	1-164-097-11	CERAMIC	0.022uF		50V
C49	1-164-085-11	CERAMIC	0.001uF	10%	50V
C50	1-161-485-00	CERAMIC	0.1uF		50V
C51	1-126-233-11	ELECT	22uF	20%	50V
C52	1-102-106-00	CERAMIC	100PF	10%	50V
C54	1-161-485-00	CERAMIC	0.1uF		50V
C55	1-164-085-11	CERAMIC	0.001uF	10%	50V
C56	1-126-961-11	ELECT	2.2uF	20%	50V
C57	1-126-961-11	ELECT	2.2uF	20%	50V
C58	1-104-664-11	ELECT	47uF	20%	16V
C59	1-164-096-11	CERAMIC	0.01uF		50V
C60	1-126-963-11	ELECT	4.7uF	20%	50V
C61	1-126-963-11	ELECT	4.7uF	20%	50V
C62	1-164-096-11	CERAMIC	0.01uF		50V
C63	1-164-097-11	CERAMIC	0.022uF		50V
C64	1-126-962-11	ELECT	3.3uF	20%	50V
C65	1-161-485-00	CERAMIC	0.1uF		50V
C71	1-164-062-11	CERAMIC	47PF	5%	50V
C73	1-164-097-11	CERAMIC	0.022uF		50V
C77	1-164-097-11	CERAMIC	0.022uF		50V
C78	1-110-338-51	MYLAR	180PF	5%	50V
C79	1-164-085-11	CERAMIC	0.001uF	10%	50V
C88	1-126-963-11	ELECT	4.7uF	20%	50V
C89	1-164-090-11	CERAMIC	0.0047uF		50V
C91	1-104-664-11	ELECT	47uF	20%	16V
C92	1-104-664-11	ELECT	47uF	20%	16V
C93	1-164-082-11	CERAMIC	560PF	10%	50V
C94	1-164-077-11	CERAMIC	220PF	10%	50V
C95	1-162-211-31	CERAMIC	33PF	5%	50V
C96	1-162-211-31	CERAMIC	33PF	5%	50V
C97	1-164-077-11	CERAMIC	220PF	10%	50V
C98	1-126-959-11	ELECT	0.47uF	20%	50V
C101	1-164-085-11	CERAMIC	0.001uF	10%	50V
C102	1-104-664-11	ELECT	47uF	20%	25V
C103	1-106-381-12	MYLAR	0.039uF		200V
C104	1-102-121-00	CERAMIC	2200PF	10%	50V
C105	1-164-062-11	CERAMIC	47PF	5%	50V
C108	1-126-959-11	ELECT	0.47uF	20%	50V
C112	1-124-907-11	ELECT	10uF	20%	50V
C123	1-102-106-00	CERAMIC	100PF	10%	50V
C125	1-124-907-11	ELECT	10uF	20%	50V
C126	1-124-907-11	ELECT	10uF	20%	50V
C141	1-124-907-11	ELECT	10uF	20%	50V
C142	1-164-085-11	CERAMIC	0.001uF	10%	50V
C143	1-124-907-11	ELECT	10uF	20%	50V
C144	1-161-482-11	CERAMIC	0.068uF	10%	50V
C145	1-161-482-11	CERAMIC	0.068uF	10%	50V
C146	1-164-096-11	ELECT	0.01uF		50V
C167	1-102-947-00	CERAMIC	10PF	5%	50V
C201	1-164-085-11	CERAMIC	0.001uF	10%	50V
C202	1-104-664-11	ELECT	47uF	20%	25V
C203	1-106-381-12	MYLAR	0.039uF		200V
C204	1-102-121-00	CERAMIC	2200PF	10%	50V
C205	1-164-062-11	CERAMIC	47PF	5%	50V
C208	1-126-959-11	ELECT	0.47uF	20%	50V
C212	1-124-907-11	ELECT	10uF	20%	50V
C223	1-102-106-00	CERAMIC	100PF	10%	50V
C225	1-124-907-11	ELECT	10uF	20%	50V
C226	1-124-907-11	ELECT	10uF	20%	50V
C241	1-124-907-11	ELECT	10uF	20%	50V
C242	1-164-085-11	CERAMIC	0.001uF	10%	50V
C243	1-124-907-11	ELECT	10uF	20%	50V
C244	1-161-482-11	CERAMIC	0.068uF	10%	50V
C246	1-164-096-11	ELECT	0.01uF		50V
C245	1-161-482-11	CERAMIC	0.068uF	10%	50V
C301	1-104-665-11	ELECT	100uF	20%	25V
C302	1-104-666-11	ELECT	220uF	20%	25V
C304	1-104-665-11	ELECT	100uF	20%	25V
C307	1-164-097-11	CERAMIC	0.022uF		50V
C311	1-164-094-11	CERAMIC	0.0068uF	10%	25V
C312	1-104-664-11	ELECT	47uF	20%	16V
C313	1-136-158-00	FILM	0.027uF		50V
C314	1-164-090-11	CERAMIC	0.0047uF		50V
C315	1-164-094-11	CERAMIC	0.0068uF	10%	25V
C316	1-164-090-11	CERAMIC	0.0047uF		50V
C320	1-104-666-11	ELECT	220uF	20%	25V
C321	1-104-664-11	ELECT	47uF	20%	16V
C324	1-126-961-11	ELECT	2.2uF	20%	50V
C325	1-126-961-11	ELECT	2.2uF	20%	50V
C326	1-124-906-51	ELECT	4.7uF	20%	50V
C327	1-104-664-11	ELECT	47uF	20%	25V
C328	1-124-902-00	ELECT	0.47uF	20%	50V
C329	1-137-189-11	MYLAR	0.18uF	5%	50V
C333	1-126-964-11	ELECT	10uF	20%	50V
C334	1-126-963-11	ELECT	4.7uF	20%	50V
C335	1-126-960-11	ELECT	1uF	20%	50V
C336	1-126-961-11	ELECT	2.2uF	20%	50V
C337	1-104-665-11	ELECT	100uF	20%	10V
C338	1-164-097-11	CERAMIC	0.022uF		50V
C339	1-164-097-11	CERAMIC	0.022uF		50V
C340	1-164-081-11	CERAMIC	470PF	10%	50V

Ref. No.	Part No.	Description				Remark
C341	1-164-081-11	CERAMIC	470PF	10%	50V	
C347	1-126-934-11	ELECT	220uF	20%	10V	
C380	1-124-907-11	ELECT	10uF	20%	50V	
C381	1-124-907-11	ELECT	10uF	20%	50V	
C382	1-164-096-11	CERAMIC	0.01uF		50V	
C385	1-124-907-11	ELECT	10uF	20%	50V	
CA10	1-126-964-11	ELECT	10uF	20%	50V	
CA14	1-161-485-00	CERAMIC	0.1uF		50V	
CA56	1-162-201-31	CERAMIC	12PF	5%	50V	
CA57	1-162-201-31	CERAMIC	12PF	5%	50V	
CA64	1-126-962-11	ELECT	3.3uF	20%	50V	
CA88	1-102-947-00	CERAMIC	10PF	5%	50V	
CA94	1-164-078-11	CERAMIC	270PF	10%	50V	
CA95	1-164-077-11	CERAMIC	220PF	10%	50V	
CA96	1-164-077-11	CERAMIC	220PF	10%	50V	
CA342	1-164-081-11	CERAMIC	470PF	10%	50V	
		< FILTER >				
CF1	1-781-508-11	FILTER, CERAMIC				
CF2	1-781-508-11	FILTER, CERAMIC				
CF3	1-781-510-11	FILTER, CERAMIC				
CF4	1-781-509-11	FILTER, CERAMIC				
CF7	1-234-466-11	FILTER, BAND PASS				
		< CONNECTOR >				
* CN1	1-793-892-11	CONNECTOR (SIDE BASE) 2P (EXT ANT, MW/LW)				
* CN303	1-793-893-11	CONNECTOR (HEADER) 7P				
* CN304	1-793-104-11	CONNECTOR (TOP BASE) 4P				
* CN307	1-793-104-11	CONNECTOR (TOP BASE) 4P				
* CN804	1-784-960-11	CONNECTOR, FFC (TOP BASE) 19P				
		< TRIMMER >				
CT3	1-131-978-11	TRIMMER	30PF (LW TRACKING)			
CT4	1-131-977-11	TRIMMER	10PF (MW FREQUENCY COVERAGE)			
CT5	1-131-979-11	TRIMMER	10PF (LW FREQUENCY COVERAGE)			
CT102	1-131-977-11	TRIMMER	10PF (MW TRACKING)			
		< DIODE >				
D1	8-719-991-33	DIODE 1SS133T-77				
D2	8-719-991-33	DIODE 1SS133T-77				
D3	8-719-991-33	DIODE 1SS133T-77				
D4	8-719-991-33	DIODE 1SS133T-77				
D6	8-719-075-42	DIODE SVC348SPA				
D8	8-719-991-33	DIODE 1SS133T-77				
D9	8-719-991-33	DIODE 1SS133T-77				
D10	8-719-109-89	DIODE RD5.6ESB2				
D11	8-719-991-33	DIODE 1SS133T-77				
D20	8-719-109-66	DIODE RD3.3ES-B2				
D301	8-719-991-33	DIODE 1SS133T-77				
D304	8-719-991-33	DIODE 1SS133T-77				
D312	8-719-991-33	DIODE 1SS133T-77				
D314	8-719-991-33	DIODE 1SS133T-77				
D316	8-719-991-33	DIODE 1SS133T-77				
D317	8-719-991-33	DIODE 1SS133T-77				
D318	8-719-991-33	DIODE 1SS133T-77				
D319	8-719-991-33	DIODE 1SS133T-77				

Ref. No.	Part No.	Description	Remark
D361	8-719-991-33	DIODE 1SS133T-77	
D380	8-719-991-33	DIODE 1SS133T-7	
D380A	8-719-991-33	DIODE 1SS133T-77	
DA315	8-719-991-33	DIODE 1SS133T-77	
DA316	8-719-991-33	DIODE 1SS133T-77	
DA317	8-719-991-33	DIODE 1SS133T-77	
DA318	8-719-991-33	DIODE 1SS133T-77	
		< IC >	
IC2	8-759-590-14	IC LA1833L	
IC3	8-759-549-57	IC LC72137-D	
IC4	8-759-560-51	IC BU1924F	
IC301	8-759-264-71	IC TA2068N	
IC302	8-759-540-49	IC BH3854AFS	
IC304	8-759-590-12	IC NJM78L05	
IC305	8-759-905-47	IC BA338	
IC307	8-759-634-51	IC M5218AP	
		< JACK >	
JK1	1-793-846-11	JACK, FM ANTENNA (EXT,ANT,FM75Ω)	
JK301	1-793-845-11	JACK, LINE (3.50) (LINE OUT)	
JK302	1-793-845-11	JACK, LINE (3.50) (LINE IN)	
		< COIL >	
L4	1-411-901-11	COIL, ANTENNA (MW TRACKING)	
L5	1-429-555-11	TRANSFORMER, MW OSCILLATION (MW FREQUENCY COVERAGE)	
L6	1-419-153-11	COIL, PEAKING	
L7	1-419-404-11	COIL, LW ANTENNA (LW TRACKING)	
L8	1-419-152-11	COIL, PEAKING	
L9	1-419-152-11	COIL, PEAKING	
L10	1-419-405-11	COIL, LW OSCILLATION (LW FREQUENCY COVERAGE)	
L13	1-419-152-11	COIL, PEAKING	
L14	1-419-152-11	COIL, PEAKING	
L111	1-419-152-11	COIL, PEAKING	
L131	1-419-152-11	COIL, PEAKING	
L211	1-419-152-11	COIL, PEAKING	
L231	1-419-152-11	COIL, PEAKING	
L301	1-419-507-11	BIAS OSC COIL	
L311	1-419-152-11	COIL, PEAKING	
L331	1-419-152-11	COIL, PEAKING	
		< TRANSISTOR >	
Q1	8-729-672-42	TRANSISTOR 2SC2724-C	
Q3	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q4	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q5	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q6	8-729-049-00	TRANSISTOR 2SA733P	
Q7	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q16	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q17	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q19	8-729-049-00	TRANSISTOR 2SA733P	
Q101	8-729-029-68	TRANSISTOR DTC114TSA	
Q102	8-729-029-68	TRANSISTOR DTC114TSA	
Q104	8-729-029-68	TRANSISTOR DTC114TSA	
Q108	8-729-041-83	TRANSISTOR 2SK544E	
Q131	8-729-029-68	TRANSISTOR DTC114TSA	

MAIN

Ref. No.	Part No.	Description				Remark
Q132	8-729-029-68	TRANSISTOR	DTC114TSA			
Q171	8-729-048-99	TRANSISTOR	2SK2541			
Q201	8-729-029-68	TRANSISTOR	DTC114TSA			
Q202	8-729-029-68	TRANSISTOR	DTC114TSA			
Q204	8-729-029-68	TRANSISTOR	DTC114TSA			
Q231	8-729-029-68	TRANSISTOR	DTC114TSA			
Q232	8-729-029-68	TRANSISTOR	DTC114TSA			
Q271	8-729-048-99	TRANSISTOR	2SK2541			
Q301	8-729-142-46	TRANSISTOR	2SC2001-LK			
Q302	8-729-142-46	TRANSISTOR	2SC2001-LK			
Q303	8-729-142-46	TRANSISTOR	2SC2001-LK			
Q304	8-729-902-80	TRANSISTOR	DTA114YS			
Q305	8-729-030-02	TRANSISTOR	DTC144ESA			
Q306	8-729-048-99	TRANSISTOR	2SK2541			
Q307	8-729-142-46	TRANSISTOR	2SC2001-LK			
Q308	8-729-901-08	TRANSISTOR	2SC1740S			
Q309	8-729-142-46	TRANSISTOR	2SC2001-LK			
Q311	8-729-195-23	TRANSISTOR	2SA952			
Q312	8-729-119-78	TRANSISTOR	2SC403SP-51			
Q316	8-729-049-00	TRANSISTOR	2SA733P			
Q317	8-729-048-99	TRANSISTOR	2SK2541			
Q320	8-729-195-23	TRANSISTOR	2SA952			
Q324	8-729-902-80	TRANSISTOR	DTA114YS			
Q325	8-729-901-08	TRANSISTOR	2SC1740S			
Q326	8-729-902-80	TRANSISTOR	DTA114YS			
Q327	8-729-048-99	TRANSISTOR	2SK2541			
Q328	8-729-048-99	TRANSISTOR	2SK2541			
Q329	8-729-119-78	TRANSISTOR	2SC403SP-51			
Q330	8-729-119-78	TRANSISTOR	2SC403SP-51			
Q333	8-729-902-80	TRANSISTOR	DTA114YS			
Q351	8-729-049-00	TRANSISTOR	2SA733P			
Q367	8-729-902-80	TRANSISTOR	DTA114YS			
Q368	8-729-048-99	TRANSISTOR	2SK2541			
Q381	8-729-119-78	TRANSISTOR	2SC403SP-51			
		< RESISTOR >				
R5	1-249-411-11	CARBON		330	5%	1/4W
R6	1-247-839-11	CARBON		2.2K	5%	1/4W
R7	1-247-871-11	CARBON		47K	5%	1/4W
R8	1-247-871-11	CARBON		47K	5%	1/4W
R12	1-249-397-11	CARBON		22	5%	1/4W
R13	1-249-417-11	CARBON		1K	5%	1/4W
R14	1-247-871-11	CARBON		47K	5%	1/4W
R15	1-249-417-11	CARBON		1K	5%	1/4W
R16	1-249-397-11	CARBON		22	5%	1/4W
R17	1-247-839-11	CARBON		2.2K	5%	1/4W
R18	1-247-807-11	CARBON		100	5%	1/4W
R19	1-247-807-11	CARBON		100	5%	1/4W
R20	1-247-843-11	CARBON		3.3K	5%	1/4W
R21	1-247-871-11	CARBON		47K	5%	1/4W
R23	1-249-428-11	CARBON		8.2K	5%	1/4W
R24	1-247-843-11	CARBON		3.3K	5%	1/4W
R26	1-247-855-11	CARBON		10K	5%	1/4W
R27	1-247-855-11	CARBON		10K	5%	1/4W
R28	1-249-424-11	CARBON		3.9K	5%	1/4W
R30	1-249-397-11	CARBON		22	5%	1/4W
R31	1-249-417-11	CARBON		1K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R32	1-247-855-11	CARBON	10K	5%	1/4W
R33	1-247-849-11	CARBON	5.6K	5%	1/4W
R34	1-247-855-11	CARBON	10K	5%	1/4W
R36	1-249-439-11	CARBON	68K	5%	1/4W
R37	1-247-855-11	CARBON	10K	5%	1/4W
R38	1-247-807-11	CARBON	100	5%	1/4W
R39	1-247-855-11	CARBON	10K	5%	1/4W
R39A	1-249-424-11	CARBON	3.9K	5%	1/4W
R40	1-247-855-11	CARBON	10K	5%	1/4W
R41	1-249-417-11	CARBON	1K	5%	1/4W
R42	1-249-417-11	CARBON	1K	5%	1/4W
R43	1-249-417-11	CARBON	1K	5%	1/4W
R44	1-249-393-11	CARBON	10	5%	1/4W
R51	1-247-843-11	CARBON	3.3K	5%	1/4W
R56	1-247-863-11	CARBON	22K	5%	1/4W
R57	1-247-863-11	CARBON	22K	5%	1/4W
R58	1-247-863-11	CARBON	22K	5%	1/4W
R59	1-247-863-11	CARBON	22K	5%	1/4W
R60	1-247-879-11	CARBON	100K	5%	1/4W
R61	1-247-871-11	CARBON	47K	5%	1/4W
R62	1-247-855-11	CARBON	10K	5%	1/4W
R63	1-247-855-11	CARBON	10K	5%	1/4W
R64	1-247-863-11	CARBON	22K	5%	1/4W
R65	1-247-855-11	CARBON	10K	5%	1/4W
R70	1-247-879-11	CARBON	100K	5%	1/4W
R72	1-247-847-11	CARBON	4.7K	5%	1/4W
R73	1-249-439-11	CARBON	68K	5%	1/4W
R74	1-249-409-11	CARBON	220	5%	1/4W
R91	1-249-413-11	CARBON	470	5%	1/4W
R92	1-249-417-11	CARBON	1K	5%	1/4W
R93	1-247-807-11	CARBON	100	5%	1/4W
R94	1-247-807-11	CARBON	100	5%	1/4W
R95	1-247-807-11	CARBON	100	5%	1/4W
R101	1-249-430-11	CARBON	12K	5%	1/4W
R102	1-249-404-00	CARBON	82	5%	1/4W
R103	1-247-879-11	CARBON	100K	5%	1/4W
R104	1-247-843-11	CARBON	3.3K	5%	1/4W
R110	1-247-807-11	CARBON	100	5%	1/4W
R111	1-247-887-00	CARBON	220K	5%	1/4W
R112	1-247-871-11	CARBON	47K	5%	1/4W
R114	1-249-417-11	CARBON	1K	5%	1/4W
R115	1-249-417-11	CARBON	1K	5%	1/4W
R116	1-247-871-11	CARBON	47K	5%	1/4W
R120	1-247-879-11	CARBON	100K	5%	1/4W
R121	1-247-879-11	CARBON	100K	5%	1/4W
R122	1-247-843-11	CARBON	3.3K	5%	1/4W
R123	1-247-863-11	CARBON	22K	5%	1/4W
R124	1-247-839-11	CARBON	2.2K	5%	1/4W
R125	1-247-839-11	CARBON	2.2K	5%	1/4W
R127	1-247-871-11	CARBON	47K	5%	1/4W
R135	1-249-417-11	CARBON	1K	5%	1/4W
R140	1-247-847-11	CARBON	4.7K	5%	1/4W
R145	1-247-855-11	CARBON	10K	5%	1/4W
R155	1-247-843-11	CARBON	3.3K	5%	1/4W
R171	1-247-849-11	CARBON	5.6K	5%	1/4W
R201	1-249-430-11	CARBON	12K	5%	1/4W
R202	1-249-404-00	CARBON	82	5%	1/4W
R203	1-247-879-11	CARBON	100K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R204	1-247-843-11	CARBON	3.3K	5%	1/4W
R210	1-247-807-11	CARBON	100	5%	1/4W
R211	1-247-887-00	CARBON	220K	5%	1/4W
R212	1-247-871-11	CARBON	47K	5%	1/4W
R214	1-249-417-11	CARBON	1K	5%	1/4W
R215	1-249-417-11	CARBON	1K	5%	1/4W
R216	1-247-871-11	CARBON	47K	5%	1/4W
R220	1-247-879-11	CARBON	100K	5%	1/4W
R221	1-247-879-11	CARBON	100K	5%	1/4W
R222	1-247-843-11	CARBON	3.3K	5%	1/4W
R223	1-247-863-11	CARBON	22K	5%	1/4W
R224	1-247-839-11	CARBON	2.2K	5%	1/4W
R225	1-247-839-11	CARBON	2.2K	5%	1/4W
R227	1-247-871-11	CARBON	47K	5%	1/4W
R240	1-247-847-11	CARBON	4.7K	5%	1/4W
R245	1-247-855-11	CARBON	10K	5%	1/4W
R271	1-247-849-11	CARBON	5.6K	5%	1/4W
R301	1-247-903-00	CARBON	1M	5%	1/4W
R303	1-247-855-11	CARBON	10K	5%	1/4W
R304	1-247-855-11	CARBON	10K	5%	1/4W
R306	1-247-855-11	CARBON	10K	5%	1/4W
R307	1-247-807-11	CARBON	100	5%	1/4W
R308	1-247-847-11	CARBON	4.7K	5%	1/4W
R309	1-247-849-11	CARBON	5.6K	5%	1/4W
R311	1-249-389-11	CARBON	4.7	5%	1/4W
R312	1-249-439-11	CARBON	68K	5%	1/4W
R313	1-249-389-11	CARBON	4.7	5%	1/4W
R314	1-247-855-11	CARBON	10K	5%	1/4W
R315	1-247-855-11	CARBON	10K	5%	1/4W
R316	1-247-847-11	CARBON	4.7K	5%	1/4W
R317	1-247-807-11	CARBON	100	5%	1/4W
R318	1-247-867-11	CARBON	33K	5%	1/4W
R319	1-247-895-00	CARBON	470K	5%	1/4W
R320	1-247-903-00	CARBON	1M	5%	1/4W
R321	1-247-807-11	CARBON	100	5%	1/4W
R324	1-249-417-11	CARBON	1K	5%	1/4W
R325	1-249-417-11	CARBON	1K	5%	1/4W
R328	1-247-847-11	CARBON	4.7K	5%	1/4W
R332	1-247-871-11	CARBON	47K	5%	1/4W
R334	1-247-871-11	CARBON	47K	5%	1/4W
R335	1-247-847-11	CARBON	4.7K	5%	1/4W
R337	1-247-871-11	CARBON	47K	5%	1/4W
R338	1-249-417-11	CARBON	1K	5%	1/4W
R339	1-249-417-11	CARBON	1K	5%	1/4W
R340	1-249-417-11	CARBON	1K	5%	1/4W
R343	1-247-855-11	CARBON	10K	5%	1/4W
R344	1-247-855-11	CARBON	10K	5%	1/4W
R346	1-249-397-11	CARBON	22	5%	1/4W
R347	1-247-847-11	CARBON	4.7K	5%	1/4W
R348	1-247-825-11	CARBON	560	5%	1/4W
R349	1-247-867-11	CARBON	33K	5%	1/4W
R350	1-247-839-11	CARBON	2.2K	5%	1/4W
R352	1-249-428-11	CARBON	8.2K	5%	1/4W
R353	1-249-417-11	CARBON	1K	5%	1/4W
R356	1-247-871-11	CARBON	47K	5%	1/4W
R357	1-247-839-11	CARBON	2.2K	5%	1/4W
R358	1-249-401-11	CARBON	47	5%	1/4W
R359	1-249-417-11	CARBON	1K	5%	1/4W
R370	1-249-417-11	CARBON	1K	5%	1/4W
R371	1-247-839-11	CARBON	2.2K	5%	1/4W
R374	1-247-839-11	CARBON	2.2K	5%	1/4W
R377	1-247-847-11	CARBON	4.7K	5%	1/4W
R378	1-247-871-11	CARBON	47K	5%	1/4W
R379	1-247-847-11	CARBON	4.7K	5%	1/4W
R380	1-249-428-11	CARBON	8.2K	5%	1/4W
R381	1-247-863-11	CARBON	22K	5%	1/4W
R382	1-247-863-11	CARBON	22K	5%	1/4W
R383	1-247-863-11	CARBON	22K	5%	1/4W
R384	1-247-855-11	CARBON	10K	5%	1/4W
R385	1-247-847-11	CARBON	4.7K	5%	1/4W
R386	1-247-879-11	CARBON	100K	5%	1/4W
R387	1-249-428-11	CARBON	8.2K	5%	1/4W
R388	1-249-432-11	CARBON	18K	5%	1/4W
R389	1-247-879-11	CARBON	100K	5%	1/4W
R390	1-249-417-11	CARBON	1K	5%	1/4W
RA24	1-249-402-11	CARBON	56	5%	1/4W
RA315	1-247-847-11	CARBON	4.7K	5%	1/4W
		< VARIABLE RESISTOR >			
SR1	1-227-154-11	RES, VAR, CARBON 20K (AUTO STOP LEVEL)			
		< TRANS >			
T2	1-429-554-11	TRNSFORMER, AM IFT (AM IF)			
		< TEST PIN >			
* TP1	1-793-223-11	HEADER, PIN 2P			
		< TUNER UNIT >			
* TU1	1-693-378-11	TUNER UNIT			
		< VIBRATOR >			
X1	1-781-686-11	CRYSTAL (75kHz)			
X2	1-781-687-11	CRYSTAL (4.332MHz)			

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Ref. No.	Part No.	Description			Remark
*	1-676-294-11	MOTOR BOARD			
		*************			
		< CAPACITOR >			
C651	1-126-964-11	ELECT	10uF	20%	50V
C652	1-126-964-11	ELECT	10uF	20%	50V
C653	1-137-399-11	FILM	0.1uF		100V
		< CONNECTOR >			
CN651	1-779-609-11	CONNECTOR (BASE) 6P			
		< IC >			
IC651	8-759-365-94	IC TA8409S			
		< COIL >			
L651	1-419-150-11	COIL, PEAKING			

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
		< RESISTOR >			
R651	1-247-847-11	CARBON	4.7K	5%	1/4W
R652	1-247-847-11	CARBON	4.7K	5%	1/4W
R653	1-249-417-11	CARBON	1K	5%	1/4W
		< SWITCH >			
S651	1-771-489-11	SWITCH, LEVER SLIDE (CD TRAY)			

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Ref. No.	Part No.	Description			Remark
*	1-676-255-11	POWER BOARD ************			
	1-533-233-31	HOLDER, FUSE			
		< CAPACITOR >			
C501	1-101-005-00	CERAMIC	22000PF	50V	
C502	1-130-499-00	MYLAR	0.22uF	5%	50V
C503	1-130-499-00	MYLAR	0.22uF	5%	50V
C504	1-101-005-00	CERAMIC	22000PF	50V	
C505	1-130-499-00	MYLAR	0.22uF	5%	50V
		< CONNECTOR >			
* CNP501	1-793-897-11	CONNECTOR (BASE, TOP) 2P			
		< CONNECTOR >			
* CN505	1-793-902-11	HOLDER, WIRE 6P			
		< DIODE >			
D501	8-719-030-52	DIODE 1N5402			
D502	8-719-030-52	DIODE 1N5402			
D503	8-719-030-52	DIODE 1N5402			
D504	8-719-030-52	DIODE 1N5402			
		< FUSE >			
⚠F501	1-532-505-11	FUSE, TIME LUG (T5AL/250V)			
		< LINE FILTER >			
⚠LF501	1-411-910-11	TRANSFORMER, LINE FILTER (LFT)			
		< TRANSFORMER >			
⚠T501	1-453-339-11	TRANSFORMER, POWER			

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Ref. No.	Part No.	Description			Remark
*	1-676-249-11	POWER TRANSFORMER BOARD (DR70L) **************************			
	1-533-233-31	HOLDER, FUSE			
		< CAPACITOR >			
C661	1-101-005-00	CERAMIC	22000PF		50V
C662	1-101-005-00	CERAMIC	22000PF		50V
C663	1-101-005-00	CERAMIC	22000PF		50V
C664	1-101-005-00	CERAMIC	22000PF		50V
C665	1-101-005-00	CERAMIC	22000PF		50V
C666	1-101-005-00	CERAMIC	22000PF		50V
		< CONNECTOR >			
* CN606	1-793-897-11	CONNECTOR (BASE, TOP) 2P			
* CN607	1-793-897-11	CONNECTOR (BASE, TOP) 2P			

Ref. No.	Part No.	Description			Remark
		< DIODE >			
D601	8-719-030-52	DIODE 1N5402			
D602	8-719-030-52	DIODE 1N5402			
D603	8-719-030-52	DIODE 1N5402			
D604	8-719-030-52	DIODE 1N5402			
		< FUSE >			
⚠F601	1-532-501-11	FUSE,TIMELUG (T0.8AL/250V)			
⚠F602	1-532-465-11	FUSE,TIMELUG (T3.15AL/250V)			
⚠F603	1-532-465-11	FUSE,TIMELUG (T3.15AL/250V)			
		< TRANSFORMER >			
⚠T601	1-435-239-11	TRANSFORMER, POWER			

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Ref. No.	Part No.	Description			Remark
*	1-676-425-11	SP AMP IC BOARD (DR70L) ***************			
	3-042-199-01	SHEET, MICA			
		< IC >			
IC601	8-759-072-99	IC TDA2052			

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Ref. No.	Part No.	Description			Remark
*	1-676-250-11	SP JACK BOARD (DR70L) *************			
		< CONNECTOR >			
CN611	1-779-693-11	CONNECTOR (WIRE HOLDER) 5P			
		<JACK >			
JK601	1-794-074-11	RCA JACK (SIGNAL IN BASS)			
JK602	1-794-075-11	LINE JACK (VOLUME OUT WOOFER)			
JK604	1-694-657-11	SPEAKER TERMINAL (WOOFER OUT, SPEAKER IN L-CH)			
		< RESISTOR >			
R635	1-249-413-11	CARBON	470	5%	1/4W

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Ref. No.	Part No.	Description			Remark
*	A-3322-400-A	SP MAIN BOARD, COMPLETE (DR70L) ************************			
		< CAPACITOR >			
C601	1-137-399-11	MYLAR	0.1uF		100V
C603	1-126-233-11	ELECT	22uF	20%	50V
C604	1-126-233-11	ELECT	22uF	20%	50V
C605	1-124-907-11	ELECT	10uF	20%	50V
C606	1-126-963-11	ELECT	4.7uF	20%	50V
C607	1-124-903-11	ELECT	1uF	20%	50V
C608	1-130-493-00	MYLAR	0.068uF	5%	50V
C609	1-104-666-11	ELECT	220uF	20%	25V
C610	1-130-493-00	MYLAR	0.068uF	5%	50V
C611	1-136-899-11	MYLAR	0.47uF	5%	50V
C612	1-124-907-11	ELECT	10uF	20%	50V
C613	1-124-903-11	ELECT	1uF	20%	50V
C614	1-126-963-11	ELECT	4.7uF	20%	50V
C615	1-126-963-11	ELECT	4.7uF	20%	50V

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
C616	1-126-233-11	ELECT	22uF	20%	50V
C617	1-124-903-11	ELECT	1uF	20%	50V
C618	1-126-972-11	ELECT	1000uF	20%	35V
C619	1-124-902-00	ELECT	0.47uF	20%	50V
C620	1-124-907-11	ELECT	10uF	20%	50V
C621	1-124-902-00	ELECT	0.47uF	20%	50V
C623	1-124-903-11	ELECT	1uF	20%	50V
C626	1-137-399-11	MYLAR	0.1uF		100V
C627	1-124-480-11	ELECT	470uF	20%	25V
C633	1-104-665-11	ELECT	100uF	20%	16V
C640	1-104-666-11	ELECT	220uF	20%	25V
C641	1-104-666-11	ELECT	220uF	20%	25V
C668	1-119-938-11	ELECT	4700uF	20%	35V
C669	1-119-938-11	ELECT	4700uF	20%	35V
C697	1-136-177-00	MYLAR	1uF	5%	50V
C698	1-136-177-00	MYLAR	1uF	5%	50V
C699	1-136-177-00	MYLAR	1uF	5%	50V
CA602	1-162-211-31	CERAMIC	33PF	5%	50V
		< CONNECTOR >			
* CN602	1-793-896-11	CONNECTOR (BASE, TOP) 3P			
* CN604	1-793-895-11	CONNECTOR (BASE, TOP) 2P			
* CN610	1-784-961-11	CONNECTOR (TOP BASE) 7P			
CN611	1-779-615-11	CONNECTOR (TOP BASE) 5P			
* CN613	1-793-894-11	CONNECTOR (BASE, TOP) 4P			
		< DIODE >			
D606	8-719-110-17	DIODE RD10ESB2			
D607	8-719-991-33	DIODE 1SS133T-77			
D608	8-719-991-33	DIODE 1SS133T-77			
D609	8-719-991-33	DIODE 1SS133T-77			
D610	8-719-110-31	DIODE RD12ES-B2			
		< TRANSISTOR >			
Q601	8-729-142-46	TRANSISTOR 2SC2001-LK			
Q602	8-729-900-34	TRANSISTOR 2SC2625-D			
Q603	8-729-900-34	TRANSISTOR 2SC2625-D			
Q604	8-729-900-34	TRANSISTOR 2SC2625-D			
Q605	8-729-900-34	TRANSISTOR 2SC2625-D			
Q606	8-729-900-34	TRANSISTOR 2SC2625-D			
Q607	8-729-900-34	TRANSISTOR 2SC2625-D			
Q608	8-729-900-34	TRANSISTOR 2SC2625-D			
Q609	8-729-040-87	TRANSISTOR 2SJ463A			
Q610	8-729-900-34	TRANSISTOR 2SC2625-D			
Q611	8-729-048-99	TRANSISTOR 2SK2541			
Q612	8-729-142-46	TRANSISTOR 2SC2001-LK			
Q613	8-729-902-80	TRANSISTOR DTA114YS			
Q615	8-729-142-46	TRANSISTOR 2SC2001-LK			
		< RESISTOR >			
R601	1-249-389-11	CARBON	4.7	5%	1/4W
R602	1-247-871-11	CARBON	47K	5%	1/4W
R603	1-249-411-11	CARBON	330	5%	1/4W
R604	1-249-413-11	CARBON	470	5%	1/4W
R605	1-247-879-11	CARBON	100K	5%	1/4W
R606	1-247-863-11	CARBON	22K	5%	1/4W
R607	1-249-417-11	CARBON	1K	5%	1/4W
R608	1-247-879-11	CARBON	100K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R609	1-249-431-11	CARBON	15K	5%	1/4W
R610	1-247-879-11	CARBON	100K	5%	1/4W
R611	1-249-413-11	CARBON	470	5%	1/4W
R612	1-247-855-11	CARBON	10K	5%	1/4W
R613	1-247-839-11	CARBON	2.2K	5%	1/4W
R614	1-247-855-11	CARBON	10K	5%	1/4W
R615	1-247-855-11	CARBON	10K	5%	1/4W
R616	1-247-847-11	CARBON	4.7K	5%	1/4W
R617	1-247-895-00	CARBON	470K	5%	1/4W
R618	1-247-895-00	CARBON	470K	5%	1/4W
R619	1-247-895-00	CARBON	470K	5%	1/4W
R620	1-247-847-11	CARBON	4.7K	5%	1/4W
R621	1-247-871-11	CARBON	47K	5%	1/4W
R622	1-247-895-00	CARBON	470K	5%	1/4W
R623	1-247-839-11	CARBON	2.2K	5%	1/4W
R625	1-247-839-11	CARBON	2.2K	5%	1/4W
R626	1-247-855-11	CARBON	10K	5%	1/4W
⚠R627	1-212-857-00	FUSIBLE	10	5%	1/4W
R628	1-247-835-11	CARBON	1.5K	5%	1/4W
R630	1-247-839-11	CARBON	2.2K	5%	1/4W
R631	1-249-411-11	CARBON	330	5%	1/4W
R632	1-247-839-11	CARBON	2.2K	5%	1/4W
R633	1-247-843-11	CARBON	3.3K	5%	1/4W
R634	1-249-413-11	CARBON	470	5%	1/4W
R636	1-247-847-11	CARBON	4.7K	5%	1/4W
R637	1-249-418-11	CARBON	1.2K	5%	1/4W
R638	1-247-903-00	CARBON	1M	5%	1/4W
R640	1-249-417-11	CARBON	1K	5%	1/4W
R641	1-249-434-11	CARBON	27K	5%	1/4W
R642	1-247-879-11	CARBON	100K	5%	1/4W
R645	1-247-863-11	CARBON	22K	5%	1/4W
R646	1-249-432-11	CARBON	18K	5%	1/4W
R647	1-247-863-11	CARBON	22K	5%	1/4W
R650	1-249-409-11	CARBON	220	5%	1/4W
R651	1-249-409-11	CARBON	220	5%	1/4W
R652	1-249-417-11	CARBON	1K	5%	1/4W
R653	1-249-417-11	CARBON	1K	5%	1/4W
R654	1-249-409-11	CARBON	220	5%	1/4W
RA607	1-247-839-11	CARBON	2.2K	5%	1/4W

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*	1-676-254-11	SPEAKER BOARD			
		**************			
		< CAPACITOR >			
C186	1-102-106-00	CERAMIC	100PF	10%	50V
C286	1-102-106-00	CERAMIC	100PF	10%	50V
C506	1-164-085-11	CERAMIC	0.001uF	10%	50V
		< CONNECTOR >			
CN511	1-793-862-11	HOLDER, WIRE (2P2.5)			
		< JACK >			
JK501	1-694-640-11	TERMINAL, SPK (SPEARKER OUT L-CH)			
JK502	1-793-866-11	JACK, RCA (RJ-1078)2P (SIGNAL IN)			

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
		< RESISTOR >			
R502	1-249-385-11	CARBON	2.2	5%	1/4W
R503	1-249-385-11	CARBON	2.2	5%	1/4W

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Ref. No.	Part No.	Description			Remark
	1-673-338-11	TC RF BOARD			
		************			
		< CONNECTOR >			
CN691	1-580-170-11	PIN, CONNECTOR (PC BOARD) 9P			
		< PHOTO INTERRUPTER >			
PH160	8-729-021-62	PHOTO INTERRUPTER SG-211			
		< RESISTOR >			
R158	1-247-838-00	CARBON	2K	5%	1/4W
R160	1-249-441-11	CARBON	100K	5%	1/4W
		< VARIABLE RESISTOR >			
RV160	1-228-992-11	VARIABLE RESISTOR (TAPE SPEED)			
		< SWITCH >			
S302	1-771-661-11	SWITCH, LEAF (HEAD POSITION)			

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Ref. No.	Part No.	Description			Remark
*	1-676-103-11	VOL BOARD			
		**********			
		< CAPACITOR >			
C870	1-126-966-11	ELECT	33uF	20%	50V
C871	1-102-106-00	CERAMIC	100PF	10%	50V
		< RESISTOR >			
R870	1-247-843-11	CARBON	3.3K	5%	1/4W
R871	1-249-427-11	CARBON	6.8K	5%	1/4W
R872	1-249-432-11	CARBON	18K	5%	1/4W
		< SENSOR >			
RM801	1-418-747-11	SENSOR, REMOTE			
		< SWITCH >			
S806	1-771-838-11	SWITCH, TACT (VOLUME +)			
S807	1-771-838-11	SWITCH, TACT (VOLUME -)			
S808	1-771-838-11	SWITCH, TACT (SNOOZE)			

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Ref. No.	Part No.	Description			Remark
*	1-676-256-11	VOLUME BOARD (DR70L)			
		**************			
		< CAPACITOR >			
C602	1-106-220-00	MYLAR	0.1uF	5%	100V
CA602	1-126-968-11	ELECT	100uF	20%	50V
		< CONNECTOR >			
* CN609	1-793-103-11	CONNECTOR (TOP BASE) 2P			

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R655	1-247-833-11	CARBON	1.2K	5%	1/4W
		< VARIABLE RESISTOR >			
VR601	1-227-155-11	RES, VAR 50K (LEVEL)			

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Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		***************	
53	1-794-036-11	WIRE(FLATTYPE) (19 CORE) (90mm)	
57	1-794-037-11	WIRE(FLATTYPE) (18 CORE)	
58	1-794-038-11	WIRE(FLATTYPE) (19 CORE) (70mm)	
60	1-794-039-11	WIRE(FLATTYPE) (14 CORE)	
61	1-794-040-11	WIRE(FLATTYPE) (20 CORE)	
111	1-452-899-21	MAGNET	
116	1-783-888-11	WIRE (FLAT TYPE) (16 CORE)	
⚠254	8-848-483-05	OPTICAL PICK-UP KSS-213C	
255	X-2626-202-1	MOTOR SHASSIS ASSY (MB) (INCLUDING M702) (SPINDLE)	
311	1-533-233-31	HOLDER, FUSE	
315	1-792-188-11	CORD WITH CONNECTOR	
⚠316	1-791-929-11	CORD, AC	
411	1-533-233-31	HOLDER, FUSE (DR70L)	
⚠415	1-791-929-11	CORD, AC (DR70L)	
416	1-793-863-11	HOLDER, WIRE (DR70L)	
⚠F501	1-532-505-11	FUSE,TIMELUG (T5AL/250V)	
⚠F601	1-532-501-11	FUSE,TIMELUG (T0.8AL/250V) (DR70L)	
⚠F602	1-532-465-11	FUSE,TIMELUG (T3.15AL/250V) (DR70L)	
⚠F603	1-532-465-11	FUSE,TIMELUG (T3.15AL/250V) (DR70L)	
FL801	1-517-921-11	INDICATOR TUBE, FLUORESCENT	
HRPE160	1-500-601-11	HEAD, REC/PB (RECORD/PLAYBACK/ERASE)	
M160	3-034-599-01	MOTOR ASSY (CAPSTAN/REEL) (INCLUDING PULLEY)	
M651	A-3320-538-A	MOTOR ASSY (LOADING) (INCLUDING PULLEY)	
M701	X-2625-769-1	MOTOR GEAR ASSY (MB) (INCLUDING GEAR) (SLED)	
P601	1-793-868-11	PLUG (STEREO) (DR70L)	
PH691	8-729-021-62	PHOTO INTERRUPTOR SG-211	
PM160	1-454-896-11	SOLENOID, PLUNGER	
S302	1-771-661-11	SWITCH, LEAF (HEAD POSITION)	
SP101	1-529-581-11	SPEAKER (15W) (R-CH)	
SP201	1-529-581-11	SPEAKER (15W) (L-CH)	
SP601	1-529-134-11	SPEAKER (10cm) (WOOFER) (DR70L)	
⚠T501	1-453-339-11	POWER TRANSFORMER	
⚠T601	1-435-239-11	TRANSFORMER, POWER (DR70L)	

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Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		********************************	
	1-418-767-11	REMOTE COMMANDER (RMT-CDR50AD)	
	1-754-106-11	ANTENNA, AM ROOP	
	1-754-107-11	ANTENNA, FH LINE	
⚠	1-770-019-31	ADAPTOR, CONVERSION PLUG 3P (UK)	
	1-791-984-11	CORD, CONNECTION (RED/WHT) (2P PIN-PLUG)	

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
	1-791-985-11	CORD, CONNECTION (BLK) (1P PIN PLUG)	(DR70L)
	1-791-986-11	CORD, SPEAKER	
	3-867-748-11	MANUAL, INSTRUCTION (ENGLISH, SPANISH)	(EXCEPT IT)
	3-867-748-21	MANUAL, INSTRUCTION (FRENCH, GERMAN)	(AEP,SP)
	3-867-748-31	MANUAL, INSTRUCTION (DUTCH, PORTUGUESE) (AEP)	
	3-867-748-41	MANUAL, INSTRUCTION (ITALIAN) (IT)	
	3-867-748-51	MANUAL, INSTRUCTION (SWEDISH, FINNISH)	(EAST EUROPEAN & RUSSIAN)
	3-867-748-61	MANUAL, INSTRUCTION (POLISH, CZECH, HUNGARIAN) (EAST EUROPEAN & RUSSIAN)	
	3-043-305-01	BATTERY LID (FOR RMT-CDR50AD)	

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HARDWARE LIST

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Ref. No.	Part No.	Description
#1	7-685-247-19	SCREW +KTP 3X10 TYPE2 NON-SLIT
#2	7-685-863-09	SCREW +BVTT 2.6X8 (S)
#3	7-685-873-09	SCREW +BVTT 3X10 (S)
#4	7-685-873-04	SCREW +BVTT 3X10 (S)
#5	7-621-772-00	SCREW +B 2X3
#6	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT
#7	7-621-255-45	SCREW +P 2X6
#8	7-682-649-09	SCREW +PWH 3X10 (DR70L)
#9	7-685-160-01	SCREW +P 4X10 TYPE1
#10	7-685-163-01	SCREW +P 4X16 TYPE1
#12	7-685-872-04	SCREW +BVTT 3X8 (S)
#13	7-685-874-09	SCREW +BVTT 3X12 (S)
#14	7-685-882-09	SCREW +BVTT 4X10 (S)
#15	7-685-872-09	SCREW +BVTT 3X8 (S)
#16	7-685-645-79	SCREW +BVTP 3X6 TYPE2 SLIT

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

9-927-162-11

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