

TC-TX101

SERVICE MANUAL

*AEP Model
UK Model
E Model
Tourist Model*



- This set is the optional stereo cassette deck that can be used only with section HCD-101 (AEP, UK model) / CMT-101 (E, Tourist model).

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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Model Name Using Similar Mechanism	TC-TX313
Tape Transport Mechanism Type	—

SPECIFICATIONS

Recording system	4-track 2-channel stereo
Frequency response (DOLBY NR OFF)	50 - 14,000 Hz (± 3 dB), using Sony TYPE I cassettes 50 - 15,000 Hz (± 3 dB), using Sony TYPE II cassettes
Dimensions	Approx. 142 \times 125 \times 235 mm (w / h / d) incl. projecting parts and controls
Mass	Approx. 2 kg

Design and specifications are subject to change without notice.

STEREO CASSETTE DECK



SONY[®]

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SAFETY-RELATED COMPONENT WARNING!!

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

Notes on Chip Component Replacement

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

SECTION 1 SERVICE NOTE

1-1. SUPPLYING POWER DURING SERVICING

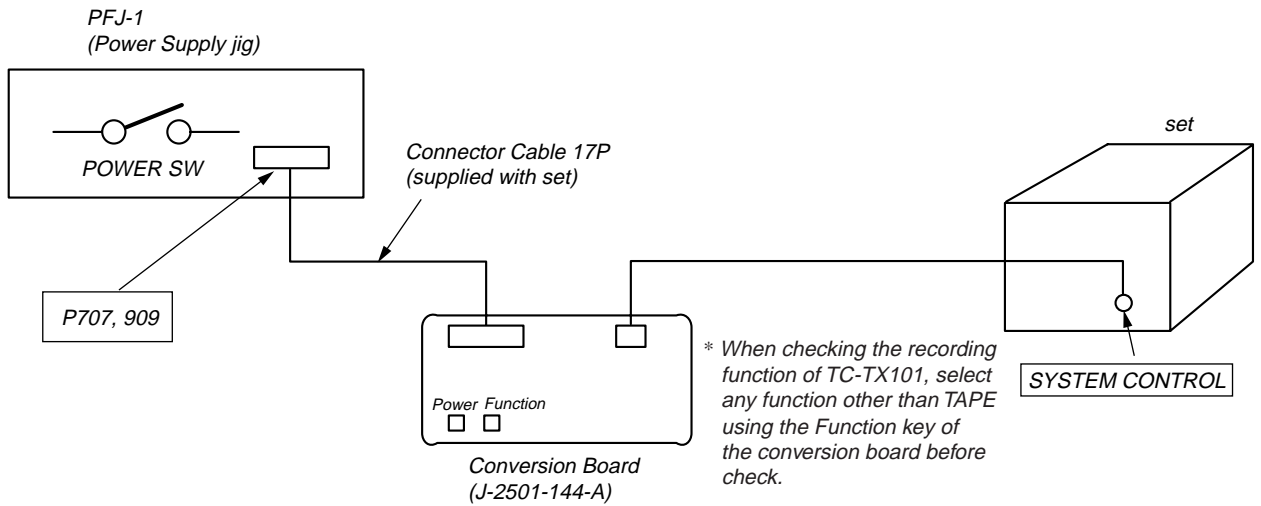
This equipment cannot operate without using a separate power supply. Connect this set to the HCD-101.

To apply power set the SYSTEM POWER switch of HCD-101.

When other units are not available use the PFJ-1 power supply jig.

When using the PFJ-1, press the POWER switch of the conversion board to turn on the power.

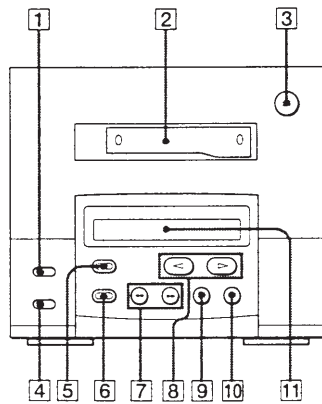
• Connection Diagram



SECTION 2 GENERAL

This section extracted from
instruction manual.

Parts and Controls



- 1 DOLBY NR OFF/ON switch
- 2 Cassette slot
- 3 ▲EJECT button
- 4 DIRECTION ⇐/⇒ switch
- 5 REC button
- 6 CD SYNC button
- 7 AMS/▶▶ (fast forward) button
- ◀◀ (fast backward) button
- 8 ▶ (upper side play) button
- ◀ (lower side play) button
- 9 || (pause) button
- 10 ■ (stop) button
- 11 Display window

SECTION 3 TEST MODE

3-1. CHECKING THE ITEMS OF TEST MODE

The set allows you to check the items of the test mode although this may not be directly related with the adjustment.

1] Setting/Releasing the Test Mode:

- 1) Setting
With power OFF, short between test pin ① and pin ② of TP1 on the MAIN board. (See page 16.)
Then, turn power ON to enter the test mode.
- 2) Releasing
Open between pin ① and pin ② of TP1.

2] Items of Test Mode

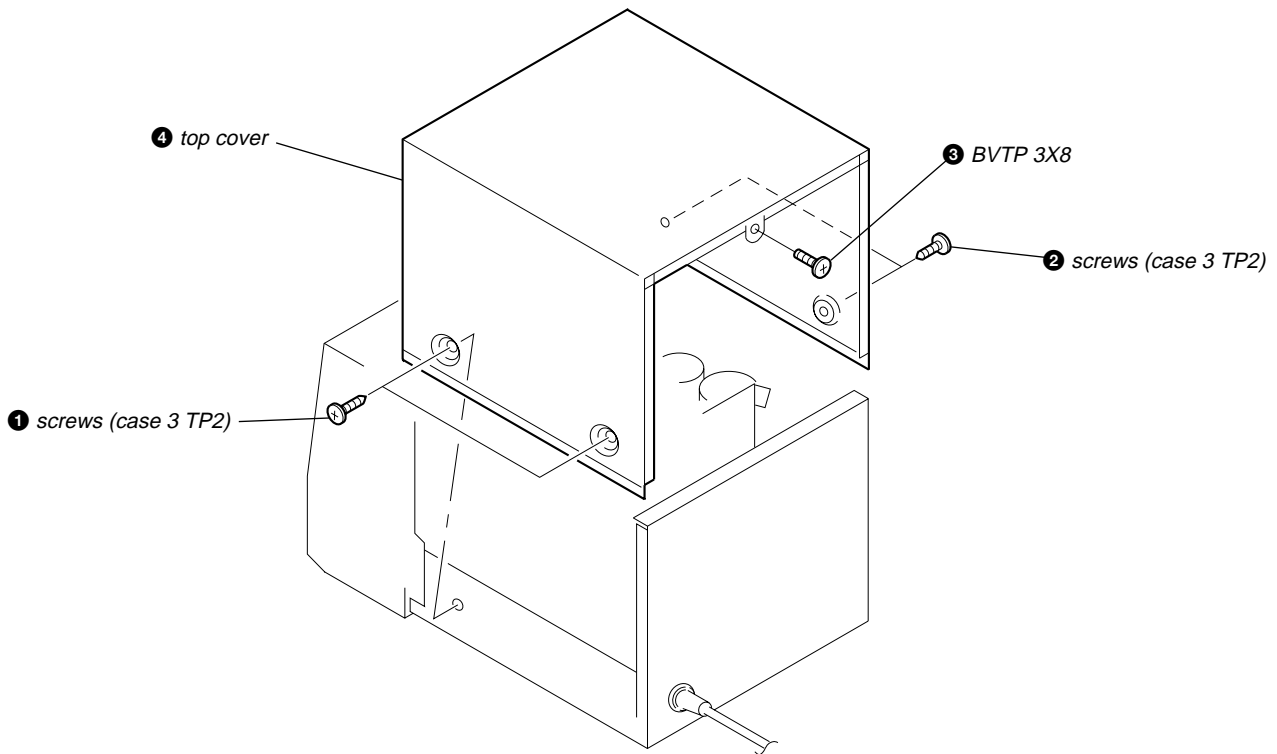
- 1) Memory Stop
 - 1-1) In side A record mode, press the REW (◀◀) button.
The tape is rewind to the start point of recording and stopped.
 - 1-2) In side B record mode, press the FF (▶▶) button.
The tape is rewind to the start point of recording and stopped.
- 2) Memory Play
 - 2-1) In side A record mode, press the FWD Auto Play (▶+◀◀) buttons simultaneously. The tape is rewind to the start point of recording and FWD played.
 - 2-2) In side B record mode, press the REV Auto Play (◀+▶▶) buttons simultaneously. The tape is rewind to the start point of recording and REV played.

- 3) All LED Flickering
When no tape is inserted, all LED indicators are flickering.
- 4) Aging Operation
When tape with record erase preventing claw is inserted for both sides A and B, enter the aging operation start command by pressing ■ and [CD SYNC] simultaneously. The system will change the direction to one side and perform the following operations:
 - ① Rewind in REW mode until side A of tape is stopped.
 - ② Playback tape in FWD mode for 1 minute.
 - ③ Pause mode.
 - ④ Record tape for 3 minutes.
 - ⑤ Forward tape in FF mode to the end of side A of tape.
 - ⑥ Shut off and switch to side B.
 - ⑦ Playback tape in REV mode for 1 minute.
 - ⑧ Pause mode.
 - ⑨ Record tape for 3 minutes.
 - ⑩ Forward tape in FF mode to the end of side B of tape.
 - ⑪ Shut off and switch to side A.
 - ⑫ Repeat the procedure from ② to ⑪.
 - ⑬ Pressing the STOP (■) button will release the set from these operations.

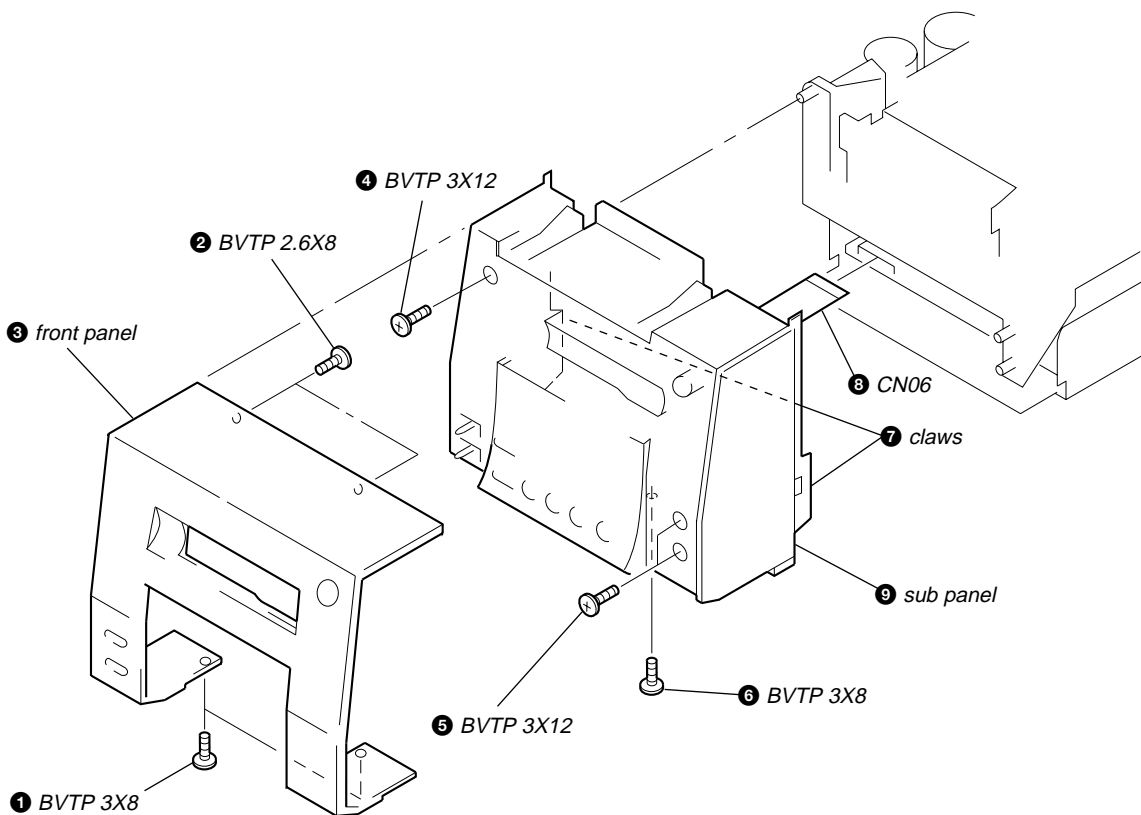
SECTION 4 DISASSEMBLY

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

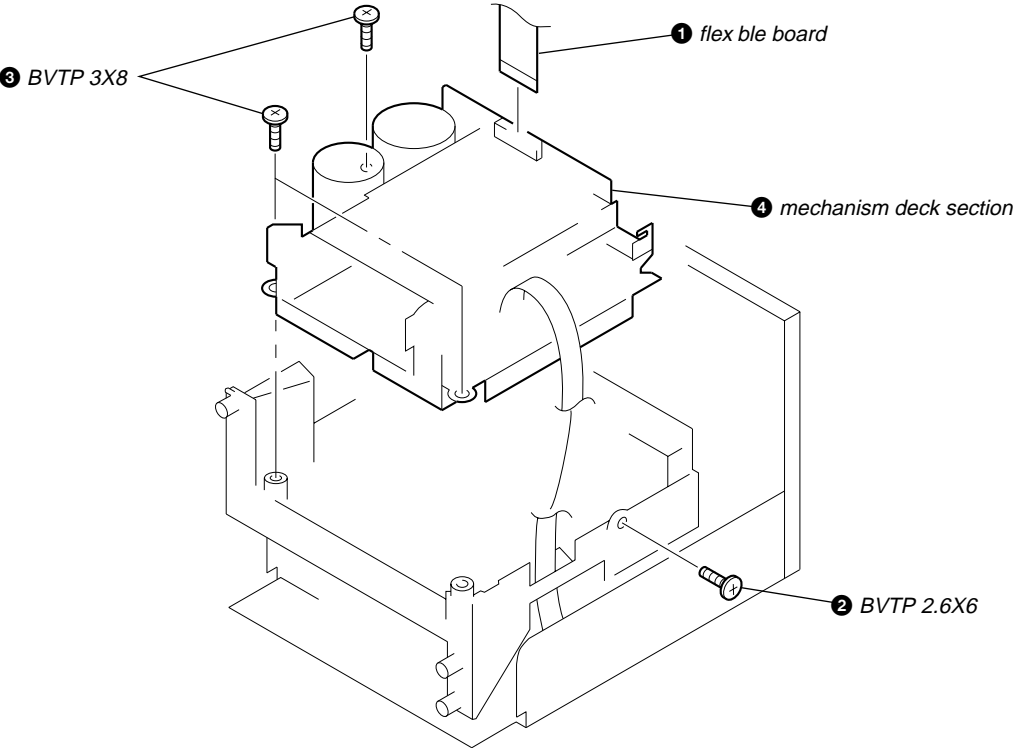
4-1. TOP COVER



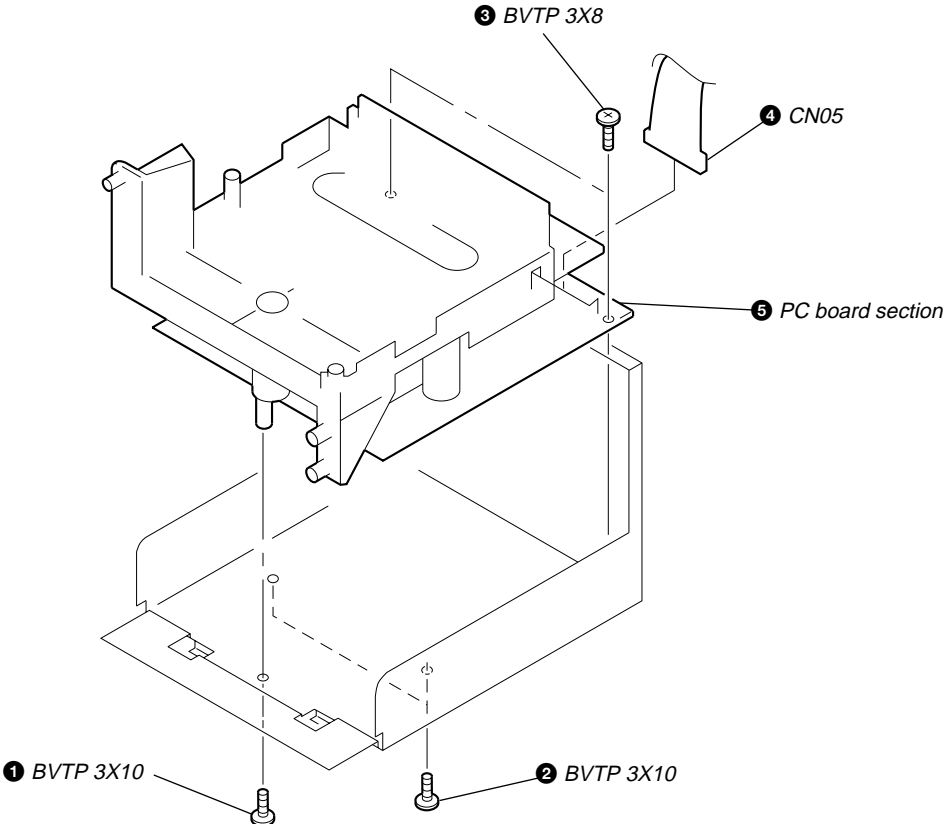
4-2. FRONT PANEL



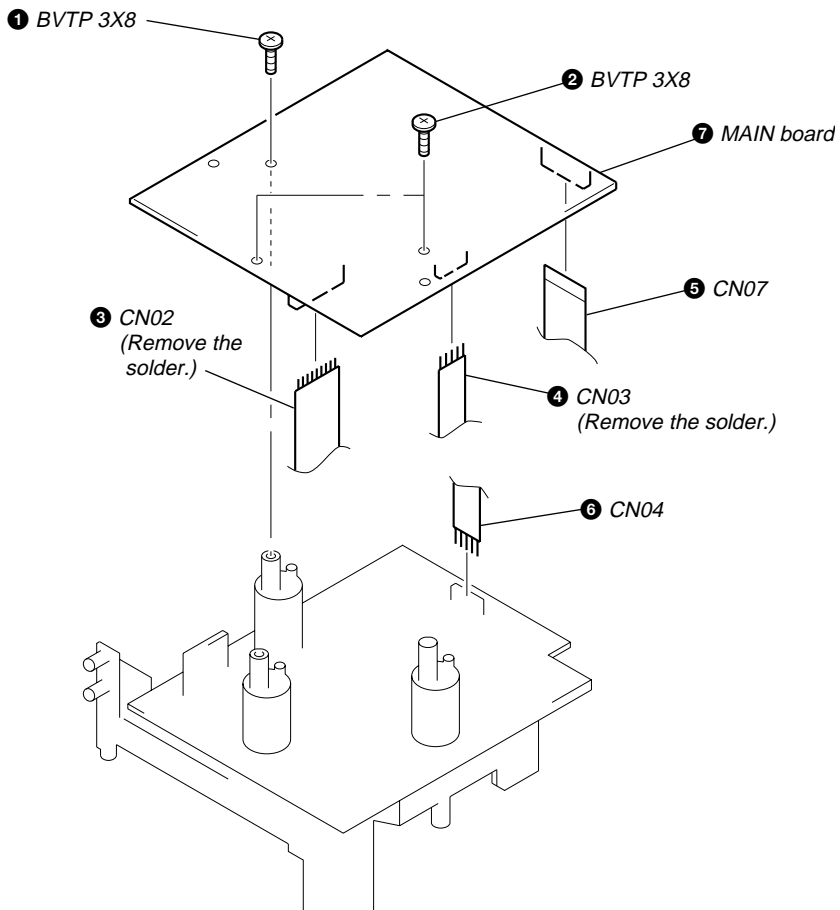
4-3. MECHANISM DECK SECTION



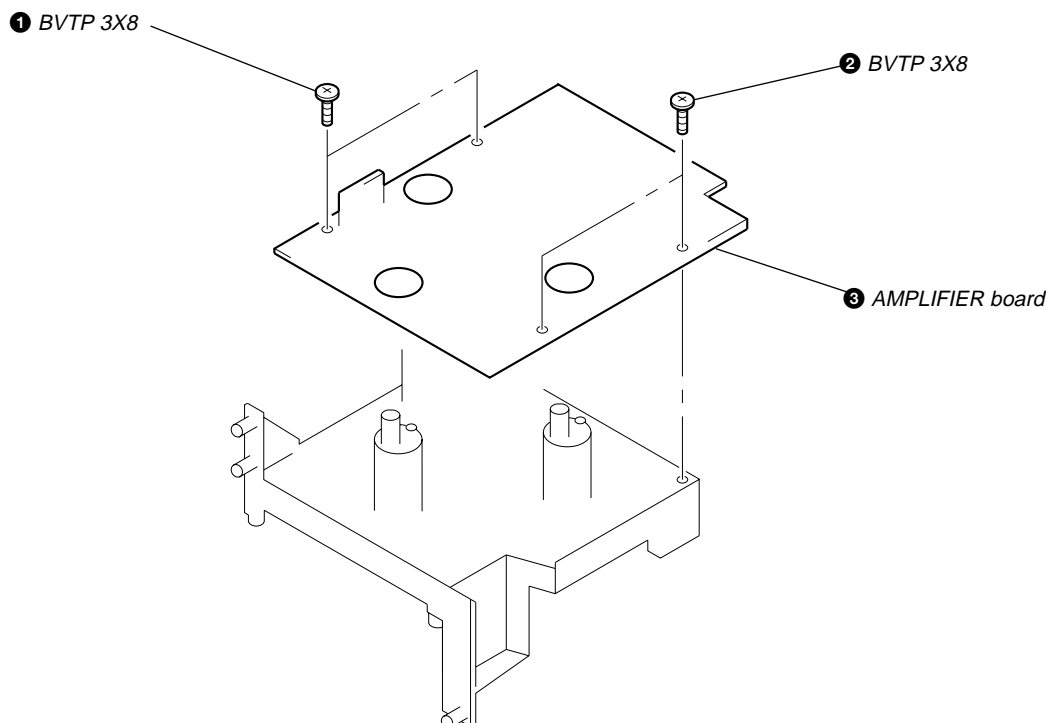
4-4. PC BOARD SECTION



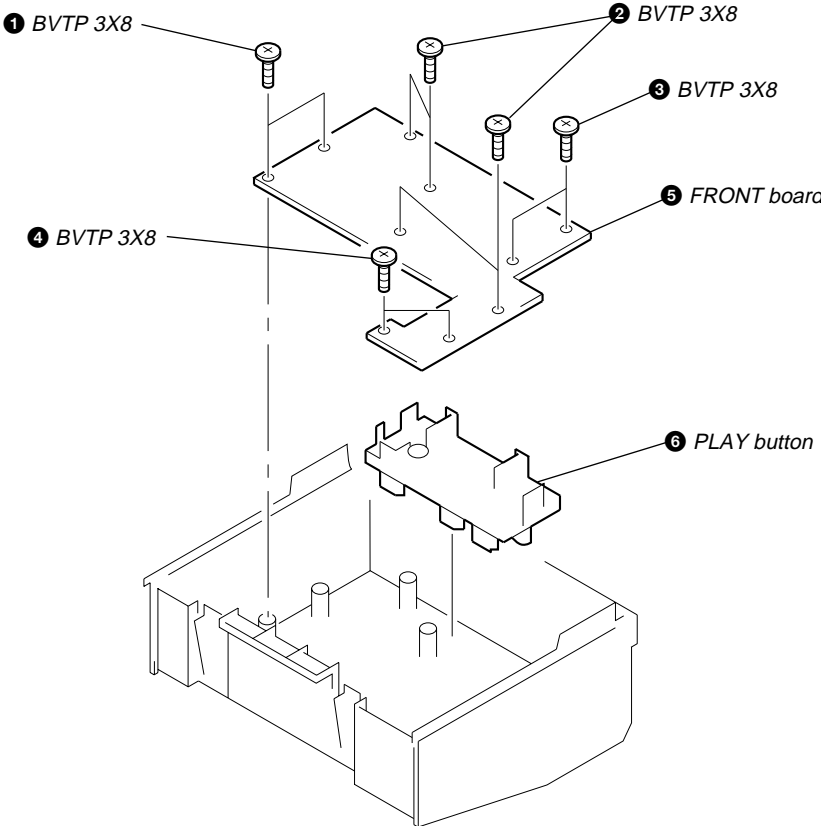
4-5. MAIN BOARD



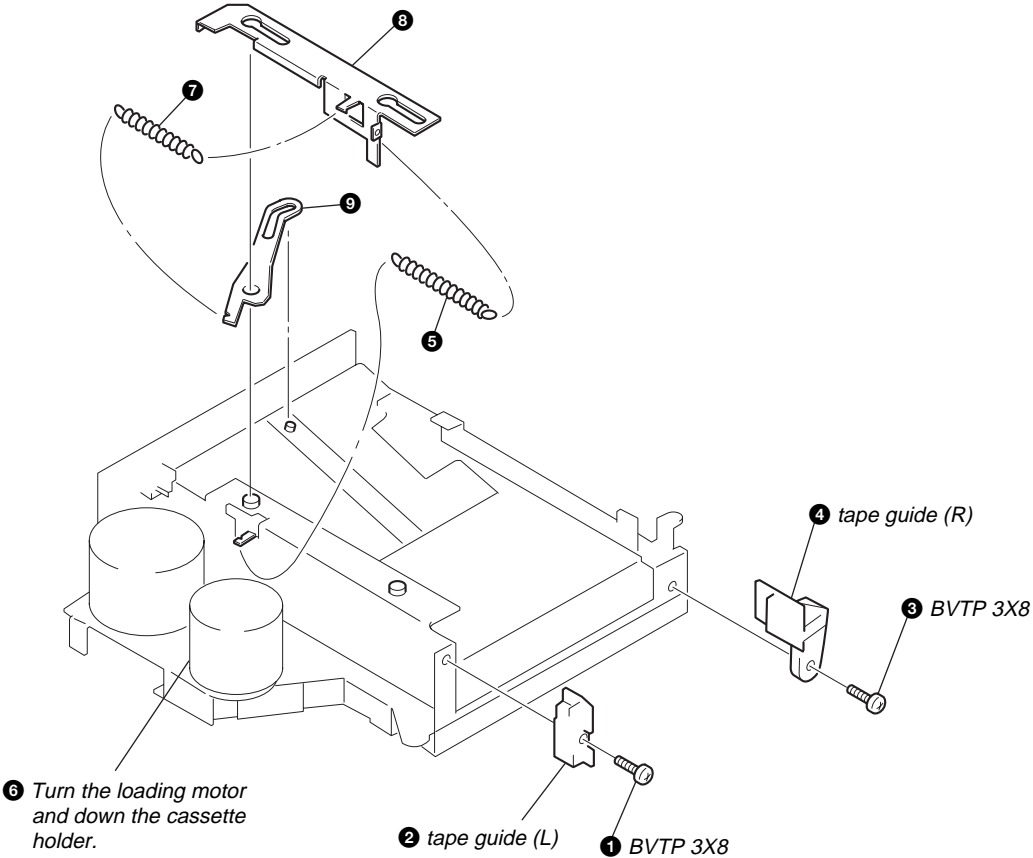
4-6. AMPLIFIER BOARD



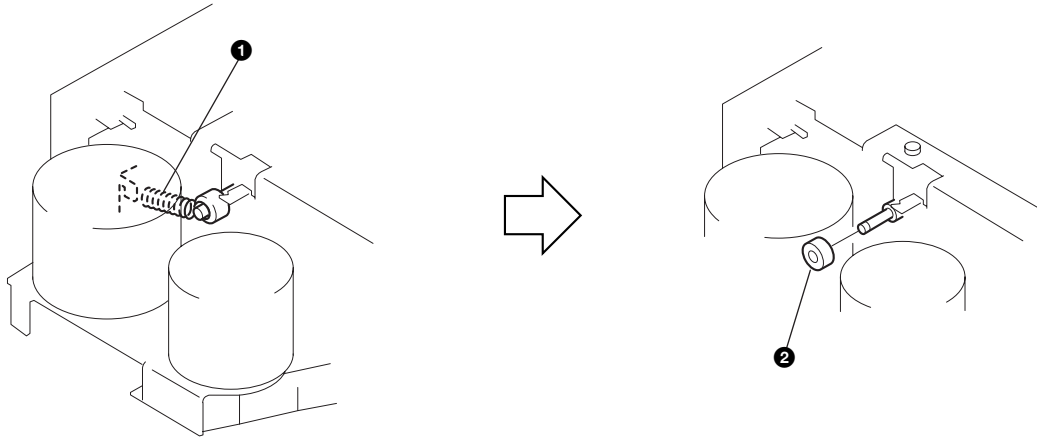
4-7. FRONT BOARD



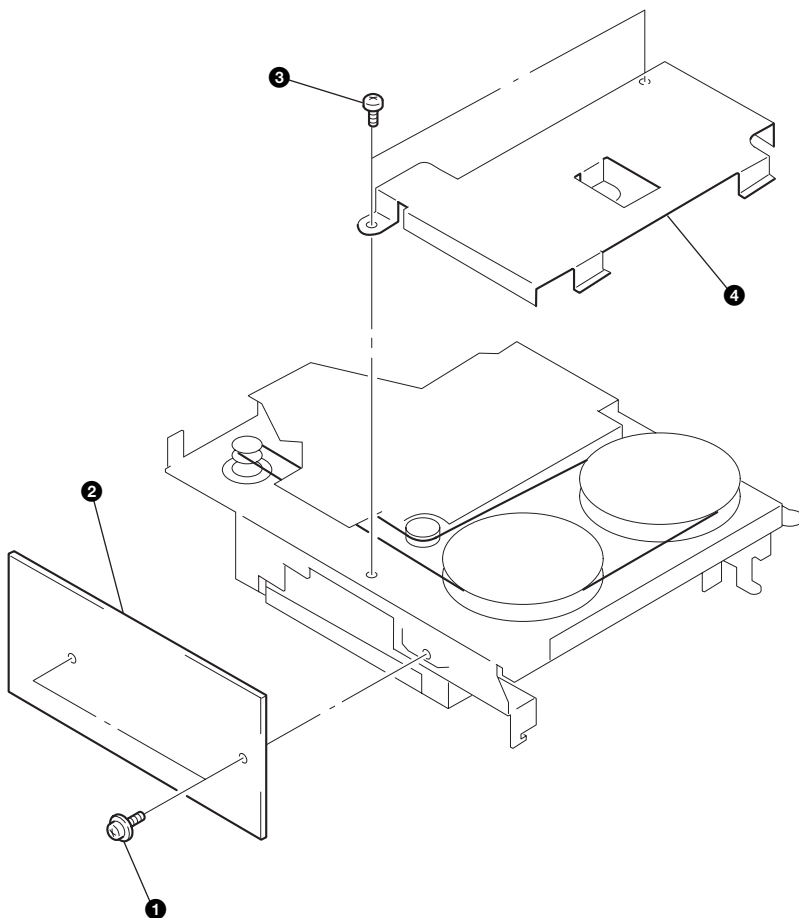
4-8. LEVER



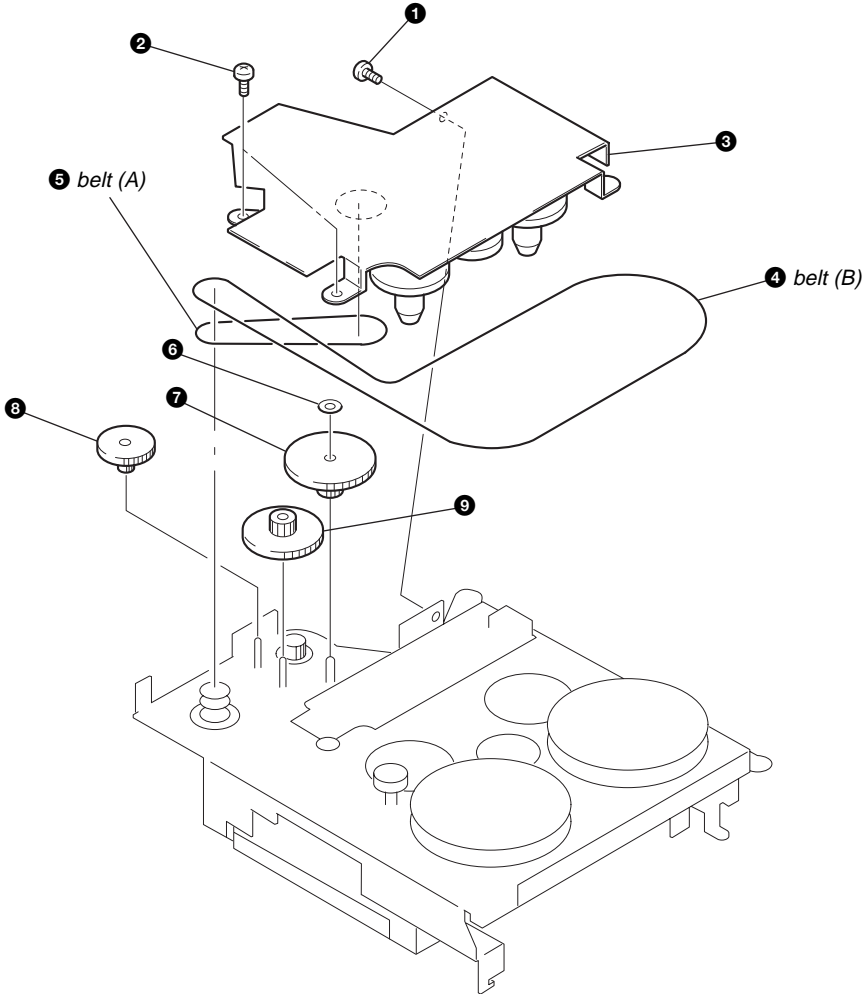
4-9. TENSION SPRING



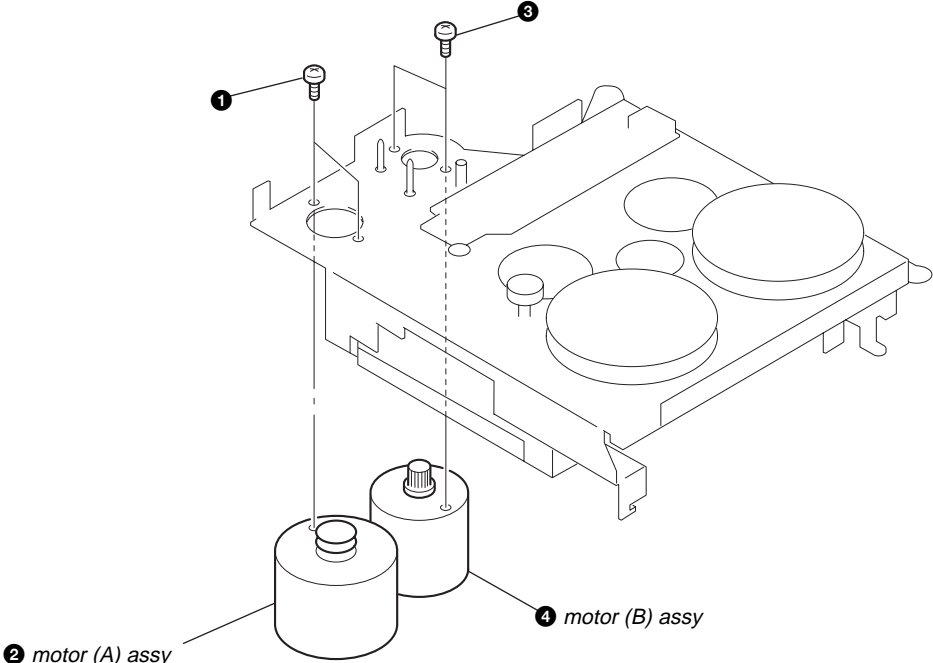
4-10. HOUSING



4-11. CHASSIS

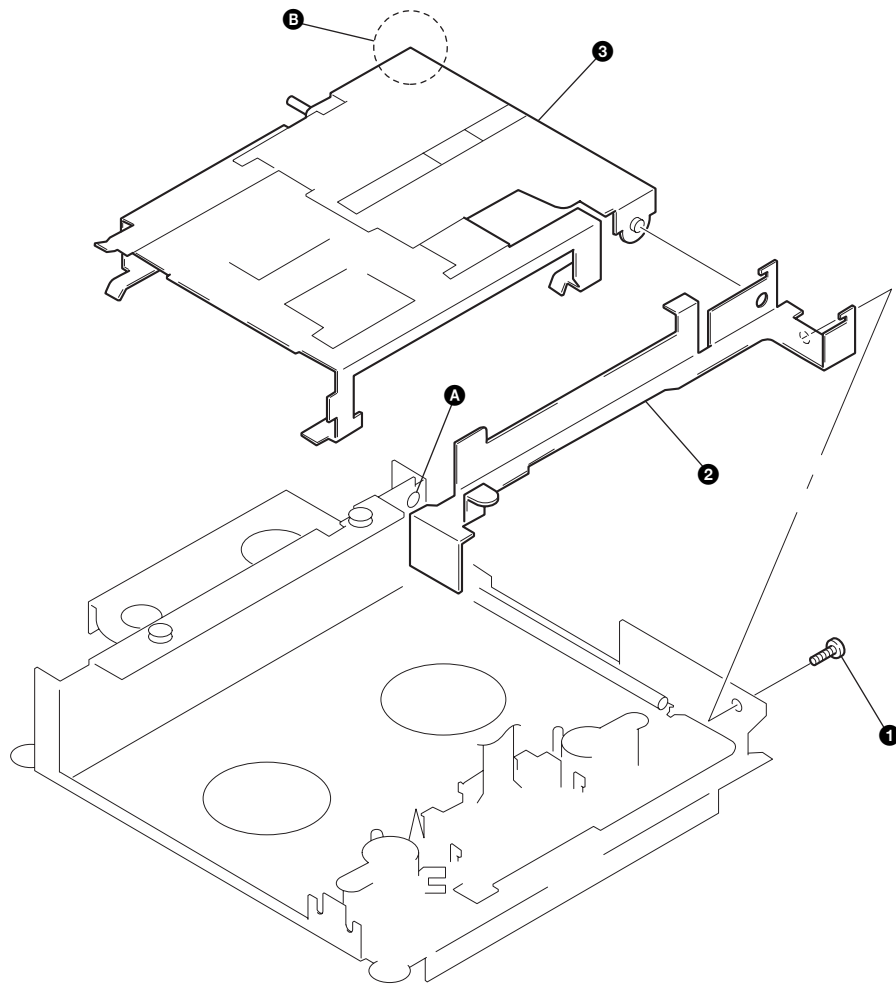


4-12. MOTOR (A) / (B) ASSY

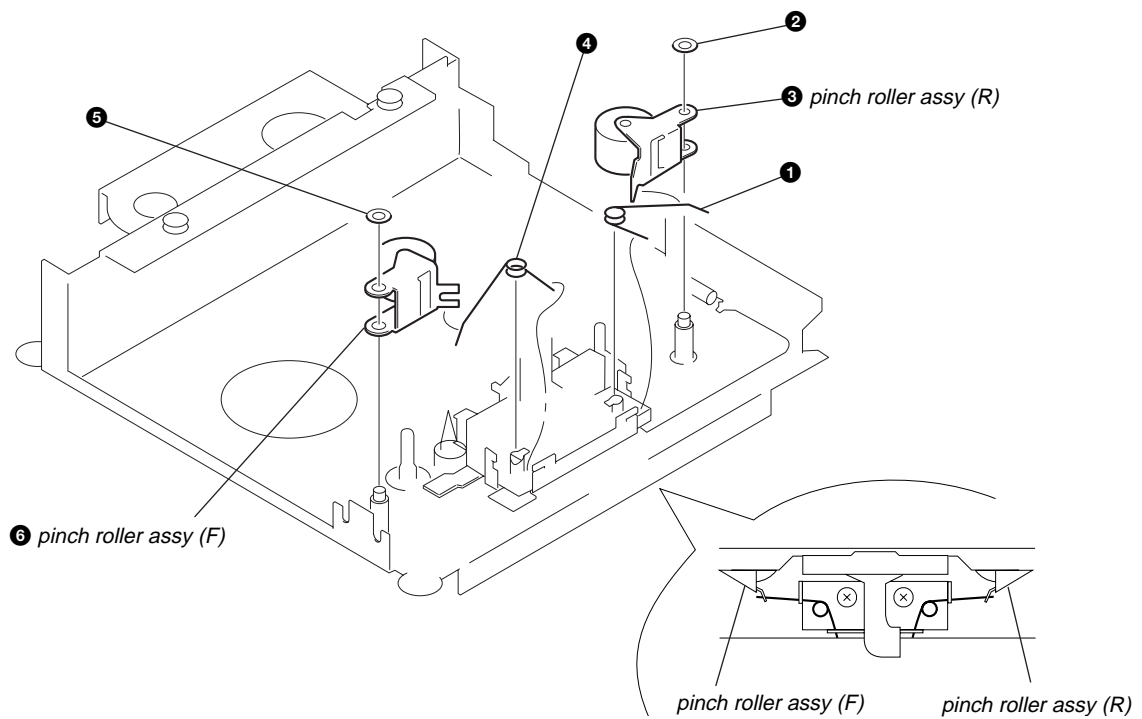


4-13. HEAD PLATE

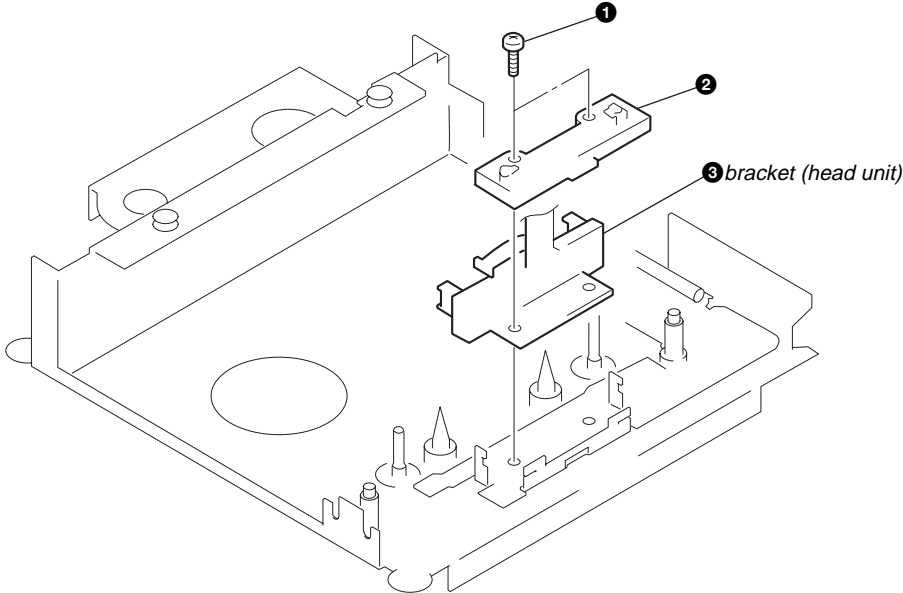
Note : On install, set the portions **A** and **B**.



4-14. PINCH ROLLER ASSY



4-15. BRACKET (HEAD UNIT)



SECTION 5 MECHANICAL ADJUSTMENTS

PRECAUTION

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

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

Torque Check

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	35 – 80 g • cm (0.49 – 1.11 oz • inch)
FWD Back tension		1 – 7 g • cm (0.014 – 0.097 oz • inch)
REV	CQ-102RC	35 – 80 g • cm (0.49 – 1.11 oz • inch)
REV Back tension		1 – 7 g • cm (0.014 – 0.097 oz • inch)
FF, REW	CQ-201B	more than 40 g • cm (more than 0.56 oz • inch)

SECTION 6 ELECTRICAL ADJUSTMENTS

PRECAUTION

1. The adjustment should be performed in the publication. (Be sure to make playback adjustment at first.)
2. The adjustments and measurement should be performed for both L-CH and R-CH.
 - Switch position
 - DOLBY NR switch : OFF
 - DIRECTION switch : \rightleftarrows

Standard Input Level

Input terminal	TAPE IN
source impedance	10 k Ω
input signal level	0.49 V (– 4 dB)

Standard Output Level

Output terminal	TAPE OUT (L-CH)
load impedance	47 k Ω
output signal level	0.49 V (– 4 dB)

Test Tape

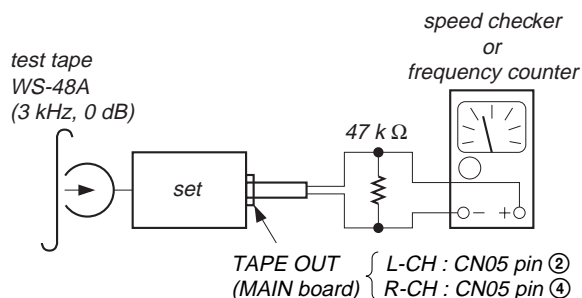
Type	Signal	Used for
P-4-A100	10 kHz, –10 dB	Azimuth Adjustment
P-4-L300	315 Hz, 0 dB	PB Level Adjustment
WS-48A	3 kHz, 0 dB	Tape Speed Adjustment

0 dB = 0.775 V

Tape Speed Adjustment

Procedure :

1. Connect the speed checker or frequency counter as shown below and set FWD playback mode.
2. Adjust the capstan motor (M1) volume so that the reading on the speed checker or frequency counter falls within the following adjustment value.



Adjustment Value : normal speed

Speed checker	Frequency counter
- 3 to + 3 %	2,910 to 3,090 Hz

Confirm that the deviation between tape top and tape end is within 3%.

Adjustment Location : Capstan motor (M1) volume (See page 16.)

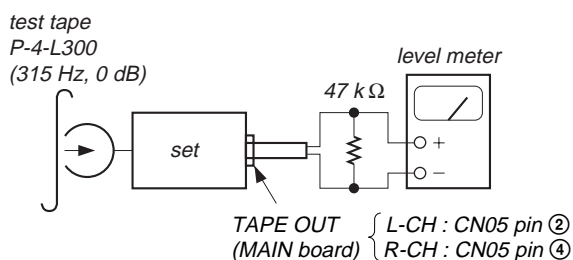
Sample Value of Wow and flutter

W. RMS (JIS) within 0.3%
(test tape : WS-48A)

Playback Level Adjustment

Procedure :

1. Connect the speed checker or frequency counter as shown below and set FWD playback mode.
2. Adjust SFR03 (L-CH) and SFR04 (R-CH) on AMPLIFIER board so that the reading on the level meter falls within the following adjustment value.



Adjustment Value :

TAPE OUT level	Level difference between channels
- 4 ± 2 dB (0.39 to 0.62 V)	within 2 dB

Confirm that the TAPE OUT level does not change even if Playback and Stop operation is repeated several times.

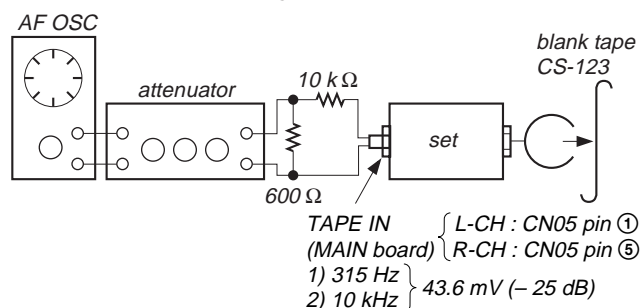
Adjustment Location : AMPLIFIER board (See page 16.)

Record Bias Adjustment

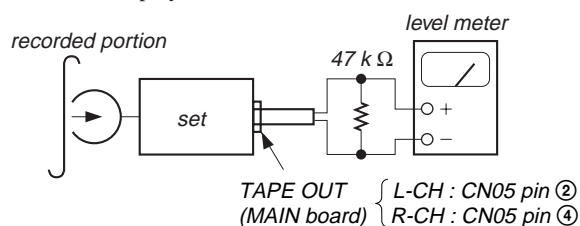
Setting : Set to the TEST mode. (See page 5.)

Procedure :

1. Connection for recording :



2. Connection for playback :



3. In the connection of item 2, playback the signal recorded in the connection of item 1, confirm that the reading on the level meter falls within the following adjustment value.
4. If these levels do not adjustment value, adjust SFR01 (L-CH) and SFR02 (R-CH) on AMPLIFIER board to repeat items 1 and 2.

Adjustment Value : Difference of playback output of 10 kHz to playback output of 315 Hz : 0 ± 0.5 dB

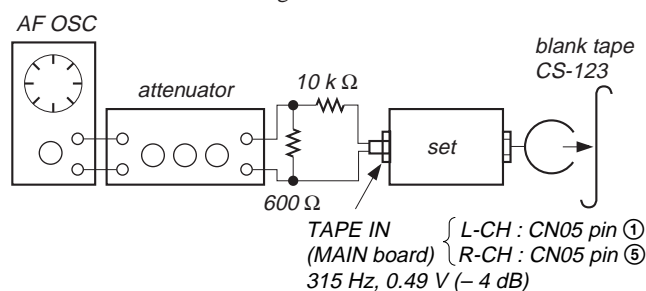
Adjustment Location : AMPLIFIER board (See page 16.)

Record Level Adjustment

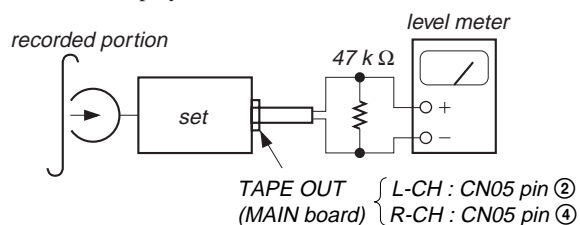
Setting : Set to the TEST mode. (See page 5.)

Procedure :

1. Connection for recording :



2. Connection for playback :

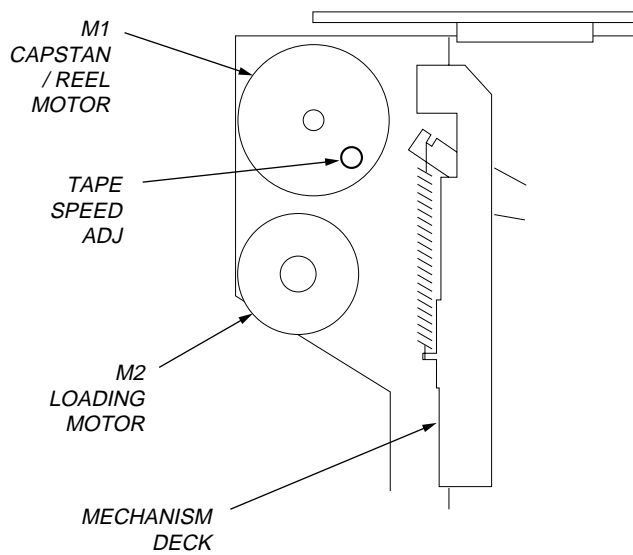
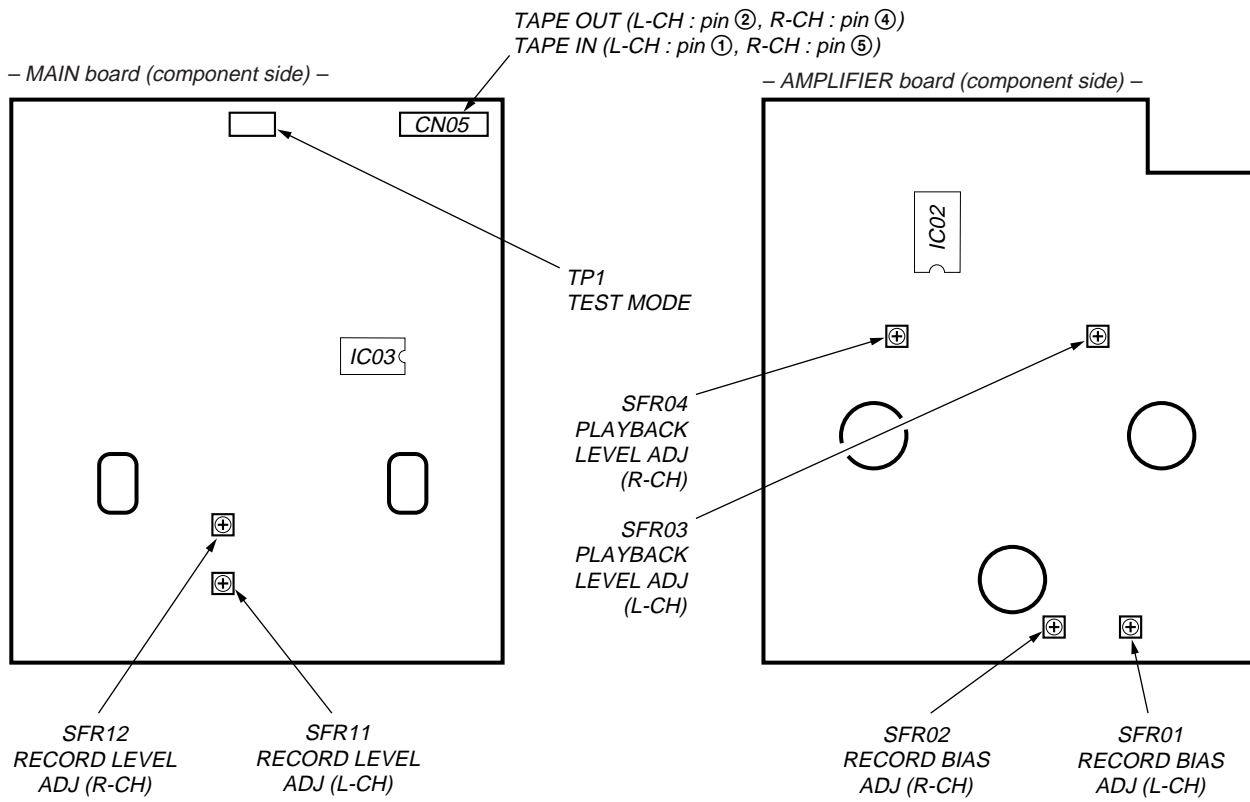


3. In the connection of item 2, playback the signal recorded in the connection of item 1, confirm that the reading on the level meter falls within the following adjustment value.
4. If these levels do not adjustment value, adjust SFR11 (L-CH) and SFR12 (R-CH) on MAIN board to repeat items 1 and 2.

Adjustment Value : Playback output level of 315 Hz :
- 4 ± 2 dB (0.39 to 0.62 V)

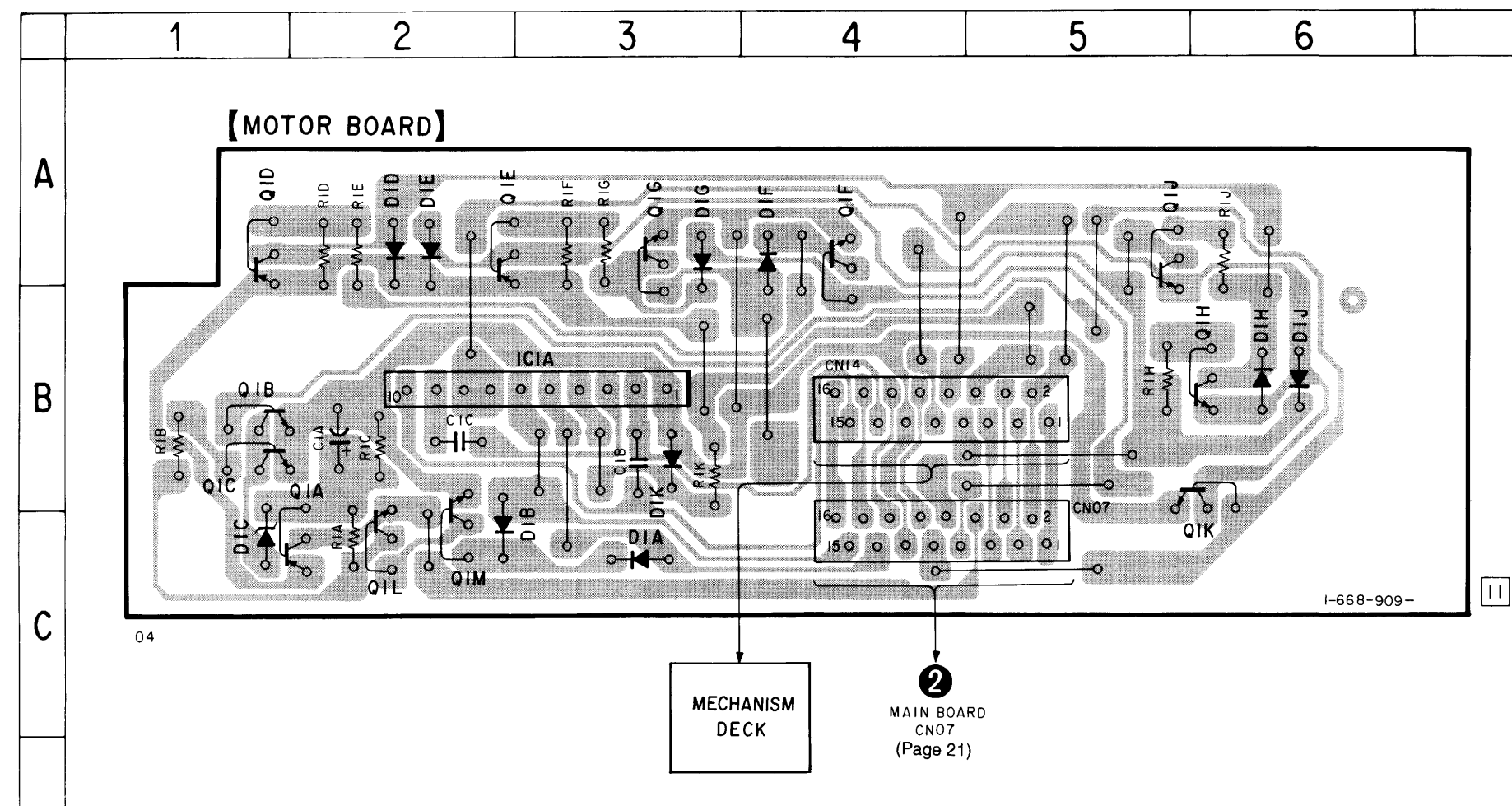
Adjustment Location : MAIN board (See page 16.)

Adjustment Location :



SECTION 7
DIAGRAMS

7-1. PRINTED WIRING BOARD — MOTOR SECTION —



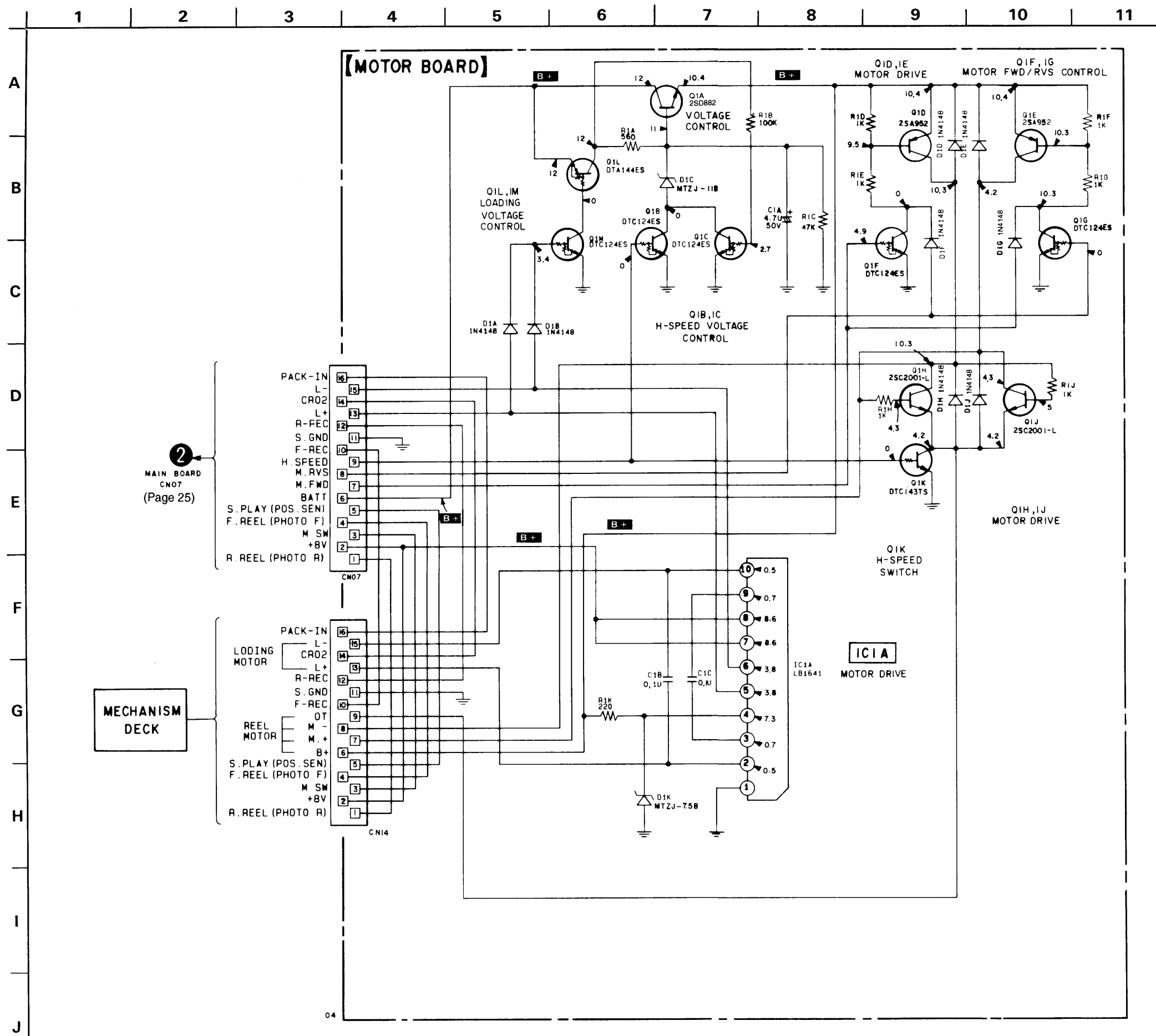
• Semiconductor Location

Ref. No.	Location
D1A	C-3
D1B	C-2
D1C	C-1
D1D	A-2
D1E	A-2
D1F	A-4
D1G	A-3
D1H	B-6
D1J	B-6
D1K	B-3
IC1A	B-3
Q1A	C-1
Q1B	B-1
Q1C	B-1
Q1D	A-1
Q1E	A-2
Q1F	A-4
Q1G	A-3
Q1H	B-5
Q1J	A-5
Q1K	B-5
Q1L	C-2
Q1M	C-2

Note on Printed Wiring Boards:

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

7-2. SCHEMATIC DIAGRAM — MOTOR SECTION — • Refer to page 26 for IC Block Diagrams.



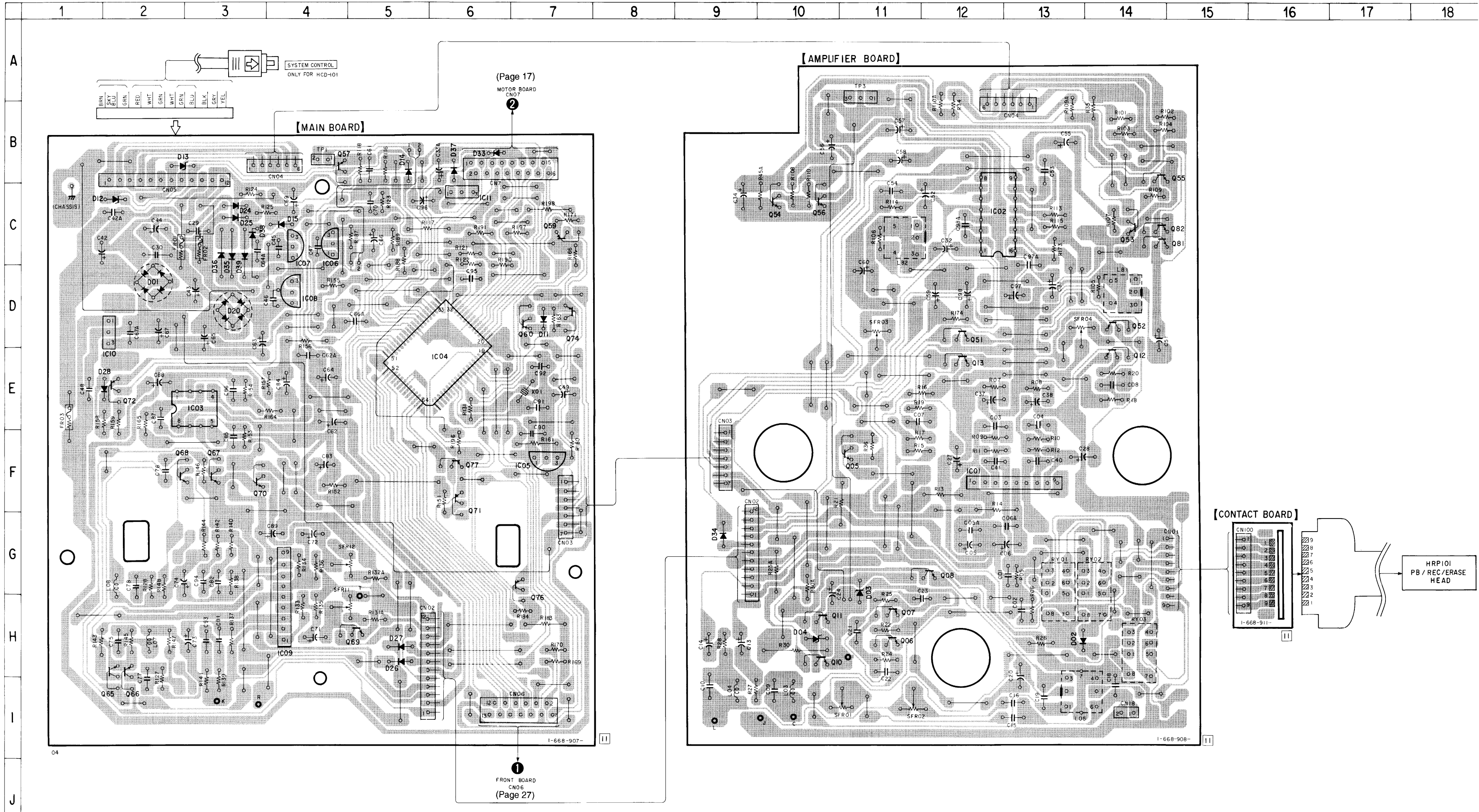
Note on Schematic Diagram:

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

7-3. PRINTED WIRING BOARDS — MAIN SECTION —

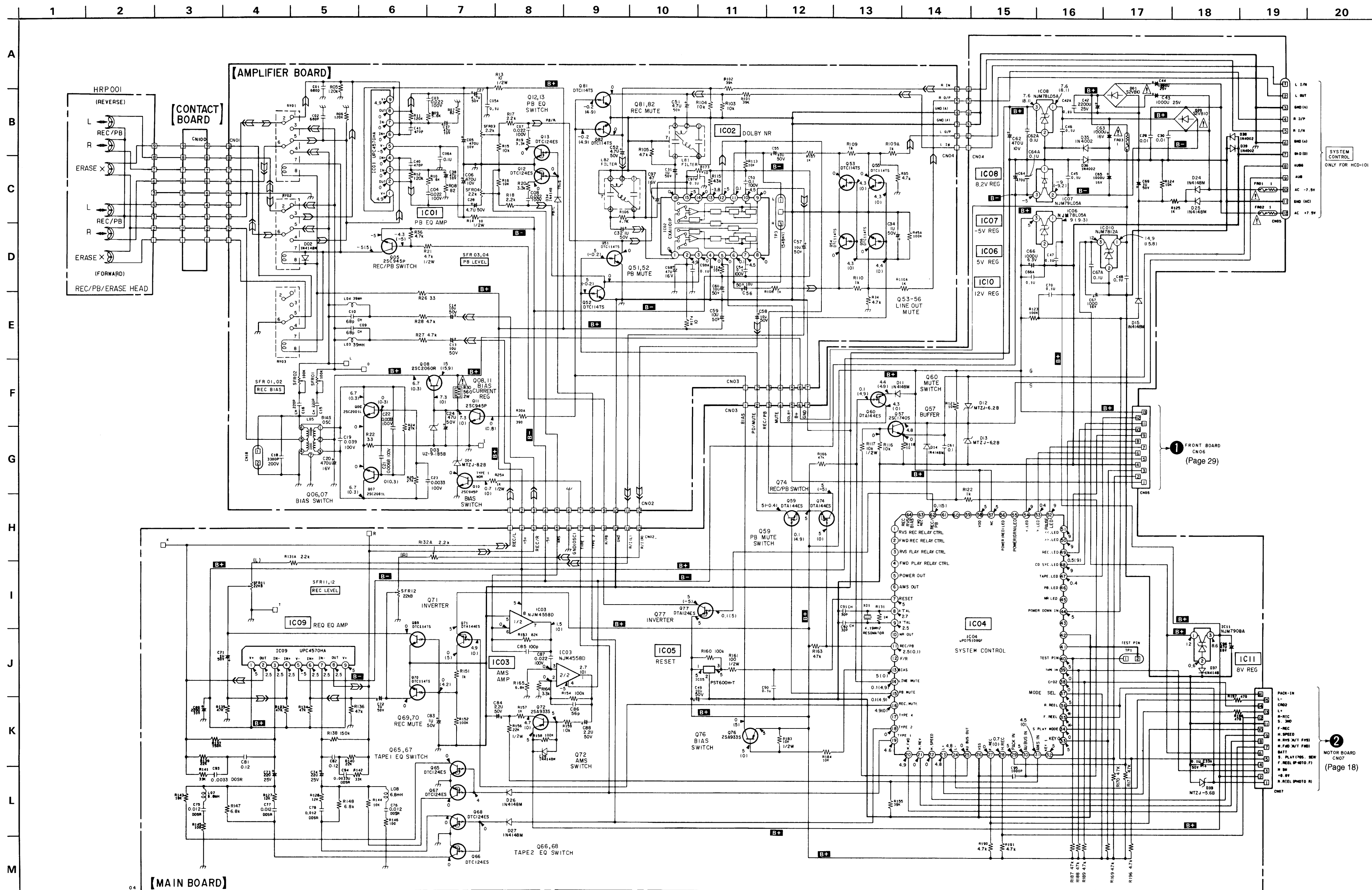
• Semiconductor Location

Ref. No.	Location
D01	D-2
D02	H-13
D03	G-11
D04	H-10
D11	D-7
D12	C-2
D13	B-2
D14	B-5
D15	C-4
D20	D-3
D24	C-3
D25	C-3
D26	H-5
D27	H-5
D28	E-1
D33	B-6
D34	G-9
D35	C-3
D36	C-3
D37	B-6
D38	C-3
D39	C-3
IC01	F-12
IC02	C-12
IC03	E-3
IC04	E-6
IC05	F-7
IC06	C-4
IC07	C-4
IC08	D-4
IC09	H-4
IC10	D-2
IC11	C-6
Q05	F-11
Q06	H-11
Q07	H-11
Q08	G-12
Q10	H-10
Q11	H-10
Q12	E-14
Q13	E-12
Q51	D-12
Q52	D-14
Q53	C-14
Q54	C-10
Q55	B-14
Q56	C-10
Q57	B-4
Q59	C-7
Q60	D-7
Q65	I-2
Q66	I-2
Q67	F-3
Q68	F-2
Q69	H-4
Q70	F-3
Q71	F-6
Q72	E-2
Q74	D-7
Q76	G-7
Q77	F-6
Q81	C-14
Q82	C-14



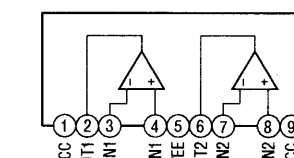
Note:
 • : parts extracted from the component side.
 [] : indicates side identified with part number.
 [] : Pattern from the side which enables seeing.

7-4. SCHEMATIC DIAGRAM — MAIN SECTION —

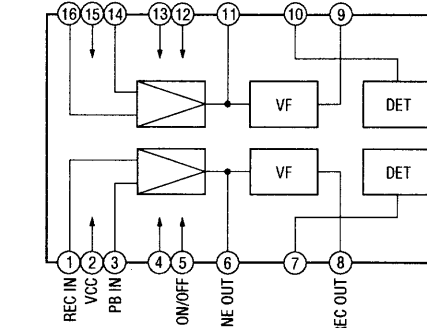


• IC Block Diagrams

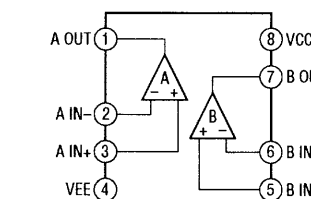
IC01, 09 µPC4570H



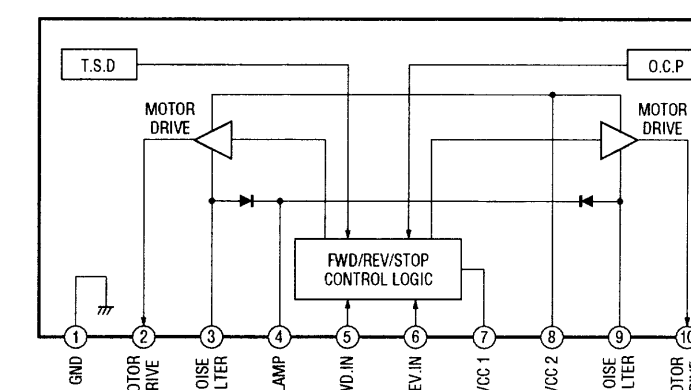
IC02 CXA1101P



IC03 NJM4558L



IC1A LB1641



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 1/4W or less unless otherwise specified.
- \square : nonflammable resistor.
- \square : fusible resistor.
- \square : panel designation.

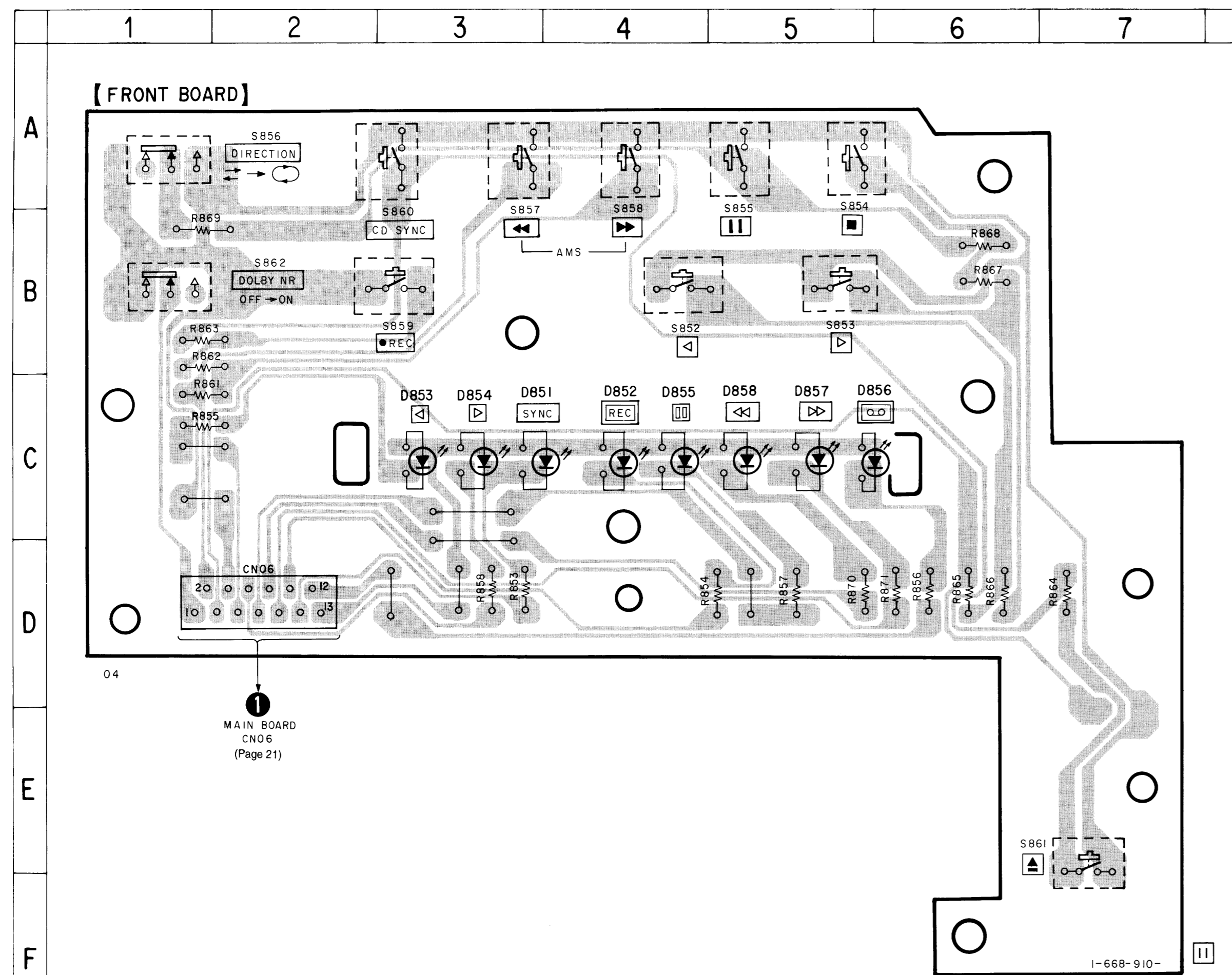
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- \square : B+ Line.
- \square : B- Line.
- \square : adjustment for repair.
- Voltage is dc with respect to ground under no-signal conditions.
no mark : PB (FWD)
() : REC (FWD)
- Voltages are taken with a VOM (input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
▷ : PB
▷ : REC

7-5. PRINTED WIRING BOARDS — FRONT PANEL SECTION —

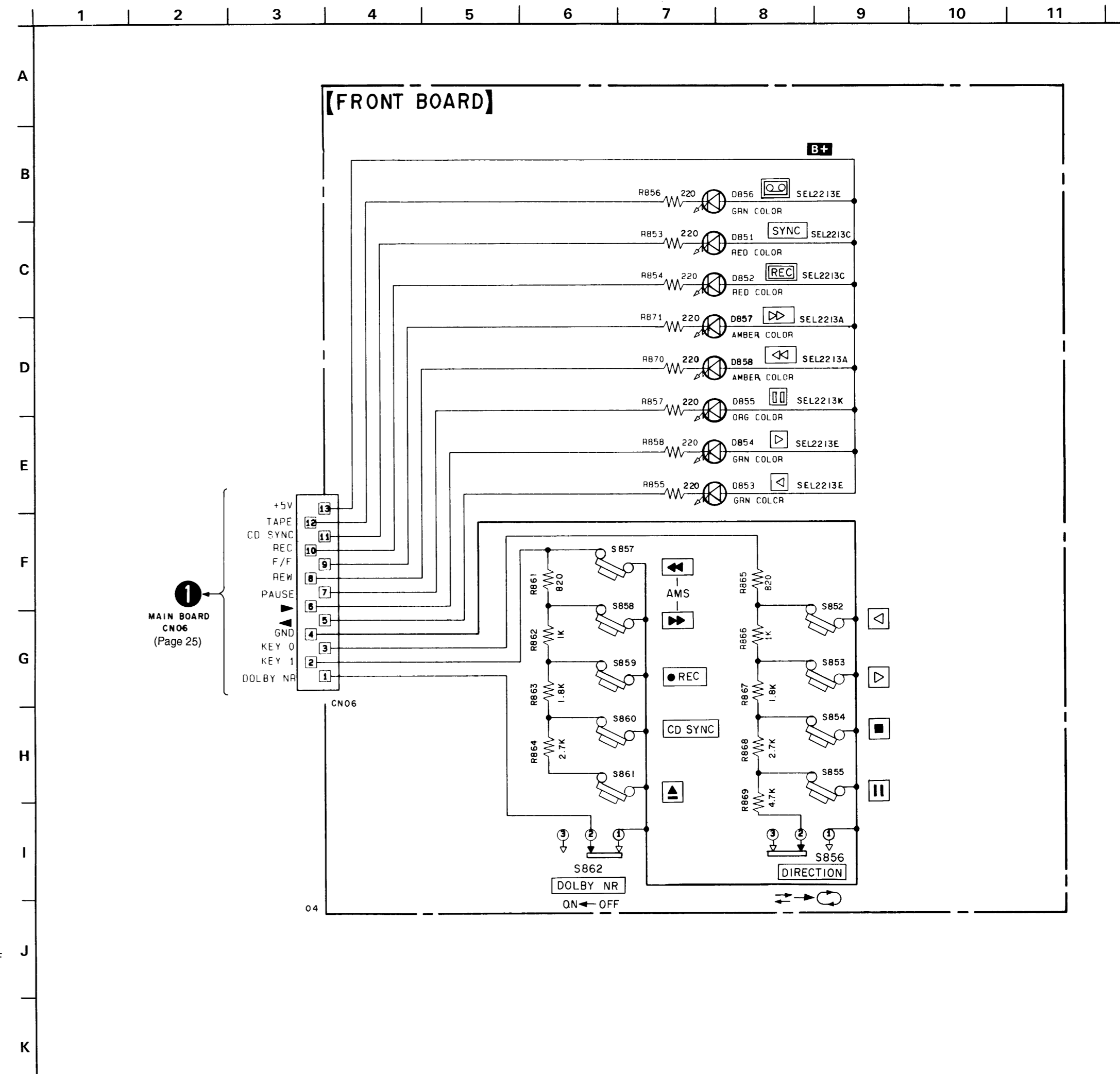
• Semiconductor Location

Ref. No.	Location
D851	C-3
D852	C-4
D853	C-3
D854	C-3
D855	C-4
D856	C-5
D857	C-5
D858	C-5



Note:
 • : Pattern from the side which enables seeing.

7-6. SCHEMATIC DIAGRAM — FRONT PANEL SECTION —



Note:
 • All capacitors are in μF unless otherwise noted. pF: μpF
 50 WV or less are not indicated except for electrolytics and tantalums.
 • All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
 • : panel designation.
 • **B+** : B+ Line.

7-7. IC PIN DESCRIPTION

• IC04 μ PD75108GF-N14-3BE (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Pin Description
1	RVS REC RELAY	O	RVS REC relay control output (Not used in this set.)
2	FWD REC RELAY	O	FWD REC relay control output (Not used in this set.)
3	RVS PLAY RELAY	O	RVS PLAY relay control output (Not used in this set.)
4	FWD PLAY RELAY	O	FWD PLAY relay control output (Not used in this set.)
5	POWER OUT	O	Power output (Not used in this set.)
6	AMS OUT	O	AMS gain control output (Not used in this set.)
7	RESET	I	Reset input (L : Reset)
8	XTAL	—	Oscillator circuit (4.19 MHz)
9	XTAL	—	Oscillator circuit (4.19 MHz)
10	NR OUT	O	Noise reduction signal output (Not used in this set.)
11	REC/PB	O	REC/PB select output (H : REC, L : PB)
12	F/R	O	RVS/FWD select output (H : RVS, L : FWD) (Not used in this set.)
13	BIAS	O	Bias oscillation control output (H : ON, L : OFF)
14	LINE MUTE	O	Line mute control output (H : OFF, L : ON)
15	PB.MUTE	O	PB mute control output (H : OFF, L : ON)
16	REC.MUTE	O	REC mute control output (H : OFF, L : ON)
17	TAPE 4	O	REC equalizer select output (H : METAL) (Not used in this set.)
18	TAPE 2	O	REC equalizer select output (H : CrO ₂)
19	TAPE 1	O	REC equalizer select output (H : NORMAL)
20	M.FWD	O	Reel motor forward direction rotation output
21	M.REV	O	Reel motor reverse direction rotation output
22	H.SPEED	O	Tape speed control output
23	L+	O	Loading motor forward direction rotation output
24	L-	O	Loading motor reverse direction rotation output
25	AU BUS OUT	O	AU BUS signal output
26	VSS	—	Ground
27	F.REC	I	Mechanism deck FWD REC PROOF claw detection signal input (H : REC inhibit)
28	R.REC	I	Mechanism deck RVS REC PROOF claw detection signal input (H : REC inhibit)
29	PACK IN	I	Loading detection signal input
30	AU BUS IN	I	AU BUS signal input
31	AMS IN	I	AMS signal input
32	KEY 1	I	Key switch input 1
33	KEY 0	I	Key switch input 0
34	S.PLAY MODE	I	Mechanism deck tape position detection signal input
35	FREEL	I	Mechanism deck FWD reel sensor detection signal input
36	R.REEL	I	Mechanism deck RVS reel sensor detection signal input
37	MODE SEL	I	Mode select input (Fixed at "H" in this set.)
38	CrO ₂	I	Mechanism deck CrO ₂ switch input
39	TAPE IN	I	Mechanism deck HALF switch input
40	TEST PIN	I	Input for test mode. (L : Test mode)
41, 42	NC	I	Connect to Ground in this set.
43	NC	O	Not used in this set.
44	POWER DOWN IN	I	Power detection input
45	NR.LED	O	NR LED output (Not used in this set.)
46	PB.LED	O	PLAYBACK LED output (Not used in this set.)
47	TAPE.LED	O	Tape indicator LED output
48	CD SYNC.LED	O	CD SYNC LED output
49	REC.LED	O	REC LED output
50	>>.LED	O	▶▶ LED output
51	<<.LED	O	◀◀ LED output
52	PAUSE.LED	O	PAUSE LED output

Pin No.	Pin Name	I/O	Pin Description
53	>.LED	O	▶ LED output
54	<.LED	O	◀ LED output
55	POWER(GRN)LED	O	POWER LED output (Not used in this set.)
56	POWER(RED)LED	O	POWER LED output (Not used in this set.)
57	NC	—	Fixed at “H” in this set.
58	VDD	—	Power supply pin
59 – 61	NC	—	Not used in this set.
62	REC/PB	O	REC/PB select output (H : REC, L : PB)
63, 64	NC	—	Not used in this set.

SECTION 8 EXPLODED VIEWS

NOTE:

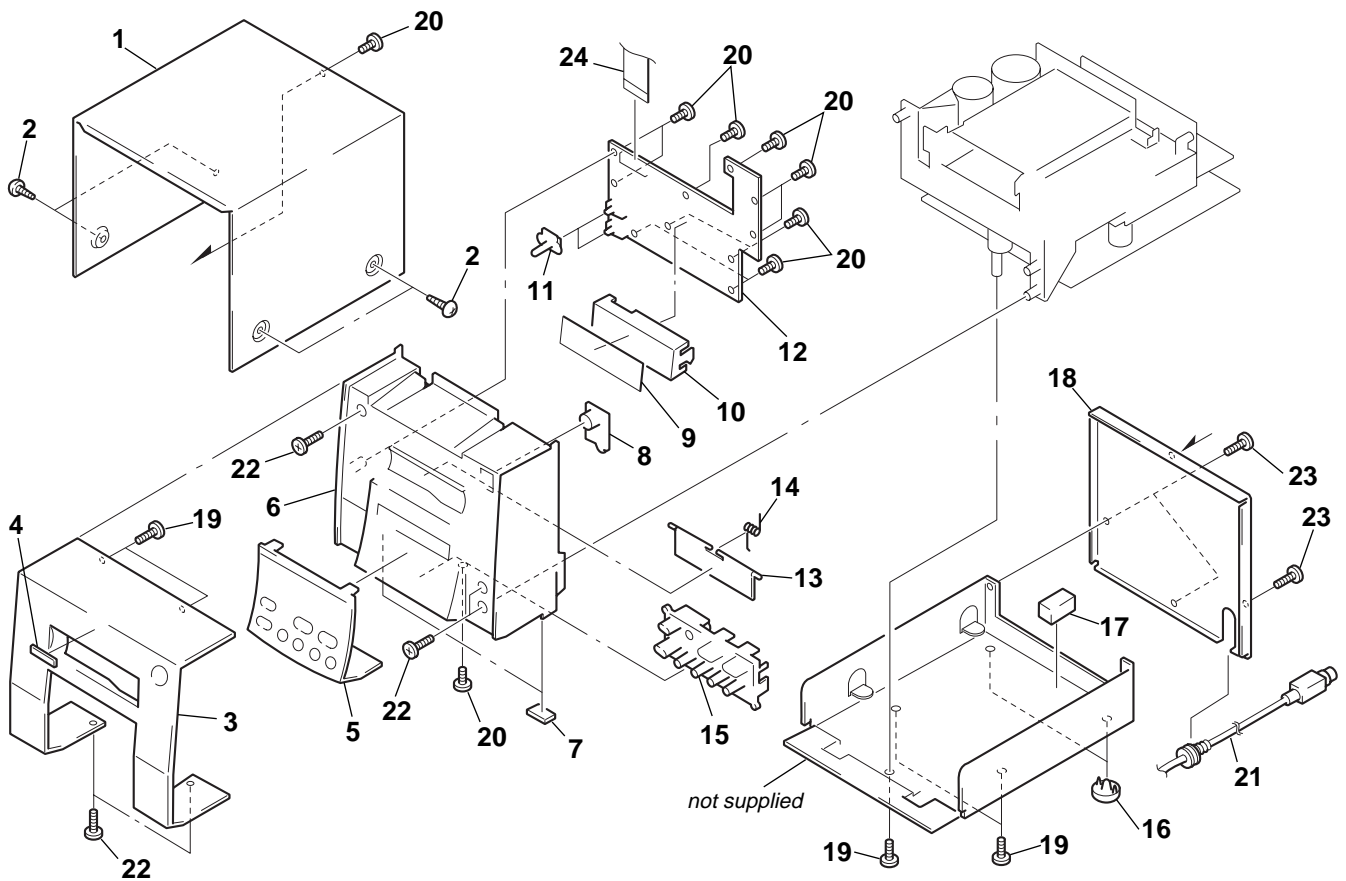
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation
 G : German model
 SP : Singapore model
 MY : Malaysia model
 HK : Hong Kong model
 JE : Tourist model

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
 Example :
 KNOB, BALANCE (WHITE) ... (RED)

↑ Parts Color ↑ Cabinet's Color

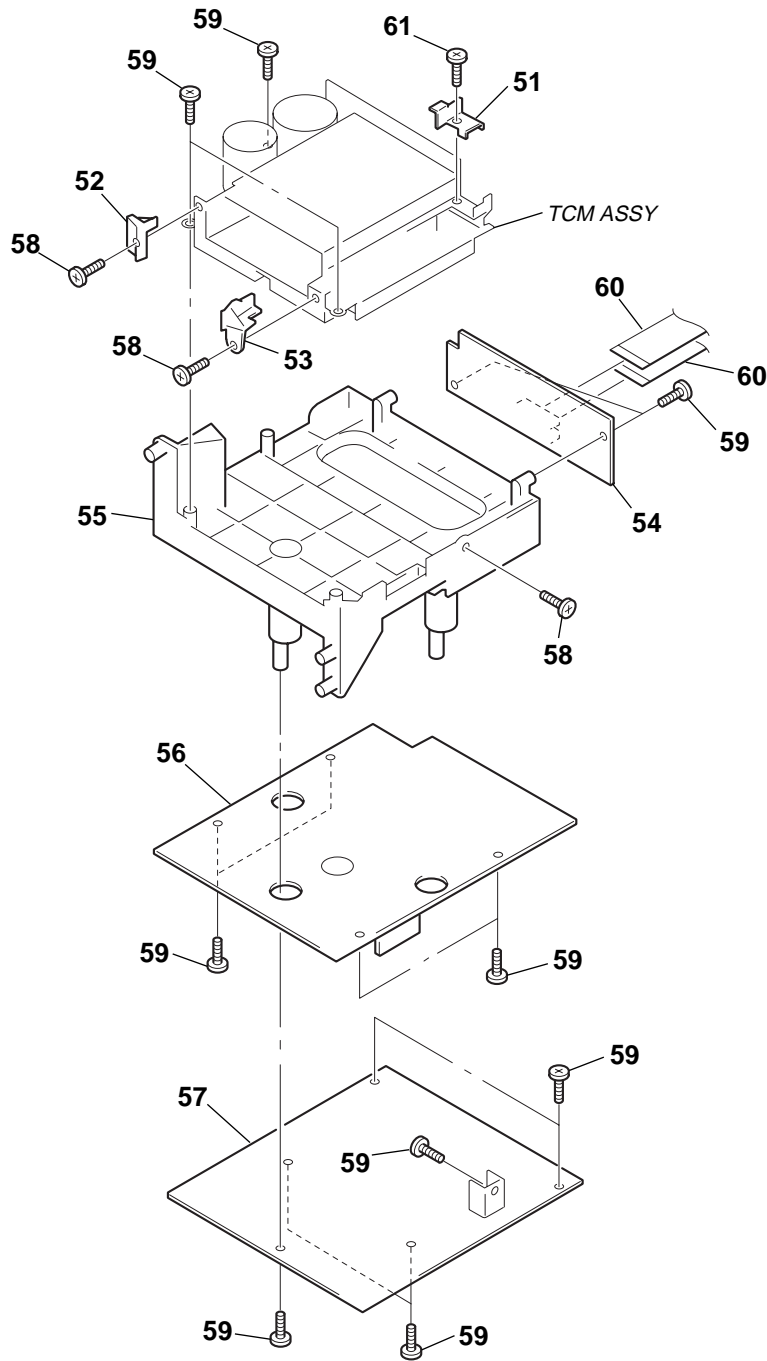
- Accessories and packing materials are given in the last of this parts list.

8-1. CHASSIS SECTION



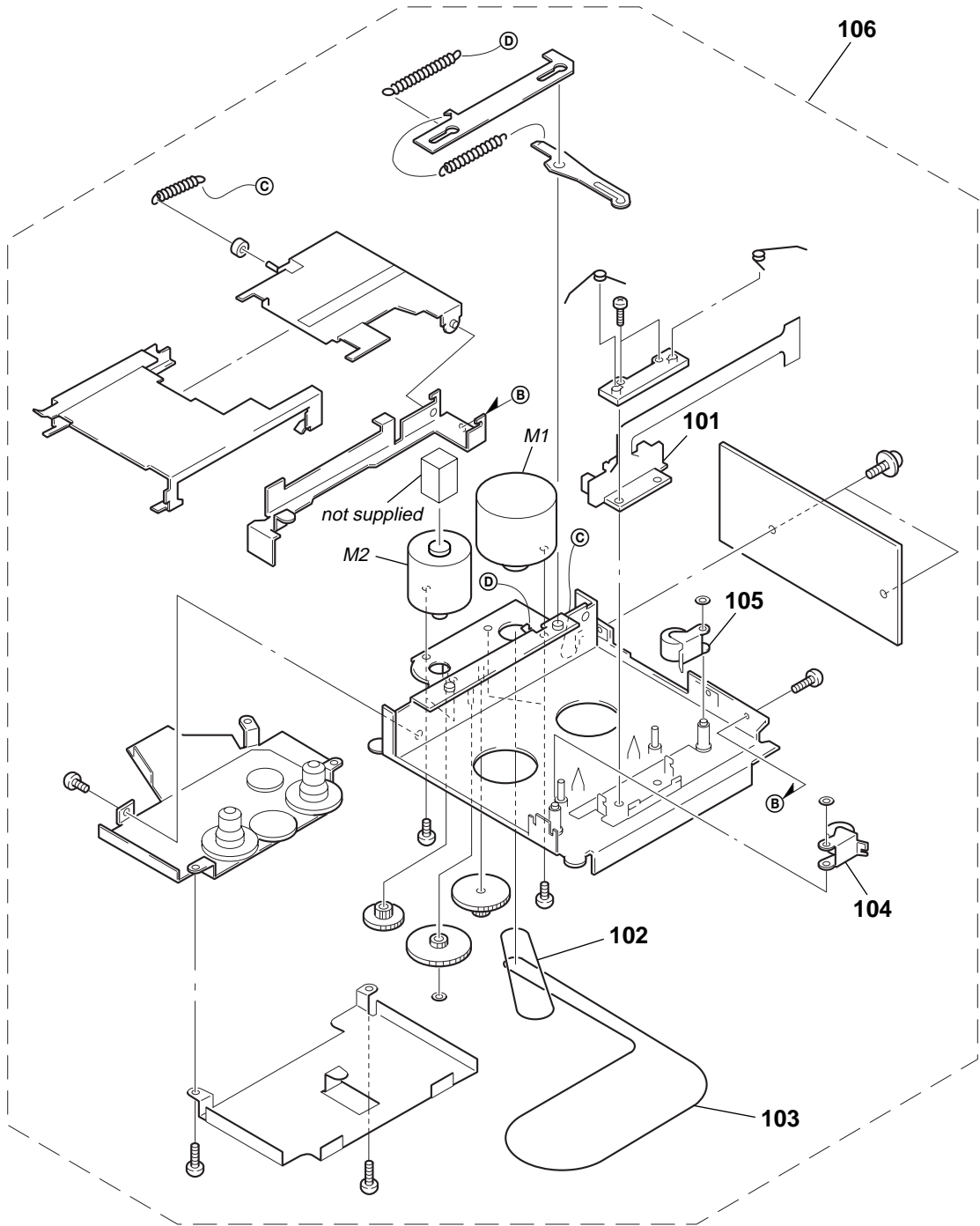
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 1	3-021-633-01	TOP COVER		14	3-020-419-01	DOOR SPRING	
2	3-363-099-51	SCREW (CASE 3 TP2)		15	3-021-621-01	PLAY BUTTON	
3	3-021-619-01	FRONT PANEL		16	3-020-399-01	FOOT (REAR)	
4	4-942-636-21	EMBLEM (No.3.5), SONY		* 17	3-021-639-01	CUSHION	
5	3-021-632-01	FRONT WINDOW		* 18	3-021-643-01	BACK PLATE (AEP,UK,G)	
6	3-021-623-01	SUB PANEL		* 18	3-022-375-01	BACK PLATE (SP,MY,HK,JE)	
7	3-021-634-01	FOOT (FRONT)		19	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
8	3-021-622-01	EJECT BUTTON		20	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
* 9	3-021-627-01	LED PLATE		21	1-782-804-11	CORD (WITH CONNECTOR)	
* 10	3-021-626-01	LED HOLDER		22	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S	
11	3-021-624-01	SLIDE KNOB		23	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S	
* 12	A-2007-755-A	FRONT BOARD, COMPLETE		24	3-021-640-01	BRACKET (FLEXIBLE A)	
13	3-021-620-01	DOOR CASSETTE					

8-2. PC BOARD SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 51	3-021-638-01	DECK BRACKET		* 57	A-2007-752-A	MAIN BOARD, COMPLETE	
* 52	3-020-436-01	TAPE GUIDE (L)		58	4-951-620-01	SCREW (2.6X8), +BVTP	
* 53	3-020-437-01	TAPE GUIDE (R)		59	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
* 54	A-2007-756-A	MOTOR BOARD, COMPLETE		60	3-021-641-01	BRACKET (FLEXIBLE B)	
55	3-021-644-01	CASSETTE DECK HOLDER		61	7-685-103-19	SCREW +P 2X5 TYPE2 N-S	
* 56	A-2007-753-A	AMPLIFIER BOARD, COMPLETE					

8-3.TCM ASSY SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-020-446-01	BRACKET (HEAD UNIT)		105	3-020-450-01	PINCH ROLLER ASSY (R)	
102	3-020-444-01	BELT (A)		* 106	A-2004-641-A	TCM ASSY	
103	3-020-445-01	BELT (B)		M1	3-020-447-01	MOTOR (A) ASSY (REEL/CAPSTAN)	
104	3-020-443-01	PINCH ROLLER ASSY (F)		M2	3-020-448-01	MOTOR (B) ASSY (LOADING)	

AMPLIFIER

SECTION 9 ELECTRICAL PARTS LIST

NOTE:

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

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

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-2007-753-A	AMPLIFIER BOARD, COMPLETE *****		C59	1-124-907-11	ELECT 10uF 20%	50V
		< CAPACITOR >		C60	1-124-907-11	ELECT 10uF 20%	50V
C01	1-162-292-31	CERAMIC 680PF 10%	50V	C97	1-104-664-11	ELECT 47uF 20%	16V
C02	1-162-292-31	CERAMIC 680PF 10%	50V	C98	1-104-664-11	ELECT 47uF 20%	16V
C03	1-137-395-11	FILM 0.022uF 5%	100V			< DIODE >	
C04	1-137-395-11	FILM 0.022uF 5%	100V	D02	8-719-901-33	DIODE 1SS133	
C05	1-124-472-11	ELECT 470uF 20%	10V	D03	8-719-010-62	DIODE UZ-9.1B5B	
C05A	1-161-772-11	CERAMIC 0.1uF 10%	25V	D04	8-719-921-67	DIODE MTZJ-8.2B	
C06	1-124-472-11	ELECT 470uF 20%	10V	D34	8-719-901-33	DIODE 1SS133	
C06A	1-161-772-11	CERAMIC 0.1uF 10%	25V			< IC >	
C07	1-137-395-11	FILM 0.022uF 5%	100V	IC01	8-759-112-93	IC uPC4570HA-1	
C08	1-137-395-11	FILM 0.022uF 5%	100V	IC02	8-752-057-19	IC CXA1101P	
C09	1-164-066-11	CERAMIC 68PF 5%	50V			< COIL >	
C10	1-164-066-11	CERAMIC 68PF 5%	50V	L03	1-416-568-11	COIL, CHOKE 39mH	
C13	1-124-907-11	ELECT 10uF 20%	50V	L04	1-416-568-11	COIL, CHOKE 39mH	
C14	1-124-907-11	ELECT 10uF 20%	50V	L05	1-431-706-11	TRANSFORMER, BIAS OSCILLATION	
C15	1-164-077-11	CERAMIC 220PF 10%	50V	L81	1-234-023-11	FILTER, MPX	
C16	1-164-077-11	CERAMIC 220PF 10%	50V	L82	1-234-023-11	FILTER, MPX	
C18	1-104-990-11	FILM 0.0033uF 5%	200V			< TRANSISTOR >	
C19	1-137-464-11	FILM 0.039uF 5%	100V	Q05	8-729-194-57	TRANSISTOR 2SC945-P	
C20	1-126-941-11	ELECT 470uF 20%	16V	Q06	8-729-142-46	TRANSISTOR 2SC2001-LK	
C21	1-137-392-11	FILM 0.0068uF 5%	100V	Q07	8-729-142-46	TRANSISTOR 2SC2001-LK	
C22	1-137-390-11	FILM 0.0033uF 5%	100V	Q08	8-729-140-96	TRANSISTOR 2SD774-34	
C23	1-137-390-11	FILM 0.0033uF 5%	100V	Q10	8-729-194-57	TRANSISTOR 2SC945-P	
C24	1-124-910-11	ELECT 47uF 20%	50V	Q11	8-729-194-57	TRANSISTOR 2SC945-P	
C27	1-126-963-11	ELECT 4.7uF 20%	50V	Q12	8-729-029-86	TRANSISTOR DTC124ESA	
C28	1-126-963-11	ELECT 4.7uF 20%	50V	Q13	8-729-029-86	TRANSISTOR DTC124ESA	
C31	1-124-903-11	ELECT 1uF 20%	50V	Q51	8-729-029-68	TRANSISTOR DTC114TSA	
C32	1-124-903-11	ELECT 1uF 20%	50V	Q52	8-729-029-68	TRANSISTOR DTC114TSA	
C34	1-124-903-11	ELECT 1uF 20%	50V	Q53	8-729-029-68	TRANSISTOR DTC114TSA	
C37	1-104-664-11	ELECT 47uF 20%	10V	Q54	8-729-029-68	TRANSISTOR DTC114TSA	
C38	1-104-664-11	ELECT 47uF 20%	10V	Q55	8-729-029-68	TRANSISTOR DTC114TSA	
C40	1-162-290-31	CERAMIC 470PF 10%	50V	Q56	8-729-029-68	TRANSISTOR DTC114TSA	
C41	1-162-290-31	CERAMIC 470PF 10%	50V	Q81	8-729-029-68	TRANSISTOR DTC114TSA	
C51	1-126-963-11	ELECT 4.7uF 20%	50V	Q82	8-729-029-68	TRANSISTOR DTC114TSA	
C52	1-126-963-11	ELECT 4.7uF 20%	50V			< RESISTOR >	
C53	1-137-399-11	FILM 0.1uF 5%	100V	R05	1-247-881-00	CARBON 120K 5%	1/4W
C54	1-137-399-11	FILM 0.1uF 5%	100V	R06	1-247-881-00	CARBON 120K 5%	1/4W
C55	1-124-907-11	ELECT 10uF 20%	50V	R07	1-249-404-00	CARBON 82 5%	1/4W
C56	1-124-907-11	ELECT 10uF 20%	50V	R08	1-249-404-00	CARBON 82 5%	1/4W
C57	1-124-907-11	ELECT 10uF 20%	50V				
C58	1-124-907-11	ELECT 10uF 20%	50V				

AMPLIFIER

CONTACT

FRONT

Ref. No.	Part No.	Description			Remark
R09	1-247-849-11	CARBON	5.6K	5%	1/4W
R10	1-247-849-11	CARBON	5.6K	5%	1/4W
R11	1-247-881-00	CARBON	120K	5%	1/4W
R12	1-247-881-00	CARBON	120K	5%	1/4W
R13	1-260-076-11	CARBON	10	5%	1/2W
R14	1-260-076-11	CARBON	10	5%	1/2W
R15	1-247-855-11	CARBON	10K	5%	1/4W
R16	1-247-855-11	CARBON	10K	5%	1/4W
R17	1-247-839-11	CARBON	2.2K	5%	1/4W
R18	1-247-839-11	CARBON	2.2K	5%	1/4W
R19	1-247-843-11	CARBON	3.3K	5%	1/4W
R20	1-247-843-11	CARBON	3.3K	5%	1/4W
R21	1-260-107-11	CARBON	4.7K	5%	1/2W
R22	1-249-387-11	CARBON	3.3	5%	1/4W
R24	1-249-434-11	CARBON	27K	5%	1/4W
R25	1-249-434-11	CARBON	27K	5%	1/4W
R25A	1-260-099-11	CARBON	1K	5%	1/2W
R26	1-249-387-11	CARBON	3.3	5%	1/4W
R27	1-247-847-11	CARBON	4.7K	5%	1/4W
R28	1-247-847-11	CARBON	4.7K	5%	1/4W
△ R30	1-216-455-11	METAL OXIDE	560	5%	2W F
R30A	1-249-412-11	CARBON	390	5%	1/4W
R34	1-247-847-11	CARBON	4.7K	5%	1/4W
R35	1-247-847-11	CARBON	4.7K	5%	1/4W
R36	1-247-847-11	CARBON	4.7K	5%	1/4W
R45A	1-247-879-11	CARBON	100K	5%	1/4W
R101	1-249-436-11	CARBON	39K	5%	1/4W
R102	1-249-436-11	CARBON	39K	5%	1/4W
R103	1-247-855-11	CARBON	10K	5%	1/4W
R104	1-247-855-11	CARBON	10K	5%	1/4W
R105	1-247-847-11	CARBON	4.7K	5%	1/4W
R106	1-247-847-11	CARBON	4.7K	5%	1/4W
R107	1-249-417-11	CARBON	1K	5%	1/4W
R108	1-249-417-11	CARBON	1K	5%	1/4W
R109	1-249-417-11	CARBON	1K	5%	1/4W
R109A	1-249-417-11	CARBON	1K	5%	1/4W
R110	1-249-417-11	CARBON	1K	5%	1/4W
R110A	1-249-417-11	CARBON	1K	5%	1/4W
R113	1-247-855-11	CARBON	10K	5%	1/4W
R114	1-247-855-11	CARBON	10K	5%	1/4W
R115	1-247-870-11	CARBON	43K	5%	1/4W
R173	1-249-393-11	CARBON	10	5%	1/4W
R174	1-249-393-11	CARBON	10	5%	1/4W
< RELAY >					
RY01	1-755-244-11	RELAY			
RY02	1-755-244-11	RELAY			
RY03	1-755-244-11	RELAY			
< VARIABLE RESISTOR >					
SFR01	1-230-724-11	RES, ADJ, CARBON	100K		
SFR02	1-230-724-11	RES, ADJ, CARBON	100K		
SFR03	1-238-598-11	RES, ADJ, CARBON	2.2K		

Ref. No.	Part No.	Description			Remark
SFR04	1-238-598-11	RES, ADJ, CARBON	2.2K		

*	1-668-911-11	CONTACT BOARD			*****
< CONNECTOR >					
CN100	1-695-547-11	PIN, CONNECTOR (PC BOARD)	9P		

*	A-2007-755-A	FRONT BOARD, COMPLETE			*****
< CONNECTOR >					
* CN06	1-568-856-11	SOCKET, CONNECTOR	13P		
< DIODE >					
D851	8-719-302-24	LED	SEL2213C-D (SYNC)		
D852	8-719-302-24	LED	SEL2213C-D (REC)		
D853	8-719-301-46	LED	SEL2413E (<)		
D854	8-719-301-46	LED	SEL2413E (>)		
D855	8-719-302-86	LED	SEL2913K (IT)		
< RESISTOR >					
R853	1-249-409-11	CARBON	220	5%	1/4W
R854	1-249-409-11	CARBON	220	5%	1/4W
R855	1-249-409-11	CARBON	220	5%	1/4W
R856	1-249-409-11	CARBON	220	5%	1/4W
R857	1-249-409-11	CARBON	220	5%	1/4W
R858	1-249-409-11	CARBON	220	5%	1/4W
R861	1-249-416-11	CARBON	820	5%	1/4W
R862	1-249-417-11	CARBON	1K	5%	1/4W
R863	1-249-420-11	CARBON	1.8K	5%	1/4W
R864	1-247-841-11	CARBON	2.7K	5%	1/4W
R865	1-249-416-11	CARBON	820	5%	1/4W
R866	1-249-417-11	CARBON	1K	5%	1/4W
R867	1-249-420-11	CARBON	1.8K	5%	1/4W
R868	1-247-841-11	CARBON	2.7K	5%	1/4W
R869	1-247-847-11	CARBON	4.7K	5%	1/4W
R870	1-249-409-11	CARBON	220	5%	1/4W
R871	1-249-409-11	CARBON	220	5%	1/4W
< SWITCH >					
S852	1-571-760-11	SWITCH, KEY BOARD	(<)		
S853	1-571-760-11	SWITCH, KEY BOARD	(>)		
S854	1-571-760-11	SWITCH, KEY BOARD	(■)		
S855	1-571-760-11	SWITCH, KEY BOARD	(■)		
S856	1-771-304-11	SWITCH, SLIDE (DIRECTION)			
S857	1-571-760-11	SWITCH, KEY BOARD	(◀(AMS))		
S858	1-571-760-11	SWITCH, KEY BOARD	(▶(AMS))		

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

FRONT

MAIN

Ref. No.	Part No.	Description	Remark
S859	1-571-760-11	SWITCH, KEY BOARD (● REC)	
S860	1-571-760-11	SWITCH, KEY BOARD (CD SYNC)	
S861	1-571-760-11	SWITCH, KEY BOARD (▲)	
S862	1-771-304-11	SWITCH, SLIDE (DOLBY NR)	

*	A-2007-752-A	MAIN BOARD, COMPLETE *****	
< CAPACITOR >			
C29	1-162-306-11	CERAMIC	0.01uF 20% 16V
C30	1-162-306-11	CERAMIC	0.01uF 20% 16V
C33A	1-126-956-11	ELECT	0.1uF 20% 50V
C42	1-126-943-11	ELECT	2200uF 20% 25V
C42A	1-161-772-11	CERAMIC	0.1uF 10% 25V
C43	1-126-942-61	ELECT	1000uF 20% 25V
C44	1-126-942-61	ELECT	1000uF 20% 25V
C45	1-161-772-11	CERAMIC	0.1uF 10% 25V
C46	1-161-772-11	CERAMIC	0.1uF 10% 25V
C47	1-161-772-11	CERAMIC	0.1uF 10% 25V
C48	1-161-772-11	CERAMIC	0.1uF 10% 25V
C49	1-124-907-11	ELECT	10uF 20% 50V
C61	1-161-772-11	CERAMIC	0.1uF 10% 25V
C62	1-124-472-11	ELECT	470uF 20% 10V
C62A	1-164-159-11	CERAMIC	0.1uF 50V
C63	1-126-942-61	ELECT	1000uF 20% 16V
C64	1-124-472-11	ELECT	470uF 20% 10V
C64A	1-164-159-11	CERAMIC	0.1uF 50V
C65	1-126-942-61	ELECT	1000uF 20% 16V
C66	1-124-471-00	ELECT	1000uF 20% 6.3V
C66A	1-164-159-11	CERAMIC	0.1uF 50V
C67	1-126-767-11	ELECT	1000uF 20% 16V
C67A	1-164-159-11	CERAMIC	0.1uF 50V
C69	1-124-903-11	ELECT	1uF 20% 50V
C70	1-161-772-11	CERAMIC	0.1uF 10% 25V
C71	1-124-903-11	ELECT	1uF 20% 50V
C72	1-124-903-11	ELECT	1uF 20% 50V
C73	1-126-233-11	ELECT	22uF 20% 50V
C74	1-126-233-11	ELECT	22uF 20% 50V
C75	1-161-052-00	CERAMIC	0.012uF 10% 25V
C76	1-161-052-00	CERAMIC	0.012uF 10% 25V
C77	1-161-052-00	CERAMIC	0.012uF 10% 25V
C78	1-161-052-00	CERAMIC	0.012uF 10% 25V
C81	1-136-166-00	FILM	0.12uF 5% 50V
C82	1-136-166-00	FILM	0.12uF 5% 50V
C83	1-124-903-11	ELECT	1uF 20% 50V
C84	1-126-961-11	ELECT	2.2uF 20% 50V
C85	1-162-282-31	CERAMIC	100PF 10% 50V
C86	1-162-217-31	CERAMIC	56PF 5% 50V
C87	1-137-395-11	FILM	0.022uF 5% 100V
C88	1-126-961-11	ELECT	2.2uF 20% 50V
C89	1-104-666-11	ELECT	220uF 20% 10V
C90	1-161-772-11	CERAMIC	0.1uF 10% 25V
C91	1-164-057-11	CERAMIC	30PF 5% 50V

Ref. No.	Part No.	Description	Remark
C92	1-164-057-11	CERAMIC	30PF 5% 50V
C93	1-161-045-00	CERAMIC	0.0033uF 10% 50V
C94	1-161-045-00	CERAMIC	0.0033uF 10% 50V
C95	1-162-294-31	CERAMIC	0.001uF 10% 50V
C96	1-104-664-11	ELECT	47uF 20% 16V
C97A	1-161-772-11	CERAMIC	0.1uF 10% 25V
C98A	1-161-772-11	CERAMIC	0.1uF 10% 25V
< CONNECTOR >			
* CN04	1-568-272-11	SOCKET, CONNECTOR 6P	
* CN05	1-564-515-11	PLUG, CONNECTOR 12P	
* CN06	1-568-856-11	SOCKET, CONNECTOR 13P	
* CN07	1-568-835-11	SOCKET, CONNECTOR 16P	
< DIODE >			
△ D01	8-719-510-14	DIODE S2VB60	
D11	8-719-901-33	DIODE 1SS133	
D12	8-719-921-54	DIODE MTZJ-6.2B	
D13	8-719-921-54	DIODE MTZJ-6.2B	
D14	8-719-901-33	DIODE 1SS133	
D15	8-719-901-33	DIODE 1SS133	
△ D20	8-719-510-14	DIODE S2VB60	
D24	8-719-901-33	DIODE 1SS133	
D25	8-719-901-33	DIODE 1SS133	
D26	8-719-901-33	DIODE 1SS133	
D27	8-719-901-33	DIODE 1SS133	
D28	8-719-901-33	DIODE 1SS133	
D33	8-719-109-89	DIODE RD5.6ESB2	
D35	8-719-200-02	DIODE 10E2	
D36	8-719-200-02	DIODE 10E2	
D37	8-719-901-33	DIODE 1SS133	
D38	8-719-200-02	DIODE 10E2	
D39	8-719-200-02	DIODE 10E2	
< FUSIBLE RESISTOR >			
△ FR01	1-202-972-61	FUSIBLE	1 5% 1/4W F
△ FR02	1-202-972-61	FUSIBLE	1 5% 1/4W F
△ FR03	1-202-972-61	FUSIBLE	1 5% 1/4W F
< IC >			
IC03	8-759-634-51	IC M5218AP	
IC04	8-759-497-87	IC uPD75108GF-N14-3BE	
IC05	8-759-165-85	IC PST600H-T	
IC06	8-759-708-05	IC NJM78L05A	
IC07	8-759-700-65	IC NJM79L05A	
IC08	8-759-708-05	IC NJM78L05A	
IC09	8-759-112-93	IC uPC4570HA-1	
IC10	8-759-231-58	IC TA7812S	
IC11	8-759-982-07	IC RC7808FA	
< COIL >			
L07	1-416-567-11	COIL, CHOKE	6.8mH
L08	1-416-567-11	COIL, CHOKE	6.8mH

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >					
Q57	8-729-119-78	TRANSISTOR 2SC2785-HFE		R158	1-247-879-11	CARBON 100K 5%	1/4W
Q59	8-729-900-65	TRANSISTOR DTA144ES		R159	1-247-855-11	CARBON 10K 5%	1/4W
Q60	8-729-900-65	TRANSISTOR DTA144ES		R160	1-247-879-11	CARBON 100K 5%	1/4W
Q65	8-729-029-86	TRANSISTOR DTC124ESA		R161	1-260-087-11	CARBON 100 5%	1/2W
Q66	8-729-029-86	TRANSISTOR DTC124ESA		R163	1-247-871-11	CARBON 47K 5%	1/4W
Q67	8-729-029-86	TRANSISTOR DTC124ESA		R164	1-247-843-11	CARBON 3.3K 5%	1/4W
Q68	8-729-029-86	TRANSISTOR DTC124ESA		R165	1-249-427-11	CARBON 6.8K 5%	1/4W
Q69	8-729-029-68	TRANSISTOR DTC114TSA		R166	1-247-871-11	CARBON 47K 5%	1/4W
Q70	8-729-029-68	TRANSISTOR DTC114TSA		R169	1-247-847-11	CARBON 4.7K 5%	1/4W
Q71	8-729-900-65	TRANSISTOR DTA144ES		R170	1-247-847-11	CARBON 4.7K 5%	1/4W
Q72	8-729-119-76	TRANSISTOR 2SA1175-HFE		R171	1-247-871-11	CARBON 47K 5%	1/4W
Q74	8-729-900-65	TRANSISTOR DTA144ES		R183	1-260-111-11	CARBON 10K 5%	1/2W
Q76	8-729-119-76	TRANSISTOR 2SA1175-HFE		R184	1-247-855-11	CARBON 10K 5%	1/4W
Q77	8-729-900-63	TRANSISTOR DTA124ES		R187	1-247-871-11	CARBON 47K 5%	1/4W
		< RESISTOR >		R188	1-247-871-11	CARBON 47K 5%	1/4W
R116	1-247-855-11	CARBON 10K 5%	1/4W	R189	1-247-847-11	CARBON 4.7K 5%	1/4W
R117	1-260-111-11	CARBON 10K 5%	1/2W	R190	1-247-847-11	CARBON 4.7K 5%	1/4W
R118	1-249-393-11	CARBON 10 5%	1/4W	R191	1-247-847-11	CARBON 4.7K 5%	1/4W
R121	1-247-855-11	CARBON 10K 5%	1/4W	R196	1-247-847-11	CARBON 4.7K 5%	1/4W
R122	1-249-417-11	CARBON 1K 5%	1/4W	R197	1-249-413-11	CARBON 470 5%	1/4W
R123	1-247-879-11	CARBON 100K 5%	1/4W	R198	1-260-095-11	CARBON 470 5%	1/2W
R124	1-247-855-11	CARBON 10K 5%	1/4W			< VARIABLE RESISTOR >	
R125	1-249-417-11	CARBON 1K 5%	1/4W	SFR11	1-241-765-11	RES, ADJ, CARBON 22K	
R127	1-249-430-11	CARBON 12K 5%	1/4W	SFR12	1-241-765-11	RES, ADJ, CARBON 22K	
R128	1-249-430-11	CARBON 12K 5%	1/4W			< VIBRATOR >	
R131	1-247-903-00	CARBON 1M 5%	1/4W	X01	1-767-130-11	VIBRATOR, CERAMIC (4.19MHZ)	
R131A	1-247-839-11	CARBON 2.2K 5%	1/4W	*****			
R132A	1-247-839-11	CARBON 2.2K 5%	1/4W	*	A-2007-756-A	MOTOR BOARD, COMPLETE	
R133	1-247-871-11	CARBON 47K 5%	1/4W	*****			
R134	1-247-871-11	CARBON 47K 5%	1/4W			< CAPACITOR >	
R135	1-247-871-11	CARBON 47K 5%	1/4W	C1A	1-126-963-11	ELECT 4.7uF 20%	50V
R136	1-247-871-11	CARBON 47K 5%	1/4W	C1B	1-164-159-11	CERAMIC 0.1uF	50V
R137	1-247-883-00	CARBON 150K 5%	1/4W	C1C	1-164-159-11	CERAMIC 0.1uF	50V
R138	1-247-883-00	CARBON 150K 5%	1/4W			< CONNECTOR >	
R139	1-247-863-11	CARBON 22K 5%	1/4W	* CN07	1-568-835-11	SOCKET, CONNECTOR 16P	
R140	1-247-863-11	CARBON 22K 5%	1/4W	* CN14	1-568-835-11	SOCKET, CONNECTOR 16P	
R141	1-247-867-11	CARBON 33K 5%	1/4W			< DIODE >	
R142	1-247-867-11	CARBON 33K 5%	1/4W	D1A	8-719-901-33	DIODE 1SS133	
R143	1-247-855-11	CARBON 10K 5%	1/4W	D1B	8-719-901-33	DIODE 1SS133	
R144	1-247-855-11	CARBON 10K 5%	1/4W	D1C	8-719-921-80	DIODE MTZJ-11B	
R145	1-247-807-11	CARBON 100 5%	1/4W	D1D	8-719-901-33	DIODE 1SS133	
R146	1-247-807-11	CARBON 100 5%	1/4W	D1E	8-719-901-33	DIODE 1SS133	
R147	1-249-427-11	CARBON 6.8K 5%	1/4W	D1F	8-719-901-33	DIODE 1SS133	
R148	1-249-427-11	CARBON 6.8K 5%	1/4W	D1G	8-719-901-33	DIODE 1SS133	
R151	1-249-417-11	CARBON 1K 5%	1/4W	D1H	8-719-901-33	DIODE 1SS133	
R152	1-247-879-11	CARBON 100K 5%	1/4W	D1J	8-719-901-33	DIODE 1SS133	
R153	1-249-440-11	CARBON 82K 5%	1/4W	D1K	8-719-921-63	DIODE MTZJ-7.5B	
R154	1-247-879-11	CARBON 100K 5%	1/4W				
R155	1-249-436-11	CARBON 39K 5%	1/4W				
R156	1-260-115-11	CARBON 22K 5%	1/2W				
R157	1-249-417-11	CARBON 1K 5%	1/4W				

MOTOR

Ref. No.	Part No.	Description	Remark
		< IC >	
IC1A	8-759-822-09	IC LB1641	
		< TRANSISTOR >	
Q1A	8-729-188-23	TRANSISTOR 2SD882-P	
Q1B	8-729-029-86	TRANSISTOR DTC124ESA	
Q1C	8-729-029-86	TRANSISTOR DTC124ESA	
Q1D	8-729-195-23	TRANSISTOR 2SA952	
Q1E	8-729-195-23	TRANSISTOR 2SA952	
Q1F	8-729-029-86	TRANSISTOR DTC124ESA	
Q1G	8-729-029-86	TRANSISTOR DTC124ESA	
Q1H	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q1J	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q1K	8-729-029-94	TRANSISTOR DTC143TSA	
Q1L	8-729-422-57	TRANSISTOR UN4111	
Q1M	8-729-029-86	TRANSISTOR DTC124ESA	
		< RESISTOR >	
R1A	1-247-825-11	CARBON 560 5% 1/4W	
R1B	1-247-879-11	CARBON 100K 5% 1/4W	
R1C	1-247-871-11	CARBON 47K 5% 1/4W	
R1D	1-249-417-11	CARBON 1K 5% 1/4W	
R1E	1-249-417-11	CARBON 1K 5% 1/4W	
R1F	1-249-417-11	CARBON 1K 5% 1/4W	
R1G	1-249-417-11	CARBON 1K 5% 1/4W	
R1H	1-249-417-11	CARBON 1K 5% 1/4W	
R1J	1-249-417-11	CARBON 1K 5% 1/4W	
R1K	1-249-409-11	CARBON 220 5% 1/4W	

		MISCELLANEOUS	

21	1-782-804-11	CORD (WITH CONNECTOR)	
24	3-021-640-01	BRACKET (FLEXIBLE A)	
60	3-021-641-01	BRACKET (FLEXIBLE B)	
101	3-020-446-01	BRACKET (HEAD UNIT)	
M1	3-020-447-01	MOTOR (A) ASSY (REEL/CAPSTAN)	
M2	3-020-448-01	MOTOR (B) ASSY (LOADING)	

		ACCESSORIES & PACKING MATERIALS	

3-861-243-12		MANUAL, INSTRUCTION (ENGLISH,FRENCH, SPANISH,GERMAN,DUTCH,SWEDISH, ITALIAN,PORTUGUESE,CHINESE)	