

# TC-TX333

## SERVICE MANUAL

US Model  
AEP Model  
UK Model  
E Model  
Tourist Model



- TC-TX333 is the stereo cassette deck that can be used only with section DHC-MD333.

### SPECIFICATIONS

Recording system	4-track 2-channel stereo (DOLBY NR OFF)
Frequency response	50 – 14,000 Hz ( $\pm 3$ dB), using Sony TYPE I cassettes 50 – 15,000 Hz ( $\pm 3$ dB), using Sony TYPE II cassettes
Input	TAPE IN (phono jacks): impedance 47 kilohms
Output	TAPE OUT (phono jacks): voltage 550 mV impedance 47 kilohms

#### General

Power requirements	
US model:	120 V AC, 60 Hz
AEP, UK model:	220 – 230 V AC, 50 / 60 Hz
E, Tourist model:	110 – 120 V or 220 – 240 V AC, 50 / 60 Hz Adjustable with the voltage selector
Power consumption	12 W
Dimensions	Approx. 215 × 60 × 195 mm (w / h / d) incl. projecting parts and controls
Mass	Approx. 2.5 kg
Supplied accessories:	Audio connecting cords (2)

*Design and specifications are subject to change without notice.*

Model Name Using Similar Mechanism	TC-TX313/TX515
Tape Transport Mechanism Type	_____

#### 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.**

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.  
"DOLBY" and the double-D symbol  $\square$  are trademarks of Dolby Laboratories Licensing Corporation.

#### 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.

## STEREO CASSETTE DECK



# SONY®

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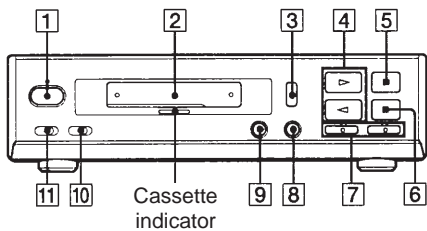
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# SECTION 1 GENERAL

## Parts and Controls



- 1** I / ⏻ (POWER) switch  
Only the power to this set is turn on.
- 2** Cassette slot  
With a cassette inserted, the cassette indicator is illuminated red when the power is turned on.
- 3** ⏏ (eject) button
- 4** ◁ (lower side play)/  
▷ (upper side play) button  
Even without cassette, the power to this set and the DHC-MD333 will be turned on when one of these buttons is pressed.
- 5** ⏸ (pause) button
- 6** ■ (stop) button
- 7** ⏮/⏭ (fast forward, fast backward/AMS) button
- 8** ● REC (recording) button
- 9** CD SYNC (CD synchro) button  
This button allows CD synchro recording to be executed as this set is interlocked with the DHC-MD333.
- 10** DIRECTION switch
- 11** DOLBY NR (Dolby Noise Reduction) switch

## SECTION 2 TEST MODE

### 2-1. 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 I / ⏻ (POWER) OFF, short between test pin ① and pin ② of CN09 on the LOW-VOLTAGE board. (See page 15.)

Then, turn I / ⏻ (POWER) ON to enter the test mode.

##### 2) Releasing

Open between pin ① and pin ② of CN09.

#### 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.

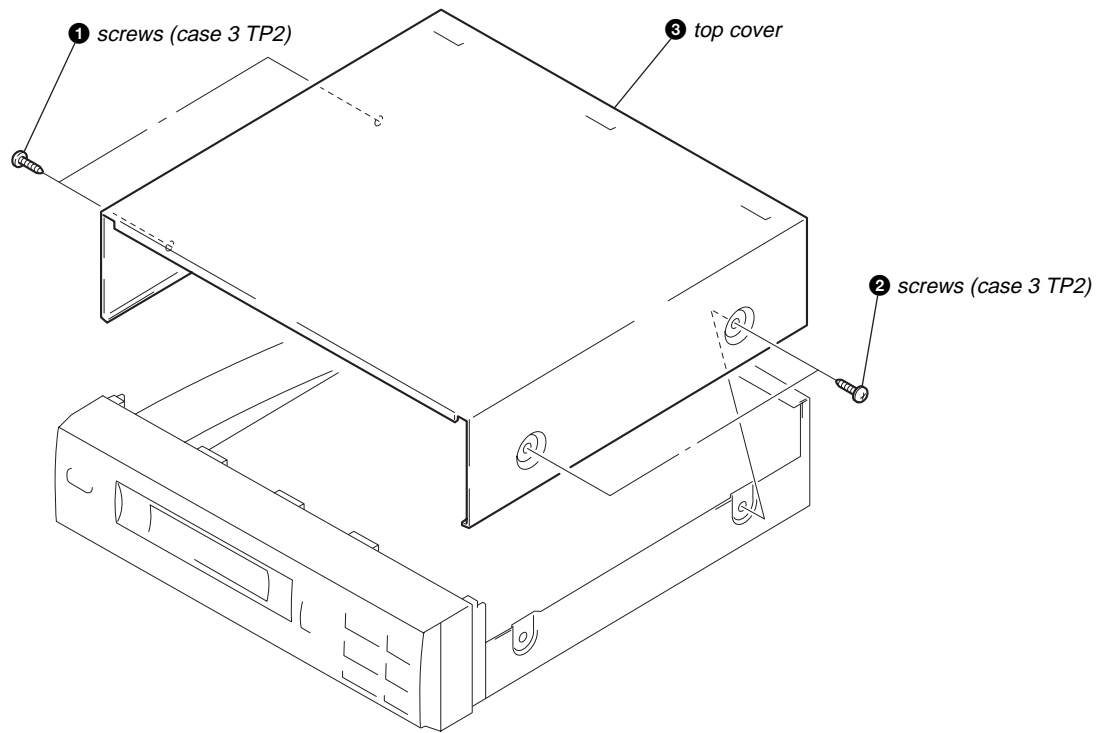
⑫ Repeat the procedure from ② to ⑪.

⑬ Pressing the STOP (■) button will release the set from these operations.

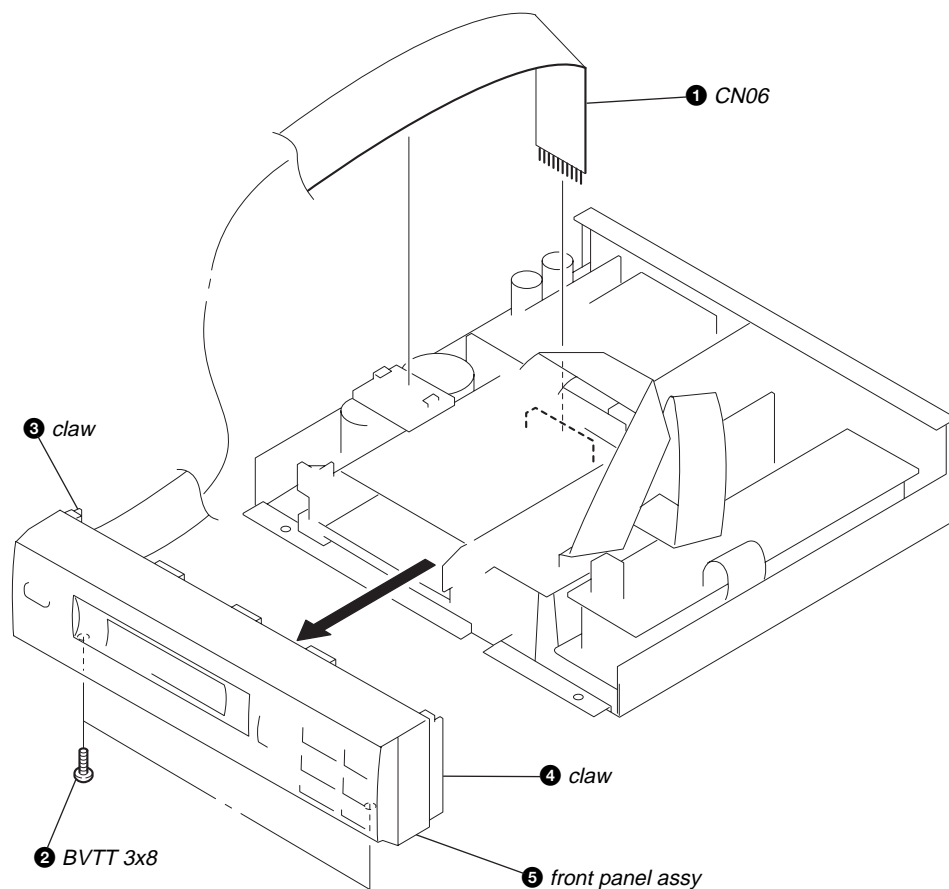
## SECTION 3 DISASSEMBLY

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

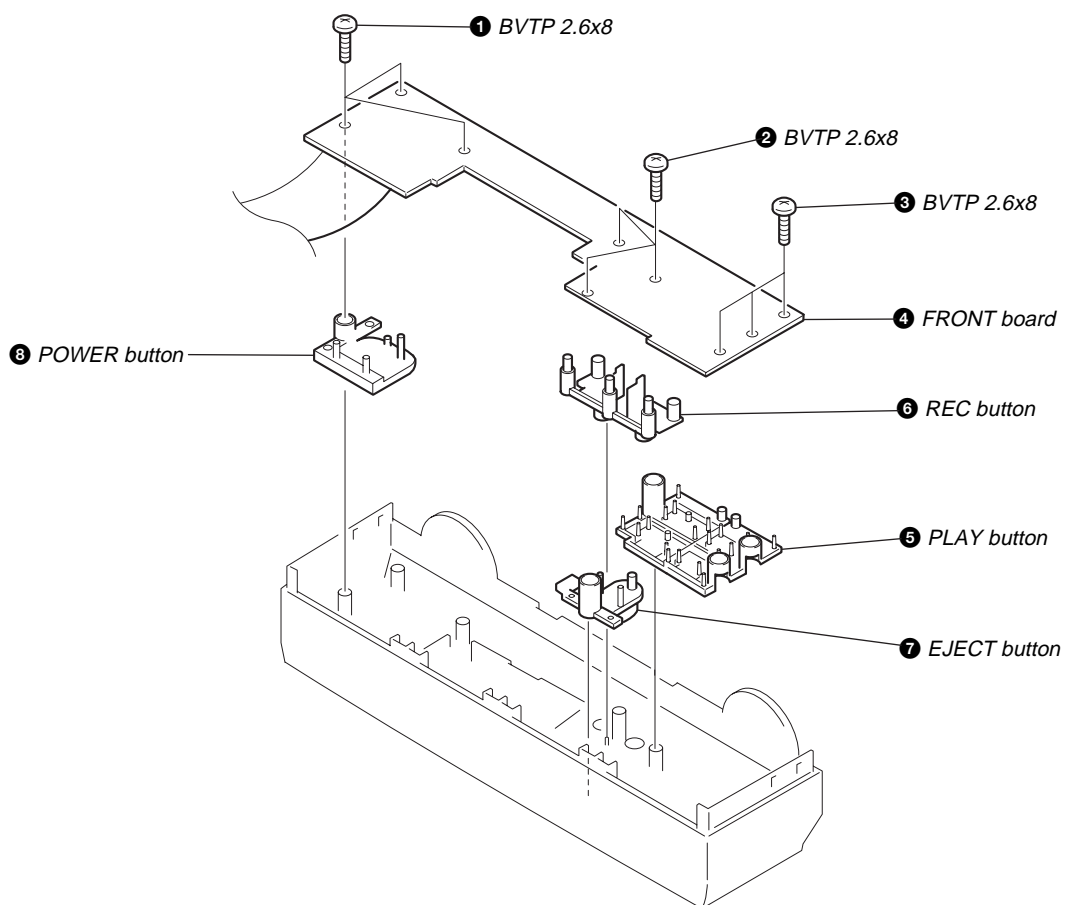
### 3-1. TOP COVER



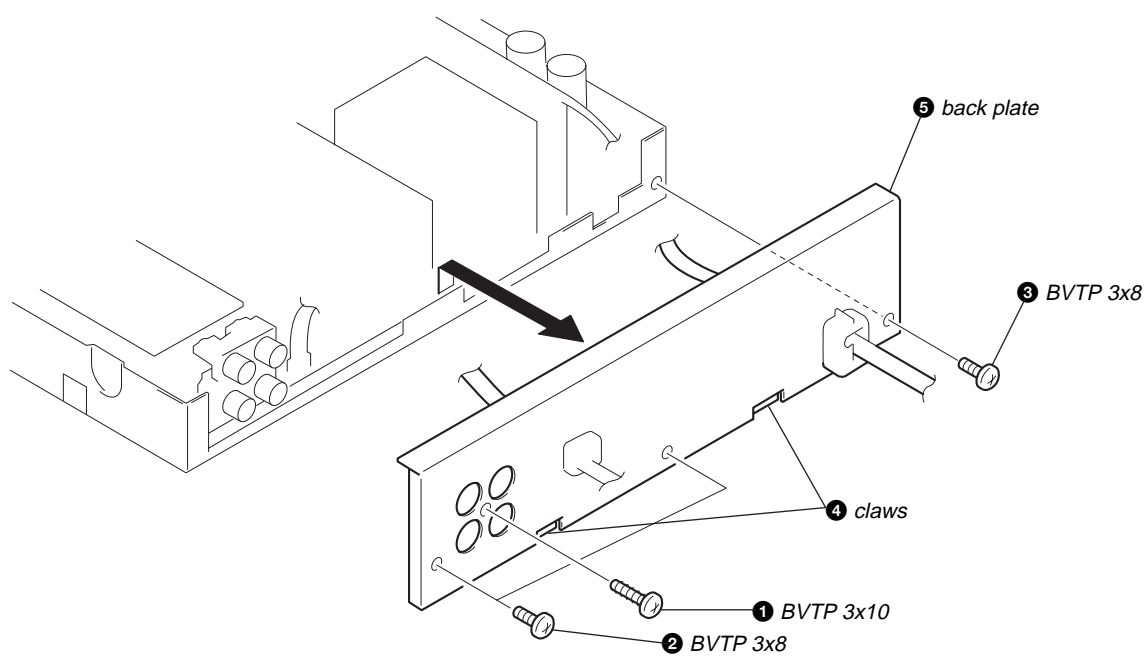
### 3-2. FRONT PANEL ASSY



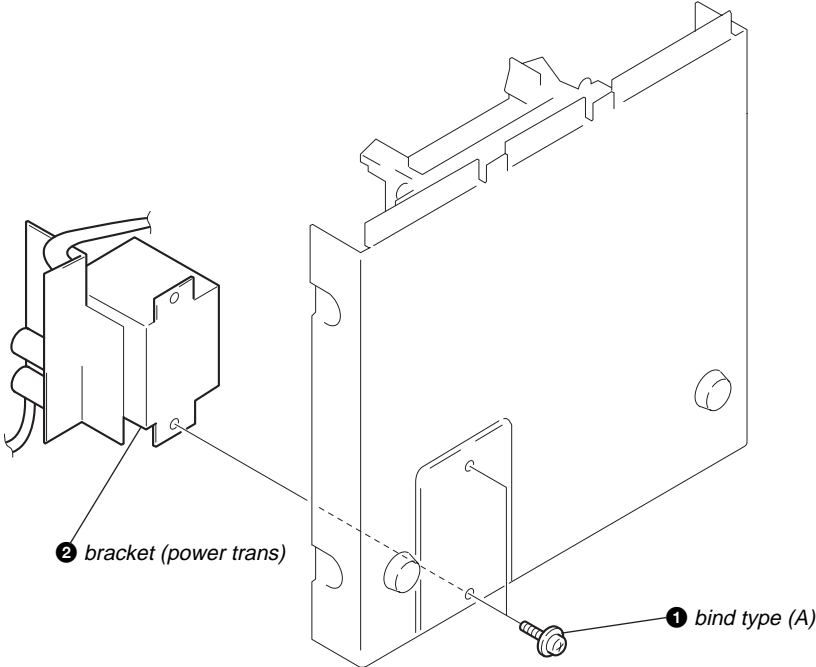
### 3-3. FRONT BOARD



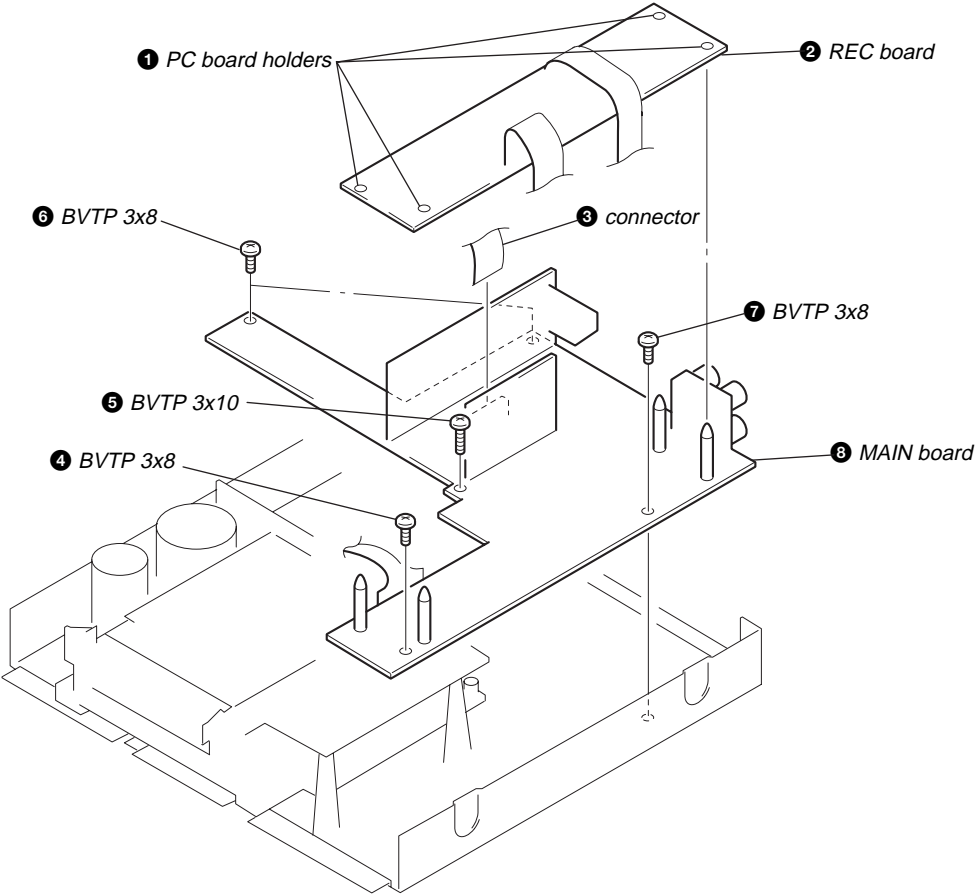
### 3-4. BACK PLATE



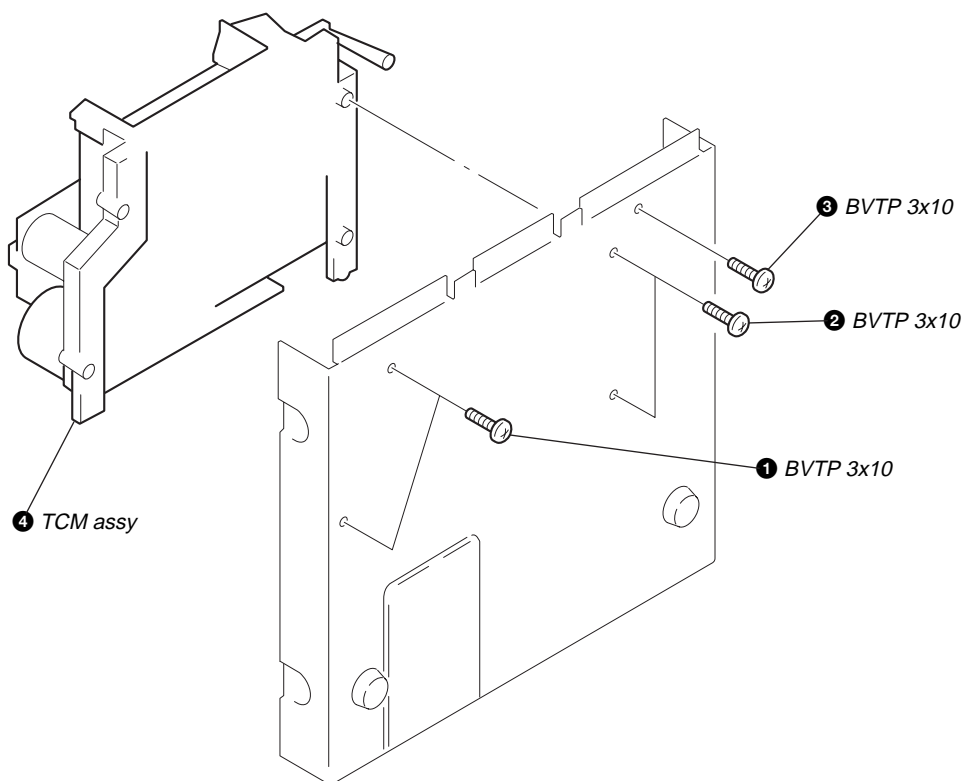
**3-5. BRACKET (POWER TRANS)**



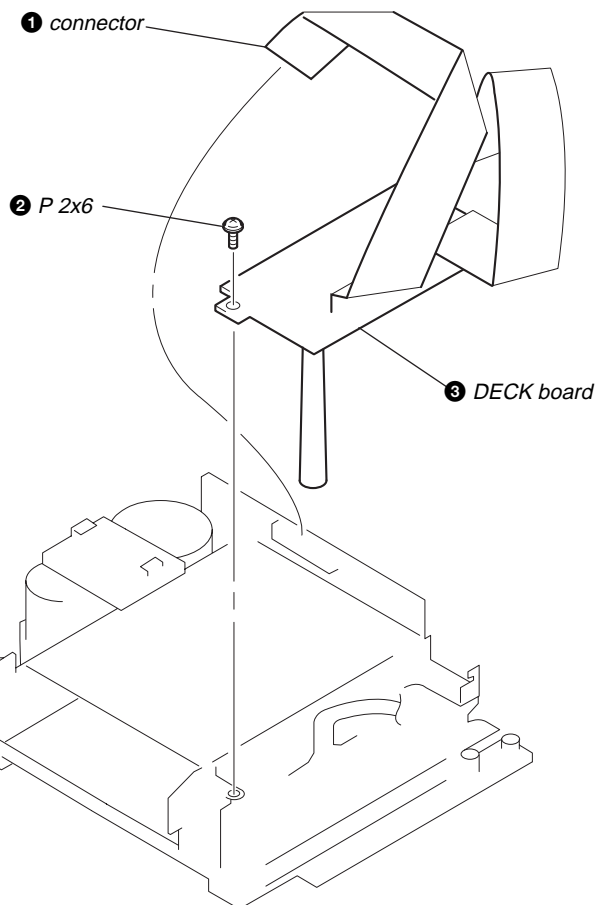
**3-6. MAIN BOARD**



### 3-7. TCM ASSY

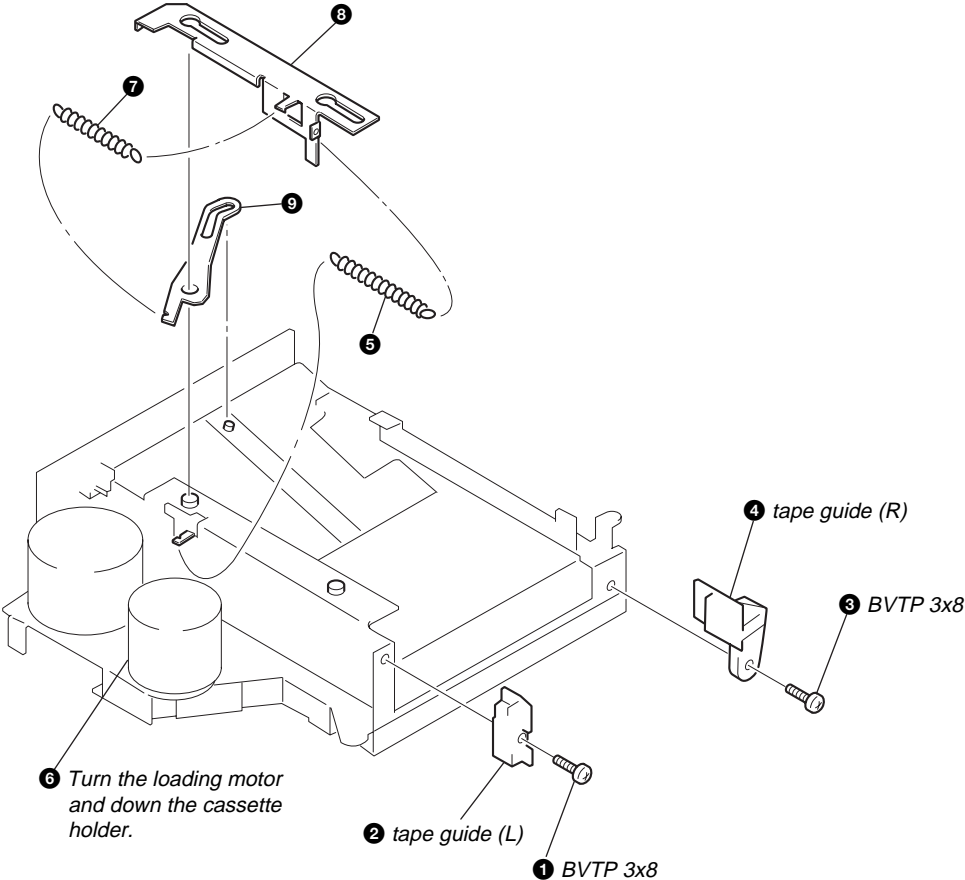


### 3-8. DECK BOARD

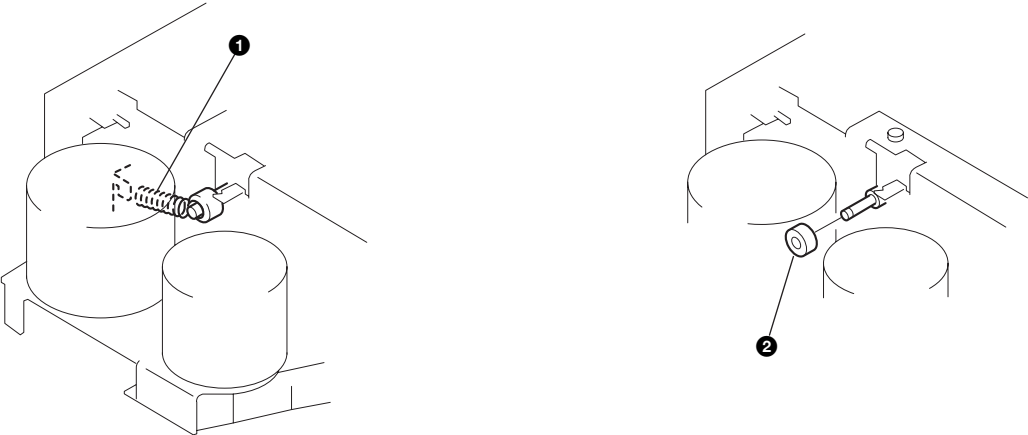




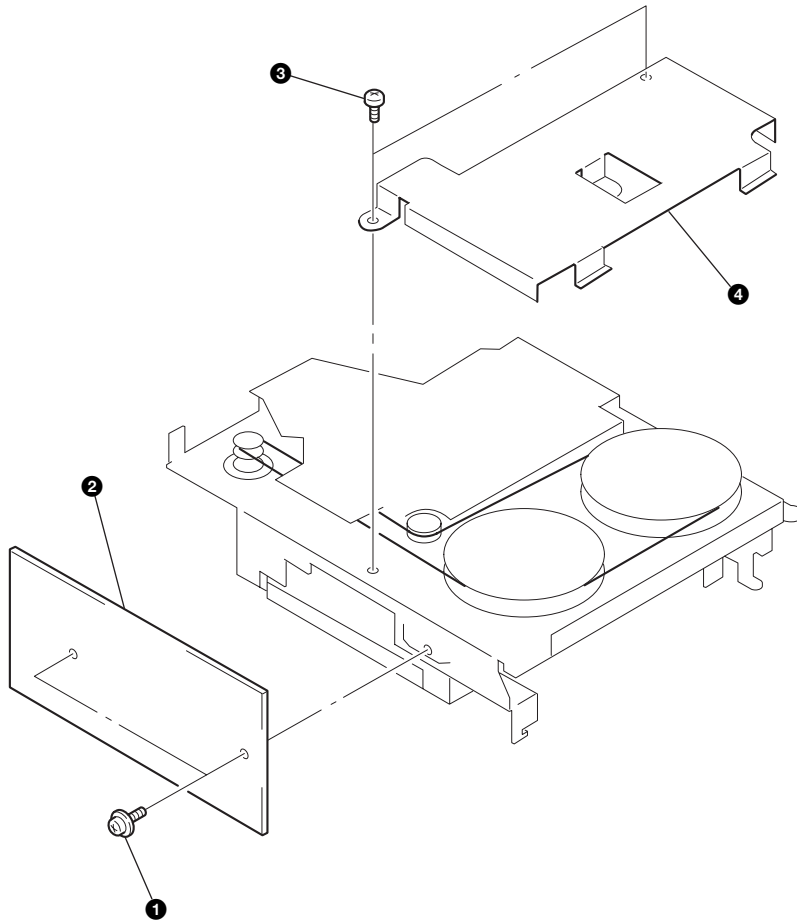
**3-9. LEVER**



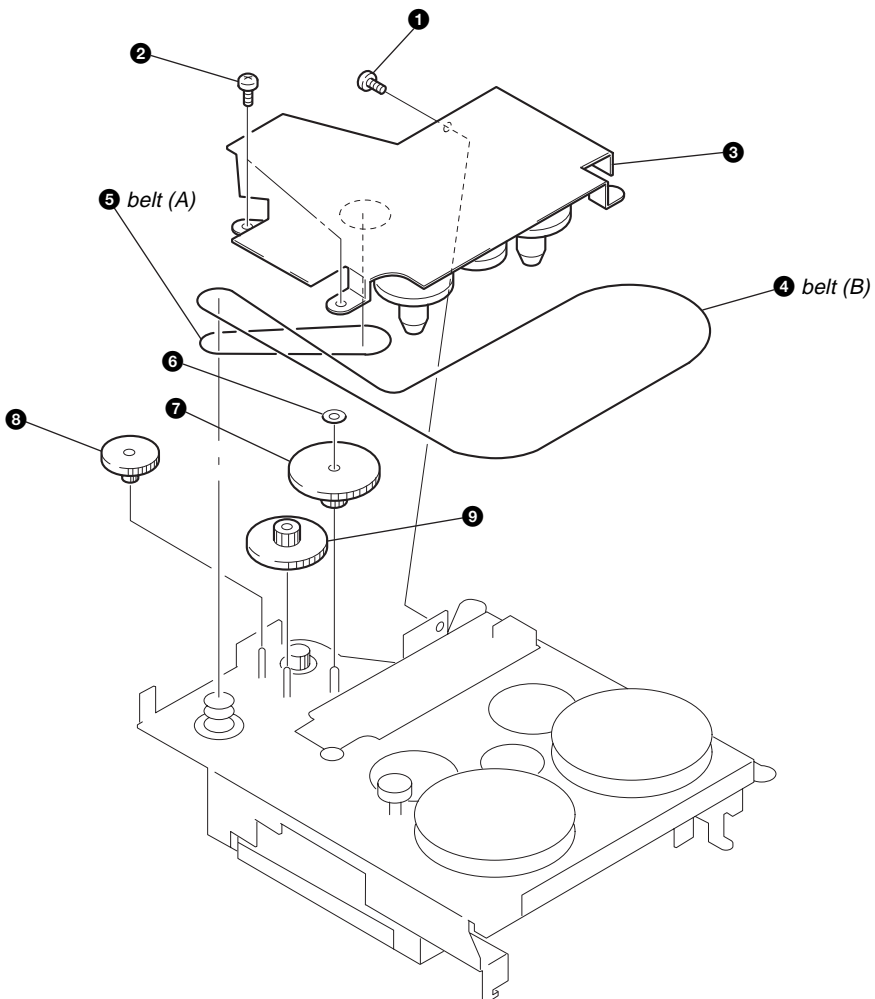
**3-10. TENSION SPRING**



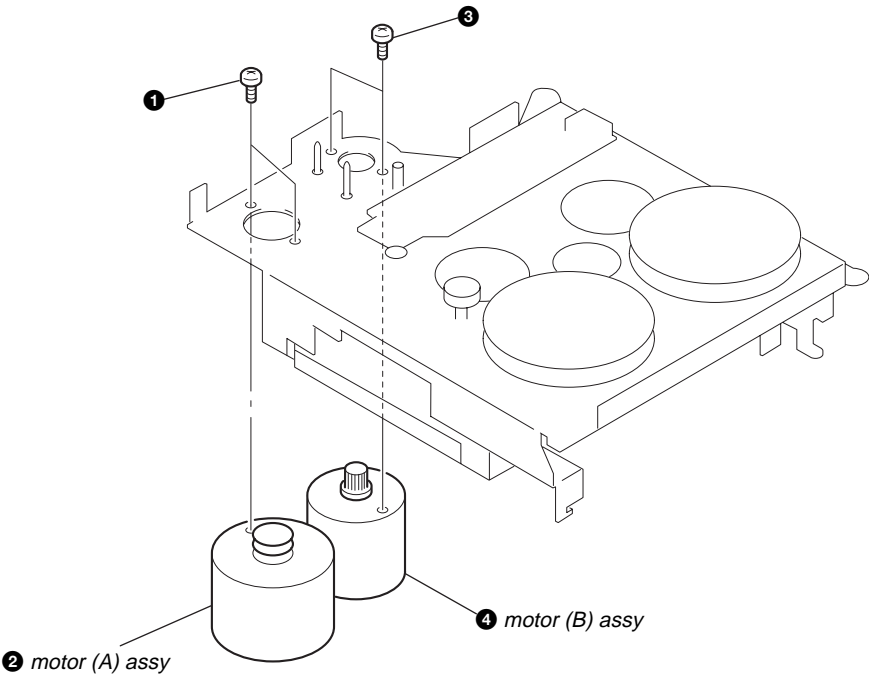
### 3-11. HOUSING



### 3-12. CHASSIS

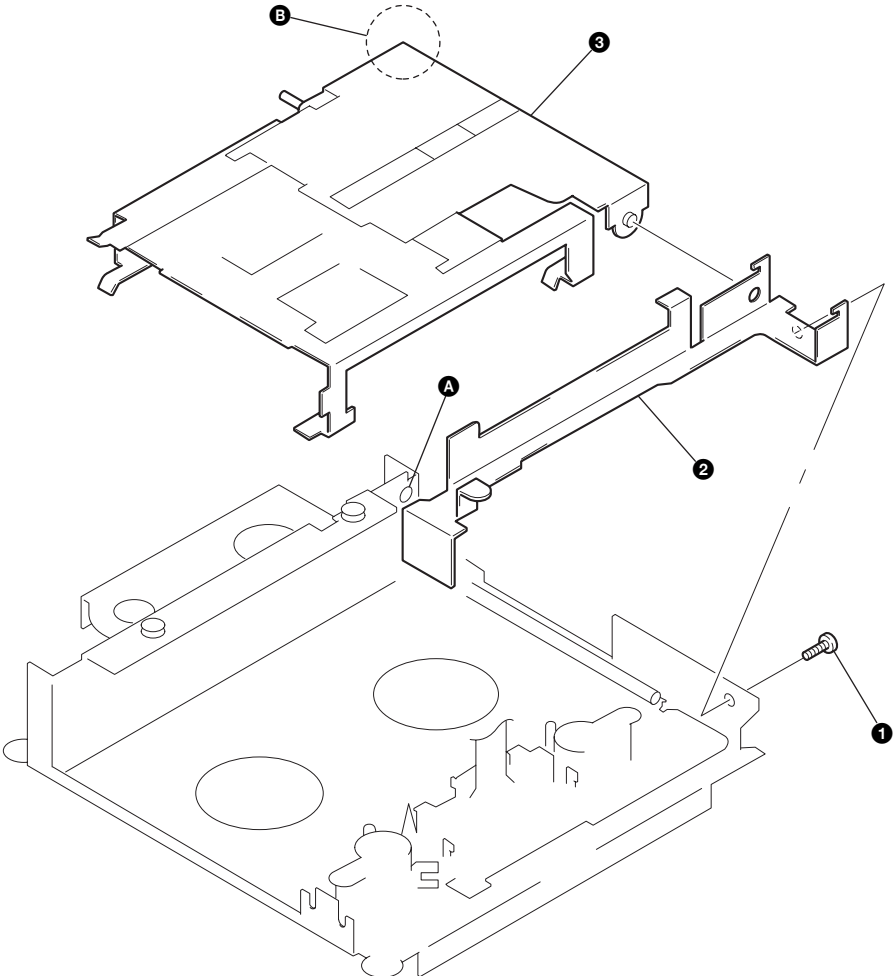


3-13. MOTOR (A)/(B) ASSY

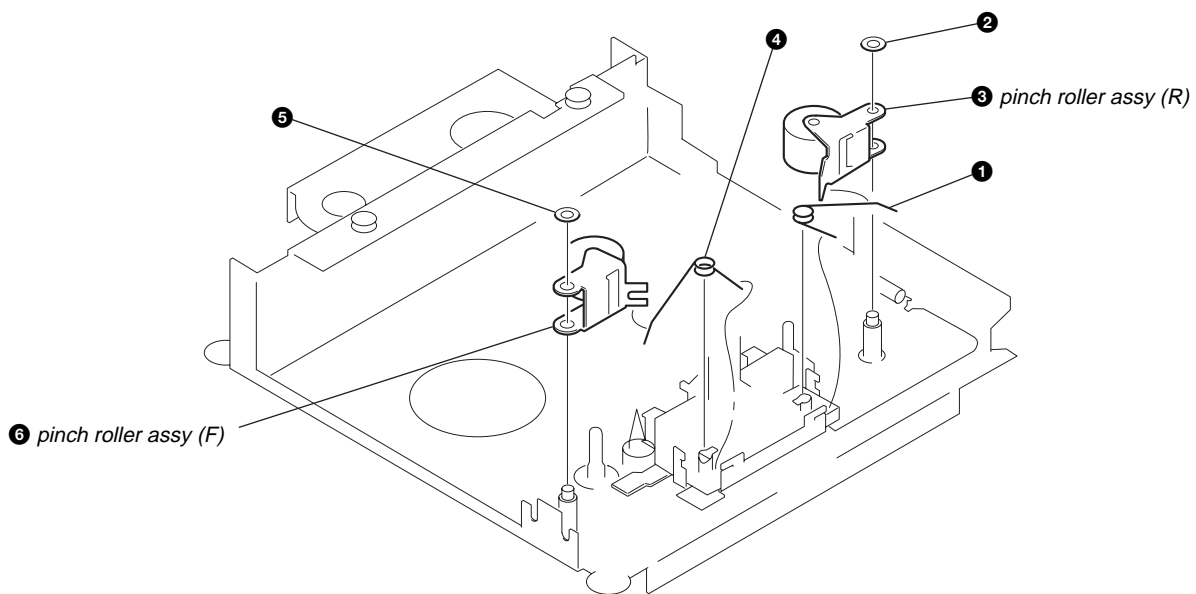


3-14. HEAD PLATE

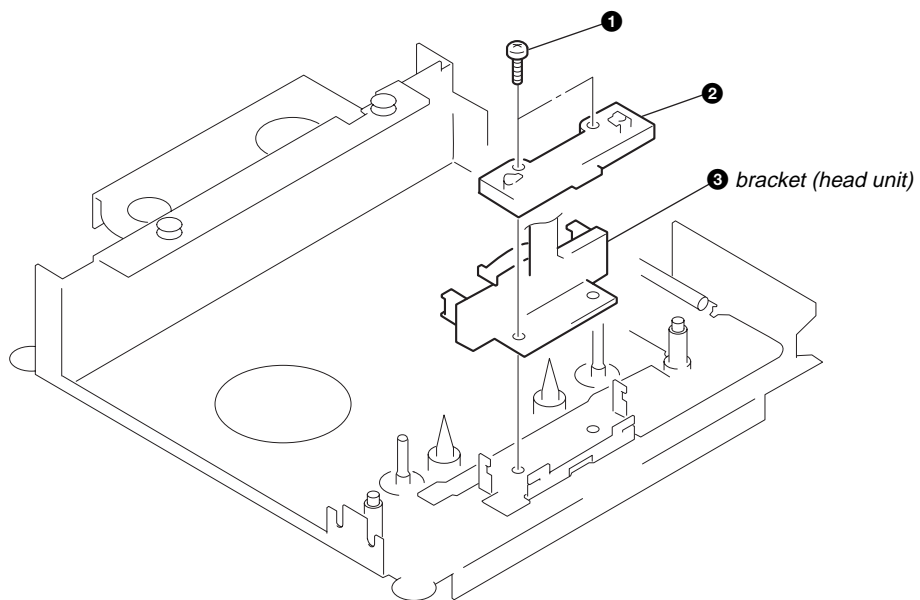
Note : On install, set the portions A and B.



### 3-15. PINCH ROLLER ASSY



### 3-16. BRACKET (HEAD UNIT)



## SECTION 4 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 Measurement

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 (0.012 – 0.097 oz • inch)
REV	CQ-102RC	35 – 80 g • cm (0.49 – 1.11 oz • inch)
REV Back tension		1 – 7 g • cm (0.012 – 0.097 oz • inch)
FF, REW	CQ-201B	more than 40 g • cm (more than 0.56 oz • inch)

## SECTION 5 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 $\Omega$
input signal level	0.49 V (– 4 dB)

### Standard Output Level

Output terminal	TAPE OUT
load impedance	47 k $\Omega$
output signal level	0.49 V (– 4 dB)

### Test Tape

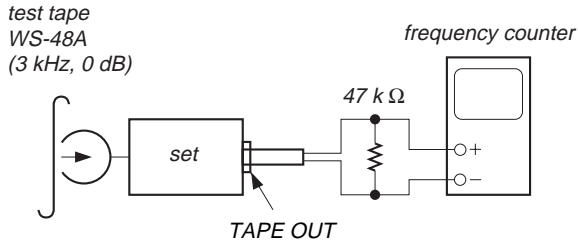
Type	Signal	Used for
WS-48A	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	PB Level Adjustment

**0 dB = 0.775 V**

## Tape Speed Adjustment

### Procedure :

1. Mode: FWD playback



Adjustment Limits : normal speed

### Reading on frequency counter

2,910 to 3,090 Hz

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

Adjustment Location : Capstan motor volume (See page 15.)

## Sample Value of Wow and flutter

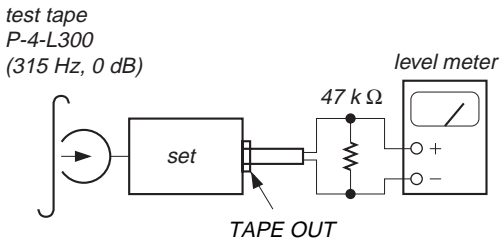
W. RMS (JIS) within 0.3%

(test tape : WS-48A)

## Playback Level Adjustment

### Procedure :

1. Mode: FWD playback
2. Adjust SFR03 (L-CH) and SFR04 (R-CH) on MAIN board so that the reading on level meter meets the adjustment limits below.



Adjustment Limits :

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

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

Adjustment Location : MAIN board (See page 15.)

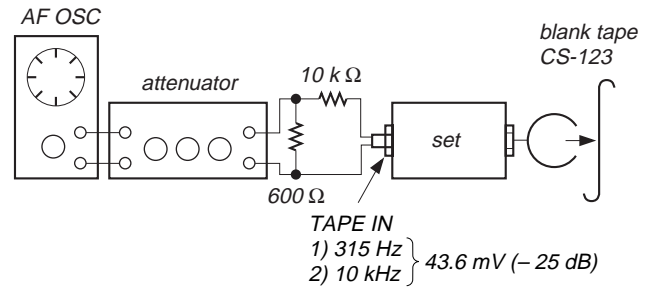
## Record Bias Adjustment

### Setting :

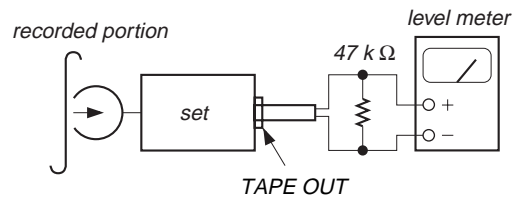
Set to the TEST mode. (See page 4.)

### Procedure :

1. Mode: Record



2. Mode: Playback



3. Confirm playback the signal recorded in step 1 become adjustment level as follows.
4. If these levels do not adjustment level, adjust SFR01 (L-CH) and SFR02 (R-CH) on REC board to repeat step 1 and 2.

Adjustment Level : Difference of playback output of 10 kHz to playback output of 315 Hz :  $0 \pm 0.5$  dB

Adjustment Location : REC board (See page 15.)

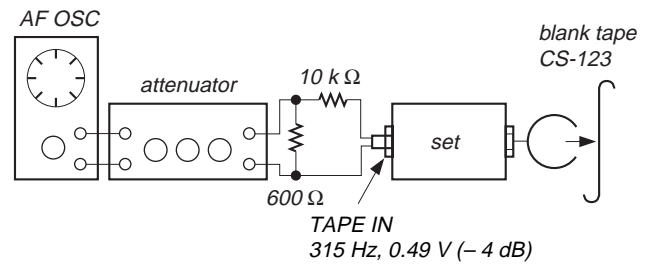
## Record Level Adjustment

### Setting :

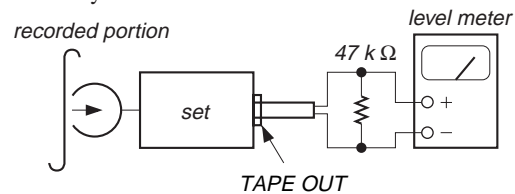
Set to the TEST mode. (See page 4.)

### Procedure :

1. Mode: Record



2. Mode: Playback

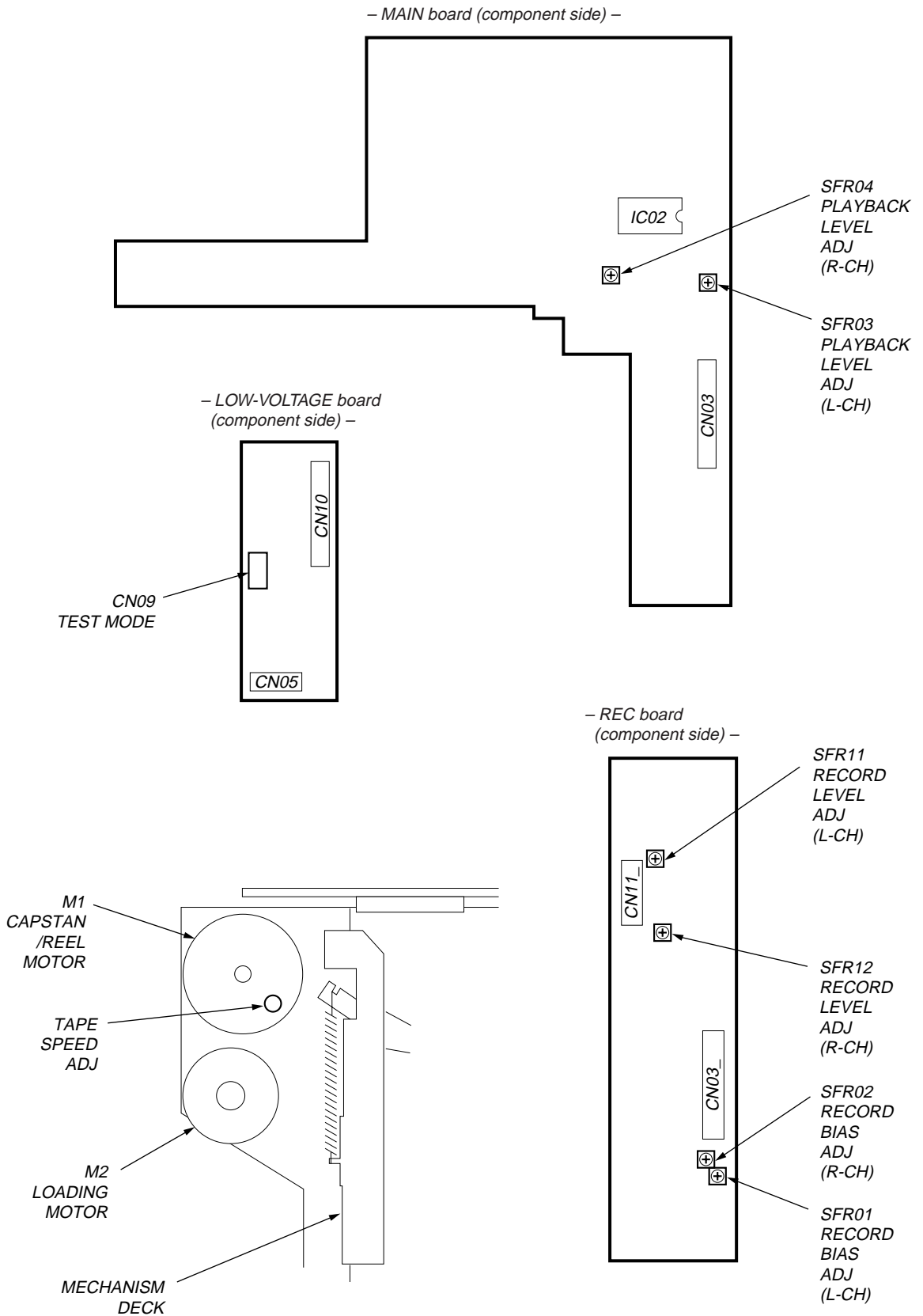


3. Confirm playback the signal recorded in step 1 become adjustment level as follows.
4. If these levels do not adjustment level, adjust SFR11 (L-CH) and SFR12 (R-CH) on REC board to repeat step 1 and 2.

Adjustment Level : Playback output level of 315 Hz :  $-4 \pm 2$  dB (0.39 to 0.62 V)

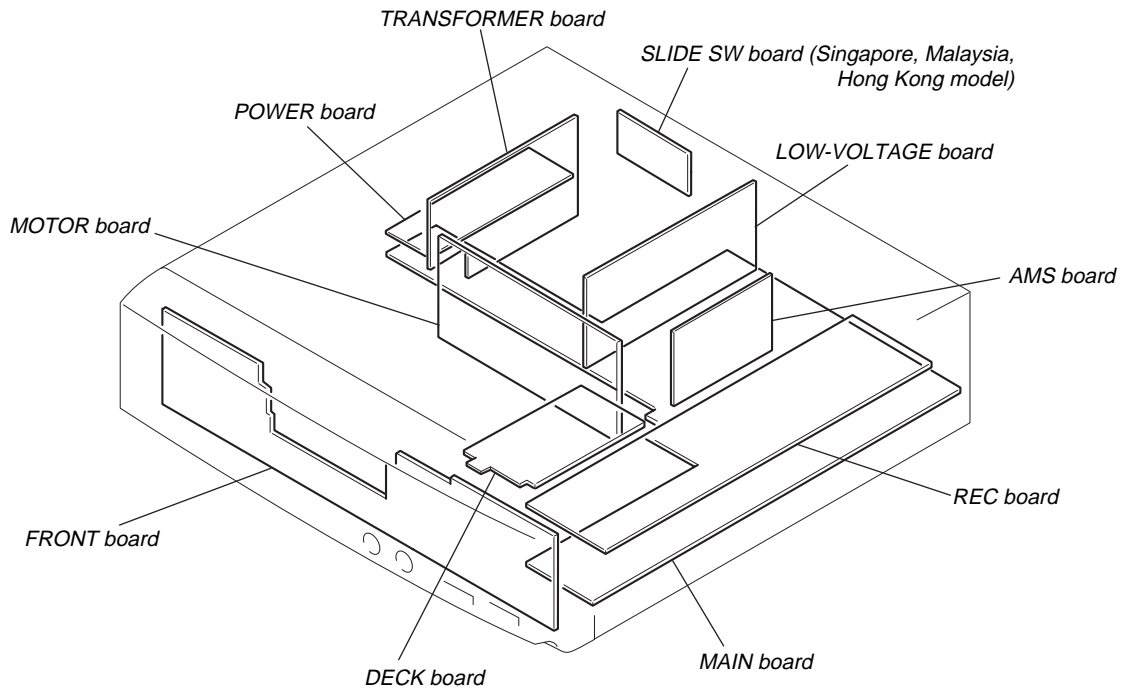
Adjustment Location : REC board (See page 15.)

**Adjustment Location :**



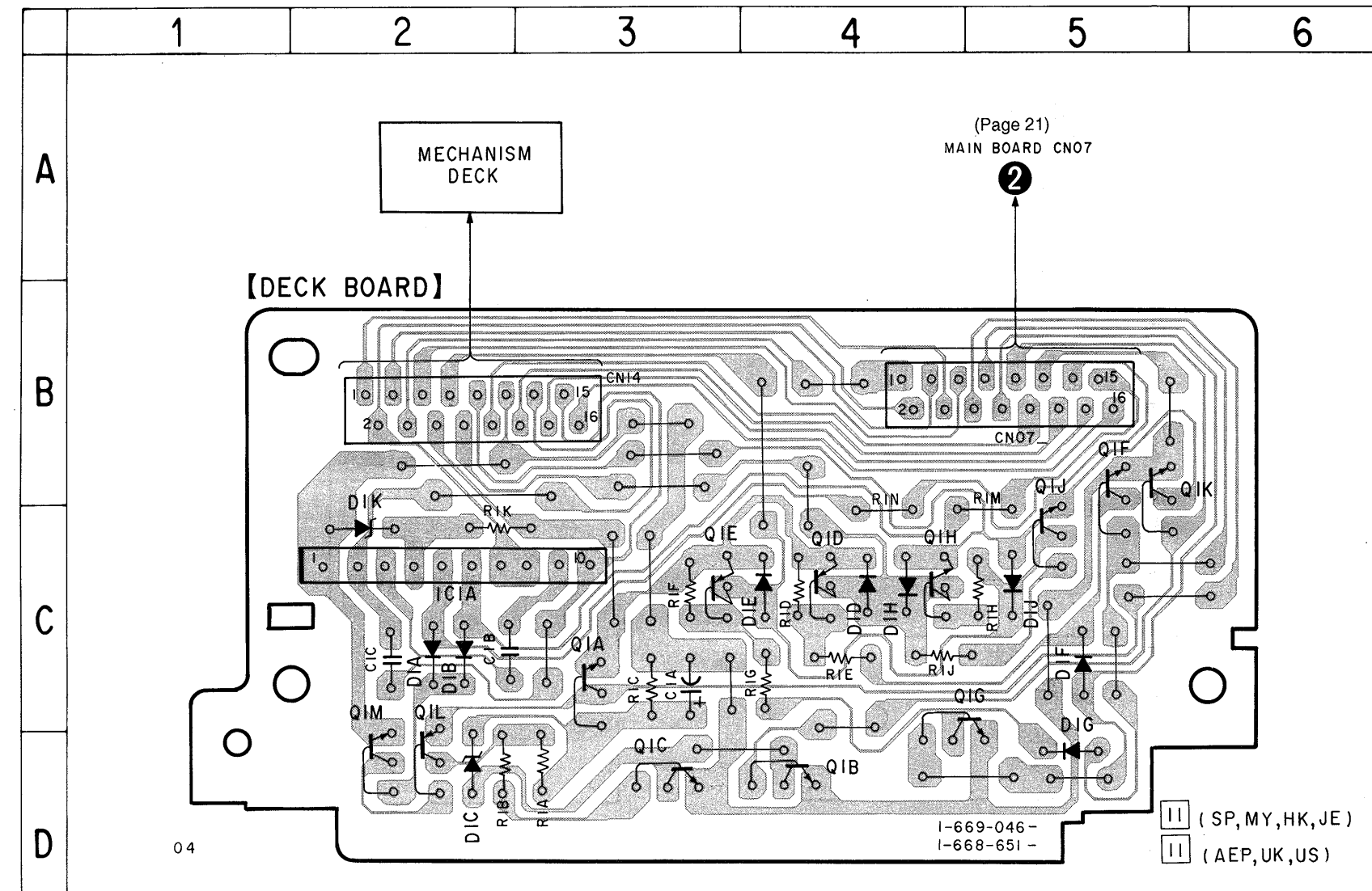
# SECTION 6 DIAGRAMS

## 6-1. CIRCUIT BOARDS LOCATION





6-2. PRINTED WIRING BOARD — DECK SECTION —



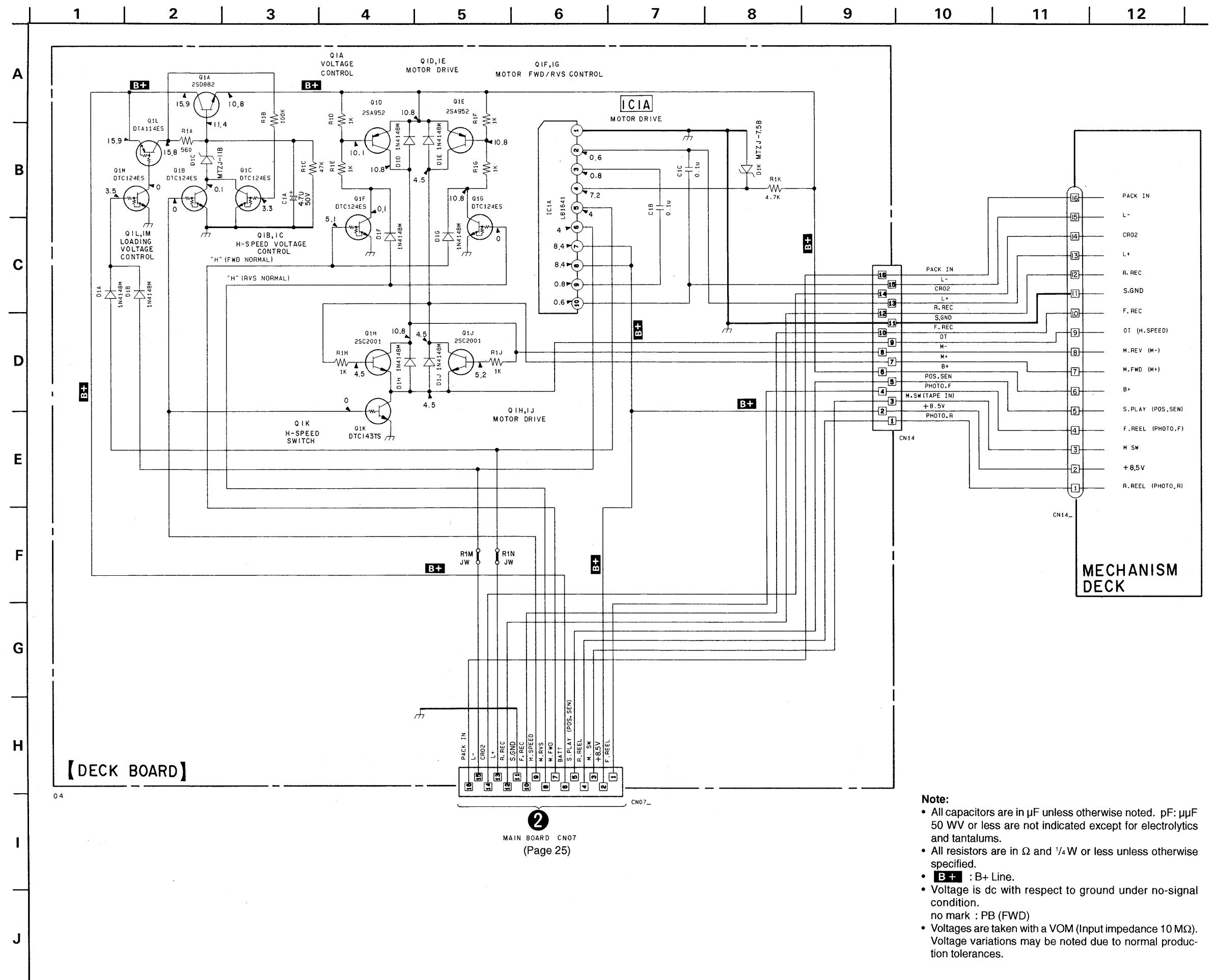
• Semiconductor Location

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

Note:

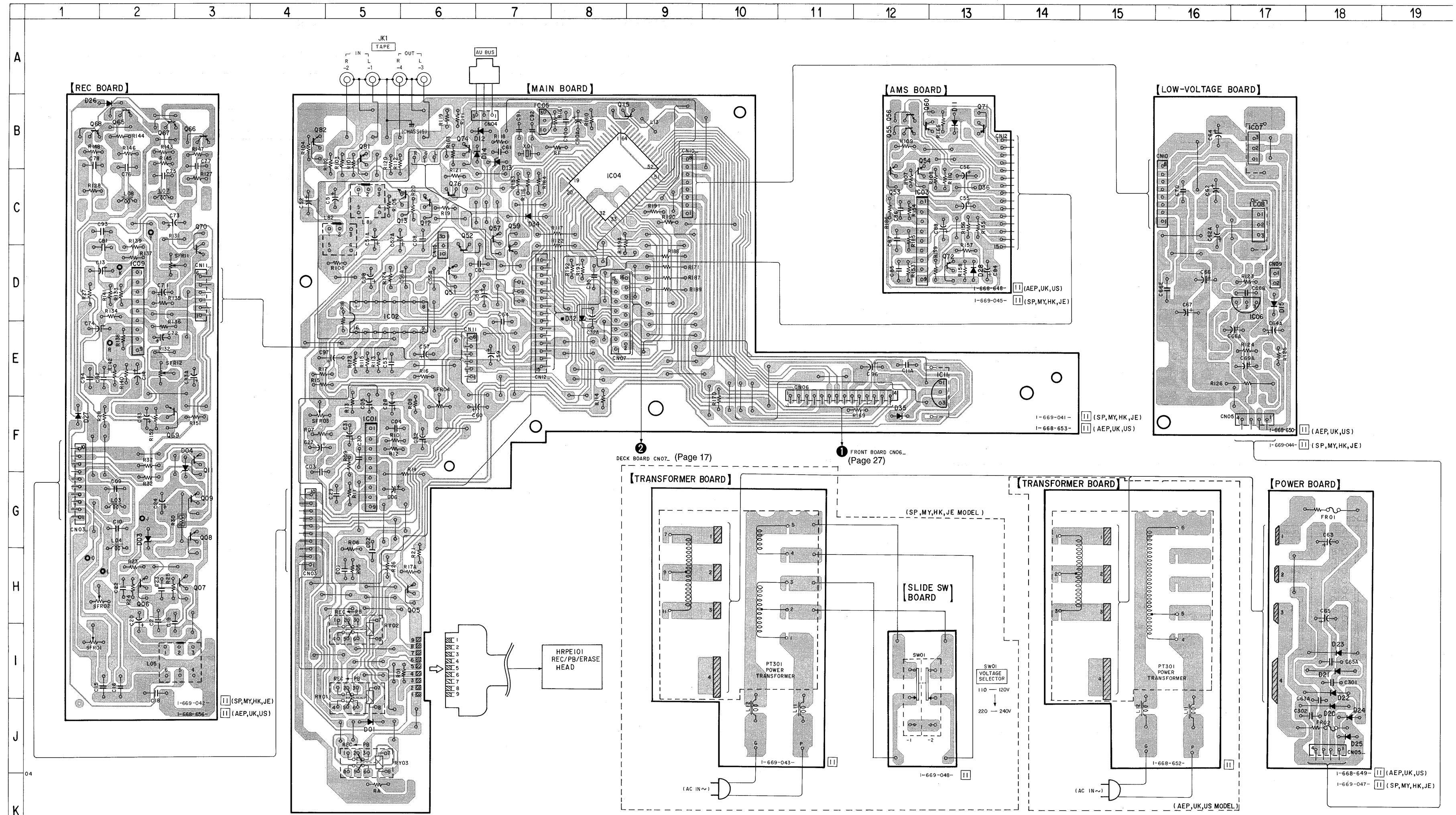
- : parts extracted from the component side.
- ◐ : Pattern from the side which enables seeing.
- Abbreviation
  - SP : Singapore model.
  - MY : Malaysia model.
  - HK : Hong Kong model.
  - JE : Tourist model.

6-3. SCHEMATIC DIAGRAM — DECK SECTION — • Refer to page 26 for IC Block Diagrams.



Note:

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



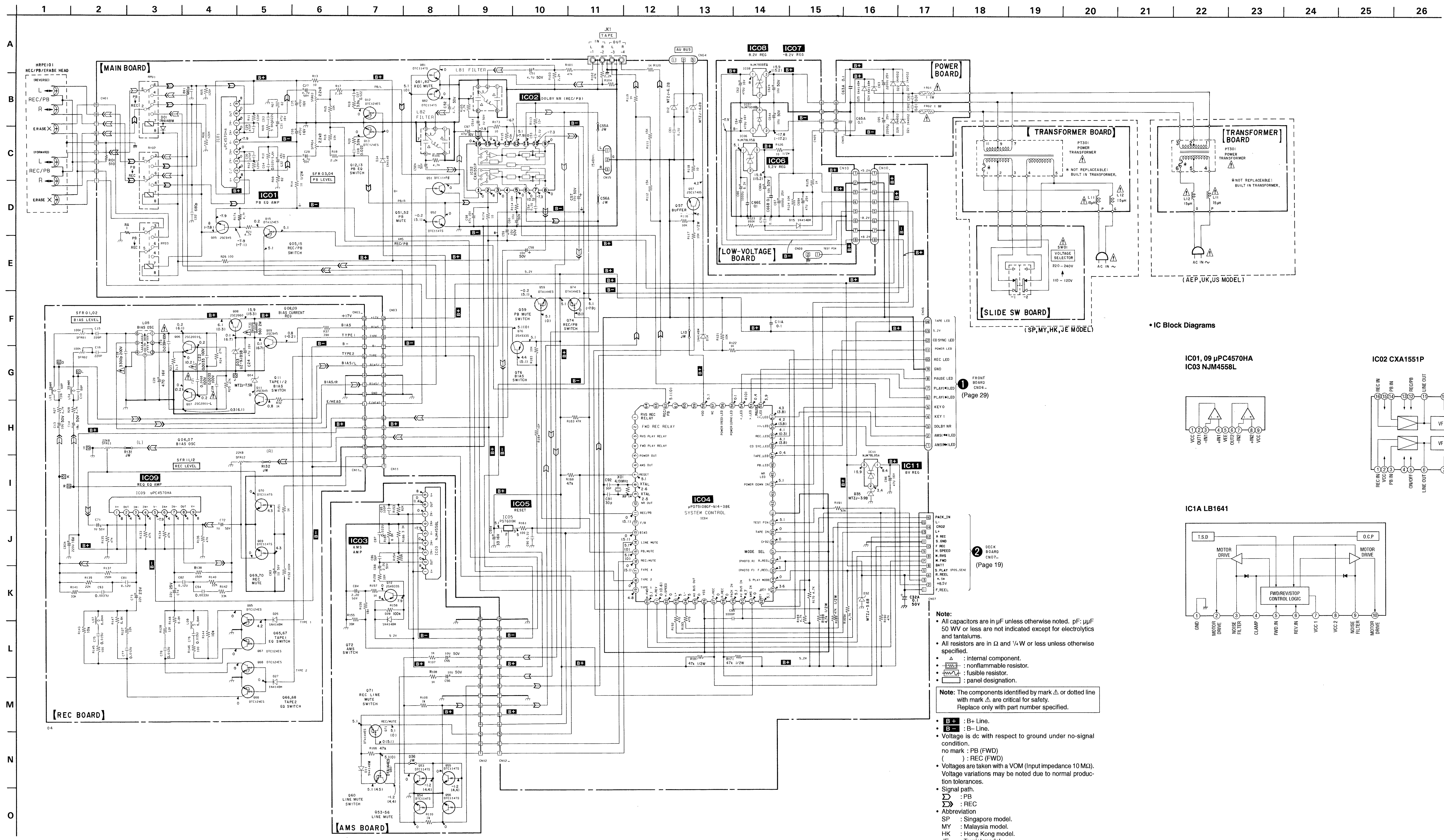
**• Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D01	J-5	Q05	H-6
D03	G-2	Q06	H-2
D04	F-3	Q07	H-3
D11	B-13	Q08	G-3
D12	B-7	Q09	G-3
D13	B-7	Q11	F-3
D14	B-6	Q12	C-6
D15	D-17	Q13	C-5
D20	J-18	Q15	B-8
D21	I-18	Q51	D-6
D22	I-18	Q52	D-6
D23	I-18	Q53	C-12
D24	J-18	Q54	C-12
D25	J-18	Q55	B-12
D26	B-2	Q56	B-12
D27	F-1	Q57	C-7
D28	D-13	Q59	C-7
D32	D-8	Q60	B-12
D34	C-7	Q65	B-2
D35	F-12	Q66	B-3
		Q67	B-2
IC01	F-5	Q68	B-1
IC02	D-5	Q69	F-2
IC03	C-12	Q70	C-3
IC04	C-8	Q71	B-13
IC05	B-7	Q72	D-13
IC06	D-17	Q74	C-6
IC07	B-17	Q76	C-6
IC08	C-17	Q81	B-5
IC09	D-2	Q82	B-4
IC11	E-13		

**Note:**

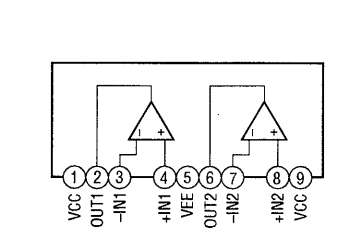
- : parts extracted from the component side.
- : parts mounted on the conductor side.
- : indicates side identified with part number.
- ▨ : Pattern from the side which enables seeing.
- Abbreviation
- SP : Singapore model.
- MY : Malaysia model.
- HK : Hong Kong model.
- JE : Tourist model.

6-5. SCHEMATIC DIAGRAM — MAIN SECTION —

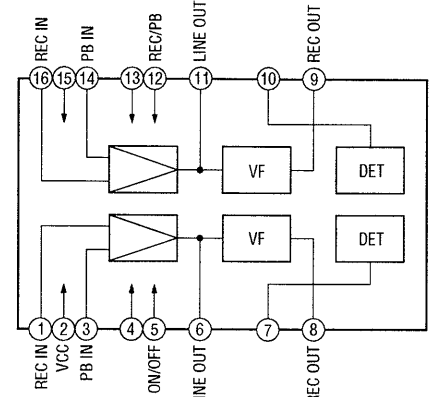


• IC Block Diagrams

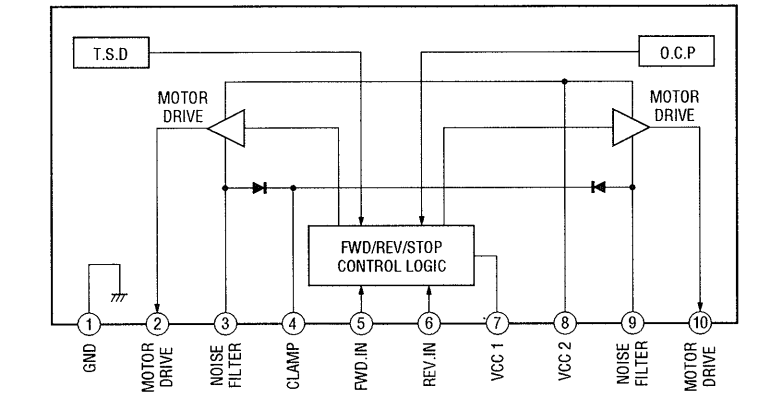
IC01, 09  $\mu$ PC4570HA  
IC03 NJM4558L



IC02 CXA1551P



IC1A LB1641



- Note:**
- All capacitors are in  $\mu$ F unless otherwise noted. pF:  $\mu$ F 50 WV or less are not indicated except for electrolytics and tantalums.
  - All resistors are in  $\Omega$  and  $\frac{1}{2}$ W or less unless otherwise specified.
  - $\Delta$  : internal component.
  - $\square$  : nonflammable resistor.
  - $\square$  : fusible resistor.
  - $\square$  : panel designation.

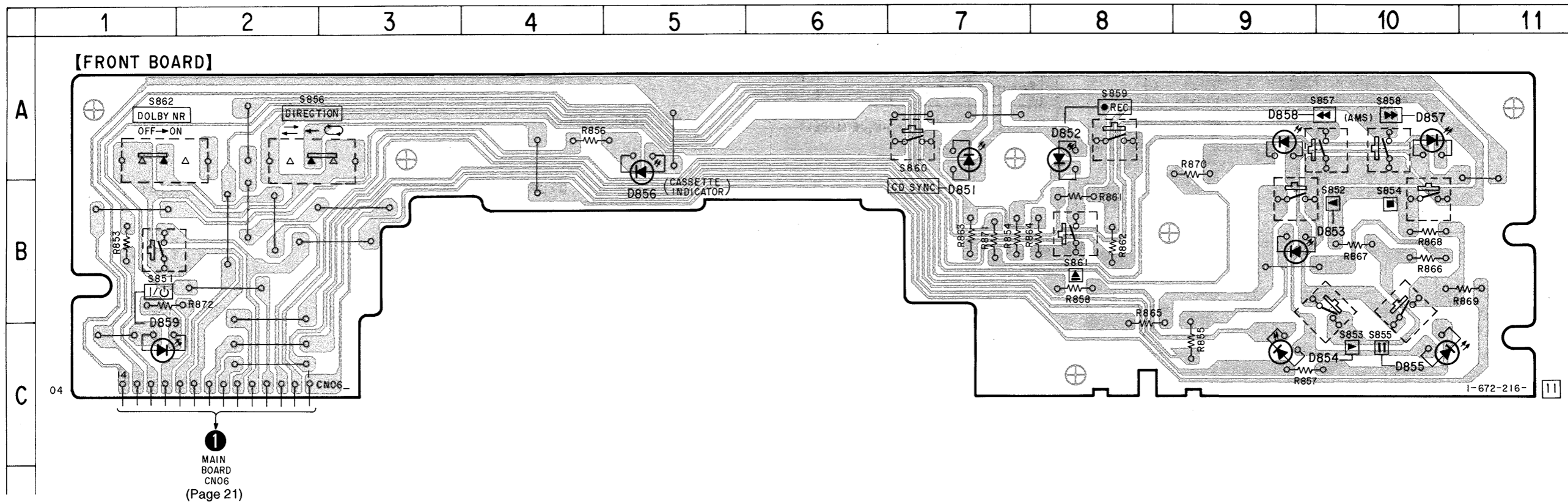
**Note:** The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

- B+ : B+ Line.
- B- : B- Line.
- Voltage is dc with respect to ground under no-signal condition.
- no mark : PB (FWD)
- ( ) : REC (FWD)
- Voltages are taken with a VOM (Input impedance 10 M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- $\Sigma$  : PB
- $\Sigma$  : REC
- Abbreviation
- SP : Singapore model.
- MY : Malaysia model.
- HK : Hong Kong model.
- JE : Tourist model.

1 FRONT BOARD (Page 29)

2 DECK BOARD (Page 19)

6-6. PRINTED WIRING BOARD — FRONT PANEL SECTION —



• Semiconductor Location

Ref. No.	Location
D851	A-7
D852	A-8
D853	B-9
D854	C-9
D855	C-10
D856	A-5
D857	A-10
D858	A-9
D859	C-1

Note:

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



## 6-8. IC PIN DESCRIPTION

### • IC04 $\mu$ PD75108GF-N14-3BE (SYSTEM CONTROL)

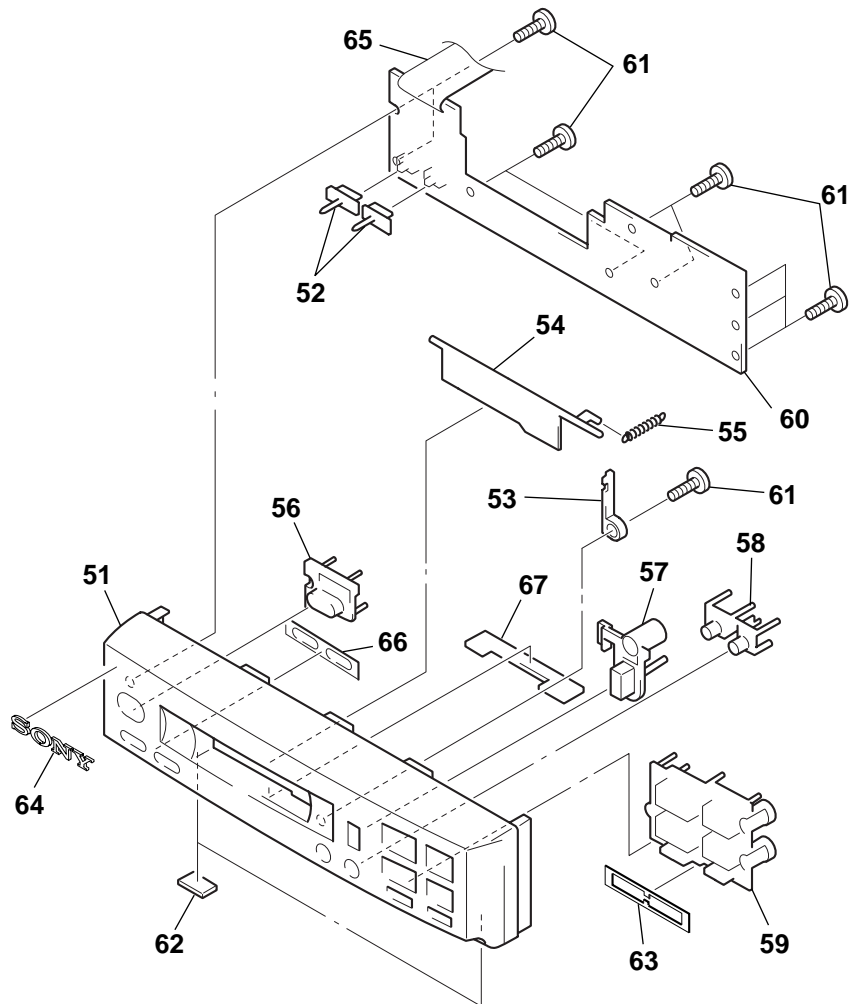
Pin No.	Pin Name	I/O	Pin Description
1	RVS REC RELAY	O	RVS REC relay control output (Not used in this set.)
2	FWD REC RELAY	O	FWD REC relay control output (Not used in this set.)
3	RVS PLAY RELAY	O	RVS PLAY relay control output (Not used in this set.)
4	FWD PLAY RELAY	O	FWD PLAY relay control output (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 <sub>2</sub> )
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	F.REEL	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	Connect to Ground in this set.
38	CrO <sub>2</sub>	I	Mechanism deck CrO <sub>2</sub> switch input
39	TAPE IN	I	Mechanism deck HALF switch input
40	TEST PIN	I	Input for test mode. (L : Test mode)
41	NC	I	Connect to Ground in this set.
42, 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	Cassette indicator LED output
48	CD SYC.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	▬▬ 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	I / ⏻ (POWER) LED output
56	POWER(RED)LED	O	I / ⏻ (POWER) LED output (Not used in this set.)
57	NC	—	Not used 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.



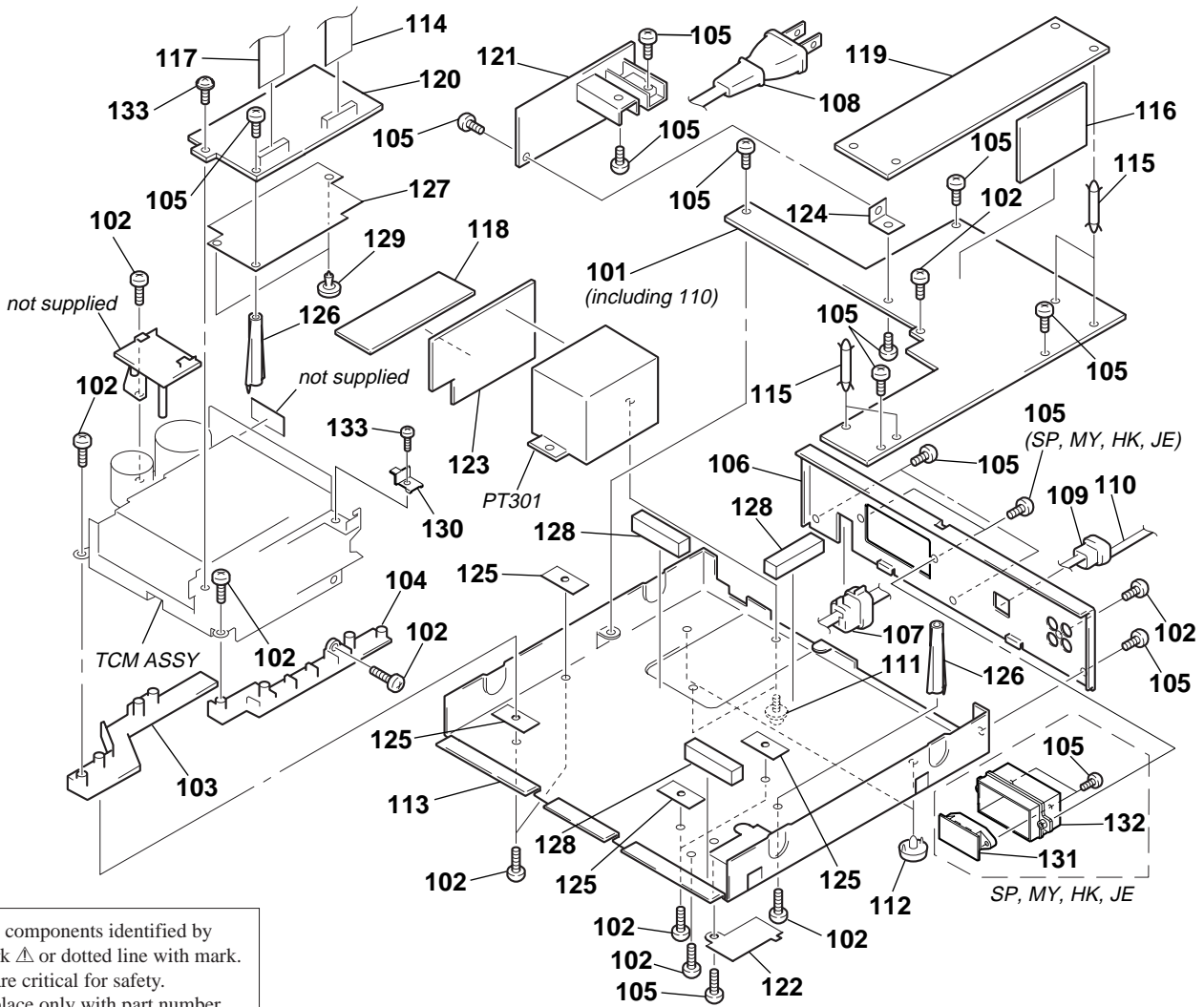


## 7-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-031-202-01	FRONT PANEL		* 60	A-2007-809-A	FRONT BOARD, COMPLETE	
52	3-031-205-01	DOLBY KNOB		61	4-951-620-01	SCREW (2.6X8), +BVTP	
53	3-031-309-01	DOOR HOLDER		62	3-020-401-01	FOOT (FRONT)	
54	3-031-203-01	DOOR CASSETTE		63	3-031-311-01	PVC SHEET	
55	3-031-201-01	DOOR SPRING		64	4-962-708-01	EMBLEM (4-A), SONY	
56	3-031-204-01	POWER BUTTON		65	3-022-176-01	BRACKET (FLEXIBLE D)	
57	3-031-207-01	EJECT BUTTON		66	3-031-310-01	KNOB PAD	
58	3-031-215-01	REC.BUTTON		67	3-031-312-01	PVC SHEET (B)	
59	3-031-206-01	PLAY BUTTON BLOCK					

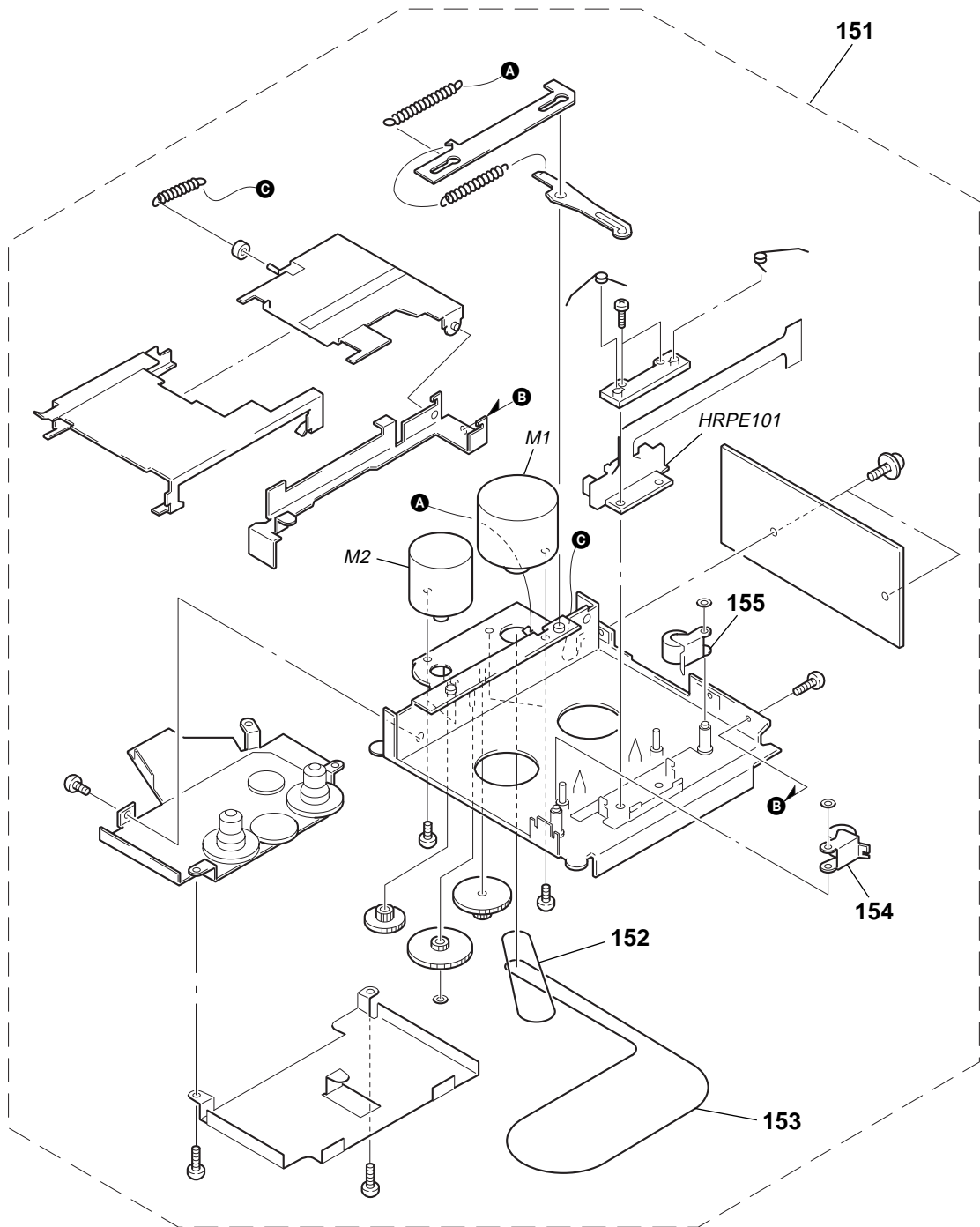
### 7-3. CHASSIS SECTION



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	Ref. No.	Part No.	Description	Remark
* 101	A-2007-767-A	MAIN BOARD, COMPLETE (SP,MY,HK,JE)		* 118	1-668-649-11	POWER BOARD (AEP,UK,US)	
* 101	A-2056-691-A	MAIN BOARD, COMPLETE (AEP,UK,US)		* 118	1-669-047-11	POWER BOARD (SP,MY,HK,JE)	
102	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S		* 119	A-2007-768-A	REC BOARD, COMPLETE (SP,MY,HK,JE)	
* 103	3-020-425-01	DECK CHASSIS (L)		* 119	A-2056-692-A	REC BOARD, COMPLETE (AEP,UK,US)	
* 104	3-020-434-01	DECK CHASSIS (R)		* 120	1-668-651-11	DECK BOARD (AEP,UK,US)	
105	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		* 120	1-669-046-11	DECK BOARD (SP,MY,HK,JE)	
* 106	3-032-126-01	BACK PLATE (US)		* 121	1-668-650-11	LOW-VOLTAGE BOARD (AEP,UK,US)	
* 106	3-032-128-01	BACK PLATE (SP,MY,HK)		* 121	1-669-044-11	LOW-VOLTAGE BOARD (SP,MY,HK,JE)	
* 106	3-032-129-01	BACK PLATE (AEP,UK)		* 122	3-020-439-01	BOTTOM COVER	
* 106	3-032-130-01	BACK PLATE (JE)		* 123	1-668-652-11	TRANSFORMER BOARD (AEP,UK,US)	
107	3-020-432-01	CORD STOPPER		* 123	1-669-043-11	TRANSFORMER BOARD (SP,MY,HK,JE)	
△ 108	3-021-914-01	BRACKET (AC CORD) (EXCEPT UK,US)		* 124	3-020-429-01	BACK PLATE BRACKET (A)	
△ 108	3-021-917-01	BRACKET (AC CORD) (UK)		125	3-020-438-01	HEMELON WASHER	
△ 108	3-021-977-01	BRACKET (AC CORD) (US)		126	3-021-547-01	PC BOARD SUPPORT	
109	3-020-426-01	CORD BUSHING		127	3-021-548-01	DECK PC BOARD SHEET	
110	3-020-433-01	BRACKET (3P WIRE) (AU BUS)		128	3-021-549-01	CUSHION	
111	3-020-440-01	BIND TYPE (A)		129	3-021-550-01	P-RIVET	
112	3-020-399-01	FOOT (REAR)		130	3-021-545-01	DECK BRACKET	
* 113	3-031-216-01	BOTTOM PLATE		* 131	1-669-048-11	SLIDE SW BOARD (SP,MY,HK,JE)	
114	3-021-552-01	BRACKET (FLEXIBLE A)		132	3-021-922-01	SWITCH COVER (SP,MY,HK,JE)	
* 115	3-020-435-01	PC BOARD HOLDER		133	7-627-553-68	SCREW, PRECISION +P 2X6	
* 116	1-668-648-11	AMS BOARD (AEP,UK,US)		△ PT301	3-021-913-01	BRACKET (POWER TRANS) (AEP,UK)	
* 116	1-669-045-11	AMS BOARD (SP,MY,HK,JE)		△ PT301	3-021-925-01	BRACKET (POWER TRANS) (SP,MY,HK,JE)	
117	3-020-962-01	BRACKET (FLEXIBLE B)		△ PT301	3-021-976-01	BRACKET (POWER TRANS) (US)	

### 7-4. TCM ASSY SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 151	A-2004-641-A	TCM ASSY		155	3-020-450-01	PINCH ROLLER ASSY (R)	
	3-020-444-01	BELT (A)		HRPE101	3-020-446-01	BRACKET (HEAD UNIT)	
	3-020-445-01	BELT (B)		M1	3-020-447-01	MOTOR (A) ASSY (REEL/CAPSTAN)	
	3-020-443-01	PINCH ROLLER ASSY (F)		M2	3-020-448-01	MOTOR (B) ASSY (LOADING)	

## SECTION 8 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 :  $\mu$ , for example:  
uA.. :  $\mu$ A..    uPA.. :  $\mu$ PA..  
uPB.. :  $\mu$ PB..    uPC.. :  $\mu$ PC..    uPD.. :  $\mu$ PD..  
• CAPACITORS  
uF :  $\mu$ F  
• COILS  
uH :  $\mu$ H

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

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

- Abbreviation  
SP : Singapore model  
MY : Malaysia model  
HK : Hong Kong model  
JE : Tourist model

Ref. No.	Part No.	Description	Remark
*	1-668-648-11	AMS BOARD (AEP,UK,US)	
*	1-669-045-11	AMS BOARD (SP,MY,HK,JE) *****	
< CAPACITOR >			
C55	1-124-907-11	ELECT      10uF      20%      50V	
C56	1-124-907-11	ELECT      10uF      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	1-101-005-00	CERAMIC    0.022uF      50V	
C88	1-126-961-11	ELECT      2.2uF      20%      50V	
< DIODE >			
D11	8-719-911-19	DIODE 1SS119	
D28	8-719-911-19	DIODE 1SS119	
< IC >			
IC03	8-759-505-55	IC NJM4558L	
< TRANSISTOR >			
Q53	8-729-029-68	TRANSISTOR DTC114TSA	
Q54	8-729-029-68	TRANSISTOR DTC114TSA	
Q55	8-729-029-68	TRANSISTOR DTC114TSA	
Q56	8-729-029-68	TRANSISTOR DTC114TSA	
Q60	8-729-900-65	TRANSISTOR DTA144ES	
Q71	8-729-900-65	TRANSISTOR DTA144ES	
Q72	8-729-119-76	TRANSISTOR 2SA1175-HFE	
< RESISTOR >			
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	
R110	1-249-417-11	CARBON      1K      5%      1/4W	
R153	1-249-440-11	CARBON      82K      5%      1/4W	
R154	1-247-879-11	CARBON      100K      5%      1/4W	
R155	1-249-436-11	CARBON      39K      5%      1/4W	
R156	1-249-432-11	CARBON      18K      5%      1/4W	
R157	1-249-417-11	CARBON      1K      5%      1/4W	
R158	1-247-879-11	CARBON      100K      5%      1/4W	
R159	1-247-855-11	CARBON      10K      5%      1/4W	
R166	1-247-871-11	CARBON      47K      5%      1/4W	
R185	1-249-427-11	CARBON      6.8K      5%      1/4W	
R186	1-247-843-11	CARBON      3.3K      5%      1/4W	

Ref. No.	Part No.	Description	Remark
*	1-668-651-11	DECK BOARD (AEP,UK,US)	
*	1-669-046-11	DECK BOARD (SP,MY,HK,JE) *****	
< CAPACITOR >			
C1A	1-126-963-11	ELECT      4.7uF      20%      50V	
C1B	1-164-159-11	CERAMIC    0.1uF      50V	
C1C	1-164-159-11	CERAMIC    0.1uF      50V	
< CONNECTOR >			
* CN07_	1-568-835-11	SOCKET, CONNECTOR 16P	
CN14	1-580-123-11	SOCKET, CONNECTOR 16P	
< DIODE >			
D1A	8-719-911-19	DIODE 1SS119	
D1B	8-719-911-19	DIODE 1SS119	
D1C	8-719-921-80	DIODE MTZJ-11B	
D1D	8-719-911-19	DIODE 1SS119	
D1E	8-719-911-19	DIODE 1SS119	
D1F	8-719-911-19	DIODE 1SS119	
D1G	8-719-911-19	DIODE 1SS119	
D1H	8-719-911-19	DIODE 1SS119	
D1J	8-719-911-19	DIODE 1SS119	
D1K	8-719-921-63	DIODE MTZJ-7.5B	
< 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	

\*\*\*\*\*

DECK

FRONT

LOW-VOLTAGE

MAIN

Ref. No.	Part No.	Description	Remark
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	1-247-847-11	CARBON 4.7K 5%	1/4W
*****			
*	A-2007-809-A	FRONT BOARD, COMPLETE	*****
*****			
*	3-021-575-01	LED COVER (A)	
*	3-021-576-01	LED COVER (B)	
*	3-021-577-01	LED COVER (C)	
	3-022-176-01	BRACKET (FLEXIBLE D)	
< DIODE >			
D851	8-719-028-88	LED SEL3210S-D-LC05 (CD SYNC)	
D852	8-719-028-88	LED SEL3210S-D-LC05 (● REC)	
D853	8-719-047-69	LED EL204GT (◀)	
D854	8-719-047-69	LED EL204GT (▶)	
D855	8-719-028-87	LED SEL3710K-D-LC05 (■)	
D856	8-719-300-79	LED SEL1213C (CASSETTE INDICATOR)	
D857	8-719-023-78	LED SEL3810DLC05 (▶▶ (AMS))	
D858	8-719-023-78	LED SEL3810DLC05 (◀◀ (AMS))	
D859	8-719-047-69	LED EL204GT (I / U)	
< RESISTOR >			
R853	1-249-411-11	CARBON 330 5%	1/4W
R854	1-249-411-11	CARBON 330 5%	1/4W
R855	1-249-407-11	CARBON 150 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	1-249-411-11	CARBON 330 5%	1/4W
R871	1-249-411-11	CARBON 330 5%	1/4W
R872	1-249-409-11	CARBON 220 5%	1/4W
< SWITCH >			
S851	1-571-760-11	SWITCH, KEY BOARD (I / U)	
S852	1-571-760-11	SWITCH, KEY BOARD (◀)	
S853	1-571-760-11	SWITCH, KEY BOARD (▶)	
S854	1-571-760-11	SWITCH, KEY BOARD (■)	

Ref. No.	Part No.	Description	Remark
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))	
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)	
*****			
*	1-668-650-11	LOW-VOLTAGE BOARD (AEP,UK,US)	
*	1-669-044-11	LOW-VOLTAGE BOARD (SP,MY,HK,JE)	*****
< CAPACITOR >			
C62	1-126-941-11	ELECT 470uF 20%	16V
C62A	1-124-907-11	ELECT 10uF 20%	50V
C64	1-126-941-11	ELECT 470uF 20%	16V
C64A	1-124-907-11	ELECT 10uF 20%	50V
C66	1-126-916-11	ELECT 1000uF 20%	6.3V
C66A	1-124-907-11	ELECT 10uF 20%	50V
C66B	1-162-851-11	CERAMIC 0.1uF 10%	16V
C66E	1-162-851-11	CERAMIC 0.1uF 10%	16V
C67	1-126-942-61	ELECT 1000uF 20%	25V
C69A	1-104-664-11	ELECT 47uF 20%	25V
C70	1-164-159-11	CERAMIC 0.1uF	50V
< CONNECTOR >			
CN10	1-784-406-11	CONNENTOR, BOARD TO BOARD 8P	
< DIODE >			
D15	8-719-911-19	DIODE 1SS119	
< IC >			
IC06	8-759-708-05	IC NJM78L05A	
IC07	8-759-990-36	IC RC7908FA	
IC08	8-759-982-07	IC RC7808FA	
< RESISTOR >			
R123	1-247-879-11	CARBON 100K 5%	1/4W
R124	1-247-855-11	CARBON 10K 5%	1/4W
R125	1-249-417-11	CARBON 1K 5%	1/4W
R126	1-260-076-11	CARBON 10 5%	1/2W
*****			
*	A-2007-767-A	MAIN BOARD, COMPLETE (SP,MY,HK,JE)	
*	A-2056-691-A	MAIN BOARD, COMPLETE (AEP,UK,US)	*****
< SWITCH >			
	3-020-433-01	BRACKET (3P WIRE) (AU BUS)	
< CAPACITOR >			
C01	1-162-292-31	CERAMIC 680PF 10%	50V

# MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C02	1-162-292-31	CERAMIC	680PF 10% 50V	IC04	8-759-497-87	IC uPD75108GF-N14-3BE	
C03	1-136-157-00	FILM	0.022uF 5% 50V	IC05	8-759-165-85	IC PST600H-T	
C04	1-136-157-00	FILM	0.022uF 5% 50V	IC11	8-759-708-05	IC NJM78L05A	
C05	1-126-941-11	ELECT	470uF 20% 16V			< JACK >	
C06	1-126-941-11	ELECT	470uF 20% 16V				
C07	1-136-157-00	FILM	0.022uF 5% 50V	JK1	1-770-614-21	JACK, PIN 4P (TAPE)	
C08	1-136-157-00	FILM	0.022uF 5% 50V			< FILTER >	
C11A	1-161-772-11	CERAMIC	0.1uF 10% 25V				
C27	1-126-963-11	ELECT	4.7uF 20% 50V	L81	1-234-023-11	FILTER, MPX	
C28	1-126-963-11	ELECT	4.7uF 20% 50V	L82	1-234-023-11	FILTER, MPX	
C29	1-162-290-31	CERAMIC	470PF 10% 50V			< TRANSISTOR >	
C30	1-162-290-31	CERAMIC	470PF 10% 50V				
C31	1-104-664-11	ELECT	47uF 20% 16V	Q05	8-729-194-57	TRANSISTOR 2SC945-P	
C32	1-104-664-11	ELECT	47uF 20% 16V	Q12	8-729-029-86	TRANSISTOR DTC124ESA	
C32A	1-126-956-11	ELECT	0.1uF 20% 50V	Q13	8-729-029-86	TRANSISTOR DTC124ESA	
C51	1-126-963-11	ELECT	4.7uF 20% 50V	Q15	8-729-900-63	TRANSISTOR DTA124ES	
C51A	1-124-903-11	ELECT	1uF 20% 50V	Q51	8-729-029-68	TRANSISTOR DTC114TSA	
C52	1-126-963-11	ELECT	4.7uF 20% 50V				
C52A	1-124-903-11	ELECT	1uF 20% 50V	Q52	8-729-029-68	TRANSISTOR DTC114TSA	
C53	1-136-165-00	FILM	0.1uF 5% 50V	Q57	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C54	1-136-165-00	FILM	0.1uF 5% 50V	Q59	8-729-900-65	TRANSISTOR DTA144ES	
C57	1-124-907-11	ELECT	10uF 20% 50V	Q74	8-729-900-65	TRANSISTOR DTA144ES	
C58	1-124-907-11	ELECT	10uF 20% 50V	Q76	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C59	1-124-907-11	ELECT	10uF 20% 50V				
C60	1-124-907-11	ELECT	10uF 20% 50V	Q81	8-729-029-68	TRANSISTOR DTC114TSA	
C61	1-164-159-11	CERAMIC	0.1uF 50V	Q82	8-729-029-68	TRANSISTOR DTC114TSA	
C90	1-164-159-11	CERAMIC	0.1uF 50V			< RESISTOR >	
C90A	1-104-663-11	ELECT	33uF 20% 16V	R01	1-249-442-11	CARBON 510 5% 1/4W	
C91	1-164-057-11	CERAMIC	30PF 5% 50V	R05	1-247-881-00	CARBON 120K 5% 1/4W	
C92	1-164-057-11	CERAMIC	30PF 5% 50V	R06	1-247-881-00	CARBON 120K 5% 1/4W	
C95	1-162-294-31	CERAMIC	0.001uF 10% 50V	R07	1-249-404-00	CARBON 82 5% 1/4W	
C96	1-104-664-11	ELECT	47uF 20% 16V	R08	1-249-404-00	CARBON 82 5% 1/4W	
C97	1-104-664-11	ELECT	47uF 20% 16V				
C98	1-104-664-11	ELECT	47uF 20% 16V	R09	1-247-849-11	CARBON 5.6K 5% 1/4W	
		< CONNECTOR >		R10	1-247-849-11	CARBON 5.6K 5% 1/4W	
CN04	1-574-314-11	CORD (WITH CONNECTOR) (AU BUS)		R11	1-247-881-00	CARBON 120K 5% 1/4W	
CN06	1-784-408-11	SOCKET, CONNECTOR 14P		R12	1-247-881-00	CARBON 120K 5% 1/4W	
* CN07	1-568-835-11	SOCKET, CONNECTOR 16P		R13	1-249-393-11	CARBON 10 5% 1/4W	
CN10_	1-784-407-11	CONNECTOR, BOARD TO BOARD 8P					
		< DIODE >		R14	1-260-076-11	CARBON 10 5% 1/2W	
D01	8-719-911-19	DIODE 1SS119		R15	1-247-855-11	CARBON 10K 5% 1/4W	
D12	8-719-921-54	DIODE MTZJ-6.2B		R16	1-247-855-11	CARBON 10K 5% 1/4W	
D13	8-719-921-54	DIODE MTZJ-6.2B		R17	1-247-839-11	CARBON 2.2K 5% 1/4W	
D14	8-719-911-19	DIODE 1SS119		R17A	1-247-847-11	CARBON 4.7K 5% 1/4W	
D32	8-719-109-89	DIODE RD5.6ESB2					
D34	8-719-055-76	DIODE 1N4148		R18	1-247-839-11	CARBON 2.2K 5% 1/4W	
D35	8-719-109-72	DIODE RD3.9ES-B2		R19	1-249-424-11	CARBON 3.9K 5% 1/4W	
		< IC >		R20	1-249-424-11	CARBON 3.9K 5% 1/4W	
IC01	8-759-112-93	IC uPC4570HA-1		R21	1-247-847-11	CARBON 4.7K 5% 1/4W	
IC02	8-752-056-08	IC CXA1551P		R26	1-247-807-11	CARBON 100 5% 1/4W	
				R101	1-247-871-11	CARBON 47K 5% 1/4W	
				R102	1-247-871-11	CARBON 47K 5% 1/4W	
				R103	1-247-839-11	CARBON 2.2K 5% 1/4W	
				R104	1-247-839-11	CARBON 2.2K 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	

MAIN

POWER

REC

Ref. No.	Part No.	Description	Remark
R111	1-249-431-11	CARBON 15K 5%	1/4W
R112	1-249-431-11	CARBON 15K 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
R116	1-247-855-11	CARBON 10K 5%	1/4W
R117	1-260-111-11	CARBON 10K 5%	1/2W
R118	1-249-393-11	CARBON 10 5%	1/4W
R119	1-249-417-11	CARBON 1K 5%	1/4W
R120	1-249-417-11	CARBON 1K 5%	1/4W
R121	1-247-855-11	CARBON 10K 5%	1/4W
R122	1-260-099-11	CARBON 1K 5%	1/2W
R160	1-247-871-11	CARBON 47K 5%	1/4W
R161	1-247-807-11	CARBON 100 5%	1/4W
R163	1-247-871-11	CARBON 47K 5%	1/4W
R169	1-247-847-11	CARBON 4.7K 5%	1/4W
R169A	1-247-847-11	CARBON 4.7K 5%	1/4W
R170	1-247-847-11	CARBON 4.7K 5%	1/4W
R171	1-260-119-11	CARBON 47K 5%	1/2W
R173	1-249-393-11	CARBON 10 5%	1/4W
R174	1-249-393-11	CARBON 10 5%	1/4W
R183	1-247-855-11	CARBON 10K 5%	1/4W
R184	1-247-855-11	CARBON 10K 5%	1/4W
R187	1-260-119-11	CARBON 47K 5%	1/2W
R188	1-260-107-11	CARBON 4.7K 5%	1/2W
R189	1-260-119-11	CARBON 47K 5%	1/2W
R190	1-247-871-11	CARBON 47K 5%	1/4W
R191	1-247-871-11	CARBON 47K 5%	1/4W
R192	1-249-413-11	CARBON 470 5%	1/4W
R193	1-249-413-11	CARBON 470 5%	1/4W
RA	1-249-381-11	CARBON 1 5%	1/4W
RF	1-247-903-00	CARBON 1M 5%	1/4W
< RELAY >			
RY01	1-755-244-11	RELAY	
RY02	1-755-244-11	RELAY	
RY03	1-755-244-11	RELAY	
< VARIABLE RESISTOR >			
SFR03	1-238-598-11	RES, ADJ, CARBON 2.2K	
SFR04	1-238-598-11	RES, ADJ, CARBON 2.2K	
< VIBRATOR >			
X01	1-767-130-11	VIBRATOR, CERAMIC (4.19MHz)	
*****			
*	1-668-649-11	POWER BOARD (AEP,UK,US)	
*	1-669-047-11	POWER BOARD (SP,MY,HK,JE)	
*****			
< CAPACITOR >			
C63	1-126-943-11	ELECT 2200uF 20%	25V
C63A	1-162-851-11	CERAMIC 0.1uF 10%	16V

Ref. No.	Part No.	Description	Remark
C65	1-126-943-11	ELECT 2200uF 20%	25V
C65A	1-162-851-11	CERAMIC 0.1uF 10%	16V
C301	1-102-129-00	CERAMIC 0.01uF 10%	50V
C302	1-102-129-00	CERAMIC 0.01uF 10%	50V
< DIODE >			
D20	8-719-200-02	DIODE 10E2	
D21	8-719-200-02	DIODE 10E2	
D22	8-719-200-02	DIODE 10E2	
D23	8-719-200-02	DIODE 10E2	
D24	8-719-911-19	DIODE 1SS119	
D25	8-719-911-19	DIODE 1SS119	
< RESISTOR >			
△FR01	1-217-469-00	FUSIBLE 1 5%	1W F
△FR02	1-217-469-00	FUSIBLE 1 5%	1W F
*****			
*	A-2007-768-A	REC BOARD, COMPLETE (SP,MY,HK,JE)	
*	A-2056-692-A	REC BOARD, COMPLETE (AEP,UK,US)	
*****			
< CAPACITOR >			
C09	1-101-888-00	CERAMIC 68PF 5%	50V
C10	1-101-888-00	CERAMIC 68PF 5%	50V
C13	1-124-907-11	ELECT 10uF 20%	50V
C14	1-124-907-11	ELECT 10uF 20%	50V
C15	1-164-077-11	CERAMIC 220PF 10%	50V
C16	1-164-077-11	CERAMIC 220PF 10%	50V
△C18	1-104-990-11	FILM 0.0033uF 5%	200V
△C19	1-137-464-11	FILM 0.039uF 5%	100V
C20	1-126-941-11	ELECT 470uF 20%	16V
△C21	1-136-291-11	FILM 0.0068uF 5%	100V
△C22	1-136-298-00	FILM 0.0033uF 5%	100V
△C23	1-136-298-00	FILM 0.0033uF 5%	100V
C24	1-104-664-11	ELECT 47uF 20%	16V
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	1-136-155-00	FILM 0.015uF 5%	50V
C76	1-136-155-00	FILM 0.015uF 5%	50V
C77	1-136-154-00	FILM 0.012uF 5%	50V
C78	1-136-154-00	FILM 0.012uF 5%	50V
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
C83A	1-104-666-11	ELECT 220uF 20%	16V
C93	1-130-477-00	MYLAR 0.0033uF 5%	50V
C94	1-130-477-00	MYLAR 0.0033uF 5%	50V
< DIODE >			
D03	8-719-010-62	DIODE UZ-9.1BSB	

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

<b>REC</b>	<b>SLIDE SW</b>	<b>TRANSFORMER</b>
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Ref. No.	Part No.	Description	Remark
D04	8-719-921-63	DIODE MTZJ-7.5B	
D26	8-719-911-19	DIODE 1SS119	
D27	8-719-911-19	DIODE 1SS119	
< IC >			
IC09	8-759-112-93	IC uPC4570HA-1	
< COIL >			
L03	1-416-568-11	COIL, CHOKE 39mH	
L04	1-416-568-11	COIL, CHOKE 39mH	
L05	1-431-706-11	TRANSFORMER, BIAS OSCILLATION	
L07	1-416-567-11	COIL, CHOKE 6.8mH	
L08	1-416-567-11	COIL, CHOKE 6.8mH	
< TRANSISTOR >			
Q06	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q07	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q08	8-729-140-96	TRANSISTOR 2SD774-34	
Q09	8-729-194-57	TRANSISTOR 2SC945-P	
Q11	8-729-194-57	TRANSISTOR 2SC945-P	
Q65	8-729-029-86	TRANSISTOR DTC124ESA	
Q66	8-729-029-86	TRANSISTOR DTC124ESA	
Q67	8-729-029-86	TRANSISTOR DTC124ESA	
Q68	8-729-029-86	TRANSISTOR DTC124ESA	
Q69	8-729-029-68	TRANSISTOR DTC114TSA	
Q70	8-729-029-68	TRANSISTOR DTC114TSA	
< RESISTOR >			
R23	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	
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	
R32	1-249-417-11	CARBON 1K 5% 1/4W	
R37	1-249-412-11	CARBON 390 5% 1/4W	
R127	1-249-430-11	CARBON 12K 5% 1/4W	
R128	1-249-430-11	CARBON 12K 5% 1/4W	
R133	1-247-871-11	CARBON 47K 5% 1/4W	
R134	1-247-871-11	CARBON 47K 5% 1/4W	
R135	1-247-871-11	CARBON 47K 5% 1/4W	
R136	1-247-871-11	CARBON 47K 5% 1/4W	
R137	1-247-883-00	CARBON 150K 5% 1/4W	
R138	1-247-883-00	CARBON 150K 5% 1/4W	
R139	1-247-863-11	CARBON 22K 5% 1/4W	
R140	1-247-863-11	CARBON 22K 5% 1/4W	
R141	1-247-867-11	CARBON 33K 5% 1/4W	
R142	1-247-867-11	CARBON 33K 5% 1/4W	
R143	1-247-855-11	CARBON 10K 5% 1/4W	
R144	1-247-855-11	CARBON 10K 5% 1/4W	
R145	1-247-807-11	CARBON 100 5% 1/4W	
R146	1-247-807-11	CARBON 100 5% 1/4W	
R147	1-249-427-11	CARBON 6.8K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R148	1-249-427-11	CARBON 6.8K 5% 1/4W	
R151	1-249-417-11	CARBON 1K 5% 1/4W	
R152	1-247-879-11	CARBON 100K 5% 1/4W	
< VARIABLE RESISTOR >			
SFR01	1-238-603-11	RES, ADJ, CARBON 100K	
SFR02	1-238-603-11	RES, ADJ, CARBON 100K	
SFR11	1-238-601-11	RES, ADJ, CARBON 22K	
SFR12	1-238-601-11	RES, ADJ, CARBON 22K	
*****			
*	1-669-048-11	SLIDE SW BOARD (SP,MY,HK,JE)	
*****			
< SWITCH >			
△ SW01	3-021-926-01	BRACKET (SLIDE SW) (VOLTAGE SELECTOR)	
*****			
*	1-668-652-11	TRANSFORMER BOARD (AEP,UK,US)	
*	1-669-043-11	TRANSFORMER BOARD (SP,MY,HK,JE)	
*****			
< COIL >			
△ L11	1-416-566-11	COIL, CHOKE 15uH	
△ L12	1-416-566-11	COIL, CHOKE 15uH	
< TRANSFORMER >			
△ PT301	3-021-913-01	BRACKET (POWER TRANS) (AEP,UK)	
△ PT301	3-021-925-01	BRACKET (POWER TRANS) (SP,MY,HK,JE)	
△ PT301	3-021-976-01	BRACKET (POWER TRANS) (US)	
*****			
MISCELLANEOUS			
*****			
△ 108	3-021-914-01	BRACKET (AC CORD) (EXCEPT UK,US)	
△ 108	3-021-917-01	BRACKET (AC CORD) (UK)	
△ 108	3-021-977-01	BRACKET (AC CORD) (US)	
114	3-021-552-01	BRACKET (FLEXIBLE A)	
123	3-020-962-01	BRACKET (FLEXIBLE B)	
HRPE101	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)	
△ PT301	3-021-913-01	BRACKET (POWER TRANS) (AEP,UK)	
△ PT301	3-021-925-01	BRACKET (POWER TRANS) (SP,MY,HK,JE)	
△ PT301	3-021-976-01	BRACKET (POWER TRANS) (US)	
*****			

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<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
		ACCESSORIES & PACKING MATERIALS *****	
	3-020-441-01	BRACKET (PATCH CORD)	
△	1-569-008-11	ADAPTOR, CONVERSION 2P (SP,MY,JE)	
△	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (HK)	
	3-864-650-11	MANUAL, INSTRUCTION (ENGLISH)	
	3-864-650-21	MANUAL, INSTRUCTION (FRENCH) (US,AEP, SP,JE)	
	3-864-650-31	MANUAL, INSTRUCTION (GERMAN,SPANISH, DUTCH,SWEDISH,ITALIAN) (AEP,SP)	
	3-864-650-41	MANUAL, INSTRUCTION (PORTUGUESE) (AEP,JE)	
	3-864-650-51	MANUAL, INSTRUCTION (CHINESE,KOREAN) (SP,HK,JE)	

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