


# TC-WA9ES

## SERVICE MANUAL

US Model  
Canadian Model  
E Model  
Australian Model



Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen. "DOLBY", the double-D symbol  and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	TCM-200R12

### SPECIFICATIONS

#### System

##### Recording system

4-track 2-channel stereo

##### Fast-winding time (approx.)

90 sec. (with Sony C-60 cassette)

##### Bias

AC bias

##### Signal-to-noise ratio (at peak level, weighted, and with Dolby NR off)

Type I tape, Sony Type I (NORMAL): 56 dB

Type II tape, Sony Type II (HIGH): 58 dB

Type IV tape, Sony Type IV (METAL): 59 dB

##### S/N ratio improvement (approximate values)

With Dolby B NR on: 5 dB at 1 kHz, 10 dB at 5 kHz

With Dolby C NR on: 15 dB at 500 Hz, 20 dB at 1 kHz

With Dolby S NR on: 10 dB at 100 Hz, 24 dB at 1 kHz

##### Harmonic distortion

0.4 % (with Type I tape, Sony Type I (NORMAL):

160 nWb/m 315 Hz, 3rd H.D.)

1.8 % (with Type IV tape, Sony Type IV (METAL):

250 nWb/m 315 Hz, 3rd H.D.)

##### Frequency response (Dolby NR off)

Type I tape, Sony Type I (NORMAL): 25 - 16,000 Hz

(±3 dB, IEC)

Type II tape, Sony Type II (HIGH): 25 - 18,000 Hz

(±3 dB, IEC)

Type IV tape, Sony Type IV (METAL): 25 - 20,000 Hz

(US, Canadian model),

25 - 19,000 Hz (E, Australian model)

(±3 dB, IEC)

30 - 15,000 Hz (±3 dB, -4 dB recording)

##### Wow and flutter

±0.09% W. Peak (IEC)

0.06% W. RMS (NAB)

±0.16% W. Peak (DIN)

##### Variable pitch range (approx.)

-30 to +30%

#### Inputs

##### Line inputs (phono jacks)

Sensitivity: 0.16 V

Input impedance: 47 kilohms

#### Outputs

##### Line outputs (phono jacks)

Rated output level: 0.5 V at a load impedance of

47 kilohms

Load impedance: Over 10 kilohms

##### Headphones (stereo phone jack)

Output level: 0 to 3 mW at a load impedance of

32 ohms

#### General

##### Power requirements

US, Canadian model 120 V AC, 60 Hz

Australian model 240 V AC, 50/60 Hz

E model 120/220/240 V AC, 50/60 Hz.

##### Power consumption

30 W

##### Dimensions (approx) (w/h/d)

430 × 135 × 350 mm (w/h/d)

(17 × 5 3/4 × 13 7/8 inches)

including projecting parts and controls

##### Mass (approx.)

6.5 kg (14 lbs 6 oz)

#### Supplied accessories

Audio connecting cords (2 phono plugs - 2 phono

plugs) (2)

Remote commander RM-J903 (1)\*

Sony size AA (R6) batteries (2)\*

\* not supplied with the US, Canadian models

Design and specifications are subject to change without

notice.

STEREO CASSETTE DECK  
**SONY**®

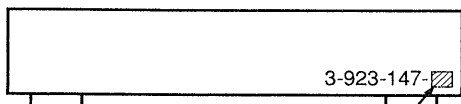


## TABLE OF CONTENTS

Section	Title	Page
SECTION 1. GENERAL	.....	3
SECTION 2. DISASSEMBLY		
2-1. Case and Front Panel	.....	4
2-2. Mechanism Deck Block	.....	4
2-3-1. Cassette Holder	.....	5
2-3-2. Ornamental Plate	.....	5
2-3-3. Pinch Lever, Head	.....	6
2-3-4. Capstan Motor, Fly Wheel	.....	6
2-3-5. Reel and Assist Motors	.....	7
SECTION 3. ADJUSTMENT		
3-1. Mechanism Adjustment	.....	8
3-2. Electrical Adjustment	.....	8
Record/Playback Head Azimuth Adjustment		
Deck A   Deck B	.....	9
Tape Speed Adjustment	Deck A   Deck B	9
Playback Level Adjustment	Deck A   Deck B	10
Pitch Control Speed Adjustment	.....	10
Bias Current Adjustment	.....	10
Record Bias Adjustment	Deck A   Deck B	10
Record Level Adjustment	Deck A   Deck B	10
Quick Reverse Sensitivity Adjustment	Deck A   Deck B	11
Record EQ (Type IV) Adjustment	Deck A   Deck B	11
SECTION 4. DIAGRAMS		
4-1. Circuit Boards Location	.....	12
4-2. IC Pin Functions		
• IC801 System Controller (uPD78043AGF-023-3B9)	.....	13
• IC802 Mechanism Controller (M38002M2-185FP)	.....	15
• IC901 Display Controller (M38122M2-103FP)	.....	17
4-3. Block Diagram	.....	18
4-4. Printed Wiring Board — Main, Panel, Deck Block —	.....	21
4-5. Schematic Diagram — Main (1/2), Panel Block —		
(Audio)	.....	25
4-6. Schematic Diagram — Main (2/2), Panel, Deck Block —		
(System Control)	.....	30
4-7. Printed Wiring Board — Panel Block —	.....	35
4-8. Schematic Diagram — Dolby S Block —	.....	39
4-9. Printed Wiring Board — Dolby S Block —	.....	40
SECTION 5. EXPLODED VIEWS		
5-1. Case Section	.....	41
5-2. Front Panel Section	.....	42
5-3. Chassis Section	.....	43
5-4. Mechanism Deck Section 1 (TCM-200R12)	.....	44
5-5. Mechanism Deck Section 2 (TCM-200R12)	.....	45
SECTION 6. ELECTRICAL PARTS LIST	.....	46

## MODEL IDENTIFICATION

— BACK PANEL —



US, Canadian Model : 0□ (U/CA)  
 E Model : 1□ (E2/E3)  
 Australian Model : 2□ (AU)

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 CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

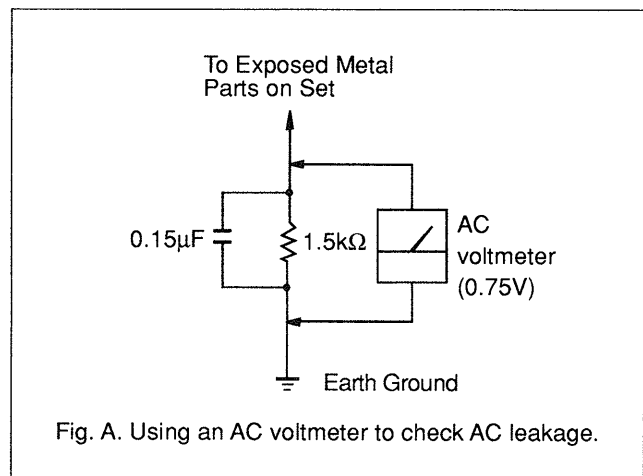


Fig. A. Using an AC voltmeter to check AC leakage.

### SAFETY-RELATED COMPONENT WARNING !!

**COMPONENTS IDENTIFIED BY MARK  $\Delta$  OR DOTTED LINE WITH MARK  $\Delta$  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.**

### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

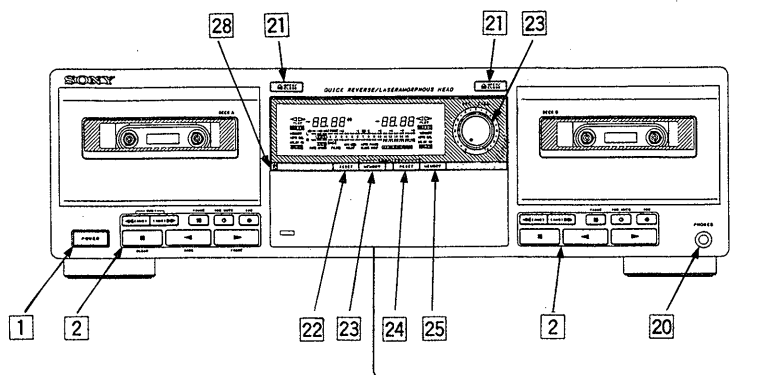
**LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  $\Delta$  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.**

# SECTION 1

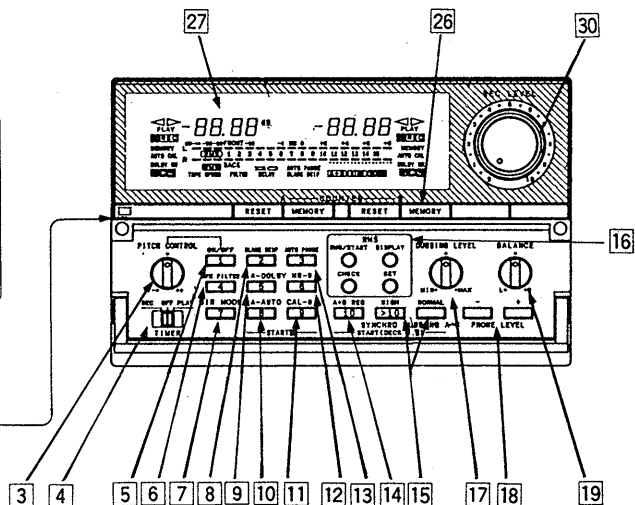
## GENERAL

### LOCATION OF CONTROL

#### Front Panel



#### Inside of Sealing Panel (Keeping Section of Controls, switches, etc.)



- |   |   |
|---|---|
| <p><b>1 POWER switch</b></p> <p><b>2 Tape operation buttons</b></p> <ul style="list-style-type: none"> <li>■ (stop/RMS CLEAR) button</li> <li>◀ (reverse play/RMS BACK) button</li> <li>▶ (forward play/RMS FRONT) button</li> <li>◀◀ (fast-forwarding/AMS*/RMS**+) button</li> <li>▶▶ (rewinding/AMS*/RMS**-) button</li> <li>   PAUSE button</li> <li>■ REC MUTE (record muting) button</li> <li>● REC (recording) button</li> </ul> <p><b>3 1/PITCH CONTROL (Tape speed)</b></p> <p><b>4 4/TIMER switch</b></p> <p><b>5 7/PITCH CONTROL ON/OFF (Tape speed) button</b></p> <p><b>6 2/MPX (multiplex) FILTER ON/OFF button</b></p> <p><b>7 5/DIR (direction) MODE switch</b></p> <p><b>8 BLANK SKIP button</b></p> <p><b>9 DOLBY NR (Dolby noise reduction) buttons (deck A)</b></p> <ul style="list-style-type: none"> <li>ON/OFF button</li> <li>B/C/S button</li> </ul> <p><b>10 8/AUTO CAL button (deck A)</b></p> <p><b>11 9/AUTO CAL button (deck B)</b></p> <p><b>12 6/DOLBY NR (Dolby noise reduction) buttons (deck B)</b></p> <ul style="list-style-type: none"> <li>ON/OFF buttons</li> <li>B/C/S buttons</li> </ul> | <p><b>13 AUTO PAUSE button</b></p> <p><b>14 A+B REC (simultaneous recording) button</b></p> <p><b>15 SYNCHRO DUBBING buttons</b></p> <ul style="list-style-type: none"> <li>HIGH Speed button</li> <li>NORMAL Speed button</li> </ul> <p><b>16 RMS** buttons</b></p> <ul style="list-style-type: none"> <li>RMS/START button</li> <li>DISPLAY button</li> <li>CHECK button</li> <li>SET button</li> </ul> <p><b>17 DUBBING LEVEL control</b></p> <p><b>18 PHONE LEVEL +/- buttons</b></p> <p><b>19 BALANCE control</b></p> <p><b>20 PHONES (headphones) jack (stereo phone jack)</b></p> <p><b>21 ▲ OPEN/CLOSE button</b></p> <p><b>22 COUNTER RESET (deck A)</b></p> <p><b>23 COUNTER MEMORY (deck A)</b></p> <p><b>24 COUNTER RESET (deck B)</b></p> <p><b>25 COUNTER MEMORY (deck B)</b></p> <p><b>27 Display panel and Indicator tube</b></p> <p><b>28 Remote control sensor</b></p> <p><b>30 REC (recording) LEVEL control</b></p> |
|---|---|

\* AMS is an abbreviation for Automatic Music Sensor.

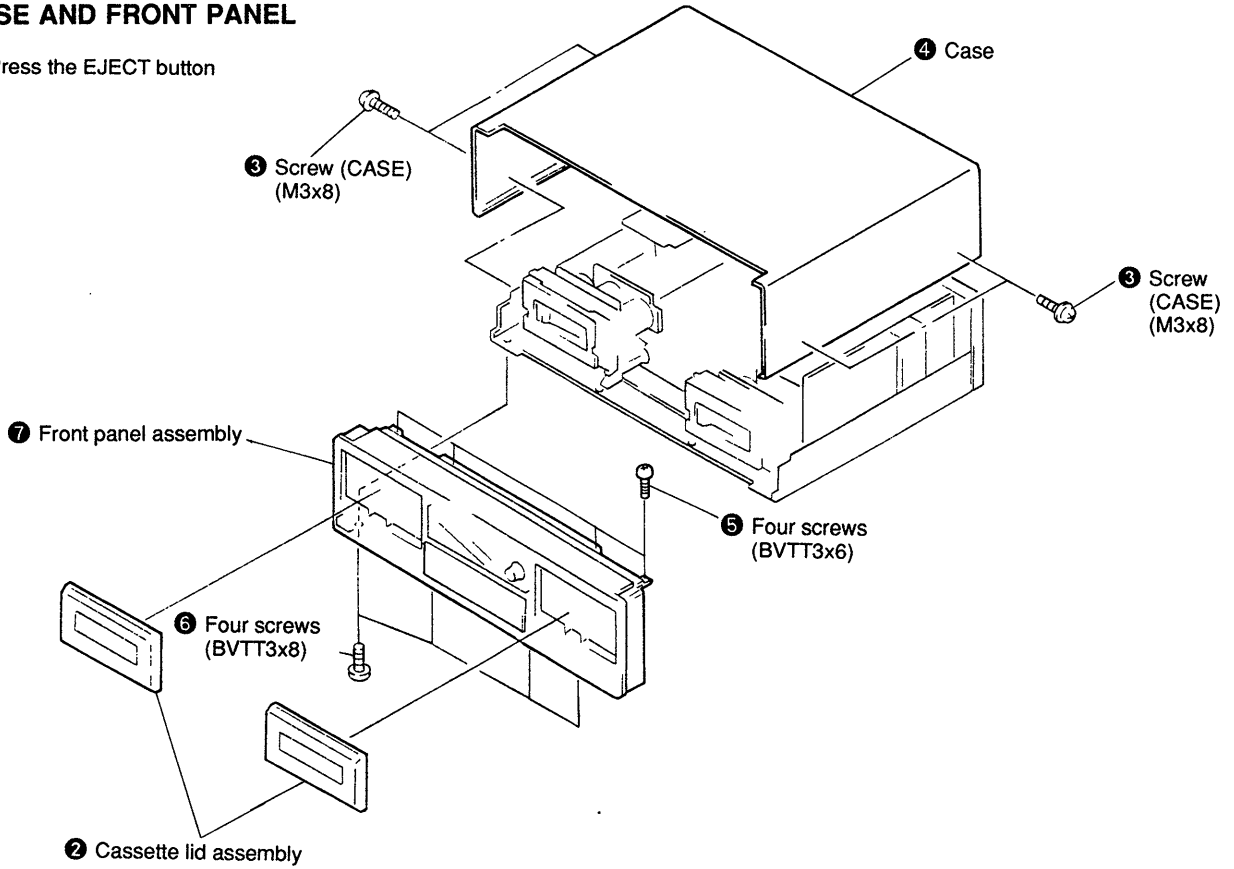
\*\* RMS is an abbreviation for Random Music Sensor. (deck B only)

## SECTION 2 DISASSEMBLY

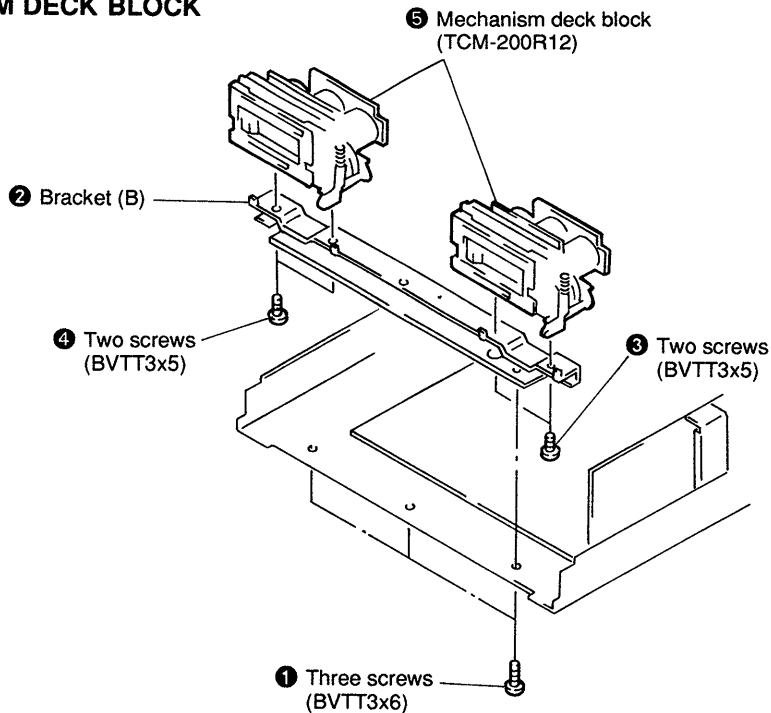
**Note :** Follow the disassembly procedure in the numerical order given.

### 2-1. CASE AND FRONT PANEL

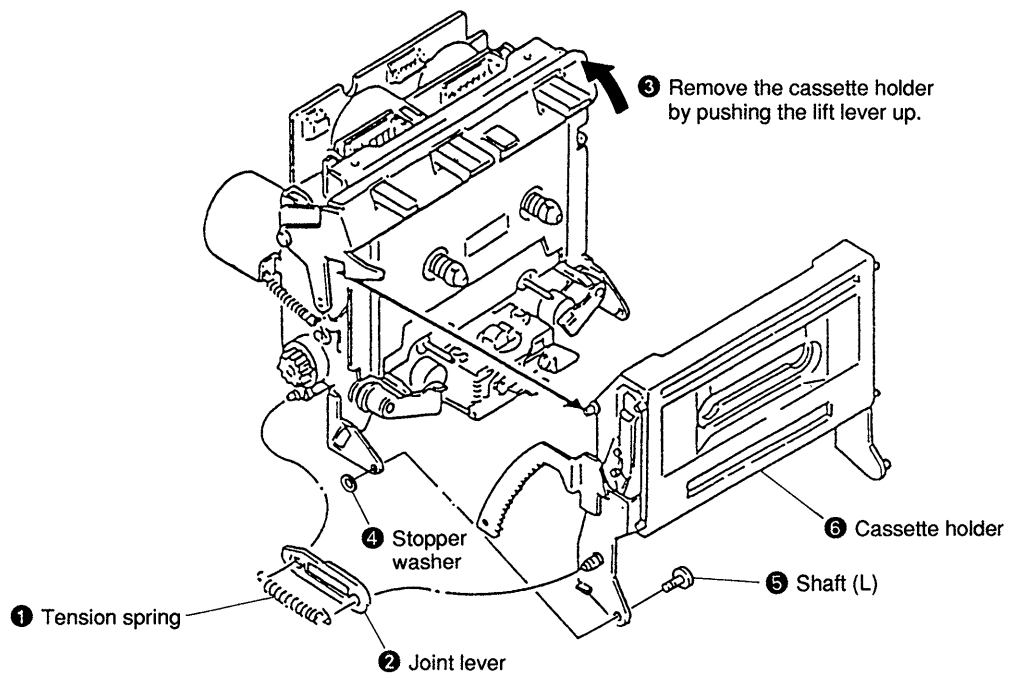
① Press the EJECT button



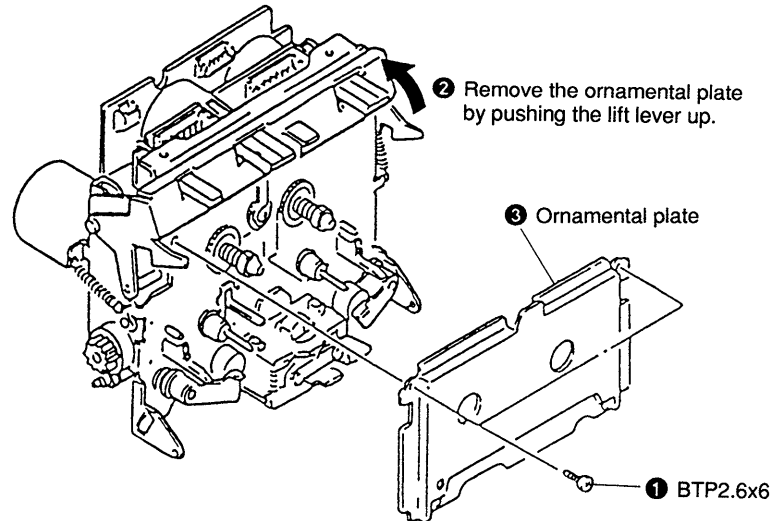
### 2-2. MECHANISM DECK BLOCK



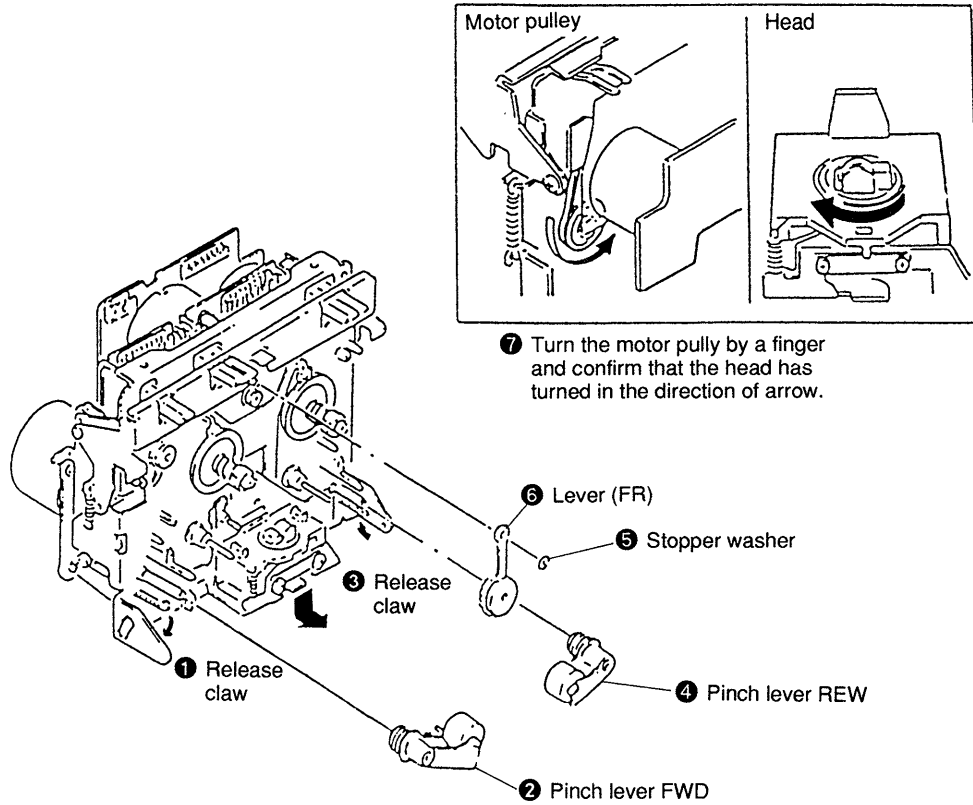
### 2-3-1. CASSETTE HOLDER



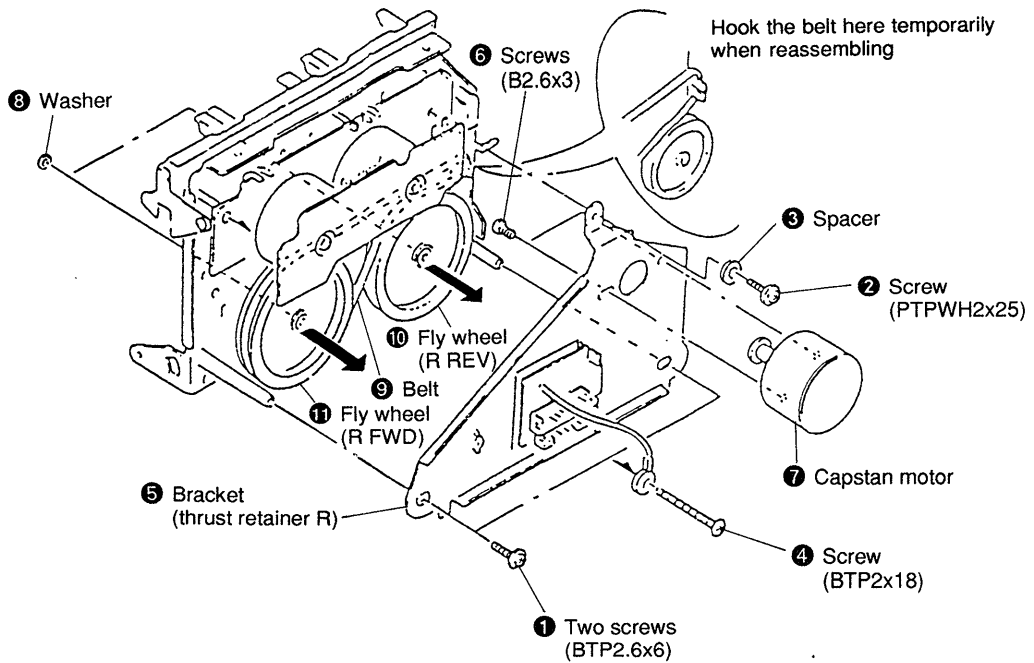
### 2-3-2. ORNAMENTAL PLATE



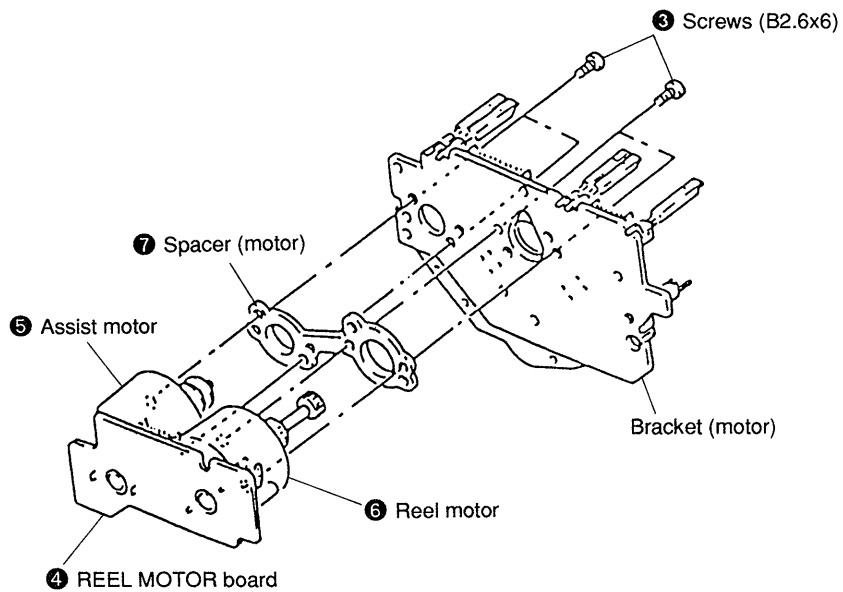
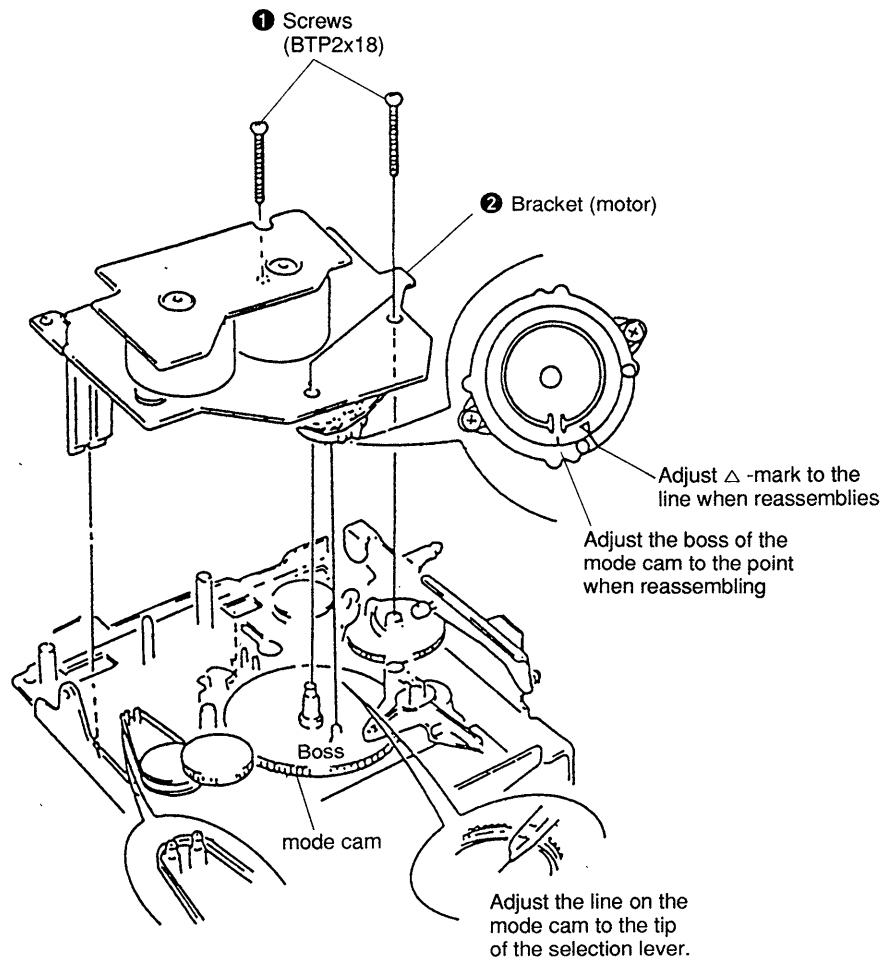
### 2-3-3. PINCH LEVER, HEAD



### 2-3-4. CAPSTAN MOTOR, FLY WHEEL



## 2-3-5. REEL AND ASSIST MOTORS



## SECTION 3 ADJUSTMENTS

### 3-1. MECHANICAL ADJUSTMENT

#### PRECAUTION

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

record/playback head	pinch roller
erase head	rubber belt
capstan	idler
2. Demagnetize the record/playback and erase 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
FWD	CQ-102C	30 — 60 g • cm (0.42 — 0.83 oz • inch)
FWD Back tension	CQ-102C	1 — 5 g • cm (0.014 — 0.063 oz • inch)
REV	CQ-102RC	30 — 60 g • cm (0.42 — 0.83 oz • inch)
REV Back tension	CQ-102RC	1 — 5 g • cm (0.014 — 0.063 oz • inch)
FF, REW	CQ-201B	65 — 90 g • cm (0.90 — 1.25 oz • inch)

### 3-2. ELECTRICAL ADJUSTMENTS

**Note :** The adjustments should be performed in the order given in this service manual. As a rule, adjustments about playback should be performed before those about recording.

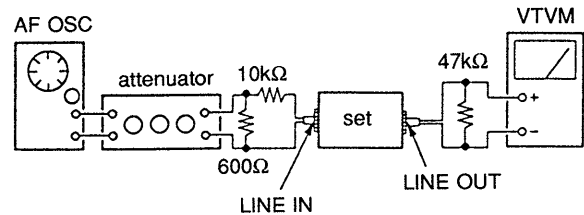
The adjustments should be performed for both L-CH and R-CH.

- Switches and controls should be set as follows unless otherwise specified.
 

DOLBY NR switch	: OFF
DIRECTION switch	: ⇄
MPX FILTER switch	: OFF
TIMER switch	: OFF

- Standard Record :  
Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

— Record Mode —



**0dB = 0.775V**

Standard Input Level

Input Terminal	LINE IN
source impedance	10kΩ
input level	0.5 V (-3.8 dB)

Standard Output Level

Output Terminal	LINE OUT
load impedance	47 kΩ
output level	0.5 V (-3.8 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-48B	3 kHz, 0 dB	Tape Speed Adjustment

#### Test mode

The set will get into TEST MODE by shorting the pins of TP801 (TEST) on Main board before turning the power on, and TEST MODE functions as follows :

1. Reset the memory before power on.  
Method : While press **RESET (Deck A)** and **RESET (Deck B)** together, turn on **POWER**.
2. High speed playback  
Pressing HIGH SPEED (DUBBING) button while playback changes to high speed playback and another press of the button returns the set to normal speed playback.
3. Record memory stop  
When starting recording, tape counter is reset to zero and counter memory turned on.
4. Remove the short plug offer completion of Adjustment.

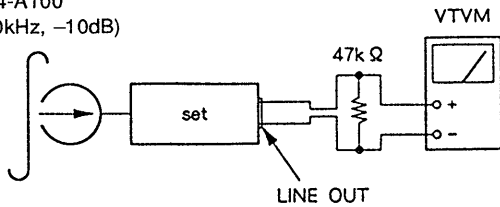


## RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

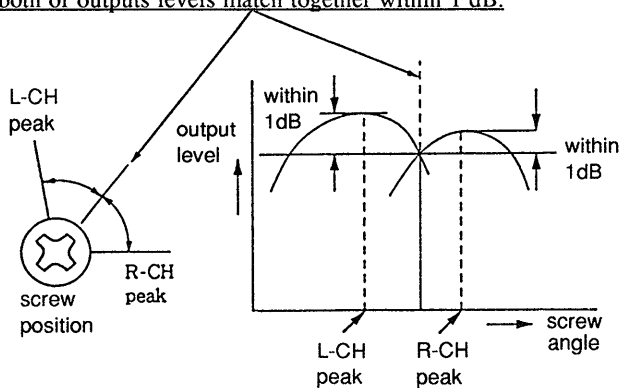
**DECK A** **DECK B**

### Procedure :

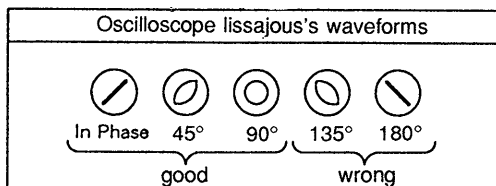
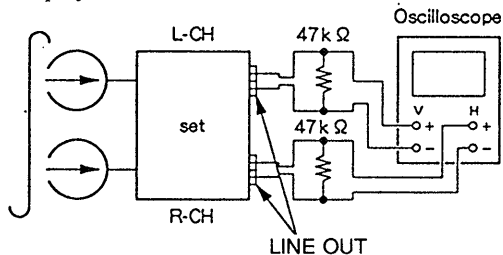
- Mode : FWD playback  
test tape  
P-4-A100  
(10kHz, -10dB)



- Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of outputs levels match together within 1 dB.

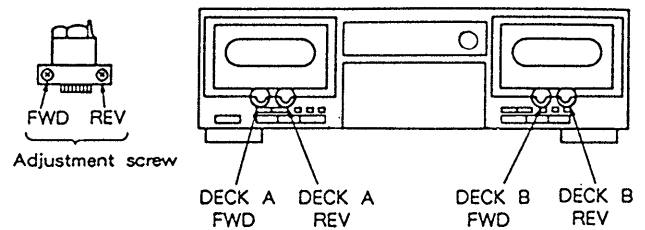


- Phase Check  
Mode : playback



- Set in the REV mode and repeat the step 1-3.
- After the adjustments, lock the screws with locking compound.

Adjustment Location : Record/Playback head

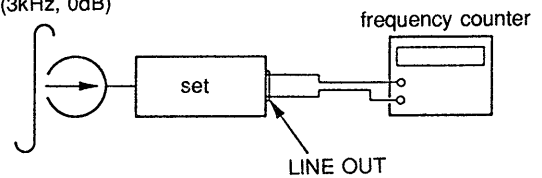


## TAPE SPEED ADJUSTMENT **DECK A** **DECK B**

### Procedure :

- Get into Test mode. (See page 8.)
- Adjust the high speed first, starting from Deck A and Deck B.
- When DECK A adjustment, press the PITCH CONTROL ON/OFF button (PANEL board S963) to OFF.

test tape  
WS-48B  
(3kHz, 0dB)



(high speed adjustment)

- Set to FWD playback mode.
- Press the HIGH button (PANEL board S974).
- Adjust RV871 (DECK A) and RV881 (DECK B) on Main board so that the frequency counter reading becomes  $6,000 \pm 30$  Hz.

(normal speed adjustment)

- Set to FWD playback mode.
- Press the HIGH button (PANEL board S974) again.
- Adjust RV872 (DECK A) and RV882 (DECK B) on Main board so that the frequency counter reading becomes  $3,000 \pm 15$  Hz.

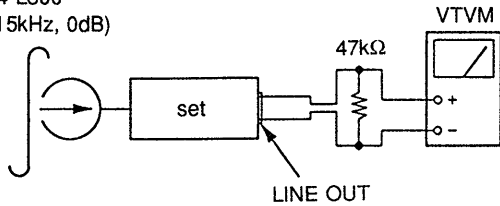
Frequency difference between FWD mode and REV mode should be within 60 Hz (high speed) or 30 Hz (normal speed).

Frequency difference between deck A and deck B should be within 20 Hz (high speed) or 10 Hz (normal speed).

**PLAYBACK LEVEL ADJUSTMENT** DECK A DECK B

**Procedure :**

- Mode : playback  
test tape  
P-4-L300  
(315kHz, 0dB)



Adjust RV131 (L-CH) and RV231 (R-CH) for Deck A and RV151 (L-CH) and RV251 (R-CH) for Deck B so that the reading on VTVM meter the adjustment level below.

**Adjustment Level :**

LINE OUT level :  $-7.7 \text{ dB} \pm 0.5 \text{ dB}$  (0.30 to 0.34 V)  
Level difference between channels : less than 0.5 dB.  
Check that the LINE OUT level does not change even if playback and stop operation is repeated several times.

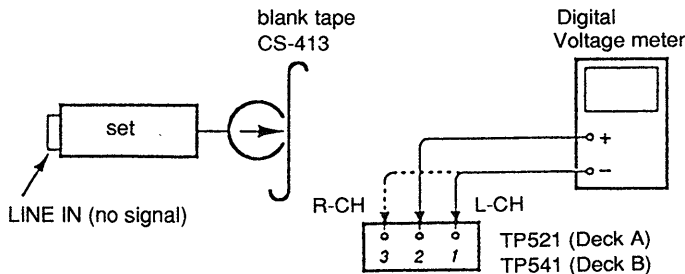
**PITCH CONTROL SPEED ADJUSTMENT**

- Get into Test mode.
- Set TAPE SPEED (RV891) to the center and press the PITCH CONTROL ON/OFF button (PANEL board S963) to ON.
- Playback Deck A and Deck B FWD and adjust RV891.  
**Adjustment Level :** 3000 Hz  $\pm$  15 Hz
  - Frequency difference between Deck A and Deck B should be within 10 Hz.
  - Speed difference : VOL MAX 3900 Hz  $\pm$  70 Hz  
: VOL MIN 2100 Hz  $\pm$  70 Hz

**BIAS CURRENT ADJUSTMENT**

- Set RV121 and RV221 (DECK A), RV141 and RV241 (DECK B) to mechanical center and turn the set recording mode.
- Connect digital voltmeter as shown by the following table.
- Adjust the following transformers for the minimum readings on the digital voltmeter.

DECK		Measurement Point	Adjustment	Level
A	L	① and ②, TP521	T121	less than 80 mV
	R	② and ③, TP521	T221	
B	L	① and ②, TP541	T141	
	R	② and ③, TP541	T241	



**Adjustment Level :** 80mV

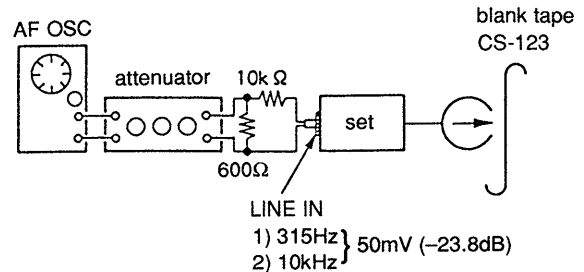
**RECORD BIAS ADJUSTMENT** DECK A DECK B

**Setting :**

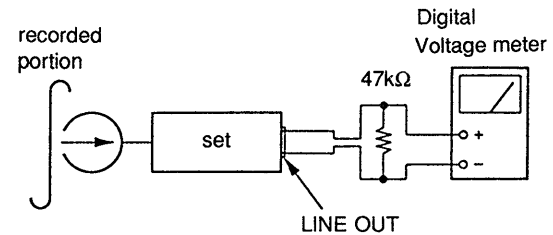
- REC LEVEL control : standard record (See page 8.)
- Get into Test mode. (See page 8.)

**Procedure :**

- Mode : record



- Mode : playback



- Deck A is RV121 (L-CH) and RV221 (R-CH), deck B is RV141 (L-CH) and RV241 (R-CH) so that adjustment within adjustment level as follows.

**Adjustment Level :**

- The playback output of 10 kHz level difference against 315 Hz reference should be  $\pm 0.5 \text{ dB}$ .

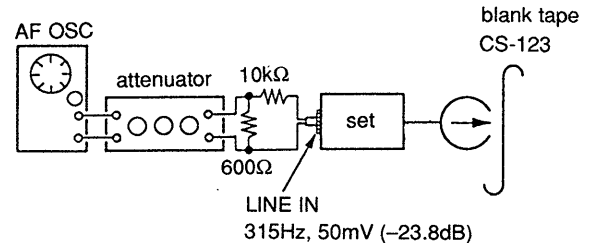
**RECORD LEVEL ADJUSTMENT** DECK A DECK B

**Setting :**

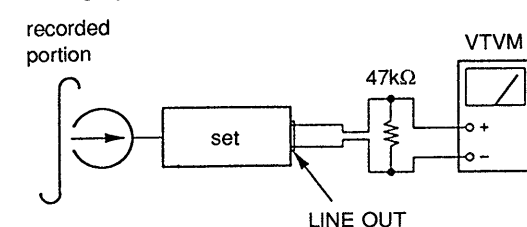
- REC LEVEL control : standard record (See page 8.)
- Get into Test mode. (See page 8.)

**Procedure :**

- Mode : record



- Mode : playback



3. Deck A is RV301 (L-CH) and RV401 (R-CH), deck B is RV351 (L-CH) and RV451 (R-CH) so that adjustment within adjustment level as follows.

**Adjustment Level :**  $-23.8 \text{ dB} \pm 0.5 \text{ dB}$  (47 to 53 mV)

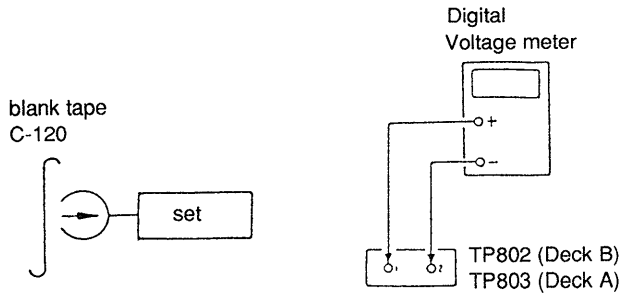
**QUICK REVERSE SENSITIVITY ADJUSTMENT**

**DECK A DECK B**

**Conditions :**

DIRECTION MODE switch :  $\rightleftarrows$

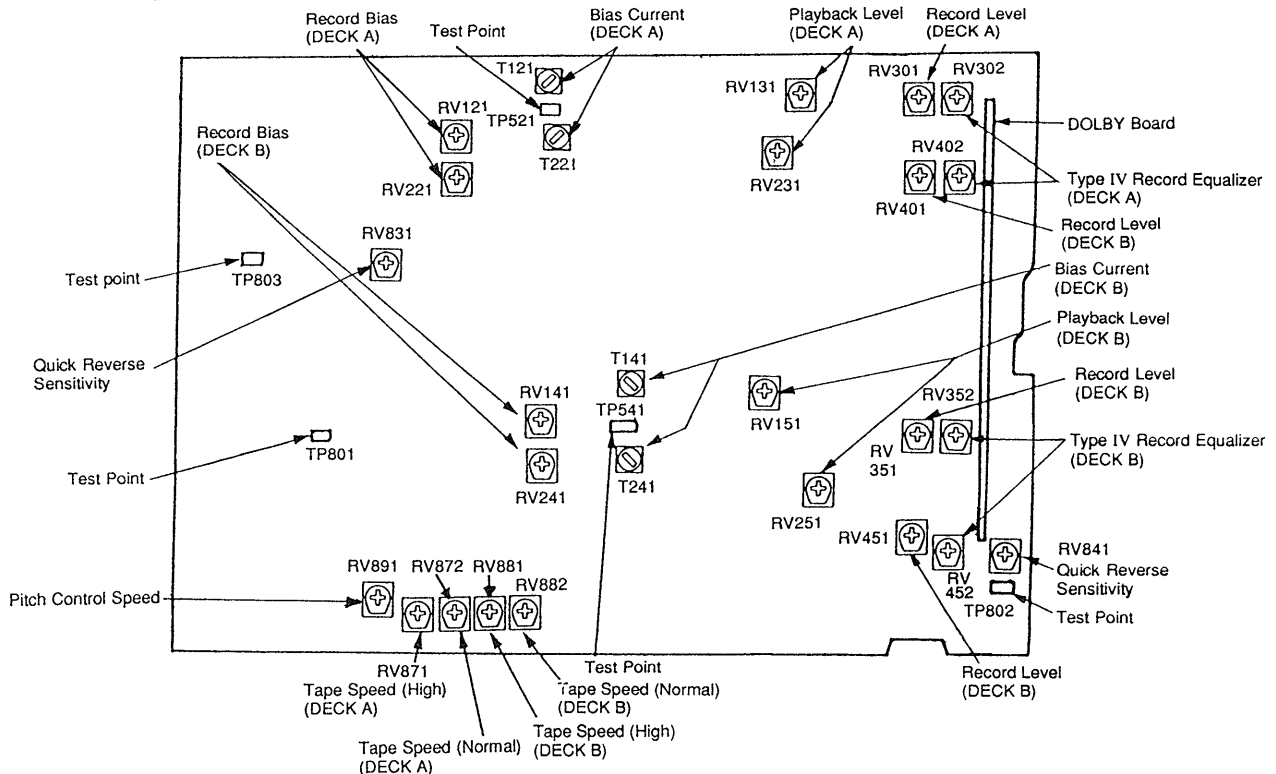
**Adjustment procedure :**



1. Connect the digital voltmeter to test point TP803 (DECK A)/TP802 (DECK B).
2. Load C-120 tape cassette and playback the leading portion in FWD mode.
3. Adjust the RV831 (DECK A), RV841 (DECK B) for 4.5  $\pm$  0.5 V reading on the digital voltmeter.
4. Playback C-120 tape cassette in FWD mode again.
5. Confirm that the reading on the digital voltmeter is "L" level at the magnetic portion of the tape.
6. Confirm that the tape stop around the tape end (border of the leading and the magnetic portions).

**Adjustment Location**

**[MAIN BOARD] — Conductor Side —**



**RECORD EQ (TYPE IV) ADJUSTMENT**

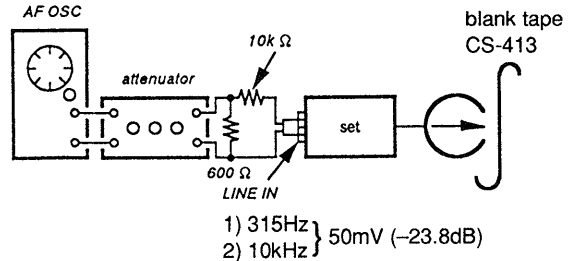
**DECK A DECK B**

**Setting :**

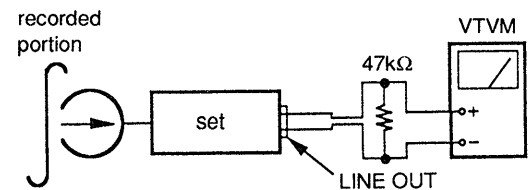
REC LEVEL control : standard record (See page 8.)

**Procedure :**

1. Mode : record



2. Mode : playback



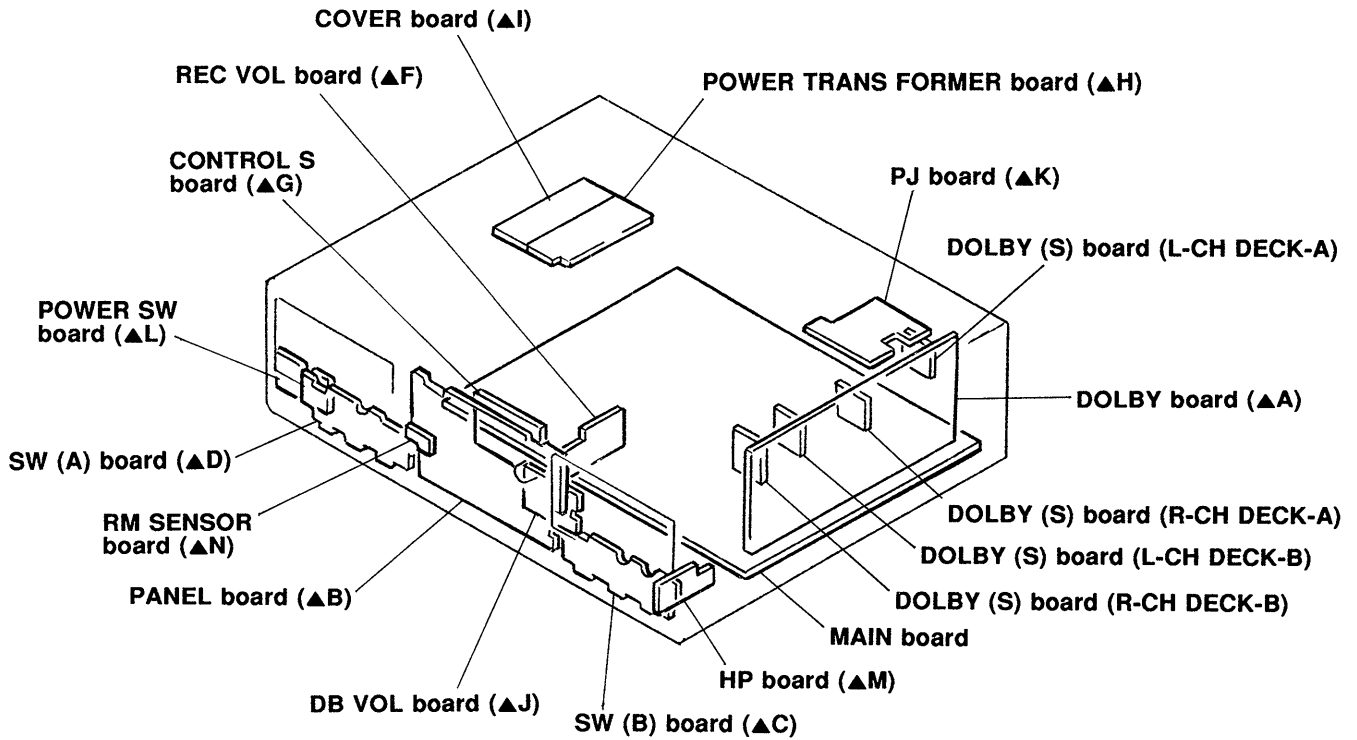
3. Playback the signal recorded in step 1.  
Adjust RV302 (L-CH) and RV402 (R-CH) for Deck A and RV352 (L-CH) and RV452 (R-CH) for Deck B so that the difference of L-ch and R-ch of 315 kHz and 10 kHz becomes within 1 dB.

**Adjustment Level :**

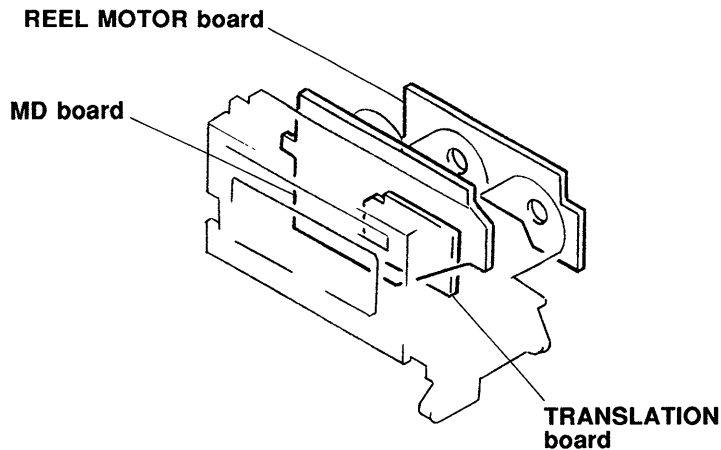
1. The playback output of 10 kHz level difference against 315 Hz reference should be  $\pm 4 \text{ dB}$ .

## SECTION 4 DIAGRAMS

### 4-1. CIRCUIT BOARDS LOCATION



NOTE : ▲A-▲D, ▲F-▲N are including in Panel board.



## 4-2. IC PIN FUNCTIONS

### • IC801 SYSTEM CONTROLLER ( $\mu$ PD78043AGF-023-3B9)

Pin No.	Pin Name	I/O	Function
1	REC/PB (A)	O	A deck REC/PB switching output
2	BIAS CAL4	O	BIAS CAL control 4
3	BIAS CAL3	O	BIAS CAL control 3
4	BIAS CAL2	O	BIAS CAL control 2
5	BIAS CAL1	O	BIAS CAL control 1
6	VOL. LED $\overline{\text{ON}}$ /OFF	O	REC VOL LED light switching output
7	AMS/ $\overline{\text{BS}}$	O	AMS/BS switching output
8	VDD	—	+5V
9	FL. SCLK	O	Clock output to the display controller (IC901)
10	FL. S OUT	O	Information output to the display controller (IC901)
11	FL. S IN	I	Information input from the display controller (IC901)
12	FL. SYNC	O	Communication SYNC output to the display controller (IC901)
13	DISP. RESET MD. RESET	O	Reset information output to the display controller (IC901) and mechanism controller (IC802)
14	MD. SCLK	O	Clock output to the mechanism controller (IC802)
15	MD. S OUT	O	Information output to the mechanism controller (IC802)
16	MD. S IN	I	Information input from the mechanism controller (IC802)
17	RESET	I	System reset input
18	MPX. $\overline{\text{ON}}$ /OFF	O	MPX ON/OFF switching output
19	POWER. OUT	O	Power off delay output
20	A. VSS	—	GND
21	METER. Lch	I	Meter Lch input
22	METER. Rch	I	Meter Rch input
23	VOL. A/D	I	REC VOL rotation angle detection input
24	KEY2	I	Key input 2
25	KEY1	I	Key input 1
26	AMS. IN	I	AMS signal input
27	QUICK. B	I	Quick sensor signal input: (B deck)
28	QUICK. A	I	Quick sensor signal input: (A deck)
29	A VDD	—	+5V
30	V Ref	—	
31	MD. S REQ	I	Communication REQ signal input from the mechanism controller (IC802)
32	XT2	—	Not used (open)
33	Vss	—	GND
34	X1	—	Clock 4.0 MHz
35	X2	—	Clock 4.0 MHz
36	LEVEL CAL 2	O	Level CAL control 2
37	LEVEL CAL 1		
38	Gp. CAL 2	O	Gp CAL control 2
39	Gp. CAL 1		
40	LEVEL CAL 2	O	Level CAL control 2
41	LEVEL CAL 1		

Pin No.	Pin Name	I/O	Function
42	Gp. CAL 2	O	Gp CAL control 2
43	Gp. CAL 1	O	Gp CAL control 1
44	H.P STB	O	Strobe signal output for writing data to the electronic VOL (IC60)
45	COM. DATA. OUT	O	Information output to the backup (IC810) and electronic VOL (IC60)
46	COM. CLOCK. OUT	O	Clock output to the backup (IC810) and electronic VOL (IC60)
47	POWER IN	I	Power detection input
48	IC	—	GND
49	VOL. UP	O	Rotates REC VOL clockwise
50	VOL. DOWN	O	Rotates REC VOL counterclockwise
51	VOL. SP. H/L	O	REC VOL rotation control output
52	V <sub>DD</sub>	—	+5V
53	BIAS. CAL 4	O	Bias control 4
54	BIAS. CAL 3	O	Bias control 3
55	BIAS. CAL 2	O	Bias control 2
56	BIAS. CAL 1	O	Bias control 1
57	PITCH. CON ON/OFF	O	Pitch control ON/OFF switching output
58	BIAS. ON/OFF	O	Bias ON/OFF switching output
59	RELAY. ON/OFF	O	Relay ON/OFF switching output
60	REC MUTE. ON/OFF	O	REC MUTE ON/OFF switching output
61	BIAS. ON/OFF	O	Bias ON/OFF switching output
62	RELAY. ON/OFF	O	Relay ON/OFF switching output
63	REC. MUTE. ON/OFF	O	REC MUTE ON/OFF switching output
64	PB. MUTE. A/B	O	PB mute A deck/B deck switching output
65	AMS. SEL. A/B	O	AMS A deck/B deck switching output
66	CAL. ON/OFF	O	Auto CAL ON/OFF switching output
67	OSC. H/L	O	CAL oscillation frequency switching output
68	OSC. ON/OFF	O	CAL oscillation ON/OFF switching output
69	LINE. MUTE. ON/OFF	O	Line mute ON/OFF switching output
70	SPEED. H/L	O	Speed H/L switching output
71	V. LOAD	—	-7.5V
72	IN. SEL 2	O	Input signal switching control output 2
73	IN. SEL 1	O	Input signal switching control output 1
74	OUT. SEL	O	Output signal switching output
75	REC/PB	O	REC/PB switching output
76	DOL. S. ON/OFF	O	Dolby S ON/OFF switching output
77	DOL. B/C	O	Dolby B/C switching output
78	DOL. ON/OFF	O	Dolby ON/OFF switching output
79	A. DOL 1	O	Dolby switching control output 1
80	A. DOL 2	O	Dolby switching control output 2

• IC802 MECHANISM CONTROLLER (M38002M2-185FP)

Pin No.	Pin Name	I/O	Function
1	A. CAM. SW2	I	Rotary encoder (S1001-A) detection 2 input
2	A. CAM. SW3	I	Rotary encoder (S1001-A) detection 3 input
3	A. CAM. SW4	I	Rotary encoder (S1001-A) detection 4 input
4	A. FF. TRQ	O	FF torque control output
5	A. PLAY. TRQ	O	PLAY torque control output
6	A. REEL. FF	O	FF reel motor control output
7	A. REEL. REW	O	REW reel motor control output
8	A. ASIST. R	O	ASIST motor control R output
9	A. ASIST. F	O	ASIST motor control F output
10	A. CAM. TRQ	O	CAM torque control output
11	A. PB. 70	O	PB 70 $\mu$ information output
12	S. REQ	O	Communication REQ signal output to the system controller (IC801)
13	S. CLOCK	I	Clock input from the system controller (IC801)
14	S. OUT	O	Information output to the system controller (IC801)
15	S. IN	I	Information input from the system controller (IC801)
16	CAP. SPEED	O	Capstan speed control output
17	CAP. ON/OFF	O	Capstan ON/OFF switching output
18	CN Vss	I	Connected to GND.
19	RES	I	Reset information input from the system controller (IC801)
20	B TYPE II	O	Tape type II information output
21	B TYPE I	O	Tape type I information output
22	XIN	I	} Clock 4.0 MHz
23	XOUT	O	
24	Vss	-	GND
25	B. PB. 70	O	PB 70 $\mu$ information output
26	B. CAM. TRQ	O	CAM torque control output
27	B. ASIST. F	O	ASIST motor control F output
28	B. ASIST. R	O	ASIST motor control R output
29	B. REEL. REW	O	REW reel motor control output
30	B. REEL. FF	O	FF reel motor control output
31	B. PLAY. TRQ	O	PLAY torque control output
32	B. FF. TRQ	O	FF torque control output
33	B. CAM. SW1	I	Rotary encoder (S1001-B) detection 1
34	B. CAM. SW2	I	Rotary encoder (S1001-B) detection 2
35	B. CAM. SW3	I	Rotary encoder (S1001-B) detection 3
36	B. CAM. SW4	I	Rotary encoder (S1001-B) detection 4
37	B. OPEN. SW	I	OPEN switch (S1004-B) detection input
38	B. CLOSE. SW	I	CLOSE switch (S1003-B) detection input
39	B. DOOR. SW	I	DOOR switch (S1002-B) detection input
40	B. FWD. TAB	I	FWD, TAB switch (S1005-B) detection input

(A deck)

(B deck)

(B deck)

Pin No.	Pin Name	I/O	Function
41	B. T REEL. OUT	I	T reel OUT sensor waveform input
42	B. T REEL. IN	I	T reel IN sensor waveform input
43	B. S REEL. OUT	I	S reel OUT sensor waveform input
44	B. S REEL. IN	I	S reel IN sensor waveform input
45	B. HALF	I	Half switch (S1006-B) detection input
46	B. METAL	I	METAL switch (S1007-B) detection input
47	B. 70 $\mu$ . SW	I	70 $\mu$ switch (S1008-B) detection input
48	B. REV. TAB	I	REV. TAB switch (S1009-B) detection input
49	A. REV. TAB	I	REV. TAB switch (S1006-A) detection input
50	A. 70 $\mu$ . SW	I	70 $\mu$ switch (S1008-A) detection input
51	A. METAL. SW	I	METAL switch (S1007-A) detection input
52	A. HALF. SW	I	HALF switch (S1006-A) detection input
53	A. S. REEL IN	I	S reel IN sensor waveform input
54	A. S. REEL OUT	I	S reel OUT sensor waveform input
55	A. T. REEL IN	I	T reel IN sensor waveform input
56	A. T. REEL OUT	I	T reel OUT sensor waveform input
57	Vcc	—	+5V power supply
58	A TYPE I	O	Tape type I information output
59	A TYPE II	O	Tape type II information output
60	A. FWD. TAB	I	FWD. TAB switch (S1005-A) detection input
61	A. DOOR. SW	I	DOOR switch (S1002-A) detection input
62	A. CLOSE. SW	I	CLOSE switch (S1003-A) detection input
63	A. OPEN. SW	I	OPEN switch (S1004-A) detection input
64	A. CAM. SW1	I	Rotary encoder (S1001-A) detection I input

(B deck)

(A deck)

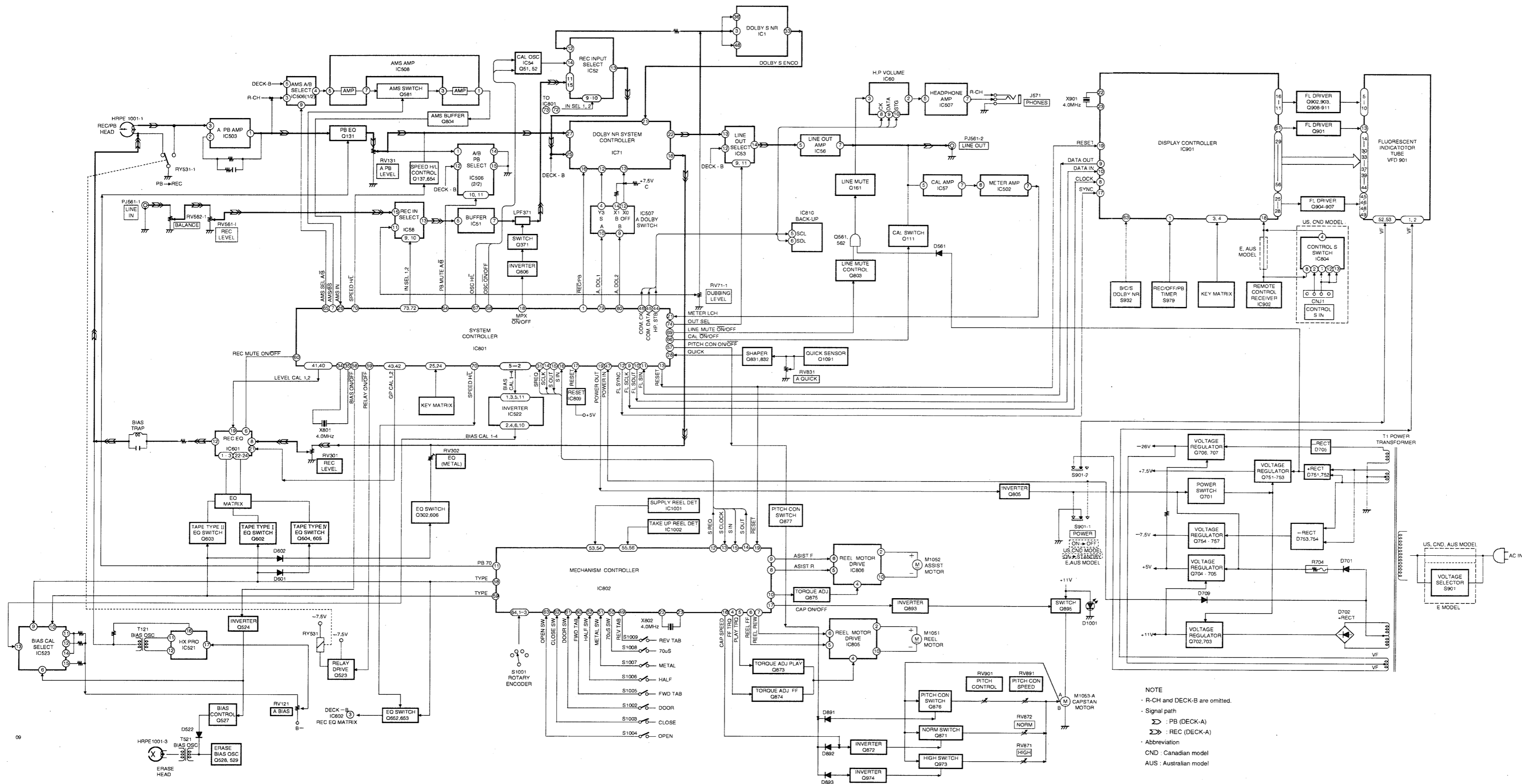
(A deck)



• IC901 DISPLAY CONTROLLER (M38122M2-103FP)

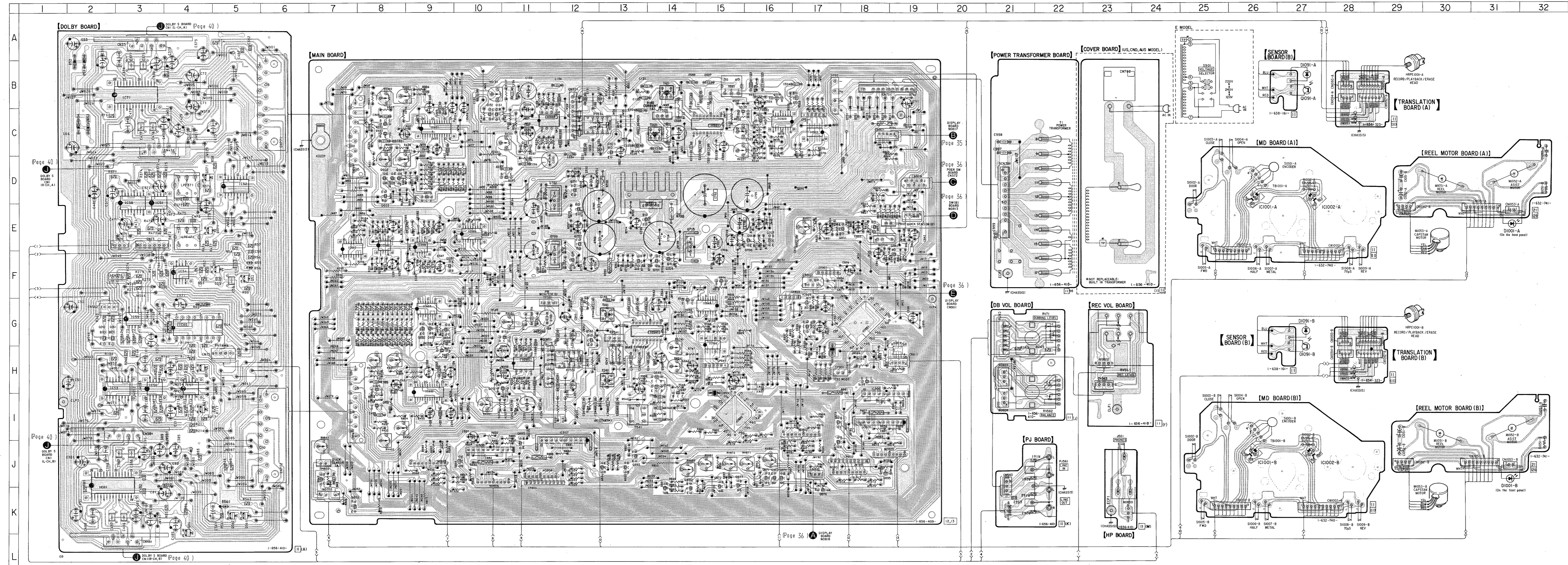
Pin No.	Pin Name	I/O	Function
1	KEY3	I	Key input 3
2	KEY2	I	Key input 2
3	KEY1	I	Key input 1
4	KEY0	I	Key input 0
5		—	} Open
6		—	
7		—	GND
8	CLOCK	I	Clock input from the system controller (IC801)
9	DATA. OUT	O	Information output to the system controller (IC801)
10	DATA. IN	I	Information input from the system controller (IC801)
11	G6	O	FL display grid control G6 output
12	G5	O	FL display grid control G5 output
13	G4	O	FL display grid control G4 output
14	G3	O	FL display grid control G3 output
15	G2	O	FL display grid control G2 output
16	G1	O	FL display grid control G1 output
17	SYNC	O	Communication SYNC output to the system controller (IC801)
18	SIRCS	I	CIRC input from the remote commander reception (IC902)
19	RESET	I	Reset information input from the system controller (IC801)
20	XCIN	I	Not used (connected to GND).
21	XCOU	O	Not used (open).
22	XIN	I	} Clock (4.0MHz)
23	XOUT	O	
24	Vss	—	GND
25 to 56	P1 to P32	O	FL display segment control output P1 to P32
57	Vcc	—	+5V power supply
58	V. DISP	—	-25V power supply
59	A Vss	—	Connected to GND.
60	V REF	—	Connected to +5V.
61	P33		FL display segment control output P33
62			Connected to GND.
63		I	Connected to GND.
64	KEY4	I	Key input 4

4-3. BLOCK DIAGRAM



NOTE  
 · R-CH and DECK-B are omitted.  
 · Signal path  
 >>> : PB (DECK-A)  
 >>> : REC (DECK-A)  
 · Abbreviation  
 CND : Canadian model  
 AUS : Australian model

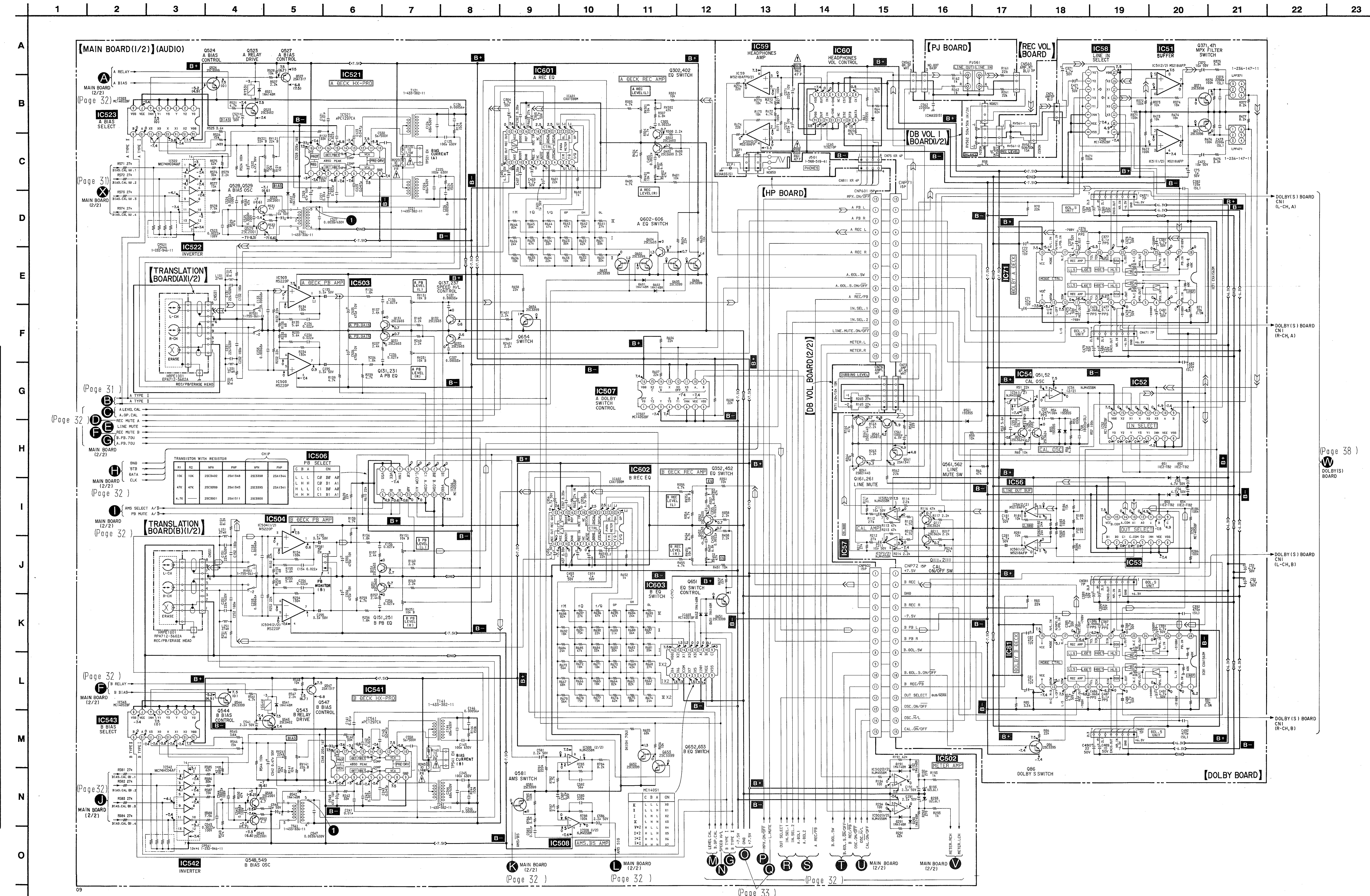
4-4. PRINTED WIRING BOARD — MAIN, PANEL, DECK BLOCK —  
 • See page 12 for Circuit Boards Location.



**Note:**

- — parts extracted from the component side.
- — parts extracted from the conductor side.
- — parts extracted from the conductor side.
- — Pattern from the side which enable seeing.

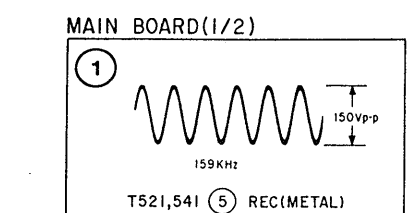
Abbreviation  
 CND : Canadian model.  
 AUS : Australian model.



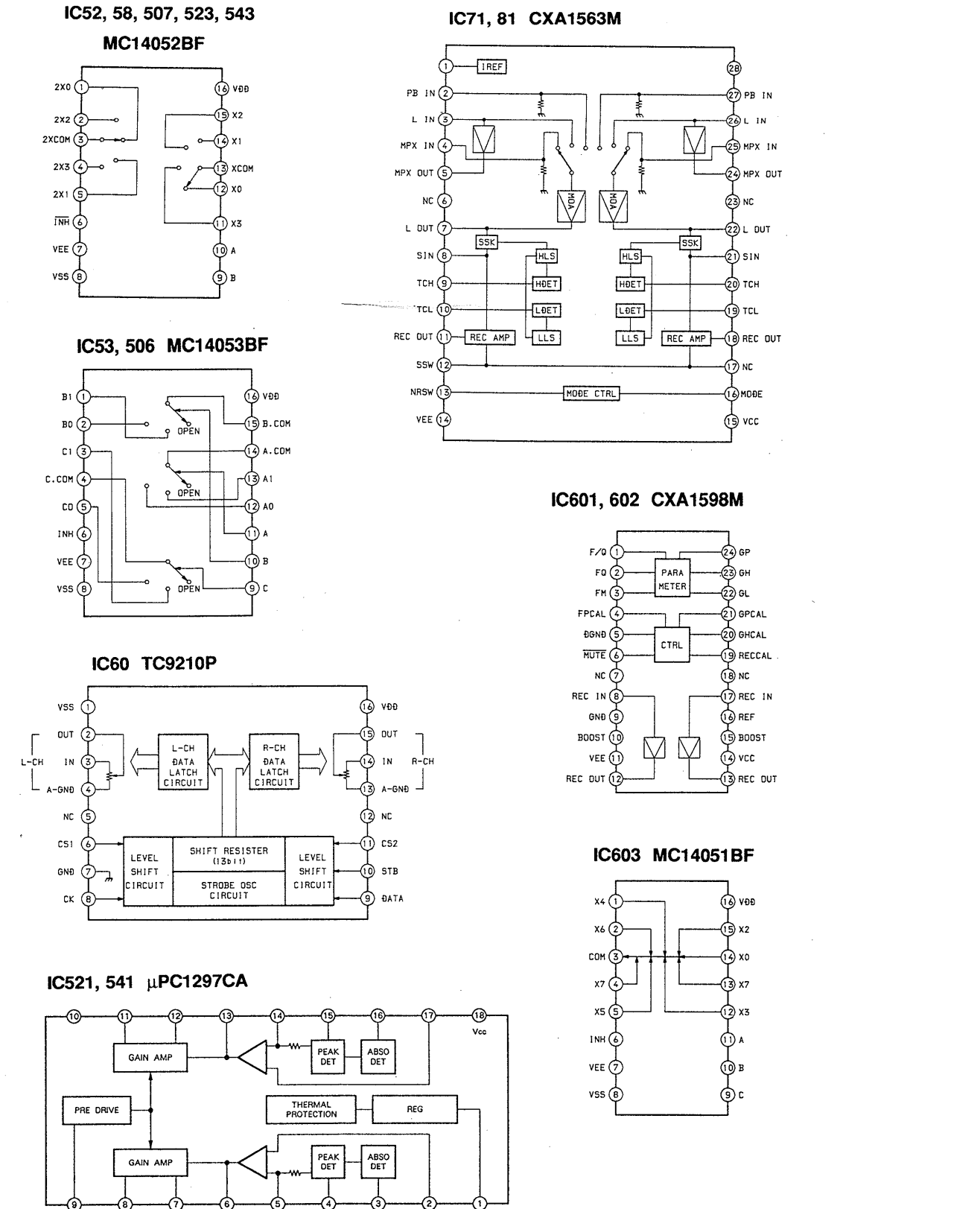
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D51	B-2	IC71	B-3	Q603	D-8
D52	B-2	IC81	J-2	Q604	D-8
D53	C-2	IC502	E-8	Q605	D-8
D54	C-2	IC503	C-11	Q606	D-9
D55	F-5	IC504	H-11	Q651	H-9
D56	F-5	IC506	E-10	Q652	C-9
D61	G-5	IC507	E-7	Q653	C-9
D191	E-8	IC508	E-9	Q654	C-9
D192	E-8	IC521	C-15	Q701	F-14
D193	E-8	IC522	C-17	Q702	D-14
D291	F-8	IC523	C-16	Q703	E-13
D292	F-8	IC541	G-13	Q704	F-14
D293	F-8	IC542	G-15	Q705	E-14
D521	C-13	IC543	G-15	Q706	E-16
D522	B-15	IC601	C-9	Q707	E-12
D541	G-12	IC602	H-9	Q751	D-12
D542	I-13	IC603	G-9	Q752	D-12
D561	K-5	IC801	G-18	Q753	E-12
D601	D-9	IC802	I-15	Q754	F-12
D602	D-8	IC805	I-18	Q755	F-12
D651	G-10	IC806	H-18	Q756	F-13
D652	G-10	IC807	I-12	Q757	E-12
D701	B-19	IC808	J-10	Q803	G-7
D702	B-17	IC809	G-17	Q804	E-17
D703	F-14	IC810	H-19	Q806	F-15
D704	E-13	IC1001-A	D-26	Q831	E-18
D705	B-18	IC1001-B	J-26	Q832	E-18
D706	F-15	IC1002-A	D-27	Q841	F-19
D707	E-16	IC1002-B	J-27	Q842	J-7
D708	E-16			Q871	J-16
D709	C-19	Q51	F-5	Q872	J-15
D710	F-15	Q52	F-5	Q873	I-17
D751	B-18	Q86	K-4	Q874	J-18
D752	B-18	Q111	H-4	Q875	H-18
D753	B-18	Q131	C-10	Q876	K-17
D754	B-18	Q132	C-10	Q877	J-14
D755	F-13	Q151	G-11	Q881	J-14
D756	F-13	Q161	G-2	Q882	J-14
D757	E-12	Q211	I-4	Q883	J-13
D758	F-13	Q231	C-11	Q884	J-13
D759	D-12	Q232	D-11	Q885	J-11
D801	H-17	Q251	H-10	Q893	J-13
D802	F-10	Q261	G-2	Q894	J-10
D831	E-18	Q302	C-9	Q895	C-9
D841	E-19	Q352	H-8	Q973	J-16
D851	J-13	Q371	D-4	Q974	J-16
D891	J-15	Q402	C-8	Q1091-A	B-27
D892	J-15	Q452	H-9	Q1091-B	H-27
D893	J-16	Q471	E-4		
D1001-A	E-31	Q523	C-13		
D1001-B	J-31	Q524	C-16		
D1091-A	B-27	Q527	C-15		
D1091-B	G-27	Q528	B-16		
		Q529	B-17		
IC51	D-3	Q543	G-12		
IC52	D-5	Q544	G-14		
IC53	H-2	Q547	H-14		
IC54	F-4	Q548	H-14		
IC56	H-4	Q549	H-14		
IC57	H-3	Q561	K-5		
IC58	D-3	Q562	K-5		
IC59	G-3	Q581	D-9		
IC60	G-4	Q602	F-8		

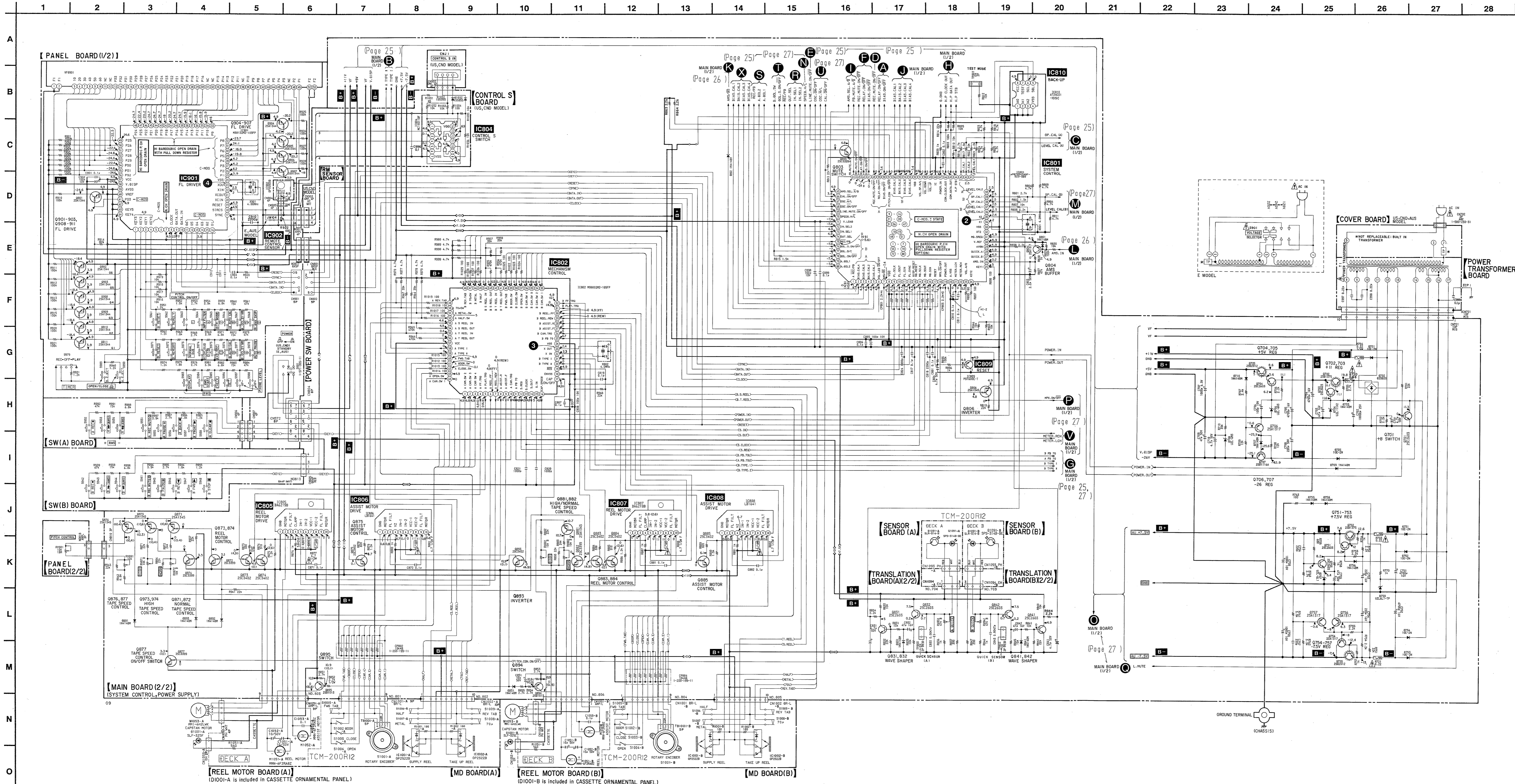
• Waveform



• IC Block Diagrams

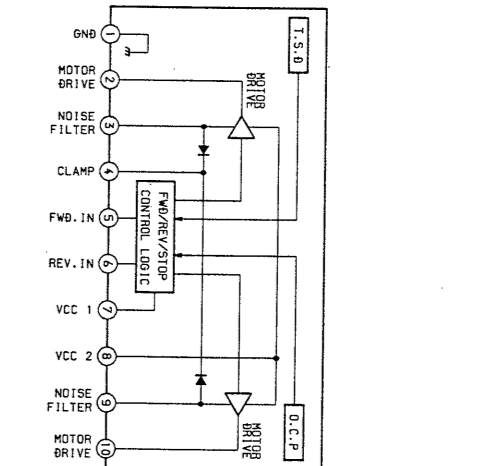


- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF} = \mu\text{F} \times 10^{-6}$  or  $\text{pF} = \mu\text{F} \times 10^{-9}$ .
  - All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
  - $\Delta$ : internal component.
  - $\square$ : nonflammable resistor.
  - $\square$ : fusible resistor.
  - $\square$ : panel designation.
- Note:**
- Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
- B+**: B+ Line
  - B-**: B- Line
  - $\square$ : adjustment for repair.
  - Voltage and waveforms are dc with respect to ground under no-signal conditions.
  - no mark : STOP
  - ( ) : REC
  - Voltagés are taken with a VOM (Input impedance 10M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
  - Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
  - Circled numbers refer to waveforms.
  - Signal path.
  - $\square$ : PB (DECK A)
  - $\square$ : PB (DECK B)
  - $\square$ : REC (DECK A)
  - $\square$ : REC (DECK B)

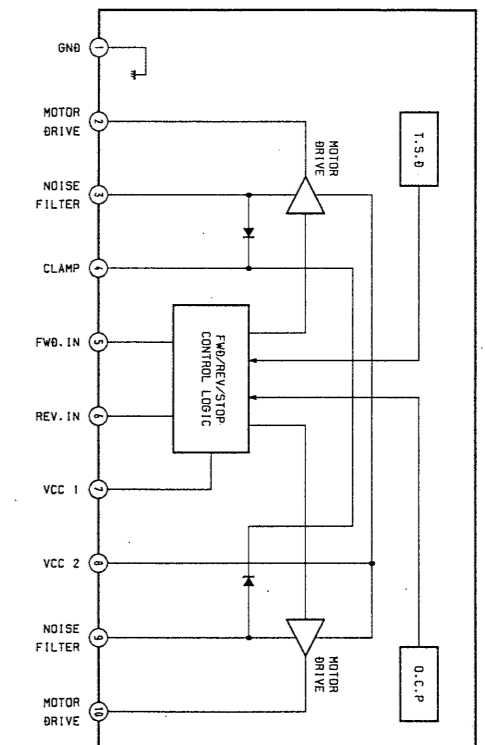


• IC Block Diagrams

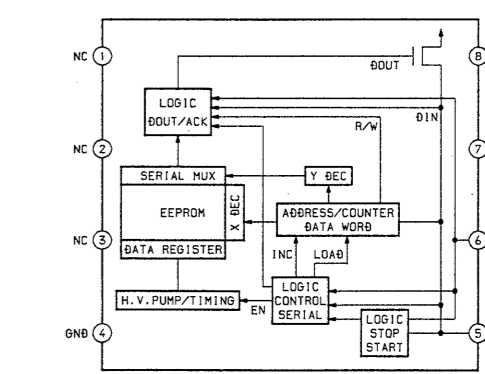
IC805, 808 LB1641



IC805, 807 BA6219B

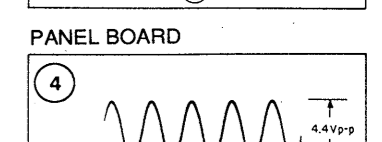
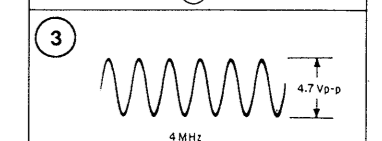
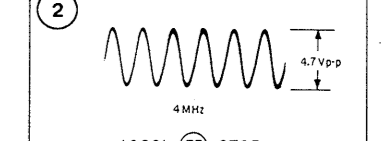


IC810 ATC2401-10SC



• Waveforms

MAIN BOARD (2/2)



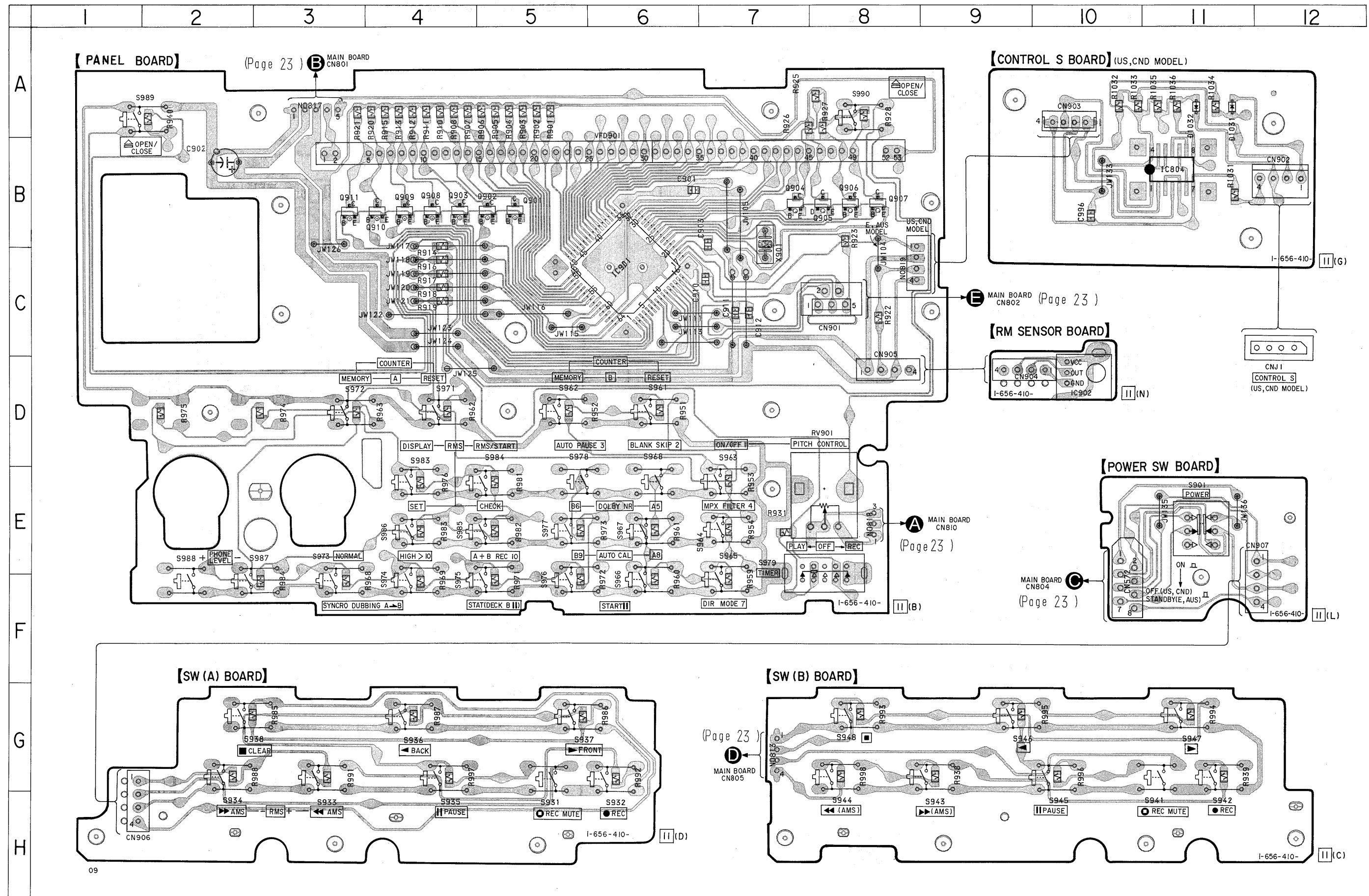
**Note:**  
 • All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  tantalums.  
 • All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.  
 •  $\Delta$ : internal component.  
 •  $\square$ : fusible resistor.  
 •  $\square$ : panel designation.

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

**Note:**  
 Les composants identifiés par une marque  $\Delta$  ou  $\square$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

•  $\square$ : B+ Line  
 •  $\square$ : B- Line  
 •  $\square$ : adjustment for repair.  
 • Voltage and waveforms are dc with respect to ground under no-signal conditions.  
 • ( ) : REC  
 • < : > : PB  
 • Voltages are taken with a VOM (Input impedance  $10\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.  
 • Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.  
 • Circled numbers refer to waveforms.  
 • Abbreviation  
 CND : Canadian model.  
 AUS : Australian model.

4-7. PRINTED WIRING BOARD — PANEL BLOCK — (SW, DISPLAY)  
 • See page 12 for Circuit Boards Location.



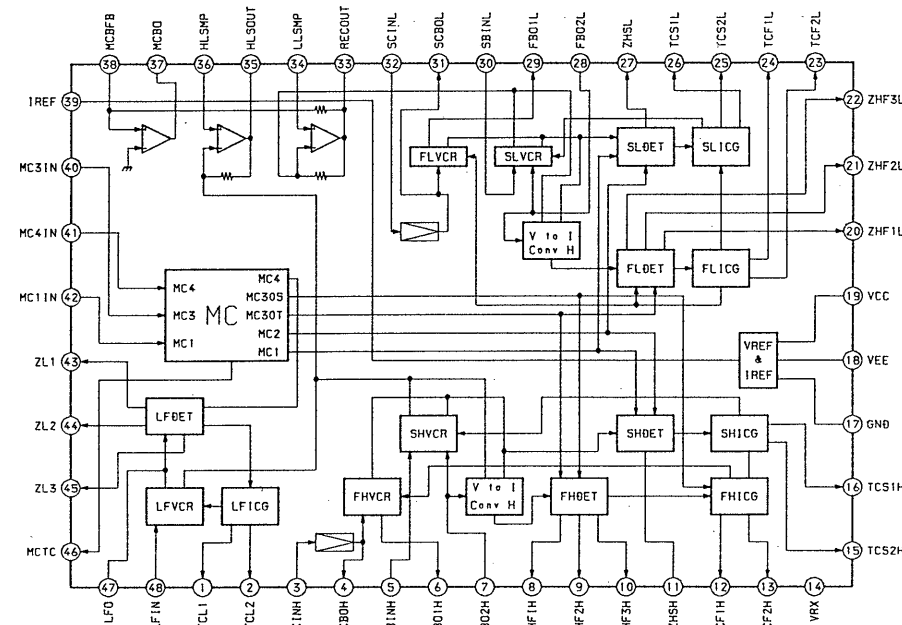
• Semiconductor Location

Ref. No.	Location
D1031	A-11
D1032	A-11
IC804	B-11
IC901	C-6
IC902	D-10
Q901	B-5
Q902	B-5
Q903	B-4
Q904	B-7
Q905	B-8
Q906	B-8
Q907	B-8
Q908	B-4
Q909	B-4
Q910	B-4
Q911	B-3

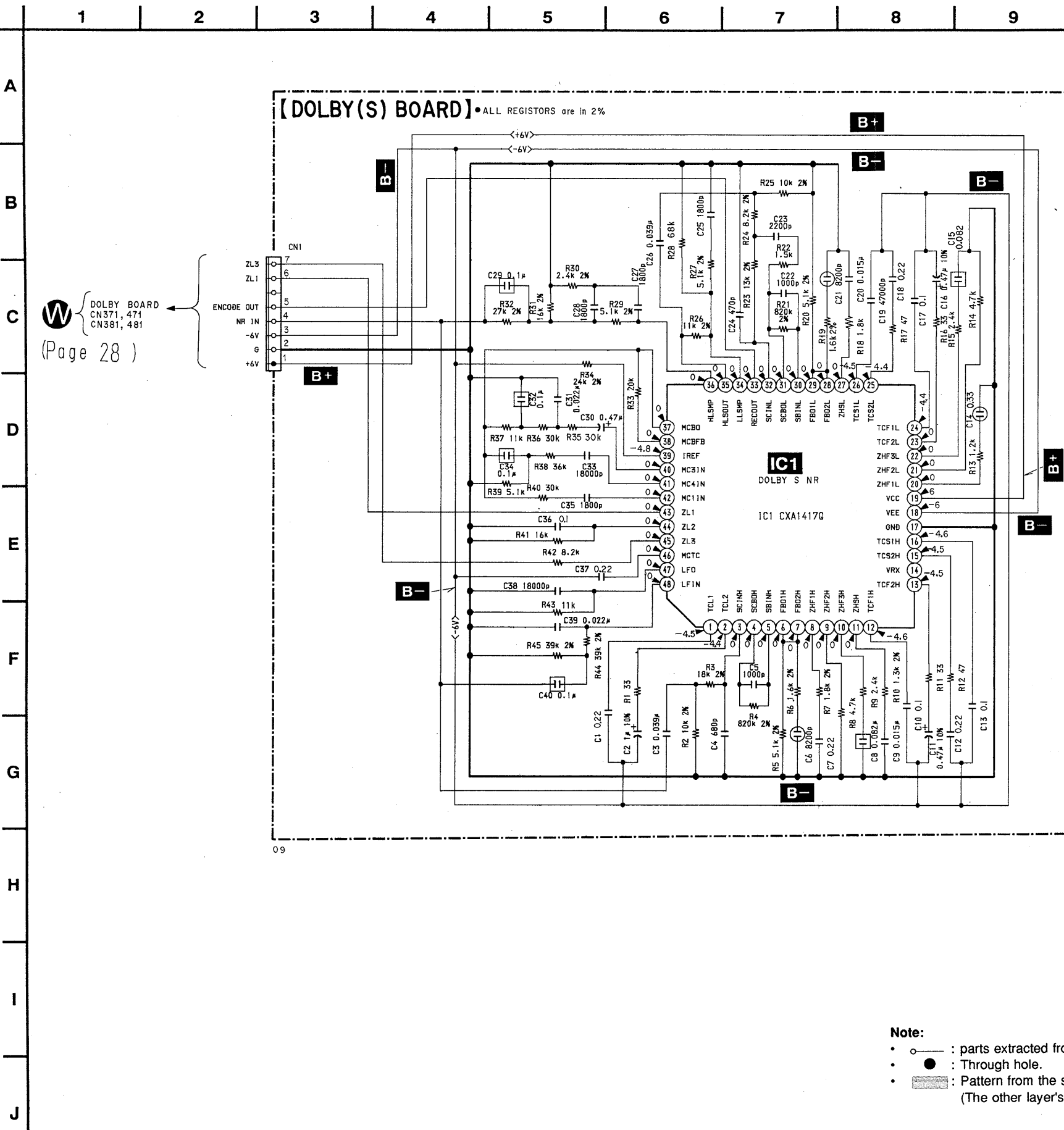
**Note:**  
 • ○ : parts extracted from the component side.  
 • ● : parts extracted from the conductor side.  
 • ▨ : Pattern from the side which enable seeing.  
 • Abbreviation  
 CND : Canadian model.  
 AUS : Australian model.

• IC Block Diagram

IC1 CXA1417Q



4-8. SCHEMATIC DIAGRAM — DOLBY S BLOCK —



**W** DOLBY BOARD  
CN371, 471  
CN381, 481  
(Page 28)

• Semiconductor Location

Ref. No.	Location
IC1	B-2

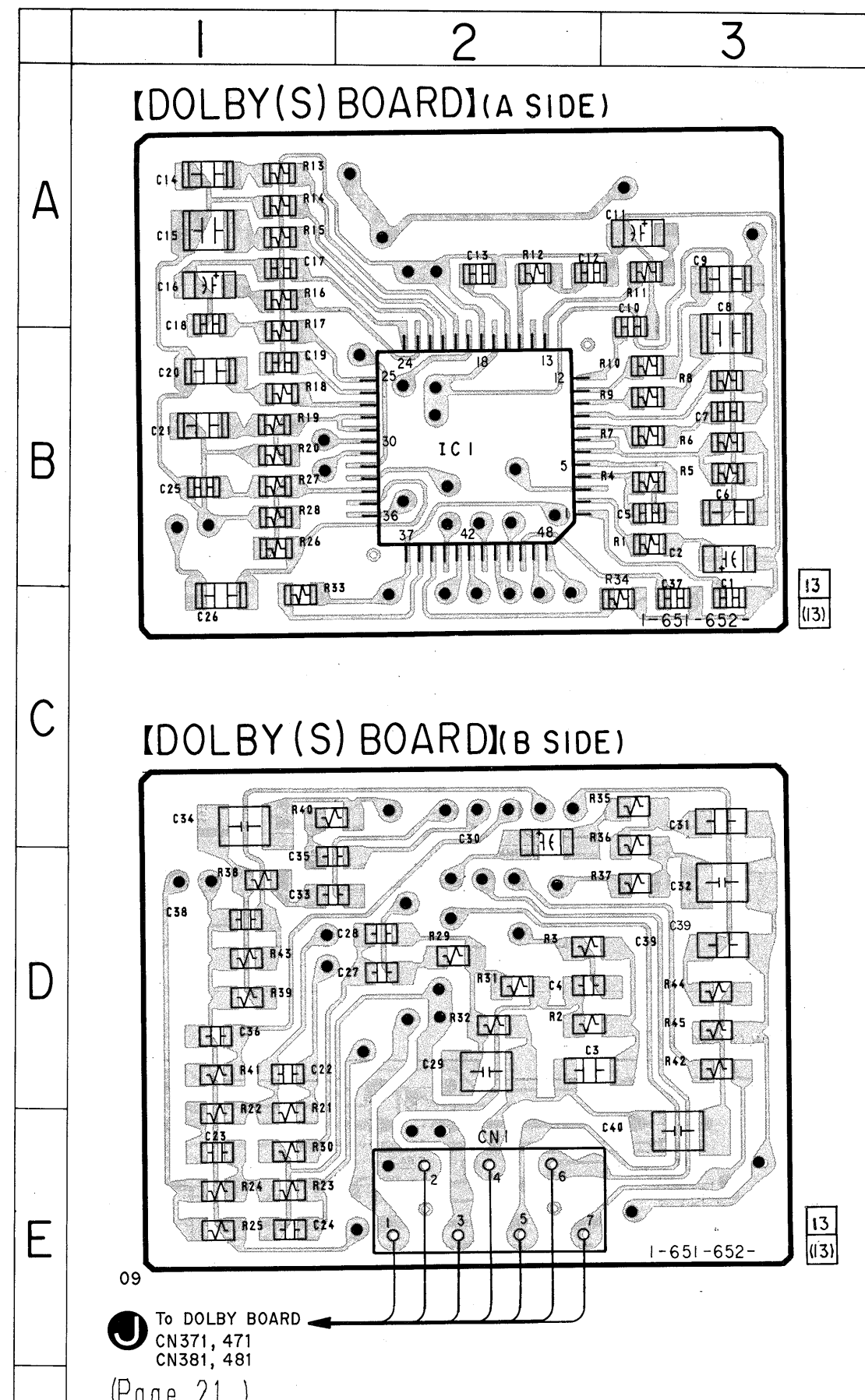
**Note:**

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

**Note:**

- : parts extracted from the component side.
- : Through hole.
- ▨ : Pattern from the side which enable seeing. (The other layer's patterns are not indicated.)

4-9. PRINTED WIRING BOARD — DOLBY S BLOCK —  
• See page 12 for Circuit Boards Location.



**W** To DOLBY BOARD  
CN371, 471  
CN381, 481  
(Page 21)

## SECTION 5 EXPLODED VIEWS

**NOTE:**

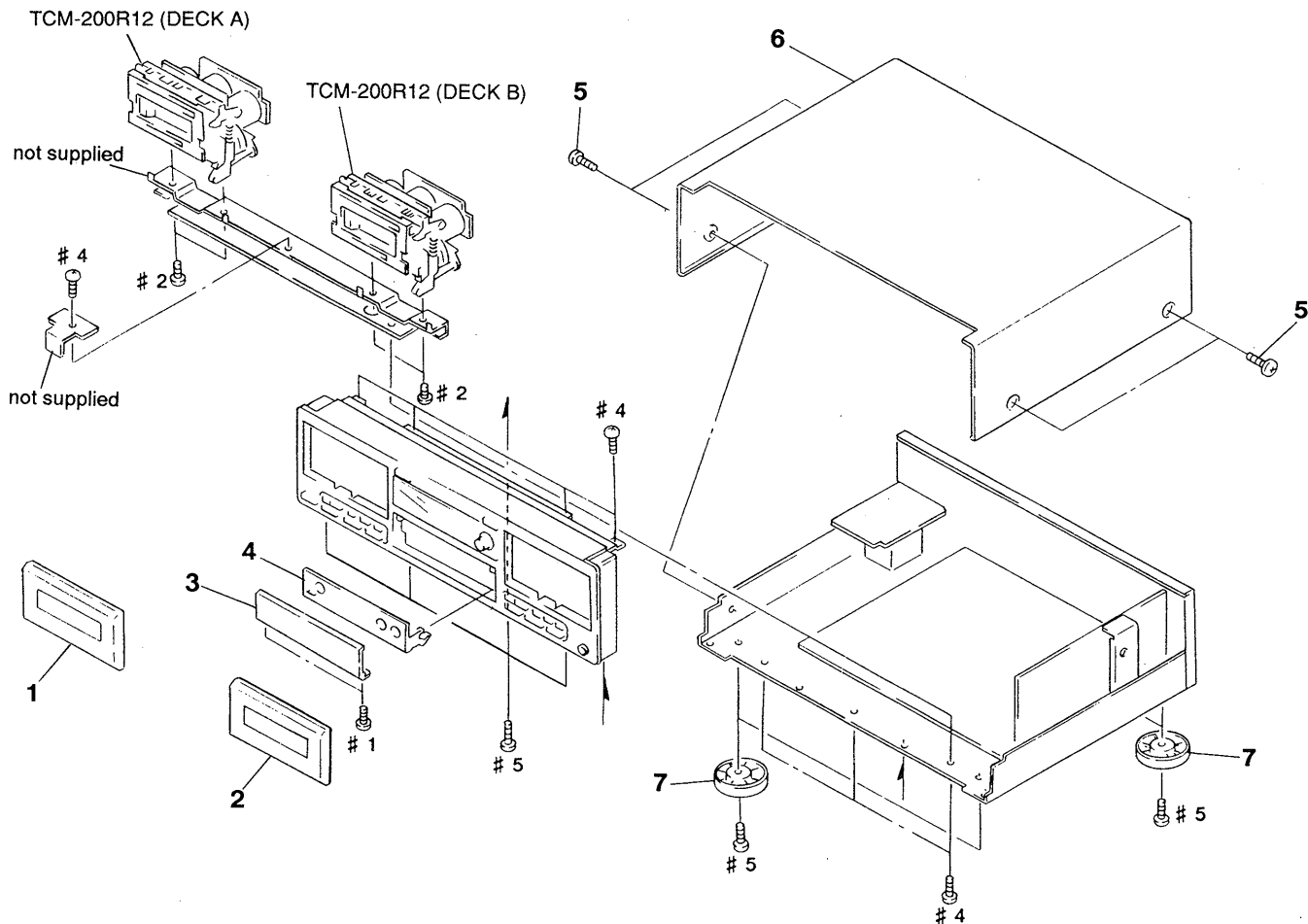
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation  
 CND : Canadian model  
 AUS : Australian model

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

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

### 5-1. CASE SECTION

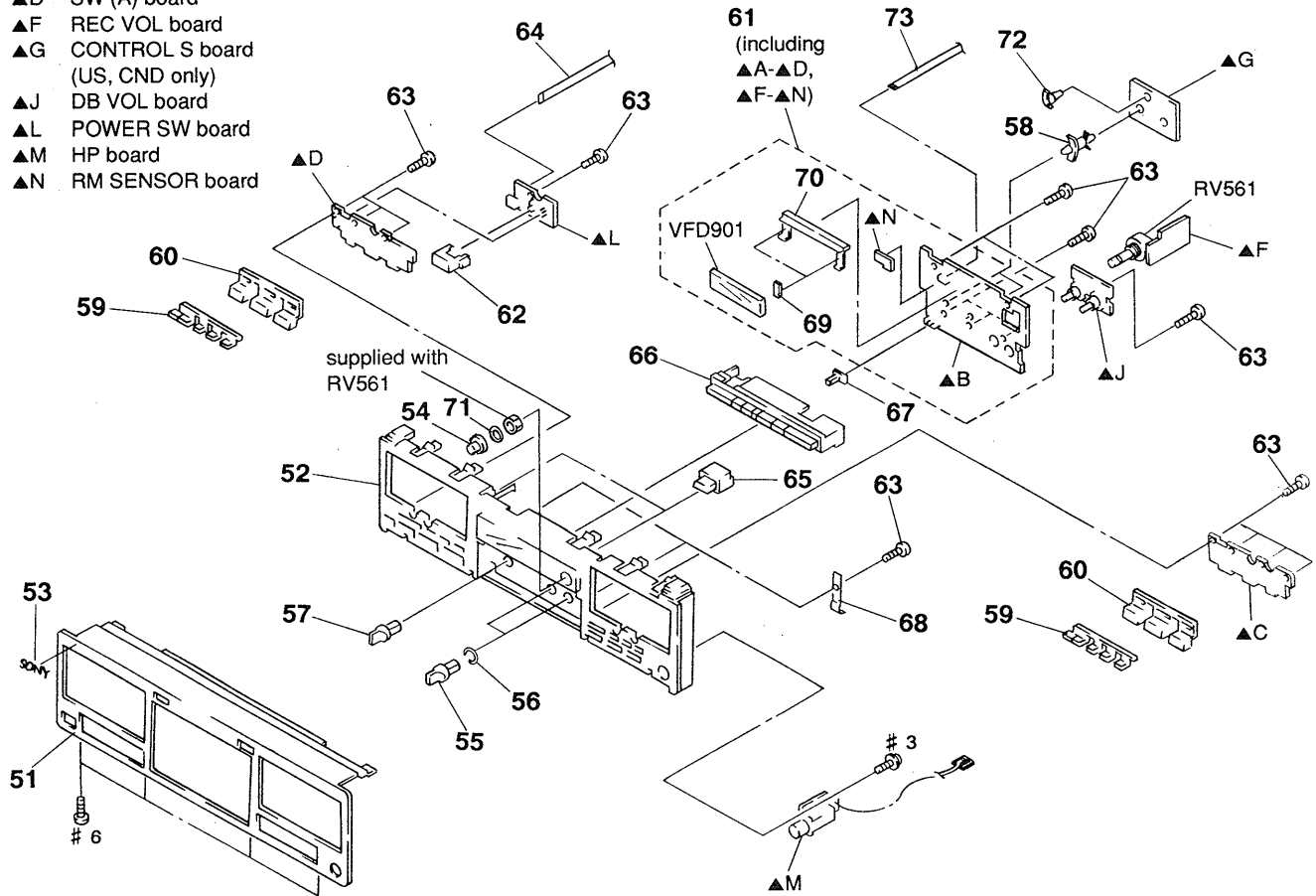


Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
1	X-3370-118-1	LID (A) ASSY, CASSETTE		6	3-919-386-21	CASE	
2	X-3370-119-1	LID (B) ASSY, CASSETTE		7	4-956-885-01	FOOT (F58175S2W) (US, CND)	
3	3-923-143-01	PLATE, ORNAMENTAL		7	4-956-885-11	FOOT (F58175S2W) (E, AUS)	
4	3-923-144-01	PLATE (BASE), ORNAMENTAL					
5	3-704-366-01	SCREW (CASE) (M3X8)					



## 5-2. FRONT PANEL SECTION

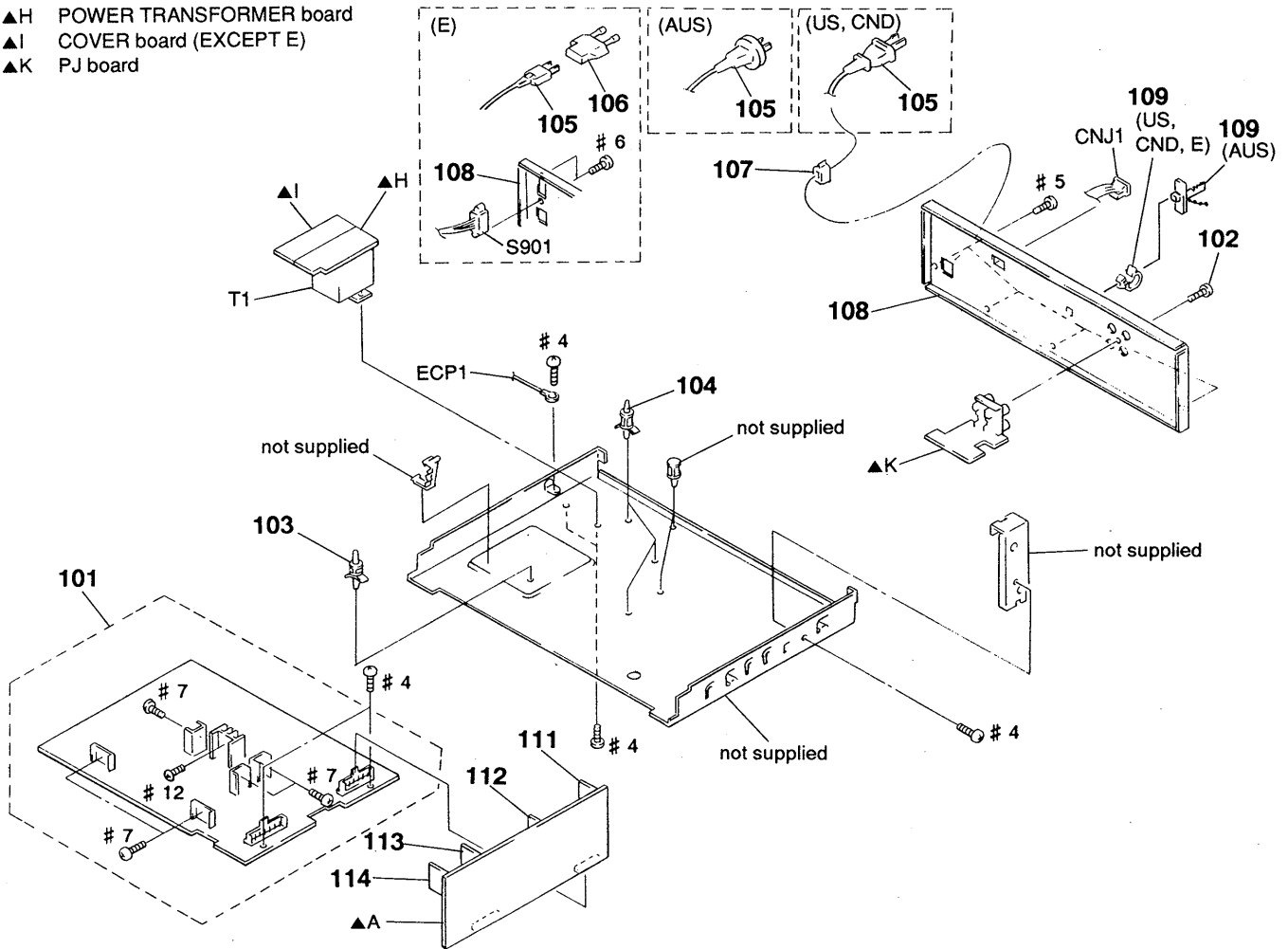
- ▲B PANEL board
- ▲C SW (B) board
- ▲D SW (A) board
- ▲F REC VOL board
- ▲G CONTROL S board (US, CND only)
- ▲J DB VOL board
- ▲L POWER SW board
- ▲M HP board
- ▲N RM SENSOR board



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-923-145-01	PANEL, FRONT (US, CND)		63	4-951-620-01	SCREW (2.6X8), +BVTP	
51	3-923-145-11	PANEL, FRONT (E, AUS)		64	1-575-674-11	WIRE, FLAT TYPE (8 CORE)	
52	X-3370-120-1	PANEL (BASE) ASSY		65	3-923-140-01	BUTTON (EJECT)	
53	4-942-568-01	EMBLEM (NO. 5), SONY		66	3-923-146-01	BUTTON (COUNTER)	
54	3-909-661-11	KNOB (REC)		67	4-924-444-01	KNOB (TIMER)	
55	3-350-495-01	KNOB (VOL)		68	3-378-283-01	SPRING (M)	
56	3-356-957-01	SPRING		69	9-911-844-XX	CUSHION	
57	3-380-950-01	KNOB (VOL)		* 70	3-385-607-01	HOLDER, FL TUBE	
* 58	3-350-846-21	HOLDER, PCB (US, CND)		71	3-350-426-02	SPRING	
59	3-923-133-01	BUTTON (F-R)		* 72	3-704-198-11	SUPPORT, PC (US, CND)	
60	3-923-134-01	BUTTON (S-P)		73	1-575-663-31	WIRE, FLAT TYPE (5 CORE)	
* 61	A-2007-406-A	PANEL BOARD, COMPLETE (US, CND)		RV561	1-223-867-11	RES, VAR, CARBON 50K/50K	
* 61	A-2007-407-A	PANEL BOARD, COMPLETE (E)		VFD901	1-517-415-11	INDICATOR TUBE, FLUORESCENT	
* 61	A-2007-408-A	PANEL BOARD, COMPLETE (AUS)					
62	3-354-932-01	BUTTON (POWER)					

### 5-3. CHASSIS SECTION

- ▲A DOLBY board
- ▲H POWER TRANSFORMER board
- ▲I COVER board (EXCEPT E)
- ▲K PJ board

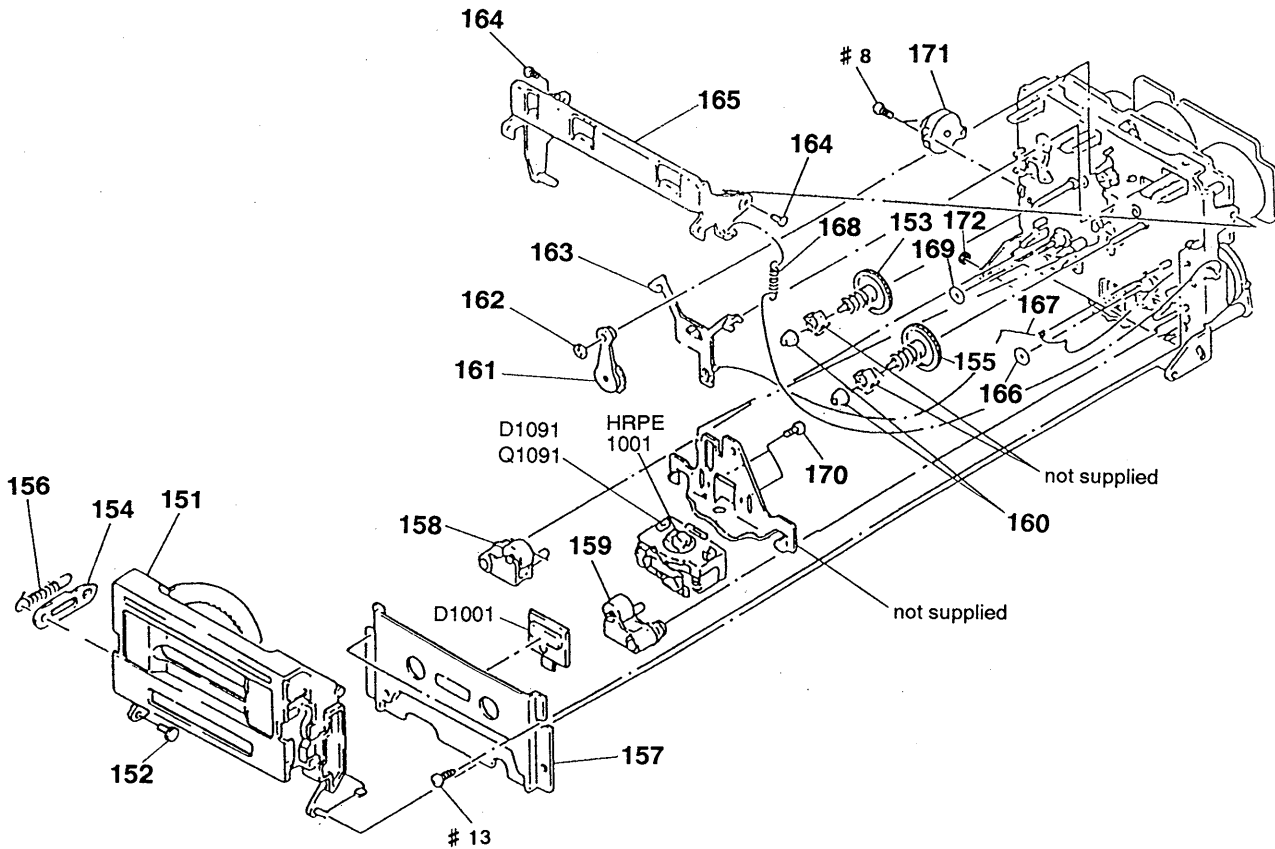


The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\triangle$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	A-2007-405-A	MAIN BOARD, COMPLETE		* 109	4-949-235-01	HOOK (US, CND, E)	
* 102	3-704-515-01	SCREW (BV/RING)		109	4-956-370-02	BAND, PLUG FIXED (AUS)	
* 103	4-924-098-11	HOLDER, PC BOARD		* 111	A-2007-173-A	DOLBY (S) BOARD, COMPLETE (L-CH DECK-A)	
* 104	3-346-265-11	HOLDER, PC BOARD		* 112	A-2007-173-A	DOLBY (S) BOARD, COMPLETE (R-CH DECK-A)	
$\triangle$ 105	1-551-188-XX	CORD, POWER (E)		* 113	A-2007-173-A	DOLBY (S) BOARD, COMPLETE (L-CH DECK-B)	
$\triangle$ 105	1-590-836-11	CORD, POWER (US, CND)		* 114	A-2007-173-A	DOLBY (S) BOARD, COMPLETE (R-CH DECK-B)	
$\triangle$ 105	1-696-845-11	CORD, POWER (AUS)		* CNJ1	1-558-350-21	CORD (WITH CONNECTOR) (CONTROL S IN)	(US, CND)
$\triangle$ 106	1-569-007-11	ADAPTER, CONVERSION 2P (E)		ECP1	1-765-469-11	LEAD (WITH CONNECTOR)	
* 107	3-703-244-00	BUSHING (2104), CORD (US, CND, AUS)		$\triangle$ S901	1-570-307-11	SELECTOR, POWER VOLTAGE (E)	
* 107	3-703-571-11	BUSHING (S) (4516), CORD (E)		$\triangle$ T1	1-427-923-11	TRANSFORMER, POWER (AUS)	
* 108	3-923-147-01	PANEL, BACK (US, CND)		$\triangle$ T1	1-427-924-11	TRANSFORMER, POWER (US, CND)	
* 108	3-923-147-11	PANEL, BACK (E)		$\triangle$ T1	1-427-925-11	TRANSFORMER, POWER (E)	
* 108	3-923-147-21	PANEL, BACK (AUS)					

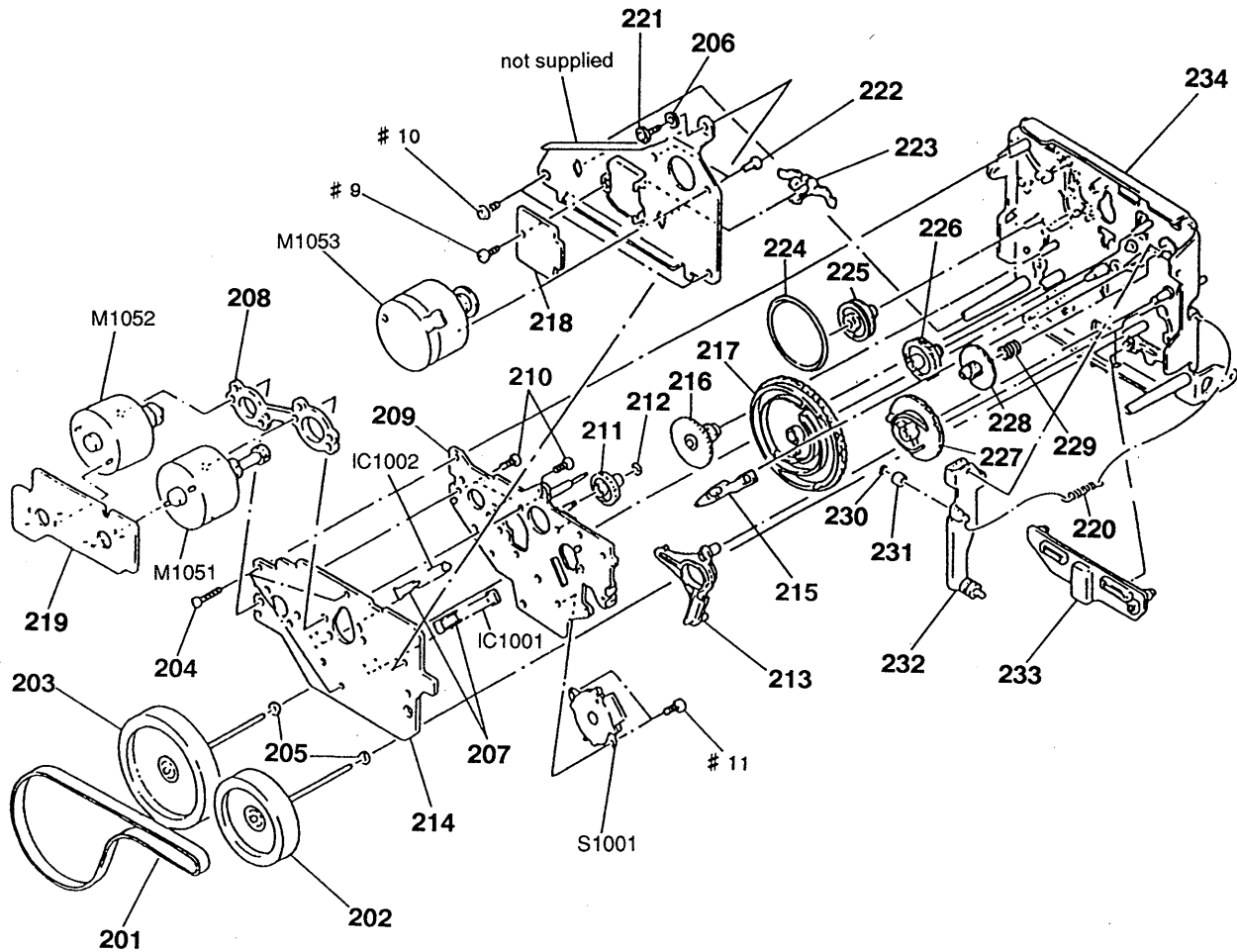
5-4. MECHANISM DECK SECTION-1  
(TCM-200R12)



Ref. No.	Part No.	Description
151	X-3365-299-1	HOLDER (CD-C) ASSY, CASSETTE
152	3-378-341-01	SHAFT (L) (CASSETTE HOLDER)
153	X-3356-628-1	GEAR (S) ASSY
* 154	3-356-717-01	LEVER (JOINT)
155	X-3356-627-1	GEAR (T) ASSY
156	3-356-626-01	SPRING, TENSION
157	X-3356-613-1	PLATE ASSY, ORNAMENTAL
158	X-3343-456-1	LEVER (PINCH R) ASSY
159	X-3343-455-1	LEVER (PINCH F) ASSY
160	3-362-308-01	CAP (REEL)
161	X-3356-641-1	LEVER (FR2) ASSY
162	3-669-465-11	WASHER (1.5), STOPPER
163	3-356-614-01	SLIDER (BRAKE)
164	3-356-601-11	SCREW, STEP

Ref. No.	Part No.	Description	Remark
* 165	X-3356-608-1	LEVER (LIFTER) ASSY	
166	3-356-713-01	WASHER	
167	3-356-619-01	SPRING (B), TORSION	
168	3-356-625-01	SPRING, TENSION	
169	3-356-714-01	WASHER	
170	3-388-848-01	SCREW (P2X6) (B TIGHT)	
171	3-712-786-01	DAMPER, OIL	
172	3-558-708-21	WASHER, STOPPER	
D1001	8-719-980-85	DIODE SLF-325C	
D1091	8-719-950-74	LED SLR314D-B	
HRPE1001A-2003-722-A		DECK ASSY, HEAD (REC/PB/ERASE)	
Q1091	8-729-809-43	TRANSISTOR SPS-314B-BE	

**5-5. MECHANISM DECK SECTION-2  
(TCM-200R12)**



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
201	3-356-604-01	BELT (CAPSTAN)		221	3-356-707-01	SCREW (+PTPWH 2X25)	
202	X-3356-642-1	FLYWHEEL (R FWD) ASSY		222	4-885-599-00	SCREW, FITTING, REINFORCEMENT	
203	X-3356-643-1	FLYWHEEL (R REV) ASSY		223	3-575-321-00	RETAINER, THRUST, CAPSTAN	
204	3-355-801-01	SCREW (BTP 2X18)		224	3-356-603-01	BELT (MODE)	
205	3-356-705-01	WASHER (CAPSTAN)		225	3-356-607-01	PULLEY (MODE)	
* 206	3-356-718-01	SPACER (THRUST RETAINER R)		226	3-356-703-01	GEAR (COMMUNICATION C)	
207	3-356-631-01	HOLDER (SENSOR)		227	3-356-616-01	GEAR (LOADING CAM)	
* 208	3-356-628-01	SPACER (MOTOR)		228	3-356-609-01	GEAR (LOADING)	
* 209	X-3356-602-1	BRACKET (MOTOR R) ASSY		229	3-356-605-01	SPRING, COMPRESSION	
210	3-363-804-01	SCREW (+P 2.6X6.5)		230	3-558-708-11	WASHER, STOPPER	
211	3-356-702-01	GEAR (COMMUNICATION B)		231	3-356-630-01	ROLLER (LOADING)	
212	3-669-465-01	WASHER (I.5), STOPPER		* 232	X-3356-606-1	LEVER (LOADING) ASSY	
213	3-356-613-01	LEVER (MODE)		233	3-356-612-01	SLIDER (REVERSE)	
* 214	1-632-740-11	MD BOARD		234	X-3356-634-1	CHASSIS (R2) COMPLETE ASSY, MECH	
215	3-356-617-01	LEVER (SELECTION)		IC1001	8-749-920-97	PHOTO REFLECTOR GP2S22B	
216	3-356-606-01	GEAR (MODE)		IC1002	8-749-920-97	PHOTO REFLECTOR GP2S22B	
217	3-356-615-01	GEAR (MODE CAM RR)		M1051	X-3356-638-1	MOTOR (REEL R) ASSY	
* 218	1-634-323-11	TRANSLATION BOARD		M1052	X-3356-604-1	MOTOR (ASSIST) ASSY	
* 219	1-632-741-21	REEL MOTOR BOARD		M1053	X-3356-605-1	MOTOR (CAPSTAN R) ASSY	
220	3-356-624-01	SPRING, TENSION		S1001	1-466-525-11	ENCODER, ROTARY	

# DOLBY (S)

## SECTION 6 ELECTRICAL PARTS LIST

**NOTE:**

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

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

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

- 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.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS  
All resistors are in ohms  
METAL: Metal-film resistor  
METAL OXIDE: Metal Oxide-film resistor  
F: nonflammable

- 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
- Abbreviation  
CND : Canadian model  
AUS : Australian model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-2007-173-A	DOLBY (S) BOARD, COMPLETE (L-CH DECK-A) *****		C31	1-104-555-11	FILM CHIP 0.022uF 5%	16V
				C32	1-104-563-11	FILM CHIP 0.1uF 5%	16V
*	A-2007-173-A	DOLBY (S) BOARD, COMPLETE (L-CH DECK-B) *****		C33	1-163-024-00	CERAMIC CHIP 0.018uF 10%	50V
				C34	1-104-563-11	FILM CHIP 0.1uF 5%	16V
*	A-2007-173-A	DOLBY (S) BOARD, COMPLETE (R-CH DECK-A) *****		C35	1-163-012-00	CERAMIC CHIP 0.0018uF 10%	50V
				C36	1-165-319-11	CERAMIC CHIP 0.1uF	50V
*	A-2007-173-A	DOLBY (S) BOARD, COMPLETE (R-CH DECK-B) *****		C37	1-164-222-11	CERAMIC CHIP 0.22uF	25V
				C38	1-163-024-00	CERAMIC CHIP 0.018uF 10%	50V
				C39	1-104-555-11	FILM CHIP 0.022uF 5%	16V
				C40	1-104-563-11	FILM CHIP 0.1uF 5%	16V
< CAPACITOR >				< CONNECTOR >			
C1	1-164-222-11	CERAMIC CHIP 0.22uF	25V	CN1	1-695-092-11	SOCKET, CONNECTOR 7P	
C2	1-135-177-21	TANTALUM CHIP 1uF	20% 20V	< IC >			
C3	1-104-558-11	FILM CHIP 0.039uF	5% 16V	IC1	8-752-056-51	IC CXA1417Q	
C4	1-163-007-11	CERAMIC CHIP 680PF	10% 50V	< RESISTOR >			
C5	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V	R1	1-216-615-11	METAL CHIP 33 0.5% 1/10W	
C6	1-164-717-11	CERAMIC CHIP 0.0082uF	5% 50V	R2	1-208-806-11	METAL GLAZE 10K 2% 1/10W	
C7	1-164-222-11	CERAMIC CHIP 0.22uF	25V	R3	1-208-812-11	METAL GLAZE 18K 2% 1/10W	
C8	1-104-562-11	FILM CHIP 0.082uF	5% 16V	R4	1-216-119-00	METAL CHIP 820K 5% 1/10W	
C9	1-104-553-11	FILM CHIP 0.015uF	5% 16V	R5	1-208-799-11	METAL GLAZE 5.1K 2% 1/10W	
C10	1-165-319-11	CERAMIC CHIP 0.1uF	50V	R6	1-208-787-11	METAL GLAZE 1.6K 2% 1/10W	
C11	1-135-145-11	TANTALUM CHIP 0.47uF	10% 35V	R7	1-216-657-11	METAL CHIP 1.8K 0.5% 1/10W	
C12	1-164-222-11	CERAMIC CHIP 0.22uF	25V	R8	1-216-667-11	METAL CHIP 4.7K 0.5% 1/10W	
C13	1-165-319-11	CERAMIC CHIP 0.1uF	50V	R9	1-208-791-11	METAL GLAZE 2.4K 2% 1/10W	
C14	1-162-568-11	CERAMIC CHIP 0.33uF	10% 16V	R10	1-216-052-00	METAL CHIP 1.3K 5% 1/10W	
C15	1-104-562-11	FILM CHIP 0.082uF	5% 16V	R11	1-216-615-11	METAL CHIP 33 0.5% 1/10W	
C16	1-135-145-11	TANTALUM CHIP 0.47uF	10% 35V	R12	1-216-619-11	METAL CHIP 47 0.5% 1/10W	
C17	1-165-319-11	CERAMIC CHIP 0.1uF	50V	R13	1-208-784-11	METAL GLAZE 1.2K 2% 1/10W	
C18	1-164-222-11	CERAMIC CHIP 0.22uF	25V	R14	1-216-667-11	METAL CHIP 4.7K 0.5% 1/10W	
C19	1-163-035-00	CERAMIC CHIP 0.047uF	50V	R15	1-208-791-11	METAL GLAZE 2.4K 2% 1/10W	
C20	1-104-553-11	FILM CHIP 0.015uF	5% 16V	R16	1-216-615-11	METAL CHIP 33 0.5% 1/10W	
C21	1-164-717-11	CERAMIC CHIP 0.0082uF	5% 50V	R17	1-216-619-11	METAL CHIP 47 0.5% 1/10W	
C22	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V	R18	1-216-657-11	METAL CHIP 1.8K 0.5% 1/10W	
C23	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V	R19	1-208-787-11	METAL GLAZE 1.6K 2% 1/10W	
C24	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	R20	1-208-799-11	METAL GLAZE 5.1K 2% 1/10W	
C25	1-163-012-00	CERAMIC CHIP 0.0018uF	10% 50V	R21	1-216-119-00	METAL CHIP 820K 5% 1/10W	
C26	1-104-558-11	FILM CHIP 0.039uF	5% 16V	R22	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W	
C27	1-163-012-00	CERAMIC CHIP 0.0018uF	10% 50V	R23	1-216-678-11	METAL CHIP 13K 0.5% 1/10W	
C28	1-163-012-00	CERAMIC CHIP 0.0018uF	10% 50V	R24	1-216-673-11	METAL CHIP 8.2K 0.5% 1/10W	
C29	1-104-563-11	FILM CHIP 0.1uF	5% 16V				
C30	1-135-145-11	TANTALUM CHIP 0.47uF	10% 35V				

Ref. No.	Part No.	Description	Remark
R25	1-208-806-11	METAL GLAZE	10K 2% 1/10W
R26	1-216-676-11	METAL CHIP	11K 0.5% 1/10W
R27	1-208-799-11	METAL GLAZE	5.1K 2% 1/10W
R28	1-216-695-11	METAL CHIP	68K 0.5% 1/10W
R29	1-208-799-11	METAL GLAZE	5.1K 2% 1/10W
R30	1-208-791-11	METAL GLAZE	2.4K 2% 1/10W
R31	1-208-811-11	METAL GLAZE	16K 2% 1/10W
R32	1-216-685-11	METAL CHIP	27K 0.5% 1/10W
R33	1-208-813-11	METAL GLAZE	20K 2% 1/10W
R34	1-216-684-11	METAL CHIP	24K 0.5% 1/10W
R35	1-208-817-11	METAL GLAZE	30K 2% 1/10W
R36	1-208-817-11	METAL GLAZE	30K 2% 1/10W
R37	1-216-676-11	METAL CHIP	11K 0.5% 1/10W
R38	1-208-819-11	METAL GLAZE	36K 2% 1/10W
R39	1-208-799-11	METAL GLAZE	5.1K 2% 1/10W
R40	1-208-817-11	METAL GLAZE	30K 2% 1/10W
R41	1-208-811-11	METAL GLAZE	16K 2% 1/10W
R42	1-216-673-11	METAL CHIP	8.2K 0.5% 1/10W
R43	1-216-676-11	METAL CHIP	11K 0.5% 1/10W
R44	1-216-689-11	METAL CHIP	39K 0.5% 1/10W
R45	1-216-689-11	METAL CHIP	39K 0.5% 1/10W
*****			
*	A-2007-405-A	MAIN BOARD, COMPLETE	*****
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
	7-682-548-04	SCREW +BVTT 3X8 (S)	
		< CAPACITOR >	
C121	1-136-153-00	FILM	0.01uF 5% 50V
C122	1-136-157-00	FILM	0.022uF 5% 50V
C123	1-136-161-00	FILM	0.047uF 5% 50V
C124	1-136-272-00	FILM	68PF 5% 630V
C125	1-136-433-11	FILM	100PF 5% 630V
C126	1-130-468-00	MYLAR	560PF 5% 50V
C131	1-136-935-11	FILM	22PF 5% 630V
C132	1-162-285-31	CERAMIC	180PF 10% 50V
C133	1-130-469-00	MYLAR	680PF 5% 50V
C134	1-136-157-00	FILM	0.022uF 5% 50V
C135	1-124-273-00	ELECT	3.3uF 20% 50V
C136	1-136-158-00	FILM	0.027uF 5% 50V
C137	1-110-341-11	MYLAR	330PF 5% 50V
C141	1-136-153-00	FILM	0.01uF 5% 50V
C142	1-136-157-00	FILM	0.022uF 5% 50V
C143	1-136-161-00	FILM	0.047uF 5% 50V
C144	1-136-272-00	FILM	68PF 5% 630V
C145	1-136-433-11	FILM	100PF 5% 630V
C146	1-130-468-00	MYLAR	560PF 5% 50V
C151	1-136-935-11	FILM	22PF 5% 630V

Ref. No.	Part No.	Description	Remark
C152	1-162-285-31	CERAMIC	180PF 10% 50V
C153	1-130-469-00	MYLAR	680PF 5% 50V
C154	1-136-157-00	FILM	0.022uF 5% 50V
C155	1-124-273-00	ELECT	3.3uF 20% 50V
C156	1-136-158-00	FILM	0.027uF 5% 50V
C191	1-124-925-11	ELECT	2.2uF 20% 100V
C221	1-136-153-00	FILM	0.01uF 5% 50V
C222	1-136-157-00	FILM	0.022uF 5% 50V
C223	1-136-161-00	FILM	0.047uF 5% 50V
C224	1-136-272-00	FILM	68PF 5% 630V
C225	1-136-433-11	FILM	100PF 5% 630V
C226	1-130-468-00	MYLAR	560PF 5% 50V
C231	1-136-935-11	FILM	22PF 5% 630V
C232	1-162-285-31	CERAMIC	180PF 10% 50V
C233	1-130-469-00	MYLAR	680PF 5% 50V
C234	1-136-157-00	FILM	0.022uF 5% 50V
C235	1-124-273-00	ELECT	3.3uF 20% 50V
C236	1-136-158-00	FILM	0.027uF 5% 50V
C237	1-110-341-11	MYLAR	330PF 5% 50V
C241	1-136-153-00	FILM	0.01uF 5% 50V
C242	1-136-157-00	FILM	0.022uF 5% 50V
C243	1-136-161-00	FILM	0.047uF 5% 50V
C244	1-136-272-00	FILM	68PF 5% 630V
C245	1-136-433-11	FILM	100PF 5% 630V
C246	1-130-468-00	MYLAR	560PF 5% 50V
C251	1-136-935-11	FILM	22PF 5% 630V
C252	1-162-285-31	CERAMIC	180PF 10% 50V
C253	1-130-469-00	MYLAR	680PF 5% 50V
C254	1-136-157-00	FILM	0.022uF 5% 50V
C255	1-124-273-00	ELECT	3.3uF 20% 50V
C256	1-136-158-00	FILM	0.027uF 5% 50V
C291	1-124-925-11	ELECT	2.2uF 20% 100V
C303	1-126-963-11	ELECT	4.7uF 20% 50V
C304	1-126-963-11	ELECT	4.7uF 20% 50V
C305	1-130-475-00	MYLAR	0.0022uF 5% 50V
C307	1-136-172-00	FILM	0.39uF 5% 50V
C353	1-126-963-11	ELECT	4.7uF 20% 50V
C354	1-126-963-11	ELECT	4.7uF 20% 50V
C355	1-130-475-00	MYLAR	0.0022uF 5% 50V
C357	1-136-172-00	FILM	0.39uF 5% 50V
C403	1-126-963-11	ELECT	4.7uF 20% 50V
C404	1-126-963-11	ELECT	4.7uF 20% 50V
C405	1-130-475-00	MYLAR	0.0022uF 5% 50V
C407	1-136-172-00	FILM	0.39uF 5% 50V
C453	1-126-963-11	ELECT	4.7uF 20% 50V
C454	1-126-963-11	ELECT	4.7uF 20% 50V
C455	1-130-475-00	MYLAR	0.0022uF 5% 50V
C457	1-136-172-00	FILM	0.39uF 5% 50V
C521	1-124-925-11	ELECT	2.2uF 20% 100V
C522	1-124-902-00	ELECT	0.47uF 20% 50V

# MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C523	1-136-230-00	FILM	0.0022uF 5% 100V	C802	1-164-159-11	CERAMIC	0.1uF 50V
C524	1-136-230-00	FILM	0.0022uF 5% 100V	C803	1-124-925-11	ELECT	2.2uF 20% 100V
C525	1-130-856-00	FILM	0.0068uF 5% 100V	C804	1-126-963-11	ELECT	4.7uF 20% 50V
C526	1-124-907-11	ELECT	10uF 20% 50V	C805	1-124-443-00	ELECT	100uF 20% 10V
C527	1-136-558-11	FILM	0.0039uF 5% 630V	C806	1-164-159-11	CERAMIC	0.1uF 50V
C528	1-124-120-11	ELECT	220uF 20% 25V	C807	1-164-159-11	CERAMIC	0.1uF 50V
C529	1-104-664-11	ELECT	47uF 20% 16V	C808	1-124-443-00	ELECT	100uF 20% 10V
C530	1-107-585-11	CERAMIC	5PF 0.25PF 500V	C810	1-164-159-11	CERAMIC	0.1uF 50V
C535	1-124-472-11	ELECT	470uF 20% 10V	C811	1-164-159-11	CERAMIC	0.1uF 50V
C536	1-124-472-11	ELECT	470uF 20% 10V	C817	1-164-159-11	CERAMIC	0.1uF 50V
C541	1-124-925-11	ELECT	2.2uF 20% 100V	C818	1-162-302-11	CERAMIC	0.0022uF 20% 16V
C542	1-124-902-00	ELECT	0.47uF 20% 50V	C819	1-164-159-11	CERAMIC	0.1uF 50V
C543	1-136-230-00	FILM	0.0022uF 5% 100V	C820	1-162-294-31	CERAMIC	0.001uF 10% 50V
C544	1-136-230-00	FILM	0.0022uF 5% 100V	C821	1-162-294-31	CERAMIC	0.001uF 10% 50V
C545	1-130-856-00	FILM	0.0068uF 5% 100V	C824	1-162-294-31	CERAMIC	0.001uF 10% 50V
C546	1-124-907-11	ELECT	10uF 20% 50V	C831	1-126-963-11	ELECT	4.7uF 20% 50V
C547	1-136-558-11	FILM	0.0039uF 5% 630V	C832	1-104-664-11	ELECT	47uF 20% 16V
C548	1-124-120-11	ELECT	220uF 20% 25V	C833	1-130-479-00	MYLAR	0.0047uF 5% 50V
C549	1-104-664-11	ELECT	47uF 20% 16V	C841	1-126-963-11	ELECT	4.7uF 20% 50V
C550	1-107-585-11	CERAMIC	5PF 0.25PF 500V	C842	1-104-664-11	ELECT	47uF 20% 16V
C555	1-124-472-11	ELECT	470uF 20% 10V	C843	1-130-479-00	MYLAR	0.0047uF 5% 50V
C556	1-124-472-11	ELECT	470uF 20% 10V	C851	1-124-907-11	ELECT	10uF 20% 50V
C581	1-124-925-11	ELECT	2.2uF 20% 100V	C871	1-164-159-11	CERAMIC	0.1uF 50V
C582	1-162-217-31	CERAMIC	56PF 5% 50V	C872	1-164-159-11	CERAMIC	0.1uF 50V
C583	1-136-157-00	FILM	0.022uF 5% 50V	C881	1-164-159-11	CERAMIC	0.1uF 50V
C585	1-162-286-31	CERAMIC	220PF 10% 50V	C882	1-164-159-11	CERAMIC	0.1uF 50V
C586	1-124-925-11	ELECT	2.2uF 20% 100V	C898	1-124-443-00	ELECT	100uF 20% 10V
C587	1-124-925-11	ELECT	2.2uF 20% 100V	C899	1-164-159-11	CERAMIC	0.1uF 50V
C601	1-124-903-11	ELECT	1uF 20% 50V			< CONNECTOR >	
C651	1-124-903-11	ELECT	1uF 20% 50V	* CN531	1-564-512-11	PLUG, CONNECTOR 9P	
C701	1-126-963-11	ELECT	4.7uF 20% 50V	CN701	1-766-272-11	PIN, CONNECTOR (PC BOARD) 10P	
C702	1-124-772-11	ELECT	10000uF 20% 25V	* CN801	1-564-339-61	PIN, CONNECTOR 5P	
C703	1-104-664-11	ELECT	47uF 20% 16V	CN802	1-750-410-11	CONNECTOR, FFC/FPC 5P	
C704	1-126-937-11	ELECT	4700uF 20% 16V	CN804	1-750-413-11	CONNECTOR, FFC/FPC 8P	
C705	1-126-937-11	ELECT	4700uF 20% 16V	* CN805	1-564-338-71	PIN, CONNECTOR 4P	
C706	1-124-443-00	ELECT	100uF 20% 10V	CN810	1-506-468-11	PIN, CONNECTOR 3P	
C707	1-126-916-11	ELECT	1000uF 20% 6.3V	* CN811	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P	
C708	1-124-911-11	ELECT	220uF 20% 50V	CNP601	1-764-821-11	CONNECTOR, BOARD TO BOARD 15P	
C709	1-124-910-11	ELECT	47uF 20% 50V	CNP602	1-764-821-11	CONNECTOR, BOARD TO BOARD 15P	
C710	1-126-963-11	ELECT	4.7uF 20% 50V			< COMPOSITION CIRCUIT BLOCK >	
C751	1-126-937-11	ELECT	4700uF 20% 16V	CP521	1-232-946-11	COMPOSITION CIRCUIT BLOCK	
C752	1-126-937-11	ELECT	4700uF 20% 16V	CP541	1-232-946-11	COMPOSITION CIRCUIT BLOCK	
C753	1-124-120-11	ELECT	220uF 20% 25V	CP801	1-239-059-11	COMPOSITION CIRCUIT BLOCK	
C754	1-124-120-11	ELECT	220uF 20% 25V	CP802	1-233-199-11	COMPOSITION CIRCUIT BLOCK	
C755	1-124-910-11	ELECT	47uF 20% 50V	CP803	1-233-347-11	CIRCUIT BLOCK, COMPOSITION	
C756	1-162-286-31	CERAMIC	220PF 10% 50V	CP804	1-233-199-11	COMPOSITION CIRCUIT BLOCK	
C757	1-162-286-31	CERAMIC	220PF 10% 50V				
C758	1-124-473-11	ELECT	1000uF 20% 10V				
C759	1-124-473-11	ELECT	1000uF 20% 10V				
C801	1-164-159-11	CERAMIC	0.1uF 50V				

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< DIODE >				< IC >			
D191	8-719-987-63	DIODE	1N4148M	IC502	8-759-100-96	IC	uPC4558G2
D192	8-719-987-63	DIODE	1N4148M	IC503	8-759-602-01	IC	M5220P
D193	8-719-933-33	DIODE	HZS6A1L	IC504	8-759-602-01	IC	M5220P
D291	8-719-987-63	DIODE	1N4148M	IC506	8-759-300-71	IC	HD14053BFP
D292	8-719-987-63	DIODE	1N4148M	IC507	8-759-009-06	IC	MC14052BF
D293	8-719-933-33	DIODE	HZS6A1L	IC508	8-759-100-96	IC	uPC4558G2
D521	8-719-987-63	DIODE	1N4148M	IC521	8-759-106-56	IC	uPC1297CA
D522	8-719-987-63	DIODE	1N4148M	IC522	8-759-032-11	IC	MC74HC04AF
D541	8-719-987-63	DIODE	1N4148M	IC523	8-759-009-06	IC	MC14052BF
D542	8-719-987-63	DIODE	1N4148M	IC541	8-759-106-56	IC	uPC1297CA
D601	8-719-987-63	DIODE	1N4148M	IC542	8-759-032-11	IC	MC74HC04AF
D602	8-719-987-63	DIODE	1N4148M	IC543	8-759-009-06	IC	MC14052BF
D651	8-719-987-63	DIODE	1N4148M	IC601	8-752-072-16	IC	CXA1598M-T6
D652	8-719-987-63	DIODE	1N4148M	IC602	8-752-072-16	IC	CXA1598M-T6
D701	8-719-200-77	DIODE	10E2N	IC603	8-759-009-05	IC	MC14051BF
D702	8-719-500-36	DIODE	D2SB20	IC801	8-759-337-49	IC	uPD78043AGF-023-3B9
D703	8-719-987-63	DIODE	1N4148M	IC802	8-759-337-50	IC	M38002M2-185FP
D704	8-719-001-54	DIODE	UZL-11H2	IC805	8-759-973-95	IC	BA6219B
D705	8-719-200-77	DIODE	10E2N	IC806	8-759-822-09	IC	LB1641
D706	8-719-933-41	DIODE	HZS6C3L	IC807	8-759-973-95	IC	BA6219B
D707	8-719-987-63	DIODE	1N4148M	IC808	8-759-822-09	IC	LB1641
D708	8-719-933-38	DIODE	HZS6B3L	IC809	8-759-165-82	IC	PST600E-T
D709	8-719-987-63	DIODE	1N4148M	IC810	8-759-248-67	IC	AT24C01-10SC
D710	8-719-987-63	DIODE	1N4148M	< COIL >			
D751	8-719-200-77	DIODE	10E2N	L131	1-410-780-11	INDUCTOR	27mH
D752	8-719-200-77	DIODE	10E2N	L151	1-410-780-11	INDUCTOR	27mH
D753	8-719-200-77	DIODE	10E2N	L231	1-410-780-11	INDUCTOR	27mH
D754	8-719-200-77	DIODE	10E2N	L251	1-410-780-11	INDUCTOR	27mH
D755	8-719-987-63	DIODE	1N4148M	< TRANSISTOR >			
D756	8-719-987-63	DIODE	1N4148M	Q131	8-729-620-05	TRANSISTOR	2SC2603-EF
D757	8-719-933-33	DIODE	HZS6A1L	Q132	8-729-620-05	TRANSISTOR	2SC2603-EF
D758	8-719-987-63	DIODE	1N4148M	Q151	8-729-620-05	TRANSISTOR	2SC2603-EF
D759	8-719-933-33	DIODE	HZS6A1L	Q231	8-729-620-05	TRANSISTOR	2SC2603-EF
D801	8-719-987-63	DIODE	1N4148M	Q232	8-729-620-05	TRANSISTOR	2SC2603-EF
D802	8-719-987-63	DIODE	1N4148M	Q251	8-729-620-05	TRANSISTOR	2SC2603-EF
D831	8-719-987-63	DIODE	1N4148M	Q302	8-729-620-05	TRANSISTOR	2SC2603-EF
D841	8-719-987-63	DIODE	1N4148M	Q352	8-729-620-05	TRANSISTOR	2SC2603-EF
D851	8-719-987-63	DIODE	1N4148M	Q402	8-729-620-05	TRANSISTOR	2SC2603-EF
D891	8-719-987-63	DIODE	1N4148M	Q452	8-729-620-05	TRANSISTOR	2SC2603-EF
D892	8-719-987-63	DIODE	1N4148M	Q523	8-729-900-80	TRANSISTOR	DTC114ES
D893	8-719-987-63	DIODE	1N4148M	Q524	8-729-900-89	TRANSISTOR	DTC144ES
< HEAT SINK >				Q527	8-729-119-76	TRANSISTOR	2SA1175-HFE
* HS705	3-309-144-21	HEAT SINK	(Q705)	Q528	8-729-142-46	TRANSISTOR	2SC2001-LK
* HS752	4-880-403-11	HEAT SINK	(Q752)	Q529	8-729-142-46	TRANSISTOR	2SC2001-LK
* HS755	4-880-403-11	HEAT SINK	(Q755)	Q543	8-729-900-80	TRANSISTOR	DTC114ES
* HS805	3-356-925-01	HEAT SINK	(IC805)	Q544	8-729-900-89	TRANSISTOR	DTC144ES
* HS807	3-356-925-01	HEAT SINK	(IC807)	Q547	8-729-119-76	TRANSISTOR	2SA1175-HFE



# MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q548	8-729-142-46	TRANSISTOR				< RESISTOR >	
Q549	8-729-142-46	TRANSISTOR					
Q581	8-729-900-89	TRANSISTOR		R121	1-249-429-11	CARBON	10K 5% 1/4W
Q602	8-729-900-89	TRANSISTOR		R122	1-249-435-11	CARBON	33K 5% 1/4W
Q603	8-729-900-89	TRANSISTOR		△R123	1-219-153-11	FUSIBLE	10 5% 1/4W F
Q604	8-729-620-05	TRANSISTOR		R124	1-247-883-00	CARBON	150K 5% 1/4W
Q605	8-729-900-89	TRANSISTOR		R131	1-249-428-11	CARBON	8. 2K 5% 1/4W F
Q606	8-729-900-89	TRANSISTOR		R132	1-249-433-11	CARBON	22K 5% 1/4W
Q651	8-729-900-89	TRANSISTOR		R133	1-249-403-11	CARBON	68 5% 1/4W F
Q652	8-729-900-89	TRANSISTOR		R134	1-247-882-11	CARBON	130K 5% 1/4W
Q653	8-729-900-89	TRANSISTOR		R135	1-249-426-11	CARBON	5. 6K 5% 1/4W
Q654	8-729-900-89	TRANSISTOR		R136	1-249-420-11	CARBON	1. 8K 5% 1/4W F
Q701	8-729-620-05	TRANSISTOR		R137	1-247-840-00	CARBON	2. 4K 5% 1/4W
Q702	8-729-141-83	TRANSISTOR		R139	1-249-425-11	CARBON	4. 7K 5% 1/4W F
Q703	8-729-141-30	TRANSISTOR		R140	1-249-421-11	CARBON	2. 2K 5% 1/4W F
Q704	8-729-620-05	TRANSISTOR		R141	1-249-429-11	CARBON	10K 5% 1/4W
Q705	8-729-019-01	TRANSISTOR		R142	1-249-435-11	CARBON	33K 5% 1/4W
Q706	8-729-119-76	TRANSISTOR		R143	1-219-153-11	FUSIBLE	10 5% 1/4W F
Q707	8-729-140-04	TRANSISTOR		R144	1-247-883-00	CARBON	150K 5% 1/4W
Q751	8-729-620-05	TRANSISTOR		R151	1-249-428-11	CARBON	8. 2K 5% 1/4W F
Q752	8-729-141-83	TRANSISTOR		R152	1-249-433-11	CARBON	22K 5% 1/4W
Q753	8-729-620-05	TRANSISTOR		R153	1-249-403-11	CARBON	68 5% 1/4W F
Q754	8-729-119-76	TRANSISTOR		R154	1-247-882-11	CARBON	130K 5% 1/4W
Q755	8-729-209-15	TRANSISTOR		R155	1-249-426-11	CARBON	5. 6K 5% 1/4W
Q756	8-729-119-76	TRANSISTOR		R156	1-249-420-11	CARBON	1. 8K 5% 1/4W F
Q757	8-729-119-76	TRANSISTOR		R157	1-247-840-00	CARBON	2. 4K 5% 1/4W
Q803	8-729-900-89	TRANSISTOR		R159	1-249-425-11	CARBON	4. 7K 5% 1/4W F
Q804	8-729-119-76	TRANSISTOR		R160	1-249-421-11	CARBON	2. 2K 5% 1/4W F
Q806	8-729-900-65	TRANSISTOR		R191	1-247-874-11	CARBON	62K 5% 1/4W
Q831	8-729-620-05	TRANSISTOR		R192	1-249-410-11	CARBON	270 5% 1/4W F
Q832	8-729-620-05	TRANSISTOR		R193	1-249-417-11	CARBON	1K 5% 1/4W F
Q841	8-729-620-05	TRANSISTOR		R194	1-247-807-31	CARBON	100 5% 1/4W
Q842	8-729-620-05	TRANSISTOR		R221	1-249-429-11	CARBON	10K 5% 1/4W
Q871	8-729-900-65	TRANSISTOR		R222	1-249-435-11	CARBON	33K 5% 1/4W
Q872	8-729-900-89	TRANSISTOR		△R223	1-219-153-11	FUSIBLE	10 5% 1/4W F
Q873	8-729-900-80	TRANSISTOR		R224	1-247-883-00	CARBON	150K 5% 1/4W
Q874	8-729-900-80	TRANSISTOR		R231	1-249-428-11	CARBON	8. 2K 5% 1/4W F
Q875	8-729-900-80	TRANSISTOR		R232	1-249-433-11	CARBON	22K 5% 1/4W
Q876	8-729-900-65	TRANSISTOR		R233	1-249-403-11	CARBON	68 5% 1/4W F
Q877	8-729-900-89	TRANSISTOR		R234	1-247-882-11	CARBON	130K 5% 1/4W
Q881	8-729-900-65	TRANSISTOR		R235	1-249-426-11	CARBON	5. 6K 5% 1/4W
Q882	8-729-900-89	TRANSISTOR		R236	1-249-420-11	CARBON	1. 8K 5% 1/4W F
Q883	8-729-900-80	TRANSISTOR		R237	1-247-840-00	CARBON	2. 4K 5% 1/4W
Q884	8-729-900-80	TRANSISTOR		R239	1-249-425-11	CARBON	4. 7K 5% 1/4W F
Q885	8-729-900-80	TRANSISTOR		R240	1-249-421-11	CARBON	2. 2K 5% 1/4W F
Q893	8-729-900-80	TRANSISTOR		R241	1-249-429-11	CARBON	10K 5% 1/4W
Q894	8-729-801-84	TRANSISTOR		R242	1-249-435-11	CARBON	33K 5% 1/4W
Q895	8-729-801-84	TRANSISTOR		R243	1-219-153-11	FUSIBLE	10 5% 1/4W F
Q973	8-729-900-65	TRANSISTOR		R244	1-247-883-00	CARBON	150K 5% 1/4W
Q974	8-729-900-89	TRANSISTOR		R251	1-249-428-11	CARBON	8. 2K 5% 1/4W F
				R252	1-249-433-11	CARBON	22K 5% 1/4W

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

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R253	1-249-403-11	CARBON	68	5%	1/4W F	R552	1-249-389-11	CARBON	4.7	5%	1/4W F
R254	1-247-882-11	CARBON	130K	5%	1/4W	R571	1-249-434-11	CARBON	27K	5%	1/4W
R255	1-249-426-11	CARBON	5.6K	5%	1/4W	R572	1-249-434-11	CARBON	27K	5%	1/4W
R256	1-249-420-11	CARBON	1.8K	5%	1/4W F	R573	1-249-434-11	CARBON	27K	5%	1/4W
R257	1-247-840-00	CARBON	2.4K	5%	1/4W	R574	1-249-434-11	CARBON	27K	5%	1/4W
R259	1-249-425-11	CARBON	4.7K	5%	1/4W F	R575	1-247-874-11	CARBON	62K	5%	1/4W
R260	1-249-421-11	CARBON	2.2K	5%	1/4W F	R576	1-247-866-11	CARBON	30K	5%	1/4W
R291	1-247-874-11	CARBON	62K	5%	1/4W	R577	1-249-431-11	CARBON	15K	5%	1/4W
R292	1-249-410-11	CARBON	270	5%	1/4W F	R578	1-247-852-11	CARBON	7.5K	5%	1/4W
R293	1-249-417-11	CARBON	1K	5%	1/4W F	R579	1-249-421-11	CARBON	2.2K	5%	1/4W F
R294	1-247-807-31	CARBON	100	5%	1/4W	R581	1-249-434-11	CARBON	27K	5%	1/4W
R301	1-249-429-11	CARBON	10K	5%	1/4W	R582	1-249-434-11	CARBON	27K	5%	1/4W
R304	1-249-425-11	CARBON	4.7K	5%	1/4W F	R583	1-249-434-11	CARBON	27K	5%	1/4W
R305	1-249-425-11	CARBON	4.7K	5%	1/4W F	R584	1-249-434-11	CARBON	27K	5%	1/4W
R307	1-249-427-11	CARBON	6.8K	5%	1/4W F	R585	1-247-874-11	CARBON	62K	5%	1/4W
R308	1-249-421-11	CARBON	2.2K	5%	1/4W F	R586	1-247-866-11	CARBON	30K	5%	1/4W
R351	1-249-429-11	CARBON	10K	5%	1/4W	R587	1-249-431-11	CARBON	15K	5%	1/4W
R354	1-249-425-11	CARBON	4.7K	5%	1/4W F	R588	1-247-852-11	CARBON	7.5K	5%	1/4W
R355	1-249-425-11	CARBON	4.7K	5%	1/4W F	R589	1-249-421-11	CARBON	2.2K	5%	1/4W F
R357	1-249-427-11	CARBON	6.8K	5%	1/4W F	R601	1-249-433-11	CARBON	22K	5%	1/4W
R358	1-249-421-11	CARBON	2.2K	5%	1/4W F	R602	1-249-417-11	CARBON	1K	5%	1/4W F
R401	1-249-429-11	CARBON	10K	5%	1/4W	R603	1-215-455-00	METAL	27K	1%	1/4W
R404	1-249-425-11	CARBON	4.7K	5%	1/4W F	R604	1-249-433-11	CARBON	22K	5%	1/4W
R405	1-249-425-11	CARBON	4.7K	5%	1/4W F	R605	1-249-429-11	CARBON	10K	5%	1/4W
R407	1-249-427-11	CARBON	6.8K	5%	1/4W F	R606	1-249-433-11	CARBON	22K	5%	1/4W
R408	1-249-421-11	CARBON	2.2K	5%	1/4W F	R607	1-249-433-11	CARBON	22K	5%	1/4W
R451	1-249-429-11	CARBON	10K	5%	1/4W	R608	1-249-433-11	CARBON	22K	5%	1/4W
R454	1-249-425-11	CARBON	4.7K	5%	1/4W F	R609	1-249-433-11	CARBON	22K	5%	1/4W
R455	1-249-425-11	CARBON	4.7K	5%	1/4W F	R610	1-249-433-11	CARBON	22K	5%	1/4W
R457	1-249-427-11	CARBON	6.8K	5%	1/4W F	R621	1-249-436-11	CARBON	39K	5%	1/4W
R458	1-249-421-11	CARBON	2.2K	5%	1/4W F	R622	1-247-874-11	CARBON	62K	5%	1/4W
R521	1-249-425-11	CARBON	4.7K	5%	1/4W F	R623	1-247-866-11	CARBON	30K	5%	1/4W
R524	1-249-441-11	CARBON	100K	5%	1/4W	R624	1-249-435-11	CARBON	33K	5%	1/4W
R525	1-247-844-11	CARBON	3.6K	5%	1/4W	R625	1-249-437-11	CARBON	47K	5%	1/4W
R526	1-249-431-11	CARBON	15K	5%	1/4W	R626	1-247-864-11	CARBON	24K	5%	1/4W
R527	1-249-421-11	CARBON	2.2K	5%	1/4W F	R631	1-247-866-11	CARBON	30K	5%	1/4W
R528	1-249-429-11	CARBON	10K	5%	1/4W	R632	1-247-868-11	CARBON	36K	5%	1/4W
R529	1-249-437-11	CARBON	47K	5%	1/4W	R633	1-249-429-11	CARBON	10K	5%	1/4W
R530	1-249-437-11	CARBON	47K	5%	1/4W	R634	1-249-433-11	CARBON	22K	5%	1/4W
R531	1-249-389-11	CARBON	4.7	5%	1/4W F	R635	1-247-876-11	CARBON	75K	5%	1/4W
R532	1-249-389-11	CARBON	4.7	5%	1/4W F	R636	1-249-432-11	CARBON	18K	5%	1/4W
R541	1-249-425-11	CARBON	4.7K	5%	1/4W F	R641	1-249-434-11	CARBON	27K	5%	1/4W
R544	1-249-441-11	CARBON	100K	5%	1/4W	R642	1-247-864-11	CARBON	24K	5%	1/4W
R545	1-247-844-11	CARBON	3.6K	5%	1/4W	R643	1-249-437-11	CARBON	47K	5%	1/4W
R546	1-249-431-11	CARBON	15K	5%	1/4W	R644	1-249-437-11	CARBON	47K	5%	1/4W
R547	1-249-421-11	CARBON	2.2K	5%	1/4W F	R645	1-247-866-11	CARBON	30K	5%	1/4W
R548	1-249-429-11	CARBON	10K	5%	1/4W	R646	1-249-440-11	CARBON	82K	5%	1/4W
R549	1-249-437-11	CARBON	47K	5%	1/4W	R651	1-249-433-11	CARBON	22K	5%	1/4W
R550	1-249-437-11	CARBON	47K	5%	1/4W	R652	1-249-417-11	CARBON	1K	5%	1/4W F
R551	1-249-389-11	CARBON	4.7	5%	1/4W F	R653	1-215-455-00	METAL	27K	1%	1/4W

# MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R655	1-249-439-11	CARBON	68K 5% 1/4W	△R720	1-219-139-11	FUSIBLE	0.68 10% 1/4W
R656	1-249-429-11	CARBON	10K 5% 1/4W	△R721	1-219-136-11	FUSIBLE	0.22 10% 1/4W
R657	1-249-433-11	CARBON	22K 5% 1/4W	R751	1-249-433-11	CARBON	22K 5% 1/4W
R658	1-249-433-11	CARBON	22K 5% 1/4W	R752	1-249-421-11	CARBON	2.2K 5% 1/4W F
R662	1-247-868-11	CARBON	36K 5% 1/4W	R753	1-249-421-11	CARBON	2.2K 5% 1/4W F
R663	1-249-440-11	CARBON	82K 5% 1/4W	R754	1-249-421-11	CARBON	2.2K 5% 1/4W F
R664	1-249-440-11	CARBON	82K 5% 1/4W	R755	1-249-421-11	CARBON	2.2K 5% 1/4W F
R665	1-249-432-11	CARBON	18K 5% 1/4W	R756	1-249-417-11	CARBON	1K 5% 1/4W F
R666	1-249-432-11	CARBON	18K 5% 1/4W	R757	1-249-417-11	CARBON	1K 5% 1/4W F
R667	1-249-439-11	CARBON	68K 5% 1/4W	R758	1-249-417-11	CARBON	1K 5% 1/4W F
R668	1-249-434-11	CARBON	27K 5% 1/4W	R759	1-249-415-11	CARBON	680 5% 1/4W F
R669	1-247-870-11	CARBON	43K 5% 1/4W	R760	1-249-422-11	CARBON	2.7K 5% 1/4W F
R670	1-249-437-11	CARBON	47K 5% 1/4W	R761	1-249-424-11	CARBON	3.9K 5% 1/4W F
R671	1-249-432-11	CARBON	18K 5% 1/4W	R762	1-249-423-11	CARBON	3.3K 5% 1/4W F
R672	1-249-432-11	CARBON	18K 5% 1/4W	R763	1-247-807-31	CARBON	100 5% 1/4W
R673	1-249-438-11	CARBON	56K 5% 1/4W	R770	1-249-417-11	CARBON	1K 5% 1/4W F
R674	1-247-864-11	CARBON	24K 5% 1/4W	R781	1-247-887-00	CARBON	220K 5% 1/4W
R675	1-249-436-11	CARBON	39K 5% 1/4W	R782	1-249-425-11	CARBON	4.7K 5% 1/4W F
R676	1-247-874-11	CARBON	62K 5% 1/4W	R783	1-249-437-11	CARBON	47K 5% 1/4W
R677	1-249-431-11	CARBON	15K 5% 1/4W	R784	1-249-428-11	CARBON	8.2K 5% 1/4W F
R678	1-249-431-11	CARBON	15K 5% 1/4W	R785	1-249-441-11	CARBON	100K 5% 1/4W
R679	1-249-438-11	CARBON	56K 5% 1/4W	R786	1-249-423-11	CARBON	3.3K 5% 1/4W F
R681	1-249-436-11	CARBON	39K 5% 1/4W	R787	1-249-421-11	CARBON	2.2K 5% 1/4W F
R682	1-247-874-11	CARBON	62K 5% 1/4W	R788	1-249-441-11	CARBON	100K 5% 1/4W
R683	1-247-866-11	CARBON	30K 5% 1/4W	R801	1-249-422-11	CARBON	2.7K 5% 1/4W F
R684	1-249-435-11	CARBON	33K 5% 1/4W	R802	1-247-834-11	CARBON	1.3K 5% 1/4W
R685	1-249-437-11	CARBON	47K 5% 1/4W	R803	1-249-441-11	CARBON	100K 5% 1/4W
R686	1-247-864-11	CARBON	24K 5% 1/4W	R804	1-249-425-11	CARBON	4.7K 5% 1/4W F
R687	1-247-866-11	CARBON	30K 5% 1/4W	R805	1-249-429-11	CARBON	10K 5% 1/4W
R688	1-247-868-11	CARBON	36K 5% 1/4W	R806	1-249-425-11	CARBON	4.7K 5% 1/4W F
R689	1-247-856-00	CARBON	11K 5% 1/4W	R807	1-249-429-11	CARBON	10K 5% 1/4W
R690	1-249-433-11	CARBON	22K 5% 1/4W	R808	1-247-850-11	CARBON	6.2K 5% 1/4W
R691	1-247-876-11	CARBON	75K 5% 1/4W	R809	1-249-425-11	CARBON	4.7K 5% 1/4W F
R692	1-249-432-11	CARBON	18K 5% 1/4W	R810	1-249-429-11	CARBON	10K 5% 1/4W
R693	1-249-434-11	CARBON	27K 5% 1/4W	R811	1-249-425-11	CARBON	4.7K 5% 1/4W F
R694	1-247-864-11	CARBON	24K 5% 1/4W	R812	1-249-429-11	CARBON	10K 5% 1/4W
R695	1-249-437-11	CARBON	47K 5% 1/4W	R813	1-249-433-11	CARBON	22K 5% 1/4W
R696	1-249-437-11	CARBON	47K 5% 1/4W	R814	1-249-433-11	CARBON	22K 5% 1/4W
R697	1-249-434-11	CARBON	27K 5% 1/4W	R815	1-249-556-11	CARBON	1.5K 5% 1/4W
R698	1-249-440-11	CARBON	82K 5% 1/4W	R816	1-249-422-11	CARBON	2.7K 5% 1/4W F
R701	1-249-433-11	CARBON	22K 5% 1/4W	R817	1-247-834-11	CARBON	1.3K 5% 1/4W
R702	1-249-421-11	CARBON	2.2K 5% 1/4W F	R818	1-249-425-11	CARBON	4.7K 5% 1/4W F
△R703	1-219-136-11	FUSIBLE	0.22 10% 1/4W	R819	1-249-433-11	CARBON	22K 5% 1/4W
△R704	1-219-136-11	FUSIBLE	0.22 10% 1/4W	R821	1-247-850-11	CARBON	6.2K 5% 1/4W
R705	1-249-422-11	CARBON	2.7K 5% 1/4W F	R822	1-249-429-11	CARBON	10K 5% 1/4W
R706	1-249-421-11	CARBON	2.2K 5% 1/4W F	R823	1-249-425-11	CARBON	4.7K 5% 1/4W F
R707	1-247-840-00	CARBON	2.4K 5% 1/4W	R824	1-249-425-11	CARBON	4.7K 5% 1/4W F
R708	1-249-430-11	CARBON	12K 5% 1/4W	R825	1-249-425-11	CARBON	4.7K 5% 1/4W F
R709	1-249-430-11	CARBON	12K 5% 1/4W	R827	1-249-437-11	CARBON	47K 5% 1/4W
R710	1-249-436-11	CARBON	39K 5% 1/4W	R828	1-249-417-11	CARBON	1K 5% 1/4W F

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

Les composants identifiés par une marque △ sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.



Consisting the following section in the panel.  
 (CONTROL S/COVER/DB VOL/DOLBY/HP/PJ/POWER SW/  
 POWER TRANSFORMER/REC VOL/RM SENSOR/SW (A)/SW (B))

**MAIN MD PANEL**

Ref. No.	Part No.	Description	Remark
RV151	1-238-600-11	RES, ADJ, CARBON 10K	
RV221	1-238-601-11	RES, ADJ, CARBON 22K	
RV231	1-238-600-11	RES, ADJ, CARBON 10K	
RV241	1-238-601-11	RES, ADJ, CARBON 22K	
RV251	1-238-600-11	RES, ADJ, CARBON 10K	
RV301	1-238-600-11	RES, ADJ, CARBON 10K	
RV302	1-238-602-11	RES, ADJ, CARBON 47K	
RV351	1-238-600-11	RES, ADJ, CARBON 10K	
RV352	1-238-602-11	RES, ADJ, CARBON 47K	
RV401	1-238-600-11	RES, ADJ, CARBON 10K	
RV402	1-238-602-11	RES, ADJ, CARBON 47K	
RV451	1-238-600-11	RES, ADJ, CARBON 10K	
RV452	1-238-602-11	RES, ADJ, CARBON 47K	
RV831	1-238-602-11	RES, ADJ, CARBON 47K	
RV841	1-238-602-11	RES, ADJ, CARBON 47K	
RV871	1-238-600-11	RES, ADJ, CARBON 10K	
RV872	1-238-600-11	RES, ADJ, CARBON 10K	
RV881	1-238-600-11	RES, ADJ, CARBON 10K	
RV882	1-238-600-11	RES, ADJ, CARBON 10K	
RV891	1-238-600-11	RES, ADJ, CARBON 10K	
		< RELAY >	
RY531	1-755-061-11	RELAY	
RY551	1-755-061-11	RELAY	
		< TRANSFORMER >	
T121	1-433-382-11	TRANSFORMER, BIAS OSCILLATION	
T141	1-433-382-11	TRANSFORMER, BIAS OSCILLATION	
T221	1-433-382-11	TRANSFORMER, BIAS OSCILLATION	
T241	1-433-382-11	TRANSFORMER, BIAS OSCILLATION	
T521	1-433-336-11	TRANSFORMER, BIAS OSCILLATION	
T541	1-433-336-11	TRANSFORMER, BIAS OSCILLATION	
		< TEST PIN >	
* TP521	1-564-506-11	PLUG, CONNECTOR 3P	
* TP541	1-564-506-11	PLUG, CONNECTOR 3P	
* TP581	1-564-506-11	PLUG, CONNECTOR 3P	
* TP801	1-564-505-11	PLUG, CONNECTOR 2P	
* TP802	1-564-505-11	PLUG, CONNECTOR 2P	
* TP803	1-564-505-11	PLUG, CONNECTOR 2P	
		< VIBRATOR >	
X801	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	
X802	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	

\*\*\*\*\*

Ref. No.	Part No.	Description	Remark
*	1-632-740-11	MD BOARD *****	
	3-356-631-01	HOLDER (SENSOR)	
		< CONNECTOR >	
CN1001	1-506-615-11	PIN, CONNECTOR 9P	
* CN1002	1-564-502-11	PIN, CONNECTOR 10P	
		< IC >	
IC1001	8-749-920-97	PHOTO REFLECTOR GP2S22B	
IC1002	8-749-920-97	PHOTO REFLECTOR GP2S22B	
		< RESISTOR >	
R1001	1-249-408-11	CARBON 180 5% 1/4W F	
R1002	1-249-408-11	CARBON 180 5% 1/4W F	
		< SWITCH >	
S1001	1-466-525-11	ENCODER, ROTARY	
S1002	1-570-953-11	SWITCH, PUSH (1 KEY) (DOOR)	
S1003	1-571-958-11	SWITCH, PUSH (1 KEY) (CLOSE)	
S1004	1-572-126-11	SWITCH, PUSH (1 KEY) (OPEN)	
S1005	1-572-125-11	SWITCH, LEAF (FWD TAB)	
S1006	1-572-202-11	SWITCH, LEAF (HALF)	
S1007	1-572-125-11	SWITCH, LEAF (METAL)	
S1008	1-572-125-11	SWITCH, LEAF (70u)	
S1009	1-572-125-11	SWITCH, LEAF (REV TAB)	
		< TERMINAL >	
* TB1001	1-694-018-11	TERMINAL (5P) (ROTARY ENCODER)	
		*****	
*	A-2007-406-A	PANEL BOARD, COMPLETE (US, CND) *****	
*	A-2007-407-A	PANEL BOARD, COMPLETE (E) *****	
*	A-2007-408-A	PANEL BOARD, COMPLETE (AUS) ***** (Including CONTROL S, COVER, DB VOL, DOLBY, HP, PJ, POWER SW, POWER TRANSFORMER, REC VOL, RM SENSOR, SW (A), SW (B) BOARD)	
	9-911-844-XX	CUSHION	
*	3-385-607-01	HOLDER, FL TUBE	
		< CAPACITOR >	
C51	1-126-963-11	ELECT 4.7uF 20% 50V	
C52	1-126-963-11	ELECT 4.7uF 20% 50V	
C53	1-126-963-11	ELECT 4.7uF 20% 50V	
C54	1-126-963-11	ELECT 4.7uF 20% 50V	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C55	1-163-014-00	CERAMIC CHIP	0.0027uF 5% 50V	C492	1-163-133-00	CERAMIC CHIP	470PF 5% 50V
C56	1-104-562-11	FILM CHIP	0.082uF 5% 16V	C561	1-124-471-00	ELECT	1000uF 20% 6.3V
C57	1-104-559-11	FILM CHIP	0.047uF 5% 16V	C562	1-163-033-91	CERAMIC CHIP	0.022uF 50V
C58	1-164-693-11	CERAMIC CHIP	0.0018uF 5% 50V	C571	1-104-666-11	ELECT	220uF 20% 10V
C71	1-104-664-11	ELECT	47uF 20% 10V	C572	1-104-666-11	ELECT	220uF 20% 10V
C72	1-104-664-11	ELECT	47uF 20% 10V	C901	1-165-319-11	CERAMIC CHIP	0.1uF 50V
C75	1-124-903-11	ELECT	1uF 20% 50V	C902	1-124-443-00	ELECT	100uF 20% 10V
C81	1-104-664-11	ELECT	47uF 20% 10V	C903	1-165-319-11	CERAMIC CHIP	0.1uF 50V
C82	1-104-664-11	ELECT	47uF 20% 10V	C910	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V
C111	1-124-907-11	ELECT	10uF 20% 50V	C911	1-163-121-00	CERAMIC CHIP	150PF 5% 50V
C181	1-124-768-11	ELECT	4.7uF 20% 50V	C912	1-163-011-11	CERAMIC CHIP	0.0015uF 10% 50V
C211	1-124-907-11	ELECT	10uF 20% 50V	C996	1-165-319-11	CERAMIC CHIP	0.1uF 50V (US, CND)
C281	1-124-768-11	ELECT	4.7uF 20% 50V	C997	1-136-169-00	FILM	0.22uF 5% 50V
C371	1-126-963-11	ELECT	4.7uF 20% 50V	C998	1-136-169-00	FILM	0.22uF 5% 50V
C372	1-124-907-11	ELECT	10uF 20% 50V	C999	1-165-319-11	CERAMIC CHIP	0.1uF 50V
C373	1-164-695-11	CERAMIC CHIP	0.0022uF 5% 50V	< CONNECTOR >			
C375	1-126-963-11	ELECT	4.7uF 20% 50V	* CN73	1-568-955-11	PIN, CONNECTOR	6P
C376	1-104-561-11	FILM CHIP	0.068uF 5% 16V	CN74	1-506-468-11	PIN, CONNECTOR	3P
C377	1-104-563-11	FILM CHIP	0.1uF 5% 16V	* CN75	1-564-706-11	PIN, CONNECTOR (SMALL TYPE)	4P
C378	1-124-768-11	ELECT	4.7uF 20% 50V	* CN76	1-568-944-11	PIN, CONNECTOR	6P
C379	1-124-907-11	ELECT	10uF 20% 50V	CN371	1-695-087-11	PIN, CONNECTOR (PC BOARD)	7P
C380	1-124-916-11	ELECT	22uF 20% 63V	CN381	1-695-087-11	PIN, CONNECTOR (PC BOARD)	7P
C381	1-126-963-11	ELECT	4.7uF 20% 50V	CN471	1-695-087-11	PIN, CONNECTOR (PC BOARD)	7P
C382	1-163-119-00	CERAMIC CHIP	120PF 5% 50V	CN481	1-695-087-11	PIN, CONNECTOR (PC BOARD)	7P
C385	1-126-963-11	ELECT	4.7uF 20% 50V	CN560	1-506-468-11	PIN, CONNECTOR	3P
C386	1-104-561-11	FILM CHIP	0.068uF 5% 16V	* CN562	1-564-337-00	PIN, CONNECTOR	3P
C387	1-104-563-11	FILM CHIP	0.1uF 5% 16V	CN563	1-506-468-11	PIN, CONNECTOR	3P
C388	1-124-768-11	ELECT	4.7uF 20% 50V	CN571	1-506-468-11	PIN, CONNECTOR	3P
C389	1-124-907-11	ELECT	10uF 20% 50V	CN572	1-770-889-11	CONNECTOR (FFC)	8P
C390	1-124-916-11	ELECT	22uF 20% 63V	* CN702	1-580-230-31	PIN, CONNECTOR (PC BOARD)	2P (US, CND, AUS)
C391	1-126-963-11	ELECT	4.7uF 20% 50V	CN901	1-770-679-11	CONNECTOR (FFC)	5P
C392	1-163-133-00	CERAMIC CHIP	470PF 5% 50V	CN902	1-565-951-11	SOCKET, CONNECTOR (PC BOARD)	4P (US, CND)
C471	1-126-963-11	ELECT	4.7uF 20% 50V	CN903	1-506-469-11	PIN, CONNECTOR	4P (US, CND)
C472	1-124-907-11	ELECT	10uF 20% 50V	CN904	1-573-105-11	CONNECTOR, PC BOARD	4P
C473	1-164-695-11	CERAMIC CHIP	0.0022uF 5% 50V	* CN905	1-691-007-11	CONNECTOR, PC BOARD (PLUG)	4P
C475	1-126-963-11	ELECT	4.7uF 20% 50V	CN906	1-573-105-11	CONNECTOR, PC BOARD	4P
C476	1-104-561-11	FILM CHIP	0.068uF 5% 16V	* CN907	1-573-107-11	CONNECTOR, PC BOARD (PLUG)	4P
C477	1-104-563-11	FILM CHIP	0.1uF 5% 16V	CNP71	1-764-814-11	CONNECTOR, BOARD TO BOARD	15P
C478	1-124-768-11	ELECT	4.7uF 20% 50V	CNP72	1-764-814-11	CONNECTOR, BOARD TO BOARD	15P
C479	1-124-907-11	ELECT	10uF 20% 50V	< DIODE >			
C480	1-124-916-11	ELECT	22uF 20% 63V	D51	8-719-200-02	DIODE	10E2
C481	1-126-963-11	ELECT	4.7uF 20% 50V	D52	8-719-200-02	DIODE	10E2
C482	1-163-119-00	CERAMIC CHIP	120PF 5% 50V	D53	8-719-200-02	DIODE	10E2
C485	1-126-963-11	ELECT	4.7uF 20% 50V	D54	8-719-200-02	DIODE	10E2
C486	1-104-561-11	FILM CHIP	0.068uF 5% 16V	D55	8-719-988-62	DIODE	1SS355
C487	1-104-563-11	FILM CHIP	0.1uF 5% 16V				
C488	1-124-768-11	ELECT	4.7uF 20% 50V				
C489	1-124-907-11	ELECT	10uF 20% 50V				
C490	1-124-916-11	ELECT	22uF 20% 63V				
C491	1-126-963-11	ELECT	4.7uF 20% 50V				

# PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D56	8-719-988-62	DIODE 1SS355		Q904	8-729-805-65	TRANSISTOR 2SA1344	
D61	8-719-988-62	DIODE 1SS355		Q905	8-729-805-65	TRANSISTOR 2SA1344	
D561	8-719-988-62	DIODE 1SS355		Q906	8-729-805-65	TRANSISTOR 2SA1344	
D1031	8-719-988-62	DIODE 1SS355 (US, CND)		Q907	8-729-805-65	TRANSISTOR 2SA1344	
D1032	8-719-988-62	DIODE 1SS355 (US, CND)		Q908	8-729-805-65	TRANSISTOR 2SA1344	
< LEAD >				Q909	8-729-805-65	TRANSISTOR 2SA1344	
ECP1	1-765-469-11	LEAD (WITH CONNECTOR)		Q910	8-729-805-65	TRANSISTOR 2SA1344	
< IC >				Q911	8-729-805-65	TRANSISTOR 2SA1344	
IC51	8-759-636-55	IC M5218AFP		< RESISTOR >			
IC52	8-759-009-06	IC MC14052BF		R51	1-216-081-00	METAL CHIP 22K 5% 1/10W	
IC53	8-759-300-71	IC HD14053BFP		R52	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
IC54	8-759-100-96	IC uPC4558G2		R53	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
IC56	8-759-636-55	IC M5218AFP		R54	1-216-097-00	METAL CHIP 100K 5% 1/10W	
IC57	8-759-100-96	IC uPC4558G2		R55	1-216-097-00	METAL CHIP 100K 5% 1/10W	
IC58	8-759-009-06	IC MC14052BF		R56	1-208-797-11	METAL GLAZE 4.3K 2% 1/10W	
IC59	8-759-636-55	IC M5218AFP		R57	1-216-097-00	METAL CHIP 100K 5% 1/10W	
IC60	8-759-281-42	IC TC9210P		R58	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
IC71	8-752-066-36	IC CXA1563M		R59	1-216-073-00	METAL CHIP 10K 5% 1/10W	
IC81	8-752-066-36	IC CXA1563M		R60	1-216-073-00	METAL CHIP 10K 5% 1/10W	
IC804	8-759-008-79	IC MC14011BF (US, CND)		△R61	1-247-696-11	CARBON 47 5% 1/4W F	
IC901	8-759-337-51	IC M38122M2-103FP		△R62	1-249-401-11	CARBON 47 5% 1/4W F	
IC902	8-749-923-80	IC GPIU90XB		R63	1-216-089-00	METAL CHIP 47K 5% 1/10W	
< JACK >				R64	1-216-095-00	METAL CHIP 82K 5% 1/10W	
J501	1-568-519-41	JACK, LARGE TYPE (PHONES)		R65	1-216-089-00	METAL CHIP 47K 5% 1/10W	
< FILTER >				R66	1-216-089-00	METAL CHIP 47K 5% 1/10W	
LPF371	1-236-147-11	FILTER, LOW PASS		R71	1-216-682-11	METAL CHIP 20K 0.5% 1/10W	
LPF471	1-236-147-11	FILTER, LOW PASS		R73	1-216-081-00	METAL CHIP 22K 5% 1/10W	
< JACK >				R81	1-216-682-11	METAL CHIP 20K 0.5% 1/10W	
PJ561	1-573-070-11	JACK, PIN 4P (LINE IN/OUT)		R83	1-216-081-00	METAL CHIP 22K 5% 1/10W	
< TRANSISTOR >				R85	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
Q51	8-729-107-43	TRANSISTOR 2SC3624-L18		R86	1-216-081-00	METAL CHIP 22K 5% 1/10W	
Q52	8-729-107-43	TRANSISTOR 2SC3624-L18		R111	1-216-083-00	METAL CHIP 27K 5% 1/10W	
Q86	8-729-805-45	TRANSISTOR 2SC3395		R112	1-216-083-00	METAL CHIP 27K 5% 1/10W	
Q111	8-729-107-43	TRANSISTOR 2SC3624-L18		R113	1-216-089-00	METAL CHIP 47K 5% 1/10W	
Q161	8-729-922-37	TRANSISTOR 2SD2144S-UVW		R114	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
Q211	8-729-107-43	TRANSISTOR 2SC3624-L18		R115	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
Q261	8-729-922-37	TRANSISTOR 2SD2144S-UVW		R116	1-216-089-00	METAL CHIP 47K 5% 1/10W	
Q371	8-729-805-41	TRANSISTOR 2SC3398		R117	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
Q471	8-729-805-41	TRANSISTOR 2SC3398		R161	1-216-081-00	METAL CHIP 22K 5% 1/10W	
Q561	8-729-901-06	TRANSISTOR DTA144EK		R162	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
Q562	8-729-216-22	TRANSISTOR 2SA1162-G		R163	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
Q901	8-729-805-65	TRANSISTOR 2SA1344		R164	1-216-089-00	METAL CHIP 47K 5% 1/10W	
Q902	8-729-805-65	TRANSISTOR 2SA1344		R165	1-216-083-00	METAL CHIP 27K 5% 1/10W	
Q903	8-729-805-65	TRANSISTOR 2SA1344		R171	1-216-097-00	METAL CHIP 100K 5% 1/10W	
				R172	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
				R173	1-216-079-00	METAL CHIP 18K 5% 1/10W	
				R174	1-216-033-00	METAL CHIP 220 5% 1/10W	
				R181	1-216-073-00	METAL CHIP 10K 5% 1/10W	
				R182	1-216-684-11	METAL CHIP 24K 0.5% 1/10W	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
--	--

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R183	1-216-097-00	METAL CHIP	100K 5% 1/10W	R910	1-216-097-00	METAL CHIP	100K 5% 1/10W
R184	1-216-077-00	METAL CHIP	15K 5% 1/10W	R911	1-216-097-00	METAL CHIP	100K 5% 1/10W
R185	1-208-799-11	METAL GLAZE	5.1K 2% 1/10W	R912	1-216-097-00	METAL CHIP	100K 5% 1/10W
R186	1-216-097-00	METAL CHIP	100K 5% 1/10W	R913	1-216-097-00	METAL CHIP	100K 5% 1/10W
R211	1-216-083-00	METAL CHIP	27K 5% 1/10W	R914	1-216-073-00	METAL CHIP	10K 5% 1/10W
R212	1-216-083-00	METAL CHIP	27K 5% 1/10W	R915	1-216-097-00	METAL CHIP	100K 5% 1/10W
R213	1-216-089-00	METAL CHIP	47K 5% 1/10W	R916	1-216-073-00	METAL CHIP	10K 5% 1/10W
R214	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R917	1-216-073-00	METAL CHIP	10K 5% 1/10W
R215	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R918	1-216-073-00	METAL CHIP	10K 5% 1/10W
R216	1-216-089-00	METAL CHIP	47K 5% 1/10W	R919	1-216-073-00	METAL CHIP	10K 5% 1/10W
R217	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R920	1-216-097-00	METAL CHIP	100K 5% 1/10W
R261	1-216-081-00	METAL CHIP	22K 5% 1/10W	R921	1-216-097-00	METAL CHIP	100K 5% 1/10W
R262	1-216-049-91	METAL GLAZE	1K 5% 1/10W	R922	1-216-025-91	METAL GLAZE	100 5% 1/10W
R263	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R923	1-216-049-91	METAL GLAZE	1K 5% 1/10W
R264	1-216-089-00	METAL CHIP	47K 5% 1/10W	R925	1-216-097-00	METAL CHIP	100K 5% 1/10W
R265	1-216-083-00	METAL CHIP	27K 5% 1/10W	R926	1-216-097-00	METAL CHIP	100K 5% 1/10W
R271	1-216-097-00	METAL CHIP	100K 5% 1/10W	R927	1-216-097-00	METAL CHIP	100K 5% 1/10W
R272	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R928	1-216-097-00	METAL CHIP	100K 5% 1/10W
R273	1-216-079-00	METAL CHIP	18K 5% 1/10W	R931	1-216-051-00	METAL CHIP	1.2K 5% 1/10W
R274	1-216-033-00	METAL CHIP	220 5% 1/10W	R938	1-216-077-00	METAL CHIP	15K 5% 1/10W
R281	1-216-073-00	METAL CHIP	10K 5% 1/10W	R939	1-216-089-00	METAL CHIP	47K 5% 1/10W
R282	1-216-684-11	METAL CHIP	24K 0.5% 1/10W	R940	1-216-051-00	METAL CHIP	1.2K 5% 1/10W
R283	1-216-097-00	METAL CHIP	100K 5% 1/10W	R951	1-216-051-00	METAL CHIP	1.2K 5% 1/10W
R284	1-216-077-00	METAL CHIP	15K 5% 1/10W	R952	1-216-055-00	METAL CHIP	1.8K 5% 1/10W
R285	1-208-799-11	METAL GLAZE	5.1K 2% 1/10W	R953	1-216-059-00	METAL CHIP	2.7K 5% 1/10W
R286	1-216-097-00	METAL CHIP	100K 5% 1/10W	R954	1-216-063-00	METAL CHIP	3.9K 5% 1/10W
R371	1-216-097-00	METAL CHIP	100K 5% 1/10W	R959	1-216-069-00	METAL CHIP	6.8K 5% 1/10W
R372	1-216-097-00	METAL CHIP	100K 5% 1/10W	R960	1-216-077-00	METAL CHIP	15K 5% 1/10W
R373	1-216-073-00	METAL CHIP	10K 5% 1/10W	R961	1-216-089-00	METAL CHIP	47K 5% 1/10W
R374	1-216-079-00	METAL CHIP	18K 5% 1/10W	R962	1-216-051-00	METAL CHIP	1.2K 5% 1/10W
R375	1-216-061-00	METAL CHIP	3.3K 5% 1/10W	R963	1-216-055-00	METAL CHIP	1.8K 5% 1/10W
R376	1-216-097-00	METAL CHIP	100K 5% 1/10W	R968	1-216-059-00	METAL CHIP	2.7K 5% 1/10W
R377	1-216-071-00	METAL CHIP	8.2K 5% 1/10W	R969	1-216-063-00	METAL CHIP	3.9K 5% 1/10W
R471	1-216-097-00	METAL CHIP	100K 5% 1/10W	R971	1-216-069-00	METAL CHIP	6.8K 5% 1/10W
R472	1-216-097-00	METAL CHIP	100K 5% 1/10W	R972	1-216-077-00	METAL CHIP	15K 5% 1/10W
R473	1-216-073-00	METAL CHIP	10K 5% 1/10W	R973	1-216-089-00	METAL CHIP	47K 5% 1/10W
R474	1-216-079-00	METAL CHIP	18K 5% 1/10W	R974	1-216-051-00	METAL CHIP	1.2K 5% 1/10W
R475	1-216-061-00	METAL CHIP	3.3K 5% 1/10W	R975	1-216-055-00	METAL CHIP	1.8K 5% 1/10W
R476	1-216-097-00	METAL CHIP	100K 5% 1/10W	R976	1-216-059-00	METAL CHIP	2.7K 5% 1/10W
R477	1-216-071-00	METAL CHIP	8.2K 5% 1/10W	R981	1-216-063-00	METAL CHIP	3.9K 5% 1/10W
R561	1-216-033-00	METAL CHIP	220 5% 1/10W	R982	1-216-069-00	METAL CHIP	6.8K 5% 1/10W
R562	1-216-081-00	METAL CHIP	22K 5% 1/10W	R983	1-216-077-00	METAL CHIP	15K 5% 1/10W
R901	1-216-097-00	METAL CHIP	100K 5% 1/10W	R984	1-216-089-00	METAL CHIP	47K 5% 1/10W
R902	1-216-097-00	METAL CHIP	100K 5% 1/10W	R985	1-216-051-00	METAL CHIP	1.2K 5% 1/10W
R903	1-216-097-00	METAL CHIP	100K 5% 1/10W	R986	1-216-055-00	METAL CHIP	1.8K 5% 1/10W
R904	1-216-097-00	METAL CHIP	100K 5% 1/10W	R987	1-216-059-00	METAL CHIP	2.7K 5% 1/10W
R905	1-216-097-00	METAL CHIP	100K 5% 1/10W	R988	1-216-069-00	METAL CHIP	6.8K 5% 1/10W
R906	1-216-097-00	METAL CHIP	100K 5% 1/10W	R991	1-216-077-00	METAL CHIP	15K 5% 1/10W
R907	1-216-097-00	METAL CHIP	100K 5% 1/10W	R992	1-216-089-00	METAL CHIP	47K 5% 1/10W
R908	1-216-097-00	METAL CHIP	100K 5% 1/10W	R993	1-216-051-00	METAL CHIP	1.2K 5% 1/10W



**PANEL**

**REEL MOTOR**

**TRANSLATION**

Ref. No.	Part No.	Description	Remark
R994	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R995	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R996	1-216-063-00	METAL CHIP 3.9K 5% 1/10W	
R997	1-216-063-00	METAL CHIP 3.9K 5% 1/10W	
R998	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R1031	1-216-001-00	METAL CHIP 10 5% 1/10W (US, CND)	
R1032	1-216-073-00	METAL CHIP 10K 5% 1/10W (US, CND)	
R1033	1-216-073-00	METAL CHIP 10K 5% 1/10W (US, CND)	
R1034	1-216-025-91	METAL GLAZE 100 5% 1/10W (US, CND)	
R1035	1-216-073-00	METAL CHIP 10K 5% 1/10W (US, CND)	
R1036	1-216-073-00	METAL CHIP 10K 5% 1/10W (US, CND)	
< VARIABLE RESISTOR >			
RV71	1-223-893-11	RES, VAR 10K/10K (DUBBING LEVEL)	
RV561	1-223-867-11	RES, VAR, CARBON 50K/50K (REC LEVEL)	
RV562	1-223-892-11	RES, VAR 50K/50K (BALANCE)	
RV901	1-223-868-11	RES, VAR 10K (TAPE SPEED)	
< SWITCH >			
S901	1-554-118-00	SWITCH, PUSH (1 KEY) (POWER)	
S931	1-554-303-21	SWITCH, TACTILE (REC MUTE ● DECK-A)	
S932	1-554-303-21	SWITCH, TACTILE (REC ● DECK-A)	
S933	1-554-303-21	SWITCH, TACTILE (AMS ►► DECK-A)	
S934	1-554-303-21	SWITCH, TACTILE (AMS ◄◄ DECK-A)	
S935	1-554-303-21	SWITCH, TACTILE (PAUSE ■■ DECK-A)	
S936	1-554-303-21	SWITCH, TACTILE (BACK ◄ DECK-A)	
S937	1-554-303-21	SWITCH, TACTILE (FRONT ► DECK-A)	
S938	1-554-303-21	SWITCH, TACTILE (CLEAR ■ DECK-A)	
S941	1-554-303-21	SWITCH, TACTILE (REC MUTE ● DECK-B)	
S942	1-554-303-21	SWITCH, TACTILE (REC ● DECK-B)	
S943	1-554-303-21	SWITCH, TACTILE (AMS ►► DECK-B)	
S944	1-554-303-21	SWITCH, TACTILE (AMS ◄◄ DECK-B)	
S945	1-554-303-21	SWITCH, TACTILE (PAUSE ■■ DECK-B)	
S946	1-554-303-21	SWITCH, TACTILE (◄ DECK-B)	
S947	1-554-303-21	SWITCH, TACTILE (► DECK-B)	
S948	1-554-303-21	SWITCH, TACTILE (■ DECK-B)	
S961	1-554-303-21	SWITCH, TACTILE (COUNTER RESET DECK-A)	
S962	1-554-303-21	SWITCH, TACTILE (COUNTER MEMORY DECK-A)	
S963	1-554-303-21	SWITCH, TACTILE (PITCH CONTROL ON/OFF, 1)	
S964	1-554-303-21	SWITCH, TACTILE (MPX FILTER, 4)	
S965	1-554-303-21	SWITCH, TACTILE (DIR MODE, 7)	
S966	1-554-303-21	SWITCH, TACTILE (AUTO CAL, 8 DECK-A)	
S967	1-554-303-21	SWITCH, TACTILE (DOLBY NR, 5 DECK-A)	
S968	1-554-303-21	SWITCH, TACTILE (BLANK SKIP, 2)	
S971	1-554-303-21	SWITCH, TACTILE (COUNTER RESET DECK-B)	
S972	1-554-303-21	SWITCH, TACTILE (COUNTER MEMORY DECK-B)	
S973	1-554-303-21	SWITCH, TACTILE (SYNCHRO DUBBING NORMAL)	
S974	1-554-303-21	SWITCH, TACTILE (SYNCHRO DUBBING HIGH, >10)	
S975	1-554-303-21	SWITCH, TACTILE (A+B REC, 10)	

Ref. No.	Part No.	Description	Remark
S976	1-554-303-21	SWITCH, TACTILE (AUTO CAL, 9 DECK-B)	
S977	1-554-303-21	SWITCH, TACTILE (DOLBY NR, 6 DECK-B)	
S978	1-554-303-21	SWITCH, TACTILE (AUTO PAUSE, 3)	
S979	1-571-452-11	SWITCH, SLIDE (TIMER)	
S983	1-554-303-21	SWITCH, TACTILE (RMS DISPLAY)	
S984	1-554-303-21	SWITCH, TACTILE (RMS/START)	
S985	1-554-303-21	SWITCH, TACTILE (RMS CHECK)	
S986	1-554-303-21	SWITCH, TACTILE (RMS SET)	
S987	1-554-303-21	SWITCH, TACTILE (PHONE LEVEL -)	
S988	1-554-303-21	SWITCH, TACTILE (PHONE LEVEL +)	
S989	1-554-303-21	SWITCH, TACTILE (OPEN/CLOSE △ DECK-B)	
S990	1-554-303-21	SWITCH, TACTILE (OPEN/CLOSE △ DECK-A)	
< FLUORESCENT INDICATOR >			
VFD901	1-517-415-11	INDICATOR TUBE, FLUORESCENT	
< VIBRATOR >			
X901	1-577-358-21	VIBRATOR, CERAMIC (4MHZ)	
*****			
1-632-741-21 REEL MOTOR BOARD			
*****			
< CAPACITOR >			
C1051	1-124-907-11	ELECT 10uF 20% 50V	
C1052	1-124-907-11	ELECT 10uF 20% 50V	
C1053	1-164-159-11	CERAMIC 0.1uF 50V	
< CONNECTOR >			
* CN1051	1-568-947-11	PIN, CONNECTOR 9P	
* CN1052	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P	
* CN1053	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P	
< MOTOR >			
M1051	X-3356-638-1	MOTOR (REEL R) ASSY	
M1052	X-3356-604-1	MOTOR (ASSIST) ASSY	
< RESISTOR >			
R1051	1-247-825-31	CARBON 560 5% 1/4W	
*****			
* 1-634-323-11 TRANSLATION BOARD			
*****			
< CONNECTOR >			
* CN1091	1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P	
* CN1092	1-564-509-11	PLUG, CONNECTOR 6P	
* CN1093	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P	
CN1094	1-564-506-11	PLUG, CONNECTOR 3P	

Ref.No.	Part No.	Description	Remark
*****			
MISCELLANEOUS			
*****			
64	1-575-674-11	WIRE, FLAT TYPE (8 CORE)	
73	1-575-663-31	WIRE, FLAT TYPE (5 CORE)	
△105	1-551-188-XX	CORD, POWER (E)	
△105	1-590-836-11	CORD, POWER (US, CND)	
△105	1-696-845-11	CORD, POWER (AUS)	
△106	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
* CNJ1	1-558-350-21	CORD (WITH CONNECTOR) (CONTROL S IN)	(US, CND)
D1001	8-719-980-85	DIODE SLF-325C	
D1091	8-719-950-74	LED SLR314D-B	
ECP1	1-765-469-11	LEAD (WITH CONNECTOR)	
HRPE1001A-2003-722-A	DECK ASSY, HEAD (REC/PB/ERASE)		
IC1001	8-749-920-97	PHOTO REFLECTOR GP2S22B	
IC1002	8-749-920-97	PHOTO REFLECTOR GP2S22B	
M1051	X-3356-638-1	MOTOR (REEL R) ASSY	
M1052	X-3356-604-1	MOTOR (ASSIST) ASSY	
M1053	X-3356-605-1	MOTOR (CAPSTAN R) ASSY	
Q1091	8-729-809-43	TRANSISTOR SPS-314B-BE	
RV561	1-223-867-11	RES, VAR, CARBON 50K/50K	
△S901	1-570-307-11	SELECTOR, POWER VOLTAGE (E)	
S1001	1-466-525-11	ENCODER, ROTARY	
△T1	1-427-923-11	TRANSFORMER, POWER (AUS)	
△T1	1-427-924-11	TRANSFORMER, POWER (US, CND)	
△T1	1-427-925-11	TRANSFORMER, POWER (E)	
VFD901	1-517-415-11	INDICATOR TUBE, FLUORESCENT	

\*\*\*\*\*

ACCESSORIES & PACKING MATERIALS

\*\*\*\*\*

	1-465-738-11	REMOTE COMMANDER (RM-J903) (E, AUS)	
	1-558-271-11	CORD, CONNECTION (AUDIO 108cm)	
	2-181-754-01	COVER, BATTERY (for RM-J903) (E, AUS)	
*	3-354-913-01	CUSHION	
	3-798-768-11	MANUAL, INSTRUCTION	(ENGLISH, FRENCH, SPANISH) (CND, E)
	3-798-768-21	MANUAL, INSTRUCTION (ENGLISH) (US, AUS)	
*	3-925-711-01	INDIVIDUAL CARTON	

\*\*\*\*\*

Ref.No.	Part No.	Description	Remark
*****			
HARDWARE LIST			
*****			
#1	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT	
#2	7-685-870-01	SCREW +BVTT 3X5 (S)	
#3	7-685-134-19	SCREW (+ PTPWH) (2. 6X8)	
#4	7-685-871-01	SCREW +BVTT 3X6 (S)	
#5	7-682-548-09	SCREW +BVTT 3X8 (S)	
#6	7-685-534-19	SCREW +BTP 2. 6X8 TYPE2 N-S	
#7	7-682-548-04	SCREW +BVTT 3X8 (S)	
#8	7-621-255-20	SCREW +BVTT 2X4 (S)	
#9	7-621-770-67	SCREW +BVTT 2. 6X6 (S)	
#10	7-685-131-19	SCREW +BTP 2. 6X4 TYPE2 N-S	
#11	7-621-255-35	SCREW +BVTT 2X5 (S)	
#12	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#13	7-685-533-19	SCREW +BTP 2. 6X6 TYPE2 N-S	

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

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



# TC-WA9ES

## SONY SERVICE MANUAL

US Model  
Canadian Model  
E Model  
Australian Model

### SUPPLEMENT-1

File this supplement with the service manual.

**Subject : 1. CORRECTION  
2. RM SENSOR BOARD AND PANEL BOARD  
CHANGED  
3. OTHER CHANGES**























(RPC-96006/ECN-TC500422)

#### 1. CORRECTION

- Correct your service manual as shown below.

#### GENERAL

 : Indicates corrected portion

Page	INCORRECT	CORRECT
3	 1/PITCH CONTROL (Tape speed)	 PITCH CONTROL (Tape speed)
	 4/TIMER switch	 TIMER switch
	 7/PITCH CONTROL ON/OFF (Tape speed) button	 1/PITCH CONTROL ON/OFF (Tape speed) button
	 2/MPX (multiplex) FILTER ON/OFF button	 4/MPX (multiplex) FILTER ON/OFF button
	 5/DIR (direction) MODE switch	 7/DIR (direction) MODE switch
	 BLANK SKIP button	 2/BLANK SKIP button
	 9 DOLBY NR (Dolby noise reduction) buttons (deck A) ON/OFF button B/C/S button	 9 5/DOLBY NR (Dolby noise reduction) buttons (deck A) OFF/B/C/S button
	 12 6/DOLBY NR (Dolby noise reduction) buttons (deck B) ON/OFF button B/C/S button	 12 6/DOLBY NR (Dolby noise reduction) buttons (deck B) OFF/B/C/S button
	 13 AUTO PAUSE button	 13 3/AUTO PAUSE button
	 14 A+B REC (simultaneous recording) button	 14 10/A+B REC (simultaneous recording) button
 15 SYNCHRO DUBBING buttons HIGH Speed button NORMAL Speed button	 15 >10/SYNCHRO DUBBING buttons HIGH Speed button NORMAL Speed button	

**SCHEMATIC DIAGRAM**

☞ : Indicates corrected portion

Page	INCORRECT	CORRECT
30	<p><b>[RM SENROR BOARD] [PANEL BOARD]</b> Location: C-E, 5-6</p> <p><b>[PANEL BOARD]</b></p>	<p><b>[RM SENROR BOARD] [PANEL BOARD]</b> Location: C-E, 5-6</p> <p><b>[PANEL BOARD]</b></p>

**PRINTED WIRING BOARD**

☞ : Indicates corrected portion

Page	INCORRECT	CORRECT
36	<p><b>[RM SENROR BOARD] [PANEL BOARD]</b> Location: C-D, 8-10</p> <p><b>[PANEL BOARD]</b></p>	<p><b>[RM SENROR BOARD] [PANEL BOARD]</b> Location: C-D, 8-10</p> <p><b>[PANEL BOARD]</b></p>

**EXPLODED VIEWS**

Page	INCORRECT				CORRECT			
	Ref. No	Part No	Description	Remark	Ref. No	Part No	Description	Remark
42	69	9-911-844-XX	CUSHION		* 69	3-354-927-21	CUSHION	
45	202	X-3356-642-1	FLYWHEEL (R FWD) ASSY		202	X-3356-643-1	FLYWHEEL (R REV) ASSY	
	203	X-3356-643-1	FLYWHEEL (R REV) ASSY		203	X-3356-642-1	FLYWHEEL (R FWD) ASSY	

## 2. RM SENSOR BOARD and PANEL BOARD CHANGED

The RM SENSOR board has been changed due to improvements made in the remote control light-receiving circuit, and consequently, the panel board has also been changed.

The former type and new type RM SENSOR boards are not interchangeable.

The PANEL board connected to this board is also not interchangeable between the old and new types.

For details of the interchangeabilities of the PANEL board and RM SENSOR board, refer to the following table.

		PANEL board		
		FORMER TYPE (board suffix number: 11)	NEW TYPE (board suffix number: 12)	
			For former IC	For new IC
RM SENSOR Board	FORMER TYPE (IC902: GPU90XB)	○	○ * Note 1	×
	NEW TYPE (IC902: SBX1780-51)	×	×	○ * Note 1

**\* Note 1:**

The RM SENSOR board has two kinds of type such as old type (board suffix number: 11) and new type (board suffix number: 12) according to using parts to IC902.

The new type PANEL board (board suffix number: 12) can be made to correspond to the former type and new type RM SENSOR boards by changing the mounted parts to the board.

Check if the RM SENSOR board used is the old or new type and use the corresponding PANEL board.

**CORRESPONDENCE OF NEW AND OLD RM SENSOR BOARDS**

- Use the former type RM SENSOR board only for the former type PANEL board (board suffix number: 11).  
(The new type RM SENSOR board cannot be used because of modifications of the connection of the connector.)
- The new type PANEL board (board suffix number: 12) can correspond to the former and new type RM SENSOR boards by changing a part of circuit.  
However, the connection of the connector is not interchangeable between the PANEL and RM SENSOR boards.  
Refer to the following table and perform the necessary repairs.

**Difference between Former and New PANEL and RM SENSOR Boards**

: Indicates changed portion

Page	FORMER Type (RM SENSOR BOARD suffix No. -11)	NEW Type (RM SENSOR BOARD suffix No. -12)
31	<p><b>[RM SENSOR BOARD] [PANEL BOARD]</b> Location: D-E, 5-6</p> <p><b>[RM SENSOR BOARD]</b> IC902 GP1U90XB REMOTE CONTROL SENSER</p> <p><b>[PANEL BOARD]</b></p>	<p><b>[RM SENSOR BOARD]</b> IC902 SBX1780-51 REMOTE CONTROL SENSER</p> <p><b>[PANEL BOARD]</b></p>


Page	FORMER Type (RM SENSOR BOARD suffix No. -11)	NEW Type (RM SENSOR BOARD suffix No. -12)																																
36	<p><b>[PANEL BOARD]</b> Location: B-D, 7-9</p> <p>CONTROL S BOARD CN903 MAIN BOARD CN802</p> <p>1-656-410-12(B)</p> <p>1-656-410-11(N)</p> <p><b>[RM SENSOR BOARD]</b> Location: C-D, 9-10</p>	<p><b>[PANEL BOARD]</b> Location: B-D, 7-9</p> <p>CONTROL S BOARD CN903 MAIN BOARD CN802</p> <p>1-656-410-12(B)</p> <p>1-656-410-12(N)</p>																																
55	<table border="1"> <thead> <tr> <th>Ref.No</th> <th>Part No</th> <th>Description</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>*** PANEL BOARD ***</td> <td></td> </tr> <tr> <td></td> <td>C904</td> <td>NO MOUNT</td> <td></td> </tr> <tr> <td></td> <td>* CN905</td> <td>1-691-007-11 CONNECTOR, PC BOARD (PLUG) 4P</td> <td></td> </tr> </tbody> </table>	Ref.No	Part No	Description	Remark			*** PANEL BOARD ***			C904	NO MOUNT			* CN905	1-691-007-11 CONNECTOR, PC BOARD (PLUG) 4P		<table border="1"> <thead> <tr> <th>Ref.No</th> <th>Part No</th> <th>Description</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>*** PANEL BOARD ***</td> <td></td> </tr> <tr> <td></td> <td>C904</td> <td>1-124-589-11 ELECT 47uF 20% 16V</td> <td></td> </tr> <tr> <td></td> <td>* CN905</td> <td>1-573-107-11 CONNECTOR, PC BOARD (PLUG) 4P</td> <td></td> </tr> </tbody> </table>	Ref.No	Part No	Description	Remark			*** PANEL BOARD ***			C904	1-124-589-11 ELECT 47uF 20% 16V			* CN905	1-573-107-11 CONNECTOR, PC BOARD (PLUG) 4P	
Ref.No	Part No	Description	Remark																															
		*** PANEL BOARD ***																																
	C904	NO MOUNT																																
	* CN905	1-691-007-11 CONNECTOR, PC BOARD (PLUG) 4P																																
Ref.No	Part No	Description	Remark																															
		*** PANEL BOARD ***																																
	C904	1-124-589-11 ELECT 47uF 20% 16V																																
	* CN905	1-573-107-11 CONNECTOR, PC BOARD (PLUG) 4P																																
56	<table border="1"> <tbody> <tr> <td>IC902</td> <td>8-749-923-80</td> <td>IC</td> <td>GP1U90XB</td> </tr> <tr> <td>JW140</td> <td></td> <td>NO MOUNT</td> <td></td> </tr> <tr> <td>JW141</td> <td></td> <td>JUMPER WIRE</td> <td></td> </tr> </tbody> </table>	IC902	8-749-923-80	IC	GP1U90XB	JW140		NO MOUNT		JW141		JUMPER WIRE		<table border="1"> <tbody> <tr> <td>IC902</td> <td>8-741-780-51</td> <td>IC</td> <td>SBX1780-51</td> </tr> <tr> <td>JW140</td> <td></td> <td>JUMPER WIRE</td> <td></td> </tr> <tr> <td>JW141</td> <td></td> <td>NO MOUNT</td> <td></td> </tr> </tbody> </table>	IC902	8-741-780-51	IC	SBX1780-51	JW140		JUMPER WIRE		JW141		NO MOUNT									
IC902	8-749-923-80	IC	GP1U90XB																															
JW140		NO MOUNT																																
JW141		JUMPER WIRE																																
IC902	8-741-780-51	IC	SBX1780-51																															
JW140		JUMPER WIRE																																
JW141		NO MOUNT																																
57	<table border="1"> <tbody> <tr> <td>R922</td> <td>1-216-025-91</td> <td>METAL GLAZE</td> <td>100 5% 1/10W</td> </tr> <tr> <td></td> <td></td> <td></td> <td>(Note 2)</td> </tr> <tr> <td>R977</td> <td></td> <td>NO MOUNT</td> <td></td> </tr> </tbody> </table>	R922	1-216-025-91	METAL GLAZE	100 5% 1/10W				(Note 2)	R977		NO MOUNT		<table border="1"> <tbody> <tr> <td>R922</td> <td>1-216-025-91</td> <td>METAL GLAZE</td> <td>100 5% 1/10W</td> </tr> <tr> <td></td> <td></td> <td></td> <td>(Note 2)</td> </tr> <tr> <td>R977</td> <td>1-216-017-91</td> <td>METAL GLAZE</td> <td>47 5% 1/10W</td> </tr> </tbody> </table>	R922	1-216-025-91	METAL GLAZE	100 5% 1/10W				(Note 2)	R977	1-216-017-91	METAL GLAZE	47 5% 1/10W								
R922	1-216-025-91	METAL GLAZE	100 5% 1/10W																															
			(Note 2)																															
R977		NO MOUNT																																
R922	1-216-025-91	METAL GLAZE	100 5% 1/10W																															
			(Note 2)																															
R977	1-216-017-91	METAL GLAZE	47 5% 1/10W																															

**Note 2:**

Mount the former type R922 to the PANEL board and new type to the RM SENSOR board.

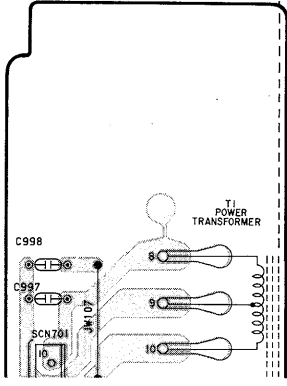
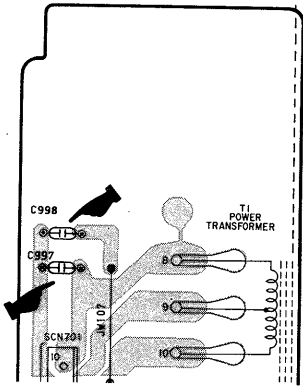
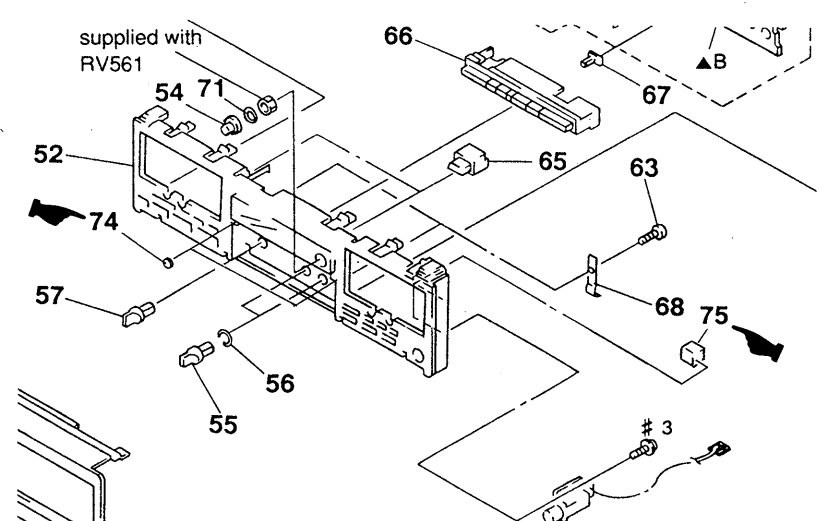


### 3. OTHER CHANGES

 : Indicates changed portion

**NOTE:**

- Abbreviation
- CND : Canadian model
- AUS : Australian model

Page	FORMER	NEW																												
23	<p><b>[POWER TRANSFORMER BOARD]</b> Location: B-D, 21-22</p>  <p style="text-align: center;">1-656-410-<u>11</u>(I)</p>	 <p style="text-align: center;">1-656-410-<u>12</u>(I)</p>																												
41	<table border="1"> <thead> <tr> <th>Ref. No</th> <th>Part No</th> <th>Description</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center;">*** EXPLODED VIEWS ***</td> </tr> <tr> <td>3</td> <td>3-923-143-01</td> <td>PLATE, ORNAMENTAL</td> <td></td> </tr> </tbody> </table>	Ref. No	Part No	Description	Remark	*** EXPLODED VIEWS ***				3	3-923-143-01	PLATE, ORNAMENTAL		<table border="1"> <thead> <tr> <th>Ref. No</th> <th>Part No</th> <th>Description</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center;">*** EXPLODED VIEWS ***</td> </tr> <tr> <td>3</td> <td>3-923-143-01</td> <td>PLATE, ORNAMENTAL (E, AUS)</td> <td></td> </tr> <tr> <td>3</td> <td>3-923-143-21</td> <td>PLATE, ORNAMENTAL (US, CND)</td> <td></td> </tr> </tbody> </table>	Ref. No	Part No	Description	Remark	*** EXPLODED VIEWS ***				3	3-923-143-01	PLATE, ORNAMENTAL (E, AUS)		3	3-923-143-21	PLATE, ORNAMENTAL (US, CND)	
Ref. No	Part No	Description	Remark																											
*** EXPLODED VIEWS ***																														
3	3-923-143-01	PLATE, ORNAMENTAL																												
Ref. No	Part No	Description	Remark																											
*** EXPLODED VIEWS ***																														
3	3-923-143-01	PLATE, ORNAMENTAL (E, AUS)																												
3	3-923-143-21	PLATE, ORNAMENTAL (US, CND)																												
42	<table border="1"> <tbody> <tr> <td>* 58</td> <td>3-350-846-21</td> <td>HOLDER, PCB (US, CND)</td> </tr> <tr> <td>66</td> <td>3-923-146-01</td> <td>BUTTON (COUNTER)</td> </tr> <tr> <td>* 72</td> <td>3-704-198-11</td> <td>SUPPORT, PC (US, CND)</td> </tr> </tbody> </table>	* 58	3-350-846-21	HOLDER, PCB (US, CND)	66	3-923-146-01	BUTTON (COUNTER)	* 72	3-704-198-11	SUPPORT, PC (US, CND)	<table border="1"> <tbody> <tr> <td>* 58</td> <td>3-682-419-11</td> <td>HOLDER, PCB (US, CND)</td> </tr> <tr> <td>66</td> <td>3-923-146-01</td> <td>BUTTON (COUNTER) (US, CND)</td> </tr> <tr> <td>66</td> <td>3-923-146-11</td> <td>BUTTON (COUNTER) (E, AUS)</td> </tr> <tr> <td>* 72</td> <td>3-704-198-01</td> <td>SUPPORT, PC (US, CND)</td> </tr> <tr> <td>74</td> <td>2-538-217-01</td> <td>CUSHION</td> </tr> <tr> <td>75</td> <td>9-911-841-99</td> <td>CUSHION</td> </tr> </tbody> </table> 	* 58	3-682-419-11	HOLDER, PCB (US, CND)	66	3-923-146-01	BUTTON (COUNTER) (US, CND)	66	3-923-146-11	BUTTON (COUNTER) (E, AUS)	* 72	3-704-198-01	SUPPORT, PC (US, CND)	74	2-538-217-01	CUSHION	75	9-911-841-99	CUSHION	
* 58	3-350-846-21	HOLDER, PCB (US, CND)																												
66	3-923-146-01	BUTTON (COUNTER)																												
* 72	3-704-198-11	SUPPORT, PC (US, CND)																												
* 58	3-682-419-11	HOLDER, PCB (US, CND)																												
66	3-923-146-01	BUTTON (COUNTER) (US, CND)																												
66	3-923-146-11	BUTTON (COUNTER) (E, AUS)																												
* 72	3-704-198-01	SUPPORT, PC (US, CND)																												
74	2-538-217-01	CUSHION																												
75	9-911-841-99	CUSHION																												

Page	FORMER				NEW			
	Ref.No	Part No	Description	Remark	Ref.No	Part No	Description	Remark
43	ECP1 △S901	1-765-469-11 1-570-307-11	LEAD (WITH CONNECTOR) SELECTOR, POWER VOLTAGE (E)		ECP1 △S901	1-775-756-11 1-692-155-11	LEAD (WITH CONNECTOR) SELECTOR, POWER VOLTAGE (E)	
46	*** ELECTRICAL PARTS LIST *** *** DOLBY (S) BOARD ***				*** ELECTRICAL PARTS LIST *** *** DOLBY (S) BOARD ***			
	R2	1-208-806-11	METAL GLAZE	10K 2% 1/10W	R2	1-208-462-41	METAL GLAZE	10K 2% 1/10W
	R8	1-216-667-11	METAL GLAZE	4.7K 0.5% 1/10W	R8	1-208-453-41	METAL GLAZE	4.7K 2% 1/10W
	R14	1-216-667-11	METAL GLAZE	4.7K 0.5% 1/10W	R14	1-208-453-41	METAL GLAZE	4.7K 2% 1/10W
47	R25	1-208-806-11	METAL GLAZE	10K 2% 1/10W	R25	1-208-462-41	METAL GLAZE	10K 2% 1/10W
47	*** MAIN BOARD ***				*** MAIN BOARD ***			
	C191	1-124-925-11	ELECT	2.2uF 20% 100V	C191	1-126-961-11	ELECT	2.2uF 20% 50V
	C291	1-124-925-11	ELECT	2.2uF 20% 100V	C291	1-126-961-11	ELECT	2.2uF 20% 50V
	C521	1-124-925-11	ELECT	2.2uF 20% 100V	C521	1-126-961-11	ELECT	2.2uF 20% 50V
48	C541	1-124-925-11	ELECT	2.2uF 20% 100V	C541	1-126-961-11	ELECT	2.2uF 20% 50V
	C581	1-124-925-11	ELECT	2.2uF 20% 100V	C581	1-126-961-11	ELECT	2.2uF 20% 50V
	C586	1-124-925-11	ELECT	2.2uF 20% 100V	C586	1-126-961-11	ELECT	2.2uF 20% 50V
	C587	1-124-925-11	ELECT	2.2uF 20% 100V	C587	1-126-961-11	ELECT	2.2uF 20% 50V
	C803	1-124-925-11	ELECT	2.2uF 20% 100V	C803	1-126-961-11	ELECT	2.2uF 20% 50V
	CP521	1-232-946-11	COMPOSITION CIRCUIT BLOCK		CP521	1-233-562-11	COMPOSITION CIRCUIT BLOCK	
	CP541	1-232-946-11	COMPOSITION CIRCUIT BLOCK		CP541	1-233-562-11	COMPOSITION CIRCUIT BLOCK	
49	IC601	8-752-072-16	IC CXA1598M-T6		IC601	8-752-070-68	IC CXA1598M	
	IC602	8-752-072-16	IC CXA1598M-T6		IC602	8-752-070-68	IC CXA1598M	
	IC801	8-759-337-49	IC uPD78043AGF-023-3B9		IC801	8-759-356-94	IC uPD78043AGF-028-3B9	
	Q528	8-729-142-46	TRANSISTOR 2SC2001-LK		Q528	8-729-194-57	TRANSISTOR 2SC945-P	
	Q529	8-729-142-46	TRANSISTOR 2SC2001-LK		Q529	8-729-194-57	TRANSISTOR 2SC945-P	
50	Q548	8-729-142-46	TRANSISTOR 2SC2001-LK		Q548	8-729-194-57	TRANSISTOR 2SC945-P	
	Q549	8-729-142-46	TRANSISTOR 2SC2001-LK		Q549	8-729-194-57	TRANSISTOR 2SC945-P	
52	R762	1-249-423-11	CARBON	3.3K 5% 1/4W F	R762	1-247-843-11	CARBON	3.3K 5% 1/4W
	R786	1-249-423-11	CARBON	3.3K 5% 1/4W F	R786	1-247-843-11	CARBON	3.3K 5% 1/4W

Page	FORMER					NEW				
	Ref.No	Part No	Description	Remark		Ref.No	Part No	Description	Remark	
46	*** PANEL BOARD ***					*** PANEL BOARD ***				
		9-911-844-XX	CUSHION			*	3-354-927-21	CUSHION		
47	C380	1-124-916-11	ELECT	22uF	20% 63V	C380	1-126-965-11	ELECT	22uF	20% 50V
	C390	1-124-916-11	ELECT	22uF	20% 63V	C390	1-126-965-11	ELECT	22uF	20% 50V
	C480	1-124-916-11	ELECT	22uF	20% 63V	C480	1-126-965-11	ELECT	22uF	20% 50V
	C490	1-124-916-11	ELECT	22uF	20% 63V	C490	1-126-965-11	ELECT	22uF	20% 50V
54	ECP1	1-765-469-11	LEAD (WITH CONNECTOR)			ECP1	1-775-756-11	LEAD (WITH CONNECTOR)		
	Q51	8-729-107-43	TRANSISTOR	2SC3624-L18		Q51	8-729-107-46	TRANSISTOR	2SC3624A-L15	
	Q52	8-729-107-43	TRANSISTOR	2SC3624-L18		Q52	8-729-107-46	TRANSISTOR	2SC3624A-L15	
	Q111	8-729-107-43	TRANSISTOR	2SC3624-L18		Q111	8-729-107-46	TRANSISTOR	2SC3624A-L15	
	Q211	8-729-107-43	TRANSISTOR	2SC3624-L18		Q211	8-729-107-46	TRANSISTOR	2SC3624A-L15	
55	*** MISCELLANEOUS ***					*** MISCELLANEOUS ***				
	ECP1	1-765-469-11	LEAD (WITH CONNECTOR)			ECP1	1-775-756-11	LEAD (WITH CONNECTOR)		
	△S901	1-570-307-11	SELECTOR, POWER VOLTAGE (E)			△S901	1-692-155-11	SELECTOR, POWER VOLTAGE (E)		

<p>The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
---	---