

TC-H7900

SERVICE MANUAL



*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model*

TC-H7900 is the STEREO CASSETTE
DECK section in MHC-7900/ P100X

Model Name Using Similer Mechanism		TC-H4800
Tape Transport Mechanism Type	DECK-A	TC-190RA12A
	DECK-B	TC-190RB12 A

SPECIFICATIONS

Tape player

Recording system

4-track 2-channel stereo

Frequency response

(DOLBY NR OFF)

40 - 13,000 Hz (± 3 dB),

using Sony TYPE I cassette

40 - 14,000 Hz (± 3 dB),

using Sony TYPE II cassette

40 - 15,000 Hz (± 3 dB),

using Sony TYPE IV cassette

Wow and flutter

0.1% WRMS $\pm 0.3\%$ (DIN)

Dimensions

Approx. 225 x 130 x 230 mm (w/h/d)

(8 7/8 x 5 1/8 x 9 1/8 inches)

Mass

Approx. 2.7 kg

(5 lb 15 oz)

Design and specifications subject to change
without notice.

- * 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.

STEREO CASSETTE DECK
SONY[®]

Notes on chip component replacement

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

Flexible Circuit Board Repairing

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

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SAFETY-RELATED COMPONENT WARNING!!

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

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  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.

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 microampers). 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)

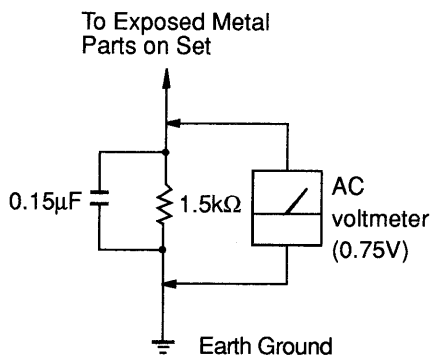


Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 1 SERVICE NOTE

• Power Supply Used In Servicing

This unit does not have its own power supply. As it works on the power supplied from the amplifier (TA-H7900E) used for this series, connect this amplifier when servicing the unit (conduction repair, etc.).

Power can also be supplied by connecting the "CDP/TC" connector of the conduction tool (PFJ-1). The following three items are required for this connection.

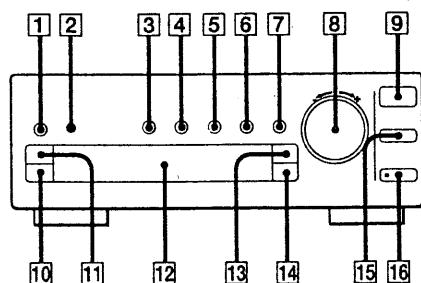
- J-2501-063-A
- 1-696-741-11 CORD, (WITH CONNECTOR)
- 1-751-541-11 CORD, (WITH CONNECTOR)

SECTION 2 GENERAL

This section is extracted from instruction manual.

Front Panel

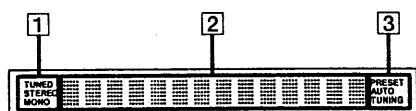
Tuner



- 1 Remote sensor
- 2 CLOCK SET button (6)
- 3 TIMER SET button (25)
- 4 ONCE button* (25)
- 5 DAILY button* (25)
- 6 REC TIMER button* (26)
- 7 SLEEP button* (25)
- 8 CONTROLLER control* (6, 10, 25)
- 9 BAND button (10, 16)
- 10 DISPLAY button (6, 11)
- 11 STEREO/MONO button (10)
- 12 Display window (6, 10)
- 13 MEMORY button (11)
- 14 STATION NAME button (11)
- 15 TUNING MODE button (10)
- 16 ENTER/NEXT button* (6, 11, 25)

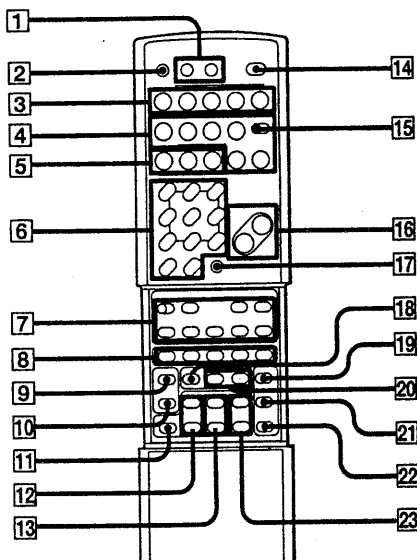
Display Window

Tuner



- 1 Receiving status indication (10)
- 2 Frequency/station name/time indication (10, 25)
- 3 Tuning mode indication (10)

Remote commander

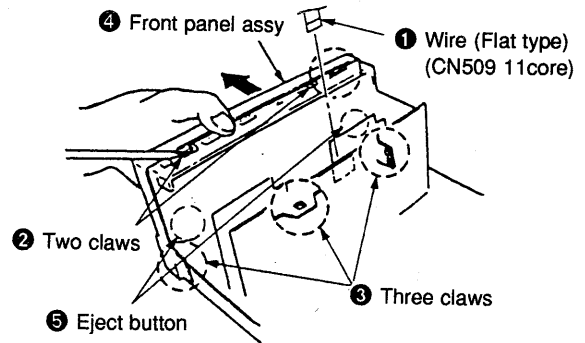
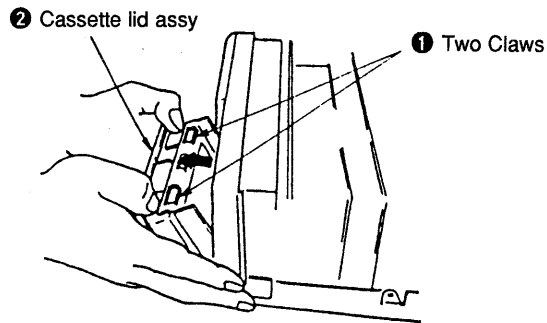


- 1 TAPE DECK A/B buttons (12)
- 2 SLEEP button (25)
- 3 CD/MD operating buttons (7, 16)
- 4 Cassette deck operating buttons (12)
- 5 Tuner operating buttons (11)
- 6 CD/Tuner/LPC numeric buttons (8, 11, 22)
- 7 VCR operating buttons (28)
- 8 TV operating buttons (28)
- 9 AUDIO FUNCTION button (28)
- 10 VIDEO FUNCTION button (28)
- 11 TEST TONE button (23)
- 12 REAR LEVEL +/- buttons (23)
- 13 CENTER LEVEL +/- buttons (23)
- 14 SYSTEM POWER switch (7)
- 15 CD/MD switch (7)
- 16 VOLUME +/- buttons (7)
- 17 LPC (Listening point control) button (22)
- 18 DIRECT button (18)
- 19 CHECK button (8)
- 20 MENU +/- button (18)
- 21 CLEAR button (8)
- 22 REPEAT button (9)
- 23 DELAY TIME +/- button (23)

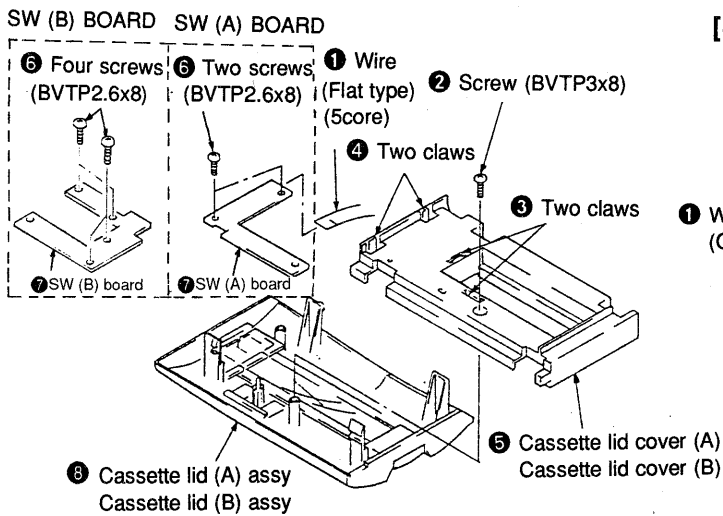
SECTION 3 DISASSEMBLY

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

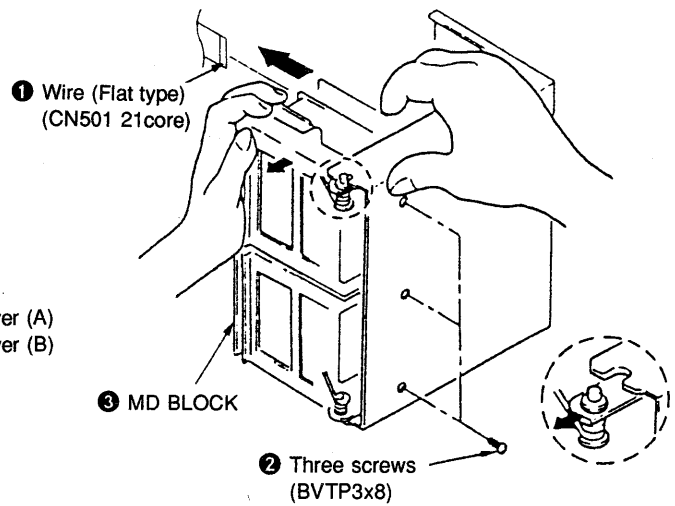
[FRONT PANEL]



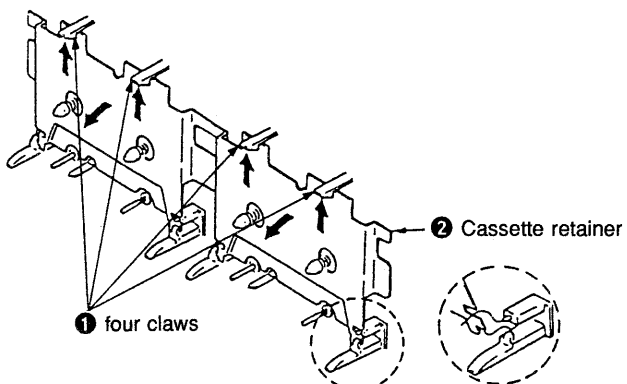
[SW (A), (B) BOARD]



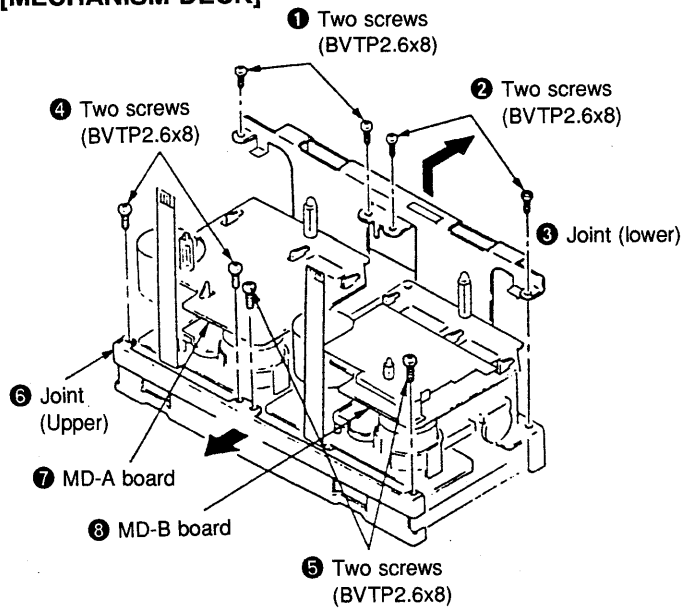
[MD BLOCK]



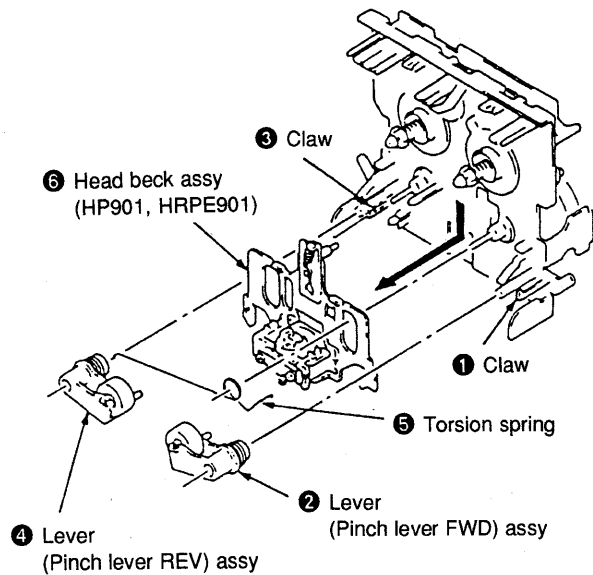
[CASSETTE RETAINER]



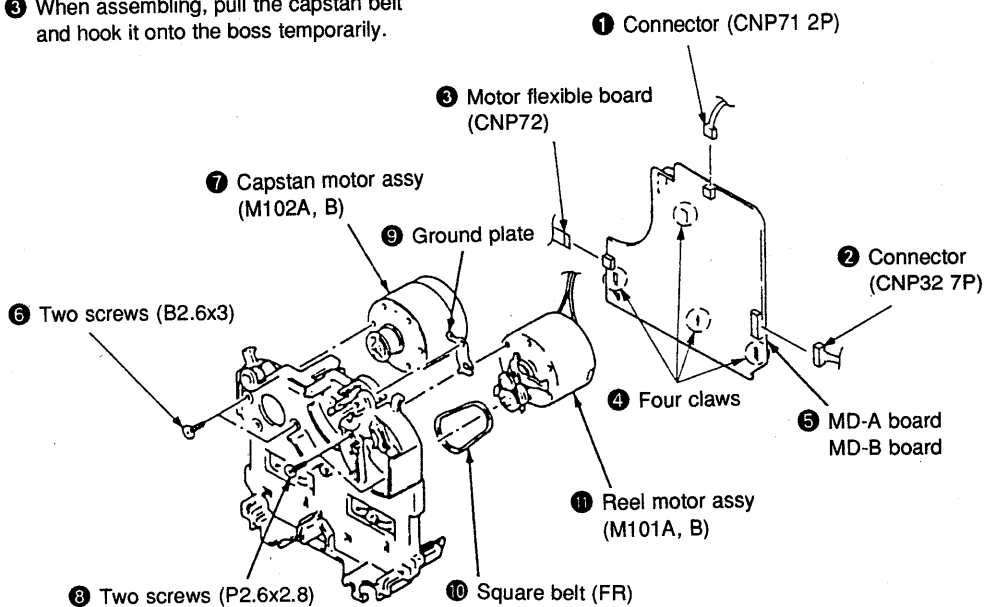
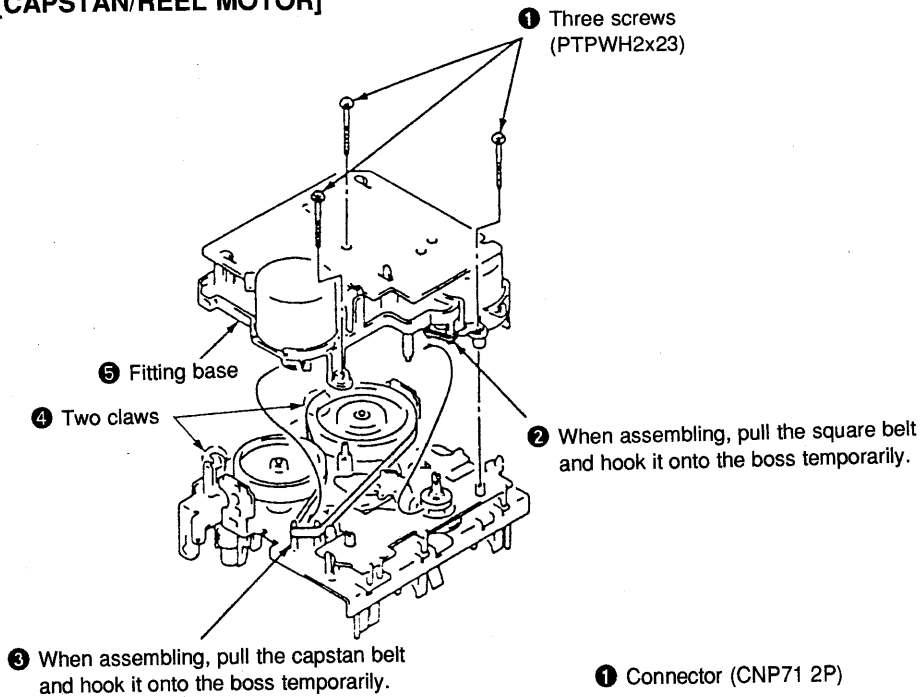
[MECHANISM DECK]



[HEAD DECK ASSY]



[CAPSTAN/REEL MOTOR]



SECTION 4 MECHANICAL ADJUSTMENTS

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 head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustment.
4. After the adjustment, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

• Torque Measurement

Torque	Torque meter	Meter reading
Forward	CQ-102C	30 to 65 g • cm (0.42 — 0.90 oz • inch)
Forward Back tension	CQ-102C	1.5 to 6 g • cm (0.020 to 0.08 oz • inch)
Reverse	CQ-102RC	30 to 65 g • cm (0.42 — 0.90 oz • inch)
Reverse Back tension	CQ-102RC	1.5 to 6 g • cm (0.020 to 0.08 oz • inch)
FF/ REW	CQ-201B	70 to 120 g • cm (0.98 to 1.67 oz • inch)

SECTION 5 ELECTRICAL ADJUSTMENTS

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

• Test Tape

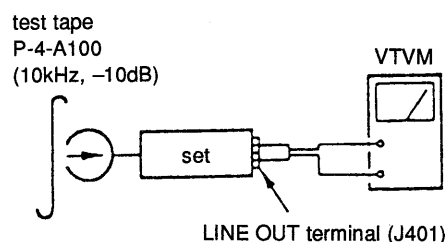
Tape	Contents	Used for
P-4-A100	10kHz, -10dB	Head Azimuth Adjustment
P-4-L300	315Hz, 0dB	Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

Record/ Playback Head Azimuth Adjustment

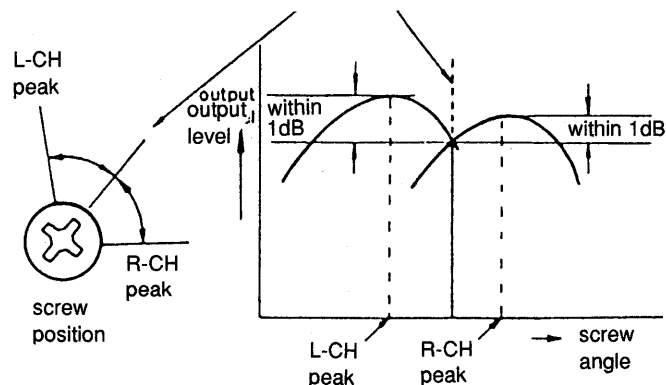
DECK A **DECK B**

Procedure :

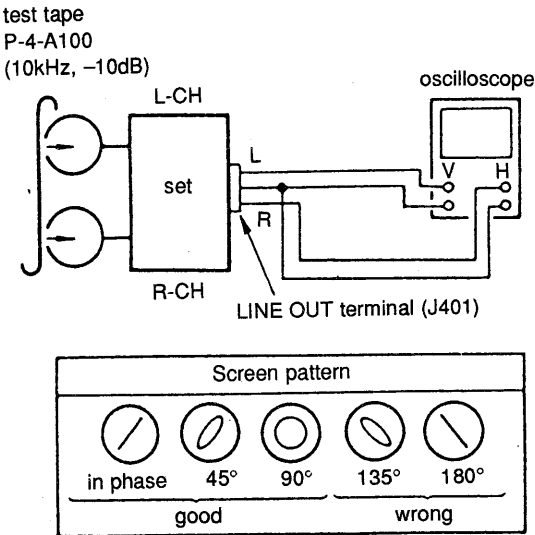
1. Forward Playback Mode



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

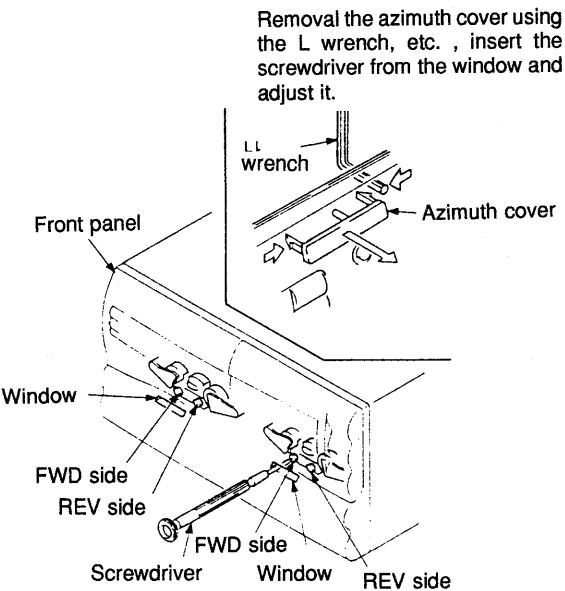


3. Phase Check



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

Adjustment Location : Record/Playback head

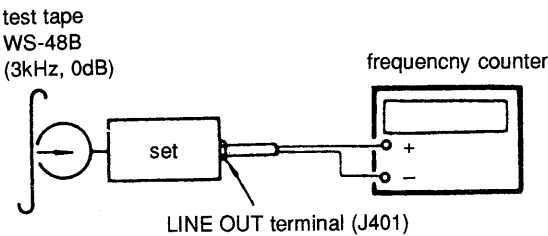


Tape Speed Adjustment **DECK A** **DECK B**

Procedure :

- Perform high speed adjustment before normal speed adjustment.

Mode : playback



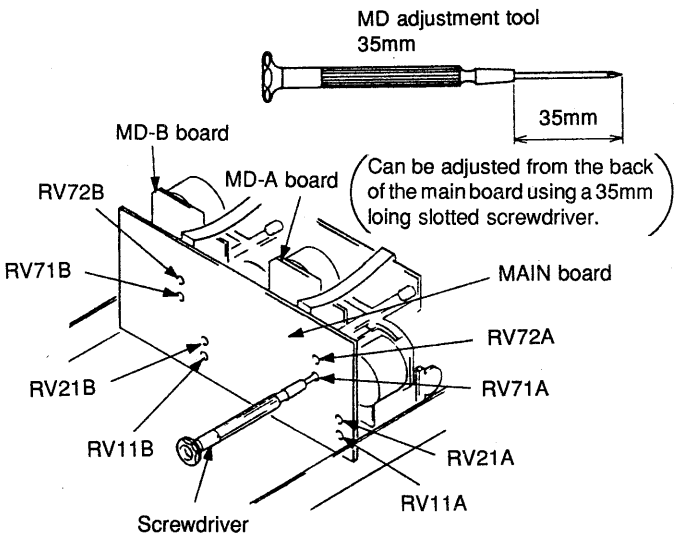
Speed	Frequency Counter Reading
High	6,000 ± 30Hz
Normal	3,000 ± 15Hz

Frequency difference between the beginning the beginning and the end of the tape should be within ±3%.

Frequency difference between deck A and B the beginning of the tape should be within 1%.

Adjustment Location : MD-A and MD-B boards.

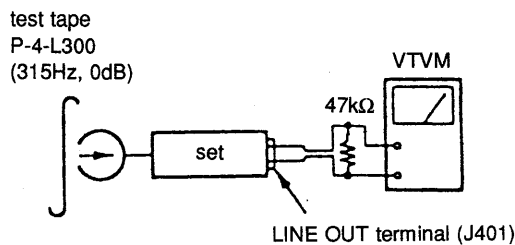
Tape Speed/Playback Level Adjustment



Play back Level Adjustment DECK A DECK B

Procedure :

Mode : playback



Deck A is RV11A (L-CH) and RV21A (R-CH), deck B is RV11B (L-CH) and RV21B (R-CH) so that adjustment within adjustment level as follows.

Adjustment Level :

LINE OUT level : $-7.7\text{dB} \pm 0.5\text{dB}$ (0.30 to 0.34V)

Level Difference between Channels : within 0.5dB

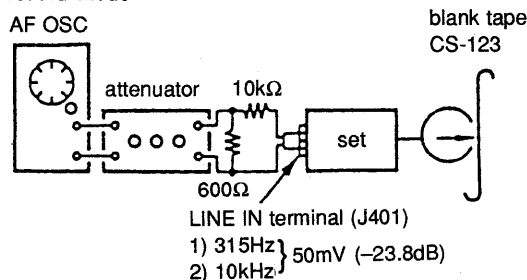
Confirm the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location : MD-A and MD-B boards

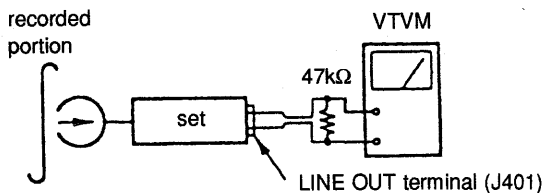
Record Bias Adjustment DECK B

Procedure :

1. record mode



2. playback mode



Confirm playback the signal recorded in step 1 become adjustment level as follows.

If these levels do not adjustment level, adjustment the RV81 (L-CH) and RV91 (R-CH) to repeat step 1 and 2.

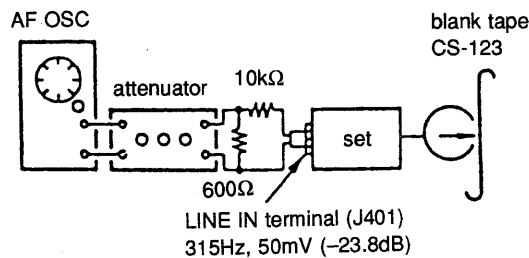
Adjustment Level : Playback output of 10kHz to playback output of 315Hz : -0.5dB to 0.5dB . ($0 \pm 3\text{mV}$)

Adjustment Location : MD-B board

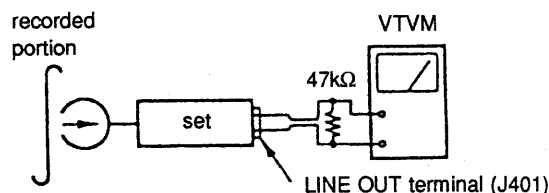
Record Level Adjustment DECK B

Procedure :

1. record mode



2. playback mode



Confirm playback the signal recorded in step 1 become adjustment level as follows.

If these levels do not adjustment level, adjustment the RV101 (L-CH) and RV201 (R-CH) to repeat step 1 and 2.

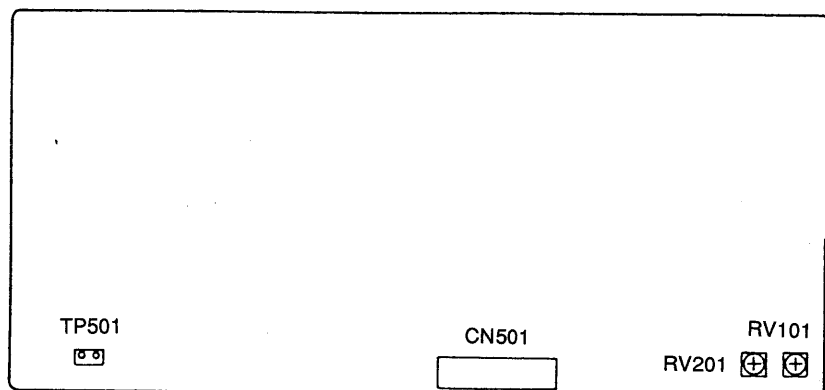
Adjustment Level :

LINE OUT level : $-23.8\text{dB} \pm 0.5\text{dB}$ (47 to 53mV).

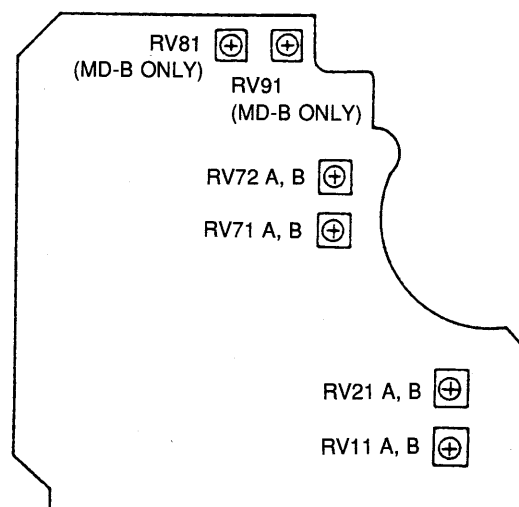
Adjustment Location : MAIN board

Adjustment Location :

[MAIN BOARD] — Component Side —



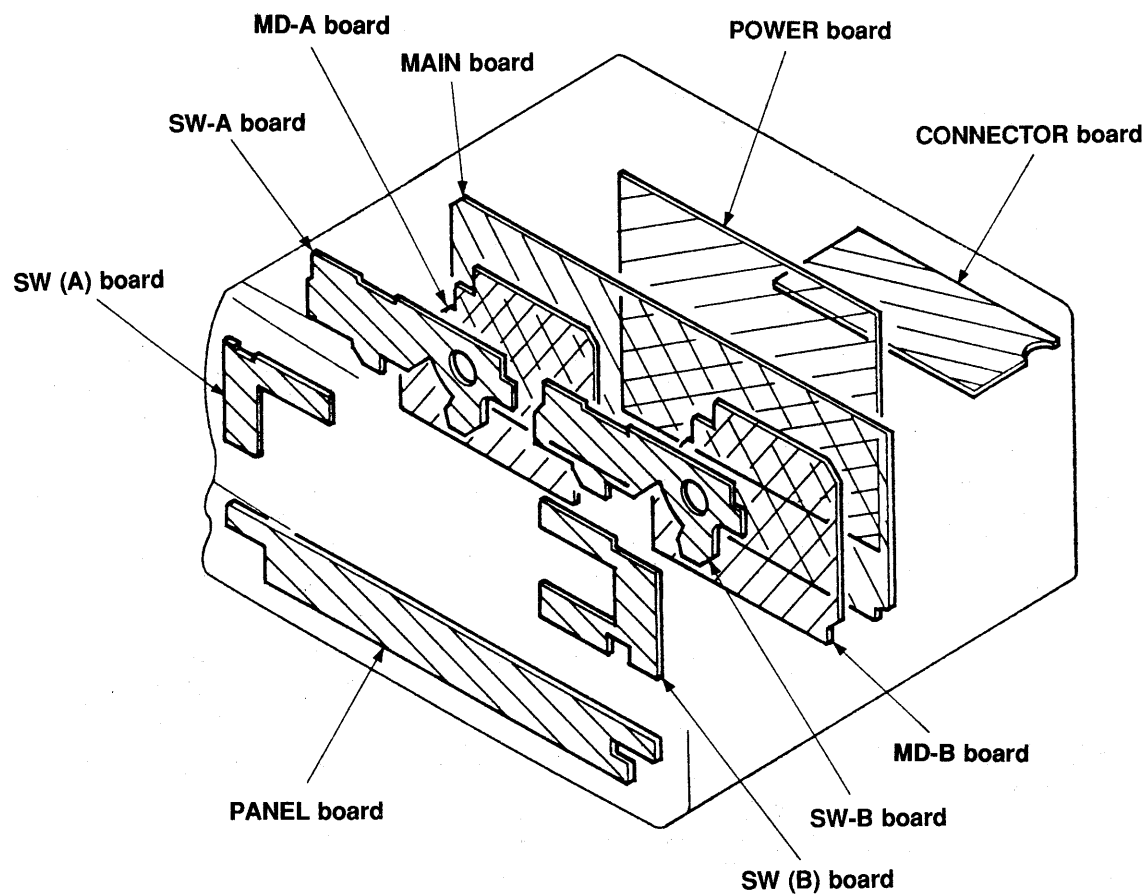
[MD-A, MD-B BOARD] — Component Side —



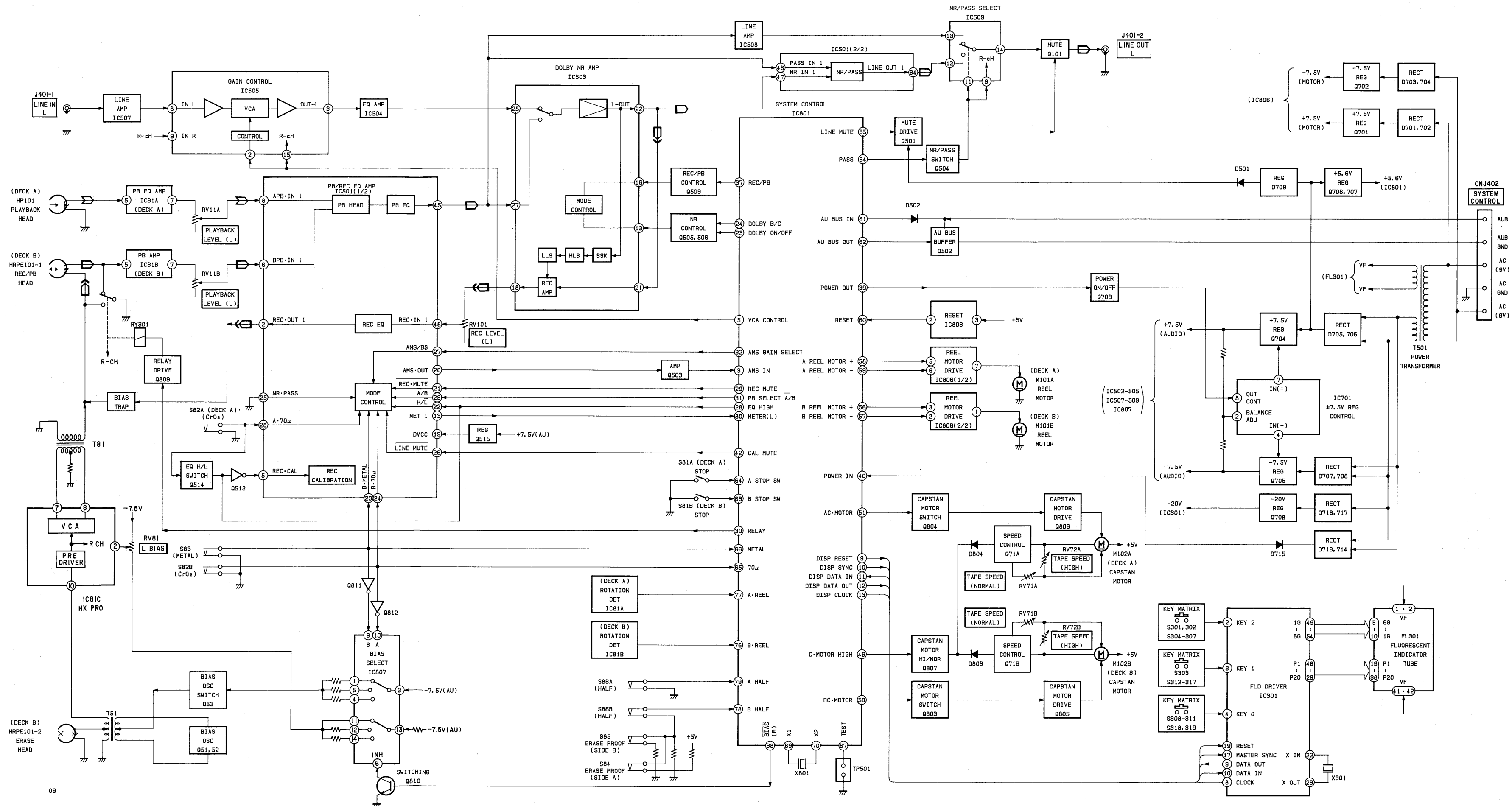
SECTION 6

DIAGRAMS

6-1. CIRCUIT BOARDS LOCATION



6-2. BLOCK DIAGRAM

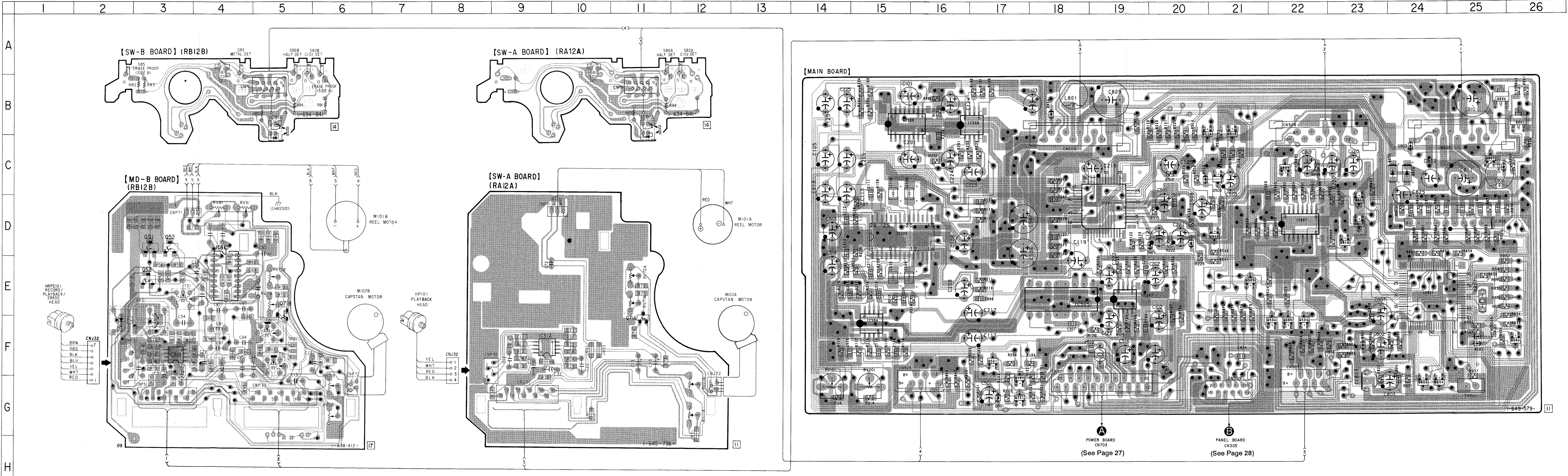


6-3. PRINTED WIRING BOARD — MAIN SECTION —
• See page 11 for Circuit Boards Location.
• See page 30 for Semiconductor Lead Layouts.

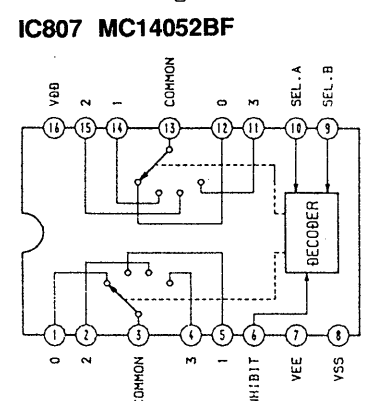
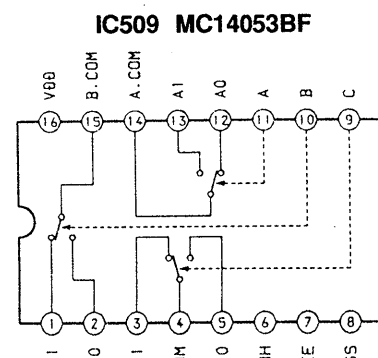
• Semiconductor Location

Ref. No.	Location
D31	F-2
D101	D-20
D201	D-20
D501	G-17
D502	F-25
D503	C-20
D509	F-25
D801	F-23
D802	C-25
D803	C-24
D804	B-18
D805	C-24
D806	C-24
IC31A	F-9
IC31B	F-3
IC81A	B-11
IC81B	B-5
IC81C	D-4
IC501	D-19
IC503	D-15
IC504	F-15
IC505	E-18
IC507	E-19
IC508	B-17
IC509	B-16
IC801	E-24
IC803	G-23
IC806	D-25
IC807	D-22
Q51	D-3
Q52	D-3
Q53	E-3
Q71A	F-11
Q71B	E-5
Q101	G-17
Q201	G-17
Q501	F-17
Q502	F-26
Q503	C-21
Q504	F-22
Q505	F-22
Q506	F-22
Q509	E-21
Q513	C-21
Q514	C-21
Q515	D-21
Q803	G-24
Q804	G-24
Q805	B-26
Q806	B-25
Q807	C-25
Q809	C-22
Q810	D-23
Q811	D-23
Q812	D-23

- Note:
- : parts extracted from the component side.
 - : Through hole.
 - : indicates side identified with part number.
 - ▨ : Pattern from the side which enable seeing.
 - ▩ : Pattern of the rear side.

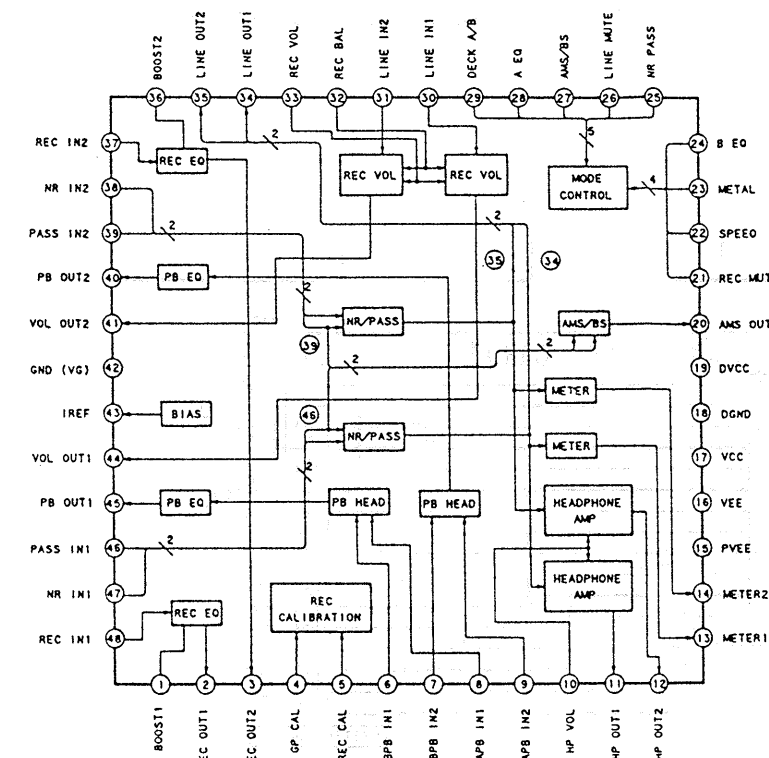


- IC BLOCK DIAGRAMS

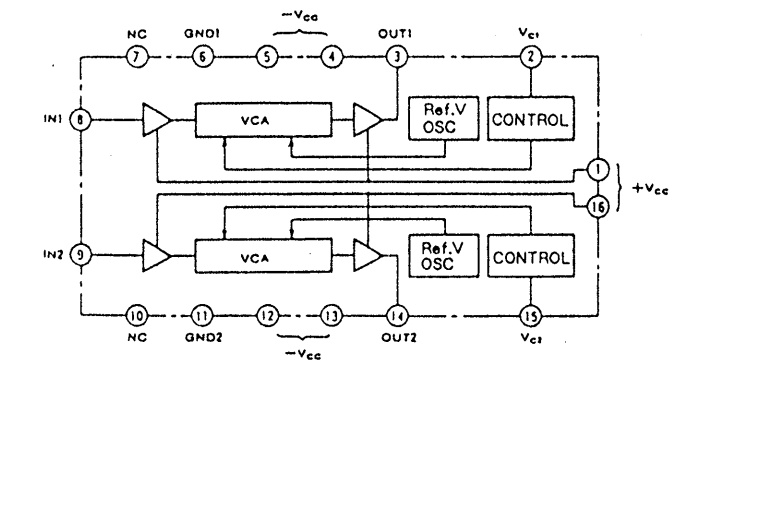


6-4. SCHEMATIC DIAGRAM — MAIN SECTION —
• See page 32,33 for IC Pin Functions.

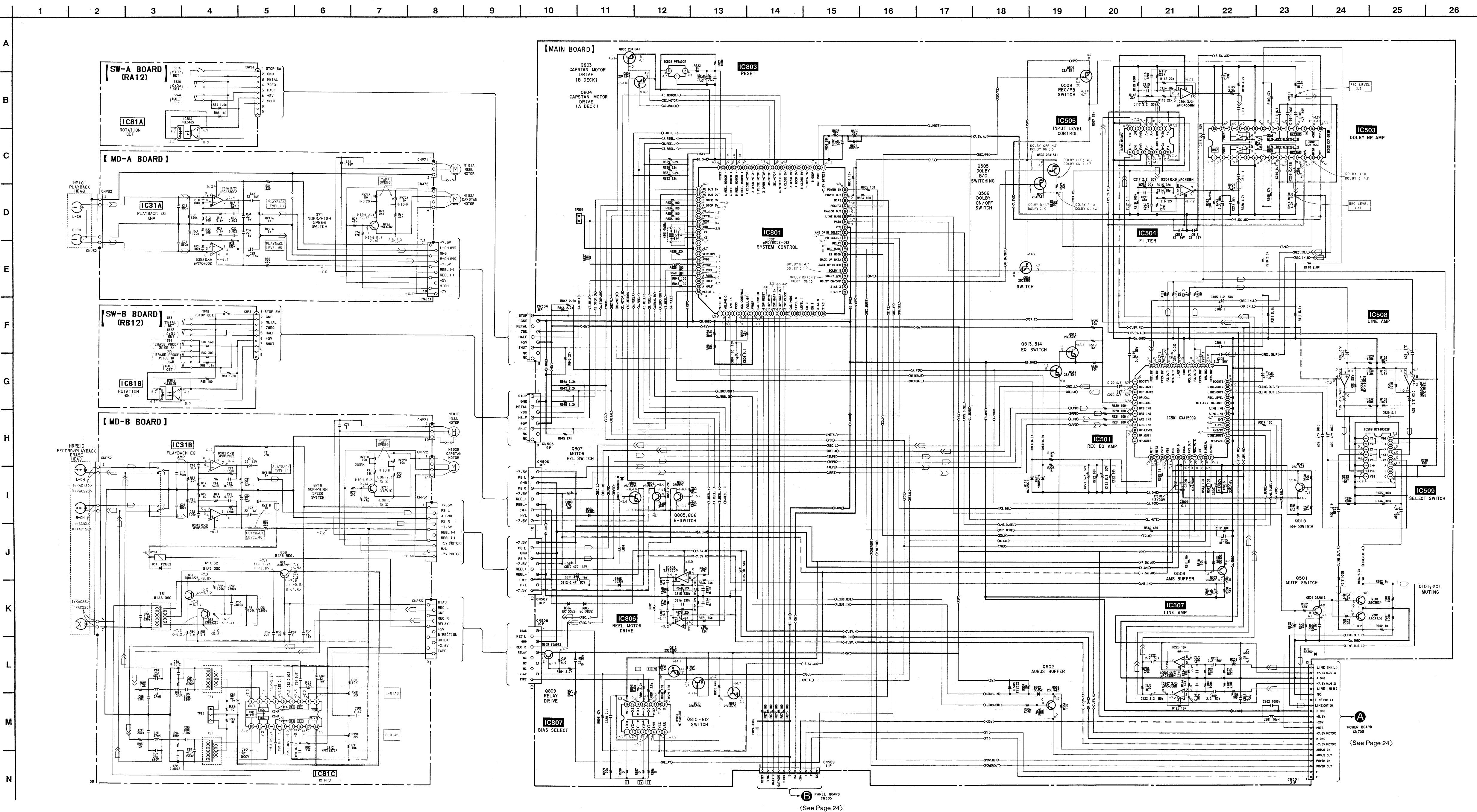
IC501 CXA1599Q



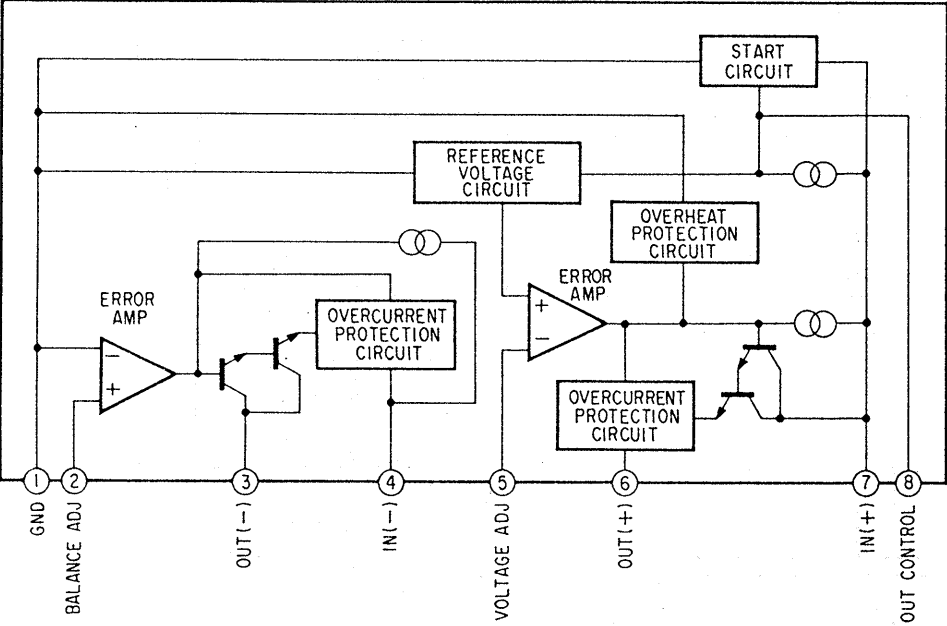
IC505 M5283F



- **Note:**
 - All capacitors are in μF unless otherwise noted. $\text{pF} \cdot \mu\text{F} \cdot 50\text{WV}$ or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
 -  : internal component.
 -  : nonflammable resistor.
 -  : panel designation.
 -  : B+ Line
 -  : B- Line
 -  : adjustment for repair.
- Voltage and waveforms are dc with respect to ground unless no-signal conditions.
no mark : PLAY
() : REC
- Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$).
Voltage variations may be noted due to normal production tolerances.
- Signal path:
 - $\sum$: PB (DECK A)
 - $\square$: PB (DECK B)
 - $\square$: REC (DECK B)



• IC BLOCK DIAGRAMS
IC701 M5230L



Note:

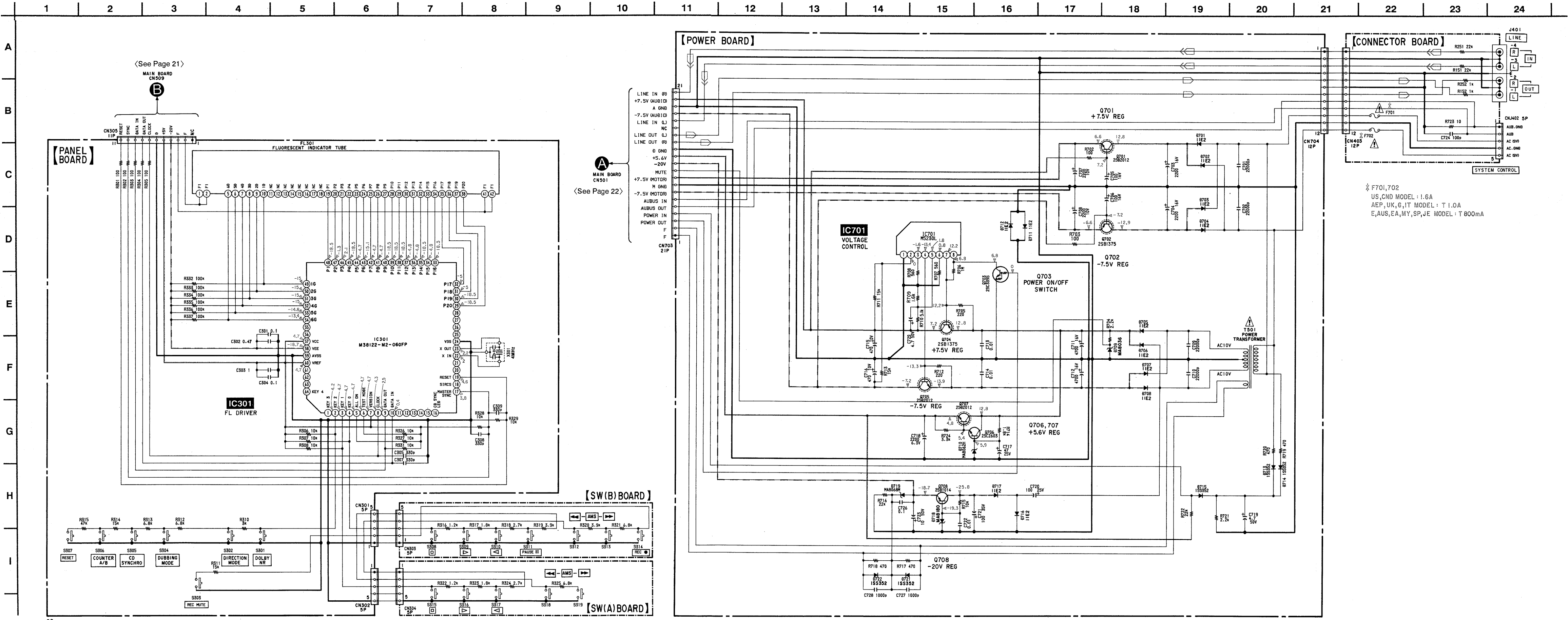
- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- Δ : internal component.
- $\square$: panel designation.

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

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

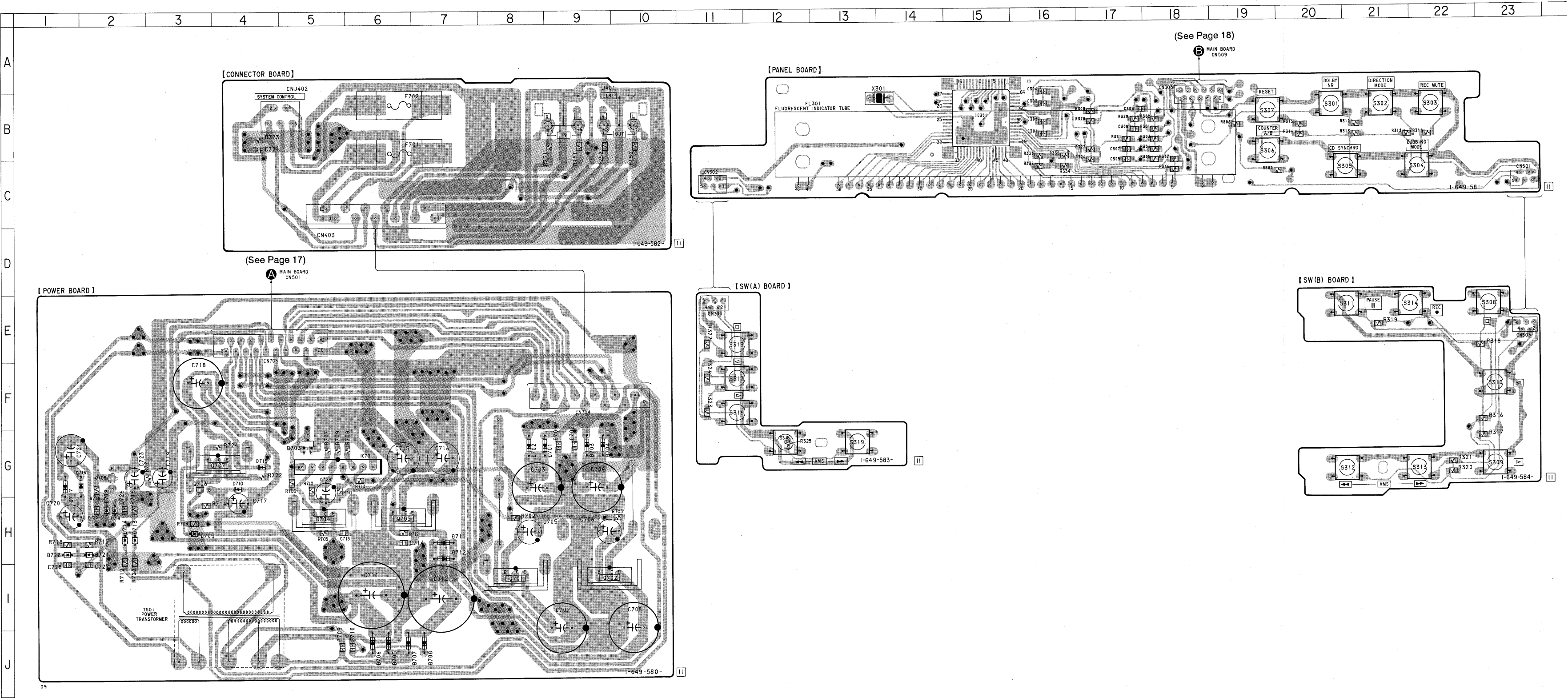
- : B+ Line
- - - - : B- Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions. no mark : STOP
- Voltages are taken with a VOM (input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
 - $\square$: PB
 - $\square$: REC
- CND : Canadian model.
- G : German model.
- IT : Italian model.
- EA : Saudi Arabia model.
- AUS : Australian model.
- SP : Singapore model.
- MY : Malaysia model.
- JE : Tourist model.

6-5. SCHEMATIC DIAGRAM — PANEL/POWER SECTION —
• See page 31 for IC Pin Functions.



6-6. PRINTED WIRING BOARD — PANEL/POWER SECTION —

- See page 11 for Circuit Boards Location.
- See page 30 for Semiconductor Lead Layouts.



• Semiconductor Location

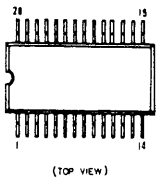
Ref. No.	Location
D701	G-9
D702	G-8
D703	G-9
D704	G-9
D705	J-6
D706	J-6
D707	J-6
D708	J-7
D709	H-3
D710	G-4
D711	H-7
D712	H-7
D713	H-2
D714	H-2
D715	G-4
D716	G-1
D717	G-1
D718	H-2
D719	H-2
D721	H-2
D722	H-1
IC301	B-15
IC701	G-6
Q701	I-8
Q702	I-9
Q703	G-5
Q704	H-5
Q705	H-6
Q706	G-3
Q707	G-4
Q708	G-2

Note:

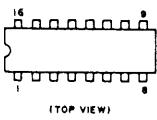
- : parts extracted from the component side.
- : Through hole.
- : Pattern from the side which enable seeing.
- : Pattern of the rear side.

6-7. SEMICONDUCTOR LEAD LAYOUTS

CXA1563M

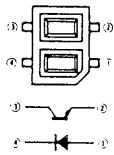


M5283P

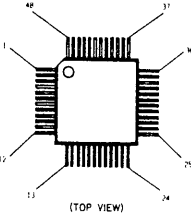


2SA1162-G
2SA1235-F
2SA1602
2SC1623-L5L6
2SC3395
2SC3398
2SD601A-S
DTA144EK

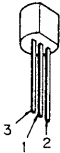
NJL5165K-B(H1)



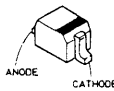
CXA1599Q



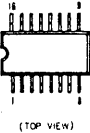
PST600E-T



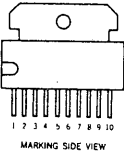
1SS352
DTZ6.8B
MA8036
MA8056-L
MA8062-H
MA8082-M
MA8180



HD14053BFP



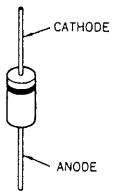
TA7272P



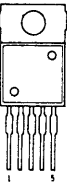
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2SD2012



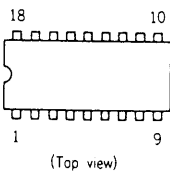
10E2



MC14052BF



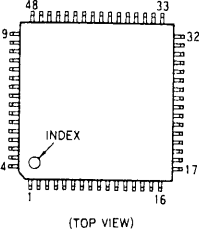
μPC1297CA



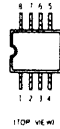
2SB1116-K



M38122-M2-060FP



μPC4558G2
μPC4570G2



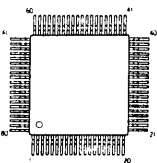
2SC2603-EF



M5230L-A



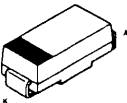
μPC78052-012



2SD1622-S
2SD999-CLCK



EC10DS2



6-8. IC PIN FUNCTIONS

• IC301 FL DRIVER (M38122-M2-060FP)

Pin No.	Pin Name	I/O	Function
1	KYE3	I	Not used (Open).
2	KEY2	I	} Key input (AD input)
3	KEY1	I	
4	KEY0	I	
5	ALL ON	I	} Not used (Fixed at "H").
6	TEST MODE	I	
7	VERSION	I	VERSION discrimination input
8	CLOCK	I	Clock input from IC801
9	DATA OUT	O	Data output to IC801
10	DATA IN	I	Data input from IC801
11 to 16	—	O	Not used (Open).
17	MASTER SYNC	I	SYNC input from IC801.
18	SIRCS	I	Not used (Open).
19	RESET	I	Reset input from IC801
20, 21	—	O	Not used (Open).
22	X IN	—	Clock (4 MHz)
23	X OUT	—	Clock (4 MHz)
24	Vss	—	GND
25 to 28	—	O	Not used (Open).
29 to 48	P20 to P1	O	FL display drive
49 to 54	1G to 6G	O	FL display drive
55, 56	—	—	Not used (Open).
57	Vcc	—	+5V
58	VEE	—	-20V
59	AVss	—	GND
60	VREF	I	+5V
61 to 64	—		Not used (Open).

• IC801 SYSTEM CONTROL (μ PC78052-012)

Pin No.	Pin Name	I/O	Function
1	METER R	I	VCA control input (Rch)
2	VOLUME 0	I	VCA control input (Electric adjustment mode)
3	AMS IN	I	AMS signal input
4	AVss	—	GND
5	VCA CONTROL	O	VCA control output (Output to IC505)
6	VOLUME 1	O	Electric adjustment mode output (Open: Electric adjustment mode, "L": Others)
7	AVREF1	—	+5V
8	CAL OSC ON	O	Not used (Open).
9	DISP RESET	O	RESET output to IC301
10	DISP SYNC	O	SYNC output to IC301
11	DISP DATA IN	I	DATA input from IC301
12	DISP DATA OUT	O	DATA output to IC301
13	DISP CLOCK	O	CLOCK output to IC301
14 to 22	—	O	Not used (Open).
23	DOLBY ON/OFF	O	ON: "L", OFF: "H".
24	DOLBY B/C	O	C: "L", B: "H".
25 to 27	—	O	Not used (Open).
28	EQ HIGH	O	Normal speed: "L", High speed: "H".
29	REC MUTE	O	"L": REC MUTE.
30	RELAY	O	Relay ON/OFF. ON: "L", OFF: "H".
31	PB SELECT	O	A/B deck select. A deck: "L", B deck: "H".
32	AMS GAIN SELECT	O	BS: "L", AMS: "H".
33	Vgs	—	GND
34	PASS	O	"L": PASS MODE.
35	LINE MUTE	O	"L": MUTE.
36	—	O	Not used (Open).
37	REC/PB	O	REC: "L", PB: "H".
38	BIAS	O	"L": BIAS ON.
39	POWER OUT	O	POWER ON: "L", STANDBY: "H".
40	POWER IN	I	POWER ON detection
41	+7.5V DETECT	I	+7.5V detection
42	CAL MUTE	O	MUTE output to IC501
43 to 48	—	I	Not used (Open).
49	C. MOTOR HIGH	O	"H": Capstan motor high speed
50	BC. MOTOR	O	Capstan motor control for B deck. "H": ON.
51	AC. MOTOR	O	Capstan motor control for A deck. "H": ON.
52 to 55	—	O	Not used (open).
56	B REEL MOTOR +	O	B deck reel motor control. "L": FF/REW, FWD, STOP, "H": Trigger.
57	B REEL MOTOR -	O	B deck reel motor control. "H": FF/REW, Open: FWD, "L": STOP, Trigger.
58	A REEL MOTOR +	O	A deck reel motor control. "L": FF/REW, FWD, STOP, "H": Trigger.
59	A REEL MOTOR -	O	A deck reel motor control. "H": FF/REW, Open: FWD, "L": STOP, Trigger.
60	RESET	—	Reset input. "L": Reset.

Pin No.	Pin Name	I/O	Function
61	AU BUS IN	I	Audio bus input
62	AU BUS OUT	O	Audio bus output
63	B STOP SW	I	B deck STOP switch detection
64	A STOP SW	I	A deck STOP switch detection
65	70U	I	70 μ sec switch detection
66	METAL	I	METAL switch detection
67	TEST	I	"L": Electric adjustment mode
68	VDD	—	+5V
69	X1	O	Clock
70	X2	I	Clock (4 MHz)
71	—	—	GND
72	—	O	Not used (open).
73	VERSION	I	VERSION discrimination input
74	AVDD	—	} +5V
75	AVREF	—	
76	B REEL	I	B deck reel table detection
77	A REEL	I	A deck reel table detection
78	B HALF	I	B deck half switch detection
79	A HALF	I	A deck half switch detection
80	METER L	I	VCA control input (Lch)

SECTION 7

EXPLODED VIEWS

NOTE:

- Items marked “ * ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) . . . (RED)

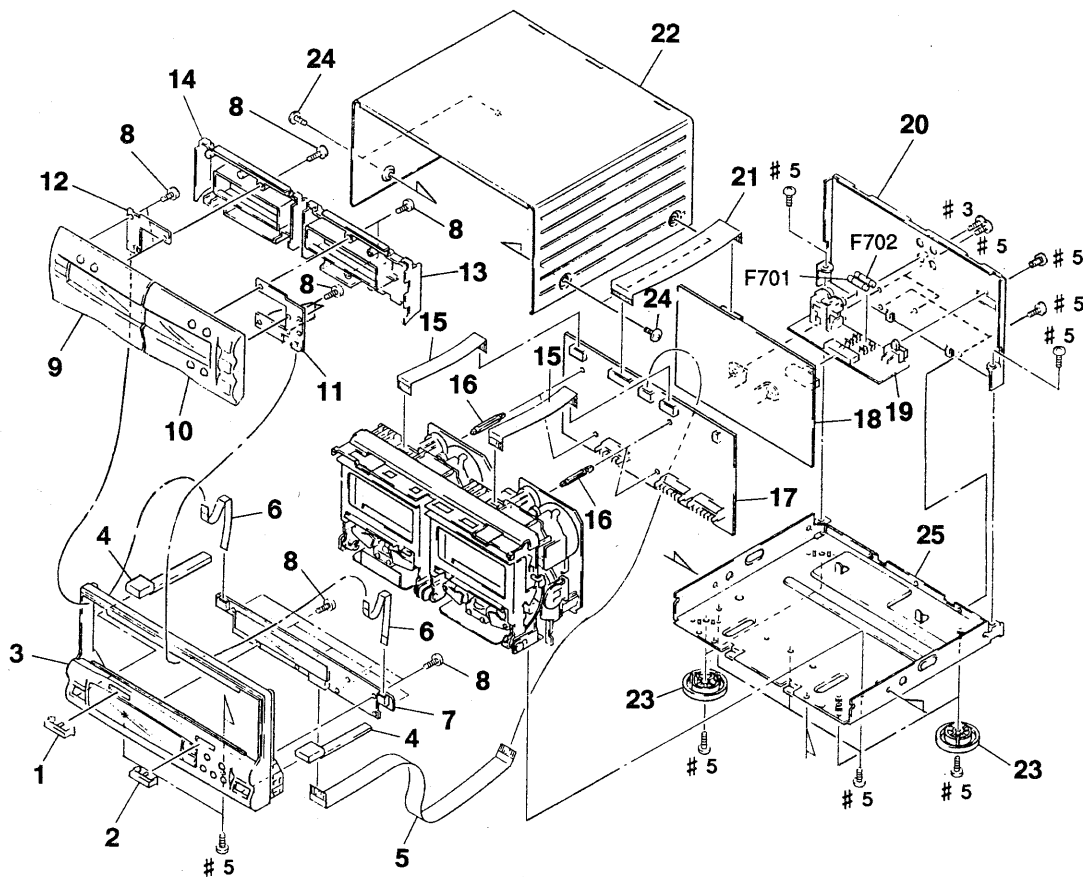
↑ ↑
Parts color Cabinet's color

- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- CND : Canadian model
- G : German model
- IT : Italian model
- EA : Saudi Arabia model
- AUS : Australian model
- SP : Singapore model
- MY : Malaysia model
- JE : Tourist model

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

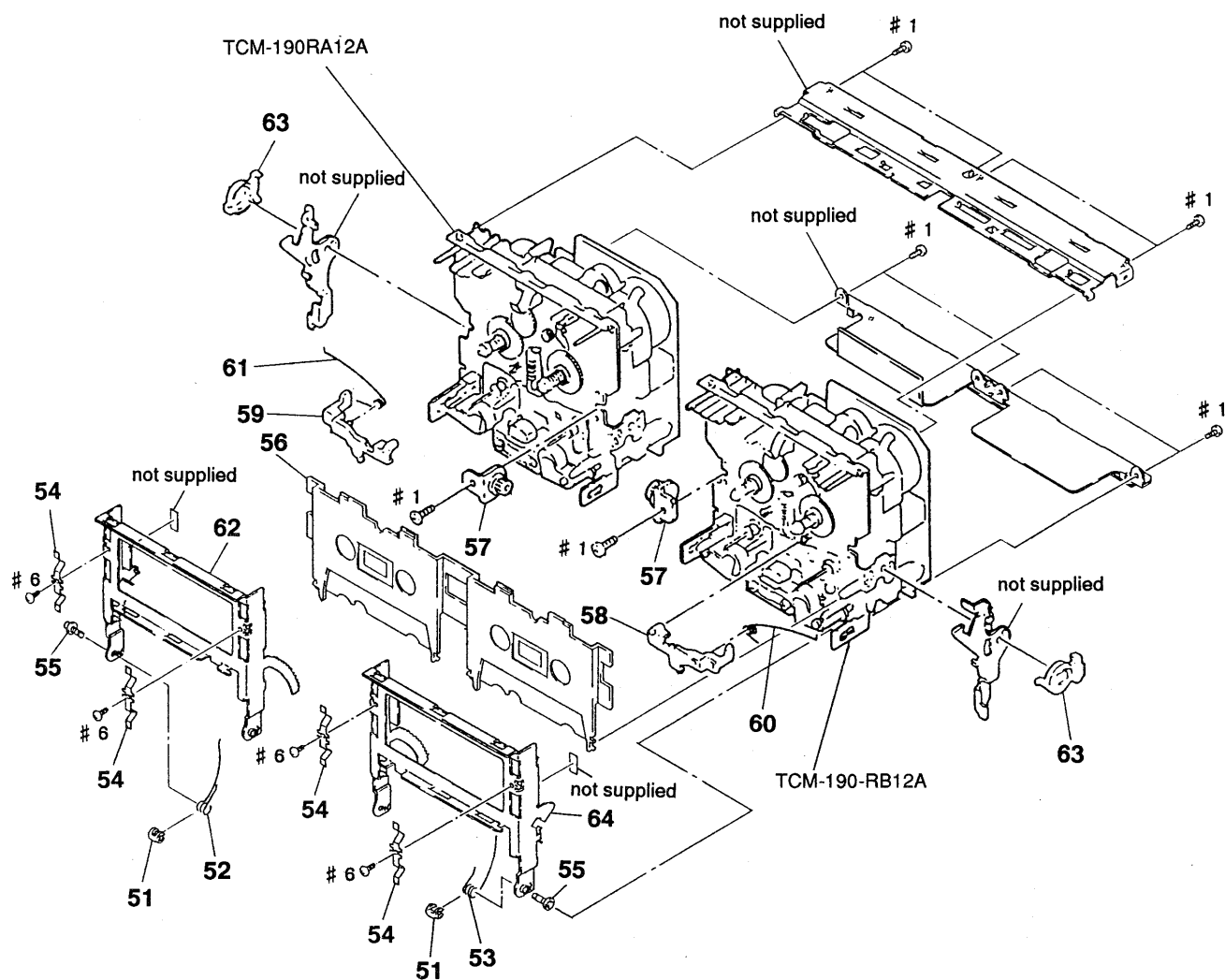
Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. CASE AND CHASSIS BLOCK



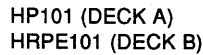
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	3-905-904-01	COVER (AZIMUTH A)		* 18	A-2007-148-A	POWER BOARD, COMPLETE	
2	3-905-905-01	COVER (AZIMUTH B)		* 19	1-649-582-11	CONNECTOR BOARD	
3	X-3367-184-1	PANEL ASSY, FRONT		* 20	3-905-901-11	PANEL, BACK (AEP, UK, IT, E, AUS, EA, JE, MY, SP)	
4	3-905-906-01	SLIDER		* 20	3-905-901-21	PANEL, BACK (G)	
5	1-751-821-11	WIRE (FLAT TYPE) (11 CORE)		* 20	3-905-901-31	PANEL, BACK (US, CND)	
6	1-751-819-11	WIRE (FLAT TYPE) (5 CORE)		21	1-751-820-11	WIRE (FLAT TYPE) (21 CORE)	
* 7	A-2007-069-A	PANEL BOARD, COMPLETE		22	4-961-519-11	CASE	
8	4-951-620-01	SCREW (2.6X8), +BVP		23	X-4944-053-1	FOOT (DIA. 42) ASSY	
9	X-3367-185-1	LID (A) ASSY, CASSETTE		24	3-363-099-21	SCREW (CASE 3 TP2)	
10	X-3367-884-2	LID (B) ASSY, CASSETTE		* 25	3-382-488-22	CHASSIS	
* 11	1-649-584-11	SW (B) BOARD		F701	1-532-215-00	FUSE, TIME-LAG (T800mA) (E, AUS, EA, MY, SP, JE)	
* 12	1-649-583-11	SW (A) BOARD		F701	1-532-078-00	FUSE, TIME-LAG (T1A) (AEP, UK, G, IT)	
* 13	3-907-991-01	COVER (B), CASSETTE LID		F701	1-532-742-11	FUSE, GLASS TUBE (1.6A) (US, CND)	
* 14	3-907-990-01	COVER (A), CASSETTE LID		F702	1-532-215-00	FUSE, TIME-LAG (T800mA) (E, AUS, EA, MY, SP, JE)	
15	1-590-902-11	WIRE, FLAT TYPE (9 CORE)		F702	1-532-078-00	FUSE, TIME-LAG (T1A) (AEP, UK, G, IT)	
* 16	3-682-419-21	HOLDER, P. C. B		F702	1-532-742-11	FUSE, GLASS TUBE (1.6A) (US, CND)	
* 17	A-2007-149-A	MAIN BOARD, COMPLETE					

7-2. CASSETTE HOLDER BLOCK



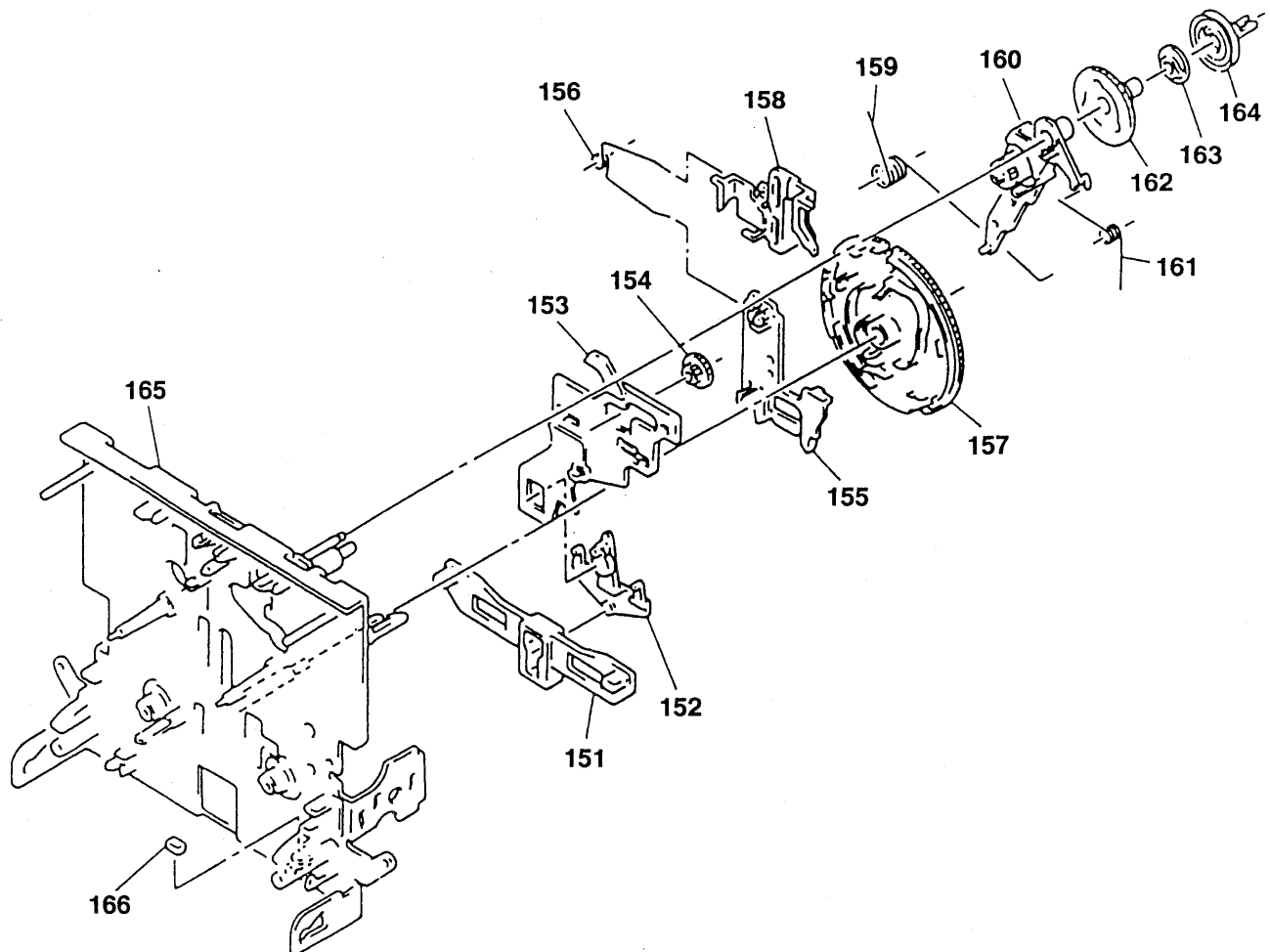
Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
51	3-367-720-01	RING (W), RETAINING		58	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
52	3-354-959-01	SPRING (LOADING L), TORSION		59	3-354-955-01	LEVER (EJ SAFTY LEVER L)	
53	3-354-960-01	SPRING (LOADING R), TORSION		60	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
54	3-340-137-01	SPRING, CASSETTE RETAINER		61	3-354-961-01	SPRING (EJ SAFTY SPRING L)	
55	3-367-721-01	SHAFT (FULCRUM SHAFT)		62	3-367-712-11	HOLDER (L), CASSETTE	
56	3-367-711-01	RETAINER, CASSETTE		63	3-354-957-01	JOINT (LOCK LEVER)	
57	3-354-963-01	DAMPER		64	3-367-713-11	HOLDER (R), CASSETTE	

(DECK A: TCM-190RA12A/DECK B: TCM-190RB12A)



* 115 3-359-436-01 BASE (THRUST RETAINER), FITTING

7-4. MECHANISM DECK BLOCK (2)
(DECK A: TCM-190RA12A/DECK B: TCM-190RB12A)



Ref. No.	Part No.	Description
* 151	3-359-425-01	SLIDER (REVERSE SLIDER)
152	3-359-426-01	LEVER (REVERSE LEVER)
* 153	3-359-415-01	SLIDER (TRIGGER SLIDER)
154	3-359-448-01	GEAR (TRIGGER)
* 155	3-359-427-01	SLIDER (LEVERSE SLIDER)
156	3-359-454-01	SPRING, TORSION
157	3-359-420-01	GEAR (CAM GEAR)
158	3-359-429-01	SLIDER (BRAKE PLATE)
159	3-359-456-01	SPRING (TRIGGER SPRING), TORSION

Ref. No.	Part No.	Description	Remark
160	X-3359-405-1	LEVER (FR ARM) ASSY	
161	3-359-453-01	SPRING (FR ARM), TORSION	
162	3-359-419-01	GEAR (FR GEAR)	
163	3-359-421-01	CLUTCH (REEL DISK)	
164	3-359-418-01	PULLEY (FR PULLEY)	
165	X-3363-790-1	CHASSIS ASSY, MECHANICAL	
166	3-359-469-01	SPACER	

SECTION 8

CONNECTOR

MAIN

ELECTRICAL PARTS LIST

NOTE:

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

Les composants identifiés par une marque Δ 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.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) ... (RED)

↑
↑

Parts color Cabinet's color
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,
uPC...: μ PC..., uPD...: μ PD...
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- CAPACITORS
uF: μ F
- COILS
uH: μ H
- CND : Canadian model
- G : German model
- IT : Italian model
- EA : Saudi Arabia model
- AUS : Australian model
- SP : Singapore model
- MY : Malaysia model
- JE : Tourist model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-649-582-11	CONNECTOR BOARD *****		C105	1-124-925-11	ELECT 2. 2uF 20%	100V
		< CAPACITOR >		C106	1-164-346-11	CERAMIC CHIP 1uF	16V
C724	1-163-117-00	CERAMIC CHIP 100PF 5% 50V		C107	1-164-346-11	CERAMIC CHIP 1uF	16V
		< CONNECTOR >		C108	1-124-927-11	ELECT 4. 7uF 20%	100V
CN403	1-764-493-21	CONNECTOR, BOARD TO BOARD 12P		C109	1-104-561-11	FILM CHIP 0. 068uF 5%	16V
CNJ402	1-764-016-21	HOUSING, CONNECTOR(PC BOARD) 5P (SYSTEM CONTROL)		C110	1-104-563-11	FILM CHIP 0. 1uF 5%	16V
		< FUSE >		C111	1-164-346-11	CERAMIC CHIP 1uF	16V
Δ F701	1-532-078-00	FUSE, TIME-LAG (T800mA) (E, AUS, EA, MY, SP, JE)		C112	1-163-107-00	CERAMIC CHIP 39PF 5%	50V
Δ F701	1-532-259-00	FUSE, TIME-LAG (T1A) (AEP, UK, G, IT)		C113	1-124-925-11	ELECT 2. 2uF 20%	100V
Δ F701	1-532-742-11	FUSE, GLASS TUBE (1. 6A) (US, CND)		C114	1-163-113-00	CERAMIC CHIP 68PF 5%	50V
Δ F702	1-532-078-00	FUSE, TIME-LAG (T800mA) (E, AUS, EA, MY, SP, JE)		C115	1-163-113-00	CERAMIC CHIP 68PF 5%	50V
Δ F702	1-532-259-00	FUSE, TIME-LAG (T1A) (AEP, UK, G, IT)		C116	1-163-119-00	CERAMIC CHIP 120PF 5%	50V
Δ F702	1-532-742-11	FUSE, GLASS TUBE (1. 6A) (US, CND)		C117	1-124-925-11	ELECT 2. 2uF 20%	100V
		< JACK >		C119	1-124-902-00	ELECT 0. 47uF 20%	50V
J401	1-695-188-31	JACK, PIN 4P (LINE)		C120	1-124-927-11	ELECT 4. 7uF 20%	100V
		< RESISTOR >		C121	1-126-162-11	ELECT 3. 3uF 20%	50V
R151	1-216-081-00	METAL CHIP 22K 5% 1/10W		C122	1-124-925-11	ELECT 2. 2uF 20%	100V
R152	1-216-049-00	METAL CHIP 1K 5% 1/10W		C123	1-124-925-11	ELECT 2. 2uF 20%	100V
R251	1-216-081-00	METAL CHIP 22K 5% 1/10W		C124	1-124-925-11	ELECT 2. 2uF 20%	100V
R252	1-216-049-00	METAL CHIP 1K 5% 1/10W		C125	1-124-927-11	ELECT 4. 7uF 20%	100V
R723	1-216-001-00	METAL CHIP 10 5% 1/10W		C201	1-124-927-11	ELECT 4. 7uF 20%	100V
*****				C202	1-124-925-11	ELECT 2. 2uF 20%	100V
*	A-2007-149-A	MAIN BOARD, COMPLETE *****		C203	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
		< CAPACITOR >		C205	1-124-925-11	ELECT 2. 2uF 20%	100V
C101	1-124-927-11	ELECT 4. 7uF 20% 100V		C206	1-164-346-11	CERAMIC CHIP 1uF	16V
C102	1-124-925-11	ELECT 2. 2uF 20% 100V		C207	1-164-346-11	CERAMIC CHIP 1uF	16V
C103	1-163-117-00	CERAMIC CHIP 100PF 5% 50V		C208	1-124-927-11	ELECT 4. 7uF 20%	100V
				C209	1-104-561-11	FILM CHIP 0. 068uF 5%	16V
				C210	1-104-563-11	FILM CHIP 0. 1uF 5%	16V
				C211	1-164-346-11	CERAMIC CHIP 1uF	16V
				C212	1-163-107-00	CERAMIC CHIP 39PF 5%	50V
				C213	1-124-925-11	ELECT 2. 2uF 20%	100V
				C214	1-163-113-00	CERAMIC CHIP 68PF 5%	50V
				C215	1-163-113-00	CERAMIC CHIP 68PF 5%	50V
				C216	1-163-119-00	CERAMIC CHIP 120PF 5%	50V
				C217	1-124-925-11	ELECT 2. 2uF 20%	100V
				C219	1-124-902-00	ELECT 0. 47uF 20%	50V
				C220	1-124-927-11	ELECT 4. 7uF 20%	100V
				C221	1-126-162-11	ELECT 3. 3uF 20%	50V

Ref.No.	Part No.	Description			Remark	Ref.No.	Part No.	Description	Remark
C222	1-124-925-11	ELECT	2. 2uF	20%	100V	D201	8-719-422-49	DIODE MA8056-L	
C223	1-124-925-11	ELECT	2. 2uF	20%	100V	D501	8-719-016-74	DIODE 1SS352	
C224	1-124-925-11	ELECT	2. 2uF	20%	100V	D502	8-719-016-74	DIODE 1SS352	
						D503	8-719-016-74	DIODE 1SS352	
C225	1-124-927-11	ELECT	4. 7uF	20%	100V	D509	8-719-016-74	DIODE 1SS352	
C501	1-124-471-00	ELECT	1000uF	20%	6. 3V	D801	8-719-016-74	DIODE 1SS352	
C502	1-163-009-11	CERAMIC CHIP	0. 001uF	10%	50V	D802	8-719-420-14	DIODE MA8082-M	
C503	1-124-925-11	ELECT	2. 2uF	20%	100V	D803	8-719-016-74	DIODE 1SS352	
C505	1-124-907-11	ELECT	10uF	20%	50V	D804	8-719-016-74	DIODE 1SS352	
C506	1-124-120-11	ELECT	220uF	20%	25V	D805	8-719-210-33	DIODE EC10DS2	
C507	1-124-927-11	ELECT	4. 7uF	20%	100V	D806	8-719-210-33	DIODE EC10DS2	
C508	1-124-465-00	ELECT	0. 47uF	20%	50V			< IC >	
C509	1-163-038-00	CERAMIC CHIP	0. 1uF		25V	IC501	8-752-058-57	IC CXA1599Q	
C510	1-124-927-11	ELECT	4. 7uF	20%	100V	IC503	8-752-066-36	IC CXA1563M	
C513	1-124-234-00	ELECT	22uF	20%	16V	IC504	8-759-100-96	IC UPC4558G2	
C514	1-124-234-00	ELECT	22uF	20%	16V	IC505	8-759-635-26	IC M5283P	
C515	1-124-927-11	ELECT	4. 7uF	20%	100V	IC507	8-759-100-96	IC UPC4558G2	
C516	1-124-927-11	ELECT	4. 7uF	20%	100V	IC508	8-759-100-96	IC UPC4558G2	
C517	1-163-038-00	CERAMIC CHIP	0. 1uF		25V	IC509	8-759-300-71	IC HD14053BFP	
C520	1-163-038-00	CERAMIC CHIP	0. 1uF		25V	IC801	8-759-254-82	IC uPD78052-012	
C802	1-124-443-00	ELECT	100uF	20%	10V	IC803	8-759-165-82	IC PST600E-T	
C803	1-124-902-00	ELECT	0. 47uF	20%	50V	IC806	8-759-207-05	IC TA7272P	
C804	1-163-038-00	CERAMIC CHIP	0. 1uF		25V	IC807	8-759-009-06	IC MC14052BF	
C807	1-124-443-00	ELECT	100uF	20%	10V			< COIL >	
C808	1-163-038-00	CERAMIC CHIP	0. 1uF		25V	L501	1-410-470-11	INDUCTOR 10uH	
C809	1-126-103-11	ELECT	470uF	20%	16V	* L801	1-420-872-00	COIL, AIR CORE	
C810	1-126-103-11	ELECT	470uF	20%	16V	* L802	1-420-872-00	COIL, AIR CORE	
C811	1-126-103-11	ELECT	470uF	20%	16V			< TRANSISTOR >	
C812	1-124-902-00	ELECT	0. 47uF	20%	50V	Q101	8-729-422-29	TRANSISTOR 2SD601A-S	
C813	1-164-232-11	CERAMIC CHIP	0. 01uF		50V	Q201	8-729-422-29	TRANSISTOR 2SD601A-S	
C814	1-164-232-11	CERAMIC CHIP	0. 01uF		50V	Q501	8-729-216-22	TRANSISTOR 2SA1162-G	
C815	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	Q502	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
C816	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	Q503	8-729-216-22	TRANSISTOR 2SA1162-G	
C817	1-163-038-00	CERAMIC CHIP	0. 1uF		25V	Q504	8-729-805-45	TRANSISTOR 2SC3395	
C818	1-163-038-00	CERAMIC CHIP	0. 1uF		25V	Q505	8-729-901-06	TRANSISTOR DTA144EK	
C819	1-124-907-11	ELECT	10uF	20%	50V	Q506	8-729-901-06	TRANSISTOR DTA144EK	
C820	1-163-038-00	CERAMIC CHIP	0. 1uF		25V	Q509	8-729-901-06	TRANSISTOR DTA144EK	
C824	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	Q513	8-729-805-45	TRANSISTOR 2SC3395	
C825	1-124-907-11	ELECT	10uF	20%	50V	Q514	8-729-901-06	TRANSISTOR DTA144EK	
		< CONNECTOR >				Q515	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
* CN501	1-568-864-11	SOCKET, CONNECTOR 21P				Q803	8-729-901-06	TRANSISTOR DTA144EK	
CN504	1-750-586-11	CONNECTOR, FFC/FPC 9P				Q804	8-729-901-06	TRANSISTOR DTA144EK	
CN505	1-750-586-11	CONNECTOR, FFC/FPC 9P				Q805	8-729-140-75	TRANSISTOR 2SD999-CLCK	
CN506	1-580-783-11	CONNECTOR, BOARD TO BOARD 10P				Q806	8-729-140-75	TRANSISTOR 2SD999-CLCK	
CN507	1-580-783-11	CONNECTOR, BOARD TO BOARD 10P				Q807	8-729-805-41	TRANSISTOR 2SC3398	
CN508	1-580-783-11	CONNECTOR, BOARD TO BOARD 10P				Q809	8-729-216-22	TRANSISTOR 2SA1162-G	
* CN509	1-580-415-11	SOCKET, CONNECTOR 11P				Q810	8-729-805-45	TRANSISTOR 2SC3395	
		< DIODE >							
D101	8-719-422-49	DIODE MA8056-L							

MAIN

Ref.No.	Part No.	Description	Remark			Ref.No.	Part No.	Description	Remark		
Q811	8-729-805-45	TRANSISTOR	2SC3395			R214	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
Q812	8-729-805-45	TRANSISTOR	2SC3395			R215	1-216-081-00	METAL CHIP	22K	5%	1/10W
< RESISTOR >						R216	1-216-081-00	METAL CHIP	22K	5%	1/10W
R101	1-216-097-00	METAL CHIP	100K	5%	1/10W	R217	1-216-081-00	METAL CHIP	22K	5%	1/10W
R102	1-216-049-00	METAL CHIP	1K	5%	1/10W	R218	1-216-081-00	METAL CHIP	22K	5%	1/10W
R103	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R219	1-216-097-00	METAL CHIP	100K	5%	1/10W
R104	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R220	1-216-025-00	METAL CHIP	100	5%	1/10W
R106	1-216-025-00	METAL CHIP	100	5%	1/10W	R221	1-216-025-00	METAL CHIP	100	5%	1/10W
R107	1-216-105-00	METAL CHIP	220K	5%	1/10W	R222	1-216-093-00	METAL CHIP	68K	5%	1/10W
R108	1-216-097-00	METAL CHIP	100K	5%	1/10W	R223	1-216-049-00	METAL CHIP	1K	5%	1/10W
R109	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R224	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R110	1-216-056-00	METAL GLAZE	2K	5%	1/10W	R225	1-216-079-00	METAL CHIP	18K	5%	1/10W
R111	1-216-066-00	METAL CHIP	5.1K	5%	1/10W	R226	1-216-097-00	METAL CHIP	100K	5%	1/10W
R112	1-216-056-00	METAL GLAZE	2K	5%	1/10W	R227	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R113	1-216-079-00	METAL CHIP	18K	5%	1/10W	R228	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R114	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	R229	1-216-097-00	METAL CHIP	100K	5%	1/10W
R115	1-216-081-00	METAL CHIP	22K	5%	1/10W	R230	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R116	1-216-081-00	METAL CHIP	22K	5%	1/10W	R231	1-216-085-00	METAL CHIP	33K	5%	1/10W
R117	1-216-081-00	METAL CHIP	22K	5%	1/10W	R232	1-216-097-00	METAL CHIP	100K	5%	1/10W
R118	1-216-081-00	METAL CHIP	22K	5%	1/10W	R233	1-216-097-00	METAL CHIP	100K	5%	1/10W
R119	1-216-097-00	METAL CHIP	100K	5%	1/10W	R234	1-216-097-00	METAL CHIP	100K	5%	1/10W
R120	1-216-025-00	METAL CHIP	100	5%	1/10W	R501	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R121	1-216-025-00	METAL CHIP	100	5%	1/10W	R502	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R122	1-216-093-00	METAL CHIP	68K	5%	1/10W	R503	1-216-073-00	METAL CHIP	10K	5%	1/10W
R123	1-216-049-00	METAL CHIP	1K	5%	1/10W	R504	1-216-025-00	METAL CHIP	100	5%	1/10W
R124	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R505	1-216-073-00	METAL CHIP	10K	5%	1/10W
R125	1-216-079-00	METAL CHIP	18K	5%	1/10W	R506	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R126	1-216-097-00	METAL CHIP	100K	5%	1/10W	R507	1-216-073-00	METAL CHIP	10K	5%	1/10W
R127	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R508	1-216-090-00	METAL CHIP	51K	5%	1/10W
R128	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	R509	1-216-049-00	METAL CHIP	1K	5%	1/10W
R129	1-216-097-00	METAL CHIP	100K	5%	1/10W	R510	1-216-073-00	METAL CHIP	10K	5%	1/10W
R130	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	R511	1-216-073-00	METAL CHIP	10K	5%	1/10W
R131	1-216-085-00	METAL CHIP	33K	5%	1/10W	R512	1-216-073-00	METAL CHIP	10K	5%	1/10W
R132	1-216-097-00	METAL CHIP	100K	5%	1/10W	R513	1-216-025-00	METAL CHIP	100	5%	1/10W
R133	1-216-097-00	METAL CHIP	100K	5%	1/10W	R514	1-216-025-00	METAL CHIP	100	5%	1/10W
R134	1-216-097-00	METAL CHIP	100K	5%	1/10W	R515	1-216-007-00	METAL CHIP	18	5%	1/10W
R201	1-216-097-00	METAL CHIP	100K	5%	1/10W	R516	1-216-041-00	METAL CHIP	470	5%	1/10W
R202	1-216-049-00	METAL CHIP	1K	5%	1/10W	R517	1-216-025-00	METAL CHIP	100	5%	1/10W
R203	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R518	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R204	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R519	1-216-078-00	METAL GLAZE	16K	5%	1/10W
R206	1-216-025-00	METAL CHIP	100	5%	1/10W	R520	1-216-073-00	METAL CHIP	10K	5%	1/10W
R207	1-216-105-00	METAL CHIP	220K	5%	1/10W	R522	1-216-682-11	METAL CHIP	20K	0.5%	1/10W
R208	1-216-097-00	METAL CHIP	100K	5%	1/10W	R523	1-216-085-00	METAL CHIP	33K	5%	1/10W
R209	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R524	1-216-081-00	METAL CHIP	22K	5%	1/10W
R210	1-216-056-00	METAL GLAZE	2K	5%	1/10W	R535	1-216-073-00	METAL CHIP	10K	5%	1/10W
R211	1-216-066-00	METAL CHIP	5.1K	5%	1/10W	R537	1-216-085-00	METAL CHIP	33K	5%	1/10W
R212	1-216-056-00	METAL GLAZE	2K	5%	1/10W	R538	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R213	1-216-079-00	METAL CHIP	18K	5%	1/10W	R539	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
						R540	1-216-073-00	METAL CHIP	10K	5%	1/10W
						R541	1-216-083-00	METAL CHIP	27K	5%	1/10W

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R804	1-216-025-00	METAL CHIP	100	5%	1/10W	R879	1-216-025-00	METAL CHIP	100	5%	1/10W
R805	1-216-025-00	METAL CHIP	100	5%	1/10W	R884	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R806	1-216-081-00	METAL CHIP	22K	5%	1/10W	R889	1-216-025-00	METAL CHIP	100	5%	1/10W
R807	1-216-035-00	METAL CHIP	270	5%	1/10W	R890	1-216-025-00	METAL CHIP	100	5%	1/10W
R808	1-216-689-11	METAL CHIP	39K	0.5%	1/10W	R891	1-216-081-00	METAL CHIP	22K	5%	1/10W
R821	1-216-097-00	METAL CHIP	100K	5%	1/10W	R892	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R822	1-216-049-00	METAL CHIP	1K	5%	1/10W	R893	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R829	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	R894	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R830	1-216-081-00	METAL CHIP	22K	5%	1/10W	R895	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R831	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	R896	1-216-295-00	METAL CHIP	0	5%	1/10W
R832	1-216-081-00	METAL CHIP	22K	5%	1/10W	R897	1-216-295-00	METAL CHIP	0	5%	1/10W
R833	1-216-025-00	METAL CHIP	100	5%	1/10W	R898	1-216-295-00	METAL CHIP	0	5%	1/10W
R834	1-216-025-00	METAL CHIP	100	5%	1/10W	R899	1-216-097-00	METAL CHIP	100K	5%	1/10W
R835	1-216-025-00	METAL CHIP	100	5%	1/10W	R900	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R836	1-216-025-00	METAL CHIP	100	5%	1/10W	R901	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R837	1-216-085-00	METAL CHIP	33K	5%	1/10W	R902	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R838	1-216-081-00	METAL CHIP	22K	5%	1/10W	R903	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R839	1-216-025-00	METAL CHIP	100	5%	1/10W	< VARIABLE RESISTOR >					
R840	1-216-025-00	METAL CHIP	100	5%	1/10W	RV101	1-241-785-11	RES, ADJ, CARBON 10K			
R841	1-216-025-00	METAL CHIP	100	5%	1/10W	RV201	1-241-785-11	RES, ADJ, CARBON 10K			
R842	1-216-025-00	METAL CHIP	100	5%	1/10W	< CONNECTOR >					
R843	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	* TP501	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P			
R844	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	< VIBRATOR >					
R845	1-216-083-00	METAL CHIP	27K	5%	1/10W	X801	1-577-358-21	VIBRATOR, CERAMIC (4MHz)			
R846	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	*****					
R847	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	* A-2006-399-A	MD-A BOARD, COMPLETE				
R848	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	*****					
R849	1-216-083-00	METAL CHIP	27K	5%	1/10W	< CAPACITOR >					
R850	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
R851	1-216-077-00	METAL CHIP	15K	5%	1/10W	C12	1-136-157-00	FILM	0.022uF	5%	50V
R852	1-216-081-00	METAL CHIP	22K	5%	1/10W	C13	1-124-234-00	ELECT	22uF	20%	16V
R853	1-216-073-00	METAL CHIP	10K	5%	1/10W	C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
R861	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
R862	1-216-073-00	METAL CHIP	10K	5%	1/10W	C22	1-136-157-00	FILM	0.022uF	5%	50V
R863	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	C23	1-124-234-00	ELECT	22uF	20%	16V
R864	1-216-073-00	METAL CHIP	10K	5%	1/10W	C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
R865	1-216-075-00	METAL CHIP	12K	5%	1/10W	C31	1-124-234-00	ELECT	22uF	20%	16V
R866	1-216-082-00	METAL GLAZE	24K	5%	1/10W	C32	1-124-234-00	ELECT	22uF	20%	16V
R867	1-216-081-00	METAL CHIP	22K	5%	1/10W	C72	1-124-499-11	ELECT, NONPOLAR 1uF	20%	50V	
R868	1-216-081-00	METAL CHIP	22K	5%	1/10W	< CONNECTOR >					
R869	1-216-025-00	METAL CHIP	100	5%	1/10W	* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD 10P			
R870	1-216-075-00	METAL CHIP	12K	5%	1/10W	* CNJ72	1-764-902-11	CONNECTOR, FFC/FPC 4P			
R871	1-216-082-00	METAL GLAZE	24K	5%	1/10W	* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P			
R872	1-216-081-00	METAL CHIP	22K	5%	1/10W						
R873	1-216-081-00	METAL CHIP	22K	5%	1/10W						
R874	1-216-025-00	METAL CHIP	100	5%	1/10W						
R875	1-216-025-00	METAL CHIP	100	5%	1/10W						
R876	1-216-025-00	METAL CHIP	100	5%	1/10W						
R877	1-216-025-00	METAL CHIP	100	5%	1/10W						
R878	1-216-025-00	METAL CHIP	100	5%	1/10W						

MD-A**MD-B**

Ref.No.	Part No.	Description	Remark
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P	
		< HEAD >	
HP101	A-2003-837-F	BASE ASSY, HEAD (PLAYBACK) (DECK A)	
		< IC >	
IC31A	8-759-106-02	IC UPC4570G2	
		< JUMPER RESISTOR >	
JW1	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW51	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW52	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW53	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW54	1-216-296-91	METAL GLAZE 0 5% 1/8W	
		< MOTOR >	
M101A	X-3363-501-1	MOTOR ASSY (REEL) (DECK A)	
M102A	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK A)	
		< TRANSISTOR >	
Q71A	8-729-602-36	TRANSISTOR 2SA1602	
		< RESISTOR >	
R11	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R12	1-216-025-00	METAL CHIP 100 5% 1/10W	
R13	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
R14	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R21	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R22	1-216-025-00	METAL CHIP 100 5% 1/10W	
R23	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
R24	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R31	1-216-033-00	METAL CHIP 220 5% 1/10W	
R32	1-216-033-00	METAL CHIP 220 5% 1/10W	
R71	1-216-082-00	METAL CHIP 24K 5% 1/10W	
R72	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R73	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R74	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
		< VARIABLE RESISTOR >	
RV11A	1-241-761-11	RES, ADJ, CARBON 1K	
RV21A	1-241-761-11	RES, ADJ, CARBON 1K	
RV71A	1-241-630-11	RES, ADJ, CARBON 10K	
RV72A	1-241-630-11	RES, ADJ, CARBON 10K	

Ref.No.	Part No.	Description	Remark
*	A-2006-401-A	MD-B BOARD, COMPLETE	

		< CAPACITOR >	
C11	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
C12	1-136-157-00	FILM 0.022uF 5% 50V	
C13	1-124-234-00	ELECT 22uF 20% 16V	
C18	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C21	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
C22	1-136-157-00	FILM 0.022uF 5% 50V	
C23	1-124-234-00	ELECT 22uF 20% 16V	
C28	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C31	1-124-234-00	ELECT 22uF 20% 16V	
C32	1-124-234-00	ELECT 22uF 20% 16V	
C33	1-124-234-00	ELECT 22uF 20% 16V	
C51	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C52	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C53	1-163-019-00	CERAMIC CHIP 0.0068uF 10% 50V	
C54	1-136-601-11	FILM 0.01uF 5% 630V	
C56	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C57	1-164-346-11	CERAMIC CHIP 1uF 16V	
C71	1-164-346-11	CERAMIC CHIP 1uF 16V	
C80	1-124-234-00	ELECT 22uF 20% 16V	
C81	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C82	1-136-157-00	FILM 0.022uF 5% 50V	
C83	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C84	1-136-478-11	FILM 470PF 5% 630V	
C85	1-136-433-11	FILM 100PF 5% 630V	
C86	1-163-143-00	CERAMIC CHIP 0.0012uF 5% 50V	
C87	1-136-273-91	FILM 75PF 5% 630V	
C88	1-163-003-11	CERAMIC CHIP 330PF 10% 50V	
C89	1-124-234-00	ELECT 22uF 20% 16V	
C90	1-107-584-91	CERAMIC 4PF 0.25PF 500V	
C91	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C92	1-136-157-00	FILM 0.022uF 5% 50V	
C93	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C94	1-136-478-11	FILM 470PF 5% 630V	
C95	1-136-433-11	FILM 100PF 5% 630V	
C96	1-163-143-00	CERAMIC CHIP 0.0012uF 5% 50V	
C97	1-136-273-91	FILM 75PF 5% 630V	
C98	1-163-003-11	CERAMIC CHIP 330PF 10% 50V	
C99	1-164-005-11	CERAMIC CHIP 0.47uF 25V	
		< CONNECTOR >	
* CNP31	1-580-782-11	CONNECTOR, BOARD TO BOARD 10P	
* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P	
* CNP33	1-580-782-11	CONNECTOR, BOARD TO BOARD 10P	
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P	
* CNP72	1-764-902-11	CONNECTOR, FFC/FPC 4P	

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
< DIODE >				R84	1-216-101-00	METAL CHIP 150K 5% 1/10W	
D31	8-719-016-74	DIODE 1SS352		R85	1-216-075-00	METAL CHIP 12K 5% 1/10W	
< HEAD >				R91	1-216-073-00	METAL CHIP 10K 5% 1/10W	
HRPE101	A-2003-838-F	BASE ASSY, HEAD (REC/PLAYBACK/ERASE)		R92	1-216-085-00	METAL CHIP 33K 5% 1/10W	
		(DECK B)		R93	1-216-001-00	METAL CHIP 10 5% 1/10W	
< IC >				R94	1-216-101-00	METAL CHIP 150K 5% 1/10W	
IC31A	8-759-106-02	IC UPC4570G2		R95	1-216-075-00	METAL CHIP 12K 5% 1/10W	
IC81C	8-759-106-56	IC UPC1297CA		< VARIABLE RESISTOR >			
< COIL >				RV11B	1-241-761-11	RES, ADJ, CARBON 1K	
L81	1-410-780-11	INDUCTOR 27mH		RV21B	1-241-761-11	RES, ADJ, CARBON 1K	
L91	1-410-780-11	INDUCTOR 27mH		RV71B	1-241-630-11	RES, ADJ, CARBON 10K	
< MOTOR >				RV72B	1-241-630-11	RES, ADJ, CARBON 10K	
M101B	X-3363-501-1	MOTOR ASSY (REEL) (DECK B)		RV81	1-241-786-11	RES, ADJ, CARBON 22K	
M102B	X-3363-377-1	MOTOR ASSY (CAPSTAN) (DECK B)		RV91	1-241-786-11	RES, ADJ, CARBON 22K	
< TRANSISTOR >				< RELAY >			
Q51	8-729-808-01	TRANSISTOR 2SD1622-S		RY31	1-515-913-11	RELAY	
Q52	8-729-808-01	TRANSISTOR 2SD1622-S		< TRANSFORMER >			
Q53	8-729-808-01	TRANSISTOR 2SD1622-S		T51	1-406-417-11	COIL, BIAS OSCILLATION	
Q71B	8-729-216-22	TRANSISTOR 2SA1162-G		T81	1-433-381-11	TRANSFORMER, BIAS OSCILLATOR	
< RESISTOR >				T91	1-433-381-11	TRANSFORMER, BIAS OSCILLATOR	
R11	1-216-099-00	METAL CHIP 120K 5% 1/10W		< CONNECTOR >			
R12	1-216-025-00	METAL CHIP 100 5% 1/10W		* TP81	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P	
R13	1-216-100-00	METAL GLAZE 130K 5% 1/10W		*****			
R14	1-216-067-00	METAL CHIP 5.6K 5% 1/10W		* A-2007-069-A	PANEL BOARD, COMPLETE		
R21	1-216-099-00	METAL CHIP 120K 5% 1/10W			*****		
R22	1-216-025-00	METAL CHIP 100 5% 1/10W		* 3-905-909-01	HOLDER (FL)		
R23	1-216-100-00	METAL GLAZE 130K 5% 1/10W		< CAPACITOR >			
R24	1-216-067-00	METAL CHIP 5.6K 5% 1/10W		C301	1-165-319-11	CERAMIC CHIP 0.1uF 50V	
R31	1-216-033-00	METAL CHIP 220 5% 1/10W		C302	1-164-005-11	CERAMIC CHIP 0.47uF 25V	
R32	1-216-033-00	METAL CHIP 220 5% 1/10W		C303	1-164-346-11	CERAMIC CHIP 1uF 16V	
R51	1-216-097-00	METAL CHIP 100K 5% 1/10W		C304	1-165-319-11	CERAMIC CHIP 0.1uF 50V	
R52	1-216-097-00	METAL CHIP 100K 5% 1/10W		C305	1-163-003-11	CERAMIC CHIP 330PF 10% 50V	
R53	1-216-073-00	METAL CHIP 10K 5% 1/10W		C307	1-163-003-11	CERAMIC CHIP 330PF 10% 50V	
R54	1-216-309-00	METAL CHIP 5.6 5% 1/10W		C308	1-163-003-11	CERAMIC CHIP 330PF 10% 50V	
R55	1-216-309-00	METAL CHIP 5.6 5% 1/10W		C309	1-163-003-11	CERAMIC CHIP 330PF 10% 50V	
R57	1-216-298-00	METAL CHIP 2.2 5% 1/10W		< CONNECTOR >			
R71	1-216-082-00	METAL GLAZE 24K 5% 1/10W		CN301	1-580-472-11	SOCKET, CONNECTOR 5P	
R72	1-216-081-00	METAL CHIP 22K 5% 1/10W		CN302	1-580-472-11	SOCKET, CONNECTOR 5P	
R73	1-216-089-91	METAL GLAZE 47K 5% 1/10W		* CN305	1-580-415-11	SOCKET, CONNECTOR 11P	
R74	1-216-089-91	METAL GLAZE 47K 5% 1/10W					
R81	1-216-073-00	METAL CHIP 10K 5% 1/10W					
R82	1-216-085-00	METAL CHIP 33K 5% 1/10W					
R83	1-216-001-00	METAL CHIP 10 5% 1/10W					

PANEL POWER

Ref.No.	Part No.	Description	Remark
< FLUORESCENT INDICATOR >			
FL301	1-517-232-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC301	8-759-198-92	IC M38122-M2-060FP	
< RESISTOR >			
R301	1-216-025-00	METAL CHIP 100 5% 1/10W	
R302	1-216-025-00	METAL CHIP 100 5% 1/10W	
R303	1-216-025-00	METAL CHIP 100 5% 1/10W	
R304	1-216-025-00	METAL CHIP 100 5% 1/10W	
R305	1-216-025-00	METAL CHIP 100 5% 1/10W	
R306	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R307	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R308	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R310	1-216-060-00	METAL GLAZE 3K 5% 1/10W	
R311	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R312	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R313	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R314	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R315	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R326	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R327	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R328	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R329	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R331	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R332	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R333	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R334	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R335	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R336	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R337	1-216-097-00	METAL CHIP 100K 5% 1/10W	
< SWITCH >			
S301	1-554-303-21	SWITCH, TACTILE (DOLBY NR)	
S302	1-554-303-21	SWITCH, TACTILE (DIRECTION MODE)	
S303	1-554-303-21	SWITCH, TACTILE (REC MUTE)	
S304	1-554-303-21	SWITCH, TACTILE (DUBBING MODE)	
S305	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO)	
S306	1-554-303-21	SWITCH, TACTILE (COUNTER A/B)	
S307	1-554-303-21	SWITCH, TACTILE (RESET)	
< VIBRATOR >			
X301	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	

Ref.No.	Part No.	Description	Remark
*	A-2007-148-A	POWER BOARD, COMPLETE *****	
*	1-533-213-31	HOLDER, FUSE	
*	3-309-144-21	HEAT SINK	
*	4-880-403-11	HEAT SINK	
	7-682-547-09	SCREW +BVTT 3X6 (S)	
< CAPACITOR >			
C701	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C702	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C703	1-126-768-11	ELECT 2200uF 20% 16V	
C704	1-126-768-11	ELECT 2200uF 20% 16V	
C705	1-126-101-11	ELECT 100uF 20% 16V	
C706	1-126-101-11	ELECT 100uF 20% 16V	
C707	1-126-927-11	ELECT 2200uF 20% 10V	
C708	1-126-927-11	ELECT 2200uF 20% 10V	
C709	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C710	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C711	1-126-937-11	ELECT 4700uF 20% 16V	
C712	1-126-937-11	ELECT 4700uF 20% 16V	
C713	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C714	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C715	1-124-472-11	ELECT 470uF 20% 10V	
C716	1-124-472-11	ELECT 470uF 20% 10V	
C717	1-124-477-11	ELECT 47uF 20% 25V	
C718	1-126-927-11	ELECT 2200uF 20% 6.3V	
C719	1-124-927-11	ELECT 4.7uF 20% 100V	
C720	1-124-478-11	ELECT 100uF 20% 25V	
C721	1-124-122-11	ELECT 100uF 20% 50V	
C722	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C723	1-124-907-11	ELECT 10uF 20% 50V	
C726	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C727	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C728	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C729	1-124-927-11	ELECT 4.7uF 20% 100V	
< CONNECTOR >			
* CN703	1-568-864-11	SOCKET, CONNECTOR 21P	
CN704	1-764-492-21	CONNECTOR, BOARD TO BOARD 12P	
< DIODE >			
D701	8-719-200-02	DIODE 10E2	
D702	8-719-200-02	DIODE 10E2	
D703	8-719-200-02	DIODE 10E2	
D704	8-719-200-02	DIODE 10E2	
D705	8-719-200-02	DIODE 10E2	
D706	8-719-200-02	DIODE 10E2	
D707	8-719-200-02	DIODE 10E2	
D708	8-719-200-02	DIODE 10E2	
D709	8-719-017-82	DIODE MA8036	

POWER	SW (A)	SW (B)
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D710	8-719-422-67	DIODE MA8062-H		R722	1-216-081-00	METAL CHIP 22K 5% 1/10W	
D711	8-719-200-02	DIODE 10E2		R724	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
D712	8-719-200-02	DIODE 10E2				< TRANSFORMER >	
D713	8-719-016-74	DIODE 1SS352		△T501	1-423-812-11	TRANSFORMER, POWER	
D714	8-719-016-74	DIODE 1SS352				*****	
D715	8-719-016-74	DIODE 1SS352		*	1-649-583-11	SW (A) BOARD	

D716	8-719-200-02	DIODE 10E2				< CONNECTOR >	
D717	8-719-200-02	DIODE 10E2		CN304	1-580-412-11	SOCKET, CONNECTOR 5P	
D718	8-719-017-94	DIODE MA8180				< RESISTOR >	
D719	8-719-977-12	DIODE DT26.8B		R322	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
D721	8-719-016-74	DIODE 1SS352		R323	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
D722	8-719-016-74	DIODE 1SS352		R324	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
		< IC >		R325	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
IC701	8-759-602-66	IC M5230L-A				< SWITCH >	
		< TRANSISTOR >		S315	1-554-303-21	SWITCH, TACTILE (□)	
Q701	8-729-209-15	TRANSISTOR 2SD2012		S316	1-554-303-21	SWITCH, TACTILE (▷)	
Q702	8-729-141-83	TRANSISTOR 2SB1094-LK		S317	1-554-303-21	SWITCH, TACTILE (◁)	
Q703	8-729-805-45	TRANSISTOR 2SC3395		S318	1-554-303-21	SWITCH, TACTILE (AMS ◀◀)	
Q704	8-729-141-83	TRANSISTOR 2SB1094-LK		S319	1-554-303-21	SWITCH, TACTILE (AMS ▶▶)	
Q705	8-729-209-15	TRANSISTOR 2SD2012				*****	
Q706	8-729-620-05	TRANSISTOR 2SC2603-EF		*	1-649-584-11	SW (B) BOARD	
Q707	8-729-209-15	TRANSISTOR 2SD2012				*****	
Q708	8-729-118-01	TRANSISTOR 2SB1116				< CONNECTOR >	
		< RESISTOR >		CN303	1-580-412-11	SOCKET, CONNECTOR 5P	
R702	1-216-025-00	METAL CHIP 100 5% 1/10W				< RESISTOR >	
R703	1-216-025-00	METAL CHIP 100 5% 1/10W		R316	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R704	1-216-057-00	METAL CHIP 2.2K 5% 1/10W		R317	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R705	1-216-033-00	METAL CHIP 220 5% 1/10W		R318	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R706	1-216-121-00	METAL CHIP 1M 5% 1/10W		R319	1-216-063-00	METAL CHIP 3.9K 5% 1/10W	
R707	1-216-043-00	METAL CHIP 560 5% 1/10W		R320	1-216-063-00	METAL CHIP 3.9K 5% 1/10W	
R708	1-216-043-00	METAL CHIP 560 5% 1/10W		R321	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R709	1-216-054-00	METAL GLAZE 1.6K 5% 1/10W				< SWITCH >	
R709	1-216-061-00	METAL CHIP 3.3K 5% 1/10W		S308	1-554-303-21	SWITCH, TACTILE (□)	
R710	1-216-066-00	METAL CHIP 5.1K 5% 1/10W		S309	1-554-303-21	SWITCH, TACTILE (▷)	
R710	1-216-073-00	METAL CHIP 10K 5% 1/10W		S310	1-554-303-21	SWITCH, TACTILE (◁)	
R711	1-216-077-00	METAL CHIP 15K 5% 1/10W		S311	1-554-303-21	SWITCH, TACTILE (PAUSE)	
R712	1-216-033-00	METAL CHIP 220 5% 1/10W		S312	1-554-303-21	SWITCH, TACTILE (AMS ◀◀)	
R713	1-216-077-00	METAL CHIP 15K 5% 1/10W		S313	1-554-303-21	SWITCH, TACTILE (AMS ▶▶)	
R714	1-216-055-00	METAL CHIP 1.8K 5% 1/10W		S314	1-554-303-21	SWITCH, TACTILE (REC ●)	
R715	1-216-073-00	METAL CHIP 10K 5% 1/10W					
R716	1-216-081-00	METAL CHIP 22K 5% 1/10W					
R717	1-216-041-00	METAL CHIP 470 5% 1/10W					
R718	1-216-041-00	METAL CHIP 470 5% 1/10W					
R719	1-216-041-00	METAL CHIP 470 5% 1/10W					
R720	1-216-041-00	METAL CHIP 470 5% 1/10W					
R721	1-216-057-00	METAL CHIP 2.2K 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.
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SW-A

SW-B

Ref. No.	Part No.	Description	Remark

*	1-634-841-14	SW-A BOARD	

		< CONNECTOR >	
* CNP81	1-568-852-11	SOCKET, CONNECTOR 9P	
		< IC >	
IC81A	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(H1)	
		< RESISTOR >	
R84	1-249-417-11	CARBON	1K 5% 1/4W F
R85	1-249-408-11	CARBON	180 5% 1/4W F
		< SWITCH >	
S81A	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82A	1-571-281-21	SWITCH, LEAF (CrO2 DET)	
S86A	1-571-281-21	SWITCH, LEAF (HALF DET)	

*	1-634-841-14	SW-B BOARD	

		< CONNECTOR >	
* CNP81	1-568-852-11	SOCKET, CONNECTOR 9P	
		< IC >	
IC81B	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(H1)	
		< RESISTOR >	
R81	1-249-414-11	CARBON	560 5% 1/4W F
R82	1-247-818-11	CARBON	300 5% 1/4W
R83	1-247-834-11	CARBON	1.3K 5% 1/4W
R84	1-249-417-11	CARBON	1K 5% 1/4W F
R85	1-249-408-11	CARBON	180 5% 1/4W F
		< SWITCH >	
S81B	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82B	1-571-281-21	SWITCH, LEAF (CrO2 DET)	
S83	1-571-281-21	SWITCH, LEAF (METAL DET)	
S84	1-571-281-21	SWITCH, LEAF (ERASE PROOF, SIDE A)	
S85	1-571-281-21	SWITCH, LEAF (ERASE PROOF, SIDE B)	
S86B	1-571-281-21	SWITCH, LEAF (HALF DET)	

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
MISCELLANEOUS *****			
5	1-751-821-11	WIRE (FLAT TYPE) (11 CORE)	
6	1-751-819-11	WIRE (FLAT TYPE) (5 CORE)	
15	1-590-902-11	WIRE, FLAT TYPE (9 CORE)	
21	1-751-820-11	WIRE (FLAT TYPE) (21 CORE)	
117	1-638-983-11	MOTOR FLEXIBLE	
△F701	1-532-215-00	FUSE, TIME-LAG (T800mA)	(E, AUS, EA, MY, SP, JE)
△F701	1-532-078-00	FUSE, TIME-LAG (T1A) (AEP, UK, G, IT)	
△F701	1-532-742-11	FUSE, GLASS TUBE (1.6A) (US, CND)	
△F702	1-532-215-00	FUSE, TIME-LAG (T800mA)	(E, AUS, EA, MY, SP, JE)
△F702	1-532-078-00	FUSE, TIME-LAG (T1A) (AEP, UK, G, IT)	
△F702	1-532-742-11	FUSE, GLASS TUBE (1.6A) (US, CND)	
HP101	A-2003-837-K	DECK ASSY, HEAD (DECK A)	
HRPE101	A-2003-838-L	DECK ASSY, HEAD (DECK B)	
M101A	X-3363-501-1	MOTOR, REEL ASSY (DECK A)	
M101B	X-3363-501-1	MOTOR, REEL ASSY (DECK B)	
M102A	X-3365-377-1	MOTOR, CAPSTAN ASSY (DECK A)	
M102B	X-3365-377-1	MOTOR, CAPSTAN ASSY (DECK B)	

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*****
HARDWARE LIST
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#1 7-621-770-67 SCREW +PTT 2.6X6 (S)
#2 7-621-775-00 SCREW +B 2.6X3
#3 7-621-849-00 SCREW (BV/RING)
#4 7-627-556-08 SCREW +P 2.6X2.8
#5 7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S

#6 7-685-780-01 SCREW +PTT 2X3 (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.