

TC-W455

SERVICE MANUAL

US Model



SPECIFICATIONS

Recording system 4-track 2-channel stereo
 Frequency response

- DOLBY NR OFF
- With TYPE IV cassette (SONY METAL-ES cassette)
 - 30 - 15,000 Hz (± 3 dB)
- With TYPE II cassette (SONY UX-S cassette)
 - 30 - 15,000 Hz (± 3 dB)
- With TYPE I cassette (SONY HF-S cassette)
 - 30 - 14,000 Hz (± 3 dB)

Wow and flutter 0.07% WRMS (NAB)
 Signal-to-noise ratio

Cassette	Dolby NR switch	
	OFF	ON
TYPE IV (Sony METAL-ES)	58 dB	65 dB
TYPE II (Sony UX-S)	57 dB	64 dB
Type I (Sony HF-S)	54 dB	61 dB

Total harmonic distortion
 1.0% (with Sony METAL-ES cassette)

General

Dimensions Approx. 430 × 130 × 250 mm (w/h/d)
 (17 × 5¹/₈ × 9⁷/₈ inches)
 incl. projecting parts and controls

Weight Approx. 3.8 kg (8 lb 7 oz) net

General

Power requirements
 120 V AC, 60 Hz

Supplied accessories

- Remote commander (1)
- Flat connecting cords (3) (SEN-770)
- Flat connecting cords (4) (SEN-870)
- Connecting cord (1)
- AM loop antenna (1)
- FM ribbon antenna (1)
- Batteries (2)
- 45-rpm adaptor (1)
- Disc centering guides (2)



STEREO CASSETTE DECK
SONY®

TC

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SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check 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 TEST

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 2 V AC range are suitable. (See Fig. A)

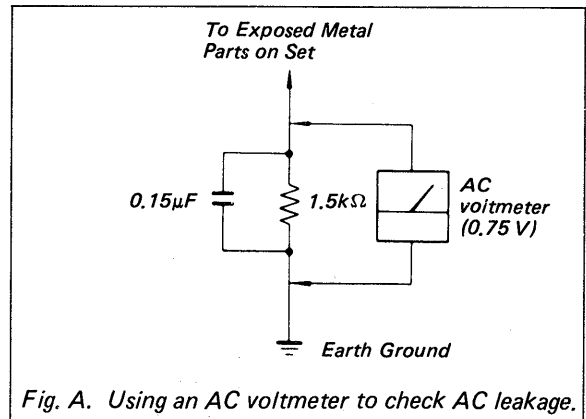
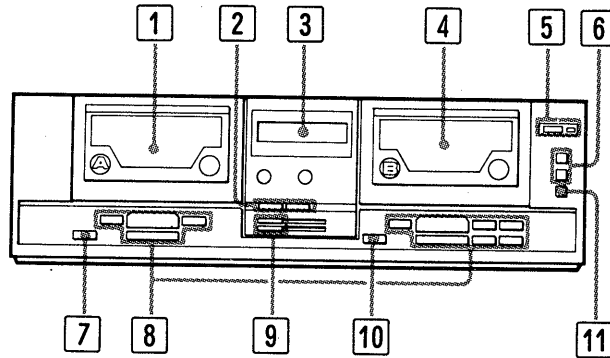


Fig. A. Using an AC voltmeter to check AC leakage.

**SECTION 1
OUTLINE**

1-1. LOCATION AND FUNCTION OF CONTROLS



1 Cassette holder, deck A

2 SYNCHRO DUBBING selectors and indicators

HIGH: For high speed dubbing
NORMAL : For normal speed dubbing

3 PEAK LEVEL METERS

During playback: Show the recorded level.
During recording: Show the peak input level.

4 Cassette holder, deck B

5 COUNTER and RESET button (deck B)

Provides numerical reference point.

6 TAPE select switches (deck B)

Select the type of cassette.

7 ▲ Eject button, deck A

8 Tape operation buttons

- ◀◀ (rewind) button
- ▶ (playback) button
- (stop) button
- ▶▶ (fast forward) button
- REC (record) button
- REC MUTE (record muting) button
- || PAUSE button

9 REC LEVEL controls

Adjust the recording level.

10 ▲ Eject button, deck B

11 DOLBY switch*

Effective for playback and recording.


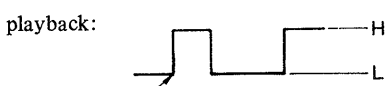
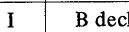


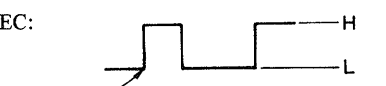



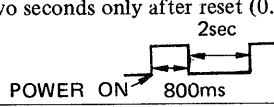



* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.


1-2. IC501 (M50742-404) PIN FUNCTIONS

IC501 (M50742-404) is a 4 bit microcomputer which controls the mechanism, does key input and LED display.

The pin functions, key matrix and LED matrix descriptions follow.

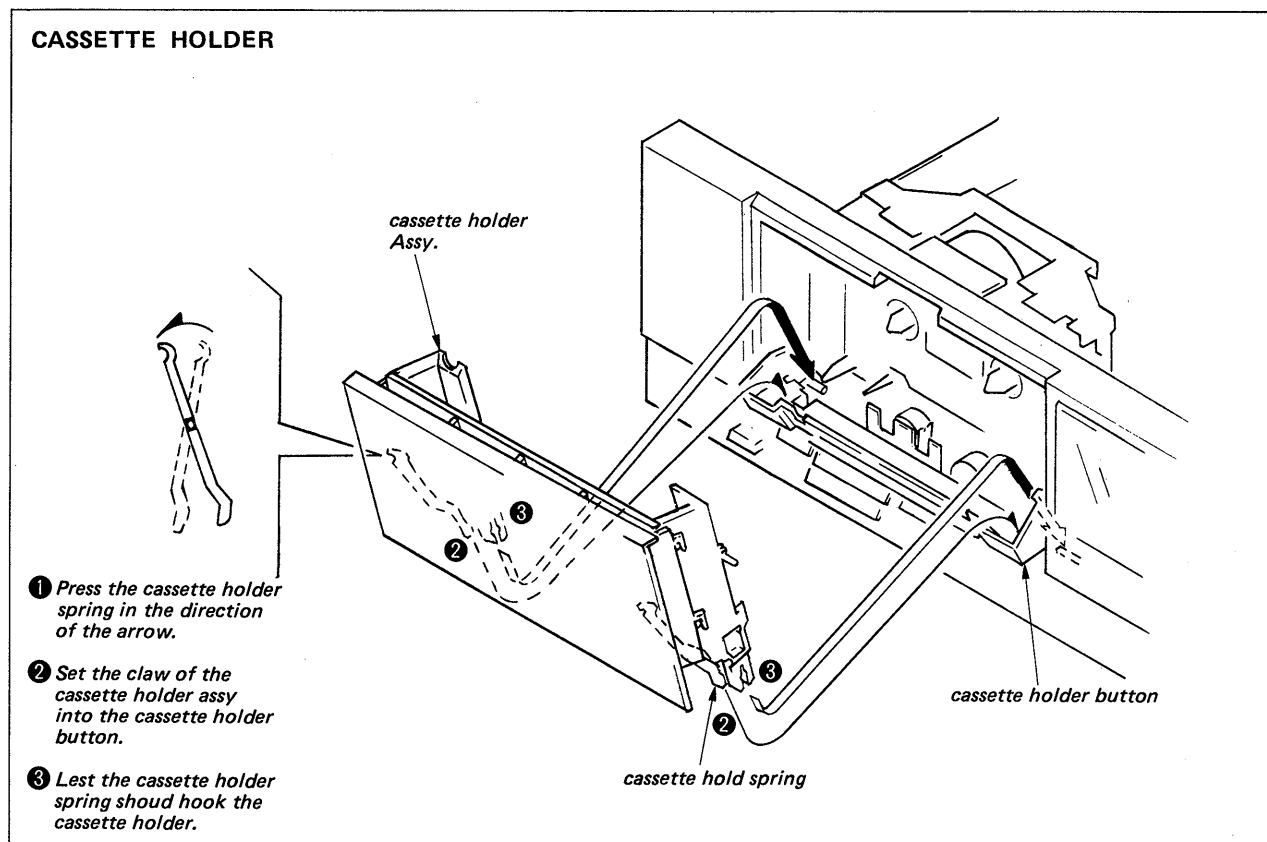
Pin No.	Pin Name	I/O	Function
1	VDD	-	Power supply pin.
2	A-MOTOR (FWD)	O	A deck reel motor (FWD) drive output pin. "L" when A deck reel motor rotates FWD, otherwise "H".
3	A-MOTOR (REV)	O	A deck reel motor (REV) drive output pin. "L" when A deck reel motor rotates reverse, otherwise "H".
4	B-MOTOR (FWD)	O	B deck reel motor (FWD) drive output pin. "L" when B deck reel motor rotates FWD, otherwise "H".
5	B-MOTOR (REV)	O	B deck reel motor (REV) drive output pin. "L" when B deck reel motor rotates reverse, otherwise "H".
6 7 8 9	LED3 LED2 LED1 LED0	O	Anode side output pins to dynamically light up LED.
10 11 12 13	KEY7 KEY6 KEY5 KEY4	I	Key matrix key return signal input pins.
14	AMS/BS	I	AMS/BS (blank skip) key input pin.
15	TC STOP	I	Direct function stop signal input pin. "L" when amp function is at "TAPE", "H" otherwise. When "H" is input during playback, stop occurs, but not during recording.
16	SYNCHRO- II	I	Synchro pause release signal input pin. "L" when synchro pause release signal is input; otherwise "H". Only accepted when B deck is in recording mute or recording pause. Not used.
17	SYNCHRO- ○	I	Synchro recording mute signal input pin. "L" when synchro recording mute signal is input; otherwise "H". Only accepted during B deck recording. If 16 SYNCHRO- II and 17 SYNCHRO- ○ above both input "L" at the same time, remote control AMS/ ○ input is judged, and during recording, recording mute operation results.
18	B-◀	I	B deck ◀ key input pin.
19	B-◀◀	I	B deck ◀◀ key input pin.
20	B-■	I	B deck ■ key input pin.
21	B-▶	I	B deck ▶ key input pin.
22	B-▶▶	I	B deck ▶▶ key input pin.
23	B-●	I	B deck ● key input pin.
24	B- II	I	B deck II key input pin.
25	B- ○	I	B deck ○ key input pin.
26	POWER OFF	I	Power detection pin. "H" is input for power ON and "L" for power OFF. For power OFF when head is up, the head is lowered immediately.
27	GND	-	Ground pin.
28	RST	I	External reset signal input pin. Reset operation is performed for "L" level input.

Pin No.	Pin Name	I/O	Function
29 30	XI XO	I O	Clock oscillation pins. (3.58 MHz on this model.)
31	CLK	O	Timing signal output pin. Supplies 895 kHz clock to RMS controller. Not used.
32	GND	-	Ground pin.
33	A-SHUT OFF	I	<ul style="list-style-type: none"> A deck reel table rotation signal input pin. When a pulse () is input during A deck PB, FF, FR and "H" continues for 2 seconds during PB or 0.5 seconds during FF or FR, shut off occurs. During power ON Switching input pin for 1 direction/2 direction playback. <p>1 direction playback:</p>  <p>2 direction playback: "H"</p>
34	B-SHUT OFF	I	B deck reel table rotation signal input pin. When a pulse () is input during B deck PB, recording, FF, FR and "H" continues for 2 seconds during PB or recording or for 0.5 seconds during FF or FR, shut off occurs.
35	\bar{Q}	I	B deck leader tape sensor (quick sensor) signal input pin. At leader tape: "L" At magnetic coating: "H" When "L" is input during B deck playback or recording, B deck reverses rotation. However, only operates for from FWD to REV direction. Also, does not operate for 8 seconds from the start of FWD.
36	 /TIMER REC	I	<ul style="list-style-type: none"> Direction mode switching signal input pin. When direction mode is , "L", otherwise "H". During power ON TIMER REC signal input pin. <p>TIMER REC:</p>  <p>Otherwise: "H"</p>
37	 /TIMER PLAY	I	<ul style="list-style-type: none"> Direction mode switching signal input pin. "L" when direction mode is , otherwise "H". During power ON TIMER PLAY signal input pin. <p>TIMER PLAY:</p>  <p>Otherwise: "H"</p>
38	AMS SIG	I	AMS signal input pin. "H" during recorded portion, "L" during blank.
39 40	$\overline{\text{BACK}}$ GO	I	RMS control signal input pin. Receives "back" or "go" commands from RMS controller during RMS. Both "H" during RMS OFF, both "L" when RMS is set, then after pin 41 $\overline{\text{REQ}}$ output, for "back" command, pin 39 $\overline{\text{BACK}}$: "L", pin 40 GO: "H". For "go" command, pin 39 $\overline{\text{BACK}}$: "H", pin 40 GO: "L" are input from RMS controller. Not used.
41	$\overline{\text{REQ}}$	O	Output pin for request signal to RMS controller. Outputs "L" to receive command from RMS controller during RMS. Not used.
42	TIMER	O	"L" for two seconds only after reset (0.8 seconds), otherwise "H".
			
43	$\overline{\text{TC FUNCTION}}$	O	Direct function signal output pin. "  " when A deck and B deck  or  key is ON, otherwise "H". Not used.

Pin No.	Pin Name	I/O	Function
44	$\overline{\text{SIRCS MUTE}}$	O	Remote control prohibit signal output pin. "L" during dubbing so that remote control can not operate. Otherwise "H".
45	$\overline{\text{A-PLAY MONITOR}}$	O	A deck playback monitor signal output pin. "L" during A deck playback to inform RMS controller of playback. "H" at other times. Not used.
46	$\overline{\text{LINE MUTE RELEASE}}$	O	Line muting release signal output pin. "L" for A deck, B deck playback and during dubbing, "H" at other times.
47	$\overline{\text{H.P MUTE RELEASE}}$	O	Headphone, line output meter muting release signal output pin. "L" for A deck playback, B deck playback and recording, and dubbing; otherwise "H".
48	$\overline{\text{REC MUTE RELEASE}}$	O	Recording muting release signal output pin. "L" during B deck recording and dubbing, otherwise "H".
49	$\overline{\text{A-RMS MONITOR}}$	O	A deck RMS monitor signal output pin. "L" during RMS operation to inform RMS controller of RMS operation. Not used.
50	$\overline{\text{BIAS}}$	O	Recording bias oscillation control signal output pin. "L" during B deck recording and dubbing, otherwise "H".
51	$\overline{\text{REC RELAY}}$	O	Relay control signal output pin. "L" when B deck ● (REC) key, HIGH SPEED DUBBING key or NORMAL SPEED DUBBING key is ON, otherwise "H".
52	$\overline{\text{PB/REC}}$	O	Playback/recording switching signal output pin. "L" when B deck ● (REC) key is ON, otherwise "H".
53	$\overline{\text{B-PLAY}}$	O	A deck/B deck switching signal output pin. "L" during B deck playback, otherwise "H".
54	$\overline{\text{A-PLAY}}$	O	A deck/B deck switching signal output pin. "L" during A deck playback; otherwise "H". Not used.
55	$\overline{\text{HIGH SPEED}}$	O	Normal speed dubbing/high speed dubbing switching signal output pin. "L" for high speed dubbing, otherwise "H".
56	$\overline{\text{PM-KICK}}$	O	Plunger solenoid kick signal output pin.  during plunger solenoid kick, otherwise "H".
57	$\overline{\text{A-PM}}$	O	A deck plunger solenoid control signal output pin. "H" when A deck plunger solenoid is ON, otherwise "L".
58	$\overline{\text{A-CPM}}$	O	A deck capstan motor control signal output pin. "L" when A deck capstan motor is ON, otherwise "H". This output is used to lower reel motor torque.
59	$\overline{\text{B-PM}}$	O	B deck plunger solenoid control signal output pin. "H" when B deck plunger solenoid is ON, otherwise "L".
60	$\overline{\text{B-CPM}}$	O	B deck capstan motor control signal output pin. "L" when B deck capstan motor is ON, otherwise "H". This output is used to lower reel motor torque.
61 62 63 64	D C B A	O	Key matrix signal source output and cathode side output for dynamic lighting of LED.

**SECTION 2
ADJUSTMENTS**

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



**SECTION 3
ADJUSTMENTS**

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

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

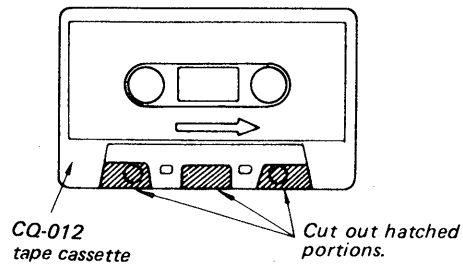
record/playback head	pinch roller
erase head	rubber belts
capstan	idler
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should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

Torque measurement

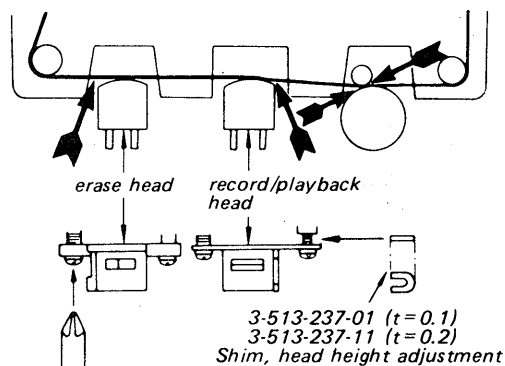
Torque	Torque meter	Meter reading
FWD Torque	CQ102C	28 – 65 g·cm (0.38 – 0.9 oz·inch)
Back Tension Torque	CQ102C	2 – 6 g·cm (0.02 – 0.08 oz·inch)
FF·REW Torque	CQ201B	80 – 160 g·cm (1.1 – 2.2 oz·inch)

Head Height Adjustment

1. Prepare an adjustment cassette as shown below.



2. In playback mode and viewing from the front, adjust the head heights to eliminate tape curl and tape twist at portions of arrow.



3-2. ELECTRICAL ADJUSTMENTS

1. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.

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

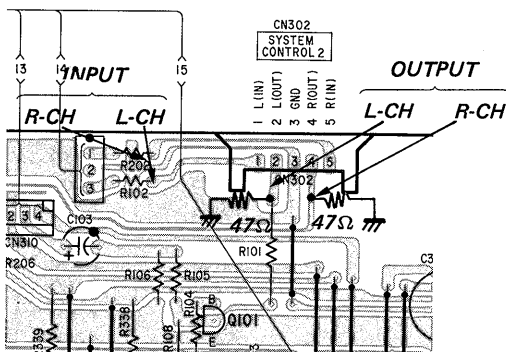
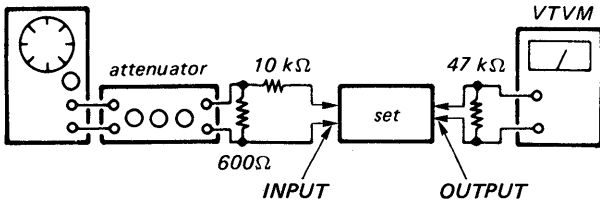
DOLBY NR switch: OFF

- 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.

Mode: record

AF OSC



Standard Input Level

	LINE IN
source impedance	10 kΩ
input level	0.25 V (-10 dB)

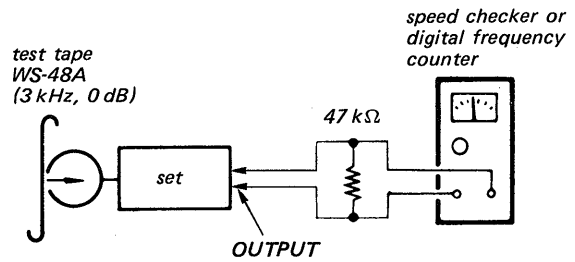
Standard Output Level

	LINE OUT
load impedance	47 kΩ
output level	0.44 V (-5 dB)

Tape Speed Adjustment

Procedure:

Mode: FWD playback



1. Connect 2 pin of CN508 with the lead wire.

Specification: high speed

Speed checker	Digital frequency counter
-0.6 - +0.6%	5,960 Hz - 6,040 Hz

Frequency difference between the beginning and the end of the tape should be within 1.5% (90 Hz).

Adjustment Location:

DECK-A side RV501
DECK-B side RV503

2. Remove the wire in step 1.

Specification: normal speed

Speed checker	Digital frequency counter
-0.3 - +0.3%	2,990 Hz - 3,010 Hz

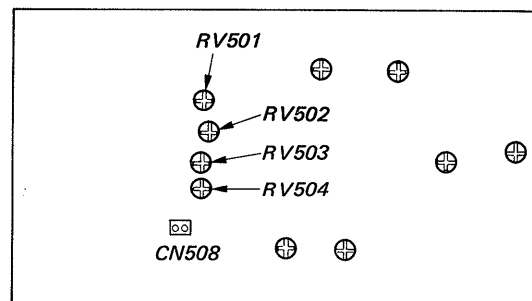
Frequency difference between the beginning and the end of the tape should be within 1.5% (45 Hz).

Adjustment Location:

DECK-A side RV502
DECK-B side RV504

3. If the specifications are not satisfied, repeat step 1 and 2.

Adjustment Location: Audio board.

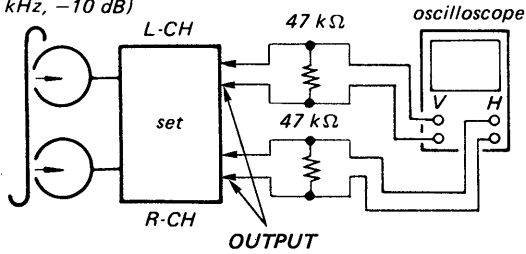


Record/Playback Head Azimuth Adjustment

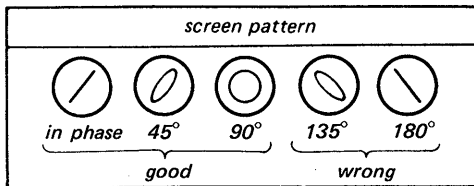
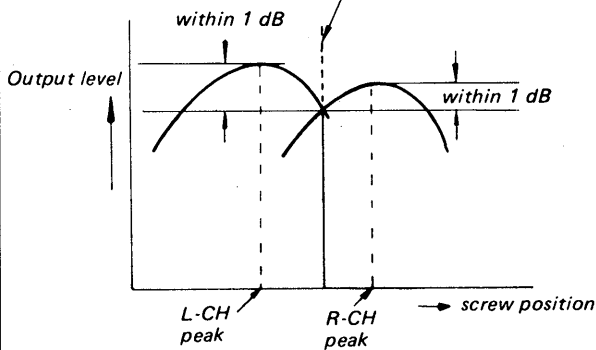
Procedure:

1. Mode: playback

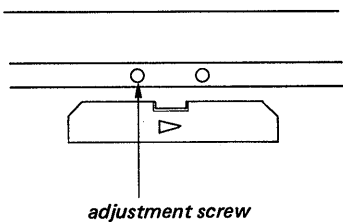
test tape
P-4-A 100
(10 kHz, -10 dB)



2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



3. After the adjustments, apply suitable locking compound to the parts adjusted.

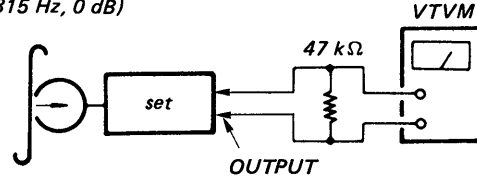


Playback Level Adjustment

Procedure:

Mode: FWD playback

test tape
P-4-L300
(315 Hz, 0 dB)



Adjust,

- DECK-A side RV102 (L-CH), RV202 (R-CH)
 - DECK-B side RV103 (L-CH), RV203 (R-CH)
- so that the specifications are satisfied.

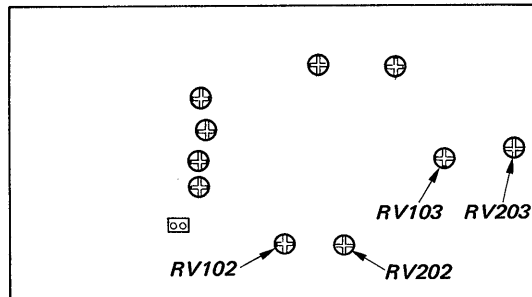
Specification:

OUTPUT level: 0.41 – 0.46 V
(-5.5 – -4.5 dB)

level difference between the channels:
within 0.5 dB

Confirm that LINE OUT level is not changed when
Playback and Stop are repeated.

Adjustment Location: audio board



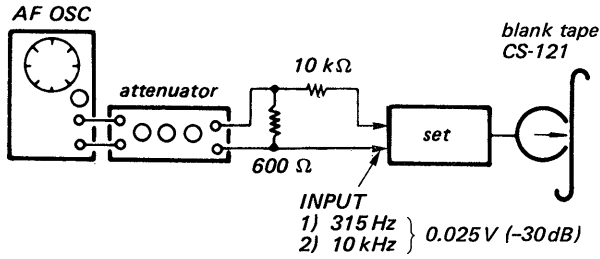
Record BIAS Adjustment

Setting:

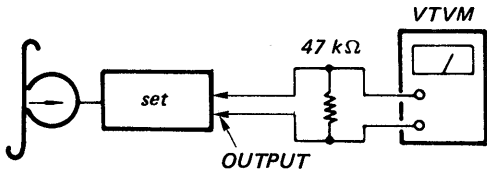
REC LEVEL control: standard record
(See page 9.)

Procedure:

1. Mode: record



2. Mode: playback

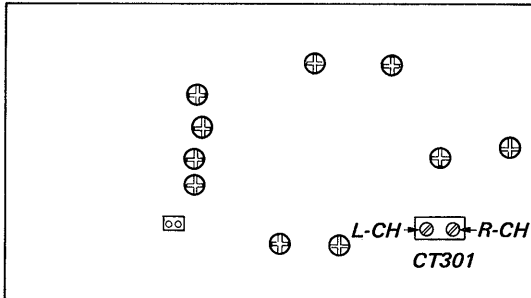


Play back the tape recorded in step 1. If the specification is not satisfied, adjust CT301 (L-CH), CT301 (R-CH) and repeat steps 1 and 2.

Specification:

The OUTPUT level of 10 kHz signal relative to that of 315 Hz: -0.5 dB - +0.5 dB.

Adjustment Location: audio board



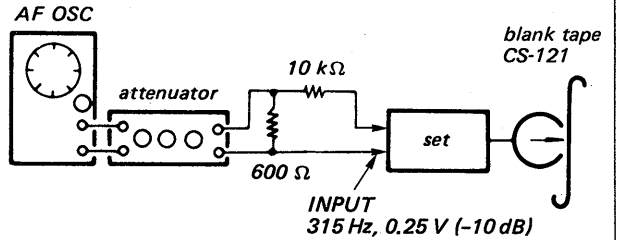
Record Level Adjustment

Setting:

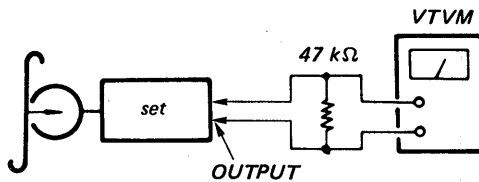
REC LEVEL control: standard record
(See page 9.)

Procedure:

1. Mode: record



2. Mode: playback

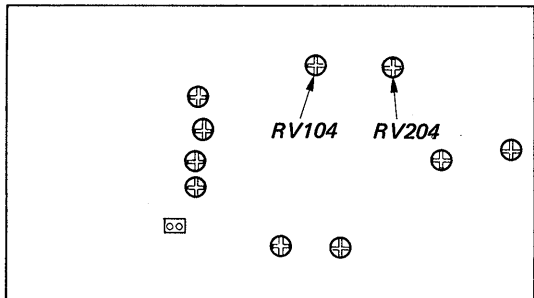


Play back the tape recorded in step 1. If the specification is not satisfied, adjust RV104 (L-CH), RV204 (R-CH) and repeat steps 1 and 2.

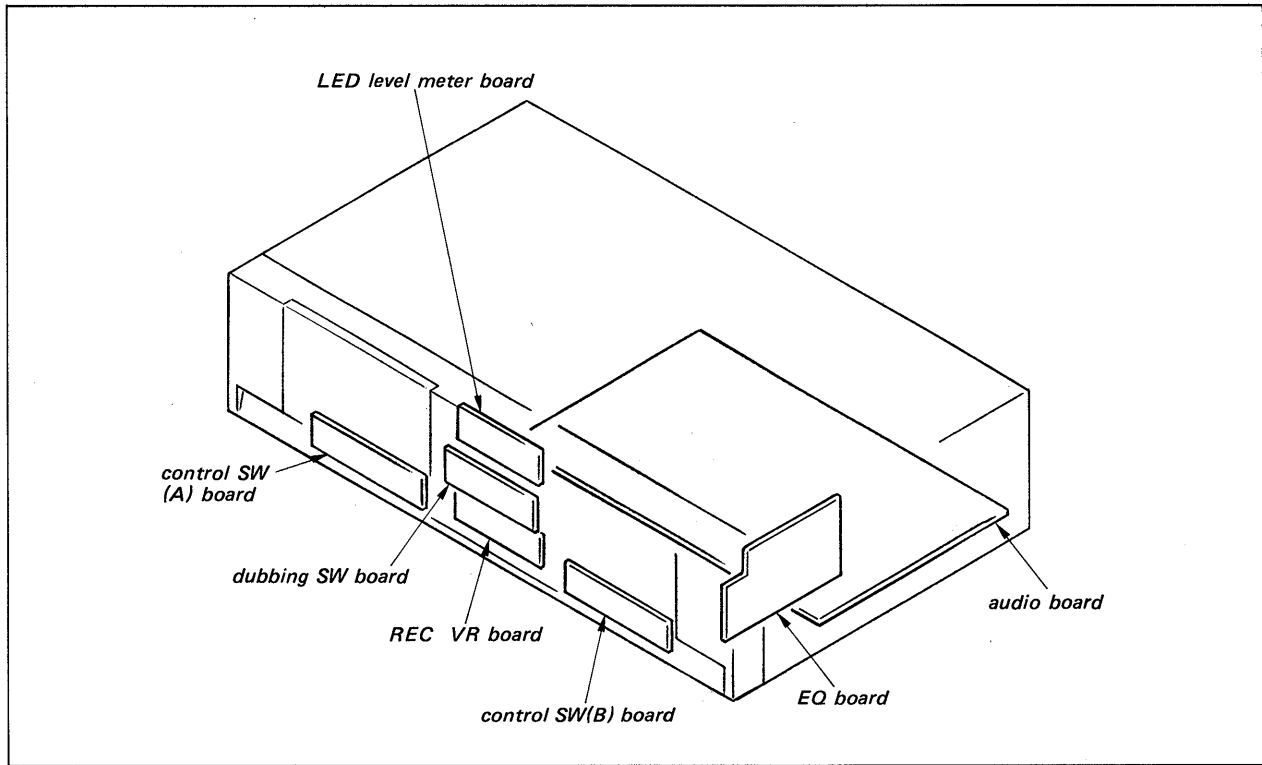
Specification:

OUTPUT level: 0.41 - 0.46 V
(-5.5 - 4.5 dB)

Adjustment Location: audio board



**SECTION 4
CIRCUIT BOARDS LOCATION**



● SEMICONDUCTOR LEAD LAYOUTS

<p>1SS132 10E2N HZ6A1L HZ6C3L</p> <p>cathode</p> <p>anode</p>	<p>SEL2510C</p> <p>anode</p> <p>cathode</p>	<p>CXA1100P IR2E02</p> <p>16 15 14 13 12 11 10 9</p> <p>1 2 3 4 5 6 7 8</p> <p>(Top view)</p>	<p>2SA1345 2SA1348 2SC3399 2SC3901 2SC634SP</p> <p>E</p> <p>C</p> <p>B</p>
<p>SEL2210W-C</p> <p>long</p> <p>short</p> <p>anode</p> <p>cathode</p>	<p>GL-1PG102</p>	<p>M50761-417P</p> <p>20 18 16 14 12</p> <p>19 17 15 13 11</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>(Top view)</p>	<p>2SB1094-L 2SD1406</p> <p>B</p> <p>C</p> <p>E</p>
<p>PR2222S-B1</p> <p>cathode</p> <p>anode</p>	<p>MAY3877S</p> <p>anode</p> <p>cathode</p>	<p>M50742-404SP</p> <p>64</p> <p>33</p> <p>1</p> <p>32</p> <p>(Top view)</p>	<p>2SB734</p> <p>E</p> <p>C</p> <p>B</p>
<p>μPC4570C μPC4570C-1</p> <p>8 7 6 5</p> <p>4 3 2 1</p> <p>(Top view)</p>	<p>2SD1388</p> <p>E</p> <p>C</p> <p>B</p>	<p>2SA1150</p> <p>letter side</p> <p>E</p> <p>C</p> <p>B</p>	

**SECTION 5
DIAGRAMS**

5-1. MOUNTING DIAGRAM

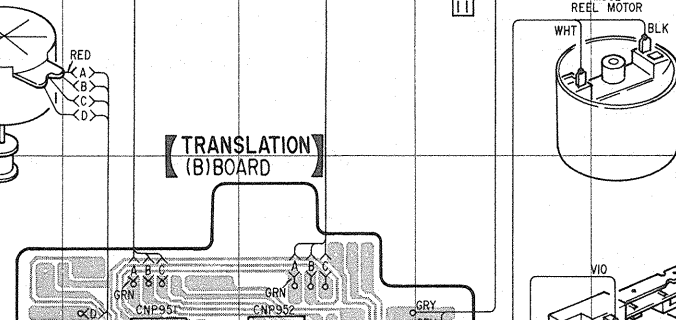
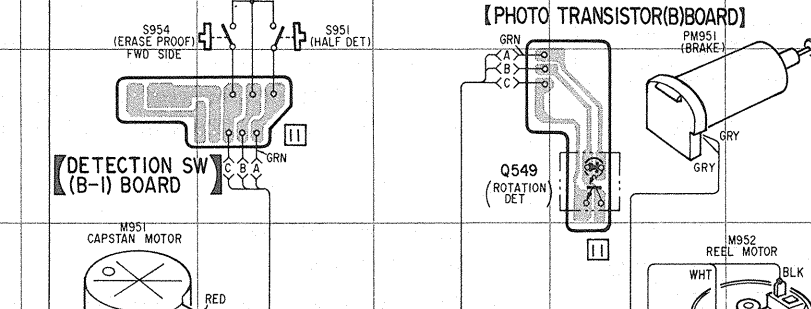
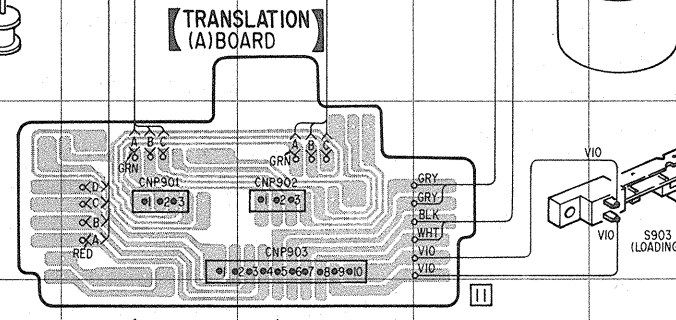
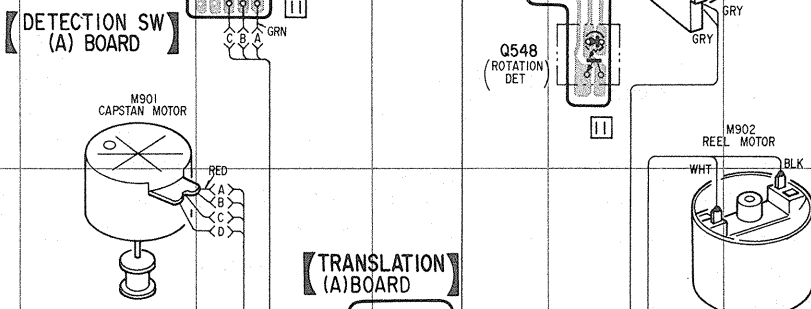
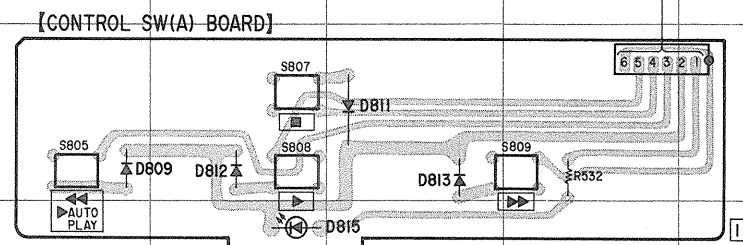
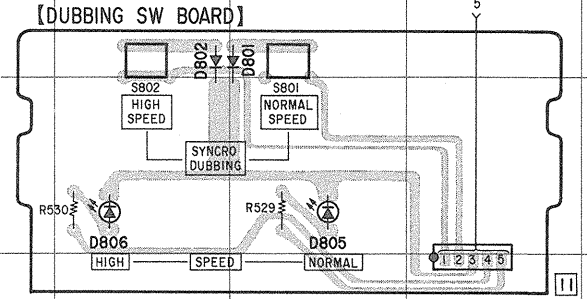
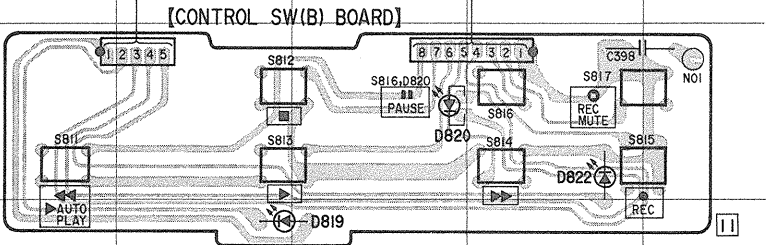
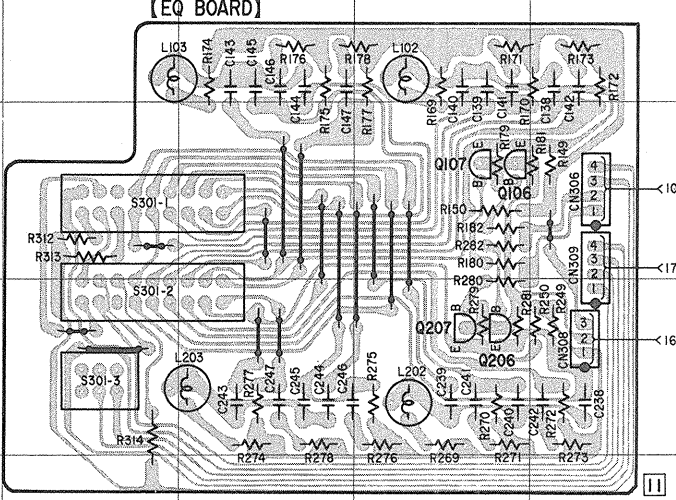
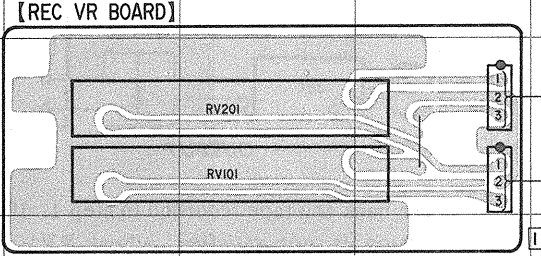
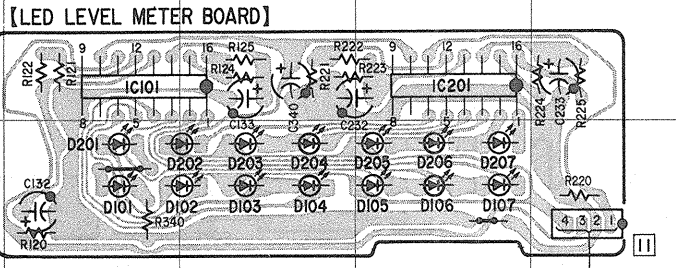
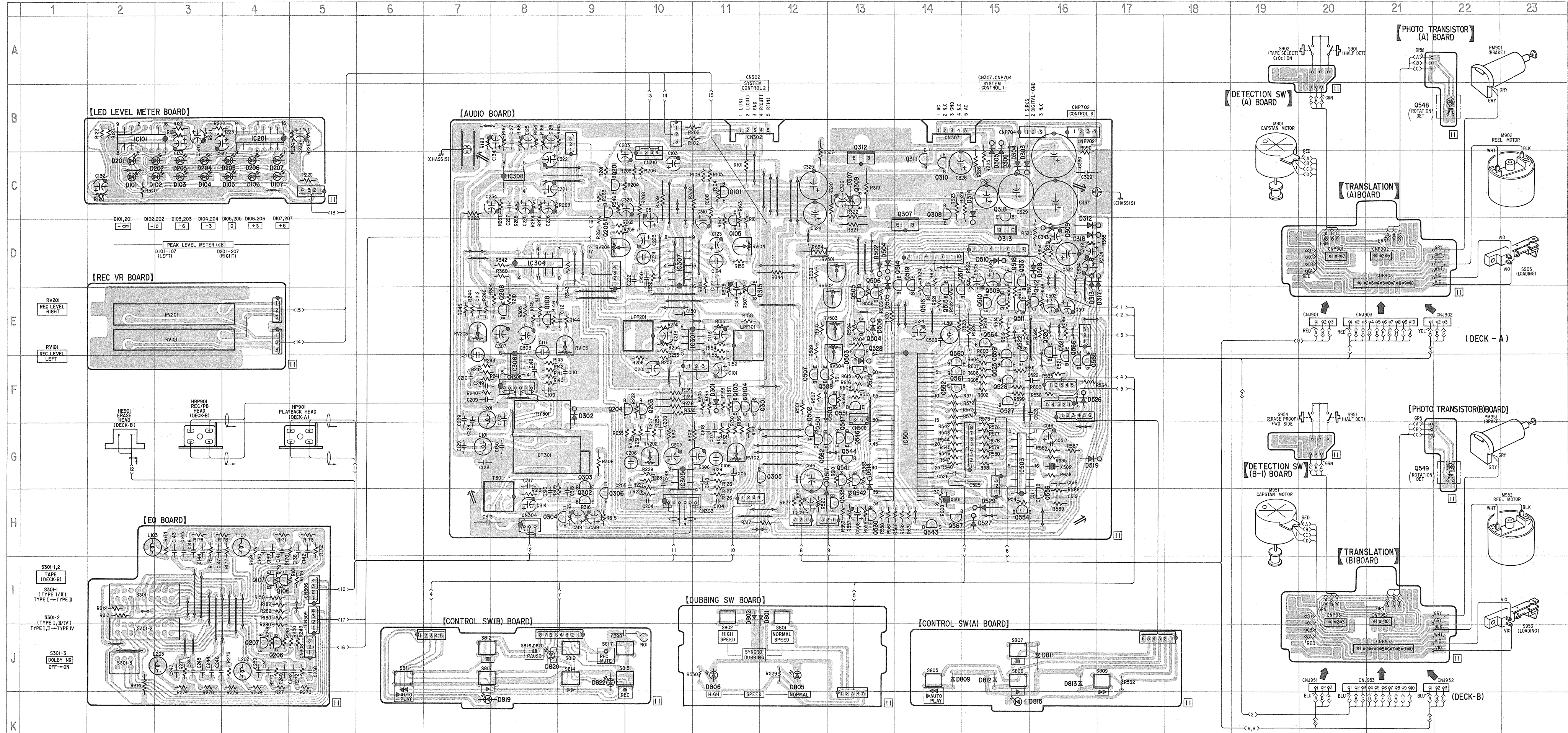
- See page 12 for semiconductor lead layouts.

Note:

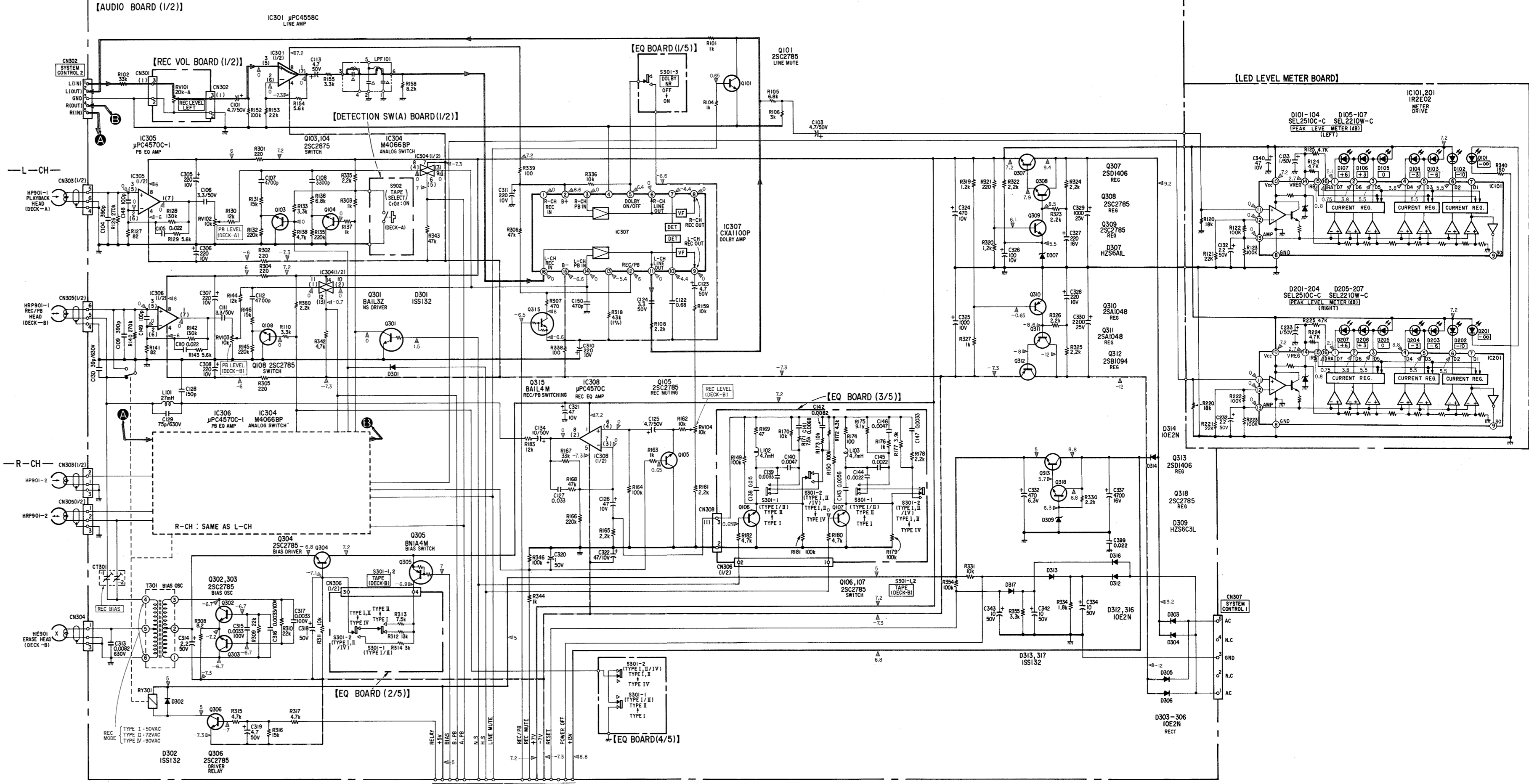
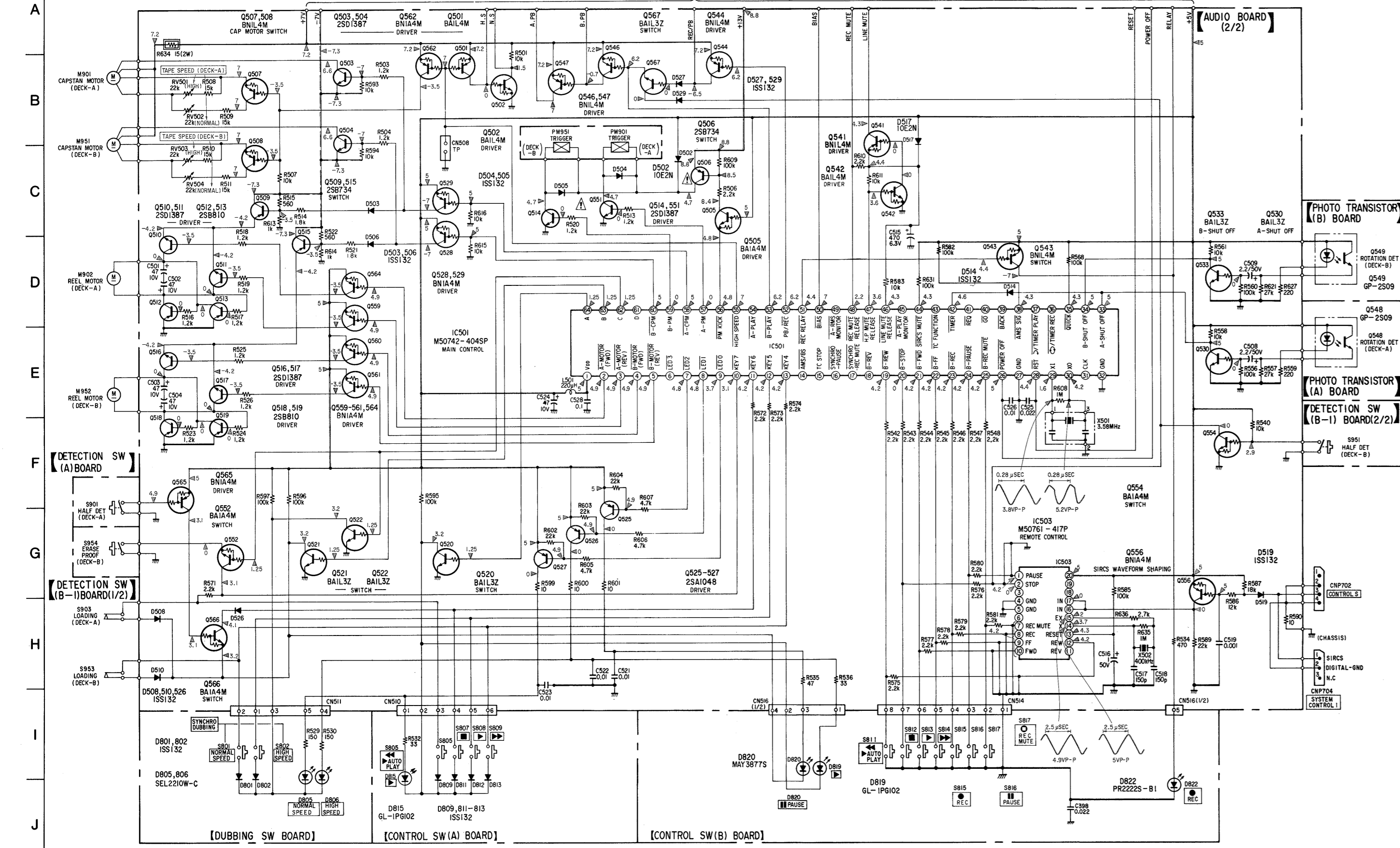
-  : indicates side identified with part number.

• SEMICONDUCTOR LOCATIONS

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D101	C-2	D815	K-16	Q504	E-13
D102	C-3	D819	K-8	Q505	E-13
D103	C-3	D820	J-8	Q506	D-13
D104	C-3	D822	J-9	Q507	F-12
D105	C-4			Q508	F-12
D106	C-4	IC101	B-2	Q509	E-15
D107	C-4	IC201	B-4	Q510	E-15
D201	C-2	IC301	E-11	Q511	E-15
D202	C-3	IC304	D-8	Q512	E-16
D203	C-3	IC305	G-10	Q513	D-15
D204	C-3	IC306	F-8	Q514	D-14
D205	C-4	IC307	D-10	Q515	E-14
D206	C-4	IC308	C-8	Q516	E-14
D207	C-4	IC501	G-14	Q517	D-14
D301	F-11	IC503	G-15	Q518	D-15
D302	F-9			Q519	D-14
D303	C-15	Q101	C-11	Q520	E-16
D304	C-15	Q103	F-11	Q521	E-16
D305	C-15	Q104	F-11	Q522	E-15
D306	C-15	Q105	D-11	Q525	F-15
D307	C-13	Q106	I-4	Q526	F-15
D309	D-16	Q107	I-4	Q527	F-15
D312	D-16	Q108	E-8	Q528	E-13
D313	E-16	Q201	C-9	Q529	F-13
D314	C-15	Q203	F-10	Q530	H-13
D316	D-16	Q204	F-9	Q533	H-13
D317	E-17	Q205	D-9	Q541	G-13
D502	D-13	Q206	J-4	Q542	H-13
D503	F-13	Q207	J-4	Q543	H-14
D504	D-13	Q208	E-8	Q544	G-13
D505	E-13	Q301	F-12	Q546	G-13
D506	E-13	Q302	H-9	Q547	G-13
D508	D-16	Q303	G-9	Q548	B-22
D510	D-15	Q304	H-8	Q549	G-22
D514	G-13	Q305	G-12	Q551	F-13
D517	G-12	Q306	H-9	Q552	F-14
D519	G-16	Q307	C-14	Q554	H-15
D526	F-16	Q308	C-14	Q556	H-16
D527	H-15	Q309	C-13	Q559	E-15
D529	H-15	Q310	C-14	Q560	E-14
D801	I-12	Q311	C-14	Q561	F-14
D802	I-11	Q312	B-13	Q562	G-12
D805	J-12	Q313	D-15	Q564	E-15
D806	J-11	Q315	E-11	Q565	F-16
D809	J-14	Q318	C-15	Q566	E-16
D811	J-16	Q501	G-12	Q567	H-14
D812	J-15	Q502	F-12		
D813	J-16	Q503	F-13		



5-2. SCHEMATIC DIAGRAM • See page 22 for note.



SECTION 6 EXPLODED VIEWS AND PARTS LIST

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: $\mu\mu\text{F}$. 50WV 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.
- \rightarrow : signal paths.
- Components for right channel have same values as for left channel. Reference numbers are coded from 200.
- : nonflammable resistor.
- : fusible resistor.
- : B+ bus.
- : B- bus.
- : adjustment for repair.
- AC voltage readings in the bias oscillator with a VTVM.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (50 k Ω /V).
- No Mark: STOP Mode
- Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken to ground in no-signal mode by using oscilloscope.
- Voltage variations may be noted due to normal production tolerances.

Switches:

Ref. No.	Switch	Position
S301-1	TAPE SELECT (DECK-B) TYPE I/II	TYPE I
S301-2	TAPE SELECT (DECK-B) TYPE I, II/IV	TYPE I, II
S301-3	DOLBY NR	OFF
S801	SYNCHRO DUBBING NORMAL SPEED	OFF
S802	SYNCHRO DUBBING HIGH SPEED	OFF
S805	◀▶ AUTO PLAY (DECK-A)	OFF
S807	■ (DECK-A)	OFF
S808	▶ (DECK-A)	OFF
S809	▶▶ (DECK-A)	OFF
S811	◀▶ AUTO PLAY (DECK-B)	OFF
S812	■ (DECK-B)	OFF
S813	▶ (DECK-B)	OFF
S814	▶▶ (DECK-B)	OFF
S815	● REC (DECK-B)	OFF
S816	■ PAUSE (DECK-B)	OFF
S817	○ REC MUTE (DECK-B)	OFF
S901	HALF DET (DECK-A)	OFF
S902	TAPE SELECT (DECK-A)	NORMAL
S903	LOADING (DECK-A)	OFF
S951	HALF DET (DECK-B)	OFF
S953	LOADING (DECK-B)	OFF
S954	ERASE PROOF (DECK-B)	OFF

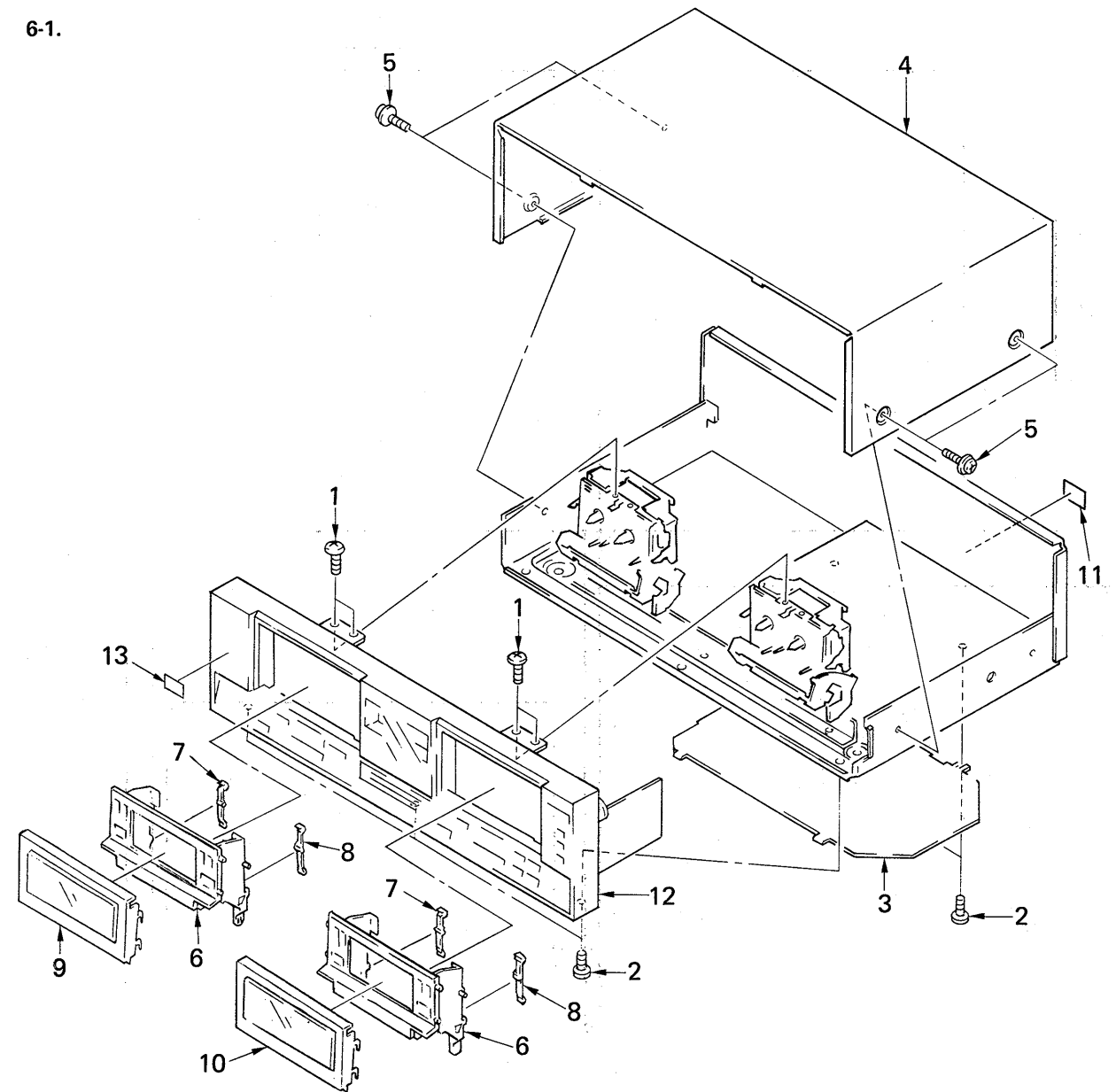
NOTE:

The mechanical parts with no reference number in the exploded views are not supplied.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

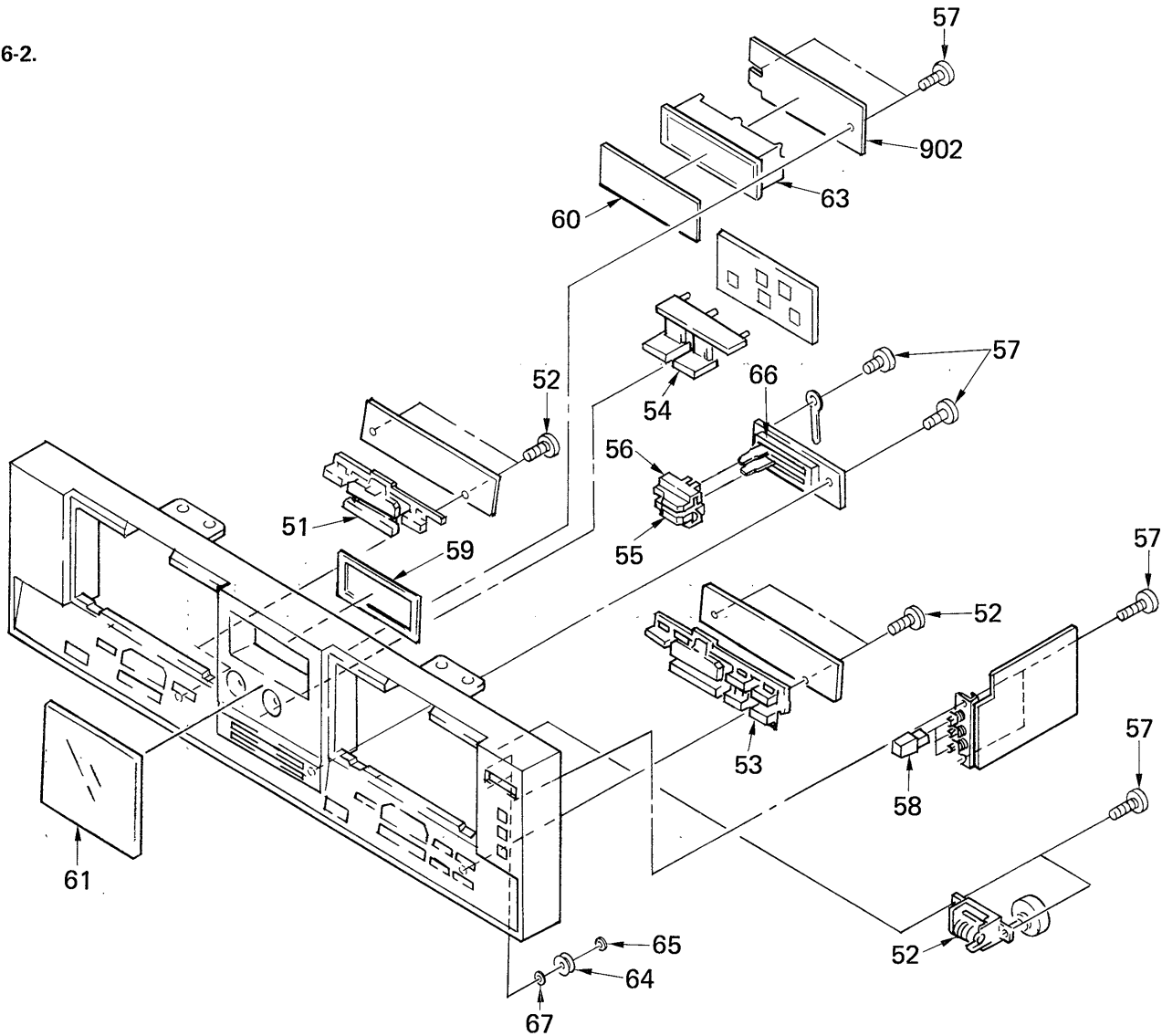
The construction parts of an assembled part are indicated with a collation number in the remark column.

6-1.



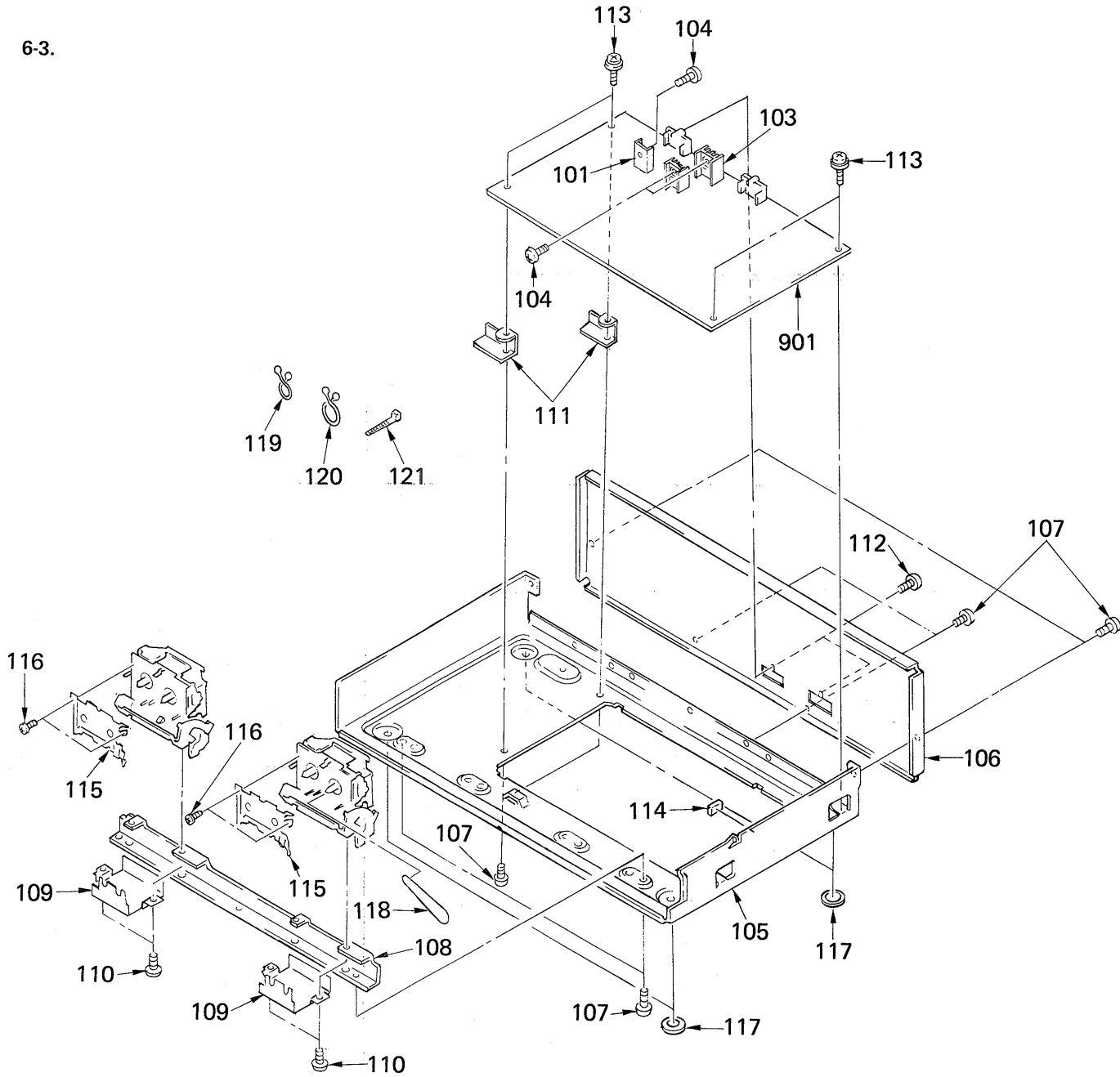
No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	7-682-147-01	SCREW +BVTT 3X6 (S)		8	3-307-372-00	SPRING (RIGHT)	
2	7-682-148-01	SCREW +BVTT 3X8 (S)		9	X-3332-446-1	LID ASSY (A), CASSETTE	
3	*3-332-430-01	PLATE, BOTTOM		10	X-3332-447-1	LID ASSY (B), CASSETTE	
4	3-332-437-01	CASE		11	3-703-978-01	LABEL (A), FIRE CAUTION	
5	4-886-821-01	SCREW, M3 CASE		12	X-3332-449-1	PANEL ASSY, FRONT	
6	X-3332-448-1	HOLDER ASSY, CASSETTE		13	3-703-710-41	STICKER, SONY SYMBOL (12)	
7	3-307-371-00	SPRING (LEFT)					

6-2.



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
51	X-3332-401-1	BUTTON (A-0) ASSY, CONTROL		60	*3-332-463-01	PLATE, ORNAMENTAL, LED	
52	7-685-133-19	SCREW +BTP 2.6X6 TYPE2 N-S		61	3-332-415-41	PLATE, TRANSPARENT	
53	X-3332-402-1	BUTTON (B-0) ASSY, CONTROL		62	1-548-596-11	COUNTER, TAPE (MIDDLE TYPE)	
54	3-332-457-01	BUTTON, DUBBING		63	*3-332-551-01	HOLDER, LED	
55	3-323-447-01	KNOB (RIGHT), CONTROL		64	3-549-452-00	PULLEY, SHUT-OFF	
56	3-323-446-01	KNOB (LEFT), CONTROL		65	3-558-708-11	WASHER, STOPPER	
57	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		66	*3-332-402-01	PLATE (A), SHIELD	
58	4-855-804-11	KNOB, SQUARE		67	3-701-437-11	WASHER	
59	3-332-449-01	CUSHION, DISPLAY		902	*1-622-150-11	PC BOARD, METER	

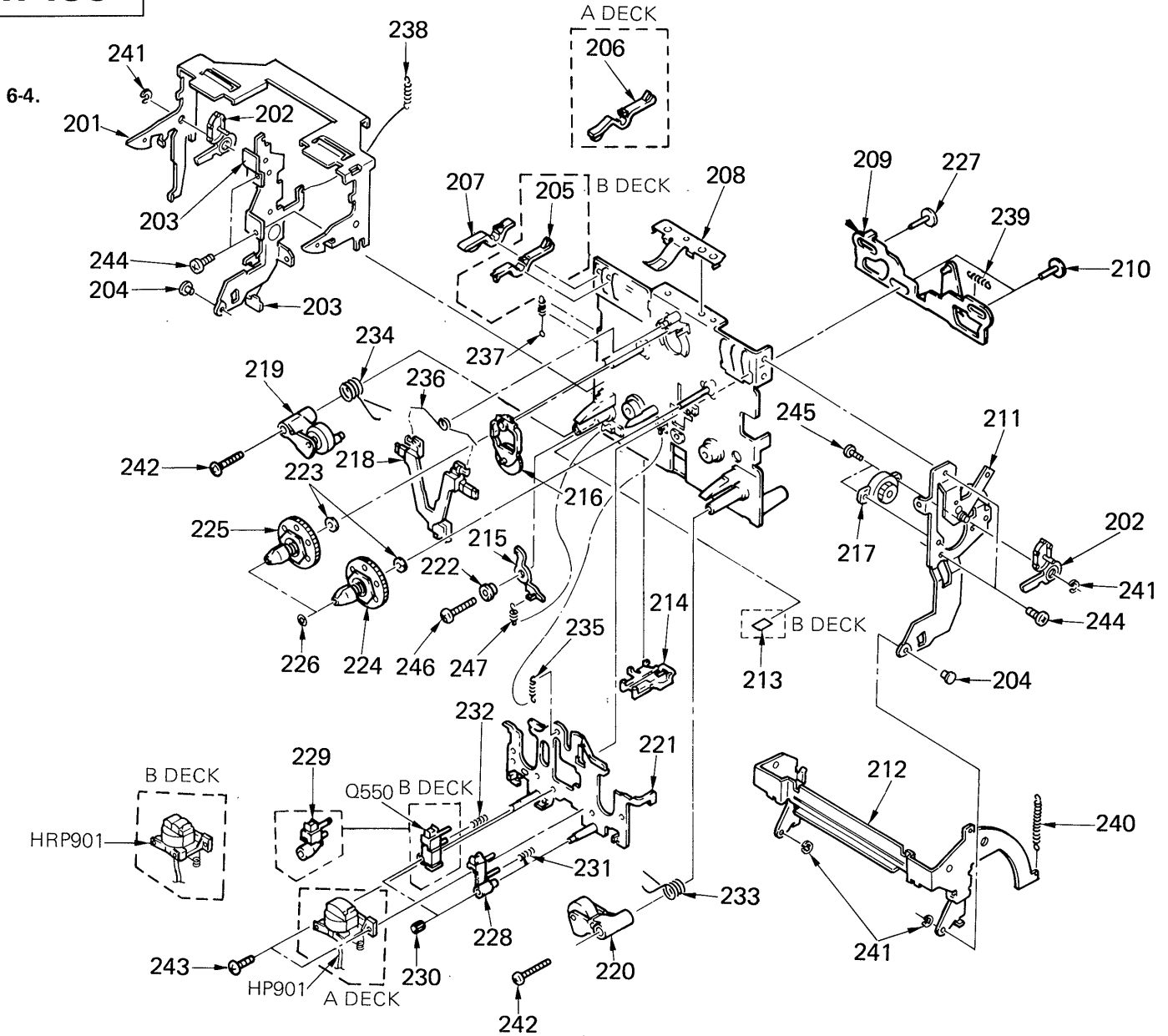
6-3.



No.	Part No.	Description	Remarks
101	*3-309-144-01	HEAT SINK	
102	*4-363-146-21	HEAT SINK, V.OUT	
103	*4-363-146-41	HEAT SINK, V.OUT	
104	7-682-148-01	SCREW +BVTT 3X8 (S)	
105	3-332-438-51	CHASSIS	
106	*3-332-478-21	PLATE, JACK	
107	7-682-148-01	SCREW +BVTT 3X8 (S)	
108	*3-332-421-01	BRACKET, MD	
109	*4-919-325-11	PLATE, SHIELD, HEAD	
110	7-682-147-01	SCREW +BVTT 3X6 (S)	
111	*3-332-428-01	BRACKET (1), PC BOARD	
112	7-685-145-14	SCREW +P 3X6 TYPE2 NON-SLIT	

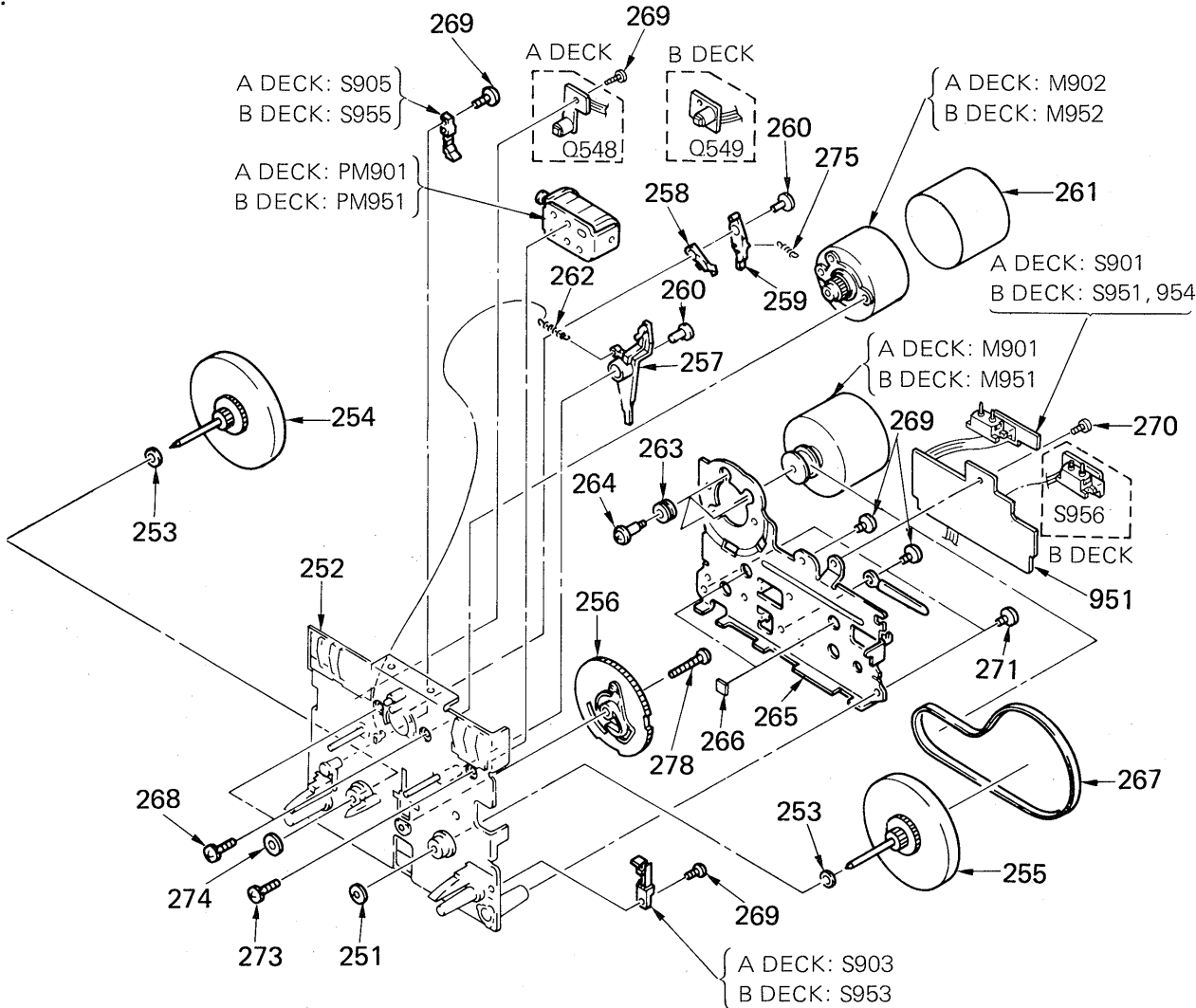
No.	Part No.	Description	Remarks
113	3-703-249-01	SCREW, S TIGHT, +PTTWH 3X6	
114	4-872-505-01	SPACER	
115	*3-332-547-01	PLATE, ORNAMENTAL	
116	7-621-255-10	SCREW +B 2X3	
117	3-576-731-00	FELT (H)	
118	3-530-181-XX	BELT, DETCTING	
119	*2-056-665-00	HOLDER, WIRE (PURCE LOCK 5 DIA)	
120	3-701-417-00	PURSE LOCK (11 DIA.)	
121	*3-337-402-01	BAND, BINDING	
122	*3-329-941-01	PLATE, SHIELD	
901	*A-2056-363-A	MOUNTED PCB, SYSTEM CONTROL	

TC-W455



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
201	*3-391-180-01	ARM, EJECT		225	X-3391-106-1	REEL ASSY (DECK-A)	
202	3-391-185-01	LEVER, STOP			X-3391-142-1	REEL ASSY (DECK-B)	
203	*X-3391-152-1	ARM ASSY, EJECT		226	3-701-436-11	WASHER, 1.6	
204	3-391-183-01	SHAFT (B), HOLDER FULCRUM		227	3-391-126-01	CAP	
205	3-391-188-01	LEVER, REC		228	3-391-111-01	GUIDE, TAPE	
206	*3-391-155-01	LEVER, CHROME INSPECTION		229	3-391-156-01	HOLDER, SENSOR (DECK-A)	
207	3-391-178-01	LEVER, PACK		230	3-391-110-01	NUT, ADJUSTMENT	
208	3-391-177-01	SPRING		231	3-391-112-01	SPRING (RIGHT)	
209	X-3391-112-1	PLATE ASSY, SLIDE		232	3-391-113-01	SPRING (LEFT)(DECK-A)	
210	3-391-143-01	CAP			3-391-187-01	SPRING (LEFT)(DECK-B)	
211	*X-3391-150-1	BKT ASSY, DAMPER		233	3-391-115-01	SPRING (RIGHT)	
212	*3-391-182-01	HOLDER, CASSETTE		234	3-391-116-01	SPRING (LEFT)	
213	3-391-162-01	REFLECTOR		235	3-391-114-01	SPRING	
214	3-391-137-01	HOLDER, REED		236	3-391-124-01	SPRING	
215	3-391-121-01	ARM, EJECT SAFETY		237	3-391-139-01	SPRING	
216	X-3391-111-1	IDLER ASSY		238	3-391-181-01	SP, LEVER RETURN	
217	X-3391-151-1	DAMPER ASSY		239	3-391-127-01	SPRING	
218	X-3391-108-1	BRAKE ASSY		240	3-391-184-01	SPRING	
219	X-3391-105-1	PINCH ROLLER ASSY		241	7-624-105-04	STOP RING 2.3, TYPE -E	
220	X-3391-104-1	PINCH ROLLER ASSY		242	7-685-107-19	SCREW +P 2X12 TYPE2 SLIT	
221	X-3391-103-1	HEAD ASSY, PLATE		243	3-391-109-01	SCREW, WASHER	
222	3-391-120-01	CALLOR		244	7-685-790-04	SCREW +PTT 2.6X4 (S)	
223	3-701-437-11	WASHER		245	7-685-780-04	SCREW +PTT 2X3 (S)	
224	X-3391-106-1	REEL ASSY (DECK-B)		246	7-685-105-19	SCREW +P 2X8 TYPE2 SLIT	
	X-3391-107-1	REEL ASSY (DECK-A)		247	3-391-122-01	SPRING (A)	
				HP901	X-3391-102-1	HEAD ASSY, ROTARY	
				HRP901	X-3391-123-1	HEAD ASSY, ROTARY	

6-5.



No.	Part No.	Description	Remarks
251	3-391-119-01	SEAL, WASHER OIL	
252	X-3391-110-1	CHASSIS ASSY	
253	3-701-438-11	WASHER, 2.5	
254	X-3391-125-1	ASSY F/W	
255	X-3391-149-1	ASSY F/W	
256	3-391-128-01	GEAR (B), CAM	
257	X-3391-114-1	ARM ASSY, PLAY	
258	3-391-141-01	ARM (A)	
259	3-391-142-01	ARM (B)	
260	3-391-126-01	CAP	
261	3-391-132-01	PLATE, SHIELD	
262	3-391-133-01	SPRING	
263	3-391-138-01	MOTOR, CUSHION	
264	3-391-147-01	SCREW, MOTOR FITTING	
265	*3-391-130-01	BRACKET (B), F/W	
266	3-391-129-01	SPACER	
267	3-391-134-01	BELT, MAIN	
268	3-391-118-01	SCREW, WASHER	
269	7-685-104-19	SCREW +P 2X6 TYPE2 SLIT	
270	7-685-750-04	SCREW +PTT 3X5 (S)	
271	7-685-131-19	SCREW +P 2.6X4 TYPE2 NON-SLIT	

No.	Part No.	Description	Remarks
272	7-685-107-19	SCREW +P 2X12 TYPE2 SLIT	
273	7-628-253-90	SCREW +PS 2.6X4	
274	3-391-117-01	SEAL, WASHER OIL	
275	3-391-140-01	SPRING (A)	
951	1-589-049-11	BLOCK, PC BOARD (DECK-B)	
	3-391-179-01	BLOCK, PC BOARD (DECK-A)	
M901	X-3391-117-1	MOTOR ASSY, CAPSTAN	
M902	X-3391-118-1	MOTOR ASSY, REEL	
M951	X-3391-117-1	MOTOR ASSY, CAPSTAN	
M952	X-3391-118-1	MOTOR ASSY, REEL	
PM901	1-454-428-11	SOLENOID, PLUNGER	
PM951	1-454-428-11	SOLENOID, PLUNGER	
S901	1-570-720-11	SWITCH, PUSH (1 KEY)(DECK-A HALF DET)	
S903	1-570-719-11	SWITCH, LEAF (DECK-A LOADING)	
S905	1-570-721-11	SWITCH, LEAF (DECK-A REV ON)	
S951	1-570-722-11	SWITCH, PUSH (1 KEY)(DECK-B HERF DET)	
S953	1-570-719-11	SWITCH, LEAF (DECK-B LOADING)	
S954	1-570-720-11	SWITCH, PUSH (1 KEY)(DECK-B ERASE PROOF)	
S955	1-570-721-11	SWITCH, LEAF (DECK-B REV ON)	
S956	1-570-720-11	SWITCH, PUSH (1 KEY)(DECK-B ERASE PROOF)	

SECTION 7 ELECTRICAL PARTS LIST

NOTE:

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

MF:μF, PF:μμF.

RESISTORS

· All resistors are in ohms.

· F : nonflammable

COILS

· MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:

UA...: μA..., UPA...: μPA..., UPC...: μPC,

UPD...: μPD...

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
901	*A-2056-363-A	MOUNTED PCB, SYSTEM CONTROL			
902	*1-622-150-11	PC BOARD, METER			
C101	1-124-927-11	ELECT	4.7MF	20%	50V
C103	1-124-927-11	ELECT	4.7MF	20%	50V
C104	1-162-289-31	CERAMIC	390PF	10%	50V
C105	1-130-487-00	MYLAR	0.022MF	5%	50V
C106	1-124-184-00	ELECT	3.3MF	20%	50V
C107	1-161-377-00	CERAMIC	0.0047MF	30%	16V
C108	1-161-327-00	CERAMIC	0.0033MF	30%	16V
C109	1-162-289-31	CERAMIC	390PF	10%	50V
C110	1-130-487-00	MYLAR	0.022MF	5%	50V
C111	1-124-184-00	ELECT	3.3MF	20%	50V
C112	1-161-377-00	CERAMIC	0.0047MF	30%	16V
C113	1-124-927-11	ELECT	4.7MF	20%	50V
C122	1-136-175-00	FILM	0.68MF	5%	50V
C123	1-124-927-11	ELECT	4.7MF	20%	50V
C124	1-124-184-00	ELECT	3.3MF	20%	50V
C125	1-124-927-11	ELECT	4.7MF	20%	50V
C126	1-124-446-11	ELECT	47MF	20%	10V
C127	1-130-489-00	MYLAR	0.033MF	5%	50V
C128	1-162-284-31	CERAMIC	150PF	10%	50V
C129	1-136-273-91	FILM	75PF	5%	630V
C130	1-136-440-11	FILM	39PF	5%	630V
C132	1-124-257-00	ELECT	2.2MF	20%	50V
C133	1-124-791-11	ELECT	1MF	20%	50V
C134	1-123-875-91	ELECT	10MF	20%	50V
C138	1-108-583-00	MYLAR	0.015MF	5%	50V
C139	1-130-477-00	MYLAR	0.0033MF	5%	50V
C140	1-106-359-00	MYLAR	0.0047MF	5%	50V
C141	1-106-192-00	MYLAR	0.0068MF	5%	50V
C142	1-130-482-00	MYLAR	0.0082MF	5%	50V
C143	1-130-480-00	MYLAR	0.0056MF	5%	50V
C144	1-106-351-00	MYLAR	0.0022MF	5%	50V
C145	1-106-351-00	MYLAR	0.0022MF	5%	50V
C146	1-106-359-00	MYLAR	0.0047MF	5%	50V
C147	1-130-477-00	MYLAR	0.0033MF	5%	50V
C148	1-162-282-31	CERAMIC	100PF	10%	50V
C149	1-162-282-31	CERAMIC	100PF	10%	50V
C150	1-162-290-31	CERAMIC	470PF	10%	50V
C305	1-124-444-00	ELECT	220MF	20%	10V
C306	1-124-444-00	ELECT	220MF	20%	10V
C307	1-124-444-00	ELECT	220MF	20%	10V
C308	1-124-444-00	ELECT	220MF	20%	10V
C310	1-124-444-00	ELECT	220MF	20%	10V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C311	1-124-444-00	ELECT	220MF	20%	10V
C313	1-129-713-00	FILM	0.0082MF	10%	630V
C314	1-124-925-11	ELECT	2.2MF	20%	50V
C315	1-130-285-00	FILM	0.0033MF	5%	100V
C316	1-130-285-00	FILM	0.0033MF	5%	100V
C317	1-130-285-00	FILM	0.0033MF	5%	100V
C318	1-124-791-11	ELECT	1MF	20%	50V
C319	1-124-927-11	ELECT	4.7MF	20%	50V
C320	1-124-791-11	ELECT	1MF	20%	50V
C321	1-124-446-11	ELECT	47MF	20%	10V
C322	1-124-446-11	ELECT	47MF	20%	10V
C324	1-124-472-11	ELECT	470MF	20%	10V
C325	1-124-473-11	ELECT	1000MF	20%	10V
C326	1-124-443-00	ELECT	100MF	20%	10V
C327	1-123-321-00	ELECT	220MF	20%	16V
C328	1-123-321-00	ELECT	220MF	20%	16V
C329	1-124-557-11	ELECT	1000MF	20%	25V
C330	1-124-563-11	ELECT	2200MF	20%	25V
C332	1-124-472-11	ELECT	470MF	20%	6.3V
C334	1-123-875-91	ELECT	10MF	20%	50V
C337	1-124-898-11	ELECT	4700MF	20%	16V
C340	1-124-446-11	ELECT	47MF	20%	10V
C342	1-123-875-91	ELECT	10MF	20%	50V
C343	1-123-875-91	ELECT	10MF	20%	50V
C398	1-161-494-00	CERAMIC	0.022MF	30%	25V
C399	1-161-494-00	CERAMIC	0.022MF	30%	25V
C501	1-124-446-11	ELECT	47MF	20%	10V
C502	1-124-446-11	ELECT	47MF	20%	10V
C503	1-124-446-11	ELECT	47MF	20%	10V
C504	1-124-446-11	ELECT	47MF	20%	10V
C508	1-124-925-11	ELECT	2.2MF	20%	50V
C509	1-124-925-11	ELECT	2.2MF	20%	50V
C515	1-124-472-11	ELECT	470MF	20%	6.3V
C516	1-124-791-11	ELECT	1MF	20%	50V
C517	1-162-284-31	CERAMIC	150PF	10%	50V
C518	1-162-284-31	CERAMIC	150PF	10%	50V
C519	1-162-294-31	CERAMIC	0.001MF	10%	50V
C521	1-161-379-00	CERAMIC	0.01MF	30%	16V
C522	1-161-379-00	CERAMIC	0.01MF	30%	16V
C523	1-161-379-00	CERAMIC	0.01MF	30%	16V
C524	1-124-446-11	ELECT	47MF	20%	10V
C525	1-161-494-00	CERAMIC	0.022MF	30%	25V
C526	1-161-379-00	CERAMIC	0.01MF	30%	16V
C528	1-161-063-00	CERAMIC	0.1MF	20%	16V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
CN302	1-562-067-00	SOCKET, CONNECTOR 5P
CN303	*1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P
CN304	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
CN305	*1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P
CN307	1-562-067-00	SOCKET, CONNECTOR 5P
CN310	*1-564-338-00	PIN, CONNECTOR 4P
CN508	*1-564-505-11	PLUG, CONNECTOR 2P
CN702	1-564-980-11	PIN, CONNECTOR 4P
CN704	1-564-358-00	PIN, CONNECTOR 3P
CT301	1-141-225-00	CAP, TUNING, TRIMAR
D101	8-719-303-00	DIODE SEL2510C
D102	8-719-303-00	DIODE SEL2510C
D103	8-719-303-00	DIODE SEL2510C
D104	8-719-303-00	DIODE SEL2510C
D105	8-719-302-74	DIODE SEL2210W-C
D106	8-719-302-74	DIODE SEL2210W-C
D107	8-719-302-74	DIODE SEL2210W-C
D201	8-719-303-00	DIODE SEL2510C
D202	8-719-303-00	DIODE SEL2510C
D203	8-719-303-00	DIODE SEL2510C
D204	8-719-303-00	DIODE SEL2510C
D205	8-719-302-74	DIODE SEL2210W-C
D206	8-719-302-74	DIODE SEL2210W-C
D207	8-719-302-74	DIODE SEL2210W-C
D301	8-719-940-76	DIODE 1SS132
D302	8-719-940-76	DIODE 1SS132
D303	8-719-200-77	DIODE 10E2N
D304	8-719-200-77	DIODE 10E2N
D305	8-719-200-77	DIODE 10E2N
D306	8-719-200-77	DIODE 10E2N
D307	8-719-933-33	DIODE HZS6A1L
D309	8-719-933-41	DIODE HZS6C3L
D312	8-719-200-77	DIODE 10E2N
D313	8-719-940-76	DIODE 1SS132
D314	8-719-200-77	DIODE 10E2N
D316	8-719-200-77	DIODE 10E2N
D317	8-719-940-76	DIODE 1SS132
D502	8-719-200-77	DIODE 10E2N
D503	8-719-940-76	DIODE 1SS132
D504	8-719-940-76	DIODE 1SS132
D505	8-719-940-76	DIODE 1SS132
D506	8-719-940-76	DIODE 1SS132
D508	8-719-940-76	DIODE 1SS132
D510	8-719-940-76	DIODE 1SS132
D514	8-719-940-76	DIODE 1SS132
D517	8-719-200-77	DIODE 10E2N
D519	8-719-940-76	DIODE 1SS132
D526	8-719-940-76	DIODE 1SS132
D527	8-719-940-76	DIODE 1SS132
D529	8-719-940-76	DIODE 1SS132
D801	8-719-940-76	DIODE 1SS132
D802	8-719-940-76	DIODE 1SS132
D805	8-719-302-74	DIODE SEL2210W-C
D806	8-719-302-74	DIODE SEL2210W-C
D809	8-719-940-76	DIODE 1SS132
D811	8-719-940-76	DIODE 1SS132
D812	8-719-940-76	DIODE 1SS132
D813	8-719-940-76	DIODE 1SS132

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D815	8-719-915-52	DIODE GL-1PG102
D819	8-719-915-52	DIODE GL-1PG102
D820	8-719-942-14	DIODE MAY3877S
D822	8-719-913-36	DIODE PR2222S-B1
IC101	8-759-912-79	IC IR2E02
IC201	8-759-912-79	IC IR2E02
IC301	8-759-145-58	IC UPC4558C
IC304	8-759-601-43	IC M4066BP
IC305	8-759-111-44	IC UPC4570C-1
IC306	8-759-111-44	IC UPC4570C-1
IC307	8-752-031-67	IC CXA1100P
IC308	8-759-106-41	IC UPC4570C
IC501	8-759-603-20	IC M50742-404SP
IC503	8-759-602-47	IC M50761-417P
L101	1-410-780-11	MICRO INDUCTOR 27MMH
L102	1-410-771-11	MICRO INDUCTOR 4.7MMH
L103	1-410-771-11	MICRO INDUCTOR 4.7MMH
L201	1-410-780-11	MICRO INDUCTOR 27MMH
L202	1-410-771-11	MICRO INDUCTOR 4.7MMH
L203	1-410-771-11	MICRO INDUCTOR 4.7MMH
L501	1-407-173-XX	MICRO INDUCTOR 220UH
LPF101	1-235-980-11	FILTER, LOW PASS
LPF201	1-235-980-11	FILTER, LOW PASS
Q101	8-729-600-27	TRANSISTOR 2SC634SP
Q103	8-729-600-27	TRANSISTOR 2SC634SP
Q104	8-729-600-27	TRANSISTOR 2SC634SP
Q105	8-729-600-27	TRANSISTOR 2SC634SP
Q106	8-729-600-27	TRANSISTOR 2SC634SP
Q107	8-729-600-27	TRANSISTOR 2SC634SP
Q108	8-729-600-27	TRANSISTOR 2SC634SP
Q201	8-729-600-27	TRANSISTOR 2SC634SP
Q203	8-729-600-27	TRANSISTOR 2SC634SP
Q204	8-729-600-27	TRANSISTOR 2SC634SP
Q205	8-729-600-27	TRANSISTOR 2SC634SP
Q206	8-729-600-27	TRANSISTOR 2SC634SP
Q207	8-729-600-27	TRANSISTOR 2SC634SP
Q208	8-729-600-27	TRANSISTOR 2SC634SP
Q301	8-729-806-26	TRANSISTOR 2SC3901
Q302	8-729-600-27	TRANSISTOR 2SC634SP
Q303	8-729-600-27	TRANSISTOR 2SC634SP
Q304	8-729-600-27	TRANSISTOR 2SC634SP
Q305	9-986-159-01	TRANSISTOR 2SA1348
Q306	8-729-600-27	TRANSISTOR 2SC634SP
Q307	8-729-201-78	TRANSISTOR 2SD1406
Q308	8-729-600-27	TRANSISTOR 2SC634SP
Q309	8-729-600-27	TRANSISTOR 2SC634SP
Q310	8-729-117-54	TRANSISTOR 2SA1175
Q311	8-729-117-54	TRANSISTOR 2SA1175
Q312	8-729-111-67	TRANSISTOR 2SB1094-L
Q313	8-729-201-78	TRANSISTOR 2SD1406
Q315	8-729-806-38	TRANSISTOR 2SC3399
Q318	8-729-600-27	TRANSISTOR 2SC634SP
Q501	8-729-806-20	TRANSISTOR 2SA1345
Q502	8-729-806-38	TRANSISTOR 2SC3399
Q503	8-729-802-34	TRANSISTOR 2SD1388
Q504	8-729-802-34	TRANSISTOR 2SD1388
Q505	8-729-806-28	TRANSISTOR 2SC3402
Q506	8-729-103-43	TRANSISTOR 2SB734
Q507	8-729-806-20	TRANSISTOR 2SA1345

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
Q508	8-729-806-20	TRANSISTOR	2SA1345		
Q509	8-729-103-43	TRANSISTOR	2SB734		
Q510	8-729-802-34	TRANSISTOR	2SD1388		
Q511	8-729-802-34	TRANSISTOR	2SD1388		
Q512	8-729-205-02	TRANSISTOR	2SA1150		
Q513	8-729-205-02	TRANSISTOR	2SA1150		
Q514	8-729-802-34	TRANSISTOR	2SD1388		
Q515	8-729-103-43	TRANSISTOR	2SB734		
Q516	8-729-802-34	TRANSISTOR	2SD1388		
Q517	8-729-802-34	TRANSISTOR	2SD1388		
Q518	8-729-205-02	TRANSISTOR	2SA1150		
Q519	8-729-205-02	TRANSISTOR	2SA1150		
Q520	8-729-806-26	TRANSISTOR	2SC3901		
Q521	8-729-806-26	TRANSISTOR	2SC3901		
Q522	8-729-806-26	TRANSISTOR	2SC3901		
Q525	8-729-117-54	TRANSISTOR	2SA1175		
Q526	8-729-117-54	TRANSISTOR	2SA1175		
Q527	8-729-117-54	TRANSISTOR	2SA1175		
Q528	9-986-159-01	TRANSISTOR	2SA1348		
Q529	9-986-159-01	TRANSISTOR	2SA1348		
Q530	8-729-806-26	TRANSISTOR	2SC3901		
Q533	8-729-806-26	TRANSISTOR	2SC3901		
Q541	8-729-806-20	TRANSISTOR	2SA1345		
Q542	8-729-806-38	TRANSISTOR	2SC3399		
Q543	8-729-806-20	TRANSISTOR	2SA1345		
Q544	8-729-806-20	TRANSISTOR	2SA1345		
Q546	8-729-806-20	TRANSISTOR	2SA1345		
Q547	8-729-806-20	TRANSISTOR	2SA1345		
Q551	8-729-802-34	TRANSISTOR	2SD1388		
Q552	8-729-806-28	TRANSISTOR	2SC3402		
Q554	8-729-806-28	TRANSISTOR	2SC3402		
Q556	9-986-159-01	TRANSISTOR	2SA1348		
Q559	9-986-159-01	TRANSISTOR	2SA1348		
Q560	9-986-159-01	TRANSISTOR	2SA1348		
Q561	9-986-159-01	TRANSISTOR	2SA1348		
Q562	9-986-159-01	TRANSISTOR	2SA1348		
Q564	9-986-159-01	TRANSISTOR	2SA1348		
Q565	9-986-159-01	TRANSISTOR	2SA1348		
Q566	8-729-806-28	TRANSISTOR	2SC3402		
Q567	8-729-806-26	TRANSISTOR	2SC3901		
R101	1-249-417-11	CARBON	1K	5%	1/6W
R102	1-249-435-11	CARBON	33K	5%	1/6W
R104	1-249-417-11	CARBON	1K	5%	1/6W
R105	1-249-427-11	CARBON	6.8K	5%	1/6W
R106	1-247-842-00	CARBON	3K	5%	1/6W
R108	1-249-421-11	CARBON	2.2K	5%	1/6W
R110	1-249-423-11	CARBON	3.3K	5%	1/6W
R120	1-249-432-11	CARBON	18K	5%	1/6W
R121	1-249-433-11	CARBON	22K	5%	1/6W
R122	1-249-441-11	CARBON	100K	5%	1/6W
R123	1-249-441-11	CARBON	100K	5%	1/6W
R124	1-249-425-11	CARBON	4.7K	5%	1/6W
R125	1-249-425-11	CARBON	4.7K	5%	1/6W
R126	1-215-479-00	CARBON	270K	5%	1/6W
R127	1-249-404-00	CARBON	82	5%	1/6W
R128	1-215-472-00	CARBON	130K	5%	1/6W
R129	1-247-849-00	CARBON	5.6K	5%	1/6W
R130	1-249-430-11	CARBON	12K	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R131	1-249-431-11	CARBON	15K	5%	1/6W
R132	1-215-477-00	CARBON	220K	5%	1/6W
R133	1-249-423-11	CARBON	3.3K	5%	1/6W
R135	1-215-477-00	CARBON	220K	5%	1/6W
R136	1-249-427-11	CARBON	6.8K	5%	1/6W
R137	1-249-417-11	CARBON	1K	5%	1/6W
R138	1-249-425-11	CARBON	4.7K	5%	1/6W
R140	1-215-479-00	CARBON	270K	5%	1/6W
R141	1-249-404-00	CARBON	82	5%	1/6W
R142	1-215-472-00	CARBON	130K	5%	1/6W
R143	1-247-849-00	CARBON	5.6K	5%	1/6W
R144	1-249-430-11	CARBON	12K	5%	1/6W
R145	1-215-477-00	CARBON	220K	5%	1/6W
R146	1-249-431-11	CARBON	15K	5%	1/6W
R149	1-249-441-11	CARBON	100K	5%	1/6W
R150	1-249-441-11	CARBON	100K	5%	1/6W
R152	1-249-441-11	CARBON	100K	5%	1/6W
R153	1-249-433-11	CARBON	22K	5%	1/6W
R154	1-247-849-00	CARBON	5.6K	5%	1/6W
R155	1-249-423-11	CARBON	3.3K	5%	1/6W
R158	1-249-428-11	CARBON	8.2K	5%	1/6W
R159	1-249-429-11	CARBON	10K	5%	1/6W
R161	1-249-421-11	CARBON	2.2K	5%	1/6W
R162	1-249-429-11	CARBON	10K	5%	1/6W
R163	1-249-417-11	CARBON	1K	5%	1/6W
R164	1-249-441-11	CARBON	100K	5%	1/6W
R165	1-249-421-11	CARBON	2.2K	5%	1/6W
R166	1-215-477-00	CARBON	220K	5%	1/6W
R167	1-249-435-11	CARBON	33K	5%	1/6W
R168	1-249-437-11	CARBON	47K	5%	1/6W
R169	1-249-401-11	CARBON	47	5%	1/6W
R170	1-249-429-11	CARBON	10K	5%	1/6W
R171	1-215-442-00	CARBON	7.5K	5%	1/6W
R172	1-215-436-00	CARBON	4.3K	5%	1/6W
R173	1-249-429-11	CARBON	10K	5%	1/6W
R174	1-249-405-11	CARBON	100	5%	1/6W
R175	1-247-854-00	CARBON	9.1K	5%	1/6W
R176	1-249-417-11	CARBON	1K	5%	1/6W
R177	1-249-424-11	CARBON	3.9K	5%	1/6W
R178	1-249-421-11	CARBON	2.2K	5%	1/6W
R179	1-249-441-11	CARBON	100K	5%	1/6W
R180	1-249-425-11	CARBON	4.7K	5%	1/6W
R181	1-249-441-11	CARBON	100K	5%	1/6W
R182	1-249-425-11	CARBON	4.7K	5%	1/6W
R183	1-249-430-11	CARBON	12K	5%	1/6W
R301	1-247-704-11	CARBON	220	5%	1/4W
R302	1-247-704-11	CARBON	220	5%	1/4W
R303	1-249-417-11	CARBON	1K	5%	1/6W
R304	1-247-704-11	CARBON	220	5%	1/4W
R305	1-247-704-11	CARBON	220	5%	1/4W
R306	1-249-437-11	CARBON	47K	5%	1/6W
R307	1-249-413-11	CARBON	470	5%	1/6W
R308	1-249-458-11	CARBON	8.2	5%	1/4W
R309	1-249-433-11	CARBON	22K	5%	1/6W
R310	1-249-433-11	CARBON	22K	5%	1/6W
R311	1-249-429-11	CARBON	10K	5%	1/6W
R312	1-215-448-00	CARBON	13K	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R313	1-249-427-11	CARBON	6.8K	5%	1/6W
R314	1-247-842-00	CARBON	3K	5%	1/6W
R315	1-249-425-11	CARBON	4.7K	5%	1/6W
R316	1-249-431-11	CARBON	15K	5%	1/6W
R317	1-249-425-11	CARBON	4.7K	5%	1/6W
R318	1-215-460-00	METAL	43K	1%	1/6W
R319	1-247-714-11	CARBON	1.2K	5%	1/4W
R320	1-247-714-11	CARBON	1.2K	5%	1/4W
R321	1-247-704-11	CARBON	220	5%	1/4W
R322	1-247-717-11	CARBON	2.2K	5%	1/4W
R323	1-247-717-11	CARBON	2.2K	5%	1/4W
R324	1-247-717-11	CARBON	2.2K	5%	1/4W
R325	1-247-717-11	CARBON	2.2K	5%	1/4W
R326	1-247-717-11	CARBON	2.2K	5%	1/4W
R327	1-247-713-11	CARBON	1K	5%	1/4W
R330	1-247-717-11	CARBON	2.2K	5%	1/4W
R331	1-249-429-11	CARBON	10K	5%	1/6W
R334	1-249-420-11	CARBON	1.8K	5%	1/6W
R335	1-249-421-11	CARBON	2.2K	5%	1/6W
R336	1-249-429-11	CARBON	10K	5%	1/6W
R338	1-247-700-11	CARBON	100	5%	1/4W
R339	1-247-700-11	CARBON	100	5%	1/4W
R340	1-249-407-11	CARBON	150	5%	1/6W
R342	1-249-425-11	CARBON	4.7K	5%	1/6W
R343	1-249-437-11	CARBON	47K	5%	1/6W
R344	1-249-417-11	CARBON	1K	5%	1/6W
R346	1-249-441-11	CARBON	100K	5%	1/6W
R354	1-249-441-11	CARBON	100K	5%	1/6W
R355	1-249-423-11	CARBON	3.3K	5%	1/6W
R360	1-249-421-11	CARBON	2.2K	5%	1/6W
R501	1-249-429-11	CARBON	10K	5%	1/6W
R503	1-249-418-11	CARBON	1.2K	5%	1/6W
R504	1-249-418-11	CARBON	1.2K	5%	1/6W
R506	1-249-421-11	CARBON	2.2K	5%	1/6W
R507	1-249-429-11	CARBON	10K	5%	1/6W
R508	1-249-431-11	CARBON	15K	5%	1/6W
R509	1-249-431-11	CARBON	15K	5%	1/6W
R510	1-249-431-11	CARBON	15K	5%	1/6W
R511	1-249-431-11	CARBON	15K	5%	1/6W
R513	1-249-418-11	CARBON	1.2K	5%	1/6W
R514	1-249-420-11	CARBON	1.8K	5%	1/6W
R515	1-249-414-11	CARBON	560	5%	1/6W
R516	1-249-418-11	CARBON	1.2K	5%	1/6W
R517	1-249-418-11	CARBON	1.2K	5%	1/6W
R518	1-249-418-11	CARBON	1.2K	5%	1/6W
R519	1-249-418-11	CARBON	1.2K	5%	1/6W
R520	1-249-418-11	CARBON	1.2K	5%	1/6W
R521	1-249-420-11	CARBON	1.8K	5%	1/6W
R522	1-249-414-11	CARBON	560	5%	1/6W
R523	1-249-418-11	CARBON	1.2K	5%	1/6W
R524	1-249-418-11	CARBON	1.2K	5%	1/6W
R525	1-249-418-11	CARBON	1.2K	5%	1/6W
R526	1-249-418-11	CARBON	1.2K	5%	1/6W
R529	1-249-407-11	CARBON	150	5%	1/6W
R530	1-249-407-11	CARBON	150	5%	1/6W
R532	1-249-399-11	CARBON	33	5%	1/6W
R534	1-249-413-11	CARBON	470	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R535	1-249-401-11	CARBON	47	5%	1/6W
R536	1-249-399-11	CARBON	33	5%	1/6W
R540	1-249-429-11	CARBON	10K	5%	1/6W
R542	1-249-421-11	CARBON	2.2K	5%	1/6W
R543	1-249-421-11	CARBON	2.2K	5%	1/6W
R544	1-249-421-11	CARBON	2.2K	5%	1/6W
R545	1-249-421-11	CARBON	2.2K	5%	1/6W
R546	1-249-421-11	CARBON	2.2K	5%	1/6W
R547	1-249-421-11	CARBON	2.2K	5%	1/6W
R548	1-249-421-11	CARBON	2.2K	5%	1/6W
R556	1-249-441-11	CARBON	100K	5%	1/6W
R557	1-249-434-11	CARBON	27K	5%	1/6W
R558	1-249-429-11	CARBON	10K	5%	1/6W
R559	1-249-409-11	CARBON	220	5%	1/6W
R560	1-249-441-11	CARBON	100K	5%	1/6W
R561	1-249-429-11	CARBON	10K	5%	1/6W
R568	1-249-441-11	CARBON	100K	5%	1/6W
R571	1-249-421-11	CARBON	2.2K	5%	1/6W
R572	1-249-421-11	CARBON	2.2K	5%	1/6W
R573	1-249-421-11	CARBON	2.2K	5%	1/6W
R574	1-249-421-11	CARBON	2.2K	5%	1/6W
R575	1-249-421-11	CARBON	2.2K	5%	1/6W
R576	1-249-421-11	CARBON	2.2K	5%	1/6W
R577	1-249-421-11	CARBON	2.2K	5%	1/6W
R578	1-249-421-11	CARBON	2.2K	5%	1/6W
R579	1-249-421-11	CARBON	2.2K	5%	1/6W
R580	1-249-421-11	CARBON	2.2K	5%	1/6W
R581	1-249-421-11	CARBON	2.2K	5%	1/6W
R582	1-249-441-11	CARBON	100K	5%	1/6W
R583	1-249-429-11	CARBON	10K	5%	1/6W
R585	1-249-441-11	CARBON	100K	5%	1/6W
R586	1-249-430-11	CARBON	12K	5%	1/6W
R587	1-249-432-11	CARBON	18K	5%	1/6W
R589	1-249-433-11	CARBON	22K	5%	1/6W
R590	1-249-393-11	CARBON	10	5%	1/6W
R593	1-249-429-11	CARBON	10K	5%	1/6W
R594	1-249-429-11	CARBON	10K	5%	1/6W
R595	1-249-441-11	CARBON	100K	5%	1/6W
R596	1-249-441-11	CARBON	100K	5%	1/6W
R597	1-249-441-11	CARBON	100K	5%	1/6W
R599	1-249-393-11	CARBON	10	5%	1/6W
R600	1-249-393-11	CARBON	10	5%	1/6W
R601	1-249-393-11	CARBON	10	5%	1/6W
R602	1-249-433-11	CARBON	22K	5%	1/6W
R603	1-249-433-11	CARBON	22K	5%	1/6W
R604	1-249-433-11	CARBON	22K	5%	1/6W
R605	1-249-425-11	CARBON	4.7K	5%	1/6W
R606	1-249-425-11	CARBON	4.7K	5%	1/6W
R607	1-249-425-11	CARBON	4.7K	5%	1/6W
R608	1-215-493-00	CARBON	1M	5%	1/6W
R609	1-249-441-11	CARBON	100K	5%	1/6W
R610	1-249-421-11	CARBON	2.2K	5%	1/6W
R611	1-249-429-11	CARBON	10K	5%	1/6W
R613	1-249-417-11	CARBON	1K	5%	1/6W
R614	1-249-417-11	CARBON	1K	5%	1/6W
R615	1-249-429-11	CARBON	10K	5%	1/6W
R616	1-249-429-11	CARBON	10K	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description
R621	1-249-434-11	CARBON 27K 5% 1/6W
R627	1-249-409-11	CARBON 220 5% 1/6W
R631	1-249-441-11	CARBON 100K 5% 1/6W
R634	1-215-881-11	METAL OXIDE 15 5% 2W F
R635	1-215-493-00	CARBON 1M 5% 1/6W
R636	1-249-422-11	CARBON 2.7K 5% 1/6W
RV101	1-228-670-00	RES, VAR, SLIDE 20K (REC LEVEL)
RV102	1-230-630-11	RES, ADJ, CARBON 10K
RV103	1-230-630-11	RES, ADJ, CARBON 10K
RV104	1-230-630-11	RES, ADJ, CARBON 10K
RV201	1-228-670-00	RES, VAR, SLIDE 20K (REC LEVEL)
RV202	1-230-630-11	RES, ADJ, CARBON 10K
RV203	1-230-630-11	RES, ADJ, CARBON 10K
RV204	1-230-630-11	RES, ADJ, CARBON 10K
RV501	1-228-995-00	RES, ADJ, CARBON 22K
RV502	1-228-995-00	RES, ADJ, CARBON 22K
RV503	1-228-995-00	RES, ADJ, CARBON 22K
RV504	1-228-995-00	RES, ADJ, CARBON 22K
RY301	1-515-645-11	RELAY

ELECTRICAL PARTS

Ref.No.	Part No.	Description
S301	1-570-983-11	SWITCH, PUSH (3 KEY) (TAPE SELECT/DOLBY NR)
S801	1-554-980-11	SWITCH, KEY BOARD (SYNCRO DUBBING:NORMAL)
S802	1-554-980-11	SWITCH, KEY BOARD (SYNCRO DUBBING:HIGH)
S805	1-554-980-11	SWITCH, KEY BOARD (DECK-A:REW)
S807	1-554-980-11	SWITCH, KEY BOARD (DECK-A:STOP)
S808	1-554-980-11	SWITCH, KEY BOARD (DECK-A:PLAY)
S809	1-554-980-11	SWITCH, KEY BOARD (DECK-A:FF)
S811	1-554-980-11	SWITCH, KEY BOARD (DECK-B:REW)
S812	1-554-980-11	SWITCH, KEY BOARD (DECK-B:STOP)
S813	1-554-980-11	SWITCH, KEY BOARD (DECK-B:PLAY)
S814	1-554-980-11	SWITCH, KEY BOARD (DECK-B:FF)
S815	1-554-980-11	SWITCH, KEY BOARD (DECK-B:REC)
S816	1-554-980-11	SWITCH, KEY BOARD (DECK-B:PAUSE)
S817	1-554-980-11	SWITCH, KEY BOARD (DECK-B:REC MUTE)
T301	1-433-309-11	TRANSFORMER, BIAS OSCILLATION
X501	1-567-818-21	VIBRATOR, CERAMIC (3.50MHz)
X502	1-527-532-00	OSCILLATOR, CERAMIC (400kHz)

SECTION 8 TROUBLESHOOTING

Should any problem persist after you have made these checks, consult your nearest Sony service facility. Before going through the check list below, first refer back to the connection and operating procedures.

CASSETTE DECK OPERATION	
The ● button cannot be activated.	<ul style="list-style-type: none"> No cassette in the cassette holder. The tab is removed from the cassette.
The ● button or ► button cannot be activated.	<ul style="list-style-type: none"> The tape is wound completely.
Tape does not move even when the ► button is activated.	<ul style="list-style-type: none"> The button is activated.
Recording or playback cannot be made or there is a decrease in sound level.	<ul style="list-style-type: none"> Contamination or magnetic build-up on the record/playback head. Improper connection Improper setting of the amplifier controls.
Excessive wow or flutter or drop out	<ul style="list-style-type: none"> Contamination of the capstan or pinch roller.
Incomplete erasure	<ul style="list-style-type: none"> Contamination of the erase head.
Increase of noise or erasure of high frequencies	<ul style="list-style-type: none"> Magnetic build-up on the head
Unbalanced tone in higher frequencies	<ul style="list-style-type: none"> Improper setting of the Dolby NR system. When playing back, set the switch to the same type used in recording. The Dolby NR sometimes malfunctions due to interference from a nearby TV or monitor. Move the TV or monitor away from the system.

TC-W455

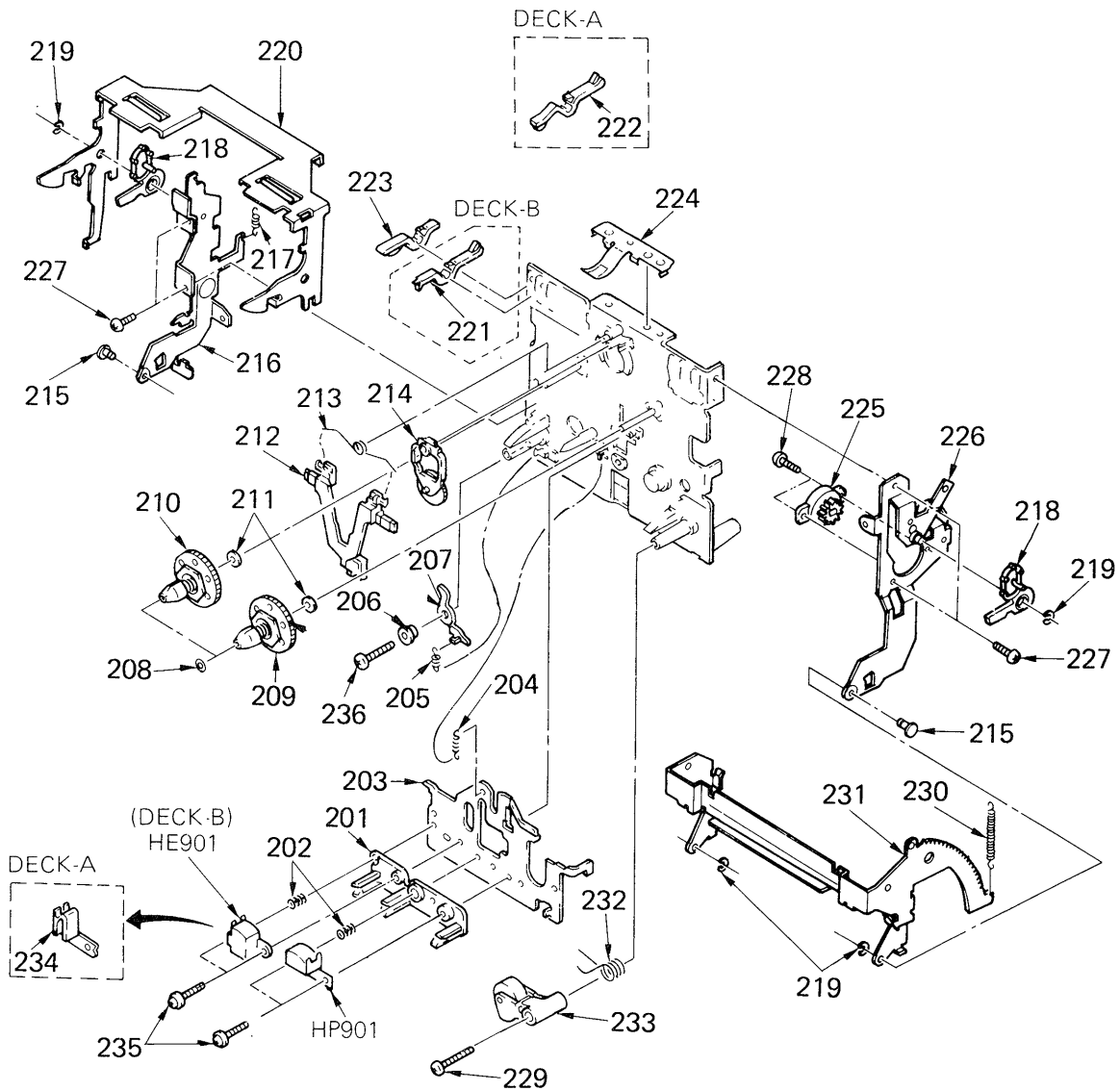
SONY® SERVICE MANUAL

US Model

CORRECTION-1

File this correction with the service manual.

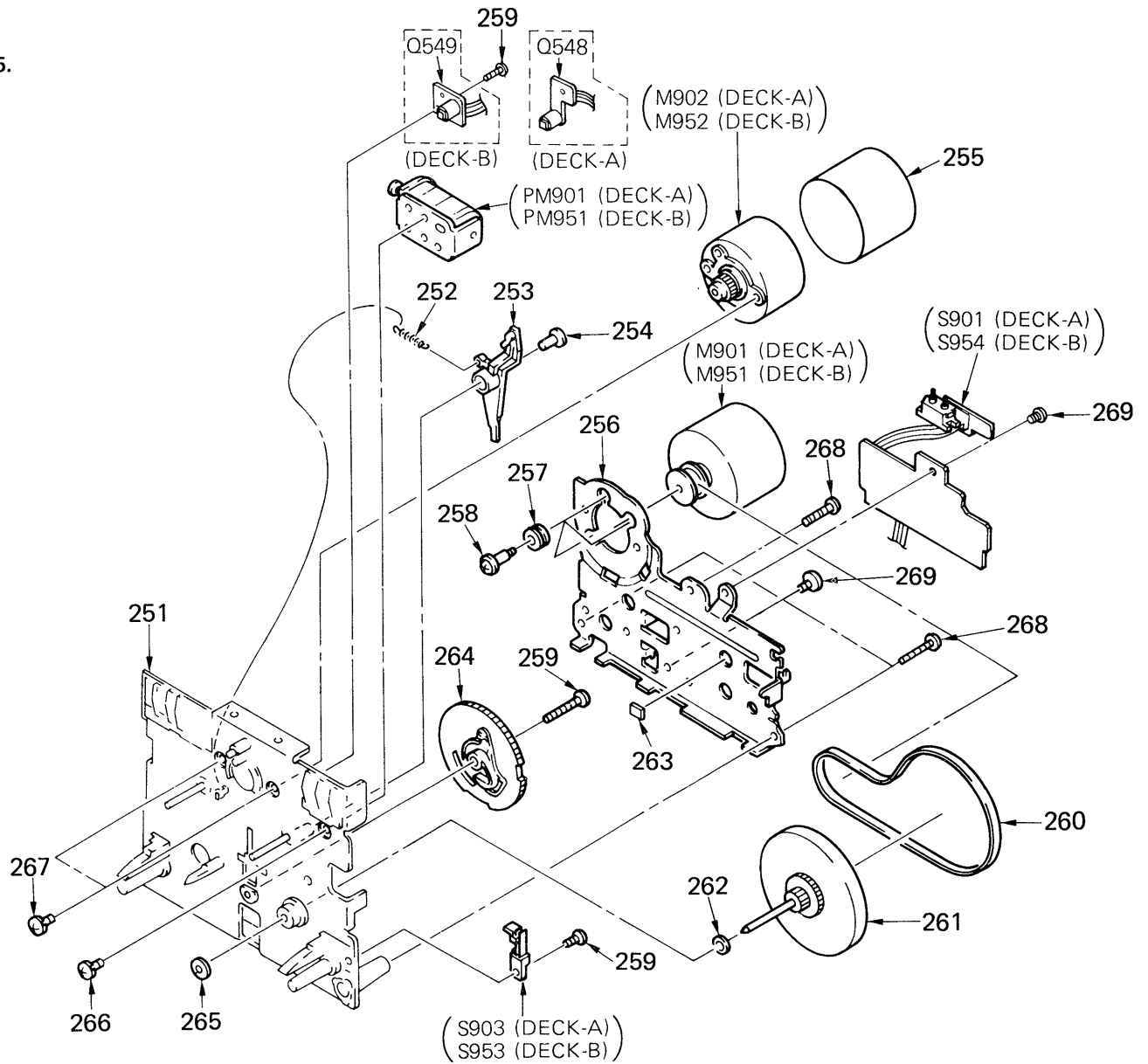
6-4.



No.	Part No.	Description	Remarks
201	*3-391-102-01	SPACER, HEAD	
202	3-391-101-01	SPRING	
203	*3-391-103-01	BASE, HEAD	
204	3-391-114-01	SPRING	
205	3-391-123-01	SPRING (A)	
206	3-391-120-01	CALLOR	
207	3-391-105-01	ARM (B), EJECT SAFETY	
208	3-701-436-11	WASHER, 1.6	
209	X-3391-106-1	(DECK-B)...REEL ASSY	
	X-3391-107-1	(DECK-A)...REEL ASSY, T.U	
210	X-3391-106-1	(DECK-A)...REEL ASSY	
	X-3391-107-1	(DECK-B)...REEL ASSY, T.U	
211	3-701-437-11	WASHER	
212	X-3391-108-1	BRAKE ASSY	
213	3-391-124-01	SPRING	
214	X-3391-111-1	IDLER ASSY	
215	3-391-183-01	SHAFT (B), HOLDER FULCRUM	
216	*X-3391-152-1	ARM ASSY, EJECT	
217	3-391-181-01	SP, LEVER RETURN	
218	3-391-185-01	LEVER, STOP	

No.	Part No.	Description	Remarks
219	7-624-105-04	STOP RING 2.3, TYPE -E	
220	*3-391-180-01	ARM, EJECT	
221	3-391-188-01	(DECK-B)...LEVER, REC	
222	*3-391-155-01	(DECK-A)...LEVER, CHROME INSPECTION	
223	3-391-178-01	LEVER, PACK	
224	3-391-177-01	SPRING	
225	X-3391-151-1	DAMPER ASSY	
226	*X-3391-150-1	BKT ASSY, DAMPER	
227	7-685-790-04	SCREW +PTT 2.6X4 (S)	
228	7-685-780-04	SCREW +PTT 2X3 (S)	
229	7-685-107-19	SCREW +P 2X12 TYPE2 SLIT	
230	3-391-184-01	SPRING	
231	*3-391-182-01	HOLDER, CASSETTE	
232	3-391-115-01	SPRING (RIGHT)	
233	X-3391-104-1	PINCH ROLLER ASSY	
234	3-391-108-01	(DECK-A)...GUIDE, TAPE	
235	7-621-955-75	SCREW,TOTSU PWH 2X12	
236	7-685-105-19	SCREW +P 2X8 TYPE2 SLIT	
HE901	1-543-375-11	(DECK-B)...HEAD, ERASE (EF-701-36)	
HP901	1-543-374-11	HEAD, REC-PB (PP-702-3602)	
HRP901	1-543-374-11	HEAD, REC-PB (PP-702-3602)	

6-5.



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
251	*X-3391-101-1	CHASSIS ASSY, MECHANICAL		951	1-589-079-11	(DECK-B)...PC BOARD BLOCK	
252	3-391-133-01	SPRING			1-589-080-11	(DECK-A)...PC BOARD BLOCK	
253	X-3391-114-1	ARM ASSY, PLAY		M901	X-3391-117-1	(DECK-A)...MOTOR ASSY, CAPSTAN	
254	3-391-126-01	CAP		M902	X-3391-118-1	(DECK-A)...MOTOR ASSY, REEL	
255	3-391-132-01	PLATE, SHIELD		M951	X-3391-117-1	(DECK-B)...MOTOR ASSY, CAPSTAN	
256	*3-391-130-01	BRACKET (B), F/W		M952	X-3391-118-1	(DECK-B)...MOTOR ASSY, REEL	
257	3-391-138-01	MOTOR, CUSHION		PM901	1-454-428-11	(DECK-A)...SOLENOID, PLUNGER	
258	3-391-147-01	SCREW, MOTOR FITTING		PM951	1-454-428-11	(DECK-B)...SOLENOID, PLUNGER	
259	7-685-104-19	SCREW +P 2X6 TYPE2 SLIT		Q548	1-807-509-11	PHOTO SENSOR (GP-2S09)	
260	3-391-107-01	BELT, MAIN		Q549	1-807-509-11	PHOTO SENSOR (GP-2S09)	
261	X-3391-149-1	ASSY F/W		S901	1-570-720-11	SWITCH, PUSH (1 KEY)(HALF DET)	
262	3-701-438-11	WASHER, 2.5		S903	1-570-719-11	SWITCH, LEAF (LOADING)	
263	3-391-129-01	SPACER		S951	1-570-720-11	SWITCH, PUSH (1 KEY)(HALFDET)	
264	3-391-128-01	GEAR (B), CAM		S953	1-570-719-11	SWITCH, LEAF (LOADING)	
265	3-391-119-01	SEAL, WASHER OIL		S954	1-570-720-11	SWITCH, PUSH (1 KEY)(ERASE PROOF)	
266	7-628-253-90	SCREW +PS 2.6X4					
267	3-391-118-01	SCREW, WASHER					
268	7-685-131-19	SCREW +P 2.6X4 TYPE2 NON-SLIT					
269	7-685-750-04	SCREW +PTT 3X5 (S)					

