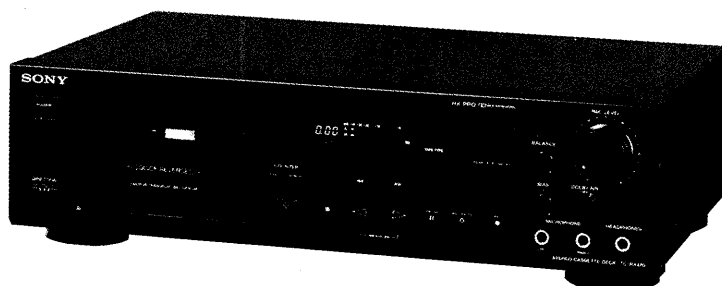


TC-RX470

SERVICE MANUAL

US Model
Canadian Model



* Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.

"DOLBY", the double-D symbol $\square\square$ and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

SPECIFICATIONS

Recording system	4-track 2-channel stereo
Fast-winding time	Approx. 90 sec. (with Sony C-60 cassette)
Bias	AC bias
Heads	Erasing head \times 1 (ferrite head) Playback/Recording head \times 1 (SD head)
Motors	Capstan motor \times 1 (DC servo motor) Reel motor \times 1 (DC motor) ASIST (mechanical drive) motor \times 1 (DC motor)

Signal-to-noise ratio (NAB, at peak level)

Cassette	Dolby NR switch		
	OFF	B-Type ON	C-Type ON
Type IV (Sony METAL-SLT)	58 dB	66 dB	73 dB
Type II (Sony UX-S)	57 dB	65 dB	72 dB
Type I (Sony HF-S)	55 dB	63 dB	70 dB

Total harmonic distortion

1.0% (with Sony METAL-SLT cassette)

Frequency response (DOLBY NR OFF)

Type IV cassette (Sony METAL-SLT)	30-16,000 Hz (\pm 3 dB) 30-14,000 Hz [0 VU(-4 dB) recording]
Type II cassette (Sony UX-S)	30-15,000 Hz (\pm 3 dB)
Type I cassette (Sony HF-S)	30-14,000 Hz (\pm 3 dB)

Wow and flutter	\pm 0.09 % W.Peak (IEC) 0.06% WRMS (NAB) \pm 0.16% W.Peak (DIN)
-----------------	---

Model Name Using Similar Mechanism	TC-WR870
Tape Transport Mechanism Type	TCM-200R7

Inputs

Line inputs (phono jacks)	Sensitivity	77.5 mV
	Input impedance	47 k ohms
Microphone inputs (phone jacks)	Sensitivity (For a low-impedance microphone)	0.25 mV

Outputs

Line outputs (phono jacks)	Rated output level	0.32 V at a load impedance of 47 k ohms
	Load impedance	Over 10 k ohms
Headphones (stereo phone jack)	Output level	0.3 mW at a load impedance of 32 ohms

General

Power requirements	120 V AC, 60 Hz
Power consumption	17 W
Dimensions	Approx. 430 \times 123 \times 300 mm (w/h/d) (17 \times 4 $\frac{7}{8}$ \times 11 $\frac{7}{8}$ inches) including projecting parts and controls
Weight	Approx. 4.6 kg (10 lbs 3 oz)

— Continued on next page —

STEREO CASSETTE DECK
SONY[®]

Supplied accessory

Audio connecting cords (2)

Design and specifications subject to change without notice.

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
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SAFETY CHECK-OUT

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)

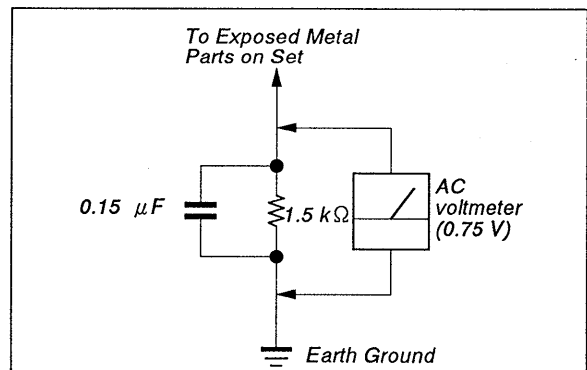





Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

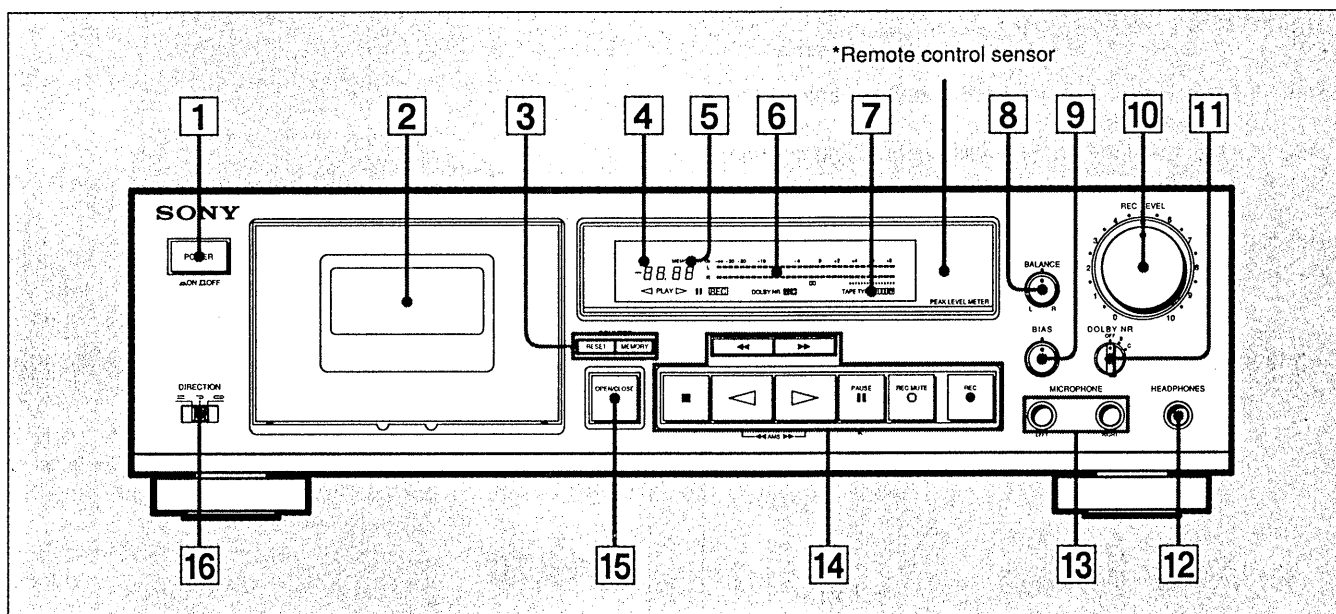
COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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.

SECTION 1 GENERAL


Identification of Front Panel Parts



For details, refer to the page number indicated in ●.

- | | |
|---|--|
| <p>1 POWER switch</p> <p>2 Cassette holder</p> <p>3 Counter buttons
RESET button ●
MEMORY button ● ●</p> <p>4 DIGITAL LINEAR COUNTER ●</p> <p>5 MEMORY indicator ● ●</p> <p>6 PEAK LEVEL METER ①</p> <p>7 TAPE TYPE indicators</p> <p>8 BALANCE control ⑩</p> <p>9 BIAS control ①</p> <p>10 REC (recording) LEVEL control ⑩ ⑪</p> <p>11 DOLBY NR (noise reduction switch) ● ⑩</p> | <p>12 HEADPHONES jack (stereo phone jack)</p> <p>13 MICROPHONE jacks (phone jacks) (left and right) ⑩</p> <p>14 Tape operation buttons
◀◀ (leftward fast winding) button
▶▶ (rightward fast winding) button
■ (stop) button
◀ (reverse play) button
▶ (forward play) button
 PAUSE button
○ REC MUTE (record muting) button ⑫
● REC (recording) button</p> <p>15 ▲ OPEN/CLOSE button</p> <p>16 DIRECTION mode switch ● ⑩</p> |
|---|--|

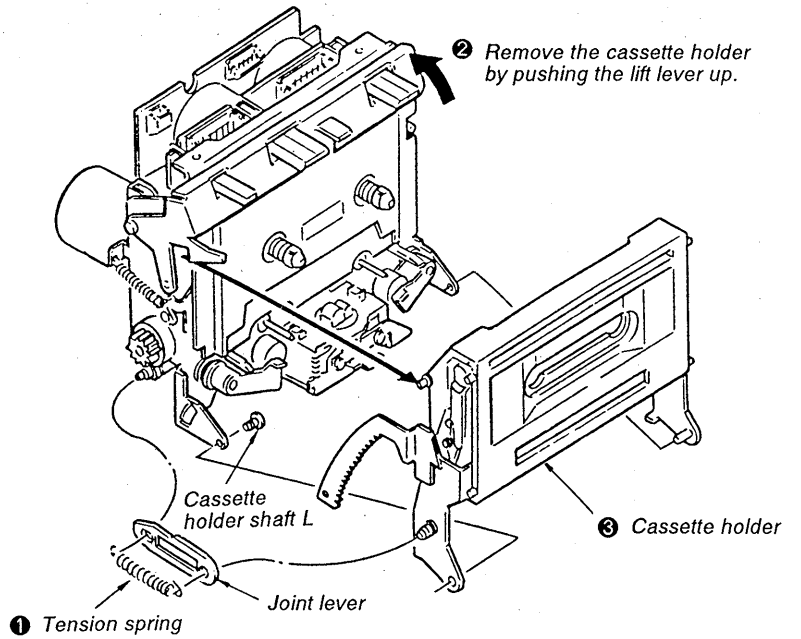
*Remote control sensor

You can remotely control this cassette deck with:
— A remote commander that came with a Sony amplifier or receiver if it has the  mark and cassette deck control capability.

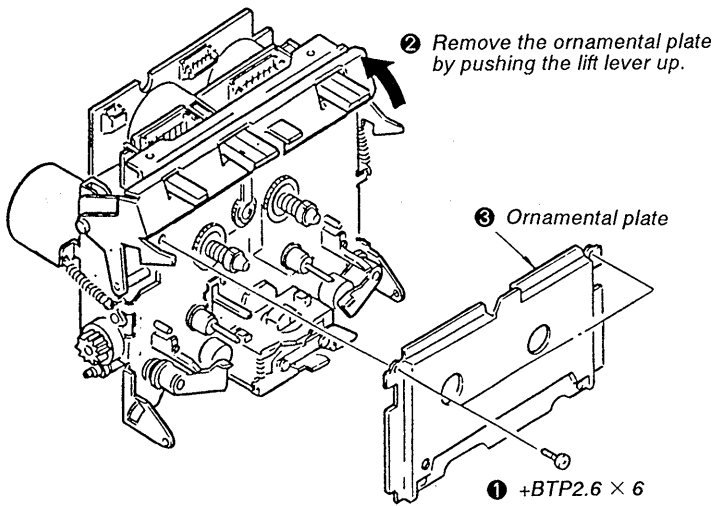
SECTION 2 DISASSEMBLY

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

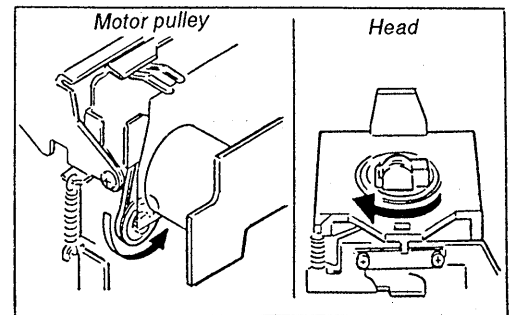
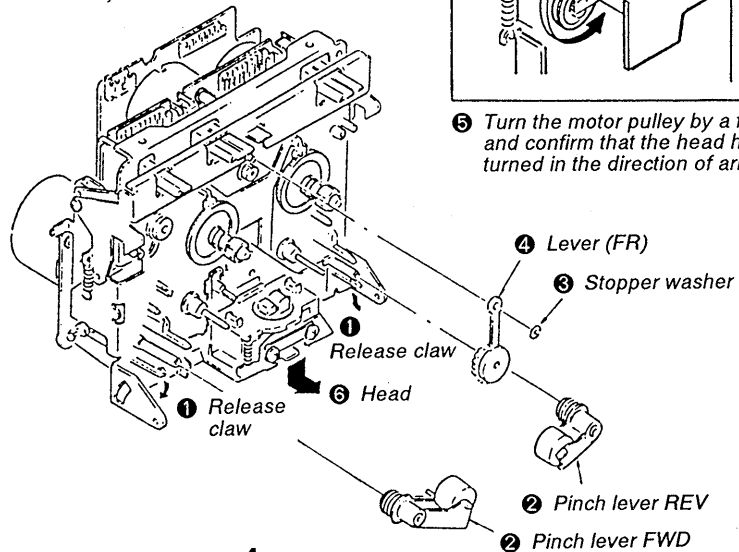
CASSETTE HOLDER



ORNAMENTAL PLATE

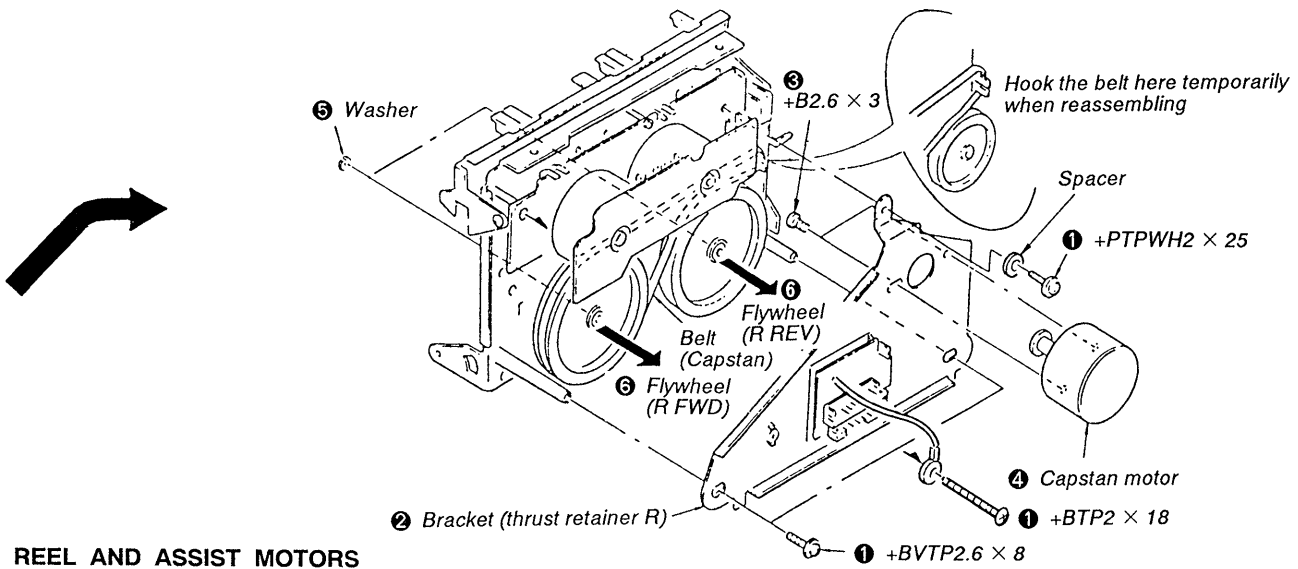


PINCH LEVER, HEAD

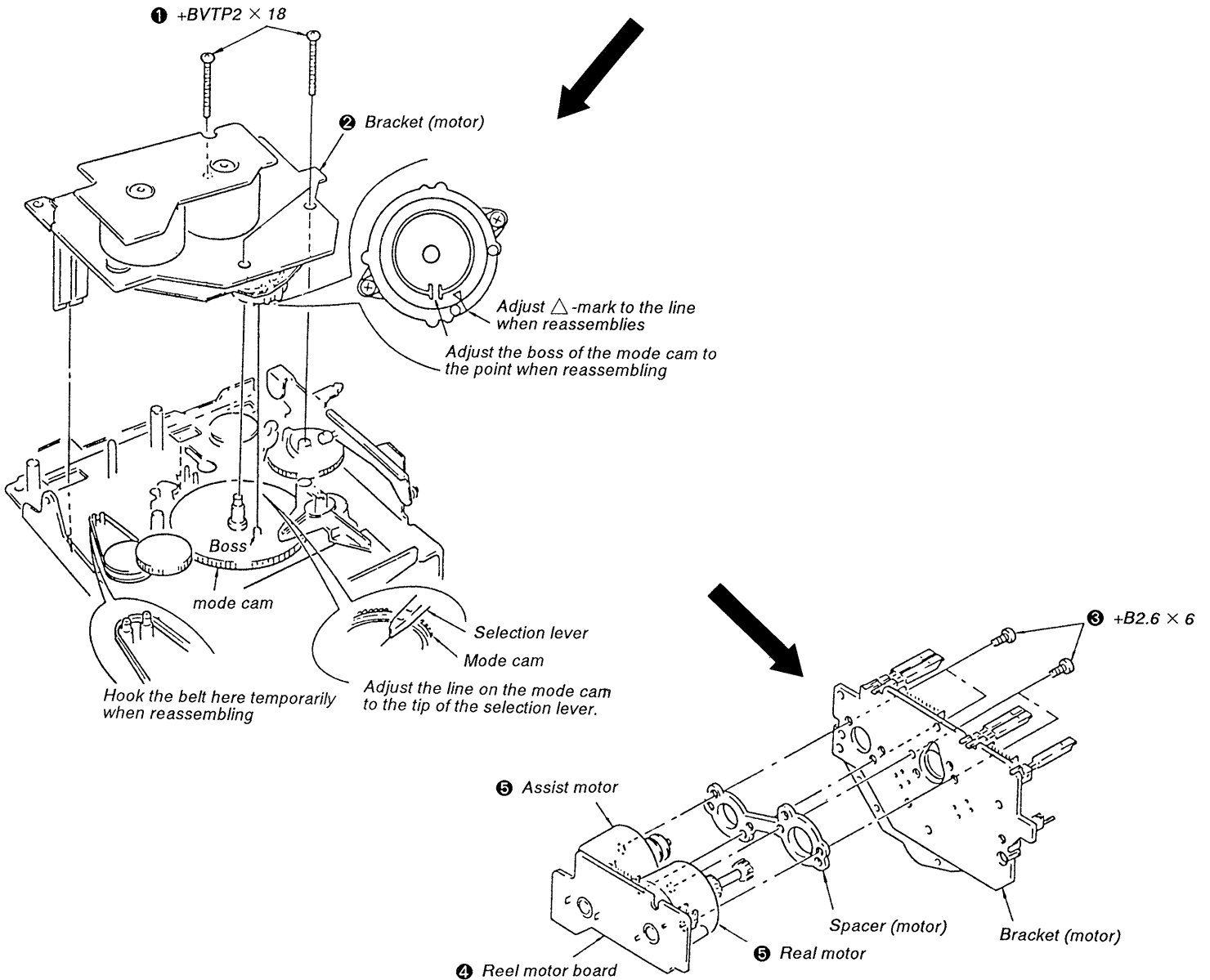


⑤ Turn the motor pulley by a finger and confirm that the head has turned in the direction of arrow.

CAPSTAN PLATE, FLYWHEEL



REEL AND ASSIST MOTORS



SECTION 3 ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENT

PRECAUTION

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

record/playback head	pinch rollers
erase head	rubber belts
capstans	idlers
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 in the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque Meter	Meter reading
FWD	CQ-102C	30 – 60 g•cm (0.42 – 0.83 oz•inch)
FWD back tension		1 – 5 g•cm (0.014 – 0.063 oz•inch)
REV	CQ-102RC	30 – 60 g•cm (0.42 – 0.83 oz•inch)
REV back tension		1 – 5 g•cm (0.014 – 0.063 oz•inch)
FF/REW	CQ-201B	65 – 90 g•cm (0.90 – 1.25 oz•inch)

3-2. ELECTORICAL ADJUSTMENTS

PRECAUTION

Note: The adjustment should be performed in the order given in the service manual. As a rule, adjustments about playback should be performed before those about recording.
The adjustments should be performed for both L-ch and R-ch.

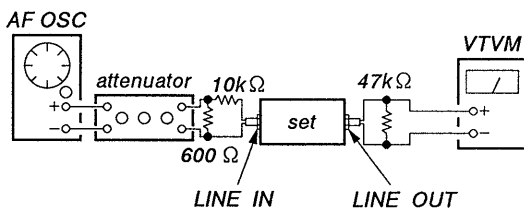
Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch OFF
DIRECTION MODE ⇄

Standard Record:

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

– Record Mode –



0 dB=775m V

Standard Input Level

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

Standard Output Level

output terminal	LINE OUT
load impedance	47kΩ
output level	0.32V (– 7.7dB)

Test Tape

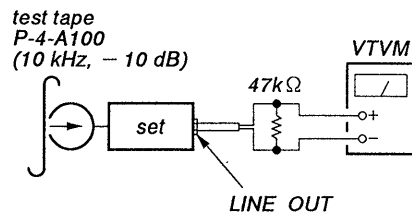
Type	Signal	Used for
P-4-A100	10 kHz, – 10 dB	Azimuth adjustment
P-4-L300	315 Hz, 0 dB	PB level adjustment
WS-48B	3 kHz, 0 dB	Tape speed adjustment

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

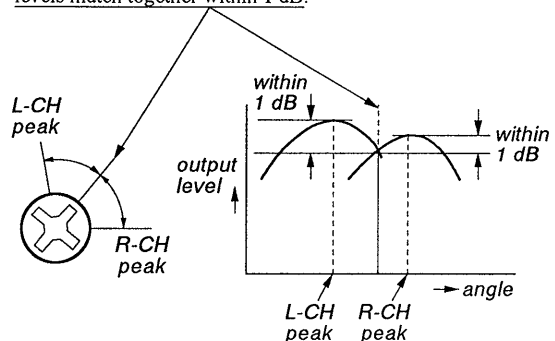
Record/Playback Head Azimuth Adjustment

Procedure:

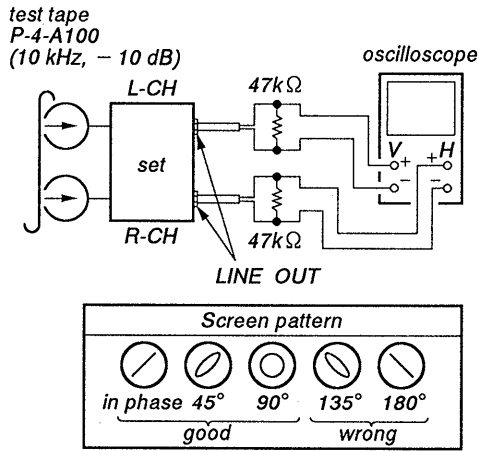
1. Mode: FWD playback



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.

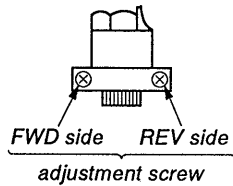


- Phase Check
Mode: playback



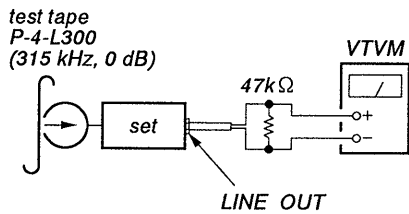
- Set in the REV mode and repeat the step 1 to 3.
- After the adjustment, lock the screws with locking compound.

Adjustment Location: Record/Playback head



Playback Level Adjustments

Procedure:
Mode: playback



Adjust with RV101 (L-ch), RV201 (R-ch) so that the reading on VTVM meets the adjustment limits below.

Adjustment Limits:

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

Level difference between channels: less than 0.5 dB

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

Adjustment Location: MAIN board

Bias Current Adjustment

Procedure:

- Set RV103 and RV203 to mechanical center and turn the set recording mode.
- Connect digital voltmeter as shown by the following table.
- Adjust the following transformers for the minimum readings on the digital voltmeter.

DECK	Mesurement Point	Adjustment	Value
L	① and ②, TP501	T101	Less than 80 mV
R	② and ③, TP501	T201	

Adjustment Location: MAIN board

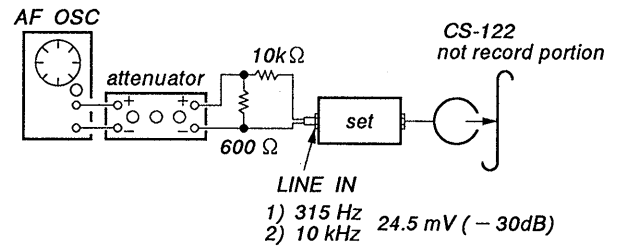
Record Bias Adjustment

Setting:

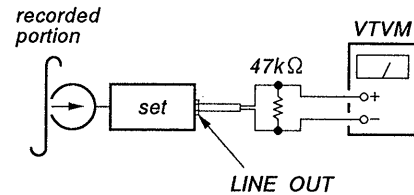
REC LEVEL control: standard Record (See page 8.)
test pin TP801: short

Procedure:

- Mode: record



- Mode: playback



Playback the signal recorded in step 1.

Confirm that the 10 kHz playback output is $0 \pm 0.5\text{ dB}$ relative to the 315 Hz output. If necessary, adjust RV103 (L-ch) and RV203 (R-ch) and repeat the steps given above.

Adjustment Location: MAIN board

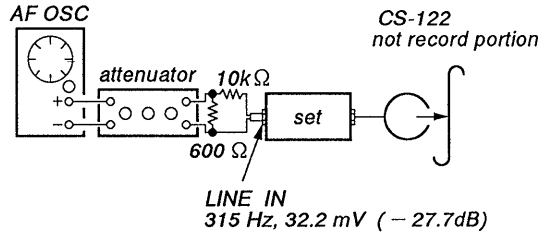
Record Level Adjustment

Setting:

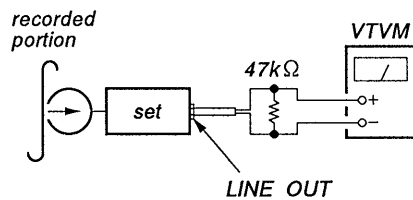
REC LEVEL control: Standard Record (See page 8.)
test pin TP801: short

Procedure:

1. Mode: Record



2. Mode: Playback

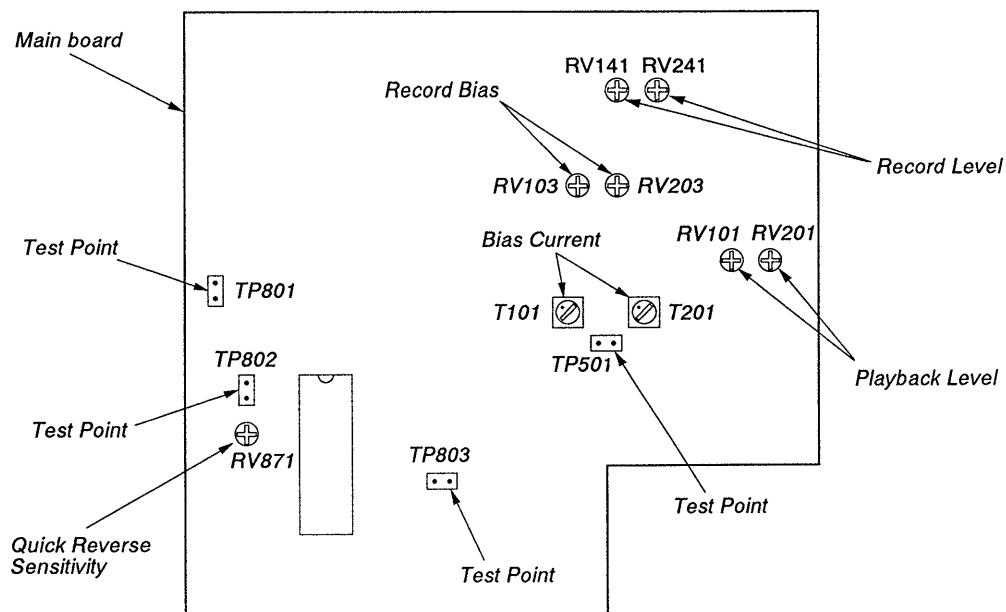


3. Playback the signal recorded in step 1.
Confirm that the signal level is within the adjustment limits below.
If necessary, adjust RV141 (L-ch) and RV241 (R-ch) and repeat the step 1 to 2.

Adjustment Limits: $-27.7 \text{ dB} \pm 0.5 \text{ dB}$ (30.4 – 34.2 mV)

Adjustment Location: MAIN board (component side)

[Adjustment Pats Location Diagram]

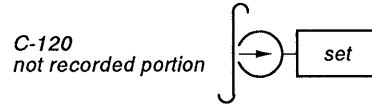


Quick Reverse Sensitivity Adjustment

Conditions :

DIRECTION MODE switch: \rightleftarrows

Adjustment procedure :



1. Connect the digital voltmeter to test point TP802.
2. Load C-120 tape cassette and playback the leading portion in FWD mode.
3. Adjust the RV871 for $4.5 \pm 0.5 \text{ V}$ reading on the digital voltmeter.
4. Playback C-120 tape cassette in FWS mode again.
5. Confirm that the reading on the digital voltmeter is "L" level at the magnetic portion of the tape.
6. Confirm that the tape stop around the tape end (border of the leading and the magnetic portions).

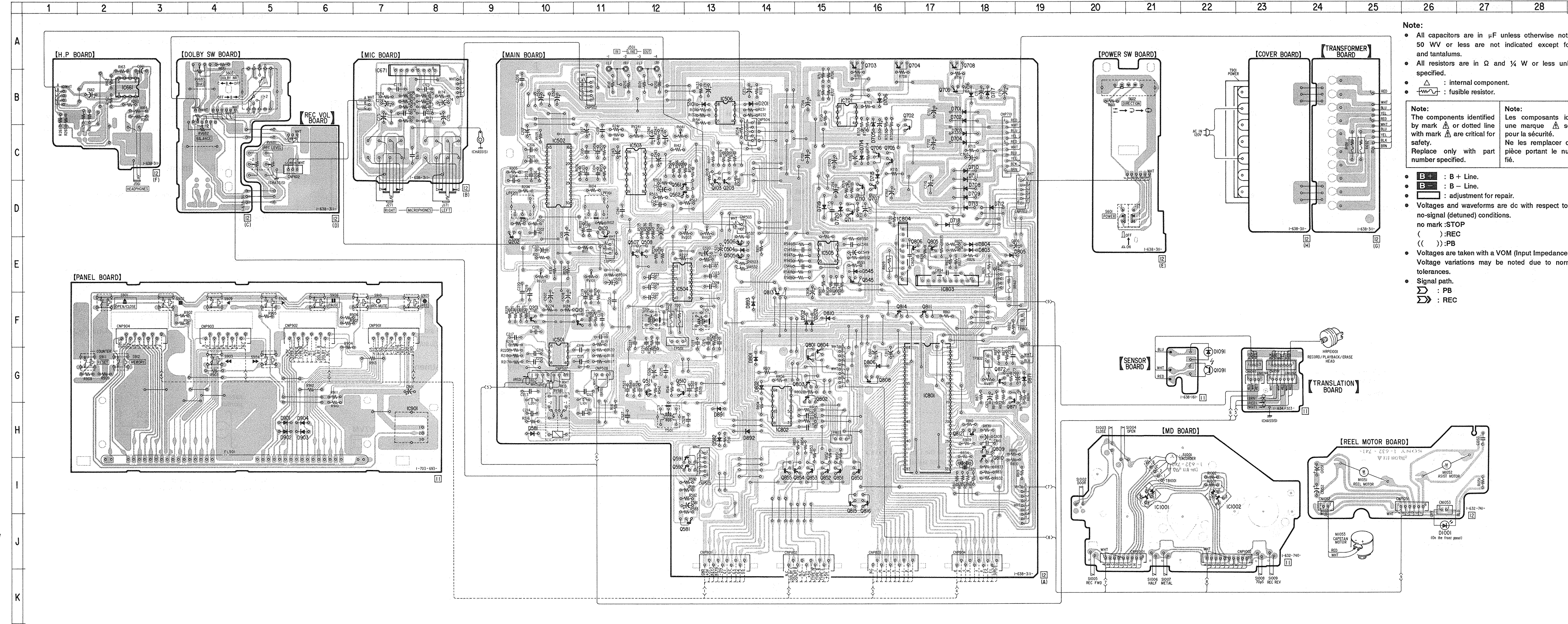
Adjustment Location: MAIN board

**SECTION 4
DIAGRAMS**

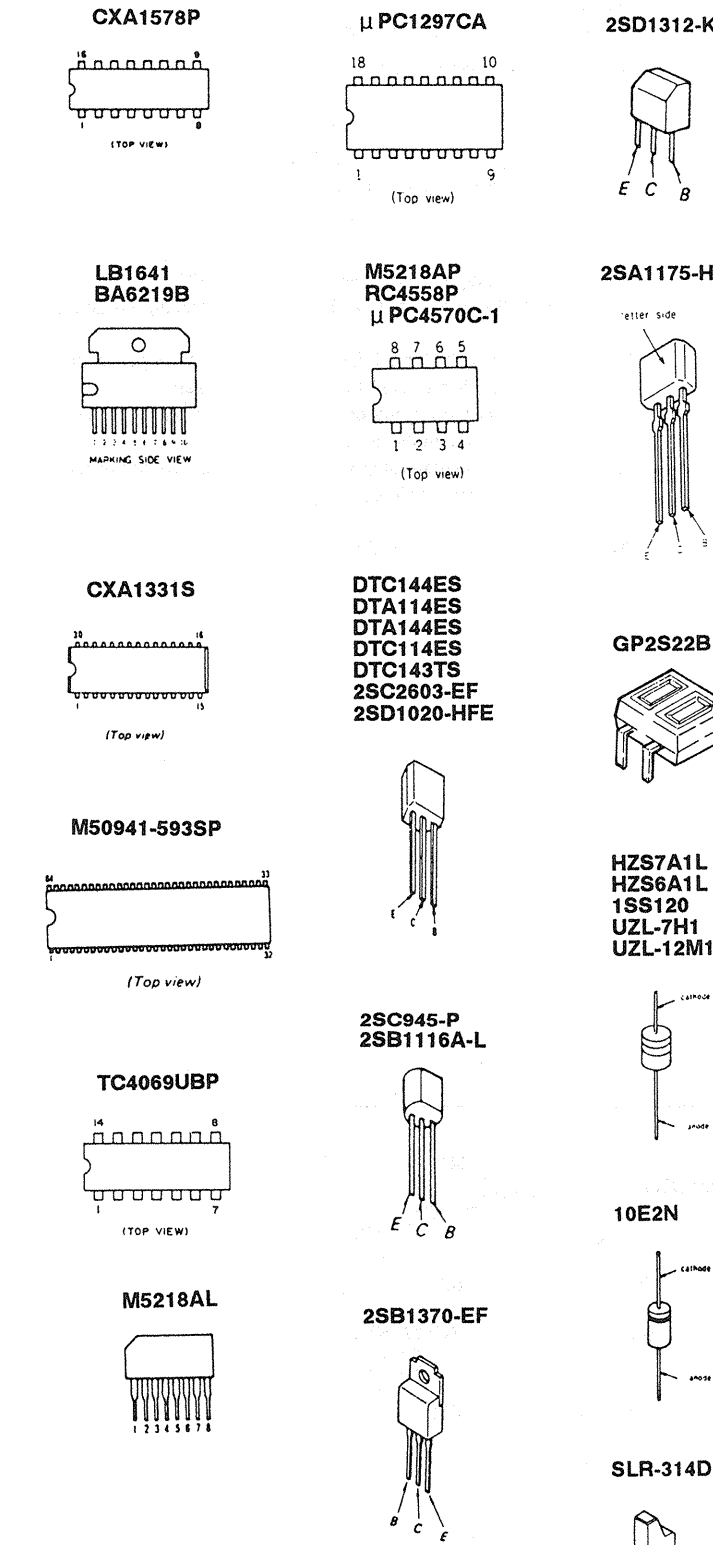
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	B-13	IC804	E-16
D102	F-15	IC901	H-8
D201	B-14	IC1001	I-21
D202	F-15	IC1002	I-22
D504	E-14		
D545	E-16	Q101	F-11
D581	H-10	Q102	D-11
D582	H-13	Q103	C-13
D701	B-18	Q201	F-10
D702	B-18	Q202	D-9
D703	C-18	Q203	C-13
D704	C-18	Q505	E-14
D705	C-16	Q506	E-14
D706	B-16	Q507	F-12
D708	D-18	Q508	E-12
D709	D-18	Q510	G-12
D710	C-18	Q511	G-12
D711	C-18	Q545	E-16
D712	D-18	Q561	D-13
D713	D-18	Q562	D-13
D714	C-16	Q581	J-13
D715	C-16	Q591	I-13
D716	B-18	Q592	I-13
D717	B-18	Q702	C-16
D718	D-17	Q703	A-16
D719	D-15	Q704	A-16
D720	D-15	Q705	C-16
D801	G-14	Q706	C-16
D802	G-14	Q707	D-16
D803	E-18	Q708	A-17
D804	E-18	Q709	B-17
D805	E-18	Q710	D-16
D806	G-16	Q711	D-15
D810	F-15	Q801	G-15
D871	G-19	Q802	G-15
D891	H-13	Q803	G-15
D892	H-14	Q804	G-15
D893	F-14	Q805	E-17
D901	H-5	Q806	E-17
D902	H-5	Q808	G-16
D903	H-6	Q809	H-18
D904	H-6	Q810	I-18
D1001	J-26	Q811	F-17
D1091	G-22	Q812	H-18
		Q813	E-14
		Q814	F-16
IC501	G-10	Q815	I-16
IC502	C-10	Q816	I-16
IC503	C-12	Q850	I-16
IC504	E-12	Q851	I-15
IC505	E-15	Q852	I-15
IC506	B-13	Q853	I-15
IC681	B-2	Q854	I-15
IC671	B-3	Q855	I-14
IC701	B-15	Q871	G-18
IC801	G-17	Q872	G-18
IC802	H-14	Q1091	G-22
IC803	E-17		

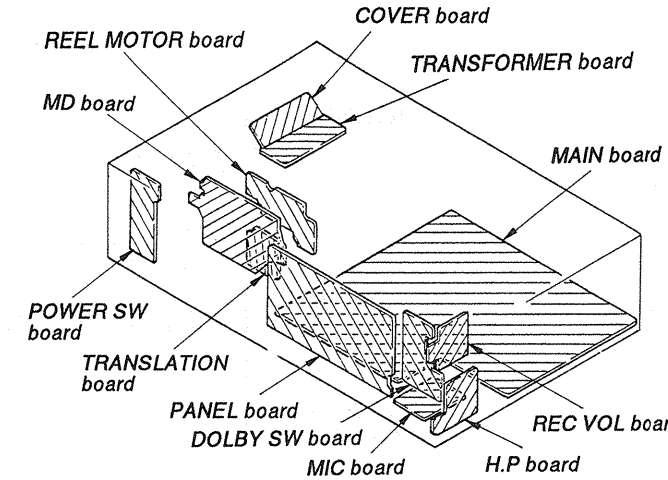
4-1. PRINTED WIRING BOARD



• Semiconductor Lead Layouts



• Circuit Boards Location



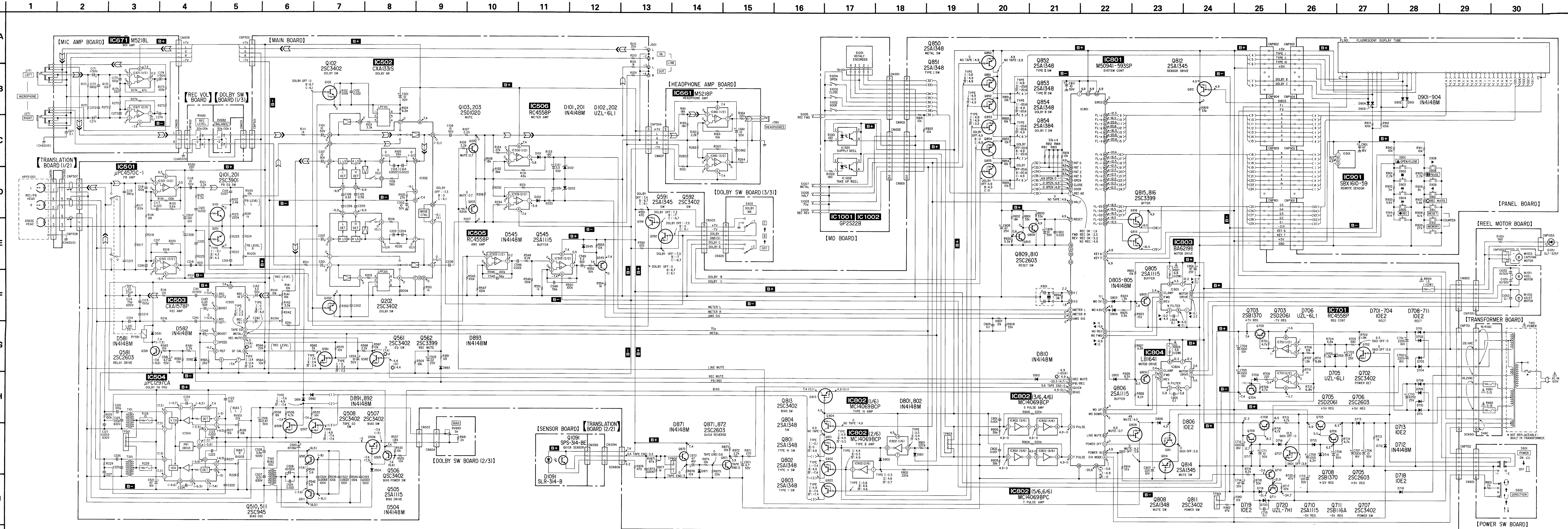
Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
- \triangle : internal component.
- $\text{---}/\text{---}$: fusible resistor.

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

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

- B^+ : B + Line.
- B^- : B - Line.
- \square : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions. no mark :STOP
() :REC
() :PB
- Voltages are taken with a VOM (Input Impedance 10 M Ω /V). Voltage variations may be noted due to normal production tolerances.
- Signal path.
 - --- : PB
 - --- : REC



SECTION 5 EXPLODED VIEWS

NOTE:

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

↑ ↑
 Parts Color Cabinet's Color

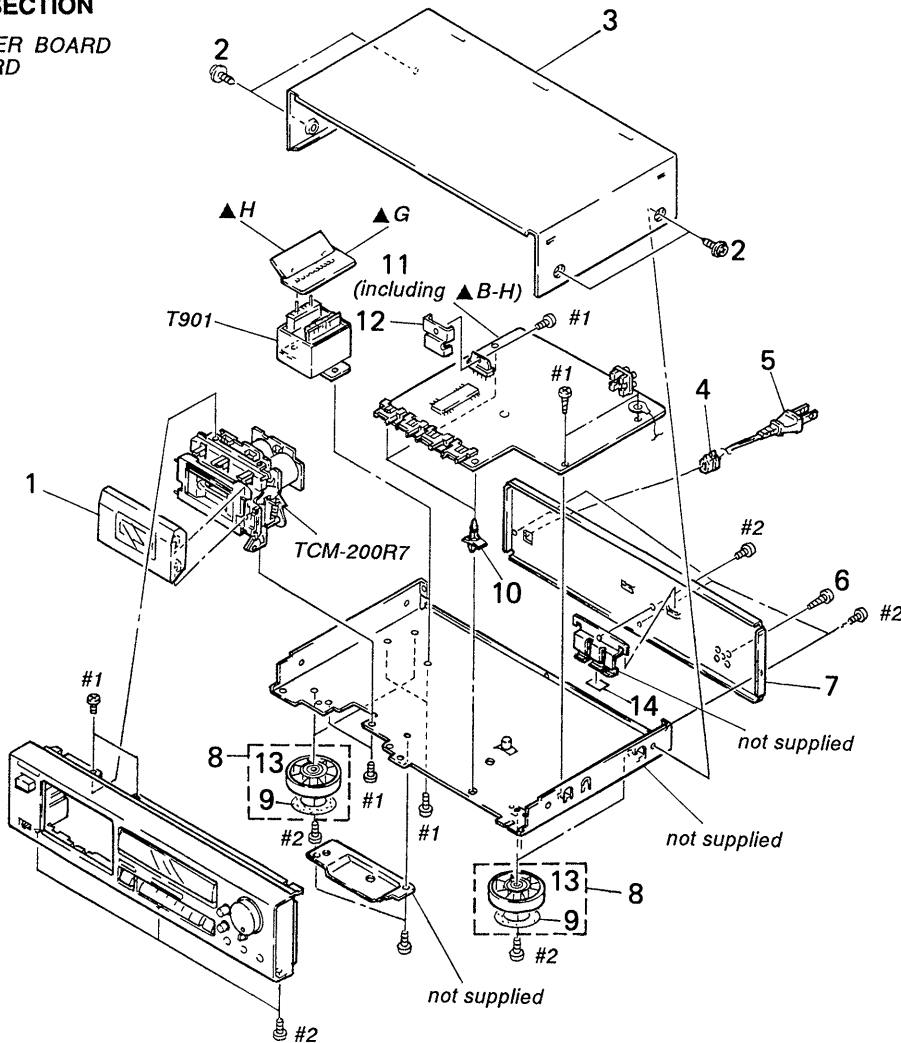
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

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

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

5-1. CABINET SECTION

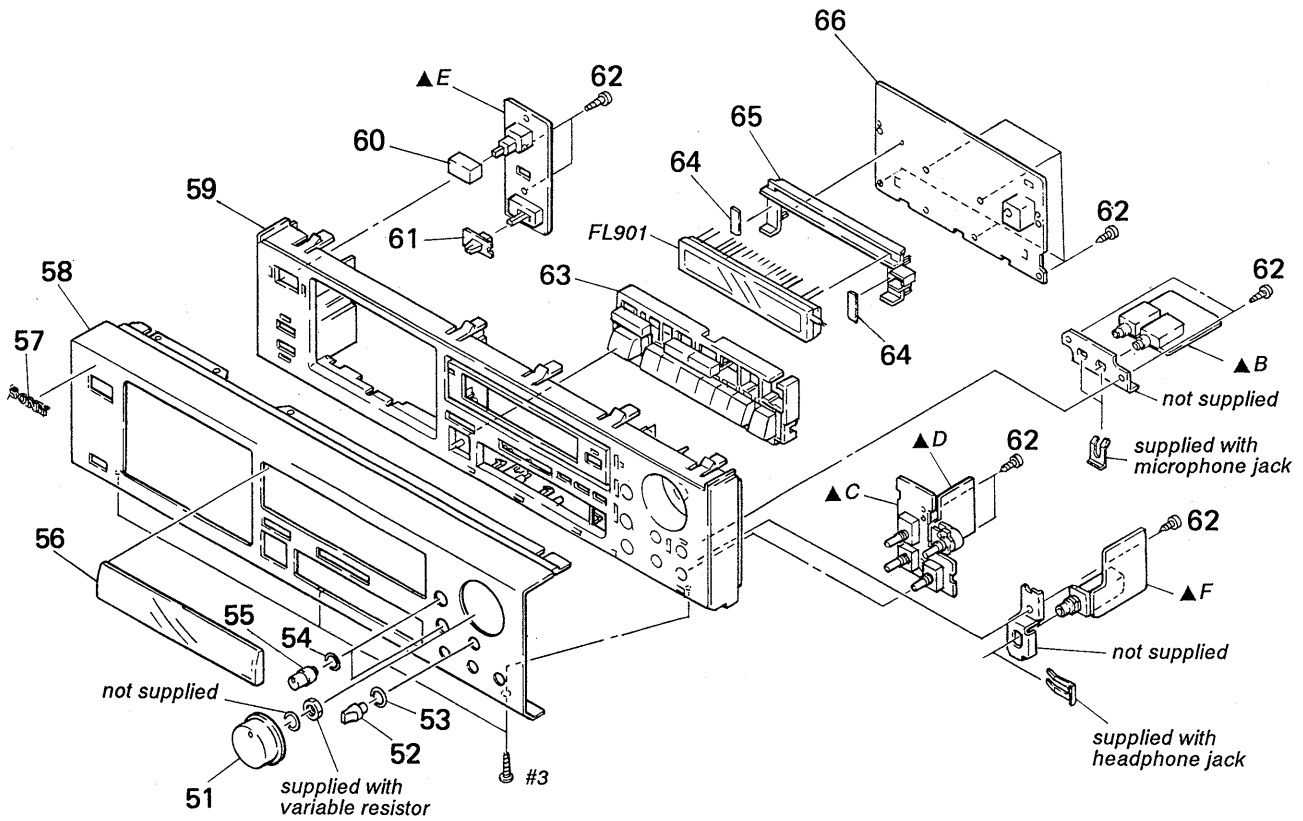
\triangle G: TRANSFORMER BOARD
 \triangle H: COVER BOARD



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-3363-009-1	LID (A) ASSY, CASSETTE		8	X-4885-950-1	FOOT ASSY	
2	3-704-366-01	SCREW (CASE) (M3X8)		9	4-923-836-11	CUSHION	
3	3-332-578-61	CASE		10	* 3-346-265-11	HOLDER, PC BOARD	
4	* 3-703-571-11	BUSHING (S) (4516), CORD		11	* A-2006-466-A	MAIN BOARD, COMPLETE Including B-H	
5	\triangle 1-551-506-XX	CORD, POWER		12	* 3-356-925-01	HEAT SINK	
6	7-621-849-00	SCREW (BV/RING)		13	4-943-148-01	FOOT (F58175SHW)	
7	* 3-366-793-01	PANEL, BACK		14	9-911-843-XX	CUSHION, RUBBER	
				T901	\triangle 1-450-100-11	TRANSFORMER, POWER	

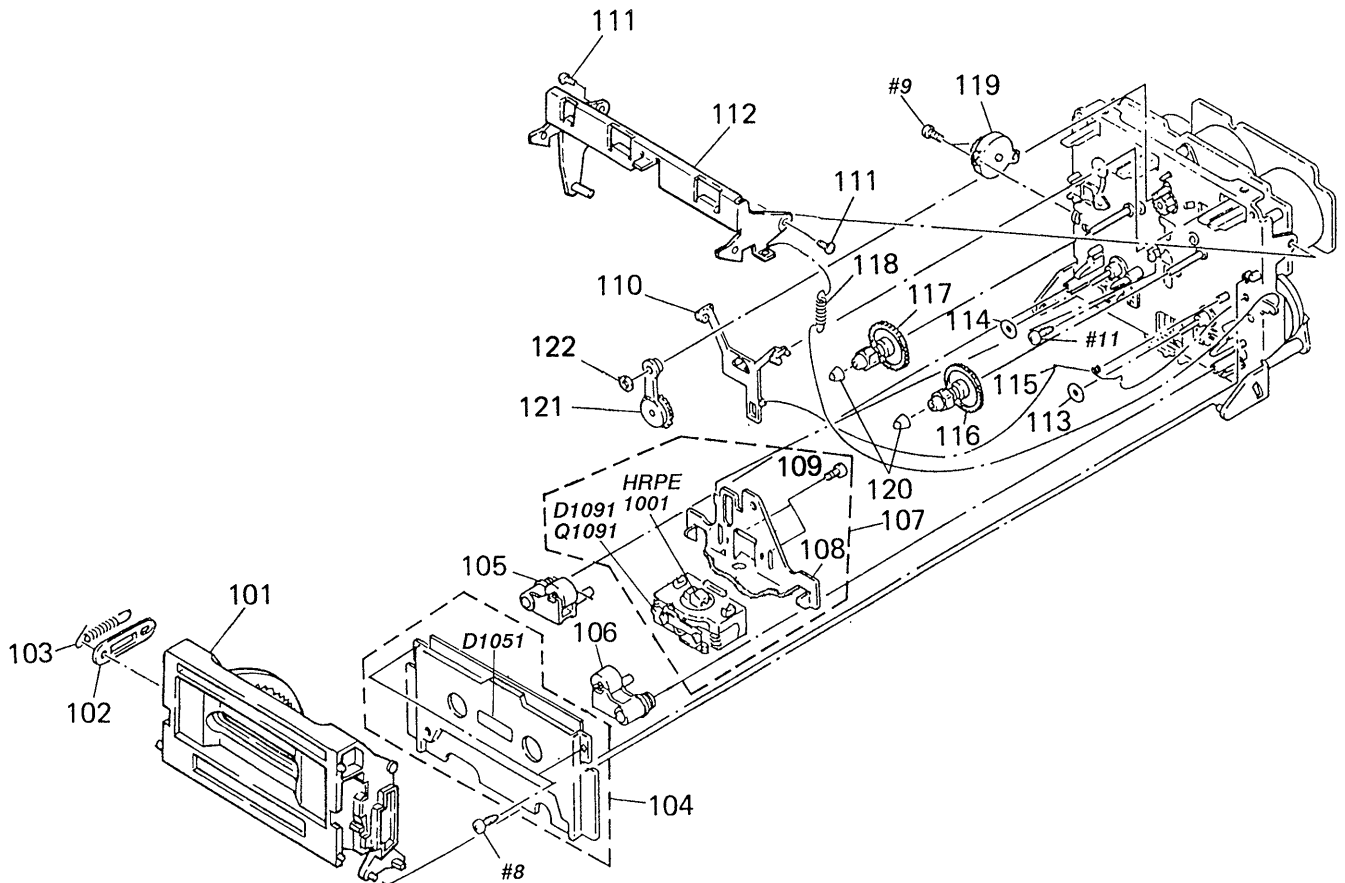
5-2. FRONT PANEL SECTION

- ▲B: MIC BOARD
- ▲C: DOLBY SW BOARD
- ▲D: REC VOL BOARD
- ▲E: POWER SW BOARD
- ▲F: H.P BOARD



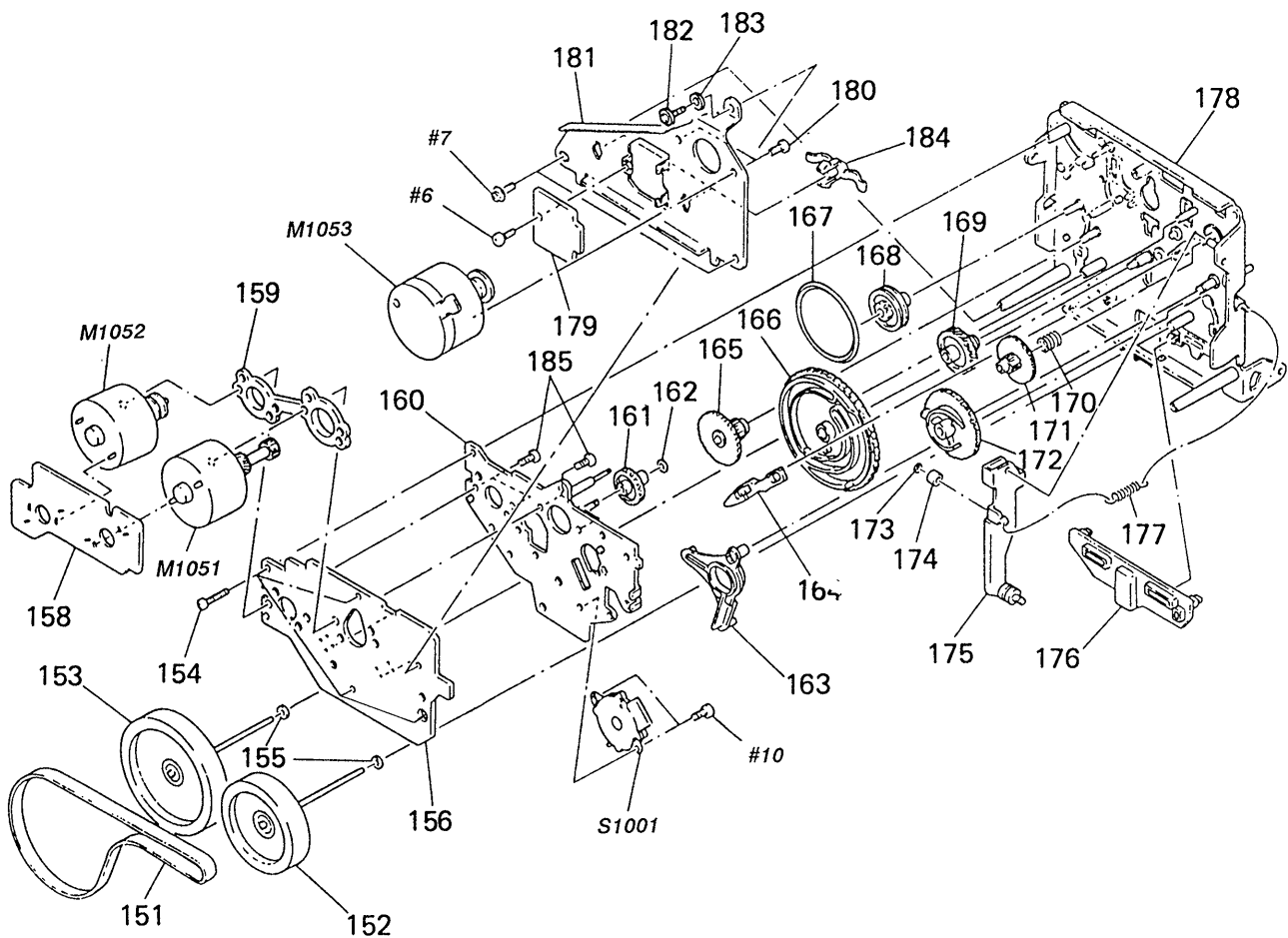
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-367-438-11	KNOB (REC)		59	3-367-440-01	PANEL (BASE)	
52	3-350-495-01	KNOB (VOL)		60	4-922-921-01	BUTTON (POWER)	
53	3-370-186-01	SPRING (SWPA), RING		61	4-931-421-11	KNOB (T & S)	
54	3-356-957-01	SPRING		62	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
55	3-367-431-01	KNOB (BAL)		63	3-367-434-11	BUTTON (A)	
56	3-367-433-11	WINDOW (METER)		64	9-911-844-XX	CUSHION	
57	4-908-848-01	EMBLEM, SONY		65	* 4-932-502-01	HOLDER, FL TUBE	
58	3-367-439-41	PANEL, FRONT		66	* 1-638-310-11	PANEL BOARD	

5-3. MECHANISM SECTION (1)
(TCM-200R7)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	X-3362-814-1	HOLDER (CD) ASSY, CASSETTE		113	3-356-713-01	WASHER	
102	* 3-356-717-01	LEVER (JOINT)		114	3-356-714-01	WASHER	
103	3-356-626-01	SPRING, TENSION		115	3-356-609-01	SPRING (B), TORSION	
104	X-3356-613-1	PLATE ASSY, ORNAMENTAL		116	X-3356-627-1	GEAR (T) ASSY	
105	* X-3343-456-1	LEVER (PINCH R) ASSY		117	X-3356-628-1	GEAR (S) ASSY	
106	* X-3343-455-1	LEVER (PINCH F) ASSY		118	3-356-625-01	SPRING, TENSION	
107	A-2003-723-A	BASE ASSY, HEAD 108, 109, D1091, Q1091		119	3-319-224-31	DAMPER, SMALL	
108	X-3362-819-2	SLIDER (HEAD CHASSIS R) ASSY		120	3-362-308-01	CAP (REEL)	
109	3-356-716-01	SCREW (2X4) (B TIGHT), +P		121	X-3356-641-1	LEVER (FR2) ASSY	
110	3-356-614-01	SLIDER (BRAKE)		122	3-669-465-00	WASHER (1.5), STOPPER	
111	3-356-601-11	SCREW, STEP		D1051	8-719-980-85	DIODE SLF-325C	
112	* X-3356-608-1	LEVER (LIFTER) ASSY		D1091	8-719-950-74	DIODE SLR-314D-B	
				Q1091	8-729-809-43	SPS-314B-BE	

5-4. MECANISM SECTION (2)
(TCM-200R7)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-356-730-01	BELT (CAPSTAN R2)		171	3-356-609-01	GEAR (LOADING)	
152	X-3356-642-1	FLYWHEEL (R FWD) ASSY		172	3-356-616-01	GEAR (LOADING CAM)	
153	X-3356-643-1	FLYWHEEL (R REV) ASSY		173	3-558-708-11	WASHER, STOPPER	
154	3-355-801-01	SCREW (BTP 2X18)		174	3-356-630-01	ROLLER (LOADING)	
155	3-356-705-01	WASHER (CAPSTAN)		175	* X-3356-606-1	LEVER (LOADING) ASSY	
156	* 1-632-740-11	MD BOARD		176	3-356-612-01	SLIDER (REVERSE)	
158	* 1-632-741-11	REEL MOTOR BOARD		177	3-356-624-01	SPRING, TENSION	
159	* 3-356-628-01	SPACER (MOTOR)		178	X-3356-634-1	CHASSIS (R2) COMPLETE ASSY, MECH	
160	* X-3356-602-4	BRACKET (MOTOR R) ASSY		179	* 1-634-323-11	TRANSLATION BOARD	
161	3-356-702-01	GEAR (COMMUNICATION B)		180	4-885-599-00	SCREW, FITTING, REINFORCEMENT	
162	3-669-465-00	WASHER (1.5), STOPPER		181	* 3-356-629-01	BRACKET (THRUST RETAINER R)	
163	3-356-613-01	LEVER (MODE)		182	3-356-707-01	SCREW (+PTPWH 2X25)	
164	3-356-617-01	LEVER (SELECTION)		183	* 3-356-718-01	SPACER (THRUST RETAINER R)	
165	3-356-606-01	GEAR (MODE)		184	3-575-321-00	RETAINER, THRUST, CAPSTAN	
166	3-356-615-01	GEAR (MODE CAM RR)		185	3-363-804-01	SCREW (+P 2.6X6.5)	
167	3-356-603-01	BELT (MODE)		M1051	X-3356-638-1	MOTOR (REEL R) ASSY	
168	3-356-607-01	PULLEY (MODE)		M1052	X-3356-604-1	MOTOR (ASSIST) ASSY	
169	3-356-703-01	GEAR (COMMUNICATION C)		M1053	X-3356-646-1	MOTOR (CAPSTAN V1) ASSY	
170	3-356-605-01	SPRING, COMPRESSION		S1001	1-466-525-11	ENCODER, ROTARY	

SECTION 6 ELECTRICAL PARTS LIST

MAIN

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
- CAPACITORS
uF: μ F
- COILS
uH: μ H

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

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* A-2006-466-A MAIN BOARD, COMPLETE *****				C215	1-162-289-31	CERAMIC 390PF 10%	50V
				C216	1-162-282-31	CERAMIC 100PF 10%	50V
				C217	1-136-157-00	FILM 0.022uF 5%	50V
				C218	1-124-657-00	ELECT 10uF 20%	50V
				C219	1-136-158-00	FILM 0.027uF 5%	50V
* 3-356-925-01 HEAT SINK 7-682-547-04 SCREW +BVTT 3X6 (S)				C220	1-161-494-00	CERAMIC 0.022uF	25V
< CAPACITOR >				C222	1-136-153-00	FILM 0.01uF 5%	50V
C101	1-124-907-11	ELECT 10uF 20%	50V	C223	1-136-157-00	FILM 0.022uF 5%	50V
C102	1-130-475-00	MYLAR 0.0022uF 5%	50V	C224	1-136-165-00	FILM 0.1uF 5%	50V
C103	1-130-475-00	MYLAR 0.0022uF 5%	50V	C225	1-136-437-11	FILM 220PF 5%	630V
C104	1-130-475-00	MYLAR 0.0022uF 5%	50V	C226	1-110-335-11	MYLAR 100PF 5%	50V
C105	1-136-174-00	FILM 0.56uF 5%	50V	C227	1-136-552-11	FILM 0.0012uF 5%	630V
C106	1-136-171-00	FILM 0.33uF 5%	50V	C231	1-123-382-00	ELECT 3.3uF 20%	100V
C107	1-124-907-11	ELECT 10uF 20%	50V	C241	1-124-657-00	ELECT 10uF 20%	50V
C108	1-124-657-00	ELECT 10uF 20%	50V	C242	1-123-382-00	ELECT 3.3uF 20%	100V
C113	1-162-284-31	CERAMIC 150PF 10%	50V	C243	1-124-252-00	ELECT 0.33uF 20%	50V
C114	1-136-273-91	FILM 75PF 5%	630V	C271	1-124-903-11	ELECT 1uF 20%	50V
C115	1-162-289-31	CERAMIC 390PF 10%	50V	C272	1-162-292-31	CERAMIC 680PF 10%	50V
C116	1-162-282-31	CERAMIC 100PF 10%	50V	C273	1-162-282-31	CERAMIC 100PF 10%	50V
C117	1-136-157-00	FILM 0.022uF 5%	50V	C274	1-124-903-11	ELECT 1uF 20%	50V
C118	1-124-657-00	ELECT 10uF 20%	50V	C501	1-124-907-11	ELECT 10uF 20%	50V
C119	1-136-158-00	FILM 0.027uF 5%	50V	C502	1-124-907-11	ELECT 10uF 20%	50V
C120	1-161-494-00	CERAMIC 0.022uF	25V	C503	1-126-233-11	ELECT 22uF 20%	50V
C122	1-136-153-00	FILM 0.01uF 5%	50V	C507	1-124-443-00	ELECT 100uF 20%	10V
C123	1-136-157-00	FILM 0.022uF 5%	50V	C508	1-124-443-00	ELECT 100uF 20%	10V
C124	1-136-165-00	FILM 0.1uF 5%	50V	C519	1-124-902-00	ELECT 0.47uF 20%	50V
C125	1-136-437-11	FILM 220PF 5%	630V	C520	1-124-477-11	ELECT 47uF 20%	25V
C126	1-110-335-11	MYLAR 100PF 5%	50V	C521	1-124-477-11	ELECT 47uF 20%	25V
C127	1-136-552-11	FILM 0.0012uF 5%	630V	C522	1-136-230-00	FILM 0.0022uF 5%	100V
C131	1-123-382-00	ELECT 3.3uF 20%	100V	C523	1-136-230-00	FILM 0.0022uF 5%	100V
C141	1-124-657-00	ELECT 10uF 20%	50V	C524	1-130-856-00	FILM 0.0068uF 5%	100V
C142	1-123-382-00	ELECT 3.3uF 20%	100V	C525	1-136-157-00	FILM 0.022uF 5%	50V
C143	1-124-252-00	ELECT 0.33uF 20%	50V	C526	1-124-907-11	ELECT 10uF 20%	50V
C171	1-124-903-11	ELECT 1uF 20%	50V	C527	1-136-601-11	FILM 0.01uF 5%	630V
C172	1-162-292-31	CERAMIC 680PF 10%	50V	C528	1-107-045-00	MICA 3.9PF	500V
C173	1-162-282-31	CERAMIC 100PF 10%	50V	C545	1-162-217-31	CERAMIC 56PF 5%	50V
C174	1-124-903-11	ELECT 1uF 20%	50V	C546	1-161-494-00	CERAMIC 0.022uF	25V
C201	1-124-907-11	ELECT 10uF 20%	50V	C548	1-162-217-31	CERAMIC 56PF 5%	50V
C202	1-130-475-00	MYLAR 0.0022uF 5%	50V	C549	1-124-925-11	ELECT 2.2uF 20%	100V
C203	1-130-475-00	MYLAR 0.0022uF 5%	50V	C564	1-124-907-11	ELECT 10uF 20%	50V
C204	1-130-475-00	MYLAR 0.0022uF 5%	50V	C581	1-124-927-11	ELECT 4.7uF 20%	100V
C205	1-136-174-00	FILM 0.56uF 5%	50V	C661	1-124-907-11	ELECT 10uF 20%	50V
C206	1-136-171-00	FILM 0.33uF 5%	50V	C662	1-124-907-11	ELECT 10uF 20%	50V
C207	1-124-907-11	ELECT 10uF 20%	50V	C671	1-164-159-11	CERAMIC 0.1uF	50V
C208	1-124-657-00	ELECT 10uF 20%	50V	C701	1-124-556-11	ELECT 2200uF 20%	16V
C213	1-162-284-31	CERAMIC 150PF 10%	50V				
C214	1-136-273-91	FILM 75PF 5%	630V				

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C702	1-124-556-11	ELECT	2200uF 20% 16V	D703	8-719-200-77	DIODE 10E2N	
C703	1-124-477-11	ELECT	47uF 20% 25V	D704	8-719-200-77	DIODE 10E2N	
C704	1-124-473-11	ELECT	1000uF 20% 10V	D705	8-719-933-33	DIODE HZS6A1L	
C705	1-124-473-11	ELECT	1000uF 20% 10V	D706	8-719-933-33	DIODE HZS6A1L	
C706	1-124-907-11	ELECT	10uF 20% 50V	D708	8-719-200-77	DIODE 10E2N	
C707	1-126-936-11	ELECT	3300uF 20% 16V	D709	8-719-200-77	DIODE 10E2N	
C708	1-124-907-11	ELECT	10uF 20% 50V	D710	8-719-200-77	DIODE 10E2N	
C709	1-126-916-11	ELECT	1000uF 20% 6.3V	D711	8-719-200-77	DIODE 10E2N	
C710	1-124-564-11	ELECT	4700uF 20% 25V	D712	8-719-912-20	DIODE 1SS120	
C711	1-124-907-11	ELECT	10uF 20% 50V	D713	8-719-200-77	DIODE 10E2N	
C712	1-124-360-00	ELECT	1000uF 20% 16V	D714	8-719-000-78	DIODE UZL-7L2-TP	
C713	1-124-122-11	ELECT	100uF 20% 50V	D715	8-719-912-20	DIODE 1SS120	
C714	1-124-910-11	ELECT	47uF 20% 50V	D716	8-719-912-20	DIODE 1SS120	
C715	1-164-159-11	CERAMIC	0.1uF 50V	D717	8-719-001-70	DIODE UZL-12M1	
C801	1-162-294-31	CERAMIC	0.001uF 10% 50V	D718	8-719-200-77	DIODE 10E2N	
C802	1-162-294-31	CERAMIC	0.001uF 10% 50V	D719	8-719-200-77	DIODE 10E2N	
C803	1-164-159-11	CERAMIC	0.1uF 50V	D720	8-719-000-93	DIODE UZL-7H1	
C804	1-164-159-11	CERAMIC	0.1uF 50V	D801	8-719-912-20	DIODE 1SS120	
C805	1-164-159-11	CERAMIC	0.1uF 50V	D802	8-719-912-20	DIODE 1SS120	
C806	1-124-477-11	ELECT	47uF 20% 25V	D803	8-719-912-20	DIODE 1SS120	
C807	1-126-176-11	ELECT	220uF 20% 10V	D804	8-719-912-20	DIODE 1SS120	
C808	1-124-477-11	ELECT	47uF 20% 25V	D805	8-719-912-20	DIODE 1SS120	
C809	1-124-907-11	ELECT	10uF 20% 50V	D806	8-719-200-77	DIODE 10E2N	
C810	1-161-494-00	CERAMIC	0.022uF 25V	D810	8-719-912-20	DIODE 1SS120	
C811	1-124-907-11	ELECT	10uF 20% 50V	D871	8-719-912-20	DIODE 1SS120	
C871	1-124-927-11	ELECT	4.7uF 20% 100V	D891	8-719-912-20	DIODE 1SS120	
C872	1-124-477-11	ELECT	47uF 20% 25V	D892	8-719-912-20	DIODE 1SS120	
C873	1-161-377-00	CERAMIC	0.0047uF 30% 16V	D893	8-719-912-20	DIODE 1SS120	
< CONNECTOR >				< IC >			
CNP501 *	1-564-337-00	PIN, CONNECTOR 3P		IC501	8-759-111-44	IC uPC4570C-1	
CNP502 *	1-564-339-00	PIN, CONNECTOR 5P		IC502	8-752-035-94	IC CXA1331S	
CNP503 *	1-564-336-00	PIN, CONNECTOR 2P		IC503	8-752-055-61	IC CXA1578P	
CNP504 *	1-564-339-61	PIN, CONNECTOR 5P		IC504	8-759-106-56	IC uPC1297CA	
CNP505 *	1-564-340-00	PIN, CONNECTOR 6P		IC505	8-759-945-58	IC RC4558P	
CNP507 *	1-564-509-11	PLUG, CONNECTOR 6P		IC506	8-759-945-58	IC RC4558P	
CNP508 *	1-564-506-11	PLUG, CONNECTOR 3P		IC661	8-759-634-51	IC M5218AP	
CNP602 *	1-564-337-61	PIN, CONNECTOR 3P		IC671	8-759-634-50	IC M5218AL	
CNP701 *	1-564-513-11	PLUG, CONNECTOR 10P		IC701	8-759-945-58	IC RC4558P	
CNP702 *	1-564-340-61	PIN, CONNECTOR 6P		IC801	8-759-636-65	IC M50941-593SP	
CNP801 *	1-580-784-11	PLUG, CONNECTOR		IC802	8-759-240-69	IC TC4069UBP	
CNP802 *	1-580-784-11	PLUG, CONNECTOR		IC803	8-759-973-95	IC BA6219B	
CNP803 *	1-580-784-11	PLUG, CONNECTOR		IC804	8-759-822-09	IC LB1641	
CNP804 *	1-580-784-11	PLUG, CONNECTOR		< JACK >			
< DIODE >				J171	1-507-854-00	JACK, PHONE (MICROPHONES-LEFT)	
D101	8-719-912-20	DIODE 1SS120		J271	1-507-854-00	JACK, PHONE (MICROPHONES-RIGHT)	
D102	8-719-933-33	DIODE HZS6A1L		J501	1-565-258-11	JACK, PIN 4P (LINE)	
D201	8-719-912-20	DIODE 1SS120		J561	1-507-796-71	JACK (HEADPHONES)	
D202	8-719-933-33	DIODE HZS6A1L		< COIL >			
D504	8-719-912-20	DIODE 1SS120		L101	1-410-780-11	INDUCTOR 27mH	
D545	8-719-912-20	DIODE 1SS120		L201	1-410-780-11	INDUCTOR 27mH	
D581	8-719-912-20	DIODE 1SS120					
D582	8-719-912-20	DIODE 1SS120					
D701	8-719-200-77	DIODE 10E2N					
D702	8-719-200-77	DIODE 10E2N					

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< FILTER >					
LPF101	1-231-388-00	FILTER, LOW PASS		Q851	8-729-900-61	TRANSISTOR DTA114ES	
LPF201	1-231-388-00	FILTER, LOW PASS		Q852	8-729-900-61	TRANSISTOR DTA114ES	
		< TRANSISTOR >		Q853	8-729-900-61	TRANSISTOR DTA114ES	
Q101	8-729-900-74	TRANSISTOR DTC143TS		Q854	8-729-900-61	TRANSISTOR DTA114ES	
Q102	8-729-900-80	TRANSISTOR DTC114ES		Q855	8-729-900-61	TRANSISTOR DTA114ES	
Q103	8-729-142-25	TRANSISTOR 2SD1020-HFE		Q871	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q201	8-729-900-74	TRANSISTOR DTCA43TS		Q872	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q202	8-729-900-80	TRANSISTOR DTC114ES				< RESISTOR >	
Q203	8-729-142-25	TRANSISTOR 2SD1020-HFE		R101	1-249-417-11	CARBON 1K	5% 1/4W
Q505	8-729-119-76	TRANSISTOR 2SA1175-HFE		R102	1-247-887-00	CARBON 220K	5% 1/4W
Q506	8-729-900-80	TRANSISTOR DTC114ES		R103	1-249-423-11	CARBON 3.3K	5% 1/4W
Q507	8-729-900-80	TRANSISTOR DTC114ES		R104	1-249-428-11	CARBON 8.2K	5% 1/4W
Q508	8-729-900-80	TRANSISTOR DTC114ES		R105	1-247-864-11	CARBON 24K	5% 1/4W
Q510	8-729-194-57	TRANSISTOR 2SC945-QP		R106	1-249-414-11	CARBON 560	5% 1/4W
Q511	8-729-194-57	TRANSISTOR 2SC945-QP		R107	1-249-421-11	CARBON 2.2K	5% 1/4W
Q545	8-729-119-76	TRANSISTOR 2SA1175-HFE		R108	1-249-432-11	CARBON 18K	5% 1/4W
Q561	8-729-900-80	TRANSISTOR DTC114ES		R109	1-249-421-11	CARBON 2.2K	5% 1/4W
Q562	8-729-900-89	TRANSISTOR DTC144ES		R110	1-249-433-11	CARBON 22K	5% 1/4W
Q581	8-729-620-05	TRANSISTOR 2SC2603-EF		R111	1-249-417-11	CARBON 1K	5% 1/4W
Q591	8-729-900-65	TRANSISTOR DTA144ES		R116	1-249-430-11	CARBON 12K	5% 1/4W
Q592	8-729-900-80	TRANSISTOR DTC114ES		R117	1-247-881-00	CARBON 120K	5% 1/4W
Q702	8-729-900-80	TRANSISTOR DTC114ES		R118	1-249-403-11	CARBON 68	5% 1/4W
Q703	8-729-924-90	TRANSISTOR 2SB1370-EF		R119	1-247-882-11	CARBON 130K	5% 1/4W
Q704	8-729-111-55	TRANSISTOR 2SD1312-K		R120	1-249-426-11	CARBON 5.6K	5% 1/4W
Q705	8-729-111-55	TRANSISTOR 2SD1312-K		R121	1-249-421-11	CARBON 2.2K	5% 1/4W
Q706	8-729-620-05	TRANSISTOR 2SC2603-EF		R122	1-247-840-00	CARBON 2.4K	5% 1/4W
Q707	8-729-900-80	TRANSISTOR DTC114ES		R123	1-247-887-00	CARBON 220K	5% 1/4W
Q708	8-729-924-90	TRANSISTOR 2SB1370-EF		R124	1-249-417-11	CARBON 1K	5% 1/4W
Q709	8-729-620-05	TRANSISTOR 2SC2603-EF		R125	1-249-421-11	CARBON 2.2K	5% 1/4W
Q710	8-729-119-76	TRANSISTOR 2SA1175-HFE		R126	1-249-429-11	CARBON 10K	5% 1/4W
Q711	8-729-140-04	TRANSISTOR 2SB1116A-LK		R127	1-249-431-11	CARBON 15K	5% 1/4W
Q801	8-729-900-61	TRANSISTOR DTA114ES		R128	△· 1-212-857-00	FUSIBLE 10	5% 1/4W F
Q802	8-729-900-61	TRANSISTOR DTA114ES		R129	1-247-883-00	CARBON 150K	5% 1/4W
Q803	8-729-900-61	TRANSISTOR DTA114ES		R131	1-247-870-11	CARBON 43K	5% 1/4W
Q804	8-729-900-61	TRANSISTOR DTA114ES		R132	1-247-868-11	CARBON 36K	5% 1/4W
Q805	8-729-119-76	TRANSISTOR 2SA1175-HFE		R133	1-249-408-11	CARBON 180	5% 1/4W
Q806	8-729-119-76	TRANSISTOR 2SA1175-HFE		R134	1-249-434-11	CARBON 27K	5% 1/4W
Q808	8-729-900-61	TRANSISTOR DTA114ES		R141	1-249-429-11	CARBON 10K	5% 1/4W
Q809	8-729-620-05	TRANSISTOR 2SC2603-EF		R142	1-249-423-11	CARBON 3.3K	5% 1/4W
Q810	8-729-620-05	TRANSISTOR 2SC2603-EF		R161	1-249-432-11	CARBON 18K	5% 1/4W
Q811	8-729-900-80	TRANSISTOR DTC114ES		R162	1-249-421-11	CARBON 2.2K	5% 1/4W
Q812	8-729-900-65	TRANSISTOR DTA144ES		R163	1-249-429-11	CARBON 10K	5% 1/4W
Q813	8-729-900-80	TRANSISTOR DTC114ES		R164	1-249-409-11	CARBON 220	5% 1/4W
Q814	8-729-900-65	TRANSISTOR DTA144ES		R165	1-249-432-11	CARBON 18K	5% 1/4W
Q815	8-729-900-89	TRANSISTOR DTC144ES		R171	1-249-441-11	CARBON 100K	5% 1/4W
Q816	8-729-900-89	TRANSISTOR DTC144ES		R172	1-249-429-11	CARBON 10K	5% 1/4W
Q850	8-729-900-61	TRANSISTOR DTA114ES		R173	1-249-441-11	CARBON 100K	5% 1/4W
				R174	1-249-437-11	CARBON 47K	5% 1/4W
				R175	1-249-411-11	CARBON 330	5% 1/4W

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MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R201	1-249-417-11	CARBON	1K 5% 1/4W	R537	1-249-420-11	CARBON	1. 8K 5% 1/4W
R202	1-247-887-00	CARBON	220K 5% 1/4W	R538	1-247-860-11	CARBON	16K 5% 1/4W
R203	1-249-423-11	CARBON	3. 3K 5% 1/4W	R539	1-249-441-11	CARBON	100K 5% 1/4W
R204	1-249-428-11	CARBON	8. 2K 5% 1/4W	R540	1-249-441-11	CARBON	100K 5% 1/4W
R205	1-247-864-11	CARBON	24K 5% 1/4W	R541	1-249-390-11	CARBON	5. 6 5% 1/6W
R206	1-249-414-11	CARBON	560 5% 1/4W	R542	1-249-390-11	CARBON	5. 6 5% 1/6W
R207	1-249-421-11	CARBON	2. 2K 5% 1/4W	R545	1-249-441-11	CARBON	100K 5% 1/4W
R208	1-249-432-11	CARBON	18K 5% 1/4W	R546	1-249-441-11	CARBON	100K 5% 1/4W
R209	1-249-421-11	CARBON	2. 2K 5% 1/4W	R547	1-249-429-11	CARBON	10K 5% 1/4W
R210	1-249-433-11	CARBON	22K 5% 1/4W	R548	1-249-428-11	CARBON	8. 2K 5% 1/4W
R211	1-249-417-11	CARBON	1K 5% 1/4W	R549	1-249-441-11	CARBON	100K 5% 1/4W
R216	1-249-430-11	CARBON	12K 5% 1/4W	R550	1-249-441-11	CARBON	100K 5% 1/4W
R217	1-247-881-00	CARBON	120K 5% 1/4W	R551	1-249-423-11	CARBON	3. 3K 5% 1/4W
R218	1-249-403-11	CARBON	68 5% 1/4W	R552	1-249-429-11	CARBON	10K 5% 1/4W
R219	1-247-882-11	CARBON	130K 5% 1/4W	R553	1-249-429-11	CARBON	10K 5% 1/4W
R220	1-249-426-11	CARBON	5. 6K 5% 1/4W	R554	1-249-417-11	CARBON	1K 5% 1/4W
R221	1-249-421-11	CARBON	2. 2K 5% 1/4W	R563	1-215-454-00	METAL	24K 1% 1/6W
R222	1-247-840-00	CARBON	2. 4K 5% 1/4W	R564	1-249-429-11	CARBON	10K 5% 1/4W
R223	1-247-887-00	CARBON	220K 5% 1/4W	R565	1-247-842-11	CARBON	3K 5% 1/4W
R224	1-249-417-11	CARBON	1K 5% 1/4W	R566	1-249-433-11	CARBON	22K 5% 1/4W
R225	1-249-421-11	CARBON	2. 2K 5% 1/4W	R567	1-249-429-11	CARBON	10K 5% 1/4W
R226	1-249-429-11	CARBON	10K 5% 1/4W	R568	1-249-421-11	CARBON	2. 2K 5% 1/4W
R227	1-249-431-11	CARBON	15K 5% 1/4W	R570	1-249-429-11	CARBON	10K 5% 1/4W
R228	△ 1-212-857-00	FUSIBLE	10 5% 1/4W F	R581	1-249-421-11	CARBON	2. 2K 5% 1/4W
R229	1-247-883-00	CARBON	150K 5% 1/4W	R582	1-249-431-11	CARBON	15K 5% 1/4W
R231	1-247-870-11	CARBON	43K 5% 1/4W	R583	1-249-429-11	CARBON	10K 5% 1/4W
R232	1-247-868-11	CARBON	36K 5% 1/4W	R591	1-249-413-11	CARBON	470 5% 1/4W
R233	1-249-408-11	CARBON	180 5% 1/4W	R592	1-249-413-11	CARBON	470 5% 1/4W
R234	1-249-434-11	CARBON	27K 5% 1/4W	R601	1-247-838-00	CARBON	2K 5% 1/4W
R241	1-249-429-11	CARBON	10K 5% 1/4W	R681	1-247-838-00	CARBON	2K 5% 1/4W
R242	1-249-423-11	CARBON	3. 3K 5% 1/4W	R691	1-219-135-11	FUSIBLE	0. 15 10% 1/4W
R261	1-249-432-11	CARBON	18K 5% 1/4W	R692	1-219-135-11	FUSIBLE	0. 15 10% 1/4W
R262	1-249-421-11	CARBON	2. 2K 5% 1/4W	R701	1-249-425-11	CARBON	4. 7K 5% 1/4W
R263	1-249-429-11	CARBON	10K 5% 1/4W	R702	1-249-420-11	CARBON	1. 8K 5% 1/4W
R264	1-249-409-11	CARBON	220 5% 1/4W	R703	1-249-412-11	CARBON	390 5% 1/4W
R265	1-249-432-11	CARBON	18K 5% 1/4W	R704	1-249-427-11	CARBON	6. 8K 5% 1/4W
R271	1-249-441-11	CARBON	100K 5% 1/4W	R705	1-249-419-11	CARBON	1. 5K 5% 1/4W
R272	1-249-429-11	CARBON	10K 5% 1/4W	R706	1-249-429-11	CARBON	10K 5% 1/4W
R273	1-249-441-11	CARBON	100K 5% 1/4W	R707	1-249-419-11	CARBON	1. 5K 5% 1/4W
R274	1-249-437-11	CARBON	47K 5% 1/4W	R708	1-249-425-11	CARBON	4. 7K 5% 1/4W
R275	1-249-411-11	CARBON	330 5% 1/4W	R709	1-249-409-11	CARBON	220 5% 1/4W
R501	1-249-417-11	CARBON	1K 5% 1/4W	R710	1-249-417-11	CARBON	1K 5% 1/4W
R504	1-249-429-11	CARBON	10K 5% 1/4W	R711	1-249-427-11	CARBON	6. 8K 5% 1/4W
R505	1-215-455-00	METAL	27K 1% 1/6W	R712	1-249-427-11	CARBON	6. 8K 5% 1/4W
R530	1-249-409-11	CARBON	220 5% 1/4W	R713	1-249-417-11	CARBON	1K 5% 1/4W
R531	1-249-409-11	CARBON	220 5% 1/4W	R714	1-249-425-11	CARBON	4. 7K 5% 1/4W
R532	1-249-429-11	CARBON	10K 5% 1/4W	R715	1-249-425-11	CARBON	4. 7K 5% 1/4W
R533	1-249-429-11	CARBON	10K 5% 1/4W	R716	1-249-425-11	CARBON	4. 7K 5% 1/4W
R535	1-247-836-11	CARBON	1. 6K 5% 1/4W	R717	1-249-433-11	CARBON	22K 5% 1/4W
R536	1-249-425-11	CARBON	4. 7K 5% 1/4W	R718	1-247-866-11	CARBON	30K 5% 1/4W

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R719	1-249-428-11	CARBON	8. 2K 5% 1/4W			< VARIABLE RESISTOR >	
R720	1-249-437-11	CARBON	47K 5% 1/4W				
R801	1-247-887-00	CARBON	220K 5% 1/4W	RV101	1-238-600-11	RES. ADJ. CARBON 10K	
R802	1-247-887-00	CARBON	220K 5% 1/4W	RV103	1-238-601-11	RES. ADJ. CARBON 22K	
				RV141	1-238-600-11	RES. ADJ. CARBON 10K	
R803	1-249-436-11	CARBON	39K 5% 1/4W	RV201	1-238-600-11	RES. ADJ. CARBON 10K	
R804	1-247-887-00	CARBON	220K 5% 1/4W	RV203	1-238-601-11	RES. ADJ. CARBON 22K	
R805	1-249-436-11	CARBON	39K 5% 1/4W				
R806	1-247-887-00	CARBON	220K 5% 1/4W	RV241	1-238-600-11	RES. ADJ. CARBON 10K	
R807	1-249-430-11	CARBON	12K 5% 1/4W	RV681	1-241-431-11	RES. VAR. CARBON 50K/50K (REC LEVEL)	
				RV682	1-238-904-11	RES. VAR. CARBON 50K/50K (BALANCE)	
R808	1-249-435-11	CARBON	33K 5% 1/4W	RV683	1-241-046-11	RES. VAR. CARBON 5K (BIAS)	
R809	1-249-435-11	CARBON	33K 5% 1/4W	RV871	1-238-602-11	RES. ADJ. CARBON 47K	
R810	1-249-435-11	CARBON	33K 5% 1/4W			< RELAY >	
R811	1-249-435-11	CARBON	33K 5% 1/4W				
R812	1-249-435-11	CARBON	33K 5% 1/4W	RY581	1-515-683-11	RELAY	
						< SWITCH >	
R813	1-249-435-11	CARBON	33K 5% 1/4W	S601	1-554-118-00	SWITCH, PUSH (1 KEY) (POWER)	
R814	1-249-435-11	CARBON	33K 5% 1/4W	S602	1-571-520-11	SWITCH, SLIDE (DIRECTION)	
R818	1-249-429-11	CARBON	10K 5% 1/4W	S603	1-572-154-11	SWITCH, ROTARY (DOLBY NR)	
R819	1-249-429-11	CARBON	10K 5% 1/4W			< TRANSFORMER >	
R820	1-249-432-11	CARBON	18K 5% 1/4W	T101	1-433-367-11	TRANSFORMER, BIAS OSSCILATION	
				T201	1-433-367-11	TRANSFORMER, BIAS OSSCILATION	
R821	△ 1-212-954-11	FUSIBLE	6. 8 5% 1/2W F	T501	1-433-366-11	TRANSFORMER, BIAS OSSCILATION	
R822	1-249-429-11	CARBON	10K 5% 1/4W			< TEST PIN >	
R823	1-249-431-11	CARBON	15K 5% 1/4W	TP501	* 1-564-506-11	PLUG, CONNECTOR 3P	
R824	1-247-834-11	CARBON	1. 3K 5% 1/4W	TP801	* 1-564-505-11	PLUG, CONNECTOR 2P	
R825	1-249-424-11	CARBON	3. 9K 5% 1/4W	TP802	* 1-564-505-11	PLUG, CONNECTOR 2P	
				TP803	* 1-564-506-11	PLUG, CONNECTOR 3P	
R826	1-249-428-11	CARBON	8. 2K 5% 1/4W			< CERAMIC >	
R827	1-249-427-11	CARBON	6. 8K 5% 1/4W	X801	1-577-359-21	VIBRATOR, CERAMIC (4. 19MHZ)	
R828	1-249-428-11	CARBON	8. 2K 5% 1/4W			*****	
R829	1-212-952-00	FUSIBLE	5. 6 5% 1/2W F			* 1-632-740-11 MD BOARD	
R830	1-249-435-11	CARBON	33K 5% 1/4W			*****	
						3-356-631-01 HOLDER (SENSOR)	
R831	1-249-435-11	CARBON	33K 5% 1/4W			< CONNECTOR >	
R832	1-249-432-11	CARBON	18K 5% 1/4W	CN1001	1-506-615-11	PIN, CONNECTOR 9P	
R833	1-249-423-11	CARBON	3. 3K 5% 1/4W	CN1002	1-564-502-11	PIN, CONNECTOR 10P	
R834	1-247-903-00	CARBON	1M 5% 1/4W			< IC >	
R840	△ 1-212-938-00	FUSIBLE	1. 5 5% 1/2W F	IC1001	8-749-920-97	IC PHOTO REFLECTOR GP2S22B	
				IC1002	8-749-920-97	IC PHOTO REFLECTOR GP2S22B	
R851	1-249-441-11	CARBON	100K 5% 1/4W			< RESISTOR >	
R852	1-249-441-11	CARBON	100K 5% 1/4W				
R853	1-249-441-11	CARBON	100K 5% 1/4W				
R854	1-249-441-11	CARBON	100K 5% 1/4W				
R855	1-249-441-11	CARBON	100K 5% 1/4W				
R861	1-249-429-11	CARBON	10K 5% 1/4W				
R862	1-249-437-11	CARBON	47K 5% 1/4W				
R871	1-249-410-11	CARBON	270 5% 1/4W				
R872	1-249-421-11	CARBON	2. 2K 5% 1/4W				
R873	1-249-429-11	CARBON	10K 5% 1/4W				
R874	1-249-429-11	CARBON	10K 5% 1/4W				
R875	1-249-433-11	CARBON	22K 5% 1/4W				
R876	1-249-429-11	CARBON	10K 5% 1/4W				
R877	1-249-417-11	CARBON	1K 5% 1/4W				
R878	1-249-413-11	CARBON	470 5% 1/4W				
R891	1-249-403-11	CARBON	68 5% 1/4W				

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MD **PANEL** **REEL MOTOR** **TRANSLATION**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R1001	1-249-408-11	CARBON	180 5% 1/4W	R906	1-247-842-11	CARBON	3K 5% 1/4W
R1002	1-249-408-11	CARBON	180 5% 1/4W	R907	1-249-426-11	CARBON	5.6K 5% 1/4W
		< SWITCH >		R908	1-247-854-11	CARBON	9.1K 5% 1/4W
S1002	1-570-953-11	SWITCH, PUSH (1 KEY) (DOOR)		R909	1-249-434-11	CARBON	27K 5% 1/4W
S1003	1-571-958-11	SWITCH, PUSH (1 KEY) (CLOSE)		R910	1-249-429-11	CARBON	10K 5% 1/4W
S1004	1-572-126-11	SWITCH, PUSH (1 KEY) (OPEN)		R911	1-249-429-11	CARBON	10K 5% 1/4W
S1005	1-572-125-11	SWITCH, LEAF (REC RWD)		R912	1-249-441-11	CARBON	100K 5% 1/4W
S1006	1-572-202-11	SWITCH, LEAF (HALF)		R913	1-249-441-11	CARBON	100K 5% 1/4W
		< CONNECTOR >				< SWITCH >	
TB1001 *	1-659-066-11	PIN, CONNECTOR 5P		S901	1-554-303-21	SWITCH, TACTILE (OPEN/CLOSE)	
*****				S902	1-554-303-21	SWITCH, TACTILE (STOP)	
	* 1-638-310-11	PANEL BOARD		S903	1-554-303-21	SWITCH, TACTILE (REW)	
		*****		S904	1-554-303-21	SWITCH, TACTILE (FF)	
	* 4-932-502-01	HOLDER, FL TUBE		S905	1-554-303-21	SWITCH, TACTILE (REC)	
	9-911-844-XX	CUSHION					
		< CAPACITOR >		S906	1-554-303-21	SWITCH, TACTILE (FWD)	
C901	1-124-589-11	ELECT	47uF 20% 16V	S908	1-554-303-21	SWITCH, TACTILE (PAUSE)	
		< CONNECTOR >		S909	1-554-303-21	SWITCH, TACTILE (REV)	
CNP901 *	1-580-782-11	SOCKET, CONNECTOR		S910	1-554-303-21	SWITCH, TACTILE (REC MUTE)	
CNP902 *	1-580-782-11	SOCKET, CONNECTOR		S911	1-554-303-21	SWITCH, TACTILE (RESET)	
CNP903 *	1-580-782-11	SOCKET, CONNECTOR		S912	1-554-303-21	SWITCH, TACTILE (MEMORY)	
CNP904 *	1-580-782-11	SOCKET, CONNECTOR		*****			
		< DIODE >		* 1-632-741-11	REEL MOTOR BOARD		
D901	8-719-912-20	DIODE 1SS120			*****		
D902	8-719-912-20	DIODE 1SS120			< CAPACITOR >		
D903	8-719-912-20	DIODE 1SS120		C1051	1-124-907-11	ELECT	10uF 20% 50V
D904	8-719-912-20	DIODE 1SS120		C1052	1-124-907-11	ELECT	10uF 20% 50V
		< FLUORESCENT INDICATOR >		C1053	1-164-159-11	CERAMIC	0.1uF 50V
FL901	1-519-658-11	INDICATOR TUBE, FLUORESCENT				< CONNECTOR >	
		< IC >		CN1051	1-564-499-11	PIN, CONNECTOR 6P	
IC901	8-741-100-48	IC SBX1610-59		CN1052 *	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P	
		< RESISTOR >		CN1053 *	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P	
R901	1-249-421-11	CARBON	2.2K 5% 1/4W			< RESISTOR >	
R902	1-247-842-11	CARBON	3K 5% 1/4W	R1051	1-249-414-11	CARBON	560 5% 1/4W
R903	1-249-426-11	CARBON	5.6K 5% 1/4W	*****			
R904	1-247-854-11	CARBON	9.1K 5% 1/4W		* 1-634-323-11	TRANSLATION BOARD	
R905	1-249-421-11	CARBON	2.2K 5% 1/4W			*****	
						< CONNECTOR >	
				CN1091 *	1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P	
				CN1092 *	1-564-509-11	PLUG, CONNECTOR 6P	
				CN1093 *	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P	
				CN1094 *	1-564-506-11	PLUG, CONNECTOR 3P	

Ref. No. Part No. Description Remark

MISCELLANEOUS

5 Δ 1-551-506-XX CORD, POWER
D1051 8-719-980-85 DIODE SLF-325C
D1091 Y 8-719-950-74 DIODE SLR-314D-B
M1051 X-3356-638-1 MOTOR (REEL R) ASSY
M1052 X-3356-604-1 MOTOR (ASSIST) ASSY
M1053 X-3356-646-1 MOTOR (CAPSTAN V1) ASSY
Q1091 Y 8-729-809-43 SPS-314B-BE
S1001 1-466-525-11 ENCODER, ROTARY
T901 Δ 1-450-100-11 TRANSFORMER, POWER

ACCESSORY & PACKING MATERIAL

1-559-533-11 CORD, CONNECTION
* 3-350-830-01 CUSHION
* 3-366-700-31 INDIVIDUAL CARTON
3-703-450-01 INSTRUCTION
* 3-704-343-01 SHEET (STANDARD), PROTECTION
3-753-217-21 MANUAL, INSTRUCTION (ENGLISH) (US)
3-753-217-31 MANUAL, INSTRUCTION (ENGLISH, FRENCH)
(Canadian)

HARDWARE LIST

1 7-682-547-04 SCREW +BVTT 3X6 (S)
2 7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S
3 7-685-534-19 SCREW +BTP 2.6X8 TYPE2 N-S
6 7-621-770-67 SCREW +BVTT 2.6X6 (S)
7 7-685-131-19 SCREW +BTP 2.6X4 TYPE2 N-S
8 7-685-133-19 SCREW +BTP 2.6X6 TYPE2 N-S
9 7-621-255-20 SCREW +BVTT 2X4 (S)
#10 7-621-255-35 SCREW +BVTT 2X5 (S)
#11 7-621-283-00 SCREW +BVTT 2X5 (S)

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