

WM-EX66/EX77/EX88

SERVICE MANUAL

AEP Model
E Model
Tourist Model

WM-EX77/EX88

UK Model
WM-EX88

AEP Model
WM-EX66

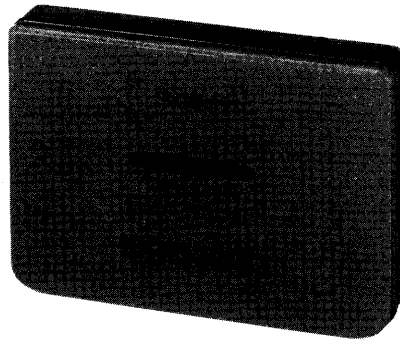


Photo : WM-EX88

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MT-WMEX77-60

SPECIFICATIONS

Frequency response (DOLBY NR OFF)

20—18,000 Hz (EIAJ *)
Output Earphones (□)/REMOTE jack load impedance 8—300Ω
Power output 5 mW + 5 mW at DC operation (EIAJ, 16Ω)
Power requirements 1.5 V DC
Rechargeable battery
One R6 (size AA) battery
DC IN 1.5 V jack accepts (using the battery case):
Sony AC-E15L AC power adaptor (not supplied) for use on 100 V AC (Use in conjunction with the supplied battery case)
Sony AC-E15AL AC power adaptor (not supplied) for use on 100-240 V AC (Use in conjunction with the supplied battery case)

Battery life (EIAJ)

Battery	Playback hours
Rechargeable NC-6WM fully charged	Approx. 3.5 hours
Sony SUM-3 (NS)	Approx. 2.5 hours
Sony AM3 (N)	Approx. 9 hours
Rechargeable NC-6WM with Sony AM3(N)	Approx. 12.5 hours

For maximum performance we recommend the use of alkaline batteries.

Battery life for the remote controller : WM-EX88 only

Battery	Life
Silver oxide battery SR1120SW	Approx. 1 year

Dimensions

Approx. 108.2 x 75.7 x 24.5 mm(w/h/d)(EIAJ)(WM-EX77/EX88)
Approx. 108.2 x 75.7 x 25.4 mm(w/h/d)(EIAJ)(WM-EX66)
incl. projecting parts and controls

Weight

Approx. 175 g incl (WM-EX77/EX88), 170 g incl (WM-EX66), rechargeable battery,
not incl. other accessories

Accessories supplied

Battery case (1) Sony alkaline battery AM3 (N) (1)
Silver oxide battery (1) : WM-EX88 only
Rechargeable battery (1)
Battery charger (1), AC plug adaptor (1)
Stereo earphones (1), Ear adaptors (2) (If the earphones do not fit your ears,
attach the ear adaptors.) Plug adaptor (1), Remote control unit (1)
Carrying case (1)

Note on the AC power adaptor

Use only the AC-E15L AC power adaptor (not supplied) in Japan or the AC-E15AL
AC power adaptor (not supplied) outside Japan. Do not use any other AC power adaptor.



Polarity of plug

Design and specifications subject to change without notice.

*(EIAJ) Electric Industries Association of Japan

CASSETTE PLAYER
SONY®

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Flexible Circuit Board Repairing

Keep the temperature of the soldering iron around 270°C during repairing.

Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).

- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

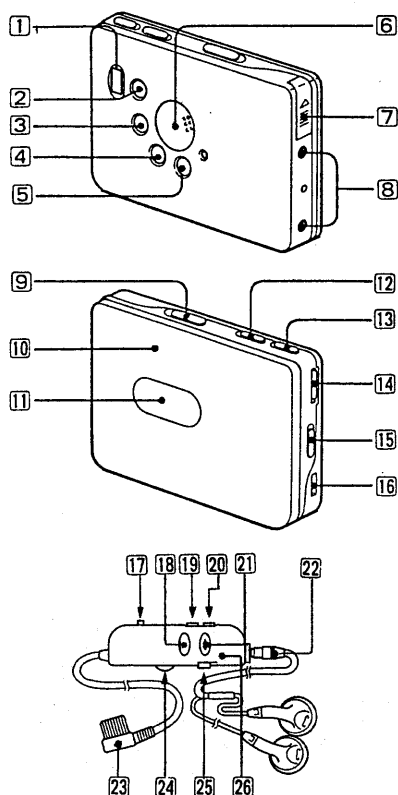
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SECTION 1
GENERAL

This section is extracted from instruction manual.

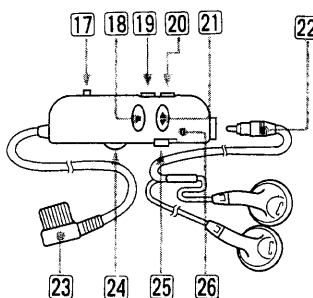
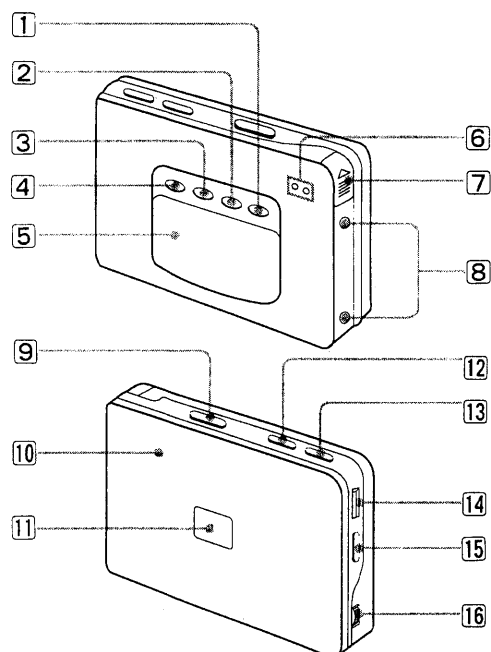
1-1. LOCATION AND FUNCTION OF CONTROLS

WM-EX66



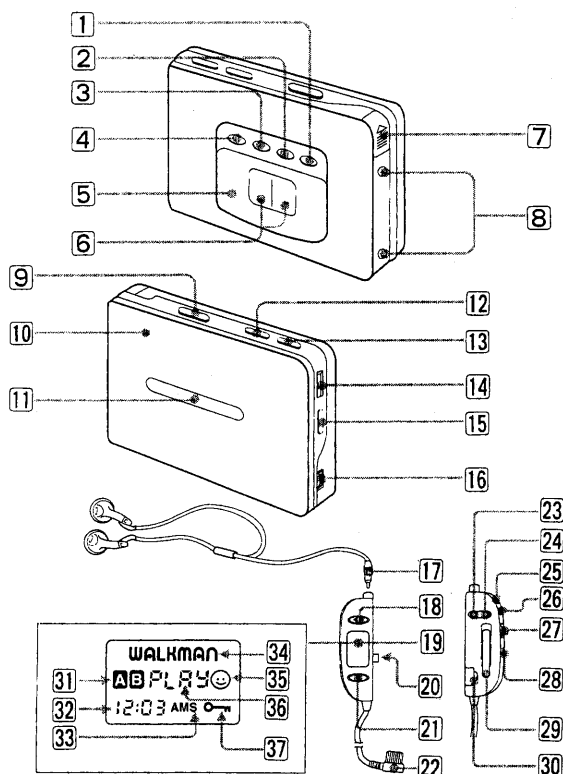
- | | |
|--|---|
| 1 SIDE A/B (tape playback side/ battery) indicator | 15 EX DBB (dynamic bass boost) selector |
| 2 ◀▶ (playback/tape transport direction change) button | 16 VOL (volume) control |
| 3 ■ (stop) button | 17 A-V-L-S (automatic volume limiter system) switch |
| 4 FF (fast-forward) /AMS button | 18 ■ (stop) button |
| 5 REW (rewind) /AMS button | 19 REW (rewind) /AMS button |
| 6 HOLD dial | 20 FF (fast-forward) /AMS button |
| 7 Battery compartment lid (for a rechargeable battery) | 21 ◀▶ (playback/tape transport direction change) button |
| 8 Battery connecting points (for the supplied battery case) | 22 Micro plug |
| 9 OPEN switch | 23 Nine-pole plug |
| 10 Cassette holder | 24 VOL (volume) control |
| 11 Window | 25 HOLD switch |
| 12 ⇄ MODE (tape transport) selector | 26 HOLD indicator |
| 13 [I] (Dolby) NR (Dolby noise reduction) ON/OFF selector | |
| 14 [R] /REMOTE (earphones with remote control unit) jack
If you wish to use separately bought earphones, use the supplied plug adaptor. | |

WM-EX77



- 1 ◀▶ (playback/tape transport direction change) button
- 2 ■ (stop) button
- 3 FF (fast-forward)/AMS* button
* AMS: Automatic Music Sensor
- 4 REW (rewind)/AMS button
- 5 Hold cover
- 6 SIDE A/B (tape playback side/battery) indicator
- 7 Battery compartment lid (for a rechargeable battery)
- 8 Battery connecting points (for the supplied battery case)
- 9 OPEN switch
- 10 Cassette holder
- 11 Window
- 12 ◀▶ MODE (tape transport) selector
- 13 □ (Dolby) NR (Dolby noise reduction) ON/OFF selector
- 14 ◯/REMOTE (earphones with remote control unit) jack
If you wish to use separately bought earphones, use the supplied plug adaptor.
- 15 EX DBB (dynamic bass boost) selector
- 16 VOL (volume) control
- 17 A-V-L-S (automatic volume limiter system) switch
- 18 ■ (stop) button
- 19 REW (rewind)/AMS button
- 20 FF (fast-forward)/AMS button
- 21 ◀▶ (playback/tape transport direction change) button
- 22 Micro plug
- 23 Nine-pole plug
- 24 VOL (volume) control
- 25 HOLD switch
- 26 HOLD indicator

WM-EX88



- 1 ◀▶ (playback/tape transport direction change) button
- 2 ■ (stop) button
- 3 FF (fast-forward)/AMS* button
* AMS: Automatic Music Sensor
- 4 REW (rewind)/AMS button
- 5 Hold cover
- 6 SIDE A/B (tape playback side/battery) indicator
- 7 Battery compartment lid (for a rechargeable battery)
- 8 Battery connecting points (for the supplied battery case)
- 9 OPEN switch
- 10 Cassette holder
- 11 Window
- 12 ◀▶ MODE (tape transport) selector
- 13 □ (Dolby) NR (Dolby noise reduction) ON/OFF selector
- 14 ◯/REMOTE (earphones with remote control unit) jack
If you wish to use separately bought earphones, use the supplied plug adaptor.
- 15 EX DBB (dynamic bass boost) selector
- 16 VOL (volume) control
- 17 Micro plug
- 18 ◀▶ (playback/tape transport direction change) button
- 19 Display window
- 20 A-V-L-S (automatic volume limiter system) switch
- 21 ■ (stop) button
- 22 Nine-pole plug
- 23 CLOCK MODE button
- 24 + button
- 25 FF (fast-forward)/AMS button
- 26 REW (rewind)/AMS button
- 27 VOL (volume) control
- 28 HOLD switch
- 29 Clip
- 30 Battery compartment
- 31 Tape playback side indication
- 32 Date and time indication
- 33 AMS indication
- 34 Tape transport indication (flashing when tape is moving)
- 35 A-V-L-S indication
- 36 Tape operation indications
PLAY (playback) FF (fast-forward)
REW (rewind)
- 37 HOLD indicator

SECTION 2 SERVICING NOTE

This set detects reel rotation by H701 (Hall effect). Reel rotation cannot be detected when the main board is removed, because H701 is mounted on the main board. As a result, the auto-off circuit and tape end detection will misoperate. And, up and down of head and power supply of playback circuit cannot operate when the main board is removed, because S701 (N/R switch) is mounted to the main board (S701 is linked to on and off of the plunger solenoid.)

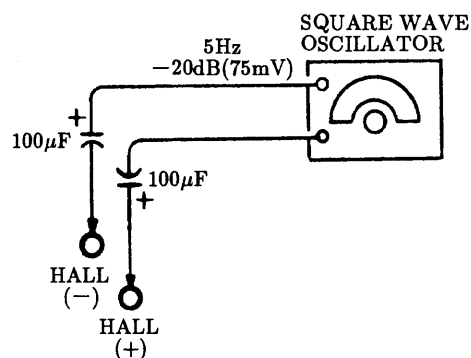
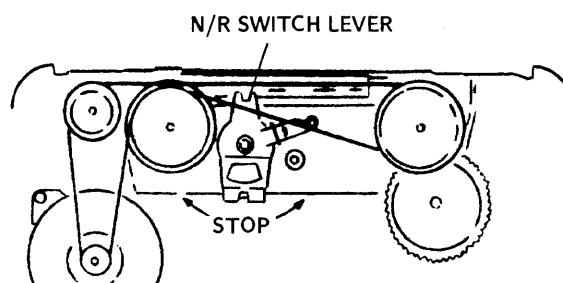
Therefore, operation check of the mechanism deck and voltage check can be performed by the method shown below.

FF/REW mode

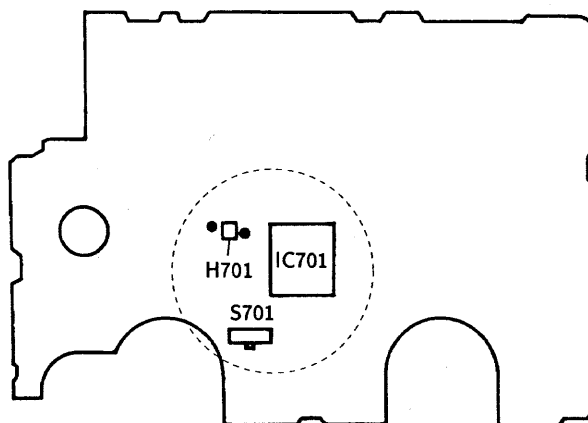
- 1) Switch position S701 : STOP (Center)
- 2) Apply the square wave signal or sign wave signal to H701.
- 3) Press the ◀◀ or ▶▶ key.

PLAY mode

- 1) Switch position S701 : STOP (Center)
- 2) Apply the square wave signal or sign wave signal to H701.
- 3) Press the ► key.
- 4) Slide S701 switch with same timing of N/R selector lever movement and set to FWD mode or REV mode.



[MAIN BOARD]



SECTION 3 ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

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

playback head	rubber belts
capstan	idlers
pinch roller	
- Demagnetize the playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage (1.3V) unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102D	22 - 38 g-cm (0.31 - 0.53 oz-inch)
FWD Back Tension		0.5 - 3.0 g-cm (0.007 - 0.04 oz-inch)
REV	CQ-102RC	22 - 38 g-cm (0.31 - 0.53 oz-inch)
REV Back Tension		0.5 - 3.0 g-cm (0.007 - 0.04 oz-inch)
FF	CQ-201B	more than 60 g-cm (more than 0.83 oz-inch)
REW		

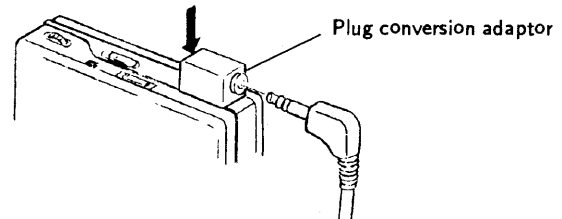
Tape Pulling Force Measurement

Mode	Torque meter	Meter reading
FWD	CQ-403A	more than 40 g (more than 0.56 oz-inch)
REV	CQ-403R	

3-2. ELECTRICAL ADJUSTMENTS

PRECAUTION

- Power supply voltage : 1.3V
- Switch position
DOLBY NR switch : OFF
EX DBB switch : NORM
- For electrical adjustments, use the supplied plug conversion adaptor (Parts No. 1-691-322-11).

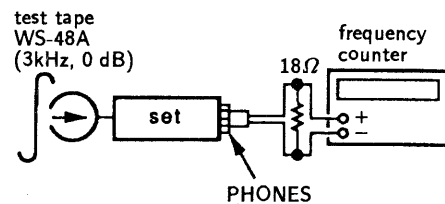


Test Tape

Type	Signal	Used for
WS-48A	3 kHz, 0 dB	Tape Speed Adjustment

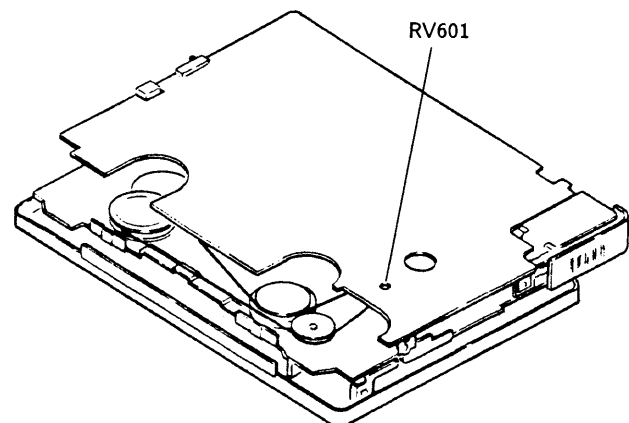
TAPE SPEED ADJUSTMENT

Procedure :



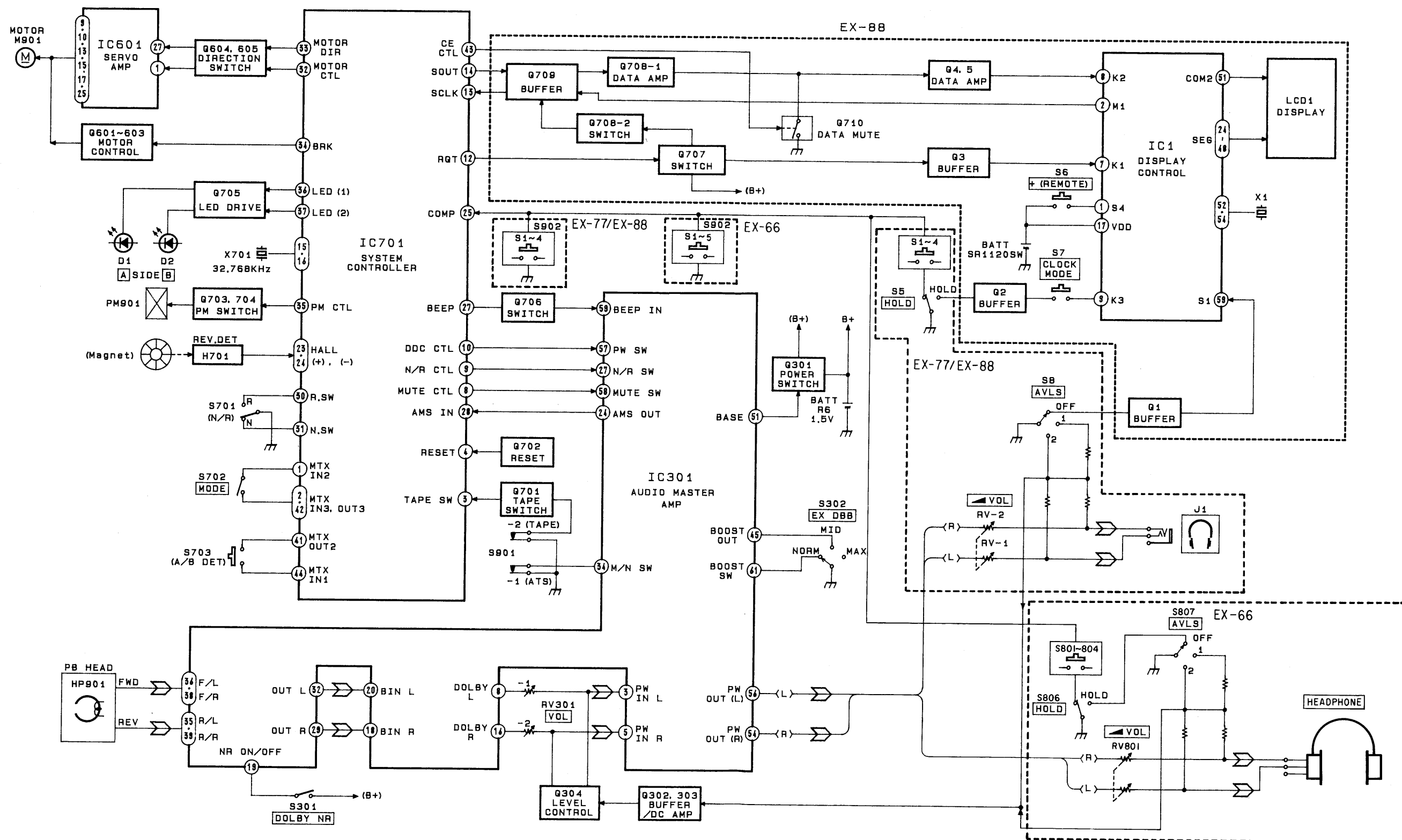
- Play back WS-48A (tape center portion) in FWD mode. Adjust the RV601 so that the frequency counter reads $3,000 \pm 30\text{Hz}$.
- Play back WS-48A (tape center portion) in REV mode. Confirm that the reading of frequency counter is within 2.5% from the reading in step 1.

Adjustment Location :



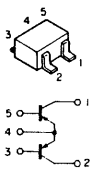
SECTION 4
DIAGRAMS

4-1. BLOCK DIAGRAM

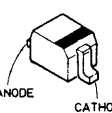


• Semiconductor Lead Layouts.

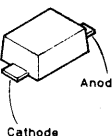
XN1115
XN1401



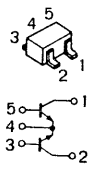
MA110-TX
MA729-TX



MA8024



XN1215
XN1216



XN4604

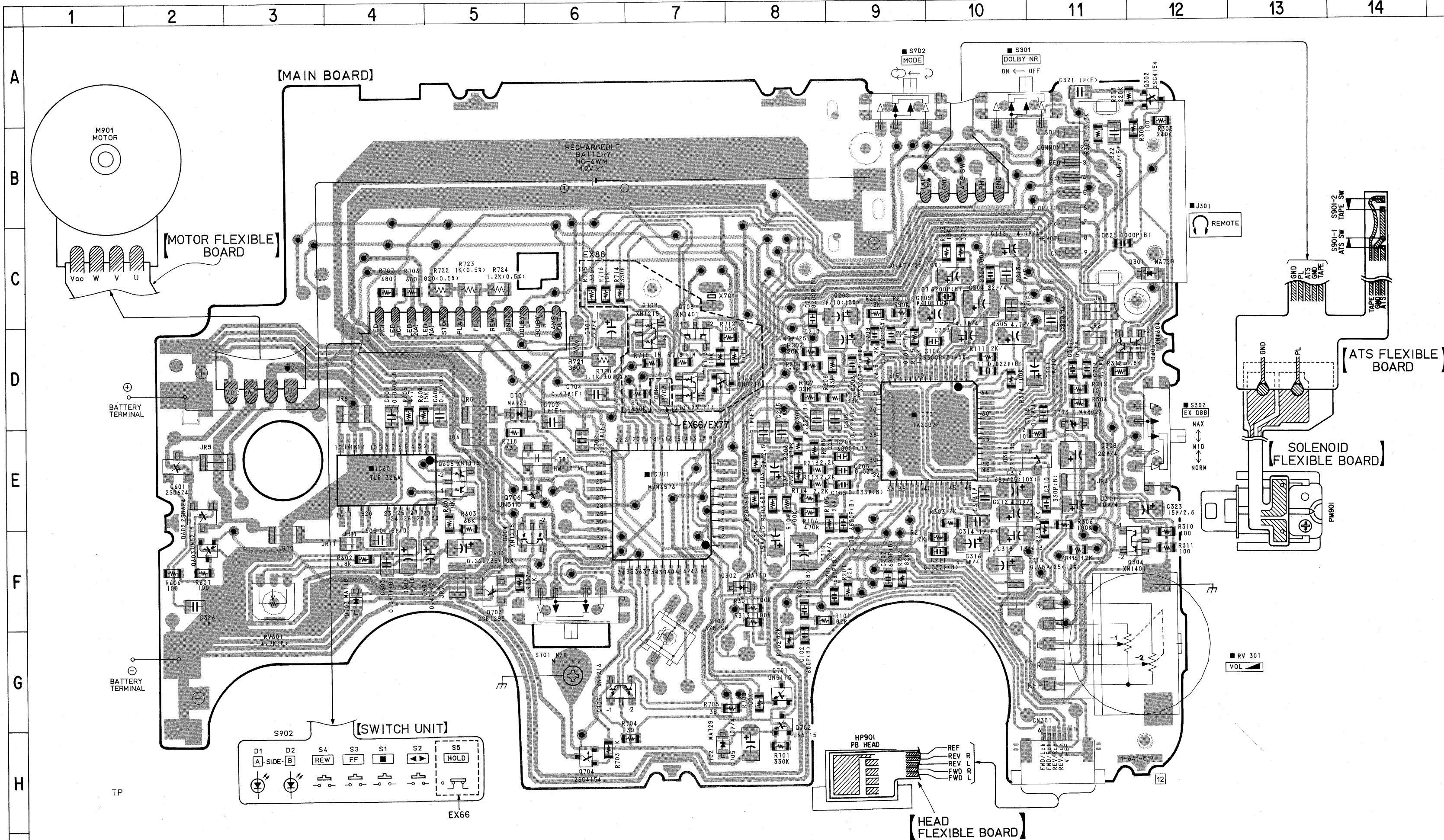


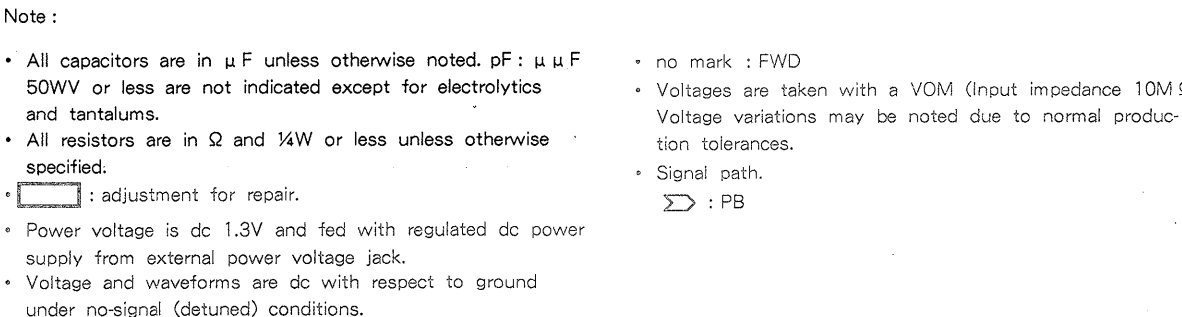
SEMICONDUCTOR
LOCATION

Rf. No.	Location
D301	C-12
D302	F-8
D303	D-11
D701	D-5
D702	H-7
D703	F-4
IC301	D-9
IC601	E-4
IC701	E-7
Q301	E-11
Q302	A-12
Q303	D-12
Q304	F-12
Q601	E-2
Q602	E-2
Q603	F-2
Q604	F-6
Q605	E-5
Q701	G-8
Q702	G-8
Q703	F-5
Q704	H-6
Q705	G-6
Q706	E-6
Q707	D-7
Q708	D-7
Q709	D-7
Q710	D-7

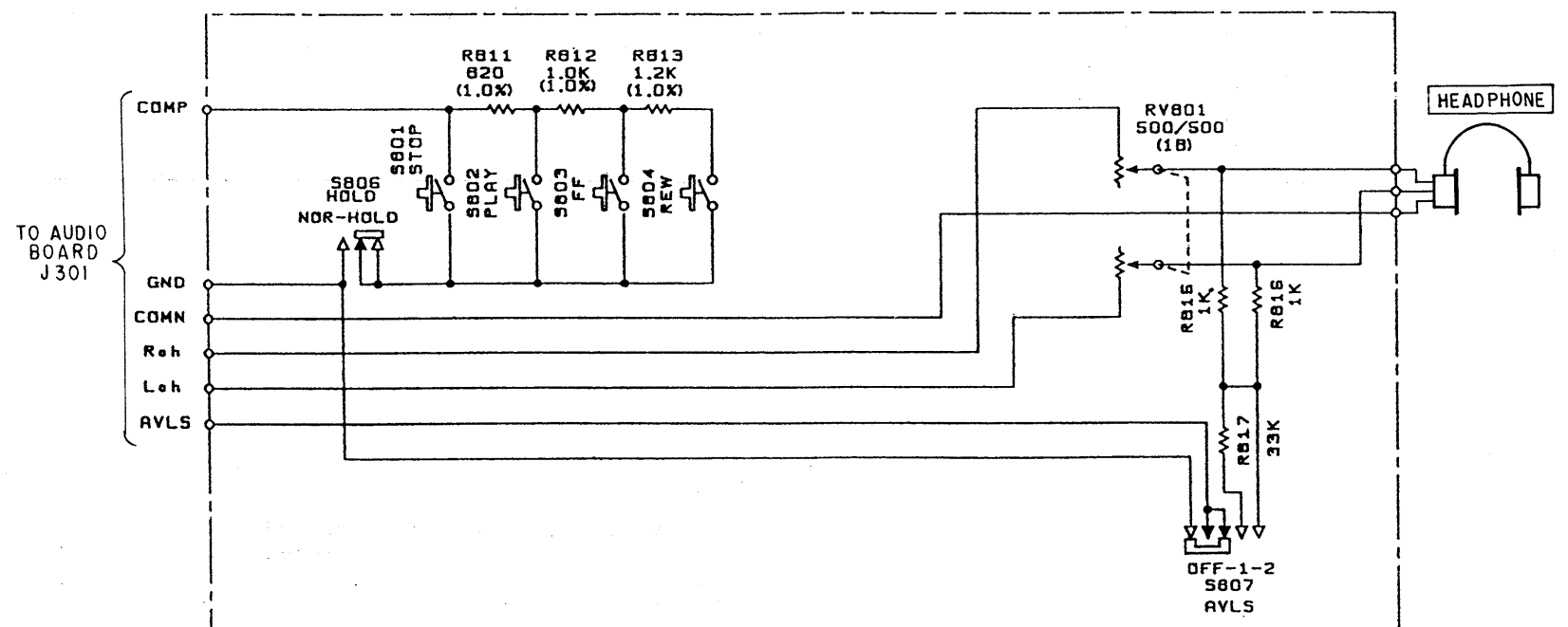
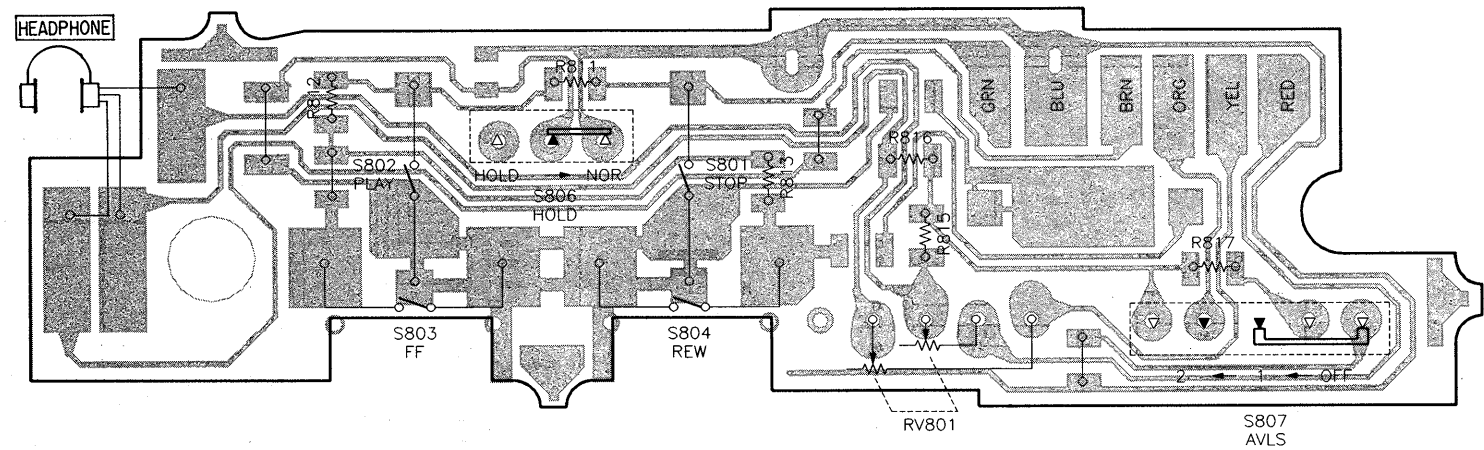
Note :

- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : Through hole.
- : parts mounted on the conductor side.
- ▨ : Pattern on the side which is seen.
- ▩ : Pattern of the rear side.





4-4. REMOTE CONTROL PRINTING WIRING BOARD AND SCHEMATIC DIAGRAM (WM-EX66)



SECTION 5 EXPLODED VIEWS

REVISED

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.

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

- Color indication of Appearance Parts

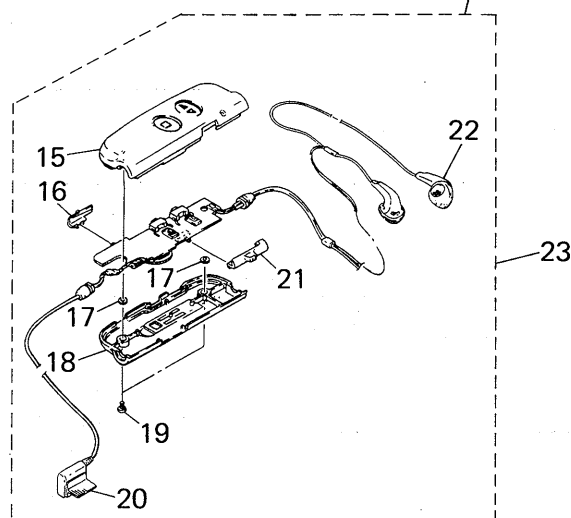
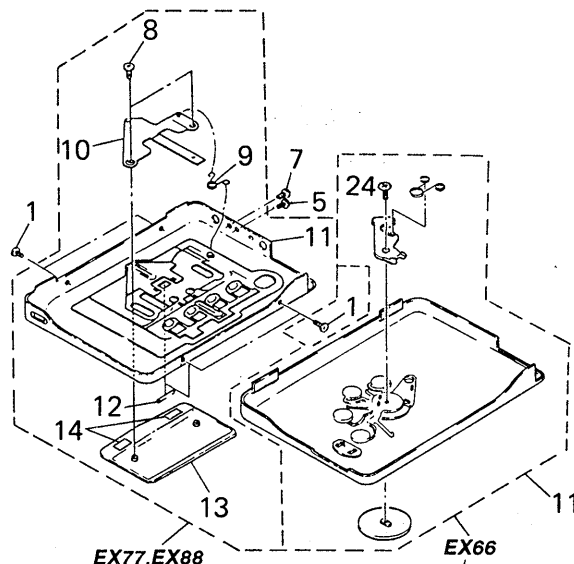
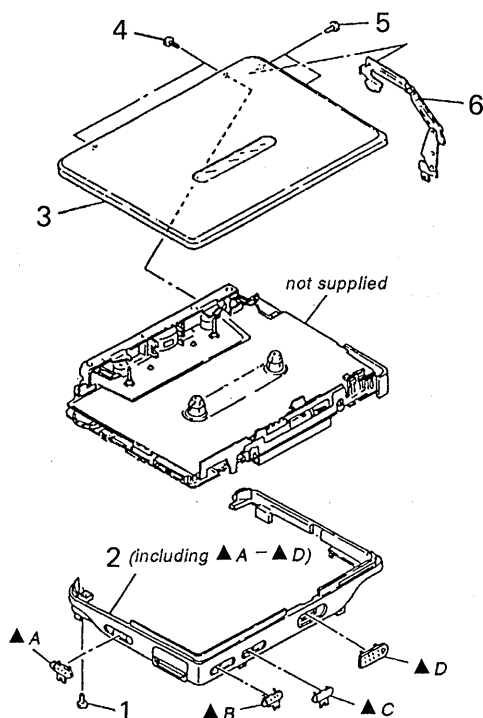
Example:

KNOB, BALANCE (WHITE) (RED)

↑
Parts color

↑
Cabinet's color

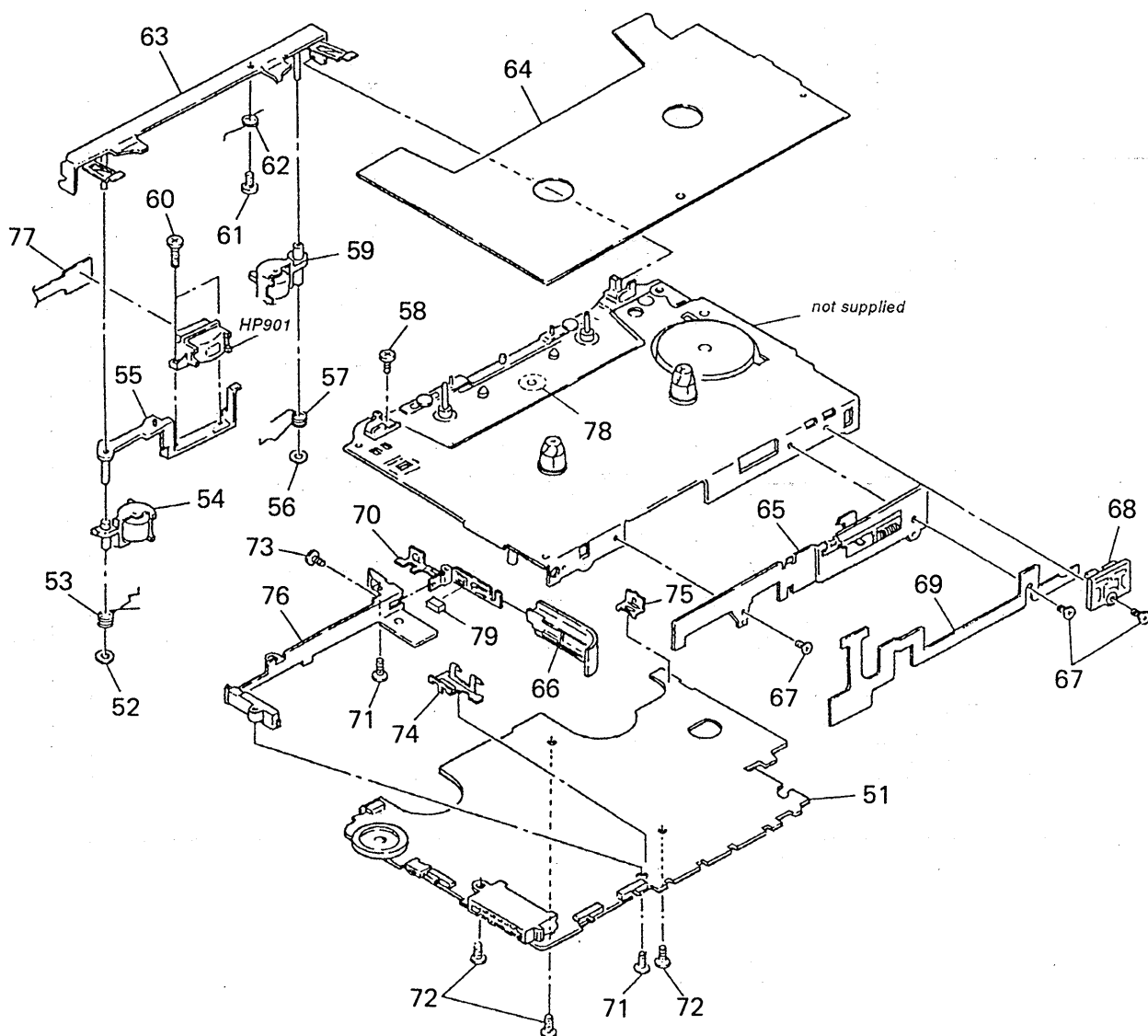
5-1. CABINET SECTION



Ref.No.	Part No.	Description	Remark
1	3-704-197-42	SCREW (M1.4X2.2), LOCKING	
2	X-3363-862-1	ORNAMENT ASSY (B), REEL (EX77/EX88)	
2	X-3363-863-1	ORNAMENT ASSY (S), REEL (EX66)	
3	X-3363-839-1	LID (TC-L) ASSY (B), CASSETTE (EX88)	
3	X-3363-851-1	LID (TC) ASSY (B), CASSETTE (EX77)	
3	X-3366-020-1	LID ASSY (B), CASSETTE (EX66)	
4	3-365-630-11	SCREW (M1.4)	
5	3-704-197-03	SCREW (M1.4X1.6), LOCKING	
6	X-3363-861-1	ARM ASSY, CLICK	
7	3-704-197-23	SCREW (M1.4X2.5), LOCKING	
8	3-318-382-91	SCREW (1.7X2.5), TAPPING	
9	3-373-825-01	SPRING (B) (HOLD)	
10	X-3363-860-1	LEVER ASSY, HOLD	
11	X-3363-843-1	CASE (TC-L) ASSY (B) (EX88:TOURIST)	
11	X-3363-855-1	CASE (TC) ASSY (B) (EX77:TOURIST)	
11	X-3364-883-1	CASE (TC) ASSY (MB) (EX77:AEP, E)	

Ref.No.	Part No.	Description	Remark
11	X-3364-884-1	CASE (TC-L) ASSY (MB) (EX88:AEP, UK, E)	
11	X-3366-019-1	CASE ASSY (EX66)	
12	3-373-827-01	PIN	
13	3-373-840-01	COVER (HOLD) (EX77)	
13	X-3363-847-1	COVER (HOLD-LCD) ASSY (B) (EX88)	
* 14	3-357-732-01	SPACER (SUB CHASSIS) (EX77/EX88)	
15	3-378-330-12	CASE (UPPER) (EX66)	
16	3-378-325-01	KNOB (A), REMOTE CONTROL (EX66)	
17	3-310-992-31	WASHER (EX66)	
18	X-3364-608-1	CASE (LOWER) ASSY (EX66)	
19	3-318-203-11	SCREW (M1.7X6), TAPPING (EX66)	
20	1-690-927-11	CORD (WITH PLUG) (EX66)	
21	3-378-324-01	KNOB (B), REMOTE CONTROL (EX66)	
22	8-953-486-90	HEADPHONE MDR-E551PT/K SET (EX66)	
23	A-3041-705-A	REMOTE CONTROL COMPLETE ASSY (EX66)	
24	3-355-424-01	SCREW, TAPPING	

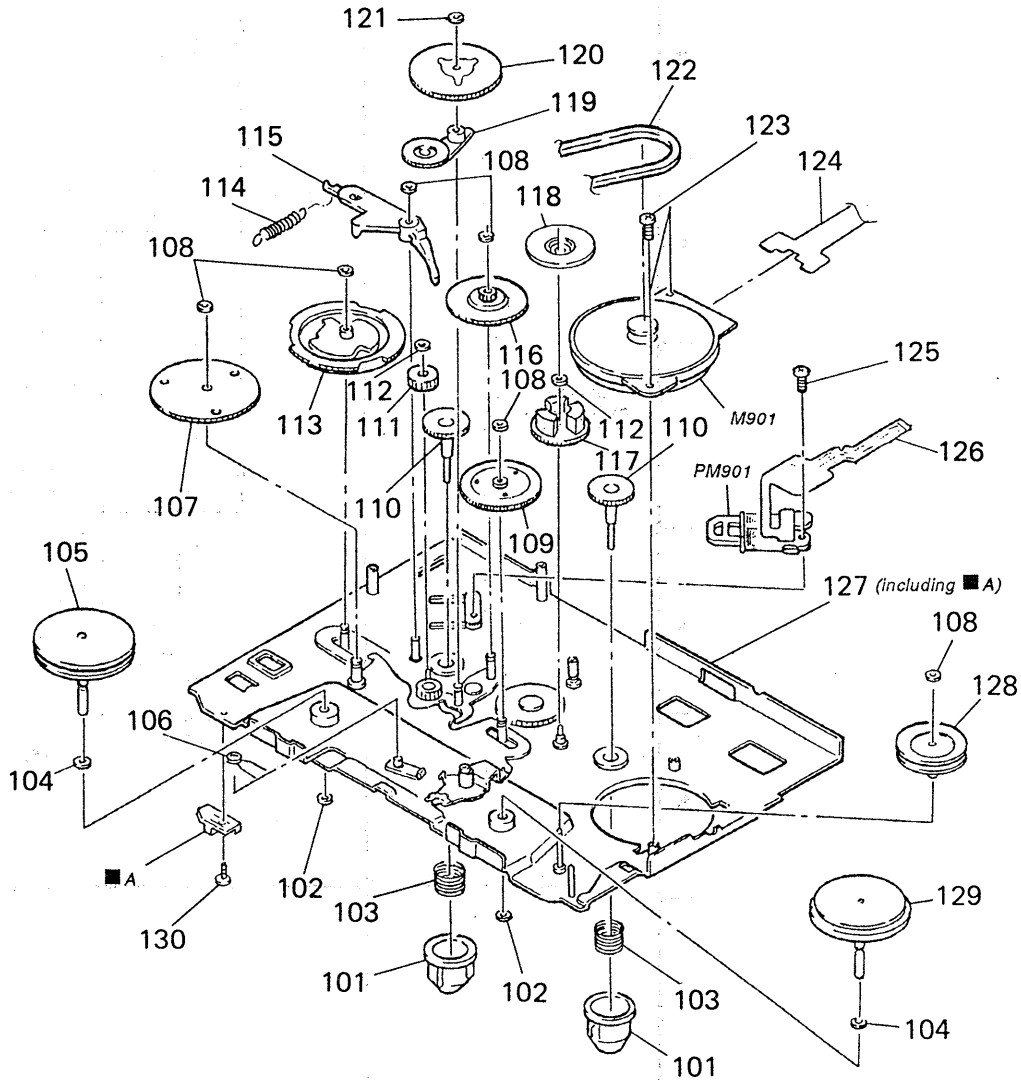
5-2. MECHANISM SECTION



Ref. No.	Part No.	Description	Remark
51	A-3016-140-A	MAIN BOARD, COMPLETE (EX88)	
51	A-3016-142-A	MAIN BOARD, COMPLETE (EX77)	
51	A-3016-216-A	MAIN BOARD, COMPLETE (EX66)	
52	3-349-859-11	WASHER	
53	3-365-762-12	SPRING (P-R)	
54	X-3362-560-1	PINCH LEVER (R) ASSY	
55	3-365-797-01	LEVER, HEAD	
56	3-349-859-01	WASHER	
57	3-379-056-01	SPRING (RPN)	
58	3-704-197-91	SCREW (M1.4X1.8), LOCKING	
59	X-3362-559-1	PINCH LEVER (N) ASSY	
60	3-704-252-21	SCREW (M1.4X3.8)	
61	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3	
62	3-365-769-01	SPRING (H)	
63	X-3362-561-1	HOLDER ASSY	
64	3-373-836-01	COVER, MD	

Ref. No.	Part No.	Description	Remark
65	X-3363-859-1	BRACKET ASSY	
66	3-373-835-01	LID, BATTERY CASE	
67	3-366-892-01	SCREW (M1.4X1.1)	
68	1-572-580-11	SWITCH, LEAF	
69	1-641-519-11	PC BOARD, ATS FLEXIBLE	
70	X-3363-850-1	TERMINAL BOARD ASSY, BATTERY	
71	3-704-197-61	SCREW (M1.4X4.0), LOCKING	
72	3-704-197-43	SCREW (M1.4X2.2), LOCKING	
73	3-704-197-03	SCREW (M1.4X1.6), LOCKING	
74	3-373-823-01	TERMINAL BOARD (MINUS)	
75	3-373-824-01	TERMINAL BOARD	
76	3-373-842-01	HOLDER, BATTERY	
77	1-643-569-11	PC BOARD, HEAD FLEXIBLE	
78	3-375-742-01	WASHER (A/B)	
79	3-350-981-11	SHEET (HOLDER)	
HP901	1-543-883-11	HEAD, MAGNETIC (PLAYBACK)	

5-3. MECHANISM SECTION
(MT-WMEX77-60)



Ref.No.	Part No.	Description	Remark
101	3-365-801-01	TABLE, REEL	
102	3-331-007-21	WASHER	
103	3-366-058-01	SPRING, COMPRESSION	
104	3-354-407-11	WASHER	
105	X-3362-552-1	WHEEL (N) ASSY, CAPSTAN	
106	3-365-785-01	SPRING (NR SELECTION)	
107	3-365-755-01	GEAR (K)	
108	3-349-859-11	WASHER	
109	X-3362-553-1	GEAR (B)	
110	3-365-750-01	GEAR (REEL)	
111	3-365-783-01	GEAR (E)	
112	3-361-258-01	BUSHING (A)	
113	3-365-800-01	GEAR, CAM	
114	3-365-766-01	SPRING (TRIGGER), TENSION	
115	3-365-802-01	LEVER (A), TRIGGER	
116	X-3362-554-1	CLUTCH ASSY	

Ref.No.	Part No.	Description	Remark
117	3-373-396-01	GEAR (A)	
118	3-373-828-01	MAGNET	
119	X-3362-555-1	FR ASSY	
120	3-365-754-01	GEAR (M)	
121	3-349-859-51	WASHER	
122	3-365-765-01	BELT	
123	3-331-047-03	SCREW (M1. 4X1. 8)	
124	1-641-518-11	PC BOARD, MOTOR FLEXIBLE	
125	3-366-521-51	SCREW (M1. 4X3. 5)	
126	1-641-495-11	PC BOARD, SOLENOID FLEXIBLE	
127	X-3363-763-1	CHASSIS ASSY	
128	3-365-760-01	PULLEY (REVERSE)	
129	X-3362-551-1	WHEEL (R) ASSY, CAPSTAN	
130	3-704-197-91	SCREW (M1. 4X1. 8), LOCKING	
M901	1-541-940-11	MOTOR	
PM901	1-454-529-11	SOLENOID, PLUNGER	

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, -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.

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

Ref. No.	Part No.	Description	Remark		Ref. No.	Part No.	Description	Remark	
	A-3016-140-A	PC BOARD ASSY, MAIN (EX88)			C301	1-164-489-11	CERAMIC CHIP	0.22uF	10% 16V
	A-3016-142-A	PC BOARD ASSY, MAIN (EX77)			C302	1-164-489-11	CERAMIC CHIP	0.22uF	10% 16V
	A-3016-216-A	PC BOARD ASSY, MAIN (EX66)			C303	1-135-151-21	TANTALUM CHIP	4.7uF	20% 4V
	*****				C304	1-135-202-21	TANTAL. CHIP	22uF	20% 4V
					C305	1-135-151-21	TANTALUM CHIP	4.7uF	20% 4V
	3-704-197-03	SCREW (M1.4X1.6), LOCKING			C307	1-135-208-11	TANTAL. CHIP	1uF	20% 10V
	9-911-838-XX	CUSHION			C309	1-135-202-21	TANTAL. CHIP	22uF	20% 4V
	< CAPACITOR >				C310	1-162-961-11	CERAMIC CHIP	330PF	10% 50V
C101	1-162-963-11	CERAMIC CHIP	680PF	10% 50V	C311	1-135-201-11	TANTALUM CHIP	10uF	20% 4V
C102	1-162-963-11	CERAMIC CHIP	680PF	10% 50V	C312	1-135-146-21	TANTALUM CHIP	0.68uF	20% 25V
C103	1-135-219-11	TANTAL. CHIP	15uF	20% 2.5V	C313	1-164-346-11	CERAMIC CHIP	1uF	16V
C104	1-162-969-11	CERAMIC CHIP	0.0068uF	10% 25V	C314	1-164-346-11	CERAMIC CHIP	1uF	16V
C105	1-164-677-11	CERAMIC CHIP	0.033uF	10% 16V	C315	1-135-146-21	TANTALUM CHIP	0.68uF	20% 25V
C106	1-162-967-11	CERAMIC CHIP	0.0033uF	10% 50V	C316	1-135-151-21	TANTALUM CHIP	4.7uF	20% 4V
C107	1-164-174-11	CERAMIC CHIP	0.0082uF	10% 25V	C317	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C108	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	C318	1-135-208-11	TANTAL. CHIP	1uF	20% 10V
C109	1-135-208-11	TANTAL. CHIP	1uF	10% 10V	C319	1-135-202-21	TANTAL. CHIP	22uF	20% 4V
C110	1-135-145-11	TANTALUM CHIP	0.47uF	10% 35V	C320	1-164-346-11	CERAMIC CHIP	1uF	16V
C111	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V	C321	1-164-346-11	CERAMIC CHIP	1uF	16V
C112	1-135-151-21	TANTALUM CHIP	4.7uF	20% 4V	C322	1-164-005-11	CERAMIC CHIP	0.47uF	25V
C113	1-164-346-11	CERAMIC CHIP	1uF	16V	C323	1-135-219-11	TANTAL. CHIP	15uF	20% 2.5V
C114	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C324	1-162-953-11	CERAMIC CHIP	100PF	5% 50V
C115	1-164-346-11	CERAMIC CHIP	1uF	16V	C325	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V
C201	1-162-963-11	CERAMIC CHIP	680PF	10% 50V	C326	1-164-346-11	CERAMIC CHIP	1uF	16V
C202	1-162-963-11	CERAMIC CHIP	680PF	10% 50V	C601	1-135-072-21	TANTALUM CHIP	0.22uF	10% 35V
C203	1-135-219-11	TANTAL. CHIP	15uF	20% 2.5V	C602	1-135-145-11	TANTALUM CHIP	0.47uF	10% 35V
C204	1-162-969-11	CERAMIC CHIP	0.0068uF	10% 25V	C603	1-163-809-11	CERAMIC CHIP	0.047uF	10% 25V
C205	1-164-677-11	CERAMIC CHIP	0.033uF	10% 16V	C604	1-135-208-11	TANTAL. CHIP	1uF	20% 10V
C206	1-162-967-11	CERAMIC CHIP	0.0033uF	10% 50V	C605	1-164-492-11	CERAMIC CHIP	0.15uF	10% 16V
C207	1-164-174-11	CERAMIC CHIP	0.0082uF	10% 25V	C606	1-164-004-11	CERAMIC CHIP	0.1uF	10% 25V
C208	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	C607	1-163-833-00	CERAMIC CHIP	0.068uF	25V
C209	1-135-208-11	TANTAL. CHIP	1uF	10% 10V	C701	1-135-202-21	TANTAL. CHIP	22uF	20% 4V
C210	1-135-145-11	TANTALUM CHIP	0.47uF	10% 35V	C702	1-164-005-11	CERAMIC CHIP	0.47uF	25V
C211	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V	C703	1-164-346-11	CERAMIC CHIP	1uF	16V
C212	1-135-151-21	TANTALUM CHIP	4.7uF	20% 4V	C704	1-164-005-11	CERAMIC CHIP	0.47uF	25V
C213	1-164-346-11	CERAMIC CHIP	1uF	16V	C705	1-135-201-11	TANTALUM CHIP	10uF	20% 4V
C214	1-164-156-11	CERAMIC CHIP	0.1uF	25V					
C215	1-164-346-11	CERAMIC CHIP	1uF	16V					

MAIN

Ref. No.	Part No.	Description	Remark
< CONNECTOR >			
CN301	1-573-346-21	CONNECTOR, FFC/FPC 6P	
< DIODE >			
D301	8-719-420-51	DIODE MA729	
D302	8-719-404-46	DIODE MA110	
D303	8-719-017-70	DIODE MA8024	
D701	8-719-420-51	DIODE MA729	
D702	8-719-420-51	DIODE MA729	
D703	8-719-404-46	DIODE MA110	
< HALL ELEMENT >			
H701	8-759-052-95	HALL ELEMENT HW-101AFT-DEF	
< IC >			
IC301	8-759-047-12	IC TA2032F	
IC601	8-759-996-13	IC TLP326ADB	
IC701	8-759-046-94	IC MSM6576-03GS-K	
< JACK >			
J301	1-573-794-21	JACK	
< JUMPER >			
JR1	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR2	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR3	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR4	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR5	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR6	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR7	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR8	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR9	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR10	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR11	1-216-295-00	METAL CHIP 0 5% 1/10W	
< TRANSISTOR >			
Q301	8-729-807-87	TRANSISTOR 2SB1295-UL6	
Q302	8-729-602-21	TRANSISTOR 2SC4154	
Q303	8-729-425-24	TRANSISTOR XN4604	
Q304	8-729-403-42	TRANSISTOR XN1401	
Q601	8-729-141-48	TRANSISTOR 2SB624-BV345	
Q602	8-729-141-48	TRANSISTOR 2SB624-BV345	
Q603	8-729-420-50	TRANSISTOR UN5215	
Q604	8-729-403-17	TRANSISTOR XN1215	
Q605	8-729-403-45	TRANSISTOR XN1115	
Q701	8-729-420-53	TRANSISTOR UN5115	

Ref. No.	Part No.	Description	Remark
Q702	8-729-420-53	TRANSISTOR UN5115	
Q703	8-729-807-87	TRANSISTOR 2SB1295-UL6	
Q704	8-729-602-21	TRANSISTOR 2SC4154	
Q705	8-729-421-23	TRANSISTOR XN1216	
Q706	8-729-420-53	TRANSISTOR UN5115	
Q707	8-729-420-16	TRANSISTOR XN1214 (EX88)	
Q708	8-729-403-42	TRANSISTOR XN1401 (EX88)	
Q709	8-729-403-17	TRANSISTOR XN1215 (EX88)	
Q710	8-729-420-44	TRANSISTOR UN5210 (EX88)	
< RESISTOR >			
R101	1-216-844-11	METAL CHIP 82K 5% 1/16W	
R102	1-216-844-11	METAL CHIP 82K 5% 1/16W	
R103	1-216-819-11	METAL CHIP 680 5% 1/16W	
R104	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R105	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R106	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R107	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R108	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R109	1-216-994-11	METAL GLAZE 13K 5% 1/16W	
R110	1-216-852-11	METAL CHIP 390K 5% 1/16W	
R111	1-218-271-11	METAL GLAZE 2K 5% 1/16W	
R112	1-216-797-11	METAL CHIP 10 5% 1/16W	
R113	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R114	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R115	1-216-822-11	METAL CHIP 1.2K 5% 1/16W	
R116	1-216-822-11	METAL CHIP 1.2K 5% 1/16W	
R201	1-216-844-11	METAL CHIP 82K 5% 1/16W	
R202	1-216-844-11	METAL CHIP 82K 5% 1/16W	
R203	1-216-819-11	METAL CHIP 680 5% 1/16W	
R204	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R205	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R206	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R207	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R208	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R209	1-216-994-11	METAL GLAZE 13K 5% 1/16W	
R210	1-216-852-11	METAL CHIP 390K 5% 1/16W	
R211	1-218-271-11	METAL GLAZE 2K 5% 1/16W	
R212	1-216-797-11	METAL CHIP 10 5% 1/16W	
R213	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R214	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R215	1-216-822-11	METAL CHIP 1.2K 5% 1/16W	
R216	1-216-822-11	METAL CHIP 1.2K 5% 1/16W	
R301	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R302	1-218-292-11	METAL GLAZE 20K 5% 1/16W	
R303	1-218-271-11	METAL GLAZE 2K 5% 1/16W	

MAIN

Ref. No.	Part No.	Description	Remark		
R304	1-216-797-11	METAL CHIP	10	5%	1/16W
R305	1-218-349-11	METAL CHIP	240K	5%	1/16W
R306	1-216-845-11	METAL CHIP	100K	5%	1/16W
R307	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R308	1-216-849-11	METAL CHIP	220K	5%	1/16W
R309	1-216-809-11	METAL CHIP	100	5%	1/16W
R310	1-216-809-11	METAL CHIP	100	5%	1/16W
R311	1-216-809-11	METAL CHIP	100	5%	1/16W
R312	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R313	1-216-845-11	METAL CHIP	100K	5%	1/16W
R314	1-216-845-11	METAL CHIP	100K	5%	1/16W
R601	1-216-833-11	METAL CHIP	10K	5%	1/16W
R602	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R603	1-216-843-11	METAL CHIP	68K	5%	1/16W
R604	1-216-835-11	METAL CHIP	15K	5%	1/16W
R605	1-216-793-11	METAL GLAZE	4.7	5%	1/16W
R606	1-216-809-11	METAL CHIP	100	5%	1/16W
R607	1-216-809-11	METAL CHIP	100	5%	1/16W
R701	1-216-851-11	METAL CHIP	330K	5%	1/16W
R702	1-216-821-11	METAL CHIP	1K	5%	1/16W
R703	1-216-821-11	METAL CHIP	1K	5%	1/16W
R704	1-216-804-11	METAL CHIP	39	5%	1/16W
R705	1-216-804-11	METAL CHIP	39	5%	1/16W
R706	1-216-819-11	METAL CHIP	680	5%	1/16W
R707	1-216-819-11	METAL CHIP	680	5%	1/16W
R708	1-216-845-11	METAL CHIP	100K	5%	1/16W (EX77/EX66)
R709	1-216-845-11	METAL CHIP	100K	5%	1/16W
R710	1-216-857-11	METAL CHIP	1M	5%	1/16W(EX88)
R711	1-216-851-11	METAL CHIP	330K	5%	1/16W(EX88)
R712	1-216-845-11	METAL CHIP	100K	5%	1/16W(EX88)
R713	1-216-833-11	METAL CHIP	10K	5%	1/16W(EX88)
R714	1-216-851-11	METAL CHIP	330K	5%	1/16W(EX88)
R715	1-216-851-11	METAL CHIP	330K	5%	1/16W(EX88)
R716	1-216-833-11	METAL CHIP	10K	5%	1/16W(EX88)
R717	1-216-821-11	METAL CHIP	1K	5%	1/16W(EX88)
R719	1-216-857-11	METAL CHIP	1M	5%	1/16W(EX88)
R718	1-216-815-11	METAL CHIP	330	5%	1/16W
R720	1-216-674-11	METAL CHIP	9.1K	0.5%	1/10W
R721	1-216-640-11	METAL CHIP	360	0.5%	1/10W
R722	1-216-649-11	METAL CHIP	820	0.5%	1/10W
R723	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R724	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W
< VARIABLE RESISTOR >					
RV301	1-241-748-11	RES, VAR, CARBON 10K/10K (VOL)			
RV601	1-238-203-11	RES, ADJ, METAL GLAZE 4.7K (SPEED)			

Ref. No.	Part No.	Description	Remark
< SWITCH >			
S301	1-571-275-31	SWITCH, SLIDE (DOLBY NR)	
S302	1-571-506-41	SWITCH, SLIDE (EX DBB)	
S701	1-572-581-11	SWITCH, SLIDE (N/R)	
S702	1-571-275-31	SWITCH, SLIDE (MODE)	
S703	1-692-000-22	SWITCH, PUSH (1 KEY) (A/B)	
S902	1-466-662-11	SWITCH UNIT (EX77)	
S902	1-466-664-11	SWITCH UNIT (EX88)	
S902	1-466-722-11	SWITCH UNIT (EX66)	
< VIBRATOR >			
X701	1-579-258-11	VIBRATOR, CRYSTAL (32.768KHz)	

MISCELLANEOUS			

68	1-572-580-11	SWITCH, LEAF	
69	1-641-519-11	PC BOARD, ATS FLEXIBLE	
77	1-643-569-11	PC BOARD, HEAD FLEXIBLE	
124	1-641-518-11	PC BOARD, MOTOR FLEXIBLE	
126	1-641-495-11	PC BOARD, SOLENOID FLEXIBLE	
HP901	1-543-883-11	HEAD, MAGNETIC (PLAYBACK)	
M901	1-541-940-11	MOTOR	
PM901	1-454-529-11	SOLENOID, PLUNGER	

ACCESSORIES & PACKING MATERIALS			

A-3041-705-A REMOTE CONTROL COMPLETE ASSY (EX66)			
1-466-663-11 REMOTE CONTROL UNIT (RM-77E) (EX77)			
1-466-665-13 REMOTE CONTROL UNIT (RM-88E) (EX88)			
1-528-231-11 BATTERY, NICKEL CADMIUM(NC-6WM)			
(EX77:E, TOURIST/EX88:UK, E, TOURIST)			
1-528-231-22 BATTERY, NICKEL CADMIUM(NC-6WM)			
(EX66/EX77:AEP/EX88:AEP)			
△	1-528-234-11	BATTERY CHARGER (BC-7L)	
(EX77:TOURIST/EX88:TOURIST)			
△	1-528-251-11	BATTERY CHARGE (BC-75) (EX66)	

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

REVISED

Ref. No.	Part No.	Description	Remark
△	1-528-326-11	CHARGER, BATTERY (BC-7BP) (EX88:UK)	
△	1-528-327-11	CHARGER, BATTERY (BC-7BY) (EX77:AEP/EX88:AEP)	
△	1-528-338-11	BATTERY CHARGER (BC-7BT) (EX77:E/EX88:E)	
	1-550-640-11	BATTERY CASE	
△	1-569-007-11	ADAPTER, CONVERSION 2P (EX77/EX88:E, TOURIST)	
	1-691-322-11	ADAPTOR, PLUG	
	3-378-967-01	CASE, ACCESSORY (EX77:E)	
	3-375-040-01	CASE, CARRYING (EXCEPT EX66)	
	3-378-522-01	CASE, CARRYING (EX66)	
*	3-375-064-01	CUSHION (UPPER) (EX77:TOURIST/EX88:TOURIST)	
*	3-375-065-01	CUSHION (LOWER) (EX77:TOURIST)	
*	3-375-072-03	CUSHION (LOWER) (EX88:TOURIST)	
*	3-376-784-01	CUSHION (EX66/EX77:AEP, E/EX88:AEP, UK, E)	
*	3-375-066-01	INDIVIDUAL CARTON (EX77:TOURIST)	
*	3-375-069-01	INDIVIDUAL CARTON (EX88:TOURIST)	
*	3-376-785-01	INDIVIDUAL CARTON (EX77:AEP, E)	
*	3-376-787-01	INDIVIDUAL CARTON (EX88:AEP, UK, E)	
*	3-385-153-01	INDIVIDUAL CARTON (EX66)	
*	3-382-452-01	CASE, ACCESSORY (EX66/EX77:AEP)	
	3-378-674-01	CASE, ACCESSORY (EX77:AEP/EX88:AEP, UK, E)	
	3-379-138-01	HOLDER, BATTERY (FOR RM-88E) (EX88)	
	3-754-305-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (EX77:AEP, E)	
	3-754-305-41	MANUAL, INSTRUCTION (JAPAN, ENGLISH) (EX77:TOURIST)	
	3-754-305-51	MANUAL, INSTRUCTION (SPANISH, PORTUGUESE) (EX77:AEP, E)	
	3-754-305-61	MANUAL, INSTRUCTION (GERMAN, DUTCH) (EX77:AEP)	
	3-754-305-71	MANUAL, INSTRUCTION (SWEDISH, ITALIAN) (EX77:AEP)	
	3-754-306-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (EX88:AEP, UK, E)	
	3-754-306-41	MANUAL, INSTRUCTION (JAPAN, ENGLISH) (EX88:TOURIST)	
	3-754-306-51	MANUAL, INSTRUCTION (SPANISH, PORTUGUESE) (EX88:AEP, E)	
	3-754-306-61	MANUAL, INSTRUCTION (GERMAN, DUTCH) (EX88:AEP)	
	3-754-306-71	MANUAL, INSTRUCTION (SWEDISH, ITALIAN) (EX88:AEP)	
	3-755-031-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (EX66)	
	3-755-031-51	MANUAL, INSTRUCTION (SPANISH, PORTUGUESE) (EX66)	
	3-755-031-61	MANUAL, INSTRUCTION (GERMAN, DUTCH) (EX66)	
	3-755-031-71	MANUAL, INSTRUCTION (SWEDISH, ITALIAN) (EX66)	
	3-387-409-01	HOLDER, BATTERY (FOR RM-88E) (EX88)	

Ref. No.	Part No.	Description	Remark
	8-953-468-91	HEADPHONE MDR-E551MP//K SET (EXCEPT EX66)	
	8-953-486-90	HEADPHONE MDR-E551PT//K SET (EX66)	
	X-3329-657-1	ATTACHMENT ASSY (EX66/EX77:AEP, E/EX88:AEP, UK, E)	

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

Sony Corporation
General Audio Group