


# WM-EX55

## SERVICE MANUAL

US Model  
AEP Model  
UK Model  
E Model  
Tourist Model



Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	WM-EX60/EX70
Tape Transport Mechanism Type	MT-WMFX55-60

### SPECIFICATIONS

Frequency response (DOLBY NR\* OFF)  
40 – 15,000 Hz  
Output Headphones (PHONES/REMOTE jack) load impedance 8 – 300  $\Omega$   
Power output 5 mW + 5 mW at DC operation, 24  $\Omega$   
Power requirements  
3 V DC  
Two R6 (size AA) batteries  
DC IN 3 V jack accepts  
Sony AC-E30L AC power adaptor (not supplied) available in the United Kingdom for use on 240 V AC, 50 Hz  
available in European countries for use on 220 V AC, 50 Hz  
available in other countries for use on 100 – 120 V AC or 220 – 240 V AC, 50 or 60 Hz

#### Battery life


Battery	Playback hours
Sony SUM-3 (NS)	Approx. 3 hours
Sony AM3 (N)	Approx. 10.5 hours

For maximum performance we recommend the use of alkaline batteries.

Dimensions Approx. 110 × 80 × 27.7 mm (w/h/d)  
(4<sup>3</sup>/<sub>8</sub> × 3<sup>1</sup>/<sub>4</sub> × 1<sup>1</sup>/<sub>8</sub> in)  
incl. projecting parts and controls  
Weight Approx. 200 g (7.1 oz) incl. batteries.  
not incl. other accessories

#### Accessories supplied

Stereo headphones with remote controller (1)  
Ear adaptors (2): If the headphones do not fit your ears, attach the ear adaptors.  
Headphones plug adaptor (1)  
Carrying case (1)

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Design and specifications subject to change without notice.

#### Note on the AC power adaptor

Use only the recommended AC power adaptor (not supplied).  
Do not use any other AC power adaptor.

Polarity of the plug



CASSETTE PLAYER  
**SONY**<sup>®</sup>

## SECTION 1

### SERVICING NOTE

This set detects reel rotation by PH701 (photo sensor). Reel rotation cannot be detected when the main board is removed, because PH701 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 S703 (NR switch) is mounted to the main board (S703 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.

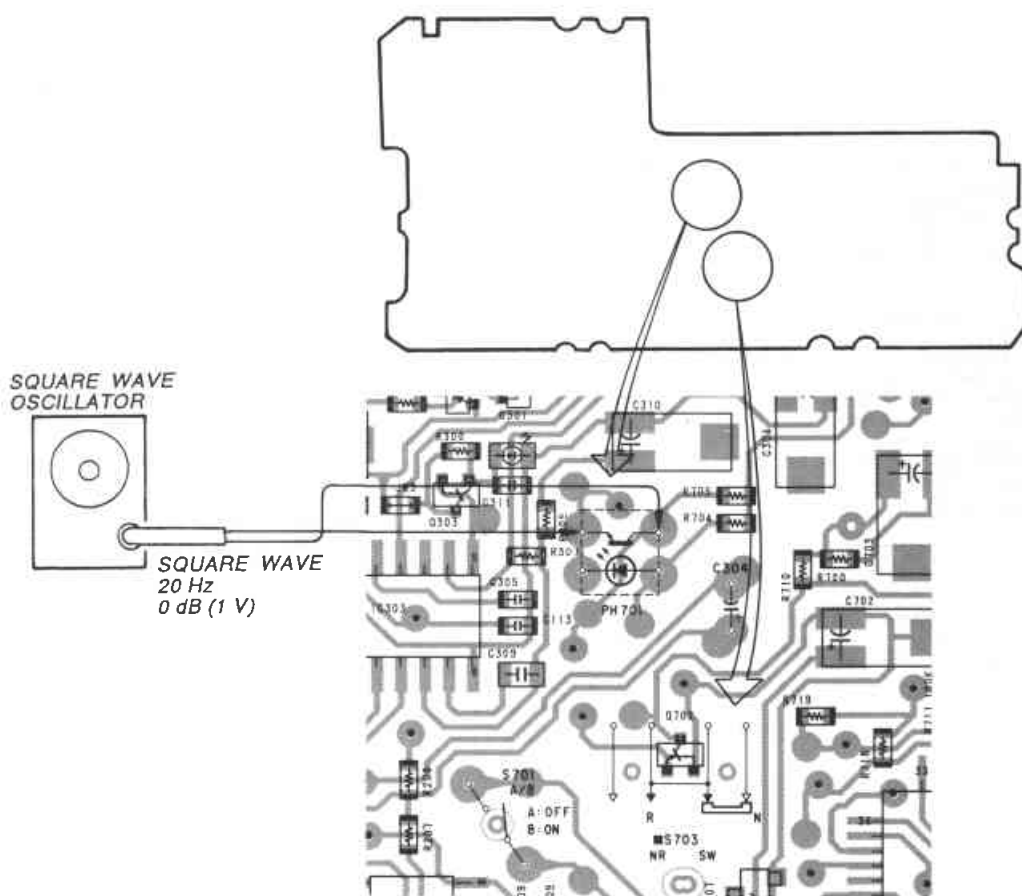
#### FF/REW mode

- 1) Switch position S703 : STOP (Center)
- 2) Apply the square wave signal to the PH701.
- 3) Press the ◀◀ or ▶▶ key.

#### PLAY mode

- 1) Switch position S703 : STOP (Center)
- 2) Apply the square wave signal to the PH701.
- 3) Press the ▶ key.
- 4) Turn on S703 a few seconds later.

#### — AUDIO Board (Side A) —

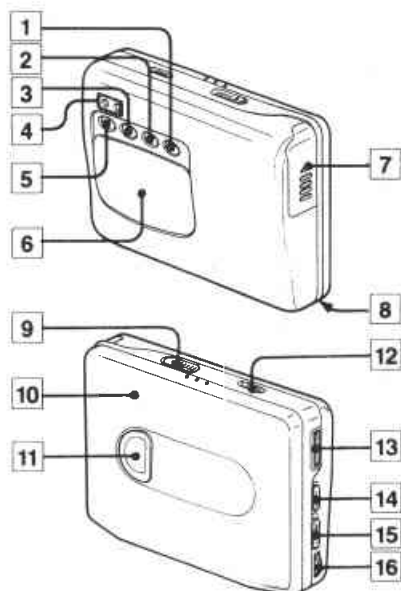


This section is extracted from instruction manual.

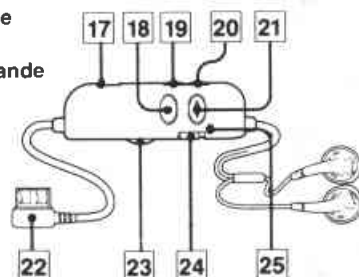
## SECTION 2 GENERAL

### A Parts Identification Nomenclature

Main unit  
Appareil



Headphones with remote  
controller  
Casque avec télécommande



### A Parts Identification

#### Main unit

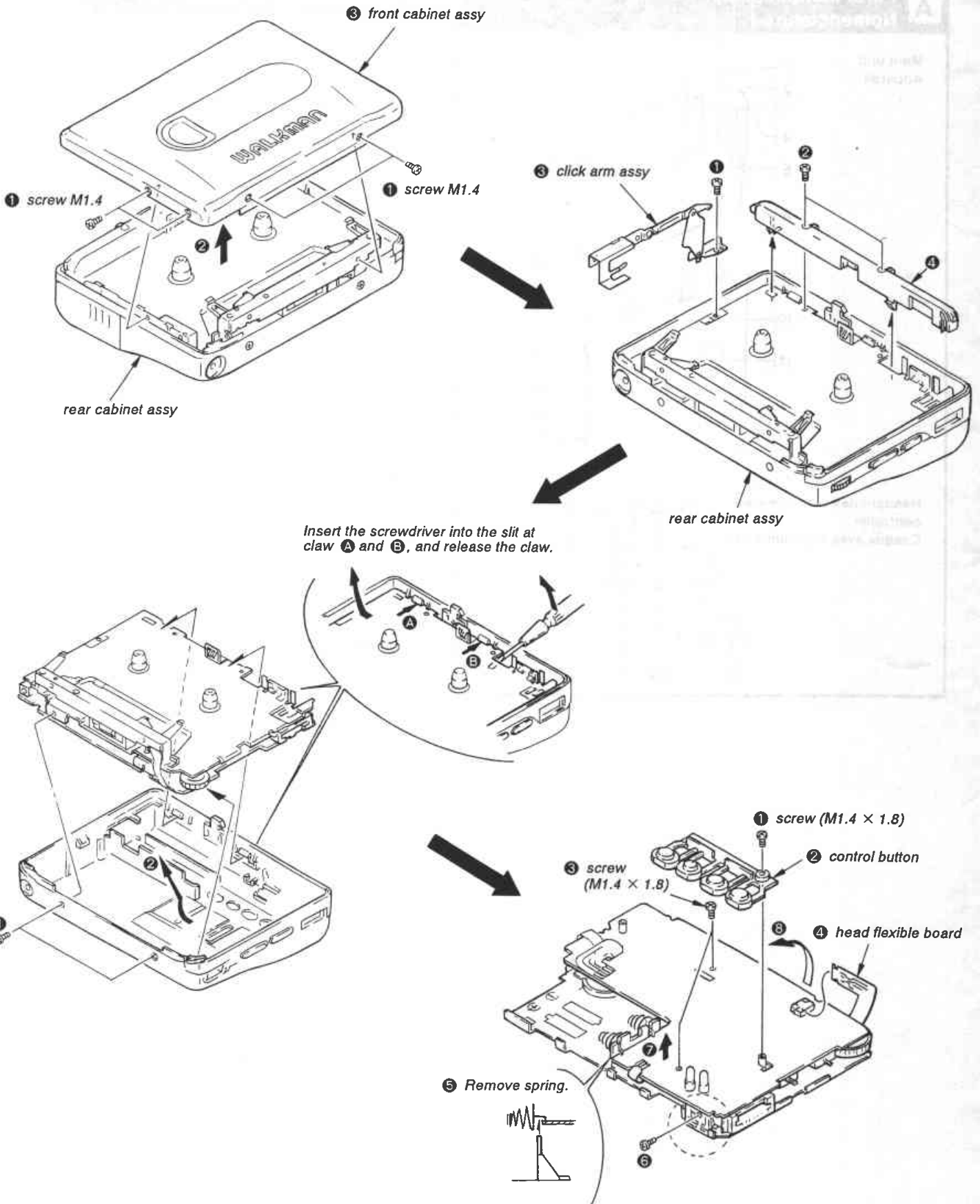
- 1 ◀▶ (playback/tape transport direction change) button
- 2 ■ (stop) button
- 3 FF (fast-forward) button
- 4 SIDE A/B (tape playback side/battery) indicator
- 5 REW (rewind) button
- 6 Hold cover (sliding cover for protection)
- 7 Battery compartment lid
- 8 DC IN 3V jack
- 9 OPEN switch
- 10 Cassette holder
- 11 Window
- 12 MODE ◀▶ (tape transport) selector
- 13 PHONES/REMOTE (headphones with remote controller) jack
- 14 DOLBY NR (Dolby noise reduction) ON/OFF selector
- 15 MEGA BASS selector
- 16 VOL (volume) control

#### Headphones with remote controller

- 17 AVLS (automatic volume limiter system) switch
- 18 ■ (stop) button
- 19 REW (rewind) button
- 20 FF (fast-forward) button
- 21 ◀▶ (playback/tape transport direction change) button
- 22 Nine-pole plug
- 23 VOL (volume) control
- 24 HOLD switch
- 25 HOLD indicator

### SECTION 3 DISASSEMBLY

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



## SECTION 4 ADJUSTMENTS

### 4-1. MECHANICAL ADJUSTMENTS

#### PRECAUTION

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

playback head	rubber belts
capstan	idlers
pinch roller	
2. Demagnetize the 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 (3V) unless otherwise noted.

#### Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	20 - 40 g-cm (0.28 - 0.55 oz-inch)
FWD Back Tension		1.0 - 4 g-cm (0.02 - 0.04 oz-inch)
REV	CQ-102RB	20 - 40 g-cm (0.28 - 0.55 oz-inch)
REV Back Tension		1.0 - 3.5 g-cm (0.02 - 0.04 oz-inch)
FF	CQ-201B	more than 50 g-cm (more than 0.70 oz-inch)
REW		more than 50 g-cm (more than 0.70 oz-inch)

#### Tape Pulling Force Measurement

Mode	Torque meter	Meter reading
FWD	CQ-403A	more than 35 g
REV	CQ-403R	more than 35 g

### 4-2. ELECTRICAL ADJUSTMENTS

#### PRECAUTION

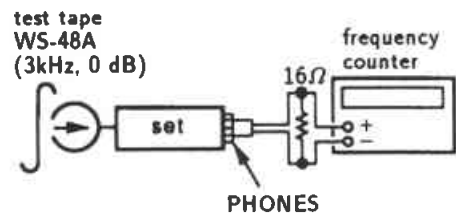
1. Power supply voltage : 3V
2. Switch position  
DOLBY NR switch : OFF  
DBB switch : OFF

#### Test Tape

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

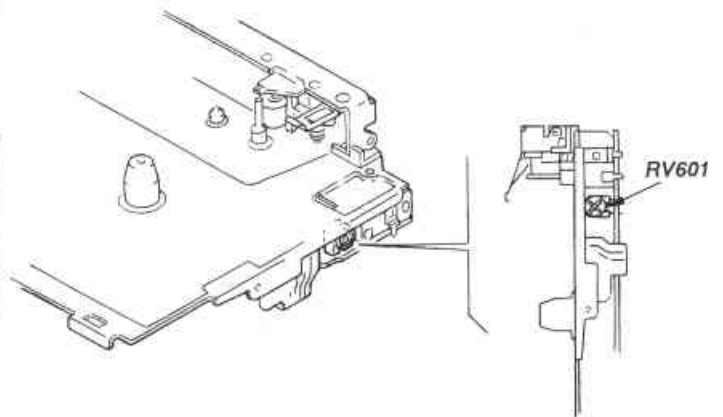
#### TAPE SPEED ADJUSTMENT

##### Procedure :



1. Play back WS-48A (tape center portion) in FWD mode. Adjust the RV601 so that the frequency counter reads  $3,000 \pm 15\text{Hz}$ .
2. 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.

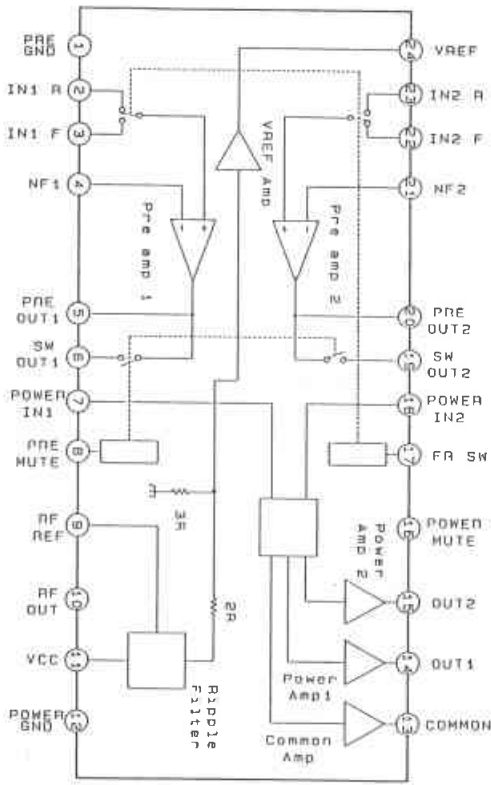
##### Adjustment Parts Location Diagram :



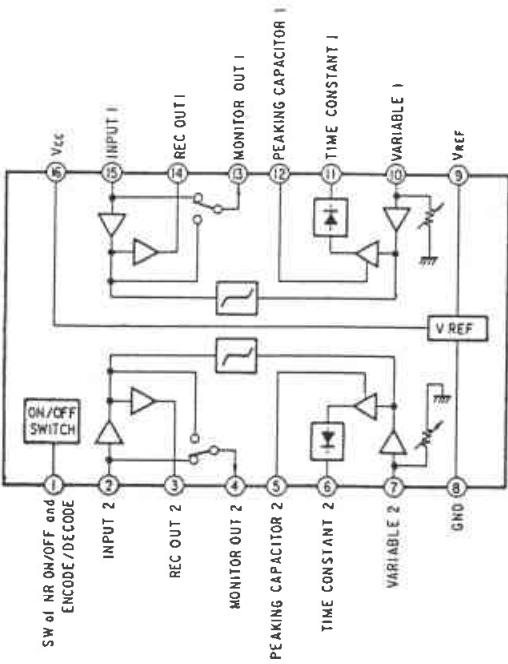
SECTION 5  
DIAGRAMS

• IC Block Diagrams

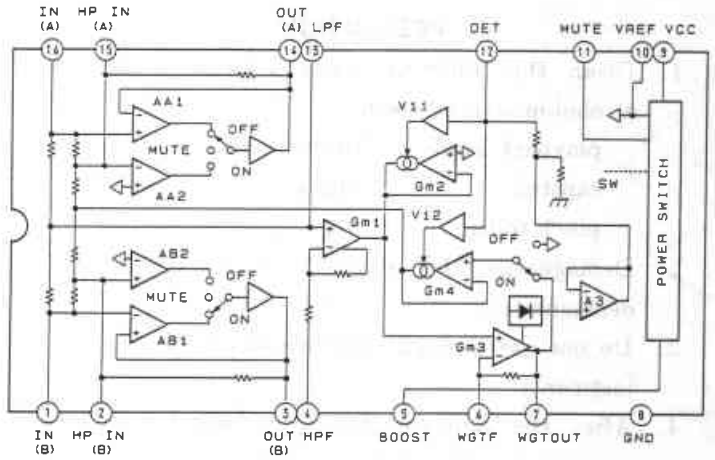
IC301 LA4581M



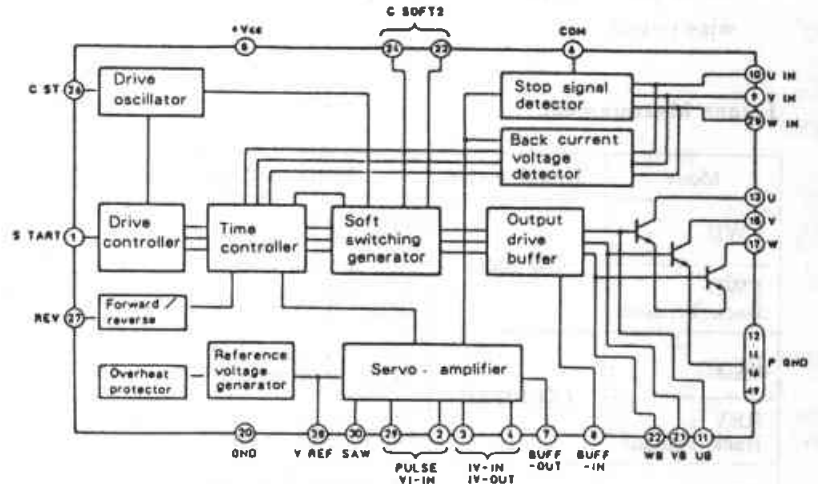
IC302 NJM2063AM



IC303 RC2106M



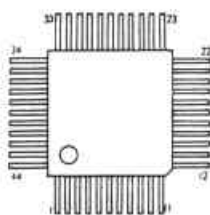
IC601 TLP326ADB



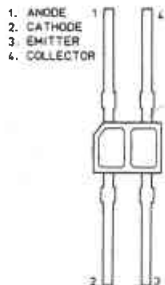
# 5-1. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAM

## • Semiconductor Lead Layouts

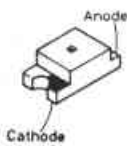
**MSM6545-06GS-VK**



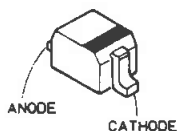
**NJL5161K-B**



**CL-70G-CD**



**MA729**



## • Semiconductor Location

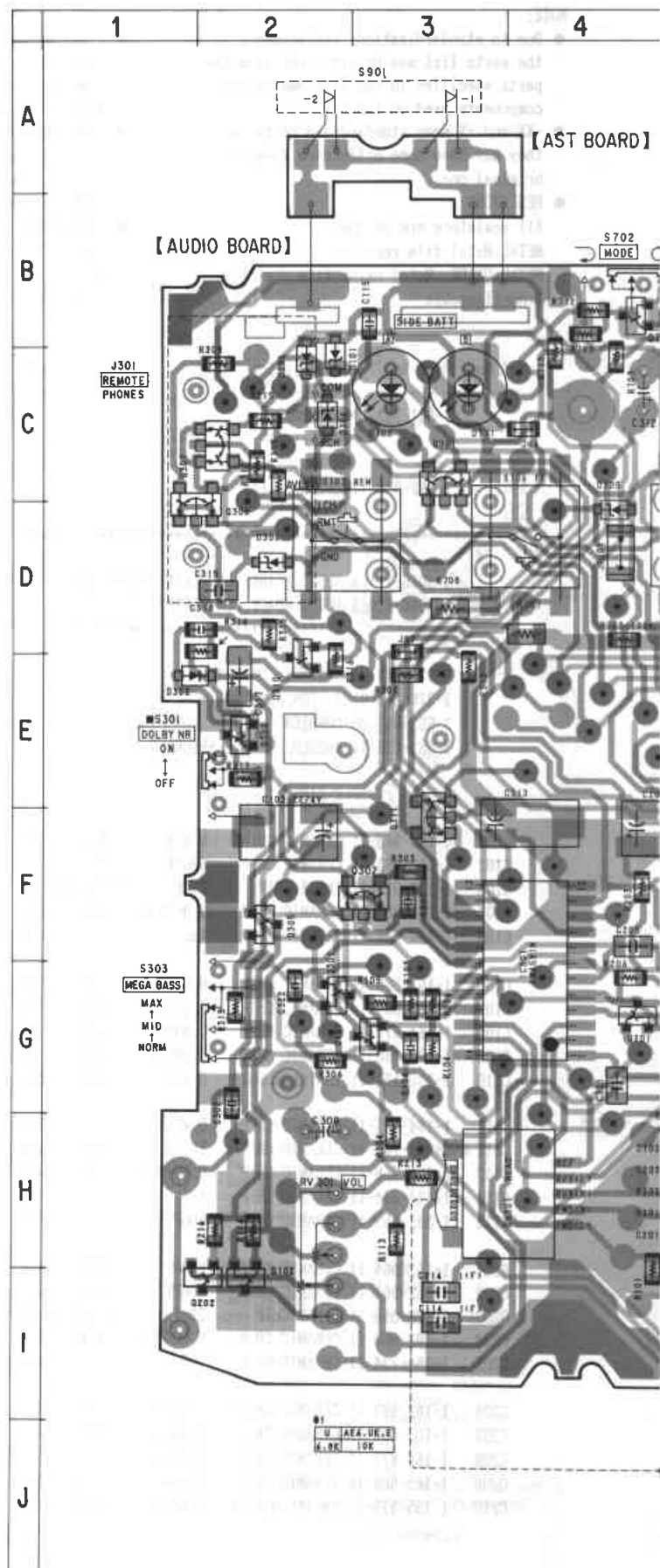
Ref. No.	Location
D101	C-2
D201	C-2
D302	E-1
D303	E-6
D304	C-2
D305	D-4
D306	D-2
D701	C-3
D702	C-3
D704	I-8
D705	H-10
D706	C-6
D707	H-8
IC301	G-4
IC302	H-6
IC303	G-6
IC601	F-11
IC701	H-9
Q101	G-3
Q102	I-2
Q201	G-4
Q202	I-2
Q301	G-2
Q302	F-3
Q303	F-6
Q304	E-7
Q305	F-2
Q306	D-1
Q307	C-2
Q308	D-5
Q309	E-2
Q310	E-2
Q311	F-3
Q314	E-7
Q603	E-9
Q604	E-9
Q605	E-9
Q606	E-11
Q701	C-3
Q702	G-7
Q703	B-4
Q704	I-8
Q705	B-6
Q706	C-6
Q707	E-5
Q709	I-10

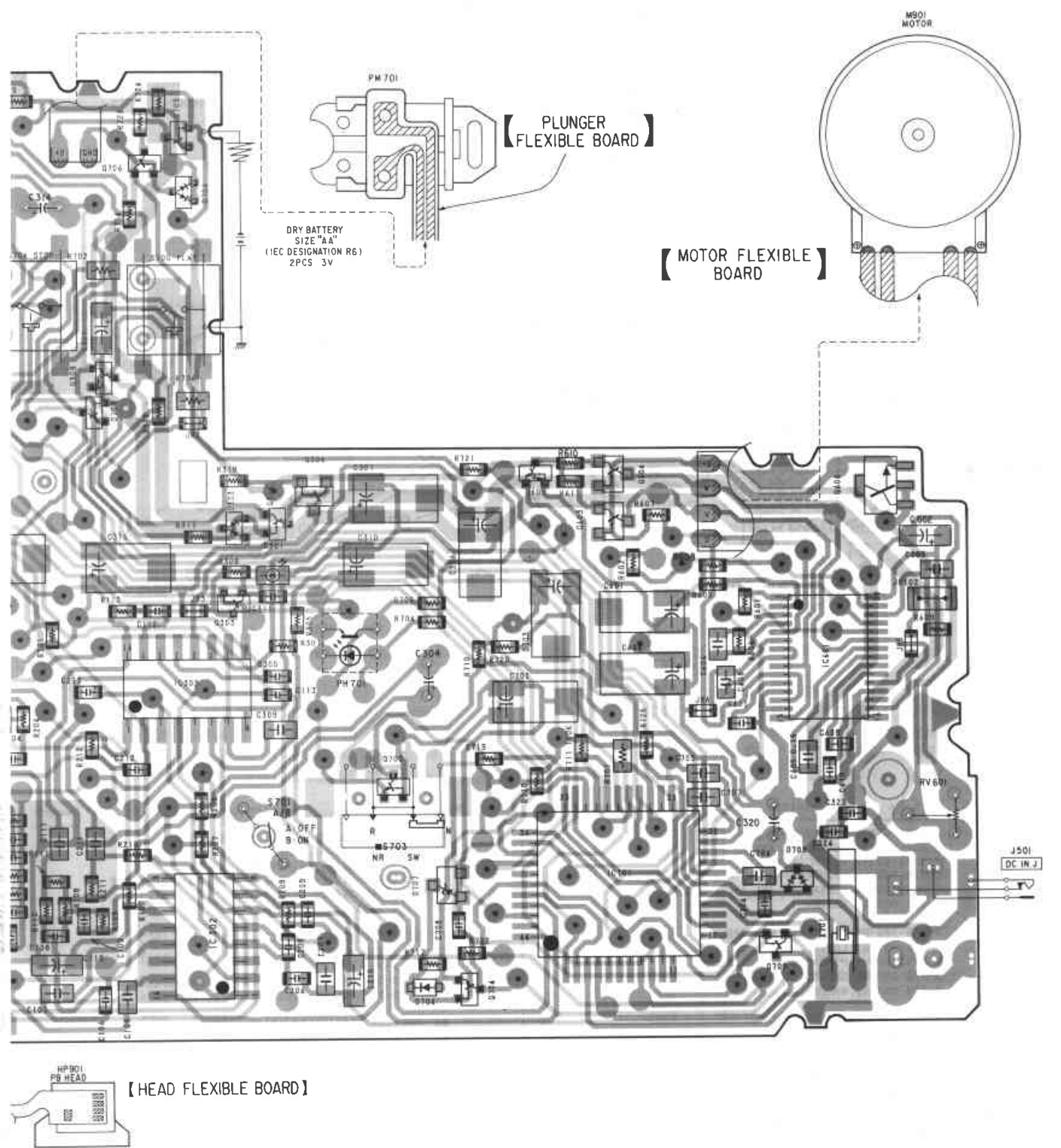
### Note on Schematic Diagram:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{pF}$   
50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}$  W or less unless otherwise specified.
- : B + Line.
- : adjustment for repair.
- Power voltage is dc 3 V and fed with regulated dc power supply from external power voltage jack.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.  
no mark : PLAY
- Waveforms are taken with a oscilloscope.  
Voltage variations may be noted due to normal production tolerances.
- Signal path.  
 : PB (DECK A)

### Note on Printed Wiring Board:

- : parts mounted on the conductor side.
- : Through hole.
- : Pattern on the side which is seen.
- : Pattern of the rear side.







A  
B  
C  
D  
E  
F  
G  
H  
I  
J

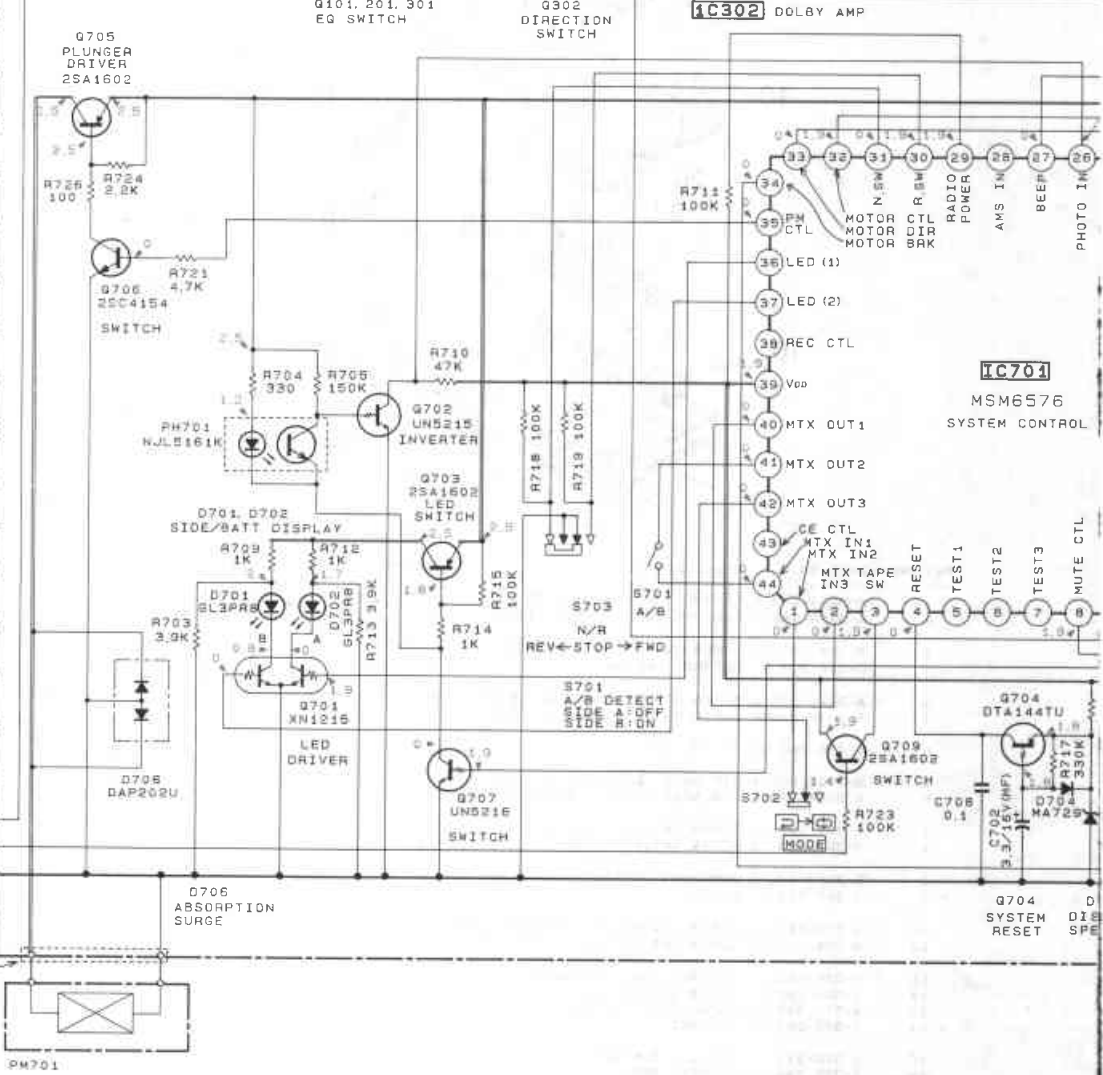
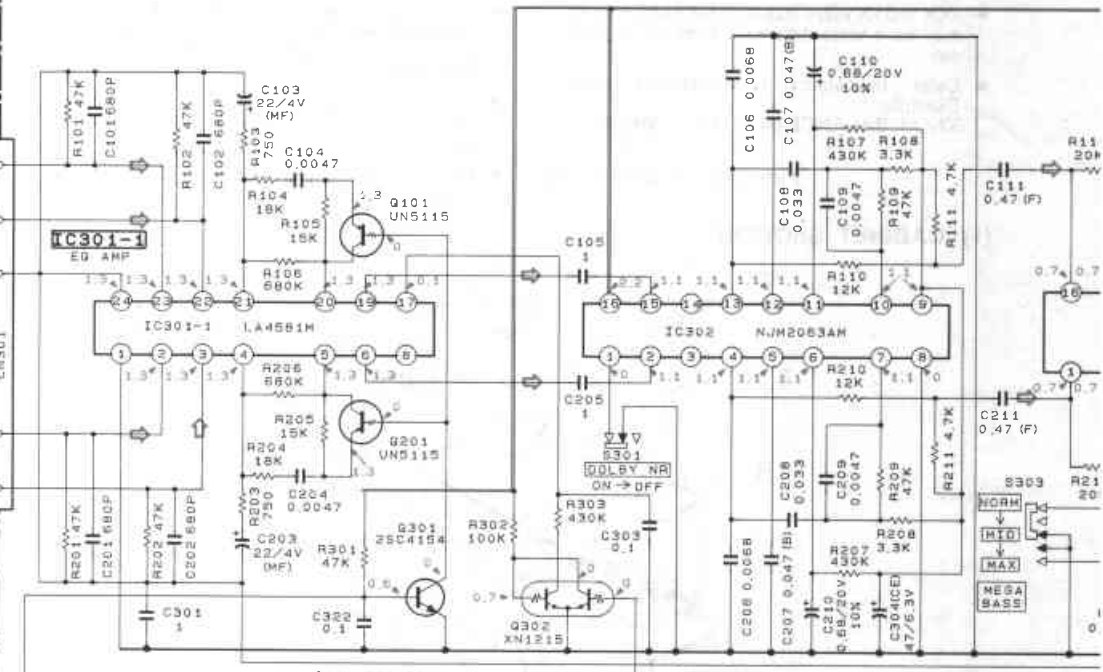
**[AUDIO BOARD]**

HP901  
PB HEAD

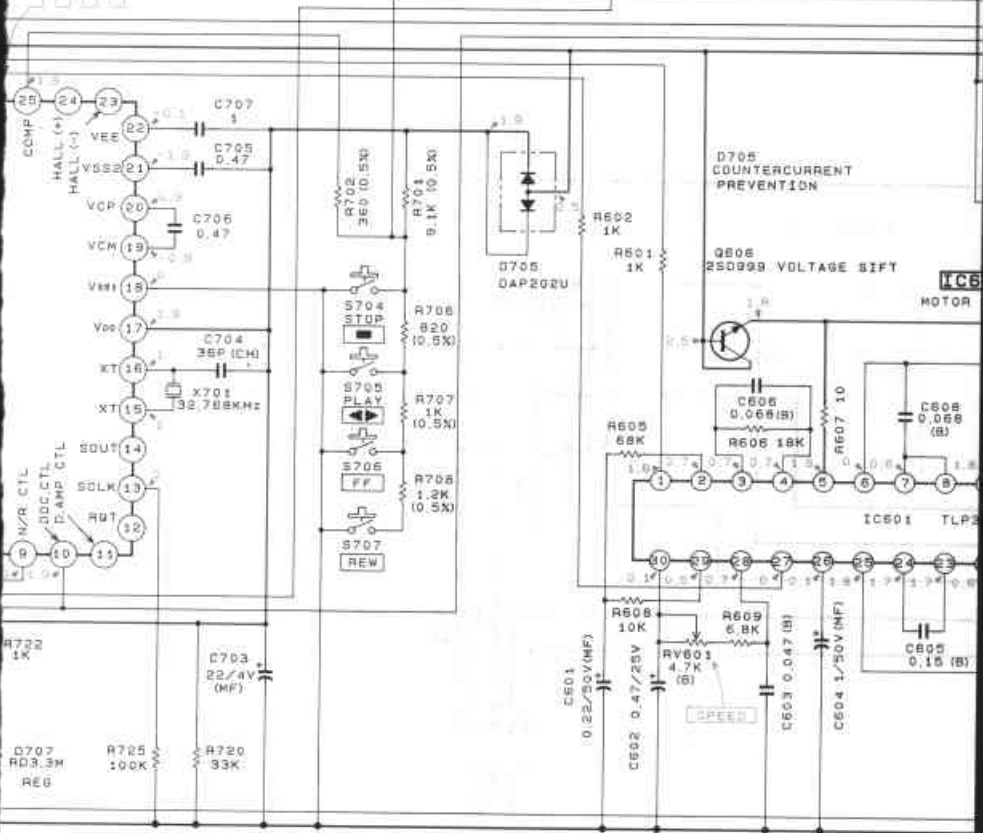
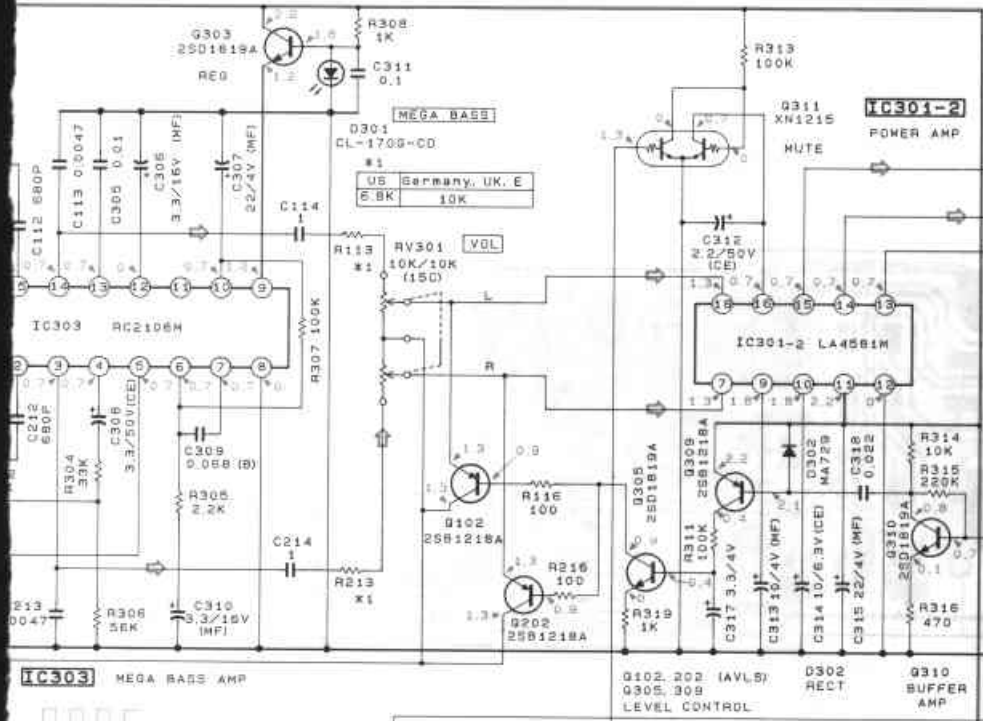
HP901  
**[HEAD FLEXIBLE BOARD]**

**[ATS BOARD]**

**[PLUNGER FLEXIBLE BOARD]**



WARDAC



A

B

C

D

E

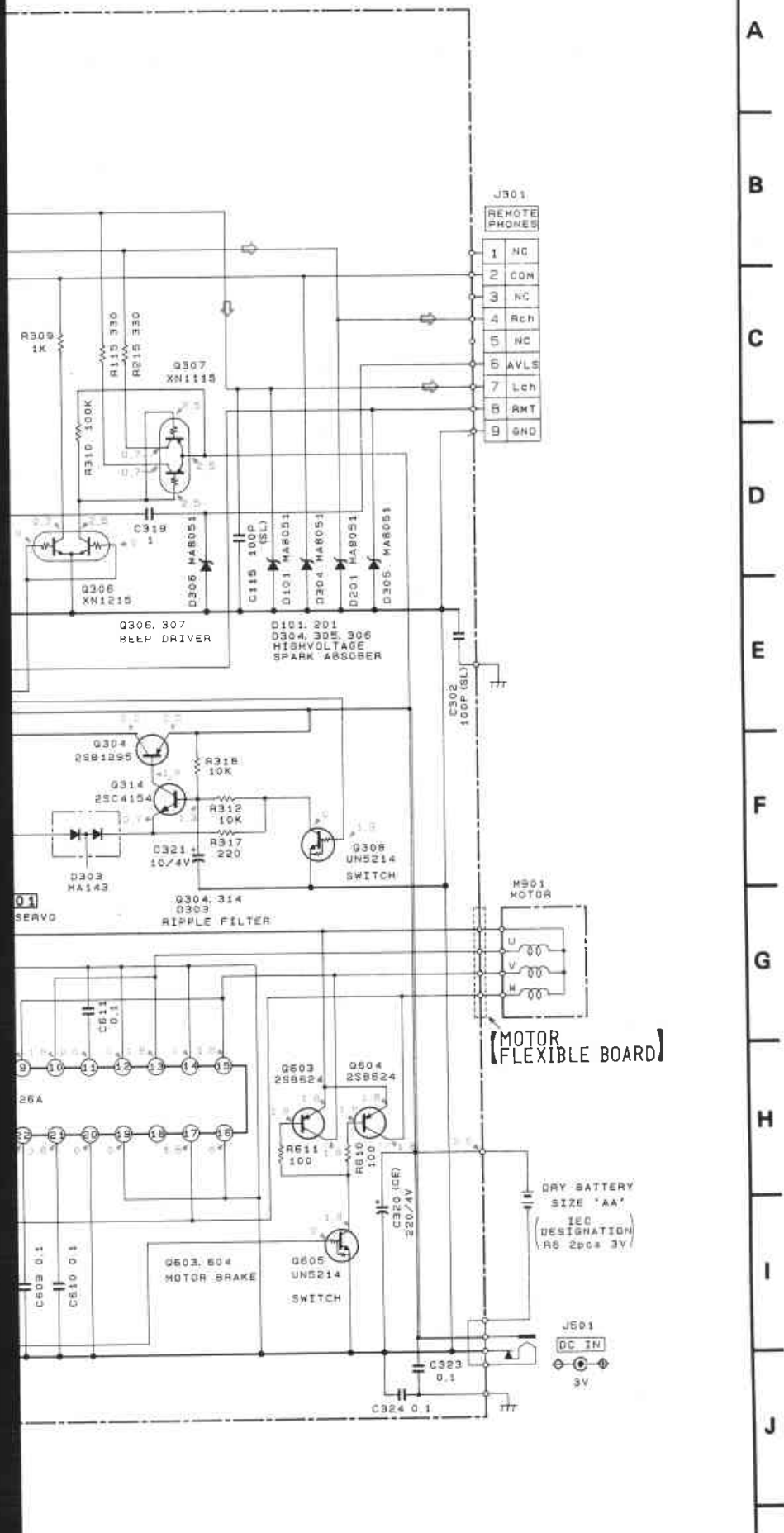
F

G

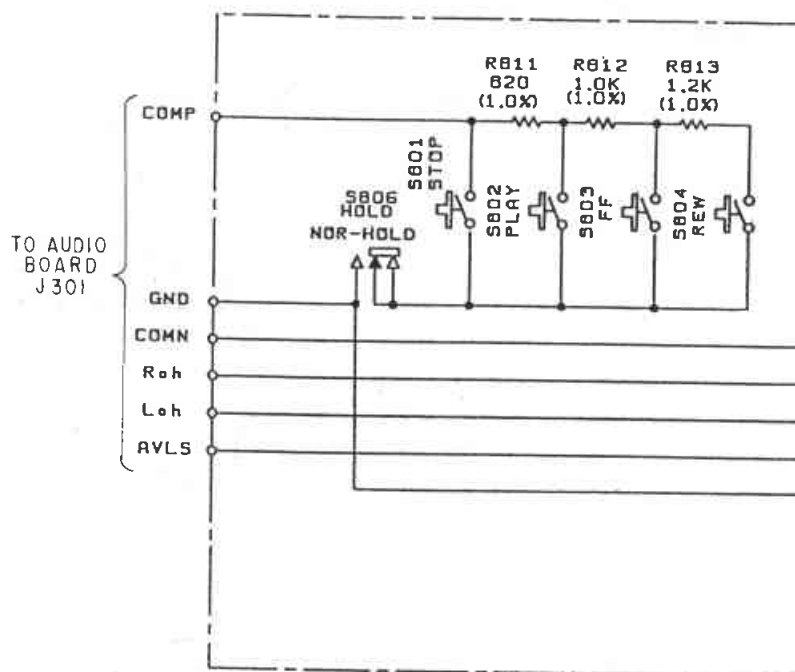
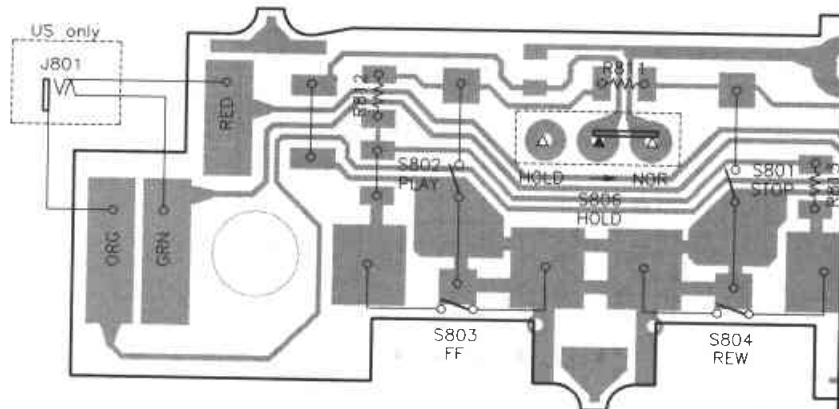
H

I

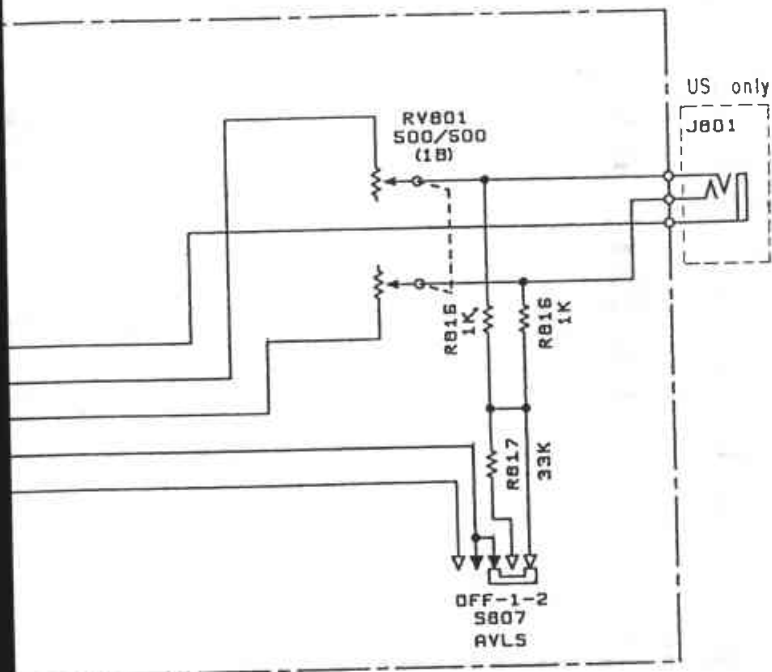
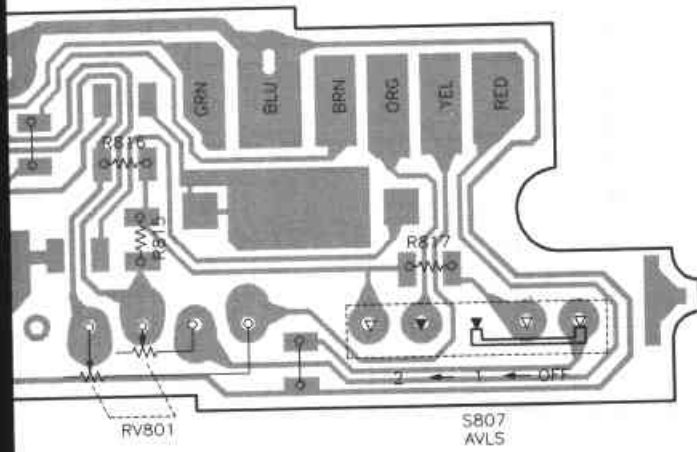
J



5-2. REMOTE CONTROL PRINTED WIRING BOARD AND SCHEMATIC



DIAGRAM



## SECTION 6 EXPLODED VIEWS

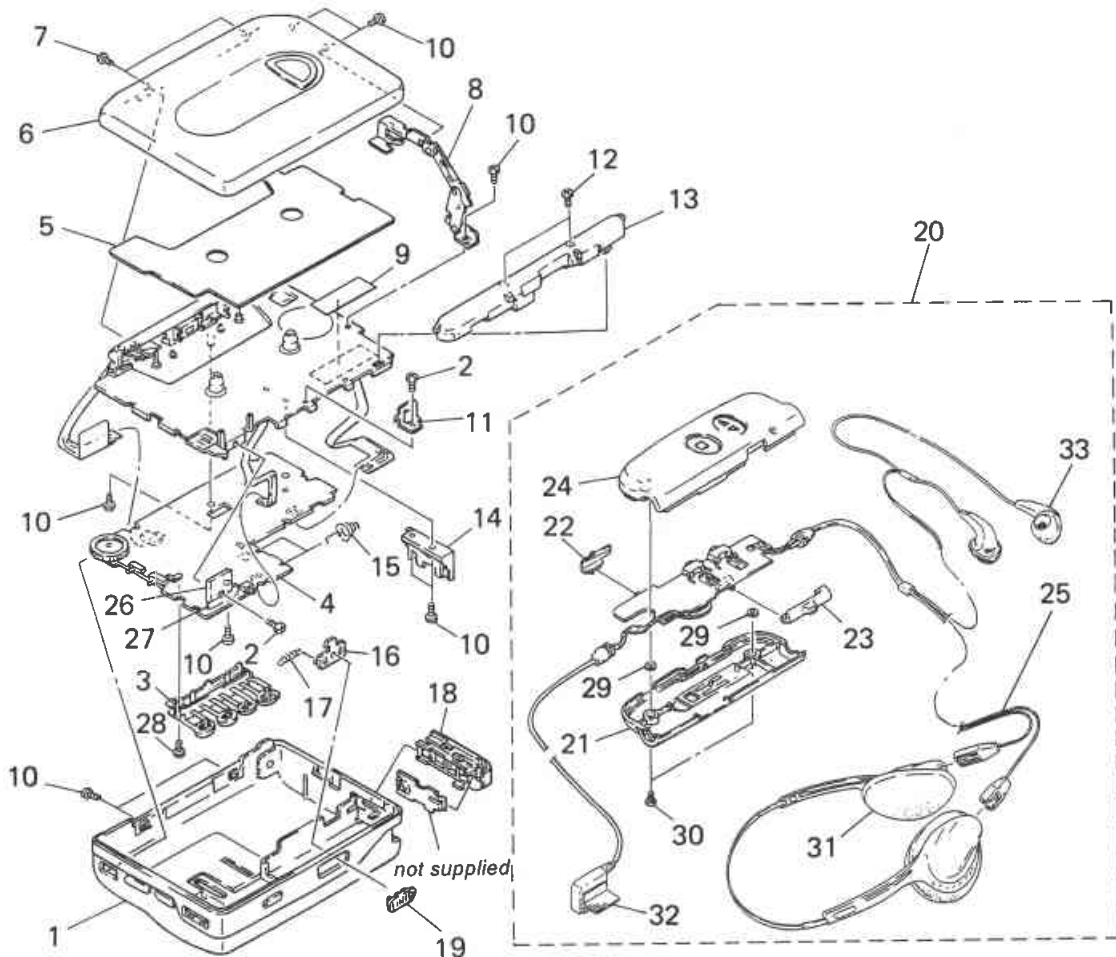
**NOTE:**

- -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.

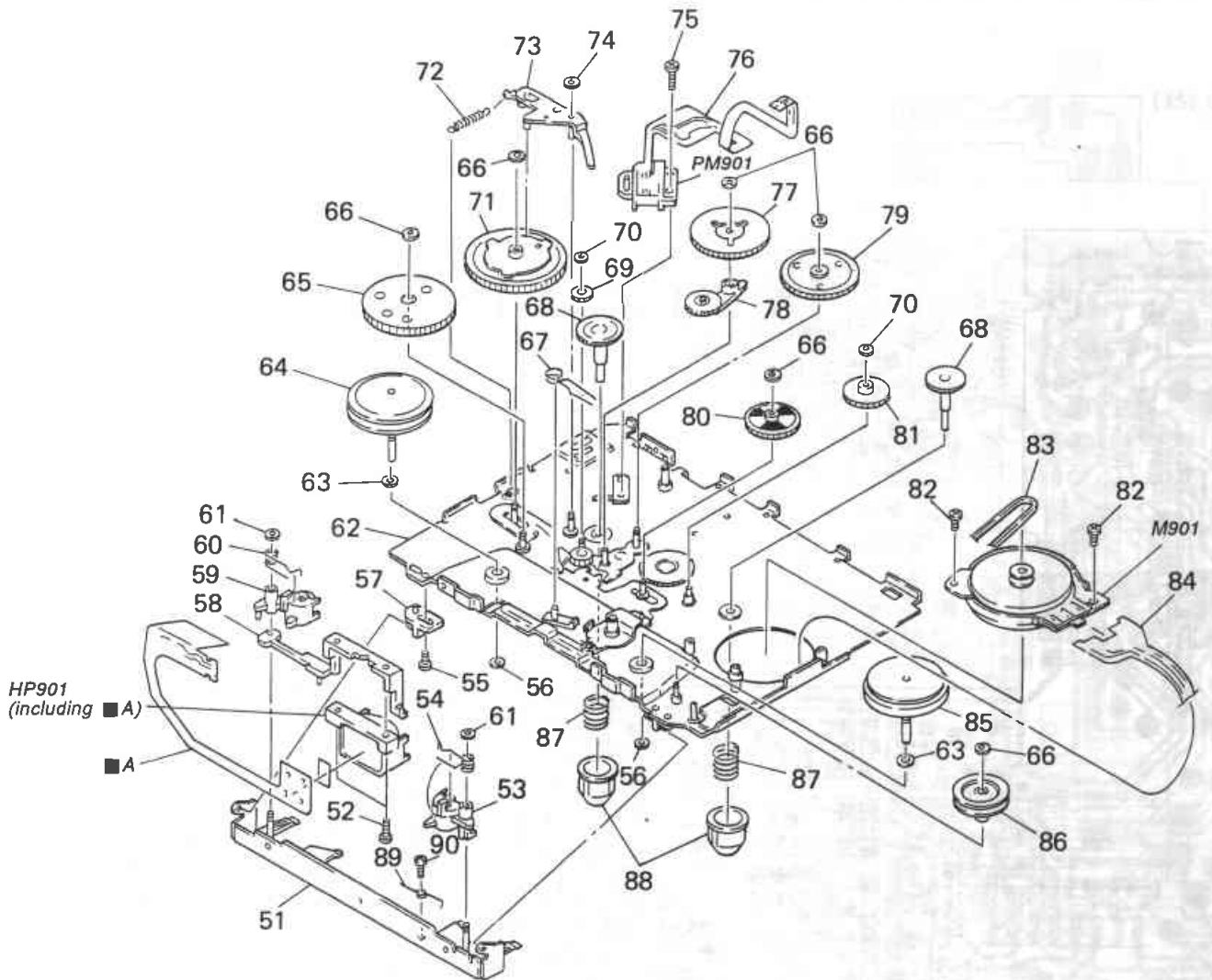
**(1) CABINET SECTION**



Ref. No.	Part No.	Description	Remark
1	X-3364-603-1	CABINET (REAR) ASSY (BLACK)	
1	X-3364-766-1	CABINET (REAR) ASSY (GRAY)	
2	3-704-197-01	SCREW (M1.4X1.6), LOCKING	
3	3-376-274-01	BUTTON, CONTROL	
4	A-3016-171-A	AUDIO BOARD, COMPLETE (EXCEPT US)	
4	A-3016-220-A	AUDIO BOARD, COMPLETE (US)	
5	3-376-266-01	COVER, MD	
6	X-3364-605-1	LID ASSY, CASSETTE (BLACK)	
6	X-3364-683-1	LID ASSY (TC-G), CASSETTE (GRAY)	
7	3-365-630-21	SCREW (M1.4) (BLACK)	
7	3-365-630-31	SCREW (M1.4) (GRAY)	
8	X-3364-606-1	ARM ASSY, CLICK	
* 9	3-377-435-01	LABEL	
10	3-704-197-11	SCREW (M1.4X2.0), LOCKING (GRAY)	
10	3-704-197-13	SCREW (M1.4X2.0), LOCKING (BLACK)	
11	3-376-265-01	SPRING, CASSETTE RETAINER	
12	3-366-890-51	SCREW (M1.4X6.0)	
13	3-377-448-01	PANEL (TC), BLIND	
* 14	3-376-287-01	BRACKET	
15	3-376-273-01	SPRING, CONTACT	
16	3-376-247-01	SLIDER, OPEN	
17	3-376-248-01	SPRING, TENSION	

Ref. No.	Part No.	Description	Remark
18	3-376-250-01	LID (TC), BATTERY CASE (BLACK)	
18	3-378-250-11	LID (TC), BATTERY CASE (GRAY)	
19	3-376-246-01	KNOB (OPEN)	
20	A-3041-705-A	REMOTE CONTROL COMPLETE ASSY (EXCEPT US)	
20	A-3041-746-A	REMOTE CONTROL COMPLETE ASSY (US)	
* 21	X-3364-608-1	CASE (LOWER) ASSY	
22	3-378-325-01	KNOB (A), REMOTE CONTROL	
23	3-378-324-01	KNOB (B), REMOTE CONTROL	
24	3-378-330-01	CASE (UPPER) (US)	
24	3-378-330-11	CASE (UPPER) (EXCEPT US)	
25	1-690-764-11	CORD (WITH CONNECTOR)	
26	1-692-073-11	SWITCH LEAF	
* 27	1-642-782-11	ATS BOARD	
28	3-318-382-01	SCREW (1.7X3), TAPPING	
29	3-310-992-31	WASHER	
30	3-318-204-31	SCREW (M1.7X6), TAPPING	
31	8-953-341-91	HEADPHONE MDR-14/1 SET (US)	
32	1-690-927-11	CORD (WITH PLUG)	
33	8-953-486-90	HEADPHONE MDR-E551PT/K SET (EXCEPT US)	

(2) MECHANISM SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-3362-561-1	HOLDER ASSY		73	3-365-802-01	LEVER (A), TRIGGER	
52	3-704-252-21	SCREW (M1.4X3.8)		74	3-349-859-01	WASHER	
53	X-3041-825-1	PINCH LEVER (N) ASSY		75	3-366-521-51	SCREW (M1.4X3.5)	
54	3-379-056-11	SPRING (P-N)		76	1-642-919-11	PC BOARD, SOLENOID FLEXIBLE	
55	3-704-197-91	SCREW (M1.4X1.8), LOCKING		77	3-365-754-01	GEAR (M)	
56	3-331-007-21	WASHER		78	X-3362-555-1	FR ASSY	
57	3-365-789-01	GUIDE (N), HOLDER		79	X-3362-554-1	CLUTCH ASSY	
58	3-365-797-01	LEVER, HEAD		80	X-3362-553-1	GEAR (B) ASSY	
59	X-3362-560-1	PINCH LEVER (R) ASSY		81	3-365-751-01	GEAR (A)	
60	3-376-057-01	SPRING (P-R)		82	3-331-047-03	SCREW (M1.4X1.8), SPECIAL HEAD	
61	3-349-859-51	WASHER		83	3-365-765-01	BELT	
* 62	X-3364-705-1	CHASSIS ASSY		84	1-642-783-11	PC BOARD, MOTOR FLEXIBLE	
63	3-354-407-11	WASHER		85	X-3362-551-1	WHEEL (R) ASSY, CAPSTAN	
64	X-3362-552-1	WHEEL (N) ASSY, CAPSTAN		86	3-365-760-01	PULLEY (REVERSE)	
65	3-365-755-01	GEAR (K)		87	3-366-058-01	SPRING, COMPRESSION	
66	3-349-859-11	WASHER		88	3-365-801-01	TABLE, REEL	
67	3-365-785-01	SPRING (NR SELECTION)		89	3-365-769-01	SPRING (H)	
68	3-365-750-01	GEAR (REEL)		90	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3	
69	3-365-783-01	GEAR (E)		HP901	1-543-922-11	HEAD, MAGNETIC (PLAYBACK)	
70	3-361-258-01	BUSHING (A)		M901	1-541-971-11	MOTOR	
71	3-365-800-01	GEAR, CAM		PM901	1-454-583-11	SOLENOID, PLUNGER	
72	3-365-766-01	SPRING (TRIGGER), TENSION					

SECTION 7  
ELECTRICAL PARTS LIST

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:  $\mu$ , for example:  
uA ..:  $\mu$ A.    uPA..:  $\mu$ PA..  
uPB..:  $\mu$ PB.    uPC..:  $\mu$ PC.    uPD..:  $\mu$ PD..
- CAPACITORS  
uF:  $\mu$ F
- COILS  
uH:  $\mu$ H

Ref. No.	Part No.	Description	Remark
*	1-642-782-11	ATS BOARD *****	
S901	1-692-073-11	SWITCH, LEAF	
*****			
	A-3016-171-A	AUDIO BOARD, COMPLETE (EXCEPT US)	
	A-3016-220-A	AUDIO BOARD, COMPLETE (US)	
*****			
	3-376-273-01	SPRING, CONTACT	
	3-376-274-01	BUTTON, CONTROL	
	3-553-567-00	CUSHION	
	3-563-124-11	WASHER, RATTLE ABSORBER	
< CAPACITOR >			
C101	1-162-963-11	CERAMIC CHIP 680PF	10% 50V
C102	1-162-963-11	CERAMIC CHIP 680PF	10% 50V
C103	1-128-015-11	ELECT CHIP 22uF	4V (EXCEPT US)
C104	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V
C105	1-164-234-11	CERAMIC CHIP 1uF	10V
C106	1-162-969-11	CERAMIC CHIP 0.0068uF	10% 25V
C107	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V
C108	1-164-677-11	CERAMIC CHIP 0.033uF	10% 16V
C109	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V
C110	1-135-176-21	TANTALUM CHIP 0.68uF	10% 20V
C111	1-164-005-11	CERAMIC CHIP 0.47uF	25V
C112	1-162-963-11	CERAMIC CHIP 680PF	10% 50V
C113	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V
C114	1-164-234-11	CERAMIC CHIP 1uF	10V
C115	1-162-953-11	CERAMIC CHIP 100PF	5% 50V
C201	1-162-963-11	CERAMIC CHIP 680PF	10% 50V
C202	1-162-963-11	CERAMIC CHIP 680PF	10% 50V
C203	1-128-015-11	ELECT CHIP 22uF	4V (EXCEPT US)
C204	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V
C205	1-164-234-11	CERAMIC CHIP 1uF	10V
C206	1-162-969-11	CERAMIC CHIP 0.0068uF	10% 25V
C207	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V
C208	1-164-677-11	CERAMIC CHIP 0.033uF	10% 16V
C209	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V
C210	1-135-176-21	TANTALUM CHIP 0.68uF	10% 20V

Ref. No.	Part No.	Description	Remark
C211	1-164-005-11	CERAMIC CHIP 0.47uF	25V
C212	1-162-963-11	CERAMIC CHIP 680PF	10% 50V
C213	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V
C214	1-164-234-11	CERAMIC CHIP 1uF	10V
C301	1-164-234-11	CERAMIC CHIP 1uF	10V
C302	1-162-953-11	CERAMIC CHIP 100PF	5% 50V
C303	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C304	1-126-154-11	ELECT 47uF	20% 6.3V
C305	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C306	1-128-028-11	ELECT CHIP 3.3uF	0 16V
C307	1-128-015-11	ELECT CHIP 22uF	4V (EXCEPT US)
C308	1-126-162-11	ELECT 3.3uF	20% 50V
C309	1-163-833-00	CERAMIC CHIP 0.068uF	25V
C310	1-128-028-11	ELECT CHIP 3.3uF	0 16V
C311	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C312	1-124-257-00	ELECT 2.2uF	20% 50V
C313	1-128-014-11	ELECT CHIP 10uF	0 4V
C314	1-126-157-11	ELECT 10uF	20% 16V
C315	1-128-015-11	ELECT CHIP 22uF	4V (EXCEPT US)
C317	1-135-221-11	TANTAL. CHIP 3.3uF	20% 4V
C318	1-164-227-11	CERAMIC CHIP 0.022uF	10% 25V
C319	1-164-234-11	CERAMIC CHIP 1uF	10V
C320	1-124-434-00	ELECT 220uF	20% 4V
C321	1-135-201-11	TANTALUM CHIP 10uF	20% 4V
C322	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C323	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C324	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C601	1-128-045-11	ELECT CHIP 0.22uF	0 50V
C602	1-135-145-11	TANTALUM CHIP 0.47uF	10% 35V
C603	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V
C604	1-128-049-11	ELECT CHIP 1uF	0 50V
C605	1-164-492-11	CERAMIC CHIP 0.15uF	10% 16V
C606	1-163-833-00	CERAMIC CHIP 0.068uF	25V
C608	1-163-833-00	CERAMIC CHIP 0.068uF	25V
C609	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C610	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C611	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C702	1-128-028-11	ELECT CHIP 3.3uF	0 16V
C703	1-128-015-11	ELECT CHIP 22uF	4V (EXCEPT US)
C704	1-164-238-11	CERAMIC CHIP 36PF	5% 50V



Ref. No.	Part No.	Description	Remark
C705	1-164-005-11	CERAMIC CHIP 0.47uF	25V
C706	1-164-005-11	CERAMIC CHIP 0.47uF	25V
C707	1-164-346-11	CERAMIC CHIP 1uF	16V
C708	1-164-156-11	CERAMIC CHIP 0.1uF	25V
< CONNECTOR >			
CN301	1-569-252-21	HOUSING, CONNECTOR (FPC) 5P	
< DIODE >			
D101	8-719-422-37	DIODE MA8051	
D201	8-719-422-37	DIODE MA8051	
D301	8-719-975-06	LED CL-70G-CD	
D302	8-719-420-51	DIODE MA729	
D303	8-719-800-76	DIODE 1SS226	
D304	8-719-422-37	DIODE MA8051	
D305	8-719-422-37	DIODE MA8051	
D306	8-719-422-37	DIODE MA8051	
D701	8-719-812-41	LED TLR124	
D702	8-719-812-41	LED TLR124	
D704	8-719-420-51	DIODE MA729	
D705	8-719-941-09	DIODE DAP202U	
D706	8-719-941-09	DIODE DAP202U	
D707	8-719-105-45	DIODE RD3.3M-B1	
< IC >			
IC301	8-759-823-31	IC LA4581MS	
IC302	8-759-701-07	IC NJM2063AM	
IC303	8-759-512-77	IC RC2106M	
IC601	8-759-996-13	IC TLP326ADB	
IC701	8-759-046-94	IC MSM6576-03GS-K	
< PHOTO INTERRUPTER >			
PH701	8-759-710-38	DIODE, PHOTO NJL5161K-F1-B	
< JACK >			
J301	1-573-794-21	JACK (PHONES)	
J501	1-580-372-21	JACK (DC IN)	
< JUMPER RESISTOR >			
JR1	1-216-864-11	METAL CHIP 0 5% 1/16W	
JR2	1-216-864-11	METAL CHIP 0 5% 1/16W	
JR3	1-216-864-11	METAL CHIP 0 5% 1/16W	
JR4	1-216-864-11	METAL CHIP 0 5% 1/16W	
JR5	1-216-864-11	METAL CHIP 0 5% 1/16W	
JR6	1-216-864-11	METAL CHIP 0 5% 1/16W	
JR101	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR102	1-216-296-00	METAL CHIP 0 5% 1/8W	

Ref. No.	Part No.	Description	Remark
< TRANSISTOR >			
Q101	8-729-420-53	TRANSISTOR UN5115	
Q102	8-729-402-55	TRANSISTOR 2SB1218A-R	
Q201	8-729-420-53	TRANSISTOR UN5115	
Q202	8-729-402-55	TRANSISTOR 2SB1218A-R	
Q301	8-729-602-21	TRANSISTOR 2SC4154	
Q302	8-729-403-17	TRANSISTOR XN1215	
Q303	8-729-402-32	TRANSISTOR 2SD1819A-R	
Q304	8-729-807-87	TRANSISTOR 2SB1295-UL6	
Q305	8-729-402-32	TRANSISTOR 2SD1819A-R	
Q306	8-729-403-17	TRANSISTOR XN1215	
Q307	8-729-403-45	TRANSISTOR XN1115	
Q308	8-729-402-93	TRANSISTOR UN5214	
Q309	8-729-402-55	TRANSISTOR 2SB1218A-R	
Q310	8-729-402-32	TRANSISTOR 2SD1819A-R	
Q311	8-729-403-17	TRANSISTOR XN1215	
Q314	8-729-602-21	TRANSISTOR 2SC4154	
Q603	8-729-141-48	TRANSISTOR 2SB624-BV345	
Q604	8-729-141-48	TRANSISTOR 2SB624-BV345	
Q605	8-729-402-93	TRANSISTOR UN5214	
Q606	8-729-140-75	TRANSISTOR 2SD999-CLCK	
Q701	8-729-403-17	TRANSISTOR XN1215	
Q702	8-729-420-50	TRANSISTOR UN5215	
Q703	8-729-602-36	TRANSISTOR 2SA1602	
Q704	8-729-921-58	TRANSISTOR DTA144TU	
Q705	8-729-602-36	TRANSISTOR 2SA1602	
Q706	8-729-602-21	TRANSISTOR 2SC4154	
Q707	8-729-421-26	TRANSISTOR UN5216	
Q709	8-729-602-36	TRANSISTOR 2SA1602	
< RESISTOR >			
R101	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R102	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R103	1-218-484-11	METAL GLAZE 750 5% 1/16W	
R104	1-216-836-11	METAL CHIP 18K 5% 1/16W	
R105	1-216-835-11	METAL CHIP 15K 5% 1/16W	
R106	1-216-855-11	METAL CHIP 680K 5% 1/16W	
R107	1-218-448-11	METAL GLAZE 430K 5% 1/16W	
R108	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
R109	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R110	1-216-834-11	METAL CHIP 12K 5% 1/16W	
R111	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R112	1-218-292-11	METAL GLAZE 20K 5% 1/16W	
R113	1-216-831-11	METAL CHIP 6.8K 5% 1/16W (US)	
R113	1-216-833-11	METAL CHIP 10K 5% 1/16W (EXCEPT US)	

# AUDIO

Ref. No.	Part No.	Description	Remark
R115	1-216-815-11	METAL CHIP	330 5% 1/16W
R116	1-216-809-11	METAL CHIP	100 5% 1/16W
R201	1-216-841-11	METAL CHIP	47K 5% 1/16W
R202	1-216-841-11	METAL CHIP	47K 5% 1/16W
R203	1-218-484-11	METAL GLAZE	750 5% 1/16W
R204	1-216-836-11	METAL CHIP	18K 5% 1/16W
R205	1-216-835-11	METAL CHIP	15K 5% 1/16W
R206	1-216-855-11	METAL CHIP	680K 5% 1/16W
R207	1-218-448-11	METAL GLAZE	430K 5% 1/16W
R208	1-216-827-11	METAL CHIP	3.3K 5% 1/16W
R209	1-216-841-11	METAL CHIP	47K 5% 1/16W
R210	1-216-834-11	METAL CHIP	12K 5% 1/16W
R211	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R212	1-218-292-11	METAL GLAZE	20K 5% 1/16W
R213	1-216-831-11	METAL CHIP	6.8K 5% 1/16W(US)
R213	1-216-833-11	METAL CHIP	10K 5% 1/16W(EXCEPT US)
R215	1-216-815-11	METAL CHIP	330 5% 1/16W
R216	1-216-809-11	METAL CHIP	100 5% 1/16W
R301	1-216-841-11	METAL CHIP	47K 5% 1/16W
R302	1-216-845-11	METAL CHIP	100K 5% 1/16W
R303	1-218-448-11	METAL GLAZE	430K 5% 1/16W
R304	1-216-839-11	METAL CHIP	33K 5% 1/16W(US)
R304	1-216-835-11	METAL CHIP	15K 5% 1/16W(EXCEPT US)
R305	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
R306	1-216-842-11	METAL CHIP	56K 5% 1/16W
R307	1-216-845-11	METAL CHIP	100K 5% 1/16W
R308	1-216-821-11	METAL CHIP	1K 5% 1/16W
R309	1-216-821-11	METAL CHIP	1K 5% 1/16W
R310	1-216-845-11	METAL CHIP	100K 5% 1/16W
R311	1-216-845-11	METAL CHIP	100K 5% 1/16W
R312	1-216-833-11	METAL CHIP	10K 5% 1/16W(US)
R312	1-216-835-11	METAL CHIP	15K 5% 1/16W(EXCEPT US)
R313	1-216-845-11	METAL CHIP	100K 5% 1/16W
R314	1-216-833-11	METAL CHIP	10K 5% 1/16W
R315	1-216-849-11	METAL CHIP	220K 5% 1/16W
R316	1-216-817-11	METAL CHIP	470 5% 1/16W
R317	1-216-813-11	METAL CHIP	220 5% 1/16W
R318	1-216-833-11	METAL CHIP	10K 5% 1/16W
R319	1-216-821-11	METAL CHIP	1K 5% 1/16W
R601	1-216-821-11	METAL CHIP	1K 5% 1/16W
R602	1-216-821-11	METAL CHIP	1K 5% 1/16W
R605	1-216-843-11	METAL CHIP	68K 5% 1/16W
R606	1-216-836-11	METAL CHIP	18K 5% 1/16W
R607	1-216-797-11	METAL GLAZE	10 5% 1/16W
R608	1-216-833-11	METAL CHIP	10K 5% 1/16W
R609	1-216-831-11	METAL CHIP	6.8K 5% 1/16W
R610	1-216-809-11	METAL CHIP	100 5% 1/16W

Ref. No.	Part No.	Description	Remark
R611	1-216-809-11	METAL CHIP	100 5% 1/16W
R701	1-216-674-11	METAL CHIP	9.1K 0.5% 1/10W
R702	1-216-640-11	METAL CHIP	360 0.5% 1/10W
R703	1-216-828-11	METAL CHIP	3.9K 5% 1/16W
R704	1-216-815-11	METAL CHIP	330 5% 1/16W
R705	1-216-847-11	METAL CHIP	150K 5% 1/16W
R706	1-216-649-11	METAL CHIP	820 0.5% 1/10W
R707	1-216-651-11	METAL CHIP	1K 0.5% 1/10W
R708	1-216-653-11	METAL CHIP	1.2K 0.5% 1/10W
R709	1-216-821-11	METAL CHIP	1K 5% 1/16W
R710	1-216-841-11	METAL CHIP	47K 5% 1/16W
R711	1-216-845-11	METAL CHIP	100K 5% 1/16W
R712	1-216-821-11	METAL CHIP	1K 5% 1/16W
R713	1-216-828-11	METAL CHIP	3.9K 5% 1/16W
R714	1-216-821-11	METAL CHIP	1K 5% 1/16W
R715	1-216-845-11	METAL CHIP	100K 5% 1/16W
R717	1-216-851-11	METAL CHIP	330K 5% 1/16W
R718	1-216-845-11	METAL CHIP	100K 5% 1/16W
R719	1-216-845-11	METAL CHIP	100K 5% 1/16W
R720	1-216-839-11	METAL CHIP	33K 5% 1/16W
R721	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R722	1-216-821-11	METAL CHIP	1K 5% 1/16W
R723	1-216-845-11	METAL CHIP	100K 5% 1/16W
R724	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
R725	1-216-845-11	METAL CHIP	100K 5% 1/16W
R726	1-216-809-11	METAL CHIP	100 5% 1/16W
< VARIABLE RESISTOR >			
RV301	1-241-853-11	RES, VAR, CARBON (10K/10K)	
RV601	1-241-916-11	RES, VAR, CARBON 4.7K	
< SWITCH >			
S301	1-571-275-31	SWITCH, SLIDE (DOLBY NR)	
S303	1-571-506-41	SWITCH, SLIDE (MEGA BASS)	
S701	1-692-072-11	SWITCH, PUSH (A/B)	
S702	1-571-275-31	SWITCH, SLIDE (MODE)	
S703	1-572-581-11	SWITCH, SLIDE (NR SW)	
S704	1-571-533-31	SWITCH, KEY BOARD (STOP)	
S705	1-571-533-31	SWITCH, KEY BOARD (PLAY)	
S706	1-571-533-31	SWITCH, KEY BOARD (FF)	
S707	1-571-533-31	SWITCH, KEY BOARD (REW)	
< VIBRATOR >			
X701	1-579-258-11	VIBRATOR, CRYSTAL	

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Ref. No.	Part No.	Description	Remark		
	A-3041-705-A	REMOTE CONTROL COMPLETE ASSY (EXCEPT US)			
	A-3041-716-A	REMOTE CONTROL COMPLETE ASSY (US)			
*****					
J801	1-690-764-11	CORD (WITH CONNECTOR) (US)			
	1-690-927-11	CORD (WITH PLUG)			
< JUMPER RESISTOR >					
JR1	1-216-295-00	METAL CHIP	0	5%	1/10W
JR2	1-216-295-00	METAL CHIP	0	5%	1/10W
JR3	1-216-296-00	METAL CHIP	0	5%	1/8W
JR4	1-216-295-00	METAL CHIP	0	5%	1/10W
< RESISTOR >					
R811	1-216-649-11	METAL CHIP	820	0.5%	1/10W
R812	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R813	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W
R814	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R815	1-216-049-00	METAL CHIP	1K	5%	1/10W
R816	1-216-049-00	METAL CHIP	1K	5%	1/10W
R817	1-216-085-00	METAL CHIP	33K	5%	1/10W
< SWITCH >					
S801	1-572-473-11	SWITCH, TACTIL (STOP)			
S802	1-572-473-11	SWITCH, TACTIL (PLAY)			
S803	1-570-204-21	SWITCH, KEY BOARD (FF)			
S804	1-570-204-21	SWITCH, KEY BOARD (REW)			
S806	1-570-675-11	SWITCH, SLIDE (HOLD)			
S807	1-570-386-21	SWITCH, SLIDE (AVLS)			

Ref. No.	Part No.	Description	Remark
MISCELLANEOUS			
*****			
25	1-690-764-11	CORD (WITH CONNECTOR)	
31	8-953-341-91	HEADPHONE MDR-14/1 SET (US)	
32	1-690-927-11	CORD (WITH PLUG)	
33	8-953-486-90	HEADPHONE MDR-E551PT/K SET (EXCEPT US)	
76	1-642-919-11	PC BOARD, SOLENOID FLEXIBLE	
84	1-642-783-11	PC BOARD, MOTOR FLEXIBLE	
HP901	1-543-922-11	HEAD, MAGNETIC (PLAYBACK)	
M901	1-541-971-11	MOTOR	
PM901	1-454-583-11	SOLENOID, PLUNGER	

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ACCESSORIES & PACKING MATERIALS

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	1-691-322-11	ADAPTOR, PLUG	
*	3-376-311-01	CUSHION	
*	3-376-763-01	INDIVIDUAL CARTON (US)	
*	3-376-764-01	INDIVIDUAL CARTON (EXCEPT US)	
	3-380-124-01	CASE CARRYING	
	3-754-834-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (AEP, E)	
	3-754-834-21	MANUAL, INSTRUCTION (ENGLISH) (US, UK)	
	3-754-834-41	MANUAL, INSTRUCTION (GERMAN, SPANISH) (AEP, E)	
	3-754-834-51	MANUAL, INSTRUCTION (DUTCH, SWEDISH) (AEP)	
	3-754-834-61	MANUAL, INSTRUCTION (ITALIAN, PORTUGUESE) (AEP)	
	X-3329-657-1	ATTACHMENT ASSY (EXCEPT US)	

Part No.	Part Name	QTY	Unit Price	Total Price
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Sony Corporation  
General Audio Group

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