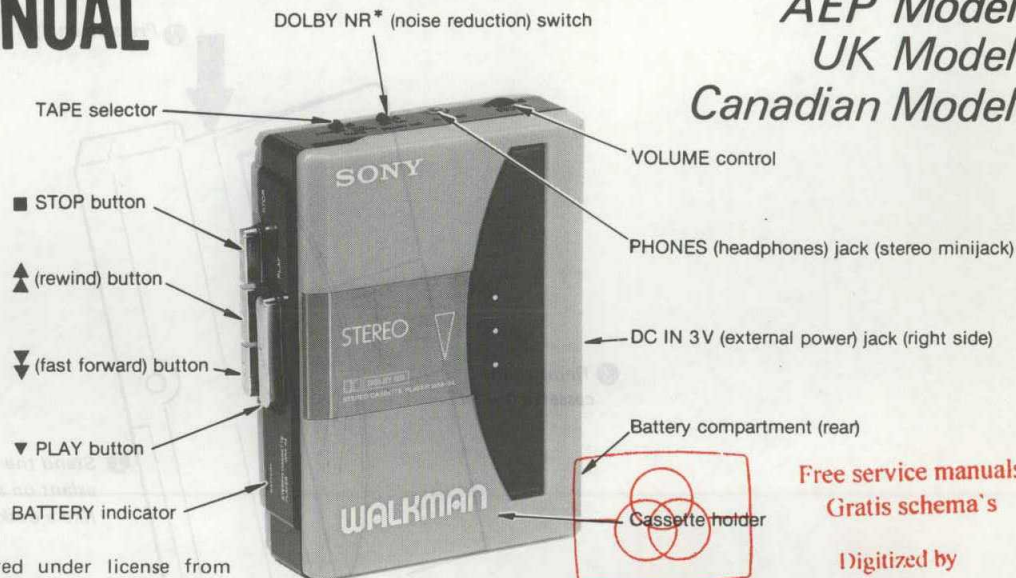



WM-34

SERVICE MANUAL

*AEP Model
UK Model
Canadian 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.

Free service manuals
Gratis schema's

Digitized by

www.freeservicemanuals.info

SPECIFICATIONS

Tape track

4-track 2-channel stereo

Fast winding time

Approx. 3 min. 20 sec. with Sony C-60 cassette

Frequency response

40—14,000 Hz (with the tape selector set to

CrO₂/METAL)

40—14,000 Hz (with the tape selector set to NORM)

Power output

15 mW + 15 mW at DC operation (at 10% harmonic distortion) load impedance 32 ohms

Power requirements

3 V DC

Two R6 (size AA) batteries

External batteries (used in the optional Sony EBP-500

battery case): two R20 (size D) batteries

DC IN 3V jack accepts:

optional Sony AC-D2M AC power adaptor

available in Canada for use on 120V AC, 60Hz

available in the United Kingdom for use on 240V AC,

50Hz

available in European countries for use on 220V AC,

50 Hz

available in other countries for use on 120V AC, 60Hz

or 220V AC, 50 Hz

optional Sony DCC-70 car battery cord for use on 12V

car battery

Model Name Using Similar Mechanism	WM-33/WM-F43
Tape Transport Mechanism Type	MT-WM34-04

Battery life

Batteries	Continuous playback hours
Sony batteries SUM-3(NS)	Approx. 4
Sony alkaline batteries AM3	Approx. 8

For maximum performance we recommend the use of alkaline batteries.

Dimensions

Approx. 93.4 × 122.1 × 33.8 mm (w/h/d)
(3 3/4 × 4 7/8 × 1 3/8 inches)

incl. projecting parts and controls

Weight

Approx. 215 g (7.58 oz) incl. batteries, not incl. other accessories

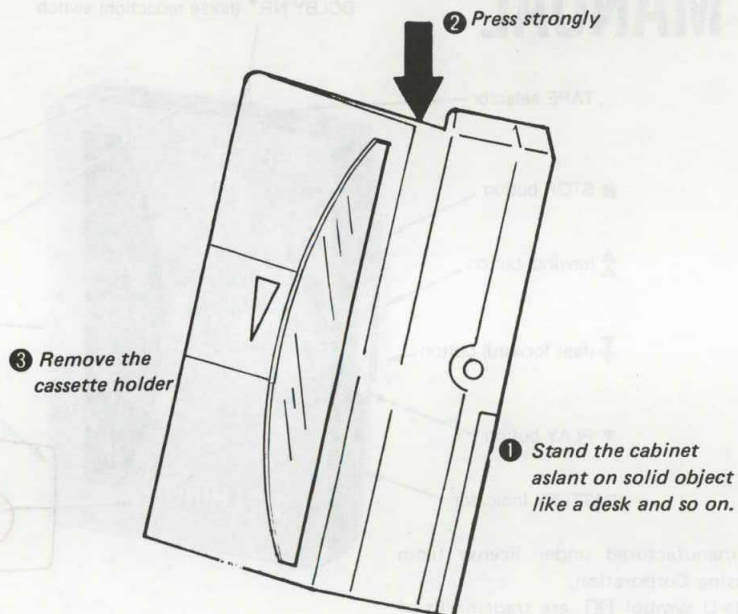


STEREO CASSETTE PLAYER
SONY

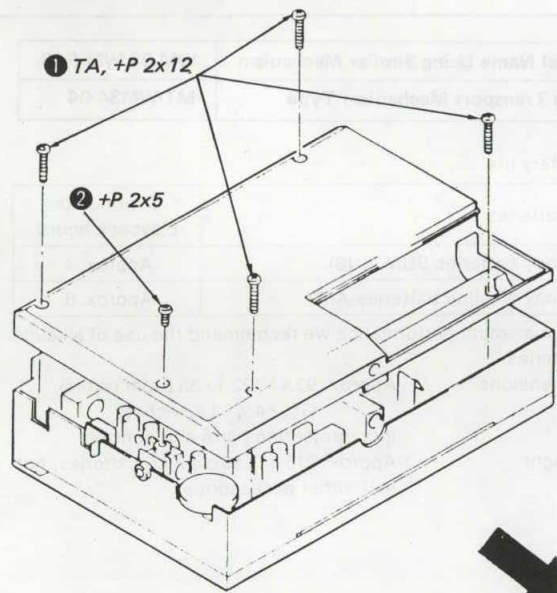
SECTION 1 OUTLINE

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

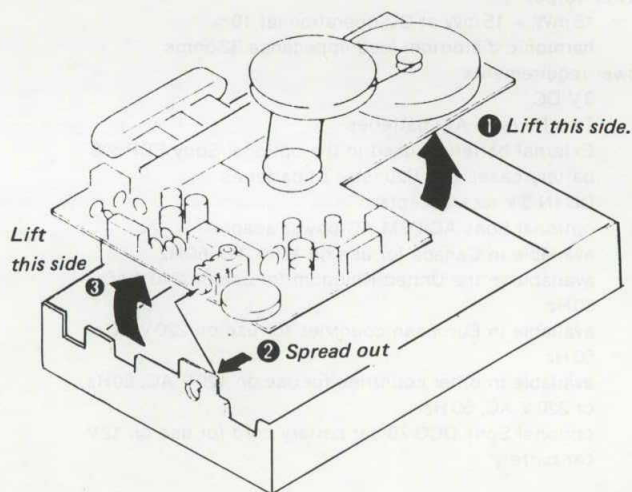
CASSETTE HOLDER REMOVAL



CABINET (REAR) REMOVAL



CIRCUIT BOARD & TRANSPORT MECHANISM REMOVAL



SECTION 2 ADJUSTMENTS

2-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:
Playback head pinch roller
capstan
rubber belts
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 unless otherwise noted.

Torque Measurement

Torque	Meter Reading	Torque Meter
Forward	22-45 g·cm (0.3-0.63 oz·inch)	CQ-102C
Fast Forward	55-150 g·cm (0.77-2.1 oz·inch)	CQ-201B
Rewind	55-150 g·cm (0.77-2.1 oz·inch)	CQQ201-B
Back Tension	0.5-2 g·cm (0.007-0.028 oz·inch)	CQ-102C

Tape Tension Measurement

Meter	Meter Reading
CQ-403A	more than 100 g (3.57 oz)

2-2. ELECTRICAL ADJUSTMENTS

CASSETTE Section

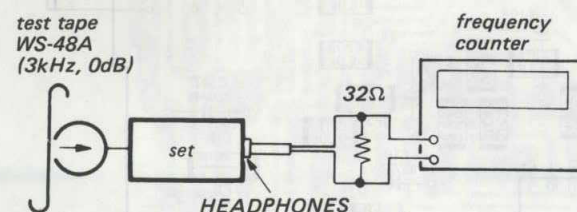
Tape Speed Adjustment

Setting

VOL control: mechanical mid

Procedure:

Mode: playback



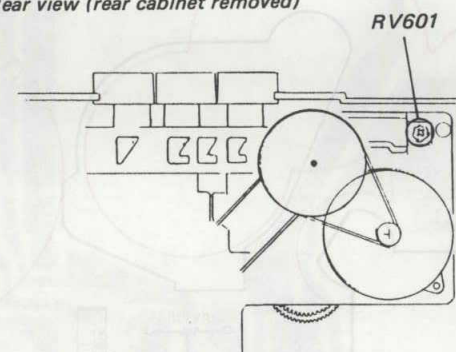
Specifications:

Digital frequency counter
2,990 – 3,010 Hz

Adjust RV601
Frequency difference between beginning and end of tape should be within $\pm 1\%$ (30 Hz).

Adjustment Location: main board

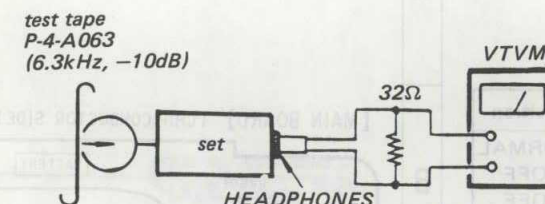
Rear view (rear cabinet removed)



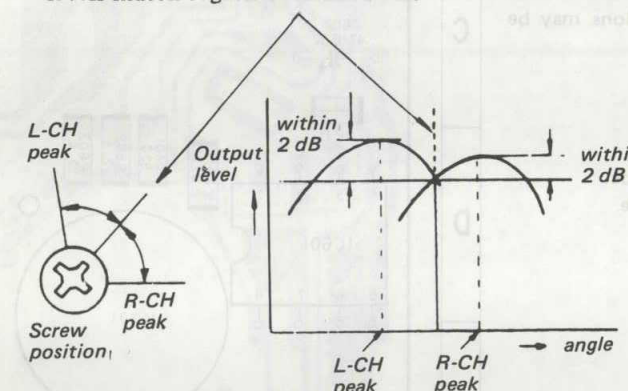
Playback Head Azimuth Adjustment

Procedure:

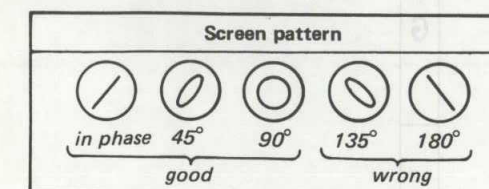
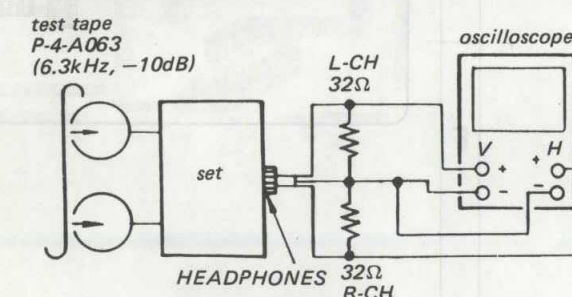
1. Mode: playback



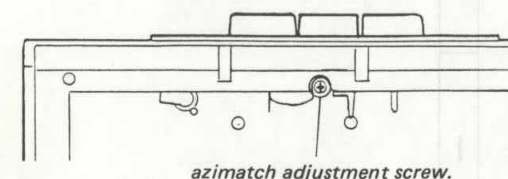
2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 2 dB.



3. Phase Check
Mode: playback



Adjustment Location:



azimuth adjustment screw.

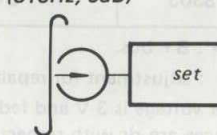
DOLBY NR Adjustment

CAUTION Head Earth is Plus Voltage.

Setting:

TAPE Switch NORM
DOLBY NR Switch OFF

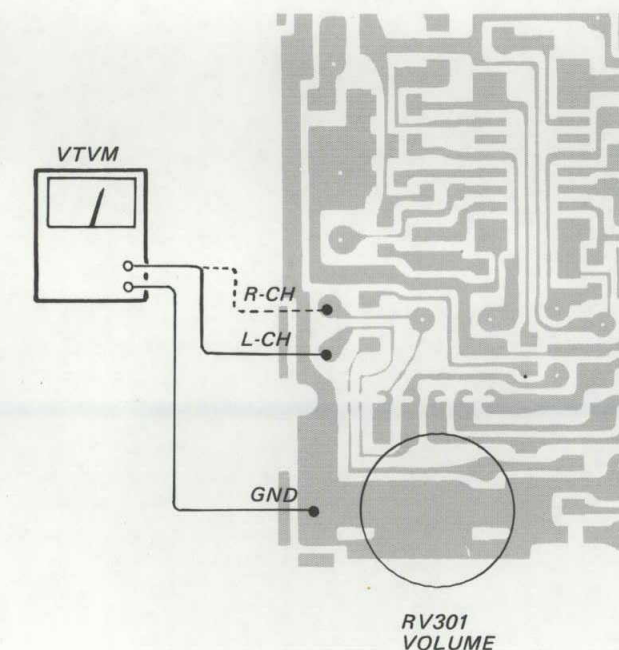
test tape
P-4-L300
(315Hz, 0dB)



Procedure:

Adjust RV101 (L-CH), RV201 (R-CH) for $-20.5 \text{ dB} \pm 0.5 \text{ dB}$ reading on the VTVM.

Adjustment Location: main board



SECTION 3
DIAGRAMS

• Semiconductor Lead Layouts.

AN6650-LF

(TOP VIEW)

LA4570

(Top view)

NJM2063AM

cathode
anode

LN242RPH

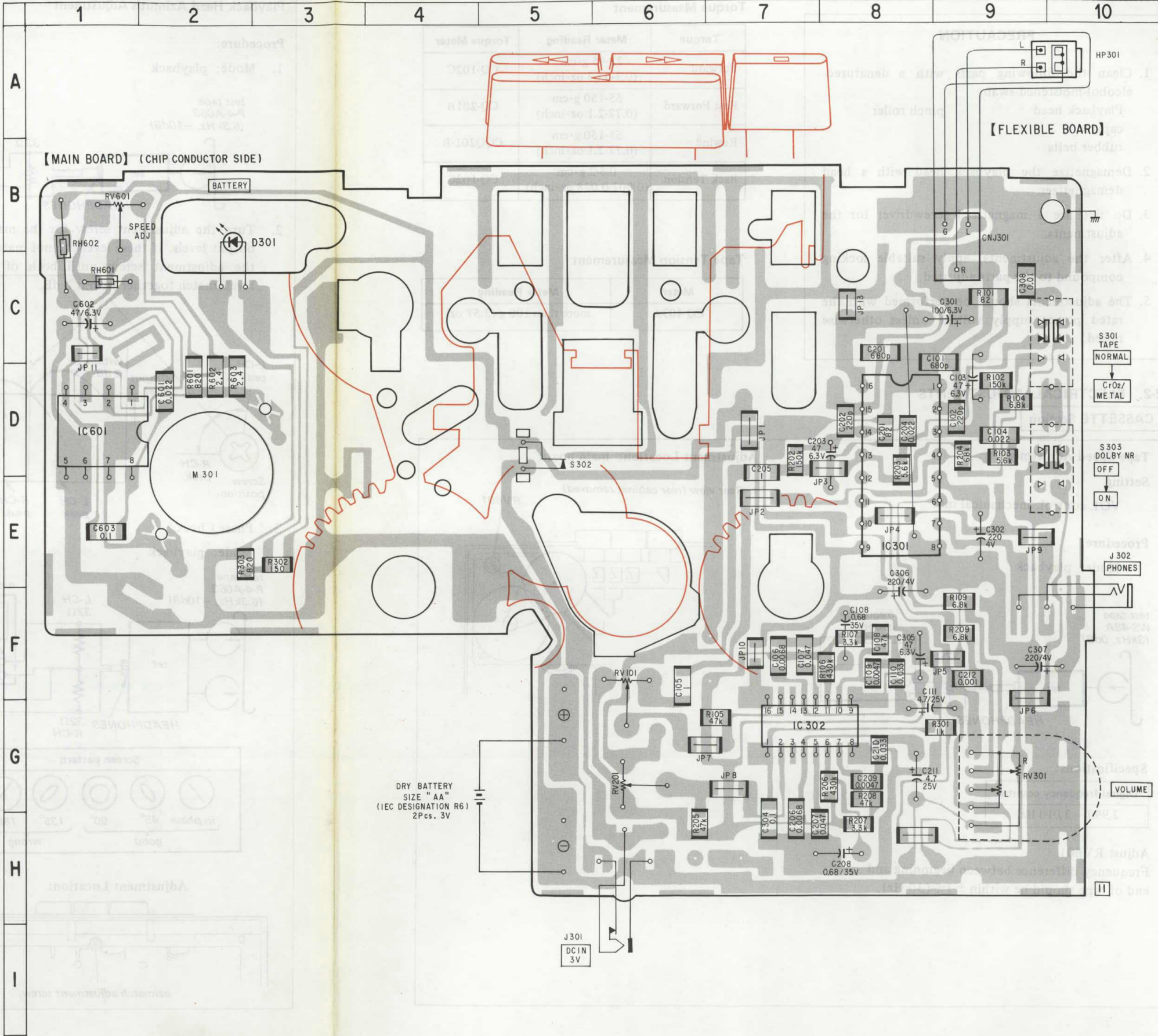
Note:

- 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 $\frac{1}{8}\text{W}$ or less unless otherwise specified.
- : L-CH
- - - : R-CH
- Switch

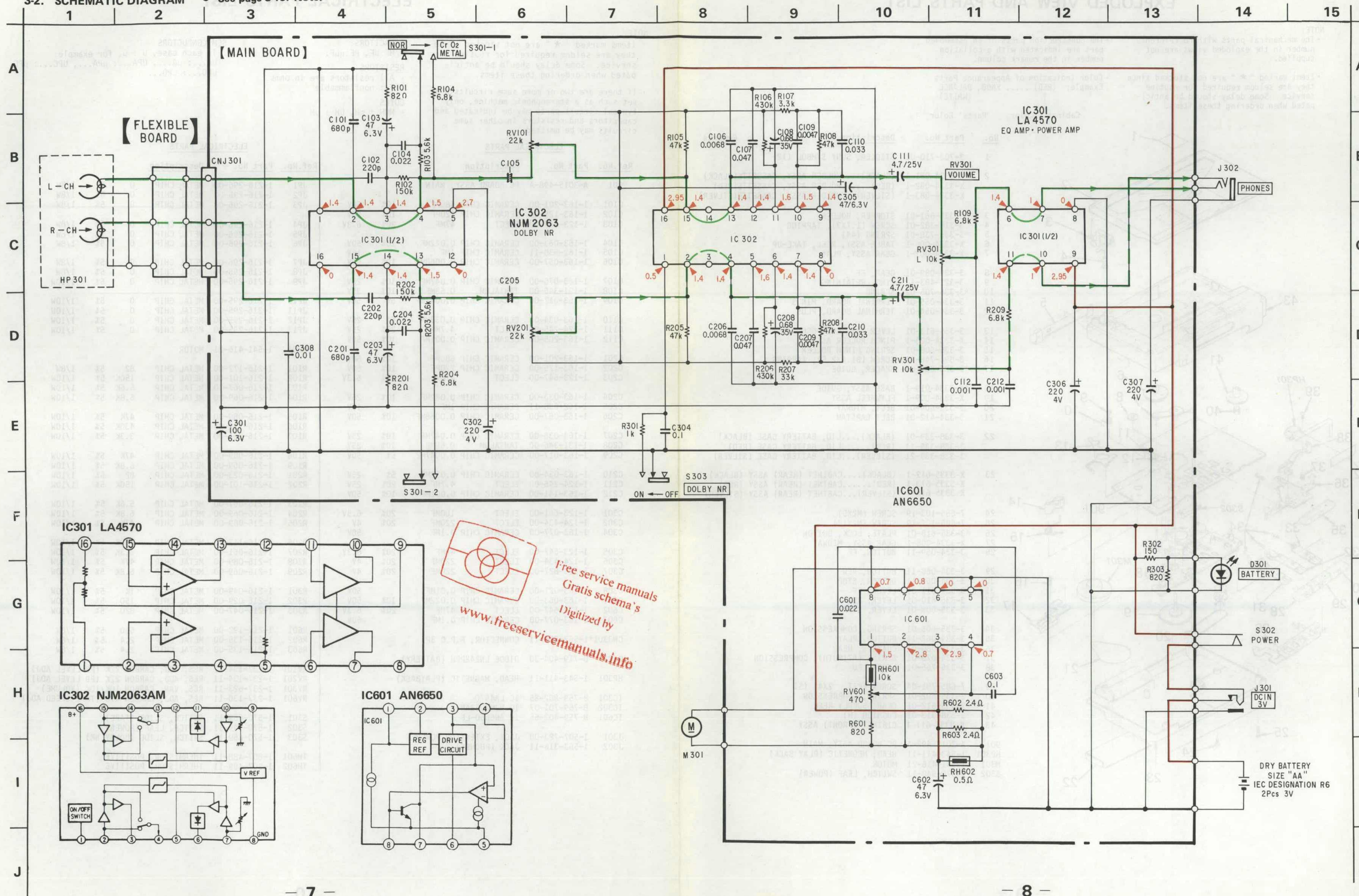
Ref. No.	Switch	Position
S301	TAPE	NORMAL
S302	POWER	OFF
S303	DOLBY	OFF

- : B+ bus.
- : adjustment for repair.
- Power voltage is 3 V and fed with from Voltages are dc with respect to ground in ► (PLAY) mode with VOM (DC 50K Ω/V). Voltage variations may be noted due to normal production tolerances.
- : PLAY ◀◀ : REW
- : FF ■ : STOP
- : parts extracted from the component side.
- : parts extracted from the conductor side.

3-1. MOUNTING DIAGRAM



3-2. SCHEMATIC DIAGRAM • See page 5 for Note.



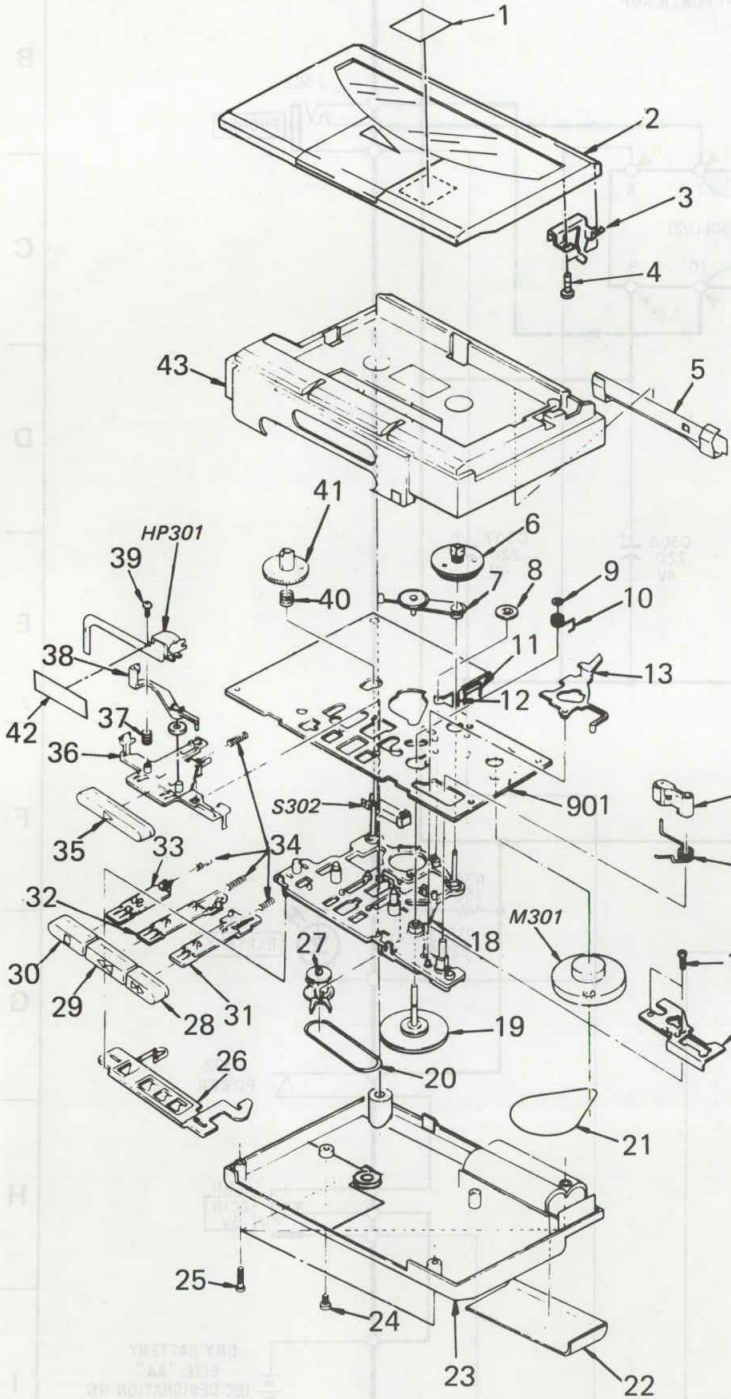
SECTION 4
EXPLODED VIEW AND PARTS LIST

NOTE:
• The mechanical parts with no reference number in the exploded views are not supplied.
• Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

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

• Color Indication of Appearance Parts
Example: (RED) KNOB, BALANCE (WHITE)

Cabinet's Color Parts' Color



No.	Part No.	Description	Remarks
1	3-703-710-01	STICKER, SONY SYMBOL (12)	
2	X-3334-081-1 X-3334-082-1 X-3334-083-1	(BLACK)....HOLDER ASSY, CASSETTE(BLACK) (RED).....HOLDER ASSY, CASSETTE(RED) (SILVER)....HOLDER ASSY, CASSETTE(SILVER)	
3	*3-335-661-01	STOPPER, HOLDER	
4	3-318-382-01	SCREW (1.7X3), TAPPING	
5	*3-336-738-01	SPRING (44)	
6	X-3334-006-1	TABLE ASSY, REEL, TAKE-UP	
7	X-3334-007-1	GEAR ASSY, PLAY	
8	3-334-089-01	GEAR, FF	
9	3-321-483-11	RING, RETAINING	
10	*3-336-705-02	SPRING	
11	3-334-055-01	TERMINAL BOARD, MINUS	
12	3-334-054-01	TERMINAL BOARD, PLUS	
13	3-335-613-01	LEVER (A), SHUT-OFF	
14	X-3334-005-1	PINCH ROLLER ASSY	
15	3-335-608-01	SPRING PINCH ROLLER	
16	3-894-748-11	SCREW (B1.4X2.5), TAPPING	
17	*3-335-667-01	SPACER, GUIDE	
18	*X-3334-019-1	BASE ASSY, GUIDE	
19	X-3334-009-1	FLYWHEEL ASSY	
20	3-335-604-01	BELT, MIDWAY	
21	3-334-412-01	BELT CAPSTAN	
22	3-338-339-01 3-338-339-11 3-338-339-21	(BLACK)....LID, BATTERY CASE (BLACK) (RED).....LID, BATTERY CASE (RED) (SILVER)....LID, BATTERY CASE (SILVER)	
23	X-3335-612-1 X-3335-613-1 X-3335-614-1	(BLACK)....CABINET (REAR) ASSY (BLACK) (RED).....CABINET (REAR) ASSY (RED) (SILVER)....CABINET (REAR) ASSY (SILVER)	
24	7-685-103-19	SCREW (M2X5)	
25	7-685-107-19	SCREW (M2X12)	
26	*3-335-618-01	PLATE, LOCK, BUTTON	
27	X-3334-008-1	GEAR ASSY, MIDWAY	
28	3-334-059-11	BUTTON, FF	
29	3-334-060-11	BUTTON, REW	
30	3-334-061-11	BUTTON, STOP	
31	3-335-611-01	LEVER, FF	
32	3-335-610-01	LEVER, REW	
33	3-335-609-01	LEVER, STOP	
34	3-335-605-01	SPRING, COMPRESSION	
35	3-334-062-11	BUTTON, PLAY	
36	3-334-080-01	CHASSIS, HEAD	
37	3-334-078-01	SPRING (AZIMUTH), COMPRESSION	
38	3-336-765-01	LEVER, PU	
39	7-685-781-04	SCREW +PTT 2X4 (S)	
40	3-335-602-01	SPRING, COMPRESSION	
41	3-335-612-01	GEAR, SUPPLY REEL	
42	3-338-313-01	CUSHION (H)	
43	X-3335-611-1	CIBINET (FRONT) ASSY	
901	A-3015-498-A	PC BOARD ASSY, MAIN	
HP301	1-543-411-11	HEAD, MEGNETIC (PLAY BACK)	
M301	1-541-416-21	MOTOR	
S302	1-570-549-11	SWITCH, LEAF (POWER)	

SECTION 5
ELECTRICAL PARTS LIST

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

CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
• All resistors are in ohms.
• F : nonflammable

COILS
• MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA....: μA..., UPA....: μPA..., UPC....: μPC,
UPD....: μPD...

ELECTRICAL PARTS

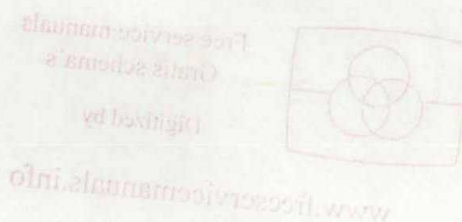
Ref.No.	Part No.	Description			
901	A-3015-498-A	PC BOARD ASSY, MAIN			
C101	1-163-201-00	CERAMIC CHIP 680PF	10%	50V	
C102	1-163-125-00	CERAMIC CHIP 220PF	10%	50V	
C103	1-123-647-00	ELECT 47MF	20%	6.3V	
C104	1-163-063-00	CERAMIC CHIP 0.022MF	10%	50V	
C105	1-162-638-11	CERAMIC CHIP 1MF		16V	
C106	1-163-057-00	CERAMIC CHIP 0.0068MF	10%	50V	
C107	1-163-075-00	CERAMIC CHIP 0.047MF	10%	25V	
C108	1-131-346-00	TANTALUM 0.68MF	10%	35V	
C109	1-163-017-00	CERAMIC CHIP 0.0047MF	5%	50V	
C110	1-163-034-00	CERAMIC CHIP 0.033MF	5%	25V	
C111	1-124-245-00	ELECT 4.7MF	20%	25V	
C112	1-163-205-00	CERAMIC CHIP 0.001MF	10%	50V	
C201	1-163-201-00	CERAMIC CHIP 680PF	10%	50V	
C202	1-163-125-00	CERAMIC CHIP 220PF	10%	50V	
C203	1-123-647-00	ELECT 47MF	20%	6.3V	
C204	1-163-033-00	CERAMIC CHIP 0.022MF	10%	25V	
C205	1-162-638-11	CERAMIC CHIP 1MF		16V	
C206	1-163-057-00	CERAMIC CHIP 0.0068MF	10%	50V	
C207	1-163-035-00	CERAMIC CHIP 0.047MF	10%	25V	
C208	1-131-346-00	TANTALUM 0.68MF	10%	35V	
C209	1-163-017-00	CERAMIC CHIP 0.0047MF	5%	50V	
C210	1-163-034-00	CERAMIC CHIP 0.033MF	5%	25V	
C211	1-124-245-00	ELECT 4.7MF	20%	25V	
C212	1-163-141-00	CERAMIC CHIP 0.001MF	10%	50V	
C301	1-123-661-00	ELECT 100MF	20%	6.3V	
C302	1-124-434-00	ELECT 220MF	20%	4V	
C304	1-163-077-00	CERAMIC CHIP 0.1MF		50V	
C305	1-123-647-00	ELECT 47MF	20%	6.3V	
C306	1-124-434-00	ELECT 220MF	20%	4V	
C307	1-123-827-00	ELECT 220MF	20%	4V	
C308	1-163-021-00	CERAMIC CHIP 0.01MF		50V	
C601	1-163-063-00	CERAMIC CHIP 0.022MF	10%	50V	
C602	1-123-647-00	ELECT 47MF	20%	6.3V	
C603	1-163-077-00	CERAMIC CHIP 0.1MF		50V	
CNJ301*	1-563-350-11	CONNECTOR, F.P.C 3P			
D301	8-719-404-30	DIODE LN242RPH (BATTERY)			
HP301	1-543-411-11	HEAD, MAGNETIC (PLAYBACK)			
IC301	8-759-802-85	IC LA4570			
IC302	8-759-701-07	IC NJM2063AM			
IC601	8-759-403-65	IC AN6650-LF			
J301	1-507-723-00	JACK, EXTENTION POWER			
J302	1-563-316-11	JACK (PHONES)			

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
JP1	1-216-296-00	METAL CHIP	0	5%	1/8W
JP2	1-216-296-00	METAL CHIP	0	5%	1/8W
JP3	1-216-296-00	METAL CHIP	0	5%	1/8W
JP4	1-216-296-00	METAL CHIP	0	5%	1/8W
JP5	1-216-296-00	METAL CHIP	0	5%	1/8W
JP6	1-216-296-00	METAL CHIP	0	5%	1/8W
JP7	1-216-296-00	METAL CHIP	0	5%	1/8W
JP8	1-216-296-00	METAL CHIP	0	5%	1/8W
JP9	1-216-295-00	METAL CHIP	0	5%	1/10W
JP10	1-216-295-00	METAL CHIP	0	5%	1/10W
JP11	1-216-295-00	METAL CHIP	0	5%	1/10W
JP12	1-216-295-00	METAL CHIP	0	5%	1/10W
JP13	1-216-295-00	METAL CHIP	0	5%	1/10W
M301	1-541-416-21	MOTOR			
R101	1-216-172-00	METAL CHIP	82	5%	1/8W
R102	1-216-101-00	METAL CHIP	150K	5%	1/10W
R103	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R104	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R105	1-216-089-00	METAL CHIP	47K	5%	1/10W
R106	1-216-112-00	METAL CHIP	430K	5%	1/10W
R107	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R108	1-216-089-00	METAL CHIP	47K	5%	1/10W
R109	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R201	1-216-023-00	METAL CHIP	82	5%	1/10W
R202	1-216-101-00	METAL CHIP	150K	5%	1/10W
R203	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R204	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R205	1-216-089-00	METAL CHIP	47K	5%	1/10W
R206	1-216-112-00	METAL CHIP	430K	5%	1/10W
R207	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R208	1-216-089-00	METAL CHIP	47K	5%	1/10W
R209	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R301	1-216-049-00	METAL CHIP	1K	5%	1/10W
R302	1-216-029-00	METAL CHIP	150	5%	1/10W
R303	1-216-047-00	METAL CHIP	820	5%	1/10W
R601	1-216-192-00	METAL CHIP	560	5%	1/8W
R602	1-216-135-00	METAL CHIP	2.4	5%	1/8W
R603	1-216-135-00	METAL CHIP	2.4	5%	1/8W
RV101	1-237-134-11	RES, ADJ, CARBON 22K (PB LEVEL ADJ)			
RV201	1-237-134-11	RES, ADJ, CARBON 22K (PB LEVEL ADJ)			
RV301	1-237-623-11	RES, VAR, CARBON 10K/10K (VOLUME)			
RV601	1-237-130-11	RES, ADJ, CARBON 470 (TAPE SPEED ADJ)			
S301	1-570-659-11	SWITCH, SLIDE (TAPE)			
S302	1-570-549-11	SWITCH, LEAF (POWER)			
S303	1-570-659-11	SWITCH, SLIDE (DOLBY NR)			
TH601	1-807-488-11	THERMISTOR, POSITIVE			
TH602	1-807-489-11	THERMISTOR, POSITIVE			

ACCESSORY & PACKING MATERIAL

<u>Part No.</u>	<u>Description</u>
3-703-895-01	(BLACK)....LABEL, COLOR (BLACK)
3-703-905-01	(RED).....LABEL, COLOR (RED)
3-703-906-01	(SILVER)...LABEL, COLOR (SILVER)
3-765-888-11	MANUAL, INSTRUCTION
3-765-888-41	(AEP ONLY)...MANUAL, INSTRUCTION
8-952-268-90	HEADPHONE MDR-010L SET
X-3334-010-1	CASE ASSY, CARRYING



Sony Corporation
Audio Group

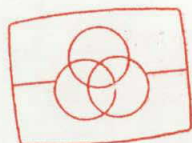
English
87C0382-1
Printed in Japan
© 1987. 3

0-882-888-11

WM-34

Digitized by WWW.FREESERVICEMANUALS.INFO

Part No.	Description
9-952-588-01	HEADPHONE MONITOR SET
9-952-588-02	CASE ASSY. CARRYING
9-952-588-03	MANUAL, INSTRUCTION
9-952-588-04	MANUAL, INSTRUCTION
9-952-588-05	MANUAL, INSTRUCTION
9-952-588-06	MANUAL, INSTRUCTION
9-952-588-07	MANUAL, INSTRUCTION
9-952-588-08	MANUAL, INSTRUCTION
9-952-588-09	MANUAL, INSTRUCTION
9-952-588-10	MANUAL, INSTRUCTION
9-952-588-11	MANUAL, INSTRUCTION
9-952-588-12	MANUAL, INSTRUCTION
9-952-588-13	MANUAL, INSTRUCTION
9-952-588-14	MANUAL, INSTRUCTION
9-952-588-15	MANUAL, INSTRUCTION
9-952-588-16	MANUAL, INSTRUCTION
9-952-588-17	MANUAL, INSTRUCTION
9-952-588-18	MANUAL, INSTRUCTION
9-952-588-19	MANUAL, INSTRUCTION
9-952-588-20	MANUAL, INSTRUCTION
9-952-588-21	MANUAL, INSTRUCTION
9-952-588-22	MANUAL, INSTRUCTION
9-952-588-23	MANUAL, INSTRUCTION
9-952-588-24	MANUAL, INSTRUCTION
9-952-588-25	MANUAL, INSTRUCTION
9-952-588-26	MANUAL, INSTRUCTION
9-952-588-27	MANUAL, INSTRUCTION
9-952-588-28	MANUAL, INSTRUCTION
9-952-588-29	MANUAL, INSTRUCTION
9-952-588-30	MANUAL, INSTRUCTION
9-952-588-31	MANUAL, INSTRUCTION
9-952-588-32	MANUAL, INSTRUCTION
9-952-588-33	MANUAL, INSTRUCTION
9-952-588-34	MANUAL, INSTRUCTION
9-952-588-35	MANUAL, INSTRUCTION
9-952-588-36	MANUAL, INSTRUCTION
9-952-588-37	MANUAL, INSTRUCTION
9-952-588-38	MANUAL, INSTRUCTION
9-952-588-39	MANUAL, INSTRUCTION
9-952-588-40	MANUAL, INSTRUCTION
9-952-588-41	MANUAL, INSTRUCTION
9-952-588-42	MANUAL, INSTRUCTION
9-952-588-43	MANUAL, INSTRUCTION
9-952-588-44	MANUAL, INSTRUCTION
9-952-588-45	MANUAL, INSTRUCTION
9-952-588-46	MANUAL, INSTRUCTION
9-952-588-47	MANUAL, INSTRUCTION
9-952-588-48	MANUAL, INSTRUCTION
9-952-588-49	MANUAL, INSTRUCTION
9-952-588-50	MANUAL, INSTRUCTION
9-952-588-51	MANUAL, INSTRUCTION
9-952-588-52	MANUAL, INSTRUCTION
9-952-588-53	MANUAL, INSTRUCTION
9-952-588-54	MANUAL, INSTRUCTION
9-952-588-55	MANUAL, INSTRUCTION
9-952-588-56	MANUAL, INSTRUCTION
9-952-588-57	MANUAL, INSTRUCTION
9-952-588-58	MANUAL, INSTRUCTION
9-952-588-59	MANUAL, INSTRUCTION
9-952-588-60	MANUAL, INSTRUCTION
9-952-588-61	MANUAL, INSTRUCTION
9-952-588-62	MANUAL, INSTRUCTION
9-952-588-63	MANUAL, INSTRUCTION
9-952-588-64	MANUAL, INSTRUCTION
9-952-588-65	MANUAL, INSTRUCTION
9-952-588-66	MANUAL, INSTRUCTION
9-952-588-67	MANUAL, INSTRUCTION
9-952-588-68	MANUAL, INSTRUCTION
9-952-588-69	MANUAL, INSTRUCTION
9-952-588-70	MANUAL, INSTRUCTION
9-952-588-71	MANUAL, INSTRUCTION
9-952-588-72	MANUAL, INSTRUCTION
9-952-588-73	MANUAL, INSTRUCTION
9-952-588-74	MANUAL, INSTRUCTION
9-952-588-75	MANUAL, INSTRUCTION
9-952-588-76	MANUAL, INSTRUCTION
9-952-588-77	MANUAL, INSTRUCTION
9-952-588-78	MANUAL, INSTRUCTION
9-952-588-79	MANUAL, INSTRUCTION
9-952-588-80	MANUAL, INSTRUCTION
9-952-588-81	MANUAL, INSTRUCTION
9-952-588-82	MANUAL, INSTRUCTION
9-952-588-83	MANUAL, INSTRUCTION
9-952-588-84	MANUAL, INSTRUCTION
9-952-588-85	MANUAL, INSTRUCTION
9-952-588-86	MANUAL, INSTRUCTION
9-952-588-87	MANUAL, INSTRUCTION
9-952-588-88	MANUAL, INSTRUCTION
9-952-588-89	MANUAL, INSTRUCTION
9-952-588-90	MANUAL, INSTRUCTION
9-952-588-91	MANUAL, INSTRUCTION
9-952-588-92	MANUAL, INSTRUCTION
9-952-588-93	MANUAL, INSTRUCTION
9-952-588-94	MANUAL, INSTRUCTION
9-952-588-95	MANUAL, INSTRUCTION
9-952-588-96	MANUAL, INSTRUCTION
9-952-588-97	MANUAL, INSTRUCTION
9-952-588-98	MANUAL, INSTRUCTION
9-952-588-99	MANUAL, INSTRUCTION
9-952-588-100	MANUAL, INSTRUCTION



Free service manuals
Gratis schema's

Digitized by

www.freeservicemanuals.info

Sony Corporation
Audio Group

9-952-588-11

Digitized in Heiloo, Holland.

English
87C0262-1
Printed in Japan
© 1987. 3