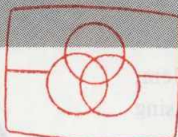


TC-WR500

SERVICE MANUAL



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US Model
AEP Model
UK Model



SPECIFICATIONS

Recording system 4-track 2-channel stereo

Fast-forward and rewind time

Approx. 90 sec. (with C-60 cassette)

Bias AC bias

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

Dolby NR switch	OFF	B-TYPE ON	C-TYPE ON
Cassette			
TYPE IV (Sony METAL-ES)	58 dB	65 dB	71 dB
TYPE II (Sony UX-S)	56 dB	63 dB	69 dB
TYPE I (Sony HF-S)	54 dB	61 dB	67 dB

Total harmonic distortion

1.0% (with Sony METAL-ES cassettes)

Frequency response (DOLBY NR OFF)

TYPE IV cassette (Sony METAL-ES)	30–15,000 Hz (±3 dB, DIN) 30–13,000 Hz (0VU recording)
TYPE II cassette (Sony UX-S)	30–14,000 Hz (±3 dB, DIN)
TYPE I cassette (Sony HF-S)	30–13,000 Hz (±3 dB, DIN)

Wow and flutter 0.12% WRMS (NAB)
±0.2% (DIN)

Inputs

Line inputs (phono jacks)	Sensitivity	77.5 mV (–20 dB)
	Input impedance	50 k ohms

Outputs

Line outputs (phono jacks)	Rated output level	0.44 V (–5 dB) at a load impedance 47 k ohms
	Load impedance	Over 10 k ohms
Headphone output (stereo phone jack)	Output level	0.28 mW at a load impedance of 32 ohms

General

Power requirements

US model:

120 V AC, 60 Hz

AEP model:

220 V AC, 50/60 Hz

UK model:

240 V AC, 50/60 Hz

Power consumption

18 W

Dimensions

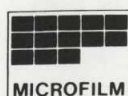
Approx. 430×117.5×250 mm (w/h/d)
(17×4¾×9⅞ inches)

Weight

including projecting parts and controls
Approx. 3.6 kg (7 lbs 15 oz)

Supplied accessories

Audio connecting cord (2)



STEREO CASSETTE DECK
SONY®

SAFETY CHECK-OUT

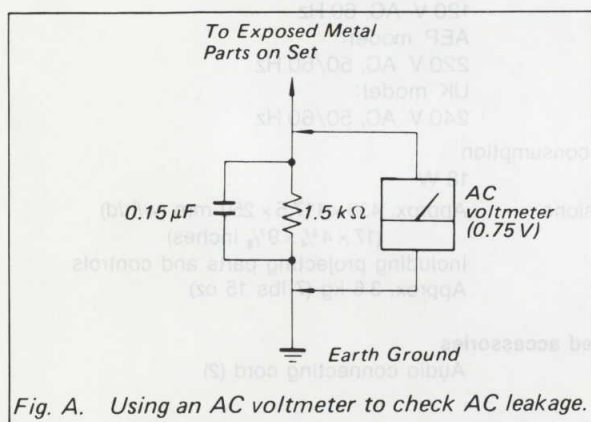
After correcting the original service problem, perform the following safety check before releasing the set to the customer:

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.

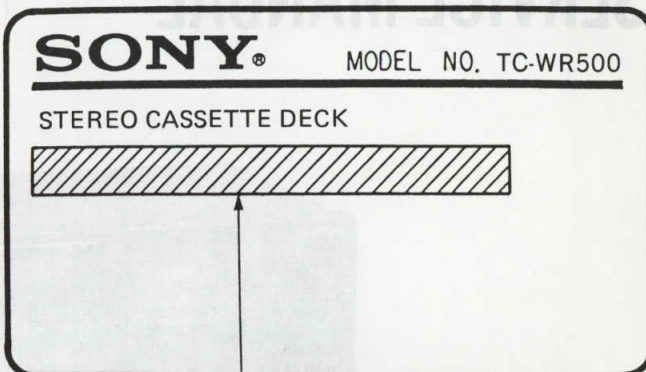
1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means 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)



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.

— MODEL IDENTIFICATION — (Specification Label)



US, model: AC 120V 60Hz 18W
AEP model: AC 220V~50/60Hz 18W
UK model: AC 240V~50/60Hz 18W

SPECIFICATIONS

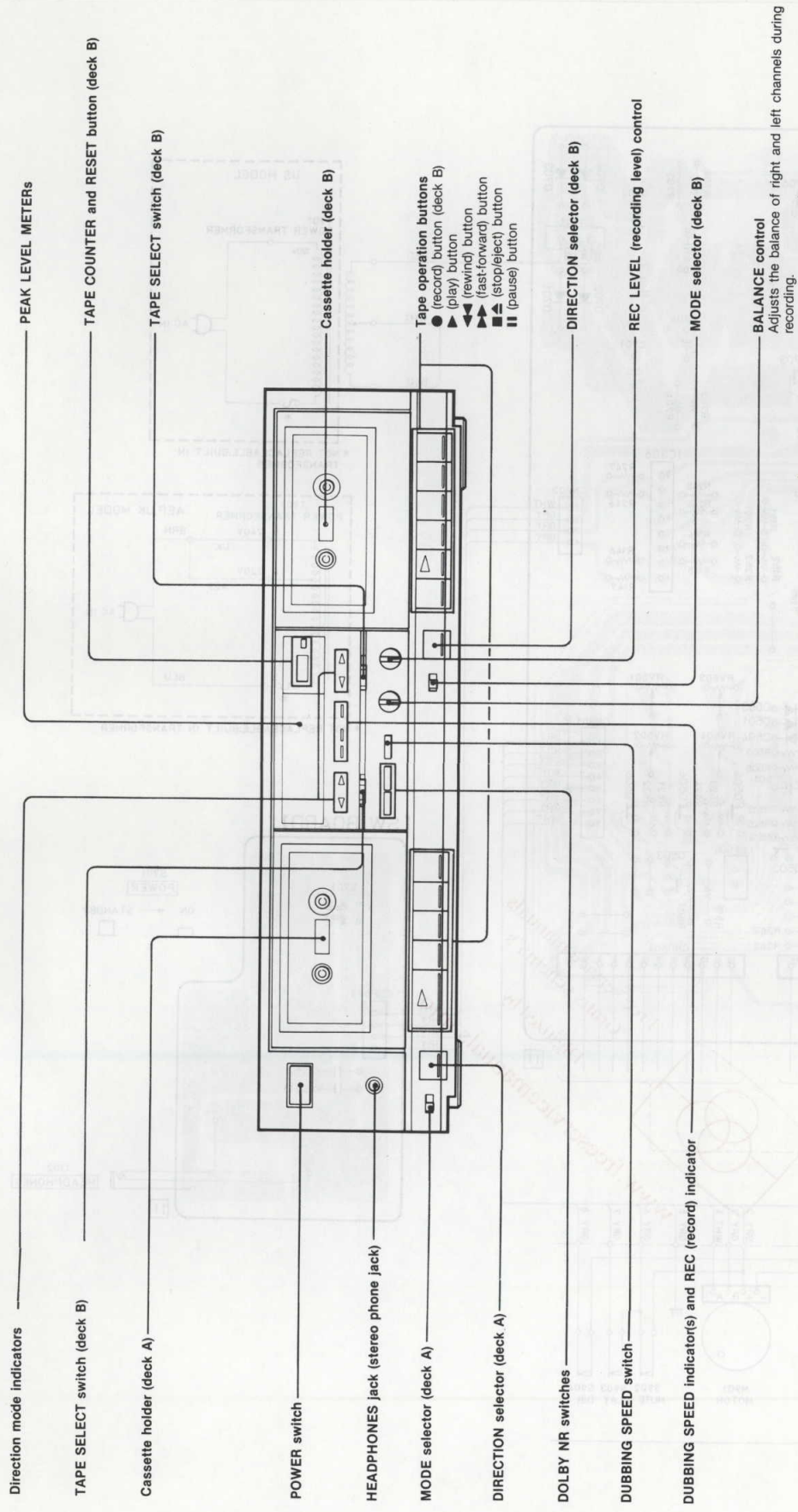
Cassette	OFF	B TYPE ON	C TYPE ON
TYPE IV (Sony METAL-ES)	58 dB	65 dB	71 dB
TYPE II (Sony UX-2)	58 dB	63 dB	69 dB
TYPE I (Sony HF-2)	64 dB	61 dB	67 dB

TYPE IV cassette (Sony METAL-ES)	30 - 18,000 Hz (±3 dB, DIN)
TYPE II cassette (Sony UX-2)	30 - 14,000 Hz (±3 dB, DIN)
TYPE I cassette (Sony HF-2)	30 - 13,000 Hz (±3 dB, DIN)

Line inputs (phone jacks)	77.5 mV (±20 dB)
Input impedance	20 k ohms

SECTION 1
GENERAL

1-1. LOCATION AND FUNCTION OF CONTROLS



SECTION 2
MECHANICAL ADJUSTMENT

PRECAUTION

- Clean the following parts with a denatured-alcohol-moistened swab:
 - record/playback head
 - erase head
 - capstan
 - pinch roller
 - rubber belts
 - idlers

Torque Measurement

Torque	Torquemnt	Meter reading
FWD	CQ-102C	30-70g·cm (0.42-0.97oz·inch)
FWD Back tension	CQ-102C	1.5-5.5g·cm (0.020-0.076oz·inch)
FF, REW	CQ-201B	63g·cm or more (0.87oz·inch or more)

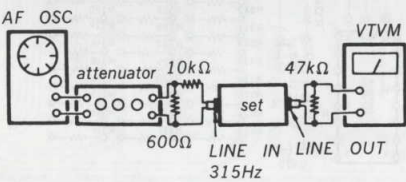
SECTION 3
ELECTRDCAJ ADJUSTMENTS

- Demagnetize the record/playback and erase 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 unless otherwise noted.
- The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
- 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
TAPE select switch: TYPE 1 (NORMAL)
(DECK-B)

Mode: record



Standard Input Level

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

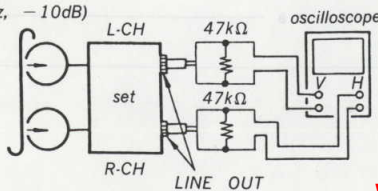
Standard Output Level

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

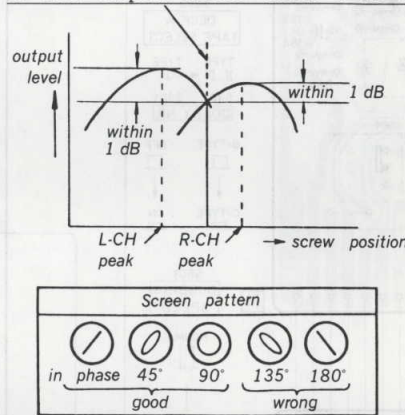
3-1. RECORD/PLAYBACK HEAD AZIMUTH
ADJUSTMENT DECK A/DECK B

Procedure:

- Mode: FWD playback
test tape
P-4-A100
(10kHz, -10dB)

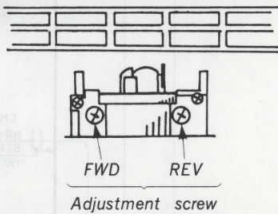


- Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



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

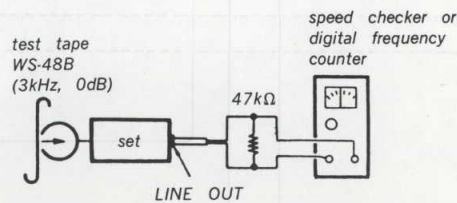
Adjustment Location:



3-2. TAPE SPEED ADJUSTMENT
DECK A/DECK B

Procedure:

Mode: FWD playback



- Connect pin to with the lead wire. (CNP505)

Specification: high speed

Speed checker	Digital frequency counter
0±0.5%	5,980±30Hz

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

Adjustment location:

DECK-A side RV501
DECK-B side RV503

- Remmove the wire in step 1. (CNP505)

Specification: normal speed

Speed checker	Digital frequency counter
0±0.3%	2,980±10Hz

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

Adjustment location:

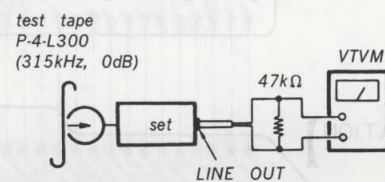
DECK-A side RV502
DECK-B side RV504

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

3-3. PLAYBACK LEVEL ADJUSTMENT
DECK A/DECK B

Procedure:

Mode: FWD playback



Adjust,

DECK-A side RV101 (L-CH), RV201 (R-CH)
DECK-B side RV102 (L-CH), RV202 (R-CH)
so that the specifications are satisfied.

Specification:

LINE OUT level: 0.44V (-5dB)
level difference between the channels: within 0.5dB

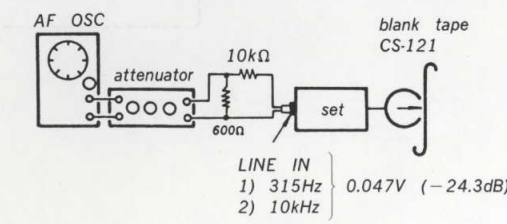
3-4. RECORD BIAS ADJUSTMENT DECK B

Setting:

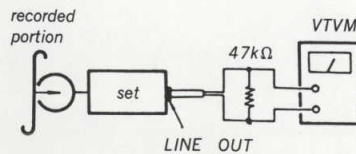
TAPE SELECT: TYPE-I (DECK-B)

Procedure:

- Mode: record



- Mode: playback



Playback the tape recorded in step 1. If the specification is not satisfied, adjust CT301 and repeat steps 1 and 2.

Specification:

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

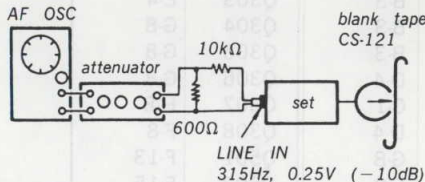
3-5. RECORD LEVEL ADJUSTMENT DECK B

Setting:

TAPE SELECT: TYPE-I (DECK-B)

Procedure:

- Mode: record



Mode: playback

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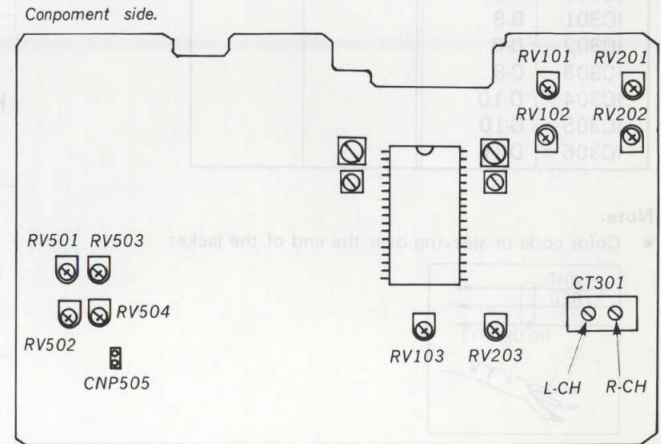
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play back the recorded in step 1. If the specification is not satisfied, adjust RV103 (L-CH), RV203 (R-CH) and repeat steps 1 and 2.

Specification:

LINE OUT level: 0.44V (-5dB)

Adjustment Location: Audio Board



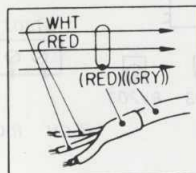
SECTION 4
DIAGRAMS

4-1. PRINTED WIRING BOARD

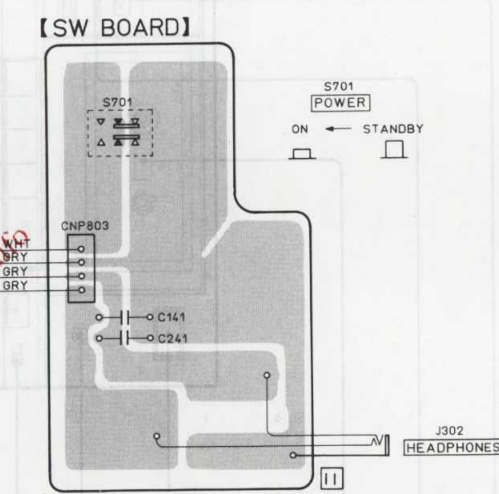
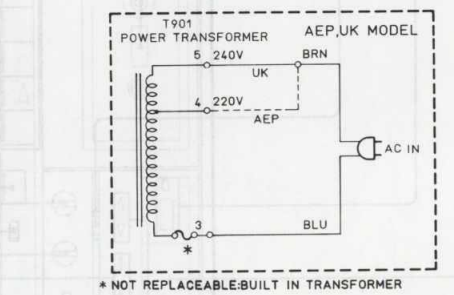
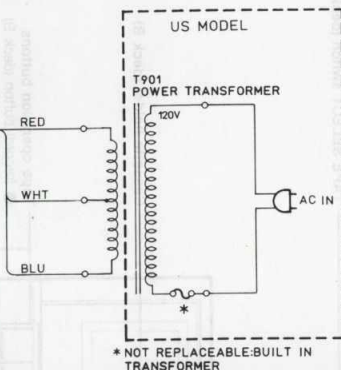
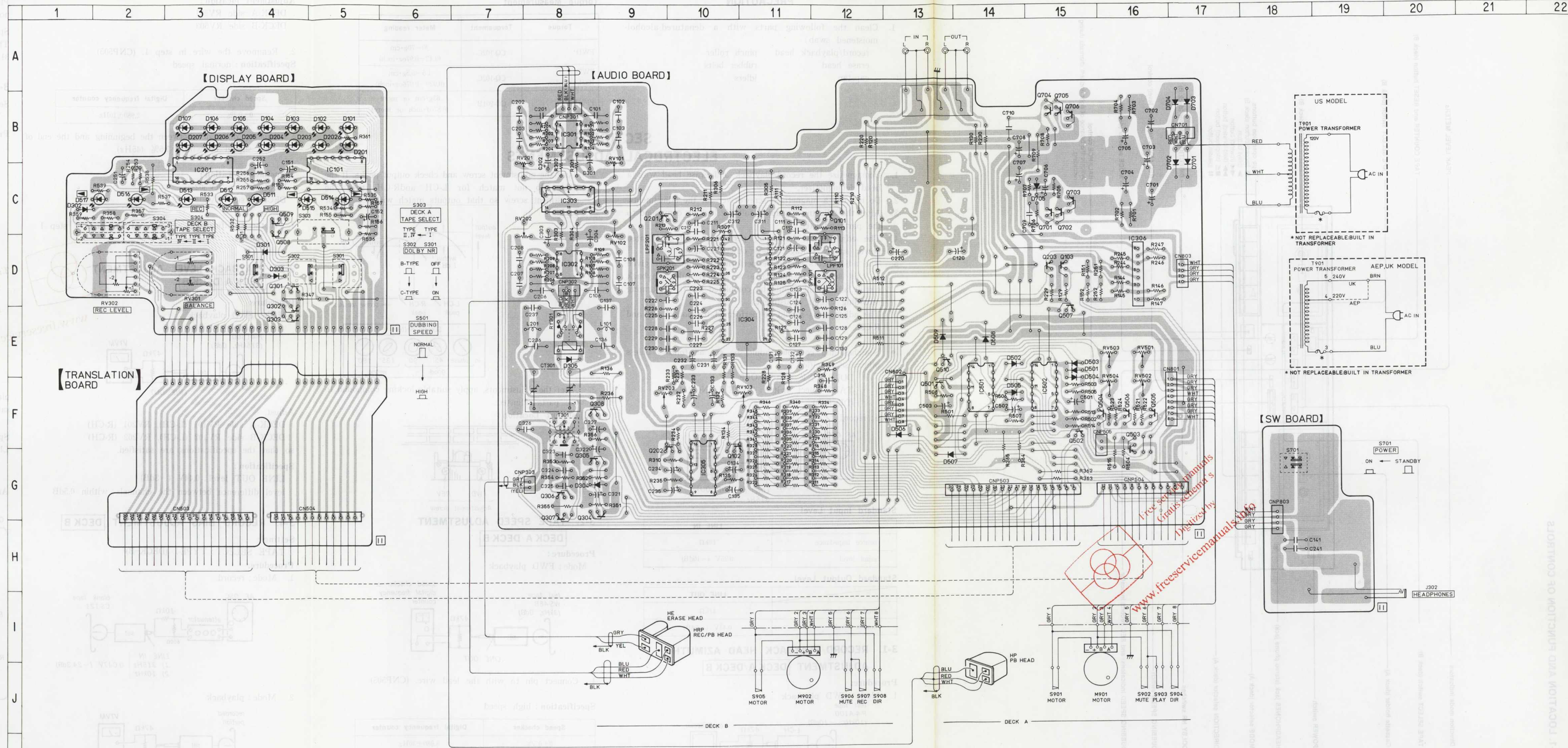
Ref. No.	Location	Ref. No.	Location
D101	B-5	IC501	F-14
D102	B-4	IC502	F-14
D103	B-4		
D104	B-4	Q101	C-11
D105	B-3	Q102	G-10
D106	B-3	Q103	D-15
D107	B-3	Q201	C-9
D201	B-5	Q202	G-9
D202	B-4	Q203	D-15
D203	B-4	Q301	D-4
D204	B-4	Q302	E-4
D205	B-3	Q303	E-4
D206	B-3	Q304	G-8
D207	B-3	Q305	G-8
D301	D-4	Q306	G-8
D302	C-1	Q307	H-8
D303	D-4	Q308	F-8
D304	G-8	Q501	F-13
D305	E-8	Q502	F-15
D501	F-15	Q503	G-15
D502	F-11	Q504	F-15
D503	F-15	Q505	F-16
D504	F-15	Q506	F-16
D505	F-14	Q507	E-15
D506	G-12	Q508	C-4
D507	G-13	Q509	C-4
D508	E-14	Q510	E-13
D509	E-13	Q701	C-15
D511	C-4	Q702	C-15
D512	C-3	Q703	C-15
D513	C-3	Q704	B-15
D514	C-5	Q705	B-15
D515	C-4	Q706	B-15
D516	C-2		
D517	C-1		
D701	C-17		
D702	C-16		
D703	B-17		
D704	B-16		
D705	C-14		
IC101	C-5		
IC201	C-3		
IC301	B-8		
IC302	D-8		
IC303	C-8		
IC304	D-10		
IC305	G-10		
IC306	D-16		

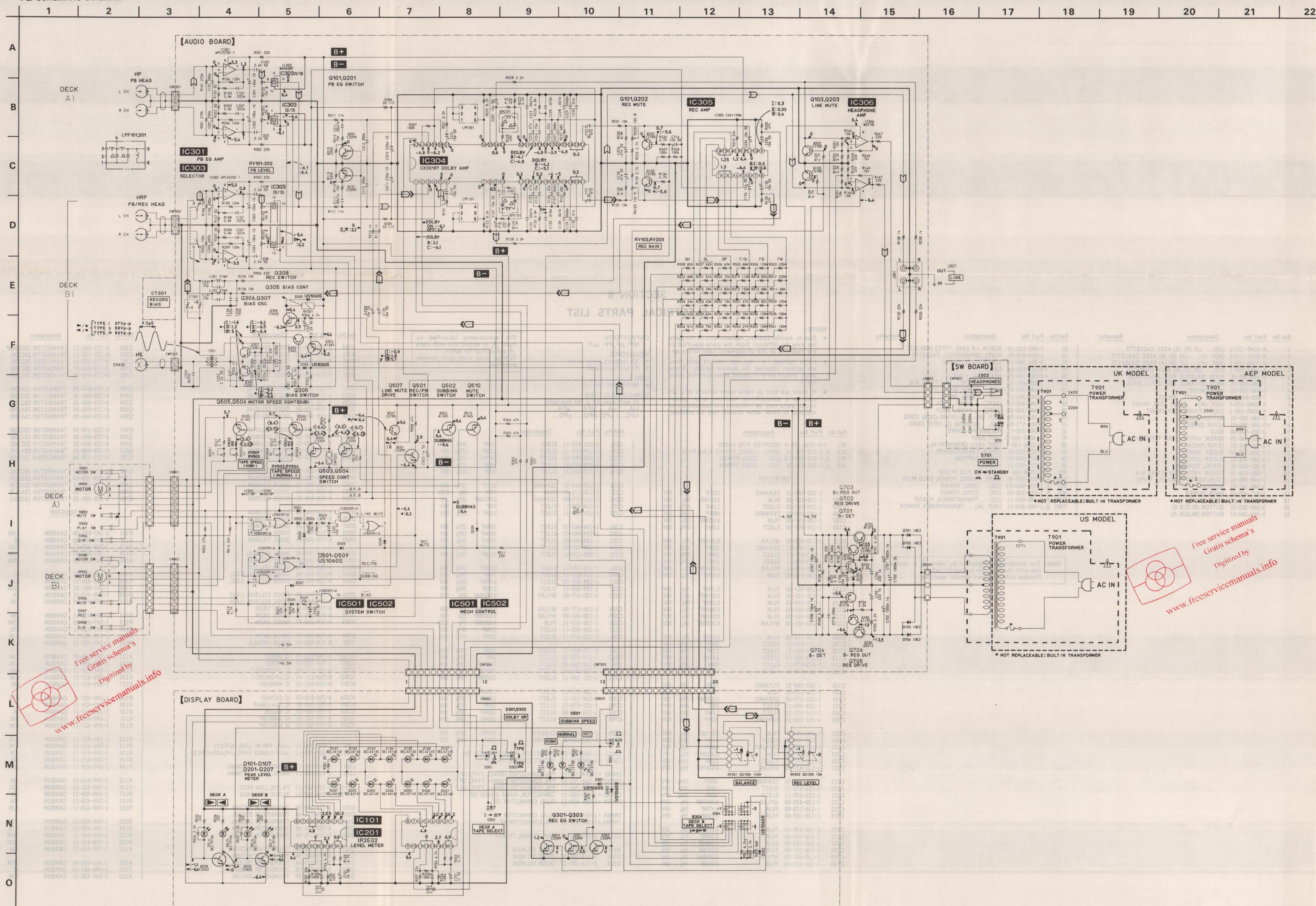
Note:

- Color code or sleeving over the end of the jacket.

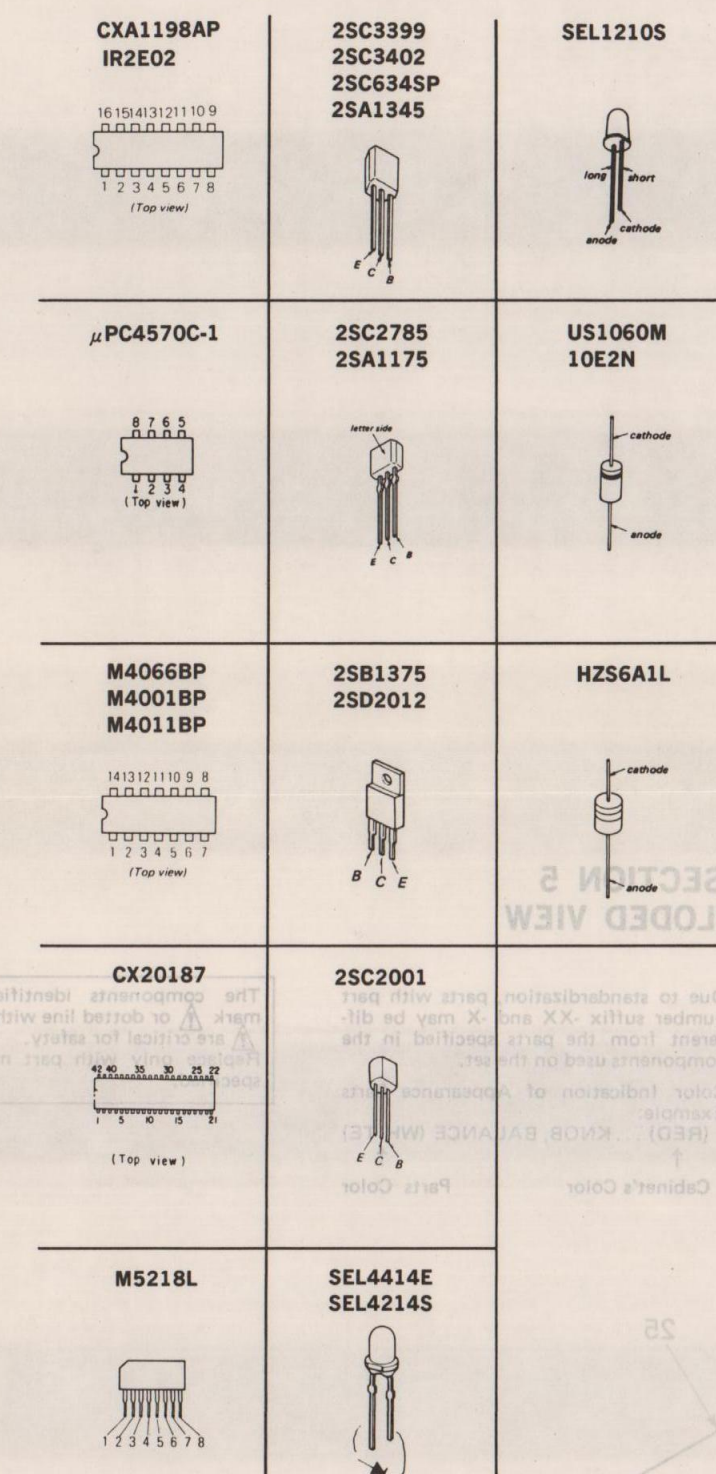


- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : parts mounted on the conductor side.
- : indicates side identified with part number.





4-3. SEMICONDUCTOR LEAD LAYOUTS



Note:

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

Ref. No.	Switch	Position
S301	DOLBY NR ON/OFF	OFF
S302	DOLBY NR TYPE B/C	B-TYPE
S303	DECK A TAPE SELECT	TYPE-I
S304	DECK B TAPE SELECT	TYPE-I
S501	DUBBING SPEED	NORMAL
S701	POWER	STANDBY
S901	DECK A MOTOR	OFF
S902	DECK A MUTE	OFF
S903	DECK A PLAY	OFF
S904	DECK A DIR	OFF
S905	DECK B MOTOR	OFF
S906	DECK B MUTE	OFF
S907	DECK B REC	OFF
S908	DECK B DIR	OFF

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

• B+: B+Line

• B-: B-Line

• $\square$: adjustment for repair.

• Voltage and waveforms are dc with respect to ground under no-signal conditions.

no mark : PLAY

< > : DUBBING SPEED (NORMAL)

<< >> : DUBBING SPEED (HIGH)

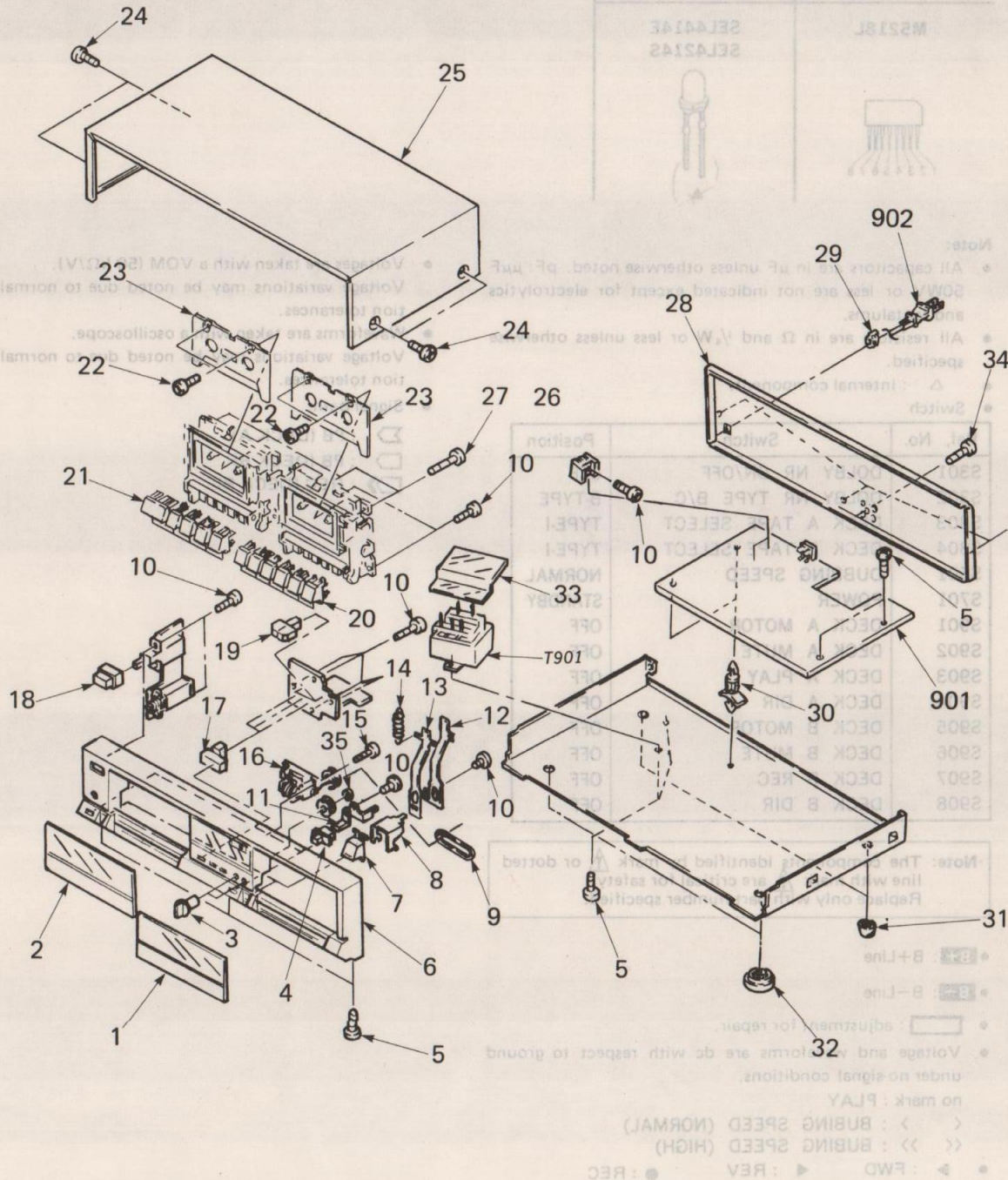
• $\blacktriangleright$: FWD $\blacktriangleleft$: REV • : REC

SECTION 5
EXPLODED VIEW

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:
↑ Cabinet's Color ↑ Parts Color

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



Ref.No	Part No.	Description	Remarks
1	X-3340-121-1	(US)...LID (R) (B) ASSY, CASSETTE	
1	X-3340-123-1	(AEP, UK)...LID (R) (B) ASSY, CASSETTE	
2	X-3340-122-1	(AEP, UK)...LID (R) (A) ASSY, CASSETTE	
2	X-3340-124-1	(US)...LID (R) (A) ASSY, CASSETTE	
3	3-346-146-01	KNOB (BALANCE, REC LEVEL) (BLK)	
3	3-346-380-01	KNOB (BALANCE, REC LEVEL) (RED)	
3	3-346-393-01	KNOB (MODE)	
4	7-682-548-04	SCREW +BVTT 3X8 (S)	
5	X-3340-125-1	(AEP, UK)...PANEL ASSY, FRONT	
6	X-3340-126-1	(US)...PANEL ASSY, FRONT	
7	3-346-392-01	BUTTON (DIREC)	
8	*3-346-390-01	LEVER (DIREC)	
9	3-305-524-00	BELT	
10	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
11	*3-346-391-01	LEVER (MODE)	
12	*3-346-389-01	SLIDER (MODE)	
13	*3-346-388-01	SLIDER (DIREC)	
14	3-307-938-00	SPRING, TENSION	
15	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
16	1-548-596-61	COUNTER, TAPE (MIDDLE TYPE)	
17	3-346-381-01	BUTTON	
18	4-917-460-01	KNOB, POWER	
19	3-346-379-01	KNOB (SLIDE)	
20	3-346-385-01	BUTTON (BLOCK B)	
21	3-346-384-01	BUTTON (BLOCK A)	

Ref.No	Part No.	Description	Remarks
22	7-685-133-19	SCREW +P 2.6X6 TYPE2 NON-SLIT	
23	4-914-974-01	PLATE, ORNAMENTAL, CASSETTE	
24	3-704-366-01	SCREW (CASE) (M3X8)	
25	*3-327-856-02	CASE	
26	*4-363-146-41	HEAT SINK, V.OUT	
27	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
28	3-346-345-01	(US)...PANEL, BACK	
28	3-346-345-11	(UK)...PANEL, BACK	
28	*3-346-345-21	(AEP1)...PANEL, BACK	
28	*3-346-345-31	(AEP2)...PANEL, BACK	
29	3-703-244-00	(AEP, UK)...BUSHING (2104), CORD	
29	*3-703-571-00	(US)...BUSHING (S) (4516), CORD	
30	*3-346-265-11	HOLDER, PC BOARD	
31	X-4864-303-0	FOOT ASSY	
32	X-3340-130-1	FOOT ASSY, ORNAMENTAL	
33	*3-327-855-01	COVER (TRANSFORMER)	
34	7-621-506-XX	SCREW, TAPPING	
35	3-701-437-11	WASHER	
901	*A-2056-428-A	MOUNTED PCB, AUDIO	
902	Δ 1-555-795-00	(AEP)...CORD, POWER, EULO PLUG	
902	Δ 1-551-506-XX	(US)...CORD, POWER	
902	Δ 1-556-035-00	(UK)...CORD, POWER	
T901	Δ 1-448-804-11	(US)...TRANSFORMER, POWER	
T901	Δ 1-448-805-11	(AEP, UK)...TRANSFORMER, POWER	

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

SECTION 6
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.
- 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.

Ref.No	Part No.	Description
901	*A-2056-428-A	MOUNTED PCB, AUDIO
902	Δ 1-555-795-00 (AEP)...	CORD, POWER, EULO PLUG
902	Δ 1-551-506-XX (US)...	CORD, POWER
902	Δ 1-556-035-00 (UK)...	CORD, POWER

CAPACITOR

C101	1-162-288-31	CERAMIC	330PF	10%	50V
C102	1-136-157-00	FILM	0.022MF	5%	50V
C103	1-124-767-00	ELECT	2.2MF	20%	50V
C106	1-162-292-31	CERAMIC	680PF	10%	50V
C107	1-136-157-00	FILM	0.022MF	5%	50V
C108	1-124-767-00	ELECT	2.2MF	20%	50V
C111	1-130-479-00	MYLAR	0.0047MF	5%	50V
C112	1-162-289-31	CERAMIC	390PF	10%	50V
C120	1-123-875-11	ELECT	10MF	20%	50V
C121	1-123-875-11	ELECT	10MF	20%	50V
C122	1-130-479-00	MYLAR	0.0047MF	5%	50V
C123	1-136-173-00	FILM	0.47MF	5%	50V

C124	1-136-167-00	FILM	0.15MF	5%	50V
C125	1-136-155-00	FILM	0.015MF	5%	50V
C126	1-136-169-00	FILM	0.22MF	5%	50V
C127	1-136-163-00	FILM	0.068MF	5%	50V
C128	1-136-161-00	FILM	0.047MF	5%	50V
C129	1-130-481-00	MYLAR	0.0068MF	5%	50V
C130	1-136-153-00	FILM	0.01MF	5%	50V
C131	1-123-875-11	ELECT	10MF	20%	50V
C132	1-124-925-11	ELECT	2.2MF	20%	50V
C133	1-124-902-00	ELECT	0.47MF	20%	50V
C134	1-123-875-11	ELECT	10MF	20%	50V
C135	1-123-875-11	ELECT	10MF	20%	50V

C136	1-162-284-31	CERAMIC	150PF	10%	50V
C137	1-136-273-91	FILM	75PF	5%	630V
C141	1-161-375-00	CERAMIC	0.0022MF	20%	16V
C151	1-124-499-11	ELECT	1MF	20%	50V
C152	1-124-925-11	ELECT	2.2MF	20%	50V
C201	1-162-288-31	CERAMIC	330PF	10%	50V
C202	1-136-157-00	FILM	0.022MF	5%	50V
C203	1-124-767-00	ELECT	2.2MF	20%	50V
C206	1-162-292-31	CERAMIC	680PF	10%	50V
C207	1-136-157-00	FILM	0.022MF	5%	50V
C208	1-124-767-00	ELECT	2.2MF	20%	50V
C211	1-130-479-00	MYLAR	0.0047MF	5%	50V

C212	1-162-289-31	CERAMIC	390PF	10%	50V
C220	1-123-875-11	ELECT	10MF	20%	50V
C221	1-123-875-11	ELECT	10MF	20%	50V
C222	1-130-479-00	MYLAR	0.0047MF	5%	50V
C223	1-136-173-00	FILM	0.47MF	5%	50V
C224	1-136-167-00	FILM	0.15MF	5%	50V

C225	1-136-155-00	FILM	0.015MF	5%	50V
C226	1-136-169-00	FILM	0.22MF	5%	50V
C227	1-136-163-00	FILM	0.068MF	5%	50V
C228	1-136-161-00	FILM	0.047MF	5%	50V
C229	1-130-481-00	MYLAR	0.0068MF	5%	50V
C230	1-136-153-00	FILM	0.01MF	5%	50V

CAPACITORS:
MF: μ F, PF: μ F.

RESISTORS

- All resistors are in ohms.
- F: nonflammable

COILS
• MMH: mH, UH: μ H

SEMICONDUCTORS

In each case, U: μ , for example:
UA...: μ A..., UPA...: μ PA...,
UPC...: μ PC, UPD...: μ PD...

Ref.No	Part No.	Description
C231	1-123-875-11	ELECT
C232	1-124-925-11	ELECT
C233	1-124-902-00	ELECT
C234	1-123-875-11	ELECT
C235	1-123-875-11	ELECT

C236	1-162-284-31	CERAMIC	150PF	10%	50V
C237	1-136-273-91	FILM	75PF	5%	630V
C241	1-161-375-00	CERAMIC	0.0022MF	20%	16V
C251	1-124-499-11	ELECT	1MF	20%	50V
C252	1-124-925-11	ELECT	2.2MF	20%	50V

C301	1-124-443-00	ELECT	100MF	20%	10V
C302	1-124-443-00	ELECT	100MF	20%	10V
C303	1-124-443-00	ELECT	100MF	20%	10V
C304	1-124-443-00	ELECT	100MF	20%	10V
C311	1-126-176-11	ELECT	220MF	20%	10V

C312	1-126-176-11	ELECT	220MF	20%	10V
C316	1-123-875-11	ELECT	10MF	20%	50V
C321	1-124-902-00	ELECT	0.47MF	20%	50V
C322	1-124-925-11	ELECT	2.2MF	20%	50V
C323	1-130-477-00	MYLAR	0.0033MF	5%	50V

C324	1-130-477-00	MYLAR	0.0033MF	5%	50V
C325	1-130-481-00	MYLAR	0.0068MF	5%	50V
C326	1-136-562-11	FILM	0.0082MF	5%	630V
C327	1-124-925-11	ELECT	2.2MF	20%	50V
C501	1-123-875-11	ELECT	10MF	20%	50V

C502	1-123-875-11	ELECT	10MF	20%	50V
C503	1-124-499-11	ELECT	1MF	20%	50V
C701	1-124-360-00	ELECT	1000MF	20%	16V
C702	1-124-360-00	ELECT	1000MF	20%	16V
C703	1-126-105-11	ELECT	1000MF	20%	35V

C704	1-124-120-11	ELECT	220MF	20%	16V
C705	1-124-120-11	ELECT	220MF	20%	16V
C706	1-123-875-11	ELECT	10MF	20%	50V
C707	1-124-443-00	ELECT	100MF	20%	10V
C708	1-124-443-00	ELECT	100MF	20%	10V

C709	1-162-288-31	CERAMIC	330PF	10%	50V
C710	1-162-288-31	CERAMIC	330PF	10%	50V

CN503	*1-566-659-11	CONNECTOR, HINGE (SOCKET) 18P
CN504	*1-566-827-11	SOCKET, CONNECTOR 12P

CNP301	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
CNP302	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
CNP303	*1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P
CNP303	*1-566-660-11	CONNECTOR, HINGE (PLUG) 18P
CNP504	*1-566-826-11	PLUG, CONNECTOR 12P

CNP505	*1-564-505-11	PLUG, CONNECTOR 2P
CNP803	*1-564-497-11	PIN, CONNECTOR 4P

CT301	1-141-225-00	CAP, TUNING, TRIMAR
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D101	8-719-304-37	DIODE SEL4414E
D102	8-719-304-37	DIODE SEL4414E
D103	8-719-304-37	DIODE SEL4414E

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

Ref.No	Part No.	Description
D104	8-719-304-37	DIODE SEL4414E
D105	8-719-304-32	DIODE SEL4214S
D106	8-719-304-32	DIODE SEL4214S
D107	8-719-304-32	DIODE SEL4214S
D201	8-719-304-37	DIODE SEL4414E

D202	8-719-304-37	DIODE SEL4414E
D203	8-719-304-37	DIODE SEL4414E
D204	8-719-304-37	DIODE SEL4414E
D205	8-719-304-32	DIODE SEL4214S
D206	8-719-304-32	DIODE SEL4214S

D207	8-719-304-32	DIODE SEL4214S
D301	8-719-000-26	DIODE US1060M
D302	8-719-000-26	DIODE US1060M
D303	8-719-000-26	DIODE US1060M
D304	8-719-000-26	DIODE US1060M

D305	8-719-000-26	DIODE US1060M
D501	8-719-000-26	DIODE US1060M
D502	8-719-000-26	DIODE US1060M
D503	8-719-000-26	DIODE US1060M
D504	8-719-000-26	DIODE US1060M

D505	8-719-000-26	DIODE US1060M
D506	8-719-000-26	DIODE US1060M
D507	8-719-000-26	DIODE US1060M
D508	8-719-000-26	DIODE US1060M
D509	8-719-000-26	DIODE US1060M

D511	8-719-302-45	DIODE SEL1210S
D512	8-719-302-45	DIODE SEL1210S
D513	8-719-302-45	DIODE SEL1210S
D514	8-719-941-46	DIODE SEL1910A (LED)
D515	8-719-941-46	DIODE SEL1910A (LED)

D516	8-719-941-46	DIODE SEL1910A (LED)
D517	8-719-941-46	DIODE SEL1910A (LED)
D701	8-719-200-77	DIODE 10E2N
D702	8-719-200-77	DIODE 10E2N
D703	8-719-200-77	DIODE 10E2N

D704	8-719-200-77	DIODE 10E2N
D705	8-719-933-33	DIODE HZ56AIL

IC101	8-759-912-79	IC IR2E02
IC201	8-759-912-79	IC IR2E02
IC301	8-759-111-44	IC UPC4570C-1
IC302	8-759-111-44	IC UPC4570C-1
IC303	8-759-601-43	IC M4066BP

IC304	8-752-018-70	IC CX20187
IC305	8-752-033-61	IC CXA1198AP
IC306	8-759-600-02	IC M5218L
IC501	8-759-601-06	IC M4001BP
IC502	8-759-601-10	IC M4011BP

J301	1-565-258-11
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Ref.No	Part No.	Description
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R204	1-247-881-00	CARBON	120K	5%	1/4W
R206	1-247-883-00	CARBON	150K	5%	1/4W
R207	1-249-404-00	CARBON	82	5%	1/4W
R208	1-249-426-11	CARBON	5.6K	5%	1/4W
R209	1-247-881-00	CARBON	120K	5%	1/4W

R210	1-249-417-11	CARBON	1K	5%	1/4W
R211	1-247-856-00	CARBON	11K	5%	1/4W
R212	1-249-431-11	CARBON	15K	5%	1/4W
R213	1-247-887-00	CARBON	220K	5%	1/4W
R220	1-249-433-11	CARBON	22K	5%	1/4W

R221	1-249-423-11	CARBON	3.3K	5%	1/4W
R222	1-249-428-11	CARBON	8.2K	5%	1/4W
R223	1-247-840-00	CARBON	2.4K	5%	1/4W
R224	1-249-425-11	CARBON	4.7K	5%	1/4W
R225	1-247-822-11	CARBON	430	5%	1/4W

R226	1-249-427-11	CARBON	6.8K	5%	1/4W
R227	1-249-415-11	CARBON	680	5%	1/4W
R228	1-249-421-11	CARBON	2.2K	5%	1/4W
R229	1-249-425-11	CARBON	4.7K	5%	1/4W
R230	1-249-417-11	CARBON	1K	5%	1/4W

R231	1-249-429-11	CARBON	10K	5%	1/4W
R232	1-249-427-11	CARBON	6.8K	5%	1/4W
R233	1-249-422-11	CARBON	2.7K	5%	1/4W
R234	1-249-425-11	CARBON	4.7K	5%	1/4W
R235	1-249-437-11	CARBON	47K	5%	1/4W

R236	1-249-429-11	CARBON	10K	5%	1/4W
R244	1-249-429-11	CARBON	10K	5%	1/4W
R245	1-249-433-11	CARBON	22K	5%	1/4W
R246	1-249-431-11	CARBON	15K	5%	1/4W
R247	1-249-409-11	CARBON	220	5%	1/4W

R251	1-249-429-11	CARBON	10K	5%	1/4W
R252	1-249-423-11	CARBON	3.3K	5%	1/4W
R253	1-249-425-11	CARBON	4.7K	5%	1/4W
R254	1-249-425-11	CARBON	4.7K	5%	1/4W
R255	1-249-441-11	CARBON	100K	5%	1/4W

R256	1-249-441-11	CARBON	100K	5%	1/4W
R257	1-249-433-11	CARBON	22K	5%	1/4W
R301	1-249-409-11	CARBON	220	5%	1/4W
R302	1-249-409-11	CARBON	220	5%	1/4W
R303	1-249-409-11	CARBON	220	5%	1/4W

R304	1-249-409-11	CARBON	220	5%	1/4W
R305	1-247-733-11	CARBON	33	5%	1/2W
R306	1-247-733-11	CARBON	33	5%	1/2W
R307	1-215-469-00	METAL	100K	1%	1/6W
R310	1-247-864-11	CARBON	24K	5%	1/4W

R311	1-249-439-11	CARBON	68K	5%	1/4W
R312	1-249-439-11	CARBON	68K	5%	1/4W
R313	1-247-883-00	CARBON	150K	5%	1/4W
R314	1-249-440-11	CARBON	82K	5%	1/4W
R315	1-249-436-11	CARBON	39K	5%	1/4W

R316	1-249-437-11	CARBON	47K	5%	1/4W
R317	1-247-887-00	CARBON	220K	5%	1/4W
R318	1-249-440-11	CARBON	82K	5%	1/4W
R319	1-247-880-11	CARBON	110K	5%	1/4W
R320	1-247-876-11	CARBON	75K	5%	1/4W

R321	1-247-872-11	CARBON	51K	5%	1/4W
R322	1-249-439-11	CARBON	68K	5%	1/4W
R323	1-247-887-00	CARBON	220K	5%	1/4W
R324	1-247-881-00	CARBON	120K	5%	1/4W
R325	1-249-439-11	CARBON	68K	5%	1/4W

R326	1-247-870-11	CARBON	43K	5%	1/4W
R327	1-247-874-11	CARBON	62K	5%	1/4W
R328	1-249-440-11	CARBON	82K	5%	1/4W
R329	1-247-881-00	CARBON	120K	5%	1/4W
R330	1-249-440-11	CARBON	82K	5%	1/4W

Ref.No	Part No.	Description
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R331	1-249-437-11	CARBON	47K	5%	1/4W
R332	1-249-431-11	CARBON	15K	5%	1/4W
R333	1-247-870-11	CARBON	43K	5%	1/4W
R334	1-247-864-11	CARBON	24K	5%	1/4W
R335	1-249-441-11	CARBON	100K	5%	1/4W

R336	1-247-881-00	CARBON	120K	5%	1/4W
R337	1-249-435-11	CARBON	33K	5%	1/4W
R338	1-249-432-11	CARBON	18K	5%	1/4W
R339	1-247-874-11	CARBON	62K	5%	1/4W
R340	1-249-437-11	CARBON	47K	5%	1/4W

R341	1-247-883-00	CARBON	150K	5%	1/4W
R342	1-247-883-00	CARBON	150K	5%	1/4W
R343	1-249-434-11	CARBON	27K	5%	1/4W
R344	1-247-858-11	CARBON	13K	5%	1/4W
R345	1-247-876-11	CARBON	75K	5%	1/4W

R346	1-247-872-11	CARBON	51K	5%	1/4W
R347	1-249-437-11	CARBON	47K	5%	1/4W
R348	1-249-441-11	CARBON	100K	5%	1/4W
R349	1-249-441-11	CARBON	100K	5%	1/4W
R351	1-249-425-11	CARBON	4.7K	5%	1/4W

R352	1-249-417-11	CARBON	1K	5%	1/4W
R353	1-249-435-11	CARBON	33K	5%	1/4W
R354	1-249-435-11	CARBON	33K	5%	1/4W
R355	1-249-393-11	CARBON	10	5%	1/4W
R356	1-249-425-11	CARBON	4.7K	5%	1/4W

R357	1-247-850-11	CARBON	6.2K	5%	1/4W
R358	1-249-422-11	CARBON	2.7K	5%	1/4W
R359	1-249-414-11	CARBON	560	5%	1/4W
R361	1-249-404-00	CARBON	82	5%	1/4W
R362	1-249-433-11	CARBON	22K	5%	1/4W

R363	1-249-433-11	CARBON	22K	5%	1/4W
R364	1-249-437-11	CARBON	47K	5%	1/4W
R365	1-249-437-11	CARBON	47K	5%	1/4W
R501	1-249-433-11	CARBON	22K	5%	1/4W
R502	1-249-433-11	CARBON	22K	5%	1/4W

R503	1-249-437-11	CARBON	47K	5%	1/4W
R504	1-249-437-11	CARBON	47K	5%	1/4W
R505	1-249-429-11	CARBON	10K	5%	1/4W
R506	1-249-435-11	CARBON	33K	5%	1/4W
R507	1-249-431-11	CARBON	15K	5%	1/4W

R508	1-249-437-11	CARBON	47K	5%	1/4W
R511	1-249-409-11	CARBON	220	5%	1/4W
R512	1-249-433-11	CARBON	22K	5%	1/4W
R513	1-249-425-11	CARBON	4.7K	5%	1/4W
R514	1-249-433-11	CARBON	22K	5%	1/4W

R515	1-249-433-11	CARBON	22K	5%	1/4W
R521	1-249-421-11	CARBON	2.2K	5%	1/4W
R522	1-249-407-11	CARBON	150	5%	1/4W
R523	1-249-421-11	CARBON	2.2K	5%	1/4W
R524	1-249-407-11	CARBON	150	5%	1/4W

R531	1-249-413-11	CARBON	470	5%	1/4W
R532	1-249-413-11	CARBON	470	5%	1/4W
R533	1-249-413-11	CARBON	470	5%	1/4W
R534	1-249-421-11	CARBON	2.2K	5%	1/4W
R535	1-249-409-11	CARBON	220	5%	1/4W

R536	1-249-409-11	CARBON	220	5%	1/4W
R537	1-249-421-11	CARBON	2.2K	5%	1/4W
R538	1-249-409-11	CARBON	220	5%	1/4W
R539	1-249-409-11	CARBON	220	5%	1/4W
R701	1-249-421-11	CARBON	2.2K	5%	1/4W

R702	1-249-421-11	CARBON	2.2K	5%	1/4W
R703	1-249-421-11	CARBON	2.2K	5%	1/4W
R704	1-249-421-11	CARBON	2.2K	5%	1/4W
R705	1-249-421-11	CARBON	2.2K	5%	1/4W
R706	1-249-409-11	CARBON	220	5%	1/4W

Ref.No	Part No.	Description	Ref.No	Part No.	Description
R707	1-249-423-11	CARBON 3.3K 5% 1/4W	R707	1-249-423-11	CARBON 3.3K 5% 1/4W
R708	1-249-423-11	CARBON 3.3K 5% 1/4W	R708	1-249-423-11	CARBON 3.3K 5% 1/4W
R709	1-249-424-11	CARBON 3.9K 5% 1/4W	R709	1-249-424-11	CARBON 3.9K 5% 1/4W
RV101	1-228-994-00	RES, ADJ, CARBON 10K	RV101	1-228-994-00	RES, ADJ, CARBON 10K
RV102	1-228-994-00	RES, ADJ, CARBON 10K	RV102	1-228-994-00	RES, ADJ, CARBON 10K
RV103	1-228-994-00	RES, ADJ, CARBON 10K	RV103	1-228-994-00	RES, ADJ, CARBON 10K
RV201	1-228-994-00	RES, ADJ, CARBON 10K	RV201	1-228-994-00	RES, ADJ, CARBON 10K
RV202	1-228-994-00	RES, ADJ, CARBON 10K	RV202	1-228-994-00	RES, ADJ, CARBON 10K
RV203	1-228-994-00	RES, ADJ, CARBON 10K	RV203	1-228-994-00	RES, ADJ, CARBON 10K
RV301	1-238-261-11	RES, VAR, CARBON 50K/50K (BALANCE)	RV301	1-238-261-11	RES, VAR, CARBON 50K/50K (BALANCE)
RV302	1-238-260-11	RES, VAR, CARBON 20K/20K (REC LEVEL)	RV302	1-238-260-11	RES, VAR, CARBON 20K/20K (REC LEVEL)
RV501	1-228-990-00	RES, ADJ, CARBON 1K	RV501	1-228-990-00	RES, ADJ, CARBON 1K
RV502	1-228-990-00	RES, ADJ, CARBON 1K	RV502	1-228-990-00	RES, ADJ, CARBON 1K
RV503	1-228-990-00	RES, ADJ, CARBON 1K	RV503	1-228-990-00	RES, ADJ, CARBON 1K
RV504	1-228-990-00	RES, ADJ, CARBON 1K	RV504	1-228-990-00	RES, ADJ, CARBON 1K
RY301	1-515-614-11	RELAY	RY301	1-515-614-11	RELAY
S301	1-571-510-11	SWITCH, PUSH (1 KEY) (DOLBY NR ON/OFF)	S301	1-571-510-11	SWITCH, PUSH (1 KEY) (DOLBY NR ON/OFF)
S302	1-571-510-11	SWITCH, PUSH (1 KEY) (DOLBY NR TYPE B/C)	S302	1-571-510-11	SWITCH, PUSH (1 KEY) (DOLBY NR TYPE B/C)
S303	1-571-627-11	SWITCH, SLIDE (DECK A TAPE SELECT)	S303	1-571-627-11	SWITCH, SLIDE (DECK A TAPE SELECT)
S304	1-571-628-11	SWITCH, SLIDE (DECK B TAPE SELECT)	S304	1-571-628-11	SWITCH, SLIDE (DECK B TAPE SELECT)
S501	1-571-510-11	SWITCH, PUSH (1 KEY) (DUBBING SPEED)	S501	1-571-510-11	SWITCH, PUSH (1 KEY) (DUBBING SPEED)
S701	1-570-393-11	SWITCH, PUSH (1 KEY) (POWER)	S701	1-570-393-11	SWITCH, PUSH (1 KEY) (POWER)
SPK101	1-235-186-00	ENCAPSULATED COMPONENT	SPK101	1-235-186-00	ENCAPSULATED COMPONENT
SPK201	1-235-186-00	ENCAPSULATED COMPONENT	SPK201	1-235-186-00	ENCAPSULATED COMPONENT
T301	1-433-340-11	TRANSFORMER, BIAS OSCILLATION	T301	1-433-340-11	TRANSFORMER, BIAS OSCILLATION
T901	△.1-448-804-11	(US)....TRANSFORMER, POWER	T901	△.1-448-804-11	(US)....TRANSFORMER, POWER
T901	△.1-448-805-11	(AEP, UK)....TRANSFORMER, POWER	T901	△.1-448-805-11	(AEP, UK)....TRANSFORMER, POWER

ACCESSORY & PACKING MATERIAL

Part No.	Description	Remark
1-559-533-11	CORD, CONNECTION	
*3-346-344-01	CUSHION	
*3-346-378-01	INDIVIDUAL CARTON	
3-703-450-03	(US)....INSTRUCTION	
*3-704-343-01	SHEET (STANDARD), PROTECTION	
3-786-251-11	(AEP)....MANUAL, INSTRUCTION	
3-786-251-21	(UK, US)....MANUAL, INSTRUCTION	
3-786-251-41	(AEP)....MANUAL, INSTRUCTION	

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

TC-WR500

SONY® SERVICE MANUAL

US Model
AEP Model
UK Model
E Model

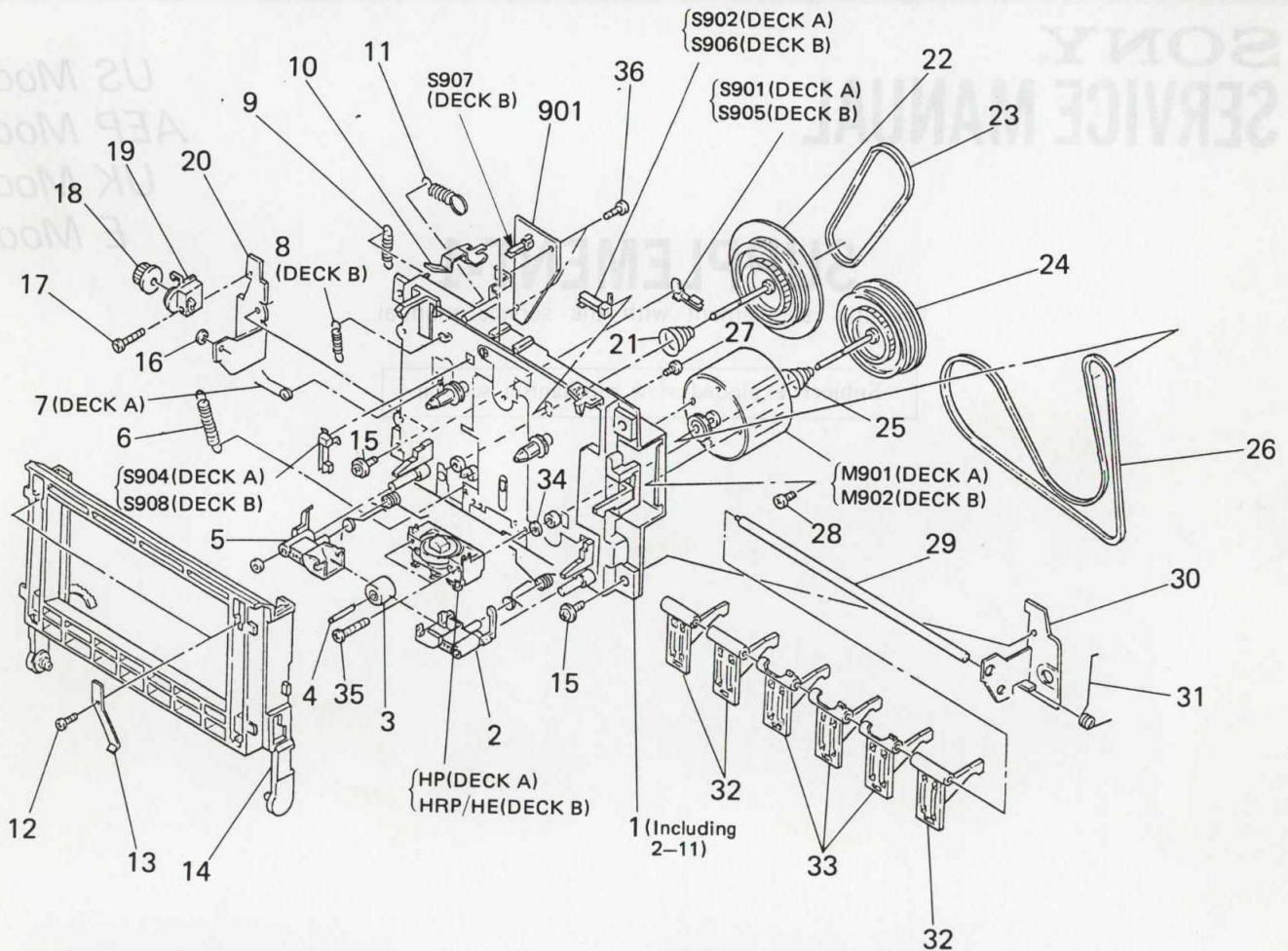
SUPPLEMENT-1

File this supplement with the service manual.

Subject: exploded view mechanism section

Ref No	Part No	Description
25	3-353-005-01	SPRING
26	3-353-007-01	BELT
27	3-655-133-19	SCREW + P. 2X5 TYPE1
28	3-354-134-01	SCREW
29	3-353-138-01	SHAFT
30	3-354-059-01	HOLDER (C) BUTTON
31	3-353-145-01	SPRING
32	3-353-147-01	LEVER (A) BUTTON
33	3-353-148-01	LEVER (B) BUTTON
34	4-894-989-01	WASHER
35	3-353-018-01	SCREW
36	3-655-058-25	SCREW + P.T. 2X4 (S)
37	1-658-902-11	PC BOARD MD
38	X-3334-004-1	DECK (A) ... HEAD ASSY (A)
39	X-3334-001-1	DECK (A) ... MOTOR ASSY
40	X-3334-001-1	DECK (B) ... MOTOR ASSY
41	X-3334-003-1	DECK (B) ... HEAD ASSY (B)
42	1-571-748-11	DECK (A) SWITCH LEAF
43	1-571-748-11	DECK (A) SWITCH LEAF
44	1-571-748-11	DECK (A) SWITCH LEAF
45	1-571-748-11	DECK (A) SWITCH LEAF
46	1-571-748-11	DECK (A) SWITCH LEAF
47	1-571-748-11	DECK (A) SWITCH LEAF
48	1-571-748-11	DECK (A) SWITCH LEAF
49	1-571-748-11	DECK (A) SWITCH LEAF
50	1-571-748-11	DECK (A) SWITCH LEAF
51	1-571-748-11	DECK (A) SWITCH LEAF
52	1-571-748-11	DECK (A) SWITCH LEAF
53	1-571-748-11	DECK (A) SWITCH LEAF
54	1-571-748-11	DECK (A) SWITCH LEAF

Ref No	Part No	Description
1	A-2105-028-A	DECK (B) ... MD SUB ASSY
2	A-2105-028-A	DECK (A) ... MD SUB ASSY
3	3-353-111-01	ARM PINCH-R
4	3-353-143-01	ROLLER PINCH
5	3-353-113-01	SHAFT
6	3-353-113-01	ARM PINCH-L
7	3-351-054-01	DECK (A) ... SPRING
8	3-351-054-01	DECK (A) ... SPRING
9	3-351-054-01	DECK (A) ... SPRING
10	3-353-209-01	FLATE SPRING
11	3-353-188-01	SPRING
12	3-655-103-19	SCREW + P. 2X5 TYPE2 NON-SLT
13	4-894-981-01	KEEP PLATE
14	3-353-801-01	CASE CASSETTE
15	3-353-106-01	SCREW
16	3-654-104-04	STOP RING 20 TYPE-E
17	3-653-555-01	SCREW + B.V.T. 2X12 (S)
18	3-353-144-01	DAMPER GEAR
19	3-353-143-01	HOLDER GEAR
20	3-354-100-01	HOLDER BUTTON
21	3-353-008-01	SPRING
22	X-3331-018-1	ASSY FLYWHEEL-R
23	3-353-008-01	BELT
24	X-3331-017-1	ASSY FLYWHEEL-L



Ref.No	Part No.	Description
1	A-2105-028-A	(DECK : B)....MD SUB ASSY
1	A-2105-029-A	(DECK : A)....MD SUB ASSY
2	3-393-111-01	ARM PINCH-R
3	3-393-149-01	ROLLER PINCH
4	3-393-113-01	SHAFT
5	3-393-112-01	ARM PINCH-L
6	3-391-096-01	SPRING
7	3-391-094-01	(DECK : A)....SPRING
8	3-391-093-01	(DECK : A)....SPRING
9	3-393-183-01	SPRING
10	3-393-209-01	PLATE SPRING
11	3-393-186-01	SPRING
12	7-685-103-19	SCREW +P 2X5 TYPE2 NON-SLIT
13	4-894-951-01	KEEP PLATE
14	3-390-801-01	CASE, CASSETTE
15	3-394-108-01	SCREW
16	7-624-104-04	STOP RING 2.0, TYPE -E
17	7-685-856-01	SCREW +BVTT 2X12 (S)
18	3-392-144-01	DAMPER, GEAR
19	*3-392-143-01	HOLDER, GEAR
20	*3-394-100-01	HOLDER, BUTTON
21	3-393-206-01	SPRING
22	X-3391-018-1	ASSY FLYWHEEL-R
23	3-393-208-01	BELT
24	X-3391-017-1	ASSY FLYWHEEL-F

Ref.No	Part No.	Description
25	3-393-205-01	SPRING
26	3-393-207-01	BELT
27	7-685-133-19	SCREW +P 2.6X6 TYPE1
28	3-394-134-01	SCREW
29	*3-392-139-01	SHAFT
30	*3-394-099-01	HOLDER (C), BUTTON
31	3-392-142-01	SPRING
32	3-392-147-01	LEVER (R), BUTTON
33	3-392-140-01	LEVER, BUTTON
34	4-894-969-01	N WASHER
35	3-393-218-01	SCREW
36	7-621-255-25	SCREW +PTT 2X4 (S)
901	1-628-802-11	PC BOARD, MD
HP	X-3394-004-1	(DECK : A)....HEAD ASSY (A)
M901	X-3394-001-1	(DECK : A)....MOTOR ASSY
M902	X-3394-001-1	(DECK : B)....MOTOR ASSY
HRP HE	X-3394-003-1	(DECK : B)....HEAD ASSY (B)
S901	1-571-746-11	(DECK : A)....SWITCHM LEAF
S902	1-571-745-11	(DECK : A)....SWITCHM LEAF
S904	1-571-745-11	(DECK : A)....SWITCHM LEAF
S905	1-571-746-11	(DECK : B)....SWITCHM LEAF
S906	1-571-745-11	(DECK : B)....SWITCHM LEAF
S907	1-571-747-11	(DECK : B)....SWITCHM LEAF
S908	1-571-745-11	(DECK : B)....SWITCHM LEAF

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