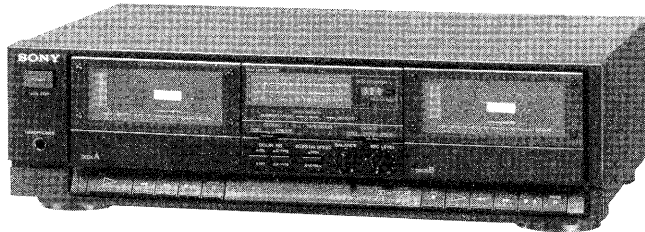


# TC-W345

## SERVICE MANUAL

*US Model  
Canadian Model  
AEP Model  
E Model  
Australian Model*



\* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

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

Model Name Using Similer Mechanism	TC-W31 (US, Canadian, E model) TC-W170 (AEP model) NEW (Australian model)
Tape Transport Mechanism Type	DECK-A TCM-180VA-H3
	DECK-B TCM-180VB-H3

### SPECIFICATIONS

Recording system  
4-track 2-channel stereo

Fast-forward and rewind time  
Approx. 120 sec. (with C-60 cassette)

Bias  
AC bias

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

Dolby NR switch Cassette	OFF	B-TYPE ON	C-TYPE ON
TYPE IV	58 dB	66 dB	73 dB
TYPE II	57 dB	65 dB	72 dB
TYPE I	55 dB	63 dB	70 dB

Total harmonic distortion  
1.0% (with Sony METAL-ES cassette)

Frequency response (DOLBY NR OFF)

TYPE IV cassette	30 - 15,000 Hz ( $\pm 3$ dB) 30 - 13,000 Hz (0VU recording)
TYPE II cassette	30 - 14,000 Hz ( $\pm 3$ dB)
TYPE I cassette	30 - 13,000 Hz ( $\pm 3$ dB)

Cassette  
Type IV: Sony Type IV (METAL)  
Type II: Sony Type II (HIGH)  
Type I: Sony Type I (NORMAL)

Wow and flutter  $\pm 0.16\%$  W Peak (IEC)  
0.11% WRMS (NAB)  
 $\pm 0.2\%$  W Peak (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 of 47 k ohms
	Load impedance	Over 10 k ohms
Headphones (stereo phone jack)	Output level	0.3 mW at a load impedance of 32 ohms

#### General

##### Power requirements

Model for USA, Canada :  
120 V AC, 60 Hz  
Model for European countries:  
220 - 230 V AC, 50/60 Hz  
Model for UK, Australia :  
240V AC, 50/60Hz  
Model for other countries:  
120, 220, or 240 V AC adjustable, 50/60 Hz

##### Power consumption Dimensions

18 W  
Approx. 430 x 123 x 280 mm (w/h/d)  
(17 x 4 $\frac{7}{8}$  x 11 $\frac{1}{8}$  inches) including projecting parts and controls  
Approx. 3.6 kg (7 lbs 15 oz)

##### Mass

##### Supplied accessories Audio connecting cords (2)

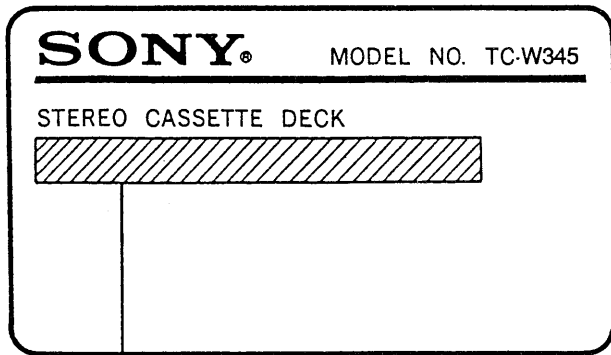
Design and specifications subject to change without notice.

**STEREO CASSETTE DECK**  
**SONY®**



## SAFETY CHECK-OUT (US model only)

### MODEL IDENTIFICATION — Specification Label —



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

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#### 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.

After correcting the original service problem, perform the following safety checks 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

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 2V AC range are suitable. (See Fig. A)

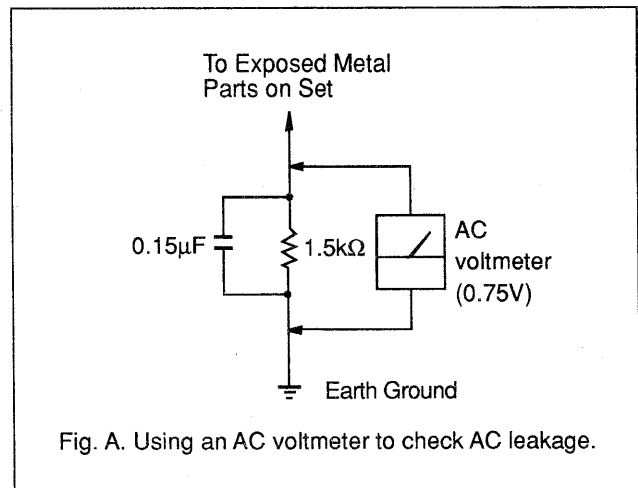


Fig. A. Using an AC voltmeter to check AC leakage.

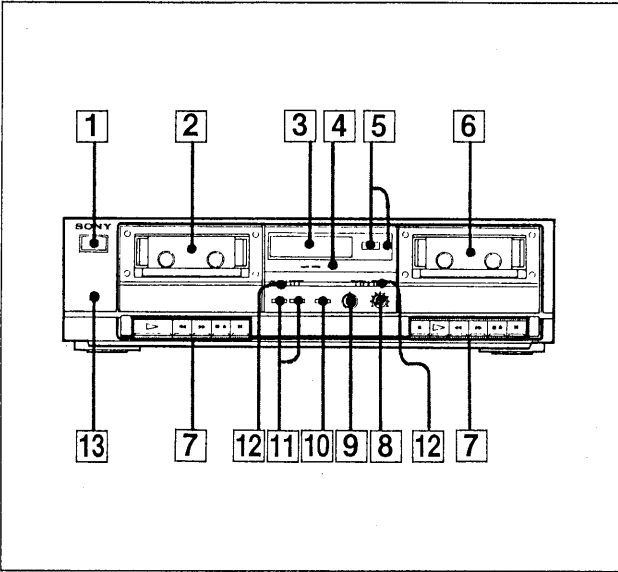
#### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

**SECTION 1  
GENERAL**

This section is extracted from instruction manual.

**Identification of Front Panel Parts**



- 1** POWER switch
- 2** Cassette holder (deck A)
- 3** PEAK LEVEL METER
- 4** DUBBING SPEED and RECORD indicators
- 5** TAPE COUNTER and RESET button
- 6** Cassette holder (deck B)
- 7** Tape operation buttons
  - REC (record) button (deck B only)
  - ▷ (play) button
  - ◀◀ (rewinding) button
  - ▶▶ (fast-forward) button
  - ▲ (stop) and (eject) button
  - || PAUSE button
- 8** REC (recording) LEVEL control
- 9** BALANCE control
- 10** DUBBING SPEED button  
HIGH/NORMAL speed button
- 11** DOLBY NR (Dolby noise reduction) buttons
- 12** TAPE SELECT switches
- 13** HEADPHONES jack (stereo phone jack)

## SECTION 2 MECHANICAL ADJUSTMENTS

### PRECAUTION

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

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers

### Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	30 — 70 g · cm (0.42 — 0.97 oz · inch)
FWD Back tension	CQ-102RC	1.5 — 7 g · cm (0.020 — 0.096 oz · inch)
FF, REW	CQ-201B	63 g · cm or more (0.87 oz · inch or more)

## SECTION 3

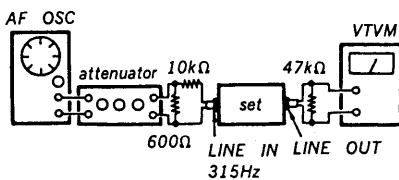
### ELECTRICAL ADJUSTMENTS

- 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)

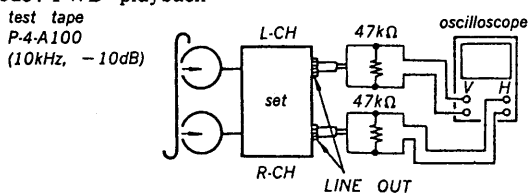
#### Standard Output Level

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

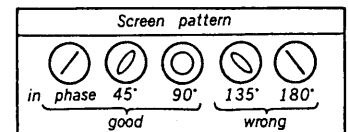
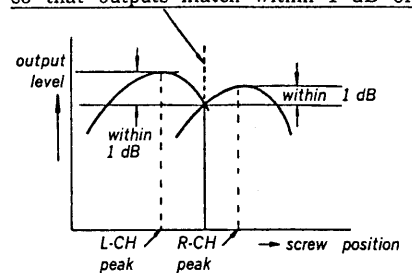
### RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT DECK A/DECK B

#### Procedure:

- Mode: FWD playback

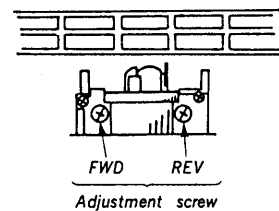


- Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



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

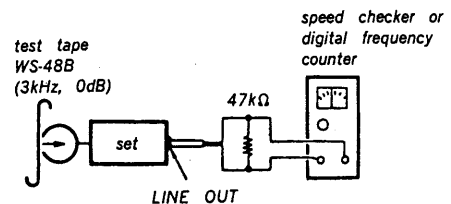
#### Adjustment Location:



### TAPE SPEED ADJUSTMENT DECK A/DECK B

#### Procedure:

Mode: FWD playback



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

Measurement limit: high speed

Speed checker	Digital frequency counter
0 ± 0.3%	5960 ± 20Hz

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

2. Remove the wire in step 1. (CNP505)

Measurement limit : normal speed

Speed checker	Digital frequency center
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

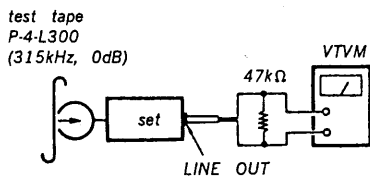
3. If the specifications are not satisfied, repeat step 1 and 2.

**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.

**Measurement limit :**

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

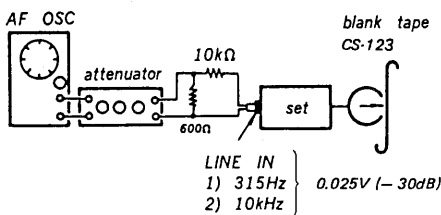
**RECORD BIAS ADJUSTMENT DECK B**

**Setting :**

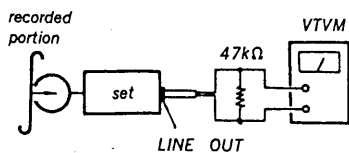
TAPE SELECT: TYPE-I (DECK-B)

**Procedure:**

1. Mode: record



2. Mode: playback



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

**Measurement limit :**

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

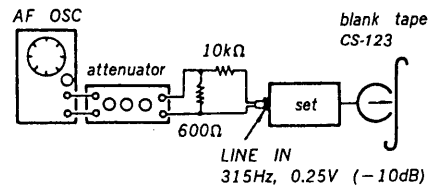
**RECORD GAIN ADJUSTMENT DECK B**

**Setting :**

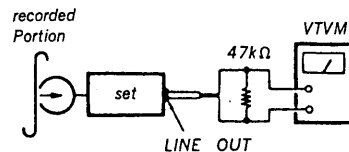
TAPE SELECT: TYPE-I (DECK-B)

**Procedure:**

1. Mode: record



2. Mode: playback



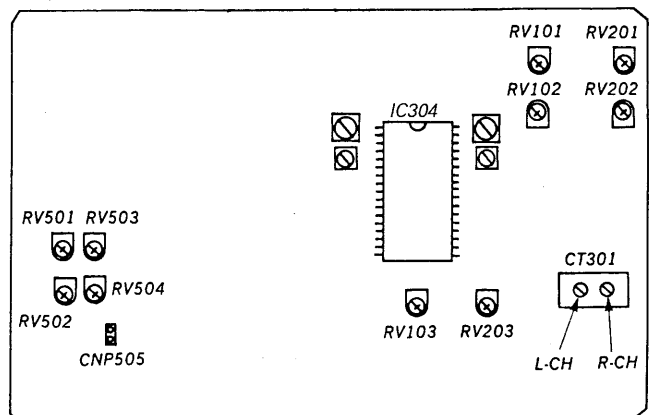
play back the recorded in step 1. If the specification is not satisfied, adjust RV103 (L-CH), RV203 (R-CH) and repeat steps 1 and 2.

**Measurement limit :**

LINE OUT level: 0.44V (-5dB)

**Adjustment Location : Audio Board**

Component side.



SECTION 4  
DIAGRAMS

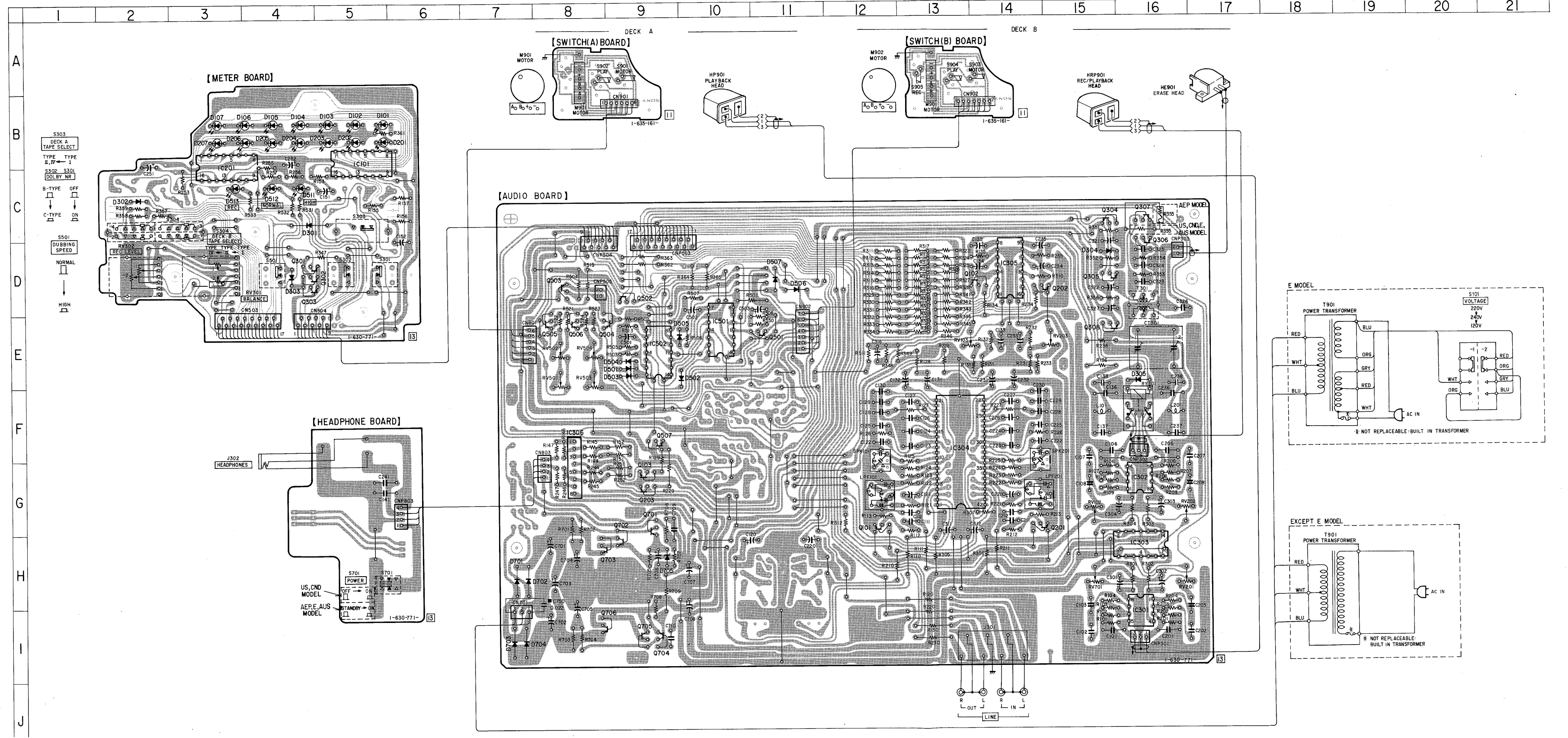
4-1. PRINTED WIRING BOARDS  
• See page 13 for Semiconductor Lead Layouts.

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	B-5	IC101	B-5
D102	B-5	IC201	C-3
D103	B-5	IC301	I-16
D104	B-4	IC302	G-16
D105	B-4	IC303	H-16
D106	B-3	IC304	F-13
D107	B-3	IC305	D-14
D201	B-6	IC306	F-8
D202	B-5	IC501	E-10
D203	B-5	IC502	E-9
D204	B-4		
D205	B-4	Q101	G-12
D206	B-3	Q102	D-14
D207	B-3	Q103	G-9
D301	C-4	Q201	H-15
D302	C-3	Q202	D-15
D303	D-4	Q203	G-9
D304	D-15	Q301	D-4
D305	E-16	Q302	D-5
D501	E-9	Q303	D-4
D502	E-10	Q304	C-15
D503	E-9	Q305	D-15
D504	E-9	Q306	D-16
D505	E-10	Q307	C-16
D506	D-11	Q308	E-15
D507	D-11	Q501	E-11
D511	C-4	Q502	D-9
D512	C-4	Q503	D-8
D513	C-3	Q504	E-8
D701	H-7	Q505	E-8
D702	H-8	Q506	E-8
D703	I-7	Q507	F-9
D704	I-7	Q701	G-9
D705	H-9	Q702	G-9
		Q703	H-8
		Q704	I-9
		Q705	I-9
		Q706	I-8

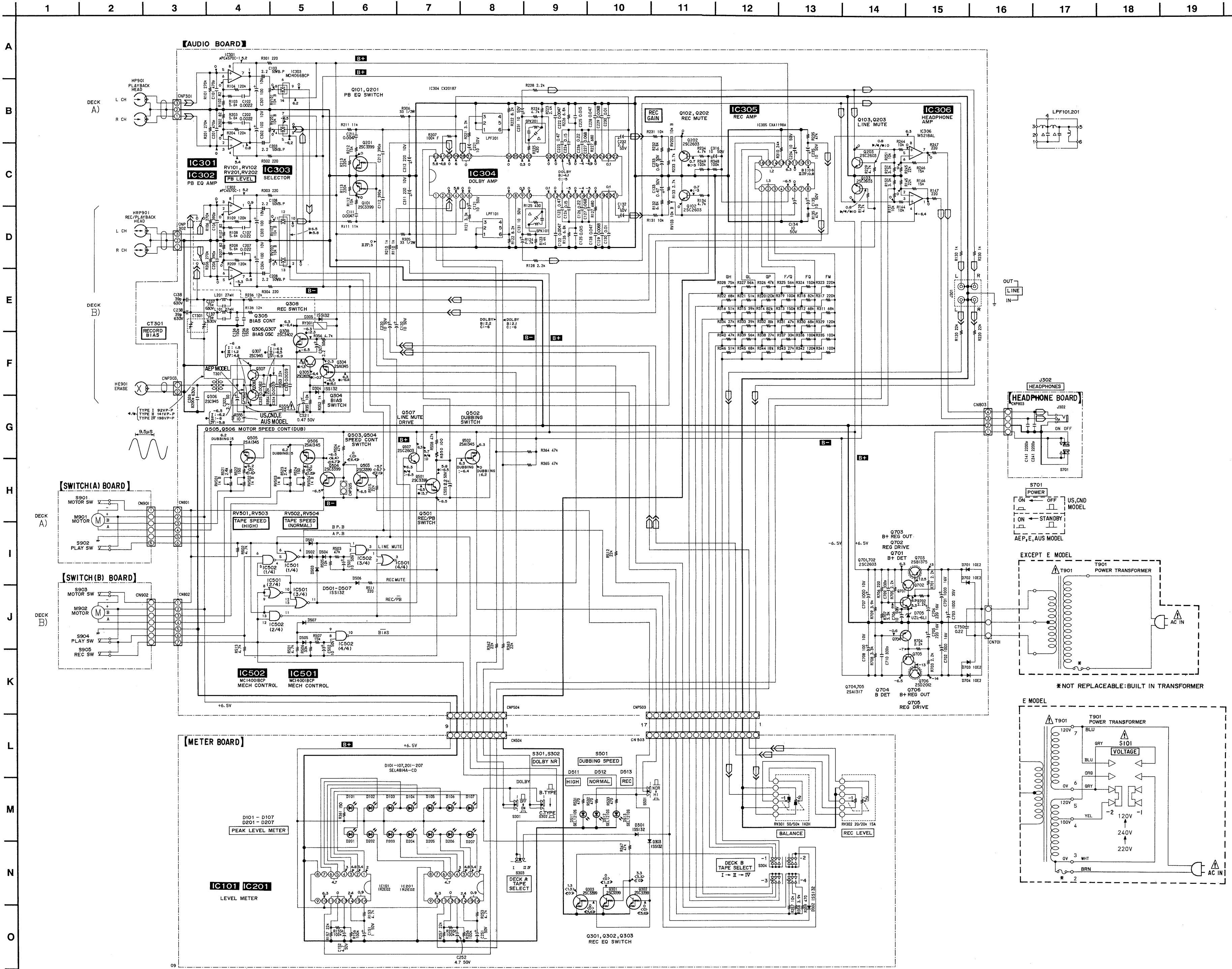
Note:

- : parts extracted from the component side.
- : parts mounted on the conductor side.
- : indicates side identified with part number.
- △ : internal component.
- ▨ : Pattern from the side which enable seeing.
- CND : Canadian model.
- AUS : Australian model.





4-2. SCHEMATIC DIAGRAM  
 • See page 12 for IC Block Diagrams.



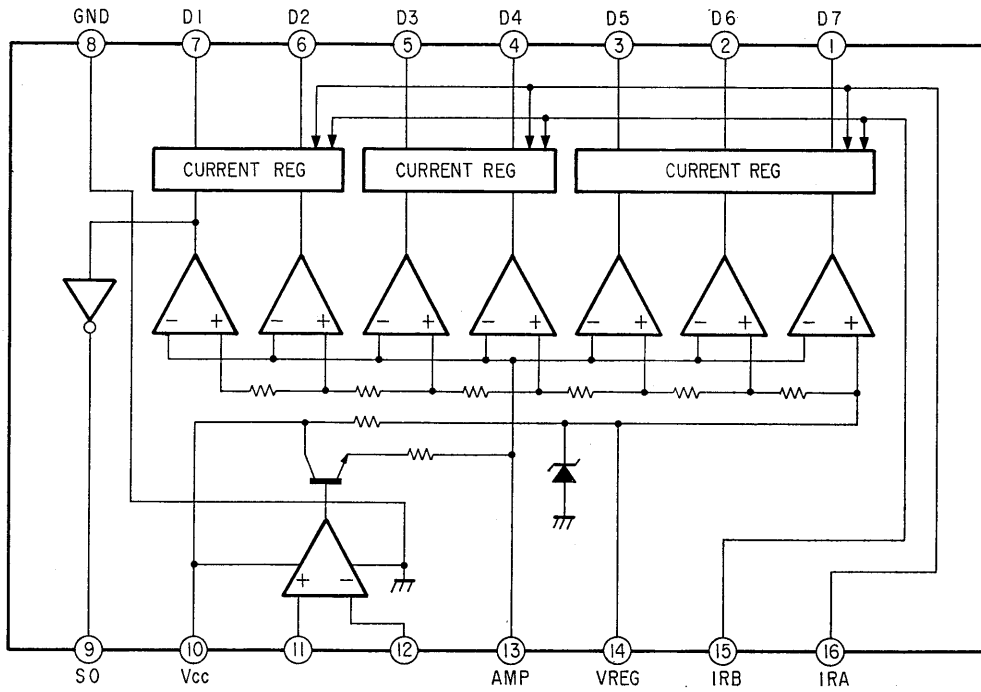
- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ ,  $\mu\text{F}$ ,  $50\text{WV}$  or less are not indicated except for electrolytics and tantalums.
  - All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
  - $\Delta$ : internal component.
  - $\square$ : fusible resistor.
  - $\square$ : panel designation.
  - 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 (HIGH)
    - < >: DUBBING SPEED (NORMAL)
  - Voltages are taken with a VOM (Input impedance  $10\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
  - Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.

<p><b>Note:</b> The components identified by mark <math>\Delta</math> or dotted line with mark <math>\Delta</math> are critical for safety. Replace only with part number specified.</p>	<p><b>Note:</b> Les composants identifiés par une marque <math>\Delta</math> sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
--	--

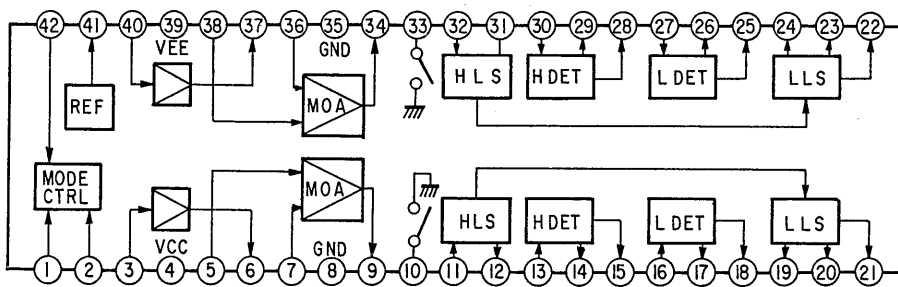
- CND: Canadian model.
- AUS: Australian model.
- Signal path.
  - $\square$ : PB (DECK A)
  - $\square$ : PB (DECK B)
  - $\square$ : REC (DECK B)

### 4-3. IC BLOCK DIAGRAMS

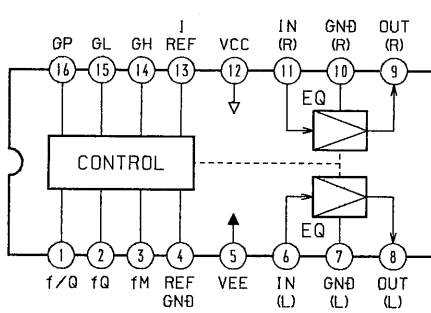
**IC101,201 1R2E02**



**IC304 CX20187**



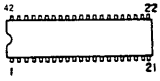
**IC305 CXA1198AP**





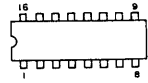
## 4-4. SEMICONDUCTOR LEAD LAYOUTS

**CX20187**



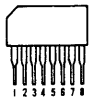
(Top view)

**CXA1198AP  
1R2E02**

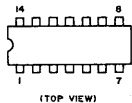


(TOP VIEW)

**M5218AL**

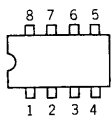


**MC14001BCP  
MC14066BCP  
UPC4011BC**



(TOP VIEW)

**UPC4570C-1**



(Top view)

**DTA144ES  
DTC114ES  
DTC144ES  
2SA1317-STU  
2SC2603-EF**



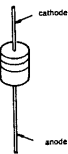
**2SB1094-LK  
2SD2012**



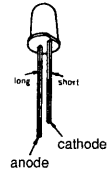
**2SC945-P**



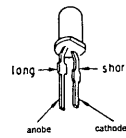
**HZS6A1L  
1SS202-1**



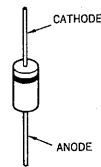
**SEL1210S-C**



**SEL4814A-CD**

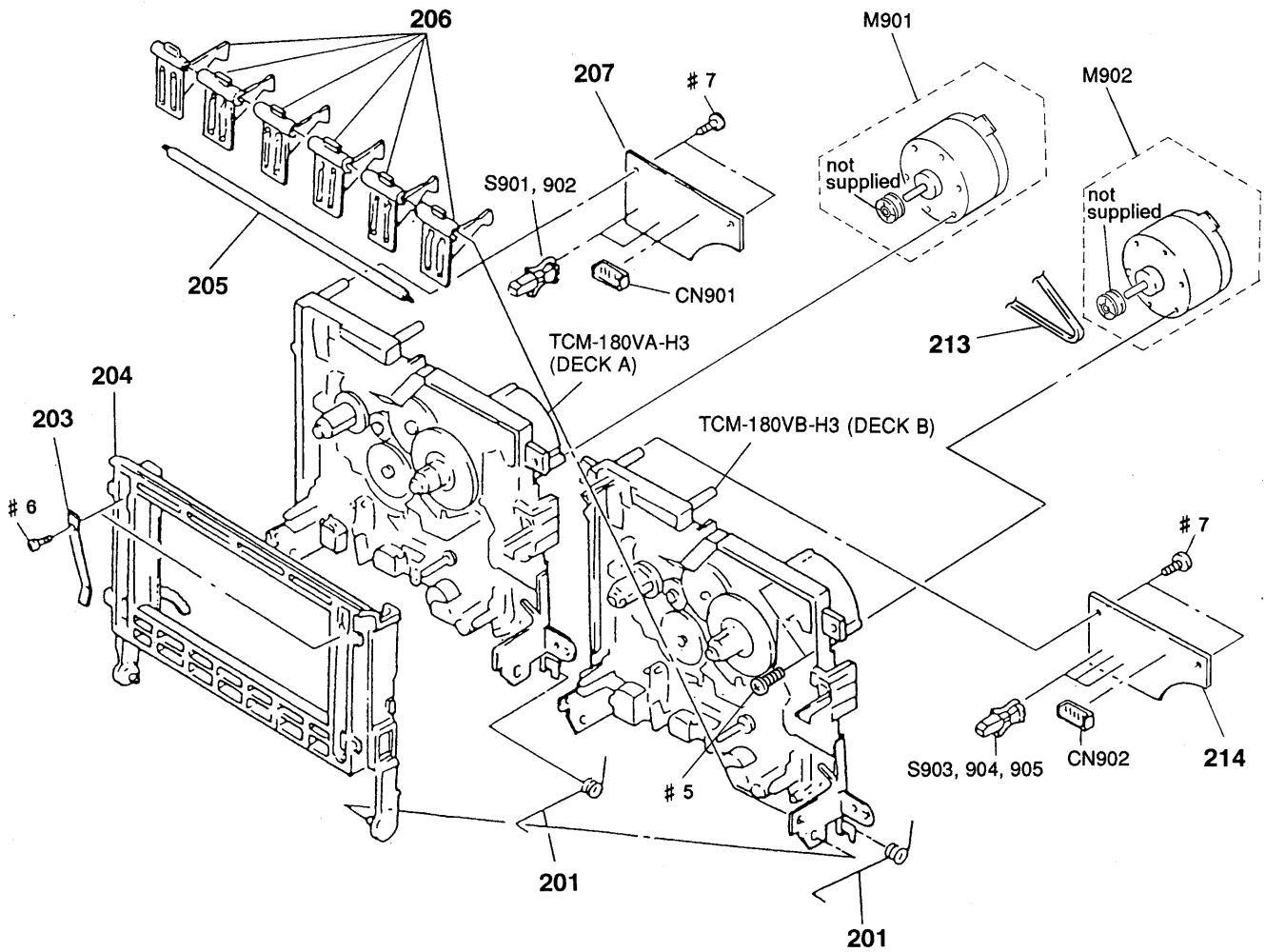


**10E2N**





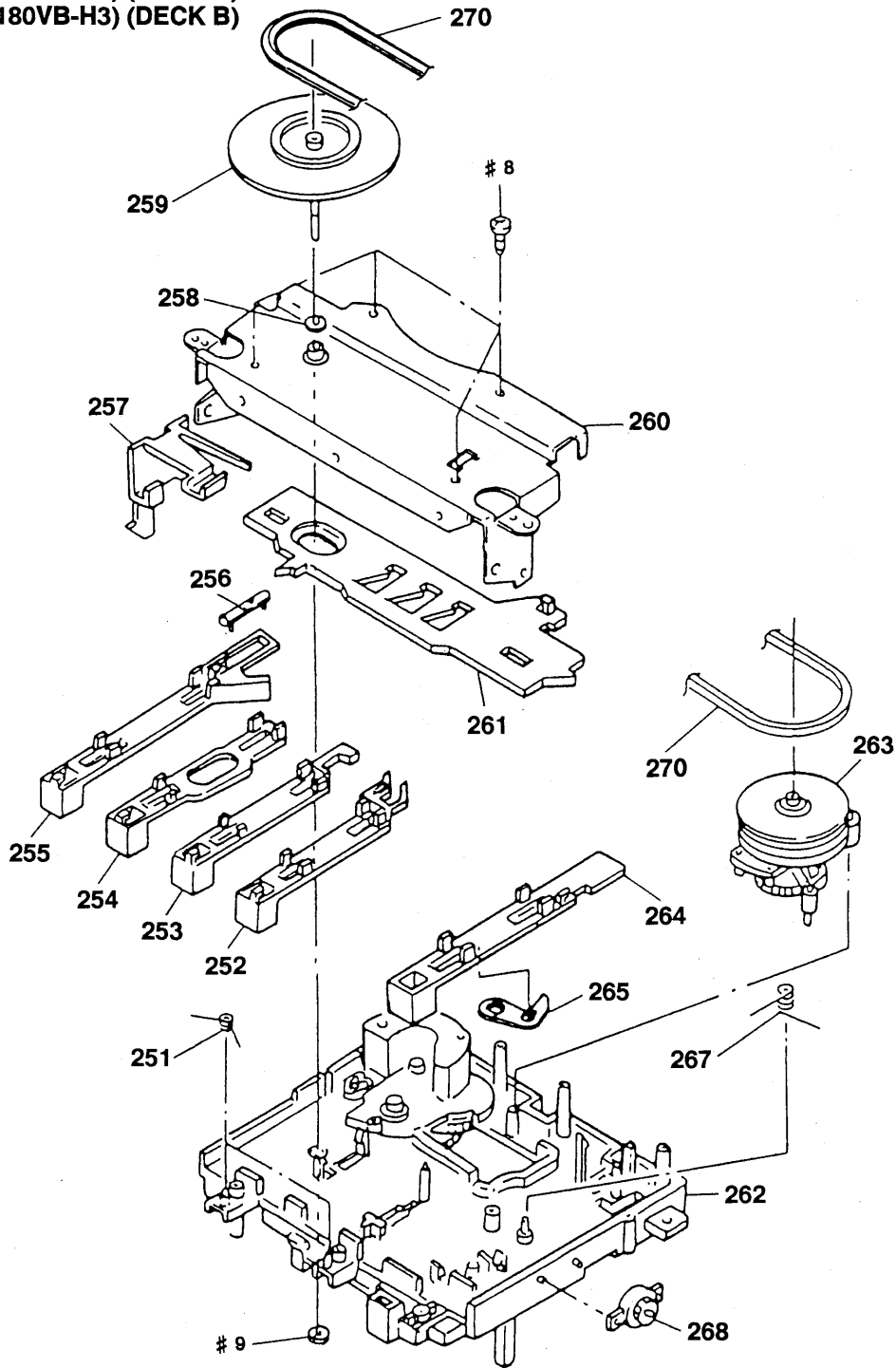
**5-2. MECHANISM DECK SECTION 1  
(TCM-180VA-H3) (DECK A)  
(TCM-180VB-H3) (DECK B)**



Ref. No.	Part No.	Description
201	3-358-287-01	SPRING (LOADING A), TORSION
203	3-358-209-01	SPRING (CASSETTE HOLDER), LEAF
204	3-358-266-02	HOLDER, CASSETTE
205	3-358-242-01	SHAFT (BUTTON SHAFT)
206	3-358-271-01	LEVER (BUTTON BASE A)
207	1-635-161-11	SWITCH (A) BOARD
213	3-358-272-01	BELT (A2)
214	1-635-161-11	SWITCH (B) BOARD
* CN901	1-564-499-11	PIN, CONNECTOR 6P

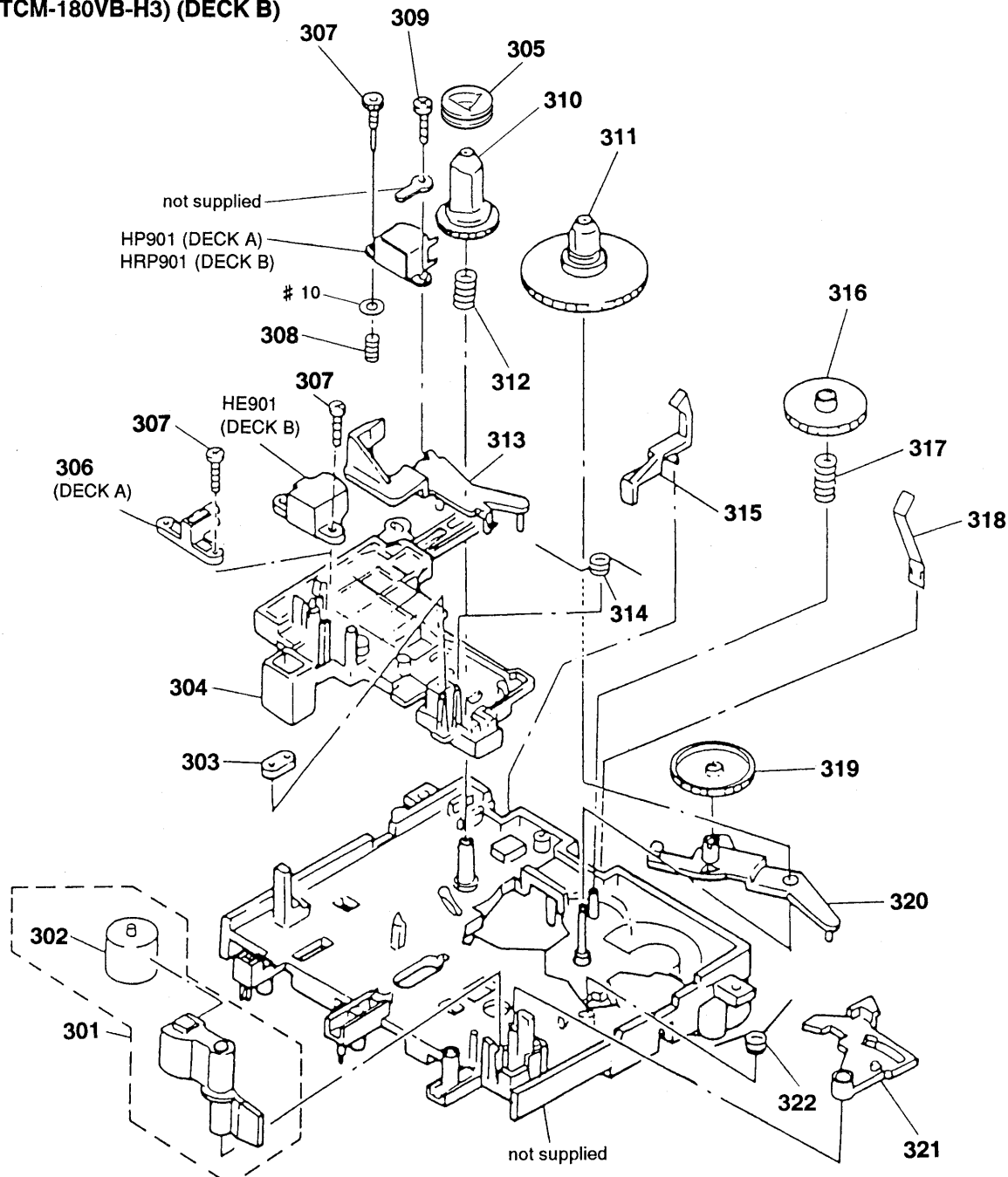
Remark	Ref. No.	Part No.	Description	Remark
	* CN902	1-564-500-11	PIN, CONNECTOR 7P	
	M901	X-3358-212-1	MOTOR (A) ASSY (DECK A)	
	M902	X-3358-212-1	MOTOR (B) ASSY (DECK B)	
	S901	1-571-736-11	SWITCH, LEAF (MOTOR)	
	S902	1-571-736-11	SWITCH, LEAF (PLAY)	
	S903	1-571-736-11	SWITCH, LEAF (MOTOR)	
	S904	1-571-736-11	SWITCH, LEAF (PLAY)	
	S905	1-571-736-11	SWITCH, LEAF (REC)	

**5-3. MECHANISM DECK SECTION 2  
(TCM-180VA-H3) (DECK A)  
(TCM-180VB-H3) (DECK B)**



<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
251	3-358-232-01	SPRING (S-P F-R), TORSION		* 261	3-358-249-01	SLIDER (LOCK PLATE)	
252	3-358-258-01	SLIDER (REW)		262	X-3358-207-2	CHASSIS (A) ASSY	
253	3-358-257-01	SLIDER (FF)		263	X-3358-202-1	LEVER (FR ARM) ASSY	
254	3-358-256-01	SLIDER (STOP/EJECT)		264	3-358-259-01	SLIDER (REC)	
255	3-358-260-01	SLIDER (PAUSE)		* 265	3-358-204-01	LEVER (REC SAFETY)	
* 256	3-358-226-01	LEVER (PAUSE LEVER)		267	3-358-214-01	SPRING (LOCK), TORSION (DECK A)	
* 257	3-358-261-02	SLIDER (HOLDER LOCK)		267	3-358-233-01	SPRING (REC-LOCK), TORSION (DECK B)	
258	3-701-437-01	WASHER		268	3-319-224-51	DAMPER, SMALL	
259	X-3358-205-1	FLYWHEEL (A) ASSY		270	3-358-230-01	BELT (A1)	
* 260	X-3358-213-1	BRACKET (A) ASSY					

5-4. MECHANISM DECK SECTION 3  
 (TCM-180VA-H3) (DECK A)  
 (TCM-180VB-H3) (DECK B)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	X-3358-204-1	LEVER (PINCH LEVER) ASSY		314	3-358-228-01	SPRING, TORSION	
302	3-578-143-11	PINCH ROLLER		* 315	3-358-255-01	LEVER (GB LEVER)	
* 303	3-358-215-01	BUSHING (WIRE KIT RETAINER)		* 316	3-358-224-01	GEAR (FF GEAR)	
304	3-358-265-01	SLIDER (HEAD PC BOARD A)		317	3-358-207-01	SPRING (FF GEAR), COMPRESSION	
* 305	3-358-270-01	PULLEY (COUNTER PULLEY)		318	3-358-227-01	SPRING, LEAF	
* 306	3-363-931-01	GUIDE, TAPE		* 319	3-358-284-01	GEAR (TU GEAR)	
307	3-358-288-11	SCREW (T), AZIMUTH		* 320	3-358-252-01	LEVER (TU ARM)	
308	3-358-234-01	SPRING (AZIMUTH), COMPRESSION		* 321	3-358-253-01	LEVER (SHUT-OFF LEVER)	
309	3-358-288-01	SCREW (T), AZIMUTH		322	3-358-243-01	SPRING (TU-SHUT), TORSION	
310	3-358-248-01	GEAR (SUPPLY REEL)		HE901	1-543-673-11	HEAD, MAGNETIC (ERASE) (DECK B)	
311	X-3358-203-1	TABLE (T) ASSY, REEL		HP901	1-543-319-11	HEAD, MAGNETIC (PB) (DECK A)	
312	3-358-208-01	SPRING (SUPPLY), COMPRESSION		HRP901	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)	
* 313	3-358-251-01	LEVER (TENSION DETECTION ARM)					

# AUDIO HEADPHONE

## SECTION 6

# METER

## ELECTRICAL PARTS LIST

**NOTE:**

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

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

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

- 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.
- -XX, -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
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

- SEMICONDUCTORS  
 In each case, u:  $\mu$ , for example:  
 uA...:  $\mu$  A..., uPA...:  $\mu$  PA..., uPB...:  $\mu$  PB...,  
 uPC...:  $\mu$  PC..., uPD...:  $\mu$  PD...
- RESISTORS  
 All resistors are in ohms  
 METAL: Metal-film resistor  
 METAL OXIDE: Metal Oxide-film resistor  
 F: nonflammable
- CAPACITORS  
 uF:  $\mu$  F
- COILS  
 uH:  $\mu$  H
- CND : Canadian model
- AUS : Australian model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-2006-264-A	AUDIO BOARD, COMPLETE (US, CND, E, AUS) *****		C207	1-136-157-00	FILM 0.022uF 5%	50V
*	A-2006-619-A	AUDIO BOARD, COMPLETE (AEP) ***** (Including HEADPHONE/METER BOARD)		C208	1-124-767-00	ELECT 2.2uF	20% 50V
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3  < CAPACITOR >		C211	1-130-479-00	MYLAR 0.0047uF	5% 50V
C101	1-162-290-31	CERAMIC 470PF	10% 50V	C212	1-162-289-31	CERAMIC 390PF	10% 50V
C102	1-136-157-00	FILM 0.022uF	5% 50V	C220	1-124-907-11	ELECT 10uF	20% 50V
C103	1-124-767-00	ELECT 2.2uF	20% 50V	C221	1-124-907-11	ELECT 10uF	20% 50V
C106	1-162-289-31	CERAMIC 390PF	10% 50V	C222	1-130-479-00	MYLAR 0.0047uF	5% 50V
C107	1-136-157-00	FILM 0.022uF	5% 50V	C223	1-136-173-00	FILM 0.47uF	5% 50V
C108	1-124-767-00	ELECT 2.2uF	20% 50V	C224	1-136-167-00	FILM 0.15uF	5% 50V
C111	1-130-479-00	MYLAR 0.0047uF	5% 50V	C225	1-136-155-00	FILM 0.015uF	5% 50V
C112	1-162-289-31	CERAMIC 390PF	10% 50V	C226	1-136-169-00	FILM 0.22uF	5% 50V
C120	1-124-907-11	ELECT 10uF	20% 50V	C227	1-136-163-00	FILM 0.068uF	5% 50V
C121	1-124-907-11	ELECT 10uF	20% 50V	C228	1-136-161-00	FILM 0.047uF	5% 50V
C122	1-130-479-00	MYLAR 0.0047uF	5% 50V	C229	1-130-481-00	MYLAR 0.0068uF	5% 50V
C123	1-136-173-00	FILM 0.47uF	5% 50V	C230	1-136-153-00	FILM 0.01uF	5% 50V
C124	1-136-167-00	FILM 0.15uF	5% 50V	C231	1-124-907-11	ELECT 10uF	20% 50V
C125	1-136-155-00	FILM 0.015uF	5% 50V	C232	1-124-925-11	ELECT 2.2uF	20% 100V
C126	1-136-169-00	FILM 0.22uF	5% 50V	C233	1-124-902-00	ELECT 0.47uF	20% 50V
C127	1-136-163-00	FILM 0.068uF	5% 50V	C234	1-124-907-11	ELECT 10uF	20% 50V
C128	1-136-161-00	FILM 0.047uF	5% 50V	C235	1-124-907-11	ELECT 10uF	20% 50V
C129	1-130-481-00	MYLAR 0.0068uF	5% 50V	C236	1-162-284-31	CERAMIC 150PF	10% 50V
C130	1-136-153-00	FILM 0.01uF	5% 50V	C237	1-136-273-91	FILM 75PF	5% 630V
C131	1-124-907-11	ELECT 10uF	20% 50V	C238	1-136-440-11	FILM 39PF	5% 630V
C132	1-124-925-11	ELECT 2.2uF	20% 100V	C241	1-161-375-00	CERAMIC 0.0022uF	20% 50V
C133	1-124-902-00	ELECT 0.47uF	20% 50V	C251	1-126-301-11	ELECT 1uF	20% 50V
C134	1-124-907-11	ELECT 10uF	20% 50V	C252	1-126-163-11	ELECT 4.7uF	20% 50V
C135	1-124-907-11	ELECT 10uF	20% 50V	C301	1-124-443-00	ELECT 100uF	20% 10V
C136	1-162-284-31	CERAMIC 150PF	10% 50V	C302	1-124-443-00	ELECT 100uF	20% 10V
C137	1-136-273-91	FILM 75PF	5% 630V	C303	1-124-443-00	ELECT 100uF	20% 10V
C138	1-136-440-11	FILM 39PF	5% 630V	C304	1-124-443-00	ELECT 100uF	20% 10V
C141	1-161-375-00	CERAMIC 0.0022uF	20% 50V	C311	1-126-176-11	ELECT 220uF	20% 10V
C151	1-126-301-11	ELECT 1uF	20% 50V	C312	1-126-176-11	ELECT 220uF	20% 10V
C152	1-126-163-11	ELECT 4.7uF	20% 50V	C316	1-124-907-11	ELECT 10uF	20% 50V
C201	1-162-290-31	CERAMIC 470PF	10% 50V	C321	1-124-902-00	ELECT 0.47uF	20% 50V
C202	1-136-157-00	FILM 0.022uF	5% 50V	C322	1-124-925-11	ELECT 2.2uF	20% 100V
C203	1-124-767-00	ELECT 2.2uF	20% 50V	C323	1-130-478-00	MYLAR 0.0039uF	5% 50V
C206	1-162-289-31	CERAMIC 390PF	10% 50V	C324	1-130-478-00	MYLAR 0.0039uF	5% 50V
				C325	1-130-482-00	MYLAR 0.0082uF	5% 50V
				C326	1-136-562-11	FILM 0.0082uF	5% 630V
				C327	1-124-925-11	ELECT 2.2uF	20% 100V
				C501	1-124-907-11	ELECT 10uF	20% 50V
				C502	1-124-907-11	ELECT 10uF	20% 50V

## AUDIO

## HEADPHONE

## METER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C503	1-124-925-11	ELECT	2. 2uF 20%	100V	D504	8-719-107-94	DIODE 1SS202-1
C701	1-124-360-00	ELECT	1000uF 20%	16V	D505	8-719-107-94	DIODE 1SS202-1
C702	1-124-360-00	ELECT	1000uF 20%	16V	D506	8-719-107-94	DIODE 1SS202-1
C703	1-126-105-11	ELECT	1000uF 20%	35V	D507	8-719-107-94	DIODE 1SS202-1
C704	1-124-120-11	ELECT	220uF 20%	25V	D511	8-719-302-46	LED SEL1210S-C (HIGH)
C705	1-124-120-11	ELECT	220uF 20%	25V	D512	8-719-302-46	LED SEL1210S-C (NORMAL)
C706	1-124-907-11	ELECT	10uF 20%	50V	D513	8-719-302-46	LED SEL1210S-C (REC)
C707	1-124-473-11	ELECT	1000uF 20%	10V	D701	8-719-200-77	DIODE 10E2N
C708	1-124-443-00	ELECT	100uF 20%	10V	D702	8-719-200-77	DIODE 10E2N
C709	1-162-288-31	CERAMIC	330PF 10%	50V	D703	8-719-200-77	DIODE 10E2N
C710	1-162-288-31	CERAMIC	330PF 10%	50V	D704	8-719-200-77	DIODE 10E2N
C750	1-136-157-00	FILM	0. 022uF 5%	50V(AEP)	D705	8-719-933-33	DIODE HZS6A1L
< CONNECTOR >				< IC >			
CN503	1-568-438-11	SOCKET, CONNECTOR	17P	IC101	8-759-912-79	IC	IR2E02
CN504	1-568-441-11	SOCKET, CONNECTOR	9P	IC201	8-759-912-79	IC	IR2E02
* CNP301	1-564-705-11	PIN, CONNECTOR (SMALL TYPE)	3P	IC301	8-759-111-44	IC	UPC4570C-1
* CNP302	1-564-705-11	PIN, CONNECTOR (SMALL TYPE)	3P	IC302	8-759-111-44	IC	UPC4570C-1
* CNP303	1-564-704-11	PIN, CONNECTOR (SMALL TYPE)	2P	IC303	8-759-000-49	IC	MC14066BCP
CNP503	1-568-440-11	SOCKET, CONNECTOR	17P	IC304	8-752-018-70	IC	CX20187
CNP504	1-568-442-11	SOCKET, CONNECTOR	9P	IC305	8-752-060-64	IC	CXA1198AP
* CNP505	1-564-704-11	PIN, CONNECTOR (SMALL TYPE)	2P	IC306	8-759-634-50	IC	M5218AL
* CNP803	1-564-497-11	PIN, CONNECTOR	4P	IC501	8-759-040-01	IC	MC14001BCP
< TRIMMER >				< JACK >			
CT301	1-141-225-00	CAP, TUNING, TRIMAR		J301	1-565-258-11	JACK, PIN 4P (LINE)	
< DIODE >				J302	1-507-796-71	JACK, LARGE TYPE (HEADPHONES)	
D101	8-719-312-65	LED SEL4814A-CD		< COIL >			
D102	8-719-312-65	LED SEL4814A-CD		L101	1-410-780-11	INDUCTOR	27mH
D103	8-719-312-65	LED SEL4814A-CD		L201	1-410-780-11	INDUCTOR	27mH
D104	8-719-312-65	LED SEL4814A-CD		< FILTER >			
D105	8-719-312-65	LED SEL4814A-CD		LPF101	1-236-087-11	FILTER, LOW PASS	
D106	8-719-312-65	LED SEL4814A-CD		LPF201	1-236-087-11	FILTER, LOW PASS	
D107	8-719-312-65	LED SEL4814A-CD		< TRANSISTOR >			
D201	8-719-312-65	LED SEL4814A-CD		Q101	8-729-900-89	TRANSISTOR	DTC144ES
D202	8-719-312-65	LED SEL4814A-CD		Q102	8-729-620-05	TRANSISTOR	2SC2603-EF
D203	8-719-312-65	LED SEL4814A-CD		Q103	8-729-620-05	TRANSISTOR	2SC2603-EF
D204	8-719-312-65	LED SEL4814A-CD		Q201	8-729-900-89	TRANSISTOR	DTC144ES
D205	8-719-312-65	LED SEL4814A-CD		Q202	8-729-620-05	TRANSISTOR	2SC2603-EF
D206	8-719-312-65	LED SEL4814A-CD		Q203	8-729-620-05	TRANSISTOR	2SC2603-EF
D207	8-719-312-65	LED SEL4814A-CD		Q301	8-729-900-89	TRANSISTOR	DTC144ES
D301	8-719-107-94	DIODE 1SS202-1		Q302	8-729-900-89	TRANSISTOR	DTC144ES
D302	8-719-107-94	DIODE 1SS202-1		Q303	8-729-900-89	TRANSISTOR	DTC144ES
D303	8-719-107-94	DIODE 1SS202-1		Q304	8-729-900-65	TRANSISTOR	DTA144ES
D304	8-719-107-94	DIODE 1SS202-1		Q305	8-729-620-05	TRANSISTOR	2SC2603-EF
D305	8-719-107-94	DIODE 1SS202-1		Q306	8-729-194-57	TRANSISTOR	2SC945-P
D501	8-719-107-94	DIODE 1SS202-1					
D502	8-719-107-94	DIODE 1SS202-1					
D503	8-719-107-94	DIODE 1SS202-1					



# AUDIO HEADPHONE METER

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
Q307	8-729-194-57	TRANSISTOR	2SC945-P	R151	1-249-429-11	CARBON	10K 5% 1/4W
Q308	8-729-900-80	TRANSISTOR	DTC114ES	R152	1-249-423-11	CARBON	3.3K 5% 1/4W F
Q501	8-729-900-89	TRANSISTOR	DTC144ES				
Q502	8-729-900-65	TRANSISTOR	DTA144ES	R153	1-247-840-00	CARBON	2.4K 5% 1/4W
Q503	8-729-900-89	TRANSISTOR	DTC144ES	R155	1-249-441-11	CARBON	100K 5% 1/4W
Q504	8-729-900-89	TRANSISTOR	DTC144ES	R156	1-249-441-11	CARBON	100K 5% 1/4W
Q505	8-729-900-65	TRANSISTOR	DTA144ES	R157	1-249-433-11	CARBON	22K 5% 1/4W
Q506	8-729-900-65	TRANSISTOR	DTA144ES	R201	1-247-889-00	CARBON	270K 5% 1/4W
Q707	8-729-620-05	TRANSISTOR	2SC2603-EF	R202	1-249-404-00	CARBON	82 5% 1/4W
Q701	8-729-620-05	TRANSISTOR	2SC2603-EF	R203	1-249-426-11	CARBON	5.6K 5% 1/4W
Q702	8-729-620-05	TRANSISTOR	2SC2603-EF	R204	1-247-881-00	CARBON	120K 5% 1/4W
Q703	8-729-141-83	TRANSISTOR	2SB1094-LK	R206	1-247-889-00	CARBON	270K 5% 1/4W
Q704	8-729-821-04	TRANSISTOR	2SA1317-STU	R207	1-249-404-00	CARBON	82 5% 1/4W
Q705	8-729-821-04	TRANSISTOR	2SA1317-STU	R208	1-249-426-11	CARBON	5.6K 5% 1/4W
Q706	8-729-209-15	TRANSISTOR	2SD2012	R209	1-247-881-00	CARBON	120K 5% 1/4W
< RESISTOR >				R210	1-249-417-11	CARBON	1K 5% 1/4W F
R101	1-247-889-00	CARBON	270K 5% 1/4W	R211	1-247-856-00	CARBON	11K 5% 1/4W
R102	1-249-404-00	CARBON	82 5% 1/4W	R212	1-249-431-11	CARBON	15K 5% 1/4W
R103	1-249-426-11	CARBON	5.6K 5% 1/4W	R213	1-247-887-00	CARBON	220K 5% 1/4W
R104	1-247-881-00	CARBON	120K 5% 1/4W	R220	1-249-433-11	CARBON	22K 5% 1/4W
R106	1-247-889-00	CARBON	270K 5% 1/4W	R221	1-249-423-11	CARBON	3.3K 5% 1/4W F
R107	1-249-404-00	CARBON	82 5% 1/4W	R222	1-249-428-11	CARBON	8.2K 5% 1/4W F
R108	1-249-426-11	CARBON	5.6K 5% 1/4W	R223	1-247-840-00	CARBON	2.4K 5% 1/4W
R109	1-247-881-00	CARBON	120K 5% 1/4W	R224	1-249-425-11	CARBON	4.7K 5% 1/4W F
R110	1-249-417-11	CARBON	1K 5% 1/4W F	R225	1-247-822-11	CARBON	430 5% 1/4W
R111	1-247-856-00	CARBON	11K 5% 1/4W	R226	1-249-427-11	CARBON	6.8K 5% 1/4W F
R112	1-249-431-11	CARBON	15K 5% 1/4W	R227	1-249-415-11	CARBON	680 5% 1/4W F
R113	1-247-887-00	CARBON	220K 5% 1/4W	R228	1-249-421-11	CARBON	2.2K 5% 1/4W F
R120	1-249-433-11	CARBON	22K 5% 1/4W	R229	1-249-425-11	CARBON	4.7K 5% 1/4W F
R121	1-249-423-11	CARBON	3.3K 5% 1/4W F	R230	1-249-417-11	CARBON	1K 5% 1/4W F
R122	1-249-428-11	CARBON	8.2K 5% 1/4W F	R231	1-249-429-11	CARBON	10K 5% 1/4W
R123	1-247-840-00	CARBON	2.4K 5% 1/4W	R232	1-249-427-11	CARBON	6.8K 5% 1/4W F
R124	1-249-425-11	CARBON	4.7K 5% 1/4W F	R233	1-249-422-11	CARBON	2.7K 5% 1/4W F
R125	1-247-822-11	CARBON	430 5% 1/4W	R234	1-249-425-11	CARBON	4.7K 5% 1/4W F
R126	1-249-427-11	CARBON	6.8K 5% 1/4W F	R235	1-249-437-11	CARBON	47K 5% 1/4W
R127	1-249-415-11	CARBON	680 5% 1/4W F	R236	1-249-430-11	CARBON	12K 5% 1/4W
R128	1-249-421-11	CARBON	2.2K 5% 1/4W F	R244	1-249-429-11	CARBON	10K 5% 1/4W
R129	1-249-425-11	CARBON	4.7K 5% 1/4W F	R245	1-249-433-11	CARBON	22K 5% 1/4W
R130	1-249-417-11	CARBON	1K 5% 1/4W F	R246	1-249-431-11	CARBON	15K 5% 1/4W
R131	1-249-429-11	CARBON	10K 5% 1/4W	R247	1-249-409-11	CARBON	220 5% 1/4W F
R132	1-249-427-11	CARBON	6.8K 5% 1/4W F	R251	1-249-429-11	CARBON	10K 5% 1/4W
R133	1-249-422-11	CARBON	2.7K 5% 1/4W F	R252	1-249-423-11	CARBON	3.3K 5% 1/4W F
R134	1-249-425-11	CARBON	4.7K 5% 1/4W F	R253	1-247-840-00	CARBON	2.4K 5% 1/4W
R135	1-249-437-11	CARBON	47K 5% 1/4W	R255	1-249-441-11	CARBON	100K 5% 1/4W
R136	1-249-430-11	CARBON	12K 5% 1/4W	R256	1-249-441-11	CARBON	100K 5% 1/4W
R144	1-249-429-11	CARBON	10K 5% 1/4W	R257	1-249-433-11	CARBON	22K 5% 1/4W
R145	1-249-433-11	CARBON	22K 5% 1/4W	R301	1-249-409-11	CARBON	220 5% 1/4W F
R146	1-249-431-11	CARBON	15K 5% 1/4W	R302	1-249-409-11	CARBON	220 5% 1/4W F
R147	1-249-409-11	CARBON	220 5% 1/4W F	R303	1-249-409-11	CARBON	220 5% 1/4W F
				R304	1-249-409-11	CARBON	220 5% 1/4W F
				R305	1-247-733-11	CARBON	33 5% 1/2W

**AUDIO**

**HEADPHONE**

**METER**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R306	1-247-733-11	CARBON	33 5% 1/2W	R357	1-249-429-11	CARBON	10K 5% 1/4W
R307	1-215-469-00	METAL	100K 1% 1/6W	R358	1-249-424-11	CARBON	3.9K 5% 1/4W F
R310	1-247-864-11	CARBON	24K 5% 1/4W	R359	1-249-413-11	CARBON	470 5% 1/4W F
R311	1-249-439-11	CARBON	68K 5% 1/4W	R361	1-247-811-31	CARBON	150 5% 1/4W
R312	1-249-439-11	CARBON	68K 5% 1/4W	R362	1-249-433-11	CARBON	22K 5% 1/4W
R313	1-247-883-00	CARBON	150K 5% 1/4W	R363	1-249-433-11	CARBON	22K 5% 1/4W
R314	1-249-440-11	CARBON	82K 5% 1/4W	R364	1-249-437-11	CARBON	47K 5% 1/4W
R315	1-249-436-11	CARBON	39K 5% 1/4W	R365	1-249-437-11	CARBON	47K 5% 1/4W
R316	1-247-872-11	CARBON	51K 5% 1/4W	R501	1-249-425-11	CARBON	4.7K 5% 1/4W F
R317	1-247-887-00	CARBON	220K 5% 1/4W	R502	1-249-425-11	CARBON	4.7K 5% 1/4W F
R318	1-249-440-11	CARBON	82K 5% 1/4W	R503	1-249-437-11	CARBON	47K 5% 1/4W
R319	1-249-441-11	CARBON	100K 5% 1/4W	R504	1-249-437-11	CARBON	47K 5% 1/4W
R320	1-247-881-00	CARBON	120K 5% 1/4W	R505	1-249-429-11	CARBON	10K 5% 1/4W
R321	1-247-872-11	CARBON	51K 5% 1/4W	R506	1-249-435-11	CARBON	33K 5% 1/4W
R322	1-249-439-11	CARBON	68K 5% 1/4W	R507	1-249-431-11	CARBON	15K 5% 1/4W
R323	1-247-887-00	CARBON	220K 5% 1/4W	R508	1-249-437-11	CARBON	47K 5% 1/4W
R324	1-247-883-00	CARBON	150K 5% 1/4W	R511	1-249-409-11	CARBON	220 5% 1/4W F
R325	1-249-438-11	CARBON	56K 5% 1/4W	R512	1-249-433-11	CARBON	22K 5% 1/4W
R326	1-249-437-11	CARBON	47K 5% 1/4W	R513	1-249-425-11	CARBON	4.7K 5% 1/4W F
R327	1-249-438-11	CARBON	56K 5% 1/4W	R515	1-249-433-11	CARBON	22K 5% 1/4W
R328	1-247-876-11	CARBON	75K 5% 1/4W	R521	1-247-840-00	CARBON	2.4K 5% 1/4W
R329	1-247-881-00	CARBON	120K 5% 1/4W	R522	1-247-811-31	CARBON	150 5% 1/4W
R330	1-249-439-11	CARBON	68K 5% 1/4W	R523	1-247-840-00	CARBON	2.4K 5% 1/4W
R331	1-249-437-11	CARBON	47K 5% 1/4W	R524	1-247-811-31	CARBON	150 5% 1/4W
R332	1-249-432-11	CARBON	18K 5% 1/4W	R531	1-249-413-11	CARBON	470 5% 1/4W F
R333	1-249-436-11	CARBON	39K 5% 1/4W	R532	1-249-413-11	CARBON	470 5% 1/4W F
R334	1-249-434-11	CARBON	27K 5% 1/4W	R533	1-249-413-11	CARBON	470 5% 1/4W F
R335	1-249-441-11	CARBON	100K 5% 1/4W	R550	1-247-807-31	CARBON	100 5% 1/4W
R336	1-249-441-11	CARBON	100K 5% 1/4W	R701	1-249-421-11	CARBON	2.2K 5% 1/4W F
R337	1-249-435-11	CARBON	33K 5% 1/4W	R702	1-249-421-11	CARBON	2.2K 5% 1/4W F
R338	1-249-434-11	CARBON	27K 5% 1/4W	R703	1-249-421-11	CARBON	2.2K 5% 1/4W F
R339	1-249-438-11	CARBON	56K 5% 1/4W	R704	1-249-421-11	CARBON	2.2K 5% 1/4W F
R340	1-249-437-11	CARBON	47K 5% 1/4W	R705	1-249-421-11	CARBON	2.2K 5% 1/4W F
R341	1-249-441-11	CARBON	100K 5% 1/4W	R706	1-249-409-11	CARBON	220 5% 1/4W F
R342	1-247-881-00	CARBON	120K 5% 1/4W	R707	1-249-423-11	CARBON	3.3K 5% 1/4W F
R343	1-249-434-11	CARBON	27K 5% 1/4W	R708	1-249-423-11	CARBON	3.3K 5% 1/4W F
R344	1-249-432-11	CARBON	18K 5% 1/4W	R709	1-249-424-11	CARBON	3.9K 5% 1/4W F
R345	1-249-439-11	CARBON	68K 5% 1/4W	< VARIABLE RESISTOR >			
R346	1-247-872-11	CARBON	51K 5% 1/4W	RV101	1-228-994-00	RES, ADJ, METAL 10K	
R347	1-249-437-11	CARBON	47K 5% 1/4W	RV102	1-228-994-00	RES, ADJ, METAL 10K	
R348	1-249-441-11	CARBON	100K 5% 1/4W	RV103	1-228-994-00	RES, ADJ, METAL 10K	
R349	1-249-441-11	CARBON	100K 5% 1/4W	RV201	1-228-994-00	RES, ADJ, METAL 10K	
R351	1-249-429-11	CARBON	10K 5% 1/4W	RV202	1-228-994-00	RES, ADJ, METAL 10K	
R352	1-249-417-11	CARBON	1K 5% 1/4W F	RV203	1-228-994-00	RES, ADJ, METAL 10K	
R353	1-249-433-11	CARBON	22K 5% 1/4W	RV301	1-238-683-11	RES, VAR, CARBON 50K/50K (BALANCE)	
R354	1-249-433-11	CARBON	22K 5% 1/4W	RV302	1-238-534-11	RES, VAR, CARBON 20K/20K (REC LEVEL)	
△R355	1-219-153-11	FUSIBLE	10 5% 1/4W F (AEP)	RV501	1-228-990-00	RES, ADJ, METAL 1K	
R355	1-249-393-11	CARBON	10 5% 1/4W F (US, CND, E, AUS)	RV502	1-228-990-00	RES, ADJ, METAL 1K	
R356	1-249-425-11	CARBON	4.7K 5% 1/4W F	RV503	1-228-990-00	RES, ADJ, METAL 1K	

<p>The components identified by mark <math>\Delta</math> or dotted line with mark <math>\Delta</math> are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque <math>\Delta</math> sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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**AUDIO**    **HEADPHONE**    **METER**    **SWITCH (A)**    **SWITCH (B)**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
RV504	1-228-990-00	RES, ADJ, METAL 1K		S905	1-571-736-11	SWITCH, LEAF (REC)	
		< RELAY >		*****			
RY301	1-515-614-11	RELAY				MISCELLANEOUS	
		< SWITCH >				*****	
S301	1-571-510-11	SWITCH, PUSH (1 KEY) (DOLBY NR)		9	1-548-596-61	COUNTER, TAPE (MIDDLE TYPE)	
S302	1-571-510-11	SWITCH, PUSH (1 KEY) (DOLBY NR)		* 19	1-574-727-11	WIRE, FLAT TYPE (9 CORE)	
S303	1-570-974-11	SWITCH, SLIDE (DECK A TAPE SELECT)		* 20	1-574-725-11	WIRE, FLAT TYPE (17 CORE)	
S304	1-571-628-11	SWITCH, SLIDE (DECK B TAPE SELECT)		△25	1-551-188-XX	CORD, POWER (E)	
S501	1-571-510-11	SWITCH, PUSH (1 KEY) (DUBBING SPEED)		△25	1-555-750-00	CORD, POWER (AEP)	
S701	1-570-393-21	SWITCH, PUSH (1 KEY) (POWER)		△25	1-558-945-21	CORD, POWER (POLAR. SPT-1) (CND, US)	
		< ENCAPSULATED COMPONENT >		△25	1-696-966-21	CORD, POWER (AUS)	
SPK101	1-235-186-00	ENCAPSULATED COMPONENT		△32	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
SPK201	1-235-186-00	ENCAPSULATED COMPONENT		215	1-541-753-11	MOTOR, DC (BG-530KD-2B)	
		< TRANSFORMER >		* CN901	1-564-499-11	PIN, CONNECTOR 6P	
T301	1-433-303-11	TRANSFORMER, BIAS OSCILLATION		* CN902	1-564-500-11	PIN, CONNECTOR 7P	
*****				HE901	1-543-673-11	HEAD, MAGNETIC (ERASE) (DECK B)	
*	1-635-161-11	SWITCH (A) BOARD		HP901	1-543-319-11	HEAD, MAGNETIC (PB) (DECK A)	
		*****		HRP901	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)	
		< CONNECTOR >		M901	X-3358-212-1	MOTOR (A) ASSY (DECK A)	
* CN901	1-564-499-11	PIN, CONNECTOR 6P		M902	X-3358-212-1	MOTOR (B) ASSY (DECK B)	
		< MOTOR >		△S101	1-570-307-11	SELECTOR, POWER VOLTAGE (VOLTAGE) (E)	
M901	X-3358-212-1	MOTOR (A) ASSY		S901	1-571-736-11	SWITCH, LEAF (MOTOR)	
		< SWITCH >		S902	1-571-736-11	SWITCH, LEAF (PLAY)	
S901	1-571-736-11	SWITCH, LEAF (MOTOR)		S903	1-571-736-11	SWITCH, LEAF (MOTOR)	
S902	1-571-736-11	SWITCH, LEAF (PLAY)		S904	1-571-736-11	SWITCH, LEAF (PLAY)	
*****				S905	1-571-736-11	SWITCH, LEAF (REC)	
*	1-635-161-11	SWITCH (B) BOARD		△T901	1-449-682-11	TRANSFORMER, POWER (E)	
		*****		△T901	1-449-683-11	TRANSFORMER, POWER (CND, US)	
		< CONNECTOR >		△T901	1-450-610-11	TRANSFORMER, POWER (AEP, AUS)	
* CN902	1-564-500-11	PIN, CONNECTOR 7P		*****			
		< MOTOR >		ACCESSORIES & PACKING MATERIALS			
M902	X-3358-212-1	MOTOR (B) ASSY		*****			
		< SWITCH >		1-551-734-11	CORD, CONNECTION (AUDIO) (158cm)		
S903	1-571-736-11	SWITCH, LEAF (MOTOR)		* 3-376-136-01	CUSHION (HALF)		
S904	1-571-736-11	SWITCH, LEAF (PLAY)		3-757-880-11	MANUAL, INSTRUCTION		
*****					(ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP, CND, E)		
*	1-635-161-11	SWITCH (B) BOARD		3-757-880-21	MANUAL, INSTRUCTION (ENGLISH) (AUS, US)		
		*****		3-757-880-41	MANUAL, INSTRUCTION		
		< CONNECTOR >			(GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP)		
* CN902	1-564-500-11	PIN, CONNECTOR 7P		3-757-880-51	MANUAL, INSTRUCTION (CHINESE) (E)		
		< MOTOR >		* 3-907-886-61	INDIVIDUAL CARTON (AUS, CND, E, US)		
M902	X-3358-212-1	MOTOR (B) ASSY		* 3-907-886-71	INDIVIDUAL CARTON (AEP)		
		< SWITCH >		* 3-912-048-01	CUSHION		
*****				*****			

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
		***** HARDWARE LIST *****	
#1	7-682-548-04	SCREW +BVTT 3X8 (S)	
#2	7-682-548-09	SCREW +BVTT 3X8 (S)	
#3	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S (E)	
#4	7-621-849-00	SCREW, TAPPING	
#5	7-621-775-20	SCREW +B 2.6X5	
#6	7-685-103-19	SCREW +P 2X5 TYPE2 NON-SLIT	
#7	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#8	7-685-133-19	SCREW +P 2.6X6 TYPE2	
#9	7-623-921-01	RING, RETAINING, CAPSTAN	
#10	7-688-001-01	W 2, SMALL	
#11	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	



# TC-W345

## SONY® SERVICE MANUAL

*US Model  
Canadian Model  
AEP Model  
E Model  
Australian Model*

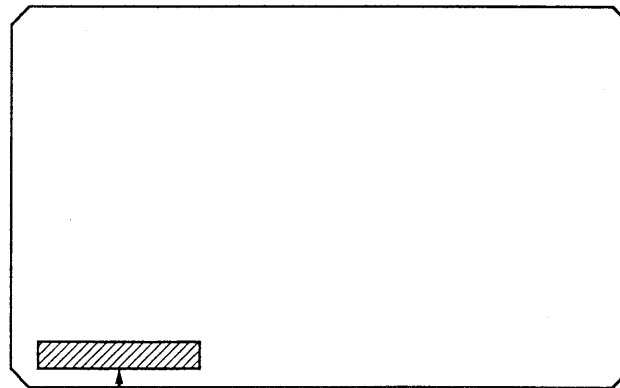
### SUPPLEMENT-1

File this Supplement with the Service Manual.

**Subject :** Schematic Diagram change  
Block Diagram

**New type identification :**

**[AUDIO BOARD]** — Component side —



1-630-771-15

☛ : indicates changed portion

### CHANGE PARTS LIST

Page	Ref. No.	Former	New				
18	C153	_____	1-136-437-11	FILM	220PF	5%	630V
	C253	_____	1-136-437-11	FILM	220PF	5%	630V
19	CT301	1-141-225-00 CAP, TUNING, TRIMAR	_____				
21	RV104	_____	1-241-767-21	RES, ADJ, CERMET	100K		
	RV204	_____	1-241-767-21	RES, ADJ, CERMET	100K		

## ELECTRICAL ADJUSTMENTS (Service manual page 5)

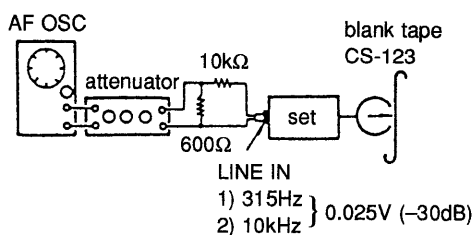
### RECORD BIAS ADJUSTMENT DECK B

#### Setting :

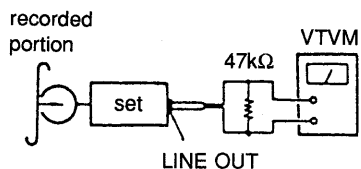
TAPE SELECT : TYPE-I (DECK-B)

#### Procedure :

1. Mode : record

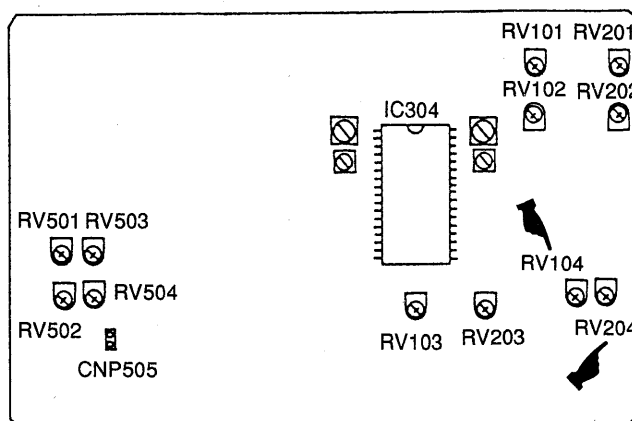


2. Mode : playback



Adjustment Location : Audio Board

— Component side —



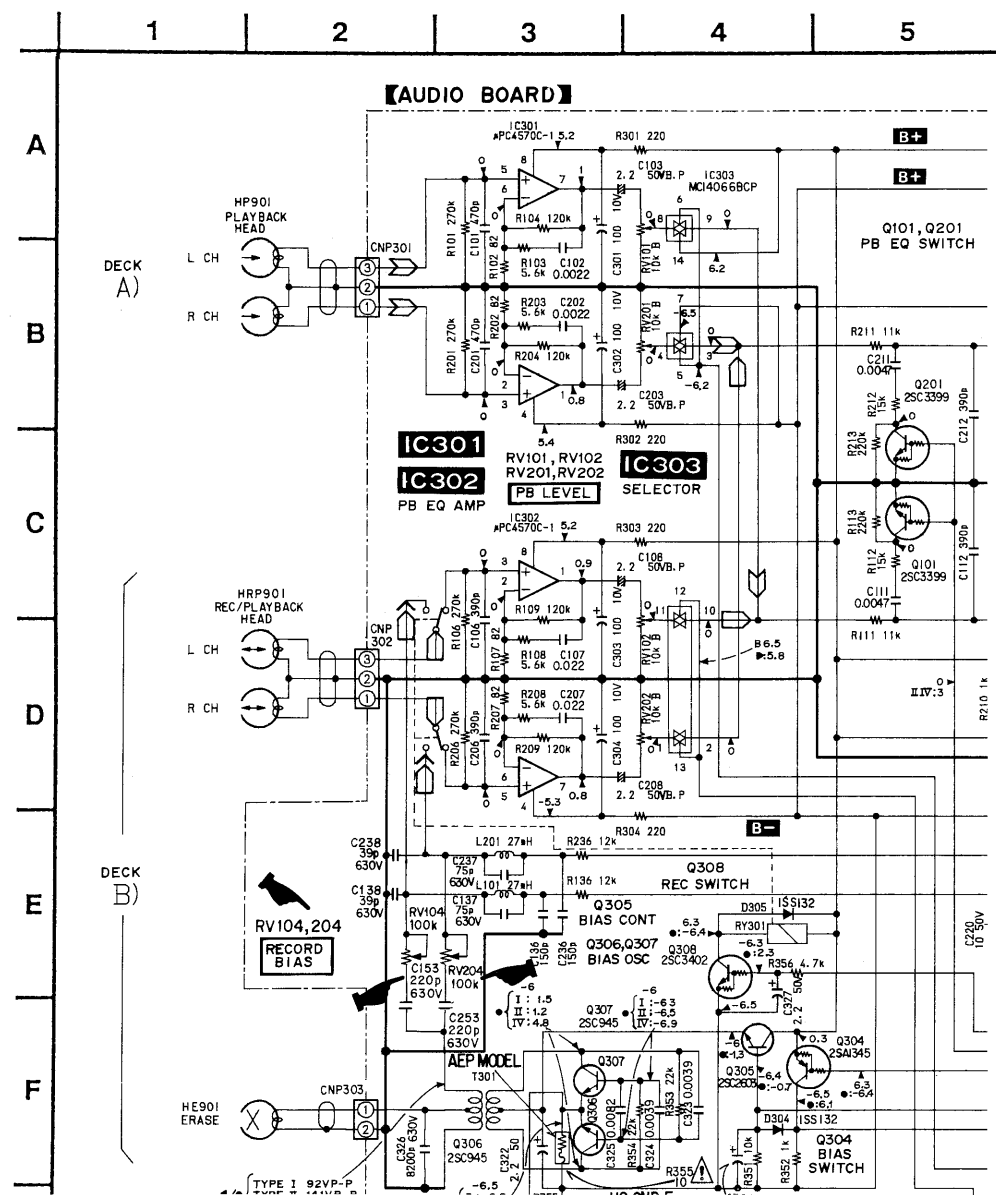
Playback the tape recorded in step 1. If the specification is not satisfied, adjust RV104 (L-CH), RV204 (R-CH) and repeat steps 1 and 2.

#### Measurement limit :

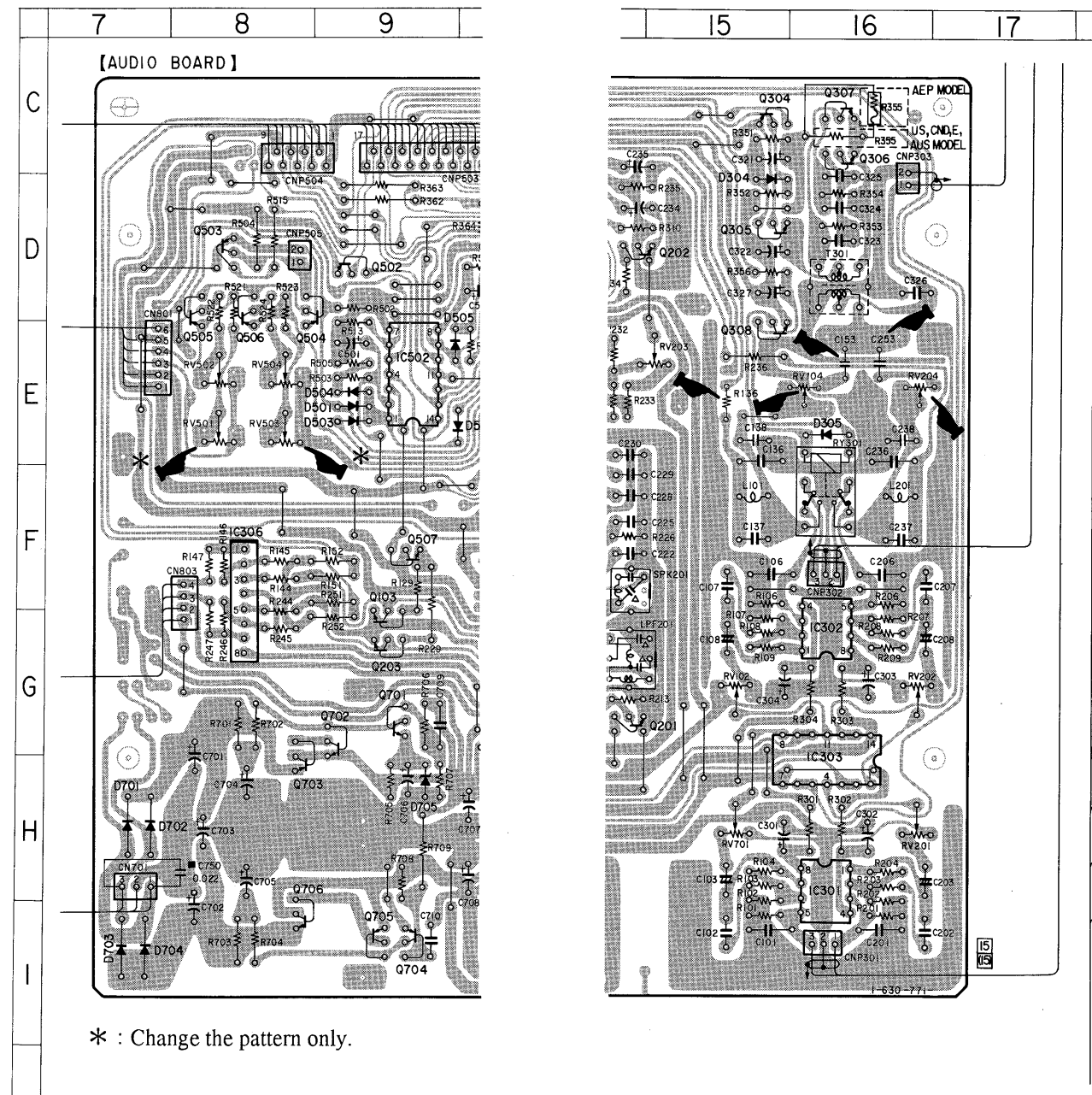
The LINE OUT level of 10kHz signal relative to that of 315Hz : -0.5dB to 0.5dB.



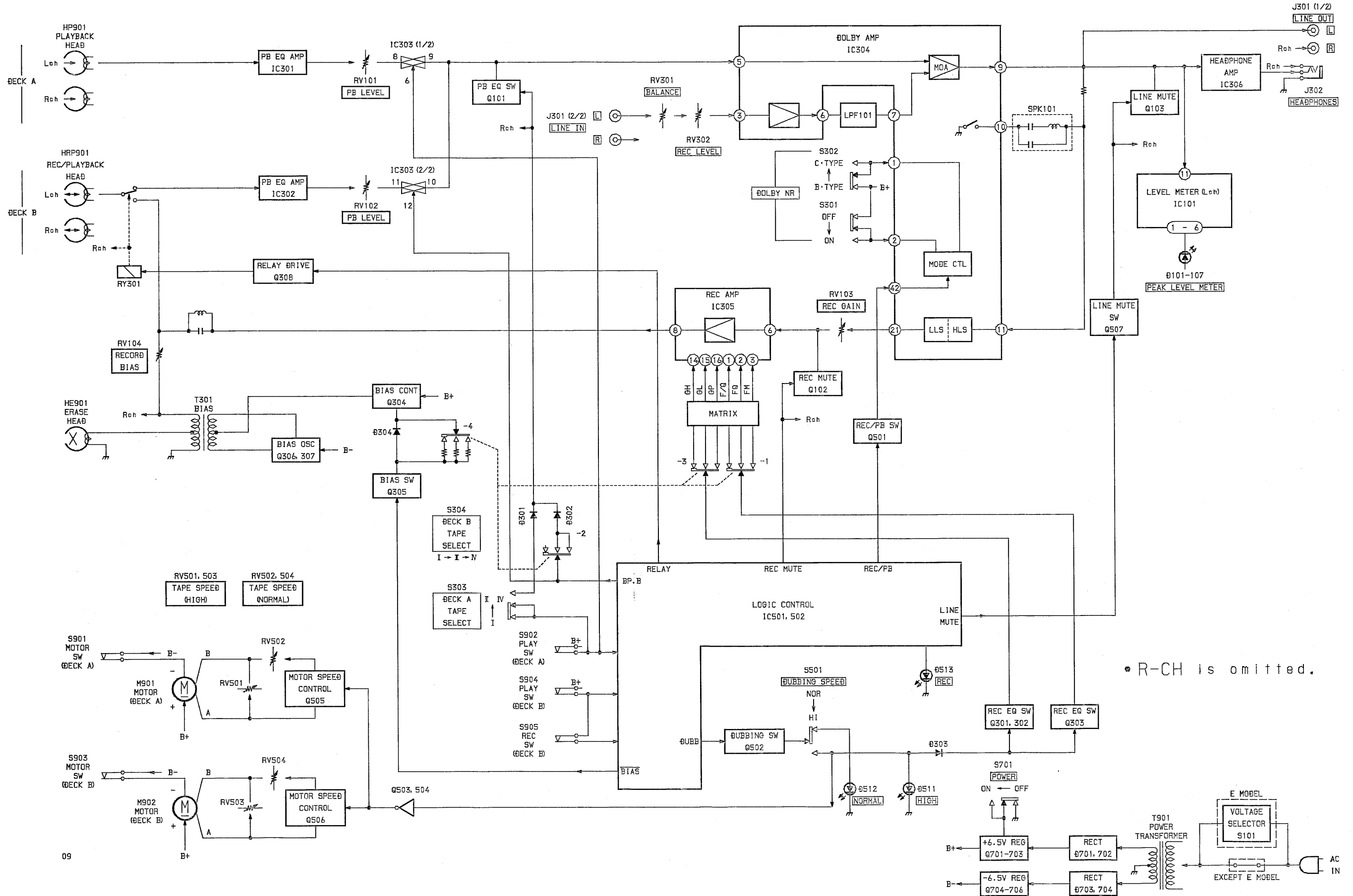
SCHEMATIC DIAGRAM (Service manual page 9)



PRINTED WIRING BOARDS (Service manual page 7, 8)



BLOCK DIAGRAM



\* R-CH is omitted.