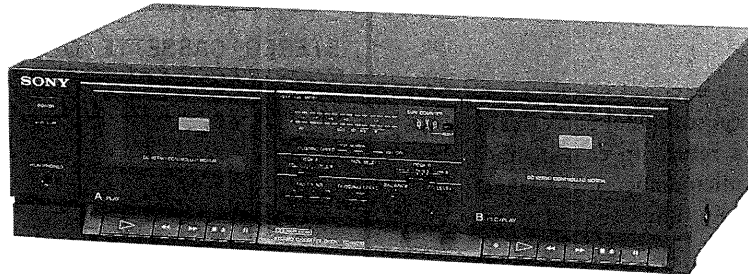


# TC-W310

## SERVICE MANUAL

*US Model  
Canadian Model  
AEP Model  
UK Model  
E Model*



### SPECIFICATIONS

Recording system 4-track 2-channel stereo  
Fast winding time Approx. 120 sec. (with C-60 cassette)  
Bias AC Bias  
Signal-to-noise ratio (NAB, at peak level)

Cassette	Dolby NR switch		
	OFF	B-TYPE ON	C-TYPE ON
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 ( $\pm 3$ dB DIN) 30-13,000 Hz (0VU recording)
TYPE II cassette (Sony UX-S)	30-14,000 Hz ( $\pm 3$ dB DIN)
TYPE I cassette (Sony HF-S)	30-13,000 Hz ( $\pm 3$ dB DIN)

Wow and flutter 0.12% WRMS (NAB)  
 $\pm 0.2\%$  W Peak (DIN)

Inputs

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

Outputs

Line outputs (phono jacks)	Rated output level	0.44 V ( $-5$ dB) at a load impedance 47k ohms
	Load impedance	Over 10k ohms
Headphone output (stereo phone jack)	Output level	0.3 mW at a load impedance of 32 ohms

General

Power requirements

120 V AC, 60Hz (US, Canadian Model)  
220 V AC, 50/60Hz (AEP Model)  
240 V AC, 50/60Hz (UK Model)  
120 V, 220 V, 240 V AC, 50/60Hz (E Model)

Power consumption

18W

Dimensions

Approx. 430×118×280 mm (w/h/d)  
(17×4 $\frac{3}{4}$ ×11 $\frac{1}{8}$  inches)  
including projecting parts and controls

Weight

Approx. 3.4 kg (7 lbs 8 oz)

Supplied accessory

Audio connecting cord (2)

Design and specifications subject to change without notice.

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

STEREO CASSETTE DECK  
**SONY**<sup>®</sup>



## SAFETY CHECK-OUT

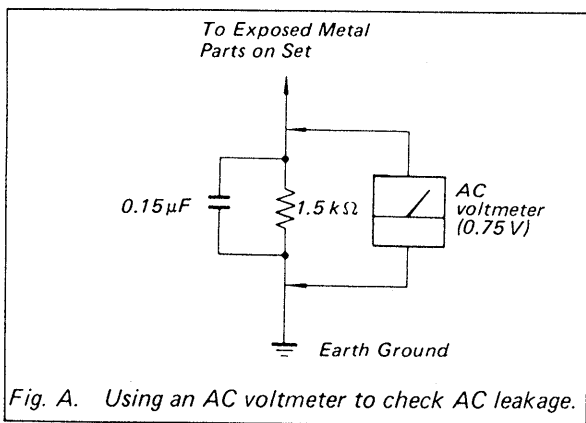
After correcting the original service problem, perform the following safety check before releasing the set to the customer:

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 microampers). 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)

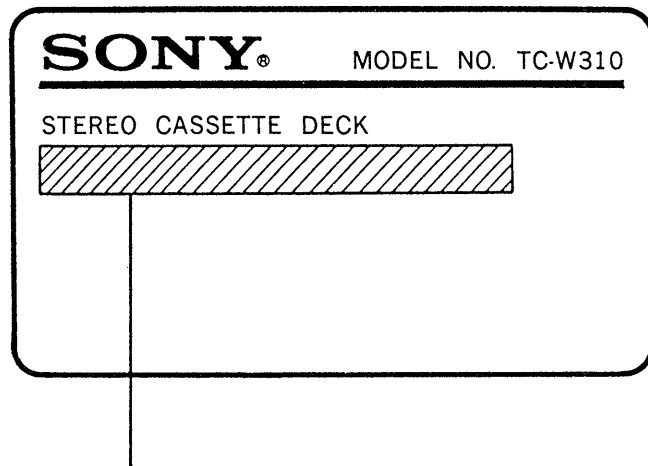


#### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  $\triangle$  OR DOTTED LINE WITH MARK  $\triangle$  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)

TC-W310:



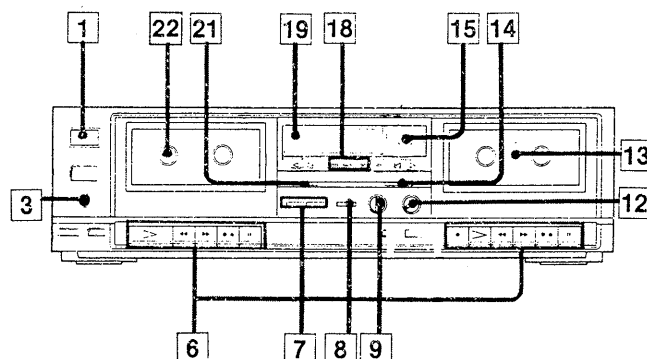
US, Canadian model: AC 120V 60Hz 18W  
 AEP model: AC 220V~50/60Hz 18W  
 UK model: AC 240V~50/60Hz 18W  
 E model: AC 120, 220, 240V~50/60Hz 18W

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

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  $\triangle$  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

### 1-1. LOCATION AND FUNCTION OF CONTROLS



- 1 POWER switch**
- 3 HEADPHONE jack (stereo phone jack)**
- 6 Tape operation buttons**
  - REC (record) button (deck B)
  - ▷ (play) button
  - ◀◀ (leftward fast winding) button
  - ▶▶ (rightward fast winding) button
  - ▲ (stop/eject) button
  - ⏸ (pause) button
- 7 DOLBY NR switch**
- 8 DUBBING SPEED switch**
- 9 BALANCE control**  
Adjusts the balance of right and left channel during recording
- 12 REC LEVEL (recording level) control**
- 13 Cassette holder (deck B)**
- 14 TAPE SELECT switch (DECK B)**
- 15 TAPE COUNTER and RESET button (DECK B)**
- 18 DUBBING SPEED indicator(s) and REC (record) indicator**
- 19 PEAK LEVEL METER**
- 21 TAPE SELECT switch (DECK A)**
- 22 Cassette holder (deck A)**

\*You can control this cassette deck remotely with:

- Any remote commander (supplied with a Sony amplifier or receiver) which is marked with the  logo and has cassette deck control capability.
- An optional Sony remote commander with the  logo.

## 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

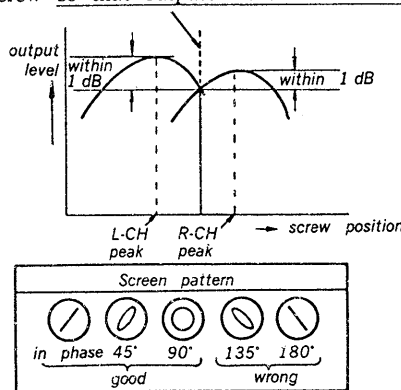
### Torque Measurement

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

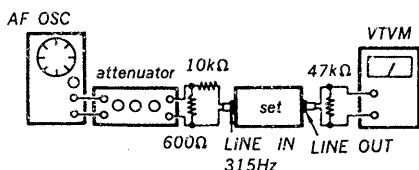
- Turn the adjustmentscrew and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



- 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

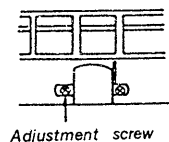
	LINE IN
source impedance	10kΩ
input level	0.25V (-10dB)

### Standard Output Level

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

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

### Adjustment Location:

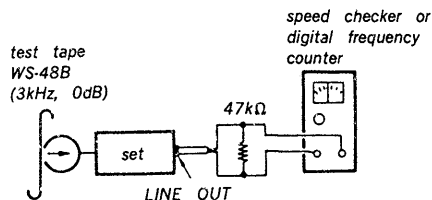


## 3-2. TAPE SPEED ADJUSTMENT

### DECK A/DECK B

#### Procedure:

Mode: FWD playback



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

Measurement limit: high speed

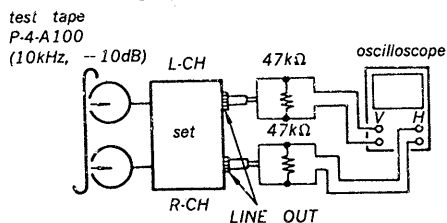
Speed checker	Digital frequency counter
0 ± 0.3%	5960 ± 20Hz

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

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

#### Procedure:

- Mode: FWD playback



**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 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 :**

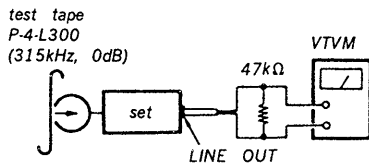
- DECK-A side RV502
- DECK-B side RV504

3. 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.

**Measurement limit :**

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

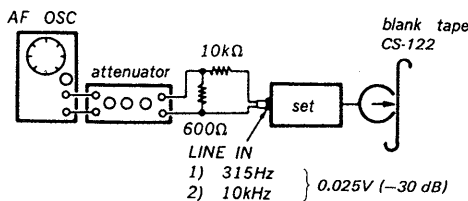
**3-4. RECORD BIAS ADJUSTMENT** **DECK B**

**Setting :**

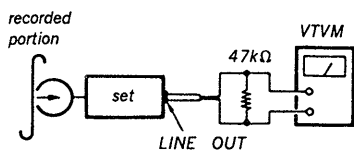
TAPE SELECT: TYPE-I (DECK-B)

**Procedure:**

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.

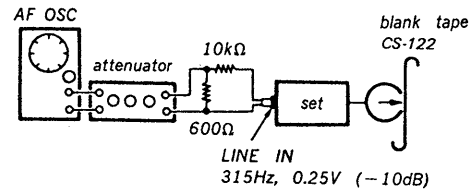
**3-5. RECORD GAIN ADJUSTMENT** **DECK B**

**Setting :**

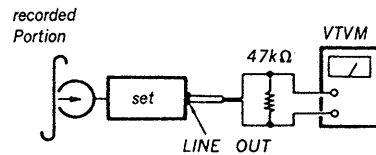
TAPE SELECT: TYPE-I (DECK-B)

**Procedure:**

1. Mode: record



2. Mode: playback



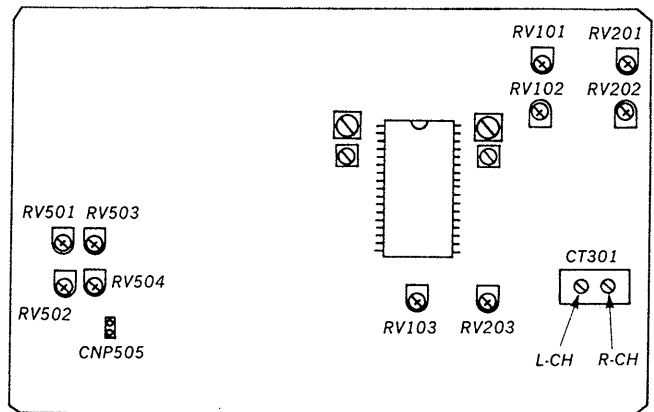
play back the recorded in step 1. If the specification is not satisfied, adjust RV103 (L-CH), RV203 (R-CH) and repeat steps 1 and 2.

**Measurement limit :**

LINE OUT level: 0.44V (-5dB)

**Adjustment Location :** Audio Board

Component side.



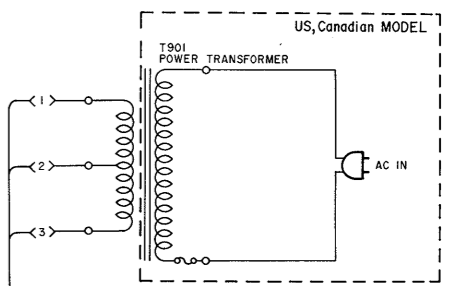
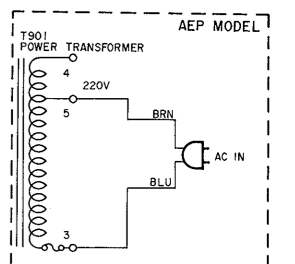
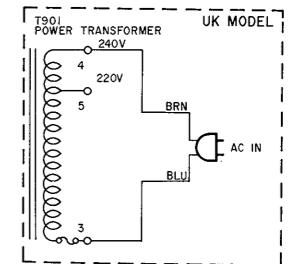
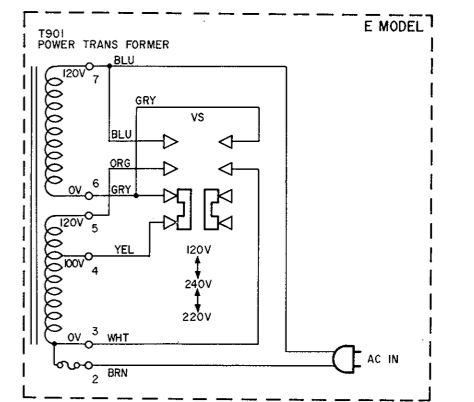
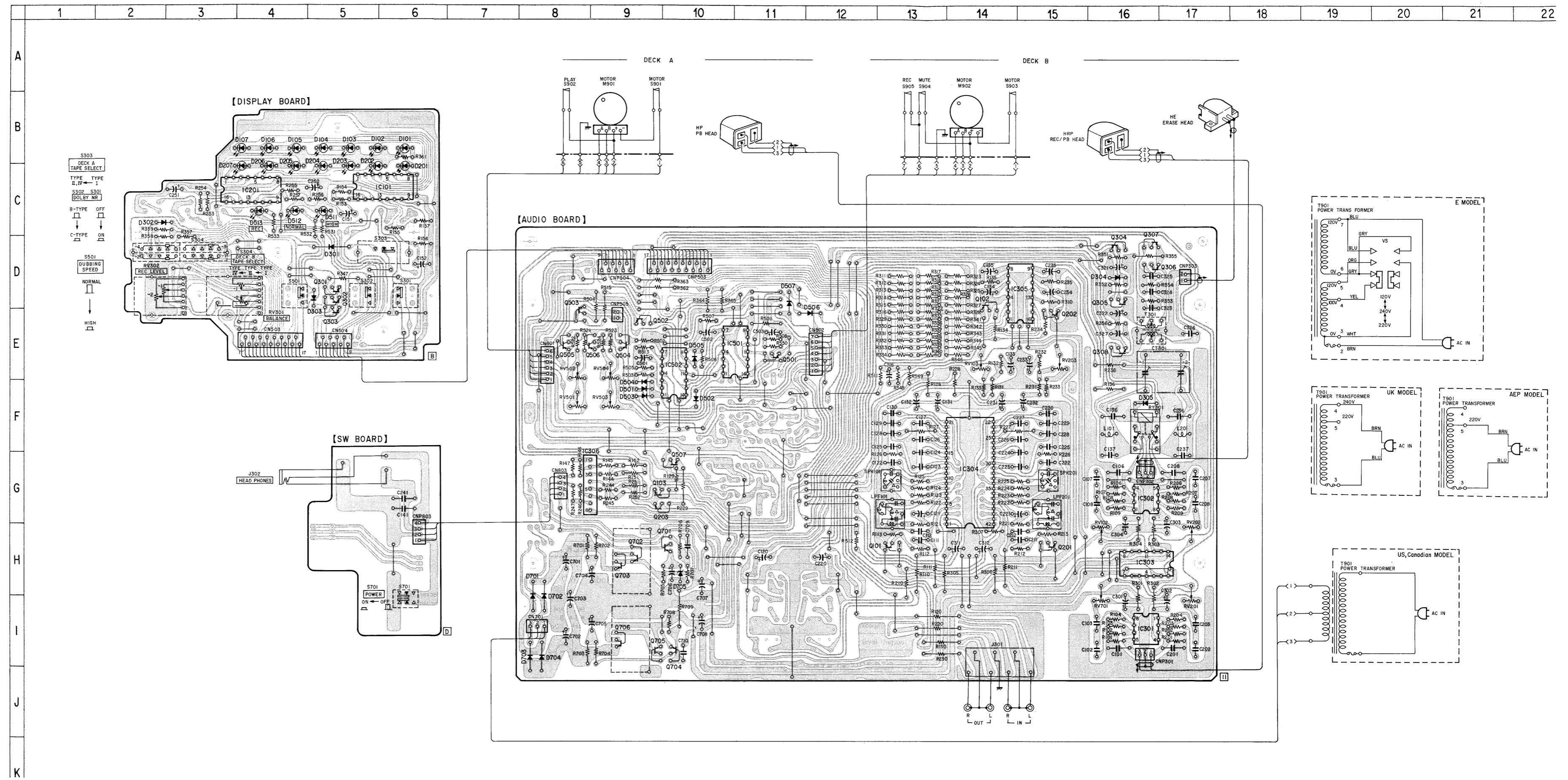
3-1. PRINTED WIRING BOARD

SECTION 4  
DIAGRAMS

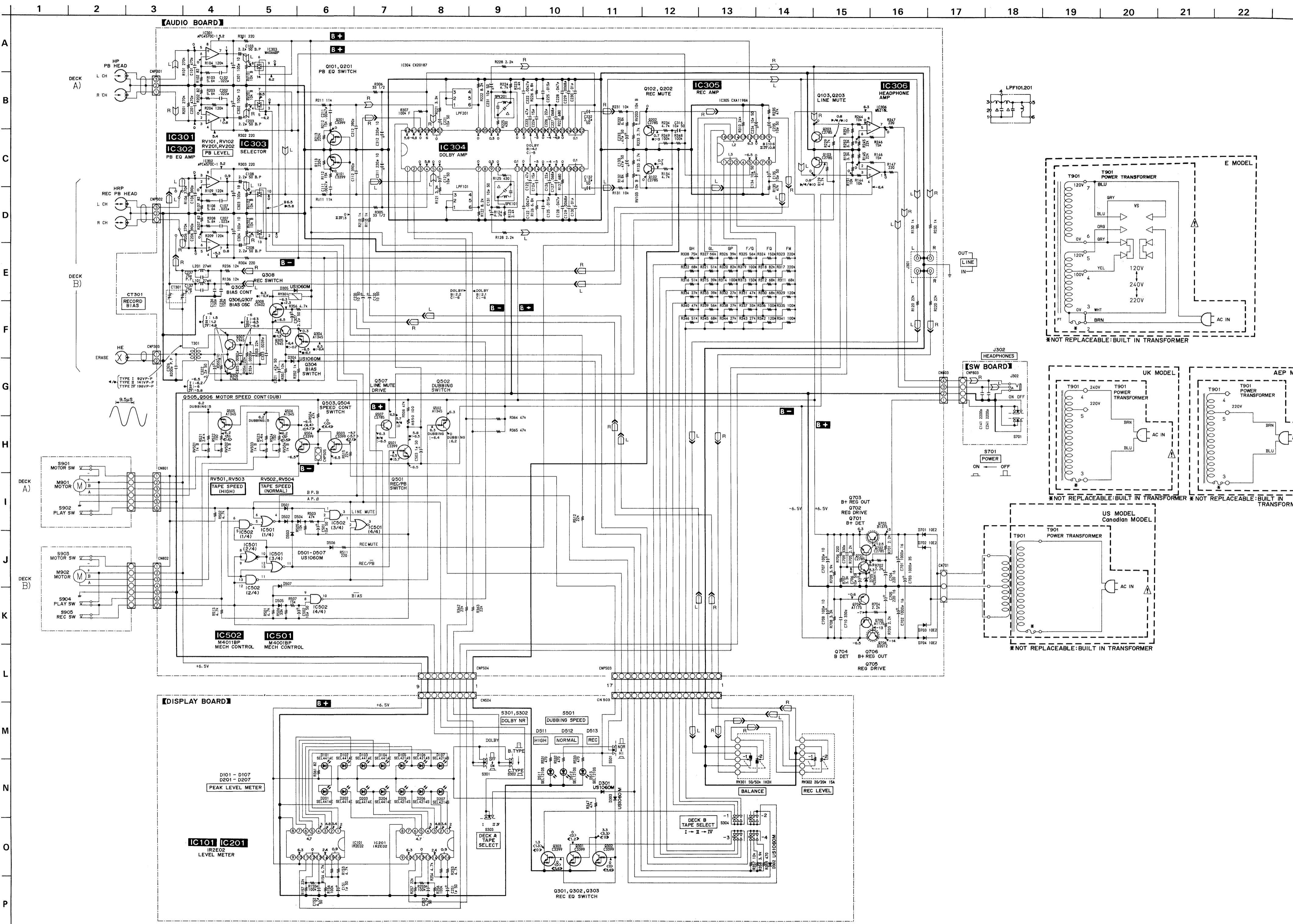
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	B-6	Q503	E-8
D102	B-5	Q504	E-9
D103	B-5	Q505	E-8
D104	B-5	Q506	E-8
D105	B-4	Q507	G-10
D106	B-4	Q701	G-10
D107	B-3	Q702	H-9
D201	C-6	Q703	H-9
D202	C-5	Q704	I-10
D203	C-5	Q705	I-9
D204	C-5	Q706	I-9
D205	C-4		
D206	C-4		
D207	C-3		
D301	D-5		
D302	C-2		
D303	D-5		
D304	D-16		
D305	F-16		
D501	F-9		
D502	F-10		
D503	F-9		
D504	F-9		
D505	E-10		
D506	E-12		
D507	D-11		
D511	C-5		
D512	C-4		
D513	C-4		
D701	I-8		
D702	I-8		
D703	I-8		
D704	I-8		
D705	H-10		
IC101	C-6		
IC201	C-4		
IC301	I-16		
IC302	G-16		
IC303	H-16		
IC304	G-14		
IC305	D-14		
IC306	G-8		
IC501	E-10		
IC502	E-10		
Q101	H-13		
Q102	D-14		
Q103	G-9		
Q201	H-15		
Q202	E-15		
Q203	G-9		
Q301	D-5		
Q302	D-5		
Q303	E-5		
Q304	D-16		
Q305	D-16		
Q306	D-16		
Q307	D-16		
Q308	E-16		
Q501	E-11		
Q502	E-9		

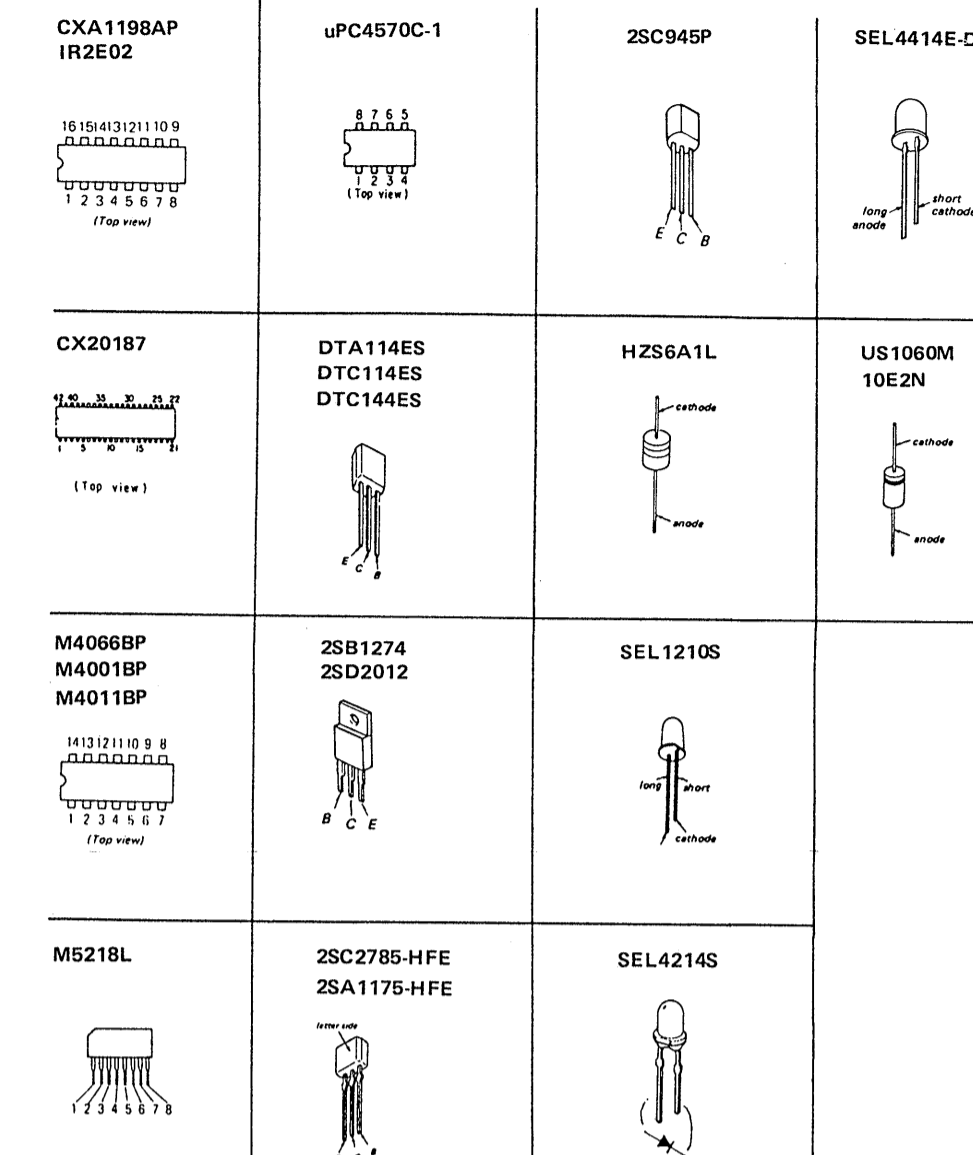
- Note:
- Color code or sleeving over the end of the jacket.
  - (WHT) RED (RED)(GRY)
  - ○ : parts extracted from the component side.
  - ● : parts extracted from the conductor side.
  - ■ : parts mounted on the conductor side.
  - □ : indicates side identified with part number.



4-2. SCHEMATIC DIAGRAM



4-3. SEMICONDUCTOR LEAD LAYOUTS



Note:  
 • All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.  
 • All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.  
 •  $\Delta$ : 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	NDRMAL
S701	POWER	ON
S901	DECK A MOTOR	ON
S902	DECK A PLAY	ON
S903	DECK B MOTOR	ON
S904	DECK B PLAY	ON
S905	DECK B REC	ON
S910	VOLTAGE (E MODEL)	220V

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

• **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  $\bullet$ : REC  
 • Voltages are taken with a VOM (50  $\text{k}\Omega/\text{V}$ ). 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.  
 • Signal path:  
 $\times$ : PB (DECK A)  
 $\square$ : PB (DECK B)  
 $\circ$ : REC (DECK B)

## SECTION 5 EXPLODED VIEWS

**NOTE:**

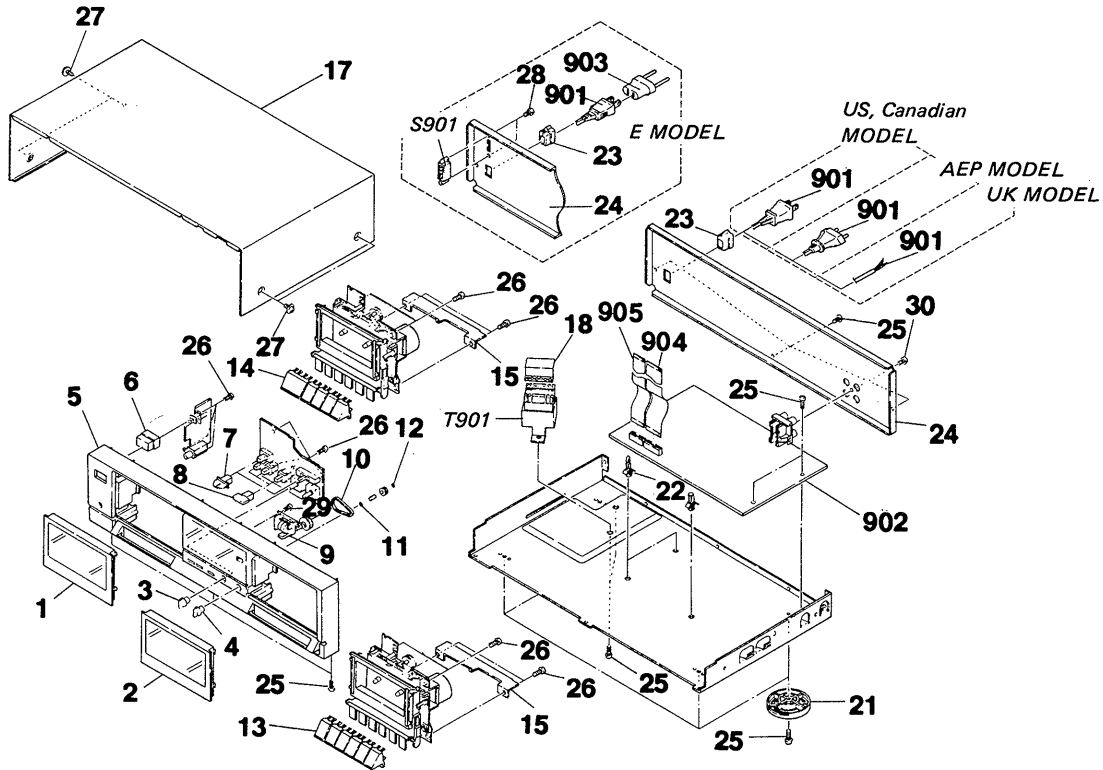
- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be 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:  
(RED) ... KNOB, BALANCE (WHITE)  
↑ 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.

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

**1. GENERAL**

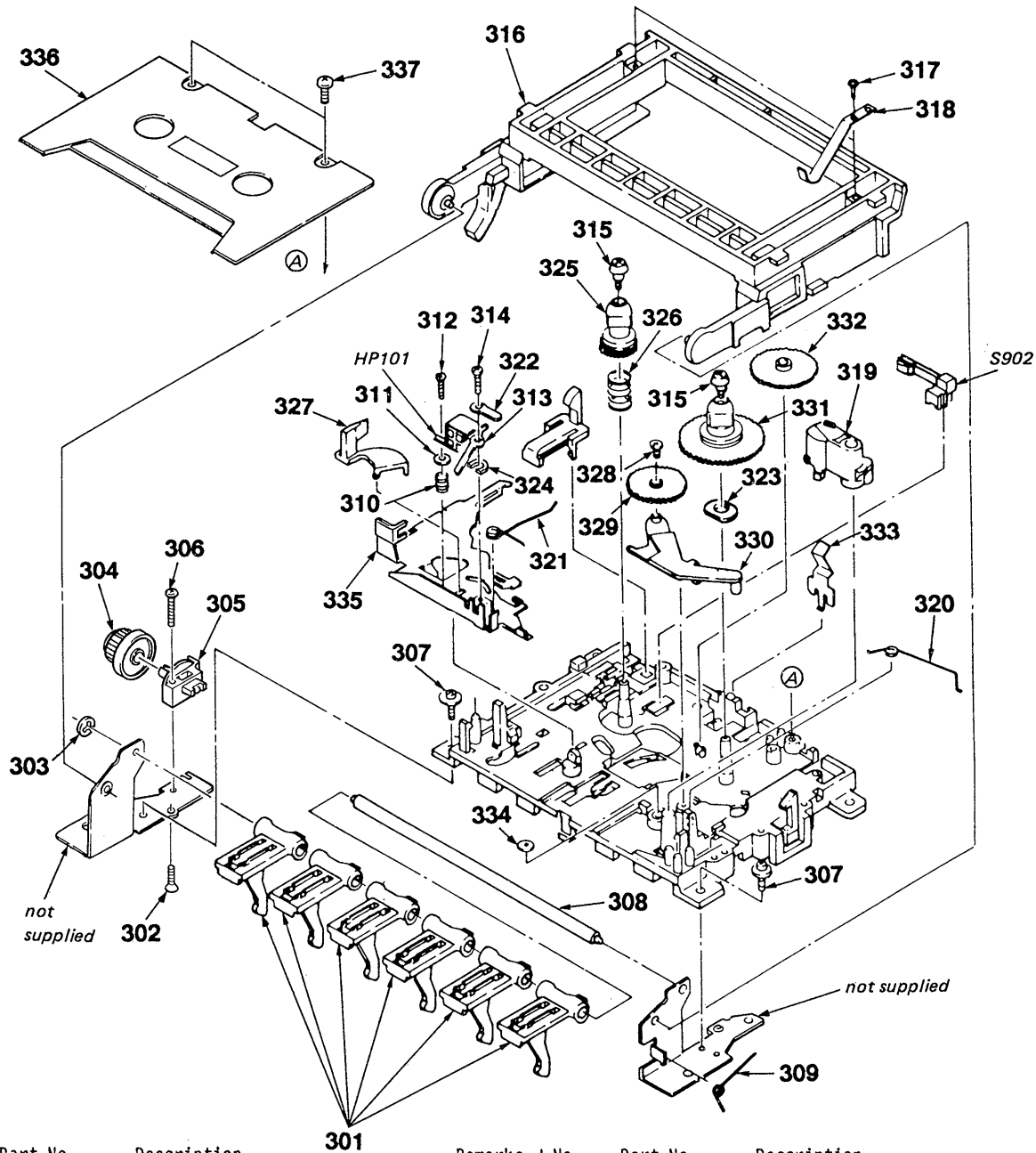


No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	X-3340-116-1	LID (A) ASSY, CASSETTE		22	*3-346-265-11	HOLDER, PC BOARD	
2	X-3340-174-1	LID (B) ASSY, CASSETTE		23	3-703-244-02	(AEP,UK).....BUSHING (2104), CORD	
3	3-346-380-01	KNOB (VOL)(BALANCE)			3-703-571-11	(US,Canadian,E)..BUSHING (S)(4516), CORD	
4	3-346-380-21	KNOB (VOL)(REC LEVEL)		24	*3-349-026-01	(US,Canadian)...PANEL, BACK	
5	X-3340-175-1	(US,Canadian)...PANEL ASSY, FRONT			*3-349-026-11	(AEP).....PANEL, BACK	
	X-3340-176-1	(AEP,UK,E).....PANEL ASSY, FRONT			*3-349-026-21	(UK).....PANEL, BACK	
6	4-917-460-01	KNOB, POWER			*3-349-026-31	(E).....PANEL, BACK	
7	3-346-379-01	KNOB (SLIDE)(TAPE SELECT)			*3-349-026-41	(WG).....PANEL, BACK	
8	3-346-381-01	BUTTON (DOLBY/DUBBING SPEED)		25	7-682-548-04	SCREW +BVTT 3X8 (S)	
9	1-548-596-61	COUNTER, TAPE (MIDDLE TYPE)		26	4-928-635-21	SCREW, +BV (2.6X10) TAPPING	
10	3-499-042-XX	BELT, COUNTER		27	3-704-366-01	SCREW (CASE) (M3X8)	
11	3-701-437-11	WASHER		29	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
12	3-558-708-11	WASHER, STOPPER		30	7-621-849-00	SCREW, TAPPING	
13	3-349-043-01	BUTTON (BLOCK B)		901	1-551-188-XX	(E).....CORD, POWER	
14	3-349-042-01	BUTTON (BLOCK A)			1-551-506-XX	(US,Canadian)...CORD, POWER	
15	*3-346-376-01	REINFORCEMENT, MD			1-555-795-00	(AEP).....CORD, POWER, EURO PLUG	
17	3-332-578-42	CASE			1-556-035-00	(UK).....CORD, POWER	
18	*3-327-855-01	COVER (TRANSFORMER)		902	*A-2006-114-A	MOUNTED PCB, AUDIO	
19	*1-574-727-11	WIRE, FLAT TYPE (9 CORE)		903	1-526-565-00	(E)...AC PLUG ADAPTOR	
20	*1-574-725-11	WIRE, FLAT TYPE (17 CORE)		S910	1-570-307-11	(E)...SWITCH, VOLTAGE CHANGE	
21	X-3340-138-1	(US,Canadian,E)...FOOT ASSY		T901	1-449-681-11	(AEP,UK).....TRANSFORMER, POWER	
	X-3340-173-1	(AEP,UK).....FOOT ASSY		T901	1-449-682-11	(E).....TRANSFORMER, POWER	
				T901	1-449-683-11	(US,Canadian)...TRANSFORMER, POWER	



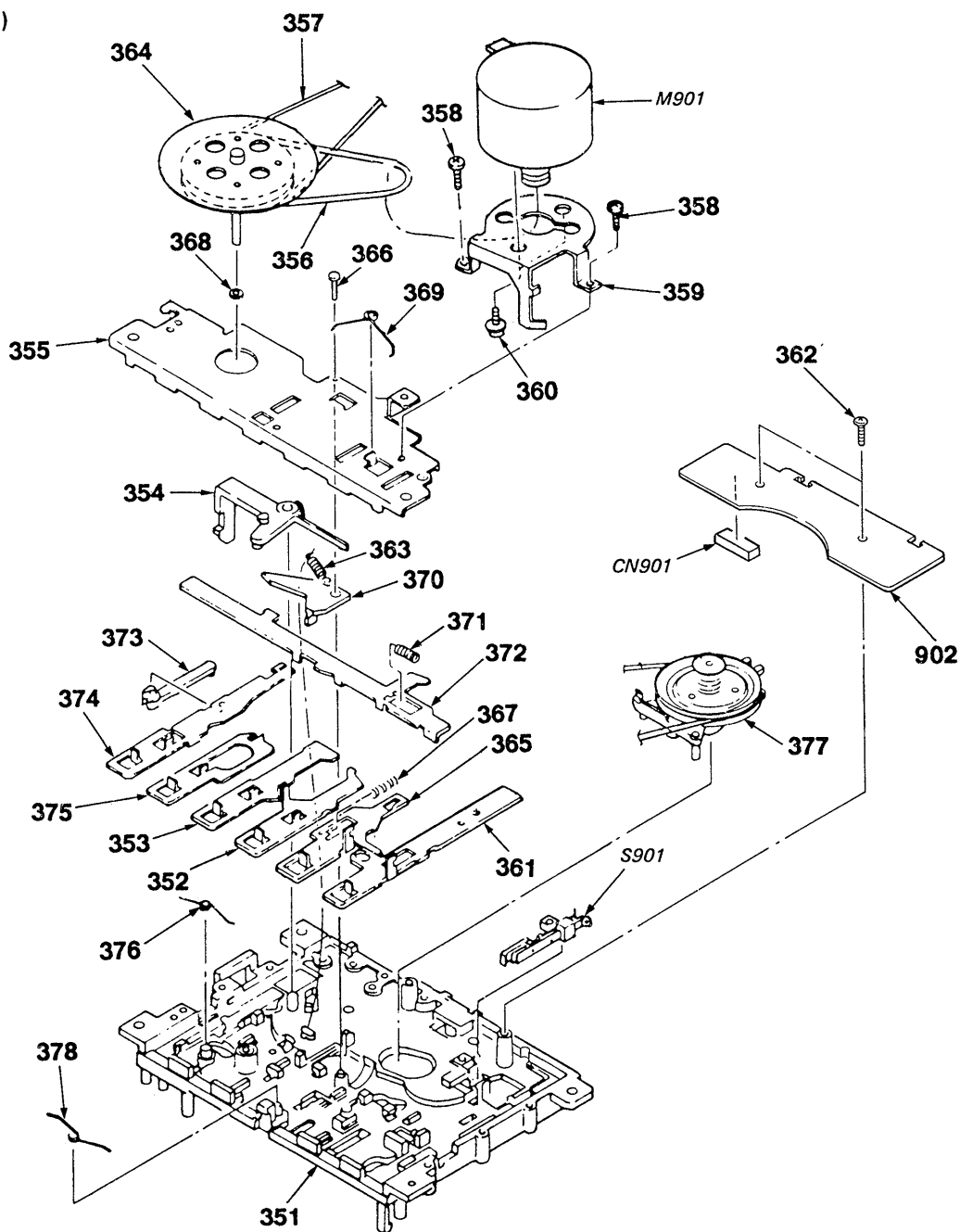
SEE ADDITIONAL INFORMATION

(2) DECK B (1)  
(TCM-YM47CW-61)



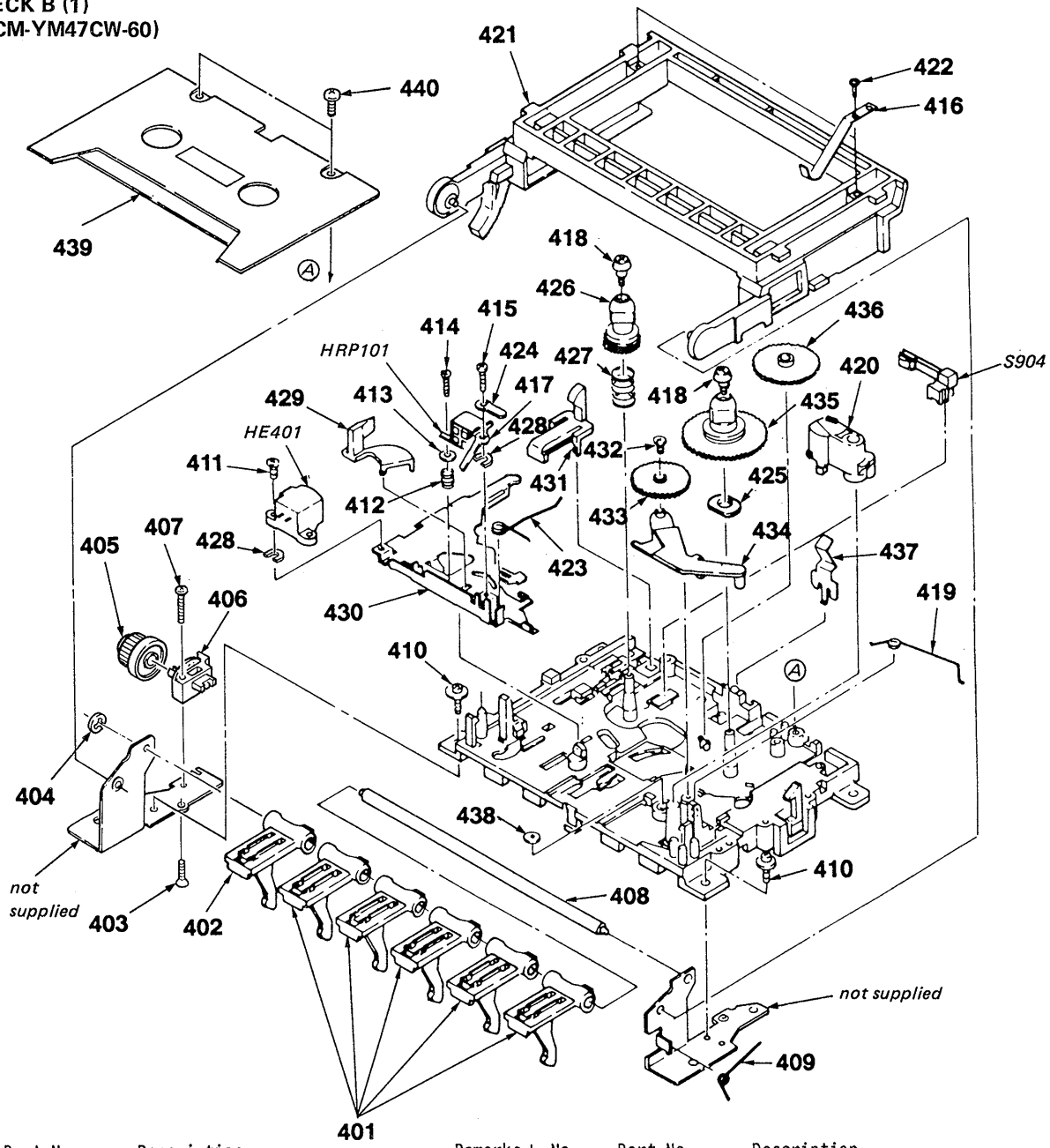
No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
301	3-392-140-01	LEVER, BUTTON		319	3-390-805-01	ROLLER ASSY, PINCH	
302	7-685-234-14	SCREW +KTP 2.6X8 TYPE2NON-SLIT		320	4-894-967-01	SPRING	
303	7-624-104-04	STOP RING 2.0, TYPE -E		321	3-390-804-01	SPRING, PINCH ARM	
304	3-392-144-01	DAMPER, GEAR		322	3-390-819-01	LUG	
305	*3-392-143-01	HOLDER, GEAR		323	3-390-820-01	SPRING, LEAF	
306	7-685-856-01	SCREW +BVTT 2X12 (S)		324	3-390-821-01	SPACER	
307	7-621-770-67	SCREW, TOTSU PTTWH 2.6X6		325	4-894-953-01	S REEL	
308	*3-392-139-01	SHAFT		326	4-894-954-01	C SPRING	
309	3-392-142-01	SPRING		327	4-894-956-01	TAPE SENSOR	
310	4-894-955-01	C SPRING		328	4-894-960-01	BUSH	
311	3-390-823-01	WASHER, F		329	4-894-961-01	IDLER GEAR	
312	7-621-255-55	SCREW, TOTSU P 2X8		330	4-894-962-01	IDLER ARM	
313	3-390-817-01	LUG		331	4-894-963-01	T REEL ASSY	
314	7-621-255-15	SCREW +P 2X3		332	4-894-964-01	F GEAR	
315	*3-390-203-01	SHAFT PULLEY		333	4-894-966-01	SPRING	
316	3-390-801-01	CASE, CASSETTE		334	4-894-969-01	N WASHER	
317	7-685-103-19	SCREW +P 2X5 TYPE2 NON-SLIT		335	4-895-015-01	HEAD BASE	
318	4-894-951-01	KEEP PLATE		336	4-914-974-01	PLATE, ORNAMENTAL, CASSETTE	
				337	7-685-133-19	SCREW +P 2.6X6 TYPE2 NON-SLIT	
				HP101	1-543-424-21	HEAD, MAGNETIC (REC/PB)	
				S902	1-570-430-11	SWITCH, LEAF (FWD A)	

(3) DECK A (2)



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
351	4-894-968-01	CHASSIS ASSY		367	3-390-827-01	SPRING	
352	*4-894-990-01	REW LEVER		368	4-894-976-01	P WASHER	
353	*4-894-988-01	FF LEVER W		369	4-894-978-01	SPRING	
354	*4-894-980-01	EJECT ARM		370	4-894-982-01	S ARM	
355	*4-894-977-01	BACK PLATE		371	4-894-983-01	C SPRING	
356	3-390-807-01	BELT		372	4-894-984-01	FUNCTION LEVER	
357	3-390-816-01	BELT, SQUARE		373	4-894-985-01	PAUSE ARM	
358	7-621-255-25	SCREW +PTT 2X4 (S)		374	*4-894-986-01	PAUSE LEVER	
359	*3-390-814-01	BRACKET, MOTOR		375	*4-894-987-01	S.E LEVER	
360	7-628-253-90	SCREW +PS 2.6X4		376	4-894-989-01	SPRING	
361	*4-894-994-01	REC LEVER		377	4-894-997-01	POWER ARM ASSY	
362	7-687-233-11	SCREW (+ PTPWH) (2.6X6)		378	4-894-999-01	SPRING	
363	3-390-809-01	SPRING		902	*1-628-420-21	PC BOARD, MAIN A	
364	3-390-806-01	FW ASSY		CN901	*1-564-499-11	PIN, CONNECTOR 6P	
365	3-390-810-01	LEVER, PLAY		M901	X-3390-801-1	MOTOR ASSY	
366	3-390-822-01	BUSHING (C)		S901	1-570-715-11	SWITCH, LEAF (MOTOR A)	

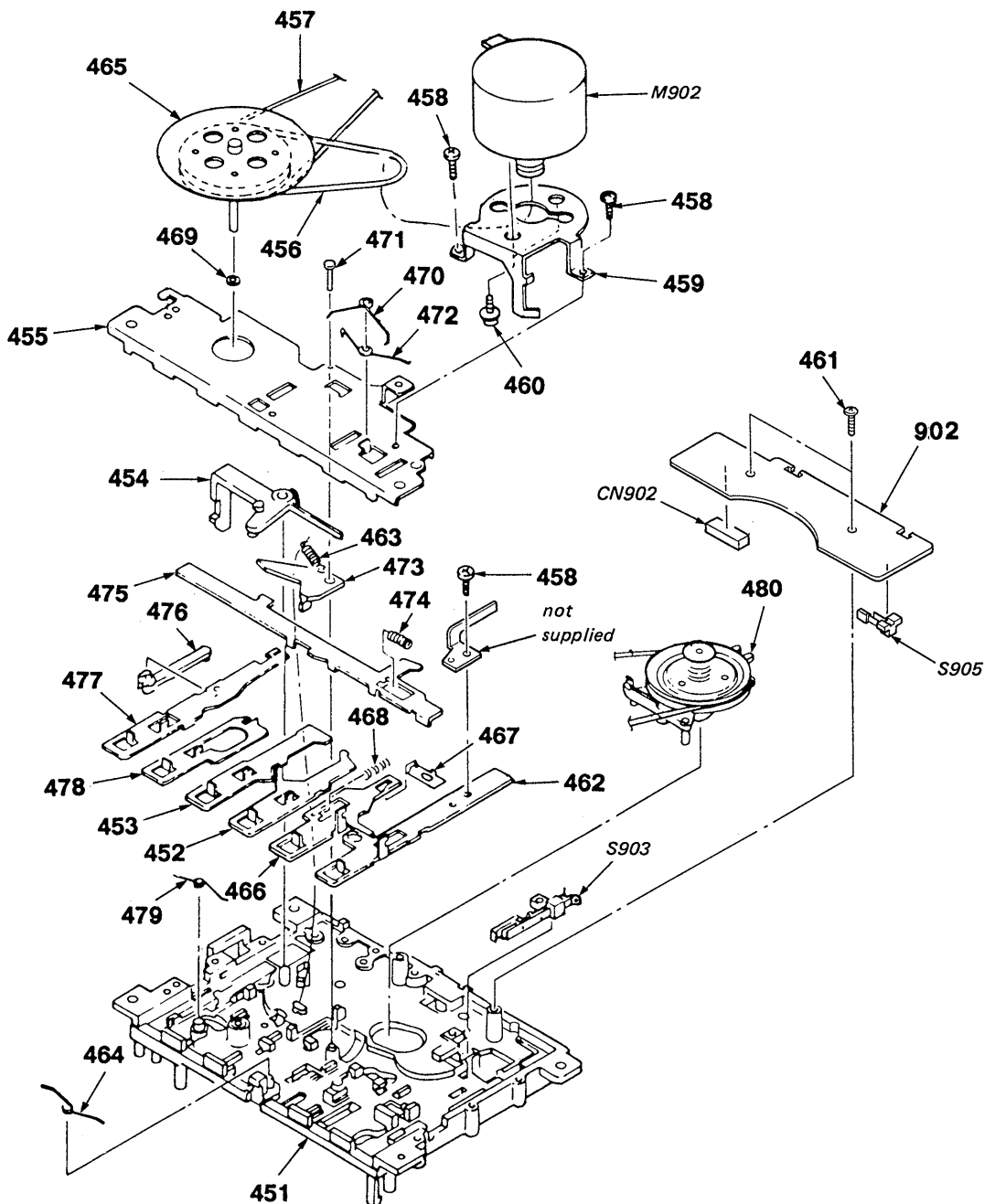
(4) DECK B (1)  
(TCM-YM47CW-60)



No.	Part No.	Description	Remarks
401	3-392-140-01	LEVER, BUTTON	
402	3-392-147-01	LEVER (R), BUTTON	
403	7-685-234-14	SCREW +KTP 2.6X8 TYPE2 NON-SLIT	
404	7-624-104-04	STOP RING 2.0, TYPE -E	
405	3-392-144-01	DAMPER, GEAR	
406	*3-392-143-01	HOLDER, GEAR	
407	7-685-856-01	SCREW +BVTT 2X12 (S)	
408	*3-392-139-01	SHAFT	
409	3-392-142-01	SPRING	
410	7-621-770-67	SCREW, TOTSU PTTWH 2.6X6	
411	7-621-255-45	SCREW +PTT 2X6 (S)	
412	4-894-955-01	C SPRING	
413	3-390-823-01	WASHER, F	
414	7-621-255-55	SCREW, TOTSU P 2X8	
415	7-621-255-15	SCREW +P 2X3	
416	4-894-951-01	KEEP PLATE	
417	3-390-817-01	LUG	
418	*3-390-203-01	SHAFT PULLEY	
419	4-894-967-01	SPRING	
420	3-390-805-01	ROLLER ASSY, PINCH	

No.	Part No.	Description	Remarks
421	3-390-801-01	CASE, CASSETTE	
422	7-685-103-19	SCREW +P 2X5 TYPE2 NON-SLIT	
423	3-390-804-01	SPRING, PINCH ARM	
424	3-390-819-01	LUG	
425	3-390-820-01	SPRING, LEAF	
426	4-894-953-01	S REEL	
427	4-894-954-01	C SPRING	
428	3-390-821-01	SPACER	
429	4-894-956-01	TAPE SENSOR	
430	*4-894-957-01	HEAD BASE B	
431	4-894-958-01	INTERLOCK ARM	
432	4-894-960-01	BUSH	
433	4-894-961-01	IDLER GEAR	
434	4-894-962-01	IDLER ARM	
435	4-894-963-01	T REEL ASSY	
436	4-894-964-01	F GEAR	
437	4-894-966-01	SPRING	
438	4-894-969-01	N WASHER	
439	4-914-974-01	PLATE, ORNAMENTAL, CASSETTE	
440	7-685-133-19	SCREW +P 2.6X6 TYPE2 NON-SLIT	
HE401	1-543-261-11	HEAD, ERASE (886-01-24)	
HRP101	1-543-424-21	HEAD, MAGNETIC (REC/PB)	
S904	1-570-430-11	SWITCH, LEAF (FWD B)	

(5) DECK B (2)



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
451	4-894-968-01	CHASSIS ASSY		469	4-894-976-01	P WASHER	
452	*4-894-990-01	REW LEVER		470	4-894-978-01	SPRING	
453	*4-894-988-01	FF LEVER W		471	3-390-822-01	BUSHING (C)	
454	*4-894-980-01	EJECT ARM		472	4-894-979-01	SPRING	
455	*4-894-977-01	BACK PLATE		473	4-894-982-01	S ARM	
456	3-390-807-01	BELT		474	4-894-983-01	C SPRING	
457	3-390-816-01	BELT, SQUARE		475	4-894-984-01	FUNCTION LEVER	
458	7-621-255-25	SCREW +PTT 2X4 (S)		476	4-894-985-01	PAUSE ARM	
459	*3-390-814-01	BRACKET, MOTOR		477	*4-894-986-01	PAUSE LEVER	
460	7-628-253-90	SCREW +PS 2.6X4		478	*4-894-987-01	S.E LEVER	
461	7-687-233-11	SCREW (+ PTPWH) (2.6X6)		479	4-894-989-01	SPRING	
462	*4-894-994-01	REC LEVER		480	4-894-997-01	POWER ARM ASSY	
463	3-390-809-01	SPRING		902	*1-628-420-21	PC BOARD, MAIN-A	
464	4-894-999-01	SPRING		CN902	*1-564-500-11	PIN, CONNECTOR 7P	
465	3-390-806-01	FW ASSY		M902	X-3390-801-1	MOTOR ASSY	
466	3-390-810-01	LEVER, PLAY		S903	1-570-715-11	SWITCH, LEAF (MOTOR B)	
467	3-390-811-01	LEVER, REC STOP		S905	1-571-714-11	SWITCH, LEAF (REC)	
468	3-390-827-01	SPRING					

## 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.

**CAPACITORS:**

MF:  $\mu$ F, PF:  $\mu$  $\mu$ F

**RESISTORS**

- All resistors are in ohms.
- F: nonflammable

**COILS**

- MMH: mH, UH:  $\mu$ H

**SEMICONDUCTORS**

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

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.

Ref.No.	Part No.	Description				Ref.No.	Part No.	Description			
901	$\Delta$ 1-551-188-XX	(E)....CORD, POWER				C223	1-136-173-00	FILM	0.47MF	5%	50V
	$\Delta$ 1-551-506-XX	(US,Canadian)...CORD, POWER				C224	1-136-167-00	FILM	0.15MF	5%	50V
	$\Delta$ 1-555-795-00	(AEP)...CORD, POWER, EURO PLUG				C225	1-136-155-00	FILM	0.015MF	5%	50V
	$\Delta$ 1-556-035-00	(UK)....CORD, POWER									
902	*A-2006-114-A	MOUNTED PCB, AUDIO				C226	1-136-169-00	FILM	0.22MF	5%	50V
903	$\Delta$ 1-526-565-00	(E)...AC PLUG ADAPTOR				C227	1-136-163-00	FILM	0.068MF	5%	50V
						C228	1-136-161-00	FILM	0.047MF	5%	50V
C101	1-162-290-31	CERAMIC	470PF	10%	50V	C229	1-130-481-00	MYLAR	0.0068MF	5%	50V
C102	1-136-157-00	FILM	0.022MF	5%	50V	C230	1-136-153-00	FILM	0.01MF	5%	50V
C103	1-124-767-00	ELECT	2.2MF	20%	50V	C231	1-123-875-11	ELECT	10MF	20%	50V
C106	1-162-289-31	CERAMIC	390PF	10%	50V	C232	1-124-925-11	ELECT	2.2MF	20%	50V
C107	1-136-157-00	FILM	0.022MF	5%	50V	C233	1-124-902-00	ELECT	0.47MF	20%	50V
C108	1-124-767-00	ELECT	2.2MF	20%	50V	C234	1-123-875-11	ELECT	10MF	20%	50V
C111	1-130-479-00	MYLAR	0.0047MF	5%	50V	C235	1-123-875-11	ELECT	10MF	20%	50V
C112	1-162-289-31	CERAMIC	390PF	10%	50V	C236	1-162-284-31	CERAMIC	150PF	10%	50V
C120	1-123-875-11	ELECT	10MF	20%	50V	C237	1-136-273-91	FILM	75PF	5%	630V
C121	1-123-875-11	ELECT	10MF	20%	50V	C241	1-161-375-00	CERAMIC	0.0022MF	20%	16V
C122	1-130-479-00	MYLAR	0.0047MF	5%	50V	C251	1-124-438-00	ELECT	1MF	20%	50V
C123	1-136-173-00	FILM	0.47MF	5%	50V	C252	1-126-163-11	ELECT	4.7MF	20%	50V
C124	1-136-167-00	FILM	0.15MF	5%	50V	C301	1-124-443-00	ELECT	100MF	20%	10V
C125	1-136-155-00	FILM	0.015MF	5%	50V	C302	1-124-443-00	ELECT	100MF	20%	10V
C126	1-136-169-00	FILM	0.22MF	5%	50V	C303	1-124-443-00	ELECT	100MF	20%	10V
C127	1-136-163-00	FILM	0.068MF	5%	50V	C304	1-124-443-00	ELECT	100MF	20%	10V
C128	1-136-161-00	FILM	0.047MF	5%	50V	C311	1-126-176-11	ELECT	220MF	20%	10V
C129	1-130-481-00	MYLAR	0.0068MF	5%	50V	C312	1-126-176-11	ELECT	220MF	20%	10V
C130	1-136-153-00	FILM	0.01MF	5%	50V	C316	1-123-875-11	ELECT	10MF	20%	50V
C131	1-123-875-11	ELECT	10MF	20%	50V	C321	1-124-902-00	ELECT	0.47MF	20%	50V
C132	1-124-925-11	ELECT	2.2MF	20%	50V	C322	1-124-925-11	ELECT	2.2MF	20%	50V
C133	1-124-902-00	ELECT	0.47MF	20%	50V	C323	1-130-478-00	MYLAR	0.0039MF	5%	50V
C134	1-123-875-11	ELECT	10MF	20%	50V	C324	1-130-478-00	MYLAR	0.0039MF	5%	50V
C135	1-123-875-11	ELECT	10MF	20%	50V	C325	1-130-482-00	MYLAR	0.0082MF	5%	50V
C136	1-162-284-31	CERAMIC	150PF	10%	50V	C326	1-136-562-11	FILM	0.0082MF	5%	630V
C137	1-136-273-91	FILM	75PF	5%	630V	C327	1-124-925-11	ELECT	2.2MF	20%	50V
C141	1-161-375-00	CERAMIC	0.0022MF	20%	16V	C501	1-123-875-11	ELECT	10MF	20%	50V
C151	1-124-438-00	ELECT	1MF	20%	50V	C502	1-123-875-11	ELECT	10MF	20%	50V
C152	1-126-163-11	ELECT	4.7MF	20%	50V	C503	1-124-499-11	ELECT	1MF	20%	50V
C201	1-162-290-31	CERAMIC	470PF	10%	50V	C701	1-124-360-00	ELECT	1000MF	20%	16V
C202	1-136-157-00	FILM	0.022MF	5%	50V	C702	1-124-360-00	ELECT	1000MF	20%	16V
C203	1-124-767-00	ELECT	2.2MF	20%	50V	C703	1-126-105-11	ELECT	1000MF	20%	35V
C206	1-162-289-31	CERAMIC	390PF	10%	50V	C704	1-124-120-11	ELECT	220MF	20%	16V
C207	1-136-157-00	FILM	0.022MF	5%	50V	C705	1-124-120-11	ELECT	220MF	20%	16V
C208	1-124-767-00	ELECT	2.2MF	20%	50V	C706	1-123-875-11	ELECT	10MF	20%	50V
C211	1-130-479-00	MYLAR	0.0047MF	5%	50V	C707	1-124-443-00	ELECT	100MF	20%	10V
C212	1-162-289-31	CERAMIC	390PF	10%	50V	C708	1-124-443-00	ELECT	100MF	20%	10V
C220	1-123-875-11	ELECT	10MF	20%	50V	C709	1-162-288-31	CERAMIC	330PF	10%	50V
C221	1-123-875-11	ELECT	10MF	20%	50V	C710	1-162-288-31	CERAMIC	330PF	10%	50V
C222	1-130-479-00	MYLAR	0.0047MF	5%	50V						

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
CN503	1-568-438-11	SOCKET, CONNECTOR 17P	IC306	8-759-600-02	IC M5218L
CN504	1-568-441-11	SOCKET, CONNECTOR 9P	IC501	8-759-601-06	IC M4001BP
CNP301*1-564-705-11		PIN, CONNECTOR (SMALL TYPE) 3P	IC502	8-759-601-10	IC M4011BP
CNP302*1-564-705-11		PIN, CONNECTOR (SMALL TYPE) 3P	J301	1-565-258-11	JACK, PIN 4P (LINE IN/OUT)
CNP303*1-564-704-11		PIN, CONNECTOR (SMALL TYPE) 2P	J302	1-507-796-71	JACK, LARGE TYPE (HEADPHONES)
CNP503	1-568-440-11	SOCKET, CONNECTOR 17P	L101	1-410-780-11	INDUCTOR 27MMH
CNP504	1-568-442-11	SOCKET, CONNECTOR 9P	L201	1-410-780-11	INDUCTOR 27MMH
CNP505*1-564-505-11		PLUG, CONNECTOR 2P	LPF101	1-236-087-11	FILTER, LOW PASS
CNP803*1-564-497-11		PIN, CONNECTOR 4P	LPF201	1-236-087-11	FILTER, LOW PASS
CT301	1-141-225-00	CAP, TUNING, TRIMAR	M901	X-3390-801-1	(DECK A)...MOTOR ASSY
D101	8-719-304-38	DIODE SEL4414E-D	M902	X-3390-801-1	(DECK B)...MOTOR ASSY
D102	8-719-304-38	DIODE SEL4414E-D	Q101	8-729-900-89	TRANSISTOR DTC144E S
D103	8-719-304-38	DIODE SEL4414E-D	Q102	8-729-119-78	TRANSISTOR 2SC2785-HFE
D104	8-719-304-38	DIODE SEL4414E-D	Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE
D105	8-719-304-32	DIODE SEL4214S	Q201	8-729-900-89	TRANSISTOR DTC144E S
D106	8-719-304-32	DIODE SEL4214S	Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE
D107	8-719-304-32	DIODE SEL4214S	Q203	8-729-119-78	TRANSISTOR 2SC2785-HFE
D201	8-719-304-38	DIODE SEL4414E-D	Q301	8-729-900-89	TRANSISTOR DTC144E S
D202	8-719-304-38	DIODE SEL4414E-D	Q302	8-729-900-89	TRANSISTOR DTC144E S
D203	8-719-304-38	DIODE SEL4414E-D	Q303	8-729-900-89	TRANSISTOR DTC144E S
D204	8-719-304-38	DIODE SEL4414E-D	Q304	8-729-900-61	TRANSISTOR DTA114E S
D205	8-719-304-32	DIODE SEL4214S	Q305	8-729-194-57	TRANSISTOR 2SC945-P
D206	8-719-304-32	DIODE SEL4214S	Q306	8-729-194-57	TRANSISTOR 2SC945-P
D207	8-719-304-32	DIODE SEL4214S	Q307	8-729-194-57	TRANSISTOR 2SC945-P
D301	8-719-000-26	DIODE US1060M	Q308	8-729-900-80	TRANSISTOR DTC114E S
D302	8-719-000-26	DIODE US1060M	Q501	8-729-900-89	TRANSISTOR DTC144E S
D303	8-719-000-26	DIODE US1060M	Q502	8-729-900-61	TRANSISTOR DTA114E S
D304	8-719-000-26	DIODE US1060M	Q503	8-729-900-89	TRANSISTOR DTC144E S
D305	8-719-000-26	DIODE US1060M	Q504	8-729-900-89	TRANSISTOR DTC144E S
D501	8-719-000-26	DIODE US1060M	Q505	8-729-900-61	TRANSISTOR DTA114E S
D502	8-719-000-26	DIODE US1060M	Q506	8-729-900-61	TRANSISTOR DTA114E S
D503	8-719-000-26	DIODE US1060M	Q507	8-729-119-78	TRANSISTOR 2SC2785-HFE
D504	8-719-000-26	DIODE US1060M	Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE
D505	8-719-000-26	DIODE US1060M	Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE
D506	8-719-000-26	DIODE US1060M	Q703	8-729-820-15	TRANSISTOR 2SB1274
D507	8-719-000-26	DIODE US1060M	Q704	8-729-119-76	TRANSISTOR 2SA1175-HFE
D511	8-719-302-45	DIODE SEL1210S (HIGH)	Q705	8-729-119-76	TRANSISTOR 2SA1175-HFE
D512	8-719-302-45	DIODE SEL1210S (NORMAL)	Q706	8-729-209-15	TRANSISTOR 2SD2012
D513	8-719-302-45	DIODE SEL1210S (REC)	R101	1-247-889-00	CARBON 270K 5% 1/4W
D701	8-719-200-77	DIODE 10E2N	R102	1-249-404-00	CARBON 82 5% 1/4W
D702	8-719-200-77	DIODE 10E2N	R103	1-249-426-11	CARBON 5.6K 5% 1/4W
D703	8-719-200-77	DIODE 10E2N	R104	1-247-881-00	CARBON 120K 5% 1/4W
D704	8-719-200-77	DIODE 10E2N	R106	1-247-889-00	CARBON 270K 5% 1/4W
D705	8-719-933-33	DIODE HZS6A1LT2	R107	1-249-404-00	CARBON 82 5% 1/4W
HE	1-543-261-11	(DECK B)...HEAD, ERASE (886-01-24)	R108	1-249-426-11	CARBON 5.6K 5% 1/4W
HP	1-543-424-11	(DECK A)...HEAD, MAGNETIC (PB)	R109	1-247-881-00	CARBON 120K 5% 1/4W
HRP	1-543-424-11	(DECK B)...HEAD, MAGNETIC (REC/PB)	R110	1-249-417-11	CARBON 1K 5% 1/4W
IC101	8-759-912-79	IC IR2E02	R111	1-247-856-00	CARBON 11K 5% 1/4W
IC201	8-759-912-79	IC IR2E02	R112	1-249-431-11	CARBON 15K 5% 1/4W
IC301	8-759-111-44	IC UPC4570C-1	R113	1-247-887-00	CARBON 220K 5% 1/4W
IC302	8-759-111-44	IC UPC4570C-1	R120	1-249-433-11	CARBON 22K 5% 1/4W
IC303	8-759-601-43	IC M4066BP	R121	1-249-423-11	CARBON 3.3K 5% 1/4W
IC304	8-752-018-70	IC CX20187	R122	1-249-428-11	CARBON 8.2K 5% 1/4W
IC305	8-752-033-61	IC CXA1198AP	R123	1-247-840-00	CARBON 2.4K 5% 1/4W
			R124	1-249-425-11	CARBON 4.7K 5% 1/4W
			R125	1-247-822-11	CARBON 430 5% 1/4W

Ref.No.	Part No.	Description				
R126	1-249-427-11	CARBON	6.8K	5%	1/4W	
R127	1-249-415-11	CARBON	680	5%	1/4W	
R128	1-249-421-11	CARBON	2.2K	5%	1/4W	
R129	1-249-425-11	CARBON	4.7K	5%	1/4W	
R130	1-249-417-11	CARBON	1K	5%	1/4W	
R131	1-249-429-11	CARBON	10K	5%	1/4W	
R132	1-249-427-11	CARBON	6.8K	5%	1/4W	
R133	1-249-422-11	CARBON	2.7K	5%	1/4W	
R134	1-249-425-11	CARBON	4.7K	5%	1/4W	
R135	1-249-437-11	CARBON	47K	5%	1/4W	
R136	1-249-430-11	CARBON	12K	5%	1/4W	
R144	1-249-429-11	CARBON	10K	5%	1/4W	
R145	1-249-433-11	CARBON	22K	5%	1/4W	
R146	1-249-431-11	CARBON	15K	5%	1/4W	
R147	1-249-409-11	CARBON	220	5%	1/4W	
R151	1-249-429-11	CARBON	10K	5%	1/4W	
R152	1-249-423-11	CARBON	3.3K	5%	1/4W	
R153	1-249-425-11	CARBON	4.7K	5%	1/4W	
R154	1-249-425-11	CARBON	4.7K	5%	1/4W	
R155	1-249-441-11	CARBON	100K	5%	1/4W	
R156	1-249-441-11	CARBON	100K	5%	1/4W	
R157	1-249-433-11	CARBON	22K	5%	1/4W	
R201	1-247-889-00	CARBON	270K	5%	1/4W	
R202	1-249-404-00	CARBON	82	5%	1/4W	
R203	1-249-426-11	CARBON	5.6K	5%	1/4W	
R204	1-247-881-00	CARBON	120K	5%	1/4W	
R206	1-247-889-00	CARBON	270K	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	1-249-430-11	CARBON	12K	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	

Ref.No.	Part No.	Description				
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	1-249-441-11	CARBON	100K	5%	1/4W	
R315	1-249-436-11	CARBON	39K	5%	1/4W	
R316	1-247-872-11	CARBON	51K	5%	1/4W	
R317	1-247-887-00	CARBON	220K	5%	1/4W	
R318	1-249-440-11	CARBON	82K	5%	1/4W	
R319	1-249-441-11	CARBON	100K	5%	1/4W	
R320	1-249-440-11	CARBON	82K	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	1-247-883-00	CARBON	150K	5%	1/4W	
R325	1-249-438-11	CARBON	56K	5%	1/4W	
R326	1-249-436-11	CARBON	39K	5%	1/4W	
R327	1-249-438-11	CARBON	56K	5%	1/4W	
R328	1-247-876-11	CARBON	75K	5%	1/4W	
R329	1-247-881-00	CARBON	120K	5%	1/4W	
R330	1-249-439-11	CARBON	68K	5%	1/4W	
R331	1-249-437-11	CARBON	47K	5%	1/4W	
R332	1-249-434-11	CARBON	27K	5%	1/4W	
R333	1-249-436-11	CARBON	39K	5%	1/4W	
R334	1-249-434-11	CARBON	27K	5%	1/4W	
R335	1-249-441-11	CARBON	100K	5%	1/4W	
R336	1-249-441-11	CARBON	100K	5%	1/4W	
R337	1-249-435-11	CARBON	33K	5%	1/4W	
R338	1-249-434-11	CARBON	27K	5%	1/4W	
R339	1-249-438-11	CARBON	56K	5%	1/4W	
R340	1-249-437-11	CARBON	47K	5%	1/4W	
R341	1-249-441-11	CARBON	100K	5%	1/4W	
R342	1-247-881-00	CARBON	120K	5%	1/4W	
R343	1-249-434-11	CARBON	27K	5%	1/4W	
R344	1-249-434-11	CARBON	27K	5%	1/4W	
R345	1-249-439-11	CARBON	68K	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	1-249-429-11	CARBON	10K	5%	1/4W	
R352	1-249-417-11	CARBON	1K	5%	1/4W	
R353	1-249-433-11	CARBON	22K	5%	1/4W	
R354	1-249-433-11	CARBON	22K	5%	1/4W	
R355	1-249-393-11	CARBON	10	5%	1/4W	

Ref.No.	Part No.	Description			
R356	1-249-425-11	CARBON	4.7K	5%	1/4W
R357	1-249-429-11	CARBON	10K	5%	1/4W
R358	1-249-424-11	CARBON	3.9K	5%	1/4W
R359	1-249-413-11	CARBON	470	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	1-249-425-11	CARBON	4.7K	5%	1/4W
R502	1-249-425-11	CARBON	4.7K	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
R515	1-249-433-11	CARBON	22K	5%	1/4W
R521	1-247-840-00	CARBON	2.4K	5%	1/4W
R522	1-249-407-11	CARBON	150	5%	1/4W
R523	1-247-840-00	CARBON	2.4K	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
R550	1-249-405-11	CARBON	100	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
R707	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
RV101	1-228-994-00	RES, ADJ, CARBON 10K (PB LEVEL DECK A(L))			
RV102	1-228-994-00	RES, ADJ, CARBON 10K (PB LEVEL DECK B(L))			
RV103	1-228-994-00	RES, ADJ, CARBON 10K (REC GAIN L)			

Ref.No.	Part No.	Description
RV201	1-228-994-00	RES, ADJ, CARBON 10K (PB LEVEL DECK A(R))
RV202	1-228-994-00	RES, ADJ, CARBON 10K (PB LEVEL DECK B(R))
RV203	1-228-994-00	RES, ADJ, CARBON 10K (REC GAIN R)
RV301	1-238-535-11	RES, VAR, CARBON 50K/50K(BALANCE)
RV302	1-238-534-11	RES, VAR, CARBON 20K/20K(REC LEVEL)
RV501	1-228-990-00	RES, ADJ, CARBON 1K(HIGH SPEED DECK A)
RV502	1-228-990-00	RES, ADJ, CARBON 1K (NORMAL SPEED DECK A)
RV503	1-228-990-00	RES, ADJ, CARBON 1K(HIGH SPEED DECK B)
RV504	1-228-990-00	RES, ADJ, CARBON 1K (NORMAL SPEED DECK B)
RY301	1-515-614-11	RELAY (REC/PB)
S301	1-571-510-11	SWITCH, PUSH (1 KEY)(DOLBY NR ON/OFF)
S302	1-571-510-11	SWITCH, PUSH (1 KEY) (DOLBY NR B TYPE/C TYPE)
S303	1-571-627-11	SWITCH, SLIDE (DECK A TAPE SELECT)
S304	1-571-628-11	SWITCH, SLIDE (DECK B TAPE SELECT)
S501	1-571-510-11	SWITCH, PUSH (1 KEY)(DUBBING SPEED)
S701	1-570-393-21	SWITCH, PUSH (1 KEY)(POWER)
S901	1-570-715-11	(DECK A)...SWITCH LEAF
S902	1-570-430-11	(DECK A)...SWITCH LEAF
S903	1-570-715-11	(DECK B)...SWITCH LEAF
S904	1-570-716-11	(DECK B)...SWITCH LEAF
S905	1-570-714-11	(DECK B)...SWITCH LEAF
S910	△1-570-307-11	(E)...SWITCH, VOLTAGE CHANGE
SPK101	1-235-186-00	ENCAPSULATED COMPONENT
SPK201	1-235-186-00	ENCAPSULATED COMPONENT
T301	1-433-303-11	TRANSFORMER, BIAS OSCILLATION
T901	△1-449-681-11	(AEP,UK).....TRANSFORMER, POWER
T901	△1-449-682-11	(E).....TRANSFORMER, POWER
T901	△1-449-683-11	(US,Canadian)...TRANSFORMER, POWER

## ACCESSORY &amp; PACKING MATERIAL

1-558-543-11	CORD, CONNECTION
*3-349-028-61	INDIVIDUAL CARTON
*3-349-037-01	CUSHION
3-701-630-00	BAG, POLYETHYLENE
3-703-450-01	(US)...INSTRUCTION
3-750-312-11	(Canadian,AEP,E)...MANUAL, INSTRUCTION
3-750-312-21	(US,UK)....MANUAL, INSTRUCTION
3-750-312-41	(AEP).....MANUAL, INSTRUCTION
3-750-312-51	(WG).....MANUAL, INSTRUCTION

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.





# TC-W310

## SONY<sup>®</sup> SERVICE MANUAL

*US Model  
Canadian Model  
AEP Model  
UK Model  
E Model*

### SUPPLEMENT-1

File this supplement with the Service Manual.

**Subject : Tape Transport Mechanism change.**

	Former	New
<b>A Deck</b>	TCM-YM47CW-61	TCM-180VA-H3
<b>B Deck</b>	TCM-YM47CW-60	TCM-180VB-H3

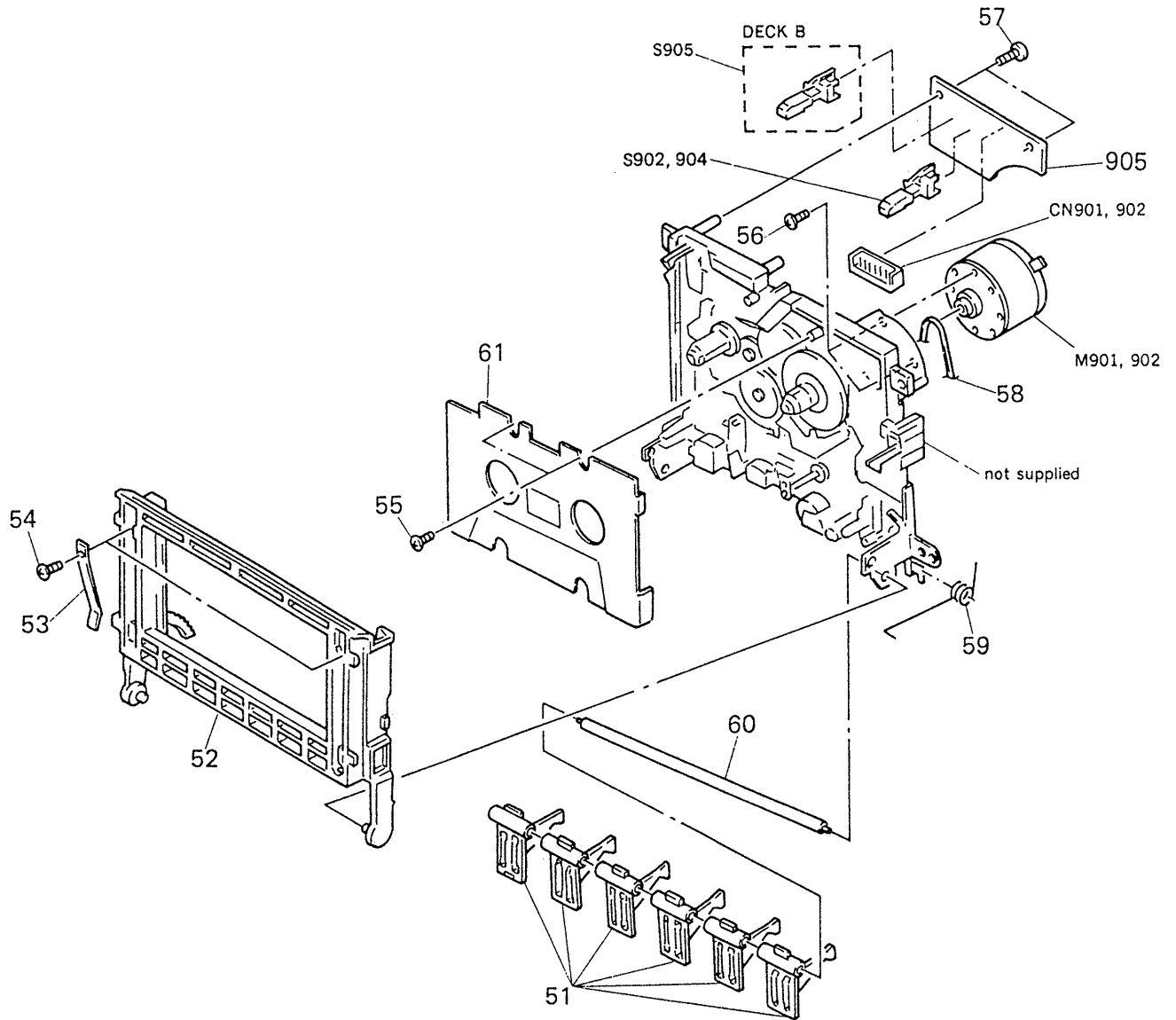
\* After confirming the form of mechanism, look at part in the Exploded views of Service Manual or this Supplement.

- **CORRECTION**

Please correct your service manual.

Page	INCORRECT	CORRECT
14	(2) DECK B (1) (TCM-YM47CW-61)	(2) DECK A (1) (TCM-YM47CW-61)

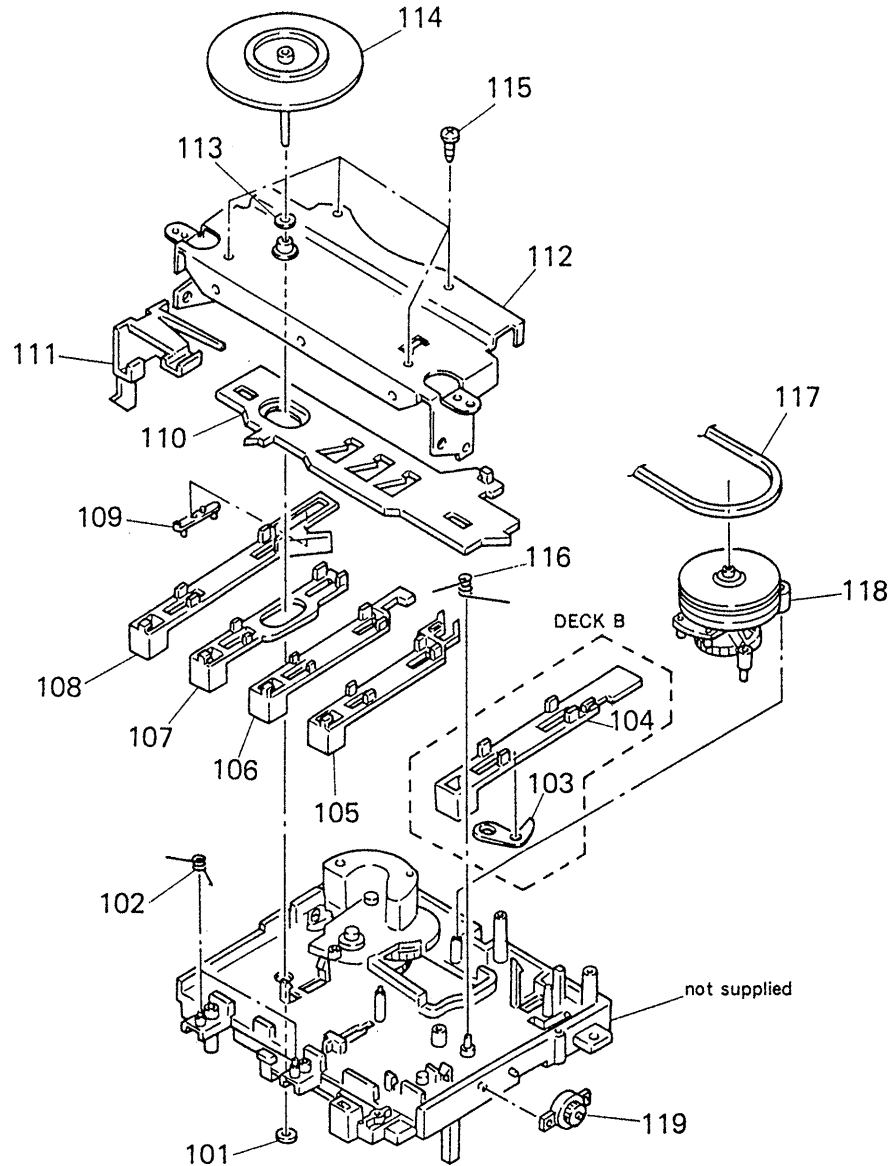
**MECHANISM SECTION-1**  
**(A Deck : TCM-180VA-H3)**  
**(B Deck : TCM-180VB-H3)**



NO.	Part NO.	Description
51	3-358-271-01	LEVER (BUTTON BASE A)
52	3-358-266-01	HOLDER, CASSETTE
53	3-358-209-01	SPRING (CASSETTE HOLDER), LEAF
54	7-685-103-19	SCREW +P 2×5 TYPE2 NON-SLIT
55	7-685-532-19	SCREW +BTP 2.6×6 TYPE N-S
56	7-621-775-20	SCREW +B 2.6×5
57	7-685-133-19	SCREW +BTP 2.6×6 TYPE N-S
58	3-358-272-01	BELT (A2)
59	3-358-229-01	SPRING (LOADING), TORSION
60	3-358-242-01	SHAFT (BUTTON SHAFT)
61	X-3358-214-1	PLATE ASSY, ORNAMENTAL

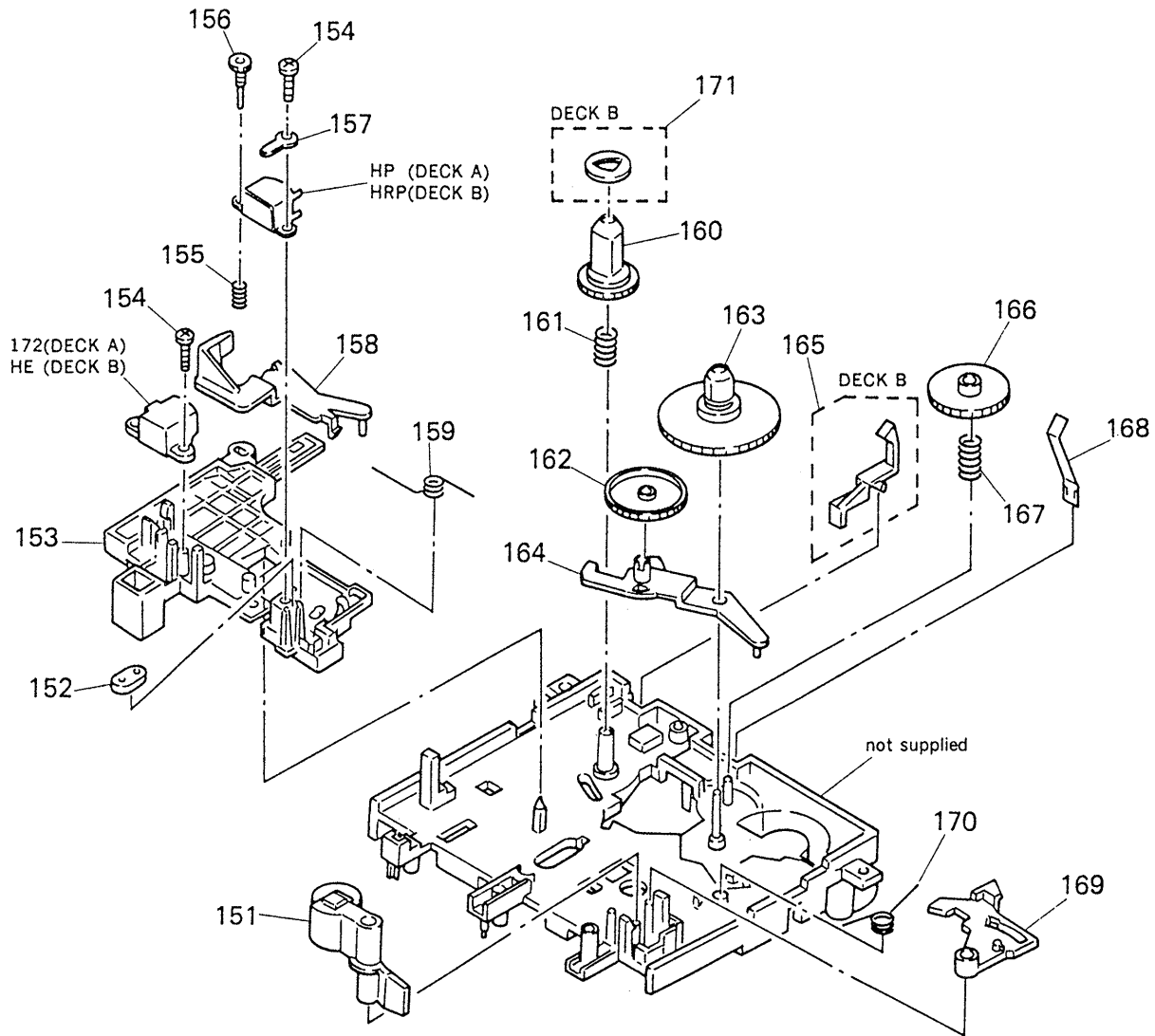
NO.	Part NO.	Description
905	*1-635-161-11	SWITCH BOARD
CN901	1-564-499-11	(DECK A) PIN, CONNECTOR 6P
CN902	1-564-500-11	(DECK B) PIN, CONNECTOR 7P
M901	X-3335-212-1	MOTOR (B) ASSY
M902	X-3335-212-1	MOTOR (B) ASSY
S902	1-571-736-11	(DECK A) SWITCH, LEAF
S904	1-571-736-11	(DECK B) SWITCH, LEAF
S905	1-571-736-11	(DECK B) SWITCH, LEAF

**MECHANISM SECTION-2**  
**(A Deck : TCM-180VA-H3)**  
**(B Deck : TCM-180VB-H3)**



NO.	Part NO.	Description	NO.	Part NO.	Description
101	7-623-921-01	WASHER 1.7,NYLLONE	111	*3-358-261-01	SLIDER (HOLDER LOCK)
102	3-358-232-01	SPRING (S-P F-R),TORTION	112	*X-3358-213-1	BRACKET (A) ASSY
103	*3-358-204-01	(DECK B) LEVER (REC SAFETY)	113	3-701-437-01	WASHER
104	3-358-259-01	(DECK B) SLIDER (REC)	114	X-3358-205-1	FLYWHEEL (A) ASSY
105	3-358-258-01	SLIDER (REW)	115	7-685-133-19	SCREW +P 2.6×6 TYPE1
106	3-358-257-01	SLIDER (FF)	116	3-358-214-01	(DECK A) SPRING (LOCK),TORTION
107	3-358-256-01	SLIDER (STOP/EJECT)		3-358-233-01	(DECK B) SPRING (REC-LOCK),TORTION
108	3-358-260-01	SLIDER (PAUSE)	117	3-358-230-01	BELT (A1)
109	*3-358-226-01	LEVER (PAUSE LEVER)	118	X-3358-202-1	LEVER (FR ARM) ASSY
110	*3-358-249-01	SLIDER (LOCK PLATE)	119	3-319-224-31	DAMPER,SMALL

4-4. MECHANISM SECTION-3  
 (A Deck: TCM-180VA-H3)  
 (B Deck: TCM-180VB-H3)



NO.	Part NO.	Description
151	X-3358-204-1	LEVER (PINCH LEVER) ASSY
152	*3-358-215-01	BUSHING (WIRE KIT RETAINER)
153	3-358-265-01	SLIDER (HEAD PC BOARD A)
154	7-685-105-19	TPG +P 2x8,TYPE2, NON-SLIT
155	3-358-234-01	SPRING (AZIMUTH), COMPRESSION
156	3-358-213-01	SCREW, AZIMUTH
157	7-623-505-01	LUG, 2
158	*3-358-251-01	LEVER (TENSION DETECTION ARM)
159	3-358-228-01	SPRING, TORSION
160	3-358-248-01	GEAR (SUPPLY REEL)
161	3-358-208-01	SPRING (SUPPLY), COMPRESSION
162	*3-358-284-01	GEAR (TU GEAR)
163	X-3358-203-1	TABLE (T) ASSY, REEL
164	*3-358-252-01	LEVER (TU ARM)
165	*3-358-255-01	(DECK B) LEVER (GB LEVER)

NO.	Part NO.	Description
166	*3-358-224-01	GEAR (FF GEAR)
167	3-358-207-01	SPRING (FF GEAR), COMPRESSION
168	3-358-227-01	SPRING, LEAF
169	*3-358-253-01	LEVER (SHUT-OFF LEVER)
170	3-358-243-01	SPRING (TU-SHUT), TORSION
171	*3-358-270-01	(DECK B) PULLEY (COUNTER PULLEY)
172	3-358-285-01	(DECK A) GUIDE, TAPE
HE	1-543-673-11	(DECK B) HEAD, MAGNETIC (ERASE)
HP	1-543-672-11	(DECK A) HEAD, MAGNETIC (PB)
HRP	1-543-672-11	(DECK B) HEAD, MAGNETIC (REC/PB)