

# CFS-902

## SERVICE MANUAL

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



Photo: US model

### SPECIFICATIONS

#### AUDIO POWER SPECIFICATIONS (US MODEL)

#### POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 3.2 ohm loads, both channels driven, from 150 to 10,000 Hz; rated 1.3 W per channel minimum RMS power, with no more than 10% total harmonic distortion in AC operation.

#### OTHER SPECIFICATIONS

##### Tuner frequency range

US, Canadian, Australian Model: FM 87.6–108 MHz  
AM 530–1,710 kHz

AEP Model: FM 87.6–107 MHz

AM 531–1,602 kHz

Italian Model: FM 87.5–108 MHz

AM 526.5–1,606.5 kHz

Saudi Arabia Model: FM 87.6–107 MHz

AM 530–1,605 kHz

E Model: FM 87.6–108 MHz

AM 530–1,605 kHz

Frequency response 80 Hz–10,000 Hz

Speakers 10 cm (4 in.) dual full range x 2

##### Power output

(for Canadian model) 2.2 W + 2.2 W (at 10% harmonic distortion) in DC operation

##### Maximum power output

(for AEP, Italian, E Saudi Arabia model)

4.4 W (2.2 W + 2.2 W)

##### Outputs

Headphones jack (stereo minijack) for 8–300 ohm impedance headphones

##### Power requirements

9 V DC, six size C (R14) batteries  
DC IN 9 V jack accepts:

Supplied AC power adaptor  
DCC-120 car battery cord (optional)  
for use with 12 V car battery

Model Name Using Similar Mechanism	CFS-201 CFS-201L CFS-201S
Tape Transport Mechanism Type	MF-902-75D

##### Battery life

Batteries	FM recording
Sony SUM-2 (NS)	Approx. 7.5 hours
Sony AM2 alkaline	Approx. 27 hours

##### Dimensions

Approx. 440 × 202 × 128 mm (w/h/d)  
(17<sup>3</sup>/<sub>8</sub> × 8 × 5<sup>1</sup>/<sub>8</sub> inches)

incl. projecting parts and controls

##### Weight

Approx. 2.5 kg (4 lb 8 oz)

incl. batteries

##### Accessory supplied

AC power adaptor (1)

Design and specifications subject to change without notice.

#### DO NOT IMMERSE IN WATER

- Before opening or shutting the cassette holder or battery compartment lid, be sure to wipe off water, dust or sand on the outside of the unit.
- Water in the headphones jack may cause rusting. Cover the jack with the attached rubber cap when the headphones are not used.
- If the unit is splashed with salt water, wipe clean with a damp cloth, then dry with a soft dry cloth. Do NOT wash under running water; do NOT use soap or detergent; do NOT dry with an electric hair dryer.
- The supplied AC power adaptor is not water resistant. To prevent shock hazard, avoid using the set near water during AC operation.

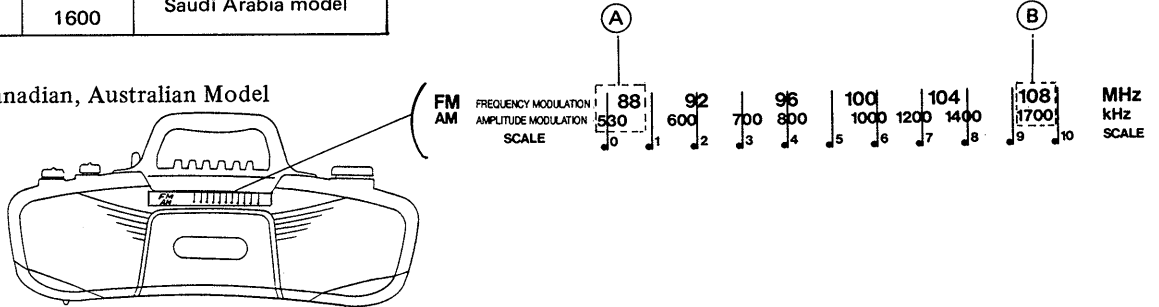
RADIO CASSETTE-CORDER  
**SONY**®

**[MODEL IDENTIFICATION]**

Destinations can be distinguished as shown below by frequency letters of portion **(A)** and **(B)** on dial scale.

Band	Frequency Letters		Destination
	(A)	(B)	
FM AM	88 530	108 1700	US, Canadian, Australian model
FM AM	88 540	106 1600	AEP model
FM AM	88 530	106 1600	Italian model
FM AM	88 530	108 1600	E model
FM AM	88 530	106 1600	Saudi Arabia model

Example: US, Canadian, Australian Model



**[PARTS IDENTIFICATION]**

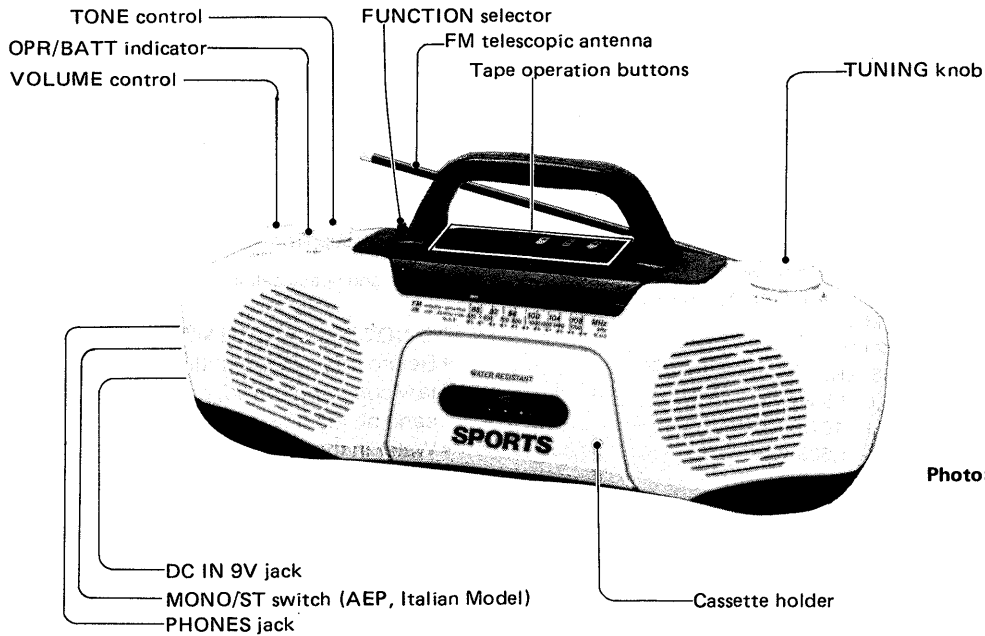


Photo: US Model

**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.

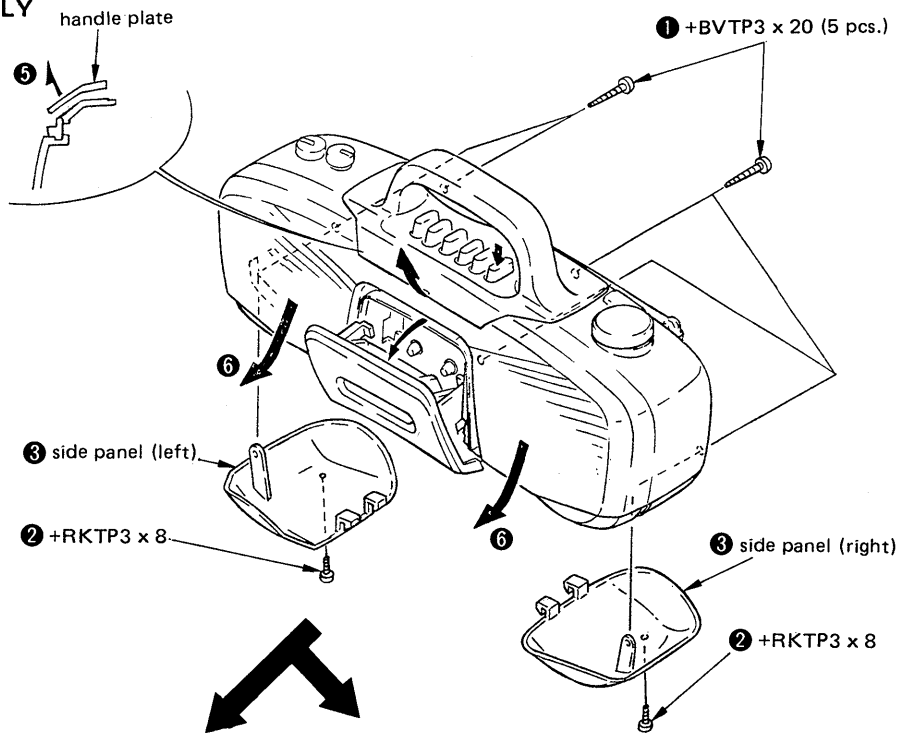
**ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!**

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.

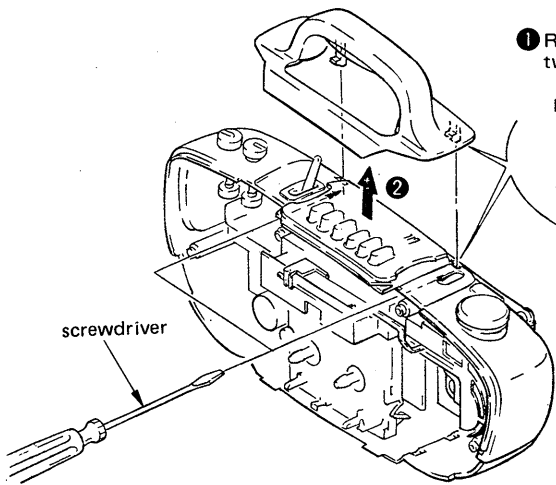
# SECTION 1 DISASSEMBLY

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

## FRONT CABINET ASSEMBLY

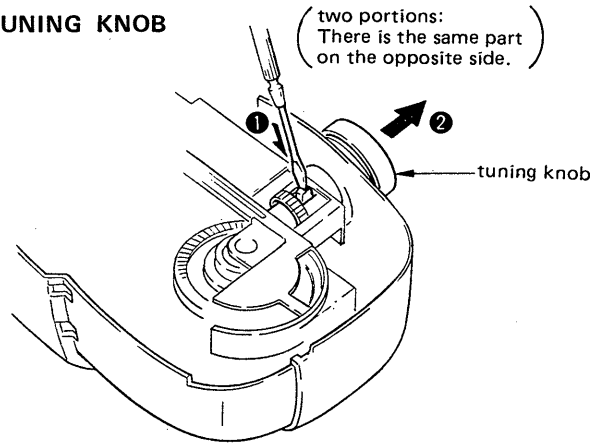
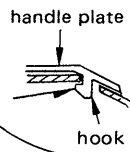


## HANDLE ASSEMBLY



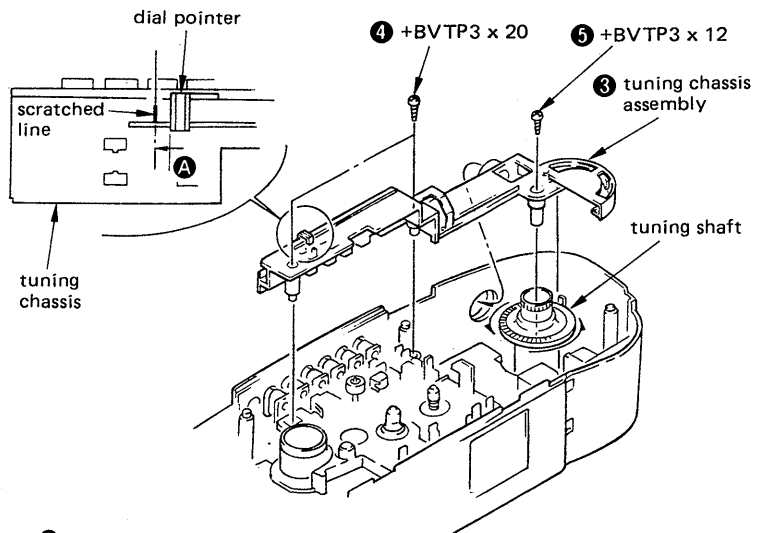
## TUNING KNOB

- 1 Remove the two hooks.



## DIAL POINTER SETTING

- 1 Turn the tuning shaft fully counterclockwise.
- 2 Set the left side of the dial pointer to the scratched line on the tuning chassis. (Arrow A)



## 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
- Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
- 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.
- Power supply voltage: 9V dc.

### Torque Measurement

Torque	Meter Reading	Torque Meter
Forward	22.5-55g·cm (0.31-0.76oz·inch)	CQ-102C
Fast Forward and Rewind	60-120g·cm (0.83-1.67oz·inch)	CQ-201B
Back Tension	2.5g·cm (0.03-0.07oz·inch)	CQ-102C

### Tape Tension Measurement

Meter	Meter Reading
CQ-403A	more than 150g (5.29oz)

## SECTION 3 ELECTRICAL ADJUSTMENTS

### 3-1. TAPE RECORDER SECTION

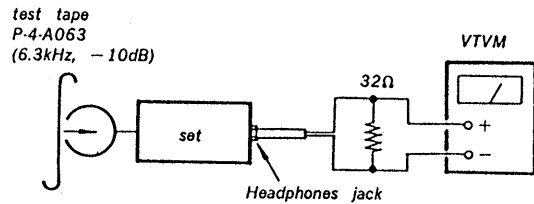
#### • Test Tape

Type	Signal	Used for
WS-48A	3kHz, 0dB	tape speed adjustment
P-4-A063	6.3kHz, -10dB	head azimuth adjustment

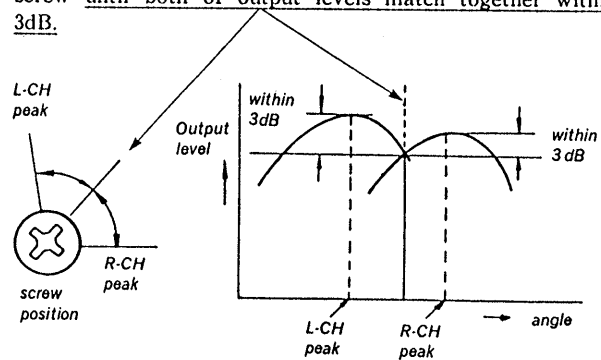
### REC/PB Head Azimuth Adjustment

#### Procedure:

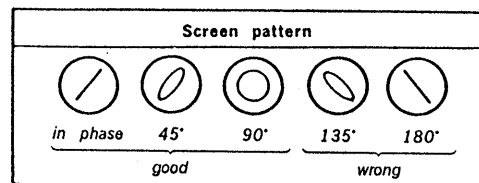
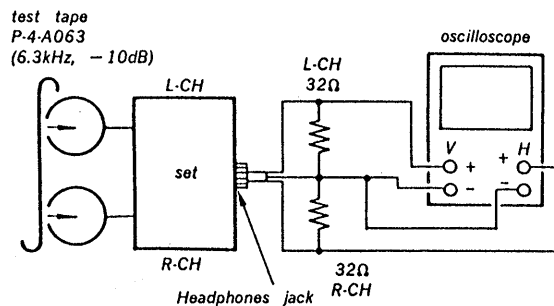
- Mode: playback



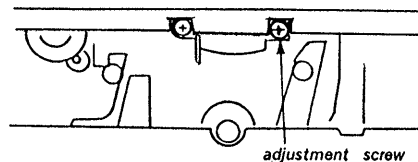
- Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 3dB.



- Phase Check  
Mode: playback



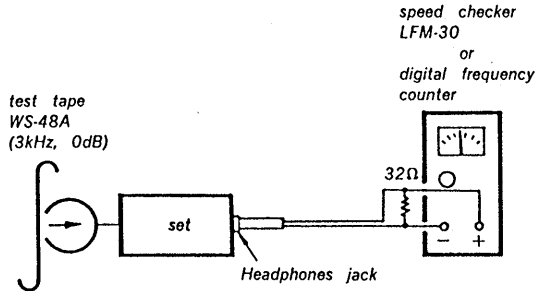
Adjustment Location:



## Tape Speed Adjustment

Procedure :

Mode : playback

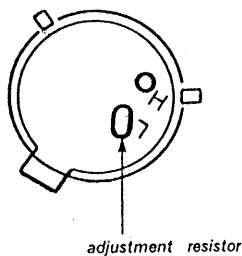


Adjustment Value :

Speed checker	Digital frequency counter
±3%	2,910 to 3,090 Hz

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

Adjustment Location :



## 3-2. RADIO SECTION

### • Abbreviation

CND: Canadian model

AUS: Australian model

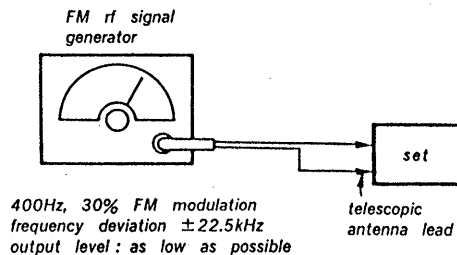
IT: Italian model

EA: Saudi Arabia model

### • FM Section

Setting:

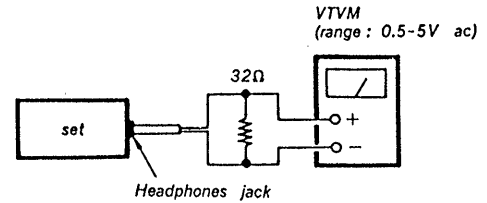
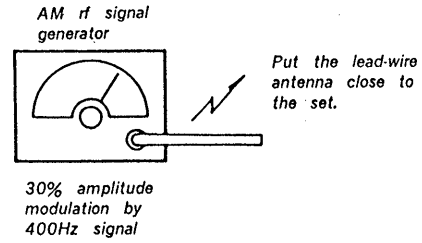
FUNCTION switch: FM



### • AM Section

Setting:

FUNCTION switch: AM (MW)



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

AM IF ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T1	
455 kHz	

MW FREQUENCY COVERAGE ADJUSTMENT		
Adjust for a maximum reading on VTVM.		
	L4	CT4
US/CND/AUS	520 kHz	1,780 kHz
AEP/E/EA	520 kHz	1,680 kHz
IT	516 kHz	1,630 kHz

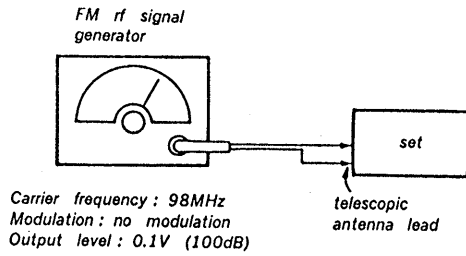
MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L3	CT3
620 kHz	1,400 kHz

FM FREQUENCY COVERAGE ADJUSTMENT		
Adjust for a maximum reading on VTVM.		
	L2	CT2
US/CND/E/AUS	86.5 MHz	109.5 MHz
AEP	87.0 MHz	108.3 MHz
IT	87.35 MHz	108.25 MHz
EA	87.35 MHz	107.8 MHz

FM TRACKING ADJUSTMENT		
Adjust for a maximum reading on VTVM.		
	L1	CT1
US/CND/E/AUS	86.5 MHz	109.5 MHz
AEP	87.0 MHz	108.3 MHz
IT	87.35 MHz	108.25 MHz
EA	87.35 MHz	107.8 MHz

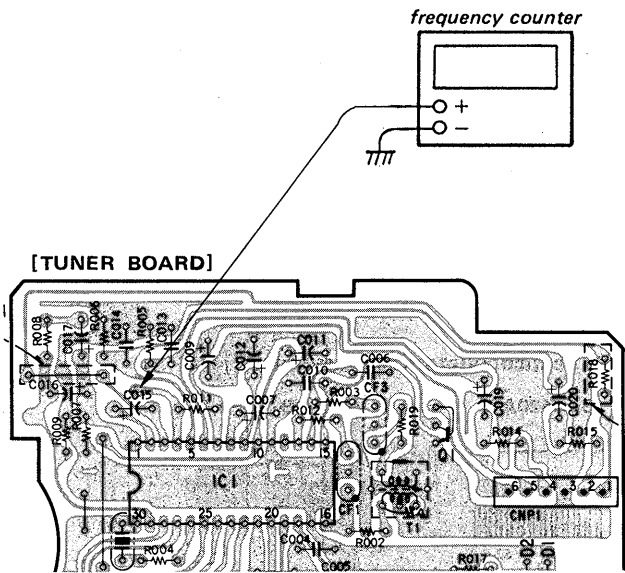
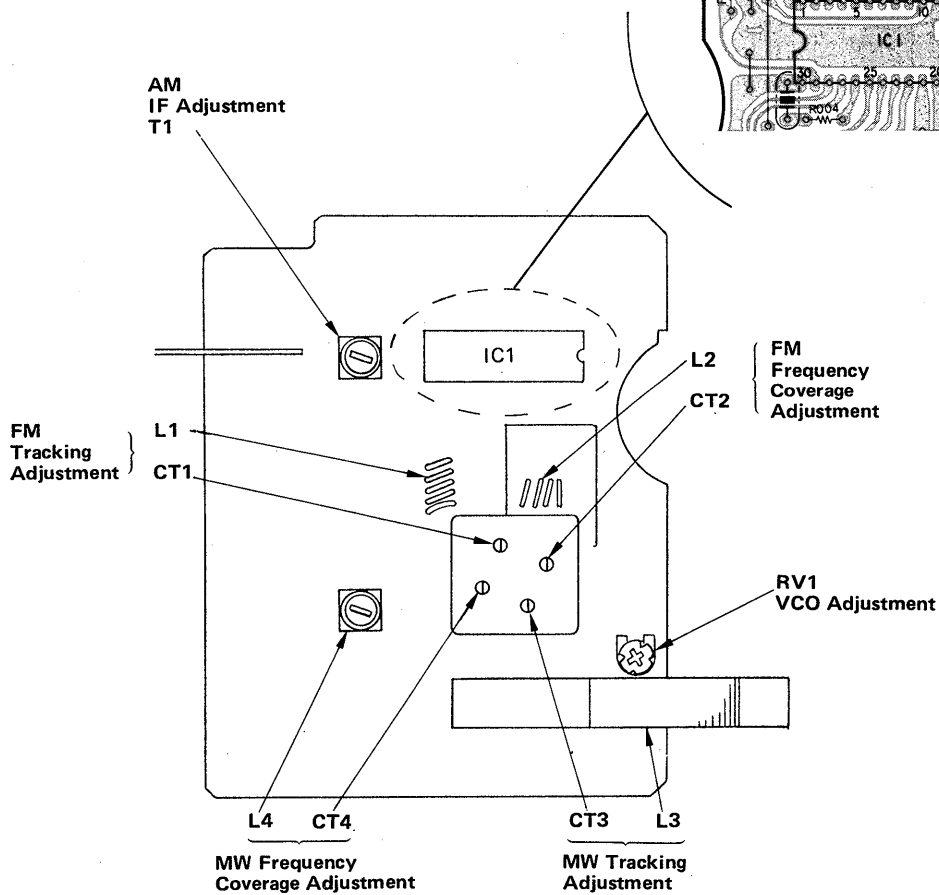
# VCO Adjustment

## Procedure :



1. Connect frequency counter to it as shown below.
2. Tune the set to 98MHz.
3. Adjust RV1 for 76kHz±500Hz reading on the frequency counter.

Adjustment Location: tuner board (component side)



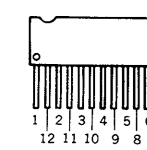
**SECTION 4  
DIAGRAMS**

**4-1. SCHEMATIC DIAGRAM**

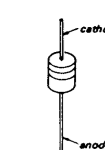
- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF} = \mu\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
  - All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.
  - Total current is measured with no cassette installed.
  - Power voltage is dc 9 V and fed with regulated dc power supply from external power voltage jack.
  - Voltages are dc with respect to ground under no-signal (detuned) conditions.
  - no mark: FM
  - ( ): AM
  - < >: REC
  - [ ]: PB
  - Voltages are taken with a VOM (10  $\text{M}\Omega/\text{V}$ ).
  - Voltage variations may be noted due to normal production tolerances.
  - Signal path.
  - $\Rightarrow$ : FM  $\Rightarrow$ : PB
  - $\Rightarrow$ : REC

**Semiconductor Lead Layouts**

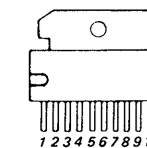
**BA3420AL**



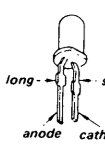
**1SS119**



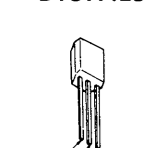
**BA5410**



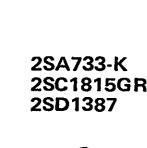
**TLR124**



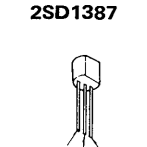
**DTA114ES**



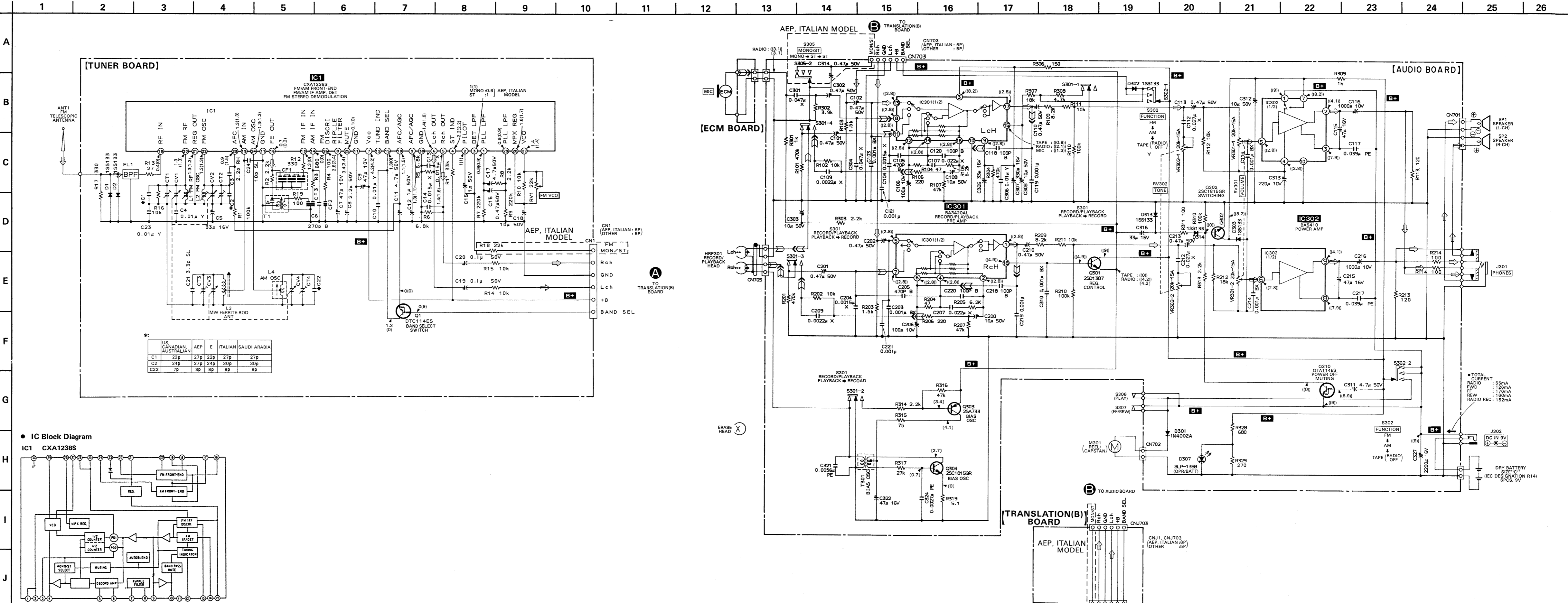
**DTC114ES**

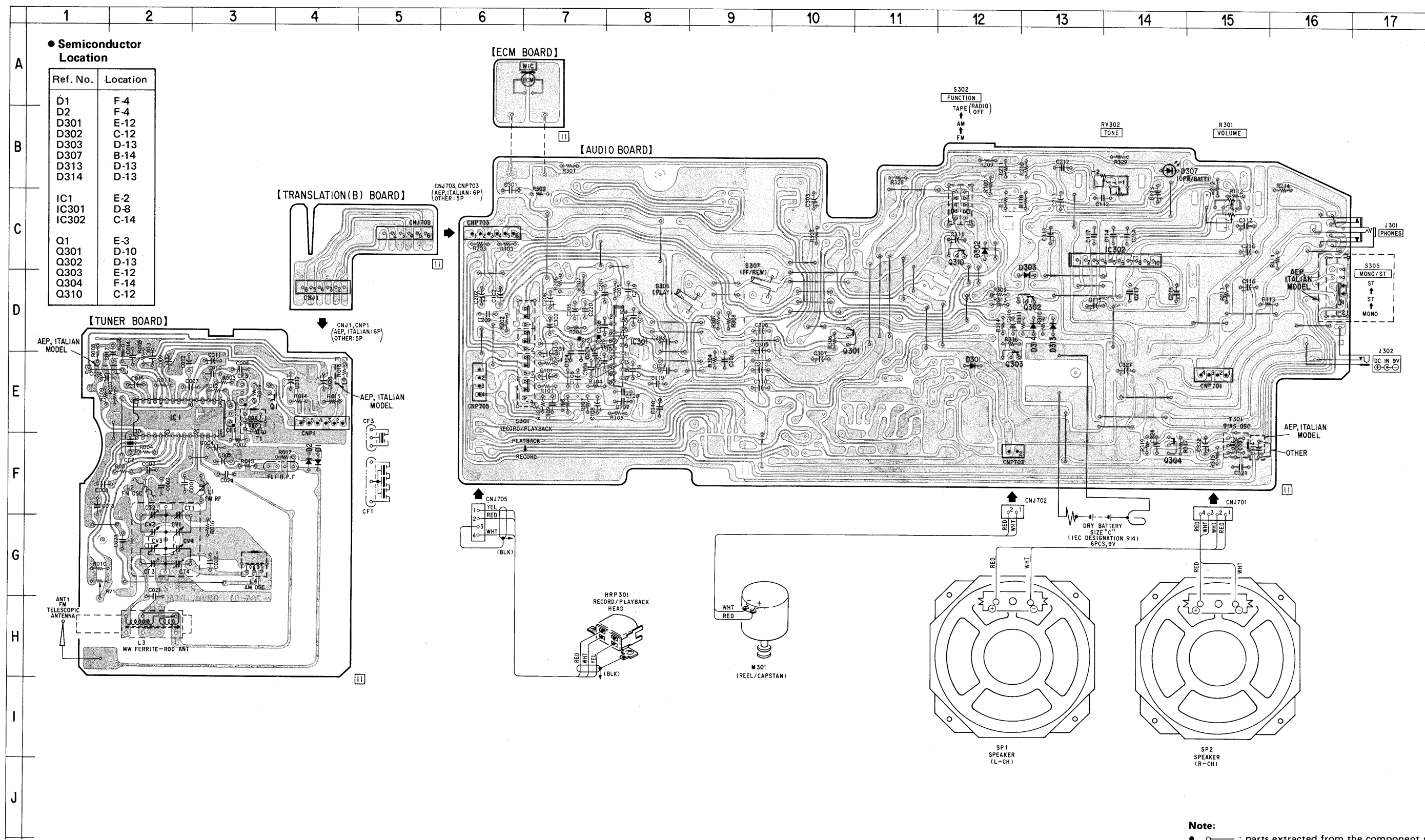


**2SA733-K**



**2SC1815GR**





**Note:**  
 ● ○ : parts extracted from the component side.  
 ● ● : parts extracted from the conductor side.

REVISED

SECTION 5

EXPLODED VIEWS

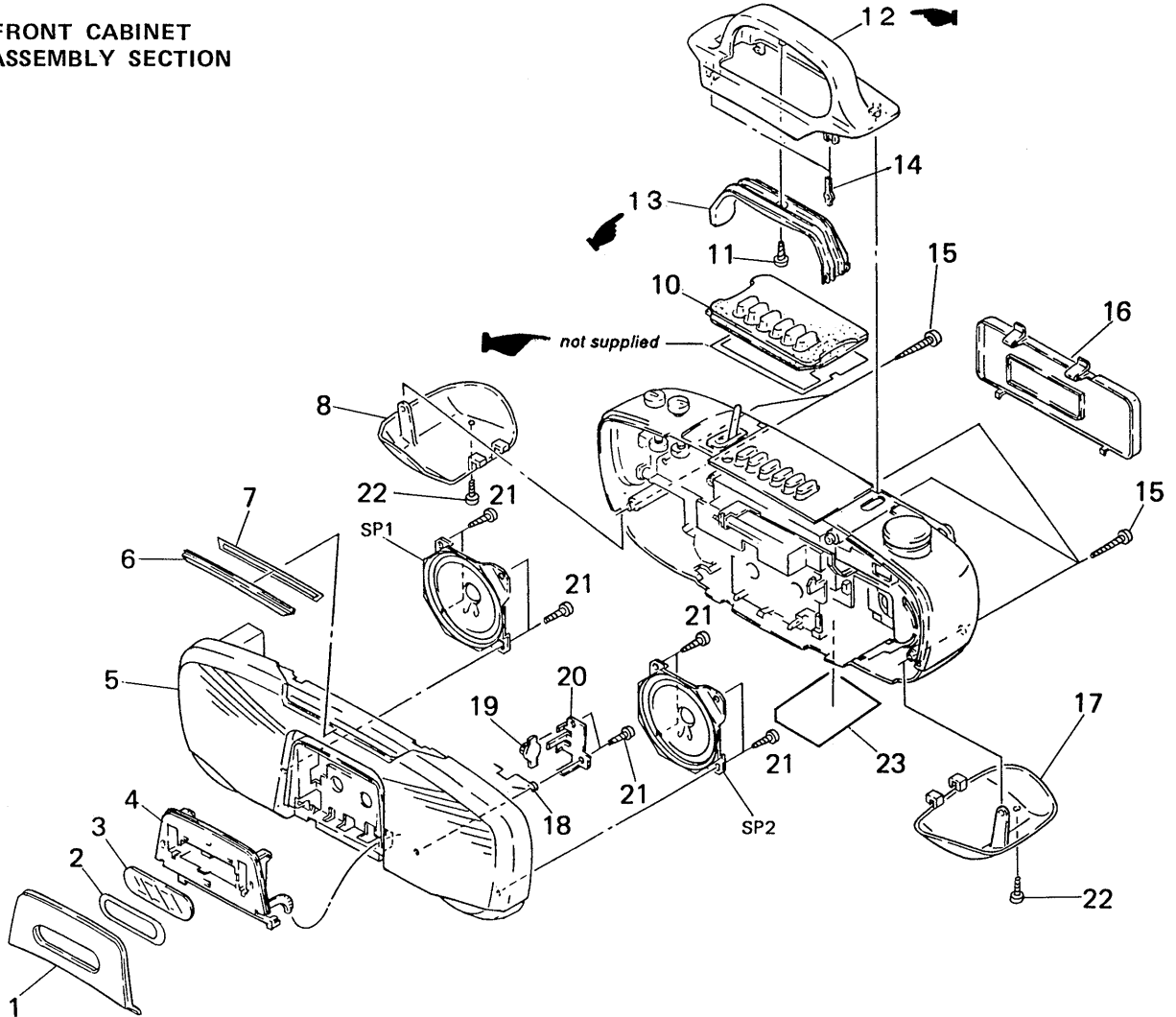
NOTE:

- 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

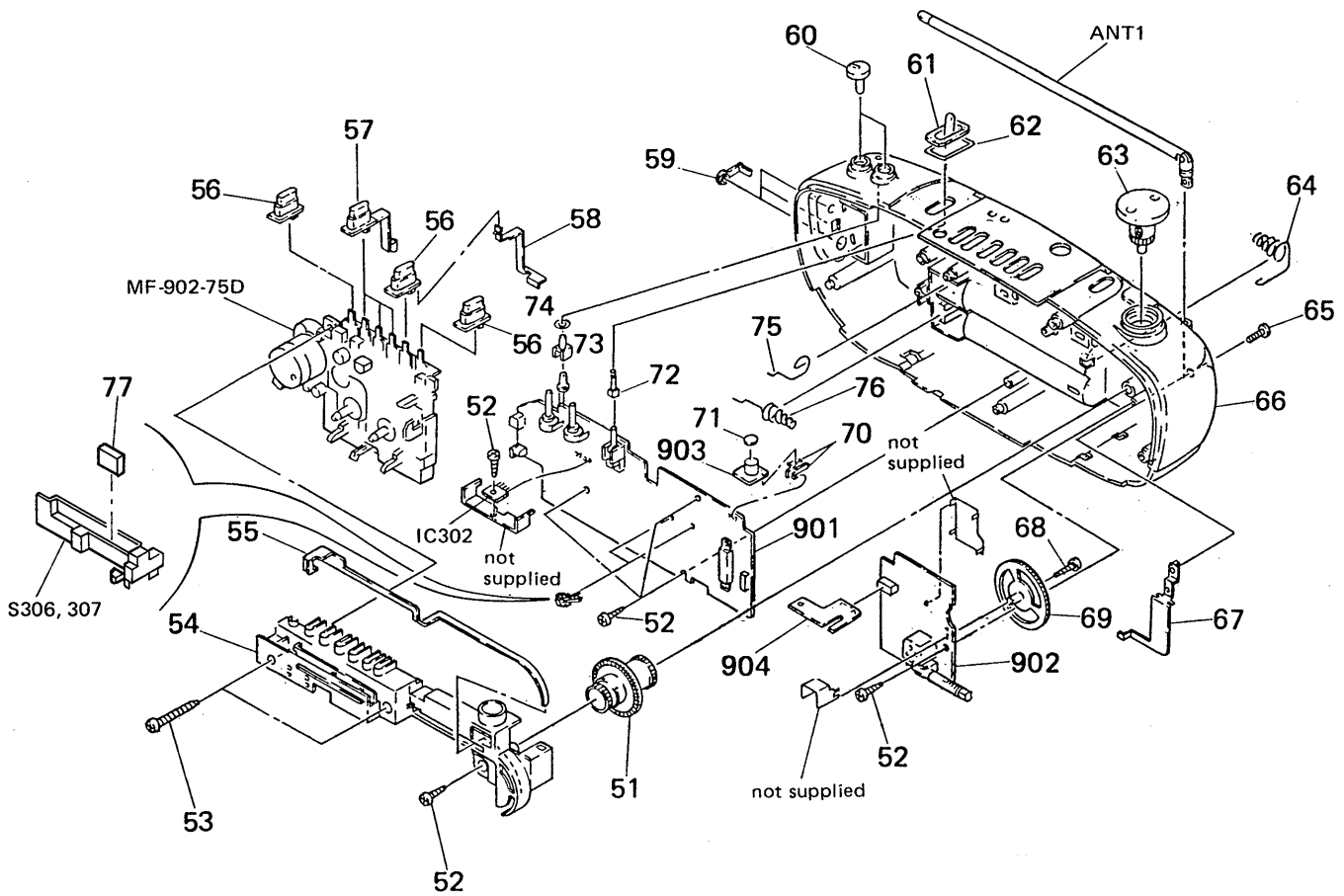
- Abbreviation  
 CND: Canadian model  
 AUS: Australian model  
 IT: Italian model  
 EA: Saudi Arabia model

5-1. FRONT CABINET ASSEMBLY SECTION



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	3-352-229-01	(US,AEP,IT,AUS:YEL)...LID, CASSETTE (YEL)		11	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
	3-352-229-11	(US,AEP,IT,AUS:WHT)...LID, CASSETTE (WHT)		12	3-352-238-01	HANDLE	
	3-352-229-21	(Canadian,E,EA).....LID, CASSETTE (GRY)		13	3-352-223-01	PLATE, HANDLE	
2	3-352-239-01	SHEET (B), ADHESIVE		14	*3-352-267-01	BRACKET (C)	
3	3-352-203-01	WINDOW, CASSETTE		15	7-685-651-79	SCREW +BVTP 3X20 TYPE2 IT-3	
4	3-352-227-01	HOLDER, CASSETTE		16	3-352-228-01	(YEL)...LID, BATTERY CASE (YEL)	
5	3-352-237-01	(US,AUS:YEL/Canadian)			3-352-228-11	(WHT)...LID, BATTERY CASE (WHT)	
		...CABINET (FRONT)(YEL)		17	3-352-225-01	PANEL (RIGHT), SIDE	
	3-352-237-11	(US,AUS:WHT)...CABINET (FRONT)(WHT)		18	3-352-209-01	SPRING (CASSETTE)	
	3-352-237-21	(AEP:YEL).....CABINET (FRONT)(YEL)		19	3-319-224-31	DAMPER, SMALL	
	3-352-237-31	(AEP:WHT).....CABINET (FRONT)(WHT)		20	*3-352-208-01	BRACKET (A)	
	3-352-237-41	(E).....CABINET (FRONT)(YEL)		21	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
	3-352-237-61	(IT:YEL).....CABINET (FRONT)(YEL)		22	7-685-346-19	SCREW +RKTP 3X8 TYPE2 N-S	
	3-352-237-71	(IT:WHT).....CABINET (FRONT)(WHT)		23	*3-352-246-01	(AEP,IT)...LABEL, MODEL NUMBER (AE)	
	3-352-237-81	(EA).....CABINET (FRONT)(YEL)			*3-352-247-01	(E,EA).....LABEL, MODEL NUMBER (E)	
					*3-352-272-01	(AUS).....LABEL, MODEL NUMBER (AU)	
6	3-352-202-11	WINDOW, DIAL		SP1	1-503-823-11	SPEAKER	
7	3-352-243-01	SHEET, ADHESIVE (A)		SP2	1-503-823-11	SPEAKER	
8	3-352-226-01	PANEL (LEFT), SIDE					
9		deletion					
10	X-3352-203-1	PACKING (MD BUTTON) ASSY					

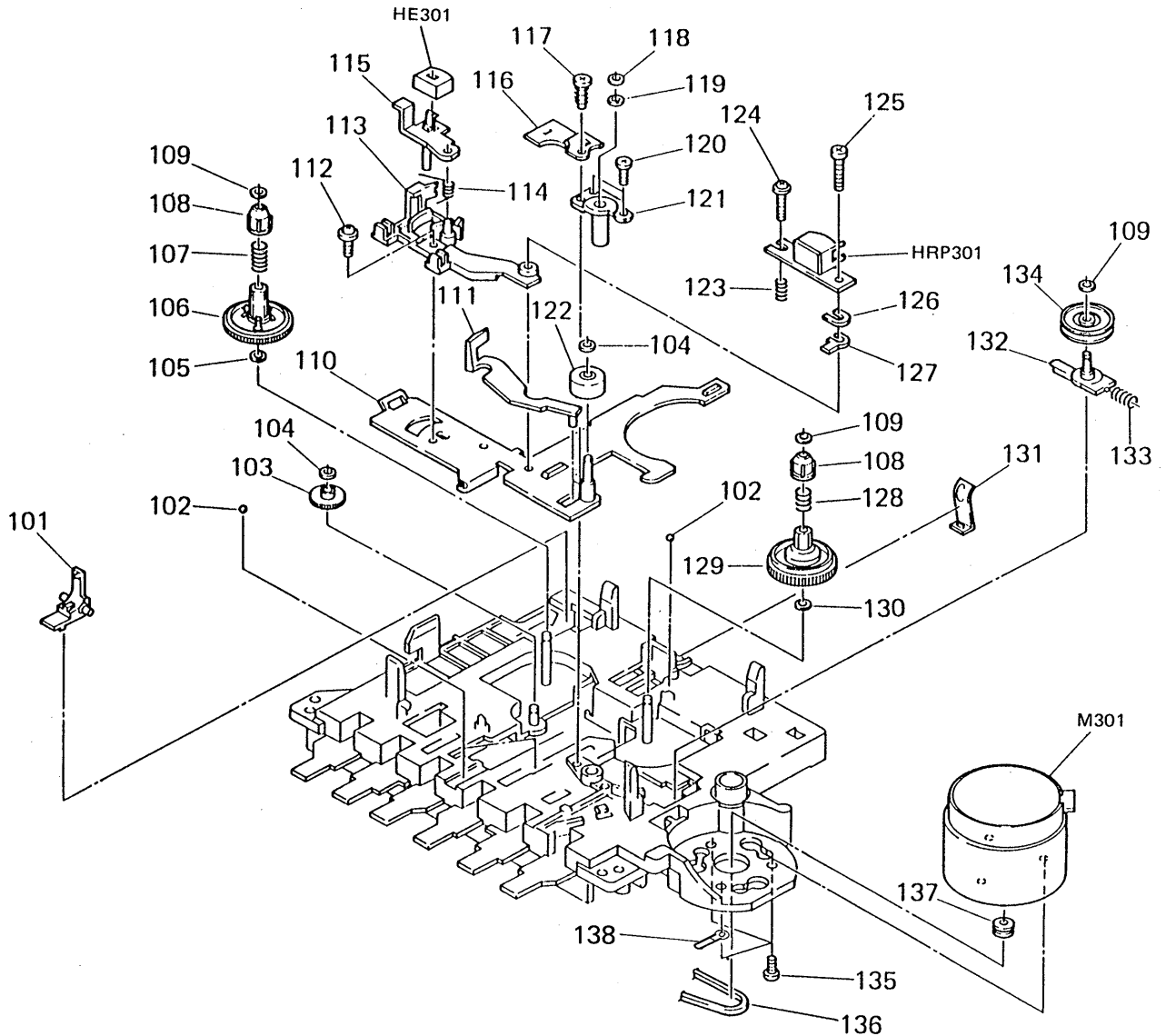
## 5-2. REAR CABINET ASSEMBLY SECTION



No.	Part No.	Description	Remarks
51	*3-352-222-01	SHAFT, TUNING	
52	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
53	7-685-651-79	SCREW +BVTP 3X20 TYPE2 IT-3	
54	*3-352-230-01	CHASSIS (TUN)	
55	*3-352-224-01	POINTER	
56	*3-352-219-01	BUTTON (B)	
57	*3-352-220-01	BUTTON (A)	
58	*3-352-207-01	LEVER (REC)	
59	3-352-215-01	PACKING (JACK)	
60	3-352-204-01 3-352-204-11	(YEL)...KNOB (VOLUME)(YEL) (WHT)...KNOB (VOLUME)(WHT)	
61	3-352-217-01	PACKING (FUNC)	
62	3-352-240-01	SHEET (D), ADHESIVE	
63	3-352-221-01 3-352-221-11	(YEL)...KNOB (TUNING)(YEL) (WHT)...KNOB (TUNING)(WHT)	
64	3-352-212-01	TERMINAL (PLUS,MINUS), BATTERY	
65	7-682-549-04	SCREW +B 3X10	
66	3-352-236-01	(US,AUS:YEL/Canadian) ...CABINET (REAR)(YEL)	
	3-352-236-11	(US,AUS:WHT).....CABINET (REAR)(WHT)	
	3-352-236-21	(AEP,IT:YEL).....CABINET (REAR)(YEL)	
	3-352-236-31	(AEP,IT:WHT).....CABINET (REAR)(WHT)	
	3-352-236-41	(E,EA).....CABINET (REAR)(YEL)	

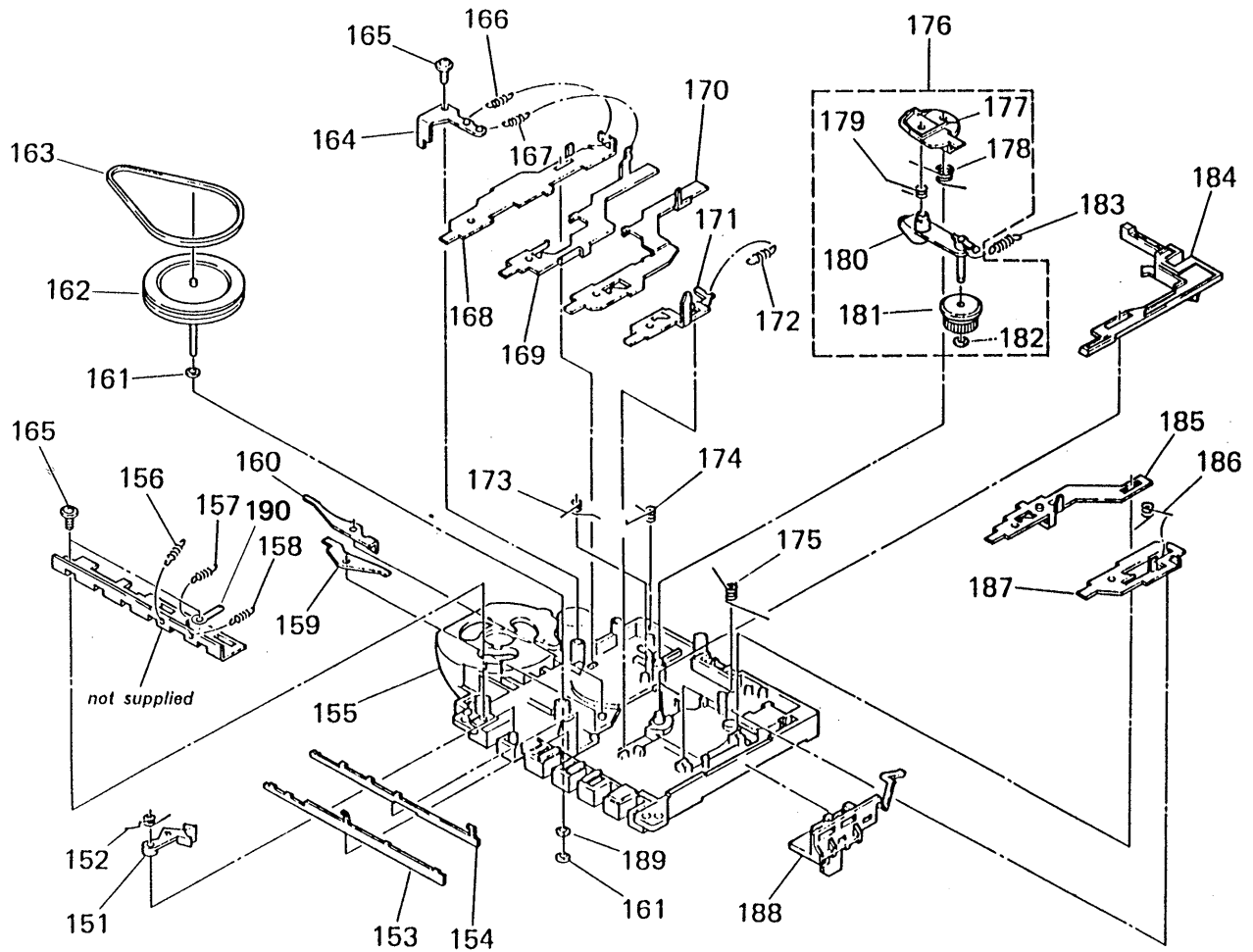
No.	Part No.	Description	Remarks
67	*3-352-210-01	TERMINAL BOARD, ANTENNA	
68	7-621-770-87	SCREW +P 2.6X5	
69	*3-352-206-01	DRUM, DIAL	
70	3-352-211-01	TERMINAL BOARD (ECM)	
71	3-326-355-01	SHEET, MIC	
72	*3-352-216-01	KNOB (FUNC)	
73	3-352-205-01	WINDOW (LED)	
74	3-352-245-01	SHEET (E), ADHESIVE	
75	3-352-214-01	TERMINAL (PLUS), BATTERY	
76	3-352-213-01	TERMINAL (MINUS), BATTERY	
77	9-911-844-XX	SPACER	
901	*A-3270-620-A *A-3270-568-A	(AEP,IT).....MOUNTED PCB, AUDIO (US,Canadian,AUS,E,EA) ...MOUNTED PCB, AUDIO	
902	*A-3270-578-A	(US,Canadian,AUS) ...PC BOARD ASSY, TUNER	68,69
	*A-3270-621-A	(AEP).....PC BOARD ASSY, TUNER	68,69
	*A-3270-646-A	(IT).....PC BOARD ASSY, TUNER	68,69
	*A-3270-623-A	(E).....PC BOARD ASSY, TUNER	68,69
	*A-3270-648-A	(EA).....PC BOARD ASSY, TUNER	68,69
903	*1-630-149-11	PC BOARD, ECM	
904	*1-630-432-11	PC BOARD, TRANSLATION (B)	
ANT1	1-501-422-11	(US,Canadian,AUS)...ANTENNA, TELESCOPIC	
ANT1	1-501-436-11	(AEP,IT,E,EA).....ANTENNA, TELESCOPIC	
IC302	8-759-972-19	IC BA5410	
S306	1-570-012-11	SWITCH, LEAF (PLAY)	
S307	1-570-012-11	SWITCH, LEAF (FF/REW)	

5-3. MECHANISM SECTION (1)  
(MF-902-75D)



Ref.No	Part No.	Description	Remarks	Ref.No	Part No.	Description	Remarks
101	3-313-357-00	CLAW, REC PREVENTION		124	7-621-255-55	SCREW, LOCK	
102	7-671-112-11	BALL, STEEL		125	7-621-772-40	SCREW +B 2X8	
103	3-558-620-11	GEAR, REWIND		126	3-578-138-01	SHIM	
104	3-307-948-01	WASHER, NYLON			3-578-138-11	SHIM	
105	3-322-659-01	WASHER (A)			3-578-138-21	SHIM	
106	3-313-305-00	TABLE, REEL, SUPPLY		127	3-331-108-01	LUG (T), SHIM	
107	3-313-344-00	SPRING, COMPRESSION			3-331-108-11	LUG (T), SHIM	
108	3-313-333-00	CLAW, REEL			3-331-108-21	LUG (T), SHIM	
109	3-558-708-01	WASHER, STOPPER			3-331-108-31	LUG (T), SHIM	
110	X-3313-311-1	CHASSIS ASSY			3-331-108-41	LUG (T), SHIM	
111	3-313-316-00	LEVER, SHUT-OFF DETECTION		128	3-313-345-00	SPRING, COMPRESSION	
112	7-621-255-35	SCREW (2MMX5), + PWH		129	A-3130-031-A	TABLE ASSY, REEL, TAKE-UP	
113	3-334-717-01	BRACKET (M), HEAD		130	3-701-437-21	WASHER	
114	3-313-339-00	SPRING		131	3-313-902-11	SPRING	
115	*3-324-221-01	ARM (DC), ERASE HEAD		132	X-3313-301-0	BRACKET ASSY, T PULLEY	
116	*3-332-309-01	SPRING (B)		133	3-573-464-00	SPRING, COMPRESSION	
117	7-685-134-19	SCREW (B2.6), TAPPING		134	X-3313-307-0	PULLEY ASSY, FWD	
118	3-307-948-41	WASHER, NYLON		135	7-621-770-87	SCREW +P 2.6X5	
119	3-701-438-11	WASHER, 2.5		136	3-313-335-00	BELT, CAPSTAN	
120	3-318-203-71	SCREW (B1.7X5), TAPPING		137	X-3313-308-1	PULLEY (C), MOTOR	
121	X-3319-945-1	BEARING ASSY, CAPSTAN		138	7-623-508-01	LUG, 3	
122	3-703-597-41	PINCH ROLLER, STANDARD		HE301	1-543-572-11	HEAD, MAGNETIC (ERASE)	
123	3-313-340-00	SPRING, COMPRESSION		HRP301	1-543-319-11	HEAD, MAGNETIC (REC/PB)	
				M301	1-541-624-11	MOTOR, DC	

5-4. MECHANISM SECTION (2)  
(MF-902-75D)



Ref.No	Part No.	Description	Remarks	Ref.No	Part No.	Description	Remarks
151	3-313-322-02	LEVER (A), S.OFF		171	*3-313-326-00	LEVER, FWD BUTTON	
152	3-313-323-00	SPRING		172	3-324-222-01	SPRING (HIGH TENSION), TENSION	
153	*3-313-351-16	PLATE (A), LOCK		173	3-313-338-00	SPRING	
154	*3-313-352-11	PLATE (B), LOCK		174	3-313-378-01	SPRING (A)	
155	A-3102-092-A	CHASSIS ASSY, MECHANICAL		175	3-313-327-00	SPRING	
156	3-313-369-00	SPRING, TENSION		176	A-3136-041-B	IDLER COMPLETE ASSY, FR	177-182
157	3-313-343-00	SPRING, TENSION		177	3-313-314-00	LEVER (SI), FR	
158	3-322-529-01	SPRING, TENSION		178	3-313-315-00	SPRING	
159	*3-313-321-00	LEVER, PREVENTION, RFR		179	3-313-313-00	SPRING	
160	*3-313-320-00	LEVER, RCP		180	X-3313-304-0	ARM ASSY, REW	
161	3-701-438-11	WASHER, 2.5		181	X-3313-312-1	IDLER ASSY, FR	
162	X-3327-909-2	FLYWHEEL (G) ASSY		182	3-558-708-01	WASHER, STOPPER	
163	3-313-335-00	BELT, CAPSTAN		183	3-313-365-00	SPRING, TENSION	
164	*3-332-310-01	HOOK, SPRING		184	3-313-356-00	BRAKE	
165	7-687-233-11	SCREW (+ PTPWH) (2.6X6)		185	*3-313-350-00	LEVER, REC BUTTON	
166	3-328-107-01	SPRING, TENSION		186	3-313-331-00	SPRING	
167	3-313-348-00	SPRING, TENSION		187	*3-313-325-00	LEVER, STOP BUTTON	
168	*3-313-381-01	LEVER (B), PAUSE BUTTON		188	3-313-380-01	CLAW (A), EJECT	
169	*3-313-353-00	LEVER, FF BUTTON		189	3-701-438-01	WASHER	
170	*3-313-354-00	LEVER, REW BUTTON		190	7-623-508-01	LUG, 3	

# 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:  $\mu$ MF.

**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...

- Abbreviation

CND: Canadian model

AUS: Australian model

IT: Italian model

EA: Saudi Arabia model

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	*A-3270-620-A	(AEP,IT).....MOUNTED PCB, AUDIO	C102	1-124-902-00	ELECT 0.47MF 20% 50V
	*A-3270-568-A	(US,Canadian,AUS,E,EA) ...MOUNTED PCB, AUDIO	C103	1-162-294-31	CERAMIC 0.001MF 10% 50V
902	*A-3270-578-A	(US,Canadian,AUS) ...PC BOARD ASSY, TUNER 68,69	C104	1-161-374-11	CERAMIC 0.0015MF 20% 16V
	*A-3270-621-A	(AEP).....PC BOARD ASSY, TUNER 68,69	C105	1-162-290-31	CERAMIC 470PF 10% 50V
	*A-3270-646-A	(IT).....PC BOARD ASSY, TUNER 68,69	C106	1-124-443-00	ELECT 100MF 20% 10V
	*A-3270-623-A	(E).....PC BOARD ASSY, TUNER 68,69	C107	1-162-843-11	CERAMIC 0.022MF 10% 16V
	*A-3270-648-A	(EA).....PC BOARD ASSY, TUNER 68,69	C108	1-123-875-11	ELECT 10MF 20% 50V
903	*1-630-149-11	PC BOARD, ECM	C109	1-161-375-00	CERAMIC 0.0022MF 20% 16V
904	*1-630-432-11	PC BOARD, TRANSLATION (B)	C110	1-124-902-00	ELECT 0.47MF 20% 50V
ANT1	1-501-422-11	(US,Canadian,AUS)...ANTENNA, TELE SCOPIIC	C112	1-162-844-11	CERAMIC 0.027MF 10% 16V
ANT1	1-501-436-11	(AEP,IT,E,EA).....ANTENNA, TELE SCOPIIC	C113	1-124-902-00	ELECT 0.47MF 20% 50V
C1	1-162-207-31	(US,Canadian,AUS,E) ...CERAMIC 22PF 5% 50V	C114	1-162-294-31	CERAMIC 0.001MF 10% 50V
C1	1-162-209-31	(AEP,IT,EA)..CERAMIC 27PF 5% 50V	C115	1-124-477-11	ELECT 47MF 20% 16V
C2	1-102-960-00	(US,Canadian,AUS,E) ...CERAMIC 24PF 5% 50V	C116	1-124-473-11	ELECT 1000MF 20% 10V
C2	1-102-961-00	(AEP).....CERAMIC 27PF 5% 50V	C117	1-130-490-11	MYLAR 0.039MF 5% 50V
C2	1-102-962-00	(IT,EA).....CERAMIC 30PF 5% 50V	C118	1-162-282-31	CERAMIC 100PF 10% 50V
C3	1-162-191-31	CERAMIC 2.2PF 10% 50V	C119	1-162-294-31	CERAMIC 1000PF 10% 50V
C4	1-161-379-00	CERAMIC 0.01MF 30% 16V	C120	1-162-282-31	CERAMIC 100PF 10% 50V
C5	1-124-963-11	ELECT 33MF 20% 16V	C121	1-101-001-00	CERAMIC 0.001MF 50V
C6	1-162-287-31	CERAMIC 270PF 10% 50V	C201	1-124-902-00	ELECT 0.47MF 20% 50V
C7	1-124-446-11	ELECT 47MF 20% 10V	C202	1-124-902-00	ELECT 0.47MF 20% 50V
C8	1-124-925-11	ELECT 2.2MF 20% 50V	C203	1-162-294-31	CERAMIC 0.001MF 10% 50V
C9	1-124-446-11	ELECT 47MF 20% 10V	C204	1-161-374-11	CERAMIC 0.0015MF 20% 16V
C10	1-161-379-00	CERAMIC 0.01MF 30% 16V	C205	1-162-290-31	CERAMIC 470PF 10% 50V
C11	1-124-927-11	ELECT 4.7MF 20% 50V	C206	1-124-443-00	ELECT 100MF 20% 10V
C12	1-124-499-11	ELECT 1MF 20% 50V	C207	1-162-843-11	CERAMIC 0.022MF 10% 16V
C13	1-161-053-00	CERAMIC 0.015MF 10% 16V	C208	1-123-875-11	ELECT 10MF 20% 50V
C14	1-161-053-00	CERAMIC 0.015MF 10% 16V	C209	1-161-375-00	CERAMIC 0.0022MF 20% 16V
C15	1-124-499-11	ELECT 1MF 20% 50V	C210	1-124-902-00	ELECT 0.47MF 20% 50V
C16	1-124-902-00	ELECT 0.47MF 20% 50V	C212	1-162-844-11	CERAMIC 0.027MF 10% 16V
C17	1-124-927-11	ELECT 4.7MF 20% 50V	C213	1-124-902-00	ELECT 0.47MF 20% 50V
C18	1-123-875-11	ELECT 10MF 20% 50V	C214	1-162-294-31	CERAMIC 0.001MF 10% 50V
C19	1-124-463-00	ELECT 0.1MF 20% 50V	C215	1-124-477-11	ELECT 47MF 20% 16V
C20	1-124-463-00	ELECT 0.1MF 20% 50V	C216	1-124-473-11	ELECT 1000MF 20% 10V
C21	1-162-193-31	CERAMIC 3.3PF 10% 50V	C217	1-130-490-11	MYLAR 0.039MF 5% 50V
C22	1-102-944-00	(US,Canadian,AUS) ...CERAMIC 7PF 50V	C218	1-162-282-31	CERAMIC 100PF 10% 50V
C22	1-102-945-00	(AEP,IT,E,EA) ...CERAMIC 8PF 50V	C219	1-162-294-31	CERAMIC 1000PF 10% 50V
C23	1-161-379-00	CERAMIC 0.01MF 30% 16V	C220	1-162-282-31	CERAMIC 100PF 10% 50V
C24	1-162-199-31	CERAMIC 10PF 5% 50V	C221	1-101-001-00	CERAMIC 0.001MF 50V
C101	1-124-902-00	ELECT 0.47MF 20% 50V	C301	1-162-847-11	CERAMIC 0.047MF 10% 16V
			C302	1-124-902-00	ELECT 0.47MF 20% 50V
			C303	1-123-875-11	ELECT 10MF 20% 50V
			C304	1-162-847-11	CERAMIC 0.047MF 10% 16V
			C305	1-124-963-11	ELECT 33MF 20% 16V
			C306	1-161-379-00	CERAMIC 0.01MF 30% 16V
			C307	1-124-119-00	ELECT 330MF 20% 16V

Ref.No.	Part No.	Description
C308	1-123-875-11	ELECT 10MF 20% 50V
C310	1-162-294-31	CERAMIC 0.001MF 10% 50V
C311	1-124-927-11	ELECT 4.7MF 20% 50V
C312	1-123-875-11	ELECT 10MF 20% 50V
C313	1-126-176-11	ELECT 220MF 20% 10V
C314	1-124-902-00	(AEP,IT)...ELECT 0.47MF 20% 50V
C316	1-124-963-11	ELECT 33MF 20% 16V
C321	1-130-480-00	MYLAR 0.0056MF 5% 50V
C322	1-124-477-11	ELECT 47MF 20% 16V
C324	1-130-476-00	MYLAR 0.0027MF 5% 50V
C327	1-124-556-11	ELECT 2200MF 20% 16V
CF1	1-567-166-00	FILTER, CERAMIC
CF2	1-567-166-00	FILTER, CERAMIC
CF3	1-527-870-00	FILTER
CN1	*1-508-695-00	(AEP,IT).....CONNECTOR PIN 6P
CN1	*1-560-552-00	(US,Canadian,E,AUS,EA) ...PIN, CONNECTOR 5P
CN701	*1-564-778-11	PLUG, CONNECTOR (2.5MM) 4P
CN702	*1-564-777-11	PLUG, CONNECTOR (2.5MM) 2P
CN703	*1-508-695-00	(AEP,IT).....CONNECTOR PIN 6P
CN703	*1-560-552-00	(US,Canadian,E,AUS,EA) ...PIN, CONNECTOR 5P
CN705	*1-564-778-31	PLUG, CONNECTOR (2.5MM) 4P
CNJ1	*1-561-670-00	(US,Canadian,E,AUS,EA) .....SOCKET, CONNECTOR 5P
CNJ1	*1-568-411-11	(AEP,IT).....SOCKET, CONNECTOR 6P
CNJ703	*1-561-670-00	(US,Canadian,E,AUS,EA) .....SOCKET, CONNECTOR 5P
CNJ703	*1-568-411-11	(AEP,IT).....SOCKET, CONNECTOR 6P
CT1-4 } CV1-4 }	1-151-615-11	(AEP,IT,E,EA)...CAP, VARIABLE
CT1-4 } CV1-4 }	1-151-624-11	(US,Canadian,AUS)...CAP, VARIABLE
D1	8-719-911-19	DIODE 1SS119
D2	8-719-911-19	DIODE 1SS119
D301	1-807-739-01	DIODE 1N4002A
D302	8-719-911-19	DIODE 1SS119
D303	8-719-911-19	DIODE 1SS119
D307	8-719-812-41	LED TLR124
D313	8-719-911-19	DIODE 1SS119
D314	8-719-911-19	DIODE 1SS119

Ref.No.	Part No.	Description
FL1	1-236-022-11	FILTER, BAND PASS
HE301	1-543-572-11	HEAD, MAGNETIC (ERASE)
HRP301	1-543-319-11	HEAD, MAGNETIC (REC/PB)
IC1	8-752-035-68	IC CXA1238S
IC301	8-759-978-54	IC BA3420AL
IC302	8-759-972-19	IC BA5410
J301	1-566-891-11	JACK (PHONES)
J302	1-507-954-11	JACK, EXTERNAL POWER (DC IN 9V)
M301	1-541-624-11	MOTOR, DC
MIC	1-542-064-31	MICROPHONE, ELECTRET CONDENSER
L1	1-422-317-31	COIL, VHF
L2	*1-422-230-11	(US,Canadian,E,AUS)...COIL, VHF
L2	1-459-815-11	(AEP,IT,EA)...COIL (WITH CORE)
L3	1-402-428-11	(AEP,IT,E,EA) ...ANTENNA, FERRITE-ROD (MW)
L3	1-402-429-11	(US,Canadian,AUS) ...ANTENNA, FERRITE-ROD (MW)
L4	1-406-040-00	COIL (OSC)
Q1	8-729-900-80	TRANSISTOR DTC114ES
Q301	8-729-801-93	TRANSISTOR 2SD1387
Q302	8-729-281-53	TRANSISTOR 2SC1815GR
Q303	8-729-173-38	TRANSISTOR 2SA733-K
Q304	8-729-281-53	TRANSISTOR 2SC1815GR
Q310	8-729-900-61	TRANSISTOR DTA114ES
R1	1-249-441-11	CARBON 100K 5% 1/4W
R2	1-249-421-11	CARBON 2.2K 5% 1/4W
R3	1-249-415-11	CARBON 680 5% 1/4W
R4	1-249-405-11	CARBON 100 5% 1/4W
R5	1-249-427-11	CARBON 6.8K 5% 1/4W
R6	1-249-427-11	CARBON 6.8K 5% 1/4W
R7	1-247-887-00	CARBON 220K 5% 1/4W
R8	1-249-421-11	CARBON 2.2K 5% 1/4W
R9	1-247-887-00	CARBON 220K 5% 1/4W
R10	1-249-429-11	CARBON 10K 5% 1/4W
R11	1-249-435-11	CARBON 33K 5% 1/4W
R12	1-249-411-11	CARBON 330 5% 1/4W
R13	1-249-398-11	CARBON 27 5% 1/4W
R14	1-249-429-11	CARBON 10K 5% 1/4W
R15	1-249-429-11	CARBON 10K 5% 1/4W
R16	1-249-429-11	CARBON 10K 5% 1/4W
R17	1-249-411-11	CARBON 330 5% 1/4W
R18	1-249-433-11	(AEP,IT)...CARBON 22K 5% 1/4W

Ref.No.	Part No.	Description			
R19	1-249-405-11	CARBON	100	5%	1/4W
R101	1-247-895-00	CARBON	470K	5%	1/4W
R102	1-249-429-11	CARBON	10K	5%	1/4W
R103	1-249-419-11	CARBON	1.5K	5%	1/4W
R104	1-249-401-11	CARBON	47	5%	1/4W
R105	1-247-850-11	CARBON	6.2K	5%	1/4W
R106	1-249-409-11	CARBON	220	5%	1/4W
R107	1-249-437-11	CARBON	47K	5%	1/4W
R109	1-249-428-11	CARBON	8.2K	5%	1/4W
R110	1-249-441-11	CARBON	100K	5%	1/4W
R111	1-249-429-11	CARBON	10K	5%	1/4W
R112	1-249-432-11	CARBON	18K	5%	1/4W
R113	1-249-406-11	CARBON	120	5%	1/4W
R114	1-249-405-11	CARBON	100	5%	1/4W
R201	1-247-895-00	CARBON	470K	5%	1/4W
R202	1-249-429-11	CARBON	10K	5%	1/4W
R203	1-249-419-11	CARBON	1.5K	5%	1/4W
R204	1-249-401-11	CARBON	47	5%	1/4W
R205	1-247-850-11	CARBON	6.2K	5%	1/4W
R206	1-249-409-11	CARBON	220	5%	1/4W
R207	1-249-437-11	CARBON	47K	5%	1/4W
R209	1-249-428-11	CARBON	8.2K	5%	1/4W
R210	1-249-441-11	CARBON	100K	5%	1/4W
R211	1-249-429-11	CARBON	10K	5%	1/4W
R212	1-249-432-11	CARBON	18K	5%	1/4W
R213	1-249-406-11	CARBON	120	5%	1/4W
R214	1-249-405-11	CARBON	100	5%	1/4W
R301	1-249-417-11	CARBON	1K	5%	1/4W
R302	1-249-424-11	CARBON	3.9K	5%	1/4W
R303	1-249-421-11	CARBON	2.2K	5%	1/4W
R304	1-247-895-00	CARBON	470K	5%	1/4W
R306	1-249-407-11	CARBON	150	5%	1/4W
R307	1-249-432-11	CARBON	18K	5%	1/4W
R308	1-249-425-11	CARBON	4.7K	5%	1/4W
R309	1-249-417-11	CARBON	1K	5%	1/4W
R310	1-249-441-11	CARBON	100K	5%	1/4W
R311	1-249-405-11	CARBON	100	5%	1/4W
R313	1-249-421-11	CARBON	2.2K	5%	1/4W
R314	1-249-421-11	CARBON	2.2K	5%	1/4W
R315	1-247-804-11	CARBON	75	5%	1/4W
R316	1-249-437-11	CARBON	47K	5%	1/4W
R317	1-249-434-11	CARBON	27K	5%	1/4W
R319	1-247-776-00	CARBON	5.1	5%	1/4W
R328	1-249-415-11	CARBON	680	5%	1/4W
R329	1-249-410-11	CARBON	270	5%	1/4W

Ref.No.	Part No.	Description
RV1	1-228-995-00	RES, ADJ, CARBON 22K
S301	1-571-950-11	SWITCH, SLIDE (REC/PB)
S302	1-571-964-11	SWITCH, LEVER SLIDE(FUNCTION)
S305	1-571-307-11	(AEP,IT)...SWITCH, SLIDE (ST/MONO)
S306	1-570-012-11	SWITCH, LEAF (PLAY)
S307	1-570-012-11	SWITCH, LEAF (FF/REW)
SP1	1-503-823-11	SPEAKER
SP2	1-503-823-11	SPEAKER
T1	1-404-341-00	TRANSFORMER, IF
T301	1-433-268-00	TRANSFORMER, BIAS OSCILLATOR
VR301	1-230-454-11	RES, VAR, CARBON 20K/20K (VOLUME)
VR302	1-237-567-11	RES, VAR, CARBON 20K/20K (TONE)

#### ACCESSORY & PACKING MATERIAL

△.1-463-705-21	(AEP,IT)....ADAPTOR, AC (AC-930A)
△.1-463-904-41	(E23).....ADAPTOR, AC (AC-930B)
△.1-463-904-51	(E12,EA)....ADAPTOR, AC (AC-930B)
△.1-463-968-11	(US).....ADAPTOR, AC (AC-940)
△.1-465-200-11	(Canadian)...ADAPTOR, AC (AC-940A)
△.1-506-401-00	(E23)...ADAPTOR, CONVERSION
3-340-754-01	SHEET, -PROTECTION
3-750-184-11	(AEP,E,EA)...MANUAL, INSTRUCTION (ENGLISH/FRENCH/GERMAN/PORTUGUESE)
3-750-184-21	(US,Canadian,AUS) ...MANUAL, INSTRUCTION(ENGLISH)
3-750-184-31	(Canadian)...MANUAL, INSTRUCTION(FRENCH)
3-750-184-41	(AEP,IT)....MANUAL, INSTRUCTION (GERMAN/DUTCH/SWEDISH/ITALIAN)
*3-352-253-01	CUSHION (LEFT) (RIGHT)
*3-352-255-01	(Canadian)...INDIVIDUAL CARTON
*3-352-256-01	(AUS)....INDIVIDUAL CARTON
*3-352-257-01	(E,EA).....INDIVIDUAL CARTON
*3-352-265-01	(US,AEP,IT)...INDIVIDUAL CARTON

#### Note:

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

#### Note:

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

**9-953-690-11**  
**(Including 9-953-690-91, -92)**

**Sony Corporation**  
**Audio Group**

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