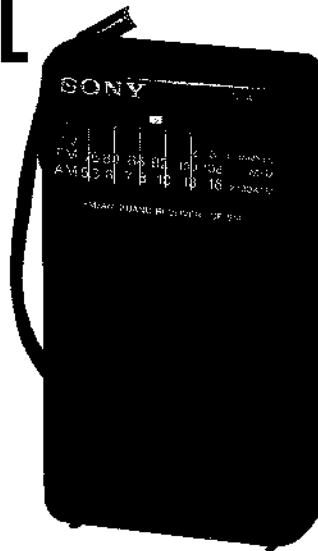


# ICF-S14

## SERVICE MANUAL

*AEP Model  
E Model*



### SPECIFICATIONS

Frequency range	FM: 87.6 - 108 MHz AM: 530 - 1,605 kHz
Antennas	FM: Telescopic antenna AM: Built-in ferrite bar antenna
Speaker	Approx. 5.7cm(2 1/4 inches) dia.
Power output	100 mW (at 10% harmonic distortion)
Power requirements	3V DC, two R6(size AA) batteries
Battery life	Approx. 30 hours of listening (for four hours a day at a normal volume), using Sony SUM-3(NS) batteries
Dimensions	Approx. 69 x 120 x 335 mm (w/h/d) (2 3/4 x 4 3/4 x 1 3/8 inches)
Weight	Approx. 210 g (7.4 oz.) incl. batteries

Design and specifications subject to change without notice.

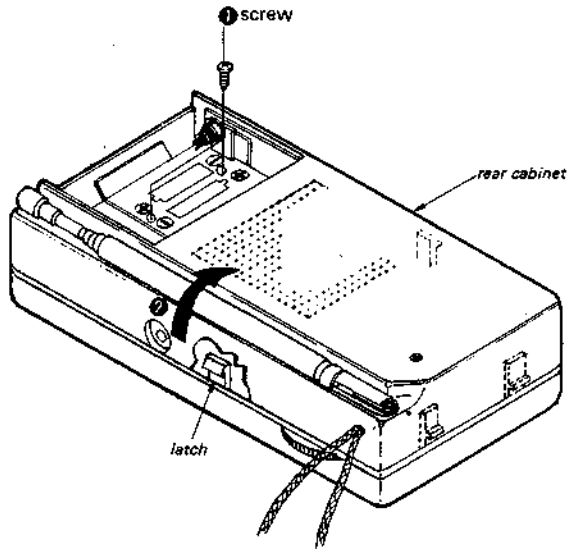


**FM/AM 2BAND RECEIVER**  
**SONY®**

## SECTION 1 DISASSEMBLY

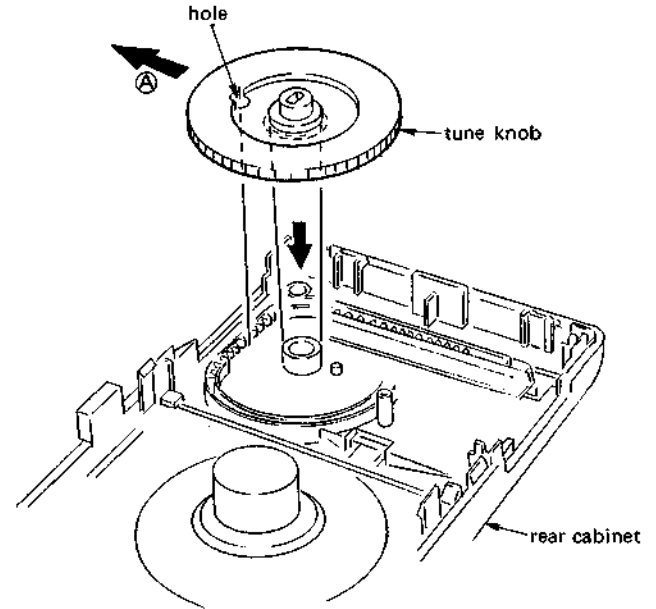
### 1-1. REAR CABINET REMOVAL

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



Release the latch by opening the rear cabinet in the direction of arrow ②.

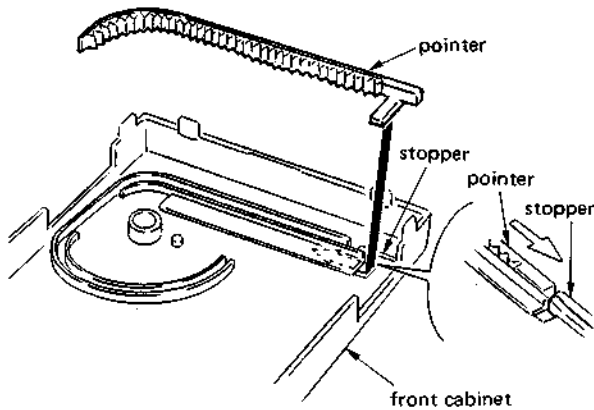
### 1-3. TUNE KNOB INSTALLATION



Set the hole of tune knob in the direction of arrow ④ and install it to rear cabinet.

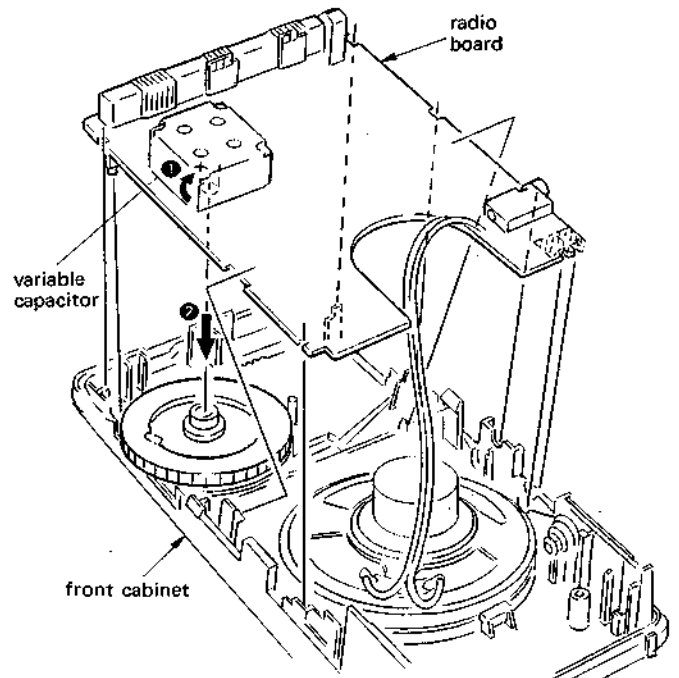
### 1-2. POINTER SETTING

Slide the pointer to reach the stopper.



### 14. RADIO BOARD INSTALLATION

- ① Turn the variable capacitor fully in the direction of arrow.
- ② Install radio board to the front cabinet.



## SECTION 2 ADJUSTMENTS

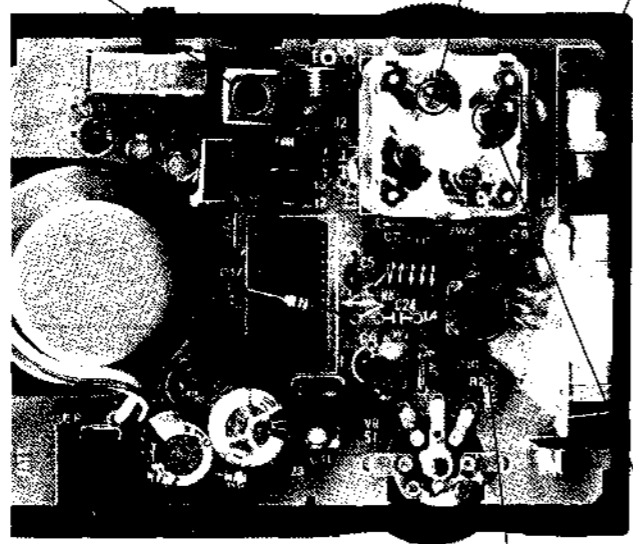
### 2-1. AM SECTION



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

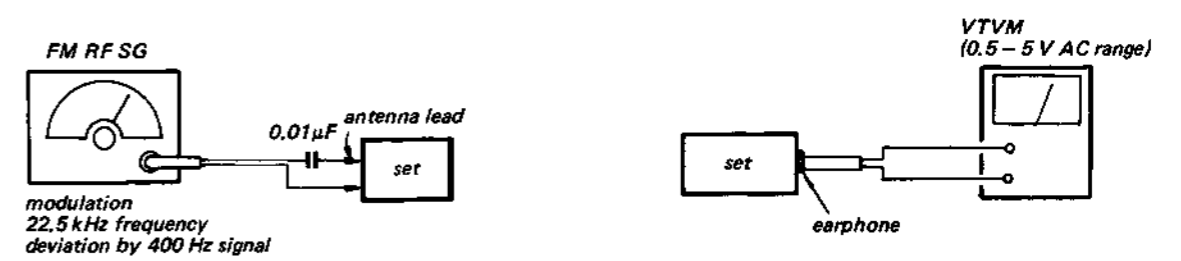
AM IF ALIGNMENT	
Adjust for a maximum reading on VTVM.	
455 kHz	
T1	

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
1,400 kHz	620 kHz
CT1	L2



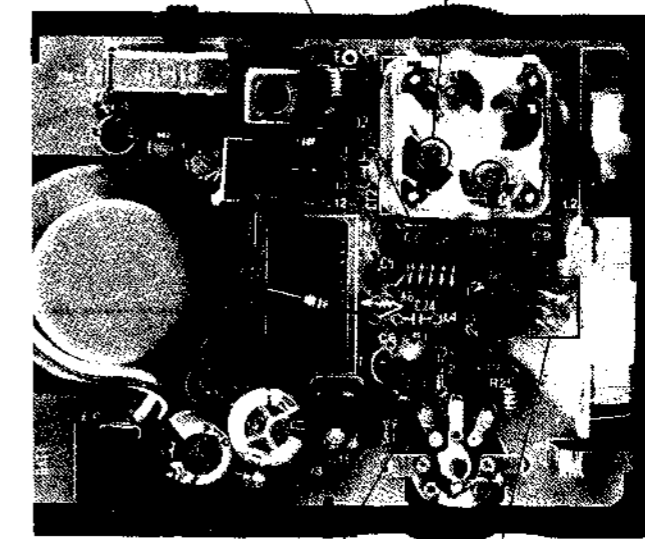
L4	CT3
520 kHz	1,650kHz
Adjust for a maximum reading on VTVM.	
<b>AM FREQUENCY COVERAGE ADJUSTMENT</b>	

### 2-2. FM SECTION



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

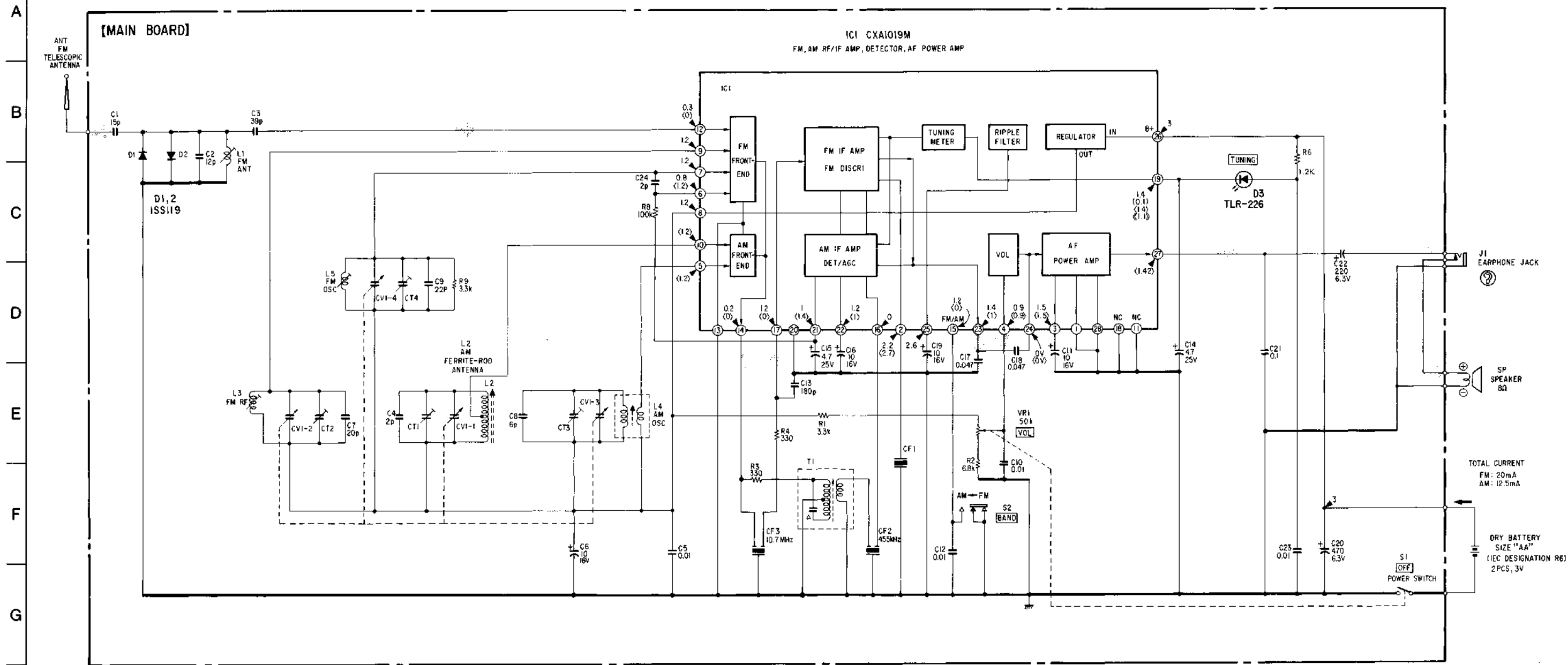
FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
86.5MHz	109.5MHz
L3	CT2



CT4	L5
109.5MHz	86.5MHz
Adjust for a maximum reading on VTVM.	
<b>FM FREQUENCY COVERAGE ADJUSTMENT</b>	

# SECTION 3 DIAGRAMS

## 3-1. SCHEMATIC DIAGRAM



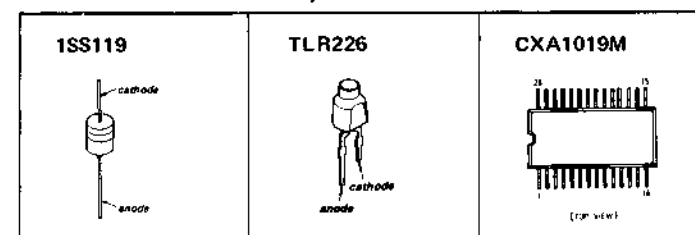
**Note:**

- 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  $1/4\text{W}$  or less unless otherwise specified.
- $\times$  : Signal paths.
- $\Delta$  : internal component.
- Voltages are dc with respect to ground unless otherwise noted.

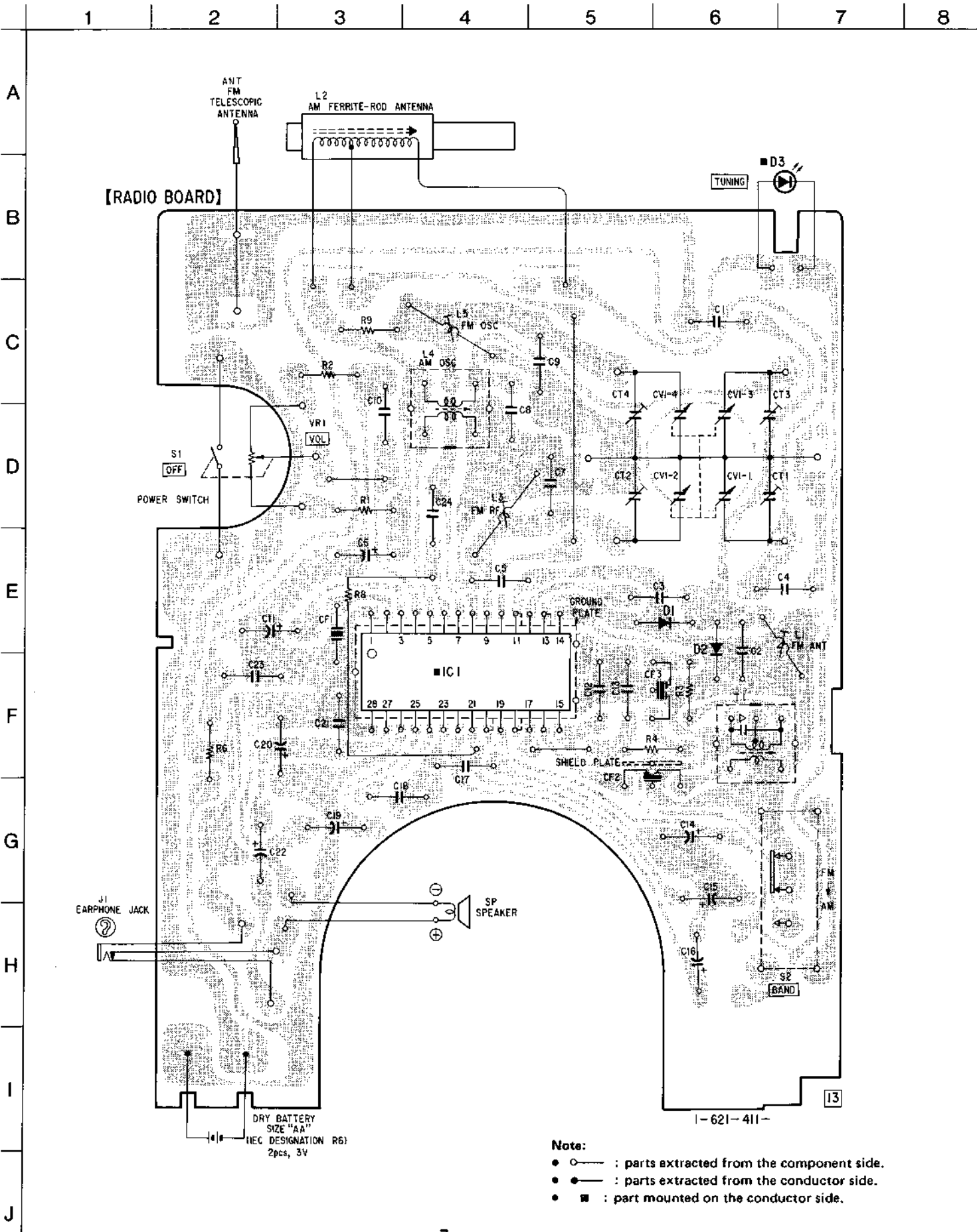
- Readings are taken under detuned conditions with a VOM (50  $\text{k}\Omega/\text{V}$ ).
- No mark: FM detuned
- ( ) : FM tuned
- <> : AM tuned
- < > : AM detuned
- Voltage variations may be noted due to normal production tolerances.
- Switches:

Ref. No.	Switch	Position
S1	POWER	OFF
S2	BAND	FM

• Semiconductor Lead Layouts



3-2. MOUNTING DIAGRAM



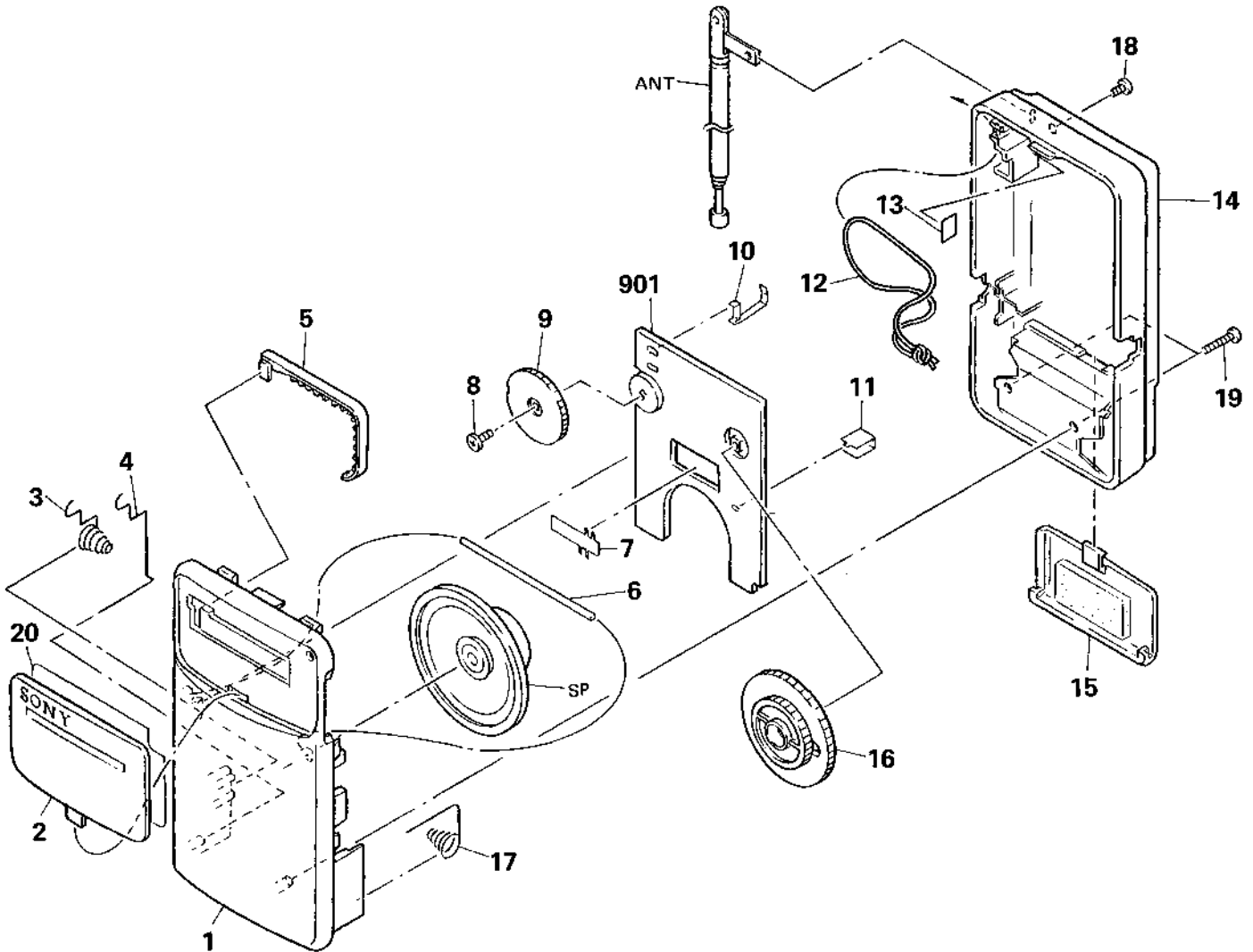
Note:

- ○ : parts extracted from the component side.
- : parts extracted from the conductor side.
- : part mounted on the conductor side.

## SECTION 4 EXPLODED VIEW

**NOTE:**

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



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	3-903-419-01	(BLK)....CABINET (FRONT)(BLK)		12	3-893-381-01	STRAP, HAND	
	3-903-419-11	(E:RED)....CABINET (FRONT)(RED)		13	3-831-441-XX	SHEET (1)	
2	3-903-413-21	(E:BLK)...SCALE, DIAL (BLK)		14	3-903-420-01	(BLK)....CABINET (REAR)(BLK)	
	3-903-413-31	(E:RED)...SCALE, DIAL (GRY)			3-903-420-11	(E:RED)...CABINET (REAR)(RED)	
	3-903-413-41	(AEP:BLK)...SCALE, DIAL (RED)		15	X-3893-321-1	(BLK)....LID ASSY, BATTERY CASE (BLK)	
3	3-903-415-01	TERMINAL, PLUS			X-3893-322-1	(E:RED)...LID ASSY, BATTERY CASE (RED)	
4	3-903-421-01	SPRING, MINUS		16	3-903-411-01	(BLK)....KNOB (TUNING) (BLK)	
5	3-903-412-01	POINTER			3-903-411-11	(E:RED)...KNOB (TUNING) (RED)	
6	*3-903-416-01	SPRING, SPEAKER RETAINER		17	3-903-414-01	TERMINAL, MIDWAY	
7	3-892-935-11	PLATE, GROUND		18	7-621-772-08	SCREW +B 2X3	
8	3-714-118-01	SCREW (1.7X4)		19	7-685-134-19	SCREW +8TP 2.6X8 TYPE2 N-S	
9	3-893-375-01	(BLK)....KNOB, VOL (BLK)		20	3-903-417-01	SHEET, ADHESIVE	
	3-893-375-31	(E:RED)...KNOB, VOL (RED)		901	*A-3660-885-A	MOUNTED PCB, RADIO	
10	*3-893-369-01	TERMINAL, ANT		ANT	1-501-247-21	ANTENNA, TELESCOPIC	
11	*3-893-382-01	PLATE (SFU), SHIELD		SP	1-503-616-11	SPEAKER	

## SECTION 5 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:  $\mu$ 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...

Ref.No.	Part No.	Description				
901	*A-3660-885-A	MOUNTED PCB, RADIO				
ANT	1-501-247-21	ANTENNA, TELESCOPIC				
C1	1-102-951-00	CERAMIC	15PF	5%	50V	
C2	1-102-949-00	CERAMIC	12PF	5%	50V	
C3	1-102-965-00	CERAMIC	39PF	5%	50V	
C4	1-102-935-00	CERAMIC	2PF	0.25PF	50V	
C5	1-161-051-00	CERAMIC	0.01MF	10%	25V	
C6	1-126-157-11	ELECT	10MF	20%	16V	
C7	1-102-958-00	CERAMIC	20PF	5%	50V	
C8	1-101-998-91	CERAMIC	6PF	0.5PF	50V	
C9	1-102-959-00	CERAMIC	22PF	5%	50V	
C10	1-161-051-00	CERAMIC	0.01MF	10%	25V	
C11	1-126-157-11	ELECT	10MF	20%	16V	
C12	1-161-051-00	CERAMIC	0.01MF	10%	25V	
C13	1-102-976-00	CERAMIC	180PF	5%	50V	
C14	1-126-094-11	ELECT	4.7MF	20%	25V	
C15	1-126-094-11	ELECT	4.7MF	20%	25V	
C16	1-126-157-11	ELECT	10MF	20%	16V	
C17	1-101-006-00	CERAMIC	0.047MF		50V	
C18	1-161-021-11	CERAMIC	0.047MF	10%	25V	
C19	1-126-157-11	ELECT	10MF	20%	16V	
C20	1-124-472-11	ELECT	470MF	20%	6.3V	
C21	1-162-851-11	CERAMIC	0.1MF	20%	16V	
C22	1-126-335-11	ELECT	220MF	20%	6.3V	
C23	1-161-051-00	CERAMIC	0.01MF	10%	25V	
C24	1-102-935-00	CERAMIC	2PF	0.25PF	50V	
CF1	1-567-389-11	FILTER, CERAMIC				
CF2	1-527-870-00	FILTER				
CF3	1-567-389-11	FILTER, CERAMIC				
CT1-4 } CV1 }	1-151-565-11	CAP, VARIABLE (FM/AM)				
D1	8-719-911-19	DIODE 1SS119				
D2	8-719-911-19	DIODE 1SS119				
D3	8-719-812-26	DIODE TLR226				
IC1	8-752-030-15	IC CXAT019M				
J1	1-507-952-11	JACK				

Ref.No.	Part No.	Description				
L1	*1-422-326-11	COIL, AIR-CORE (FM ANT)				
L2	1-402-257-11	ANTENNA, FERRITE-ROD (MW)				
L3	*1-422-320-11	COIL, AIR-CORE				
L4	1-406-028-00	COIL, OSC (MW)				
L5	*1-422-341-11	COIL, AIR-CORE				
R1	1-249-423-11	CARBON	3.3K	5%	1/4W	
R2	1-249-427-11	CARBON	6.8K	5%	1/4W	
R3	1-249-411-11	CARBON	330	5%	1/4W	
R4	1-249-411-11	CARBON	330	5%	1/4W	
R6	1-249-418-11	CARBON	1.2K	5%	1/4W	
R8	1-249-441-11	CARBON	100K	5%	1/4W	
R9	1-249-423-11	CARBON	3.3K	5%	1/4W	
S2	1-552-370-00	SWITCH, SLIDE				
SP1	1-503-616-11	SPEAKER				
S1 } VR1 }	1-237-594-11	RES, VAR, CARBON (WITH S) 50K				
T1	1-404-919-11	TRANSFORMER, IF				

**ACCESSORY & PACKING MATERIAL**

3-751-626-11	MANUAL, INSTRUCTION
3-898-651-01	SPACER
3-903-406-01	INDIVIDUAL CARTON