

ICF-25

SERVICE MANUAL

Canadian Model
AEP Model
E Model
AUS Model




SPECIFICATIONS

Frequency range	FM: 87.6–107 MHz (for European countries) 87.6–108 MHz (for other countries) MW: 530–1,605 kHz (566–187 m) SW: 5.95–18 MHz (50.4–16.7 m)
Antennas	FM/SW: Telescopic antenna MW: Built-in ferrite bar antenna
Speaker	Approx. 7.7 cm (3 inches) dia.
Power output	200 mW (at 10 % harmonic distortion)
Output	Earphone jack (minijack)
Power requirements	4.5 V dc, three batteries, IEC designation R6 (size AA) DC IN 4.5 V jack accepts:
Battery life	Approx. 35 hours with Sony SUM-3(NS) New Super batteries
Dimensions	Approx. 194 x 92 x 34 mm (w/h/d) (7 ³ / ₄ x 3 ⁵ / ₈ x 1 ³ / ₈ inches), including projecting parts and controls with the carrying handle pushed in
Weight	Approx. 460 g (1 lb 1 oz), including batteries


FEATURES

- High selectivity and high sensitivity with one chip IC (Integrated Circuit).
- Fine tuning knob for easier tuning in SW reception.
- Two different power sources: batteries and house current.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND 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!

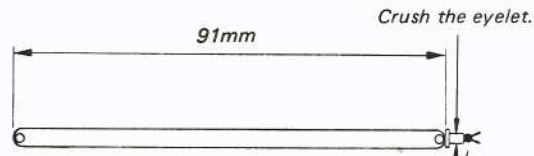
LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.



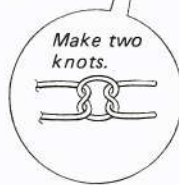
FM/MW/SW
3BAND RECEIVER
SONY[®]

SECTION 1 DIAL CORD STRINGING

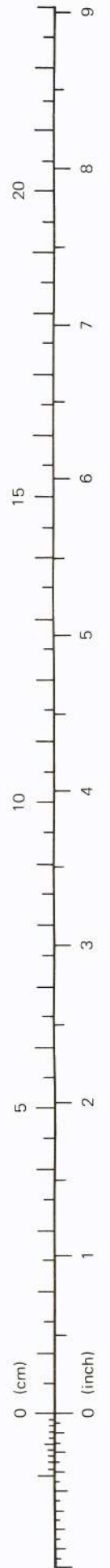
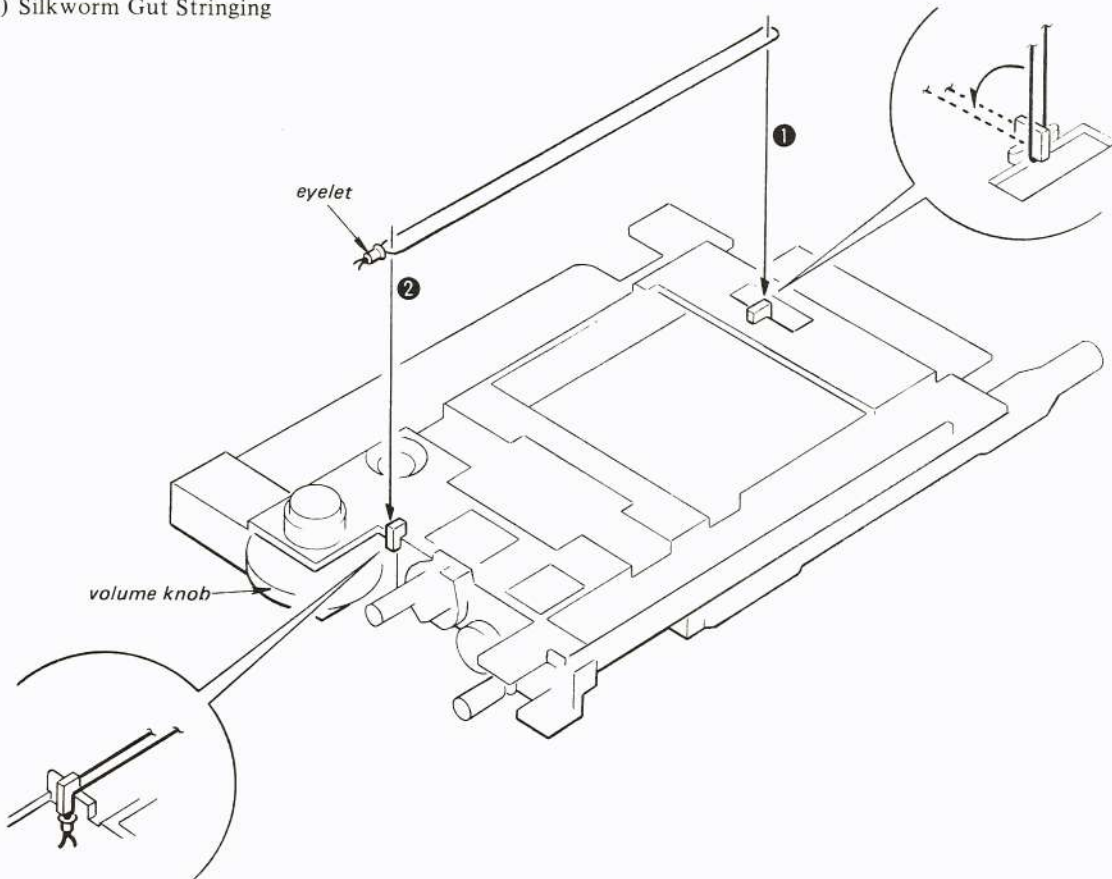
1) Silkworm Gut Preparation



Note: Silkworm gut is not supplied as replacement part.
Substitute a string for fishing line.

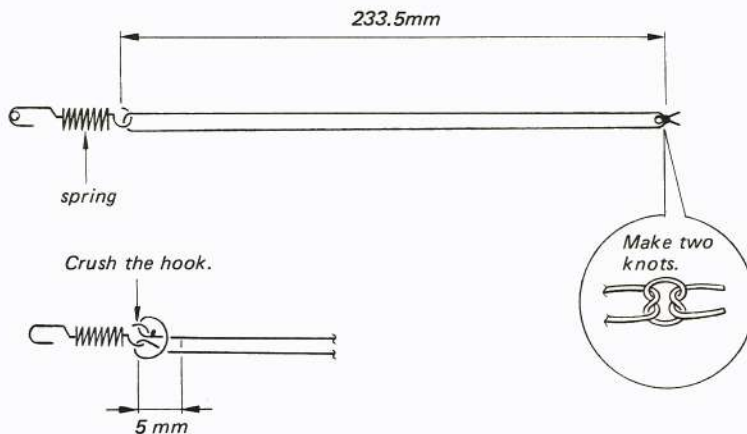


2) Silkworm Gut Stringing

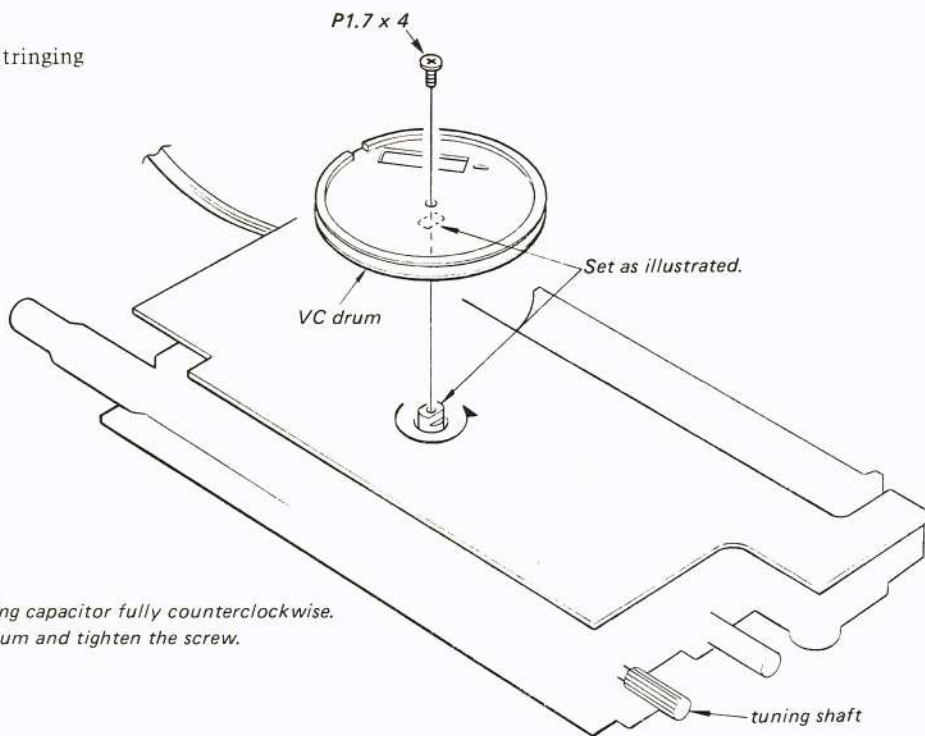




3) Dial Cord Preparation

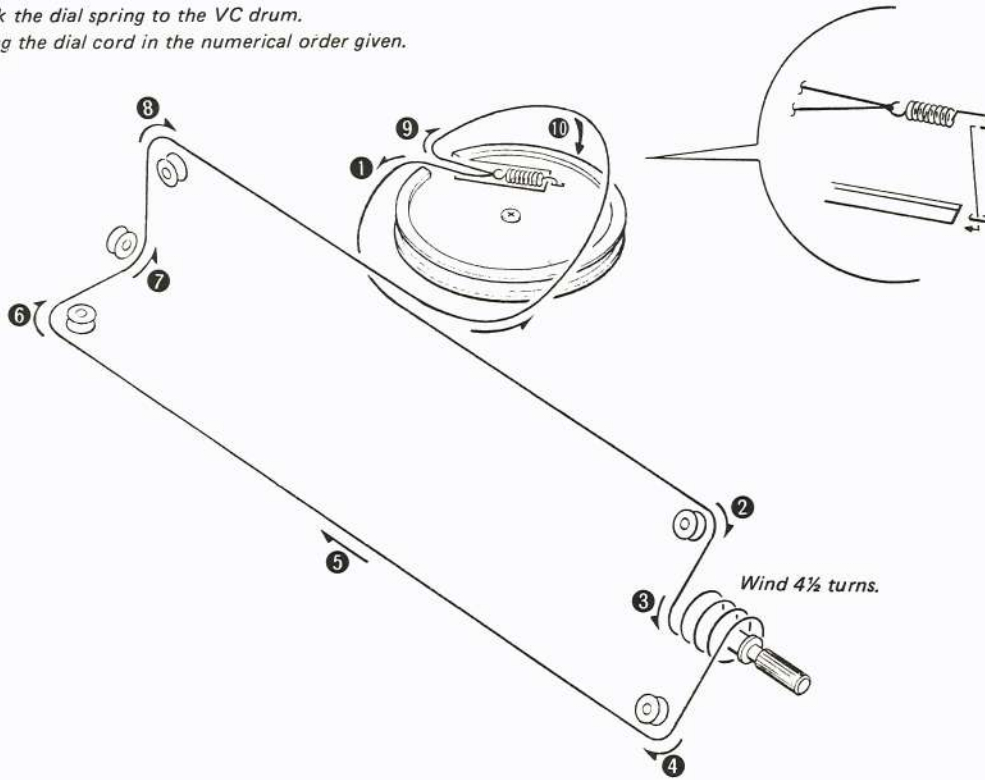


4) Dial Cord Stringing



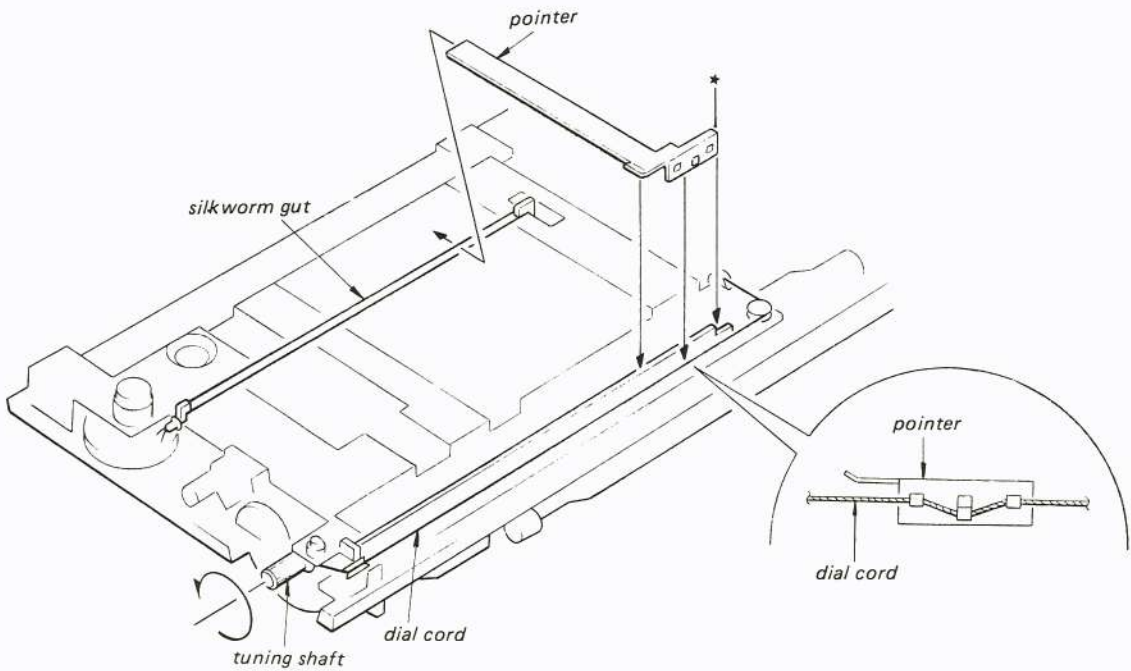
1. Turn the tuning capacitor fully counterclockwise.
2. Set the VC drum and tighten the screw.

3. Hook the dial spring to the VC drum.
4. String the dial cord in the numerical order given.



5) Pointer Installation

1. Turn the tuning shaft fully counterclockwise.
2. Install the pointer to the dial cord after setting side * of the pointer to end of the chassis each other.

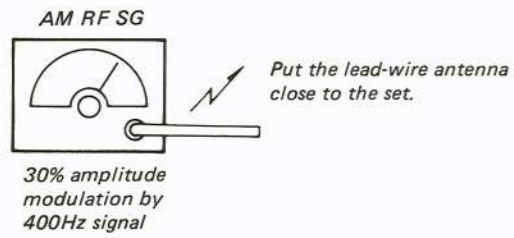


SECTION 2
ADJUSTMENTS

2-1. AM SECTION

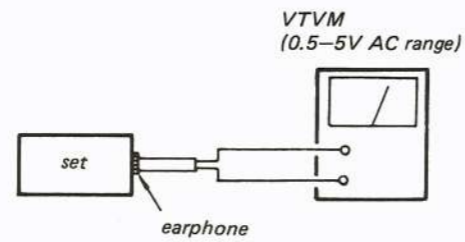
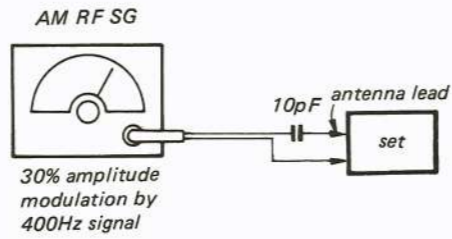
— MW —

- Perform the adjustment in the order of MW.



— SW —

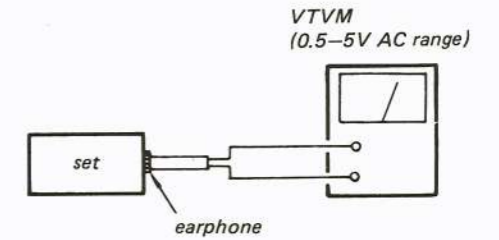
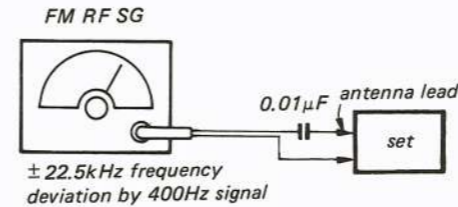
- SW FINE: center



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

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 FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
86.5MHz (87.35MHz)	109.5MHz (108 MHz)
L5	CT4 (): AEP model

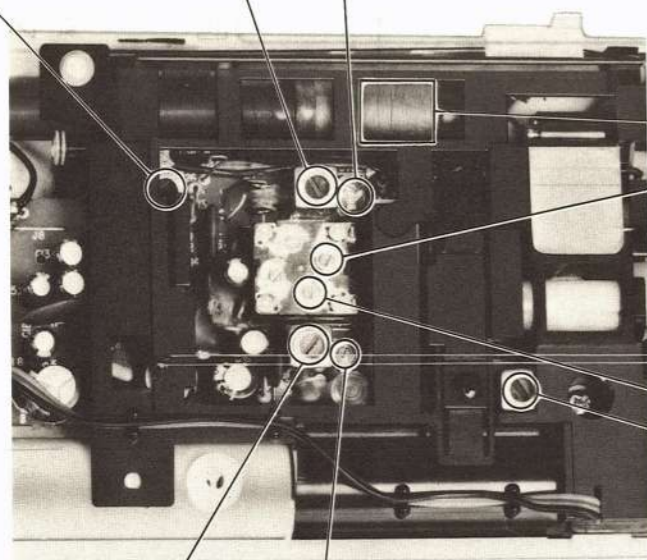
FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
86.5MHz (87.35MHz)	109.5MHz (108MHz)
L4	CT3 (): AEP model

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

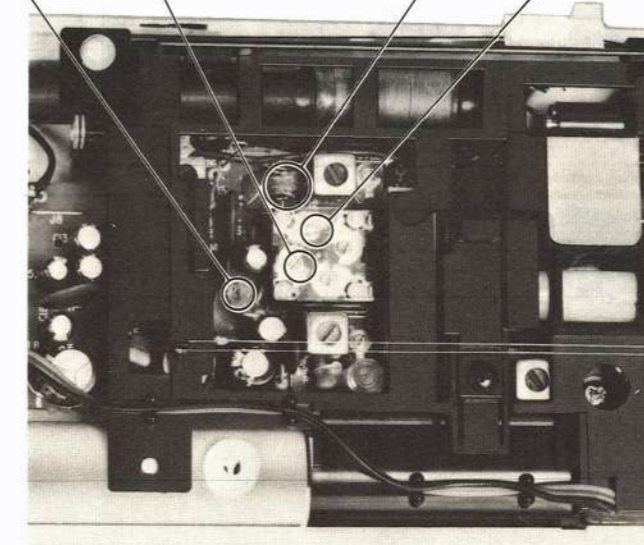
SW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
5.8MHz	18.5MHz
L3	CT2

MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L2	620kHz
CT1	1400kHz

MW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
CT5	1680kHz
L6	520kHz



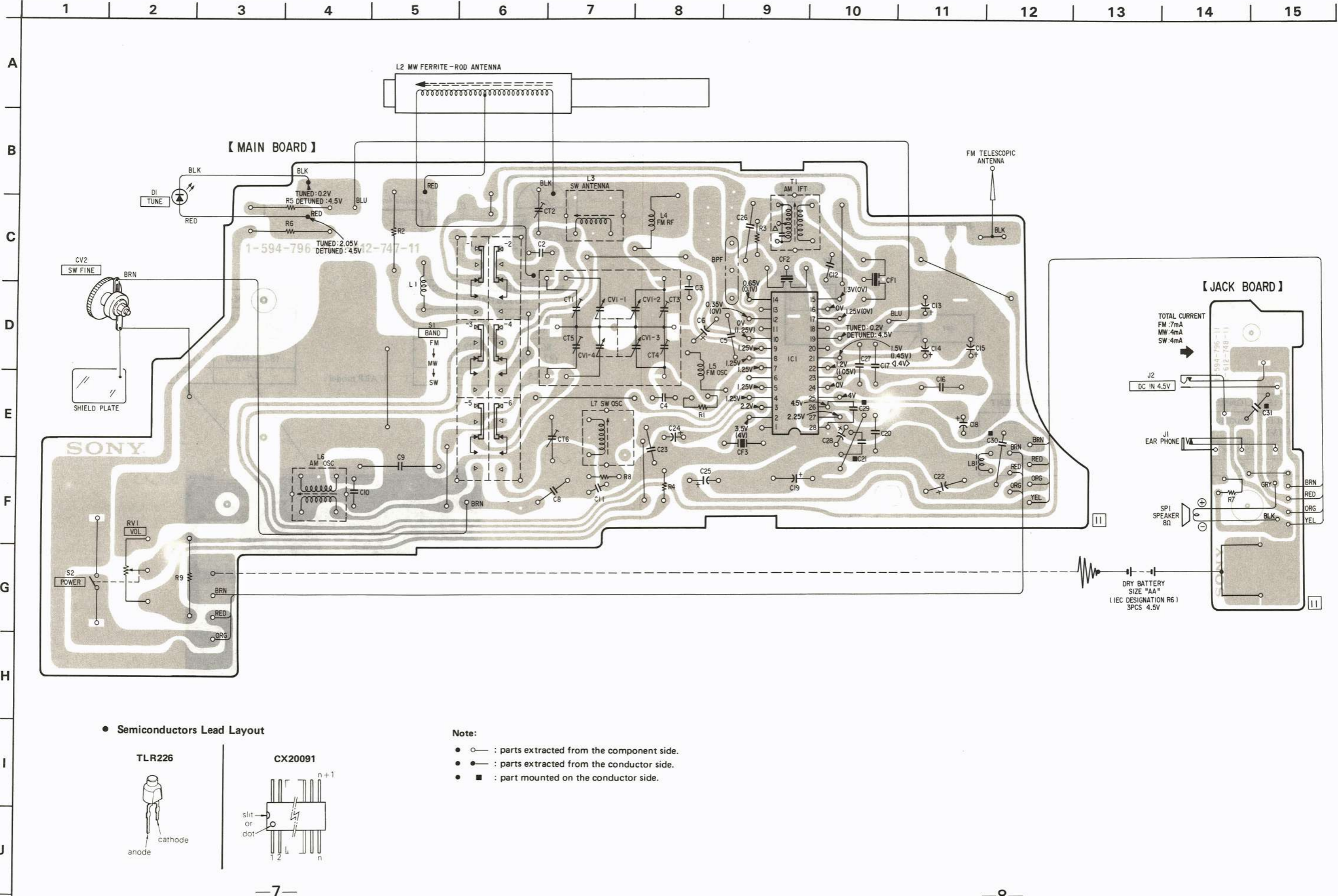
SW FREQUENCY COVERAGE ADJUSTMENT	
L7	CT6
5.8MHz	18.5MHz
Adjust for a maximum reading on VTVM.	



SECTION 3
DIAGRAMS

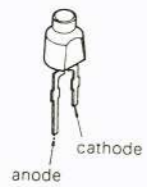
ICF-25 ICF-25

3-1. MOUNTING DIAGRAM

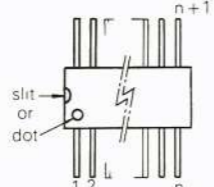


● Semiconductors Lead Layout

TLR226



CX20091

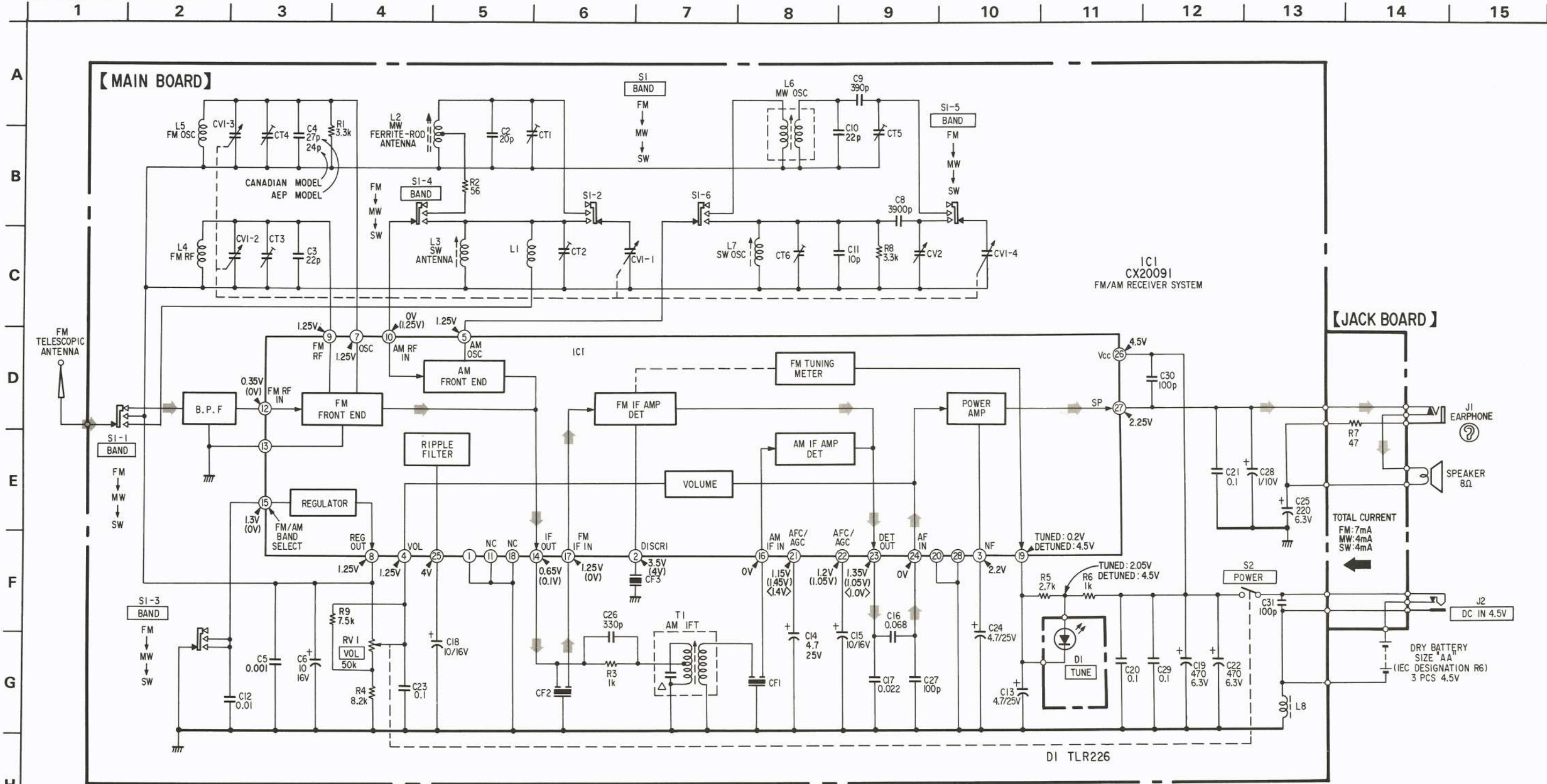


Note:

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

ICF-25 ICF-25

3-2. SCHEMATIC DIAGRAM



Note:

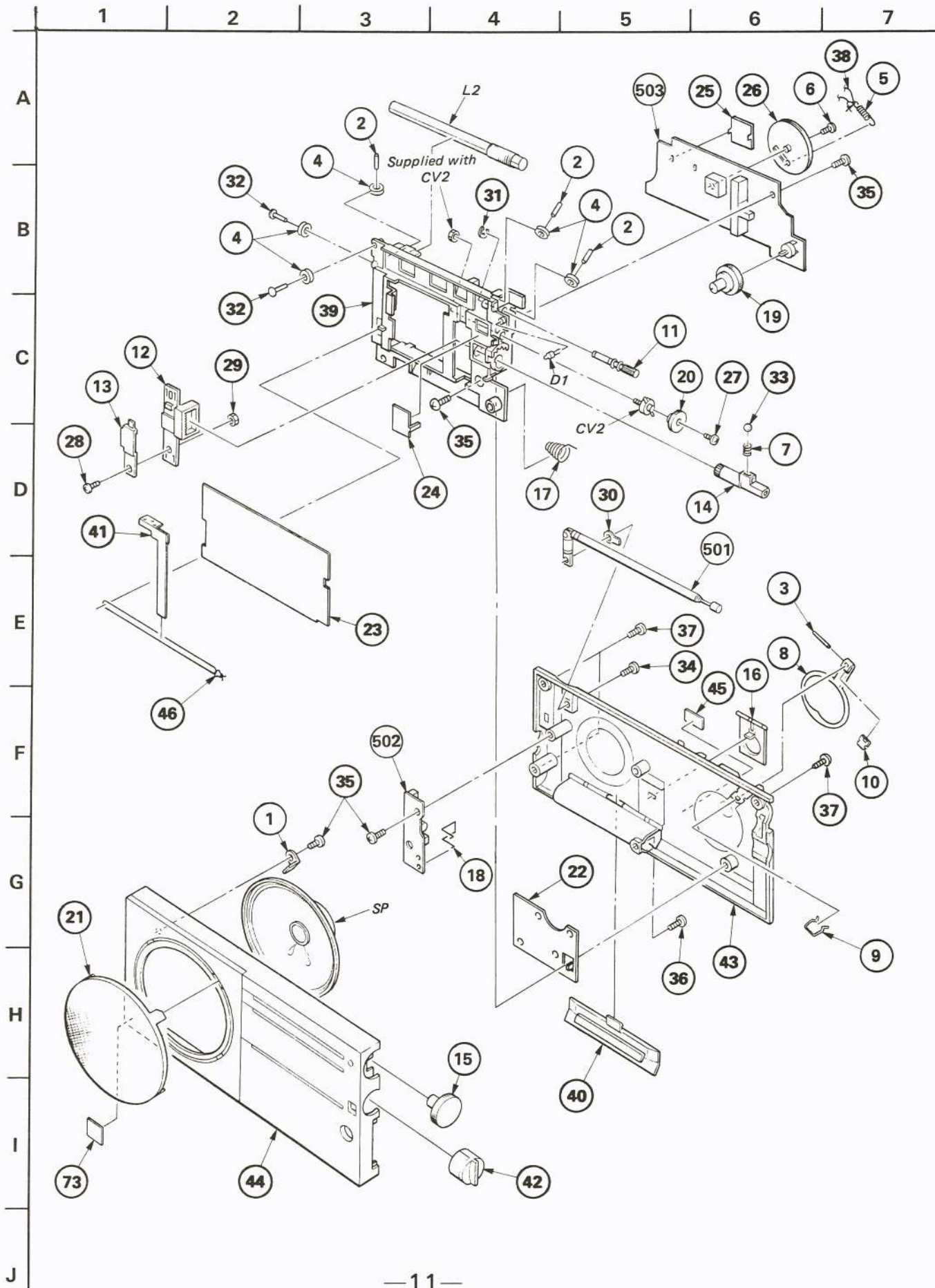
- All capacitors are in μF unless otherwise noted. pF : μpF
50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, $\frac{1}{4}\text{W}$ unless otherwise noted.
k Ω : 1000 Ω , M Ω : 1000 k Ω
- Δ : internal component.

- Voltages are dc with respect to ground unless otherwise noted.
 - Readings are taken under no-signal conditions with a VOM.
- No mark : FM
() : MW
< > : SW

- Voltage variations may be noted due to normal production tolerances.
- \Rightarrow : Signal Path

Note: Voltages are measured with a VOM (50k Ω /V).

SECTION 4
EXPLODED VIEW AND PARTS LIST



GENERAL SECTION		
No.	Part No.	Description
1	3-593-019-00	CLAW, SPEAKER
2	3-703-358-01	PIN, PARALLEL (DIA. 2X5)
3	3-703-358-08	PIN, PARALLEL (DIA. 2X20)
4	3-881-911-00	PULLEY
5	3-881-923-00	SPRING
6	7-627-552-47	SCREW (1.7X4)
7	3-890-231-00	SPRING, COMPRESSION
8	3-892-803-01	HANDLE
9	3-892-804-01	SPRING
10	3-892-805-01	STOPPER, HANDLE
11	3-892-806-01	SHAFT, TUNING
12	3-892-807-01	SLIDER
13	*3-892-808-01	ADJUSTOR
14	*3-892-809-01	SELECTOR, BAND
15	3-892-814-01	(SILVER)... KNOB, TUNING
15	3-892-814-21	(VIOLET)... KNOB, TUNING
16	3-892-817-01	STAND
17	3-892-818-01	SPRING
18	3-892-819-01	TERMINAL, BATTERY
19	3-892-820-01	KNOB, CONTROL
20	3-892-821-01	KNOB, F.T
21	3-893-102-01	(SILVER)...GRILLE, SPEAKER
21	3-893-102-11	(VIOLET)...GRILLE, SPEAKER
22	*3-893-106-01	PLATE (A), SHILD
23	*3-893-104-01	PLATE, BACK, DIAL
24	*3-893-105-01	PLATE (C), SHIELD
25	*3-893-107-01	PLATE (B), SHIELD
26	3-893-108-01	DRUM, VC
27	7-621-772-00	SCREW +P 2X4
28	7-621-775-40	SCREW +B 2.6X8
29	7-622-207-05	N 2.6, TYPE 2
30	7-623-508-01	LUG, 3
31	7-624-106-04	STOP RING 3.0, TYPE -E
32	7-625-712-40	RIVET 2X5
33	7-671-156-01	BALL, STAINLESS
34	7-682-548-04	SCREW +B 3X8
35	7-685-147-19	SCREW +BTP 3X10 TYPE2 N-S
36	7-685-547-14	SCREW +BTP 3X10 TYPE2 N-S
37	7-685-549-14	SCREW +BTP 3X14 TYPE2 N-S
38	9-911-825-32	STRING, TETRON DIAL (0.3)
39	3-893-109-01	CHASSIS
40	X-3892-809-1	BATTERY LID ASSY
41	X-3892-810-1	POINTER ASSY

GENERAL SECTION		
No.	Part No.	Description
42	X-3893-102-1	(SILVER)...KNOB, BAND ASSY
42	X-3893-103-1	(VIOLET)...KNOB, BAND ASSY
43	X-3893-114-1	CABINET ASSY, REAR
44	X-3893-101-1	(AEP;SILVER)...CABINET ASSY, MAIN
44	X-3893-104-1	(AEP;VIOLET)...CABINET ASSY, MAIN
44	X-3893-105-1	(E;SILVER).....CABINET ASSY, MAIN
44	X-3893-106-1	(E,AUS;VIOLET)...CABINET ASSY, MAIN
44	X-3893-107-1	(Canadian;SILVER)...CABINET ASSY, MAIN
44	X-3893-108-1	(Canadian;VIOLET)...CABINET ASSY, MAIN
45	*3-703-593-01	(AEP)...LABEL, FTZ
46	*7-623-605-01	EYELET 1.3X2.5

ACCESSORY & PACKING MATERIAL		
No.	Part No.	Description
71	A.1-463-331-11	(Canadian)...ADAPTOR, AC
71	A.1-463-534-11	(AEP).....ADAPTOR, AC
72	3-701-316-00	(VIOLET)...LABEL, COLOR
72	3-703-729-00	(SILVER)...LABEL, COLOR
73	3-703-710-01	STICKER, SONY SYMBOL (12)
74	3-893-113-01	CUSHION
75	3-893-114-01	(AEP,Canadian)...INDIVIDUAL CARTON (WITH AC ADAPTOR)
75	3-893-115-01	(AEP,E,AUS).....INDIVIDUAL CARTON
76	3-893-124-01	CASE, ADAPTOR
77	3-985-622-61	MAT, MIRROR
78	3-995-995-11	(AEP,Canadian,E,AUS)...MANUAL, INSTRUCTION
78	3-995-995-41	(AEP).....MANUAL, INSTRUCTION
79	3-985-622-41	SHEET, PROTECTION (FOR AC ADAPTOR)
80	3-893-123-01	(Canadian)...SLEEVE AC-120 (FOR AC ADAPTOR)
80	3-893-124-01	(AEP).....SLEEVE AC-450 (FOR AC ADAPTOR)

NOTE:
 • The mechanical parts with no reference number in the exploded views are not supplied.
 • 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:
 • All capacitors are in μF . Common capacitors are omitted. Refer to the following lists for their part numbers.
 MF: μF , PF: μPF .

COILS
 • MMH : mH, UH : μH

SEMICONDUCTORS
 In each case, U : μ , for example:
 UA...: μA ..., UPA...: μPA ..., UPC...: μPC ,
 UPD...: μPD ...

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

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

ELECTRICAL PARTS

Ref.No.	Part No.	Description
501	1-501-222-21	ANTENNA, TELESCOPIC
502	*1-612-748-11	PC BOARD, JACK
503	*A-3660-502-A	PC BOARD ASSY, MAIN
BPF	1-235-171-00	FILTER, BAND PASS
C2	1-102-958-00	CERAMIC 20PF 5% 50V
C3	1-102-959-00	CERAMIC 22PF 10% 50V
C4	1-102-672-00	(Canadian)...CERAMIC 24PF
C4	1-102-883-00	(AEP)...CERAMIC 27PF 5% 50V
C5	1-102-074-00	CERAMIC 0.001MF 10% 50V
C6	1-123-356-00	ELECT 10MF 20% 16V
C8	1-103-739-00	POLYSTYRENE 0.0039MF 5% 50V
C9	1-103-715-00	POLYSTYRENE 390PF 5% 50V
C10	1-102-967-00	CERAMIC 22PF 5% 50V
C11	1-102-285-00	CERAMIC 10PF 0.5PF 50V
C12	1-161-013-00	CERAMIC 0.01MF 10% 25V
C13	1-123-369-00	ELECT 4.7MF 20% 25V
C14	1-123-369-00	ELECT 4.7MF 20% 25V
C15	1-123-356-00	ELECT 10MF 20% 16V
C16	1-161-023-00	CERAMIC 0.068MF 10% 25V
C17	1-161-055-00	CERAMIC 0.022MF 10% 25V
C18	1-123-356-00	ELECT 10MF 20% 16V
C19	1-123-298-00	ELECT 470MF 20% 6.3V
C20	1-161-974-00	CERAMIC 0.1MF 0 16V
C21	1-161-974-00	CERAMIC 0.1MF 0 16V
C22	1-123-298-00	ELECT 470MF 20% 6.3V
C23	1-161-974-00	CERAMIC 0.1MF 0 16V
C24	1-123-369-00	ELECT 4.7MF 20% 25V
C25	1-123-308-00	ELECT 220MF 20% 6.3V
C26	1-102-112-00	CERAMIC 330PF 10% 50V
C27	1-102-973-00	CERAMIC 100PF 5% 50V
C28	1-131-418-00	ELECT(SOLID) 1MF 20% 10V
C29	1-161-974-00	CERAMIC 0.1MF 0 16V
C30	1-102-975-00	CERAMIC 100PF 10% 50V
C31	1-102-975-00	CERAMIC 100PF 10% 50V
CF1	1-527-870-00	FILTER
CF2	1-567-051-61	FILTER, CERAMIC (FM)
CF3	1-567-051-61	FILTER, CERAMIC (FM)
CT2	1-141-257-00	CAP, TRIMMER
CT6	1-141-232-00	CAP, TRIMMER 11PF
CV2	1-141-295-11	CAP, TRIMMER (FINE TUNING)
D1	8-719-812-26	DIODE TLR226
IC1	8-752-009-10	IC CX20091

ELECTRICAL PARTS

Ref.No.	Part No.	Description
J1	1-507-398-00	EARPHONE JACK
J2	1-507-459-00	JACK
L1	*1-401-495-11	LOADING ANTENNA COIL
L2	1-402-106-11	ANTENNA, FERRITE-ROD (MW)
L3	1-402-073-11	COIL, ANT (SW)
L4	*1-422-149-00	(AEP)...COIL, AIR-CORE
L4	*1-422-184-11	(Canadian)...COIL, AIR-CORE
L5	1-422-121-00	(AEP)...COIL, FM OSCILLATION
L5	1-422-131-00	(Canadian)...COIL, FM OSCILLATION
L6	1-406-092-11	COIL, OSC (MW)
L7	1-406-093-11	COIL, OSC (SW)
L8	1-421-659-11	COIL, CHOKE 20UH
R1	1-247-143-00	CARBON 3.3K 5% 1/4W
R2	1-247-101-00	CARBON 56 5% 1/4W
R3	1-246-473-00	CARBON 1K 5% 1/4W
R4	1-247-153-00	CARBON 8.2K 5% 1/4W
R5	1-247-141-00	CARBON 2.7K 5% 1/4W
R6	1-246-473-00	CARBON 1K 5% 1/4W
R7	1-246-441-00	CARBON 47 5% 1/4W
R8	1-247-143-00	CARBON 3.3K 5% 1/4W
R9	1-247-152-00	CARBON 7.5K 10% 1/4W
S1	1-554-901-11	SWITCH, BAND SLIDE
SP	1-503-369-11	SPEAKER
T1	1-404-341-00	TRANSFORMER, IF
VC1	1-151-463-11	CAP, TUNING, POLYETHYLENE
VR1	1-230-363-11	RES, VAR, CARBON (WITH SW) 50K

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