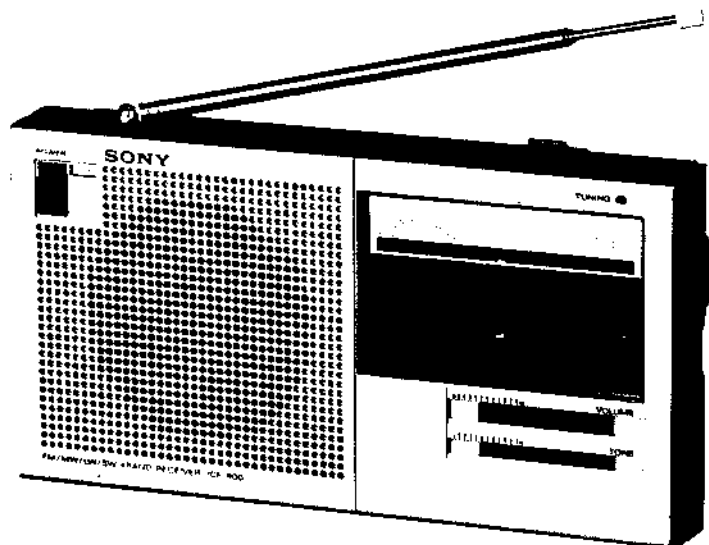


ICF-900

*AEP Model
UK Model*



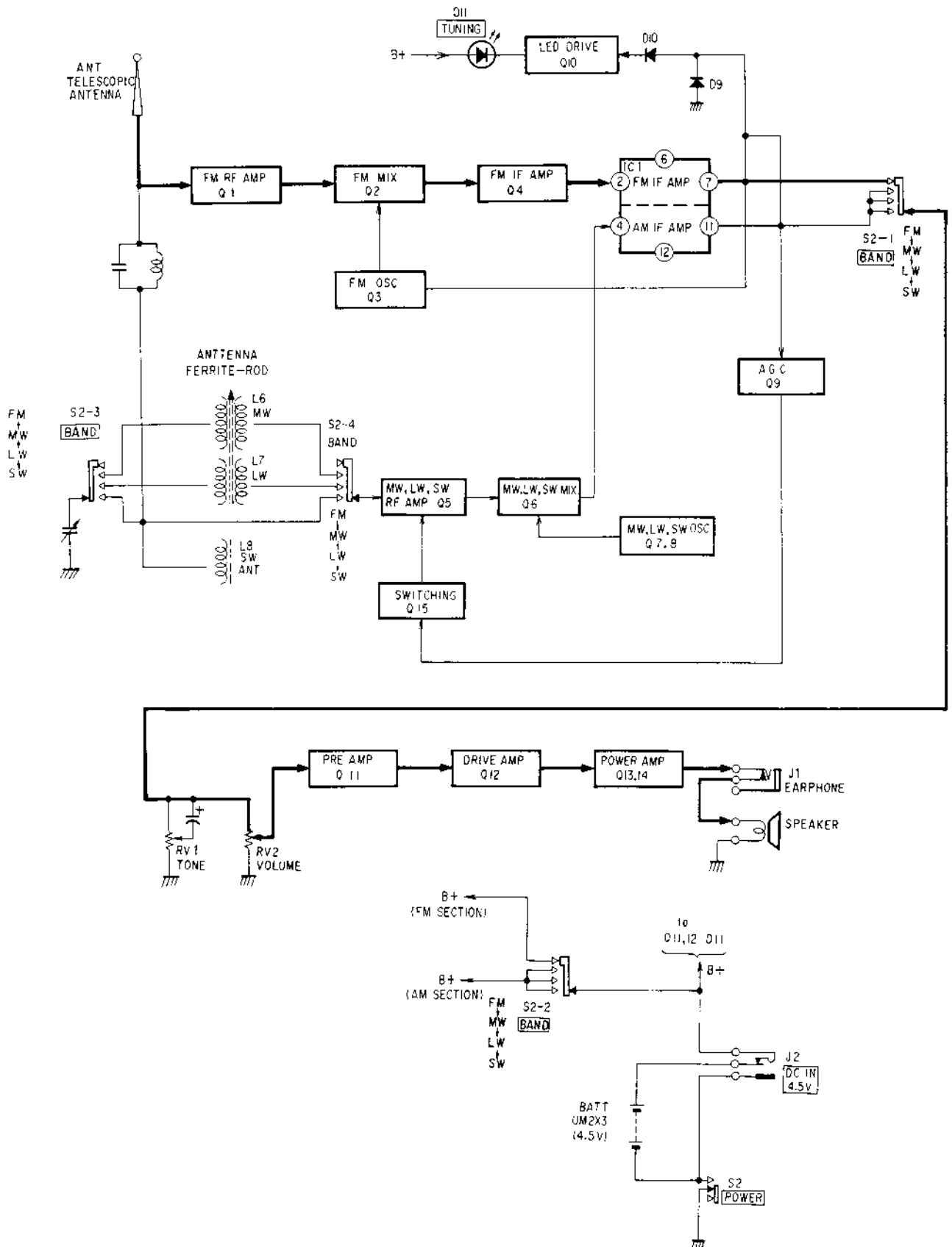
FM/MW/LW/SW 4 BAND RECEIVER

SPECIFICATIONS

Frequency Range:	FM 87.5 – 108 MHz MW 530 – 1,605 kHz (566 – 187 m) LW 150 – 280 kHz (2,000 – 1,071 m) SW 6 – 15.8 MHz (50 – 19 m)	Battery life:	Approx. 30 hours with Sony SUM-2(NS) New Super batteries
Antennas:	FM/SW: Telescopic antenna MW/LW: Built-in ferrite bar antenna	Dimensions:	Approx. 229 x 123 x 44 mm (w/h/d) (9 ¹ / ₈ x 4 ⁷ / ₈ x 1 ³ / ₈ inches), incl. projecting parts and controls with the carrying handle pushed down
Speaker:	Approx. 8.7 cm (3 ¹ / ₂ inches) dia.	Weight:	Approx. 800 g (1 lb 12 oz), incl. batteries
Power Output:	650 mW (at 10% harmonic distortion)		
Output:	Earphone jack (minijack)		
Power Requirements:	4.5 V dc, three batteries, IEC designation R14 (size C) AEP model 110, 127, 220 or 240 V ac, 50/60 Hz with optional Sony AC-122 or AC-456C AC power adaptor UK model 110, 120, 220 or 240 V ac, 50/60 Hz with optional Sony AC-122 AC power adaptor		

SONY[®]
SERVICE MANUAL

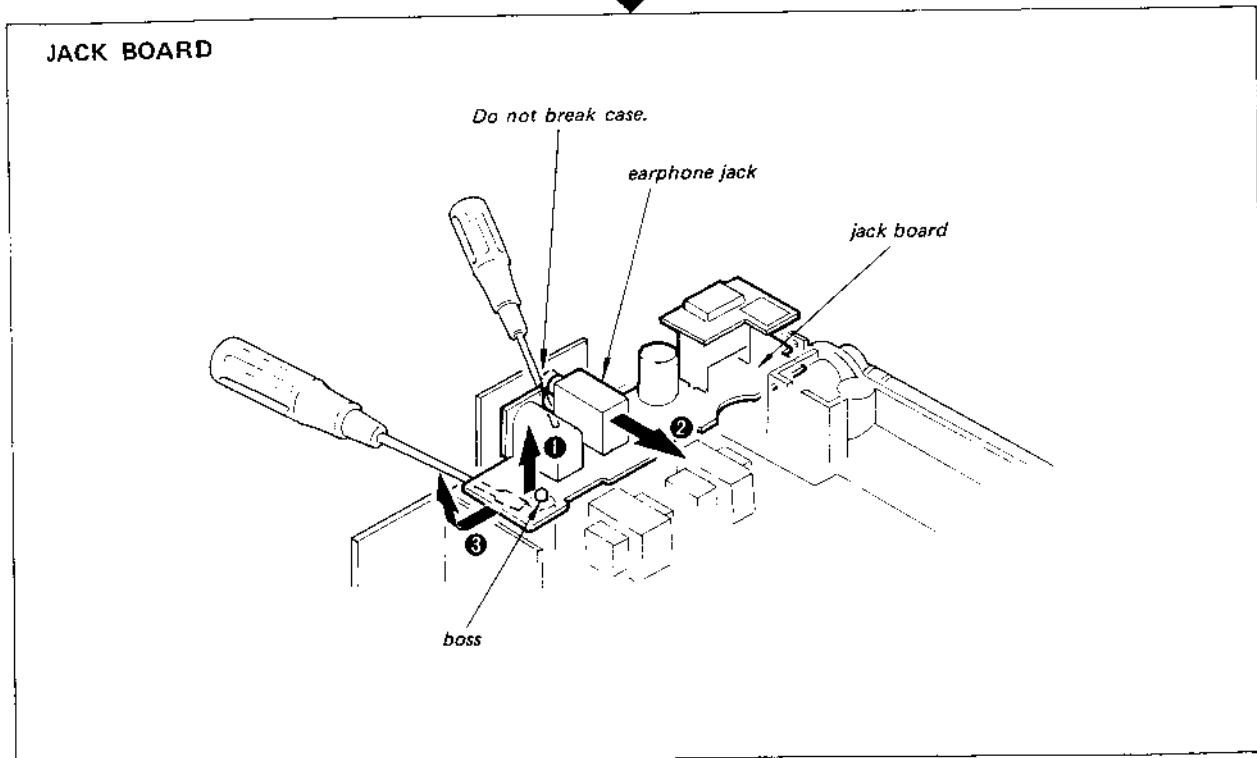
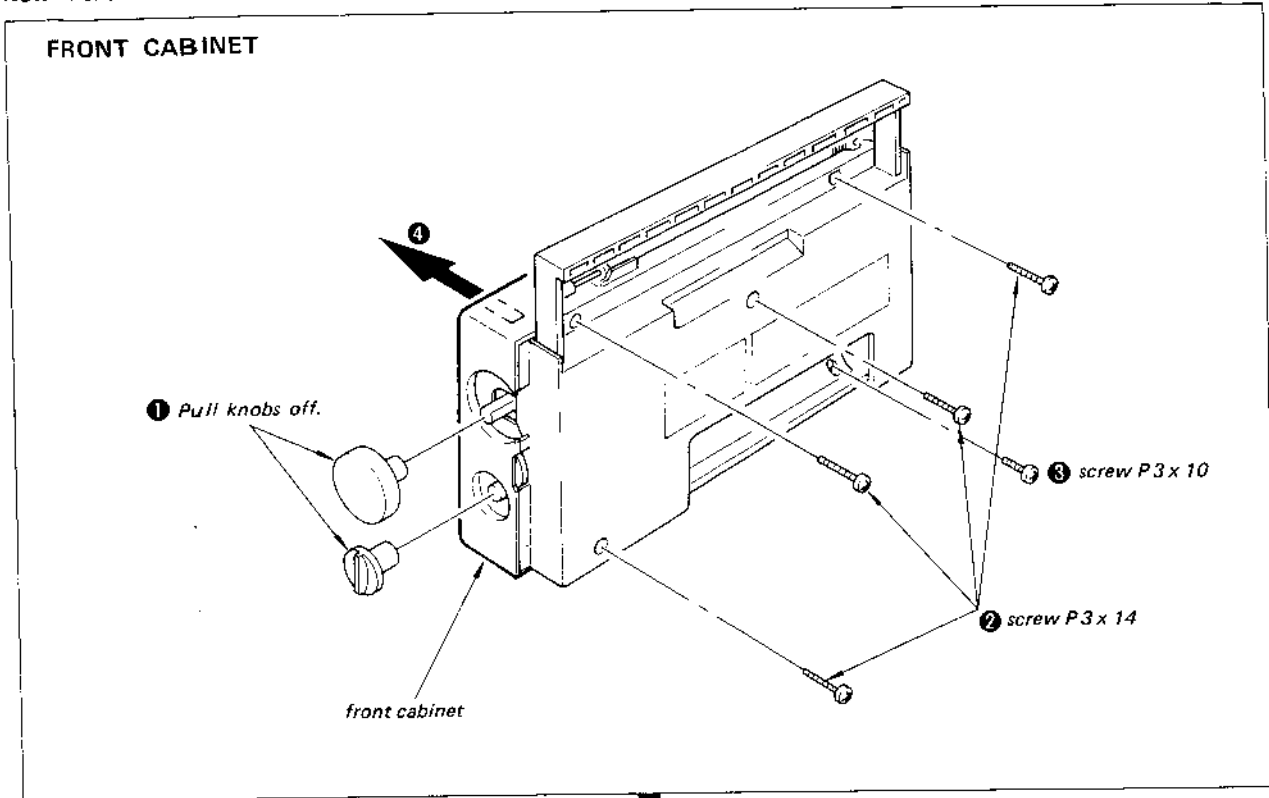
SECTION 1
BLOCK DIAGRAM



SECTION 2 DISASSEMBLY

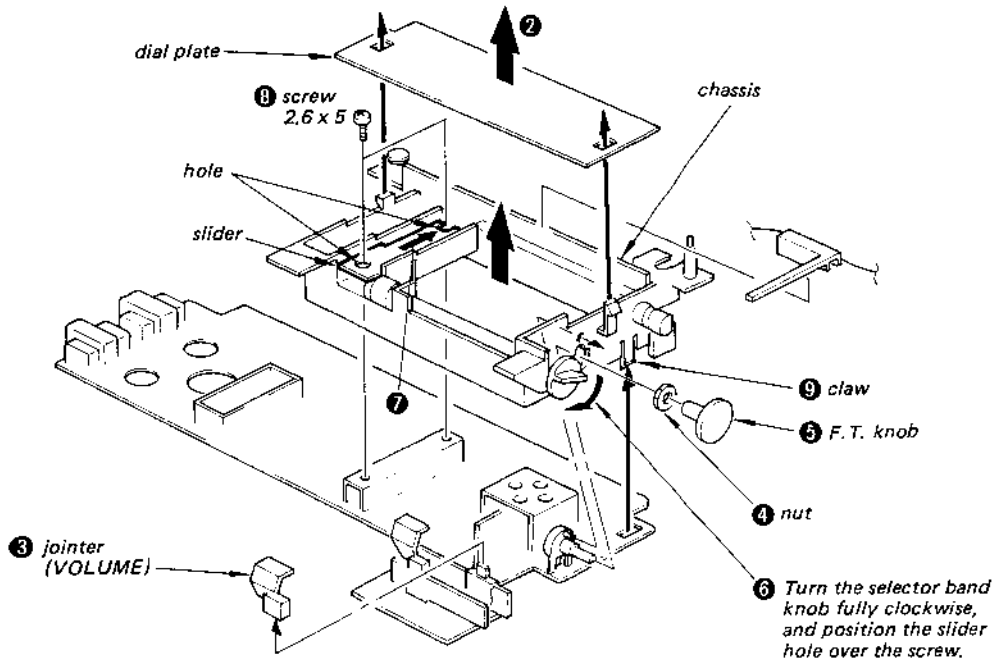
2-1. DISASSEMBLY

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



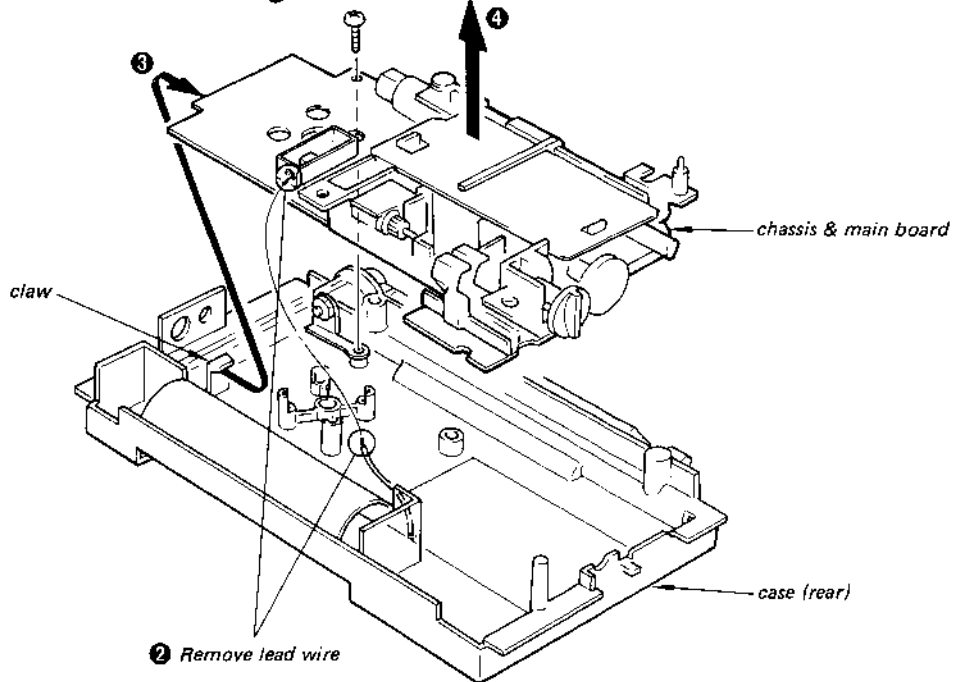
CHASSIS

- 1 Remove the dial cord.



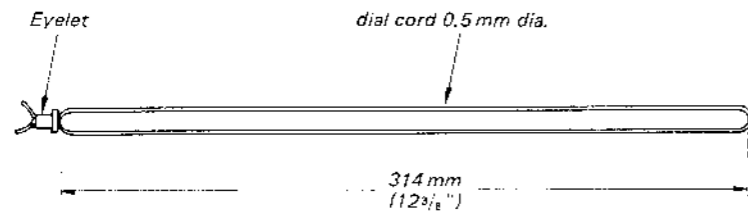
CHASSIS & MAIN BOARD

- 1 screw P 3 x 8



2-2. DIAL CORD

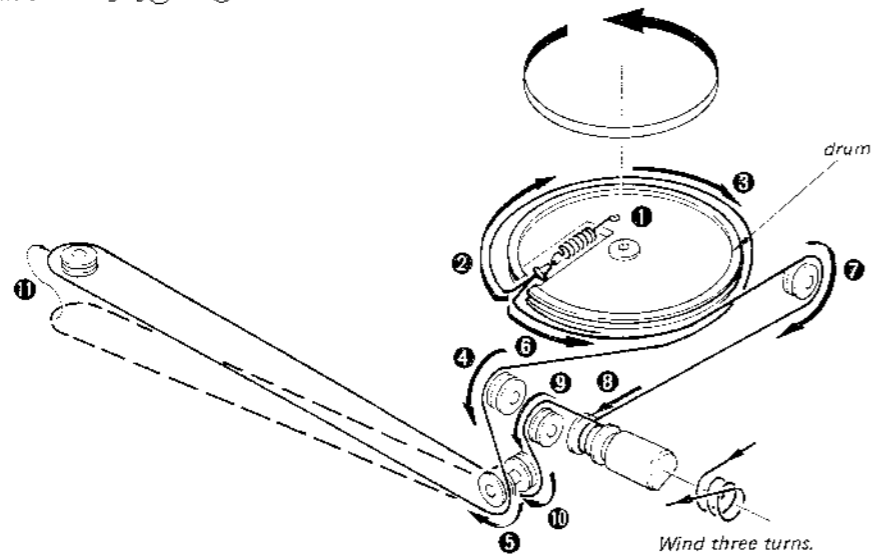
1) Dial Cord Preparation



2) Dial Cord Stringing

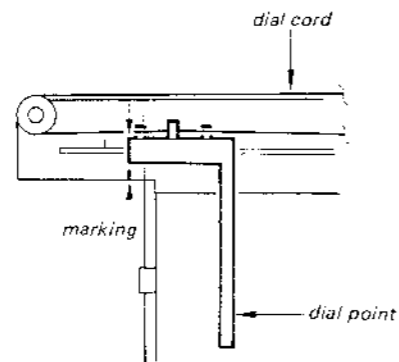
Perform the dial stringing in the numerical order given. Retain the drum while performing the dial stringing ① ~ ⑤.

Turn the tuning capacitor shaft fully counterclockwise.

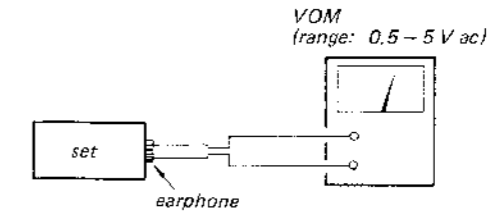
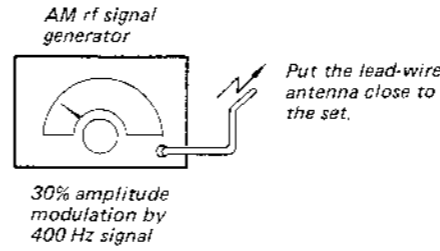
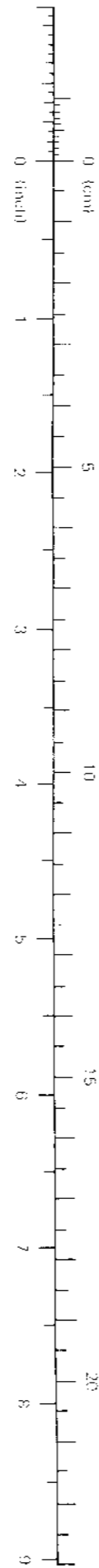


3) Dial Pointer Installation

1. Turn the tuning shaft fully counterclockwise.
2. Place the dial pointer on the marking as shown below.
3. Secure the dial pointer to the dial cord with a suitable locking compound.



3-1. MW/LW SECTION



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

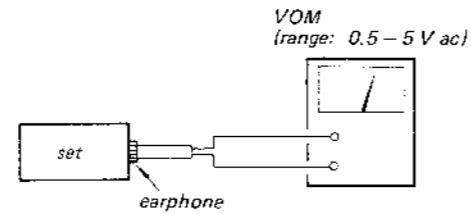
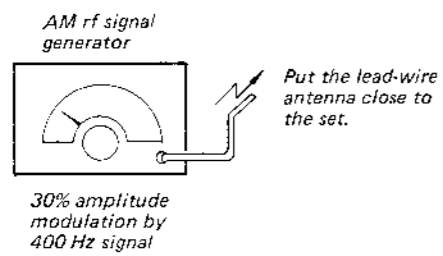
LW TRACKING ADJUSTMENT		MW FREQUENCY COVERAGE ADJUSTMENT		MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM.		Adjust for a maximum reading on VOM.		Adjust for a maximum reading on VOM.	
300 kHz	145 kHz	520 kHz	1,680 kHz	620 kHz	1,400 kHz
CT4	L7	L10	CT6	L6	CT3

455 kHz	T3
Adjust for a maximum reading on VOM.	
AM IF ALIGNMENT	

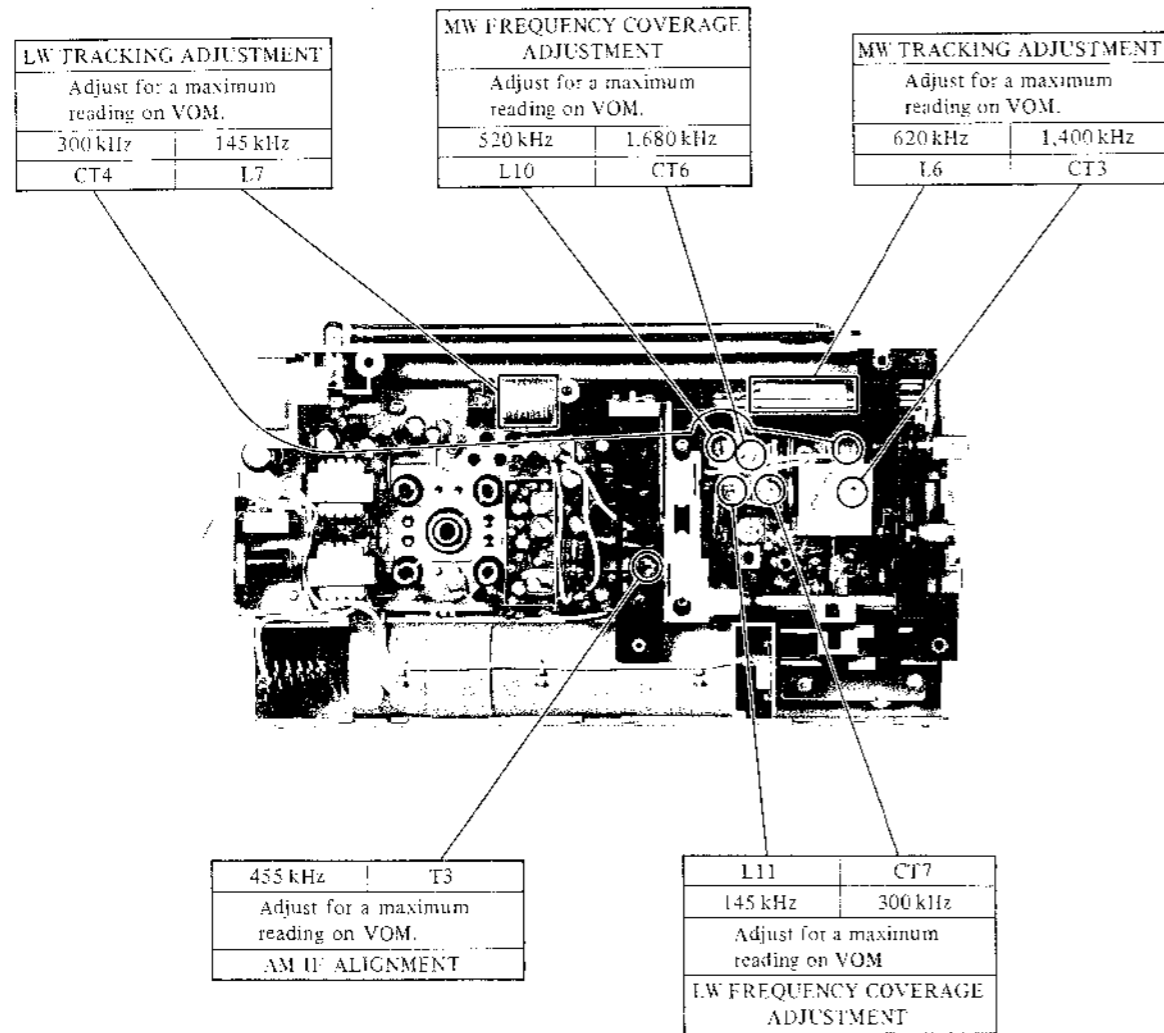
L11	CT7
145 kHz	300 kHz
Adjust for a maximum reading on VOM.	
LW FREQUENCY COVERAGE ADJUSTMENT	

SECTION 3
ADJUSTMENTS

3-1. MW/LW SECTION

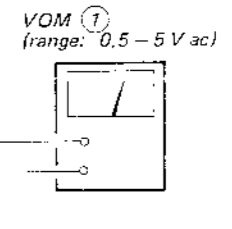
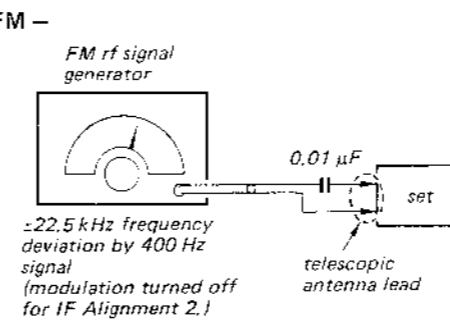


• Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.



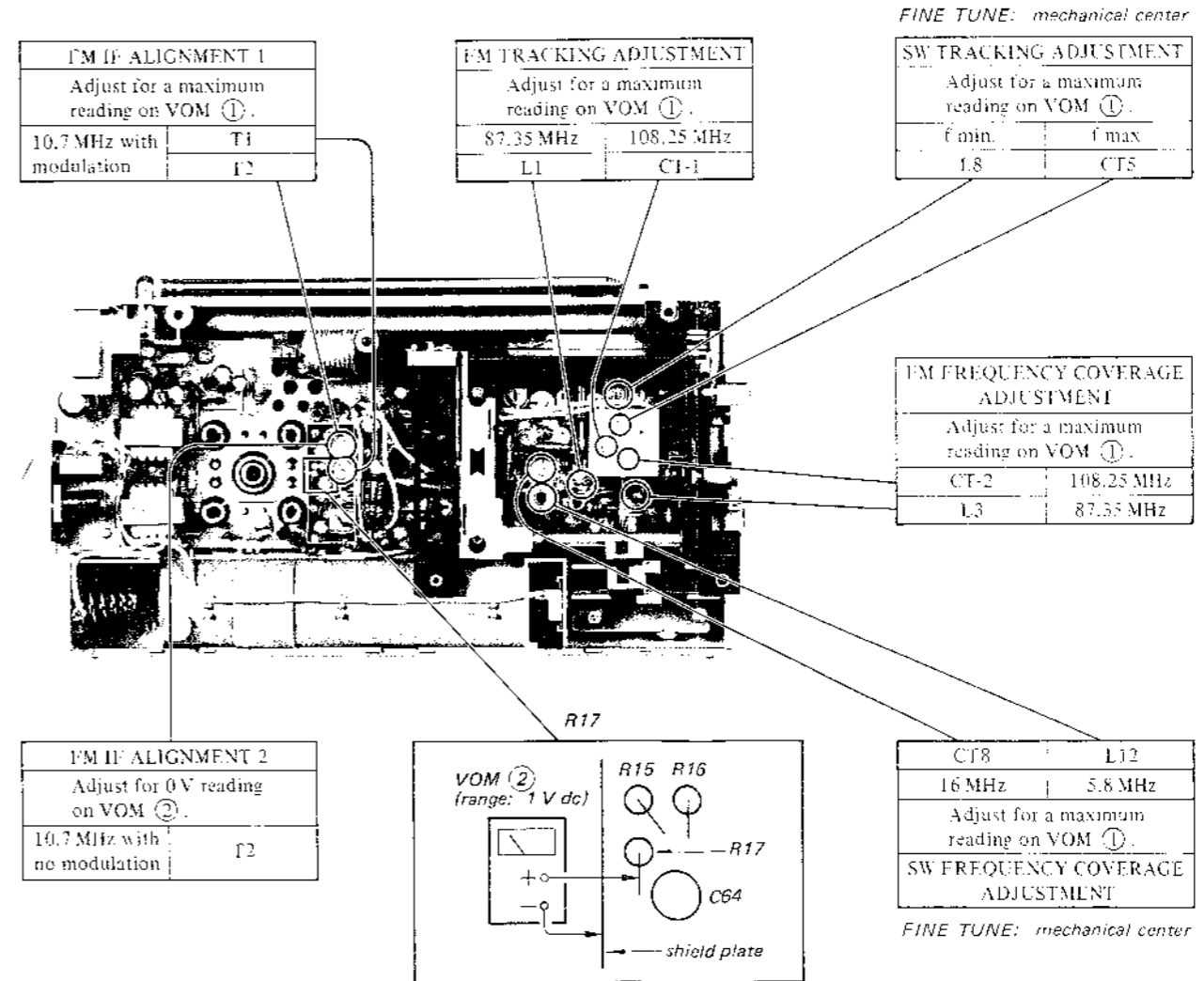
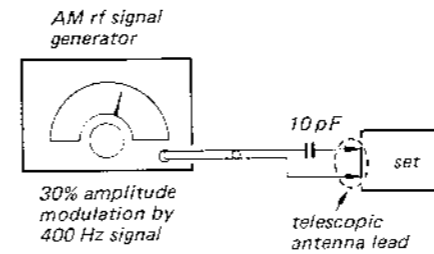
3-2. FM/SW SECTION

- FM -



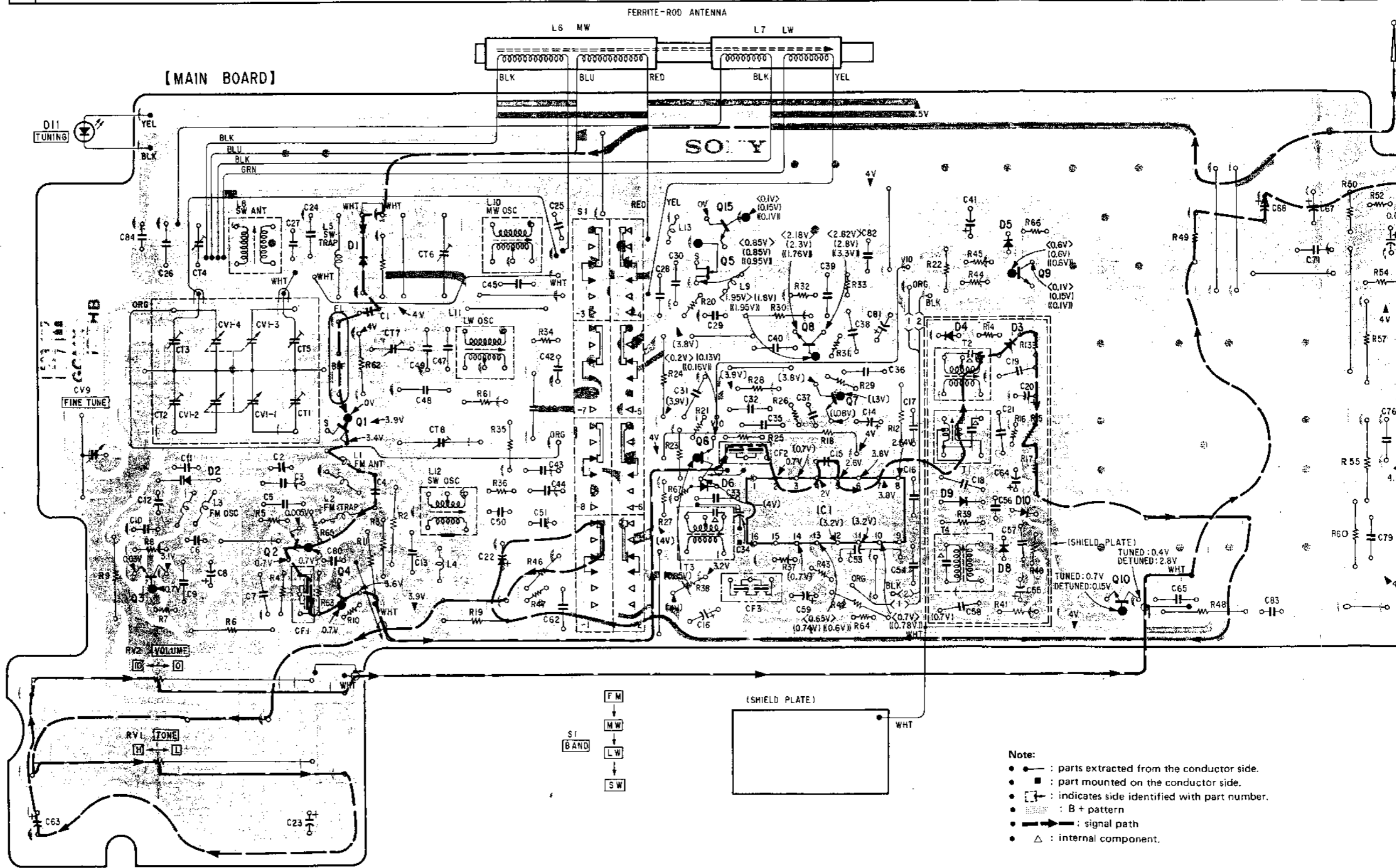
• Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

- SW -



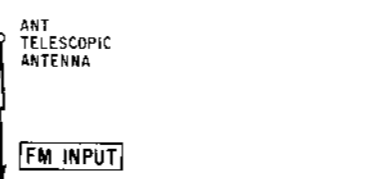
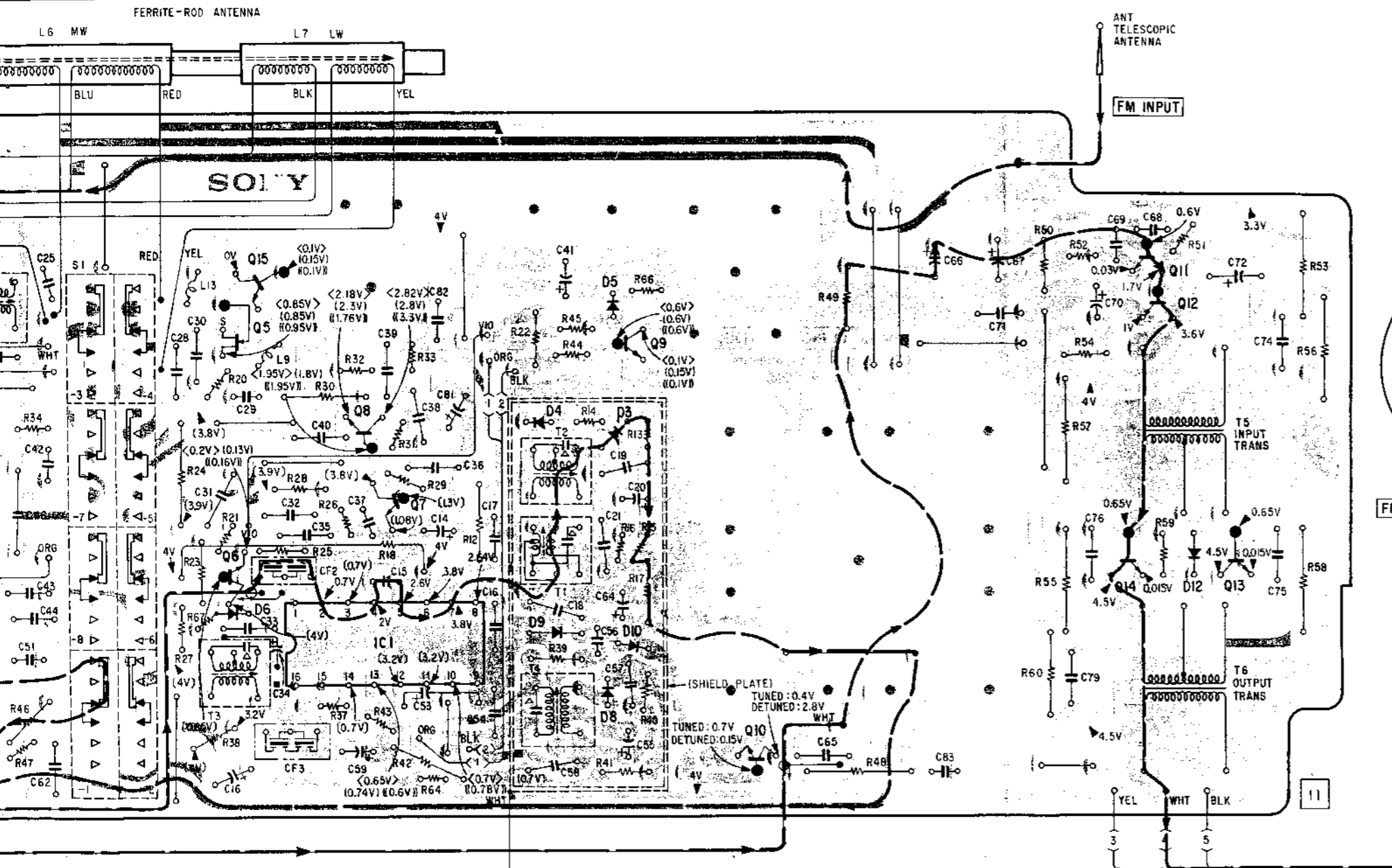
4-1. MOUNTING DIAGRAM

	A	B	C	D	E	F	G	H
Q								
IC		3	2	4	5 15 6	8 7 IC1	9	10
D	11	2	1		6		9 4 5 8 10	

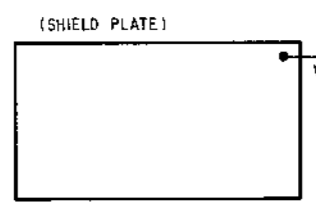
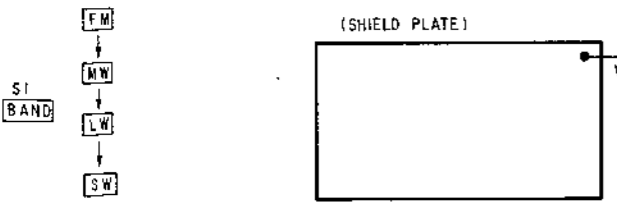
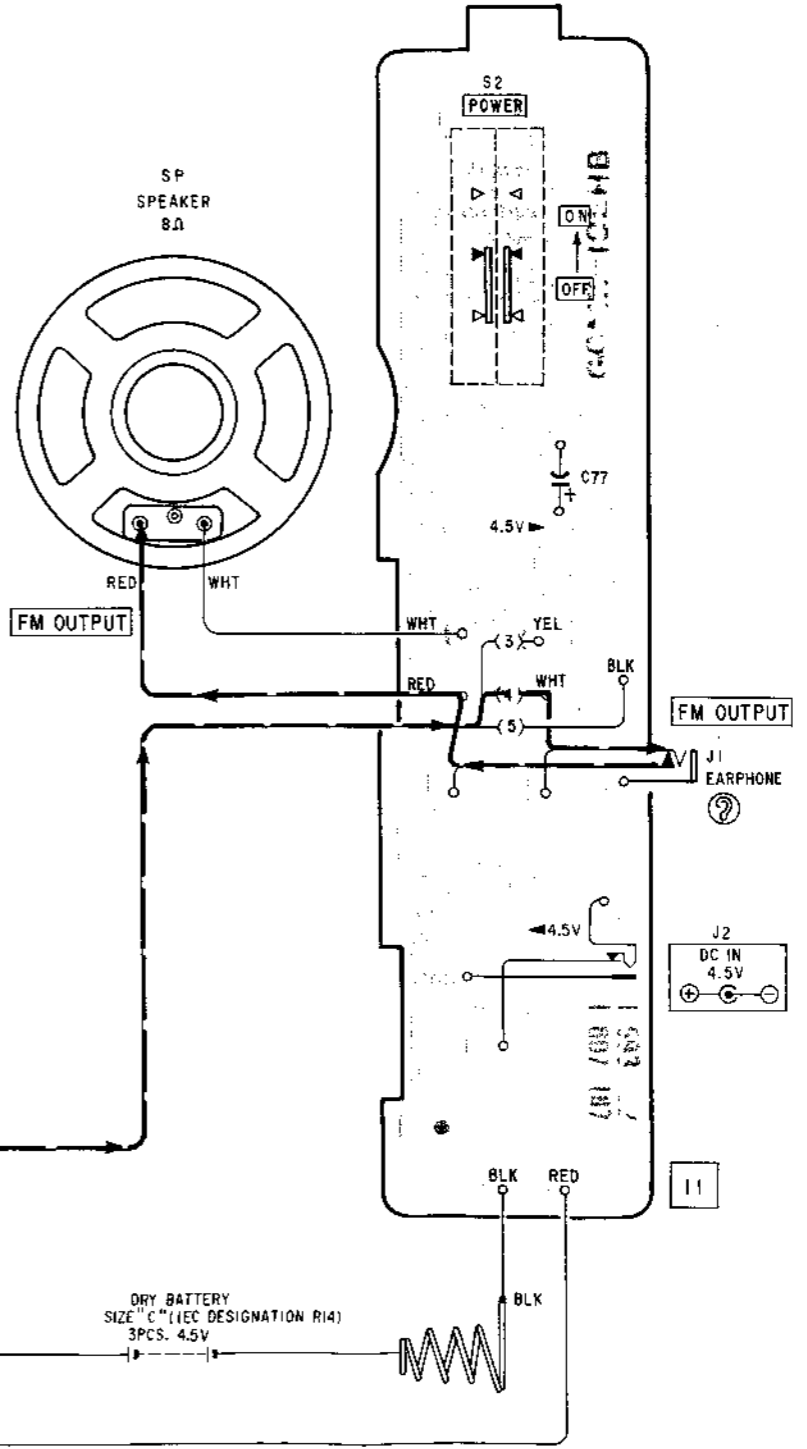


- Note:
- : parts extracted from the conductor side.
 - : part mounted on the conductor side.
 - : indicates side identified with part number.
 - ▨ : B + pattern
 - : signal path
 - △ : internal component.

5	15	8	7	9	11	12	13	Q
6		IC1		10	14			IC
6			9	4	5	12		D
			8	3	10			

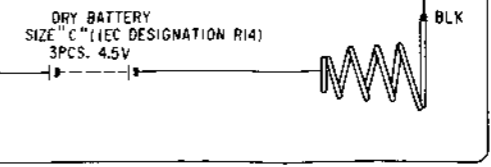


[JACK BOARD]

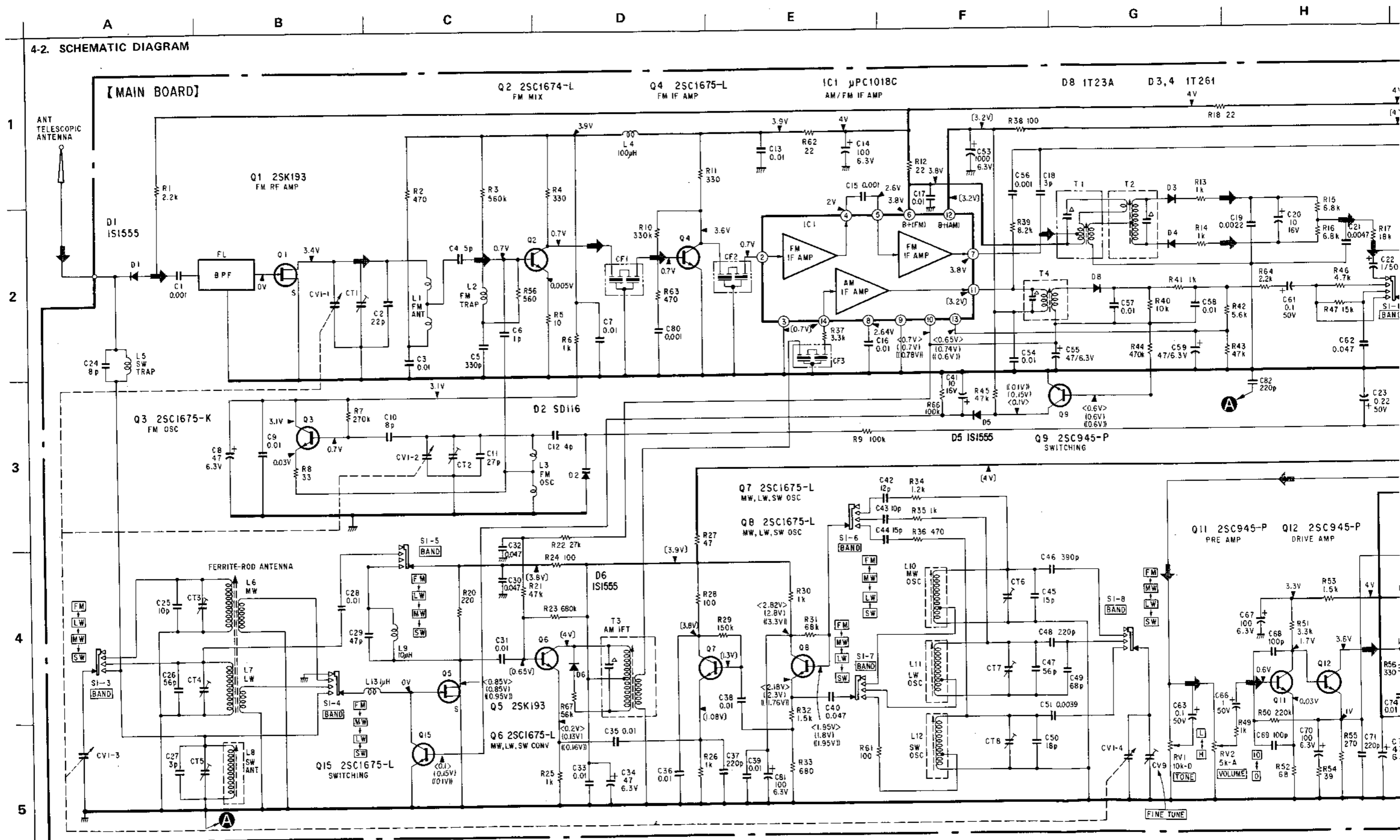


Note:

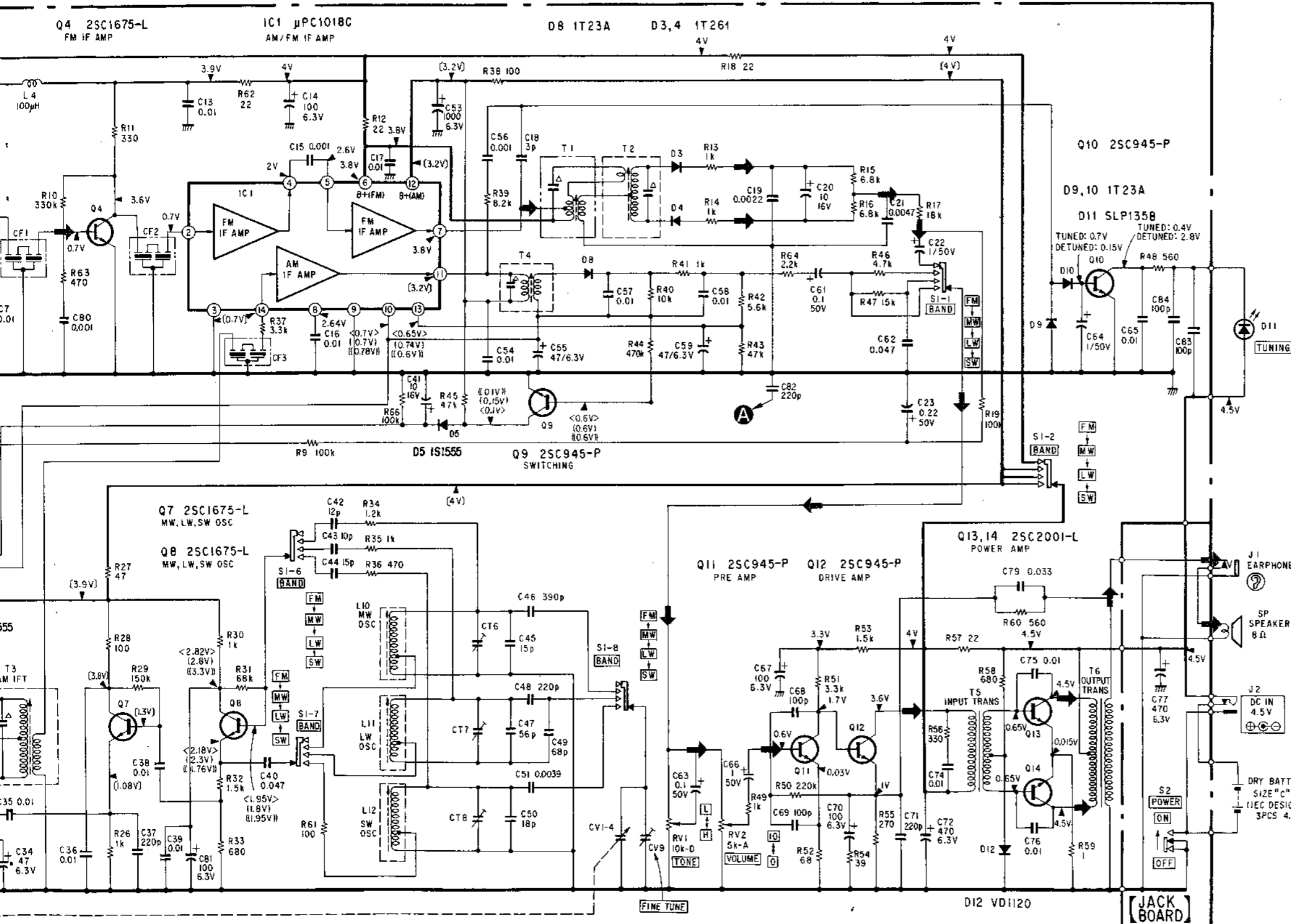
- : parts extracted from the conductor side.
- : part mounted on the conductor side.
- : indicates side identified with part number.
- : B + pattern
- : signal path
- △ : internal component.



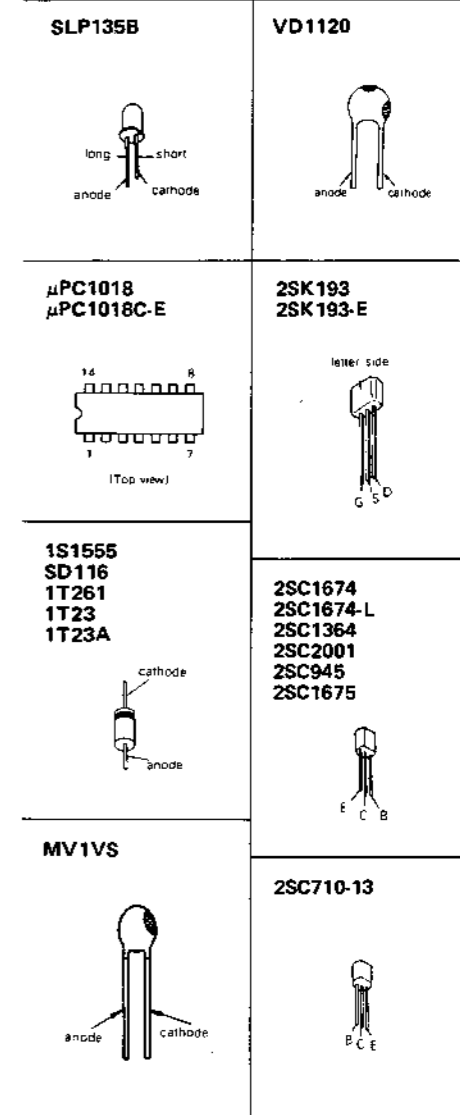
4-2. SCHEMATIC DIAGRAM



D E F G H I J K L



SEMICONDUCTOR LEAD LAYOUTS

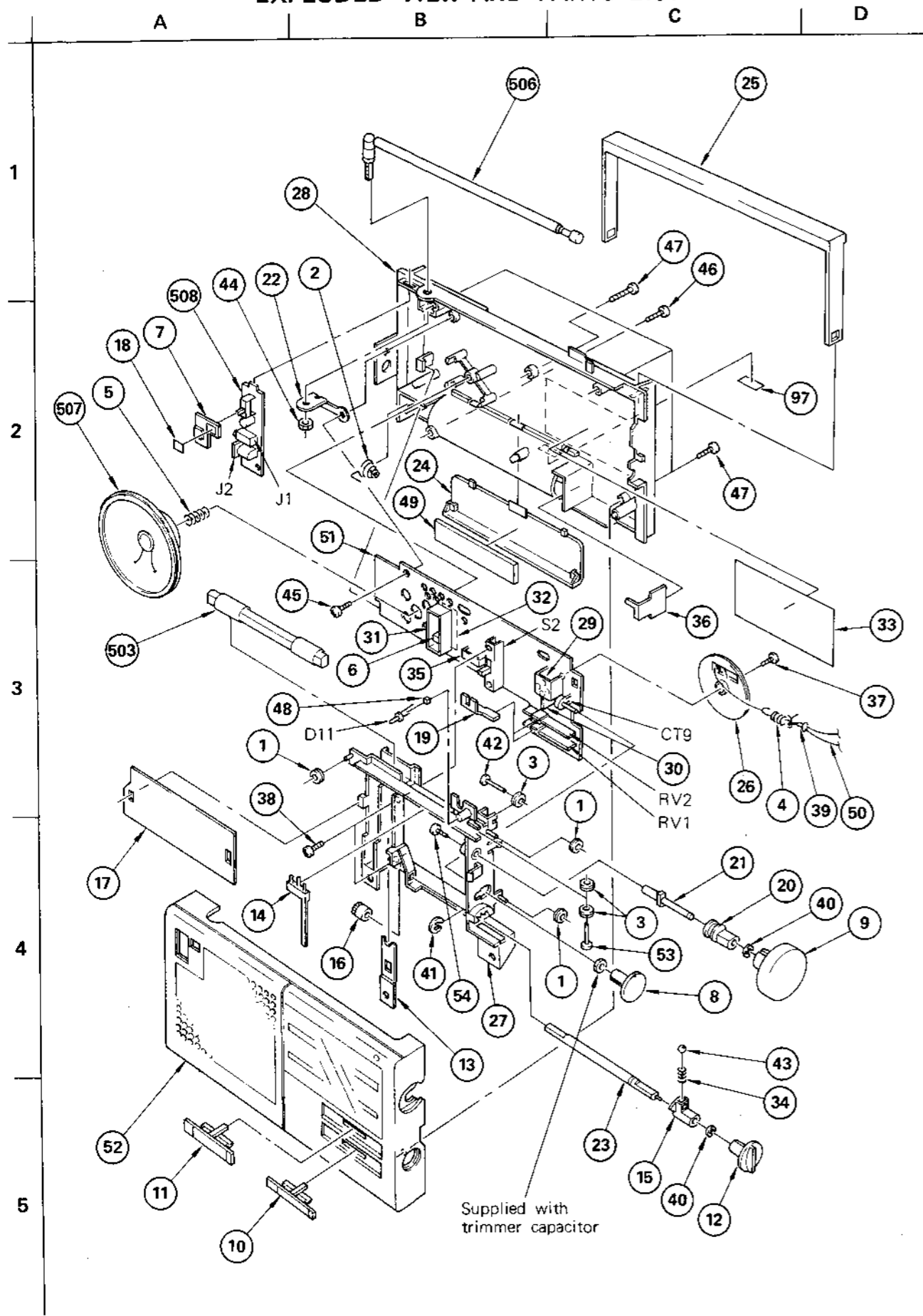


Note:

- : signal path
- △ : internal component.
- * : selected to yield optimum performance.
- : B+ bus.
- Readings are taken under no-signal (detuned) conditions with a VOM (50 kΩ/V).
- no mark: FM
- () : LW
- [] : MW · LW · SW
- < > : MW
- (()) : SW
- Switch

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

SECTION 5
EXPLODED VIEW AND PARTS LIST



GENERAL SECTION		
No.	Part No.	Description
1	3-801-216-XX	PULLEY
2	3-811-123-XX	SPRING
3	3-834-636-00	PULLEY
4	3-881-923-00	SPRING
5	3-885-103-00	SPRING
6	*3-887-524-00	PLATE, SHIELD
7	3-890-201-00	KNOB, SWITCH, POWER
8	3-890-202-00	KNOB, FT
9	3-890-203-00	KNOB, TUNING
10	3-890-204-00	KNOB, TONE
11	3-890-205-00	KNOB, CONTROL
12	3-890-206-00	KNOB, SELECTOR, BAND
13	*3-890-207-00	SLIDER
14	3-890-208-00	POINTER
15	3-890-209-00	SELECTOR, BAND
16	3-890-210-00	GEAR, SLIDER
17	*3-890-211-00	PLATE, BACK, DIAL
18	3-890-212-00	LABEL, INDICATOR, POWER
19	3-890-213-00	JOINTER
20	*3-890-214-00	SHAFT, TUNING
21	*3-890-215-00	RETAINER, SHAFT, TUNING
22	*3-890-216-00	PLATE, CONTACT, ANTENNA
23	*3-890-217-00	ROD, SELECTOR
24	3-890-218-00	LID, BATTERY CASE
25	3-890-219-00	HANDLE
26	3-890-221-00	DRUM, VC
27	3-890-223-00	CHASSIS
28	3-890-225-00	CASE (REAR)
29	*3-890-226-00	PLATE (A), SHIELD
30	*3-890-227-00	PLATE (B), SHIELD
31	*3-890-228-00	PLATE (D), SHIELD
32	*3-890-229-00	PLATE (E), SHIELD
33	*3-890-230-00	PLATE (F), SHIELD
34	3-890-231-00	SPRING, COMPRESSION
35	3-890-232-00	PLATE (C), SHIELD
36	3-985-133-00	TERMINAL, PLUS
37	7-621-559-20	SCREW +K 2.6X4
38	7-621-770-87	SCREW +P 2.6X5
39	7-623-605-01	EYELET, 1.3X2.5
40	7-624-102-04	STOP RING 1.5, TYPE -E
41	7-624-108-04	STOP RING 4.0, TYPE -E
42	7-625-713-80	RIVET 2X12
43	7-671-156-01	BALL, STENLESS
44	7-684-025-04	N 5, TYPE 2
45	7-685-146-21	SCREW +P 3X8 TYPE2 SLIT

GENERAL SECTION		
No.	Part No.	Description
46	7-685-147-21	SCREW +P 3X10 TYPE2 SLIT
47	7-685-149-21	SCREW +P 3X14 TYPE2 SLIT
48	9-911-815-01	CUSHION
49	9-911-815-02	CUSHION, BATTERY
50	9-911-825-32	STRING, TETRON DIAL (0.3)
51	*A-3660-363-A	PC BOARD ASSY, MAIN
52	X-3890-202-0	CABINET ASSY, FRONT
53	7-625-713-00	RIVET 2X8
54	7-621-259-35	SCREW P2.6X5

ACCESSORY & PACKING MATERIAL		
No.	Part No.	Description
91	3-703-539-01	INSTRUCTION, COMMONNESS
92	3-703-593-11	LABEL (11585) (SMALL), FTZ
93	3-890-236-00	CUSHION
94	3-890-237-00	SHEET, PROTECTION
95	3-890-238-00	INDIVIDUAL CARTON
96	3-995-920-11	(AEP).....MANUAL, INSTRUCTION
96	3-995-920-41	(UK).....MANUAL, INSTRUCTION
97	3-998-901-00	LABEL (A,B), SERIAL NUMBER

NOTE:
 - Items with no part number and no description are not stocked because they are seldom required for routine service.
 - 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 numbers (A-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:
 - All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.
 MF: μF, PF: μμF.
 RESISTORS
 - All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
 - F: nonflammable
 COILS
 - MMH: mH, UH: μH

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

NOTE:
 - Item: crip are:
 - Item: thev serv pate:
 - Due: numb may l set.

GENERAL SECTION

No.	Part No.	Description
1	3-801-216-XX	PULLEY
2	3-811-123-XX	SPRING
3	3-834-636-00	PULLEY
4	3-881-923-00	SPRING
5	3-885-103-00	SPRING
6	3-887-524-00	PLATE, SHIELD
7	3-890-201-00	KNOB, SWITCH, POWER
8	3-890-202-00	KNOB, FT
9	3-890-203-00	KNOB, TUNING
10	3-890-204-00	KNOB, TONE
11	3-890-205-00	KNOB, CONTROL
12	3-890-206-00	KNOB, SELECTOR, BAND
13	3-890-207-00	SLIDER
14	3-890-208-00	POINTER
15	3-890-209-00	SELECTOR, BAND
16	3-890-210-00	GEAR, SLIDER
17	3-890-211-00	PLATE, BACK, DIAL
18	3-890-212-00	LABEL, INDICATOR, POWER
19	3-890-213-00	JOINTER
20	3-890-214-00	SHAFT, TUNING
21	3-890-215-00	RETAINER, SHAFT, TUNING
22	3-890-216-00	PLATE, CONTACT, ANTENNA
23	3-890-217-00	ROD, SELECTOR
24	3-890-218-00	LID, BATTERY CASE
25	3-890-219-00	HANDLE
26	3-890-221-00	DRUM, VC
27	3-890-223-00	CHASSIS
28	3-890-225-00	CASE (REAR)
29	3-890-226-00	PLATE (A), SHIELD
30	3-890-227-00	PLATE (B), SHIELD
31	3-890-228-00	PLATE (D), SHIELD
32	3-890-229-00	PLATE (E), SHIELD
33	3-890-230-00	PLATE (F), SHIELD
34	3-890-231-00	SPRING, COMPRESSION
35	3-890-232-00	PLATE (C), SHIELD
36	3-985-133-00	TERMINAL, PLUS
37	7-621-559-20	SCREW +K 2.6X4
38	7-621-770-87	SCREW +P 2.6X5
39	7-623-605-01	EYELET, 1.3X2.5
40	7-624-102-04	STOP RING 1.5, TYPE -E
41	7-624-108-04	STOP RING 4.0, TYPE -E
42	7-625-713-80	RIVET 2X12
43	7-671-156-01	BALL, STENLESS
44	7-684-025-04	N 5, TYPE 2
45	7-685-146-21	SCREW +P 3X8 TYPE2 SLIT

GENERAL SECTION

No.	Part No.	Description
46	7-685-147-21	SCREW +P 3X10 TYPE2 SLIT
47	7-685-149-21	SCREW +P 3X14 TYPE2 SLIT
48	9-911-815-01	CUSHION
49	9-911-815-02	CUSHION, BATTERY
50	9-911-825-32	STRING, TETRON DIAL (0.3)
51	A-3660-363-A	PC BOARD ASSY, MAIN
52	X-3890-202-0	CABINET ASSY, FRONT
53	7-625-713-00	RIVET 2X8
54	7-621-259-35	SCREW P2.6X5

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94	3-890-237-00	SHEET, PROTECTION
95	3-890-238-00	INDIVIDUAL CARTON
96	3-995-920-11	(AEP).....MANUAL, INSTRUCTION
96	3-995-920-41	(UK).....MANUAL, INSTRUCTION
97	3-998-901-00	LABEL (A,B), SERIAL NUMBER

ELECTRICAL PARTS

Ref.No.	Part No.	Description
501	1-151-405-00	CAP, TUNING, POLYETHYLENE
502	1-231-892-00	FILTER, BANDPASS
503	1-401-858-00	ANTENNA, FERRITE-ROD (LW/MW)
504	1-422-056-00	COIL, AIR-CORE
505	1-422-057-00	COIL, AIR-CORE
506	1-501-256-00	ANTENNA, TELESCOPIC (SW/FM)
507	1-503-126-00	SPEAKER
508	1-607-187-00	PC BOARD, JACK
509	1-607-188-00	PC BOARD, MAIN
510	A-3660-363-A	PC BOARD ASSY, MAIN
C11	1-102-643-21	CERAMIC 27PF 5% 50V
C45	1-101-971-00	CERAMIC 15PF 5% 50V
C46	1-107-183-00	MICA 390PF 5% 500V
C47	1-102-696-00	CERAMIC 56PF 5% 50V
C48	1-107-005-11	MICA 220PF 5% 500V
C50	1-102-866-00	CERAMIC 18PF 5% 50V
C62	1-161-021-00	CERAMIC 0.047MF 10% 25V
CF1	1-527-795-71	FILTER, CERAMIC
CF2	1-527-795-71	FILTER, CERAMIC
CF3	1-231-993-00	FILTER, MECHANICAL
CT4	1-141-227-00	TRIMMER, CERAMIC
CT6	1-141-213-00	CAP, TRIMMER
CT7	1-141-227-00	TRIMMER, CERAMIC
CT8	1-141-213-00	CAP, TRIMMER
CT9	1-141-267-00	CAP, TRIMMER
D1	8-719-815-55	DIODE 1S1555
D2	8-719-111-16	DIODE SD116
D3	8-719-026-11	DIODE 1T261
D4	8-719-026-11	DIODE 1T261
D5	8-719-815-55	DIODE 1S1555
D8	8-719-422-21	DIODE 1T23
D9	8-719-422-21	DIODE 1T23
D10	8-719-422-21	DIODE 1T23
D11	8-719-901-35	DIODE SLP135B
D12	8-719-901-25	DIODE MV1VS
IC1	8-759-110-15	IC UPC1018C-E
J1	1-507-398-00	EARPHONE JACK
J2	1-507-459-00	JACK
L2	1-409-293-00	COIL, AIR CORE
L4	1-408-080-00	MICRO INDUCTOR 100UH
L5	1-401-456-00	ANTENNA COIL
L8	1-401-963-00	COIL, ANT (SW)
L9	1-408-117-00	MICRO INDUCTOR 10UH
L10	1-406-004-00	COIL, OSC (MW)

ELECTRICAL PARTS

Ref.No.	Part No.	Description
L11	1-406-005-00	COIL, OSC (LW)
L12	1-405-740-00	COIL, SW2 OSCILLATOR
L13	1-408-105-00	MICRO INDUCTOR 10UH
Q1	8-729-119-32	TRANSISTOR 2SK193-E
Q2	8-729-167-42	TRANSISTOR 2SC1674-L
Q3	1-806-671-13	TRANSISTOR 2SC710-13
Q4	1-806-671-13	TRANSISTOR 2SC710-13
Q5	8-729-119-32	TRANSISTOR 2SK193-E
Q6	1-806-671-13	TRANSISTOR 2SC710-13
Q7	1-806-671-13	TRANSISTOR 2SC710-13
Q8	1-806-671-13	TRANSISTOR 2SC710-13
Q9	8-729-663-47	TRANSISTOR 2SC1364
Q10	8-729-663-47	TRANSISTOR 2SC1364
Q11	8-729-663-47	TRANSISTOR 2SC1364
Q12	8-729-663-47	TRANSISTOR 2SC1364
Q13	8-729-100-13	TRANSISTOR 2SC2001
Q14	8-729-100-13	TRANSISTOR 2SC2001
Q15	8-729-671-13	TRANSISTOR 2SC710-13
S1	1-516-848-00	SWITCH, SLIDE
S2	1-554-020-00	SWITCH, SLIDE
T1	1-403-959-00	TRANSFORMER, DISCRI FM 7P TYPE
T2	1-403-953-00	TRANSFORMER, DISCRI FM 7P TYPE
T3	1-404-348-00	COIL, AM IFT
T4	1-403-960-00	I.F.T DETECTION
T5	1-423-049-XX	TRANSFORMER, INPUT
T6	1-427-517-00	TRANSFORMER, OUTPUT
VR1	1-226-731-00	RES, VAR, SLIDE 5K
VR2	1-226-732-00	RES, VAR, SLIDE 10K

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- 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 numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.
MF:μF, PF:μμF.

RESISTORS

All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

* F : nonflammable

COILS

MMH : mH, UH : μH

SEMICONDUCTORS

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

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- 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 numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

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COILS

MMH : mH, UH : μH

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