

ICF-1200

AEP Model
UK Model




Photo: UK model
(black type)

FM/MW/LW/SW 4 BAND RECEIVER

SPECIFICATIONS

Frequency range:	FM 87.5–108 MHz (3.42–2.78m) MW 530–1,605kHz (566–187m) LW 150–285kHz (2,000–1,053m) SW 5.9–15.8MHz (50.8–19m)	Other jack:	Five-pin DIN Jack
Antennas:	FM/SW: Telescopic antenna MW/LW: Built-in ferrite bar antenna	Power requirements:	220V ac, 50Hz (AEP model) 240V ac, 50Hz (UK model) 4.5V dc, three batteries IEC designation R14 (size C)
Speaker:	Approx. 10cm (4 inches) dia.	Dimensions:	Approx. 256x148x51mm (w/h/d) (10 ¹ / ₈ x 5 ⁷ / ₈ x 2 ¹ / ₈ inches) incl. projecting parts and controls
Power output:	1,200mW (at 10% harmonic distortion) at dc operation	Weight:	Approx. 1.3kg (2 lb 14 oz), incl. batteries
Output:	Earphone jack (minijack) for 8-ohm earphone or load impedance 10 kilohms or higher		

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS 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.

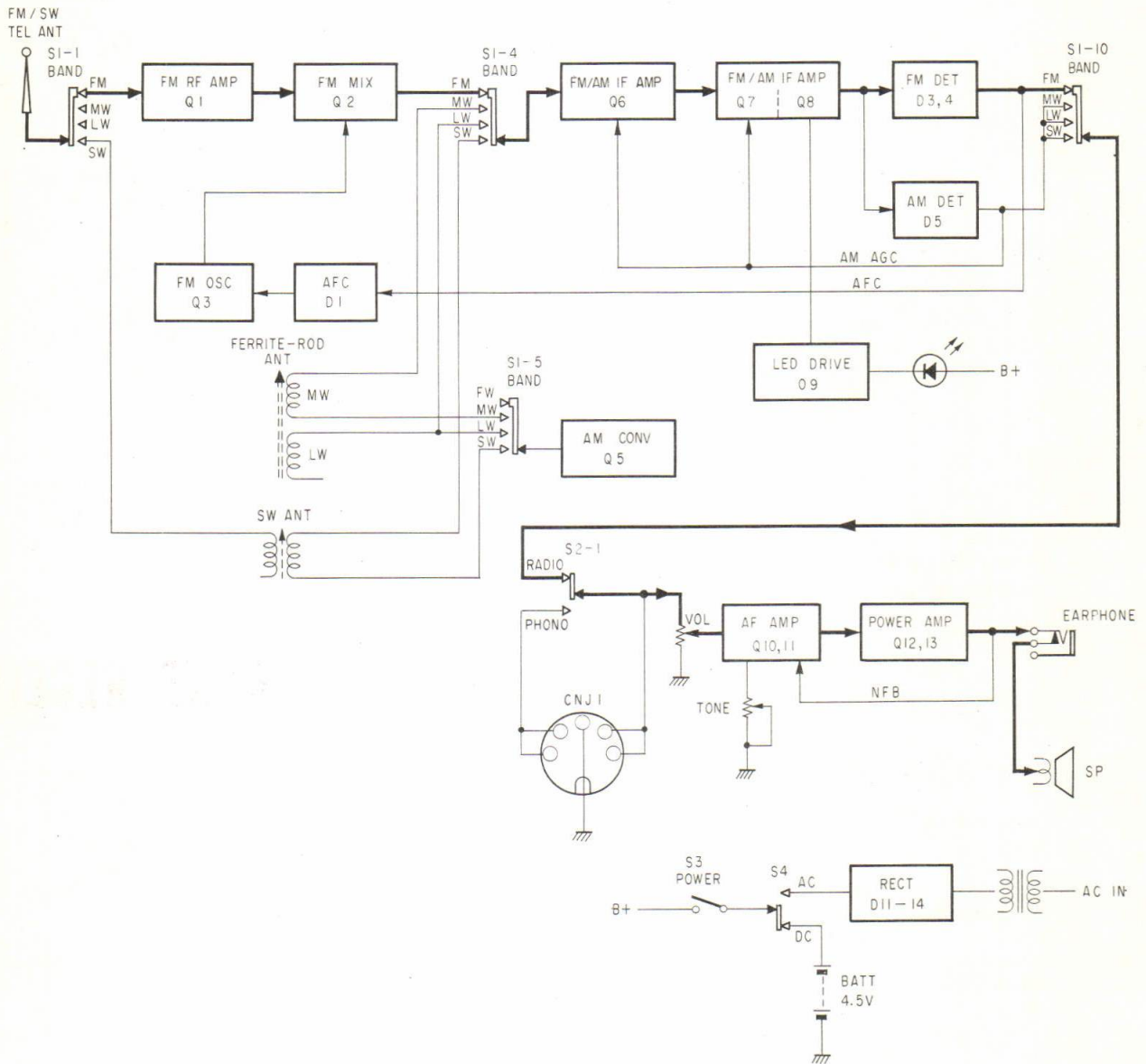
SONY[®]

SERVICE MANUAL

ICF-1200

SECTION 1 OUTLINE

1-1. BLOCK DIAGRAM



1-2. MODEL IDENTIFICATION

— Specification Label —



AEP model: AC 220V ~ 50Hz 8W

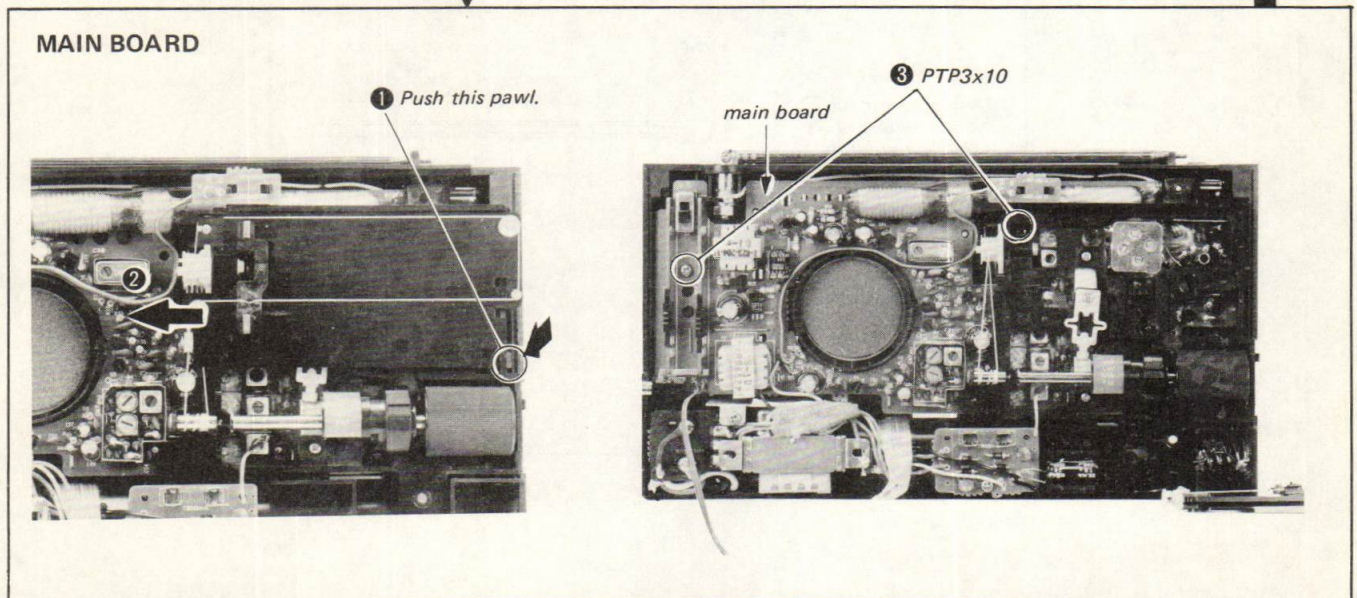
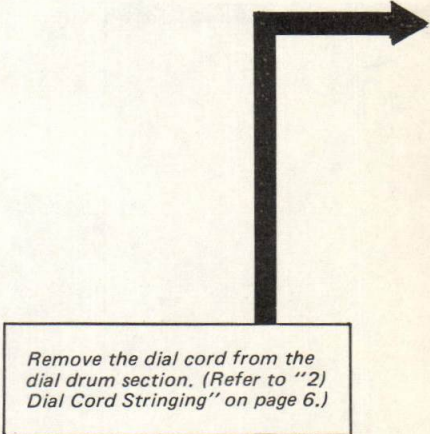
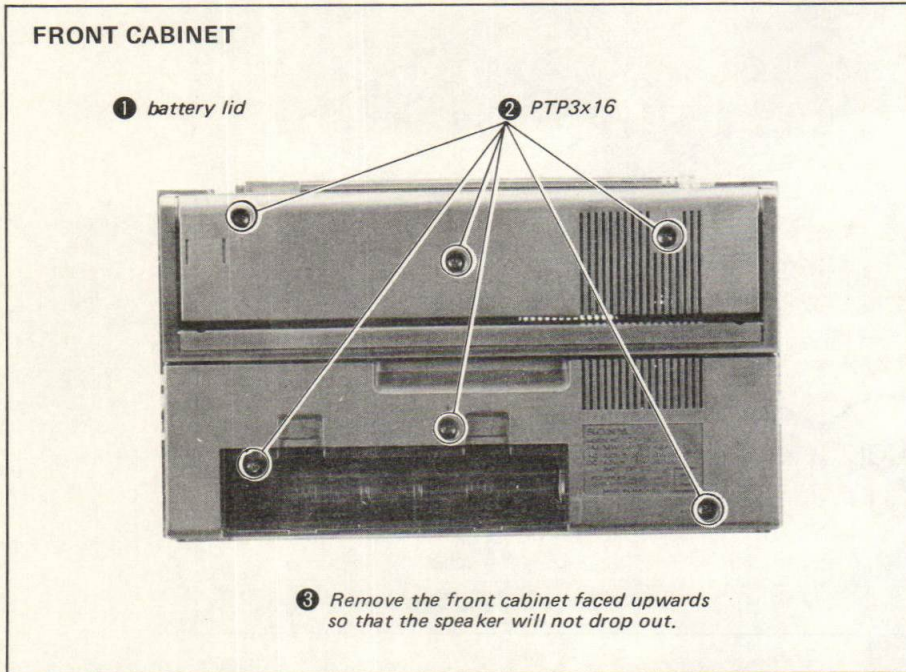
UK model: AC 240V ~ 50Hz 8W

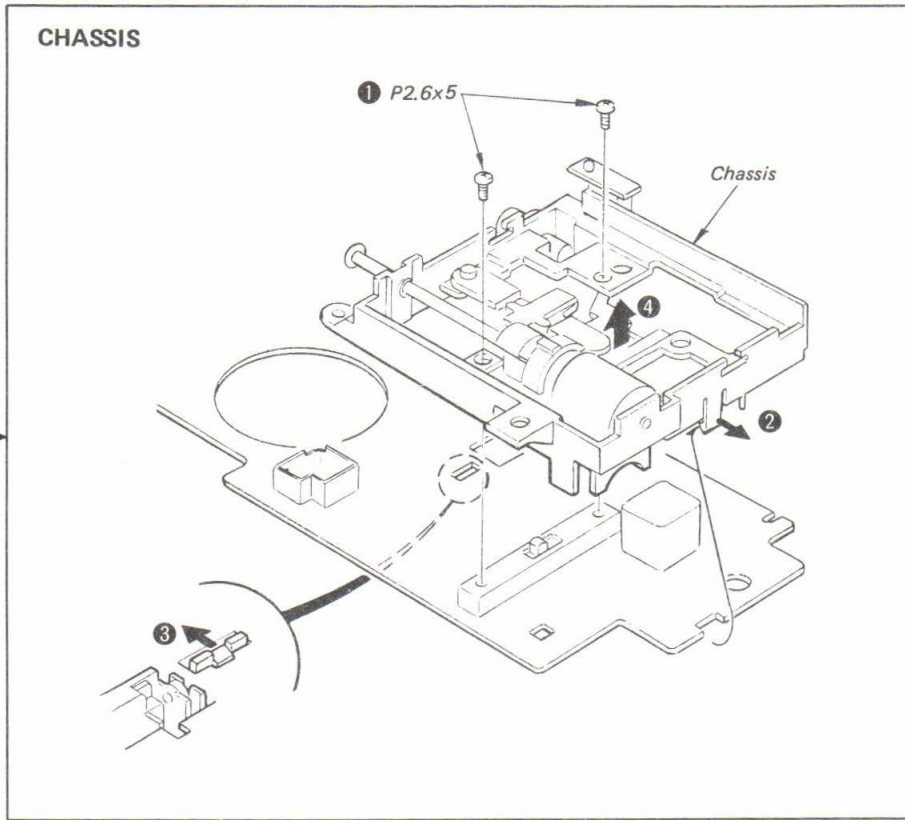
(AEP model: marked on the rear panel)

SECTION 2 DISASSEMBLY

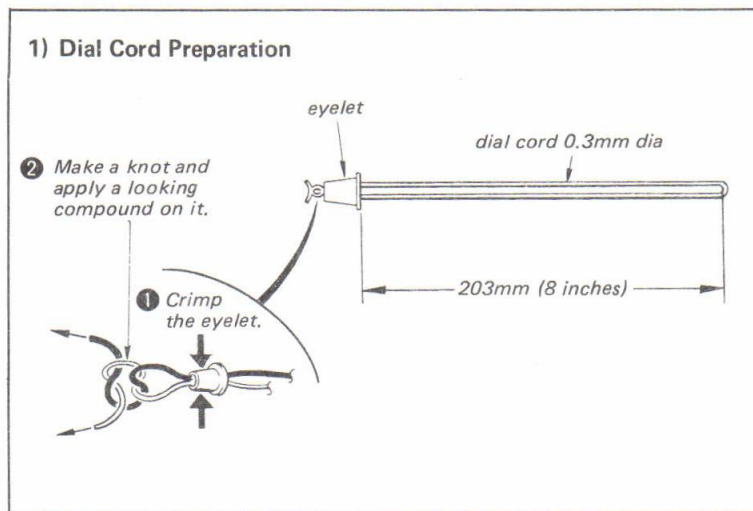
2-1. REMOVAL

- Follow the disassembly procedure in the numerical order given.



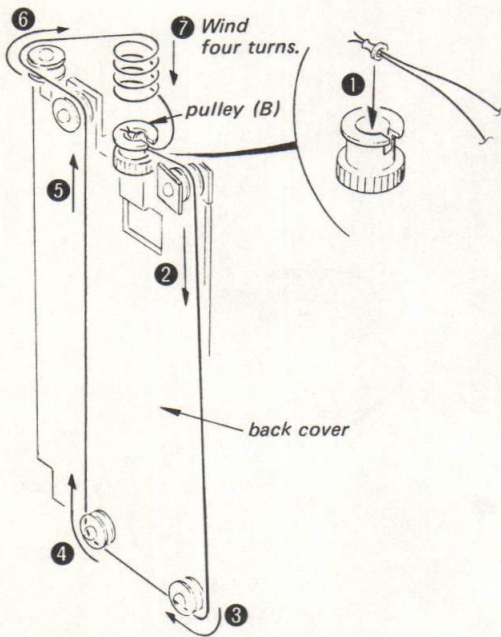


2-2. DIAL CORD STRINGING (Back Cover Section)

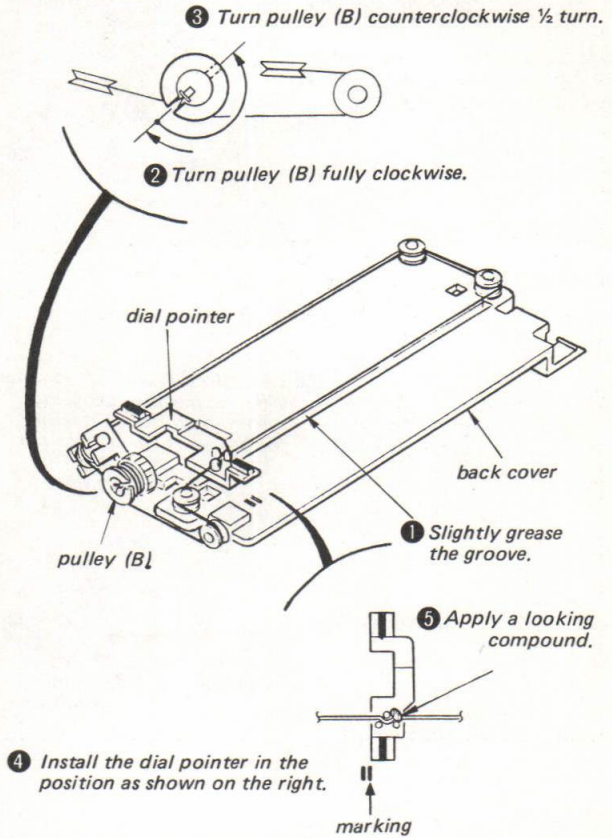


2) Dial Cord Stringing

- Set the notch of pulley (B) as shown below.
- Perform the dial stringing in the numerical order given.

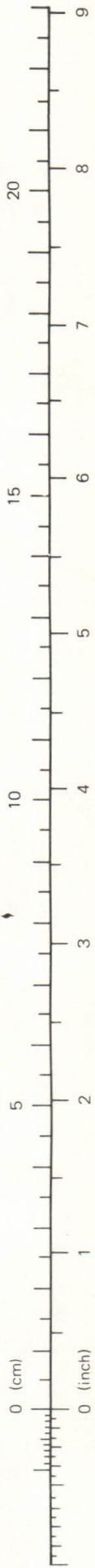
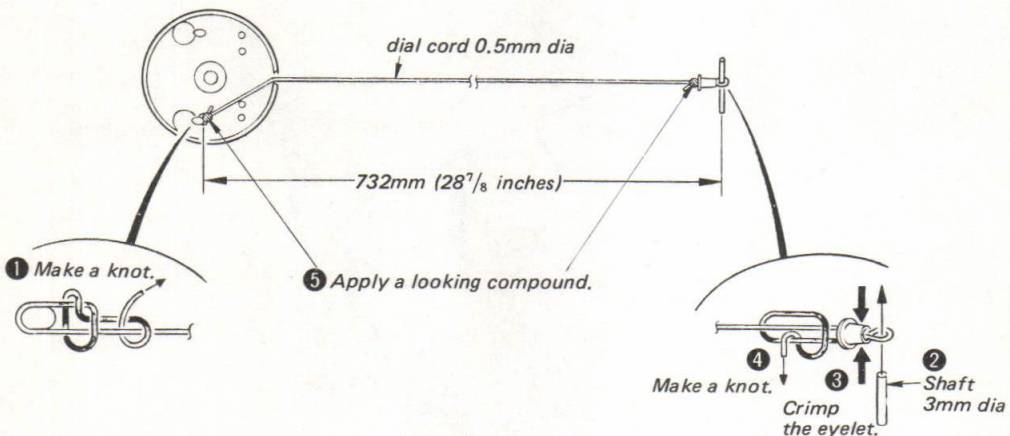


3) Dial Pointer Setting



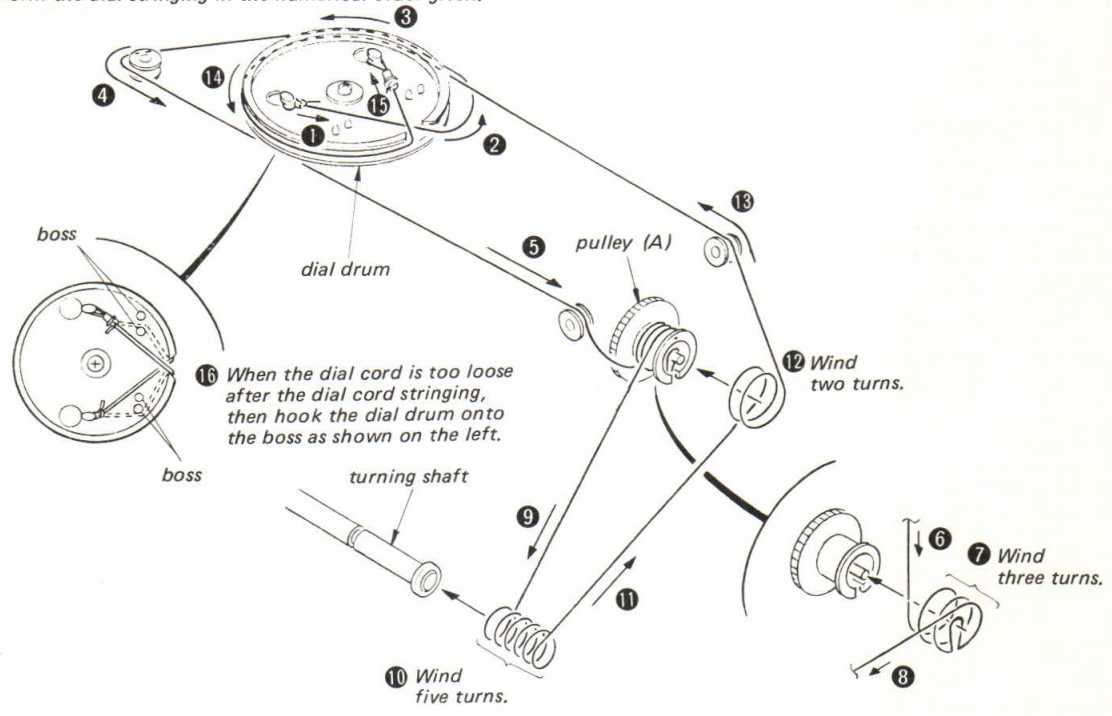
2-3. DIAL CORD STRINGING (Dial Drum Section)

1) Dial Cord Preparation



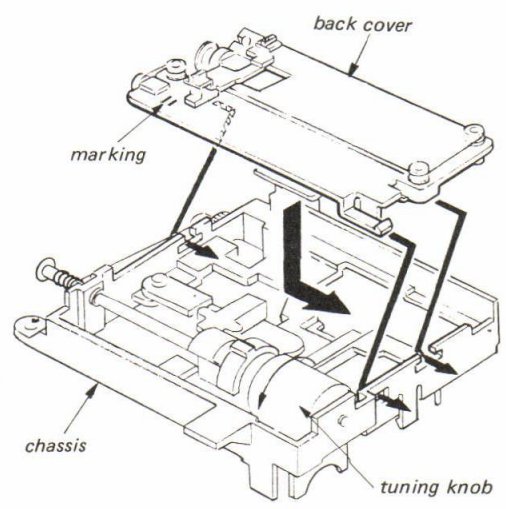
2) Dial Cord Stringing

- a. Turn the tuning capacitor shaft fully counterclockwise.
- b. Set the dial drum as shown below.
- c. Perform the dial stringing in the numerical order given.



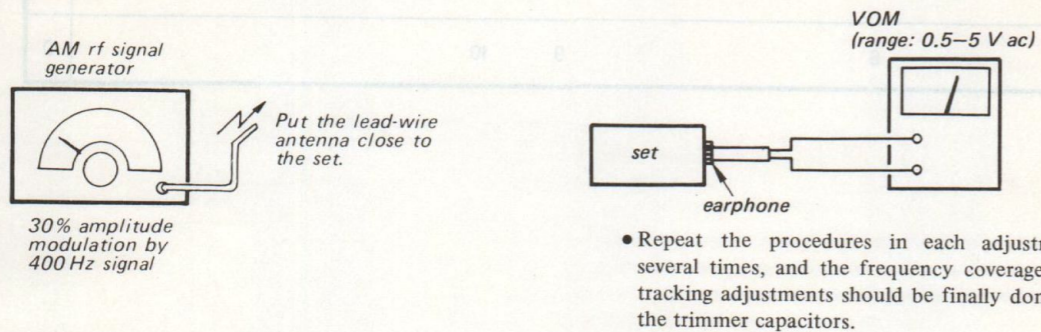
3) Back Cover Installation

- a. Match the dial pointer with the mark on the left side of the back cover.
- b. Turn the tuning knob fully in the direction of the arrow.
- c. Fix the back cover onto the chassis as shown below.



SECTION 3
ADJUSTMENTS

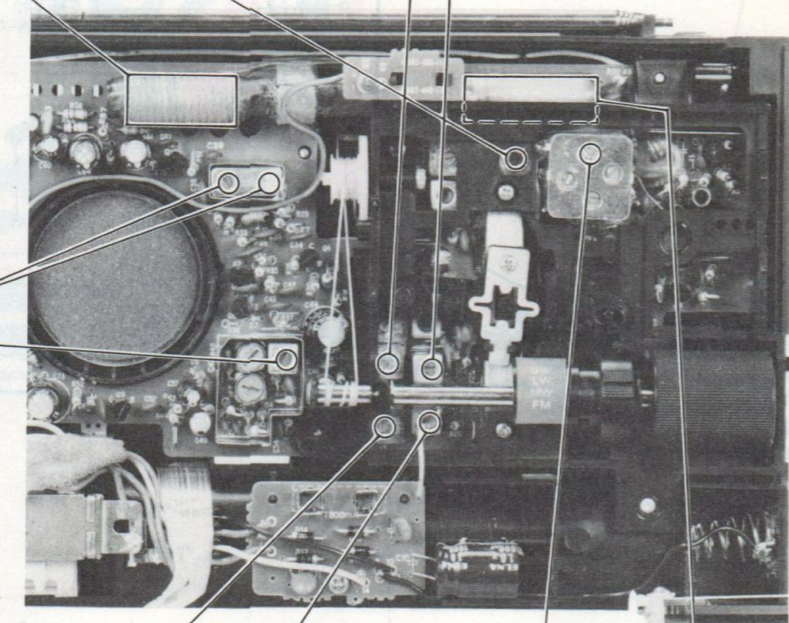
3-1. MW/LW SECTION



LW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM.	
145kHz	300kHz
L6	CT2

LW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM.	
300kHz	145kHz
CT5	L9

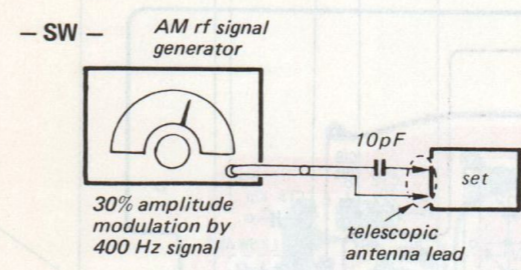
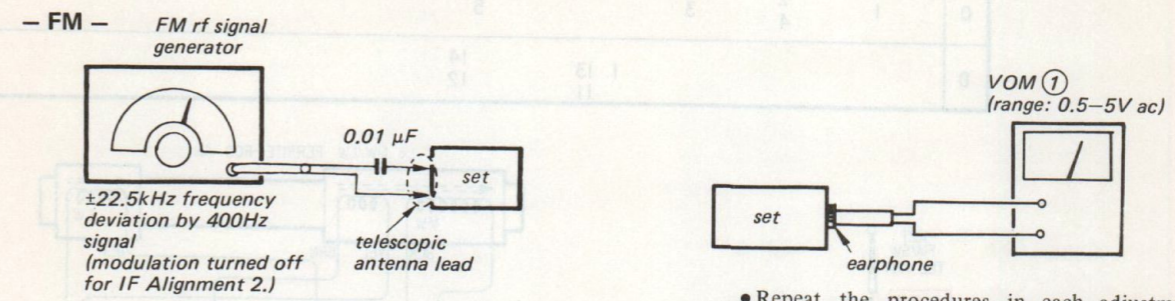
AM IF ALIGNMENT	
Adjust for a maximum reading on VOM.	
455kHz	CFT
	IFT4



CT4	L8
1,680kHz	520kHz
Adjust for a maximum reading on VOM.	
MW FREQUENCY COVERAGE ADJUSTMENT	

CTI-3	L6
1,400kHz	620kHz
Adjust for a maximum reading on VOM.	
MW TRACKING ADJUSTMENT	

3-2. FM/SW SECTION

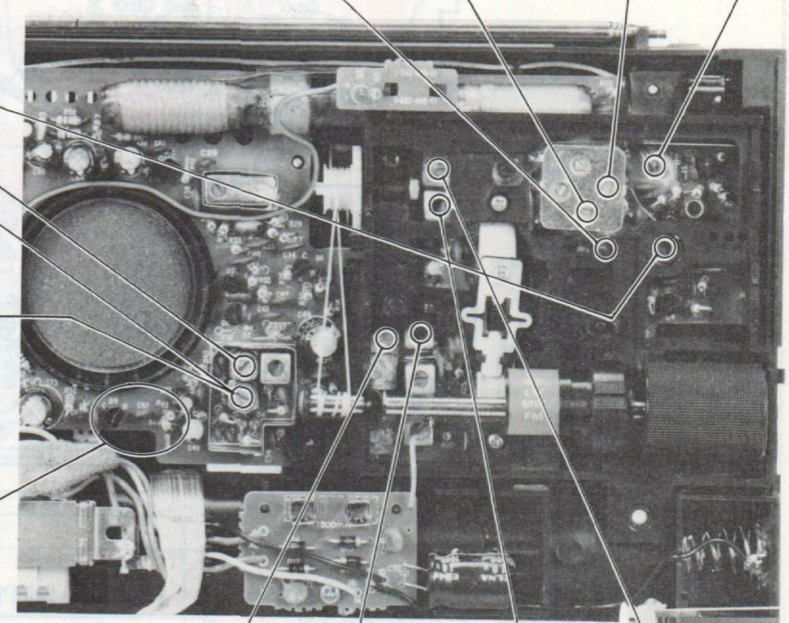
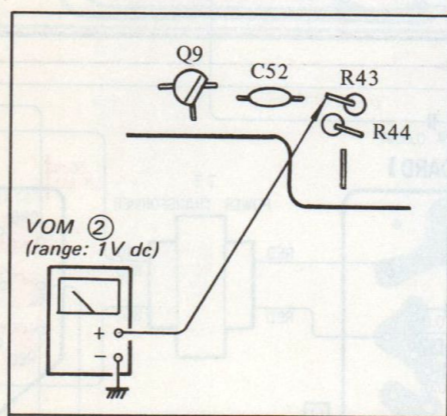


FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM ①.	
87.1MHz (87.5MHz)	108.5MHz (108MHz)
L5	CTI-2

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM ①.	
108.5MHz (108MHz)	87.1MHz (87.5MHz)
CTI-1	L1

FM IF ALIGNMENT 1	
Adjust for a maximum reading on VOM ①.	
10.7MHz with modulation	IFT1
	IFT2
	IFT3

FM IF ALIGNMENT 2	
Adjust for 0V reading on VOM ②.	
10.7MHz with no modulation	IFT3



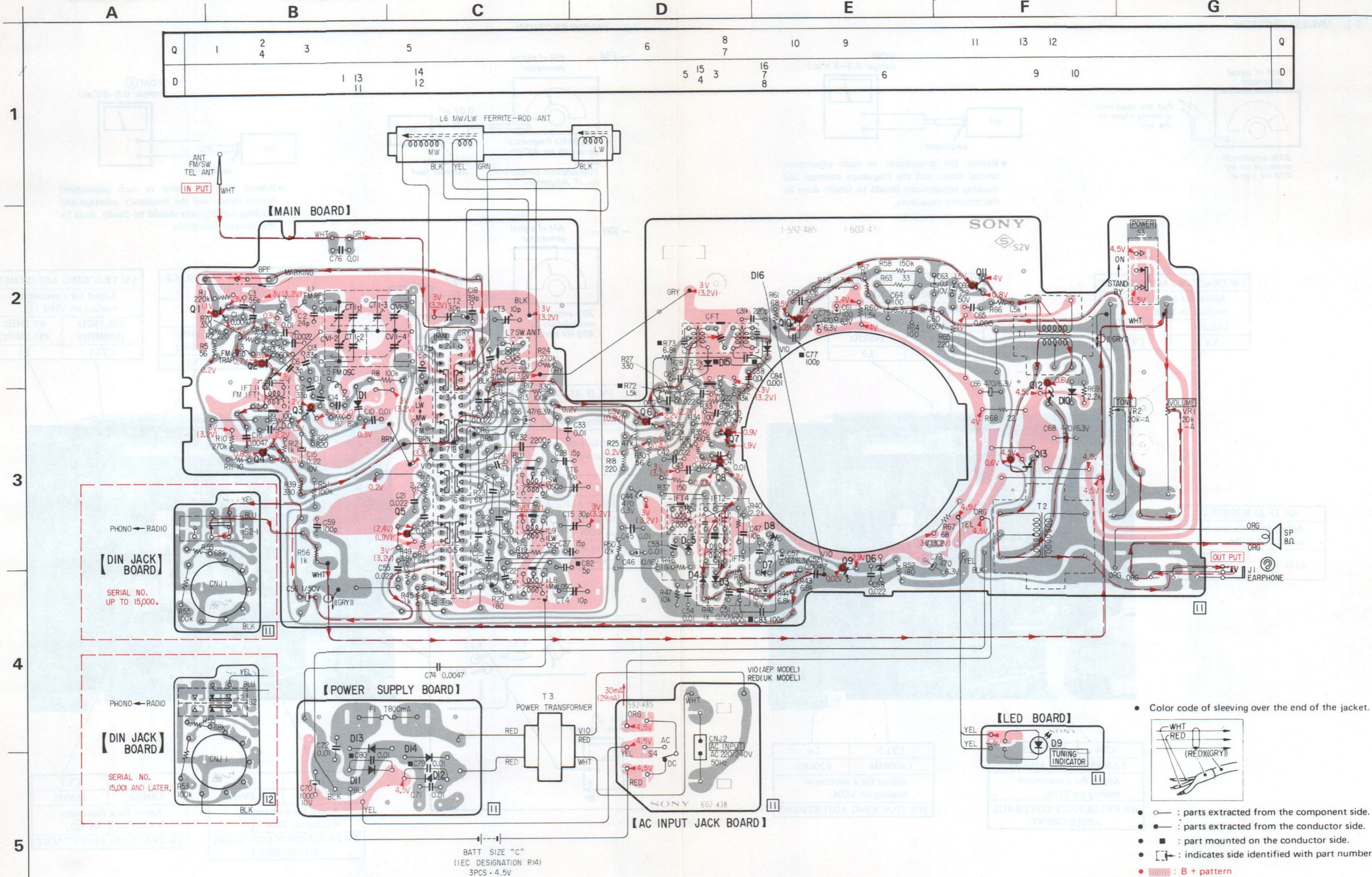
CT6	L10
16MHz	5.8MHz
Adjust for a maximum reading on VOM ①.	
SW FREQUENCY COVERAGE ADJUSTMENT	

L7	CT3
5.8MHz	16MHz
Adjust for a maximum reading on VOM ①.	
SW TRACKING ADJUSTMENT	

4-1. MOUNTING DIAGRAM
- Conductor Side -

SECTION 4
DIAGRAMS

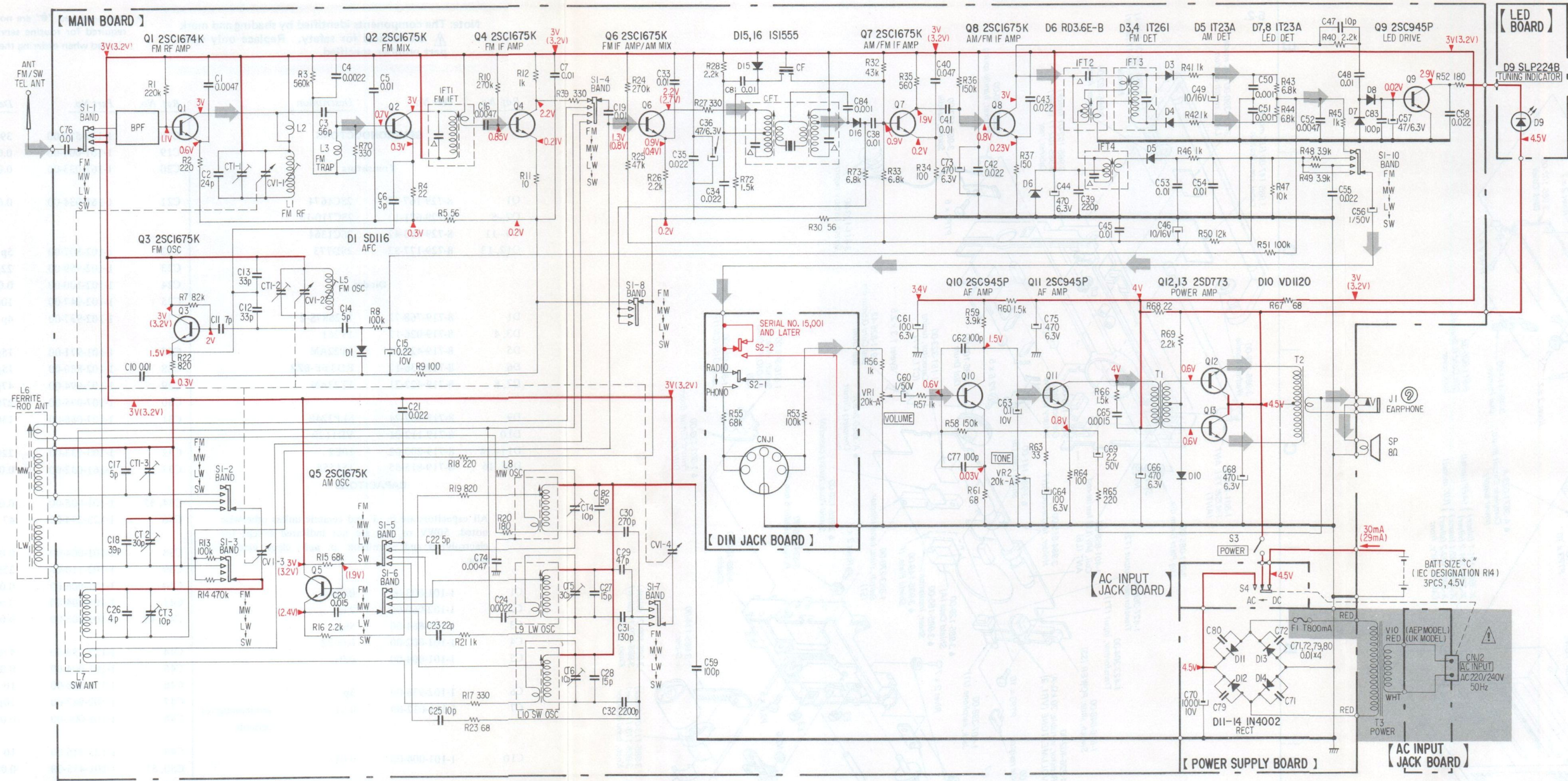
SECTION 3
ADJUSTMENTS



- Color code of sleeving over the end of the jacket.
- — : parts extracted from the component side.
- — : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- [] : indicates side identified with part number.
- [] : B + pattern
- — : signal path

4-2. SCHEMATIC DIAGRAM

1
2
3
4
5

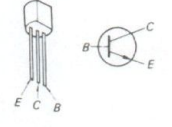


Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

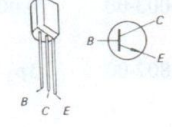
- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, $\frac{1}{4}$ W unless otherwise noted. $\text{k}\Omega$: 1000 Ω , $\text{M}\Omega$: 1000 $\text{k}\Omega$
- Δ : internal component.
- **—** : B+ bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- Readings are taken under no-signal (detuned) conditions with a VOM (20 $\text{k}\Omega/\text{V}$).
- () : AM
no mark: FM
- \rightarrow : signal path

Semiconductors

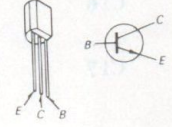
2SC1364
2SC1674
2SC1674K
2SC1675K



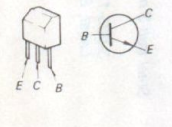
2SC710-13



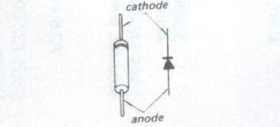
2SC945P



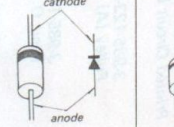
2SD773



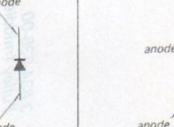
1N4002
1S2687S-2
1T22AM
1S1555



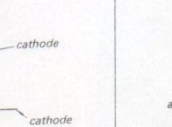
1T23A
1T261
RD3.6E-B
RD3.6E-BZ8



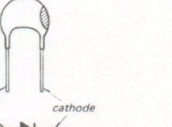
10E2



SD116



SLP224B



VD1120




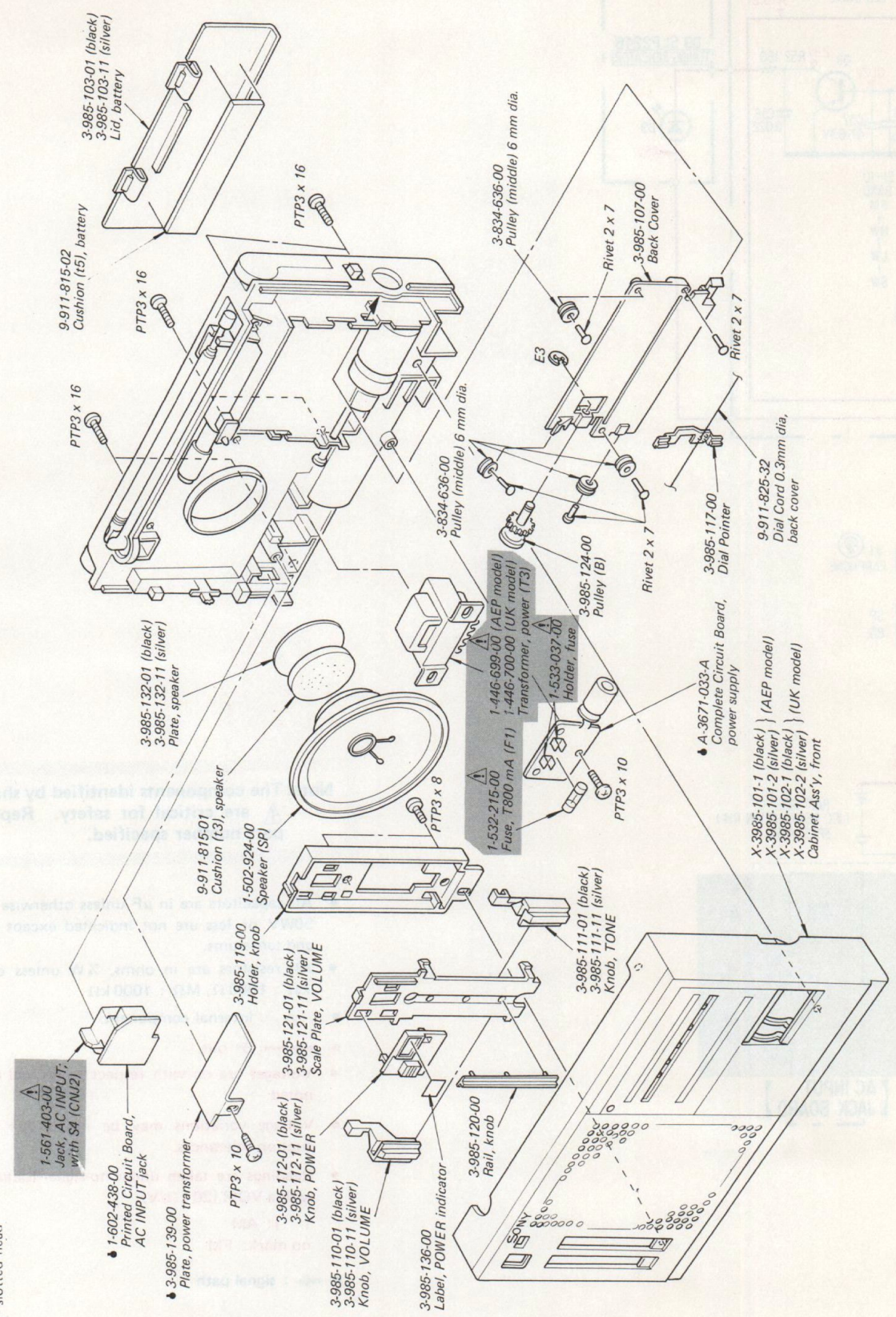
SECTION 5
EXPLODED VIEWS

SECTION 6
ELECTRICAL PARTS LIST

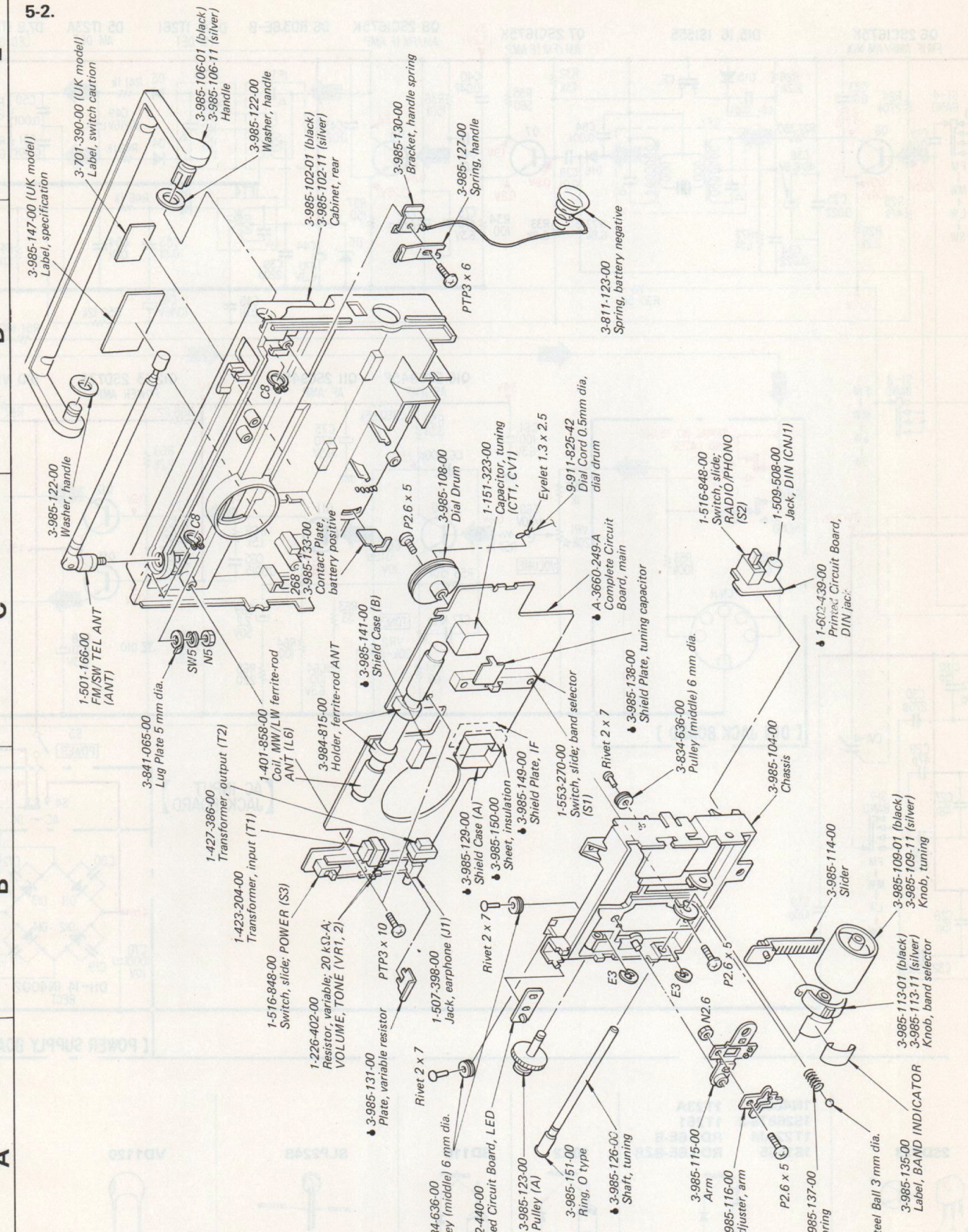
5-1.


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


Note: Items marked  are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head



5-2.



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

Items marked  are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
SEMICONDUCTORS					
Transistors					
Q1	8-729-167-42	2SC1674	C18	1-102-520-00	39p
Q2-8	8-729-671-13	2SC710-13	C19	1-101-004-00	0.01
Q9-11	8-729-663-47	2SC1364	C20	1-161-033-00	0.015 semiconductor ceramic
Q12, 13	8-729-177-32	2SD773	C21	1-161-034-00	0.022 semiconductor ceramic
Diodes					
D1	8-719-768-72	1S2687S-2	C22	1-102-807-00	5p
D3, 4	8-719-026-11	1T261	C23	1-102-959-00	22p
D5	8-719-422-21	1T22AM	C24	1-102-100-00	0.0022
D6	8-719-136-17	RD3.6E-BZ8	C25	1-102-947-00	10p
D7, 8	8-719-422-21	1T22AM	C26	1-102-937-00	4p
D9	8-719-902-24	SLP224B	C27	1-101-971-00	15p
D10	8-719-112-01	VD1120	C28	1-102-880-00	15p
D11-14	8-719-200-02	10E2	C29	1-102-694-00	47p
D15, 16	8-719-815-55	1S1555	C30	1-107-095-00	270p silvered mica
			C31	1-107-088-00	130p silvered mica
CAPACITORS					
All capacitors are in μ F and ceramic unless otherwise noted. 50WV or less are not indicated except for electrolytics and aluminum. p: μ F, elect: electrolytic.					
C1	1-101-003-00	0.0047	C34, 35	1-101-005-00	0.022
C2	1-102-960-00	24p	C36	1-123-294-00	47 6.3V elect
C3	1-101-884-00	56p	C38	1-101-004-00	0.01
C4	1-101-002-00	0.0022	C39	1-102-110-00	220p
C5	1-101-004-00	0.01	C40	1-101-006-00	0.047
C6	1-102-936-00	3p	C41	1-101-004-00	0.01
C7	1-161-032-00	0.01 semiconductor ceramic	C42, 43	1-101-005-00	0.022
C10	1-101-004-00	0.01	C44	1-123-298-00	470 6.3V elect
C11	1-102-809-00	7p	C45	1-101-004-00	0.01
C12, 13	1-102-645-00	33p	C46	1-123-316-00	10 16V elect
C14	1-102-807-00	5p	C47	1-102-947-00	10p
C15	1-127-020-00	0.22 10V solid aluminum	C48	1-101-004-00	0.01
C16	1-101-003-00	0.0047	C49	1-123-316-00	10 16V elect
C17	1-102-807-00	5p	C50, 51	1-101-455-00	0.001
			C52	1-102-102-00	0.0047
			C53, 54	1-101-004-00	0.01
			C55	1-161-034-00	0.022 semiconductor ceramic
			C56	1-123-352-00	1 50V elect
			C57	1-123-294-00	47 6.3V elect

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C58	1-101-005-00	0.022	IFT3	1-403-959-00	Transformer, FM discriminator
C59	1-102-973-00	100p	IFT4	1-403-129-00	AM IFT
C60	1-123-352-00	1 50V elect	J1	1-507-398-00	Jack, earphone
C61	1-123-295-00	100 6.3V elect	L1	1-420-996-00	Coil, FM RF
C62	1-102-973-00	100p	L3	1-409-293-00	Coil, FM trap
C63	1-127-019-00	0.1 10V solid aluminum	L5	1-420-996-00	Coil, FM OSC
C64	1-123-295-00	100 6.3V elect	L6	1-401-858-00	Coil, MW/LW ferrite-rod ANT
C65	1-102-099-00	0.0015	L7	1-401-859-00	Coil, SW ANT
C66, 68	1-123-298-00	470 6.3V elect	L8	1-405-904-00	Coil, MW OSC
C69	1-123-353-00	2.2 50V elect	L9	1-405-751-00	Coil, LW OSC
C70	1-123-311-00	1000 10V elect	L10	1-405-905-00	Coil, SW OSC
C71, 72	1-101-004-00	0.01	S1	1-553-270-00	Switch, slide; band selector
C73	1-123-298-00	470 6.3V elect	S2	1-516-848-00	Switch, slide; RADIO/PHONO
C74	1-101-003-00	0.0047	S3	1-516-848-00	Switch, slide; POWER
C75	1-123-298-00	470 6.3V elect	S4	—————	Switch, ac/dc selector; included in CNJ2
C76	1-101-004-00	0.01	SP	1-502-924-00	Speaker
C77	1-102-973-00	100p	T1	1-423-204-00	Transformer, input
C79-81	1-101-004-00	0.01	T2	1-427-386-00	Transformer, output
C82	1-102-807-00	5p	T3	⚠ 1-446-699-00	Transformer, power (AEP model)
C83	1-102-973-00	100p	T3	⚠ 1-446-700-00	Transformer, power (UK model)
C84	1-161-026-00	0.001 semiconductor ceramic		⚠ 1-533-037-00	Holder, fuse
CT1, CV1	1-151-323-00	Tuning			
CT2	1-141-181-00	30p, trimmer			
CT3, 4	1-141-179-00	10p, trimmer			
CT5	1-141-181-00	30p, trimmer			
CT6	1-141-179-00	10p, trimmer			

RESISTORS

Common ¼W carbon resistors are omitted. Refer to the list on the last page for their part numbers.

VR1, 2 1-226-402-00 20k-A, variable; VOLUME, TONE

MISCELLANEOUS

ANT	1-501-166-00	FM/SW TEL ANT
BPF	1-231-286-00	Filter, band-pass
CF	1-527-184-00	Filter, ceramic
CFT	1-403-829-00	CFT
CNJ1	1-509-508-00	Jack, DIN
CNJ2	⚠ 1-561-403-00	Jack, AC INPUT; with S4
F1	⚠ 1-532-215-00	Fuse, T800mA
IFT1	1-403-872-00	FM IFT
IFT2	1-403-953-00	Transformer, FM discriminator

COMPLETE CIRCUIT BOARDS

- A-3660-249-A Main
- A-3671-033-A Power Supply

PRINTED CIRCUIT BOARDS

- 1-602-438-00 AC INPUT Jack
- 1-602-439-00 DIN Jack
- 1-602-440-00 LED

ACCESSORIES AND PACKING MATERIALS

- ⚠ 1-555-359-00 Cord, power (UK model)
- ⚠ 1-555-360-00 Cord, power (AEP model)
- 3-701-308-00 Label, color; black
- 3-701-309-00 Label, color; silver
- 3-701-630-00 Bag, protection
- 3-985-145-00 Carton
- 3-985-146-00 Cushion
- 3-995-880-11 Manual, instruction (AEP model)
- 3-995-880-41 Manual, instruction (UK model)

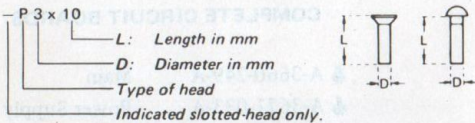
1/4 WATT CARBON RESISTORS [Ⓐ]

Note: Circled letter [Ⓐ] is applicable to European models only.

Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-476-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-477-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-478-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-479-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-480-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-481-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-482-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-483-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-484-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-485-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-486-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-487-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

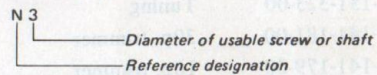
HARDWARE NOMENCLATURE

Screw:



Indicated slotted-head only.
Unless otherwise indicated, it means cross-recessed head (Phillips type).

Nut, Washer, Retaining ring:



Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self-tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	