

ICF-SW22

SERVICE MANUAL

AEP Model
UK Model
E Model
Tourist Model



SPECIFICATIONS

Frequency range	FM : 87.6-107.5 MHz (AEP, UK, Italian, Saudi Arabia Model) 76-108 MHz (E, Tourist Model) IF: 10.7 MHz SW1: 5.775-6.425 MHz SW2: 6.875-7.525 MHz SW3: 9.375-10.025 MHz SW4: 11.615-12.265 MHz SW5: 15.00-15.65 MHz SW6: 17.50-18.15 MHz SW7: 21.325-21.975 MHz 1st IF: 10.7 MHz 2nd IF: 455 kHz MW : 531-1602 kHz (AEP, UK, Italian, Saudi Arabia Model) 530-1710 kHz (E, Tourist Model) IF: 455 kHz
Speaker	Approx. ϕ 40 mm (1 5/8 inches) 7.2 Ω
Power output	100 mW (at 10% harmonic distortion)
Output	Earphone jack (minijack)
Power requirements	3 V DC, two R6 (size AA) batteries.
Battery life	Approx. 22 hours with Sony SUM-3 (NS)
Dimensions	Approx. 116.5 $\times$ 72.5 $\times$ 28 mm (w/h/d) (4 1/2 $\times$ 2 7/8 $\times$ 1 1/8 inches)
Mass	Approx. 200 g (7.1 oz) incl. batteries
Accessories supplied	Short wave guide (1) UK, E, Tourist, Italian, Saudi Arabia Model : Earphone, carrying case

Design and specifications are subject to change without notice.

Features

- Handy FM/SW1-7/MW 9 band receiver with high sensitivity and selectivity.
- Band spread system enables you to easily tune in SW stations.
- Dual conversion circuit effectively reduces SW bands interference from other SW stations.

FM/MW/SW1-7
9 BAND RECEIVER

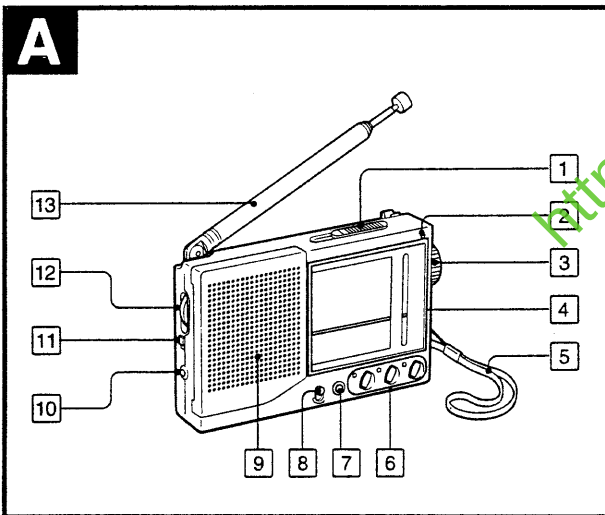
SONY®

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SECTION 1 GENERAL

This section is extracted from instruction manual.

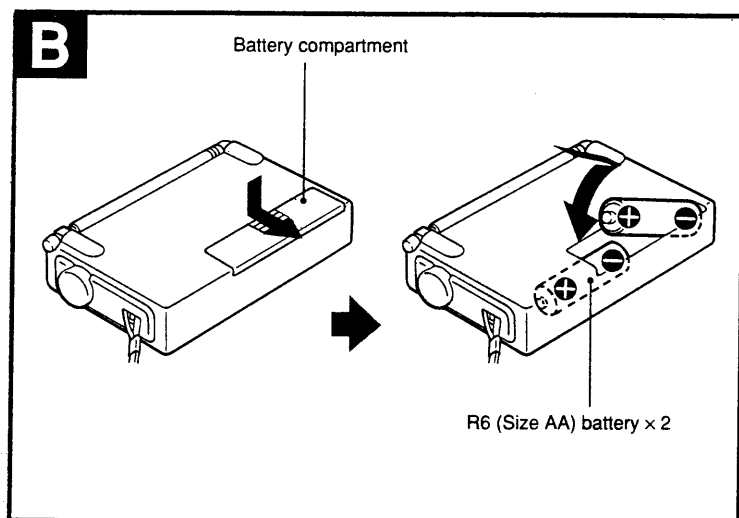


Location of Controls

See A .

- 1** SW BAND selector
- 2** TUNE (tuning indicator)
The indicator lights up when signal is received.
- 3** TUNING dial
- 4** Dial scales
- 5** Hand strap
- 6** Band selectors and indicators (FM/SW/MW)
The unit turned on with the band selectors.
- 7** OFF (power off) button
- 8** HOLD switch

- Set it to the direction of the arrow:
When listening, to avoid accidental change of the functions.
When not using, to prevent accidental pressing to turn the power on.
- 9** Speaker
 - 10** Ⓜ (earphone) jack
 - 11** TONE (MUSIC/NEWS) selector
MUSIC: for listening to the music
NEWS: for listening to news, etc.
 - 12** VOLUME dial
 - 13** Telescopic antenna



Installing the Batteries

See B .

Insert two R6 (size AA) batteries with correct polarity.

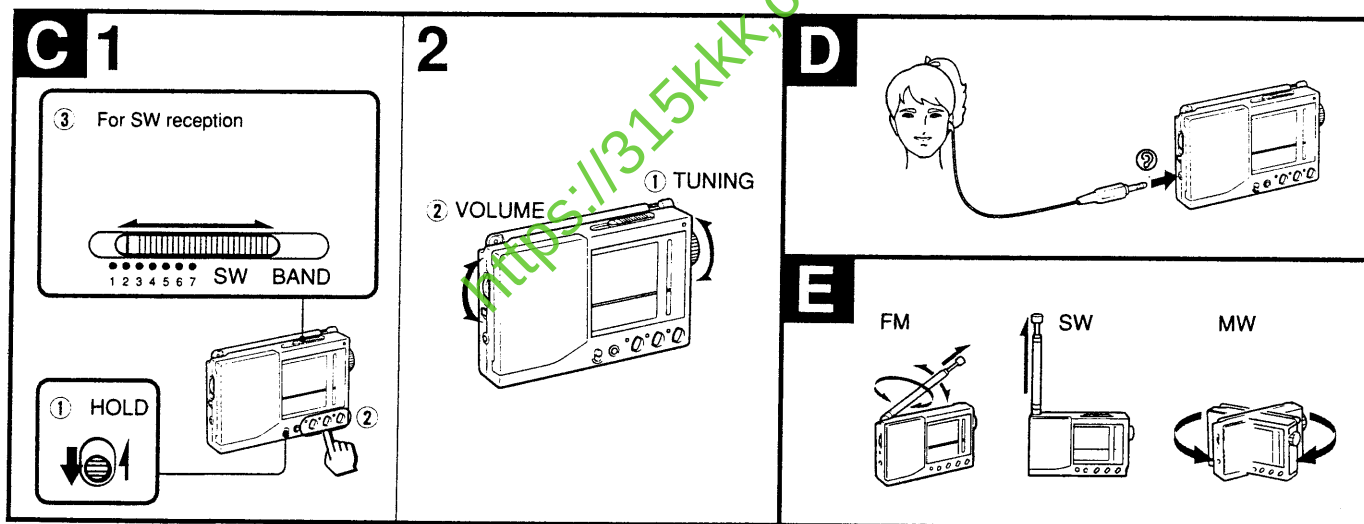
When to replace the batteries

When the batteries are weak, the band indicators will glow faintly and the sound will become distorted or unstable. In this case, replace both batteries with new ones.

Concerning the battery life, see "Specifications".

Note

When the unit is not to be used for a long period of time, remove the batteries to avoid damage caused by battery leakage and corrosion.



Operating the Radio

See C .

- 1 ① If the HOLD switch is set to arrow direction, release it.
- ② Select a desired band FM, SW or MW. The radio is turned on and the corresponding indicator lights up.
- ③ For SW reception, select a desired band with the SW BAND selector.
- 2 ① Turn the TUNING dial to tune a desired station.
- ② Adjust the volume with the VOLUME dial.

To improve receiving condition

See E .

FM: Extend the antenna for better reception.
 SW: Stand the antenna vertically.
 MW: Rotate the unit horizontally for optimum reception.
 A ferrite bar antenna is built into the unit.

To turn off the radio, press the OFF button.

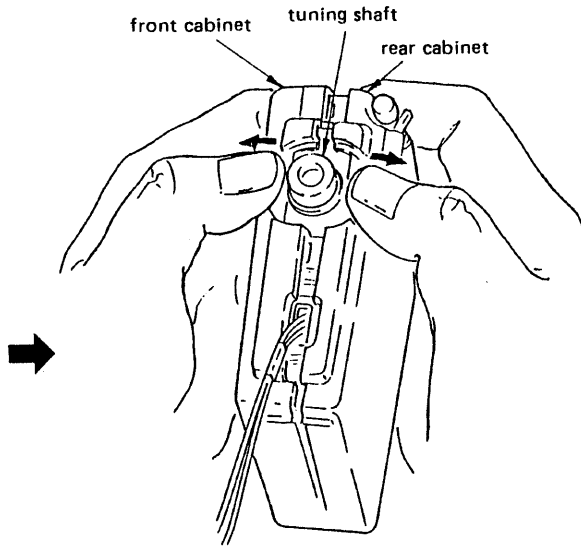
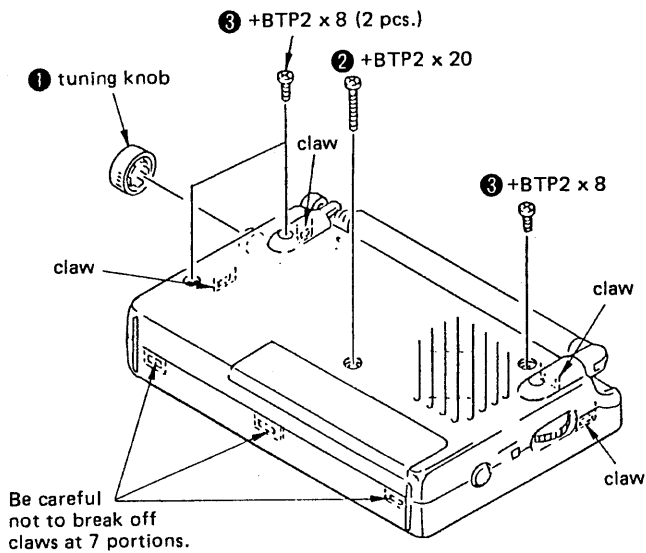
To listen with the supplied earphone

See D .

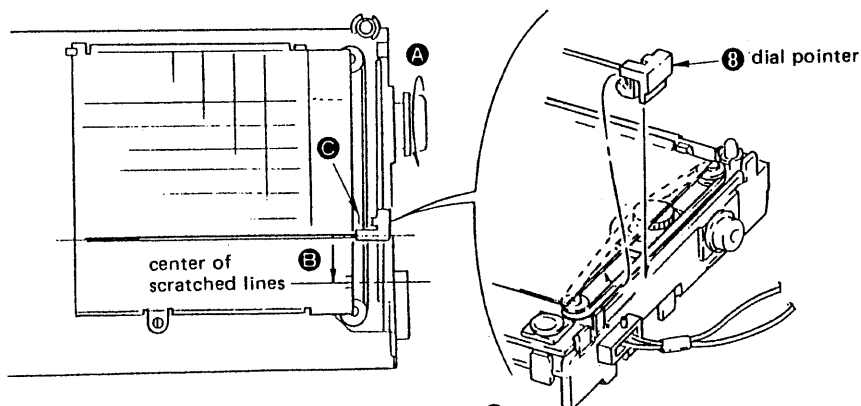
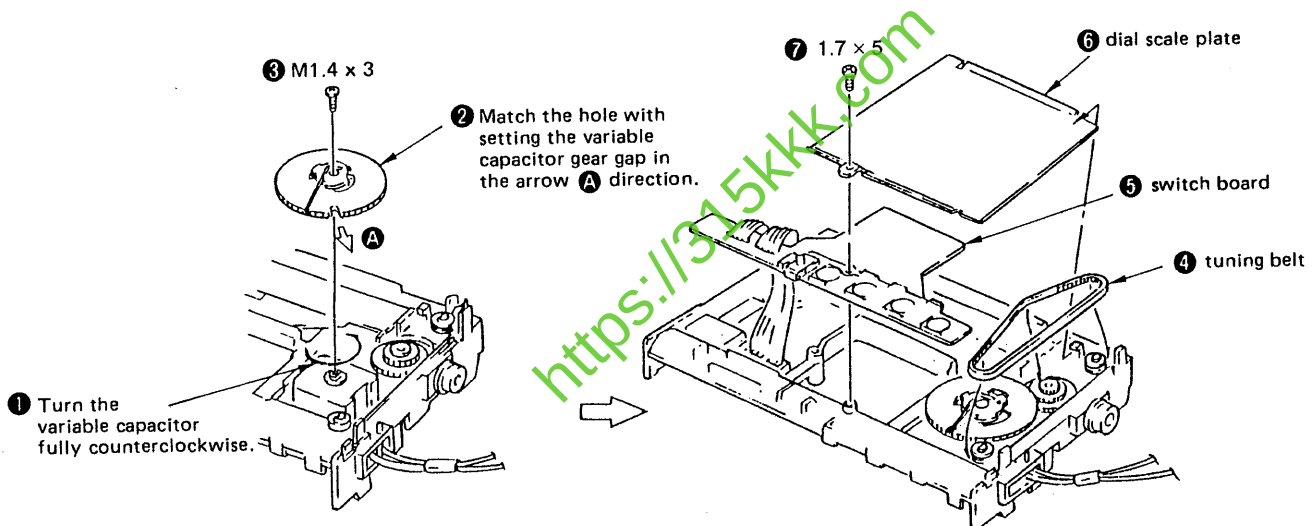
SECTION 2 DISASSEMBLY

FRONT AND REAR CABINET

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



DIAL POINTER SETTING



- ⑨ First, turn the tuning shaft fully in the arrow A direction. Move only the dial pointer in the arrow B direction and set it on the center of the scratched lines on the dial scale plate. Apply suitable locking compound to C portion.

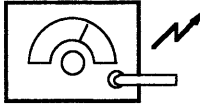
SECTION 3 ELECTRICAL ADJUSTMENTS

MW Section

procedure :

BAND switch : MW

AM RF signal
generator



Put the lead-wire
antenna close to
the set.

30% amplitude modulation by 400Hz
signal.
Output level : as low as possible

SW Section

procedure :

BAND switch : SW

AM RF signal
generator



30% amplitude modulation by
400Hz signal.
Output level : as low as possible

0.01 μ F

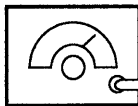
telescopic
antenna
terminal

FM Section

procedure :

BAND Switch : FM

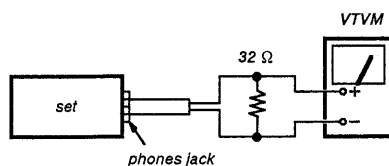
FM RF signal
generator



22.5kHz frequency deviation by
400Hz signal.
Output level : as low as possible

0.01 μ F

telescopic
antenna
terminal



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.
- SW1 to 7 Tracking Adjustment frequencies are in a line on the scale.
Therefore, on adjusting, first SW 6.1MHz and after adjust SW2 to 7 Tracking without moving the dial pointer.

no mark : AEP, UK, Italian, Saudi Arabia model
() : E, Tourist model

MW IF ADJUSTMENT

Adjust for a maximum reading on VTVM.

T2	455kHz
----	--------

MW FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on VTVM.

L17	520kHz
CT11-3	1,650kHz (1,750kHz)

MW TRACKING ADJUSTMENT

Adjust for a maximum reading on VTVM.

L14	620kHz
CT11-4	1,400kHz

SW IF (1) ADJUSTMENT

Adjust for a maximum reading on VTVM.

T1	10.6MHz
----	---------

SW IF (2) ADJUSTMENT

Adjust for a maximum reading on VTVM.

T3	455kHz
----	--------

SW1 FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on VTVM.

T4	5.75MHz
CT1	6.45MHz

SW1 TRACKING ADJUSTMENT

Adjust for a maximum reading on VTVM.

L1	6.1MHz
----	--------

SW2 TRACKING ADJUSTMENT

Adjust for a maximum reading on VTVM.

L2	7.2MHz
----	--------

SW3 TRACKING ADJUSTMENT

Adjust for a maximum reading on VTVM.

L3	9.7MHz
----	--------

SW4 TRACKING ADJUSTMENT

Adjust for a maximum reading on VTVM.

L4	11.94MHz
----	----------

SW5 TRACKING ADJUSTMENT

Adjust for a maximum reading on VTVM.

L5	15.325MHz
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SW6 TRACKING ADJUSTMENT

Adjust for a maximum reading on VTVM.

L6	17.825MHz
----	-----------

SW7 TRACKING ADJUSTMENT

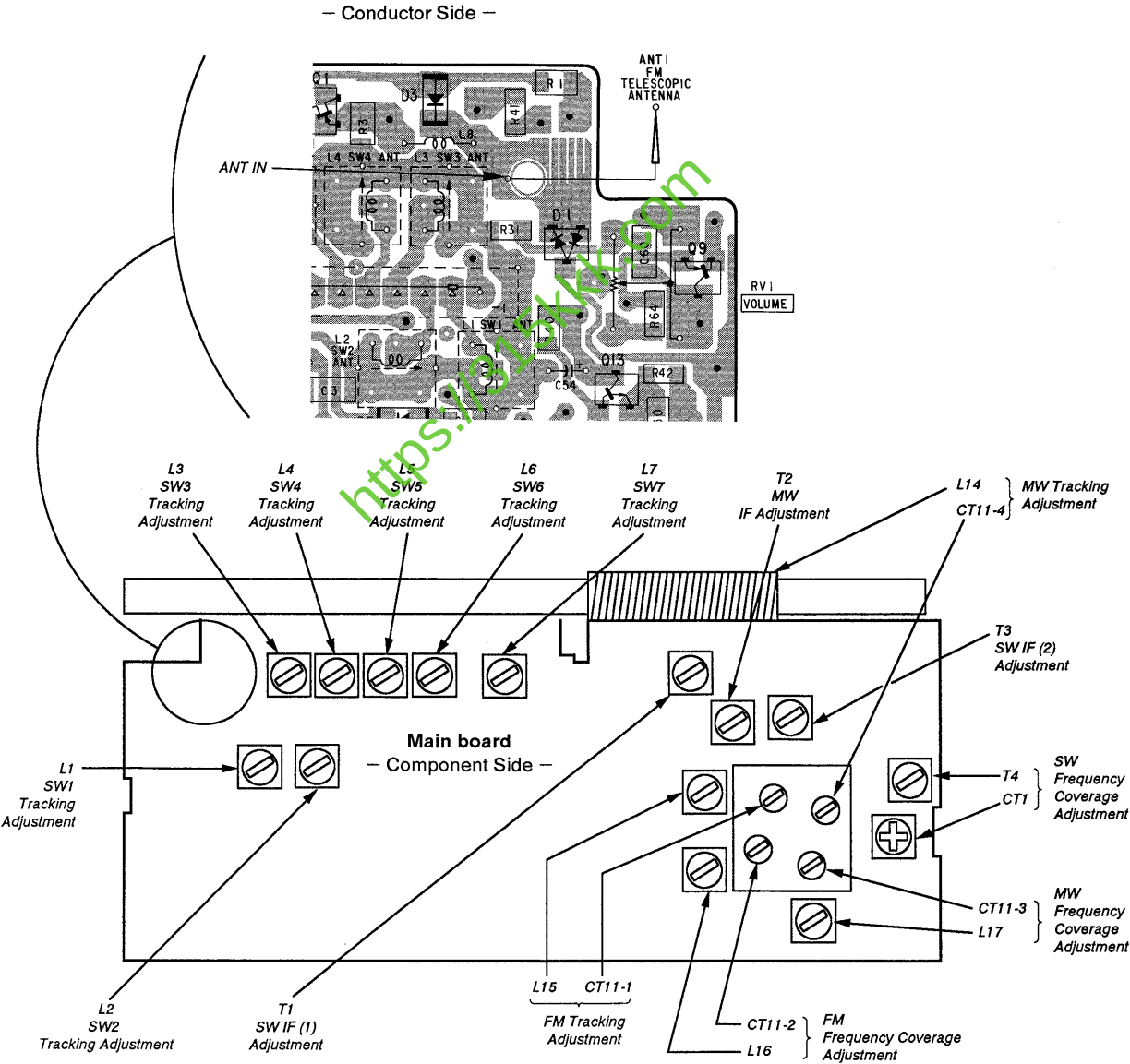
Adjust for a maximum reading on VTVM.

L7	21.65MHz
----	----------

FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L16	87.35MHz (75.0MHz)
CT11-2	108.05MHz (109.5MHz)

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L15	87.35MHz (80MHz)
CT11-1	108.05MHz (104MHz)

[PARTS ARRANGEMENT DIAGRAM FOR ADJUSTMENT]



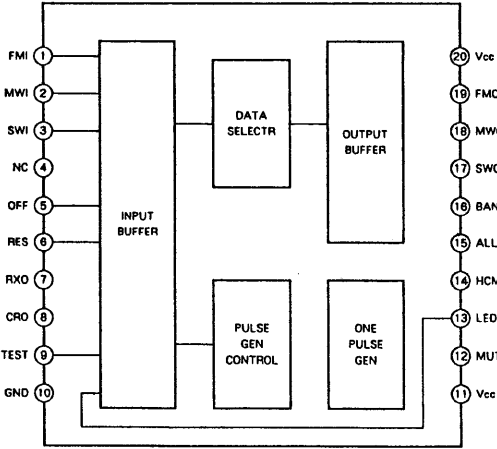
SECTION 4
DIAGRAMS

Note:

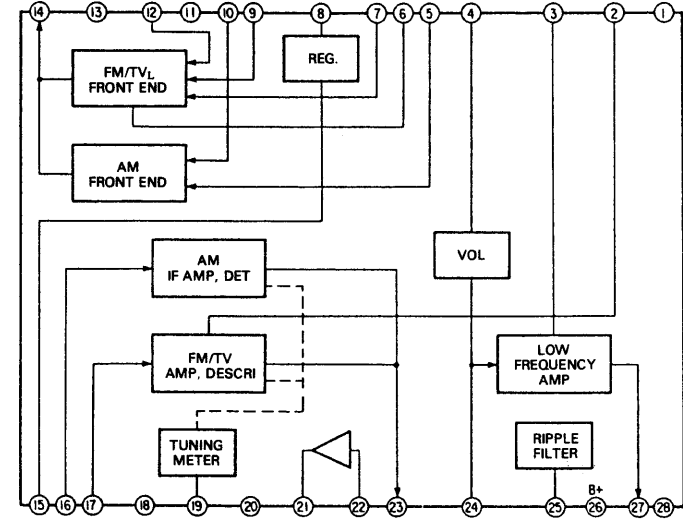
- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : parts mounted on the conductor side.
- : Through hole.
- ▨ : Pattern on the side which is seen.
- ▩ : Pattern of the rear side.
- : Chip components extracted from the rear side.

IC BLOCK DIAGRAMS

IC 101 CF77392NC



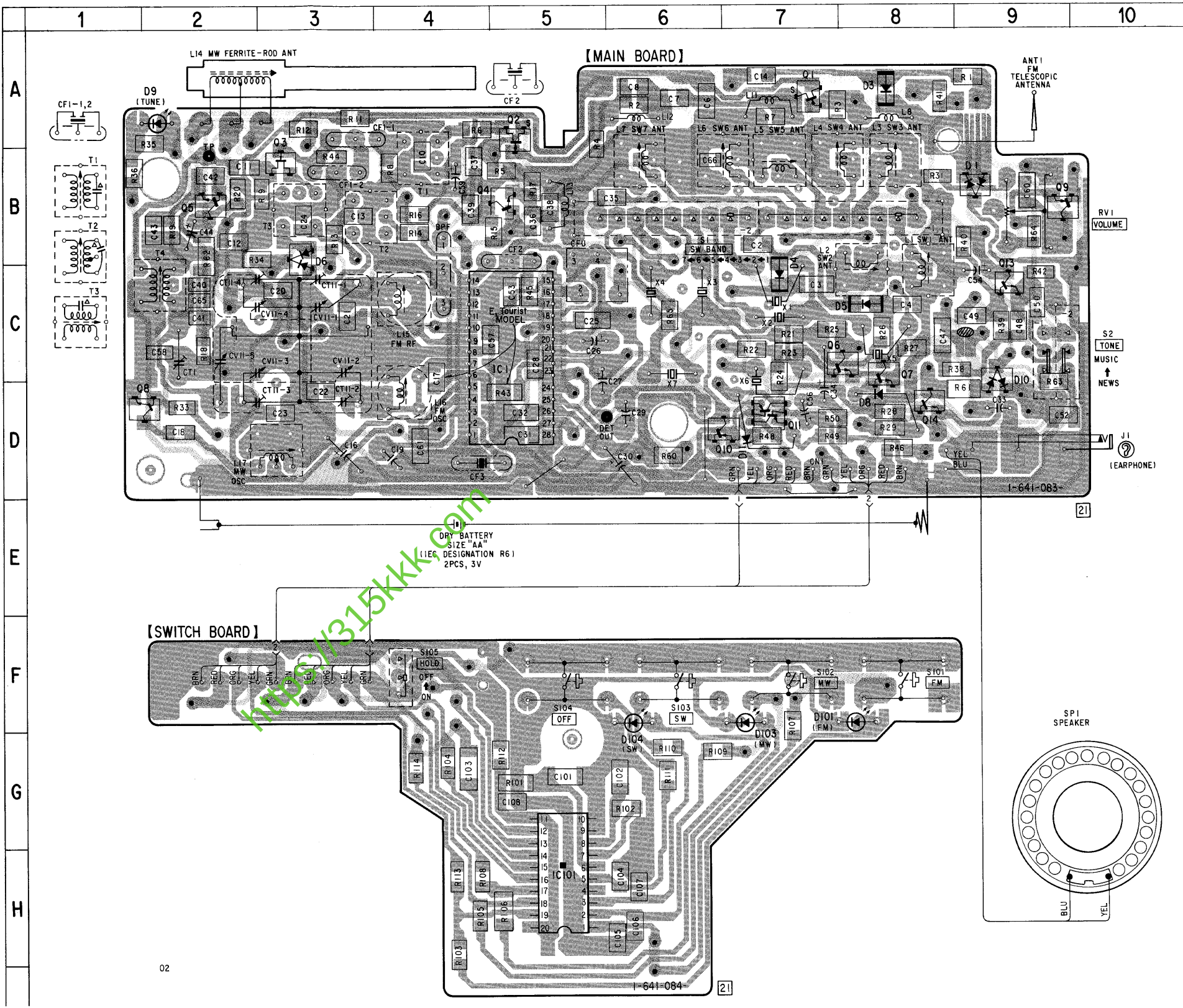
IC 1 CX20091



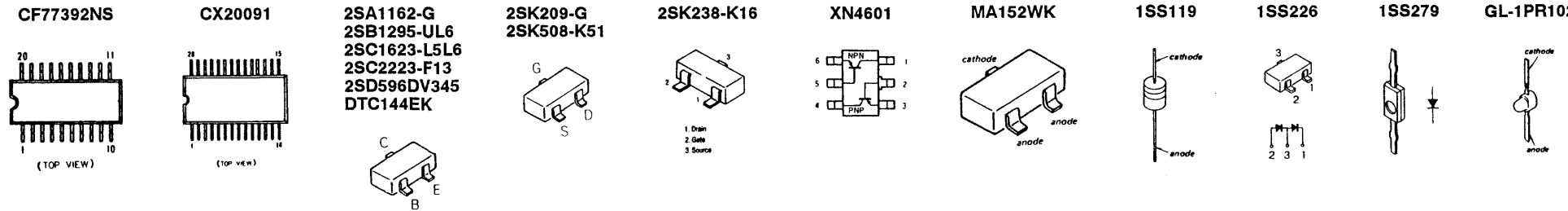
SEMICONDUCTOR
LOCATION

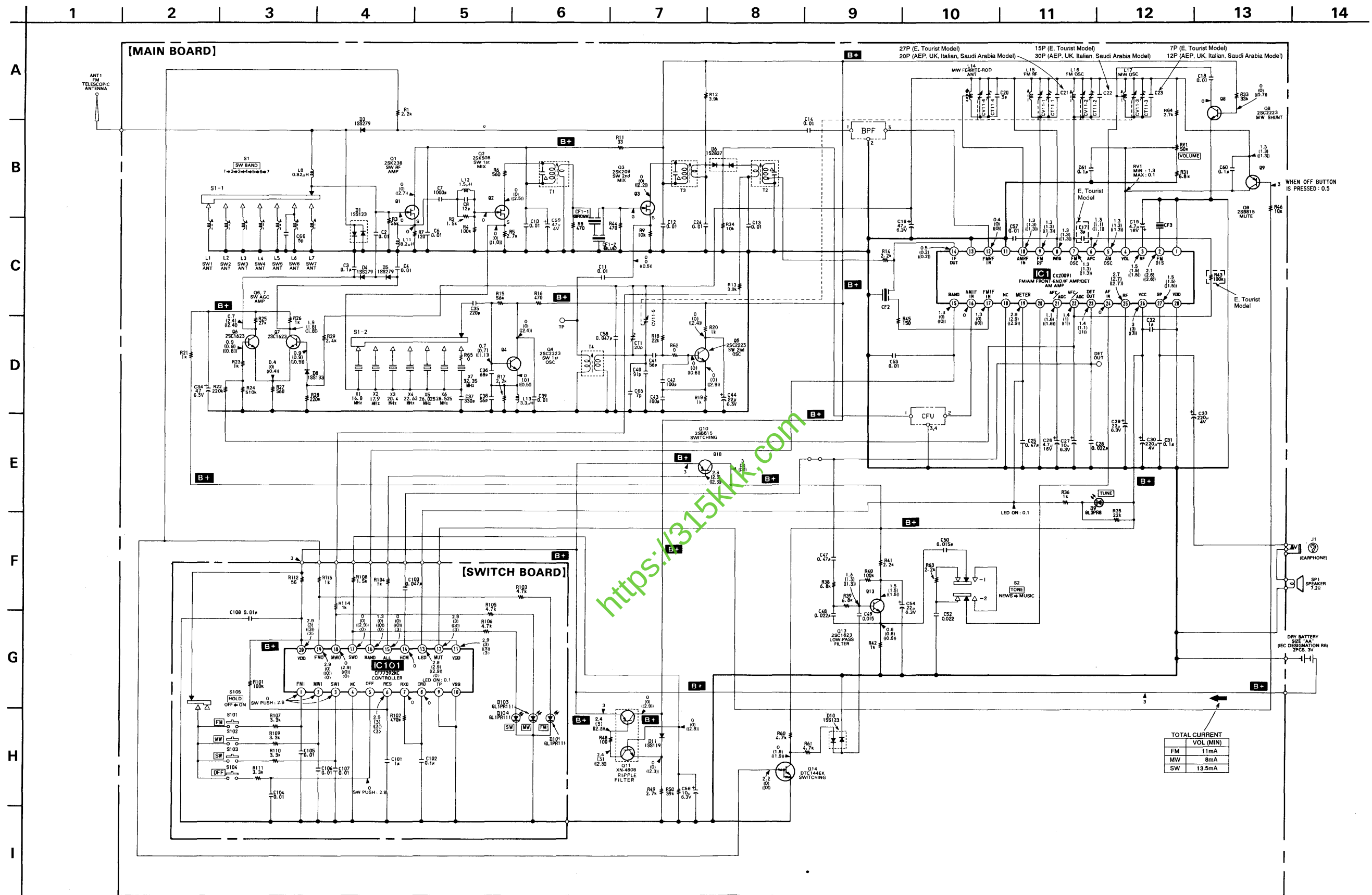
Ref. No.	Location
D1	B-9
D3	A-8
D4	C-7
D5	C-8
D6	B-3
D8	D-8
D9	A-2
D10	D-9
D11	D-7
D101	F-8
D103	F-7
D104	F-6
IC1	C-5
IC101	H-5
Q1	A-7
Q2	A-5
Q3	B-3
Q4	B-5
Q5	B-2
Q6	C-8
Q7	C-8
Q8	D-2
Q9	B-9
Q10	D-7
Q11	D-7
Q13	C-9
Q14	D-8

4-1. PRINTED WIRING BOARDS



SEMICONDUCTOR LEAD LAYOUTS





SECTION 5 EXPLODED VIEW

NOTE :

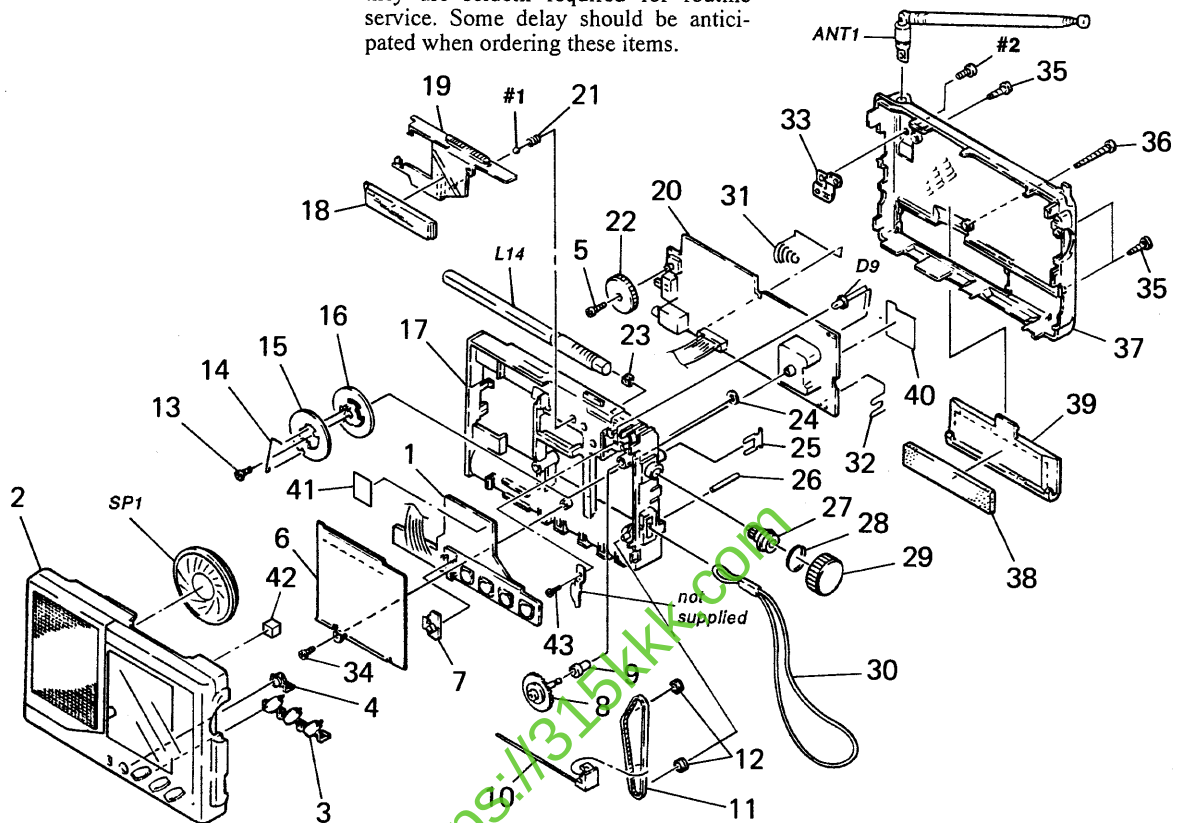
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Color indication of Appearance Parts
Example :
KNOB, BALANCE (WHITE)....(RED)

Parts color Cabinet's color

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

- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.



Ref.No.	Part No.	Description	Remark
* 1	1-641-084-21	SWITCH BOARD	
2	X-3367-284-1	CABINET (FRONT) ASSY (AEP, UK, Italian, Saudi Arabia)	
2	X-3367-285-1	CABINET (FRONT) ASSY (E, Tourist)	
3	3-904-503-01	BUTTON (BAND SELECTION)	
4	3-900-137-01	BUTTON (OFF)	
5	3-880-990-00	SCREW (1.7X3), FLAT, (+) SPECIAL	
6	3-900-155-11	SCALE, DIAL	
7	3-900-138-01	BUTTON (HOLD)	
8	3-900-143-01	GEAR, MIDWAY	
* 9	3-900-154-01	BEARING	
10	3-900-160-01	POINTER	
11	3-900-156-01	BELT (TUNING)	
12	3-900-157-01	PULLEY	
13	3-892-318-00	SCREW, SMALL	
14	3-900-146-01	SPRING, DIAL	
15	3-900-145-01	GEAR (B), TUNING CAPACITOR	
16	3-900-144-01	GEAR (A), DIAL	
* 17	3-900-162-01	CHASSIS	
18	3-900-142-01	PANEL, SW BAND INDICATION	
19	3-900-159-01	KNOB (SW)	
* 20	A-3661-854-A	MAIN BOARD, COMPLETE (AEP, UK, Italian, Saudi Arabia)	
* 20	A-3661-856-A	MAIN BOARD, COMPLETE (E, Tourist)	
21	3-893-926-01	SPRING, COMPRESSION	
22	3-900-150-01	KNOB, VOL	

Ref.No.	Part No.	Description	Remark
23	9-911-845-XX	CUSHION (A)	
24	3-311-815-11	WASHER, POLYETHYLENE	
25	3-900-149-01	RETAINER	
26	3-669-481-04	PIN (DIA. 1X12), PARALLEL	
27	3-900-147-01	SHAFT, TUNING	
28	3-900-151-01	SPRING, RING	
29	3-900-148-01	KNOB, TUNING	
30	3-900-158-01	STRAP, HAND	
31	3-900-152-01	SPRING	
32	3-900-153-01	TERMINAL, BATTERY	
33	3-900-141-01	PLATE, CONTACT, ANTENNA	
34	3-318-203-71	SCREW (B1.7X5), TAPPING	
35	4-356-741-31	SCREW, TAPPING (BIND 2X8)	
36	4-356-741-41	SCREW, TAPPING (BIND 2X20)	
37	3-900-161-11	CABINET (REAR)	
38	9-911-815-01	CUSHION (A)	
39	3-889-802-71	LID, BATTERY CASE	
* 40	X-3899-513-1	PLATE (F) ASSY, SHIELD	
* 41	3-899-575-01	SHEET (STRAP)	
42	9-911-841-XX	CUSHION, CASSETTE LID	
43	3-895-823-31	SCREW (B1.4X2.3), TAPPING	
ANT1	1-501-432-11	ANTENNA, TELESCOPIC	
D9	8-719-812-41	LED TLR124 (TUNE)	
L14	1-402-434-11	ANTENNA, FERRITE-ROD (MW)	
SP1	1-504-318-11	SPEAKER (4CM)	

MAIN

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.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal oxide-film resistor
F : nonflammable

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example :
uA.... : μ A...., uPA.... : μ PA....
uPB.... : μ PB...., uPC.... : μ PC....
uPD.... : μ PD....
- CAPACITORS
uF : μ F
- COILS
uH : μ H

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-3661-854-A	MAIN BOARD, COMPLETE (AEP, UK, Italian, Saudi Arabia)		C22	1-163-097-00	CERAMIC CHIP 15PF	5% 50V (E, Tourist)
		*****		C22	1-163-104-00	CERAMIC CHIP 30PF	5% 50V (AEP, UK, Italian, Saudi Arabia)
*	A-3661-856-A	MAIN BOARD, COMPLETE (E, Tourist)		C23	1-163-090-00	CERAMIC CHIP 7PF	50V (E, Tourist)
		*****		C23	1-163-095-00	CERAMIC CHIP 12PF	5% 50V (AEP, UK, Italian, Saudi Arabia)
	3-892-318-00	SCREW, SMALL		C24	1-164-232-11	CERAMIC CHIP 0.01uF	50V
	3-900-150-01	KNOB, VOL		C25	1-162-637-11	CERAMIC CHIP 0.47uF	16V
		< FILTER >		C26	1-126-163-11	ELECT 4.7uF	20% 50V
BPF1	1-235-170-00	FILTER, BAND PASS (E, Tourist)		C27	1-126-154-11	ELECT 10uF	20% 16V
BPF1	1-235-171-00	FILTER, BAND PASS (AEP, UK, Italian, Saudi Arabia)		C28	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V
		< CAPACITOR >		C29	1-126-153-11	ELECT 22uF	20% 6.3V
C2	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C30	1-124-434-00	ELECT 220uF	20% 4V
C3	1-163-077-00	CERAMIC CHIP 0.1uF	10% 25V	C31	1-163-077-00	CERAMIC CHIP 0.1uF	10% 25V
C4	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C32	1-162-638-11	CERAMIC CHIP 1uF	16V
C6	1-163-059-00	CERAMIC CHIP 0.01uF	10% 50V	C33	1-124-434-00	ELECT 220uF	20% 4V
C7	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V	C34	1-126-154-11	ELECT 47uF	20% 6.3V
C8	1-163-095-00	CERAMIC CHIP 12PF	5% 50V	C35	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C10	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C36	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C11	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C37	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
C12	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C38	1-163-111-00	CERAMIC CHIP 56PF	5% 50V
C13	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C39	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C14	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C40	1-163-116-00	CERAMIC CHIP 91PF	5% 50V
C16	1-126-154-11	ELECT 47uF	20% 6.3V	C41	1-163-111-00	CERAMIC CHIP 56PF	5% 50V
C17	1-163-086-00	CERAMIC CHIP 3PF	50V (E, Tourist)	C42	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C18	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C43	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C19	1-126-163-11	ELECT 4.7uF	20% 50V	C44	1-126-153-11	ELECT 22uF	20% 6.3V
C20	1-163-086-00	CERAMIC CHIP 3PF	50V	C47	1-162-637-11	CERAMIC CHIP 0.47uF	16V
C21	1-163-100-00	CERAMIC CHIP 20PF	5% 50V (AEP, UK, Italian, Saudi Arabia)	C48	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V
C21	1-163-103-00	CERAMIC CHIP 27PF	5% 50V (E, Tourist)	C49	1-163-023-00	CERAMIC CHIP 0.015uF	5% 50V
				C50	1-163-023-00	CERAMIC CHIP 0.015uF	5% 50V
				C52	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V
				C53	1-164-232-11	CERAMIC CHIP 0.01uF	50V
				C54	1-126-153-11	ELECT 22uF	20% 6.3V

Ref. No.	Part No.	Description	Remark
C56	1-126-157-11	ELECT 10uF	20% 16V
C57	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C58	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V
C59	1-126-154-11	ELECT 47uF	20% 6.3V
C60	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C61	1-163-077-00	CERAMIC CHIP 0.1uF	10% 25V
C65	1-163-090-00	CERAMIC CHIP 7PF	50V
C66	1-163-088-00	CERAMIC CHIP 5PF	50V
< FILTER >			
CF1	1-577-047-11	FILTER, CERAMIC	
CF2	1-567-097-61	FILTER, CERAMIC	
CF3	1-567-097-61	FILTER, CERAMIC	
CFU1	1-577-177-11	FILTER, CERAMIC	
< CONNECTOR >			
CN1	1-751-580-11	CORD (WITH CONNECTOR) 10P	
CN2	1-751-581-11	CORD (WITH CONNECTOR) 2P	
< TRIMMER >			
CT1	1-141-227-00	CAP, TRIMMER 20PF	
CT11 } CV11 }	1-151-649-11	CAP, VARIABLE (AEP, UK, Italian, Saudi Arabia)	
CT11 } CV11 }	1-151-650-11	CAP, VARIABLE (E, Tourist)	
< DIODE >			
D1	8-719-800-76	DIODE 1SS226	
D3	8-719-123-79	DIODE 1SS279	
D4	8-719-123-79	DIODE 1SS279	
D5	8-719-123-79	DIODE 1SS279	
D6	8-719-400-18	DIODE MA152WK	
D8	8-719-911-19	DIODE 1SS119	
D9	8-719-812-41	LED TLR124(TUNE)	
D10	8-719-800-76	DIODE 1SS226	
D11	8-719-911-19	DIODE 1SS119	
< IC >			
IC1	8-752-009-10	IC CX20091	
< JACK >			
J1	1-507-562-00	JACK (EARPHONE)	
< COIL >			
L1	1-402-334-11	COIL (ANT)	
L2	1-402-332-11	COIL (ANT)	
L3	1-402-432-11	COIL (ANT)	

Ref.No.	Part No.	Description	Remark
L4	1-402-331-11	COIL (ANT)	
L5	1-406-261-11	COIL (OSC)	
L5	1-406-206-11	COIL (OSC)	
L6	1-402-433-11	COIL (ANT)	
L7	1-402-330-11	COIL (ANT)	
L8	1-414-021-11	INDUCTOR 0.82uH	
L11	1-414-027-11	INDUCTOR 8.2uH	
L12	1-410-966-11	INDUCTOR 1.5uH	
L13	1-410-322-11	INDUCTOR 3.3uH	
L15	1-459-982-11	COIL (WITH CORE)	
L16	1-459-979-11	COIL (WITH CORE) (FM OSC)	(AEP, UK, Italian, Saudi Arabia)
L16	1-459-436-00	COIL (WITH CORE) (FM OSC) (E, Tourist)	
L17	1-406-255-11	COIL (OSC)	
< TRANSISTOR >			
Q1	8-729-123-86	TRANSISTOR 2SK238-K16	
Q2	8-729-116-64	TRANSISTOR 2SK508-K51	
Q3	8-729-220-93	TRANSISTOR 2SK209-G	
Q4	8-729-102-07	TRANSISTOR 2SC2223-F13	
Q5	8-729-102-07	TRANSISTOR 2SC2223-F13	
Q6	8-729-141-75	TRANSISTOR 2SD596DV345	
Q7	8-729-141-75	TRANSISTOR 2SD596DV345	
Q8	8-729-102-07	TRANSISTOR 2SC2223-F13	
Q9	8-729-216-22	TRANSISTOR 2SA1162-G	
Q10	8-729-807-87	TRANSISTOR 2SB1295-UL6	
Q11	8-729-402-84	TRANSISTOR XN4601	
Q13	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q14	8-729-901-01	TRANSISTOR DTC144EK	
< RESISTOR >			
R1	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R2	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R3	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R4	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R5	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R6	1-216-043-00	METAL CHIP 560 5% 1/10W	
R7	1-216-027-00	METAL CHIP 120 5% 1/10W	
R8	1-216-041-00	METAL CHIP 470 5% 1/10W	
R9	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R11	1-216-013-00	METAL CHIP 33 5% 1/10W	
R12	1-216-063-00	METAL CHIP 3.9K 5% 1/10W	
R13	1-216-063-00	METAL CHIP 3.9K 5% 1/10W	
R14	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R15	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R16	1-216-041-00	METAL CHIP 470 5% 1/10W	
R17	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R18	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R19	1-216-049-00	METAL CHIP 1K 5% 1/10W	

MAIN SWITCH

Ref.No.	Part No.	Description	Remark
R20	1-216-049-00	METAL CHIP	1K 5% 1/10W
R21	1-216-049-00	METAL CHIP	1K 5% 1/10W
R22	1-216-105-00	METAL CHIP	220K 5% 1/10W
R23	1-216-049-00	METAL CHIP	1K 5% 1/10W
R24	1-216-114-00	METAL GLAZE	510K 5% 1/10W
R25	1-216-083-00	METAL CHIP	27K 5% 1/10W
R26	1-216-049-00	METAL CHIP	1K 5% 1/10W
R27	1-216-043-00	METAL CHIP	560 5% 1/10W
R28	1-216-105-00	METAL CHIP	220K 5% 1/10W
R29	1-216-058-00	METAL GLAZE	2.4K 5% 1/10W
R31	1-216-069-00	METAL CHIP	6.8K 5% 1/10W
R33	1-216-085-00	METAL CHIP	33K 5% 1/10W
R34	1-216-073-00	METAL CHIP	10K 5% 1/10W
R35	1-216-081-00	METAL CHIP	22K 5% 1/10W
R36	1-216-049-00	METAL CHIP	1K 5% 1/10W
R38	1-216-069-00	METAL CHIP	6.8K 5% 1/10W
R39	1-216-069-00	METAL CHIP	6.8K 5% 1/10W
R40	1-216-097-00	METAL CHIP	100K 5% 1/10W
R41	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R42	1-216-049-00	METAL CHIP	1K 5% 1/10W
R43	1-216-246-91	METAL GLAZE	100K 5% 1/8W (E, Tourist)
R44	1-216-041-00	METAL CHIP	470 5% 1/10W
R45	1-216-029-00	METAL CHIP	150 5% 1/10W
R46	1-216-073-00	METAL CHIP	10K 5% 1/10W
R48	1-216-025-00	METAL CHIP	100 5% 1/10W
R49	1-216-059-00	METAL CHIP	2.7K 5% 1/10W
R50	1-216-689-11	METAL CHIP	39K 0.5% 1/10W
R60	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R61	1-216-214-00	METAL GLAZE	4.7K 5% 1/8W
R62	1-216-296-91	METAL GLAZE	0 5% 1/8W
R63	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R64	1-216-059-00	METAL CHIP	2.7K 5% 1/10W
R65	1-216-295-00	METAL CHIP	0 5% 1/10W
< VARIABLE RESISTOR >			
RV1	1-238-562-11	RES, VAR, CARBON 50K (VOLUME)	
< SWITCH >			
S1	1-554-979-11	SWITCH, SLIDE (SW BAND)	
S2	1-554-123-00	SWITCH, SLIDE (TONE)	
< TRANSFORMER >			
T1	1-404-764-11	TRANSFORMER, IF	
T2	1-404-362-61	TRANSFORMER, IF	
T3	1-404-362-61	TRANSFORMER, IF	
T4	1-459-980-11	COIL	

Ref.No.	Part No.	Description	Remark
< CRYSTAL >			
X1	1-577-447-11	VIBRATOR, CERAMIC (16.8MHz)	
X2	1-577-448-11	VIBRATOR, CERAMIC (17.9MHz)	
X3	1-577-449-11	VIBRATOR, CERAMIC (20.4MHz)	
X4	1-577-445-11	VIBRATOR, CERAMIC (22.63MHz)	
X5	1-577-453-11	VIBRATOR, CERAMIC (26.025MHz)	
X6	1-577-454-11	VIBRATOR, CERAMIC (28.525MHz)	
X7	1-577-452-11	VIBRATOR, CERAMIC (32.35MHz)	

*	1-641-084-21	SWITCH BOARD	

< CAPACITOR >			
C101	1-162-638-11	CERAMIC CHIP	1uF 16V
C102	1-163-077-00	CERAMIC CHIP	0.1uF 10% 25V
C103	1-163-075-00	CERAMIC CHIP	0.047uF 50V
C104	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C105	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C106	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C107	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C108	1-164-232-11	CERAMIC CHIP	0.01uF 50V
< DIODE >			
D101	8-719-918-65	LED	GL-1PR102 (FM)
D103	8-719-918-65	LED	GL-1PR102 (MW)
D104	8-719-918-65	LED	GL-1PR102 (SW)
< IC >			
IC101	8-759-979-91	IC CF77392NS	
< RESISTOR >			
R101	1-216-246-91	METAL GLAZE	100K 5% 1/8W
R102	1-216-113-00	METAL CHIP	470K 5% 1/10W
R103	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R104	1-216-049-00	METAL CHIP	1K 5% 1/10W
R105	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R106	1-216-214-00	METAL GLAZE	4.7K 5% 1/8W
R107	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R108	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R109	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R110	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R111	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R112	1-216-019-00	METAL CHIP	56 5% 1/10W
R113	1-216-049-00	METAL CHIP	1K 5% 1/10W
R114	1-216-049-00	METAL CHIP	1K 5% 1/10W

SWITCH

Ref.No.	Part No.	Description	Remark
< SWITCH >			
S101	1-572-926-11	SWITCH, KEY (FM)	
S102	1-572-926-11	SWITCH, KEY (MW)	
S103	1-572-926-11	SWITCH, KEY (SW)	
S104	1-572-926-11	SWITCH, KEY (OFF)	
S105	1-570-675-11	SWITCH, SLIDE (HOLD)	

MISCELLANEOUS			

ANT1	1-501-432-11	ANTENNA, TELESCOPIC	
D9	8-719-812-41	LED TLR124 (TUNE)	
L14	1-402-434-11	ANTENNA, FERRITE-ROD (MW)	
SP1	1-504-318-11	SPEAKER (4CM)	

ACCESSORIES & PACKING MATERIALS			

	1-504-116-11	EARPHONE	
		(UK, E, Tourist, Italian, Saudi Arabia)	
	3-757-183-01	MANUAL, INSTRUCTION (Tourist)	
	3-757-183-11	MANUAL, INSTRUCTION (AEP, Italian)	
		(GERMAN/DUTCH/SWEDISH/ITALIAN	
		/PORTUGUESE)	
	3-757-183-21	MANUAL, INSTRUCTION	
		(AEP, UK, E, Saudi Arabia)	
		(ENGLISH/FRENCH/SPANISH/ARABIC)	
	3-893-940-19	GUIDE, SHORT WAVE	
	3-900-168-01	CASE, CARRYING	
		(UK, E, Tourist, Italian, Saudi Arabia)	
*	3-904-952-01	INDIVIDUAL CARTON	
*		(AEP, UK, Italian, Saudi Arabia)	
*	3-904-953-01	INDIVIDUAL CARTON (E, Tourist)	

HARDWARE LIST			

#1	7-671-113-01	STEAL, BALL 3	
#2	7-627-556-37	SCREW, PRECISION +P2.6X4 TYPE 1	

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ICF-SW22

SONY®

SERVICE MANUAL

AEP Model
UK Model
E Model
Chinese Model
Tourist Model

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SUPPLEMENT-1

File this supplement with the service manual.

Subject: Addition of Chinese Model

(ENG-99005)

Addition of Chinese Model

Chinese Model has been added.

This is the same as E model which is not described in this supplement-1.

Refer to ICF-SW22 original service manual (9-959-095-11) for other information.

• DIFFERENCE PARTS LIST

(1)EXPLODED VIEWS

Page	E model				Chinese model			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
11	L14	1-402-434-11	ANTENNA, FERRITE-ROD(MW)		L14	1-501-625-11	ANTENNA, FERRITE-ROD(MW)	

(2)ACCESSORIES & PACKING MATERIAL

Page	E model				Chinese model			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
15		3-757-183-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, ARABIC) (AEP, UK, E, Saudi Arabia)			3-757-183-61	MANUAL, INSTRUCTION (CHINESE) (Chinese)	
		3-893-940-19	GUIDE, SHORT WAVE			3-912-863-05	GUIDE, SHORT WAVE	