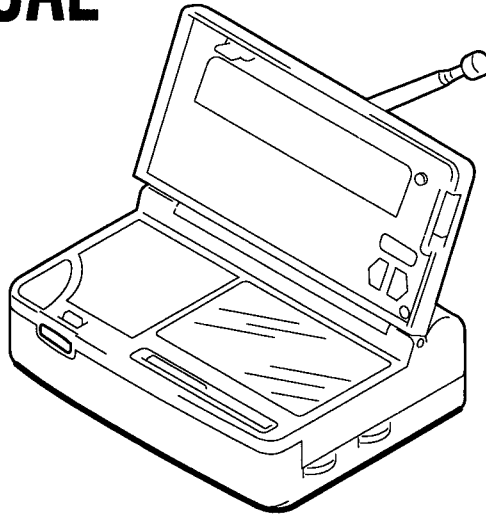


# ICF-SW12

## SERVICE MANUAL



US Model  
Canadian Model  
AEP Model  
UK Model  
E Model  
Australian Model

### SPECIFICATIONS

Time display	24-hour system
Frequency range	FM 87.5 – 108 MHz SW1 · 4.750 – 5.060 MHz (60 meter band) SW2 · 5.900 – 6.200 MHz (49 meter band) SW3 · 7.100 – 7.350 MHz (41 meter band) SW4 · 9.400 – 9.990 MHz (31 meter band) SW5 · 11.600 – 12.100 MHz (25 meter band) SW6 · 13.570 – 13.870 MHz (22 meter band) SW7 · 15.100 – 15.800 MHz (19 meter band) SW8 · 17.480 – 17.900 MHz (16 meter band) SW9 · 21.450 – 21.750 MHz (13 meter band) MW 530 – 1,605 kHz
Speaker	Approx 4.5 cm (1 13/16 inches) dia
Power output	100 mW (at 10% harmonic distortion)
Output	Ⓢ jack (minijack)
Power requirements	Radio 3V DC, two R6 (size AA) batteries Clock 3V DC, one CR2025 lithium battery
Dimensions	Approx 111 x 30.5 x 80.3 mm (w/h/d) (4 3/8 x 1 1/4 x 3 1/4 inches) incl projecting parts and controls (with the lid closed)
Mass	Approx 233 g (8.2 oz) incl batteries
Accessory supplied	Sony CR2025 lithium battery (1) Short wave guide (1)

Design and specifications are subject to change without notice

## FM/SW1-9/MW 11 BAND RECEIVER



992397211

# SONY®

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### Flexible Circuit Board Repairing

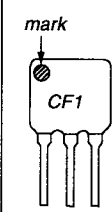
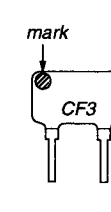
- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times)
- Be careful not to apply force on the conductor when soldering or unsoldering

### ● HOW TO CHANGED THE CERAMIC FILTERS

This model is used two ceramic filters of CF1 and CF3.

You must used same type of color marked ceramic filters in order to meet same specifications.

Therefore, the ceramic filter must changed two pieces together since it's supply two pieces in one package as a spare parts.

		<b>Mark</b>	<b>Center fequency</b>
		red	10.70MHz
		blue	10.67MHz
		orange	10.73MHz
		black	10.64MHz
		white	10.76MHz

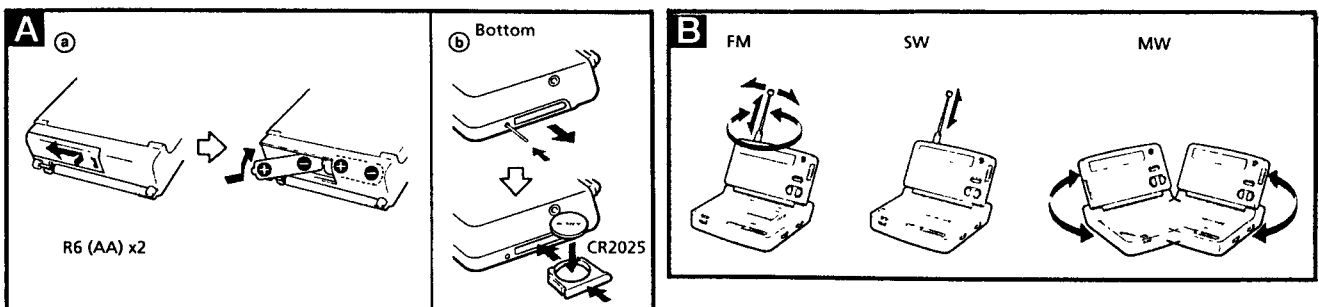
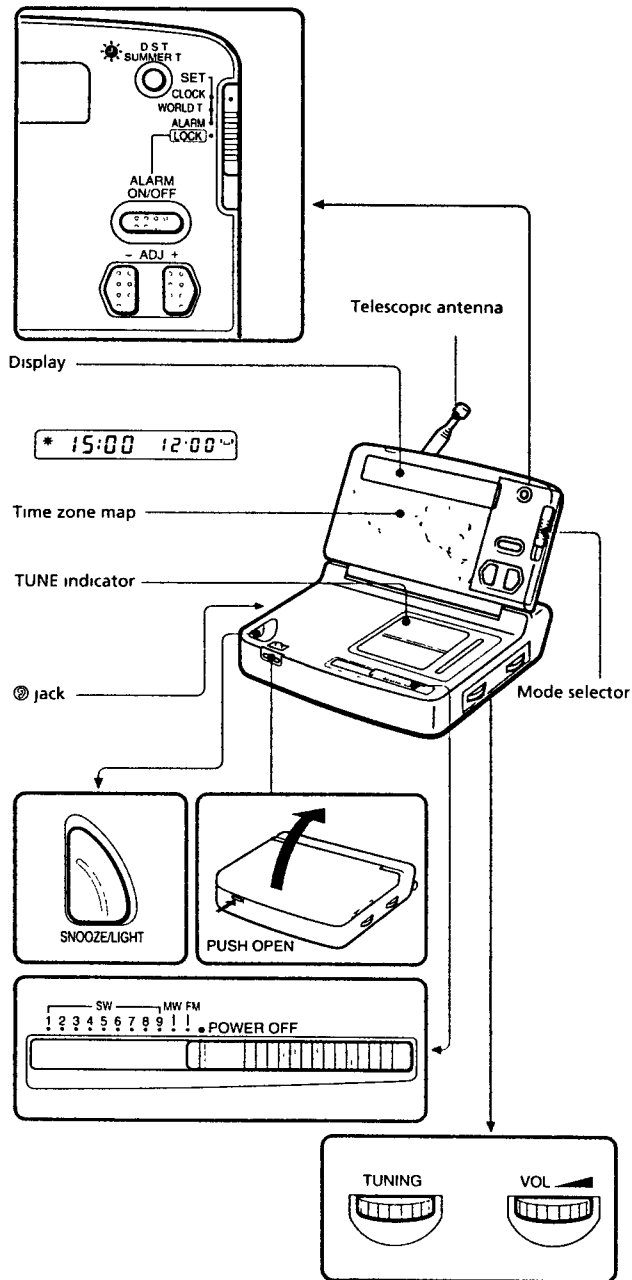
### Notes on chip component replacement

- Never reuse a disconnected chip component
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

# SECTION 1 GENERAL

This section is extracted from instruction manual.

## LOCATION AND FUNCTION OF CONTROLS



## Power Sources

### Installing Batteries (See Fig. A-⑨)

- 1 While pressing the lid, slide it in the direction of the arrow
- 2 Insert two R6 (size AA) batteries (not supplied) with correct polarity

#### Battery life

Approx 35 hours, using Sony batteries R6 (AA)

#### Replacing batteries

When the sound of the radio becomes distorted or unstable and the alarm sound is getting lower, replace both R6 (size AA) batteries

#### Note on dry battery

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

### Installing Lithium Battery for Clock Backup (See Fig. A-⑩)

- 1 Position the bottom of the radio upward and insert a tip of a ballpoint pen or something equivalent into the hole next to the lithium battery compartment and push. The battery holder comes out
- 2 Insert the battery with the flat (+) side facing upwards, then insert the compartment until it is locked in position.

#### Lithium battery life

Approx 1 year of clock operation, using Sony CR2025 lithium battery

#### Replacing lithium battery

When the display becomes dim, replace the CR2025 lithium battery

#### Note

You cannot listen to the radio by only installing a lithium battery. You should use two R6 (size AA) batteries (not supplied)

#### Notes on batteries

- Keep the lithium battery out of reach of children. Should the battery be swallowed, immediately consult a doctor
- Wipe the battery with a dry cloth to assure good contact
- Be sure to install the battery in the correct polarity position
- Do not hold the battery with metallic tweezers, as doing so may cause a short-circuit
- Do not break up the battery or throw it into a fire, which might cause it to explode. Carefully dispose of the used battery

#### CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions

## Setting the Clock

The display will show a 12:00 (noon) indication when the CR2025 lithium battery is first installed

- 1 Set the mode selector to **WORLD T**
- 2 Press **ADJ + or -** to choose the area to which you want to set the time



(For example, if you want to set the time to 8.15 AM in Tokyo, move the ▼ mark to the "+9" position.)

- 3 Set the mode selector to **CLOCK** and press **ADJ + or -** to set the time. When **ADJ + or -** is held down, the minute digits advance rapidly. The hour digits advance one by one when the minute digits advance to "00" after "59".
- 4 Set the mode selector to **ALARM** or **LOCK**. The ":" mark stops flashing and the clock will now start.

#### Note

If you remove the lithium battery after setting the clock, the memory will be canceled. Set the clock again.

#### Note on LOCK function

Normally, set the mode selector to **LOCK** so that **ADJ +** and **-** do not function. This enables you to avoid misoperation.

#### To set the time to the second

In step 4, set the mode selector to **ALARM** or **LOCK** simultaneously with the radio or telephone time signal.

## To Check the Local Time of the Desired Time Zone

The numbers above and below the time zone map indicate the time differences from the UTC (Universal Time Coordinated) position. For example, the time difference in Tokyo is +9 hours. The light grey areas indicate special time zones. These areas maintain special time differences (written beside them).

**Example:** To check the local time in New York.

Set the mode selector to **WORLD T**, and press **ADJ + or -** to move the ▼ mark to the "-5" position.

If you want to know the local time and the difference in time in 30 minute units, add it to the present time (or subtract it from the present time). (For example, if the difference in time is five hours and 30 minutes, move the ▼ mark to the "+5" position and add 30 minutes to the displayed time.)

## To change the display to the daylight saving time (summer time) indication

Press **D.S.T.+SUMMER T.**

The ☼ mark appears in the display and the time indication changes to summer time.

To cancel the summer time indication, press **D.S.T.+SUMMER T.** again.

## Operating the Radio

- 1 Select a desired band (FM, SW1-9 or MW)
- 2 Tune in a station using the **TUNING TUNE** (tuning indicator) lights up when a station is tuned in.
- 3 Adjust the volume using **VOL** (volume)

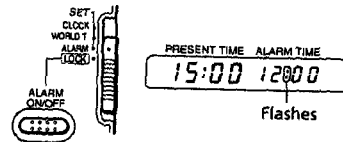
• To turn off the radio, set to **POWER OFF**.

#### To improve radio reception (See Fig. B)

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

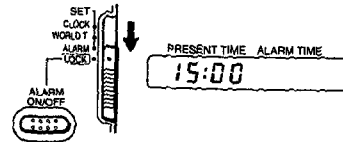
## Setting the Alarm

- 1 Set the mode selector to **ALARM**

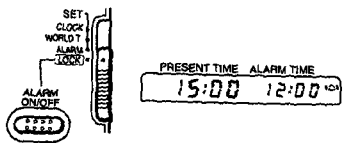


- 2 Press the **ADJ + or -** to set the alarm time.

- 3 Set mode selector to **LOCK**



- 4 Press **ALARM ON/OFF**



(When alarm is set, the alarm time appears in the display. If you press **ALARM ON/OFF** again, the alarm time is disappeared and is canceled.)

- The alarm sound will come on at the preset time and will automatically turn itself off after about 60 minutes, unless it is turned off manually.
- To stop the alarm sound, press **ALARM ON/OFF**.

#### To wake to the alarm sound at the same time the next day.

Press **ALARM ON/OFF** again. The time set yesterday will show up in the display.

#### To doze for a few more minutes, press SNOOZE/LIGHT.

The alarm will shut off, but will come on again after about 9 minutes. You can repeat this process six times at the most in an hour.

#### Notes

- The buzzer sound level cannot be adjusted.
- If the radio is on and earphone is connected to the Ⓞ jack, the buzzer alarm is heard from both the speaker and earphone.
- If the radio is off and the earphone is connected to the Ⓞ jack, the buzzer alarm is heard only from the speaker.
- The "Ⓞ" mark flashes in the display at the preset alarm time.

## Lighting the Display -Light Function

Press **SNOOZE/LIGHT**. The display lights up for about 10 seconds.

## Precautions

Before operating the unit, be sure to install the CR2025 clock battery.

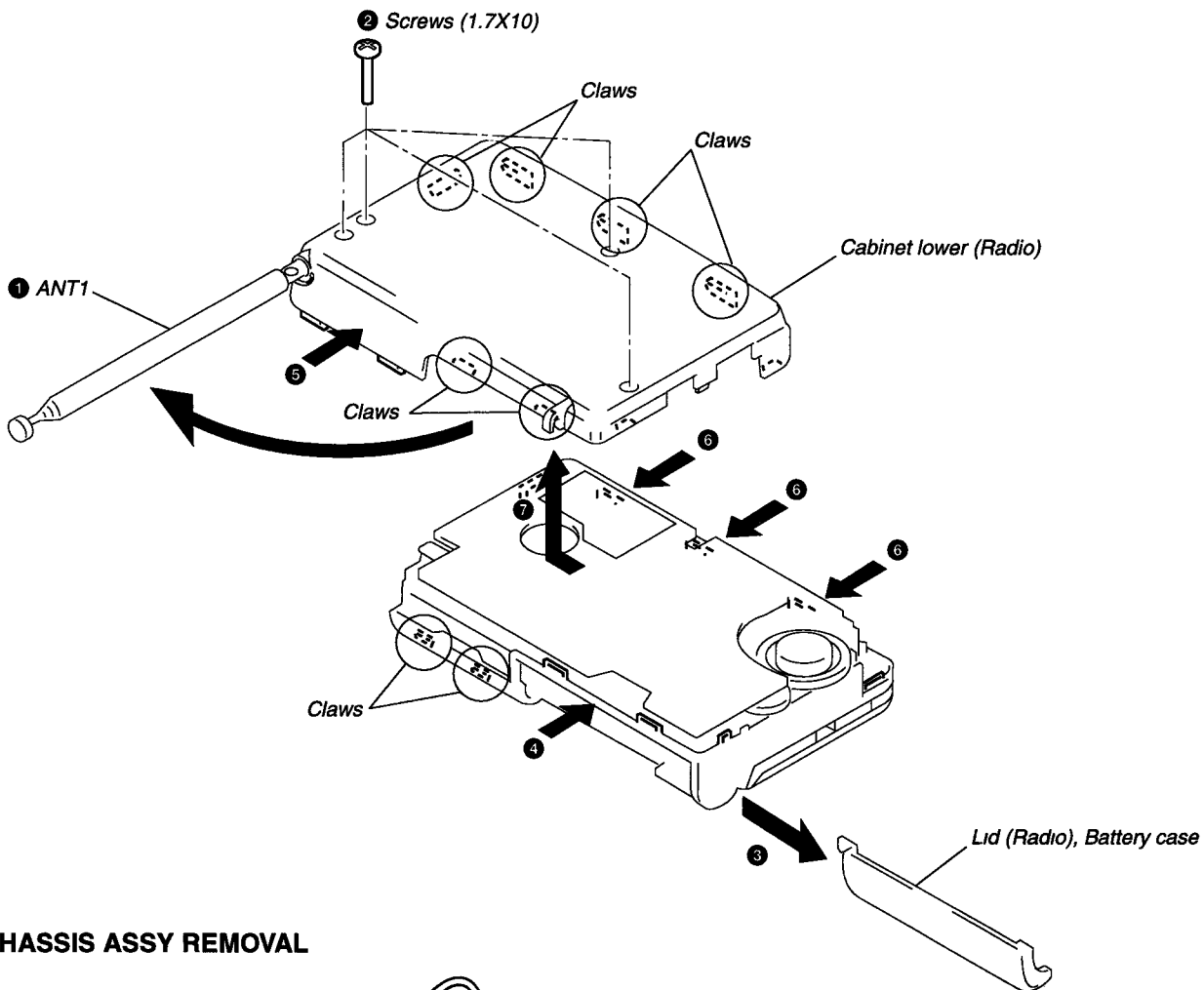
- Operate the unit on the following power sources: Radio: 3V DC, two R6 (size AA) batteries. Clock: 3V DC, one CR2025 lithium battery.
- Do not leave the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust, or mechanical shock, or in a car with its windows closed.
- Should any solid object or liquid fall into the unit, remove the batteries and have it checked by qualified personnel before operating it any further.
- When the casing becomes soiled, clean it with a soft cloth dampened with a mild detergent solution. Never use abrasive cleansers or chemical solvents, as they may mar the casing.
- Since a strong magnet is used for the speaker, keep personal credit cards with magnetic coding or spring-wound watches away from the unit to prevent them from possible damage caused by the magnet.
- In vehicles or in buildings, radio reception may be difficult or noisy. Try listening near a window.

If you have any questions or problems concerning your unit, please consult your nearest Sony dealer.

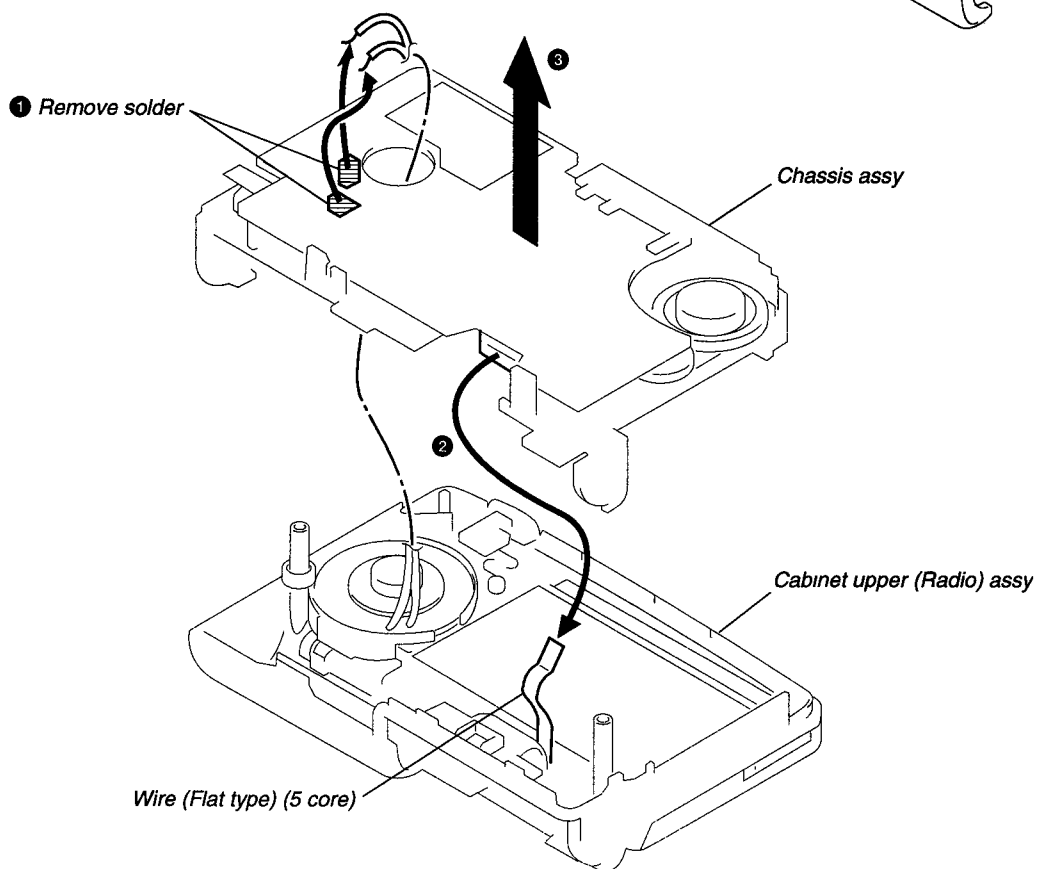
## SECTION 2 DISASSEMBLY

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

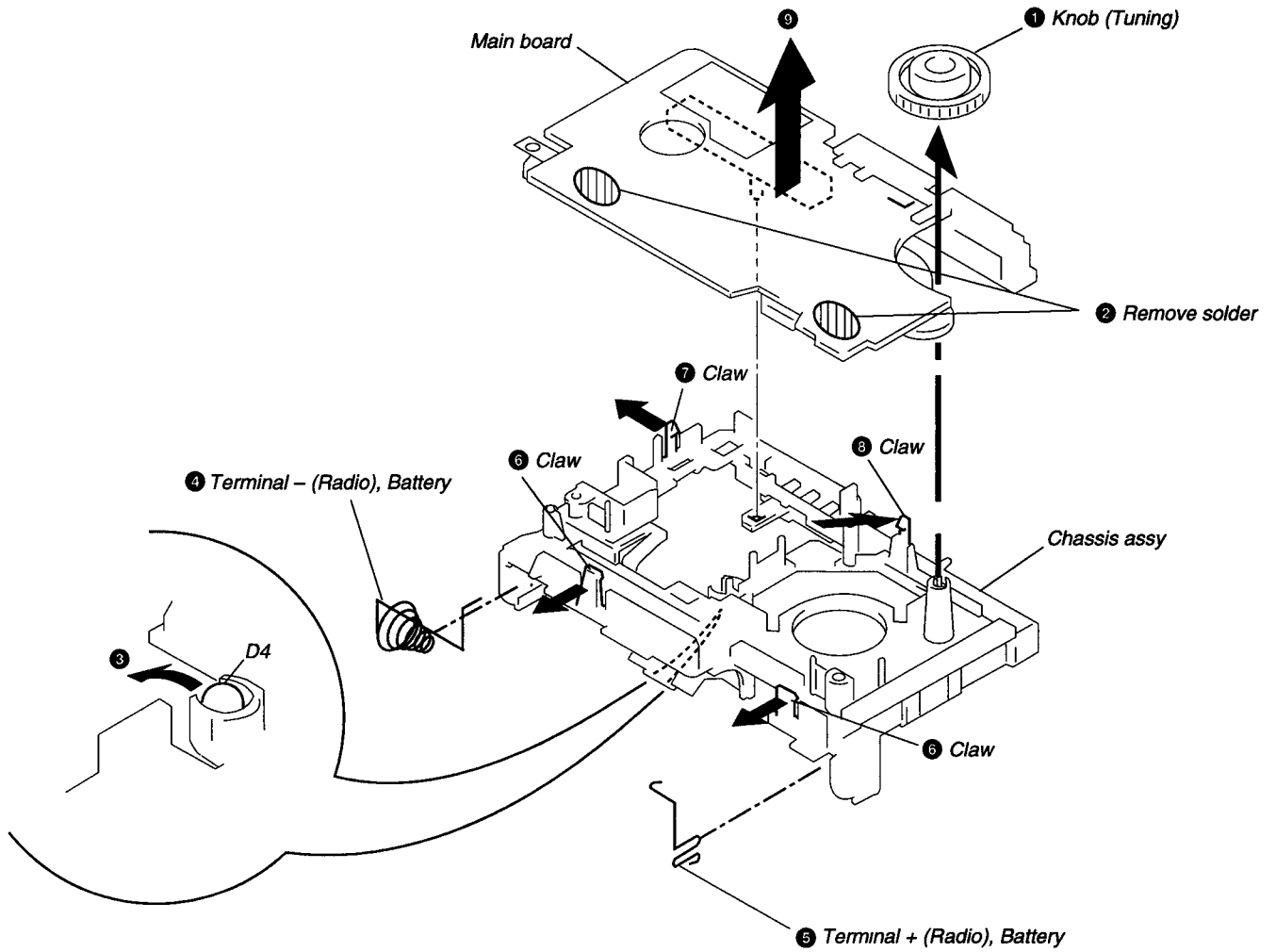
### 2-1. CABINET LOWER (RADIO) REMOVAL



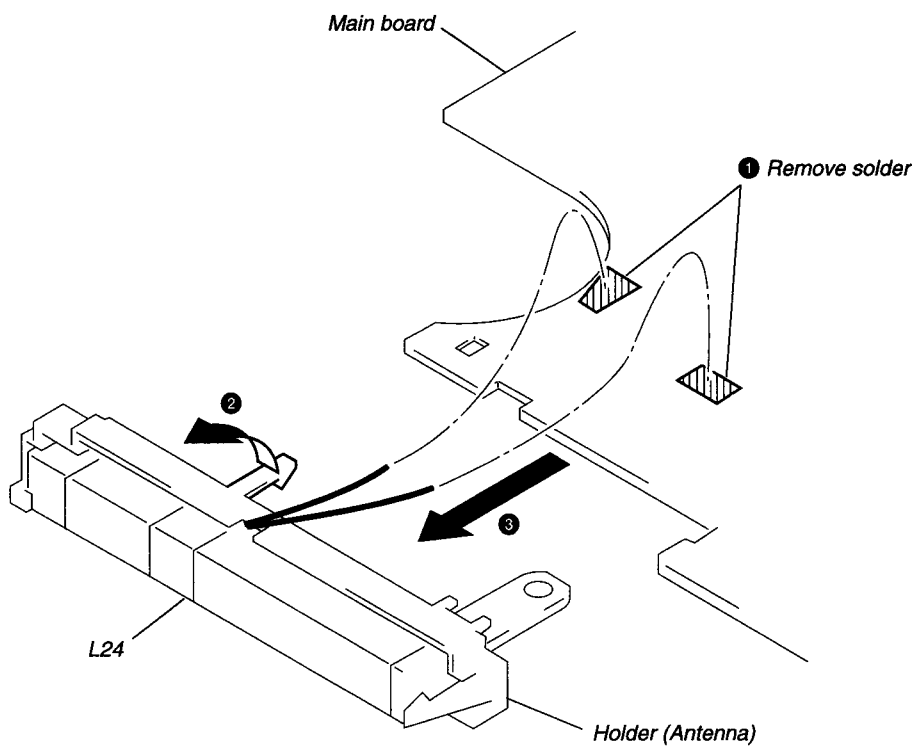
### 2-2. CHASSIS ASSY REMOVAL



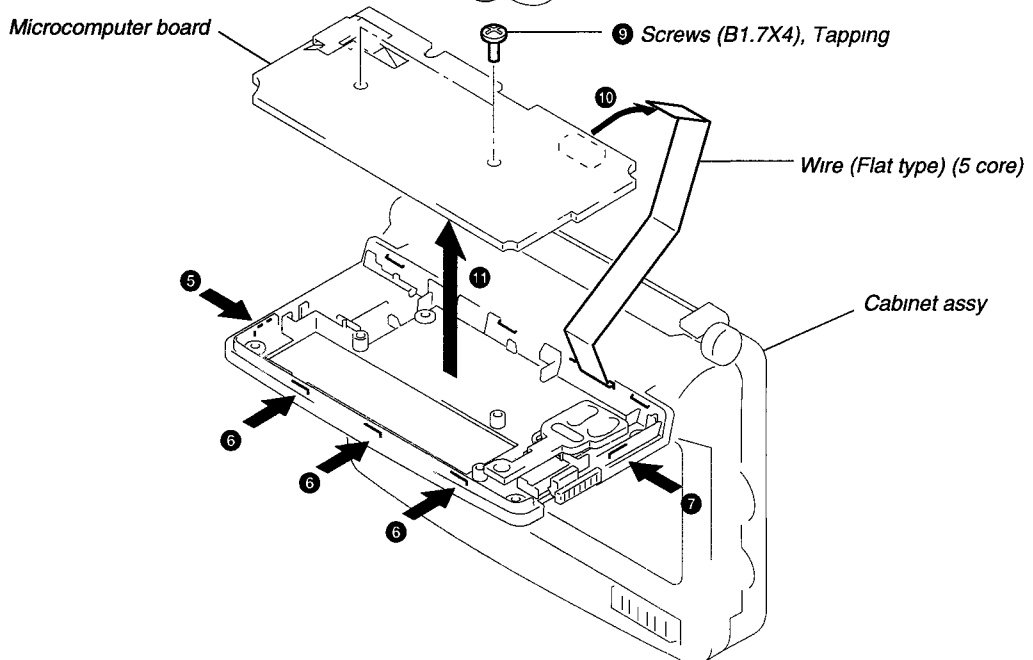
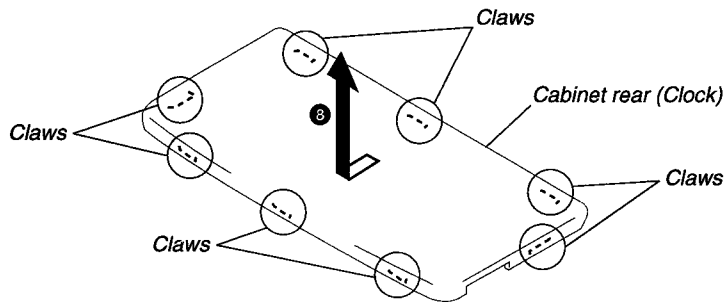
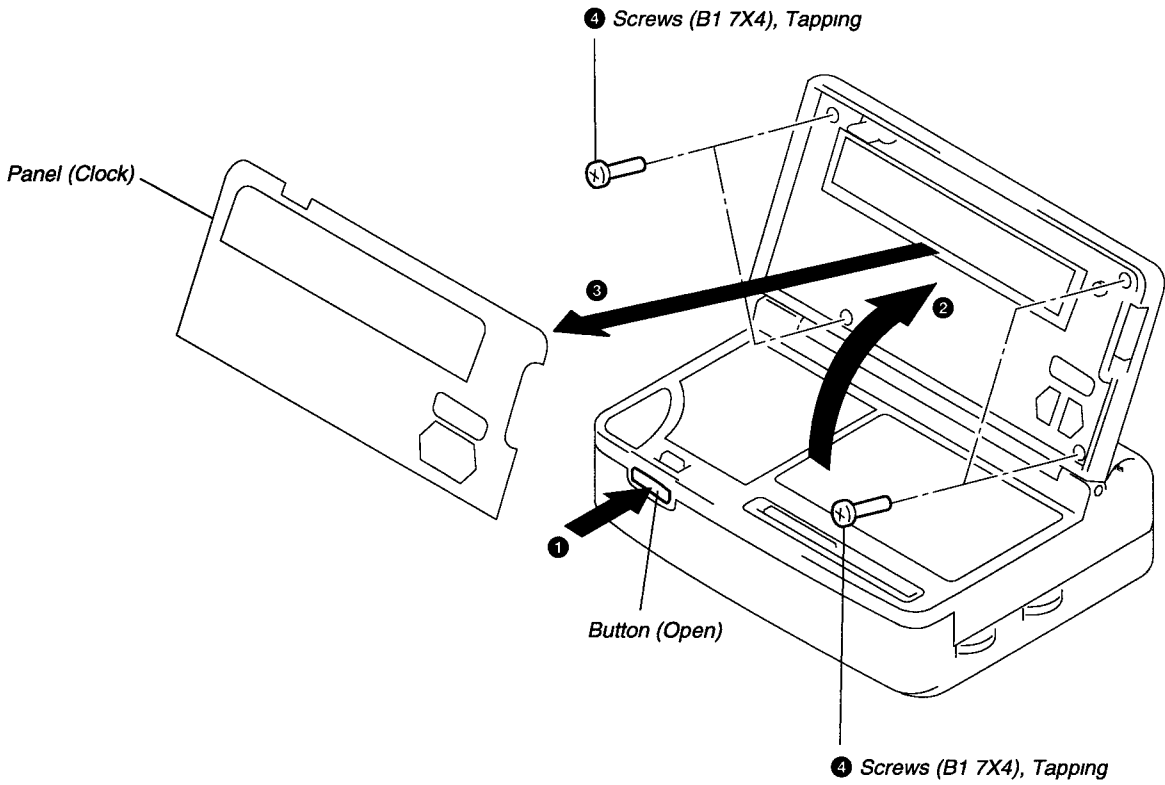
### 2-3. MAIN BOARD REMOVAL



### 2-4. HOLDER (ANTENNA) REMOVAL

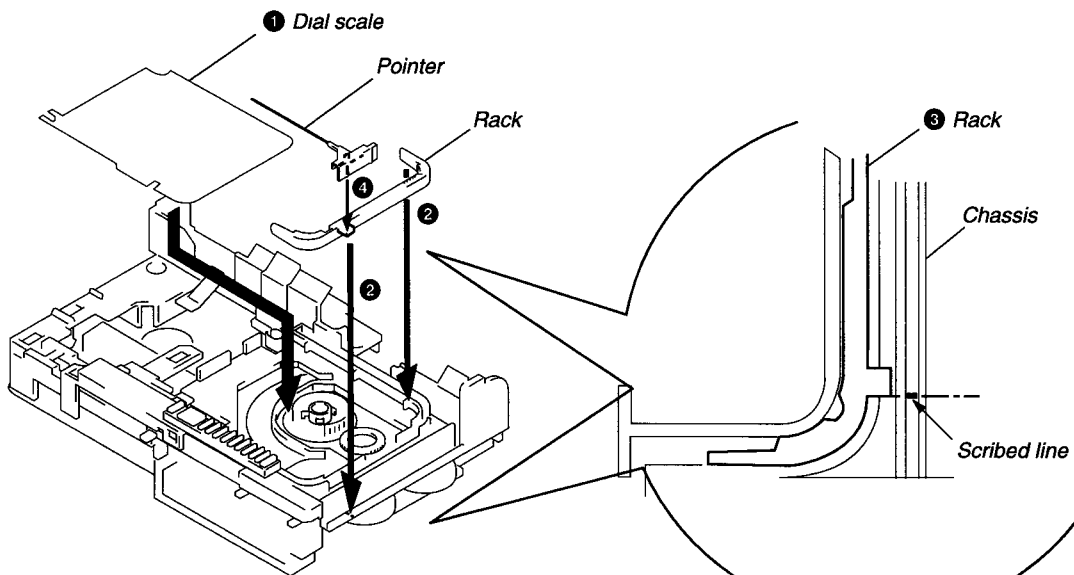
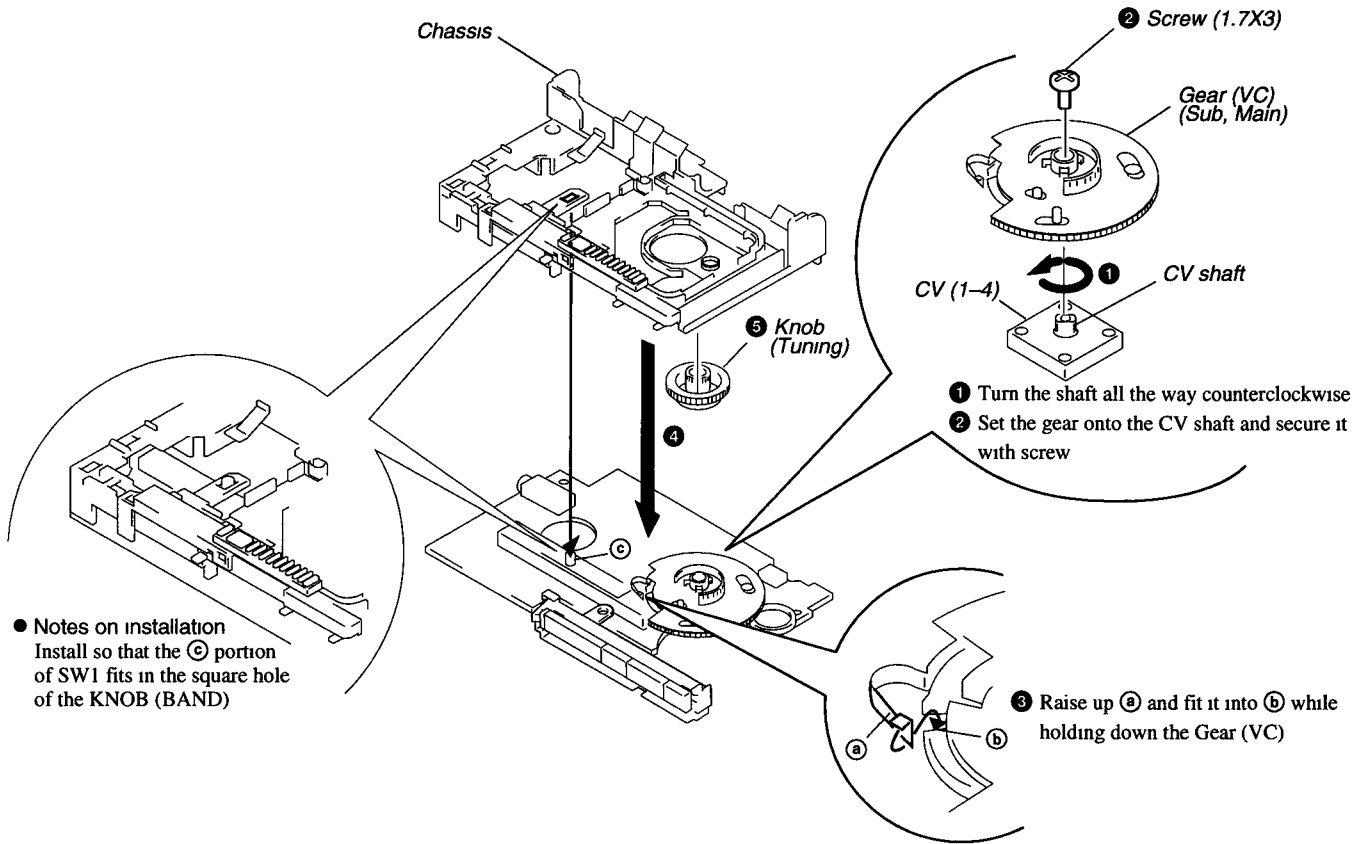


**2-5. CABINET REAR (CLOCK), MICROCOMPUTER BOARD REMOVAL**



## SECTION 3 DIAL POINTER INSTALLATION

**Note** . Follow the installation procedure in the numerical order given.



- 1** Install the dial scale
- 2** Insert the rack into the chassis groove
- 3** Slide the rack and align it with the groove on the scribed line
- 4** Line up the groove on the pointer with the matching portion on the rack and fit it in



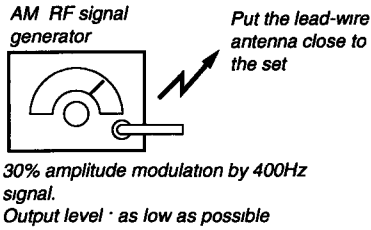
# SECTION 4 ELECTRICAL ADJUSTMENTS

## TUNER SECTION

### MW Section

**Procedure :**

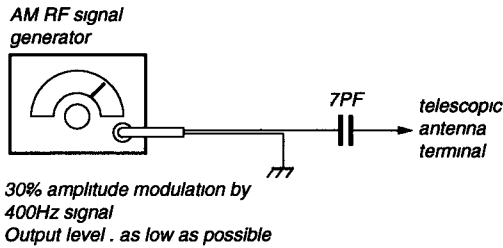
BAND switch (S1) : MW  
Volume : MIN



### SW Section

**Procedure :**

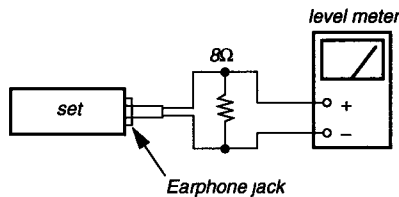
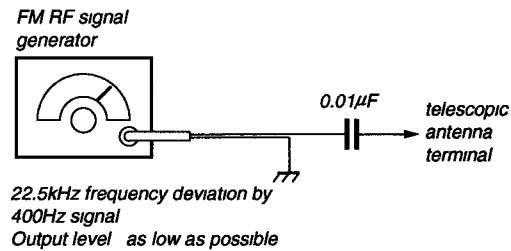
BAND switch (S1) : SW (1 – 9)  
Volume : MIN



### FM Section

**Procedure :**

BAND switch (S1) : FM  
Volume : MIN



- 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 level meter

T1	455kHz
----	--------

### MW FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter.

L26	520kHz
-----	--------

CT4	1,650kHz
-----	----------

### MW TRACKING ADJUSTMENT

Adjust for a maximum reading on level meter

L24	620kHz
-----	--------

CT2	1,400kHz
-----	----------

### SW1 FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter.

L10	4 68MHz
-----	---------

### SW2 FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter.

L11	5 80MHz
-----	---------

### SW3 FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter.

L12	6 99MHz
-----	---------

### SW4 FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter

L13	9.26MHz
-----	---------

### SW5 FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter

L14	11 49MHz
-----	----------

### SW6 FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter

L15	13 38MHz
-----	----------

### SW7 FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter.

L16	14 92MHz
-----	----------

### SW8 FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter

L17	17 31MHz
-----	----------

### SW9 FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter

L18	21 26MHz
-----	----------

### FM FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter

L25	87 3MHz
-----	---------

CT3	108 3MHz
-----	----------

### FM TRACKING ADJUSTMENT

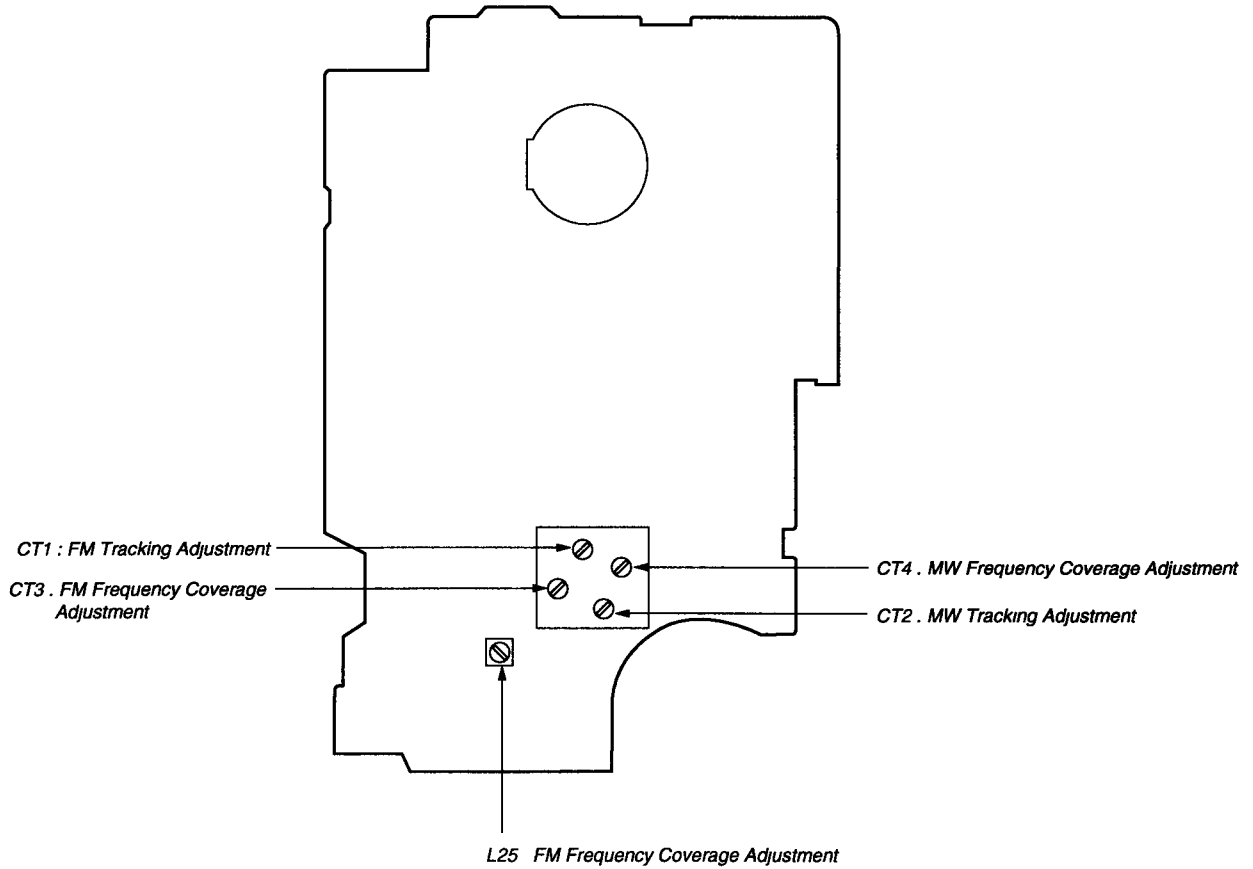
Adjust for a maximum reading on level meter

L23	87 3MHz
-----	---------

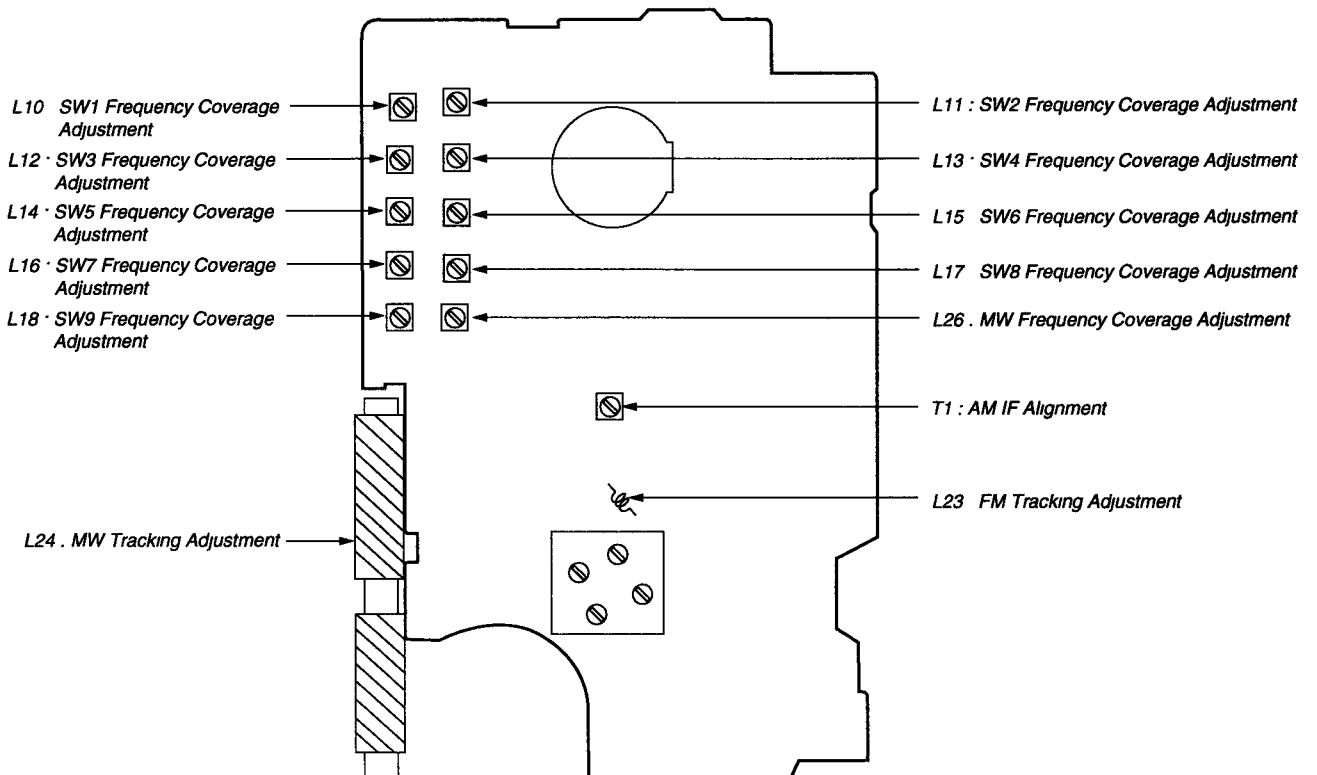
CT1	108 3MHz
-----	----------

**Adjustment Location :** Main board (See page 10)

**[MAIN BOARD] (Conductor side)**



**[MAIN BOARD] (Component side)**



## SECTION 5

### EXPLANATION OF IC TERMINALS

#### IC101 LC5733

Pin No.	Pin name	I/O	Description
1	P00	-	Not used (Open).
2	P01	-	Not used (Open).
3	P02	-	Not used (Open).
4	P03	-	Not used (Open).
5	COM 2	O	LCD common drive.
6	SEG 1	O	LCD segment drive.
7	SEG 2	O	LCD segment drive.
8	SEG 3	O	LCD segment drive.
9	SEG 4	O	LCD segment drive.
10	SEG 5	O	LCD segment drive.
11	SEG6	O	LCD segment drive.
12	SEG 7	O	LCD segment drive.
13	SEG 8	O	LCD segment drive.
14	SEG 9	O	LCD segment drive.
15	SEG 10	O	LCD segment drive.
16	SEG 11	O	LCD segment drive.
17	SEG 12	O	LCD segment drive
18	SEG 13	O	LCD segment drive.
19	COM 3	O	LCD common drive.
20	LIGHT	O	LED drive output for the back-light.
21	BUZZER ALM1	O	Buzzer output terminal.
22	ALM2	-	Not used (Open).
23	VSS2	-	Ground.
24	VSS1	-	Power supply for LCD drive.
25	BAK	-	Power supply back-up terminal.
26	VDD	-	Power supply terminal.
27	TEST S4	I	Test mode terminal. Open : Normal
28	S3	I	Key return input.
29	M1	I	Key (CLOCK) input.
30	M2	I	Key (WORLD) input.
31	M3	I	Key (ALARM) input.
32	M4	I	Key (LOCK) input.
33	SEG 14	O	LCD segment drive.
34	SEG 15	O	LCD segment drive.
35	SEG 16	O	LCD segment drive.
36	SEG 17	O	LCD segment drive.
37	SEG 18	O	LCD segment drive.
38	SEG 19	O	LCD segment drive
39	SEG 20	O	LCD segment drive.
40	SEG 21	O	LCD segment drive.
41	SEG 22	O	LCD segment drive.
42	SEG 23	O	LCD segment drive.
43	SEG 24	O	LCD segment drive.
44	SEG 25	O	LCD segment drive.
45	SEG 26	O	LCD segment drive.

Pin No.	Pin name	I/O	Description
46	SEG 27	O	LCD segment drive.
47	COM 1	O	LCD common drive.
48	P13	O	Key source output.
49	P12	O	Key source output.
50	P11	-	Not used (Open).
51	P10	O	Key source output.
52	CFOSC1	-	Not used (Open).
53	CFOSC2	-	Not used (Open).
54	TEST	-	Not used.
55	T3	-	Not used (Open).
56	32Hz	-	Not used (Open).
57	CUP1	I	Coupling terminal.
58	CUP2	O	Coupling terminal.
59	S2	I	Key return input.
60	S1	I	Key return input.
61	$\overline{\text{RES}}$	I	System reset terminal.
62	OSC IN	I	Clock oscillator (32.768 kHz).
63	OSC OUT	O	Clock oscillator (32.768 kHz).
64	TEST	-	Not used (Open).

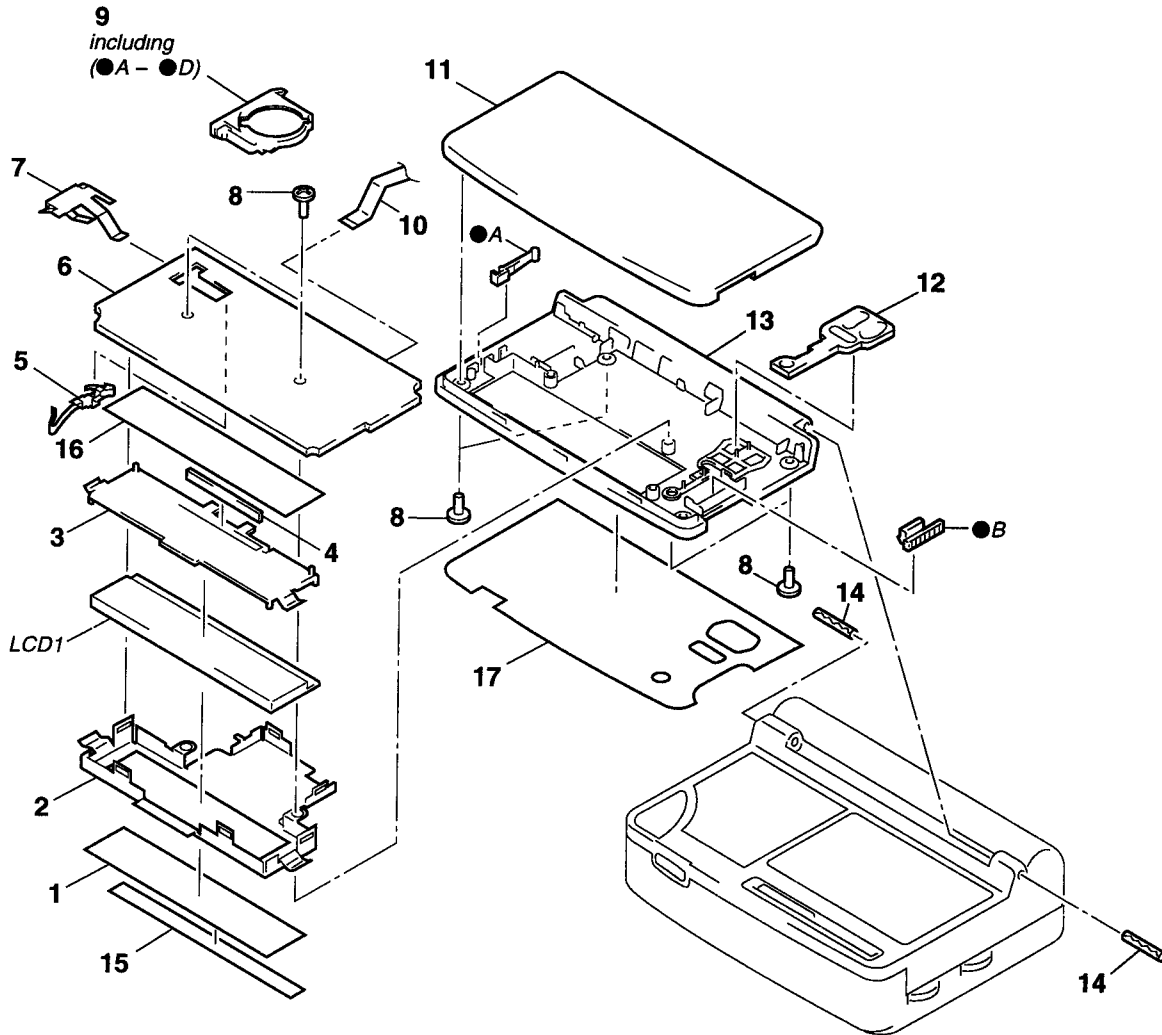
## SECTION 7 EXPLODED VIEWS

**NOTE :**

- -XX, -X mean standardized parts, so they may have some difference from the original one
- 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
- Abbreviation  
EA : Saudi Arabia  
IT : Italian

### 7-1. CABINET (CLOCK) SECTION

- A : BUTTON (LITHIUM)
- B : KNOB (MODE)

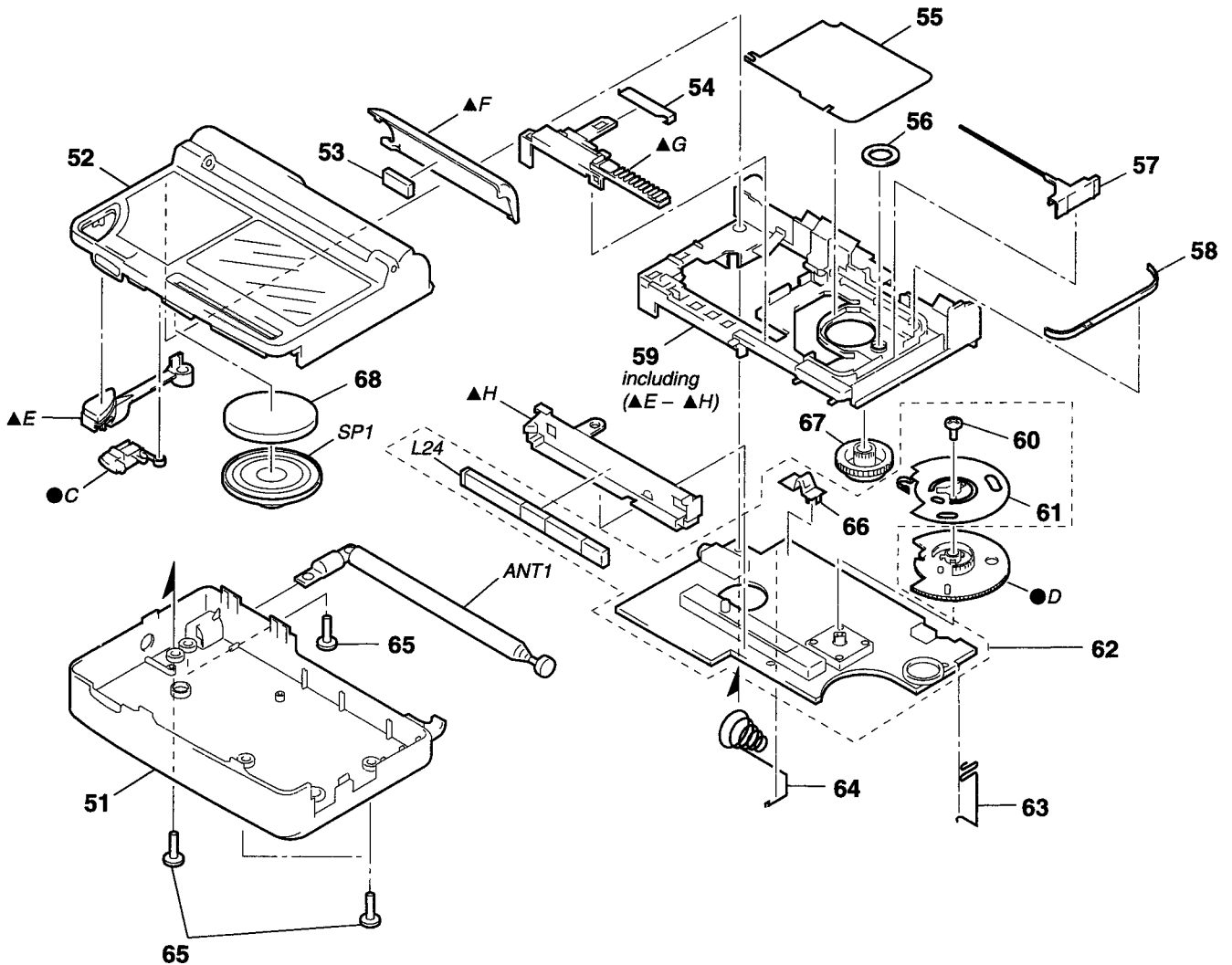


Ref No	Part No	Description	Remark
* 1	3-009-803-01	SHEET (LCD)	
* 2	3-009-795-01	CASE (LCD), SHIELD	
* 3	3-009-774-01	HOLDER (LCD)	
4	1-537-683-11	CONDUCTIVE BOARD, CONNECTION	
5	3-009-796-01	TERMINAL (+ LITHIUM), BATTERY	
* 6	A-3662-706-A	MICROCOMPUTER BOARD, COMPLETE	
7	3-009-797-01	TERMINAL (- LITHIUM), BATTERY	
8	3-318-203-61	SCREW (B1 7X4), TAPPING	
9	3-009-790-01	LID, BATTERY CASE (COMBINED)	
10	1-782-339-11	WIRE (FLAT TYPE) (5 CORE)	

Ref. No.	Part No.	Description	Remark
11	3-009-770-01	CABINET REAR (CLOCK)	
12	1-771-058-11	SWITCH, RUBBER KEY	
13	3-009-769-01	CABINET FRONT (CLOCK)	
14	3-009-802-01	PIN, SPRING	
* 15	3-014-730-01	CUSHION (LCD)	
* 16	3-014-731-01	SHEET, DIFFUSION	
17	3-009-792-01	PANEL (CLOCK)	
LCD1	1-810-953-11	DISPLAY PANEL, LIQUID CRYSTAL	

## 7-2. CABINET (RADIO) SECTION

- C : BUTTON (OPEN)
- D : GEAR (VC) (MAIN)
- ▲E : BUTTON (SNOOZE)
- ▲F : LID(RADIO), BATTERY CASE
- ▲G : KNOB (BAND)
- ▲H : HOLDER (ANTENNA)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-009-772-01	CABINET LOWER (RADIO) (AEP,IT,E,EA)		61	3-009-794-01	GEAR (VC) SUB	
51	3-009-772-11	CABINET LOWER (RADIO) (US,Canadian)		* 62	A-3679-854-A	MAIN BOARD, COMPLETE	
52	X-3373-557-1	CABINET UPPER (RADIO) ASSY		63	3-009-799-01	TERMINAL + (RADIO), BATTERY	
53	9-911-815-02	CUSHION		64	3-009-800-01	TERMINAL - (RADIO), BATTERY	
54	3-013-492-01	SPRING (BAND), TENSION		65	3-910-063-01	SCREW (1.7X10)	
55	3-009-793-01	SCALE, DIAL		66	3-012-018-01	TERMINAL BOARD, ANTENNA	
56	3-009-787-01	GEAR, IDLE		67	3-009-775-01	KNOB (TUNING)	
57	3-009-786-01	POINTER		* 68	3-014-732-01	SHEET, SPEAKER	
58	3-009-789-01	RACK		ANT1	1-501-432-11	ANTENNA, TELESCOPIC	
59	3-009-791-01	CHASSIS (COMBINED)		L24	1-501-892-11	ANTENNA, FERRITE-ROD (MW)	
60	3-880-990-00	SCREW (1 7X3),FLAT,(+) SPECIAL		SP1	1-505-141-11	SPEAKER (4 5cm)	

**SECTION 8  
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 :  $\mu$  , for example  
uA . :  $\mu$  A . , uPA :  $\mu$  PA .  
uPB . :  $\mu$  PB . , uPC :  $\mu$  PC  
uPD. . :  $\mu$  PD

● CAPACITORS

uF :  $\mu$  F

● COILS

uH :  $\mu$  H

● Abbreviation

EA : Saudi Arabia

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

Ref No.	Part No	Description	Remark	Ref No	Part No.	Description	Remark
*	A-3679-854-A	MAIN BOARD, COMPLETE *****		C47	1-163-989-11	CERAMIC CHIP 0 033uF 10%	25V
	3-009-794-01	GEAR (VC) SUB		C48	1-163-035-00	CERAMIC CHIP 0 047uF	50V
	3-012-018-01	TERMINAL BOARD, ANTENNA		C49	1-126-157-11	ELECT 10uF	20% 16V
	3-880-990-00	SCREW (1 7X3),FLAT,(+) SPECIAL		C50	1-164-346-11	CERAMIC CHIP 1uF	16V
		< CAPACITOR >		C51	1-104-483-11	ELECT 470uF	20% 4V
C1	1-163-091-00	CERAMIC CHIP 8PF	50V	C52	1-164-346-11	CERAMIC CHIP 1uF	16V
C2	1-163-087-00	CERAMIC CHIP 4PF	50V	C53	1-128-057-11	ELECT 330uF	20% 6.3V
C3	1-163-089-00	CERAMIC CHIP 6PF	50V	C54	1-163-085-00	CERAMIC CHIP 2PF	50V
C4	1-163-091-00	CERAMIC CHIP 8PF	50V	C55	1-163-031-11	CERAMIC CHIP 0 01uF	50V
C5	1-163-220-11	CERAMIC CHIP 3PF	0 25PF 50V	C56	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C6	1-163-089-00	CERAMIC CHIP 6PF	50V	C57	1-163-091-00	CERAMIC CHIP 8PF	50V
C7	1-163-087-00	CERAMIC CHIP 4PF	50V	C58	1-163-227-11	CERAMIC CHIP 10PF	0 5PF 50V
C8	1-163-092-00	CERAMIC CHIP 9PF	0.25PF 50V	C59	1-163-031-11	CERAMIC CHIP 0 01uF	50V
C9	1-163-087-00	CERAMIC CHIP 4PF	50V	C60	1-163-465-11	CERAMIC CHIP 9PF	0.25PF 50V
C10	1-163-106-00	CERAMIC CHIP 36PF	5% 50V	C61	1-163-465-11	CERAMIC CHIP 9PF	0.25PF 50V
C11	1-163-106-00	CERAMIC CHIP 36PF	5% 50V	C62	1-163-095-00	CERAMIC CHIP 12PF	5% 50V
C12	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C63	1-163-102-00	CERAMIC CHIP 24PF	5% 50V
C13	1-163-106-00	CERAMIC CHIP 36PF	5% 50V	C64	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
C14	1-163-104-00	CERAMIC CHIP 30PF	5% 50V	C65	1-163-102-00	CERAMIC CHIP 24PF	5% 50V
C15	1-163-107-00	CERAMIC CHIP 39PF	5% 50V	C66	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
C16	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C67	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C17	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C68	1-163-089-00	CERAMIC CHIP 6PF	50V
C18	1-163-115-00	CERAMIC CHIP 82PF	5% 50V	C69	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C19	1-163-031-11	CERAMIC CHIP 0 01uF	50V	C70	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C20	1-163-031-11	CERAMIC CHIP 0 01uF	50V	C71	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C21	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C72	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C22	1-163-038-00	CERAMIC CHIP 0.1uF	25V			< FILTER >	
C24	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	CF1	1-579-632-51	FILTER, CERAMIC	
C26	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	CF2	1-577-317-11	FILTER, CERAMIC	
C27	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	CF3	1-579-632-51	FILTER, CERAMIC	
C28	1-163-251-11	CERAMIC CHIP 100PF	5% 50V			< CONNECTOR >	
C29	1-163-243-11	CERAMIC CHIP 47PF	5% 50V	CN1	1-779-000-11	CONNECTOR, FFC/FPC 5P	
C32	1-163-239-11	CERAMIC CHIP 33PF	5% 50V			< TRIMMER >	
C34	1-101-004-00	CERAMIC 0 01uF	50V	CT1	1-141-554-11	CAP, VAR (TUNING)	
C35	1-126-157-11	ELECT 10uF	20% 16V	CT2	1-141-554-11	CAP, VAR (TUNING)	
C36	1-163-031-11	CERAMIC CHIP 0 01uF	50V	CT3	1-141-554-11	CAP, VAR (TUNING)	
C37	1-126-163-11	ELECT 4.7uF	20% 50V	CT4	1-141-554-11	CAP, VAR (TUNING)	
C38	1-164-346-11	CERAMIC CHIP 1uF	16V			< VARIABLE CAPACITOR >	
C39	1-164-232-11	CERAMIC CHIP 0.01uF	50V	CV1	1-141-554-11	CAP, VAR (TUNING)	
C40	1-163-031-11	CERAMIC CHIP 0 01uF	50V	CV2	1-141-554-11	CAP, VAR (TUNING)	
C42	1-164-232-11	CERAMIC CHIP 0 01uF	50V	CV3	1-141-554-11	CAP, VAR (TUNING)	
C43	1-126-163-11	ELECT 4 7uF	20% 50V	CV4	1-141-554-11	CAP, VAR (TUNING)	
C44	1-104-483-11	ELECT 470uF	20% 4V				
C45	1-126-163-11	ELECT 4 7uF	20% 50V				
C46	1-126-157-11	ELECT 10uF	20% 16V				

**MAIN    MICROCOMPUTER**

Ref. No.	Part No	Description	Remark
		< DIODE >	
D1	8-719-800-76	DIODE 1SS226	
D3	8-719-421-40	DIODE MA77	
D4	8-719-989-85	LED SLR-342VR3FM.N (TUNE)	
D5	8-719-914-43	DIODE DAN202K	
D6	8-719-988-62	DIODE 1SS355	
		< IC >	
IC1	8-752-036-29	IC CXA1280N	
		< JACK >	
J1	1-573-548-11	JACK (⊗)	
		< JUMPER RESISTOR >	
JC1	1-216-296-00	METAL CHIP	0    5%    1/8W
JC2	1-216-296-00	METAL CHIP	0    5%    1/8W
JC3	1-216-296-00	METAL CHIP	0    5%    1/8W
JC4	1-216-296-00	METAL CHIP	0    5%    1/8W
JC5	1-216-296-00	METAL CHIP	0    5%    1/8W
JC6	1-216-296-00	METAL CHIP	0    5%    1/8W
JC7	1-216-296-00	METAL CHIP	0    5%    1/8W
JC8	1-216-296-00	METAL CHIP	0    5%    1/8W
JC9	1-216-296-00	METAL CHIP	0    5%    1/8W
JC10	1-216-296-00	METAL CHIP	0    5%    1/8W
JC11	1-216-295-00	METAL CHIP	0    5%    1/10W
JC12	1-216-295-00	METAL CHIP	0    5%    1/10W
JC13	1-216-296-00	METAL CHIP	0    5%    1/8W
JC14	1-216-296-00	METAL CHIP	0    5%    1/8W
JC15	1-216-296-00	METAL CHIP	0    5%    1/8W
		< JUMPER >	
JW2 (C02)	1-101-004-00	CERAMIC CHIP	0.01uF    Z%    50V
		< COIL >	
L1	1-410-514-11	INDUCTOR	27uH
L2	1-410-512-11	INDUCTOR	18uH
L3	1-410-510-11	INDUCTOR	12uH
L4	1-410-507-11	INDUCTOR	6.8uH
L5	1-408-405-00	INDUCTOR	4 7uH
L6	1-410-503-11	INDUCTOR	3 3uH
L7	1-410-502-11	INDUCTOR	2 7uH
L8	1-410-500-11	INDUCTOR	1.8uH
L9	1-410-498-11	INDUCTOR	1 2uH
L10	1-416-050-11	COIL (OSC)	
L11	1-416-051-11	COIL (OSC)	
L12	1-416-052-11	COIL (OSC)	
L13	1-416-053-11	COIL (OSC)	
L14	1-416-054-11	COIL (OSC)	
L15	1-416-055-11	COIL (OSC)	
L16	1-416-056-11	COIL (OSC)	
L17	1-416-057-11	COIL (OSC)	
L18	1-416-058-11	COIL (OSC)	
L19	1-428-292-11	COIL, AIR-CORE	
L20	1-414-142-11	INDUCTOR	1uH
L22	1-402-941-11	COIL, AIR-CORE	
* L23	1-428-306-11	COIL, AIR-CORE	
L24	1-501-892-11	ANTENNA, FERRITE-ROD (MW)	
L25	1-416-049-11	COIL (WITH CORE)	
L26	1-406-255-11	COIL (OSC)	

Ref. No.	Part No	Description	Remark
		< TRANSISTOR >	
Q1	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q3	8-729-902-99	TRANSISTOR DTC114TK	
Q4	8-729-904-87	TRANSISTOR 2SB1197K-R	
Q5	8-729-902-99	TRANSISTOR DTC114TK	
		< RESISTOR >	
R1	1-216-295-00	METAL CHIP	0    5%    1/10W
R4	1-216-089-00	METAL GLAZE	47K    5%    1/10W
R5	1-216-061-00	METAL CHIP	3 3K    5%    1/10W
R6	1-216-049-11	METAL GLAZE	1K    5%    1/10W
R7	1-216-057-00	METAL CHIP	2 2K    5%    1/10W
R8	1-216-049-11	METAL GLAZE	1K    5%    1/10W
R9	1-216-073-00	METAL CHIP	10K    5%    1/10W
R10	1-216-308-00	METAL CHIP	4 7    5%    1/10W
R11	1-216-025-00	METAL GLAZE	100    5%    1/10W
R12	1-216-017-00	METAL GLAZE	47    5%    1/10W
R13	1-216-017-00	METAL GLAZE	47    5%    1/10W
R14	1-216-057-00	METAL CHIP	2 2K    5%    1/10W
R15	1-216-037-00	METAL CHIP	330    5%    1/10W
R16	1-216-061-00	METAL CHIP	3 3K    5%    1/10W
R17	1-216-097-00	METAL GLAZE	100K    5%    1/10W
R18	1-216-049-11	METAL GLAZE	1K    5%    1/10W
R19	1-216-017-00	METAL GLAZE	47    5%    1/10W
R20	1-216-041-00	METAL CHIP	470    5%    1/10W
R21	1-216-073-00	METAL CHIP	10K    5%    1/10W
R22	1-216-041-00	METAL CHIP	470    5%    1/10W
R23	1-216-073-00	METAL CHIP	10K    5%    1/10W
R24	1-216-073-00	METAL CHIP	10K    5%    1/10W
R25	1-216-097-00	METAL GLAZE	100K    5%    1/10W
		< VARIABLE RESISTOR >	
RV1	1-225-451-11	RES, VAR, CARBON 50K (VOL ▲)	
		< SWITCH >	
S1	1-762-932-11	SWITCH, SLIDE (SW/MW/FM/POWER OFF)	
S2	1-692-444-11	SWITCH, KEY BOARD (SNOOZE/LIGHT)	
		< TRANSFORMER >	
T1	1-404-444-31	TRANSFORMER, IF	
*****			
*	A-3662-706-A	MICROCOMPUTER BOARD, COMPLETE	*****
	1-537-683-11	CONDUCTIVE BOARD, CONNECTION	
*	3-009-774-01	HOLDER (LCD)	
*	3-009-795-01	CASE (LCD), SHIELD	
	3-009-796-01	TERMINAL (+ LITHIUM), BATTERY	
	3-009-797-01	TERMINAL (- LITHIUM), BATTERY	
*	3-009-803-01	SHEET (LCD)	
*	3-014-730-01	CUSHION (LCD)	
*	3-014-731-01	SHEET, DIFFUSION	
		< CAPACITOR >	
C105	1-163-009-11	CERAMIC CHIP	0 001uF    10%    50V
C106	1-163-009-11	CERAMIC CHIP	0.001uF    10%    50V
C107	1-163-129-00	CERAMIC CHIP	330PF    5%    50V
C108	1-163-129-00	CERAMIC CHIP	330PF    5%    50V



**MICROCOMPUTER**

Ref No	Part No.	Description	Remark	Ref. No	Part No.	Description	Remark
C109	1-163-129-00	CERAMIC CHIP 330PF 5%	50V			ACCESSORIES & PACKING MATERIALS *****	
C110	1-163-031-11	CERAMIC CHIP 0.01uF	50V				
C111	1-163-009-11	CERAMIC CHIP 0 001uF 10%	50V	3-859-292-11	MANUAL, INSTRUCTION (ENGLISH,SPANISH, ITALIAN,PORTUGUESE)		
C112	1-163-031-11	CERAMIC CHIP 0.01uF	50V				
C113	1-163-234-11	CERAMIC CHIP 20PF 5%	50V	3-859-292-21	MANUAL, INSTRUCTION(FRENCH,GERMAN, DUTCH,SWEDISH) (Canadian,AEP)		
C114	1-163-038-00	CERAMIC CHIP 0 1uF	25V	3-859-292-31	MANUAL, INSTRUCTION(CHINESE,KOREAN, ARABIC) (E,EA)		
C115	1-163-038-00	CERAMIC CHIP 0.1uF	25V				
C116	1-163-038-00	CERAMIC CHIP 0.1uF	25V	3-912-863-04	GUIDE, SHORT WAVE		
C117	1-163-017-00	CERAMIC CHIP 0 0047uF 5%	50V				
C119	1-163-031-11	CERAMIC CHIP 0 01uF	50V				
C122	1-163-129-00	CERAMIC CHIP 330PF 5%	50V				
< CONNECTOR >							
CN101	1-770-688-11	CONNECTOR, FFC/FPC 5P					
< DIODE >							
D101	8-719-064-22	LED CL-220YG-C-TU (LCD BACK-LIGHT)					
D102	8-719-064-22	LED CL-220YG-C-TU (LCD BACK-LIGHT)					
< IC >							
IC101	8-759-356-55	IC LC5733-1F14					
< LIQUID CRYSTAL DISPLAY >							
LCD1	1-810-953-11	DISPLAY PANEL, LIQUID CRYSTAL					
< TRANSISTOR >							
Q101	8-729-902-99	TRANSISTOR DTC114TK					
< RESISTOR >							
R101	1-216-073-00	METAL CHIP 10K 5%	1/10W				
R102	1-216-073-00	METAL CHIP 10K 5%	1/10W				
R103	1-216-121-00	METAL GLAZE 1M 5%	1/10W				
R104	1-216-017-00	METAL GLAZE 47 5%	1/10W				
R105	1-216-017-00	METAL GLAZE 47 5%	1/10W				
R106	1-216-065-00	METAL CHIP 4 7K 5%	1/10W				
R107	1-216-025-00	METAL GLAZE 100 5%	1/10W				
< SWITCH >							
S105	1-572-487-21	SWITCH, SLIDE (SET)					
< VIBRATOR >							
X101	1-567-098-41	VIBRATOR, CRYSTAL (32 768kHz)					
*****							
MISCELLANEOUS *****							
4	1-537-683-11	CONDUCTIVE BOARD, CONNECTION					
10	1-782-339-11	WIRE (FLAT TYPE) (5 CORE)					
12	1-771-058-11	SWITCH, RUBBER KEY					
ANT1	1-501-432-11	ANTENNA, TELESCOPIC					
L24	1-501-892-11	ANTENNA, FERRITE-ROD (MW)					
LCD1	1-810-953-11	DISPLAY PANEL, LIQUID CRYSTAL					
SP1	1-505-141-11	SPEAKER (4.5cm)					
*****							