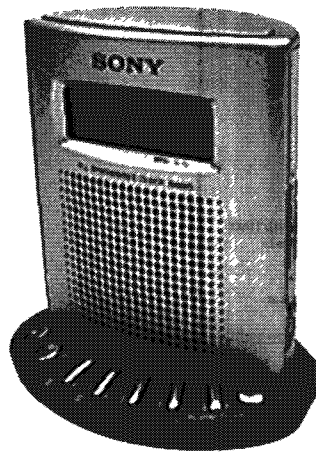


ICF-C713

SERVICE MANUAL

US Model
Canadian Model
AEP Model
E Model



SPECIFICATIONS

Time display

US, Canadian, E model	12 hour
AEP, Italian model	24 hour

Frequency range

US, Canadian, E model	
Band	Channel step
FM 87.5 - 108 MHz	0.1 MHz
AM 530 - 1,710 kHz	10 kHz
AEP, Italian model	
Band	Channel step
FM 87.5 - 108 MHz	0.05 MHz*
AM 531 - 1,602 kHz	9 kHz

* The frequency display is raised or lowered by steps of 0.1 MHz
(Example: Frequency 88.05 MHz is displayed as "88.0 MHz")

Speaker

Approx. 5.7 cm (2 1/4 in) dia

Power output

150 mW (at 10% harmonic distortion)

Power requirements

US, Canadian model: 120 V AC, 60 Hz
AEP, E, Italian model: 220-230 V AC, 50 Hz

Dimensions

Approx. 115 × 123 × 85 mm (w/h/d)
(4 5/8 × 4 7/8 × 3 3/8 in) incl. projecting parts
and controls

Mass

Approx. 480 g (1 lb 0.9 oz)

Design and specifications are subject to change
without notice

FEATURES

- Dual alarm FM/AM PLL (phase locked loop) synthesized clock radio
- 5 random memory presets
- Radio and buzzer alarms with the snooze function
- LCD display with backlight which has a brightness switch

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

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK Δ OR DOTTED LINE WITH MARK Δ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

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

FM/AM PLL SYNTHESIZED CLOCK RADIO

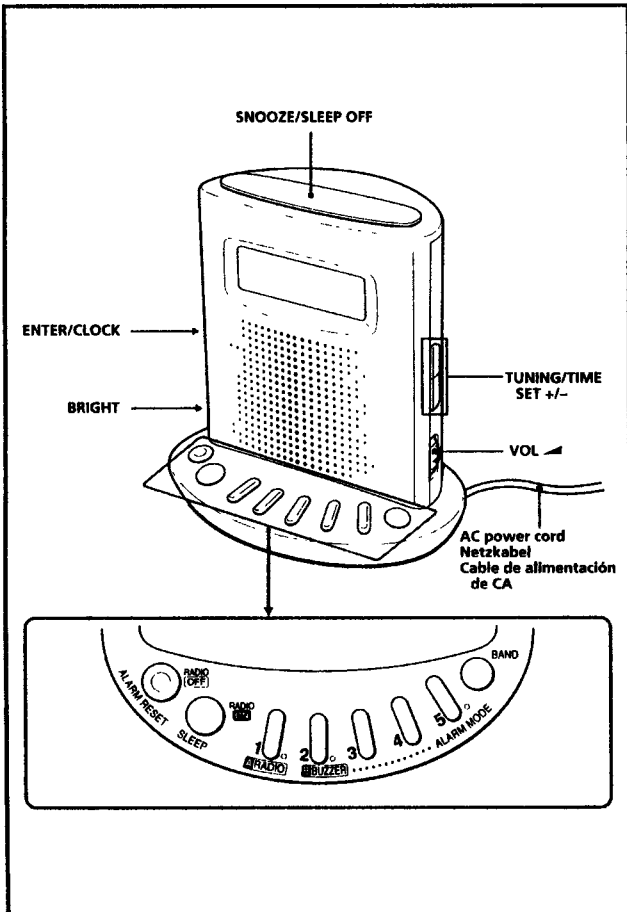


992573011

SONY®

SECTION 1 GENERAL

This section extracted from instruction manual.



Setting the Clock

- 1 Plug in the clock radio.
The display will flash "AM 12:00" or "0:00"
 - 2 While holding down **ENTER/CLOCK**, press **TUNING/TIME SET +** or **-** until the correct time appears in the display
When you release **ENTER/CLOCK**, the clock begins to operate.
- To set the current time rapidly, keep pressing the **+** or **-** button while holding down **ENTER/CLOCK**
 - The clock system varies depending on the model you own
12-hour system: "AM 12:00" = midnight
24-hour system: "0:00" = midnight
 - To set the current time from zero seconds, release **ENTER/CLOCK** with the time signal at step 2
 - The colon (":") in the time indication is flashing when the radio is off and steadily displayed when it is on

Operating the Radio Manual Tuning

- 1 Press **RADIO ON** to turn on the radio.
The band and frequency will appear in the display for a few seconds. Then the current time indication returns to the display
- 2 Press **BAND** repeatedly to select the desired band.

- 3 Use **TUNING/TIME SET +** or **-** to tune in the desired station.

The FM channel step is set to 0.1 MHz and the AM channel step is set to 10 kHz for the model for the North and South America. The FM channel step is set to 0.05 MHz and the AM (MW) channel step is set to 9 kHz for the model for other countries.

A beep sounds and the tuning stops when the upper or lower extremity of the band range is reached

- 4 Adjust volume using **VOL**.

- To turn off the radio, press **RADIO OFF**
- To improve reception
FM: Extend the AC power cord fully to increase FM reception sensitivity, since the cord acts as an FM wire antenna
AM: Rotate the unit horizontally for optimum reception. A ferrite bar is built in to the unit
- To check the current station, press the **+** button lightly. The band and frequency are displayed for a few seconds, after which the current time indication returns to the display
- If the radio alarm **A RADIO** comes on while the radio is playing, the station switches to the frequency set under preset number 1 (the wake-up frequency)

To set the brightness of the backlight

Set **BRIGHT** to **HIGH** or **LOW** to make the display visible

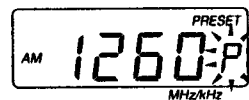
Preset Tuning

You can preset up to five stations for one-touch tuning, one under each of preset buttons 1 to 5

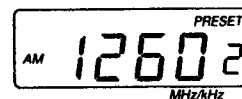
Presetting a station

Example: To set AM 1260 kHz in preset button 2

- 1 Tune in the station you want to preset.
(See "Manual Tuning")
- 2 Press **ENTER/CLOCK**.
"P" flashes in the display for a few seconds



- 3 Press the preset button under which you wish to store the station while the "P" indication is flashing.
Two beeps sound to indicate successful presetting.



- When using the radio alarm, preset the station you wish to serve as the alarm (the wake-up frequency) under preset button 1

To change a preset station

Press the preset button again after tuning manually to a different station. The previous station is replaced by the new one

Tuning in a preset station

- 1 Press **RADIO ON** to turn on the radio.
- 2 Press the preset button under which the desired station is stored

Setting the Alarm

You can set the radio and buzzer alarms at the preset time. Before setting the alarm, be sure to set the clock (See "Setting the Clock") and preset a radio station under preset button 1 (See "Preset Tuning").

- 1 Turn off the radio.
- 2 While holding down **A RADIO** or **B BUZZER**, press either **TUNING/TIME SET +** or **-** until the desired time appears in the display. At this time, the "A RADIO" or "B BUZZER" indication flashes in the display.
- 3 Release **A RADIO** or **B BUZZER**.
- 4 Press **ALARM MODE** until the alarm you want flashes in the display. Each time you press **ALARM MODE**, the alarm indication changes as follows:

No alarm indication → →
↑ and ↓

When the alarm time is reached, the radio or buzzer sounds for 60 minutes or until turned off.

To stop the alarm

Press **ALARM RESET** while the alarm is activated.

The alarm will function at the same time the next day.

To cancel the alarm

Press **ALARM MODE** until neither the "A RADIO" nor "B BUZZER" indication is displayed.

Notes

- The alarm does not function, unless you set the clock, A RADIO and B BUZZER function.
- If both the radio and buzzer alarm are set for the same time, the radio alarm takes precedence.
- You can check the alarm time setting by pressing **A RADIO** or **B BUZZER**.

To doze for a few more minutes

- 1 Press **SNOOZE/SLEEP OFF**. The radio or buzzer will shut off but will automatically come on again after about 8 minutes. You can repeat this process as many times as you like.
- You can reset the alarm time while activating the snooze function.

Setting the Sleep Timer

You can enjoy falling asleep to the radio using the built-in sleep timer that turns off the radio automatically after a preset duration.

- 1 Press **SLEEP**. The radio turns on. It will go off after the preset time has passed. You can set the sleep timer to 90, 60, 30, or 15 minutes. Every push changes the display as follows:

Current time → On → 90(min)
↑ 15 ← 30 ← 60 ↓

The radio will play for the time you set, then shut off.

- To turn off the radio before the preset time, press **SNOOZE/SLEEP OFF**.

To Use Both Sleep Timer and Alarm

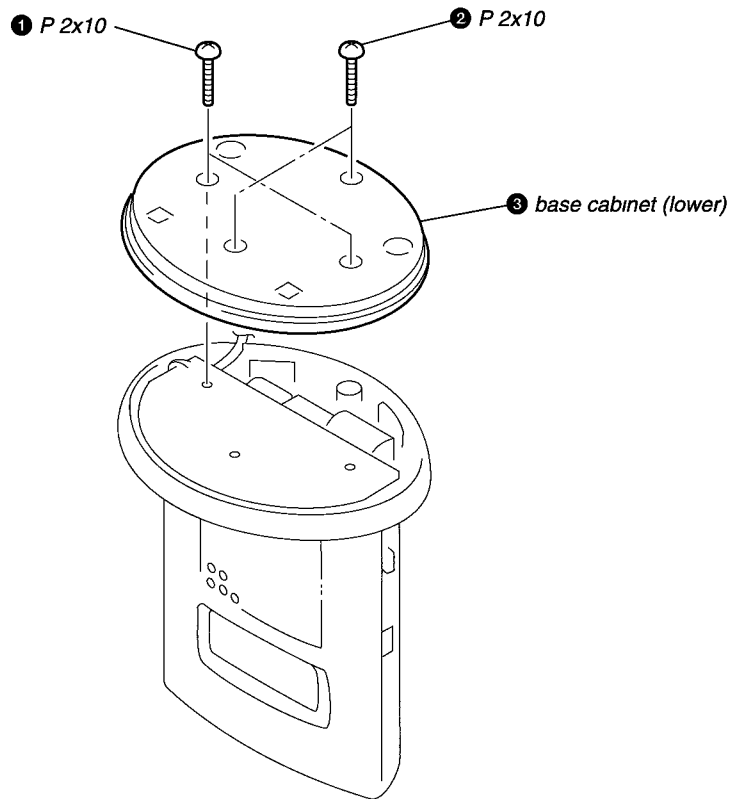
You can fall asleep to the radio sound and you will be awakened by the radio or buzzer alarm at the preset time.

- 1 Set the alarm. (See "Setting the Alarm")
- 2 Set the sleep timer. (See "Setting the Sleep Timer")

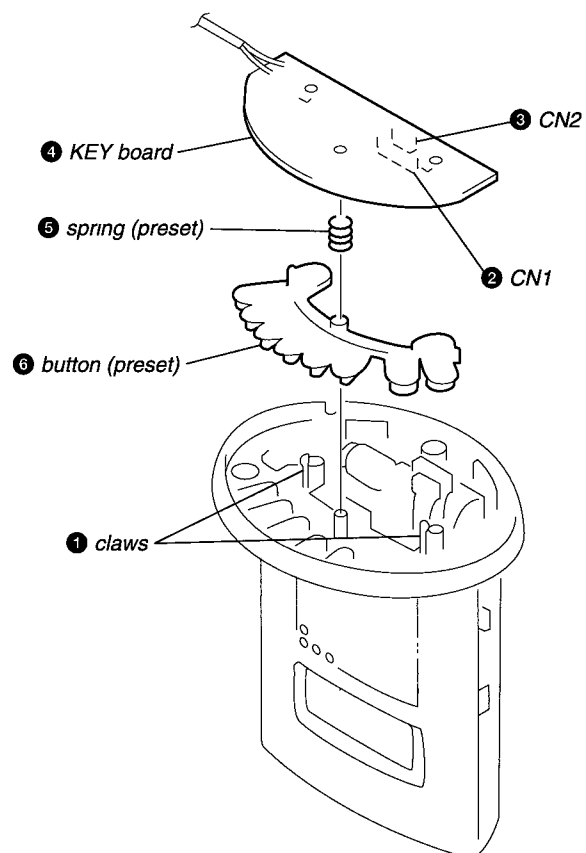
SECTION 2 DISASSEMBLY

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

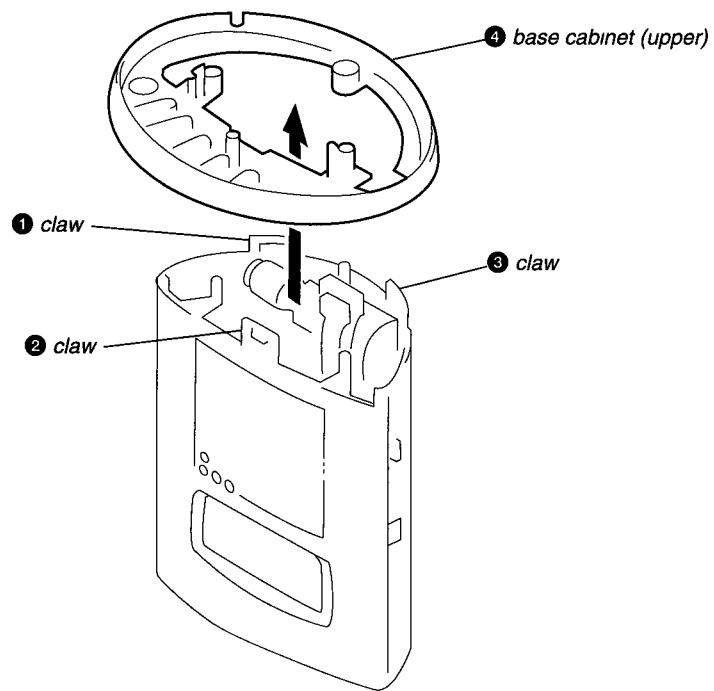
2-1. BASE CABINET (LOWER)



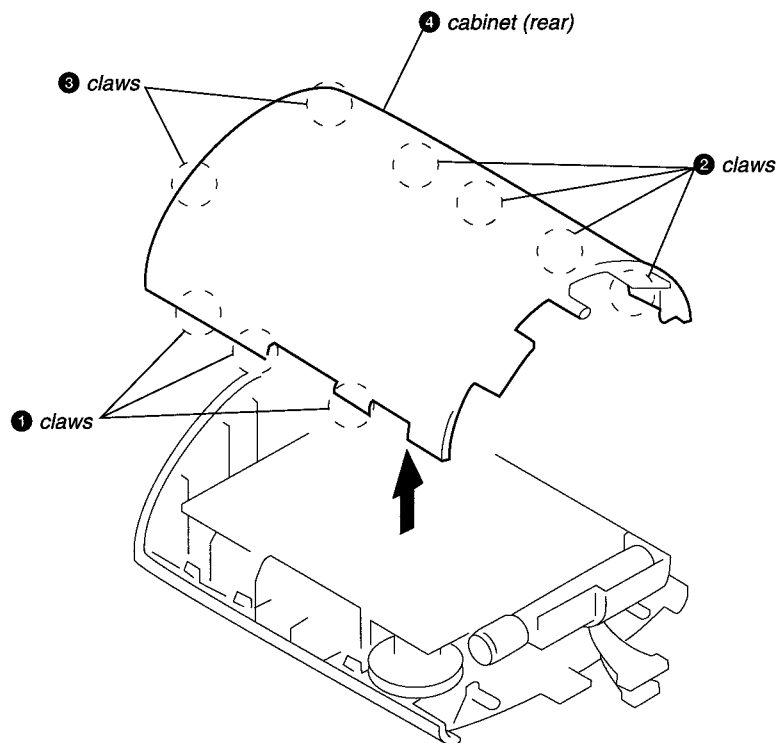
2-2. KEY BOARD



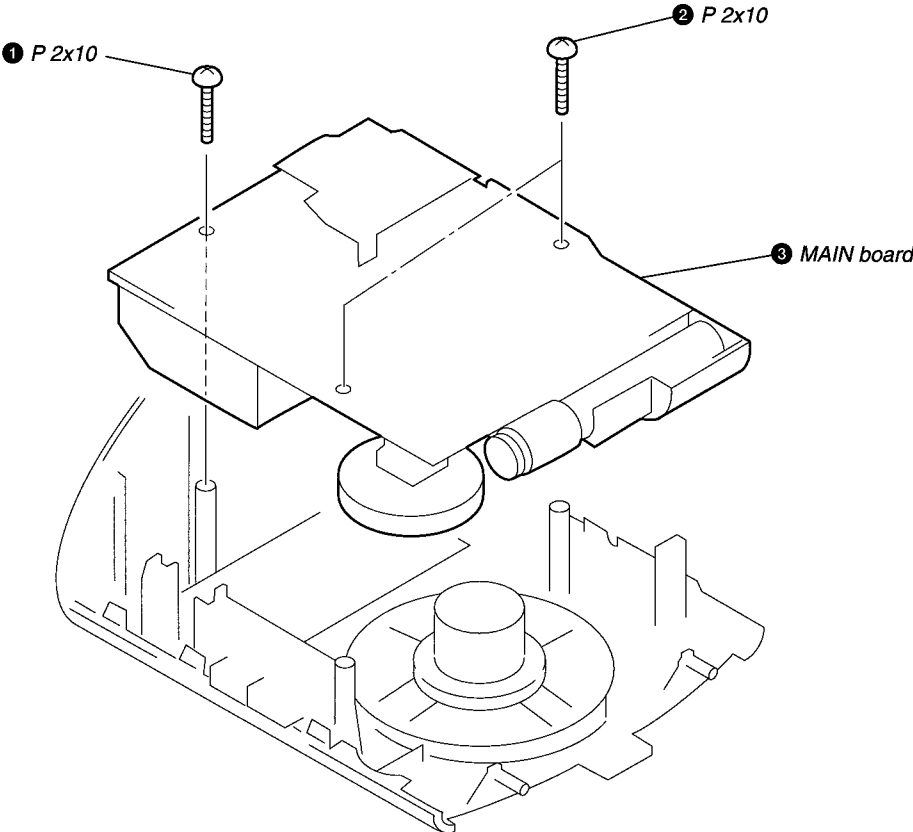
2-3. BASE CABINET (UPPER)



2-4. CABINET (REAR)



2-5. MAIN BOARD



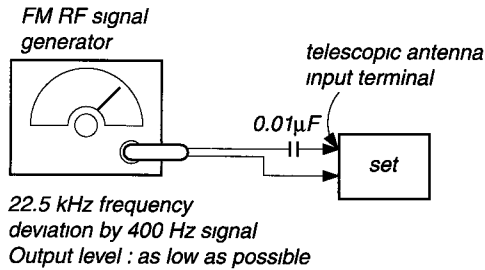
SECTION 3 ELECTRICAL ADJUSTMENTS

0 dB = 1 μ V

• FM Section

Setting :

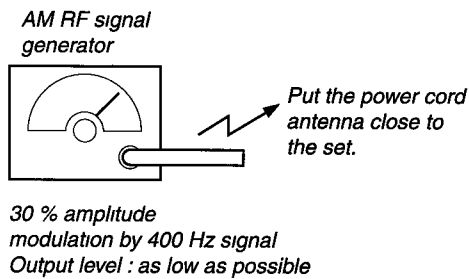
RADIO ON button : On
BAND button : FM



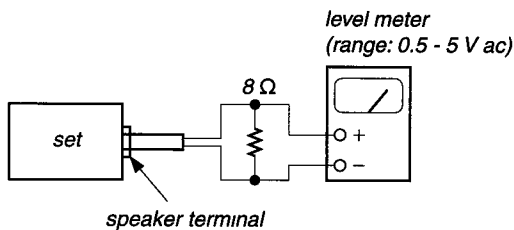
• AM Section

Setting :

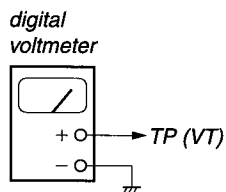
RADIO ON button : On
BAND button : AM



• Connecting Level Meter (FM and AM)



• Connecting Digital Voltmeter (FM and AM)



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

FM VCO VOLTAGE ADJUSTMENT

Adjust for the following value reading on digital voltmeter.

Adjustment Part	<confirmation>	L4
Frequency Display	87.5 MHz	108.0 MHz
Reading on Digital voltmeter	More than 1.2 V Standard 1.6 V	9.5 \pm 1.0 V

FM TRACKING ADJUSTMENT

Adjust for a maximum reading on level meter.

L3	CT3
87.5 MHz	108.0 MHz

AM IF ADJUSTMENT

Adjust for a maximum reading on level meter

T1
450 kHz

AM VCO VOLTAGE ADJUSTMENT

Adjust for the following value reading on digital voltmeter.

Adjustment Part	L5	<confirmation>
Frequency Display	530 kHz (531 kHz)	1,710 kHz (1,602 kHz)
Reading on Digital voltmeter	2.75 V	Less than 11.0 V Standard 10.0 V (Less than 10.0 V) (Standard 9.0 V)

AM TRACKING ADJUSTMENT

Adjust for a maximum reading on level meter.

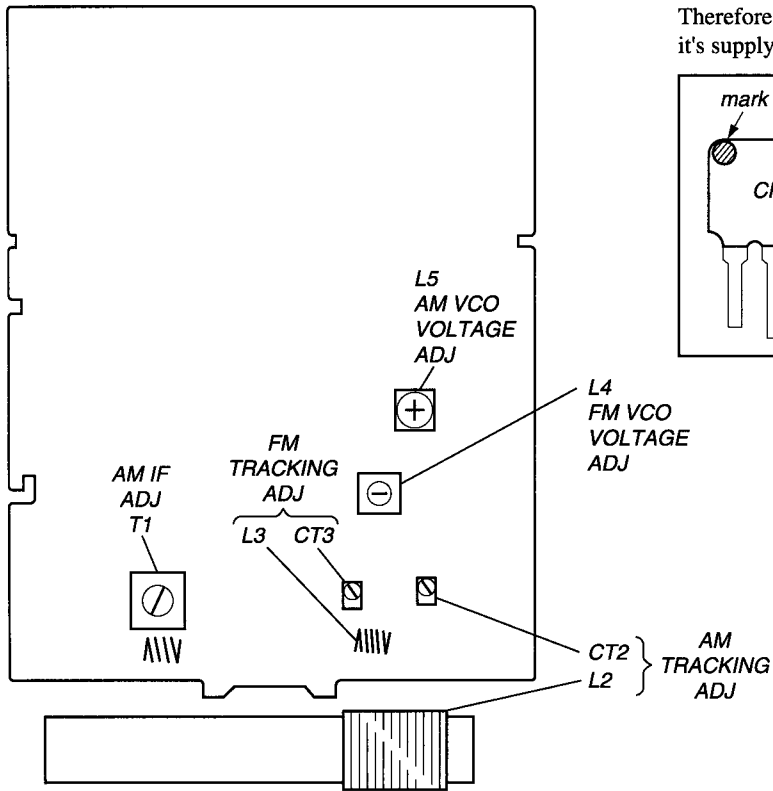
L2	CT2
580 kHz (621 kHz)	1,490 kHz (1,404 kHz)

() : AEP, Italian model

Adjustment Location : See page 8.

Adjustment Location : main board

-main board (component side) -



HOW TO CHANGE THE CERAMIC FILTERS

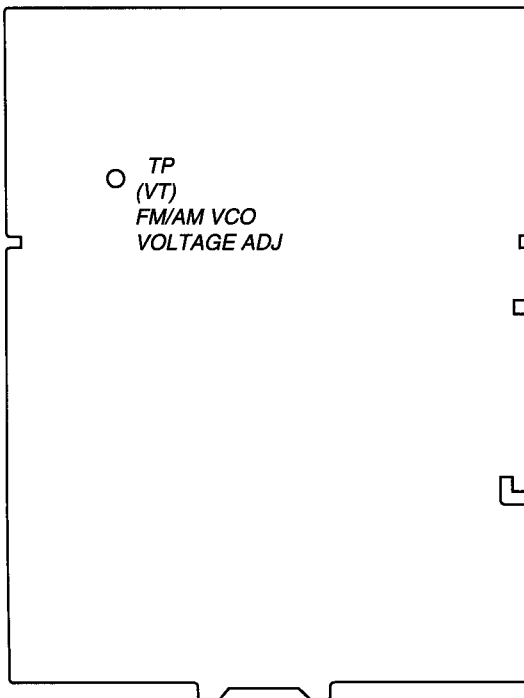
This model is used two ceramic filters of CF2 and 3.

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

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

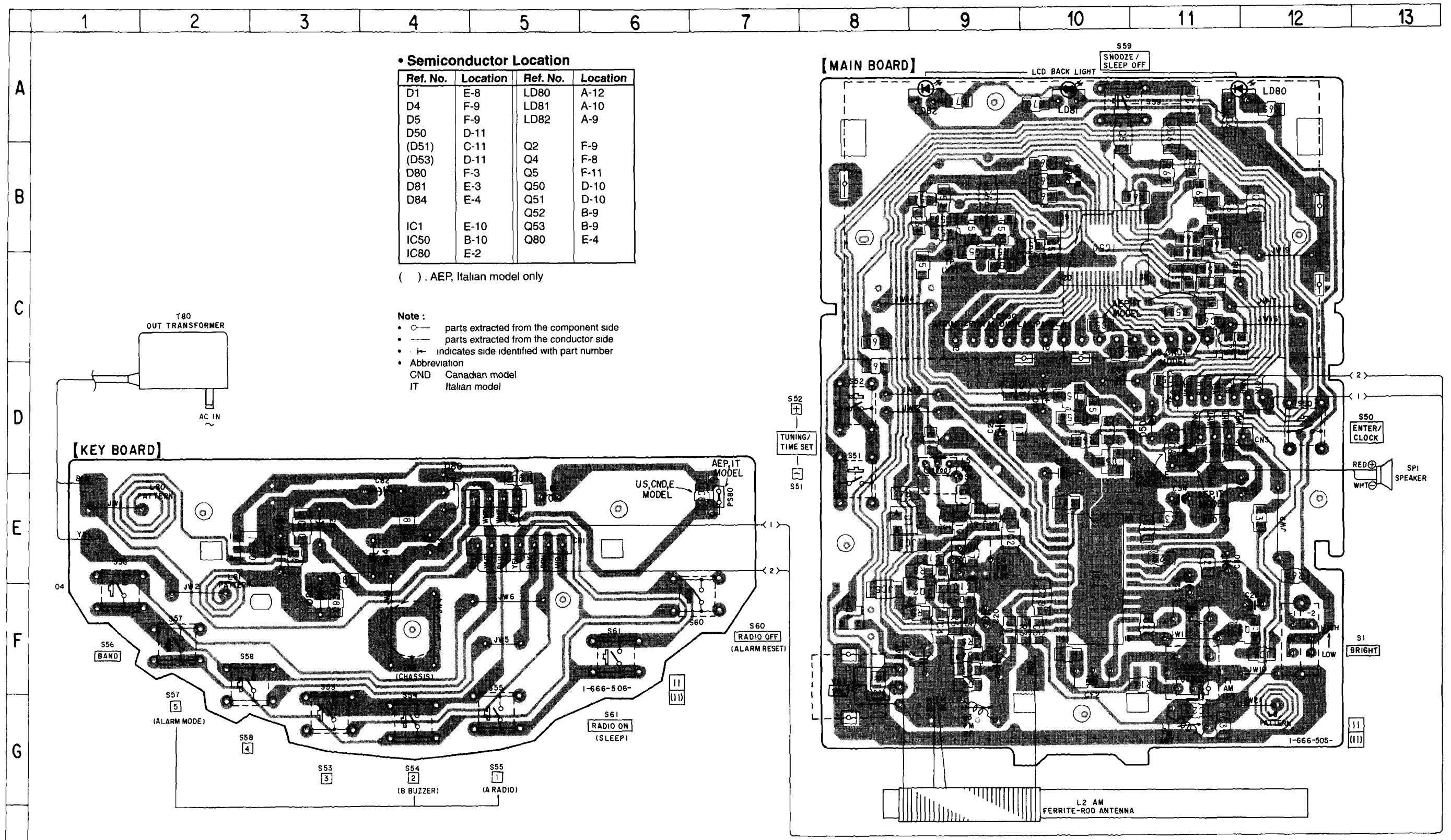
mark	Center Frequency
red	10.70 MHz
blue	10.67 MHz
orange	10.73 MHz
black	10.64 MHz
white	10.76 MHz

-main board (conductor side) -

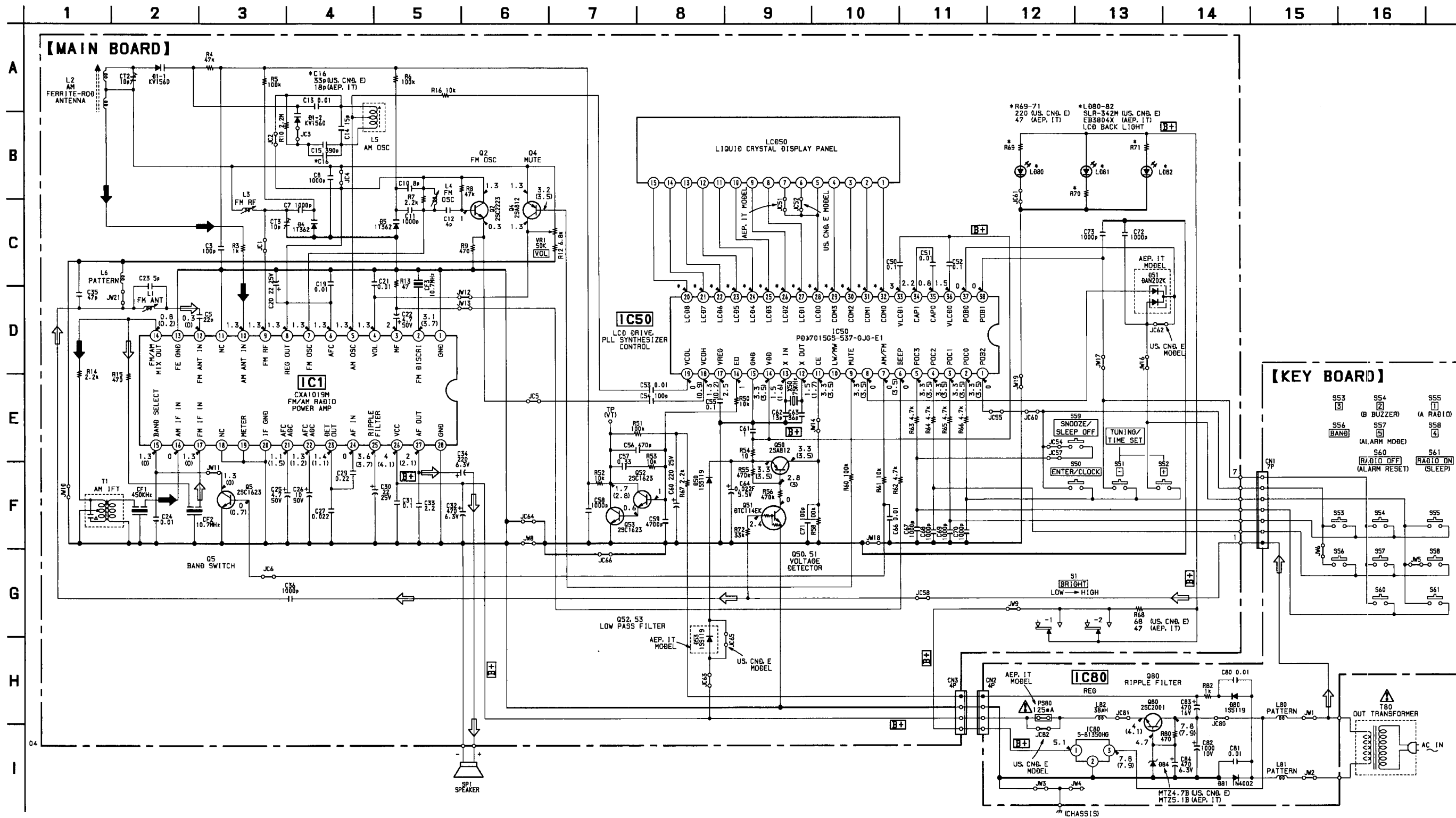


SECTION 4
DIAGRAMS

4-1. PRINTED WIRING BOARDS



4-2. SCHEMATIC DIAGRAM • Refer to page 13 for IC Block Diagram.



Note :

- All capacitors are in μF unless otherwise noted. pF : μF 50 VV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- Δ : internal component.

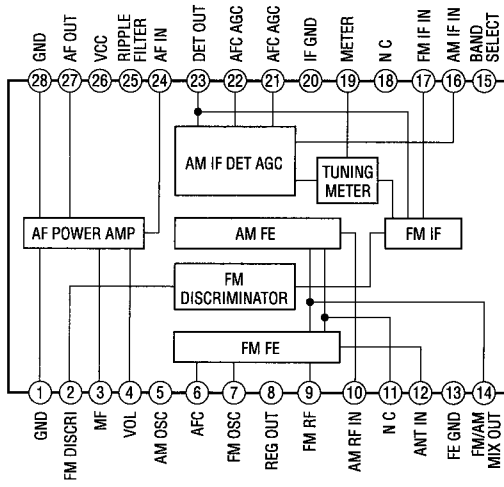
Note :
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

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

- B+ : B+ Line.
- Voltage is dc with respect to ground under no-signal (detuned) conditions.
- no mark : FM
- () : AM
- Voltage are taken with a VOM (Input Impedance 10 M Ω). Voltage variations may be noted due to normal production tolerance.
- Signal path.
- \rightarrow : FM
- \Rightarrow : AM
- Abbreviation
- CND : Canadian model
- IT : Italian model

• IC Block Diagram

IC1 CXA1019M



SECTION 5 EXPLODED VIEWS

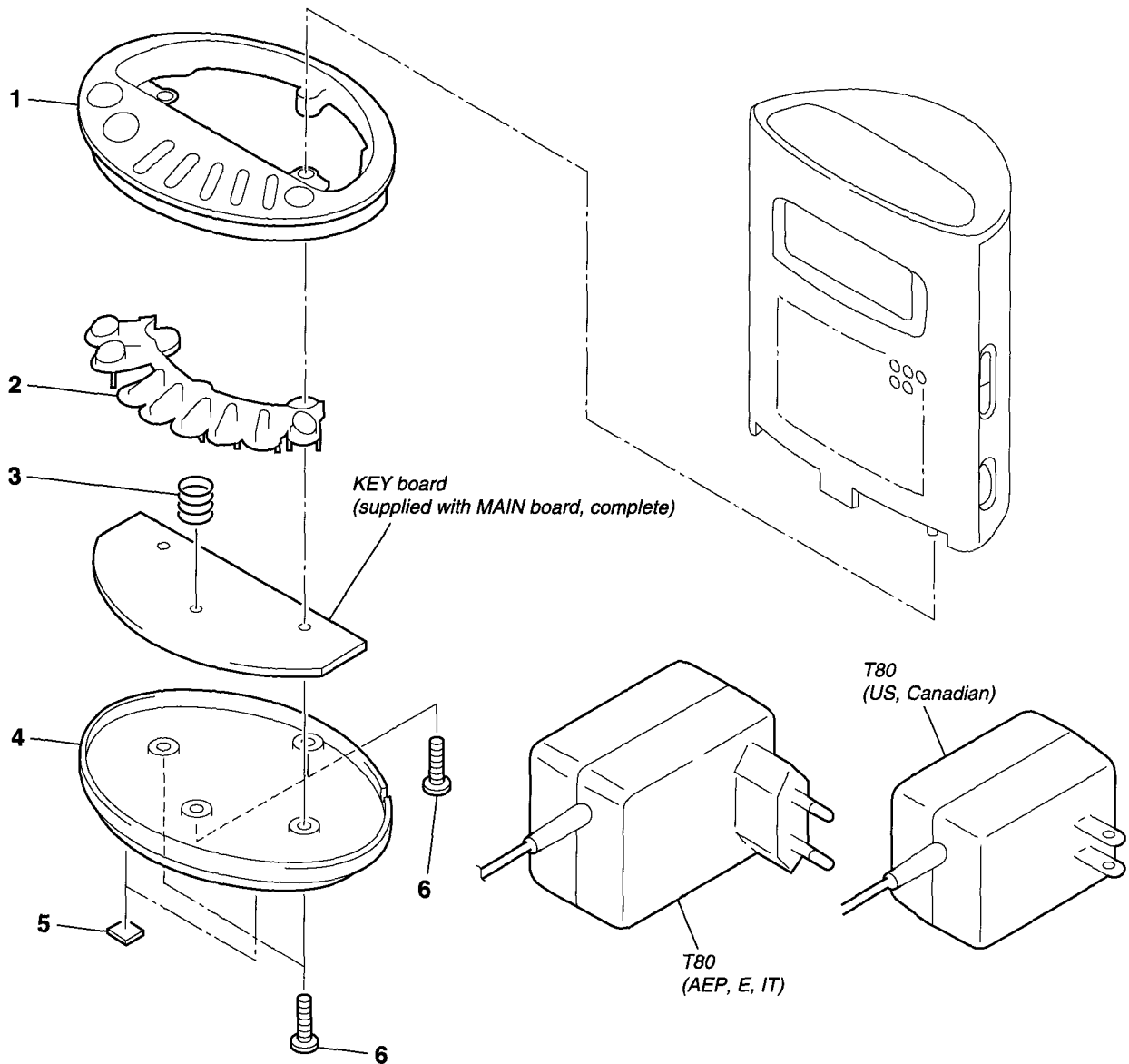
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied
- Items marked "*" are not stocked since they are seldom required for routine service
Some delay should be anticipated when ordering these items
- Abbreviation
IT Italian model

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example
KNOB, BALANCE (WHITE) . (RED)
 ↑ ↑
 Parts Color Cabinet's Color
- Accessories and packing materials are given in the last of this parts list.

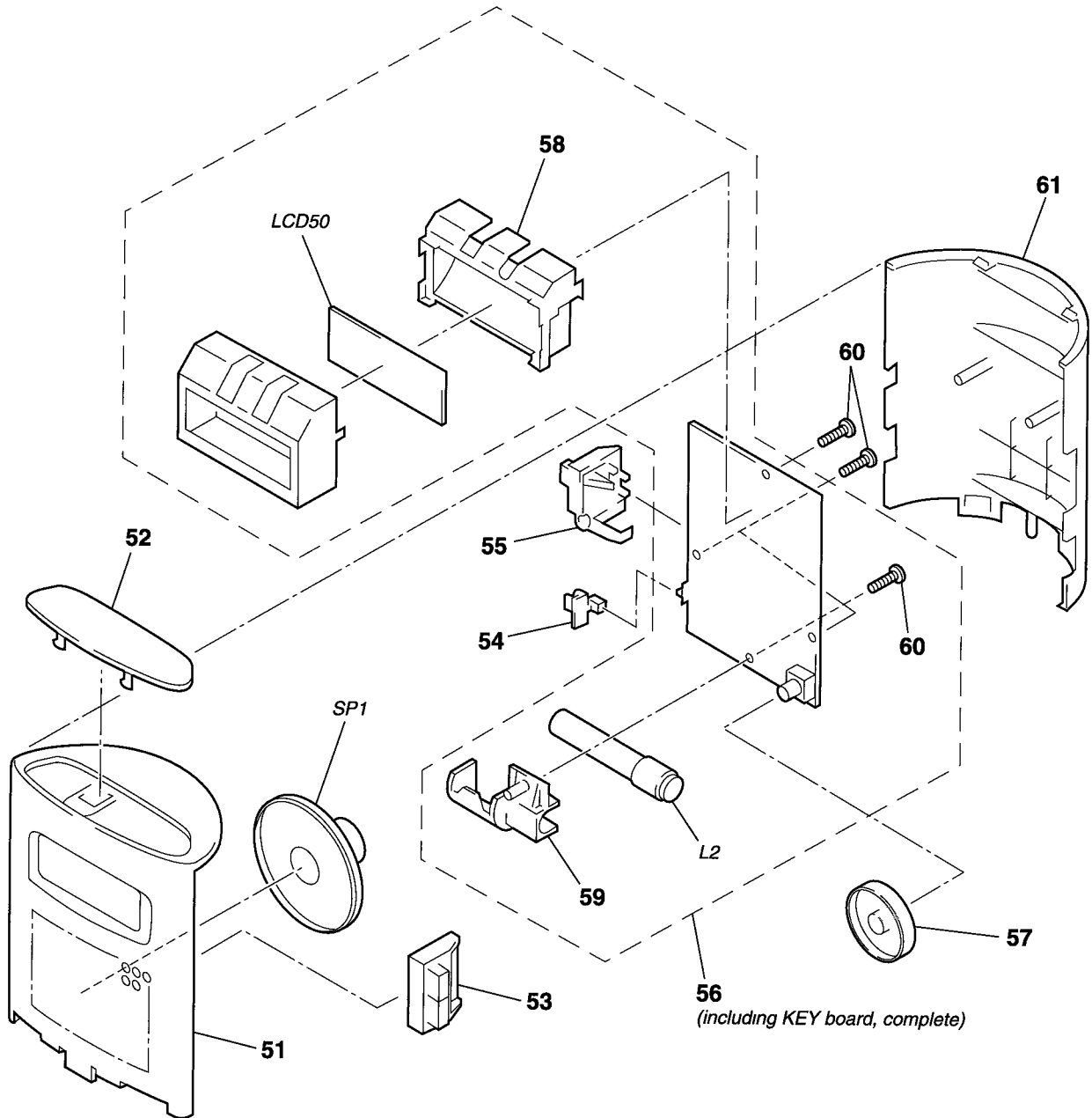
<p>The components identified by mark △ or dotted line with mark △ are critical for safety Replace only with part number specified.</p>
<p>Les composants identifiés par une marque △ sont critiques pour la sécurité Ne les remplacer que par une pièce portant le numéro spécifié.</p>

5-1. KEY BOARD SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	3-015-449-01	CABINET (UPPER), BASE		5	3-368-852-01	FOOT	
2	3-015-459-01	BUTTON (PRESET)		6	7-685-106-01	SCREW +P 2X10 TYPE1	
3	3-017-680-01	SPRING (PRESET)		△ T80	1-468-231-11	POWER UNIT (US,Canadian)	
4	3-015-450-01	CABINET (LOWER), BASE (US,Canadian)		△ T80	1-468-232-11	POWER UNIT (AEP,E,IT)	
4	3-015-450-11	CABINET (LOWER), BASE (AEP,E,IT)					

5-2. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-3374-171-1	FRONT CABINET ASSY		57	3-015-460-01	KNOB (VOLUME)	
52	3-015-456-01	BUTTON (SNOOZE/SLEEP OFF)		58	3-015-451-01	HOLDER (LCD)	
53	3-015-457-01	BUTTON (+/-)		59	3-015-452-01	HOLDER (ANT)	
54	3-015-453-01	KNOB (BRIGHT)		60	7-685-106-01	SCREW +P 2X10 TYPE1	
55	3-015-458-01	BUTTON (ENTER/CLOCK)		61	3-015-448-01	CABINET (REAR)	
* 56	A-3679-913-A	MAIN BOARD, COMPLETE (INCLUDING KEY BOARD, COMPLETE) (US,Canadian)		L2	1-501-921-11	ANTENNA, FERRITE-ROD (AM)	
* 56	A-3679-914-A	MAIN BOARD, COMPLETE (INCLUDING KEY BOARD, COMPLETE) (AEP,IT)		LCD50	1-801-771-11	DISPLAY PANEL, LIQUID CRYSTAL	
* 56	A-3679-917-A	MAIN BOARD, COMPLETE (INCLUDING KEY BOARD, COMPLETE) (E)		SP1	1-503-616-11	SPEAKER	

KEY**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 and -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
- Abbreviation
IT Italian model

- 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

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified

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

When indicating parts by reference number, please include the board

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		KEY BOARD, COMPLETE (SUPPLIED WITH MAIN BOARD, COMPLETE)				< SWITCH >	

		< CAPACITOR >					
C80	1-163-031-11	CERAMIC CHIP	0 01uF 50V	S53	1-762-233-11	SWITCH, KEYBOARD (3)	
C81	1-163-031-11	CERAMIC CHIP	0.01uF 50V	S54	1-762-233-11	SWITCH, KEYBOARD (2 (B BUZZER))	
C82	1-126-926-11	ELECT	1000uF 20% 10V	S55	1-762-233-11	SWITCH, KEYBOARD (1 (A RADIO))	
C83	1-126-935-11	ELECT	470uF 20% 6 3V	S56	1-762-233-11	SWITCH, KEYBOARD (BAND)	
C84	1-126-935-11	ELECT	470uF 20% 6 3V	S57	1-762-233-11	SWITCH, KEYBOARD (5 (ALARM MODE))	
		< CONNECTOR >					
* CN1	1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P		S58	1-762-233-11	SWITCH, KEYBOARD (4)	
* CN2	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P		S60	1-762-233-11	SWITCH, KEYBOARD (RADIO OFF (ALARM RESET))	
		< DIODE >		S61	1-762-233-11	SWITCH, KEYBOARD (RADIO ON (SLEEP))	
D80	8-719-911-19	DIODE 1SS119-25				*****	
D81	8-719-052-88	DIODE 1N4002		*	A-3679-913-A	MAIN BOARD, COMPLETE (INCLUDING KEY BOARD, COMPLETE) (US,Canadian)	
D84	8-719-010-34	DIODE UZ-4 7BSC (US,Canadian,E)		*	A-3679-914-A	MAIN BOARD, COMPLETE (INCLUDING KEY BOARD, COMPLETE) (AEP,IT)	
D84	8-719-109-85	DIODE RD5 1ESB2 (AEP,IT)		*	A-3679-917-A	MAIN BOARD, COMPLETE (INCLUDING KEY BOARD, COMPLETE) (E)	
		< IC >				*****	
IC80	8-759-512-69	IC S-81350HG-KD				3-015-451-01	HOLDER (LCD)
		< JUMPER RESISTOR >				3-015-452-01	HOLDER (ANT)
JC80	1-216-296-00	CONDUCTOR, CHIP (3216)				7-685-106-01	SCREW +P 2X10 TYPE1
JC81	1-216-295-00	CONDUCTOR, CHIP (2012)				< CAPACITOR >	
JC82	1-216-295-00	CONDUCTOR, CHIP (2012) (US,Canadian,E)		C3	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
		< COIL >		C5	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
L82	1-410-294-11	INDUCTOR, MICRO 38uH		C7	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
		< IC LINK >		C8	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
Δ PS80	1-533-901-21	LINK, IC (125mA) (AEP,IT)		C10	1-163-091-00	CERAMIC CHIP 8PF 50V	
		< TRANSISTOR >		C11	1-163-009-11	CERAMIC CHIP 0 001uF 10% 50V	
Q80	8-729-011-92	TRANSISTOR 2SC2001TP-K1K2		C12	1-163-087-00	CERAMIC CHIP 4PF 50V	
		< RESISTOR >		C13	1-163-031-11	CERAMIC CHIP 0 01uF 50V	
R80	1-216-041-00	METAL CHIP 470 5% 1/10W		C14	1-163-231-11	CERAMIC CHIP 15PF 5% 50V	
R82	1-216-049-11	METAL GLAZE 1K 5% 1/10W		C15	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
				C16	1-163-099-00	CERAMIC CHIP 18PF 5% 50V (AEP,IT)	
				C16	1-163-239-11	CERAMIC CHIP 33PF 5% 50V (US,Canadian,E)	
				C19	1-163-059-00	CERAMIC CHIP 0 01uF 10% 50V	
				C20	1-128-551-11	ELECT 22uF 20% 25V	
				C21	1-163-031-11	CERAMIC CHIP 0 01uF 50V	
				C22	1-126-963-11	ELECT 4 7uF 20% 50V	
				C23	1-163-222-11	CERAMIC CHIP 5PF 0 25PF 50V	
				C24	1-163-031-11	CERAMIC CHIP 0 01uF 50V	
				C25	1-126-963-11	ELECT 4 7uF 20% 50V	
				C26	1-126-964-11	ELECT 10uF 20% 50V	

Ref. No	Part No.	Description	Remark	Ref. No	Part No	Description	Remark
C27	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V			< IC >	
C29	1-164-489-11	CERAMIC CHIP	0.22uF 10% 16V				
C30	1-128-551-11	ELECT	22uF 20% 25V	IC1	8-752-050-16	IC CXA1019M	
C31	1-163-038-00	CERAMIC CHIP	0.1uF 25V	IC50	8-759-432-29	IC uPD17015GS-537-GJG-E1	
C32	1-126-935-11	ELECT	470uF 20% 6.3V			< JUMPER RESISTOR >	
C33	1-164-505-11	CERAMIC CHIP	2.2uF 16V	JC1	1-216-295-00	CONDUCTOR, CHIP	(2012)
C34	1-124-635-00	ELECT	220uF 20% 6.3V	JC2	1-216-296-00	CONDUCTOR, CHIP	(3216)
C35	1-163-243-11	CERAMIC CHIP	47PF 5% 50V	JC3	1-216-296-00	CONDUCTOR, CHIP	(3216)
C36	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	JC4	1-216-296-00	CONDUCTOR, CHIP	(3216)
C50	1-163-038-00	CERAMIC CHIP	0.1uF 25V	JC5	1-216-296-00	CONDUCTOR, CHIP	(3216)
C51	1-163-031-11	CERAMIC CHIP	0.01uF 50V	JC6	1-216-295-00	CONDUCTOR, CHIP	(2012)
C52	1-163-038-00	CERAMIC CHIP	0.1uF 25V	JC51	1-216-295-00	CONDUCTOR, CHIP	(2012) (AEP,IT)
C53	1-163-031-11	CERAMIC CHIP	0.01uF 50V	JC52	1-216-295-00	CONDUCTOR, CHIP	(2012) (US,Canadian,E)
C54	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	JC54	1-216-296-00	CONDUCTOR, CHIP	(3216)
C55	1-163-038-00	CERAMIC CHIP	0.1uF 25V	JC55	1-216-295-00	CONDUCTOR, CHIP	(2012)
C56	1-163-133-00	CERAMIC CHIP	470PF 5% 50V	JC57	1-216-296-00	CONDUCTOR, CHIP	(3216)
C57	1-110-501-11	CERAMIC CHIP	0.33uF 10% 16V	JC58	1-216-295-00	CONDUCTOR, CHIP	(2012)
C58	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	JC60	1-216-296-00	CONDUCTOR, CHIP	(3216)
C59	1-163-017-00	CERAMIC CHIP	0.0047uF 5% 50V	JC61	1-216-295-00	CONDUCTOR, CHIP	(2012)
C60	1-104-666-11	ELECT	220uF 20% 25V	JC62	1-216-295-00	CONDUCTOR, CHIP	(2012) (US,Canadian,E)
C61	1-164-346-11	CERAMIC CHIP	1uF 16V	JC63	1-216-296-00	CONDUCTOR, CHIP	(3216)
C62	1-163-096-00	CERAMIC CHIP	13PF 5% 50V	JC64	1-216-295-00	CONDUCTOR, CHIP	(2012)
C63	1-163-106-00	CERAMIC CHIP	36PF 5% 50V	JC65	1-216-295-00	CONDUCTOR, CHIP	(2012) (US,Canadian,E)
C64	1-125-691-11	DOUBLE LAYERS	0.022F 5.5V	JC66	1-216-296-00	CONDUCTOR, CHIP	(3216)
C66	1-163-031-11	CERAMIC CHIP	0.01uF 50V			< COIL >	
C67	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	L1	1-428-222-11	COIL, AIR-CORE	
C68	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	L2	1-501-921-11	ANTENNA, FERRITE-ROD (AM)	
C69	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	L3	1-406-545-11	COIL, AIR-CORE	
C70	1-163-205-00	CERAMIC CHIP	0.001uF 5% 50V	L4	1-459-837-11	COIL (WITH CORE)	
C71	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	L5	1-406-489-11	COIL (OSC)	
C72	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V			< LIQUID CRYSTAL DISPLAY >	
C73	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	LCD50	1-801-771-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< FILTER >				< DIODE >	
* CF1	1-577-319-11	FILTER, CERAMIC		LD80	8-719-056-07	LED SLR-342MC-A-47 (US,Canadian,E)	
CF2	1-579-632-41	FILTER, CERAMIC		LD80	8-719-066-39	LED EB3804X-J300K (AEP,IT)	
CF3	1-579-632-41	FILTER, CERAMIC		LD81	8-719-056-07	LED SLR-342MC-A-47 (US,Canadian,E)	
		< TRIMMER >		LD81	8-719-066-39	LED EB3804X-J300K (AEP,IT)	
CT2	1-141-298-11	CAP, TRIMMER 10PF		LD82	8-719-056-07	LED SLR-342MC-A-47 (US,Canadian,E)	
CT3	1-141-298-11	CAP, TRIMMER 10PF		LD82	8-719-066-39	LED EB3804X-J300K (AEP,IT)	
		< DIODE >				< TRANSISTOR >	
D1	8-719-951-05	DIODE KV1560		Q2	8-729-102-07	TRANSISTOR 2SC2223-F13	
D4	8-713-100-11	DIODE 1T362		Q4	8-729-216-22	TRANSISTOR 2SA1162-G	
D5	8-713-100-11	DIODE 1T362		Q5	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D50	8-719-911-19	DIODE 1SS119-25		Q50	8-729-216-22	TRANSISTOR 2SA1162-G	
D51	8-719-914-43	DIODE DAN202K (AEP,IT)		Q51	8-729-900-53	TRANSISTOR DTC114EK	
D53	8-719-911-19	DIODE 1SS119-25					

MAIN

Ref. No.	Part No.	Description	Remark
Q52	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q53	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
< RESISTOR >			
R3	1-216-049-11	METAL GLAZE 1K	5% 1/10W
R4	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R5	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R6	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R7	1-216-057-00	METAL CHIP 2 2K	5% 1/10W
R8	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R9	1-216-041-00	METAL CHIP 470	5% 1/10W
R10	1-216-129-00	METAL CHIP 2 2M	5% 1/10W
R12	1-216-069-00	METAL CHIP 6 8K	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	1-216-041-00	METAL CHIP 470	5% 1/10W
R16	1-216-073-00	METAL CHIP 10K	5% 1/10W
R50	1-216-073-00	METAL CHIP 10K	5% 1/10W
R51	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R52	1-216-073-00	METAL CHIP 10K	5% 1/10W
R53	1-216-073-00	METAL CHIP 10K	5% 1/10W
R54	1-216-001-00	METAL CHIP 10	5% 1/10W
R55	1-216-113-00	METAL CHIP 470K	5% 1/10W
R56	1-216-113-00	METAL CHIP 470K	5% 1/10W
R58	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R60	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R61	1-216-073-00	METAL CHIP 10K	5% 1/10W
R62	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
R63	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
R64	1-216-065-00	METAL CHIP 4 7K	5% 1/10W
R65	1-216-065-00	METAL CHIP 4 7K	5% 1/10W
R66	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
R67	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
R68	1-216-017-00	METAL GLAZE 47	5% 1/10W (AEP,IT)
R68	1-216-021-00	METAL CHIP 68	5% 1/10W (US,Canadian,E)
R69	1-216-017-00	METAL GLAZE 47	5% 1/10W (AEP,IT)
R69	1-216-033-00	METAL CHIP 220	5% 1/10W (US,Canadian,E)
R70	1-216-017-00	METAL GLAZE 47	5% 1/10W (AEP,IT)
R70	1-216-033-00	METAL CHIP 220	5% 1/10W (US,Canadian,E)
R71	1-216-017-00	METAL GLAZE 47	5% 1/10W (AEP,IT)
R71	1-216-033-00	METAL CHIP 220	5% 1/10W (US,Canadian,E)
R72	1-216-085-00	METAL CHIP 33K	5% 1/10W
< SWITCH >			
S1	1-571-850-91	SWITCH, SLIDE (BRIGHT)	
S50	1-762-233-11	SWITCH, KEYBOARD (ENTER/CLOCK)	

Ref. No.	Part No.	Description	Remark
S51	1-762-233-11	SWITCH, KEYBOARD (TUNING/TIME SET -)	
S52	1-762-233-11	SWITCH, KEYBOARD (TUNING/TIME SET +)	
S59	1-762-233-11	SWITCH, KEYBOARD (SNOOZE/SLEEP OFF)	
< TRANSFORMER >			
T1	1-404-790-11	TRANSFORMER, IF	
< VARIABLE RESISTOR >			
VR1	1-225-441-41	RES, VAR, CARBON 50K (VOL)	
< VIBRATOR >			
X50	1-567-769-11	VIBRATOR, CRYSTAL (75kHz)	

MISCELLANEOUS			

SP1	1-503-616-11	SPEAKER	
△ T80	1-468-231-11	POWER UNIT (US,Canadian)	
△ T80	1-468-232-11	POWER UNIT (AEP,E,IT)	

ACCESSORIES & PACKING MATERIALS			

3-860-216-11	MANUAL, INSTRUCTION (ENGLISH,GERMAN,SPANISH,DUTCH,PORTUGUESE) (AEP,E)		
3-860-216-21	MANUAL, INSTRUCTION (ENGLISH) (US)		
3-860-216-31	MANUAL, INSTRUCTION (ENGLISH,FRENCH,GERMAN,DUTCH,ITALIAN) (Canadian,IT)		

<p>The components identified by mark △ or dotted line with mark △ are critical for safety Replace only with part number specified.</p>	<p>Les composants identifiés par une marque △ sont critiques pour la sécurité Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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