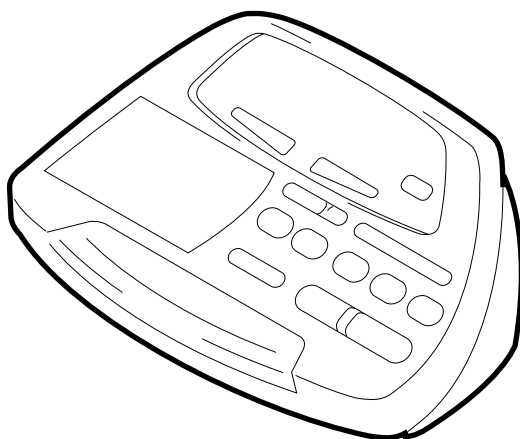


# ICF-C723/C723L

## SERVICE MANUAL

Ver 1.1



*US Model*  
*Canadian Model*  
*E Model*  
*Australian Model*  
ICF-C723  
*UK Model*  
ICF-C723L  
*AEP Model*  
ICF-C723/C723L

### SPECIFICATIONS

#### Radio section

Frequency range :

US, Canadian model		
Band	ICF-C723	Channel step
FM	87.5– 108 MHz	0.1MHz
AM	530 – 1,710 kHz	10kHz

EXCEPT US, Canadian model			
Band	ICF-C723	ICF-C723L	Channel step
FM	87.5– 108 MHz	87.5– 108 MHz	0.05MHz*
AM (MW)	531 – 1,602 kHz	530 – 1,602 kHz	9kHz
LW	—————	530 – 1,602 kHz	9kHz

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

#### DIGITAL VOICE MEMO Recording section

Recording media

Built-in flash memory

Recording time

20 seconds

Frequency response

400Hz – 2,700Hz

#### General

Time display

US, Canadian, UK model 12-hour

EXCEPT US, Canadian, UK model 24-hour

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

Power output

100 mW (at 10% harmonic distortion)

Power requirements

US, Canadian model : 120V AC, 60Hz

EXCEPT US, Canadian model : 220 – 230V AC, 50Hz

Dimensions

Approx. 181 x 103 x 133 mm (w/h/d)

(7 1/4 x 4 1/8 x 4 1/4 in) incl. projecting parts and controls

Mass Approx. 550 g (1 lb 3.4 oz)

Approx. 600 g (1 lb 5.2 oz) : ICF-C723L (UK model)

Design and specifications are subject to change without notice.

ICF-C723  
**FM/AM PLL SYNTHESIZED CLOCK RADIO**

ICF-C723L  
**FM/MW/LW PLL SYNTHESIZED CLOCK RADIO**



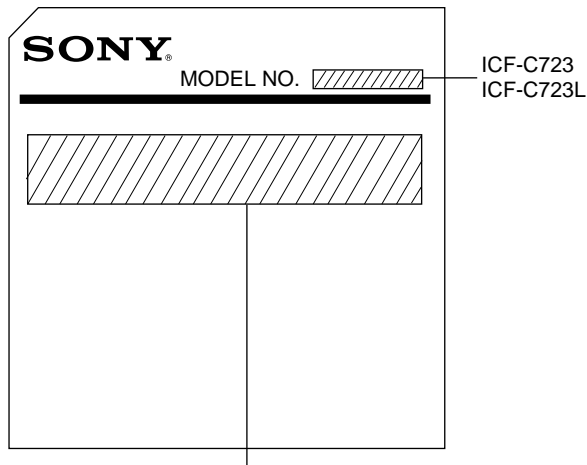
# SONY®

## TABLE OF CONTENTS

Specifications .....	1
<b>1. GENERAL</b>	
Location and Function of Controls .....	3
<b>2. DISASSEMBLY</b>	
2-1. Cabinet (Upper) Removal .....	4
2-2. Microcomputer Board Removal .....	4
2-3. Main Board, Key Board, Transformer (Primary) Board, Transformer (Secondary) Board Removal .....	5
Installation Power Cord .....	5
<b>3. ELECTRICAL ADJUSTMENT</b> .....	6
<b>4. DIAGRAMS</b>	
4-1. Explanation of IC Terminal .....	8
4-2. Printed Wiring Board (Microcomputer Section) .....	9
4-3. Schematic Diagram ((Microcomputer Section) .....	11
4-4. Printed Wiring Board (Main Section) .....	13
4-5. Schematic Diagram (Main Section) .....	15
<b>5. EXPLODED VIEW</b> .....	18
<b>6. ELECTRICAL PARTS LIST</b> .....	19

### MODEL IDENTIFICATION

– Model Number Portion –  
Carved on lower cabinet



US, Canadian model : AC : 120V~60Hz 5W  
AEP, UK, Italian,  
E, Australian model : AC : 220 – 230V~50Hz 5W

### • HOW TO CHANGE THE CERAMIC FILTER

This model is used two ceramic filters of CF1 and CF3.  
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 package as a spare parts.

Mark	Center frequency
red	10.70MHz
blue	10.67MHz
orange	10.73MHz
black	10.64MHz
white	10.76MHz

## SAFETY CHECK-OUT

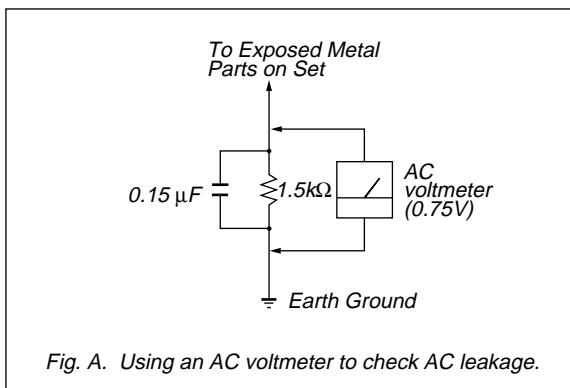
After correcting the original service problem, perform the following safety check before releasing the set to the customer :  
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microamperes).

Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)



### SAFETY-RELATED COMPONENT WARNING!!

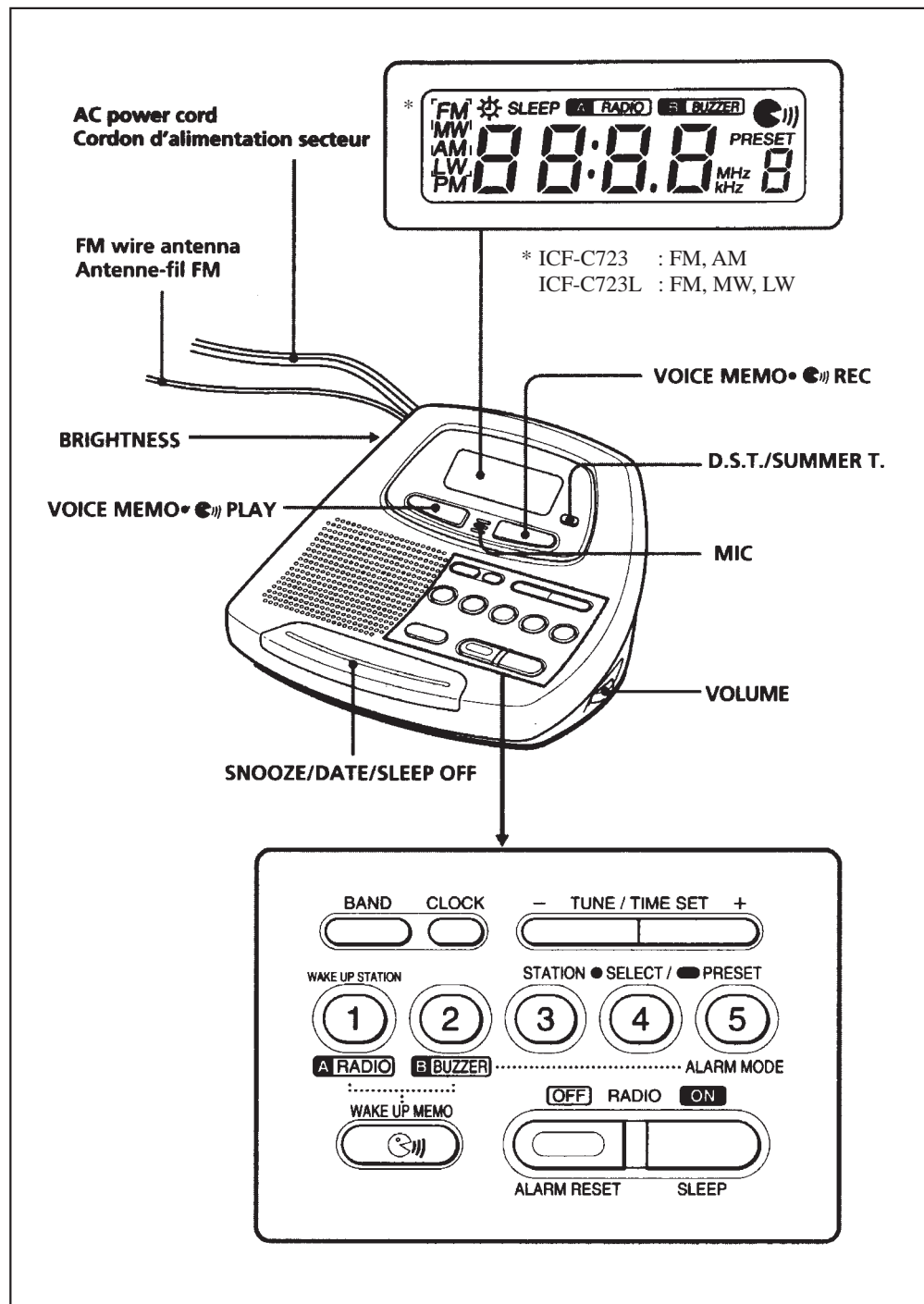
COMPONENTS IDENTIFIED BY MARK  $\Delta$  OR DOTTED LINE WITH MARK  $\Delta$  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION.  
REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  $\Delta$  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.

# SECTION 1 GENERAL

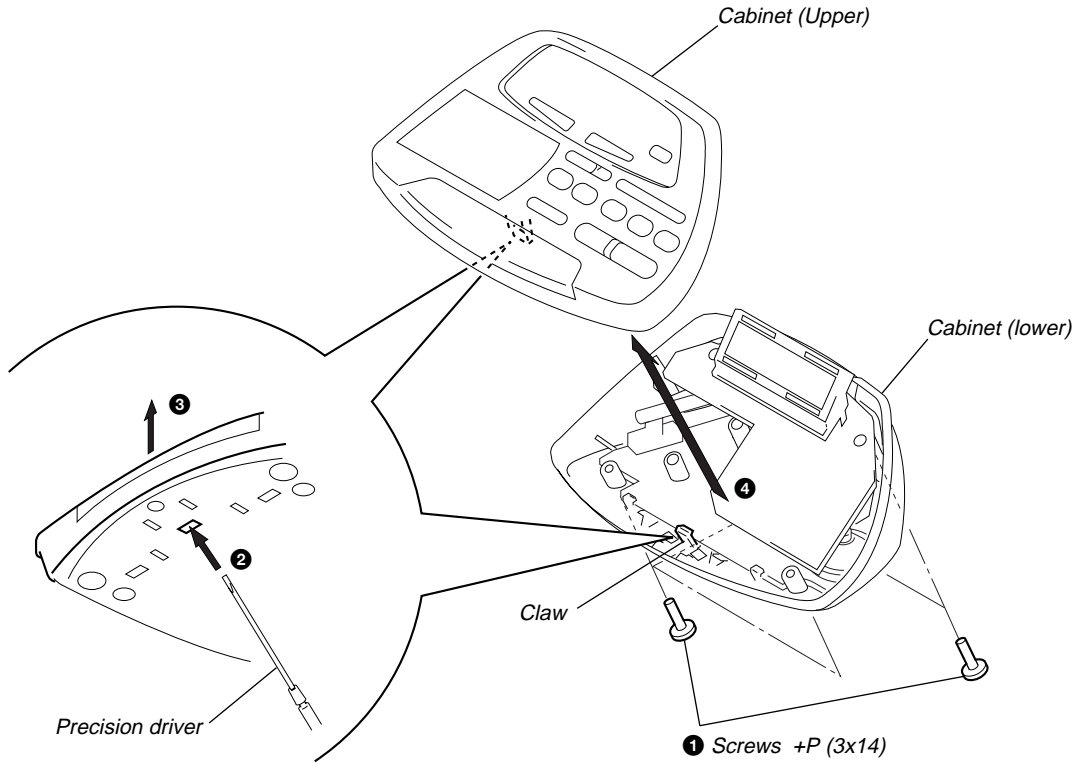
## LOCATION AND FUNCTION OF CONTROLS



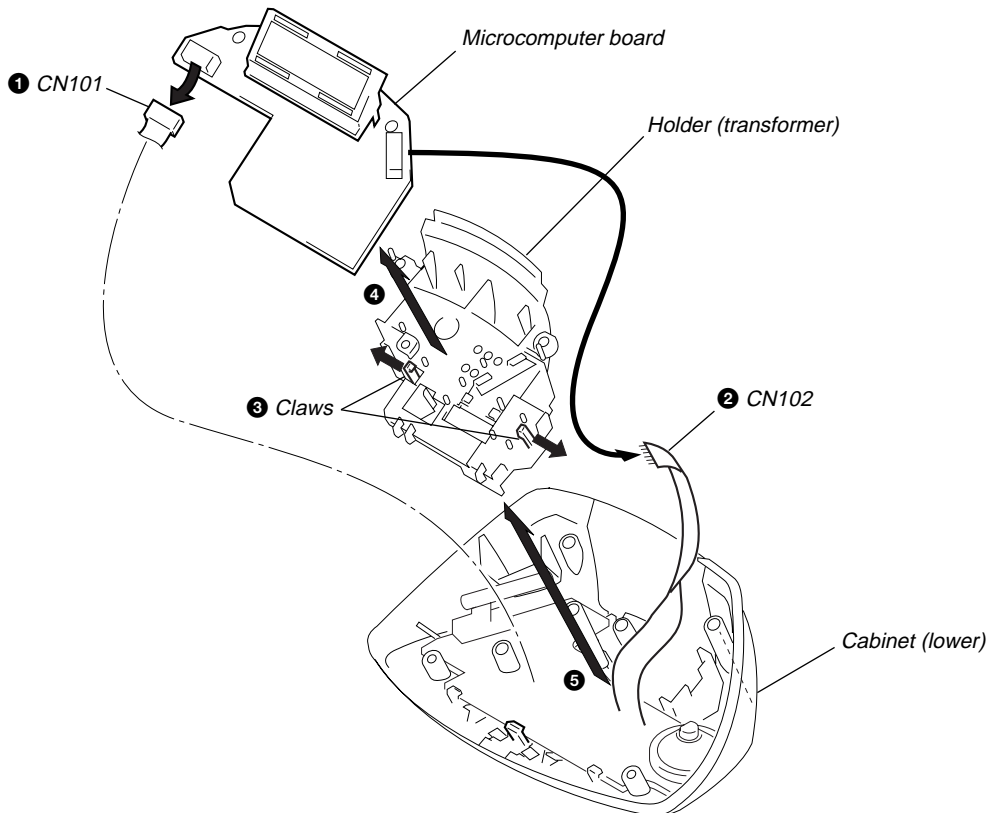
## SECTION 2 DISASSEMBLY

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

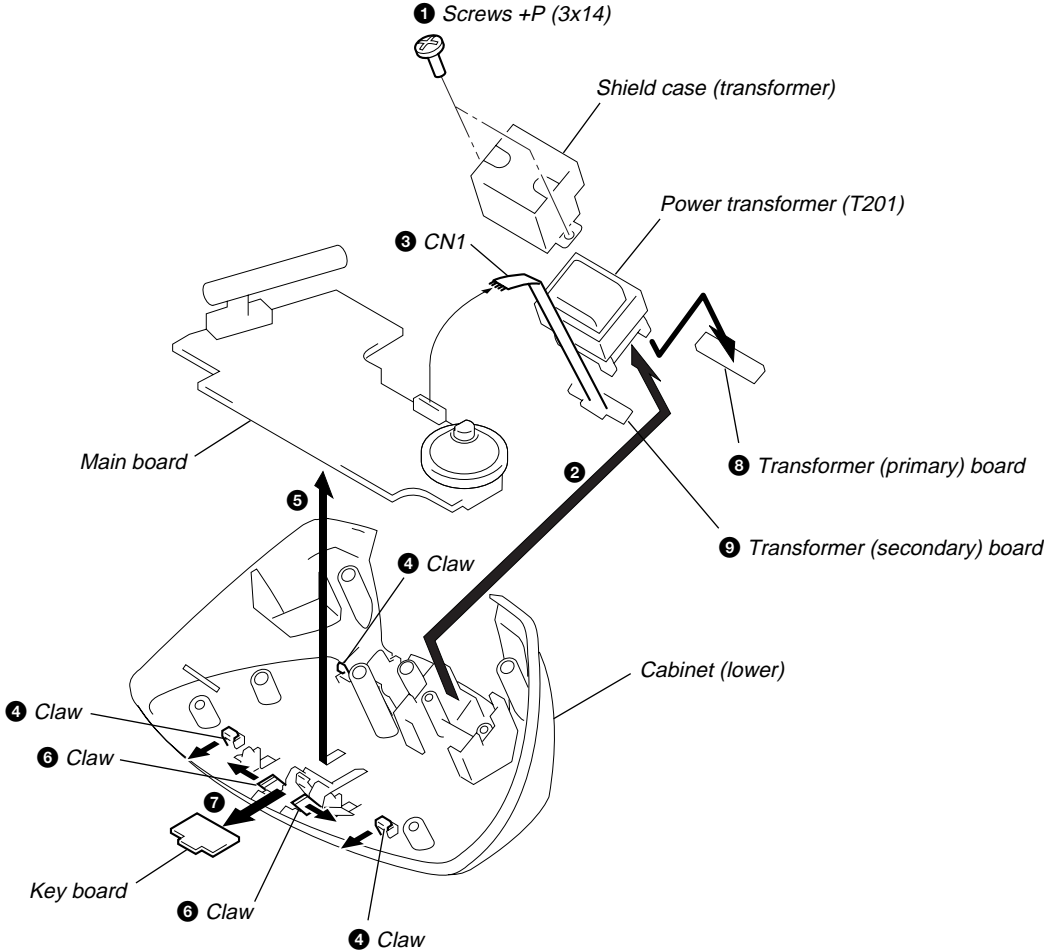
### 2-1. CABINET (UPPER) REMOVAL



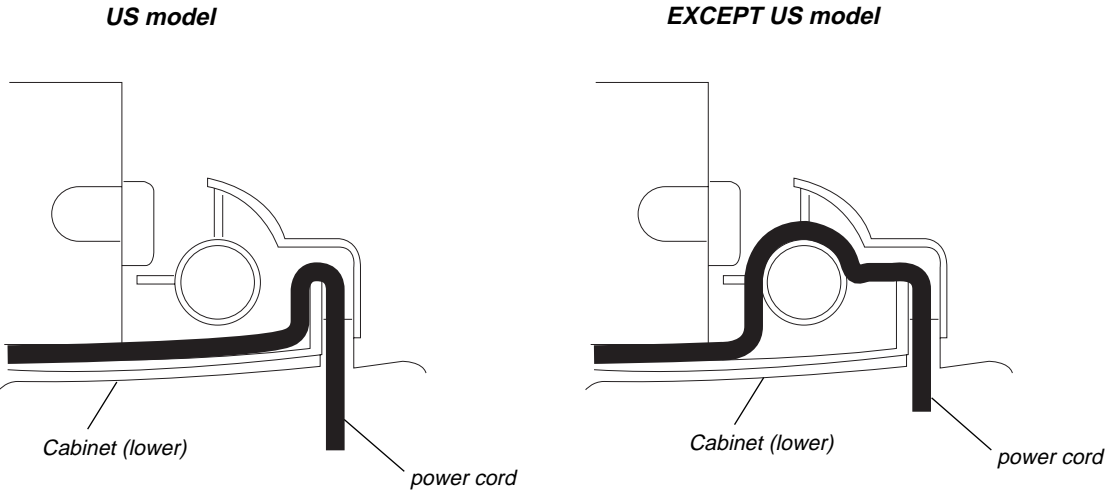
### 2-2. MICROCOMPUTER BOARD REMOVAL



**2-3. MAIN BOARD, KEY BOARD, TRANSFORMER (PRIMARY) BOARD,  
TRANSFORMER (SECONDARY) BOARD, REMOVAL**



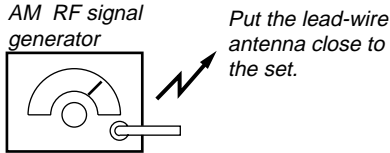
**INSTALLATION POWER CORD**



# SECTION 3 ELECTRICAL ADJUSTMENTS

## AM Section

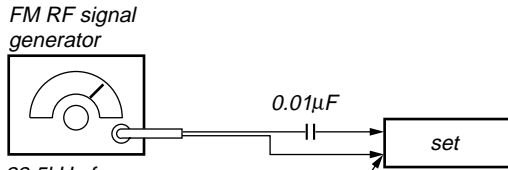
Band button : AM (ICF-C723)  
: MW or LW (ICF-C723L)  
Volume : MAX



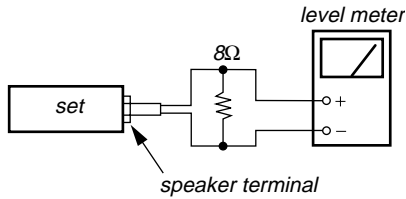
30% amplitude modulation by 400Hz signal.  
Output level : as low as possible

## FM Section

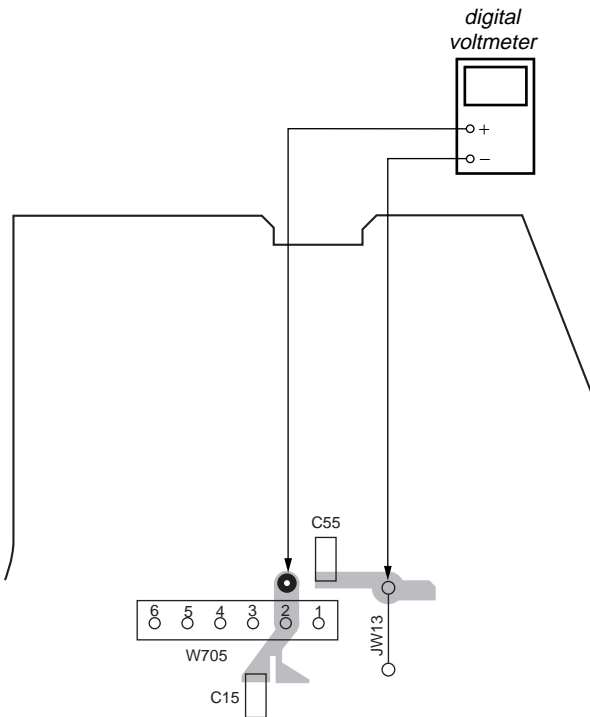
Band button : FM  
Volume : MAX



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



## [MAIN BOARD] (Conductor side)



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

( ): AEP, UK, Italian, Australian, E model only

AM IF ALIGNMENT	
Adjust for a maximum reading on level meter.	
T1	455kHz

AM <MW> FREQUENCY COVERAGE ADJUSTMENT		
Adjust parts	Frequency display	Reading on digital voltmeter
L6	530kHz (531kHz)	2.5 ± 0.1V (ICF-C723) 2.65 ± 0.1V (ICF-C723L)
confirmation	1,710kHz (1,602kHz)	Less than 11.0V Standard 9.5V (Less than 10.0V) (Standard 9.0V)

AM <MW> TRACKING ADJUSTMENT		
Adjust for a maximum reading on level meter.		
L3 :ICF-C723 L3-1 :ICF-C723L	580kHz (621kHz)	
CT1	1,490kHz (1,404kHz)	

## ICF-C723L

LW FREQUENCY COVERAGE ADJUSTMENT		
Adjust parts	Frequency display	Reading on digital voltmeter
confirmation	153kHz	More than 2.2V (Standard 3V)
CT4	279kHz	9.0 ± 0.1V

LW TRACKING ADJUSTMENT		
Adjust for a maximum reading on level meter.		
L3 - 2	162kHz	
CT2	243kHz	

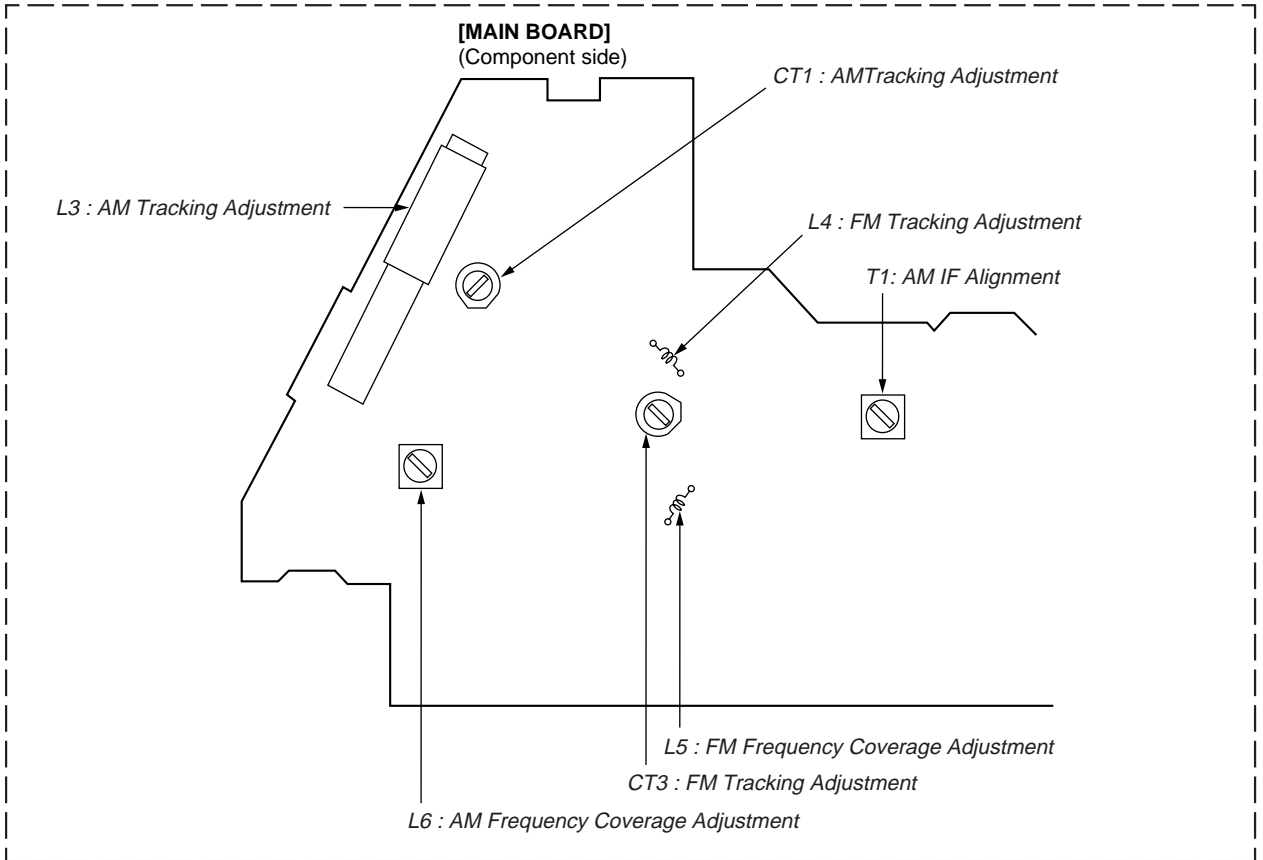
FM FREQUENCY COVERAGE ADJUSTMENT		
Adjust parts	Frequency display	Reading on digital voltmeter
L5	87.5MHz	3.0 ± 0.1V
confirmation	108.0MHz	10 ± 1V

FM TRACKING ADJUSTMENT		
Adjust for a maximum reading on level meter.		
L4	87.5MHz	
CT3	108MHz	

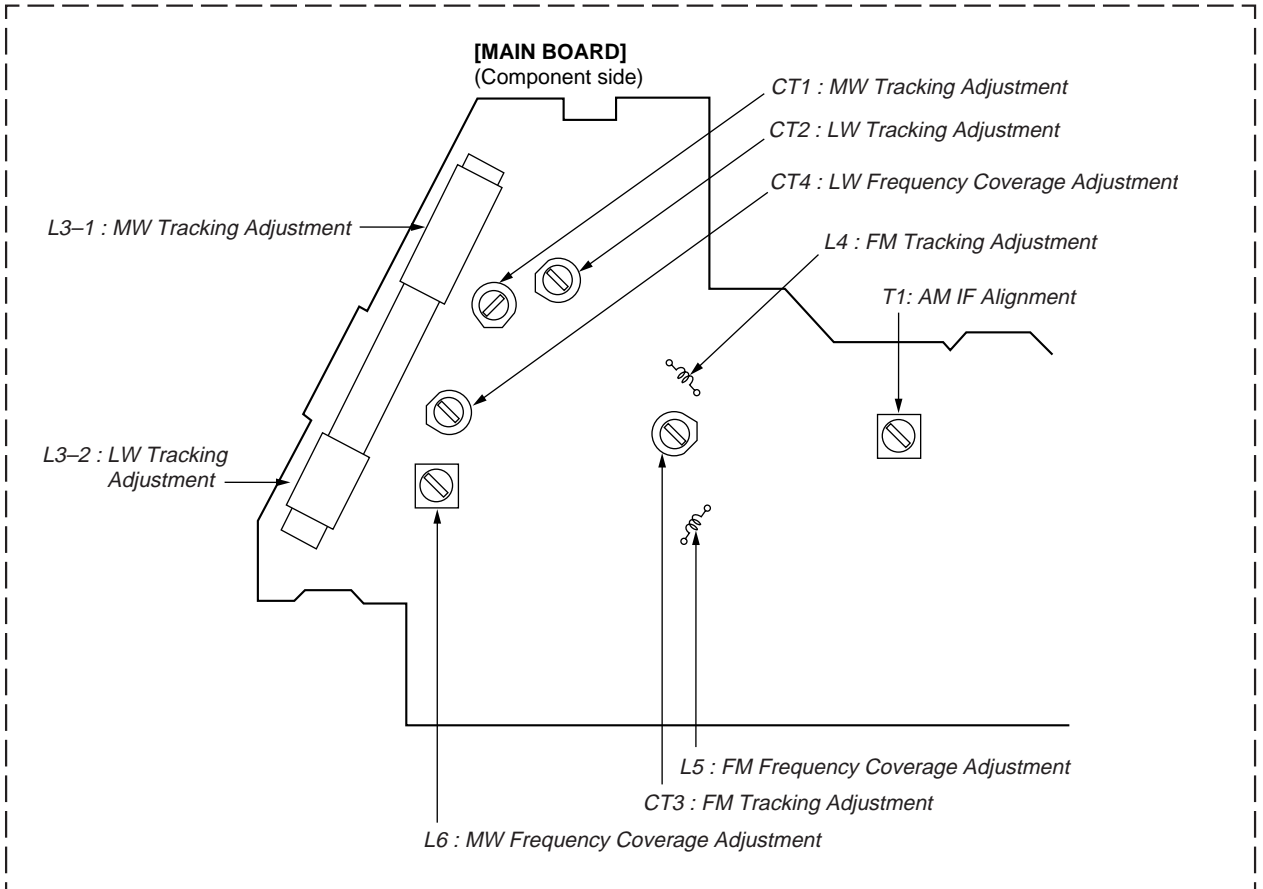
Adjustment Location : Main board (See page 8)

**Adjustment Location :**

**ICF-C723**



**ICF-C723L**



## SECTION 4 DIAGRAMS

### 4-1. EXPLANATION OF IC TERMINALS

#### IC101 $\mu$ PD17071GB-522-1A7 (SYSTEM CONTROL)

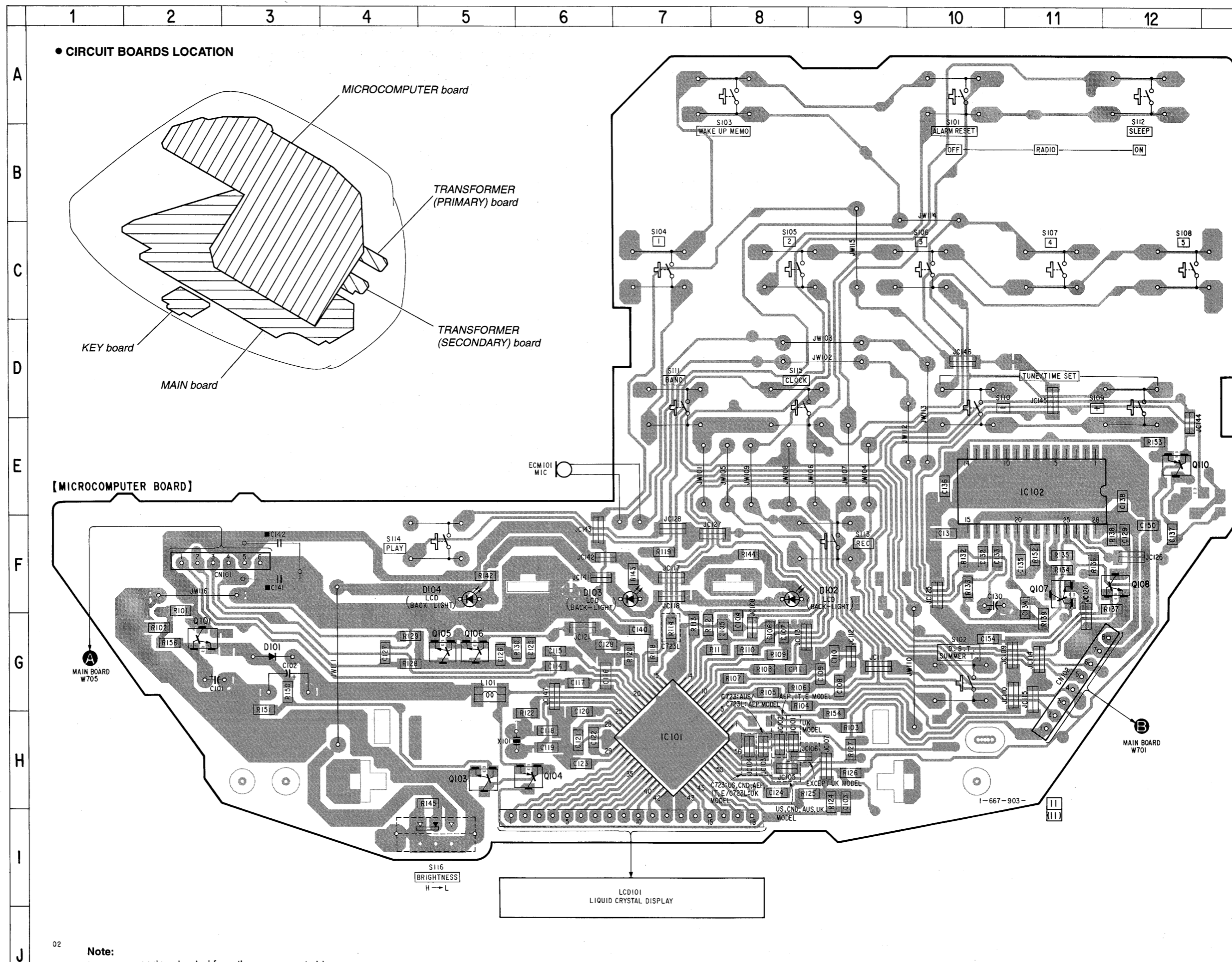
Pin No.	Pin name	I/O	Description
1	INIT	O	Destination select terminal.
2	PLAY OUT VOL	-	Not used (Open).
3	POWER	O	Mute drive output.
4	R MUTE	O	REC Mute drive output.
5	PLAY	O	Voice memo play control output.
6 - 9	KS0 - 3	I	Key input.
10 - 13	KS0 - 3	I	Key input.
14	BAND 1	O	FM/AM band select.
15	BAND 2	O	MW/LW band select.
16	VAMP	I	MIC input.
17	REC	O	Voice memo REC control output.
18	GND	-	Ground.
19	EO	O	Tuning voltage control output.
20	VCOL	I	VCO (MF, HF) input terminal.
21	VCOH	I	VCO (VHF) input terminal.
22	VREG 1	-	Capacitor connect terminal.
23	VDD	-	Power supply.
24	X OUT	O	System clock output (75MHz).
25	X IN	I	System clock input (75MHz).
26	VREG 2	-	Capacitor connect terminal.
27	VLCD 0	I	LCD drive device voltage input.
28	CAP 0	-	Capacitor connect terminal.
29	CAP 1	-	Capacitor connect terminal.
30	LCD 1	I	LCD drive device voltage input.
31 - 34	COM 0 - 3	O	LCD common output.
35 - 48	LCD 0 - 13	O	LCD segment output.
49	LCD14	-	Not used (Open).
50	CF	I	Chip enable input.
51	INT	-	Not used (Fixed at "L").
52	BEEP	O	Beep signal output.
53	EON IN	I	REC signal input.
54	PB 1	I	Destination select terminal.
55	PB 2	I	Destination select terminal.
56	PB 3	I	Destination select terminal.



4-2. PRINTED WIRING BOARD (MICROCOMPUTER SECTION)

● SEMICONDUCTOR LOCATION

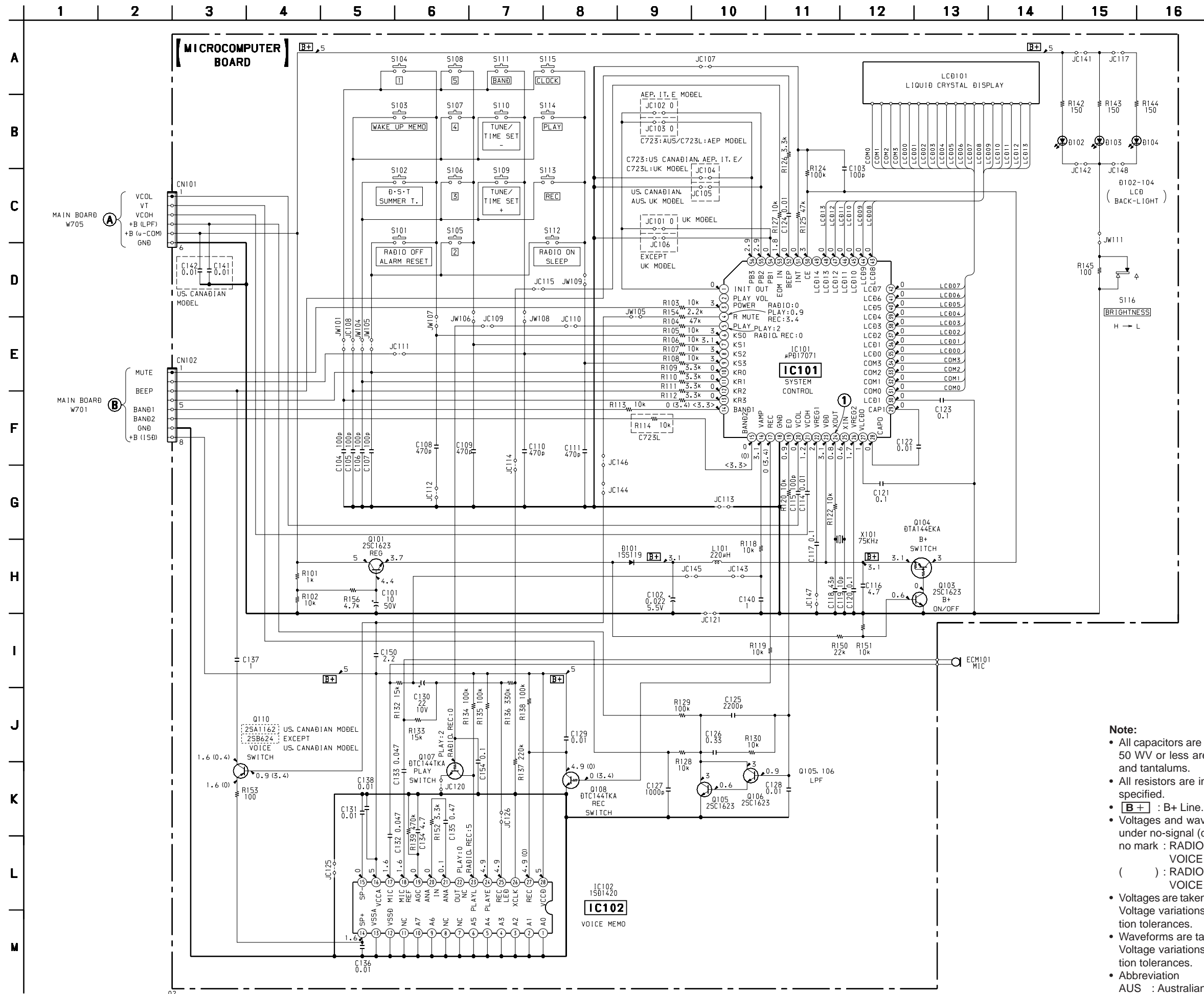
Ref. No.	Location
D101	G-3
D102	F-8
D103	F-7
D104	F-5
IC101	H-7
IC102	E-11
LCD101	I-7
Q101	G-2
Q103	H-5
Q104	H-6
Q105	G-5
Q106	G-5
Q107	F-11
Q108	F-12
Q110	E-12



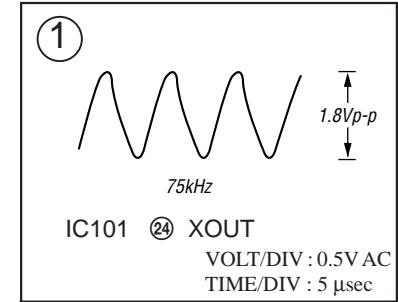
02

- Note:**
- : parts extracted from the component side.
  - : parts mounted on the conductor side.
  - ▨ : Pattern from the side which enables seeing.

4-3. SCHEMATIC DIAGRAM (MICROCOMPUTER SECTION)



• WAVEFORM

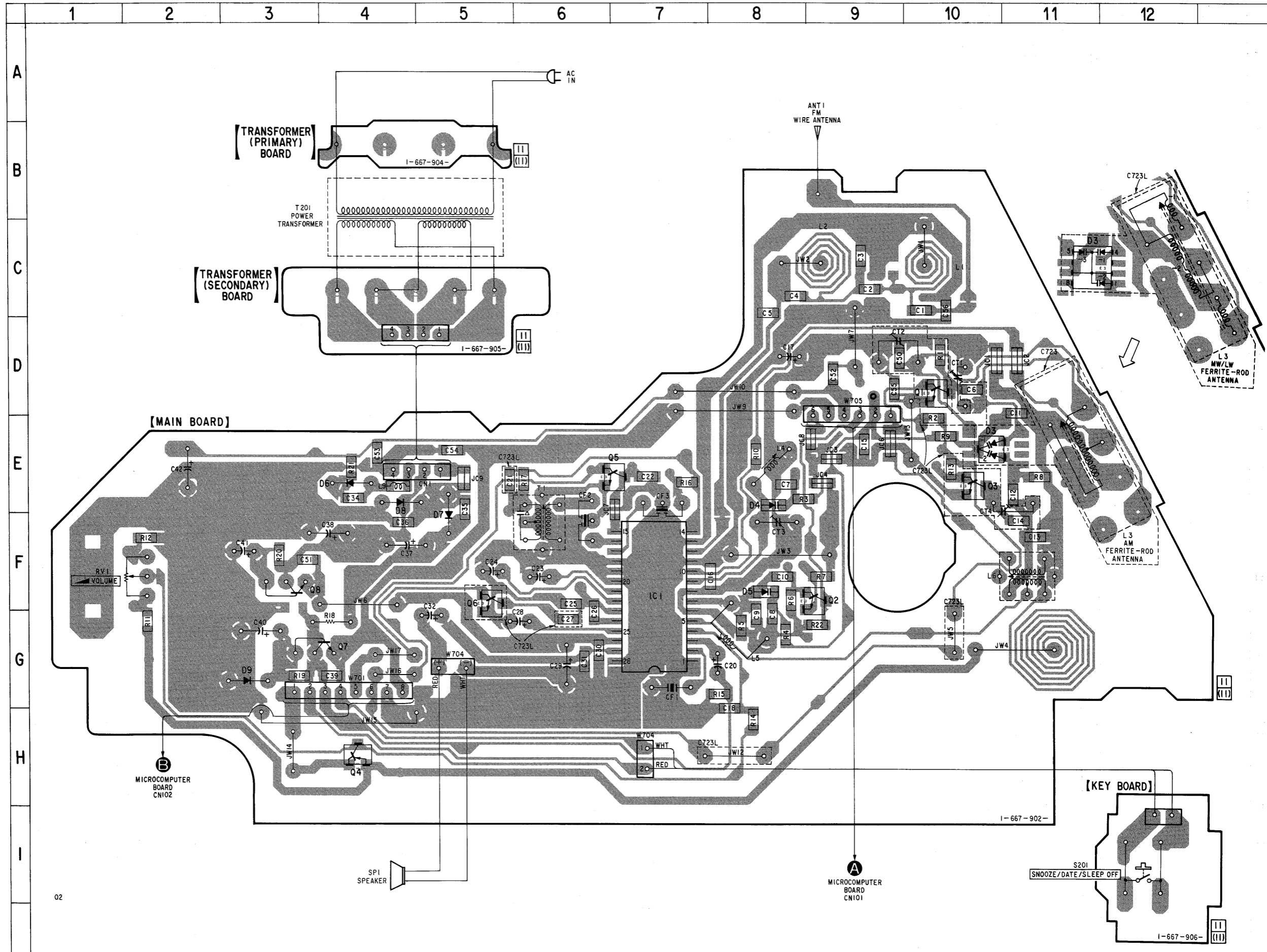


- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{mF}$  50 WV or less are not indicated except for electrolytics and tantalums.
  - All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
  - **[B+]** : B+ Line.
  - Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.  
no mark : RADIO SECTION : FM,  
VOICE MEMO SECTION : PLAY  
( ) : RADIO SECTION : AM (MW),  
VOICE MEMO SECTION : REC
  - Voltages are taken with a VOM (Input impedance 10 M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
  - Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
  - Abbreviation  
AUS : Australian  
IT : Italian

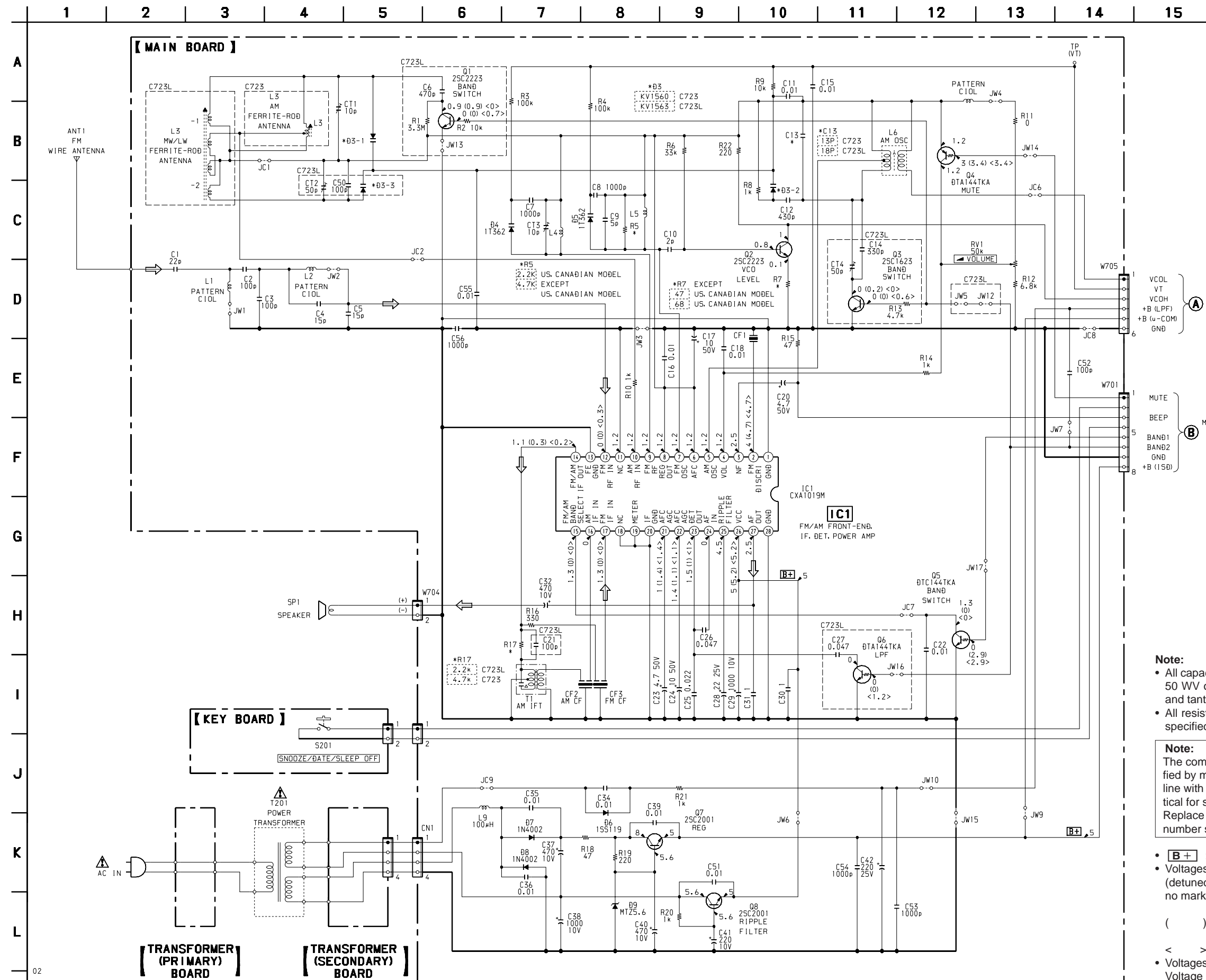
4-4. PRINTED WIRING BOARD (MAIN SECTION)

• SEMICONDUCTOR LOCATION

Ref. No.	Location
D3(C723)	E-10
D3(C723L)	C-11
D4	E-8
D5	F-8
D6	E-4
D7	F-5
D8	E-4
D9	G-3
IC1	F-7
Q1	D-10
Q2	F-9
Q3	E-10
Q4	H-4
Q5	E-6
Q6	F-5
Q7	G-4
Q8	F-3



**Note:**  
 • ○ : parts extracted from the component side.  
 • ▨ : Pattern from the side which enables seeing.



**Note:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.

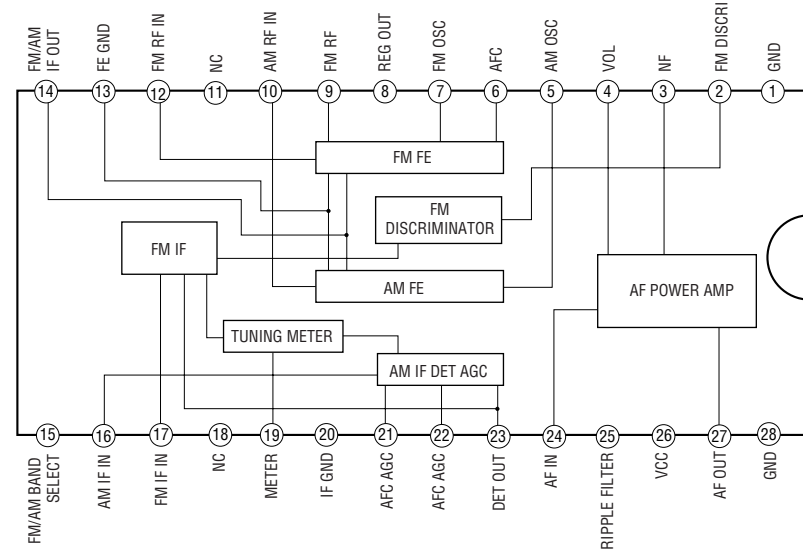
<b>Note:</b> The components identified by mark $\Delta$ or dotted line with mark $\Delta$ are critical for safety. Replace only with part number specified.	<b>Note:</b> Les composants identifiés par une marque $\Delta$ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro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

- [B+]** : B+ Line.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
- no mark : RADIO SECTION : FM,  
VOICE MEMO SECTION : PLAY
- ( ) : RADIO SECTION : AM (MW),  
VOICE MEMO SECTION : REC
- < > : LW
- Voltages are taken with a VOM (Input impedance 10 M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- $\Rightarrow$  : FM
- Abbreviation
- AUS : Australian
- IT : Italian

## SECTION 5 EXPLODED VIEW

### ● IC BLOCK DIAGRAM

#### IC1 CXA1019M



### NOTE :

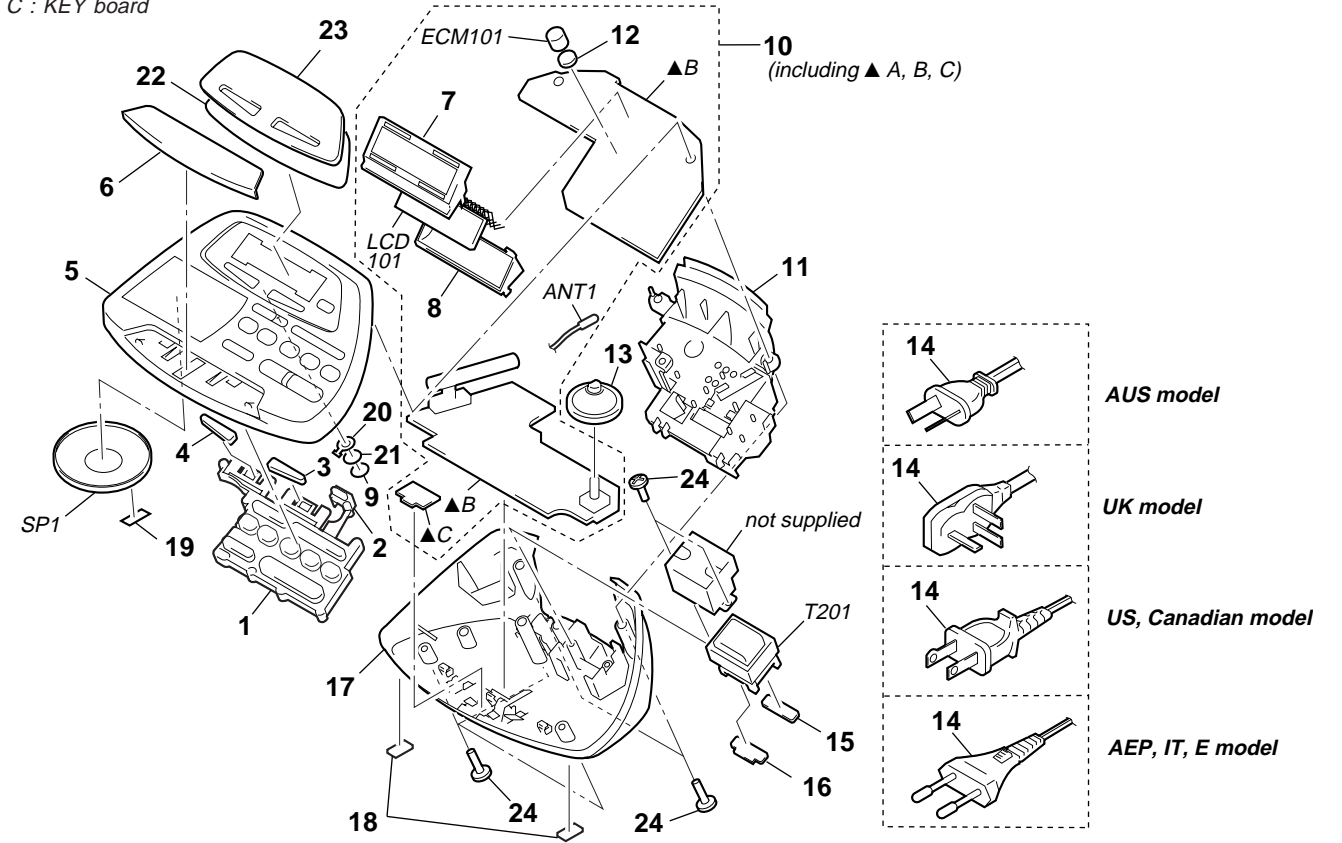
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories and packing materials are given in the last of this parts list.

• Abbreviation  
AUS : Australian IT : Italian

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.  
Replace only with part numbers specified.

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

- ▲ A : MICROCOMPUTER board
- ▲ B : MAIN board
- ▲ C : KEY board



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	3-019-347-01	BUTTON (MAIN)		15	1-667-904-11	TRANSFORMER (PRIMARY) BOARD	
2	3-019-353-01	BUTTON (DST)		16	1-667-905-11	TRANSFORMER (SECONDARY) BOARD	
3	3-019-351-01	BUTTON (REC)		17	3-019-345-01	CABINET (LOWER) (C723:US,Canadian)	
4	3-019-352-01	BUTTON (PLAY)		17	3-019-345-11	CABINET (LOWER) (C723:AEP,IT,AUS,E)	
5	3-019-344-01	CABINET (UPPER)		17	3-019-345-21	CABINET (LOWER) (C723L)	
6	3-019-348-01	BUTTON (SNOOZE)		18	3-368-852-01	FOOT	
* 7	3-019-357-01	CASE (LCD), SHIELD		19	2-532-810-00	CUSHION, 15X5X0.3	
8	3-019-350-01	REFLECTOR		20	3-025-194-01	SHEET, BARREL	
9	3-019-360-01	CUSHION (MICROPHONE)		21	3-023-340-01	SHEET, BLIND	
* 10	A-3679-953-A	MAIN BOARD, COMPLETE (C723:US,Canadian)		22	3-019-361-01	SHEET, ADHESIVE	
* 10	A-3679-958-A	MAIN BOARD, COMPLETE (C723:AEP,IT,E)		23	3-019-349-01	PLATE, TRANSPARENT (C723)	
* 10	A-3679-959-A	MAIN BOARD, COMPLETE (C723:AUS)		23	3-019-349-11	PLATE, TRANSPARENT (C723L)	
* 10	A-3679-961-A	MAIN BOARD, COMPLETE (C723L:AEP)		24	7-685-649-79	SCREW +P 3X14 TYPE2 NON-SLIT	
10	A-3679-962-A	MAIN BOARD, COMPLETE (C723L:UK)		ANT1	1-501-907-21	ANTENNA, FM WIRE	
11	3-019-346-01	HOLDER (TRANSFORMER)		ECM101	1-542-168-11	MICROPHONE, ELECTRET CONDENSER	
12	3-019-359-01	SPACER (MICROPHONE)		SP1	1-544-517-11	SPEAKER	
13	3-382-175-21	KNOB (V)		▲ T201	1-450-922-11	TRANSFORMER, POWER (C723:US,Canadian)	
▲ 14	1-555-795-00	CORD, POWER (C723:AEP,IT,E/ C723L:AEP)		▲ T201	1-450-923-31	TRANSFORMER, POWER (C723:AEP,IT,AUS,E/ C723L)	
▲ 14	1-696-572-21	CORD, POWER (C723L:UK)		LCD101	1-801-989-11	DISPLAY PANEL, LIQUID CRYSTAL	
▲ 14	1-765-458-11	CORD, POWER (C723:AUS)					
▲ 14	1-769-339-22	CORD, POWER (C723:US,Canadian)					

## SECTION 6 ELECTRICAL PARTS LIST

KEY	MAIN
-----	------

**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  
AUS : Australian      IT : Italian

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part numbers specified.

Les composants identifiés par une marque  $\Delta$  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
*	A-3679-953-A	MAIN BOARD, COMPLETE (C723:US,Canadian)		C21	1-163-251-11	CERAMIC CHIP 100PF 5%	50V (C723L)
*	A-3679-958-A	MAIN BOARD, COMPLETE (C723:AEP,IT,E)		C22	1-164-232-11	CERAMIC CHIP 0.01uF	50V
*	A-3679-959-A	MAIN BOARD, COMPLETE (C723:AUS)		C23	1-126-963-11	ELECT 4.7uF 20%	50V
*	A-3679-961-A	MAIN BOARD, COMPLETE (C723L:AEP)		C24	1-126-964-11	ELECT 10uF 20%	50V
*	A-3679-962-A	MAIN BOARD, COMPLETE (C723L:UK)		C25	1-163-037-11	CERAMIC CHIP 0.022uF 10%	25V
		*****					
	1-501-907-21	ANTENNA, FM WIRE		C26	1-163-809-11	CERAMIC CHIP 0.047uF 10%	25V
	3-019-350-01	REFLECTOR		C27	1-163-809-11	CERAMIC CHIP 0.047uF 10%	25V (C723L)
*	3-019-357-01	CASE (LCD), SHIELD		C28	1-128-551-11	ELECT 22uF 20%	25V
	3-019-359-01	SPACER (MICROPHONE)		C29	1-126-926-11	ELECT 1000uF 20%	10V
		KEY BOARD		C30	1-164-346-11	CERAMIC CHIP 1uF	16V
		*****		C31	1-164-346-11	CERAMIC CHIP 1uF	16V
S201	1-554-303-21	SWITCH, TACTILE (SNOOZE/DATE/SLEEP OFF)		C32	1-126-925-11	ELECT 470uF 20%	10V
		*****		C34	1-163-031-11	CERAMIC CHIP 0.01uF	50V
		MAIN BOARD		C35	1-163-031-11	CERAMIC CHIP 0.01uF	50V
		*****		C36	1-163-031-11	CERAMIC CHIP 0.01uF	50V
		< CAPACITOR >		C37	1-126-925-11	ELECT 470uF 20%	10V
C1	1-163-235-11	CERAMIC CHIP 22PF 5%	50V	C38	1-126-926-11	ELECT 1000uF 20%	10V
C2	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	C39	1-163-031-11	CERAMIC CHIP 0.01uF	50V
C3	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	C40	1-126-925-11	ELECT 470uF 20%	10V
C4	1-163-231-11	CERAMIC CHIP 15PF 5%	50V	C41	1-126-934-11	ELECT 220uF 20%	10V
C5	1-163-231-11	CERAMIC CHIP 15PF 5%	50V	C42	1-104-666-11	ELECT 220uF 20%	25V
C6	1-163-133-00	CERAMIC CHIP 470PF 5%	50V (C723L)	C50	1-163-251-11	CERAMIC CHIP 100PF 5%	50V (C723L)
C7	1-163-141-00	CERAMIC CHIP 0.001uF 5%	50V	C51	1-163-031-11	CERAMIC CHIP 0.01uF	50V
C8	1-163-141-00	CERAMIC CHIP 0.001uF 5%	50V	C52	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C9	1-163-222-11	CERAMIC CHIP 5PF 0.25PF	50V	C53	1-163-141-00	CERAMIC CHIP 0.001uF 5%	50V
C10	1-163-085-00	CERAMIC CHIP 2PF	50V	C54	1-163-141-00	CERAMIC CHIP 0.001uF 5%	50V
C11	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C55	1-163-031-11	CERAMIC CHIP 0.01uF	50V
C12	1-163-132-00	CERAMIC CHIP 430PF 5%	50V	C56	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V
C13	1-163-096-00	CERAMIC CHIP 13PF 5%	50V (C723)			< FILTER >	
C13	1-163-099-00	CERAMIC CHIP 18PF 5%	50V (C723L)	CF1	1-579-632-41	FILTER, CERAMIC	
C14	1-163-129-00	CERAMIC CHIP 330PF 5%	50V (C723L)	* CF2	1-577-319-11	FILTER, CERAMIC (C723/C723L:UK)	
C15	1-164-232-11	CERAMIC CHIP 0.01uF	50V	CF2	1-578-677-21	FILTER, CRYSTAL (C723L:AEP)	
C16	1-163-059-11	CERAMIC CHIP 0.01uF 10%	50V	CF3	1-579-632-41	FILTER, CERAMIC	
C17	1-126-964-11	ELECT 10uF 20%	50V			< CONNECTOR >	
C18	1-163-031-11	CERAMIC CHIP 0.01uF	50V	* CN1	1-568-270-11	SOCKET, CONNECTOR 4P	
C20	1-126-963-11	ELECT 4.7uF 20%	50V				

**MAIN**

**MICROCOMPUTER**

Ref. No.	Part No.	Description	Remark
		< TRIMMER >	
CT1	1-141-304-21	CAP, TRIMMER 10PF	
CT2	1-141-444-11	CAP, CERAMIC TRIMMER 50PF (C723L)	
CT3	1-141-304-21	CAP, TRIMMER 10PF	
CT4	1-141-444-11	CAP, CERAMIC TRIMMER 50PF (C723L)	
		< DIODE >	
D3	8-719-951-05	DIODE KV1560 (C723)	
D3	8-719-023-99	DIODE KV1563M-3 (C723L)	
D4	8-713-100-11	DIODE 1T362	
D5	8-713-100-11	DIODE 1T362	
D6	8-719-911-19	DIODE 1SS119	
D7	8-719-052-88	DIODE 1N4002	
D8	8-719-052-88	DIODE 1N4002	
D9	8-719-109-89	DIODE RD5.6ESB2	
		< IC >	
IC1	8-752-050-16	IC CXA1019M	
		< JUMPER REGISTOR >	
JC1	1-216-296-00	METAL CHIP 0 5% 1/8W	
JC2	1-216-296-00	METAL CHIP 0 5% 1/8W	
JC3	1-216-295-00	METAL CHIP 0 5% 1/10W	
JC4	1-216-295-00	METAL CHIP 0 5% 1/10W	
JC6	1-216-296-00	METAL CHIP 0 5% 1/8W	
JC7	1-216-295-00	METAL CHIP 0 5% 1/10W	
JC8	1-216-295-00	METAL CHIP 0 5% 1/10W	
JC9	1-216-295-00	METAL CHIP 0 5% 1/10W	
		< COIL >	
L3	1-402-616-11	ANTENNA, FERRITE-ROD (MW) (C723/C723L:UK)	
L3	1-501-975-11	ANTENNA, FERRITE-ROD (LW/MW) (C723L:AEP)	
L4	1-406-545-11	COIL, AIR-CORE	
L5	1-416-459-11	COIL, AIR-CORE	
L6	1-406-485-11	COIL (OSC)	
L9	1-414-170-11	INDUCTOR CHIP 100uH	
		< TRANSISTOR >	
Q1	8-729-102-07	TRANSISTOR 2SC2223-F13 (C723L)	
Q2	8-729-102-07	TRANSISTOR 2SC2223-F13	
Q3	8-729-120-28	TRANSISTOR 2SC1623-L5L6 (C723L)	
Q4	8-729-027-39	TRANSISTOR DTA144TKA-T146	
Q5	8-729-027-60	TRANSISTOR DTC144TKA-T146	
Q6	8-729-027-60	TRANSISTOR DTC144TKA-T146 (C723L)	
Q7	8-729-011-92	TRANSISTOR 2SC2001TP-K1K2	
Q8	8-729-011-92	TRANSISTOR 2SC2001TP-K1K2	
		< RESISTOR >	
R1	1-216-133-00	RES,CHIP 3.3M 5% 1/10W (C723L)	
R2	1-216-073-00	METAL CHIP 10K 5% 1/10W (C723L)	
R3	1-216-097-11	RES,CHIP 100K 5% 1/10W	
R4	1-216-097-11	RES,CHIP 100K 5% 1/10W	
R5	1-216-057-00	METAL CHIP 2.2K 5% 1/10W (C723:US,Canadian)	

Ref. No.	Part No.	Description	Remark
R5	1-216-065-11	RES,CHIP 4.7K 5% 1/10W (C723:AEP,IT,AUS,E,C723L)	
R6	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R7	1-216-017-11	RES,CHIP 47 5% 1/10W (EXCEPT US, Canadian)	
R7	1-216-021-11	RES,CHIP 68 5% 1/10W (US, Canadian)	
R8	1-216-121-11	RES,CHIP 1M 5% 1/10W	
R9	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R10	1-216-049-11	RES,CHIP 1K 5% 1/10W	
R11	1-216-295-00	METAL CHIP 0 5% 1/10W	
R12	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R13	1-216-065-11	RES,CHIP 4.7K 5% 1/10W (C723L)	
R14	1-216-049-11	RES,CHIP 1K 5% 1/10W	
R15	1-216-017-11	RES,CHIP 47 5% 1/10W	
R16	1-216-037-00	METAL CHIP 330 5% 1/10W	
R17	1-216-057-00	METAL CHIP 2.2K 5% 1/10W (C723L)	
R17	1-216-065-11	RES,CHIP 4.7K 5% 1/10W (C723)	
R18	1-249-401-11	CARBON 47 5% 1/4W	
R19	1-216-033-00	METAL CHIP 220 5% 1/10W	
R20	1-216-049-11	RES,CHIP 1K 5% 1/10W	
R21	1-216-049-11	RES,CHIP 1K 5% 1/10W	
R22	1-216-033-00	METAL CHIP 220 5% 1/10W	
		< VARIABLE RESISTOR >	
RV1	1-225-441-41	RES, VAR, CARBON 50K (▲VOLUME)	
		< TRANSFORMER >	
T1	1-404-790-11	TRANSFORMER, IF (C723/C723L:UK)	
T1	1-404-902-21	TRANSFORMER, IF (C723L:AEP)	
*****			
MICROCOMPUTER BOARD			
*****			
		< CAPACITOR >	
C101	1-126-964-11	ELECT 10uF 20% 50V	
C102	1-125-691-11	DOUBLE LAYER 0.022F 0 5.5V	
C103	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C104	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C105	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C106	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C107	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C108	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C109	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C110	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C111	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C114	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C115	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C116	1-164-506-11	CERAMIC CHIP 4.7uF 16V	
C117	1-163-038-11	CERAMIC CHIP 0.1uF 25V	
C118	1-163-108-00	CERAMIC CHIP 43PF 5% 50V	
C119	1-163-099-00	CERAMIC CHIP 18PF 5% 50V	
C120	1-163-038-11	CERAMIC CHIP 0.1uF 25V	
C121	1-163-038-11	CERAMIC CHIP 0.1uF 25V	
C122	1-163-031-11	CERAMIC CHIP 0.01uF 50V	

# MICROCOMPUTER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C123	1-163-038-11	CERAMIC CHIP	0.1uF 25V	JC111	1-216-296-00	METAL CHIP	0 5% 1/8W
C124	1-164-232-11	CERAMIC CHIP	0.01uF 50V	JC112	1-216-295-00	METAL CHIP	0 5% 1/10W
C125	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V	JC113	1-216-296-00	METAL CHIP	0 5% 1/8W
C126	1-110-501-11	CERAMIC CHIP	0.33uF 10% 16V	JC114	1-216-296-00	METAL CHIP	0 5% 1/8W
C127	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	JC115	1-216-296-00	METAL CHIP	0 5% 1/8W
C128	1-164-232-11	CERAMIC CHIP	0.01uF 50V	JC117	1-216-296-00	METAL CHIP	0 5% 1/8W
C129	1-163-031-11	CERAMIC CHIP	0.01uF 50V	JC118	1-216-296-00	METAL CHIP	0 5% 1/8W
C130	1-126-514-11	ELECT	22uF 20% 10V	JC120	1-216-296-00	METAL CHIP	0 5% 1/8W
C131	1-163-031-11	CERAMIC CHIP	0.01uF 50V	JC121	1-216-296-00	METAL CHIP	0 5% 1/8W
C132	1-163-035-00	CERAMIC CHIP	0.047uF 50V	JC125	1-216-296-00	METAL CHIP	0 5% 1/8W
C133	1-163-035-00	CERAMIC CHIP	0.047uF 50V	JC126	1-216-296-00	METAL CHIP	0 5% 1/8W
C134	1-164-506-11	CERAMIC CHIP	4.7uF 16V	JC127	1-216-296-00	METAL CHIP	0 5% 1/8W
C135	1-164-005-11	CERAMIC CHIP	0.47uF 25V	JC128	1-216-296-00	METAL CHIP	0 5% 1/8W
C136	1-163-031-11	CERAMIC CHIP	0.01uF 50V	JC141	1-216-295-00	METAL CHIP	0 5% 1/10W
C137	1-164-346-11	CERAMIC CHIP	1uF 16V	JC142	1-216-295-00	METAL CHIP	0 5% 1/10W
C138	1-163-031-11	CERAMIC CHIP	0.01uF 50V	JC143	1-216-296-00	METAL CHIP	0 5% 1/8W
C140	1-164-346-11	CERAMIC CHIP	1uF 16V	JC144	1-216-295-00	METAL CHIP	0 5% 1/10W
C141	1-163-031-11	CERAMIC CHIP	0.01uF 50V (US, Canadian)	JC145	1-216-296-00	METAL CHIP	0 5% 1/8W
C142	1-163-031-11	CERAMIC CHIP	0.01uF 50V (US, Canadian)	JC146	1-216-296-00	METAL CHIP	0 5% 1/8W
C150	1-164-505-11	CERAMIC CHIP	2.2uF 16V	JC147	1-216-296-00	METAL CHIP	0 5% 1/8W
C154	1-163-038-11	CERAMIC CHIP	0.1uF 25V			< COIL >	
		< CONNECTOR >		L101	1-410-658-31	INDUCTOR CHIP	220uH
* CN101	1-695-108-11	PIN, CONNECTOR (PC BOARD) 6P				< LIQUID CRYSTAL DISPLAY >	
* CN102	1-580-187-11	SOCKET, CONNECTOR 8P		LCD101	1-801-989-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< DIODE >				< TRANSISTOR >	
D101	8-719-911-19	DIODE 1SS119		Q101	8-729-120-28	TRANSISTOR	2SC1623-L5L6
D102	8-719-950-41	LED GL-3EG43 (LCD BACK-LIGHT)		Q103	8-729-120-28	TRANSISTOR	2SC1623-L5L6
D103	8-719-950-41	LED GL-3EG43 (LCD BACK-LIGHT)		Q104	8-729-027-38	TRANSISTOR	DTA144EKA-T146
D104	8-719-950-41	LED GL-3EG43 (LCD BACK-LIGHT)		Q105	8-729-120-28	TRANSISTOR	2SC1623-L5L6
		< MIC >		Q106	8-729-120-28	TRANSISTOR	2SC1623-L5L6
ECM101	1-542-168-11	MICROPHONE, ELECTRET CONDENSER		Q107	8-729-027-60	TRANSISTOR	DTC144TKA-T146
		< IC >		Q108	8-729-027-60	TRANSISTOR	DTC144TKA-T146
IC101	8-759-498-29	IC uPD17071GB-522-1A7		Q110	8-729-216-22	TRANSISTOR	2SA1162-G
IC102	8-759-525-01	IC ISD1420S-RC2015				(C723:US,Canadian)	
		< JUMPER REGISTER >		Q110	8-729-141-48	TRANSISTOR	2SB624-BV345 (C723:AEP,IT,AUS,E/ C723L)
JC101	1-216-295-00	METAL CHIP	0 5% 1/10W (C723L:UK)			< RESISTOR >	
JC102	1-216-295-00	METAL CHIP	0 5% 1/10W (AEP,IT,E)	R101	1-216-049-11	RES,CHIP	1K 5% 1/10W
JC103	1-216-295-00	METAL CHIP	0 5% 1/10W (C723:AUS/C723L:AEP)	R102	1-216-073-00	METAL CHIP	10K 5% 1/10W
JC104	1-216-295-00	METAL CHIP	0 5% 1/10W (C723:US,Canadian,AEP,IT,E/C723L:UK)	R103	1-216-073-00	METAL CHIP	10K 5% 1/10W
JC105	1-216-295-00	METAL CHIP	0 5% 1/10W (US,Canadian,AUS,UK)	R104	1-216-089-11	RES,CHIP	47K 5% 1/10W
JC106	1-216-295-00	METAL CHIP	0 5% 1/10W (EXCEPT UK)	R105	1-216-073-00	METAL CHIP	10K 5% 1/10W
JC107	1-216-296-00	METAL CHIP	0 5% 1/8W	R106	1-216-073-00	METAL CHIP	10K 5% 1/10W
JC108	1-216-295-00	METAL CHIP	0 5% 1/10W	R107	1-216-073-00	METAL CHIP	10K 5% 1/10W
JC109	1-216-296-00	METAL CHIP	0 5% 1/8W	R108	1-216-073-00	METAL CHIP	10K 5% 1/10W
JC110	1-216-296-00	METAL CHIP	0 5% 1/8W	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	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
				R113	1-216-073-00	METAL CHIP	10K 5% 1/10W
				R114	1-216-073-00	METAL CHIP	10K 5% 1/10W (C723L)
				R118	1-216-073-00	METAL CHIP	10K 5% 1/10W
				R119	1-216-073-00	METAL CHIP	10K 5% 1/10W



TRANSFORMER (SECONDARY)

Ref. No.	Part No.	Description	Remark
R120	1-216-073-00	METAL CHIP 10K 5%	1/10W
R122	1-216-073-00	METAL CHIP 10K 5%	1/10W
R124	1-216-097-11	RES,CHIP 100K 5%	1/10W
R125	1-216-089-11	RES,CHIP 47K 5%	1/10W
R126	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R127	1-216-073-00	METAL CHIP 10K 5%	1/10W
R128	1-216-073-00	METAL CHIP 10K 5%	1/10W
R129	1-216-097-11	RES,CHIP 100K 5%	1/10W
R130	1-216-073-00	METAL CHIP 10K 5%	1/10W
R132	1-216-077-00	METAL CHIP 15K 5%	1/10W
R133	1-216-077-00	METAL CHIP 15K 5%	1/10W
R134	1-216-097-11	RES,CHIP 100K 5%	1/10W
R135	1-216-097-11	RES,CHIP 100K 5%	1/10W
R136	1-216-109-00	METAL CHIP 330K 5%	1/10W
R137	1-216-105-11	RES,CHIP 220K 5%	1/10W
R138	1-216-097-11	RES,CHIP 100K 5%	1/10W
R139	1-216-113-00	METAL CHIP 470K 5%	1/10W
R142	1-216-029-00	METAL CHIP 150 5%	1/10W
R143	1-216-029-00	METAL CHIP 150 5%	1/10W
R144	1-216-029-00	METAL CHIP 150 5%	1/10W
R145	1-216-025-11	RES,CHIP 100 5%	1/10W
R150	1-216-081-00	METAL CHIP 22K 5%	1/10W
R151	1-216-073-00	METAL CHIP 10K 5%	1/10W
R152	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R153	1-216-025-11	RES,CHIP 100 5%	1/10W
R154	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
R156	1-216-065-11	RES,CHIP 4.7K 5%	1/10W

< SWITCH >

S101	1-554-303-21	SWITCH, TACTILE (RADIO OFF ALARM RESET)
S102	1-554-303-21	SWITCH, TACTILE (D.S.T. SUMMER T.)
S103	1-554-303-21	SWITCH, TACTILE (WAKE UP MEMO)
S104	1-554-303-21	SWITCH, TACTILE (1)
S105	1-554-303-21	SWITCH, TACTILE (2)
S106	1-554-303-21	SWITCH, TACTILE (3)
S107	1-554-303-21	SWITCH, TACTILE (4)
S108	1-554-303-21	SWITCH, TACTILE (5)
S109	1-554-303-21	SWITCH, TACTILE (TUNE/TIME SET +)
S110	1-554-303-21	SWITCH, TACTILE (TUNE/TIME SET -)
S111	1-554-303-21	SWITCH, TACTILE (BAND)
S112	1-554-303-21	SWITCH, TACTILE (RADIO ON SLEEP)
S113	1-554-303-21	SWITCH, TACTILE (REC)
S114	1-554-303-21	SWITCH, TACTILE (PLAY)
S115	1-554-303-21	SWITCH, TACTILE (CLOCK)

S116 1-571-850-91 SWITCH, SLIDE (BRIGHTNESS)

< VIBRATOR >

X101 1-767-517-11 VIBRATOR, CRYSTAL (75kHz)

\*\*\*\*\*

1-667-904-11 TRANSFORMER (PRIMARY) BOARD  
\*\*\*\*\*

\*\*\*\*\*

1-667-905-11 TRANSFORMER (SECONDARY) BOARD  
\*\*\*\*\*

\*\*\*\*\*

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		*****	
△ 14	1-555-795-00	CORD, POWER (C723:AEP,IT,E/C723L:AEP)	
△ 14	1-696-572-21	CORD, POWER (C723L:UK)	
△ 14	1-765-458-11	CORD, POWER (C723:AUS)	
△ 14	1-769-339-22	CORD, POWER (C723:US,Canadian)	
ANT1	1-501-907-21	ANTENNA, FM WIRE	
ECM101	1-542-168-11	MICROPHONE, ELECTRET CONDENSER	
LCD101	1-801-989-11	DISPLAY PANEL, LIQUID CRYSTAL	
SP1	1-544-517-11	SPEAKER	
△ T201	1-450-922-11	TRANSFORMER, POWER (C723:US,Canadian)	
△ T201	1-450-923-31	TRANSFORMER, POWER (C723:AEP,IT,AUS,E/ C723L)	

\*\*\*\*\*

ACCESSORIES & PACKING MATERIALS

\*\*\*\*\*

3-861-715-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, DUTCH) (C723:Canadian,AEP,AUS/ C723L)
3-861-715-21	MANUAL, INSTRUCTION (ENGLISH) (C723:US)
3-861-715-31	MANUAL, INSTRUCTION (SPANISH, PORTUGUESE, SWEDISH, FINNISH) (C723:AEP)
3-861-715-41	MANUAL, INSTRUCTION (ENGLISH, ITALIAN, SPANISH, CHINESE) (C723:IT,E/C723L:AEP)

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