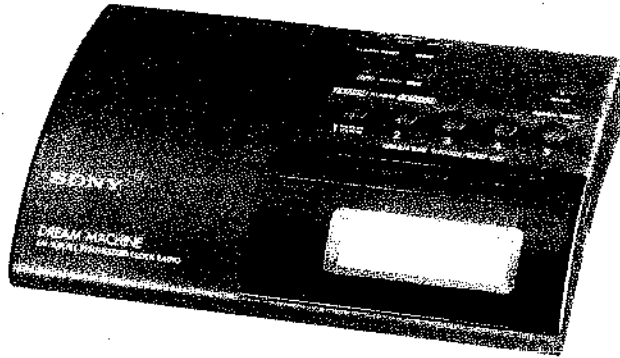


# ICF-C203

## SERVICE MANUAL

*US Model  
Canadian Model  
AEP Model  
E Model  
Australian Model*



### SPECIFICATIONS

Frequency range	Model for North and South America FM: 87.5 – 108 MHz AM: 530 – 1,710 kHz Model for other countries FM: 87.5 – 108 MHz AM: 531 – 1,602 kHz Intermediate frequency FM: 10.7 MHz AM: 450 kHz	Antennas	FM: FM wire antenna AM: Built-in ferrite bar antenna
Scan step	Model for North and South America FM: 0.1 MHz (fixed) AM: 10 kHz (fixed) Model for other countries FM: 0.05* MHz (fixed) AM: 9 kHz (fixed) * 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. 6.6 cm (2 5/8 inches) dia.
		Power output	120 mW (at 10% harmonic distortion)
		Power requirements	North and South American model: 120 V AC, 60 Hz UK model: 240 V AC, 50 Hz Other models: 220 – 230 V AC, 50 Hz
		Dimensions	Approx. 201 x 59 x 146 mm (w/h/d) (8 x 2 3/8 x 5 3/4 inches) incl. projecting parts and controls
		Weight	Approx. 600 g (1 lb 5 oz)
		Accessory supplied	FM antenna coupler (1. Models for Netherlands, Belgium, Switzerland, Austria and Scandinavia only)
		Design and specifications are subject to change without notice.	
		<b>Note</b>	This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

**FM/AM PLL SYNTHESIZED  
CLOCK RADIO  
SONY®**



## 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 0.5 mA (500 microampers). 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 0.75 V, 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 2 V AC range are suitable. (See Fig. A)

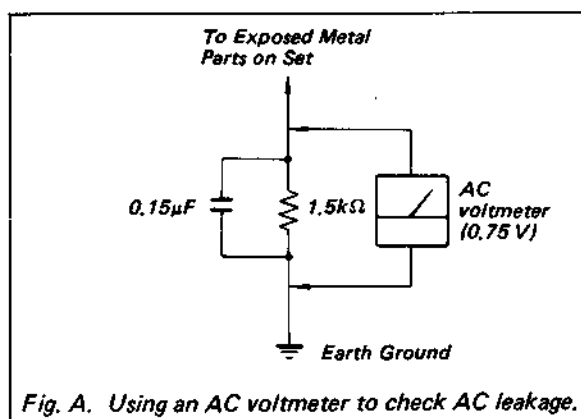
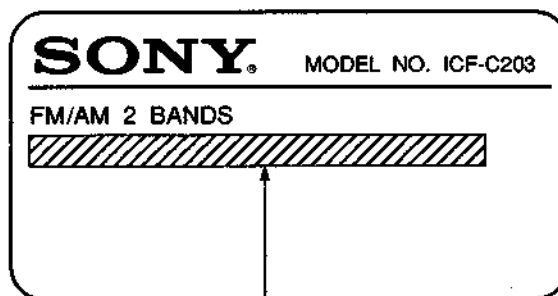


Fig. A. Using an AC voltmeter to check AC leakage.

## MODEL IDENTIFICATION

— Specification Label —



US, CND model: AC: 120V 60Hz 3W

AUS model: AC: 240V~50Hz 3W

5AEC, AEC, AEZ, IT, E model: AC: 220-230V~50Hz 3W

CND: Canadian model

IT: Italian model

AUS: Australian model

AEC, 5AEC: North European model

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  $\triangle$  OR DOTTED LINE WITH MARK  $\triangle$  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.

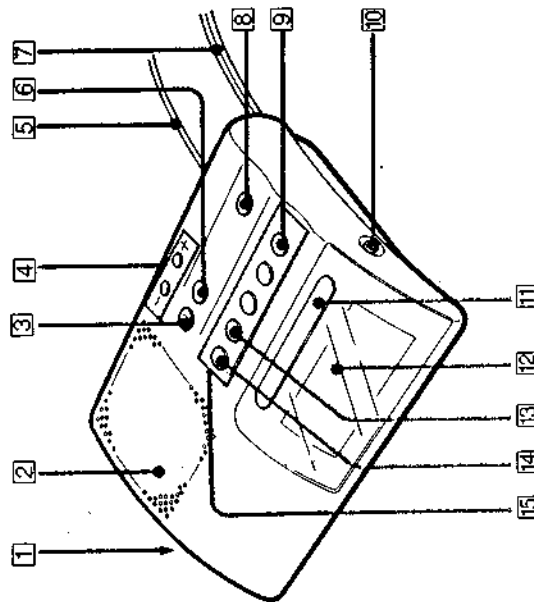
### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  $\triangle$  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

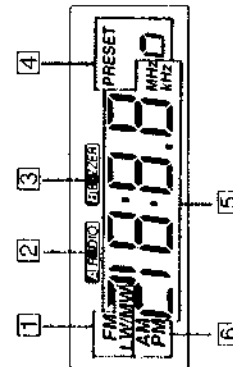
This section is extracted from instruction manual.

Location of Controls



- 1 VOL (volume) control (left side)
- 2 Speaker
- 3 ALARM RESET/RADIO OFF button
- 4 TIME SET/TUNE (tuning) + and - buttons
- 5 FM wire antenna
- 6 SLEEP/RADIO ON button
- 7 AC power cord
- 8 BAND button
- 9 ALARM MODE button
- 10 ENTER/CLOCK button
- 11 DREAM BAR SNOOZE/SLEEP OFF bar (North and South American model)
- 12 REPEAT ALARM/SLEEP OFF bar (other models)
- 13 BUZZER/ALARM button
- 14 RADIO ALARM (WAKE UP STATION) button
- 15 Preset number 1 - 5 buttons

Display window

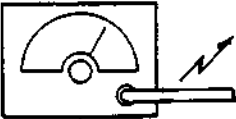


- Display window**
- 1 Band indication
  - 2 RADIO alarm indication
  - 3 BUZZER alarm indication
  - 4 PRESET number indication
  - 5 Time/frequency indication
  - 6 AM/PM indication (North and South American and UK model only)

## SECTION 2 ELECTRICAL ADJUSTMENTS

### AM Section

AM RF signal generator



Put the lead-wire antenna close to the set.

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

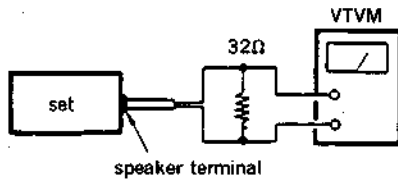
### FM Section

FM RF signal generator



FM ANT terminal

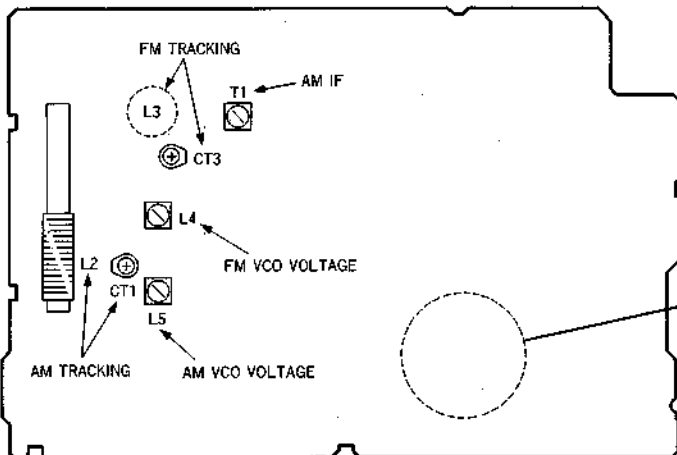
$\pm 22.5$ kHz frequency deviation by 400Hz signal  
Output level: as low as possible



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

Adjustment Location :

[MAIN BOARD] -COMPONENT SIDE-



( ): EXCEPT US, CND model

AM IF ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T1	450kHz

Note : Receive 530kHz (531kHz).

AM VCO VOLTAGE ADJUSTMENT		
Adjustment Part	Frequency Display	Reading on Digital voltmeter
L5	530kHz (531kHz)	1.2 V
(confirmation)	1,710 kHz (1,602kHz)	Less than 9 V (Less than 8 V)

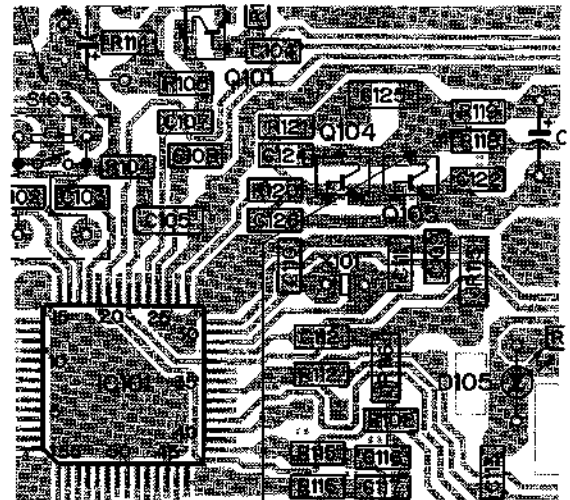
Note : Not use the AM RF signal generator in this adjustment.

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
CT1	L2
1,490kHz (1,404kHz)	580kHz (621kHz)

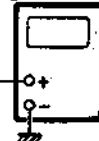
FM VCO VOLTAGE ADJUSTMENT		
Adjustment Part	Frequency Display	Reading on Digital voltmeter
L4	108MHz	$10 \pm 1.0$ V
(confirmation)	87.5MHz	More than 1.8 V (Standard 2.2 V)

Note : Not use the FM signal generator in this adjustment.

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
CT3	L3(confirmation)
108MHz	87.5MHz




digital voltmeter



### SECTION 3 PIN DESCRIPTION

01  $\mu$  PD1724GB-590-1P7

Pin No.	Pin Name	Signal Name	I/O	Description
1-10	LCD10-LCD1	LCD10-LCD1	O	LCD drive
11	NC		—	
2-14	COM3-COM1	COM3-COM1	O	LCD common
15	VSS3			Pin for doubler circuit capacitor connection to develop LCD drive voltage
16	CAP2		—	
17	CAP1		—	
18	VSS2		—	
19	VDP	$\overline{\text{MUTE}}$	O	Audio signal mute. Active : Low. LOW when MUTE ON. 
20	CGP	BEEP	O	Activates buzzer.
21	NC		—	
22	VDD		—	3V power supply input terminal
23	VCOH		I	Unused pin
24	VCOM	FM VCO	I	FM VCO input
25	VCOL	AM VCO	I	AM VCO input
26	VSS1		—	GND
27	EO1		O	PLL error output pin
28	EO2		O	
29	CE	CE	I	Detects power supply line status. Power supply line OFF : Low Power supply line ON : High
30	XO		O	Crystal oscillator connection pin
31	XI		I	
32	VSS4		—	Pin for regulator circuit capacitor connection to attain stable drive voltage of the oscillator
33	PA3	AC/DC	I	AC/DC select input AC : High DC : Low
34	PA2	ALARM OUT	O	Unused pin
35	PA1	TV OUT	O	Unused pin
36	PA0	BATT/BAND AM	I/O	BATTERY CHECK input, BAND FM/AM output FM : Low AM : High
37	PB3	LIGHT	O	Unused pin
38	PB2	POWER	O	Unused pin
39	PB1	INITIALIZE	O	KEY IN control output
40	PB0	BAND LOW/TV H	O	Unused pin
41-44	PC3-PC0	KEY SOURCE	O	Conducts Key Scan
45-48	K3-K0	KEY RETURN	I	Key Return input
49, 50	NC		—	
51-56	LCD16-LCD11	LCD16-LCD11	O	LCD drive

# SECTION 4 DIAGRAMS

Note:

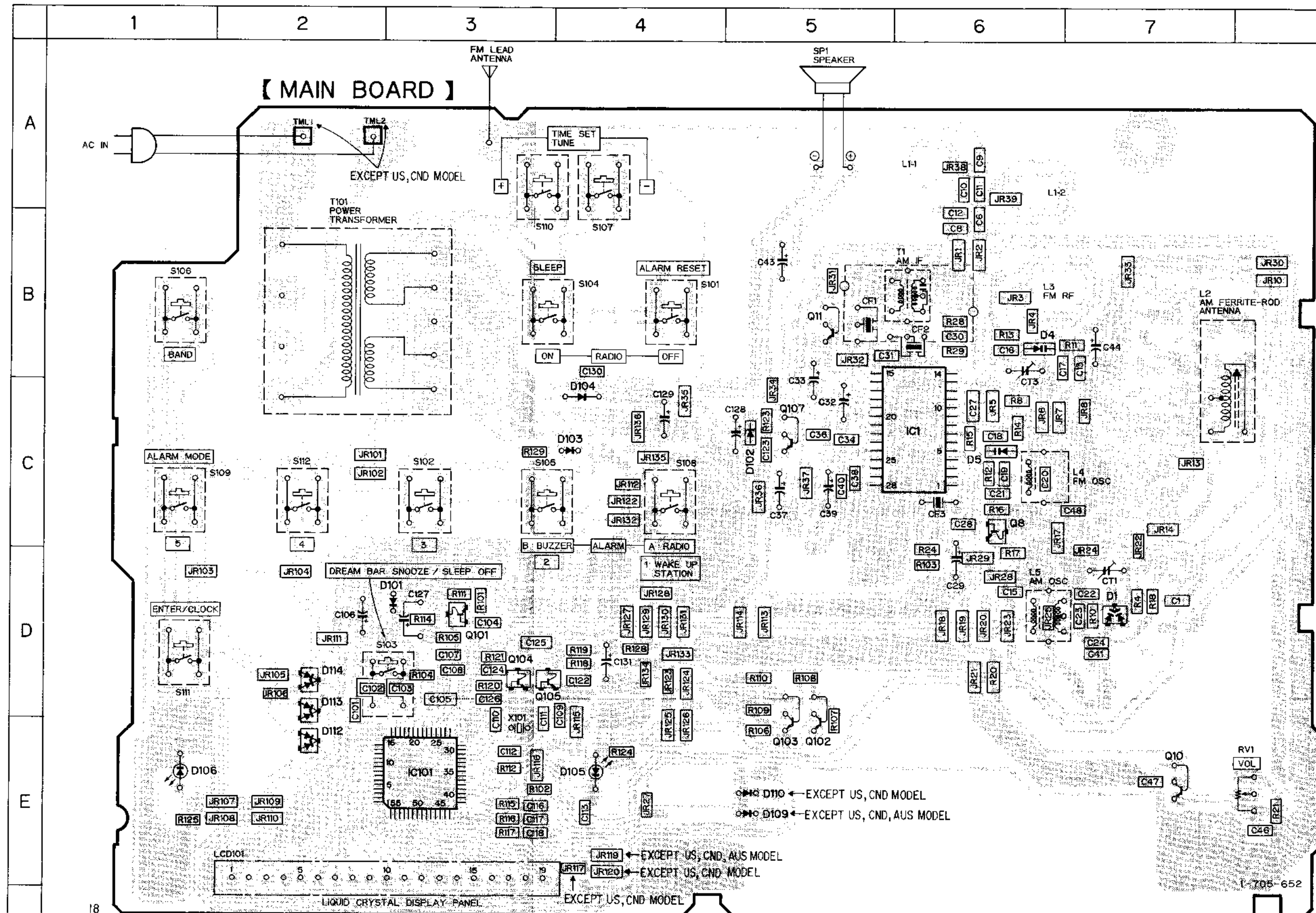
○ — : parts extracted from the component side.

CND : Canadian  
 AEC : AEP  
 AEC, 5AEC : North European  
 IT : Italian  
 AUS : Australian

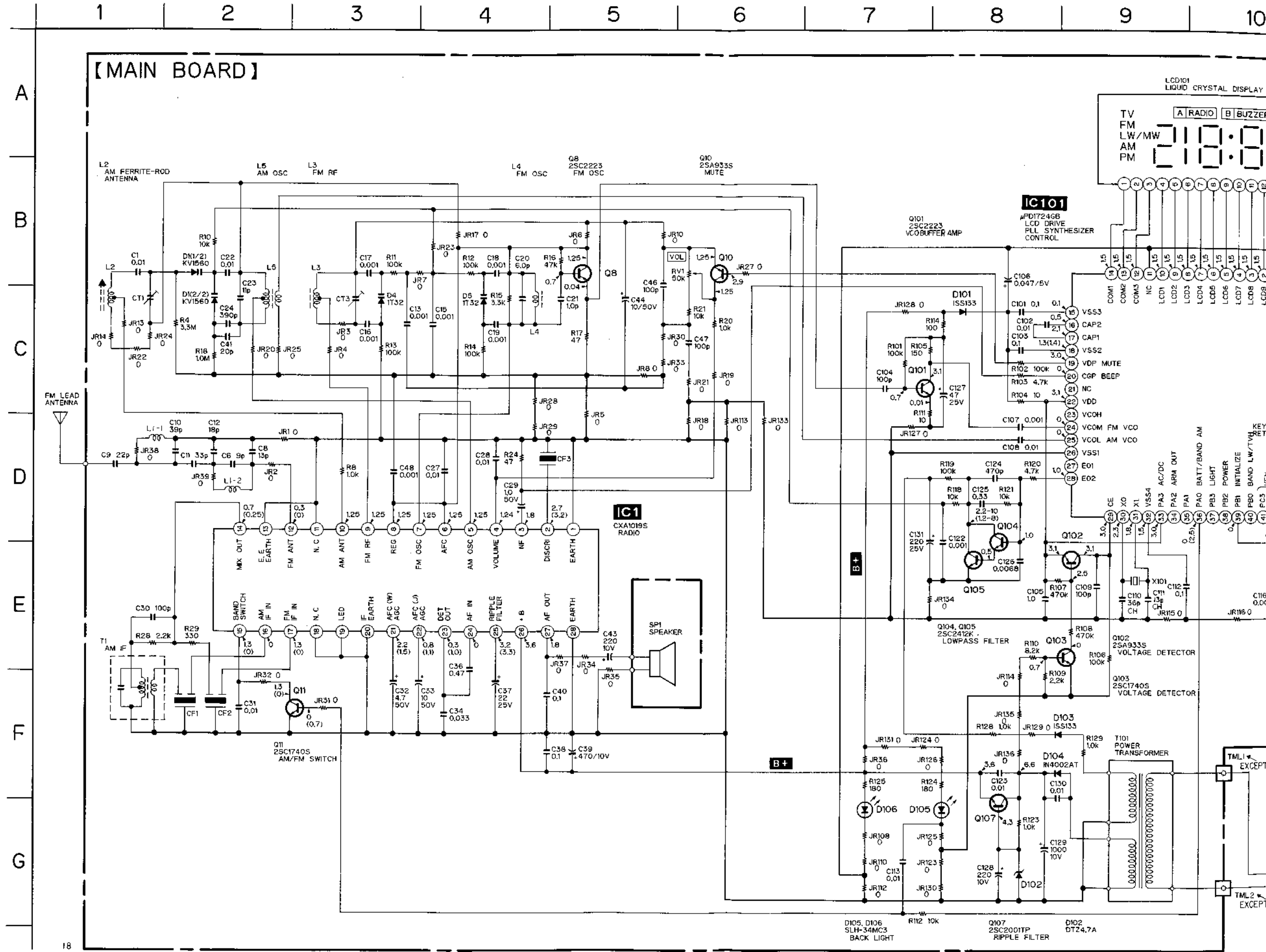
4-1. PRINTED WIRING BOARD • Sss page 12 for Semiconductor Lead Layouts.

● Semiconductor Location

Ref. No.	Location
D1	D-7
D4	B-6
D5	C-6
D101	D-3
D102	C-5
D103	C-4
D104	C-4
D105	E-4
D106	E-1
D109	E-5
D110	E-5
D112	E-2
D113	D-2
D114	D-2
IC1	C-6
IC101	E-3
Q8	C-6
Q10	E-7
Q11	B-5
Q101	D-3
Q102	D-5
Q103	D-5
Q104	D-3
Q105	D-3
Q107	C-5



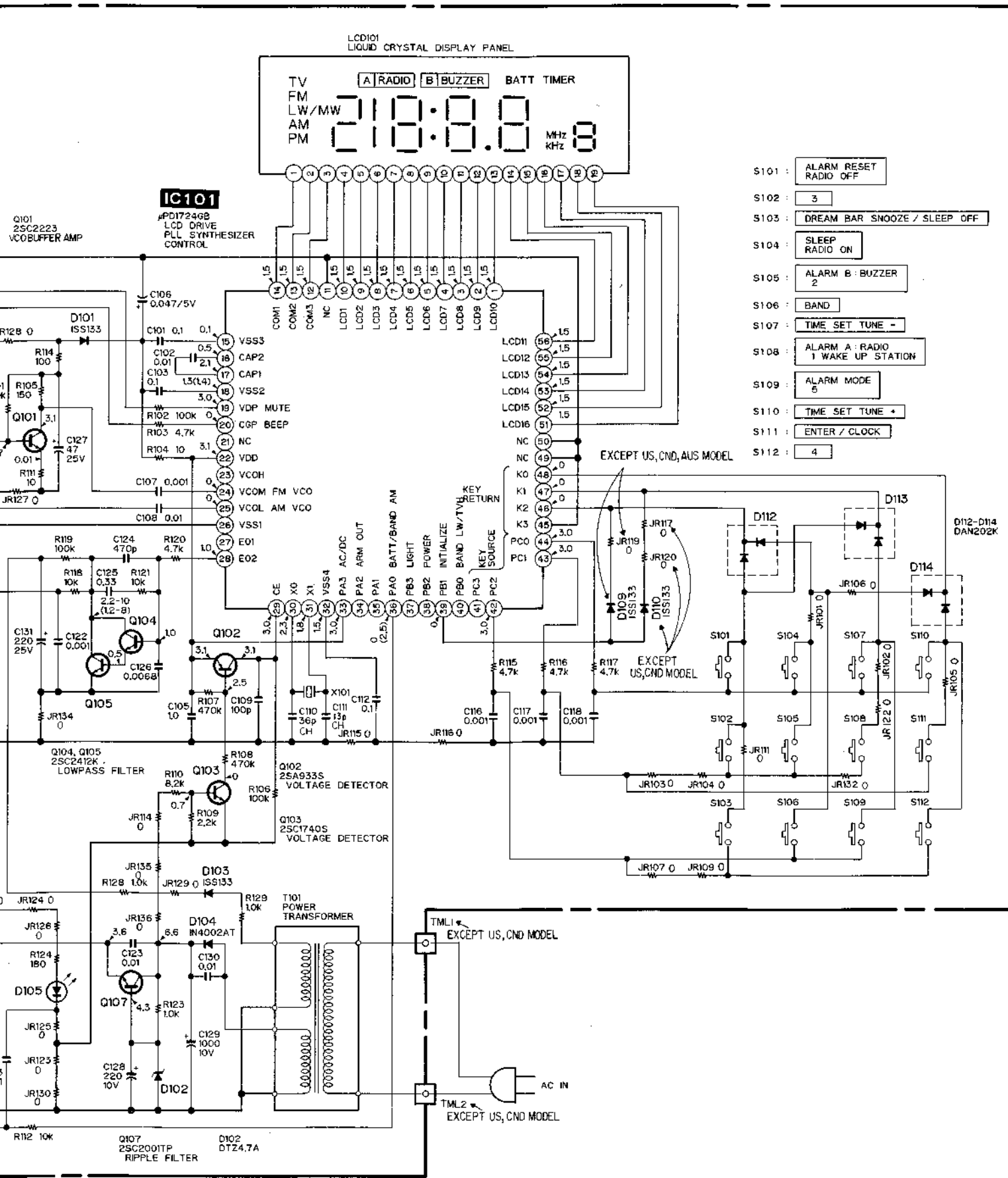
4-2. SCHEMATIC DIAGRAM



18

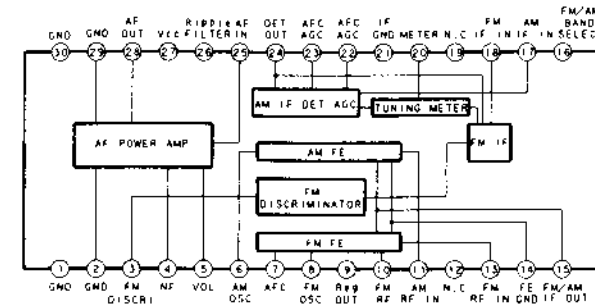






● IC Block Diagram

IC1 CXA1019M



Note:

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

Note:

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

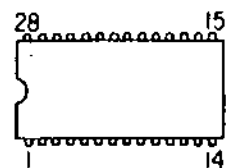
Note:

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

- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.  
no mark : FM  
( ) : AM
- Voltages are taken with a VOM (Input Impedance  $10\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.  
⇒ : FM  
○ : Canadian  
○ : AEP  
○ : North European  
○ : Italian  
○ : Australian

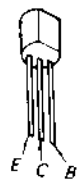
4-2. SEMICONDUCTOR LEAD LAYOUTS

CXA1019M

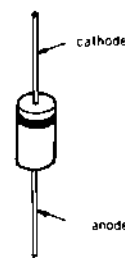


(Top view)

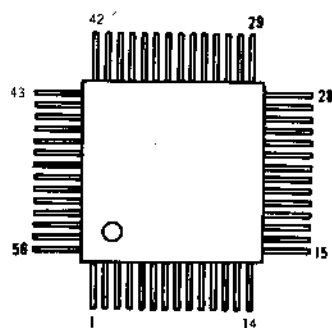
2SC2001-LK



10E2

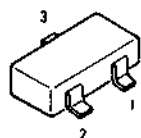


μPD1724GB-590-1P7

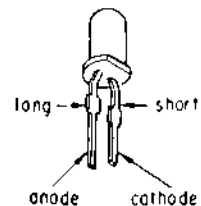


MARKING SIDE VIEW

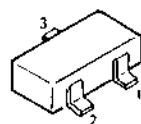
KV1560  
MA152WK



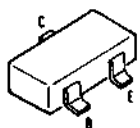
GL3EG8



1S2836



2SA1162-G  
2SC1623-L5L6  
2SC2223-F13  
2SC2223-F14



NOTE:

-XX, -X mean standardized parts, so they may have some differences from the original one.

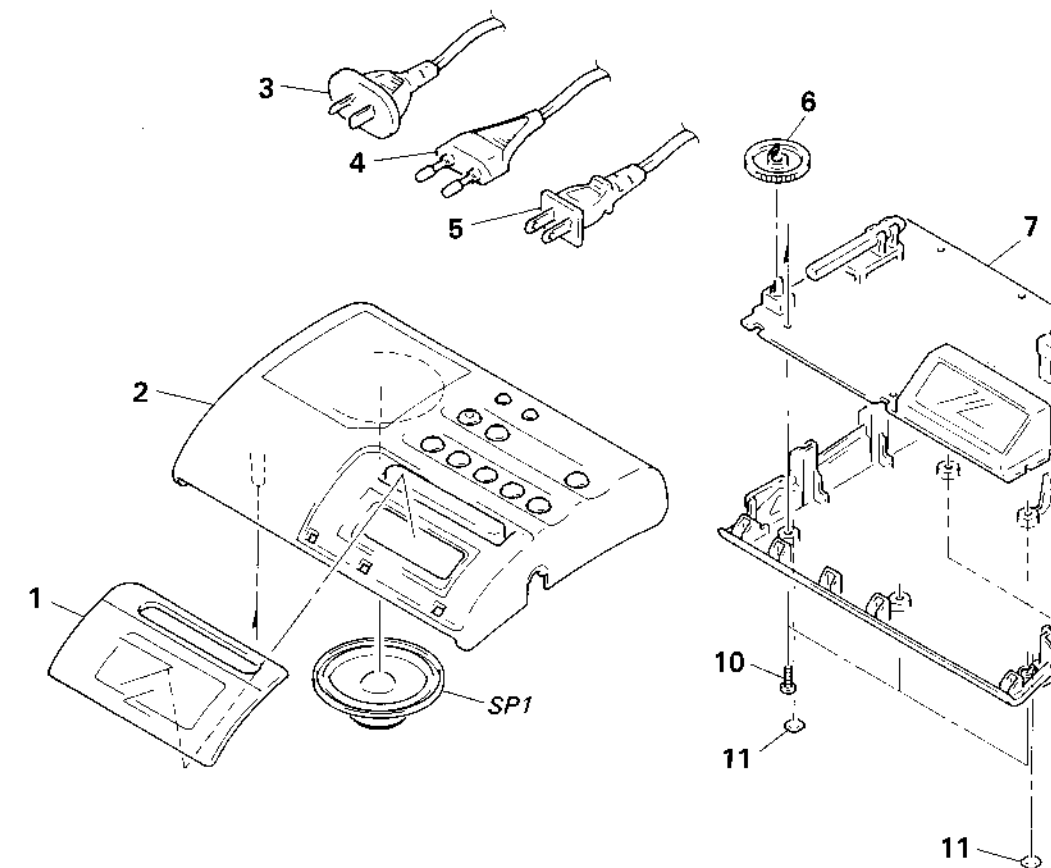
• Color Indication of Appearance Parts

Example:

KNOB, BALANCE(WHITE)...(RED)

↑                    ↑  
Parts color    Cabinet's color

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- hardware (#mark) list is given in the last of this parts list.



Ref. No.	Part No.	Description	Remark
1	3-377-646-01	PLATE, TRANSPARENT	
2	X-3365-427-1	CABINET (U) ASSY (GRAY) (US, CND)	
2	X-3365-427-2	CABINET (U) ASSY (WHITE) (US, CND)	
2	X-3365-484-1	CABINET (U) ASSY (GRAY) (AEZ, 5AEC, AEC, E, IT, AUS)	
2	X-3365-484-2	CABINET (U) ASSY (WHITE) (AEZ, 5AEC, AEC, E, IT, AUS)	
Δ3	1-559-912-11	CORD, POWER (AUS)	
Δ4	1-551-958-21	CORD, POWER (WHITE) (AEZ, 5AEC, AEC, E, IT)	
Δ4	1-555-795-00	CORD, POWER (GRAY) (AEZ, 5AEC, AEC, E, IT)	
Δ5	1-696-008-11	CORD, POWER (GRAY) (US, CND)	
Δ5	1-696-008-21	CORD, POWER (WHITE) (US, CND)	
6	3-368-840-01	KNOB (VOL.) (GRAY)	
6	3-368-840-11	KNOB (VOL.) (WHITE)	

Ref. No.	Part No.	Description
* 7	A-3679-397-A	MAIN BO
* 7	A-3679-398-A	MAIN BO
* 7	A-3679-408-A	MAIN BO
8	3-377-653-01	CABINET
8	3-377-653-11	CABINET
8	3-377-653-21	CABINET
8	3-377-653-31	CABINET
8	3-377-653-41	CABINET
8	3-377-653-51	CABINET
9	3-377-647-01	BUTTON
9	3-377-647-11	BUTTON
10	7-685-649-79	SCREW +
11	3-368-852-01	FOOT
SP1	1-503-082-00	SPEAKER

## SECTION 5 EXPLODED VIEWS

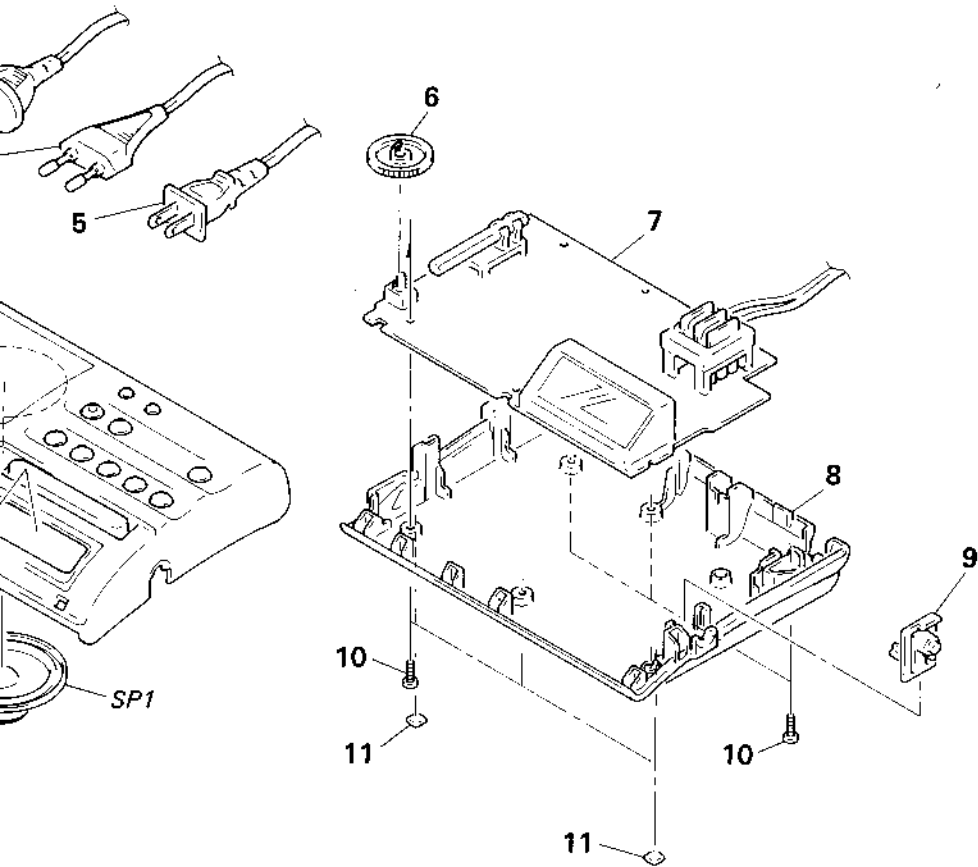
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- hardware (#mark) list is given in the last of this parts list.

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

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

CND: Canadian  
AEZ: AEP  
AEC, SAEC: North European

IT: Italian  
AUS: Australian



Remark	Ref. No.	Part No.	Description	Remark
TRANSPARENT	* 7	A-3679-397-A	MAIN BOARD, COMPLETE (AEZ, SAEC, AEC, E, IT)	
ASSY (GRAY) (US, CND)				
ASSY (WHITE) (US, CND)	* 7	A-3679-398-A	MAIN BOARD, COMPLETE (AUS)	
ASSY (GRAY) (AEZ, SAEC, AEC, E, IT, AUS)	* 7	A-3679-408-A	MAIN BOARD, COMPLETE (US, CND)	
	8	3-377-653-01	CABINET (LOWER) (GRAY) (US, CND)	
ASSY (WHITE) (AEZ, SAEC, AEC, E, IT, AUS)	8	3-377-653-11	CABINET (LOWER) (WHITE) (US, CND)	
ASSY (GRAY) (AEZ, SAEC, AEC, E, IT, AUS)	8	3-377-653-21	CABINET (LOWER) (GRAY)	
ASSY (WHITE) (AEZ, SAEC, AEC, E, IT, AUS)	8	3-377-653-31	CABINET (LOWER) (WHITE)	
ASSY (GRAY) (AEZ, SAEC, AEC, E, IT, AUS)	8	3-377-653-41	CABINET (LOWER) (GRAY) (AUS)	
ASSY (GRAY) (US, CND)	8	3-377-653-51	CABINET (LOWER) (WHITE) (AUS)	
ASSY (WHITE) (US, CND)	9	3-377-647-01	BUTTON (MODE) (GRAY)	
ASSY (GRAY)	9	3-377-647-11	BUTTON (MODE) (WHITE)	
	10	7-685-649-79	SCREW +P 3X14 TYPE2 NON-SLIT	
	11	3-368-852-01	FOOT	
	SP1	1-503-082-00	SPEAKER	

## SECTION 6 ELECTRICAL PARTS LIST

### 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 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

- 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

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

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

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

CND: Canadian  
AEZ: AEP  
AEC, SAEC: North European

IT: Italian  
AUS: Australian

Ref. No.	Part No.	Description	Remark
*	A-3679-408-A	MAIN BOARD, COMPLETE	
	3-382-614-01	PLATE SHIELD	
	3-377-648-01	HOLDER (LED)	
*	3-377-650-01	FRAME, REFLECTION	
< CAPACITOR >			
C1	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C6	1-163-092-00	CERAMIC CHIP 9PF	0.25PF 50V
C8	1-163-096-00	CERAMIC CHIP 13PF	5% 50V
C9	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C10	1-163-107-00	CERAMIC CHIP 39PF	5% 50V
C11	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
C12	1-163-099-00	CERAMIC CHIP 18PF	5% 50V
C13	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C15	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C16	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C17	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C18	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C19	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C20	1-163-089-00	CERAMIC CHIP 6PF	50V
C21	1-163-083-00	CERAMIC CHIP 1PF	50V
C22	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C23	1-163-094-00	CERAMIC CHIP 11PF	5% 50V
C24	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C27	1-163-059-00	CERAMIC CHIP 0.01uF	10% 50V
C28	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C29	1-124-903-11	ELECT 1uF	20% 50V
C30	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C31	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C32	1-124-927-11	ELECT 4.7uF	20% 100V
C33	1-124-907-11	ELECT 10uF	20% 50V
C34	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V

Ref. No.	Part No.	Description	Remark
C36	1-164-005-11	CERAMIC CHIP 0.47uF	25V
C37	1-126-233-11	ELECT 22uF	20% 50V
C38	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C39	1-124-472-11	ELECT 470uF	20% 10V
C40	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C41	1-163-100-00	CERAMIC CHIP 20PF	5% 50V
C43	1-126-176-11	ELECT 220uF	20% 10V
C44	1-124-907-11	ELECT 10uF	20% 50V
C46	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C47	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C48	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C101	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C102	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C103	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C104	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C105	1-162-638-11	CERAMIC CHIP 1uF	16V
C106	1-125-701-11	CAP. DOUBLE LAYER 0.047F	5V
C107	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C108	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C109	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C110	1-163-106-00	CERAMIC CHIP 36PF	5% 50V
C111	1-163-096-00	CERAMIC CHIP 13PF	5% 50V
C112	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C113	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C116	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C117	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C118	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C122	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C123	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C124	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C125	1-164-006-11	CERAMIC CHIP 0.33uF	10% 16V
C126	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V
C127	1-124-477-11	ELECT 47uF	20% 25V
C128	1-126-176-11	ELECT 220uF	20% 10V

Ref. No.	Part No.	Description	Remark
C129	1-126-926-11	ELECT 1000uF 20%	10V
C130	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C131	1-128-483-11	ELECT 220uF 20%	25V
< FILTER >			
CF1	1-578-677-21	FILTER, CERAMIC	
CF2	1-579-632-11	FILTER, CERAMIC	
CF3	1-579-632-11	FILTER, CERAMIC	
< TRIMMER >			
CT1	1-141-304-21	CAP, TRIMMER 10PF	
CT3	1-141-304-21	CAP, TRIMMER 10PF	
< DIODE >			
D1	8-719-951-05	DIODE KV1560	
D4	8-719-949-46	DIODE 1T32	
D5	8-719-949-46	DIODE 1T32	
D101	8-719-028-22	DIODE 1SS133-T95	
D102	8-719-976-94	DIODE DTZ4.7A	
D103	8-719-028-22	DIODE 1SS133-T95	
D104	8-719-200-02	DIODE 10E-2	
D105	8-719-938-67	LED GL3EG8 (BACK LIGHT)	
D106	8-719-938-67	LED GL3EG8 (BACK LIGHT)	
D109	8-719-028-22	DIODE 1SS133-T95 (AEZ, 5AEC, AEC, IT, E)	
D110	8-719-028-22	DIODE 1SS133-T95 (AEZ, 5AEC, 5AEC, IT, E, AUS)	
D112	8-719-400-18	DIODE MA152WK	
D113	8-719-400-18	DIODE MA152WK	
D114	8-719-400-18	DIODE MA152WK	
< IC >			
IC1	8-729-120-28	IC CXA1019M	
IC101	8-759-073-88	IC uPD1724GB-590-1P7	
< JUMPER RESISTOR >			
JR1	1-216-296-00	METAL CHIP 0 5%	1/8W
JR2	1-216-296-00	METAL CHIP 0 5%	1/8W
JR3	1-216-296-00	METAL CHIP 0 5%	1/8W
JR4	1-216-295-00	METAL CHIP 0 5%	1/10W
JR5	1-216-296-00	METAL CHIP 0 5%	1/8W
JR6	1-216-296-00	METAL CHIP 0 5%	1/8W
JR7	1-216-296-00	METAL CHIP 0 5%	1/8W
JR8	1-216-295-00	METAL CHIP 0 5%	1/10W
JR10	1-216-296-00	METAL CHIP 0 5%	1/8W
JR13	1-216-295-00	METAL CHIP 0 5%	1/10W
JR14	1-216-296-00	METAL CHIP 0 5%	1/8W
JR17	1-216-296-00	METAL CHIP 0 5%	1/8W
JR18	1-216-296-00	METAL CHIP 0 5%	1/8W

Ref. No.	Part No.	Description	Remark
JR19	1-216-296-00	METAL CHIP 0 5%	1/8W
JR20	1-216-296-00	METAL CHIP 0 5%	1/8W
JR21	1-216-296-00	METAL CHIP 0 5%	1/8W
JR22	1-216-295-00	METAL CHIP 0 5%	1/10W
JR23	1-216-296-00	METAL CHIP 0 5%	1/8W
JR24	1-216-295-00	METAL CHIP 0 5%	1/10W
JR25	1-216-295-00	METAL CHIP 0 5%	1/10W
JR27	1-216-295-00	METAL CHIP 0 5%	1/10W
JR28	1-216-296-00	METAL CHIP 0 5%	1/8W
JR29	1-216-296-00	METAL CHIP 0 5%	1/8W
JR30	1-216-296-00	METAL CHIP 0 5%	1/8W
JR31	1-216-295-00	METAL CHIP 0 5%	1/10W
JR32	1-216-296-00	METAL CHIP 0 5%	1/8W
JR33	1-216-296-00	METAL CHIP 0 5%	1/8W
JR34	1-216-295-00	METAL CHIP 0 5%	1/10W
JR35	1-216-296-00	METAL CHIP 0 5%	1/8W
JR36	1-216-296-00	METAL CHIP 0 5%	1/8W
JR37	1-216-296-00	METAL CHIP 0 5%	1/8W
JR38	1-216-295-00	METAL CHIP 0 5%	1/10W
JR39	1-216-296-00	METAL CHIP 0 5%	1/8W
JR101	1-216-296-00	METAL CHIP 0 5%	1/8W
JR102	1-216-296-00	METAL CHIP 0 5%	1/8W
JR103	1-216-296-00	METAL CHIP 0 5%	1/8W
JR104	1-216-296-00	METAL CHIP 0 5%	1/8W
JR105	1-216-296-00	METAL CHIP 0 5%	1/8W
JR106	1-216-295-00	METAL CHIP 0 5%	1/10W
JR107	1-216-296-00	METAL CHIP 0 5%	1/8W
JR108	1-216-296-00	METAL CHIP 0 5%	1/8W
JR109	1-216-296-00	METAL CHIP 0 5%	1/8W
JR110	1-216-296-00	METAL CHIP 0 5%	1/8W
JR111	1-216-296-00	METAL CHIP 0 5%	1/8W
JR112	1-216-295-00	METAL CHIP 0 5%	1/10W
JR113	1-216-296-00	METAL CHIP 0 5%	1/8W
JR114	1-216-296-00	METAL CHIP 0 5%	1/8W
JR115	1-216-296-00	METAL CHIP 0 5%	1/8W
JR116	1-216-296-00	METAL CHIP 0 5%	1/8W
JR117	1-216-295-00	METAL CHIP 0 5%	1/10W (AEZ, 5AEC, AEC, IT, E, AUS)
JR119	1-216-296-00	METAL CHIP 0 5%	1/8W (AEZ, 5AEC, AEC, IT, E)
JR120	1-216-296-00	METAL CHIP 0 5%	1/8W (AEZ, 5AEC, AEC, IT, E, AUS)
JR122	1-216-296-00	METAL CHIP 0 5%	1/8W
JR123	1-216-295-00	METAL CHIP 0 5%	1/10W
JR124	1-216-296-00	METAL CHIP 0 5%	1/8W
JR125	1-216-296-00	METAL CHIP 0 5%	1/8W
JR126	1-216-296-00	METAL CHIP 0 5%	1/8W
JR127	1-216-296-00	METAL CHIP 0 5%	1/8W

**MAIN**

Ref. No.	Part No.	Description	Remark		
JR128	1-216-296-00	METAL CHIP	0	5%	1/8W
JR129	1-216-296-00	METAL CHIP	0	5%	1/8W
JR130	1-216-296-00	METAL CHIP	0	5%	1/8W
JR131	1-216-296-00	METAL CHIP	0	5%	1/8W
JR132	1-216-296-00	METAL CHIP	0	5%	1/8W
JR133	1-216-296-00	METAL CHIP	0	5%	1/8W
JR134	1-216-295-00	METAL CHIP	0	5%	1/10W
JR135	1-216-296-00	METAL CHIP	0	5%	1/8W
JR136	1-216-296-00	METAL CHIP	0	5%	1/8W
< COIL >					
L2	1-402-616-11	ANTENNA, FERRITE-ROD (MW)			
L4	1-460-335-11	COIL (WITH CORE)			
L5	1-406-485-11	COIL (OSC)			
< LIQUID CRYSTAL DISPLAY >					
LCD101	1-809-711-11	DISPLAY PANEL, LIQUID CRYSTAL			
< TRANSISTOR >					
Q8	8-729-102-07	TRANSISTOR 2SC2223-F13			
Q10	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q11	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q101	8-729-102-07	TRANSISTOR 2SC2223-F13			
Q102	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q104	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q105	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q107	8-729-142-46	TRANSISTOR 2SC2001-LM			
< RESISTOR >					
R4	1-216-133-00	METAL CHIP 3.3K 5%			1/10W
R8	1-216-049-00	METAL CHIP 1K 5%			1/10W
R10	1-216-073-00	METAL CHIP 10K 5%			1/10W
R11	1-216-097-00	METAL CHIP 100K 5%			1/10W
R12	1-216-097-00	METAL CHIP 100K 5%			1/10W
R13	1-216-097-00	METAL CHIP 100K 5%			1/10W
R14	1-216-097-00	METAL CHIP 100K 5%			1/10W
R15	1-216-061-00	METAL CHIP 3.3K 5%			1/10W
R16	1-216-089-00	METAL CHIP 47K 5%			1/10W
R17	1-216-017-00	METAL CHIP 47 5%			1/10W
R18	1-216-121-00	METAL CHIP 1M 5%			1/10W
R20	1-216-198-00	METAL CHIP 1K 5%			1/8W
R21	1-216-073-00	METAL CHIP 10K 5%			1/10W
R24	1-216-017-00	METAL CHIP 47 5%			1/10W
R28	1-216-057-00	METAL CHIP 2.2K 5%			1/10W
R29	1-216-037-00	METAL CHIP 330 5%			1/10W
R101	1-216-097-00	METAL CHIP 100K 5%			1/10W
R102	1-216-097-00	METAL CHIP 100K 5%			1/10W
R103	1-216-065-00	METAL CHIP 4.7K 5%			1/10W

Ref. No.	Part No.	Description	Remark		
R104	1-216-001-00	METAL CHIP 10 5%			1/10W
R105	1-216-029-00	METAL CHIP 150 5%			1/10W
R106	1-216-097-00	METAL CHIP 100K 5%			1/10W
R107	1-216-113-00	METAL CHIP 470K 5%			1/10W
R108	1-216-113-00	METAL CHIP 470K 5%			1/10W
R109	1-216-057-00	METAL CHIP 2.2K 5%			1/10W
R110	1-216-071-00	METAL CHIP 8.2K 5%			1/10W
R111	1-216-001-00	METAL CHIP 10 5%			1/10W
R112	1-216-073-00	METAL CHIP 10K 5%			1/10W
R114	1-216-025-00	METAL CHIP 100 5%			1/10W
R115	1-216-065-00	METAL CHIP 4.7K 5%			1/10W
R116	1-216-065-00	METAL CHIP 4.7K 5%			1/10W
R117	1-216-065-00	METAL CHIP 4.7K 5%			1/10W
R118	1-216-073-00	METAL CHIP 10K 5%			1/10W
R119	1-216-097-00	METAL CHIP 100K 5%			1/10W
R120	1-216-065-00	METAL CHIP 4.7K 5%			1/10W
R121	1-216-073-00	METAL CHIP 10K 5%			1/10W
R123	1-216-049-00	METAL CHIP 1K 5%			1/10W
R124	1-216-031-00	METAL CHIP 180 5%			1/10W
R125	1-216-031-00	METAL CHIP 180 5%			1/10W
R128	1-216-049-00	METAL CHIP 1K 5%			1/10W
R129	1-216-049-00	METAL CHIP 1K 5%			1/10W
< VARIABLE RESISTOR >					
RV1	1-241-586-11	RES, VAR, CARBON 50K (VOL)			
< SWITCH >					
S101	1-554-937-11	SWITCH, KEY BOARD (ALARM RESET, RADIO OFF)			
S102	1-554-937-11	SWITCH, KEY BOARD (3)			
S103	1-554-937-11	SWITCH, KEY BOARD (DREAM BAR SNOOZE/SLEEP OFF)			
S104	1-554-937-11	SWITCH, KEY BOARD (SLEEP RADIO ON)			
S105	1-554-937-11	SWITCH, KEY BOARD (ALARM B:BUZZER, 2)			
S106	1-554-937-11	SWITCH, KEY BOARD (BAND)			
S107	1-554-937-11	SWITCH, KEY BOARD (TIME SET TUNE -)			
S108	1-554-937-11	SWITCH, KEY BOARD (ALARM A:RADIO, 1, WAKE UP STATION)			
S109	1-554-937-11	SWITCH, KEY BOARD (ALARM MODE, 5)			
S110	1-554-937-11	SWITCH, KEY BOARD (TIME SET TUNE +)			
S111	1-554-937-11	SWITCH, KEY BOARD (ENTER/CLOCK)			
S112	1-554-937-11	SWITCH, KEY BOARD (4)			
< TRANSFORMER >					
T1	1-404-790-11	TRANSFORMER, IF			
△T101	1-450-922-11	TRANSFORMER, POWER (US, CND)			
△T101	1-450-923-11	TRANSFORMER, POWER (EXCEPT US, CND)			

<p>The components identified by mark <math>\Delta</math> or dotted line with mark <math>\Delta</math> are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque <math>\Delta</math> sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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Ref. No.	Part No.	Description	Remark
< TERMINAL >			
* TML1	1-535-771-11	TERMINAL (AEZ, 5AEC, AEC, IT, E, AUS)	
* TML2	1-535-771-11	TERMINAL (AEZ, 5AEC, AEC, IT, E, AUS)	
< VIBRATOR >			
X101	1-567-769-11	VIBRATOR, CRYSTAL	
*****			
MISCELLANEOUS			
*****			
△3	1-559-912-11	CORD, POWER (AUS)	
△4	1-551-958-21	CORD, POWER (WHITE) (AEZ, 5AEC, AEC, E, IT)	
△4	1-555-795-00	CORD, POWER (GRAY) (AEZ, 5AEC, AEC, E, IT)	
△5	1-696-008-11	CORD, POWER (GRAY) (US, CND)	
△5	1-696-008-21	CORD, POWER (WHITE) (US, CND)	
SP1	1-503-082-00	SPEAKER	
*****			
ACCESSORIES & PACKING MATERIALS			
*****			
	1-501-499-11	COUPLER, ANTENNA (5AEC)	
*	3-378-689-01	INDIVIDUAL CARTON (US)	
*	3-378-690-01	INDIVIDUAL CARTON (CND)	
*	3-378-691-01	INDIVIDUAL CARTON (AEZ, 5AEC, AEC, E, IT, AUS)	
	3-755-141-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, SPANISH) (CND, AEZ, 5AEC, AEC, E, AUS)	
	3-755-141-21	MANUAL, INSTRUCTION (ENGLISH) (US)	
	3-755-141-41	MANUAL, INSTRUCTION (PORTUGUESE, DUTCH, SWEDISH, ITALIAN) (5AEC, AEC, IT)	

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

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