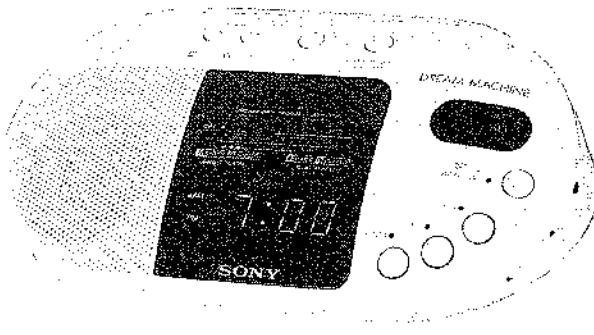


DO DOGS

SERVICE MANUAL

US Model
Canadian Model
AEP Model
E Model
Australian Model



SPECIFICATIONS

	FM	AM
US, CND, PA model	87.6-108MHz	530-1,710kHz
AEP, E, AUS model	87.6-107.5MHz	531-1,802kHz
IT model	87.5-106MHz	526.5-1,806.5kHz

Antennas FM: FM wire antenna
 AM: Built-in ferrite bar antenna

Speaker	Approx. 6.6 cm (2 5/8 inches) dia.
Power output	200 mW (at 10% harmonic distortion)
Output	Earphone jack (mini jack)
Power requirements	120 V AC, 60 Hz (US, CND, PA model) 220 V AC, 50 Hz (AEP, IT, E model) 240 V AC, 50 Hz (AUS model)

For the power backup function: 9V DC, one 6F22 battery

Battery life	Up to 22 battery
Dimensions	Approx. 80 hours, using Sony ba
Weight	Approx. 251 x 71 x 158 mm (w/h/d) (10 x 27/8 x 61/4 inches)
Weight	incl. projecting parts and control Approx. 750 g (1.65 lb.) net incl. ba

Design and specifications subject to change without notice.

FEATURES

- Dual alarm FM/AM 2-band radio combined with an electric digital alarm clock and sleep timer.
 - Choice of awakening to radio alarm, buzzer alarm, or dual alarm: Alarm A (radio) and B (buzzer).
 - 24-hour alarm preset system automatically turns alarm on at same time each day.
 - DREAM BAR SNOOZE/SLEEP OFF (US, CND, PA model), REPEAT ALARM/SLEEP OFF (AEP, E, IT, AUS model), operable with a feather-light touch, offers functions; snooze alarm and sleep timer turn off.
 - You can preset 3 FM stations for easier tuning.
 - For private listening, this radio is equipped with an earphone jack.

CND model: Canadian model
 IT model: Italian model
 AUS model: Australian model
 PA model: Panama model

US, CND, AUS, PA model	AEP, E, IT model
12-hours system	24-hour system
AM 12:00 = midnight	0:00 = midnight
PM 12:00 = noon	12:00 = noon

**DUAL ALARM FM/AM
DIGITAL CLOCK RADIO**

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 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 0.75 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)

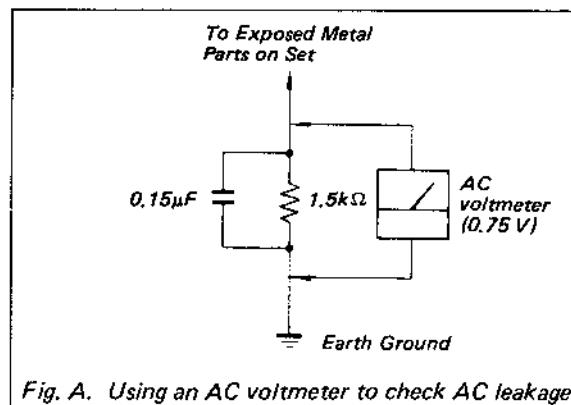


Fig. A. Using an AC voltmeter to check AC leakage.

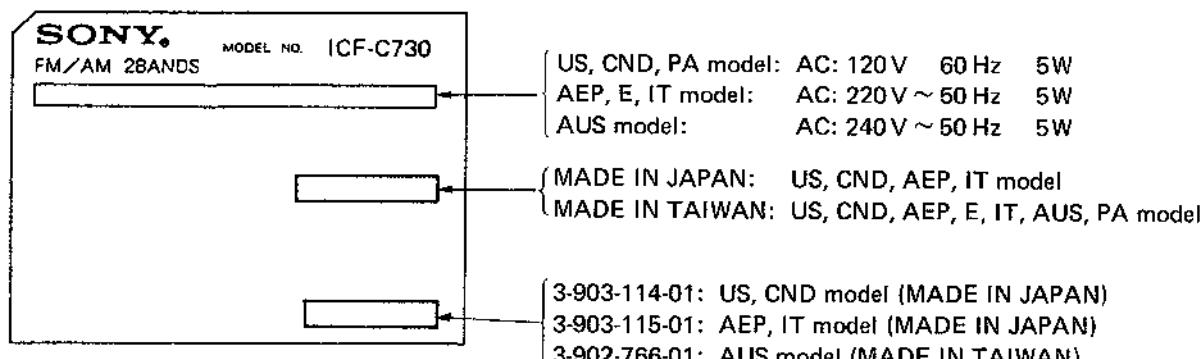
MODEL IDENTIFICATION

— Model Number Label —

Carved on lower cabinet: **US, CND, AEP, E, IT, PA model (MADE IN TAIWAN)**

Model number label: **US, CND, AEP, IT model (MADE IN JAPAN)**
and **AUS model (MADE IN TAIWAN)**

CND model: Canadian model
IT model: Italian model
AUS model: Australian model
PA model: Panama model



SAFETY-RELATED COMPONENT WARNING!!

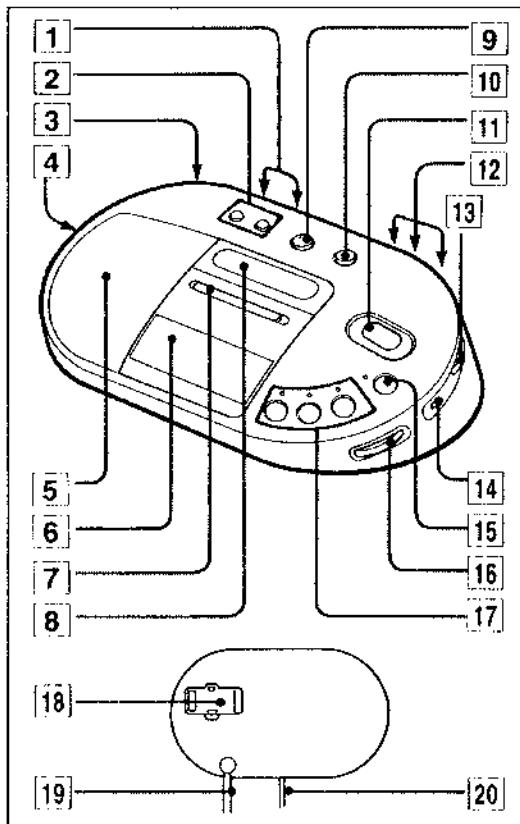
COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE 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

1-1. LOCATION OF CONTROLS

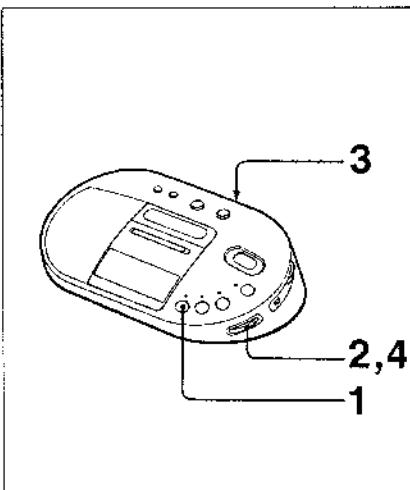


- | | |
|--|--|
| 1 TIME SET buttons (H/M) (rear)
2 ALARM set buttons ([A] RADIO, [B] BUZZER)
3 CLOCK set button (rear)
4 Earphone jack (side)
5 Speaker
6 Time display
7 Function selector switch
(OFF, SINGLE ALARM
[A]RADIO, [B]BUZZER, DUAL
ALARM [A]RADIO[B]BUZZER)
8 DREAM BAR SNOOZE/SLEEP OFF bar (US, CND, PA model)
REPEAT ALARM/SLEEP OFF bar (AEP, E, IT, AUS model)
9 SLEEP button
10 ALARM RESET/RADIO OFF
button
11 Dial scale
12 FM PRESET tuning controls
(rear) (FM 1/FM 2/FM 3)
13 TUNING control
14 BAND selector switch (FM/AM)
15 MANUAL (RADIO ON) button
(WAKE UP STATION)
16 VOL (volume) control
17 FM preset (RADIO ON) buttons
(recall buttons) (FM1/FM2/FM3) | Bottom
18 Power backup battery
compartment
19 AC power cord
20 FM wire antenna |
|--|--|

1-2. FUNCTION OF CONTROLS

Preset Tuning

Once you preset desired stations, you can tune them in by simple operation.



How to Preset

You can preset up to 3 FM stations (one station for each FM 1, FM 2 and FM 3 buttons).

- 1 Press FM 1 button.
- 2 Turn a little to get sound.
- 3 Tune in the desired FM station with the use of FM 1 preset tuning control.
 The station is now preset.
- 4 Adjust volume.

Preset on FM 2 and FM 3 in the same way.

Note:
 No frequencies indicators appear on the display.

To change the preset station
 Preset a new station on a desired button.

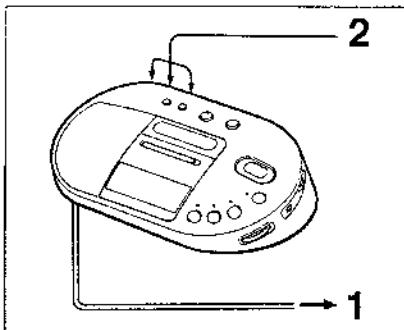
To Tune in a Preset Station

The desired FM stations will be received simply by pressing FM 1, FM 2, and FM 3 buttons after presetting. You do not need to press the MANUAL button or select the band.

To turn off the radio, press the ALARM RESET/RADIO OFF button.

For private listening, connect an earphone to the earphone jack.

How to Set the Clock



- 1 Connect the AC power cord to a wall outlet. Figures will appear and begin to blink.
- 2 Adjust the clock to the current time with the TIME SET buttons, H (hour) and M (minute), while holding down the CLOCK set button.

US, CND, AUS, PA model	AEP, E, IT model
12-hours system	24-hour system
AM 12:00 = midnight PM 12:00 = noon	0:00 = midnight 12:00 = noon

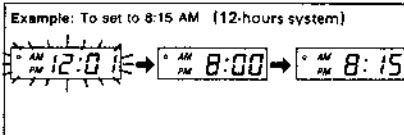
The hour and minute digits advance independently. The minute digits return to "00" after reaching "59".

Zero second adjustment

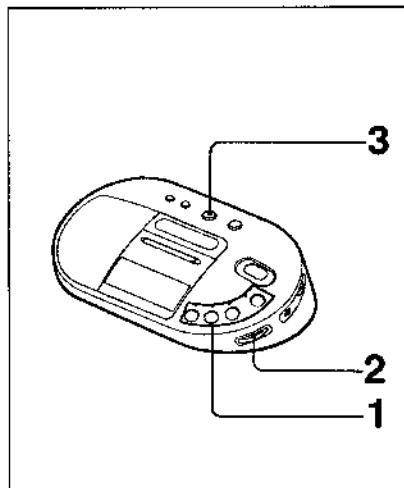
Example: To set to 8:15 AM (12-hours system)

- 1 Adjust the time to 8:14 AM as previously described.
- 2 Press CLOCK set button and M button simultaneously with the radio or telephone time signal, and then release.

To advance the minute digits rapidly
Press the H and the M button continuously while holding down the CLOCK set button.



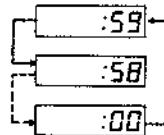
How to Use the Sleep Timer



You can fall asleep to the radio sound knowing that the radio will turn itself off after the preset time period has elapsed.

- 1 Tune in the desired station after pushing the MANUAL button.
Or select the station by pressing the FM 1, FM 2 or FM 3 button.
- 2 Adjust volume.
- 3 Press the SLEEP button to set the sleep timer operation time.

The radio will be turned on for 59 minutes.
Keep the SLEEP button pressed to reduce the time sequence by one minute.



To turn off the radio before the preset time elapses, press the DREAM BAR SNOOZE/SLEEP OFF bar* (which cancels the SLEEP function.)

- Note
- * If you press the MANUAL, FM 1, FM 2 or FM 3 button, after the SLEEP button has been pressed, the sleep timer function will be released.
 - * The alarm function does not work while the sleep timer is on.

* { DREAM BAR SNOOZE/SLEEP OFF (US, CND, PA model)
REPEAT ALARM/SLEEP OFF (AEP, E, IT, AUS model)

Notes

- The buzzer sound level is fixed, and independent of the VOL control.
- If the earphone is connected to the earphone jack, at the preset time, the radio will sound from both the earphone and speaker, and the buzzer will sound only from the speaker.

The radio or buzzer will automatically sound at the preset time, and automatically turn itself off after 59 minutes, unless it is turned off manually.

To turn off the alarm manually, press the ALARM RESET/RADIO OFF button. The alarm will sound at the regular preset time on the following day.

Snooze Alarm Function

If you wake to the radio or buzzer but want to doze for a few more minutes, just lightly press DREAM BAR SNOOZE/SLEEP OFF*. The radio or buzzer will be silenced but will automatically come on again after about eight minutes. If you want to doze more, press the bar again.

Notes

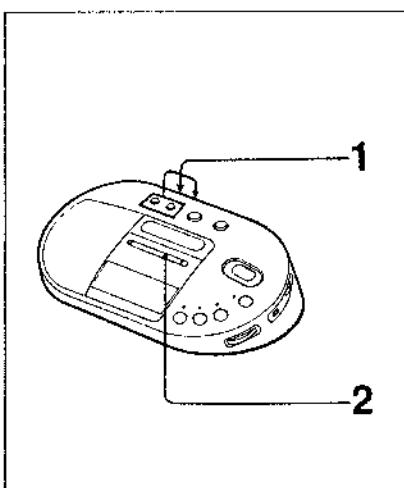
- You can reset the alarm time while activating the snooze function.
- To cancel the alarm before the alarm time, press the ALARM RESET/RADIO OFF button.
- To read out instantly the alarm preset time, press the ALARM set button **[RADIO]** or **[BUZZER]**.

To Use Both Sleep Timer and Alarm Function

- 1 Set the alarm. (See "How to Set the Alarm".)
- 2 Set the sleep timer. (See "How to Use the Sleep Timer".)
- 3 Set the function selector switch to SINGLE ALARM **[RADIO]**, SINGLE ALARM **[BUZZER]** or DUAL ALARM **[RADIO][BUZZER]**.

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

How to Set the Alarm



Regarding the radio alarm, you can be awakened by a manually tuned station, but cannot be awakened by a preset station.

- 1 Set the alarm time for radio or buzzer.
Set the radio alarm time with TIME SET H and M while holding down ALARM **[RADIO]**.
Set the buzzer alarm time with TIME SET H and M while holding down ALARM **[BUZZER]**.

To advance the digits rapidly

Press the H and the M button continuously while holding down the ALARM set button.

- 2 Set the function selector switch to the desired alarm position: SINGLE ALARM **[RADIO]**, SINGLE ALARM **[BUZZER]**, or DUAL ALARM **[RADIO][BUZZER]**.

For radio alarm

Press the MANUAL button, and tune in the desired station and adjust volume as described in "Radio Operation (Manual Tuning)".

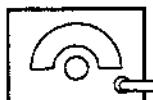
For dual alarm

If you set the radio and the buzzer to the same time, only the radio sound will be heard. If the buzzer alarm is set to the time before the radio alarm stops, the alarm shifts from radio to buzzer at the alarm preset time, and vice versa.

SECTION 2 ELECTRICAL ADJUSTMENTS

AM SECTION

AM RF signal generator



Put the lead-wire antenna close to the set.

400Hz, 30%
AM modulation
Output level as low as possible

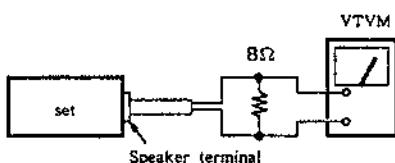
FM SECTION

FM RF signal generator



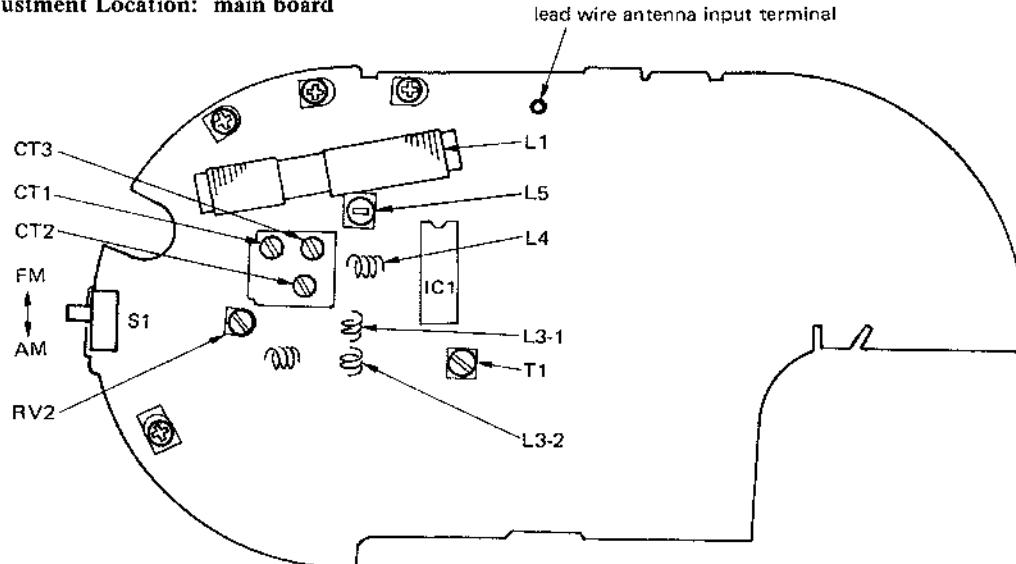
±22.5kHz frequency deviation by 400Hz signal

lead wire antenna input terminal



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

Adjustment Location: main board



AM IF ADJUSTMENT

Adjust for a maximum reading on VTVM

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

AM FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on VTVM

L5	520 (520) (516.5) kHz
CT3	1,750 (1,650) (1,631.5) kHz

AM TRACKING ADJUSTMENT

Adjust for a maximum reading on VTVM

L1	600 kHz
CT1	1,400 kHz

FM FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on VTVM

RV2	86.5 (87.35) (87.35) MHz
L4	109.5 (107.9) (108.25) MHz

FM TRACKING ADJUSTMENT

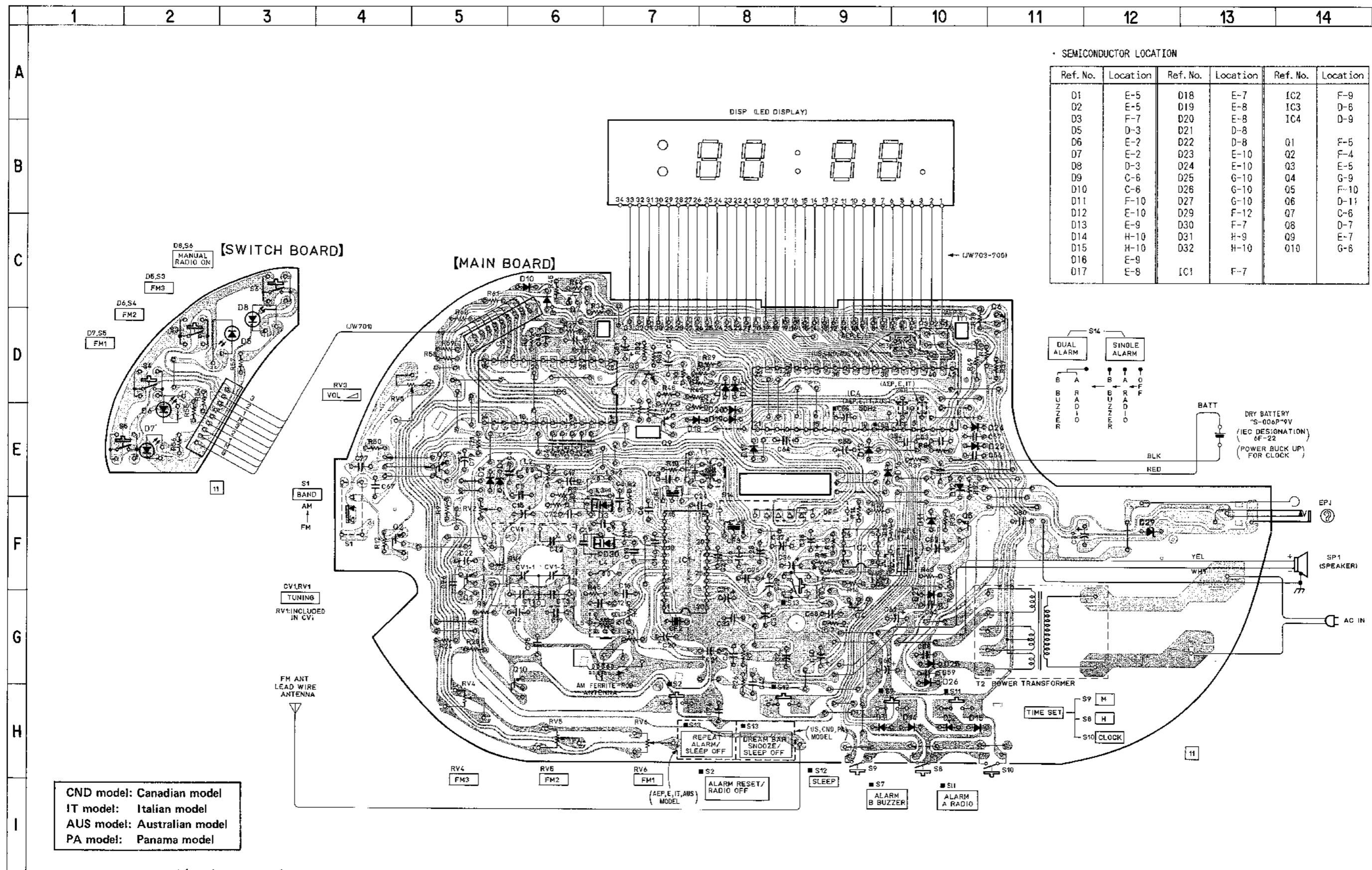
L3-1, 3-2	86.5 (87.35) (87.35) MHz
CT2	109.5 (107.9) (108.25) MHz

() : AEP, E, AUS model
() : IT model

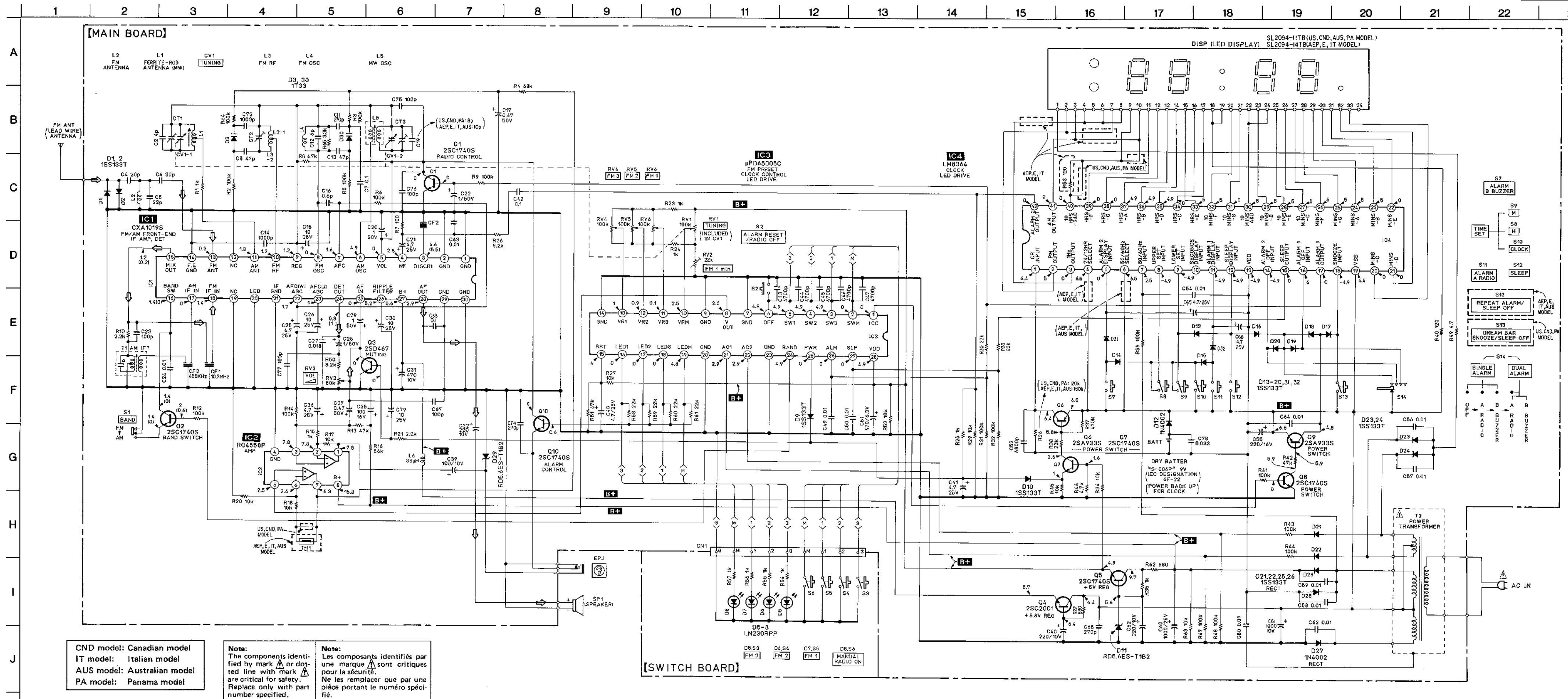
SECTION 3 DIAGRAMS

3-1. DESCRIPTION OF IC3 (μ PD65005C) PIN FUNCTION

Pin. No.	I/O	Pin. Name	Description
1	0	ICC	Output level is "H" while "L" level feed-in to Pin number ② to ⑤ (Clock IC, Alarm, Sleep reset)
2	I	SWM	
3	I	SW3	Manual, Preset ① to ③, Input "L"
4	I	SW2	
5	I	SW1	
6	I	OFF	LED Output. Off (L) position for power output terminal. Hold the last channel memory for manual and preset function.
7	-	GND	Ground (L)
8	0	VOUT	The terminal for Output level Which selected by analogue switch conjunction with Pin number ② to ⑤.
9	-	GND	Ground
10	I	VRM	
11	I	VR3	DC power supply input terminal for set the voltage by manual or
12	I	VR2	preset variable resistor. (1.5 - 5V)
13	I	VR1	
14	-	GND	Ground
15	I	RST	Power ON reset input terminal. More than 150 mSec.
16	0	LED1	
17	0	LED2	LED signal level is come out at "H" level from this terminal
18	0	LED3	with related Pin number ② to ⑤. RED LED is direct drive.
19	0	LEDM	
20	-	GND	Ground
21	I	AC1	Clock input for timing, AC 50Hz/60Hz
22	I	AC2	
23	-	GND	Ground
24	0	BAND	Band select signal output terminal for radio. Pin number ② at manual input position - Output level is "H" At the alarm position - Output level is "H" Pin number ③ to ⑥ at preset input position - Output level is "L"
25	0	PWR	Output for radio and ON/OFF mute control signal. Output level is "L" at input level feed-in to Pin number ② to ⑤, ⑥ and ⑦. Muting output signal level "H" set to 166.7msec time constant at input level feed-in to Pin number ② to ⑤. At 60Hz
26	I	ALM	Should selected first the SWM ② at clock IC alarm signal level "H" feed-in to input terminal. PWR ③ Output level "L" → "H" LEDM ⑨ Output level "L" → "H" BAND ⑩ Output level "H" → "H" VOUT ⑧ SWM → SWM
27	I	SLP	Input terminal for clock IC sleep signal. Hold the last channel memory while input level feed-in.
28	-	VDD	Power supply terminal +5 Volts



- : parts extracted from the component side.
- : parts mounted on the conductor side.
- : indicates side identified with part number.
- ▨ : pattern on the side which is seen.

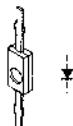


• Semiconductor Lead Layouts

2SA933S-QR
2SC2001-K2



1T33



2SC1740S-QR



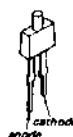
10E2



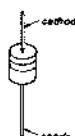
2SD1468S-S



LN230RPP



RD5.6ES-B2
1SS119



Note on schematic diagram.

- All capacitors are in μF unless otherwise noted. pF : μpF 50MV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{ W}$ or less unless otherwise specified.
- \triangle : internal component.
- \blacksquare : B+ lines.
- \square : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no signal conditions.
no mark : FM
() : AM
- Voltages are taken with a VOM. (input impedance 10 M Ω)
Voltage variations may be noted due to normal production tolerances.
- Signal path.
 \Rightarrow : FM

SECTION 4 EXPLODED VIEW

NOTE:

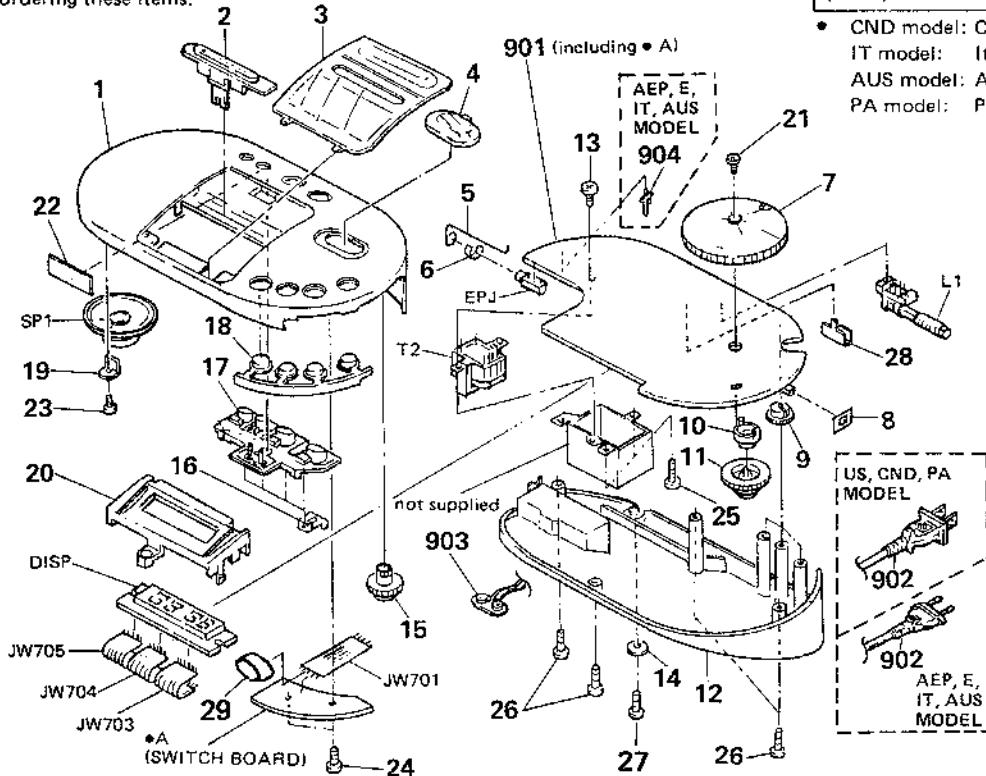
- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts**
Example:
(RED) ... KNOB, BALANCE (WHITE)
↑ ↑
Cabinet's Color Parts' Color

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.

- CND model: Canadian model
- IT model: Italian model
- AUS model: Australian model
- PA model: Panama model



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	3-902-712-21	(WHITE)....CABINET (UPPER)		19	3-593-019-00	CLAW, SPEAKER	
	3-902-712-31	(BLACK)....CABINET (UPPER)		20	*3-902-723-01	HOLDER (LED)	
2	3-902-720-01	KNOB (F)		21	7-621-773-86	SCREW +P 2.6X4	
3	3-902-714-01	(AUS).....PANEL		22	*3-902-737-01	SHET, INSULATING	
	3-902-714-11	(AEP,E,IT)....PANEL		23	7-685-646-79	SCREW +P 3X8 TYPE2 NON-SLIT	
	3-902-714-21	(US,CND,PA)....PANEL		24	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
4	3-902-715-11	PLATE, INDICATION		25	7-685-648-79	SCREW +P 3X12 TYPE2 NON-SLIT	
5	3-902-739-01	WIRE (GROUND)		26	7-685-649-79	SCREW +P 3X14 TYPE2 NON-SLIT	
6	*3-902-738-01	SHEET (GROUND)		27	7-685-549-14	SCREW +BTP 3X14 TYPE2 N-S	
7	3-902-724-11	(AEP,E,IT,AUS)...DRUM, DIAL		28	*3-893-382-01	PLATE (SFU), SHIELD	
	3-902-724-21	(US,CND,PA).....DRUM, DIAL		29	*3-723-073-01	CUSHION	
8	*3-902-743-01	SHEET (BAND)		901	*A-3806-065-A	(US,CND,PA)...MOUNTED PCB, MAIN (HAND)	
9	3-902-721-01	(WHITE)...KNOB (P)			*A-3806-075-A	(AEP,E,IT)...MOUNTED PCB, MAIN (HAND)	
	3-902-721-12	(BLACK)...KNOB (P)			*A-3806-126-A	(AUS).....MOUNTED PCB, MAIN (HAND)	
10	3-902-722-01	HOLDER (VOL)		902	△.1-555-795-00	(AEP,IT).....CORD, POWER	
11	3-902-719-01	(WHITE)...KNOB (VOL)			△.1-555-566-21	(US,CND,PA)....CORD, POWER	
	3-902-719-11	(BLACK)...KNOB (VOL)			△.1-559-912-11	(AUS).....CORD, POWER	
12	3-903-113-01	(US,CND,AEP,IT:WHITE)...CABINET (LOWER) (MADE IN JAPAN)			△.1-574-158-11	(E).....CORD, POWER	
	3-903-113-11	(AEP,IT:BLACK)...CABINET (LOWER) (MADE IN JAPAN)		903	1-535-253-00	SNAP, BATTERY	
	3-903-113-21	(AEP,IT:WHITE)...CABINET (LOWER) (MADE IN TAIWAN)		904	*1-535-688-11	(AEP,E,IT,AUS)...TERMINAL	
	3-903-113-31	(AEP,E,IT,AUS:BLACK)...CABINET (LOWER) (MADE IN TAIWAN)		DISP	8-719-975-68	(US,CND,AUS,PA)...DIODE SL2094-11TB (LED DISPLAY)	
	3-903-113-41	(US,CND,PA:WHITE).....CABINET (LOWER) (MADE IN TAIWAN)		DISP	8-719-975-69	(AEP,E,IT)...DIODE SL2094-14TB (LED DISPLAY)	
13	7-682-547-04	SCREW +PTT 3X6 (S)		EPJ	1-563-836-21	JACK (EARPHONE)	
14	3-902-728-01	(WHITE)...STOPPER, CORD		JW701	1-575-398-11	CORD, CONNECTION (9-CORE RIBBON)	
	3-902-728-11	(BLACK)...STOPPER, CORD		JW703	1-575-159-21	CORD, CONNECTION (11-CORE RIBBON)	
15	3-902-718-01	(WHITE)...KNOB (TUNE)		JW704	1-575-159-21	CORD, CONNECTION (11-CORE RIBBON)	
	3-902-718-11	(BLACK)...KNOB (TUNE)		JW705	1-575-159-21	CORD, CONNECTION (11-CORE RIBBON)	
16	3-902-726-01	PLATE, CONTACT (S2,7,11,12)		L1	1-402-464-11	(US,CND,PA)....ANTENNA, FERRITE-ROD(MW)	
17	3-902-717-01	(WHITE)...BUTTON (C)		L1	1-402-472-11	(AEP,E,IT,AUS)....ANTENNA, FERRITE-ROD(MW)	
	3-902-717-11	(BLACK)...BUTTON (C)		SP1	1-503-082-00	SPEAKER	
18	3-902-716-01	(WHITE)...BUTTON (P)		T2	△.1-449-528-11	(US,CND,PA)...TRANSFORMER, POWER	
	3-902-716-11	(BLACK)...BUTTON (P)		T2	△.1-449-529-11	(AEP,E,IT)...TRANSFORMER, POWER	
				T2	△.1-449-530-11	(AUS).....TRANSFORMER, POWER	

SECTION 5 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.
- Items marked “★” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

 MF: μ F, PF: $\mu\mu$ F.

RESISTORS

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μ H

SEMICONDUCTORS

 In each case, U: μ , for example:
 UA...: μ A..., UPA...: μ PA...
 UPC...: μ PC, UPD...: μ PD...

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.

- CND model: Canadian model
- IT model: Italian model
- AUS model: Australian model
- PA model: Panama model

Ref.No.	Part No.	Description					Ref.No.	Part No.	Description					
901	*A-3806-065-A	(US,CND,PA)...	...MOUNTED PCB, MAIN (HAND)				C43	1-161-377-00	CERAMIC	0.0047MF	30%	16		
	*A-3806-075-A	(AEP,E,IT)...	...MOUNTED PCB, MAIN (HAND)				C44	1-161-377-00	CERAMIC	0.0047MF	30%	16V		
	*A-3806-126-A	(AUS).....	...MOUNTED PCB, MAIN (HAND)				C45	1-161-377-00	CERAMIC	0.0047MF	30%	16V		
902	△.1-555-795-00	(AEP,IT).....	CORD, POWER				C46	1-161-377-00	CERAMIC	0.0047MF	30%	16V		
	△.1-558-566-21	(US,CND,PA)...	CORD, POWER				C47	1-161-377-00	CERAMIC	0.0047MF	30%	16V		
	△.1-559-912-11	(AUS).....	CORD, POWER				C48	1-126-094-11	ELECT	4.7MF	20%	25V		
	△.1-574-158-11	(E).....	CORD, POWER				C49	1-101-004-00	CERAMIC	0.01MF		50V		
903	1-535-253-00	SNAP, BATTERY					C50	1-101-004-00	CERAMIC	0.01MF		50V		
904	*1-535-688-11	(AEP,E,IT,AUS)...	TERMINAL				C51	1-124-472-11	ELECT	470MF	20%	6.3V		
C2	1-102-937-00	CERAMIC	4PF	0.25PF	50V		C52	1-126-176-11	ELECT	220MF	20%	10V		
C4	1-162-206-31	CERAMIC	20PF	5%	50V		C53	1-106-363-00	MYLAR	0.0068MF	5%	50V		
C5	1-102-959-00	CERAMIC	22PF	5%	50V		C54	1-101-004-00	CERAMIC	0.01MF		50V		
C6	1-102-962-00	CERAMIC	30PF	5%	50V		C55	1-124-120-11	ELECT	220MF	20%	16V		
C7	1-162-851-11	CERAMIC	0.1MF	20%	16V		C56	1-101-004-00	CERAMIC	0.01MF		50V		
C8	1-101-880-00	CERAMIC	47PF	5%	50V		C57	1-101-004-00	CERAMIC	0.01MF		50V		
C11	1-102-980-00	CERAMIC	270PF	5%	50V		C58	1-101-004-00	CERAMIC	0.01MF		50V		
C12	1-102-943-00	CERAMIC	6PF	0.5PF	50V		C59	1-101-004-00	CERAMIC	0.01MF		50V		
C13	1-101-880-00	CERAMIC	47PF	5%	50V		C60	1-124-557-11	ELECT	1000MF	20%	25V		
C14	1-161-039-00	CERAMIC	0.001MF	10%	25V		C61	1-124-473-11	ELECT	1000MF	20%	10V		
C15	1-126-096-11	ELECT	10MF	20%	25V		C62	1-101-004-00	CERAMIC	0.01MF		50V		
C16	1-101-837-00	CERAMIC	0.5PF	0.25PF	50V		C63	1-161-051-00	CERAMIC	0.01MF	10%	25V		
C17	1-124-902-00	ELECT	0.47MF	20%	50V		C64	1-101-004-00	CERAMIC	0.01MF		50V		
C19	1-102-945-00	(US,CND,PA)...	CERAMIC	8PF	0.5PF	50V		C65	1-126-094-11	ELECT	4.7MF	20%	25V	
C19	1-102-947-00	(AEP,E,IT,AUS)						C66	1-126-094-11	ELECT	4.7MF	20%	25V	
C20	1-124-791-11	ELECT	1MF	20%	50V		C67	1-162-282-31	CERAMIC	100PF	10%	50V		
C21	1-126-094-11	ELECT	4.7MF	20%	25V		C68	1-102-980-00	CERAMIC	270PF	5%	50V		
C22	1-124-791-11	ELECT	1MF	20%	50V		C72	1-161-039-00	CERAMIC	0.001MF	10%	25V		
C23	1-102-973-00	CERAMIC	100PF	10%	50V		C74	1-102-980-00	CERAMIC	270PF	5%	50V		
C24	1-161-051-00	CERAMIC	0.01MF	10%	25V		C75	1-102-973-00	CERAMIC	100PF	10%	50V		
C25	1-126-094-11	ELECT	4.7MF	20%	25V		C76	1-102-973-00	CERAMIC	100PF	10%	50V		
C26	1-126-096-11	ELECT	10MF	20%	25V		C77	1-162-282-31	CERAMIC	100PF	10%	50V		
C27	1-161-054-00	CERAMIC	0.018MF	10%	25V		C78	1-161-057-00	CERAMIC	0.033MF	10%	25V		
C28	1-124-791-11	ELECT	1MF	20%	50V		C79	1-126-096-11	ELECT	10MF	20%	25V		
C29	1-124-791-11	ELECT	1MF	20%	50V		C80	1-161-379-00	CERAMIC	0.01MF	30%	16V		
C30	1-126-096-11	ELECT	10MF	20%	25V		CF1	FILTER, CERAMIC (10.7MHz)						
C31	1-124-472-11	ELECT	470MF	20%	10V		CF2	FILTER, CERAMIC (455kHz)						
C32	1-126-176-11	ELECT	220MF	20%	10V		CF3	FILTER, CERAMIC (455kHz)						
C33	1-162-851-11	CERAMIC	0.1MF	20%	16V		CN1	*1-568-275-11	SOCKET, CONNECTOR 9P					
C35	1-126-101-11	ELECT	100MF	20%	16V		CT1-3	(AEP,E,IT,AUS)...CAP, VAR, POLYETHYLENE (WITH VR)						
C36	1-126-094-11	ELECT	4.7MF	20%	25V		CV1	(AEP,E,IT,AUS)...CAP, VAR, POLYETHYLENE (WITH VR)						
C37	1-124-902-00	ELECT	0.47MF	20%	50V		RV1	(AEP,E,IT,AUS)...CAP, VAR, POLYETHYLENE (WITH VR)						
C39	1-124-443-00	ELECT	100MF	20%	10V		CT1-3	(AEP,E,IT,AUS)...CAP, VAR, POLYETHYLENE (WITH VR)						
C40	1-126-176-11	ELECT	220MF	20%	10V		CV1	(AEP,E,IT,AUS)...CAP, VAR, POLYETHYLENE (WITH VR)						
C41	1-126-094-11	ELECT	4.7MF	20%	25V		RV1	(AEP,E,IT,AUS)...CAP, VAR, POLYETHYLENE (WITH VR)						
C42	1-162-851-11	CERAMIC	0.1MF	20%	16V									

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
D1	8-719-911-19	DIODE 1SS119	L1	1-402-464-11	(US,CND,PA)....ANTENNA, FERRITE-ROD(MW)
D2	8-719-911-19	DIODE 1SS119	L1	1-402-472-11	(AEP,E,IT,AUS)..ANTENNA, FERRITE-ROD(MW)
D3	8-713-300-57	DIODE 1T33	L2	1-401-228-00	ANTENNA COIL (FM)
D5	8-719-421-00	DIODE LN230RPP (FM 3)	L3-1	1-426-014-00	COIL, FM RF
D6	8-719-421-00	DIODE LN230RPP (FM 2)	L3-2	1-428-102-11	COIL, AIR-CORE, FM RF
D7	8-719-421-00	DIODE LN230RPP (FM 1)	L4	*1-422-321-11	(US,CND,PA)....COIL, AIR-CORE, FM OSC
D8	8-719-421-00	DIODE LN230RPP (MANUAL RADIO ON)	L4	*1-460-025-11	(AEP,E,IT,AUS)..COIL(WITH CORE) FM OSC
D9	8-719-911-19	DIODE 1SS119	L5	1-406-028-00	COIL, OSC (MW)
D10	8-719-911-19	DIODE 1SS119	L6	1-410-294-11	INDUCTOR, MICRO (38UH)
D11	8-719-109-89	DIODE R05.6ES-B2	Q1	8-729-920-70	TRANSISTOR 2SC1740S-QR
D12	8-719-200-02	DIODE 10E2	Q2	8-729-920-70	TRANSISTOR 2SC1740S-QR
D13	8-719-911-19	DIODE 1SS119	Q3	8-729-907-34	TRANSISTOR 2SD1468S-S
D14	8-719-911-19	DIODE 1SS119	Q4	8-729-100-13	TRANSISTOR 2SC2001-K2
D15	8-719-911-19	DIODE 1SS119	Q5	8-729-920-70	TRANSISTOR 2SC1740S-QR
D16	8-719-911-19	DIODE 1SS119	Q6	8-729-920-68	TRANSISTOR 2SA933S-QR
D17	8-719-911-19	DIODE 1SS119	Q7	8-729-920-70	TRANSISTOR 2SC1740S-QR
D18	8-719-911-19	DIODE 1SS119	Q8	8-729-920-70	TRANSISTOR 2SC1740S-QR
D19	8-719-911-19	DIODE 1SS119	Q9	8-729-920-68	TRANSISTOR 2SA933S-QR
D20	8-719-911-19	DIODE 1SS119	Q10	8-729-920-70	TRANSISTOR 2SC1740S-QR
D21	8-719-911-19	DIODE 1SS119	R1	1-249-417-11	CARBON 1K 5% 1/4W
D22	8-719-911-19	DIODE 1SS119	R2	1-249-441-11	CARBON 100K 5% 1/4W
D23	8-719-911-19	DIODE 1SS119	R3	1-249-441-11	CARBON 100K 5% 1/4W
D24	8-719-911-19	DIODE 1SS119	R4	1-249-439-11	CARBON 68K 5% 1/4W
D25	8-719-911-19	DIODE 1SS119	R5	1-249-441-11	CARBON 100K 5% 1/4W
D26	8-719-911-19	DIODE 1SS119	R6	1-249-441-11	CARBON 100K 5% 1/4W
D27	8-719-200-02	DIODE 10E2	R7	1-249-405-11	CARBON 100 5% 1/4W
D29	8-719-109-89	DIODE R05.6ES-B2	R8	1-249-425-11	CARBON 4.7K 5% 1/4W
D30	8-713-300-57	DIODE 1T33	R9	1-249-441-11	CARBON 100K 5% 1/4W
D31	8-719-911-19	DIODE 1SS119	R10	1-249-421-11	CARBON 2.2K 5% 1/4W
D32	8-719-911-19	DIODE 1SS119	R12	1-249-441-11	CARBON 100K 5% 1/4W
DISP	8-719-975-68	(US,CND,AUS,PA)...DIODE SL2094-11TB (LED DISPLAY)	R13	1-249-437-11	CARBON 47K 5% 1/4W
DISP	8-719-975-69	(AEP,E,IT)...DIODE SL2094-14TB (LED DISPLAY)	R14	1-249-441-11	CARBON 100K 5% 1/4W
EPJ	1-563-836-21	JACK (EARPHONE)	R15	1-249-417-11	CARBON 1K 5% 1/4W
IC1	8-752-035-29	IC CXA1019S	R16	1-249-438-11	CARBON 56K 5% 1/4W
IC2	8-759-945-58	IC RC4558P	R17	1-249-429-11	CARBON 10K 5% 1/4W
IC3	8-759-147-16	IC UPD65005C-U03	R18	1-249-431-11	CARBON 15K 5% 1/4W
IC4	8-759-821-56	IC LM8364DG	R20	1-249-429-11	CARBON 10K 5% 1/4W
JW701	1-575-398-11	CORD, CONNECTION (9-CORE RIBBON)	R21	1-249-421-11	CARBON 2.2K 5% 1/4W
JW703	1-575-159-21	CORD, CONNECTION (11-CORE RIBBON)	R22	1-249-415-11	CARBON 680 5% 1/4W
JW704	1-575-159-21	CORD, CONNECTION (11-CORE RIBBON)	R23	1-249-417-11	CARBON 1K 5% 1/4W
JW705	1-575-159-21	CORD, CONNECTION (11-CORE RIBBON)	R24	1-249-417-11	CARBON 1K 5% 1/4W
			R25	1-249-417-11	CARBON 1K 5% 1/4W
			R26	1-249-428-11	CARBON 8.2K 5% 1/4W

Ref.No.	Part No.	Description			Ref.No.	Part No.	Description	
R27	1-249-429-11	CARBON	10K	5%	1/4W	S1	1-552-370-00	SWITCH, SLIDE (BAND)
R29	1-249-429-11	CARBON	10K	5%	1/4W	S3	1-571-527-11	SWITCH, KEY BOARD (FM 3)
R30	1-249-433-11	CARBON	22K	5%	1/4W	S4	1-571-527-11	SWITCH, KEY BOARD (FM 2)
R31	1-249-441-11	CARBON	100K	5%	1/4W	S5	1-571-527-11	SWITCH, KEY BOARD (FM 1)
R32	1-249-441-11	CARBON	100K	5%	1/4W	S6	1-571-527-11	SWITCH, KEY BOARD (MANUAL RADIO ON)
R33	1-249-433-11	CARBON	22K	5%	1/4W	S8	1-554-088-00	SWITCH, KEY BOARD (TIME SET H)
R34	1-249-429-11	CARBON	10K	5%	1/4W	S9	1-554-088-00	SWITCH, KEY BOARD (TIME SET M)
R35	1-249-417-11	CARBON	1K	5%	1/4W	S10	1-554-088-00	SWITCH, KEY BOARD (TIME SET CLOCK)
R36	1-247-881-00	(US,CND,PA)....CARBON	120K	5%	1/4W	S13	1-571-527-11	SWITCH, KEY BOARD (SNOOZE)
R36	1-247-883-00	(AEP,E,IT,AUS)..CARBON	150K	5%	1/4W	S14	1-572-133-11	SWITCH, SLIDE (FUNCTION)
R37	1-247-895-00	CARBON	470K	5%	1/4W	SP1	1-503-082-00	SPEAKER
R38	1-249-433-11	CARBON	22K	5%	1/4W	T1	1-404-341-00	TRANSFORMER, IF (455kHz)
R39	1-249-441-11	CARBON	100K	5%	1/4W	T2	△.1-449-528-11	(US,CND,PA)...TRANSFORMER, POWER
R40	1-249-406-11	CARBON	120	5%	1/4W	T2	△.1-449-529-11	(AEP,E,IT)...TRANSFORMER, POWER
R41	1-249-441-11	CARBON	100K	5%	1/4W	T2	△.1-449-630-11	(AUS).....TRANSFORMER, POWER
R42	1-249-437-11	CARBON	47K	5%	1/4W	TH1	1-808-954-21	(AEP,E,IT,AUS)...THERMISTOR
R43	1-249-441-11	CARBON	100K	5%	1/4W			
R44	1-249-441-11	CARBON	100K	5%	1/4W			
R45	1-249-429-11	CARBON	10K	5%	1/4W			
R46	1-249-425-11	CARBON	4.7K	5%	1/4W			
R47	1-249-441-11	CARBON	100K	5%	1/4W			
R48	1-249-441-11	CARBON	100K	5%	1/4W			
R49	1-249-455-11	CARBON	4.7	5%	1/4W			
R50	1-249-428-11	CARBON	8.2K	5%	1/4W			
R51	1-249-437-11	CARBON	47K	5%	1/4W			
R52	1-249-429-11	CARBON	10K	5%	1/4W			
R53	1-249-406-11	(AEP,E,IT)...CARBON	120	5%	1/4W			
R54	1-249-417-11	CARBON	1K	5%	1/4W			
R55	1-249-417-11	CARBON	1K	5%	1/4W			
R56	1-249-417-11	CARBON	1K	5%	1/4W			
R57	1-249-417-11	CARBON	1K	5%	1/4W			
R58	1-249-433-11	CARBON	22K	5%	1/4W	*3-902-745-01	CUSHION	
R59	1-249-433-11	CARBON	22K	5%	1/4W	*3-902-706-11	(US)...INDIVIDUAL CARTON (MADE IN JAPAN)	
R60	1-249-433-11	CARBON	22K	5%	1/4W	*3-902-706-21	(US,PA)...INDIVIDUAL CARTON (MADE IN TAIWAN)	
R61	1-249-433-11	CARBON	22K	5%	1/4W	*3-902-730-11	(CND,AEP,IT)...INDIVIDUAL CARTON (MADE IN JAPAN)	
R62	1-249-415-11	CARBON	680	5%	1/4W	*3-902-730-11	(E)... INDIVIDUAL CARTON(MADE IN TAIWAN)	
R63	1-249-429-11	CARBON	10K	5%	1/4W	*3-902-730-21	(AEP)..INDIVIDUAL CARTON(MADE IN TAIWAN)	
R64	1-249-441-11	CARBON	100K	5%	1/4W	*3-902-730-22	(CND,IT)...INDIVIDUAL CARTON (MADE IN TAIWAN)	
R65	1-249-423-11	CARBON	3.3K	5%	1/4W	*3-902-771-01	(AUS)..INDIVIDUAL CARTON(MADE IN TAIWAN)	
RV2	1-228-995-00	RES, ADJ, CARBON	22K					
RV3	1-228-790-00	RES, VAR, CARBON	50K	(VOL)				
RV4	1-238-517-11	RES, ADJ, CARBON	100K	(FM 3)				
RV5	1-238-517-11	RES, ADJ, CARBON	100K	(FM 2)				
RV6	1-238-517-11	RES, ADJ, CARBON	100K	(FM 1)				

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

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