

ICF-C220L

SERVICE MANUAL

*AEP Model
UK Model
FRENCH Model*




SPECIFICATIONS

Frequency range	FM: 88–108MHz (UK model) 88–106MHz (AEP, FRENCH model) MW: 530–1,605kHz LW: 150–255kHz
Antennas	FM: FM wire antenna MW/LW: Built-in ferrite bar antenna
Speaker	Approx. 6.6cm (2 $\frac{5}{8}$ inches) dia.
Power output	300mW
Power requirement	UK model: 240V AC, 50Hz AEP, FRENCH model: 220V AC, 50Hz For the power backup function: 9V DC, one 6F22 battery
Battery life	Approx. 40 hours, using Sony battery S-006P(U)
Time display	UK model: 12-hour system AEP, FRENCH model: 24-hour system
Dimensions	245 x 105 x 132 mm (w/h/d) (9 $\frac{3}{4}$ x 4 $\frac{1}{4}$ x 5 $\frac{1}{4}$ inches) incl. projecting parts and controls
Weight	Approx. 1.1kg (2.43 lb) not incl. battery


FEATURES

- Dual alarm setting: alarm 1 (radio) and alarm 2 (buzzer).
- Easy-to-read red LED display.
- Power backup function to keep the clock operating during a power interruption.
- REPEAT ALARM, feather-light touch to operate, and having functions: snooze alarm and sleep timer off.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND 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!

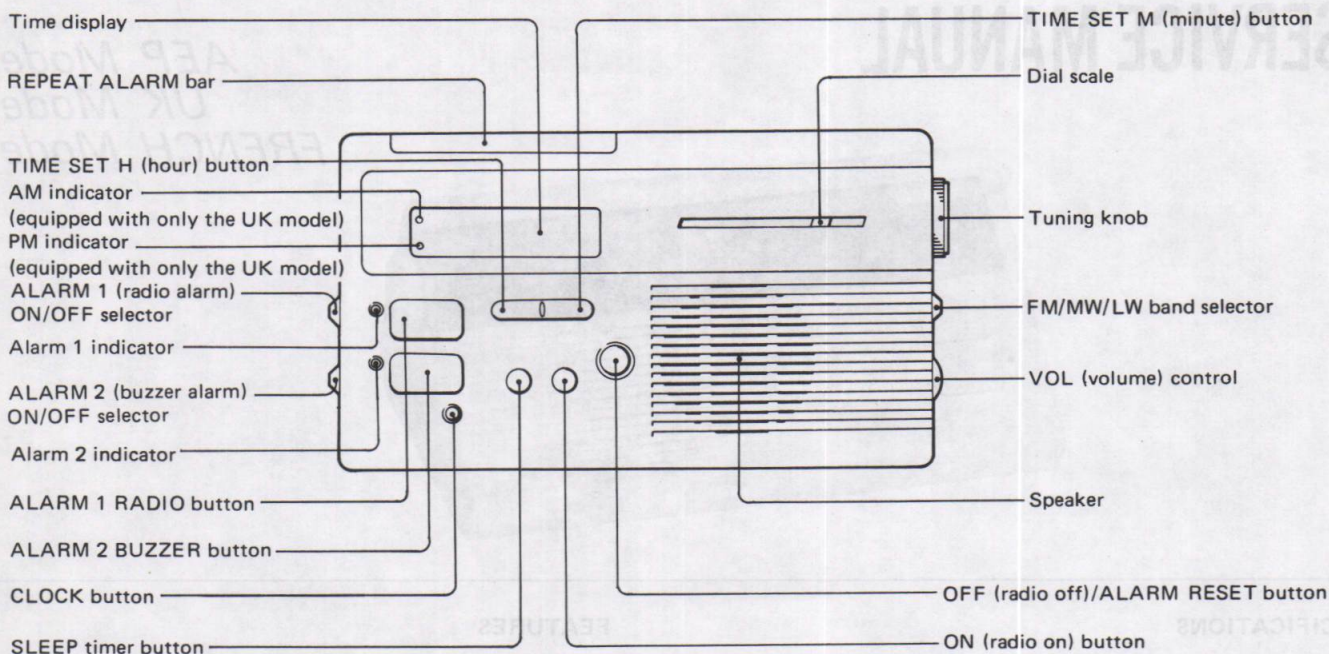
LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE  SUR LES DIAGRAMMES SCHEMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

**DUAL ALARM FM/MW/LW
3BAND DIGITAL CLOCK RADIO
SONY®**



SECTION 1 OUTLINE

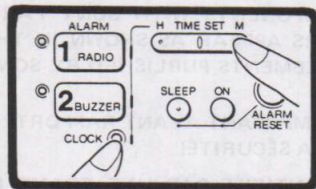
1-1. LOCATION AND FUNCTION OF CONTROL



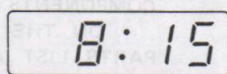
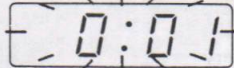
1-2. HOW TO SET THE CLOCK

1 Connect the AC power cord to a wall outlet. Figures will appear and begin to flicker.

2 Adjust the clock to the current time with TIME SET H and M while keeping CLOCK pressed.



Example: To set to 8:15



The illustrations are for the countries except the UK.

Only the UK model shows 12-hour time display.

AM 12:00 = midnight
PM 12:00 = noon

ZERO SECOND ADJUSTMENT

If you want to adjust the time exactly to the second with a radio or a telephone time signal, proceed as in the following example.

Example: To set to 8:15

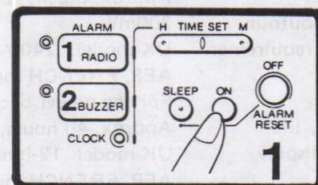
1 Adjust the time indication to 8:14 as described before.

2 While keeping CLOCK pressed, press TIME SET M simultaneously with the radio or the telephone time signal.

Note: The minute digits advance to "00" after "59". Then, the hour digits advance none.

1-3. RADIO OPERATION

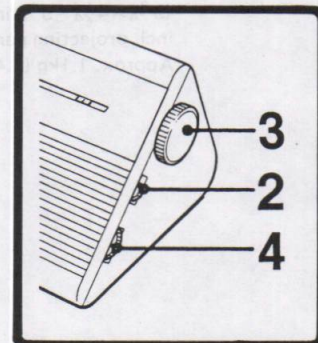
1 Press ON.



2 Select FM, MW or LW.

3 Tune in the desired station.

4 Adjust the volume.



To turn off the radio, press OFF.

TO IMPROVE RECEIVING CONDITION

FM: Extend the FM wire antenna fully to increase the FM sensitivity.

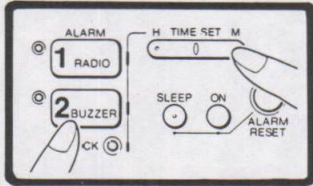
MW/LW: Since the reception is affected by the direction of the radio, rotate the radio horizontally for optimum reception.

SECTION 2
DIAL POINTER INSTALLATION

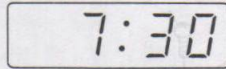
1-4. HOW TO SET THE ALARM

1 Set the alarm time with TIME SET H and M while keeping 1 RADIO or 2 BUZZER pressed.

Either of the order of alarm setting (alarm 1 → alarm 2 or alarm 2 → alarm 1) is possible.



Example: To set the alarm to 7:30



Note: Be sure to keep 1 RADIO or 2 BUZZER depressed before pressing TIME SET H and M, otherwise wrong alarm time may be displayed.

2 Set ALARM 1 or 2 ON/OFF to ON.**For radio alarm (alarm 1)**

Tune in the desired station as described on page 9 before setting the alarm.

The desired alarm sound will come on at the preset time.

The alarm 1 or 2 indicator lights up when the ALARM 1 or 2 ON/OFF selector is set to ON.

The volume of the alarm sound

- The radio volume can be adjusted.
- The buzzer volume is fixed.

To check the preset time, press the ALARM 1 RADIO or ALARM 2 BUZZER button.

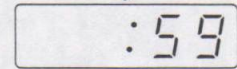
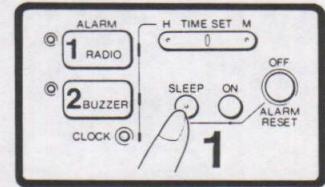
If you press the ALARM 1 RADIO or 2 BUZZER button while the alarm sound is on, it will be turned off.

1-5. HOW TO SET THE SLEEP TIMER

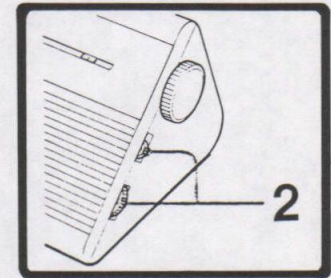
When you fall asleep, you can listen to the radio by the sleep timer.

1 Press SLEEP and set the desired duration of listening.

While keeping SLEEP pressed, the digits will be counted down by 1 from 59. After 00, the digits come up to 59.

**2** Tune in the desired station and adjust the volume.

The radio will turn off automatically after the preset time has elapsed.



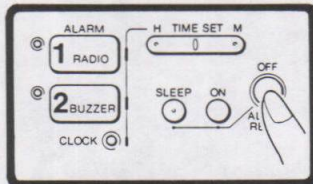
To turn off the radio before the preset time, press the REPEAT ALARM bar or the OFF button.

To check the remaining minutes, press the SLEEP button.

WHEN THE ALARM SOUND COMES ON

To stop the radio or buzzer sound, press ALARM RESET.

If you do not press, the alarm sound will be shut off automatically after about 59 minutes.

**Snooze alarm function**

If you wake to the alarm sound in the morning but want to doze for a few more minutes, just lightly press REPEAT ALARM. The alarm sound will be silenced, but will automatically come on again after about nine minutes. If you want to doze more, press the bar again. You can repeat this snooze function as many times as you like.

To wake to the alarm sound at the same time the next day, leave the ALARM 1 and 2 ON/OFF set to ON.

If you want to listen to the radio continuously, press ON.

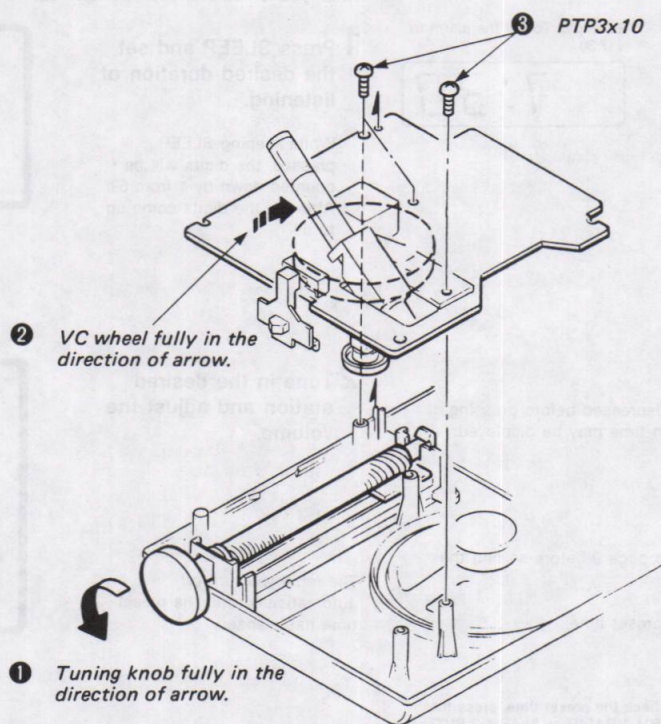
If you set alarm 1 and 2 to the same time, only the radio sound will be heard.

If there is less than 59 minutes between two alarms, for example, if alarm 1 is set at 7:00 and alarm 2 at 7:30, the radio sound comes on first and 30 minutes later the radio sound is shut off and the buzzer alarm comes on, instead.

To cancel the alarm, set the ALARM 1 or 2 ON/OFF selector to OFF.

SECTION 2 DIAL POINTER INSTALLATION

DIAL POINTER SETTING



ICF-C220L ICF-C220L

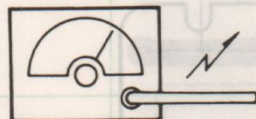
SECTION 3
ADJUSTMENTS

SECTION 4
DIAGRAMS

3-1. AM SECTION

BAND Select Switch: MW, LW

AM rf signal generator



Put the lead-wire antenna close to the set.

30% amplitude modulation by 400 Hz signal

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

VTVM
(range: 0.5-5V ac)

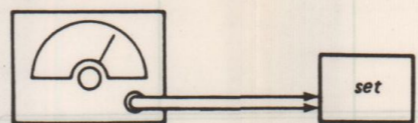


speaker terminal

3-2. FM SECTION

BAND Select Switch: FM

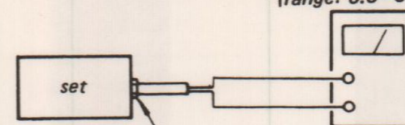
FM rf signal generator



± 22.5kHz frequency deviation by 400Hz signal

FM lead-wire antenna

VTVM
(range: 0.5-5V ac)



speaker terminal

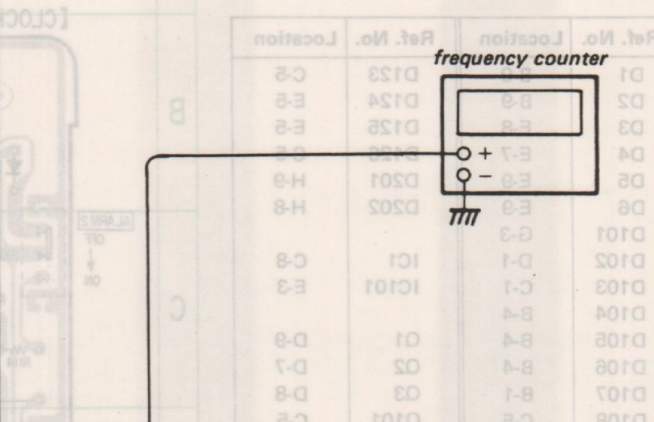
- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

Clock OSC Frequency Adjustment

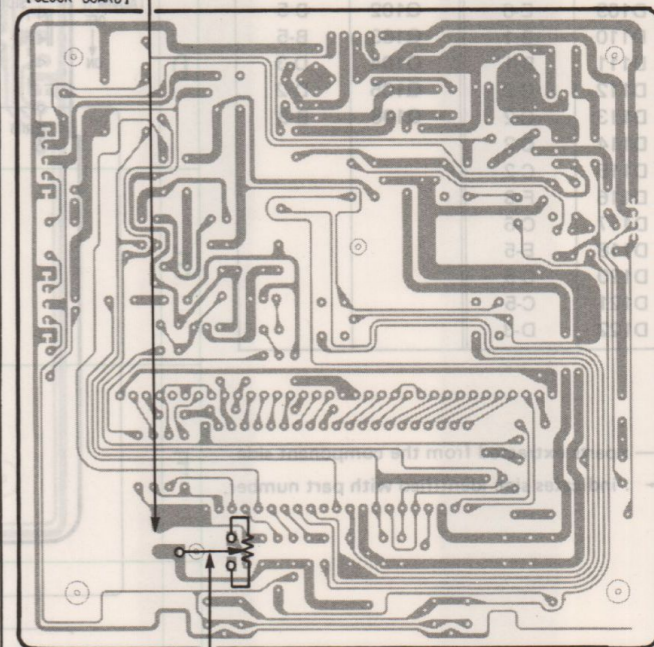
Procedure:

Adjust RV101 for 1.88kHz ±5Hz reading on the frequency counter.

frequency counter



[CLOCK BOARD]



RV101

LW TRACKING ADJUSTMENT

Adjust for a maximum reading on VTVM.

160kHz	240kHz
L2-2	CT5

LW FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on VTVM.

145kHz	CT6
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MW FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on VTVM.

L6	520kHz
CT6	1,680kHz

FM FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on VTVM.

107.8MHz (AEP, FRENCH) 109.5 (UK)	87.4MHz (AEP, FRENCH) 86.5MHz (UK)
CT3	L5

AM IF ADJUSTMENT

Adjust for a maximum reading on VTVM.

CFZ1	455kHz
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CT1	1,400kHz
L2-1	600kHz

Adjust for a maximum reading on VTVM.

MW TRACKING ADJUSTMENT

L3, L4	87.4MHz (AEP, FRENCH) 86.5MHz (UK)
CT2	107.8MHz (AEP, FRENCH) 109.5MHz (UK)

Adjust for a maximum reading on VTVM.

FM TRACKING ADJUSTMENT

SECTION 4
DIAGRAMS

SECTION 3
ADJUSTMENTS

4-1. MOUNTING DIAGRAM

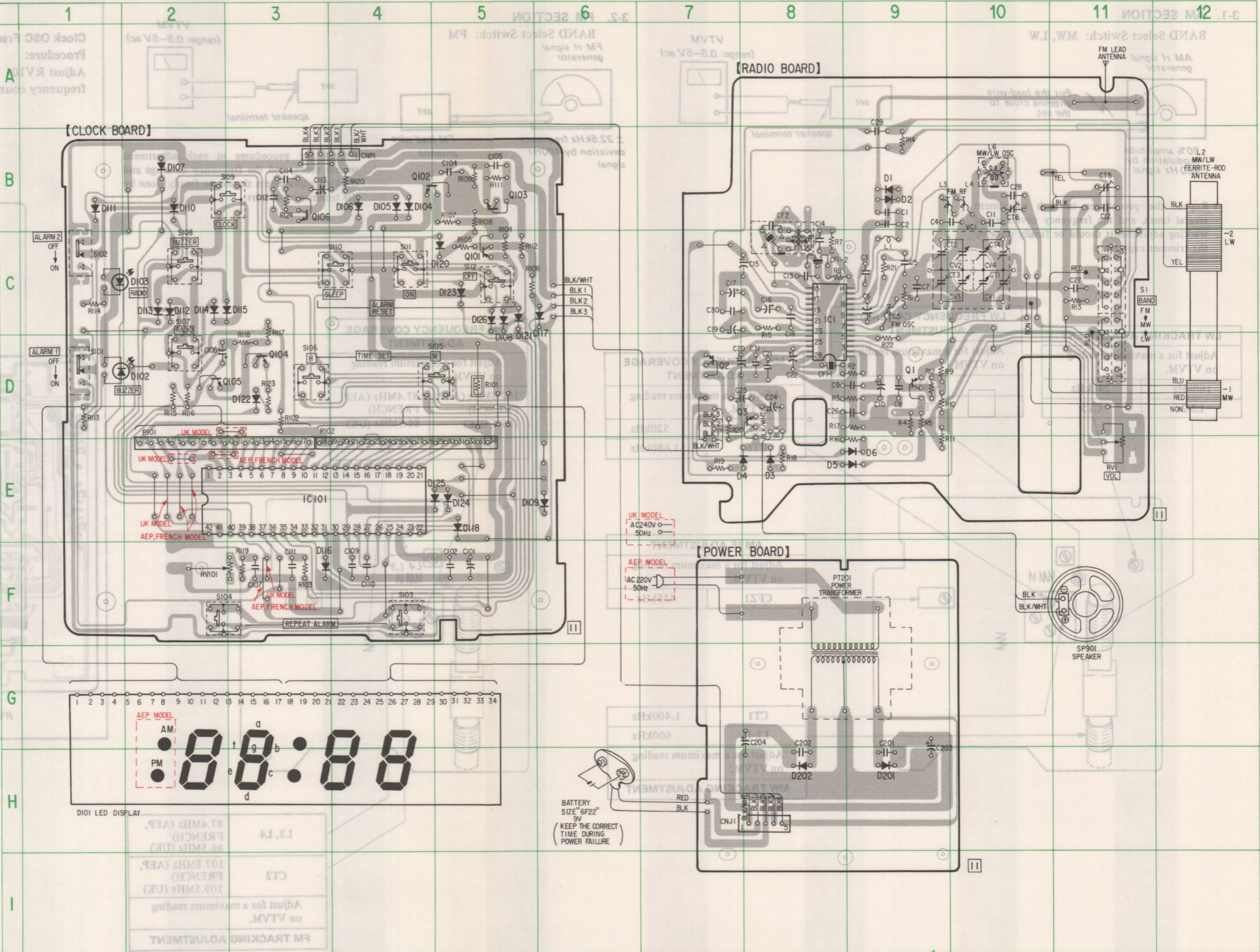
Refer to page 11 for Semiconductor Lead Layouts.

Semiconductor Location

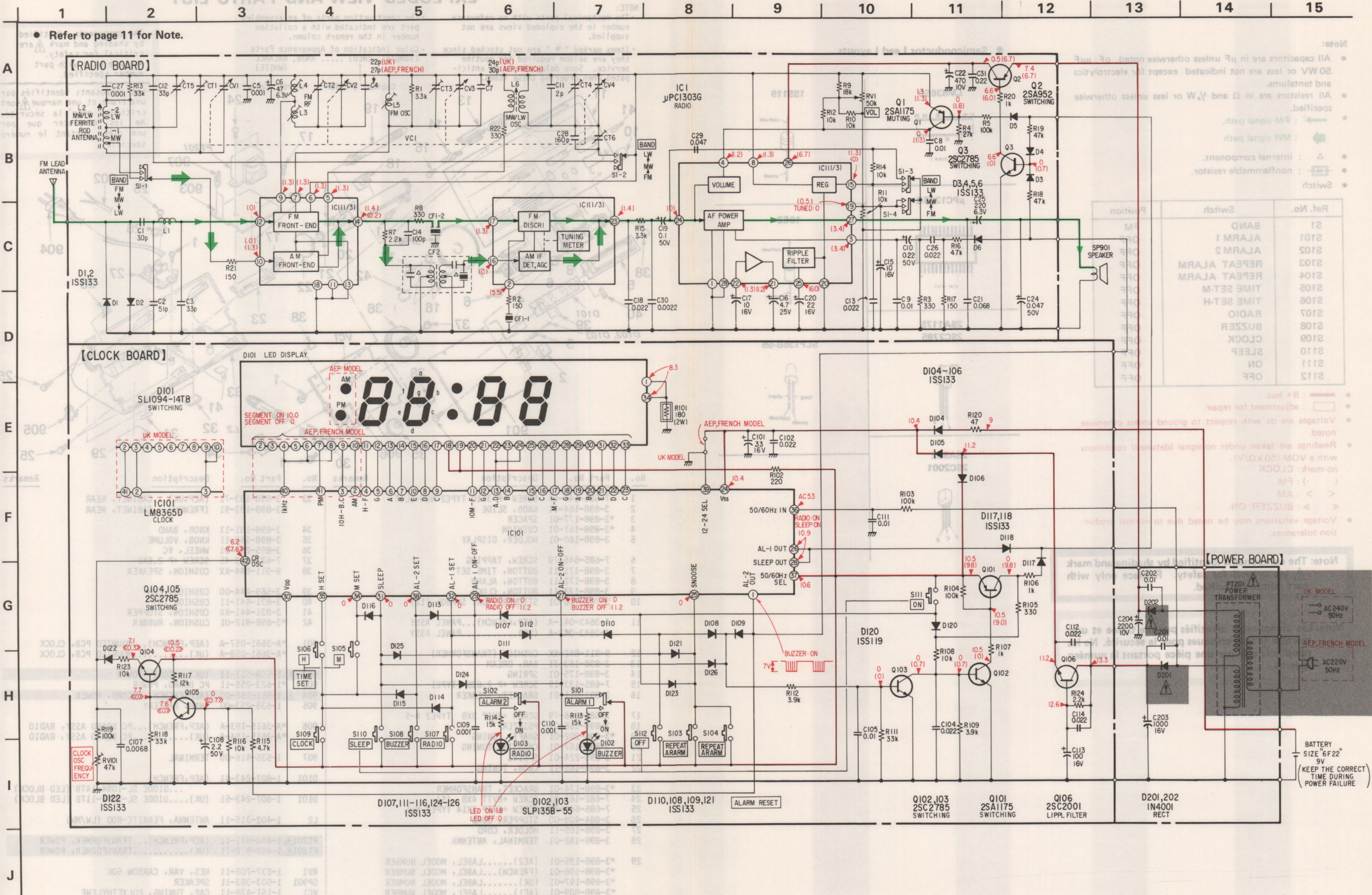
Ref. No.	Location	Ref. No.	Location
D1	B-9	D123	C-5
D2	B-9	D124	E-5
D3	E-8	D125	E-5
D4	E-7	D126	C-5
D5	E-9	D201	H-9
D6	E-9	D202	H-8
D101	G-3		
D102	D-1	IC1	C-8
D103	C-1	IC101	E-3
D104	B-4		
D105	B-4	Q1	D-9
D106	B-4	Q2	D-7
D107	B-1	Q3	D-8
D108	C-5	Q101	C-5
D109	E-6	Q102	B-5
D110	B-1	Q103	B-5
D111	B-1	Q104	D-3
D112	C-2	Q105	D-2
D113	C-2	Q106	B-3
D114	C-2		
D115	C-2		
D116	F-3		
D117	C-6		
D118	E-5		
D120	C-5		
D121	C-5		
D122	D-3		

Note:

- : parts extracted from the component side.
- : indicates side identified with part number.



4-2. SCHEMATIC DIAGRAM



ICF-C220L ICF-C220L

SECTION 5
EXPLODED VIEW AND PARTS LIST

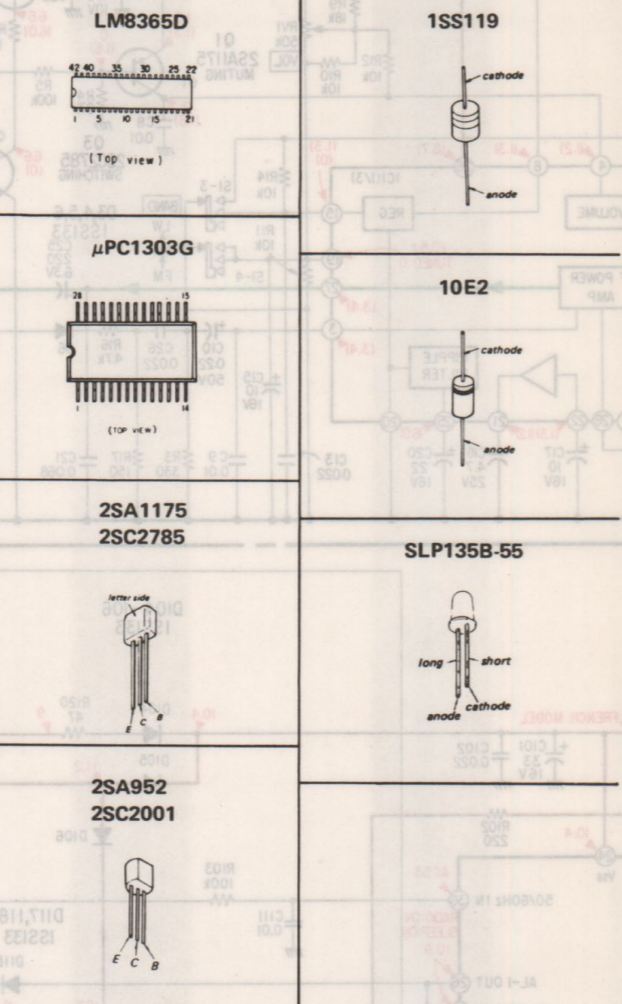
Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- FM signal path.
- MW signal path.
- Δ : internal component.
- nonflammable resistor.
- Switch

Ref. No.	Switch	Position
S1	BAND	FM
S101	ALARM 1	OFF
S102	ALARM 2	OFF
S103	REPEAT ALARM	OFF
S104	REPEAT ALARM	OFF
S105	TIME SET-M	OFF
S106	TIME SET-H	OFF
S107	RADIO	OFF
S108	BUZZER	OFF
S109	CLOCK	OFF
S110	SLEEP	OFF
S111	ON	OFF
S112	OFF	OFF

- B+ bus.
- adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal (detuned) conditions with a VOM (50 $\text{k}\Omega/\text{V}$).
no mark: CLOCK
(): FM
< > : AM
< > : BUZZER ON
- Voltage variations may be noted due to normal production tolerances.

● Semiconductor Lead Layouts



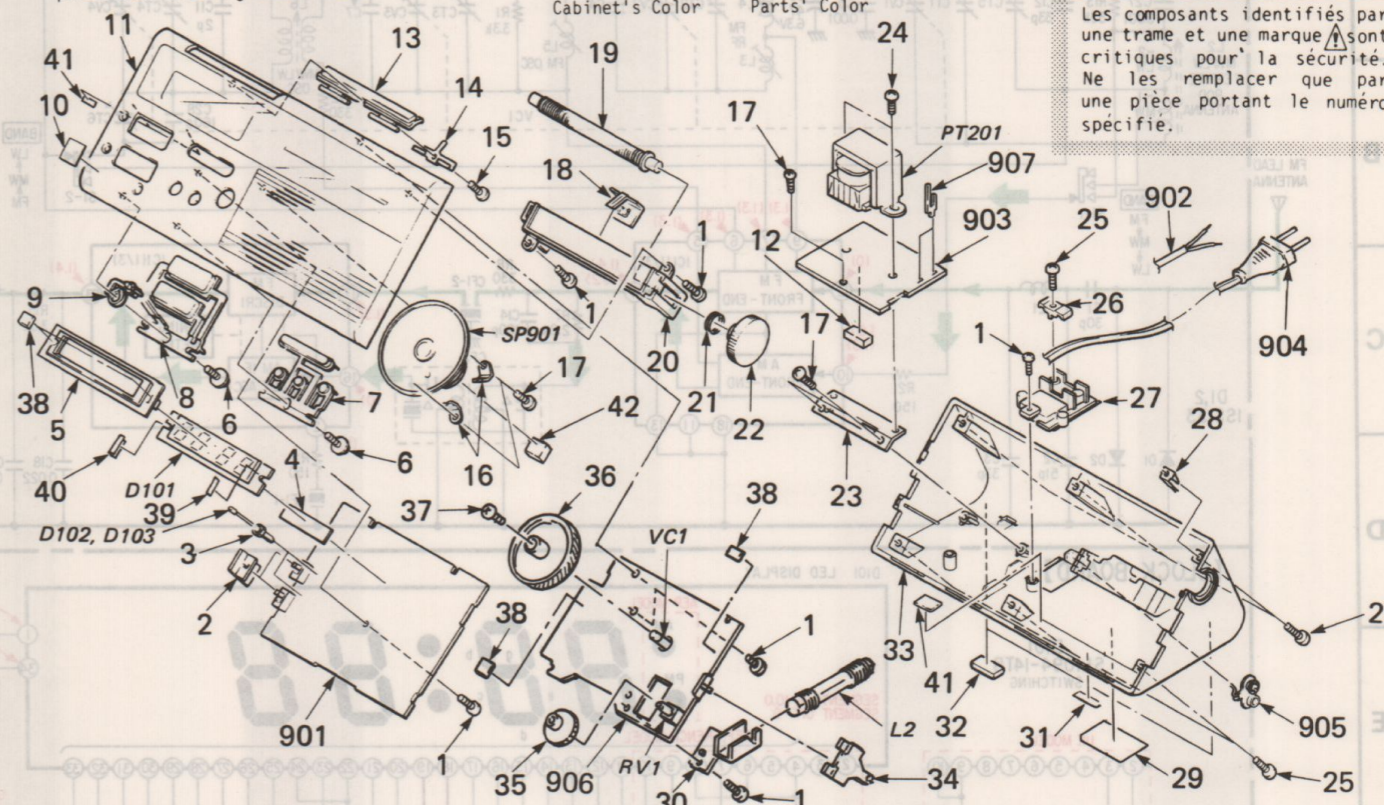
NOTE:

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

- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Color Indication of Appearance Parts
Example: (RED) KNOB, BALANCE (WHITE)

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

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



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	7-685-147-14	SCREW +P 3X10 TYPE2 NON-SLIT		33	3-898-183-71	(AEP,UK)...CABINET, REAR	
2	3-898-164-11	KNOB, SLIDE			3-898-183-91	(FRENCH)...CABINET, REAR	
3	*3-898-177-01	SPACER		34	3-898-181-11	KNOB, BAND	
4	*3-898-161-01	CUSHION		35	3-898-168-11	KNOB, VOLUME	
5	3-898-160-01	HOLDER, DISPLAY		36	3-895-221-01	WHEEL, VC	
6	7-685-646-79	SCREW, TAPPING		37	7-621-259-45	SCREW +P 2.6X6	
7	3-898-171-11	BUTTON, TIME SET		38	9-911-844-XX	CUSHION, SPEAKER	
8	3-898-172-11	BUTTON, ALARM		39	3-559-444-00	CUSHION, ECM	
9	3-898-173-11	BUTTON, CLOCK		40	3-831-441-11	CUSHION (B)	
10	3-703-710-01	STICKER, SONY SYMBOL (12)		41	3-831-441-XX	CUSHION, STOPPER	
11	A-3643-041-A	(AEP,FRENCH)...PANEL ASSY		42	*3-898-812-01	CUSHION, RUBBER	
	A-3643-042-A	(UK).....PANEL ASSY		901	*A-3661-057-A	(AEP,FRENCH)...MOUNTED PCB, CLOCK	
12	9-911-842-XX	CUSHION (TRANSFORMER)			*A-3661-058-A	(UK).....MOUNTED PCB, CLOCK	
13	3-898-163-31	BAR, DREAM		902	Δ 1-559-511-11	(UK)...CORD, POWER	
14	3-898-175-01	SPRING		903	*1-623-255-11	PC BOARD, POWER	
15	7-685-133-19	SCREW +P 2.6X6 TYPE1		904	Δ 1-551-958-00	(AEP,FRENCH)...CORD, POWER	
16	3-893-011-01	BRACKET, SPEAKER		905	1-535-253-00	SNAP, BATTERY	
17	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		906	*A-3615-183-A	(AEP,FRENCH)...PC BOARD ASSY, RADIO	
18	3-898-166-01	POINTER			*A-3615-184-A	(UK).....PC BOARD ASSY, RADIO	
19	*3-896-202-01	SHAFT, TUNING		907	1-535-416-00	TERMINAL	
20	3-898-167-01	CHASSIS, TUNING		D101	1-807-243-41	(AEP,FRENCH) ...DIODE SL-1094-14TB (LED BLOCK)	
21	3-895-224-01	SPRING		D101	1-807-243-51	(UK)....DIODE SL-1094-11TB (LED BLOCK)	
22	3-898-165-11	KNOB, TUNING		L2	1-402-315-11	ANTENNA, FERRITE-ROD (LW/MW)	
23	*3-898-174-01	BRACKET, TRANSFORMER		PT201	Δ 1-448-971-11	(AEP,FRENCH)...TRANSFORMER, POWER	
24	7-682-161-01	SCREW +BVTT 4X8 (S)		PT201	Δ 1-448-972-11	(UK).....TRANSFORMER, POWER	
25	7-685-649-79	SCREW +BVTP 3X14 TYPE2 N-S		RV1	1-237-708-11	RES, VAR, CARBON 50K	
26	3-884-408-00	STOPPER, CORD		SP901	1-503-383-11	SPEAKER	
27	3-898-169-11	HOLDER, CORD		VC1	1-151-478-11	CAP, TUNING, POLYETHYLENE	
28	3-898-182-01	TERMINAL, ANTENNA		30	*3-898-178-01	HOLDER, ANTENNA	
29	*3-898-195-01	(AE2).....LABEL, MODEL NUMBER		31	*3-701-999-00	LABEL, SERIAL NUMBER	
	*3-898-196-01	(FRENCH)...LABEL, MODEL NUMBER		32	3-898-176-01	FOOT, RUBBER	
	*3-898-197-01	(UK).....LABEL, MODEL NUMBER					
	*3-898-809-01	(AE1).....LABEL, MODEL NUMBER					

Note: The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

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

SECTION 6

ELECTRICAL PARTS LIST

NOTE:

- 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:μF, PF:μμF.
- RESISTORS
All resistors are in ohms.
F : nonflammable
- COILS
MMH : mH, UH : μH
- SEMICONDUCTORS
In each case, U : μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC,
UPD...: μPD...

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

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ELECTRICAL PARTS

Ref.No.	Part No.	Description
901	*A-3661-057-A	(AEP,FRENCH)...MOUNTED PCB, CLOCK
	*A-3661-058-A	(UK).....MOUNTED PCB, CLOCK
902	Δ 1-559-511-11	(UK)...CORD, POWER
903	*1-623-255-11	PC BOARD, POWER
904	Δ 1-551-958-00	(AEP,FRENCH)...CORD, POWER
905	1-535-253-00	SNAP, BATTERY
906	*A-3615-183-A	(AEP,FRENCH)...PC BOARD ASSY, RADIO
	*A-3615-184-A	(UK).....PC BOARD ASSY, RADIO
907	1-535-416-00	TERMINAL
C1	1-102-962-00	CERAMIC 30PF 5% 50V
C2	1-101-882-00	CERAMIC 51PF 5% 50V
C3	1-102-963-00	CERAMIC 33PF 5% 50V
C4	1-102-959-00	(UK)...CERAMIC 22PF 5% 50V
C4	1-102-961-00	(AEP,FRENCH) ...CERAMIC 27PF 5% 50V
C5	1-162-294-31	CERAMIC 0.001MF 10% 50V
C6	1-123-306-00	ELECT 47MF 20% 6.3V
C7	1-102-960-00	(UK)...CERAMIC 24PF 5% 50V
C7	1-102-962-00	(AEP,FRENCH) ...CERAMIC 30PF 5% 50V
C8	1-101-004-00	CERAMIC 0.01MF 50V
C9	1-101-004-00	CERAMIC 0.01MF 50V
C10	1-124-464-11	ELECT 0.22MF 20% 50V
C11	1-102-935-00	CERAMIC 2PF 0.25PF 50V
C12	1-102-963-00	CERAMIC 33PF 5% 50V
C13	1-101-005-00	CERAMIC 0.022MF 50V
C14	1-102-106-00	CERAMIC 100PF 10% 50V
C15	1-123-356-00	ELECT 10MF 20% 16V
C16	1-123-369-00	ELECT 4.7MF 20% 25V
C17	1-123-356-00	ELECT 10MF 20% 16V
C18	1-161-055-00	CERAMIC 0.022MF 10% 25V
C19	1-124-463-00	ELECT 0.1MF 20% 50V
C20	1-123-330-00	ELECT 22MF 20% 16V
C21	1-161-023-00	CERAMIC 0.068MF 10% 25V
C22	1-123-310-00	ELECT 470MF 20% 10V
C24	1-123-379-00	ELECT 0.47MF 20% 50V
C25	1-124-124-00	ELECT 220MF 20% 6.3V
C26	1-161-055-00	CERAMIC 0.022MF 10% 25V
C27	1-161-039-00	CERAMIC 0.001MF 10% 25V
C28	1-101-367-00	CERAMIC 160PF 5% 50V
C29	1-161-021-11	CERAMIC 0.047MF 10% 25V
C30	1-161-043-00	CERAMIC 0.0022MF 10% 25V
C31	1-161-896-11	CERAMIC 0.22MF 25V
C101	1-124-963-11	ELECT 33MF 20% 16V
C102	1-101-005-00	CERAMIC 0.022MF 50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
C104	1-101-005-00	CERAMIC 0.022MF 50V
C105	1-101-004-00	CERAMIC 0.01MF 50V
C107	1-161-049-00	CERAMIC 0.0068MF 5% 25V
C108	1-124-925-11	ELECT 2.2MF 20% 50V
C109	1-102-074-00	CERAMIC 0.001MF 10% 50V
C110	1-102-074-00	CERAMIC 0.001MF 10% 50V
C111	1-101-004-00	CERAMIC 0.01MF 50V
C112	1-161-494-00	CERAMIC 0.022MF 25V
C113	1-123-333-00	ELECT 100MF 20% 16V
C114	1-161-494-00	CERAMIC 0.022MF 25V
C201	1-101-004-00	CERAMIC 0.01MF 50V
C202	1-101-004-00	CERAMIC 0.01MF 50V
C203	1-123-324-00	ELECT 1000MF 20% 16V
C204	1-123-974-00	ELECT 2200MF 20% 10V
CF1-1	1-567-051-61	FILTER, CERAMIC (FM)
CF1-2	1-567-051-61	FILTER, CERAMIC (FM)
CF2	1-567-792-11	FILTER, AM CERAMIC
CT5	1-141-227-00	CAP, CERAMIC TRIMMER
CT6	1-141-227-00	CAP, CERAMIC TRIMMER
D1	8-719-911-19	DIODE 1SS119
D2	8-719-911-19	DIODE 1SS119
D3	8-719-911-19	DIODE 1SS119
D4	8-719-911-19	DIODE 1SS119
D5	8-719-911-19	DIODE 1SS119
D6	8-719-911-19	DIODE 1SS119
D101	1-807-243-41	(AEP,FRENCH) ...DIODE SL-1094-14TB (LED BLOCK)
D101	1-807-243-51	(UK)...DIODE SL-1094-11TB (LED BLOCK)
D102	8-719-903-39	DIODE SLP135B-55
D103	8-719-903-39	DIODE SLP135B-55
D104	8-719-911-19	DIODE 1SS119
D105	8-719-911-19	DIODE 1SS119
D106	8-719-911-19	DIODE 1SS119
D107	8-719-911-19	DIODE 1SS119
D108	8-719-911-19	DIODE 1SS119
D109	8-719-911-19	DIODE 1SS119
D110	8-719-911-19	DIODE 1SS119
D111	8-719-911-19	DIODE 1SS119
D112	8-719-911-19	DIODE 1SS119
D113	8-719-911-19	DIODE 1SS119
D114	8-719-911-19	DIODE 1SS119
D115	8-719-911-19	DIODE 1SS119
D116	8-719-911-19	DIODE 1SS119
D117	8-719-911-19	DIODE 1SS119
D118	8-719-911-19	DIODE 1SS119
D120	8-719-911-19	DIODE 1SS119

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D121	8-719-911-19	DIODE 1SS119
D122	8-719-911-19	DIODE 1SS119
D123	8-719-911-19	DIODE 1SS119
D124	8-719-911-19	DIODE 1SS119
D125	8-719-911-19	DIODE 1SS119
D126	8-719-911-19	DIODE 1SS119
D201	△ 8-719-200-02	DIODE 10E-2
D202	△ 8-719-200-02	DIODE 10E-2
IC1	1-807-018-11	IC UPC1303G
IC101	1-807-918-11	IC LM8365D
L1	*1-401-228-00	ANTENNA COIL
L2	1-402-315-11	ANTENNA, FERRITE-ROD (LW/MW)
L3	*1-422-281-11	COIL, AIR-CORE
L4	*1-422-282-11	COIL, AIR-CORE
L5	1-406-042-00	COIL, FM OSC
L6	1-406-028-00	COIL, OSC (MW)
P101	1-566-505-11	PIN, CONNECTOR (PC BOARD) 17P
P102	1-566-505-11	PIN, CONNECTOR (PC BOARD) 17P
PT201	△ 1-448-971-11	(AEP, FRENCH)...TRANSFORMER, POWER
PT201	△ 1-448-972-11	(UK).....TRANSFORMER, POWER
Q1	8-729-117-54	TRANSISTOR 2SA1175
Q2	8-729-195-23	TRANSISTOR 2SA952
Q3	8-729-178-54	TRANSISTOR 2SC2785
Q101	8-729-117-54	TRANSISTOR 2SA1175
Q102	8-729-178-54	TRANSISTOR 2SC2785
Q103	8-729-178-54	TRANSISTOR 2SC2785
Q104	8-729-178-54	TRANSISTOR 2SC2785
Q105	8-729-178-54	TRANSISTOR 2SC2785
Q106	8-729-100-13	TRANSISTOR 2SC2001
R1	1-249-423-11	CARBON 3.3K 5% 1/4W
R2	1-249-407-11	CARBON 150 5% 1/4W
R3	1-249-411-11	CARBON 330 5% 1/4W
R4	1-249-434-11	CARBON 27K 5% 1/4W
R5	1-249-441-11	CARBON 100K 5% 1/4W
R7	1-249-421-11	CARBON 2.2K 5% 1/4W
R8	1-249-411-11	CARBON 330 5% 1/4W
R9	1-249-432-11	CARBON 18K 5% 1/4W
R10	1-249-429-11	CARBON 10K 5% 1/4W
R11	1-249-429-11	CARBON 10K 5% 1/4W
R12	1-249-429-11	CARBON 10K 5% 1/4W
R13	1-249-435-11	CARBON 33K 5% 1/4W
R14	1-249-429-11	CARBON 10K 5% 1/4W
R15	1-249-423-11	CARBON 3.3K 5% 1/4W
R16	1-249-425-11	CARBON 4.7K 5% 1/4W
R17	1-249-407-11	CARBON 150 5% 1/4W
R18	1-249-437-11	CARBON 47K 5% 1/4W
R19	1-249-437-11	CARBON 47K 5% 1/4W
R20	1-249-417-11	CARBON 1K 5% 1/4W
R21	1-249-407-11	CARBON 150 5% 1/4W
R22	1-249-411-11	CARBON 330 5% 1/4W
R101	1-206-646-00	METAL OXIDE 180 5% 2W
R102	1-249-409-11	CARBON 220 5% 1/4W
R103	1-249-441-11	CARBON 100K 5% 1/4W
R104	1-249-441-11	CARBON 100K 5% 1/4W
R105	1-249-411-11	CARBON 330 5% 1/4W
R106	1-249-417-11	CARBON 1K 5% 1/4W

SECTION 8
ELECTRICAL PARTS LIST

ELECTRICAL PARTS

Ref.No.	Part No.	Description
R107	1-249-417-11	CARBON 1K 5% 1/4W
R108	1-249-429-11	CARBON 10K 5% 1/4W
R109	1-249-424-11	CARBON 3.9K 5% 1/4W
R111	1-249-435-11	CARBON 33K 5% 1/4W
R112	1-249-424-11	CARBON 3.9K 5% 1/4W
R113	1-249-431-11	CARBON 15K 5% 1/4W
R114	1-249-431-11	CARBON 15K 5% 1/4W
R115	1-249-425-11	CARBON 4.7K 5% 1/4W
R116	1-249-429-11	CARBON 10K 5% 1/4W
R117	1-249-430-11	CARBON 12K 5% 1/4W
R118	1-249-435-11	CARBON 33K 5% 1/4W
R119	1-249-441-11	CARBON 100K 5% 1/4W
R120	1-249-401-11	CARBON 47 5% 1/4W
R123	1-249-429-11	CARBON 10K 5% 1/4W
R124	1-249-421-11	CARBON 2.2K 5% 1/4W
RV1	1-237-708-11	RES, VAR, CARBON 50K (VOL)
RV101	1-237-743-11	RES, ADJ, CARBON 47K
S1	1-571-218-11	SWITCH, SLIDE (BAND)
S101	1-571-122-11	SWITCH, SLIDE (ALARM 1)
S102	1-571-122-11	SWITCH, SLIDE (ALARM 2)
S103	1-554-303-21	SWITCH, KEY BOARD (REPEAT ALARM)
S104	1-554-303-21	SWITCH, KEY BOARD (REPEAT ALARM)
S105	1-554-303-21	SWITCH, KEY BOARD (TIME SET M)
S106	1-554-303-21	SWITCH, KEY BOARD (TIME SET H)
S107	1-554-303-21	SWITCH, KEY BOARD (RADIO)
S108	1-554-303-21	SWITCH, KEY BOARD (BUZZER)
S109	1-554-303-21	SWITCH, KEY BOARD (CLOCK)
S110	1-554-303-21	SWITCH, KEY BOARD (SLEEP)
S111	1-554-303-21	SWITCH, KEY BOARD (ALARM RESET ON)
S112	1-554-303-21	SWITCH, KEY BOARD (ALARM RESET OFF)
SP901	1-503-383-11	SPEAKER
VC1	1-151-478-11	CAP, TUNING, POLYETHYLENE

ACCESSORY & PACKING MATERIAL

Part No.	Description
2-326-445-01	BAG, POLYETHYLENE
3-898-190-01	BAG, PROTECTION
3-898-138-01	(FRENCH)...CUSHION (LEFT)
3-898-139-01	(FRENCH)...CUSHION (RIGHT)
3-898-188-01	(AEP,UK)...CUSHION (LEFT)
3-898-189-01	(AEP,UK)...CUSHION (RIGHT)
3-898-803-01	(AEP).....INDIVIDUAL CARTON
3-898-804-01	(UK).....INDIVIDUAL CARTON
3-898-805-01	(FRENCH)...INDIVIDUAL CARTON
3-990-111-11	(AEP,UK)...MANUAL, INSTRUCTION
3-990-111-31	(AEP).....MANUAL, INSTRUCTION
3-990-111-41	(FRENCH)...MANUAL, INSTRUCTION
3-990-111-51	(AEP).....MANUAL, INSTRUCTION

The components identified by shading and mark **△** are critical for safety. Replace only with part number specified.

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