# **ICF-B200**

# **SERVICE MANUAL**

Ver 1.3 2001, 02



US Model Canadian Model AEP Model

#### **SPECIFICATIONS**

#### Frequency range

FM: 87.5 – 108 MHz AM: 530 – 1,605 kHz

#### Speaker

Approx. 4.5 cm (1 3/4 inches) dia., 8 ohms

#### Power output

60 mW (Using the built-in rechargeable battery)

90 mW (Using size AA (R6) dry batteries, not supplied)

#### Output

(minijack)

#### **Power requirements**

Built-in nickel-cadmium (2.4 V, 300 mAh, Ni-Cd) battery or 3 V DC, two size AA (R6) dry batteries

#### **Dimensions**

Approx.  $163 \times 80 \times 55 \text{ mm (w/h/d)}$  $(6 \frac{1}{2} \times 3 \frac{1}{4} \times 2 \frac{1}{4} \text{ in)}$ 

#### Mass

Approx. 320 g (11.3 oz)

Approx. 355 g (12.6 oz) incl. batteries and

projecting parts

#### Supplied accessory

Hand strap (1)

Design and specifications are subject to change without notice.

#### **FEATURES**

#### Self-powered emergency radio

- You may use the radio right away by turning the handle of the power generator, which charges the built-in nickel-cadmium (Ni-Cd) rechargeable battery. —Hand generating function
- You may also use size AA (R6) dry batteries (not supplied).
- Audio Beacon that alerts the surroundings.
- · Useful dial light when tuning in the dark.
- Water-resistant for all weather operation\*.

#### \* Do not emmerse in water

This product is designed to be water-resistant, but should not be emmersed in water or come in continuous contact with water.

Before installing the batteries, be sure to wipe off drops of water on the unit.

FM/AM RADIO

9-925-744-13 Sony Corporation
2001B0400-1 Audio Entertainment Group
© 2001. 2 General Engineering Dept.

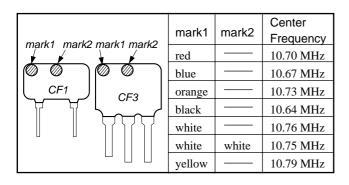


#### **HOW TO CHANGE THE CERAMIC FILTERS**

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.

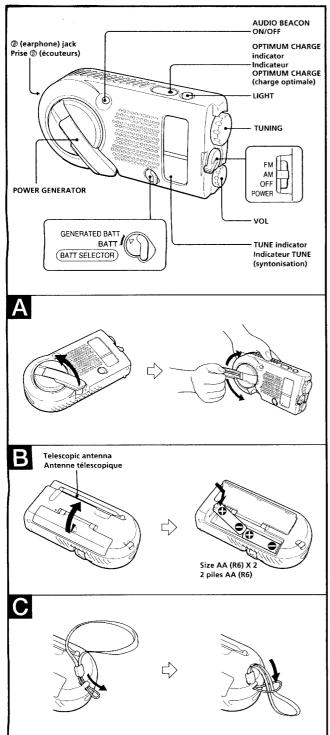
Therefore, the ceramic filter must change two pieces together since it's supply two pieces in one package as a spare parts.



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This section is extracted from instruction manual.



#### **Power Sources**

#### Using the installed rechargeable battery (see fig. A)

You may charge the built-in rechargeable battery and listen to the radio.

#### 1 Pull out the handle of the POWER GENERATOR.

2 To charge, turn the handle one way to either direction.

Turn the handle slowly in the beginning, and speed up the turning little by little. Then, keep turning the handle continuously at the speed that lights the OPTIMUM CHARGE indicator

- Notes

   When you turn the handle, be careful not to put your finger into the groove for the knob of the handle. You may pinch your finger.

   Be sure to fold in the telescopic antenna when charging. If you leave the telescopic antenna unfolded, the telescopic antenna may hit the surroundings and it is dangerous.

   When you charge, the built-in rechargeable battery will be charged regardless of the setting of the BATT SELECTOR switch.

   If you turn the handle of the POWER GENERATOR while listening to the radio, there may be a noise interference. In this case, turn off the radio and then charge the battery.

#### On charging

When you turn the handle, the power generation starts and charges the built-in rechargeable battery. The generation capacity may vary depending on

At first, turn the handle slowly and then speed up At first, turn the handle slowly and then speed up the turning little by little and the OPTIMUM CHARGE indicator will light up. Keep on turning the handle for about a minute at the speed that lights the OPTIMUM CHARGE indicator, which will be about 30 minutes\* of listening to the radio. Use this as an charging standard. Even when you turn the handle at the speed that the OPTIMUM CHARGE indicator does not light, it will be about the the little when the whole the speed that the OPTIMUM CHARGE indicator does not light, it will be seen the built be descenable by the seen of the story of the speed that the optimization of the speed that the optimization of the speed that the story of the speed that the speed that

it will charge the built-in rechargeable battery you may listen to the radio. The OPTIMUM CHARGE indicator is not an indicator for charging capacity.

The listening time may defer depending on the operation of the unit.

#### When the rechargeable battery becomes

The sound will become weak and distorted. If this occurs, turn the handle of the power generator to charge the rechargeable battery

- Notes

   When you use the rechargeable battery for the first time, after a long period of time of disuse, leaving the power on for a long time or the rechargeable battery is exhausted, the battery life may be short even after charging it. In this case, charge (for more than a minute) and discharge the battery several times. The battery life will be restored.

   If the rechargeable battery capacity becomes half the normal life, please consult the nearest Sony dealer.

#### Installing the dry batteries (see fig. 国)

Insert two size AA (R6) batteries (not supplied).

1 Open the lid as illustrated.

- 2 Insert two size AA (R6) batteries with correct polarity.
- 3 Close the lid of the battery compartment.

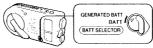
#### Replacing dry batteries

When the dry batteries become weak, the sound will become weak and distorted. Replace both dry batteries with new ones.

Battery Life	(Appr	ox. hours)
	FM	AM
Sony size AA (R6) batteries	37	44

## Choosing the power source Set the BATT SELECTOR switch to the source you

Nickel-cadmium battery: "GENERATED BATT" Size AA (R6) dry batteries: "BATT"



Check the rechargeable battery and the dry batteries once a year. Rechargeable battery: turn the handle of the POWER GENERATOR to

charge, then confirm that you can listen to the radio. Dry batteries: turn on the radio to confirm if the sound is not weak or distorted.

#### **Playing the Radio**

- 1 Set the BATT SELECTOR switch to choose the power source.
- 2 Turn on the radio and select FM or AM with POWER.
- 3 Tune in to a station with TUNING.
  When the station is tuned in, the TUNE indicator lights up.
- 4 Adjust volume using VOL.

#### To turn off the radio

Set POWER to OFF.

#### To improve radio reception

- FM: Extend the telescopic antenna and adjust the length, angle and direction to obtain optimum
- Rotate the unit horizontally for optimum reception. A ferrite bar antenna is built in the

#### When using the earphone

Connect the earphone (not supplied) to ® (earphone) jack

When the earphone is connected, the speaker will not emit sound



- Do not sound the alarm when using the earphone. The volume for the alarm cannot be
- adjusted.
  When the earphone is not connected to the ® (earphone) jack, be sure to close the earphone cover. If you do not close the earphone cover, the unit will not be water-resistant.

#### **Useful functions**

#### Using the Audio Beacon

Press the AUDIO BEACON button. Regardless of the POWER switch, the alarm will sound while the AUDIO BEACON button is depressed. To stop the alarm, press the AUDIO BEACON button again.

The alarm sound or the volume defers depending on the power source, the capacity of the power source and when the power source become weak or exhausted.

#### Alarm Sound Level:

Output SPL @ 12 in (30 cm) approx. 75 dB

- Notes

   The built-in Audio Beacon is intended as a general purpose signaling device and is not intended for long distance signaling or signaling of an emergency or safety nature.

   The alarm volume cannot be adjusted. Since the volume is very loud, be careful on regular basis.

   Depending on the surrounding noise, the alarm may not be heard.

#### **Using the LIGHT**

Press the LIGHT button, the dial light will be lit while this button is pressed.

#### Attaching the hand strap (see Fig. 🕝)

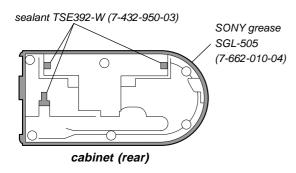
Attach the supplied hand strap to the strap hole at the side of the unit.

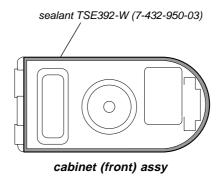
## SECTION 2 SERVICE NOTE

#### • Moisture Resistant Treatment

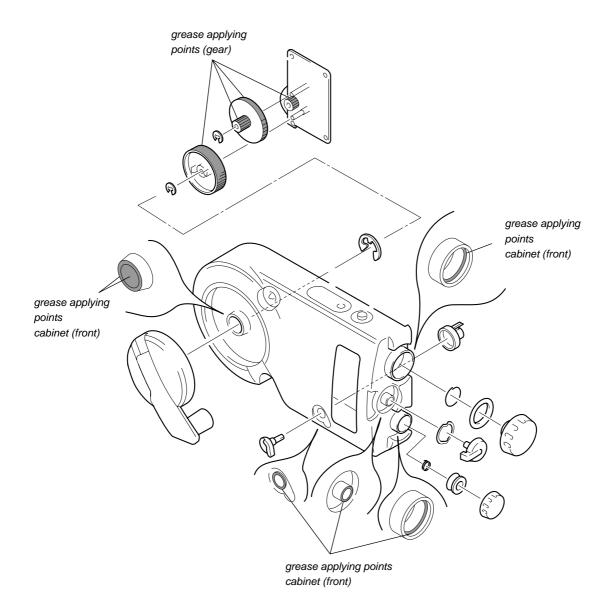
Be sure to perform the following work when the cabinet, telescopic antenna and knobs have been replaced in servicing:

Apply SONY grease SGL-505 (7-662-010-04) to all around the rib of the cabinet (rear) with an applicator or other means. Also, apply sealant TSE392-W (7-432-950-03) to the telescopic antenna mounting points on the cabinet (rear), the battery terminals, and all around the rib of the cabinet (front) assy.





Apply SONY grease SGL-505 (7-662-010-04) to the knobs and gears at the points specified in the figure with an applicator or other means.

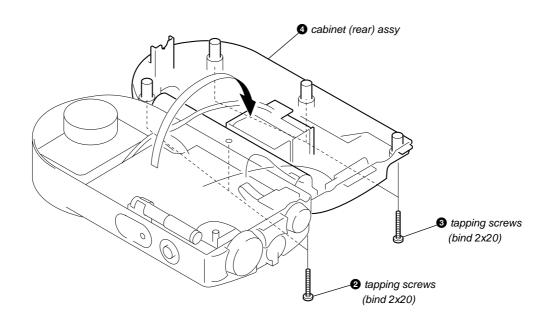


# SECTION 3 DISASSEMBLY

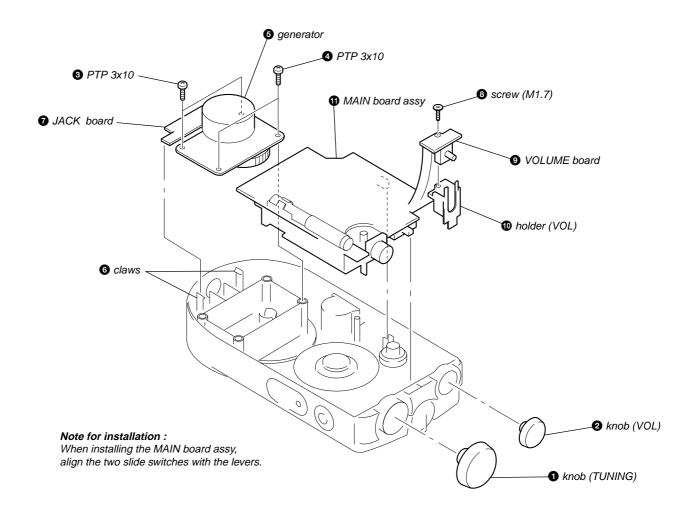
**Note**: Follow the disassembly procedure in the numerical order given.

### 3-1. CABINET (REAR) ASSY

1 Open the battery case lid.

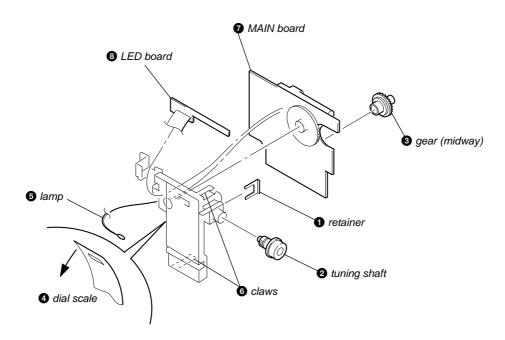


#### 3-2. MAIN BOARD ASSY

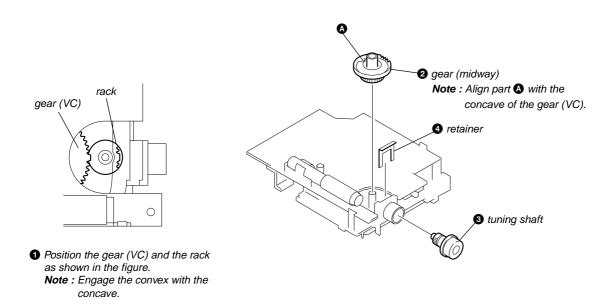


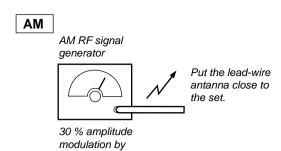
#### 3-3. MAIN BOARD

Note: When installing, setting the pointer.

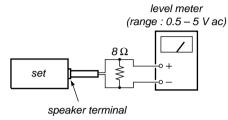


#### **3-4. POINTER SETTING**





400 Hz signal

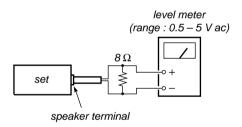


FM RF signal generator

0.01 μF

to FM antenna terminal

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



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

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

AM FREQUENCY COVERAGE					
ADJUSTMENT					
Adjust for a maximum reading on level meter.					
L3	CT3				
520 kHz	1,650 kHz				

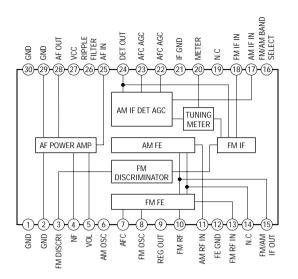
AM TRACKING ADJUSTMENT						
Adjust for a maximum reading on level meter.						
L1	CT4					
620 kHz	1,400 kHz					

FM FREQUENCY COVERAGE						
ADJUSTMENT						
Adjust for a maximum reading on level meter.						
L4 CT1						
86.5 MHz	109.5 MHz					

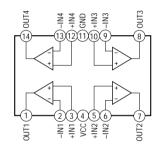
FM TRACKING ADJUSTMENT					
Adjust for a maximum reading on level meter.					
L2	CT2				
86.5 MHz	109.5 MHz				

#### • IC Block Diagrams

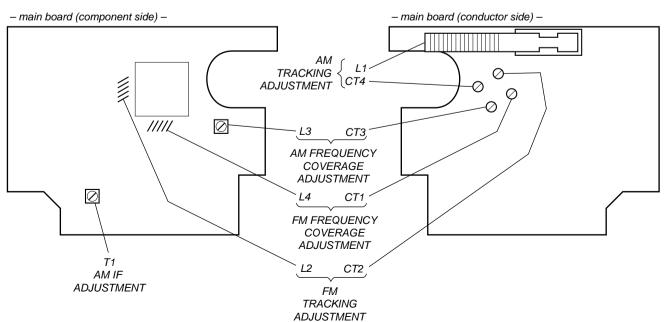
#### IC1 CXA1019S



#### IC3 BA10324AF



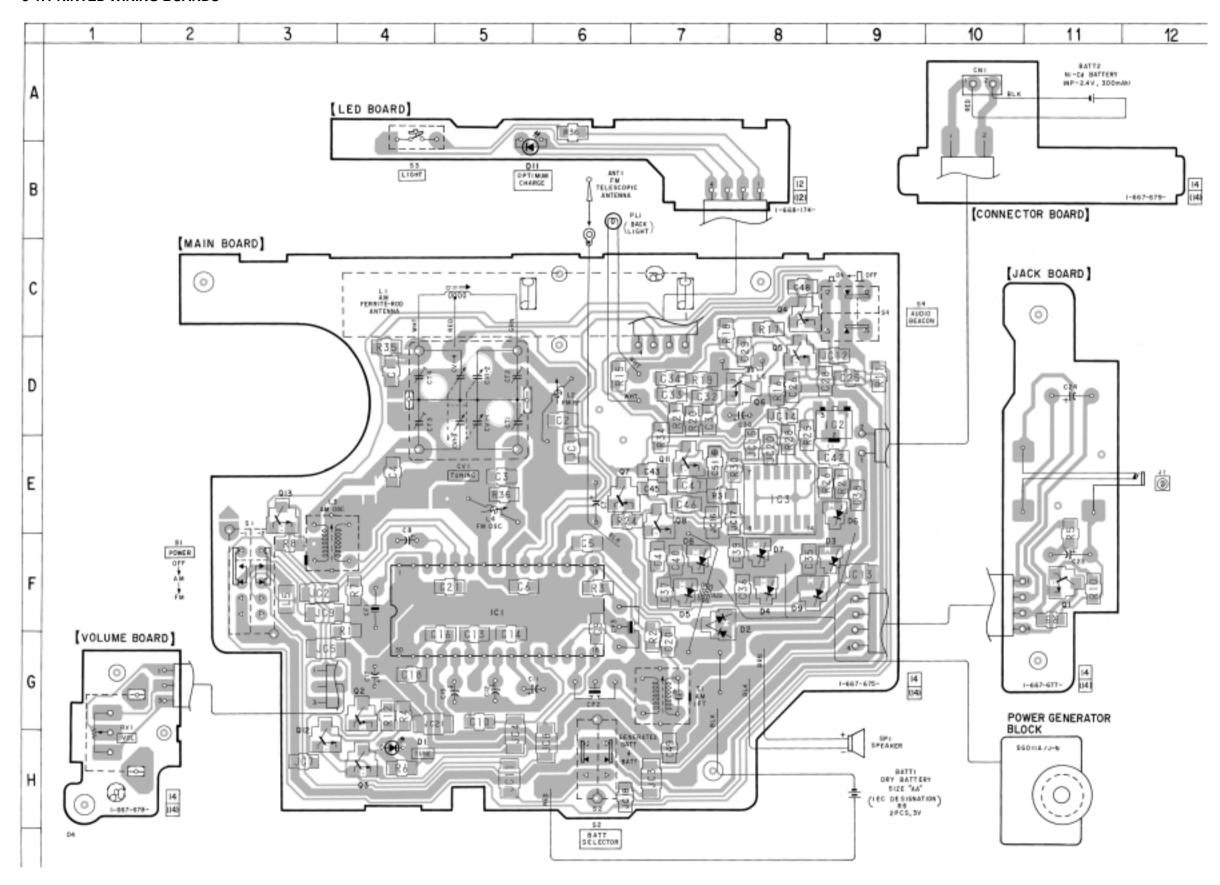
#### Adjustment Location: main board



#### 5-1. PRINTED WIRING BOARDS

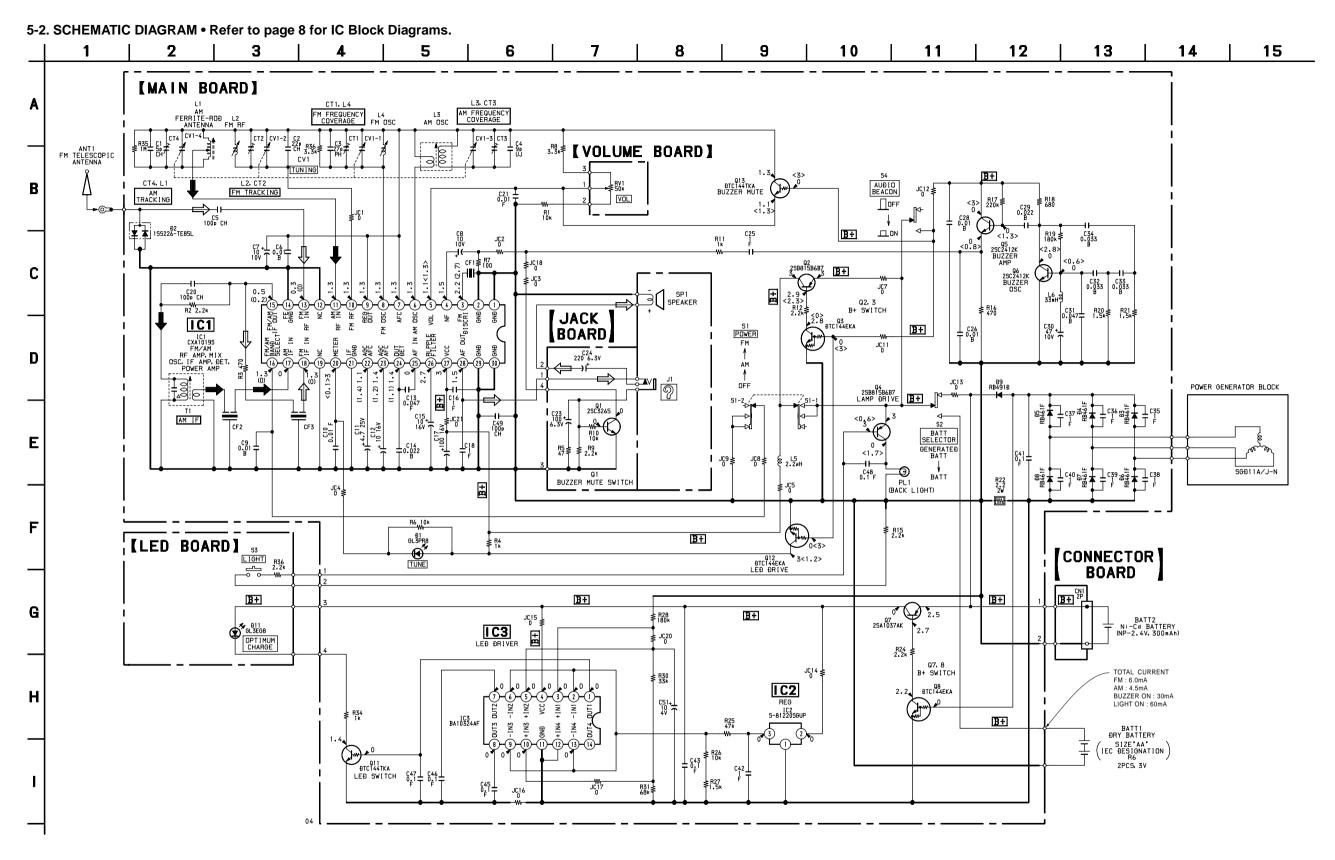
#### Semiconductor Location

Location							
Ref. No.	Location						
D1	H-4						
D2	F-7						
D3	F-9						
D4	F-8						
D5	F-7						
D6	E-9						
D7	F-8						
D8	F-7						
D9	F-8						
D11	B-5						
IC1	F-5						
IC2	D-9						
IC3	E-8						
Q1	F-11						
Q2	G-4						
Q3	H-4						
Q4	C-8						
Q5	D-8						
Q6	D-8						
Q7	E-6						
Q8	E-7						
Q11	E-7						
Q12	H-3						
Q13	E-3						



#### Note:

- : parts extracted from the component side.: parts extracted from the conductor side.
- indicates side identified with part number.
   △ : internal component.
- : Pattern from the side which enables seeing.



#### Note

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $^{1}/_{4}W$  or less unless otherwise specified.
- 🛕 : internal component.
- internal compensation.
- \_\_\_\_\_ : panel designation.
- **B**+ : B+ Line.
- adjustment for repair.
- Power voltage is dc 3 V and fed with regulated dc power supply from battery terminal.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
- no mark: FM
- ( ): AM
- > : BUZZER ON
- Voltages are taken with a VOM (Input impedance 10  $M\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- ⇒ : FM ⇒ : AM

### SECTION 6 EXPLODED VIEWS

#### NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example :

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

↑

Parts Color Cabinet's Color

 Accessories and packing materials and hardware (# mark) list are given in the last of this parts list.

### 6-1. CABINET (REAR) SECTION

#### **Combined parts**

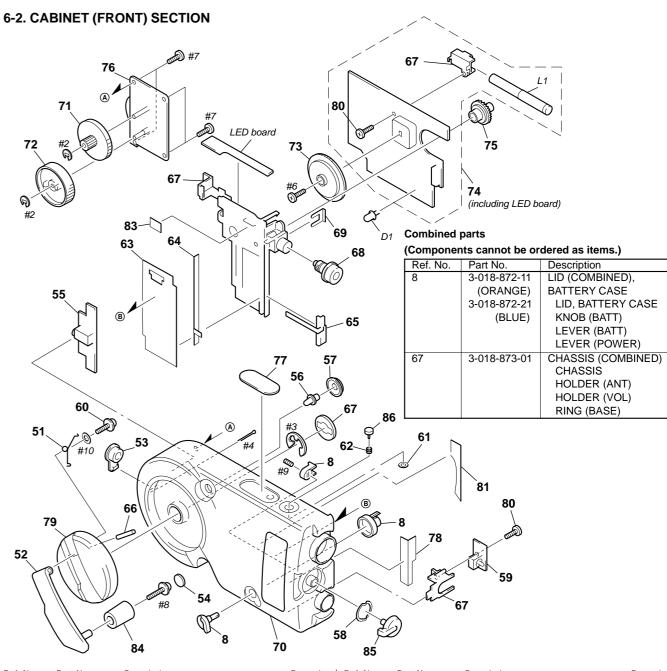
Ref. No. Part No.

(Components cannot be ordered as items.)

Description

1	3-018-874-01	KNOB (COMBINED)	
		KNOB (TUNE)	
		KNOB (VOL)	
8	3-018-872-11	LID (COMBINED),	
	(ORANGE)	BATTERY CASE	
	3-018-872-21	LID, BATTERY CASE	
	(BLUE)	KNOB (BATT)	
	, ,	LEVER (BATT)	
		LEVER (POWER)	ANT 1
		, ,	
			7 10
			9
			#5
			11
			12
		6 √ t	
		5 / 1/4	
			7
	188		#1
	///		BATT2 13
			5 8
	·		2
			14
			3
			4

Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>
2	3-917-353-01	RING (BAND), O		11	3-919-944-01	TERMINAL (+), BATTERY	
3	3-018-885-01	SPRING, RING		* 12	3-020-493-01	SHEET	
4	3-898-411-01	PACKING, KNOB		13	3-020-951-01	CUSHION (Ni-Cd)	
5	3-900-151-01	SPRING, RING		14	3-021-019-01	CUSHION (BATTERY CASE LID)	
* 6	1-667-679-11	CONNECTOR BOARD		ANT1	1-501-432-11	ANTENNA, TELESCOPIC	
7	4-356-741-41	SCREW, TAPPING (BIND 2X20)		BATT2	1-528-831-21	BATTERY PACK (Ni-Cd) (300mAh/2.4\	/)
9	3-018-849-11	CABINET (REAR) (ORANGE)				(US	,Canadian)
9	3-018-849-21	CABINET (REAR) (BLUE)		BATT2	1-528-831-31	BATTERY PACK (Ni-Cd) (300mAh/2.4\	/) (AEP)
10	3-007-833-01	TERMINAL (-), BATTERY					



Ref. No.	Part No.	Description	<u>Remark</u>	Ref. No.	Part No.	Description	<u>Remark</u>
51	3-018-950-01	SPRING (HANDLE)		71	3-018-856-01	GEAR (A)	
52	3-018-866-01	HANDLE		72	3-018-857-01	GEAR (B)	
53	3-898-406-01	LID, JACK		73	3-018-855-01	GEAR (VC)	
54	3-018-882-01	LID (KNOB)		* 74	A-3679-932-A	MAIN BOARD, COMPLETE	
* 55	1-667-677-11	JACK BOARD		75	3-018-853-01	GEAR (MIDWAY)	
F.C	0.040.050.04	DUTTON (DUTTED)		70	0.000.000.01	OFNEDATOR CORTANIA	
56	3-018-858-01	,		76	8-838-202-01	GENERATOR SGD11A/J-N	
57 50		PACKING (BUZZER)		77	3-020-905-01	,	
58		PLATE, CLICK		78	3-023-214-01	( ):	
* 59		VOLUME BOARD		79	3-018-867-01	,	
60	2-646-154-11	SCREW (M1.7X5)		80	3-363-895-01	SCREW (M1.7)	
61	3-018-881-01	SLIDER, POLYETHYLENE		81	3-023-216-01	PLATE (D), BLIND	
62	3-018-943-01	SPRING (LIGHT)		83	3-831-441-99		
63	3-018-884-11			84	3-018-868-01	KNOB (HANDLE)	
64	3-018-871-01	RACK		85	3-018-865-01	KNOB (POWER)	
65	3-018-870-01	POINTER		86	3-018-859-01	BUTTON (LIGHT)	
00	0.000.000.01	DINI DADALI FI		D4	0.740.000.04	LED TICHIOA (TUNE)	
66	3-020-689-01	*		D1		LED TLSU124 (TUNE)	
68		SHAFT, TUNING		L1	1-501-732-12	ANTENNA, FERRITE-ROD (AM)	
69	3-900-149-01						
70	X-33/4-9/4-1	CABINET (FRONT) ASSY (INCLUDING	,				
			(ORANGE)				
70	X-3380-348-1	CABINET (FRONT) ASSY (INCLUDING	,				
			(BLUE)	l			

# SECTION 7 ELECTRICAL PARTS LIST

**CONNECTOR** 

JACK

LED

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:  $uA...:\mu A...$   $uPA...:\mu PA...$   $uPB...:\mu PD...:\mu PD...$ 

• CAPACITORS uF: μF • COILS uH: μH When indicating parts by reference number, please include the board.

Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
*	1-667-679-11	CONNECTOR BO	ΔRD			*	Δ_3670_032_Δ	MAIN BOARD CO	MDI FTF (I	NCLLIDIN	
	1-007-077-11	************					H-3017-732-N	MAIN BOARD, COMPLETE (INCLUDING LED BOARD)			
								******	******		,
		< CONNECTOR >									
							3-018-873-01	CHASSIS (COMB	,		
CN1		PLUG, CONNECT					3-314-712-01	SHEET, CHLORID	E VINYL		
*****	******	**********	******	******	*****		3-363-895-01	SCREW (M1.7)			
*	1-667-677-11	JACK BOARD						< CAPACITOR >			
	1-007-077-11	*******						CALACITOR >			
						C1	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
		< CAPACITOR >				C2	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
						C3	1-163-713-91	CERAMIC CHIP	27PF	5%	50V
C23	1-126-382-11		100uF	20%	6.3V	C4		CERAMIC CHIP	9PF	0.25PF	
C24	1-124-635-00	ELECT	220uF	20%	6.3V	C5	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
		< JACK >				C6	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
		< JACK >				C7	1-103-021-11		10uF	20%	50V
J1	1-573-548-11	JACK (®)				C8	1-124-261-00		10uF	20%	50V
٠.	. 0.0 0.0	57.5.t (G)				C9		CERAMIC CHIP	0.01uF	10%	50V
		< TRANSISTOR >	>			C10	1-163-031-11	CERAMIC CHIP	0.01uF		50V
Q1	8-729-011-54	TRANSISTOR 2	SC3265			C11	1-126-794-11		4.7uF	20%	25V
		DECICTOR				C12	1-104-396-11		10uF	20%	16V
		< RESISTOR >				C13 C14	1-163-809-11	CERAMIC CHIP CERAMIC CHIP	0.047uF 0.022uF	10% 10%	25V 25V
R5	1-216-017-00	RES CHIP	47	5%	1/10W	C14 C15	1-103-037-11		10uF	20%	16V
R9	1-216-057-00	•	2.2K	5%	1/10W	013	1 104 370 11	LLLOI	Tour	2070	101
R10	1-216-073-00		10K	5%	1/10W	C16	1-164-346-11	CERAMIC CHIP	1uF		16V
******	******	*********	******	******	******	C17	1-126-382-11	ELECT	100uF	20%	16V
						C18	1-164-346-11	CERAMIC CHIP	1uF		16V
		LED BOARD (SUI			ON ADJ ETE\	C20		CERAMIC CHIP	100PF	5%	50V
		*****	MAIN	BOARD, C	OMPLETE)	C21	1-163-031-11	CERAMIC CHIP	0.01uF		50V
						C25	1-164-346-11	CERAMIC CHIP	1uF		16V
		< DIODE >				C26	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
						C28	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
D11	8-719-938-67	LED GL-3EG8 (	OPTIMUM	CHARGE)		C29	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
						C30	1-126-785-11	ELECT	47uF	20%	10V
		< RESISTOR >				004	4 4 4 0 000 44	OFDANAIO OLUB	0.047.5	400/	051/
D24	1-216-057-00	METAL CLUD	2.21/	5%	1/10///	C31 C32	1-163-809-11	CERAMIC CHIP	0.047uF	10% 10%	25V 25V
R36	1-210-037-00	IVIE IAL CHIP	2.2K	3%	1/10W	C32		CERAMIC CHIP CERAMIC CHIP	0.033uF 0.033uF	10%	25V 25V
		< SWITCH >				C34	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
		(0)				C35	1-164-346-11		1uF	1070	16V
S3	1-572-596-11	SWITCH, KEY BO	ARD (LIGI	HT)							
******	******	********	******	******	*****	C36		CERAMIC CHIP	1uF		16V
						C37		CERAMIC CHIP	1uF		16V
						C38	1-164-346-11	CERAMIC CHIP	1uF		16V
						C39	1-164-346-11 1-164-346-11	CERAMIC CHIP CERAMIC CHIP	1uF		16V
						C40	1-104-340-11	CERAIVIIC CHIP	1uF		16V
						C41	1-163-038-00	CERAMIC CHIP	0.1uF		25V
								= =			-

## MAIN

D.C.N.	David Na	December			Damada	l D.C.N.	Doub No.	December			Damada
Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
C42	1-164-346-11		1uF		16V			< COIL >			
C43		CERAMIC CHIP	0.1uF		25V				DITE DOD (	• • •	
C45		CERAMIC CHIP	0.1uF		25V	L1		ANTENNA, FER	•	AM)	
C46		CERAMIC CHIP	0.1uF		25V	L2		COIL, AIR-COR			
C47	1-163-038-00	CERAMIC CHIP	0.1uF		25V	L3 L4		COIL, OSC (AM			
C48	1 142 020 00	CERAMIC CHIP	0.1uF		25V	L4 L5	1-410-504-11	COIL, AIR-COR	2.2uH		
C48 C49		CERAMIC CHIP	0. Tur 100PF	5%	25V 50V	Lo	1-412-943-11	INDUCTOR	Z.ZU∏		
C49 C51		TANTALUM CHIP		20%	4V	L6	1-406-680-11	INDLICTOR	33mH		
651	1-133-201-11	TANTALOW CITI	Toul	2070	4 0	LU	1-400-000-11	INDOCTOR	3311111		
		< FILTER >						< PILOT LAMP	>		
051	1 570 /22 51	FILTED CEDAMIC				DI 1	1 517 710 11	LAMB BU OT /			
CF1 CF2		FILTER, CERAMIC FILTER, CERAMIC				PL1	1-51/-/10-11	LAMP, PILOT (	BACK LIGHT,	)	
CF2 CF3		FILTER, CERAMIC						< TRANSISTOR	) <b>.</b>		
CF3	1-379-032-31	FILTER, CERAIVIIC	,					< TRANSISTOR	( >		
		< VARIABLE CAPA	ACITOR >			Q2	8-729-800-71	TRANSISTOR	2SB815B7-1	ГВ	
						Q3	1-801-806-11	TRANSISTOR	DTC144EKA	-T146	
CT1-4	1-141-589-11	CAP, VAR				Q4		TRANSISTOR			
CV1-4	1-141-589-11	CAP, VAR (TUNIN	G)			Q5	8-729-120-28	TRANSISTOR	2SC1623-L5	5L6	
						Q6	8-729-120-28	TRANSISTOR	2SC1623-L5	5L6	
		< DIODE >									
						Q7		TRANSISTOR			
D2		DIODE 1SS226				Q8		TRANSISTOR			
D3		DIODE RB461F-				Q11		TRANSISTOR			
D4		DIODE RB461F-				Q12		TRANSISTOR			
D5		DIODE RB461F-				Q13	8-729-027-60	TRANSISTOR	DTC144TKA	-T146	
D6	8-719-066-34	DIODE RB461F-	1106					, DECISTOR .			
D7	8-719-066-34	DIODE RB461F-	T106					< RESISTOR >			
D8		DIODE RB461F-				R1	1-216-073-00	METAL CHIP	10K	5%	1/10W
D9		DIODE RB491D-				R2	1-216-057-00		2.2K	5%	1/10W
5,	0 7 1 7 000 10	5.052 1.5.7.5				R3	1-216-041-00		470	5%	1/10W
		< IC >				R4	1-216-049-11		1K	5%	1/10W
						R6	1-216-073-00		10K	5%	1/10W
IC1	8-752-055-05	IC CXA1019S									
IC2	8-759-486-72	IC S-81220SGUF	P-DQS-T1			R7	1-216-025-00	RES,CHIP	100	5%	1/10W
IC3	8-759-058-50	IC XRA10324AF				R8	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
						R11	1-216-049-11	•	1K	5%	1/10W
		< JUMPER RESIS	TOR >			R12	1-216-057-00		2.2K	5%	1/10W
			_			R15	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
JC1	1-216-295-00		0			544				=0.	4/4014/
JC2	1-216-296-00		0			R16	1-216-041-00		470	5%	1/10W
JC3	1-216-296-00		0			R17	1-216-105-00		220K	5%	1/10W
JC4	1-216-296-00		0			R18	1-216-045-00		680	5%	1/10W
JC5	1-216-296-00	SHURT	0			R19 R20	1-216-103-00 1-216-053-00		180K 1.5K	5% 5%	1/10W 1/10W
JC7	1-216-295-00	SHORT	0			IN20	1-210-033-00	WEIAL CITI	1.51	370	171000
JC8	1-216-296-00		0			R21	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
JC9	1-216-296-00		0			R22		METAL OXIDE	2.2	5%	2W F
JC11	1-216-296-00		0			R24	1-216-057-00		2.2K	5%	1/10W
JC12	1-216-295-00		0			R25	1-216-089-00		47K	5%	1/10W
2 - · <del>-</del>	2 = 70 00		-			R26	1-216-073-00		10K	5%	1/10W
JC13	1-216-296-00	SHORT	0								
JC14	1-216-295-00	SHORT	0			R27	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
JC15	1-216-295-00	SHORT	0			R28	1-216-103-00	METAL CHIP	180K	5%	1/10W
JC16	1-216-296-00	SHORT	0			R30	1-216-085-00	METAL CHIP	33K	5%	1/10W
JC17	1-216-295-00	SHORT	0			R31	1-216-093-00	METAL CHIP	68K	5%	1/10W
						R34	1-216-049-11	RES,CHIP	1K	5%	1/10W
JC18	1-216-295-00		0			-					
JC20	1-216-295-00		0			R35	1-216-121-00		1M	5%	1/10W
JC21	1-216-296-00	SHURT	0			R36	1-216-061-00	MEIAL CHIP	3.3K	5%	1/10W

Ref. No.	<u>Part No.</u>	Description Remark < SWITCH >		
S1 S2 @ S4 @ S4	1-570-433-11 1-572-552-31 1-771-239-11 1-771-367-11	SWITCH, SLIDE (POWER) SWITCH, SLIDE (BATT SELECT) SWITCH, PUSH (1 KEY) (AUDIO BEACON) SWITCH, PUSH (1 KEY) (AUDIO BEACON)		
		< TRANSFORMER >		
T1	1-404-790-11	TRANSFORMER, IF		
*	1-667-678-11	VOLUME BOARD ********		
		< VARIABLE RESISTOR >		
RV1 ******	1-223-738-11	RES, VAR, CARBON 50K (VOL)		
		MISCELLANEOUS ************		
76 ANT1 BATT2		GENERATOR SGD11A/J-N ANTENNA, TELESCOPIC BATTERY PACK (Ni-Cd) (300mAh/2.4V)		
BATT2 D1	8-719-812-41	(US,Canadian) BATTERY PACK (Ni-Cd) (300mAh/2.4V) (AEP) LED GL3PR8 (TUNE)		
	ACCESSORIES & PACKING MATERIALS			
	********	**********		
	3-019-238-01 3-228-890-01	STRAP (US,Canadian) STRAP (AEP)		
	3-861-125-12 3-861-125-21	MANUAL, INSTRUCTION (ENGLISH) (US) MANUAL, INSTRUCTION (ENGLISH, FRENCH)		
	3-861-125-31	(Canadian) MANUAL, INSTRUCTION (ENGLISH,FRENCH, GERMAN,SPANISH) (AEP)		
*********************				
		**************************************		
#1 #2 #3 #4 #5	7-623-507-01 7-624-104-04 7-624-113-04 7-626-202-51 7-627-556-37	STOP RING 2.0, TYPE -E STOP RING 9.0, TYPE -E		
#6 #7 #8 #9 #10	7-627-852-08 7-685-647-79 7-685-902-21 7-621-734-09 7-688-001-01	SCREW +PTPWH 2.6X8 (TYPE2) SET-SCT, HEX. 2.6X3		

@ For the push switch S4 on the MAIN board, check the serial number for the set before replacing the switch by the appropriate part No.

Serial No.	Part No.
39430 and previous	1-771-239-11
39431 and later	1-771-367-11

## **REVISION HISTORY**

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.3	2001. 02	AEP model has been added.
1.2	2000. 03	Correct the Exploded views section
1.1	1998. 08	Correct the Exploded views section Canadian model has been added.
1.0	1997. 10	New