

PROPERTY OF THE  
NATIONAL TECHNICAL DEPT.

FM/AM 2 Band PLL Synthesized Receiver

# ICF-M200

## Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

## Mode d'emploi

Avant de faire fonctionner cet appareil, prière de lire attentivement ce mode d'emploi et de le conserver à titre de référence ultérieure.

## Manual de instrucciones

Antes de utilizar el receptor, lea detenidamente este manual y consérvelo para futuras referencias.

## Owner's Record

The model number is located at the rear unit. Record these numbers in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. ICF-M200

Serial No. \_\_\_\_\_

Sony Corporation ©1989 Printed in Japan

## Features

- A quartz-controlled PLL (Phase Locked Loop) synthesizer system using a microcomputer for easy pinpoint tuning.
- Up to 5 stations in each band can be preset.
- The tuned frequency is digitally displayed to make searching of the desired station easier.

## Precautions

- Operate the unit only on 4.5 V DC. For battery operation, use three R6 (size AA) batteries. For AC operation and car battery operation, use accessories recommended for the unit. Do not use any other type.
- The name plate indicating operating voltage, etc. is located on the rear.
- Avoid exposure to temperature extremes, direct sunlight, moisture, sand, dust, or mechanical shock. Never leave in a car parked in the sun.
- Use the unit within a temperature range of 0°C to 40°C (32°F to 104°F). If it is used in temperatures higher than this range, numbers may appear on the frequency which have nothing to do with the frequency being received. If it is used in temperatures lower than this range, the numbers displayed may change very slowly. (These irregularities will disappear and there will be no damage to the unit when the unit is used in its recommended temperature range.)
- Should any solid object or liquid fall into the unit, remove the batteries, and have the unit checked by qualified personnel before operating it any further.
- Since a strong magnet is used for the speaker, keep personal credit cards using magnetic coding or spring-wound watches away from the unit to prevent possible damage from the magnet.
- When the casing becomes soiled, clean it with a soft cloth dampened with mild detergent solution. Never use abrasive cleansers or chemical solvents, as they may mar the casing.

The frequency allocation system (MW Channel Step) depends on the country where you purchased this receiver. AM reception is not possible in another country with a different system.

### Setting of the MW Channel Step for ICF-M200

9 kHz (fixed)	European countries
10 kHz (fixed)	U.S.A.
9 kHz/10 kHz (Changeable)	Other countries

If you have any question or problem concerning your unit that is not covered in this manual, please consult your nearest Sony dealer.

## To change the MW (AM) Channel Step (For customers except in the U.S.A., and Europe)

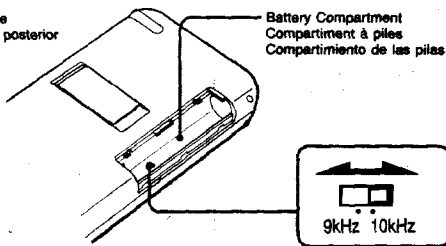
The MW CH STEP is preset at the factory to 9 kHz to match the frequency allocation system of most countries. If you use the radio where the frequency allocation system is based on a 10 kHz interval, set the MW CH STEP selector to 10 kHz.

- 1 Remove the batteries and wait until all the figures and indicators in the display window disappear.
- 2 Change the channel step with a thin instrument.

### Note

When the channel step is set to 10 kHz, the AM frequency range changes from "531 - 1,602 kHz" to "530 - 1,670 kHz".

Rear  
Arrière  
Parte posterior



## Battery Replacement

### When to replace the batteries

The power is turned off while the BATT indicator appears in the display window, when the batteries are weak or exhausted.

### When the sound becomes weak or distorted, or the batteries are weak,

Replace all the batteries with new ones. Concerning the battery life, see "Specifications".

### To keep the preset memories

Replace the batteries **within one minute** after turning off the radio. The memories of the preset stations will be erased about one minute after the batteries are removed.

### To reuse the unit after the batteries are removed for a long period of time

Be sure to preset stations.

## Other Power Sources

The internal batteries are automatically disconnected when the AC power adaptor or the car battery cord is connected to the DC IN 4.5 V jack.

### House current

Connect the Sony AC-D3M AC power adaptor (optional) to the DC IN 4.5 V jack, and plug it into a wall outlet.

### Car battery

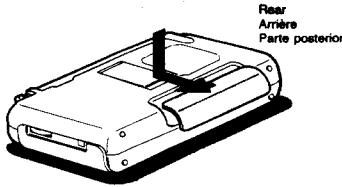
For use on 12 V car battery, connect the Sony DCC-127A car battery cord (optional) to the DC IN 4.5 V jack.

### Notes

- When the AC power adaptor is not used, be sure to unplug it both from the DC IN 4.5 V jack and from a wall outlet.
- If a car battery cord or AC power adaptor not manufactured by Sony is used, a fuse must be installed in the battery cord or AC power adaptor and the polarity of the plug must be as illustrated.

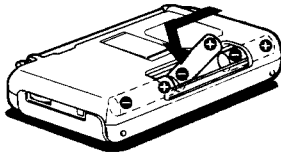


Polarity of the Sony plug

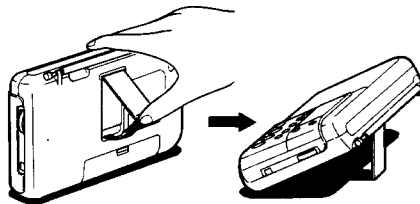


Rear  
Arrière  
Parte posterior

R6 (size AA) x 3  
3 piles R6 (format AA)  
R6 (tamaño AA) x 3





## How to Use the Stand Utilisation du support Utilización del soporte





## Troubleshooting Guide

Should any problem persist after you have made following checks, consult your nearest Sony dealer.

### The unit is not turned on.

- Weak or incorrect polarity of batteries
- The  mark is displayed. Press the KEY PROTECT button so that the  mark will disappear.
- The AC power adaptor or the car battery cord is disconnected.
- Battery operation is attempted while the AC power adaptor or the car battery cord is connected to the unit, but not to a wall outlet or cigarette lighter socket.

### The front panel buttons do not operate at all.

- The  mark is displayed. Press the KEY PROTECT button so that the  mark will disappear.

### Display is dim, or no indicator is displayed

- Weak batteries
- The unit is being used in extremely high or low temperatures or in place with excessive moisture.

### Sound is not heard at all.

- The VOLUME control is turned down completely.
- The earphone is plugged in.
- Incorrect polarity of batteries

### Very weak or interrupted sound, or unsatisfactory reception

- Weak batteries
- In a vehicle or in a building, listen near a window.

### The station cannot be received in the preset tuning.

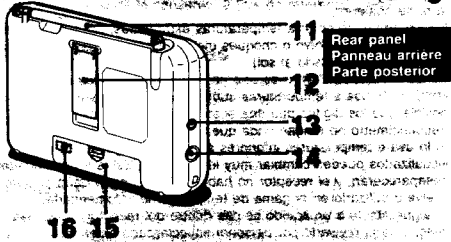
- The station has not been preset.
- The memory of the station has been erased. Preset the station again.

# Location and Function of Controls

Front panel  
Panneau frontal  
Parte frontal

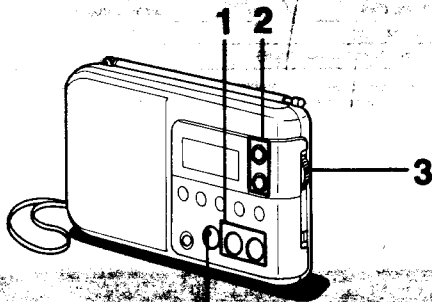


Rear panel  
Panneau arrière  
Parte posterior



- 1 Display window
- 2 PRESET TUNING buttons
- 3 Speaker
- 4 Hand strap
- 5 SCAN buttons
- 6 VOLUME control
- 7 KEY PROTECT button
- 8 POWER ON (FM and AM) buttons
- 9 OFF button
- 10 ENTER button
- 11 Telescopic antenna
- 12 Stand
- 13 Earphone jack  
When the earphone is plugged in, the sound from the speaker does not come out.
- 14 DC IN 4.5 V (external power input) jack
- 15 Battery compartment
- 16 MW CH STEP selector (inside of the battery compartment)  
(For customers except in the U.S.A., and Europe)

## Radio Operation



### Press FM or AM.

The radio will be turned on.

### Tune in a desired station with SCAN + or -.

Keep + or - button pressed for more than 0.5 seconds, then release it.

The frequency goes up or down automatically with rapid beeps. When a station is received, the beep will stop and a broadcast will be heard (automatic scanning). At the high or low end of the frequency range, a long beep sounds and scanning stops. To continue scanning, press the other button.

### Adjust volume.

### To turn off the radio.

Press OFF.

### When the desired station cannot be received because of weak signals

Press either of SCAN + or -, then immediately release it (manual scanning). Repeat this operation until the frequency of the desired station appears.

### To Improve Receiving Condition

FM: Extend the telescopic antenna and adjust the length, direction and angle for the best reception.

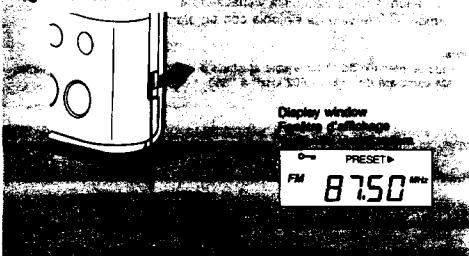
AM: Since the reception is affected by the direction of the radio, rotate the unit horizontally for optimum reception.

### To Prevent Accidental Change of the Receiving Station

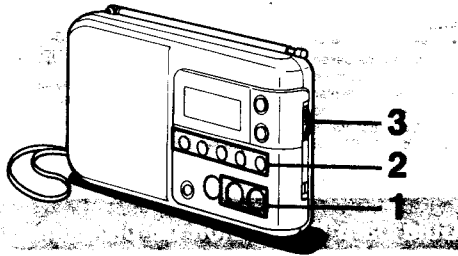
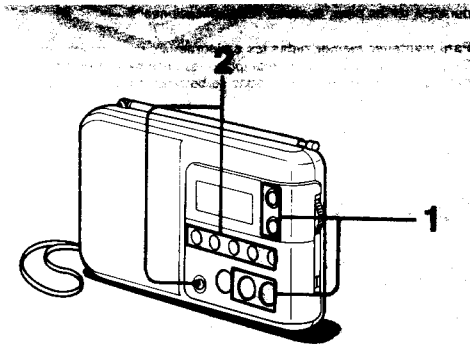
Press KEY PROTECT in the direction of the arrow. The  $\leftarrow$  mark will be displayed, indicating that the front panel buttons cannot be operated. This prevents accidental operation when the unit is being carried. You can adjust volume even if the  $\leftarrow$  mark is displayed.

To release this function, press KEY PROTECT again so that the mark will disappear.


Right side/CMS droll/Leads direction



# Preset Tuning



## How to Preset

<b>1</b>	Tune in a desired station.	<p><b>Example:</b> To preset an FM station on PRESET TUNING 2 button.</p>  <p>The preset number appears on the upper right side of the display.</p>
<b>2</b>	While keeping ENTER pressed, press the desired PRESET TUNING button. Repeat these steps for each station to be preset.	
<p>A total of 10 stations (up to 5 stations in each band) can be preset.</p>		

## To Tune in a Preset Station

<b>1</b>	Press FM or AM.
<b>2</b>	Press the desired PRESET TUNING button.
<b>3</b>	Adjust volume.
<p><b>To change the preset station</b> Preset a station on the desired PRESET TUNING button. The station previously preset will be erased.</p>	

# Specifications

Frequency range	<p>Models for the U.S.A. FM: 87.5 - 108 MHz (100 kHz step) AM: 530 - 1,670 kHz (10 kHz step)</p> <p>Models for Europe and other countries FM: 87.5 - 108 MHz (50 kHz step) AM: 531 - 1,602 kHz (9 kHz step)</p>
Antennas	<p>FM: Telescopic antenna AM: Built-in ferrite bar antenna</p>
Speaker	Approx. 7.7 cm (3 1/4 inches) dia.
Power output	280 mW (at 10% harmonic distortion)
Output	Earphone jack (mini-jack)
Power requirements	<p>4.5 V DC Three R6 (size AA) batteries</p> <p>DC IN 4.5 V jack accepts: Sony AC-D3M AC power adaptor (optional) Sony DCC-127A car battery cord (optional) for use with 12 V car battery</p>
Battery life	Approx. 19 hours of listening for 4 hours a day at a normal volume using Sony batteries SUM-3 (NS)
Dimensions	Approx. 178 x 100 x 32 mm (w/h/d) (7 1/4 x 4 x 1 1/4 inches) not incl. projecting parts and controls
Weight	Approx. 465 g (16.4 oz) incl. batteries
Supplied accessory	Earphone (1)
Design and specifications subject to change without notice.	
Optional Accessories	<p>AC power adaptor AC-D3M Car battery cord DCC-127A</p>

Your dealer may not handle some of the above listed optional accessories. Please ask the dealer for detailed information about the optional accessories available in your country.