3-865-826-22 (1) SONY

# FMIAM CD Clock Radio

**Operating Instructions** 

*ICF-CD2000* 

Sony Corporation © 1999 Printed in Malaysia



## Owner's Record

The serial number is located at the bottom Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product

Model No. ICF-CD2000 Serial No.

## WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment

## **INFORMATION**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following

- Reorient or relocate the receiving antenna. —Increase the separation between the
- equipment and receiver.

  —Connect the equipment into an outlet on a circuit different from that to which the
- receiver is connected -Consult the dealer or an experienced radio/ TV technician for help.

### CAUTION

The use of optical instruments with this product will increase eye hazard

## **Before You Begin**

Thank you for choosing a Sony CD clock radio! It will give you many hours of reliable service and listening pleasure.

Before operating the CD clock radio, please read

## **Features**

- PLL (Phase Locked Loop) synthesized travel clock radio with CD player.
   Wake up to your choice of alarm sound source — CD (with selectable Wake-up track), radio (with selectable Wake-up station), or buzzer.
- Clock function for the traveller display the time in your destination with the WORLD time function. - display both the current time and the alarm
- time with the dual display.
  Simple radio operation with the Auto Station Scan tuning and preset tuning. Preset tuning stores up to 15 (10 FM, 5 AM) stations.
- Multi-functioned CD player variety of playback modes (repeat, shuffle, etc.) plus a 10-second Electronic Shock Protection function to prevent skipping of sound. Stereo output from both the speakers and the

## Note on AM channel step

The AM channel step differs depending on areas. The channel step of this unit is factory-set to 10 kHz. Switch the channel step when using the unit in areas with the 9 kHz frequency allocation system (see "Changing AM Channel Step").

Area	Channel step	
North and South American countries	10 kHz	
Other countries	9 kHz	

## **Precautions**

- Operate the unit on the power sources
- specified in "Specifications."
   The nameplate indicating voltage, etc. is located at the bottom.
- Disconnect the AC power adaptor cord by grasping the plug. Never pull it by the cord.
  Do not leave the unit in a location near a heat
- source such as a radiator or airduct, or in a place subject to direct sunlight, excessive dust, mechanical vibration, or shock.
- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on a surface (a rug, a blanket, etc.) or near materials (a curtain) which might block the ventilation holes.
- Should any liquid or solid object fall into the unit, unplug (or remove batteries from) the unit and have it checked by a qualified
- personnel before operating it further.

   When the casing becomes soiled, clean it with a soft cloth dampened with a mild detergent solution. Never use abrasive cleansers or
- chemical solvents, as they may mar the casing.

  The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has

If you have any question, please consult your nearest Sony dealer.

## Notes on Headphones

## Road safety

Do not use headphones while driving, cycling, or operating any motorized vehicle. It may create a traffic hazard and is illegal in many areas. It can also be potentially dangerous to play your headphones at high volume while walking, especially at pedestrian crossings. You should exercise extreme caution or discontinue use in potentially hazardous situations.

### Preventing hearing damage

Avoid using headphones at high volume. Hearing experts advise against continuous, loud and extended play. If you experience a ringing in your ears, reduce volume or discontinue us

### Caring for others

Keep the volume at a moderate level. This will allow you to hear outside sounds and to be considerate to people around you.

## Troubleshooting

Should any problem occur with the unit, make the following checks to determine whether or not servicing is required. If the problem persists, consult your nearest Sony dealer

## There is no radio or CD sound

- The batteries are exhausted. Replace all batteries when "♥¬" appears in the display
- The batteries are not inserted with correct The AC power adaptor is not plugged in
- properly.

   The volume is not adjusted properly The headphones are plugged into the () (headphones) jack when you are trying to listen through the speakers.
- · The disc is not placed correctly.

- The CD player does not operate.

  The batteries are exhausted. Replace all batteries when "△¬" appears in the display.

  The disc is not placed correctly (the labeled)
- The disc is not placed correctly (the labeled surface should face up).
   The CD compartment lid is not completely
- The CD is dusty or defective. Clean the disc with an optional cleaning cloth. Wipe the disc from the center out.

- The CD sound skips.The CD is dusty or defective. Clean the disc
- with an optional cleaning cloth.

  The pickup lens is dirty. Clean the lens with a commercially available blower.
- The unit is exposed to vibration
- Activate the ESP function

## The CD, radio or buzzer alarm does not come

- on at the preset time.
- The current time is not set correctly.

  The alarm time is not set correctly.
- An alarm mode has not been selected
- The disc has not been placed (for CD alarm).
  The CD compartment lid is not completely
- The volume is not adjusted properly.

The clock flashes "AM 12:00" and the station

presets are erased.The lithium battery is exhausted. Replace it.

## **Specifications**

## CD player section

Compact disc digital audio system

Laser diode properties Material: GaAlAs Wavelength: 780 nm Emission duration: Continu Laser output: Less than 44.6 μW

(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7mm aperture.)

Frequency response 20-20,000 Hz<sub>-1.5</sub> dB Wow and flutter

# Below measurable limit

## Radio section

Frequency range			
Band	Frequency	Channel step	
FM	87.5-108 MHz	0.1 MHz	
AM	530-1,710 kHz	10 kHz	
FM	87.5-108 MHz	0.05 MHz	
AM	531-1 710 kHz	9 kHz	

## General

Time display

Full range: 4 cm  $(1^5/_{8}$  inches), 8 ohms (2)

∩ (headphones) jack (stereo minijack, 3.5 mm dia.)

## Power output 200mW + 200mW (at 10% harmonic distortion)

# Power requirements Main unit:

• 6V DC. four size AA (LR6) alkaline

batteries
• DC IN 6V jack accepts supplied AC power adaptor for use with 120 V AC, 60 Hz
Backup for Clock: 3V DC, one CR 2025

## External power source

Approx.  $166.5 \times 34 \times 173 \text{ mm (w/h/d)}$ (Approx.  $6^5/_8 \times 1^3/_8 \times 6^7/_8$  inches) incl. projecting parts and controls

Approx. 660 g (1 lb 7 oz) incl. batteries

## **Supplied Accessories**

Sonv CR 2025 lithium battery (1)

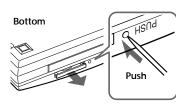
Design and specifications are subject to change

## **Power Sources**

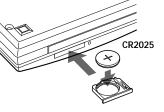
The unit cannot be played on manganese batteries. Use only alkaline batteries.

## Installing the Lithium **Battery for Clock Backup**

**1** Insert a pointed object into the hole beside the lithium battery compartment to eject the trav.



2 Place the lithium battery CR 2025 on the tray with the **4** side facing up, and slide the tray into the compartment until you hear a click.



The lithium battery is only for clock backup. The unit cannot play a CD or the radio unless it is powered by alkaline batteries or the AC power

### Replacing the lithium battery

The battery life of the backup lithium battery is 3 months when both the alkaline batteries or house current are not connceted. The lithium battery will last longer with these power sources, since either source will supply power for clock backup

If the clock flashes "AM 12:00" when you replace the alkaline batteries, the lithium battery is exhausted. Replace the lithium battery. Reset the clock and the station presets if needed.

### Notes on batteries

- Keep the lithium battery out of reach of children. Should the battery be swallowed,
- Wipe the batteries with a dry cloth to assure
- good contact.

   Be sure to install the batteries in the correct
- polarity position.Do not hold the batteries with metallic
- tweezers, as doing so may cause a short-circuit.

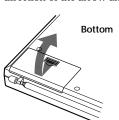
   Do not break up the batteries or throw them into a fire, which might cause them to explode. Carefully dispose of used batteries.

## **CAUTION**

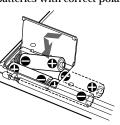
Danger of explosion if battery is replaced incorrectly. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according

## **Installing Alkaline Batteries**

1 Slide the battery compartment lid in the direction of the arrow and lift it up.



2 Install four size AA (LR6) alkaline batteries with correct polarity.



Insert the batteries with the polarity as shown in the diagram at the bottom of the unit. Be sure to insert the batteries from the

### **Battery life**

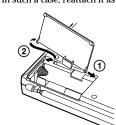
ising sony aikaiine size AA (LR6)		
CD (ESP on)	Approx. 7 hours	
adio	Approx. 17 hours	

### **Replacing batteries**

- When the batteries become weak, "♥¬" flashes in the display. When the batteries are exhausted, "♥ " stops flashing and remains in the display. Replace all the four batteries with new alkaline batteries of the same kind.
- When "♥¬" is lit in the display, the unit stops all operation. Only the clock display will appear in the display. After replacing the ries, press CD ►II or RADIO•SLEEP so that

### When the battery compartment lid becomes detached

The battery compartment lid is designed to become detached if opened with excessive force. In such a case, reattach it as shown below.



When the unit is not being used for a long period

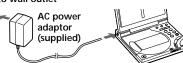
## **Using House Current**

from battery leakage and corrosion

Connect the supplied AC power adaptor to the DC IN 6V jack, and plug it into a wall outlet.

Be sure to plug in the adaptor securely to both the DC IN 6V jack and to the wall outlet. The unit automatically switches to external power even with the batteries inserted.

## to wall outlet



to DC IN 6V

### Notes

• When using the unit on AC power, we recommend that you remove the dry batteries

to avoid possible battery leakage.

• When the AC power adaptor is not to be used for a long period of time, be sure to unplug it both from the DC IN 6V jack and from the wall

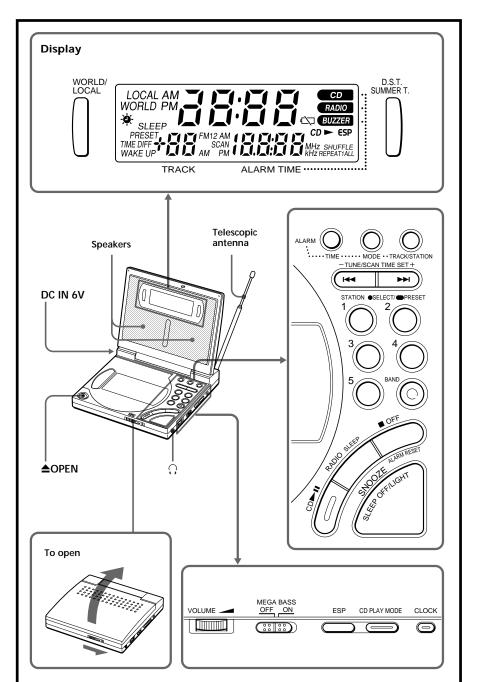
• Do not remove the lithium battery even when operating the unit on house current, as it serves as backup power for the memory.

• If power from the AC power adaptor is

disrupted due to power interruption, etc., the unit switches to battery power when available.

• Use only the supplied Sony AC power adaptor. Using any other adaptor may cause damage to the unit.





## **Setting the Clock**

When the batteries are first installed, "AM 12:00" flashes and "LOCAL" appears in the display. The clock is on the 12-hour system.

## **Setting the LOCAL Time**

- 1 Press WORLD/LOCAL to display "LOCAL".
- 2 Hold down CLOCK until you hear a

beep.
"LOCAL" and the hour flashes.



3 Press TUNE/SCAN TIME SET + or - to Press + to advance and - to go back, Hold

down the button to change the ti 4 Press CLOCK to enter the hour.



5 Press TUNE/SCAN TIME SET + or - to set the minute, and then press  $\mbox{{\bf CLOCK}}.$ Two beeps sound to confirm the setting. The clock starts to operate and ":" flashes

## **Setting the WORLD Time**

The WOLRD time displays the time for a selected time area in the world.

- 1 Press WORLD/LOCAL to display "TIME DIFF" and the time difference to your
- 2 Press CLOCK until you hear a beep



3 Press TUNE/SCAN TIME SET + or - to set the desired hour and press CLOCK. Press + to advance and - to go back. The time difference indication changes accordingly. Two beeps sound to confirm the setting. The clock starts to operate and ":" flashes.

- · For WORLD time, only the hour can and need
- When you change the LOCAL time, the WORLD time will be adjusted accordingly based on the time difference setting.

## Adjusting the current time display to daylight saving time (summer time)

Press D.S.T./SUMMER T.

"• appears in the display and the current time is adjusted to the daylight saving time.

To cancel daylight saving time adjustment Press D.S.T./SUMMER T. again.

The daylight saving time setting is done separately for the LOCAL time and WORLD

## **Changing AM Channel Step**

The channel step of this unit is factory-set to 10 kHz. Switch the channel step when using the unit in areas with the 9 kHz frequency allocation

rea	Channel step	
orth and South merican countries	10 kHz	
ther countries	9 kHz	

Hold down **■OFF**•ALARM RESET and BAND for about 5 seconds until you hear two beeps

The station presets are erased when the AM channel step is changed.

## Playing a CD

An 8 cm (3-inch) CD can be played without an

**1** Press **△OPEN** to open the CD compartment lid and place a disc







2 Press CD ►II. When the button is pressed, the display shows the total number of tracks and the running time of the CD. When a track is playing, the display shows the track number and the elapsed time of the

**3** Adjust the volume using **VOLUME**.

When you press CD ►II, it normally takes about 12 seconds before the CD starts playing. It may also take a few seconds after pressing CD ▶II before the CD starts spinning, but this is not

# Listening through the built-in

The built-in speakers are located in the inner side of the main cover. Open the main cover when listening through the speakers.

То	Press
Pause	CD ►II
Resume play after pause	CD ►II
Locate the beginning of the current track (AMS*)	I◀◀ once**
Locate a previous track (AMS)	repeatedly for the number of tracks to be skipped**
Locate the next track (AMS)	▶►I once**
Locate a succeeding track (AMS)	►► repeatedly for the number of tracks to be skipped**
Review	Hold down <b>◄◄</b> **
Cue	Hold down ▶▶I**
Stop play	■OFF•ALARM RESET

AMS = Automatic Music Sensor

\*\* Possible during both playback and pause

### Handle compact discs...

..this way B



**Playing the Radio** 

1 Press RADIO·SLEEP to turn on the

**2** Press **BAND** repeatedly to select the

FM1 and FM2 are differentiated only for

Preset tuning. For Manual or Auto Station Scan tuning of FM stations, select either

**3** Tune in to a station by pressing **TUNE**/

Press + for a higher frequency and – for a lower frequency. To change the frequency rapidly, hold down the button for more than 2 seconds. Be sure "SCAN" does not appear

in the display. The frequency indication will

The built-in speakers are located in the inner side

of the main cover. Open the main cover to listen

When a headphone set is connected to the  $\Omega$ 

(headphones) jack, there will be no sound from

FM: Extend and adjust the angle of the telescopic

Avoid operating the unit on a steel desk or

tically scans the selected

AM: Rotate the unit horizontally for optimum

**4** Adjust the volume using **VOLUME**.

Listening through the built-in

speakers

through the speakers.

To turn off the radio

Press ■OFF•ALARM RESET

To improve radio reception

**Auto Station Scan** 

waveband and stops at receptior

1 Press RADIO·SLEEP to turn on the

2 Press BAND repeatedly to select the

3 Hold down TUNE/SCAN TIME SET +

Scanning starts.

Scanning is paused when a station is received. The station is tuned in for a few

seconds, then the unit resumes scanning.

while your desired station is tuned in.

"SCAN" disappears in the display and scanning stops to receive your desired station

4 Press TUNE/SCAN TIME SET + or -

**5** Adjust the volume using **VOLUME**.

You can preset up to 15 stations (5 stations each for FM1, FM2 and AM). Once a station is preset,

it can be recalled with just a press of the

Example: To preset 87.50 MHz on FM2 onto

**1** Tune in to the desired station (87.50

**2** Hold down the desired preset button

MHz on FM2, in this case) by Manual

(2. in this case) until you hear two short

"PRESET" flashes while the station is being

stored, and the preset number is displayed

tuning or Auto Station Scan tuning.

**Preset Tuning** 

respective preset butto

**Presetting the Station** 

or - until "SCAN" flashes in the

display, then release the button.

Tuning

The unit autor

desired band

SCAN TIME SET + or -.

**Manual Tuning** 

desired band.

Not this way



Do not stick paper

or tape nor write anything on the

surface.

### **Notes**

- Do not open the CD compartment lid during
- playback, as doing so may damage the disc If you press CD ►II with no disc in the CD compartment, "00" will flash for a few

## **Various Modes of CD Playback**

You can play tracks repeatedly or in random

Press CD PLAY MODE repeatedly to select a playback mode

Each press changes the playback mode as

Display Play Mode (normal play) All the tracks are played once "SHUFFLE" (shuffle play) All the tracks are played once in random order

"SHUFFLE (shuffle repeat) REPEAT ALL" All the tracks are played repeatedly in random

"REPEAT 1" (single repeat) A single track is played repeatedly

"REPEAT ALL" (all repeat) All the tracks are played repeatedly

- When playing a CD in the Shuffle mode, pressing ► will not shift playback to the
- The CD PLAY MODE button does not function

## Preventing sound from skipping (ESP)

The ESP (Electronic Shock Protection) function prevents the sound from skipping by using a buffer memory that stores music data for abou 10 seconds. Use this function when playing a CD in a car or during a walk.

## Press ESP.

The "ESP" indication appears in the display. The ESP function is activated by factory preset To deactivate the function, hold down ESP for two seconds until the "ESP" indication disappears in the display

- A strong shock may cause playback to stop
- even with the ESP function on. The sound may skip or become noisy when listening to a dirty or scratched CD,
- listening to an audio test CD or.
- the player receives continuous shock.
  The sound will drop for a while when ESP is
- switched on or off during play.
   ESP cannot be switched on or off when the
- OCAL PM main cover is closed.

## To change the preset station

FM 2

Tune in to the station to be preset and hold down the desired preset button until you hear two short beeps.

The station previously assigned to the button

## Tuning in to a preset station

- 1 Press RADIO·SLEEP to turn on the
- **2** Press **BAND** to choose a band
- **3** Press the preset button where the desired station is stored.
- **4** Adjust the volume using **VOLUME**.

## Sleep Timer

Enjoy falling asleep to the radio with the sleep timer. The radio turns off automatically after the

- 1 Press RADIO·SLEEP to turn on the
- 2 Press RADIO·SLEEP again. "SLEEP" and the sleep countdown duration appear in the display.
- **3** Press **RADIO**•**SLEEP** repeatedly until the desired duration appears in the

Each press changes the sleep countdown duration in the following order:

 $90 \longrightarrow 60 \longrightarrow 30 \longrightarrow 15$ \_\_\_ (none) ←

The sleep timer starts counting down the remaining number of minutes until the radio turns off.

- To change the timer duration after the timer
- function is activated, press RADIO•SLEEP repeatedly until the desired duration appears. To switch off the power during countdown, press SNOOZE•SLEEP OFF/LIGHT.

## **Setting the Alarm**

The unit comes with 3 alarm modes — CD, radio and buzzer. Before setting the alarm, make sure to set the clock (see "Setting the Clock").

## **Setting the Alarm Time**

1 Hold down ALARM TIME until you hear a short beep.

The alarm mode indications and the hour of the alarm time flashes. reception. A ferrite bar is built in to the unit



2 Press TUNE/SCAN TIME SET + or - to select the desired hour, then press ALARM TIME.

A beep sounds and the minute flashes



**3** Press TUNE/SCAN TIME SET + or - to select the desired minute, then press ALARM TIME

Two short beeps sound to confirm the

**4** Press **ALARM MODE** repeatedly to display the indication for the desired alarm mode.

Each press of ALARM MODE changes the mode in the following order:  $CD \longrightarrow RADIO \longrightarrow BUZZER$ 

The alarm you chose will sound at the alarm

To check the alarm time

- · The radio or the buzzer alarm will sound for about 60 minutes before stopping
- The loudness of the buzzer is fixed and cannot be adjusted with VOLUME.

  • The CD alarm will stop automatically. It will
- stop in about 60 minutes under the SHUFFLE REPEAT ALL. REPEAT 1 or the REPEAT ALL mode. To continue playback of the CD after the alarm has stopped, press CD ►II.

## To Stop the Alarm

Press **■OFF•ALARM RESET**.

The alarm will come on at the same time the next

## To Cancel the Alarm

Press ALARM MODE repeatedly until there is no alarm mode indication in the display.

## To Doze for a Few More Minutes (Snooze)

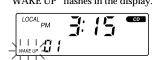
Press SNOOZE•SLEEP OFF/LIGHT. The alarm turns off, but will be activated automatically after about 8 minutes.

• The alarm mode indication flashes in the display while the Snooze function is in effect.

## To Set the Wake-up **Track for CD Alarm**

For the CD alarm, you can choose a track on the CD to wake up to (the Wake-up track).

- 1 Select the CD alarm mode (see
- "Selecting the Alarm Mode")
- 2 Press ALARM TRACK/STATION until
- you hear a beep.
  "WAKE UP" flashes in the display.



- 3 Press TUNE/SCAN TIME SET + or to select the desired track number.
- 4 Press ALARM TRACK/STATION again. Two short beeps sound to confirm the setting. The track you chose will sound at the

## Notes

- If the playback mode is set to SHUFFLE or SHUFFLE REPEAT the CD alarm will

will sound in its place at the time set

disregard the Wake-up track designation.

The selected Wake-up track number remains even when the CD is changed.

If the alarm mode is set to the CD alarm but there is no CD in the player, the buzzer alarm

## To Set the Wake-up **Station for Radio Alarm**

from the preset memory to wake up to (the Wake-up station). 1 Select the radio alarm mode (see

For the radio alarm, you can choose a station

"Selecting the Alarm Mode"). 2 Press ALARM TRACK/STATION until you hear a beep.
"WAKE UP" flashes in the display



3 Press TUNE/SCAN TIME SET + or repeatedly to select a preset station.



4 Press ALARM TRACK/STATION again. Two short beeps sound to confirm the setting. The preset station you chose will sound at the time set.

If you did not choose a Wake-up station (i.e., the WAKE UP preset indication is "--"), the station last received will be played.

## **Other Useful Functions**

# **Emphasizing bass**

Set MEGA BASS to ON.

## Lighting the display

display is lit at all times.

Press SNOOZE • SLEEP OFF/LIGHT. The light comes on for about 10 seconds. When the unit is operating on house current, the

Switch it off if the sound becomes distorted