SONY®

FM/AM CD Kitchen Clock Radio

Operating Instructions

DREAM MACHINE

Dream Machine is a trademark of Sony Corporation.

ICF-CD513

Sony Corporation © 2000   Printed in Thailand

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Sony **on** line   http://www.world.sony.com/

LIMITED WARRANTY
(Portable Audio)

FOB 30$ 以上

Owner's Record

The model number and the serial number are located on the top.
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-CD513

Serial No. —————————————

⚠ WARNING

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

⚠ CAUTION ⚠
CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

⚡ This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

⚠ This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

∗ The graphical symbols are on the top of the enclosure.

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 measures:
—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.

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

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

Before You Begin

Thank you for choosing the Sony CD kitchen clock radio! It will give you many hours of reliable service and listening pleasure.
Before operating the unit, please read these instructions thoroughly and retain them for future reference.

Features

• Built-in CD player with Shuffle/Repeat function.
• PLL (Phase Locked Loop) Synthesized Tuner with 15 memory presets for easy one button tuning.
• Powerful bass with MEGABASS sound system.
• Single alarm function - which can be used as timer.
• Summer time (daylight saving time) calculation.

Notes on AM channel step

The AM channel step differs depending on the areas.
The channel step of this unit is factory-set to 10 kHz.

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

Precautions

• Operate the unit on the power source specified in the "Specifications."
• To disconnect the power cord (mains lead), pull it out by the plug, not 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 solid object or liquid fall into the unit, unplug the unit and have it checked by a qualified personnel before operating it any further.
• To clean the casing, use a soft cloth dampened with a mild detergent solution.

If you have any questions or problems concerning your unit, please consult your nearest Sony dealer.

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 the nearest Sony dealer.

The clock does not show the correct time.
• Has an electrical power outage lasting more than one minute occurred?

The CD player does not operate.
• Did you close the CD lid?
• Did you place the disc correctly? The disc should be placed with the labeled side up.
• Dusty or defective disc—Clean the disc with an optional cleaning cloth. Wipe the disc from the center out.
• Take out the CD and leave the CD compartment open for about an hour to get rid of moisture condensation.

Sporadic loss of sound in CD operation.
• Dusty or defective disc—Clean or replace the disc.
• Volume too high—Reduce the volume.
• Strong vibration.

Specifications

CD player section
System: Compact disc digital audio system
Laser diode properties: Material: GaAlAs
   Wavelength: 780 nm
   Emission duration: Continuous
   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 $^{+1}_{-1.5}$ dB
Wow and flutter: Below measurable limit

Radio section
Frequency range:
   FM: 87.5-108 MHz
   AM: 530-1 710 kHz
Channel step:
   FM: 0.1 MHz (fixed)
   AM: 10 kHz (fixed)

General
Time display:
   12-hour system
Speaker:
   66 mm (2 ⅜ inches) dia, 4 Ω
Power outputs:
   1.2W + 1.2W (at 10% harmonic distortion)
Power requirements:
   120 V AC, 60 Hz
Dimensions:
   Approx. 365 × 106 × 281 mm(w/h/d)
   (Approx. 14 ⅜ × 4 ¼ × 11 ⅛ inches) incl. projecting parts and controls
Mass:
   Approx. 2.9 kg (6 lb 6 oz)
Supplied accessories:
   Mounting screws (4), Template (1), Spacers (4), Cord clamp (1)

Design and specifications are subject to change without notice.

IMPORTANT SAFEGUARDS

For your protection, please read these safety instructions completely before operating the appliance, and keep this manual for future reference.
Carefully observe all warnings, precautions and instructions on the appliance and described in the operating instructions supplied with the appliance by Sony.

INSTALLATION
Water and Moisture
Do not install the appliance near water: for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.

Heat
Do not install the appliance near sources of heat such as radiators, heat registers, stoves, or other appliances that produce heat.

Ventilation
Slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable and safe operation of the appliance, and to protect it from overheating, these slots and openings must never be blocked or covered.
Do not place the appliance on a bed, sofa, rug or other similar surface which may block the slots and openings.
Do not install the appliance in a confined space, such as a bookcase or built-in cabinet, unless proper ventilation is provided.

Carts and Stands
Do not install the appliance on an unstable table, shelf, cart or stand. Use only a cart or stand recommended by Sony.
An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

Wall or Ceiling Mounting
If your appliance can be mounted to a wall or ceiling, mount it only as recommended by Sony.

USE
Power Source
Connect the appliance to a power supply only of the type described in the operating instructions or as marked on the appliance.

Grounding or Polarization
Do not defeat the grounding or polarization feature of the AC power cord. If your AC receptacle will not accept the power cord plug, contact your electrician to install a proper AC receptacle.

AC Receptacle
Check to make sure that the AC receptacle holds the power cord plug firmly and securely. If the power cord plug is loose, contact your electrician to replace the defective and unsafe AC receptacle.

Power-Cord Protection
Route the power cord so that it is not likely to be walked on or pinched by having objects placed on it, paying particular attention to the plugs, receptacles, and the point where the cord exits from the appliance.

When not in use
Unplug the power cord of the appliance from the outlet when left unused for a long period of time.
To disconnect the cord, pull it out by grasping the plug. Never pull the plug out by the cord.

Foreign Objects
Be careful that foreign objects and liquids do not enter the enclosure through openings.

Cleaning
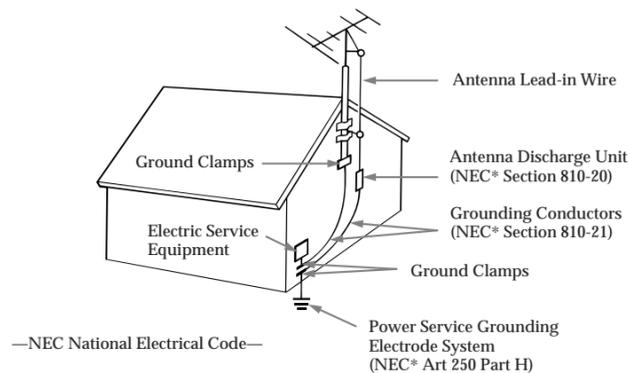Clean the appliance only as recommended by Sony.

ANTENNAS
Outdoor Antenna Grounding
If an outdoor antenna or cable system is installed, follow the precautions below.
An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits. WHEN INSTALLING AN OUTDOOR ANTENNA SYSTEM, EXTREME CARE SHOULD BE TAKEN TO KEEP FROM CONTACTING SUCH POWER LINES OR CIRCUITS AS CONTACT WITH THEM IS ALMOST INVARIABLY FATAL.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Antenna Grounding According to the National Electrical Code

Antenna Lead-in Wire
Antenna Discharge Unit (NEC* Section 810-20)
Grounding Conductors (NEC* Section 810-21)
Ground Clamps
Ground Clamps
Electric Service Equipment
Power Service Grounding Electrode System (NEC* Art 250 Part H)
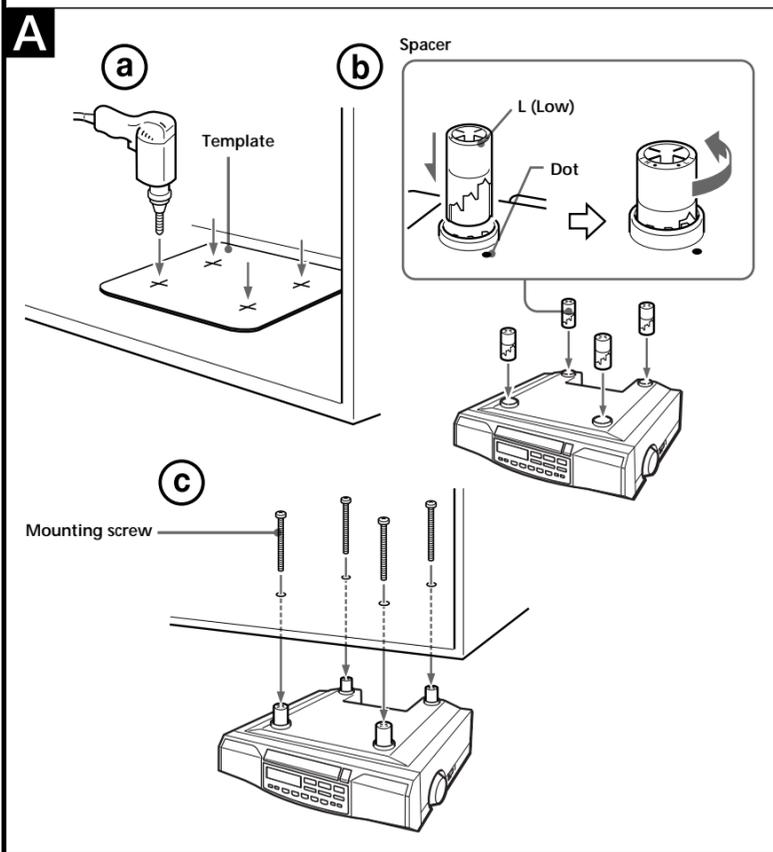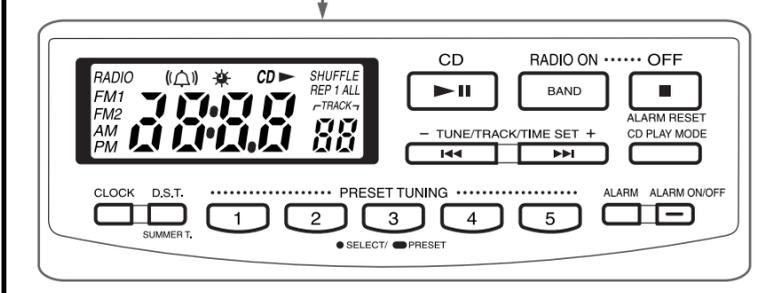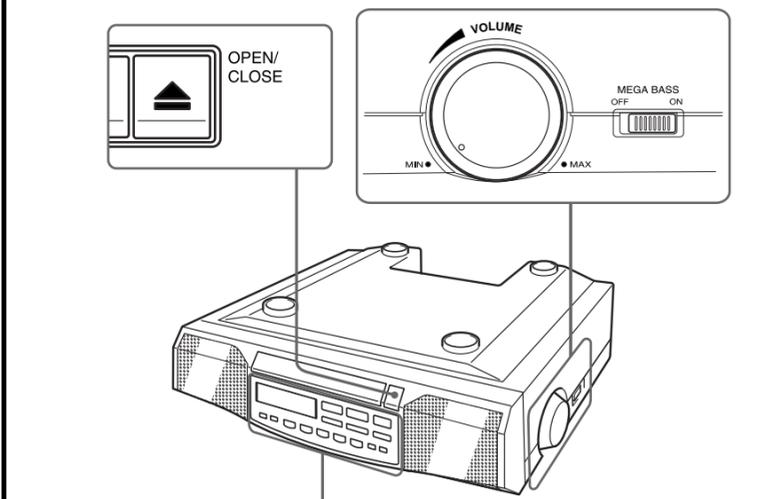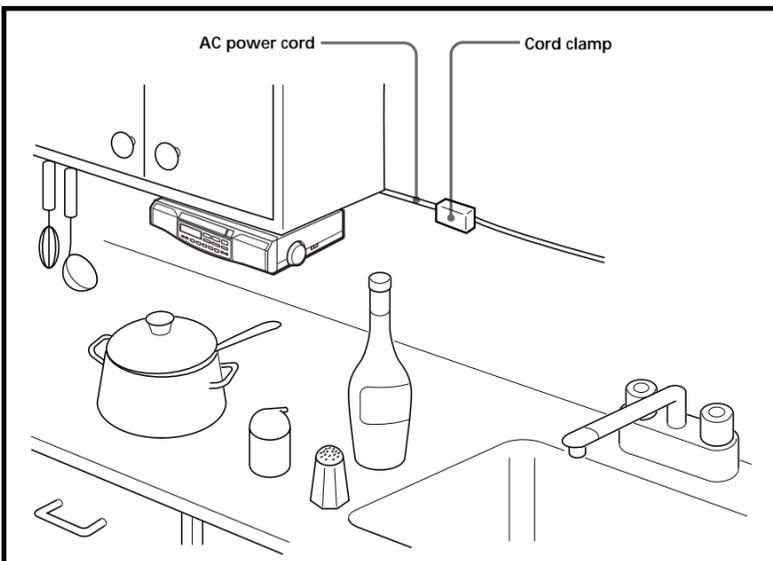—NEC National Electrical Code—

SERVICE
Unplug the appliance from the wall outlet and consult qualified service personnel when:
-the power cord or the plug has been damaged.
-a solid object or liquid has fallen into the cabinet.
-the appliance has been exposed to rain or moisture.
-the appliance does not appear to operate normally or exhibits a marked change in performance.
-the appliance has been dropped, or the enclosure damaged.

Do not attempt to service the appliance beyond that described in the operating instructions. For all other servicing refer to qualified service personnel only.

Installing the Unit Under a Cabinet
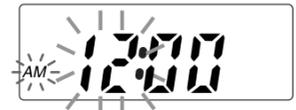
(See Fig. **A**)

The unit can be installed without the spacer.

1 Mark the position of the 4 holes by using the supplied template. Use a drill to make the holes (size 6.5 mm dia., $9/32$ inch). (See Fig. **A**-ⓐ)

2 When the cabinet door overhangs the shelf and obstructs the unit, you can adjust the unit/shelf height.
First set the L mark to the dot which becomes the lowest position, then you can adjust the height in 4 steps (H••L) by turning the spacer counterclockwise. (See Fig. **A**-ⓑ)

3 Install the unit with the supplied mounting screws. (See Fig. **A**-ⓒ)

Caution
- Since the unit is very heavy, be careful when installing the unit.
- To reduce the risk of fire, do not place any heating or cooking appliance beneath this unit.
- Install the unit so that its AC power cord can be connected directly to a wall outlet. Do not use a converter or extension cord.
- Be sure that the AC power cord has no slack when using the unit, since the cord acts as an FM wire antenna. If the AC power cord has some slack, wind it up to the cord hook until the cord has no slack.
- The unit has a built-in ferrite bar antenna for AM radio reception. Check the condition of AM reception before fixing in position.
- Install the unit as far as possible from a source of noise. (for example, refrigerator, microwave oven, fluorescent lamp, etc.)

Setting the Clock

1 Plug in the clock radio.
The display will flash "AM 12:00".

2 Press **CLOCK** for a few seconds.
You will hear a beep and the hour will start to flash in the display.

3 Press **TUNE/TRACK/TIME SET +** or **–** until the correct hour appears in the display.

4 Press **CLOCK** once.
The minute will flash.

5 Repeat steps **3** and **4** to set the minute.
After setting the minute, press **CLOCK** to start the counting of the seconds, and you will hear two short beeps.

- To set the current time rapidly, hold down **TUNE/TRACK/TIME SET +** or **–**.
- The clock system varies depending on the model you own.
  12-hour system: "AM 12:00" = midnight
- In step **5**, when you press **CLOCK** after the minute setting to activate the clock, the seconds start counting from zero.

To change the display to the daylight saving time (summer time) indication

Press **D.S.T./SUMMER T.**.
"☀" is displayed and the time indication changes to summer time.
To deactivate the summer time function, press **D.S.T./SUMMER T.** again.

Changing AM Channel Step

The AM channel step differs depending on areas. The channel step of this unit is factory-set to 9 kHz or 10 kHz to match the frequency allocation system of the country as listed. You can change the channel step.

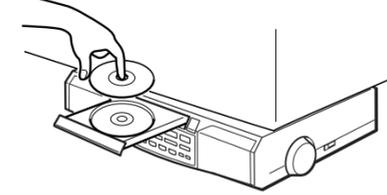| Area	Channel step	
	AM	FM
North and South American countries	10 kHz	0.1 MHz
Other countries	9 kHz	0.05 MHz

1 Press **OFF** to turn off the power.
2 While holding down **OFF**, keep pressing **PRESET 1** for more than 5 second. Two short beeps will sound, and the AM channel step will be changed.
If you proceed step **2** again, the channel step changes again.

- When the AM channel step is changed, the preset stations will be erased.
- When the AM channel step is changed, the FM channel step is also changed.

Playing a CD

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

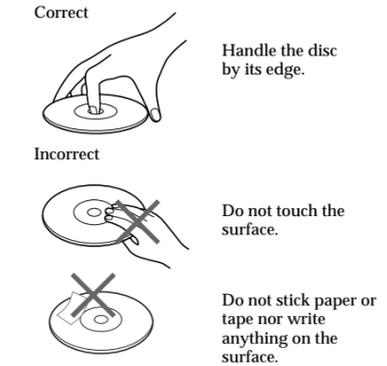**1** Press ⏏ **OPEN/CLOSE** and place a CD on the disc tray.

2 Press ⏏ **OPEN/CLOSE** to close the disc tray.

3 Press **CD ▶II**.
The player plays all the tracks once.
4 Adjust volume using **VOLUME**.

To	Press
Pause	**CD ▶II**
Resume play after pause	**CD ▶II** again
Locate the beginning of the current track (AMS)	I◀◀ **
Locate the next track (AMS)	▶▶I **
Go back at high speed	Hold down I◀◀ **
Go forward at high speed	Hold down ▶▶I **
Locate the previous track (AMS)	I◀◀ repeatedly**
Locate the succeeding track (AMS)	▶▶I repeatedly**
Stop play	■

* AMS = Automatic Music Sensor

**These operations are possible during both play and pause.

- To handle compact discs

Correct

Handle the disc by its edge.

Incorrect

Do not touch the surface.

Do not stick paper or tape nor write anything on the surface.

Note
If you press **CD ▶II** when there is no disc in the CD compartment, "00" flashes for about 5 seconds on the display and the unit turns off automatically.

Various Modes of CD Playback

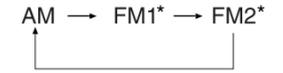You can play tracks repeatedly or in random order.

Press **CD PLAY MODE**.
Each press changes the play mode as follows:

Display indication	Play mode
none	(normal play)

All the tracks are played once.

⬇

"REP 1" (single repeat)
A single track is played repeatedly.

⬇

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

⬇

"SHUFFLE" (shuffle play)
All the tracks are played once in random order.

⬇

"SHUFFLE REP" (shuffle repeat)
All the tracks are played repeatedly in random order.

Playing the Radio

Manual Tuning

1 Press **RADIO ON•BAND** to turn on the radio.
"RADIO" appears in the display.
The display shows the band and frequency for a few seconds and then changes back to the current time.

2 Press **RADIO ON•BAND** repeatedly to select the desired band.
Each press changes the band as follows:

$$AM \longrightarrow FM1^* \longrightarrow FM2^*$$

* When using FM1 or FM2 preset mode, you may listen to the radio on either mode (See "Preset Tuning").

3 Use **TUNE/TRACK/TIME SET +** or **–** to tune in to the desired station.
The FM channel step is set to 0.1 MHz and the AM channel step is set to 10 kHz.

Two short beeps sound when the minimum frequency of each band is received during tuning.

4 Adjust volume using **VOLUME**.

- To turn off the radio, press **OFF**.
- To improve radio reception
  FM: Extend the AC power cord fully to improve FM reception.
  AM: When installing the unit, rotate the unit horizontally for optimum reception and then install the unit. A ferrite bar antenna is built into the unit.

- To check the station being received, press **RADIO ON•BAND** lightly. The display shows the band and frequency for a few seconds and then changes back to the current time.

Preset Tuning

You can preset 10 stations in FM (5 stations in FM1, 5 stations in FM2) and 5 stations in AM.

Presetting a Station
Example: To preset FM90 MHz onto preset button **2** for FM2.
1 Press **RADIO ON•BAND** to turn on the radio.
2 Press **RADIO ON•BAND** to select FM2.
3 Tune in to the station on FM90 MHz (See "Manual Tuning").
4 Hold down the **PRESET TUNING** button **2** until you hear two short beeps.

The display shows the frequency for a few seconds and then changes back to the current time.

To change a preset station
Tune in manually to the station you want to store and hold down the **PRESET TUNING** buttons(1-5) until you hear two short beeps. The previously stored station will be replaced by the new one.

Tuning in to a preset station
1 Press **RADIO ON•BAND** to turn on the radio.
2 Press **RADIO ON•BAND** to select the band.
3 Press the **PRESET TUNING** button lightly where the desired station is stored.
4 Adjust the volume using **VOLUME**.
After a few seconds, the display returns to the current time but the preset button number remains.

Note
When the **PRESET TUNING** buttons(1-5) are pressed lightly, the radio station that is preset will be selected. When they are pressed for a while, the station that is on will be newly preset.

Useful Functions

To Obtain Powerful Bass
Switch **MEGA BASS** to **ON**.
The "MEGA BASS" system produces a powerful bass sound.

Setting the Alarm

Before setting the alarm, make sure to set the clock (see "Setting the Clock").

To Set the Alarm Time
1 Turn off the radio.
2 Press **ALARM** for a few seconds.
You will hear a beep and the hour will start to flash in the display.
3 Press **TUNE/TRACK/TIME SET +** or **–** until the desired time appears in the display.
4 Press **ALARM** once.
The minutes starts to flash.
5 Repeat steps **3** and **4** to set the minute.
Two short beeps will confirm the setting, and the display will show the current time.

When **TUNE/TRACK/TIME SET +** or **–** is held down, the displayed time initially changes in one-minute steps, and after about a second, switches to ten-minute steps.

To Check the Alarm Time
Press **ALARM**.
The display shows the alarm time for a few seconds and then returns to show the current time.

ALARM ON —
To Set the Alarm Mode
Press **ALARM ON/OFF** to set the alarm.
"((♫))" will appear in the display.
When the alarm comes on at the preset time, "((♫))" flashes in the display.

ALARM OFF —
The alarm is turned off automatically after 59 minutes.

To Stop the Alarm
Press **OFF•ALARM RESET** to turn off the alarm.
The alarm will come on again at the same time the next day.

To Cancel the Alarm
Press **ALARM ON/OFF**.
"((♫))" will disappear from the display.