SONY

Visual IC Recorder

Operating Instructions

Owner's Record

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

Model No. ICD-CX50   Serial No. _____

IC RECORDER

ICD-CX50

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eco info

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http://www.sony.net/

Troubleshooting

Before taking the unit for repair, check the following sections. Should any problem persists after you have made these checks, consult your nearest Sony dealer.

The unit does not operate.
• The battery has run out. Charge the battery.
• The buttons are locked while the lens mount is in the HOLD position. (If you press any button, "HOLD" will appear for 3 seconds.)

No sound comes from the speaker.
• The headphones are plugged in.
• The volume is turned down completely.

Sound comes from the speaker even when the headphones are plugged in.
• If you plug in the headphones not securely during playback, the sound may come from the speaker. Unplug the headphones and then insert them securely.

You cannot start recording.
• The memory is full. Erase some of the messages. Or use the Visual and Voice Editor to save the IC recorder messages to the hard disk of your PC.
• 99 messages have already been recorded in the selected folder. Select another folder or erase some of the messages.

You cannot shoot an image.
• You cannot shoot an image when the lens mount is not set to "Camera on (Open)" or "Camera on (Self)" position.

You cannot add a post-recording to an message.
• The remaining memory is too short.
• The message already has recorded sound. You can add a post-recording to a message without recorded sound.

Recording is interrupted (when recording from an external device).
• If you use an audio connecting cable without a resistor to connect the sound source to the IC recorder, sound may be recorded interrupted. Make sure to use a resistance audio connecting cable.

Noise is heard.
• If you open or close the display cover during recording, noise of opening or closing may be recorded.
• An object, such as your finger, etc., accidentally rubbed or scratched the unit during recording so that noise was recorded.
• The unit was placed near an AC power source, a fluorescent lamp or a mobile phone during recording or playback.
• Headphones plug is dirty. Clean the plug.
• When an image is shot, sound may be interrupted because of rubbed or operation sound. Use of the electret condenser microphone ECM-CS10 (not supplied) may improve the condition.

Recording level is low.
• If it is difficult to hear small sound of a recorded message, slide the V-UP (Digital Voice Up) switch to "ON". Playback sound may become more audible.

Playback speed is too fast or too slow.
• The playback speed is adjusted in the "DPC" in the menu. Display the "DPC" in the menu and select it to "OFF".

"y–m–d" or "--:--" is displayed.
• You have not set the clock. Display the "Date&Time" in the menu and set the clock.
• The date and time of recording will not be displayed if you recorded the message when the clock was not set. Display the "Date&Time" in the menu and set the clock.

There are fewer menu items in the menu mode.
• There are some menu items which are not displayed while the unit is in recording or playback mode.

A character in a folder or message name is displayed in blank.
• The unit cannot support and display some characters which are entered using the supplied "Visual and Voice Editor" software.

The remaining time displayed in the display window is shorter than that displayed in the supplied Visual and Voice Editor software.
• The unit requires a certain amount of memory for system operation. That amount is subtracted from the remaining time. This accounts for the difference.

You cannot record messages up to the maximum recording time.
• If you record messages in a mixture of ST, STLP, SP and LP modes, the recordable time varies from the maximum ST mode recording time to the maximum LP mode recording time.
• There may be other formatted data in the memory.
• Since you need the minimum recording unit to record a message even shorter than the minimum recording unit, the actual total recording time may become shorter than the maximum recording time of the IC recorder.
• If the length of each message cannot be divided by the minimum recording unit, the remaining recording time may decrease by more than the total length of the messages.
• No more recording can be made when 99 messages each have been recorded in a folder.
• Due to the limitation of the IC recording system mentioned above, the sum of the total recorded time in the counter (elapsed time) and the remaining time becomes shorter than the maximum recording time of the IC recorder.

The battery life is short.
• The battery life mentioned in "Step 1: Charging the Built-in Battery" is based on playback through internal speaker with the medium volume level. The battery life may shorten depending on the operation of the unit.

CHG (charge) lamp flashes in red and you cannot charge the battery.
• You are trying to charge the battery in a temperature exceeding the range suitable for charging the battery. Charge the battery within the temperature range of 5°C to 35°C (41°F to 95°F).

"ACCESS" display does not disappear.
• If the unit is required to process excessive amount of data, "ACCESS" may be displayed for an extended period of time. This is not a malfunction of the unit. Wait until the message disappears.

The unit does not operate correctly.
• Push in the RESET button to reset the unit.

You cannot connect the unit to the PC.
• Refer to the "Visual and Voice Editor" operating instructions.

Please note that recorded messages may be erased during service or repair work.

▶Before you begin

What is the Visual IC recorder?

What you can do with the Visual IC Recorder and its camera function?

While recording sound a message, you can shoot an image at the desired point. The shot image is recorded and added as a bookmark to the message. For example, when you record an important meeting, you can shoot an image as a reminder of the important topic as follows:

The default bookmark

VOICE

A message with bookmarks

Start recording sound of a meeting.

Shoot an image of the speaker presenting an important topic.

Shoot an image of the sample of a new product.

Later, you can search between the bookmarks to locate the specific point in the message. A bookmark can also be used as the title image of the message which is displayed in the message list or a reminder of the contents of the message.

Three types of messages that you can record with the IC recorder:

• **Shooting images while recording sound – Message with bookmarks**
You can shoot images while recording sound as a message. The recorded message contains both sound and image(s) (bookmarks). Those messages are called a "message with bookmarks". (See "Recording a Message with Images".)

• **Recording sound only – Message without bookmark**
You can also record sound only, which is called "message without bookmark". You can add images later as bookmarks. (See the reverse side.)

• **Shooting an image only – Picture message**
You can also shoot an image without recorded sound. The recorded message contains an image only, which is called "picture message". You can add sound later. (See the reverse side.)

A variety of editing and playback features:

• **Recording sound to a picture message– Post-recording**
You can add sound to a previously shot image (picture message), which is called "Post-recording".

• **Shooting images while playing back sound – Adding bookmarks to a message**
While playing back sound of a message, you can shoot an image and add it as a bookmark. You can also erase a bookmark from an message.

• **Playing back sound of a message**

• **Displaying bookmarks while playing back sound**
The bookmarks are displayed while the message sound is played back. You can select a specific bookmark and display in full-screen size. You can also repeat or erase the section between the two bookmarks, search for a specific point by locating bookmarks. (See "Playing Back and Displaying a Message".)

• **Connecting the IC recorder to the PC**
You can connect your IC recorder to the PC and use the Visual and Voice Editor supplied to display, play, save, and edit messages.

What is "Live View"? – Loading the camera function

To use the camera function, you need to activate the camera lens ready for shooting and display live pictures from the lens on the display window. This mode is called "Live View".

To load the live view in the display window, do the following:
① Rotate the lens mount to the "Camera on (Open/Self)" position.
② Open the display cover.
③ Do either of the following:
• Press 📷 (camera).
• Press CAPTURE.
The Live View mode is activated and you can shoot an image by pressing CAPTURE.

▶Getting started

Step 1: Charging the Built-in Battery

Connect the supplied AC power adaptor to the DC IN 6V jack of the unit and to the wall outlet.

The CHG (charge) lamp lights in red and the unit starts charging the battery. When the lamp turns off, the charging is completed. (Usually it takes about 2 hours and 30 minutes o fully charge the built-in battery.)

When you use the unit for the first time after purchase, or when the unit has not been used for a certain period of time, the unit should be charged fully. "Set Date&Time" appears. Please refer to "Step 2: Setting the Clock" to set the date and time.

Battery remain indicator

The battery indication on the display window shows the battery condition:
🔋 : "Battery Low" appears. Charge battery.
🔋 : "Charge Battery" appears and the unit will stop operation.

Battery life*

Recording mode:	ST	STLP	SP	LP
In continuous recording:	10h.30m.	13h.30m.	13h.30m.	14hr.
In continuous sound playback**:	9h.30m.	10 h.	11 h.	12 hr.

(hr.: hours/min.: minutes)

* In approximate hours and minutes.
* The battery life may shorten depending on the operation of the unit.
** When playing back through the internal speaker with the medium volume level

Step 2: Setting the Clock

You need to set the clock to record the date and time when recording and shooting. When you use the unit for the first time after purchase, or when the unit has been out of battery for a certain period of time, "Set Date&Time" appears. Release the HOLD function and set the date and time as follows:
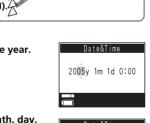
Press the control key upward, downward, leftward, or rightward (▲/▼/◀/▶) to select an item, and then press down the center (▶II) to decide on the item.
In this manual, these operations are described as follows:

Press ▲ (◀◀)
Press ◀ (▶▶I).   Press ▶.
Press ▼ (▶▶I).

1 Press ▲/▼ to select the digits for the year.
▲: to increase the number
▼: to increase the number

2 Press ▶II.
The month digits will flash.

3 Repeat steps 1 and 2 to set the month, day, hour, and then minutes in sequence.
To select a previous or next item
Press ◀ for the previous item or ▶ for the next item.

4 Press ▶II.

5 Press ■ (stop) to return to the normal display.

Note on setting the clock
Set the clock while the unit is in the stop mode.

To display the clock setting window and current time
You can display the clock setting window to set the date and time or check the current time:
1 Press MENU for more than one second to display the menu.
2 Press ▲/▼ to select "Date&Time".
The current time is displayed in the right bottom of the display window.
3 To set the clock, press ▶II to display the "Date&Time" window.
4 Press ▲/▼ to select "Manual" and press ▶II and follow the steps 1 through 4 of the "Step 2: Setting the Clock".

When you select "Auto" for "Date&Time"
When you connect the unit to the PC after the Visual and Voice Editor is started, the clock of the unit is automatically set according to the internal clock of your PC.

▶Basic Operations

Recording a Message with Images

You can shoot an image as a bookmark while recording sound as a new message– Message with bookmarks. You can shoot up to 99 bookmarks to a message.

You can record up to maximum of 99 messages in each folder of the initially 5 folders (FOLDER01 to FOLDER05). When you add new message folders by using the supplied Visual and Voice Editor software, you can record the maximum of 1,000 messages in all folders.

Since a newly recorded message is automatically added behind the last recorded message, you can start recording without searching for the end of the last recording.

e.g.

Message 1	Message 2	Blank space

Newly recorded message

Recording modes*
ST	Approx. 11 hr. 30 min.
STLP	Approx. 22 hr. 5 min.
SP	Approx. 35 hr.
LP	Approx. 93 hr. 30 min.

(hr.: hours/min.: minutes)

* In continuous recording
**Recording modes:
ST: Standard play stereo recording mode/STLP: Long play stereo recording mode /SP: Standard play monaural recording mode/LP: Long play monaural recording mode

To select the recording mode
To record in better sound quality, select the ST or STLP mode.

Notes before recording
• To record in better sound quality, select the ST or STLP mode.
• Before making a long recording, be sure to check the battery indicator.
• The maximum recording time varies if you use multiple recording modes for recording multiple messages.
• You cannot record through the built-in microphone if you connect an external microphone to the 📷 (microphone) connector.

1 Release the HOLD function and open the display cover.

① Rotate the lens mount to "●" (HOLD off/ Camera off) position until it clicks into place.
② Slide open the cover to display the whole LCD display window.

When you do not press any key or button for approximately 15 seconds, the display will be turned off. To turn it on, press any key.

2 Start recording sound.

① Press REC/PAUSE during the stop mode.
You do not need to keep pressing REC/ PAUSE while recording.

Remaining memory indication
Recording mode   Remaining time indication

Current message number/Number of messages in the folder

Counter display*

Message icon

① Speak to the built-in microphone.

REC/PLAY indicator
(lights in red during recording).

* The display selected in the "Display" in the menu appears.

3 Load the Live View in the display window.

Rotate the lens mount further than "●HOLD off/ Camera off" position until it clicks into place at the next position ("Camera on (Open)" position). The camera is activated and display shows the live view from the lens.

4 Shoot an image (bookmark).

📷 (camera) button
(If live view is not displayed, press this button to resume the live view.)

Picture size indicator

Zoom scaling indicator

① Adjust zoom scaling.
►I: Zoom in (up to x4).
I◄: Zoom out (down to x1).

② Press CAPTURE.
The image shown on the display window will be recorded as a bookmark. You can add the maximum of 99 images as bookmarks to a message.

5 Stop recording a message.

Press ■ (stop).
Recording stops at the beginning of the message just recorded.
The first bookmark shot is displayed in the message list.

To	Do this
pause recording*	Press REC/PAUSE. During recording pause, the REC/PLAY indicator flashes and the counter indication flashes. To resume recording, press REC/PAUSE. During recording pause, you can shoot an image during recording pause.
release pause and resume recording	Press REC/PAUSE. Recording resumes from that point.
listen to the current recording	Press ■ (stop) to stop recording, then press ▶II.

* About 10 minutes after you pause recording, recording pause is automatically released and the unit goes into the stop mode.

Playing Back and displaying Messages

You can play back a message you have just finished recording as follows:

1 Start playback.

REC/PLAY indicator
(lights in green during playback).

① Press ▶II.
The unit plays back all the messages in the current folder continuously. Then it stops at the beginning of the last message in the folder.

Selected message number/Number of messages in the selected folder

Counter display*

② Adjust the volume with VOLUME +/–.

* The display selected in the "Counter" in the menu appears.

🎧 (headphones) jack

▶Basic Operations

Display a full-screen image.

During playback of a message, you can display a full-screen image from the message list or bookmark list.

To display DISPLAY briefly.
• When you press DISPLAY in the message list, the title image (bookmark) of the current message is displayed in full-screen.
• When you press DISPLAY in the bookmark list, the current bookmark is displayed in full-screen.

To return to the message or bookmark list, press DISPLAY again.

Stop playing a message.

Press ■ (stop).
Playback stops. To resume playback from that point, press ▶II.

To	Do this
pause playback*	Press ▶II. During playback pause, the REC/PLAY indicator and the counter indication flashes. To resume playback from that point, press ▶II again.
go back to the beginning of the message	Press ◀ (I◀◀) once.*
skip to the next message	Press ▶ (▶▶I) once.*
go back to previous messages/skip to succeeding messages	Press ◀ (I◀◀) or (▶▶I) repeatedly. (During stop mode, keep the key pressed to skip the messages continuously.)

* About 10 minutes after you pause playback, playback pause is automatically released and the unit goes into the stop mode.

Selecting a message to be played back

You can select the folder and the message to be played back:
1 In the folder list, select the folder where the desired message is saved. For how to select the folder in the folder list, see "Searching for a folder, Message or Folder" on the reverse side.
2 In the message list, press ◀ or ▶ to select the desired message.

Switching the message list and bookmark list

Press ◀ or ►.
In the message list, title images (bookmarks) of the messages in the current folder is displayed. In the bookmark list, bookmarks in the current message is displayed. You can search for a message or bookmark by pressing ▼ or ▲.

Searching forward/backward during playback (Cue/Review)

• **To search forward (cue):** Keep ▶ pressed during playback and release the key at the point you wish to resume playback.
• **To search backward (review):** Keep ◀ pressed during playback and release the key at the point you wish to resume playback.

If you keep ▶ or ◀ pressed, the unit starts to search at higher speed. During cue/review, the elapse time will be displayed, regardless of the display "Counter" setting in the menu.

▶Basic Operations

Adjusting the playback sound by amplifying inaudible sound–Digital Voice Up function

During playback of a message, you can make low-level inaudible sound heard by amplifying. By adjusting the overall recording to its optimum level, you can make playback sound well-balanced and more audible.

Listening in better sound quality

You can enjoy better sound quality as follows:
• To listen from headphones: Connect the stereo headphones (supplied or not supplied) to the 🎧 (headphones) jack. The built-in speaker will be automatically disconnected.
• To listen from an external speaker: Connect an active or passive speaker (not supplied) to the 🎧 (headphones) jack.

Operating the Menu

During stop, playback or recording, you can use the menu to change the operation modes in playback and recording, display mode, or other settings. Display the menu and change the settings as follows:

To	Do this	How the display changes in menu operation
1 enter the menu mode.	Press MENU for more than one second.	Entering the menu mode (1)
2 select the desired menu item.	Press ▲/▼ and press ▶II.	Selecting the desired menu item (2)
3 go back to the previous step.	Press ▲/▼ to select "Return" and press ▶II. (If "Return" does not appear, press ◀.)	
3 select the setting item.	Press ▲/▼ and press ▶II.	Selecting the setting item (3)
4 exit the menu mode.	Press ■ (stop) or press ▲/▼ to select "Menu End" and press ▶II.	

If you do not press the key or button for one minute, the menu mode is automatically cancelled and the window will return to normal display.
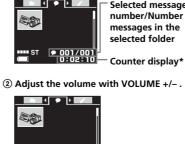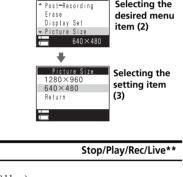
Menu items

Menu items	Settings (*: Initial setting)	Stop/Play/Rec/Live**
REC Mode	**You can set the recording mode (bit rate):** ST*: You can record with high-quality stereo recording. (48 kbps) STLP: You can record with stereo mode for longer time. (24 kbps) SP: You can record with standard mode (monaural sound). (16 kbps) LP: You can record for longer time (monaural sound). (6 kbps)	OK/–/–/–
Post-recording	**Displays the window to start post-recording of voice to a picture message.**	OK/–/–/–
Erase	**Displays the menu to erase messages:** Message: You can erase a message by selecting it in the message list.	OK/OK/–/–
	All in Folder: You can erase all the messages in the current folder.	OK/–/–/–
	Bookmark: You can display the bookmarks of the currently selected message and select and erase a bookmark.	OK/OK/–/–
	Section: You can select a bookmark and erase the section between the selected bookmark and the next bookmark. You can also select which bookmark among the two will remain.	OK/OK/–/–
Display Set	**You can change the display settings (Counter/Title Image/Backlight) on the display window:**	
	Counter: You can change the mode on the display window. (See "Changing the Counter Display" on the reverse side.) (Elapse Time*/Remaining Time/REC Date/REC Time)	OK/OK/OK/OK
	Title Image: You can change a bookmark for the title image to be displayed in the message list.	OK/–/–/–
	Backlight: You can turn on or off the backlight on the display window during operation. ON*: The backlight on the display window lights during operation. OFF: The backlight on the display window turns off during operation.	OK/OK/OK/OK
Picture Size	**You can select the picture size in which an image is recorded:** 1280 x 960*: Images will be recorded in 1280 x 960 pixels. You can record an image in better picture quality. 640 x 480: Images will be recorded in 640 x 480 pixels. You can record a larger number of images.	OK/–/–/–
Playback Set	**You can enable DPC (Digital Pitch Control) playback and Bookmark Repeat playback.**	
	DPC: You can set the playback speed. OFF*: Messages will be played back at normal speed. ON: Messages will be played back at the specified speed. You can adjust the speed of the playback between twice the normal speed (+100%) and half the normal speed (–50%)	OK/OK/–/–
	Bookmark Repeat: ON: When you start playback, the section between the two bookmarks will be played back repeatedly. OFF*: When you start playback, normal playback of the selected message starts. The unit plays back from the selected message to the last message in the current folder continuously.	OK/OK/–/–
Date&Time	**You can set the clock manually or automatically:** Auto*: If the unit is connected to a PC while the supplied Visual and Voice Editor is operating, the clock is automatically set according to the PC internal clock. Manual: Displays the window to set the clock manually (05/1/1/10:00). (See "Step 2: Setting the Clock".)	OK/–/–/–
USB Batt Charge	**You can set the unit to be charged from the connected PC via the USB connection.** ON*: When the unit is connected to the PC, the internal battery is charged via the USB connector. OFF: The battery will be charged only when the AC power adaptor is connected to the DC IN jack.	OK/–/–/–
Folder Settings	**You can change the icon and name of the currently selected folder.** Folder Icon: You can change the folder icon from the templates. Folder Name: You can change the folder name from the templates. (See the reverse side.)	OK/–/–/–
Beep	**You can turn on or off the beep.** ON*: A beep will sound to indicate that operation has been accepted. OFF: No beep sound will be heard except for the alarm for illegal operations.	OK/OK/–/–
Format	You can erase all the data in the memory and return it to the initial status.	OK/–/–/–

**Displays when you change the setting in each operation mode (Stop: stop mode/Play: playback mode/Rec: recording mode/ Live: live view): "OK" shows the setting can be changed and "–" shows the setting cannot be changed.

▶Recording a Message with Images

Maximum recording time*
The maximum recording time of all the folders is as follows. You can record messages for the maximum recording time in a single folder. (In recording sound only.)

Index to Parts and Controls

Identifying the front and rear panels of the unit

Opening the display cover.

1 **Lens mount (HOLD on/off, Camera on/off, camera self mode)**
You can set the unit to the following modes as you rotate the lens mount to the following position:
HOLD on: When you rotate the lens mount to "HOLD", "HOLD" will appear for 3 seconds and then the display will be turned off.
• During recording and playback: recording or playback continues but the functions of the buttons are locked. The live view mode, if activated, will be turned off.
• During stop: The unit enters into the standby mode.

To cancel the HOLD function
Rotate the lens mount to select other position.
HOLD off/Camera off: When you rotate the lens mount to the "●" position, you can record a message or play back a message. If the lens mount is turned from the HOLD position, HOLD will be cancelled.

Camera on (Open): Rotate the lens mount further than "●HOLD off/Camera off" position and to the next position it clicks into place. This position is called "Camera on (Open)" position in this manual where the camera is activated. You can turn on the live view camera is activated.

Camera on (Self): Rotate the lens mount further than "Camera on (Open)" position until it clicks into place. The lens faces towards you. This position is called "Camera on (Self)" position You can turn on the live view and can shoot your self view.

2 **Macro switch (off/ 🌷on)**
You can set the macro feature when you shoot an image in the live-view mode.
on: Turns on the macro feature for shooting close-ups.
off: Turns off the macro feature.

3 **Display cover**

4 **Display window (with built-in speaker)**
For details, see "Using the display window" below. The built-in speaker outputs sound when no headphones or active speaker are connected.

5 **Camera lens**

6 **🎧 (headphones) jack**

7 **(microphone) jack (PLUG IN POWER)**
Connect an external microphone here. When an external microphone is connected, the built-in microphone is automatically cut off.

8 **REC (record) /PAUSE button**
Press here to start and stop recording.

9 **📷 (camera) button**
Turns on or off the live view mode for shooting an image.

10 **DISPLAY/MENU button**
By pressing briefly, it works as DISPLAY button to change the display as follows:
In the live view mode: Switches the thumbnail view of the images or bookmarks and full-screen preview of an image.
When the live view is off: Switches the thumbnail view of the message or bookmarks and an image. MENU button to display the menu on the LCD display.

11 **Control key**
(▲/◀◀) Folder/ / Message/ /: Bookmark)/ ◀/▶(I◀◀ fast forward/+zoom out)/▼(▶▶I fast forward/+zoom in)/▶II (play/pause•enter)

12 **■ (stop) button**
Press here to stop operation.

13 **VOL (volume) +/– button**
Adjust the play/back sound volume with the buttons.

14 **V-UP (Digital Voice Up) ON/OFF switch**
You can make the playback sound well-balanced and more audible by enabling the Digital Voice Up function as follows:
ON: Digital Voice Up function is activated. Inaudible low-level part of a recorded message is amplified so that the overall recording is adjusted to its optimum level.
OFF: A message is played back without Digital Voice Up function.

15 **RESET button**
In case the unit cannot be operated, press here with a pointed object for more than 0.5 second.

16 **Slit for a handstrap**
You can attach a handstrap (not supplied) here.

17 **DC IN 6V jack**
Connect the supplied AC power adaptor for charging.

18 **📷 (camera) button**

19 **CAPTURE button**
Press to shoot an image. If the live view is not activated, pressing this button activates the live view.

20 **(microphone) jack (PLUG IN POWER)**

21 **REC (record)/PLAY indicator**
The indicator lights in red during recording or in green during playback. It flashes in red during recording pause. During accessing the data, it flashes in red or orange.

22 **USB connector**
Use the supplied USB cable to connect the unit to a PC.

23 **(Charge) lamp**
Lights in red when the built-in battery is being charged.

Using the display window

Folder list   **Message list**   **Bookmark list**

When the display cover is closed

When the display cover is open

Full-screen preview of a message title or bookmark image

Live view

1 **Folder list**
Displays the icons and names of the folders.

2 **Screen tabs (Folder/ : Message/ : Bookmark)**
Screen tabs for the Folder list, Message list, and Bookmark list are displayed.

3 **Scroll bar**
Displays the current location of the displayed messages in the folder.

4 **Selected message number in the selected folder /Total number of the messages**

5 **Counter indication**
The display mode selected with the "Counter" of the "Display Set" in the menu appears (Elapse Time / Remaining Time/REC Date/REC Time). For how to change the Counter display, see "Changing the Counter Display" on the reverse side.

6 **Recording mode indication**
Displays the current recording mode specified with the "REC Mode" in the menu:
• ST: Standard play stereo recording mode
• STLP: Long play stereo recording mode
• SP: Standard play monaural recording mode
• LP: Long play monaural recording mode

7 **Repeat play indicator**
Appears when "Bookmark Repeat" is selected with the "Playback Set" in the menu.

8 **Remaining battery indicator**
Displays the remaining battery volume. When the AC power adaptor (supplied) is connected, the indicator does not appear.

9 **Remaining memory indicator**
Displays the remaining memory:
• During recording, the indicator decreases one by one.
• When the remaining recording time reaches 10 minutes, the indicator flashes. The remaining time will also appear.
• When the memory is full, recording automatically stops and "Memory is Full" will be displayed along with an alarm sound. To continue recording, first erase some of the messages.

Notes
• If data other than message is saved, the remaining memory time is displayed excluding the data. You can check the remaining memory by selecting "Remaining Time" in the "Counter" menu.
• When you set the "Beep" in the menu to "OFF", an alarm sound (beep) does not sound.

10 **Message list**
Displays the thumbnails of the title images of the messages in a folder. The first bookmark or bookmark specified is displayed as title image. If there is no image (bookmark) recorded, the following icon is displayed: VOICE

11 **Bookmark list**
Displays the thumbnails of the bookmarks recorded in a message.

12 **Playback slider**
Displays the current position in a message during playback. The position where a bookmark is located is marked with "I", and the bookmark position before the playback or stop position is marked with "▲".

13 **Picture size indicator**
Displays the picture size specified with the menu.

14 **Zoom scaling indicator**
Displays the current zoom scaling. You can zoom in an image by pressing ▶▶I (T: telephotograph) and zoom out by pressing I◀◀ (W: wide-angle).

Adding a Recording to a Message– Post-recording

You can add a recording to a previously recorded picture message without sound.

Notes
- You cannot add a recording to a message that contains sound.
- You cannot add a recording if the remaining memory is not long enough. For more information, see "Troubleshooting".

1 Rotate the lens mount to "●HOLD off/Camera off" or to other desired Camera angle position.

2 Select a desired message without recorded sound you want to add a recording.

3 Press MENU for more than one second, and press ▼ to select "Post-recording".

4 Press ▶II.
The window to start post-recording is displayed.

5 Press ▲/▼ to select "Start" and press ▶II.
The menu mode exits and the recording starts immediately. See "Recording a Message with Images" to proceed with recording. You can add bookmarks as you like during recording.

To stop recording
Press ■ (stop) before step 5 or select "Cancel" in step 4.

Recording with an External Microphone or Other Equipment

Recording with an external microphone

Connect an external microphone to the ● (microphone) jack.

When you connect an external microphone, the built-in microphone is automatically cut off. When you attach a plug-in power type microphone, power is automatically supplied to the microphone from the IC recorder.

External Stereo microphone (not supplied)
mini-plug (stereo)
To the ● (microphone) jack

☞ Recommended types of microphones
You can use the ECM-CS10 Sony electret condenser microphone (not supplied).

Recording from other equipment

To record the sound of other equipment with the IC recorder, connect the ● (microphone) jack of the IC recorder to the earphone jack of other equipment (tape recorder etc.) by using a resistance audio connecting cable.

If you use an audio connecting cable without a resistor, sound may be recorded interrupted. Make sure to use a resistance audio connecting cable.
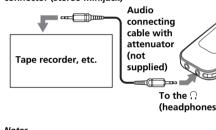
Recording with other equipment

To record the sound of the IC recorder with other equipment, connect the ○ (headphones) jack of the IC recorder to the audio or line input connector (stereo minijack) of other equipment.

To the audio or line input connector (stereo minijack)
Audio connecting cable with attenuator (not supplied)
Tape recorder, etc.
To the ○ (headphones) jack

Notes
- Make sure that the plugs are connected securely.
- We recommend you make a trial recording to check the connections and volume control.
- When connecting equipment other than Sony's, refer to the instruction manual of the equipment.

Shooting an Image while Playing Back a Message – Adding Bookmarks

You can shoot an image and add it as a bookmark to a previously recorded message.

Notes
- You cannot add a bookmark when the number of bookmarks in a message exceeds the maximum number.
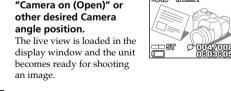- You cannot add a bookmark if the remaining memory is not long enough. For more information, see "Troubleshooting".

1 Open the display cover and rotate the lens mount to the "● HOLD off/ Camera off" position.
The message list is displayed.
If folder list or bookmark list is displayed
Press ◀/▶ to switch to the message list view.

2 Press ▲/▼ to select the message you want to add a bookmark.

3 Press ▶II to start playback of the message.

4 Rotate the lens mount to "Camera on (Open)" or other desired Camera position.
The live view is loaded in the display window and the unit becomes ready for shooting an image.

5 At the desired point you want to shoot an image, press CAPTURE to shoot an image.
The image is added as a bookmark to a message.
To load the live view again
If the message list is displayed, press ● (camera) to turn on the live view again in the display window.

6 Repeat steps to add bookmarks.

To stop playback
Press ■ (stop).

The added bookmarks in the bookmark list view

Shooting an Image (Bookmark) as a New Message–Picture Message

You can shoot an image in stop mode and record the image (bookmark) as a new message without recorded sound (picture message). You can record only one image or a message. Sound can be added later. See "Adding a Recording to a Picture Message– Post-recording" for the details.

Note
You cannot record a picture message if the remaining memory is not long enough or the maximum number of messages have already been recorded in the folder.

1 Open the display cover and rotate the lens mount to the "Camera on (Open)" or other desired Camera angle position.
The live view is loaded in the display window and the unit becomes ready for shooting an image.

2 Press CAPTURE shoot an image.
The image is saved as a new message without sound (picture message). The image is displayed as the title image of the message in the message list and in the bookmark list.

Switching the view and searching for a message or bookmark

You can switch the view to the folder, message and bookmark lists and search for a message or bookmark.

1 Display the folder list (📁 tab).
If the 📁 (folder) tab is not displayed, press ◀ until the folder list is displayed.
You can display a long folder name by scrolling the cursor.

2 Press ▲/▼ to select the desired folder.

3 Press ▶.
The messages in the selected folder are listed – Message list (📄).

4 Press ▲/▼ to select the desired message.
If you keep the button pressed, you can search at a higher speed. If the unit reaches the first or the last message in a folder, it searches from the last or beginning message of the folder again.
To play the searched message
Press ▶II to start playback.

5 To search for a bookmark, press ▶.
The bookmarks contained in the selected message are displayed.

6 Press ▲/▼ to select the desired message.
If you keep the button pressed, you can search at a higher speed. If the unit reaches the first or the last bookmark in a message, it searches from the last or beginning bookmark of the previous or next message continuously.
To play the searched bookmark
Press ▶II to start playback of the bookmark. The units plays the rest of bookmarks in a folder.

Tip
You can also use the digital zoom function during shooting close-ups (Macro).

Shooting for Your Own View – Self Position

You can turn the lens towards you and shoot self view of an image.

Open the display cover and rotate the lens mount fully until it clicks into the "Camera on (Self)" position.
The lens faces toward you and the live view is loaded in the display window and the unit becomes ready for shooting an image.

Turn the lens mount to "Camera on (Self)" position.

Using the Digital Zoom Feature

You can zoom in and out an image using the digital zoom process.

During live view, press ▶▶I/I◀◀.
▶▶I: for zooming in an image
Each time you press ▶, an image is enlarged (up to x4). The zoom scaling indicator moves to the "W" (wide-scale) end.
I◀◀: for zooming out an image
Each time you press ▶, an image is reduced (up to x1). The zoom scaling indicator moves to the "T" (telephotograph) end.

Playback slider
The position of the bookmark being selected is marked with ▼ on the slider.

Shooting Close-ups – Macro

For close-ups of small subjects , you can shoot an image with the macro feature.

During live view, slide the Macro switch to "♥" (Macro) position.
The Macro "♥" indicator appears on the display window.

To return to normal shooting
Slide the Macro switch to "●" (normal position).
The Macro indicator disappears from the display window.

Note
Except for shooting close-ups, we recommend you shoot an image in the normal shooting mode.

Changing the Counter Display

You can change the counter display mode for the stop, recording and playback modes.

1 Press MENU for more than one second, and press ▼/▲ to select "Display Set".

2 Press ▶II.
The display setting window is displayed.

3 Press ▲/▼ to select "Counter" and press ▶II.
The counter display mode setting window is displayed.

4 Press ▲/▼ to select the desired counter display mode.
You can select the mode from the following:

Elapse Time: Displays the elapsed playback/ recording time of one message.

Remaining Time: Displays the remaining time of the message in the playback mode, and the remaining recordable time in the stop and recording modes.

REC date: Displays the year, month and day when the message was recorded.

REC Time: Displays the hours and minutes when the message is recorded.

5 Press ▶II.
The counter display mode setting has be changed.

6 Press ■ (stop) to exit the menu mode.

* If the clock has not been set, "--y--m--d" will be displayed.
** If the clock has not been set, "--:--" will be displayed.

Searching for a Bookmark, Message or Folder

You can locate the message or point you wish to start playback by switching the view and searching for a bookmark, message, or folder.

Note
About the folder structures of messages
The memory of the IC recorder has the following folder structures : each folder contains messages, and each message contains bookmarks. You can switch view between the folder list (📁), message list (📄), and bookmark list (📑) by pressing ◀/▶.

Folder list **Message list** **Bookmark list**
FOLDER01 — Message 1 — BM 1, BM 2, BM 3, BM 4
         Message 2 — BM 1, BM 2
FOLDER02 — Message 1 — BM 1, BM 2, BM 3

BM: Bookmark

Playing back the Section between the two Bookmarks – Bookmark Repeat

You can specify a bookmark and play back the section between the specified bookmark and the next bookmark repeatedly—Bookmark Repeat.

Selecting the Bookmark Repeat playback mode

1 Press MENU for more than one second, and press ▼/▲ to select "Playback Set".

2 Press ▶II.
The playback setting window is displayed.

3 Press ▲/▼ to select "Bookmark Repeat" and press ▶II.
The bookmark repeat mode setting window is displayed.

4 Press ▲/▼ to select "ON" and press ▶II.

5 Press ■ (stop) to exit the menu mode.
The "🔁" (repeat) appears in the display window.

Playing back between the two bookmarks

1 In the bookmark list, press ▲/▼ to select the bookmark that you want to start playback.
For how to specify the bookmark, see "Searching for a Bookmark, Message or Folder".

2 Press ▶II.
The section between the selected bookmark and the next bookmark will be played back repeatedly.

To play the selected section
Press ▲/▼ to select the desired bookmark as the starting point of the section that you want to repeat playback.
To stop repeat playback
Press ■ (stop).
To return to the normal playback
Select "OFF" in step 4 in "Selecting the Bookmark Repeat playback mode".
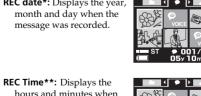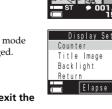
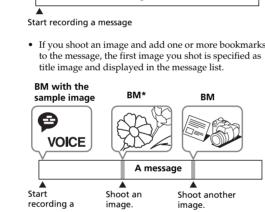## ▶Editing Messages

Selecting the Title Image

You can select the desired bookmark as the title image.

What is "title image"?
The bookmark image displayed in a message list is called "title image".
- When you record a message, a bookmark of the sample image (🎙 VOICE) is automatically added at the beginning of a message. If you do not add any bookmark during recording a message, the bookmark with the sample image becomes the title image of the message and displayed in the message list.

BM (Bookmark) with the sample image
🎙 VOICE
Start recording a message

- If you shoot an image and add one or more bookmarks to the message, the first image you shot is specified as title image and displayed in the message list.

You can select the title image for a message as follows:

1 Select the message for which you want to select the title image.

2 Press MENU for more than one second, and press ▼/▲ to select "Display Set".

3 Press ▶II.
The display setting window is displayed.

4 Press ▲/▼ to select "Title Image" and press ▶II.
The bookmarks list of the selected message is displayed.

5 Press ▲/▼ to select the desired bookmark for the title image.

6 Press ▶II.
The display setting window appears again.

7 Press ■ (stop) to exit the menu mode.
In the menu mode, the selected image is displayed as the title image.

Editing an Icon and Name of a Folder

You can label an icon or name of a folder yourself.

☞ Registered templates of folder icons and names
Folder icons and names registered as templates are associated with each other. When you select a folder icon or a name, the folder name associated with the folder icon, or the folder icon associated with the folder name is automatically selected. When you re-select or edit the identical folder icon and name, they will no longer be associated. Some icons have no associated names.

Schedule, Meeting, Memo, Business Trip, Lecture, Training, Speech, Action, Personal, Idea, Shopping, Music, Travel, Lesson, Message, Expense, Date, Party, Language Lesson, Report, Interview, Sports

Changing a folder icon

Folders are automatically attached with the folder icon "📁". You can select the desired folder icon from the templates.

1 Select the folder you want to change its icon.

2 Press MENU for more than one second, and pressing ▲/▼ to select "Folder Settings".

3 Press ▶II.
The window for editing a folder is displayed.

4 Press ▲/▼ to select "Folder Icon" and press ▶II.
The window for selecting a folder icon is displayed.

5 Press ▲/▼/◀/▶ to select a folder icon.
The cursor moves to the direction you press the key (▲/▼/◀/▶).
When you keep pressing ▶, you can scroll the pages.

6 Press ▶II.

7 Press ■ (stop) to exit the menu mode.
The folder is labeled with the selected icon and its associated name.

Note
Depending on the folder icon you choose, there is no associated name. If you edit folder icons and names, folder icons and names will not be associated.

Changing a folder name

Folders have been labeled automatically with double figures or letters like "FOLDER04" or "FOLDERAB", but you can label folders as you like by using template names.

1 Select the folder you want to change the name.

2 Press MENU for more than one second, and Press ▲/▼ to select "Folder Settings".

3 Press ▶II.
The window for editing a folder is displayed.

4 Press ▲/▼ to select "Folder Name" and press ▶II.
The list of template folder names is displayed.

5 Press ▲/▼ to select a folder name and press ▶II.

6 Press ■ (stop) to exit the menu mode.
The folder is labeled with the selected name and its associated icon.

Note
If a bookmark without image is included for the section, the section between step 2 of the bookmark and end bookmark (steps 8 and 9) will not be displayed.

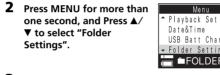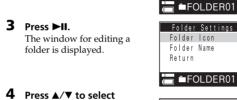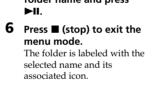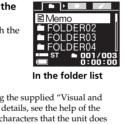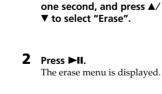## Erasing Messages or Bookmarks

Notes
- Once a message or bookmark has been erased, you cannot retrieve it.
- When you erase a message, both the sound and image data (bookmarks) registered in the message will be erased.

Erasing messages one by one

You can erase unnecessary messages one by one. When a message is erased, the remaining messages will advance and be renumbered so that there will be no space between messages.

Before erasing
Erase Message 3
Message 1 | Message 2 | Message 3 | Message 4 | Message 5
After erasing
Remaining messages are renumbered.
Message 1 | Message 2 | Message 3 | Message 4

1 Press MENU for more than one second, and press ▲/▼ to select "Erase".

2 Press ▶II.
The erase menu is displayed.

3 Press ▲/▼ to select "Message" and press ▶II.
The message list is displayed. The message selected when you press MENU in step 1 is selected. The first and last parts of the selected message is played back repeatedly for confirmation.

4 Press ▲/▼ to select the image that you want to erase and press ▶II.
The confirmation window is displayed.

5 Press ▲/▼ to select "Yes" and press ▶II.
The message is erased.

6 Press ■ (stop) to return to the normal display.
The remaining messages will be renumbered. For example, if you erase Message 3, Message 4 will be renumbered as Message 3. When erasing is completed, the unit will stop at the beginning of the following message.)

To cancel erasing
Press ■ (stop) before step 5.

Erasing all messages in a folder

You can erase all recorded messages in a folder.

1 Select the folder you want to erase.
You can select a folder in the folder list, or display the message list or bookmark list of the desired folder.

2 Press MENU for more than one second, and press ▲/▼ to select "Erase".

3 Press ▶II.
The erase menu is displayed.

4 Press ▲/▼ to select "All in Folder" and press ▶II.
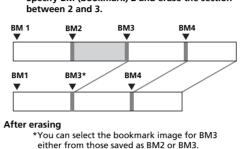The confirmation window is displayed.

5 Press ▲/▼ to select "Yes" and press ▶II.
All the recorded messages contained in the folder are erased. The folder itself will not be erased.

6 Press ■ (stop) to exit the menu mode.

Note
If a folder contains a lot of messages, it may take long to erase all the messages.

Erasing a section between two bookmarks

You can specify a bookmark and erase the section between the specified and the next bookmarks in a message.

Before erasing
BM1 | BM2 | BM3 | BM4
After erasing
* You can select the bookmark image for BM3 either from those saved as BM2 or BM3.

1 Select the message whose section you want to erase.

2 If there are no bookmarks for the section, add a bookmark at the beginning of the section you want to erase, and another bookmark at the end of the section.
For adding bookmarks, see "Shooting an Image while Playing Back a Message – Adding Bookmarks".

3 Press MENU for more than one second, and press ▲/▼ to select "Erase".

4 Press ▶II.
The erase menu is displayed.

5 Press ▲/▼ to select "Section" and press ▶II.
The bookmarks list of the selected message is displayed. The bookmark selected before step 3 is selected. The first and last parts of the selected section is played back repeatedly for confirmation.

6 Press ▲/▼ to select the bookmark for the starting point of the section you want to erase.

7 Press ▶II.
The window to select an image to save as a remaining bookmark is displayed. Among the images of the two bookmarks, you can select one for a new bookmark.

8 Press ▲/▼ to select the desired image for a bookmark and press ▶II.
The confirmation message is displayed.

9 Press ▲/▼ to select "Yes" and press ▶II.
The section is erased. The selected image is saved as a new bookmark.

10 Press ■ (stop) to exit the menu mode.

Notes
- If you specify the bookmark at the end of the message, an error message will be displayed.
- If either of the two bookmarks of the section is the bookmark with the sample image, the bookmark with the shot image will be automatically selected as another bookmark.

Erasing a bookmark

You can erase a bookmark in a message.

1 Select the message whose bookmark you want to erase.

2 Press MENU for more than one second, and press ▲/▼ to select "Erase".

3 Press ▶II.
The erase menu is displayed.

4 Press ▲/▼ to select "Bookmark" and press ▶II.
The bookmarks list of the selected message is displayed. The bookmark selected before step 2 is selected. The first and last parts of the bookmark will be played back repeatedly for confirmation.

5 Press ▲/▼ to select the bookmark you want to erase.

6 Press ▶II.
The confirmation message is displayed.

7 Press ▲/▼ to select "Yes" and press ▶II.
The bookmark is erased.

8 Press ■ (stop) to exit the menu mode.

Notes
- If you specify an image of a picture message, the message itself will be erased.
- If you erase a bookmark with shot image at the beginning of the message, the default bookmark with the sample image will be used for the beginning of the message.
- You cannot erase the bookmark with the sample image at the beginning of the message.

Formatting the Memory

You can format the memory. Formatting will erase all the data recorded in the memory including voice messages, images (bookmarks) and other data and resets the memory to the initial status of 5 folders. Before formatting, check the data in the memory.

1 Press MENU for more than one second, and press ▲/▼ to select "Format".

2 Press ▶II.
The window for executing format is displayed.

3 Press ▲/▼ to select "Execute" and press ▶II.
The confirmation window is displayed.

4 Press ▲/▼ to select "Yes" and press ▶II.
Formatting of the memory starts.

5 Press ■ (stop) to return to the normal display.
After formatting, 5 folders (FOLDER01 to FOLDER05) are automatically created in the memory in the same way when you use the unit for the first time after purchasing.

To cancel formatting
Select "Cancel" in step 3 or "No" in step 4.

Connecting to the PC to use the "Visual and Voice Editor" Software

By connecting the IC recorder to your PC, you can use the "Visual and Voice Editor" software to do the following:
- Saving the IC recorded messages on your PC's hard disk.
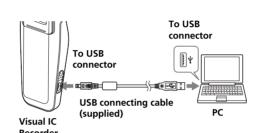- Transferring the PC messages back to the IC recorder.
- Playing or editing the messages on your PC.
- Editing the bookmarks.
- Sending a voice e-mail message using MAPI e-mail software.
- Transcribing your IC recorder message using Dragon NaturallySpeaking* speech-recognition software (not supplied).
For the details, see the supplied "Visual and Voice Editor" operating instructions.

Connection

Use the USB connecting cable supplied to connect the USB connectors of the IC recorder and your PC.

Visual IC Recorder — **USB connecting cable (supplied)** — **To USB connector** — **PC**

When the unit is connected to the PC, "PC Connect" appears on the display window and you can recognize the IC recorder with your PC.

Notes
- You can use Windows Explorer to display the data stored in the memory of the IC recorder. When playing, editing, or saving a message, however, please make sure to use the supplied Visual and Voice Editor.
- Do not directly drag and drop a message on the Windows Explorer window. The message data cannot be backed up.
- When you connect the IC recorder to the PC, make sure that "ACCESS" is not displayed in the IC recorder display window.

To set the clock of the unit automatically
When the "Date&Time" in the menu is set to "Auto" and connect the unit to the PC after the Visual and Voice Editor is started, the clock of the unit is automatically set according to the internal clock of your PC.

System requirements

Your PC and system software must meet the following minimum requirements.
- IBM PC/AT or compatible
 – CPU: 450MHz Pentium* III processor or higher
 – RAM: 128MB or more (256 M B or more is recommended.)
 – Hard disk space: 70MB or more depending on the size and number of sound files you store
 – CD-ROM drive
 – USB port (The unit supports Hi-Speed USB.)
 – Sound board: Sound Blaster 16 compatible
 – Display: High color (16 bits) or more and 800 x 480 dots or more
- OS: Microsoft* Windows* XP Media Center Edition 2005/Windows* XP Media Center Edition 2004/ Windows* XP Professional/Windows* XP Home Edition/Windows* 2000 Professional/Windows* Millennium Edition/Windows* 98 Second Edition standard installation (You cannot use this software with Windows* 98, Windows* 95 or Windows* NT.)

Notes
- You cannot use the software with a Macintosh machine.
- A handmade computer, a PC whose operating system is installed or upgraded by the user, or a PC with multi-boot operating environment are not supported.

Preventing Accidental Operation — HOLD Function

Rotate the lens mount to the "HOLD" position. "HOLD" will flash for 3 seconds, indicating that all the functions of the buttons are locked. When all the display will be turned off after "HOLD" flashes.

- During recording and playback: recording or playback continues but the functions of the buttons are locked. The live view mode, if activated, will be turned off.
- During stop: The unit enters into the standby mode.

The display will be turned off in approximately 3 seconds after you rotate the lens mount to "HOLD" position and the "HOLD" function.

To cancel the HOLD function
Rotate the lens mount to the "● HOLD off/Camera off", "Camera on (Open)", or "Camera on (Self)" position.

Precautions

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

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

To prevent fire, do not cover the ventilation of the apparatus with news papers, table cloths, curtains, etc. And don't place lighted candles on the apparatus.

To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the apparatus.

Certain countries may regulate disposal of the battery used to power this product. Please consult with your local authority.

On safety
- Do not operate the unit while driving, cycling or operating any motorized vehicle.

On the AC power adaptor
- Be sure to use the AC power adaptor supplied with the unit. Do not use other AC power adaptors, as this may cause a malfunction.
- Do not use an electrical transformer (travel converter), as this may cause overheat or a malfunction.
- In case the cord of the AC adaptor is disconnected or damaged, never use it any longer, as this may cause danger.

On handling
- Do not leave the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust or mechanical shock.
- 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.

On noise
- Noise may be heard when the unit is placed near an AC power source, a fluorescent lamp or a mobile phone during recording or playback.
- Noise may be recorded when an object, such as your finger, etc., rubs or scratches the unit during recording.

On maintenance
- To clean the exterior, use a soft cloth slightly moistened in water. Do not use alcohol, benzine or thinner.

On cleaning the LCD display window and lens
Cleaning the display window
Use the inner cloth of the carrying pouch supplied or a soft cloth such as glasses cleaning cloth to wipe the screen surface of the display window.
Cleaning the lens
Wipe the lens with a soft cloth to remove fingerprints, dust, etc.

On moisture condensation
- If the unit is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense inside or outside the unit. This moisture condensation may cause a malfunction of the unit.
Moisture condensation occurs easily when:
 – The unit is brought from a cold location such as a ski slope into a warmly heated room.
 – The unit is taken from an air-conditioned room or car interior to the hot outdoors, etc.
To prevent moisture condensation
When bringing the unit from a cold place to a warm place, seal the unit in a plastic bag and leave it in the new location for about an hour. Remove the plastic bag when the unit has adapted to the new temperature.
If moisture condensation occurs
Leave the unit and wait about an hour for the moisture to evaporate. Note that if you attempt to shoot an image with moisture remaining inside the lens, you will be unable to record clear images.

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

If an Error Message is displayed

If the following error messages are displayed, do the remedies described here.
Should any problem persist after you have made these checks, consult your nearest Sony dealer.
If an error appears when the display cover is closed, open the display cover to check the error message.

Battery Low
- Battery runs out. Charge battery. When the remaining battery is short, you cannot erase a message or format the memory.

Bookmark Already Set
- You cannot add multiple bookmarks at the same position of a message.

Camera Not Working
- The camera is out of order. You cannot load the live view on the display window.

Cannot Play
- The file or folder may be erased by accident.

Charge Battery
- Battery runs out. Charge the battery.

File is Damaged/Folder not exist
- When you erase a message folder of the IC recorder with the Windows Explorer and you try to play back a message contained in the erased folder, this error message appears. Use the menu to erase the message with the IC recorder.
- When you erase a message folder of the IC recorder with the Windows Explorer and you try to record a message in the erased folder, this error message appears. If this occurs, format the memory with the IC recorder. Or use the Visual and Voice Editor to erase the folder.

Maximum Messages: Folder Full
- Because there are already 99 messages in the selected folder, you cannot add a message. Erase some messages before adding a message or use another folder with much capacity.

Full of Message/Bookmark
- There are already the maximum number of messages or bookmarks. Or the memory is full.

Memory is Full
- The remaining memory is too small. Erase some messages before recording.

Message Already Recorded
- You cannot a post-recording to a message which already has sound. Select a picture message without sound.

No Message/Bookmark/Voice Data
- The selected folder does not have any messages. Or, the selected message has no bookmarks. Without bookmarks, messages or sound data, you cannot proceed with playback or editions.

Power Supply Problem
- An AC power adaptor that is defective or is not compatible with the IC recorder is connected. Disconnect the AC power adaptor immediately as this may cause malfunction with the unit. Make sure to use the AC power adaptor for the unit (supplied).

Failed to Erase/Cannot Erase
- For some reason, you could not erase a message. Tray erasing again.

Please format with the unit
- The unit may have been formatted with other device. To use the unit, use the menu to format the memory .

Rotate Lens
- To shoot an image, rotate the lens mount to the camera on position.

System Error
- The IC recorder failed in memory access because the memory is corrupted or a system error occurred.

Resetting the System

In case the unit cannot be operated, you can reset the system.
Use a thin-pointed object to keep pressing into RESET button for more than 0.5 second.

— RESET

Note
When you reset the system during operation, the data is not always assured.

Specifications

IC recorder
Recording media
 Built-in flash memory 256 MB, Stereo/Monaural recording
Recording time
 • ST: Approx. 11 hours 30 minutes
 • STLP: Approx. 22 hours 5 minutes
 • SP: Approx. 73 hours 5 minutes
 • LP: Approx. 93 hours 30 minutes
Frequency range
 • ST: 60 Hz – 13,500 Hz
 • STLP: 60 Hz – 7,000 Hz
 • SP: 60 Hz – 7,000 Hz
 • LP: 80 Hz – 3,500 Hz
Playback speed control (DPC)
 +100% to –50%

Camera
Image file format
 JPEG
Number of pixels
 1 280 x 960 pixels (approx. 1 340 000 pixels)
Picture size
 1 280 x 960 pixels
 640 x 480 pixels
Image device
 5.00 mm (1/3.6 type) color CCD primary color filter
Total pixels number of camera
 1 340 x 986 pixels (approx. 1 340 000 pixels)
Effective pixels number of camera
 1 308 x 976 pixels (approx. 1 280 000 pixels)
Lens Focal length f=4.3mm, horizontal angle of view 49.5 degrees
F-stop 4
Recommended camera distance
 30 cm to infinite (Macro: 12 cm)

General
Speaker approx. 2.3 cm (29/32 in.) dia.
LCD panel unit
 1.2 inch D-TFD liquid panel, RGB, 64 levels of gradations, 262 144 colors
Input/Output
 • Microphone jack (minijack, stereo)
  – input for plug in power
 • Headphones jack (minijack, stereo)
  – output for 8 – 300 ohms headphones
 • USB connector
 • DC IN 6V jack
Power requirements
 6 V DC, 800mA, rechargeable lithium-ion battery
Operating temperature
 For recording/playback:
  –10 °C to +45 °C (14 °F to 104 °F)
 For charging:
  +5 °C to +35 °C (41 °F to 95 °F)
Dimensions (w/h/d) (not including projecting parts and controls)
 45.8 x 101.2 x 23.5 mm (1 13/16 x 4 x 15/16 in.)
Mass (including batteries)
 99 g (3.5 oz)
Supplied accessories
 AC power adaptor AC-ES608K (1)
 Plug adaptor (1) (supplied only in some regions)
 Operating instructions (For the Visual IC Recorder (1)/For the application software (1))
 Stereo headphones (1)
 USB connecting cable (1)
 Application Software (CD-ROM) (1)
 Carrying pouch (1)
Optional accessories
 Stereo headphones MDR-EX71SL, MDR-E931LP/Active speaker SRS-T88, SRS-T80/ Electret condenser microphone ECM-CS10, ECM-TL1/Audio connecting cable RK-G134HG, RK-G135HG, RK-G136HG, RK-G139HG (excluding Europe)

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

Design and specifications are subject to change without notice.