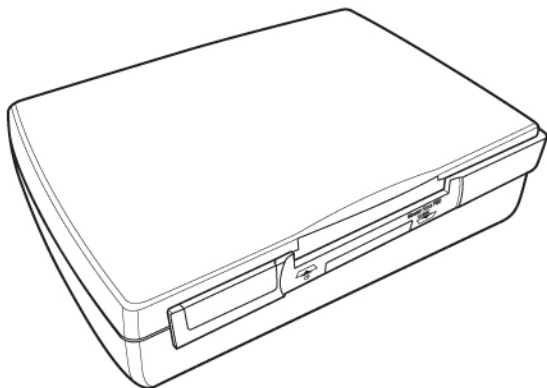


Meicheng[®]

MPEG-4 Personal Video Recorder



User Manual

Ver 1.0

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Preface

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Safety Information

Please read the following safety instructions, and keep the user manual for later reference.

- Use only the power adapter supplied with the product.
- Do not place the product near any source of heat or expose it to direct sunlight.
- Do not attempt to connect any computer accessory or electronic product without instruction from qualified service personnel. It may result in risk of electric shock.
- Do not expose the product to moisture. Never spill any liquids on the product.
- Do not place the product in regions with extreme temperatures.

Routine Care

Wipe the product with a soft cloth. Do not use abrasive powders or solvents, such as benzene or thinner. When you leave the product unused for a long time, unplug the AC adapter from the outlet.

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1. Overview

Congratulations on purchasing the MPEG-4 Personal Video Recorder. Now you can enjoy quality multimedia anywhere you go and record your favorite video programs from a variety of video sources. The MPEG-4 recorder also plays back your favorite audio tracks, displays image files, and records video clips for devices, such as Sony PSP, Video iPod, mobile phones, and PDAs, supporting all respective video formats.

Refer to this user manual for detailed descriptions about the product and instructions for using it.

Features

The MPEG-4 recorder allows you to:

- record your favorite videos and watch them on portable devices (PSP, iPod, mobile phone)
- schedule recording of TV programs
- make video recordings of up to 640x480@30fps
- play DivX video, MP3 and JPEG files on your TV
- back up memory card files to a 2.5" HDD

A Compact Flash Card, an SD Card, or an MMC Card may be installed in the recorder for storage.

Package contents

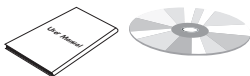
MPEG-4 recorder



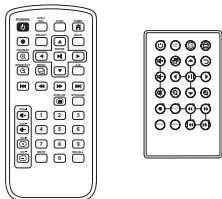
Power adapter



User manual & CD



Remote controls



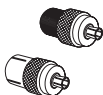
Component cables (x2)



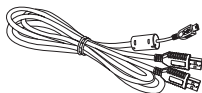
**Tuner
version**

**Non-tuner
version**

**MCX-IEC (PAL) / MCX-F
(NTSC) converter
(For tuner version)**



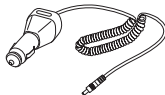
USB cable



SCART connector (optional)



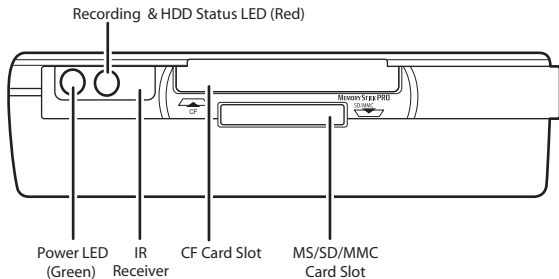
Car charger (optional)



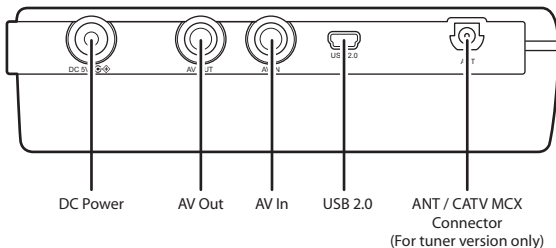
About the MPEG-4 recorder

Refer to the following sections for information about the hardware components of the recorder.

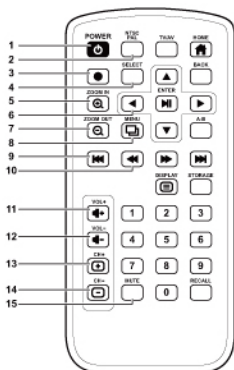
Front view



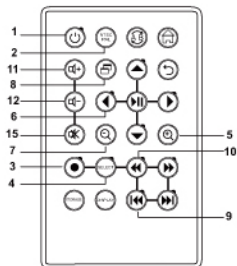
Rear view



About the remote control

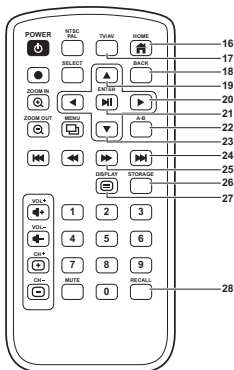


Tuner Version

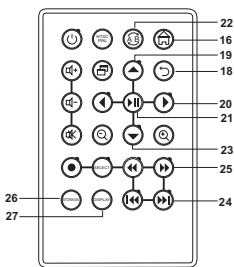


Non-Tuner Version

Icon	Description
1.	Turns on the power
2.	Switches between NTSC and PAL system
3.	Start to record
4.	Confirms selection of file, folder, or menu item
5.	Zooms in
6.	Scrolls left
7.	Zooms out
8.	Enters the setting menu
9.	Plays the previous photo, video and audio files
10.	Rewinds playback of video and audio files
11.	Increases the volume
12.	Decreases the volume
13.	Increases the channel number
14.	Decreases the channel number
15.	Mutes all sound



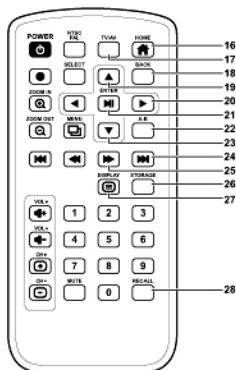
Tuner Version



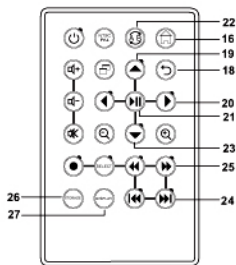
Non-Tuner Version

Icon Description

- | Icon | Description |
|------|---|
| 16. | Returns to the main menu |
| 17. | Switches between TV and AV |
| 18. | Returns to the previous menu |
| 19. | Scrolls up |
| 20. | Scrolls right |
| 21. | Plays or pauses playback of photo, video, and audio |
| 22. | Repeats playback of selected audio/video file |
| 23. | Scrolls down |
| 24. | Fast Forwards playback of video and audio files |
| 25. | Plays the next photo, video and audio files |
| 26. | Switches between CF card, MS/SD/MMC card, and HDD |
| 27. | Turn the on screen display on and off |
| 28. | Return to the last channel selected |



Tuner Version



Non-Tuner Version

Icon	Description
16. 	Returns to the main menu
17. 	Switches between TV and AV
18. 	Returns to the previous menu or stop recording
19. 	Scrolls up
20. 	Scrolls right
21. 	Plays or pauses playback of photo, video, and audio
22. 	Repeats playback of selected audio/video file
23. 	Scrolls down
24. 	Fast Forwards playback of video and audio files
25. 	Plays the next photo, video and audio files
26. 	Switches between CF card, MS/SD/MMC card, and HDD
27. 	Turn the on screen display on and off
28. 	Return to the last channel selected

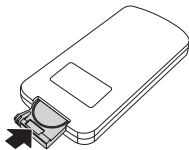
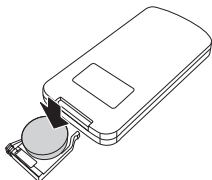
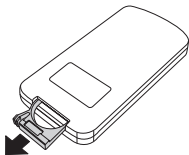
2. Getting started

This chapter describes the preliminary steps required to set up the recorder and how to make connections before starting to use the device.

Installing the remote control battery

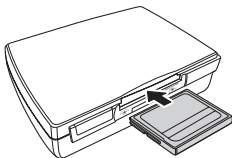
Follow these instructions to insert the remote control battery:

1. Push in the clip at the side of the battery holder.
2. Pull battery holder out.
3. Insert the battery as shown, while noting the correct polarity.
4. Push battery holder and snap it in place.

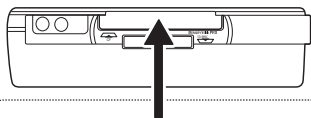
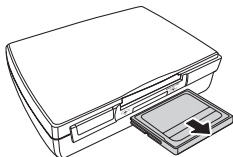


Inserting the Compact Flash (CF) card

Push the CF card or Hitachi 1" Micro Drive into the CF card slot until it is firmly in place.



To remove the card, grip the card and pull gently.

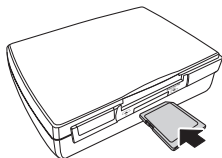


Notes

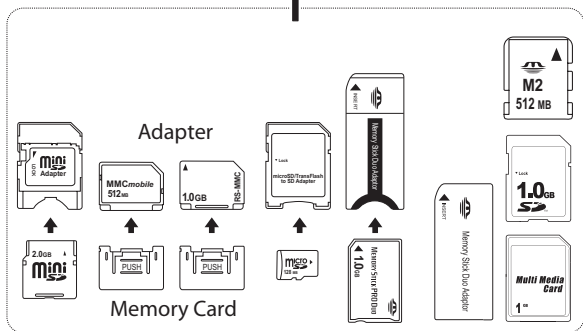
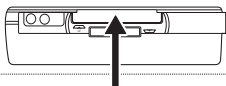
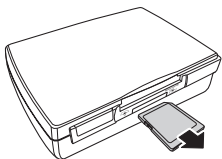
To utilize the Hitachi 1" Micro Drive with the recorder, we suggest that the 1" Micro Drive be formatted by the recorder first. This is to ensure that the 1" Micro Drive has been properly formatted and can be used by the recorder for further applications.

Inserting the MS, SD, MMC series memory card

Push the card into the card slot until it is firmly in place. Ensure the front side of card is face down.

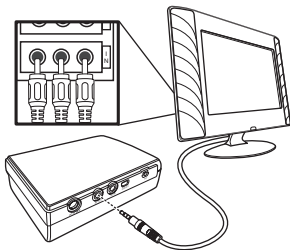


To remove the card, grip the card and pull gently.



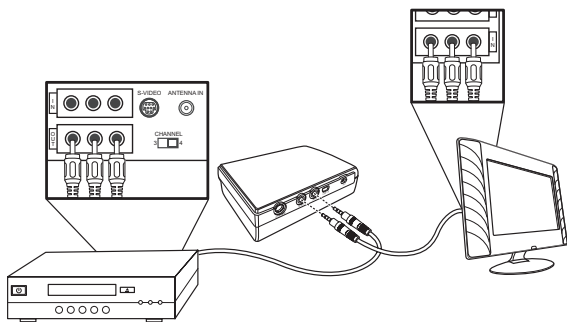
Connecting to a TV (viewing only)

Connect the A/V connectors (red, white, and yellow) of the A/V cable, to the corresponding input connectors on the TV. Connect the other end to the AV Out socket at the back of the recorder.



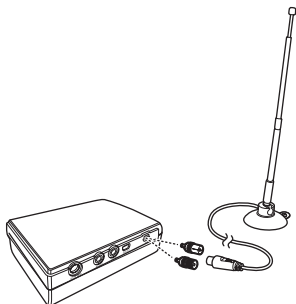
Connecting to a DVD player, VCR or camcorder (recording)

Connect the A/V connectors (red, white, and yellow) of the A/V cable to the corresponding output connectors on the DVD player, VCR, or camcorder. Connect the other end to the AV In socket at the back of the recorder. Connect the second A/V cable to the AV Out socket as described in the previous section.



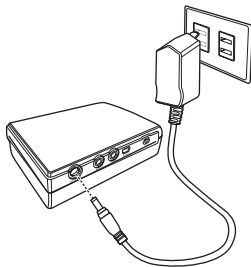
Connecting to CATV (for tuner version)

Plug the supplied MCX converter into the ANT socket at the back of the recorder. Connect the CATV signal to the input port on the MCX converter.



Connecting power

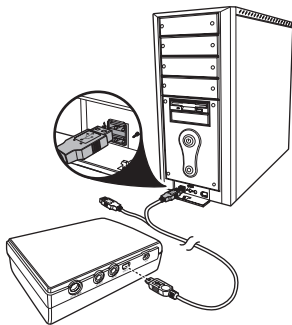
Connect the power adapter to the DC-in socket at the back of the recorder. Plug the other end of the adapter into a power outlet.



Connecting to a PC

Connect one end of the USB cable to the computer USB port and the other end to the USB port at the back of the recorder.

The USB cable has two USB connectors (Type A) on one end. If one USB port does not supply enough power to the hard drive, plug another USB connector into the computer's second USB port.



USB Mode

When connected to a PC via USB, the PVR can be used as an external hard drive to copy or delete files.

Notes

When the PVR is in USB mode, please remove the AV cable. AV mode is disabled when the PVR is connected to a computer.

Turning on the MPEG-4 recorder

Press the **⏻** button on the remote to turn on the MPEG-4 recorder. The green power LED lights up.

Press the **⏻** button again to turn off the recorder.

3. Using the MPEG-4 Recorder

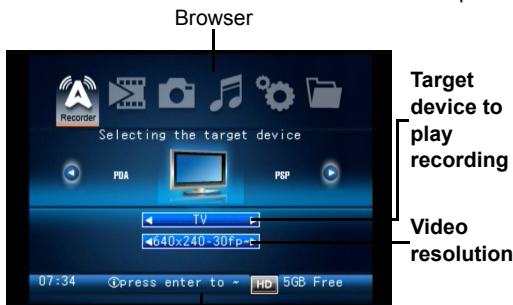
Now that you have set up the recorder, you are ready to use it to record videos, watch videos, view your favorite images, listen to audio tracks, and manage files. This chapter provides detailed instructions for these tasks and for using the OSD (On Screen Display) menu.

Recording videos

There are many devices can be the display to view the recorded videos. Such as TV, PSP, Video iPod, mobile phone, PDA, Smartphone and so on.

Use the ◀ ▶ keys to select the target device for video recording.

Function List: Recorder - Video - Photo - Music - Setup -

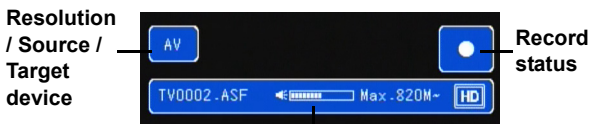


Status Bar: Time - Information - Storage - Capacity

Simple record

To start a recording:

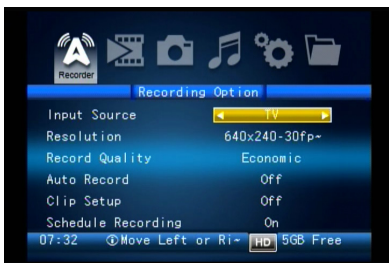
1. Highlight the Recorder menu on the main menu and press **▶|◀**.
2. Use the **▼ ▲** keys to highlight the target device or resolution.
3. Select the target device and resolution using the **◀ ▶** keys.
4. Press the **▶|◀** key to preview the video source.
5. Press the **TV/AV** key to change the video source and change to the input device channel i.e. TV, DVD, VCR or Camcorder.



Status Bar: File name - Volume - Available recording time - Storage

6. Press the **●** key to start recording.
7. To stop recording, press the **BACK** key.
8. To view the recorded item, see “Playing videos” on page 21.

Recorder Option



To access the Recorder Option, do the following:

1. Highlight the record section and press **►|** twice.
2. Press the **☐** key to enter the **Recorder Option** menu.
3. Use the **▼ ▲** keys to select an option.

Input source

Use the **◀ ▶** keys to choose between **AV** and **Line**.

Resolution

Use the **◀ ▶** keys to choose among the available resolutions.

Record quality

To choose the quality of the recording highlight, use the **◀ ▶** keys to choose **Super Fine**, **Fine**, **Normal**, or **Economic**.

See the below tables for quality and recording time information for each video format:

	Video Format	Quality: bitrate (Mbps) Video + Audio			
		SuperFine	Fine	Normal	Economic
TV	640x480-30fps MP4	3.128	2.128	1.128	0.896
PSP	320x240-30fps MP4	2.128	1.128	0.896	0.512
	368x208-30fps MP4	2.128	1.128	0.896	0.512
I-Pod	640x480-30fps MP4	2.628	2.128	1.628	1.128
	320x240-30fps MP4	2.128	1.128	0.896	0.512
Sony Ericsson	320x240-15fps MP4	0.8	0.416	0.288	0.224
	176x144-15fps MP4	0.416	0.288	0.224	0.16
Nokia	320x240-15fps 3GP	0.78	0.396	0.268	0.204
	160x120-15fps 3GP	0.396	0.268	0.204	0.14
Moto	320x240-15fps MP4	0.8	0.416	0.288	0.224
	176x144-15fps MP4	0.416	0.288	0.224	0.16
Mobile phone	320x240-15fps MP4	0.8	0.416	0.288	0.224
	320x240-15fps 3GP	0.78	0.396	0.268	0.204
	176x144-15fps MP4	0.416	0.288	0.224	0.16
	160x120-15fps 3GP	0.396	0.268	0.204	0.14
Smart- phone	320x240-15fps MP4	0.8	0.416	0.288	0.224
	176x144-15fps MP4	0.416	0.288	0.224	0.16

	Video Format	Quality: bitrate (Mbps) Video + Audio			
PDA	320x240-30 fps MP4	2.128	1.128	0.896	0.512

Video Format	Folder	Recording Time with 1GB Storage (Mins.)			
		Super-Fine	Fine	Normal	Economic
640x480-30fps MP4	\\Video\PVR\TV	43	63	118	149
320x240-30fps MP4	\\MP_ROOT\101M NV01\	63	118	149	260
368x208-30fps MP4	\\MP_ROOT\101M NV01\	63	118	149	260
640x480-30fps MP4	\\Video\PVR\IPOD	51	63	82	118
320x240-30fps MP4	\\Video\PVR\IPOD	63	118	149	260
320x240-15fps MP4	\\MSSEMC\Media-files\video\camera	167	321	463	595
176x144-15fps MP4	\\MSSEMC\Media-files\video\camera	321	463	595	833
320x240-15fps 3GP	\\Video\PVR\NOKIA	171	337	498	654
160x120-15fps 3GP	\\Video\PVR\NOKIA	337	498	654	952
320x240-15fps MP4	\\Video\PVR\MOTO	167	321	463	595
176x144-15fps MP4	\\Video\PVR\MOTO	321	463	595	833
320x240-15fps MP4	\\Video\PVR\Mobile	167	321	463	595
320x240-15fps 3GP	\\Video\PVR\Mobile	171	337	498	654
176x144-15fps MP4	\\Video\PVR\Mobile	321	463	595	833
160x120-15fps 3GP	\\Video\PVR\Mobile	337	498	654	952
320x240-15fps MP4	\\Video\PVR\Smart-phone	167	321	463	595
176x144-15fps MP4	\\Video\PVR\Smart-phone	321	463	595	833
320x240-30 fps MP4	\\Video\PVR\PDA	63	118	149	260

Auto record

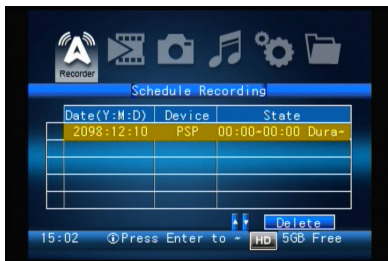
Use the ◀ ▶ keys to turn the function ON or OFF. If the auto record is turned on, it will automatically start recording when there is a video source input. The recording will stop if the source is turned off.

Clip setup

Use the ◀ ▶ keys to choose among **OFF**, **1HR**, **2HR**, or **3HR** recording.

Schedule recording

Use the ◀ ▶ keys to turn **ON** or **OFF**. Press ▶| to enter the following screen for settings. You can set up to 5 recording schedules.



To delete a schedule, do the following:

1. Highlight a schedule from the list, and press the **SELECT** key.
2. Press the ▼ key to select **Delete** and press ▶|.

To edit the schedule for recording, press **►**. The following screen is displayed. Use the **▼ ▲** keys to select an option.



INPUT SOURCE

Use the **◀ ▶** keys to choose between **TV** and **Line**.

CHANNEL

Use the **◀ ▶** keys to choose a channel.

TARGET STORAGE

Use the **◀ ▶** keys to choose among MS, SD, CF memory cards, or built-in HDD.

START DATE / START TIME / DURATION

To access the start date and start time option, press **►**.

1. Use the **◀ ▶** keys to highlight each field and then use the **▼ ▲** keys to adjust the settings.
2. Press **►** to complete.

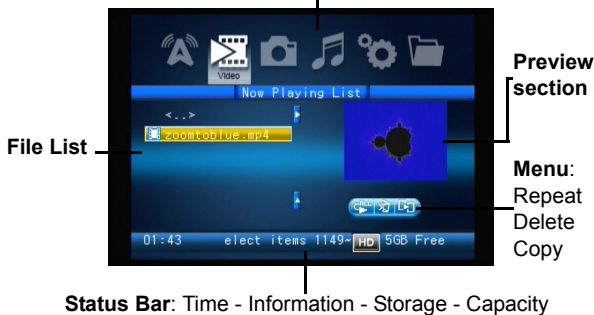
REPEAT

The repeat option allows you to choose when this recording is activated. Use the ◀ ▶ keys to choose among **Once**, **Daily**, or **Weekly**.

When all the settings are done, select **Save** and press ▶. Press the BACK key to return to the schedule list.

Watching videos

Function List: Recorder - Video - Photo - Music - Setup -
Browser



Status Bar: Time - Information - Storage - Capacity

The recorder supports .ASF, .AVI and .MP4 image file formats.

Playing videos

1. Highlight the Video menu using the ◀ ▶ keys.
2. Press ▶| to access the file list.
3. Use the ▼ ▲ keys to highlight the required file and press ▶| to play the file.

When playing the video, you can use the following functions:

◀- Decrease volume

▶▶ Fast forward

◀+ Increase volume

◀◀ Rewind

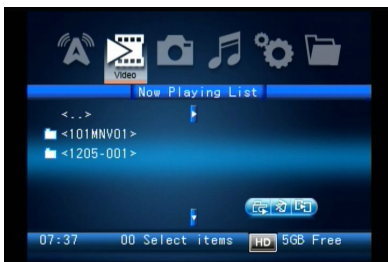
MUTE Mute volume

◀◀ Play previous video clip

▶| Play/Pause

▶▶ Play the next video clip

Video menu



To access the Video menu, use the SELECT key to select a folder or a file, then press the ▶ or ◻ key. Use the ◀ ▶

keys to select an option. The following three functions are available:

REPEAT

Use the ▼ ▲ keys to choose **Off** (C^{OFF}), **Single** (C¹), **Folder** (C^F) or **All** (C^{ALL}).

Notes

Select **Off** to turn the repeat function off, **Single** to repeat just the current selection, **Folder** to repeat all in the folder, or **All** to repeat all videos.

DELETE FILES

To delete a video file:

1. Highlight a video clip from the main menu, go to the video menu and select delete (X).
2. You will be asked to confirm **YES** or **NO**. Press ► to confirm your selection.

COPY

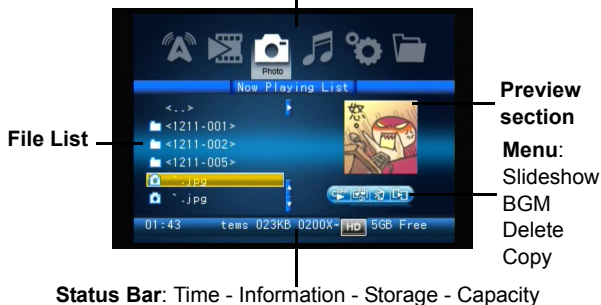
To copy a music file:

1. Highlight a video clip from the main menu, press the SELECT key.
2. Use the ◀ ▶ keys to select copy (C^C). The file management appears on the right window.
3. Use the ▼ ▲ keys to highlight a folder to save the copied files.
4. Press the SELECT key to start copying.

Viewing photos

Function List: Recorder - Video - Photo - Music - Setup -

Browser



The recorder is able to display .JPG, .GIF and .BMP image file formats.

Displaying images

To display still images:

1. Highlight the Photo menu using the ◀ ▶ keys.
2. Press ► to access the file list.

3. Use the \blacktriangledown \blacktriangle keys to highlight the required file and press \blacktriangleright to play the file.



Status Bar: File Name - Music Volume - Image Total - Storage

Photo menu



To access the Photo menu, use the **SELECT** key to select a folder or a file, then press the \blacktriangleright or \square key. Use the \blacktriangleleft \blacktriangleright keys to select an option. The following four functions are available:

SLIDESHOW

To set up a photo slide show, follow the procedure below:

1. Use the ▼ ▲ keys to decide if **ALL** photos (📁^{ALL}) or the **FOLDER** (📁) will be used in the slide show.
Select **OFF** (📁^{OFF}) to disable the slideshow.
2. Use the BACK key to return to the menu.
3. Using the ▼ ▲ keys, select a photo for the slide show.
4. Press ▶ to play the slide show.
5. Whilst playing you can use 🔍 and 🔍 to zoom out and in of the picture.

Notes

If **All** is selected for the slide show then all pictures will appear in the show. If **Folder** is selected then only those images in the current folder are displayed. When turned **Off**, only the current image is displayed.

BACKGROUND MUSIC

1. Use the ▼ ▲ keys to turn the background music function **ON** (🎵_{ON}) or **OFF** (🎵_{OFF}).
2. When the background music is turned on, the music will be played in the slide show.

DELETE FILES

To delete a file:

1. Highlight a photo from the main menu, go to the photo menu and select delete (⌫).
2. You will be asked to confirm **YES** or **NO**. Press **▶** to confirm your selection.
3. If multiple files are selected, they can be deleted at once.

COPY

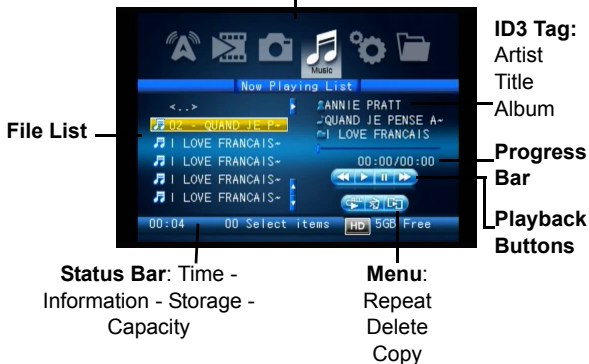
To copy a file or folder:

1. Highlight a photo or a folder from the main menu, press the **SELECT** key.
2. Use the **◀ ▶** keys to select copy (⌲). The file management appears on the right window.
3. Use the **▼ ▲** keys to highlight a folder to save the copied files.
4. Press the **SELECT** key to start copying.

Listening to music

Function List: Recorder - Video - Photo - Music - Setup -

Browser



The recorder is able to play both .WMA and .MP3 audio file formats.

Playing audio

To play an audio file:

1. Highlight the Music menu using the ◀ ▶ keys.
2. Press ⏏ to access the file list.
3. Use the ▼ ▲ keys to highlight the required file and press ⏏ to play the file.


Whilst playing audio you can use the following functions:

⏮ Decrease volume ⏭ Fast forward

 Increase volume

 Rewind

 Mute volume

 Play previous audio track

 Play/Pause

 Play the next audio track



Music menu



To access the Music menu, use the **SELECT** key to select a folder or a file, then press the **▶** or **□** key. Use the **◀ ▶** keys to select an option. The following three functions are available:

REPEAT

Use the **▼ ▲** keys to choose **Off** ()^{OFF}), **Single** ()¹),

Folder ()²) or **All** ()^{ALL}).

Notes

Select **Off** to turn the repeat function off, **All** to repeat all tracks, **Single** to repeat only a single track, or **Folder** to repeat all tracks in the folder.

DELETE FILES

To delete a music file:

1. Highlight a music track from the main menu, go to the music menu and select delete (✂).
2. You will be asked to confirm **YES** or **NO**. Press ► to confirm your selection.

COPY

To copy a music file:

1. Highlight a music track from the main menu, press the SELECT key.
2. Use the ◀ ▶ keys to select copy (□). The file management appears on the right window.
3. Use the ▼ ▲ keys to highlight a folder to save the copied files.
4. Press the SELECT key to start copying.

Setup menu



To access the Setup menu, do the following:

1. Go to the Setup section from the main menu and press **⏏**.
2. Use the **▼ ▲** keys to select an option.

SELECTING YOUR COUNTRY

Use the **◀ ▶** keys to select your country.

LANGUAGE

The default language of the recorder is English. If you would like to change it to the other available languages, use the **◀ ▶** keys to select the required language.

DATE AND TIME

To change the date and time:

1. Use the **◀ ▶** keys to move between fields. The selected field will be highlighted orange.
2. Use the **▼ ▲** keys to change the value.
3. Press **⏏** when complete.

TV OUTPUT

To select the TV output:

1. Use the ◀ ▶ keys to choose between **NTSC** or **PAL**.
2. The ^{NTSC}/_{PAL} button on the remote control will provide the same function.

FORMAT DISK

This option allows you to format the memory card while it is in the MPEG-4 recorder. To format the memory card:

1. Use the ◀ ▶ keys to select the MS, SD, or CF memory card and press ►|.
2. Select **YES** to confirm formatting or **NO** to cancel.

FIRMWARE UPGRADE

To upgrade firmware:

1. Get firmware upgrades from the website.
2. Copy the latest version of firmware onto a memory card.
3. Insert the card into the recorder.
4. Scroll down to the Firmware Upgrade option and press ►|.
5. Select **YES** to confirm upgrade or **NO** to cancel.

After the upgrading the firmware, the device will automatically turn off and restart. To restore the firmware to the original version, perform the Factory Reset function.

FACTORY RESET

To restore all settings to the factory default:

1. Scroll down to the Factory Reset option and press **►**.
2. Select **YES** to confirm reset or **NO** to cancel.

CHANNEL EDIT



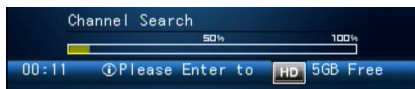
To add or delete channels:

1. Press **►** to enter the OSD shown above.
2. Use the **▼ ▲** keys to select a channel.
3. Use the **◀ ▶** keys to change between fields.
4. Press **►** when complete.

CHANNEL SEARCH

This option allows the user to perform an automatic scan for channels. To start scanning, do the following:

1. Use the ◀ ▶ keys to select **Cable TV** or **Air TV**.
2. Press ▶| to start the channel scan.



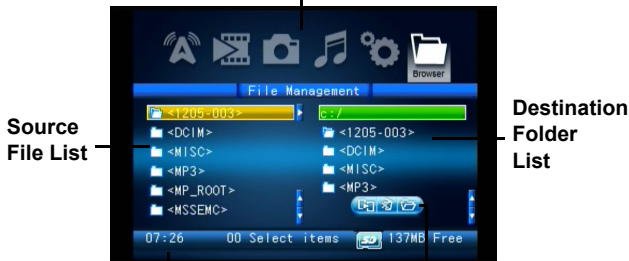
Notes

The Channel Edit and Channel Search functions are only available with the PVR Tuner model.

File browsing

Function List: Recorder - Video - Photo - Music - Setup -

Browser



Source
File List

Destination
Folder
List

Status Bar:

Time - Information
Storage - Capacity

Menu:

Copy
Delete
New Directory

The file browser allows you to view the contents in the hard drive and the memory card at the same time.

Select the Browser menu from the main menu and press **►** to enter.

File management menu



Use the **☰** key to access the File Management Menu. The following three functions are available:

COPY

The files can be copied from one memory card to another or recorder hard drive and vice versa. Also, the files can be

copied to a different folder on the same memory card or hard drive.



In the File Browser, the left column is the source memory card and right column is the destination. Switch the storage in the left or right column in the File Browser by pressing the storage key on the remote control.

1. Highlight a file from the left column, and press the **SELECT** key.
2. Press  and use the **◀ ▶** keys to select copy (.
3. Press **▶|** to start copying.



Notes

When copying files from the hard drive to the memory card, ensure that the memory card has enough capacity for copied files, otherwise an insufficient memory warning will appear.

DELETE

1. Highlight a file from the left column, and press the **SELECT** key.
2. Press  and use the **◀ ▶** keys to select delete (.
3. You will be asked to confirm **YES** or **NO**. Press **▶|** to confirm your selection.

NEW FOLDER

1. Highlight a file or folder from the left/right column, and press the **SELECT** key.
2. Press  and use the **◀ ▶** keys to select new folder ().
3. Press **▶|** to create a new folder.

4. Other Applications

EXTEND YOUR VIDEO EXPERIENCE

Through the recorder applications, you can extend your video experience with your PDA, Sony PSP, Video iPod, Nintendo game console, and mobile phone.

Use the following guide to play back video on a Sony PSP, Video iPod, Game Boy Micro and mobile phone.

Sony PSP

1. You can select resolutions of 320x240-30fps, 368x208 and 640x480. Both resolutions of 320x240-30fps and 368x208 can be played back on the Sony PSP.
2. Before using the MS (Pro) Duo Card with the recorder, you should format the card in your Sony PSP first. This is to make sure Sony PSP can recognize the files generated from the recorder.
3. After recording your content onto the MS (Pro) Duo Card, insert it in to the Sony PSP for further playback.

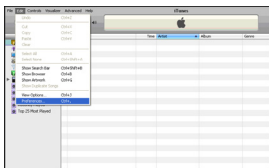
Video iPod

The Video iPod supports MPEG4 video resolutions up to 640x480. Therefore we suggest you to choose video content encoded in 320x240-30fps or 640x480 resolution from the recorder for playback on Video iPod. The Video iPod skips video files not supported by Video iPod.

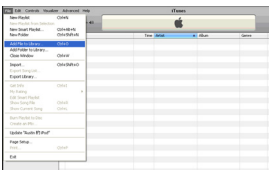
Operating Procedure:

The following steps assume you already "iTunes" installed on your PC.

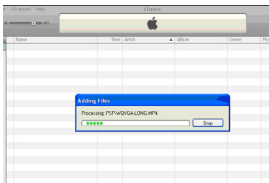
1. Connect your Video iPod to your PC, and then open the "iTunes" program.
2. Click on the menu of "Edit", and then select "Preferences".



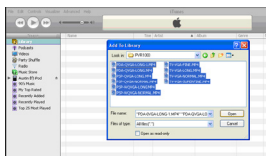
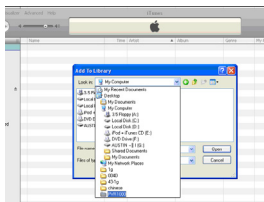
3. After the following window pops up, please click "Video" item, and "mark" the selection of "Automatically update all videos", then confirm by clicking "OK".



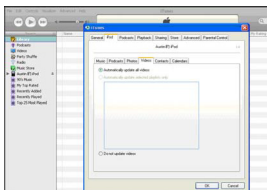
4. Select "File" and then "Add File to Library".



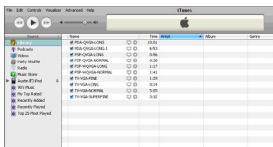
- Afterwards, select the MPEG-4 video files you want to load into the Video iPod.



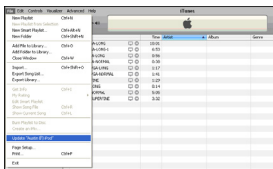
- iTunes will "Adding Files" into the Video iPod.



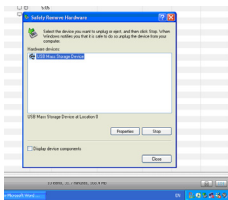
7. Your files are listed in the file category of iTunes.

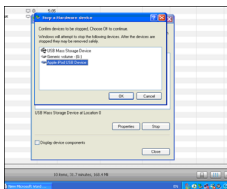


8. Click the "File" menu again, and then click "Update XXX's IPOD".

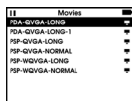
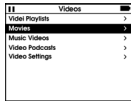


9. Safely disconnect the Video IPOD from your PC using the following steps.





10. Enter the Video mode of your iPod to playback MPEG-4 content.



11. Now you can enjoy your Videos anywhere, anytime.



Nintendo Game Boy Micro

The Nintendo Game Boy Micro can playback the recorded file from the recorder and supports 640x 480 MPEG4.

Before running this interesting application, the adapter for Game Boy Micro is needed (See the following photo)

for reference). Insert the Yan Micro Media Adapter into the Game Boy Micro to read your SD card. Though the recorder cannot read the SD card now, the file data can be easily transferred from CF/MS cards to the SD card through a card reader connected to your PC.



PDA / Smartphone

The recorder can support the following operating systems:

- Windows mobile 2003 Pocket PC 2nd edition / phone edition
- Windows mobile 5.0 Pocket PC edition / phone edition
- Pocket PC 4.2
- Palm O.S. 5.2.8

Before recording, please check the specification of your smartphone or PDA.

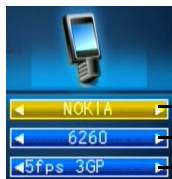
As most Windows-equipped smartphones or PDAs cannot play .MP4 files (because of no built-in AAC codec), users are recommended to use the TCPMP video player. You can download the video player for free from the Internet.

1. Download the TCPMP players and AAC plug-in and install them on your device.
 - 'TCPMP.PALMOS.0.71.ZIP' and 'TCPMP-AAC-PLUGIN.PALMOS.0.66.ZIP' are suitable for PALM users.
 - 'TCPMP-AAC-PLUGIN-WINDOWS-MOBILE.0.66.ZIP' are suitable for Windows mobile and Pocket PC users.
2. Insert the memory card into the recorder.

3. Set up the recording format. We recommend using the 320x240-15fps format.
4. Once recording is complete, remove the memory card from the recorder and insert it into your PDA or smartphone.
5. Launch the TCPMP player on your PDA or smartphone.
6. Play back the videos stored on your memory card. The playback quality will depend on the processing power of your PDA or smartphone.

Mobile Phone

Some mobile phones can playback the recorded file from the record. Before recording, specify the brand, model name, and recording format of the mobile phone from the OSD.



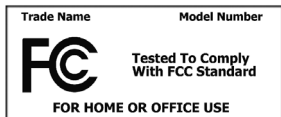
If your mobile phone model is not on the list, select the mobile phone mode to record the video.

Make sure your mobile phone is capable of .MP4 file playback (MPEG4 video streaming with AAC audio) or .3GP file playback (MPEG-4 video streaming with AMR audio) before proceeding. If not, you will not be able to record videos that can be played back on your mobile phone.

1. Insert the memory card into the recorder.
2. Set up the recording format. We recommend using the 176x120 format.
3. Once recording is complete, remove the memory card from the recorder and insert it into your mobile phone.
4. Launch the video player on your mobile phone.
5. Play back the videos stored on your memory card. The playback quality will depend on the processing power of your mobile phone.

5. Appendix

FCC Certification



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. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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 change or modifications to the equipment not expressly approved by the party responsible for compliance could void your authority to operate such equipment.

CE Notice (European Union)

Marking by the symbol indicates compliance of this recorder to the EMC Directive and the Low Voltage Directive of the European Union. Such marking indicates that this recorder meets the following technical standards:

EN 55022 — "Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment."

EN 55024 — "Information technology equipment - Immunity characteristics - Limits and methods of measurement."

EN 61000-3-2 — "Electromagnetic compatibility (EMC) - Part 3: Limits - Section2: Limits for harmonic current emissions (Equipment input current up to and including 16 A per phase)."

EN 61000-3-3 — "Electromagnetic compatibility (EMC) - Part3: Limits - Section3: Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current up to and including 16 A."

EN 60065 — "Safety of audio, video and broadcast equipment."

EN 55022 emissions requirements provide for two classifications:

- Class A is for typical commercial areas.
- Class B is for typical domestic areas.

To determine which classification applies to your recorder, examine the FCC registration label located on the back panel of the computer.

EN55013 - "Sound and television broadcast receivers and associated equipment. Radio disturbance characteristics. Limits and methods of measurement."

EN55020 - "Sound and television broadcast receivers and associated equipment. Immunity characteristics. Limits and methods of measurement.'

Troubleshooting

Symptom	Possible cause	Possible remedy
No video display.	Unit has no power.	Ensure that unit is plugged in correctly. You should see a green LED on the front panel if it is plugged in correctly. Refer to "Connecting power" on page 11.
	Cable connecting AV Out to video monitor is not properly connected.	Refer to "Connecting to a TV (viewing only)" on page 10 for information.
Remote control not functioning.	Obstruction in front of infrared sensor on recorder.	Ensure that a line of sight exists between the remote control and the sensor on the recorder.
	Low battery power.	Replace battery in the remote control.
CF card or MS/SD/MMC card not recognized by the recorder	Card not inserted properly.	Refer to "Inserting the Compact Flash (CF) card" on page 8 and "Inserting the MS, SD, MMC series memory card" on page 9 for information about proper handling of CF and MS Duo memory cards. Never force memory cards into the recorder.

Please visit the website to get the latest information about the recorder.

Specifications

Video encoder	Application	Format
	PSP	*(320x240); MPEG4 SP+AAC-LC, 30fps *(368x208); MPEG4 SP+AAC-LC, 30fps
	Video iPod	*(640x480); MPEG4 SP+AAC-LC, 30fps *(320x240); MPEG4 SP+AAC-LC, 30fps
	Smartphone	*(320x240); MPEG4 SP+AAC-LC, 15fps *(176x144); MPEG4 SP+AAC-LC, 15fps
	TV	(640x480); MPEG4 SP+AAC-LC, 30fps
	PDA	(320x240); MPEG4 SP+MP3, 30fps
	Mobile Phone	*RS-MMC, T-Flash, Mini SD, Micro SD, MMC mobile *(320x240);MPEG4 SP+AAC-LC, 15fps *(176x144);MPEG4 SP+AAC-LC, 15fps *(320x240);3GP;MPEG4 SP+AMR, 15fps *(176x144);3GP;MPEG4 SP+AMR, 15fps
Video decoder	1) MPEG4 SP; MPEG-1 & 2 Layer I/II/III (MP3), 30 fps at 720x480 resolution 2) X-VID; DivX 4.x, 5.x; 30 fps at 720x480 resolution 3) Quick time 6; MPEG4+AAC stereo at 720x480 resolution 4) 3GP (MPEG4+AMR)15fps at 320x240 or 176x120 resolution	
File formats	ASF, AVI, MP4, 3GP	
Audio decoder	MP3 decoding @ 48-320 kb/s CBR & VBR WMA decoding @ 48-192 kb/s CBR	
Still image	Codec	JPEG decode (Baseline), BMP, GIF (animated not included)
Resolution	Up to 16M pixels (4096 x 4096)	
Image Processing	Zoom in, Zoom out 1x/2x/3x	

Storage	Built-in HDD	2.5-inch IDE hard Disk
	Memory card	*Without adapter: CF, MS, MS Pro, SD, MMC *With adapter Mini-SD, Micro-SD, RS-MMC, MMC- Mobile, MS (PRO) Duo
TV system	Video Out Format	NTSC/PAL
Power source	External 5V AC/DC adapter (100 ~ 240V, 2.6A)	
Dimensions and weight	87 (H) x 118 (W) x 30 (D) mm, 160g (without HDD)	

Recording Format by Application		
TV	TV MODE	VGA(640x480) MPEG4+AAC-LC 30 fps .MP4
PSP	PSP MODE 1	QVGA(320x240) MPEG4+AAC-LC 30fps .MP4
	PSP MODE 2	368 x 208 (16:9) MPEG4+AAC-LC 30 fps.MP4
I-POD	I-POD MODE 1	VGA(640x480) MPEG4+AAC-LC 30fps .MP4
	I-POD MODE 2	QVGA(320x240) MPEG4+AAC-LC 30fps.MP4
SONY Ericsson	SE MODE 1	QVGA(320x240) MPEG4+AAC-LC 15fps.MP4
	SE MODE 2	QCIF(176x144) MPEG4+AAC-LC 15fps.MP4
NOKIA	MODE 1	QVGA(320x240) MPEG4+AMR 15fps.3GP
	MODE 2	QCIF(160x120) MPEG4+AMR 15fps.3GP

Recording Format by Application		
MOTO	MODE 1	QVGA(320x240) MPEG4+AAC-LC 15fps.MP4
	MODE 2	QCIF(176x144) MPEG4+AAC-LC 15fps.MP4
Mobile Phone	3GPHONE MODE 1	QVGA(320x240) MPEG4+AAC-LC 15fps.MP4
	3GPHONE MODE 2	QVGA(320x240) MPEG4+AMR 15fps.3GP
	3GPHONE MODE 3	QCIF(176x144) MPEG4+AAC-LC 15fps.MP4
	3GPHONE MODE 4	QCIF(160x120) MPEG4+AMR 15fps.3GP
Smart Phone	SMARTPHONE MODE 1	QVGA(320x240) MPEG4+AAC-LC 15fps.MP4
	SMARTPHONE MODE 2	QCIF(176x144) MPEG4+AAC-LC 15fps.MP4
PDA	PDA MODE 1	QVGA(320x240) MPEG4+MP3 30 fps.MP4