



neuros™

MPEG4 VIDEO RECORDER 2
Manual



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.

- For the most up-to-date copy of the guide in English or a copy in German, French, Italian or Spanish please visit:
<http://www.neurostechnology.com/support>
- Pour un exemplaire du guide d'utilisation en français, consultez la page :
<http://www.neurostechnology.com/support>
- Per ottenere una copia del manuale utente in italiano, visitare:
<http://www.neurostechnology.com/support>
- Para obtener una copia de la guía del usuario en "Español" visite:
<http://www.neurostechnology.com/support>
- Ein Exemplar der deutschen Bedienungsanleitung finden Sie auf folgender Website:
<http://www.neurostechnology.com/support>

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1. Overview

Congratulations on purchasing the Neuros MPEG-4 Recorder 2. Now you can enjoy quality multimedia anywhere you go and record your favorite video programs from a variety of video sources. The Recorder 2 also plays back your favorite audio tracks, and displays photos and video on your TV.

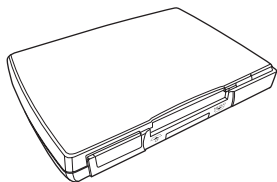
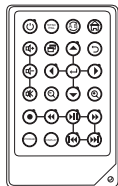
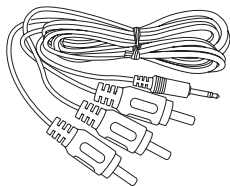
Refer to this user manual for detailed descriptions about the product and instructions for using it.

Features

The Neuros MPEG-4 Recorder 2 allows you to:

- record video from a TV, DVD, VCR or camcorder
- display images (jpg, gif, and bmp formats)
- play audio files (mp3 and wma formats)
- play videos (ASF, AVI, MP4 formats)

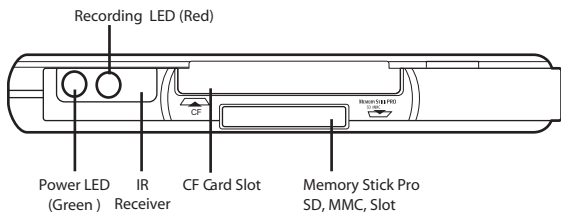
Package contents

Recorder 2**Power Adapter****Remote Control****RCA Video cables (x2)****User Manual**

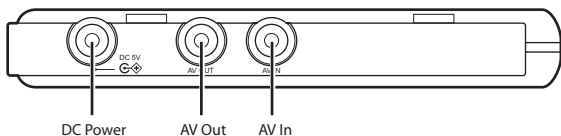
About the Neuros MPEG-4 Recorder 2

Refer to the following sections for information about the hardware components of the Recorder 2.













Front view

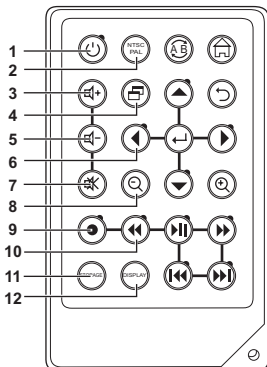


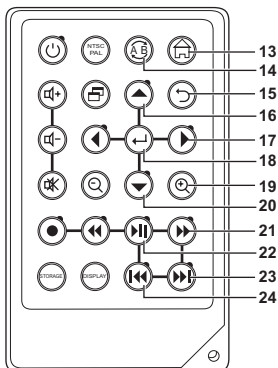
Rear view















About the remote control

Icon	Description
1. 	Turns on the power
2. 	Switches between NTSC and PAL system
3. 	Increases the volume
4. 	Enters the setting menu (Note: settings menu options vary depending on when selected)
5. 	Decreases the volume
6. 	Scrolls left
7. 	Mutes all sound
8. 	Zooms out
9. 	Start and stop recording
10. 	Rewinds playback of video and audio files
11. 	Switches between CF and Memory Stick/SD/MMC.
12. 	Turn on and off the on screen display





































Icon	Description
13. 	Returns to the top menu
14. 	Repeats playback of selected audio/video file.
15. 	Returns to the previous menu
16. 	Scrolls up
17. 	Scrolls right
18. 	Confirms selection of menu item
19. 	Zooms in
20. 	Scrolls down
21. 	Fast Forwards playback of video and audio files
22. 	Plays or pauses playback of photo, video and audio
23. 	Plays the next photo, video and audio files
24. 	Plays the previous photo, video and audio files

Sticker for Recording Setting

Before recording for target player (TV, PDA or PSP...), user can refer to the sticker (as picture shows below) for the setting including resolution and quality.

Please refer to page 21 to setup the recording format.

Suggested Recording Resolutions					
	Economic	Normal	Fine	Super fine	Legend
640X480					 TV
320X240 30fps					 PSP
368X208			---	---	 iPod
320X240 15fps					 PDA
176X120					 S/Phone
320X240 3GP					 Mobile
176X144 3GP					

Please see www.neurostechnology.com / supporteddevices.asp and the manual of your playback device for details.

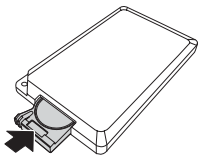
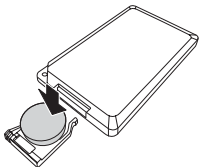
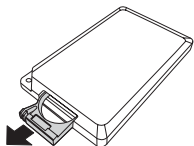
2. Getting started

This chapter describes the preliminary steps required to set up the Recorder 2 and how to make connections before starting to use the device.

Installing the remote control battery

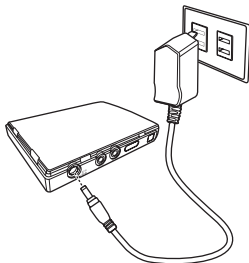
Follow these instructions to insert the remote control battery:

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.





Connecting power

Connect the power adaptor to the DC-in socket on the rear panel of the Recorder 2. Plug the other end of the adaptor into a power outlet.



Turning on the Recorder 2

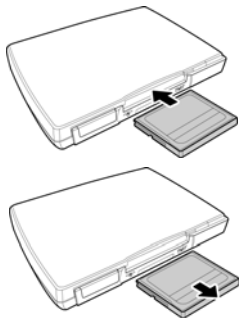
Once the Recorder 2 is plugged in, the green power LED turns on. Press the  button on the remote and the system turns on. Press the  button again to turn off the Recorder 2.

Note: the green light will remain on even if the Recorder 2 is turned off, as long as the unit is connected to a power outlet.

Inserting the Compact Flash (CF) or 1" Micro Drive 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 CF card and gently pull.



Note1:

The Hitachi 1" Micro Drive should be formatted using the Recorder 2 before using (See Page 22). This is to ensure that the 1" Micro Drive has been formatted in the FAT16 format and can therefore be recognized by the Recorder 2.



Note2:

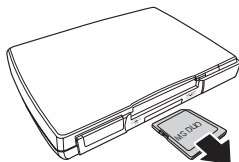
File size is limited to 2 GB for the Hitachi 1" Micro Drive. This is an inherent limitation of the FAT16 format. If you attempt to record a file larger than 2 GB, the Recorder 2 will begin a second file once the 2 GB limit is reached. A small amount of data may be lost while the Recorder 2 is transitioning to the second file.

Inserting the MS Duo/Pro Duo, MMC or SD Series Card

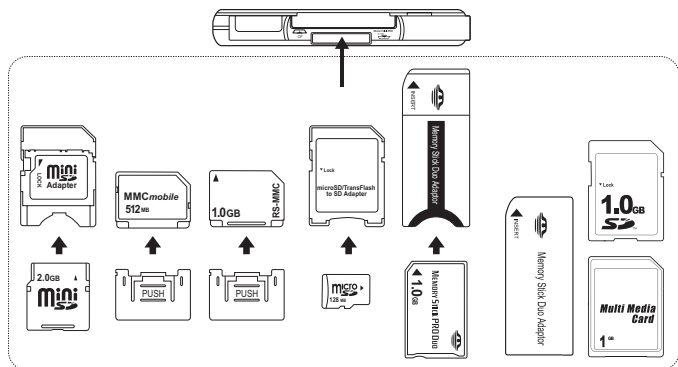
Insert the card into the card slot with the metal contacts going in first and facing up, until the card is firmly in place. The beveled corner of the card must be away from you and to the right as the card is inserted.



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

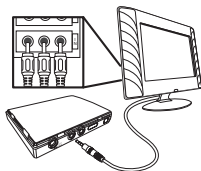


See diagram below for proper adapters:



Connecting to a TV (viewing only)

Connect the A/V connectors (red, white, and yellow) of the A/V cable, to the corresponding input sockets on the TV. Connect the other end to the AV Out socket at the back of the Recorder 2. You will also need to set your TV to the appropriate video channel to see the user interface and set up your recording preferences (use the TV/video button on your remote--Just like you would for a VCR).

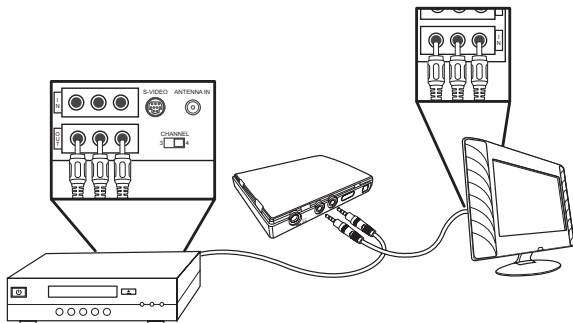


The appropriate channel dedicated to the inputs you are plugged into varies. Please refer to your television's manual for details (or try switching between channels)

Note: If the TV has only 1 video and 1 audio socket, insert the yellow connector in the video socket and the white connector in the audio socket, leaving the red connector unused.

Connecting to a TV, 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 cable box, satellite receiver, VCR, DVD player, camcorder etc. Connect the other end to the AV In socket at the back of the Recorder 2. Connect the second A/V cable to the AV Out socket of the Recorder 2 and the corresponding input sockets on the TV as described in the previous section.



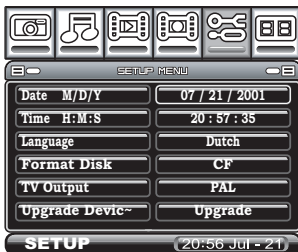
Note: Most TVs do not have video output (only audio output). In this case, you won't be able to record directly from the TV. Instead, record TV shows from the cable box, satellite receiver box, or PVR (like Tivo). If you don't have cable or satellite TV, you can record from broadcast TV by plugging the video out from a VCR into the A/V In on the Recorder 2, then plugging the A/V Out from the Recorder 2 into the Video In on the TV.

Confirming/Selecting the correct TV output

Note: Different regions of the world use different TV output formats. For example, the U.S. uses NTSC and much of Europe uses PAL. Depending on your region, you may need to change the TV output from NTSC to PAL. If you have a color TV and only black and white is visible when the Recorder 2 menu is visible (the picture may also appear somewhat unstable), you may need to change the TV output as detailed below. If colors are visible on the menu screen, the TV output is already correct, and you can skip this step. Changing the TV output is done by accessing the Setup menu (see below) and changing the TV Output mode. If you don't know what setting is used in your local region, you may want to consult the user's guide for your TV set, but, if you have any doubt, it will probably be easier to just follow the simple steps below and use the format that makes the screen color and image appear normal.

Note: Many TV sets in France use a different TV Output format called Secam. This format is not currently supported by the Recorder 2.

To determine the current TV Output setting and to change it (if necessary):



1. Highlight the Setup menu from the main menu screen using the ◀ ▶ buttons.
2. Press ↵ to access the Setup menu options.
3. You should see TV Output as one of the options along the left side. The currently selected format (NTSC or PAL) will be displayed across from it on the right. If this is the desired format, you are finished with this step. Simply exit the menu by pressing the ↵ button. If you want to change the format, scroll down to the TV Output line using the ▼ ▲ buttons. Use the ↵ button to highlight TV Output, then use the ◀ ▶ buttons to change the format. Once the desired format is displayed, exit the menu by pressing the ↵ button as above.

3. Using the Neuros MPEG-4 Recorder 2

Now that you have set up the Recorder 2, you are ready to start using it to view your favorite images, listen to audio tracks, watch videos, and record videos. This chapter provides detailed instructions for these tasks and for navigating through the OSD (On Screen Display) menu.

Viewing pictures



The Recorder 2 is able to display .JPG, .GIF and .BMP image file formats.


Displaying images

To display still images:

1. Highlight the Photo menu icon using the ◀ ▶ buttons.
2. Press ↵ to access the file list.
3. Use the ▼ ▲ buttons to highlight the required file and press the ▶|| button to play the file.












Photo Settings menu



To access the Settings menu related to viewing photos, press the  while in the main Photo menu. The following three functions will appear:




SLIDESHOW

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





1. Use the   buttons to scroll to and highlight the Slide-show option.
2. Use the   buttons to Select **ALL** photos or only the photos in the **FOLDER** for the slideshow or to turn the slideshow **OFF**.
3. Use the  button to return to the menu.
4. Using the   buttons, select a photo for the slide show by pressing the  button on the remote control. The screen icon will change from  to .
5. Press  to play the slide show.

Note: 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.








6. While playing you can use  and  to zoom out and in on the picture.
7. Pressing  will show the following: File information, Background Volume, Current Date and Time, and the zoom amount.

BACKGROUND MUSIC

1. Use the   buttons to highlight the **Music** function.
2. Use the   buttons to turn **ON** or **OFF** the background music during the slide show

DELETE FILES

To delete a file:

1. In the main Photo menu, navigate through the folders and scroll to highlight a photo file you wish to delete. Once a photo file is highlighted, press  to select it. You can tell when a file is selected because the icon next to the file changes to a double rectangle. More than one file can be selected for deletion in a single session. Just highlight and select them one at a time. You can de-select a highlighted file by hitting  a second time.
2. Once you have selected all the files you wish to delete, press the  button to display the Settings menu for the Photo mode. Then scroll to Delete Files to highlight the word "Selected", then press .
3. Use the   keys to confirm **YES** or **NO** and press .
4. If multiple files are selected, they will all be deleted at once.

Listening to music










The Recorder 2 is able to Play. WMA and .MP3 audio file formats.

Playing audio

To play an audio file:


1. Highlight the Audio menu icon and press \leftarrow to access the file list.
2. Use the \blacktriangledown \blacktriangle buttons to go to the desired file and press \blacktriangleright \parallel to play the file.

While playing audio you can use the following functions:

	Decrease volume		Fast forward
	Increase volume		Rewind
	Mute volume		Play previous audio track
			Play the next audio track

Setting menu for Music



To access the Settings menu for Music press  while in the main Music menu. The following two functions are available:


Repeat

Use   to Choose **Off**, **Single**, **Folder** or **All**, then press .


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

DELETE FILES

To delete a music file:

1. In the main Music menu, navigate through the folders and scroll to highlight a music file you wish to delete. Once a file is highlighted, press  to select it. You can tell when a file is selected because the icon next to the file changes to a double rectangle. More than one file can be selected for deletion in a single action. Just highlight and select them one at a time.

You can un-select a highlighted file by hitting ↵ a second time.

2. Once you have selected all the files you wish to delete, press the  button to display the Settings menu for the Music mode. Then scroll to Delete Files to highlight the word "Selected", then press ↵.
3. Use the ◀ ▶ keys to confirm YES or NO and press ↵.
4. If multiple files are selected, they will all be deleted at once.

Watching videos










The Recorder 2 is able to play .ASF, .AVI and .MP4 image file formats.

Playing videos


1. Highlight the Video menu and press \leftarrow to access the file list.
2. Use the \blacktriangledown \blacktriangle to go to the required file and press \blacktriangleright to play the file.

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




	Decrease volume		Fast forward
	Increase volume		Rewind
	Mute volume		Play previous video clip
			Play next video clip

Setting menu for Video



To access the Video Settings menu for Video, press  while in the main Video menu. The following two functions are available:


Repeat

Use   to choose between **Off**, **Single**, **Folder** or **All** Then Press .


Note: 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. In the main Video menu, navigate through the folders and scroll to highlight a video file you wish to delete. Once a file is highlighted, press  to select it. You can tell when a file is selected because the icon next to the file changes to a double rectangle. More than one file can be selected for deletion in a single session. Just highlight and select them one at a time.

You can un-select a highlighted file by hitting ↵ a second time.

2. Once you have selected all the files you wish to delete, press the  button to display the Settings menu for the Video mode. Then scroll to Delete Files to highlight the word "Selected", then press ↵.
3. Use the ◀ ▶ keys to confirm YES or NO and press ↵.
4. If multiple files are selected, they will all be deleted at once. You can un-select a highlighted file by hitting ↵ a second time.

Recording video

Record menu



Resolution

To select a resolution:

1. Highlight the record section and press \leftarrow to access the **Record Menu**.
2. Use the \leftarrow \rightarrow to choose among the resolution settings.(see "Selecting the right recording resolution setting "on page 27").

Quality

To choose the quality of the recording,highlight the quality menu and use the \leftarrow \rightarrow buttons to choose either Normal or Economic in 320x240-15fps and 368x208 option. Use the buttons to choose Super Fine, Fine, Normal or Economic in all other modes.

Quick setup

Use this when you want the Recorder 2 to shut off automatically after a selected amount of time. Use the buttons to choose between OFF, 1hr, 2hrs or 3hrs recording.

Timer record



To access the timer record function, scroll down to highlight Timer record and press the \leftarrow button.

The screen is divided into functional areas:

PROGRAMS

The Recorder 2 has 6 available recording programs. Use the following settings to setup each program.

Use the $\leftarrow \rightarrow$ button to scroll between the programs and use the \leftarrow button to select the program.

START AND STOP TIMES

1. Use the $\leftarrow \rightarrow$ button to move between the date and the time.
2. Press \leftarrow to highlight each section and then use the $\nabla \blacktriangle$ buttons to choose the appropriate number.
3. Press \leftarrow to complete.

FREQUENCY

The frequency function allows you to choose when this recording is activated.

NOTE: The unit must be on for Timer Recording to work. The unit will not turn on automatically for timer recording.

1. Use the ▼ ▲ buttons to choose between **OFF**, **Once**, **Daily** or **Weekly**.
2. Press ↵ to save.

Note: Timer recordings are deactivated while the Recorder 2 is being used for playback. If recordings are scheduled while the Recorder 2 is playing, a recording will not be initiated.

Auto record

Use the ◀ ▶ buttons to turn **ON** or **OFF**. If the auto record turns on, it will automatically start to record when there is a video source input and the recording will stop if the source is turned off. Or you can press the ↵ button to stop the recording anytime.

Storage

Use the ◀ ▶ buttons to choose between Compact Flash MS, MMC, SD cards or MS Duo memory cards.

Selecting the right recording resolution setting

The 320x240,176x120 and the 640x480 modes record in a 4:3 aspect ratio (which is standard screen format found on regular DVD's and most TV's). The 320 x 240-30fps mode is the resolution typical of most handhelds, and the files are fairly compact and will play back on the greatest number of devices.


































The 640x480 mode provides the highest resolution but also requires the most data storage space. It is generally only recommended when you plan to play back the recorded files on a TV or laptop. The extra resolution is wasted on small screens like those on handhelds. While some handhelds can handle the higher resolution 640x480 files (the Neuros 442 for one), many (like the PSP and the iPod Video) don't have the capability to play them at all.

The 368x208 resolution setting is used when recording from video sources that are in the wide-screen (16:9) format, and some people like to use it when recording for playback on wide-screen handhelds like the Sony PSP (see "Playing back recorded files"). This format uses about the same amount of data as the 320x240-15fps format. Note: If you record in the 368x208 format from a source that isn't 16:9, the upper or lower portions of the video may be clipped on playback. If recording from a TV, make sure it's in the wide-screen format. If from a DVD player, make sure the DVD is wide-screen format and also that the player's video output is set to 16:9.

320 x 240-15fps is designed for PDAs and some Smartphones. Please refer to your playback device's manual for details concerning supported formats and resolutions.

176x120, 320x240-3GP and 176x120-3GP are designed for Mobile Phones. Please refer to your Mobile Phones's manual for details concerning supported formats and resolutions.

Note: As of the date of this printing, the PSP would not allow zooming on 368x208 resolution files. It is hopeful that Sony will correct this shortcoming in future firmware revisions.

Suggested Recording Resolutions					
	Economic	Normal	Fine	Super fine	Legend
640X480					 TV
320X240 30fps					 PSP
368X208			---	---	 iPod
320X240 15fps					 PDA
176X120					 SPhone
320X240 3GP					 Mobile
176X144 3GP					 Mobile

Please see [www.neuronstechnology.com / support/devices.asp](http://www.neuronstechnology.com/support/devices.asp) and the manual of your playback device for details.

Simple Record

Once you are satisfied with the settings for the Recorder 2 (resolution, recording quality, etc), you can do one-button manual recording. First make sure your input source is turned on (and turned to the proper channel if a cable or satellite TV box, PVR, etc), then:

1. Press the ● button to begin recording.
2. To finish recording press the ● button again.
3. Press the ↵ button to return to the Main menu.
4. To view the recorded file, see "Playing back recorder files".

Note: Recording will continue until the ● button is pressed the second time or until the card is full unless the Quick Setup time is set to stop recording after a desired amount of time (see "Quick Setup above").

Setup menu



Scroll using the ◀ ▶ buttons to highlight the setup menu, then press ↵ to enter. There are seven setup menu options.

DATE AND TIME

To change the date and time:

1. Press ↵ to highlight a selection.
2. Use the ▼ ▲ buttons to change the value.
3. Use the ◀ ▶ buttons to move between fields.
4. Press ↵ when complete.

LANGUAGE

The default language of the Recorder 2 is English. If you would like to change it to the other available languages, follow these instructions:

1. Go to the **setup** menu and press ↵.
2. Using the down arrow ▼ go to the language bar.
3. Use the ◀ ▶ arrows to select the required language.
4. Press ↶ to return to main menu.


FORMAT DISK

To format the memory card:

1. To format the memory card, scroll down to the Format disk section and Press \leftarrow .
2. Select **YES** to confirm formatting or **NO** to cancel.

TV OUTPUT

To select the TV output:

1. Use the \blacktriangleleft \blacktriangleright buttons to choose between NTSC or PAL.
2. The  button on the remote control will provide the same function.

FACTORY RESET

To restore all settings to the factory default:

1. To restore factory settings, scroll down to the Factory Reset function section and press \leftarrow .
2. Select **YES** to confirm reset or **NO** to cancel.

File browsing



The file browser allows you to view the contents of both the Compact Flash card and the MS/SD/MMC card at the same time.

By pressing \leftarrow you can select a file.

Data Management Settings menu




To access the Data Management Settings Menu press \square . The following two functions are available:


COPY

The files can be copied from CF card to MS, SD or MMC card or vice versa. Also, the files can be copied to a different folder of the same memory card.

1. Files copied to a different memory card

In the File Browser, the left column is the source memory card and right column is the destination. Switch the type of card in the left column in the File Browser by pressing . Highlight a file from the main menu, go to the Data Management Settings menu highlight copy, then press \leftarrow .

2. Files copied to a different folder

Choose the same memory card by pressing . Highlight a file from the main menu, go to the Data Management Settings menu, highlight copy then press \leftarrow .

DELETE

1. Highlight a file from the main menu, go to the Data Management Settings menu highlight delete, then press \leftarrow .
2. You will be asked to confirm **YES** or **NO**. Press \leftarrow to confirm your selection.

Playing back recorded files:

Playing back files recorded with the Recorder 2.

You can use the Recorder 2 to record video for playback on the Sony PSP[™], Neuros 442 portable media player / recorder, the iPod video[™], the Nintendo Gameboy Micro[™], and many handhelds. The Recorder 2 files can also be played back on your PC or laptop running any major operating system. Follow the steps below for best results using the various playback devices.

I. Sony PSP

You must record using either the 320x240-30fps or the 368x208 format when recording for the PSP (the 640x480 setting will produce recordings that cannot be played on the PSP). The 320x240-30fps mode will produce a picture with a 4:3 aspect ratio (like a regular TV). The PSP will playback these files in the 4:3 ratio, or you can use the zoom controls on the PSP to shape it to fit the PSP's wide-format screen. The 368x208 mode will produce a picture in the wide-screen format, so it is automatically in the shape of the PSP screen. See page 24 for instructions on how to select the recording resolution.

2. Before recording onto an MS (Pro) Duo Card with the Recorder 2, you should first format the MS (Pro) Duo Card with the PSP to be sure the recorded files will be recognized by the PSP.

3. Once recording is complete, all you have to do is pop the MS (Pro) Duo card out of the Recorder 2 and insert it into the Sony PSP for playback.

Note: For files recorded in the 320x240-15fps mode, you can use the zoom feature on the PSP to size the picture to best fit the PSP

screen. As of the date of this printing, the PSP would not allow zooming on 368x208 resolution files. It is hopeful that Sony will correct this shortcoming in future firmware revisions.

II. Neuros 442 Portable Media Player/Recorder

The Neuros 442 is a powerful portable media player that can both play and record videos, photos, and music. Unlike many other handhelds (including the PSP and the iPod Video), the 442 is powerful enough to process even 640x480 files. This is important because it means you can record a file one time that will have near-DVD-quality resolution if played back on a TV (either with the Recorder 2 or with the 442) and play the same file on the 442. Although you can easily record files directly onto the 442, you may also want to transfer recordings made with the Recorder 2 to the 442. To do that:

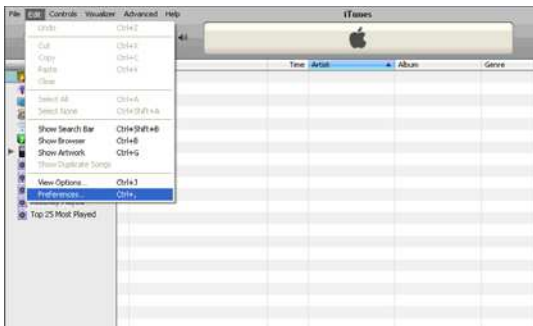
Play the file like you would any other on the 442 (see the 442 user's guide for details).

III. i-Pod Video

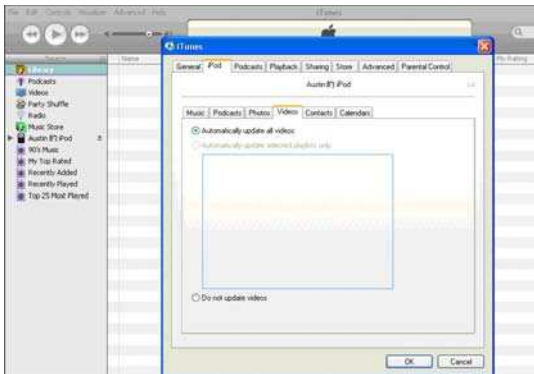
Note: Only files recorded in the 320x240-30fps or 368x208 modes can be played back on the iPod Video (the iPod Video cannot play any file with resolution greater than 480x480).

iPod Video Playback Procedure:

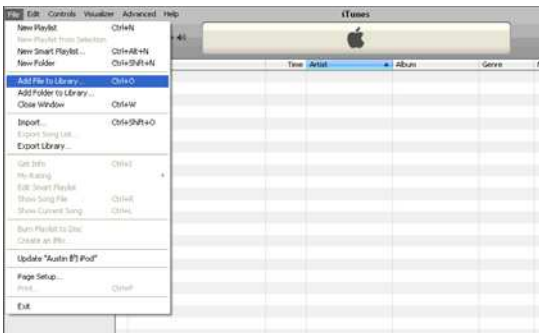
1. Install the "iTunes" driver on your PC (if you are already using iTunes with your iPod Video, you have already done this and can skip this step).
2. Transfer files recorded previously on memory card (using the Recorder 2) to your PC using a card reader (purchased separately). Simply slide the memory card into the card reader, then plug the card reader into a USB slot on your PC. Then drag and drop the video files from the card reader onto your hard drive.
3. Connect your iPod Video to your PC, then open the "iTunes" Utility.



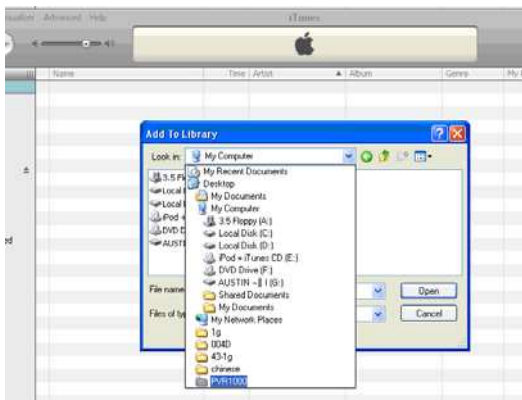
4. Click on the "Edit" drop-down menu on the iPod Video, then select "Preferences".
5. When the window shown below appears, click on "Video" item. Next select "Automatically update all videos", then confirm "OK".

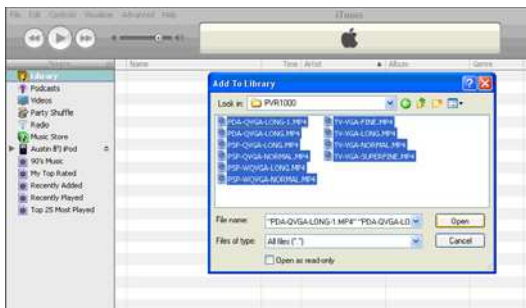


6. Click on the "File" drop-down menu, then select "Add File to Library".

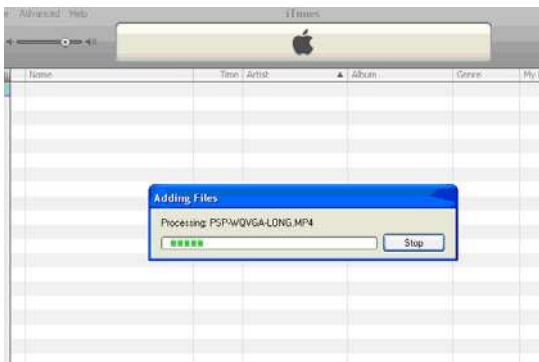


7. Next, highlight the MPEG-4 video files you wish to load onto the iPod Video.

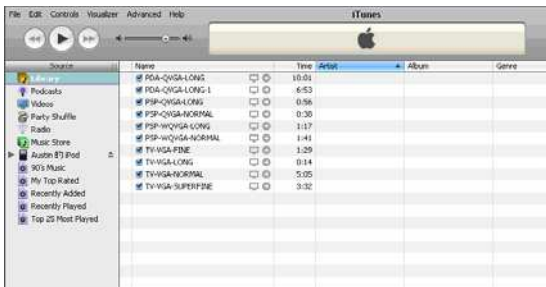




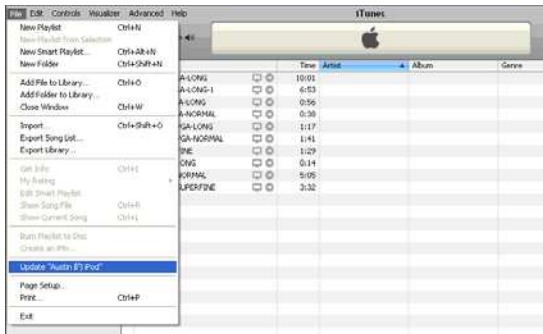
8. Wait while the iTunes utility loads the selected files onto the iPod.



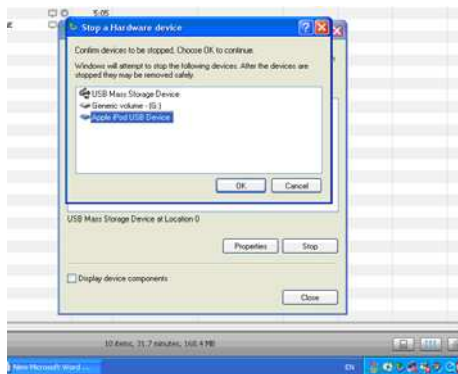
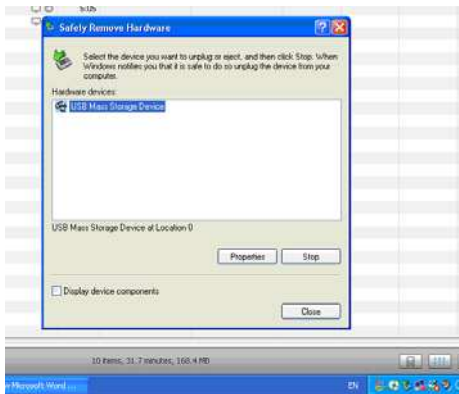
9. When loading is complete, the loaded files will be listed in the file category of iTunes.



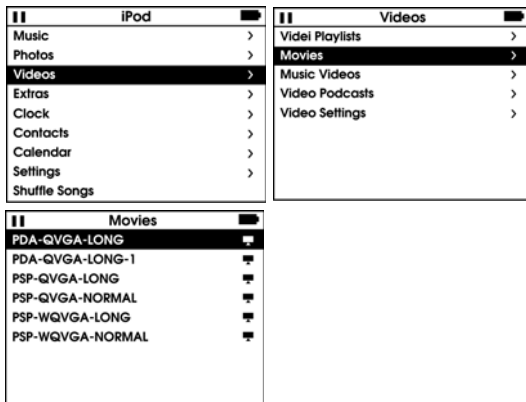
10. Click on the "File" drop-down menu again, then select "Update 'Username's' iPod".



11. Safely disconnect the Video iPod from your PC by following the steps below.



12. Enter the "Videos" mode of the iPod to play back the loaded files.



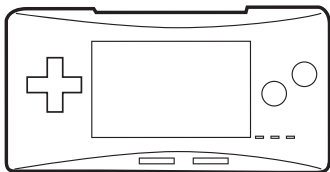
13. Now you can enjoy the video programs YOU recorded, anytime and anywhere you want.



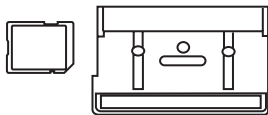
IV. Nintendo Game Boy Micro

The Nintendo Game Boy Micro can support MPEG-4 files with resolution up to 640x 480, so it can play back recordings from all Recorder 2 resolution settings (320x240-30fps, 368x208, and 640x480). However, if you intend to use the recordings only for playback on small screens like the Micro (and not on larger screens like TV), we recommend that you use the 320x240-30fps mode to save storage space. The extra resolution with 640x480 is more than can be seen on small screens and is therefore wasted.

To play files on the Game Boy Micro, you will need an SD card. then use a Yan Micro Media Adapter (purchased separately -- see below photo for reference) to play files from the SD card on the Game Boy Micro.



Nintendo Game Boy Micro



Play- Yan Micro Media Adapter

V. Other Handhelds (PDA's, Pocket PC's, etc.)

How files recorded with the Recorder 2 are transferred to a handheld and whether or not they will play without conversion will depend on the specific handheld. Files can be easily transferred to those that will accept CF, MS, SD, MMC cards and mini-SD, RS-MMC, T-Flash (in the same manner as for the PSP above.

Once the files are on the handheld, some may play right away. Others may not. This is because, for various legal and technical reasons specific to each device, the various handheld's support various file formats and not others. These files may still be playable if the handheld owner can download certain software to their device, or there may be software available to convert the files to a format recognizable by the handheld when the files are on the PC before being transferred to the handheld.

Neuros is continually working to make our products as compatible with the various file formats as is legally possible, and the Neuros customer support staff and community are very involved with helping each other work through issues like these. For more information and possible solutions, go to <http://neurostechnology.com/> and click on the Forums pull-down menu or the Support pull-down menu.

4. Firmware Upgrade Instructions

Neuros may provide firmware upgrades from time to time to fix bugs, add enhancements, etc. You can download these upgrades (usually for free) by going to <http://neurostechnology.com/support/support.asp> and following the links for upgrades. The date the latest firmware upgrade was posted will be shown for each Neuros product. You can also see the version number by clicking on the upgrade link.

If you aren't certain if you have the latest firmware version or not on your Recorder 2, go to the Setup menu (as described below), then scroll to the second page. The current firmware version number will be shown at the very bottom in the format: V.xx.xx.xxxx. The higher the number after the 'V', the more recent the firmware version. If the firmware version currently on your Recorder 2 is older than the latest version on the Neuros web site, you can update your firmware as follows:

1. Insert a memory card into a card reader (purchased separately) and plug the card reader into a USB slot on your PC.
2. Go to the firmware download page on the Neuros website as described above. Follow the instructions to download the latest firmware version for the Recorder 2. Unzip and Save the new vcr4800.bin file to the memory card (which will appear as USB memory or something like that in Windows Explorer). Be sure to save the file to the root directory of the memory card and not in any folder or sub-folder.
3. Pull the memory card out of the card reader and insert it into the Recorder 2.

4. Scroll to the Setup mode by pressing right arrows on the remote, then select the Setup mode by pressing the \leftarrow button. The Setup options should now be displayed.



5. Scroll through the Setup menu to highlight the Firmware Upgrade option, then press the \leftarrow button to start the firmware upgrade.

A "Clock" icon will appear on the screen while the firmware is being upgraded. The clock icon will disappear and the Recorder 2 will turn off automatically, when the upgrade is complete.

6. Press the "Power" button on the remote controller to turn on the Recorder 2.

7. Check out the firmware version at the bottom of the Setup menu (as described above) to confirm that the new version is now loaded.

8. Use the arrow to scroll to highlight the Factory Reset option.

9. Press the \leftarrow button on the remote to do reset the system.

10. You're done. Enjoy your new firmware

5. Contact Us

You really are important to us. Call us and you'll be amazed how quickly and easily you'll be connected to a real live person with a genuine interest in your satisfaction. Try it.

866-5-NEUROS (866-563-8767)

Please use the following e-mail addresses to reach individuals of the Neuros team:

General Information or Comments: info@neurostechnology.com

Customer Support: support@neurostechnology.com

Media and Analysts Requests: pr@neurostechnology.com

Interested Retailers: sales@neurostechnology.com

Developer Inquiries: developer@neurostechnology.com

Gamma Group Feedback: gamma@neurostechnology.com

Corporate Headquarters

Neuros Technology International, L.L.C.

650 W. Lake Street

Suite 330

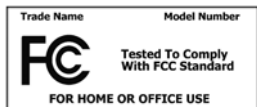
Chicago, IL 60661

Phone: 312-756-0061

For additional information please visit the Neuros web site at www.neurostechnology.com

6. 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 lim-

its 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 of the European Union. Such marking indicates that this recorder meets the following technical standards:

EN 55013:2002+A1:2003-"Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment".

EN 55020-"Electromagnetic immunity of broadcast receivers and associated equipment".

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 60950-"Safety of Information Technology Equipment."

EN 60950-1:2001- "Safety of Information Technology Equipment."

IEC 60950-1:2001-"Safety of Information Technology Equipment."

C-tick (Australian Regulation)

This recorder is compliance with the Australian regulation (AS/ NZS CISPR13 : 2003 Class B).

VCCI (Japanese Regulation)

This recorder is compliance with Japanese regulation (V-2/04.04 & V-3/05.04).

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

Troubleshooting

Please visit the website www.neurostechnology.com to get the latest trouble shooting information and FAQ about the Recorder 2.

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 "About the Neuros MPEG-4 Recorder 2" on page 3.
	Cable connecting AV Out to video monitor is not properly connected.	Refer to "Connecting to a TV (viewing only)" on page 11 for information.
Remote control not functioning.	Obstruction in front of infrared sensor on Recorder 2.	Ensure that a line of sight exists between the remote control and the sensor on the Recorder2.
	Low battery power.	Replace battery in the remote control.
Memory card not recognized by the Recorder 2	Card not inserted properly.	Refer to "Inserting the Compact Flash (CF) or 1"Micro Drive Card" on page 9 and "Inserting the MS Duo/Pro Duo, MMC or SD Series Card" on page 10 for information about proper handling of memory cards. Never force memory cards into the Recorder 2.

Specifications

Video encoder	Application	Formate
	1) PSP	1) *QVGA (320x240); MPEG4+AAC-LC, 30fps *368 x 208 (16:9); MPEG4+AAC-LC, 30 fps
	2) TV	2) (640x480); MPEG4+AAC-LC, 30fps
	3) iPod	3) (320x240); MPEG4+AAC-LC, 30fps
	4) PDA/ Smartphone	4) (320x240); MPEG4+AAC-LC, 30fps (320x240); MPEG4, 15fps
	5) Mobile Phone	5) *RS, MMC, T-Flash, Min SD, Micro SD, MMC mobile *176x120;MPEG4+AAC-LC, 15fps *320x240-3GP;MPEG4+AMR, 15fps *176x144-3GP;MPEG4+AMR, 15fps
Video decoder	1) MPEG-4 SP, MPEG-1 Layer 3 (MP3), 30 fps at D1 resolution 2) DivX 3.11 @ CIF resolution; 4.x; 5.x; 30 fps at D1 resolution 3) Quick time 6; MPEG-4 AAC-LC stereo, MP4 format at D1 resolution 4) 3GP (MPEG4+AMR)15fps at 320x240 or 176x144 Resolution	
File formats	ASF, AVI, MP4, 3GP	
Audio decoder	Codec	G.726 AMR
	MP3 decoding @ 30-320 kb/s CBR & VBR	
	WMA	
Still image	Codec	JPEG decode (Baseline), BMP, GIF (animated not included)
Resolution	Up to 16M pixels (4096 x 4096)	
Thumbnails	Supported when the photo has the EXIF header	
Image Processing	Zoom in, Zoom out 1x/2x/4x	
Storage	Memory card	CF card, MS Duo card, MS Pro Duo(with adapter) card SD series, MMC, MS card

TV system	Video Out Format			
Power source	External 5V AC/DC adaptor (100 ~ 240V, 1.4A)			
Dimensions and weight	118 x 87 x 18 mm, 140g			
Typical Recording Times on a 1GB Card				
Resolution/ Quality	Economic	Normal	Fine	Super fine
640x480	251min (384kbps)	143min (768kbps)	11min (1024kbps)	60min (2048kbps)
Save Folder:	TV	TV	TV	TV
320x240- 30fps	251min (384kbps)	143min (768kbps)	94min (1024kbps)	77min (1535kbps)
Save Folder:	PSP defined	PSP defined	PDA-iPod	PDA-iPod
368x208	251min (384kbps)	143min (768kbps)		
Save Folder:	PSP defined	PSP defined	N/A	N/A
320x240- 15fps	502min (96kbps)	402min (192kbps)	335min (384kbps)	201min (768kbps)
Save Folder:	PDA- Smartphone	PDA- Smartphone	PDA- Smartphone	PDA- Smartphone
320x240- 15fps	502min (96kbps)	402min (192kbps)	335min (384kbps)	201min (768kbps)
Save Folder:	PDA- Smartphone	PDA- Smartphone	PDA- Smartphone	PDA- Smartphone
176x120	502min (64kbps)	402min (128kbps)	335min (256kbps)	201min (512kbps)
Save Folder:	Mobile	Mobile	Mobile	Mobile

320x240-3GP	250min (192kbps)	143min (256kbps)	93min (384kbps)	77min(768kbps)
Save Folder:	Mobile	Mobile	Mobile	Mobile
176x144-3GP	500min (128kbps)	400min (192kbps)	333min (256kbps)	250min (384kbps)
Save Folder:	Mobile	Mobile	Mobile	Mobile
