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CAM102



User manual

PHILIPS

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1 Important

Safety

- ① Read these instructions.
- ② Keep these instructions.
- ③ Heed all warnings.
- ④ Follow all instructions.
- ⑤ Do not use this apparatus near water.
- ⑥ Clean only with dry cloth.
- ⑦ Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- ⑧ Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- ⑨ Only use attachments/accessories specified by the manufacturer.
- ⑩ Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- ⑪ Apparatus shall not be exposed to dripping or splashing.
- ⑫ Do not place any sources of danger on the apparatus (e.g. liquid filled objects, lighted candles).

Any changes or modifications made to this device that are not expressly approved by Philips Consumer Lifestyle may void the user's authority to operate the equipment.

Notice

Disposal of your old product and batteries

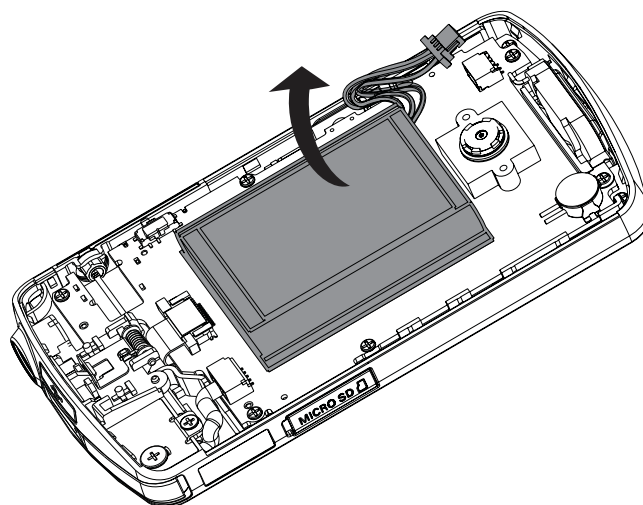
Your product is designed and manufactured with high quality materials and components, which can be recycled and reused. Never dispose of your product with other household waste. Please inform yourself about the local rules on the separate collection of electrical and electronic products and batteries. The correct disposal of these products helps prevent potentially negative consequences on the environment and human health. Please visit for additional information on a recycling center in your area.



Caution

- Removal of the built-in battery invalidates the warranty and may destroy the product.

Always bring your product to a professional to remove the built-in battery.





Note

- The safety logo and power rating information are located at the USB arm of the camcorder.

2 Your camcorder

Introduction

With this portable camcorder, you can:

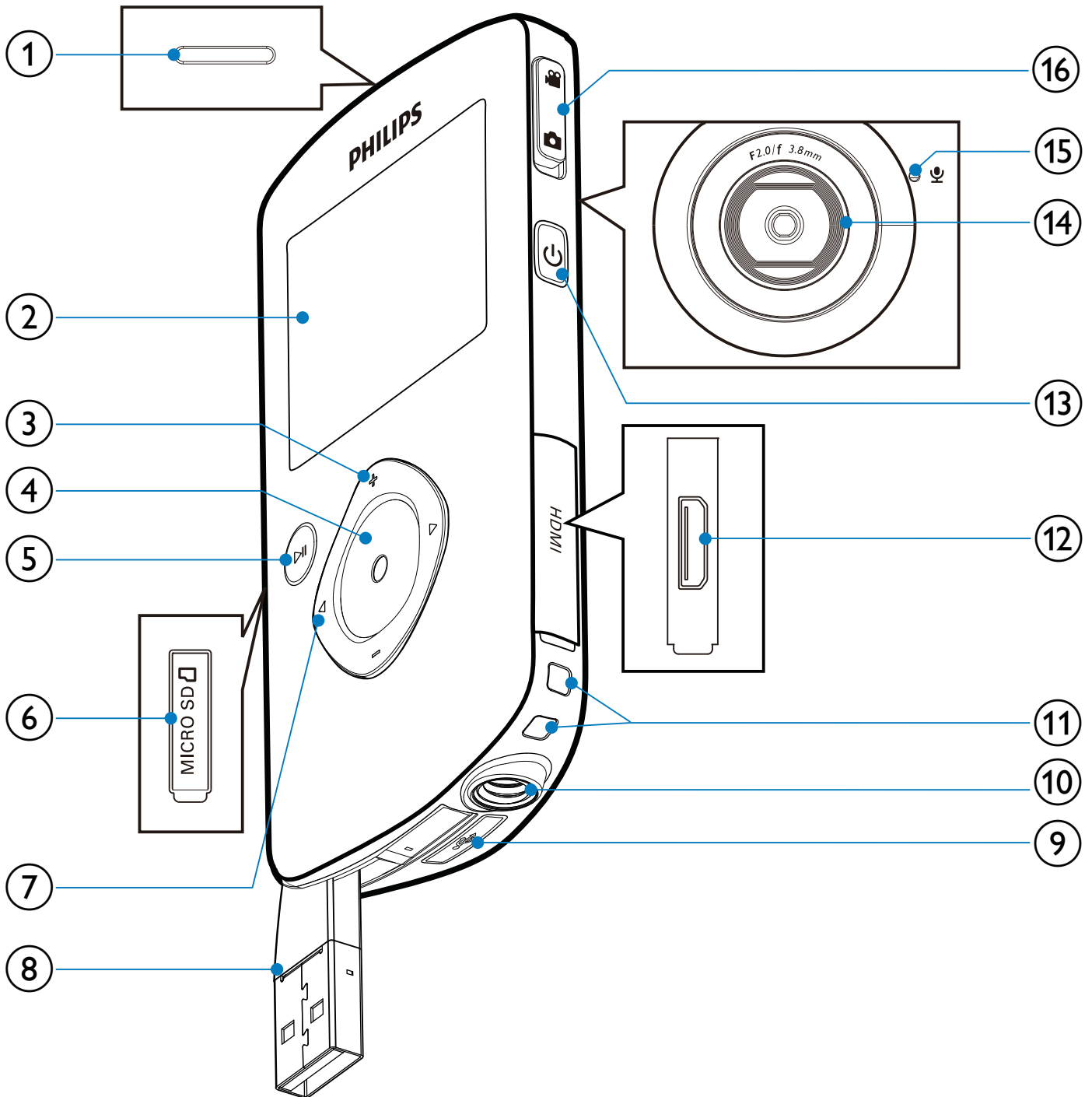
- take full HD (1080P) or VGA movies
- take pictures
- play recorded movies or pictures either directly or on the large screen of a connected TV
- upload the recorded movies or pictures to the Internet directly

What's in the box

Make sure that the following items are packed in the box:

- Camcorder
- Quick start guide
- Pouch
- Hand strap

Functional overview



- ① **Built-in speaker**
- ② **Display panel**
- ③ **+/-**
 - In viewfinder mode, zoom in/out.
 - Navigate up/down in a menu.
 - Change a value in the settings menu.
 - During video play, change the volume.
- ④ **Shutter button**
 - Perform the specific function as shown on the display panel.
 - In viewfinder mode, take a picture or start/stop video recording.
 - In play mode, switch to viewfinder mode.

⑤

- In viewfinder mode, switch to play mode.
- In play mode, play a selected video clip.
- Confirm settings.

⑥ **MICRO SD**

- Connect a Micro SD card.

⑦

- Navigate left/right in a menu.
- Select a menu option.
- In play mode, turn to the previous/next picture/video clip.
- In viewfinder mode, switch to the settings menu.

⑧ **USB connector**

⑨

- Eject the USB connector.

⑩ **Tripod socket**

⑪ **Hand strap hole**

⑫ **HDMI**

- Connect to a TV through an HDMI cable with a mini HDMI connector.

⑬

- Turn on/off the camcorder.

⑭ **Lens**

⑮ **Built-in microphone**

⑯ **Mode switch button**

- Switch between picture and video recording modes.

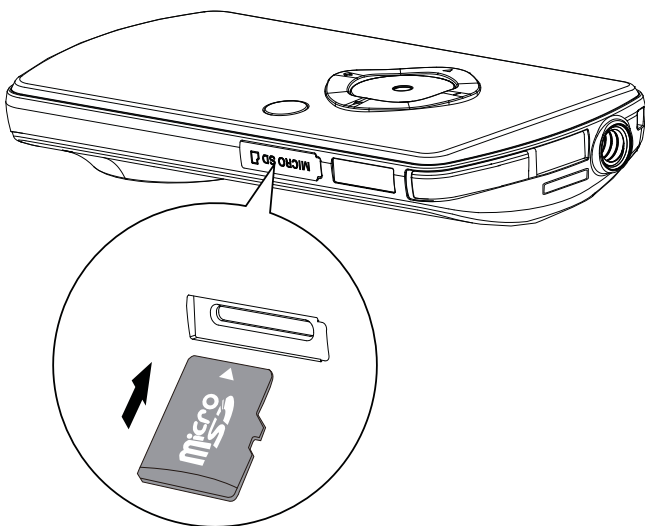
3 Get started



Tip

- To save energy, the camcorder turns off automatically after being idle for 3 minutes.

Load the Micro SD card



- 1 Flap open the protective cover on the Micro SD card socket.
- 2 Insert a Micro SD card (not supplied) into the socket.
 - Ensure that the the Micro SD card is not write-protected.
 - Ensure that the metal contact of the card faces down.
- 3 Close the protective cover securely.

Turn on

- Press .
 - ↳ For first-time users, a menu for date and time setting appears (See "Get started - Set the date and time").
 - ↳ The camcorder switches to viewfinder mode.

To turn off the camcorder:

- Press and hold .
 - ↳ The backlight on the display panel turns off.

Set the date and time (for first-time users only)

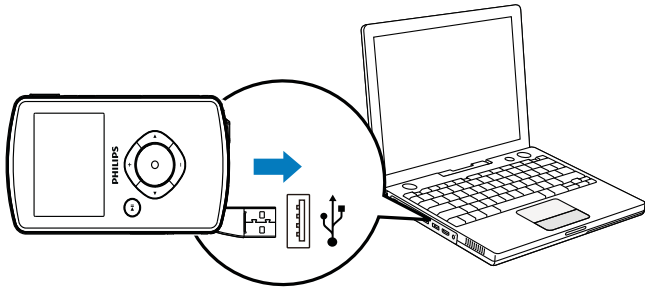
When you turn on the camcorder for the first time, a menu for date and time setting appears.

- 1 Press  to highlight **[Yes]**.
 - ↳ A date setting menu appears.
- 2 Press  /  to select the day, month and year fields successively.
- 3 Press  /  to change the value of each field.
- 4 Press   to confirm the date setting.
 - ↳ A time setting menu appears.
- 5 Press  /  to select the hour and minute fields successively.
- 6 Press  /  to change the value of each field.
- 7 Press   to confirm the time setting.
 - ↳ The date and time setting is complete.
 - ↳ The camcorder enters viewfinder mode.

Select a menu display language

- 1 In viewfinder mode, press .
 - ↳ A settings menu appears.
- 2 Press  /  to highlight **[Language]**.
- 3 Press  /  to select a language.
- 4 Press  /  to highlight **[Resolution]**.
- 5 Press  /  to select the resolution (HD, full HD or standard).
- 6 Press   to confirm the setting and return to viewfinder mode.

Charge the built-in battery



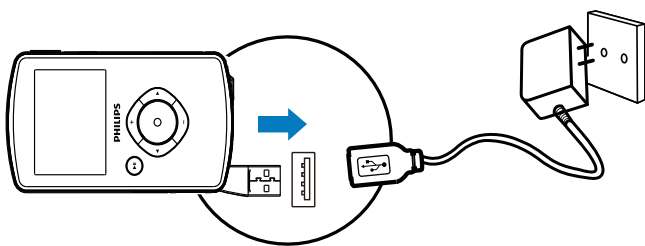
- 1 Press  at the bottom of the camcorder to eject the USB connector.
- 2 Connect the USB connector to a USB socket on a PC.
↳ The status indicator on the shutter button starts flashing in orange.
- 3 Wait until the status indicator stops flashing and turns to green steadily.
↳ The built-in battery is fully charged.



Tip

- The camcorder is fully charged for first-time use.
- It takes about 3 hours to fully charge the built-in battery via the PC.

You can also charge the camcorder via a USB adaptor (not supplied) connected to mains power. The charge time is about 2 hours.



4 Use your camcorder

Record video

- 1 Switch the mode switch button to .
↳ The selected resolution and remaining recording time are displayed on the display panel.
- 2 Hold the camcorder steadily and aim the lens as needed.
- 3 Press the shutter button to start recording.
↳ A red time indicator is displayed on the display panel.
↳ The status indicator on the shutter button starts flashing in red.
- 4 Press the shutter button again to end recording.
↳ **[Recording saved!]** is displayed briefly.

Take pictures

- 1 Switch the mode switch button to .
↳ The file size and remaining number of pictures that can be taken are displayed on the display panel.
- 2 Hold the camcorder steadily and aim the lens as needed.
- 3 Press the shutter button down halfway to adjust the focus.
- 4 Press the shutter button down completely to take a picture.
↳ **[Picture saved!]** is displayed briefly.

Play

- 1 In viewfinder mode, press   to enter play mode.
↳ The last recorded video clip is played automatically.
- 2 Press  /  to select a picture or video clip for play.
- 3 If the selected file is a video clip, press   to start play.

Delete a file

- 1 In play mode, press  /  to select a file.
- 2 Press **+** to enter deletion mode.
- 3 Press  to highlight **[Yes]** and confirm the deletion operation.
↳ **[Deleted!]** appears briefly.

Preview

- In play mode, press **-**.
↳ The thumbnails of 6 files are displayed on each page.
 - To select a file, press **+/-**  / .

Options during video play

Fast forward/reverse

- During video play, press and hold  / .
 - To return to the normal speed, release  / .

Adjust volume level

- During video play, press **+/-**.

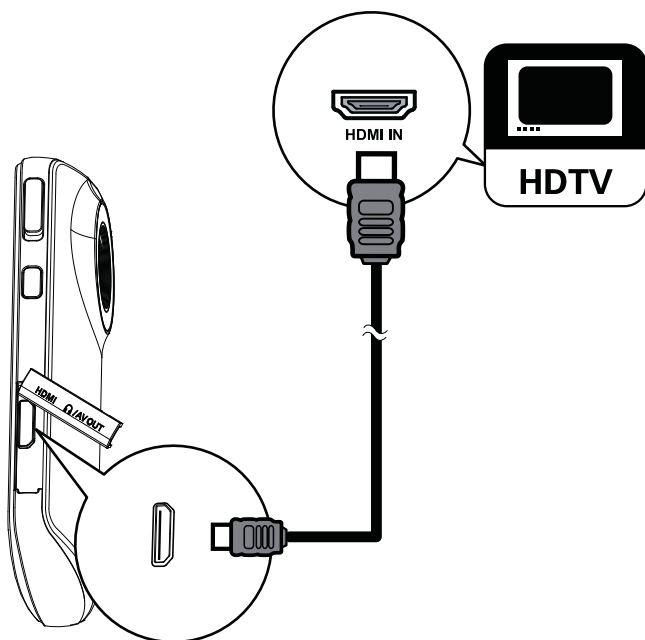
Adjust settings

- 1 In viewfinder mode, press ►.
↳ A settings menu appears.
- 2 Press +/- to highlight an option.
- 3 Press ◀ / ▶ to select a setting.
- 4 Press ►|| to confirm the setting and return to viewfinder mode.

	Description
[Scene]	Select an automatic exposure mode that matches your shot for easy shooting.
[Effects]	Add a special effect to your shooting.
[Resolution]	Select a video resolution.
[Volume]	Change the keypad tone and operation sound.
[Date]	Set the date.
[Time]	Set the time.
[Auto power]	Enable/disable automatic power-off mode.
[Capture sound]	Turn on/off the capture sound.
[Language]	Select your desired menu language.
[Pre-record]	Enable/disable 3-second pre-record mode.
[TV system]	Change this setting if the output video does not appear correctly on your TV.
[Format]	Clear contents from the micro SD card or internal memory (when no micro SD card is inserted).

5 Use more of your camcorder

View video or pictures on TV



- 1 Connect an HDMI cable (not supplied) to:
 - the **HDMI** socket on the camcorder (requiring a mini HDMI connector)
 - the HDMI input socket on an HDTV
- 2 Select a file and start play.

Install and use the camcorder software

With the software (ArcSoft MediaImpression HD Edition) available in the internal memory of the camcorder, you can import, edit, archive or upload your pictures/videos to the Internet easily.

Note

- The software supplied only works on PCs that operate Microsoft® Windows® XP, Vista and Windows 7.
- When you connect the camcorder to a Mac, use the iMovie software to import and edit your pictures/videos directly.

Install the camcorder software

- 1 Connect the camcorder to a PC (see 'Get started' > 'Charge the built-in battery').
- 2 If the software does not install automatically, find and click the **Setup** icon at **My Computer\Removable Disk**.
- 3 Follow the on-screen instructions to finish installation of the software.

Install and use the camcorder software

- 1 On your PC, click **Start\ (All) Programs\ ArcSoft MediaImpression HD Edition**.
 - ➔ The main screen of the software is displayed.



- 2 Click an option to select the corresponding operation.
- 3 Follow the on-screen instructions to complete the operation.

Transfer video/pictures to a PC/Mac

- 1 Connect the camcorder to a PC/Mac (see 'Get started' > 'Charge the built-in battery').
 - ➔ It may take some time for the PC/Mac to recognize the camcorder.
- 2 Find your video/pictures at **My Computer\ Removable Disc\DCIM\100MEDIA**.

- 3 Copy any video/pictures you want to your designated folder in the PC/Mac.



Tip

- You can also import the video/picture files with the camcorder software (for PC) or iMovie (for Mac).

6 Technical specifications

Product information is subject to change without prior notice.

Image sensor	1/3.2" 5MP CMOS sensor
Operation modes	Movie record, picture record
Lens (focusing)	Fixed
Focus mode	Fixed
Focus range	0.7m to Infinity
Aperture	F2.8
Digital zoom	2X
Exposure control	Auto
Exposure compensation	-2.0~2.0EV
White balance	Auto
Auto power off	3 minutes
Memory	64MB (512Mbit) DDR2 + 128MB SLC (96MB for AP) + Micro-SD card Slot
Shutter type	Electronic
Shutter speed	1/2~1/4000 second
Picture file format	JPEG
Video compression format	*.MP4 (H.264)
Video resolution	Full HD (1080p 30) 1440X1080 (30fps) HD (720p 30) 1280X720 (30fps) VGA (4:3) 640X480 (30fps)
Audio file format	AAC
Battery	700mAh Li-ion (built-in)
PC interface	Mini USB 2.0 port
System support	Windows XP/Vista/ Windows 7, Mac (mass storage only)

TV out	NTSC/PAL selectable, Mini HDMI (type C)
Weight	0.06kg
Dimensions (W x H x D)	55.3 x 99.4 x 17.3 mm

7 Frequently asked questions (FAQ)

Why is there no response when I use the camcorder?

- The camcorder is in power-off mode. Turn on the camcorder (see 'Get started' > 'Turn on').
- The built-in battery may be drained. Charge the battery (see 'Get started' > 'Charge the built-in battery').

Why is [Memory full!] displayed when I try to record?

- Ensure that the Micro SD card has been inserted correctly (see 'Get started' > 'Load the Micro SD card').
- The memory is used up. Save your video/pictures to a computer (see 'Use more of your camcorder' > 'Transfer video/pictures to a PC/Mac'). Then delete files from your camcorder or clear the memory.

Why do I have no access to folders on the camcorder from my computer?

- Ensure that the USB connection is correct.
- The camcorder turns off automatically 15 minutes after it is connected to a computer. You can press ►|| to turn it on again.

Why do my video/pictures look blurry?

- Hold the camcorder steady in your hands during shooting.
- During video capture, do not move the camcorder too fast.
- Use a tripod (not supplied) if necessary.

Why do my video/pictures look distorted on a TV screen?

- Select the correct TV system.

Why is there no AV output when I connect the camcorder to a TV through an HDMI cable?

- Turn on the camcorder and reconnect the HDMI cable.

How do I charge the camcorder?

- You can charge the camcorder via the USB pop-out connector. When you connect it to your PC/laptop it will automatically charge. You can also plug the camcorder via the pop-out USB into a USB charger.

How long do I have to charge the camcorder?

- The camcorder is fully charged for first usage. The camcorder charge time when connected to your PC/laptop is 3 hours. When you charge it via USB adaptor, the charge time is 2 hours.

How do I fast-forward or rewind on the camcorder?

- You can fast-forward during play of a movie by pressing the right-button for 2 seconds. You can rewind during play of a movie by pressing the left-button for 2 seconds.

Camcorder stopped responding?

- In the unlikely event that your camcorder stops responding, you can manually reset it. The reset button is located under the HDMI cover. There you see a small opening above the HDMI connection. Please use a small prying object (like a pen) to insert and press gently for resetting. After you have reset the camcorder, please turn on the camcorder again, and set-up will start again.

Why does the camcorder sometimes not record the right color?

- To record both indoors and outdoors, and not having to change any settings, the camcorder has an automatic white-balance correction. This enables you to record both indoors and outdoors where the amount of light in the environment changes. If you move fast from outdoors to

indoors, the camcorder might need some time to correct that, and in extreme cases the colors might seem a bit unnatural. However, after a few seconds this will be corrected automatically by the camcorder.

Can I connect the camcorder directly to TV, DVD/Blu-ray player or Home Cinema set via their USB-port?

- The USB plug is designed to share your videos/pictures to your PC or Laptop. You can plug the CAM102 directly into your TV, DVD/Blu-ray player or Home cinema set (called the host from this point on), and it will play the pictures that are stored on the CAM102. To play the videos from the CAM102, it depends if your host supports the file format H.264 of the CAM102. Most Blu-ray enabled players are able to play this format.

How do I connect it to a Windows PC/laptop?

- Connect the camcorder to your PC/laptop via USB. The USB pop-out connector is strong enough to support the camcorder when it is plugged into the PC's USB port. For easy sharing and editing, install the software program (Media Impression HD) that comes with the camcorder.

How do I connect it to a Mac?

- The camcorder works with the Mac via USB. The USB pop-out connector is strong enough to support the camcorder when it is plugged into the USB port. The camcorder works great with the iMovie software, which is part of the iLife package that comes with your Mac. To transfer videos using iMovie, simply connect the camcorder to your Mac via USB, launch iMovie and start importing by clicking the camcorder icon. Select 'Use original quality' to ensure the best quality, and to maintain file sizes at an optimum.

What is HD?

- HD stands for High Definition. The camcorder captures videos in high definition (720p), which is also the resolution that HD TV programs are broadcast in. "720" refers to the display resolution, in terms of the number of horizontal lines onscreen. "p" stands for progressive scan, or the sequential appearance of the lines in each frame. HD 720p gives video quality that is superior to that found in typical mobile phones and digital cameras.

How do I play my videos on TV?

- To play back on TV, please use an HDMI connector (mini HDMI to standard HDMI) if your TV accepts HDMI input, or use the video-out cable provided.

Why is there no lens cover?

- The camcorder comes without a lens cover, keeping it simple to use and fuss-free. It is made of robust material that doesn't scratch under normal usage. A travel pouch and a lens cloth are provided, allowing you to keep the camcorder clean.

What format does the camcorder record in?

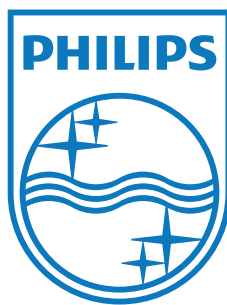
- The camcorder uses the same video format as Blu-ray players and discs – H.264. This highly sophisticated format delivers superb HD picture quality.

What does pre-record mean that is in the setting?

- The pre-record button is designed to let you never miss a moment. When you enable the pre-record function, the camcorder will record video 3 seconds before you have pressed the record button. So when you play-back the recorded film, you will automatically see the first 3 seconds before you have pressed the record button. This can be useful when filming unexpected moments. The pre-record function will not drain battery life, it will operate as normal.

Tips on video making

- You can easily look back on fun moments and relive them with the camcorder. To enjoy these memories to the fullest, here are some simple video tips:
 - When capturing videos, hold your camcorder steady in your hand
 - Don't move too fast when panning (i.e. moving the camera horizontally) as it will be hard to follow what is captured when you review the video
 - Try shooting from different angles – for example, from the side, from the front, or even from below. You can easily join the different video segments together with the PC software included



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