



**CAPTURE EMOTION**



## FULL HIGH DEFINITION, 3D READY & MANUAL CONTROL

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## FULL HIGH DEFINITION, 3D READY

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## FULL HD, WIDE-ANGLE & SUPER ZOOM

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## FULL HIGH DEFINITION

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## FULL HIGH DEFINITION, SUPER VERSATILE, EASY TO ARCHIVE ON PC

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## STANDARD DEFINITION, SUPER ZOOM

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# Brilliant Colours – Day and Night

## The Advanced 3MOS System Produces Beautiful Images Anytime

The Advanced 3MOS System preserves precious memories in sharp detail with vibrant colours. The 2011 models also feature improved Noise Reduction (NR) technology that lets you record images in dimly lit places with virtually the same crisp colours and lifelike beauty that you get in bright settings. Experience the joy of creating stunning images anytime, day or night, with a Panasonic camcorder.

# 3MOS

S Y S T E M

Captures stunning low-light scenes  
**Advanced 3MOS System**



The advanced 3MOS System combines the high-sensitivity 3MOS Sensor, large-diameter F1.5 Leica Dicomar Lens, and Crystal Engine PRO. In 2011 models, Crystal Engine PRO has evolved even further to achieve approximately 45% noise reduction compared to previous models.\* The advanced 3MOS System lets you enjoy bright, low-noise recording even in dim lighting.







**3MOS**  
SYSTEM

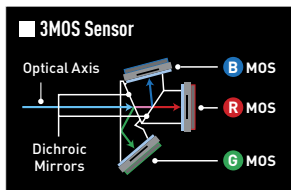
# Panasonic Camcorder Black Box Technologies

Superb colour expression from a high-sensitivity sensor.

## 3MOS Sensor (900 Series)(SD800)



The 900 Series and SD800 employ the 3MOS Sensor, with its three-sensor configuration. This provides a resolution of 7.59 million effective motion image pixels (2.53 million x 3). The 3MOS Sensor splits the light information captured by the lens into the three primary colours - red, green and blue - and processes each colour with its own individual sensor. This reduces light loss compared to the 1MOS sensor, and renders colours, details and gradation all with intricate detail and natural beauty. This superb colour reproduction maximises the inherent quality of Full-HD progressive images.



The three primary colours of red, green and blue are each processed by a separate sensor to achieve truly rich colour reproduction.



Conventional: Noisy, faded colours and overall darkness.



Advanced 3MOS System: Vivid clothing and lights, and a bright tone overall.



Conventional: Poor colouring overall.



Advanced 3MOS System: Natural colouring of greenery and faces.

A bright, high-performance lens.

## Leica Dicomar Lens (900 Series)(SD800)



The 900 Series and SD800 use bright F1.5-F2.8 Leica Dicomar lenses to produce sharp images and excellent shading. They also suppress ghosting, flare and distortion at the image edges. Even in strong sunlight, these superb lenses maintain high contrast and resolution. Efficient light collection allows them to capture bright, clear images even in dim lighting or at high shutter speeds. These high-end lenses bring out all the beauty of Full-HD images.

\*Leica is a registered trademark of Leica Microsystems IR GmbH, and Dicomar is a registered trademark of Leica Camera AG.



Conventional lens: Not enough light.



F1.5 Leica Dicomar Lens: Plenty of light for a bright image.

Intricate details from Intelligent Resolution Technology.

## Crystal Engine PRO

(900 Series)(SD800)(HDC-SD90)(80 Series)



The Crystal Engine PRO instantly processes the huge amount of data that goes into Full-HD images, and further enhances Full-HD quality. It produces smooth, high resolution zoom shots even when the range exceeds the limit for optical zooming. Crystal Engine PRO clearly delineates even the tiniest details of your subject, with extremely natural beauty. In addition, its Noise Reduction (NR) technology has been completely redesigned. Compared to previous Panasonic models, noise has been reduced by approximately 45%.\* And Intelligent Resolution technology ensures sharp and crisp pictures, resulting in bright and beautifully coloured motion images.

\* Compared with the HDC-SD700, HDC-TM700 and HDC-WS700.



Without  
Intelligent Resolution Technology



With  
Intelligent Resolution Technology



High-density, ultra-smooth images.

## 1080/50p Recording

(Full-HD 1920 x 1080, 50 Progressive Recording)

(900 Series)(SD800)(HDC-SD90)



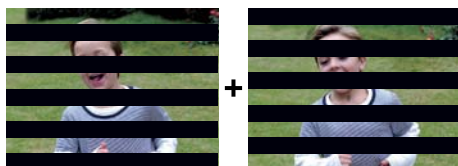
With its transfer rate of 28 Mbps, 1080/50p recording (Full-HD, 1,920 x 1,080, 50 progressive recording) conveys about twice the information of 1080i (interlace) recording. Whereas interlacing requires two images to produce a complete picture, the progressive method records a single image as a complete picture. Plus, the 50 Progressive Recording of the 900 Series, SD800, and 90 Series produce 50 images per second. This extremely dense image information creates intricate detail and silky smooth motion. Even when subjects move quickly, after images are minimised to create more natural images. The progressive method is most effective when shooting designs where more patterns tend to occur, or when capturing scenes during sports events where the subjects are intensely moving around. Also, the recorded images displayed clearly even when they are made into still images, so it is possible to preserve stunning photos when clipping them from videos.

## Progressive Scanning

Reproduces all of the image data in a single picture. Patterns in fabric are crisp and clear, with no colour bleeding.



**Interlace Scanning** Only half of the image data is reproduced in each picture. Fabric patterns run together, and moiré patterns appears.



\* Progressive scanning refers to the 1080/50p (50 pictures per second) recording format.

Corrects even slight hand-shake and high-power zoom shots.

## HYBRID O.I.S. (Optical Image Stabiliser)

(900 Series)(SD800)(HDC-SD90)(80 Series)



HYBRID

The popular O.I.S. (Optical Image Stabiliser) function, which detects hand-shake while shooting and corrects the optical axis to minimise blurring, has evolved into the HYBRID O.I.S. It combines the action of its hybrid optical and electrical image stabilisation systems. HYBRID O.I.S. adds to conventional optical compensation with electronic control in the vertical and horizontal directions for zooming, which often suffers from hand-shake. It effectively uses the part of the sensor that is not used in zooming to continuously record the image, enabling powerful hand-shake compensation without degrading the image quality. You get natural, beautiful images in almost all shooting situations.



HYBRID O.I.S. OFF



HYBRID O.I.S. ON

# Blur-free Zooming. iA Mode Keeps the Image Beautiful.



Makes optimal settings automatically – for both still and motion images.

## iA (Intelligent Auto)

This powerful function senses the shooting conditions and automatically adjusts the settings and activates functions that will deliver optimal results. With both motion and still images, iA lets you forget about bothersome settings and makes it easy to capture beautiful, well-focused images.

\*The functions included in iA may not be applied when conditions do not call for them.

Blur-free zooming and shooting on the move.

## HYBRID O.I.S. (Optical Image Stabiliser)

(900 Series)(SD800)(HDC-SD90)(80 Series)



HYBRID O.I.S. corrects hand-shake blurring by combining the action of its hybrid optical and electrical image stabilisation systems. Even when zooming, where hand-shake often occurs, both optical and electrical hand-shake correction make it possible to record beautiful images with approximately 2 times\* the hand-shake suppressing effect as conventional models.

\* Compared with the HDC-SD700, HDC-TM700 and HDC-HS700.



Blurry image.



Clear image even when zooming.

## Active Mode

Capture clear shots even while walking, where the camcorder sways considerably.



Recognises important people's faces and captures them beautifully.

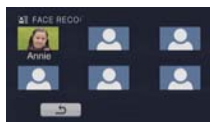
## Face Recognition

(900 Series)(SD800)(HDC-SD90)(80 Series)

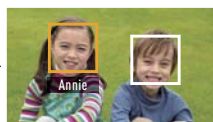


The Face Recognition function recognises the faces of registered subjects, and automatically optimises the focus and exposure for those special people. It continues to track the subject as he or she moves anywhere within the LCD frame, making it ideal for video shooting. It is extremely useful for capturing someone's face in a group. Names can also be registered and displayed on the LCD while shooting. A total of six people can be registered, and the names of up to three people at a time can be displayed in the shooting frame.

The camera recognises and captures your special one!



Register important people's faces with the LCD screen.



The camera automatically recognises the faces of registered subjects.

When you press the AF/AE button...



Even if the subject moves around within the LCD frame, the camera keeps tracking.



Keeps optimising the subject's focus and exposure.



# Not Just Auto, Intelligent Auto.

# Trust iA!

**INTELLIGENT AUTO TECHNOLOGY**

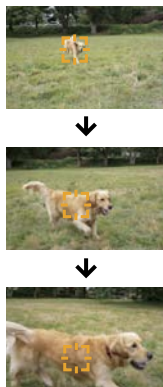

Locks on a subject and tracks it.

## AF/AE Tracking



Touch the LCD screen to indicate the subject, such as a person or an animal, that you want to focus on, and let AF/AE Tracking do the rest. The camera locks on the subject and follows it around, keeping it in sharp focus and properly exposed. It keeps tracking even if the subject turns to the side. This advanced function makes it easy to get a continually clear, beautiful shot of the subject in the scene you care most about.

\*All Camcorders except for the 40 Series



Detects the situation and switches the scene mode automatically.

## Intelligent Scene Selector



The Intelligent Scene Selector function analyzes the shooting situation and automatically switches the camcorder to the suitable Scene mode that will give you optimal results.

**Scenery** This mode is ideal for shooting wide landscapes and sweeping vistas, such as at the ocean or in the mountains. It balances the exposure over the entire frame to prevent brighter parts of the image, such as the sky, from being washed out or having blown highlights.



**Portrait** This mode captures faces beautifully. With Soft Skin mode, complexions are automatically enhanced to make faces attractive.



**Spotlight** The camcorder automatically uses this mode for scenes with particularly strong contrast, such as when you're shooting a spotlight area on a darkened stage. It captures the well-lit subject perfectly and prevents washed-out areas.



**Low Light** In dim lighting, the camcorder automatically switches to a slower shutter speed so that images across the entire frame are bright and easy to see.



Captures faces beautifully - even in dim or backlit scenes.

## Face Detection



Face Detection automatically senses the ambient lighting and adjusts the exposure accordingly, so faces are bright and easy to see. The focus also prioritises the faces, and skin tones are smoothed. Faces in the centre of the frame serve as the reference for adjustments, but the function can detect up to 15 faces in all.



The backlit faces are hard to make out.

Faces are perfectly exposed and in clear focus

Helps suppress blown highlights and retains a natural contrast.

## Intelligent Contrast Control



Intelligent Contrast Control detects the ambient light level and adjusts the exposure accordingly, helping to prevent blown highlights and blocked shadows. You capture natural-looking, highly nuanced images with proper contrast.



**Blocked shadow**  
(no distinguishable features)

**Natural skin tones**

**Bright colours**

**Remain natural, with no blown highlights**

## With a Special iA Mode for Still Images (900 Series)(SD800)(HDC-SD90)(80 Series)

The iA function is active even when the camera is in still-image mode. When the Intelligent Scene Selector detects the shooting situation, it automatically switches to one of the five Scene modes for still-image shooting, and optimises the settings for the still image.

- Sports • Portrait • Spot Light • Snow • Beach • Sunset
- Fireworks • Scenery • Night Scenery • Night Portrait



Adjusts the exposure and colouration so that skin tones look true and natural.



Switches to Macro mode when the camera comes close to the subject. (Closest: 1 cm).



## Now You Can Shoot Your Own True-to-Life 3D Images.

### Simply Attach the 3D Conversion Lens to Shoot 3D Images



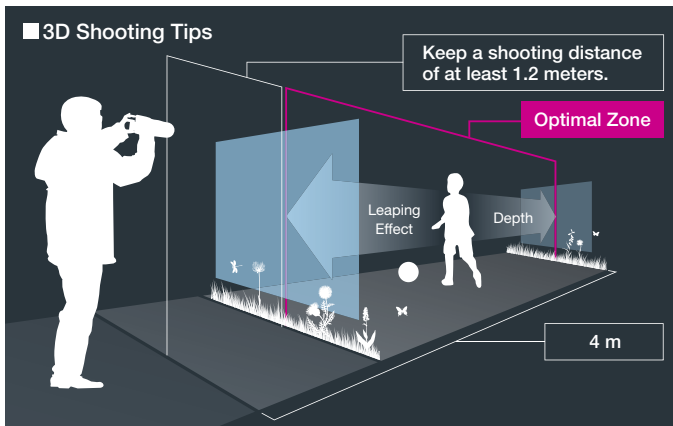
Shooting 3D images is easy. Just attach the optional VW-CLT1 3D Conversion Lens to the 900 Series, SD800, and HDC-SD90\*. Then sit back and enjoy 3D images that are much more lifelike than two-dimensional images.

\* The HDC-SD90 requires the Step-up Ring included with the VW-CLT1 for 3D shooting.

### It captures your subject just like the human eyes, to reproduce truly powerful, lifelike 3D images.

When the 3D Conversion Lens is attached, the 900 Series, SD800, and HDC-SD90 produce an effect called visual disparity. Right and left images are captured simultaneously by the two lenses, and recorded using the side-by-side method. Let the 900 Series, SD800, and HDC-SD90 save precious moments for you in true-to-life images.

You'll get a stronger 3D effect if there are objects in the area in front of your subject, and some distance between your subject and the background. Also, it's naturally difficult for the human eye to perceive depth in dark places, and the same is true for 3D images. The 3D effect will be better if you shoot in brightly lit places.



#### Optional 3D Conversion Lens

VW-CLT1



#### 3D Compatible Models

HDC-SD900  
HDC-TM900  
HDC-HS900



HDC-SD800





## With 3D, You Can Capture Memorable Scenes Just The Way You See Them.

### AVCHD Compatibility Lets You Easily Play and Save Images

Record your 3D images as versatile AVCHD data. This will give it a high level of compatibility with 3D players and conventional AVCHD compatible recorders, so you can also copy images onto a DVD or Blu-ray Disc™ with ease.



### Easily play on a 3DTV with side-by-side method compatibility.

The TV alternately reproduces the left and right images, which are viewed through 3D Eyewear. To play back 3D videos, simply insert an SD Memory Card in the slot of a Panasonic VIERA 3DTV or use an HDMI mini cable to connect the camcorder to a VIERA 3DTV or a side-by-side method compatible 3DTV.\*



\* A 3DTV that supports the AVCHD format side-by-side method, 3D Eyewear, and HDMI cable connection (or insertion of an SD card for a VIERA 3DTV that supports SD card playback) are required to view the 3D images you have recorded.

### Editing is easy too, using the included software.

The included HD Writer AE 3.0 editing software can be used to easily change sequences and delete unwanted scenes on a PC, in the same way as for 2D data. Also, 3D data can be easily saved onto SD Memory Cards, DVDs or Blu-ray Discs.



\* When converting 3D data to MPEG-2 and saving it on a DVD, only the left-side 2D image is saved.

\* The 90 Series requires the Step-up Ring included with the VW-CLT1 for 3D shooting.

**HDC-SD90**



To ensure that the 3D video can be safely viewed, pay attention to the following points when recording.

- Where possible, record with the unit in a horizontal state.
- Do not get too close to the subject. (record from a distance of at least 1.2 m [3.9 feet].)
- When moving the unit as you record, move it slowly.
- Try to hold the unit as steady as possible when recording while riding in a vehicle or walking.



# The Best-Ever Panasonic Image Quality in 2D or 3D.\*

The HDC-HS900/TM900/SD900/SD800 have achieved the highest image quality in Panasonic history, while maximising the potential of their 20x zoom with the Hybrid Optical and Electrical Image Stabilisation System.

**FULL HD**  
1920x1080p



HYBRID

\* The optional VW-CLT1 3D Conversion Lens is required for shooting 3D images. \*\* Does not apply to SD800.

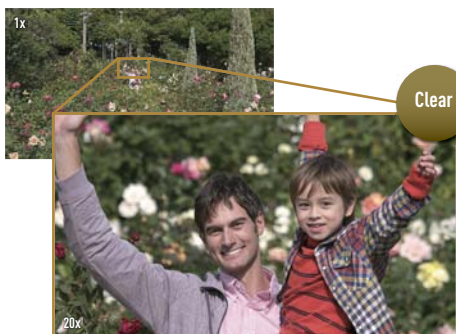
Beautiful zoom shots of distant subjects.

## Intelligent 20x Zoom and HYBRID O.I.S.



The HDC-HS900/TM900/SD900 and SD800 feature an Intelligent Zoom function that goes all the way up to 20x. When using Intelligent Zoom, Intelligent Resolution technology lets you shoot at high zoom rates while preserving the image resolution. You get sharp images of highly detailed objects – without the blurry edges. Plus, the HDC-HS900/TM900/SD900 and SD800 are equipped with HYBRID O.I.S (Optical Image Stabiliser), an image stabilisation system that corrects hand-shake blurring by combining the action of its hybrid optical and electrical image stabilisation systems. Even when zooming, where hand-shake often occurs, both optical and electrical hand-shake correction make it possible to record beautiful images with approximately 2 times\* the hand-shake suppressing effect as conventional models.

\* Compared with the HDC-SD900, HDC-TM700, and HDC-HS700.



Areas of the sensor that are not used for zooming are electronically controlled to compensate for vertical/horizontal hand shake and produce clear, beautiful images without blur.

Captures large groups, even when shooting from up close.

## 35mm Wide Angle Lens\*



The 35mm wide-angle lens fits more people and more of the background into the frame. This is especially handy when you want to take a group photo in a small room.

\* 35mm camera equivalent.



35mm wide angle lens fits more people and more of the background into the frame.

Stunning still images, even when enlarged.

## Still Picture Recording at 14.2 Megapixels



Still Picture Recording mode lets you shoot with a maximum resolution of 14.2 megapixels\*, and also simultaneously record still images and video at 13.3 megapixels\*\*.

\* For images recorded with a 3:2 aspect ratio. \*\* For images recorded with a 16:9 aspect ratio.





Craft Images with Intuitive ease.

## Manual Ring \*Except for SD800



The manual ring gives you easy, fingertip control over the focus, zoom and exposure settings. You'll find using the ring a much more intuitive, comfortable, user-friendly process than accessing a menu screen. With the manual ring and manual operation, the HDC-HS900/TM900/SD900 is a pleasure to use and gives you the freedom to craft unusually expressive images.

**Zoom** Just rotate the ring to zoom in and out. You have full control of the zooming speed and can zoom in or out to the precise degree you want.

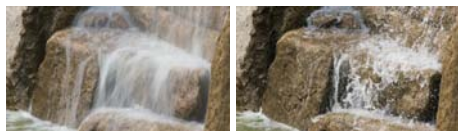
**Focus** Just rotate the ring to focus. You can focus on the exact point you want, even if it's not in the centre of the frame. You can also change the focus as you shoot, to get the kind of creative shots you sometimes see in movies.



**White Balance** Select from Auto, Indoor, Outdoor and White Set according to the location, weather or type of lighting. You'll always get the best possible colouring even if the light source changes.



**Shutter Speed** The shutter speed can be adjusted from 1/24 to 1/8,000 of a second. Use a high shutter speed when shooting sports events or fast-moving subjects, and you can get clear, sharp, incredible action shots.



**Iris** Use the ring to adjust the aperture to regulate the amount of light let in. You can also use this setting to attain a shallow depth of field, blur the background, or create frames that emphasise the foreground, for creating movie-like expressions.

Intuitive shooting, easy viewing.

## 3.5" (HDC-HS900/TM900/SD900) / 3.0" (SD800) Wide LCD with Intuitive Touch Operation

The easy-to-view 3.5" (HDC-HS900/TM900/SD900) / 3.0" (SD800) wide LCD screen allows intuitive fingertip touch-operation. When shooting, you can use Touch Zoom to instantly zoom in and out by simply touching your fingertips, and Touch Shutter to automatically focus when shooting still images by simply touching the subject on the screen. For playback, you can also change thumbnail pages by sliding a fingertip across the screen. You get smooth, intuitive operation and don't have to take your eyes off of the LCD screen.

**Touch Shutter** You can touch the subject on the LCD screen to instantly focus on it and take a still picture.



Touch & Shoot



**Touch Zoom** You can easily zoom in and zoom out by simply touching the LCD with your fingertips. Shoot at any angle of view while watching the screen.



Zooming

# Full HD 1920x1080p (50p), 28mm Ultra-Wide-Angle Shooting, Powerful 40x Zooming + 3D Ready.\*

The HDC-SD90 can capture large groups of people up close and render distant subjects beautifully without blurring.

FULL HD

1920x1080p

CRITICAL FOCUS PRO

IR INTELLIGENT RESOLUTION TECHNOLOGY

3D

40x Zoom

26x Zoom

28mm WIDE

iA

POWER O.I.S.

HYBRID

FACE TRACKING

FACE SMILE

CONTRAST

SCENE

Quick Power-On 1.0 sec

PRE-REC.

LED Video Light

Frame

\* The optional set of VW-CLT1 3D Conversion Lens and Step-up Ring is required for shooting 3D images.

Captures large groups, even when shooting from up close.

## 28mm Wide Angle\*

The 28mm wide-angle\* on the HDC-SD90 fits more people and more of the background into the frame than conventional models. This is especially handy when you want to take a group photo in a small room. It fits your subjects in even when you shoot from up close, and makes it possible to pick up even small sounds with the mic. It also gives you entirely new ways to enjoy your camcorder, like taking self portraits or capturing sweeping landscapes without losing the sense of scale.

\* 35mm camera equivalent.



Conventional Lens: Not Everyone can fit in the frame.



Everything fits in the frame even when shooting in narrow spaces.

Beautiful zoom shots of distant subjects.

## Intelligent 40x Zoom and HYBRID O.I.S.

The HDC-SD90 features an Intelligent Zoom function that goes all the way up to 40x. When using Intelligent Zoom, Intelligent Resolution technology lets you shoot at high zoom rates while preserving the image resolution. You get sharp images of highly detailed objects – without the blurry edges. Plus, the HDC-SD90 is equipped with HYBRID O.I.S., an image stabilisation system that corrects hand-shake blurring by combining the action of its hybrid optical and electrical image stabilisation systems. Even when zooming, where hand-shake often occurs, both optical and electrical hand-shake correction make it possible to record beautiful images with approximately 2 times\* the hand-shake suppressing effect as conventional models.

\* Compared with the HDC-TM60, HDC-SD60, and HDC-HS60.

Blurry

Clear

Conventional Zoom

Intelligent Zoom with HYBRID O.I.S.

Areas of the sensor that are not used for zooming are electronically controlled to compensate for vertical and horizontal hand-shake.

14





Intuitive shooting, easy viewing.

## 3.0" Wide LCD with Intuitive Touch Operation

The easy-to-view 3.0" wide LCD screen allows intuitive fingertip touch-operation. When shooting, you can use Touch Zoom to instantly zoom in and out by simply touching your fingertips, and Touch Shutter to automatically focus when shooting still images by simply touching the subject on the screen. For playback, you can also change thumbnail pages by sliding a fingertip across the screen. You get smooth, intuitive operation and don't have to take your eyes off of the LCD screen.

**Touch Shutter** You can touch the subject on the LCD screen to instantly focus on it and take a still picture.



Touch & Shoot



**Touch Zoom** You can easily zoom in and zoom out by simply touching the LCD with your fingertips. Shoot at any angle of view while watching the screen.



Zooming

Beautiful still images, even when enlarged.

## 5 Megapixels Still Picture Recording

In Still Picture Recording mode, Intelligent Resolution Technology lets you record clear still images with resolution up to 5 megapixels.\* Also, when playing back the moving pictures you shot, you can capture 4.5-megapixel\*\* still images of any scene you want. The HDC-SD90 lets you enjoy high quality in both motion and still images.



\* For images recorded with a 4:3 aspect ratio. \*\* For images recorded with a 16:9 aspect ratio.

Clearly Catch Target Subject Sounds.

## New Zoom Mic and Wind Noise Canceller

**Zoom Mic** The Zoom Mic function that links with the camera's zoom action has evolved even further. Compared to previous models, the noise-reducing performance is improved by 1/3 (-10dB).\* It lets you clearly record the sound of your target subject.

\* Compared with the HDC-TM60, HDC-SD60, and HDC-HS60.

**Wind Noise Canceller** The Wind Noise Canceller automatically detects and suppresses only wind noise. It lets you capture natural sounds with lifelike ambience even when shooting in windy conditions outdoors or by the sea.

# Intelligent 42x Zoom and Blur-Free Images with Hybrid O.I.S. in a Compact and Stylish Body.

Easy shooting enjoyment in all kinds of situations, from wide-angle to telephoto.  
The HDC-HS80/TM80/SD80 gives you new ways to enjoy taking movies.



Beautiful zoom shots of distant subjects.

## Intelligent 40x Zoom and HYBRID O.I.S.



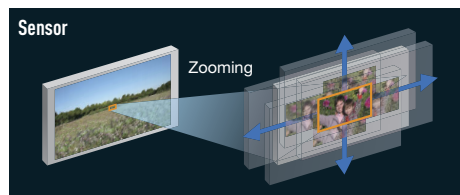
The HDC-HS80/TM80/SD80 features an Intelligent Zoom function that goes all the way up to 42x. When using Intelligent Zoom, Intelligent Resolution technology lets you shoot at high zoom rates while preserving the image resolution. You get sharp images of highly detailed objects – without the blurry edges. Plus, the HDC-HS80/TM80/SD80 is equipped with HYBRID O.I.S., an image stabilisation system that corrects hand-shake blurring by combining the action of its hybrid optical and electrical image stabilisation systems. Even when zooming, where hand-shake often occurs, both optical and electrical hand-shake correction make it possible to record beautiful images with approximately 2 times\* the hand-shake suppressing effect as conventional models.

\* Compared with the HDC-HS60, HDC-TM60, and HDC-SD60.



Conventional Zoom

Intelligent Zoom with HYBRID O.I.S.



Areas of the sensor that are not used for zooming are electronically controlled to compensate for vertical and horizontal hand-shake.

Captures large groups, even when shooting from up close.

## 33.7mm Wide Angle\*



The 33.7mm wide-angle\* on the HDC-HS80/TM80/SD80 fits more people and more of the background into the frame than conventional models. Ideal for shooting in small spaces or for capturing a subject together with the background.

\* 35mm camera equivalent.

Conventional Lens:  
Not Everyone can fit in the frame.



Everything fits in the frame even when shooting from up close.

Beautiful still images, even when enlarged.

## 3.0 Megapixels Still Picture Recording

In Still Picture Recording mode, Intelligent Resolution Technology lets you record clear still images with resolution up to 3.0 megapixels.\* Also, when playing back the moving pictures you shot, you can capture 3.0-megapixel\* still images of any scene you want. The HDC-HS80/TM80/SD80 lets you enjoy high quality in both motion and still images.



\* For images recorded with a 16:9 aspect ratio



Intuitive shooting, easy viewing.

## 2.7" Wide LCD with Intuitive Touch Operation

The easy-to-view 2.7" wide LCD screen allows intuitive fingertip touch-operation. When shooting, you can use Touch Zoom to instantly zoom in and out by simply touching your fingertips, and Touch Shutter to automatically focus when shooting still images by simply touching the subject on the screen. For playback, you can also change thumbnail pages by sliding a fingertip across the screen. You get smooth, intuitive operation and don't have to take your eyes off of the LCD screen.

**Touch Shutter** You can touch the subject on the LCD screen to instantly focus on it and take a still picture.



Touch & Shoot



**Touch Zoom** You can easily zoom in and zoom out by simply touching the LCD with your fingertips. Shoot at any angle of view while watching the screen.



Zooming

Clearly Catch Target Subject Sounds.

## New Zoom Mic and Wind Noise Cancellor

**Zoom Mic** The Zoom Mic function that links with the camera's zoom action has evolved even further. Compared to previous models, the noise-reducing performance is improved by 1/3 (-10dB).\* It lets you clearly record the sound of your target subject.

• Compared with the HDC-HS60, HDC-TM60, and HDC-SD60.

**Wind Noise Cancellor** The Wind Noise Cancellor automatically detects and suppresses only wind noise. It lets you capture natural sounds with lifelike ambience even when shooting in windy conditions outdoors or by the sea.

Automatically lights up when darkness is detected.

## LED Video Light

When the camera determines that the ambient lighting is insufficient, it automatically switches the light on. This illuminates your subject for shooting. The LED (light emitting diode) has low power consumption, a long service life, and the safety of a low operating temperature.





# Remarkably Light at 169g.\* Long Time Recording of approximately 135 minutes.\*\*

**FULL  
HD**  
1920X1080

Optical  
**16.8x**  
Zoom

**iA**

**POWER  
O.I.S.**

**FACE  
DETECT**

**CONTROL  
WHEEL**

**SCENE  
MODE**

**PRE-REC.**

**LED  
Video  
Light**

**iFrame**



\* When using the battery (supplied) and an SD card (optional): Approx. 213 g. \*\* 135 minutes of recording time with a fully charged battery (HA mode).

A compact, carry-around camcorder.

## Remarkably Light at 169 g.\*

You can take the compact, lightweight HDC-SD40 with you anywhere you go. And even with its compact body, this camcorder lets you shoot continuously for an extended time, and comes with a wide range of features, including a 16.8x optical zoom and popular iA function, for truly versatile shooting. This all makes the lightweight HDC-SD40 ideal for use while travelling.

• When using the battery (supplied) and an SD card (optional): Approx. 213 g



Beautiful zoom shots of Distant subjects.

## 135 Minutes Long Recording Per Charge\*

The HDC-SD40 offers low power consumption of 2.5 W, and lets you shoot continuously for approximately 135 minutes with a single battery charge. You won't have to worry so much about the remaining battery power while you're on the move, so you can keep recording in comfort. The camcorder is also ideal for long trips.

\* 135 minutes of recording time with a fully charged battery (HA mode).



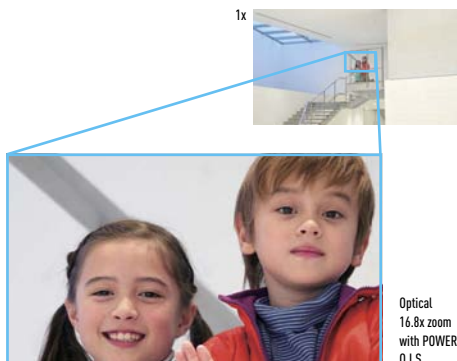
Beautiful zoom shots of distant subjects.

## Intelligent 16.8x Zoom and POWER O.I.S.

Optical  
**16.8x**  
Zoom

**POWER  
O.I.S.**

The HDC-SD40 features a 16.8x optical zoom. You can zoom close to catch dynamic shots of distant objects. And because the zoom is optical, there's limited image degradation. Also, POWER O.I.S. (Optical Image Stabiliser) helps prevent blurring – typically a big concern when shooting with a zoom. This combination of optical zoom and POWER O.I.S. (Optical Image Stabiliser) gives you the ability to take fantastic zoom shots.



Optical  
16.8x zoom  
with POWER  
O.I.S.

Beautiful still images, even when enlarged.

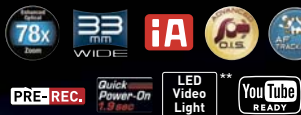
## Still Picture Recording at 2.1 Megapixels

The HDC-SD40 can record stills with 2.1 megapixels.\* Also, when playing back the moving pictures you shot, you can capture 2.1-megapixel\* still images of any scene you want. The HDC-SD40 lets you enjoy high quality in both motion and still images.



\* For images recorded with a 16:9 aspect ratio.

# Compact Camcorders with a 33mm Wide-Angle,\* 78x Ultra Zoom and More!



\* 35mm camera equivalent.

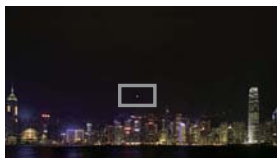


Takes dynamic close-ups of distant subjects.

## Enhanced Optical 78x Zoom and Advanced O.I.S.



The compact, easy-to-carry camcorder has the Enhanced Optical 78x Zoom. By taking maximum advantage of the effective CCD area, the camera makes it easy to capture a wide range of dynamic images, from sweeping landscapes with the 33mm wide-angle scope to close-ups of distant subjects with the 78x zoom, without having to worry about image degradation. However, with long-distance zoom shots, even a tiny bit of hand-shake has a huge effect on picture quality. That's where Advanced O.I.S. (Optical Image Stabiliser) comes in. It shifts a corrective lens as you shoot to help eliminate the effects of hand-shake, so you get clear, sharp shots even at high zoom levels. It's an essential feature for getting the most out of this incredible zoom lens.



Advanced O.I.S. OFF



Advanced O.I.S. ON

Makes optimal settings automatically

## iA (Intelligent Auto)



iA(Intelligent Auto) chooses from five functions to provide the ideal settings for each shot. It lets anyone capture great shots without having to make complicated settings.



**AF/AE Tracking** AF/AE Tracking optimises the focus and exposure for a selected subject to ensure beautiful results. After you "lock on" to a subject at the centre of the screen by pressing the AF/AE button, the camera follows it around, keeping it in sharp focus and properly exposed.



Helps suppress the effects of hand-shake.



Helps retain a natural contrast.



Detects the situation and switches the scene mode.



Captures faces beautifully even in backlit scenes.

# Additional Panasonic Camcorder Technologies.

Capturing voices over a wide area for a more life-like sound.

## 5.1-Ch Surround Sound System & Zoom Mic

HDC-HS900/TM900/SD900



The 900 Series is equipped with five electret condenser microphones. The centre mic helps capture the sound source and distance accurately, so you get a more 3-dimensional effect. The Zoom Mic function improves noise-reducing performance and handles higher zooming power, allowing you to clearly capture target sounds. You get a realistic sound space that's a perfect match with the true-to-life HD images.

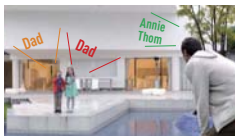
**Wide Mode [1x]** Picks up audio from all directions to reproduce a natural, lifelike sound field.



**Zoom Mode [12x]** Microphones are linked to the lens action. When you zoom in on a subject, the microphones focus on the sound in that same direction.



**Focus Mode** With the five highly directional microphones, this mode enables the microphones to focus on sounds coming from right in front of you, even when the lens is not zooming.



Even more powerful hand-shake compensation.

## O.I.S. (Optical Image Stabiliser) Lock

HDC-HS900/TM900/SD900/SD800/SD90/80 Series

The image-stabilising effect is increased by pressing and holding the O.I.S. Lock indication on the LCD screen, which maximises the blur detection sensitivity. This is great for when you want to zoom at a fixed angle, like for bird watching.

\* Considerable blurring is generated by the shifting of the corrective lens when the camera is panned or tilted.



A precise way to check the lighting.

## On-Screen Assist

HDC-HS900/TM900/SD900/SD800

**Zebra Pattern** A "zebra pattern" is displayed in areas of the frame where the lighting is excessive and the image is over-exposed.



**Brightness Level** The light level is metered at the centre of the frame and displayed as a percentage (%). This serves as a guide when you're shooting a subject that's backlit, or when you want to keep the light level the same even though the lighting conditions change.



**Histogram** The histogram displays in graph form the exposure and contrast conditions over the entire frame. This lets you determine fine gradation details that are difficult to tell by just looking at the screen.



Accessorize your camcorder system.

## Handy Functions and Interfaces

HDC-HS900/TM900/SD900/SD90

### Mic Input and Headphone Jack\*

There's a mic input terminal and a headphone jack\* on the side of the camcorder. Plug in an external mic or headphones (both optional) if desired.

\* HDC-HS900/TM900/SD900 only.



\*The image shown is the HDC-TM900 model.

### Electronic Viewfinder\*\*

The extendable electronic viewfinder is easy to use and convenient for focusing and other adjustments.

\*\* HDC-HS900/TM900/SD900 only.



### Accessory Shoe

Optional accessories can be attached here to increase shooting versatility.



\*The image shown is the HDC-TM900 model.

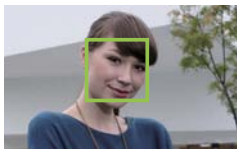


Captures smiles automatically.

## Smile Shot (Still Image)

HDC-HS900/TM900/SD900/SD800/SD90/80 Series

The Smile Shot function automatically detects subject smiles, and captures the best possible still while you're shooting movies. It lets you easily catch those fleeting, easy-to-miss stills of a smiling subject. It will optimise the focus and exposure for your subject's smiling face.



Capture the smiles of only certain subjects

### Face Recognition Linked

This function detects subjects who are registered in advance and automatically snaps the shutter to catch the subject's best possible smile. It's great for capturing the smiles of certain people in a group.



Capture the smiling face of a moving subject

### AF/AE Tracking Linked

Simply touch a subject within the LCD frame. This function will then lock on and start tracking your subject. When the subject smiles, it'll automatically snap the shutter.



Capture the smiles of an entire group

### Face Detection Linked

This function automatically snaps the shutter when people within the LCD frame smile. It gives you shots of an entire group of people smiling, making it great for group shots.



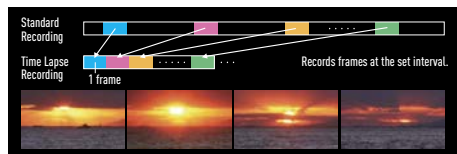
Slow events that take place over long periods of time can be condensed into short, smooth images.

## Time Lapse Recording

HDC-HS900/TM900/SD900/SD800

The time lapse function uses longer frame intervals than standard shooting. You can use this function to capture shortened or condensed footage of events that actually take place over a much longer time period. For example, time lapse recording is ideal for shooting a flower in the process of blooming, or a long, slow sunset. With time lapse recording, you can have an interesting new video technique to explore.

\* The maximum continuous recording time is 12 hours.

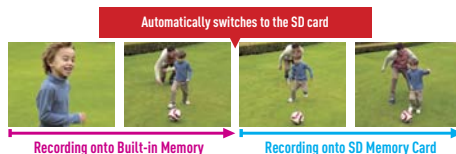


When recorded at a 1-sec interval, a sunset scene that is recorded for 10 minutes can be played back as a smooth, approx. 10-sec image.

When the built-in memory fills up, recording automatically continues on an SD Memory Card.

## Relay Recording HDC-TM900/TM80

The Relay Recording mode automatically switches from the built-in flash memory (once it's full) to the SD card and continues recording. You don't have to worry about missing an important shot while switching media.



How to combine motion images that are split onto two types of media as a continuous scene:

### 1. Arrange the data that is split onto two types of media on an SD card.

If the SD card has sufficient capacity, it's possible to arrange all of the split data as a single continuous scene on the SD card.

\*HD camcorder only.



### 2. Use a DVD burner to create a disc.

If the SD card is not big enough to hold all of the split data, use a DVD burner to create a disc with all the moving pictures as a single continuous scene.



### 3. Use the included software.

You can also use the editing software that is included with the camcorder to join the split data as a continuous scene.

Great for sudden photo opportunities! Saves energy too!

## 1.0-sec Quick Power-On

HDC-HS900/TM900/SD900/SD800/SD90/80 Series



Switch the power on and the HD camcorders are in standby mode in approx. 1.0 seconds\*, ready to shoot when you are. When the LCD is closed, the power automatically switches off. This fast startup and automatic shutdown also help reduce battery consumption.

\* Depending on the recording conditions, start time may be longer than 1.0 second.  
• Standard Models: 1.9-sec.



**0.6 sec Quick Start** Using Quick Start mode, you simply flip open the LCD and you're ready to shoot in just 0.6 seconds\*. When Eco mode is also used, the power turns off whenever the camcorder has not been operated for 5 minutes. This reduces wasted power consumption, and enables a longer battery life.

\* Depending on the recording conditions, start time may be longer than 0.6 seconds.  
• Standard Models: 0.8-sec.

Film-like beauty: Captures more data to deliver richer images.

## Digital Cinema Mode

HDC-HS900/TM900/SD900/SD800

**Progressive 1080/25p** Set the HDC-HS900/TM900/SD900 and SD800 to Digital Cinema mode and shoot using the same progressive 1080/25p format (25 pictures per second) that is used when filming movies.

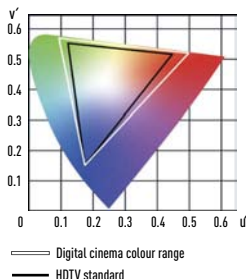


Images are rich and luxuriant, just like at the movies.

- \* Movies captured at 25p using Digital Cinema Mode is converted and recorded at 50i.
- \* When using a TV that is compatible with "x.v.Colour," images that are recorded in Digital Cinema Colour mode will have a wider colour range than conventional images. \* The colour range varies depending on the TV. \* "x.v.Colour" is a registered trademark.

### Digital Cinema Colour\* with VIERA

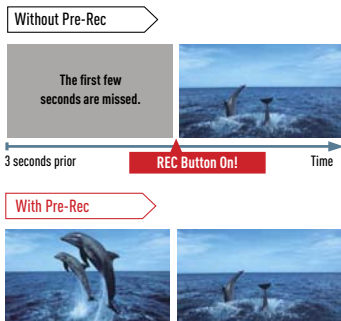
Selecting the Digital Cinema Colour mode makes it possible to shoot film-like images that are ideally suited to the Digital Cinema Colour of VIERA plasma TVs. Colours recorded in this mode look richer than those recorded using the conventional Panasonic standard. For example, the subtle shades of red and gold in flowers, and the greens of leafy trees are remarkably true to life.



Images are recorded even before you begin shooting.

## Pre-Rec Function

This clever function records three seconds of images even before you actually begin shooting. The images are held temporarily in the camcorder's internal memory, before recording onto the media begins. This helps ensure that you won't miss the start of a moment you want to record, such as when an event begins all of a sudden.



Capture crisp, vivid images, even in low lighting.

## Colour Night Rec

Leave the light off. Colour Night Rec gives you images with colour even in dim lighting (1 lx).



Colour Night Rec OFF



Colour Night Rec ON

Capture those spur-of-the-moment scenes.

## 50 fps High-Speed Burst Shooting

HDC-HS900/TM900/SD900/SD800/SD90/SD80

This function lets the camcorder snap up to 50 consecutive still images\* per second for a total of 150 continuous images in about 3 seconds. You can use it to analyse a golf swing, tennis stroke or other motion. You also can use it to get good shots of subjects in fast motion. Just fire off a number of shots without stopping, then keep the best ones and delete the rest.

- \* HDC-HS900/TM900/SD900/SD800: When recorded at 2.1-megapixel resolution.

- \* HDC-SD90/SD80: When recorded at 0.9-megapixel resolution.



Give your subjects smoother looking skin.

## Soft Skin Mode

When this function detects skin tones, it softens the focus in that area. This has a skin beautifying effect, which makes wrinkles and lines appear less noticeable. When turned on, this function makes blemishes and moles look less conspicuous, while preserving resolution in areas of the picture outside of the skin.



Soft Skin mode ON

Soft Skin mode OFF

Sets the optimal mode for each shooting situation.

## Scene Mode

Automatically selects the most suitable shutter speed and aperture for the shooting location and situation.

### Scene modes

- Sports • Portrait • Low Light\* • Spot Light • Snow • Beach
- Sunset • Fireworks • Scenery • Night Scenery • Night Portrait\*\*

- Standard Camcorders: Without Night Portrait mode

- \* In Motion-Image recording mode only. (HD Camcorders)

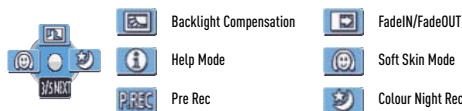
- \*\* In Still-Image recording mode only. (HD Camcorders)

For easy, intuitive setting and shooting without taking your eyes off the subject.

## One-Touch Navigation All Standard Camcorders

With One-Touch Navigation, just press the centre of the joystick to display an operating menu. The operations you use most often are right on the monitor, so it's easy to change settings or operate the camera without looking away from your subject.

### Operation Icon Examples (H100)



\* Icon display varies depending on the model.



Play a compilation of the most exciting scenes.

## Advanced Highlight Playback

HDC-HS900/TM900/SD900/SD800/SD90/80 Series

Select the days of the recordings you want to see, and this innovative function automatically selects the most exciting scenes, arranges them, and plays them, with music. It decides how exciting a scene is, based on zooming, panning, and scene changes, and whether there are faces. The HD camcorder (except for the HDC-SD40) have advanced with the addition of playback effects that include slow motion, still image fading, and flash playback. Four new image effect modes\* – natural, pop, dynamic and classical – have also been added. Set different effects based on the mood of your images, and enjoy memorable scenes just the way you remember them when shooting. The Face Highlight Playback mode places priority on selecting the faces of subjects who are registered in the Face Recognition function, for quick playback of the scenes where they are clearly recorded, together with music.

\* Only during playback with the main unit.

### Enjoy Making Movies Easily



Automatically selects the highlights



Playback New playback image effect mode is added Stop  
– Natural, Pop, Dynamic, Classical –

Easy time setting – Both on the road and at home.

## World Time

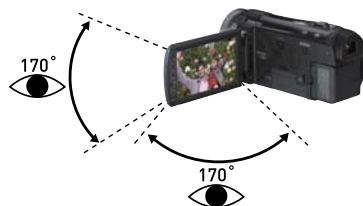
Setting the time is as easy as selecting a city from the displayed map. The World Time function lets you set the time for two cities, home and destination. You don't have to figure out the time difference at your destination, and it's easy when you get home.



Beautiful LCD images even from an angle.

## Wide Viewing Angle

With 230,400 pixels and exceptional detail, the new LCD is among the best in the industry. The viewing angle is 170° both vertically and horizontally, so everyone can gather around and easily see the images you just shot. The wide viewing angle is also a big help when you're taking high-angle or low-angle shots.



Anyone can enjoy easy, video uploading!

## Easy Uploading to YouTube™ and Facebook with the included software "VideoCam Suite 3.5"

All Standard Camcorders

### Step 1 Shoot

The function-packed standard model lets you shoot in your own unique style. When you want to post videos onto YouTube™, it's convenient to shoot in Web mode, which has a 10-minute countdown system.

### Step 2 Connect

As soon as you connect the camcorder to a PC, a Smart Wizard is automatically activated. Then, select "Online Sharing."



### Step 3 Upload

The Online Sharing function lets you upload your videos onto YouTube™ or Facebook. VideoCam Suite makes it so easy to share your videos.



### Quick & Easy Editing VideoCam Suite 3.5

The software walks you through simple editing steps. You'll find it easy to edit your own videos even if you've never done it before.



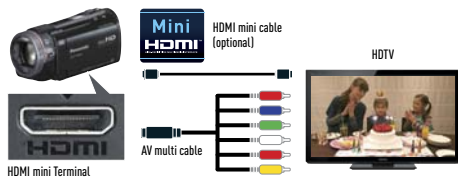
# Easy Viewing and Archiving.

## Viewing

Connect a cable – or just use the memory card.  
Watching Full-HD images on your TV couldn't be easier.

Just connect your HD camcorder to an HDTV and get ready for an incredible high-definition video show. If your TV is HDMI\* compatible, a single HDMI mini cable is all you need. When using a video component cable, you need a separate audio cable.

\* HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.



## VIERA IMAGE VIEWER

Just slip the SD card from your camcorder into the VIERA Image Viewer card slot on your VIERA TV, and you're ready to view Full-HD moving images you recorded.

\* Does not support the 1080/50p mode. The images can be viewed by converting the data to AVCHD format inside the camcorder.



Slip the SD card into the VIERA Image Viewer (SD card slot)

## VIERA Link



Connect your HD camcorder to a VIERA or compatible Blu-ray Disc™ player via an HDMI cable, and you can control both units in synchronised operation with a single remote control. This kind of simple, easy operation makes it more enjoyable to view your recordings.

\* With VIERA Link, a control signal sent through the HDMI cable allows linked operation of a VIERA TV, compatible DIGA DVD recorder, and the HD camcorder. Please note that this function applies only to equipment that is compatible with VIERA Link, and that VIERA Link does not let you control every function of all connected equipment.

## Archiving and Playback

Copy in Full-HD 1080/50p, Full-HD AVCHD, or MPEG-2 Format

**Archiving** The HD camcorders have a USB Host function that lets you connect directly to a DVD burner via a USB cable. Just press a button and you can copy the moving images you recorded from the SD card, built-in memory, or HDD to a DVD disc.

**Easy AVCHD to MPEG-2 Conversion** You can make a copy either in the original high-definition AVCHD format, or in the standard-definition DVD-Video (MPEG-2) format. Choose the one that matches your playback equipment.

**Saving 1080/50p Data with a PC** Use the included HD Writer AE 3.0 software to save Full-HD 1080/50p data onto a PC or an SD card.



When burning images recorded in Full-HD 1080/50p onto a DVD, the data will be converted to the Full-HD AVCHD or MPEG-2 format.



**Playback with a DVD burner** To view the disc you just burned, simply connect the HD camcorder to an HDTV via an HDMI mini cable.



\* The 12-cm DVD discs that you create with a DVD burner can be played on a Blu-ray Disc™ Player.

## Editing, Archiving and YouTube™ or Facebook Uploading

Use your PC and included software HD Writer\*

HD Writer\* software, included with the camcorder, makes it easy to play or edit videos on your PC and have more fun when the shooting's done. Also, the ordinarily time-consuming task of converting and archiving data from 50p to AVCHD or MPEG-2 format can be easily done at high speed by connecting the 900 Series, SD800, and 90 Series to a PC with a USB cable and using the camcorder's Conversion Assist function.\*\*

**Easy Uploading to YouTube™ and Facebook!** The videos you've recorded are easily uploaded to YouTube™ or Facebook in their original high quality. HD Writer lets you share your videos worldwide.



## Also Enjoyable When the Shooting's Done!

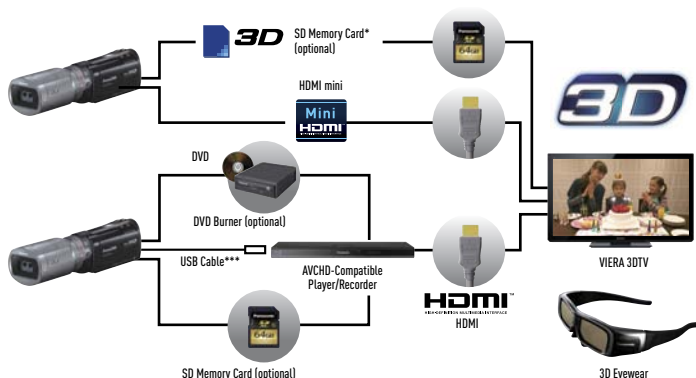
- **Importing Data:** When the camcorder is connected to a PC, the software automatically starts up. Importing data takes only a single click of the mouse.
- **Highlight Playback:** Chooses the most exciting scenes and plays them all together, backed by music.
- **Editing:** It's easy to add titles, rearrange scenes, provide transition effects, and edit images in single frame units.
- **Archiving:** Make a copy either in the original high-definition AVCHD format, or in the standard-definition DVD-Video (MPEG-2) format.

## Easy Connecting for 3D Video Playback and Archiving HDC-HS900/TM900/SD900/SD800/SD90

### Connection for 3D video playback

To play back 3D videos, simply insert an SD Memory Card in the slot of a Panasonic VIERA 3DTV.\* Or you can use an HDMI mini cable to connect the camcorder to a VIERA 3DTV or another 3D TV that is compatible with the side-by-side method. Playback is also possible through an AVCHD-compatible player/recorder.\*\*

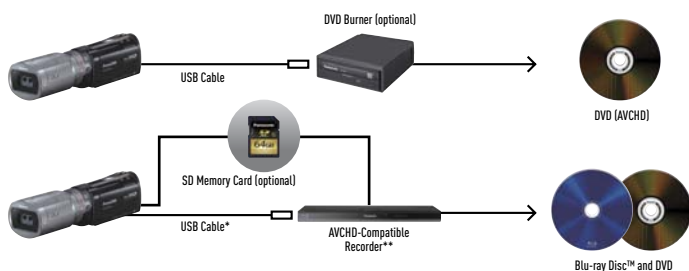
\*Some models of VIERA 3DTV may require a firmware update to play 3D images from an SD card. For details, please visit <http://panasonic.net/avc/viera/3d/> \*\*If the player/recorder is not 3D compatible, you need to set the 3D mode on the TV manually. \*\*\*To play the content with a recorder, the data must be copied to an HDD.



### Connection for 3D video archiving

Recorded 3D data can be saved onto a DVD by simply connecting the camcorder to an optional DVD burner with a USB cable and pressing a button. You can also use an AVCHD-compatible recorder to save data onto a Blu-ray Disc™ or DVD.

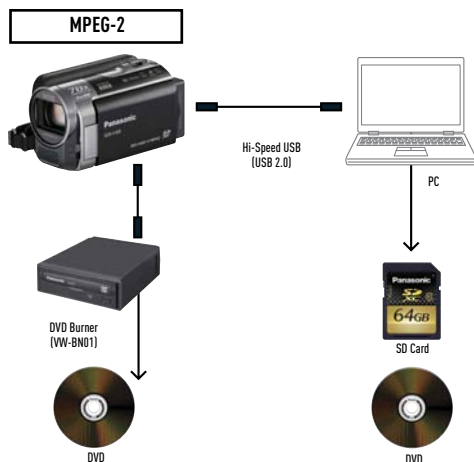
\*To burn the content onto a BD/DVD, the data must be copied to an HDD. \*\* The models availability varies depending on countries and regions.



## Archiving All Standard Camcorders

Use a DVD burner or PC to create a DVD.

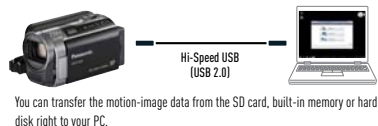
Recorded image data can be saved onto a DVD by simply connecting the camcorder to a DVD burner (purchased separately) with a USB cable and pressing a button. You can also use the included software and a Windows PC to save data onto an SD card or a DVD.



## Editing All Standard Camcorders.

VideoCam Suite 3.5 Anyone can enjoy easy, versatile editing!

- Transfer Data**  
Transfer the motion images to your PC.



- Edit**  
Quick and easy  
It's easy to put scenes in a different order and delete the ones you don't want.



- Save the Results**  
Save it onto a DVD disc



## Versatile HD Camcorder

Panasonic presents a new camera concept: one camera does it all – high-resolution still photos and HD video. You simply decide with a push of a button.



Up to now, the decision for an everyday camera often needed to be a compromise: most cameras on the market are designed to be real good at either capturing photos or videos. The new HX-WA10, HX-DC1 and HX-DC10 are the first new mobile cameras from Panasonic. They capture up to 16-megapixel still photos and Full HD movies. But what makes this new camera concept really outstanding is its vertical design with the highly flexible monitor that allows you to shoot excellent photos and steady videos with a natural position of your wrist and hand, avoiding strain and shaking. The optical zoom lenses and easy compatibility with several applications make these innovative models an excellent choice for an all-round camera!



### HX-WA10

Available colours:



### HD Mobile Camera

- Full High Definition MP4
- iFrame
- 3m Waterproof
- 16MP Still Images
- 2.7" LCD
- 5x Optical Zoom
- 12x Advanced Zoom
- iA with Face Detection
- BSI Sensor
- YouTube™ / Facebook™ Uploader



**WATERPROOF** The new Panasonic HX-WA10 may be one of the most versatile cameras available: it not only combines photo and video shooting in a new way and quality level, it will also follows you almost wherever you want. The camera is

waterproof to depths up to 3 metres. Take it with you on your next snorkelling trip or just continue shooting while being caught in the summer rain. And there is no need to keep it away from the sand while filming on the beach!





## HX-DC10

Available colours:



### HD Mobile Camera

- Full High Definition MP4
- iFrame
- 16MP Still Images
- 3" LCD
- 5x Optical Zoom
- 12x Advanced Zoom
- iA with Face Detection
- BSI Sensor
- YouTube™ / Facebook™ Uploader



Works with  
**iMovie**



## HX-DC1

Available colours:



### Versatile Mobile Camera

- Full High Definition MP4
- iFrame
- 14MP Still Images
- 3" LCD
- 5x Optical Zoom
- 12x Advanced Zoom
- iA with Face Detection
- YouTube™ / Facebook™ Uploader



#### 16-MEGAPIXEL STILL PICTURES

The 16-megapixel resolution with HX-WA10 and HX-DC10 and the 14-megapixel resolution with HX-DC1 let you record beautiful, detailed images that are suitable for big prints. Thanks to the dedicated 'still' and 'movie' buttons, you can even shoot still photos while recording a movie!

**NIGHT VIEW MODE (BSI SENSOR)** The newly developed BSI Sensor with Night View Mode will make you hold on to your new camera 24/7. Even in poorly lit situations, indoors or at parties, the new HD Mobile Cameras will deliver bright, colourful video.

**12x ADVANCED ZOOM** The Advanced Zoom function from Panasonic expands the zoom range of the 5x optical zoom to 12x at a Full HD video resolution of 1080/30p. With this function, you can catch even more great opportunities without compromising video quality.

## Cool and Stylish Full HD Shooting Fun

Take the Panasonic pocket-size HD Mobile Cameras with you wherever you go and capture the fun when and where it happens – then share it with the world.



Compact in size, but big on HD picture quality: the new super-slim Panasonic TA2 and TA20 HD cameras are small enough to fit into your pocket or handbag – while delivering high-quality HD movies and photos. Just press the Rec button to record and the Play button to play – dedicated control buttons let you do everything intuitively. Electrical Image Stabiliser (E.I.S.) technology, the new Night View Mode and an integrated LED light let you capture bright, clear movies when the lights are low, like at parties. Then, when at home, easily hook up the camera via USB to your PC or Mac, and with a press of the Facebook button in the provided software, you can immediately upload the fun memories for sharing with friends and family.



### HM-TA20

#### Tough Designed HD Mobile Camera

- 3m Waterproof
- 1.5m Shockproof / Dustproof
- Full High Definition MP4
- iFrame
- 8MP Still Images
- HDMI Connection
- 3" Touchscreen
- Night View Mode
- One Button Easy Operation
- Tripod Included
- YouTube™ / Facebook™ Uploader



Available colours:



**TOUGH CONCEPT** The new TA20 is a camera you can take anywhere – literally. It is not only dustproof, but also waterproof for depths up to 3 meters. That means it will survive a dip in the pool as well as being accidentally dropped from a height of up to 1.5 meters. So: no matter what you are up for – the TA20 is ready to be in the middle of the action!

## HD Video in the Palm of Your Hands

Full HD video in a slim, light and easy-to-operate device – the Panasonic TA2 is the ideal companion for video bloggers in any situation. And, of course, a perfect webcam for Skype calls!



### HM-TA2

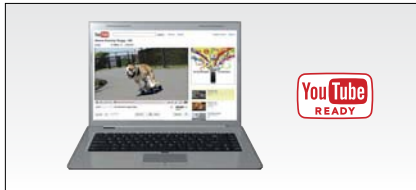
#### Super Slim HD Mobile Camera

- Full High Definition MP4
- iFrame
- 8MP Still Images
- HDMI Connection
- 3" Touchscreen
- Night View Mode
- One Button Easy Operation
- Tripod Included
- YouTube™ / Facebook™

Available colours:



**NIGHT VIEW MODE** TA2 and TA20 come with a dedicated Night View Mode that uses longer exposure times and allows you to shoot bright, colourful movies even in poorly lit conditions. The ideal mode for restaurants, parties and other indoor situations!



**EASY WEB UPLOADING** It is a snap – upload your movies onto YouTube™, Facebook™ or anywhere you want. As soon as you plug the TA1 into your computer via its USB connection, the embedded HD Writer PE 1.0 software<sup>2</sup> automatically launches. With operation this easy, you can instantly share your movies with the world.

<sup>2</sup> For Windows OS.



**WORKS WITH SKYPE** Connect the TA2 or TA20 to a computer and it turns into a webcam – perfect for Skype, which allows users to make free video calls over the Internet. All you need is a high-performance CPU for video conferencing with your PC or Mac. Talk face to face with faraway family and friends!



Motion-Image Recording Times (approx.)

All HD Camcorders

	HDD		Built-in Memory		SDXC/SDHC Memory Card					
	220 GB (HS900)	120 GB (HS600)	32 GB (TM900)	16 GB (TM60)	64 GB	48 GB	32 GB	16 GB	8 GB	4 GB
1080/60p(28 Mbps) <sup>1</sup>	18 h 30 min		2 h 40 min	1 h 20 min <sup>2</sup>	5 h 20 min	4 h	2 h 40 min	1 h 20 min	40 min	19 min
HA (17 Mbps)	29 h	15 h 50 min	4 h 10 min	2 h	8 h 30 min	6 h 20 min	4 h 10 min	2 h	1 h	30 min
HD (13 Mbps)	37 h 30 min	20 h 30 min	5 h 30 min	2 h 40 min	11 h	8 h 10 min	5 h 30 min	2 h 40 min	1 h 20 min	40 min
HX (9 Mbps)	57 h 30 min	31 h 20 min	8 h 20 min	4 h 10 min	16 h 10 min	12 h 30 min	8 h 20 min	4 h 10 min	2 h	1 h
HE (5 Mbps) <sup>3</sup>	94 h	51 h	13 h 40 min	6 h 40 min <sup>4</sup>	27 h 30 min	20 h 20 min	13 h 40 min	6 h 40 min	3 h 20 min	1 h 30 min
iFrame(24 Mbps)	18 h 30 min	10 h	2 h 40 min	1 h 20 min	5 h 20 min	4 h	2 h 40 min	1 h 20 min	40 min	19 min

<sup>1</sup> 1080/60p(28 Mbps); 900 Series, SD800, and 90 Series only. <sup>2</sup> HE (5 Mbps); Except for the 40 Series. <sup>3</sup> 1080/60p, 16 GB: TM90 only. <sup>4</sup> HE (5 Mbps), 16 GB: Except for the 40 Series.

Number of Recordable Still Pictures (approx.)

900 Series / HDC-SD800














Image Quality	Capacity	HDD	Built-in Memory	SDXC/SDHC Memory Card					
		220 GB (HS900)	32 GB (TM500)	64 GB	48 GB	32 GB	16 GB	8 GB	4 GB
4864 x 2736 pixels (16.9) 13.3 M	  	31000	4500	9000	6500	4500	2200	1100	550
3840 x 2160 pixels (16.9) 8.3 M	  	49000	7000	14000	10000	7000	3400	1700	850
3072 x 1728 pixels (16.9) 5.3 M	  	78000	11500	23000	17000	11500	5600	2800	1420
4032 x 3024 pixels (4.3) 12.2 M	  	33000	5000	10000	7200	5000	2500	1200	610
3200 x 2400 pixels (4.3) 7.7 M	  	53000	7900	15800	11000	7900	3900	1900	940
2560 x 1920 pixels (4.3) 4.9 M	  	84000	12500	25000	18000	12500	6200	3000	1500
640 x 480 pixels (4.3) 0.3 M	  	899100	246000	492000	364000	246000	122000	60500	30000
4608 x 3072 pixels (3.2) 14.2 M	  	45000	6700	13400	9800	6700	3300	1600	800
3840 x 2400 pixels (3.2) 8.6 M	  	45000	7000	14000	10000	7000	3400	1700	850
2880 x 1920 pixels (3.2) 5.5 M	  	75000	11000	22000	16000	11000	5500	2700	1300
	  	119000	17500	35000	25000	17500	8500	4200	2000

Image Quality	Capacity	HDD	Built-in Memory	SDXC/SDHC Memory Card					
		220 GB (HS900)	32 GB (TM500)	64 GB	48 GB	32 GB	16 GB	8 GB	4 GB
4864 x 2736 pixels (16.9) 13.3 M	  	31000	4500	9000	6500	4500	2200	1100	550
3840 x 2160 pixels (16.9) 8.3 M	  	49000	7000	14000	10000	7000	3400	1700	850
1920 x 1080 pixels (16.9) 2.1 M	  	201000	29000	59000	44000	29000	14000	7300	3600
	  	319000	46000	93000	69000	46000	23000	11000	5600

Number of Recordable Still Pictures (approx.)

90 Series




















































Image Quality	Capacity	Built-in Memory		SDXC/SDHC Memory Card				
		16 GB (TM80)	64 GB	48 GB	32 GB	16 GB	8 GB	4 GB
2816 x 1584 pixels (16.9) 4.5 M	  	6800	27000	20000	13000	6800	3400	1680
	  	10000	43000	32000	21000	10000	5300	2600
	  	14000	59000	44000	29000	14000	7300	3600
2880 x 1944 pixels (4.3) 5 M	  	23000	93000	69000	46000	23000	11000	5600
	  	6000	24000	18000	12000	6000	3000	1400
	  	9500	38000	28000	19000	9500	4700	2350
1600 x 1200 pixels (4.3) 1.9 M	  	15900	64000	47000	32000	15900	7900	3900
	  	25000	101000	74000	50000	25000	12000	6100
	  	122000	492000	364000	246000	122000	60500	30000
640 x 480 pixels (4.3) 0.3 M	  	205000	829000	613000	414000	205000	102000	50000
	  	6300	25000	19000	12000	6300	3100	1500
	  	10000	40000	29800	20000	10000	4900	2400
1680 x 1120 pixels (3.2) 1.9 M	  	16000	66000	49000	33000	16000	8000	4000
	  	25000	103000	76000	51000	25000	12000	6300

Image Quality	Capacity	Built-in Memory		SDXC/SDHC Memory Card					
		16 GB (TM80)	64 GB	48 GB	32 GB	16 GB	8 GB	4 GB	
2816 x 1584 pixels (16.9) 4.5 M	  	6800	27000	20000	13000	6800	3400	1680	
	  	10000	430000	32000	21000	10000	5300	2600	
1920 x 1080 pixels (16.9) 2.1 M	  	14000	59000	44000	29000	14000	7300	3600	
		23000	93000	69000	46000	23000	11000	5600	

Number of Recordable Still Pictures (approx.)

80 Series






























Image Quality	Capacity	HDD		Built-in Memory		SDXC/SDHC Memory Card					
		120 GB (HS80)	16 GB (TM80)	64 GB	48 GB	32 GB	16 GB	8 GB	4 GB		
2304 x 1296 pixels (16.9) 3.0 M	  	75000	10000	40000	29800	20000	10000	4900	2400		
1920 x 1080 pixels (16.9) 2.1 M	  	119000	15900	64000	47000	32000	15900	7900	3900		
1856 x 1392 pixels (4.3) 2.6 M	  	110000	14000	59000	44000	29000	14000	7300	3600		
640 x 480 pixels (4.3) 0.3 M	  	172000	23000	93000	69000	46000	23000	11000	5600		
2064 x 1376 pixels (3.2) 2.8 M	  	86000	10000	43000	32000	21000	10000	5300	2600		
	  	126000	16000	66000	49000	32000	16000	8000	4000		
640 x 480 pixels (4.3) 0.3 M		899100	122000	492000	364000	246000	122000	60500	30000		
		899100	205000	829000	613000	414000	205000	102000	50000		
2064 x 1376 pixels (3.2) 2.8 M		81000	10000	42000	31000	20000	10000	5000	2500		
		126000	16000	66000	49000	32000	16000	8000	4000		

Image Quality	Capacity	HDD	Built-in Memory		SDXC/SDHC Memory Card					
		120 GB (HS80)	16 GB (TM80)	64 GB	48 GB	32 GB	16 GB	8 GB	4 GB	
2304 x 1296 pixels (16.9) 3.0 M	  	75000	10000	40000	29800	20000	10000	4900	2400	
1920 x 1080 pixels (16.9) 2.1 M	  	119000	15900	64000	47000	32000	15900	7900	3900	
	  	174000	23000	93000	69000	46000	23000	11000	5600	

## Number of Recordable Still Pictures (approx.)

40 Series

Capacity		Built-in Memory		SDXC/SDHC Memory Card				
Image Quality		16 GB (TM40)	64 GB	48 GB	32 GB	16 GB	8 GB	4 GB
1920 x 1080 pixels		14000	59000	44000	29000	14000	7300	3600
(16:9) 2.1 M		23000	93000	69000	46000	23000	11000	5600

## Motion-Image Recording Times (approx.)

All Standard Camcorders

Capacity		HDD	Built-in Memory		SDXC/SDHC Memory Card				
Image Quality		80 GB (H101/H100)	4 GB (T70)	64 GB	48 GB	32 GB	16 GB	8 GB	4 GB
XP (10 Mbps)		18 h 30 min	50 min	15 h	11 h	7 h 30 min	3 h 30 min	1 h 45 min	50 min
SP (8 Mbps)		37 h	1 h 40 min	30 h	22 h 10 min	15 h	7 h	3 h 30 min	1 h 40 min
LP (6 Mbps)		74 h 30 min	3 h 20 min	60 h 30 min	44 h 50 min	30 h	14 h	7 h	3 h 20 min

## All Standard Camcorders Number of Recordable Still Pictures (Approx.)

Image Quality	Capacity	HDD	Built-in Memory		SDXC/SDHC Memory Card					
		80 GB (H101/H100)	4 GB (T70)	64 GB	48 GB	32 GB	16 GB	8 GB	4 GB	
640 x 480 pixels (16:9) 0.2 M		610000	30000	492000	364000	246000	122000	60500	30000	
640 x 480 pixels (4:3) 0.3 M		610000	30000	492000	364000	246000	122000	60500	30000	

■■■ High Picture Quality ■■■ Normal Picture Quality

• These figures vary depending on the pictures being recorded.

• 1 GB = 1 billion bytes. Usable capacity will be less.

• We recommend using SDXC/SDHC Memory Cards conforming to class 2 or higher of the SD Speed Class Rating made by Panasonic for motion-image recording.

• Please confirm the latest information about SD/SDHC/SDXC Memory Cards that can be used for motion-image recording, on the following website.

[http://panasonic.jp/support/global/cs/e\\_cam/index.html](http://panasonic.jp/support/global/cs/e_cam/index.html) (This website is in English only)

## Battery Life (approx.)

900 Series / HDC-SD800

			Continuous Recording Time							Actual Recording Time						
			1080/50p	HA mode	HQ mode	HX mode	HE mode	iFrame	1080/50p	HA mode	HQ mode	HX mode	HE mode	iFrame		
VW-VBN130	HS900	HDD	Using EVF	1 h 15 min	1 h 20 min	1 h 20 min	1 h 20 min	1 h 20 min	45 min	50 min	50 min	50 min	50 min	50 min	50 min	
			Using LCD	1 h 10 min	1 h 15 min	1 h 15 min	1 h 15 min	1 h 20 min	45 min	45 min	45 min	45 min	45 min	45 min	50 min	
		SDXC/SDHC/SD Memory Card	Using EVF	1 h 15 min	1 h 20 min	1 h 20 min	1 h 20 min	1 h 25 min	45 min	50 min	50 min	50 min	50 min	50 min	50 min	
	TM900	Built-in Memory	Using EVF	1 h 35 min	1 h 35 min	1 h 35 min	1 h 35 min	1 h 40 min	55 min	1 h	1 h	1 h	1 h	1 h	1 h	
		SDXC/SDHC/SD Memory Card	Using LCD	1 h 15 min	1 h 20 min	1 h 20 min	1 h 20 min	1 h 20 min	45 min	45 min	45 min	45 min	45 min	45 min	50 min	
		SD800	Using LCD	1 h 35 min	1 h 40 min	1 h 45 min	1 h 45 min	1 h 50 min	1 h	1 h	1 h 5 min	1 h 5 min	1 h 5 min	1 h 5 min	1 h 5 min	
VW-VBN260	HS900	HDD	Using EVF	2 h 25 min	2 h 35 min	2 h 35 min	2 h 35 min	2 h 40 min	1 h 30 min	1 h 35 min	1 h 35 min	1 h 35 min	1 h 35 min	1 h 35 min	1 h 40 min	
			Using LCD	2 h 20 min	2 h 30 min	2 h 30 min	2 h 30 min	2 h 35 min	1 h 25 min	1 h 30 min	1 h 30 min	1 h 30 min	1 h 30 min	1 h 30 min	1 h 35 min	
		SDXC/SDHC/SD Memory Card	Using EVF	2 h 20 min	2 h 40 min	2 h 40 min	2 h 40 min	2 h 45 min	1 h 30 min	1 h 35 min	1 h 40 min	1 h 40 min	1 h 40 min	1 h 40 min	1 h 40 min	
	TM900	Built-in Memory	Using EVF	2 h 25 min	2 h 35 min	2 h 35 min	2 h 35 min	2 h 40 min	1 h 30 min	1 h 35 min	1 h 35 min	1 h 35 min	1 h 35 min	1 h 35 min	1 h 40 min	
		SDXC/SDHC/SD Memory Card	Using LCD	2 h 15 min	3 h 5 min	3 h 10 min	3 h 10 min	3 h 15 min	1 h 45 min	1 h 55 min	1 h 55 min	1 h 55 min	1 h 55 min	1 h 55 min	2 h	
		SD800	Using LCD	2 h 50 min	3 h	3 h	3 h	3 h 10 min	1 h 45 min	1 h 50 min	1 h 50 min	1 h 50 min	1 h 50 min	1 h 50 min	1 h 55 min	

## Battery Life (approx.)

90 Series

			Continuous Recording Time				Actual Recording Time			
			1080/50p	HA/HG	HX/HX	iFrame	1080/50p	HA/HG	HX/HX	iFrame
VW-VBK180	TM900	Built-in Memory, SDXC/SDHC/SD Memory Card	1 h 30 min	1 h 35 min	1 h 35 min	1 h 40 min	45 min	50 min	50 min	50 min
		SD900	1 h 30 min	1 h 35 min	1 h 35 min	1 h 40 min	45 min	50 min	50 min	50 min
		SD800	3 h	3 h 15 min	3 h 15 min	3 h 25 min	1 h 35 min	1 h 40 min	1 h 40 min	1 h 45 min
VW-VBK360	SD900	Built-in Memory, SDXC/SDHC/SD Memory Card	3 h	3 h 15 min	3 h 15 min	3 h 25 min	1 h 35 min	1 h 40 min	1 h 40 min	1 h 45 min
		SD800	3 h	3 h 15 min	3 h 15 min	3 h 25 min	1 h 35 min	1 h 40 min	1 h 40 min	1 h 45 min

## Battery Life (approx.)

80 Series

			Continuous Recording Time			Actual Recording Time		
			HA/HG	HX/HE	iFrame	HA/HG	HX/HE	iFrame
VW-VBK180	HS80	HDD	1 h 35 min	1 h 35 min	1 h 45 min	50 min	50 min	50 min
		SDXC/SDHC/SD Memory Card	1 h 40 min	1 h 40 min	1 h 45 min	50 min	50 min	55 min
	TM800	Built-in Memory, SDXC/SDHC/SD Memory Card	1 h 50 min	1 h 55 min	2 h	55 min	55 min	1 h
		SD800	1 h 50 min	1 h 55 min	2 h	55 min	55 min	1 h
VW-VBK360	HS80	HDD	3 h 15 min	3 h 15 min	3 h 25 min	1 h 40 min	1 h 40 min	1 h 45 min
		SDXC/SDHC/SD Memory Card	3 h 25 min	3 h 25 min	3 h 35 min	1 h 45 min	1 h 45 min	1 h 50 min
	TM800	Built-in Memory, SDXC/SDHC/SD Memory Card	3 h 45 min	3 h 45 min	3 h 55 min	1 h 55 min	1 h 55 min	2 h
		SD800	3 h 45 min	3 h 45 min	3 h 55 min	1 h 55 min	1 h 55 min	2 h

## Battery Life (approx.)

40 Series

			Continuous Recording Time			Actual Recording Time		
			HA/HG	HX	iFrame	HA/HG	HX	iFrame
VW-VBK180	TM40	Built-in Memory, SDXC/SDHC/SD Memory Card	2 h 15 min	2 h 15 min	2 h 40 min	1 h 10 min	1 h 10 min	1 h 25 min
		SD400	2 h 15 min	2 h 15 min	2 h 40 min	1 h 10 min	1 h 10 min	1 h 25 min
VW-VBK360	TM40	Built-in Memory, SDXC/SDHC/SD Memory Card	4 h 30 min	4 h 35 min	5 h 20 min	2 h 20 min	2 h 20 min	2 h 45 min
		SD400	4 h 30 min	4 h 35 min	5 h 20 min	2 h 20 min	2 h 20 min	2 h 45 min

• This is a guideline that includes time for operations such as starting and stopping the recording, turning the power on and off, and zooming. The actual time is shorter.

Battery Life (approx.)

H101/100 / SDR-T70 / S70

		Capacity	
		Continuous Recording Time	Actual Recording Time
VW-VBK360	H101/H100	HDD	5 h 10 min (LP Mode), 5 h (XP Mode), 5 h 5 min (SP Mode)
		SDXC/SDHC/SD Memory Card	5 h 25 min (LP Mode), 5 h 15 min (XP Mode), 5 h 20 min (SP Mode)
		Built-in Memory	6 h (All Mode)
	T70	SDXC/SDHC/SD Memory Card	6 h (All Mode)
		SDXC/SDHC/SD Memory Card	6 h (All Mode)
		HDD	2 h 30 min (All Mode)
VW-VBK180	H101/H100	SDXC/SDHC/SD Memory Card	2 h 40 min (LP Mode), 2 h 35 min (XP/SP Mode)
		Built-in Memory	2 h 55 min (All Mode)
		SDXC/SDHC/SD Memory Card	2 h 55 min (All Mode)
	T70	HDD	1 h 20 min (All Mode)
		SDXC/SDHC/SD Memory Card	1 h 20 min (All Mode)
		SDXC/SDHC/SD Memory Card	1 h 20 min (All Mode)
VW-VBL90	T70	HDD	40 min (All Mode)
		SDXC/SDHC/SD Memory Card	40 min (All Mode)
		SDXC/SDHC/SD Memory Card	40 min (All Mode)

\*This is a guideline that includes time for operations such as starting and stopping the recording, turning the power on and off, and zooming. The actual time is shorter.

System Requirements

900 Series / HDC-SD800 / 90 Series / 80 Series

	HD Writer AE 3.0	iMovie '11 (not supplied)
OS	Windows® 7 (32 bit/64 bit): Starter/Home Basic/Home Premium/Professional/Ultimate Windows® Vista (32 bit): Home Basic/Home Premium/Business/Ultimate SP1/SP2 Windows® XP (32 bit): SP3	Mac OS X 10.6.3
CPU	Intel® Pentium® 4 2.8 GHz or higher When using playback function and MPEG2 conversion function, Intel® Core™2 Duo 2.16 GHz or higher	Intel® Core™ Duo or higher

40 Series

	HD Writer LE 1.0	iMovie '11 (not supplied)
OS	Windows® 7 (32 bit/64bit): Starter/Home Basic/Home Premium/Professional/Ultimate Windows Vista® (32 bit): Home Basic/Home Premium/Business/Ultimate SP1/SP2 Windows® XP (32 bit): SP3	Mac OS X 10.6.3
CPU	Intel® Pentium® 4 2.8 GHz or higher When using playback function and MPEG2 conversion function, Intel® Core™2 Duo 2.16 GHz or higher	Intel® Core™ Duo or higher

- About HD Writer AE 3.0 and LE 1.0:
  - This software is not compatible with Microsoft Windows 3.1, Windows 95, Windows 98/98SE, Windows Me, Windows 2000 and Windows NT.
  - Supplied CD-ROM is available for Windows only.
  - Operation on an upgraded OS is not guaranteed.
  - When 2 or more USB devices are connected to a PC, or when devices are connected through USB hubs or by using extension cables, proper operation is not guaranteed.
  - Operation on an OS other than the one pre-installed is not guaranteed.
  - This software is not compatible with a multi-boot environment.
  - This software is not compatible with a multi-monitor environment.
  - Operation is not guaranteed on Windows XP Media Center Edition, Tablet PC Edition, Windows Vista Enterprise or Windows 7 Enterprise.
  - Available with administrator account in Windows XP.
  - Available with administrator account or standard account in Windows Vista/Windows 7 (Installation and an installation of the software requires an administrator account.)

H101/100 / SDR-T70 / S70

	VideoCam Suite 3.5
Interface	USB port (Hi-Speed USB (USB 2.0) recommended)
OS	Windows® 7 (32 bit/64 bit): Starter/Home Basic/Home Premium/Professional/Ultimate Windows Vista® (32 bit): Home Basic/Home Premium/Business/Ultimate SP1/SP2 Windows® XP (32 bit): SP3
CPU	Intel® Pentium® 4 2.0 GHz or higher When using playback function and MPEG2 conversion function, Intel® Core™2 Duo 1.8 GHz or higher
	iMovie '11 (not supplied)
	USB port (Hi-Speed USB (USB 2.0) recommended)
OS	Mac OS X 10.6.3
CPU	Intel® Core™ Duo or higher

- About VideoCam Suite 3.5:
  - This software is not compatible with Microsoft Windows 3.1, Windows 95, Windows 98/98SE, Windows Me, Windows 2000 and Windows NT. Operation on an upgraded OS is not guaranteed. Operation on an OS other than the one pre-installed is not guaranteed. Supplied CD-ROM VideoCam Suite 3.5 is available for Windows only.

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• All other company and product names are trademarks of their respective corporations.



## HD CAMCORDER



PRODUCT NUMBER	ITEM	SPECIFICATION	SD/TM900	HS900	SD800	SD90	SD/TM80	HS80	SD40
VW-VBN130	Battery Pack	Info-Lithium, 7.2V, 1250mAh, 9.0Wh	•	•	•	–	–	–	–
VW-VBN260	Battery Pack	Info-Lithium, 7.2V, 2500mAh, 18.0Wh	•	•	•	–	–	–	–
VW-VBK180	Battery Pack	Info-Lithium, 3.6V, 1790mAh, 6.5Wh	–	–	–	•	•	•	•
VW-VBK360	Battery Pack	Info-Lithium, 3.6V, 3580mAh, 13.0Wh	–	–	–	•	•	•	•
VW-BC20	Battery Charger	for VBN130/VBN260	•	•	•	–	–	–	–
VW-BC10	Battery Charger	for VBK180/VBK360/VBL090	–	–	–	•	•	•	•
VW-ACK180	Accessory Kit	VW-BC10, VW-VBK180, Soft case	–	–	–	•	•	•	•
VW-CLT1	3D Conversion Lens		•	•	•	•	–	–	–

## SD CAMCORDER



PRODUCT NUMBER	ITEM	SPECIFICATION	S70	T70	H100
VW-VBL090	Battery Pack	3.6V, 895mAh, 3.3Wh	• <sup>1</sup>	• <sup>1</sup>	–
VW-VBK180	Battery Pack	Info-Lithium, 3.6V, 1790mAh, 6.5Wh	• <sup>1</sup>	• <sup>1</sup>	•
VW-VBK360	Battery Pack	Info-Lithium, 3.6V, 3580mAh, 13.0Wh	• <sup>1</sup>	• <sup>1</sup>	•
VW-BC10	Battery Charger	for VBK180/VBK360/VBL090	•	•	•
VW-ACK180	Accessory Kit	VW-BC10, VW-VBK180, Soft case	• <sup>1</sup>	• <sup>1</sup>	•
VW-BN1/BN2/01	DVD Burner		•	•	•

• Yes    – No

## CAMCORDER



	HDC-HS900	HDC-TM900	HDC-SD900	HDC-SD800	HDC-SD90
SYSTEM / FORMAT					
Media	HDD (220GB), SD/SDHC/SDXC Memory Card <sup>1</sup>	Built-in memory (32GB), SD/SDHC/SDXC Memory Card <sup>1</sup>	SD/SDHC/SDXC Memory Card	SD/SDHC/SDXC Memory Card	SD/SDHC/SDXC Memory Card
Recording Format	1080 / 50p: MPEG-4 AVC/H.264 (original format) HA / HG / HX / HE: MPEG-4 AVC/H.264 (AVCHD standard compliant) iFrame: MPEG4-AVC/H.264 (MPEG-4 AVC file format compliant (.MP4))	1080 / 50p: MPEG-4 AVC/H.264 (original format) HA / HG / HX / HE: MPEG-4 AVC/H.264 (AVCHD standard compliant) iFrame: MPEG4-AVC/H.264 (MPEG-4 AVC file format compliant (.MP4))	1080 / 50p: MPEG-4 AVC/H.264 (original format) HA / HG / HX / HE: MPEG-4 AVC/H.264 (AVCHD standard compliant) iFrame: MPEG4-AVC/H.264 (MPEG-4 AVC file format compliant (.MP4))	1080 / 50p: MPEG-4 AVC/H.264 (original format) HA / HG / HX / HE: MPEG-4 AVC/H.264 (AVCHD standard compliant) iFrame: MPEG4-AVC/H.264 (MPEG-4 AVC file format compliant (.MP4))	1080 / 50p: MPEG-4 AVC/H.264 (original format) HA / HG / HX / HE: MPEG-4 AVC/H.264 (AVCHD standard compliant) iFrame: MPEG4-AVC/H.264 (MPEG-4 AVC file format compliant (.MP4))
Image Sensor	3MOS	3MOS	3MOS	3MOS	1MOS
Full HD 1920 x 1080	•	•	•	•	•
Wide-Angle Shooting	35mm <sup>2</sup>	35mm <sup>2</sup>	35mm <sup>2</sup>	35mm <sup>2</sup>	28mm <sup>2</sup>
Wind Noise Canceller	•	•	•	•	•
INTELLIGENT AUTO MODE					
Face Recognition	•	•	•	•	•
AF/AE Tracking	•	•	•	•	•
Intelligent Scene Selection	•	•	•	•	•
O.I.S. (Optical Image Stabilisation)	HYBRID O.I.S.	HYBRID O.I.S.	HYBRID O.I.S.	HYBRID O.I.S.	HYBRID O.I.S.
Face Detection	•	•	•	•	•
Intelligent Contrast Control	•	•	•	•	•
SHOOTING FUNCTIONS					
Enhanced Optical Zoom	12x	12x	12x	12x	21x
Intelligent Zoom	20x	20x	20x	20x	40x
Still Picture Recording	14.2LMP <sup>3</sup>	14.2LMP <sup>3</sup>	14.2LMP <sup>3</sup>	14.2LMP <sup>3</sup>	5MP <sup>3</sup>
Pre-Rec Function	•	•	•	•	•
Time Lapse Recording	•	•	•	•	•
CONVENIENT FUNCTIONS					
Navigation/One-Touch Navigation	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen
Quick Power On	•	•	•	•	•
Highlight Playback	•	•	•	•	•

3D CONVERSION LENS (VW-CLT1)					
GENERAL (When attached to a 3D-ready camcorder)	Weight (w/o Lens Cap, Rear Cap)	Approx. 195g ( 0.43lb)	Approx. 195g ( 0.43lb)	Approx. 195g ( 0.43lb)	Approx. 195g ( 0.43lb)
	Dimension (W x H x D)	78 x 59 x 97 [mm] ( 3.07 x 2.32 x 3.82 [inch])	78 x 59 x 97 [mm] ( 3.07 x 2.32 x 3.82 [inch])	78 x 59 x 97 [mm] ( 3.07 x 2.32 x 3.82 [inch])	78 x 59 x 111 [mm] ( 3.07 x 2.32 x 4.37 [inch])
LENS SECTION (When attached to a 3D-ready camcorder)	F Value	F3.2	F3.2	F3.2	F3.2
	Focal Length	2.5mm	2.5mm	2.5mm	2.3mm
	35mm Film Camera Equivalent	58mm (16:9) [Motion Image]	58mm (16:9) [Motion Image]	58mm (16:9) [Motion Image]	58mm (16:9) [Motion Image]
	Minimum Illumination	28 lx (1/25)	28 lx (1/25)	28 lx (1/25)	28 lx (1/25)
STANDARD ACCESSORIES	Lens Front Cap	•	•	•	•
	Lens Rear Cap	•	•	•	•
	Lens Pouch	•	•	•	•

• Yes — No

<sup>1</sup> GB = 1 billion bytes. Usable capacity will be less.

SD Memory Card is optional.

<sup>2</sup> 35mm lens equivalent.

<sup>3</sup> For images recorded with a 4:3 aspect ratio.

<sup>4</sup> For images recorded with a 3:2 aspect ratio.

<sup>5</sup> For images recorded with a 16:9 aspect ratio.

<sup>6</sup> Lens cover needs to be opened first.

						
HDC-HS80	HDC-TM80	HDC-SD80	HDC-SD40	SDR-H100	SDR-T70	SDR-S70
HDD (120 GB), SD/SDHC/SDXC Memory Card	Built-in memory (16 GB), SD/SDHC/ SDXC Memory Card	SD/SDHC/ SDXC Memory Card	SD/SDHC/ SDXC Memory Card	HDD (80GB), SD/SDHC/ SDXC Memory Card <sup>1</sup>	Built-in memory (4GB), SD/SDHC/ SDXC Memory Card <sup>1</sup>	SD/SDHC/ SDXC Memory Card
MPEG4-AVC/H.264 (AVCHD standard compliant) iFrame: MPEG4- AVC/H.264 (MPEG-4 AVC file format compliant (.MP4))	MPEG4-AVC/H.264 (AVCHD standard compliant) iFrame: MPEG4- AVC/H.264 (MPEG-4 AVC file format compliant (.MP4))	MPEG4-AVC/H.264 (AVCHD standard compliant) iFrame: MPEG4- AVC/H.264 (MPEG-4 AVC file format compliant (.MP4))	MPEG4-AVC / H.264 (AVCHD standard compliant) iFrame: MPEG4- AVC / H.264 (MPEG-4 AVC file format compliant (.MP4))	MPEG2, H.264 / AVC [Motion Image]	MPEG2, H.264 / AVC [Motion Image]	MPEG2, H.264 / AVC [Motion Image]
1MOS	1MOS	1MOS	1MOS	1MOS	1MOS	1MOS
•	•	•	•	–	–	–
33.7mm <sup>2</sup>	33.7mm <sup>2</sup>	33.7mm <sup>2</sup>	42.9mm <sup>2</sup>	33mm <sup>2</sup>	33mm <sup>2</sup>	33mm <sup>2</sup>
•	•	•	–	•	•	•
•	•	•	–	•	•	•
•	•	•	–	•	•	•
•	•	•	–	•	•	•
HYBRID O.I.S.	HYBRID O.I.S.	HYBRID O.I.S.	POWER O.I.S.	Advanced O.I.S.	Advanced O.I.S.	Advanced O.I.S.
•	•	•	–	•	•	•
•	•	•	–	•	•	•
37x	37x	37x	16.8x	78 x	78 x	78 x
42x	42x	42x	–	–	–	–
2.8MP <sup>4</sup>	2.8MP <sup>4</sup>	2.8MP <sup>4</sup>	2.1MP <sup>5</sup>	0.3MP <sup>3</sup>	0.3MP <sup>3</sup>	0.3MP <sup>3</sup>
•	•	•	–	–	–	–
–	–	–	–	–	–	–
Touch Screen	Touch Screen	Touch Screen	–	–	–	–
•	•	•	–	• <sup>6</sup>	• <sup>6</sup>	• <sup>6</sup>
•	•	•	–	–	–	–