

SPECIFICATIONS

| | HDC-SD100 | HDC-HS100 | HDC-SD9 | HDC-HS9 |
|-----------------------------|---|---|---|---|
| GENERAL | | | | |
| Power Supply | DC7.2 V/9.3 V | DC7.2 V/9.3 V | DC7.2 V/9.3 V | DC7.2 V/9.3 V |
| Power Consumption | 5.7 W | 6.7 W | 5.8 W | 6.8 W |
| Weight (w/o Battery) | 0.705 lb | 0.926 lb | 0.606 lb | 0.86 lb |
| Dimensions (W x H x D) | 2.56 x 2.835 x 5.433 inches | 2.913 x 2.992 x 5.433 inches | 2.56 x 2.638 x 4.96 inches | 2.953 x 2.913 x 4.96 inches |
| Media | SD/SDHC Memory Card | HDD, SD/SDHC Memory Card | SD/SDHC Memory Card | HDD, SD/SDHC Memory Card |
| On-Screen Display Language | English / Canadian French / Spanish | English / Canadian French / Spanish | English / Canadian French / Spanish | English / Canadian French / Spanish |
| IMAGE SENSOR | | | | |
| Image Sensor | 1/6" MOS x 3 | 1/6" MOS x 3 | 1/6" CCD x 3 | 1/6" CCD x 3 |
| Total pixels | 610 k x 3 | 610 k x 3 | 560 k x 3 | 560 k x 3 |
| Effective pixels | 520 k x 3 [16:9] (Motion Image / Still Image) | 520 k x 3 [16:9] (Motion Image / Still Image) | 520 k x 3 [16:9] (Motion Image / Still Image) | 520 k x 3 [16:9] (Motion Image / Still Image) |
| LENS SECTION | | | | |
| Lens Brand | Leica Dicomar | Leica Dicomar | Leica Dicomar | Leica Dicomar |
| F Value | F1.8 (WIDE)/2.8 (TELE) | F1.8 (WIDE)/2.8 (TELE) | F1.8 (WIDE)/2.8 (TELE) | F1.8 (WIDE)/2.8 (TELE) |
| Optical Zoom | 12x Variable Speed Zoom (Digital : 30x - 700x) | 12x Variable Speed Zoom (Digital : 30x - 700x) | 10x Variable Speed Zoom (Digital : 25x - 700x) | 10x Variable Speed Zoom (Digital : 25x - 700x) |
| Focal Length | 2.95-35.4 mm | 2.95-35.4 mm | 3.0-30.0 mm | 3.0-30.0 mm |
| Filter Diameter | 37 mm | 37 mm | 37 mm | 37 mm |
| 35mm Film Camera Equivalent | 42.1-505 mm [16:9] (Motion Image / Still Picture) | 42.1-505 mm [16:9] (Motion Image / Still Picture) | 42.9-429 mm [16:9] (Motion Image / Still Picture) | 42.9-429 mm [16:9] (Motion Image / Still Picture) |
| CAMERA SECTION | | | | |
| Minimum Illumination | 2 lx [1/30 Low Light Mode], 1 lx [Magic Pix® Mode] | 2 lx [1/30 Low Light Mode], 1 lx [Magic Pix® Mode] | 5 lx [1/30 Low Light Mode], 1 lx [Magic Pix® Mode] | 5 lx [1/30 Low Light Mode], 1 lx [Magic Pix® Mode] |
| Image Stabilizer | Advanced O.I.S. | Advanced O.I.S. | Advanced O.I.S. | Advanced O.I.S. |
| Focus | AF/Manual | AF/Manual | AF/Manual | AF/Manual |
| White Balance | Auto/Indoor1/Indoor2/Sunny/Cloudy/White Set | Auto/Indoor1/Indoor2/Sunny/Cloudy/White Set | Auto/Indoor/Outdoor/White Set | Auto/Indoor/Outdoor/White Set |
| Shutter Speed | Motion Image/ 60i : Auto Slow Shutter ON : 1/30-1/8000, OFF : 1/60-1/8000 24p : Auto Slow Shutter ON : 1/24-1/8000, OFF : 1/48-1/8000 Still Picture/ 60i : Auto Slow Shutter ON : 1/30-1/8000, OFF : 1/60-1/8000 (Progressive : 1/30-1/500) 24p : Auto Slow Shutter ON : 1/24-1/8000, OFF : 1/48-1/8000 (Progressive : 1/24-1/500) | Motion Image/ 60i : Auto Slow Shutter ON : 1/30-1/8000, OFF : 1/60-1/8000 24p : Auto Slow Shutter ON : 1/24-1/8000, OFF : 1/48-1/8000 Still Picture/ 60i : Auto Slow Shutter ON : 1/30-1/8000, OFF : 1/60-1/8000 (Progressive : 1/30-1/500) 24p : Auto Slow Shutter ON : 1/24-1/8000, OFF : 1/48-1/8000 (Progressive : 1/24-1/500) | Motion Image/ 60i : Auto Slow Shutter ON : 1/30-1/8000, OFF : 1/60-1/8000 24p : Auto Slow Shutter ON : 1/24-1/8000, OFF : 1/48-1/8000 Still Picture/ 60i : Auto Slow Shutter ON : 1/30-1/8000, OFF : 1/60-1/8000 (Progressive : 1/30-1/500) 24p : Auto Slow Shutter ON : 1/24-1/8000, OFF : 1/48-1/8000 (Progressive : 1/24-1/500) | Motion Image/ 60i : Auto Slow Shutter ON : 1/30-1/8000, OFF : 1/60-1/8000 24p : Auto Slow Shutter ON : 1/24-1/8000, OFF : 1/48-1/8000 Still Picture/ 60i : Auto Slow Shutter ON : 1/30-1/8000, OFF : 1/60-1/8000 (Progressive : 1/30-1/500) 24p : Auto Slow Shutter ON : 1/24-1/8000, OFF : 1/48-1/8000 (Progressive : 1/24-1/500) |
| Iris | Auto/Manual | Auto/Manual | Auto/Manual | Auto/Manual |
| Backlight Compensation | Yes | Yes | Yes | Yes |
| Flash | 1 m-2.5 m (approx.) | 1 m-2.5 m (approx.) | 1 m-2.5 m (approx.) | 1 m-2.5 m (approx.) |
| MONITOR | | | | |
| EVF | Yes | Yes | - | - |
| LCD | 2.7" Wide LCD (approx. 300 k dots) | 2.7" Wide LCD (approx. 300 k dots) | 2.7" Wide LCD (approx. 300 k dots) | 2.7" Wide LCD (approx. 300 k dots) |
| STILL PICTURE | | | | |
| Card Slot | SD/SDHC | SD/SDHC | SD/SDHC | SD/SDHC |
| Still Picture | JPEG Picture size: 1920x1080 [16:9] 2.1 Megapixels | JPEG Picture size: 1920x1080 [16:9] 2.1 Megapixels | JPEG Picture size: 1920x1080 [16:9] 2.1 Megapixels | JPEG Picture size: 1920x1080 [16:9] 2.1 Megapixels |
| DPOF | Max.999 stills | Max.999 stills | Max.999 stills | Max.999 stills |
| PictBridge | Yes | Yes | Yes | Yes |
| RECORDING SECTION | | | | |
| Format | AVCHD (Motion Image) | AVCHD (Motion Image) | AVCHD (Motion Image) | AVCHD (Motion Image) |
| Recording Mode | HA (17 Mbps / VBR), HG (13 Mbps / VBR), HX (9 Mbps / VBR), HE (6 Mbps / VBR) | HA (17 Mbps / VBR), HG (13 Mbps / VBR), HX (9 Mbps / VBR), HE (6 Mbps / VBR) | HA (17 Mbps / VBR), HG (13 Mbps / VBR), HX (9 Mbps / VBR), HE (6 Mbps / VBR) | HA (17 Mbps / VBR), HG (13 Mbps / VBR), HX (9 Mbps / VBR), HE (6 Mbps / VBR) |
| Playback Mode | HA (17 Mbps / VBR), HG (13 Mbps / VBR), HX (9 Mbps / VBR), HE (6 Mbps / VBR) | HA (17 Mbps / VBR), HG (13 Mbps / VBR), HX (9 Mbps / VBR), HE (6 Mbps / VBR) | HA (17 Mbps / VBR), HG (13 Mbps / VBR), HX (9 Mbps / VBR), HE (6 Mbps / VBR) | HA (17 Mbps / VBR), HG (13 Mbps / VBR), HX (9 Mbps / VBR), HE (6 Mbps / VBR) |
| Audio Recording System | Dolby Digital (Dolby AC3) / 5.1-channel | Dolby Digital (Dolby AC3) / 5.1-channel | Dolby Digital (Dolby AC3) / 5.1-channel | Dolby Digital (Dolby AC3) / 5.1-channel |
| Microphone | Dolby Digital / 5.1ch, Zoom Microphone | Dolby Digital / 5.1ch, Zoom Microphone | Dolby Digital / 5.1ch, Zoom Microphone | Dolby Digital / 5.1ch, Zoom Microphone |
| Media Remaining Indication | Yes | Yes | Yes | Yes |
| INTERFACES | | | | |
| AV | Out | Out | Out | Out |
| HDMI | Yes (mini) | Yes (mini) | Yes (mini) | Yes (mini) |
| S-Video | - | - | - | - |
| Microphone (stereo mini) | Yes | Yes | - | - |
| Headphones (stereo mini) | Yes | Yes | - | - |
| USB | Hi-Speed USB (USB 2.0) [mini AB] | Hi-Speed USB (USB 2.0) [mini AB] | Hi-Speed USB (USB 2.0) [mini AB] | Hi-Speed USB (USB 2.0) [mini AB] |
| Video Component | Yes | Yes | Yes | Yes |
| OTHER | | | | |
| Accessory Shoe | Yes (Cold) | Yes (Cold) | - | - |
| STANDARD ACCESSORIES | | | | |
| AC Adaptor | Yes | Yes | Yes | Yes |
| AC Cable | Yes | Yes | Yes | Yes |
| DC Cable | Yes | Yes | Yes | Yes |
| Rechargeable Battery Pack | Lithium-Ion | Lithium-Ion | Lithium-Ion | Lithium-Ion |
| Video Component Cable | Yes | Yes | Yes | Yes |
| AV Cable | Yes | Yes | Yes | Yes |
| IR Remote | Yes | Yes | Yes | Yes |
| USB Cable | Yes | Yes | Yes | Yes |
| SD Memory Card | 8GB | - | - | - |
| CD-ROM | HD Writer 2.6E | HD Writer 2.6E | HD Writer 2.5E | HD Writer 2.5E |

•The remaining battery capacity is displayed in minutes when using the applicable Panasonic battery. •When using batteries made by other companies the remaining battery capacity will not be shown. •We cannot accept any liability whatsoever for damages to the unit or accidents caused by non-genuine Panasonic batteries (including those that have been certified by Panasonic).

AVCHD • AVCHD is a new standard for recording HD signals onto memory cards, DVD discs, and hard disks. It uses the H.264 standard to achieve more than twice the compression of conventional MPEG2 and MPEG4 standards. • AVCHD motion images recorded onto an SD Memory Card or a DVD disc cannot be played from a device that does not support the AVCHD standard. • Do not insert a disc containing AVCHD-recorded images into a device that does not support the AVCHD standard. The disc cannot be played on such a device, and it may not be possible to remove the disc once inserted.

•Weight and dimensions shown are approximate. •Design, functions, and specifications are subject to change without notice. •All monitor and TV pictures are simulated. •Some accessories and appliances are not available in some countries. •1 GB = 1 billion bytes. Usable capacity will be less. •You are not allowed to reproduce (copy), or transfer to a network, any part of the software applications supplied with this product for commercial purposes without written authorization. •Panasonic will in no way be liable for any damages sustained directly or indirectly from the use of this product or from any trouble occurring therein. •Panasonic will also in no way be liable for any losses of data caused by this product. •The SDHC logo is a trademark. •The SD logo is a trademark. •Microsoft®, Windows® and DirectX® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. •Leica is a registered trademark of Leica Microsystems IR GmbH. •Dicomar is a registered trademark of Leica Camera AG. •Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation. •Other names of systems and products mentioned in this brochure are generally the registered trademarks or trademarks of the manufacturers who developed the system or product concerned. •Microsoft®, Windows®, and NetMeeting® are registered trademarks of Microsoft Corporation of the U.S.A. •All other company and product names are trademarks of their respective corporations.

<http://panasonic.co.jp/pavc/global/videocamera/>

Panasonic

ideas for life



**FULL
HD
1920x1080**
AVCHD

HD Camcorder
HIGH DEFINITION

Triple A
AAA Performance.
HD Camcorder.

Expressive, true-to-life images that convey deep emotion. Panasonic carefully crafted the SD100 and HS100 so you wouldn't have to accept any compromise in the images you shoot. These remarkable HD camcorders let you capture artistically beautiful images with superb detail and deep, vivid colors. They give you the advanced creative control you need to capture images just the way you see them in your mind's eye. And they are super-easy to use, with instant automatic settings for capturing perfect shots in almost any situation. Artistic Beauty. Advanced Creativity. Automatic Control. With the new SD100 and HS100 HD camcorders, Panasonic gives you a tool for making videos that you'll enjoy creating today and viewing for years to come.



SD100
 SD Card
 Full-HD Camcorder

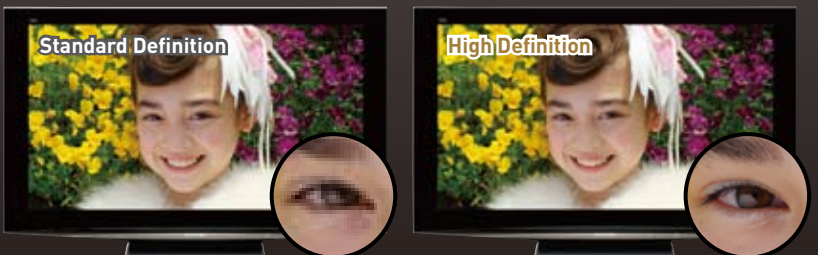


HS100
 HDD/SD Hybrid
 Full-HD Camcorder

Welcome to the Full-High-Definition Age

When It Comes to Beauty, There's Simply No Match for Full-HD

HD images contain 6 times as much information as standard images, and HDTV has 1,080 horizontal scan lines to standard TV's 480. That means much higher resolution and much greater detail – which is why the world is steadily shifting to HD. Panasonic HD camcorders record 1920 x 1080 full-HD images* – the highest level of HD quality there is. Viewed on an HDTV, the pictures are so sharp and clear that you can even distinguish textures. That's the kind of image quality you want when capturing special moments – the kind of moments that will only come once, but that you'll want to enjoy forever. When it comes to capturing beautiful images, an HD camcorder is the best choice. And when it comes to HD camcorders, there's no better choice than Panasonic.



Each strand of hair and individual eyelash is captured in clear, distinct detail.

| Model | Optical Zoom | Maximum Recording Time | Battery Life (Continuous Recording Time) |
|------------------|--------------|---|--|
| HDC-SD100 | 12x | 12 h ^{*3} | 9 h 20 min ^{*5} |
| HDC-HS100 | 12x | 23 h ^{*4} + 12 h ^{*3} | 8 h 25 min ^{*5} |

- 3MOS ADVANCED O.I.S.** Expressive performance with detailed images and lifelike coloring
- DOLBY DIGITAL 5.1 CREATOR** Capture voices over a wide area
- LEICA DICOMAR** Precise hand-shake compensation for blur-free images
- PRE-REC.** Record even before you begin shooting
- QUICK POWER-ON 1.9 sec** No more missed shooting opportunities^{*6}
- LEICA DICOMAR** Capture even delicate, subtle nuances
- POWER EASY CHARGE** High-speed processing and wide tonal expression
- Manual Ring** Craft images with intuitive ease

*In HG (high image quality) mode. 1920 x 1080 full-HD recording with a Panasonic home-use camcorder refers to recording with 1,920 pixels in the horizontal direction and 1,080 pixels in the vertical direction.

*1 Optional *2 Usable capacity will be less. *3 This is an approximate figure when using the separately purchased 32GB SDHC Memory Card and shooting in HE mode. *4 This is an approximate figure when using the 60GB HDD and shooting in HE mode. *5 When using the separately purchased VW-VGB6 battery pack and VW-VH04 battery pack holder kit and when using the EVF. *6 HS100: In card recording mode only.



Artistic Beauty

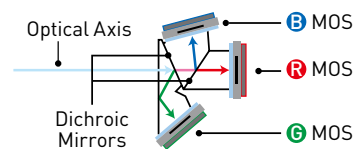
Capture expressive images with rich, vivid colors.

Expressive performance with detailed images and lifelike coloring. 3MOS Sensor



Both the SD100 and HS100 feature Panasonic's new 3MOS sensor. With about 2* times the light-receiving area of a CCD sensor, this high-sensitivity, high-precision imaging element captures vibrant, faithful color and provides an outstanding performance in low lighting. The 3MOS system uses separate MOS sensors to capture the red, green and blue light components, so no light is wasted. You capture rich, expressive video with vivid colors and super-fine details that make your images come alive. *Compared with previous Panasonic CCD sensors.

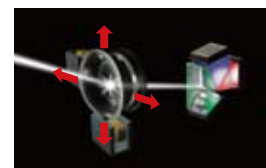
3MOS Sensor



A correction area 3x larger than before – crisp, sharp images. Advanced O.I.S. (Optical Image Stabilizer)

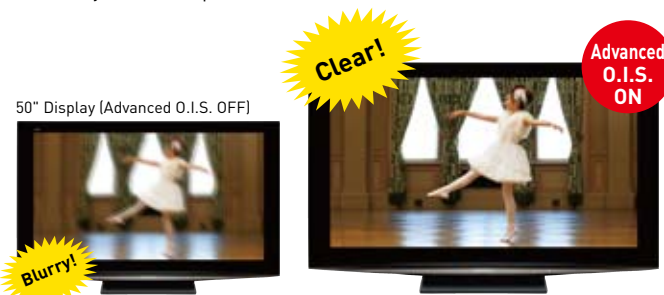


Panasonic's advanced O.I.S. suppresses the effects of hand-shake as you shoot. This extraordinary system uses gyrosensors to detect even tiny amounts of hand-shake, then shifts a lens and adjusts the optical axis to compensate – all at an astounding 4,000 times per second. Because the system is optical, there's no loss of image quality. You get all the beauty and none of the blurring. The SD100 and HS100 take Panasonic's advanced O.I.S. a step further, with a correction area that's about 3 times as large as in previous models. With this enhanced correction capability, even zoomed images are incredibly clear, sharp and beautiful.



O.I.S. Lens

The lens moves up/down or left/right and bends the incoming light to correct hand-shake.



Both the dancing girl and the background are crisp and razor-sharp. Even on a big screen, the images are virtually blur-free.

A powerful new lens for even finer image rendering. New Leica Dicomar Lens



The SD100 and HS100 also introduce a new high-performance Leica lens in which both resolution and contrast have been improved by refinements to our low-dispersion lens and aspherical lens. The lens is highly refractive too, making it possible to pack a powerful 12x zoom into a compact body. A multi-coating process applied to all lens surfaces helps suppress ghosts and flaring, so you get sharp, crisp images even in strong outdoor lighting. The superb rendering ability of this advanced camcorder lens makes it ideal for capturing expressive full-HD images. *Leica is a registered trademark of Leica Microsystems IR GmbH, and Dicomar is a registered trademark of Leica Camera AG.



Image washed-out due to bright lighting.



With multi-coated lenses, images are clear and there's no color bleeding.



Advanced Creativity

Manual controls – the freedom to go beyond the ordinary.

Craft images with intuitive ease. Manual Ring



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 SD100 and HS100 are a pleasure to use and give you the freedom to craft unusually expressive images.

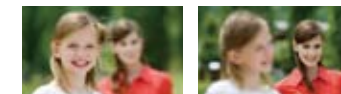


Zoom

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.

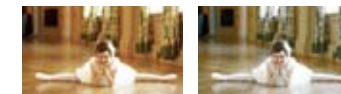
Focus

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



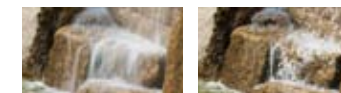
White Balance

Select from Auto, Indoor, Outdoor and White Set according to the location, weather or type of lighting. You'll always get the best possible coloring 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. Shooting at a high shutter speed also makes it possible to later produce crisp, sharp still photos from the moving images you've captured.



Iris

Use the ring to adjust the aperture to regulate the amount of light let in. In dim lighting use a lower aperture setting (which corresponds to a larger aperture opening), and in bright lighting use a higher setting.

A precise way to check the lighting. On-Screen Assist

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 center 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.

Mic Input and Headphone Jack

There's a mic input terminal on the front of the camcorder and a headphone jack* on the side. Plug in an external mic or headphones (both optional) if desired. *The headphone jack also serves as an AV output terminal. To use it as such, you must switch its function using the menu screen.



Mic Input



Headphone Jack

Automatic Control

Capture images of surpassing beauty easily – even in challenging situations.



Perfect settings every time – automatically.

iA (Intelligent Auto)

iA In iA mode the image stabilization, contrast correction and face detection functions are automatically activated.



Detects the situation and switches the scene mode automatically.

Intelligent Scene Selector

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

Face

This mode captures faces beautifully. It automatically detects when there's a face in the frame and adjusts the exposure to capture it correctly. The focus also emphasizes the face. *See the Face Detection description for details.



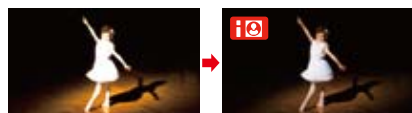
Scenery

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.



Spotlight

Use 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

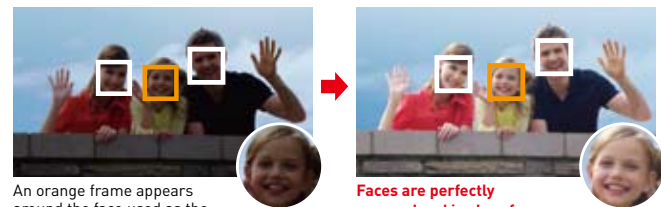
Use in dim lighting. It automatically switches to a slower shutter speed so that images across the entire frame are bright and easy to see.



Capture 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 prioritizes the faces, and skin tones are smoothed. Faces in the center of the frame serve as the reference for adjustments, but the function can detect up to 15 faces in all.



An orange frame appears around the face used as the basis for adjustment

Faces are perfectly exposed and in clear focus

Natural contrast with no wash-out.

Intelligent Contrast Control

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



Prevents blurry images caused by unsteady hands as you shoot.

Advanced O.I.S. (Optical Image Stabilizer)

Panasonic's advanced O.I.S. suppresses the effects of hand-shake as you shoot. You get all the beauty and none of the blurring, even at high zoom levels.



Catch Every Moment in Clear, Beautiful Detail

Advanced Functions that Expand Video Possibilities

No more missed shooting opportunities!

1.9-sec Quick Power-On — Saves Energy

Switch the power on and the SD100 and HS100 are in standby mode in just 1.9 seconds*, ready to shoot when you are. This fast startup also helps reduce battery consumption.

*HS100: In card recording mode only.



0.6-sec Quick Start

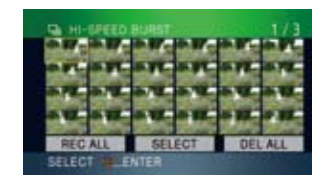
Use Quick Start mode* when you want to start shooting even more quickly. Just flip open the LCD and you're ready to shoot in just 0.6 second. Also, power consumption is 30% to 40% less in Quick Start mode than in recording mode, so you save battery time.

*This mode can be selected from the menu.

Capture those spur-of-the-moment scenes.

24 Frames/Second High-Speed Burst Shooting

The HD camcorders feature high-speed burst shooting at a fast 24 frames per second. In three seconds, you can shoot up to 72 still shots. High-speed burst shooting is especially useful for shooting fast-moving objects or capturing spontaneous moments, such as in sports events and car races. Or use it to analyze your golf swing or tennis stroke.



The detail is so fine, you can even check the pose as the girl is dancing.

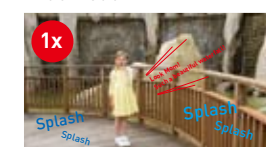
Capturing voices over a wide area for a more lifelike sound.

5.1-Channel Surround Sound System & Zoom Mic

5 Microphones and 5.1-Channel Surround Sound

DOLBY DIGITAL 5.1 CREATOR Panasonic HD camcorders are equipped with five electret condenser microphones. The center mic helps capture the sound source and distance accurately, so you get a more 3-dimensional effect than you get with conventional systems, which capture all sounds from the front. You get a realistic sound space that's a perfect match with the true-to-life HD images. *Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are registered trademarks of Dolby Laboratories.

Wide Mode



Zoom Mode



The sound zooms together with the image.

Focus Mode

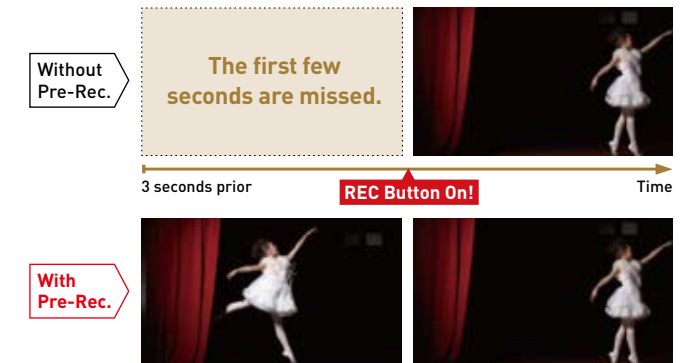


The sound zooms even when the image doesn't.

Images are recorded even before you begin shooting.

Pre-Rec Function

PRE-REC. 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 SDHC/SD Memory Card or hard disk 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.



Without Pre-Rec.

With Pre-Rec.

High-speed processing and wide tonal expression.

HD Advanced Pure Color Engine

We took the advanced imaging circuitry used in Panasonic professional equipment and adapted it for home use. The result is the HD Advanced Pure Color Engine, a high-speed processing unit that handles huge volumes of data and virtually doubles the dynamic range. This advanced imaging engine helps prevent blown highlights and blocked shadows, so the images you capture on video look just the way they do in real life.



HD Advanced Pure Color Engine

Pick up the 3CCD full-HD camcorder –
and enjoy a world of beauty

SD9

SD Card
Full-HD Camcorder



HDC-SD9



| Optical Zoom | Maximum Recording Time | Battery Life (Continuous Recording Time) |
|--------------|--------------------------|--|
| 10x | 12 h^{*3} | 8 h 10 min^{*5} |



The 60GB hard disk holds a full 23 hours^{*4} of memories
When it comes to beauty, the 3CCD camera system
makes a world of difference

HS9

HDD/SD Hybrid
Full-HD Camcorder



HDC-HS9



HDD + SD Card Hybrid

| Optical Zoom | Maximum Recording Time | Battery Life (Continuous Recording Time) |
|--------------|--|--|
| 10x | 23 h^{*4} + 12 h^{*3} | 7 h 35 min^{*5} |



FEATURE COMPARISON

| | HDC-SD100 | HDC-HS100 | HDC-SD9 | HDC-HS9 |
|--|---------------------|----------------------------------|---------------------|----------------------------------|
| High-Quality Pictures | | | | |
| Media | SDHC/SD Memory Card | 60-GB HDD SDHC/SD Memory Card | SDHC/SD Memory Card | 60-GB HDD SDHC/SD Memory Card |
| Recording Format | AVCHD | AVCHD | AVCHD | AVCHD |
| 3MOS Sensor | Yes | Yes | No | No |
| 3CCD Camera System | No | No | Yes | Yes |
| Advanced O.I.S. | Yes(Wide) | Yes(Wide) | Yes | Yes |
| Leica Dicomar Lens | Yes | Yes | Yes | Yes |
| HD Advanced Pure Color Engine | Yes | Yes | Yes | Yes |
| Optical Zoom | 12x | 12x | 10x | 10x |
| 5.1-ch Surround Sound System and Zoom Mic | Yes | Yes | Yes | Yes |
| Still Picture Recording | 2.1 MEGA | 2.1 MEGA | 2.1 MEGA | 2.1 MEGA |
| Simultaneous Motion-Image and Still Picture Recording | 2.1 MEGA | 2.1 MEGA | 2.1 MEGA | 2.1 MEGA |
| Networking | | | | |
| One Touch DVD Copying (USB Host) | Yes* | Yes* | Yes* | Yes* |
| USB 2.0 | High-Speed | High-Speed | High-Speed | High-Speed |
| PictBridge Compatible | Yes | Yes | Yes | Yes |
| Analog Out | Yes | Yes | Yes | Yes |

* When using a DVD burner (VW-BN1), data from an SDHC/SD Memory Card and HDD (HS100, HS9) can be copied to a 12-cm DVD disc.

| | HDC-SD100 | HDC-HS100 | HDC-SD9 | HDC-HS9 |
|--|------------------|------------------|------------------|------------------|
| Ease and Versatility | | | | |
| Manual Ring | Yes | Yes | No | No |
| On-Screen Assist | Yes | Yes | No | No |
| iA (Intelligent Auto) | Yes | Yes | No | No |
| Face Detection | Yes | Yes | Yes | Yes |
| Intelligent Contrast Control | Yes | Yes | Yes | Yes |
| Pre-Rec Function | Yes | Yes | Yes | Yes |
| Quick Power-On | 1.9 sec | 1.9 sec | No | No |
| Quick Start | 0.6 sec | 0.6 sec | 0.6 sec | 0.6 sec |
| Burst Shooting | 2.1Mega (24 fps) | 2.1Mega (24 fps) | 2.1Mega (24 fps) | 2.1Mega (24 fps) |
| One-Touch Navigation | Yes | Yes | Yes | Yes |
| LCD | 2.7" Wide | 2.7" Wide | 2.7" Wide | 2.7" Wide |
| Power LCD | Yes | Yes | Yes | Yes |
| Wide Viewing Angle LCD | Yes | Yes | Yes | Yes |
| Intelligent Shooting Guide/Selection Playback | Yes | Yes | Yes | Yes |
| World Timer | Yes | Yes | Yes | Yes |
| Built-in Flash | Yes | Yes | Yes | Yes |
| Magic Pix® | Yes | Yes | Yes | Yes |
| Soft Skin Mode | Yes | Yes | Yes | Yes |
| Tele Macro | 40cm | 40cm | 50cm | 50cm |
| AGS (Auto Ground-Directional Standby) | Yes | Yes | Yes | Yes |
| EVF | Yes | Yes | No | No |
| Lens Cover | Auto | Auto | Auto | Auto |
| Accessory Shoe | Yes(Cold) | Yes(Cold) | No | No |
| Mic Input | Yes | Yes | No | No |
| Headphone Jack | Yes | Yes | No | No |

Motion-Image Recording Times (Approx.) (SD100/HS100/SD9/HS9)

| Mode (rec. pixels) / Bit rate | SDHC Memory Card | | | | | | | |
|-------------------------------|------------------|------------|------------|------------|------------|------------|------------|------------|
| | HDD*1 | 60GB*2 | 32GB*2 | 16GB*2 | 12GB*2 | 8GB*2 | 6GB*2 | 4GB*2 |
| HA (1920 x 1080) / 17 Mbps | 7 h 40 min | 4 h | 2 h | 1 h 30 min | 1 h | 45 min | 30 min | 30 min |
| HG (1920 x 1080) / 13 Mbps | 10 h 10 min | 5 h 20 min | 2 h 40 min | 2 h | 1 h 20 min | 1 h | 40 min | 40 min |
| HX (1920 x 1080) / 9 Mbps | 15 h 20 min | 8 h | 4 h | 3 h | 2 h | 1 h 30 min | 1 h | 1 h |
| HE (1440 x 1080) / 6 Mbps | 23 h | 12 h | 6 h | 4 h 30 min | 3 h | 2 h 15 min | 1 h 30 min | 1 h 30 min |

Number of Recordable Still Pictures (Approx.) (SD100/HS100/SD9/HS9)

| Image Quality | SDHC Memory Card | | | | | | | |
|------------------------------------|------------------|--------|--------|--------|--------|-------|-------|-------|
| | HDD*1 | 60GB*2 | 32GB*2 | 16GB*2 | 12GB*2 | 8GB*2 | 6GB*2 | 4GB*2 |
| 1920 x 1080 pixels (16:9) 2.1 Mega | 55470 | 27030 | 13470 | 10100 | 6690 | 5000 | 3290 | 3290 |
| High Picture Quality | 87170 | 42480 | 21170 | 15870 | 10520 | 7860 | 5160 | 5160 |

• High Picture Quality (High Picture Quality) • Normal Picture Quality (SD9, HS9 only) • These figures vary depending on the subject being photographed.
*1 HDD (60GB) : HS100, HS9 only *2 Usable capacity will be less. •These figures vary depending on the pictures being recorded.
*We recommend using SD Memory Cards and SDHC Memory cards conforming to class 2 or higher of the SD Speed Class Rating or the following SD Memory Cards made by Panasonic for motion-image recording.
*Please confirm the latest information about SD/SDHC Memory Cards that can be used for motion-image recording, on the following website. http://panasonic.co.jp/pavc/global/cs/e_cam (This website is in English only.)

Battery Life (Approx.) (SD100/HS100)

| | | Continuous Recording Time | | | | Actual Recording Time | | | |
|-----------|-----------------|---------------------------|------------|------------|------------|-----------------------|------------|------------|------------|
| | | HA / HG / HX | | HE | | HA / HG / HX | | HE | |
| | | LCD | EVF | LCD | EVF | LCD | EVF | LCD | EVF |
| VW-VBG130 | SD100 (SD Card) | 1 h 55 min | 2 h | 1 h 55 min | 2 h | 1 h 10 min | 1 h 15 min | 1 h 10 min | 1 h 15 min |
| | HS100 (HDD) | 1 h 45 min | 1 h 50 min | 1 h 45 min | 1 h 50 min | 1 h 5 min | 1 h 10 min | 1 h 5 min | 1 h 10 min |
| | HS100 (SD Card) | 1 h 50 min | 2 h | 1 h 50 min | 2 h | 1 h 10 min | 1 h 15 min | 1 h 10 min | 1 h 15 min |
| VW-VBG260 | SD100 (SD Card) | 3 h 30 min | 3 h 45 min | 3 h 30 min | 3 h 45 min | 2 h 10 min | 2 h 20 min | 2 h 10 min | 2 h 20 min |
| | HS100 (HDD) | 3 h 10 min | 3 h 25 min | 3 h 10 min | 3 h 25 min | 2 h | 2 h 5 min | 2 h | 2 h 10 min |
| | HS100 (SD Card) | 3 h 25 min | 3 h 40 min | 3 h 25 min | 3 h 40 min | 2 h 10 min | 2 h 15 min | 2 h 10 min | 2 h 15 min |
| VW-VBG6 | SD100 (SD Card) | 8 h 45 min | 9 h 20 min | 8 h 45 min | 9 h 20 min | 5 h 30 min | 5 h 55 min | 5 h 30 min | 5 h 55 min |
| | HS100 (HDD) | 7 h 55 min | 8 h 25 min | 7 h 55 min | 8 h 25 min | 5 h | 5 h 20 min | 5 h | 5 h 20 min |
| | HS100 (SD Card) | 8 h 30 min | 9 h 5 min | 8 h 30 min | 9 h 5 min | 5 h 20 min | 5 h 45 min | 5 h 20 min | 5 h 45 min |
| VW-VBG070 | SD100 (SD Card) | 1 h 10 min | 1 h 15 min | 1 h 10 min | 1 h 15 min | 45 min | 45 min | 45 min | 45 min |
| | HS100 (HDD) | 1 h 5 min | 1 h 10 min | 1 h 5 min | 1 h 10 min | 40 min | 40 min | 40 min | 40 min |
| | HS100 (SD Card) | 1 h 10 min | 1 h 15 min | 1 h 10 min | 1 h 15 min | 40 min | 45 min | 40 min | 45 min |

Battery Life (Approx.) (SD9/HS9)

| | | Continuous Recording Time | | | | Actual Recording Time | | | |
|---------------|---------------|---------------------------|---------------|------------|------------|-----------------------|------------|------------|------------|
| | | HA | HG | HX | HE | HA | HG | HX | HE |
| | | VW-VBG 130 | SD9 (SD Card) | 1 h 45 min | 1 h 45 min | 1 h 45 min | 1 h 45 min | 1 h 5 min | 1 h 5 min |
| HS9 (HDD) | 1 h 35 min | | 1 h 35 min | 1 h 35 min | 1 h 35 min | 1 h | 1 h | 1 h | 1 h |
| HS9 (SD Card) | 1 h 45 min | | 1 h 45 min | 1 h 45 min | 1 h 45 min | 1 h 5 min | 1 h 5 min | 1 h 5 min | 1 h 5 min |
| VW-VBG 260 | SD9 (SD Card) | 3 h 20 min | 3 h 20 min | 3 h 20 min | 3 h 20 min | 2 h | 2 h | 2 h | 2 h |
| | HS9 (HDD) | 3 h | 3 h | 3 h | 3 h | 1 h 50 min | 1 h 50 min | 1 h 50 min | 1 h 50 min |
| | HS9 (SD Card) | 3 h 10 min | 3 h 10 min | 3 h 10 min | 3 h 10 min | 2 h | 2 h | 2 h | 2 h |
| VW-VBG 6 | SD9 (SD Card) | 8 h 10 min | 8 h 10 min | 8 h 10 min | 8 h 10 min | 5 h 5 min | 5 h 5 min | 5 h 5 min | 5 h 5 min |
| | HS9 (HDD) | 7 h 30 min | 7 h 30 min | 7 h 30 min | 7 h 30 min | 4 h 35 min | 4 h 35 min | 4 h 35 min | 4 h 40 min |
| | HS9 (SD Card) | 8 h | 8 h | 8 h | 8 h | 4 h 55 min | 4 h 55 min | 4 h 55 min | 4 h 55 min |
| VW-VBG070 | SD9 (SD Card) | 1 h 5 min | 1 h 5 min | 1 h 5 min | 1 h 5 min | 40 min | 40 min | 40 min | 40 min |
| | HS9 (HDD) | 1 h | 1 h | 1 h | 1 h | 35 min | 35 min | 35 min | 35 min |
| | HS9 (SD Card) | 1 h | 1 h | 1 h | 1 h | 40 min | 40 min | 40 min | 40 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.

Beautiful Viewing, Easy Archiving

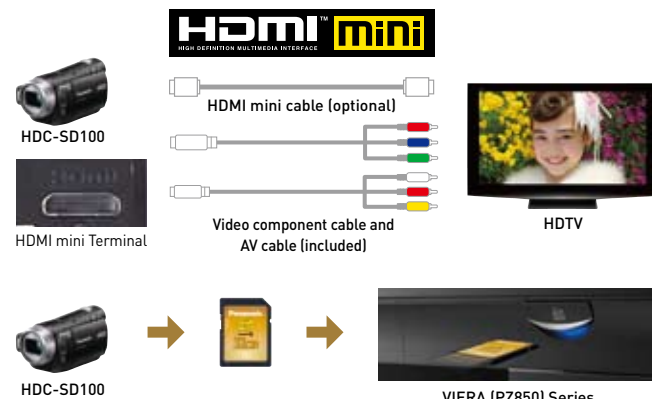
Viewing

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. If you have a Panasonic VIERA PZ850** series TV, viewing is even easier.

Just slip the SD or SDHC memory card from your camcorder into the card slot on your TV, and you're ready to view full-HD moving images recorded in the AVCHD format.

Connect your HD camcorder to a VIERA or compatible Blu-ray Disc player via an HDMI cable, and you can control both units in synchronized operation with a single remote control. This kind of simple, easy operation makes it even more fun to view your recordings. *With VIERA Link, a control signal sent through the HDMI cable allows linked operation of a VIERA TV, compatible DIGA 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.



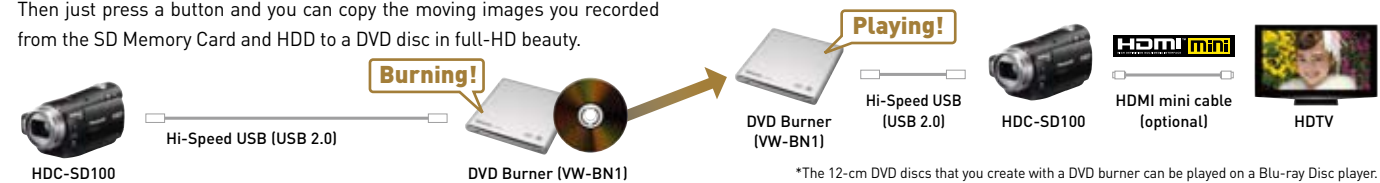
*HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC. **With other SD card slot-equipped VIERA models, you can view JPEG format still images.

Archiving and Viewing

Using a DVD burner to create and play back a DVD.

Archiving The SD100 and HS100 have a USB Host function that lets you connect directly to a DVD burner via a USB cable. Then just press a button and you can copy the moving images you recorded from the SD Memory Card and HDD to a DVD disc in full-HD beauty.

Viewing To view the disc you just burned, simply connect the HD camcorder to an HDTV via an HDMI mini cable.

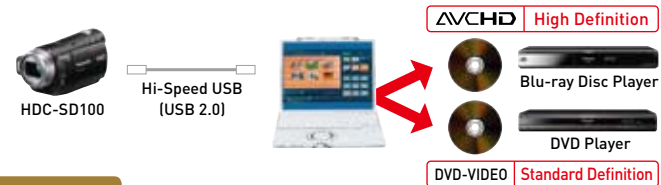


*The 12-cm DVD discs that you create with a DVD burner can be played on a Blu-ray Disc player.

Editing and Archiving

Archive recordings by selecting the format with a PC and burning them onto a DVD.

The software included with the HD camcorder lets you burn full-HD recordings from an SD Memory Card and HDD onto a DVD disc, using your PC. You can make a copy either in the original high-definition AVCHD format, or in the standard-definition DVD-VIDEO format. Choose the one that matches your playback equipment.



Easy editing gives you more ways to enjoy video. HD Writer 2.6E

The HD camcorders also come with "HD Writer" software that makes it easy to edit your recordings using a PC. After editing, you can copy the results to a DVD disc in either the AVCHD or the MPEG2 format. Choose the one that best suits your playback equipment or how you intend to use your recordings. This easy-to-use software gives you more creative ways to enjoy the recordings you make.

Quick & Easy!

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.

System Requirements (SD100, HS100)

| | HD Writer 2.6E | Card Reader Function (Mass Storage) |
|----------------------|--|--|
| Interface | USB port (Hi-Speed USB [USB 2.0]) | USB port |
| OS | Windows® 2000 SP4 Windows® XP SP2/SP3 Windows Vista® Home Basic/ Home Premium/Ultimate/Business SP1 | Windows® 2000 SP4 Windows® XP SP2/SP3 Windows Vista® or SP1 |
| CPU | Intel® Pentium® III 1.0 GHz or higher <When using playback function and MPEG2 conversion function> Intel® Core™2 Duo 2.16 GHz or higher, Intel® Pentium®D 3.2 GHz or higher recommended. AMD Athlon™ 64 X2 Dual-Core 5200+ or higher | Windows® 2000 / Windows® XP: Intel® Pentium® III 450 MHz or higher or Intel® Celeron® 400 MHz or higher Windows Vista® : 32-bit (x86) processor, 1 GHz or higher |
| Mac OS X 10.4 - 10.5 | — | ○ |

*Even if the system requirements mentioned in this brochure are fulfilled, some personal computers cannot be used. *This software is not compatible with Microsoft Windows 3.1, Windows 95, Windows 98, Windows 98 SE, Windows Me and Windows NT. *The 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 does not support the multi-boot environments. *This software does not support the multi-monitor environments. *Operation is not guaranteed on Microsoft Windows Vista® Enterprise, Windows XP Media Center Edition, Tablet PC Edition and not compatible with 64-bit operating systems. *Available with administrator account in Windows 2000 and Windows XP. *Available with administrator account or standard account in Windows Vista® (Installation and uninstallation of the software requires an administrator account.) *Microsoft and Windows and Windows Vista® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. *IBM and PC/AT are registered trademarks of International Business Machines Corporation of the U.S. *Intel®, Core™ and Pentium® are registered trademarks or trademarks of Intel Corporation in the United States and the other countries. *Other names of systems and products mentioned in this brochure are generally the registered trademarks or trademarks of the manufacturers who developed the system or product concerned. *AMD Athlon is a trademark of Advanced Micro Devices, Inc.

OPTIONAL ACCESSORIES

| Rechargeable Lithium-Ion Battery Pack*1 <table border="1"> <thead> <tr> <th></th> <th>new rating*2</th> <th>current rating</th> </tr> </thead> <tbody> <tr> <td>VW-VBG130</td> <td>7.2 V 1250 mAh</td> <td>7.2 V 1320 mAh</td> </tr> <tr> <td>VW-VBG260</td> <td>7.2 V 2500 mAh</td> <td>7.2 V 2640 mAh</td> </tr> <tr> <td>VW-VBG6</td> <td>7.2 V 5400 mAh</td> <td>7.2 V 5800 mAh</td> </tr> <tr> <td>VW-VBG070</td> <td>7.2 V 725 mAh</td> <td></td> </tr> </tbody> </table> | | new rating*2 | current rating | VW-VBG130 | 7.2 V 1250 mAh | 7.2 V 1320 mAh | VW-VBG260 | 7.2 V 2500 mAh | 7.2 V 2640 mAh | VW-VBG6 | 7.2 V 5400 mAh | 7.2 V 5800 mAh | VW-VBG070 | 7.2 V 725 mAh | | Battery Pack Holder Kit Extends recording time <p>VW-VH04 *Use together with the optional VW-VBG6 Battery. Battery for VW-VH04 VW-VBG130 VW-VBG6 VW-VBG260 VW-VBG070</p> | AC Adaptor <p>VW-AD21 PV-DAC14</p> | Tele Conversion Lens <p>VW-LT3714H</p> | Wide Conversion Lens <p>VW-LW3707H</p> | | | | | |
|---|---|------------------------------------|--|--|-------------------|-------------------|-----------|-------------------|-------------------|-----------|-------------------|-------------------|-----------|------------------|-----|---|--|--|--|-----------|-----|-----------|--|--|
| | new rating*2 | current rating | | | | | | | | | | | | | | | | | | | | | | |
| VW-VBG130 | 7.2 V 1250 mAh | 7.2 V 1320 mAh | | | | | | | | | | | | | | | | | | | | | | |
| VW-VBG260 | 7.2 V 2500 mAh | 7.2 V 2640 mAh | | | | | | | | | | | | | | | | | | | | | | |
| VW-VBG6 | 7.2 V 5400 mAh | 7.2 V 5800 mAh | | | | | | | | | | | | | | | | | | | | | | |
| VW-VBG070 | 7.2 V 725 mAh | | | | | | | | | | | | | | | | | | | | | | | |
| Video DC Light Video shooting in the dark <p>VW-LDC103 VW-LCD102 (SD9, HS9 only)*3</p> | Shoe Adaptor Foldable design and compact size <p>VW-SK12</p> | DVD Burner <p>VW-BN1</p> | HDMI mini Cable <p>RP-CDHM15 (1.5 m) RP-CDHM30 (3.0 m)</p> | SDHC/SD Memory Card*4 <table border="1"> <tbody> <tr> <td>32GB</td> <td>RP-SDV32G</td> <td>4GB</td> <td>RP-SDV04G</td> </tr> <tr> <td>16GB</td> <td>RP-SDV16G</td> <td></td> <td>RP-SDM04G</td> </tr> <tr> <td>12GB</td> <td>RP-SDM12G</td> <td>2GB</td> <td>RP-SDV02G</td> </tr> <tr> <td>8GB</td> <td>RP-SDV08G</td> <td></td> <td>RP-SDM02G</td> </tr> <tr> <td>6GB</td> <td>RP-SDM06G</td> <td></td> <td></td> </tr> </tbody> </table> | 32GB | RP-SDV32G | 4GB | RP-SDV04G | 16GB | RP-SDV16G | | RP-SDM04G | 12GB | RP-SDM12G | 2GB | RP-SDV02G | 8GB | RP-SDV08G | | RP-SDM02G | 6GB | RP-SDM06G | | |
| 32GB | RP-SDV32G | 4GB | RP-SDV04G | | | | | | | | | | | | | | | | | | | | | |
| 16GB | RP-SDV16G | | RP-SDM04G | | | | | | | | | | | | | | | | | | | | | |
| 12GB | RP-SDM12G | 2GB | RP-SDV02G | | | | | | | | | | | | | | | | | | | | | |
| 8GB | RP-SDV08G | | RP-SDM02G | | | | | | | | | | | | | | | | | | | | | |
| 6GB | RP-SDM06G | | | | | | | | | | | | | | | | | | | | | | | |

*1 •The VW-VBG130-K and VW-VBG260-K come with a function to check whether the battery and unit can be safely used together. •Batteries made by other companies which have been certified by Panasonic may be used with these units, but we offer no guarantee as to the quality, performance or safety of such batteries. •Exercise care when purchasing batteries. Many fake or imitation batteries have been found among those sold at unusually low prices and those which customers cannot check for themselves before purchasing. •Please confirm the latest information about batteries on the following website. <http://panasonic.co.jp/pavc/global/cs/info/battery.html> (This website is in English only.) *2 New ratings will be introduced sequentially based on the standard (IEC61960) issued by International Electrotechnical Commission. However, there are no changes for battery performances. *3 Shoe adaptor required. *4 •An SDHC/SD Memory Card utilizes a portion of the storage space for formatting and other purposes. •Usable capacity will be less.

Main Parts and Controls

| | | |
|------------------|--|--|
| SD100 | | |
| HS100 | | |

| | | | | | |
|---------------------------|---------------------------|---------------------|--|---|--------------------------------|
| 1 Internal microphones | 7 Microphone terminal | 13 Speaker | 19 LCD monitor | 25 USB terminal/ HDMI mini connector | 31 Recording start/stop button |
| 2 Accessory shoe | 8 Recording lamp | 14 O.I.S. button | 20 Disc copy button | 26 DC input terminal | 32 Mode dial |
| 3 Zoom lever | 9 LEICA DICOMAR lens | 15 Delete button | 21 SD card open lever | 27 Viewfinder | 33 Shoulder strap fixture |
| 4 Intelligent auto button | 10 Multi manual ring | 16 Cursor button | 22 Card slot | 28 Eyepiece corrector dial | 34 Grip belt |
| 5 PRE-REC button | 11 Camera function button | 17 Menu button | 23 Component terminal | 29 LCD/EVF select switch | |
| 6 Built-in flash | 12 Mode select switch | 18 Photoshot button | 24 Audio-video/Headphone output terminal | 30 Status indicator | |