Panasonic
ideas for life

Memory Card Camera-Recorder
AG-HMC40

AVCCAM

New, Lightweight AVCCAM Camcorder with Full-HD Images and Advanced Functions

*The microphone and XLR Audio Input Adapter shown in the photograph are optional.

* Memory card not included

Bundled* with
EDIUS Neo 2
nonlinear editing software
* Limited time offer. The package model number is AG-HMC40U.

AVCHD DOLBY DIGITAL STEREO CREATOR HDMI LEICA DICOMAR SDHC

AVCCAM 3-Year Warranty Repair Program*
* AG-HMC40 users qualify for a 3-year warranty on repairs.
Visit the website for details: <www.panasonic.com/broadcast>

Small, Light, Easy to Use — And Exceptional Image Quality

Full-HD Images plus the Versatility and Mobility to Cover All Kinds of Events

Monitoring and Recording at Construction Sites
The Interval REC function*1 automatically records frames at preset intervals.

Traffic Studies and Crime Surveillance
Records in HD quality for up to 12 hours*2 and features a Time stamp function.

Newsgathering for TV and Newspaper Websites
In addition to recording full-HD motion images, the AG-HMC40 shoots still images at the equivalent of 10.6-megapixel resolution (approx.).

Recording at Halls and Other Venues
Add the optional XLR adapter for professional-quality audio recording.

Weddings and Events
In addition to manual focus, the AG-HMC40's low light capabilities, wide angle lens and long record times make the bride and groom look their best.

Student Video Production
Students of any age will appreciate its compact and lightweight body. There's no need for video capturing (digitizing), so editing is quick and easy. The recorded images can be viewed on a monitor or computer.

*1 The maximum recording interval is 24 hours. *2 In HE (extended time) mode using a 32GB SDHC Memory Card.

- **Newly developed 1/4.1-inch 3.05-megapixel, progressive 3MOS sensors. Also records still images with 10.6-megapixel resolution (approx.)**
- **12x Leica Dicomar zoom lens with Optical Image Stabilizer (OIS)**
- **Professional-quality PH mode and reliable SD memory card recording**
- **Wide-ranging functions include a detachable XLR adapter (option), waveform monitor, and camera remote**
- **Smooth, easy operation with a manual focus ring and touch panel**
- **Outstanding mobility with a small body that weights just 2.16 lbs**

SD Memory Card Recorder: Lower Operating Costs, Better for the Environment

SD Reduces Total Cost of Ownership

(1) Faster, easier editing because digitization is not necessary
(2) Lower media costs because memory cards are reusable
(3) Lower maintenance costs because there is no moving mechanism

By reducing editing, media and maintenance costs, AVCCAM can help improve your bottom line. Users can also take advantage of a special 3-year free-repair service program that Panasonic offers for AVCCAM equipment.

The SD Memory Card Helps Preserve the Environment with Its Reusability and Low Power Consumption

eco ideas

The SDHC/SD Memory Card media for the AVCCAM camcorder is totally free from abrasion and dropout. There is no drive mechanism required, as there is for tape and disc-based recorders, so power consumption is low and size and weight are reduced. Malfunctions are less likely to occur, and there is no need to replace heads or transport components. This translates into lower costs and easier maintenance, greater energy savings, and less waste when the unit is eventually disposed of. All of these features help to conserve the environment.

You can use AG-HMC40 three different ways

Style 1
With handle detached, this super-compact camera fits easily into a bag or pack for highest mobility.

Style 3
With the optional XLR adapter mounted on the handle, the AG-HMC40 has outstanding audio specs, plus the ability to add two external phantom microphones or line inputs with level controls.

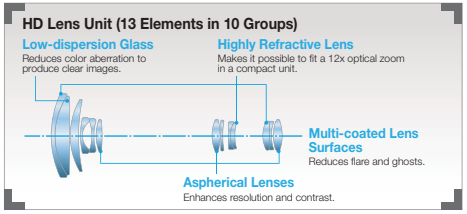
Style 2
With handle in place, the AG-HMC40 is easy to carry and easy to use, even when shooting at difficult angles.

A Small Camcorder That's Packed with Image-enhancing Technologies
3MOS System with Full-HD Sampling and Pro Tuning

Sharp, Crisp Rendering of Every Subject
New Leica Dicomar Lens

LEICA DICOMAR

Featuring 13 elements in 10 groups, the newly developed Leica Dicomar lens is ideal for full-HD recording. The new lens system uses low-dispersion glass and aspherical lenses to reduce color aberration and boost resolution. Use of a special multi-coating process dramatically reduces flare and ghosts. The result: sharp, crisp, beautifully rendered pictures with vivid colors, delicate nuances, and exceptional shading. This advanced lens also lets you capture 40.8mm wide-angle shots (35mm lens equivalent) – unusual for such a compact unit.



Up to 120x Zoom Power
12x Optical Zoom and 10x Digital Zoom

Even at the 490mm zoom setting (35mm lens equivalent), this advanced 12x optical zoom lens is free of image degradation. And the AG-HMC40 is also equipped with a digital zoom that instantly magnifies the image by any of three fixed values. 2x, 5x or 10x. Use it together with the 12x optical zoom lens, and you get super magnification equivalent to a 120x zoom, without the drop in light intensity that happens when using a lens extender.

*The image quality decreases as the digital zoom magnification increases.

Image with Wide-angle

Image with 12x optical zoom

Image with 12x optical zoom x 10x digital zoom (120x)

Take Clear Shots While Walking or Zooming
Optical Image Stabilizer (OIS)

Because the hand-shake correction is done by actually driving the lens, there's none of the image degradation that occurs with electronic stabilization. You can capture beautiful, high-quality shots even in situations where hand-shake is typically a big problem – such as when zooming, shooting indoors in dim lighting, or shooting outdoors at night.

*Hand-shake from strong vibrations may remain. Also, visible differences may be slight under some conditions.

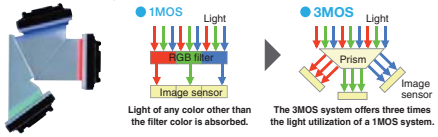
Image with OIS OFF

Image with OIS ON

Highly Nuanced Image Expression
3.05-megapixel Progressive 3MOS Sensors

The progressive 3MOS image sensors record full-HD images with an effective motion-picture resolution of 2.51-megapixel (approx.). This produces full-raster HD images with high resolution and superb image quality. Because each of the three separate image sensors receives one of the three primary colors of light (red, green and blue), they render more precise images and more faithful colors than the single light-receiving 1MOS sensor.

What's the 3MOS System?



3MOS (metal-oxide semiconductor) image sensors process the three primary colors of light (red, green and blue).

Suppresses Blocked Shadows and Blown Highlights
Dynamic Range Stretch (DRS)

A gamma curve and knee slope are estimated to match the contrast of each pixel, and applied in real time. When dark, bright, and intermediate shades are all contained in the same scene, this produces excellent gradation for each shade and minimizes blocked shadows and blown highlights. The images that result are enhanced by a visually wider dynamic range.

High-quality Digital Stills
Still Shots with 10.6-megapixel Resolution (approx.)

Image with still shots

The new 3MOS sensors also combine with Panasonic's proprietary Quad-Density Pixel Distribution technology to achieve a resolution that is equivalent to 4 times the normal level. The AG-HMC40 captures still images with approx. 10.6-megapixel resolution (in still image mode, 3:2 aspect ratio), which approaches the level of a high-performance digital still camera. For example, you can use it to shoot both motion and still images for a website.

*The AG-HMC40 is not equipped with a flash function. The digital zoom cannot be used.

■ Images with the Dynamic Range Stretch (DRS) Effect

Image with DRS OFF

Image with DRS ON

Blown highlights are suppressed.

Blocked shadows are suppressed.

Highly Detailed Image Composition
Advanced Pro Tuning Functions

●Matrix settings

Lets you choose basic color hues that convey the desired overall image mood.

Matrix settings

NORM1	For colors suited to shooting outdoors or under halogen lights.
NORM2	For colors more vivid than NORM1.
FLUO	For colors suited to shooting indoors under fluorescent lights.
CINE-LIKE	To reproduce colors similar to those in movies.

●Knee point settings

Controls the highlights within the frame. (AUTO/LOW/MID/HIGH)

●Adjustable H detail level, V detail level, detail coring and skin detail

Corrects edges and removes image noise.

●Adjustable chroma level, chroma phase, color temp and master pedestal

Sets the basic levels for brightness and other signals.

●Two scene files

The AG-HMC40 can save two sets of camera settings as scene files for instant recall later in similar shooting conditions.

Cine-like Gamma Curves
7-mode Gamma for Richer Gradation

Drawing on technologies developed for the VariCam HD camcorders for digital cinema, Panasonic has equipped the AG-HMC40 with advanced gamma functions that address seven different shooting scenarios and enhance your creative abilities. This includes the cine-like gamma, which produces the characteristic warm tone of film recordings.

Image with VIDEO GAMMA

Image with CINE-LIKE GAMMA

■ AG-HMC40 Gamma Modes

HD NORM	Suitable for HD recording
LOW	Works to flatten out a high contrast scene
SD NORM	Normal setting for SD (This was available in the DVX100 series.)
HIGH	Provides more contrast and color gradation
B.PRESS	Provides more contrast and blacks in low contrast scenes
CINE-LIKE-D	The Cine-like mode shifted to prioritize dynamic range
CINE-LIKE-V	The Cine-like mode shifted to prioritize contrast

AVCHD Format Recording: Superior Quality, Efficiency and Reliability And Exclusive PH Mode for the Highest Bit Rate

AVCHD

High-end AVCHD Image Quality
High Bit Rate of the Pro-use PH Mode

The AG-HMC40 features the image-enhancing PH mode that Panasonic developed exclusively for AVCCAM camcorders. It delivers a maximum AVCHD bit rate of 24 Mbps (average: 21 Mbps). Designed for professional image production, this mode lets you record 1080/30p, 1080/24p and 720 progressive images in addition to 1080/60i from the AG-HMC40's 1920 x 1080 full-raster HD images.


Image with HDV


Image with AVCHD (PH mode)

Ease, Efficiency, Reliability
Large-capacity SDHC Memory Card

Unlike with videotape, there's no need for cueing with the SDHC memory card because recording automatically begins in a blank section of memory. Nor do you have to worry about accidentally recording over important footage. You can delete unwanted clips instantly right on the spot to preserve memory capacity. Editing after shooting is smooth and easy, with no need for digitizing. The tiny SDHC Memory Card is durable, too. Its operating range is from -13ºF to +185ºF (-25ºC to +85ºC), so you can stop worrying about harsh temperatures or condensation and just concentrate on your shooting. And of course, you never have to worry about problems with dropouts or clogged heads.

- Using the high compression efficiency of the AVCHD format, up to 720 minutes*1 of HD data can be recorded onto a single SDHC Memory Card.
- Combined with a maximum data transfer speed of 22 MB/s,*2 this makes data transfers to computers easy and effortless.
- SDHC Memory Cards are inexpensive and can be easily purchased on location when needed.

*1 In HE (extended time) mode using a 32GB SDHC Memory Card. A Class 4 or higher SDHC or SD Memory Card is required for PH and HA recording. Use a Class 2 or higher SDHC or SD Memory Card for other modes. (Panasonic SDHC or SD Memory Cards are recommended.)

*2 Data transfer speed varies depending on the usage of SD devices. The speed given here is the maximum speed according to Panasonic specifications.

AVCHD Format for High-quality, Efficient HD Recording

This format complies with the latest H.264 motion image compression standard, and employs the High Profile standard to improve compression efficiency. Featuring twice the compression efficiency of HDV (MPEG-2), the AG-HMC40 achieves extended HD recording.

MPEG-4 AVC/H.264 Technologies

- Intra-frame Prediction
- Variable Block Size Motion Compensation
- Loop Filter Prevents the Propagation of Compression Distortion
- New Entropy Encoding 'CABAC'

Comparison of HD Recording Formats

	HDV	AVCHD
Pixel (H x V)	1440 x 1080	1920 x 1080
Compression Method	MPEG-2	MPEG-4 AVC/H.264

HD multi-format recording

Recording Format	
1080	1080/59.94i
1080 (only PH mode)	1080/29.97p, 1080/23.98p (Native)
720 (only PH mode)	720/59.94p, 720/29.97p 720/23.98p (Native)

*In the Native mode, AG-HMC40 record only active frames.

Records for 180 minutes (approx.) in the highest-quality (PH) mode

Recording Mode	Image Size (H x V)	Bit Rate	Max. Recording Time with a 32GB SDHC Memory Card
PH Mode	1920 x 1080 1280 x 720	Approx. 21 Mbps (Average), Max. 24 Mbps	Approx. 180 minutes
HA Mode	1920 x 1080	Approx. 17 Mbps (Average)	Approx. 240 minutes
HG Mode	1920 x 1080	Approx. 13 Mbps (Average)	Approx. 320 minutes
HE Mode	1440 x 1080	Approx. 6 Mbps (Average)	Approx. 720 minutes

More Efficient than Tape
Versatile Solid-state Recording Functions

●Shot mark
To simplify shot selection, you can add a mark to the thumbnail images of each clip. You can then display and play only the clips that have shot marks.

●Pre-REC
This helps to ensure you always get the shot you want, by letting you continuously store, and subsequently record, images and sounds for three seconds before the REC button is pressed in standby mode.

●REC check
You can check the end of the most recently recorded clip with one-touch ease.

●Last clip delete
Only the most recently recorded clip is deleted with this one-touch function, adding practical convenience to everyday operation. It can be assigned as a User button function if desired.

●Meta-data recording
The date, camera operator, location, title and other information can be added to the video data.

Fast Scene Searches
LCD Monitor Thumbnail View

Image data is recorded as a file for each scene. Thumbnail images and file information are automatically attached to each file to enable smooth, easy confirmation and deletion of files displayed on the LCD monitor.

A Wide Range of Assist Functions for Easy HD Shooting in a Compact Body

Intuitive, Easy Operation
2.7-inch Wide LCD Monitor with Touch Panel

The 2.7-inch, 230,000-dot (approx.) LCD monitor is especially convenient when shooting wide-screen images. Just use a finger on the touch panel screen to start playback, make menu settings, and even focus the camera. You can rotate the LCD monitor 270 degrees for easier viewing when shooting low-angle or other difficult shots. This lets you check the framing and parameter display on the LCD monitor as you shoot.

Quick, Easy Focusing
HD Focus Assist

●Center zoom/Focus bar function
The center zoom function enlarges the center of the frame for better visibility, and HD focus assist displays a bar that grows and shrinks to indicate the degree of focusing.

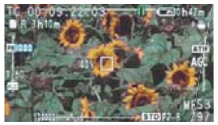


Image with before center zoom


Focus Bar

Image with after center zoom

●Push auto function
Pressing the Push auto button in manual mode temporarily activates the Auto Focus (AF) system for quick focusing.

●Face detection function
The AG-HMC40 is the first professional model to include the Face detection function. It "recognizes" faces near the center of the screen and focuses on them.*1


Image with Face detection function

●Touch Auto Focus (AF) function
This function lets you focus by simply touching the subject on the LCD monitor. A green frame appears around the subject for quick, easy focusing.*2

*1 The AG-HMC40 does not offer AF tracking.

*2 In manual focus mode, the focus frame disappears once the camera has locked onto the subject.

Iris Adjustment and Zoom Operation
Manual Focus Ring

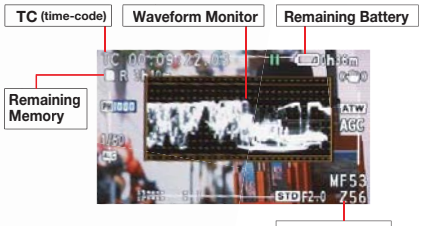
The manual focus ring can be used to control the iris too, by switching the Focus Ring (Focus/Iris) selector. Use it whichever way best fits the shooting situation. For example, you can set the camera to Auto Focus and use the manual focus ring to control the zooming. You can also add backlight correction or spotlight correction to the auto aperture function.

*Use the menu to select whether the ring controls the iris or the zoom.

Adjust the Image Quality While Watching the Signal Level
Waveform Monitor Display

A horizontal analysis of the input signal's brightness level can be displayed on the monitor. This lets you adjust the standard black and white levels while checking the Waveform Monitor (WFM), making it easy to get highly accurate adjustments.

Easy-to-see LCD



Displayed from Z00 to Z99. Handy for remembering the angle of view.

Convenient for Low-angle Shooting
Tilt-up Viewfinder

The viewfinder can be tilted upward about 70 degrees, and the large eyecup is excellent for blocking out light from the sun and other sources.

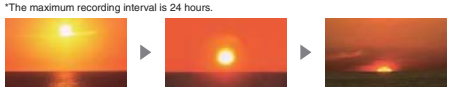
Perfect for a Host of Applications
Enhanced Interfaces for Professional Uses

On-site Recording and Monitoring
Convenient Recording Functions

●Interval REC

You can make automatic, intermittent recordings at set intervals from one frame per second to one frame every two minutes. For example, use Interval REC to record operations at a construction site, to shoot sunsets, or to capture time-lapse recordings of growing plants.

*The maximum recording interval is 24 hours.



●Time stamp

You can insert time and date information into the video signal. This could be convenient, for example, when observing animals over an extended period, in certain academic uses, in surveillance, court reporting, legal depositions or law enforcement applications.

*Only for motion images.

Wide Range of Settings
Slow Shutter and Synchro Scan Functions

The slow shutter function uses image accumulation to allow shutter speeds with frame rates reduced by half or more. The accumulation method provides bright-color images with less noise than those captured using conventional gain-up, so you get the higher sensitivity needed for nighttime shooting without illumination. And the Synchro Scan function is ideal for capturing images on monitors.

One-touch Operation of Key Functions
Three User Buttons

The AG-HMC40 lets you assign any three of the following 14 functions to the three User buttons for instant access.

●INH	●(PUSH) AF	●BACKLIGHT	●SPOTLIGHT
●BLACKFADE	●WHITEFADE	●ATW	●ATW LOCK
●HIGH GAIN	●D.ZOOM	●EVF DTL	●SHOT MARK
●LAST CLIP	●WFM		

Other Professional Features

- **White balance**: 2-value memory (channel A, channel B), 2-value preset (3200k, 5600k) and Auto Tracking White (ATW).
- **Mode check**: Displays a list of the camera settings on the viewfinder and monitor.
- **Zebra**: Select any two levels from among 50% to 105%, in 5% steps.
- **Center marker**: Provides an accurate numeric display of the brightness at screen center.
- **Color bar:** Provides a useful test pattern for setting up your monitor and 1 kHz, audio test tone.
- **TC/UB recording:** Provides a built-in SMPTE time-code generator.
- **Camera remote:** Controls zoom, rec, focus and aperture. Allows use of any camera remote controller that is compatible with the AG-DVX100/HVX200/HMC150.
- **Smooth zoom stop:** Use the menu to select standard or smooth zoom stopping.

Professional Audio Quality
Detachable XLR adapter (option)

The AG-HMC40 comes equipped with a built-in stereo microphone and a 3.5mm EXT, mic-in jack. Adding the optional AG-MYA30G XLR adapter provides compatibility with professional-use XLR terminals for audio output from microphones and Public Audio (PA) systems in studios and auditoriums. Line recording and +48V Phantom powered microphone recordings are possible from the XLR terminals. Featuring two XLR audio input terminals and level controls, the adapter lets you independently switch ch 1 or ch 2 to microphone or line input, with each having its own level adjustment. (Input 2 can be assigned to both ch 1 and ch 2.)

SD Down-conversion Output
Recording or Playback Images

The AG-HMC40 is equipped with both component (Mini D4) video outputs and AV output (AV multi terminals), allowing HD images to be down-converted and output as SD images while they are being recorded or played. At the same time, a 16:9 or 4:3 aspect ratio can be selected for side crop, letterbox, or squeeze images. Audio output (AV multi terminals 2 channels) enables a wide variety of applications, such as viewing on an external monitor or SD dubbing.

Side crop

Letterbox

Squeeze

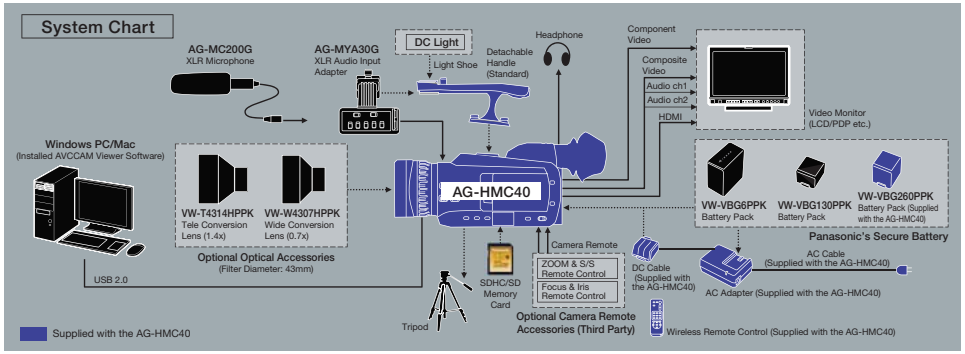
Monitor Connection
HDMI Output Terminal

The AG-HMC40 is equipped with an HDMI (High Definition Multimedia Interface) output terminal for digital transferring of high-quality HD video and audio signals.

*The AG-HMC40 cannot output HDMI, component and composite signals at the same time. Also, a separately purchased cable may be required for connecting the AG-HMC40 to a professional monitor.

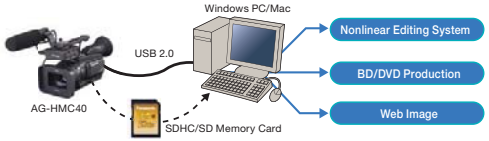
PC Connection via
USB 2.0 (Type mini B)

The standard USB terminal (Type mini B) allows the AG-HMC40 to connect to a Windows PC/Mac in device mode. This lets a Windows PC/Mac installed with the provided AVCCAM Viewer software to upload, copy, and write HD video files, as well as transfer them to AVCHD-compatible editing software for HD production.



The AVCHD Format Enables Smooth Production and Easy Internet Distribution. Tapeless Design Means Lower Total Costs

Unlike tape, AVCHD files require no digitizing*1 and can be directly and quickly transmitted*2 to an HDD in a Windows PC/Mac. This makes it easier to use motion images in new IT applications*3, like content production, Internet distribution and source material archiving. AVCHD's direct editing also saves you time and effort in TV program production. And AVCHD means lower costs for both media and equipment maintenance.



*1: Editing may require conversion to an intermediate codec, depending on the editing software. The conversion speed will vary depending on the hardware specifications of the Windows PC or Mac, the software used for converting, and the file format being converted.
*2: Maximum speed: 22 MB/s (Using a Class 10 SDHC Memory Card. Speed depends on the hardware specifications of the Windows PC or Mac). Some PCs may not recognize the SDHC Memory Card. If that occurs, use an SDHC Memory Card Reader.
*3: AVCHD-compatible software is required. The minimum system requirements for using the software must also be satisfied.

Load Data to a Windows PC/Mac or Write It to a Blu-ray Disc with AVCCAM Viewer (Download it for Free)

AVCCAM Viewer*1 for Windows PC/Mac*2 makes it easy to preview AVCCAM files and other AVCHD motion images, still image and meta-data, with very simple operation. Files can be played from an SD Memory Card, Blu-ray Disc, or hard disk, and saved to a PC (hard disk) from an SD Memory Card or Blu-ray Disc. Files can also be copied or deleted, meta-data can be displayed, and data can be written to an SD Memory Card or Blu-ray Disc.*3 AVCCAM Restorer software can also be used to restore files that were damaged, for example, by a power interruption during recording.

[Windows PC]
•CPU: Intel® Core™2 Duo or better (2.4 GHz or better is recommended)
•OS: Microsoft® Windows Vista® Business, Windows® XP SP2 or later
•RAM: 1024 MB or more for Windows Vista,
512 MB or more for Windows XP (1024 MB or more recommended)

[Mac]
•CPU: Intel® Core™ Duo 2.6 GHz or faster (including compatible CPUs)
•OS: Mac OS X 10.5 (Leopard)
•RAM: 1024 MB or more (2048 MB or more recommended)

*1: AVCCAM Viewer software can be downloaded for free from the following Panasonic website. PASS registration is required. For details, please visit the following website and click on "Support and Downloading Information."
<https://www.pavc.panasonic.co.jp/pro-av/support/desk/e/download.htm>
*2: A Mac version Blu-ray Disc compatible model will be released in September 2009.
*3: Do not insert a disc [DVD (AVCHD)] produced with the provided HD Writer 2.5E software into a device that does not support the AVCHD standard. If it is inserted into such a device, the disc may not eject. Also, do not play the disc with a device that does not support the AVCHD standard.

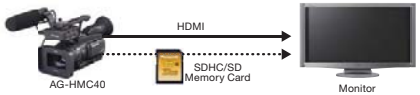
Copying onto BD/DVDs with DVD Recorder

You can easily copy AVCHD data onto the built-in HDD of a Panasonic DVD recorder. You can also copy HD images onto a BD or DVD.

*Needs to be compatible with AVCHD. DVD recorder is not available in some areas.

HD Playback on a Monitor

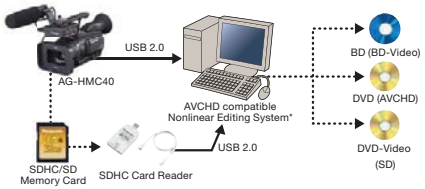
Full-HD images recorded in AVCHD can be previewed on a monitor.



*Needs to be compatible with AVCHD playback. Use an HDMI cable with Type A terminal. (Not compatible with VIERA Link)

AVCHD Nonlinear Editing

Compatibility with existing HD editing environments AVCHD files can be transferred at high speed by using the USB 2.0 interface to connect the AG-HMC40 or an SDHC Memory Card reader to a Windows PC/Mac. This dramatically improves productivity when compared with the time-consuming task of digitizing.



*New AVCHD transcoder software is available for free downloading on the following website.
<For US customers: www.panasonic.com/broadcast>
<Outside US: https://eww.pavc.panasonic.co.jp/pro-av/support/desk/e/download.htm>

Bundled*1 with EDIUS Neo 2 Nonlinear Editing Software*2 (Windows PC only)

This software makes it simple and easy to edit full-HD images, and also lets you burn Blu-ray and DVD discs.

Features

•AVCHD converter 3 (included) lets you convert the images in AVCHD format into Canopus HQ (AVI) and other formats. Editing is easy.
•The new 3D transition GPUfx system enables high-speed, high-quality effect processing.
•Bundles with richly expressive effect software
•Real-time editing and conversion of different HD/SD data
•Provides output in a variety of image file formats, including AVI, H.264 and QuickTime

[PC Minimum System Requirements]

• CPU: Intel® Pentium 4 2.8 GHz or faster (Centrino, Xeon, Core Duo with the same or better performance) *SSE2 or above required. Multicore/multi-CPU compatibility
• OS: Microsoft® Windows® Vista SP1 (32-bit/64-bit) (Home Basic/Home Premium/Business/Ultimate), Windows® XP SP2 or above (32-bit) (Home/Professional)
• RAM: 1024 MB or more, (1024 MB or more recommended)

*1: Limited time offer. The package model number is AG-HMC40U.
*2: Only the EDIUS Neo 2 install disc is bundled with this package. The Bonus Content CD is not included with the bundle version. Also, PASS registration is required to install the software.

For more details, please visit the following website:
< https://www.pavc.panasonic.co.jp/pro-av/ (Starting AVCCAM EDIUS Neo 2 Bundle Sales)>

For details about EDIUS Neo 2, please visit:
<http://desktop.grassvalley.com/products/EDIUSNeo/index.php>

Options

VW-VBG130PPK
Battery Pack
• 7.2V 1,320mAh

VW-VBG260PPK
Battery Pack
• 7.2V 2,640mAh
(Supplied with the AG-HMC40)

VW-VBG6PPK
Battery Pack
• 7.2V 5,800mAh

AG-MC200G
XLR microphone
• Sensitivity: −40 dB ±3.5 dB (0dB=1V/Pa, at 1kHz)
• Maximum Input level: 127 dB (1000Hz, Distortion within 1%)
• S/N: More than 69 dB

AG-MYA30G
XLR microphone adapter

RP-SDW32G
RP-SDW16G
SDHC memory card

VW-W4307HPPK
Wide-conversion lens

VW-T4314HPPK
Tele-conversion lens

BT-LH2550 25.5"
BT-LH1760 17"
BT-LH1710 17"
BT-LH900A 8.4"
BT-LH80WU 7.9"
LCD monitor

*An HDMI-DVI-D conversion connector is required to connect the AG-HMC40 to the BT-LH2250/LH1760/LH1710 monitor. For all other monitors, a D-terminal component (Y/PB/PR BNC terminal) conversion cable is required and included.
*These options are not available in some areas.

Specifications

[GENERAL]	
Power Supply:	DC7.2V (using with battery), 7.3V (using with AC adapter)
Power Consumption:	7.8 W (max., when the AG-MYA30G XLR microphone adapter is connected) 5.8 W (in standalone condition)
Operating Temperature:	32°F to 104°F (0°C to 40°C)
Operating Humidity:	10% to 80% (No condensation)
Weight:	Approx. 2.16 lb. (Approx. 0.98 kg) camcorder only Approx. 3.08 lb. (Approx. 1.4 kg) including SD memory cards, supplied battery, microphone and XLR adapter
Dimensions (W x H x D):	5-11/32 x 5-5/16 x 11-31/32 inches (136 x 135 x 304 mm) excluding the projection part
[CAMERA]	
Pick-up Device:	3MOS (1/4.1-inch progressive modes supported)
Picture Elements:	Total: Approx. 3.05 megapixels×3 Effective (video): Approx. 2.51 megapixels×3 (16:9) Effective (still image): Approx. 2.32 megapixels×3 (4:3), Approx. 2.65 megapixels×3 (3:2), Approx. 2.51 megapixels×3 (16:9)
Lens:	LEICA DICOMAR lens with optical image stabilizer, motorized/manual mode switching, 12× zoom, F1.8 to 2.8 (f=4.0mm to 48mm), 35mm equivalent (video): 40.8mm to 490mm (16:9) 35mm equivalent (still image): 41.3mm to 496mm (3:2), 40.8mm to 490mm (16:9), 45.0mm to 540mm (4:3)
Optical Color Separation:	Prism system
ND Filter:	Auto On/Off by IRIS
Minimum shooting distance:	35.43 inches (0.9 m)
Gain Selection:	<Motion Image> 0 dB to +24 dB (Variable in 1-dB steps; USER button allocation; up to +34 dB using the High Gain setting) <Still Image> 0 dB to +18 dB (Variable in 1-dB steps)
Shutter Speed: (Preset)	<Motion Image> 60i/60p mode: 1/60 sec. to 1/2000 sec. (7 steps) 30p mode: 1/30 sec. to 1/2000 sec. (8 steps) 24p mode: 1/24 sec. to 1/2000 sec. (8 steps) <Still Image> 1/2 sec. to 1/2000 sec. (16 steps)
Shutter Speed: (Synchro Scan)	60i/60p mode: 1/60.0 sec. to 1/250.0 sec. 30p mode: 1/30.0 sec. to 1/250.0 sec. 24p mode: 1/24.0 sec. to 1/250.0 sec.
Slow Shutter Speed:	60i/60p mode: 1/2 sec., 1/4 sec., 1/8 sec., 1/15 sec., 1/30 sec. 30p mode: 1/2 sec., 1/4 sec., 1/8 sec., 1/15 sec. 24p mode: 1/2 sec., 1/3 sec., 1/6 sec., 1/12 sec.
Minimum Luminance:	Approx. 1 lx (Gain: +34 dB, Slow Shutter: 1/2 sec.)
Digital Zoom:	2x/5x/10x (Assigned to the USER button, only available for 1080/60i, 720/60p)
Filter Diameter:	43 mm
[Video Recording]	
Recording Format:	AVCHD
Compression Method:	MPEG-4 AVC/H.264
Recording Media*1:	SD Memory Card : 512MB, 1GB, 2GB (FAT12, FAT16) SDHC Memory Card : 4GB, 6GB, 8GB, 12GB, 16GB, 32GB (FAT32)
Recording Video Format:	PH mode: 1080/60i, 1080/30p (over 60i), 1080/24p (native), 720/60p, 720/30p (over 60p) and 720/24p (native) HA, HG and HE mode: 1080/60i only
Transmission Rate:	PH mode: Approx. 21 Mbps (VBR, Max. 24 Mbps) HA mode: Approx. 17 Mbps (VBR), HG mode: Approx. 13 Mbps (VBR) HE mode: Approx. 6 Mbps (VBR)
Interval REC*2:	1 sec. / 10 sec. / 30 sec. / 1 min. / 2 min. / OFF
SD Memory Card:	Max. recordable clips per card: 900 (after formatting, without removing/inserting the card) Max. playable clips: 1,000 (up to 1,000 clips displayed)
Thumbnail View:	Selectable from 20 frames/page, 9 frames/page, and 1 frame/page
Editing Functions:	Delete, write-protect
Formatting Function:	Yes

[Still Picture]	
Compression Method:	JPEG (DCF/Exif2.2 standard), DPOF
Recording Media:	SD Memory Card: 8MB, 16MB, 32MB, 64MB, 128MB, 256MB, 512MB, 1GB, 2GB (FAT12, FAT16) SDHC Memory Card: 4GB, 6GB, 8GB, 12GB, 16GB, 32GB (FAT32)
Recording Pixels:	[4:3] 9 megapixels / 8 megapixels / 5 megapixels / 0.3 megapixels [3:2] 10.6 megapixels / 7 megapixels / 4.5 megapixels [16:9] 10 megapixels / 6 megapixels / 3.5 megapixels
Quality:	Fine/Normal
Flach Function:	No
Number of Recordable Still Pictures*3 (approx.):	[4:3] 6030 (9M 3520 x 2640 pixels)*4 [3:2] 5300 (10.6M 3984 x 2656 pixels)*4 [16:9] 5580 (10M 4224 x 2376 pixels)*4
[Video System]	
Video Signals:	1080/60i, 720/60p
HDMI Output:	HDMI x 1 (HDMI Type A terminal), 1080/60i, 720/60p, 480/60p (Not compatible with VIERA Link)
Component Output:	Mini-D x 1, Y: 1.0 Vp-p, 75 Ω, PB/PR: 0.7 Vp-p, 75Ω
A/V Output:	1.0 Vp-p, 75 Ω
[Audio System]	
Compression Method:	Recording/Playback: Dolby Digital/2 ch
Sampling Frequency:	48 kHz
Quantization:	16 bit
Compression Bit-rate:	PH mode: 384 kbps, HA, HG and HE mode: 256 kbps
[Audio IN/OUT]	
XLR Input:	Exclusive terminal for AG-MYA30G
Internal Microphone:	Stereo microphone
A/V Output:	Output: 316 mV, 600 Ω, 2 ch
HDMI Output:	2 ch (Linear PCM), 5.1 ch (Dolby Digital)
Headphone:	Stereo mini jack (3.5 mm diameter) x 1
Built-in Speaker:	20 mm (round) x 1
External Microphone Input:	-70 dBV (Mic sensitivity: -50 dB equivalent, 0 dB=1 V/Pa 1 kHz) Stereo mini jack (3.5 mm diameter) (Not compatible with plug-in power microphone)
[Other Connectors]	
USB:	Type mini B connector (compliant with USB ver. 2.0)
Camera Remote:	Super mini jack (2.5mm diameter) x 1, for zoom and rec start/stop operations Mini jack (3.5mm diameter) x 1, for focus and iris controls
[Monitor]	
LCD Monitor:	2.7 inches, wide LCD color monitor, Approx. 230,000 pixels
Viewfinder:	0.26 inches, wide LCD color viewfinder, Approx. 113,000 pixels

[Standard Accessories]

AC adapter/charger, 2640mAh battery pack (secure type), AC cable, DC cable (catch type), Wireless remote controller with button-type battery, Eye cup, Shoulder Belt, Component video cable, AV cable, PIN-BNC conversion plugs, Handle, Touch pen, CD-ROM, AVCCAM Restorer (Windows PC/Mac)
The following accessories are attached to the unit. Lens hood cap and XLR adapter terminal cover

*1: SDHC/SD memory card (8MB to 32GB) can be used for storing/reading scene file and user file, and reading metadata.
*2: Records only in PH mode, 1080/24p. The maximum recording interval is 24 hours.
*3: The number of recordable still pictures varies depending on the subject and whether both Fine and Normal mode pictures are included.
*4: Fine mode, using one 32GB SDHC Memory Card.
*Weight and dimensions shown are approximate. Specifications are subject to change without notice.

P2 Asset Support System The member's service program

Providing valuable information when you need it

P2 Asset Support System assists your P2 HD and AVCCAM use by providing extended warranty repairs & various technical information (update notices, operation guides, etc.) upon registration.

Free registration, no membership fees

■ 5-year or 3-year extended warranty repairs

Exclusive offer for P2 HD and AVCCAM! Maximum 5-year and 3-year extended warranty repairs are applied for P2 HD and AVCCAM models after registration. Several other services are also provided to members.

1st year	2nd year	3rd year	4th year	5th year
Basic warranty*1	P2HD Extended warranty repair*2			
	AVCCAM Extended warranty repair*2			

■ Latest news only for you

In the member's website, information is selected and presented for your models only. To be alerted to new firmware information and other releases, an email newsletter can be subscribed to.

■ Document library

You can browse through and find various technical information (operation guides, technical descriptions, etc.) quickly from the library.

■ Manage your equipment

You can easily know the update status and past service history of each unit, and can leave comments in free text as memos about your equipment.

* Not all models are eligible for extended warranty coverage.
* Please note that this extended warranty is not available in some countries/region. See website below for the details.
*1: The basic warranty period may vary depending on the country/region. See enclosed warranty card for warranty coverage.
*2: Not all repair work is covered by this extended warranty. See enclosed warranty card for warranty coverage.
*3: The maximum warranty period may be adjusted depending on the number of hours the device has been used.

Details and user registration: **For US Customer: www.panasonic.com/broadcast**
For Outside US: http://panasonic.biz/sav/pass_e

Please refer to the latest Nonlinear Compatibility Information, AVCHD Support and Download and Service Information, etc. at panasonic website.

For US Customer: www.panasonic.com/avccam
For Outside US: https://eww.pavc.panasonic.co.jp/pro-av/index.html

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ISO 9001
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Factories of Systems Business Group have received ISO14001:2004 the Environmental Management System certification. (Except for 3rd party's peripherals.)

Mixed Sources
FSC

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