Panasonic
ideas for life

*AG-HMC41 users qualify for a 3-year warranty on repairs.

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.

Panasonic
SDHC 10
32GB

* Memory card not included

Bundled* with

EDIUS Neo 2 Booster

nonlinear editing software

* Limited time offer. The package model number is AG-HMC41EU.

AVCCAM 3-Year Warranty Repair Program*
* AG-HMC41 users qualify for a 3-year warranty on repairs.
Visit the website for details: <www.panasonic.biz/sav/pass_e>

AVCHD   DOLBY DIGITAL STEREO CREATOR   HDMI™ HIGH-DEFINITION MULTIMEDIA INTERFACE   LEICA DICOMAR   SDHC™

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-HMC41 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, auto focus with Face Detection quickly finds and keeps the focus on the bride and groom.

Student Video Production
Students of any age will appreciate its compact and lightweight body. There's no need for video capturing (digitising), 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 Stabiliser (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 0.98 kg (camera-recorder only)

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

SD Reduces Total Cost of Ownership

(1) Faster, easier editing because digitisation 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

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-HMC41 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-HMC41 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-HMC41 is easy to carry and easy to use, even when shooting at difficult angles.

135 mm
304 mm
(136 mm wide)

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 colour 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 colours, 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.

HD Lens Unit (13 Elements in 10 Groups)

Low-dispersion Glass
Reduces colour aberration to produce clear images.

Highly Refractive Lens
Makes it possible to fit a 12x optical zoom in a compact unit.

Multi-coated Lens Surfaces
Reduces flare and ghosts.

Aspherical Lenses
Enhances resolution and contrast.

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-HMC41 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.

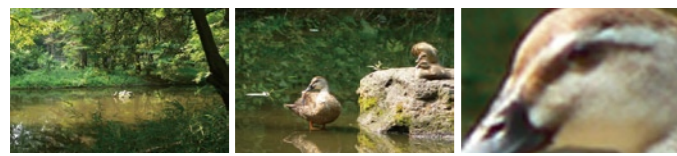*The image quality decreases as the digital zoom magnification increases.

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 Stabiliser (OIS)

Because the hand-shake correction is done by actually driving the lens, there's none of the image degradation that occurs with electronic stabilisation. 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.

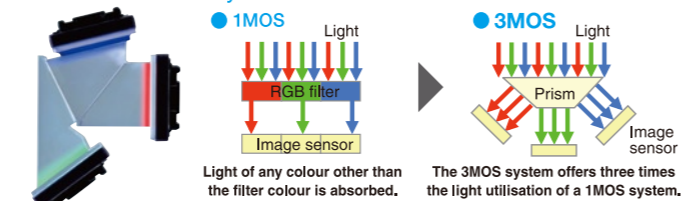*Hand-shake from strong vibrations may remain. Also, visible differences may be slight under some conditions.

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 a total, 3.05-megapixel (approx.) resolution [effective motion-image resolution of 2.51 megapixels (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 colours of light (red, green and blue), they render more precise images and more faithful colours than the single light-receiving 1MOS sensor.

What's the 3MOS System?

● 1MOS   Light
RGB filter
Image sensor
Light of any colour other than the filter colour is absorbed.

● 3MOS   Light
Prism
Image sensor
The 3MOS system offers three times the light utilisation of a 1MOS system.

3MOS (metal-oxide semiconductor) image sensors process the three primary colours 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 minimises 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.)
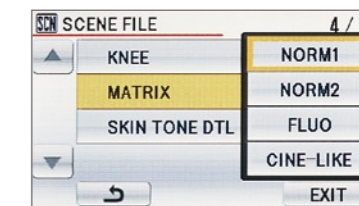
Image with still shots

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-HMC41 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-HMC41 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 colour hues that convey the desired overall image mood.

Matrix settings

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

●**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, colour temp and master pedestal**
Sets the basic levels for brightness and other signals.

●**Two scene files**
The AG-HMC41 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-HMC41 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-HMC41 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 colour gradation
B.PRESS	Provides more contrast and blacks in low contrast scenes
CINE-LIKE-D	The Cine-like mode shifted to prioritise dynamic range
CINE-LIKE-V	The Cine-like mode shifted to prioritise 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-HMC41 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 1080/25p and 720 progressive images in addition to 1080/50i from the AG-HMC41's 1920 x 1080 full-raster HD images.
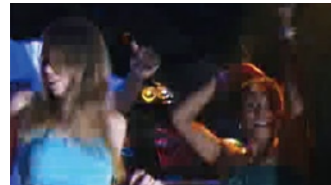
Image with HDV   Image with AVCHD (PH mode)

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 digitising. The tiny SDHC Memory Card is durable, too. Its operating range is from -25°C to +85°C, 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-HMC41 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	1080/50i
1080 (only PH mode)	1080/25p
720 (only PH mode)	720/50p 720/25p

■ **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

● **Centre zoom/Focus bar function**
The centre zoom function enlarges the centre 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 centre zoom   Focus Bar   Image with after centre 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-HMC41 is the first professional model to include the Face detection function. It "recognises" faces near the centre 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-HMC41 does not offer AF tracking.
*2: In manual focus mode, the focus frame disappears once the camera has locked onto the subject.

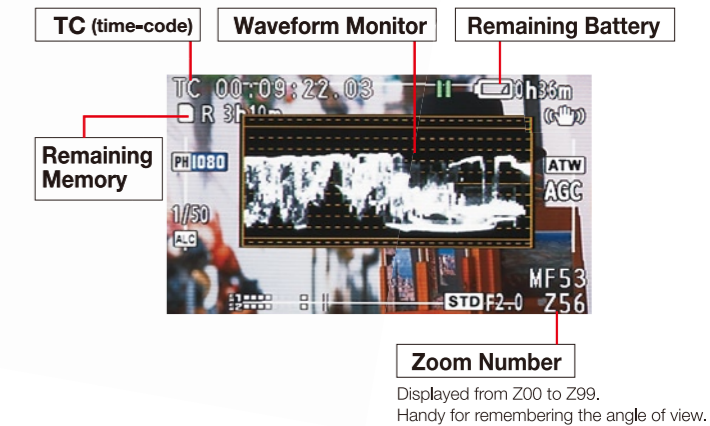## Iris Adjustment and Zoom Operation
Manual Focus Ring

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**

TC (time-code)   Waveform Monitor   Remaining Battery

Remaining Memory

Zoom Number
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.

about 70 degrees

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-colour 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-HMC41 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.
■ **Centre marker**: Provides an accurate numeric display of the brightness at screen centre.
■ **Colour 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 iris. Allows use of any camera remote controller that is compatible with the AG-DVX100/HVX200/HMC150 series.
■ **Smooth zoom stop:** Use the menu to select standard or smooth zoom stopping.
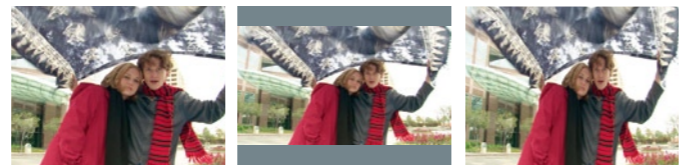
Professional Audio Quality
Detachable XLR adapter (option)

The AG-HMC41 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-HMC41 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.
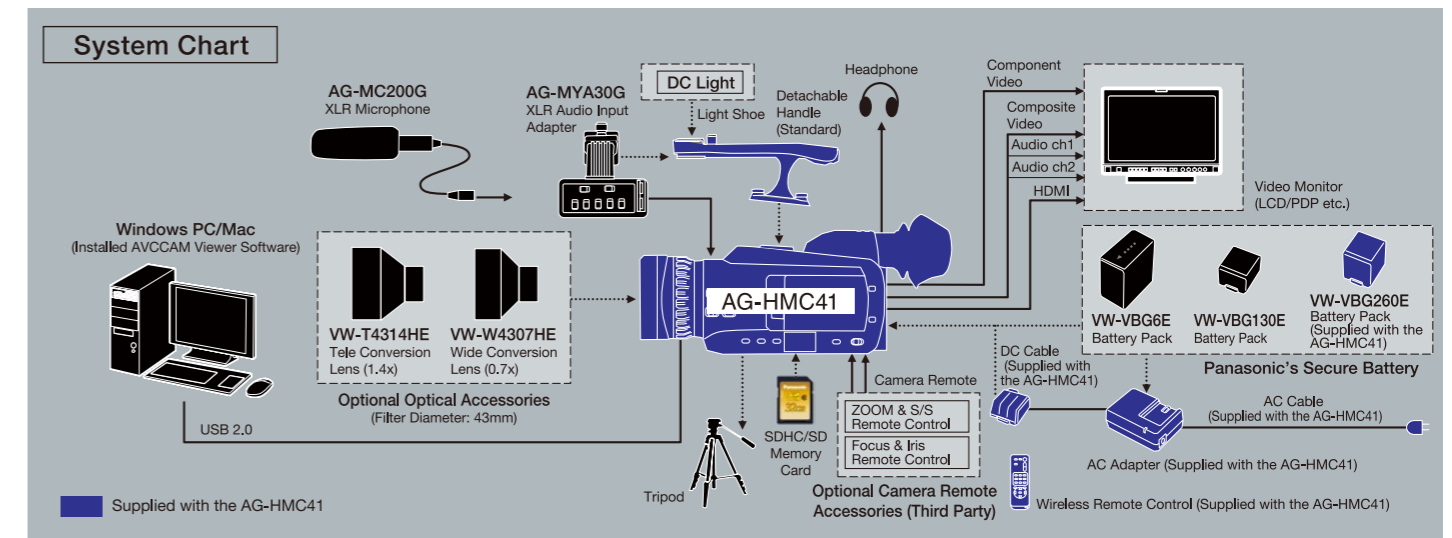
Side crop   Letterbox   Squeeze

Monitor Connection
HDMI Output Terminal

The AG-HMC41 is equipped with an HDMI (High Definition Multimedia Interface) output terminal for digital transferring of high-quality HD video and audio signals.
*The AG-HMC41 cannot output HDMI, component and composite signals at the same time. Also, a separately purchased cable may be required for connecting the AG-HMC41 to a professional monitor.
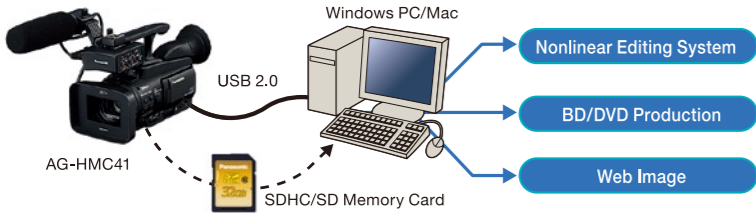
PC Connection via
USB 2.0 (Type mini B)

The standard USB terminal (Type mini B) allows the AG-HMC41 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.

2.7-inch LCD
Iris dial
Auto/Manual focus button
Focus assist button
Colour bars ON/OFF button
Built-in stereo microphone
Zebra/Centre marker button
OIS ON/OFF button
Iris/Focus select switch
White balance button
Auto/Manual switch
DISP/MODE check button
User button 3
Counter (TC/UB) button
Counter reset button
User buttons 1 and 2
SD memory card slot

REC Start/Stop
Component terminal
REC check/PHOTO button
A/V output terminal
Zoom lever
HDMI output terminal
Microphone jack
Camera remote terminals
XLR adapter terminal
Headphone jack
Power ON/OFF
Quick start button
USB 2.0

System Chart

AG-MC200G XLR Microphone
AG-MYA30G XLR Audio Input Adapter
DC Light
Light Shoe
Headphone
Detachable Handle (Standard)
Component Video
Composite Video
Audio ch1
Audio ch2
HDMI
Video Monitor (LCD/PDP etc.)

Windows PC/Mac
(Installed AVCCAM Viewer Software)

VW-T4314HE Tele Conversion Lens (1.4x)
VW-W4307HE Wide Conversion Lens (0.7x)
Optional Optical Accessories (Filter Diameter: 43mm)

AG-HMC41

VW-VBG6E Battery Pack
VW-VBG130E Battery Pack
VW-VBG260E Battery Pack (Supplied with the AG-HMC41)

Panasonic's Secure Battery

DC Cable (Supplied with the AG-HMC41)
Camera Remote
ZOOM & S/S Remote Control
Focus & Iris Remote Control
Optional Camera Remote Accessories (Third Party)

AC Cable (Supplied with the AG-HMC41)
AC Adapter (Supplied with the AG-HMC41)
Wireless Remote Control (Supplied with the AG-HMC41)

USB 2.0

SDHC/SD Memory Card

Tripod

Supplied with the AG-HMC41

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

Unlike tape, AVCHD files require no digitising*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.

Windows PC/Mac

USB 2.0

- Nonlinear Editing System
- BD/DVD Production
- Web Image

AG-HMC41

SDHC/SD Memory Card

*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 computers may not recognise 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 AVCHD 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 (2.4 GHz or faster)
•OS: Microsoft® Windows® 7 (32-bit), Windows Vista® SP1 (32-bit), Windows® XP SP2 or later (32-bit)
•RAM: 1024 MB or more for Windows Vista®, 512 MB or more for Windows® XP (1024 MB or more recommended)

[Mac]
•CPU: Intel® Core™2 Duo 2.6 GHz or faster
•OS: Mac OS X 10.6 (Snow Leopard)/10.5 (Leopard)/10.4 (Tiger)
•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://eww.pavc.panasonic.co.jp/pro-av/support/desk/e/download.htm>
*2: Copying and playing data on Blu-ray Disc (BD-RE Ver3.0) are not supported by Mac OS X 10.4 (Tiger).
*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.

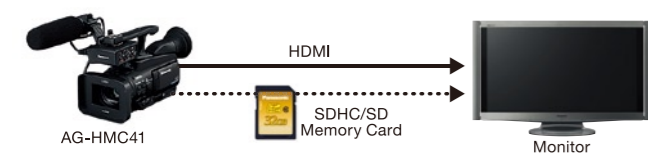## Copying onto BD/DVDs with DVD Recorder

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.

AG-HMC41 → SDHC/SD Memory Card → DVD Recorder* → BD/DVD (AVCHD)

*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.
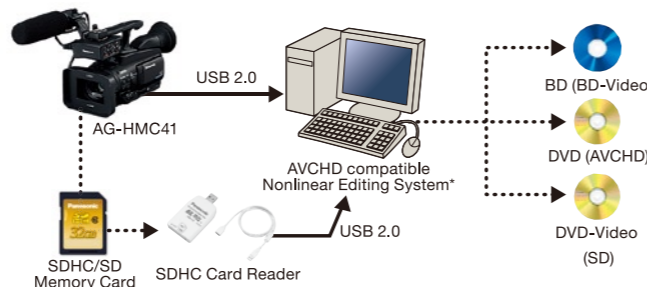
AG-HMC41 → HDMI → SDHC/SD Memory Card → Monitor

*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-HMC41 or an SDHC Memory Card reader to a Windows PC/Mac. This dramatically improves productivity when compared with the time-consuming task of digitising.

AG-HMC41 → USB 2.0 → AVCHD compatible Nonlinear Editing System*
SDHC/SD Memory Card → SDHC Card Reader → USB 2.0

- BD (BD-Video)
- DVD (AVCHD)
- DVD-Video (SD)

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

Bundled*1 with EDIUS Neo 2 Booster 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
•The EDIUS Neo 2 Booster allows for real-time, native editing of AVCHD video.
•Without special hardware, AVCHD codec engine can process more than 3 real-time streams simultaneously. (tested with an Intel® Core™ i7 CPU system)
•It supports Windows® 7.

[PC Minimum System Requirements]
• CPU: Intel or AMD CPU 3.0 GHz or faster (Multiple CPUs or multi-core CPUs are recommended. SSE2 and SSE3 instruction sets supported. Intel® Core™2 Duo or faster required for real time AVCHD editing– Core™ i7 recommended.)
• OS: Microsoft® Windows® 7 (32-bit/64-bit) (Home Premium/Professional/Ultimate) Microsoft® Windows Vista® SP1 (32-bit/64-bit) (Home Basic/Home Premium/Business/Ultimate), Windows® XP SP2 or above (32-bit) (Home/Professional)
• RAM: 1 GB or more (2 GB or more recommended)

*1: Limited time offer. The package model number is AG-HMC41EU
*2: Only the EDIUS Neo 2 Booster 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:
<http://pro-av.panasonic.net/ (Starting AVCCAM EDIUS Neo 2 Booster Bundle Sales)>

For details about EDIUS Neo 2 Booster, please visit:
<http://www.grassvalley.com/products/edius_neo_2_booster>

Options

VW-VBG130E
Battery Pack
• 7.2V 1,320mAh

VW-VBG260E
Battery Pack
• 7.2V 2,640mAh
(Supplied with the AG-HMC41)

VW-VBG6E
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-W4307HE
Wide-conversion lens

VW-T4314HE
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-HMC41 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:	0°C to 40°C
Operating Humidity:	10% to 80% (No condensation)
Weight:	Approx. 0.98 kg camcorder only Approx. 1.4 kg including SD memory cards, supplied battery, microphone and XLR adapter
Dimensions (W x H x D):	136 × 135 × 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 stabiliser, motorised/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 Colour Separation:	Prism system
ND Filter:	Auto On/Off by IRIS
Minimum shooting distance:	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> 50i/50p mode: 1/50 sec. to 1/2000 sec. (7 steps) 25p mode: 1/25 sec. to 1/2000 sec. (8 steps) <Still Image> 1/2 sec. to 1/2000 sec. (16 steps)
Shutter Speed: (Synchro Scan)	50i/50p mode: 1/50.0 sec. to 1/250.0 sec. 25p mode: 1/25.0 sec. to 1/250.0 sec.
Slow Shutter Speed:	50i/50p mode: 1/2 sec., 1/3 sec., 1/6 sec., 1/12 sec., 1/25 sec. 25p mode: 1/2 sec., 1/3 sec., 1/6 sec., 1/12 sec.
Minimum Luminance:	Approx. 1 lx (Gain: +34dB, Slow Shutter: 1/2 sec.)
Digital Zoom:	2x/5x/10x (Assigned to the USER button, only available for 1080/50i, 720/50p)
Filter Diameter:	43mm

[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: 1080/50i, 1080/25p (over 50i), 720/50p, 720/25p (over 50p)
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:	1sec. / 10sec. / 30sec. / 1min. / 2min. / 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
Flash Function:	No
Number of Recordable Still Pictures*3 (approx):	[4:3] 6030 (9M 3520 × 2640 pixels)*4 [3:2] 5300 (10.6M 3984 × 2656 pixels)*4 [16:9] 5580 (10M 4224 × 2376 pixels)*4

[Video System]

Video Signals:	1080/50i, 720/50p
HDMI Output:	HDMI × 1 (HDMI Type A terminal), 1080/50i, 720/50p, 576/50p (Not compatible with VIERA Link)
Component Output:	Mini-D × 1, Y: 1.0 Vp-p, 75 Ω, PB/PR: 0.7 Vp-p, 75 Ω
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) × 1
Built-in Speaker:	20 mm (round) × 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 colour monitor, Approx. 230,000 pixels
Viewfinder:	0.26 inches, wide LCD colour 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 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, 1080/25p. 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 a 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 AVCCAM use by providing extended warranty repair
& various technical information (update notices, operation guides, etc.) upon registration.

Free registration, no membership fees

■ 3-year extended warranty repair program

Exclusive offer for AVCCAM!
Maximum 3-year extended warranty repair is
applied for AVCCAM models after registration.
Several other services are also provided to
members.

1st year	2nd year	3rd year
Basic warranty*1	AVCCAM Extended warranty repair*2	

■ Latest news only for you

In the member's website, information is selected and presented
for your models. 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/regions. See the website below for details.
*1: The basic warranty period may vary depending on the country/region. See the enclosed warranty card for warranty coverage.
*2: Not all repair work is covered by this extended warranty. See the enclosed warranty card for warranty coverage.
    The maximum warranty period may be adjusted depending on the number of hours the device has been used.

Details and user registration: **http://panasonic.biz/sav/pass_e**

Please refer to the latest Nonlinear Compatibility Information,
P2 Support and Download and Service Information, etc. at panasonic website.

http://pro-av.panasonic.net/

Panasonic®

Panasonic Corporation
Systems Business Group
2-15 Matsuba-cho, Kadoma, Osaka 571-8503
Japan
Phone +81 6 6901 1161 Fax +81 6 6908 5969
http://pro-av.panasonic.net/

[Countries and Regions]

Argentina	+54 1 308 1610
Australia	+61 2 9986 7400
Bahrain	+973 252292
Belgium	+32 (0) 2 481 04 57
Bulgaria	+359 2 946 0786
China	+86 10 6515 8828
(Hong Kong)	+852 2313 0888)
Czech Republic	+420 236 032 552/511
Denmark	+45 43 20 08 57
Egypt	+20 2 23938151
Finland, Latvia, Lithuania, Estonia	
	+358 (9) 521 52 53
France	+33 (0) 1 55 93 66 67
Germany, Austria	+49 (0) 611 235 401
Greece	+30 210 96 92 300
Hungary	+36 (1) 382 60 60
India	+91 11 2437 9961 to 4
Indonesia	+62 21 385 9449
Iran	
(Vida)	+98 21 2271463
(Panasonic Office)	+98 2188791102
Italy	+39 02 6788 367
Jordan	+962 6 5859801
Kazakhstan	+7 727 298 0891
Kuwait	+96 522431385

Lebanon	+96 11665557
Malaysia	+60 3 7809 7888
Montenegro, Serbia	
	+41 (0) 26 466 25 20
Netherlands	+31 73 64 02 577
New Zealand	+64 9 272 0100
Norway	+47 67 91 78 00
Pakistan	+92 5370320 (SNT)
Palestine	+972 2 2988750
Poland	+48 (22) 338 1100
Portugal	+351 21 425 77 04
Romania	+40 21 211 4855
Russia & CIS	+7 095 980 4206
Saudi Arabia	+96 626444072
Singapore	+65 6270 0110
Slovak Republic	+421 (0) 2 52 92 14 23
Slovenia, Croatia, Bosnia, Macedonia	
	+44 (0) 20 76 63 36 57
South Africa	+27 11 3131622
Spain	+34 (93) 425 93 00
Sweden	+46 (8) 680 26 41
Switzerland	+41 (0) 41 259 96 32
Syria	+963 11 2318422/4
Thailand	+66 2 731 8888
Turkey	+90 216 578 3700

U.A.E. (for All Middle East)	
	+971 4 8862142
Ukraine	+380 44 4903437
U.K	+44 (0)1344 70 69 20
Vietnam	+848 38370280

ISO 9001
JQA-0443

ISO 14001
JACO
EC98J2010

UKAS
ENVIRONMENTAL
MANAGEMENT
051

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

SP-HMC41E2

10K1001SM-1 Printed in Japan