Panasonic

AJ-PX800G
Memory Card Camera Recorder “P2 cam”

AJ-PX800GH
 Bundled with AG-CVF15G Color LCD Viewfinder

AJ-PX800GF
 Bundled with AG-CVF15G Color LCD Viewfinder and FUJINON 16x Auto Focus Lens

*The microphone and battery pack shown in the photo are optional accessories.

The Ultra Light Weight
3MOS Shoulder Camera Recorder

AVC ULTRA  AVC INTRA  AVC LONG  AVC PROXY  P2  HDMI®
The world’s lightest*1 2/3 type shoulder-type HD camera-recorder with three image sensors revolutionizes news gathering with high mobility, superb picture quality and network functions.

The AJ-PX800G is a new-generation camera-recorder for news gathering. It is network connectable and provides superb picture quality, high mobility and excellent cost-performance. Weighing only about 2.8 kg (main unit), the AJ-PX800G is the world’s lightest*1 shoulder-type camera-recorder equipped with three MOS image sensors for broadcasting applications. It also supports AVC-ULTRA multi-codec recording.*2 The picture quality and recorded data rate can be selected from one of the AVC-ULTRA family of codec’s (AVC-Intra/AVC-LongG) according to the application. Along with a Low-rate AVC-Proxy dual-codec recording ideal for network-based operation and off-line editing. Built-in network functions support wired LAN, wireless LAN*3 and 4G/LTE network connections,*4 enabling on-site preview, uploading data to a server and streaming. The AJ-PX800G is a single-package solution for virtually all broadcasting needs.

*1: For a 2/3-type shoulder-type HD camera-recorder with three sensors (as of August 2014).
*2: Not all AVC-ULTRA formats will be supported.
*3: For a wireless LAN connection, the AJ-WM30 Wireless Module is required.
*4: 4G/LTE module is required from a third party. Availability of this function may vary depends on areas. For details, please visit Panasonic website (http://pro-av.panasonic.net)

The use of DCF Technologies is under license from Multi-Format, Inc.
Ultra-light Weight

The AJ-PX800G offers high mobility thanks to the world’s lightest* weight. The camera section features three sensors, and provides high picture quality and advanced functions to respond to broadcasting needs.

The 2/3 type Shoulder-type Model

The AJ-PX800G is the world’s lightest* in its class at approximately 2.8 kg (6.2 lb) for the main unit. This compact body provides superb mobility. It is also designed with excellent forward visibility.

*For a 2/3 type shoulder-type HD camera-recorder with three sensors (as of August 2014).

2/3 type Interchangeable Lenses

The 2/3 type bayonet mount interchangeable lens system lets you choose from a variety of 2/3 type zoom lenses for broadcasting and other professional uses from third-party manufacturers. Select the lens type and performance level that meets your needs.

High Sensitivity and Low Noise with 2/3 type 3MOS Image Sensors

The 2.2 megapixel 2/3 type 3MOS (RGB) image sensors offer full-pixel HD (1920 x 1080) resolution, F12 (59.94 Hz) or F13 (50 Hz) sensitivity and low noise with an S/N of 62 dB. It also achieves rich gradation and vibrant color reproduction.

High-Quality Image Processing and Versatile Image Settings

- **CAC (Chromatic Aberration Compensation):** When using a CAC compatible lens, the small amount of circumjacent chromatic aberration (circumjacent blur) that is not corrected by the lens is compensated by this process.
- **DRS (Dynamic Range Stretcher):** Suppresses blocked shadows and blown highlights to achieve a visually wide dynamic range.
- **Advanced Flash Band Compensation (FBC):** High-precision flash band detection and compensation.
- **Gamma:** Selectable from 7 modes of gamma curves.
- **Digital image settings:** H Detail, V Detail, Detail Coring, Skin Tone Detail, Chroma Level, Chroma Phase, Master Pedestal, Knee, Matrix (NORM1/NORM2/FLUO/CINE-LIKE), High Color, White Clip.

Professional Shooting Functions

- **Scan Reverse:** Displays/records images in vertically or horizontally inverted orientation.
- **Digital Zoom:** 2x/4x digital zoom.
- **Shutter:** Slow shutter, synchro scan function.
- **Optical ND Filters:** Four-position (CLEAR, 1/4 ND, 1/16 ND, 1/64 ND).

Versatile Shooting Assist Functions

- **User Interface "SmartUI":** User Interface consists of a LCD display and multiple switches. Multiple function can be set easily with minimum operation.
- **Focus Assist:** “EXPAND” for center zoomed image and “Focus-in-Red” can be displayed on viewfinder.
- **Focus Bar:** Focus level shown as bar.
- **Scene Files/User Files:** Scene files let you select either of six preset files from the menu on SmartUI according to the shooting situation and up to eight settings can be stored onto an SD memory card. Up to eight camera setting status can be stored to an SD memory card.
- **Gain:** Three-position gain selector with a maximum gain value of +42 dB. (Super gain)
- **User Buttons:** Frequently used functions can be assigned to the User buttons.
- **Shockless White Balance:** To enable smooth White Balance mode switching.
- **AWB:** Auto White Balance with auto tracking white function.
- **Audio input level adjustment (front) can be switched on/off and allocated to desired channels.
- **WFM/Vectorscope:** Simplified waveform and vectorscope display.
- **Zebra:** Select any two levels from 0% to 109% in 1% steps.
- **Mode check:** Displays a list of the camera settings.
- **Y-GET:** Measures brightness at center and displays numerical data.
- **The optional CVF15G Color HD Viewfinder, when opened, serves as an LCD monitor.
- **Marker Display:** Displays a center marker, safety zone marker and frame marker.
Ultra-high Quality

The recorder section offers AVC-ULTRA multi-codec recording capability and 2 slots for P2 cards.

AVC-ULTRA Codec Supported as Standard
From mastering to streaming, the image quality and bit rate can be selected to match the application. Panasonic’s professional A/V codec family, AVC-ULTRA, is provided as standard to meet the particular needs of broadcasting and video production.

**AVC-Intra**
An intra-frame compression method that is highly suited to image production, AVC-Intra100/50.

**AVC-LongG**
An inter-frame compression method that achieves high-quality HD recording at a low bit rate. Ideal for providing on-air content direct from the shooting location and for workflows using content transferred over the internet. Three bit rates are available: AVC-LongG60/25/12 Mbps. AVC-LongG25 provide 10 bit/4:2:2 quality at a bit rate of approximately 25 Mbps.

**AVC-Proxy**
Low-bit-rate, high-resolution, high-sound quality proxy video (Quick Time/H.264) is also recorded with the actual data.* Also includes metadata for efficient offline editing.

* Proxy data cannot be recorded when using the Loop Rec or Interval Rec function.
Proxy data is low-resolution video and audio data with time code, metadata, and other management data in a file format.

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HD/SD Multi Format/Multi Codec
The AJ-PX800G supports 59.94 Hz/50 Hz switching for convenient use in productions headed for global use, and records 1080/60i,* 50i, 24p,* 25p, 30p*, and 720p HD/SD multiple format.
DVCPro HD/DVCPro50/DVCPRO/DV recording is also supported.

- 60i, 60p, 24p and 30p are actually 59.94i, 59.94p, 23.98p and 29.97p.
- 60i, 50i, 24p, and 30p are actually 59.94i, 59.94p, 23.98p and 29.97p.

High-Quality 24 Bit Four Channel Audio Recording
AVC-Intra and AVC-LongG* modes support 24bit/48kHz/4CH digital audio recording*. Audio source for each channel can be selected for each channel, choosing from mic-in, line-in and wireless receiver.

*1: The AVC-LongG12 mode does not support 24 bit digital audio recording.
*2: The audio signal can be played back by using 24 bit digital audio equipment.
For details, refer to "Note Regarding 24 bit Audio" on page 5.

Two Slots for Versatile Recording Option
- Using Memory Card Adapter AJ-P2AD1G, microP2 card can be used.
- Simul Rec: Records simultaneously onto two P2 cards.
- Dual-codec recording: Records a low-rate AVC-Proxy file while recording main data in AVC-Intra/AVC-LongG.
- Hot-Swap Rec: Thanks to the two card slots, you can hot-swap P2 cards for continuous non-stop recording.
- One-Clip rec mode:*1 Records up to 99 consecutive cuts as a single clip.
- Loop rec: Repeatedly re-recorders while maintaining a recording of the most recent, pre-determined period.
- Pre-rec:*1 Continuously stores footage prior to pressing Rec Start for recovery if desired.
- Interval rec: Automatically records intermittently based on a set interval and recording time.
- One-shot rec: A frame-shot recording function useful for producing animations.
- Text Memo:*1 Up to 100 memos can be posted onto a clip as bookmarks.
- Shot Marker:*2 Used to mark clips as OK, NG, etc.
- Metadata: Data with information such as operator’s name, shooting location, and text memos can be added via an SD memory card.
- Rec Check: This lets you run a quick playback check of the clip-end you have just recorded.

*1: Not available in 24p, 25p and 30p recording modes.
*2: Shot marker and text memo cannot be used in loop rec, interval rec, or one-shot rec.
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Network connectivity achieves a faster news workflow. It supports wired LAN, wireless LAN and 4G/LTE networks.

## Wired/Wireless LAN Network Functions

The standard LAN (Ethernet) port allows network connection via a wired LAN. When the optional AJ-WM30 Wireless Module is installed, the AJ-PX800G gains wireless LAN (IEEE 802.11g/n) connectivity, enabling access to the following functions from a network-connected PC/Mac, tablet device or smartphone.

- **Proxy Preview**: Plays back proxy files (AVC-Proxy), downloads file/clip information, displays and allows editing of metadata, and enables addition/deletion of shot marks and text memos.  
- **Camera Remote**: Allows confirmation of camera status and thumbnails and enables remote camera control (recording, time code setting, and user bits).  
- **Playlist Editing (direct mode)**: Playlists can be created using proxy video with a PC/Mac or tablet. The workflow can be streamlined to be faster by rough editing on location, and then transferring the content files. The results can be saved together with the edited playlist, then played out of the camera and/or copied using a web application.
- **File Transfer**: The FTP client function lets you transfer clips from the camera-recorder to a network.

### 4G/LTE* Network Connectivity

The AJ-PX800G can send data directly to a network server via FTP allowing broadcast stations to edit recorded data immediately at the editing desk.

*4G/LTE module is required from a 3rd party. Availability of this function may vary depends on areas. For details, please visit Panasonic website (http://pro-av.panasonic.net/)

### Video Streaming Capability

The AJ-PX800G is capable of proxy image streaming via a wired LAN, wireless LAN, 4G/LTE. It enables live streaming while recording images onto a memory card.

*Live streaming is not possible while dual codec recording. The use of DCF Technologies is under license from Multi-Format, Inc.

### HD SDI IN/OUT, HDMI OUT and Other Interfaces

- **HDMI OUT**: This terminal allows digital A/V output to a wide range of HD devices.  
- **MON OUT**: This terminal outputs HD SDI, down-converted SD SDI, or VBS.  
- **Aspect conversion**: Aspect ratio of down conversion signal can be selected from Side Crop, Letter Box or Squeeze mode.  
- **TC IN/OUT**: A built-in SMPTE time code generator/reader. IN/OUT selectable by menu settings.  
- **GENLOCK IN**: For synchronized recording with a multi-camera system.  
- **USB 2.0**: Equipped with both HOST (for connection to an HDD) and DEVICE (for connection to a PC/Mac) terminals.  
- **UniSlot** compatible wireless receiver slot (two channels).  
- **XLR audio input**: Two channel mic/line inputs supporting 48-V phantom power supply.  
- **Audio output terminals (pin jacks)**, two channels.  
- Multiple battery support, including Anton Bauer.

#### Camera Remote System Compatibility

- **10 pin Remote Terminal**: Camera remote operation is enabled with the optional AG-EC4G Extension Remote Control Unit or AJ-RC10G Remote Control Unit.*

- **Camera Studio System**: The optional camera extension system (AG-CX300G Camera Adapter and AG-BS300 Base Station) supports low-cost studio integration.

- **Wired LAN remote**: A wired LAN connection allows the camera to be remotely controlled. Remote operation, including fine menu settings, is possible by using the optional AK-HPB200G Remote Operation Panel for studio cameras.

* Only functions that are supported by the AJ-PX800G can be controlled.
### Options

As of August, 2014

| AG-CVF10G | Color HD View Finder  
| Open one way for LCD monitor viewing |
| AG-CVF15G | Color HD View Finder  
| Open two ways for LCD monitor viewing |
| AG-MC700P | Microphone Kit |

| AG-MC200G | XLR Microphone |
| SHAN-TM700 | Tripod Adaptor |
| AG-YA600G | HD/SD SDI Input Board |
| AJ-WM30 | Wireless Module |
| AK-HRP200G | Remote Operation Panel |

| microP2 Card |

| AG-YA500G | SD/SDHC/SDXC Memory Card |
| AJ-MPD1G | Memory Card Drive  
| “microP2 drive” |
| AJ-SC900 | Soft Carrying Case  
| *Not available in some area |
| SHAN-RC700 | Rain Cover  
| *Not available in some area |

| AJ-P2E064FG | Memory Card (P2 card F series) |
| AJ-P2E032FG | |
| AJ-P2E016FG | |

| AJ-PCD2G | USB2.0 Memory Card Drive |
| AU-XDG1 | USB 3.0/2.0 Memory Card Drive |

| AJ-P2M032AG | Memory Card  
| *not available in some area |
| AJ-P2M064AG | |
| AJ-P2AD1G | Memory Card Adapter |

| AJ-PS001G | Software Key for AVC-Proxy re-link |
| AJ-PS002G | Software Key for AVC-Intra50/100 P2 file export |
| AJ-PS003G | Software Key for AVC-LongG P2 file export |
| AJ-PS004G | Software Key for AVC-LongG file import to edit |

| P2 Viewer Plus  
| View Software*2 |
| compatible with both Windows/Mac OS. |

| AJ-SK001G | Ingesting Function Software Key*2 |
| The ingesting function copies all clips on P2 cards to a storage medium, such as an HDD. During ingesting, the clips are verified for secure copying, with log files created |

other manufacturers’ products

| Camera Studio System |
| AG-CA300G | Camera Adapter |
| AG-BS300 | Base Station |
| AG-YA500G | VF Interface Box |

| AG-EC4G | Extension Control Unit |
| AJ-RC10G | RCU (Remote Control Unit)  
| with 10 meters (32 feet) remote control cable |
| AJ-C10050G | Remote Control Cable  
| (50 meters / 164 feet) |

| AJ-P2M032AG | Memory Card  
| *not available in some area |
| AJ-P2M064AG | |
| AJ-P2AD1G | Memory Card Adapter |

| Avid NLE Plug-In Software*1 |
| (Avid Media Composer v6.5 or later) |

| AJ-PS001G | Software Key for AVC-Proxy re-link |
| AJ-PS002G | Software Key for AVC-Intra50/100 P2 file export |
| AJ-PS003G | Software Key for AVC-LongG P2 file export |
| AJ-PS004G | Software Key for AVC-LongG file import to edit |

| Bound Cable for Camera Studio System  
| (between AG-BS300 and AG-CA300G) |
| [Canare] V2PCS25-SCFWCE-SF-SC (25 meters/82 feet) |
| V2PCS50-SCFWCE-SF-SC (50 meters/164 feet) |
| V2PCS100-SCFWCE-SF-SC (100 meters/328 feet) |
| Power Cable for Camera Studio System  
| (between AG-BS300 and AG-CA300G) |
| [Canare] DC50V10-CE01PS-SC (50 meters/164 feet) |
| DC100V10-CE01PS-SC (100 meters/328 feet) |
| Canare Electric Co., Ltd.  
| http://www.canare.co.jp/oversea/mainmenu.html |

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**Note Regarding 24 bit Audio**
Clips recorded using 24 bit audio must be played back with 24 bit compatible P2 equipment or the P2 Viewer Plus. If clips are played back with equipment not compatible with 24 bit audio, the clip number will be indicated in red and the clips will not be played back. For the latest information on 24 bit compatible P2 equipment and P2 Viewer Plus, see “Support & Download” on the Panasonic web page [http://pro-au.panasonic.net](http://pro-au.panasonic.net)
**General**

**Power:**
- DC 12 V (11.0 V to 17.0 V)

**Power Consumption:**
- 22 W (when the optional board AG-YA600G is installed)

**Operating Temperature:**
- 0°C to 40°C (32°F to 104°F)

**Operating Humidity:**
- 10% to 85% (relative humidity)

**Storage Temperature:**
- −20°C to 60°C (−4°F to 140°F)

**Weight:**
- Approx. 2.8 kg (6.2 lbs.)

**Dimensions:**
- 144 mm (W) × 267 mm (H) × 350 mm (D)

**Gain Setting:**

**ND Filter:**
- 1: CLEAR, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND

**Lens Mount:**
- 2/3 type bayonet

**Camera Unit**

**Pickup Device:**
- 2/3 type 2.2 million pixels, MOS x 3

**Lens Mount:**
- 2/3 type bayonet

**ND Filter:**
- 1: CLEAR, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND

**Gain Setting:**

**Super Gain (S.GAIN):**
- Selectable from 30 dB, 36 dB, 42 dB

**Shutter Speed:**

**Slow Shutter Speed:**
- 60/60p: mode: 1/15 sec., 1/30 sec.

**Synchro Scan Shutter:**
- 60/60p: mode: 1/100 sec. to 1/250 sec.

**Shutter Open Angle:**
- 3.0 deg to 360.0 deg (in 0.5 deg steps, angle display)

**Sensitivity:**
- NORMAL mode:
  - F9 (2000 lx, 3200 K, 89.9% reflection, 1080/50i)
  - F10 (2000 lx, 3200 K, 89.9% reflection, 1080/50i)

**_minimum Subject Illumination:**
- Approx. 0.22 lx (HIGH SENS MODE, F1.4, +42 dB (S.GAIN))

**Image S/N:**
- 62 dB (standard)

**Horizontal Resolution:**
- 1000 TV or higher (center)

**Memory Card Recorder**

**Recording Media:**
- P2 card (for microP2 card: adaptor is required)

**System Format:**
- 1080/59.94i, 1080/23.98pN, 720/59.94p, 480/59.94i, 1080/50i, 720/50p, 576/50i

**Recording Format:**

**Recording Video Signal:**
- 1080/59.94i, 1080/23.98pN, 720/59.94p, 720/23.98pN, 480/59.94i, 480/29.97p, 1080/50p, 720/50p, 576/50p

**Recording/Playback Time:**
- 16 GB x 1

**Digital Video**

**Sampling Frequency:**
  - DVCPRO HD: Y: 74.158 MHz, Pn/Pk: 37.0879 MHz (59.94 Hz)
  - Y: 74.2500 MHz, Pn/Pk: 37.1250 MHz (50 Hz)
- DVCPRO50: Y: 13.5 MHz, Pn/Pk: 6.75 MHz
- DVCPRO: Y: 13.5 MHz, Pn/Pk: 3.375 MHz

**Quantizing:**
- AVC-LongG12/DVCPRO HD/DVCPRO/DVCPRO/DVCPRO/DVCPRO/DVCPRO/DVCPRO/DVCPRO/DVCPRO

**Video Compression Format:**
- AVC-Intra100/AVC-Intra50:
  - 48 kHz/16 bit, 4 CH and 48 kHz/24 bit, 4 CH switch
- AVC-LongG50/AVC-LongG25:
  - 48 kHz/4 bit, 4CH
- AVC-LongG12/DVCPRO HD/DVCPRO/DVCPRO/DVCPRO/DVCPRO/DVCPRO/DVCPRO/DVCPRO/DVCPRO

**Audio Compression Format:**
- AAC-LC, Linear PCM

**Audio Input/Output**

**Audio IN:**
- XLR (3 pin) × 2

**Audio OUT/NIN (option):**
- BNCx1
  - 1.5 G HD SDI: 0.8 V [p-p], 75 Ω
  - SD SDI: 0.8 V [p-p], 75 Ω

**MON OUT:**
- BNCx1
  - Can be set to HD SDI/SDI analog composite on SmartVF

**HDMI OUT:**
- HD1x1 (HDMI type A terminal, not compatible with VIERA Link)

**Video Input/Output**

**SDI OUT/NIN (option):**
- XLR (3 pin)
  - 2.0 ±0.5 V [p-p], Low impedance

**MIC IN:**
- XLR 1, 5 pin

**MIC IN:**
- XLR (3 pin) × 1
  - +48 V supported (selectable menu)
  - −40 dBu to −60 dBu (selectable menu)

**Wireless IN:**
- 25 pin, D-SUB, −40 dBu, 2CH supported

**Audio Input:**
- Pin jack x 2 (CH1, CH2), Output level: 600 Ω, 316 mV

**Phones OUT:**
- 3.5 mm diameter stereo mini jack x 1

**Speaker:**
- 20 mm diameter, round x 1

**Other Input/Output**

**GENLOCK IN:**
- BNCx1, 1.0 V [p-p], 75 Ω

**TC IN/OUT:**
- BNCx1, IN/OUT switch selection
  - IN: 0.5 V [p-p] to 8 V [p-p], 10 kΩ
  - OUT: 2.0 ±0.5 V [p-p], Low impedance

**DC IN:**
- XLR (3 pin) x 1

**DC OUT:**
- 4 pin, DC 12 V (DC 11.0 V to 17.0 V), maximum output current 1.5 A

**REMOTE:**
- 10 pin

**Lens:**
- 12 pin

**VF:**
- 20 pin

**LAN:**
- 10BASE-T/100BASE-T

**USB2.0 (host):**
- Type A connector, 4 pin

**USB2.0 (device):**
- Type B connector, 4 pin

**USB2.0 (sub host):**
- Exclusively for wireless module AJ-WM30

**Included Accessories**
- Shoulder strap, Mount cap

**Weight and dimensions shown are approximate. Specifications are subject to change without notice.**

**As of August, 2014**
Notes Regarding the Handling of P2 Files Using a PC

Mounting and Transferring Files
The PC must be installed with the included P2 driver in order to recognize, copy and transfer P2 files. This driver is also necessary when using the PC card slot and when handling P2 files stored on a hard-disk device, such as P2 store. For other operating requirements, refer to the P2 installation manual. The P2 driver and the P2 installation manual can be downloaded free from a Panasonic website. Visit http://pro-av.panasonic.net/ and click “P2 Support and Download.”

Preview and Nonlinear Editing
To preview (play) P2 files on a PC, it is necessary to install P2 Viewer Plus software (downloadable for free, for Windows and Mac), both from Panasonic, or P2-compatible editing software available from other companies (for details, visit http://pro-av.panasonic.net/en/sales_o/p2/partners.html). Note that each software places specific requirements on the operating environment, and the operating environment must meet additional requirements to play and edit HD content on Windows PCs and Macs. For P2 Viewer Plus download and operating requirement information, visit http://pro-av.panasonic.net/. For operating requirements and details of other P2 editing software, visit the website of the relevant software manufacturer.

Precautions When Using SD Memory Cards
On the Memory Card Camera Recorder, use SD memory cards that conform to the SD standard, SDHC standard, or the SDXC standard. When performing proxy recording (extra-cost option), use SDHC memory cards, SDXC memory cards, or Panasonic SD memory cards with the class description of class 2 or higher. The MMC (Multi Media Card) cannot be used. Be sure to format cards on the Memory Card Camera Recorder before use. In this Memory Card Camera Recorder, memory card of the capacity of SD (8 MB to 2 GB), SDHC (4 GB to 32 GB), and SDXC (32 GB to 128 GB) can be used.

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