DSR-PD170
DSR-PD170P

For Professional Results
Camera Features

The Professional Picture Quality You Demand

3CCD Camera System
The DSR-PD170 incorporates three 1/3-inch type CCDs, each with 380,000 pixels, and the DSR-PD170P incorporates three 1/3-inch type CCDs, each with 450,000 pixels. The 1/3-inch size CCDs contribute to the high sensitivity and high signal-to-noise ratio. These CCDs are capable of interlace scan to acquire moving images and progressive*2 scan to capture still images.

*2 Moving images cannot be acquired in the progressive scan mode.

Advanced HAD™ Technology
Advanced HAD technology reduces fixed pattern noise and vertical smear, thus allowing the camera to achieve a high sensitivity and excellent signal to noise ratio.

Low Light Shooting
The minimum illumination has been improved from 2lx for the DSR-PD150/PD150P to 1lx thanks to the use of an enhanced noise-reduction process.

Optical 12x Zoom Lens
The optical 12x zoom lens*3 allows the DSR-PD170 to maintain picture quality even at high zoom ratios.

*3 Digital zoom of 24x or 48x can also be achieved by the proper menu selection.

Optical Super SteadyShot® System
The DSR-PD170 employs the Super SteadyShot system, in which horizontal and vertical movements are detected independently by the sensors. The prism system located behind the lens adjusts and optically compensates for unsteady camera handling, while maintaining image quality.

Large 180,000-dot LCD Precision Black & White Viewfinder
The 0.44-inch*4 type black and white LCD viewfinder provides 500 lines of horizontal resolution. In addition, a large-sized eyecup is used, and the window size of the magnifier has also been enlarged. This allows easier focusing and more comfortable use of the viewfinder.

*4 Viewable area, measured diagonally

16:9 Widescreen Acquisition Mode
The DSR-PD170 is capable of widescreen 16:9 acquisition image capturing (video only), producing true 16:9 images. This is different from the letterboxing view commonly used in many equivalent models.

Recorder Features

High-Quality Digital Recording for Professionals

DVCAM/DV Selectable Recording
The DSR-PD170 adopts the DVCAM format, which uses 8-bit digital component recording with a 5:1 compression ratio and a sampling rate of 4:1:1 (for 525/60) or 4:2:0 (for 625/50). The unique compression algorithm provides excellent picture quality and superb multi-generation dubbing performance. An audio lock mode synchronizes the audio to the video for professional editing results. Should a longer record time be required, the DSR-PD170 is also capable of recording and playing back DV format signals (SP mode only)*5.

*5 The transition from cut to cut may not be smooth between scenes where the recording format is changed from DV to DVCAM, or vice versa. This is a normal and expected phenomenon. Audio Dub mode is NOT possible when recorded in DV (SP) format.

2 Ch. XLR Audio Input and Supplied Directional Microphone
The DSR-PD170 provides two XLR audio input connectors for connecting professional microphones or for feeding an external audio source. The input level can be selected from Mic/Line/ Mic Attenuator positions. 48 V microphone power can be supplied. INPUT 1 audio can be recorded on CH1 only, or both CH1 and CH2 audio tracks (selected by switch). One directional microphone is supplied.

16-bit/12-bit PCM Digital Sound and Audio Dub Capability
The DSR-PD170 records two channels of audio with the 48 kHz/16-bit or 32 kHz/12-bit mode. On a pre-recorded tape with two channels recorded in the 32 kHz/12-bit mode, it can dub an additional two channels through the external microphone input (XLR connectors or RCA pin jacks, DVCAM recorded tape only).

Additional Recorder Features
- 16:9 recording mode
- Interval recording function
Operational Features
Advanced Features for Professional Results

Newly Developed Hybrid LCD Monitor with a High Resolution of more than 210,000 Pixels
The DSR-PD170 has a high-resolution color LCD monitor for viewing the recorded picture, or checking the playback picture on location. With its large screen, it is also helpful in setting menus or the audio recording level, as well as monitoring the camera and audio status while mounted on a tripod. The hybrid LCD monitor combines the characteristics of both transmissive and reflective LCD panels. The transmissive LCD panel is suited for dark conditions such as in the studio, while the reflective LCD panel provides clear viewing in bright conditions such as under strong sunlight.

On-handle Zoom Lever and Rec. Start/Stop Button
In order to facilitate zoom control and recording operation during low-angle shooting, an additional zoom lever and a rec. start/stop button have been added to the carrying handle. Zoom speed can be selected from H (faster), L (slower) or OFF via the three-position slide switch located on the side of the handle.

Long Operating Time
Combined with the optional NP-F960 InfoLITHIUM® battery pack, the DSR-PD170 can continuously operate in record mode for up to eight hours. By attaching the battery and connecting the camcorder to the supplied AD-L15 AC Adaptor, the camcorder will start charging the battery.

Battery Life

<table>
<thead>
<tr>
<th>Continuous Recording Time**</th>
<th>With LCD monitor on</th>
<th>With LCD viewfinder on</th>
<th>With LCD monitor and LCD viewfinder on</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP-F330 (supplied)</td>
<td>60 min</td>
<td>50 min</td>
<td>45 min</td>
</tr>
<tr>
<td>NP-F550 (optional)</td>
<td>130 min</td>
<td>110 min</td>
<td>105 min</td>
</tr>
<tr>
<td>NP-F750 (optional)</td>
<td>265 min</td>
<td>230 min</td>
<td>215 min</td>
</tr>
<tr>
<td>NP-F960 (optional)</td>
<td>480 min</td>
<td>420 min</td>
<td>395 min</td>
</tr>
</tbody>
</table>

*6 Continuous recording time, indoors at 25°C.

Manual Functions
In order to provide the flexibility required in professional applications, the DSR-PD170 allows a variety of its functions to be manually adjusted.

- Zoom
- Focus
- Iris (with smoother and more sensitive iris control)
- Shutter speed
- Gain
- AE (Auto Exposure) Shift
- White Balance
- Custom Preset (Color Level, Sharpness, White Balance Shift, AGC Limit)
- ND Filters (1/4 and 1/32)
- Spotlight Button
- Backlight Button
- Digital Effects (Still, Flash Motion, Luminance Key, Trail, Old Movie)
- Audio Recording Level (Separate or Linked adjustment of CH1 and CH2)
- Zebra Patterns (100% or 70%)
- Guide Frame (Vertical and Horizontal alignment of the subject to guide frame)
Index Marking
When a Cassette Memory-equipped DVCAM/DV tape is used, an Index can be marked while recording with the camera or recording from an external video source. This function allows quick access to the marked tape position in subsequent operations.

Time Code Preset
The time code can be preset using any number in H/M/S/F (hours/minutes/seconds/frames), for accurate tape-position information. The time-code mode can be selected between "rec-run" or "free run". User bits can also be set.

Title Function
When using a Cassette Memory-equipped tape, titles can be set and stored in the Cassette Memory for superimposition during playback. This information is not burnt into the video signal, but is overlaid only during the playback.

Fader
The DSR-PD170 provides five fading modes: Black Fade (IN/OUT), Monotone Fade (fade from Black & White to color), Wipe and Dot.

Digital Still Camera Functions with Memory Stick® Media
The Memory Photo function allows the camera to be switched to progressive scan mode for capturing still images. VGA-sized files are recorded on the Memory Stick media. The Memory Mix function can combine the still images stored on Memory Stick media with camera video images.

Supplied Lens Hood with Built-in Lens Cap
This lens hood incorporates a lens cap that can be opened or closed by using a lever located on the side of the hood.

Supplied Wide Conversion Lens and Additional Lens Hood
The high performance VCL-HG0758 Wide Conversion Lens and its associated lens hood, LSF-S58 Lens Hood are bundled with the DSR-PD170. The LSF-S58 can serve as a lens hood even when the Wide Conversion Lens is not in use.

Other Functions
- **Date Stamping**
  Superimpose date onto image, selected by menu.
- **AV to DV Out**
  Convert analog input signals to DV signals.

### DSR-PD170/PD170P Specifications

<table>
<thead>
<tr>
<th>Lens</th>
<th>12.1 V/linear (1.2 - 22 sec.) zoom lens (48x digital zoom) F=4.0 to 7.2 mm (F1.6 to 2.4), Filter Diameter 58 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>Auto/Manual (ring/tilt/magnify/zoom/zoom push auto)</td>
</tr>
<tr>
<td>Imaging Device</td>
<td>Three 1/3-inch type CCDs: Gross 380,000 pixels/effective 340,000 pixels (NTSC), 450,000 pixels/effective 400,000 pixels (PAL). Progressive/Interlace Scan.</td>
</tr>
<tr>
<td>White Balance</td>
<td>Auto/mode-push/holder 2500 xVideo (2200 x)</td>
</tr>
<tr>
<td>Shutter Speed</td>
<td>1/120, 1/250, 1/500, 1/1000, 1/1500, 1/2500, 1/3000, 1/4000, 1/6000, 1/10000 second (NTSC) 1/120, 1/150, 1/120, 1/150, 1/250, 1/300, 1/425, 1/600, 1/1000, 1/10000 (PAL)</td>
</tr>
<tr>
<td>Exposure</td>
<td>Auto/Manual</td>
</tr>
<tr>
<td>Gain</td>
<td>0, 3, 6, 9, 12, 15, 18 dB</td>
</tr>
<tr>
<td>Minimum Illumination</td>
<td>1 lx with F1.6 at 18 dB gain</td>
</tr>
<tr>
<td>Horizontal Resolution</td>
<td>530 TV lines</td>
</tr>
<tr>
<td>Viewfinder</td>
<td>180,000 dot Black &amp; White LCD</td>
</tr>
<tr>
<td>Audio Signal</td>
<td>Rec.: 48 kHz/16-bit, 32 kHz/12-bit, 28 kHz/24-bit; 32 kHz/16-bit, 44.1 kHz/16-bit</td>
</tr>
<tr>
<td>Built-in Speaker</td>
<td>Dynamic Speaker (-20 to 20 dB negative)</td>
</tr>
<tr>
<td>LCD</td>
<td>TN/STN, 23 impaired, 211, 240 dots (180 x 240)</td>
</tr>
<tr>
<td>Tape Speed</td>
<td>Approx. 28.2 m/sec./can. (4:3:3:4 Mode) Approx. 18.8 m/sec./can. (5:3:5 Mode)</td>
</tr>
<tr>
<td>Maximum Recording Time</td>
<td>450 minutes (DV mode) 60 minutes (5V SP mode)</td>
</tr>
<tr>
<td>Video Signal</td>
<td>EIA Standard, NTSC color system (DSR-PD170); C Meyer Standard, PAL color system (DSR-PD170P)</td>
</tr>
<tr>
<td>Connectors</td>
<td>Video IN/OUT: RCA pin x 1, Luminance signal: 1 Vp-p, 75 Ω, unbalanced, sync negative.</td>
</tr>
<tr>
<td>Audio IN/OUT</td>
<td>RCA pin x 1, 327 mV, Output impedance with less than 2.2 kΩ, Input impedance with more than 47 kΩ</td>
</tr>
<tr>
<td>S-Video IN/OUT</td>
<td>Mini-DIN 4-pin x 1, Luminance signal: 1 Vp-p, 75 Ω, unbalanced. Chrominance signal: 0.386 Vp-p (NTSC), 0.3 Vp-p (PAL)</td>
</tr>
<tr>
<td>Audio IN</td>
<td>XLR 3-pin female x 2, 327 mV, -60 dBu, 3 kΩ, +4 dBu, 10 kΩ (0 dBu = 0.775 Vrms)</td>
</tr>
<tr>
<td>LANC</td>
<td>DIN 4-pin x 1, DIN 4-pin x 1, CMOS: 5 V, 100 mA, Lens cap (2.5 mm) x 1</td>
</tr>
<tr>
<td>Headphone</td>
<td>Stereo min jack (3.5 mm) x 1</td>
</tr>
<tr>
<td>External DC IN</td>
<td>8.4 V for AC-155 AC adapter</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0 to 40 °C (32 to 104 °F)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-20 to 60 °C (-4 to 140 °F)</td>
</tr>
<tr>
<td>Power Requirements</td>
<td>DC 7.2 V (Battery), DC 8.4 V (AC adapter)</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>Rec. with LCD-viewer only: 4.7 W, Rec. with LCD monitor only: 5.4 W, Rec. with LCD-viewer and LCD monitor: 5.7 W, Rec. on LCD-4.1 W</td>
</tr>
<tr>
<td>Dimensions (W × H × D)</td>
<td>118 x 180 x 363 mm (4.4 x 7.1 x 14.3 inches) (camcorder only) 133 x 180 x 456 mm (5 x 7 x 18 inches) (including microphone)</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 1.6 kg (3 lbs 6 oz) (camcorder only)</td>
</tr>
<tr>
<td>Carrying Belt</td>
<td>LCD® Cable Strap, Stereo AV Cable</td>
</tr>
</tbody>
</table>

*6 i.LINK is a trademark of Sony Corporation used only to designate that a product contains an IEEE 1394 connector. All products with an i.LINK connector may not communicate with each other. Please refer to the documentation that comes with any device having an i.LINK connector for information on compatibility operating conditions and proper connection. For information on any device having an i.LINK connection contact nearest Sony office.

### Accessories
- AC-155 AC Adaptor
- EMI-717 Electret Condenser Microphone
- F-9300 Lithium Rechargeable Battery Pack
- VCL-HG0758 Wide Conversion Lens
- LSF-S58 Lens Hood for Wide Conversion Lens and Hood Cap
- LSF-S58 Lens Hood with Built-in Lens Cap
- RMT-911 Remote Commander and R6 Batteries (2x)
- Carrying Belt
- LCD® Cable Strap, Stereo AV Cable

[Image 425x496 to 481x541]

[Image 488x584 to 540x633]

[Image 489x493 to 539x542]
A “handy” addition to the DVCAM™ camcorder family – The DSR-PD170

The DSR-PD170*1 is a 1/3-inch type 3CCD Digital Camcorder that uses the DVCAM format. Like its predecessor, the market acclaimed DSR-PD150/PD150P, the DSR-PD170 addresses a broad spectrum of applications - from video journalism, wedding and event videography, corporate and training productions, up to broadcast newsgathering - areas where picture quality, reliability, and mobility are prime concerns. In addition to inheriting all the attractive features of the DSR-PD150/PD150P, the DSR-PD170 offers a range of enhancements for further improved audio and video quality and operability, and adds new accessories to meet even more diverse shooting scenarios. The DSR-PD170 is destined to become an indispensable tool for professional shooting in a wide range of applications.

*1 Two models of the DSR-PD170 are available: the DSR-PD170 for NTSC and the DSR-PD170P for PAL.
Optional Accessories

Some of the following accessories may not be available in certain countries. For details, please contact your nearest Sony office.