XDCAM **HD** Camcorders

PDW-F355/PDW-F335 Camcorder

The PDW-F355 and PDW-F335 are highly versatile and cost-effective high definition camcorders. They are equipped with three 1/2-inch HD CCDs and record 1080/50i, 59.94i, 23.98P, 25P and 29.97P pictures. Both models can also record in DVCAM mode. The PDW-F355 and PDW-F335 are packed with features for creative shooting such as interval recording, slow-shutter operation and a selection of gamma curves for precise image control. In addition, the PDW-F355 provides a "Slow & Quick Motion" function, for film-like "over-cranking" and "under-cranking".

Disc recording provides a number of benefits that are especially useful during shooting. For example, because new footage is always recorded onto an empty area of the disc, there is no need to cue-up to the next recording position before shooting. This means that operators can start recording without the worry of accidentally recording over existing footage.

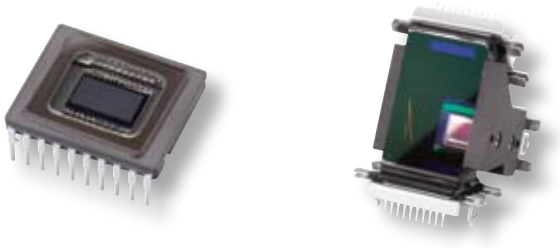
In short, XDCAM HD camcorders are ideal for a broad range of applications, including news gathering, field production, event shooting, TV entertainment and documentaries.

PDW-F335

PDW-F355

Three 1/2-inch Power HAD HD CCDs

The PDW-335 and PDW-355 are equipped with three 1/2-inch HD Power HAD™ CCDs, each with a high density of approximately 1.56 megapixels (1440 x 1080). These extremely high-performance CCDs provide a sensitivity of F9 (at 2000 lx, 3200K), a signal-to-noise ratio of 54 dB, and a low vertical smear level of -120 dB.



12-bit A/D Conversion

XDCAM HD camcorders incorporate high-integrity 12-bit A/D converters which allow images captured by the Power HAD CCDs to be processed with great precision. This high-resolution A/D conversion allows the contrast to be reproduced faithfully in both mid-to-dark tone and bright areas of the picture.

Advanced Digital Signal Processing (ADSP)

A key to quality in Digital Signal Processing is how many bits are used in non-linear processes, such as gamma correction. The ADSP used in XDCAM HD uses more than 30 bits, minimising rounding errors to maintain a high quality image. The ADSP also provides highly sophisticated image controls, such as skin tone detail control and Dynamic Contrast Control.

Multi-format Recording in HD/SD and Interlace/Progressive

Users can record in either HD (MPEG HD) or SD (DVCAM) and in interlace (50i or 59.94i) or progressive (23.98P, 25P, 29.97P) mode.

Creative Versatility for Movie Making

The PDW-335 and PDW-355 , camcorders are part of Sony's CineAlta family, and provide many creative features for movie production. Slow & Quick Motion (PDW-F355 only) provides stunningly impressive slow and fast motion images and Interval Recording can be used for "Time-Lapse" operation.

Slow & Quick Motion (PDW-F355)

The PDW-F355 offers a powerful Slow & Quick Motion function. This enables users to create elegant fast- and slow-motion footage - commonly refered to as over- and under-cranking in the film world. The PDW-F355 can capture images at frame rates selectable from four fps (frame per second) to 60 fps in increments of 1 fps. For example,when viewed at 23.98P, images captured at four fps will appear six times faster than normal. Conversely, images captured at 60 fps will appear 2.5 times slower than normal. The quality of the slow- and fast-motion images created using the Sony PDW-F355 camcorder is extremely high. Users can see the results directly in the camcorder's LCD screen. This ensures maximum creativity during the shooting process.

Format	Capturing
23.98P/29.97P	4P-60P in 1P increments
25P	4P-50P in 1P increments

*When capturing at 31-60 fps (in 23.98P/29.97P mode)/26-50 fps (in 25P mode), the camcorders provide lower vertical resolution than in normal capturing mode.
*This function is available when the recording mode is set to "MPEG HD".

Multi-camera operation in 23.98P Mode

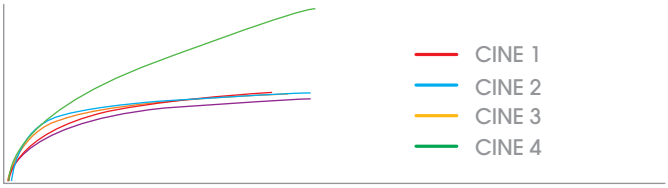
The PDW-F355 camcorder has a Genlock video input that can accept a 23.98PsF signal input. This allows multi-camera operations in 23.98P mode. The camcorder can also output 23.98PsF pictures as well as 2-3 pull-down converted images from the HD-SDI connector.

Interval Recording Function

XDCAM HD camcorders feature Interval Recording, which records pictures at pre-determined intervals. This is ideal for shooting over long periods of time and also when creating pictures with special effects such as fast motion "Time-Lapse".

Selectable Gamma Curves

Operators can choose from five gamma curves (Standard, CINE 1, 2, 3 and 4). The CINE 1-4 gamma curves provide natural tonal reproductions for scenes with wide dynamic range. The CINE 1 and 2 curves are inherited from HyperGamma, which is available in the top-of-the-range HDCAM CineAlta camcorders.



A Wide Choice of Lenses

A variety of 1/2-inch HD lenses are available from major manufacturers for use with XDCAM HD camcorders.
A 2/3-inch lens* can also be used with an optional LO-32BMT lens adaptor. This allows users to choose from a broad range of lenses, including cinema-style lenses, according to their shooting requirements.

*In this configuration, the resulting focal length will be 1.37 times the actual focal length of the lens.

Low-Light Shooting With 'Slow Shutter' and 'Turbo Gain'

XDCAM HD camcorders offer Slow Shutter and Turbo Gain for shooting in low-light conditions. These can be used separately or together depending on the shooting conditions or the operator's preference.
The Slow Shutter function allows shutter speeds longer than the frame rate to be used to intentionally blur images of moving objects. The Turbo Gain function allows the camera gain to be increased by up to +48 dB.

Noise Reduction

XDCAM HD camcorders incorporate noise reduction to reproduce low-light scenes more clearly.

Picture Cache Recording

Picture Cache Recording provides up to 12 seconds of loop recording using solid state memory. When the camcorder is in Standby mode and the REC button is pressed, everything that happened up to 12 seconds before that moment can be recorded to disc. Valuable shots, which would otherwise have been missed, can be captured.

Precise Image Control

Advanced image control features such as Skin Tone Detail and Dynamic Contrast Control allow operators to create stunning images.

High Quality Audio

Four channels of uncompressed digital audio can be recorded at 16 bit resolution and 48kHz sampling.

Compact and Lightweight

A compact, lightweight and ergonomically well balanced design provides a high level of mobility and comfort in various shooting situations. The camcorders weigh only 5.5 kg (12 lb 2 oz) including viewfinder, microphone, disc, and BP-GL95 battery.

Rugged, Reliable Operation

A number of unique design features are used to minimise errors caused by shock or by dust entering the disc drive. The disc drive entrance is concealed by two lids, helping to prevent dirt or moisture from entering the drive. In addition, four rubber dampers are used to hold the disc drive block in place and to absorb mechanical shocks.

3.5-inch* Colour LCD Screen

A large, easy-to-view, colour LCD screen on the camcorder's side panel enables operators to instantly review recorded footage, as well as access the camera's set-up menus and view status information such as the audio meters and the remaining disc and battery time. It also enables advanced operations such as Thumbnail Search and Scene Selection.

*Viewable area measured diagonally.

Wide Variety of Interfaces

XDCAM HD camcorders are equipped with a wide range of interfaces as standard. These are listed in the table below:

	PDW-F355	PDW-F335
Input	Front stereo microphone, audio (2-ch), timecode, genlock	Front stereo microphone, audio (2-ch), timecode*, genlock
Output	HD-SDI/SD-SDI, SD analogue composite, timecode, audio (XLR 5-pin)	HD analogue component**/SD analogue component (select-able), SD analogue composite, timecode*, audio (Pin jack)
Others	i.LINK	i.LINK

*The timecode input and output of the PDW-F335 share the same connector.
**1080/23.98P recordings are output as 1080/59.94i signals via 2-3 pull-down.

2-inch Monochrome Viewfinder

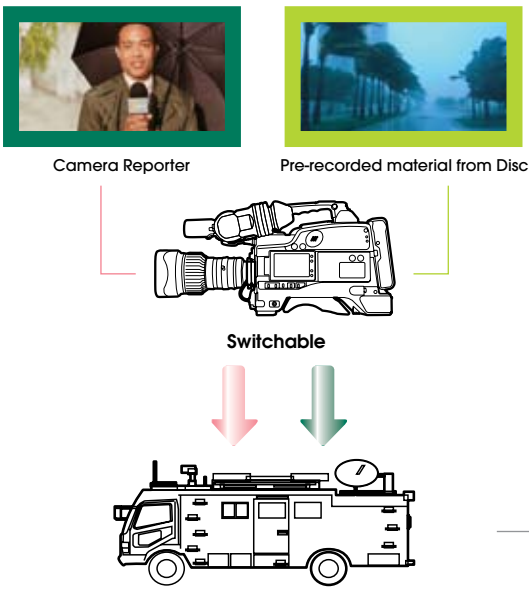
The PDW-F355 and the PDW-F335 are equipped with a DXF-20W 2.0-inch* monochrome viewfinder as standard. This enables precise manual focusing when shooting in HD in 16:9.

*Viewable area measured diagonally

"Live & Play" Function

The PDW-F355 camcorder has a"Live & Play"function that can simultaneously output both playback signals (images already recorded) and incoming camera signals (images seen through the viewfinder). Both signals are fed to their respective output and viewfinder connectors independently and can be viewed at the same time. This allows users to frame the next shot, adjust the exposure and focus the lens while the camcorder is playing back recordings from the disc.

Example of Use for News Gathering



Other Camcorder Features

- Built-in ND filter wheel: Clear, 1/4ND, 1/16ND, 1/64ND
- Down-converted output: MPEG HD playback can be converted to SD and output via the SD composite, component*, or i.LINK (DV OUT) connector
- Freeze Mix: superimposes a pre-recorded image in the view finder. This allows the operator to quickly and easily frame or reposition a subject when a shot must be taken from the same position as a previous take
- Thumbnail Search operation
- Expand function
- Scene Selection function for in-camera cuts-only editing**
- Ability to write an EDL (the result of Scene Selection) back onto disc
- Proxy Data recording
- Four assignable buttons: two on the camera handle and two on the inside panel,which enable operators to assign frequently used functions
- Auto Tracing White Balance for automatic adjustments of camera colour temperature according to lighting changes
- Memory Stick™ and Memory Stick Pro™ media (up to 2 GB): for storage of camcorder setup files
- Metadata recording: UMID, Extended UMID, EssenceMark (Shot Mark)
- A Sony WRR-855 Series Wireless Microphone Receiver can be attached to the camcorder via the CA-WR855 adaptor
- Remote control operation via the Sony RM-B150 and RM-B750 remote control units
- Intelligent light system synchronises strobe on/off to the REC button
- Four types of software supplied***: PDZ-1 Proxy Browsing Software, PDZ-VX10 XDCAM Viewer Software, Proxy Viewer Software and PDZK-P1 XDCAM Transfer Software (for use with Apple Final Cut Pro™)

*SD component output is only available on the PDW-F335.
**The video and audio cannot be edited independently.
***The latest versions of software can be downloaded from the Sony Website. Please contact your nearest Sony office for details.

Side

Rear

Connector Panel (PDW-F355)

Connector Panel (PDW-F335)

Side

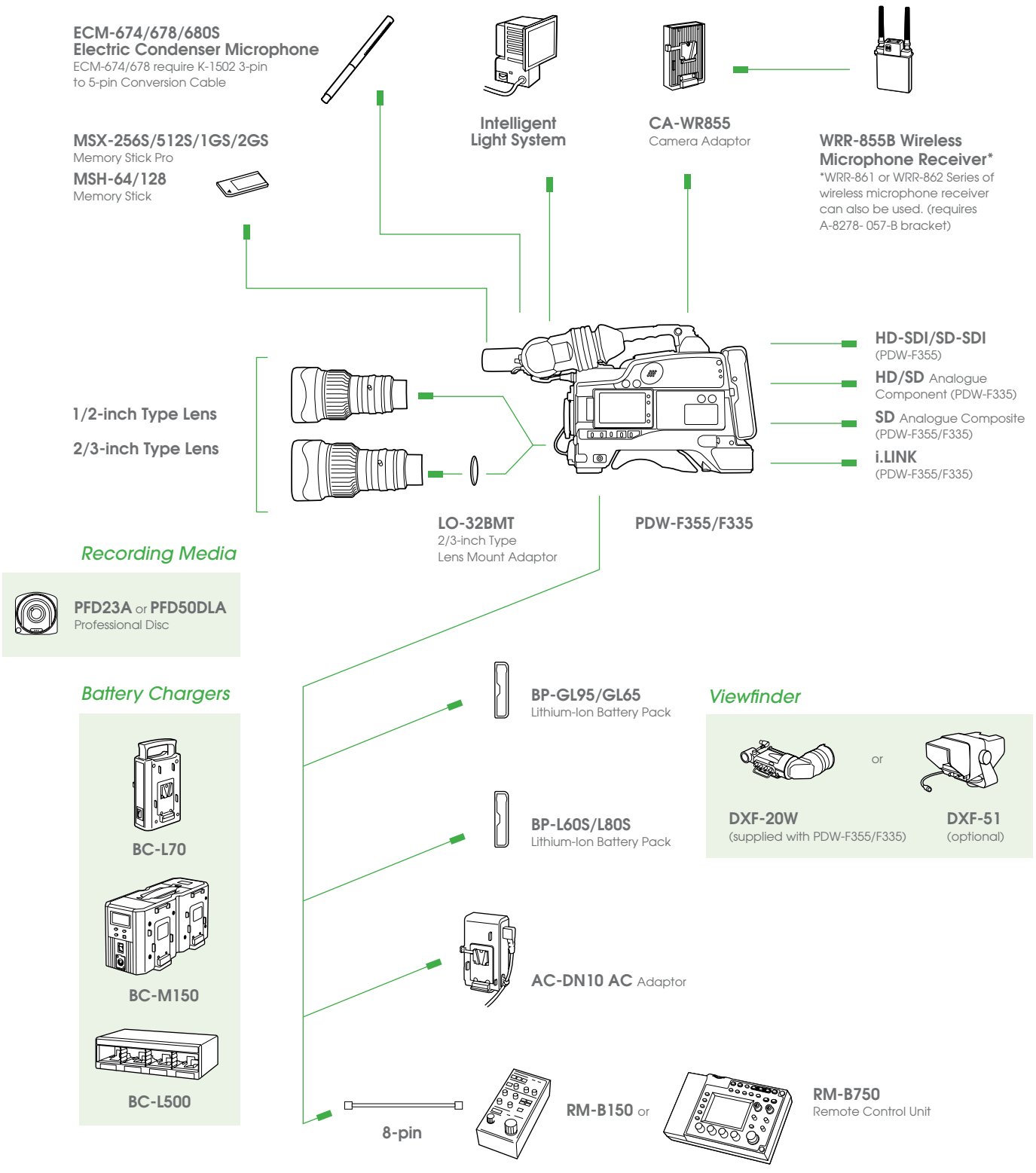
Rear

Side

Rear

Camcorder System Diagrams

Unless specified as "supplied", all the components below are optional.



XDCAM **HD** Decks / Drive

PDW-F75 Recording Deck / PDW-F30 Viewing Deck / PDW-U1 Drive Unit

XDCAM HD decks are highly versatile and are ideal for many different applications including HD video recording, editing, playout, archiving and presentations at large exhibition or conference venues.

The PDW-F75 is a fully-featured recording deck that can record in both high definition (MPEG HD) and standard definition (DVCAM) modes*. It can record onto both PFD50DLA Dual Layer and PFD23A Single Layer Professional Disc and provides up to 4.5 hours of HD recording onto one PFD50DLA. The PDW-F75 is equipped with a comprehensive range of interfaces for integration into both AV and IT-based systems. HD-SDI input and output, HD analogue component and composite outputs and more are provided.

The PDW-F30 is a viewer and NLE feeder, which can also record MXF files (in both MPEG HD and DVCAM) via its i.LINK (File Access Mode) or Ethernet** interfaces. It works with PFD23A Single Layer Professional Discs.

Both models can also input and output a 25 Mb/s HDV stream (MPEG-2 TS) for interfacing with HDV™ products or HDV-based non-linear editors via their i.LINK port***.

The PDW-F75 and PDW-F30 have been designed to offer maximum speed of operation. They are equipped with a VTR-like jog dial, providing familiar and fast control of playback. In addition to the random-access capability, "Thumbnail Search", "Expand" and "Scene Selection" functions significantly increase operational efficiency.

*Possible from inputs via the SD-SDI or SD analogue composite interfaces, which require the optional PDBK-104 board.
**Requires the optional PDBK-101 board.
***Requires the optional PDBK-102 board.

PDW-F30

PDW-F75