

Digital Cinematography Camera
F35 / F23



SONY



www.sonybiz.net/F23
www.sonybiz.net/F35





CINEALTA™ LIBERATING MOVIE PRODUCERS



CINEALTA — a name that proudly symbolises the bond between cinematography and Digital High Definition imaging. It distinguishes a Sony family of products and systems that offer new levels of creativity in the production, post-production and exchange of motion pictures. It also brings together the quality and universality of 24-frame cinematography with the real-time capabilities, efficiency and flexibility of Digital High Definition technology. And it stimulates the convergence of Motion Picture Film and Digital High Definition production on a global basis.

CineAlta products, delivering cinema-quality pictures at selectable frame rates, are simplifying International Programme Exchange by minimising the need for standards conversion. They are also opening up entirely new possibilities for international co-production. Movie-making has been liberated by the creative empowerment of the cinematographer. It is facilitated by real-time HD image evaluation on-set, instant replay of full-colour high-resolution digital "takes," real-time image optimisation while shooting, a 50-minute shooting load and most importantly, by the significant cost-benefits associated with this digital medium.

CineAlta products provide a seamless bridge between 24-frame film originals and a final 24P digital master, giving each frame of film a one-to-one correspondence with progressive HD frames. The CineAlta environment readily interfaces with the computer graphics world, liberating post-production. And the final liberation is achieved through the direct colour conversion of progressive 24P masters to film and to a host of other international digital HDTV and SDTV distribution formats.

EXPAND YOUR CREATIVE POSSIBILITIES WITH A CHOICE OF FILM-STYLE DIGITAL CINEMATOGRAPHY CAMERAS



Sony has proudly introduced two new powerful film-style digital cinematography cameras to the CineAlta acquisition line-up. The F35 and F23 cameras combine the proven technology used in previous CineAlta acquisition models with a totally new ergonomic design to create two genuine film-style digital cinematography cameras.

The F23 is equipped with a newly developed optical head block that adopts a specially made prism allowing the camera to capture images with a wide colour gamut (called S-Gamut). Well-proven 2/3-inch CCD imagers with a high-precision 14-bit A/D converter, and a state-of-the-art DSP LSI, deliver extremely rich tonal gradation and the highest picture quality with low noise. It supports full-bandwidth RGB 4:4:4 1920 x 1080 image processing and multiple output formats including 24P, 50P and 59.94P, plus true variable frame-capturing capability, which is also commonly known as "over-cranking" and "under-cranking" from 1 to 60P with speed ramping.

The F35 complements the F23 by offering a new Super 35mm-sized CCD sensor and PL lens mount for cinematographers who have an ardent passion for 35mm film lenses. The F35's newly developed Super 35mm-sized CCD sensor provides breathtaking picture quality with 35mm film depth-of-field and F23-equivalent wide colour gamut.

The PL lens mount of the F35 allows flexible use of the vast majority of 35mm cinema lenses, which greatly expands creative possibilities for cinematographers.

Both the F35 and F23 provide an uncompromising design that allows direct docking with Sony's SRW-1 portable HDCAM SR™ recorder. It's also possible to use the F23 and the F35 together, for even more creative freedom.

Developed specifically for cinematographers, both the F35 and F23 offer a compact, rugged and unique design that is similar to film-type cameras. Sony's SRW-1 – an RGB 4:4:4 companion digital recorder – can dock directly to the top or the rear of the F35 or F23, eliminating the need for cumbersome cable-handling between the camera and recorder. When more mobility is required, such as for aerial and underwater shooting applications, the SRW-1 can be connected to the F35 or F23 using a Dual-Link cable connection or a single optical cable, which keeps these cameras as small and light as possible.

When used with the SRW-1 recorder, the F35 and F23 provide a variable frame rate recording capability that allows users to create unique 'looks' or special effects of slow and fast motion. Frame-rate settings are variable from 1 frame per second (fps) to 60 fps (F23) / 50 fps (F35) in single frame increments. Other creative features – such as an S-LOG gamma mode, a HyperGamma mode and a unique gamma-curve editing capability – are also incorporated into the F35 and F23.

The F35 and F23 can be used with an array of film camera accessories directly, which is extremely important for film camera users.

Offering exceptional quality, film-style operability and invaluable creative features – plus a true blend of the latest technology with worthy film tradition – the F23 will enrich the creativity and workflow of commercial production, high-end television production applications and movie-making.

Furthermore, the F35 firmly expands the possibility for high-end drama, commercial and film productions.





TECHNOLOGY DELIVERING ULTIMATE QUALITY AND CREATIVITY





1 35mm-sized CCD

2 2/3-inch CCD

Full-bandwidth RGB 4:4:4 HD Digital Image Capturing

Both the F35 and F23 provide a full-bandwidth 4:4:4 digital high definition (HD) R, G and B output that delivers top-quality picture and colour performance. Connecting with its companion SRW-1 HDCAM SR portable recorder, the F35 and F23 create a stunning, quality portable HD image-recording system. This capability yields improvements, especially in compositing and colour-correction processes where highly exacting special-effects sequences and elaborate finishes are required in the DI process. The F35 and F23 also support high-quality 4:2:2 Y/Cb/Cr image capturing and extended colour gamut.

Variable Frame Rate Image Capturing

Variable frame rate image capturing, commonly known as over-cranking and under-cranking in film cameras, is one of the most common techniques used in cinematic, commercial and other high-quality productions. The F35 and F23 realise this long-coveted functionality in conjunction with the SRW-1's "SR Motion" feature¹. The F35 and F23 provide a stunning feature called "Select FPS" to record variable frame rate images from 1 fps to 50 fps (F35) / 60 fps (F23) in 4:2:2 mode and from 1 fps to 30 fps in 4:4:4 mode. Frame settings from 1 fps to 50 fps (F35) / 60 fps (F23) in 4:4:4 mode are also available², which can create high-quality images with striking details. These variable-speed images can be played back by the SRW-1 recorder immediately after shooting, without external processing.

1 An SRW-1 recorder with an optional HKSR-102 Picture Cache Board installed is required and has to be docked directly to the F35, F23 or the CA-F101 fibre adaptor.

2 An optional HKSR-103 RGB 60P Processor Board is required in the SRW-1.

State-of-the-art CCD Technology

Super 35mm-sized CCD (for F35)

The F35 is equipped with a newly-developed 12 mega pixel Super 35mm-sized CCD sensor that yields a full HD resolution of 1920 x 1080 picture at frame rates up to 50 progressive frames per second. The result is exceptional image quality, a wide dynamic range and extremely flexible depth-of-field control. The single sensor CCD uses a RGB striped filter without colour filter arrays such as Bayer pattern, providing a true RGB 4:4:4 sample off the imager and colour values are never "interpolated" from neighbouring pixels.

Three 2/3-inch Type Progressive CCDs (for F23)

The F23 is equipped with three 2/3-inch type progressive CCDs, each with an effective pixel count of 1920 x 1080 (H x V), delivering a full HD resolution image.

This progressive scan CCD technology, together with the high-precision 14-bit A/D converter, provides an enhanced dynamic range and a remarkable signal-to-noise ratio (equivalent to super low grain film stock) resulting in extremely rich tonal gradation that is 50% larger than conventional HD cameras.

This CCD also provides a high sensitivity of T10 (ISO 430) in 23.98P mode. Furthermore, a newly developed prism system allows the camera to capture images with a wide colour space that is equivalent to the colour gamut for film.

14-bit A/D Converter and Advanced DSP LSI (for F35/F23)

By incorporating advanced CCD technology and 14-bit A/D converter, the exposure latitude of the F35 and F23 is significantly extended, allowing users to shoot challenging high-contrast scenes. This not only gives greater freedom in highlight control, but also in depth-of-field control – which are important factors for creative shooting in the same way as film. If you want to use it, a new powerful and high-speed DSP enables highly sophisticated image controls to expand the use of in-camera effects, such as multi-matrix, adaptive detail and skin-tone detail corrections.



FLEXIBILITY SMART OPERATION





Multi-format Image Capturing

The F35 and F23 offer a broad choice of capturing modes, ranging from 59.94i/50i interlace to 59.94P/50P progressive mode.

This multi-format image-capturing capability allows the F35 and F23 cameras to be used for multiple purposes in HD content-creation applications, including cinematic, commercial and television productions. The following range of frame rates can be used:

- > Progressive mode: 1080/23.98P, 24P, 25P, 29.97P, 50P, 59.94P
- > Interlace mode: 1080/50i, 59.94i

Wider Colour Space: S-Gamut

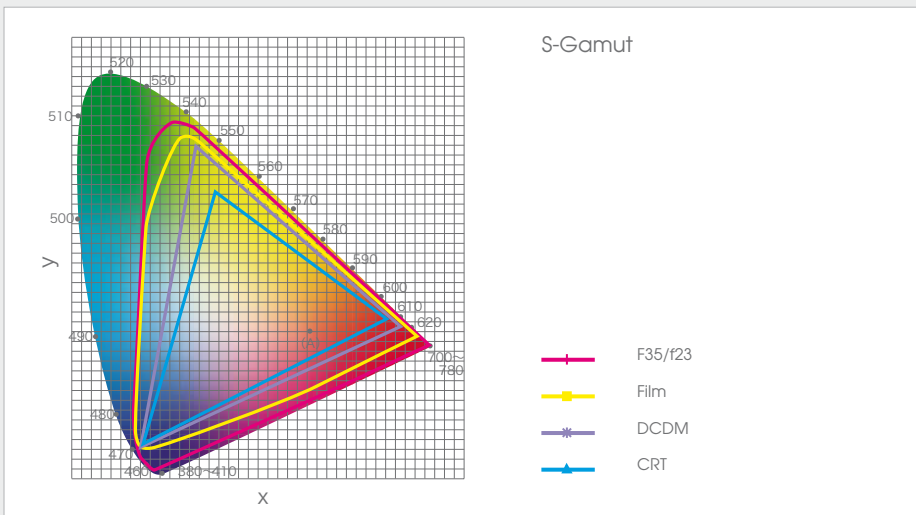
A newly-developed optical head block, 3D LUT (look-up table) and proprietary colour management system allow the F35 and F23 cameras to capture images with a wide colour gamut called S-Gamut that exceeds that of film. This mode provides cinematographers with greater colour-correction capabilities during the post-production process and, with S-Log and the HDCAM SR recording format, no loss of quality.

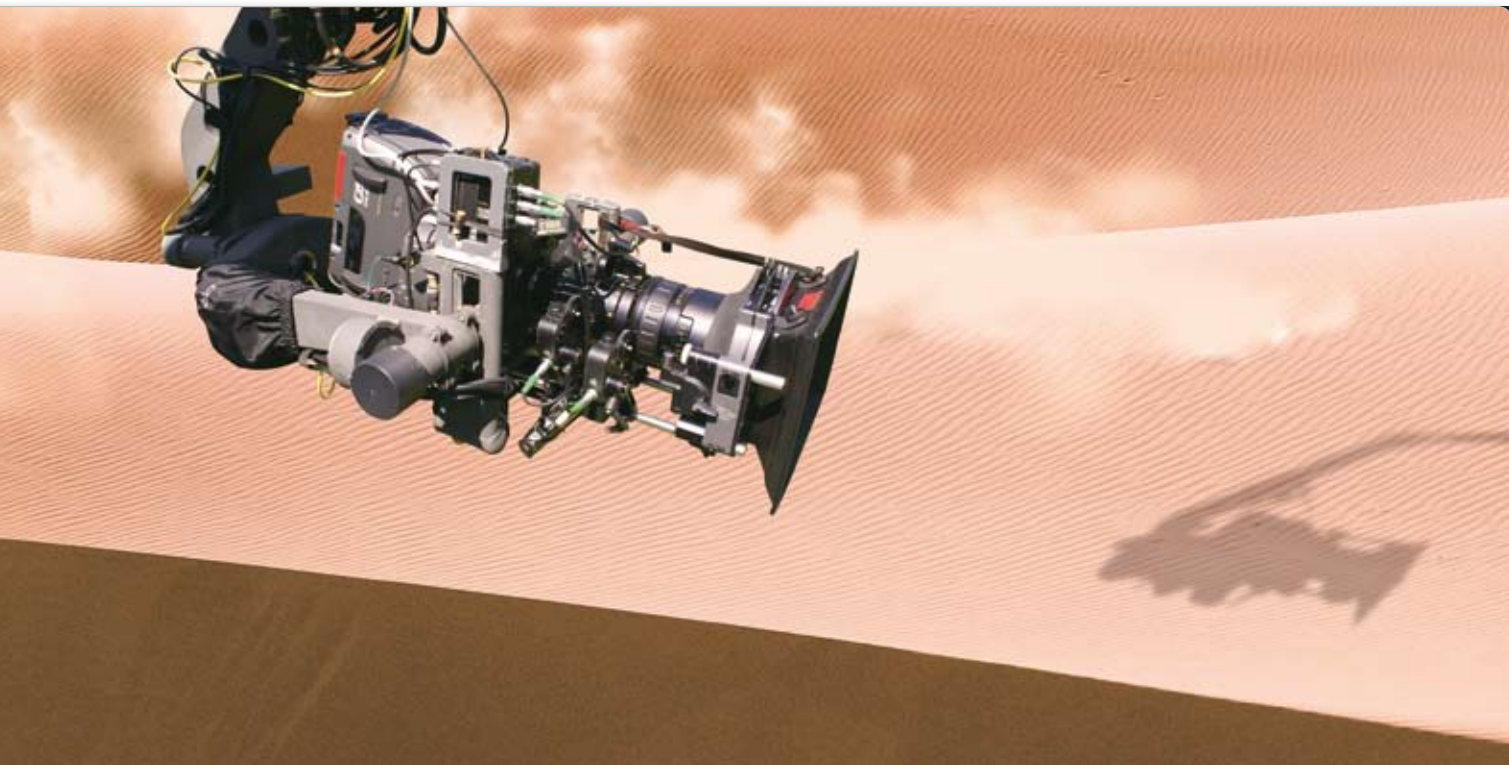
Flexible Design

The design of the F35 and F23 is based on years of thorough discussion with experts in cinematography. The cameras employ a totally new ergonomic design – compact, lightweight and cable-free – for a high level of mobility.

The camera body is compact and lightweight, weighing just 5 kg (11 lb) without a viewfinder and the shape is similar to that of a film camera. The SRW-1 recorder can dock directly to the top or rear of the F35 or F23, in a similar way to how magazines would be attached to a film camera, eliminating the need for cumbersome cable-handling between the camera and the recorder.

What's more, the camera handle is flat on top, allowing for stable attachment to a Steadicam® for low-mode operation.





FLEXIBILITY ENHANCED FILM-STYLE OPERATION

New Ergonomics

New Accessories for Tethered System: CA-F101 and HKSR-101

There are some occasions when a recording device needs to be tethered from a camera, such as when the camera itself has to be as small as possible (e.g., when shooting in space-constrained areas) and when the recording device needs to be consolidated in the "video village". Sony now offers two new accessories, the CA-F101 Optical Fibre Camera Adaptor and the HKSR-101 Optical Interface Unit, to establish such a "tethered system". By docking the CA-F101 to the F35/F23 and installing the HKSR-101 to the SRPC-1 Processor Unit, it is possible to separate the SRW-1/SRPC-1 from the F35/F23 using a

single optical fibre cable, which allows Dual-Link HD-SDI signals as well as camera control signals to be transmitted to and from the camera. This system can greatly reduce the number of cables between the camera and the VTR, thereby reducing the burden of cumbersome cable-handling. Without the CA-F101 and the HKSR-101, it is still possible to tether the SRW-1/SRPC-1 to the F35/F23 – by using a Dual-Link HD-SDI conventional BNC cable connection between the camera and the VTR via the supplied interface box.

- 1 The SRPC-1 Video Processor is required.
- 2 Power supply cannot be delivered over the optical fibre cable in this system.
- 3 The variable frame rate by this connection is from 1 fps to 60 fps (F23) / 50 fps (F35) in 4:2:2 mode and from 1 fps to 30 fps in 4:4:4 mode.



F35 with CA-F101 and HKSR-101



SRW-1/SRPC-1



Rugged and Reliable Lens Mount

PL Lens Mount for F35

The F35 camera employs a PL lens mount, which is standard for film cameras, allowing a number of zoom and prime lenses for 35mm film cameras to be used. This greatly broadens the choice of lenses for a wider spectrum of creative expression.



F35



F23



B4 Lens Mount for F23

The F23 integrates an extremely durable B4 lens mount to withstand frequent lens changes. Utilising a rigid material with temperature-stabilised characteristics enables stable support of heavy lenses and dramatically reduces any galling of the lens mount or drift of back focus.

Compatible with Film Camera Accessories

The F35 and F23 are designed to be compatible with a variety of film camera accessories such as those supplied by ARRI™, giving users a huge choice. These include bridge plates, matte boxes, follow focus units, lens focus/zoom/iris servo control units and more. These film camera accessories can be attached to the F23 without any modifications, so users who principally work with film can work exactly as normal.

For the F23, a range of special digital cinematography zoom and prime lenses with 2/3-inch type B4 mountings are available from major manufacturers. These lenses are calibrated in T-stops rather than F-stops and have cinematic-style focus rings and gear teeth for follow focus kits.

For the F35, a broad array of film camera accessories can be utilised. The film camera accessories, including lenses, can be directly attached to the F35. Therefore, customers who principally work with film can fully utilise their existing film accessories.

Intuitive Controls

The F35 and F23 have been designed with special care to provide intuitive operation for film-users and also prime programme production users. They offer two operation modes – “Cine Mode”, which is dedicated for movie-making applications where the image will be graded in the post-production process and “Custom Mode”, which is suitable for users who want to fine-tune camera parameters to produce their desired look while shooting. The “Cine Mode” offers stringently selected menus that are designed to be familiar to film users, allowing them to intuitively control camera settings as they would when operating a film camera. In contrast, “Custom Mode” allows access to full camera setup functions. In addition, buttons and indicators are designed to give film users a familiar feel.



Intuitive Controls

Supplied Assistant Panel

In addition to the user-friendly control panel on the camera body, the F35 and F23 come equipped with an “Assistant Panel” remote controller. This is equipped with identical buttons and indicator layout as the on-camera control panel and provides intuitive remote control of basic camera and VTR operations, such as changing vframe rates, shutter angle and gain, etc. This easy-to-use panel greatly increases operational convenience in the field.



Supplied Assistant Panel



OPERATIONAL **VERSATILITY**

Supplied Interface Box

For flexible connection to a range of peripherals, the F35 and F23 are supplied with an interface box. This provides two HD-SDI outputs, which can be used either for Dual-Link connection with the SRW-1 recorder or a single HD-SDI connection. It also comes equipped with two-channel analogue audio inputs. This interface box can also be used for battery operation, allowing Sony's BP-GL95 to be attached to the F35 or F23¹.

¹ To use the battery, the optional BKP-L551 is required between the camera and battery. This cannot also power the SRW-1.



Built-in Down-conversion Output

The F35 and F23 provide an analogue composite down-conversion output. With this capability, HD-originated content can be monitored using an existing SD monitor.

12 V and 24 V DC Accessory Power Outputs

The F35 and F23 can supply power to any compatible accessories attached to them, such as a lens focus/zoom/iris servo control unit, through its DC 12 V and DC 24 V¹ connectors. This convenient feature eliminates the need for external power supply equipment for these accessories and contributes to maintaining high mobility even when the camera is configured with many accessories.

¹ To supply power to an accessory that operates with DC 24 V, a dual-voltage battery, which can supply both DC 12 V and 24V simultaneously, is required.



Built-in Down-conversion Output

12 V and 24 V DC Accessory Power Outputs



F23

Twin Viewfinder Operation

Two viewfinders can be attached to the F35 and F23 for simultaneous monitoring. This is convenient particularly when a number of people want to view the same picture at the same time.

The HDVF-C35W 3.5-inch¹ type HD LCD colour viewfinder is recommended.

¹ Viewable area measured diagonally.

Assignable Switches

Functions frequently used in the field can be assigned to three push buttons and one switch, allowing the operator to make rapid changes when working in the field.

Memory Stick Storage of Camera Setup Parameters

The F35 and F23 are capable of saving and recalling setup parameters such as scene files, reference files and lens files via Memory Stick PRO™ media¹. This allows users to effectively manage camera parameters for individual scenes, plus the specific camera-setup preferences of individual operators, such as viewfinder indicator settings.

¹ Although an operational check of this product has been performed with up to 2GB Memory Stick PRO media, please note that operation is not guaranteed for every type of Memory Stick™ media

Memory Stick Slot for Storage of Camera Setup Parameters

Assignable Switches



F35



IN-CAMERA CREATIVITY

Versatile Gamma Settings

In addition to artistic and skillful lighting techniques, the use of in-camera gamma settings plays an important role in handling contrast range and producing a specific 'look' for an image. The F35 and F23 offer the following enhanced gamma control options to expand such capabilities:

S-LOG Gamma

The F35 and F23 are equipped with an innovative "S-LOG" gamma that can make full use of the wide dynamic range of the CCD. The characteristics of the "S-LOG" gamma are similar to that of a film negative, which allows users to flexibly adjust images as they wish in the post-production process. When the S-LOG mode is selected, the full latitude (dynamic range) captured by the CCDs is efficiently converted to the gamma data using Sony's unique algorithm and can be transferred as a 10-bit HD-SDI signal. This unique gamma-handling technique allows all the image information – even in extreme highlight areas, for example – to be maintained so that tone can be faithfully reproduced.

HyperGamma

HyperGamma is another powerful gamma feature, which is inherited from the HDW-F900R CineAlta camcorder.

The F35 and F23 provide four types of HyperGamma curve: HyperGamma 1, 2, 3 and 4. Operators can select the best-suited preset gamma curve depending on the scene being shot and their desired 'look' for the image.

HyperGamma 1 and 3 enhance natural tonal reproduction in low-key areas, while HyperGamma 2 and 4 are suitable for scenes with wide dynamic ranges.

All HyperGamma are quickly accessible via the set-up menu.

For further information, please go to www.sonybiz.net/HyperGamma.

Customisable Gamma Curve by CVPFileEditor™ Software

The F35 and F23 allow cinematographers to customise gamma curves depending on their creative needs using the CVPFileEditor gamma creation software. This software runs on a Microsoft® Windows® PC, and enables the gamma curve to be visually edited via an easy-to-use GUI, simply by plotting the x and y values of each point of the curve. Once the gamma curve has been created, it can be easily loaded into the F35 or F23 using Memory Stick media or by direct Ethernet connection*.

* Requires at least V4 of CVPFileEditor.





Multi Matrix OFF

Simulated image



Knee Saturation OFF

Simulated image



Low Key Saturation OFF

Simulated image



Multi Matrix ON



Knee Saturation ON



Low Key Saturation ON

Multi Matrix Control

The multi matrix function of the F35 and F23 allow colour adjustments to be applied over a colour range specified by the operator. The colour spectrum is divided into 16 areas of adjustment (approximately 20 degrees), where the hue and/or saturation of each area can be flexibly modified. This unique function presents interesting 'in-camera' effects – similar to the secondary colour correction normally reserved for post-production special-effects work – and is performed at the full bit depth.

Knee Saturation Correction

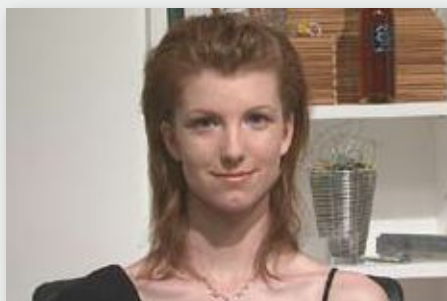
Shooting very bright portions of an object (such as key light conditions from a person's forehead) can reduce colour saturation and change the hue in highlight areas. The F35 and F23 adopt a knee saturation function, in which this "washed-out" effect on saturation and hue change is reduced to a minimum and offers far more natural colour reproduction in highlight areas.

Low Key Saturation Correction

With traditional video cameras, low light areas can be subject to a reduction in saturation. This can result in the colours in those areas appearing "washed-out". The low key saturation function on the F35 and F23 eliminates this problem by changing the amount of colour saturation at low light levels by boosting it to an optimised level, thus providing more natural colour reproduction.

Triple Skin Tone Detail Control

The F35 and F23 come equipped with a triple skin tone detail control function, which allows for independent detail control over three specified colours. This enhances the capability of skin tone detail correction – enabling one colour selection to be used for reducing the detail level of skin colour, and two other selections to be used for either increasing or decreasing the detail level of two other objects. This can be a powerful imaging tool not available in film shooting.



Skin Tone Detail OFF



Skin Tone Detail ON

Simulated image



WIDE VARIETY OF SYSTEM COMPONENTS

MSU-900/950 Master Setup Unit

The MSU-900/950 Master Setup Unit is a central control panel used for the adjustment of camera parameters in a multi-camera system. Equipped with a 6.5-inch¹ type LCD display, the MSU-900/950 allows clear viewing of adjustment parameters during operation.

A built-in Ethernet interface (10BASE-T/100BASE-TX) enables the MSU-900/950 to be connected to the F35 and F23 cameras either directly or via a network hub. Equipped with a Memory Stick media slot, setup parameters can be stored and transferred between cameras using Memory Stick media.

¹ Viewable area measured diagonally



MSU-900



MSU-950



ARRI Wireless Remote Control Unit WRC-2



RM-B750

RM-B750 Remote Control Unit / ARRI Wireless Remote Control Unit WRC-2

The RM-B750 Remote Control Unit establishes a highly mobile and fully controllable camera system in the field by integrating control capabilities equivalent to those of the MSU-900/950 Master Setup Unit. The combination of an LCD touch-panel screen and direct push buttons enables users to adjust and control camera parameters. When necessary, basic tape transport of the connected SRW-1 can be controlled from the RM-B750. For further operational convenience, the RM-B750 has a Memory Stick media card slot that enables various setup parameters to be stored and transferred between cameras.

In addition, the industry-standard ARRI Wireless Remote Control Unit WRC-2 and Universal Motor Controller UMC-3 can also be utilised to control the F35 and F23.

By using the WRC-2, the status of the camera can be displayed and the frame rate can be adjusted during recording, just like a conventional film camera. This is done in the same way as you would do on the camera itself.

To keep the correct exposure of the captured image, the F35 and F23 are equipped with two compensation modes: Angle compensation mode and Gain compensation mode.

When a change in the frame rate is detected, whichever compensation mode is activated at the time works automatically to retain the video level.

Angle compensation mode automatically corrects the shutter angle to retain the video level.

Gain compensation mode automatically corrects the gain to retain the video level, while maintaining the existing shutter angle setting.

HDVF-C35W LCD Colour Viewfinder

The HDVF-C35W, 3.5-inch¹ type HD LCD colour viewfinder provides an optimum level of visual information via a full-colour TFT-LCD device. Employing a unique detachable eye-piece construction, camera operators can clearly view images from various positions and angles. In addition, this LCD display offers a wide viewing angle, offering operational convenience when a number of people want to view the same picture at the same time. What's more, by incorporating an aspherical lens in its eye-piece, aberration at each corner of the viewfinder is reduced for easy focusing.

¹ Viewable area measured diagonally.



HDVF-C35W



OPTIONAL ACCESSORIES

Optional Accessories From Sony



HDVF-20A
2.0-inch¹ CRT B/W Viewfinder



HDVF-C35W
3.5-inch¹ LCD Colour Viewfinder



RM-B750
Remote Control Unit



RM-B150
Remote Control Unit



MSU-900
Master Setup Unit



MSU-950
Master Setup Unit



MSX-256S/512S/1GS/2GS
Memory Stick PRO Media



ACDN2B
AC Adaptor



AC-DN10²
AC Adaptor



BKP-L551²
Battery Adaptor



BP-GL95²
Lithium-ion Rechargeable Battery



BC-L500
Battery Charger



BC-L70
Battery Charger



BC-L160
Battery Charger

¹ Viewable area measured diagonally

² These cannot be used in the direct docking configuration of the F35/F23 and SRW-1.

Optional Accessories From Other Manufacturers

For details, please contact each manufacturer

ARRI (for F35/F23)



BP-5
Bridge Plate



BP-8
Bridge Plate



MB-20
Matte Box



CLM-1
Lens Servo Unit



CLM-2
Lens Servo Unit



UMC-3
Wireless Lens Control System



FF5-HD
Follow Focus Unit



WRC-2
ARRI Wireless Remote Control Unit

Anton/Bauer (for F35/F23)



DT500
Power Supply Unit



CINE-VCLX-CA
Battery System

OPTIONAL ACCESSORIES – LENSES

Lenses for F35

For details, please contact each manufacturer

Carl Zeiss



Master Prime Lenses



Ultra Prime Lenses



Light Weight Zoom
LWZ-1

Cooke



S4/i Prime Lenses

Angénieux



Optimo
15-40 mm



Optimo
17-80 mm



Optimo
28-76 mm



Optimo
28-76 mm

Lenses for F23

For details, please contact each manufacturer

Carl Zeiss



DigiPrime Lenses



DigiZoom Lenses



Sharpmax

Canon



HD-EC Prime Lenses FJs Series



HD-EC Zoom Lens
HJ21x7.5B KLL-SC



HD-EC Zoom Lens
HJ11x4.7B KLL-SC



HD-EC Zoom Lens
HJ8x5.5B KLL-SC

Fujinon



HD CINE SUPER ZOOM
Prime Lenses



HD CINE COMPACT C Lens
HAc13x4.5



HD CINE COMPACT C Lens
HAc15x7.3

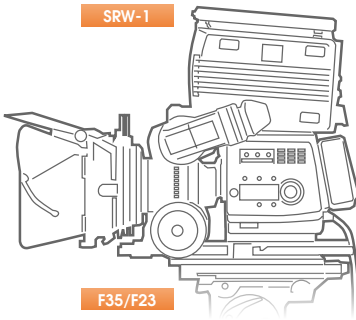


HD CINE COMPACT C Lens
HAc18x7.6

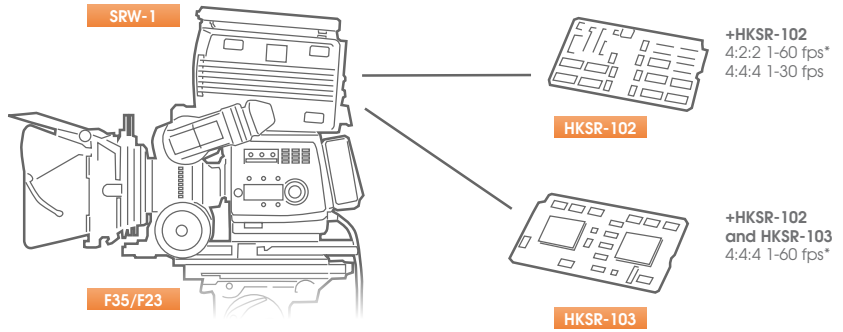
SYSTEM CONFIGURATION

F35/F23 + SRW-1 Direct Docking

RGB 4:4:4 Recording



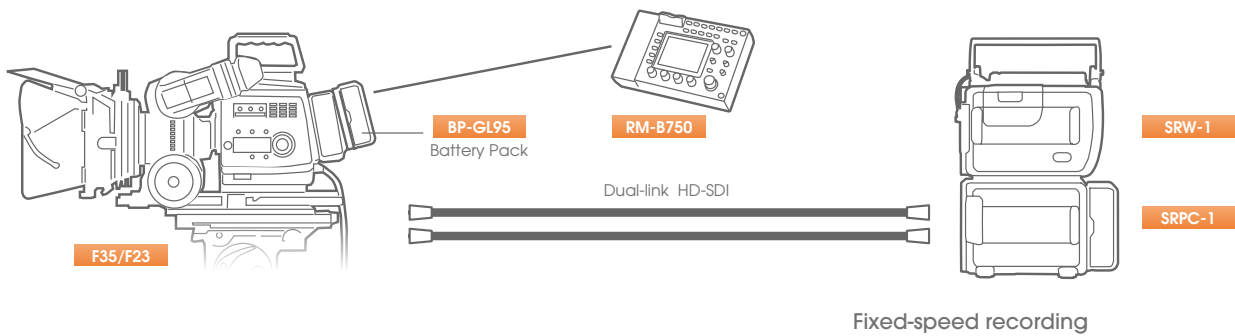
Select FPS Recording



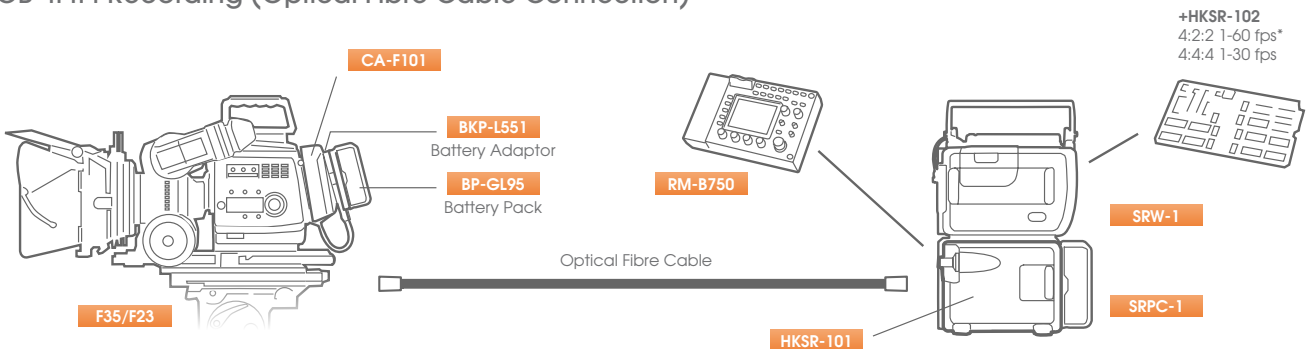
* F35 is 1-50 fps.

F35/F23 + SRW-1/SRPC-1 Separate System

RGB 4:4:4 Recording (HD-SDI Dual-Link Connection)



RGB 4:4:4 Recording (Optical Fibre Cable Connection)

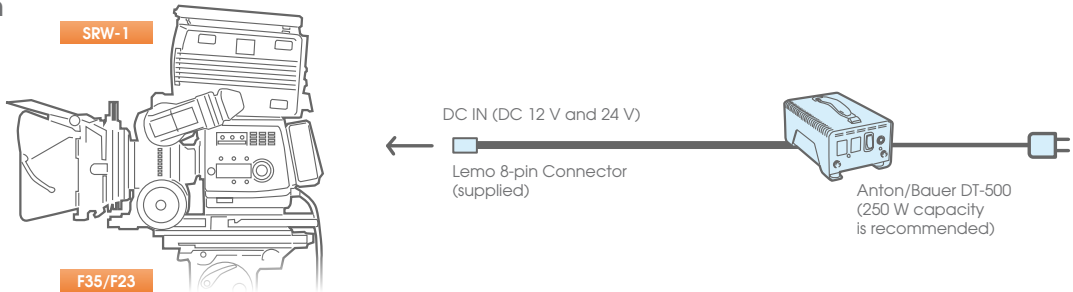


* F35 is 1-50 fps.

POWER SUPPLY CONFIGURATION

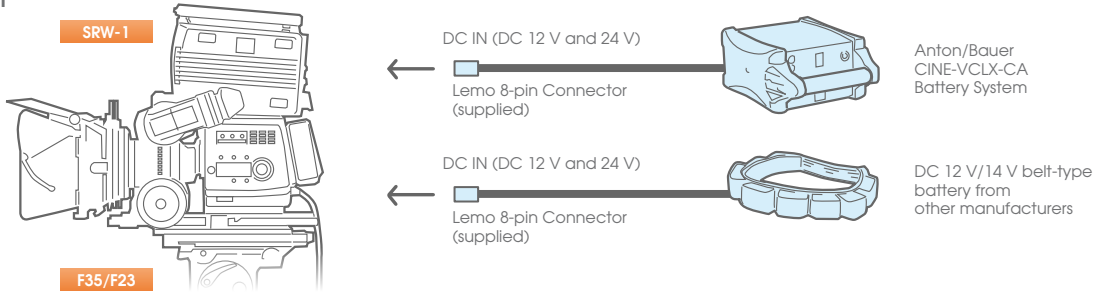
F35/F23 + SRW-1 Direct Docking

AC Operation



Sony AC-DN2B/DN10 AC Adaptor cannot be used in this configuration

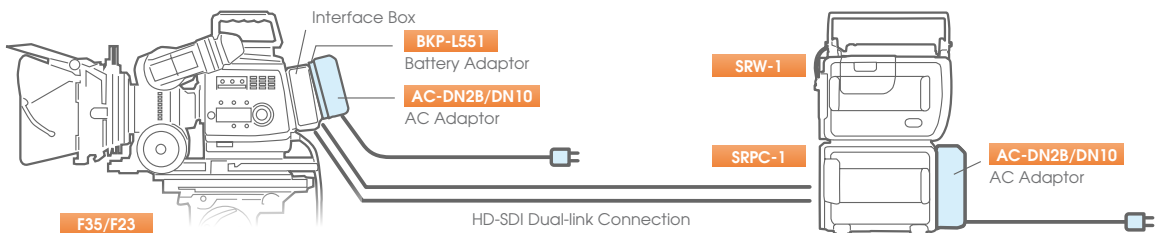
DC Operation



Sony BP-GL95 Battery cannot be used in this configuration

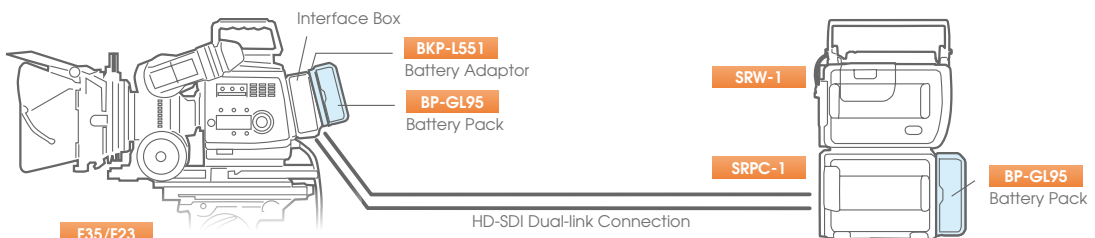
F35/F23 + SRW-1/SRPC-1 Separate System

AC Operation



AC-DN2B/DN10 are separately required for the F35/F23 and the SRPC-1/SRW-1

DC Operation (HD-SDI Dual-Link Correction)



Batteries are separately required for the F35/F23 and the SRPC-1/SRW-1

SPECIFICATIONS

General	F23	F35
Mass	Approx. 5.0 kg (11 lb)	
Power requirement	DC 10.5 V to 17 V	
Power consumption	56 W (without lens, viewfinder, at 23.98PsF mode) 116 W (with SRW-1, without lens, viewfinder, at 23.98PsF mode)	58 W (without lens, viewfinder, at 23.98PsF mode) 118 W (with SRW-1, without lens, viewfinder, at 23.98PsF mode)
Operating temperature	0 °C to 40 °C (32 °F to 104 °F)	
Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)	
Camera section		
Pickup device	3-chip 2/3-inch type Progressive CCD	1-chip Super 35 mm type Progressive CCD
Aspect ratio	16 : 9	
Effective picture elements	1920 x 1080 (H x V)	1920 x 3 (RGB) x 2160 (Camera output: 1920 x 1080 RGB)
Optical system	F1.4 prism system	
Built-in filters	A: 3200K, B: 4300K, C: 5600K, D: 6300K, E: ND0.3 (1/2ND) 1: Clear, 2: ND0.6 (1/4ND), 3: ND1.2 (1/16ND), 4: ND1.8 (1/64ND), 5: CAP	
Lens mount	Special made rugged Sony bayonet mount (B4)	ø54 mm PL mount
Sensitivity (at 2000 lx, 89.9% reflective) at Extend Mode at 29.97Psf	Normal Mode T10 ISO430 Extend Mode T11 ISO580	Normal Mode T9 ISO340 Extend Mode T10 ISO450
Registration	Within 0.02% (all zones, without lens)	
Distortion	Below measureable level (without lens)	
Setup card	Memory Stick PRO, MemoryStick PRO Duo	
Signal inputs/outputs		
Genlock video input	BNC type x1, 1.0 Vp-p, 75 Ω	
Audio CH1/CH2 input (with supplied interface box)	XLR-3-31 type (Female), line/mic/mic +48 V selectable	
Test output	BNC type x1, VBS/HD Y	
Dual-Link HD-SDI output (with supplied interface box)	BNC type x2	
Monitor output	BNC type x2, HD-SDI (4:2:2)	
DC input	Lemo 8-pin (Male) x1, DC 10.5 V to 17 V, DC 20 V to 30 V	
DC input (with supplied interface box)	XLR-4-pin type (Male) x1	
DC output	DC 12 V: 11-pin x1, max. 4 A DC 24 V: 3-pin x1, max. 5.5 A	
Lens	12-pin x1	
Remote	8-pin x1	
Viewfinder	20-pin x2	
External input/output	Lemo 5-pin (Female) x1	
Network	RJ-45 type x1, 10BASE-T/100BASE-TX	
Supplied accessories		
Interface box (x1), Assistant panel (x1), Cable for assistant panel (x1), Assistant panel hanger (x1), +B4x8 screw x4, Centre handle (x1), Lemo 8-pin connector (x1), Operation manual (x1)		

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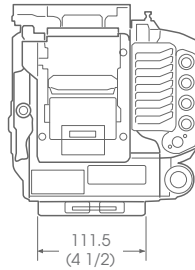
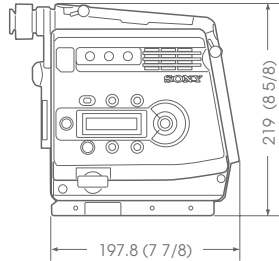
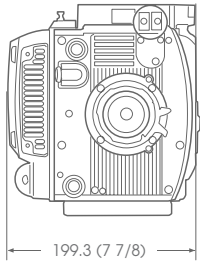
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DIMENSIONS

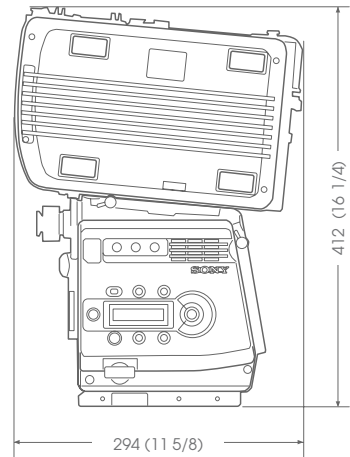
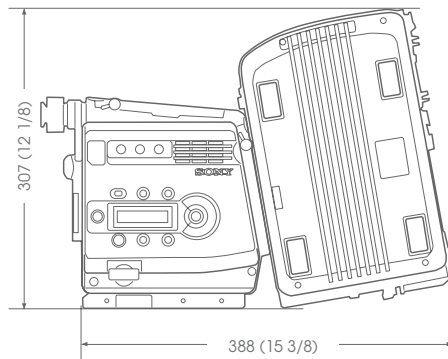
Unit: mm (inches)

F35

F35 body

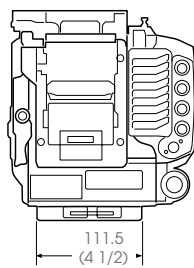
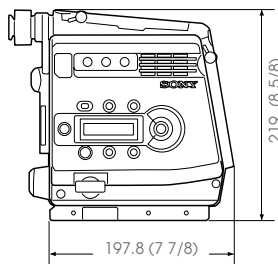
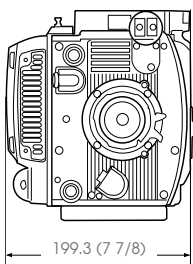


F35 + SRW-1

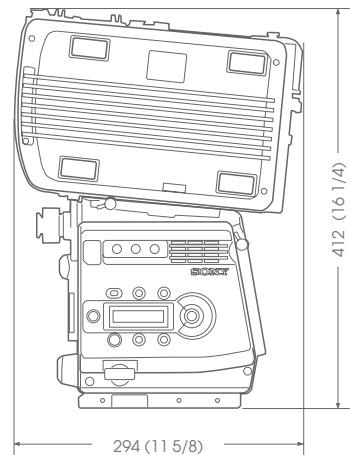
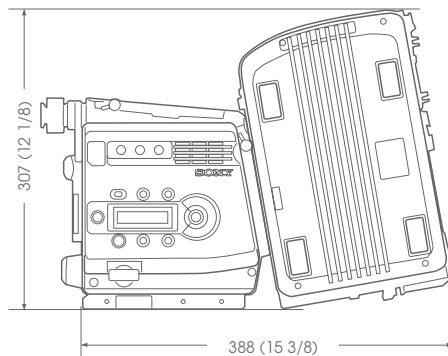


F23

F23 body



F23+ SRW-1



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