

# H A S S E L B L A D **CFV**<sup>39</sup>

The new Hasselblad CFV-39 digital back is custom built to match the design and functionality of the Hasselblad V cameras, thus turning all existing V cameras (please refer to page 3 for details) into a new and easy-to-use digital workhorse. With 39 Mpixels and a sensor twice the size of the best DSLR cameras, the CFV-39 is capable of capturing even the finest detail that the Carl Zeiss lenses can resolve.

In addition Hasselblad has developed its digital lens correction technology to work with the Carl Zeiss lenses. Using this feature you will experience the ultimate image quality, which we could only dream of in our former analogue age. The Carl Zeiss lenses are tuned to work even better, not

least at close range. All you need to do is to enter which lens is used, the aperture and the distance you are working at. After years of developing digital lens correction for the Hasselblad H3D series of cameras, it is a true pleasure to pass on these advances to our V camera photographers.

The Hasselblad CFV-39 also fits traditional technical cameras (view cameras) using the V camera interface plate for mechanical attachment and the flash sync connection to trigger the digital capture.

The Hasselblad CFV-39 thereby brings an ultra high level of integration, flexibility and image quality to the professional photographer who needs the best for both mobile and studio shooting.



- Finest digital integration for the classic Hasselblad V System cameras and lenses
- Hasselblad digital lens correction included for a range of Carl Zeiss lenses (See page 2).  
A requirement is that the included Phocus image processing software is used to perform the digital lens corrections
- Hasselblad Natural Color Solution – one generic profile delivering true colors out of the box
- Cable free operation with all V System cameras including 202FA/203FE/205FCC cameras
- F/FE-lenses can be used
- Square (29 MPixel) or rectangular (39 MPixel) user selectable image formats. Square format automatically adds a crop mask to the image in Phocus
- 100% larger sensor than full frame 35mm DSLRs
- Flexible image storage, including CF card operation

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## Transforms V cameras

The Hasselblad CFV-39 turns virtually all V cameras into a high performance digital cameras in a very user friendly way. You attach the digital back and start shooting. A charged battery and a CF-card must be in place, but no external cables are required.

The CFV-39 will also enable the use of F/FE lenses on a 200 system camera, provided that the camera is slightly modified. The modification disables the electronic functions (ISO/contrast) with E-type magazines, after which ISO is simply selected on the camera body instead.

Fully supported models are: 202 FA, 203 FE, 205 TCC and 205 FCC. Other 200 and 2000 series models can be used with C type lenses only.

## Hasselblad Natural Color Solution

Color management solutions have in the past imposed limitations on professional digital photographers, because of the forced choice of a specific color profile to suit the job: capturing various skin tones, metals, fabrics, flowers etc. To combat this, Hasselblad has developed a new, powerful color profile to be used with its Phocus imaging software. Working with the new Hasselblad RGB color profile enables you to produce outstanding, reliable out-of-the-box colors, with skin tones, special product gradations, and other difficult colors reproduced effectively.

To implement our new unique colors we have developed a new Hasselblad raw file format called 3F RAW (3FR). The new 3F RAW file format is designed to ensure that images captured on Hasselblad digital products are

quickly, effectively and safely stored on the available media. The 3FR file defines the colors in the Hasselblad RGB color space with its out-of-the-box quality, and used in Phocus it removes both the need for experimenting with different color profiles to get optimal colors and the need for selective color corrections.

For maximum flexibility the 3FR files can be opened directly in Adobe Photoshop (CS4 only) or in Aperture on Mac OS-X. Files can also be converted directly into Adobe's raw image format DNG ('Digital NeGative'). Hasselblad image files carry a full set of metadata, including capture conditions, keywords and copyright, facilitating work with image asset management solutions.

## V lens DAC correction

With the introduction of the CFV-39 digital back, we include DAC lens correction for the V system lenses from Carl Zeiss. At this first stage 10 lenses are supported in Phocus; a range that we plan to extend in the future. DAC will completely correct for distortion, lateral chromatic aberration and vignetting in exactly the same way as is currently performed with the H system lenses.

For H camera owners full access to V lens DAC correction is also available when using the CF lens adapter.

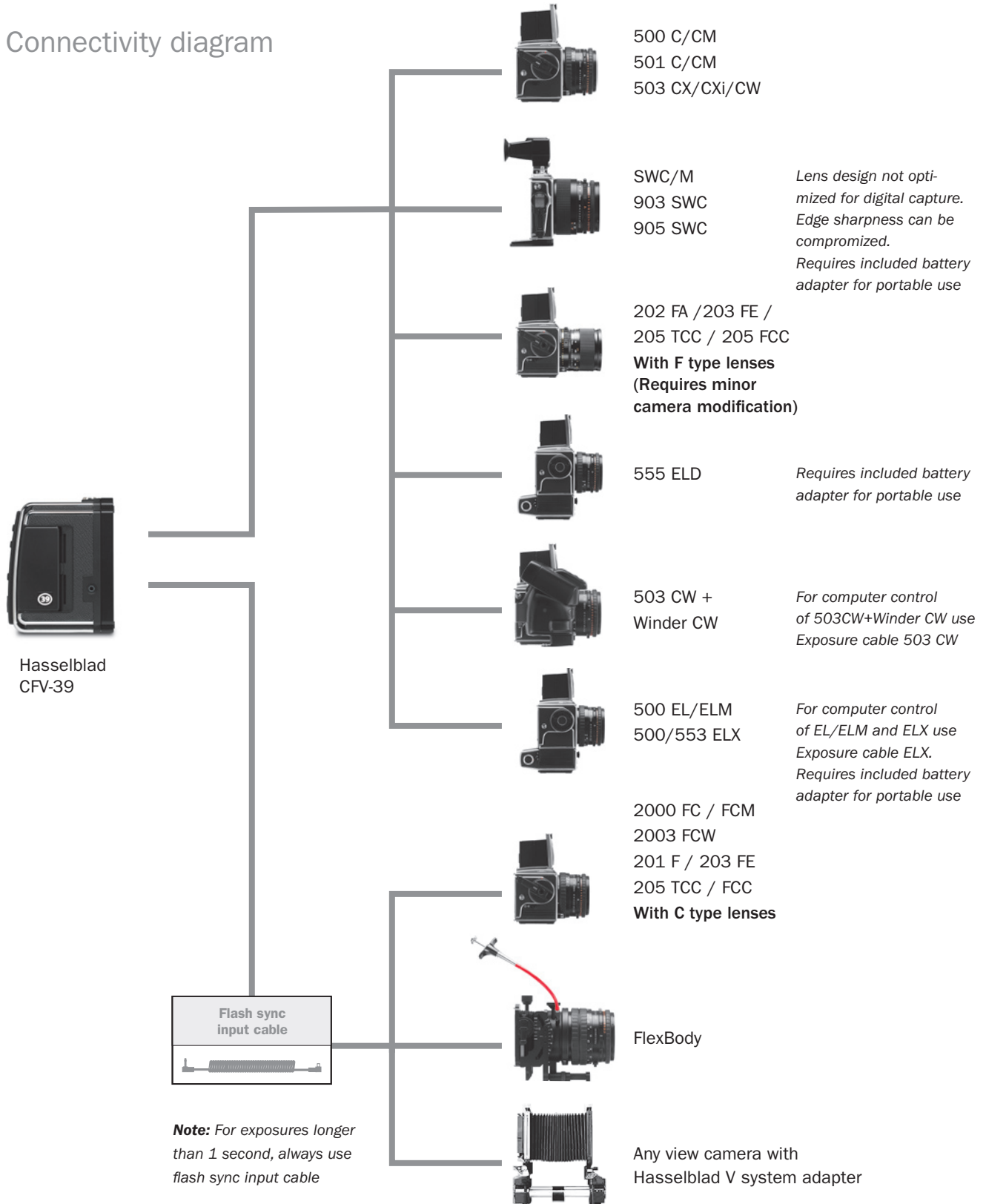
## Supported lenses are:

CF/CFE 40 FLE, CFE 40 IF, CFi 50 FLE, CFi/CFE 80, CFi/CFE 120, CFi 150, CFE/CFE 180, CFi 250, CFE 250 Sa and CFE 350 Sa.



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## Connectivity diagram



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## Flexible operation and storage

Optimum portability and image storage are critical for the professional photographer. The Hasselblad CFV-39 offers a choice of the portable CF card storage or tethered operation. With these operating and storage options, the photographer is able to select a mode to suit the nature of the work at hand, whether in the studio or on location.

## Phocus software for the professional

Phocus provides an advanced software toolbox that has been especially designed to achieve optimum workflow and absolute image perfection from Hasselblad raw image files.

With the CFV-39 Phocus provides:

- Uncompromising Image Quality
- Digital lens correction for V system lenses
- Moiré Removal Technology automatically applied directly on the raw data, leaving image quality intact and eliminating the need to carry out special masking selections or other manual procedures, saving hours of tedious post-production work.
- Flexible Workflow. The Phocus user interface features easy-to-use options that allow you to customize your set-up to suit a range of different workflow situations, such as

choice of import source, browsing/comparison functions, file management, image export in a number of file formats, pre-setting of options for upcoming shoots, and much, much more.

- Perfect Viewing Quality. The Phocus Viewer delivers image viewing quality that matches every detail of what you will see later in Photoshop. In addition, the Phocus Viewer allows you to customize layout and composition to suit your current or desired workflow, providing a wide range of options including full view, compare, browse, horizontal, or vertical view, and so on. You can have multiple folders open simultaneously for side-by-side viewing, comparison, and selection.

Phocus is available for both Mac and Windows and is included with the CFV-39.

## Keeping firmware and software up to date

the functionality of both your CFV-39 and the Phocus imaging software is being improved all the time with regards to performance, image quality and ease of use. Check our web site [www.hasselblad.com/downloads](http://www.hasselblad.com/downloads) for details about the latest software and an immediate way of upgrading your camera right where you are.



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## Accessories, Lenses and Planet V

A long list of special information for V camera owners is available at: [www.hasselblad.com](http://www.hasselblad.com). Check for example our latest accessory and lens web catalogue at:

[www.hasselblad.com/products/lenses-and-accessories](http://www.hasselblad.com/products/lenses-and-accessories)

## Two formats

The square format is a format that has been connected with Hasselblad V System cameras since the start in 1949. With the CFV-39 you can select to work either with the full 37 × 49 mm sensor area for maximum image size providing 39 Mpixels or a cropped, square format of 37 × 37 mm giving 29 Mpixels. When the square format is selected, an automatic crop mask will be added to the image when imported into Phocus.



*Image format can easily be selected between full format (39 Mpixel) and Square crop (29 Mpixel)*

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## Technical specification

SPECIFICATIONS HASSELBLAD CFV-39	
Sensor size	39 Mpixels (5412x7212 pixels) or 29 Mpixels (5412x5412 pixels)
Sensor dimensions	36.7x49.0 mm or 36.7x36.7 mm
Pixel size	6.8 µm
Image size	RAW 3FR capture 50 MB on average. Tiff 8 bit 117 MB
CF card storage capacity	4 GB CF card holds 80 images on average
Capture rate	1.4 sec/capture. 39 captures/minute
Shooting mode	Single shot
Color definition	16 bit
ISO speed range	ISO 50, 100, 200, 400 and 800
Longest shutter speed	64 seconds
Image storage	CF card type II (write speed >20 MB/sec) or tethered to Mac or PC
Color management	Hasselblad Natural Colour Solution - One generic profile
Storage capacity	On average 80 (106 for 29 Mpixels) images on a 4 GB CF card
Battery type	Sony™ InfoLithium L NP-F series or compatible
DAC digital lens correction	Support for DAC for Carl Zeiss lenses included in Phocus.
Color display	TFT 2.5"
Histogram feedback	Yes
IR filter	Mounted on CCD sensor
Acoustic feedback	Yes
IAA – Instant Approval Architecture	Included, with: <ul style="list-style-type: none"> <li>• Acoustic feed back:           yes</li> <li>• Metadata classification:       yes</li> </ul>
File format	Lossless compressed Hasselblad 3F RAW
Software	Phocus for Mac and Windows (included)
Platform support	Macintosh: OSX version 10.6. PC: Windows XP/Vista/7 (32 and 64 bit)
Camera support	All Hasselblad V System cameras manufactured since 1957. 2000 cameras and 201F with C lenses only. 202FA / 203FE and 205FCC camera types need a minor camera modification to use F/FE lenses. All other cameras with Hasselblad V interface
Host connection type	FireWire 800 (IEEE1394b)
Battery capacity	Sony™ InfoLithium L, up to 8 hours of shooting capacity
Operating temperature	0 - 45 °C / 32 - 113 °F
Dimensions	91 x 90 x 61 mm [W x H x D]
Weight	530 g (Excluding battery and CF card)
Package contents	Hasselblad CFV-39 digital back with protective cover, adapter cables, EL camera battery adapter, FireWire cable and 4 GB CF card. Focusing screen (Split image/Micro prisms) with dual format markings