CFV 50c

The Hasselblad CFV 50c digital back is custom built to match the design and functionality of Hasselblad V cameras. It is the perfect modern complement to the V system that is still so much admired, used and trusted around the world. Compatible with most models, it provides the perfect amalgamation of analogue and digital worlds for dedicated V users.

The CFV 50c exploits the world's first medium format CMOS sensor that is a leap forward in digital imaging technology. It breaks new ground for photographers who will now be able to achieve stunning digital quality with their V system equipment. In addition they will be able to shoot regardless of lighting conditions as a result of the very high ISO settings that are capable of unforeseen high quality with remarkably little noise. Furthermore the often wished for long exposures for problem solving or effect are now a reality.

The digital world also offers digital lens corrections that guarantee the optimum in performance at a level not available with scanned film images. You only have to enter the appropriate data – lens type, aperture and focusing distance etc – to see the difference. It produces results you could only dream of in the former analogue era. This feature allows you to experience the ultimate image quality from your treasured Carl Zeiss lenses, not least when used at close range, and is an easy and rapid adjustment in Phocus.

In addition, the CFV 50c not only allows photographers to exploit V system equipment but various traditional large-format / technical / view cameras too. In this way the Hasselblad CFV offers an ultra high level of versatility, integration, flexibility and image quality to the photographer who wants to exploit a modern technological advantage in conjunction with preferred traditional equipment.

- Ultimate digital integration for the classic Hasselblad V system cameras and lenses.

- Hasselblad digital lens correction included for a wide range of Carl Zeiss lenses in Phocus (supplied)

- Hasselblad Natural Color Solution – one generic profile delivering true colors out of the box.

- Live View on rear display. Allows for accurate focusing.

- Cable free operation with all V System cameras (see connectivity diagram for details)

- F/FE-lenses (shutterless) can be used.

- Much larger sensor than full frame 35mm DSLRs.

- CF card or tethered storage.

- PM/PME 90 viewfinders can be used

Insert photo above: © Frank Meyl - Hasselblad Master 2012

CFV 50c

Transforms V cameras

The Hasselblad CFV 50c turns virtually all Hasselblad V system cameras from the 500C onwards into high performance digital cameras in a very user friendly way. Only the 202, 203, and 205 need slight modification then they too are compatible; see the connectivity diagram for an overview. Attach the CFV 50c exactly as you would a film magazine, choose between a CF card and battery or FireWire and a computer and start shooting. See connectivity diagram for details.

Phocus and Lightroom software for the professional

Both the proprietory Hasselblad Phocus and Adobe® Lightroom capture processing and file management applications are included with the CFV 50c. Naturally, both Mac and Windows are catered for and deliver uncompromising image quality. Some might prefer one application over the other depending on customary workflow practice and preference of features. The choice is yours but the exported results will be of the same star quality. Here are some features:

· **Digital lens correction** for V system lenses. One of the very great advantages and nowadays indispensable aspects of digital image adjustment. See below.

· **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.

· **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 developed a new, powerful color profile that produces outstanding, reliable out-of-the-box colors, with skin tones, special product gradations, and other difficult colors reproduced effectively. It removes both the need for experimenting with different color profiles to obtain optimal colors and the need for selective color corrections.

· **Flexible Workflow**. Includes 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. Note too that both Phocus and Lightroom open a long list of proprietary and standard formats to allow an easy workflow mix of cameras and formats.

For maximum flexibility Hasselblad 3FR image files carry a full set of metadata, including capture conditions, keywords and copyright, facilitating work with image asset management solutions.

Even though Phocus or Lightroom are the most comprehensive choices, Hasselblad 3FR files can also be opened directly with some limitations in Adobe® Photoshop (CS4 or later) or in Apple® Aperture on Mac OS-X if preferred.

Please always use the most recent versions of Adobe Lightroom and Camera Raw to process files from the CFV-50c.

The Hasselblad CFV 50c user manual is freely downloadable from www.hasselblad.com. There you will find further details concerning all of the above and much more.

V lens DAC correction

Phocus includes DAC lens correction for most of the V system lenses from Carl Zeiss. 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.

Phocus supported lenses are:

CF 30, CF/CFE 40 FLE, CFE 40 IF, CFi 50 FLE, CF 60, CFi/CFE 80, CB 80, CF 100, CFi/CFE 120, CFi 150, CB 160, CFE/CFE 180, CFi 250, CFE 250 Sa, CF 350, CFE 350 Sa, CF 500 (5m and 8,5m close range), F 50 (rotating front), FE 50 (non rotating front), FE 60-120, F 80, F 110, F 150, F 250, FE 300 (with or without 1,7x converter) and F 350.
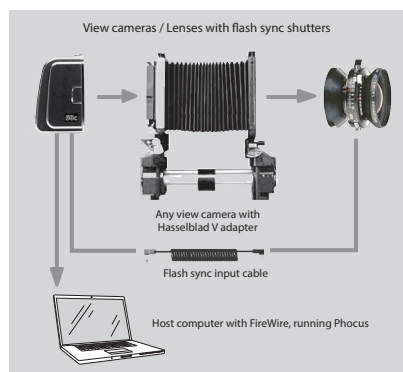
CFV 50c

Connectivity diagram

This diagram illustrates the situation regarding V system cameras and the connection requirements according to model.
All cables illustrated here are supplied.

CFV 50c digital back

Cable free operation

500 C/CM
501 C/CM
503 CX/CXi/CW

SWC/SWC/M
903 SWC
905 SWC

+ *Battery Adapter (3054668) required for portable use. Optional accessory.*

Some limitations regarding image quality apply in some instances. See user manual for details.

Modified 202FA/203 FE / 205 TCC / 205 FCC
With F type lenses and CF type lenses at F-mode setting

555 ELD
500 EL/ELM
500/553 ELX

+ *Battery Adapter (3054668) required for portable use. Optional accessory.*

Phocus remote control

(NOTE: only these cameras/combinations can be controlled from Phocus)

503 CW +
Winder CW

+ *Exposure cable 503 CW required for Phocus control of 503CW + Winder CW.*

500 EL/ELM
500/553 ELX

+ *Exposure Cable EL required for Phocus control of EL/ELM and ELX use.*

+ *Battery Adapter (3054668) required for portable use. Optional accessory.*

555 ELD

+ *Battery Adapter (3054668) required for portable use. Optional accessory.*

Flash input cable always required

2000 FC / FCM
2003 FCW
201 F / 203 FE
205 TCC / FCC

With C type lenses only (C-mode setting)

ArcBody

Not recommended when using shift. May require a Battery Adapter (3054668) at certain extreme settings. Optional accessory.

FlexBody

Any view camera with Hasselblad V System adapter

View cameras / Lenses with flash sync shutters

Any view camera with Hasselblad V adapter

Flash sync input cable

Host computer with FireWire, running Phocus

CFV 50c

Prism Compatibility

The CFV-50c is compatible with all Hasselblad prism finders.

Waist level finder

90° Prism finders

CFV 50c digital back

45° Prism finders

CFV 50c

Technical specification

SPECIFICATIONS	CFV-50c
Sensor type	CMOS, 50 Mpixels (8272×6200 pixels)
Sensor dimensions	43.8 × 32.9 mm
Pixel size	5.3 x 5.3 μm
Image size	RAW 3FR capture 65 MB on average. Tiff 8 bit 154 MB
CF card storage capacity	16 GB CF card holds 240 images on average
Capture rate	1.5 captures/s. 50 captures/min (based on a SanDisk Extreme UDMA7 120 MB/s)
Storage Options	CF card type U-DMA (e.g. SanDisk Pro) or tethered to Mac or PC
Shooting mode	Single shot
Color definition	16 bit
ISO speed range	ISO 100, 200, 400, 800, 1600, 3200 and 6400
Longest exposure time	34 minutes
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
Power supply	Rechargeable Li-ion battery 8.4 VDC
DAC digital lens correction	Support for DAC for Carl Zeiss lenses included in Phocus
Color display	TFT 3"
Histogram feedback	Yes
IR filter	Mounted in front of sensor
Acoustic feedback	Yes
File format	Lossless compressed Hasselblad 3F RAW
JPEG	1/4 resolution print ready files with HNC
Software	Phocus for Mac and Windows & Adobe Lightroom for Mac and Windows (included)
Tethered operation	Supported in Phocus by Hasselblad and Hasselblad Tethered plug-in for Adobe Photoshop® and Adobe Lightroom®
Platform support	Macintosh: OSX version 10.6 or later. PC: XP/Vista/Windows 7 (32 and 64 bit)/8 [2]
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 [1] to use F/FE lenses. All other cameras with Hasselblad V interface.
View camera compatibility	Mechanical shutters controlled via flash sync, electronic shutters controlled by Phocus.
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 92 x 57 mm [W x H x D]
Weight	530 g (Excluding battery and CF card)
Package contents	Hasselblad CFV digital back with protective cover, adapter cables, EL camera battery adapter, FireWire cable and 16 GB CF card. Focusing screen (Split image/Micro prisms) with dual format markings

[1] *Carried out by an authorized Hasselblad Service Center. Please contact your Hasselblad dealer for further information.*

[2] *Phocus 2.8 or later 64 bit only*