

H 25

GETTING STARTED

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1 Introduction

The Phase One H 25 single shot camera back is designed for advanced photography applications with a need for productivity, flexibility and the absolute best in image quality.

The Phase One H 25 is able to capture large objects and still reproduce the finest details. The rectangular formatted 22 megapixel CCD allows the Phase One H 25 to generate image files that can be offset printed as large posters. The CCD is mounted in Landscape orientation and practically fits the horizontal area of a Hassleblad camera.

The ability to use the same software as all the Phase One single shot camera backs and connect to a computer simply by hot plugging allows the Phase One H 25 to integrate perfectly with the productive and flexible workflow appreciated by thousands of studios around the world.

The Phase One H 25 is based on the highly recognized Phase One technology. This manual "H 25 - Getting Started" only describes features and functionality unique to the Phase One H 25.

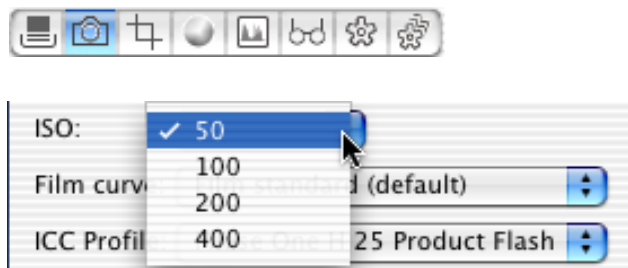
For a detailed guide to the application software, please refer to the Capture One User Guide for Mac and PC.

2 Special H 25 Features

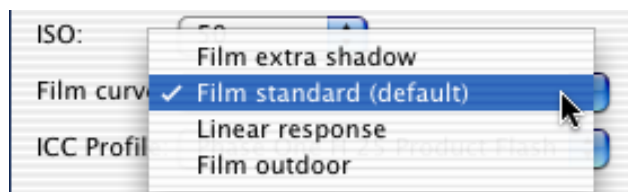
The Phase One H 25 can be mounted on a wide range of cameras including Hasselblad 555 ELD, 553 ELX, 501 CM, 503 CW as well as Mamiya RZ67 Pro II and 4" x 5" view cameras via an optional Phase One adaptor.

ISO Settings

The default film speed of the H 25 camera back is ISO 50. However, this setting can be changed to ISO 100, 200 or 400 in the Capture panel of the Capture One application.



It is recommended to capture images using a film curve. That is done by selecting the film curve in the Capture panel of the Capture One software. Click the camera icon in the icon bar and select: "Film Standard," "Film outdoor" or "Film extra shadow."



Power management

The CCD on the H 25 constantly needs to be cleared from previous data before an exposure. This requires some power consumption. Situations can occur where this is not convenient (i.e. in connection with Phase One portable systems where the batteries will get drained too rapidly). On electronically controlled camera bodies the power consumption can be drastically reduced by setting the Low power or Ultra low power mode inside the Capture One Application (Please read the section specific for your camera body to learn if you are able to use these settings.).

Double exposure protection

It is not possible to accidentally double expose the image by capturing one image quickly after another when the H 25 is used on a Hasselblad 555 ELD. The electronic communication with the Hasselblad body ensures that the H 25 is ready before allowing release of the next shot. On other camera bodies not using the electronically interface from the H 25, the user has to wait for the ready beep signal before releasing the next shot.

IR filter on the CCD

The IR filter (Phase One TG1 Infrared cut-off filter) is permanently mounted on top of the CCD.

The filter may not be removed for several reasons:

- The focusing of the H 25 camera back will be damaged.
- It is only possible to remount the filter without dust in between the filter and the CCD if you have access to special clean room facilities.
- The Phase One Product Warranty is terminated.

Large format photography

The Phase One H 25 can be used on most large format cameras via the optional Phase One FlexAdaptor and supports all mechanical shutters and the Horseman ISS electronic shutter. To ensure optimal image quality, Phase One strongly recommends shutters that can be fired twice within four seconds. The first release of the shutter activates the CCD, the second release takes the picture. If the time limit of four seconds is exceeded, the camera gives a warning “beep” followed by a “ready” signal. If for some reason it is not possible to fire the shutter twice within the time limit, the camera will send a time-out error message to the screen.



The Phase One FlexAdaptor

3 Preparing to take pictures

Mounting the viewfinder mask

The image area of the Hasselblad camera body is approximately 6 cm x 6 cm, whereas the image area of the H 25 is 48.9 x 36.7 mm.

Therefore, it is necessary to use the H 25 viewfinder mask. Remove the protection tape from the mask and mount it beneath the original focusing screen.



The viewfinder mask is positioned in the bracket that holds the focusing screen. Please refer to the Hasselblad camera manual instructions before the focus screen is removed.



After the Phase One viewfinder mask is positioned in the bracket, place the Hasselblad focusing screen on top of the mask and slide the viewfinder top back into place.

Mounting the H 25 on a Hasselblad camera

The H 25 is fully integrated with the camera body and acts as a true part of the whole camera system.



It is important to ensure that the bottom part of the H 25 camera back is pressed well into the locking mechanism before the upper locking mechanism is pressed together.

To avoid the H 25 accidentally being released from the camera body, you can use the enclosed screwdriver to lock the H 25 locking mechanism on the top of the camera back.

Camera body specifics

A sync cable is connected from the lens to the C-connector on the camera back on all Hasselblad cameras.



The flash cable is then connected to the F-connector on the camera back.

Sync cable connects to the C-connector

Flash cable connects to the F-connector

FireWire connector

When using the H 25 on a Hasselblad motorized body (i.e. Hasselblad ELX series or Hasselblad ELM series), a motor cable is supplied to enable capture from the computer.



The cable is connected between the M-connector on the H 25 and the DIN connector on the Hasselblad.

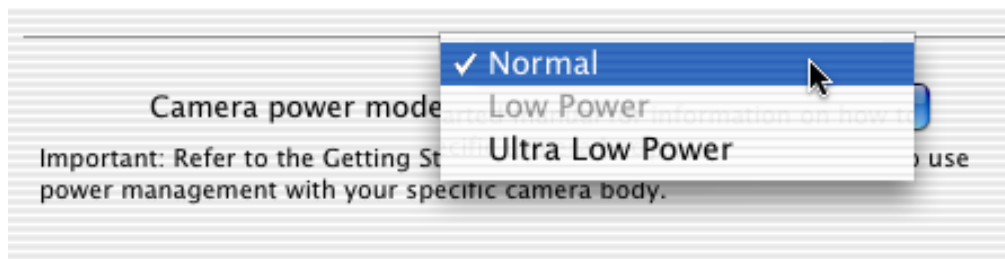
The motor cable is not needed when using the H 25 on a Hasselblad 555 ELD body.

Hasselblad 553 ELX

Avoid using A or AS mode.

Please note that the Phase One H 25 should not be mounted while the camera is set to mirror up (S or RS modes). Also make sure that the lens is not jammed or locked open on the “B” setting when connecting the flash sync cable to the Phase One H 25.

Power Condition:



If you are using the Hasselblad 553 ELX you should set the Camera power mode to “Normal.”

It is possible to use Ultra Low Power mode on this camera when using a motor cable and only using the capture button inside the Capture One Application.

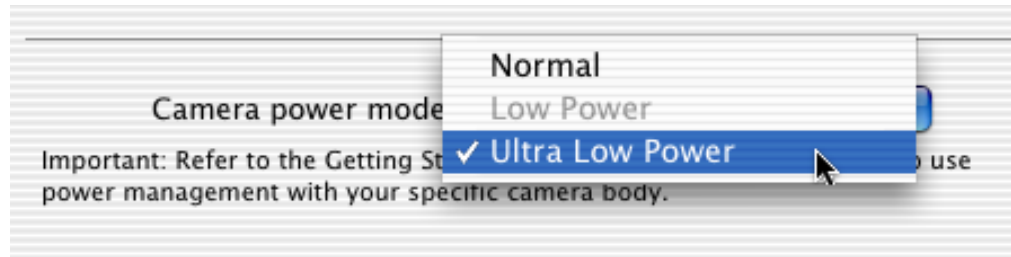
Hasselblad 555 ELD

When using the Phase One H 25 with a Hasselblad 555 ELD, the shutter release on the front of the Hasselblad must be in the “Digital” position. If using the shutter release is in the “Film” position you must make sure that the Camera power mode is set to “Normal” in the Capture One application.

A motor cable is not required when using the camera on an Hasselblad 555 ELD body.

Please note that the Phase One H 25 should not be mounted while the camera is set to mirror up (S or RS modes). Also make sure that the lens is not jammed when connecting the flash sync cable to the Phase One H 25.

Power Condition:



If you are using the Hasselblad 555 ELD you should set the Camera power mode to "Ultra Low Power."

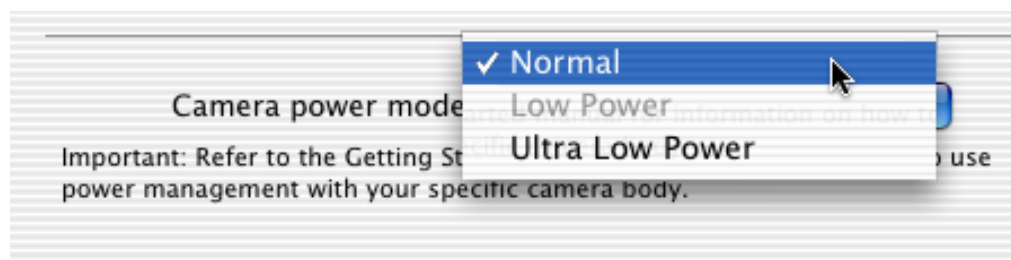
Hasselblad 501 CM and 503 CW without winder

The Phase One H 25 also supports mechanical Hasselblad cameras such as the 501 CM and 503 CW. These cameras are operated in single shot mode via the shutter release button or a standard cable release.

Please note that the Phase One H 25 should not be mounted while the camera is set to mirror up.

Also make sure that the lens is not jammed or locked open on the "B" setting when connecting the flash sync cable to the Phase One H 25.

Power Condition:



If you are using a mechanical Hasselblad you should normally set the Camera power mode to "Normal."

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It is possible to use "Ultra Low Power" mode on Mechanical cameras, but precautions must be taken not to trigger too fast and "Mirror Up" is not supported when using this setting.

To ensure capture reliability, we recommend that you look at the green LEDs on the back of the camera back while you slowly press the mechanical trigger on the camera body.

You can safely press the button all the way in the moment the LEDs flashes.

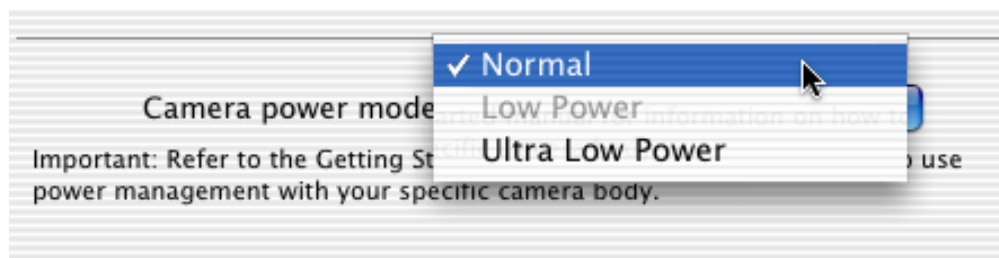
Hasselblad 503 CW with Winder CW

If operating in mirror up mode, the mirror up mode has to be set in the Capture One software. This is done on a Mac by pressing command + M or on a PC by pressing CTRL + M on the keyboard.

Please note that the Phase One H 25 should not be mounted while the camera is set to mirror up.

Also make sure that the lens is not jammed or locked open on the "B" setting when connecting the flash sync cable to the Phase One H 25.

Power Condition:



If you are using a 503 CW winder you could set the Camera power mode to "Normal."

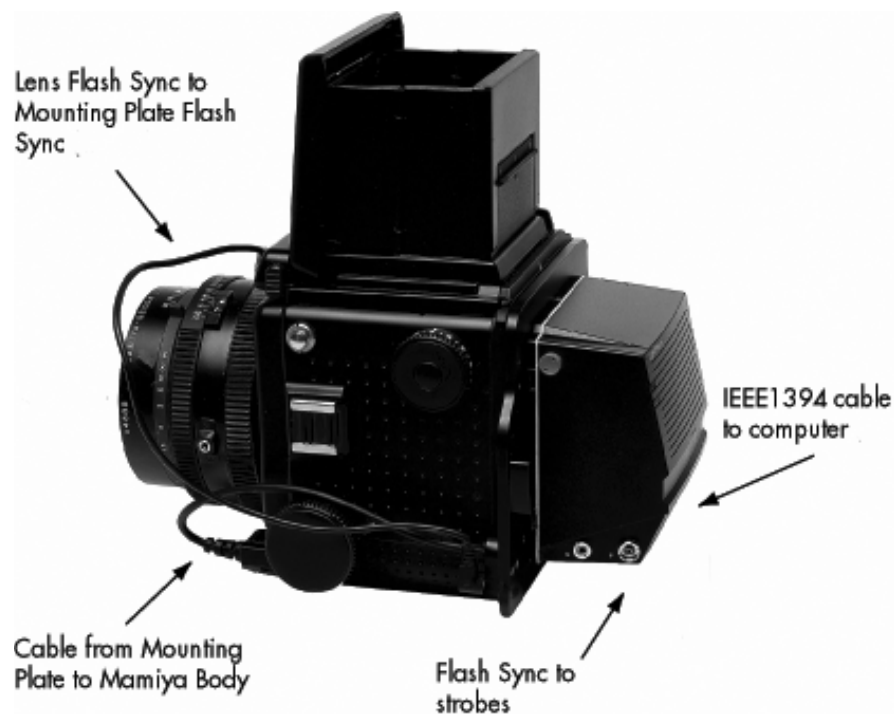
Mamiya RZ67 Pro II adaptor:

Phase One offers an optional H 25 adaptor plate that enables mounting and close integration with the the Mamiya RZ67 Pro II camera.

The camera must be set to multiple exposures when using this adaptor.

The multiple exposure selector (M) is located on the side of the camera body just above the cocking lever with the film back revolve switch (R). Move the selector to the M position.

Mirror up operation is only recommended if using Mamiya's own double cable release.

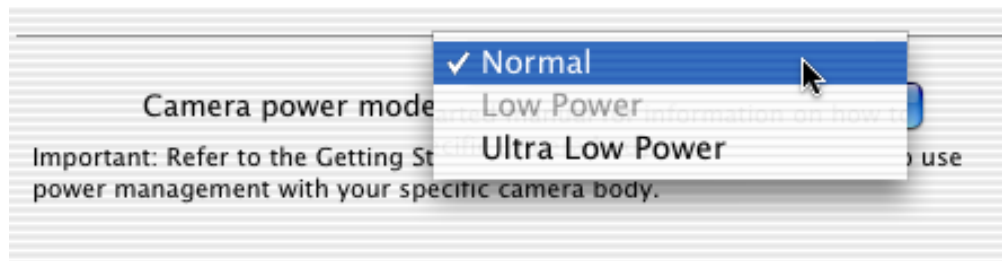


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The adaptor plate connects to the Mamiya body, and the switch underneath is set to the L position (locked).

Power Condition:



If you are using the Mamiya RZ Pro II adaptor you should set the Camera power mode to "Normal."

It is possible to use Ultra Low Power mode on this camera, but only when shooting using the capture button inside the Capture One Application.

4 Maintenance

Cleaning the IR filter

When the Phase One H 25 camera back is not attached to a camera, the camera back must be protected with the protection plate. However, over time dust may accumulate on the IR filter. This will degrade the image quality if not removed.

Please follow the directions included in the CCD cleaning kit in the H 25 package.

5 Technical Data

Phase One H 25 specifications:

Technology:	Full Frame CCD
Color filter:	Red, Green and Blue
Total pixels:	5,488 x 4,145
Effective pixels:	5,436 x 4,080
Effective size:	48.9 x 36.7 mm
Pixels size:	9 x 9 microns
Imager ratio:	4:3
Imager output:	48 bit (16 bit per color)
Antiblooming:	8 f-stops

Digital image

Color depth:	16 bit per color
Dynamic range:	12 f-stops
Single exposure:	5,436 x 4,080 pixels
	24 bit RGB: 65 MB
	48 bit RGB: 130 MB
	64 bit CMYK: 173 MB

Two exposures: 5,436 x 7,991 pixels (FlexAdaptor)
24 bit RGB: 127 MB
48 bit RGB: 254 MB
64 bit CMYK: 339 MB

Basic sensitivity

ISO range: 50, 100, 200 or 400

System

Exposure time: 60 sec or more to less than 1/10000 sec.
Capture rate: 30 captures per minute
IR filters: Mounted on CCD
Orientation: Automatic rotation
Interface: Direct IEEE 1394/FireWire[®]
architecture
Power: 8 - 33 Volt DC

Lighting conditions

Flash, tungsten, daylight, fluorescent, HMI

Data format & compression

Extended Phase One format, TIFF-RGB, TIFF-CMYK, JPEG, HTML

Color Management workflows

RGB, embedded ICC profiles, CMYK

Operating conditions

Temperature:	0° to 50° C (32° to 122° F)
Humidity:	15 to 80 % RH (non-condensing)

Physical dimensions

Height:	99 mm (3.9")
Width:	92 mm(3.6")
Depth:	53 mm(2.1")
Weight:	450 g. (1lb)

Computer platform

Mac OS X (10.2.3 or later)
Windows XP, 2000, Me, 98SE

Cameras supported

Hasselblad 500 series, including Hasselblad 555 ELD
Mamiya RZ67 Pro II via optional Phase One adaptor
View cameras (via optional Phase One FlexAdaptor):
Arca Swiss, Cambo 23SF, Rollei Xact, Linhof M679,
Sinar 4" x 5", Linhof 4" x 5", Arca Swiss 4" x 5",
Toyo 4" x 5", Horseman 4" x 5", Cambo 4" x 5",
Plaubel 4" x 5"

Certifications

CE