HASSELBLAD 201F

INSTRUCTION MANUAL

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Hasselblad 201F – Fast and Flexible

The Hasselblad 201F gives you access to the entire Hasselblad system of interchangeable photographic equipment, the world’s first medium format camera system. The full range of high quality lenses with focal lengths from 30mm to 500mm – and double that with the 9x converter – delivers with different angles of view, with or without light metering system; a number of focusing screens for all kinds of applications; film magazines for different film types and image formats and a host of other accessories. The 91/1000 sec focal shutter lets you use the powerful FE-type lenses, but it also has a setting for the CF-type lenses, which have a built-in leaf shutter for full synchronisation at all speeds up to 1/1000.

And above all, the Hasselblad 201F also provides a built-in TTL/OTF dedicated flash system. If you use an Hasselblad Phoix 404 you simply connect it to the camera, enter the film speed with the film speed dial, point and shoot. Other dedicated flash units will require an adapter, such as the Hasselblad SCA 350 or SCA 450 adaptors, also available within the Hasselblad system, between the flash and the 201F.

Hasselblad products have been manufactured since 1860. Hasselblad products have been manufactured since 1957. Hasselblad products have been manufactured since 1957. Hasselblad products have been manufactured since 1957.

Warranty

Provided that you purchased your equipment from an authorized Hasselblad dealer or distributor, it is covered by an international warranty for one year from the date of delivery. Read more about the warranty on page 49.

Service and Maintenance

Although Hasselblad products are exceptionally reliable and durable, continuous and extensive professional use will require maintenance and overhaul at regular intervals at an authorized Hasselblad Service Center. Read more about maintenance and service on page 49.

Since the early 1950’s Hasselblad lenses – with few exceptions only – have been manufactured to the highest quality requirements by Carl Zeiss in Germany. All Hasselblad lenses manufactured since 1957 can be used with the 201F.

Lenses

This Instruction Manual describes in detail how to operate the Hasselblad 201F. Read it carefully to avoid mistakes and to get access to the Hasselblad potential. Explaining that potential is left by your own imagination only.

1) Former designation: F+FCC
Getting Started

This section describes how you prepare your Hasselblad 201F for use. You will find complete, detailed information on how to operate the camera in the section starting on page 15. Follow the instructions step by step to avoid jamming or damaging the equipment. Always keep the rear protective cover on to protect the shutter curtain when the magazine is detached.

Battery

The battery compartment and cassette is located in the lower forward corner on the left hand side of the camera body. Pull out the cassette and install the battery – 3V type PX28 (LUAR 207) – according to the marking on the cassette. Push the cassette all the way back into the compartment.

Cocking the Camera

Cock the camera after installing the battery. Fold out the winding crank on the right hand side, press the button in the center of the crank and rotate it counterclockwise one turn until it locks (CI, page 16, Double exposure).

Front Protective Cover

The front protective cover is attached to a bayonet mount. Rotate it as indicated by the arrow in the illustration and lift it out of the mount.

Attaching the Lens

Remove the lens rear protective cover by rotating it clockwise and lifting it off the lens. Check that both the camera and the lens are cocked. The lower illustration on page 12 shows the proper position of the drive shafts against the index marks for the camera drive shaft (top) and the lens drive shaft (bottom). You will find that holding the camera body in your left hand and the lens in your right hand as shown in the illustration is the easiest way to attach the lens.

When you have aligned the red index on the lens body with that on the camera body as shown in the illustration, the lens will slide neatly into the bayonet mount. You can then rotate it clockwise until it stops with a faint click as the lens catch locks it in place.

Removing the Lens

Depress the lens catch button, rotate the lens counterclockwise and lift it out of the bayonet mount.

NOTE: You can only attach and remove the lens when the camera is cocked (fully wound) and not in pre-release mode (see page 16).

Rear Protective Cover

Depress the catch, lift the cover backwards and lift it. Always attach the rear protective cover to protect the shutter curtain when you detach the magazine.

Attaching the Magazine

Ensure that the magazine slide is fully inserted and that the magazine status indicator is white. If the indicator is red, then follow the instructions on page 9. Rest the magazine on the magazine supports with the support arms engaging the recesses in the magazine bottom. Carefully swing the magazine towards the camera body, checking that the magazine hooks fit into the side of the magazine. Push the magazine gently but firmly against the hooks while sliding the magazine catch to the right.

Release the button when the magazine makes contact with the camera body and then push the button to the left to ensure that it has reached the locked position. Remove the slide to positively lock the magazine to the camera body.

The Winding Crank

One full revolution of the winding crank cock the camera and lens mechanisms and advances the film to the next frame. Underneath the crank are the drive shaft and the bayonet mount for the Hasselblad finder (page 41), which can be attached after removing the crank. It is recommended that the camera is fully wound when the crank is removed or replaced.

Removing the Winding Crank

To remove the crank, push the catch lever on the rear of the crank hub downwards while rotating the crank counterclockwise. Then pull it straight out from the shaft.

Attaching the Winding Crank

On the side of the crank hub are one large and one small triangular index mark. Attach the crank to the shaft with the smaller mark aligned with the red dot located immediately above the mount. While pushing the crank against the camera body rotate the crank clockwise until the larger mark is aligned with the red dot.

Strap and Strap Lugs

The 201F is delivered with a spectrum wide shoulder strap, which is packed separately. You will find other types of straps in the Hasselblad Product Catalog. All straps have special clips for easy attaching them to and removing them from the camera body.

Attaching the Strap

Place the main body of the strap over the strap lug on the camera (see figure). Press the tab of the clip towards the camera while pulling the strap to slide the clip over the lug to the locked position.

Removing the strap

Lift the locking paw of the clip high enough to let it pass over the top of the lug. Push the clip in the direction opposite to the strap to slide it off the lug.
Focusing Hood and Magnifier

Opening the Focusing Hood
Lift the lid with a firm grip on the tab at its rear end, and bring it up to a vertical position. The hood unclips automatically and locks in open position.

The Built-in Magnifier
Use the built-in 4x5x magnifier to enlarge the viewfinder image, e.g. for more accurate focusing. To unfold it, push the oval catch inside the lid to the right, as indicated in the illustration. To fold the magnifier down, simply push it back towards the lid until it locks. The magnifier can easily be exchanged for one with a suitable correction lens to match your individual eyesight (see page 22).

Closing the Focusing Hood
"Pinch" the side plates at the hinge points and fold the hood back down.

Flash Connectors
The flash connectors are located in the upper forward corner of the control panel. One is a standard PC-socket and the other one is a projection cover of 6-pin TTL-connector for dedicated flash units.

The PC-socket
Non-dedicated flash units and certain adapters should be connected to this socket.

The TTL Connector
A dedicated flash unit connects to the 6-pin socket directly or through a suitable adapter. It is both controlled by the flash control circuit in the camera.

You will find further information on flash photography on pages 33-37, 39, 51-53, 56.

The Film Speed Selector Dial
Use the film speed selector dial to set the desired film speed for the dedicated flash control function.

The Shutter Speed Ring Lock
Push the locking button forwards to lock the shutter speed ring at any marked or intermediate click stop setting. Pull it backwards to release the ring for a change of setting.

Operating Details

The Right Hand Side
On the right hand side of the camera body are the winding crank (see page 10) and the combined pre-release and selftimer button.

Double Exposure
You can double or multiple exposures by rewinding the camera without advancing the film. This is possible by depressing the double exposure button in the center of the crank hub and slightly turning the crank clockwise at the same time. You can then release the button and complete the winding until the crank clicks.

Mirror and Mechanism Pre-release
The viewfinder mirror shows the entire image without vignetting. By pre-releasing the film camera functions and shifting up the mirror, you avoid camera vibrations, reduce the sound level and shorten the time delay between the exposing shutter activation and the exposure. This is done by pressing the pre-release button twice. To reset the mechanism and lower the mirror again you simply perform the operation for a double exposure as described above.

Focusing Screen and Viewfinder Image
The Hasselblad 201F is equipped with the Acute-Matte focusing screen featuring superior brightness and the highest resolution among the Hasselblad focusing screens. The center of the screen is indicated by a fine cross line. See page 25 on how to change the focusing screen.

The Control Panel
The control panel occupies a major part of the left hand side of the camera body. It includes the controls for certain functions of the 201F, such as:

- The Flash Connectors
- The Film Speed Selector Dial
- The Shutter Speed Ring Lock
- The Selftimer Indicator Light

Left Hand Grip
Holding the 201F in your left hand, as shown in the illustration, is the most convenient grip. You can use the release button with your index finger and the shutter speed ring with your thumb. Your right hand is free for focusing, setting the aperture, operating the crank or for changing lens or magazine.

Focusing and Exposure Release
Turn the focusing ring (page 28) until the image of the subject appears sharp in the viewfinder. Depress the exposure release button to release the shutter. After releasing the exposure button you can rotate the winding crank one full turn until it locks to rewind the camera, cock the shutter and advance the film one frame.

The Selftimer
Pressing the pre-release button a second time starts the selftimer function. This is indicated by a flashing red light on the camera body to the left of the lens mount. The standard selftimer delay is 10 sec.

Pressing the selftimer button a third time reduces the selftimer delay to 2 sec, which is very useful to avoid blur due to camera vibrations, especially at slow shutter speeds. At the beginning the light flashes twice per second, but when two seconds remain of the delay time or after the third pressing of the button, it increases to four times per second and changes to a continuous light the last two seconds. You can interrupt the selftimer function at any time by pressing the pre-release button a fourth time or by a "click" round as for a double exposure.

The selftimer function is inoperative when the shutter speed ring is set in positions B or C (page 18).

The Grip Cushion
A rubber cushion along the lower edge of the right hand side provides a safe and comfortable grip.
The Front
The Shutter Speed Ring
The shutter speed ring controlling the focal plane shutter in the 20F has click stop settings with marked speeds from 1 s to 1/1000 s as well as B, C, and a battery check symbol. Between the marked settings are click stops for intermediate speeds. One of these settings is marked with a flash symbol for 1/90 s, which is the fastest shutter speed for electronic flash synchronization with the focal plane shutter (page 20). The setting marked C is used together with CF and C lenses only (Appendix A, pages 48-50).

NOTE: if you require a shutter speed slower than 1 s you have to set the speed ring at B and measure the exposure time yourself.

Battery Check
The battery is activated by turning the shutter speed ring beyond the C to 1 s or by pressing the release button. The indicator light on the bottom of the viewfinder (page 5) is activated by the battery if the lens is engaged and the release button is pressed. If the indicator light is already lit, it indicates that a connected dedicated flash, the light intensity increases when the battery check function is activated.

The Rear of the Camera and the Focal Plane Shutter

Avoid leaving the rear of the camera and the shutter curtains uncovered. Attach the rear protective cover whenever the magazine is detached!

The opening in the rear of the camera is normally covered by the shutter curtain. The 20F has a mechanically powered but electronically controlled focal plane shutter with two textile curtains running from left to right across the opening. The running time for the curtains is 1 190 s. i.e. at that and slower speeds the entire image area is open during the exposure.

Caution: Whether the shutter is cocked or released, one of the shutter curtains always exposed in the opening. When the rear of the camera is not covered by a magazine or a protective cover great care should be taken wearing it. The curtains are very sensitive to damage. Do not touch the curtains!

To the right of the shutter opening are the magazine driving gear and the trigger for the magazine status indicator (page 8). At the bottom edge of the rear of the camera are the magazine supports and close to the top are the magazine hooks – the means serving to hold the magazine to the camera body (page 8).

The Viewfinder System
Changing Focusing Hood or Viewfinder
To remove the focusing hood for the purpose of attaching any other viewfinder in the Hasselblad system, detach the magazine (or the rear protective cover). Fold down the focusing hood to protect it from damage and remove it by sliding it to the rear in its guide slots. Slid the replacement viewfinder into the slots and push it forward until it stops. When fully inserted the viewfinder is repositioned in position by a spring-loaded ball joint until you have reattached the magazine or protective cover.

Changing the Magnifier
The standard magnifier normally provides a comfortable viewing of the focusing screen for most viewing angles. However, it is possible to order a standard magnifier plate with lens that can be changed to suit a particular lens to compensate for individual visual differences. Correction lenses are available with powers ranging from +3 to −4 diopters.

Viewfinder System as follows:
1. Remove the focusing hood from the camera and turn it by lifting the lid.
2. Release the magnifier by pushing the catch to the left. Pull the magnifier halfway down, set the lens plate from underneath and pull it out of the holder.
3. Keep the plate holder halfway down and insert the replacement lens plate with the printed side up. Fold the hood down and pull it back on the camera.

Exposure Release Button
The exposure release button is located in the lower right hand corner of the front, within comfortable reach of the right hand index finger when the "left hand grip" is applied (page 15). Pressing the button triggers the exposure cycle as follows:
1. The mirror holds up and discharges the viewfinder.
2. The lens diaphragm closes down to the preselected f/stop.
3. The shutter curtains travel across the image opening in the rear of the camera body to expose the film.
4. The mirror holds down again to restore the viewfinder image.
5. The rewind crank is released.

NOTE: The exposure button is locked when the magazine slide is in the magazine.

The Bottom
At the bottom of the camera are the quick coupling plate, the tripod threads and two ridges, supporting the camera when placed on a flat surface. The quick coupling plate fits the Hasselblad accessories, such as the tripod quick coupling and the flash bracket. The tripod thread is 1/4" and accepts the retaining screws of the flash rail and菲lash bracket.

The Top
The entire top of the camera is covered by the viewing components (page 10). The camera body is supplied with the collapsible focusing hood, which also serves as a protective cover for the focusing screen.

Changing the Focusing Screen
Your 20F is equipped with the exceptionally bright and sharp Acute-Matte focusing screen.

If you wish to replace the focusing screen with any of the other focusing screens in the Hasselblad system simply follow the procedure below:
1. Detach the magazine and the viewfinder.
2. Push the two screen latches to the side into their recesses.
3. Place your hand over the screen and invert the camera. The screen will now drop into your hand.
4. Insert the replacement screen with the smooth side up and the sharp-edged corners down. Ensure that all four corners of the screen are positively seated on the supports. You need not return the screen latches. This is done automatically when the viewfinder is replaced.

NOTE: Should the screen refuse to drop out by itself, ensure that the camera is fully wound, remove the lens and check that the interior is in the down position. Put a finger through the viewfinder and push gently at the screen from underneath, preferably with a soft cloth between the finder and the screen.
Hasselblad Meter Prism Viewfinder Adjustments
The Hasselblad Meter Prism Viewfinders meter the light level on the focusing screen. They are calibrated at the factory to give an accurate reading with one particular type of screen. If that focusing screen is replaced with another type which gives a different light level under the same ambient conditions, the meter has to be adjusted to compensate for the difference.

The PME, PME3, PME5 and PME51 are basically the same design but are slightly adjusted from the factory. The PME3, PME5 and PME51 are suited to the brighter Acute-Matte screen in the 201F camera while the previous PME is adjusted to the lower light level of the Ground-glass screen. With the two special reflective screens, such as Split image (4218) and Microprism & split image (4219), the Microprism screen (4220) is not suitable for TTL metering.

The the viewfinder types are identified by the marks PME3, PME5 or PME51 respectively on the rear of the viewfinder body above the eyepiece.

The PME has no masking. The recommended procedures of compensation for alternative usage of the meter viewfinders are shown in the charts on the opposite page.

A. Acute-Matte focusing screen combined with:

<table>
<thead>
<tr>
<th>Viewfinder model</th>
<th>Action required to obtain a correct EV</th>
</tr>
</thead>
<tbody>
<tr>
<td>PME3/PME5/PME51</td>
<td>No action required</td>
</tr>
<tr>
<td>PME5/PME5/PME51</td>
<td>REDUCE the ASA/ISO setting to half the film speed value as indicated on the film package or INCREASE the max lens aperture setting one full step or REDUCE the EV reading one full step when settling it on the lens’ EV scale</td>
</tr>
</tbody>
</table>

B. Ground-glass or similar focusing screen combined with:

<table>
<thead>
<tr>
<th>Viewfinder model</th>
<th>Action required to obtain a correct EV</th>
</tr>
</thead>
<tbody>
<tr>
<td>PME3/PME5/PME51</td>
<td>INCREASE the ASA/ISO setting to twice the film speed value as indicated on the film package or REDUCE the max lens aperture setting one full step or INCREASE the EV reading one full step when settling it on the lens’ EV scale</td>
</tr>
<tr>
<td>PME5/PME5/PME51</td>
<td>No action required</td>
</tr>
</tbody>
</table>

Lenses
The Hasselblad lenses manufactured since 1987 can be separated in two major groups, each with two subgroups.

1. Lenses with a built-in shutter:
   - C lenses (discontinued)
   - CF lenses
2. Lenses without shutter:
   - F lenses (discontinued)
   - FE (formerly FT/CC) lenses

All these lenses can be used on the 201F, but the FE and FE lenses are exclusively designed for use on focal plane shutter cameras such as the 201F.

FE Lenses
The Hasselblad FE lenses, which have no built-in shutter, can be easily identified by their system sign: the twin blue lines on the left hand side of the aperture ring. Another sign, visible only when the lens is detached from the camera body, are the four contact pins in the bayonet plate at the rear of the lens. They are used for the data transmission between the lens electronics and the electronic system in the 205CC camera body. The contact surfaces of these pins are sensitive to contamination and should not be touched with your fingers. Attach the protective cover before removing the lens from the camera and never set the lens down on the unprotected bayonet plate.

The depth-of-field scale repeats the aperture values on both sides of the heavier index line below the ring with the index line and the focusing ring. When the image is focused on the screen, you can read the focusing distance opposite the index line in the depth-of-field scale. The depth-of-field limits can be read opposite the left and right values corresponding to the preset aperture value. The illustration shows the depth-of-field for the preset aperture value of 8.

Depth-of-field preview
The lens is normally opened to the largest aperture to provide the brightest possible viewfinder image with the most shallow depth-of-field. You can stop down the lens diaphragm to the preset aperture by pushing down the depth-of-field preview knob if it locks. To reopen it depresse the lower end of the knob.
Infrared (IR) Photography

Infrared light with wavelengths beyond 800 nm are refracted by the lens to an image plane further away from the lens than the image plane for visible light. When photographing with IR light you have to compensate for this difference by setting the focusing distance opposite the red index mark to the right of the common index line. Follow this procedure:
1. Focus as usual on the focusing screen.
2. Mark or memorize the distance on the focusing scale opposite the common index line.
3. Rotate the focusing ring to set this distance opposite the IR index.

Exposure Value (EV)

The orange scale on the right hand side indicates the exposure value for the set aperture/ shutter speed combination. You read the value opposite the orange triangle index on the shutter speed ring. Use the scale to set the exposure as it can be read from exposure meters such as the PME5).

Interlocked shutter speed/aperture

If you want to change shutter speed or the aperture without changing the EV you can interlock the shutter speed and aperture setting by holding down the grooved interlock button in the grip to the right of the aperture scale. When rotated the rings move together to the required speed or f-stop setting.

Other Hasselblad Lenses

How to use other Hasselblad lenses on your 201F is described on pages 40 and in Appendix A.

Flash Photography

Automatic Flash Control

When a dedicated flash unit, such as the Hasselblad ProfiFlash 4504, or any other unit complying with the European ECA standards, is connected to the TTL flash socket (page 26.37) – directly or through a suitable adapter – the built-in sensor and flash control circuits in your 201F control the flash duration by TTL-OTF means (TTL=Through The Lens; OTF=Off The Flash). This means that it meters the light reflected off a central portion of the film surface, and terminates the flash when the exposure is correct, according to the film speed you have selected with the film speed dial (page 26.36). The flash control circuit and the flash adapter, when used, is powered from the flash unit and consumes no energy from the camera battery.

Any electronic flash unit including the dedicated flash types can be connected to the PC socket. However, you now no longer have the advantage of letting the camera system control the flash and the exposure when using a dedicated flash unit.

Magazine Operation

Loading the Magazine

You can load the magazine with film if the camera is either on or off. Open the back or drop down the magazine latch. Follow the procedure below to load a film. Paragraph numbers refer to the corresponding figures.

1. Hold the film holder away.
2. Turn the film counter clockwise.
3. Place an empty take-up spool under the grooved knob of the spool clamp.
4. Turn the film holder key ccw to open the film clamp. Pull 5-10 cm of paper from the film roll. Slide the side edge under the clamp.
5. Insert the tongue of the baling paper into the slot in the take-up spool.
6. Turn the ground knob ccw to align the arrow on the baling paper with the triangular index on the film, but no further.
7. Turn the film holder key ccw, insert the film holder into the magazine. Ensure that it is correctly positioned. Turn the film holder key ccw to lock the film holder in the magazine.
8. Fold out the film winding crank. Rotate it ccw about ten turns until it stops. Turn it ccw and fold it in.

Magazine Load Status

In the center of the film holder key there is a crescent-shaped indicator window that shows while the magazine is freshly loaded. It gradually changes to red as the film is wound through. An all red indicator shows that the film is used up or that the magazine is empty.

Removing the Film

When the film has been advanced after the last frame, the magazine blocks the camera against further exposure release. To remove the exposed film, pull out the film winding crank and rotate it clockwise until you can feel that the film is leaving the supply spool. Withdraw the film holder from the magazine and remove the film.

Film Tab Holder

The end tab of the film pack can be inserted in the holder on the back of the magazine as a reminder of the kind of film that has been loaded into the magazine.

Film Plane Index

The film plane index on the right hand side of the magazine body indicates the position of the film plane. It can be used to look for the subject or the distance of the subject from the film plane, which is important in close-up photography.
Viewfinder Signal

The flash operation signal is combined with the battery check indicator (page 16).

It is operative as flash signal only when a dedicated flash unit is connected to the TTL socket.

The signal has three different states of indication: a ready signal, an exposure confirmation signal, and no signal.

Ready Signal

A fixed red light indicates that the flash unit is fully charged and ready to operate.

Confirmation Signal

A blinking red light that appears during a little longer than a second immediately after the exposure confirms that the light output was sufficient for proper exposure. After the confirmation signal the indicator remains dark until the ready signal reappears, indicating that the flash unit is operative again.

No signal

Absence of the confirmation signal indicates that the light output from the flash unit was insufficient for a correct exposure.

Setting the Film Speed

The film speed is set with the ISO selector dial. The setting range is ISO 16 – 1000. The equivalent DIN numbers are shown in parentheses. Certain films, e.g. Polaroid, need compensation for differences in reflection. Such compensation is made by changing the film speed setting. The amount of compensation has to be determined by experiment.

201F with other Hasselblad Lenses

You can use the Hasselblad F-, CF- and C-lenses on your 201F camera body without fear of damaging matrix camera relays. The F-lenses are optically and mechanically identical with the corresponding FE-lenses. The instructions for the FE-lenses are in all parts applicable on the F-lenses.

How to Use the Dedicated Flash

In TTL mode

For the operation of the flash unit please refer to the flash unit instruction manual.

Camera Functions:

- Fully automatic exposure control through TLU/2FT metering.
- Exposure with preset aperture and shutter speed of the photographer.
- Automatic focusing of flash triggering when the preset shutter speed is faster than 1/60 s.
- Viewfinder indication:
  - when the flash unit is charged and ready to flash.
  - when the exposure was correct.
  - when the exposure was wrong.

Suggested procedure:

1. Set the film speed with the Film Speed Dial, attach and connect the flash unit according to the flash unit instruction manual. With the Hasselblad Profoto adapter connect the Hasselblad TTL-cable between the TTL socket in the camera body (page 28) and the TTL socket in the flash unit. The PC-cable connector is pivoting but can be "snapped" into the PC-socket.

2. Set the flash unit at TTL or corresponding mode and switch it on. When the flash unit is charged and ready to flash, the indicator in the viewfinder lights up with a red light.

Flash in other mode than TTL

A dedicated flash unit, connected to the TTL socket and set in any other mode than TTL, will not be controlled by the camera but will still trigger the "ready" and "confirmation" indications in the viewfinder. The flash function and the viewfinder indications, however, are regardless of the film speed setting on the camera.

Non-dedicated Flash Units

Any kind of electrically powered flash unit connected to the PC-socket will only be triggered by the light signal but not controlled by the camera. The viewfinder signals will not be operating. The PC-socket is insensitive at shutter speed settings faster than 1/60 s to avoid exposure failures.

Note: High power studio flash units may in some cases have a flash duration longer than 1/60 s. When using such equipment you are recommended to set the shutter speed at 1/60 s or slower to avoid uneven exposure due to shutter curtain movement.

Accessories

All accessories included in the present Hasselblad Product Catalog and most discontinued older accessories can be used on the 201F when not specifically noted otherwise.

Accessories Mounts

The quick coupling plate on the bottom of the camera body (page 21) fits the normal and reliable Hasselblad tripod quick coupling and the flash gun bracket. On the front of the lenses are external and internal bayonet mounts for filters, close-up lenses and lenses. The viewfinder mount on top of the camera body accepts various focusing screens and viewfinders. Underneath the winding crank is a bayonet mount for the Hasselblad Winder.

Major Accessories

A couple of the most important accessories are described below. For a complete review of the Hasselblad system refer to the Hasselblad Product Catalog.

Winder

The Hasselblad Winder replaces the winding crank and motorizes the 201F for a maximum film rate of 1.3 fps.

Viewfinders

Besides the focusing hood which is delivered with the camera body you have a choice of a magnifying hood and a range of prism viewfinders with and without built-in exposure meters.

The Hasselblad 201F System Chart

The accessory chart on the following pages indicates the wide range of accessories available within the Hasselblad System. Please refer to the Hasselblad Product Catalog for full information on the complete Hasselblad Camera System.

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Non-dedicated Flash Units

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All accessories included in the present Hasselblad Product Catalog and most discontinued older accessories can be used on the 201F when not specifically noted otherwise.

Accessories Mounts

The quick coupling plate on the bottom of the camera body (page 21) fits the normal and reliable Hasselblad tripod quick coupling and the flash gun bracket. On the front of the lenses are external and internal bayonet mounts for filters, close-up lenses and lenses. The viewfinder mount on top of the camera body accepts various focusing screens and viewfinders. Underneath the winding crank is a bayonet mount for the Hasselblad Winder.

Major Accessories

A couple of the most important accessories are described below. For a complete review of the Hasselblad system refer to the Hasselblad Product Catalog.

Winder

The Hasselblad Winder replaces the winding crank and motorizes the 201F for a maximum film rate of 1.3 fps.

Viewfinders

Besides the focusing hood which is delivered with the camera body you have a choice of a magnifying hood and a range of prism viewfinders with and without built-in exposure meters.

The Hasselblad 201F System Chart

The accessory chart on the following pages indicates the wide range of accessories available within the Hasselblad System. Please refer to the Hasselblad Product Catalog for full information on the complete Hasselblad Camera System.
Technical Specifications and Equipment, 201F

Camera design:
Medium format single lens reflex camera with built-in flash exposure control. Full image size mirror. Max. film size 6 x 6 cm (2 1/4 x 2 1/4 in). Interchangeable lenses, film magazines, viewfinders, and focusing screens.

Shutter:
Electronically controlled mechanical focal-plane shutter with release second system. Horizontally running tissue curtain. Shutter speed range 1s - 1/1000s and B. Fully mechanical C setting for lenses with built-in shutters. Flash synchronization at all speeds from B to 1/100s.

Lens mount:
Hasselblad bayonet mount for FE, F, CF and C lenses.

Viewfinder:
Focusing hood with 4.5 x magnifier, interchangeable with magnifying hood and prism viewfinder with or without exposure meter. Acute-Matte focusing screen interchangeable with other Hasselblad focusing screens. Illuminated flash indication.

Camera winding & Film advance:
Manual single turn winding crank. Simultaneous shutter cocking and film advance. The crank is interchangeable with the motorized Hasselblad Winder for a frame rate of up to 1.3 fps.

Flash control:
Center weighted TTL/OTF flash exposure meter powered from flash unit. Low center metering area. Full dedicated flash control with shutter speeds from B to 1/100s. Inhibited flash triggering at shutter speeds faster than 1/100 s.

Film speed range: ISO 100/13 - 1000/11 for dedicated flash control. Selected with film speed dial on camera body.

Selftimer:
Default delay 10s, optional delay 2s selected with selftimer button. Flashing selftimer indication light.

Battery:
60V, type PX28, UCAR 537, 4D-13 or equivalent Lithium type.

Tripod mount:
Quick coupling plate and 1/4" and 3/8" socket thread.

External dimensions:
Camera body only: See page 46. With focusing hood, Prism FE 2.8/80mm lens with front cover, and film magazine A12: 1066 x 1176 x 1064 mm (7 1/2 x 4 5/8 x 4 1/4 in).

Weight:
1650 g with focusing hood, Prism FE 2.8/80, A12 film magazine and battery. Camera body alone: 750 g.

The camera body (Car.-No.: chrome finish 10529, black finish 10532) comes with focusing hood, focusing screen, winding crank, shoulder strap, front and rear protective covers.

For comprehensive information please refer to the Hasselblad Product Catalog. Hasselblad reserves the right to change specifications without prior notice.

Troubleshooting

Your Hasselblad 201F is built for long and trouble-free service, especially when you follow the advices on maintenance and care on page 49. Should you encounter any operational difficulties the troubleshooting chart below may help you to resolve them.

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POSSIBLE CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>The lens cannot be attached</td>
<td>The lens is released or pre-released</td>
<td>Check the lens. Complete the camera release or depress the double exposure button and rewind the camera.</td>
</tr>
<tr>
<td>The lens cannot be detached</td>
<td>The lens is released or pre-released</td>
<td>Complete the camera release or depress the double exposure button and rewind the camera.</td>
</tr>
<tr>
<td>The magazine slide is still in the magazine</td>
<td>The magazine slide is not completely inserted</td>
<td>Load a new film or change to a new loaded magazine.</td>
</tr>
<tr>
<td>The film is finished</td>
<td>The film is not rewound</td>
<td>Rewind the camera with one full turn of the winding crank.</td>
</tr>
<tr>
<td>The camera is not rewound</td>
<td>The camera is rewound</td>
<td>Rewind the camera with one full turn of the winding crank.</td>
</tr>
<tr>
<td>The shutter speed ring cannot be moved</td>
<td>The shutter speed ring is not engaged</td>
<td>Engage the shutter speed ring.</td>
</tr>
<tr>
<td>The flash is not triggered when the camera is released</td>
<td>The selected shutter speed is faster than 1/100 s.</td>
<td>Select a shorter speed of 1/100 s or slower.</td>
</tr>
<tr>
<td>The flash &quot;ready&quot; signal does not light up when a dedicated flash unit is connected</td>
<td>The flash unit is not switched on or not fully charged to be operational</td>
<td>Check the connections according to the flash unit’s manual. Replace the flash unit.</td>
</tr>
<tr>
<td>The &quot;continuation&quot; signal does not appear after a dedicated flash exposure</td>
<td>The flash unit’s batteries are too exhausted to recharge the unit.</td>
<td>Replace the flash unit’s batteries with fresh ones.</td>
</tr>
</tbody>
</table>
Camera Body Dimensions

Camera Care, Service, and Guarantee

Camera Care
Your Hasselblad camera is designed to withstand the rigours of professional use in most environments. In order to avoid the possibility of damage, however, the camera should be protected from the following:

* Extreme temperatures. High temperatures can have an adverse effect on both the film and the camera. Do not keep your camera in places where it may get hot, such as in direct sunlight or above a radiator. In tropical environments fungi growth can be prevented by keeping your equipment in an area where the air is circulating. Frequent opening and closing temperature changes can cause problems such as corrosion of electrical contacts, and should be avoided. When in extremely cold temperatures, cameras and especially lenses should be protected as much as possible.

* Dust and grit. Prevent dirt of any kind from getting into your camera. When taking photographs in coastal areas for example, the camera should be protected from sand and salt water spray.

You can blow away dust on the lens glass, magnetizer of retaining screws, or wipe it off gently with a soft cloth if necessary. Smears on the lens glass should be removed with a high-quality lens cleaning solution on a soft, clean tissue. Be careful not to scratch the lens or touch any of the glass surfaces with your fingers. The surface of the mirror is coated and should be blown clean but not be wiped. Lenses cleaning solvents or other chemicals should not be used on the focusing screen.

Impact. Your camera can be damaged by severe physical shocks. You should take care not to leave it where it can fall or be knocked to the ground, or roll about.

Service. Hasselblad's camera performance is essential to the professional photographer. Therefore it is advisable to check that your camera is functioning correctly before an important assignment. You should also return your camera to a Hasselblad authorized Service Center for periodic checking and preventive maintenance. If your camera is used constantly and intensively, exposing hundreds of rolls of film per week, checkups every six months are recommended.

Hasselblad Service Centers have the expert staff and specialized equipment necessary to ensure that your camera remains in perfect working order.

Guarantee. Provided that you bought your camera from an authorized Hasselblad outlet, it is covered by an international guarantee for one year. The guarantee document and a registration card are supplied with the camera. Keep the guarantee document carefully, but fill in the registration card and return it to your Hasselblad distributor.

Care, Service & Guarantee
Lens in C mode

Dedicated Flash Unit
The TTL/OTF system is working when in C-mode to control the dedicated flash unit directly - as with the Hasselblad Flash 4024 - or through an auxiliary flash. However, since the local plane shutter is not working as a shutter, the triggering of the flash must come from the shutter in the CF-lens. The red "ready" signal and flipping "confirmation" indication appear in the viewfinder as described on page 36.

How to use the Dedicated Flash
(Camera shutter speed set at C)
Suggested procedure:
1. Attach the flash to the camera (if desired).
2. Connect the TTL-cord according to the flash instruction.
3. Connect the PC-connector to the PC-socket on the CF-lens, not to the PC-socket in the camera body.
4. Set the flash unit in the desired mode of operation and switch it on. The red "ready" signal in the viewfinder lights up when the flash is ready to be fired.
5. Select shutter speed and preset aperture on the lens.
6. Press and release the exposure button to make an exposure, observing the viewfinder display for the "confirmation" indication.
7. Rewind the camera to get the viewfinder image back, cock the shutter and advance the film to the next frame.

Non-dedicated Flash Units
The non-dedicated flash unit should be connected to the PC-socket on the lens only. The exposure is controlled either by the flash itself or by aperture value settings calculated from the guide number of the flash (see the flash manual). There will be no indications in the viewfinder.

How to use the Non-dedicated Flash Unit.
(Camera shutter speed set at C)
Suggested procedure:
1. Attach the flash to the camera (if desired).
2. Connect the sync cord to the PC-socket on the CF-lens, not to the PC-socket in the camera body.
3. Set the flash unit in the desired mode and switch it on.
4. Select and preset aperture and shutter speed (preferably 1/125 s or slower).
5. Press the exposure button to make an exposure.
6. Rewind the camera to get the viewfinder image back, cock the shutter and advance the film to the next frame.

C-lenses

The older C-lenses (produced since 1962) look different but are in most respects identical to the CF-lenses. There are, however, certain major differences:
1. There is no F-setting on the shutter.
2. The shutter speed and aperture rings are normally interlocked.
3. There are two different flash synchronization modes.
4. There is a built-in mechanical shutter.

How to use the C-lens
Avoid using the local plane shutter together with a C-lens. If it cannot be avoided follow the procedure below:
1. Set the lens shutter at B.
2. Preset the desired aperture.
3. Set the camera shutter to the desired shutter speed.
4. Press the exposure button to make an exposure and keep it depressed until the local plane shutter has closed. This is very important at slow shutter speeds.
5. Rewind the camera to get the viewfinder image back, cock the shutter and advance the film to the next frame.

Camera in C mode

The lens is permanently working in C-mode. The procedure is identical with the CF-lens in C-mode procedure (page 54).

Flash photography with the C-lens

Using the camera's focal plane shutter
With the lens shutter at B the lens can be used as an F-lens.

Dedicated and Non-dedicated Flash Units
Follow the procedures for the F-lens (page 49).

Using the C-lens focal shutter
Make sure that the flash mode selector is set at X.

Dedicated and Non-dedicated Flash Units
Follow the corresponding procedures for the CF-lens (page 53).