HASSELBLAD

PME90

42290

Users Manual
Bedienungsanleitung
Mode d’emploi
Manual de instrucciones
Manuale d’istruzioni
Gebruiksaanwijzing
Bruksanvisning

GB Hasselblad Meter Prism Viewfinder PME 90 (42290)
The Hasselblad PME90 is a 90° meter prism viewfinder for eye-level viewing in line with thephotographing direction, specially suitable for shifting between horizontal and vertical format orientation. Its built-in exposure meter offers three different metering methods: a choice of shutter or aperture priority and a wide range of presetting possibilities. Film speed can be set within the ISO2 – 6400 range and lens max aperture within f/2 – f/16. The 2x enlarged reversed image covers the entire focusing screen including theviewfinder’s built-in conspicuous Urban Crystal Display.

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33. Spot metering indication
34. Integral metering indication
35. Battery “low power” warning indication

Getting started
In the text plain numbers within brackets refer to the Parts & Components. A full list of the viewfinder is delivered without battery. Use a 3V Lithium type CR-123A, common in most compact cameras.

Battery installation (Fig. 2)
Swing open the battery compartment cover (6). Place the battery in the cover or in thebattery compartment of the viewfinder body. Be sure to position the battery correctly according to fig. 2 and the sigh in the battery compartment. Close the cover carefully after inserting the battery.

NOTE: Positioning the battery incorrectly will not damage the viewfinder but it will prevent the exposure meter from functioning.

Exposure meter activation (Fig. 3)
The exposure meter is completely self-contained and can be operated on or off the camera body. It is activated by pressing any of the buttons except the shutoff buttons (11) or the display illumination button (12). Normally the meter shuts off automatically 16 seconds after the latest manipulation of any button, but the duration of this period can be changed in the Programming mode (see page 5, section P-R). The first time the meter is activated the “in- focus” settings (Max. 12.8, ISO100, Integral metering (Fig. D1, page viii) appear. See also the section “Operating details, Starting the Metering model’s” later.

Viewfinder LCD display (Fig. 4)
The exposure meter’s display is located beneath the image view. It is illuminated by theambient light through the window (15) on the upper front side of the viewfinder body. Under low-light conditions the display is illuminated by depressing the illumination button (13), which has an inbuilt function. The various display appearances (D1 – D18) are shown on page viii in the rear fold-out section. They will be described below together with the corresponding meter functions.

Adjusting the eyepiece (Fig. 5)
1. Pull the catch (3) away from the eyepiece.
2. Activate the release (see above).
3. Turn the diaphragm adjustment ring (3) with the rubber eyepiece (4) clockwise or counter-clockwise until the display signs appear sharp.
4. Lock the eyepiece in the focused position by pushing the catch (3) back again.

NOTE: The eyepiece can be focused towards the viewfinder body for the convenience of eyeglass users.

Attaching the viewfinder (Fig. 6)
1. Detach the film magazine.
2. Slide the present viewfinder to the rear of the viewfinder mount.
3. Insert the PME90 into the slots and slide it forward to the positive stop. It is retained there by spring-loaded ball-latches in thecamera body.
4. Recheck the eyepiece focusing on the focusing screen.

NOTE: Recommended focusing screen use for the PME90 is the Acute-Matte D. (Code No. 42204). See also the chart on page 37.

Attaching the magazine (Fig. 7, 8)
1. Insert the magazine from below, beneath the viewfinder.
2. Place it on the lower magazine supports.
3. Swing it towards the camera body until it rests against the magazine retainer rails.
4. While gently pressing against the hooks, squeeze the protruding part of the magazine catch operating slide (20) to release the slide latch, and push the slide firmly towards the viewfinder body.
5. Continue to press the magazine against the camera body and release the operating slide (20).
6. Pull the magazine away from the camera body to verify that it is positively attached.
7. Remove the magazine dark slide.
Operating details
Starting the metering mode
The first time the meter is activated by press-
ing the metering button (12) the default setting is used. All settings are permanent unless intentionally changed again. Removing or replacing the battery does not affect the default settings.
Changing the metering setting(s)
The three basic settings ISO, Finax and Metering mode can be changed by pressing the corresponding buttons (7, 8, 10, 11 and 20) and then pressing the ISO button (7) to display the ISO setting. Pressing the Finax button (8) and then the up or down adjustment buttons (11) to increase or decrease the displayed finax speed value in increments corresponding to 1/5 EV. Lens max. aperture setting is fixed (fig. 3). To give the brightest possible evader image the lens is normally opened up to the max. aperture. For spot and integral metering the exposure meter uses the light coming through the lens. Thus, it needs to know the metering area of this lens to produce a correct exposure value.
Pressing the Finax button (8) and use the up or down adjustment buttons (11) to increase or decrease the displayed max. aperture value in increments corresponding to 1/5 EV.
Selecting the metering method
The metering method is selected by pressing the metering button (fig. D5). The metering methods are: Spot metering, Integral metering and Incident light metering. Each of the metering methods will be explained in detail in the sections that follow. The metering range is ISO 100 to 1 + 21 EV.

• Integral metering (fig. 11) is a center-weighted metering method using a central area of approx. 40 x 40 mm. The metering range at ISO 100 is 1 - 19 EV.

• Spot metering (fig. 6) is used by pressing the metering button (12) while the spot meter is activated. The spot meter and the integral meter methods use the light level on the focusing screen and not reflected light of the subject. See also page 7 for further information on the use of different focusing modes.

• Incident light metering (fig. 12) uses the diaphragm as a spot on the evader body to measure the light falling upon the subject. The metering range at ISO 100 is -3 - +17 EV.

Note: Do not shade or cover any part of the sensor dome when metering incident light.

Programming mode
By selecting the Programming mode the display appearance can be changed by altering the following settings:

Exposure data display type:
- P1: Shutter or aperture priority
- P2: Meter mode, variable limits
- P3: Active period duration
- P4: Permanent exposure correction
- P5: Start display of Finax and ISO
- P6: Sound warning signal

Selecting the metering mode
The Program mode is selected by simultaneously pressing the buttons for ISO (6) and metering mode (10), also marked by the PR., respectively. The first time the PR. mode is selected the display appears as integral, but after that it always returns to the last setting used. Repeatedly pressing the PR. (10) button will cycle the display through the different program functions PR1 thru PR7.

PR1 Exposure display mode:
- Off (default setting)

PR2 Metering mode:
- Spot metering
- Integral metering
- Incident metering

PR6 Start display of Finax and ISO:
- Off
- On

PR7 Sound warning signal:
- Off
- On

NOTE: The selected sound warning signal is controlled manually by means of the adjustment button (11). The other values will be calculated and continuously updated on the display. The aperture index range is Finax (preset value) to 1/64 with 0.2 as the largest aperture.

Metering
This metering mode is started by pressing the metering button (12) while the spot meter is activated. All exposure information obtained from the viewpoint display has to be transferred manually to the lens and the camera.

EV display
When the factory default settings are unchanged the display appears on activation as in fig. D1 for 1.5 s and then changes to fig. D2. The displayed EV value changes with changing light levels on the focusing screen. This EV value for the selected subject area has to be transferred to the camera. A blank screen is displayed when the metering mode is set.

Final speed display
When the display is set to indicate aperture and shutter speed (PR1 above) the EV function can be used to select "aperture priority" or "shutter speed priority".
The selected priority setting is controlled manually by means of the adjustment buttons (11). The other values will be calculated and continuously updated on the display. The aperture index range is Finax (preset value) to 1/64 with 0.2 as the largest aperture.

P6M60 focusing screens

Screen type
- Micro-prism (MP)
- Spot mirror

Spot mirror
- 420S, 420T, 4215
- 4204S, 4204T, 4215S

NOTE: The exposure should be reduced one full stop when using a 2x teleconver-
ter together with a lens having a f-number of 4 or higher.

NOT RECOMMENDED:
- Micro-prism MP
- Spot mirror

NOT RECOMMENDED:
- Spot mirror

NOT RECOMMENDED:
- Micro-prism MP

NOTE: Incident light metering can be used during 1/60 s with a shutter speed of 1/60 s is important for the focusing screen.
Installation of the correction lens:
Fig. 13
1. Remove the rubber eyecup (4).
2. Release the focusing catch (5).
3. Turn the eyepiece clockwise until it stops.
   The small position mark (2) is now aligned
   with the paring line of the viewfinder body.
Fig. 14
4. Use a pointed instrument to remove the red retaining clip (1).
5. Lift the focusing ring (3) out of the eyepiece.

Fig. 15
6. Place the correction lens unit over the eyepiece
   with the position mark against the
   paring line by the focusing catch (3).
7. Keep the lens unit gently pressed against
   the viewfinder and insert the locking clip (1)
   in the inner groove with its central lug
   aligned with the position mark (2). Push
   the clip entirely into the groove.
Fig. 16
8. Replace the rubber eyecup (4) and turn it
   to focus the eyepiece. Push the catch (5) towards
   the eyepiece to lock it at the best focus.

Self-test
When the meter is activated in metering mode,
pressing the ISO (7), Fmax (8) and Method (10) buttons simultaneously starts
the self-test, which shows all characters and
symbols in the display (Fig. 1, bottom, p. 4).
Pressing any button while the self-test is
running results in a temporary display turn-
off and a short beep. The self-test is shut off
by simultaneously pressing the buttons (7),
(8) and (10) again.

Care, service and guarantee
Handling
Although ruggedly built and designed for long
and trouble-free professional use, the PME90
viewfinder is still an electro-optical instrument
and should be treated with the same care as
the camera itself. Protect it from rain and water
splash and from dust and grit. Do not use it
as a carrying handle or leave it where it can
fall or roll about.
Whenever removed from the camera body the
protective cover (23) should be attached to
the viewfinder to protect the optical surface
of the prism (21) and the retaining plate (22).
Always remove the battery when the PME90
is not to be used for a long period.
Cleaning
NEVER USE ANY KIND OF LIQUID WHEN
CLEANING THE PME90
Blow away dust and contaminations on the
glass surfaces and on the exterior, or use a
soft brush or a lintless cloth. DO NOT touch the
glass surfaces with your fingers!
Service
Faulty equipment performance is essential
for the professional user. Therefore it is
advisable to check the function of your equip-
ment before an important assignment. The
Hasselblad Authorized Service Center has
the expertise staff and the specialized tools
necessary to ensure that your equipment remains
in perfect working order.

Guarantee
Provided that you bought your equipment
from an authorized Hasselblad outlet, it is
covered by an International guarantee for one
year. Keep the guarantee document supplied
with the equipment carefully.

PME90 Technical Specifications

Viewfinder:
- Viewfinder type: 50° Prism Viewfinder with built-in exposure meter,
- Viewfinder image: Unreversed, enlarged 2x,
- Eyepiece: High eyepoint, Diopter adjustment -0.5 to +0.5 diopters.
- With optional correction lenses -0.5 to -2 and +0.5 to +3 diopters.
- Weight: 860 g (1.84 lbs, 1.9 oz)

Exposure meter:
- Operating modes: Metering mode;
- Programming mode with 7 programmable functions.
- Metering methods: Spot metering, center weighted integral metering,
- Incident light metering.
- Metering areas: Spot meter: central Ø12 (1/2 in.);
- Integral meter: approx. 40 x 40 mm (1 3/8 x 3/4 in.)
- Metering ranges at ISO 100:
- Spot metering: +1 to +2 EV
- Integral metering: +1 to +3 EV
- Incident light metering: +3 to +7
- Display: LCD type backlit the image area,
- Operator controlled backlighting.
- Battery type: 3V Lithium type CR-123A