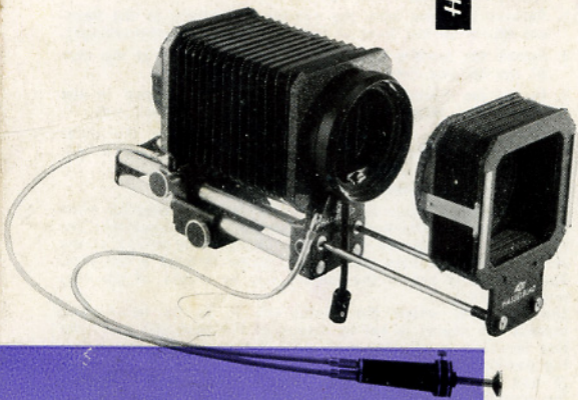


VICTOR HASSELBLAD AB

SWEDEN

H A S S E L B L A D



Bellows extension with frontshade

The Hasselblad bellows attachment permits extensions from $2\frac{7}{8}$ — $7\frac{15}{16}$ (73—201 mm). To facilitate packing the bellows are delivered with the frontshade (A) against the camera side of the bellows (E).

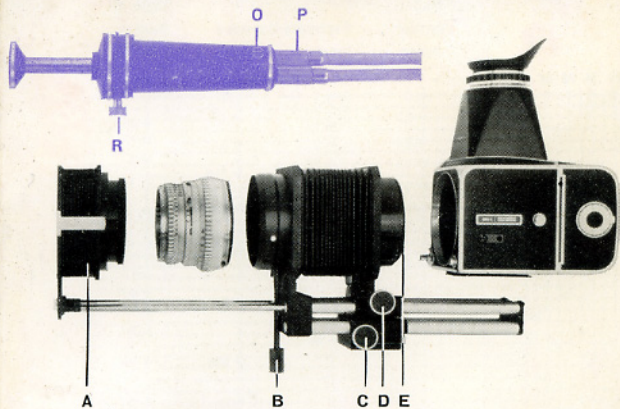
Assembly

1. Remove the frontshade.
2. Screw the "red" cable of the twin cable release to the front of the bellows (K). Attach the other cable to the rear bellows cable attachment (H).
3. Remove the lens from the camera and attach to the bayonet mount on the front of the bellows (red point markings).
4. Attach the camera body via the bayonet mount at the rear of the bellows (red point markings).
5. Insert the frontshade into the bellows as shown in the illustration. Note that screw (I) is to be screwed out.
6. The frontshade ring (M) is then attached to the outer bayonet mount on the lens and secured with screw (L).

Using the bellows extension

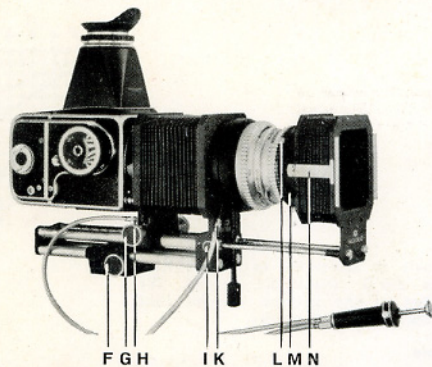
The automatic shutter cocking device is not connected when the bellows are attached to the camera. This means that the shutter must be cocked after every exposure by means of the cocking arm (B). Turn the arm clockwise through a full turn. The camera is set in the normal way by means of the film transport knob.

The range at which the photograph is to be taken (and thereby the scale) is set by means of the knob (C) while the fine focusing is adjusted with the aid of knob (D). The focusing positions on the bellows are locked by turning the knobs (F and G) on the right side of the bellows. When focusing the procedure is to move the camera body in relation to the



lens, viz: the lens remains at a fixed distance from the subject to be photographed. This means that the frontshade can be extended to provide the desired screening effect by loosening screw (I) and unclipping the hooks (N) on both sides of the frontshade. The frontshade also functions as a holder when carrying out reproduction work with Hasselblad Transparency copy holder (TIADC).

To enable the calculation of the loss of light caused by the extension of the bellows the two upper racks upon which the



bellows travel are provided with scales for each focal length. These scales are graduated in stages, one stage being equal to a doubling of the exposure time. Another scale indicates the extension in cm.

Exposing

Before attempting to take photographs with the bellows extension in position be sure that you are familiar with its function. See under "Checking and adjusting of cable release".

When the lens and the camera are both cocked the camera is ready for use. Depress the cable release button until the auxiliary shutter (focal plane shutter in camera body) opens. This means that the between-lens shutter is closed and that the diaphragm is set for a predetermined opening. This brings us to the so-called "firing moment". Do not depress the release button until the camera has stopped shaking. Then depress the release button fully. Do not release the button until you hear that the shutter mechanism has stopped working or else the auxiliary shutter will close. This is especially important when making long exposures. If you want a rapid exposure, please see under the heading "Adjusting".

Checking and adjusting of cable release

The cable release is checked prior to delivery but you should — after removing the film magazine — check with your camera that the following actions do indeed take place!

Check

1. Cock the camera and lens shutter.
2. Depress the cable release slowly.
3. The between lens shutter closes.
4. The auxiliary shutter opens. Check that the diaphragm has closed to the predetermined opening.
5. Depress the button fully and the exposure will be made via the between-lens shutter.
6. Release the button. The auxiliary shutter closes.

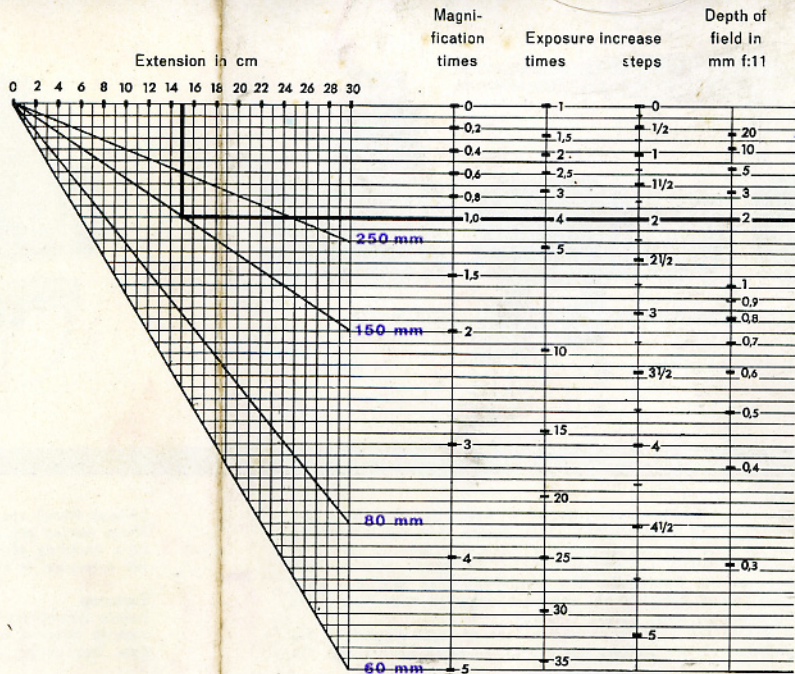
If the camera does not function properly the cable release must be adjusted. The procedure is as described below.

Adjustment

Unscrew screw (O) on the cable release 1 turn. Unscrew the sleeve on the "red" cable (P) about 5 turns. Press the release button slowly until the auxiliary shutter opens and lock with screw (R). Screw in the sleeve (P) until the lens shutter closes with a "click". Screw in the sleeve a further $\frac{1}{2}$ —1 turn and lock with screw (O). Loosen screw (R) and press the release button as far down as it will go and the between-lens shutter will be actuated.

Rapid Exposure

Should you require for any special reason to be able to press the release button directly to the bottom without pausing at the "firing moment" the auxiliary shutter must be released before the between-lens shutter closes. Sleeve (P) must then be unscrewed 2—3 turns. N. B. This requires pressing the cable release button straight down as far as it will go. Adjust by trial and error.



Table

The table is applicable to all the Hasselblad 500 C lenses set to inf. The extension of the bellows can be read from the centimetre scales.

Example

The example, which is marked with a broad line in the table, assumes a lens of 150 mm. focal length extended 15 cm. Using this extension follow the thick line downwards the 150 mm line and then at right angles to the right. This will give the following values:

Magnification 1.

Increase in exposure time 4x or 2 stages.

Depth-of-field at aperture 11 about 2 mm.