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VITO BR
24 x 36 - 35 mm

1. Lens focusing mount with distance scale
2. Dot divisions on aperture ring (6) for setting filter factors
3. Viewfinder window
4. Rewind knob with film indicator
5. Reversing lever
6. Aperture setting ring, combined with film speed setting ring

7. Shutter speed setting ring
8. Rangefinder window
9. Release button with cable release socket
10. Accessory shoe
11. Depth of field scale
12. Setting window (DIN) for film speeds
13. Shutter speed scale
14. Synchronizing lever for M and X synchronization, and self-timer (V)
15. Distance scale
16. Aperture scale
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Loading and Unloading the Camera

Standard 35 mm. miniature film for $24 \times 36$ mm. negatives is commercially available as black-and-white as well as colour film in daylight cassettes of 36 or 20 exposures.

Although the cassettes are light-tight, it is not advisable to expose them to strong light. Make a point therefore of always loading and unloading the camera in the shade – even the shadow of your own body will do.

Opening the Back

First lift up the recessed base plate latch (22), and turn it through a quarter turn to the right. Then fold away the base plate flap (23) as shown in the illustration, and swing open the back away from the body.
Inserting the Cassette

- Pull out a short length of the film leader from the cassette, and push it well into the slit of the take-up spool (29). See illustration.

- Draw the cassette across the film track, and insert it in the cassette chamber (26). The shaft (25) of the rewind knob must properly engage the cassette, otherwise you will not be able to close the camera later on.

- Now push the reversing lever (5) backwards (making the rewind knob (4) spring up), and keep pulling out the rapid winding lever (27) until the film leader is firmly rolled round the take-up spool, and the transport sprocket wheel (28) engages the film perforations. Then push the rewind knob back again.
Before closing, the loaded camera should appear as shown in the illustration on the right. The film lies flat in the film track, and the teeth of the transport sprocket engage the film perforations.

**Closing the Camera Back**

First swing down the back and press it firmly against the body. Then push the base plate flap (23) into position, turn the base plate latch (22) to lock it, and fold down.
Setting the Film Counter

Every time the film is advanced, the film counter shows the number of exposures still available. It thus runs backwards from No. 36 or 20 (the first exposure) to No. 1.

**With 36-exposure cassettes:** Turn the milled knob (18) until the red letter "F" appears below the index mark (a). Pull out the rapid winding lever (27) once or twice until it locks, press the release button (9), and once more work the rapid winding lever until it locks again. The red mark for No. 36 now coincides with the index mark (b), and the film is ready for the first exposure.

**With 20-exposure cassettes:** Turn the milled knob (18) until the red mark for No. 22 coincides with the index mark (c). Then proceed as above until the figure 20 appears in the window — as in (d) — for the first exposure.

The film indicator in the rewind knob is intended solely as an aid to your memory. Set it by turning to the appropriate symbol:

- **RD (UT)** = Daylight type reversal colour film
- **RA (UK)** = Artificial light type reversal colour film
- **ND (NT)** = Daylight type negative colour film
- **NA (NK)** = Artificial light type negative colour film
- **N (N)** = Black-and-white negative film
- **R (U)** = Black-and-white reversal film
Like the film indicator, the ASA-DIN film speed window on the camera is an aid to memory, for the speed of the film loaded into the camera is of considerable importance in setting the correct aperture and shutter speed (see pages 8 to 10).

**Setting the Film Speed**

Fully press in the lever (17), and turn the front milled rim (see white arrow) of the combined aperture and film speed ring (6) until the required film speed figure appears in the ASA or DIN window (12). Release the lever again, and the front rim is once more coupled with the aperture setting ring.

If the film in use is rated at a speed in between two figures in the film speed window, intermediate settings are also possible. For instance, with a film of 32 ASA, let the milled ring engage between the figures 25 and 50.
Unloading

After the last frame the exposed film must be rewound from the take-up spool into the daylight cassette:

- Push the reversing lever (5) backwards; the rewind knob (4) will spring up into its operating position (see illustration).
- Turn the rewind knob in the direction of the arrow while observing the film counter window. The film counter now runs back from No. 1 (the last exposure). When after No. 36 or 20 the red letter "F" or the red mark for No. 22 respectively is below the index mark, the film is fully rewound. The cassette can then be removed from the camera.
Setting Shutter Speeds and Apertures

The correct settings for exposure time and lens aperture can be estimated by experience, or – preferably – determined with the aid of a photo-electric exposure meter. When you take a reading, the meter indicates a series of aperture-speed combinations for correct exposure under the prevailing light conditions where you intend to take the picture. From such a series you then choose most suitable aperture-speed combination for your subject, and set the controls of the VITO BR accordingly.

Choose therefore a combination with a fast shutter speed for moving subjects (e.g. children at play, sports shots); for scenes requiring great depth of field (such as landscape views) set a combination using a small aperture. For further details see the section on apertures and depth of field on page 23.

Setting the Speed and Aperture

First turn the shutter speed setting ring (17) until the rear tip of the ▼ index mark engages opposite the required shutter speed. Then turn the aperture ring (6) to set the appropriate aperture number opposite the ▲ index on the shutter speed ring. The illustration on the opened-out flap of the inside cover page shows the camera set to a combination of 1/60 second at f/5.6.
Setting the Speed and Aperture (continued)

In practice you may occasionally find that you want to use a different aperture-speed combination from that originally chosen. Here the VITO BR has the great advantage that you can set any alternative combination by simply turning the shutter speed setting ring. The effective exposure always remains the same.

For instance, after having set the correct exposure combination, you may need a faster or slower shutter speed. In that case you only need to turn the shutter speed setting ring (7) to move the ▼ index to the left or right to the desired speed. The corresponding aperture figure is instantly visible above the ▲ index and at the same time automatically adjusted. This movement of the shutter speed setting ring thus covers the whole range of aperture-speed combinations possible under the given light conditions.

But please note: Once you have set a correct basic combination, and vary the aperture or shutter speed by turning the speed setting ring, do not move the double ◆ index beyond the left hand limit (f/22) or the right hand limit (f/2.8) of the aperture scale. Otherwise the originally determined exposure value is changed and you would have to repeat the estimation or measurement of the prevailing light conditions.
Setting the Speed and Aperture (continued)

The Prontor SLK-V diaphragm shutter has a tri-colour speed scale:
- The black figures (1/300 to 1/60 second) are safe speeds for hand-held shots.
- The yellow figures (1/30 to 1 second) are similarly speeds which are timed automatically by the shutter. Here, however, a firm support for the camera (e.g. a tripod, table, etc.) is desirable during the exposure.
- At the green "B" setting pressing the release button (9) keeps the shutter open for as long as the release is depressed. (The "B" setting corresponds to an exposure of 2 seconds in the sequence of the shutter speed scale).
- The green figures (4 to 60 seconds) are no longer exposures timed by the shutter. They are only intended for calculating the exposure times when the shutter speed ring is set to "B" at the limit of its movement, but the aperture scale would still permit further aperture-time combinations for poor lighting conditions. With such exposures remember always to set the aperture figure opposite the green exposure time chosen, to the ▲ index by turning back the aperture ring (6).

The flash synchronization and also the self-timer are set by the synchronizing lever (14). For all exposures without flash and without the self-timer it is immaterial whether the synchronizing lever is set to M or to X.
One full movement of the rapid winding lever (27) as far as it will go tensions the shutter, and advances the film and film counter. The lever then flies back into its original position.

Operation of the rapid winding lever is of course also possible by several short movements. In that case keep pulling out the lever until it blocks. An automatic locking mechanism prevents operation of the rapid winding lever again until the shutter has been released; conversely, the shutter can only be released after operating the rapid winding lever.

This prevents double exposures as well as blank frames. If the camera is empty, the rapid winding lever moves freely without tensioning the shutter.
Releasing the Shutter

For hand-held shots hold the camera quite steady, and smoothly but firmly depress the release button (9). Never jerk it. For slow shutter speeds (longer than $\frac{1}{30}$ second), support the camera rigidly during the exposure (e. g. on a tripod or a table), and release by means of a cable release; this screws into the release button (9).

The Self-timer

When you have set the correct aperture-speed combination and the distance (see page 14), tension the shutter (see page 15), and set the synchronizing lever (14) to the green letter "V" (see illustration). On pressing the release, the shutter will now open on its own after a delay of about 8 seconds, while the synchronizing lever automatically returns from "V" to "X". Do not use self-timer when the shutter is set to "B".
The Crystal-Clear Brilliant-frame Finder

This really unique finder not only shows the subject in full natural size, but you can also keep the other eye open and thus observe the surroundings of the subject as well. This is a special asset when taking candid action shots. The marvellous brilliant image frame clearly outlines the exact field of view.

Note that with near subjects at about 3 feet from the camera the field of view in the finder is displaced downwards or sideways, according to whether the camera is held horizontally or upright. This is indicated by the two short marks in the crystal-clear brilliant frame (see illustration overleaf).
is particularly easy with the VITO BR:

In the centre of the crystal-clear brilliant-frame finder you can see the bright circular rangefinder field. As long as the rangefinder is not correctly focused on the subject, the latter appears with double outlines in the rangefinder field (see top illustration).

Turn the lens focusing mount (1) to fuse the double outlines in the rangefinder field into one. This sets the lens exactly to the measured distance (see bottom illustration).

With horizontal shots, focus always on vertical outlines; with upright shots use horizontal lines of the subject.
Zone Focusing

Candid action shots (for instance of children at play) often yield surprisingly live pictures. On such occasions don't bother to set the exact distance. Instead, set the distance scale to near zone mark ▽ for subjects between 8 and 17 feet, and to the far zone mark ○ for subjects between 16 feet and infinity. You must, however, stop down to at least f/5.6 (marked in red) to ensure adequate depth of field.

Provided the light is good enough, these focusing zones are very useful when photographing sports, as there the subject distances may change very suddenly.
Flash Shots

The PRONTOR SLK-V shutter permits synchronized flash shots up to the fastest shutter speed of $\frac{1}{300}$ second with any flash gun or electronic flash unit on the market.

Please Note:

With black-and-white film the flash (clear or blue bulbs, or electronic flash) can either be used on its own, or combined with daylight or with artificial light sources such as tungsten lamps.

When using a flash for colour-films (artificial- and day-light) we recommend to observe exactly the instructions for use of these films. In case of doubt please contact your photo-dealer.

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Smoll light-weight units such as the Voigtländer flash gun can be fitted directly into the accessory shoe (10) of the camera (see illustration on the left). Larger flash guns or the flash holders of electronic flash outfits are generally fitted alongside the camera with the aid of a special bracket.

The flash cable completes the electric circuit between the flash unit and the camera shutter. Push the plug of the flash cable into the flash socket (21), as shown in the illustration.

Warning: Never use the shutter contact to fire flash bulbs from the normal 110 or 220 volt mains.
Setting the Shutter and Aperture

Flash bulbs and electronic flash units differ in their characteristics such as the firing delay and light output; the table opposite classifies them in several groups. To ensure that the peak brightness of every type of flash coincides with the instant when the shutter is fully open, there are two kinds of synchronization: "M" and "X".

Before taking a flash shot therefore move the synchronizing lever (14) of the PRONTOR SLK-V shutter to the yellow dot marked "M" or the red dot marked "X", as required. You can then use all the types of flash and all the shutter speeds listed in the table opposite under "M" and "X" respectively. **Note:** For flash shots with the self-timer (with the synchronizing lever set to the green dot "V") use only the shutter speeds listed in the table under "X".

The lens aperture required for correct exposure can be obtained from the so-called guide number. This is usually quoted on the flash bulb packing or in the leaflets issued by the makers of the bulb or electronic flash unit. To find the correct aperture, divide the appropriate guide number by the distance in feet between the flash and the subject. In short: \( \text{Aperture} = \frac{\text{guide number}}{\text{distance}} \).
## Suitable Shutter Speeds

<table>
<thead>
<tr>
<th>Flash Bulbs</th>
<th>Synchronizing Lever Set To</th>
<th>Make</th>
<th>Type</th>
<th>X</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>G. E., West</td>
<td></td>
<td>SM, SS</td>
<td></td>
<td>1 to 1/125</td>
<td>Not suitable for M-synchronization</td>
</tr>
<tr>
<td>Sylvania</td>
<td></td>
<td>SF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philips</td>
<td></td>
<td>PF1, PF5, PF25, PF38, PF60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Osram</td>
<td></td>
<td>XM1, XM5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. E. C., Mazda</td>
<td></td>
<td>No. 1, 5, 11, 22, Bantam 8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Westinghouse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. E., etc.</td>
<td></td>
<td></td>
<td>Press 25, 40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sylvania</td>
<td></td>
<td>M2, M25, Press 25, 40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philips</td>
<td></td>
<td>PF 100</td>
<td></td>
<td>1 to 1/15</td>
<td>1/30 to 1/60</td>
</tr>
<tr>
<td>G. E., West</td>
<td></td>
<td>No. 0, No. 50,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sylvania</td>
<td></td>
<td>No. 3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Electronic Flash Units

<table>
<thead>
<tr>
<th>Type</th>
<th>Synchronizing Lever Set to X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instantaneous firing</td>
<td>1 to 1/300</td>
</tr>
</tbody>
</table>
Voigtländer Filters www.orphancameras.com

are made of spectroscopically tested glass, dyed in the mass, and hard coated (32 mm. diameter). The filter factors given below are approximate values, as they necessarily depend on the color sensitivity of the black-and-white film used, and on the light conditions prevailing at the time of the exposure.

Yellow filter G 1,5 x  
Slight filtering effect for outdoor shots requiring short exposure times, such as sports and action subjects, and pictures with low sun.
Filter factor: 1½ times.

Yellow filter G 3 x  
Universal filter for landscapes and other outdoor subjects: indispensable for snow pictures.
Filter factor: 3 times.

Green filter Gr 4 x  
Lightens green tones in landscapes. Recommended for artificial light portraiture and copying of coloured originals.
Filter factor: 4 times.

Orange filter Or 5 x  
Strong filter effects by considerable suppression of blue light. Reduces atmospheric haze in distant views.
Filter factor: 5 times.

Ultra-violet filter UV  
Cuts out ultra-violet radiation in high mountains or near the sea. Eliminates disturbing blue casts in colour shots. Requires no exposure increase.
Setting the Filter Factors

The use of any filter (other than the ultra-violet filter) during the exposure requires a certain adjustment of the exposure setting. With the VITO BR you can carry out that adjustment on the shutter with the aid of the dot divisions (2) at the side of the aperture setting ring (6). You set the dot divisions opposite the ♦ mark on the depth of field scale (11).

Example A: For a factor of 1½ times turn the aperture ring to the left by half a division in the direction of the arrow. For a factor of 3 times move it by one-and-a-half divisions, for a factor of 4 times by two divisions, and for a factor of 5 times by two-and-a-half divisions. In every case you therefore adjust the aperture setting according to the filter factor required. If however the aperture-speed combination has reached the limit of f/2.8 on the aperture scale, you have to adjust the shutter speed according to the required filter factor, while turning the aperture ring. Note: when setting half divisions, always set the shutter to the next longer exposure time first.

Example B: If the aperture-speed combination obtained is 1 second at f/2.8, set the filter factor as follows:

- **For a factor of 1½ times** advance the aperture setting ring by one whole division (to “B” at f/2.8), then turn back by half a division and expose for 2 seconds.
- **For a factor of 3 times** advance the aperture ring by one division (to “B” at f/2.8), and expose for 3 seconds.
- **For a factor of 4 times** advance the aperture ring by one division (to “B” at f/2.8), and expose for 4 seconds.
- **For a factor of 5 times** advance the aperture ring by one division (to “B” at f/2.8), and expose for 6 seconds.
Close-ups with Proximeter

Large-scale views of objects and animals, or full-frame copies of pictures and documents, which are particularly fascinating and interesting subjects, are made really simple with the Voigtländer Proximeter.

The special advantage of this ideal close-up attachment is, that it permits hand-held close-up shots with the camera instantly ready for action - an important point with live or rapidly moving subjects. At the same time the viewfinder parallax at close distances is automatically eliminated, and lens and rangefinder as result are coupled as same as in the normal zone from 3 feet to infinity.
Aperture and Depth of Field

The depth of field covers that part of the subject area in front of, and behind, the focused distance which appears acceptably sharp in the picture. The extent of this sharp zone is by no means constant: it increases the more you stop down the lens, and decreases the larger the lens aperture. In short:

Large apertures (e. g. f /4) yield **limited depth of field**;
Small apertures (e. g. f/11) yield **greater depth of field**.

The available depth of field zone is easily determined. After you have set the lens to the correct subject distance, look at the depth of field scale (11). This carries two series of aperture numbers arranged symmetrically to the left and right of the \* index. The depth of field then extends from the distance marking opposite one of the left-hand aperture figures to the distance marked opposite the corresponding right-hand aperture figure (see the illustration of zone focusing on page 15).
Changing Partly Exposed Films

With the VITO BR you can at any time take out a partly exposed film and change over to another one (e.g. from black-and-white to colour) without the need for a darkroom:

- Rewind the partly exposed film into its cassette as already described on page 7. Make a note, however, of the last number that appeared in the film counter window (19).

- When re-inserting the partly exposed film, proceed in the same way as described on pages 3 to 5 up to setting the film counter to "F" or to No. 22.

- Then push the reversing lever (5) backwards, letting the rewind knob (4) spring up. Keep pulling the rapid winding lever (27) fully to the right until the number following the number originally noted appears in the film counter window (19) below the red index mark. Finally push back the rewind knob (4), pull the rapid winding lever (27) once more as far as it will go, and carry on exposing the film in the normal way.
5 Reversing lever
6 Aperture setting ring, combined with film speed setting ring
7 Shutter speed setting ring
8 Lever to disengage the film speed setting ring (see No. 6)
18 Milled film counter setting ring
19 Film counter window
20 Tripod bush
21 Flash socket
22 Base plate latch
23 Base plate flap
24 Combined viewfinder and rangefinder eyepiece
25 Shaft of rewind knob
26 Cassette chamber
27 Rapid winding lever to tension the shutter and advance the film
28 Film transport sprocket wheel
29 Take-up spool
Care of the Camera and Lens

Successful results and long life of your VITO BR depend largely on proper care and correct operation.

- Therefore always handle the camera gently, and never use particular, protect the camera against hard knocks, and do not drop it. If you are uncertain on any point, re-read carefully the appropriate instructions.

- For cleaning the lens use only a soft fluffless cloth. However, first remove coarse particles of grit (or sand at the seaside) carefully with a soft sable brush. Fingermarks or other traces of grease on the lens surface can be removed with a piece of cotton wool moistened with pure alcohol or ether.

- In case of any mechanical trouble consult your photo dealer, or post the camera to the Voigtländer agent in your country, or to the Service Department, Voigtländer A.G., Braunschweig, Western Germany.