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If you use Pay Pal or wish to use your credit card, click on the secure site on my main page.
Before attempting to take a picture with your RETINA II, please read the following instructions carefully for your own benefit, because the RETINA II is a precision camera and may be damaged by careless handling.
**Main parts:**

1. Knob for opening camera
2. Knobs for closing camera
3. Focus scale
4. Lever for diaphragm setting
5. Ring for shutter speed
6. Setting lever for shutter
7. Body shutter release
8. Socket for cable-release
9. Sighting aperture for range-finder

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www.orphancameras.com
10 Focussing knob
11 Depth of focus scale
12 Winding knob for film
13 Exposure counter
14 Film clutch
15 Small milled wheel for exposure counter
16 Locking lever for camera back
17 Take-up spool
    Film rewind knob
18 Tripod socket
First steps

A) To open the camera

Press button 1; tilt the camera gently forward (fig. 3).
Pull the baseboard down until you hear the two struts snap into position.

B) To close the camera

The RETINA II must be closed only when the focussing lens mount is set on \( \infty \) (infinity).

If the camera is closed when the lensmount ist set for any other distance than \( \infty \) (infinity) serious damage may result. To close the camera, press in the two locking-knobs 2 on the sides of the front-plate (fig. 4) and fold up the baseboard at the same time.
When the camera is closed, the shutter cannot be released even by pressing the body-shutter-release.

**Fig. 4**

**Description**

**The lens**

of the RETINA II is either a six lens Retina-Xenon f:2,0 or a Heligon f:2,0 of same lens number shown in the manual. These lenses are most carefully selected and corrected to produce the best possible results.

**Fig. 5**

In order to take a good picture it is important always to keep the lens clean. In cleaning the lens be careful not to scratch it. Best results may be obtained by using regular Kodak lens paper or a small piece of soft cloth.
The stops
(or diaphragm openings) are adjusted by moving lever 4 to the appropriate lens stop.
The stops are important for the depth of focus (see “Depth of Focus-Scale”).
The more depth of focus you need, the smaller the lens aperture. The smaller the lens aperture the higher the stop number (stop 5,6 is smaller than stop 4).

The exposure time
is adjusted by turning the milled ring 5 until the desired shutter speed comes over the arrow on the left of the word “Kodak”. The numbers represent fractions of seconds. A guide to correct exposure is given in the “Exposure table” at the rear of the manual.

To use as a Fixed Focus Camera

set the stop to f. 8 and focus the lens on the red point near 25 feet.
Everything will then be in sharp focus from “Infinity” to 15 feet.
With the stop set to f. 8 and the lens focussed on the other red point near 10 feet, everything is sharp from 15 feet to 7 feet. (Do not forget to set the Focus back to “infinity” before closing the camera).
The Compur Rapid Shutter

The Compur Rapid Shutter on your "Retina" II will give exposures of $1, \frac{1}{2}, \frac{1}{5}, \frac{1}{10}, \frac{1}{25}, \frac{1}{50}, \frac{1}{100}, \frac{1}{250}$ and $\frac{1}{500}$ also Bulb exposures. The figures marked on the milled ring represent fractions of a second: $2 = \frac{1}{2}, 100 = \frac{1}{100}$, etc. The shutter must be set for all exposures including Bulb, by pressing over the setting-lever 6 as far as it will go. The setting lever must not be left in a halfway position because the shutter might then open accidentally. Exposures are made by pressing the body shutter release 7.

For Bulb exposures (‘B’) the shutter opens when the shutter release is pressed and closes when it is released. For these exposures it is advisable to screw the "Retina" II on to a tripod; there is a tripod socket 18 for this purpose. Next to the body-release there is a socket into which the cable-release can be screwed.
The built-in Range Finder

allows precise sharp focussing with simultaneous control of the picture frame. To set the Focus on a given subject, hold the camera up to eye-level and look through the round sighting 9 aperture toward the subject. You will see two images of your subject in the light field in the middle of the finder image (fig. 9). Move the focussing knob 10 until the two images coincide exactly. When one image is seen (fig. 10), the camera is in focus for that particular subject.

Fig. 8

Fig. 9

Fig. 10
The Depth of Focus Scale

on the lower part of the camera indicates between what distances subjects are in sharp focus. Turn the outer ring of the "Depth of Focus Scale" until the set focus (as read from the focussing ring) comes opposite the black pointer. On the inner plate you will see all stops from which dashes lead to the outer ring. Between these dashes you can read the range of the depth of focus.

![Image of Depth of Focus Scale](image)

Fig. 11

The Film Lock

The body release, shutter and film lever wind are coupled in such a manner that double exposures and blanks are avoided. The film lock is only operating when the film is loaded, i.e. the body release remains blocked when no film is in the camera. Never try, therefore, to force the body release. Also when the film is loaded and wound on, the body release cannot be operated when the shutter is not set.

Film transport and shutter release do only operate when the film is loaded. Therefore, never operate camera when not loaded.

The number of the taken pictures can be seen from the exposure counter 13.
The exposure Counter

When the camera is loaded, turn the film winding knob 12 as far as it will go. By pushing down and in the small milled wheel 15, this is in communication with the exposure counter; now turn the little wheel 15 until the arrow (>) of the exposure counter shows the fig. 1. Then the exposure counter is set and indicates the number of taken pictures after winding on the film. When not pushed down, the little wheel does not communicate with the exposure counter, so that the exposure counter will not be changed by negligently touching and turning the wheel 15.

Fig. 12

Handling of camera

How to load the film

Lift the locking catch 16 and open the back of the camera. Lay the camera down in front of you, opened, so that the back is on the right (fig. 13). Pull out knob 17 as far as it will come and insert the new cassette of Kodak black-and-white or Kodachrome film in the film-chamber (fig. 14). Push in and at the same time turn knob 17 to hold the cassette in position. Thread the end of the film into one of the slots in the spool in the right-hand film-chamber (fig. 15). Give
knob 12 a half turn to see that the film is firmly fixed in the slot. Be sure that the film lies straight in the track provided; then close the back of the camera and turn knob 12 as far as it will go. As the first length of film may have been fogged during the loading operation it is advisable to wind the film on one more picture-length. This is done by first setting the shutter and pressing the body shutter release; this allows the winding knob to turn. Now turn the exposure counter 13 to the fig. 1. Push down and in and turn the small wheel 15 until the exposure counter 13 shows fig. 1.
Winding on the film

The film is wound on after each exposure by turning knob 12 in the direction of the arrow as far as it will go. You cannot wind on the film without first setting and releasing the shutter, so that double exposures and blanks are avoided.

How to unload the film

After the last exposure, which is indicated by the fact that the winding knob cannot be turned any further, the film must be wound back into the original cassette. To do this, push the film clutch 14 shown in the accompanying illustration to the end of the slot marked R (fig. 16); this unlocks the re-wind. Then turn the re-wind knob 17 until the take-up spool ceases to revolve. This means that all the film is wound back and

only then may the back be opened and the cassette of exposed film be taken out. It is advisable not to load or unload the film in brilliant sunshine, as the first few exposures may become fogged.
The exposed film can be wrapped in the packing you take from the next cassette of Kodak film that you should have ready to load into the camera.

**How to hold the camera**

It is particularly easy to hold and operate the "Retina" II thanks to its compactness and handy shape. It rests comfortably in both hands and the forefinger of the right hand comes just over the body-release. Practise holding the camera in both the vertical and horizontal positions. If need be, the camera can be operated with one hand.

*Fig. 18*

*Fig. 19*
RECAPITULATION

Fig. 20

Fig. 21

1 **Open the camera**
   Pull down the baseboard until you hear the struts snap into position.

2 **Set the diaphragm scale**
   to the desired f/number

Fig. 24

5 **Sight through the range-finder**
   and make sure that the two images of the subject coincide exactly and subject is correctly framed.
Seven steps in taking a picture

3 Set the shutter speed to the desired time

4 Cock the shutter by moving the setting lever clockwise as far as it will go

6 Press the body-shutter-release slowly and the picture is taken.

7 Wind the film to the next frame
   The body-release can only be operated again after the film has been wound to the next frame and the shutter has been set.
## Exposure Table

Exposure times for "Panatomic"-X film

<table>
<thead>
<tr>
<th>Snow and Water</th>
<th>f: 2</th>
<th>f: 2,8</th>
<th>f: 4</th>
<th>f: 5,6</th>
<th>f: 8</th>
<th>f: 11</th>
<th>f: 16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1/500</td>
<td>1/250</td>
<td>1/100</td>
<td>1/50</td>
</tr>
<tr>
<td>Light streets and Squares</td>
<td></td>
<td>1/500</td>
<td>1/250</td>
<td>1/100</td>
<td>1/50</td>
<td>1/25</td>
<td>1/10</td>
</tr>
<tr>
<td>Dark streets and Squares</td>
<td></td>
<td>1/500</td>
<td>1/250</td>
<td>1/100</td>
<td>1/50</td>
<td>1/25</td>
<td>1/10</td>
</tr>
<tr>
<td>Landscape with light foreground</td>
<td></td>
<td>1/500</td>
<td>1/250</td>
<td>1/100</td>
<td>1/50</td>
<td>1/25</td>
<td>1/10</td>
</tr>
<tr>
<td>Landscape with dark foreground</td>
<td></td>
<td>1/250</td>
<td>1/100</td>
<td>1/50</td>
<td>1/25</td>
<td>1/10</td>
<td>1/5</td>
</tr>
<tr>
<td>People, groups in the open</td>
<td></td>
<td>1/500</td>
<td>1/250</td>
<td>1/100</td>
<td>1/50</td>
<td>1/25</td>
<td>1/10</td>
</tr>
<tr>
<td>People, groups under trees</td>
<td></td>
<td>1/250</td>
<td>1/100</td>
<td>1/50</td>
<td>1/25</td>
<td>1/10</td>
<td>1/5</td>
</tr>
<tr>
<td>People in a light room</td>
<td></td>
<td>1/500</td>
<td>1/250</td>
<td>1/100</td>
<td>1/50</td>
<td>1/25</td>
<td>1/10</td>
</tr>
<tr>
<td>People in a dark room</td>
<td></td>
<td>1/250</td>
<td>1/100</td>
<td>1/50</td>
<td>1/25</td>
<td>1/10</td>
<td>1/5</td>
</tr>
</tbody>
</table>

- **with sun**: ○
- **without sun**: □

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