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Rollfilm Holder Zoom 2
Rollfilm Holder 6 x 9 cm
Rollfilm Holder 6 x 7 cm

Instruction Manual

1. Before you start ...

Introduction

We congratulate you on your purchase of your Sinar Rollfilm Holder and we appreciate your confidence in our products. We are convinced that the Sinar Rollfilm Holder will add significant convenience to your work. Its robust and precise construction brings you long and trouble-free operation.

The Sinar Rollfilm Holder enables you to utilize any of the extensive range of 120- and 220-size rollfilms in your Sinar camera. Faster work in series photographs, cost savings, a wider selection of film types and smaller storage space requirements are the principal advantages of rollfilm.

Before you use your new Sinar Rollfilm Holder for the first time, please read this Instruction Manual carefully. It will help you to utilize the rollfilm holder correctly, thus avoiding difficulties that might result from improper use.

If you have any comments or recommendations regarding your Sinar Rollfilm Holder or this Instruction Manual, please do not hesitate to send us your opinions in writing. We sincerely wish you pleasant satisfaction in working with the Sinar Rollfilm Holder and gratifying success with your photographs.
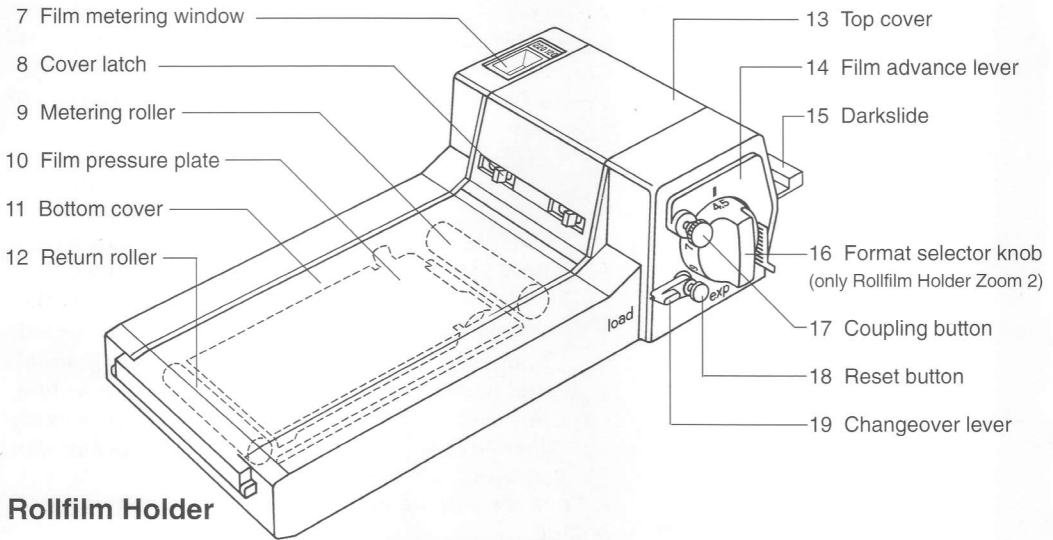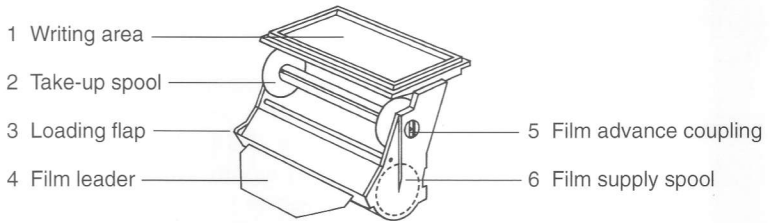
For those in a hurry:

If you are in a big rush, at the very least read the *Abbreviated Instructions* on page 4. But in order to apply the Sinar Rollfilm Holder to your best advantage, we do recommend that sometime later you read the full operating instructions all the way through.
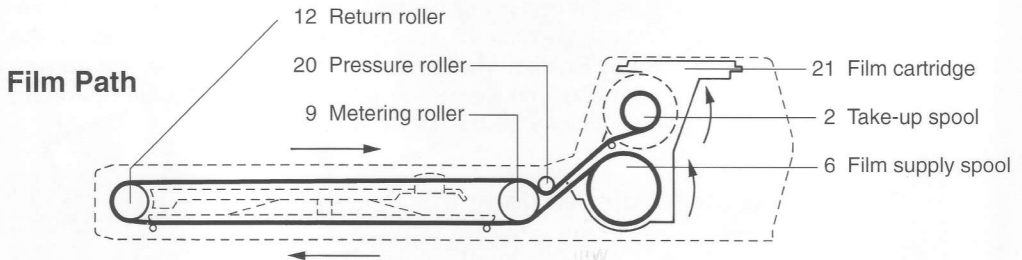
Before you begin, please open this fold-out page of the operating instructions!

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Operating Components

Film Cartridge

1 Writing area
2 Take-up spool
3 Loading flap
4 Film leader

5 Film advance coupling
6 Film supply spool

Rollfilm Holder

7 Film metering window
8 Cover latch
9 Metering roller
10 Film pressure plate
11 Bottom cover
12 Return roller

13 Top cover
14 Film advance lever
15 Darkslide
16 Format selector knob
(only Rollfilm Holder Zoom 2)
17 Coupling button
18 Reset button
19 Changeover lever

load

Film Path

12 Return roller
20 Pressure roller
9 Metering roller

21 Film cartridge
2 Take-up spool
6 Film supply spool

Abbreviated Instructions

These Abbreviated Instructions are designed to give you an overview of the use of Sinar Rollfilm Holders. Detailed information is provided in Chapter 4, *Operating the Rollfilm Holder*, starting on page 16.

Loading and Preparing the Rollfilm Holder:

1. Slide the two cover latches (8) towards the center.

2. Lift upper (13) and lower (11) covers.

3. Pull out the coupling button (17) and turn it 90° clockwise.

4. Remove the film cartridge (21) upwards.

5. Open the loading flap (3) on the side of the film cartridge and insert the rollfilm laterally into the lower compartment. Pull out about 20 cm (8″) of the backing paper leader.

6. Set the changeover lever (19) on "**load**".

7. Swing the film pressure plate (10) into a vertical position.

8. Insert the film cartridge into the rollfilm holder vertically from above and actuate the film advance lever (14) until the coupling button (17) pops back into its original position.

9. Thread the backing paper leader under the metering roller (9) and the return roller (12).

10. Swing down the film pressure plate (10) and pull out the backing paper leader until its double arrow mark is lined up with the loading index on the rollfilm holder.

11. Thread the backing paper leader into the slot in the take-up spool. Press the reset button (18) and use the film advance lever (14) to snug up the backing paper leader gently onto the take-up spool.

12. Close the bottom (11) and top covers (13). Press the top cover down and slide the two cover latches (8) outwards until the red markings are no longer visible.

13. Press the reset button (18) and advance the film until the film advance lever blocks. The word "**exp**" will appear in the film metering window (7).

14. Set the changeover lever (19) on "**exp**".

Exposure:

15. Insert the rollfilm holder into the back of the camera.

16. Install the appropriate format mask on the focusing screen of the camera. (Set the desired format on Rollfilm Holder Zoom 2.)

17. Pull the darkslide (15) out to the stop, make the exposure and then slide the darkslide (15) all the way back in again.

18. Press the reset button (18) and use the film advance lever (14) to advance the film to the next frame. The film advance lever will block automatically when the next frame is in place.

Unloading the Rollfilm Holder:

19. When the last frame has been exposed, set the changeover lever (19) to "**load**" and, using the film advance lever (14), continue advancing the film until there is no more resistance.

20. Open the rollfilm holder as described under steps 1 – 4 and lift the film cartridge (21) out of the rollfilm holder.

21. Remove the exposed film from the film cartridge and immediately seal it with the adhesive strip provided on the tail end of the backing paper.

If any one of the functions is blocked, press the reset button (18). Do not use force!

Selecting the Format (only in Rollfilm Holder Zoom 2)

1. Advance the film to the next frame.

2. Press the reset button (18).

3. Use the format selector knob (16) to set the desired picture format.

4. Fit the Vario Mask that comes with Rollfilm Holder Zoom 2 onto the positioning cams on the frame of the fresnel screen and select the desired format. On other view cameras, attach the Universal Mask (also supplied with Rollfilm Holder Zoom 2) to the focusing screen.

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About this Publication

Purpose of these Instructions

These operating instructions constitute a comprehensive description of the Sinar Rollfilm Holder. They contain the information you need for the correct use of the rollfilm holder and for trouble-free operation.

These instructions are valid for the following rollfilm holders:

Sinar Rollfilm Holder Zoom 2   **Order No. 567.32**
Sinar Rollfilm Holder 6 x 9 cm   **Order No. 567.45**
Sinar Rollfilm Holder 6 x 7 cm   **Order No. 567.54**

The differences in the use of these three rollfilm holders are pointed out in appropriate parts of the text.

The arrangement of these instructions and the identification of symbols used in the instructions are covered in the paragraphs that follow. We recommend that you open the first fold-out page of this Instruction manual. That keeps all the operating components mentioned in the instructions in view at all times.

The specifications contained in these instructions may be changed without advance notice.

Document Identification and Copyright

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Arrangement of these Instructions

These instructions contain basic information not only for users who still have little experience with the handling of Sinar Rollfilm Holders, but they also contain detailed specifications for experienced users of rollfilm holders.

For clearer understanding, the instructions have been grouped into several chapters:

Safety Rules
Recommendations you should heed for your own personal safety, for trouble-free operation and for preventing damage to the product.

Product Description
General Information about the product, its features and applications, as well as product range and accessories.

Using a Sinar Rollfilm Holder
Here you can read how a Sinar Rollfilm Holder is put to good use, how film is loaded into the holder, exposed, and then removed. You also learn how to set the various image formats and how the depth of field scale on the camera is adjusted to each of the image formats.

Care and Maintenance
This chapter contains information about the care and the required maintenance of your Sinar Rollfilm Holder.

Technical Data
Here you can find all the technical specifications, dimensions and weights, as well as the surrounding conditions that have to be observed for carefree operation.

Appendix
A glossary contains brief explanations of the most important technical terms that appear in these instructions, and a list of key words helps you to find a particular subject very quickly.

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Identification of Symbols

To make these instructions easy to understand, certain styles and forms of writing are used to indicate special meanings:

Italicized text indicates a *chapter* or a specific *paragraph* of these instructions.

"**Text printed in bold letters**" and with quotation marks denotes terms that are imprinted on the rollfilm holder.

Numbers in parenthesis (12) refer to the operating components illustrated on fold-out page 3.

Recommendations that are particularly important are highlighted by means of a symbol to the left of the text. These symbols have the following meanings:

Important

Useful recommendations for the use of the rollfilm holder and other important information.

Caution

Warning against manipulations or uses that may lead to product damage or personal injury.

Pointer

Tips and tricks that facilitate work or that lead to greater productivity.

Do not touch!

Parts marked with this sign must not be touched with fingers or with other items.

Protect from humidity!

Parts marked with this symbol must not be exposed to humidity or to water.

2. Safety Rules

In this Chapter ...

In this chapter you find information about preventing damage to your Sinar Rollfilm Holder and about preventing loaded film from being fogged.

Fundamentals

These operating instructions should be studied thoroughly to ensure correct and economically optimum use of your Sinar Rollfilm Holder. We must decline any responsibility for damages caused by improper use of the rollfilm holder.

Unauthorized disassembly or modification of the product voids all guarantees of the rollfilm holder. Conversions and modifications of a Sinar Rollfilm Holder may only be performed by authorized Sinar repair facilities. Addresses of such authorized repair stations can be obtained from the SINAR distributor in your country.

The Sinar Rollfilm Holder should only be used for its intended purpose on appropriate view cameras.

Protection from Fogging

To avoid exposing of the film unintentionally, the darkslide (15) should only be drawn just before the photograph is taken and inserted again immediately afterwards.
Drawing the darkslide on a loaded holder while the shutter is open results in the loss of an image and the film.

The Sinar Rollfilm Holder Zoom 2 is equipped with a pin that prevents the darkslide from being drawn until the holder is inserted into the camera back.
If that pin is depressed while the holder is not positioned in a camera, the darkslide can still be pulled out, which will result in an unintentional exposure of the loaded film.

If there is a film loaded in the rollfilm holder, and if this film has not yet been completely wound onto the take-up spool, the rollfilm holder should not be opened, even though it is possible to do so. Opening the rollfilm holder would cause unwanted fogging of the film and loss of the exposures on that film.

Special Notices

If any one of the functions appears to be blocked, press the reset button (18). Whatever the circumstances, do not use force!

The rollfilm holder must not come in contact with water or with any chemicals. Extra care should be taken while handling the rollfilm holder in the laboratory to avoid any photographic chemicals being sprayed on the holder.

Pulling up the darkslide while Rollfilm Holder Zoom 2 is not positioned in a camera bares the masking blades. These blades must not be touched by fingers or any other item, because that may result in damage.

The rollfilm holder should not be used in temperatures below −15 °C (5 °F) or above +55 °C (131 °F), because that may cause damage to the film.

3. Product Description

In this Chapter ...

This chapter describes the basic features of Sinar Rollfilm Holders, the applications for which they were designed, limitations of use, product components and available accessories.

Overview

Sinar Rollfilm Holders make it possible to use rollfilms in Sinar view cameras and in numerous other cameras. Thanks to its special design, the Sinar Rollfilm Holder can be inserted between the focusing screen and the back of the camera just like a conventional film holder. Working with the Sinar Rollfilm Holder is significantly easier because it is no longer necessary to remove the focusing screen holder from the camera.

Sinar Rollfilm Holder Zoom 2 has the additional benefit of the choice of five different picture formats. With a single flick of the wrist, the format can be adjusted in five steps ranging from 4.5×6 cm to 6×12 cm. That eliminates the need for acquiring a separate rollfilm holder for each one of the picture formats. The picture format can also be changed without the loss of a picture when the rollfilm holder is loaded with film.

Usable Film Sizes

Sinar Rollfilm Holders are designed for use with all 120- and 220-size rollfilms.

Picture Formats / Number of Exposures

Actual picture format dimensions usually are very slightly smaller than the internationally standardized format dimensions (see table on the next page)

The number of pictures that can be made on a roll of film depends on two factors: the picture format and the rollfilm size (120 or 220). The following table lists the actual format dimensions and the number of pictures that can be made on a single roll of film:

Rollfilm Holder:	Actual Format Dimensions:	No. of Pictures, 120-size Rollfilm	No. of Pictures, 220-size Rollfilm
6 x 9 cm	56 x 88 mm	8	16
6 x 7 cm	56 x 70 mm	10	20
Zoom 2			
4,5 x 6 cm	56 x 42 mm	16	32
6 x 6 cm	56 x 56 mm	12	24
6 x 7 cm	56 x 70 mm	10	20
6 x 9 cm	56 x 88 mm	8	16
6 x 12 cm	56 x 112 mm	6	12

If the picture format in Rollfilm Holder Zoom 2 is changed in mid-roll, the number of pictures on that roll will differ from the number listed in the above table.

Application

Sinar Rollfilm Holders can be used with nearly all view cameras equipped with the internationally standardized 4 × 5″/10 × 12.5 cm camera back. Since the rollfilm holder is inserted between the focusing screen and the film holder seat, the focusing screen frame must be able to be lifted by at least 2.5 cm (1″) away from the film holder seat in order to accommodate the rollfilm holder between them.

Limitations

Sinar Rollfilm Holders can only be used on internationally standardized 4 × 5″/10 × 12.5 cm camera backs.

If the space between the focusing screen and the film holder seat cannot be expanded to at least 2.5 cm (1″), the Sinar Rollfilm Holder Zoom 2 cannot be used.
The 6 × 9 cm and 6 × 7 cm Rollfilm Holders are equipped with Graflock grooves, so that they can be attached to the

film holder seat with the Graflock sliders when the focusing screen frame is removed.

Product Components

The Sinar Rollfilm Holder Zoom 2 is supplied with Vario Mask (534.12), Universal Mask (534.22) and Film Cartridge (567.92).

Sinar Rollfilm Holders 6 × 9 cm or 6 × 7 cm are supplied with the respective format masks (534.25 or 534.29) and Film Cartridge (567.92).

Accessories

For Sinar Rollfilm Holder Zoom 2:

534.12 Vario Mask,
adjustable from 4.5 × 6 cm to 6 × 12 cm.
534.22 Universal Mask, transparent.
534.16 Set of 4 masks: from 4.5 × 6 cm to 6 × 12 cm.

For Sinar Rollfilm Holder 6 x 9 cm:

534.25 Format Mask 6 × 9 cm, transparent.

For Sinar Rollfilm Holder 6 x 7 cm:

534.29 Format Mask 6 × 7 cm, transparent.

For all Sinar Rollfilm Holders:

567.92 Film Cartridge.
For preloading of rollfilms, permits very fast film change.

433.25.005 Depth of field scale 6 × 9 cm.
433.29.005 Depth of field scale 6 × 9 cm to 8 × 10"/
20 × 25 cm. (for Sinar p2 cameras)

4. Using the Rollfilm Holder

In this Chapter ...

This chapter describes how your Sinar Rollfilm Holder is used correctly. This covers in particular the loading of rollfilm into the holder, advancing the film, unloading an exposed film, as well as changing the picture format in Sinar Rollfilm Holder Zoom 2.

When you open the fold-out page at the beginning of this instruction manual, all the operating elements identified with code numbers are visible at a glance.

Loading the Film

In order to load a rollfilm, the film cartridge must first be removed from the rollfilm holder.

Removing the Film Cartridge from the Rollfilm Holder
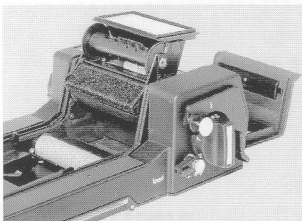
Figure 1

To remove the film cartridge from the rollfilm holder, slide the two cover latches (8) towards the center, then first swing out the upper cover (13) and then the lower cover (11).
Pull out the coupling button (17) and turn it 90° clockwise. The button should clearly engage in this position.
The film cartridge can now be lifted out vertically from the rollfilm holder (Figure 1).

Loading the Film Cartridge

Open the loading flap (3) on the film cartridge.
Make sure that there is an empty film spool in the upper (take-up) chamber (2) of the film cartridge. If necessary, remove the empty film spool from the lower (supply) chamber and install it in the upper chamber.
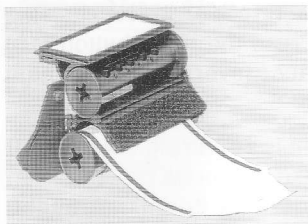
Figure 2

Tear open the seal on the rollfilm and insert the film into the lower (supply) chamber with the outside of the backing paper facing upwards (Figure 2).
Next, pull out approximately 20 cm (8") of the backing paper leader.

You can write your own notes on the white panel (1) at the top of the film cartridge (such as film type, film speed, subject, date, etc.).

Inserting the Film Cartridge into the Rollfilm Holder

Figure 3

Set the changeover lever to "**load**" (Figure 3). (On empty film cartridges, this lever should always be set on "**load**").
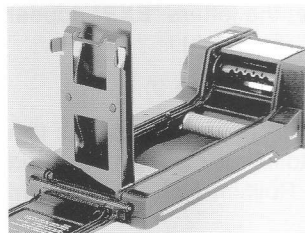
Figure 4

Swing the film pressure plate (10) into a vertical position. The plate engages audibly in this position (Figure 4).

Bend the first 2 cm ($^3/_4$") of the backing paper leader slightly upwards (in the direction of its outside). This will make it easier to thread the backing paper into the rollfilm holder.

Insert the film cartridge into the rollfilm holder from above. Use gentle pressure to make sure that the film cartridge has seated properly.
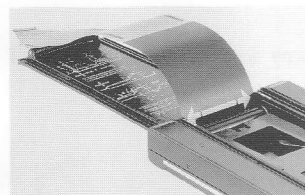
Actuate the film advance lever (14) until the coupling button (17) pops back into its original position.

Thread the backing paper leader under the metering roller (9), then pull it through under the return roller (12) (Figure 4).

Swing the film pressure plate (10) back down again.

Figure 5

Figure 6

Carefully pull out the backing paper until the broad double arrow on its back side lines up with the white indices on the rollfilm holder (Figures 5 and 6).
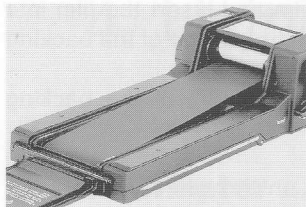
Figure 7

Thread the tongue of the backing paper leader into the slot in the take-up spool (2). Press the reset button (18) and gently actuate the film advance lever (14) just enough to take up the slack. (Figure 7).

Caution: Make sure that the film is centered, otherwise it may wind up skewed on the take-up spool.
After threading, the film should only be mildly taught. The film advance lever should never be actuated to the point where additional film is drawn out of the cartridge!

First close the lower cover (11), and then the upper cover (13). Push the upper lid down firmly and slide the two cover latches (8) outwards until the red markings are no longer visible.

Advancing the Film to the first Picture

Figure 8

After closing the rollfilm holder, the film must be advanced to the first picture. To do so, push the reset button (18) and actuate the film advance lever (14) until it blocks. When the first picture is in place, the letters "**EXP**" appear in the film metering window (7) (Figure 8).

Turn the changeover lever to "**exp**" (Figure 9).

Switching the changeover lever to "**exp**" activates the film metering mechanism in Sinar Rollfilm Holder Zoom 2 and the exposure counter in Sinar Rollfilm Holders 6 × 9 cm and 6 × 7 cm.

If this step is omitted, there will be no automatic stop while advancing to the next picture.

Figure 9

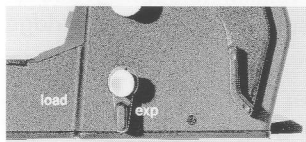The Sinar Rollfilm Holder is now loaded and ready for making the first exposure.

Making the Exposures

Making exposures on film in rollfilm holders is basically similar to making exposures on sheet film in conventional film holders:
Insert the rollfilm holder into the camera, close the shutter, set the aperture, draw the darkslide, make the exposure, push the darkslide back in.

Inserting the Rollfilm Holder into the Back of the Camera
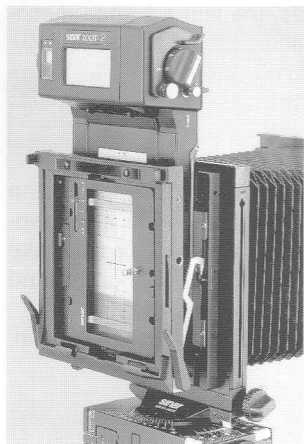

Figure 10

Use one hand to lift the focusing screen frame and with the other hand insert the rollfilm holder into the space between the film holder seat and the focusing frame holder (Figure 10).

Since a rollfilm holder is thicker than a conventional sheet film holder, it is desirable to remove the focusing screen frame with its mechanism (when there is one). That would prevent any significant and unintentional change in camera adjustments.

Sinar Rollfilm Holder Zoom 2:

Sinar Rollfilm Holder Zoom 2 can only be used on cameras on which the focusing screen frame lifts off by at least 2.5 cm (1″) from the film holder seat.

Sinar Rollfilm Holders 6 x 9 cm and 6 x 7 cm:

Sinar Rollfilm Holders 6 × 9 cm and 6 × 7 cm can also be used on cameras on which the maximum displacement of the focusing screen frame from the film holder seat is less than 2.5 cm (1″).

When that is the case, the focusing screen frame must be removed. The rollfilm holder is then attached to the film holder seat by means of the Graflock sliders.

Making the Exposures

Before making the exposure, the camera's shutter must be closed and the aperture set to the required stop.
Then the darkslide (16) is drawn until it is blocked and then the shutter is released.

Next, the darkslide (16) is reinserted.

It is also possible to release the shutter when the darkslide is not drawn or only partially drawn. This causes a blank or a frame on which only a portion of an image has been exposed.

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Film Advance

After an exposure has been made, the film advance mechanism becomes functional by pushing the reset button (19). The film can then be advanced to the next picture by using the film advance lever (14). The film advance lever will block automatically when the next picture is reached.

A film advance is possible at any time, even when the darkslide is drawn. But this is advisable only in exceptional situations (as in stepped exposures). For the sake of safety, one should always reinsert the darkslide and advance the film immediately after every exposure.
Minor variations in the spacing between pictures are normal.

Indication of Film Length
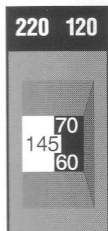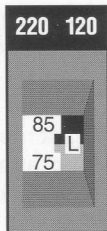
Sinar Rollfilm Holder Zoom 2:

Since the picture format can be changed at any time in a Sinar Rollfilm Holder Zoom 2, it is not feasible to indicate the applicable number for each picture. For that reason, the film metering window (7) does not display the number of exposed pictures, but the remaining length (in cm) of unexposed film (Figure 11).

Figure 11

Figure 12

The length of unexposed film available when the film has been advanced to the first frame is approx. 150 cm (60″) for 220-size rollfilm (left half of the metering window), and approx. 75 cm (30″) for 120-size rollfilm (right half of the metering window).

When the remaining film has been used up, the letter "**L**" will appear in the half of the film metering window that corresponds to the film size that is being used (Figure 12). The number of pictures that can be made on a roll of film (without changing the picture format) is listed in a table on page 14, in chapter 3: *Product Description*.
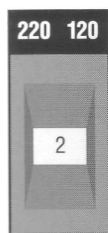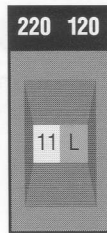
Sinar Rollfilm Holder 6 x 9 cm and 6 x 7 cm:

On Sinar Rollfilm Holders 6 × 9 cm and 6 × 7 cm, the number of exposed pictures can be read directly in the film metering window (7) (Figure 13).

Figure 13

Figure 14

After the last exposure, the letter "**L**" will appear in the half of the film metering window that corresponds to the film size (120 or 220). The color of the display will change simultaneously from green to red (Figure 14).

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Unloading the Film

Figure 15

When the entire film has been exposed (the letter "**L**" is displayed in the film metering window), or when a partially exposed film is to be removed, the changeover lever (19) has to be set on "**load**" (Figure 15). The film advance lever (14) should then be used to advance the film until no more resistance is felt.

Sinar Rollfilm Holder Zoom 2:
When the end of the backing paper trailer has been wound through, the scale with the gray background in the film metering window changes to white.

Sinar Rollfilm Holders 6 x 9 cm and 6 x 7 cm:
When the end of the backing paper trailer has been wound through, the scale with the red background in the film metering window changes to yellow.

Open the rollfilm holder and lift the film cartridge out as described on page 16 under *Removing the Film Cartridge from the Rollfilm Holder.*
Take the rollfilm out of the film cartridge and immediately secure it with the seal provided at the end of the backing paper.
Remove the empty film spool from the lower (supply) chamber (6) and place it in the upper (take-up) chamber (2).

Changing Formats (only Rollfilm Holder Zoom 2)

In Sinar Rollfilm Holder Zoom 2, the picture format can be changed at any time – even when the holder is loaded with film.

First use the film advance lever (14) to wind the film on to the next picture.

Then press the reset button (18).
Now the desired picture format can be selected by using the format selector knob (16).

The following points should be observed:
When changing to a smaller format, there will be a larger spacing between pictures just once.

When changing to a larger format, the film will advance automatically with spacings corresponding to the new format, so that the pictures will not overlap.

If the format selector knob is turned back and forth several times without a picture being taken, the film is advanced a little bit each time. The result is that the film may no longer yield the accustomed number of pictures.

Format Masks

Cropping the focusing screen image to the size of the picture format being used is accomplished by means of format masks
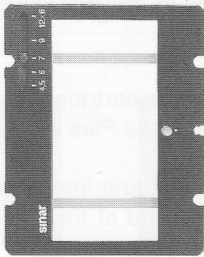
Figure 16

Sinar Rollfilm Holder Zoom 2:

On Sinar cameras we recommend the use of the Vario Mask that is supplied with the rollfilm holder (Figure 16). This masks fits on the studs of the Sinar Fresnel Screen Holder $4 \times 5''/10 \times 12.5$ cm 461.76.

On other cameras, the Universal Mask supplied with the rollfilm holder or the set of four masks 534.12 (see *Accessories*, page 15) can be used. They can be attached to the focusing screen by means of double-sided adhesive tape.

Sinar Rollfilm Holders 6 x 9 cm and 6 x 7 cm:

The Format Mask supplied with the rollfilm holder fits on the studs of the Sinar Fresnel Screen Holder $4 \times 5''/10 \times 12.5$ cm 461.76.

On other cameras the mask can be attached to the focusing screen by means of double-sided adhesive tape.

Using Format Masks as Viewing and Framing Aids

Figure 17

Format masks also serve as very practical aids for handy visualization of cropping. Simply hold the mask (set for the appropriate format) in front of one eye and view the subject through it (Figure 17). The distance between the mask and the eye is approximately equal to the focal length of the lens that is needed for obtaining the desired cropping.

Depth of Field Scale

The circles of confusion that apply to medium formats from 4.5×6 cm to 6×12 cm are smaller than those that apply to $4 \times 5''/10 \times 12.5$ cm and larger. When rollfilm holders are used, the aperture stops read on the depth of field scale have to be corrected, unless special scales for the smaller formats are being used.
Such scales tailored to Sinar p2 cameras are available as accessories (see *Accessories*, page 15).

Otherwise the following corrections should be made (the aperture must be closed by the following number of stops):

Depth of field scale for:	Correction:
approximately 6×9 cm	none
$4 \times 5''/10 \times 12.5$ cm	1 stop
$5 \times 7''/13 \times 18$ cm	2 stops
$8 \times 10''/20 \times 25$ cm	3 stops

Comparing Focal Lengths

Changing the picture format while retaining the same lens also changes the angle of view. The smaller the format, the narrower the angle of view. When a rollfilm holder is being used, this fact has to be taken into account in the selection of a focal length.
The following table compares the angles of view for various combinations of formats and focal lengths:

Focal length of the lens	Resulting angle of view in degrees for the following formats:					
	4.5 x 6	6 x 6	6 x 7	6 x 9	6 x 12	4 x 5"
75 mm	49°	55°	62°	70°	80°	92°
90 mm	43°	48°	54°	60°	70°	82°
150 mm	26°	29°	33°	38°	46°	54°
180 mm	22°	24°	28°	32°	40°	48°
240 mm	16°	18°	21°	25°	30°	36°
300 mm	13°	15°	17°	19°	23°	27°
360 mm	11°	12°	14°	16°	20°	24°
480 mm	8°	9°	11°	13°	15°	18°
600 mm	6°	8°	9°	10°	12°	14°

5. Care and Maintenance

In this Chapter ...

This chapter describes the simple cleaning and mainten-
ance care that is recommended to keep your Sinar Roll-
film Holder operating smoothly at all times.

General Recommendations

Sinar Rollfilm Holders usually require very little mainten-
ance. Such maintenance is limited to simple cleaning
procedures.

Sinar Rollfilm Holders must not be disassembled by the
user. There are no parts on the inside of these holders
that need to be cared for by the user. In the event of a
malfunction, the rollfilm holder should be returned to the
authorized SINAR distributor in your country.

X If any one of the functions seems to be blocked, always
press the reset button (18) first. Never use force!

Cleaning the Rollfilm Holder

It is recommended that the Sinar Rollfilm Holder be
cleaned periodically. The best way to accomplish this is
to use compressed air to blow dust and other particles out
of the rollfilm holder.
In addition to the above, you should also clean the press-
ure roller (20) and the return roller (12) from time to time,
using a moist cotton cloth.
External surfaces of the rollfilm holder can be cleaned
with a cotton cloth moistened with a mild household clean-
ing detergent.

⚠ Never use solvents like alcohol, benzine, etc. for cleaning
purposes!

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6. Technical Data

Rollfilm Holder Zoom 2

Rollfilm holder with variable picture format, suitable for professional cameras with 4 × 5″/10 × 12.5 cm camera backs.

Picture formats:
4.5 × 6 (42 × 56 mm), 6 × 6 (56 × 56 mm), 6 × 7 (56 × 70 mm), 6 × 9 (56 × 88 mm), 6 × 12 (56 × 112 mm). Can be changed while the holder is loaded with film.

Film sizes: 120-size rollfilm and 220-size rollfilm.

Number of pictures: Between 6 and 32, depending on the rollfilm size and the picture format.

Exp. counter: Displays the remaining length of film in cm.

Film advance: with a film advance lever.

Dimensions: 145 × 248 × 64 mm (width × height × depth). ($5^3/_4″ \times 9^3/_4″ \times 2^1/_2″$)

Weight: 920 grams (32 ounces) (with film cartridge).

Rollfilm Holders 6 x 9 cm and 6 x 7 cm

Rollfilm holders for picture formats of 6 × 9 cm and 6 × 7 cm, respectively, suitable for professional cameras with 4 × 5″/10 × 12.5 cm camera backs.

Picture formats:
6 × 9 (56 × 88 mm) and 6 × 7 (56 × 70 mm), respectively.

Film sizes: 120-size rollfilm and 220-size rollfilm.

Number of pictures:
8 and 10, respectively, on 120-size rollfilm; 16 and 20, respectively, on 220-size rollfilm.

Exposure counter: Displays the number of pictures taken.

Film advance: with a film advance lever.

Dimensions: 140 × 248 × 64 mm (width × height × depth)

Weight: 800 grams (28 ounces) (with film cartridge)

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7. Appendix

Glossary

120-size Rollfilm

Designation of film material that is supplied on a spool. 120-size rollfilm is 61.5 mm wide and 82.6 cm long (approximately $2^{1}/_{2}'' \times 32^{1}/_{2}''$). The film is protected from fogging by an opaque →*backing paper* that extends beyond the film by about 40 cm (16") at both ends.

220-size Rollfilm

Similar to →*120-size rollfilm*, except that the film is very nearly twice as long: 164.5 cm (approximately 65"). In order to accommodate that extra length of film on the same spool as 120-size film, the 220-size film does not have continuous backing paper. Protection from fogging is provided by a leader and a trailer of opaque paper attached to each end of the film, respectively.

Backing Paper

A continuous strip of opaque paper on →*120-size rollfilm*, or two shorter strips of opaque paper, one attached to each end of the film on →*220-size rollfilm*. The backing paper protects the fully wound film from exposure to light. In addition, such information as film type, film speed, manufacturer, picture numbers and markings that serve for positioning the film during loading and for advancing the film to the next picture, is printed on the outside of the backing paper.

Film Sizes

In sheet films, the film size designates the actual dimensions of the film material (for instance $4 \times 5''/10 \times 12.5$ cm). In rollfilms and 35 mm films, the film size also designates special packaging (for instance 120, 220, 135).

Graflock Grooves

Graflock grooves are grooves on the sides of sheet- and rollfilm holders for $4 \times 5''/10 \times 12.5$ cm professional cameras. On →*international camera backs*, so-called →*Graf-*

lock sliders engage these grooves in order to attach the film holders to the camera back.

Graflock Sliders

Graflock sliders are lateral sliders on →*international camera backs*. These sliders engage the so-called →*Graflock grooves* on sheet- or rollfilm holders.

International Camera Back

This is the name of a standard for $4 \times 5''/10 \times 12.5$ cm camera backs introduced by the American firm Graflex Inc. (1887 – 1973). Its principal characteristic are two lateral sliders (→*Graflock sliders*) on the camera back that engage two matching grooves on the sides of film holders (→Graflock grooves) in order to attach the film holders to the camera back.

Medium Format

Medium format is the term used to designate all →*picture formats* that are greater than 24×36 mm and smaller than 90×120 mm ($3^1/_2'' \times 4^3/_4''$). Today, the film material used for medium format photography is limited almost exclusively to 120- and 220-size →*rollfilms*.

Nominal Format

Commonly used designations of picture sizes, rounded off to full numbers. The actual →*picture formats* are usually a few millimeters smaller than their nominal formats.

Picture Format

The term →*picture format* designates the area delineated by the film gate of a camera or of a film holder. The actual picture format is usually slightly smaller than the →*nominal format* or the →*film format*.

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Index of Key Words

Notes: