

HOLGA-120PC

HOLGA 120 PINHOLE CAMERA

OPERATION INSTRUCTIONS

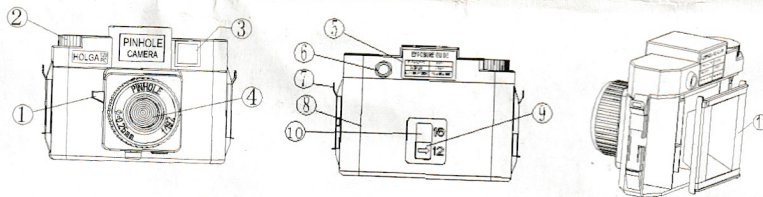
1. About Pinhole Cameras

The principle of pinhole cameras is to let light pass through a very small hole, the Pinhole, to hit the film directly, causing exposure, without passing through any lens. Due to the linear propagation of light, the image on the film will be in a reversed form i.e. left will become right, top will become bottom, etc., etc.

As light does not have to pass through any lens, images taken by pinhole cameras will have the following characteristics -

- (a) There is not any optical distortion whatsoever to the image.
- (b) There is not any need to focus.
- (c) The angle of the view will be much larger.

2. Parts of the Camera

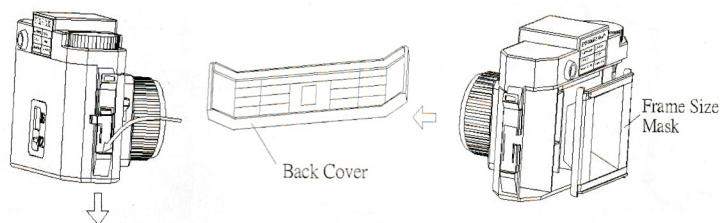


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|----------------------------|---------------------------|
| (1) Shutter Release Button | (7) Back Cover Latch |
| (2) Film Advance Knob | (8) Back Cover |
| (3) View Finder (Front) | (9) Frame Number Pointer |
| (4) Pinhole Plate | (10) Frame Counter Window |
| (5) Exposure Guide | (11) Frame Size Mask |
| (6) View Finder (Back) | |

3. Film to Use

The camera can accommodate all 120 format films. The use of exposure speed ASA 100 films on sunny days and ASA 400 on cloudy days or indoor occasions is recommended.

4. Setting Frame Size/Number of Frames per Roll of Film



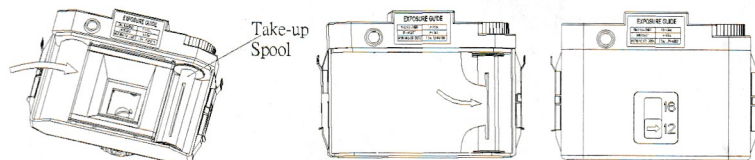
The camera is provided with two different Frame Size Masks -

- one for 16 frames of 6 x 4.5 cm each per roll
- another for 12 frames of 6 x 6 cm each per roll

There is the number "16" or "12" in one of the corners of the Film Size Masks for identification. Follow the steps below to set the frame size and frame number -

- (a) Push downward the Back Cover Latches on the two sides to unlatch and remove the Back Cover.
- (b) Remove the Frame Size Mask originally inside the camera, if it is not the one desired to be used, and swap in the one for the desired number of frames per roll.
- (c) Slide the Frame Number Pointer on the Back Cover to point at the number of frames which matches that of the Frame Size Mask used, revealing the appropriate Frame Counter Window at the same time.
- (d) Re-install the Back Cover and latch it on the two sides.

5. Film Loading



- (a) Push downward the Back Cover Latches on the two sides to unlatch and remove the Back Cover.
- (b) Break the seal of the film roll and hold it on the outside where the backing paper is.

- (c) The Film Compartment is on the left of the camera. Engage the hole on the top end of the film spool into the pin in the Film Compartment while sliding the film roll into the compartment. The tapered end of the film must be pointing towards the Take-Up Spool on the other side of the camera.
- (d) Pull out about 4 in. (10cm) of film while keeping the film roll inside the compartment with the thumb.
- (e) There is a long slot on the Take-Up Spool on the right side of the camera. Insert the tapered end of the film into this long slot and give the Film Advance Knob $2/3$ turns in the direction of the arrow sign, carefully aligning the top and bottom edges of the film against the top and bottom edges of the inside of the camera.
- (f) Replace the Back Cover and latch it in place on the two sides.
- (g) Turn the Film Advance Knob in the direction of the arrow sign until the number "1" appears in the red Frame Counter Window.
- (h) The camera is now ready for use.

6. Picture Taking

- (a) As longer exposure is required for pinhole cameras, it is always necessary to mount the camera on a tripod (available separately as an option) before taking a picture.
- (b) Remove the Lens Cap
- (c) Through the view finder, compose the picture.
- (d) Decide the exposure time needed (from experience or by reference to the Exposure Table in Section 12 below) and press down the Shutter Release Button until the decided time comes to an end.
- (e) Advance the film by turning the Film Advance Knob until the next number appears in the Film Counter Window.

7. Multiple-Exposure Effect

As film is advanced manually, this camera can help achieve special effects through multiple exposure by NOT advancing the film after a frame has been exposed. Each depression of the Shutter Release Button will bring about another exposure. This feature will provide more latitude for the photographer to try out his/her imagination.

To achieve multiple exposure is very easy - simply do NOT advance the film after a picture has been taken. This can be done repeatedly for as many times as one wants. However, it must be noted that if the lighting of the environment is bright, multiple exposure may cause the film to be overly exposed.

8. Removal of Film

Put the camera inside a Dark Room Bag and take following steps -

- (a) Turn the Film Advance Knob until no more number appears in the Frame Counter Window, which indicates that the whole film roll has been transferred and wound onto the originally empty Take-Up Spool.
- (b) Push downward the Back Cover Latches on the two sides of the camera to unlatch and remove the Back Cover.
- (c) Remove the film roll, which is now wound onto the originally empty Take-Up Spool, from the camera. Turn the spool of the roll to tighten up the roll and then use a piece of cellophane tape to tape the open end of the roll firmly in position. The film roll can now be sent for processing.
- (d) Transfer the now empty spool on the left to the Take-Up Spool Compartment on the right for use next time as the Take-Up Spool.

9. Use of Shutter Release Cable

As extended exposure time is needed, it is strongly recommended to always use a shutter release cable (A Shutter Release Set Model SRS-120, is available separately).

10. Use of Continuous Lighting

When taking pictures at night or in dark environments, it is necessary to provide lighting. As pinhole cameras require extended exposure time, it is necessary to use continuous lighting (not flashes).

11. Some Suggestions

- (a) Always put on the Lens Cap when the camera is not in use.
- (b) Always check to see that the lens cap has been removed before taking a picture.
- (c) Always take pictures with the sun behind the camera.
- (d) Always use a tripod.
- (e) Always press the Shutter Release Button gently to avoid jerking the camera and press it all the way down until the clicking sound is heard.

- (f) Always remember to advance the film after taking a picture, except for multiple exposures.
- (g) Always load or remove films in a dark place.
- (h) Never take pictures with an object distance of less than 1 meter (3.25ft).
- (i) Always clean the Pin Hole Plate only with a piece of soft and smooth cloth.

12. Exposure Guide

There is an exposure table on the back of the camera to provide some reference for deciding the length of exposure time needed according to the condition of the weather or time of day as follows -

Exposure Guide (ASA 100 / ISO 21)	
Fine Weather	1.5 ~ 3.0secs
Overcast	4.0 ~ 6.0secs
Morning or dusk	7.0secs upwards

There is not any standard exposure time. All has to be mastered through one's thinking, imagination and experience.

13. Specifications

Type	120 Pinhole Type
Size of Pin Hole	0.25mm in diameter
Shutter	Leaf shutter
Film to be Used	120 type color or black/white films of ASA 100/ISO 21 or ASA 400/ISO 27 speed
View Finder	Eye level, direct view finder
Aperture	f/192
Dimensions	140 x 100 x 72 mm
Weight	Approx. 220g
Accessories Included	1 Carry Strap, 1 Piece each 16 Frame and 12 Frame Size Masks