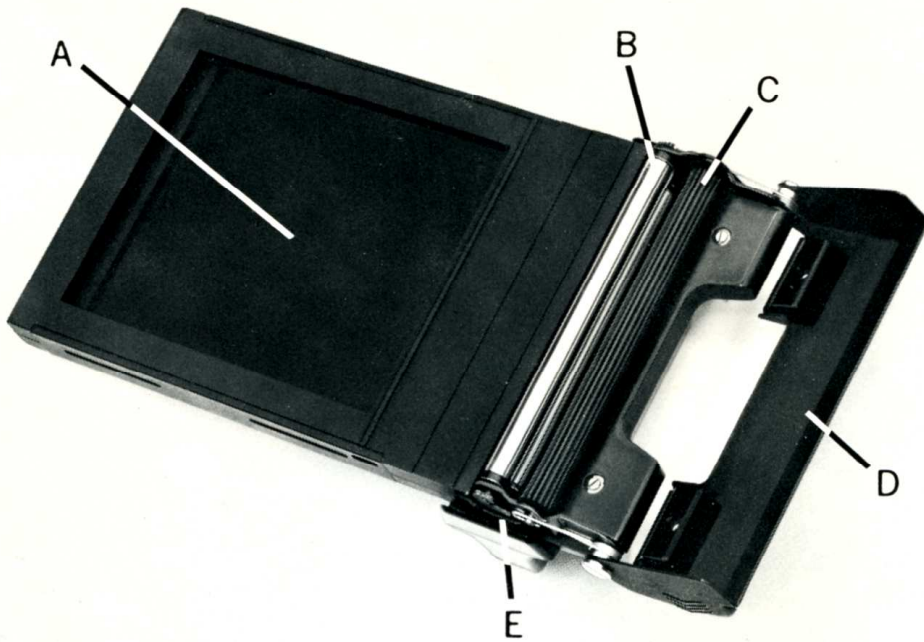# How to use the
Polaroid 4 x 5 Land Film Holder #545

For cameras with 4 x 5 backs

2

A. Focal plane

B. Steel processing rollers

C. Rubber light seal roller

D. Hinged roller cover (open)

E. Roller hooks

F. Film slot

G. Control arm

H. Film release lever

Introduction

The Polaroid Land Film Holder #545 enables you to use Polaroid 4 x 5 Land film in most 4 x 5 press or view cameras which are equipped with spring-backs, lock-backs and similar backs, without making any alteration to the camera or focusing system. It can also be used with instruments (such as microscope and oscilloscope cameras) equipped with similar backs, and with the Polaroid MP-4 and MP-3 cameras.

Important: When the holder is not in use, leave the control arm at P (see bottom photo at left).

Free and rapid technical assistance

If you ever need additional help in the use of your #545 Film Holder, or advice on any other photographic problem, you may call us free of charge, Mon.-Fri., 9 a.m. to 8 p.m. (Eastern Time). From anywhere in the continental U.S.A. except Massachusetts, call *toll-free* at 800-225-1618. From Massachusetts, call *collect* at (617) 547-5177. Or, write to Industrial Marketing Department, Polaroid Corporation, 575 Technology Square, Cambridge, Mass. 02139. For assistance in other countries, please contact the Polaroid office nearest you (see list on back page).

Polaroid 4 x 5 Land films

There are five types of Polaroid 4 x 5 Land films available for use with this holder. They are:

Type 51	high contrast film for line reproduction and for making halftone positive prints.
Type 52	panchromatic black and white film for general purpose photography.
Type 55P/N	panchromatic black and white film that produces both a positive and a recoverable negative.
Type 57	high speed panchromatic black and white film.
Type 58	Polacolor 2 film.

The actual image area of these films measures about 3½ x 4½ in. (9 x 11.5 cm) and is off center about ⅛ in. (3 mm) toward the thick end of the holder. This area is marked on the ground glasses for the MP-4 and MP-3 cameras, but may not correspond precisely with the area marked on other ground glasses. For extreme accuracy in composition, make test shots and mark the exact area on the ground glass.

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How to load film

1. Insert holder: Slide the holder into the back of the camera just as you would a standard film holder.

2. Engage slide locks: If your camera has slide locks, use them in addition to the spring back to prevent light leaks and dropping of the holder. The locks move into slots on the sides of the holder as shown.
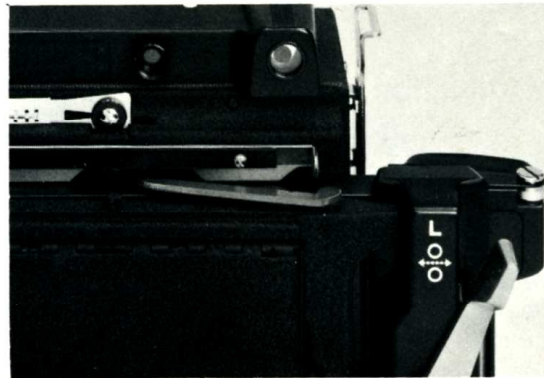
3. Move control arm to L: This is the loading position. The rollers are apart and the film packet may be inserted easily.
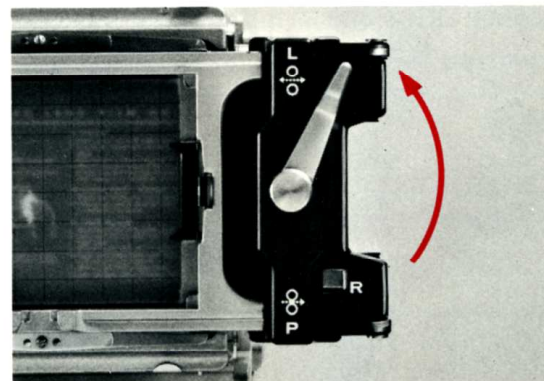
4. Insert film packet: Hold the packet as shown and insert the cap end (A) into the holder. Do not press on the area marked DO NOT PRESS HERE, where the pod of developer chemicals is located.

Important: The film packet must always be inserted so that the side marked THIS SIDE TOWARD LENS faces the lens.

4
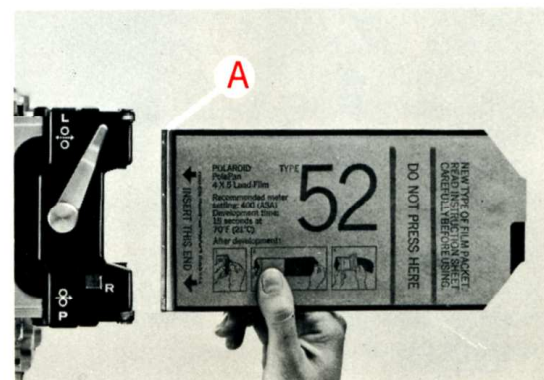
Do not hold the packet by the end while first inserting it into the holder. If you do this, you will buckle the packet and your picture will not develop properly.
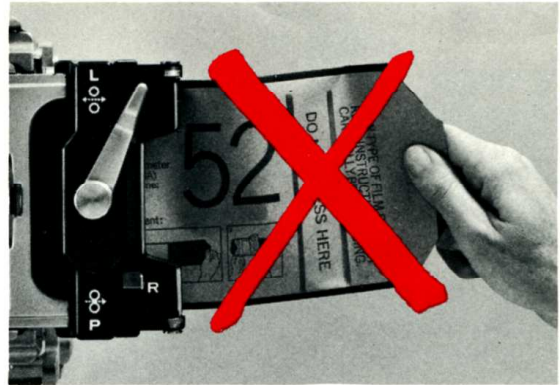
5. Push packet in halfway: Without bending the packet, gently push it past the rubber light seal roller, and feed it in about halfway.
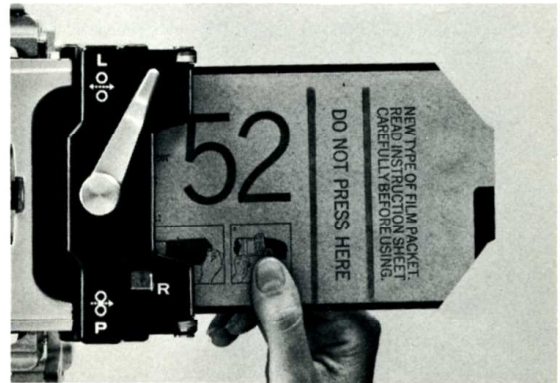
6. Shift your grip: Now hold the packet by the extreme right-hand edge and push it in the rest of the way, until it stops. Do not bend or crease the packet.
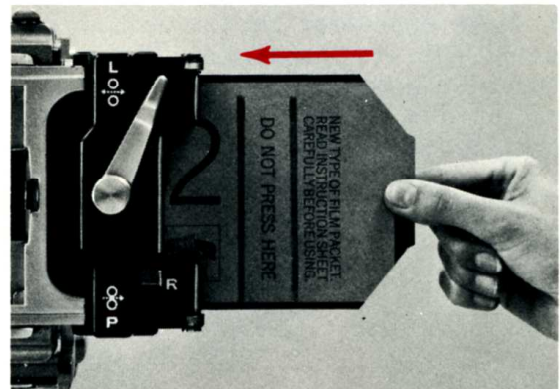
When the packet is completely inserted, its tab end (A) will be lined up with the edge of the film holder, and the tabs will be visible in the holder recess.

5
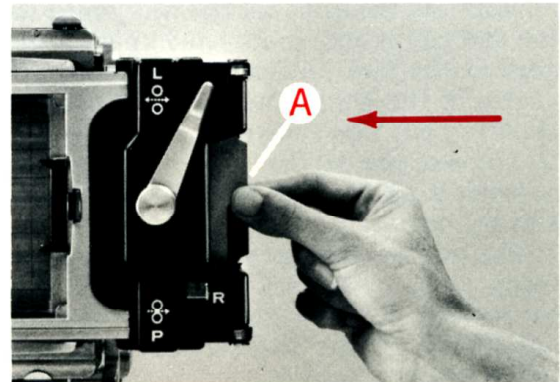
How to take the picture

1. Withdraw envelope: The envelope acts as a protective cover (dark slide) for the film. Just before you take the picture, gently withdraw the envelope from the holder until it comes to a firm stop. Don't worry about pulling too far. It will come out almost 6 inches, then stop automatically. The negative will remain inside the holder, uncovered and ready for exposure.

To avoid the danger of a light leak, the protective envelope should not be removed for longer than absolutely necessary. Also guard the envelope against bending and whipping in the wind.

2. Check for pod: Before making the exposure, lightly run your thumb and forefinger over the pod area, marked DO NOT PRESS HERE. It should be perfectly flat and smooth. If you can feel the pod, the negative was withdrawn accidentally with the envelope; push the envelope in again, withdraw it, and check for the pod.

3. Make exposure: Do this just as you would with wet process films. The recommended exposure meter setting is printed on the film packet, and there are more instructions in the film box.

4. Reinsert envelope: After exposure, reinsert the envelope all the way, until its tab end (A) is once more lined up with the edge of the film holder, and the tabs are visible in the holder recess. Use moderate pressure, but don't force it; otherwise you may crease the paper. If the envelope will not slide in all the way, withdraw it slightly and try again.

The picture you have just taken is now ready to be developed. If you would like to remove it from the holder without developing it, see the section on LATER DEVELOPMENT, page 9.
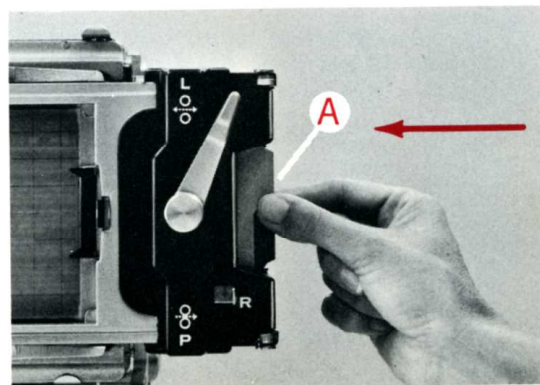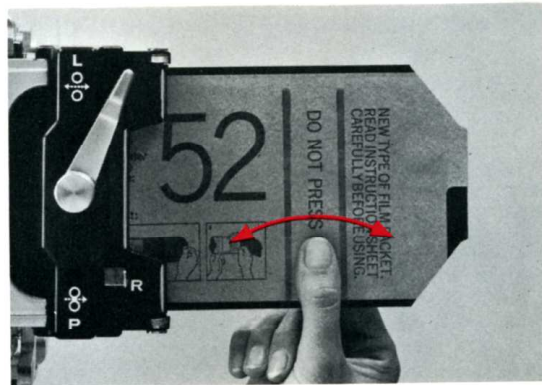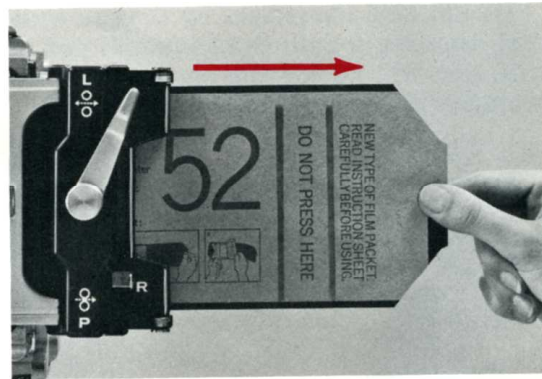
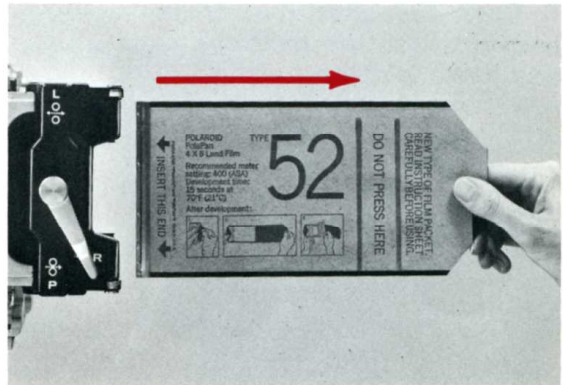## How to develop the picture

1. Move control arm to P: The two steel rollers inside the film holder are now together. When the packet is pulled out of the holder, these rollers will crush the pod and spread the developer chemicals over the picture area.
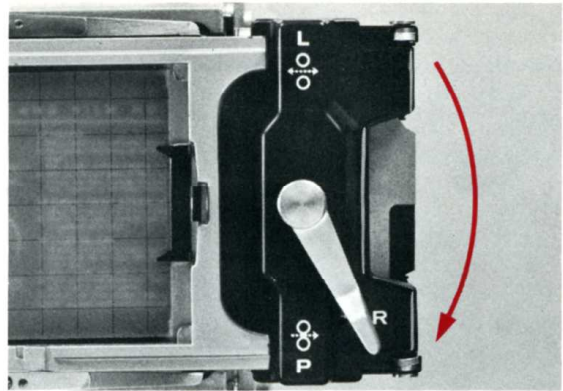
2. Pull packet out of holder: Hold the packet firmly, and pull it straight, all the way out. Pull smoothly, at medium speed, without slowing down or stopping. You will feel a slight resistance toward the end as the cap reaches the rollers, but keep right on pulling without hesitating. The rollers will separate automatically to allow the cap to pass through.

3. Wait recommended development time: The instructions packed with the film give complete information on how to develop pictures. Temperature affects development time. In cool weather, the action of the developer chemicals slows down, and development time must be extended. Special instructions on how to develop 4 x 5 prints in cool weather are included in the film instruction sheet.
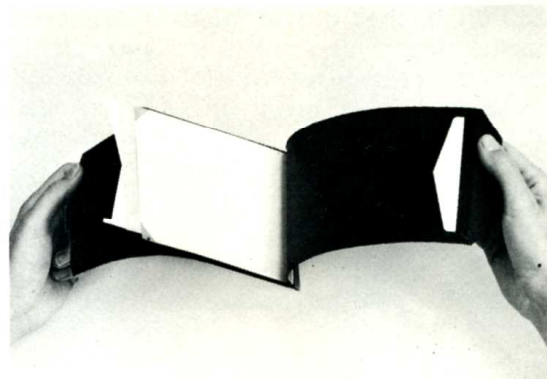
How to remove the picture

Do not try to pull off the metal cap.
1. Grip both tabs (A): Use the full length of each thumb, as shown. Roll both flaps back slightly.

2. Open the envelope: Using moderate pressure, tear the envelope open all the way down to the metal cap.

3. Remove the print: With your left thumb hold down the negative and thin paper mask, and with your right hand quickly lift off the print. It will come right out of the envelope.

With the exception of Type 55 P/N film, the film negative serves no further purpose. Discard it with the envelope.

Type 55P/N film only: Use your left thumb to hold down the negative. With your right hand, quickly peel away the print and thin paper mask. Pull hard, and the print and mask will separate completely from the negative section and cap. Remove the mask from the print and discard the mask.

For complete instructions on removing the negative from the envelope, and preparing the negative for enlargement, refer to the instructions with Type 55 P/N film.

Avoid contact with the chemicals that remain on the negative. Be sure to read the CAUTION notice on page 15 and in the film instruction sheet.

8
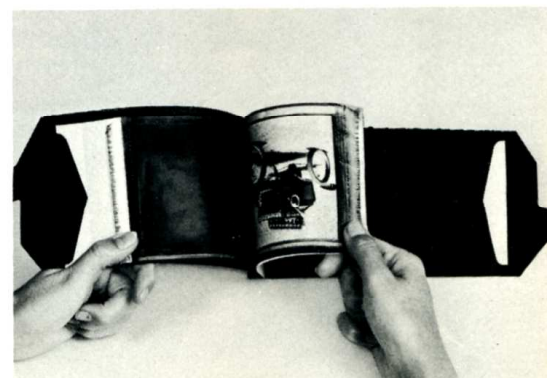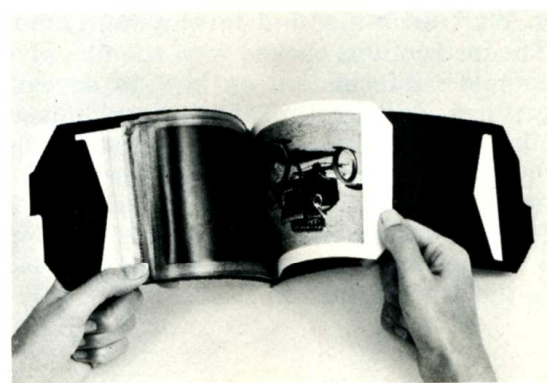
How to remove a packet for later development

If you do not wish to develop a picture right away, remove the packet for later development in one of the following ways.

1. Reinsert envelope: After exposure, reinsert the envelope; push it in very firmly at the end of its travel to ensure that it engages the metal cap at the end of the negative. Do not move the control arm to P. Leave it at L.

2. Depress film release lever R: Push it in as far as it will go and hold it there. Carefully withdraw the packet.

As soon as the entire pod area, marked DO NOT PRESS HERE, appears outside the holder, stop. Lightly run your thumb and forefinger over that area. You should feel the pod. If you cannot, reinsert the envelope, pushing it in very firmly. Withdraw it partially and check again for the pod. When you feel it, pull the entire packet from the holder. Do not remove your thumb from lever R until the packet is completely out of the holder.

If you cannot feel the pod after several tries, use the alternative method, below.

Alternative method

**1. Reinsert envelope:** Follow step 1 above.

2. Remove film holder from camera back: Hold it in one hand with the opening in the film plane facing you.

3. Depress film release lever R: Keep the lever depressed throughout the following procedure. With the thumb of the other hand, gently push the film packet upward as shown until the metal cap is visible. Then shift your hand to grasp the end (A) of the packet and pull it out.

Identification, later development

Fold back the tip of one tab, or mark the tab end lightly with a pencil or pen.

To develop the picture, reinsert the exposed packet into the film holder as when first loading. Then develop it as usual.

9
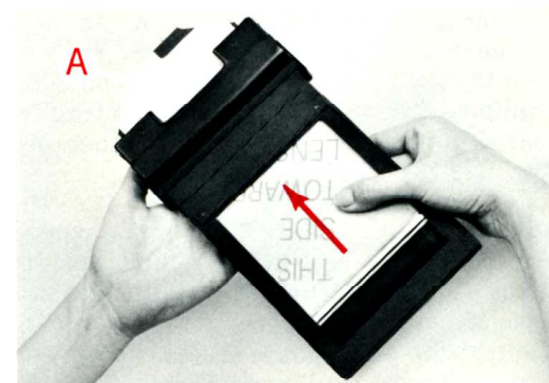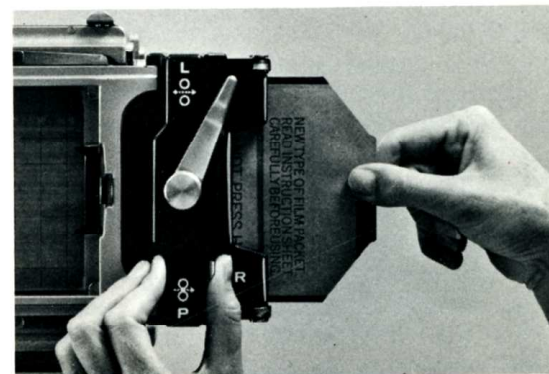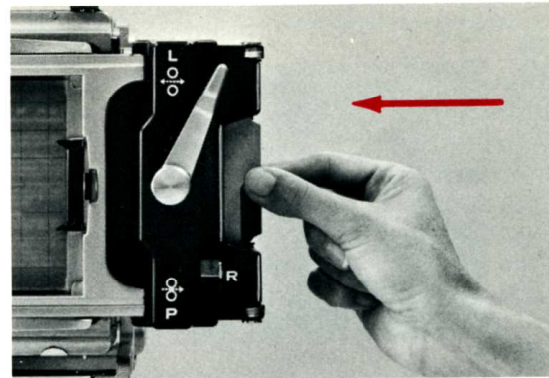
Care of prints

Coat black and white prints: Black and white prints must be coated as soon as possible (within one hour) to protect them from scratches, fingerprints, and fading, and to prevent changes in tone. Do not expose uncoated prints to strong light, and take particular care that they do not get scratched. To coat a print, lay it face up on a clean, smooth surface, such as an ordinary pad of paper.

Hold the coater by the plastic handle and run the liquid-soaked side down the length of the picture, away from you. Use 6 to 8 overlapping strokes and moderate pressure. Cover the entire print, including the borders. Be careful not to scratch the print with the edge of the coater.

One coater contains sufficient liquid for five 4 x 5 prints. To get more liquid from a partly used coater, press it down on the tab end of the print, then spread the squeezed-out liquid across the picture. When the coater is not being used, keep it tightly sealed in the plastic vial to prevent evaporation of the fluid.

After coating, allow the print to dry thoroughly. This normally takes only a minute or two, but in conditions of high humidity, it may take longer. Keep freshly coated prints away from each other, or they will stick together.

Storage: Do not use corner mounts, paste, glue or rubber cement to mount prints. Many adhesives contain impurities that discolor pictures. Never put pictures in albums with black paper leaves. The safest way to handle and store Polaroid 4 x 5 prints is in the thin, transparent acetate sleeves that are sold for protecting 4 x 5 negatives and color transparencies.

Never write on the back of the picture area; you may damage the print surface; write only on the borders of the print, either on the back or on the front.


10
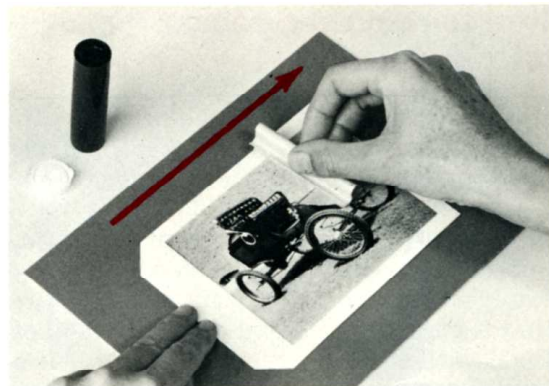
Picture problems

No exposure: A completely black picture indicates that no light reached the negative. This can be caused by (a) failure to insert the film packet all the way into the holder when first loading; (b) failure to withdraw the protective envelope before exposing; or (c) failure of the cap to catch properly when the film packet was inserted. Check for proper insertion of the film packet by gently running your thumb and forefinger over the part of the withdrawn envelope marked DO NOT PRESS HERE. If you can feel the pod, the negative was withdrawn accidentally with the envelope; reinsert the envelope all the way, withdraw it again, and check for the pod. If this trouble occurs frequently, check the holder for possible malfunction.

Missing corners: With black and white film, this problem is caused by pulling too fast; with color film it can be caused either by pulling too fast, or by pulling too slowly. Pull straight, at medium speed, without hesitation.

Spots: Deposits of dirt or foreign matter on the steel rollers will cause evenly spaced spots or marks across the length of the picture. Inspect and clean the rollers regularly. (See instructions on page 13.)

Streaks: If your pulling motion is uneven or jerky when removing the film packet, the rollers will leave impressions across the picture in the form of vertical streaks. Always pull smoothly, without hesitation.

11
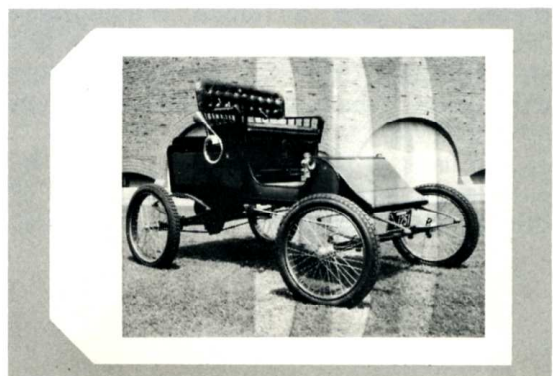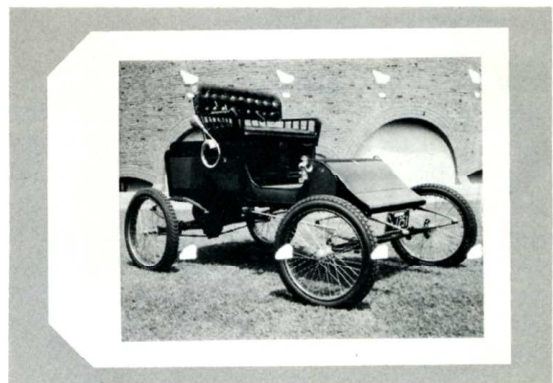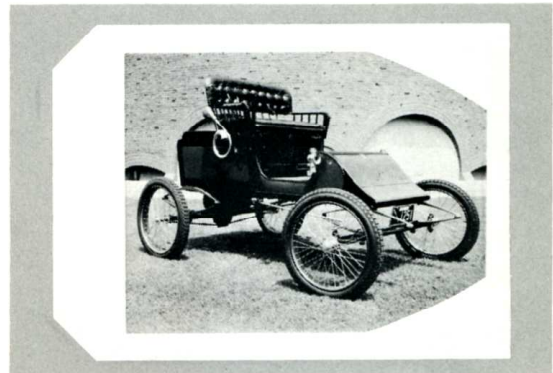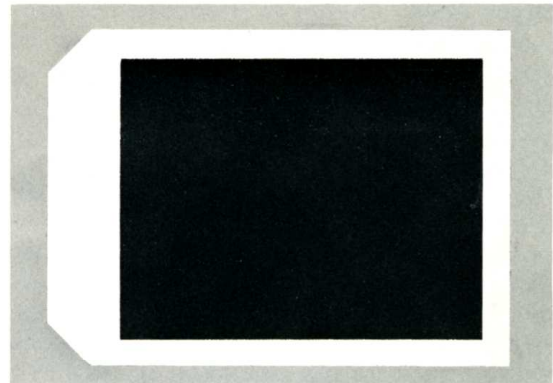
Black edge: Failure to withdraw the protective envelope fully before making an exposure will produce a black strip along the edge of the picture. Always withdraw the envelope as far as possible before exposing the film.

Failure to reinsert the protective envelope all the way into the holder after exposure can produce a thin line of developer along the picture edge, as well as a deposit of developer on the processing rollers. Always push the envelope in as far as it will go until its tab end lines up with the end of the film holder, and the tabs are visible in the holder recess.

If film packets are subjected to long periods of high humidity before use, the protective envelope may soften and bend, preventing full re-entry into the holder after the exposure is made. Detailed information on protecting the film against humidity is included in the instructions packed with the film.
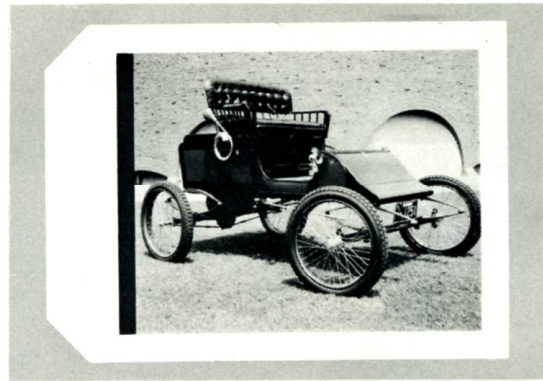
Mechanical problems

Detached envelope: If the packet is loaded backwards (see illustration), the protective envelope will detach completely when withdrawn for exposure. To gain access to the negative (which remains inside the holder), open the hinged cover and disengage the rollers just as you would for cleaning. Move the control arm to P and withdraw the negative by pulling the negative tab.
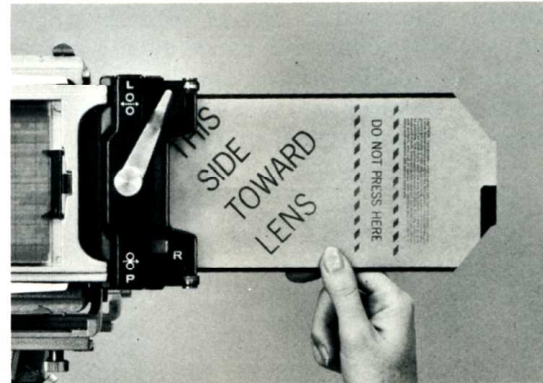
Metal cap and envelope misaligned: Occasionally, because of mishandling, the envelope and the metal cap may become misaligned. You can detect this condition by inspecting the cap (A) and the tape (B) on the back of the packet; they should be parallel. If they are not, tap the length of the cap lightly against a flat, solid surface.

12
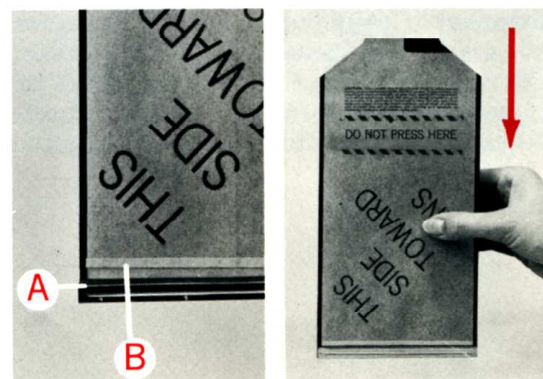
How to clean the rollers

The two steel processing rollers are vital parts of the instant picture system. Dirt on the rollers can cause repeated spots on the print and poor colors. Check regularly to see that the rollers are clean and free of foreign matter.

1. Move control arm to L:

2. Open cover: Raise the hinged roller cover by pulling upward at the marks (A) on the two ends.

3. Release roller assembly: Disengage the hooks (B) at the ends of the rollers. The top roller will now swing out to permit easy cleaning of the entire assembly.

4. Clean rollers: Turn the rollers and inspect them, especially at the ends. Rub off any deposits with a damp cloth. Use water only; do not use alcohol or other solvents. Also clean the rubber light seal roller. Never scrape the rollers with anything metallic, nor with your fingernail.

5. Replace roller assembly: Replace the top roller, engage the hooks, then snap the cover closed.
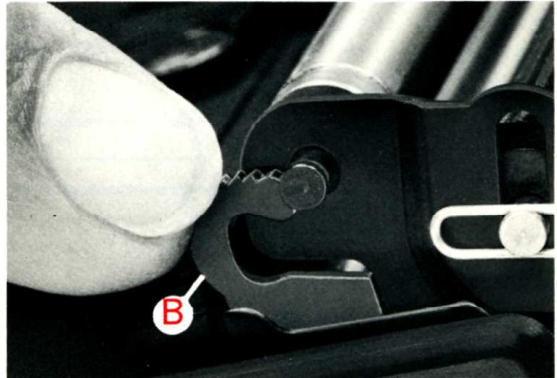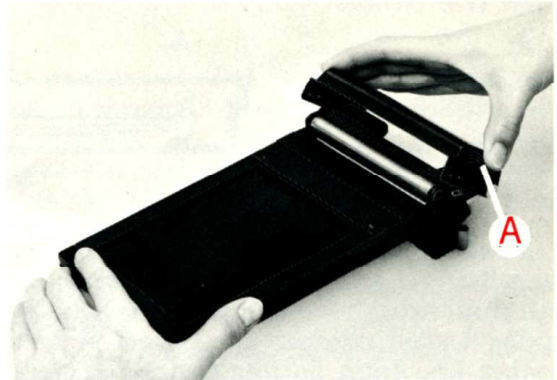
How the holder works
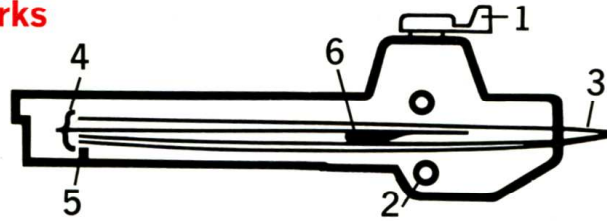
1. Loading film: With control arm (1) at L, rollers (2) are apart so film packet (3) can pass through freely. Cap (4) is held by spring loaded retainer (5). Layers of film packet are, from bottom to top : protective envelope, non-light sensitive positive print sheet, light sensitive negative secured to cap (4), protective envelope. Pod of developer (6) is attached to negative, and lies between it and positive sheet.

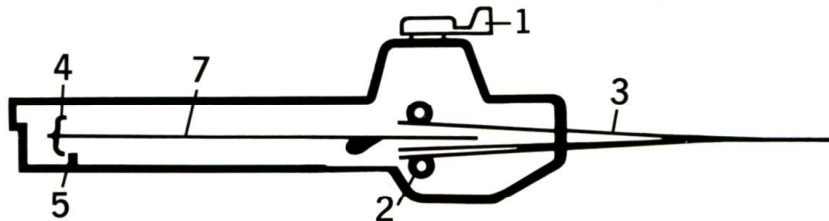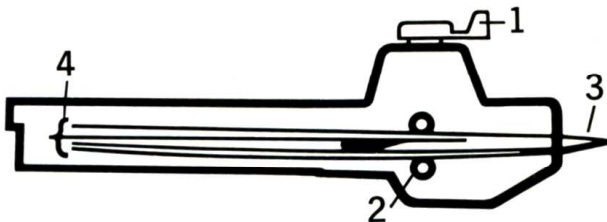**2. Making exposure:** Control arm (1) is still at L and rollers (2) are apart. Envelope (3) which is only lightly held by cap (4) is withdrawn along with positive print sheet. Cap (4), held in place by retainer (5), is tightly crimped to negative (7) which stays in holder for exposure.

3. After exposure: Envelope (3) is pushed back into holder; again it is held by cap (4). Control arm (1) is moved to P. This brings rollers (2) together and presses them tightly against film packet (3). Moving arm to P also retracts retainer (5 in drawings above) so cap (4) and negative attached to it are withdrawn with rest of film packet.
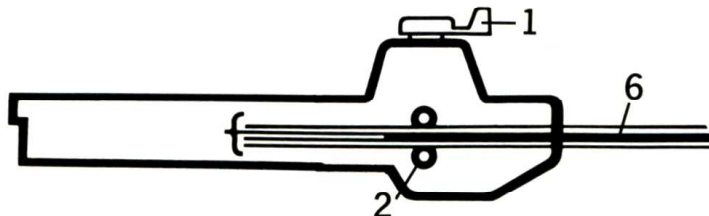
4. To develop: With control arm (1) at P, packet is drawn through steel rollers (2) which crush pod and spread developer (6) evenly between positive and negative. This starts development of picture.

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For more information

For further information, please write to Industrial Marketing Department, Polaroid Corporation, 575 Technology Square, Cambridge, Mass. 02139 or, if you are outside the U.S.A., to the nearest Polaroid office (see list on back page). See also page 3.

Registration

Be sure to complete and return the registration card packed with the film holder. Your name will then be placed on our mailing list so that you will receive firsthand information regarding newly developed Polaroid photographic products.

Warranty

Your Polaroid #545 Land Film Holder has been thoroughly tested and inspected before shipment. All parts are guaranteed against defects in materials and workmanship for one full year from the date of acquisition. During this period any such defects will be remedied by Polaroid Corporation without charge, except for transportation.

Damage resulting from normal wear, mishandling or accident will be promptly repaired at a reasonable charge. To make returns, pack the unit carefully in a stiff container with plenty of padding and ship it prepaid to Photo Products Repair at the nearest Polaroid office (see list on back page).

Caution: The Polaroid Land photographic process uses a caustic jelly which is safely packed inside sealed containers within the film packet. **If accidentally you should get some of this jelly on your skin, wipe it off immediately.** To avoid an alkali burn, wash the area with plenty of water as soon as possible. **It is particularly important to keep the jelly away from eyes and mouth.** Keep discarded materials out of the reach of children and animals, and out of contact with clothing and furniture, as discarded materials still contain some jelly.

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Frank & Hirsch (Pty.) Ltd. *
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Hertfordshire AL1 5PR
Telephone: St. Albans (0727) 59191

*Authorized Independent Repair Station

In addition to the Service Centers listed here, there are approved Independent Repair Stations within the U.S.A. as well as in many other countries. To locate the one closest to you, contact the nearest Polaroid Office, above.

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