

# Polaroid

## ***A Guide to Using Polaroid 4 x 5 Sheet Films***

*For people who work in a variety of ways.*

*Tips, techniques and inside information designed to help you  
get consistently good results with Polaroid 4 x 5 sheet films.*

### ***4 x 5 Sheet Films***

#### ***What's inside***

- ♦ *Processing tips relating to 4x5 films and proper use of 545 family of film holders*
- ♦ *Polaroid 4x5 films: The big picture*
- ♦ *The inside story about 4x5 instant film*
- ♦ *The 3 critical keys to quality images*
- ♦ *Storing, handling, loading and processing Polaroid films*
- ♦ *If it's hotter or colder than 75°F (24°C)...*
- ♦ *Film processing: How fast to pull...and how to get it straight!*
- ♦ *Type 55 P/N film: Positive approaches to good negative results (peeling techniques; sodium sulfite solutions)*
- ♦ *Making sure your prints and images last a long time*
- ♦ *Picture problems and problem prevention*
- ♦ *Toll-free help and technical assistance*

***Please keep this booklet  
within reach of your  
Polaroid Model 545  
film holder***

The information in this booklet is designed to help experienced and occasional users of Polaroid 4x5 sheet films get good pictures... avoid some common picture-taking errors... perform a few simple, routine, preventive maintenance checks... and get expert assistance when needed.

This booklet covers — in quick reference form — much of the material contained in the instructions originally packed with the Polaroid Model 545 film holder. Please consult those instructions when first learning to use the film holder.

Film Data Sheets covering most Polaroid films used for business, technical, medical and professional applications are available at no charge on the Web at [www.polaroid.com](http://www.polaroid.com).

***If you use Polaroid instant  
pack films***

A similar booklet is available to users of Polaroid 3 1/4 x 4 1/4, 4x5 and square-format pack films. To obtain a copy, call Polaroid Technical Assistance at the toll-free number given on page 2.

***Polaroid 4x5 sheet films for  
use with the Model  
545, 545i, and 545 Pro film  
holders***

***Color***

Type 59, Polacolor ER,  
(ISO 80/20°)

Type 64, Polacolor Pro Tungsten  
(ISO 64/19°)

Type 79, Polacolor Pro 100  
(ISO 100/21°)

Polacolor Pro 100  
(International only)  
(ISO 100/21°)

***Black & White***

Type 51, High Contrast  
Positive/Negative  
(ISO 640/29° Positive/Daylight;  
ISO 400/27° Positive/Tungsten;  
ISO 80/20° Negative/Daylight;  
ISO 50/18° Negative/Tungsten)

Type 52, Fine Grain  
(ISO 400/27°)

Type 53, Medium Contrast  
Coaterless (ISO 800/30°)

Type 54, PolaPan 100  
Coaterless (ISO 100/21°)

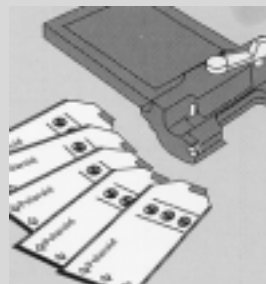
Type 55, Positive/Negative  
(ISO 50/18°)

Type 56, Sepia (ISO 400/27°)

Type 57, High Speed  
(ISO 3000/36°)

Type 72, PolaPan 400  
(ISO 400/27°)

***Polaroid 4x5 films:  
The big picture***



Polaroid 4x5 sheet films are available in two types: instant and wet-process (E6) films. These 4x5 films are used in the Polaroid Model 545 film holder.

The Model 545 film holder is designed to fit most 4x5 field and view cameras; microscope and oscilloscope cameras; the Polaroid MP-4 camera; and the Polaroid CU-5 4x5 camera. (See note below.)

***Note***

The image area of Polaroid 4x5 instant films used with the Model 545 film holder is off-center about 1/8 in. (3 mm) toward the thick end of the holder. For extreme accuracy with 4x5 cameras making test shots is recommended so that the exact image area can be marked on the ground glass. On the Polaroid MP 4 camera this area is marked on the ground glass.

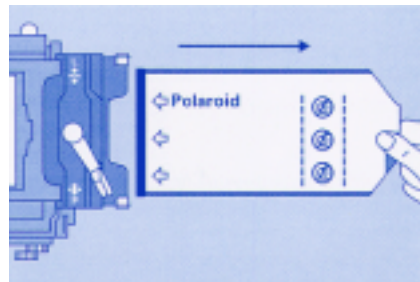
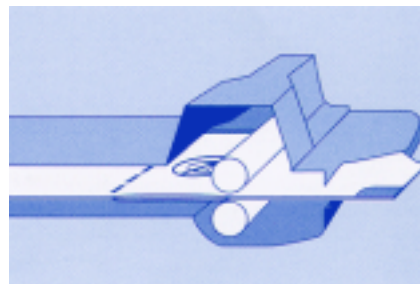
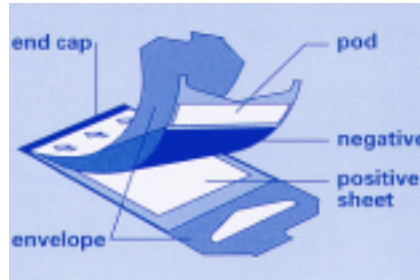
**Technical Assistance & Film Data Sheets**

For further information about Polaroid 4x5 sheet films, or for information about other Polaroid films, products, and applications, call toll-free from within the U.S.A. at **800-225-1618** Monday through Friday, 8 a.m. to 8 p.m., Eastern time. Or, write to:

Technical Assistance  
Polaroid Corporation  
201 Burlington Rd.  
Bedford, MA 01730

For assistance outside the U.S.A., consult your nearest Polaroid Office.

Film Data Sheets covering most Polaroid films used for business, technical, medical and professional applications are available at no charge on the Web at [www.polaroid.com](http://www.polaroid.com).



**How the system works**

Each Polaroid instant 4x5 sheet film “envelope” contains all the elements needed to produce an instant picture. Inside, there is a film assembly consisting of a light-sensitive negative, a positive sheet, and a “pod” containing the developer.

The rollers inside the Polaroid Model 545 film holder are used to break the pod and spread the developer between the exposed negative and positive sheet. Clean rollers are important in achieving a smooth, consistent “spread”; they should be inspected and cleaned regularly to assure high quality results. (See page 12.)

**Exposing and processing**

The positive sheet is withdrawn during exposure, then re-mated with the negative inside the envelope before processing.

Pulling the envelope drags the film assembly — negative, pod, and positive sheet — between the rollers. The pod bursts open and the developer is spread between the positive and negative. It is important to pull the film straight and at a steady, moderate speed to cause the developer to spread evenly. (See page 3.)

Development begins immediately, outside the film holder. After the proper processing time, the finished picture is peeled away from the negative. (See page 5 for important tips about handling developing pictures.)

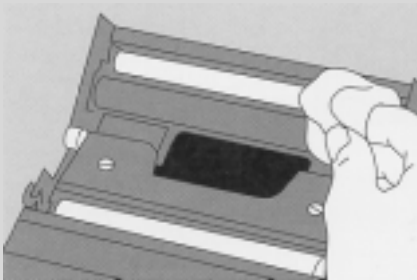
## The 3 critical keys to quality instant images

### 1 Keep the processing rollers in the film holder clean

Make it a habit to inspect and clean the roller surfaces regularly, and especially before each picture-taking session.

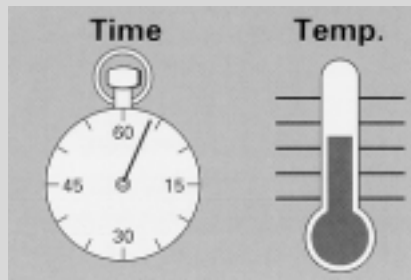
Cleaning the rollers is easy. Use a soft, non-abrasive cloth, moistened with water if necessary. Dry the rollers thoroughly before use. Do not use alcohol or other cleaning fluids, and never scrape the rollers with a hard object or with your fingernails.

The Model 545 film holder instruction book contains details on locating and cleaning the rollers. If you need further information, please call us at the toll-free number on page 2.



### 2 Note the temperature... and time development accurately

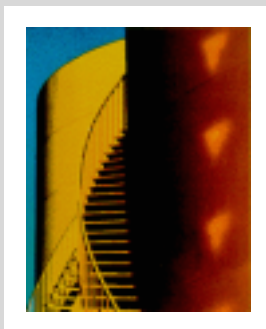
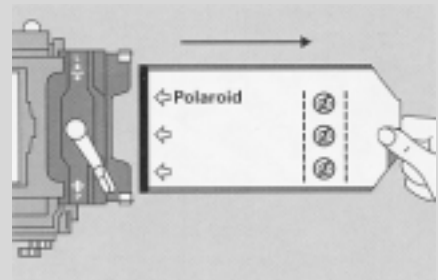
You can take Polaroid pictures at any temperature. But, processing time and the temperature of the film at the time of processing affect picture quality. Ideally, Polaroid films should be processed at about 75°F (24°C). If the temperature is much higher or lower, you may need to adjust processing times and/or exposure settings for best results. Make it a habit to check the Film Data Sheets located on the Web at [www.polaroid.com](http://www.polaroid.com) for more information.



### 3 Pull the film straight

Always pull the film envelope straight out of the film holder. The film should be pulled parallel to the film holder. If the camera is positioned so that it is difficult to pull straight, remove the film holder, if possible, for film pulling.

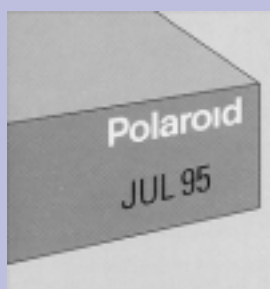
Pull at a steady, moderate speed. Saying the word "Polaroid" is a good way to time the speed of the pull.



## Storing, handling, loading and processing Polaroid films

### Note the film expiration date

Always use Polaroid film before the expiration date stamped on the package. Outdated film may not produce satisfactory results, and is not covered by the Polaroid film warranty.

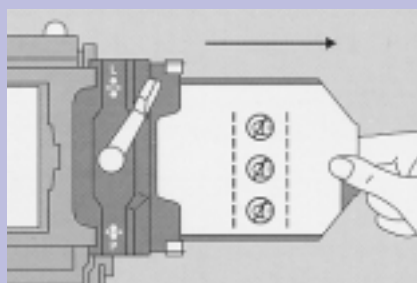
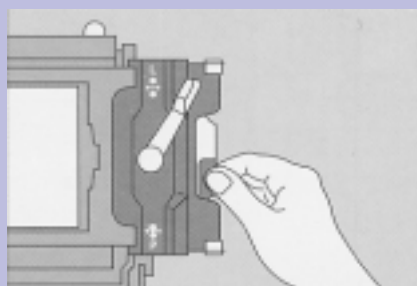
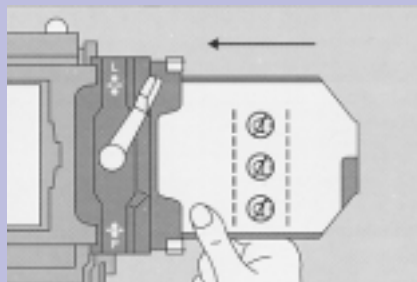
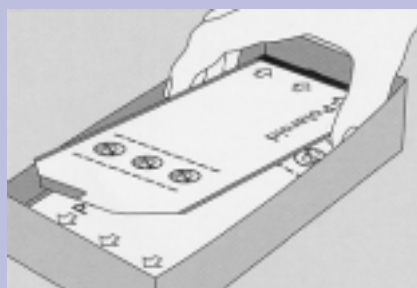


### Storage recommendations & cautions

- ♦ Store Polaroid film in a cool, dry place. Unopened film may be refrigerated in its sealed wrapper. Do not freeze film.
- ♦ Before opening film that has been refrigerated, allow it to reach room temperature. This will take about 2 hours.
- ♦ Avoid leaving film or a loaded film holder in direct sunlight, or in a hot, humid place, such as the trunk or glove compartment of a car. High temperatures and humidity can affect picture quality.
- ♦ Store unused Polaroid 4x5 sheet film flat in a dry, cool place.

### When loading film

- ♦ Keep the film sealed in its tray until you are ready to use. Tear open the tray along the printed arrow.
- ♦ Lift the film envelopes out of the film tray carefully so the metal end caps don't catch on other envelopes. If you accidentally pull off an end cap, discard that film sheet. (See page 12.)
- ♦ Always hold film envelopes by their edges to avoid damaging film surfaces or the pod of developer inside.
- ♦ Set the control arm on the film holder to "L" before attempting to insert the film envelope.
- ♦ Avoid loading the film backwards (note the printing on the film envelope). Be sure the envelope side marked "This side toward lens" faces the lens. If the film is loaded backwards, the envelope will come all the way out of the film holder when withdrawn to make an exposure. (If this happens, turn to page 13 for instructions.)
- ♦ Insert the film envelope straight into the film holder, being careful not to buckle the envelope. Then, slowly withdraw the envelope until it stops.



## Storing, handling, loading and processing Polaroid films

### Before making an exposure

- ♦ Make it a habit to test to be sure the film has engaged properly in the film holder.

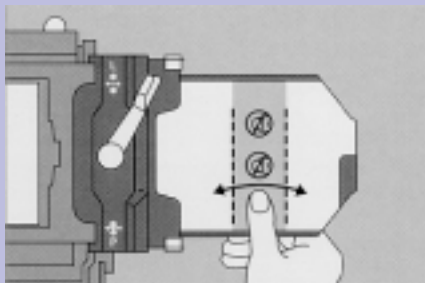
After inserting the film envelope, and withdrawing it prior to making the exposure, gently run your finger and thumb over the area marked “Do Not Press Here”, as shown. It should be flat.

If you can feel the pod of developer, the film is not engaged properly. Reinsert the envelope and test again.

If the film does not engage in the holder properly, an all-black picture (no exposure) may result.

### Important

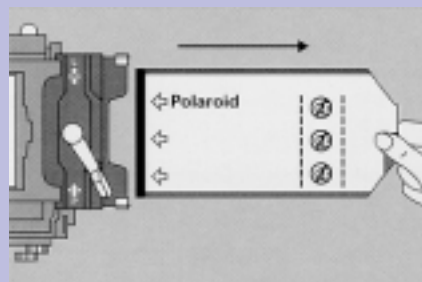
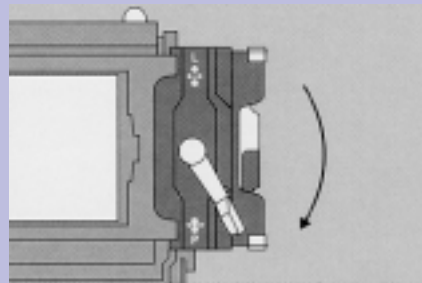
If you have repeated trouble engaging film envelopes, your film holder may need adjustment. If your holder is several years old or has been subjected to heavy use, you may want to consider replacing it with an updated model. Call us for further information, toll-free: 800-225-1618, Monday through Friday, 8 a.m. to 8 p.m., Eastern time.



### When processing film

#### Instant films

- ♦ After making the exposure, push the envelope all the way in until the tabs are aligned with the edge of the film holder. Use moderate pressure, but don't force it. If the envelope does not slide all the way in, withdraw it a little, and try again.
- ♦ Move the film holder control arm to “P” before pulling the envelope out to start instant film processing.
- ♦ Remember that you can remove an exposed sheet of film without processing it, if temperature or other conditions make it desirable to process the film later. (See page 8.)



- ♦ Handle developing pictures with care. Hold them only at the tab end or lay them flat on a table. Never wave or bend the film while it is developing, and never touch the image area, otherwise image quality may be affected.





- ♦ At the end of the specified development time, open the envelope as shown. Then hold the negative in place while quickly lifting off the print. Peel the print away from the negative rapidly and smoothly to avoid causing streaks on the image area. (See special tips for using Type 55 Positive/Negative film on page 9.)

- ♦ Please note the "Caution" statement printed on Polaroid film packages:

#### **Caution**

This process uses a caustic paste. Avoid contact with skin, eyes and mouth and keep away from children and animals. **If you get some paste on your skin, wipe it off immediately and wash with water to avoid an alkali burn.** If eye or mouth contact occurs, quickly wash the area with plenty of water and see a doctor. Keep discarded materials away from children, animals, clothing and furniture.

- ♦ Please dispose of used negatives and packaging properly.

**Questions? Problems? Call us, toll-free: 800-225-1618**

Many common instant picture-taking problems are discussed on pages 11 - 14. But...if you can't find a solution to a problem you might be having, or if you have a question, or need information, please call us. Chances are we can help.

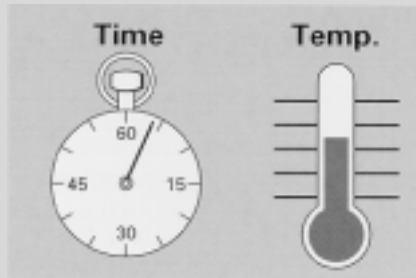
The call is toll-free, and we can be reached Monday through Friday, 8 a.m. to 8 p.m., Eastern time.

***If it's hotter or colder than 75°F (24°C)....***

You can take Polaroid instant pictures at any temperature, but when processing Polaroid films, you should be aware of the temperature since it can affect picture quality.

The developer in each sheet of film is designed to work best at about 75°F (24°C). By minimizing temperature variations when processing pictures you will get more consistent results.

At temperatures higher or lower than 75°F (24°C), it may be necessary to adjust processing time and/or exposure settings to achieve optimum results. Always refer to the Film Data Sheets located on the Web at [www.polaroid.com](http://www.polaroid.com) for the latest information about adjusting processing times according to temperature.



Normal development



Underdeveloped

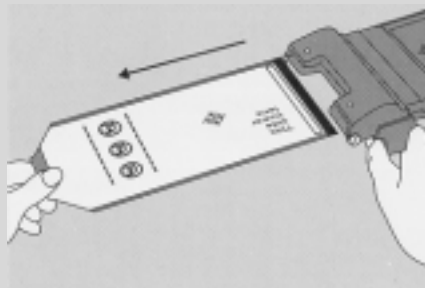
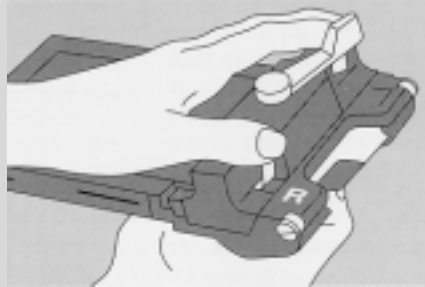


Overdeveloped





- ♦ At low temperatures, keep the film warm, under your coat or in a heated car or room. Place developing film in a warm place, such as a heated car or under your coat, being careful not to bend or crush it. Or, wait until you are in a warm place before developing each picture. (Allow film exposed to cold to warm up to room temperature before processing.)
- ♦ At high temperatures, keep your film in the shade, or in an air-conditioned car or room, or in a picnic cooler, before exposure. Wait until you have reached a cool place before developing each picture.
- ♦ Never wave developing film back and forth in an attempt to keep it warm or cool; this could adversely affect image quality.



***If it's very hot or cold,  
process your film later***

When using Polaroid 4x5 instant sheet films in hot or cold locations, remember that you can remove the exposed film for processing later, under more optimal conditions. Here's how:

- 1**  
After exposure, reinsert the envelope all the way into the film holder as you would normally. Do not move the control arm to "P".
- 2**  
Remove the film holder from the camera.
- 3**  
Depress the film release lever "R".
- 4**  
Keep the lever depressed and turn over the film holder.  
  
Gently push the film envelope out, as shown, until the metal cap is visible.
- 5**  
Grasp the end of the envelope and pull the film all the way out of the film holder.

Mark exposed film envelopes to prevent re-exposing them by mistake.

To process the film, reinsert the envelope all the way into the film holder. Move the control arm to "P", and pull the envelope all the way out in the normal manner.

## **Film processing: How fast to pull... and how to get it straight!**

### **To assure consistently well-processed images**

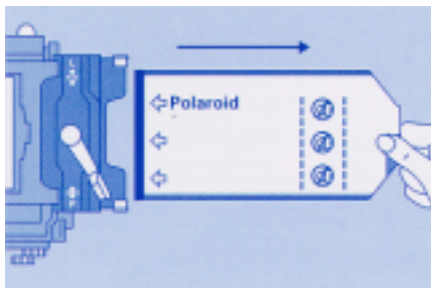
Always pull the film straight out of the film holder. The envelope should be pulled parallel to the film holder. Pulling at an angle—up or down, or forward or backward—can cause marks and streaks on pictures. (See page 11.)

If the camera is positioned so that it is difficult to pull straight, or if film pulling would disturb the camera set-up, remove the film holder, if possible, for pulling.

### **The speed at which you pull is very important**

Pull at a steady, moderate speed. Saying the word “Polaroid” is a good way to time the speed of the pull.

Pulling too rapidly can cause white specks in images and/or angle pull. Pulling too slowly, or stopping or hesitating, can cause streaks on pictures (See page 11.)



## **Type 55 P/N film: Positive approaches to good negative results**

### **First things first**

Prepare an 18% sodium sulfite clearing bath before exposing the film. See the instructions for mixing this solution on page 10.

### **Peeling techniques**

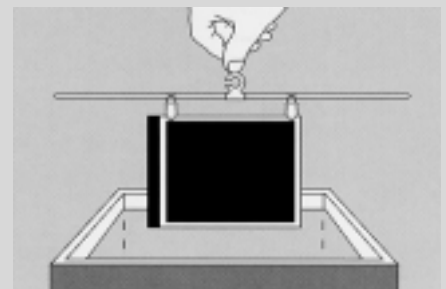
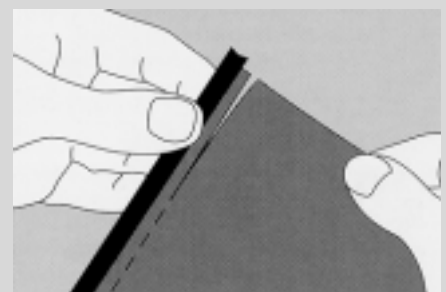
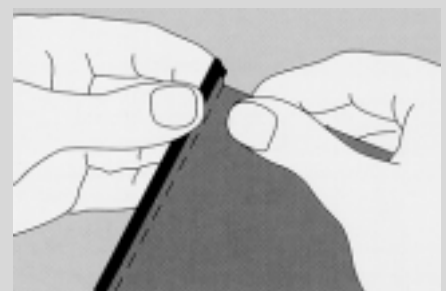
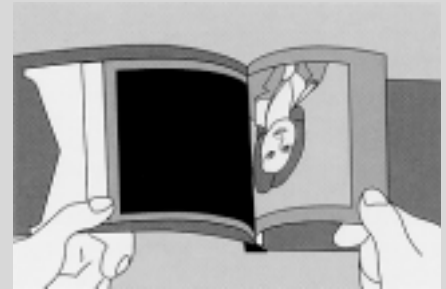
After opening the film envelope at the end of the development time, hold down the negative with your left thumb, as shown.

Quickly peel away the print and the thin paper mask. Pull hard so the print and mask separate completely from the negative. Remove the mask from the print, and discard the mask.

Hold the negative by the tab end. (Don't touch the damp face of the negative.)

Flex the perforation near the metal clip, then tear off the metal clip along the perforation.

Please note the “Caution” printed on Polaroid film packages. (See page 6.)

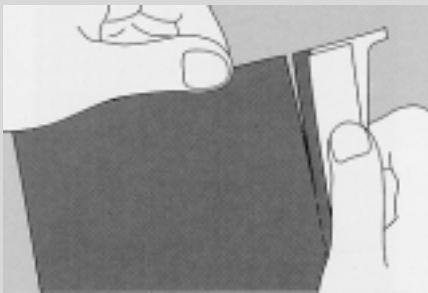


Immerse negatives in an 18% sodium sulfite solution immediately. Use film hangers, such as Kodak #6 or 4A, to keep negatives apart in tanks, or clear negatives individually in trays.

### ***Sodium sulfite solutions***

The negatives produced with Type 55 Positive/Negative black & white film must be cleared of the residual developer layer, if they are to be saved and printed. It is recommended that this be done immediately—within 3 minutes—to prevent staining.

Negatives should be immersed and agitated in an 18% sodium sulfite solution for approximately 1 minute, being careful not to let them come in contact with each other. Occasionally, it may be necessary to gently rub off the developer layer with your fingers or a damp sponge. Keep in mind that, at first, the negative emulsion is soft and can be damaged easily.



After treating the negative in the sodium sulfite solution, tear off the tab from the negative along the perforation. Flex the perforation beforehand to make it tear easily.

After clearing, negatives should be washed in running water for at least 5 minutes. (Negatives may remain in the sodium sulfite solution for up to 72 hours, if immediate washing is inconvenient.)

If you are in a hurry to print a negative, wash the negative for about 30 seconds before use, then wash thoroughly again later.

To avoid drying marks after washing, dip negatives in a wetting agent, such as Kodak Photo-Flo (diluted at least 1:600), before hanging up to air dry in a dust-free area. Use film hangers or wooden clothespins to hold the negatives while drying.

All solutions and wash water should be nearly the same temperature, ideally 65-75°F (18-24°C).

When dry, negatives can be retouched and printed using conventional techniques.

### ***Don't use fixers and hardeners***

Polaroid does not recommend the use of hardeners or commercial fixers, since the chemistry of these solutions may damage the negative emulsion.

### ***If you are shooting on location or do not have immediate access to sodium sulfite***

Developed negatives may be safely stored in water (at about 70°F, 21° C) for a few hours. While they are in water, handle them carefully and do not attempt to rub off the developer layer. Treat the negatives in sodium sulfite as soon as possible.

### ***More about sodium sulfite***

Sodium sulfite powder is readily available from professional photographic dealers and chemical supply houses.

Mix with water in the following proportions:

**Warm water**  
2 Liters  
(70 fluid oz.)

**Sodium sulfite**  
(anhydrous/desiccated)  
440 grams  
(16 oz. avdp.)

Be sure all of the sodium sulfite is dissolved before using. Store the solution in brown, well-stoppered bottles or in a tank with a floating lid. Discard the solution when it becomes discolored.

The sodium sulfite solution produces white, harmless deposits if it is allowed to dry on hands, clothes and other surfaces. These can be cleaned with water.

***If you need further information about processing Polaroid Positive/Negative films, please call us, toll-free: 800-225-1618.***

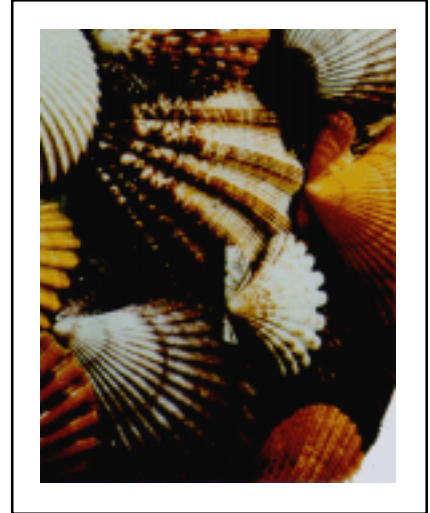
800-225-1618

## Making sure your prints and images last a long time

- ♦ Always use your film before the expiration date stamped on the package.
- ♦ Process exposed film promptly.
- ♦ Be aware that development time and the temperature of the film at the time of processing affect picture quality. Ideally, Polaroid films should be developed at about 75°F (24°C).
- ♦ Allow color pictures to dry thoroughly before stacking them or touching the image areas.
- ♦ Black & white pictures that require coating should be print-coated immediately to protect them from scratches and fading. Use six to eight overlapping strokes to fully coat each image.
- ♦ Handle coaterless black & white prints with care while they are drying.
- ♦ Avoid writing directly on prints. If necessary, write only in the border area, using a soft pencil, china marker, or a felt-tip pen designed for use with photographic materials.
- ♦ To preserve prints, protect them from exposure to direct sunlight, high heat and humidity, chemicals and chemical vapors, and excessive or rough handling.
- ♦ For long term storage, use seamless envelopes or sleeves made of acid-free paper, cellulose acetate, polyethylene or polyester. Avoid using glassine envelopes, PVC plastic, ordinary black album paper, brown Kraft paper and cardboard.



## Picture problems & problem prevention



Pictures with “missing” corners, and/or streaks and marks, are usually the result of pulling the envelope crookedly, at an angle, from the film holder. See page 9.



Pictures with small white specks in the image area are often caused by pulling the envelope out of the film holder too rapidly. Pulling too fast may also cause a “mottled” appearance in color photographs.

Always pull the film at a moderate speed. Saying the word “Polaroid” is a good way to time the speed of pulling.



Pictures with evenly spaced spots or streaks are usually caused by dirty rollers inside the film holder. Typically, the pattern is repeated across the picture surface because dirt or other particles are stuck to one or both rollers. The rollers should be cleaned regularly to prevent this problem.

**Important notice for high volume film users**

If your film holder is several years old or has been subjected to heavy use, you may want to consider replacing it with an updated model to ensure consistent, trouble-free results. For further information, please call Polaroid Technical Assistance (See page 2).

**Problem: Black picture (no picture)**

A picture that is totally black usually indicates that no exposure was made—no light reached the film.

There are several possible causes:

**Equipment problem**

- ♦ The camera shutter may not be working.
- ♦ The flash may have failed to fire, resulting in a severely underexposed picture (which may appear all black). Check your flash unit and sync mechanism; allow sufficient recycle time between flash exposures.

**Operator mistakes**

With some photographic systems occasional oversights will result in a black picture:

- ♦ A black picture may result if the film does not engage properly in the film holder. (See page 5.)
- ♦ Wrong exposure setting: lens aperture too small; shutter speed too fast; incorrect flash exposure guide number; incorrect film speed setting (for example, using ISO 80/20° color film in a camera system set for ISO 3000/36° black & white film).

**Problem: White picture (fogged)**

A picture that is totally white usually indicates that the film was severely overexposed, or light-struck or “fogged”—exposed to light outside of the film holder.

There are several possible causes:

**Handling errors**

- ♦ Withdrawing the film envelope with the processing lever at “L” while the film holder is off the camera.
- ♦ Removing the metal end cap from a film envelope, then replacing it, or other handling mishaps which damage the film envelope.

**Operator mistake**

An occasional oversight may result in white pictures. For example, a wrong exposure setting: lens aperture too large; shutter speed too slow; incorrect flash exposure guide number; incorrect film speed setting (using ISO 3000/36° black & white film in a camera system set for ISO 80/20° color film).

**Equipment problem**

- ♦ The camera shutter may not be working properly.
- ♦ The camera system has developed a light leak, or the film holder is not mounted correctly.

**Problem: Overexposed pictures (too light)**

Pictures with faint, washed out images usually indicate that the film was overexposed—too much light reached the negative. Check the camera settings.

**Problem: Underexposed pictures (too dark)**

Pictures that are too dark overall, or in which the main subject appears as a silhouette with little or no detail, usually indicate that the film was underexposed—too little light reached the negative. Check the camera settings.

**Problem: “Solarized” negative (Type 55 P/N film)**

If type 55 P/N film is processed for too short a time, the negative may be re-exposed to light when the film envelope is opened. Always time development accurately and adjust the time according to the temperature of the film at the time of processing.

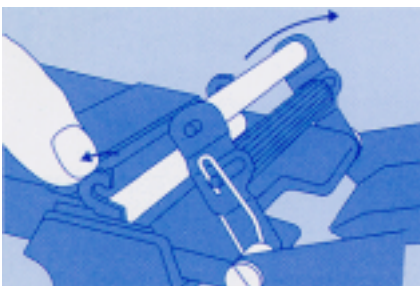
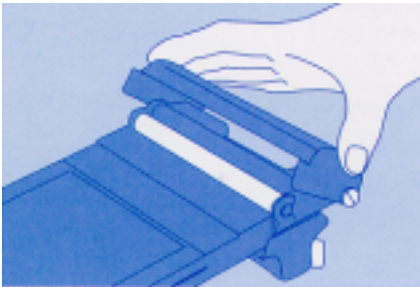
***If something jams in your film holder and you can't get it out***

***Problem: Envelope comes all the way out before exposure***

If the film envelope ever comes all the way out of the film holder when it is withdrawn to make an exposure, that film sheet will be “fogged”.

Remove the rest of the film assembly by following these procedures:

- 1**  
Open the hinged roller cover, as shown.
- 2**  
Disengage the top roller.
- 3**  
Move the control arm to “P”.
- 4**  
Pull the film negative assembly out of the holder.



If a metal end cap or some other part of a Polaroid 4x5 film envelope becomes jammed inside your film holder, you may be able to free it, quickly and easily, by disassembling the holder—if you're willing to carefully follow a few simple steps.

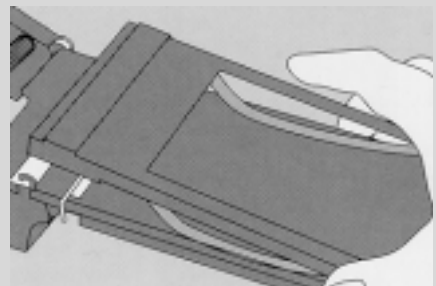
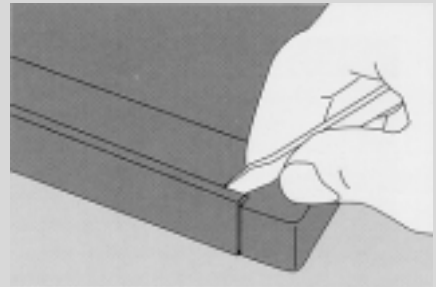
Please read all the way through these instructions before you begin. Be sure that you can clearly identify the various parts of the film holder and that you have the recommended tools. While it's easy to take the holder apart and fix the jam, it's important that the holder be reassembled correctly to assure proper operation.

***If you do not wish to fix the film holder yourself, or if you would like further information about the steps involved, please call us, toll-free: 800-225-1618, Monday through Friday, 8 a.m. to 8 p.m., Eastern time.***

***To disassemble the film holder***

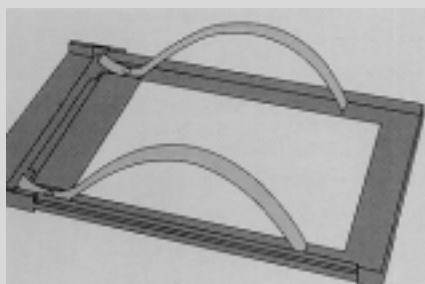
You will need a small screwdriver (to pry off the side clips) and a large paper clip (to hold a piece in place during re-assembly).

- 1**  
Move the control arm to “L”.
- 2**  
Pry off the two side clips on the edges of the film holder.
- 3**  
Open the roller cover and swing the top roller out of the way.
- 4**  
Lift off the aperture plate, as shown. Be careful not to lose the envelope latch mechanism (see next page).
- 5**  
Any metal end cap or other material that jammed in the holder should now be visible and easily removed.

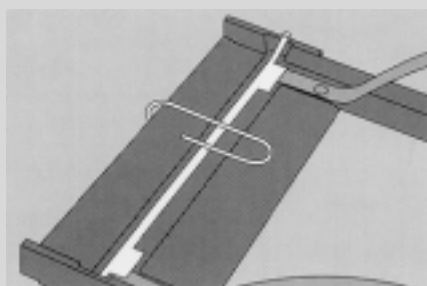
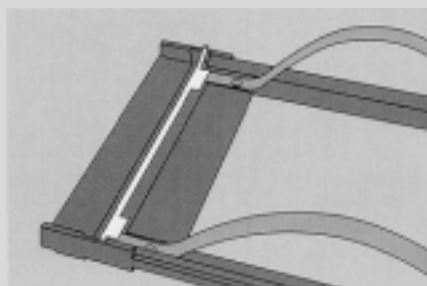
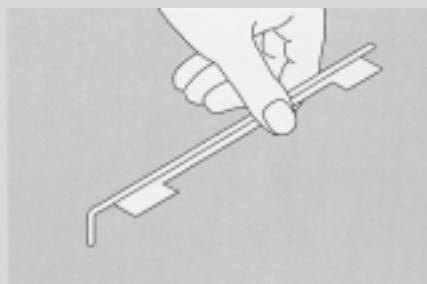


***To reassemble the film holder***

**1**  
Place the aperture plate on a flat surface with the springs facing up.



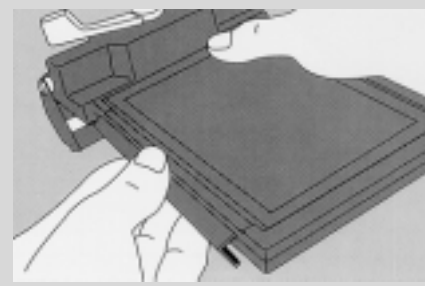
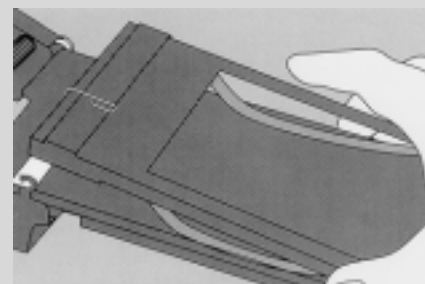
**2**  
Locate the envelope latch mechanism—a thin strip of metal. Place it on top of the short ends of the springs, as shown, and press it down into the groove at the top of the aperture plate. Secure it in place with the large paper clip, as shown.



**3**  
Turn the aperture plate over and seat it properly in its groove on the holder. Make sure the springs are not twisted or caught.

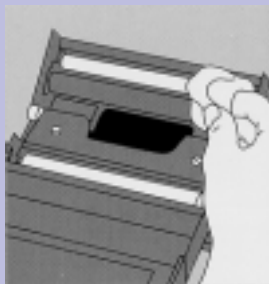
**4**  
Re-attach the side clips. Then, remove the paper clip. Your film holder should now function properly.

**5**  
Before taking pictures, inspect the rollers to be sure they are clean.



## How to get consistently good results with Polaroid 4x5 sheet films

### 3 things you need to know

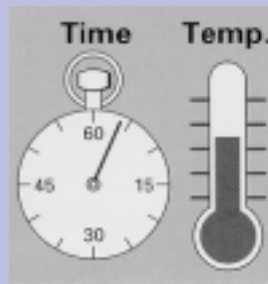


1

#### **Keep processing rollers clean.**

Clean rollers regularly—before each picture-taking session.

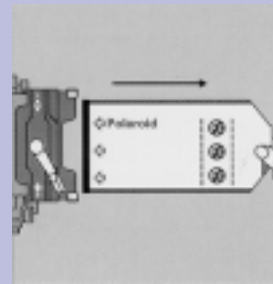
Use soft, non-abrasive cloth, moistened with water.



2

#### **Note temperature. Time accurately.**

Take Polaroid instant pictures at any temperature. But...temperature of film at time of processing affects instant picture quality. Instant films should be processed at about 75°F (24°C). See the Film Data Sheets on the Web at [www.polaroid.com](http://www.polaroid.com) for latest time/temperature processing information.



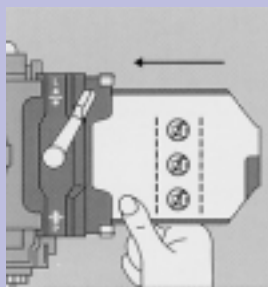
3

#### **Pull envelope straight, at moderate speed.**

Pull film straight out of film holder. Avoid camera positions that make pulling awkward. Remove and place film holder on flat surface for film pulling, if possible.

Always pull at steady, moderate speed.

### When loading film



1

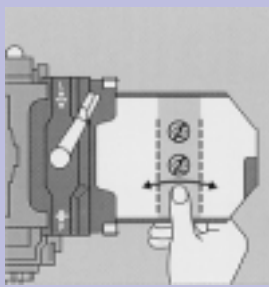
Handle film envelopes by edges to avoid pressure on pod.

2

Move control arm to "L".

3

Insert envelope straight into holder all the way. (Note printed instructions on envelope.) Then, slowly withdraw it until it stops.



4

Test to be sure film has engaged properly in holder.

Gently run finger and thumb over area marked "Do Not Press Here". It should be flat.

If not, reinsert envelope and test again.

### After taking each picture



1

Push envelope all the way in.

2

Move control arm to "P".

3

Pull envelope straight out of holder at moderate speed to start development.

Handle developing film only at tab end or lay flat on a table. Never wave, bed or squeeze film.



4

Time development of instant film accurately, according to information in the Film Data Sheets at [www.polaroid.com](http://www.polaroid.com).

5

After specified development time, open envelope. Peel print rapidly and smoothly.

Please note the "Caution" printed on Polaroid film packages (see page 6).

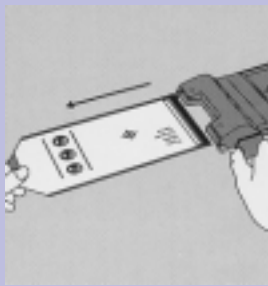
**To remove exposed film for processing later**



- 1** After reinserting envelope, do not move control arm to "P". Remove holder from camera.
- 2** Depress lever "R".



- 3** Keep lever depressed. Turn holder over and push envelope out, as shown, until metal cap is visible.



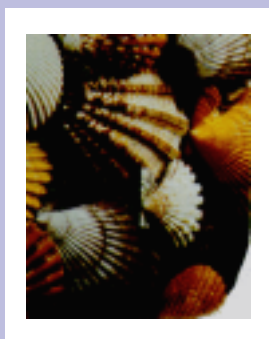
- 4** Pull envelope out of film holder.  
Mark exposed film envelopes to prevent re-exposure.  
To process, reinsert envelope, move control arm to "P", pull film straight out.

**After processing pictures**



- ◆ Let color pictures and coaterless black & white pictures dry thoroughly before stacking or touching.
- ◆ Black & white pictures requiring coating should be print-coated immediately.
- ◆ When using Polaroid Type 55 Positive/Negative film, prepare 18% sodium sulfite clearing bath before exposing film. (See Film Data Sheets at [www.polaroid.com](http://www.polaroid.com).)

**Picture problems & problem prevention**

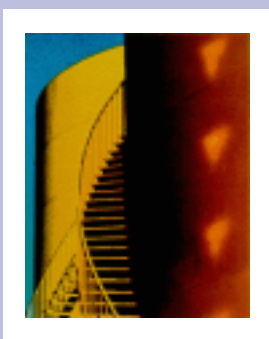


"Missing" corner, and/or streaks and marks, indicates film was pulled crookedly, at angle, from film holder.

Always pull film straight.

**White Picture**

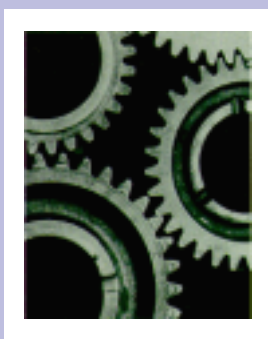
White picture indicates film was severely over-exposed, or light-struck or "fogged"—exposed to light outside of envelope or film holder.



Evenly spaced spots or streaks indicate rollers inside film holder are dirty. Clean rollers regularly.

**Possible causes:**

- ◆ Withdrawing film envelope with the processing lever at "L" while the film holder is off camera.
- ◆ Removing metal end cap from a film envelope.
- ◆ Wrong exposure setting.
- ◆ Equipment problem.



Small white specks are often caused by pulling envelope out of film holder too rapidly.

Always pull film at moderate speed.

**Black Picture**

Black picture indicates no exposure was made—no light reached film.

**Possible causes:**

- ◆ Camera shutter not working; flash out of synch or failed to fire.
- ◆ Wrong exposure setting.
- ◆ Film did not engage properly in film holder.

**About storing film**

- ◆ Use film before expiration date on package.
- ◆ Do not freeze Polaroid instant film. Store film in cool, dry place. Keep film in sealed package until use.

Allow refrigerated film to reach room temperature before opening (about 2 hours).

Keep film and camera out of direct sunlight and hot, humid places.

**Toll-free technical assistance**

For help or information, call Polaroid Technical Assistance toll-free from within U.S.A.  
**800-225-1618**  
Monday through Friday,  
8 a.m. to 8 p.m.,  
Eastern time.

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**Quick Tips**  
**800-225-1618**



***Toll-free help and technical assistance***

Information about — and assistance with using — Polaroid products is available to all Polaroid customers. And it's as close as your telephone.

Call us toll-free: **800-225-1618**.

Monday through Friday,  
8 a.m. to 8 p.m., Eastern time

We recommend that you call us if you encounter any difficulties with film or your photographic system. You may also contact Polaroid through the Web at [www.polaroid.com](http://www.polaroid.com).

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