

This manual is for reference and historical purposes, all rights reserved.

This page is copyright© by M. Butkus, NJ.

This page may not be sold or distributed without the expressed permission of the producer

I have no connection with any camera company

On-line camera manual library

This is the full text and images from the manual. This may take 3 full minutes for the PDF file to download.

If you find this manual useful, how about a donation of \$3 to: M. Butkus, 29 Lake Ave., High Bridge, NJ 08829-1701 and send your e-mail address so I can thank you. Most other places would charge you \$7.50 for a electronic copy or \$18.00 for a hard to read Xerox copy.

This will allow me to continue to buy new manuals and pay their shipping costs.

It'll make you feel better, won't it?

**If you use Pay Pal or wish to use your credit card,
click on the secure site on my main page.**

320

HOW
TO USE
YOUR
POLAROID
LAND
CAMERA
MODEL
320

YOUR FIRST PICTURE!

To be sure that it's a success, we suggest that you make it indoors with flash, exactly as described on page 20.

BUT,

before you start, please read this book carefully so you will know how to use the camera and where to look for any information. If you do not follow the instructions, you will not get good pictures.

CONTENTS

Getting Acquainted

Know your camera.....	2
How to make a picture: a quick look.....	4
How to open and close the camera.....	6
How to hold the camera.....	7
How to use the viewfinder.....	8
How to focus with the rangefinder.....	9
The controls . . . and what they do.....	10
How the L/D control makes prints lighter or darker.....	11
What you should know about your film.....	12

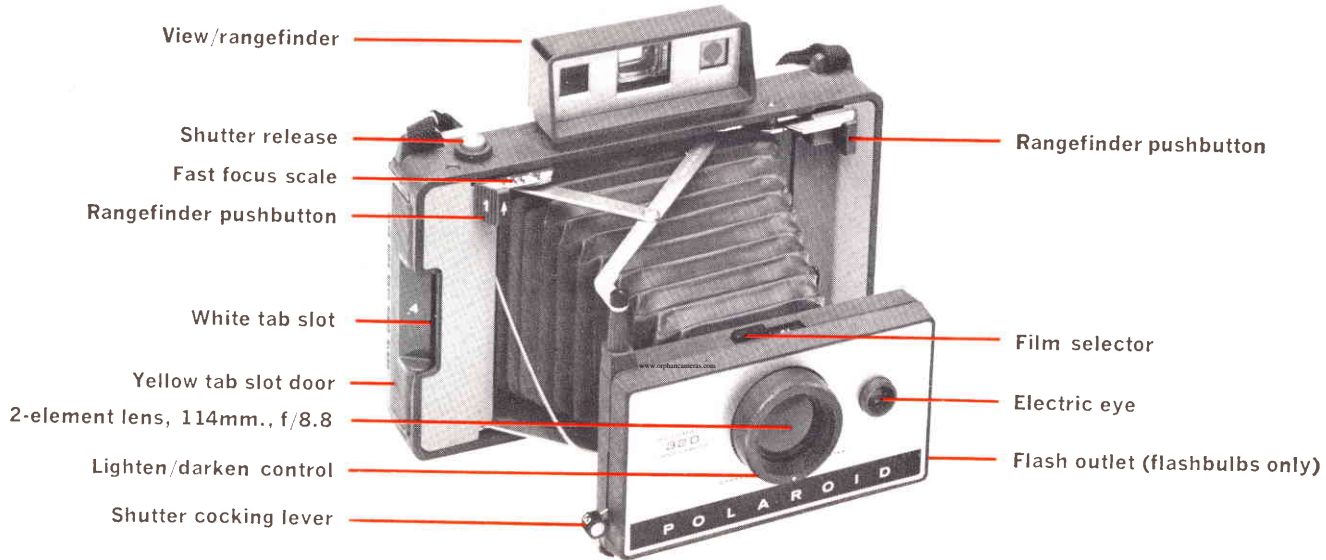
Operation

How to load a film pack.....	13
How to set the camera for daylight and flash pictures...	16
How to attach the flashgun.....	18
How to make flash pictures.....	20
How to make daylight pictures.....	22
How to develop the picture.....	24

Check the temperature.....	27
If no yellow tab appears when you pull the white tab....	28
Care of the print.....	29
How to use the Cold-Clip with color film.....	30
You must take care of your camera.....	32
How to make black and white pictures in dim light.....	34

Miscellaneous

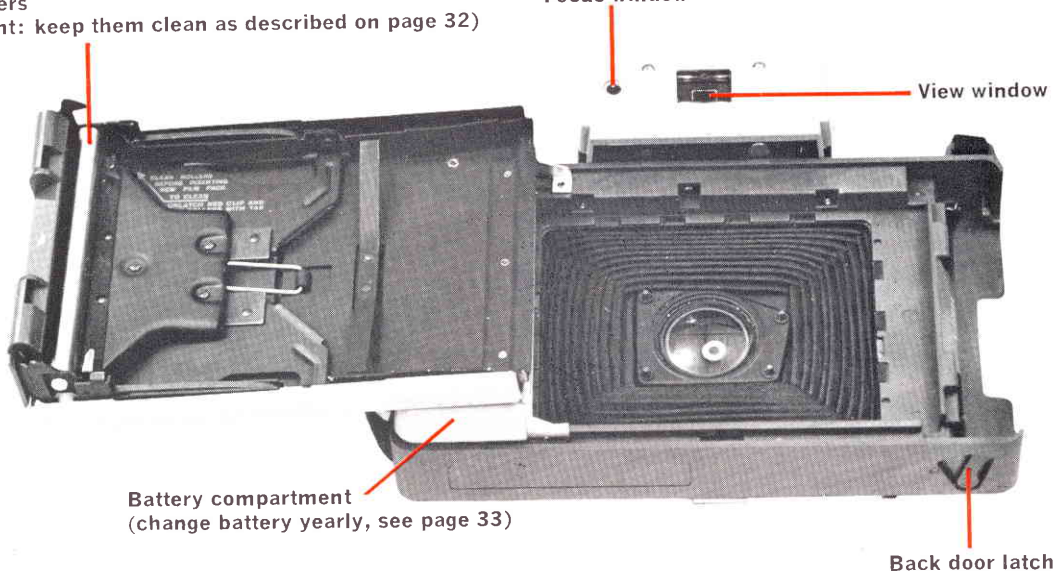
Copies and enlargements.....	36
Some helpful accessories.....	37
Picture troubles, their cause and cure.....	38
Protect film and camera from heat.....	42
Where to write for information.....	42
Warranty.....	42
Polaroid offices and repair stations.....	43
CAUTION notice.....	44



Steel rollers
(Important: keep them clean as described on page 32)

Focus window

View window



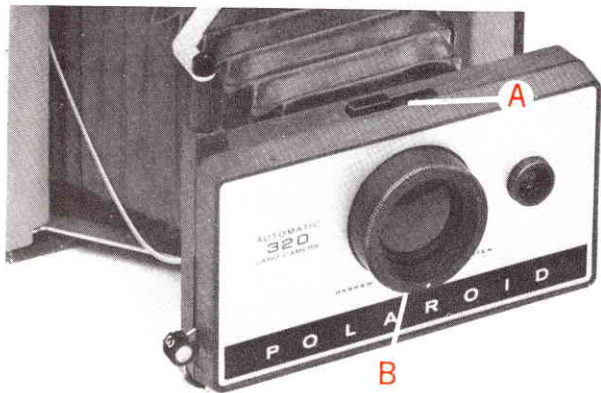
Battery compartment
(change battery yearly, see page 33)

Back door latch

HOW TO MAKE A PICTURE: A QUICK LOOK

www.orphancameras.com

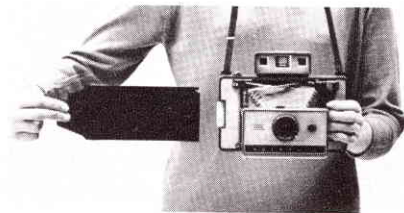
This is a preview of what you will find in this book. These are the easy steps you take to make an instant picture — color or black and white — with this Polaroid Land camera.



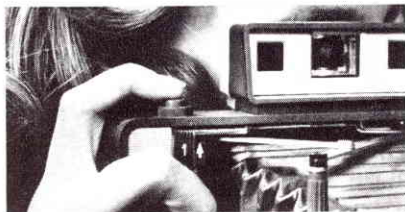
Before starting you set two simple controls: (A) the Film Selector and (B) the Lighten/Darken control (p. 10).



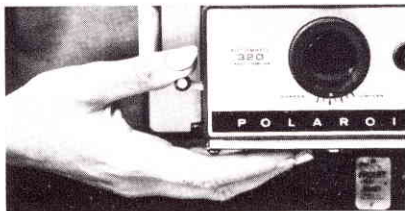
1 AIM AND FOCUS
p. 8



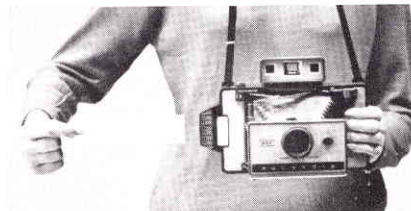
5 PULL YELLOW TAB
p. 25



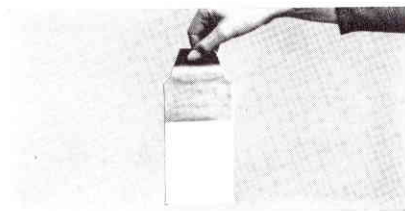
2 SHOOT
p. 20



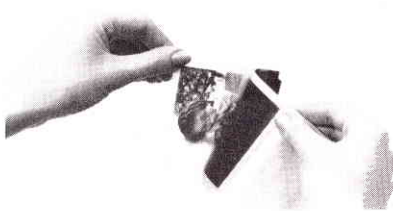
3 RESET
p. 21



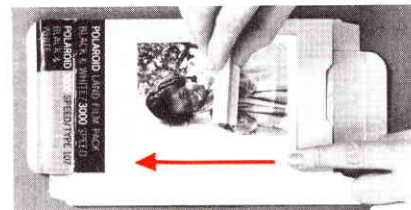
4 PULL WHITE TAB
p. 24



6 WAIT
p. 25



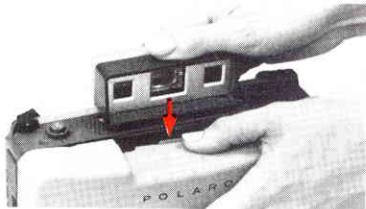
7 SEPARATE
p. 26



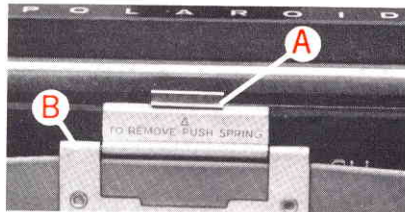
8 COAT BLACK & WHITE
p. 29

HOW TO OPEN AND CLOSE THE CAMERA

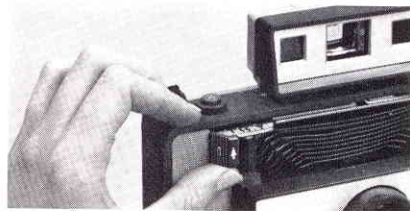
www.orphancameras.com



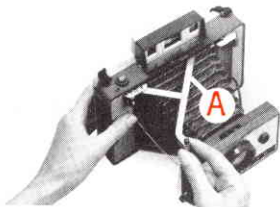
1. To unlatch cover, press on center of top. You can let cover hang down.



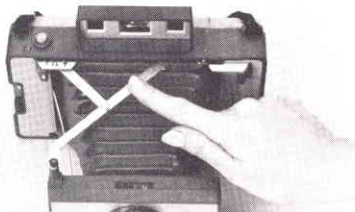
2. To remove it, push spring (A) and lift hinge (B). To replace, slide hinge down over spring.



3. Raise button No. 1; this unlocks camera front.



4. Pull camera front out as far as it will go. Be sure locking bar (A) snaps into place. If not, you may get blurred or all-black pictures.



5. To close camera, press down on locking bar and push camera front in until it locks.

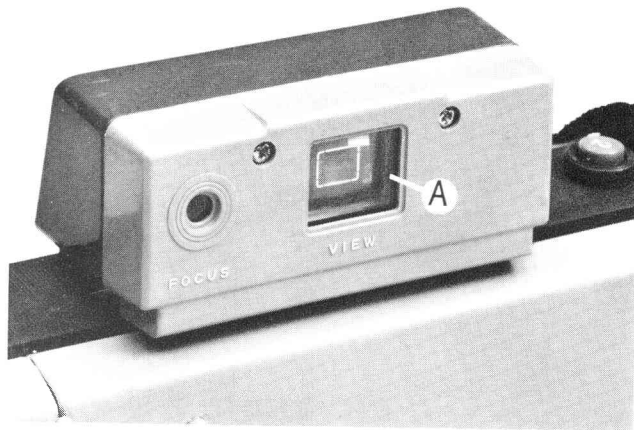
When storing the camera be sure that nothing presses on the No. 2 button; if it's depressed even slightly, the battery may be drained.



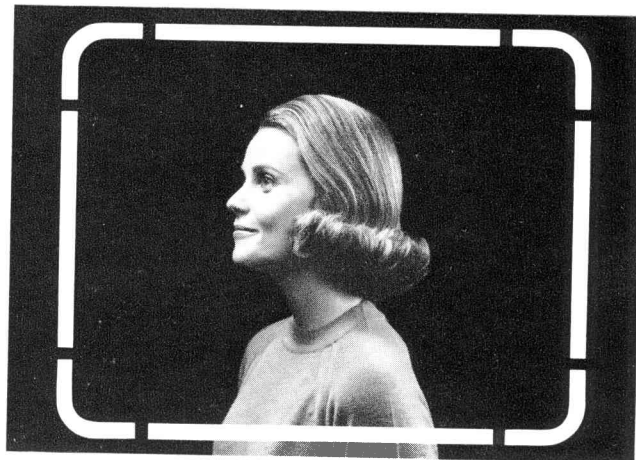
HORIZONTAL: Grip the two ends. Place your forefingers on the No. 1 buttons; you can easily shift the right forefinger to the No. 2 button. To steady the camera, press your elbows into your ribs; rest the camera against your nose.



VERTICAL: Grip the camera as you would for a horizontal picture, turn it so your right hand is below. Brace the camera against your forehead and face.

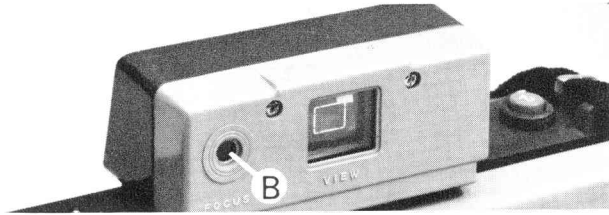


Looking through the viewfinder window (A) you'll see a bright, white broken line. Frame the scene with this line. Always try to look through the center of the window and concentrate on your subject, not on the white line. If your

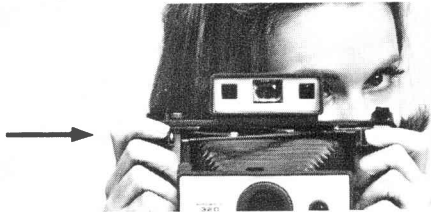


subject is very close ($3\frac{1}{2}$ ft., for example), allow a little extra space between your subject and the top frame line, as shown above. If not, you may accidentally cut off the top of someone's head in your picture.

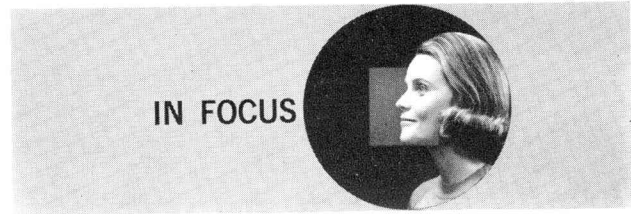
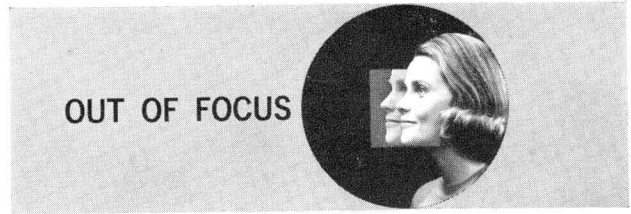
HOW TO FOCUS WITH THE RANGEFINDER



Look through here (B) at the bright spot. ▲ ▼ Push No. 1 buttons.



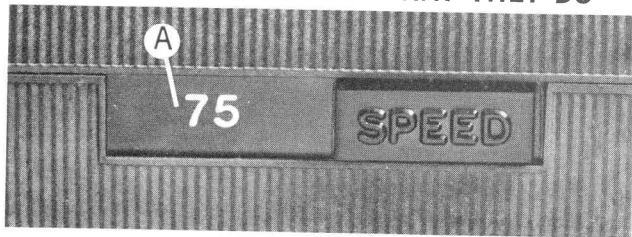
Holding the camera horizontal, place your forefingers on both No. 1 buttons as shown and push them all the way to your left. Look through the FOCUS window (B) and aim the bright spot in the center at a nearby subject (about 4 ft. away, for example). You should see two images of your target in the



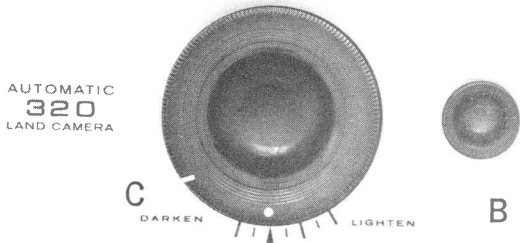
bright spot; this means that the camera is not focused for that distance. Push the No. 1 buttons back and forth until the two images become one — sharp and clear. Now the camera is focused. For vertical pictures, you can focus with the camera horizontal, turn it to aim and shoot.

THE CONTROLS . . . AND WHAT THEY DO

www.orphancameras.com



A. The Film Selector: It sets the camera for the kind of film you are using. For 75 speed color film, set it to 75, as shown. For 3000 speed black and white film, slide it the other way to set it to 3000. If you don't set the Film Selector, the electric eye (B) can't make a correct exposure.



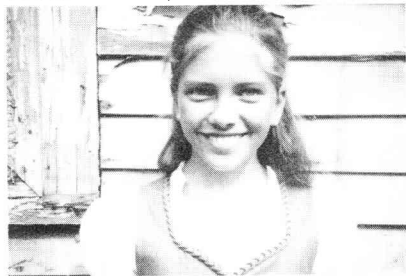
B. The electric eye: When you press No. 2 button, the shutter opens. Instantly, the electric eye measures the brightness of the light reflected from the subject and times the closing of the shutter to give correct exposure. It does this for both daylight and flash pictures.

C. The Lighten/Darken control: Turning the L/D control adjusts the electric eye so you can make your picture a little lighter or darker than it would be if the L/D control were left at the Normal position (shown here). When and how to do this is explained on page 11.

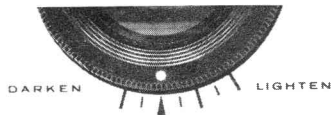
P O L A R O I D

HOW THE L/D CONTROL MAKES PRINTS LIGHTER OR DARKER

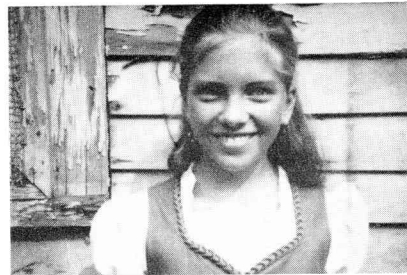
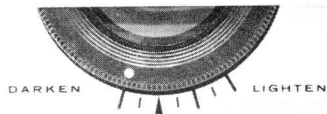
www.orphancameras.com



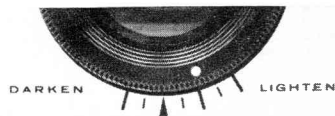
This is well exposed... leave the L/D control here.



If it's too light... set the L/D control here.



If it's too dark... set the L/D control here.



Most pictures made with the light coming from behind you or from the side will be well exposed with the Lighten/Darken control at Normal position (left, above), but sometimes you may prefer a lighter or darker print. To lighten or darken the next print of the same subject, in the same lighting conditions, adjust the L/D control as shown. To make a small change, turn only to the first small mark. Use the L/D control

in the same way to lighten or darken flash pictures, too. If there is a label on the film pack showing a special setting of the L/D control, set the control as shown there and make that the Normal position for all pictures made with that pack. Any adjustment of the L/D control should be in addition to that special setting.

WHAT YOU SHOULD KNOW ABOUT YOUR FILM

www.orphancameras.com

This camera uses Polaroid Land pack films. A film pack contains all the materials to make eight pictures. For each picture there is a piece of negative film, a sheet of print paper, and a thin foil container (the pod) filled with the jelly-like chemicals needed to develop the picture.

After snapping the picture, you start development by pulling a piece of paper out of the camera. This drags the exposed negative, a sheet of print paper, and a pod of chemicals between two steel rollers. The pressure of the rollers squashes the pod, spreading

the chemicals between the negative and print paper to form a picture "sandwich".

The picture develops outside the camera. After the recommended development time you separate the sandwich and there is your finished picture.

At present there are two Polaroid pack films available: 3000 speed black and white, Type 107, and 75 speed color, Type 108. There may be additional types of film in the future.

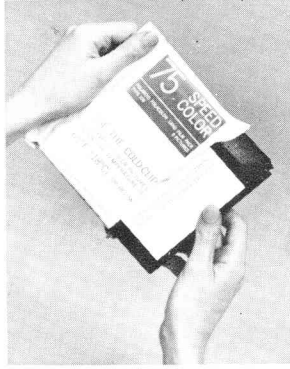
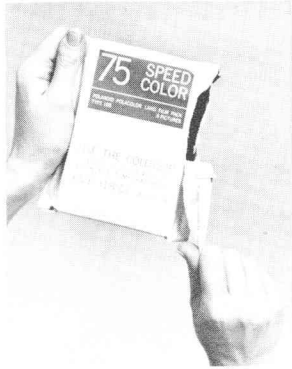
You must know the film speed number, 3000 or 75, to set the camera controls correctly.

CAUTION: Please be sure to read the important notice on page 44.



An important label: On some color film packs you may see a label (A) advising you to turn the Lighten/Darken control to a special setting for all pictures made with that pack. Please do so, or your pictures may be too dark.

HOW TO LOAD A FILM PACK



Open the top of the box. Pull out the film package. Handle it gently, carefully. Hold the package near the edges. **Don't press hard on the middle of the package.** Starting at the corner, tear open the entire side of the foil bag along the dotted line and remove the film pack. Discard the moisture absorbing card supplied with color film. Handle the pack

A special request!

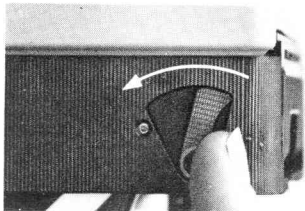
As soon as you open the film pack you will begin to accumulate waste paper. There will be more when you develop the pictures. We hope that it won't become litter in the streets or be scattered around the landscape.

What to do with the waste paper? Usually, it will fit into an empty foil bag or film box. Or, if you're planning to take lots of outdoor pictures, bring along a paper bag or other container for waste. Everyone will appreciate this little extra effort on your part.

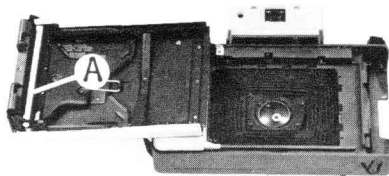
by the edges only. With color film there's a set of mounts; with black and white film there's a coater. Please read the instruction sheet. Save the box to carry prints in safely. It can also be very useful when coating black and white prints.

Always open the package and load film in the shade, not in direct sunlight, to avoid fogging the film.

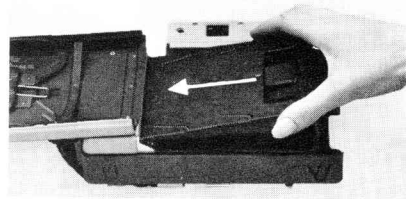
LOADING (Cont.)



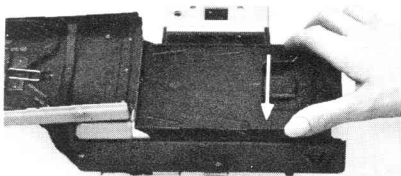
1. Push the back door latch; the door will pop up.



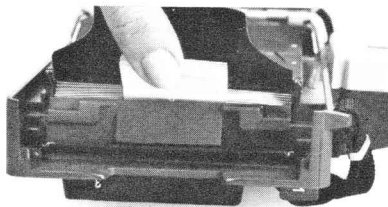
2. Open it all the way. Are the rollers (A) clean? If not, clean them as described on page 32.



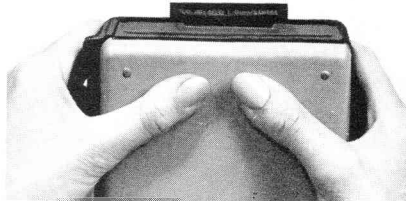
3. Hold the film pack by the edges as shown, and push the closed end of the pack under the door hinge against spring tension.

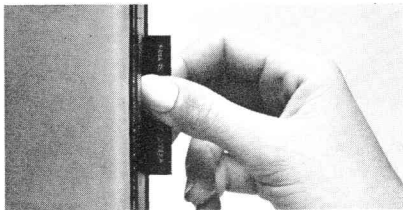


4. Push the pack down into the camera. You'll feel it snap into place.

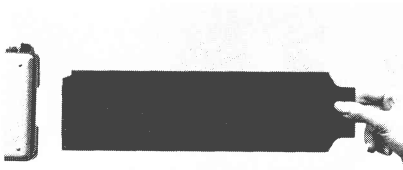


5. & 6. Check to be sure that the white tabs are not caught between the film pack and the camera body. Close the back door. Press both sides firmly to be sure that both sides latch. The black tab of the safety cover must stick out of the small slot. If not, reopen the back, lead the tab out.

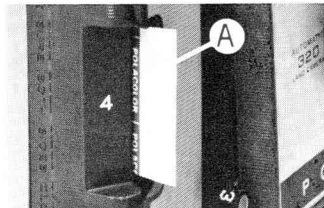




7. Grip the black tab. This is the end of the safety cover.

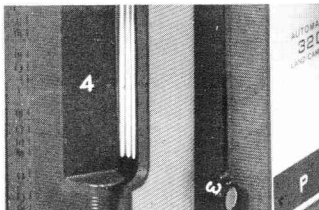


8. Pull the safety cover all the way out of the camera without stopping. Don't rip it.

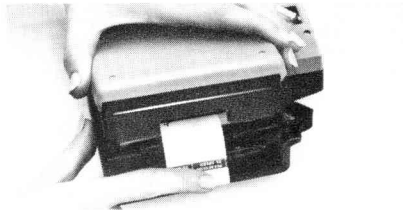


9. With the safety cover out, a white tab (A) should stick out of the small slot (No. 4). Don't pull the tab. You're now ready for picture No. 1.

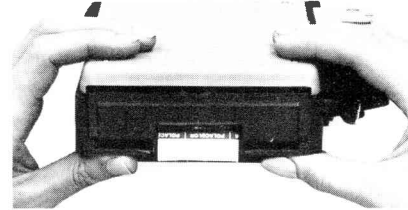
IF NO WHITE TAB APPEARS



1. If there's no white tab in the No. 4 slot, do the following in the shade or indoors, not in bright sunlight.



2. Open the back of the camera part way and, without disturbing or moving the film pack, push the white tab out into the open.



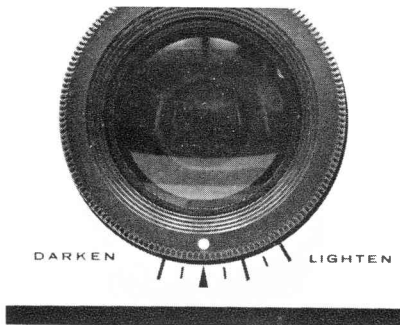
3. Close the back of the camera, making sure that both sides are locked securely and the white tab is outside in the No. 4 slot.

HOW TO SET THE CAMERA FOR DAYLIGHT AND FLASH PICTURES

FOR 75 SPEED COLOR



Film Selector: Set it to 75.

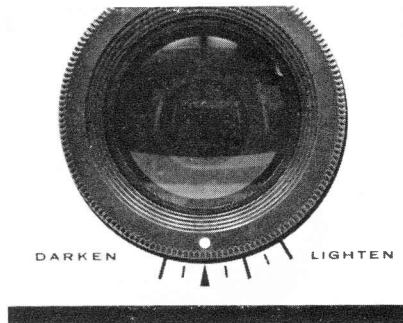


Lighten/Darken control: Set it to the Normal position (shown) unless a label on the back of the film pack (A) shows a special setting. You can open the back of a loaded camera to see if there is such a label. If you do this carefully in the shade or indoors and don't move the pack, the film will not be damaged.

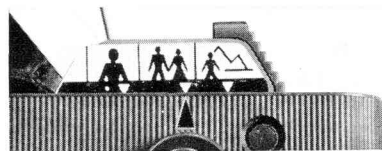




Film Selector: Set it to 3000.



Lighten/Darken control: Leave it at the Normal position (shown) unless you want to make a picture lighter or darker.



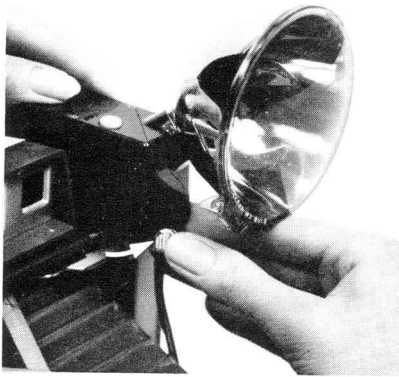
Fast focus scale: Use it only with 3000 speed film. It's shown set for groups 5–10 ft. away (upper picture) and everything past 10 ft. (lower picture). Set it, aim, and shoot. It's handy for fast action shots and scenes.

HOW TO ATTACH THE FLASHGUN

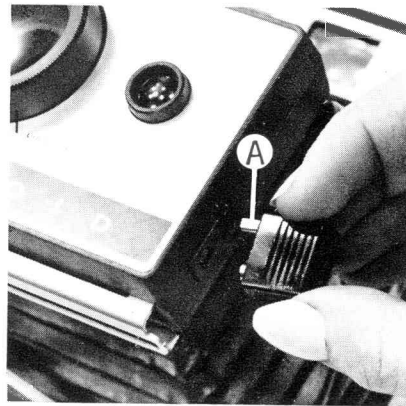
www.orphancameras.com



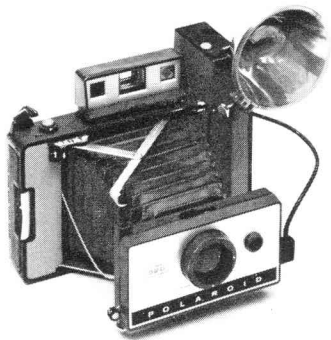
1. Hold the gun as shown and move it toward the camera so the front hook catches the edge of the camera frame.



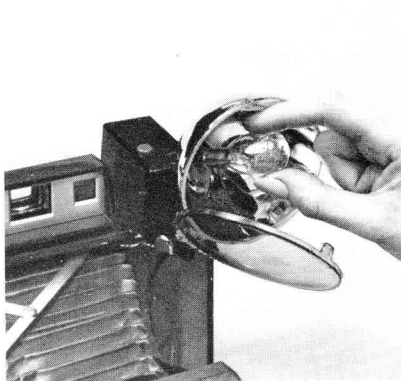
2. Press the back of the gun down and move the lever as shown. When the gun is flat, release the lever. A rear hook on the gun will catch.



3. Push the plug into the outlet (A). **Remove the plug before making any pictures without flash.** If you don't, your pictures will be too dark.



4. This is how the gun looks in place. To remove it: pull out the plug, push the locking lever to disconnect the rear hook, lift the gun from the rear.



5. To put in a flashbulb, open the blue shield, push the bulb into the socket until it catches. Close the blue shield before shooting your picture.

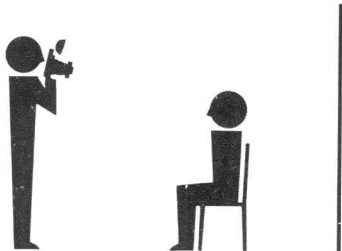


6. To remove a used bulb, push the red button (A). Put used bulbs in a wastebasket, away from children, animals, and everybody's feet.

Use only M-3 (clear, not blue) flashbulbs.

HOW TO MAKE FLASH PICTURES

www.orphancameras.com



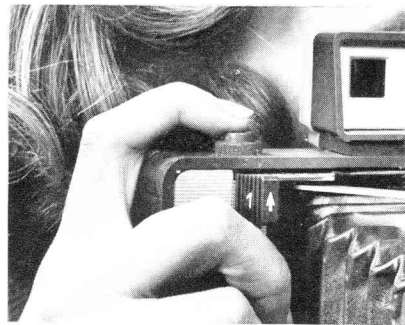
PLACE SUBJECT: Try to have a background, preferably of a light, bright color, a few feet behind the subject.

PLACE YOURSELF: For best results, stand about 5 ft. away. Maximum distance is about 10 ft. with 75 speed color film, about 15 ft. with 3000 speed b & w, depending on room size, color, etc.

CHECK that the controls are set for the kind of film you are using (see p. 16).



1. AIM AND FOCUS: Frame your subject in the VIEW window. Move your eye to the FOCUS window. Push the No. 1 buttons until the bright spot in the rangefinder shows a single clear image of the most important part of your subject. Then frame your subject again in the VIEW window.



2. SHOOT: Press button No. 2 smoothly and slowly, without moving the camera, until you hear a loud click and the flashbulb fires.



3. RESET: Immediately after snapping a picture, press No. 3 button down firmly until it locks and stays down. This resets the shutter so you'll be ready for the next picture.

YOU ARE NOW READY TO DEVELOP THE PICTURE. SEE PAGE 24.

FLASH PICTURE HINTS

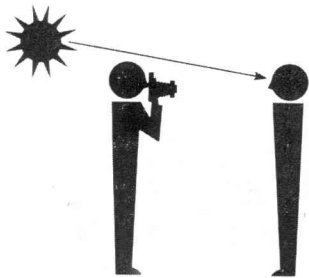
Line up groups: Try to have everyone about the same distance from the camera so they'll be lighted evenly.

Watch the background: It can "fool" the electric eye. If a subject is close to a white wall, the picture may be too dark. Move him a few feet from the wall or set the L/D control two marks toward LIGHTEN. Dark or distant backgrounds may cause very pale faces.

Have plenty of color: White, black, and gray don't improve color pictures.

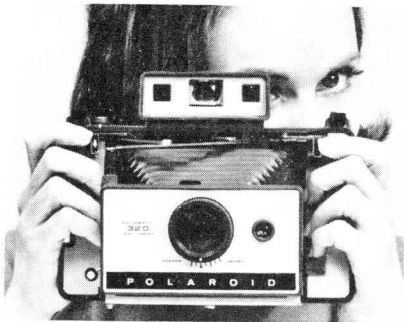
Spare the eyes: Let your subjects look elsewhere than right at the camera.

Flash don'ts: Don't try to make flash pictures in daylight. Don't shoot flash pictures in explosive atmospheres.

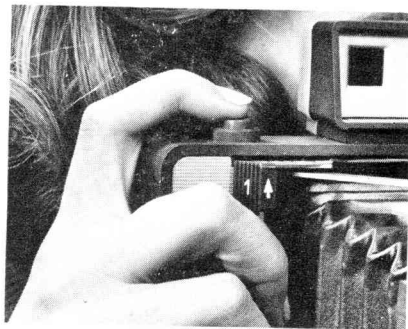


STAND so the light on the subject is coming from behind you or from the side, but not from in front of the camera.

CHECK that the Film Selector and L/D control are set for the kind of film you are using (see page 16).



1. AIM AND FOCUS: Frame your subject in the VIEW window. Move your eye to the FOCUS window. Push the No. 1 buttons until the bright spot in the rangefinder shows a single clear image of the most important part of your subject. Then frame your subject again in the VIEW window.



2. SHOOT: Press button No. 2 smoothly and slowly, without moving the camera, until you hear a loud click. When shooting in the shade or in dim light, hold No. 2 down and don't move until you hear a second click as the shutter closes. Then let No. 2 button come up.



3. RESET: Immediately after snapping a picture, press No. 3 button down firmly until it locks and stays down. This resets the shutter so you'll be ready for the next picture.

YOU ARE NOW READY TO DEVELOP THE PICTURE. SEE PAGE 24.

DAYLIGHT PICTURE HINTS

The best light for pictures of people: On a very bright, hazy day the light is even and the shadows are soft.

Move in close: The bigger your subject is in the print, the more color and detail you'll be able to see.

Have plenty of color: Look for subjects and backgrounds with big areas of strong, bright colors.

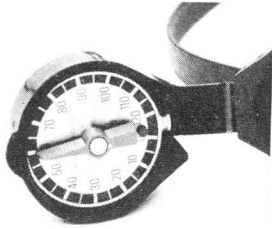
Watch the background: The light on it should be just about as bright as the light on the subject.

Keep an eye on the temperature: Cold or very hot weather can affect the quality of your pictures. Be sure to see page 27, which explains how temperature affects your pictures.

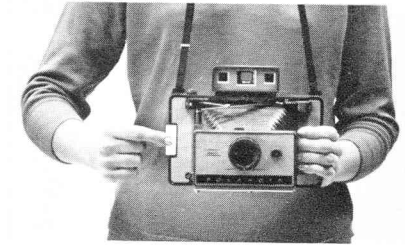


Lighting to avoid: Bright light behind the subject will "fool" the electric eye. Your subject will be too dark.

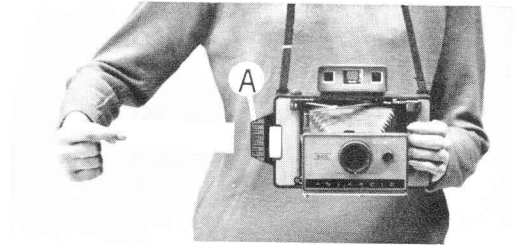




1. Set your timer: If you have a Polaroid timer, set it to the correct development time before you pull the tabs. Or, get ready with a watch.



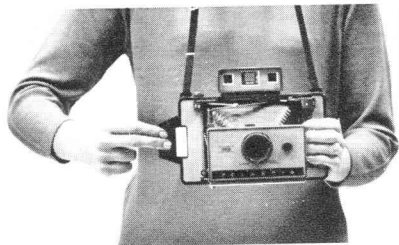
2. Hold the camera as shown: Use your left hand. Your grip should be firm but flexible. Hold the camera a few inches in front of you with your elbows close to your body. Grasp the white tab with thumb and forefinger.



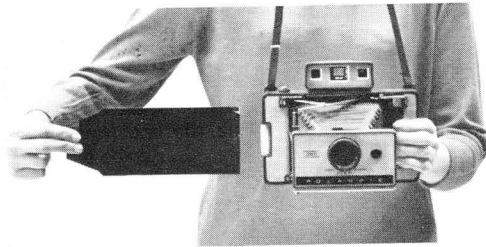
3. Pull the white tab all the way out of the camera: Pull it straight out, without stopping. This causes a yellow tab (A) to pop out of a narrow door in the end of the camera. Don't block this door in any way.

If no yellow tab pops out, stop: Don't pull another white tab; you will waste film. Instead, follow the steps shown on page 28.

Never pull a white tab if you can see a yellow tab: If you accidentally do so, stop! Follow the steps shown on page 28.

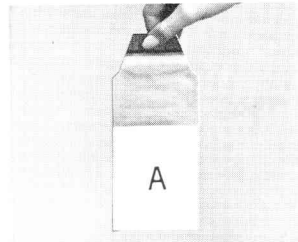


4. Grip the center of the yellow tab:



5. Pull the yellow tab all the way out of the camera: Pull straight, smoothly, at medium speed, without slowing down or stopping.

The picture is now developing outside the camera, so start timing development as soon as you get the tab all the way out.

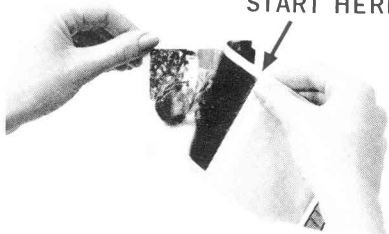


6. Wait: Develop the picture for the full time given in the film instruction sheet. Let the film hang from the yellow tab without moving, or lay it down flat.

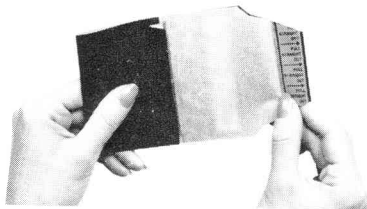
Don't touch or bend the part where the picture is developing (A).

Next page, please.

START HERE



Separate the print: After the full development time, quickly lift the print away from the rest of the paper, starting from the end near the yellow tab, as shown. **Don't** start at the other end; you will get developer chemicals on your fingers. Don't touch the face of the print. Black and white prints must be coated and color prints should be mounted (see page 29).



Fold up the negative: To avoid touching chemicals left after the print is removed, fold up the negative with the moist side in. Please put it in a wastebasket.

CAUTION: Please be sure to read the important notice on page 44.

DEVELOPING HINTS

Time development carefully: Color pictures that are developed for too long a time will tend to have a bluish tint; if they are developed for less than the full recommended time, they will have a reddish brown tint and the colors will be of poor quality.

Black and white pictures will not be harmed by a few seconds extra development time. If they are developed for less than the recommended time they will have a muddy gray look.

Check your timer: If you have a Polaroid Development Timer, check it with a watch. If it's fast or slow, allow for this.

Is the print too light or too dark? If so, page 11 tells you what to do.

CHECK THE TEMPERATURE! IT'S IMPORTANT

Cold and heat have a great effect on the way your picture develops and on the print quality. Even moderate cold can ruin your pictures unless you take precautions.

The important factor is the temperature of the camera and film at the time you're developing the picture.

A loaded camera carried outdoors in cold weather for half an hour gets thoroughly chilled. If you then enter a warm house and a few minutes later shoot a flash color picture the results are likely to be bad. It takes a long time for a cold camera and film to warm up.

However, if camera and film are indoors and warm, you can step outside to snap the children in the snow, step back in again in a minute and develop the picture normally.

In cool weather development times may have to be adjusted according to the temperature. The instruction sheet with each film pack contains detailed information about development times and temperatures. Be sure to read these recommendations; they may change from time to time.

In very hot weather there is a greater tendency for chemicals to be squeezed out of the edges of the picture assembly as you pull the yellow tab to begin development. If these chemicals collect on the steel rollers they can cause defects in your prints. So, when it's hot, be extra careful to keep the rollers clean (page 32).

HOW TEMPERATURE AFFECTS COLOR FILM

The normal development times for color film are set for temperatures of 75°F (24°C) and warmer. When it's cooler the action of the developer chemicals slows down and you must develop for a longer time. See the film instruction sheet for more details.

When the temperature gets to 65°F (18°C) and below, the chemical action is so sluggish that color pictures won't develop well without help. That help is the Cold-Clip (page 30). Color pictures developed in cold weather without using the Cold-Clip will be dark, with muddy colors.

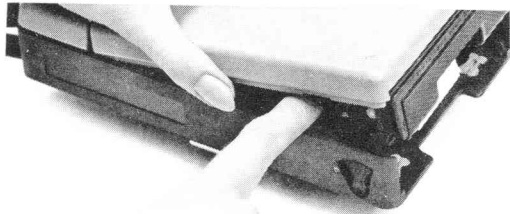
As a general rule, use the Cold-Clip whenever it's too cool to be comfortable in a short-sleeved shirt.

You'll get your best colors in pictures made in pleasantly warm weather. But when it is terribly hot your prints may show weak colors and have a pinkish tint overall.

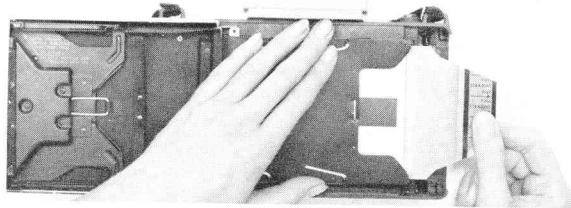
HOW TEMPERATURE AFFECTS BLACK AND WHITE FILM

The normal development times are set for temperatures of 70°F (21°C) and above. **As a rule, if it's too cool to be comfortable in a short-sleeved shirt, develop pictures for a longer-than-normal time.** Time and temperature recommendations may change; see your film instructions for details. **Don't use the Cold-Clip with black and white film.**

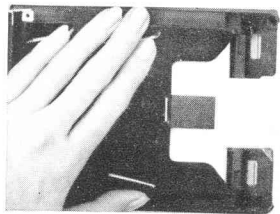
IF NO YELLOW TAB APPEARS WHEN YOU PULL THE WHITE TAB



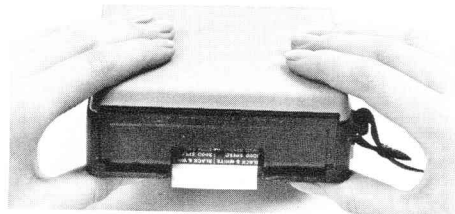
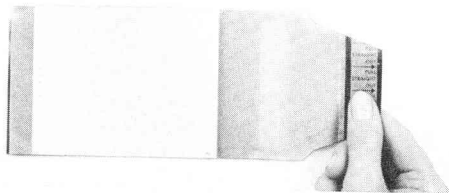
Don't pull another white tab. Instead, gently open the camera back just enough to get one fingertip under it to hold down the film pack. Do this indoors or in the shade.



While holding the pack down lightly (picture at left) slowly open the back all the way and take hold of the topmost yellow tab, as shown.

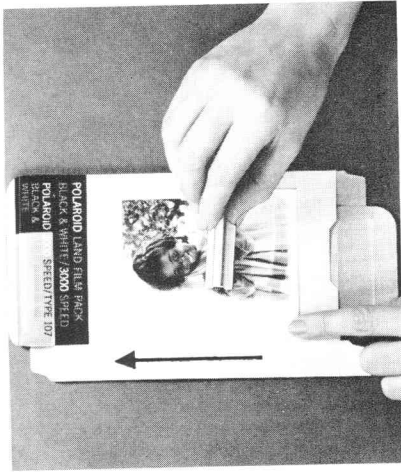


Gently pull the entire picture assembly all the way out of the pack and discard it. Don't try to save it. While the back door is open check that the rollers are clean (page 32).



Close the back of the camera, making sure that the next white tab sticks out of the small slot next to No. 4. Check that both sides of the back latch securely.

CARE OF THE PRINT



CARE OF BLACK AND WHITE PRINTS

Pictures made with Type 107 film must be coated, within two hours if possible, to protect them from fading, scratches, etc. A coater is supplied in each film

package. To coat a print, lay it face up on a clean, smooth surface and hold down one edge.

Remove the coater from the tube. Hold it 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. Don't scratch the print with the edge of the coater. To get more liquid from a partly used coater, press it down on the near end of the print, then spread the squeezed-out liquid across the picture.

The coating dries quickly and forms a tough protective layer over the image. Don't bend or crease coated pictures, and don't write on the back with a ball-point pen or a sharp pencil; the coating may crack and cause discoloration in the print. When you write on the backs of prints, use a soft pencil and write lightly, and only in the areas around the edges. Keep freshly coated prints

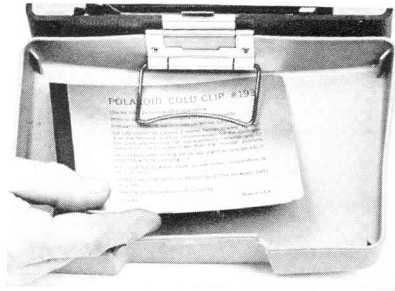
apart, or they will stick together.

Don't use corner mounts, paste, glue, or rubber cement to mount pictures. Many adhesives contain impurities that discolor pictures. Never put your pictures in albums with black paper leaves; use Polaroid Picture Albums.

CARE OF COLOR PRINTS

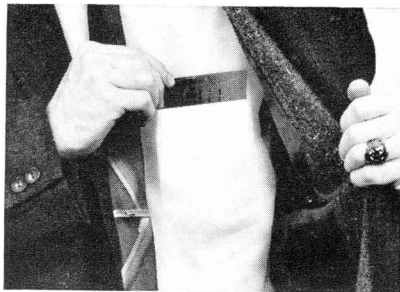
A newly separated color print will look nearly dry, but don't touch it for a few minutes until the surface dries hard and glossy. To protect it against curling, cracking, etc., mount it on one of the print mounts supplied with the film. **Do not coat color prints.**

The dyes used to form colors in the prints are long lasting. However, like all dyes, they will fade if exposed to bright light for long periods of time. For maximum protection and easy access, store prints in Polaroid Picture Albums.

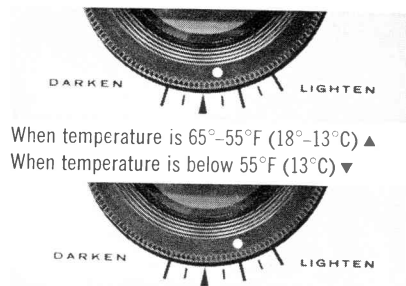


The Cold-Clip makes it possible to get good color pictures when the temperature of the camera and film is 65°F (18°C) or below at the time the picture is developed.

If you are unsure of the temperature, use the Cold-Clip anyway. It may improve the color of your pictures and it can do no harm even if the temperature is above 65°F. Store the Cold-Clip in the camera cover when it is not in use, so it will always be handy when needed.



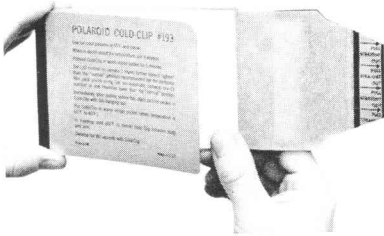
1. Warm up the Cold-Clip: Take it out of the camera cover and warm it with body heat in an inside pocket or between your arm and body for about five minutes **before** starting to take pictures.



2. Set the L/D control and shoot: When it's cool enough to use the Cold-Clip, you should set the L/D control as shown before taking the picture.

If the Normal position of the L/D control for that film pack already is one mark toward LIGHTEN, turn the L/D control one or two more marks toward LIGHTEN, according to the temperature.

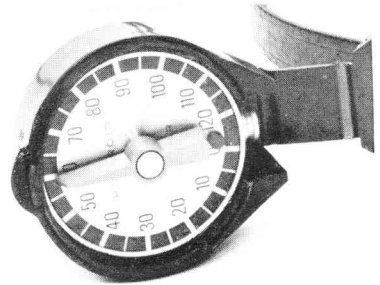
These recommendations may change, from time to time. For the latest information, check the film instructions.



3. Start development: Pull the yellow tab all the way out of the camera and immediately place the picture "sandwich" inside the Cold-Clip with the tab hanging out. Do this within 10 seconds after pulling the yellow tab.



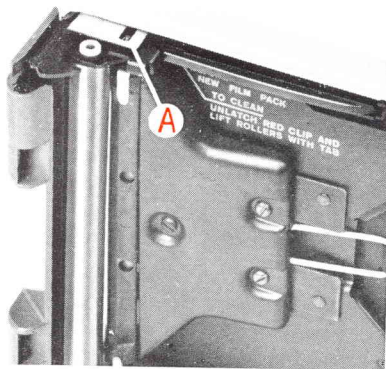
4. Keep the Cold-Clip and film warm: Put the Cold-Clip between your body and arm while the picture develops.



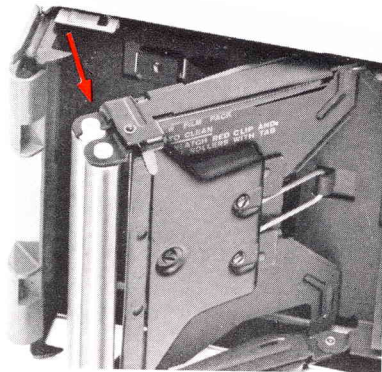
5. Time development: Let the picture develop for 60 seconds inside the Cold-Clip, then remove the "sandwich" and separate the picture in the usual way.

Occasionally, developer may leak from the edges of the developing picture and stick to the Cold-Clip. Avoid contact with this material and before using the Cold-Clip again clean it with a damp cloth. **Please be sure to read the CAUTION notice on page 44.**

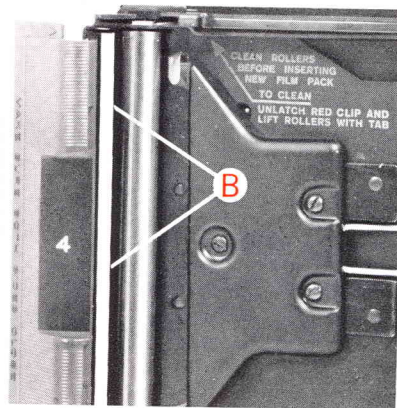
Don't use the Cold-Clip for black and white pictures.



KEEP THE ROLLERS CLEAN: Signs that they need cleaning are (1) a yellow tab does not pop out when a white tab is pulled; (2) developer chemicals are smeared on the back of a picture; (3) there are repeated spots on the face of the print. Inspect the rollers



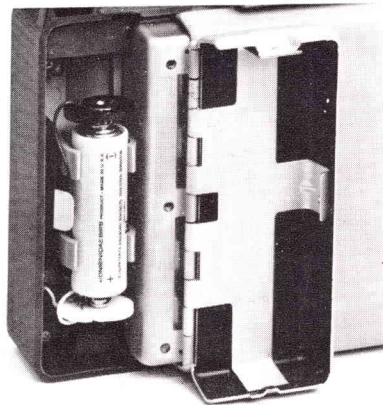
frequently; if possible, do it before loading each new film pack. Lift up the red latch (A). Swing out the rollers; turn and inspect them, especially at the ends. Wipe the rollers clean with a damp cloth, dry them. Never scrape them with anything metallic, nor with



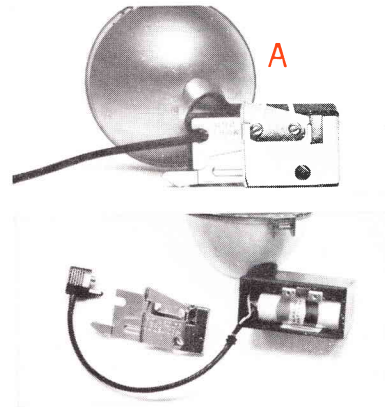
your fingernail. Open the tab slot door; clean out any dirt around the tab slot (B). Blow out lint or dust in the back of the camera. Push the roller assembly back into place.



CLEAN THE LENS GENTLY: Never use silicone coated eyeglass tissue on it. Blow dust off or brush it off lightly. Breathe gently on the lens to moisten it, wipe lightly with clean, dry, absorbent cotton. Also clean the lens over the electric eye.



REPLACE BATTERIES EVERY YEAR: The battery in the camera back powers the electric eye and shutter controls. If it's weak you'll get all-black prints. To get at it, pry open the compartment door. The other battery is in the flash-gun. To replace it, remove the screws



(A) and bottom plate. Install new batteries of the same or equivalent type in the same position as the old ones. See your Polaroid Land camera dealer for batteries.

HOW TO MAKE BLACK AND WHITE PICTURES IN DIM LIGHT

With 3000 speed film you can shoot pictures without flash in the shade or on a dark, cloudy day. If there's plenty of window light coming from behind the camera you can even make pictures indoors, such as the big one opposite.

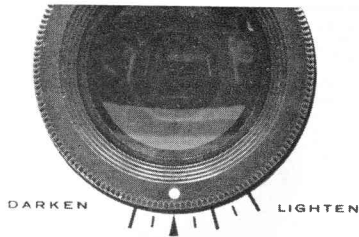
Provided that the light on the subject is even and there are no deep shadows or bright lights in the scene, the electric eye can make a long but correct time exposure — it may be 1/10 sec. or even a full second. The camera must be rock-steady or pictures will be blurred.

Hold No. 2 button down and don't move until you hear the second click as the shutter closes. Then you can move and let No. 2 button up.

This kind of lighting is not recommended for color pictures, unless you are trying for special effects.



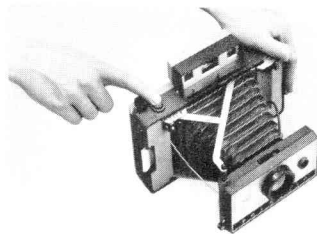
How to set the camera: Move the Film Selector to 3000 and set the L/D control at the Normal position.



320



How to hold steady: Rest your elbows on a firm support. Or, place the camera on a table top, car hood, etc.





You can make a silhouette: Place a subject between the camera and a bright window and you get this result.

COPIES AND ENLARGEMENTS

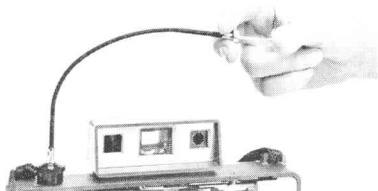
It's easy to get copies and enlargements, both in color and black and white; 35mm slides can also be made from your favorite Polacolor pictures. Just use the form packed with your film or camera to order them from Polaroid Copy Service.

The reproductions are sharp, clear, and remarkably faithful to your original Polaroid picture. Copies are available in either the popular $3\frac{1}{4} \times 4\frac{1}{4}$ in. size or the $2\frac{1}{2} \times 3\frac{1}{4}$ in. wallet size. Beautiful mounted enlargements can be made in 5 x 7 in. or 8 x 10 in. sizes. They make handsome gifts for birthdays or anniversaries. You can also order holiday greeting cards featuring your favorite Polaroid Land picture. Service is prompt and as convenient as your mailbox.

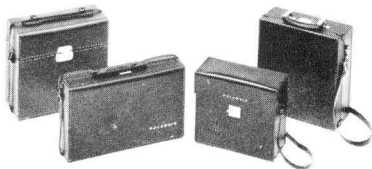


SOME HELPFUL ACCESSORIES

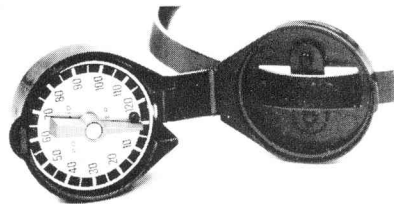
www.orphancameras.com



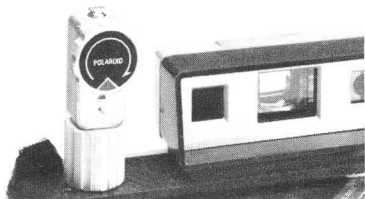
Cable release #191, with plastic adapter, fits over No. 2 button. Great for time exposures.



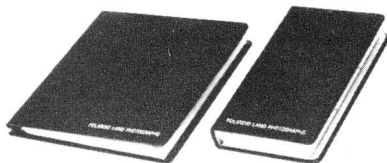
Cases #324, #322, #326 and #325 hold camera, spare film packs, flashgun, bulbs, other accessories.



Development Timer #128 fits on camera strap, times development of your pictures.

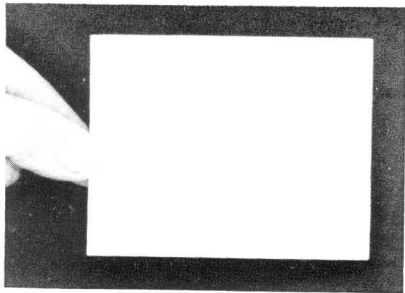


Self-timer #192 fits over No. 2 button, lets you get into your own pictures.



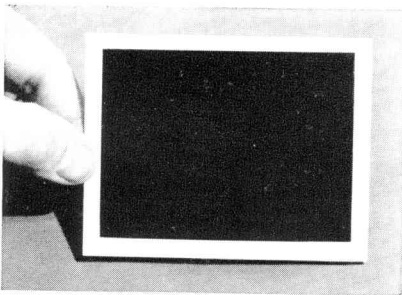
Albums #519 and #521 hold 72 prints each. Bigger Deluxe #521 (left) has expandable metal binder.

These simple accessories can add much to your picture-taking pleasure. See your Polaroid camera dealer.



WHITE, FAINT IMAGE OR NONE

Film was greatly overexposed or light-struck. If it happens with 3000 speed black and white film, you probably had the Film Selector set to 75. Reset it to 3000. Both color and black and white films will be light-struck if you pull out the safety cover before putting the film pack in the camera or if you remove a film pack from the camera after pulling the safety cover.



BLACK, FAINT IMAGE OR NONE

If no details are visible, no light reached the film. Perhaps you didn't reset No. 3 button. Or you put into the camera the moisture absorbing card packed with color film. Or the camera front wasn't pulled all the way out and locked. Or the battery is dead. Or the shutter is damaged. If a color print shows faint details, the Film Selector probably was set to 3000. Reset it to 75.



REPEATED SPOTS

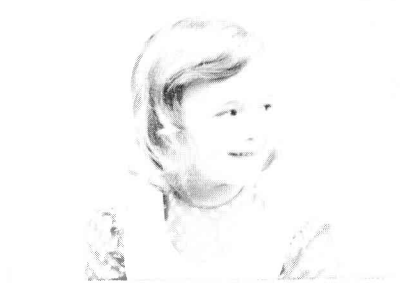
Usually they are white, but they may be reddish-orange on color pictures. Marks like these show that the steel rollers are dirty. Inspect and clean them frequently (page 32).



TOO DARK: ALL PICTURES

Underexposed, probably because the L/D control was set incorrectly. For pictures outdoors or by direct flash, set it to Normal. If that's where it was to begin with, turn it toward **LIGHTEN**.

Daylight pictures will be badly exposed if the flashgun is plugged in. Check that the flashgun is not plugged in when making daylight pictures.



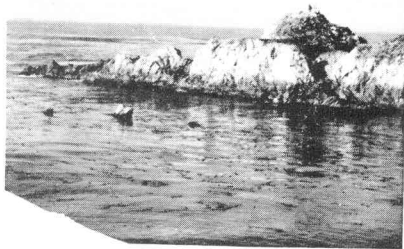
TOO LIGHT: ALL PICTURES

Overexposed, probably because the L/D control was set incorrectly. For most pictures, set it to Normal position. If that's where it was to begin with, turn it toward **DARKEN**.



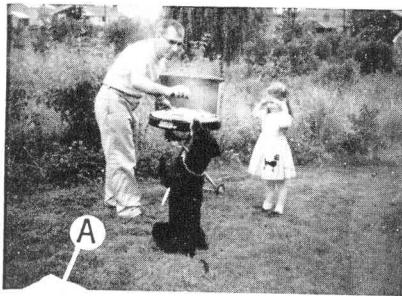
U-SHAPED WHITE AREA

Several possible causes: One or more white tabs were folded under when you loaded the film pack (avoid this as shown on page 14, photo 5). Or, you pulled the yellow tab too slowly. Or, there may be dirt on the ends of the rollers; keep them clean (page 32). Or, in some way you squeezed the tab slot end of the camera back while pulling the yellow tab (see page 24 for the correct way to hold the camera).



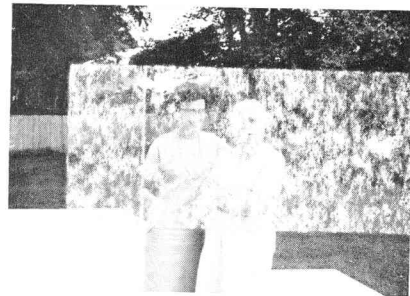
UNDEVELOPED EDGES OR CORNERS

Usually caused by pulling the yellow tab out at an angle. When this happens the developer is not spread evenly over the picture and edges and corners may not develop. Pull the yellow tab out straight and at medium speed, all the way (pages 24, 25).



ORANGE-RED MARKS ALONG EDGE

Reddish-orange marks like these (A) along the edge and/or in the corners of a color print generally indicate that the yellow tab was pulled out of the camera at an angle. Pull the yellow tab out straight and at medium speed, all the way (pages 24, 25).



OBLONG IN PRINT

The oblong is pink or red in a color picture. You didn't pull the white tab all the way out of the camera. As a result, when you pulled the yellow tab, the white tab was dragged back into the camera and spoiled the picture.

Always pull the white tab right out of the camera (page 24).



MANY WHITE SPECKS

They are a sign that you pulled the yellow tab too swiftly; slow down a bit. Sometimes, white specks may appear only at one side of the picture. The cause is the same.



MUDDY LOOKING PRINT

It wasn't developed long enough. Develop both black and white and color prints for the full time recommended in the film instruction sheet. This is most important in cool or cold weather. See page 30 for details of how to use the Cold-Clip with color prints. If you don't develop long enough, color prints will be brownish-pink over-all; black and whites will be muddy gray.



SUBJECT FUZZY, REST SHARP

If the subject didn't move but is unsharp you didn't focus carefully. Check pages 8 and 9 to be sure that you are focusing in the proper manner.

PROTECT FILM AND CAMERA FROM HEAT

Extreme heat and high humidity can damage your films, especially after the film pack has been placed in the camera. Don't leave a loaded camera or packages of film lying in direct sun. Remember that the glove or luggage compartment of a car can get as hot as an oven. If you store film or a loaded camera in a closet, keep it near the bottom where the air is cooler. Don't remove a film pack from its sealed foil inner wrapping until you are ready to use it.

FOR MORE INFORMATION

If you have any problems with the camera or film that are not explained here, write to CUSTOMER SERVICE, POLAROID CORPORATION, CAMBRIDGE, MASS. 02139 or, if you are overseas, to the nearest Polaroid office (see next page for addresses). Send sample pictures with full information and, most important, state what model camera you have. Please be sure to include a clearly printed or typewritten return address.

WARRANTY

If, through any human or machine error at time of manufacture, any part or workmanship in this camera proves defective, we will repair it at no charge providing the camera is shipped by prepaid transportation to the nearest Polaroid

repair station listed on the next page, or to the nearest authorized repair station. This warranty covers the camera for one year from date of original purchase.

The warranty does not cover (and charges will be made for) batteries or repairs required to correct damage from battery leakage, accident, dropping, mishandling, wear and tear, or rough or heavy use. Only authorized repair stations have the properly trained staff, and the approved tools, testing equipment and parts to repair these cameras. No reimbursement can be made for repair charges made by non-authorized repair stations. Tampering with the camera, or having it repaired by a non-authorized repair shop, voids the warranty and charges will be made for any subsequent work that may be required.

No liability is assumed for film or flashbulbs which may be spoiled by a camera failure. Any operating difficulty should be reported at once to prevent needless film waste.

If it becomes necessary to return your camera for repair, your dealer can do so for you, or you may ship it direct to the station located nearest to you. Pack the camera carefully in its original protective box for safe travel, and mail it by prepaid INSURED parcel post. Enclose a note describing the reason for the return and/or pictures illustrating the problem.

If the problem concerns flash pictures, be sure to return the flashgun with the camera and in the same package.

CAUTION: The Polaroid Land process uses a caustic jelly which is safely packed inside sealed containers within the metal-plastic pack. 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 reach of children and animals, and out of contact with clothing and furniture, as discarded materials still contain some jelly.

SIX RULES FOR SUCCESS WITH THIS CAMERA

- 1. OUTDOORS IN DAYLIGHT:** Always have the light on the subject coming from behind you or from the side.
 - 2. INDOORS WITH FLASH:** Always use flash for indoor pictures and always try to have a light colored background a few feet behind your subject. For best results, stand about 5 ft. from your subject.
 - 3. FOR SHARP PICTURES:** Always focus carefully with the rangefinder, particularly for color pictures.
 - 4. FOR TAB PULLING:** Always pull the tabs out straight, smoothly, at medium speed.
 - 5. WHEN DEVELOPING:** Always develop pictures for the full time given in the film instructions.
- AND**
- 6. MOST IMPORTANT:** Always keep the steel rollers clean. If they are dirty, you cannot get good pictures.