Polaroid Automatic 100 Land Camera

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HOW TO GET THE MOST OUT OF THIS CAMERA

The Automatic 100 is one of the world's easiest-to-use cameras, once you understand a few simple techniques. However, because this camera is completely unlike anything you've ever seen before, it is very important that you learn these operating steps or you're bound to waste film and money and be disappointed with your picture results.

Before you load your camera with film, please be sure to read carefully the first two sections in this booklet: Getting Acquainted, and Operation (the blue edged pages). As you read the text and look at the pictures, go through all the motions of using the camera — without film. Then you'll be completely familiar with it before you make your first picture. And that's as it should be.

Once you get the simple operating routine down pat, load a film pack. We suggest that you start with black-and-white. Please remember that even the finest camera and film need some help from the photographer if they are to produce good pictures. That help can be summed up in one sentence: **Plan and think before you shoot.**

Don't just snap away carelessly. You should be able to get eight satisfying pictures from each pack. But unless you plan each picture and think about what you're going to do you'll waste your film.

As a quick guide to help you get a good picture every time, here are seven helpful hints. They're important.

1. In natural light pictures **always have the light on the subject coming from behind you.** For best color pictures place your subjects in bright sunshine.
2. **Move in close,** to get a big image in the print.
3. **Choose colorful subjects** for your color pictures.
4. **Pick a good background,** particularly with flash.
5. **Pull the tab correctly.**
6. **Time development carefully.**
7. **Keep an eye on the temperature.**

As you go through this booklet you'll find these seven points explained in detail. They can make the difference between getting good pictures and poor ones.

HOW TO OPEN THE CAMERA
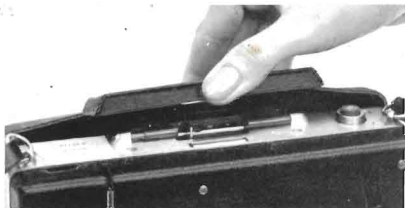
1. Magnet holds cover down. Lift back edge.

2. You can let cover hang down or . . .

3. . . . to remove it, push spring (arrow) and lift.

4. Lift finder up and back; magnet will grip it.

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

6. Pull camera front out as far as it will go.

PHOTO 6, IMPORTANT: Be sure to pull the camera front out until there is a definite click and the locking bar (arrow) snaps into place. If the front isn't fully out and locked, your prints will come out all black, or badly blurred.

This booklet is designed to fit neatly inside the cover under a spring clip (photo 2).

3

HOW TO CLOSE AND COVER THE CAMERA
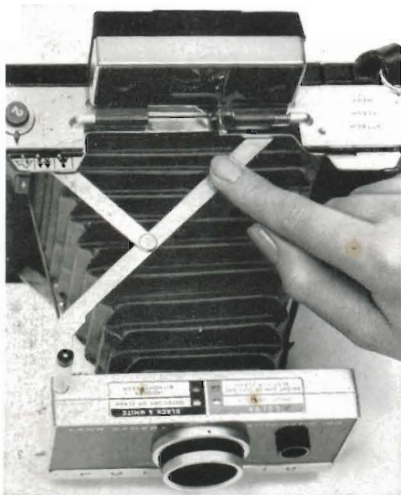
Press down on the locking bar. This releases the front of the camera. Push the front in all the way until it locks.

A magnet holds the finder up. Fold the finder down gently. Try not to bang it on the camera.

If you have removed the cover: to replace it slide the hinge down over the lock spring until it snaps into place (top). Swing the cover up and over; the magnet on top of the camera will hold it.

HORIZONTAL: Grip the two ends. Place your forefingers on the No. 1 buttons; you can easily shift the right forefinger to 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 (center). Or, turn it so your right hand is at the top (right). Either way, brace the camera against your forehead and face.

HOW TO USE THE VIEWFINDER
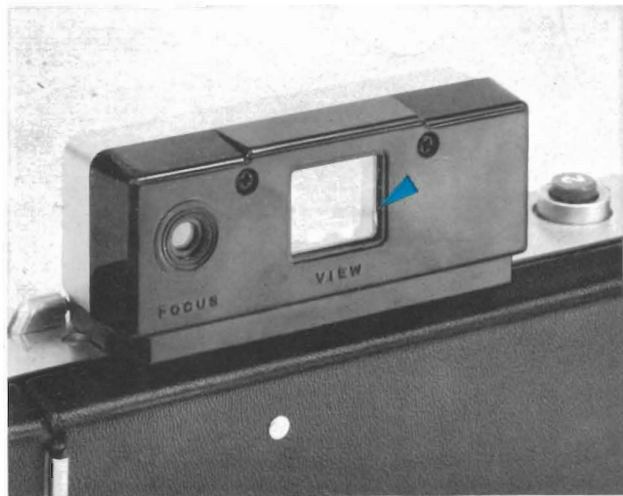
Looking through the viewfinder window (arrow) you'll see a bright, white broken line. Frame the scene with this line. Always try to look through the center of the window and concentrate on your subject, not on the white line. If your subject is very close (3½ ft., for example), allow a little extra space between your subject and the top frame line (above). If not, you may accidentally cut off the top of someone's head in your picture.

HOW TO FOCUS THE CAMERA
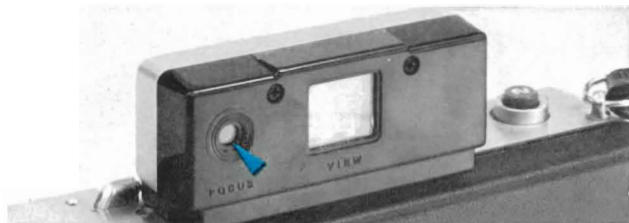
Look through here at the bright spot. ▲

▼ Push No. 1 buttons.

OUT OF FOCUS

IN FOCUS
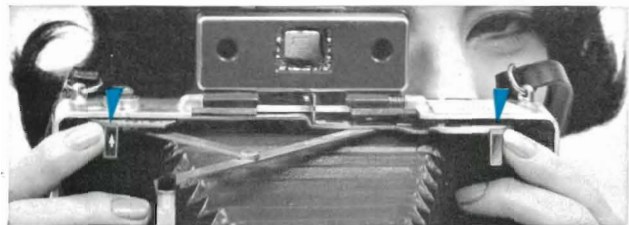
Holding the camera horizontal, place your forefingers on both No. 1 buttons as shown and push them all the way to your left. Look through the Focus window and aim the bright spot in the center at a nearby subject (about 5 ft. away, for example). You should see two images of your target in the bright 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, focus with the camera horizontal; turn it to aim and shoot.

7

WHAT THE FILM SPEED DIAL DOES

For color film. ▲

▼ For black-and-white film.

The film speed dial (blue arrow) sets the exposure controls for the kind of film you are using. For color film turn the dial to 75; for black-and-white film turn to 3000. If you don't do this, the electric eye (white arrow) can't make a correct exposure. To prevent accidental turning, this dial has a strong spring. It must be turned a rather long way to make it snap to its next position. The other numbers (besides 75 and 3000) are for films that may be sold in the future.

WHAT THE LIGHTING SELECTOR DOES

▲ Move the blue knob this way . . .

to set the blue squares as shown here. ▲

▲ Move the blue knob this way . . .
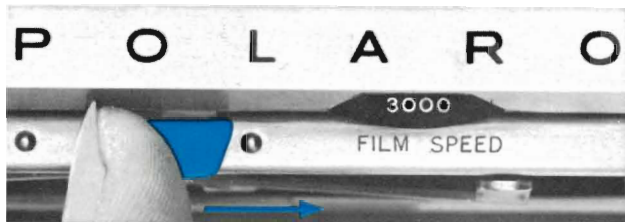
to set the blue squares as shown here. ▲

Are you shooting color or black-and-white, and what kind of light are you going to use? Outdoor daylight, bright or dull? Ordinary room light? A flashbulb?

When you decide, move the blue knob as shown to set the blue square for the kind of lighting you are going to use for that picture. If the camera is loaded with color film, look only at the red part of the Lighting Selector; with black-and-white film, look only at the black part. Just move the blue knob and set the blue square where you want it.
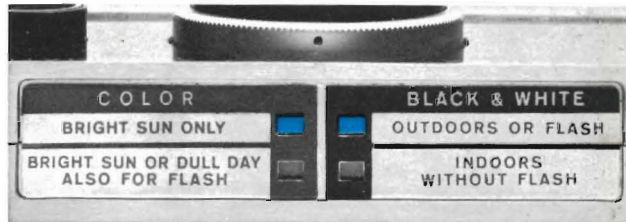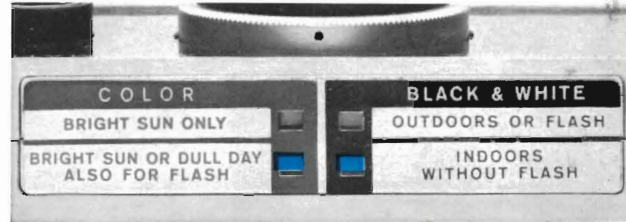
9

PRACTICE THE 1, 2, 3 SYSTEM

ONE is for focusing. Look through the Focus window and aim the bright spot at various subjects. Push the No. 1 buttons and practice bringing together the two images of your subject in the bright spot to make one clear image.
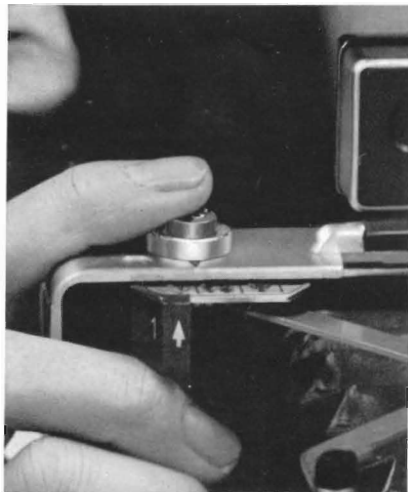
TWO is for shooting. Practice pressing the No. 2 button slowly until the shutter clicks. In dim light hold No. 2 down and stay very still until you hear the second click as the shutter closes. Then you can move and let No. 2 up.
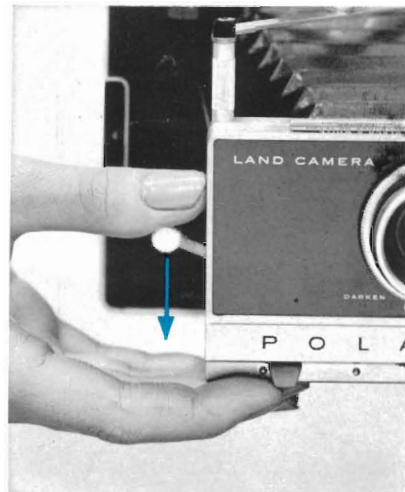
THREE is for resetting. Right after snapping a picture, always push down No. 3 button firmly until it locks and stays down. This resets the shutter for the next picture. If you don't reset No. 3 button, you won't be able to shoot,
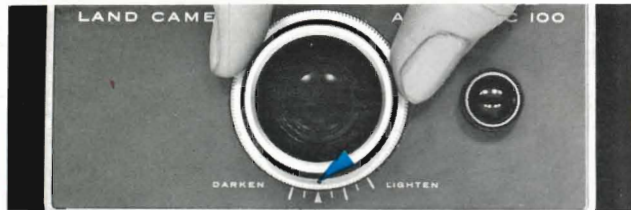
Normal position for most pictures.   ▲ Front view.   ▼ Top view.

To make prints darker. ▲

▼ To make prints lighter.

For all black and white daylight and flash pictures, set the black dot on the L/D control at the "Normal" position (arrows).

For color pictures the L/D control will not always be set to the "Normal" position shown above. On some color film packs you'll find printed instructions to set the L/D control one mark toward Lighten for all pictures made with that particular pack. For best results, please follow those instructions, which may vary from pack to pack.

The new position of the L/D control then becomes the "Normal" setting for all pictures made with that pack. You can still make your pictures lighter or darker, as desired, (p. 26) with the L/D control; only the "Normal" position is different for that pack. If there's no special instruction on the pack, set the L/D control as shown at top left.

Check all color packs for special L/D control instructions.

HOW TO LOAD A FILM PACK: THE IMPORTANT FIRST STEP
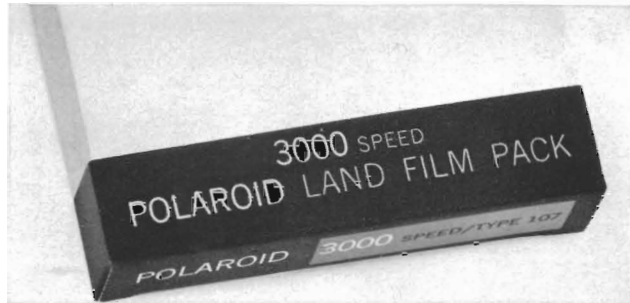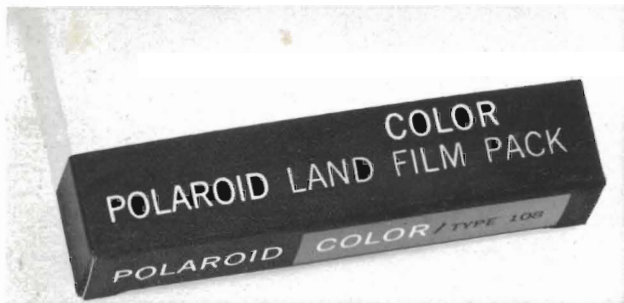
SET FILM SPEED: When you decide whether you are going to load color film or black-and-white, set the film speed dial to the right number — 75 for color, 3000 for black-and-white. Do this before anything else, so you won't forget to do it. If the film speed dial is set wrong, your pictures won't come out right; they will be all white or all black.

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

OPEN THE FILM AND SAVE THE BOX

Open the top of the box. With color film there's a set of mounts; with black-and-white film there's a coater. Remove these and the instruction sheet (please read it). Pull out the film package. Handle it gently, carefully. Save the box to carry prints in safely. It also can be very useful for coating black-and-white prints.

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 package along the dotted line. When the side is open, rip apart the front and back of the package. Lift out the pack. Dispose of the little package of silica gel. Always handle the pack by the edges only.

HOW TO LOAD A FILM PACK (cont.)
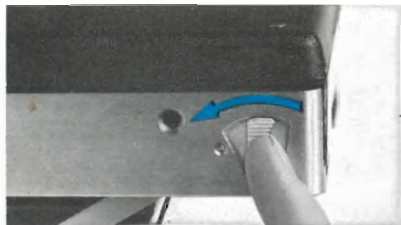
1. Push the back door latch; the door will pop up.
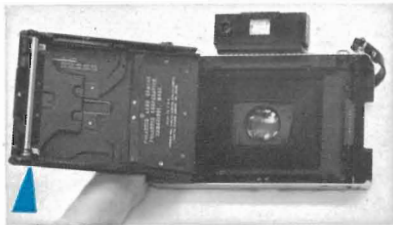
2. Open it all the way. Are the rollers (arrow) clean? If not clean them as shown on page 39.

3. Hold the film pack by the edges this way so the printing on the safety cover faces the lens.
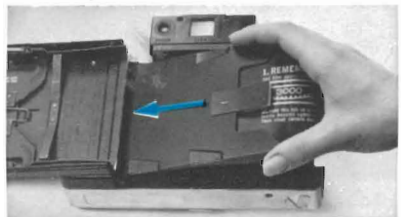
4. Push the closed end of the pack under the door hinge, against a light spring tension.
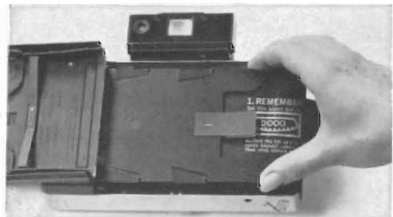
5. Push the pack down into the camera. You'll feel it snap into place.

6. Be sure the white tabs are not folded under. Close the back door. Press both sides firmly to be sure that both sides latch.

AFTER YOU LOAD BE SURE TO MAKE THESE CHECKS

1. The black tab of the safety cover must stick out of the small slot (No. 4). If not, reopen the back, lead the tab out.

2. & 3. Pull the safety cover all the way out of the camera without stopping. Don't rip it!
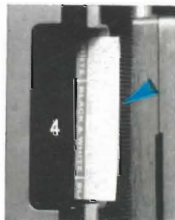
4. With the safety cover out, the white tab (arrow) should stick out of the small Slot (No. 4). Don't pull the white tab. You're now ready for the first picture.
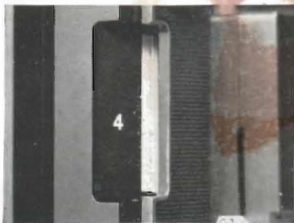
5. If there's no white tab to pull, do the following in the shade or indoors, not in the bright sun.

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

7. 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.

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HOW TO SET THE CAMERA FOR A COLOR PICTURE

To set the blue square here ▲
move the blue knob this way ▼

ALL-PURPOSE SETTING: Use this for practically all your color pictures — in bright sun, in the shade, or on a dull day. Also for flash pictures indoors or for long exposures in dim light. At this setting the lens is at its widest opening and you must focus carefully. Check that Film Speed Dial is set to 75.

To set the blue square here ▲
move the blue knob this way ▼

EXTRA DEPTH SETTING: Use this only for subjects in brightest sun, or when you want to add "depth" to your picture by getting more near and far objects into focus at the same time. The lens opening is smaller and the shutter speed slower than at the All-Purpose setting. Check that the Film Speed Dial is set to 75.

16   Set the L/D control as shown, unless instructions printed on the film pack show a different setting.

USE BRIGHT SUN, COMING FROM BEHIND YOU: You'll get strongest colors if your subject is in bright sun (but you can also get pleasing results on a hazy or overcast but very bright day). Stand so the light on the subject is coming over your shoulder. Don't have the subject between you and the sun; your picture will be too dark.

WATCH THE BACKGROUND: The light on the background, behind your subject, should be just about as bright as the light on the subject. Don't photograph someone in the shade if the background is out in the open and brightly lit. The strong light behind the subject will "fool" the electric eye; your picture will be too dark (see page 28).

MOVE IN CLOSE: The bigger your subject is in the print, the more color and detail you'll be able to see, and the better the picture will look. For scenic pictures, try to get something big into the foreground to help fill the print.

HAVE PLENTY OF COLOR: Look for subjects and backgrounds with strong, bright colors in big, solid chunks. If your subject isn't wearing colorful clothes, add color with a bright shirt, scarf, or jacket. Or, find a colorful background

— anything that will fill at least one-third of the picture area with strong, solid color. Don't expect colorful pictures of people in dark clothes or wearing delicate pastel colors or white; plain, drab backgrounds won't add color to your prints.

TIME DEVELOPMENT CAREFULLY: Follow the recommendations in the film instruction sheet. These may change from time to time. Use an accurate timepiece. If you have a Polaroid Development Timer, check it occasionally against a watch with a second hand; if it's fast or slow, allow for this when developing your pictures. Prints that are overdeveloped may look too bluish; those that aren't developed long enough will have a pinkish cast and the colors will be weak.

KEEP AN EYE ON THE TEMPERATURE: Cold weather or excessive heat can affect the quality of your pictures. Be sure to read page 25, which explains how the temperature affects your pictures and what to do about it.

IF YOUR PICTURE IS TOO DARK OR TOO LIGHT: Use the L/D control as shown on page 26 to make the next one of the same subject, in the same location and lighting conditions, come out exactly as you want it to.

Never try to use flash with daylight color pictures. It won't work and your picture will be too dark.

HOW TO SET THE CAMERA FOR A BLACK-AND-WHITE PICTURE

To set the blue square here ▲
move the blue knob this way ▼

To set the blue square here ▲
move the blue knob this way ▼

OUTDOORS OR FLASH SETTING: Use this for all subjects in daylight outdoors, in bright sun, in the shade, or on cloudy days. It's also for all flash pictures in rooms of average size. Check that the Film Speed Dial is set to 3000 and the L/D control is at Normal.

DIM LIGHT SETTING: Use this for pictures without flash indoors or in other dimly lit places, and for outdoor night scenes. With light from windows or fluorescents, set the L/D control at Normal; with ordinary tungsten lamps set it halfway to Lighten (see page 29). Check that the Film Speed Dial is at 3000.

For Pictures Outdoors

USE BRIGHT, EVEN LIGHT, COMING FROM BEHIND YOU: Place yourself so the light on the subject is coming over your shoulder. Don't have the subject between you and the sun. For portraits you'll get best results when a cloud blocks the direct sun, or on an overcast but bright day, or in open shade.

For scenic pictures, avoid high overhead sun, shoot with the light coming from behind you and from the side.

WATCH THE BACKGROUND: The light on the background, behind your subject, should be just about as bright as the light on the subject. Don't photograph someone in the shade if the background is out in the open and brightly lit. Strong light behind the subject will "fool" the electric eye (page 28).

For Pictures Indoors

HAVE THE LIGHT COMING FROM BEHIND YOU: Whether the light is coming from a window or from lamps it should come from behind you or from directly over your head.

THE LIGHT MUST BE EVEN: The electric eye can set correct exposure in quite dim light, provided that the scene is evenly lit. But if part of the scene is brightly lit and the rest is in shadow you won't get good results.

DON'T INCLUDE WINDOWS OR LAMPS: If there's a sunlit window or a strong lamp behind your subject or elsewhere in the scene, this light will "fool" the electric eye (page 28).

USE A TRIPOD; HOLD DOWN No. 2: In dim light, exposures may be as long as several seconds. Use a tripod to steady the camera. Hold No. 2 button down until you hear the shutter click a second time as it closes (page 29).

For All Pictures

MOVE IN CLOSE: The bigger your subject is in the print, the more details you'll be able to see. For scenic pictures, try to get something big and solid looking into the foreground to help fill the print.

TIME DEVELOPMENT CAREFULLY: Follow the recommendations in the film instruction sheet. These may change from time to time. With black-and-white film no harm is done if you overdevelop for a few extra seconds; in fact, it may improve some pictures. However, if you develop for less than the recommended time, your pictures will be of poor quality, with a gray, washed-out look.

KEEP AN EYE ON THE TEMPERATURE: Cold weather can affect the quality of your pictures. Be sure to read carefully page 25, which explains how the temperature affects your pictures and what to do about it.

IF YOUR PICTURE IS TOO DARK OR TOO LIGHT: Use the L/D control as shown on page 26 to make the next one of the same subject, in the same location and lighting conditions, come out exactly as you want it to.

HOW TO TAKE A PICTURE!

FRAME
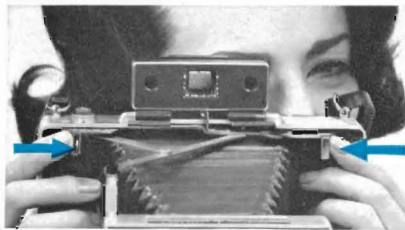
FOCUS

AIM

1 **FOCUS:** Look at your subject through the View window. Come close enough to fill most of the frame. Shift your eye to the Focus window. Push the No. 1 buttons until the bright spot shows a single clear image of the most important part of your subject. Shift your eye back to the View window, center your subject in the white frame.
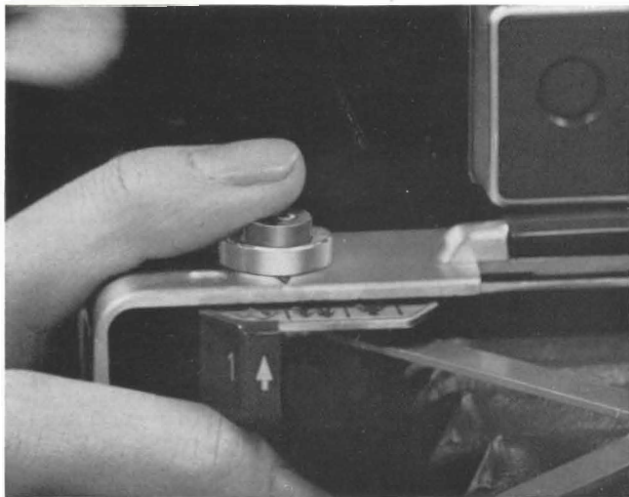
2 **SHOOT:** Firmly but smoothly press button No. 2, the shutter release, until you hear a loud click. Don't jab at No. 2 — you may shake the camera. When shooting color in the shade or black-and-white indoors without flash, hold No. 2 down and don't move until you hear a second click as the shutter closes. Then let No. 2 button come up.
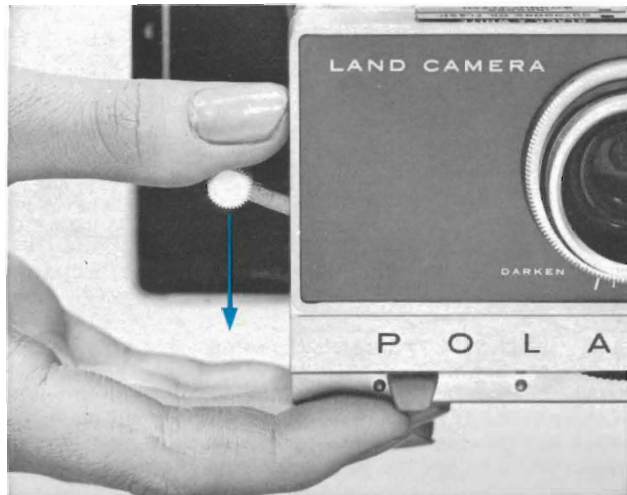
3 **RESET:** Immediately after snapping a picture, press No. 3 button down firmly until it locks and stays down. This resets the shutter so you'll be ready for the next picture. Always reset No. 3 right away.

HOW TO DEVELOP THE PRINT

First, the small white tab. Pull it all the way out of the camera, straight.
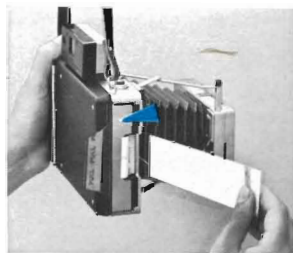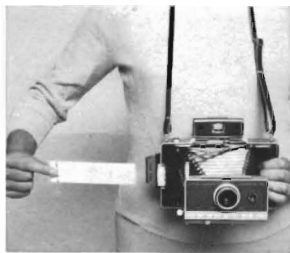
Don't block this door (arrow)
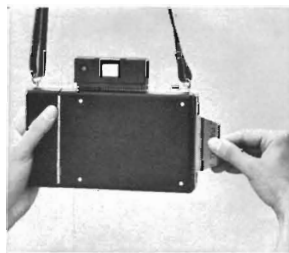
Next, the large yellow tab.

4 **PULL THE TABS:** Hold the camera in your left hand, as shown. (**Don't hold it any other way!**) Grasp the small white tab between the thumb and forefinger and **pull it straight** out of the camera, all the way, without stopping. When you pull the white tab out, a concealed door (arrow) opens and a yellow tab pops out. Don't block this door in any way while pulling the tabs.

Pulling the small white tab does not start development. It only prepares the film for the next step, which is pulling the yellow tab. Grip the yellow tab in the center so it will come out straight when you pull it out of the camera. If you pull the yellow tab out at an angle, one edge of your picture may not develop properly (see page 45).

If no yellow tab pops out when you pull the white tab, stop. Don't pull another white tab. Page 24 shows you what to do in this situation.

Never pull a white tab when you can see a yellow tab. If you do so accidentally, don't pull the yellow tabs that appear or you'll spread developer all over the rollers. Instead, as shown on page 24, carefully open the camera back, disengage the tabs from the tab slot and rollers, remove the two picture assemblies, and close the back.

When you pull the yellow tab, hold the camera so the lens faces straight ahead of you, not pointing down. This, plus gripping the center of the tab, helps you to pull it out straight.
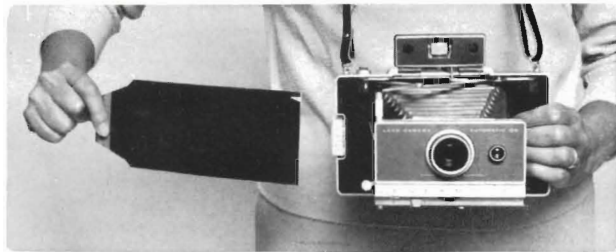
Pull it straight out of the camera, swiftly. Begin timing development.

Lift off the white print quickly.

Fold up the negative.

Pull the yellow tab straight out of the camera all the way, swiftly, without hesitating. This starts development of your picture, so begin timing as soon as you get the tab out. How fast is a swift pull? It should take about as long as it takes you to say "PULL IT" briskly, each time you pull the tab. If your picture is full of white specks, pull a bit slower.

The picture develops outside the camera. While it's developing, hold the tab by the yellow tip, or lay the picture assembly down flat. Don't touch or bend the white paper or lift it off. Outdoors, don't let the picture assembly flap in the breeze. Develop the picture for the full time recommended in the film instruction sheet.

After the recommended development time, quickly strip the white print off the brown paper starting from the end nearest to the word PULL. A color print will look nearly dry, but don't touch the face for a few minutes. It will harden to a tough, glossy finish. When it is dry, mount it on a color print mount, which is supplied with the film.

Don't touch the face of black-and-white prints. You must coat them to prevent fading and other damage (see page 27 for how to coat prints).

To avoid contact with chemicals left after the print is removed, fold up the negative with the moist side in. Please put it in a waste basket or film box. Don't be a litterbug!

Check the temperature! It's important. See page 25.

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Don't pull another white tab. Instead, gently open the camera back just enough to get one finger under it to hold down the film pack and keep it in place. Do this indoors
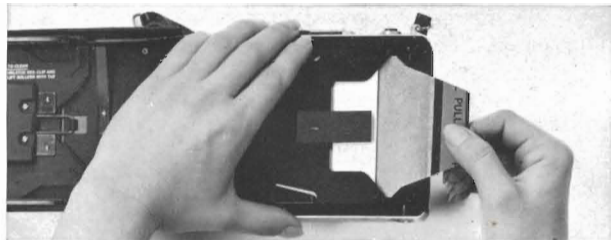
or in the shade. While holding the pack down lightly (picture at left) slowly open the back all the way and take hold of the topmost yellow PULL tab, as shown.
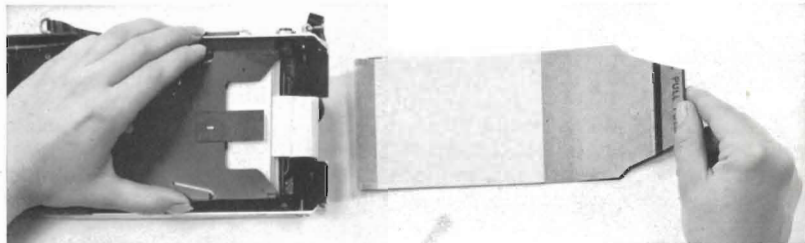
Gently pull the entire picture assembly all the way out of the pack and discard it. Don't try to save it. While the back door is open check that the rollers are clean (p. 39).
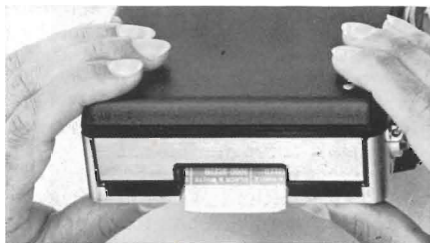
Close the back of the camera, making sure that the next white tab sticks out of the small slot next to No. 4. Check that both sides of the back latch securely.

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, pop back in again in a minute and develop the picture normally.

Both color and black-and-white films develop well in a fairly wide range of warm and cool temperatures. However, 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 (page 39). So, when it's hot, be extra careful to keep the rollers clean (page 39).

HOW TEMPERATURE AFFECTS COLOR FILM

The normal developing times for color film are set for temperatures of 70°F and warmer. When it's a bit 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 and below, the chemical action is so sluggish that the picture won't develop well without help. That help is the Cold-Clip (page 46). Prints developed in cold weather without using the Cold-Clip will be dark, with muddy colors.

Whenever it's cool enough so that you must wear warm clothes to be comfortable, use the Cold-Clip.

If you're pleasantly cool in shirtsleeves or a thin dress, normal developing times probably will do.

But when you're sweltering and can think only of a cool drink and a swim, it may be too hot for best results with color film; your prints may show weak colors. For more details, see the film instruction sheet.

HOW TEMPERATURE AFFECTS BLACK-AND-WHITE FILM

The film's normal range of developing times gives good results in temperatures of 60°F and above.

When the temperature of film and camera is below 60°F, develop for a longer-than-normal time. For details see the film instruction sheet.

Never use the Cold-Clip with black-and-white film.

HOW TO MAKE PRINTS LIGHTER OR DARKER

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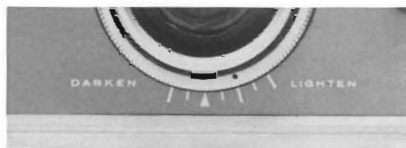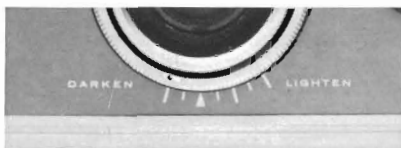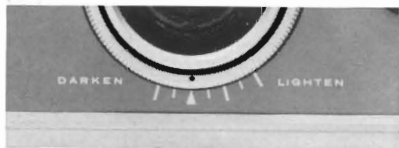
Most pictures made with the light coming from behind you or from the side will be well exposed with the L/D control at Normal position (left, above), but sometimes you may prefer a lighter or darker print. To lighten or darken the next print of the same subject, in the same lighting conditions, adjust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

On some color film packs you may find a printed instruction advising you to set the L/D control one mark toward Lighten for all pictures made with that film pack. Please follow those suggestions. For more details, see page 11.

BLACK-AND-WHITE PRINTS MUST BE COATED

Black-and white prints should be coated as soon as possible to protect the face of the print from scratches, fingerprints, and fading.

In each black-and-white film box there's a tube containing a coater. This is a wad of absorbent material soaked with a clear liquid; it's in a plastic handle.

Lay the print, face up, on a clean smooth surface, such as a piece of paper on a table, and hold it down by one edge. An empty film box will do; open the ends of the box and press it flat.

Remove the coater from the tube. Spread the liquid straight away from you over the ENTIRE print, including the borders. Use 6 to 8 straight overlapping strokes and moderate pressure. Don't scratch the print with the edge of the coater. To get more liquid out of a partly used coater, press it down on the near end of the print; then spread the squeezed-out liquid across the face of the print.

The coating dries quickly and forms a tough protective layer over the image. For more details about coating see the film instruction sheet. Keep freshly coated prints away from each other, or they will stick together.

NEVER TRY TO COAT COLOR PRINTS!
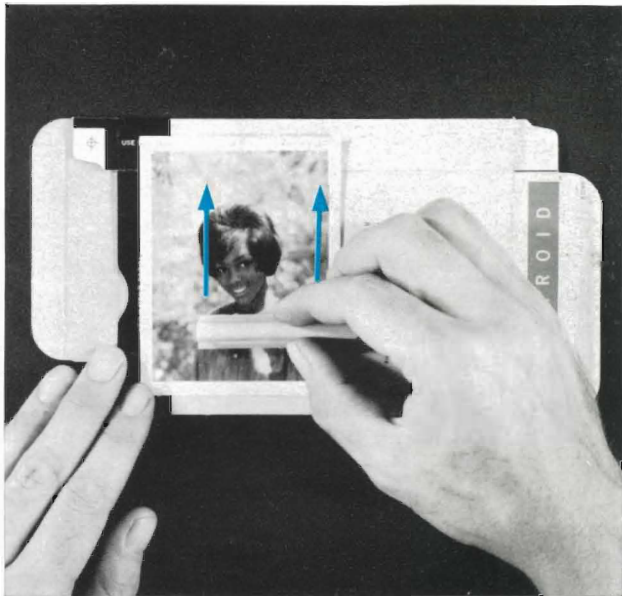
TROUBLESOME LIGHTING SITUATIONS TO AVOID

Face in shade, bright sun behind.

Bright window behind or near subject.

Bright lamp behind or near subject.

When you aim your camera at a subject, the electric eye measures the brightness of the entire scene and sets the exposure for what it "sees" there. As long as the light on the main subject is just about as bright as the light on the rest of the scene, the picture will be well exposed.

However, if most of the light comes from behind your subject, or if the light is brighter behind your subject than in front, or if there's a strong light in the scene, the electric eye will be "fooled" and your picture will come out too dark. That's what happened in the three picture situations shown above. The subject's face is in the shade or in a fairly dim light, but either the background is bright or there's a strong light in the scene.

Try to avoid these troublesome lighting conditions. If you have to shoot a shaded subject against a bright background or a strong light, turn the L/D control all the way to Lighten.

To beat this problem, arrange your subjects so the light on them comes from behind you or from the side.

Use a tripod. For verticals, the tripod head must be able to tip sideways.

Set the camera on a solid surface, press the back of it down firmly to prevent movement.

For subjects lit by ordinary household lamps (tungsten bulbs) set the L/D control here.

Brace it against a wall or door.

Rest your elbows on something.
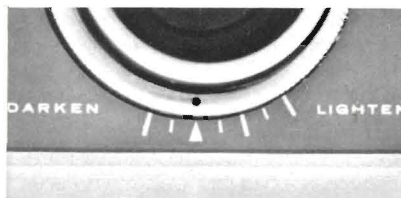
For window light or fluorescents, set it here.

If there's enough light to read comfortably, you can make good black-and-white pictures indoors (or outdoors) without flash. Set the blue square in the Lighting Selector to Indoors Without Flash, and the L/D control as shown (above, right). The shutter will move slowly, so the camera must be rock steady or your pictures will be blurred. Some ways to steady the camera are shown. Try to place your subjects so the light on them is even, without bright spots or deep shadows. Don't include bright lamps or windows in your picture or it will come out too dark. In very dim light the electric eye will make a time exposure, which may be as long as several seconds.

FAST FOCUSING FOR BLACK-AND-WHITE PICTURES

Portraits, up close, 3½ to 5 ft. . . . set the scale here ▼

Groups, other subjects 5 to 10 ft. away . . . use this setting ▼

Scenics, everything beyond 10 ft. . . . set the scale like this ▼

If there's black-and-white film in the camera and you're shooting outdoors in daylight or indoors with flash, it's not always necessary to look through the Focus window in order to get sharp pictures. Just push the No. 1 buttons to preset the Fast Focus Scale (bottom) for the kind of subject you are snapping. Then aim through the View window and shoot. It's handy for pictures of children, pets, etc. in action nearby, or if you want to get both near and distant subjects in focus in the same picture (top, right).

Use the Fast Focus Scale only with black-and-white film outdoors on a bright day or for direct flash indoors. Don't use it in dim light or for bounce flash, or with color film at any time.

1. A removable sticker shows where the flashgun goes. Hold the gun as shown and move it toward the camera so the front hook catches the bright trim.
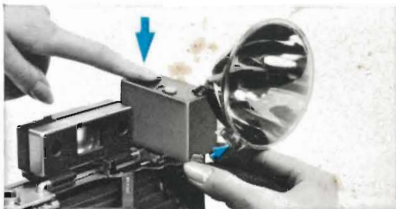
2. Press the back of the gun down and move the lever as shown. When the gun is flat, release the lever. A rear hook on the gun will catch.

3. Push the plug into the outlet (arrow). **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. Put used bulbs in a waste basket, away from children, animals, and everybody's feet.

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

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HOW TO SET THE CAMERA FOR A FLASH COLOR PICTURE

Check that the Film Speed Dial is at 75. Set the blue square next to Flash. **Use only M-3 (clear, not blue) flash bulbs.** Aim the flashgun straight ahead. Close the blue shield. Stand 3½ to 10 ft. from your subject. If you're more than 10 ft. away, the picture may be too dark. Don't shoot flash pictures in explosive atmospheres. This camera is not designed for use with electronic flash units.
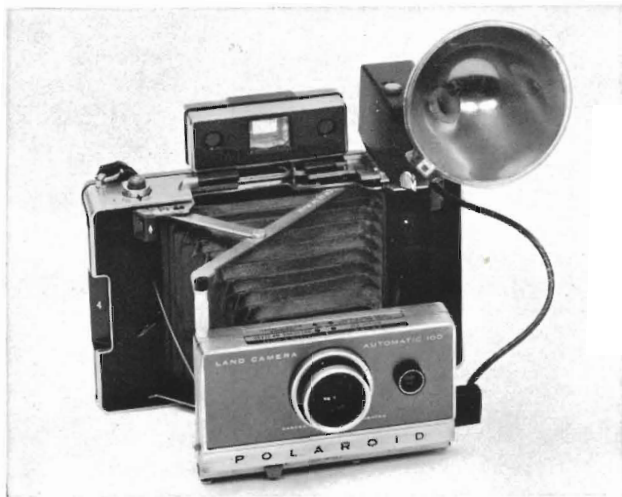
Set the L/D control as shown, unless instructions printed on the film pack show a different setting.

TIPS FOR GOOD FLASH COLOR PICTURES

HAVE PLENTY OF COLOR: Bright colors in big, solid chunks are important for flash shots. If people are wearing colorless clothes, add color with a bright shirt, sweater, etc. Or brighten the background with cushions or drapes.

COME CLOSE, BUT SPARE THE EYES: You'll get best flash results at 4 to 5 ft. Beyond that distance you'll be less able to see details and colors in the print. However, up close the flash may be uncomfortable for people looking right at the camera. Let them look elsewhere. This also reduces "hot spot" reflections from foreheads and noses.

ALWAYS HAVE A BACKGROUND: Don't shoot flash pictures where there's no background or it's far away. Example: Someone in the middle of a church or a big office.

IF THE BACKGROUND HAS BRIGHT, STRONG COLORS: Orange, light red, deep yellow, medium blue, etc. are the best backgrounds. Place your subject about an arm's length in front of the background, set the L/D control to Normal.

IF THE BACKGROUND IS PLAIN WHITE: To get a fairly white wall in the print, place your subject as close to it as possible, turn the L/D control two dots towards Lighten. Or, place your subject about as far from the background as the camera is from the subject, and set the L/D control to Normal. Example: If you're shooting from 4 ft. the white wall ought to be about 4 ft. behind your subject (who should be well exposed, although the wall will be rather dark).

IF THE BACKGROUND IS DARK WOODWORK OR DRAPES: Avoid these. If you must use them, place your subject next to the background, set the L/D control to Normal.

PLACE GROUPS CAREFULLY: Try to get everyone in a group approximately the same distance from the camera so they will be lighted evenly.

TIME DEVELOPMENT ACCURATELY: Follow the recommendations in the film instruction sheet. These may change from time to time. Use an accurate timepiece. If you have a Polaroid Development Timer, check it occasionally against a watch with a second hand; if it's fast or slow allow for this when developing your picture. Prints that aren't developed long enough will have a pinkish cast and weak colors. Overdeveloped prints may have an over-all bluish tint.

KEEP AN EYE ON THE TEMPERATURE: Cold weather or excessive heat can affect the quality of your pictures. Be sure to read page 25, which explains how the temperature affects your pictures and what to do about it.

IF YOUR PICTURE IS TOO DARK OR TOO LIGHT: First check the background (see suggestions above) to determine if it's causing the problem. If not, adjust the L/D control as shown on page 26 to make the next picture of the same subject in the same location come out exactly as you want it to.

Never try to use flash in daylight; your pictures will be too dark.

HOW TO SET THE CAMERA FOR A FLASH BLACK-AND-WHITE PICTURE
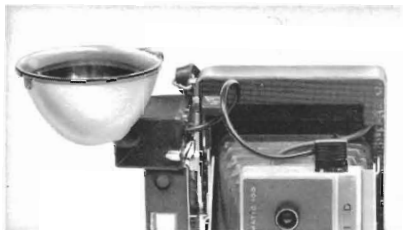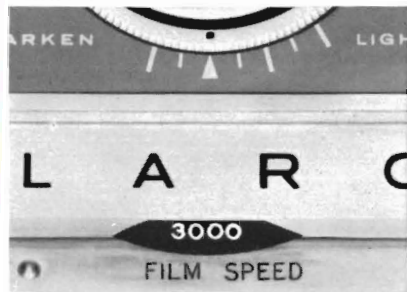
Use only M-3 (clear, not blue) flashbulbs. Set the blue square in the Lighting Selector, the L/D control, and the Film Speed Dial as shown. Don't try to use electronic flash.

For most flash pictures, swivel the flashgun so it's aimed directly ahead (center). Stand 4 to 15 ft. from your subject. Occasionally, you may want to experiment with bounce flash, which gives a soft, natural looking light and is easy on the eyes. Swivel the flashgun so it points at the ceiling (above), which must be white and 7 to 9 ft. high. Stand 3½ to 5 ft. from your subject. Don't aim at a strong light source when shooting bounce flash. Always close the blue shield. Don't shoot flash pictures in explosive atmospheres.

Never try to use flash in daylight; your pictures will be too dark.

For Direct Flash

WATCH YOUR DISTANCE: You'll get best results and good sized details at about 5 ft. Up close, the flash may be uncomfortable for people looking right at the camera. Let them look elsewhere. This also reduces "hot spots" on foreheads and noses. For very close portraits try bounce flash.

ALWAYS HAVE A BACKGROUND: Don't shoot flash pictures where there's no background or it's far away. Example: Someone in the middle of a church or a big office.

FOR MOST MEDIUM TONED OR BRIGHTLY COLORED BACKGROUNDS: Place your subject about an arm's length in front of the background, set the L/D control to Normal.

IF THE BACKGROUND IS PLAIN WHITE: To get a fairly white wall in the print place your subject as close to it as possible, turn the L/D control one or two dots toward Lighten.

Or, place your subject about as far from the background as the camera is from the subject and set the L/D control to Normal. Example: If you're shooting from 5 ft. the white wall ought to be about 5 ft. behind your subject.

IF THE BACKGROUND IS DARK WOODWORK OR DRAPES: Avoid these. If you must use them, place your subject next to the background, set the L/D control to Normal.

For Bounce Flash

THERE MUST BE A WHITE CEILING: It should be no more than 9 ft. high and unobstructed by beams, etc.

ALWAYS HAVE A NEARBY BACKGROUND: Bounce flash is effective only in medium-sized and small rooms.

MOVE IN CLOSE: Because the flash goes straight up it's easy on the eyes. You can come as close as you can focus. Bounce flash is ineffective beyond about 5 ft. Both you and your subject should be standing for best results.

NO WINDOWS OR LAMPS IN THE SCENE: The light from a window or lighted lamp will "fool" the electric eye and the camera will make an accidental time exposure.

For All Pictures

TIME DEVELOPMENT CAREFULLY: Follow the recommendations in the film instruction sheet. With black-and-white film no harm is done if you overdevelop for a few extra seconds. However, if you develop for less than the recommended time your prints will have a gray, washed-out look.

KEEP AN EYE ON THE TEMPERATURE: Cold weather can affect the quality of your pictures. Be sure to read carefully page 25, which explains how the temperature affects your pictures and what to do about it.

IF YOUR PICTURE IS TOO DARK OR TOO LIGHT: First check the background (see suggestions above) to determine if it's causing the problem. If not, adjust the L/D control as shown on page 26 to make the next picture of the same subject in the same location come out exactly as you want it to.

SOME HELPFUL ACCESSORIES
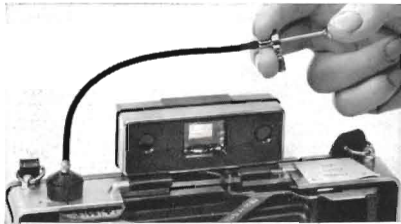
Cable Release #191, with plastic adapter, fits over No. 2 button. Great for time exposures.

Fitted Case #322 holds camera, three spare film packs, flashgun, bulbs, other accessories.

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

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

UV Filter #585 reduces excessive blue in shadows in outdoor color pictures.
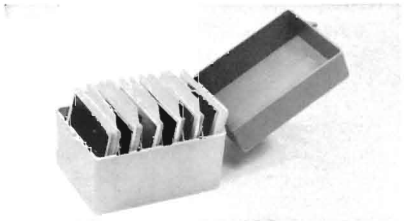
Print File #1501 has five dividers, neatly stores many mounted prints.

These simple accessories can add much to your picture-taking pleasure. On the following pages you'll see other helpful accessories with examples of how they can extend your picture-taking range and give better results.

Without the filter, a blank sky.

Press the filter on over the lens mount (collapsing the lens hood) and the electric eye.

With the filter, dramatic sky effects.

Black-and-white scenic pictures are often disappointing because bright blue skies and fleecy white clouds come out as a dull whitish nothing in the print. The Polaroid Cloud Filter #516 darkens clear blue skies, makes white clouds stand out beautifully. The darkened skies also make fine contrasting backgrounds for light colored subjects on the ground, such as a blonde head, white building, etc. The #516 filter has no effect on gray skies, in the fog or rain, or at night. Don't use it with color film at any time.

With the filter in place, set the L/D control to Normal position. If your print comes out too light or too dark, adjust the L/D control as shown on page 26.

CLOSE-UPS AND PORTRAITS ARE EASY WITH THESE DEVICES
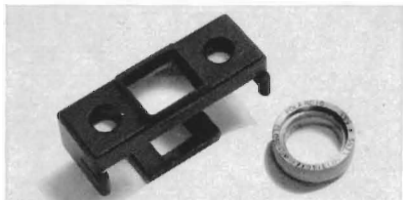
Close-up Lens #583 with its view/focus adapter.

The lens goes over the camera lens; the adapter fits over the viewfinder.

Close-up Lens #583 covers areas from 6" x 8" to 8½" x 11" for pictures like this.

Portrait Lens #581 covers areas from 13½" x 16½" to 25" x 32½" for pictures like this.

The normal closest picture-taking distance with your camera is about 3 ft. With the Polaroid Portrait Lens #581 you can get within 19 inches for portraits, pictures of children, pets, etc., including an area of 13" x 16½". With the Polaroid Close-up Lens #583 you can come within 9 inches to make pictures of flowers, book pages, etc., up to 6" x 8" in size. These lenses fit over the camera lens; each has a matching view/focus adapter that fits right over the camera's viewfinder. For black-and-white portraits or close-ups, either indoors or outdoors, use the Outdoors or Flash setting. For color close-ups or portraits (even with flash) use the Bright Sun Only setting.

KEEP THE ROLLERS CLEAN: Dirt on rollers causes repeated spots on the print. It may also cause poor colors, and even prevent the yellow tab from popping out. Bits of developer can collect on the rollers and in the back of the camera. It's a good idea to inspect the rollers before loading. To do so, lift up the red latch (center, top). Swing out the roller assembly. Turn and inspect the rollers. Scrape loose any dried chemicals with a matchstick or thin, stiff cardboard (never anything metallic). Wipe the rollers clean with a damp cloth, dry them. Open the tab slot door; clean out any dirt around the tab slot (arrows, right). Blow out lint or dust in the back of the camera. Push the roller assembly back into place.
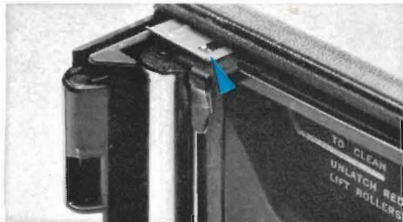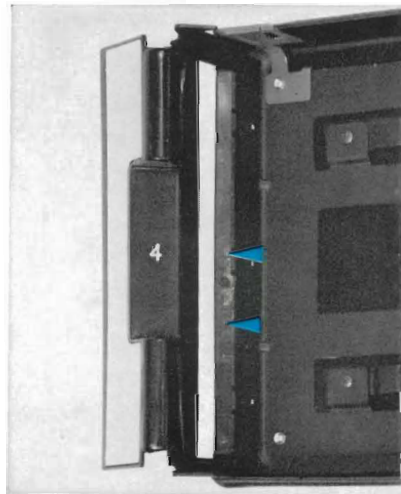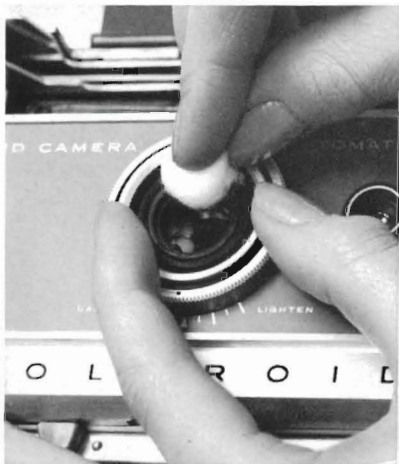
CLEAN THE LENS GENTLY: Never use silicone coated eyeglass tissue on it. Blow dust off or brush it off lightly. Breathe gently on the lens to moisten it, wipe lightly with clean, dry, absorbent cotton. Also clean the lens over the electric eye.

THERE ARE TWO BATTERIES: They should be replaced every year (see your Polaroid Land camera dealer). 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, open the compartment door with a fingernail. The other battery is in the flashgun. To replace it, remove the screws (arrows) and bottom plate. Install new batteries of the same or equivalent type in the same position as the old ones.
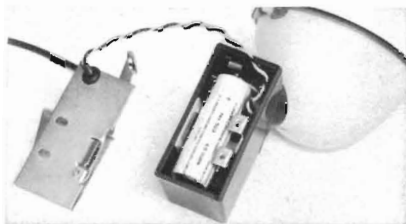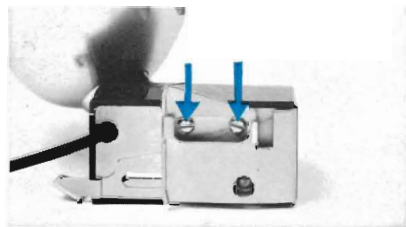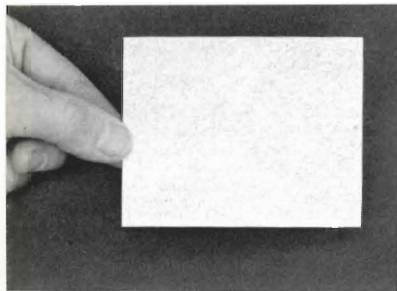
WHITE, FAINT IMAGE OR NONE

Film was greatly overexposed or light-struck. If it happens with black-and-white, you probably had the Film Speed Dial set for color at 75. Reset it to 3000 (page 12). 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 (page 14) or if you remove a film pack from the camera after pulling the safety cover.
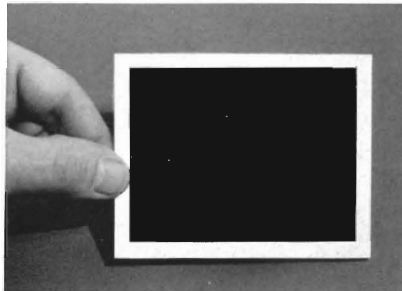
BLACK, FAINT IMAGE OR NONE

If no details at all are visible, the shutter didn't open. Perhaps you didn't reset No. 3 button (page 21). Or, the front of the camera wasn't pulled out all the way and locked (page 3). Or, the camera battery is dead (page 40). Or, the shutter has been damaged.

If a color print shows a few faint details, the Film Speed Dial probably was set to 3000. Set it to 75 (page 12).

TOO LIGHT: ALL PICTURES

Overexposed, probably because the L/D control was set incorrectly. For most pictures, set it to Normal position (page 11). If that's where it was to begin with, turn it toward Darken (page 26).

PICTURE TROUBLES (Cont.)

TOO DARK: ALL PICTURES

Probably the L/D control was set incorrectly. For pictures outdoors or by direct flash, set it to Normal (page 11). If that's where it was to begin with, turn it towards Lighten (page 26). For pictures in dim light, set it as shown on page 29. Another possible cause: the flashgun cord was plugged in when you made a non-flash picture.

ORANGE-RED MARKS ALONG EDGE

Reddish-orange marks like these along the edge and/or in the corners of the print generally indicate that the yellow tab was pulled out of the camera at an angle. Pull the yellow tab out straight and swiftly, all the way (pages 22, 23).

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 22).

DOUBLE EXPOSURE

You didn't pull out and develop the first picture before you snapped the second one. Always count 1, 2, 3, 4, and do each of the picture-taking steps as you do so (pages 20–23). Or, you tried a flash picture; the first bulb didn't fire but a second one did. You can get a faint image from the first try.

REPEATED WHITE SPOTS

Marks like these show that the steel rollers are dirty. Inspect and clean them frequently (page 39).

MANY WHITE SPECKS

They are a sign that you pulled the yellow tab too swiftly: slow down a bit.

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 packed with the film. See page 46 for using Cold-Clip with Polacolor prints. If you develop too long, color prints will be too bluish; it won't harm black-and-whites. If you don't develop long enough, color prints will be brownish pink over-all; black-and-whites will be muddy gray.

PICTURE TROUBLES (Cont.)

FUZZY, WITH MOVEMENT

If the entire picture is fuzzy with a pattern of movement, you moved the camera. This is most common with black-and-white pictures indoors without flash and with color shot in the shade. In dim light brace yourself, press No. 2 button gently, hold it down and don't move until you hear the second click as the shutter closes after the exposure (page 29).

SUBJECT FUZZY, REST SHARP

If the subject didn't move but is unsharp, you didn't focus carefully. Look through the Focus window, aim the bright spot at the most important part of your subject, push the No. 1 buttons until the two images in the bright spot come together (page 7).

If the subject moved, there's not much you can do except ask him or her to hold still or try to press No. 2 when there's no movement. Or, shoot a flash picture; this will stop most action.

STREAMERS OF LIGHT

You made a flash color picture with the Lighting Selector set to Bright Sun Only, instead of Also For Flash. At this small lens opening there was not enough light from the flash so the electric eye also made a time exposure during which you or the lights moved. Or, with correct setting you were too far from the subject, the flash was too weak and the electric eye also made a time exposure.

CORNERS, EDGES VERY DARK

This happens mainly with black-and-white film and only with subjects in the bright sun. Caused by having the Lighting Selector set to Indoors Without Flash when it should be set to Outdoors Or Flash (page 18).

It may also occur, to a lesser degree, with color in very bright sun. If so, shift the blue square in the Lighting Selector to Bright Sun Only (page 16).

UNDEVELOPED EDGES OR CORNERS

Picture flaws such as this one are usually caused by pulling the yellow tab out at an angle. In this example the tab was pulled down, instead of straight. 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 swiftly, all the way, (pages 22, 23).

U-SHAPED WHITE AREA

Several possible causes: One or more white tabs were folded under when you loaded the film pack (correct this as shown in photos 6 and 7, page 15; photo 6, page 14). Or, you pulled the yellow tab too slowly (page 23). Or, there may be dirt on the ends of the rollers; keep them clean (page 39). Or, in some way you squeezed the tab slot end of the camera back while pulling the yellow tab (see page 23 for the correct way to hold the camera).

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HOW TO USE THE COLD-CLIP WITH COLOR FILM

The Cold-Clip, which can be stored in your camera cover when not in use, makes it possible to get good color pictures in low temperatures (65°F. or below). If you are unsure of the temperature, use the Cold-Clip anyway. It may make a noticeable improvement in the color of your pictures and it can do no harm even if the temperature is warm.

To use it, take it out of the camera cover and put it in a warm inside pocket for five minutes before you start taking pictures so that the Cold-Clip will be warmed by body heat.

If the temperature of the camera and film is below 65°F. when you develop the picture, using the Cold-Clip, you should expose your color pictures with the L/D control set two marks further toward Lighten than the "normal" position recommended for the particular film pack you're using.

As soon as you have pulled the yellow tab to remove the picture packet from the camera and start development, place the packet inside the Cold-Clip with the tab hanging out. This must be done within 10 seconds.

Put the Cold-Clip back in a warm spot: an inside pocket next to body heat when the temperature is 65°F. to 40°F. To get effective warming at near freezing temperatures (40°F. or below) hold the Cold-Clip between body and arm, both to preheat the Clip and to develop the pictures.
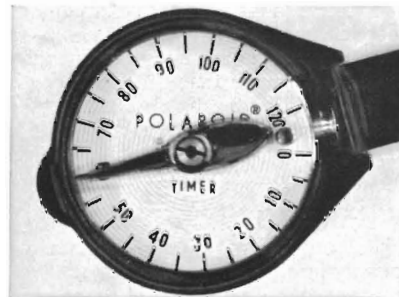
Develop the picture for 60 seconds inside the Cold-Clip, then remove the packet and separate the picture.

Never use the Cold-Clip for black-and-white pictures. Instead, follow the cold weather directions on the instruction sheet packed with each box of film.

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 compartment or trunk 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.

WHERE TO WRITE FOR INFORMATION

Polaroid Corporation maintains a special department to supply information and assistance to Polaroid Land Camera owners. Its name and address is: CUSTOMER SERVICE, POLAROID CORPORATION, CAMBRIDGE, MASS. 02139

If you have any questions about the operation and performance of the camera, films, and accessories, write to Customer Service. If you have any picture difficulties which are not explained in this booklet, send samples to Customer Service with details about how you made the picture. Please be sure to include a 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 one of the authorized repair stations listed on the opposite page. This guarantee covers the camera for one year from date of original purchase.

The guarantee does not cover (and charges will be made for) batteries or repairs required to correct damage from battery leakage, accident, dropping, mishandling and wear and tear from rough or very 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 guarantee 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.

LIST OF REPAIR STATIONS

CALIFORNIA
Polaroid Corp. (West. Div.)
333 West Mission Drive
San Gabriel 91776

R. M. Cudabac
678A Howard Street
San Francisco 94105

COLORADO
Rocky Mountain Camera Repair
100 E. 20th Avenue
Denver 80205

DISTRICT OF COLUMBIA
Strauss Photo-Technical
  Service
930 F Street, N. W.
Washington 20004

FLORIDA
Southern Photo-Technical
  Service Inc.
24 Second Street, S.
St. Petersburg 33701

GEORGIA
Polaroid Corp. (Southeast Div.)
1325 Logan Circle, N. W.
Atlanta 30318

ILLINOIS
Polaroid Corp. (Midwest Div.)
2041 N. Janice Avenue
Melrose Park 60160

International Camera Corp.
844 West Adams Street
Chicago 60607

KENTUCKY
Camera Service, Inc.
445 South Fifth Street
Louisville 40202

LOUISIANA
Murphy's Camera Repair
2320-22 Tulane Avenue
New Orleans 70119

MASSACHUSETTS
Polaroid Corporation (Factory)
640 Memorial Drive
Cambridge 02139

MINNESOTA
Northwest Camera Repair Co.
209 Loeb Arcade
Minneapolis 55402

MISSOURI
Newton J. Draper
Photographic Equip. Services
2915 So. Brentwood Blvd.
St. Louis (Brentwood) 63144

NEW JERSEY
Mack Camera Service
1025 Commerce Avenue
Union 07083

NEW YORK
Mack Camera Service of N. Y.
78 East 13th Street
New York 10003

OHIO
Polaroid Corp. (No. Central Div.)
4640 Manufacturing Road
Cleveland 44135

TEXAS
Polaroid Corp. (Southwest Div.)
8919 Diplomacy Row
Dallas 75247

WASHINGTON
Photo-Tronics
223 Westlake Avenue N.
Seattle 98109

FOREIGN STATIONS

CANADA
Polaroid Corporation
of Canada, Ltd.
24 Plywood Place
Toronto 18

ENGLAND
Polaroid (U.K.) Limited
Queensway House
Queensway
Hatfield
Hertfordshire

GERMANY
Polaroid GMBH
Holzhausenstrasse 30
Frankfurt/Main

Polaroid ®
Printed in U.S.A.
F2968E

2 **SHOOT** Gently press No. 2 button until shutter clicks. In dim light hold No. 2 down, hold steady until second click as shutter closes.

1 **FOCUS**
Look through Focus window. Aim bright spot at subject. Push No. 1 buttons back and forth until two images in bright spot become one.

4 **PULL TABS**
Pull small white tab straight out of camera, all the way; large yellow tab will pop out. Pull yellow tab straight out of camera, all the way, moderately fast, smoothly, without hesitation. THIS STARTS DEVELOPMENT. Develop for full time recommended in film instruction sheet. Separate white print from brown paper. Don't touch face of print until thoroughly dry.

LAND CAMERA   AUTOMATIC 100

DARKEN   LIGHTEN

P O L A R O I D

75
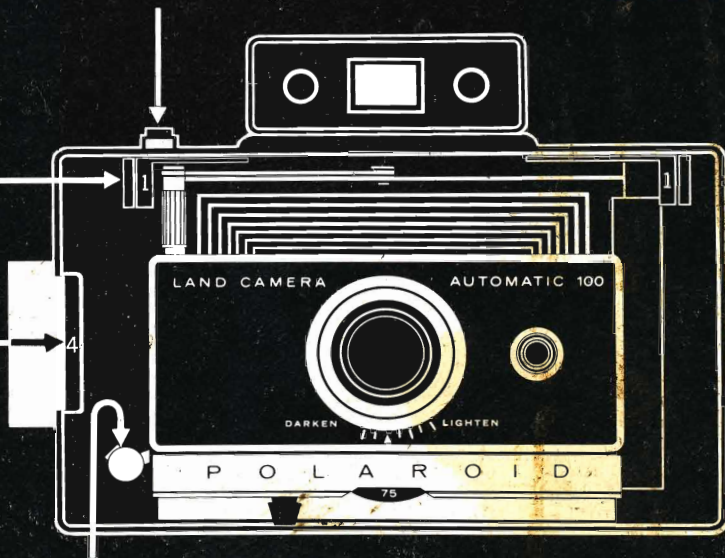
3 **RESET** Press No. 3 button down until it locks and stays down.