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.

430
420

HOW
TO USE
YOUR
POLAROID
LAND
CAMERA
MODEL
430
OR
MODEL
420

WITH THIS CAMERA, USE

Polaroid Land pack film Type 108 (color)
                    or Type 107 (black and white)
G. E. Hi-Power flashcubes, or equivalent.

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 22.

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.

The Model 430 and 420 cameras are similar in construction and operation, except:

the Model 430 has a built-in timer; the Model 420 does not;
the Model 430 has a 3-element lens that takes some accessories;

the Model 420 has a 2-element lens that does not take accessories.

Instructions in this book are for both models, although most pictures are of the 430. Both models are shown when instructions are different.

Getting Acquainted

Operation

Miscellaneous

THE MODEL 430 CAMERA

A. View/rangefinder
B. Shutter release
C. Flash range indicator
D. Rangefinder pushbutton
E. Flash connector
F. White tab slot
G. Yellow tab slot door
H. 3-element lens, 114mm., f/8.8
I. Lighten/Darken control
J. Shutter cocking lever
K. Film selector
L. Electric eye
M. Flash outlet (flashcubes only)
N. Battery compartment
O. Steel rollers
P. Focus window
Q. View window
R. Back door latch
S. Timer
T. Battery for electric eye and shutter controls
U. Serial number

IMPORTANT: Keep rollers clean (page 38); change battery yearly (page 39).

430/420

430/420

3
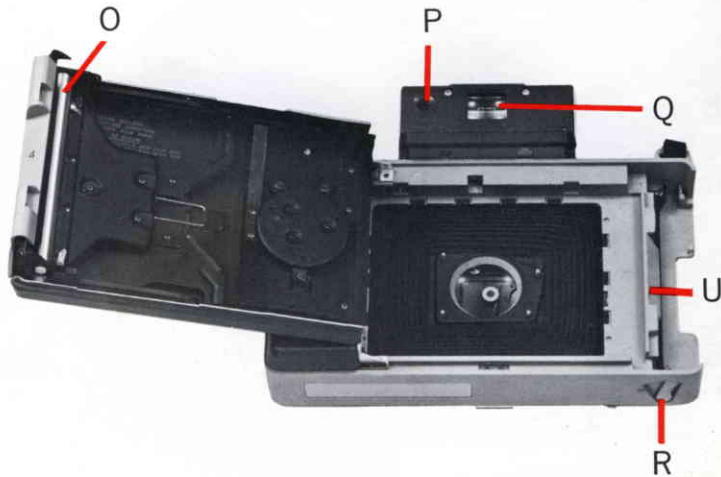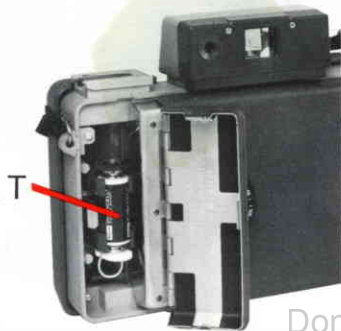
THE MODEL 420 CAMERA

A. View/rangefinder
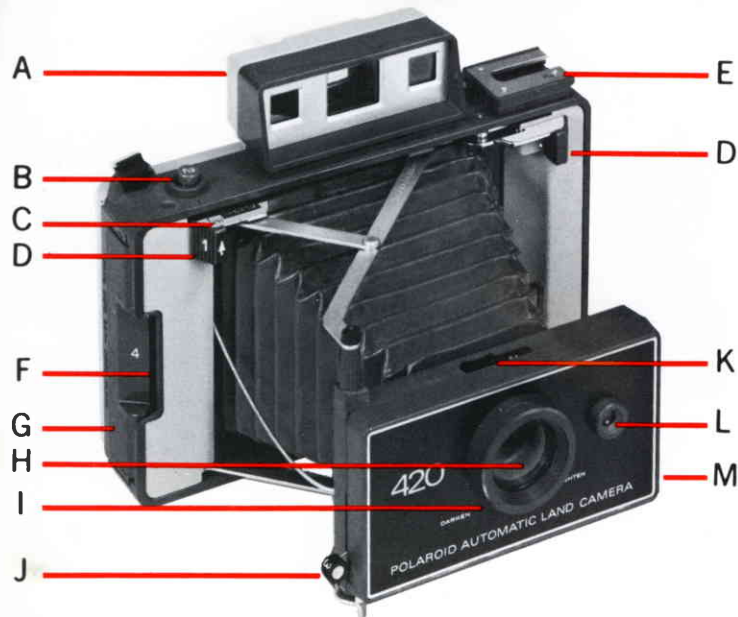B. Shutter release
C. Flash range indicator
D. Rangefinder button
E. Flash connector
F. White tab slot
G. Yellow tab slot door
H. 2-element lens, 114mm., f/8.8
I. Lighten/Darken control
J. Shutter cocking lever
K. Film selector
L. Electric eye
M. Flash outlet (flashcubes only)
N. Steel rollers
O. Focus window
P. View window
Q. Back door latch
R. Battery compartment
S. Battery for electric eye and shutter controls
T. Serial number

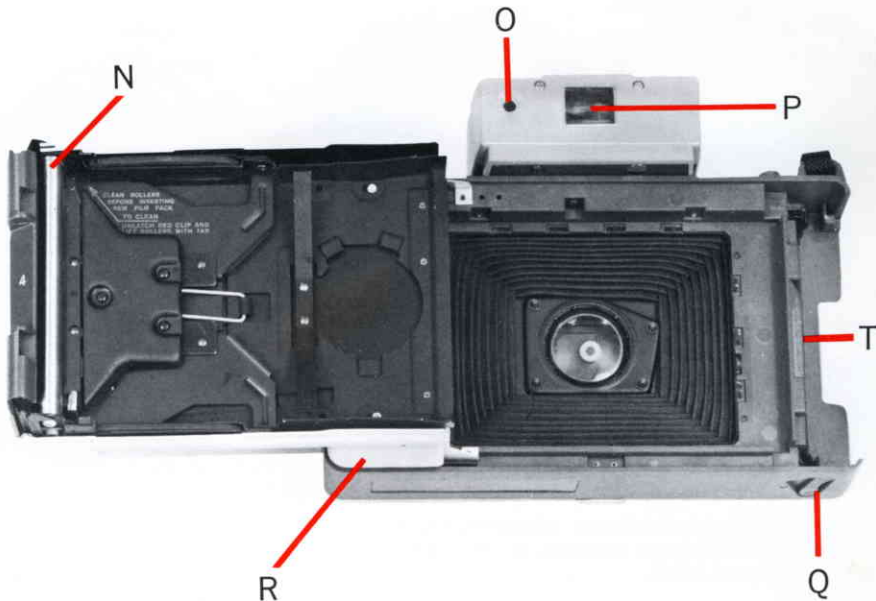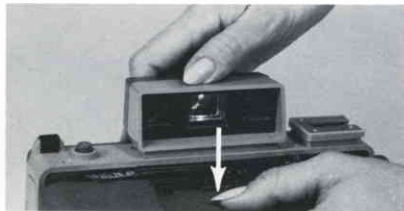**IMPORTANT:** Keep rollers clean (page 38); change battery yearly (page 39).

CLEAN ROLLERS
BEFORE INSERTING
NEW FILM PACK

TO CLEAN
UNLATCH RED CLIP AND
LIFT ROLLERS WITH TAB

HOW TO OPEN AND CLOSE THE CAMERA

1. To unlatch cover, press on center of top. You can let cover hang down.
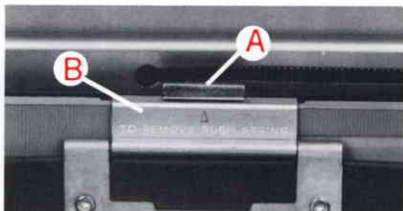
2. To remove it, push spring (A) and lift hinge (B). To replace, slide hinge down over spring.

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 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.

HOW TO HOLD THE CAMERA

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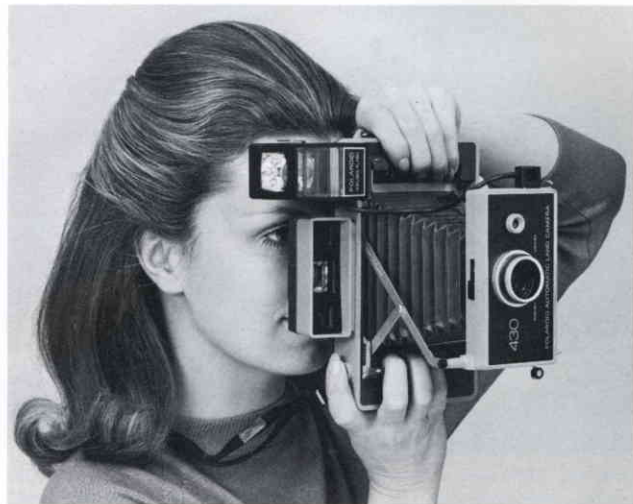
VERTICAL: Grip the camera as you would for a horizontal picture, turn it so your right hand is below. Brace the camera against your forehead and face.

HOW TO USE THE VIEWFINDER
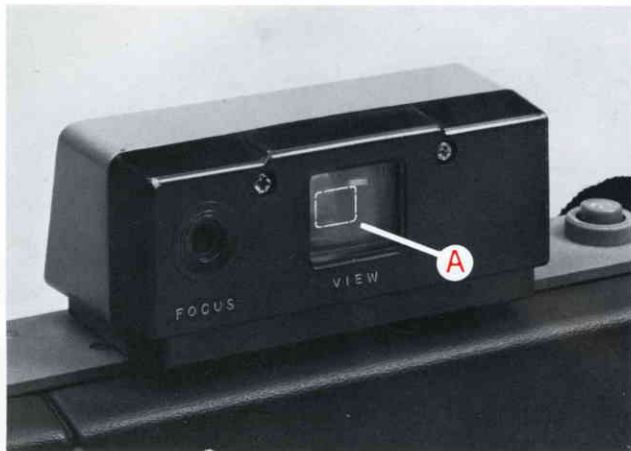
Looking through the viewfinder window (A) you'll see a bright, white broken line. Frame the scene with this line. Always try to look through the center of the window and concentrate on your subject, not on the white line. If your subject is very close (3½ ft., for example), allow a little extra space 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.
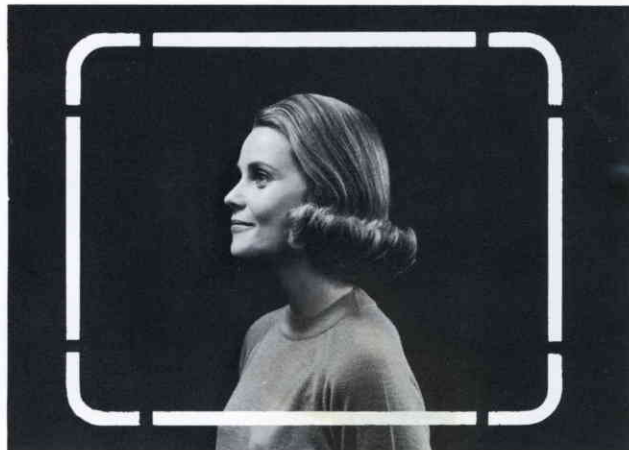
HOW TO FOCUS WITH THE RANGEFINDER
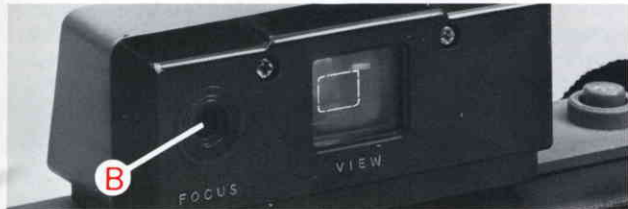
Look through here (B) at the bright spot. ▲

▼ Push No. 1 buttons.

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 (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.
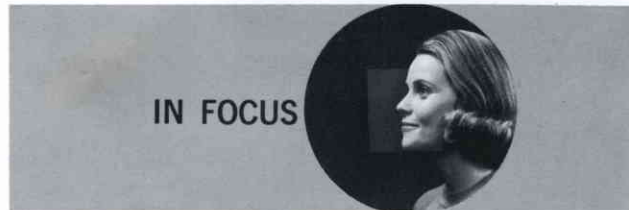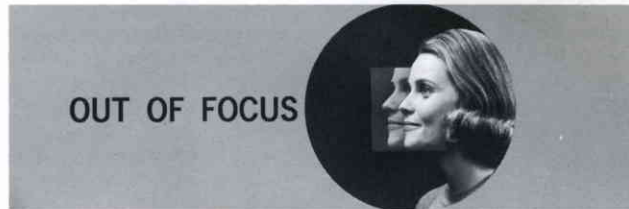
To get correct flash exposures, you must focus accurately (see page 13).

KNOW YOUR FLASH UNIT AND FLASHCUBES

The Polaroid Focused Flash unit is designed for use only with G.E. Hi-Power flashcubes, or equivalent. With the flash unit attached and plugged into the camera, the shutter is automatically set at a constant speed. In front of the flashcube there is a set of variable louvers (A). To get correctly exposed pictures, these louvers automatically open and close by the required amount as the camera is focused on the subject. The total flash range extends from 3½ ft. to about 10 ft. from the camera.

You must focus accurately, to get a correct exposure (see page 12). Each flashcube gives four flashes. After each flash you must push forward the lever (B) in order to rotate the cube in readiness for the next picture. After the fourth flash the lever will not return to its normal position, indicating that the cube must be changed. The light given by the flashcubes is balanced to resemble average daylight and will give excellent results with both Polacolor and black and white films. On the rear

of the flash unit is a Lighten/Darken control (C) for adjustment of individual flash exposures (see pages 15 and 35). The flash unit has a compartment (D) in the rear for two batteries.

YOUR NEW FLASH UNIT DOES NOT CONTAIN BATTERIES. These are provided **separately** with the flash unit. Before you can take flash pictures, you must insert the batteries, as described on page 39.
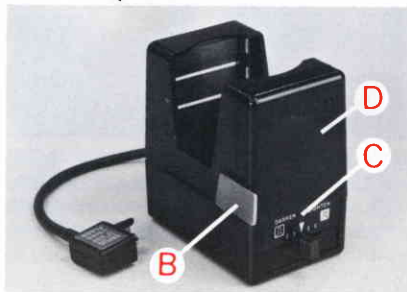
HOW TO ATTACH AND REMOVE THE FLASH UNIT

Hold the flash unit as shown. Slide the rails (E) on the bottom of the unit onto the camera connector (F). Slide the unit on all the way, till it comes to a firm stop. Push the flash cord plug into the outlet (G). To remove the unit, pull out the plug and slide the unit off the camera connector.
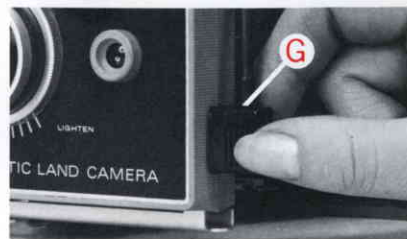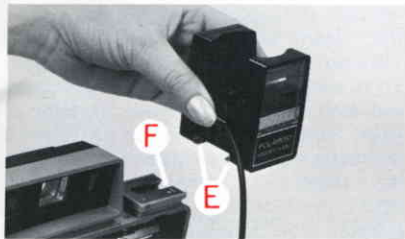
HOW TO INSERT A FLASHCUBE

Hold the cube as shown, so its sides are parallel to the sides of the flash unit. Be sure that the cube socket (H) is directly above the pin (I) in the flash unit, and then push the cube down firmly so that (H) and (I) engage. To remove a used cube, pull it up.

Use only G.E. Hi-Power flashcubes, or equivalent.

430/420

11
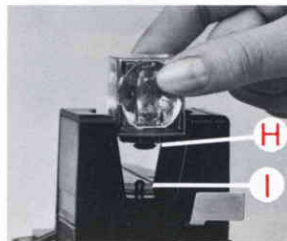
THE CUBE ROTATION LEVER

After each of the four flashes is fired, the flashcube must be rotated to the next flash position. This is done manually with the cube rotation lever (K). With the left thumb push the lever forward as far as it will go. **You must remember to push the lever, or you will not get a flash. It is a good idea to always do this just after you press the No. 3 button on the camera to reset the shutter (see page 23).**

When the lever is pushed after the fourth flash, it will not return automatically to its normal position, but will stay in the forward position. This serves as a reminder that the cube must be changed for a new one.

The lever will return to its normal position when the flashcube is pulled out.

WHY YOU MUST FOCUS ACCURATELY WHEN USING FLASH

Focusing the camera automatically adjusts the opening of the louvers in the flash unit. This assures that, between a distance of 3½ ft. and about 10 ft. a subject which is sharply focused will also receive the right amount of light from the flashcube to give a correctly exposed picture. For example, if a subject is 8 ft. from the camera, the light output from the flash unit must be greater than it would need to be for a subject 3½ ft. away, if both are to receive the same exposure. Thus, at 8 ft. the louvers must be wider open than at a 3½ ft. setting.

Top: **CORRECT** focus on subject 3½ ft. away. The louvers opened the correct amount, to light the subject for a well exposed picture.

Bottom: **INCORRECT** focus. The subject distance was 3½ ft. but the camera was focused for a greater distance. As a result the louvers were too wide open. The subject received too much light and the picture was overexposed.
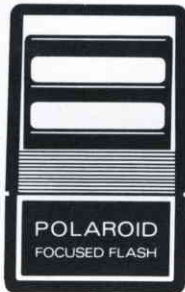
THE CONTROLS . . . AND WHAT THEY DO

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: The electric eye only works for non-flash pictures; 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.

The electric eye does not measure flash exposures (see page 10).

C. The camera Lighten/Darken control, for pictures made without flash: Turning this L/D control adjusts the electric eye so you can make your picture lighter or darker than it would be if the L/D control were left at the Normal position (shown here). **This control has no effect on pictures made with flash.** For more details about the camera L/D control, see page 34.
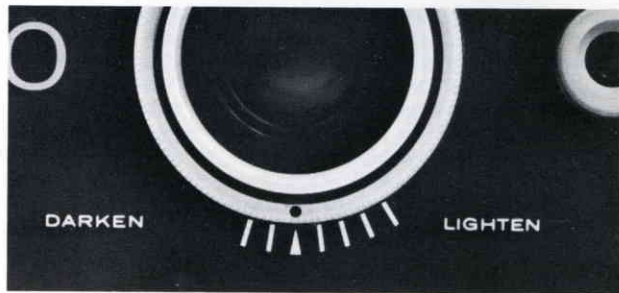
D. The flash Lighten/Darken control: Turning this L/D control adjusts the amount of light coming from the flash unit so you can make a flash picture lighter or darker than it would be if the L/D control were left at the Normal position (shown here). For more details about its use, see page 35.

WHAT YOU SHOULD KNOW ABOUT YOUR FILM

This camera uses two types of Polaroid Land pack films: 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.

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.

PROTECTION OF FILM AND CAMERA
Extreme heat and high humidity can damage your film (and also your camera), especially after the film pack has been placed in the camera. Don't leave film, or a loaded camera, in direct sun or in a car during hot weather. The best storage place in a closet is near the bottom, where the air is cooler. Don't unwrap film until you are ready to use it.

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.

CAUTION: Please be sure to read the important notice inside the back cover.

HOW TO LOAD A FILM 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.

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 (A) supplied with color film.** Handle the pack 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.

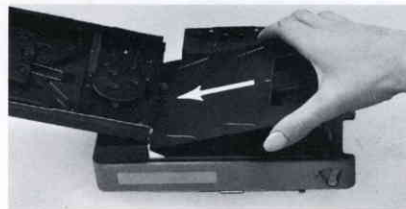Always open the package and load film in the shade, not in direct sunlight, to avoid fogging the film.
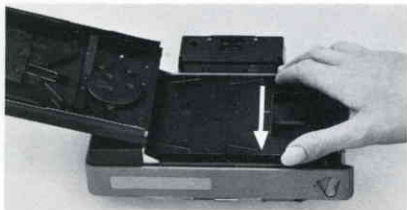
LOADING (Cont.)
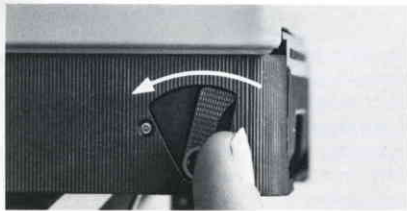
1. Push the back door latch; the door will pop up.
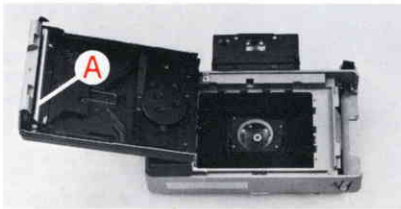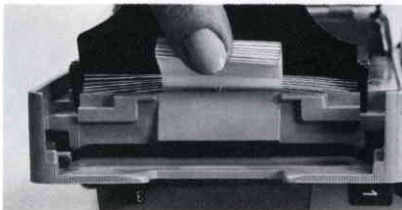

2. Open it all the way. Are the rollers (A) clean? If not, clean them as described on page 38.

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.
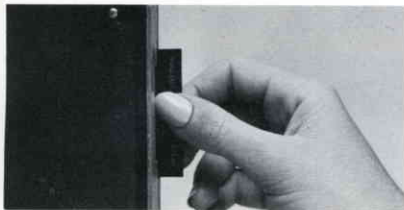

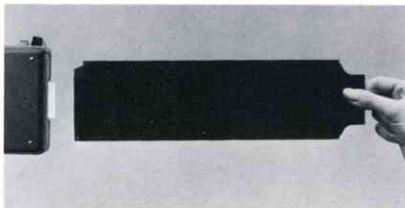**4.** Push the pack down into the camera.

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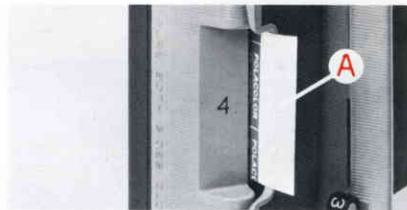
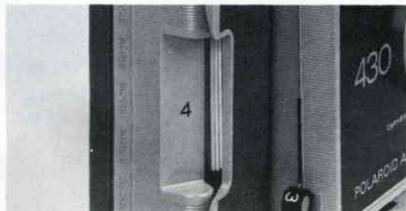**7.** Grip the black tab. This is the end of the safety cover.

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.

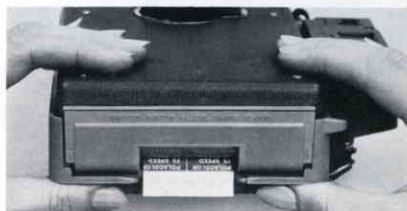## IF NO WHITE TAB APPEARS

1. If there's no white tab in the No. 4 slot, do the following in the shade or indoors, not in bright sunlight.
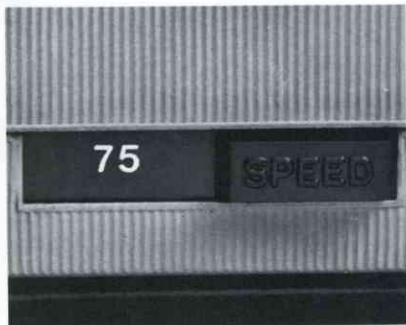
2. Open the back of the camera part way and, without disturbing or moving the film pack, push the white tab out into the open.

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 FLASH AND DAYLIGHT PICTURES

FOR 75 SPEED COLOR

Film Selector: Set it to 75.

▲ For flash. ▼ For daylight.

Lighten/Darken controls: Set them 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.

Before you can take a picture, the No. 3 button on the camera front must be down (see pages 23 and 25).
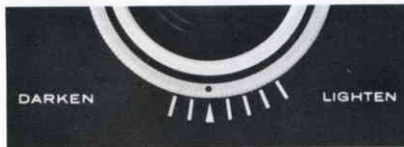
FOR 3000 SPEED BLACK AND WHITE
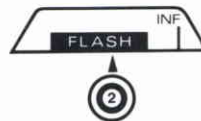

Film Selector: Set it to 3000.

▲ For flash.　　　▼ For daylight.

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

Fast focus for action pictures: To be used only with 3000 speed film in bright daylight. Set the camera so that the arrow on the camera is at the letter S of the word FLASH on the movable scale, as shown. In this way you will get sharp pictures from about 3 ft. to well beyond the range in which you would normally take action shots, without the need to focus with the rangefinder for each picture. This method is particularly useful when photographing sports and other lively activities in bright daylight, in the near to medium range.

Before you can take a picture, the No. 3 button on the camera front must be down (see pages 23 and 25).

Don't try to use this setting for flash pictures or with color film at any time.

HOW TO MAKE FLASH PICTURES
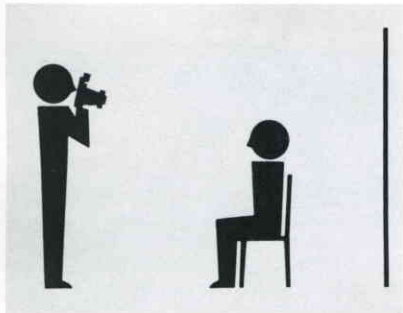
PLACE SUBJECT: Try to have your subject near a light colored wall or other light background.

PLACE YOURSELF: You can shoot from any distance between 3½ and 10 ft. For the most striking pictures, get close to your subject and get a large image.

CHECK that the camera controls are set correctly (see pages 20, 21).
Be sure that a flash cube is inserted correctly in the flash unit (see page 11).

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.

Focus accurately: To get a correctly exposed flash picture you must focus correctly (see page 13).
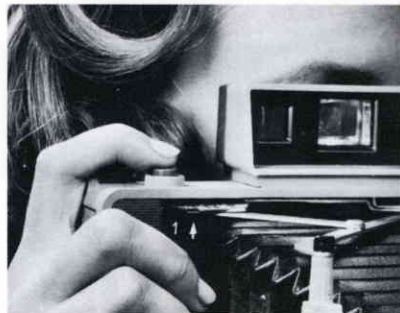
2. SHOOT: Press button No. 2. Press it smoothly and slowly. Hold the camera quite still until you hear a loud click and the flash fires.

AVOID GETTING BLURRED FLASH PICTURES by making quite sure that neither the camera nor the subject moves during the exposure.

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.
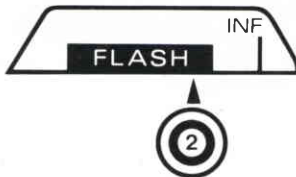

4. ADVANCE FLASH CUBE: Press the cube rotation lever forward as far as it will go, to prepare you for the next flash. See also page 12.

YOU ARE NOW READY TO DEVELOP THE PICTURE. SEE PAGE 26.

FLASH PICTURE HINTS

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

Have plenty of color: White, black, and gray don't improve color pictures.
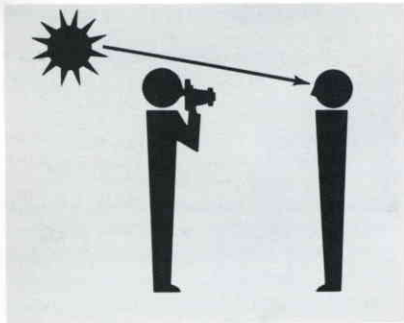
Medium sized rooms with light walls are best: In such a setting a lot of light, which would otherwise be lost, is reflected back onto the subject. The further you are from the subject, the more important it is to have such reflective surfaces nearby.

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.

DO NOT SHOOT FLASH PICTURES FROM FURTHER THAN 10 FT.

The recommended range for good flash pictures (3½ to 10 ft.) is shown by the flash range indicator, (right). If, after focusing the camera, the arrow points at the black bar, as shown, you are within the flash range. If the arrow points beyond the bar, come closer and refocus before shooting.

GET CLOSE TO YOUR SUBJECT AND GET A LARGE IMAGE.

430/420

23

HOW TO MAKE DAYLIGHT PICTURES

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 20).

BE SURE that the flash unit is not plugged into the camera. If it is, the electric eye will not function.

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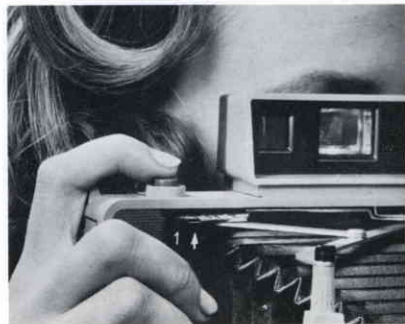
2. SHOOT: Press button No. 2 smoothly and slowly, without moving the camera, until you hear a loud click. When shooting in the shade or in dim light, hold No. 2 down and don't move until you hear a second click as the shutter closes. Then let No. 2 button come up.

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.

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 read page 29, which explains how temperature affects your pictures.

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