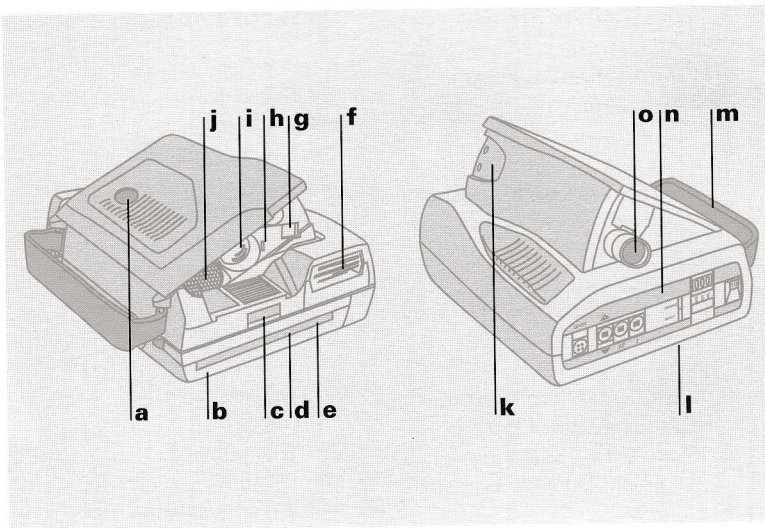


Polaroid

ProCam Camera



1

**Cam**

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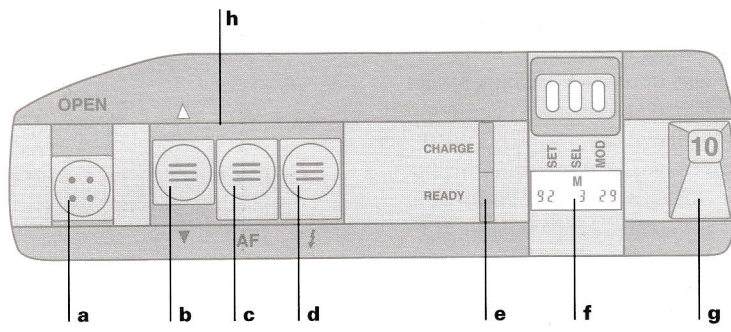
## Camera features

The Polaroid ProCam is a rugged, portable, folding camera designed to meet the needs of business users for documentation, verification and identification. It has a wide-angle lens and can focus on subjects as close as 18 inches (46cm) to meet a wide range of photographic requirements. With an easy-to-attach close-up lens, you can photograph subjects as close as 12 inches (30cm). The ProCam features a durable strap for comfortable one-handed operation. If you choose, the camera can imprint the date or time on your photographs. Other features include a sonar autofocus system and a built-in electronic flash, both of which can be overridden or cancelled as needed, and a tripod socket.

## The camera (picture 1)

- a** Shutter button
- b** Film door (serial number inside)
- c** Film door release
- d** Film exit slot
- e** Film shade (protects the picture from light as it exits the camera)
- f** Automatic electronic flash
- g** Viewfinder
- h** Close-up Lens positioning tab
- i** Four-element, wide-angle glass lens
- j** Sonar rangefinder (sends out sound waves to measure the distance to your subject)
- k** Close-up Lens locking tab cut-out
- l** Tripod socket (underneath the camera)
- m** Hand strap
- n** Control panel
- o** Viewfinder

2



**The control panel** (picture 2)

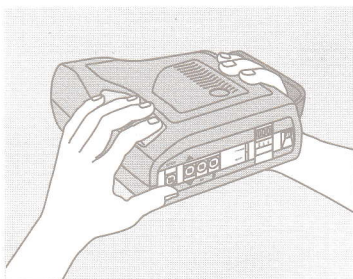
- a Release latch: slide it up to open the camera.
- b Exposure control: set it to normal for most pictures. Slide the button up to lighten or down to darken a picture.
- c Sonar autofocus override: slide the switch up to turn off the autofocus system (for pictures through glass). Focus range when Autofocus is off: infinity.
- d Automatic flash: slide it up to turn the flash off (for pictures of highly reflective surfaces or through glass).
- e Flash indicators: red light means the flash is charging; green light means the flash is ready to fire and you can take a picture.
- f Date display buttons:  
MOD (mode) button toggles through five display modes: Japanese date, day-hour, off, U.S. date and European date.  
SEL (select) button selects the year, month, day (or hour, minute).  
SET (set) button sets the desired date (or time).
- g Picture counter: counts down to show how many pictures are left in the film pack.
- h Red field (not visible in picture): indicates adjustments on control panel are not on automatic/normal settings (i.e., exposure control on darken or lighten, autofocus off, flash off).

## Opening and closing the camera

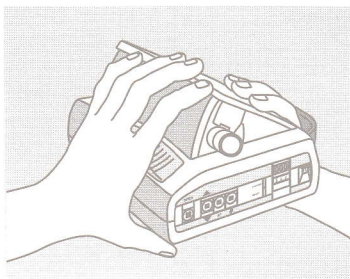
### To open the camera

Slide your right hand through the hand strap and hold the camera as you would a pair of binoculars (picture 3). Slide the release latch **up**. The camera will open automatically.

3



4



### To close the camera

When you have finished using the camera, close it to protect the lens. Hold the camera as shown (picture 4). Press down on the top of the camera until it locks in the closed position.

## Loading the film

Use Polaroid **Spectra/Image** film.

**The film pack contains a mercury-free battery.** Other Polaroid films cannot be used with this camera.

When the camera is open, push the film door release button in the front of the camera. The film door will open. **Hold the film pack by its edges only** (picture 5) and slide it all the way into the camera. Close the film door and a cardboard

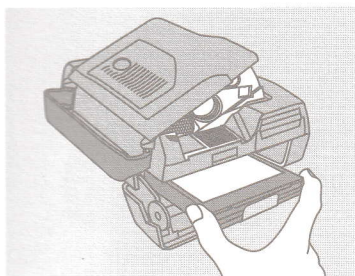
cover protecting the film will eject automatically.

## Cleaning the rollers

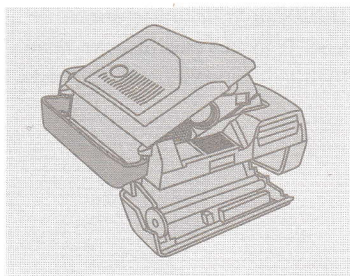
As part of the regular maintenance of your camera, check that the rollers (picture 6) are clean each time you load a fresh pack of film. **Dirty rollers can prohibit your camera from operating correctly** and can cause a repeated spot or bar pattern in the picture. The developer rollers

are located inside the film door. If there is film in the camera, open the door in dim light and clean the rollers. While turning the rollers, clean them with a lint-free cloth, dampened with water, if necessary.

5

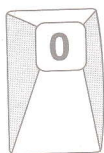


6



## Removing an empty film pack

When the film pack is empty, the picture counter on the control panel sets to zero and you will hear three chimes when the camera is open and the shutter button is pressed.



To remove the empty film pack, push the film door release button on the front of the camera and pull out the film pack by the colored tab.

## Framing the subject

The wide-angle lens of the ProCam allows you a wider field of view to capture more in your photograph. The lens also allows you to photograph subjects from 18 inches (46cm) to infinity. The flash is designed to be used for every picture – **outdoors and indoors.**

**Indoors:** For best results, your subject should be from 18 inches to 18 feet away (46cm to 5.5m) and near a light-colored background.

**Outdoors:** Your subject should be at least 18 inches (46cm) away. Keep the sun behind you or to your side.

## Taking the picture

Slide your right hand through the hand strap and hold the camera as you would a pair of binoculars (picture 7). Rest your index finger on the shutter button. Look through the viewfinder to frame your subject. Press the shutter button, then release it while holding the camera steady until all motor sound stops and the picture has been ejected. The film will not eject out of the

camera while your finger is on the shutter button.

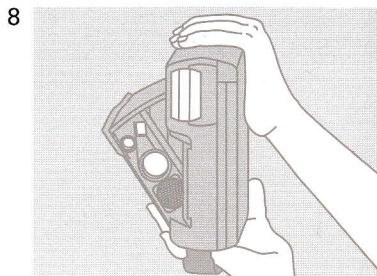
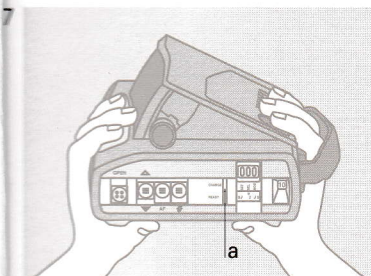
There may be situations in which you may want to use this feature, such as in extremely windy conditions.

**Note:** If the green flash-ready light (a) is not on, touch the shutter button lightly to restore it, then take the picture. The picture will eject automatically.

For horizontal pictures, hold the camera as shown in picture 7. For vertical pictures, position the camera

with the flash on top as shown in picture 8 to get the best results.

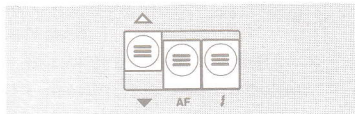
**Note:** When taking pictures of people or objects, you may want to hold the camera as in picture 8 to reduce the shadow effect on the side of the image.



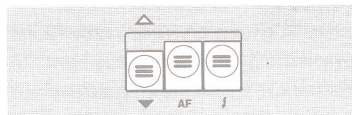
## Exposure control

Use the exposure control when you want to **retake** a picture to make it lighter or darker.

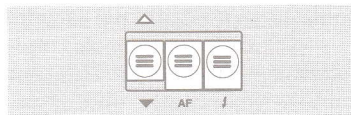
When retaking a picture to make it **lighter**: Slide the control **all the way up**.



When retaking a picture to make it **darker**: Slide the control **all the way down**.

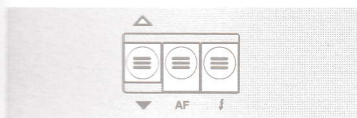


After you have finished taking the picture, do not forget to return the control to the **center position**.



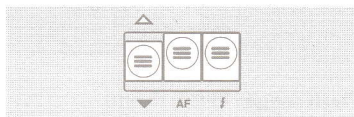
## Autofocus system

The ProCam has a computerized sonar autofocus system which uses sound waves to measure accurately the distance to your subject and set the lens. Check that the AF switch on the control panel is set as shown:



## Photographing a distant scene through glass

To avoid focusing on the glass and getting a flash reflection, turn off the **autofocus** and **flash systems** by sliding both switches **up**. The red field on the control panel (indicating controls are not on automatic) will then be visible at the base of the two switches.

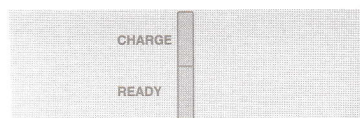


When you turn off the autofocus system, the lens sets for distant scenes of 15 feet (4.6m) to infinity. To ensure a successful picture, be sure to

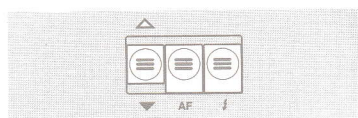
- take the picture from at least 15 feet (4.6m) away
- take the picture in daylight
- hold the camera steady or mount it on a tripod to avoid a blurry picture

### Automatic flash system

Every time you take a picture indoors or outdoors, your camera blends light from the scene with just enough flash to provide the right lighting for the best possible picture. Wait for the flash charge/ready light on the control panel to be READY (green) before taking a flash picture.

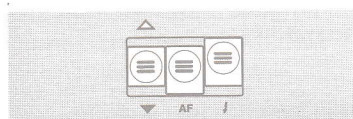


Flash **ON** position:



There may be situations (i.e. highly reflective subjects, taking pictures through glass) in which you may wish to turn off the flash. You can do so by sliding the automatic flash button up.

Flash **OFF** position:



**Flash range:** 18 feet (5.5m).

### Date display buttons

The date display buttons (picture 9) on the control panel allow you the option to imprint a date and/or time (1.8mm high) in the upper left-hand corner of your photographs. The date display buttons are used to set the display to Japanese, U.S. or European date mode, day-hour mode or off mode.

### To set a date

- 1** Press MOD (mode) repeatedly until the desired date mode is displayed (Japanese, U.S. or European). The MOD (mode) button toggles through the following options: Japanese date, day-hour, off, U.S. date and European date. An **M** will be visible in the date display to indicate which digit is the month.
- 2** Press SEL (select) to select the year, month or day (see blinking digit).
- 3** Press SET repeatedly (or hold button) until the desired digit is displayed. Repeat steps 2 and 3 until the desired year, month and day are all set.
- 4** Press SEL (select) a fourth time to lock in the date.

### Setting the time (in day-hour-minute mode)

- 1** Press the MOD (mode) button until the day, hour and minute mode is displayed. The first set of digits visible in the display is the day of the month, followed by the time in hours and minutes in European (or U.S. military) time (for example, 13:00 = 1:00 p.m.).
- 2** Press SEL (select) and the hours will blink. Press SET to toggle through the hours. Press SEL (select) again to lock in the hour and the minutes will blink.
- 3** Press SET to toggle through the minutes. Press SEL (select) again to lock in the minutes. (The colon will be blinking).
- 4** Press SEL (select) a fourth time to lock in the desired time (starting at the hours and minutes displayed and zero seconds).

9

SET	SEL	MOD
92	M	3 29

**Year-Month-Day**

SET	SEL	MOD
M	3	29 92

**Month-Day-Year**

SET	SEL	MOD
29	M	3 92

**Day-Month-Year**

SET	SEL	MOD
29	12	00

**Day-Hour-Minutes**

SET	SEL	MOD
.	.	.

**Off****Shutting off the date display option**

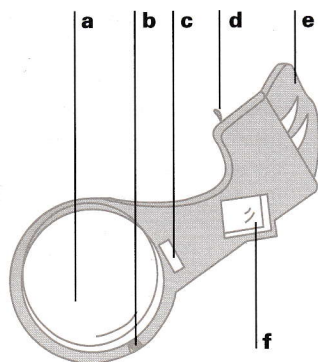
Press the MOD (mode) button until a series of dashes appears in the display. When these are visible in the display, a date will not appear on your photograph.

**Date display battery**

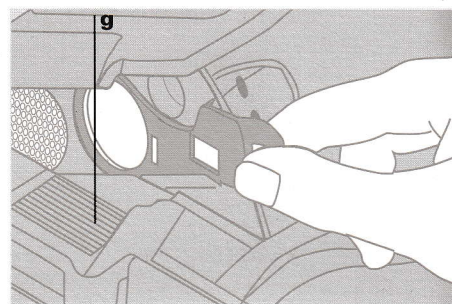
There is a lithium battery in the camera that provides back-up power to the camera's date display module.

It has a life-expectancy of approximately five years. If the LCD appears dim when the camera is in the closed position, your date display battery needs replacement. Contact the nearest Polaroid office listed in this instruction book.

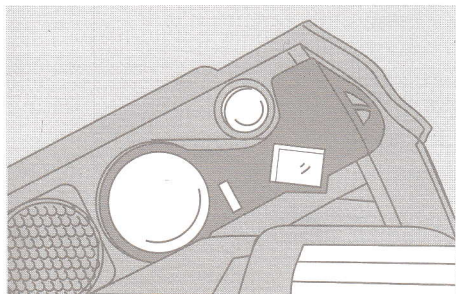
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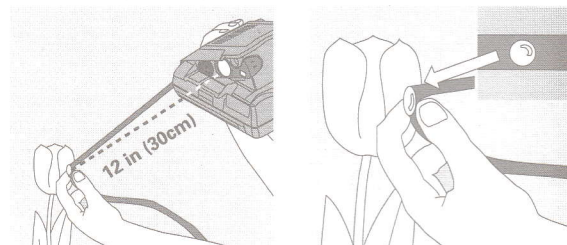
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12



13



## ProCam Close-up Lens

- a** Lens
- b** Lower tab
- c** Positioning slot
- d** Prong
- e** Locking tab
- f** Viewfinder window
- g** Lens guard

The ProCam Close-up Lens (picture 10) allows you to take photographs 10-14 inches (25 to 36 cm) from your subject and provides a magnification of approximately 0.4X. It can be easily attached to your camera and can remain in place when the camera is closed.

Open the camera and face the camera lens toward you. Hold the camera securely. Hold the Close-up Lens by the locking tab on the side of the lens. Do not touch the lenses, as fingerprints will blur your photograph.

## Attaching the lens

- 1** Orient the Close-up Lens onto the front of the camera as shown in the illustration, with the word "Polaroid" facing out.
- 2** Position the lens (**a**) over the camera lens, first seating the lower tab (**b**) **behind** the lens guard (**g**).
- 3** Make sure the positioning tab on the camera fits into the positioning slot (**c**).
- 4** Push the Close-up Lens **securely** against the camera.
- 5** Press the upper right corner of the Close-up Lens so the prong (**d**) fits into the camera.
- 6** Snap the locking tab (**e**) into the cut-out area on the side of the camera.

## Taking a close-up (picture 13)

To measure the appropriate distance of 10-14 inches (25 to 36 cm) from your subject, stretch the shoulder strap taut and place the metal rivet on the strap at the subject. Frame your subject in the viewfinder, drop the strap, maintain the distance, and shoot.

**Note:** Remember to remove the Close-up Lens when you have completed taking your close-up photographs. The Lens, however, may remain on the camera when closing it.

## Picture tips

Indoors, place your subject **near** a background, allowing the automatic electronic flash to light up the scene. For pictures of highly reflective surfaces, shoot at an angle to avoid a flash reflection. Or, for best results, turn the flash off. When the flash is off, hold the camera steady or use a tripod.

For multiple pictures of the same subject, you may want to use a tripod to avoid reframing each picture.

Hold the camera steady until the picture has been ejected from the camera.

When framing your picture, move in close to fill the frame with the subject for best results.

Start with the exposure control on the normal position. Some subjects may require an adjustment.

It is important to avoid touching the lenses. Should you need to remove dust or fingerprints, breathe on the lens and wipe it gently with a clean, soft facial tissue.

**Do not use silicone-treated eyeglass tissues.**

**Note:** If you are having a picture-taking problem, check to be sure your camera is in the fully automatic mode with the switches in a row so that the red field is not visible. Retake your picture. If this does not correct the problem, review this section or call us at the nearest Polaroid Service Center. See page 122.

## Troubleshooting

### Blurry picture

#### Cause

- When the subject is not centered in the picture, the sound waves pass by the subject and measure the distance to the background. This causes the subject to be unsharp because the lens focuses on the background.

#### Solution

- Center the subject in the picture.

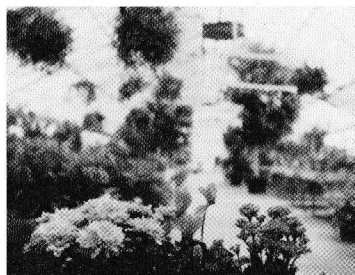


#### Cause

- An object in the foreground prevented the sound waves from measuring correctly. The lens focused on the object, causing the subject to appear unclear and possibly dark.

#### Solution

- The sound waves travel to the central part of the scene. Be sure there are no objects in front of your subject.



#### Cause

- Camera movement can cause the picture to be blurry. When a picture is taken in low light (at dusk, in the shade, etc.), the shutter can stay open for as long as 2.8 seconds.

#### Solution

- Hold the camera steady as you take a picture, or place the camera on a tripod.



**Background too dark****Cause**

- Background too far from subject or beyond flash range.

**Solution**

- Be sure the exposure control is in the center position; place subject **near** a background and keep both within the correct distance: 18 inches to 18 feet (46cm to 5.5m).

**Repeated spots or bar pattern****Cause**

- Rollers inside the film door need to be cleaned.

**Solution**

- Clean rollers as described (see page 9).

**Subject too dark****Cause**

- The camera's photocell measured a bright background light (for example, a window), causing the subject to be too dark.

**Solution**

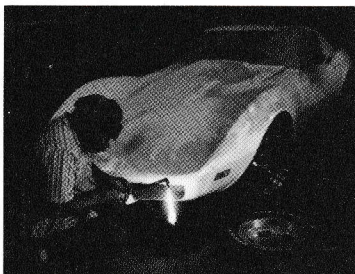
- Reposition the subject away from the bright background.

**Cause**

- When a bright light source (such as lamplight) is in the central part of the scene and in front of the subject, the camera's photocell will measure the bright light, causing the subject to be too dark.

**Solution**

- Move the light source to one side of your subject so it is not in the central part of the scene.

**Picture too blue or too red/yellow****Cause**

- A **blue tint** may result when pictures are taken at temperatures below 55°F (13°C).
- A **red or yellow tint** may result when pictures are taken at temperatures above 95°F (35°C).

**Solution**

- Keep camera and film away from excesses of temperatures (hood of a car, glove compartment or trunk).

**The film**

For best results, take pictures when the temperature is between 55°F (13°C) and 95°F (35°C). Below 55°F (13°C), place developing pictures in a warm pocket. Above 95°F (35°C), keep the film as cool as possible. Store below 75°F (24°C); do not freeze.

**The picture**

During the first **60 seconds** of development, handle the picture gently and hold it by the wide, white border. Keep the developing picture away from hot surfaces like the hood of a car. **Do not fan or bend pictures.**

**The lens**

Avoid touching the lens. To remove dust or fingerprints, breathe on the lens and wipe it gently with a lens tissue or a clean, soft facial tissue.

**Do not use silicone-treated eyeglass tissues.**

### **Five year warranty**

If this camera proves to be defective within five years of the original purchase date, we will, without charge, either repair it or, at our option, replace it with a fully reconditioned or new unit of the same or equivalent model.

This warranty does not cover damage caused by accident, misuse or tampering with the camera and a charge will be made for such repairs.

To verify the warranty period, keep the sales slip or other proof of the purchase date.

To take advantage of this warranty, the camera must be returned to, and repaired by, one of the Polaroid Service Centers.

**The above warranty and provisions do not affect your statutory rights.**

### **For more information and help**

Picture problems are often due to incorrect use of the camera. If you need further help, and before you return the camera for repair, please see your dealer or contact the nearest Polaroid office listed in the back of this instruction book.

If you write, please explain the nature of the problem and, if possible, enclose sample pictures.

## Camera and film specifications

### **Aperture/shutter system**

Apertures: from f/10 to f/45.  
Shutter speeds: from 1/245 to 2.8 seconds.

### **Camera size/weight**

Length: 6.48 in. (16.5cm).  
Width: 6.36 in. (16.2cm).  
Height: 2.84 in. (7.21cm) closed,  
4.63 in. (11.8cm) opened.  
Weight: 2.2 lb. (1.0kg), without a film pack.

### **Close-up lens**

Close-up capability: 10-14 in.  
(25 to 36 cm).

### **Date display buttons**

Date and/or time imprint 1.8mm high in picture.

### **Film advance**

Automatic film advance;  
motorized picture ejection.

### **Film**

Polaroid **Spectra** or **Image** color film only. Starts developing in seconds. Ten pictures per pack.

### **Film size**

Outer border: 4 x 4.06 in.  
(10.1 x 10.3 cm).  
Image area: 3.60 x 2.90 in.  
(9.1 x 7.2 cm).

### **Lens**

Wide-angle lens focus capability:  
18 in. (46cm) to infinity.

### **Power source**

Six-volt battery in each film pack powers camera functions. Date display module powered by its own battery with expected lifespan of five years with warranty replacement by Polaroid Service Center.

### **Programmed flash**

Built-in flash designed to be used indoors and outdoors. Recharge time: from .1 to 2.8 seconds. Flash duration: from 1/3000 to 1/20,000 of a second. Indoor flash range: from 18 in. to 18 feet (46cm to 5.5m).

### **Sonar autofocus system**

Computerized autofocus system uses sound waves to measure accurately the distance to your subject and set the lens.

### **Speed**

Film Speed: ISO 600/29°.

### **Viewfinder**

95% viewing (no parallax) at 18 feet (5.5m). Viewfinder magnification: .45X (subjects appear half lifesize).

Specifications subject to change without notice.