

Polaroid

ProCam Camera



This product is listed by Underwriters' Laboratories, Inc. As a condition of listing, UL requires that basic safety information be provided.

IMPORTANT SAFEGUARDS

AS WITH ANY BATTERY-OPERATED EQUIPMENT, OBSERVE THESE BASIC SAFETY PRECAUTIONS:

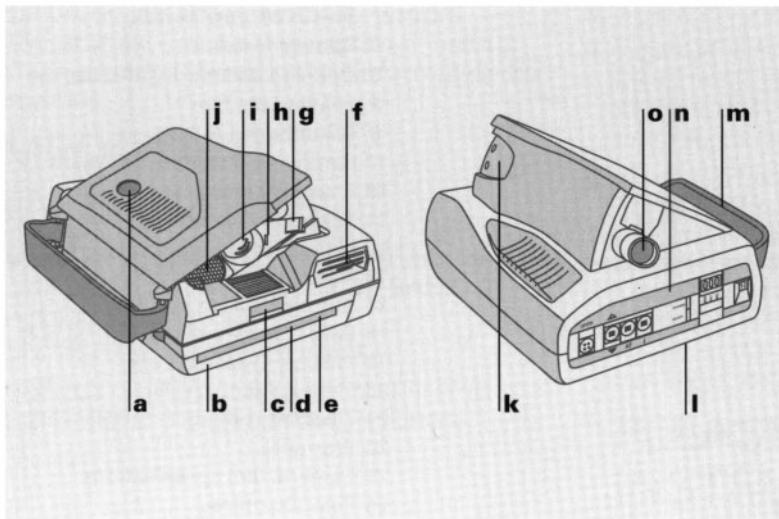
1. FOLLOW ALL INSTRUCTIONS.
2. CLOSELY SUPERVISE UNIT WHEN IT IS BEING USED BY OR NEAR CHILDREN.

3. ALWAYS USE BATTERIES RECOMMENDED.
4. DO NOT USE UNIT IF IT HAS BEEN DROPPED OR DAMAGED - UNTIL IT HAS BEEN EXAMINED AT AN AUTHORIZED POLAROID SERVICE CENTER.
5. TO AVOID ELECTRICAL SHOCK HAZARDS, DO NOT DISASSEMBLE UNIT. SERVICE OR REPAIR WORK MUST BE DONE ONLY BY AN AUTHORIZED POLAROID SERVICE CENTER. INCORRECT REASSEMBLY CAN CAUSE ELECTRICAL SHOCK WHEN UNIT IS USED AGAIN. DO NOT IMMERSE IN WATER OR OTHER FLUIDS.

PLEASE KEEP THESE INSTRUCTIONS

	Table of contents
5	Camera features
8	Opening and closing the camera
9	Loading the film
9	Cleaning the rollers
10	Removing an empty film pack
10	Framing the subject
11	Taking the picture
12	Lighten/Darken control  
13	Autofocus system AF
14	Automatic flash system 
15	Date display buttons 
18	ProCam Close-up Lens
18	Attaching the lens
20	Troubleshooting
23	Full Lifetime warranty
24	Camera, film specifications

1

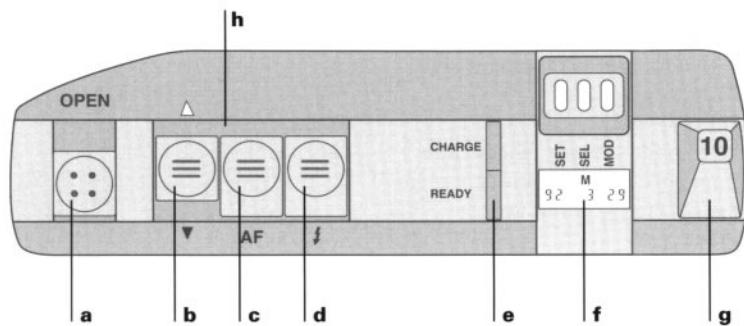


The Polaroid ProCam is a rugged, portable, folding camera designed to meet the needs of business users for documentation, verification and identification. It has a wide angle lens and can focus on subjects as close as 18 inches (46cm) to meet a wide range of photographic requirements. With an easy-to-attach 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 in 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 (i.e., for pictures through glass). Focus range when Autofocus is off: infinity.
- d Automatic flash: Slide it up to turn the flash off (when taking 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-time, 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., lighten/darken on darken, autofocus off, flash off).

8 Opening and closing the camera

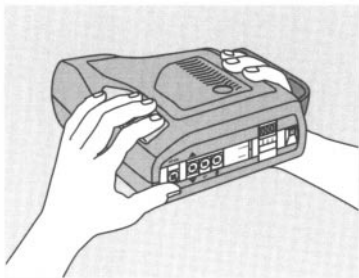
To open the camera

Slide your right hand through the hand strap and hold the camera as you would a pair of binoculars (picture 3). Slide the OPEN switch up on the back of the camera's control panel. The camera will open automatically.

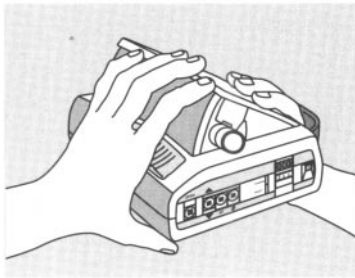
To close the camera

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.

3



4



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

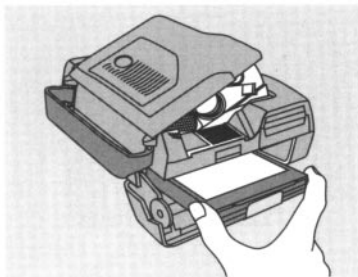
cardboard cover protecting the film will eject automatically. Dirty rollers can prohibit your camera from operating correctly and can cause a repeated spot or bar pattern in the picture.

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. The developer rollers are located inside the film door. If

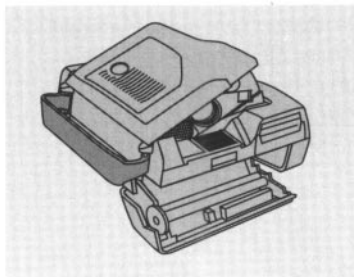
there is film in the camera, open the door in dim light and clean the rollers.

While turning rollers, clean them with a lint-free cloth, dampened with water, if necessary.

5



6



Remove the empty film pack when loading a new pack into the camera. 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 when the shutter button is pressed.

Push the film door release button on the front of the camera. Pull the colored tab to remove the film pack.



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 (46cm to 5.5m) away 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.

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 while holding the camera steady until all motor sound stops and the picture has ejected. The film will not eject out of the camera as long as your finger is on the shutter button.

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

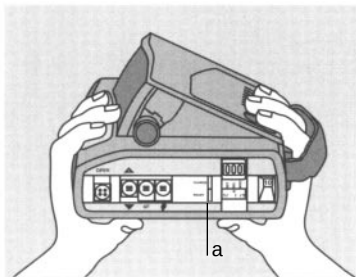
Note: If the green flash-ready light (a) is not on, touch the shutter button lightly to restore it, then take the picture. The picture will eject automatically.

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.

7



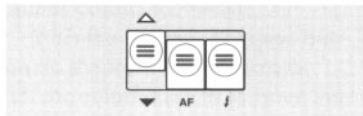
8



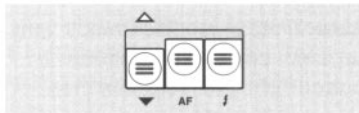
12 Lighten/Darken control

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

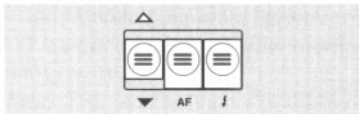
When retaking a picture to make it lighter: Slide the control all the way up.



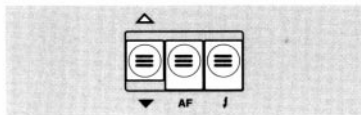
When retaking a picture to make it darker: Slide the control all the way down.



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

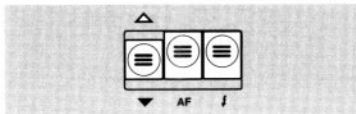


The ProCam has a computerized sonar autofocus system which uses sound waves to measure accurately the distance to your subject and set the lens. Check that the AF switch on the control panel is set on the following:



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.

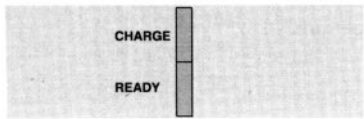


When you turn off the autofocus system, the lens sets for distant scenes of 15 feet (4.6m) to infinity. To ensure a successful picture, be sure to:

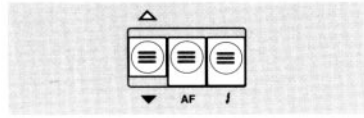
- take the picture from at least 15 feet (4.6m) away,
- take the picture in daylight, hold the camera steady or mount
- it on a tripod to avoid a blurry picture.

14 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.

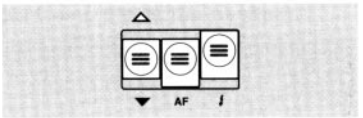


Flash ON position:



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

Flash OFF position:



Flash range: 18 feet (5.5m)

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 1 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.

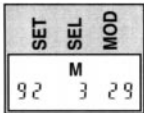
- 2 Press SEL (select) to select the year, month or day (see blinking digit).
- 3 Press SET repeatedly (or hold button) until the desired digit is displayed. Repeat steps 2 and 3 until the desired year, month and day are all set.
- 4 Press SEL (select) a fourth time to lock in the date.

Setting the time (in day-hour-minute model)

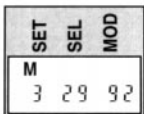
- 1 Press the MOD (mode) button until the day, hour and minute mode is displayed. The first set of digits visible in the display is the day of the month, followed by the time in hours and minutes in European (or U.S. military) time (ex. 13:00 = 1:00 p.m.).

- 2 Press SEL (select) and the hours will blink. Press SET (set) to toggle through the hours. Press SEL (select) again to lock-in the hour and the minutes will blink.
- 3 Press SET (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).

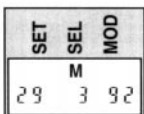
9



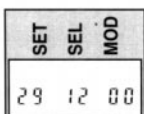
Year-Month-Day



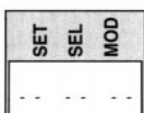
Month-Day-Year



Day-Month-Year



Day-Hour-Minutes



Off

Shutting off the date display option

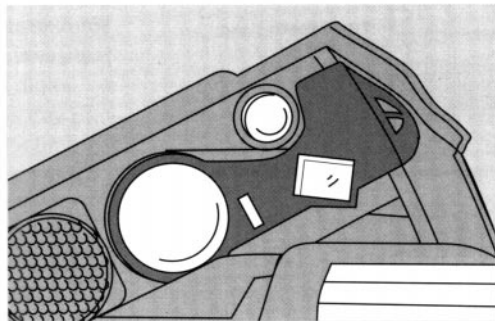
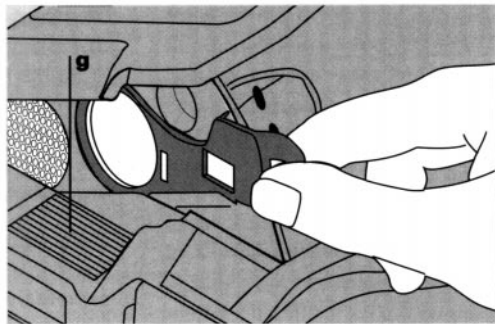
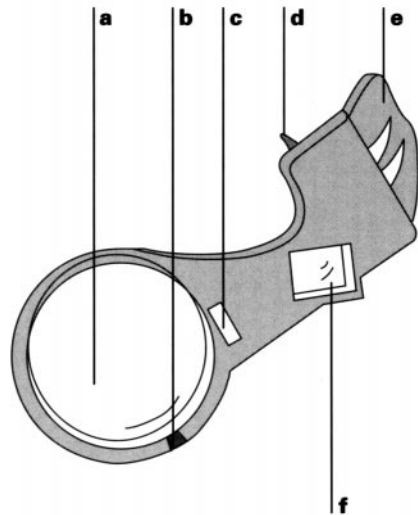
Press the MOD (mode) button until a series of dashes appears in the display. When these are visible in the display, a date will not appear on your photograph.

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.

10



- 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 36cm) from your subject and provides a magnification of approximately 0.4X. It can be easily attached to your camera and can remain on 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.

- 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 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
To measure the appropriate distance of 10-14 inches (25 to 36cm) 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.

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 ejected from the camera.

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

Start with the lighten/darken 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 25.

Blurry picture

Cause

- When 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 subject in the picture.



Cause

- Object in foreground prevented sound waves from measuring correctly. Lens focuses on object, causing unclear and possibly dark subject.

Solution

- The sound waves travel to the central part of the scene. Be sure there aren't any 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 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 18 in. 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).



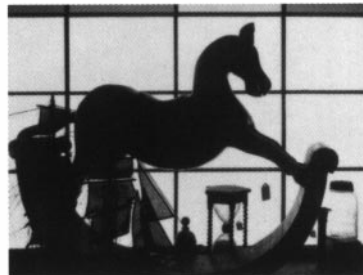
Subject too dark

Cause

- The camera's photocell measured the bright window light, causing the subject to be too dark.

Solution

- Reposition subject away from the bright background.



Cause

- When a bright source of light (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 source of light to one side of your subject so it is not in the central part of the scene.



Picture too blue or too red/yellow as possible.

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 the 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.

U.S.A.

If this camera proves to be defective, we will, at your option, either replace it or repair it without charge for as long as you own the camera (original owners only). *See Your warranty options.* To obtain warranty service, please call Polaroid at the toll-free number listed or write to the Polaroid Resource Center, 784 Memorial Drive, Cambridge, Massachusetts 02139-4688. This warranty does not cover damage caused by accident, misuse, or tampering with the camera, and a charge will be made for such repairs.

This warranty gives you specific rights, and you may also have other rights which vary from state to state. This warranty excludes all consequential damages. Some states do not allow the exclusion of consequential damages so the foregoing exclusion may not apply to you.

Your warranty options:

Replacement: You can choose to receive a replacement camera at no charge. If the failure occurs within 90 days of the purchase date, you can return the camera to any participating Polaroid dealer and you will receive a new ProCam camera. If the failure occurs after that period, call Polaroid at the toll-free number listed and we will ship you a refurbished camera of equal or better value. Replacement will be made 3-5 business days from the receipt of your camera. When you call, we will also tell you how you can get even faster service.

Repair: You can choose to have your camera repaired by calling the number listed for the address of the nearest authorized Polaroid repair location. Please allow 3 to 5 weeks from the receipt of your camera for the repair. The repaired camera will be returned to you along with a

reimbursement of your postage cost. This warranty applies to new ProCam cameras purchased in retail stores in the U.S.A. Please keep your dated sales receipt or proof of the purchase date to confirm coverage.

Business Image Guarantee

We are so sure you will be happy with your pictures that we guarantee complete satisfaction for one year.

If you are not pleased with any picture you take, use Polaroid Image Guarantee coupons to receive free replacement film. This offer is limited to 10 packs of replacement film. To receive your book of coupons, simply fill out and return the Registration card.

U.S. offer only

24 Camera, 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 36cm).

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 10.3cm).

Image area: 3.60 x 2.90 in. (9.1 x 7.2cm).

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 life span 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).

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 this instruction book.

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

U.S.A.
Polaroid Corporation
784 Memorial Drive
Cambridge, MA 02139
Tel.: Toll free 800-343-5000
from anywhere in the U.S.A.
(For hearing impaired users, call:
1-800-448-6708.) Our representa-
tives can be reached every weekday
from 8 a.m. to 8 p.m., Eastern Time.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a class B digital device, in accordance with Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference to radio communications in a residential installation. This equipment generates, uses and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio or television reception (determined by whether interference exists when the equipment is in use).

You should correct the interference by one or both of these methods:

- reorient or relocate the receiving antenna of the radio or television set
- increase the separation between the equipment and the receiver

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.