SPECTRA AF

Polaroid

This book contains operating instructions
for the Polaroid Spectra AF camera
(see p. 2.)The text refers to pictures
on these fold-out pages.

Este manual contiene las instrucciones
de operation de la camara Polaroid Spectra AF
(p. 23). El texto hate referencia a las figuras de
estas hojas desplegables.

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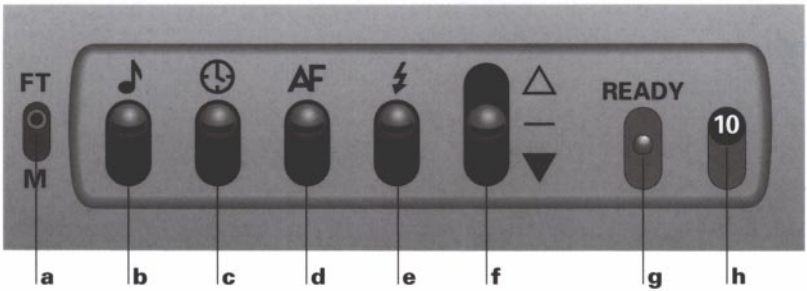
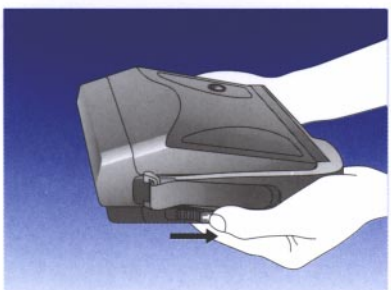
1

2



3



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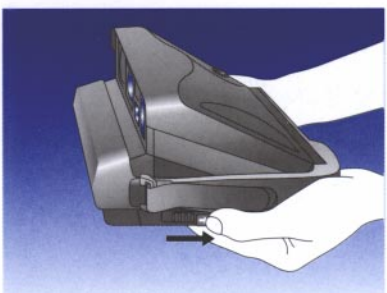

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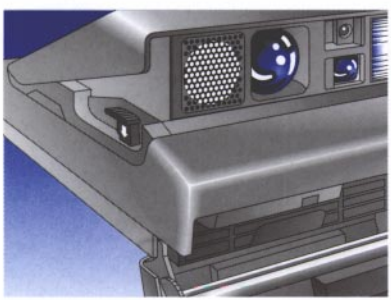

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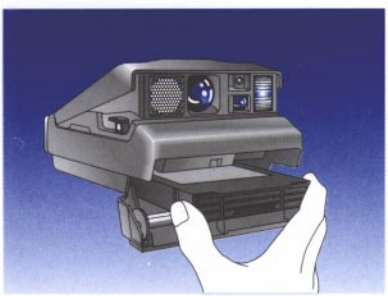

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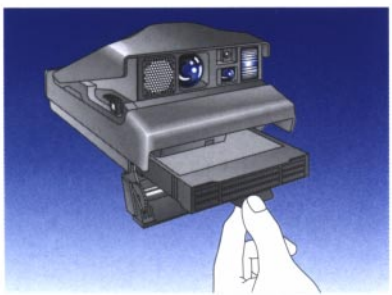
9



IMPORTANT SAFEGUARDS

As with any battery-operated equipment, observe these basic safety precautions:

1. FOLLOW ALL OF THESE INSTRUCTIONS.
2. CLOSELY SUPERVISE CAMERA WHEN IT IS BEING USED BY OR NEAR CHILDREN.
3. DO NOT USE CAMERA IF IT HAS BEEN DROPPED OR DAMAGED - UNTIL IT HAS BEEN EXAMINED AT AN AUTHORIZED POLAROID SERVICE CENTER.
4. TO AVOID ELECTRICAL SHOCK HAZARDS, DO NOT DISASSEMBLE CAMERA. SERVICE OR REPAIR WORK MUST BE DONE ONLY BY AN AUTHORIZED POLAROID SERVICE CENTER. INCORRECT REASSEMBLY CAN CAUSE ELECTRICAL SHOCK WHEN CAMERA IS USED AGAIN. DO NOT IMMERSE IN WATER OR OTHER FLUIDS.

PLEASE KEEP THESE INSTRUCTIONS

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The camera

a Sonar rangefinder (sends out sound waves to measure the distance to your subject).

b Film door release

c Film door

d Film exit slot

e Photocell-silicon photodiodes (measures light from the scene and light from the flash, indoors and outdoors).

f Film shade (protects the picture from light as it exits the camera).

g Programmed flash

h Self-timer indicator

i Patented Quintic lens (three element, 125mm lens system.) Ten-zone focusing from 2 feet (0.6m) to infinity.

j Hand strap (adjustable)

k Release latch (opens and closes the camera).

l Viewfinder

m Neck strap connector (see attachment instructions that come with neck strap).

n Tripod socket (underneath the camera).

o Two-stage shutter button (press halfway to restore the green light; press the rest of the way to take the picture. To delay ejecting the picture, hold the shutter button down).

The control panel

a Feet or meters selector (slide it down using the tip of a ball-point pen, and the distance reading in the viewfinder will be in meters).

b Audio signal switch (slide it down when you want to turn off the warning tone, beeps, or chimes).

c Self-timer switch (slide it down to get into your picture).

d Sonar autofocus override (slide the switch down to turn off the autofocus system).

e Programmed flash (slide the switch down to turn off the flash).

f Exposure control (adjust it to lighten or darken a picture).

g Rapid-recharge indicator: Green /;gM (means the flash is ready to fire and you can take a picture).

h Picture counter (counts down to show how many pictures are left in the film pack).

1 Open the camera (pictures 3, 4)

Place both hands under the camera as shown. Slide the release latch **back.** The camera will open automatically.

To **close** the camera (picture 4): When you have finished using the camera, close it to protect the lens. Hold the camera as shown. Slide the release latch **back.** Push **both** sides of the cover down until it locks.

2 Check the control panel

When you want the camera to be **fully automatic**, be sure all the switches are in a row as shown in picture 2.

Note: When the switches are not in the automatic mode, there is a red mark (or green symbol for the self-timer) visible on the panel.

3 Load the film (pictures 5, 6)

Use only Polaroid Spectra color film. Other Polaroid films cannot be used with this camera.

Push the film door release **down**. The film door will open. Hold the film pack by its edges only and slide it all the way into the camera.

4 Position your subject

You can take the most pleasing pictures of people, **both indoors and outdoors,** when they are **3 to 5 feet (0.9m to 1.5m) away.**

Indoors: Your subject should be within the **2 to 15 foot (0.6m to 4.6m)** flash range. For best results, your subject should also be near a light-colored background.

Outdoors: Your subject should be at least **2 feet (0.6m)** away from the camera.

5 Take the picture (pictures 7, 8)

Slide your left hand through the hand strap and hold the camera as you would a pair of binoculars.

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.

To remove an empty film pack (pictures 5 & 9)

After you take the tenth picture, the picture counter sets to zero and three chimes sound to remind you to remove the empty film pack.

Push the film door release **down** to open the film door. Pull the blue tab to remove the film pack.

When the camera contains an empty film pack:

- You will hear **three chimes** when you open the camera
- You will hear three chimes and then see a **flashing zero** in the viewfinder when you press and hold the shutter button halfway

The autofocus system

As you press the shutter button, your camera sends sound waves - within 10 thousandths of a second - to the central part of the scene (approximate area circled in white, see illustration).

The sound waves are used to measure the distance to the person or object (in the central part of the scene) that is **closest to the camera.**

A built-in computer then uses this measurement to provide the correct lens setting, so **be sure that:**

- **The sound waves must have a clear path to your subject.** If an object (candlestick, centerpiece, etc.1 prevents the sound waves from reaching your subject, the lens will focus on that object, and your subject will not be clear and in focus.
- When photographing more than one person, **place everyone the same distance from the camera.**
- When taking a picture through glass, turn off the autofocus system.

The viewfinder displays

When you have a film pack in the camera and press the shutter button **halfway**, a display appears in the viewfinder to help you take the best possible picture.

When you see a **number in the viewfinder**, it tells you the distance to your subject (in feet or meters). This number will help you follow the distance recommendations throughout this book.

The good picture symbol

When you see a **green "good picture" symbol**, the conditions are right for taking a good picture. Press the shutter button the rest of the way.

When you see **a flashing yellow "caution" symbol and hear a warning tone**, you should correct a problem before taking the picture. The distance reading will help you identify the problem. When you see:

The number 1: Your subject is too close. Release the shutter button and stand at least 2 feet (.6m) from subject.

A number from 16 to 20: Your subject is beyond the flash range. Release the shutter button and move closer to your subject to keep within the 2 to 15 foot (0.6m to 4.6m) flash range.

A number from 2 to 15: The flash is off. Slide the flash switch up to turn the flash back on.

Note: Distance readings do not appear when your subject is beyond 20 feet (6.2m).

The programmed flash (pictures 10, 11)

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.

In the sample outdoor scene, photographed **without flash** (picture 10), bright sunlight has created harsh facial shadows.

Your camera blends sunlight with just the right amount of flash to soften shadows and reveal facial details (picture 11).

The recharge indicator

The Polaroid Spectra features a rapid recharge flash with recharge times **usually less than a second.** The green light on the control panel will come on and the flash will automatically begin to charge every time you:

- Load film into the camera
- Take a picture
- Press the shutter button halfway
- Open the camera

When the green light comes on, the flash is ready to fire. The light will stay on for 20 to 30 seconds.

If you want to take a picture after the green light has gone off, lightly press and release the shutter button to turn the green light back on.

Flash range

Indoors: Your subject should be **2 to 15 feet (0.6m to 4.6m)** from the camera.

Outdoors: Your subject should be at least **2 feet (0.6m)** away.

The exposure control

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

a lighten

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

b darken

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

Any partial adjustments will not affect your exposure. The control must be adjusted all the way in either direction.

After you have finished taking the picture, do not forget to return the control to the **normal position (c)**.

c center

Special situations

Pictures taken of people in highly reflective beach or snow scenes often turn out **too dark.** You may want to set the control **all the way** up to the **lighten** setting **(a)** before taking this type of picture.

Backgrounds too dark? (pictures 12, 13)

If the background of a flash picture is too dark but your subject is well illuminated (picture 12), the background is too far away.

Moving the control to the **lighten** setting will not correct this problem, so be sure the exposure control is in the **normal position.**

Retake the picture, placing your subject **near a background** and keeping both within the **2 to 15 foot (0.6m to 4.6m) flash range** (picture 13).

The self-timer

The self-timer lets you get into your picture.

To use this feature, place the camera on a tripod or other steady support. If you attach the camera to a **table** tripod, be sure the camera is positioned over one of the tripod's legs for proper support.

a

Frame your picture in the viewfinder and press the shutter button **halfway** to be sure you get the green "good picture" symbol. Then **release** the shutter button.

Slide the self-timer switch all the way **down (a)**. You now have 12 seconds to get into your picture.

b

During the first **10 seconds**, the camera will beep and you will see a flashing red light (b) on the front of the camera.

Two seconds before the camera takes the picture, the red light will stay on and the beeps will become a steady signal to remind you to hold still and smile.

c

After the camera has taken the picture, it will not eject the film until you slide the self-timer switch **up (c)**. **Do not close the camera** before you slide the switch **up**.

If you want to stop the 12-second countdown, slide the switch **up (c)** to turn off the timer.

Note: When the self-timer switch is on there is a green circle visible in the control panel.

Photographing through glass

To avoid focusing on the glass and getting a flash reflection, turn off the autofocus and flash systems by sliding **both** switches **down**, as shown **(a, b)**.

a b

When you turn off the autofocus system, the lens sets for distant scenes (15 feet (4.6m) to infinity), requiring the picture to be taken in a special way:

- Be sure the scene is at least **15 feet (4.6m)** from the camera and in **daylight**.
- Frame the picture in the viewfinder and press the shutter button **halfway** (you will not see a distance reading because the autofocus system is off).
- When you see the green "good picture" symbol, take the picture.

If you see the flashing yellow "caution" symbol and hear a warning tone, there is not enough light to take a good picture.

c d

Important
When you have finished taking the picture, turn on the autofocus and flash systems by sliding **both** switches **up (c, d)**.

Lens care	It is important to avoid touching the lens. 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.**
Picture care	The development process takes place inside the film; therefore, developing Spectra pictures can be stacked. During the first **60 seconds** of development, handle the picture gently. Fanning or bending the picture will disturb the development process. Wind can also affect development as the picture exits the camera. You can delay ejecting the picture by holding the shutter button down until you can protect the picture from the wind. Hold the developing picture by its wide white border. **Note:** Keep the developing picture away from hot surfaces like the hood of a car.
Film care	For best results, use Spectra film between 55°F (13°C) and 95°F (35°C). See film box for more details.

For information and help

If you are unable to get good pictures, review this instruction book. Picture problems are often due to incorrect use of the camera. If you need further help, and before you return your camera for repair, please see your dealer or contact the nearest Polaroid office. If you write, please explain the nature of the problem and, if possible, enclose sample pictures. Include your return address.

U.S.A.
Polaroid Customer Care Center
201 Burlington Road
Bedford, Massachusetts 01731
Representatives available weekdays
from 8 a.m. to 8 p.m., Eastern time:
Tel: 1-800-343-5000 TDD: 1-800-448-6708

México
Polaroid de México
Paseo de la Reforma No. 195
Col. Cuahtémoc
06500 Mexico, D.F.
Tel: (05) 703-1111

Canada
Polaroid Canada, Inc.
350 Carlingview Drive
Rexdale, Ontario M9W 5G6
Tel: (416) 675-3680
Toll free: 800-268-6970

Warranty
U.S.A.: Full five-year
Mexico: Full five-year

If your camera proves to be defective within the warranty period, we will, without charge, either repair it or at our option replace it with a fully reconditioned camera.

The warranty period begins from the original date of purchase. **To verify the warranty period, you should keep the sales slip or other proof of the purchase date.** Without this information, the warranty period will be determined by the manufacturing date on the camera.

The repair or replacement of your camera is guaranteed for the remaining warranty period on your original camera. The warranty does not cover damage caused by accident, misuse, or tampering with the camera, and a charge will be made for such repairs.

For warranty service, the camera must be returned to and repaired by a Polaroid Service Center (see page 14). Please call us at the number listed for your location.

U.S.A.: Full five-year warranty

Mexico: Full five-year warranty (see p. 37)

U.S.A.: This warranty gives you specific legal 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.

Blurry picture	Cause	Solution
	• 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.	• Center the subject in the picture. Or, if you want to keep your subject off center, frame your subject in the middle of the viewfinder. Press and **hold** the shutter button **halfway** to lock in the correct lens setting. Then reframe your subject off center and press the shutter button the **rest of the way.**
	• Object in foreground prevented sound waves from measuring correctly. Lens focuses on object, causing unclear and possibly dark subject.	• The sound waves travel to the central part of the scene. Be sure there are no objects in front of your subject.
	• When picture is taken in low light (dusk, shade, etc.) shutter can stay open for as long as 2.8 seconds. Camera movement can cause the picture to be blurry.	• Hold the camera steady as you take the picture, or place the camera on a firm support.

Repeated spots or bar pattern	Cause	Solution
	• Developer rollers inside the film door need to be cleaned.	• Open film door in indirect light (do not remove film). While turning rollers, clean them with a lint-free cloth dampened with water.

Damaged picture	Cause	Solution
	• Picture was shaken back and forth or bent shortly after it ejected from the camera. • Picture was left in the exit slot, and camera was set down on a table or other surface.	• During first 60 seconds of development, handle print gently; hold it only by its wide white border, and do not wave or bend it. • Remove print from exit slot as soon as it ejects.

Subject too dark	Cause	Solution
	• Camera's photocell measured the bright window light, causing the subject to be too dark.	• Reposition subject away from the bright background.
	• When a bright source of light (lamplight, candlelight, etc.) 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.	• Move the source of light to one side of your subject so it is not in the central part of the scene.

Background too dark	Cause	Solution
	• Background was too far from subject.	• Place subject **near** a background and keep the picture control in the normal position.
	• Subject may have been beyond flash range.	• Stay within flash range of **2 to 15 feet (0.6m to 4.6m)**, and keep the picture control in the normal position.

Picture too blue or too red/yellow	Cause	Solution
	• Pictures taken at temperatures below 55°F (13°C) can have a **blue tint.**	• In cold weather, keep camera and film as warm as possible. Immediately place developing picture in a warm pocket for at least a minute, being careful not to bend it.
	• Pictures taken at temperatures above 95°F (35°C) can have a **red or yellow tint.**	• Avoid storing camera and film in hot places, such as glove or luggage compartments of a car, or near a heat source, such as a radiator.

Picture-taking tips (pictures 14, 17)

Color

Vibrant, bold colors are vividly reproduced on Spectra film (picture 14). Look for color when framing the scene in the viewfinder. Colorful props such as toys or flowers can add interest to the scene.

Distance

You can take the most pleasing pictures of people when they are 3 to 5 feet (0.9m to 1.5m) from the camera (picture 15). Backgrounds become less distracting and attention focuses on your subjects.

Background

Indoors, try to have a light-colored background. Outdoors, keep the background simple (picture 16).

Composition

When photographing landscapes, include something in the foreground to establish a feeling of depth or dimension (picture 17).

Camera, film specifications

Aperture/shutter system specifications
Apertures: from f/10 to f/45.
Shutter speeds: from 1/245 to 2.8 seconds.

Camera body size
Length: 6.82 inches (17.3cm)
Width: 5.46 inches (13.87cm)
Height: 3.07 inches (7.78cm)

Camera weight
1 lb. 12 1/2 oz. (.8kg approx.), without a film pack.

Film advance
Automatic film advance; motorized picture ejection.

Film size
Outer border: 4 x 4.06 inches (10.1 x 10.3cm)
Image area: 3.60 x 2.90 inches (9.1 x 7.2cm)

Film speed
IS0 600/29° (approx.)

Film type
Polaroid Spectra color film only. Starts developing in seconds. Ten pictures per pack.

Lens
Patented Quintic, three element, 125mm lens system. Ten-zone focusing from 2 feet (0.6m) to infinity.

Photocell
Dual-filter, silicon photodiodes. Green filtered cell measures visible light; black filtered cell measures infrared light for better indoor flash exposures.

Power source
A fresh, 6-volt battery in each film pack powers all camera functions.

Programmed flash
Built-in fill 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 2 to 15 feet (0.6m to 4.6m).

Sonar autofocus system
Computerized autofocus system uses sound waves to measure accurately the distance to your subject and set the lens. Sonar ranging time: from 10 to 50 thousandths of a second.

Viewfinder
100% viewing (no parallax) at 6 feet (1.8ml - a popular picture-taking distance. Six lenses, two prisms, and four mirrors provide sharp, clear viewing. View-
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