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I have no connection with any camera company

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Polaroid SONAR OneStep Pronto Land Camera

Polaroid

Polaroid introduces sonar focusing – the ultimate in one-step photography

That unexpected moment, that perfect smile, will never again be lost while you pause to set the lens.

The instant you see your picture, just aim and shoot. With sonar focusing, the camera sets the lens instantly, automatically.

Now, nothing interferes with seeing the shot and taking it.



(See "How sonar focusing works" inside this foldout.)

How sonar focusing works

As you begin to press the shutter button, your camera releases sound waves to the central part of the scene (approximate area marked in blue).

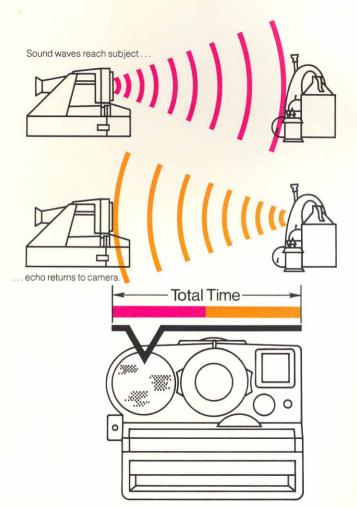
The frequencies are far beyond our range of hearing and travel at the speed of sound (1,100 feet per second).

The split second it takes for the sound to reach your subject and the echo to return is fed into a tiny electronic computer inside the camera.

The computer uses this time measurement to calculate the distance between the camera lens and your subject, then signals a motor to turn the lens until your subject is in sharp focus.

This extraordinary chain of events takes place in less than 1/3 of a second.





www.orphancameras.com

Contents

Please spend a few minutes reading this booklet. It could mean the difference between taking consistently good pictures or disappointing ones.

- 3 How sonar focusing works
- 6 Features
- 7 Film and flash
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Features

- Automatic and precise focusing in any light, even total darkness.
- Built-in "use flash or tripod" indicator.
- Pictures from 3 feet to infinity (flash to 12 feet).
- Can shoot as fast as every 1.5 seconds.
- 3-element, 114mm lens.
- Variable aperture from f/9.5 to f/24.
- Variable shutter speed from 1/180 of a second to 1 second.
- Flash in daylight to eliminate shadows.
- Automatic time exposures to 1 second.

Call us, free

If you ever have a question about your camera or your pictures, call us toll free...

800-225-1384

from anywhere in the continental U.S.A. except Massachusetts and Alaska. From those states, call collect—(617) 864-4568. In Canada, call toll free—800-261-6970. Our Customer Service representatives can be reached every weekday from 8 a.m. to 5 p.m., your local time.

Film and flash

Your camera uses Polaroid SX-70 Land film and FlashBars. Each film pack provides ten color pictures and contains a battery that powers the camera. Each FlashBar has ten bulbs.

You'll never waste a flash or film with this camera. It will not let a bulb fire when a film pack is empty and will not take a picture when all the bulbs on one side of the FlashBar have been fired. Your camera also finds the next good bulb in a partly used FlashBar.

Please read the important electronic flash statement on page 39.



Camera parts

- 1 Lens (3 element, 114mm, f/9.5)
- 2 Transducer (sends the sound waves and receives the echo)
- 3 Shutter button
- 4 Cable release socket (for the Polaroid Cable Release #2327)

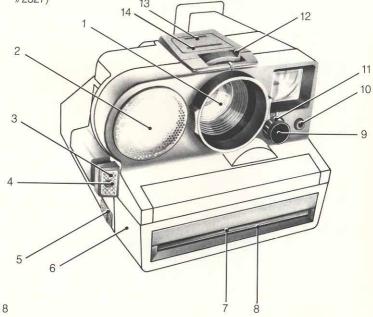
5 Film door latch

6 Film door

7 Film shade (shields the film from light; if it doesn't roll back after the film is ejected, gently lift its front end) 8 Picture exit slot

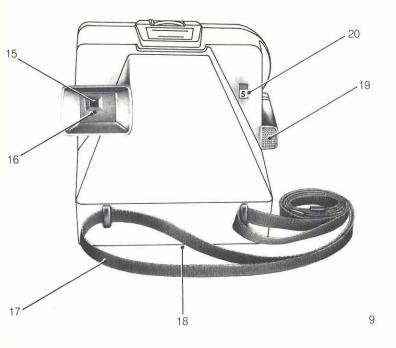
9 Electric eve

- 10 Sensor (for the "use flash or tripod" indicator under the viewfinder)
- 11 Lighten/Darken control (use only in special lighting situations; see page 26)



- 12 Focus switch
- 13 Socket for a future accessory
- 14 FlashBar socket
- 15 Viewfinder

- 16 "Use flash or tripod" indicator
- 17 Neckstrap
- 18 Tripod socket (is on the bottom of the camera; accepts a standard tripod screw)
- 19 Thumb grip
- 20 Picture counter (goes to 10 when you load a new or partly used film pack into the camera, counts down to show how many pictures are left)



To load the film

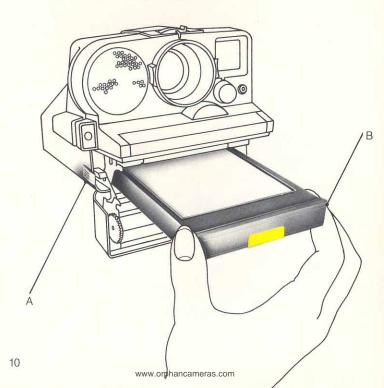
Push the latch (A) forward. The film door will drop open.

Hold the film pack by its edges only. (Gripping the pack above and below the yellow tab may damage the film.)

Push the film pack into the camera until the narrow strip (B) snaps open.

Close the film door. You'll hear the camera eject the film cover.

To remove an empty pack, pull the yellow tab.

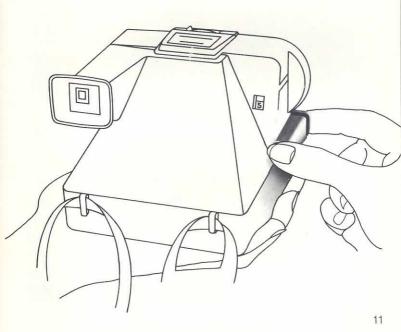


To hold the camera

Grip it firmly in the palm of your left hand.

Place your right thumb on the thumb grip, index finger on the shutter button, and curl the other fingers into your palm.

It's important to hold the camera as shown. Then, when you squeeze the shutter button, your fingers will not block the picture exit slot in front.



To aim

Bring your eye close to the viewfinder eyepiece so you can see all four corners inside.



To shoot

Squeeze the shutter button. The camera automatically sets the lens. **Hold the camera steady until the**

Hold the camera steady until the film is ejected.

Remove and handle the developing picture by its wide white border.



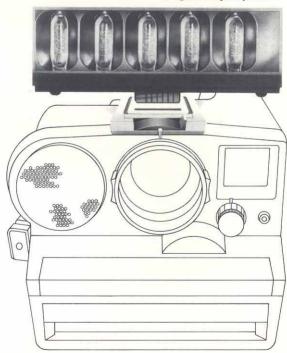
Use flash for most indoor pictures

Insert a FlashBar into the FlashBar socket. Always do this with the camera pointing away from you.

Indoors, you can take flash pictures of subjects **3 to 12 feet from the camera** (no more, no less).

You'll get particularly good flash pictures of people when they are 4 to 6 feet away and near a colorful background.

Flash pictures should not be taken where the atmosphere contains gases or dust that may be ignited by a spark.



Watch for your camera's "use flash or tripod" indicator

When you're not using flash, a red light may appear under the view-finder as you begin to press the shutter button.

It warns that the lighting on the scene is not bright enough for hand-held picture taking. Outdoors, the red light will most likely appear when it is heavily overcast, at dusk or when you're shooting in a shaded area. It will also appear indoors in most room lighting.

If you see the red light, release the shutter button. Then use flash or place the camera on a tripod for a time exposure.



You can use flash in daylight

This exciting feature, called "fillflash," can correct lighting situations that might otherwise have produced disappointing results.

Although you can use "fill-flash" when your subjects are 3 to 12 feet from the camera, you'll get particularly good results when they are 4 to 6 feet away.

Here are the typical ways "fill-flash" can help in daylight:

(near right)

Strong sunlight can create harsh facial shadows. Flash can fill in the shadowed areas with even, flattering light.

(middle right)

Your subject may be forced to squint when facing bright sunlight. To get the natural expression you want, take your subject out of direct sunlight and use "fill-flash."

(far right)

When the sun is behind your subject (but not shining directly into the lens), your subject usually will be too dark in the picture. "Fill-flash" can provide the added light your subject needs.













Indoor flash hints

Watch the background

To assure that it will be well lit by the flash, the background should be colorful and near your subject. When the background is dark, or far behind your subject, or beyond the flash range, it will be too dark in the picture.





Arrange groups carefully

All the people in a group should be about the same distance from the camera. Then everyone will be lit evenly by the flash.

To avoid a flash reflection

When shooting toward a reflective object or background (mirror, window, eyeglasses, etc.), stand to one side of your subject and shoot from an angle to avoid a flash reflection in the picture (see below).

However, when the reflective surface is smooth and flat and is the central part of your main subject (glass enclosed art, wall hanging, etc.), shooting at an angle may cause the sound waves to reflect away from the camera. If this happens, the lens will be set incorrectly and your picture may be unsharp. To avoid this, you can set the lens manually (see page 28).





Picture hints

It's easy to take beautiful pictures. Just keep these points in mind:

- Outdoors, in bright sunlight, stand so the sun is behind you or to the side.
- Move in close. You'll get particularly good results when your subject is about 4 to 5 feet from the camera. Then important details fill the picture and backgrounds are less distracting.
- Don't just wait for a special occasion. Photograph your subjects when they least expect it. Your camera is perfect for this type of shot—just aim and shoot.







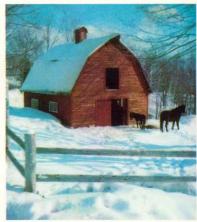


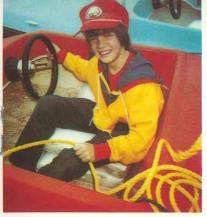
- Save action pictures for bright, sunlit days. Then your camera's shutter will work at top speed. And for best results, have your subjects move toward you rather than across the picture.
- Give your subjects something to do. Then they'll feel relaxed, not stiff or posed.

Picture hints, continued

- You don't always need direct sunlight to get great results. This portrait was taken on a bright overcast day. Since the light is diffused, shadows are soft, making it a flattering light for close-ups.
- When shooting scenics, include something in the foreground to serve as a natural frame or to show depth or scale.









- Include color: Use props. Ask your subjects to wear bold, solid colors or pose them near a colorful background.
- Watch the background. It should complement your subjects, not distract from them. Keep it simple.

Time exposures

Your camera can make automatic time exposures up to one second.

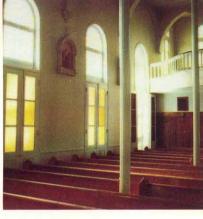
Keep the camera steady by placing it on a firm support—a tripod is best—and use the Polaroid Cable Release #2327. The tripod socket is on the bottom of the camera.

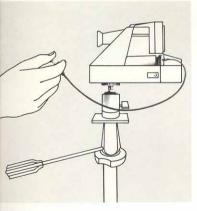
To take the picture, hold the cable release button down until the film is ejected.

For best results indoors, stand so bright lights are behind you or to the side.

Although pictures taken indoors without flash may not faithfully reproduce the colors of the subject, they often have a charm and beauty all their own.







Tips on outdoor lighting

Outdoors, your camera's electric eye controls the lens opening and shutter speed to let just the right amount of light reach the film.

The electric eye works best when the scene is evenly lit. It can be "fooled" by uneven lighting as described below.

Bright backgrounds: White wall, swimming pool, beach or snow scenes, etc.

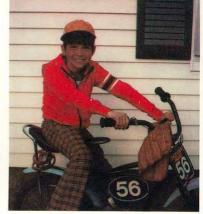
When a bright background is a large part of the scene and reflects more light than your subject, the electric eye sets the camera for the background causing your subject to appear too dark in the picture (top right).

You can do one of two things before taking the picture:

- move closer to your subject to reduce the effect of the background (bottom right).
- turn the Lighten/Darken control toward Lighten (shown below) to lighten your subject.



(Setting: 1 mark toward Lighten)





Dark backgrounds: Green foliage, dark wall, etc.

When a dark background is a large part of the scene and reflects less light than your subject, the electric eye will again set the camera for the background. Now, your subject may appear too light (top right).

Again, either move closer to your subject (bottom right) or set the Lighten/Darken control toward Darken (shown below) to darken your subject.



(Setting: 1 mark toward Darken)





To set the lens manually

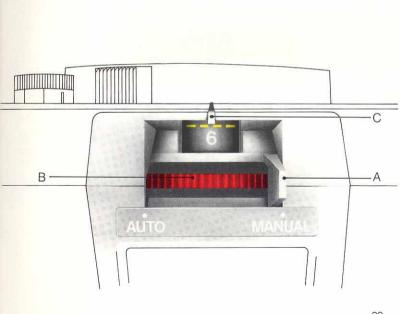
A few special situations call for setting the lens manually:

- When shooting straight-on through glass, it will block the sound waves from reaching your subject. The lens will focus on the glass and your picture may be unsharp.
 Screens or bars could cause the same result.
- When shooting at an angle toward a flat, smooth surface (glass enclosed art, wall hanging, etc.), the sound waves may reflect away from the camera. If this happens, your picture may be unsharp.

To set the lens manually: Flip the focus switch (A) to the manual position.

Then estimate the camera-to-subject distance and turn the manual focus wheel (B) until that distance is opposite the white pointer (C). The yellow broken line shows your camera's flash range: 3-12 feet.

When you've finished using the manual focus system, remember to flip the focus switch back to the automatic position. You'll hear the camera reset the lens for sonar focusing.





Need help? Call Customer Service

If you ever have a question about your camera or your pictures, call us toll free...

800-225-1384

from anywhere in the continental U.S.A. except Massachusetts and Alaska. From those states call collect—(617) 864-4568. From Canada, call toll free 800-261-6970. Our Customer Service representatives can be reached every weekday from 8 a.m. to 5 p.m., your local time.

Or, write to Polaroid Corporation, Customer Service, Cambridge, Mass. 02139, or to Customer Service at any of the locations listed on the back cover. Include your address, phone number and camera model.

All our Service Centers offer walk-in service, too, including while-you-wait repairs in most cases. If you can get to us easily, bring your camera and pictures in.

Troubleshooting

Repeated spots: If a repeated spot or bar pattern appears on the picture, the rollers inside the camera need cleaning.

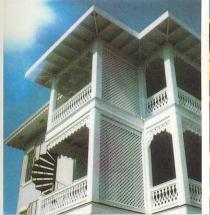
It's best to check the rollers each time you load film.

To clean the rollers: In dim light, open the film door and rotate the rollers (A). Remove any specks of dirt with a clean, lint-free cloth, moistened with water if needed. Check the raised ends (B) on the top roller; dirt can collect there too.



Part of the picture is fogged: White areas on the picture mean light reached the film before the picture was taken. This can happen when you remove and reinsert a film pack in the light. The top picture will always be fogged; others may be fogged in one corner. It's best to remove and reinsert a film pack in dim light.

Part of the picture is missing:
This happens when you damage the film by squeezing the pack above and below the yellow tab. As you load the camera, remember to hold the film pack by its edges.





Fuzzy pictures can be caused by...

- Moving the camera during picture taking. It is important to hold the camera steady until the film is ejected from the camera.
- Taking a picture in dim light. When the red light appears below the viewfinder, remember to use flash or take a time exposure (see page 15).
- Forgetting to reset the focus switch to the automatic position after setting the lens manually.
- Your subject being closer than 3 feet.

- Shooting through glass. The glass will block the sound waves from reaching your subject and the lens will focus on the glass. Set the lens manually (see page 28).
- The sound waves striking a foreground object and not reaching your subject. As you press the shutter button, the sound waves travel to the central part of the scene (see page 3). Be sure they have a clear path to your subject.



- Shooting at an angle toward a smooth, flat surface. The sound waves have reflected away from the camera. Set the lens manually (see page 28).
- Your subject moving during picture taking. You'll get the best action pictures when your subject is moving toward you, rather than across the picture.





If the camera does not eject the film cover:

- Press the shutter button. If the cover is not ejected, in dim light remove the film pack, then reinsert it.
- If the cover still is not ejected, remove the pack (its battery may be dead) and insert a new one.

If the film is not ejected when you press the shutter button:

- 1. Check the picture counter; the film pack may be empty.
- 2. Check the FlashBar; see page 7.
- 3. In dim light, pull the film pack out until the picture counter appears blank. Reinsert the pack (the picture counter will set to 10). The film should come out when you close the door. If the top piece of film is pushed forward when you reinsert the pack, pull that piece out. Then, close the door.
- If the above fail to get your camera working, insert a new film pack. The battery in the first pack may be dead.

If the film cover or film is ejected only part way:

- Release the film shade so it snaps back.
- 2. Pull the cover or film out.
- If the camera still does not work properly, remove the film pack (its battery may be weak) and insert a new one.

If these remedies fail to get the camera operating, call Customer Service (see page 31).

If your camera needs repair

If you believe your camera needs repair, before you send it to us please call Customer Service and explain the problem. We just may be able to save you the time and trouble of returning it.

Your Polaroid Land camera dealer will be happy to return your camera for repair. Or if you prefer, you may bring the camera to a Polaroid Service Center, which offers walk-in service. Many repairs can be made while you wait. You can also talk to our representatives about any picture problems you may have.

Or, you may mail the camera to Polaroid for repairs. Pack it carefully. Address it to the nearest Polaroid Service Center (see back cover). Send it by insured parcel post. To make it easier we will, at your request, send a sturdy preaddressed shipping carton to you anywhere in the U.S.A.

When returning your camera, be sure to include a note clearly describing the camera problem and, if you can, sample pictures which illustrate it.

Polaroid Service Centers try to give the fastest possible service and highest quality workmanship. The goal is to repair and ship all cameras within five working days. Depending on distance and mail service, you can expect to have your camera back in 10 to 14 days.

Film replacement

Return any film pack that has a dead or weak battery to Polaroid or to your dealer, and we will replace it—provided the film has not passed the expiration date on its box.

If you're taking your camera outside the U.S.A.

Try to anticipate your needs and take along an adequate supply of SX-70 film and FlashBars. Or, before leaving, check with the nearest Polaroid Customer Service office for places of supply in other countries.

Care of your system

The camera

Treat your camera with care. Rough handling may damage delicate parts. The lens and viewfinder will seldom need cleaning. If they do, blow off any dust, then wipe them gently with a clean, lint-free cloth. From time to time, clean the rollers inside the film door with a similar cloth, moistened with water if necessary (see page 32).

The film

Polaroid SX-70 Land film, like all film, should be kept cool. If possible, store below 75°F (24°C). For longer storage, keep below 65°F (18°C). In its sealed box, the film can be refrigerated (not frozen). Let it reach room temperature before using it. This will take at least an hour.

To preserve its freshness, keep the film sealed in its protective box until ready for use. Then, take the same care of a loaded camera as you do your film. Keep the camera in a cool place (but not in a refrigerator).

The pictures

When your developing picture comes out of the camera handle it by its wide white border. Don't bend, crush, or fold the picture. Don't cut the picture's borders, this can ruin the picture.

The brilliant pictures made with your SX-70 system are among the most stable and resistant to fading ever known in photography.

Fingerprints on your pictures can be easily removed. Simply "mist" the surface with your breath, then lightly polish with a tissue or a soft clean cloth.

Electronic flash

Your camera was designed to use FlashBars and with a FlashBar it will produce well exposed pictures over the full flash range from about 3 ft. to 12 ft.

Because of the special electronic circuitry in SONAR OneStep cameras, an electronic flash unit must have matching electronic characteristics in order to give good picture results with this camera.

As of August, 1978, such electronic flash units were not available. However, it is expected that units designed to give excellent results with SONAR OneStep cameras (over a somewhat shorter flash range) will be marketed in the near future.

Polaroid Customer Service will have a list of electronic flash units designed to work with SONAR OneStep cameras and you can get this information by calling toll free (see page 31). Electronic flash units other than those listed by Customer Service may not give consistently good results and may cause SONAR OneStep cameras to malfunction.

There is a general rule that applies to any electronic flash unit. If you get poor picture results with it, try a FlashBar. If you get good pictures with a FlashBar, but not with electronic flash, the cause of the problem is the electronic flash, not the camera or the film.

Accessories

Picture taking can be even more fun with the accessories listed below, available from your camera dealer.

- Polaroid Cable Release #2327
- Polaroid #2324 Carrying Case
- Polaroid Instant Tripod #2328

Copies and enlargements

High-quality copies and enlargements may be ordered through your camera dealer or directly from Polaroid Copy Service (the order form is on the back of the film cover).



Full one-year warranty

If your camera proves to be defective within the warranty period we will repair it, or at our option replace it with a similar camera, without charge. The warranty applies whether you do or do not return a registration card to us.

The warranty period is one year 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 is two years from the manufacturing date on the camera.

If, within the warranty period, your camera is mailed to us for service from inside the U.S.A., it will be returned with a postal refund approximately equal to the cost of insured parcel post. We will also give you a free pack of film.

This 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 or Authorized Service Center. You can return the camera through your Polaroid camera dealer. If that is not convenient, see page 37 for information on how to return the camera, or call

Customer Service toll-free at 800-225-1384 (from Massachusetts and Alaska call 617-864-4568 collect). From Canada, call toll free — 800-261-6970.

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 or limitation of incidental or consequential damages, so the foregoing limitation or exclusion may not apply to you.



Jot it down

For a permanent record, please jot down this information.

Camera manufacturing number (see arrow)

Date of purchase

Where purchased (name of dealer)

Polaroid service centers and offices

California

Polaroid Corporation 2040 F. Maple Avenue El Segundo 90245 Telephone: (213) 322-6206

Georgia

Polaroid Corporation 5601 Fulton Industrial Blvd. S.W. Atlanta 30336 Telephone: (404) 346-1717

Hawaii

Polaroid Corporation Suita 153 841 Bishop Street Honolulu 96813 Telephone: (808) 524-3911

Illinois

Polaroid Corporation 2020 Swift Drive Oak Brook 60521 Telephone: (312) 654-5252

Massachusetts

Polaroid Corporation 784 Memorial Drive Cambridge, Mass, 02139 Telephone Within Massachusetts. call collect 864-4568 Out of state, toll free 800-225-1384

New Jersey

Polaroid Corporation P.O. Box 607 W-95 Century Road Paramus 07652 Telephone: (201) 265-6900

Ohio

Polaroid Corporation 4640 Manufacturing Road Cleveland 44135 Telephone: (216) 267-7600

Texas

Polaroid Corporation 9029 Governors Row Dallas 75247 Telephone: (214) 631-9500

Puerto Rico

Polaroid Caribbean Corp. Charlyn Industrial Park Road 190 Km 17 Carolina 00630 Telephone: (809) 768-1119

Mailing address: P.O. Box 2032 Carolina 00630

Additional Service Centers:

Resides Polaroid's own Service Centers listed here there are many other Authorized Service Centers in the U.S.A. To locate the one closest to you call Customer Service (see page 31).

Polaroid Australia Ptv. Ltd. Eden Park Estate 31 Waterloo Road North Ryde NSW 2113 Mailing address:

P.O. Box 163 Austria

North Ryde, N.S.W. 2113 Polaroid Ges.m.b.H. Kegelgasse 27 1031 Wien, Postfach 349

Belaium

Polaroid (Belgium) S.A.-N.V. 113 Rue Colonel Bourg Kolonel Bourgstraat 113 1140 Bruxelles-Brussel

Brazil

Polaroid do Brasil I tda Rua Almirante Marques Leão 408 São Paulo 01330 S.P. Mailing address Caixa Postal 2908 São Paulo 01000

Canada

Polaroid Corporation of Canada, Limited 350 Carlingview Drive Rexdale, Ontario M9W 5G6 Telephone: (416) 675-3680 Polaroid Service Centre 8449 Main Street Vancouver, B.C. V5X 3M8

Telephone: (604) 324-5150

Denmark

Polaroid A.S. Blokken 75 3460 Birkerod

France

Polaroid (France) S.A. Office: 57, rue de Villiers 92202 Neuilly

Renairs:

1. rue Ambroise Croizat 95100-Z.I. Argenteuil

Germany

Polaroid GmbH Sprendlinger Landstrasse 109 6050 Offenbach

Great Britain

Polaroid (U.K.) Ltd. Ashley Road St. Albans Hertfordshire AL 1 5PR

Hong Kong

Polaroid (Far Fast) Limited 10th Fl. Block "B" Watson's Estate 8 Watson Road, North Point Hong Kong

Italy

Polaroid (Italia) S.p.A. Via Piave 11 21051-Arcisate (Varese)

Japan

Nippon Polaroid Kabushiki Kaisha Mori Blda. No. 30 3-2-2. Toranomon Minato-ku Tokyo (105)

Mexico

Michelmex S.A.* Apartado Postal #6-952 Mexico 6 D.F.

The Netherlands Polaroid (Europa) B.V. DeBoelelaan 32

1083 HJ Amsterdam Repairs Parallelweg 37b 7511 EE Enschede

New Zealand

Polaroid New Zealand Ltd. Augustus House 15 Augustus Terrace Parnell, Auckland 1 Mailing address: P.O. Box 37-046 Parnell Auckland 1

Norway

Polaroid (Norge) A/S Industriveien 8B Postboks 80 1473 Skårer

Panama

Polaroid Interamerican S.A. PO Box 2167 Colon Free Zone

Singapore

M-4 The Orchard 290 Orchard Road Singapore 9 Mailing address: Box 22 Pasir Panjang Post Office Singapore 5

Polaroid Singapore (Pte) Ltd.

Sweden

Polaroid AB Ekholmsvägen 34 127 24 Skärholmen Switzerland

Polaroid A.G.

Hardturmstrasse, 175 8037 Zürich

Venezuela

Micron C A * Apartado 70250 Ed America 4A Transversal Urh Horizonte Caracas 107

*Authorized Service Centers