

# ePhoto 1680 User's Guide



**AGFA** 

## FCC Information

**FCC WARNING:** This equipment meets the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. Only the power pack and cable supplied with the camera should be used. Operation with other power packs and cables is likely to result in interference to radio and TV reception and could void the user's authorization to operate this equipment.

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

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

Changes or modifications not expressly approved by the manufacturer may void the user's authority to operate this equipment.

## User Information

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ▶ Reorient or relocate the receiving antenna.
- ▶ Increase the separation between the equipment and receiver.
- ▶ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

## Canadian Radio Interference Regulations Statement

This Class B digital device meets all the requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la Classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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## **1-Year Limited Hardware Warranty**

Agfa warrants this product to be free from defects of material and workmanship for one (1) year from the date of purchase. During the warranty period, Agfa will repair or replace, at its option, the product at no charge to the customer. The replacement unit may be a remanufactured unit or a unit of equal or greater functionality. After one (1) year, Customer shall pay for all parts, labor and service.

Agfa warrants that software products will conform to published specifications in effect at the time of delivery for 90 days after purchase. Customer acknowledges that the Software may have inherent defects because of its complexity. The warranty applies only to the media on which the software is recorded.

If a unit is replaced during the warranty period, the original warranty shall remain in effect until the end of the one (1) year period or shall be 30 days, whichever is longer.

This warranty is transferable with new owner notification to Agfa.

This warranty shall not apply if Customer:

1. abuses or modifies Product or Software;
2. operates the system in an environment with excessive dirt, moisture, chemical fumes, extremes of temperature or other improper conditions. The camera is not impermeable to water, dust or sand.
3. supplies other Software or Interfacing.
4. Uses any adapter other than the Agfa ePhoto AC adapter.

Warranty service is excluded if the serial number of the product has been tampered with or removed.

THE PARTIES AGREE THAT ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY AND NON-INFRINGEMENT, ARE EXCLUDED.



# CONTENTS

<b>FCC Information</b> . . . . .	<b>2</b>
<b>User Information</b> . . . . .	<b>2</b>
<b>Canadian Radio Interference Regulations Statement</b> . . . . .	<b>2</b>
<b>1-Year Limited Hardware Warranty</b> . . . . .	<b>3</b>
<b>Introduction</b> . . . . .	<b>7</b>
Other Documents . . . . .	7
<b>Safety Information</b> . . . . .	<b>8</b>
Batteries and Battery Charger . . . . .	8
Camera . . . . .	9
<b>Camera Parts</b> . . . . .	<b>10</b>
<b>Memory Cards</b> . . . . .	<b>12</b>
Inserting a Memory Card . . . . .	12
Memory Card Capacity . . . . .	12
Memory Card Conditions . . . . .	13
<b>Batteries and Battery Charger</b> . . . . .	<b>14</b>
Battery Recommendations . . . . .	15
Battery Tips . . . . .	15
<b>Camera Buttons and Controls</b> . . . . .	<b>16</b>
Mode Switch . . . . .	16
EasyPilot Button . . . . .	16
Zoom Buttons . . . . .	17
Shutter Button . . . . .	17
Info Button . . . . .	17
<b>Information Displays</b> . . . . .	<b>18</b>
REC Mode Information Symbols . . . . .	18
<b>Taking Pictures</b> . . . . .	<b>20</b>
<b>Basic Settings</b> . . . . .	<b>21</b>
Camera Controls . . . . .	21
Resolution . . . . .	21
Flash . . . . .	22
Digital Zoom . . . . .	22
Preview . . . . .	23

<b>Advanced Settings</b> . . . . .	<b>24</b>
Using the Advanced Menu . . . . .	24
Advanced Settings Icons . . . . .	25
Self Timer . . . . .	26
Focus . . . . .	27
Exposure . . . . .	27
White Point . . . . .	29
External Flash . . . . .	30
Preferences . . . . .	31
Date & Time . . . . .	31
Automatic . . . . .	32
<b>Working with Captured Images</b> . . . . .	<b>33</b>
Using Single-Image View . . . . .	33
Using Multi-Image View . . . . .	36
Viewing Images on a TV . . . . .	39
<b>Using the Camera with Your Computer</b> . . . . .	<b>40</b>
Connecting to Your Computer . . . . .	40
Downloading Images into Your Computer . . . . .	40
<b>Creating Installation Diskettes for PhotoWise</b> . . . . .	<b>41</b>
<b>Camera Care and Maintenance</b> . . . . .	<b>42</b>
<b>System Requirements</b> . . . . .	<b>43</b>
IBM PCs and Compatibles . . . . .	43
Macintosh . . . . .	43
<b>Troubleshooting</b> . . . . .	<b>44</b>
<b>Camera Specifications</b> . . . . .	<b>49</b>

## INTRODUCTION

This *User's Guide* covers the following main topics concerning your ePhoto 1680 digital camera:

- ▶ *Safety Information* on page 8
- ▶ *Camera Parts* on page 10
- ▶ *Camera Buttons and Controls* on page 16
- ▶ *Taking Pictures* on page 20
- ▶ *Basic Settings* on page 21
- ▶ *Advanced Settings* on page 24
- ▶ *Working with Captured Images* on page 33
- ▶ *Using the Camera with Your Computer* on page 40
- ▶ *Troubleshooting* on page 44

## Other Documents

### User's Guide

This guide is also available as an Adobe Acrobat .pdf file entitled *ePhoto 1680 User's Guide.pdf* and is located on the PhotoWise CD.

### PhotoWise

For more detailed information on PhotoWise, consult the .pdf file called *PhotoWise Tips* in the PhotoWise folder on your hard disk, or consult the on-line help in the software itself.

## SAFETY INFORMATION



To avoid the risk of electric shock, do not disassemble the camera. Refer all servicing to qualified service personnel.



To avoid the risk of fire or electric shock, do not expose the camera to rain or moisture.

## Batteries and Battery Charger

▶ Before installing the batteries, turn the Mode switch to OFF.

▶ Use only size AA alkaline, lithium, rechargeable NiCd or NiMH batteries.



*Because of their short life, standard alkaline batteries are not recommended for the ePhoto 1680.*

▶ Do not use batteries that show signs of leakage, corrosion or swelling, or batteries that are excessively warm.

▶ Always replace all four batteries with four identical, new (or fully charged) ones.

▶ Dispose of used batteries promptly in a manner that complies with applicable laws.

▶ Keep all batteries away from children.

▶ Place only rechargeable NiMH or NiCd batteries in the charger.



**Do not place alkaline, lithium or other non-rechargeable batteries in the charger.**

▶ Never charge different types or sizes of batteries together.

▶ Keep the battery charger away from moisture at all times.

▶ Do not use the battery charger as a power source.



## Camera

- ▶ Be careful not to pinch fingers or clothing between the swivel lens and the main camera body.



*Do not force the zoom lens to swivel beyond its range (280°).*

- ▶ Do not touch or press on the LCD.
- ▶ When installing a memory card, make sure the door of the memory card slot is fully closed before swiveling the lens.
- ▶ Keep memory cards away from sources of heat, moisture and static electricity, as well as magnetic fields generated by electrical appliances such as TVs, VCRs and microwave ovens.
- ▶ Avoid leaving the camera in the sun or in a very warm location (beach, car, etc.) for prolonged periods.
- ▶ Do not wrap the camera in cloth or plastic while it is on (heat and moisture may be trapped and damage the camera).
- ▶ Avoid using the camera in excessively cold (below 32°F/0°C) or excessively warm (above 104°F/40°C) conditions.
- ▶ When you bring the ePhoto 1680 from a cold to a warm location, allow the camera to reach room temperature before you use it.
- ▶ Do not drop or bump the camera.



*Use only the optional Agfa ePhoto AC adapter with your camera. Use of any other adapter will void your warranty and may damage the camera.*

## CAMERA PARTS



1. **Shutter Button:** takes pictures.
2. **Battery Compartment:** holds 4 size AA alkaline or NiMH batteries (included).
3. **Memory Card Slot:** holds a removable memory card.
4. **Built-in Flash:** with 4 settings (automatic, fill-in, "red-eye" and off).
5. **FlashTrack™ Swivel Zoom Lens:** swivels independently of the camera body over a range of 280° so you can take pictures at any angle.



6. **EasyPilot™ Button (on side of camera):** scrolls through menu options (when turned) and makes a selection (when pressed).
7. **Mode Switch:** turns the camera on (REC to take pictures or PLAY to view stored images) and OFF.
8. **LCD:** functions as the viewfinder, and displays captured images and the camera's built-in menu system.
9. **Port Cover:** for the SERIAL, POWER (AC adapter) and VIDEO OUT ports.
10. **Info Button:** displays information about the camera, batteries and/or images.
11. **Zoom Buttons:** zoom the lens in (+) or out (-). In PLAY, the zoom buttons scroll through captured images.

## MEMORY CARDS

The ePhoto 1680 has no internal memory. All images are stored on removable memory cards. These cards are available in 2 MB, 4 MB, 8 MB and 16 MB sizes.



*The ePhoto 1680 accepts only 3.3 volt SSFDC or Smart-Media™ removable memory cards.*

### Inserting a Memory Card

*To insert a memory card:*

1. Swivel the lens up to expose the memory card slot on the side of the main camera body.
2. Open the door covering the memory slot and hold it open.



*The door is equipped with an interlock mechanism which automatically turns off the camera whenever the door is opened.*

3. Insert the memory card as shown on the door and push it all the way into the slot. The card can only be inserted one way.
4. Release the door. Make sure it closes completely and does not interfere with the swivel action of the lens.

### Memory Card Capacity




Your camera comes with one 4 MB card, whose storage capacity depends on the resolution of the images (for more information, see *Resolution* on page 21).



*Memory cards can store images in any combination of resolutions.*

## Memory Card Conditions

Certain memory card conditions may be indicated on the LCD from time to time:

Icon	Description
	<p>(Flashing) No memory card has been inserted.</p>
	<p>(Flashing) The memory card is the wrong type or is unreadable. To reformat the card, press in the EasyPilot button. Turn it to select <b>YES</b> and press it in to begin the reformatting process. <b>Note:</b> Selecting <b>YES</b> erases all data stored on the memory card.</p>
	<p>(Flashing) The memory card is full. To take more pictures, perform one of the following:</p> <ul style="list-style-type: none"> <li>▶ Insert a new card.</li> <li>▶ Lower the resolution (see <i>Resolution</i> on page 21).</li> <li>▶ Download the pictures to your computer (see <i>Downloading Images into Your Computer</i> on page 40).</li> <li>▶ Delete some or all of the images (see <i>Deleting Images</i> on page 34).</li> </ul>

## BATTERIES AND BATTERY CHARGER

So you can start using your ePhoto 1680 immediately, a set of 4 Duracell ULTRA® alkaline batteries is included. These batteries are ready to use, but can be used *one time only* and cannot be recharged.

Four size AA rechargeable NiMH batteries and a battery charger are also included. These batteries must be charged overnight before being used. The type of charger included with your camera depends on varying international power requirements. Specific operating instructions for your charger are packed inside the device or printed on its box.



**Recharge only NiMH or NiCd batteries. Never place alkaline or lithium batteries in a battery charger.**

### *To install the batteries:*

- ▶ Slide off the battery compartment cover.
- ▶ Insert the 4 batteries, following the orientation shown in the battery compartment.
- ▶ Replace the battery compartment cover. Make sure it clicks into place.

## Battery Recommendations

For best results, use batteries of the following types:

Battery Type	Average Pictures Per Charge	Notes
Lithium	1600	Recommended: Energizer® Hi Energy Lithium. <b>Cannot</b> be recharged.
NiMH	750	Best type. Rechargeable.
NiCd	750	Rechargeable.
Alkaline	500	Use only brands specifically made for "high-drain" devices (such as Duracell ULTRA®). <b>Cannot</b> be recharged.

## Battery Tips

- ▶ Recharge your fully depleted NiMH batteries using the battery charger included with your ePhoto 1680.
- ▶ For best results, use batteries until they are completely empty. Then recharge them fully.
- ▶ Battery life can be greatly extended by using the optional Agfa AC adapter to power the camera indoors or while connected to a computer.
- ▶ Keep a spare set of fully charged NiMH or NiCd batteries on hand at all times.

## CAMERA BUTTONS AND CONTROLS

### Mode Switch

The Mode switch powers the ePhoto 1680 on and off:

- ▶ **REC** — to take pictures.
- ▶ **PLAY** — to view and/or delete stored images.
- ▶ **OFF** — to turn off the camera.



*In REC or PLAY, the camera's startup process can be interrupted by switching to OFF.*

When the ePhoto 1680 is not connected to a computer, the camera powers down automatically after 60 seconds (REC) or 5 minutes (PLAY) of inactivity.

To turn the camera back on in either mode, press the Info button.

### EasyPilot Button

The EasyPilot button is used to navigate the camera's built-in menu system.

*To use the EasyPilot button:*

- ▶ **Scroll** — Turn the button in either direction to move from one menu option or icon to another.
- ▶ **Select** — Press in the button to select the highlighted icon or the setting indicated by the arrow.



*You can exit the menu system any time by pressing the Info button.*



## Zoom Buttons

The zoom buttons are used as follows:

- ▶ **REC** — to zoom the lens in (+) or out (-).
- ▶ **PLAY** — to scroll through images.

## Shutter Button

The shutter button has two positions:

- ▶ **Halfway** — to lock the camera's focus and calculate the exposure.
- ▶ **All the way** — to take a picture.








*Pressing the shutter button fully automatically activates the autofocus and calculates the exposure, so there may be a slight delay before the picture is taken.*

## Info Button




- ▶ **REC** — Press the Info button once to view the battery status and the image counters. Press it again to see the settings icons and the date and time. Press it a third time to remove the information display.
- ▶ **PLAY** — Press the Info button once to see the image counters and lock status (if applicable). Press it again to see the battery status, as well as the resolution, date and time at which the picture was taken. Press it a third time to remove the information display.

## INFORMATION DISPLAYS

### REC Mode Information Symbols

Symbol	Description
	<b>Battery status:</b> Segments disappear as power is used. When only the outline remains, replace the batteries as soon as possible. When the batteries are completely empty, a flashing battery icon covers the screen, and the camera cannot be used until the batteries are replaced. (For more information, see <i>Batteries and Battery Charger</i> on page 14.)
3▲	<b>Pictures remaining:</b> Number of pictures that can still be taken at the current resolution setting.
2▼	<b>Images captured:</b> Number of images stored on the memory card.
06/08/98 15:25	<b>Current date and time</b> (using a 24-hour clock): The date and time of each shot are always stored with the image.
	<b>Resolution:</b> To change the resolution, see <i>Resolution</i> on page 21.
	<b>Flash:</b> To change the flash setting, see <i>Flash</i> on page 22.
	<b>Digital zoom:</b> To change the digital zoom setting, see <i>Digital Zoom</i> on page 22.
	<b>Preview:</b> To change the preview setting, see <i>Preview</i> on page 23.

## PLAY Mode Information Symbols

Symbol	Description
	<p><b>Battery status:</b> Segments disappear as power is used. When only the outline remains, replace the batteries as soon as possible. When the batteries are completely empty, a flashing battery icon covers the screen, and the camera cannot be used until the batteries are replaced. (For more information, see <i>Batteries and Battery Charger</i> on page 14.)</p>
2/ 3	<p><b>Image counters:</b> number of the image/total number of images stored.</p>
06/08/98 15:25	<p><b>Date and time</b> (using a 24-hour clock): date and time the picture was taken (<i>not the current date and time</i>).</p>
 1680	<p><b>Resolution:</b> resolution at which the picture was taken.</p>
	<p><b>Image lock:</b> shows that the current image is locked against accidental deletion.</p>

## TAKING PICTURES

Unlike a conventional camera, the ePhoto 1680 has no viewfinder. The image seen through the lens is shown on the color LCD. To take pictures with the ePhoto 1680 you must have batteries installed and a removable memory card inserted.

### *To take pictures:*

1. Turn the Mode switch to REC. The LCD briefly shows the Agfa logo and then the "live" image seen through the lens.
2. Swivel the lens and use the zoom buttons (+ to zoom in, – to zoom out) to frame your picture on the LCD.



*If the lens swivels more than 45° toward you, the image on the LCD is corrected so it will appear rightside up.*

3. Hold the camera still and fully press the shutter button. The camera beeps, and the LCD displays an interruptible progress bar while the image is processed.



*Pressing the shutter button down halfway locks the camera's focus and calculates the exposure.*

After a few seconds, the LCD again shows the live image and the camera is ready for the next shot.

### *To discard an image during processing:*

1. While the image is processing press the EasyPilot button. A confirmation menu appears.
2. Turn the EasyPilot button to select **Discard image**.
3. Press in the EasyPilot button. The image is deleted.



*If you change your mind, select **Continue** to keep the image.*

## BASIC SETTINGS

This section explains the basic camera settings. For details on advanced settings, see *Advanced Settings* on page 24.



*The resolution and flash settings remain in effect until you change them, even if you turn the camera off.*

### Camera Controls

*To change a setting for a picture to be taken:*



1. In REC, press in the EasyPilot button. A row of green icons appears on the LCD.
2. Turn the EasyPilot button to highlight an icon.
3. Press in the EasyPilot button to select the icon. A column of green icons or a menu appears.
4. Turn the EasyPilot button to highlight an icon or option.
5. Press in the EasyPilot button to select the setting.





*You can exit the icon/menu system any time by pressing the Info button.*

### Resolution





The ePhoto 1680 provides the following resolution settings:

Setting	Description
	<p><b>1600 x 1200 pixels:</b> very low compression utilizing PhotoGenie™ technology during download (ideal for printing photo-quality images)</p> <p><b>Maximum 4 MB card capacity:</b> 6 images*</p>
	<p><b>1280 x 960 pixels:</b> CCD resolution, low compression</p> <p><b>Maximum 4 MB card capacity:</b> 12 images*</p>

Setting	Description
	<b>640 x 480 pixels:</b> normal compression (ideal for posting images on the Web) <b>Maximum 4 MB card capacity:</b> 48 images*
	<b>Black &amp; white text mode:</b> optimal compression for saving text-based documents <b>Maximum 4 MB card capacity:</b> 12 images*
* Depending on the complexity of the images stored, the memory card capacity may be up to 20% higher.	

## Flash

The ePhoto 1680 provides the following flash settings:



Setting	Description
	<b>Automatic:</b> flash is used automatically as determined by the camera
	<b>Fill-in:</b> flash is always used
	<b>Off:</b> no flash is used
	<b>Red-eye:</b> controlled pre-flashing is used to reduce the "red-eye" effect

## Digital Zoom

The ePhoto 1680 is equipped with a digital zoom feature. Using this feature, you can zoom into the center of the picture to create a 640 x 480 pixel image.





The digital zoom feature automatically sets the resolution to 307.

Setting	Description
	1x: digital zoom is off (default).
	2x: digital zoom (and 307 resolution) is applied.

## Preview

The ePhoto 1680 provides two preview settings:

Setting	Description
	<b>Normal:</b> shows the view through the lens (default).
	<b>Low light:</b> displays dark scenes more brightly so you can see details better to frame your shot.

The low light preview setting is provided only to help you see the scene more clearly on the LCD. The actual image you capture may look different, depending on which flash and other settings you use.




*With the normal preview setting, the image on the LCD moves smoothly as you move the lens. In low light mode, the image appears jerky as the camera slows down the video capture to collect more light.*

## ADVANCED SETTINGS

This section describes the advanced settings you can use to customize your ePhoto 1680 in addition to the basic settings (see *Basic Settings* on page 21).

*To access the advanced settings:*

1. Set the Mode switch to REC.
2. Press in the EasyPilot button. A row of green icons appears on the LCD.
3. Turn the EasyPilot button until the  icon is highlighted.
4. Press in the EasyPilot button. The Advanced menu appears with the following options:
  - ▶ Self Timer
  - ▶ Focus
  - ▶ Exposure
  - ▶ White Point
  - ▶ External Flash
  - ▶ Preferences
  - ▶ Date & Time
  - ▶ Automatic



*You can exit the menu system by selecting **Exit** or pressing the Info button.*

### Using the Advanced Menu

The Advanced menu gives you access to all the advanced settings for the ePhoto 1680.



Remember the following points as you use the menu system:

- ▶ The **Automatic** option restores all settings to their defaults.
- ▶ Use the **Exit** option or the Info button to leave the menu system without making any changes.
- ▶ You can set the camera to remember all advanced settings after the camera is powered off. See *Preferences* on page 31.







*While the camera is "sleeping," it keeps all settings regardless of the **Preferences** setting.*

- ▶ For each manual setting, a small icon is displayed on the right-hand side of the LCD as a reminder.

## Advanced Settings Icons

Icon	Setting Selected
	Self timer
	<b>Focus – ∞ (infinity)</b> : for subjects more than 16 ft (5 m) away
	<b>Focus – 5 m</b> : for subjects about 16 ft (5 m) away
	<b>Focus – 2 m</b> : for subjects about 7 ft (2 m) away
	<b>Focus – 1 m</b> : for subjects about 3 ft (1 m) away
	<b>Focus – Macro</b> : for subjects 8" to 3 ft (20 to 90 cm) away
	<b>Exposure</b> : aperture value




Icon	Setting Selected
	Exposure: manual
	Exposure: time value
	Manual white point
	External flash



*If there is no icon displayed, the settings are set to automatic.*

## Self Timer

The self timer delays the shutter after you press the shutter button (for example, so you can set the camera and join the picture). The **Self Timer** options are:

-  **5 Sec.** — 5-second shutter delay.
-  **10 Sec.** — 10-second shutter delay.
-  **OFF** — self timer off.

### *To turn on the self timer:*

1. Select **Self timer** in the Advanced menu.
2. Select a delay time.
3. Frame the picture and press the shutter button. The red LED on the front of the camera blinks, and the self timer countdown is displayed on the LCD.



*The self timer applies only to the next picture. Set the self timer for each picture individually.*

## Focus

This option allows you to choose a focal distance manually for your shots. For best results, the setting should match the distance of the subject from the lens (see *Advanced Settings Icons* on page 25).

### *To select a focus setting:*



1. Select **Focus** in the Advanced menu.
2. Select a focal distance in the **FOCUS** menu.

## Exposure

The **Exposure** setting controls the camera's exposure preference with the following options:

- ▶ Time value
- ▶ Aperture value
- ▶ Manual



*Before you take a picture, the ePhoto 1680 alerts you of a possible overexposure  or underexposure . You can, however, still take the picture.*

## Time value

This option controls how long the camera's shutter remains open for a picture. Use this "shutter priority" mode to set the shutter speed and allow the camera to calculate the appropriate aperture for the correct exposure. The settings range from 1/2 to 1/500 second.

***To set a time value:***

1. Select **Exposure** in the Advanced menu.
2. Select **Time value** in the **EXPOSURE** menu.
3. Select a time value.

**Aperture value**

This option controls the aperture size. Use this “aperture priority” mode to set the aperture and allow the camera to calculate the appropriate shutter speed for the correct exposure. The possible settings are:

- ▶ Large (f/2.8 – 3.5, wide or telephoto)
- ▶ Medium (f/5.6 – 6.4, wide or telephoto)
- ▶ Small (f/8.0 – 9.1, wide or telephoto)
- ▶ Automatic

***To set an aperture value:***

1. Select **Exposure** in the Advanced menu.
2. Select **Aperture val.** in the **EXPOSURE** menu.
3. Select your desired aperture.

**Manual**

Use this option to set the exposure manually using a sliding bar.

***To set the exposure manually:***

1. Select **Exposure** in the Advanced menu.
2. Select **Manual** in the **EXPOSURE** menu.

3. Scroll the EasyPilot button up (+) to increase the exposure or down (-) to decrease it. The image changes as you scroll to reflect the new exposure.



*The **A** setting indicates that exposure is set automatically by the camera.*

4. To take the picture with the sliding bar active, press the shutter button.
5. To set the manual exposure for more pictures, press in the EasyPilot button.



*To return to the automatic exposure setting and exit the menu system, press the Info button.*

## White Point

This option lets you set the white point manually for your images. The “white point” represents the neutral value by which all other colors are adjusted.

### *To set the white point manually:*

1. Select **White point** in the Advanced menu.
2. Select **Set white bal.** A message prompts you to aim the camera at the desired white point.
3. Aim the lens at a white area that fills the LCD completely, and press in the EasyPilot button. A confirmation message appears.
4. To save the white point, select **Yes**. To ignore the white point and return to the camera's automatic white balance, select **No**.
5. The image on the LCD changes to reflect the new white point.

## External Flash

Your ePhoto 1680 can be used with any external flash equipped with a white light slave sensor. Whenever a picture is taken, the external flash is triggered by a low-power burst of light from the camera's built-in flash.

The possible external flash settings are:

- ▶ Small 1/200
- ▶ Medium 1/200
- ▶ Large 1/200
- ▶ Small 1/100
- ▶ Medium 1/100
- ▶ Large 1/100
- ▶ Off



*The sizes refer to the aperture size, and the times (in seconds) indicate the shutter speed.*

### ***To use an external flash:***

1. Select **Ext. flash** in the Advanced menu.
2. Select a large, medium or small aperture based on these ranges:
  - Large:** f/2.8 – 3.5, wide – telephoto
  - Medium:** f/5.6 – 6.4, wide – telephoto
  - Small:** f/8.0 – 9.1, wide – telephoto

3. Select your shutter speed based on these criteria:

**1/100:** High-energy type external flash (typically over 1500 watts)

**1/200:** Low-energy type external flash (typically under 1500 watts)

4. Adjust the energy of the external flash power supply while taking pictures to find the proper exposure.

For best results with your equipment, experiment with different aperture and speed settings.



*Selecting **Off** returns the camera to its automatic or manually set exposure.*

## Preferences

You can set the camera to keep all advanced settings after you power it off.

### *To keep settings:*

1. Set your advanced settings.
2. Select **Preferences** in the Advanced menu.
3. Select **Yes** in the **PREFERENCES** menu. Your advanced settings will now be kept after the camera is powered off.


## Date & Time

Each image is tagged electronically with the date and time it was taken so it is important to make sure the date and time are set properly.



*The date is shown in the following format: mm/dd/yy (month/day/year). The time is indicated using a 24-hour clock.*

### *To set the date and time:*

1. Select **Date & Time** in the Advanced menu. The **SET DATE & TIME** screen appears with the month underlined.
2. Turn the EasyPilot button until the desired month appears.  
 *Scrolling up increases the number while scrolling down decreases it.*
3. Press in the EasyPilot button to set the month and underline the day.
4. Continue to turn and press the EasyPilot button to set the full date and time.
5. Select **Set** to confirm the date and time or **Exit** to leave them unchanged.



*You can exit the menu system any time by pressing the Info button.*

## **Automatic**

The **Automatic** option in the Advanced menu restores all the camera's advanced settings to their automatic defaults.





## WORKING WITH CAPTURED IMAGES

The ePhoto 1680 allows you to view and delete captured images or lock them against accidental deletion using the PLAY mode in either single-image view or multi-image view.

Remember the following points when in PLAY:

- ▶ When you turn the Mode switch to PLAY, the ePhoto 1680 LCD shows the last picture taken.
- ▶ While an image is processing for display, a watch icon appears.

**To switch from single-image to multi-image view:**

1. Press in the EasyPilot button. A row of green icons appears on the LCD with the  icon highlighted.
2. Press in the EasyPilot button. A series of thumbnail images fills the LCD.
3. To return to single-image view, press in the EasyPilot button again and select the  icon.

## Using Single-Image View

### Viewing Images

**To review stored images individually in succession:**

1. Scroll through the images using the zoom buttons (+ for forward, – for backward).




*If you are viewing one image at a time, it is helpful to display the image counters and/or the date and time (see Information Displays on page 18).*

2. When you reach the last image stored, as indicated by the counter (e.g. **3/3**), you can scroll further to go back to the first image. You may scroll this way in a continuous loop.


### Zooming in on an Image

The camera's digital 2x zoom allows you to zoom in on the center of an image.

#### *To zoom in on an image digitally:*


1. Press in the EasyPilot button. A row of green icons appears on the LCD.
2. Turn the EasyPilot button to highlight the  icon.
3. Press in the EasyPilot button. The center of the image now fills the screen.



*The digital zoom is indicated by the  icon in the upper right-hand corner.*

### Deleting Images

#### *To delete images:*


1. Press in the EasyPilot button. A row of green icons appears on the LCD.
2. Turn the EasyPilot button to highlight the  icon.
3. Press in the EasyPilot button. The **DELETE PICTURES** menu appears.
4. Select the desired option:
  - ▶ **Current** — to delete a single image.
  - ▶ **Multiple** — to delete more than one image.
  - ▶ **All** — to delete all images.
  - ▶ **Reformat** — to delete all images and reformat the memory card.



Select **Exit** or press the **Info** button to leave the menu without deleting any images.

5. In the confirmation screen that appears, select **Yes** to delete the image. A progress screen confirms the deletion.



If the arrow jumps to **No** without deleting the image, the image is locked against accidental deletion (note the  icon). To unlock the image, see the next section.


- ▶ If you selected **Current**, the camera automatically exits the menu system.
- ▶ If you selected **Multiple**, the next image appears and can be deleted. You can also use the zoom buttons to scroll through images and delete.
- ▶ If you selected **All** and images remain on the card, the images are locked and must be unlocked.



Select **No** to return to the **DELETE PICTURES** menu, or **Exit** to leave the menu system without deleting the image.

## Locking/Unlocking Images

*To lock/unlock images in single-image mode:*

1. Press in the EasyPilot button. A row of green icons appears on the LCD.
2. Turn the EasyPilot button to highlight the  icon. The **LOCK/UNLOCK** menu appears.

3. Select the desired option:

▶ **Lock/Unlock** — to lock/unlock the current image.



*This option immediately locks (🔒 icon) or unlocks (no icon) the current image. You can use the zoom buttons to scroll through images to lock/unlock.*

▶ **Lock all** — to lock all images.

▶ **Unlock all** — to unlock all locked images.


▶ **Exit** — to leave the menu without locking/unlocking any images.

4. If you selected **Lock all** or **Unlock all**, in the confirmation screen that appears select **Yes** to lock/unlock the images and exit the system, or **No** to return to the **LOCK/UNLOCK** menu (step 2).

## Using Multi-Image View

### Viewing Images

*To view multiple images at one time:*

1. Press in the EasyPilot button. A row of green icons appears on the LCD with the  icon highlighted.
2. Press in the EasyPilot button. The LCD now displays 9 numbered thumbnail images with the current image highlighted by a white frame.



*The image counters and date and time cannot be displayed in multi-image mode.*

3. Turn the EasyPilot button in either direction to highlight the thumbnails in succession.




When you reach the last thumbnail on the screen, scrolling further adds a new row of thumbnails to the screen (if there are more than 9 images). You may scroll this way in a continuous loop, forward or backward.

## Deleting Images

In multi-image view images are first selected ("marked") for deletion and then deleted at one time.

### *To delete images in multi-image mode:*

1. Press in the EasyPilot button. A row of green icons appears on the LCD.
2. Turn the EasyPilot button to highlight the  icon.
3. Press in the EasyPilot button. The **DELETE PICTURES** menu appears.
4. Select the desired option:
  - ▶ **Mark & Delete** — to select individual image(s) to be deleted.
  - ▶ **All** — to delete all images.
  - ▶ **Exit** — to leave the menu without deleting any images.
5. If you selected **Mark & Delete**, use the EasyPilot to select the image to be deleted. A confirmation screen appears.
6. Select **Mark**. The option changes to **Unmark**.



If you see the word **Protected** instead of **Mark**, the image is locked. To unlock the image, see the next section.

7. To mark and delete more images, select **Next** and repeat steps 6 and 7.

- When you are done marking images, select **Done**. The thumbnails are displayed. Those marked for deletion are indicated by a red **X**.
- Select **Yes** to delete the image(s). A progress screen confirms the deletion.



Select **No** to return to the **Select image** screen (step 6), or **Exit** to leave the menu system.





- If you selected **All**, in the confirmation screen select **Yes** to delete all images.



Select **No** to return to the **DELETE PICTURES** menu, or **Exit** to leave the menu system.


## Locking/Unlocking Images

### To lock/unlock images:

- Press in the EasyPilot button. A row of green icons appears on the LCD.
- Turn the EasyPilot button to highlight the  icon.
- Press in the EasyPilot button. The **LOCK/UNLOCK** menu appears.
- Select the desired option:
  -  **Lock/Unlock** — to lock/unlock one or more images.
  -  **Lock all** — to lock all images.
  -  **Unlock all** — to unlock all locked images.



Selecting **Lock all** or **Unlock all** brings up a confirmation screen. Select **Yes** to lock/unlock the images and exit the menu system, or **No** to return to the **LOCK/UNLOCK** menu.

-  **Exit** — to leave the menu without locking/unlocking any images.

5. If you selected **Lock/Unlock**, in the screen that appears use the EasyPilot button to select the image to be locked/unlocked.
6. In the confirmation screen that appears, select **Lock**. The option changes to **Unlock**.
7. To lock/unlock more images, select **Next** and repeat steps 5 and 6.
8. When you are finished locking/unlocking, select **Done**.

## Viewing Images on a TV

You can connect the ePhoto 1680 to a television via the included video cable so you can view captured images or take pictures.



*Your camera is either PAL or NTSC compliant, as marked on the outside of the box. The supplied video cable works with any type of television.*

### *To view images on a TV:*

1. Plug one end of the video cable into the VIDEO OUT port on the camera.
2. Plug the other end of the video cable into the video input jack on the TV.
3. The TV screen now takes the place of the camera's LCD (which no longer functions).



*For specific information on using external devices with your TV, refer to the documentation that came with your television set.*

# USING THE CAMERA WITH YOUR COMPUTER

## Connecting to Your Computer

In order to download stored images, the ePhoto 1680 must be connected to a computer using the serial cable provided.

*To connect the camera to your computer:*

1. Plug the jack at one end of the serial cable into the SERIAL port on your camera.
2. Depending on your operating system:



Plug the other end of the cable into a serial port on your computer.




Connect the other end of the cable to the Mac adapter cable provided. Then plug the end of the adapter into your Mac's printer or modem port.

## Downloading Images into Your Computer

The Agfa PhotoWise software included with your ePhoto 1680 is used to download images from your camera to a computer and then to edit your digital images.



*For detailed information on using PhotoWise, see the pdf file PhotoWise Tips or on-line help in PhotoWise.*

Photos taken using the highest resolution setting () go through a special processing step called Agfa PhotoGenie.



*PhotoGenie processing for true 1680 resolution (1600 x 1200 pixels) is available only through PhotoWise.*



## CREATING INSTALLATION DISKETTES FOR PHOTOWISE

Use this procedure to create diskettes so you can install PhotoWise on systems that do not have a CD-ROM drive.



*Use blank, formatted diskettes when prompted and label them by number (i.e., Disk 1, 2, 3, 4).*

**To create PhotoWise installation floppy disks:**



### Windows

1. Place the PhotoWise CD in the CD-ROM drive of your computer.
2. In the **Start** menu, select **Run**.
3. In the dialog window that appears, type:  
**d:mkfloppy.exe**  
where **d** is the letter of your CD-ROM drive.
4. Click on **OK**.
5. Follow the prompts.



### Macintosh

1. Place the PhotoWise CD in the CD-ROM drive of your computer.
2. Double-click on the **Make Floppies** application icon on the outermost level of the CD.
3. Follow the prompts.

## CAMERA CARE AND MAINTENANCE

Your ePhoto 1680 requires minimal maintenance. Before you perform any maintenance procedures, read *Safety Information* on page 8 of this guide. Then follow these guidelines:

- ▶ Never use harsh or abrasive cleaners on the outside surfaces of the camera. Wipe off dust with a clean, dry cloth.
- ▶ To clean the camera lens or LCD, blow away any surface dust or dirt. Then breathe on the surface to form a mist and gently wipe it with a soft, lint-free cloth or lens cleaning tissue.
- ▶ To avoid scratching the lens, use a gentle, circular motion when wiping.
- ▶ If necessary, clean battery contacts with a dry cloth before installation.
- ▶ If condensation develops inside the camera, stop using it immediately. Leave the camera at room temperature for a few hours to allow the condensation to evaporate.
- ▶ Do not disassemble or attempt to repair the camera yourself. Contact your dealer or Agfa technical support for service.

## SYSTEM REQUIREMENTS



### **IBM PCs and Compatibles**

- ▶ 486 processor (Pentium® recommended)
- ▶ Windows 95 or Windows NT (3.51 or later)
- ▶ 16 MB RAM
- ▶ 50 MB available hard disk space
- ▶ VGA monitor with support for at least 256 colors
- ▶ 2x CD-ROM drive (required for installation)
- ▶ 9-pin RS-232C serial port





### **Macintosh**

- ▶ System 7.0 or higher
- ▶ 68040 processor (PowerPC™ recommended)
- ▶ 16 MB RAM
- ▶ 50 MB available hard disk space
- ▶ Color monitor with support for at least 256 colors
- ▶ 2x CD-ROM drive (required for installation)
- ▶ Printer or modem port


## TROUBLESHOOTING


If you have a problem using your ePhoto 1680, please review this section first. If you cannot find the solution to your problem here, visit Agfa on-line at [www.agfahome.com/ephoto](http://www.agfahome.com/ephoto) or check with your dealer.

Problem	Possible Cause/Solution
<p>The camera has no power.</p>	<p><b>The camera is turned off.</b> Turn the Mode switch to REC or PLAY.</p> <p><b>The camera is inactive due to the automatic power down feature.</b> Press the Info button to turn it back on.</p> <p><b>The camera is connected to a computer (the LED next to the lens is blinking).</b> The camera has power, but can be controlled only from the computer.</p> <p><b>The batteries are too weak.</b> Replace them. If you are using the optional Agfa AC adapter, make sure it is securely plugged into a working outlet.</p>
<p>The shutter button doesn't work.</p>	<p><b>The camera is still saving a picture.</b> Wait for the live image to appear on the LCD.</p> <p><b>The camera is in PLAY.</b> Turn the Mode switch to REC.</p> <p><b>The memory card is full (flashing card icon on the LCD).</b> Download the images to your computer, delete some or all of the images, insert a different memory card or lower the resolution.</p> <p><b>The camera is connected to a computer.</b> The camera can be controlled only in PhotoWise.</p>

Problem	Possible Cause/Solution
The LCD doesn't turn on.	<p><b>The camera is connected to a computer.</b> Disconnect the camera or use the camera controls in PhotoWise.</p> <p><b>The camera is connected to a TV.</b> Disconnect the camera or view the images on your TV set.</p> <p><b>The batteries are too weak.</b> Replace them.</p>
The live image on the LCD appears jerky.	<p><b>The low light preview setting is selected.</b> This setting is used to display a dark scene more brightly to help you frame the shot. Use the setting to take a dark picture, or restore the normal preview setting.</p>
The live image on the LCD looks brighter than it should be.	<p><b>The low light preview setting is selected.</b> This setting is used to display a dark scene more brightly to help you frame the shot. Use the setting to take a dark picture, or restore the normal preview setting.</p> <p><b>You have selected an incorrect advanced exposure setting.</b> If the  or  icon is displayed, adjust the exposure setting or set it to automatic.</p>
The built-in flash doesn't work.	<p><b>The flash is off.</b> Check the flash setting.</p>

Problem	Possible Cause/Solution
<b>The recorded image is blurry.</b>	<p><b>The subject moved while you were taking the picture.</b> Hold the camera steady and take the picture again.</p> <p><b>You moved the camera before it beeped, signaling that the image was captured.</b> Take the picture again and hold the camera steady until you hear the beep.</p> <p><b>You used the wrong focus setting.</b> Make sure the subject's distance from the lens and the focus setting match. The flash illuminates subjects up to a distance of only about 10 feet (2.6 m).</p> <p><b>You manually set the shutter speed too low.</b> Increase the shutter speed manually.</p>
<b>The recorded image is too dark.</b>	<p><b>There was not enough light.</b> Set the flash to the Auto or Fill-in setting.</p> <p><b>The subject was too far away for the flash.</b> The flash illuminates subjects up to a distance of only about 10 feet (2.6 m).</p> <p><b>You selected an incorrect advanced setting.</b> Readjust the setting or set it to automatic. You can also use PhotoWise to adjust the brightness and contrast of your image.</p>













Problem	Possible Cause/Solution
<p>The recorded image is too bright.</p>	<p>If the flash was in the <b>Fill-in mode</b>, there was too much light. Change the flash setting to Auto.</p> <p>The camera was pointed directly at a <b>bright light</b>. Take the picture from a different angle. You can also use PhotoWise to adjust the brightness and contrast of your image.</p> <p>You selected an <b>incorrect advanced setting</b>. Readjust the setting or set it to automatic.</p> <p>You were too close to the subject (i.e., <b>Macro</b>) to use the flash. Turn off the flash and take the picture again.</p>
<p>The wrong date and/or time are displayed.</p>	<p>The <b>date and time are incorrectly set</b>. Set the correct date and time.</p>
<p>PhotoWise can't find the camera.</p> 	<p>The camera is <b>off</b>. Turn the Mode switch to PLAY or REC.</p> <p>The <b>serial cable is connected incorrectly</b>. Check the cable and connections.</p> <p>The <b>batteries are too weak</b>. Replace them.</p> <p>The <b>serial port setting is incorrect</b>. Your PC's serial port should be dedicated to the ePhoto 1680. If your computer is running other software packages in the background that periodically check the serial port (e.g., personal digital assistants), turn those programs off.</p> <p>There is an <b>internal device conflict in your computer</b>. Check the documentation that came with your computer and/or Windows.</p>





Problem	Possible Cause/Solution
<p>PhotoWise can't find the camera.</p> 	<p><b>The camera is off.</b> Turn the Mode switch to PLAY or REC.</p> <p><b>The serial cable is connected incorrectly.</b> Check the cable and connections.</p> <p><b>The batteries are too weak.</b> Replace them.</p> <p><b>AppleTalk is active.</b> Turn off AppleTalk before using PhotoWise.</p> <p><b>There is a port conflict.</b> If the serial cable is connected to the modem port, turn off any fax/modem software running in the background and disable any fax extensions.</p> <p><b>Apple Performa 6400/ 5400:</b>  <b>The serial cable may have grounding problems.</b> For best results, update your operating system to System 7.6.1 or higher. If you cannot update your system, disconnect the camera, reboot the computer and reconnect the camera.</p> <p><b>G3 Mac:</b> Check Apple's technical support at <a href="http://www.apple.com">www.apple.com</a> for a patch.</p> <p><b>There is an internal device conflict in your computer.</b> Check the documentation that came with your computer and/or Mac OS.</p>
<p>An image can't be deleted.</p>	<p><b>The image is locked.</b> Unlock the image.</p>



## CAMERA SPECIFICATIONS

Parameter	Specifications
<b><i>Physical</i></b>	
<b>Dimensions</b>	2" H x 6 1/8" W x 3 3/4" D (51 x 156 x 92 mm)
<b>Weight</b>	13.5 oz or 380 g (without batteries)
<b>Other</b>	Tripod mountable (1/4" x 20, standard 35 mm photo/video)
<b><i>Optics</i></b>	
<b>Lens Aperture</b>	f/2.8 (wide) – 3.5 (telephoto)
<b>Focal Range</b>	10 cm – infinity (wide) 80 cm – infinity (telephoto)
<b>Macro Focal Distance</b>	10 cm – 1 m (wide) 50 cm – 1 m (telephoto)
<b>Focal Length</b>	38 – 114 mm, 3x zoom (35 mm equivalent)
<b>Shutter Speed</b>	1/2 – 1/500 seconds, automatic
<b>ISO Rating</b>	ISO 60
<b>CCD Image Sensor</b>	1/3" IT-CCD, 1280 x 960 pixels
<b>Flash</b>	<b>Range:</b> Normal: 20 cm – 2.6 m, Macro: 40 – 75 cm <b>Modes:</b> Auto, Fill-in, Redeye, Off <b>GN:</b> 7.8
<b>LCD Screen</b>	Low-temperature 2" poly-silicon TFT LCD
<b><i>Images</i></b>	
<b>Compression</b>	JPEG (internal)

Parameter	Specifications
<b>Resolution</b>	 — 1600 x 1200 pixels, very low compression  — 1280 x 960 pixels, low compression  — 640 x 480 pixels, low compression  — 1280 x 960 pixels, black & white document mode
<b>Color Depth</b>	30 bits (capture), 24 bits (saved)
<b>Storage</b>	3.3 V removable SSFDC memory cards (2 MB – 16 MB), no internal memory
<b>Storage Capacity</b>	 — 6 images  — 12 images  — 48 images  — 12 images
<b><i>Power</i></b>	
<b>Source</b>	4 AA alkaline, lithium, NiMH or NiCd batteries (alkaline batteries not recommended)
<b>Battery Life (NiMH)</b>	<b>Continuous play:</b> approx. 1 hour <b>Continuous record:</b> approx. 30 minutes
<b>Other Source</b>	Optional Agfa AC adapter
<b><i>Operation</i></b>	
<b>Startup Time</b>	< 2 seconds
<b>Shutter Delay Time</b>	Approx. 1000 ms, including auto-focus
<b>Average Image Processing Time (REC)</b>	 — 8.5 seconds  — 6.7 seconds  — 4.0 seconds  — 6.7 seconds

Parameter	Specifications
Average Image Display Time (PLAY)	 — 7.3 seconds  — 5.9 seconds  — 3.5 seconds  — 5.9 seconds
Computer Interface	Serial, RS-232C
Transmission Speed	up to 230,400 bps
Video Output	NTSC only or PAL only (see box)
Power Down Timer	<b>REC:</b> 60 seconds <b>PLAY:</b> 5 minutes
Self Timer	5 seconds, 10 seconds, Off
Exposure	1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500
<b><i>Environment</i></b>	
Levelness	Can be operated at all angles
Altitude	Up to 11,800 ft (3,600 m) above sea level
Temperature	<b>Operating:</b> 32 – 104°F (0 – 40°C) <b>Storage:</b> -4 – +140°F (-20 – +60°C)
Relative Humidity	10 – 90%, non-condensing
<b><i>Approvals</i></b>	
See serial label on side of swivel lens.	

## Local Agfa Dealers

### Argentina

Agfa-Gevaert Argentina S.A.  
Venezuela 4269, 1211 Buenos Aires  
Tel.: 54 1 958 5767/5770  
Fax: 54 1 983 5052

### Australia

Agfa-Gevaert Ltd.  
Whitehorse Road 372-394  
Nunawading, Victoria 3131  
Tel.: 61 18 0068 1044  
Fax: 61 3 9264 7893  
E-mail: helpdesk@agfa.com.au

### Belgique/België

Agfa-Gevaert  
Digi Care B.V.B.A.  
General De Wittelaan 9-15  
Tel.: 32 015 209025  
Fax: 32 015 209860

### Brasil

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CEP 01311-200, São Paulo  
Tel.: 55 11 251 5508  
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### Canada

Bayer Inc. - Agfa Division  
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Etibicoke, Ontario M9W 1G6  
Tel.: 1 416 241 1110, 1-800 565 2432  
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### Chile

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CompuServe: GO DTPBVEN,  
Sektion Agfa Deutschland  
Fax-back: 49 221 5717 766  
Agfa SnapScan: 49 190 871167  
(DM 3,60 pro Minute)  
Support für alle anderen Scanner:  
49 221 5717 389

### Ecuador

Sanitas S.A.  
Junín 419 y Córdoba, Casilla 3259, Guayaquil  
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Fax: 43 1 89112 3204

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Coframa  
Benjamin Constant, esq., 15 de Agosto,  
Asunción 5  
Tel.: 59 5 2149 0183/5  
Fax: 59 5 2149 5792

**Perú**

Distribuidora Multigra  
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URB-Corpac-San Isidro  
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