This guide explains the functions of this product. Please read it to understand the correct handling procedures before using the product.
Introduction

Thank you for purchasing a Canon PowerShot Pro70 Digital Camera. The PowerShot Pro70 is a high-quality, high-resolution digital camera. Equipped with a diverse range of advanced functions, the PowerShot Pro70 can accommodate the needs of any photographer with its easy-to-use auto mode, aperture-priority AE mode and continuous shooting mode.

We invite you to read this guide and the guides accompanying the bundled software to maximize your enjoyment of the exciting world of high-quality digital photography.

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Notice Please ensure that you read and follow the handling instructions on page 7 of this guide before attempting to use the camera.
Confirm the Contents of the Package

The package in which the camera is shipped should contain the items below. Please contact your camera distributor if you should find anything missing.

- PowerShot Pro70
- Lens Cap
- Shoulder Strap SS-PS200
- CompactFlash™ Card (CF card)
- Battery Pack NB-4H
- Compact Power Adapter CA-PS200
- DC Coupler DR-200
- Power Cord
- Video Cable VC-100
- Hardware Guide (this guide)
- Software Guide
- System Map
- Interface Cable IFC-100PC
- Interface Cable IFC-100MC
- PowerShot Pro70 Solution CD-ROM
Operation Procedures

Installing the Batteries, CF Card and Strap (p. 23)

Try the basic camera operations (p. 38)

Shooting
- Shooting in Auto Mode (p. 35)
- Changing the Image Size and Compression Settings (p. 50)
- Zoom (p. 52)
- Macro Mode (p. 53)
- Continuous Shooting Mode (p. 54)
- Aperture-Priority AE Mode (p. 56)
- Exposure Compensation (p. 59)
- Self-Timer (p. 61)
- Flash Photography (p. 64)

CF Card
In a digital camera, a CF card serves in place of film. Pictures are recorded onto the CF card. Unlike film, there is no need for the development process. Moreover, the CF card can be reused as unwanted images are erased.

Review Images
- Check Your Images on the Spot (p. 48)
- Replay Images (p. 69)

Erase Unwanted Images (p. 84)
Processing Images on a Computer (See the Software Guides)
(Images that have been loaded onto a computer can be saved to hard or floppy disks.)
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Handling and Safety Precautions

Thank you for purchasing a Canon product. Please ensure that you read and understand these handling and safety precautions before you operate your PowerShot Pro70 Digital Camera. Once you have read these instructions, we recommend that you keep the camera with you and try each function as you read about it in the remaining pages.

Please Read

Test Shots

Before you shoot images of subjects of importance to you, we highly recommend that you shoot several trial images to confirm that you are operating the camera correctly. Please note that Canon Inc., its subsidiaries and affiliates, and distributors of its digital cameras are not liable for any consequential damages arising from any malfunction of a PowerShot camera or CompactFlash™ card (CF card) that results in the failure of an image to be recorded or to be recorded in a format that is machine sensible.

Warning Against Copyright Infringement

Please note that PowerShot digital cameras are intended for personal use and should never be used in a manner that infringes upon or contravenes international or domestic copyright laws and regulations. Please be advised that in certain cases the copying of images from performances, exhibitions, or commercial properties by means of a camera or other device may contravene copyright or other legal rights even if the image was shot for personal use.
Safety Precautions

• Before using the camera, please ensure that you have read and understood the safety precautions described below. Always ensure that the camera is operated correctly.
• The safety precautions noted on the following pages are intended to instruct you in the safe and correct operation of the camera and its accessories to prevent injuries or damage to yourself, other persons and equipment.
• In the next few pages, the term "equipment" refers primarily to the camera and its power supply accessories.

⚠️ Warnings

• Do not aim the camera directly into the sun or at other intense light sources that could injure your eyesight.

• Do not trigger the optional flash in close proximity to human or animal eyes. Exposure to the intense light produced by the flash may injure eyesight. In particular, remain at least one meter (39 inches) away from infants when using the flash.

• Store this equipment out of the reach of children and infants. Accidental damage to the camera or batteries by a child could result in serious injury. In addition, placement of the strap around the child’s neck could result in suffocation.

• Be particularly careful to keep the button batteries (CR 2025 lithium) used in the camera out of the reach of children. Seek medical assistance immediately if a child swallows a battery.

• Do not use substances containing alcohol, benzene or thinners or other flammable substances on the equipment. The use of these substances may lead to fire or electrical shock.
• Do not attempt to disassemble or alter any part of the equipment that is not expressly
prescribed in this guide. Disassembly or alteration may result in high-voltage electrical shock.
Internal inspections, alterations and repairs should be conducted by qualified service personnel
authorized by your camera distributor or a Canon Customer Support Help Desk.

• Stop operating the equipment immediately if it should emit smoke or noxious fumes. Failure to
do so may result in fire or electrical shock. Immediately shut off the camera’s power switch and
remove the camera battery or unplug the power adapter cord from the electrical outlet.
Confirm that smoke or fume emissions cease. Please consult your camera distributor or the
closest Canon Customer Support Help Desk.

• Stop operating the equipment if it is dropped or the casing is damaged. Failure to do so may
result in fire or electrical shock. Immediately shut off the camera’s power switch and remove
the camera battery or unplug the power adapter cord from the electrical outlet. Please consult
your camera distributor or the closest Canon Customer Support Help Desk.

• Prevent the equipment from contact with, or immersion in, water and other liquids. Do not
allow liquids to enter the interior. The camera has not been waterproofed. If the exterior comes
into contact with liquids or salt air, wipe it dry with a soft, absorbent cloth. In the event that
water or other foreign substances enter the interior, immediately shut off the camera’s power
switch and remove the camera battery or unplug the power adapter cord from the electrical
outlet. Continued use of the equipment may result in fire or electrical shock. Please consult
your camera distributor or the closest Canon Customer Support Help Desk.

• Do not cut, damage, alter or place heavy items on the power adapter cord. Any of these
actions may cause an electrical short circuit, which may lead to fire or electrical shock. Replace
a broken or damaged power adapter cord.
• Do not handle the power adapter cord if your hands are wet. Handling it with wet hands may lead to electrical shock. When unplugging the cord, ensure that you hold the rigid portion of the plug. Pulling on the flexible portion of the cord may damage or expose the wire and insulation, creating the potential for fires or electrical shocks.

• Use of power sources not expressly recommended for this equipment may lead to overheating, distortion of the equipment, fire, electrical shock or other hazards. Use only the recommended compact power adapter and accessories.

• Power down the computer and unplug the power adapter cord before attempting to connect the interface cable to avoid the risk of electrical shock.

• Do not place the battery pack near a heat source or expose it to direct flame or heat. Neither should you immerse it in water. Such exposure may damage the battery pack and lead to the leakage of corrosive liquids, fire, electrical shock, explosion and serious injury.

• Do not attempt to disassemble, alter or apply heat to the battery pack. There is serious risk of injury due to an explosion. Immediately flush with water any area of the body, including the eyes and mouth, or clothing that comes into contact with the inner contents of a battery pack. If the eyes or mouth contacts these substances, immediately flush with water and seek medical assistance.

• Avoid dropping or subjecting the battery to severe impacts that could damage the casing. It could lead to leakage and injury.

• Do not short-circuit the battery terminals with metallic objects, such as key holders. It could lead to overheating, burns and other injuries. Use the supplied battery case when transporting or storing the battery pack.
Before you discard a battery, cover the terminals with tape or other insulators to prevent direct contact with other objects. Contact with the metallic components of other materials in waste containers may lead to fire or explosions. Discard the batteries in specialized waste facilities if available in your area.

Use of batteries not expressly recommended for this equipment may cause explosions or leaks, resulting in fire, injury and damage to the surroundings. Use only recommended batteries and accessories.

Use only the recommended compact power adapter to charge rechargeable batteries. Use of chargers not expressly recommended may result in overheating, distortion, fire or electrical shock.

Disconnect the compact power adapter from both the camera and electrical outlet after recharging and when the camera is not in use to avoid fires and other hazards.

The camera terminal of the compact power adapter cord is designed for exclusive use with the PowerShot Pro70. Do not use it with other products or batteries. There is risk of fire and other hazards.

Place the battery pack in the supplied case when carrying it after removing it from the camera.

Store the battery pack out of the reach of children or infants.

Caution

Avoid using, placing or storing the equipment in places subject to strong sunlight or high temperatures, such as the dashboard or trunk (boot) of a car. Exposure to intense sunlight and heat may cause the batteries to leak, overheat or explode, resulting in fire, burns or other injuries. High temperatures may also cause deformation of the casing. Ensure that there is good ventilation when using the compact power adapter to charge the battery pack or power the camera.
• Do not store the equipment in humid or dusty areas. Storage in these areas could lead to fire, electrical shock or other damage.

• Be careful not to bang the camera or subject it to strong impacts or shocks that could lead to injury or damage the equipment when wearing or holding it by the strap.

Preventing Malfunctions

Avoid Strong Magnetic Fields
Never place the camera in close proximity to electric motors or other equipment generating strong electromagnetic fields. Exposure to strong magnetic fields may cause malfunctions or corrupt image data.

Avoid Condensation Related Problems
Moving the equipment rapidly between hot and cold temperatures may cause condensation (water droplets) to form on its external and internal surfaces. You can avoid this by placing the equipment in a plastic bag and letting it adjust to temperature changes slowly before removing it from the bag.

If Condensation Forms Inside the Camera
Stop using the camera immediately if you detect condensation. Continued use may damage the equipment. Remove the CF card, batteries and power adapter cord from the camera and wait until the moisture evaporates completely before resuming use.

Extended Storage
When not using the camera for extended periods of time, remove the batteries (except the button CR2025 lithium battery) and store the equipment in a safe place. Storing the camera for extended periods with the batteries installed will run down the battery and may damage the camera.
Guide to Components

Front View

- Viewfinder Window
- Self-Timer Lamp (p. 61)
- Strap Holder (p. 37)
- Shutter Button (p. 45)
- Accessory Shoe (p. 64)
- Mode Dial (p. 16)
- Terminal Cover (p. 16)
- Strap Holder (p. 37)
- Zoom Lever (p. 52)
- Filter Mount
  Accepts generic filters (37 mm diameter)
  Please note that a portion of the filter may appear on the edges of the image with some brands of filter.
  Protect the lens with the supplied cap when the camera is not being used to shoot images.

- Lens
- Light Sensor
- AF Auxiliary Light Emitter
**Back View (with LCD Monitor Open)**

- Microphone (pp. 67, 74)
- Optical Viewfinder (p. 46)
- Adjustment Dial for the Optical Viewfinder
  Turn this dial to adjust the viewfinder focus.
- LCD Monitor (p. 20)
- Control Panel (p. 17)
- Strap Holder (p. 37)
- + Button
- Set Button
- - Button
- Indicators (p. 15)
- Button Battery Cover (p. 30)

**Bottom View**

- CF Card Slot Cover (p. 34)
- Tripod Socket
- Battery Cover (p. 25)
**Indicators**
These lights shine or flash when the shutter button is pressed to confirm various actions and camera modes.

- **Upper Indicator**
  - Green: Ready to take picture (no flash)
  - Flashing Green (Fast): No autofocus lock (shutter pressed)
  - Flashing Green (Slow): Writing/Reading to/from CF card
  - Flashing Red: Camera blur warning (low light warning)

- **Lower Indicator**
  - Orange: Macro Mode

**Flash Attached**
When a flash (EOS Speedlite Series 220EX/380EX) is attached and turned on, pressing the shutter button halfway causes the upper indicator to operate as follows.
- Flashing Red: Flash is charging
- Red: Flash has finished charging

If the shooting conditions prevent the autofocus from locking on the subject, this indicator will flash green (fast). To confirm the status of the flash in this state, look at the indicator lamp on the flash unit or for a (📸) mark in the display panel.
External Terminals
Open the terminal cover.

Remote Terminal
Attach the optional EOS Remote Switch RS-80N3 here.

Video Out Terminal
Attach a video cable here to connect to a TV.

Digital Terminal
Attach an interface cable here to connect to a computer.

Mode Dial
The mode dial can be used to select the camera mode and turn the camera power on and off.

Seleccionar el modo de disparo seleccionar y habilitar el estado de la cámara.

Lock
Turns the camera power off. The camera power is on when set to any other mode. Set the mode dial to this position when you are not operating the camera.

Auto Mode
A shooting mode in which the camera automatically chooses settings.

P: Program Mode
A shooting mode in which you set various settings manually, such as the continuous shooting mode or aperture-priority AE mode.

PLAY: Play Mode
The replay mode. Images recorded to the CF card display on the LCD monitor.

PC: PC Mode
The mode for connecting to a computer and transferring images.
The names of the three buttons above the display panel are written in blue or gray.

- Blue indicates the function in play mode.
- Gray indicates the function in either auto or program mode.
### Display Panel

Icons, symbols and numbers indicating the camera status (such as camera settings, the battery charge and the approximate number of images remaining) are shown here.

<table>
<thead>
<tr>
<th>CF Card Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Icon" /></td>
<td>CF card in slot 1</td>
</tr>
<tr>
<td><img src="image2" alt="Icon" /></td>
<td>CF card in slot 1 is selected</td>
</tr>
<tr>
<td><img src="image3" alt="Icon" /></td>
<td>CF card in slot 1 incurred error or is full</td>
</tr>
<tr>
<td><img src="image4" alt="Icon" /></td>
<td>CF card in slot 2</td>
</tr>
<tr>
<td><img src="image5" alt="Icon" /></td>
<td>CF card in slot 2 is selected</td>
</tr>
<tr>
<td><img src="image6" alt="Icon" /></td>
<td>CF card in slot 2 incurred error or is full</td>
</tr>
<tr>
<td><img src="image7" alt="Icon" /></td>
<td>CF card not installed or lock lever not closed</td>
</tr>
</tbody>
</table>

### CF Card Status

- **CF card in slot 1**: Indicates the recording time while recording.
- **CF card in slot 1 is selected**: Writing sound annotation to CF card (a recording error is indicated if it displays during recording).
- **CF card in slot 1 incurred error or is full**: Beep on.
- **CF card in slot 2**: Indicates the recording time while recording.
- **CF card in slot 2 is selected**: Writing sound annotation to CF card (a recording error is indicated if it displays during recording).
- **CF card in slot 2 incurred error or is full**: Beep on.
- **CF card not installed or lock lever not closed**: Beep on.

### Quality and Size of Image Being Shot

- **Fine**
- **Normal**
- **Large**
- **Small**
- **CCD Raw**
**Battery Status**
- Charged
- Low battery (Flashing)
- Non-operable (Flashing)
- Low button battery (Flashing)
- Date/time not set (Flashing)

**Remaining Images and Camera Status**
- ISO
  - The approximate number of images remaining varies with the quality and size settings
- Replaying image(s)
- Connected to a computer
- Error message

**Shooting Mode Settings**
- Macro Mode
- Single Mode
- Self-Timer Mode
- Continuous Shooting Mode
**LCD Monitor**

Open the LCD monitor to view a subject during shooting, to replay images in play mode and to change menu settings. The LCD monitor can be moved within the following ranges.

Opens 180° to the left.
Locks at the 90° position.

Tilts 180° forward or 90° backward.

The LCD monitor automatically shuts off when you close it all the way until it clicks. Always close the LCD monitor for protection when not in use.

The LCD monitor can be set to the following positions.

1. Open the LCD monitor and tilt it 180° forward.

   In this position, shooting mode icons and messages do not appear on the LCD monitor. The LCD monitor also shows the image as a reflection to enable you to view a subject from in front of the lens while shooting.
2. Fold the LCD monitor back against the camera body until it clicks. The screen faces back and outward.

Icons and messages will appear on the LCD monitor and the image will appear in its natural orientation. Please note that, unless the LCD monitor is fully folded against the camera body (until it clicks), the image will show as a mirror reflection and icons or messages will not appear.

- White or bright-colored vertical smears may occasionally appear on the LCD monitor while an image is being displayed. They have no effect on the recorded image.
- The LCD monitor is produced with extremely high-precision manufacturing techniques, with more than 99.99% of the pixels operating to specifications. Less than 0.01% of the pixels may occasionally misfire or appear as black, red or green dots. This has no effect on the recorded image and does not constitute a malfunction.
Power Save Function

The camera is equipped with a power save function. When the mode dial is in any position other than lock, the power automatically turns off in the following circumstances.

• **Shooting**
  The camera powers down after approximately 3 minutes if a function is not accessed.

• **Replay**
  The camera powers down after approximately 5 minutes if a function is not accessed. This does not apply while a slide show is playing.

• **PC Connection**
  A warning message will display on the computer screen if 5 minutes pass without a function being accessed while the camera is connected to a computer. The camera will power down if another minute passes without a function being accessed.

• If the camera has powered down with the power save function, power can be restored by turning the mode dial or pressing the menu, LCD/Video or shutter buttons.
• You can turn the power save function off by changing its setting with the setup menu (p. 90).
Preparing the Camera

This section describes the procedures required to prepare the camera for use.

**Using the Battery Pack**

Use rechargeable Battery Pack NB-4H, which is bundled with the camera, as the battery power source. Ensure that the battery pack has been fully charged before you install it in the camera.

- Compact Power Adapter CA-PS200 can be used with power supplies ranging from 100 to 240 volts.

**Charging the Battery Pack**

- The battery pack requires approximately 70 minutes to charge fully from a completely discharged state (as charged with Compact Power Adapter CA-PS200 according to standard Canon testing conditions).
- Charging times will vary with the ambient temperature and charge state of the battery pack.
- To protect and prolong the battery pack life, do not charge it longer than 24 hours at a time.
- Do not charge the battery pack in poorly ventilated areas.
- Remove the power cord from the outlet when charging is complete or the compact power adapter is not in use.
- Do not charge batteries other than Battery Pack NB-4H with the compact power adapter.
1. Attach the power cord to the compact power adapter and plug the power cord into the electrical outlet.

2. Insert the battery pack into the socket at the top of the compact power adapter.
   The charging indicator will flash green while it is charging. When charging is complete, the indicator will change to a steady green.

- The compact power adapter will not charge while the DC Coupler DR-200 is connect. Ensure that the DC coupler is not connected before attempting to charge the battery pack.
Installing the Battery Pack
Once the battery pack has been fully charged, install it in the camera with the following procedures.

1. Ensure that the mode dial is set to lock.

2. Slide the battery cover in the direction of the arrow.

3. Insert the battery pack as shown.

4. Close the battery cover.

- Do not use Battery Pack NB-4H with products other than the specified Canon products.
- The battery pack continues to discharge a minimal portion of its power while installed in the camera, even with the camera power off. This will shorten the battery life.
- Remove the battery pack from the camera during extended periods of disuse. Place it into the case provided and store it in a cool, dry place.

- To remove the battery pack, pull the eject button in the direction of the arrow.

Battery Pack NB-4H
Checking the Battery Charge
The battery charge can be checked by turning the mode dial to the play, auto or program modes and viewing the battery icon in the display panel.

■ (Steady): Charged
■ (Flashing): Low Battery: replace or recharge the battery soon.
■ (Flashing): Discharged Battery: replace or recharge the battery.

Refreshing the Battery Pack
We recommend that you prolong the battery pack life by refreshing it approximately once a month before charging it. This should also be done if the battery pack has not been used for an extended period of time.

- It takes approximately 6 hours and 30 minutes to refresh the battery pack (with Compact Power Adapter CA-PS200 according to standard Canon testing conditions).
- Refresh times will vary with the ambient temperature and charge state of the battery pack.
- The refresh time above is based on a fully charged battery pack that is taken to the point of full discharge.

1. Attach the power cord to the compact power adapter and plug it into the electrical outlet.
2. Insert the battery pack into the socket at the top of the compact power adapter.

3. Press the refresh button on the side of the compact power adapter.

   The charging indicator will flash orange while refreshing the battery pack.

   • Be careful not to press the refresh button a second time during the refresh cycle. If this button is mistakenly pressed, the charging indicator will change to a flashing green and begin to charge the battery pack.

4. Once the refresh cycle is complete, the charging indicator will cease to flash orange. It will commence flashing green and start to charge the battery pack. Leave it in this state until the charging indicator shines steady green to indicate that charging is complete.

   • Compact Power Adapter CA-PS200 will not refresh the battery pack while the DC Coupler DR-200 is connect. Ensure that the DC coupler is not connected before attempting to refresh the battery pack.
   • Repeatedly charging the battery pack before it is fully discharged will lower the battery capacity. Restore its capacity by running it through the refresh cycle.
   • Battery packs that have been unused for periods over one year may initially have a diminished capacity even when fully charged. Restore the capacity by running it through the refresh cycle.
Using an AC Power Source

It is convenient to power the camera with the DC coupler and compact power adapter connected to an AC power source when operating indoors. This is particularly recommended when the camera is connected to a computer and exchanging files, a relatively power-intensive process.

- The compact power adapter cannot charge the battery pack while it is being used as an AC power source.
- Unplug the compact power adapter from the electrical outlet after use.
- The compact power adapter can only be used as an AC power source for products specified for use with Battery Pack NB-4H.

1. Set the mode dial to lock.

2. Connect the power cord to the compact power adapter and plug it into the electrical outlet.

3. Install DC Coupler DR-200 in the camera as shown below and attach it to the DC terminal on the compact power adapter.
   The camera indicator will shine red, indicating that the camera is ready to use.
Using a 2CR5 Lithium Battery
When a charged Battery Pack NB-4H is unavailable, use a generic 2CR5 lithium battery in the camera. Install a 2CR5 lithium battery as shown.

- It is advisable to use Battery Pack NB-4H or an AC power source as the standard power source for the camera.
- It is best to avoid using lithium batteries for long periods of time in the camera. Resume the use of Battery Pack NB-4H or AC power sources as quickly as possible.
- Using the LCD monitor while shooting will raise power consumption and hasten the depletion of the lithium battery. You are advised to use the optical viewfinder for shooting to conserve the battery charge when powering the camera with a lithium battery.
- Using a lithium battery in low temperatures reduces its performance. In low temperatures, warm the battery in your pocket or hands before installing it in the camera.
Preparing the Camera

Replacing the Button Battery and Setting the Date/Time

The camera is equipped with a button battery to maintain the date and time settings even when the main battery is removed. When the button battery charge runs out and the date and time settings are lost, the button battery icon (㐘) flashes in the display panel. Replace the button battery with a generic CR 2025 lithium cell and reset the date and time.

- The initial button battery is installed in the camera at the factory for testing purposes.
- The button battery icon will continue to flash in the display panel even if the button battery has been replaced if the date and time have not been reset. Reset them immediately after the battery is replaced.

Replacing the Button Battery

1. Set the mode dial to lock.

2. Open the LCD monitor.

3. Use a screwdriver to loosen the screw holding the button battery cover sufficiently to remove the cover. The screw is designed to remain with the cover to prevent its loss.
4. Remove the button battery. Shift it in the direction shown to allow its removal.

5. Install the new button battery with the positive terminal (+) facing outward.

6. Close the cover and tighten the screw moderately.

---

Setting the Date/Time

After the button battery has been replaced, follow the procedures below to reset the date and time settings.

1. Set the mode dial to play, auto or program.

2. Press the menu button. The menu will display on the LCD monitor.

3. Press the + or - button to advance the selection to [Setup]. Press the set button.
Preparing the Camera

4. Press the + or - button to advance the selection to [Date/Time]. Press the set button.

5. Press the + or - button to change the setting and the set button to advance to the next field.
A 24-hour clock is used. (Example: one-thirty in the afternoon becomes 13:30)

6. When you have finished changing the settings, press the menu button.

7. Set the mode dial to lock.
Setting the Menu Language

1. Set the mode dial to play.

2. While you press and hold the set button, press the jump button. The language menu will display on the LCD monitor.

3. Press the + or - button to advance the selection to the language of your choice. Press the set button.

The language menu may vary among languages.

- The menu language can also be set with standard setup menu procedures (p. 93).
Installing a CF Card

Install CF cards as the storage media for the images recorded by the camera. Up to two CF cards may be installed at once.

- One CF card is bundled with the camera. Please purchase another to install a second card.

1. Set the mode dial to lock.

2. Slide the CF card cover in the direction of the arrow and lift it open.

3. Push the lock lever in the direction of the arrow.

4. Insert a CF card into slot 1 or 2. Orient the card with the label facing up toward the rear of the camera and push it gently in until the slot’s eject button is fully extended.
5. Lift up the tab of the eject button slightly and fold it over.

6. If required, repeat steps 4 and 5 to insert a second CF card into the empty slot.

7. Swing the lock lever back into lock position and close the cover.

---

- Ensure that the lock lever is set in the lock position after installing a CF card. The cover will not close unless the lock lever is correctly positioned.

---

### CF Card Types and Recording Capacities

<table>
<thead>
<tr>
<th>CF Card Type</th>
<th>Small/N</th>
<th>Small/F</th>
<th>Large/N</th>
<th>Large/F</th>
<th>CCD RAW</th>
</tr>
</thead>
<tbody>
<tr>
<td>FC-4M</td>
<td>47</td>
<td>25</td>
<td>19</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>FC-8M</td>
<td>96</td>
<td>50</td>
<td>40</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>FC-15M</td>
<td>181</td>
<td>95</td>
<td>75</td>
<td>39</td>
<td>7</td>
</tr>
</tbody>
</table>

- Small images are 768 x 512 pixels and use JPEG compression; large are 1536 x 1024 pixels and use JPEG compression. CCD RAW images are 1536 x 1024 pixels and use no compression.
- N stands for normal; F or fine quality.
- Figures herein reflect standard shooting conditions established by Canon. Actual totals may vary according to the subject and shooting conditions.
• Do not remove the battery or remove a CF card while the camera is writing to a CF card, erasing images or reading from a CF card.
• A CF card is a high-precision electronic component. Do not bend, apply force to, or subject it to shocks or vibrations.
• Do not attempt to disassemble or alter a CF card.
• Moving a CF card rapidly between temperature extremes will cause condensation to form on the card and may lead to a malfunction. To avoid condensation, place the CF card into a sealed plastic bag before moving it into a different temperature zone and allow it to adjust slowly to the new temperature. If condensation forms on the CF card, put it aside until the water droplets have evaporated completely.
• Place the CF card in the supplied case for storage.

• Do not use or store CF cards in the following types of location.
  - Locations subject to strong magnetic fields
  - Locations subject to dust or sand
  - Locations subject to high humidity and high temperatures
Switching between CF Cards
If two CF cards are installed, use the CF button to select between them.

1. Set the mode dial to auto, program or play.

2. Press the CF button to display the number of the CF card slot containing the card you wish to use in the display panel.

Installing the Strap
A shoulder strap is supplied with this camera. Follow the procedures below to install the strap.

1. Insert the end of the strap down through the strap holder.

2. Thread the end of the strap through the buckle as shown.

3. Adjust the strap to a comfortable length by pulling it through the buckle.

4. Tighten the strap above and below the buckle so that it will not loosen accidentally.
Now that the camera is ready to use, explore its features with some actual shots. This section explains the most basic procedures for shooting, replaying and erasing images.

**Shooting in Auto Mode**

In auto mode, all you need do is press the shutter button to shoot an image. The focus and aperture settings are automatically adjusted by the camera.

1. Set the mode dial to auto.
   The camera will power up and the number of remaining images, the battery status mark and other applicable icons will display in the display panel.

2. Align the subject in the center of the optical viewfinder (target marks).

3. Press the shutter button halfway down and wait until the beep sounds and the upper indicator shines green.

When you press the shutter button halfway, the camera focuses on the subject in the center of the optical viewfinder and automatically selects the optimal shutter speed and aperture settings. The two beeps and the green light indicate that this process is complete. The beep can be shut off by changing its setting in the setup menu (p. 91).
• When the upper indicator flashes green, the autofocus has failed to focus. You can proceed to take the picture by pressing the shutter button all the way, but your subject may not be in focus.

4. After the beeps, press the shutter button all the way.
A single beep after the shutter button is pressed indicates that the image has been captured and is being recorded onto the CF card. The indicator will flash green during the recording process.

5. The next image can be shot as soon as the indicator stops flashing. When you are finished shooting, set the mode dial to lock.
• The camera also features a variety of other modes in addition to that shown above, such as the continuous shooting mode and the aperture-priority AE mode. For details, refer to Shooting, pages 44 to 66.

Replaying Images
You can view your images on the camera’s LCD monitor immediately after taking them.

1. Open the LCD monitor.
2. Set the mode dial to play.
The last recorded image will display on the LCD monitor.
3. Press the + or - button to view the next or previous image.
   - Button: Displays the previous image
   + Button: Displays the next image
4. When finished viewing, set the mode dial to lock.

• The camera also features additional playback functions, such as the multi image display and a slide show feature that automatically displays all or selected images. For details, refer to Replaying, pages 69 to 83.

Erasing Images
You can erase the images you have recorded on the CF card. By deleting unwanted images, you can make greater use of the CF card’s capacity.

1. Set the mode dial to play. The last recorded image will display on the LCD monitor.
2. Press the menu button.
3. Press the + or - button to advance the selection to [Erase]. Press the set button.

4. Press the + or - button to advance the selection to [Single]. Press the set button.

5. The image in step 1 will appear. Press the + or - button as required to display the image you wish to erase.

6. With the image that you wish to erase displayed, press the set button. A confirmation message will display. Select [OK] and press the set button.
7. When you have finished erasing unwanted images, press the menu button.
Pressing the menu button a second time closes the play menu.

- In addition to the procedures for erasing described above, the camera features a shortcut method (which involves pressing and holding the set button and pressing the - button) and a function for erasing all of the images recorded on a CF card. For details, refer to Erasing, pages 84 to 88.
Loading Images onto a Computer

You can load the images you have shot onto a computer and save them to disk and edit or retouch them. For instructions on how to load images onto a computer, please read the Software Guide.

PowerShot Pro70

PC Interface Cable IFC-100PC

Windows® Computer

Macintosh Interface Cable IFC-100MC

Macintosh Computer
This section describes the basic shooting functions and standard shooting procedures.

**Basic Shooting Functions**

**Selecting a Shooting Mode**
Select a shooting mode with the mode dial.

- **Auto Mode**
  Set the mode dial to auto.

  In auto mode, you simply point and shoot because the camera sets all of the settings for you.
  - The image quality can be set to either normal or fine (p. 50).
  - The image size is fixed at large (p. 50).

- **Program Mode**
  Set the mode dial to program.

  The following selections are available in program mode.
  - Select between normal, fine or CCD RAW image quality (p. 50)
  - Select between large and small image sizes (p. 50)
  - Select continuous shooting mode (p. 50)
  - Select aperture-priority AE mode (p. 56)
  - Select an exposure compensation setting (p. 59)
Shutter Button

- **Pressing Halfway**
  Press the shutter button halfway and hold it there to automatically set the optimal focus on the subject in the center of the optical viewfinder and select an exposure setting. A double beep will sound when this is complete.
  - If the LCD monitor is on, the image will freeze momentarily.
  - If the conditions are right for taking a shot, a double beep will sound and the upper indicator will shine green. If the upper indicator flashes green, the autofocus did not succeed. You can shoot, but your subject may not be in focus.
  - The upper indicator will flash red if there is insufficient light and a risk that hand tremors or camera movement will blur the image.
  - In macro mode, the lower indicator will shine orange.
  - If the LCD monitor is on in exposure compensation mode, the image will appear in the LCD monitor after the double beep.

- **Pressing Fully**
  Press the shutter all the way down to take the shot and record the image on the CF card.
  - When the shutter is activated, a single beep will sound and the upper indicator will flash green while the image is recorded onto the CF card.
• If the LCD monitor is on while an image is recorded, it will momentarily blank and display the word “busy.”
• If the LCD monitor is on, or the review function is set to on with the setup menu, the image will display after the shot has been taken as long as the shutter button remains fully depressed.

**Optical Viewfinder**
The camera features an optical viewfinder for use in taking standard shots.

**Autofocus Target Marks**
When composing images, aim the camera so that the subject is in the middle of the target marks and press the shutter button halfway to activate the autofocus.
• Use the LCD monitor to compose images in macro mode. The actual area shot by the lens is slightly lower in macro mode than it appears in the optical viewfinder (p. 53).

Situations Not Suited to Autofocus Photography
The autofocus function may not be suited for shooting the following types of subject (the upper indicator will flash green when the shutter button is pressed halfway). Use the focus lock function to shoot the types of subject below.
• White walls and other low-contrast objects.
• Sports matches, moving vehicles and other moving objects low-contrast objects in dark places.

Focus Lock
Lock the focus by pressing the shutter button halfway and holding it there. This allows you to shift the orientation of the camera without changing the focal distance. This function is particularly useful for composing an image in which the main subject is off to one side or difficult on which to focus with the autofocus.
Using the LCD Monitor

You can use the LCD monitor as a viewfinder for shooting images. It is particularly recommended for shooting in macro mode, since the field shown by the optical viewfinder differs from the actual area photographed in that mode.

Using the LCD monitor as a Viewfinder for Shooting

1. Open the LCD monitor to a comfortable position for viewing.
2. Set the mode dial to auto or program.
3. Press the LCD/Video button.
   The LCD monitor will turn on.

- Pressing the shutter button halfway will freeze the display until the autofocus and metering process is complete.
- The recorded image will display on the LCD monitor if you continue to press the shutter button fully after the shot is taken.

4. To turn the LCD monitor off, press the LCD/Video button again.

Checking the Recorded Image with the LCD Monitor

The review function allows you to check the image on the LCD monitor after it has been shot even if the monitor has not been turned on. This function conserves the battery charge since the LCD monitor remains off except while the image is being checked.

1. Set the mode dial to auto or program.
2. Press the menu button.

3. Select [Review] by pressing the + or – button. Press the set button.

4. Select [On] by pressing the + or – button. Press the set button.

5. Press the menu button to close the menu. Each time you press the menu button it will either display the prior menu or close it.
   You can also close the menu by pressing the shutter button halfway.

6. Use the optical viewfinder to shoot an image.
   Continue to depress the shutter button fully after the shot has been taken to display the recorded image on the LCD monitor, even if the monitor has not been turned on. The image will disappear when you release the shutter button.
Changing the Image Quality and Size

The camera can shoot with the following image quality and size settings.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Screen Size</th>
<th>Quality (Compression Method)</th>
<th>File Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>🔴 (fine) L</td>
<td>Large (1536 x 1024)</td>
<td>Fine (JPEG High Quality)</td>
<td>360 KB</td>
</tr>
<tr>
<td>🔴 (normal) L</td>
<td>Large (1536 x 1024)</td>
<td>Normal (JPEG Normal)</td>
<td>180 KB</td>
</tr>
<tr>
<td>🔴 (fine) S</td>
<td>Small (768 x 512)</td>
<td>Fine (JPEG High Quality)</td>
<td>140 KB</td>
</tr>
<tr>
<td>🔴 (normal) S</td>
<td>Small (768 x 512)</td>
<td>Normal (JPEG Normal)</td>
<td>70 KB</td>
</tr>
<tr>
<td>RAW</td>
<td>Large (1536 x 1024)</td>
<td>CCD RAW (No Compression)</td>
<td>1,940 KB</td>
</tr>
</tbody>
</table>

Figures noted herein reflect standard Canon shooting conditions. Actual file sizes may vary with different subjects.

- Large and small sizes cover the exact same scope, but reproduce the images with differing numbers of dots. On computer monitors, the large format displays at 1536 x 1024 pixels, while the small displays at 768 x 512 pixels.
- At the CCD RAW setting, images are recorded without compression onto the CF card. Although fewer images can be recorded, high-quality images can be obtained.

- The small and CCD RAW settings are available in program mode.
- The size is automatically set to small/fine or small/normal in continuous shooting mode (p. 54).

1. Set the mode dial to auto or program.

Shooting
2. Press the quality button repeatedly until the desired quality and size combination appears in the display panel.

• In Auto Mode

• In Program Mode

The settings are effective until the quality and size settings are next changed.
Adjusting the Zoom

Use the zoom lever to adjust the zoom setting.

1. Set the mode dial to auto or program.

2. Adjust the zoom setting by pushing the zoom lever up or down.

- There is no response when the zoom lever is pushed while the focus lock is active.

Wide Angle 28 mm
(35 mm film equivalent): to encompass a wider scope

Telephoto 70 mm
(35 mm film equivalent): to make subjects appear closer

Shooting in Macro Mode

Shoot close-ups in macro mode, which can focus on an object as close as 12 cm to the lens tip. Macro mode can be used with the camera set to either auto or program.

1. Open the LCD monitor and set the mode dial to auto or program.

2. Press the macro button (MF). The macro icon will appear in the display panel.

The lens will automatically set itself to the maximum telephoto (70 mm) setting. Although the zoom lever will operate at this point, the macro mode is only effective
up to approximately a 49 mm setting if the zoom lever is pushed in the direction of the wide angle setting.

3. Set the LCD monitor to a comfortable position for viewing and press the LCD/Video button.

4. Confirm the composition in the LCD monitor and shoot the image.

• In macro mode, the lower indicator will shine orange when the shutter button is pressed halfway.
• The actual area shot by the lens in macro mode is slightly lower than it appears in the optical viewfinder. The shorter the distance to the subject, the greater the difference between the actual area covered and the area shown in the optical viewfinder. In macro mode, always compose images with the LCD monitor.
• Subjects shot with a flash from less than one meter away may be inconsistently illuminated.
Continuous Shooting Mode

In continuous shooting mode, up to 20 frames may be shot in one sequence. However, the image size is automatically set to small. You can raise the speed of the continuous shooting by turning the LCD monitor off and setting the image quality to normal. Up to four frames can be shot each second.

Continuous Shooting Mode Settings

1. Set the mode dial to program.

2. Press the drive button until the continuous icon (○) displays in the display panel. The image size setting automatically switches to small.

3. Press the shutter button halfway and wait for the double beep. Then press it all the way and continue to hold it. Continuous shooting will commence and a beep will sound each time a frame is shot. While the shutter button is held, the camera will continue to take up to 20 shots unless the CF card is full.
4. Release the shutter button when finished the continuous shooting sequence.
   The images in the internal memory will be written to the CF card. The indicator will flash green while the images are being written to the CF card and no other camera functions can be operated.

   • Any flash connected to the camera will not fire while the camera is set to the continuous shooting mode.
   • In continuous shooting mode, the image size is automatically set to small and the shutter speed is controlled electronically, creating the possibility that smears (bright white vertical bands on the image) may be generated.
Shooting in Aperture-Priority AE Mode

In aperture-priority AE mode, you can select the aperture setting to control the depth of field. The shutter speed will automatically be set to match your choice of aperture setting and the brightness of the subject.

- Setting the aperture to a small value causes the lens to open to a large diameter and the focal field to narrow (depth of field is shallow).
- Setting the aperture to a large value causes the lens to open to a small diameter and the focal field to broaden (depth of field is deep).

Aperture-Priority AE Mode Settings

1. Open the LCD monitor.
2. Set the mode dial to program.
3. Press the menu button.

Instead of pressing the menu button, you can skip step 4 and go on to step 5 by pressing and holding the set button and pressing the +/- button.
4. Select [Aperture] by pressing the + or - button. Press the set button.

5. Select an aperture setting by pressing the + or - button. Press the set button.

- **Full Open**: Aperture set to maximum. The F-Stop value will vary with the zoom setting.
  - Wide Angle (28 mm): F2.0
  - Telephoto (70 mm): F2.4
- **F2.8 - F8.0**: The larger the value, the smaller the aperture
- **F8.0+ND4**: Although the aperture is set to the F8.0 stop, an ND filter is used to emulate the brightness of an F16 stop (the aperture value is not F16)

6. Press the menu button. It will close the record menu. Each time you press the menu button it will either display the prior menu or close it.

   The LCD monitor will automatically turn on and display the specified aperture setting.

- You can also press the shutter button halfway to close the menu directly.
7. Press the shutter button halfway. A double beep will sound and the shutter speed will display in the LCD monitor.

- If the aperture setting you have chosen results in the subject being too dark, the upper indicator will flash red (camera blur warning/low light warning) and the shutter speed will display in red. Reset the aperture to a smaller value or proceed with the shot taking care to prevent hand tremors or camera movement from blurring the image.
- If the aperture setting you have chosen results in the subject being too bright, the shutter speed will display in red. Reset the aperture to a larger value.

8. Wait for a second double beep and the green indicator, then press the shutter button all the way to take the shot.

About Smears
When the image size is set to small, the shutter speed may be set to an extremely fast setting depending upon the aperture setting. As a result, smears (bright white vertical bands on the image) may be generated. To avoid this, set the aperture setting so that the shutter speed does not exceed 1/180. In aperture-priority AE mode, the shutter speed can be checked on the LCD monitor by pressing the shutter button halfway.
• The following operations will cancel the aperture-priority AE mode.
  - Turning off the LCD monitor.
  - Closing the LCD monitor.
  - Powering down the camera with the power save function. To shoot for extended periods of time in aperture-priority AE mode, it is advisable to turn off the power save function (p. 83).
  - Setting the mode dial to a setting other than program.

• The following ranges of shutter speeds will automatically be selected according to the image size setting in aperture-priority AE mode.
  - Large size: 1/2 - 1/500
  - Small size: 1/2 - 1/8000

• If you are using an optional flash, please read the note on page 64.

Exposure Compensation

In program mode, you can intentionally adjust the exposure setting from the value automatically selected by the camera. Adjust the setting when you wish to brighten or darken an image. The exposure can be adjusted in 1/3 steps ranging from -2 to +2.

1. Set the mode dial to program.

2. Press the +/- button.
   The cursor on the exposure compensation scale in the display panel will begin to flash.
3. Adjust the exposure compensation using the + or - button. Press the set button or the +/- button to accept the setting.

4. Shoot the image.
   The LCD monitor will display the ♂ icon if it is on.
   The exposure compensation setting will remain in effect while shots are taken in program mode or until the setting is changed.

5. To turn off exposure compensation, repeat steps 1 to 4 to set the value to zero.

- In aperture-priority AE mode, please note that the exposure compensation function cannot be used with a flash.
- Dark images can be brightened with image processing application software when the images have been loaded onto a computer. However, please note that it is difficult to darken images that are over-exposed.
Shooting with the Self-Timer

In self-timer mode, press the shutter button all the way and the camera will automatically shoot 10 seconds later. The self-timer can be used in either auto or program mode.

1. Set the mode dial to auto or program.

2. Press the drive button. The self-timer icon (😊) will appear in the display panel.

• Auto Mode

3. Press the shutter button halfway, wait for the double beep and then press the shutter button all the way. The self-timer will activate, 10 seconds later a single beep will sound and the shot will be taken. The self-timer lamp on the front of the camera will flash while the self-timer is working. The flashing will speed up two seconds before the shutter activates. To cancel the self-timer after it has been activated, set the mode dial to a new position.

• Program Mode
4. When you have finished with the self-timer, press the drive button again. The self-timer icon will disappear from the display panel.

- The self-timer mode is canceled by setting the mode dial to a new position.
- The self-timer lamp may not be visible from some angles in front of the camera.
Shooting with the EOS Remote Switch

The camera can be used with the optional EOS Remote Switch RS-80N3. It can also be used with the optional EOS Remote Switch 60T3, an older version, with the optional RA-N3 Adapter.

Attaching the Remote Switch

Open the terminal cover and attach the remote switch to the remote terminal.

Shooting with the Remote Switch

The remote switch features a two-stage action similar to the halfway and full stages of the shutter button. The same procedures are used to take pictures with the remote switch as with the shutter button.

- Do not use the remote switch’s lock function. It may cause a malfunction.
Shooting with a Flash

An optional flash may be attached to the camera to accommodate full-fledged flash photography. EOS Speedlite EX series flashes (220EX and 380EX) are recommended for use with this camera.

- The flash will not fire in continuous shooting mode.
- Subjects shot with a flash from less than one meter may be inconsistently illuminated.
- Please read the manual accompanying the flash.

Attach the flash to the camera’s accessory shoe as shown.

Using a 220EX or 380EX Flash

1. Turn on the flash’s power switch and set the camera’s mode dial to auto or program.

- **Auto Mode**
The flash exposure will be set automatically. Shoot with the subject centered in the optical viewfinder.

- **Program Mode (aperture set to auto)**
The flash exposure will be set automatically. Shoot with the subject centered in the optical viewfinder.
• **Program Mode** *(aperture-priority AE mode)*

The flash will fire at full strength under the following conditions.

- **Shutter Speed:** 1/90 second fixed
- **ISO Sensitivity:**
  - 100 equivalent (large image size)
  - 200 equivalent (small image size)
- **Exposure Compensation:** Incapable of firing

Select the optimal aperture setting according to the flash guide number and the distance from the subject.

2. **Press the shutter button halfway.**

The indicator will flash red while the flash is charging. The indicator will stop flashing and shine red when the flash is ready for shooting. The [ فلاش ] flash icon will also display on the LCD if it is on. If, however, the autofocus cannot lock on a subject, the indicator will flash green instead of red. To check the flash charge status in this case, refer to the indicator on the flash unit or the flash icon in the LCD monitor.

3. **Press the shutter button all the way and take the shot.**

- The camera is not compatible with high-speed sync (Focal Plane Flash) and multiple flash setup photography.
- The camera is compatible with the auto zoom function (the zoom setting is automatically set according to the focal setting of the lens) of the Speedlite 380EX flash.
Using Other Flashes

1. Turn on the flash’s power switch and set the camera’s mode dial to program. The flash cannot be fired in auto mode.

2. Set the aperture-priority AE mode (p. 56). The flash will fire at full strength under the following conditions.

<table>
<thead>
<tr>
<th>Shutter Speed:</th>
<th>1/90 second fixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO Sensitivity:</td>
<td>100 equivalent (large image size)</td>
</tr>
<tr>
<td></td>
<td>200 equivalent (small image size)</td>
</tr>
<tr>
<td>Exposure Compensation:</td>
<td>Incapable of firing</td>
</tr>
</tbody>
</table>

Select the optimal aperture setting according to the flash guide number and the distance from the subject.

- The flash will not fire if the aperture is set to auto. You must specify an aperture value.

3. Press the shutter button halfway. The camera’s indicator will flash green when it is ready to shoot. Check the flash’s indicator to verify that it is fully charged and ready.

4. Press the shutter button all the way and take the shot. Flashes made by manufacturers other than Canon may not fire.
Adding a Sound Annotation to an Image

A sound annotation can be added with the camera’s microphone to an image immediately after it is shot. The recorded sound annotation can be replayed on a computer.

1. Shoot an image in auto or program mode.

2. While you press and hold the microphone button (:hidden), press the set button.

3. Continue to press one of the buttons and speak toward the microphone. Speak from around 15 cm above the microphone to achieve the best sound level for recording.

The microphone icon (:hidden) will display in the display panel and LCD monitor while recording is in progress. The elapsed time will also appear in the display panel.

4. Lift your finger to stop the recording.

- Each recording session can be as long as 30 seconds.
- If no other images are shot in the interim, additional sound annotations will be appended to the first recording session.
- A one-minute recording requires approximately 11 KB on the CF card.
- The recording is annotated to the image shot prior to the recording. Nothing can be recorded if there are no images on the CF card.
- Sound annotations can be deleted separately from images if they are no longer required or the space occupied on the CF card is required for other purposes (p. 85).
Listening to a Sound Annotation
A sound annotation can be replayed on a computer. Please read the Software Guide for details.
This section describes the play function. In addition to basic replay functions, the camera features slide show and TV replay functions.

**Single Image Playback**
You can view recorded images one at a time on the LCD monitor.

1. Set the mode dial to play. The last recorded image will display in the LCD monitor.

2. Press the + button to display the next image and the – button to display the previous image.

3. When you have finished viewing images, set the mode dial to lock.
Multi Image Playback

You can display sets of nine recorded images on the LCD monitor.

1. Set the mode dial to play.
   The last recorded image will display on the LCD monitor.

2. Press the multi button.

The LCD monitor will switch to multi image display and show up to nine images. The last image to be displayed in single image playback mode will have a green selection frame around it. This image is referred to as the "selected image."

3. Move the selection frame within the display by pressing the + or - button.

4. Press the multi button again to return the display to single image playback. The last selected image will appear in the LCD monitor.

   • When you wish to change the displayed images in sets of nine images, use the jump mode (p. 71).
Jumping Images
In jump mode, you can shift the display by 10 images in single image playback. In multi image playback, the jump mode shifts the display to the next or previous set of nine images.

Jumping in Single Image Playback
1. Press the jump button.

The jump bar will display in the LCD monitor.

2. The following actions can be taken.

To Display the Tenth Image Ahead or Behind
• Press the + button to display the tenth image ahead.
• Press the - button to display the tenth image behind.

To Display the First or Last Image
• While you press and hold the set button, press the + button to display the last image.
• While you press and hold the set button, press the - button to display the first image.
3. Press the jump button again to cancel the jump mode.

Jumping in Multi Image Playback

1. Press the jump button. The jump bar will display in the LCD monitor.

2. The following actions can be taken.

To Display the Set of Nine Images Ahead or Behind
- Press the + button to display the next set of nine images ahead.
- Press the - button to display the next set of nine images behind.

To Display the First or Last Set of Nine Images
- While you press and hold the set button, press the + button to display the last set of nine images.
- While you press and hold the set button, press the - button to display the first set of nine images.

3. Press the jump button a second time to cancel the jump mode.
Displaying Image Information
You can display the shooting data for an image being played.

1. Press the info button to display the information.

- Standard Information
  - Image Number
  - Protection Mark
  - Continuous Shooting Mode Icon
  - Sound Annotation Icon
  - Shooting Date/Time
  - File Number

2. Pressing the info button again displays even more detailed information.

- Exposure Compensation Setting
- CF Card Slot Number
- Sound Annotation Time
- Image Quality/Size Icon

- The Stitch Assist icon (躜) will display for images shot in Stitch Assist mode with a Canon PowerShot A5 or other camera.
- The information displayed in multi image playback includes the frame number of the selected image and the total number of images. When the total number of images exceeds four digits, the number appears as [####].
Adding Sound Annotations during Playback

A sound annotation may be added to an image with the camera’s microphone while it is displayed in play mode. The recorded sound annotation may be replayed on a computer.

1. In play mode, display the image to which you wish to add a sound annotation. If you are viewing images in multi image playback, select the target image with the green selection frame.

2. While you press and hold the microphone button (✓), press the set button.

3. Continue to press one of the buttons and speak toward the microphone. Speak from around 15 cm above the microphone to achieve the best sound level for recording.

The microphone icon (✓) will display in the display panel and LCD monitor while recording is in progress. The elapsed time will also appear in the display panel.

4. Lift your finger to stop the recording.

- Each recording session can be as long as 30 seconds. More than one session can be recorded for each image. They will be appended to the first session.
- A one-minute recording requires approximately 11 KB on the CF card.
- Sound annotations can not be recorded while images are being replayed on a TV.
- Sound annotations can be deleted separately from their images if they are no longer required or the space occupied on the CF card is required for other purposes (p. 85).
Listening to Sound Annotations
A sound annotation can be replayed on a computer. Please read the Software Guide for details.

Automated Playback (Slide Show)
The camera is equipped with a slide show function that automatically replays a CF card’s images consecutively. The images in a slide show can be selected in two ways: you can replay all of the images on a CF card, or just the images that have been marked.

Displaying the Slide Show Menu

1. Set the mode dial to play.

2. Press the menu button.
The play menu will display on the LCD monitor.

---

[Image of camera interface with menu button and settings options]
3. Select [Slide Show] by pressing the + or - button. Press the set button.

The slide show menu will display.

Use this menu to mark images, play a slide show and perform other slide show functions.

Marking Images
This function is used to mark or unmark images for replay in a slide show. An image can be marked for inclusion in slide shows 1 to 3.

1. Display the slide show menu.

2. Select [Mark/Unmark] by pressing the + or - button. Press the set button.

3. Select a slide show from 1 to 3 by pressing the + or - button. Press the set button.

A check mark will appear beside the shows that contain marked images. You can select a checked show and add to or change the contents.
4. Select the first image you wish to show by pressing the + or - button to display it and the set button to mark it. Use the same procedure to mark additional images for replay in the order they are marked.

- You can unmark a marked image by selecting it and pressing the set button.
- When you select a marked image, the LCD monitor displays its slide number in the show.
- The jump function is particularly convenient for navigating if there are numerous images on the CF card.

5. When you have finished marking images, press the menu button.

The mark data will be saved to the CF card with the image.

- You cannot compose a slide show that mixes images contained on two different CF cards.
- A maximum of 100 images can be marked for each slide show. This number may be smaller, however, if the CF card is close to being full before the images are marked.
Clearing Marks
This function clears all the mark data for the selected slide show.

1. Display the slide show menu.
2. Select [Clear Marks] by pressing the + or – button. Press the set button.
3. Select a slide show from 1 to 3 by pressing the + or – button. Press the set button.

A confirmation message will display. Select [OK] by pressing the + button and press the set button. The mark data for the show will be erased from the CF card. If you select [Cancel] and press the set button, the slide show menu will display.

Selecting the Play Time
Select the duration of replay for images in a slide show.

1. Display the slide show menu.
2. Select [Play Time] by pressing the + or – button. Press the set button.
3. Select a play time by pressing the + or – button. Press the set button.

The selected setting will be saved by the camera. The +/- Manual option allows you to manually advance a show during replay.
Replaying Slide Shows

You can play all of the images on a CF card or a slide show containing marked images.

1. Display the slide show menu.

Setting a Slide Show to Repeat

You can set it so that a slide show either finishes after it has displayed all of its images once, or so that it repeats continuously.

1. Display the slide show menu.

2. Select [Repeat] by pressing the + or - button. Press the set button.

• The repeat setting will be effective until you change the setting or the camera battery is replaced.

3. Select [On] by pressing the + or - button. Press the set button.

The repeat setting will be saved by the camera.

• The repeat setting will be effective until you change the setting or the camera battery is replaced.

Replaying Slide Shows

You can play all of the images on a CF card or a slide show containing marked images.

1. Display the slide show menu.
2. Select [Start] by pressing the + or – button. Press the set button.

3. Select the slide show you wish to view by pressing the + or – button. Press the set button.
   The [All Images] option plays all the images on the CF card in order. Setting it to one of the three slide shows will play the marked images in the selected slide show.

4. The slide show will start playing. The following actions may be taken while it is playing.
   • 5-, 10- or 15-Second Play Time Setting
     Press the + or – button to pause and restart the show. Press the menu button to stop the slide show.
   • +/- Manual Play Time Setting
     Press the + or – button to display the next or previous image. Press the menu button to stop the slide show.

5. The slide show will automatically close when it reaches the end and display the slide show menu if the repeat function is set to off. Press the menu button to close the slide show if the repeat function is set to on or if the +/- Manual setting has been selected.
   • When it is set to on, the power save function will not power down the camera while a slide show is playing. Since playing slide shows for extended periods of time will use up the battery charge, it is advisable to use an AC power source.
Viewing Images on a TV

Use the following procedures to attach the camera to a TV to display your recorded images.

1. Set the mode dial to lock. Turn off the TV.

2. Use the supplied video cable to connect the camera’s video out terminal to the TV’s video in terminal.

3. Turn on the TV and switch it to the video setting (TV/Video).

4. Set the camera’s mode dial to play.

5. If the LCD monitor turns on, press the LCD/Video button. The LCD monitor display will shut off and the image will display on the TV. The display will switch between the TV and the LCD monitor each time you press the LCD/Video button.

6. When you are finished viewing, set the camera’s mode dial to lock.

- The TV screen may go blank between images when the + or - button is used to switch between images.
Marking Images for Automatic Printing

This function marks images on a CF card for automatic printing with a digital printer. Place a marked CF card into the optional CD-200 digital printer to automatically print the selected images in one step.

1. Set the mode dial to play.

2. Press the menu button.
   The play menu will display on the LCD monitor.

3. Select [Print Mark] by pressing the + or - button. Press the set button.

4. Select [Mark/Unmark] by pressing the + or - button. Press the set button.
   • You can unmark a marked image by selecting it and pressing the set button.
   • When you select a marked image, its print number displays.
   • The jump function is particularly

5. Select an image you wish to mark by pressing the + or - button. Press the set button to mark the image.
convenient for navigating if there are numerous images on the CF card.

6. When you have finished marking images, press the menu button. The mark data will be saved to the CF card.

• A maximum of 100 images can be marked for printing. This number may be smaller, however, if the CF card is close to being full before the images are marked.

Clearing Marks
This function clears the print mark data from the CF card.

1. Select [Print Mark] from the play menu by pressing the + or – button. Press the set button.

2. Select [Clear Marks] by pressing the + or – button. Press the set button.

A confirmation message will display. Select [OK] by pressing the + button and press the set button. The mark data for the show will be erased from the CF card. If you select [Cancel] and press the set button, the play menu will display.
This section explains how to erase recorded images from a CF card.

**Erasing the Display Image Directly**

If you come across an unwanted image in single image playback, you can easily erase it with the following procedure.

1. Set the mode dial to play and display images in single image playback mode.

2. Display the unwanted image, and while you press and hold the set button, press the – button.

3. The erase confirmation message will display. Select [OK] by pressing the + or – button. Press the set button.

   • Using this procedure, sound annotations are erased with their associated images. Use the procedures described in Erasing Images Singly to delete the sound annotation without deleting the image (p. 85).
   • Protected images cannot be erased (p. 87)

   - The erase function will not activate if you reverse the button order: i.e. press the – button before the set button. Be sure to press the buttons in the correct sequence.
Erasing Images Singly

This function allows you to erase images one-by-one as they display on the LCD monitor. The sound annotations associated with images can be erased independently of the images.

1. Set the mode dial to play.
   The last recorded image will display on the LCD monitor.

2. Press the menu button.

3. Select [Erase] by pressing the + or - button. Press the set button.

4. Select [Single] by pressing the + or - button. Press the set button.

The last recorded image will display.
5. Select the image you wish to erase by pressing the + or - button.

   • To Erase the Image
     Press the set button.

   • To Erase the Sound Annotation Only
     Press the microphone (\(\text{\textbullet}\)) button.

     A confirmation message will display. Select [OK] by pressing the + or - button. Press the set button.

6. When you have finished erasing images, press the menu button.

   • Protected images and their sound annotations cannot be erased (p. 87).

---

Erasing All Images

This function erases all the images and sound annotations on a CF card.

1. Set the mode dial to play.

2. Press the menu button.
   The play menu will display on the LCD monitor.

---

Erasing All Images

This function erases all the images and sound annotations on a CF card.

1. Set the mode dial to play.

2. Press the menu button.
   The play menu will display on the LCD monitor.
3. Select [Erase] by pressing the + or - button. Press the set button.

4. Select [All] by pressing the + or - button. Press the set button.

A confirmation message will display. Select [OK] and press the set button. All of the images on the CF card, except for protected images, will erase.

---

**Protecting Images**

An image can be protected from accidental erasure by turning on its protection setting. The protection setting can be turned off when you wish to erase the image. Use the protection setting to guard valuable images.

1. Open the LCD monitor and set the mode dial to play.

2. Press the menu button.
The play menu will display on the LCD monitor.
3. Select [Protect] by pressing the + or - button. Press the set button.

The last recorded image will display on the LCD monitor.

4. Select the image you wish to protect by pressing the + or - button. Press the set button to turn on the protection setting.

You can turn off a protection setting by selecting the protected image and pressing the set button.

5. When you have finished protecting images, press the menu button.
This section explains additional settings, such as date/time, LCD monitor brightness and menu language settings, and functions, such as copying images between CF cards and formatting CF cards.

**Displaying the Setup Menu**

You can display the setup menu from either the record menu or the play menu.

1. Set the mode dial to play, auto or program.

2. Press the menu button.
   The corresponding menu will display in the LCD monitor.

3. Select [Setup] by pressing the + or - button. Press the set button.
   The setup menu will display.

### Setup Menu in Play Mode

- **LCD**: Normal
- **Beep**: Off
- **Power Save**: Off
- **Date/Time**: 08/17/98 16:08
- **Format**
- **Language**: English

### Setup Menu in a Recording Mode

- **LCD**: Normal
- **Beep**: Off
- **Power Save**: Off
- **Date/Time**: 08/17/98 16:09

• The format and language options do not appear in the setup menu in either recording mode.
Closing the Setup Menu

1. Press the menu button to close the setup menu. Each time you press the menu button it will either display the previous menu or close the menu. The setup options for which you pressed the set button will now become effective.

Closing the Setup Menu in Auto or Program Mode

In auto or program mode, you can also close the setup menu by pressing the shutter button. Press the shutter button halfway to close the menu. You are now ready to take a picture right away and the setup options for which you pressed the set button will be effective.

Adjusting the LCD Monitor Brightness

The LCD monitor brightness can be switched between the normal and bright settings.

1. Display the setup menu.

2. Select [LCD] by pressing the + or – button. Press the set button.

3. Select [Normal] or [Bright] by pressing the + or – button. Press the set button.

The brightness setting will be adjusted and the setup menu will display.
Setting the Beep On/Off Settings
The electronic beep that signals completion of the autofocus process and the closing of the shutter can be turned on or off.

1. Display the setup menu.

2. Select [Beep] by pressing the + or – button. Press the set button.


The beep setting will be set and the setup menu will display.

Setting the Power Save Settings
The power save function, which powers down the camera if it remains unused for a set period of time, can be turned on or off.

1. Display the setup menu.

2. Select [Power Save] by pressing the + or – button. Press the set button.


The power save setting will be set to on or off and the setup menu will display.
When the power save function is on and the mode dial is set to any position other than lock, the camera will automatically power down under the following circumstances.

**Shooting**
The camera automatically powers down after approximately 3 minutes if a function is not accessed in a shooting mode.

**Replay**
The camera powers down after approximately 5 minutes if a function is not accessed in play mode. This does not apply while a slide show is playing.

**PC Connection**
A warning message will display on the computer screen if 5 minutes pass without a function being accessed while the camera is connected to a computer. The camera will power down if another minute passes without a function being accessed.

- If the camera has powered down with the power save function, power can be restored by turning the mode dial or pressing the menu, LCD/Video or shutter buttons.
**Setting the Date/Time**

Use this setting to adjust the camera’s date and time settings and display formats. Ensure that you adjust this setting after replacing the button battery (p. 30).

1. Display the setup menu.

2. Select [Date/Time] by pressing the + or - button. Press the set button.

3. Press the + or - button to change the setting. Press the set button to advance to the next field.

   A 24-hour clock is used. (Example: one-thirty in the afternoon becomes 13:30)

4. When the settings have been adjusted, press the menu button.

**Setting the Language**

You can change the menu language.

1. Display the setup menu in play mode.

   In play mode, you can press and hold the set button and press the jump button to skip directly to step 3.

2. Select [Language] by pressing the + or - button. Press the set button.

3. Select the language of your choice by pressing the + or - button. Press the set button.

   The language setting will be set and the setup menu will display.
   • The language menu may vary among languages.
Resetting the File Number

This function resets the file number that is automatically assigned to a new image as it is recorded. Successive numbers are automatically assigned.

When a CF Card Contains Previously Recorded Images
After the reset, the first new image is assigned the number of the last recorded image plus one.

When the CF Card Contains No Previously Recorded Images
After the reset, the first new image is assigned the number one.

• Standard File Number Assignment Method
The camera records the number of the last image that was recorded. When an image is next shot, it adds one to the previous number to create the new file number. However, if there are images already on the CF card that have higher file numbers, the camera adds one to the highest number on the CF card to avoid duplication. This means that a particular camera will not create two images with the same file number. As a result, the file numbers on a particular CF card may not be consecutive if other cards have been used in between recording sessions with that card.
1. Set the mode dial to auto or program.

2. Press the menu button. The record menu will display on the LCD monitor.

3. Select [Reset File No.] by pressing the + or – button. Press the set button.

   The current file number will display to the right of the menu option.

4. A confirmation message will display. Select [OK] by pressing the + or – button. Press the set button. The file number will reset.

**Formatting a CF Card**

Use the following procedures to format a CF card.

1. Display the setup menu in play mode. For safety’s sake, remove the CF card you do not wish to format when formatting with two CF cards installed.

2. Select [Format] by pressing the + or – button. Press the set button.

3. A confirmation message will display. Select [OK] by pressing the + or – button. Press the set button to format the card.

• Formatting a CF card permanently erases all of the data it contains. Please note that protected files are also erased.
Copying Images between CF Cards

When two CF cards are installed in a camera, images can be copied from one card to the other. You can copy single images or all of the images on a CF card.

Copying Images Singly

This method allows you to copy selected files between CF cards as they display on the LCD monitor.

1. Set the mode dial to play.

2. Press the CF button to select the source CF card containing the images you wish to copy.

3. Press the menu button. The play menu will display on the LCD monitor.

4. Select [Copy] by pressing the + or – button. Press the set button.

5. Select [Single] by pressing the + or – button. Press the set button. An image from the source CF card will display.

At this point, you can switch the source CF card, if required, by pressing the CF button.
6. Select the image you wish to copy by pressing the + or - button.

- The jump function is particularly convenient for navigating if there are numerous images on the CF card.

7. Press the set button to start copying.
   Repeat these steps to copy additional images. An error message will display if there is insufficient free space on the target CF card.

8. When you have finished copying, press the menu button.

**Copying All the Images**

This method allows you to copy all the images on one CF card to another.

1. Follow steps 1 to 4 in the Copying Images Singly instructions.

2. Select [All] by pressing the + or - button. Press the set button.

3. A confirmation message will display. Select [OK] and press the set button. All of the images will copy from the source CF card to the target card. To cancel while copying is in progress, press the set button. An error message will display if there is insufficient free space on the target CF card.
Camera Maintenance
Follow the procedures below to clean the camera body, lens, optical viewfinder and LCD monitor when they become dirty.

- Never use thinners, benzene, synthetic cleansers or water to clean the equipment. These substances may distort or damage the equipment.

Camera Body
Gently wipe dirt off the camera body with a soft cloth or an eyeglass lens wiper.

Lens
Use a lens blower to remove dust and dirt. Keep the lens cap on whenever the camera is not in use.

Optical Viewfinder
Use a lens blower to remove dust and dirt. If necessary, gently wipe it with a soft cloth or eyeglass lens wiper to remove stubborn dirt.

LCD Monitor
Use a lens blower to remove dust and dirt. If necessary, gently wipe it with a soft cloth or eyeglass lens wiper to remove stubborn dirt.

- Never rub or press strongly on the LCD monitor. Rubbing or pressing firmly on it may lead to damage or other problems.
Optional Accessories
The following optional accessories are available for the PowerShot Pro70.

**Battery Pack NB-4H**
Canon Battery Pack NB-4H is a nickel-hydride battery pack intended for exclusive use with the PowerShot Pro70. The battery pack can be charged with Compact Power Adapter CA-PS200 for up to approximately 300 charge cycles.

- Fully charge Battery Pack NB-4H before using it for the first time after purchase.

---

**CF Cards**
CompactFlash cards are used to store images recorded by the camera. The card must be installed in the camera to operate.

**CF Card Types and Recording Capacities**

<table>
<thead>
<tr>
<th>CF Card Type</th>
<th>Small/N</th>
<th>Small/F</th>
<th>Large/N</th>
<th>Large/F</th>
<th>CCD RAW</th>
</tr>
</thead>
<tbody>
<tr>
<td>FC-4M</td>
<td>47</td>
<td>25</td>
<td>19</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>FC-8M</td>
<td>96</td>
<td>50</td>
<td>40</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>FC-15M</td>
<td>181</td>
<td>95</td>
<td>75</td>
<td>39</td>
<td>7</td>
</tr>
</tbody>
</table>

- N = Normal  F = Fine  CCD RAW= Non compressed
- Figures noted herein reflect standard shooting conditions established by Canon.
- It is recommended that you use Canon-brand CF cards in the PowerShot Pro70.
1. Fix the case holder to the camera by fitting the screw into the tripod socket on the camera bottom.

**PCMCIA Card Adapter**

An adapter to fit to a CF card so that it can be used in a PC card slot in a computer.

**Semi-Hard Case SHC-PS200**

Protects the camera from shocks and dust. Install it with the following procedures.

**Digital Printer CD-200**

An easily operated printer into which a CF card containing images shot by a PowerShot Pro70 can be inserted to print out high-quality image prints. If you add print marks to your target images with the camera, the printer will automatically print only those images.
2. Fit the snap at the bottom of the case to the corresponding fittings on the case holder.

3. Fit the snaps on the back of the case to the fittings on the back of the case holder.

If you use the shoulder strap, pull it free of the case as shown below.

**Hard Strap HS-PS200**

This strap is useful to prevent the camera from being accidentally dropped when operated with one hand. Follow the procedures below to install it.

1. If a shoulder strap is installed on the camera, temporarily detach the strap from the strap holder by the display panel. In addition, remove the buckle and strap guide from the hard strap.
2. Fix the hard strap holder to the camera by fitting its screw into the tripod socket on the camera bottom.

3. Thread either end of the hard strap through the holders on the camera body and the hard strap holder. On the display panel side of the camera, thread the strap through the narrow slit for the shoulder strap.

4. Bend the strap back up and thread the tip through the concave portion in the middle and attach the buckle.

5. Pull on the strap to adjust its length and thread the end of the strap through the concave portion in the middle. Thread the shoulder strap through the shoulder strap slits to reattach it.
**EOS Speedlite EX Series Flashes**

The EOS Speedlite 380EX high volume flash and EOS Speedlite 220EX compact flash, both clip-on type flashes that fit the camera’s accessory shoe, are available for use with the PowerShot Pro70. These flashes work with the PowerShot Pro70 to take natural appearing images even in difficult lighting situations.

**EOS Remote Switch RS-80N3**

When used with a tripod, the EOS Remote Switch prevents camera movement from spoiling images shot in macro mode or low-light conditions. Attach it to the remote terminal on the camera.
## Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause(s)</th>
<th>Solution(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camera will not operate</td>
<td>Lock lever in the CF card slot not locked</td>
<td>• Close lock lever all the way and close the CF card slot cover all the way.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Use a fully charged battery pack.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Replace the battery.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Use an approved AC power source.</td>
</tr>
<tr>
<td>Insufficient battery power</td>
<td></td>
<td>• Use a fully charged Battery Pack NB-4H or a 2CR5 lithium battery.</td>
</tr>
<tr>
<td>Incorrect battery type</td>
<td></td>
<td>• Use a fully charged battery pack.</td>
</tr>
<tr>
<td>Poor contact between battery and</td>
<td></td>
<td>• Wipe the battery terminals with a clean, dry cloth.</td>
</tr>
<tr>
<td>camera terminals</td>
<td></td>
<td>• Install the 2CR5 lithium battery with the terminals oriented toward the back of the chamber.</td>
</tr>
<tr>
<td>2CR5 lithium battery is inserted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem</td>
<td>Cause(s)</td>
<td>Solution(s)</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Camera will not shoot</td>
<td>Optional flash is charging (indicator flashes red)</td>
<td>• Wait to press the shutter button until the flash charges and the indicator changes from flashing red to steady red.</td>
</tr>
<tr>
<td></td>
<td>CF card full</td>
<td>• Replace the CF card.</td>
</tr>
<tr>
<td></td>
<td>CF card not formatted correctly</td>
<td>• Erase all or some of the card’s images to create space.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reformat the CF card.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If reformatting does not work, the logic circuits of the CF card may be faulty or damaged. Please consult the nearest Canon Customer Support Help Desk.</td>
</tr>
<tr>
<td>Camera will not replay images</td>
<td>Mode dial is set to lock</td>
<td>• Set the mode dial to play.</td>
</tr>
<tr>
<td></td>
<td>No CF card installed or no images on CF card</td>
<td>• Install a CF card that contains images.</td>
</tr>
<tr>
<td>Problem</td>
<td>Cause(s)</td>
<td>Solution(s)</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Images will not display on TV</td>
<td>Video cable incorrectly connected</td>
<td>• Attach the video cable correctly to the video out terminal on the camera and the video in terminal on the TV.</td>
</tr>
<tr>
<td></td>
<td>Camera is not set to video output</td>
<td>• Press the LCD/Video button on the camera to switch to TV display.</td>
</tr>
<tr>
<td>LCD monitor is difficult to see</td>
<td>Brightness setting not appropriate for surround-ings</td>
<td>• Adjust the brightness setting in the setup menu.</td>
</tr>
<tr>
<td></td>
<td>LCD monitor angle is incorrect</td>
<td>• Move the LCD monitor to a better viewing angle.</td>
</tr>
<tr>
<td>Image is blurred or out of focus, or your desired composition could not be shot</td>
<td>Target marks in optical viewfinder are not on subject</td>
<td>• Aim the target marks at the subject, press the shutter button halfway and wait for the double beep before recomposing the image.</td>
</tr>
<tr>
<td></td>
<td>Camera moved</td>
<td>• Be careful not to move the camera when pressing the shutter button.</td>
</tr>
<tr>
<td>Problem</td>
<td>Cause(s)</td>
<td>Solution(s)</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Image is blurred or out of focus, or your desired composition could not be shot</td>
<td>Subject is out of focal range</td>
<td>• Use macro mode to shoot close-ups. The subject can be as close as 12 cm from the lens.</td>
</tr>
<tr>
<td></td>
<td>Optical viewfinder was used to compose image in macro mode</td>
<td>• In macro mode, the actual area shot by the lens is slightly lower than it appears in the optical viewfinder (p. 53). Use the LCD monitor to compose the image.</td>
</tr>
<tr>
<td></td>
<td>AF auxiliary light emitter is obscured, hampering autofocus function</td>
<td>• Be careful not to block the AF auxiliary light emitter with your finger, clothing or jewelry.</td>
</tr>
<tr>
<td>Images are too dark</td>
<td>Subject is insufficiently illuminated in comparison with surroundings</td>
<td>• Adjust the exposure compensation to a positive (+) setting.</td>
</tr>
<tr>
<td>Images are too bright</td>
<td>Subject is brighter than surroundings</td>
<td>• Adjust the exposure compensation to a negative (-) setting.</td>
</tr>
<tr>
<td>Problem</td>
<td>Cause(s)</td>
<td>Solution(s)</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Images are too bright</td>
<td>Light is shining directly on or reflected onto camera from the subject</td>
<td>• Change the shooting angle.</td>
</tr>
<tr>
<td>Battery consumption is too fast</td>
<td>Low ambient temperature has lowered battery capacity</td>
<td>• Use the battery pack at temperatures over 0° C. Keep the battery pack in your pocket or warm it in your hands before shooting in relatively low temperatures.</td>
</tr>
<tr>
<td></td>
<td>Capacity of battery pack reduced because of disuse for an extended period of time</td>
<td>• Refresh the battery pack.</td>
</tr>
<tr>
<td></td>
<td>Battery pack life has been exceeded</td>
<td>• This battery pack can no longer be used. Replace it with a new battery pack.</td>
</tr>
<tr>
<td>Problem</td>
<td>Cause(s)</td>
<td>Solution(s)</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>---------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Battery pack will not charge</td>
<td>Poor connection between battery pack and compact power adapter</td>
<td>• Seat the battery pack more firmly into the charger.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the AC power cord connection between the electrical outlet and the charger.</td>
</tr>
<tr>
<td></td>
<td>DC Coupler DR-200 is connected to the compact power adapter</td>
<td>• The battery pack won’t charge when DC Coupler DR-200 is connected to the compact power adapter. Disconnect DC Coupler DR-200 from the compact power adapter.</td>
</tr>
</tbody>
</table>
List of Message Codes - A
The following codes may appear in the display panel.

<table>
<thead>
<tr>
<th>Pb</th>
<th>Image playback</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC</td>
<td>Camera connected to a computer in PC mode</td>
</tr>
<tr>
<td>Exx (xx = number)</td>
<td>Camera malfunction. Set mode dial to lock, then reset it to auto, program or play and retry shot or replay. Problem exists if error code reappears. Note the number and contact Canon Customer Support Help Desk. If an error code displays directly after taking a picture, the shot may not have recorded. Check image in play mode.</td>
</tr>
<tr>
<td></td>
<td>Full charge in battery pack.</td>
</tr>
<tr>
<td></td>
<td>Battery Pack NB-4H or 2CR5 lithium battery charge is low. Recharge battery pack soon or replace battery.</td>
</tr>
<tr>
<td></td>
<td>Battery Pack NB-4H or 2CR5 lithium battery charge is spent, or the battery cover is open. Close the battery cover properly, install a charged battery pack or new battery, or connect to an AC power source.</td>
</tr>
<tr>
<td></td>
<td>Button battery charge low and date/time setting lost. Replace battery and reset date/time.</td>
</tr>
<tr>
<td></td>
<td>Recording sound annotation.</td>
</tr>
<tr>
<td></td>
<td>Writing sound file to CF card, or recording error has occurred because CF card is full or data is corrupted.</td>
</tr>
<tr>
<td></td>
<td>No CF card installed, or CF card slot cover is open.</td>
</tr>
<tr>
<td></td>
<td>CF card has experienced an anomaly or is full.</td>
</tr>
</tbody>
</table>
## List of Message Codes - B

The following messages may appear in the LCD monitor.

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Busy</td>
<td>Image is recording onto CF card</td>
</tr>
<tr>
<td>CF card full!</td>
<td>CF card is too full to accommodate more data</td>
</tr>
<tr>
<td>No Image</td>
<td>No images recorded on CF card</td>
</tr>
<tr>
<td>Image too Large</td>
<td>You attempted to view an image larger than the large size (1536 x 1024)</td>
</tr>
<tr>
<td>CF card error!</td>
<td>CF card has experienced an anomaly</td>
</tr>
<tr>
<td>Naming error!</td>
<td>The file could not be created because there is a file with the same name</td>
</tr>
<tr>
<td></td>
<td>as the directory that the camera is attempting to create, or the highest possible file number</td>
</tr>
<tr>
<td></td>
<td>has already been reached. Reformat the CF card.</td>
</tr>
<tr>
<td></td>
<td>All of the existing images and data will be erased by formatting</td>
</tr>
<tr>
<td>Incompatible JPEG format</td>
<td>You attempted to view an incompatible JPEG file</td>
</tr>
<tr>
<td>No CF card</td>
<td>You attempted to view or shoot an image without a CF card installed</td>
</tr>
<tr>
<td>Corrupted Data</td>
<td>You attempted to view an image with corrupted data</td>
</tr>
<tr>
<td>No Thumbnail</td>
<td>You attempted to replay a CCD RAW image, but no thumbnail was created for the image because</td>
</tr>
<tr>
<td></td>
<td>the CF card was improperly removed while the image was recording</td>
</tr>
<tr>
<td>Unreadable sound data</td>
<td>Existing sound file has an unreadable format, preventing additional sound annotations from</td>
</tr>
<tr>
<td></td>
<td>being added to this image</td>
</tr>
</tbody>
</table>
# Major Specifications

## PowerShot Pro70

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camera Format:</td>
<td>Digital still camera</td>
</tr>
<tr>
<td>Viewfinder:</td>
<td>Secondary focused real-image zoom finder. Gives 84% coverage of actual picture area</td>
</tr>
<tr>
<td>Image Sensor:</td>
<td>16.8 million-pixel, 1/2-inch, charge-coupled device (effective pixels: 16.0 million)</td>
</tr>
<tr>
<td>Gradation Reproduction:</td>
<td>8 bits x 3 colors (10-bit data processing)</td>
</tr>
<tr>
<td>Compression Modes:</td>
<td>Fine/Normal/CCD RAW</td>
</tr>
<tr>
<td>Recorded Image Size:</td>
<td>1,536 x 1024 pixels (large/CCD RAW) 768 x 512 pixels (small)</td>
</tr>
<tr>
<td>Sensitivity:</td>
<td>Equivalent to ISO 100 - 400 (ISO 400 is effective for small images in low light)</td>
</tr>
<tr>
<td>Image Properties:</td>
<td>Date, time, image serial number, other</td>
</tr>
<tr>
<td>Image Data Storage:</td>
<td>CompactFlash™ cards</td>
</tr>
<tr>
<td>File Format:</td>
<td>CIFF (Camera Image File Format)</td>
</tr>
<tr>
<td>Images:</td>
<td>JPEG and proprietary Canon format (CRW)</td>
</tr>
<tr>
<td>Thumbnails:</td>
<td>JPEG</td>
</tr>
<tr>
<td>Sound Annotations:</td>
<td>WAVE</td>
</tr>
<tr>
<td>Feature</td>
<td>Specification</td>
</tr>
<tr>
<td>------------------------------</td>
<td>----------------------------------------------------</td>
</tr>
<tr>
<td>Lens</td>
<td>Focal Length: 6 - 15 mm (equivalent to 28 - 70 mm in 35 mm format)</td>
</tr>
<tr>
<td></td>
<td>F/number: F2.0 (wide angle) - F2.4 (telephoto)</td>
</tr>
<tr>
<td></td>
<td>Zoom Ratio: 2.5 times, autozoom</td>
</tr>
<tr>
<td>Shutter Format</td>
<td>Mechanical + electronic</td>
</tr>
<tr>
<td>Speed Range</td>
<td>1/2 - 1/500 sec. (Large/CCD RAW) 1/2 - 1/8000 sec. (small)</td>
</tr>
<tr>
<td>Self-Timer</td>
<td>10-second delay</td>
</tr>
<tr>
<td>Autofocus Format</td>
<td>TTL phase differential detection method</td>
</tr>
<tr>
<td>Range</td>
<td>32 cm to infinity (Macro: 12 cm to infinity) from front lens</td>
</tr>
<tr>
<td>Exposure Compensation</td>
<td>Format: Through-the-lens programmable auto exposure/aperture-priority auto exposure</td>
</tr>
<tr>
<td></td>
<td>Range: EV 4 - 17</td>
</tr>
<tr>
<td>Flash Connection</td>
<td>Through accessory shoe</td>
</tr>
<tr>
<td>Auto Metering</td>
<td>Hybrid external sensor + through-the-lens method</td>
</tr>
<tr>
<td>White Balance Control</td>
<td>TTL auto white balance</td>
</tr>
<tr>
<td>Camera Modes</td>
<td>Auto/program/play/PC</td>
</tr>
<tr>
<td>Interface</td>
<td>RS-232C/video out/remote release</td>
</tr>
<tr>
<td>Power Supply:</td>
<td>2CR5 lithium battery (330-frame/100-minute replay capacity)/nickel-hydride Battery Pack NB-4H (190-frame/70-minute replay capacity)/Compact Power Adapter CA-PS200</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Test conditions:</td>
<td>2CR5 lithium battery: new cell; Battery Pack NB-4H: full charge; shooting settings: large/fine, LCD off; replay settings: continuous replay at 5 seconds per image</td>
</tr>
<tr>
<td>Backup Battery:</td>
<td>CR 2025 lithium button battery</td>
</tr>
<tr>
<td>Operating Temperatures:</td>
<td>0° - 40°C</td>
</tr>
<tr>
<td>Operating Humidity:</td>
<td>10 - 90%</td>
</tr>
<tr>
<td>Dimensions (w x h x d):</td>
<td>145 x 85 x 132 mm</td>
</tr>
<tr>
<td>Weight:</td>
<td>Approximately 680 g without battery or CF card</td>
</tr>
</tbody>
</table>

*All data is based on Canon’s standard testing methods. Subject to change without notice.*
# Battery Pack NB-4H

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format</td>
<td>Nickel-hydride cell</td>
</tr>
<tr>
<td>Rated Voltage</td>
<td>4.8 V</td>
</tr>
<tr>
<td>Rated Capacity</td>
<td>1400 mAh</td>
</tr>
<tr>
<td>Maximum Charge Cycles</td>
<td>Approximately 300 times</td>
</tr>
<tr>
<td>Operating Temperatures</td>
<td>0° - 40°C</td>
</tr>
<tr>
<td>Dimensions</td>
<td>33 x 31 x 55 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>Approximately 120 g</td>
</tr>
</tbody>
</table>

# Compact Power Adapter CA-PS200

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>AC 100 - 240 volts (50/60 Hz)</td>
</tr>
<tr>
<td>Rated Output</td>
<td>Charging: 6.5V/1.5A</td>
</tr>
<tr>
<td></td>
<td>Camera power supply: 5.3V/12A</td>
</tr>
<tr>
<td>Input Rating</td>
<td>Charging: 24 - 34 VA (100 - 240 V)</td>
</tr>
<tr>
<td></td>
<td>Camera: power supply: 28 - 39 VA (100 - 240 V)</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0° - 40°C</td>
</tr>
<tr>
<td>Dimensions</td>
<td>75 x 117 x 39 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>Approximately 200 g</td>
</tr>
</tbody>
</table>
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