LEARNING MADE EASY

In Full Color

Canon® EOS® 77D

for dummies®
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Simple steps to shooting better photos

Learn the tricks pros use to control exposure settings

Discover how to capture better light and color

Julie Adair King
Robert Correll

Canon® EOS® 77D

by Julie Adair King and Robert Correll

for dummies®
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Canon® EOS® 77D For Dummies®

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Contents at a Glance

Introduction 1

Part 1: Fast Track to Super Snaps 5

CHAPTER 1: Getting Up and Running 7

CHAPTER 2: Choosing Basic Picture Settings 53

CHAPTER 3: Taking Great Pictures, Automatically 87

Part 2: Taking Creative Control 109

CHAPTER 4: Taking Charge of Exposure 111

CHAPTER 5: Controlling Focus and Depth of Field 155

CHAPTER 6: Mastering Color Controls 183

CHAPTER 7: Putting It All Together 203

CHAPTER 8: Shooting and Viewing Movies 219

Part 3: After the Shot 241

CHAPTER 9: Picture Playback 243

CHAPTER 10: Working with Picture and Movie Files 271

Part 4: The Part of Tens 297

CHAPTER 11: Ten More Customization Options 299

CHAPTER 12: Ten Features to Explore on a Rainy Day 307

Appendix: Exploring Wireless Connections 319

Index 331

Table of Contents

INTRODUCTION 1
About This Book 1
Foolish Assumptions 2
Icons Used in This Book 2
Beyond the Book 3
Where to Go from Here 3

PART 1: FAST TRACK TO SUPER SNAPS 5

CHAPTER 1: Getting Up and Running 7
Preparing the Camera for Initial Use 7
Exploring External Camera Features 12
Topside controls 12
Back-of-the-body controls 14
And the rest 17
Changing from Standard to Guided Display Mode 19
Ordering from Camera Menus 21
Mastering menu basics 21
Navigating Custom Functions 23
Customizing the Touch Screen 25
Viewing Shooting Settings 27
Displaying the Quick Control screen 27
Decoding viewfinder data 28
Reading the LCD panel 30
Switching to Live View Mode 31
Customizing the Live View display 32
Staying safe with Live View 35
Using Quick Control Mode 36
Familiarizing Yourself with the Lens 38
Focusing 39
Zooming 40
Enabling Image Stabilization 40
Removing a lens 42
Decoding Canon lens terminology 42
Working with Memory Cards 42
Buying SD cards 43
Formatting a card 43
Removing a card 43
Handling cards 43
Locking cards 44
Using Eye-Fi memory cards 44

Reviewing Basic Setup Options 44
Setup Menu 1 45
Setup Menu 2 47
Setup Menu 3 48
Setup Menu 4 49
Setup Menu 5 51

CHAPTER 2: **Choosing Basic Picture Settings** 53
Choosing an Exposure Mode 54
Basic Zone exposure modes 54
Creative Zone modes (P, Tv, Av, and M) 55
Changing the Drive Mode 56
Understanding the Image Quality Setting 59
Adjusting the Image Quality setting 60
Considering resolution: L, M, S1, or S2? 62
Understanding file type (JPEG or Raw) 66
Setting the Photo Aspect Ratio 70
Adding Flash 71
Using flash in Basic Zone modes 74
Using flash in P, Tv, Av, and M modes 77

CHAPTER 3: **Taking Great Pictures, Automatically** 87
Using Scene Intelligent Auto Mode 88
Viewfinder shooting 88
Live View photography 92
Shooting in Flash Off Mode 95
Taking Advantage of Scene Modes 95
Looking at the primary scene modes 96
Accessing specialty scene modes 98
Adjusting a few settings 101
Gaining More Control with Creative Auto 103

PART 2: TAKING CREATIVE CONTROL 109

CHAPTER 4: **Taking Charge of Exposure** 111
Introducing the Exposure Trio: Aperture, Shutter Speed, and ISO 112
Aperture affects depth of field 114
Shutter speed affects motion blur 115
ISO affects image noise 117
Doing the exposure balancing act 119
Stepping Up to Advance Exposure Modes (P, Tv, Av, and M) 120
Monitoring Exposure Settings 121
Choosing an Exposure Metering Mode 124
Setting ISO, Aperture, and Shutter Speed 127

Controlling ISO 128
Adjusting aperture and shutter speed 130
Sorting Through Your Camera's Exposure-Correction Tools 132
Overriding autoexposure results with Exposure Compensation 132
Improving high-contrast shots with Highlight Tone Priority 137
Experimenting with Auto Lighting Optimizer 139
Looking at a few other exposure solutions 143
Locking Autoexposure Settings 147
Bracketing Exposures Automatically 149

CHAPTER 5: **Controlling Focus and Depth of Field** 155
Setting the Lens to Automatic or Manual Focusing Mode 156
Exploring Viewfinder Focusing Options 158
Adjusting autofocus performance 159
Considering a few other autofocus settings 169
Focusing in Live View and Movie Modes 170
AF Method: Setting the focusing area 171
AF Operation: One-Shot or Servo? 173
Manual focusing in Live View and Movie modes 174
Zooming in for a focus check 176
Manipulating Depth of Field 178

CHAPTER 6: **Mastering Color Controls** 183
Understanding White Balance 184
Changing the White Balance setting 185
Creating a custom White Balance setting 189
Fine-tuning color with White Balance Shift 190
Bracketing White Balance 193
Taking a Quick Look at Picture Styles 197
Changing the Color Space 201

CHAPTER 7: **Putting It All Together** 203
Recapping Basic Picture Settings 203
Shooting Still Portraits 205
Capturing Action 210
Capturing Scenic Vistas 214
Capturing Dynamic Close-Ups 217

CHAPTER 8: **Shooting and Viewing Movies** 219
Recording Movies Using Default Settings 220
Choosing between NTSC and PAL 222
Customizing Recording Settings 222
Choosing a Movie Recording Size setting 223
Setting audio options 227

Using Movie Digital Zoom 230
Reviewing Other Movie Options 232
Autofocusing options 233
Movie Digital IS 234
Playing with exposure and color 235
Checking out a few final features 237
Playing Movies 239

PART 3: AFTER THE SHOT 241

CHAPTER 9: Picture Playback 243
Adjusting Automatic Image Review 244
Viewing Pictures in Playback Mode 244
Viewing thumbnails (Index mode) 246
Jumping through images 248
Rotating pictures 251
Zooming in for a closer view 253
Showing focus points during playback 254
Viewing Picture Data 255
Basic Information display mode 256
Shooting Information display mode 257
Understanding histograms 262
Taking Advantage of Image Search 264
Viewing Photos and Movies on a TV 268

CHAPTER 10: Working with Picture and Movie Files 271
Deleting Files 272
Protecting Photos and Movies 275
Rating Photos and Movies 277
Cropping Photos 280
Installing the Canon Software 283
Sending Pictures to the Computer 284
Downloading via Wi-Fi or USB 285
Downloading from a card reader 289
Converting Raw Images in Digital Photo Professional 4 290
Preparing Pictures for Online Sharing 293

PART 4: THE PART OF TENS 297

CHAPTER 11: Ten More Customization Options 299
Changing the Furniture Around 299
Silencing the Camera 300
Disabling the AF-Assist Beam 300
Preventing Shutter Release without a Memory Card 301
Reducing the Number of Exposure Stops 301

Creating a Custom Menu 302
Adding Custom Folders 302
Turning Off the Shooting Settings Screen 303
Embedding Copyright Notices 304
Adding Cleaning Instructions to Images 306

CHAPTER 12: **Ten Features to Explore on a Rainy Day** 307
Shooting a Time-Lapse Movie 308
Enabling Mirror Lockup 309
Exploring DPOF Printing 309
Adding Special Effects to Photos 310
Adding Effects During Shooting 312
Tagging Pictures for a Photo Book 314
Creating Video Snapshots 315
Trimming Movies 316
Presenting a Slide Show 317
Exploring Interval Timer Shooting 318

APPENDIX: EXPLORING WIRELESS CONNECTIONS 319
Preparing the Camera 320
Connecting to a Computer 322
Disconnecting and reconnecting 324
Reviewing EOS Utility functions 325
Connecting to a Smartphone or Tablet 326
Decoding the Wireless Symbols 328

INDEX 331

Introduction

In 2003, Canon revolutionized the photography world by introducing the first digital SLR (dSLR) camera to sell for less than $1,000, the EOS Digital Rebel/300D. The camera delivered exceptional performance and picture quality, earning it rave reviews and multiple industry awards. No wonder it quickly became a best seller.

That tradition of excellence and value lives on in the EOS 77D. Like its predecessors, this baby offers advanced controls for experienced photographers as well as features to help beginners be successful from the get-go. Adding to the fun, the camera also offers high-definition video recording and built-in Wi-Fi for easy connections to your computer, smartphone, or tablet.

In fact, the 77D is so feature-packed that sorting out everything can be a challenge. For starters, you may not even know what SLR means, let alone have a clue about all the other terms you encounter in your camera manual — resolution, aperture, and ISO, for example. If you're like many people, you may be so overwhelmed by all the camera controls that you haven't yet ventured beyond fully automatic picture-taking mode. That's a shame because it's sort of like buying a Porsche Turbo and never pushing it past 35 miles per hour.

About This Book

In this book, you discover not only what each bell and whistle on your camera does but also when, where, why, and how to put it to best use. Unlike many photography books, this one doesn't require any previous knowledge of photography or digital imaging. Everything is explained in easy-to-understand language, with lots of illustrations to help clear up any confusion.

In short, what you have in your hands is the paperback version of a photography workshop tailored specifically to your camera. Whether your interests lie in taking family photos, exploring nature and travel photography, or snapping product shots for your business, you'll get the help you need to capture the images you envision.

Within this book, you may note that some web addresses break across two lines of text. If you're reading this book in print and want to visit one of these web pages, simply key in the web address exactly as it's noted in the text, pretending as though the line break doesn't exist. If you're reading this as an e-book, you've got it easy — just click the web address to be taken directly to the web page.

Additionally, replicas of some of your camera's buttons and onscreen graphics appear throughout the book to help you locate the button or setting being discussed.

Foolish Assumptions

We don't assume much about you, the reader, but we do assume the following:

- You either have or are planning to acquire a Canon EOS 77D camera.
- You want to learn about the camera's features and how to use them.
- You would like to deepen your knowledge of photography so that you can take better still photos and movies with the 77D.

Icons Used in This Book

If this isn't your first *For Dummies* book, you may be familiar with the large round icons that decorate its margins. If not, here's your very own icon-decoder ring:

A Tip icon flags information that saves you time, effort, money, or another valuable resource, including your sanity.

When you see this icon, look alive. It indicates a potential danger zone that can result in much wailing and teeth-gnashing if it's ignored.

Lots of information in this book is of a technical nature — digital photography is a technical animal, after all. But if we present a detail that's useful mainly for impressing your geeky friends, we mark it with this icon.

REMEMBER

This icon highlights information that's especially worth storing in your brain's long-term memory or to remind you of a fact that may have been displaced from that memory by another pressing fact.

Beyond the Book

In addition to the material in the print or e-book you're reading right now, this product also comes with some access-anywhere goodies on the web. Check out the free Cheat Sheet for a handy reference to your camera's buttons, controls, and exposure modes. To get this Cheat Sheet, simply go to `www.dummies.com` and type **Canon EOS 77D For Dummies Cheat Sheet** in the Search box.

Where to Go from Here

To wrap up this preamble, we want to stress that if you initially think that digital photography is too confusing or too technical for you, you're in good company. *Everyone* finds this stuff mind-boggling at first. Take it slowly, trying just one or two new camera settings or techniques each time you pick up your camera. With time, patience, and practice, you'll soon wield your camera like a pro, dialing in the necessary settings to capture your creative vision almost instinctively.

So, without further ado, we invite you to grab your camera and a cup of whatever it is you prefer to sip while you read and start exploring the rest of this book. Your EOS 77D is the perfect partner for your photographic journey, and we thank you for allowing us, through this book, to serve as your tour guides.

1 Fast Track to Super Snaps

IN THIS PART . . .

Familiarize yourself with the basics of using your camera, from attaching lenses to navigating menus.

Select the right exposure mode, shutter-release mode, picture aspect ratio, and image quality.

Discover options available for flash photography.

Enjoy the simplicity of shooting in Basic Zone exposure modes, including Scene Intelligent Auto.

IN THIS CHAPTER

- Preparing the camera for its first outing
- Getting acquainted with camera features
- Viewing and adjusting camera settings
- Setting a few basic preferences

Chapter 1
Getting Up and Running

If you're like many people, shooting for the first time with a single-lens reflex (SLR) camera produces a blend of excitement and anxiety. On the one hand, you can't wait to start using your new equipment, but on the other, you're a little intimidated by all its buttons, dials, and menu options.

Well, fear not: This chapter provides the information you need to start getting comfortable with your Canon EOS 77D. The first section walks you through initial camera setup. Following that, you get an overview of camera controls, discover how to view and adjust camera settings, work with lenses and memory cards, and get advice on some basic setup options.

Preparing the Camera for Initial Use

After unpacking your camera, you have to assemble a few parts. In addition to the camera body and the supplied battery (charge it before the first use), you need a lens and a memory card. Later sections in this chapter provide details about lenses and memory cards, but here's the short story:

- **Lens:** Your camera accepts Canon EF and EF-S lenses; the 18–55mm or 18–135mm kit lenses sold as a bundle with the camera body falls into the EF-S category. If you want to buy a non-Canon lens, check the lens manufacturer's website to find out which lenses work with your camera.

» **SD, SDHC, or SDXC memory card:** The SD stands for *Secure Digital;* the HC and XC stand for *High Capacity* and *eXtended Capacity.* The different labels reflect how many gigabytes (GB) of data the card holds. SD cards hold less than 4GB; SDHC, 4GB to 32GB; and SDXC, more than 32GB.

With camera, lens, battery, and card within reach, take these steps:

1. **Turn the camera off.**
2. **Attach a lens.**

   First, remove the caps that cover the front of the camera and the back of the lens. Then locate the proper *mounting index,* which is a mark on the camera's lens mount that indicates how to align the lens with the camera body. Your camera has two of these markers, one red and one white, as shown in Figure 1-1. Which marker you use depends on the lens type:

   - *Canon EF-S lens:* The white square is the mounting index.
   - *Canon EF lens:* The red dot is the mounting index.

   Your lens also has a mounting index; align that mark with the matching one on the camera body, as shown in Figure 1-1. Place the lens on the camera mount and rotate the lens toward the side of the camera that sports the white EOS logo (or, to put it another way, away from the shutter-button side of the camera). You should feel a solid click as the lens locks into place.

3. **Insert the battery.**

   The battery compartment is on the bottom of the camera. When inserting the battery, hold it with the contacts down and the Canon imprint facing out (toward the side of the camera with the memory card cover). Gently push the battery in until the gray lock clicks into place.

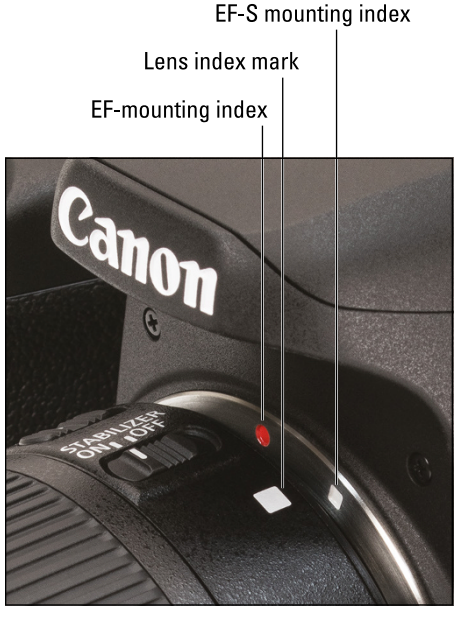


FIGURE 1-1:
Align the mounting index on the lens with the one on the camera body.

4. Insert a memory card.

Open the memory card door and orient the card so that the notched corner is on top and the label faces the back of the camera, as shown in Figure 1-2. Push the card gently into the slot and close the card door.

FIGURE 1-2: Insert the memory card with the label facing the back of the camera.

REMEMBER

The memory-card access light (refer to Figure 1-2) blinks for few seconds to let you know that the camera recognizes the card. (The light appears even when the camera is turned off.)

5. Rotate the monitor to the desired viewing position.

When you first take the camera out of its box, the monitor is positioned with the screen facing inward, protecting it from scratches and smudges. Gently lift the right side of the monitor up and away from the camera back. You can then rotate the monitor to move it into the traditional position on the camera back, as shown on the left in Figure 1-3, or swing the monitor out to get a different viewing angle, as shown on the right.

FIGURE 1-3: Here are just two possible monitor positions.

6. Move the On/Off switch to the On position.

Okay, that's an odd way to say "Turn on the camera," right? Agreed, but there's good reason for it: This particular On/Off switch, shown in Figure 1-4, has three positions. When you rotate the switch to On, the camera comes to life and is ready to take still photos. When you move the switch one step further, to the movie camera symbol, the camera turns on and then sets itself to Movie mode. You can't take a still photograph in Movie mode; it's only good for recording video.

FIGURE 1-4:
Rotate the switch to On to shoot photographs; move the switch one step further to set the camera to Movie mode.

WARNING

It's easy to accidentally move the On/Off switch all the way to the Movie mode setting when you really want to take regular photos, so pay attention when turning the camera on until you get used to this arrangement. (One clue that you've rotated the switch too far is that the camera automatically engages Live View, which disables the viewfinder and presents a live preview of your subject on the camera monitor.)

7. **Set the language, time zone, and date.**

When you power up the camera for the first time, the monitor displays a screen asking you to set the date, time, and time zone. The easiest way to adjust these settings is to use the touch screen, which is enabled by default. Just tap an option to select it and then tap the up/down arrows at the bottom of the screen to set the value for that option. Finally, tap OK to exit the screen.

You also can adjust settings by using the Set button and the four Quick Control keys surrounding it (these controls live just to the right of the monitor). Press the left/right keys to highlight a setting, press Set to activate the option, press the up/down keys to change the value, and press Set again to finalize the change.

TIP

The date/time information is included as *metadata* (hidden data) in the picture file. You can view metadata in some playback display modes (see Chapter 9) and in certain photo programs, including Canon Digital Photo Professional (see Chapter 10).

8. **Adjust the viewfinder to your eyesight.**

This step is critical; if you don't set the viewfinder to your eyesight, subjects that appear out of focus in the viewfinder might actually be in focus, and vice versa. If you wear glasses while shooting, adjust the viewfinder with your glasses on.

WARNING

You control viewfinder focus through the dial labeled in Figure 1-5. (In official lingo, it's called the *diopter adjustment dial.*) After taking off the lens cap, follow these steps:

1. *Look through the viewfinder, press the shutter button halfway, and then release it.*

   In dim lighting, the built-in flash may pop up; ignore it for now and concentrate on the lines that appear in the center of the frame and the row of data displayed at the bottom of the frame.

2. *Rotate the adjustment dial until the viewfinder markings and data appear sharpest.*

   Ignore the scene you see through the lens; that won't change because you're not actually focusing the camera. If the markings turn off before you finish making your adjustments, give the shutter button another quick half-press and release to redisplay them.

   Can't get the display sharp enough? You may need an adapter that enables further adjustment of the viewfinder. Look for an E-series dioptric adjustment lens adapter.

3. *If necessary, close the flash unit.*

FIGURE 1-5:
Use this dial to adjust the viewfinder focus to your eyesight.

9. Select an exposure mode by pressing and holding the lock-release button and rotating the Mode dial (refer to Figure 1-4).

The exposure mode determines how much control you have over various camera settings, as well as whether any special effects are applied. Chapter 2 explains the various exposure modes. For easiest operation, set the dial to Scene Intelligent Auto, as shown Figure 1-4. Be aware, though, that some camera features are available only in the four advanced shooting modes: P, Tv, Av, and M. The lock-release button is a handy feature that keeps you from accidentally turning the Mode dial when you aren't intending to.

That's all there is to it — the camera is now ready to go. The rest of this chapter familiarizes you with other major camera features and explains such basics as how to navigate menus, use the touch screen, and view and adjust camera settings.

REMEMBER

One more thing before you go: The official name for Canon's fully automatic exposure mode is Scene Intelligent Auto because, in this mode, the camera's brain analyzes the light and color information it picks up through the lens, consults an internal database to help it determine what type of scene you're shooting, and then

adjusts picture settings as it deems necessary. In other words, Scene Intelligent Auto mode is intelligent enough to set up the camera to best capture the scene.

Exploring External Camera Features

Scattered across your camera's exterior are numerous features that you use to change picture-taking settings, review your photos, and perform various other operations. Later chapters explain how and when to use these tools; the following sections provide just a basic "What's this thing do?" introduction to them. (Don't worry about memorizing the button names; throughout the book, figures and margin symbols tell you exactly which button or switch to use.)

Topside controls

Your virtual tour begins on the top of the camera, shown in Figure 1-6.

FIGURE 1-6: Here's a guide to controls found on top of the camera.

Here are the items of note:

- **On/Off/Movie mode switch:** As outlined in the preceding section, setting the switch to the movie-camera icon turns on the camera and sets it to Movie mode. Set the switch to On for still photography.

  Even when the switch is in the On position, the camera automatically goes to sleep after a period of inactivity to save battery power. To wake the camera up, press the shutter button halfway and release it. See the section "Setup Menu 2" for help adjusting the timing of the automatic shutoff.

- **Mode dial with lock-release button:** Press and hold the lock-release button in the center of the Mode dial, and then rotate the dial to select an *exposure mode,* which determines whether the camera operates in fully automatic, semi-automatic, or manual exposure mode when you take still pictures.

- **Viewfinder adjustment dial:** Use this dial to adjust the viewfinder focus to your eyesight, as outlined in the preceding section.

- **Main dial:** As its name implies, this dial is central to many camera functions, from scrolling through menus to changing certain shooting and playback settings.

  TIP

  On some camera screens, you see a symbol that resembles the top half of a dial that has notches around the edge. That's designed to remind you that you use the Main dial to adjust the setting.

- **Red-Eye Reduction/Self-Timer Lamp:** When you set your flash to Red-Eye Reduction mode, this little lamp emits a brief burst of light prior to the real flash — the idea being that your subjects' pupils will constrict in response to the light, thus lessening the chances of red-eye. If you use the camera's self-timer feature, the lamp lights during the countdown period before the shutter is released. See Chapter 2 for more details about Red-Eye Reduction flash mode and the self-timer function.

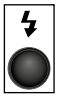
- **AF Area Selection button:** Press this button to access the AF Area Selection setting, which is related to autofocusing (see Chapter 5).

- **ISO button:** True to its name, this button displays a screen where you can adjust the ISO setting, which determines how sensitive the camera is to light. Chapter 4 details this critical setting.

- **LCD panel illumination button:** This button illuminates the top LCD panel with an amber backlight.

- **Shutter button:** You no doubt already understand the function of this button, but you may not realize that when you use autofocus and

autoexposure, you need to use a two-stage process when taking a picture: Press the shutter button halfway, pause to let the camera set focus and exposure, and then press down the rest of the way to capture the image. You'd be surprised how many people mess up their pictures because they press that button with one quick jab, denying the camera the time it needs to set focus and exposure.



- **Flash hot shoe:** This is the connection for attaching an external flash and other accessories such as flash adapters, bubble levels, flash brackets, off-camera flash cords, and the GP-E2 GPS Receiver.

- **Focal plane indicator:** Should you need to know the exact distance between your subject and the camera, the *focal plane indicator*. This mark indicates the plane at which light coming through the lens is focused onto the camera's image sensor. Basing your measurement on this mark produces a more accurate camera-to-subject distance than using the end of the lens or some other point on the camera body as your reference point.

Back-of-the-body controls

Traveling over the top of the camera to its back, you encounter the smorgasbord of controls shown in Figure 1-7.

Some buttons have multiple "official" names because they serve multiple purposes depending on whether you're taking pictures, reviewing images, recording a movie, or performing some other function. This book refers to these buttons by the first label you see in the following list (and in Figure 1-7) to simplify things. Again, though, the margin icons show you exactly which button you should press.

Starting at the top-right corner of the camera back and working westward (well, assuming that your lens is pointing north, anyway), here's an introduction to the buttons and other controls on this side of the camera:

- **AF Point Selection/Magnify button:** In certain shooting modes, you press this button to specify which autofocus points or zones you want the camera to use when establishing focus. You can also use it in Live View or Movie mode to magnify the display to check focus (see Chapter 5). In Playback mode (see Chapter 9), you use this button to magnify the image display (thus, the plus sign in the button's magnifying glass icon).

- **AE Lock/FE Lock/Index/Reduce button:** During shooting, press this button to lock autoexposure (AE) settings (see Chapter 4) and to lock flash exposure (FE), a feature detailed in Chapter 2.

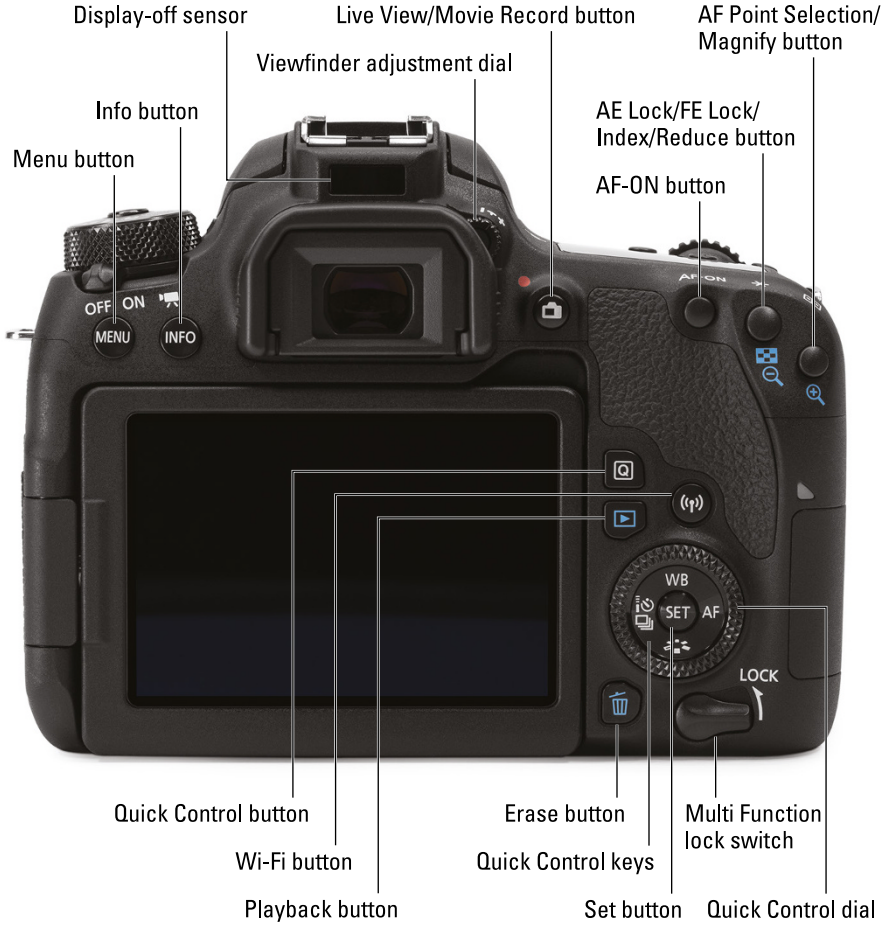


FIGURE 1-7: Having lots of external buttons makes accessing the camera's functions easier.

This button also serves two image-viewing functions: It switches the display to Index mode, enabling you to see multiple image thumbnails at once. And if you magnify a photo, pressing the button reduces the magnification level.

- **AF-ON button:** Just like pressing the shutter button halfway, pressing this button initiates autofocus. See Chapter 5 for more information on focusing.

- **Live View/Movie button:** Press this button to shift to Live View mode, which enables you to compose your pictures using the monitor instead of the viewfinder. When shooting movies, press the button to start and stop recording. (You must first set the On/Off/Movie switch to the Movie position.)

- **Q (Quick Control) button:** Press this button to shift to Quick Control mode, which enables you to adjust major shooting settings quickly. See "Using Quick Control Mode," later in this chapter, for help.

- **Wi-Fi button:** Pressing this button enables certain wireless communication features. See the appendix for an explanation of Wi-Fi operations.

- **Playback button:** Press this button to switch the camera into picture-review mode.

- **Memory card access light:** This light glows while the camera is recording data to the memory card. Don't power off the camera while the light is lit, or you may damage the card or camera.

- **Set button and Quick Control keys:** The Set button and the four-way directional pad with buttons, known as *Quick Control keys,* team up to perform several functions, including choosing options from the camera menus. You use the Quick Control keys to navigate through menus and then press the Set button to select a specific menu setting.

  In this book, the instruction "Press the left Quick Control key" means to press the one to the left of the Set button; "press the right Quick Control key" means to press the one to the right of the Set button, and so on.

  During viewfinder photography — that is, when you're using the viewfinder and not the monitor to frame your shots — the Quick Control keys also have individual responsibilities, which are indicated by their labels:

  - *Press the up key to change the White Balance setting.* The White Balance control, explained in Chapter 6, enables you to ensure that colors are rendered accurately.
  - *Press the right key to adjust the AF Operation mode.* This option controls one aspect of the camera's autofocus behavior, as outlined in Chapter 5.
  - *Press the left key to change the Drive mode.* The Drive mode settings enable you to switch the camera from single-frame shooting to continuous capture or any of the other drive modes, including remote shooting. See Chapter 2 for details.
  - *Press the down key to change the Picture Style.* Chapter 6 explains Picture Styles, which you can use to adjust the color, contrast, and sharpness of your pictures.

  For Live View and Movie shooting, the Quick Control keys perform different actions. See Chapter 5 for help.

- **Quick Control dial:** The Quick Control dial surrounds the Set button and the Quick Control keys. Rotating the dial offers a handy way to quickly scroll through options and settings. It's a timesaver, so we point out when to use it as we provide instructions throughout the book.

- **Erase button:** Sporting a trash can icon, the universal symbol for delete, this button lets you erase pictures from your memory card during playback. Chapter 9 has specifics.

- **Multi Function Lock switch:** You can rotate this switch up, in the direction of the arrow, to lock the Quick Control dial so that you don't accidentally move the dial and change a camera setting that you aren't intending to modify. If you want an even larger safety net, you can set things up so that the switch also locks the Main dial and the touch screen (when shooting). The section "Setup Menu 4," toward the end of this chapter, has details.
- **Display-off sensor:** This handy gizmo senses when you bring your eye up to the viewfinder and turns the LCD monitor off so that the glare from the display doesn't bother you. When you pull your eye back, the LCD monitor comes back on.
- **Info button:** In Live View, Movie, and Playback modes, pressing this button changes the picture-display style.

  During viewfinder photography, you can press the Info button to toggle the display off or cycle between the Quick Control screen and electronic level. (These displays are explained later in this chapter.)
- **Menu button:** Press this button to display camera menus; press a second time to exit the menus. See the upcoming section "Ordering from Camera Menus" for help navigating menus.

And the rest . . .

The remaining external features of note are shown in Figure 1-8 and described in the following list.

- **Wireless remote-control sensor:** This sensor can pick up the signal from the optional Canon wireless remote-control unit. The part number is Canon RC-6, and sells for about $20.

  You also have two other wireless remote-control options: If you have a smartphone or tablet that can run the Canon Connect app, you can use that device as a wireless remote. The appendix provides more information. Alternatively, you can buy the Canon Wireless Remote Control BR-E1 (about $50), which connects to your camera via Bluetooth, also detailed in the appendix. We bring them up now because unlike the RC-6 unit, these two tools don't need to be aimed at the camera's remote-control sensor to work.
- **Lens-release button:** Press this button to disengage the lens from the lens mount so that you can remove it from the camera. While pressing the button, rotate the lens toward the shutter-button side of the camera to dismount the lens.
- **Flash button:** Press this button to raise the built-in flash in the advanced exposure modes (P, Tv, Av, and M).

FIGURE 1-8: Other important controls reside on the front and left side of the camera.

- **Microphone:** You can record movie audio via the built-in microphone, which picks up sound from the two clusters of holes, one of which is labeled Microphone in Figure 1-8.
- **Depth-of-Field Preview button:** When you press this button, the image in the viewfinder (or, in Live View mode, on the monitor) offers an approximation of the depth of field that will result from your selected aperture setting, or f-stop. *Depth of field* refers to the distance over which the scene appears to be in focus. Chapter 5 provides details.
- **Speaker:** When you play a movie that contains audio, the sound comes wafting through these little holes.
- **Connection ports:** Hidden under two covers on the left side of the camera, you find inputs for connecting the camera to various devices. Open the smaller cover to access the connections for a wired remote control or external