LEARNING MADE EASY



In Full Color

Canon[®] EOS[®] Rebel T7i/800D

Av

Q

Simple steps to shooting better photos

Learn the tricks that pros use to control exposure

Choose the best settings for different subjects

Julie Adair King



Canon[®] EOS[®] Rebel T7i/800D

by Julie Adair King



Canon[®] EOS[®] Rebel T7i/800D For Dummies[®]

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Introduction

n 2003, Canon revolutionized the photography world by introducing the first digital SLR camera (dSLR) 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 Rebel T7i/800. Like its ancestors, 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 T7i/800D 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 over-whelmed 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.

Therein lies the point of *Canon EOS Rebel T7i/800D For Dummies*. In this book, you can 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, either. 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.

A Quick Look at What's Ahead

This book is organized into four parts, each devoted to a different aspect of using your camera. Although chapters flow in a sequence that takes you from absolute beginner to experienced user, each chapter is designed to be as self-standing as possible so that you can explore topics that interest you in any order.

Here's an overview of each part:

- Part 1: Fast Track to Super Snaps: This part contains three chapters that help you get up and running. Chapter 1 offers a brief overview of camera controls and walks you through initial setup and customization steps. Chapter 2 explains basic picture-taking options, such as shutter-release mode and image quality settings, and Chapter 3 shows you how to use the camera's simplest exposure modes, including Scene Intelligent Auto, Creative Auto, and SCN (Scene) modes.
- Part 2: Taking Creative Control: Chapters in this part help you unleash the full creative power of your camera by moving into advanced shooting modes. Chapter 4 covers the all-important topic of exposure; Chapter 5 offers tips for manipulating focus; Chapter 6 explains color features; and Chapter 7 provides a summary of shooting strategies for specific types of pictures: portraits, action shots, landscape scenes, and close-ups. Wrapping up this part, Chapter 8 covers movie recording and playback.
- Part 3: Working with Picture Files: As its title implies, this part discusses after-the-shot topics. Chapter 9 explains picture playback features, and Chapter 10 covers topics including rating, deleting, and protecting files; transferring pictures from your camera to your computer; processing Raw files; and preparing pictures for online sharing.
- Part 4: The Part of Tens: In famous For Dummies tradition, the book concludes with two top-ten lists containing additional bits of information. Chapter 11 takes a look at ten camera-customization options not covered elsewhere. Chapter 12 introduces features that may not be on the top of your "Why I bought this camera" list, but are nonetheless interesting, useful on occasion, or a bit of both.
- Appendix: Exploring Wireless Features: Head here for basic information about establishing a wireless connection between your camera and a computer, smartphone, or tablet. You can then transfer files wirelessly and use your computer or smart device as a camera remote control, among other things.
- Cheat sheet: When you have a minute or two, visit www.dummies.com and enter the name of this book in the search box. You'll find a link to a cheat sheet, which provides a handy reference to your camera's buttons, controls, and exposure modes.

Icons and Other Stuff to Note

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.



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.

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.

Practice, Be Patient, and Have Fun!

To wrap up this preamble, I 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, I invite you to grab your camera and a cup of whatever you prefer to sip while you read and then start exploring the rest of this book. Your T7i/800D is the perfect partner for your photographic journey, and I thank you for allowing me, through this book, to serve as your tour guide.

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.

- » 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

f you're like many people, shooting for the first time with an SLR (single-lens reflex) camera produces a blend of excitement and anxiety. On 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 Rebel T7i/800D. The first section walks you through initial camera setup; following that, you can 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 model lenses; the 18–55mm kit lens 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 (Secure Digital), SDHC, or SDXC memory card: The SD stands for Secure Digital; the HC and XC 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, greater 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 red *Rebel* 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. Install 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 the right side of the camera grip. Gently push the battery in until the gray lock clicks into place. Lens index mark

EF-S mounting index



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 label faces the back of the camera, as shown in Figure 1-2. (If you look closely at the silver panel on the inside of the card door, you see a diagram that indicates the proper card orientation.) Push the card gently into the slot and close the card door.

The memory-card access light, labeled in 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.

Memory-card access light



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

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 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. If you move the switch one step further, to the movie camera symbol, the camera turns on and sets itself to Movie mode. You can't take a still photograph in Movie mode; it's good only for recording video.

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



FIGURE 1-4:

Rotate the switch to On to shoot photographs; move the switch one step further to set the camera to movie-recording mode.

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 touchscreen, 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 *cross 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.



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. (Refer to 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.





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.

Rotate to adjust viewfinder focus



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

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 adjustment, 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.

9. Select an exposure mode by rotating the Mode dial, labeled in 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 Auto, as shown in the figure. Be aware, though, that some camera features are available only in the four advanced shooting modes: P, Tv, Av, and M.

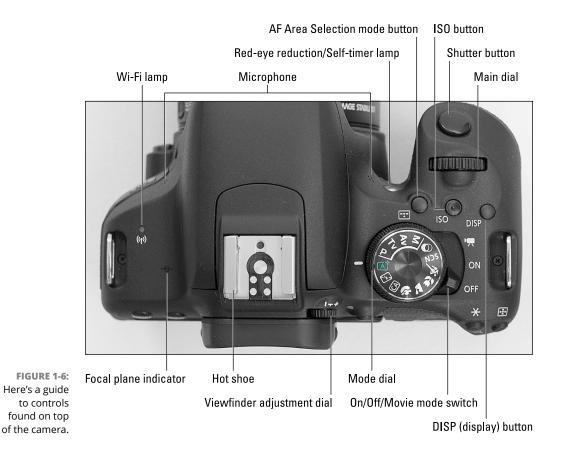
That's all there is to it — the camera is now ready to go. The rest of this chapter familiarizes you with other major camera features and explains such basics as how to navigate menus, use the touchscreen, and view and adjust camera settings.

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 follow-ing sections provide 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.



The items of note here are

On/Off/Movie mode switch: As outlined in the preceding section, setting the switch to movie-camera icon turns on the camera and sets it to movie-recording 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 information related to the Auto Power Off setting, found in the section Setup Menu 2" for help adjusting the timing of the automatic shutoff.

- Mode dial: Rotate this 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.



On some camera screens, you see a symbol that resembles the top half of a dial with notches around the edge. That's designed to remind you that you use the Main dial to adjust the setting. Similarly, on some screens, a pair of curved arrows is perched above a picture-taking setting. Those arrows also indicate that you can rotate the 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. Chapter 5 explains.
 - 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.
 - >> **DISP button:** This button affects the Quick Control screen, which displays shooting information when you're taking still pictures. (Check out "Displaying the Quick Control screen, later in this chapter, for a look.) Normally, the screen appears automatically when you turn the camera on or press the shutter



button halfway and release it and then turns off after a period of inactivity. But you take control over the display by pressing the button, which toggles the Quick Control screen on and off.

- 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: Labeled in Figure 1-6, 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* labeled in Figure 1-6 is key. 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.
- Microphone: You can record movie audio via the built-in microphone, which picks up sound from the two clusters of holes labeled "Microphone" in Figure 1-6.
- Wi-Fi lamp: The Wi-Fi lamp turns on to show that you're connected, and blinks at various rates to show that it is waiting, transferring data, or has a connection error. For more information on Wi-Fi, turn to the appendix.

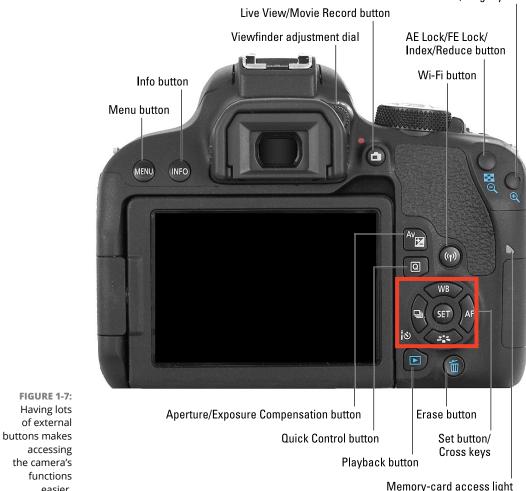
Back-of-the-body controls

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 to press.

AF Point Selection/Magnify button



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



functions

easier.

>> 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. (Chapter 5 tells you about focusing features.) In Playback mode, covered in 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, as covered in Chapter 4, and to lock flash exposure (FE), a feature detailed in Chapter 2.

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.



- >> 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.)
- Av Z
- ➤ Aperture/Exposure Compensation button: When you shoot in the M (manual) exposure mode, press and hold this button, then rotate the Main dial to choose the aperture setting, also known as the *f-stop*. In the other advanced exposure modes (P, Tv, and Av), you instead use the button and dial to apply *Exposure Compensation*, a feature that enables you to adjust the exposure. Chapter 4 discusses both issues.
- Q
- 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; again, see the appendix for an explanation of Wi-Fi operations.
- Memory-card access light: Labeled in Figure 1-7, 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 cross keys: Figure 1-7 points out the Set button and the four surrounding buttons, known as cross keys. These buttons team up to perform several functions, including choosing options from the camera menus. You use the cross 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 cross key" means to press the one to the left of the Set button, "Press the right cross 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 cross keys also have individual responsibilities, which are indicated by their labels:

- *Press the up cross 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 cross 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 cross 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. See Chapter 2 for details.
- *Press the down cross 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 cross keys perform different actions, all related to autofocusing. See Chapter 5 for help.



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



- 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.
- 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 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:



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

Remote control/Microphone port cover

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. I 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).
- 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 microphone. Under the larger door, you find a digital terminal for connecting the camera to your computer via USB and an HDMI out port that sends the signal from your camera to an HDMI-equipped TV. To use either feature, you need to purchase a cable to make the connection. For USB downloading, check the Canon website for the cables that will do the trick. For HDMI output, you can use any HD cable that has a Type-C connection one on end (the end that goes into the camera).

See Chapter 12 for help with displaying images on an HD television; Chapter 9 explains how to connect the camera via USB to download pictures to your computer. (Spoiler alert: Downloading via USB is probably not your cheapest or easiest option; instead, consider using a memory-card reader or taking advantage of wireless transfer.)

>> NFC antenna: This label marks the spot that emits a signal than can be picked up by NFC-enabled smartphones and other smart devices. (NFC stands for *Near Field Communication.*) If your device has this feature, you can simply place it next to the antenna to initiate a wireless connection between it and the camera. See the appendix for information on this wireless feature.

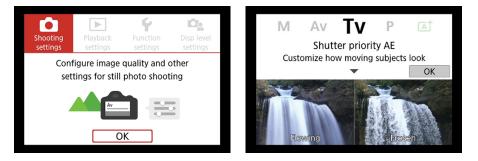
If you turn the camera over, you find a tripod socket (which enables you to mount the camera on a tripod that uses a ¼-inch screw), the chamber that holds the battery, and a connection port for attaching a Canon power adapter. See the camera manual for specifics on running the camera on AC power.

Changing from Guided to Standard Display Mode

By default, your camera is set to *Guided Display Mode*. In this mode, designed for novices, camera screens are simplified and offer explanations and feedback when you adjust certain settings.

For example, when you press the Menu button, you get a description of the contents of the current menu, as shown on the left in Figure 1–9. And when you rotate the Mode dial to choose an exposure mode, the display describes what that mode is designed to do. The right side of Figure 1–9 shows the screen that appears if you select the Tv (shutter-priority autoexposure) exposure mode, for example.

FIGURE 1-9: In Guided Display mode, the camera offers simplified menus and brief details about the feature you're currently using.



Additionally, after you exit the screen that describes the exposure mode, the camera displays available picture-taking settings along with input on certain options. If you choose OK from the Tv screen shown on the right in Figure 1–9, for example, you see the screen shown on the left in Figure 1–10, explaining that the main setting associated with the TV mode is the shutter speed, which determines whether moving objects appear blurry or sharp. As you change that setting, the screen updates to offer input on how your picture will be affected, as shown on the right in Figure 1–10.

FIGURE 1-10: Here are two guided screens that appear when you use the Tv exposure mode (shutterpriority autoexposure).

