1

Getting the Lay of the Land

I still remember the day that I bought my first SLR film camera. I was excited to finally move up from my one-button point-and-shoot camera, but I was a little anxious, too. My new pride and joy sported several unfamiliar buttons and dials, and the explanations in the camera manual clearly were written for someone with an engineering degree. And then there was the whole business of attaching the lens to the camera, an entirely new task for me. I saved up my pennies a long time for that camera — what if my inexperience caused me to damage the thing before I even shot my first pictures?

You may be feeling similarly insecure if your Rebel XSi/450D is your first SLR, although some of the buttons on the camera back may look familiar if you've previously used a digital point-and-shoot camera. If your Canon is both your first SLR and first digital camera, you may be doubly intimidated.

Trust me, though, that your camera isn't nearly as complicated as its exterior makes it appear. With a little practice and the help of this chapter, which introduces you to each external control, you'll quickly become as comfortable with your camera's buttons and dials as you are with the ones on your car's dashboard.
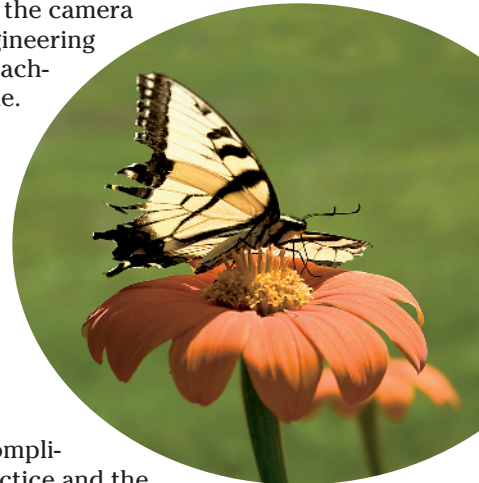
This chapter also guides you through the process of mounting and using an SLR lens, working with digital memory cards, and navigating your camera's internal menus. Finally, the end of the chapter walks you through options that enable you to customize many aspects of your camera's basic operation.

Getting Comfortable with Your Lens

One of the biggest differences between a point-and-shoot camera and an SLR *(single-lens reflex)* camera is the lens. With an SLR, you can swap out lenses to suit different photographic needs, going from an extreme close-up lens to a super-long telephoto, for example. In addition, an SLR lens has a movable focusing ring that gives you the option of focusing manually instead of relying on the camera's autofocus mechanism.

Of course, those added capabilities mean that you need a little background information to take full advantage of your lens. To that end, the next three sections explain the process of attaching, removing, and using this critical part of your camera.

Attaching a lens

Your camera can accept two categories of Canon lenses: those with a so-called EF-S design and those with a plain-old EF design.

The EF stands for *electro focus;* the S, for *short back focus.* And no, you don't really need to remember that little detail — but you do need to make sure that if you buy a Canon lens other than the one sold with the camera, it carries either the EF or EF-S specification. (If you want to buy a non-Canon lens, check the lens manufacturer's Web site to find out which lenses work with the Rebel XSi/450D.)

Whatever lens you choose, follow these steps to attach it to the camera body:

1. **Remove the cap that covers the lens mount on the front of the camera.**

2. **Remove the cap that covers the back of the lens.**

3. **Locate the proper lens mounting index on the camera body.**

   A *mounting index* is simply a marker that tells you where to align the lens with the camera body when connecting the two. Your camera has two of these markers, one red and one white, as shown in Figure 1-1.

Which marker you use to align your lens depends on the lens type:

- *Canon EF-S lens:* Align the lens mounting index with the white square on the camera body.

- *Canon EF lens:* Align the lens mounting index with the red dot instead.

EF-S index mount

EF-index mount   Lens-release button

Figure 1-1: Which index marker you should use depends on the lens type.

If you buy a non-Canon lens, check the lens manual for help with this step.

4. **Align the mounting index on the lens with the correct one on the camera body.**

The lens also has a mounting index; Figure 1-2 shows the one that appears on the so-called "kit lens" — the EF-S 18–55mm IS (image stabilizer) zoom lens that Canon sells as a unit with the Rebel XSi/450D. If you buy a different lens, the index marker on the lens may be red or some other color, so again, check the lens instruction manual.

Figure 1-2: Place the lens in the lens mount with the mounting indexes aligned.

5. **Keeping the mounting indexes aligned, position the lens on the camera's lens mount.**

   When you do so, grip the lens by its back collar as shown in the figure.

6. **Turn the lens in a clockwise direction until the lens clicks into place.**

   In other words, turn the lens toward the lens release button (see Figure 1-1), as indicated by the red arrow in Figure 1-2.

7. **On a lens that has an aperture ring, set and lock the ring so the aperture is set at the highest f-number.**

   Check your lens manual to find out whether your lens sports an aperture ring and how to adjust it. (The Rebel XSi/450D kit lens doesn't.) To find out more about apertures and f-stops, see Chapter 5.

Always attach (or switch) lenses in a clean environment to reduce the risk of getting dust, dirt, and other contaminants inside the camera or lens. Changing lenses on a sandy beach, for example, isn't a good idea. For added safety, point the camera body slightly down when performing this maneuver, as shown in the figure; doing so helps prevent any flotsam in the air from being drawn into the camera by gravity. See Chapter 3 for tips on cleaning your lens.

Removing a lens

To detach a lens from the camera body, take these steps:

1. **Locate the lens-release button on the front of the camera.**

   I labeled the button in Figure 1-1.

2. **Grip the rear collar of the lens.**

   In other words, hold onto the stationary part of the lens that's closest to the camera body.

3. **Press the lens-release button while turning the lens away from the lens-release button.**

   You should feel the lens release from the mount at this point. Just lift the lens off the mount to remove it.

4. **Place the rear protective cap onto the back of the lens.**

   If you aren't putting another lens on the camera, cover the lens mount with the protective cap that came with your camera, too.

Using an IS (image stabilizer) lens

If you purchased the Rebel XSi/450D camera kit — that is, the body-and-lens combination put together by Canon — your lens offers a feature called *image stabilization.* On Canon lenses, this feature is indicated by the initials *IS* in the lens name.

Image stabilization attempts to compensate for small amounts of camera shake that are common when photographers handhold their cameras and use a slow shutter speed, a lens with a long focal length, or both. That camera movement during the exposure can produce blurry images. Although image stabilization can't work miracles, it does enable most people to capture sharper handheld shots in many situations than they otherwise could.

However, when you use a tripod, image stabilization can have detrimental effects because the system may try to adjust for movement that isn't actually occurring. Although this problem shouldn't be an issue with most Canon IS lenses, if you do see blurry images while using a tripod, try setting the Stabilizer On/Off switch (shown in Figure 1-3) to Off. You also can save battery power by turning off image stabilization when you use a tripod. (Note that blurry images can result from causes other than camera shake; see Chapter 6 for help.)

If you use a non-Canon lens, the image stabilization feature may go by another name: *anti-shake, vibration compensation,* and so on. In some cases, the manufacturers may recommend that you leave the system turned on or select a special setting when you use a tripod, so be sure to check the lens manual for information.

Auto/Manual focus switch

Focal length indicator

Image Stabilizer On/Off

Focusing ring

Zoom barrel

Figure 1-3: Set the focusing switch to MF before turning the manual focus ring.

Chapter 6 offers more tips on achieving blur-free photos, and it also explains focal length and its impact on your pictures. See Chapter 5 for an explanation of shutter speed.

Focusing and zooming the lens

Like any modern camera, digital or film, yours offers autofocusing capabilities, which you can explore in detail in Chapters 2 and 6. But with some subjects, autofocusing can be slow or impossible, which is why your camera also offers manual focusing. The process is quick and easy: You just turn the focusing ring on the lens until your subject comes into focus. To try it out, take these steps:

1. **Locate the AF/MF switch on the side of the lens.**

   Figure 1-3 shows you the switch as it appears on the Rebel XSi/450D kit lens. The switch should be in a similar location on other Canon lenses; if you use a lens from another manufacturer, check the lens instruction manual.

   WARNING!

2. **Set the switch to the MF position, as shown in the figure.**

   Don't try to move the focusing ring with the switch set to the AF (auto-focus) position; with some lenses, doing so can damage the lens.

3. **While looking through the viewfinder, twist the focusing ring to adjust focus.**

   The focusing ring is at the far end of the lens barrel, as indicated in Figure 1-3.

   If you have trouble focusing, you may be too close to your subject; every lens has a minimum focusing distance. (See Chapter 6 for more tips on focus issues.) You may also need to adjust the viewfinder to accommodate your eyesight; see the next section for details.

If you bought a zoom lens, a movable zoom barrel lies behind the focusing ring, as shown in Figure 1-3. To zoom in or out, just move that zoom barrel forward and backward.

The numbers on the zoom barrel, by the way, represent *focal lengths*. I explain focal lengths in Chapter 6. In the meantime, just note that when the lens is mounted on the camera, the number that's aligned with the white focal-length indicator, labeled in Figure 1-3, represents the current focal length. In Figure 1-3, for example, the focal length is 18mm.

Adjusting the Viewfinder Focus

Perched on the top right edge of the viewfinder is a tiny black knob, officially called the *dioptric adjustment control*. I labeled the knob in Figure 1-4. With this control, you can adjust the magnification of the viewfinder to mesh with your eyesight.

WARNING!

If you don't take this step, scenes that appear out-of-focus through the viewfinder may actually be sharply focused through the lens, and vice versa.
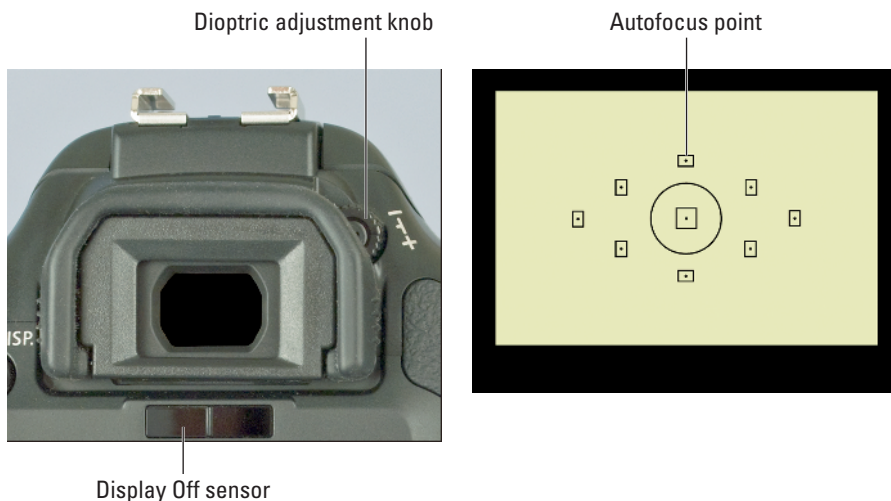
Dioptric adjustment knob   Autofocus point

Display Off sensor

Figure 1-4: Use the dioptric adjustment control to set the viewfinder focus for your eyesight.

Here's how to make the necessary adjustment:

1. **Remove the lens cap from the front of the lens.**

2. **Look through the viewfinder and concentrate on the focusing screen shown on the right side of Figure 1-4.**

   The *focusing screen* is the collective name assigned to the group of nine autofocus points that appear in the viewfinder — the little squares with the dots inside. I labeled one of the little guys in Figure 1-4. (The circle that surrounds the center autofocus point is related to exposure metering, a subject you can explore in Chapter 5.)

3. **Rotate the dioptric adjustment knob until the autofocus points appear to be in focus.**

   Don't worry about focusing the actual picture now; just pay attention to the autofocus points.

TIP If your eyesight is such that you can't get the autofocus points to appear sharp by using the dioptric adjustment control, you can buy an additional eyepiece adapter. This accessory, which you pop onto the eyepiece, just enables further adjustment of the viewfinder display. Prices range from about $15–30 depending on the magnification you need. Look for an adapter called an *E-series dioptric adjustment lens*.

One other note about the viewfinder: See that little black window underneath the viewfinder — the one labeled Display Off sensor in Figure 1-4? When you put your eye up to the viewfinder, the sensor tells the camera to turn off the

monitor display, saving you the trouble of doing the job yourself. If the monitor doesn't turn off automatically, the upcoming section "Setup Menu 1" tells you how to fix things; see the information related to the LCD Auto Off feature.

Keep in mind, too, that with the XSi/450D, you can opt to use the monitor instead of the viewfinder to frame and preview your shots.

Because many of the functions connected with Live View shooting are similar to those you use during picture playback, I cover both uses of your monitor together in Chapter 4. Chapters 5 and 6 spell out some additional details of setting exposure and focusing in Live View mode.

Working with Memory Cards

Instead of recording images on film, digital cameras store pictures on *memory cards.* Your Rebel XSi/450D uses a specific type of memory card called an *SD card* (for *Secure Digital*), shown in Figures 1-5 and 1-6. Other card types — CompactFlash, Memory Stick, or any others — aren't compatible with your camera. However, if you use SD cards in your cell phone, portable music player, or other device, you can use the same cards in your camera. Also, your camera can use the new, high-capacity SD cards, which carry the label SDHC, as well as plain old SD cards.

Memory card access light

Figure 1-5: Insert the card with the label facing the camera back.

Safeguarding your memory cards — and the images you store on them — requires just a few precautions:

✔ **Inserting a card:** First, be sure that the camera is turned off. Then put the card in the card slot with the label facing the back of the camera, as shown in Figure 1-5. Push the card into the slot until it clicks into place.

✔ **Formatting a card:** The first time you use a new memory card, take a few seconds to *format* it by choosing the Format option on Setup Menu 1. This step simply ensures that the card is properly prepared to record your pictures. See the upcoming section "Setup Menu 1" for details.

✔ **Removing a card:** First, check the status of the memory card access light, labeled in Figure 1-5. After making sure that the light is off, indicating that the camera has finished recording your most recent photo, turn the camera off. Open the memory card door, as shown in Figure 1-5. Depress the memory card slightly until you hear a little click and then let go. The card should pop halfway out of the slot, enabling you to grab it by the tail and remove it.

✔ **Handling cards:** Don't touch the gold contacts on the back of the card. (See the left card in Figure 1-6.) When cards aren't in use, store them in the protective cases they came in or in a memory card wallet. Keep cards away from extreme heat and cold as well.

✔ **Locking cards:** The tiny switch on the left side of the card, labeled *lock switch* in Figure 1-6, enables you to lock your card, which prevents any data from being erased or recorded to the card. Press the switch toward the bottom of the card to lock the card contents; press it toward the top of the card to unlock the data.
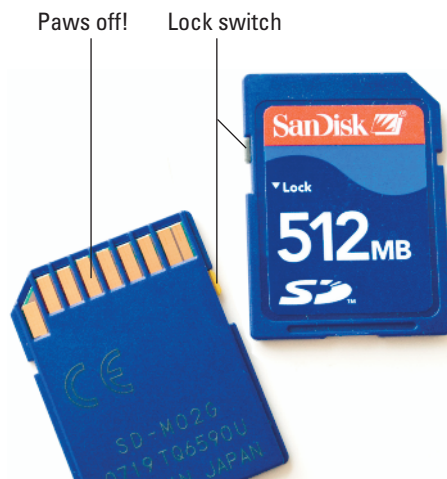
Paws off!   Lock switch

Figure 1-6: Avoid touching the gold contacts on the card.

Exploring External Camera Controls

Scattered across your camera's exterior are a number of buttons, dials, and switches that you use to change picture-taking settings, review and edit your photos, and perform various other operations.

In later chapters, I discuss all of your camera's functions in detail and provide the exact steps to follow to access those functions. This section provides just a basic road map to the external controls plus a quick introduction to each. You may want to put a sticky note or other bookmark on this page so that you can find it for easier reference later. (The cheat sheet at the front of the book offers a similar guide, albeit with less detail.)

With that preamble out of the way, the next three sections break down the external controls found on the top, back, and front-left side of the camera.

Topside controls

Your virtual tour begins on the top-right side of the camera, shown in Figure 1-7. There are six items of note here, as follows:

- ✔ **On/Off switch:** Okay, I'm pretty sure you already figured this one out, but just move the switch to On to fire up the camera and then back to Off to shut it down.

  By default, the camera automatically shuts itself off after 30 seconds of inactivity to save battery power. To wake up the camera, just press the shutter button halfway; you don't need to use the On/Off switch. You can adjust the auto shutdown timing via Setup Menu 1, covered later in this chapter.

- ✔ **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. The little pictographs, or icons, on the dial represent *Image Zone modes,* which are automatic settings geared to specific types of photos: action shots, portraits, landscapes, and so on.

  Canon uses the term *Basic Zone* to refer collectively to the Image Zone modes and Full Auto mode. (That's the one represented by the green rectangle on the Mode dial.) The more advanced modes (P, Tv, Av, M, and A-DEP) get the label *Creative Zone.* I think that having all those zones can be a little confusing, especially because the modes in the Image Zone category are often referred to generically in photography discussions as *creative scene mode* or *creative modes.* So, just to help keep things a little simpler in this book, I use the generic terms *fully automatic exposure modes* to refer to all the Basic Zone modes and *advanced exposure modes* to refer to the Creative Zone modes. And note that none of the *exposure* modes affect focusing; you can use autofocus or manual focus in any of the exposure modes, as outlined earlier in this chapter.

- ✔ **Main dial:** Just forward of the Mode dial, you see a black dial that has the official name *Main dial.* This dial plays such an important role in choosing camera settings that you'd think it might have a more auspicious name, but Main dial it is.

✔ **ISO button:** You use this button, in conjunction with the Main dial, to adjust the camera's ISO speed, which determines how sensitive the camera is to light. Chapter 5 details this critical exposure setting.

✔ **Shutter button:** You probably already understand the function of this button, too. But check out Chapter 2 to discover the proper shutter-button-pressing technique — you'd be surprised how many people mess up their pictures because they press that button incorrectly.

✔ **Red-Eye Reduction/Self-Timer Lamp:** When you set your flash to Red-Eye Reduction mode, this little lamp emits a brief beam 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 blinks to provide you with a visual countdown to the moment at which the picture will be recorded. See Chapter 2 for more details about Red-Eye Reduction flash mode and the self-timer function.

Red-Eye Reduction/Self-Timer Lamp

Shutter button

Mode dial

Main dial

ISO button

Figure 1-7: The tiny pictures on the Mode dial represent special automatic shooting modes.

Back-of-the-body controls

Traveling over the top of the camera to its back side, you encounter a smorgasbord of buttons — 13, in fact, not including the viewfinder's dioptric adjustment control, discussed earlier in this chapter. Figure 1-8 gives you a look at the layout of backside controls.

TIP

Don't let the abundance of buttons intimidate you. Having all of those external controls actually makes operating your camera easier. On cameras that have only a few external buttons, you have to dig through menus to access the camera features, which is a big pain in the keister. But on your camera, you can access almost every critical shooting setting via the external buttons. That's a convenience you'll come to appreciate after you familiarize yourself with all the camera options.

Figure 1-8: Having lots of external buttons makes accessing the camera's functions easier.

Also, as you look through this book, you may notice that the margins contain little representations of the buttons to help you locate the one being discussed. So even though I provide the official control names in the following list, don't worry about getting all of those straight right now. The list I provide here is just to get you acquainted with the *possibility* of what you can accomplish with all of these features.

Do note, however, that many of the buttons have multiple names because they serve multiple purposes depending on whether you're taking pictures, reviewing images, or performing some other function. In this book, I refer to these buttons by the first label you see in the following list just to simplify things. For example, I refer to the AF Point Selection/Enlarge button as the AF Point Selection button. Again, though, the margin icons help you know exactly which button I'm describing.

And here's another tip: If the label or icon for a button is blue, it indicates a function related to viewing, printing, or downloading images. Labels that indicate a shooting-related function are either black or white, depending on whether the camera body is silver or black.

With that preamble out of the way, journey with me now over the camera back, starting at the top-right corner and working westward (well, assuming that your lens is pointing north, anyway):

➤ **AF Point Selection/Enlarge button:** When you use certain advanced shooting modes, you use this button to specify which of the nine autofocus points you want the camera to use when establishing focus. Chapter 6 tells you more about this feature. But in Playback mode and in Live View mode, you use the button to magnify the image display (thus the plus sign in the button's magnifying glass icon). See Chapter 4 for help with that function.

➤ **AE Lock/FE Lock/Index/Reduce button:** As you can guess from the official name of this button, it serves many purposes. The first two are related to image capture functions: You use the button to lock in the autoexposure (AE) settings and to lock flash exposure (FE). Chapter 5 details both issues. Additionally, during Live View shooting, the button serves as the autofocus and autoexposure trigger, as explained in Chapter 6.

The button also serves two image-viewing functions: It switches the display to Index mode, enabling you to see multiple image thumbnails at once, and it also reduces the magnification of images when viewed in Single-Picture mode. Again, Chapter 4 explains all these monitor-related features.

➤ **Aperture/Exposure Compensation button:** When you work in M (manual) exposure mode, you press this button and rotate the Main dial to choose the aperture setting, better known as the *f-stop.* In the other advanced exposure modes, you instead use the button and dial to adjust *exposure compensation,* a feature that enables you to adjust the exposure selected by the camera's autoexposure mechanism. Chapter 5 discusses both issues.

➤ **White Balance/Print/Share button:** Press this button to adjust the camera's *white balance* setting, which is a feature you can use to adjust image colors. This button is also involved when you transfer images to your computer or print pictures directly from the camera. See Chapter 6 for details about white balance; check out Chapters 8 and 9 for information about image transfer and printing, respectively.
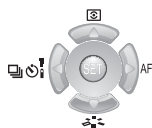
➤ **Set button and cross keys:** The Set button and the four surrounding buttons, known as *cross keys,* team up to perform several functions, including choosing options from the camera menus. You use the cross keys to navigate through menus and then press the Set key to select a specific menu setting. (The later section, "Ordering from Camera Menus," has the details.)

In this book, the instruction "Press the left cross key" just means to press the one that sports the left-pointing arrowhead. "Press the up cross key" means to press the one with the up-pointing arrowhead, and so on.

The cross keys and the Set button also have individual responsibilities, as follows:

- *Press the Set button to switch to Live View display.* You must first enable Live View through Setup Menu 2 and select one of the advanced exposure modes (P, Tv, Av, M, or A-DEP). See the end of Chapter 4 for details about using Live View.

- *Press the right cross key to adjust the AF mode.* This option controls the camera's autofocus behavior, as outlined in Chapter 6.

- *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 self-timer/remote-control shooting. 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 color, contrast, and sharpness of your pictures.

- *Press the up cross key to change the exposure metering mode or to use the Jump feature during picture playback.* The *metering mode* determines which area of the frame the camera uses when determining the correct exposure settings. Chapter 5 has details. The Jump feature enables you to "fast forward" through your images during playback; see Chapter 4 for specifics.

You can customize the functions of the Set button; Chapter 11 explains how. But while you're working with this book, stick with the default setup, just described. Otherwise, the instructions I give in the book won't work.

✔ **Playback button:** Press this button to switch the camera into picture review mode. Chapter 4 details the camera's playback features.

✔ **Erase button:** Sporting a trash can icon, the universal symbol for delete, this button lets you erase pictures from your memory card. Chapter 4 has specifics. In Live View mode, also covered in Chapter 4, this button is involved in the focusing process.

✔ **Menu button:** Press this button to access the camera menus. See the next section for details on navigating menus.

✔ **DISP button:** The camera monitor turns on automatically when you press the shutter button halfway, press the Menu button, or press the Playback button. When you put your eye up to the viewfinder, the display automatically turns off. If the monitor doesn't turn off or on as expected, press this button to kick it into or out of gear.

But that's just the start of the DISP button's tricks. If the camera menus are displayed, pressing the button takes you to the Camera Functions display, explained in the upcoming section "Monitoring Critical Camera Settings." In Playback mode and Live View mode, pressing the button changes the picture-display style, as outlined in Chapter 4.

Front-left buttons

On the front-left side of the camera body, you find three more buttons, all labeled in Figure 1-9. One, the lens-release button, is key to taking the lens off the camera body, as discussed earlier in the chapter. The other two buttons work as follows:

- ✔ **Flash button:** Press this button to bring the camera's built-in flash out of hiding when you use the advanced shooting modes. (In fully automatic modes, the camera pops up the flash without your help if it decides the flash light is needed.) Chapters 5 and 7 provide tips on flash photography.

- ✔ **Depth-of-Field Preview button:** When you press this button, the image in the viewfinder offers an approximation of the depth of field that will result from your selected aperture setting, or f-stop. *Depth of field* refers to how much of the scene will be in sharp focus. Chapter 6 provides details on depth of field, which is an important aspect of your picture composition. Chapter 5 explains aperture and other exposure settings.

Lens-release button

Flash button   Depth-of-Field Preview button

Figure 1-9: Press the Flash button to bring the built-in flash out of hiding.

Ordering from Camera Menus

You access many of your camera's features via internal menus, which, conveniently enough, appear when you press the Menu button, located atop the upper-left corner of the camera monitor. Features are grouped into seven main menus, described briefly in Table 1-1.

Table 1-1		Rebel XSi/450D Menus
Symbol	*Open This Menu . . .*	*to Access These Functions*
	Shooting Menu 1	Picture Quality settings, Red-Eye Reduction flash mode, and a few other basic camera settings.
	Shooting Menu 2	Advanced photography options such as flash exposure compensation and automatic exposure bracketing. Menu appears only when you use advanced exposure modes (P, Tv, Av, M, and A-DEP).
	Playback	Viewing, deleting, and marking pictures for printing.
	Setup Menu 1	Basic camera-customization options, such as the file-numbering system.
	Setup Menu 2	More customization options, Live View control, and maintenance functions, such as sensor cleaning. Some options available only in advanced exposure modes.
	Setup Menu 3	Custom Functions and a couple other options; menu appears only in advanced exposure modes.
	My Menu	User-customized menu setup; also available only in advanced exposure modes.

After you press the Menu button, a screen similar to the one shown on the left in Figure 1-10 appears. Along the top of the screen, you see the icons shown in Table 1-1, each representing one of the seven menus. The icon that is highlighted is the active menu; options on that menu automatically appear on the main part of the screen. In the figure, Shooting Menu 1 is active, for example.

Figure 1-10: Use the cross keys to navigate menus; press Set to access available settings.

REMEMBER

Shooting Menu 2, Setup Menu 3, and My Menu do not appear in the menu display when you set the camera Mode dial to Full Auto or any of the other fully automatic exposure modes (Portrait, Landscape, Sports, and so on). You see these menus only when you use the advanced exposure modes (P, Tv, Av, M, and A-DEP). And some menu items on Setup Menu 2 are hidden in the fully automatic exposure modes.

I explain all the important menu options elsewhere in the book; for now, just familiarize yourself with the process of navigating menus and selecting options. Here's the drill:

✔ **To select a different menu:** Press the right or left cross keys or rotate the Main dial to cycle through the available menus.

✔ **To select and adjust a function on the current menu:** Press the up or down cross key to highlight the feature you want to adjust. On the left side of Figure 1-10, the Quality option is highlighted, for example. Next, press the Set button. Settings available for the selected item then appear either right next to the menu item or on a separate screen, as shown on the right side of the figure. Either way, use the up and down cross keys to highlight your preferred setting and then press Set again to lock in your choice.

REMEMBER

In this book, the instruction "Press the left cross key" simply means to press the cross key to the left of the Set button — the one marked with the left-pointing arrowhead. "Press the up cross key" means to press the cross key on the top side of the Set button, and so on.

Again, I present this information just as a general introduction, so don't worry about memorizing it. I tell you exactly which button combos to use whenever I explain a function that you activate via the menus.

Monitoring Critical Camera Settings

As you advance in your photography and begin to move beyond the automatic exposure modes, you need a way to keep track of what camera settings are currently active. To that end, your camera offers the Camera Settings display, shown in Figure 1-11. By default, the display appears automatically when you turn on the camera and also when you depress the shutter button halfway — unless your eye is up to the viewfinder. In that case, the display is automatically turned off, but you can monitor some settings in the viewfinder, as explained in the next section. You also can turn the monitor display on and off by pressing the DISP button when no menus are active.

In Figure 1-11, you see an example of the settings that you can monitor in the advanced exposure modes (P, Tv, Av, M, and A-DEP). In fully automatic modes, many of the settings are hidden to make the display simpler. Either way, if what you see looks like a big confusing mess to you now, don't worry. Most of it won't mean anything to you until you make your way through later chapters and explore all of the camera controls.

The figure does label two key points of data that are helpful even in fully automatic modes, though: how many more pictures can fit on your memory card at the current settings and the status of the battery. A "full" battery icon like the one in the figure shows that the battery is fully charged; if the icon appears empty, go look for your battery charger.

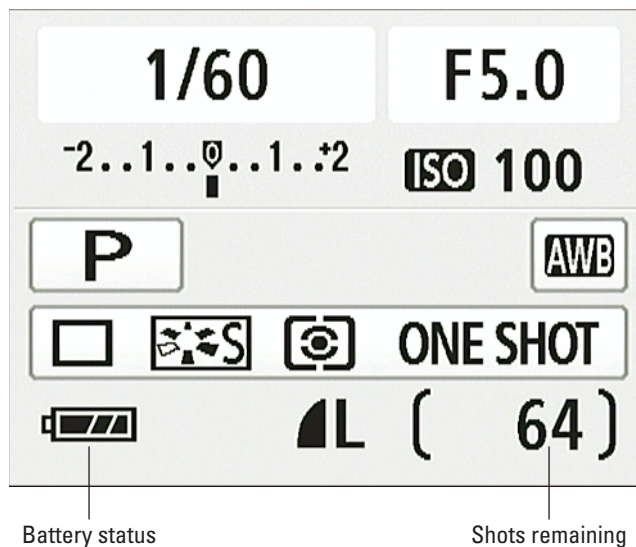Battery status   Shots remaining

Figure 1-11: Press the shutter button halfway to activate the Camera Settings display.

In addition to the Camera Settings display, you can activate the Camera Function Settings display, shown in Figure 1-12. To display this screen, first display the camera menus by pressing the Menu button. Then press the DISP button.

Again, the items listed on the screen in the figure appear in the advanced exposure modes. The following list explains the settings that you can monitor, detailed from top to bottom in the order they appear on the screen. (The last three lines of the screen each display icons representing two different settings.)

Freespace	277 MB
Color space	sRGB
WB SHIFT/BKT	0,0/±0
Live View shoot.	Disable
⤶ Enable	👁 Off
🕒 30 sec.	📷 On 📷🖥
■)) On	🔄 Enable
	05/10/2008 10:33:20

Figure 1-12: Press the DISP button when the menus are active to view this screen.

 ✔ **Freespace:** This value indicates how much storage space is left on your current camera memory card. How many pictures you can fit into that space depends on the Quality setting you select. Chapter 3 explains this issue.

 ✔ **Color Space:** This value tells you whether the camera is currently capturing images in the sRGB or Adobe RGB color space, an advanced option that you can investigate in Chapter 6.

 ✔ **White Balance Shift/Bracketing:** Add this to the list of advanced color options covered in Chapter 6.

 ✔ **Live View Shooting:** Chapter 4 details this feature, which enables you to use your monitor instead of the viewfinder to compose your shots.

 ✔ **Auto Sensor Cleaning and Red-Eye Reduction flash mode:** See "Setup Menu 2," later in this chapter, for more about automatic sensor cleaning; check out Chapter 2 for information about red-eye reduction flash.

 ✔ **Auto Power Off and Auto Rotate Display:** For information on both options, see the upcoming section, "Setup Menu 1."

 ✔ **Beep and LCD Auto Off:** The first setting determines whether the camera beeps at you after certain operations; you can adjust the setting via Shooting Menu 1, as explained later in this chapter. The second setting, covered in the section "Setup Menu 1," controls whether the monitor turns off automatically when you put your eye to the viewfinder.

 ✔ **Date/Time:** The section "Setup Menu 2" also explains how to adjust the date and time.

REMEMBER

In the fully automatic exposure modes, the Color Space, White Balance Shift/Bracketing, and Live View Shooting status information doesn't appear in this screen because you can't use those features unless you switch to an advanced exposure mode.

Of course, with the exception of the free card space value, you also can simply go to the menu that contains the option in question to check its current status. The Camera Settings display and Camera Function Settings display just give you a quick way to monitor some of the critical functions without hunting through menus.

In addition, if you switch to Live View shooting, you also can display some of the same settings in the monitor preview, along with your image. Chapter 4, which introduces Live View shooting, shows you how to do so.

Decoding Viewfinder Data

When the camera is turned on, you can view critical exposure settings and a few other pieces of information in the viewfinder as well as in the Camera Settings display. Just put your eye to the viewfinder and press the shutter button halfway to activate the display. You can then either release the shutter button or keep the button pressed to initiate autofocusing. (I'm assuming that Live View mode, in which you use the monitor as viewfinder, is disabled, as it is by default. See Chapter 4 if you want more details about Live View.)

The viewfinder data changes depending on what action you're currently undertaking and what exposure mode you're using. For example, if you set the Mode dial to P (for programmed autoexposure), you see the current f-stop (aperture setting), shutter speed, the current Exposure Compensation setting, and ISO setting, as shown in Figure 1-13.
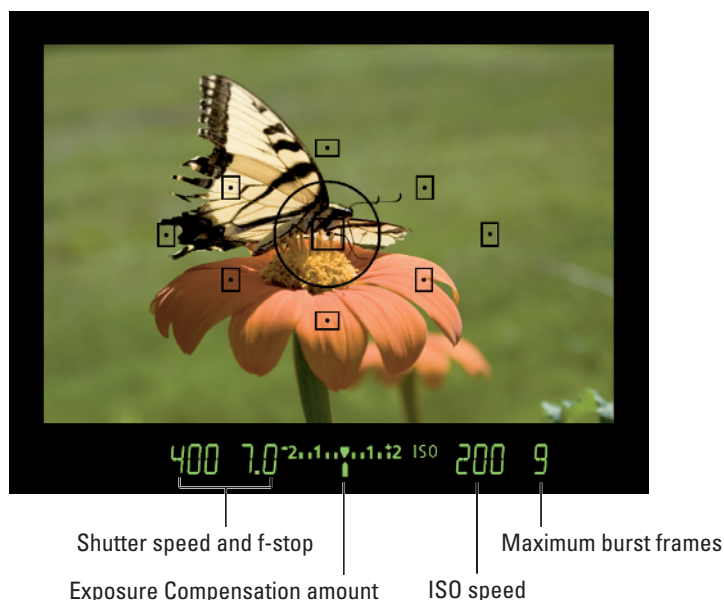

Shutter speed and f-stop

Exposure Compensation amount

Maximum burst frames

ISO speed

Figure 1-13: You also can view some camera information at the bottom of the viewfinder.

The final value (9, in the figure) shows you the number of *maximum burst frames.* This number relates to shooting in the Continuous-capture mode, where the camera fires off multiple shots in rapid-fire succession as long as you hold down the shutter button. (Chapter 2 has details on this mode.) Note that although the highest number that the viewfinder can display is 9, the actual number of maximum burst frames may be higher. At any rate, you don't really need to pay attention to the number until it starts dropping toward 0, which indicates that the camera's *memory buffer* (its temporary internal data-storage tank) is filling up. If that happens, just give the camera a moment to catch up with your shutter-button finger.

Rather than give you a full guide to all the possible viewfinder readouts here, which would only boggle your mind and cause lots of unnecessary page-flipping, I detail the relevant viewfinder data as I cover the various photo-graphic topics later in the book.

Reviewing Basic Setup Options

You know how sometimes you visit someone's house and their kitchen cabi-nets are arranged in a way that doesn't make sense to you? Why are the mugs above the microwave instead of above the coffeepot? And wouldn't it be better if the serving spoons were next to the stove instead of by the dish-washer? That's how I feel about the way that settings that relate to basic camera setup are organized on the camera menus. They surely make sense to *somebody* — namely, I'm guessing, the important somebodies at Canon. But to me, a couple of the basic setup options are out of place, found on menus other than Setup Menus 1, 2, or 3, where you might expect to find them. And Setup Menus 2 and 3 offer some options that are related more to advanced photographic controls than basic camera operation.

Well, I can't rearrange the menus for you any more than I can put those mugs near the coffeemaker, so instead, the following sections describe the options found on the aforementioned trio of Setup Menus, plus two additional options found on Shooting Menu 1.

If you don't yet know how to select options from the menus, see the earlier section, "Ordering from Camera Menus" for help.

In case you haven't noticed, the icons that represent the menus are color coded. Shooting Menus 1 and 2 have red icons; Setup Menus 1, 2, and 3 sport yellow icons; the Playback menu has a blue symbol; and the My Menus icon is green.

Setup Menu 1

At the risk of being labeled conventional, I suggest that you start your camera customization by opening this menu, shown in Figure 1-14.

Here's a quick rundown of each menu item:

Figure 1-14: Options on Setup Menu 1 deal mainly with basic camera behavior.

✔ **Auto Power Off:** To help save battery power, your camera automatically powers down after a certain period of inactivity. By default, the shutdown happens after 30 seconds, but you can change the shutdown delay to 1, 2, 4, 8, or 15 minutes. Or you can disable auto shutdown altogether by selecting the Off setting.

✔ **File Numbering:** This option controls how the camera names your picture files. When the option is set to Continuous, as it is by default, the camera numbers your files sequentially, from 0001 to 9999, and places all images in the same folder. The initial folder name is 100Canon; when you reach image 9999, the camera creates a new folder, named 101Canon, for your next 9999 photos. This numbering sequence is retained even if you change memory cards, which helps to ensure that you don't wind up with multiple images that have the same file name.

By contrast, the Auto Reset option automatically starts file numbering at 0001 each time you put in a different memory card. I discourage the use of this option, for the reason already stated.

Whichever of these two options you choose, beware one gotcha: If you swap out memory cards and the new card already contains images, the camera may pick up numbering from the last image on the new card, which throws a monkey wrench into things. To avoid this problem, just format the new card before putting it into the camera. (See the upcoming Format bullet point for details.)

Finally, if you choose Manual Reset, the camera begins a new numbering sequence, starting at 0001, for your next shot. The Continuous mode is then automatically selected for you again.

✔ **Auto Rotate:** If you enable this feature, your picture files include a piece of data that indicates whether the camera was oriented in the vertical or horizontal position when you shot the frame. Then, when you view the picture on the camera monitor or on your computer, the image is automatically rotated to the correct orientation.
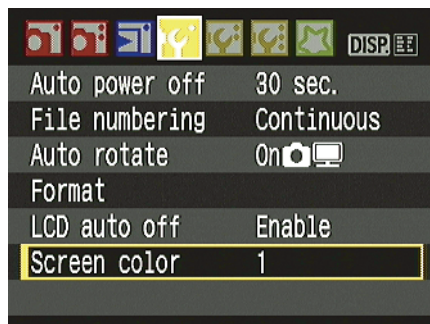
To automatically rotate images both in the camera monitor and on your computer monitor, stick with the default setting. In the menu, this setting is represented by On followed by a camera icon and a monitor icon, as shown in Figure 1-14. If you want the rotation to occur just on your computer and not on the camera, select the second On setting, which is marked with the computer monitor symbol but not the camera symbol. To disable rotation for both devices, choose the Off setting.

Note, though, that the camera may record the wrong orientation data for pictures that you take with the camera pointing directly up or down. Also, whether your computer can read the rotation data in the picture file depends on the software you use; the programs bundled with the camera can perform the auto rotation.

✔ **Format:** The first time you insert a new memory card, you should use this option to *format* the card, a maintenance function that wipes out any existing data on the card and prepares it for use by the camera.

If you previously used your card in another device, such as a digital music player, be sure to copy those files to your computer before you format the card.

When you choose the Format option from the menu, you can opt to perform a normal card formatting process or a *low-level formatting.* The latter gives your memory card a deeper level of cleansing than ordinary formatting and thus takes longer to perform. Normally, a regular formatting will do.

✔ **LCD Auto Off:** When the Enable setting is selected, as it is by default, the camera automatically turns off the camera monitor when you put your eye up to the camera viewfinder. (The little sensor underneath the viewfinder notes the presence of your eye and signals the camera to turn off the monitor.) You can deactivate this feature by choosing the Disable setting if you prefer. The monitor is one of the biggest battery drains on the camera, however, so in my opinion, the auto shutoff feature is a good thing.

✔ **Screen Color:** If you don't like the default background color of the Camera Settings display, you can choose from three other color schemes via this menu option. For this book, I use the default color scheme, which is option 1.

Setup Menu 2

Setup Menu 2, shown in Figure 1-15, offers an additional batch of customization options. But you can take advantage of only the following options in all exposure modes (Full Auto, Manual, Portrait, and so on):

✔ **LCD Brightness:** This option enables you to make the camera monitor brighter or darker. After highlighting the option on the menu, as shown in Figure 1-15, press Set to display a screen similar to what you see in Figure 1-16. The camera displays a picture from your memory card in the main preview area; if the card is empty, you see a black box instead. Press the right and left cross keys to adjust the brightness setting. Press Set again to return to the menu.
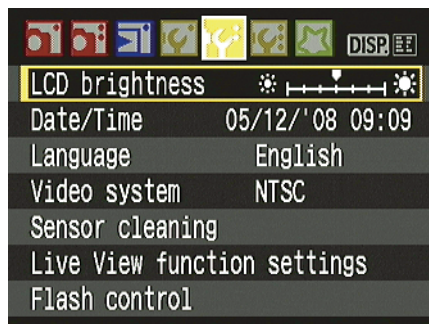

Figure 1-15: Most options on Setup Menu 2 can be used only in advanced exposure modes.

WARNING!

If you take this step, keep in mind that what you see on the display may not be an accurate rendition of the actual exposure of your image. Crank up the monitor brightness, for example, and an underexposed photo may look just fine. So I recommend that you keep the brightness at the default setting, which places the brightness marker at dead center on the little brightness scale, as shown in Figure 1-15. As an alternative, you can display the *histogram,* an exposure guide that I explain in Chapter 4, when reviewing your images.

✔ **Date/Time:** When you turn on your camera for the very first time, it automatically displays this option and asks you to set the current date and time.

TIP

Keeping the date/time accurate is important because that information is recorded as part of the image file. In your photo browser, you can then see when you shot an image and, equally handy, search for images by the date they were taken. Chapter 8 shows you where to locate the date/time data when browsing your picture files.

✔ **Language:** This option determines the language of any text displayed on the camera monitor. Screens in this book display the English language, but I find it entertaining on occasion to hand my camera to a friend after changing the language to, say, Swedish. I'm a real yokester, yah?

✔ **Video System:** This option is related to viewing your images on a television, a topic I cover in Chapter 9. Select NTSC if you live in North America or other countries that adhere to the NTSC video standard; select PAL for playback in areas that follow that code of video conduct.

That leaves the following menu options, which you can't access (or access fully) unless you switch to one of the advanced exposure modes (P, Tv, Av, M, or A-DEP):

✔ **Sensor Cleaning:** By default, the camera's sensor-cleaning mechanism activates each time you turn the camera on and off. This process helps keep the image sensor — which is the part of the camera that captures the image — free of dust and other particles that can mar your photos.

Figure 1-16: You can adjust the brightness of the camera monitor.

In the fully automatic modes, you have the option of turning the feature off, but I can't imagine why you would choose to do so. You can also initiate a cleaning cycle via this menu option at any time.

In the advanced exposure modes, you can access a third option that prepares the camera for manual cleaning of the sensor. I don't recommend this practice; sensors are delicate, and you're really better off taking the camera to a good service center for cleaning.

✔ **Live View Functions:** This part of the menu enables you to enable Live View mode, in which you can preview your shots in the monitor, and to customize a couple of aspects of how the camera behaves in that mode. Chapter 4 explains your options. (By default, Live View shooting is disabled.)

✔ **Flash Control:** Here's where you customize certain aspects of how your flash behaves. Chapter 5 provides details on flash photography.

Setup Menu 3

This menu, shown in Figure 1-17, contains the following offerings, which you can access only in the advanced exposure modes. Again, those modes are P, Tv, Av, M, and A-DEP. Chapter 5 introduces you to each mode.

Figure 1-17: To display Setup Menu 3, you must set the Mode dial to an advanced exposure mode.

✔ **Custom Functions:** Selecting this option opens the door to customizing 13 camera functions, known as Custom Functions in Canon lingo. These functions either relate to advanced exposure options or are otherwise designed for people with some photography experience. Check the index to find out where to locate details about the various functions.

✔ **Clear Settings:** Via this menu option, you can restore the default shoot-ing settings that are used for the advanced exposure modes. You also can reset all the Custom Functions settings to their defaults through this option.

✔ **Firmware Ver.:** This screen tells you the current version of the camera firmware (internal operating software). At the time of publication, the current firmware version was 1.0.4.

Keeping your camera firmware up-to-date is important, so visit the Canon Web site (www.canon.com) regularly to find out whether your camera sports the latest version. The site provides instructions on how to download and install updated firmware if necessary.

Three more customization options

Shooting Menu 1, shown in Figure 1-18, offers two more basic setup options — at least, these options fall into that category if you share my logic, which some may consider a frightening prospect. At any rate, these two options work as follows:

✔ **Beep:** By default, your camera beeps at you after certain opera-tions, such as after it sets focus when you shoot in Autofocus mode. If you're doing top-secret surveillance work and need the camera to hush up, set this option to Off.

✔ **Shoot w/o Card:** Setting this option to Off prevents shutter-button release when no memory card is in the camera. If you turn the option on, you can take a pic-ture and then review the results for a few seconds in the camera monitor. The image isn't stored anywhere, however; it's temporary.
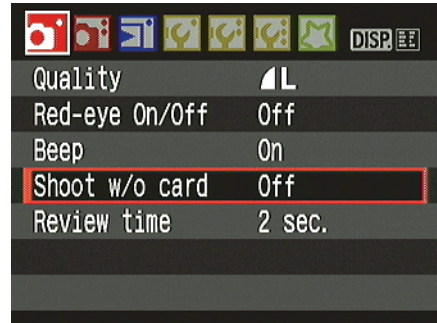

Quality	◢L
Red-eye On/Off	Off
Beep	On
Shoot w/o card	Off
Review time	2 sec.

Figure 1-18: You can silence the camera via Shooting Menu 1.

If you're wondering about the point of this option, it's designed for use in camera stores, enabling salespeople to demonstrate cameras without having to keep a memory card in every model. Unless that feature some-how suits your purposes, keep this option set to Off.

Adding a final level of customization choices, the My Menu feature does just what its name implies: You can create a personalized menu that contains up to six functions from the existing menus. Then, instead of hunting through all the other menus to find settings that you use frequently, you can access the settings quickly just by displaying My Menu. Chapter 11 shows you how to take advantage of this feature, which I happen to love a lot. Unfortunately, you can take advantage of My Menu only in the advanced exposure modes.

TECHNICAL STUFF

Why does this camera have two names?

As is the case with some other Canon cameras, yours goes by different names — EOS Digital Rebel XSi or EOS 450D — depending on the part of the world where it's sold.

The *EOS* part, by the way, stands for Electro Optical System, the core technology used in Canon's autofocus SLR (single-lens reflex) cameras. According to Canon, the proper pronunciation is *ee-ohs,* which is also how you pronounce the name *Eos,* the goddess of dawn in Greek mythology.

With apologies to the goddess, I save a little room in this book by shortening the camera name to simply Rebel XSi/450D, which is already long enough.