# **Getting Up and Running**

#### 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

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 T5/1200D. 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 our take 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 (be sure to 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 what you need to know up front:

✓ 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 just 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. EF-S mount index

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 lens mounting index on 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 to align your lens 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 lens-release button, labeled in the figure. You should feel a solid click as the lens locks into place.

#### 3. Install the battery and memory card into the compartment on the bottom of the camera.

Hold the battery with the contacts down and slide it into the compartment. The beveled edges of the battery face the front of the camera. Gently push the battery in until the light gray lock clicks in place, as shown in Figure 1-2.

EF mount index Lens-release button



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



Memory card

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

Orient the memory card as shown in Figure 1-2 (the label faces the back of the camera.) Push the card gently into the slot and close the cover.

#### 4. Turn the camera on and adjust the settings.

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. To adjust the values on the screen, use the Set button and the four keys surrounding it — known as *cross keys*.

Press the left or right cross keys to highlight an option box; press Set to activate the box. Press the up/down keys to change the value in the box and then press Set again. Lather, rinse, and repeat until you adjust all the settings. Highlight the OK box and press Set.

#### 5. Adjust the viewfinder to your eyesight.

Tucked above the right side of the rubber eyepiece that surrounds the viewfinder is a dial that enables you to adjust the viewfinder focus to accommodate your eyesight. The dial is labeled in Figure 1-3.

This step is critical if you plan to use the viewfinder: If you don't adjust the viewfinder to your eyesight, subjects may appear sharp in the viewfinder when they aren't actually in focus, and vice versa.

Rotate to adjust viewfinder



Figure 1-3: Rotate this dial to set the viewfinder focus for your eyesight.



ARNING

# **Decoding Canon lens terminology**

When you shop for Canon lenses, you will encounter these lens specifications:

- EF and EF-S: EF stands for *electro focus;* the S stands for *short back focus.* And *that* simply means the rear element of the lens is closer to the sensor than with an EF lens. The good news is that your T5/1200D works with both of these Canon lens types.
- IS: Indicates that the lens offers image stabilization, a feature that helps prevent blur

that can result from camera shake when you handhold the camera.

STM: Refers to stepping motor technology, an autofocusing system which is designed to provide smoother, quieter autofocusing.

The 18–55mm lens sold as part of the T5/1200D kit is an EF-S lens with both image stabilization and stepping motor technology.

Remove the lens cap, look through the viewfinder, and then press the shutter button halfway to display data at the bottom of the viewfinder. (In dim lighting, the flash may pop up; ignore it for now and close the unit after you adjust the viewfinder.) Now rotate the dial until the data appears sharpest. The markings in the center of the viewfinder, which relate to autofocusing, also become more or less sharp.

That's all there is to it — the camera is now ready to go. From here, we recommend that you keep reading the rest of this chapter to familiarize yourself with the main camera features. But if you're anxious to take a picture right away, we won't think any less of you if you skip to Chapter 3, which guides you through the process of using the camera's automatic shooting modes. Just promise that at some point, you'll read the pages in between, because they actually do contain important information.

# **Exploring External Camera Features**

If you're new to dSLR photography, some aspects of using your camera, such as working with the lens, may be unfamiliar. But even if you're a seasoned pro, it pays to spend time before your first shoot with a new camera to get familiar with its controls. To that end, the upcoming pages provide an overview of the T5/1200D's external bells and whistles.

### **Topside controls**

Your virtual tour begins on the top of the camera, shown in Figure 1-4.

The items of note here are

- On/Off switch: We won't insult your intelligence by explaining what this switch does. But note that even when the switch is in the On position, the camera automatically goes to sleep after 30 seconds of inactivity to save battery power. You can adjust this timing via the Auto Power Off option on Setup Menu 1.
- Red-eye reduction/Self-timer lamp: When you set your flash to Red-Eye Reduction mode, this 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.
- ✓ 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. To shift to Movie mode, rotate the dial so that it aligns with the movie camera icon, labeled in Figure 1-4. Chapter 2 provides an overview of the still photography exposure modes; Chapter 8 covers movie recording.





- Viewfinder adjustment dial: Use this dial (shown close-up in Figure 1-3) to adjust the viewfinder focus to your eyesight.
- Main dial: You use this dial when selecting many camera settings. (Specifics are provided throughout the book.) In fact, this dial plays such an important role that you'd think it might have a more auspicious name, but Main dial it is.



Shutter button: You no doubt already understand the function of this button, too. 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 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. The beep you may hear is the camera telling you it was able to focus and is ready to take the photo.



- ✓ Flash button: Press this button to raise the built-in flash in the advanced exposure modes (P, Tv, Av, and M).
- Flash hot shoe: Labeled in Figure 1-4, 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.



- Speaker: When you play a movie that contains audio, the sound comes wafting through these little holes.
- ✓ Focal plane indicator: Should you need to know the exact distance between your subject and the camera, the *focal plane indicator* labeled in Figure 1-4 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.

### Back-of-the-body controls

Traveling over the top of the camera to its back, you encounter the smorgasbord of controls shown in Figure 1-5.



Buttons with a white icon perform shooting mode functions; buttons with blue icons are used in playback. Some buttons sport dual colors, meaning that they come into play for both functions.



Live View/Movie-record button

Figure 1-5: Having lots of external buttons makes accessing the camera's functions easier.



Throughout this book, pictures of some buttons appear in the margins to help you locate the button being discussed. So even though we provide the official names in the following list, don't worry about getting all those straight right now. Note, however, that some buttons have multiple names because they serve multiple purposes depending on whether you're taking pictures, reviewing images, recording a movie, or performing some other function. In this book, we refer to these buttons by the first label you see in the following list (and in Figure 1-5) to simplify things. For example, we refer to the AF Point Selection/Magnify button as the AF Point Selection button. Again, though, the margin icons help you know exactly which button you're to press.

With that preamble out of the way, it's time to explore the camera back, starting at the top-right corner and working westward (well, assuming that your lens is pointing north, anyway):



AF Point Selection/Magnify button: In certain shooting modes, you press this button to specify which autofocus points you want the camera to use when establishing focus. Chapter 5 tells you more. 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, you press this button to lock autoexposure (AE) settings, as covered in Chapter 4, and to lock flash exposure (FE), a topic we discuss 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 it reduces the magnification of images when displayed one at a time.



Live View/Movie-record 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, you press the button to start and stop recording. (You must first set the Mode dial to the Movie position.)



After you shift to Live View or Movie mode, certain buttons perform different functions than they do for viewfinder photography. We spell out the differences when showing you how to use Live View and movie features.

Exposure Compensation/Aperture/Delete button: When you shoot in the M (manual) exposure mode, press this button and 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.

During playback, press this button to erase pictures — thus the blue trash-can symbol, the universal sign for "dump it."

# Q

- Q (Quick Control) button: Press this button to display the Quick Control screen, which gives you one way to adjust picture settings. See "Changing Settings via the Quick Control Screen," later in this chapter, for help.
- Disp button: In Live View, Movie, and Playback modes, pressing this button changes the picture-display style. When menus are displayed, pressing the button brings up the Camera Settings display.

Set button and cross keys: Figure 1-5 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, 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 ISO setting.* Detailed in Chapter 4, this exposure-related control determines how sensitive the camera is to light. (If nothing happens when you press this cross key or any other buttons, give the shutter button a half-press and release it to wake up the camera.)
- *Press the right cross key to adjust the AF 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 self-timer/remote-control shooting. See Chapter 2 for details.
- *Press the down 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.

For Live View and Movie shooting, the cross keys perform actions related to autofocusing; we get into those details in Chapter 5.

Playback button: Press this button to switch the camera into picturereview mode.

Menu button: Press this button to access the camera menus.

Memory card access light: Labeled in Figure 1-5, 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.



### Front-left features

The front-left side of the camera sports three important features, labeled in Figure 1-6:



Figure 1-6: When recording movies, be careful not to cover the microphone with your finger.

- 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.
- Microphone: This cluster of holes leads to the camera's microphone. See Chapter 8 for details about choosing microphone settings.
- Connection ports: Hidden under the cover labeled *port access door* in Figure 1-6 are inputs for connecting the camera to various devices. Figure 1-7 labels each connection.
  - *Remote-control terminal:* You can attach the Canon Remote Switch RS-60E3 wired controller here.



The controller currently sells for under \$30 and is a worthwhile investment for long-exposure shooting (such as nighttime shots and fireworks). By using the remote control, you eliminate the chance that the action of your finger on the shutter button moves

the camera enough to blur the shot, which is especially problematic during long exposures.

• Digital terminal (USB and GPS connection terminal): You use this terminal to connect the camera to a computer via the supplied USB cable for picture downloading. (Chapter 10 offers details.) This terminal is also used for attaching the optional Canon GP-E2 GPS (Global



Figure 1-7: Inputs for connecting the camera to other devices are found under the cover on the left side of the camera.

Positioning Satellite) unit, which mounts on the hot shoe and connects here.

• *HDMI terminal:* For playback on a high-definition television or screen, you can connect the camera via this terminal, using an optional HDMI male to mini-C cable. You'll pay about \$50 if you buy Canon's version, the HTC-100 cable. Shop around for better deals if you like.

If you turn the camera over, you find a tripod socket, which enables you to mount the camera on a tripod that uses a <sup>1</sup>/<sub>4</sub>-inch screw, plus the chamber that holds the battery and memory card. Also found in the chamber is a connection for attaching the optional Canon AC power adapter kit ACK-E10; it sells for about \$65. See the camera manual for specifics on running the camera on AC power.

# **Ordering from Camera Menus**

Only a handful of camera settings can be adjusted by using the external buttons and controls. To access other options, press the Menu button, which displays a menu screen similar to the one shown in Figure 1-8. Here's what you need to know about the menu system:

Understanding the menu layout: Menus are organized into the categories labeled in Figure 1-8. Notice that the icons that represent the menus are color coded: Shooting menu icons are red; Playback menu icons are

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blue; Setup menu icons are a lovely yellow; and the My Menu icon is green. (Chapter 11 explains the My Menu feature, which enables you to create a personalized menu.)



The number of dots above the icon tells you the menu number — one dot for Shooting Menu 1, two dots for Shooting Menu 2, and so on.

The highlighted icon marks the active menu; options on that menu appear automatically on the main part of the screen. In Figure 1-8, Shooting Menu 1 is active, for example.



**Figure 1-8:** All these still-photography menus appear only when you shoot in an advanced exposure mode.

Accessing all menus: To display all the menus shown in Figure 1-8, you must set the Mode dial to P, Av, Tv, or M. In other modes, you see only a handful of menus because you have limited control over camera operation in those modes.

Additionally, when you set the camera to Movie mode, three of the four Shooting menus are replaced by Movie menus, which offer movie-recording options, and a limited version of Shooting Menu 1 is bumped over to make room for the Movie menus. The menu icon for the Movie menus changes to a movie-camera symbol to indicate the shift. In addition, Movie mode does not display the My Menu icon.

- Selecting menus and menu items: To cycle through menus, rotate the Main dial or press the left or right cross keys. After landing on a menu, press the up or down cross key to highlight the feature you want to adjust. Then press the Set button to display the available options. Use the cross keys to select a setting and press the Set button again.
- Navigating Custom Functions: When you select Custom Functions from Setup Menu 3 — a menu available only in the P, Tv, Av, and M exposure modes — you delve into submenus containing advanced settings. Initially, you see a screen similar to the one shown on the left in Figure 1-9.

Some explanation may help you make sense of these screens:

- Custom Functions are grouped into four categories: Exposure, Image, Autofocus/Drive, and Operation/Others. The category number and name appear in the upper-left corner of the screen.
- *The number of the selected function appears in the upper-right corner.* Custom Function 1 is indicated in Figure 1-9.
- Settings for the current function appear in the middle of the screen. The blue text indicates the current setting. The default setting is represented by the number 0.

• Numbers at the bottom of the screen show you the current setting for all Custom Functions. The top row of numbers represents the Custom Functions, with the currently selected function indicated with a tiny horizontal bar over the number. The lower row shows the number of the current setting for each Custom Function; again, 0 represents the default. So in the figure, all the Custom Functions are currently using the default settings.





To scroll from one Custom Function to the next, press the left or right cross keys. When you reach the setting you want to adjust, press the Set button to activate that option. Use the cross keys to move the highlight box over the setting you want to use and press the Set button again.

✓ Displaying the Camera Settings screen: See the little box titled DISP, at the far-right end of the row of menu icons? (Refer to Figure 1-8.) That's a reminder that any time the menus are active, you can press the DISP button to bring up the Camera Settings screen, shown in Figure 1-10. Here, you can get a quick summary of certain camera settings. The data displayed varies depending on the setting of the

| Freespace            | 14.8 GB  |
|----------------------|----------|
| Color space          | sRGB     |
| WB Shift/Bkt.        | 0,0/±0   |
| Live View shoot.     | Enable   |
| 💑 30 sec.            | Oisable  |
| )) Enable            | 💩 On 🛍 💻 |
|                      |          |
| ₩04/09/2014 20:00:58 |          |
|                      |          |



Mode dial; the figure shows you the data that appears in the P, Tv, Av, and M exposure modes. If a setting can't be adjusted in the current exposure mode, it disappears from the screen.

Moving from top to bottom, here's your decoder ring to the screen:

- *Freespace:* Indicates how much empty storage space is left on your camera memory card.
- *Color Space:* Tells you whether the camera is using the sRGB or Adobe RGB color space, an option we cover in Chapter 11. (Stick with sRGB until you have time to explore that information.)
- *White Balance Shift/Bracketing:* Indicates the amount of White Balance shift or bracketing, an advanced color option covered in Chapter 6.
- *Live View Shooting:* Tells you whether Live View is enabled; skip to the next section to investigate Live View.
- Auto Power Off and Red-Eye Reduction flash mode: These two functions share a line in the screen. The first readout tells you the delay time selected for the Auto Power Off option, found on Setup Menu 1; the second symbol indicates whether the flash is set to Red-Eye Reduction mode, which we cover in Chapter 2.
- *Beep and Auto Rotate Display:* The first setting determines whether the camera beeps after certain operations; you can turn the sound on and off via Shooting Menu 1.

The second symbol reflects the setting of the Auto Rotate Display option on Setup Menu 1, which determines whether pictures are rotated to their proper orientation during playback and when you view them on your computer (assuming the software you use can read the rotation data embedded in the image file). The symbol shown in the figure indicates that both rotation features are enabled. See the first part of Chapter 9 for more about this feature.

• *Date/Time:* The last line of the display shows the date and time, which you enter via the Date/Time/Zone option on Setup Menu 2. The sun symbol at the beginning of the line indicates whether you told the camera to adjust the time automatically to account for Daylight Saving Time.

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 status. The Camera Settings display just gives you a quick way to monitor some of the critical functions without hunting through menus.

Exiting the menus or Camera Settings screen and returning to shooting: Press the shutter button halfway and release it or press the Menu button.

# Using the Monitor as Viewfinder: Live View Shooting

For your convenience, the T5/1200D offers *Live View*, a feature that enables you to use the monitor instead of the viewfinder to compose photos. You also must rely on the monitor for recording movies; the viewfinder is disabled for movie recording.

How you activate Live View depends on whether you want to shoot still photos or movies:



Live View for still photography: First ensure that Live View shooting is enabled in the menus. Where you find the option depends on the setting of the Mode dial: In the P, Tv, Av, and M modes, the Live View option is found on Shooting Menu 4, as shown on the left in Figure 1-11; in all other modes but Movie mode, the option appears on Shooting Menu 2, as shown on the right in the figure.

| ᡖᡖᡖᢩᡨ᠋ᡓᠷᢠᢠᢠᡧ     |              |  |
|------------------|--------------|--|
| Live View shoot. | Enable       |  |
| AF method        | FlexiZoneAF□ |  |
| Grid display     | Off          |  |
| Aspect ratio     | 3:2          |  |
| Metering timer   | 8 sec.       |  |
|                  |              |  |
|                  |              |  |
|                  |              |  |

|                  | DISP. 🛤      |  |
|------------------|--------------|--|
| Live View shoot. | Enable       |  |
| AF method        | FlexiZoneAF□ |  |
| Grid display     | Off          |  |
|                  |              |  |
|                  |              |  |
|                  |              |  |
|                  |              |  |
|                  |              |  |

Figure 1-11: If Live View mode doesn't activate, make sure that the Live View Shoot menu option is enabled.

Why disable Live View? Because it's easy to hit the Live View button accidentally and switch to Live View when you don't really want to go there.

After enabling the feature on the menu, press the Live View button. You

hear a clicking sound as the internal mirror that normally sends the image from the lens to the viewfinder flips up. Then the scene in front of the lens appears on the monitor, and you can no longer see anything in the viewfinder. Data representing certain camera settings is displayed over the live image, as shown in Figure 1-12. You can press the Disp button to change the type of data that appears.



Figure 1-12: In Live View mode, picture data is superimposed over the live preview.



When looking at Live View screens in this book, you'll notice that data along the sides and bottom of the screen appears differently on your monitor than it does in the figures. In the figures, most data displays against a black background, but on your screen, it's superimposed over the image. The difference is due to the technology we use to capture the image that the monitor displays; for reasons that we won't bore you with, it's not possible to capture the superimposed data properly. We trust the discrepancy won't throw you off too much.

### Live View safety tips

Be aware of the following precautions when you use Live View and Movie modes:

- Cover the viewfinder to prevent light from seeping into the camera and affecting exposure. The camera ships with a cover designed just for this purpose. In fact, it's conveniently attached to the camera strap. To install it, first remove the rubber eyecup that surrounds the viewfinder by sliding it up and out of the groove that holds it in place. Then slide the cover down into the groove and over the viewfinder (Orient the cover so that the *Canon* label faces the viewfinder.)
- Using Live View or Movie mode for an extended period can harm your pictures and the camera. Using the monitor full-time causes the camera's innards to heat up more than usual, and that extra heat can create the right conditions for noise, a defect that looks like speckles of sand. More critically, the increased temperatures can damage the camera. A thermometer symbol appears on the monitor to warn you when the camera is getting too hot. Initially, the symbol is white. If you continue shooting and the temperature continues to increase, the symbol turns red and blinks,

alerting you that the camera soon will shut off automatically.

- Aiming the lens at the sun or other bright lights also can damage the camera. Of course, you can cause problems doing this even during normal shooting, but the possibilities increase when you use Live View and Movie mode.
- Live View and Movie modes put additional strain on the camera battery. The extra juice is needed to power the monitor for extended periods of time. If you do a lot of Live View or movie shooting, you may want to invest in a second battery so that you have a spare on hand when the first one runs out of gas.
- The risk of camera shake during handheld shots is increased. When you use the viewfinder, you can help steady the camera by bracing it against your face. But when you compose shots using the monitor, you have to hold the camera away from your body to view the screen, making it harder to keep the camera absolutely still. Any camera movement during the exposure can blur the shot, so using a tripod is the best course of action for Live View photography and movie recording.



NARNING!

Live View for recording movies: Rotate the Mode dial to the Movie mode icon. Live View engages automatically, and you then press the Live View button to start and stop recording. (Chapter 8 has details on movie shooting.) To exit Movie mode, rotate the Mode dial to any other exposure mode.

In many ways, shooting photos in Live View mode is the same as for viewfinder photography, but some important aspects, such as autofocusing, work very differently. Chapter 3 shows you how to take a picture in Scene Intelligent Auto exposure mode using Live View; Chapter 5 details Live View autofocusing options; and Chapter 8 covers movie recording.

# Monitoring Critical Picture Settings

You can display current picture-taking settings on the monitor. The left side of Figure 1-13 shows the Shooting Settings screen, which appears during viewfinder photography; the right side of the figure shows the data as it appears during Live View shooting. For viewfinder shooting, you can also display some data at the bottom of the viewfinder, as shown in Figure 1-14.





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If your screens don't look like what you see in the figures, don't panic: First, as mentioned earlier, on your screen, the Live View data appears directly over the live scene instead of against the black background as shown in Figure 1-13. Second, different data appears depending on your exposure mode and whether or not features such as flash are enabled. Figure 1-13 labels two key points of data that appear in any mode, 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 figures shows that the battery is charged. When the icon appears empty, it's time to find your battery charger.



Maximum burst frames

**Figure 1-14:** For viewfinder photography, certain settings also appear at the bottom of the viewfinder screen.

Additionally, remember the following tips about these displays:

Shooting Settings display: By default, the display appears when you turn on the camera and then turns off if no camera operations are performed for 30 seconds. You can turn the display on again by pressing the shutter button halfway and then releasing it. To turn off the display before the automatic shutoff occurs, press the Disp button.



Curved arrows bordering a setting mean that you can adjust the setting by rotating the Main dial. For example, in the shutter-priority autoexposure mode (Tv, on the Mode dial), the shutter speed is bordered by the arrows, as shown on the left in Figure 1-13, indicating that the setting is active and that rotating the Main dial changes the setting.

✓ Viewfinder: Data appears at the bottom of the viewfinder when you first turn on the camera and then shuts off after a few seconds to save battery power. To wake up the display, press the shutter button halfway and release it. As for those little markings in the center of the viewfinder, they represent autofocusing points. Chapter 5 details autofocusing.



One other point about a viewfinder value that's often misunderstood: The value at the far right end of the viewfinder (9, in Figure 1-14) 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 succession as long as you hold down the shutter button. (Chapter 2 has details.) 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.

Live View display: In Live View mode, press the Disp button to cycle from the default display mode, shown in Figure 1-13, to one of the alternative displays shown in Figure 1-15. In Movie mode, some data changes to show movie-recording options instead of still-photography settings, and the Histogram display shown in the center is not available.



Exposure Simulation box

Figure 1-15: Press the Disp button to shift to one of these alternative Live View display modes.



The chart labeled *histogram* in Figure 1-15 is a tool you can use to gauge exposure. See the discussion on interpreting a Brightness histogram in Chapter 9 to find out how to make sense of what you see. But note that when you use flash, the histogram is dimmed; the histogram can't display accurate information because the final exposure will include light from the flash and not just the ambient lighting. In addition, the histogram dims when you use M (Manual) exposure mode and set the shutter speed to Bulb, which keeps the shutter open for as long as you hold down the shutter button. The camera can't predict how long you're going to hold that button down, so it can't create a histogram that will reflect your final exposure.

Also note the little box labeled *Exposure Simulation* in Figure 1-15. This symbol, which appears in the default display mode as well as in the mode that includes the histogram, indicates whether the monitor is simulating the actual exposure that you will record. If the symbol blinks or is dimmed, the camera can't provide an accurate exposure preview, which can occur if the ambient light is either very bright or very dim. Exposure Simulation is also disabled when you use flash in Live View mode.



You can make these additional tweaks to the Live View display:

• *Display a grid.* To assist you with composition, the camera can display one of two styles of grids on the monitor. Where you turn the grid on depends on your exposure mode: In P, Tv, Av, or M modes, the option appears on Shooting Menu 4; in other still photography modes, Shooting Menu 2. In Movie mode, look for the option on Movie Menu 2.

• Adjust the exposure-data shutdown (Metering Timer option). By default, exposure information such as f-stop and shutter speed disappears from the display after 8 seconds if you don't press any camera buttons. If you want the exposure data to remain visible for a longer period, you can adjust the shutdown time, but only if the Mode dial is set to P, Tv, Av, or M. Make the change via the Metering Timer option, which lives on Shooting Menu 4 for still photography and on Movie Menu 2 for Movie mode. The metering mechanism uses battery power, so the shorter the cutoff time, the better.

# Changing Settings via the Quick Control Screen

The Quick Control screen enables you to change certain settings without using the function buttons (ISO button, Exposure Compensation button, and so on) or menus.



You can use this screen to adjust settings in any exposure mode, but the settings that are accessible depend on the mode you select and, for still photography, whether you're using the viewfinder or Live View mode.

To take advantage of the Quick Control screen for viewfinder photography, follow these steps:

#### 1. Display the Shooting Settings screen.

Either press the shutter button halfway and then release it, or press the Disp button.



#### 2. Press the Q button.

The screen shifts into Quick Control mode, and one of the options on the screen becomes highlighted. For example, the White Balance option is highlighted in Figure 1-16. (AWB stands for Auto White Balance.)



3. Use the cross keys to highlight the setting you want to adjust.

Figure 1-16: The active option appears highlighted.



When you first highlight a setting, a text tip appears to remind you of

the purpose of the setting. If you find the text tips annoying, you can get rid of them by disabling the Feature Guide option on Setup Menu 2.

#### 4. Select the option you want to use.

You can use these techniques:

• *To scroll through the available settings, rotate the Main dial.* The current setting appears at the bottom of the screen, as shown in

Figure 1-16. Note the little wheel icon at the far-right side of the text bar — it's your reminder to use the Main dial for this function.

• To display all available settings, press the Set button. For example, if you're adjusting the White Balance setting and press Set, you see the screen shown in Figure 1-17. Highlight the option you want to use by rotating the Main dial or using the cross keys. In some cases, the screen contains a brief explanation or note about the option (as

shown in the figure, with the



**Figure 1-17:** From the Quick Control screen, press Set to display all settings available for the currently selected option.

Auto White Balance setting selected), regardless of the setting of the Feature Guide option. After selecting your choice, press the Set button to return to the Quick Control screen.

A few controls require a slightly different approach, but don't worry — we spell out all the needed steps throughout the book.

# 5. To exit Quick Control mode and return to shooting, press the Q button again.

You also can simply press the shutter button halfway and release it. Either way, you're returned to the Shooting Settings display.

Things work pretty much the same way in Live View and Movie modes except that the options appear along with the live preview: When you press the Q button, one setting becomes highlighted, as shown on the left in Figure 1-18. You can then either rotate the Main dial to cycle through the available settings or press Set to view all the possibilities at once, as shown on the right in the figure.



Figure 1-18: You also can use the Quick Control screen in Live View and Movie modes.

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# Familiarizing Yourself with the Lens

Because we don't know which lens you're using, we can't give you full instructions on its operation. But the following basics apply to most Canon EF-S lenses as well as to certain other lenses that support autofocusing — you should explore the lens manual for specifics, of course:

Focusing: Set the lens to automatic or manual focusing by moving the focus-method switch on the lens. For example, Figure 1-19 shows the switch as it appears on the 18–55mm kit lens. On this lens, set the switch to AF for autofocusing and to MF for manual focusing.



Auto/Manual focus switch

Figure 1-19: Here are a few features that may be found on your lens.

• *Autofocusing:* Press and hold the shutter button halfway to rev up the autofocusing system.

• *Manual focusing*: When in MF mode (do not attempt to manually focus when the lens is set to AF; the lens will resist and if you force it you may break it), rotate the focusing ring on the lens barrel. The position of the focusing ring varies depending on the lens; we labeled the one found on the kit lens in Figure 1-19.

See Chapter 5 for more help with both automatic and manual focusing.

Zooming: If you bought a zoom lens, it has a movable zoom ring. The location of the zoom ring on the kit lens is shown in Figure 1-19. To zoom in or out, rotate the ring.

You can determine the focal length of the lens by looking at the number aligned with the bar labeled *focal length indicator* in Figure 1-19. (If you're new to the term *focal length*, the sidebar "Focal length and the crop factor," elsewhere in this chapter, explains the subject.)

Enabling Image Stabilization: Many Canon lenses, including the kit lens, offer this feature, which compensates for small amounts of camera shake that can occur when you handhold the camera. Camera movement during the exposure can produce blurry images, so turning on Image Stabilization can help you get sharper handheld shots.

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 turning the feature off. (You also save battery power by turning off image stabilization.) If you use a monopod, leave image stabilization turned on so it can help compensate for any accidental movement of the monopod.

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

Whatever lens you use, image stabilization isn't meant to eliminate the blur that can occur when your subject moves during the exposure. That problem is related to shutter speed, a topic you can explore in Chapter 4.

Removing a lens: After turning the camera off, press and hold the lensrelease button on the camera (refer to Figure 1-19), and turn the lens toward the shutter button side of the camera until the lens detaches from the lens mount. Put the rear protective cap onto the back of the lens and, if you aren't putting another lens on the camera, cover the lens mount with its cap, too.



Always 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; doing so helps prevent any flotsam in the air from being drawn into the camera by gravity.





# Focal length and the crop factor

Camera lenses come in different *focal lengths*, with the focal length (measured in millimeters) determining the angle of view that a lens can "see." A lens with a short focal length is called a wide-angle lens because it captures a wide view and has the effect of making objects seem smaller and farther away. At the other end of the spectrum, a lens with a long focal length — referred to as a *telephoto lens* — has a narrow angle of view, and faraway subjects appear closer and larger. Zoom lenses such as the T5 kit lens offer a range of focal lengths (18–55mm, in the case of the kit lens).

However, the angle of view you get from any focal length depends on the size of the recording medium. Lenses are standardized around the dimensions of a 35mm film negative, which means that you get the full angle of view only if you mount the lens on a 35mm-film camera or a digital camera that has a *full-frame sensor* (a sensor that's the size of a 35mm negative). Your T5 sensor is smaller than that, so it can't record the entire angle of view that the lens focal length indicates. To figure out what angle of view you will get from a particular focal length — an important piece of information when you shop for a new lens — multiply the focal length by the camera's *crop factor*, a value that depends on the size of the image sensor. On the T5, the crop factor is 1.6. So the 18–55mm kit lens produces the angle of view you would get from a focal length of approximately 29–88mm on a full-frame digital camera or 35mm film camera (18–55 times 1.6 equals 29–88). In the figure here, the red line shows you the angle of view you get on your T5 as compared to the image you would get on a full-frame camera.



# Working with Memory Cards

As the medium that stores your picture files, the memory card is a critical component of your camera. See the steps at the start of this chapter for help inserting a card into your camera; follow these tips for buying and maintaining cards:

✓ Buying SD cards: Again, you can use regular SD cards, which offer less than 4GB of storage space; SDHC cards (4GB–32GB); and SDXC cards (more than 32GB). Aside from card capacity, the other specification to note is SD speed class, which indicates how quickly data can be moved to and from the card (the read/write speed). For best performance, especially for movie recording, we recommend a speed class rating of 6 or 10 (currently the fastest SD speed class rating).



Some cards may also carry another designation, UHS-1 or UHS-2; both labels refer to a new technology designed to boost data transmission speeds above the normal Speed Class 10 rate. Your camera can use UHS-1 cards, but because it doesn't follow the UHS-1 standard, you'll still get Class 10 read/write speeds. In other words, don't pay more for the UHS-1 or UHS-2 functionality.

Formatting a card: The first time you use a new memory card or insert a card that's been used in other devices, you need to *format* it to prepare it to record your pictures.

Formatting erases everything on your memory card. So before you format a card, be sure that you've copied any data on it to your computer. After doing so, get the formatting job done by selecting Format Card from Setup Menu 1.

When you choose the Format option, you can perform a normal card formatting process or a *low-level* formatting, which gives your memory card a deeper level of cleansing than ordinary formatting and thus takes longer to perform. Normally, a regular formatting will do, although performing a low-level formatting can be helpful if your card seems to be running more slowly than usual. To take advantage of this option, press the Exposure Compensation button, which selects the box next to the Trash Can symbol on the menu screen. Then highlight OK and press the Set button.

- Removing a card: After making sure that the memory card access light (lower-right corner of the camera back) is off, indicating that the camera has finished recording your most recent photo, turn off the camera. Open the battery chamber door, depress the memory card slightly, and then let go. The card pops up a bit, 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 right card in Figure 1-20.) 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 side of the card, labeled *Lock switch* in Figure 1-20, enables you to lock your card, which prevents any data from being erased or recorded to the card. If you insert a locked card into the camera, a message on the monitor alerts you to that fact.



Figure 1-20: Avoid touching the gold contacts on the card.





You can safeguard individual images from accidental erasure by using the Protect Images option on the Playback menu, which we cover in Chapter 10. Note, though, that formatting the card *does* erase even protected pictures; the safety feature prevents erasure only when you use the camera's Delete function.

✓ Using Eye-Fi memory cards: Your camera works with Eye-Fi memory cards, which are special cards that enable you to transmit your files wirelessly to your computer and other devices. That's a cool feature, but unfortunately, the cards themselves are more expensive than regular cards and require some configuring that we don't have room to cover in this book. For more details, visit www.eye.fi.

If you do use Eye-Fi cards, enable and disable wireless transmission via the Eye-Fi Upload option on Setup Menu 1. When no Eye-Fi card is installed in the camera, this menu option disappears.

# **Reviewing Basic Setup Options**

One of the many advantages of investing in the Rebel T5/1200D is that you can customize it to suit the way *you* like to shoot. The following sections talk about a handful of setup options that we suggest you consider from the get-go.

### Setup Menu 1

Open Setup Menu 1, shown in Figure 1-21, to access the following options:

✓ Auto Power Off: To save battery power, the camera automatically goes to sleep 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 Disable setting, although even at that setting, the monitor still turns itself off if you ignore the camera for 30 minutes. Just give the shutter button a quick half-

|                | I 🖓 🖓 🧐 🔛 📷    |
|----------------|----------------|
| Auto power off | 30 sec.        |
| Auto rotate    | 0n <b>ta</b> _ |
| Format card    |                |
| File numbering | Continuous     |
| Select folder  |                |
| Screen color   | 1              |
|                |                |
|                |                |

**Figure 1-21:** The Auto Power Off setting determines how long the camera waits to go to sleep after a period of inactivity.

press and release or press the Menu, DISP, Playback, or Live View button to bring the monitor out of hibernation.

- File Numbering: This option controls how the camera names your picture files:
  - *Continuous:* This is the default; the camera numbers your files sequentially, from 0001 to 9999, and places all images in the same folder (100Canon, by default) unless you specify otherwise using



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the Select Folder option described in the next bullet point. This numbering sequence is retained even if you change memory cards.

When you reach picture 9999, the camera automatically creates a new folder (101Canon, by default) and restarts the file numbering at 0001 — again, the folder issue being dependent on the status of the Select Folder option.

• *Auto Reset:* If you switch to this option, the camera restarts file numbering at 0001 each time you put in a different memory card or create a new folder. We don't recommend this option because it's easy to wind up with multiple photos that have the same file number if you're not careful about storing them in separate folders.

Beware of one gotcha that applies both to the Continuous and Auto Reset options: If you swap 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, format the new card before putting it into the camera, as explained earlier in this list.

• *Manual Reset:* Select this setting if you want the camera to begin a new numbering sequence, starting at 0001, for your next shot. A new folder is automatically created to store your new files. The camera then returns to whichever mode you previously used (Continuous or Auto Reset) to number subsequent pictures.

Select Folder: By default, your camera creates an initial file-storage folder named 100Canon and puts as many as 9,999 images in that folder. When you reach image 9999, the camera creates a new folder, named 101Canon, for your next 9,999 images. The camera also creates a new folder if you perform a manual file-numbering reset.

If your memory card contains multiple folders, you must use the Select Folder option to choose the folder where you want to store the next photos you shoot. But selecting the menu option also leads to another neat feature: You can create your own storage folders at any time. You might create separate folders for each person who uses the camera, for example. Chapter 11 shows you how to create custom folders. Here's how to view which folder is active and choose a different one:

- See which folder is currently selected. Choose Select Folder to display a list of all folders, with the current one highlighted and appearing in blue type. The number to the right of the folder name shows you how many pictures are in the folder. You also see a thumbnail view of the first and last pictures in the folder, along with the file numbers of those two photos.
- *Choose a different folder.* Highlight the folder by using the cross keys and then press the Set button.

### Setup Menu 2

Setup Menu 2, posing in Figure 1-22, contains these options:

✓ LCD Brightness: This option enables you to make the camera monitor brighter or darker. But if you take this step, remember that what you see on the display may not be an accurate rendition of exposure. The default setting is 4, which is the position at the midpoint of the brightness scale.

|                     | 1 💽 🚰 🛃 🖈 OSS 📰 |
|---------------------|-----------------|
| LCD brightness      | * <b></b> *     |
| LCD off/on btn      | Shutter btn.    |
| Date/Time/Zone      | 04/09/'14 20:03 |
| Language            | English         |
| Clean manually      |                 |
| Feature guide       | Enable          |
| GPS device settings |                 |
|                     |                 |

Figure 1-22: Setup Menu 2 offers more ways to customize basic operations.

- LCD Off/On Btn: Through this option, you tell the camera what to do with regards to the Shooting Settings display when you press the shutter button halfway. You get three choices:
  - *Shutter Btn:* The display turns off when you press the shutter button halfway and reappears when you release the button. This setting is the default.
  - *Shutter/DISP*: The display turns off when you press the shutter button halfway and remains off even after you release the button. You then press the DISP button to view the Shooting Settings screen.
  - *Remains On:* The display stays on until you press the DISP button. (This setting is a battery-waster because it keeps the monitor on even when your eye is to the viewfinder.)

Date/Time/Zone: When you turn on your camera for the very first time, it automatically displays this option and asks you to set the date, time, and time zone. You also can specify whether you want the clock to update automatically to accommodate Daylight Saving Time (accomplish this via the little sun symbol).



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 9 shows you where to locate the date/ time data when browsing your picture files.

When the Time Zone setting is active, the value displayed in the upperright corner of the screen is the difference between the Time Zone you select and Coordinated Universal Time, or UTC, which is the standard by which the world sets its clocks. For example, New York City is 5 hours behind UTC. This information is provided so that if your time zone isn't in the list of available options, you can select one that shares the same relationship to the UTC.

- Language: This option determines the language of any text displayed on the camera monitor.
- Clean Manually: This setting, which appears on the menu only when the Mode dial is set to P, Tv, or Av, locks up the camera mirror to allow you to clean the image sensor manually. We don't recommend that you tackle this maintenance job unless you're either experienced at it or willing to risk turning your camera into a paperweight. Instead, take the camera to a local camera store that provides this service.
- ✓ Feature Guide: When this option is enabled and you choose certain camera settings, notes appear on the monitor to explain the feature. Although the Feature Guide screens are helpful at first, having them appear all the time is a pain after you get familiar with your camera. So we leave this option set to Disable and for the sake of expediency in this book, assume that you keep the option turned off as well. (If not, just don't be concerned when our instructions don't mention the screens in the course of showing you how to work the camera.)
- ✓ GPS Device Settings: If you attach the optional GP-E2 GPS device, this menu option offers settings related to its operation.

### Setup Menu 3

To access this menu, shown in Figure 1-23, you must set the Mode dial to P, Tv, Av, or M. The menu contains the following offerings:

Certification Logo Display: You have our permission to ignore this screen, which simply displays logos that indicate a couple electronics-industry certifications claimed by the camera. You can find additional logos on the bottom of the camera.



Figure 1-23: Still more customization features await on Setup Menu 3.



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- Clear Settings: Via this option, you can restore the default shooting settings. You also can reset all Custom Functions to their defaults.
- ✓ Firmware Ver: This screen tells you the version number of the camera firmware (internal operating software). At the time of publication, the current firmware version was 1.0.0.
- Keeping your camera firmware up to date is important, so visit the Canon website (www.canon.com) regularly to find out whether your camera sports the latest version. Follow the instructions given on the website to download and install updated firmware if needed.