

Getting the Lay of the Land

In This Chapter

- ▶ Attaching and using an SLR lens
- ▶ Adjusting the viewfinder to your eyesight
- ▶ Working with memory cards
- ▶ Exploring the camera controls
- ▶ Selecting from menus
- ▶ Using the Information display to view and adjust settings
- ▶ Customizing basic operations
- ▶ Restoring default settings

I still remember the day I bought my first single-lens reflex (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 my pennies a long time to buy that camera — what if my inexperience caused me to damage the thing before I even shot my first picture?

You may be feeling similarly insecure if your Nikon D3200 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 D3200 is both your first SLR and first digital camera, you may be doubly intimidated.



Trust me, though — 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 can become comfortable with your camera's buttons and dials in no time. This chapter also guides you through the process of mounting and using a lens, working with memory cards, navigating your camera's menus, changing picture-taking settings, and customizing basic camera operations.



One note before you start: Photos in this book show the black version of the camera instead of the red one. What can I say — I'm a traditionalist, I guess. But all the buttons, menus, and other camera features work the same, no matter what the color of your camera.

Getting Comfortable with Your Lens

One of the biggest differences between a point-and-shoot camera and an SLR camera is the lens. With an SLR, you can swap out lenses to suit different photographic needs, going from a *macro lens*, which enables you to shoot extreme close-ups, to a *telephoto lens*, which lets you photograph subjects from a distance, for example. In addition, an SLR lens has a movable focusing ring that lets you focus manually instead of relying on the camera's autofocus mechanism.

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

Attaching a lens



Your camera can autofocus only with a type of lens that carries the specification *AF-S*. (Well, technically speaking, the camera can autofocus with *AF-I* lenses also. But because those are high-end, very expensive lenses that are no longer made, this is the only mention of *AF-I* lenses in this book.) You can use other types of lenses, as long as they're compatible with the camera's lens mount, but you have to focus manually and you may lose access to other camera functions as well. (See your camera manual for information about which functions aren't available with different types of non-*AF-S* lenses.)

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

1. **Turn the camera off and 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. Hold the lens in front of the camera so that the little white dot on the lens aligns with the matching dot on the camera body.

Official photography lingo uses the term *mounting index* instead of *little white dot*. Either way, you can see the markings in question in Figure 1-1.

Note that the figure shows — as do others in this book — the D3200 with its so-called *kit lens* — the 18–55mm AF-S Vibration Reduction (VR) zoom lens that Nikon sells as a unit with the camera body. If you buy a different lens, your lens mounting index may be some other color or shape, so check the lens instruction manual.

4. Keeping the dots aligned, as shown in Figure 1-1, position the lens on the camera's lens mount.

When you do so, grip the lens by its back collar, not the movable, forward end of the lens barrel.

5. Turn the lens in a counter-clockwise direction until the lens clicks into place.

To put it another way, turn the lens toward the side of the camera that sports the shutter button, as indicated by the red arrow in the figure.

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

Check your lens manual to find out whether your lens sports an aperture ring and how to adjust it. (The D3200 kit lens doesn't.) To find out more about apertures and f-stops, see Chapter 7.

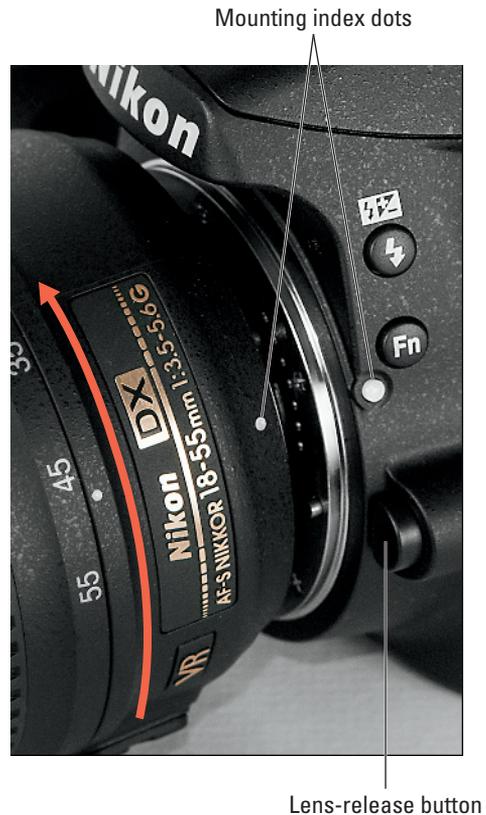


Figure 1-1: When attaching the lens, align the index markers as shown here.



Even though the D3200 is equipped with a dust-reduction system, 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 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.

Removing a lens

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

1. **Turn off the camera and then locate the lens-release button, labeled in Figure 1-1.**
2. **Press the lens-release button while turning the lens clockwise (toward the button) until the mounting index on the lens is aligned with the index on the camera body.**

The mounting indexes are the little guide dots labeled in Figure 1-1. When the dots line up, the lens detaches from the mount.

3. **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.

Setting the focus mode (auto or manual)

Again, the option to switch between autofocus and manual focusing depends on matching the D3200 with a fully compatible lens, as I explain in the earlier section, "Attaching a lens." With the kit lens, as well as with other AF-S lenses, you can enjoy autofocus as well as manual focusing.



The AF stands for *autofocus*, as you may have guessed. The S stands for *silent wave*, a Nikon autofocus technology.

For times when you attach a lens that doesn't support autofocus or the autofocus system has trouble locking on your subject, you can focus manually by twisting a focusing ring on the lens. The placement and appearance of the focusing ring depend on the lens; Figure 1-2 shows you the one on the kit lens.

To focus manually with the kit lens, take these steps:

1. **Set the focus mode switch on the lens to the M (manual) position.**

Figure 1-2 gives you a look at the switch.



Figure 1-2: On the 18–55mm kit lens, the manual-focusing ring is set near the front of the lens, as shown here.

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



If you have trouble focusing, you may be too close to your subject; every lens has a minimum focusing distance. You may also need to adjust the viewfinder to accommodate your eyesight; you can get help with the process a few paragraphs from here.

If you use a lens other than the kit lens, check the lens instruction guide for details about focusing manually; your lens may or may not have a switch similar to the one on the kit lens. Also see the Chapter 8 section related to the Focus mode option, which should be set to MF for manual focusing. (With the kit lens and some other lenses, the camera automatically chooses the MF setting for you.) You access this setting via the Information screen, a process you can read about in the section “Changing Settings Using the Information Display,” later in this chapter.



By the way, even when you focus manually, the camera provides some feedback to help you determine whether focus is set correctly. Look in the Chapter 8 section that's devoted to manual focusing for details.

Zooming in and out

If you bought a zoom lens, it has a movable zoom ring. The location of the zoom ring on the D3200 kit lens is shown in Figure 1-2. To zoom in or out, just rotate that ring.

The numbers on the zoom ring, by the way, represent *focal lengths*. I explain focal lengths in Chapter 8. In the meantime, just note that when the lens is mounted on the camera, the number that's aligned with the lens mounting index (the white dot) represents the current focal length. In Figure 1-2, for example, the focal length is 45mm.

Using a VR (Vibration Reduction) lens

Some Nikon lenses, including the 18–55mm lens sold in a kit with the D3200 camera body, offer *Vibration Reduction*. On Nikon lenses, this feature is indicated by the initials *VR* in the lens name.

Vibration Reduction 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 Vibration Reduction can't work miracles, it enables most people to capture sharper handheld shots in many situations than they otherwise could.

Here's what you need to know about taking best advantage of this feature with your D3200:

- ✓ **Turn Vibration Reduction on or off by using the VR switch, labeled in Figure 1-3.** On the kit lens, the switch is located directly underneath the Auto/Manual focus switch.
- ✓ **Vibration Reduction is initiated when you depress the shutter button halfway (which also initiates autofocus and exposure metering).** If you pay close attention, the image in the viewfinder may appear to be a little blurry immediately after you take the picture. That's a normal result of the vibration-reduction operation and doesn't indicate a problem with your camera or focus. Wait until the viewfinder image returns to normal to take your next shot.



- ✓ **With the kit lens, turn Vibration Reduction off when you mount the camera on a tripod.** When you use a tripod, Vibration Reduction can have detrimental effects because the system may try to adjust for movement that isn't actually occurring. This recommendation assumes that the tripod is "locked down" so that the camera is immovable.
- ✓ **For other lenses, check the lens manual to find out whether your lens offers a similar feature.** On non-Nikon lenses, it may go by another name: *image stabilization*, *optical stabilization*, *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 or *pan* the camera (move it horizontally or vertically as you take the picture). For the kit lens, however, you don't need to disable Vibration Reduction when panning.



Vibration Reduction switch

Figure 1-3: Turn off Vibration Reduction when you use a tripod.

Chapter 8 offers more tips on achieving blur-free photos, and it also explains focal length and its impact on your pictures. See Chapter 7 for an explanation of shutter speed.

Adjusting the Viewfinder Focus

Tucked behind the right side of the rubber eyepiece that surrounds the viewfinder is a tiny dial that enables you to adjust the focus of your viewfinder to accommodate your eyesight. Figure 1-4 shows you where to find the dial, which is officially known as the *diopter adjustment control*.



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



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. Here's how to make the necessary adjustment:

1. **Turn the camera on and remove the lens cap from the front of the lens.**
2. **Look through the viewfinder and then press the shutter button halfway and release it.**

You should see some shooting data appear at the bottom of the screen, as shown on the right in Figure 1-4. (The data shown may differ from what you see in the figure.) And scattered through the center of the screen are little black marks that indicate the camera's 11 autofocus points. I labeled one of the points in Figure 1-4.

3. **Aim the lens at a blank wall or other plain surface.**
4. **Concentrate on the viewfinder data and focusing marks and then rotate the adjustment dial until they appear sharp.**



The Nikon manual warns you not to poke yourself in the eye as you perform this maneuver. This warning seems so obvious that I laugh every time I read it — which makes me feel doubly stupid the next time I poke myself in the eye as I perform this maneuver.

If your eyesight is such that you need a greater adjustment than you can achieve with the built-in diopter control, you can buy an add-on to the viewfinder eyepiece to increase the adjustment range. The official name for this accessory is Nikon DK-20C Correction Eyepiece.

Working with Memory Cards

Instead of recording images on film, digital cameras store pictures on *memory cards*. Your D3200 uses a specific type of memory card: an *SD card* (for *Secure Digital*).



Most SD cards sold today carry the designation SDHC (for *High Capacity*) or SDXC (for *eXtended Capacity*), depending on how many gigabytes (GB) of data they hold. SDHC cards hold from 4GB to 32GB of data; the SDXC moniker is assigned to cards with capacities greater than 32GB.

You also can use Eye-Fi SD cards, a special brand of card that enables you to send pictures to your computer over a wireless network. Because of space limitations, I don't cover Eye-Fi connectivity in this book; if you want more information about these cards, you can find it online at www.eye.fi. Of course, the D3200 also gives you another wireless picture-transmission option: It's compatible with the Nikon WU-1a unit, which sends pictures from your camera to certain smartphones and tablets. See Chapter 6 for more about that product.

Back to the memory cards themselves: Safeguarding your 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; the camera's memory card access light (labeled in Figure 1-5) blinks for a second to let you know the card is inserted properly.
- ✓ **Formatting a card:** The first time you use a new memory card or insert a card that's been used in other devices (such as an MP3 player), you should *format* it. Formatting ensures that the card is properly prepared to record your pictures.



Memory Card access light

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

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

WARNING!



Formatting erases *everything* on your memory card. So before formatting, be sure that you have copied any pictures or other data to your computer.

To format a memory card, choose the Format Memory Card command from the Setup menu. The upcoming section “Ordering from Camera Menus” explains how to work with menus if you need help. When you select the command, you’re informed that all images will be deleted, and you’re asked to confirm your decision to format the card. Highlight Yes and press OK to go forward.

If you insert a memory card and see *For* in the viewfinder, you must format the card before you can do anything else. You also see a message requesting formatting on the camera monitor.



Some computer programs enable you to format cards as well, but it’s not a good idea to go that route. Your camera is better equipped to optimally format cards for use in the camera.

- ✓ **Removing a card:** After making sure that the memory card access light is off, indicating that the camera has finished recording your most recent photo, turn off the camera. 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 pops halfway out of the slot, enabling you to grab it by the tail and remove it.

REMEMBER



If you turn on the camera when no card is installed, the symbol [-E-] blinks in the lower-right corner of the viewfinder. If the Information screen is displayed on the monitor, that screen also nudges you to insert a memory card. If you do have a card in the camera and you get these messages, try taking it out and reinserting it.

- ✓ **Handling cards:** Don’t touch the gold contacts on the back of the card. (See the right 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 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



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

bottom of the card to lock the card contents; press it toward the top of the card to unlock the data. (If you insert a locked card into the camera, you see a message on the monitor alerting you to the fact, and the symbol [d] blinks in the viewfinder.)

You also can protect individual images on a card from accidental erasure by using the camera's Protect feature, which I cover in Chapter 5.

WARNING!

One side note on the issue of memory cards and file storage: Given that memory cards are getting cheaper and larger in capacity, you may be tempted to pick up a 64GB (64-gigabyte) or even larger card, thinking you can store a gazillion images on one card and not worry about running out of room. But memory cards are mechanical devices that are subject to failure, and if a large card fails, you lose *lots* of images. And putting aside the potential for card failure, it's darned easy to misplace those little guys. So I carry several 16GB SD cards in my camera bag instead of relying on one ginormous card. Although I hate to lose any images, I'd rather lose 16 GB worth of pictures than 64 GB.



Do you need high-speed memory cards?

Secure Digital (SD) memory cards are rated according to *speed classes*: Class 2, Class 4, Class 6, and Class 10, with the number indicating the minimum number of *megabytes* (units of computer data) that can be transferred per second. A Class 2 card, for example, has a minimum transfer speed of 2 megabytes, or MB, per second. In addition to these speed classes, The Powers That Be recently added a new category of speed rating, UHS, which stands for Ultra High Speed. UHS cards also carry a number designation; at present, there is only one class of UHS card, UHS 1. These cards currently offer the fastest performance. Your D3200 supports this new card speed.

Of course, with the increase in card speed comes a price increase, which leads to the question: Do you really have a need for speed? The answer is "maybe." If you shoot a lot of movies, I recommend a Class 6 card at minimum — the faster data-transfer rate helps ensure smooth movie-recording and playback

performance. For still photography, users who shoot at the highest resolution or prefer the NEF (Raw) file format may also gain from high-speed cards; both options increase file size and, thus, the time needed to store the picture on the card. (See Chapter 2 for details.)

As for picture downloading, how long it takes files to shuffle from card to computer depends not just on card speed, but also on the capabilities of your computer and, if you use a memory card reader to download files, on the speed of that device. (Chapter 6 covers the file-downloading process.)

Long story short, if you want to push your camera to its performance limits, a high-speed card is worth the expense, especially for video recording. But if you're primarily interested in still photography or you already own slower-speed cards, try using them first — you may find that they're more than adequate for most shooting scenarios.

Exploring External Camera Controls

Scattered across your camera's exterior are 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 your camera's functions in detail. This section provides just a basic road map to the external controls plus a quick introduction to each.



Many of the buttons perform multiple functions and so have multiple “official” names. The AE-L/AF-L button, for example, is also known as the Protect button. In the camera manual, Nikon's instructions refer to these multi-tasking buttons by the name that's relevant for the current function. I think that's a little confusing, so I always refer to each button by the first moniker you see in the lists here. In addition, when I reference a button, its picture appears in the margin to further clarify things. (The exceptions are the Menu and OK buttons — I don't show these because they are such frequent players in the camera's operation, and so would appear way too many times on the page.)

Topside controls

Your virtual tour begins with the bird's-eye view shown in Figure 1-7. There are a number of controls of note here:

- ✓ **On/Off switch and shutter button:** Okay, I'm pretty sure you already figured out this combo button. But you may not realize that you need to use a specific technique when pressing the shutter button: Press the button halfway, pause a second to allow the exposure meter and auto-focusing system to do their jobs, and then press the button the rest of the way to take the picture. See the Chapter 3 section on using the Auto exposure mode for more picture-taking basics.
- ✓ **Exposure Compensation button:** This button activates a feature that enables you to tweak exposure when working in three of your camera's autoexposure modes: programmed autoexposure, aperture-priority autoexposure, and shutter-priority autoexposure, represented by the letters P, S, and A on the Mode dial. Chapter 7 explains. In manual exposure (M) mode, you press this button while rotating the Command dial to adjust the aperture setting.
- ✓ **Info button:** Press this button to display the Information screen on the camera monitor; press again to turn off the display. See the upcoming section “Monitoring Shooting Settings” for details on this screen.



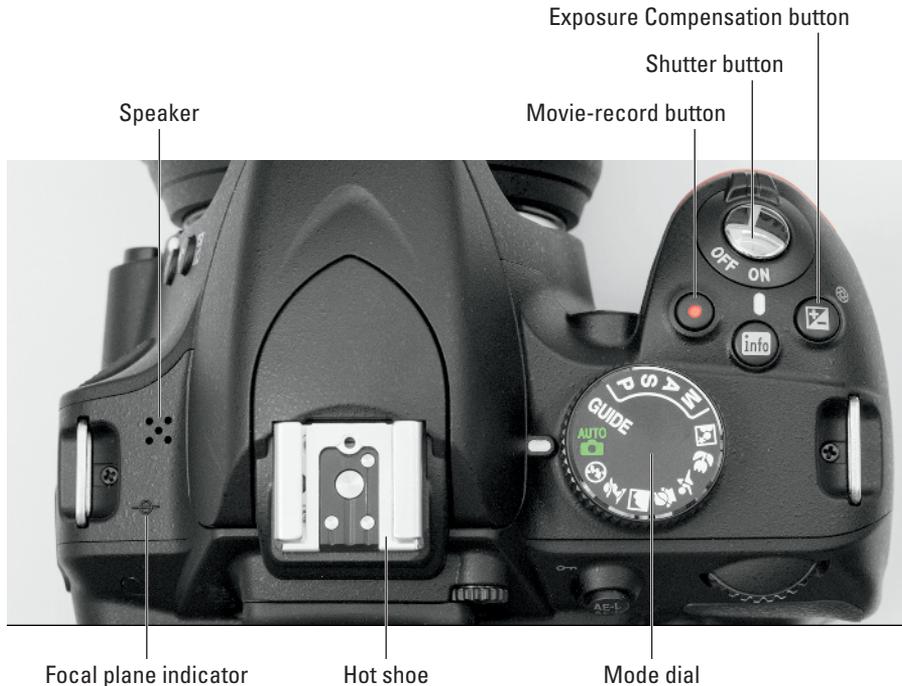


Figure 1-7: The tiny pictures on the Mode dial represent the automatic exposure modes known as Scene modes.



TIP

You also can display the screen by pressing the Information Edit button (on the back of the camera, shown in the next figure) or by pressing the shutter button halfway and releasing it. I find these methods easier, so I use the Info button only when I want to turn off the screen. Remember that if you do use the button to turn off the display, you must press it again to turn the display back on. Pressing the shutter button halfway won't do the trick. However, pressing the Info Edit button turns on the display regardless.



➤ **Movie-record button:** After switching to Live View mode, press this button to start and stop recording movies. See Chapter 4 for an explanation of Live View mode and details on movie recording and playback.

➤ **Mode dial:** With this dial, labeled in Figure 1-7, you set the camera to fully automatic, semi-automatic, or manual exposure mode. Choosing

the Guide setting brings up the guided menu display, which helps newcomers get acquainted with the camera. The little pictographs represent Scene modes, which are automatic settings geared to specific types of photos: action shots, portraits, landscapes, and so on. Chapter 3 details the fully automatic modes; Chapter 7 explains the P, S, A, and M modes; and the section “Using the guided menus,” later in this chapter, introduces you to Guide mode, which you can explore a bit more in Chapter 3.

- ✓ **Flash hot shoe:** A *hot shoe* is a connection for attaching an external flash. When you first take the camera out of the box, the contacts on the shoe are protected by a black cover; to attach a flash, slide the cover off to expose the contacts, as shown in Figure 1-7. Chapters 2 and 7 discuss flash photography.
- ✓ **Speaker:** When you play movies that contain audio, the sound comes wafting through the holes labeled *Speaker* in Figure 1-7.
- ✓ **Focal plane indicator:** Should you need to know the exact distance between your subject and the camera, the *focal plane indicator* is key. The mark, labeled in Figure 1-7, indicates the plane at which light coming through the lens is focused onto the negative in a film camera or the image sensor in a digital camera. Basing your measurement on this mark produces a more accurate camera-to-subject distance than using the end of the lens or some other external point on the camera body as your reference point.

Back-of-the-body controls

Traveling over the top of the camera to its back side, as shown in Figure 1-8, you encounter the following controls:

- ✓ **Command dial:** After you activate certain camera features, you rotate this dial to select a specific setting. For example, to choose an f-stop when shooting in aperture-priority (A) mode, you rotate the Command dial. And in manual exposure (M) mode, you change the f-stop by rotating the dial while pressing the Exposure Compensation button. (Chapter 7 explains apertures and f-stops.)
- ✓ **AE-L/AF-L/Protect button:** Pressing this button initiates autoexposure lock (AE-L) and autofocus lock (AF-L). Chapter 7 explains autoexposure lock; Chapter 8 talks about autofocus lock.



In playback mode, pressing the button activates the Protect feature, which locks the picture file — hence the little key symbol that appears to the left of the button — so that the image isn’t erased if you use the picture-delete functions. See Chapter 5 for details. (The picture *is* erased if you format the memory card, however.)



Figure 1-8: Use the Multi Selector to navigate menus and access certain other camera options.

You can adjust the performance of the button as it relates to locking focus and exposure. Instructions in this book assume that you stick with the default setting, but if you want to explore your options, see Chapter 11.



- ✓ **Live View button:** As its name implies, this switch turns the Live View feature on and off. As soon as you turn on Live View, the scene in front of the lens appears on the monitor, and you no longer can see anything through the viewfinder. You then can compose a still photo using the monitor or begin recording a movie. Turn off Live View to return to normal, through-the-viewfinder still photography. Chapter 4 details Live View photography and movie recording.
- ✓ **Multi Selector/OK button:** This dual-natured control, labeled in Figure 1-8, plays a role in many camera functions. You press the outer edges of the Multi Selector left, right, up, or down to navigate camera menus and



access certain other options. At the center of the control is OK, which you press to finalize a menu selection or other camera adjustment.

✓ **Release mode button:** This control enables you to quickly choose from six shutter-release modes: Single Frame, Continuous, Self-Timer, Quiet Shutter, and two remote-control modes. Chapter 2 discusses these options.



✓ **Delete button:** Sporting a trash-can icon, the universal symbol for delete, this button enables you to erase pictures from your memory card. Chapter 5 has specifics.



✓ **Playback button:** Press this button to switch the camera into picture review mode. Chapter 5 details playback features.

✓ **Menu button:** Press this button to access menus of camera options. See the section “Ordering from Camera Menus,” later in this chapter, for details on navigating menus.



✓ **Zoom Out/Thumbnail/Help button:** This button has a number of functions, but the most important ones are

- *Display help screens:* You can press this button to display helpful information about certain menu options. See “Displaying Help Screens,” later in this chapter, for details.
- *Adjust the image display during playback:* In playback mode, pressing the button enables you to display multiple image thumbnails on the screen, reduce the magnification of the currently displayed photo, and access Calendar display, which makes it easy to see all the photos shot on a particular day. Again, see Chapter 5 for a complete rundown of playback options.



✓ **Zoom In:** In playback mode, pressing this button magnifies the currently displayed image and also reduces the number of thumbnails displayed at a time. Note the plus sign in the middle of the magnifying glass — plus for zoom in. Like the Zoom Out button, this one also serves a few minor roles that I explain in later chapters.



✓ **Information Edit button:** With this button — which I hereby designate as simply the Info Edit button to save space — you can display the Information screen. Press again, and you can then shift to what I call the Info Edit screen, which enables you to adjust the settings shown on the screen. See the upcoming sections “Monitoring Shooting Settings” and “Changing Settings Using the Information Display” for details.

✓ **Infrared receiver:** This little round sensor, labeled in Figure 1-8, picks up the signal from the optional ML-L3 wireless remote control. There’s a second sensor on the front of the camera; see the upcoming section “Front-right features” for a look-see.

Front-left buttons

On the front-left side of the camera body, featured in Figure 1-9, you find the following controls:



- Flash/Flash compensation:** In the advanced exposure modes (P, S, A, and M), pressing this button pops up the camera's built-in flash. (In other modes, the camera decides whether the flash is needed.) After the flash is raised, you can hold the button down and rotate the Command dial to adjust the Flash mode (normal, red-eye reduction, and so on). In advanced exposure modes, you also can adjust the flash power by pressing the button while simultaneously pressing the Exposure Compensation button and rotating the Command dial. See Chapter 2 for an introduction to flash; check out Chapter 7 for the detailed story.



- Function (Fn) button:** By default, this button gives you fast access to the ISO Sensitivity setting, which you can explore in Chapter 7. If you don't use that feature often, you can use the button to perform one of three other operations. Chapter 11 provides the details on changing the button's purpose. (**Note:** Instructions in this book assume that you haven't changed the button function.)
- Lens-release button:** Press this button to disengage the lens from the lens mount so that you can remove the lens from your camera. See the first part of this chapter for help with mounting and removing lenses.
- Lens switches:** As detailed in the first part of this chapter, use the A/M switch to set the kit lens to automatic or manual focusing. The VR switch turns the Vibration Reduction feature on and off. For other lenses, see your lens manual for help with these options.



Figure 1-9: Press the Flash button to pop up the built-in flash.

- ✓ **Microphone:** The three little holes just above the silver D3200 label lead to the camera's internal microphone. See Chapter 4 to find out how to disable the microphone if you want to record silent movies.

Front-right features

On the front-right side of the camera, you find a couple additional features, both labeled in Figure 1-10:

- ✓ **AF-assist lamp:** In dim lighting, the camera may emit a beam of light from this lamp when you use autofocus. The light helps the camera find its focusing target. If you're shooting in a setting where the light is distracting or otherwise annoying, you can disable it via the Built-in AF-assist illuminator option on the Shooting menu. On the flip side, there are some situations in which the lamp is automatically disabled: It doesn't light in Live View mode or during movie recording, for example.

The AF-assist lamp also shoots out light when you use red-eye reduction flash and the Self-Timer shutter-release mode, both covered in Chapter 2. You can't disable the lamp for these two functions.

- ✓ **Infrared receiver:** Here's another infrared receiver, which, like the one on the back of the camera, picks up the wireless signal from the optional ML-L3 remote control unit.



Infrared receiver AF-assist lamp

Figure 1-10: In dim lighting, the AF-assist lamp helps illuminate the subject for better autofocus performance.

Hidden connections

Hidden under a little cover on the left side of the camera, you find the following four connection ports, labeled in Figure 1-11:

- ✓ **Microphone jack:** If you're not happy with the audio quality provided by the internal microphone, you can plug in the optional Nikon ME-1 microphone here.

- ✓ **USB/AV port:** Through this port, you can connect your camera to your computer via a USB (Universal Serial Bus) connection for picture downloading. Nikon supplies the cable you need in the camera box; see Chapter 6 for downloading help.

A second USB cable is provided to enable you to connect the camera to a television set via standard A/V plugs (in other words, an analog connection). Chapter 5 explains the process.

Finally, if you buy the wireless mobile adapter WU-1a, you use this port to connect the device to the camera.

- ✓ **HDMI port:** Through this port, you can connect your camera to an HD (high definition) television. However, you need to pony up the cash for the necessary cable, as Nikon doesn't supply one with the camera. Buy a Type C mini-pin HD cable.
- ✓ **Accessory terminal:** You can plug in the optional Nikon MC-DC2 remote shutter-release cable or the Nikon GP-1 GPS unit here. I don't cover these other accessories in this book, but the manual that comes with the devices can get you up and running.

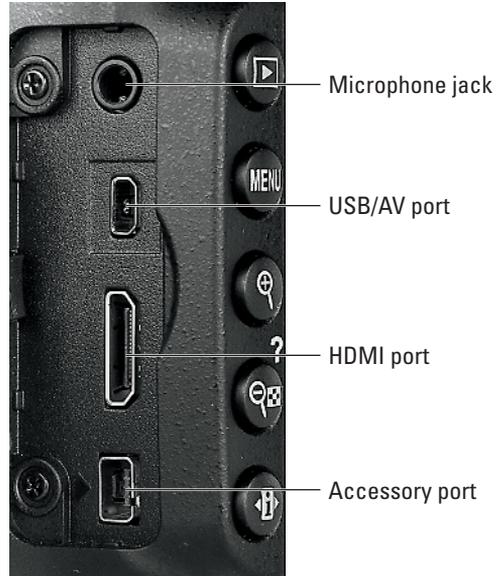


Figure 1-11: Open the cover on the side of the camera to reveal these connections.

If you turn the camera over, you find a tripod socket, which enables you to mount the camera on a tripod that uses a 1/4-inch screw, plus the battery chamber.

Ordering from Camera Menus



Pressing the Menu button on your camera gives you access to a whole slew of options in addition to those you control via the external buttons and dials. But what type of menu screens you see depends on the setting of the Mode dial:

- ✔ **Guide:** Pressing the Menu button brings up the first screen of the guided menus, which provide a simple, walk-me-through-it approach to using the camera.
- ✔ **All other settings:** Pressing the Menu button brings up the normal, text-based menus.

The next two sections provide an overview of using both types of menus. But for reasons you can discover in the following discussion, the rest of this book pretty much ignores the guided menus and relies on the regular menus to get things done — a choice that I suggest you make as well.

Using the guided menus

The guided menu work much like interactive menus you encounter in other areas of your life — on cellphones, bank machines, grocery-store self-checkout kiosks, and the like — except that instead of pressing buttons on the screen, you use the Multi Selector and OK button to make your menu selections. And thankfully, your camera also doesn't nag you to hurry up and "please place the item in the bagging area!" every three seconds.

With that rant about the modern grocery-store experience out of my system, here's how to use the guided menus:

1. Set the Mode dial to Guide, as shown on the left in Figure 1-12.

You see the initial guided menu screen, shown on the right in the figure. You're offered three options: Shoot, View/Delete, and Set Up.



Figure 1-12: Set the Mode dial to Guide to use the guided menus.



The items labeled in the figure, which appear on all the guided menu screens, tell you the following information:

- *Battery status:* A full icon like the one in Figure 1-12 says you're good to go. If the little battery symbol appears half full or less, dig out your battery charger.
- *Exposure mode:* Even though the Guide option is on the Mode dial, it's not an exposure mode per se — rather, it's a menu-based way for you to access the actual exposure modes. Through the guided menus, you can access any exposure mode except manual exposure (M). The symbol in the lower-right corner of the guided menu screen tells you which exposure mode is selected. In Figure 1-12, the symbol shows that the Auto exposure mode is selected. The letter G or the word Guide tells you that you're in Guide mode, in case you forget.
- *Shots remaining:* The other value in the lower-right corner shows you the number of shots you can fit in the remaining space on your memory card. Values larger than 999 are indicated by a tiny k, which in this case translates to thousand. For example, the value 2.0k in the figure says that 2,000 more pictures can fit on the memory card.

2. Press the Multi Selector right or left to highlight the category you want to choose.

(Remember, the Multi Selector is the big four-way rocker switch that has the OK button in the middle.) Here's a quick preview of what each category enables you to do:

- *Shoot:* Select this icon to select options that walk you through the process of choosing basic picture-taking options and shooting pictures.
- *View/Delete:* Select this category to access picture-playback functions and erase pictures from your memory card.
- *Set Up:* Choose this icon to access camera setup options — things like setting the date and time, adjusting monitor brightness, and so on.



This category also contains two options that make a big impact on picture quality: Image Size and Image Quality. They really belong with the rest of the picture settings in the Shoot category, as they're organized in the regular menus. At any rate, check out Chapter 2 for help choosing the right settings. **Note:** For these two settings and some others, your settings apply only while you shoot in Guide mode.

3. Press OK.

You see a screen that lists available options in the category you chose. The left screen in Figure 1-13 shows the first screen that appears if you select Shoot in Step 2, for example.

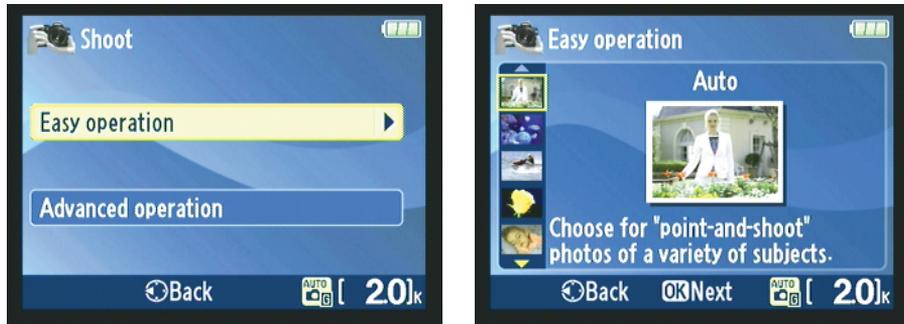


Figure 1-13: Use the Multi Selector to highlight an option and press OK to move to the next step.

4. Highlight the option that interests you and press OK to display the next screen of information and instructions.

For example, if you highlight Easy Operation, as in Figure 1-13, and press OK, you see the second screen in the figure. There, you can use the Multi Selector to explore the available shooting options and then press OK again to move to the next screen.



From this point on, keep highlighting options and pressing OK to move forward. For the Shoot category, you ultimately reach a screen that looks like the one on the left in Figure 1-14, telling you which exposure mode the camera is using. When you next press OK, you see a screen similar to the one on the right in the figure. If you want to explore more shooting settings, select the bottom option on the screen and press OK to explore them, as shown in Figure 1-15.

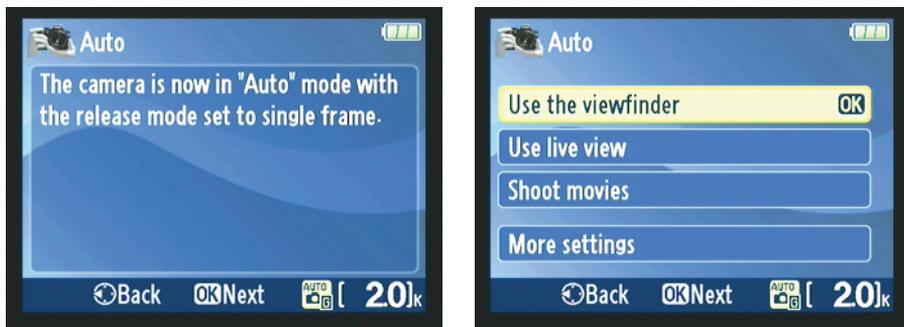


Figure 1-14: These two screens appear at the end of the Shoot section of the guided menu.



Figure 1-15: Choose More Settings to see what other picture-taking options you can access.

When you finish adjusting settings, press the Multi Selector left until you again reach the screen shown on the right in Figure 1-14.

The last step is to choose one of the three top options on that screen to tell the camera whether you want to shoot using the viewfinder, switch to Live View, or record a movie. Highlight your choice and press OK. If you select viewfinder shooting, you then see the Information screen, described later in this chapter. Otherwise, the camera initiates Live View, which enables you to frame the scene using the monitor (also the first step in shooting a movie). Chapter 4 details Live View still photography as well as movie recording.

As you explore the guided menus, you also can take advantage of these menu-navigation tricks:

- **Return to the previous screen.** If you see a Back symbol at the bottom of the screen, press the Multi Selector left to go back one screen. Both screens in Figure 1-15 show this symbol.
- **Exit a screen without making changes.** Don't see a Back icon? Look instead for a little "turnaround" arrow like the one labeled Exit symbol on the screen in Figure 1-16. Highlight that symbol and press OK to exit the current screen.



Exit symbol

Figure 1-16: Highlight the U-turn symbol and press OK to exit the screen without making any changes to the current settings.



- ✓ **Display more help.** If you see a little question mark in the lower left corner of the screen, press and hold the Zoom Out button to display a help screen with more information. This help system is also available when you're not using Guide mode; see the upcoming section "Displaying Help Screens" for details.
- ✓ **Return to the main guided menu screen.** Press the Menu button to jump from any screen to the initial guided menu screen.
- ✓ **Exit the guided menus.** If you're on the final shooting screen (shown on the right in Figure 1-14), choose any option except More Settings and then press OK. You also can depart from your guide at any time by pressing the shutter button halfway and releasing it.



Although I appreciate the idea of the guided menus, I opted to largely ignore them in this book and instead show you how to perform different camera operations through the regular menu, which you can investigate in the next section. Here's why:

- ✓ **You can't access all your camera's features through the guided menus.** For example, you can't access autofocusing adjustments, discussed in Chapter 8, through the guided menus. Instead, you have to wait until you reach the final Shoot menu screen and exit the guided menus to make adjustments.
- ✓ **In many cases, using the guided menus actually makes things more difficult.** For example, if you select the Easy Operation choice on the Shoot menu, you're presented with a list of possible picture types. (See Figure 1-13.) Suppose that you select No Flash. The camera then engages the Auto Flash Off exposure mode — which you can do yourself simply by turning the Mode dial to the No Flash symbol. (Chapter 3 introduces you to this exposure mode.)
- ✓ **Some choices Nikon made for the arrangement of the guided menus set you up for confusion down the line.** Remember my tip in the preceding steps about the Image Size and Image Quality options found in the Set Up section of the guided menus? Well, in the regular menus, those options live on the Shooting menu, not on the Setup menu. So if you get used to selecting those options in one place when you use guided menus, you have to learn a whole new organization when you move on to the regular menus.



Additionally, when you adjust certain settings, including Image Size and Image Quality, your changes apply *only* in Guide mode. So when you return to another shooting mode, you have to adjust those settings again.

- ✓ **After you get past the initial guided menu screens, some options aren't any less confusing than when you access them through the main menus.** In some cases, you can display a help screen by pressing the Zoom Out button (the one with the question-mark symbol), but you can get the same help when using regular menus, too.

Don't get me wrong: If you like the guided menus, by all means, take advantage of them. But my guess is that you don't need much help from me to do so. So with the exception of Chapter 3, which provides some details about a couple cool options available when you select Advanced Operation from the Shoot menu, I limit future discussions to the regular menus so that I have more room to help you explore the camera's more advanced features.

Ordering off the main menus

To display the regular (non-guided) menus, set the Mode dial to any setting but Guide and then press the Menu button. You then see a screen similar to the one shown in Figure 1-17. The icons along the left side of the screen represent the available menus. (Table 1-1 labels the icons and includes a brief description of the goodies found on each menu.) In the menu screens, the icon that's highlighted or appears in color is the active menu; options on that menu automatically appear to the right. In the figure, the Shooting menu is active, for example.

Menu icons



Figure 1-17: Highlight a menu in the left column to display its contents.

Table 1-1

D3200 Menus

<i>Symbol</i>	<i>Open This Menu . . .</i>	<i>To Access These Functions</i>
	Playback	Viewing, deleting, and protecting pictures
	Shooting	Basic photography settings
	Setup	Additional basic camera operations
	Retouch	Built-in photo-retouching options
	Recent Settings	Your 20 most recently used menu options

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 therein. The Multi Selector (refer to Figure 1-8) is the key to the game. You press the edges of the Multi Selector to navigate up, down, left, and right through the menus.



In this book, the instruction “Press the Multi Selector left” simply means to press the left edge of the control. “Press the Multi Selector right” means to press the right edge, and so on.

Here’s a bit more detail about the process of navigating menus:

- ✓ **To select a different menu:** Press the Multi Selector left to jump to the column containing the menu icons. Then press up or down to highlight the menu you want to display. Finally, press right to jump over to the options on the menu.
- ✓ **To select and adjust a function on the current menu:** Again, use the Multi Selector to scroll up or down the list of options to highlight the feature you want to adjust and then press OK. Settings available for the selected item then appear. For example, if you select the Image Quality item from the Shooting menu, as shown on the left in Figure 1-18, and press OK, the available Image Quality options appear, as shown on the right in the figure. Repeat the old up-and-down scroll routine until the choice you prefer is highlighted. Then press OK to return to the previous screen.



Figure 1-18: Select the option you prefer and press OK again to return to the active menu.

In some cases, you see a right-pointing arrowhead instead of the OK symbol next to an option. That’s your cue to press the Multi Selector right to display a submenu or other list of options. (Although, most of the time, you also can just press the OK button if you prefer.) If any menu options are dimmed in the menu, you can’t access them in the current exposure mode; remember, to use all the camera’s features,



you must set the Mode dial to P, S, A, or M. Chapter 7 explains these advanced exposure modes.

✔ **To quickly access your 20 most recent menu items:** The Recent Settings menu, shown in Figure 1-19, lists the 20 menu items you ordered most recently. So if you want to adjust those settings, you don't have to wade through all the other menus looking for them — just head to this menu instead. You can remove an item from the menu by highlighting it and pressing the Delete (trash can) button twice.

✔ **Exit menus and return to shooting:** Just give the shutter button a quick half-press and then release it. Or press the Menu button to display the Information screen, described next. (You may need to press the Menu button twice to back out of all the menu screens.)

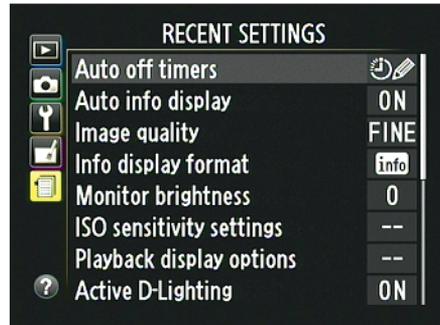


Figure 1-19: The Recent Settings menu offers quick access to the last 20 menu options you selected.

Monitoring Shooting Settings

Your D3200 gives you the following ways to monitor the most critical picture-taking settings:



✔ **Information display:** If your eyesight is like mine, reading the tiny type in the viewfinder is a tad difficult. Fortunately, you also can press the Info Edit button to display the Information screen on the monitor. Shown in Figure 1-20, the Information screen displays the current shooting settings at a size that's a little easier on the eyes and also provides more detailed data than the viewfinder. If you rotate the camera to compose a *portrait* shot (the image is taller than it is wide), the Information display rotates as well.

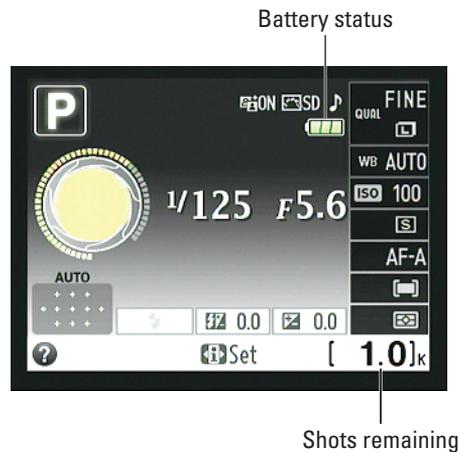


Figure 1-20: Press the Info or Info Edit button to view picture-taking settings on the monitor.



In this book, I show the screen with the black-and-white color scheme you see in Figure 1-20, instead of the default colors, which feature a mix of black and white text on a bluish-gray background and don't reproduce as well in print. To find out how to change the color scheme, see the section "Customizing Your Camera: Setup Menu Options" later in this chapter.

To display the Information screen, you also can just press the shutter button halfway and release it (my favorite tactic) or press the Info button (top of camera, near the shutter button). Press the Info button again to turn off the display. If you turn off the display via the Info button, though, you can't bring it back to life via the shutter button. You must either use the Info Edit button or the Info button.

- ✓ **Viewfinder:** You can view some camera settings in the viewfinder as well. For example, the data in Figure 1-21 shows the current shutter speed, f-stop, ISO setting, and number of shots remaining. The exact viewfinder information that appears depends on what action you're currently undertaking.



Shots remaining

If what you see in Figures 1-20 and 1-21 looks confusing, don't worry. Many of the settings relate to options that won't mean anything to you until you make your way through later chapters and explore the advanced exposure modes. But do make note of the following two key points of data that are helpful even when you shoot in the fully automatic modes:

Figure 1-21: You also can view some camera information at the bottom of the viewfinder.

- ✓ **Battery status indicator:** A full-battery icon like the one in Figure 1-20 shows that the battery is fully charged; if the icon appears empty, look for your battery charger.



Your viewfinder also displays a tiny low-battery icon when things get to the dangerous point. The icon appears just to the right of center in the settings strip at the bottom of the viewfinder. If the icon blinks, the battery is totally kaput, and shutter release is disabled.

- ✓ **Shots remaining:** Labeled in Figures 1-20 and 1-21, this value indicates how many additional pictures you can store on the current memory card. As with the Guided menu display, covered earlier in this chapter, the value is presented a little differently when the number exceeds 999.

The initial *K* appears with the number, as shown in Figure 1-20, to indicate that the first value represents the picture count in thousands. For example, 1.0K means that you can store 1,000 more pictures (*K* being a universally accepted symbol indicating 1,000 units). The number is then rounded down to the nearest hundred. So if the card has room for, say, 1,230 more pictures, the value reads 1.2K.

Changing Settings Using the Information Display



After you press the Info Edit or Info button to bring up the Information display, shown on the left in Figure 1-22, you can press the Info Edit button to shift to a screen like the one shown on the right in the figure. Through this screen, you can adjust many picture-taking settings faster than you can by digging through camera menus.



If you've used earlier Nikon cameras, you may know this display as the Quick Settings screen, but Nikon did away with that nomenclature for the D3200. To make things a little clearer in this book, I refer to it as the Info Edit screen instead of the "screen that appears when you press the Info Edit button twice." My thinking is that you're going to "edit" the settings shown on the Information screen. Hope that rationale works for you; if not, please contact Nikon and ask them to give the thing an official name. When you're not busy having a life and all, I mean.

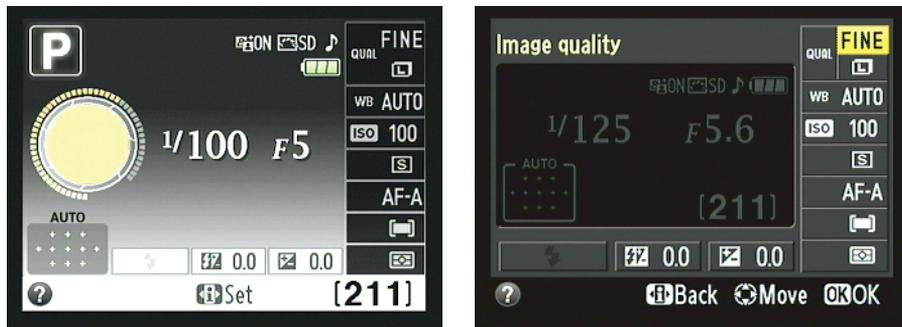


Figure 1-22: When the Information screen is displayed (left), press the Info Edit button to access and change the settings visible on the screen (right).

Note the little symbol at the center of the bottom of the Information screen (left side of Figure 1-22), by the way: The Info Edit button symbol and the word Set remind you to press the button to get to the Info Edit display. And on the Info Edit screen, the same symbol is labeled Back, meaning that you can press the button to exit to the Information screen.

After you bring up the display, follow these steps to adjust the available options:

1. Use the Multi Selector to highlight the setting you want to change.

The available settings are represented by the icons along the right side and bottom of the screen. A little label appears at the top of the screen to tell you the name of the selected setting. For example, in the right screen in Figure 1-22, the Image Quality setting is selected.

2. Press OK to jump to a screen that contains the available settings for the selected option.

For example, Figure 1-23 shows the available Image Quality options.

3. Use the Multi Selector to highlight your choice and then press OK.

You return to the Info Edit display.

To exit the display and return to the initial Information screen, press the Info Edit button again or press the shutter button halfway and release it.



Figure 1-23: Highlight the setting you want to use and press OK to make the change official.

Displaying Help Screens



? If you see a small question mark in the lower-left corner of a menu, press and hold the Zoom Out button — note the question-mark label above the button — to display information about the current shooting mode or selected menu option. For example, Figure 1-24 shows the help screen associated with the Image Quality setting. If you need to scroll the screen to view all the help text, keep the button depressed and scroll by using the Multi Selector. Release the button to close the information screen.

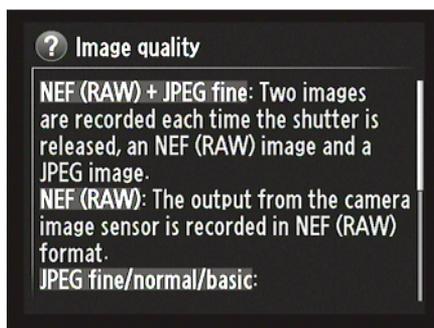


Figure 1-24: Press and hold the Zoom Out button to display onscreen help.



A blinking question mark in the viewfinder or Information screen indicates that the camera wants to alert you to a problem. Again, press the Zoom Out button to see what solution the camera suggests.

Customizing Your Camera: Setup Menu Options

Your camera offers scads of options for customizing its performance. Later chapters explain settings related to actual picture taking, such as those that affect flash behavior and autofocus. The rest of this chapter details options found on the Setup menu, which relate to the basic camera interface and operation.

To access the Setup menu, first set the Mode dial on top of the camera to any setting except Guide. Press the Menu button to display the regular menus. The Setup menu is the one marked with the little wrench icon, which appears highlighted in Figure 1-25.

Figure 1-25 shows the first screen of menu options; the menu actually contains four screens of settings. Press the Multi Selector up and down to scroll through the menu.

Here's what you can accomplish with the first screen of options, shown in Figure 1-25:

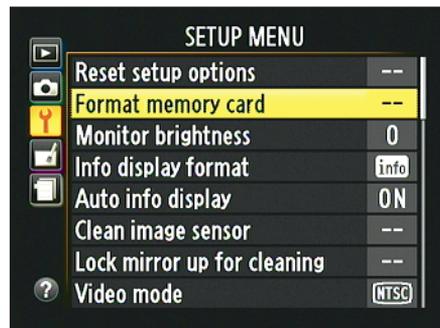


Figure 1-25: Visit the Setup menu to customize your camera's basic appearance and operation.

- ✓ **Reset Setup Options:** You can use this option to restore all the Setup menu options to their default settings. Before you do, though, see the last section of this chapter for some important details.
- ✓ **Format Memory Card:** You can use this command to format your memory card, which wipes all data off the card and ensures that it's properly set up to record pictures. See the earlier section "Working with Memory Cards" for more details about formatting.
- ✓ **Monitor Brightness:** This option enables you to make the camera monitor brighter or darker, as shown in Figure 1-26. 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 (0).



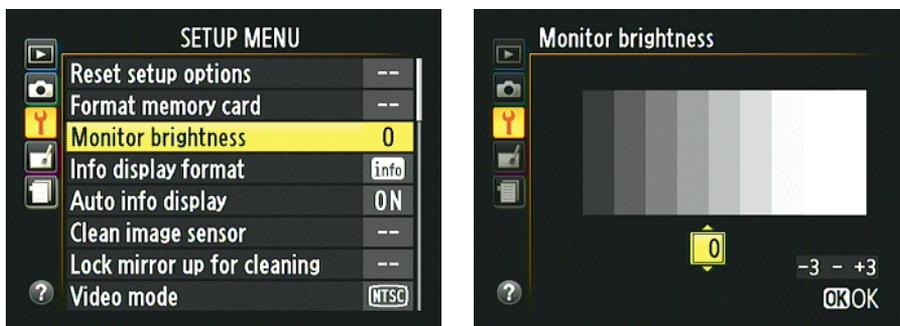


Figure 1-26: If you adjust the monitor brightness, you may not be able to accurately judge exposure during playback.

- Info Display Format:** Use this command to customize the appearance of the Information screen. You can choose from two styles, Classic and Graphic, and for each style, you can select from three color schemes. Figure 1-27 shows you a couple possible variations. The one on the left shows the default style, Graphic White; the one on the right illustrates the Classic Blue style.

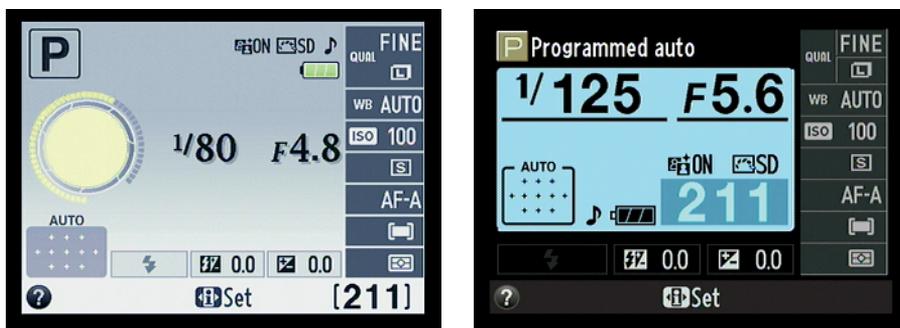


Figure 1-27: Change the appearance of the Information screen through the Info Display Format option.

Again, in this book, I use the Graphic Black color scheme because it reproduces in a way that makes the settings data a little easier to read in figures.

- Auto Info Display:** When this option is set to On, as it is by default, the Information screen appears when you press the shutter button halfway and release it. And, if you disable Image Review (an option covered in Chapter 5), the screen also appears after you take a picture. Turn off the Auto Info Display option, and the screen appears briefly when you first turn on the camera, but after that, you must press the Info button or the

Info Edit button to display it. Instructions in this book assume that you stick with the default setting (On).

- ✔ **Clean Image Sensor:** Your D3200 is set up at the factory to perform an internal cleaning routine each time you turn the camera on or off. This cleaning system is designed to keep the image sensor — that’s the part of the camera that actually captures the image — free of dust and dirt.

By choosing the Clean Image Sensor menu item, you can perform a cleaning at any time, however. Just choose the menu item, press OK, select Clean Now, and press OK again. (Nikon recommends that you set the camera on a solid surface, base down, when you perform the cleaning.) Don’t try to perform the cleaning several times in a row, by the way — if you do, the camera will temporarily disable the function to protect itself.

The other option available through the Clean Image Sensor item, called Clean At Startup/Shutdown, enables you to specify whether you want the camera to change from the default setting (cleaning at startup and shutdown) to clean only at startup, only at shutdown, or never. I suggest that you stick with the default.

- ✔ **Lock Mirror Up for Cleaning:** This feature is necessary for cleaning the camera’s image sensor. I don’t recommend that you tackle this operation yourself because you can easily damage the camera if you don’t know what you’re doing. And if you’ve previously used mirror lock-up on an SLR camera to avoid camera shake when shooting long-exposure images, note that as the menu name implies, this camera’s mirror lock-up is provided for cleaning purposes only. You can’t take pictures on the D3200 while mirror lock-up is enabled.
- ✔ **Video Mode:** This option is related to viewing your images on a television, a topic I cover in Chapter 5. It also determines which movie settings are available; see Chapter 4 for details on that issue. Select NTSC if you live in North America or other countries that adhere to the NTSC video standard; select PAL for areas that follow that code of video conduct.

To get to the next group of customization options, use the Multi Selector to scroll to the second screen of the Setup menu, shown in Figure 1-28:

- ✔ **HDMI:** This setting relates to options involved with connecting your camera to an HDMI (high-def) device; again, check out Chapter 5 for details.
- ✔ **Flicker Reduction:** If you notice flickering or color banding on the monitor when Live View

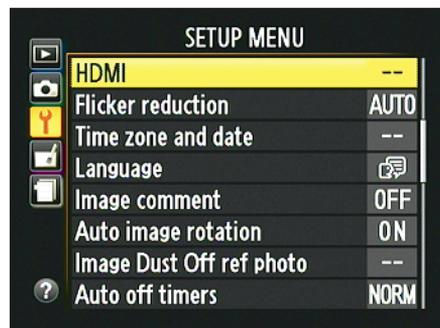


Figure 1-28: Use the Multi Selector to scroll to this second screen of the menu.



is enabled, changing this setting may help alleviate the problem. See Chapter 4 for details.

- ✓ **Time Zone and Date:** 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. Keeping the date and 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.

The camera's internal clock has its own battery that gets recharged whenever the main battery is in place. If you see a message that the clock is not set and you know you did set the time and date, the clock battery is out of gas. No worries: Just reset the time and date and then give the clock battery time to recharge. It takes about three days of charging to keep the clock running for a month.

- ✓ **Language:** You're asked to specify a language along with the date and time when you fire up your camera for the first time. Your choice determines the language of text 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?
- ✓ **Image Comment:** See Chapter 11 to find out how to use this feature, which enables you to add text comments into a picture file. You then can read that information in Nikon ViewNX 2, the software that shipped with your camera, as well as on the camera monitor during picture playback. (The text doesn't actually appear on the image itself.)
- ✓ **Auto Image Rotation:** When enabled, this feature records the camera orientation (horizontal or vertical) as part of the picture file information. This enables the camera to automatically rotate the picture to its proper orientation, and the auto-rotating also occurs when you browse your image thumbnails in ViewNX 2 and other photo programs that can read the orientation data. See Chapter 5 for more about this option and rotating pictures during playback.
- ✓ **Image Dust Off Ref Photo:** This specialty feature enables you to record an image that serves as a point of reference for the automatic dust-removal filter available in Nikon Capture NX 2. I don't cover this accessory software, which must be purchased separately, in this book.
- ✓ **Auto Off Timers:** To help save battery power, your camera automatically shuts off the monitor, exposure meter, and viewfinder display if you don't perform any camera operations for a period of time. Through the Auto Off Timers menu option, you can specify how long you want the camera to wait before taking that step.

After selecting the option, press OK to display the screen shown on the left in Figure 1-29. Here you can select from three prefab timing settings, Short, Normal, and Long, which produce the following shut-off intervals:

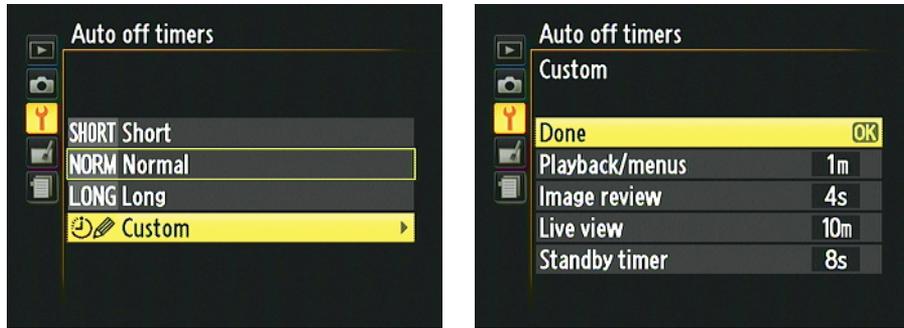


Figure 1-29: Through the Auto Off Timers option, you can adjust the timing of automatic shutdown of the monitor, viewfinder, and exposure meter.

- *Short:* For picture playback and menus, the monitor shuts off after 20 seconds; for image review, 4 seconds; and during Live View shooting, 5 minutes. The standby timer, which affects the exposure meter, viewfinder display, and Information display, is set to a 4-second delay.
- *Normal:* This setting uses a 1-minute delay for playback and menu screens; 4 seconds for image review; 10 minutes for Live View shooting; and 8 seconds for the standby timer. This option is the default.
- *Long:* Auto shutdown occurs after 1 minute for playback and menu display; image review shuts down after 20 seconds, and Live View has a 20-minute shutoff delay. The standby timer is set to a 1-minute delay.

If none of those settings works well for you, choose Custom, which displays the screen shown on the right in Figure 1-29. You then can customize the shut-off timing for playback and menu display, image review, Live View, and the standby timer independently. If you go this route, be sure to highlight Done, as shown in the figure on the right, and press OK after changing the settings. Otherwise your changes don't stick.

Scrolling to the third screen of the Setup menu, shown in Figure 1-30, brings you to the following additional setup options:

- ✓ **Self-Timer:** This setting comes into play when you take pictures using the Self-Timer Release mode, covered in Chapter 2. Your choice determines how long the camera waits to record the picture after you press the shutter button and how many pictures are recorded with each shutter press. (You can choose from 1 to 9 shots.)
- ✓ **Remote On Duration:** This option relates to shooting with the optional wireless remote control unit. You can specify how long the camera waits for a signal from the remote before it cancels out of remote-control mode and reverts back to the previously selected shutter-release mode. See Chapter 2 for more about shutter-release modes.
- ✓ **Beep:** By default, your camera beeps at you after certain operations, such as after it sets focus when you shoot in autofocus mode. You can set the volume to High or Low (the default). Or, if you're doing top-secret surveillance work and need the camera to hush up, select Off. On the Information display, a little musical note icon appears near the top-right corner of the screen when the beep is enabled. Turn off the beep, and the icon appears in a circle with a slash through it.
- ✓ **Rangefinder:** In some exposure modes, you can choose to swap out the normal exposure meter for a *rangefinder*, which is another type of meter that can come in handy when you use manual focus. See Chapter 8 for details.
- ✓ **File Number Sequence:** This option controls how the camera names your picture files. When the option is set to Off, as it is by default, the camera restarts file numbering at 0001 every time you format your memory card or insert a new memory card. Numbering is also restarted if you create custom folders (an advanced option covered in Chapter 11).

Needless to say, this setup can cause problems over time, creating a scenario where you wind up with multiple images that have the same filename — not on the current memory card, but when you download images to your computer. So I strongly encourage you to set the option to On, as I did in Figure 1-30. Note that when you get to picture number 9999, file numbering is still reset to 0001, however. The camera automatically creates a new folder to hold your next 9999 images.

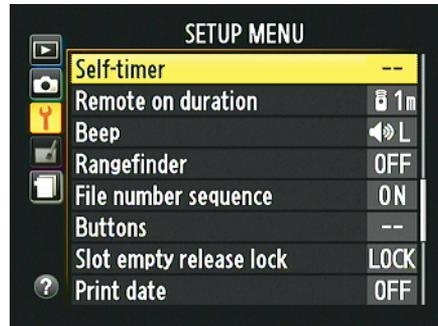


Figure 1-30: The first item on this screen lets you control self-timer shooting.



As for the Reset option, it enables you to assign the first file number (which ends in 0001) to the next picture you shoot. Then the camera behaves as if you selected the On setting.

If you're a really prolific shooter and snap enough pictures to reach image 9999 in folder 999, the camera will refuse to take another photo until you choose that Reset option and either format the memory card or insert a brand new one.

- ✓ **Buttons:** Through this Setup menu item, you can change the function of the Function (Fn) button and the AE-L/AF-L button. You can also specify whether you want a half-press of the shutter button to lock focus only, as it does by default, or lock focus and exposure together. For now, leave all three options alone so that the instructions you find in this book work the way they should. When you're ready to go further, Chapter 11 shows you how to customize the button functions.
- ✓ **Slot Empty Release Lock:** This cryptically named feature determines whether the camera lets you take a picture when no memory card is installed in the camera. If you set it to Enable Release, you can take a temporary picture, which appears in the monitor with the word *Demo* but isn't recorded anywhere. The feature is provided mainly for use in camera stores, enabling salespeople to demonstrate the camera without having to keep a memory card installed. I can think of no good reason why anyone else would change the setting from the default, Release Locked.
- ✓ **Print Date:** Through this option, you can imprint the shooting date, date and time, or the number of days between the day you took the picture and another date that you specify. This feature works only with pictures that you shoot in the JPEG file format; see Chapter 2 for details about file formats.



The default setting, which disables the imprint, is the best way to go, however; you don't need to permanently mar your photos to find out when you took them. Every picture file includes a hidden vat of text data, called *metadata*, that records the shooting date and time, as well as all the camera settings you used — f-stop, shutter speed, and lots more. You can view this data during picture playback and also in the free software provided with your camera as well as in many photo programs. Chapters 5 and 6 show you how.

If you do enable the Print Date feature, the word Date appears in the upper-left corner of the Information screen. Also remember that applying some Retouch menu options, such as the Trim function, may crop away the date imprint or leave it illegible.

Continue scrolling through the menu to uncover the final Setup menu options, shown in Figure 1-31 and presented for your consideration in the following list:

✔ **Storage Folder:** You need to pay attention to this option only if you create custom image folders, an advanced feature you can explore in Chapter 11. If you take that step, you specify which folder you want to use for your next photos through this menu option. You also must specify which folder you want to view during playback. Chapter 5 discusses playback options.

✔ **GPS:** If you attach the optional GPS unit to the camera, you adjust settings related to that tool and view the current GPS data through this menu option. See the GPS unit's instruction manual for details.

✔ **Eye-Fi Upload:** This option (not shown in Figure 1-31) appears on the menu only if you insert an Eye-Fi memory card in your camera. Eye-Fi cards enable you to transmit your files wirelessly to other devices. That's a cool feature, but unfortunately, the cards themselves are more expensive than regular cards. If you do choose to use them and you find yourself in an area that does not allow wireless transmissions (such as hospitals and the like), you can disable the feature through this menu option. You also initiate the wireless transfer through the option.

For information about the Nikon WU-1a wireless unit, which enables you to transfer images from the camera to some smartphones and tablets, see Chapter 6.

✔ **Firmware Version:** Select this option and press OK to view what version of the camera *firmware*, or internal software, your camera runs. You see two firmware items, C and L. At the time this book was written, C was version 1.00; L was 1.005.

Keeping your camera firmware up-to-date *is* important, though, so visit the Nikon website (www.nikon.com) regularly to find out whether your camera sports the latest version. You can find detailed instructions on how to download and install any firmware updates on the site.

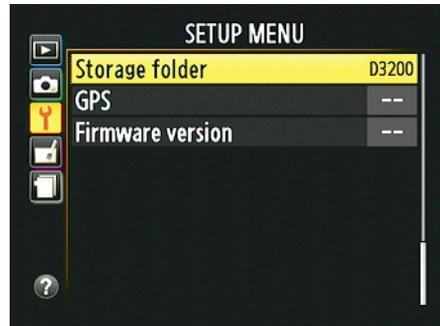


Figure 1-31: Check the Firmware Version item to find out whether your camera's internal software is up to date.



Restoring Default Settings

You can quickly reset all the options on the Shooting menu by selecting Reset Shooting Options, as shown on the left in Figure 1-32. Likewise, the Setup menu also has a Reset Setup Options item to restore all settings on that menu, as shown on the right.

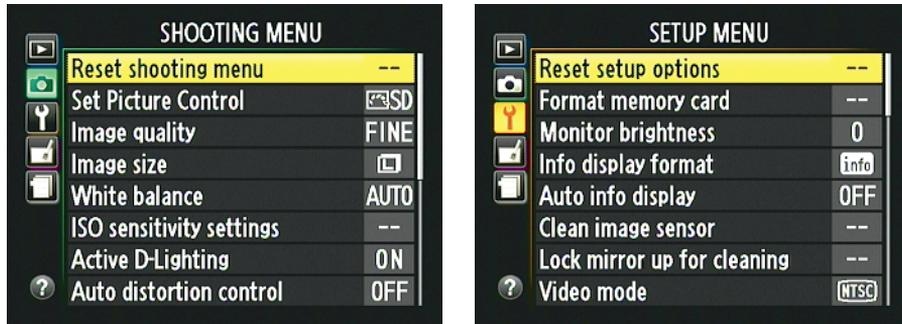


Figure 1-32: Choose the Reset option to return to the default settings for the respective menu.

A couple potential flies in the ointment:

- Resetting the Shooting menu defaults wipes out any customizations you made to a Picture Control setting — for example, if you tweaked the Vivid setting to produce even more saturated colors than it does by default. Chapter 8 talks more about this feature.

Additionally, a Shooting menu reset restores the default settings of a couple options not on the menu, including the Release mode, Exposure Compensation, Flash Compensation, Flash mode, and the Focus mode. The default focus point resets to the center point (unless Auto Area is selected for the AF-Area mode setting during viewfinder shooting, in which case all focus points are active). Finally, the AE-L/AF-L button returns to its normal operation as well. Visit Chapter 7 for all issues related to flash and exposure; check out Chapter 8 for details about focusing. Chapter 11 explains how to modify the behavior of the AE-L/AF-L button.



- More worrisome is that resetting the Setup menu restores the File Number Sequence option to its default, Off, which is most definitely Not a Good Thing. So if you restore the menu defaults, be *sure* that you revisit that option and return it to the On setting. See the preceding section for details.
- Resetting the Setup menu does not affect the Video Mode, Time Zone and Date, Language, or Storage Folder options, on the other hand. So you need to adjust those settings individually if necessary.

