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Julie Adair King

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About the Author

Julie Adair King is the author of many books about digital photography and imaging, including the best-selling *Digital Photography For Dummies.* Her most recent titles include a series of *For Dummies* guides to popular digital SLR cameras, including the *Nikon D600, D3200, D7000, D5100,* and *D300s.* Other works include *Digital Photography Before & After Makeovers, Digital Photo Projects For Dummies, Julie King's Everyday Photoshop For Photographers, Julie King's Everyday Photoshop Elements,* and *Shoot Like a Pro!: Digital Photography Techniques.* When not writing, King teaches digital photography at such locations as the Palm Beach Photographic Centre. A native of Ohio and graduate of Purdue University, she resides in West Palm Beach, Florida.

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We're proud of this book; please send us your comments at `http://dummies.custhelp.com`. For other comments, please contact our Customer Care Department within the U.S. at 877-762-2974, outside the U.S. at 317-572-3993, or fax 317-572-4002.

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Contents at a Glance

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Introduction

Nikon. The name has been associated with top-flight photography equipment for generations. And the introduction of the D5200 has only enriched Nikon's well-deserved reputation, offering all the control a die-hard photography enthusiast could want while at the same time providing easy-to-use, point-and-shoot features for the beginner.

In fact, the D5200 offers so *many* features that sorting them all out can be more than a little confusing, especially if you're new to digital photography, SLR photography, or both. For starters, you may not even be sure what SLR means or how it affects your picture-taking, let alone have a clue as to all the other techie terms you encounter in your camera manual — *resolution, aperture, white balance,* and so on. And if you're like many people, you may be so overwhelmed by all the controls on your camera that you haven't yet ventured beyond fully automatic picture-taking mode. Which is a shame because it's sort of like buying a Porsche and never actually taking it on the road.

Therein lies the point of *Nikon D5200 For Dummies.* Through this book, you can discover not just what each bell and whistle on your camera does, but also when, where, why, and how to put it to best use. Unlike many photography books, this one doesn't require any previous knowledge of photography or digital imaging to make sense of things, either. In classic *For Dummies* style, everything is explained in easy-to-understand language, with lots of illustrations to help clear up any confusion.

In short, what you have in your hands is the paperback version of an in-depth photography workshop tailored specifically to your Nikon picture-taking powerhouse.

A Quick Look at What's Ahead

This book is organized into four parts, each devoted to a different aspect of using your camera. Although chapters flow in a sequence that's designed to take you from absolute beginner to experienced user, I've also tried to make each chapter as self-standing as possible so that you can explore the topics that interest you in any order you please.

Here's a brief preview of what you can find in each part of the book:

- **Part I: Fast Track to Super Snaps:** Part I contains four chapters to help you get up and running. Chapter 1 offers a tour of the external controls on your camera, shows you how to navigate camera menus to access internal options, and walks you through initial camera setup. Chapter 2 explains basic picture-taking options, such as shutter-release mode and

Image Quality settings, and Chapter 3 shows you how to use the camera's fully automatic exposure modes. Chapter 4 explains the ins and outs of using Live View, the feature that lets you compose pictures on the monitor, and also covers movie recording.

- **Part II: Working with Picture Files:** This part offers two chapters, both dedicated to after-the-shot topics. Chapter 5 explains how to review your pictures on the camera monitor, delete unwanted images, and protect your favorites from accidental erasure. Chapter 6 offers a look at some photo software options — including Nikon ViewNX 2, which ships free with your camera — and then guides you through the process of downloading pictures to your computer and preparing them for printing and online sharing.
- **Part III: Taking Creative Control:** Chapters in this part help you unleash the full creative power of your camera by moving into the advanced shooting modes (P, S, A, and M). Chapter 7 covers the critical topic of exposure, and Chapter 8 explains how to manipulate focus and color. Chapter 9 summarizes all the techniques explained in earlier chapters, providing a quick-reference guide to the camera settings and shooting strategies that produce the best results for portraits, action shots, landscape scenes, and close-ups.
- **Part IV: The Part of Tens:** In famous *For Dummies* tradition, the book concludes with two "top ten" lists containing additional bits of information and advice. Chapter 10 covers the photo-editing and effects tools found on the camera's Retouch menu and also shows you how to use the Effects exposure mode to add special effects to movies and photos as you record them. Chapter 11 wraps up the book by detailing some camera features that, although not found on most "Top Ten Reasons I Bought My Nikon D5200" lists, are nonetheless interesting, useful on occasion, or a bit of both.

Icons and Other Stuff to Note

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

A Tip icon flags information that will save you time, effort, money, or some other valuable resource, including your sanity. Tips also point out techniques that help you get the best results from specific camera features.

When you see this icon, look alive. It indicates a potential danger zone that can result in much wailing and teeth-gnashing if ignored. In other words, this is stuff that you really don't want to learn the hard way.

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

I apply this icon either to introduce information that is especially worth storing in your brain's long-term memory or to remind you of a fact that may have been displaced from that memory by some other pressing fact.

Additionally, I need to point out these extra details that will help you use this book:

- **Other margin art:** Replicas of some of your camera's buttons and onscreen symbols also appear in the margins of some paragraphs. I include these to provide a quick reminder of the appearance of the button or feature being discussed.
- **Software menu commands:** In sections that cover software, a series of words connected by an arrow indicates commands that you choose from the program menus. For example, if a step tells you to "Choose File⇨Convert Files," click the File menu to unfurl it and then click the Convert Files command on the menu.

eCheat Sheet

As a little added bonus, you can find an electronic version of the famous *For Dummies* eCheat Sheet at `www.dummies.com/cheatsheet/nikond5200`. The eCheat Sheet contains a quick-reference guide to all the buttons, dials, switches, and exposure modes on your camera. Log on, print it out, and tuck it in your camera bag for times when you don't want to carry this book with you.

Practice, Be Patient, and Have Fun!

To wrap up this preamble, I want to stress that if you initially think that digital photography is too confusing or too technical for you, you're in very good company. *Everyone* finds this stuff a little mind-boggling at first. So take it slowly, experimenting with just one or two new camera settings or techniques at first. Then, each time you go on a photo outing, make it a point to add one or two more shooting skills to your repertoire.

I know that it's hard to believe when you're just starting out, but it really won't be long before everything starts to come together. With some time, patience, and practice, you'll soon wield your camera like a pro, dialing in the necessary settings to capture your creative vision almost instinctively.

So without further ado, I invite you to grab your camera, a cup of whatever it is you prefer to sip while you read, and start exploring the rest of this book. Your D5200 is the perfect partner for your photographic journey, and I thank you for allowing me, through this book, to serve as your tour guide.

Occasionally, Wiley's technology books are updated. If this book has technical updates, they'll be posted at `www.dummies.com/go/nikond5200updates`.

Part I

Fast Track to Super Snaps

web extras

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In this part . . .

- Get familiar with the basics of using your camera, from attaching lenses to using the Information display.
- Find out how to select the shutter-release mode, exposure mode, picture resolution, and file type (JPEG or Raw).
- Discover tips for getting good results in the automatic exposure modes.
- Start taking creative control by stepping up to Scene modes.
- Switch to Live View mode to compose pictures using the monitor.
- Record, play, and trim digital movies.

1

Getting the Lay of the Land

In This Chapter

- Familiarizing yourself with the lens, viewfinder, and monitor
- Working with memory cards
- Exploring external controls and menus
- Viewing and adjusting camera settings
- Customizing basic operations
- Restoring the camera's default settings

If you're like me, shooting for the first time with a camera as sophisticated as the Nikon D5200 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 D5200. Along with an introduction to the camera's external features, including its fancy articulating monitor, I offer details about working with lenses and memory cards, viewing and adjusting camera settings, and choosing basic camera setup options.

Looking at Lenses

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

I don't have room in this book to go into detail about the science of lenses, nor do I think that an in-depth knowledge of the subject is terribly important to your photographic success. But the next few sections offer advice that may help when you're shopping for lenses, figuring out whether the lenses you inherited from Uncle Ted or found on eBay will work with your D5200, and taking the steps involved in actually mounting and using a lens.

Choosing a lens

To decide which lens is the best partner for your camera, start by considering these factors:

- **Lens compatibility:** You can mount a wide range of lenses on your D5200, but some lenses aren't fully compatible with all camera features. For example, to enjoy autofocusing, you need an AF-S or AF-I lens. (If you bought one of the so-called "kit lenses" — the 18–55mm or 18–105mm zoom lens that Nikon offers as a bundle with the camera body — you own an AF-S lens.) Your camera manual offers more details about lens compatibility.

  

  The *AF* in AF-S stands for *autofocus,* and the *S* stands for *silent wave,* a Nikon autofocus technology. AF-I lenses are older, professional-grade (expensive) lenses that are no longer made but may be available on the secondhand market.

- **Focal length and the crop factor:** The focal length of a lens, stated in millimeters, determines the angle of view that the lens can capture and the spatial relationship of objects in the frame. Focal length also affects *depth of field,* or the distance over which focus appears acceptably sharp.

  You can loosely categorize lenses by focal length as follows:

  - *Wide-angle:* Lenses with short focal lengths — generally, anything under 35mm — are known as *wide-angle lenses.* A wide-angle lens has the visual effect of pushing the subject away from you and making it appear smaller. As a result, you can fit more of the scene into the frame without moving back. Additionally, a wide-angle lens has a large depth of field so that the zone of apparent sharp focus extends a greater distance. These characteristics make wide-angle lenses ideal for landscape photography.
  - *Telephoto:* Lenses with focal lengths longer than about 70mm are *telephoto* lenses. These lenses create the illusion of bringing the subject closer to you, increase the subject's size in the frame, and produce a short depth of field so that the subject is sharply focused but distant objects are blurry. Telephoto lenses are great for capturing wildlife and other subjects that don't permit up-close shooting.

- *Normal:* A focal length in the neighborhood of 35mm to 70mm is considered "normal" — that is, somewhere between a wide-angle and telephoto. This focal length produces the angle of view and depth of field that are appropriate for the kinds of snapshots that most people take.

Figure 1-1 offers an illustration of the difference that focal length makes, showing the same scene captured at 42mm (left image) and 112mm (right image). Of course, the illustration shows just two of countless possibilities, and the question of which focal length best captures a scene depends on your creative goals.

Note, however, that the focal lengths stated here and elsewhere in the book are *35mm equivalent* focal lengths. Here's the deal: For reasons that aren't really important, when you put a standard lens on most digital cameras, including your D5200, the available frame area is reduced, as if you took a picture on a camera that uses 35mm film negatives and then cropped it.

This so-called *crop factor* varies depending on the camera, which is why the photo industry adopted the 35mm-equivalent measuring stick as a standard. With the D5200, the crop factor is roughly 1.5. So the 18–55mm kit lens, for example, captures the approximate area you would get from a 27–83mm lens on a 35mm film camera. (Multiply the crop factor by the lens focal length to get the actual angle of view.) In Figure 1-2, the red line indicates the image area that results from the 1.5 crop factor, as compared with the shot you'd get from a lens with the same focal length mounted on a 35mm film camera.

42mm

112mm

Figure 1-1: I used a focal length of 42mm to capture the first image and then zoomed to a focal length of 112mm to capture the second one.

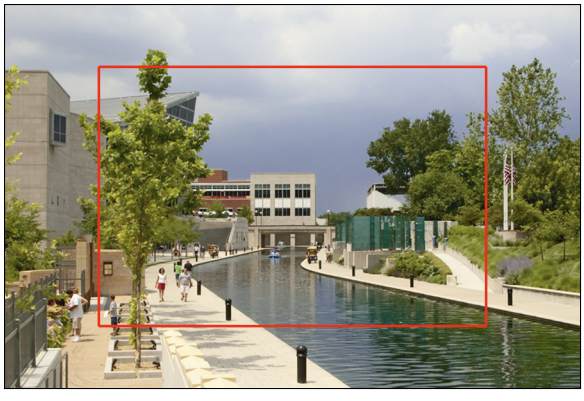

Figure 1-2: The 1.5 crop factor produces the angle of view indicated by the red outline.

When shopping for a lens, it's important to remember this crop factor to make sure that you get the focal length designed for the type of pictures you want to take.

Not sure which focal length to choose? Here's a really cool online tool to help you understand the subject more: Point your web browser to `http://imaging.nikon.com`, click the link for Nikkor lenses, and then click the link for the Nikkor Lenses Simulator. Using this interactive tool, you can see exactly how different lenses capture the same scene.

- **Prime versus zoom lenses:** A *prime* lens is one with only a single focal length. With a zoom lens, you get a range of focal lengths in one unit. For example, the kit lens I feature in this book has a focal-length range of 18–55mm.

  Why select a lens that offers a single focal length when a zoom lens offers a range of focal lengths? In a word, quality. Because of some lens science I won't bore you with, you typically see some reduction in picture quality at certain points in the range of a zoom lens. On the flip side, a zoom lens is certainly more convenient than carting around a bag of prime lenses with different focal lengths. And you can get exceptional image quality from many zoom lenses, even with some so-called *super zooms,* which offer a huge range of focal lengths.

- **Aperture range:** The *aperture* is an adjustable diaphragm in a lens. By adjusting the aperture size, you can control the amount of light that enters through the lens and strikes the image sensor, thereby controlling exposure. The aperture setting also affects depth of field: A wide-open aperture produces a short depth of field, so the subject is sharply focused but distant objects appear blurry; a narrow aperture produces a long depth of field so that both the subject and distant objects appear sharp.

Chapters 7 and 8 cover these issues in detail. For the purposes of lens shopping, you need to know just a few things.

- *Every lens has a specific range of aperture settings.* Obviously, the larger the range, the more control you have over exposure and depth of field.
- *The larger the maximum aperture, the "faster" the lens.* Aperture settings are stated in *f-stops,* with a lower number meaning a larger aperture. For example, a setting of f/2 results in a more open aperture than f/4. And if you have one lens with a maximum aperture of f/2 and another with a maximum aperture of f/4, the f/2 lens is said to be *faster* because you can open the aperture wider, thereby allowing more light into the camera and permitting the image to be captured in less time. This not only benefits you in low-light situations but also when photographing action, which requires a fast shutter speed (short exposure time). So, all other things being equal, look for the fastest lens in your budget.
- *With some zoom lenses, the maximum and minimum aperture change as you zoom the lens.* For example, when you zoom to a telephoto focal length, the maximum aperture generally gets smaller — that is, you can't open the aperture as much as you can at a wide-angle setting. You can buy lenses that maintain the same maximum and minimum aperture throughout the whole zoom lens, but you pay more for this feature.

After studying these issues and narrowing down your choices, finding the right lens in the category you want is just a matter of doing some homework. Study lens reviews in photography magazines and online photography sites to find the lens that performs best while still staying in your budget.

Attaching and removing lenses

Whatever lens you buy, follow these steps to mount it on the camera body:

1. **Turn off the camera 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 1-3.

Figures in this book show the D5200 with its 18–55mm kit lens. If you buy a different lens, check your lens manual for complete operating instructions. The mounting index on your lens may not look the same as the one featured in Figure 1-3.

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

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

5. **Turn the lens in a counterclockwise 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 18–55mm and 18–105mm kit lenses don't have this feature.) After locking the aperture on the lens, use the normal camera controls to adjust the f-stop setting.

Figure 1-3: When attaching the lens, rotate it in the direction indicated by the arrow.

To remove a lens, press the lens-release button, labeled in Figure 1-3, and then turn the lens toward that button — that is, the opposite of what the arrow indicates in the figure — until it 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 protective cap, too.

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