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Nikon® D300s

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Nikon® D300s FOR DUMMIES®

by Julie Adair King

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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 D5000, D3000, D90, D60, and D40/D40x. 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 Center. A graduate of Purdue University, she resides in Indianapolis, Indiana.

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Introduction

Nikon. The name has been associated with top-flight photography equipment for generations. And the introduction of the D300s has only enriched Nikon's well-deserved reputation, offering all the control a photographer could want — and then some. In fact, this camera 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.

Therein lies the point of *Nikon D300s 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. And unlike many photography books, this one doesn't require any previous knowledge of photography or digital imaging to make sense of things. 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.

The following sections offer brief previews of each part. If you're eager to find details on a specific topic, the index shows you exactly where to look.

Part 1: Fast Track to Super Snaps

Part I contains four chapters that help you get up and running.

- Chapter 1, "Getting the Lay of the Land," 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 and customization steps.
- Chapter 2, "Fast and Easy: (Almost) Automatic Photography with the D300s," explains how to enjoy something close to point-and-shoot simplicity by using the programmed autoexposure mode. It also covers such basics as selecting the Release mode and enabling flash.

- Chapter 3, "Controlling Picture Quality and Size," introduces you to two critical camera settings: Image Size and Image Quality, which control resolution (pixel count), file format, file size, and picture quality.
- Chapter 4, "Monitor Matters: Picture Playback, Live View, and Movie Recording" offers just what its title implies. Look here to find out how to review and erase photos, take pictures in Live View mode, and record and edit HD movies.

Part II: Taking Creative Control

The chapters in this part help you unleash the full creative power of your camera.

- Chapter 5, "Getting Creative with Exposure and Lighting," covers the all-important topic of exposure, starting with a review of the basics and then detailing every exposure option from metering modes to flash modes.
- Chapter 6, "Manipulating Focus and Color," provides help with controlling those aspects of your pictures. Head here for information about your camera's many autofocusing options, for tips on how to manipulate depth of field, and for details about color controls such as white balance.
- Chapter 7, "Putting It All Together," 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 specific types of pictures: portraits, action shots, landscape scenes, and close-ups.

Part III: Working with Picture Files

This part of the book, as its title implies, discusses the often-confusing aspect of moving your pictures from camera to computer and beyond.

- Chapter 8, "Downloading, Organizing, and Archiving Your Picture Files," guides you through the process of transferring pictures from your camera memory card to your computer. Look here, too, for details about using the camera's built-in tool for processing files that you shoot in the Nikon RAW format (NEF).
- Chapter 9, "Printing and Sharing Your Pictures," helps you turn your digital files into "hard copies" that look as good as those you see on the camera monitor. This chapter also explains how to prepare your pictures for online sharing, create digital slide shows, and, for times when you have the neighbors over, display your pictures and movies on a television screen.

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, "Ten More Ways to Customize Your Camera," details options that let you tweak the behavior of certain camera buttons and dials, set up custom filenaming, and otherwise make the camera bow to your personal preferences.
- Chapter 11, "Ten Features to Explore on a Rainy Day," presents information about some camera features that, while not found on most "Top Ten Reasons I Bought My D300s" 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 other details that will help you use this book:

- **Other margin art:** Replicas of some of your camera's buttons and on-screen symbols also appear in the margins of some paragraphs. I include these to provide a quick reminder of the appearance of the feature being discussed.
- **Software used in this book:** Providing specific instructions for performing photo organizing and editing tasks requires that I feature specific software. In sections that cover file downloading, printing, and e-mail sharing, I selected Nikon ViewNX and Nikon Transfer, both of which ship free with your camera and work on both the Windows and Mac operating systems. Rest assured, though, that the tools used in ViewNX and Nikon Transfer work very similarly in other programs, so you should be able to adapt the steps to whatever software you use. (I recommend that you read your software manual for details, of course.)
- **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.

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 D300s is the perfect partner for your photographic journey, and I thank you for allowing me, through this book, to serve as your tour guide.

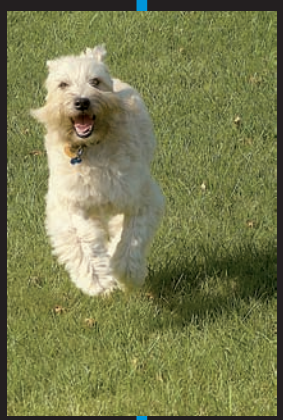
Part I

Fast Track to Super Snaps

In this part . . .

Making sense of all the controls on your D300s isn't something you can do in an afternoon — heck, in a week, or maybe even a month. But with the help of the chapters in this part, you can start taking great pictures right away.

Chapter 1 addresses some basic setup steps, such as adjusting the viewfinder to your eyesight and getting familiar with the camera menus, buttons, and dials. Chapter 2 helps you set up your camera for the easiest possible operation and take your first shots, and Chapter 3 explains how you can control picture quality and file size. Wrapping up this part, Chapter 4 shows you how to use your camera's picture-playback, Live View, and movie-recording features.



1

Getting the Lay of the Land

In This Chapter

- Attaching and using an SLR lens
- Adjusting the viewfinder to your eyesight
- Selecting from menus
- Working with memory cards
- Getting acquainted with your camera
- Customizing basic operations

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

You may be feeling similarly insecure if your Nikon D300s 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 D300s is both your first SLR and first digital camera, you may be doubly intimidated.

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

Looking at Lenses

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

Digital SLR lenses are incredibly complex pieces of optical equipment. I don't have room in this book to go into a lot of 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 share a couple of tidbits that may be of help when you're first getting acquainted with your lens, shopping for lenses, or trying to figure out whether the bag of old lenses you inherited from your uncle Ted or found on eBay will work with your D300s.

Checking lens compatibility

You can mount a wide range of lenses on your D300s. But some lenses aren't fully compatible with all camera features. For example, with some lenses, you can't take advantage of the autofocusing system and must focus manually instead.

Your camera manual has a complete listing of all the lens types that can be mounted on the D300s and explains what features are supported with each type. But for maximum compatibility, look for these types: Type D or G AF Nikkor, AF-S Nikkor, or AF-I Nikkor. (The latter is an older, expensive professional lens that is no longer sold but might be available on the resale market.)

All the aforementioned lens types (as well as some others) offer CPU (central processing unit) technology, which allows the lens to talk to the camera. This feature is critical to getting maximum performance from the autofocusing system, exposure metering system, and so on. That's not to say that you can't use a non-CPU lens; you just lose the option of using some camera features. An option on the Setup menu helps you get the most functionality possible with a non-CPU lens; check out the section "Cruising the Setup menu," toward the end of this chapter, for details.

The information in this book assumes that you are using a CPU lens that supports all the camera's functions. If your lens doesn't meet that criteria, be sure to check the camera manual for specifics on what features are unavailable or need to be implemented differently.

Factoring in the crop factor

Every lens can be characterized by its *focal length,* which is measured in millimeters. Focal length determines the camera's angle of view, the apparent size and distance of objects in the scene, and *depth of field* (how much of the scene can be rendered in sharp focus).

According to photography tradition, a focal length of 50mm is described as a "normal" lens. Most point-and-shoot cameras feature this focal length, which is a medium-range lens that works well for the type of snapshots that users of those kinds of cameras are likely to shoot. A lens with a focal length under 35mm is characterized as a *wide-angle* lens because at that focal length, the camera has a wide angle of view and produces a large depth of field, making it good for landscape photography. A short focal length also has the effect of making objects seem smaller and farther away. At the other end of the spectrum, a lens with a focal length longer than 80mm is considered a *telephoto* lens and often referred to as a *long lens.* With a long lens, angle of view narrows, depth of field decreases, and faraway subjects appear closer and larger, which is ideal for wildlife and sports photographers.

It's important to know, however, that when you mount a lens on the D300s, the angle of view is different than the lens' stated focal length. This variation, which holds true for most digital cameras, occurs because of the difference in size between a 35mm film negative — the standard around which lens focal lengths are measured — and the size of an image sensor, which is the light-sensitive component of a digital camera.

With a D300s, the effective angle of view is equivalent to that produced by a focal length about 1.5 times the actual focal length. For example, a 50mm lens on the D300s produces the same angle of view as a 75mm lens on a 35mm film camera. (50 x 1.5 = 75.)

The end result is the same as if you shot a photo with your film camera and then cropped away some of the perimeter, as illustrated in Figure 1-1. For this reason, the value used to calculate the effective angle of view — 1.5 on the D300s, but it varies from camera to camera — is sometimes called a camera's *crop factor.* You may also see this value referred to as the *lens multiplier.*

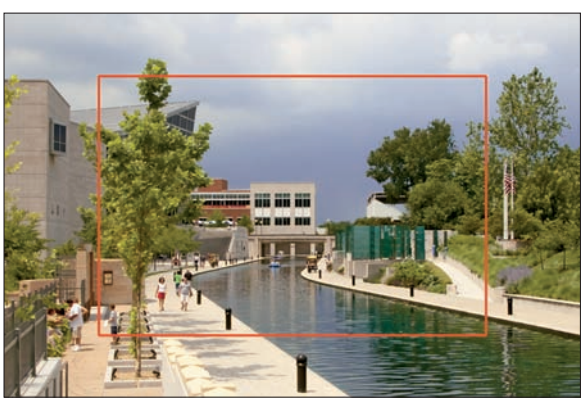


Figure 1-1: Like most dSLR image sensors, the one on the D300s can't capture the entire angle of view that the lens can "see" when mounted on a 35mm film camera.

Although the area the lens can capture changes when you move a lens from a 35mm film camera to a digital body, depth of field isn't affected, nor are the spatial relationships between objects in the frame. So when lens shopping, you gauge those two characteristics by looking at the stated lens focal length — no film-to-digital conversion math is required.

Getting shake-free shots with vibration reduction (VR) lenses

Some Nikon lenses, including the one featured in this book, offer a feature called *vibration reduction.* On Nikon lenses, this feature is indicated by the initials VR in the lens name. If you use a non-Nikon lens, the feature may go by another name: *anti-shake, vibration compensation,* and so on.

Whatever the name, the feature attempts to compensate for small amounts of camera shake that can occur when you handhold your camera and use a slow shutter speed, a lens with a long focal length, or both. Even a small amount of camera movement can produce blurry images, so vibration reduction is a definite Good Thing. Although it can't work miracles, it does enable most people to capture sharper handheld shots in many situations than they otherwise could. Note that VR is only designed to avoid the blur caused by camera movement, though; if your subject is moving, it may appear blurry due to a too-slow shutter speed. You can explore that issue in Chapter 5.

Here are the basics you need to know about using vibration reduction with Nikon lenses:

- **For handheld shooting, set the VR switch to the On position, as shown in Figure 1-2.** Now vibration reduction will engage whenever you press the shutter button halfway as well as just after you press the button all the way to take the picture. You may notice some slight movement of the scene in the viewfinder while the VR mechanism does its thing.
- **Check your lens manual for recommendations about disabling VR for tripod shooting.** 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. So for some of its VR lenses, Nikon recommends setting the switch to the Off position for tripod shooting, assuming that the tripod is "locked down" so the camera is immovable. Some lenses offer a tripod-detection feature, however, that is specially designed for tripod shooting. To get the specifics for your lens, dig out your lens manual.

If you use a non-Nikon lens, check your lens manual to find out whether the manufacturer recommends disabling the anti-shake feature for tripod shooting and whether the lens offers a choice of vibration-reduction modes. Also,

some lenses have additional options that switch between different types of stabilization (the switch may be called Active/Normal or something similar); again, refer to the lens manual for specifics.

Figure 1-2: Vibration reduction can enable you to get sharper handheld shots.

Attaching and removing lenses

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

1. **Remove the cap that covers the lens mount on the front of the camera.**
2. **Remove the cap that covers the back of the lens.**
3. **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.

The figure (and others in this book) shows you the D300s with an 18–55mm AF-S VR Nikon lens. If you buy a lens from a manufacturer other than Nikon, your dot may be red or some other color, so check the lens instruction manual.

4. **Keeping the dots 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 CPU 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. To find out more about apertures and f-stops, see Chapter 5.

Figure 1-3: When attaching the lens, align the index markers as shown here.

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

1. **Locate the lens-release button, labeled in Figure 1-3.**
2. **Press the lens-release button while turning the lens clockwise (away from the shutter button) until the mounting index on the lens is aligned with the index on the camera body.**

Again, the mounting indexes are the little guide dots labeled in Figure 1-3. When the dots line up, the lens should detach 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.

Always attach and remove lenses in a clean environment to reduce the risk of getting dust, dirt, and other contaminants inside the camera or lens. 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.

Setting the focus mode (auto or manual)

In addition to the lens-related features covered in the preceding sections, make note of the following two controls, which you use to set the focusing method to manual or autofocusing:

- **Lens focus mode switch:** Assuming that your lens offers autofocusing as well as manual focusing, it likely has a switch that you use to choose between the two options. The switch might be labeled A/M, as shown in Figure 1-4, or AF/MF. Some lenses offer a setting called AF/M (or something similar), which enables you to set initial focus using autofocusing and then refine focus manually. (This feature is typically called *autofocus with manual override*.) Check your lens manual for specifics, and check the Nikon manual to confirm that your lens can autofocus with the D300s.

  Your lens also has a focusing ring that you twist to bring the scene into focus when you use manual focusing. The placement of the focusing ring varies from lens to lens; Figure 1-4 shows the ring as it appears on the Nikon 18–55mm AF-S VR lens.

- **Focus mode selector:** Also shown in Figure 1-4, this switch sets the camera's internal focusing mechanism to manual focusing (M) or one of two autofocusing options (C and S).

  Chapter 2 provides focusing basics; Chapter 6 details the myriad autofocusing options on your camera and offers a few manual-focusing tips as well.

Figure 1-4: Set the focus mode both on the camera body and the lens.

Adjusting the Viewfinder Focus

Tucked behind the right side of the rubber eyepiece that surrounds the viewfinder is a tiny dial called a *diopter control*. With this control, labeled in Figure 1-5, you can adjust the focus of your viewfinder to accommodate 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. **Remove the lens cap from the front of the lens.**
2. **Look through the viewfinder and concentrate on the markings in the viewfinder frame, shown on the right side of Figure 1-5.**

   The markings relate to focusing, which you can read more about in Chapters 2 and 6. Depending on your selected focus options, you may see only the brackets and not the little rectangle in the middle of the frame.