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IN FULL COLOR!

Julie Adair King
Author of Digital Photography For Dummies

Nikon® D90 FOR DUMMIES®

by Julie Adair King

Wiley Publishing, Inc.

Nikon® D90 For Dummies®

Published by
Wiley Publishing, Inc.
111 River Street
Hoboken, NJ 07030-5774

www.wiley.com

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Published by Wiley Publishing, Inc., Indianapolis, Indiana

Published simultaneously in Canada

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Library of Congress Control Number: 2009920036

ISBN: 978-0-470-45772-6

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1

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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 guides to popular digital SLR cameras, including *Nikon D60 For Dummies* and *Nikon D40/D40x For Dummies.* 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 graduate of Purdue University, she resides in Indianapolis, Indiana.

Author's Acknowledgments

I am extremely grateful to the team of talented professionals at John Wiley and Sons for all their efforts in putting together this book. Special thanks go to my awesome project editor, Kim Darosett, who is the type of editor that all authors hope for but rarely experience: supportive, skilled, and amazingly calm in the face of any storm, including my not infrequent freakouts. I also owe much to the rest of the folks in both the editorial and art departments, especially Heidi Unger, Rashell Smith, Shelley Lea, Steve Hayes, Andy Cummings, and Mary Bednarek.

Thanks, too, to Jonathan Conrad for providing the awesome nighttime shot for Chapter 7, and to agent extraordinaire, Margot Maley Hutchison, for her continuing help and encouragement. And last but not least, I am also indebted to technical editor Dave Hall, without whose insights and expertise this book would not have been the same.

Publisher's Acknowledgments

We're proud of this book; please send us your comments through our online registration form located 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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Table of Contents

Introduction 1

A Quick Look at What's Ahead 1
- Part I: Fast Track to Super Snaps 2
- Part II: Taking Creative Control 2
- Part III: Working with Picture Files 3
- Part IV: The Part of Tens 3

Icons and Other Stuff to Note 3
About the Software Shown in This Book 4
Practice, Be Patient, and Have Fun! 5

Part 1: Fast Track to Super Snaps 7

Chapter 1: Getting the Lay of the Land 9

Getting Comfortable with Your Lens 10
- Attaching a lens 10
- Removing a lens 12
- Using a VR (vibration reduction) lens 12
- Setting the focus mode (auto or manual) 13
- Zooming in and out 14

Adjusting the Viewfinder Focus 15
Working with Memory Cards 16
Exploring External Camera Controls 18
- Topside controls 19
- Back-of-the-body controls 20
- Front-left buttons 23
- Front-right controls 24

Ordering from Camera Menus 26
Monitoring Shooting Settings 28
Asking Your Camera for Help 31
Reviewing Basic Setup Options 31
- Cruising the Setup menu 31
- Browsing the Custom Setting menu 35

Chapter 2: Taking Great Pictures, Automatically 41

Getting Good Point-and-Shoot Results 42
Using Flash in Automatic Exposure Modes 46

Exploring Your Automatic Exposure Options 47
Auto mode 48
Digital Vari-Program modes 50
Changing the (Shutter Button) Release Mode 55

Chapter 3: Controlling Picture Quality and Size 59

Diagnosing Quality Problems 60
Considering Resolution (Image Size) 62
Pixels and print quality 63
Pixels and screen display size 64
Pixels and file size 64
Resolution recommendations 66
Understanding the Image Quality Options 68
JPEG: The imaging (and Web) standard 68
NEF (Raw): The purist's choice 71
My take: Choose JPEG Fine or NEF (Raw) 75
Setting Image Size and Quality 75

Chapter 4: Monitor Matters: Picture Playback and Live View Shooting 79

Enabling Automatic Picture Rotation 80
Disabling and Adjusting Instant Review 81
Viewing Images in Playback Mode 82
Viewing multiple images at a time 84
Displaying photos in Calendar view 86
Zooming in for a closer view 87
Viewing Picture Data 89
File Information mode 90
RGB Histogram mode 92
Highlight display mode 94
Shooting Data display mode 95
GPS Data mode 97
Overview Data mode 97
Hiding Photos during Playback 99
Deleting Photos 101
Deleting images one at a time 101
Deleting all photos 102
Deleting a batch of selected photos 102
Protecting Photos 104
Exploring Live View Shooting 105
Taking pictures in Live View mode 107
Recording movies 110
Customizing the Live View display 113

Part II: Taking Creative Control 115

Chapter 5: Getting Creative with Exposure and Lighting 117

Introducing the Exposure Trio: Aperture, Shutter Speed, and ISO 118
Understanding exposure-setting side effects 120
Doing the exposure balancing act 124
Exploring the Advanced Exposure Modes 126
Reading the Meter 127
Setting ISO, Aperture, and Shutter Speed 129
Adjusting aperture and shutter speed 129
Controlling ISO 130
Choosing an Exposure Metering Mode 134
Applying Exposure Compensation 138
Using Autoexposure Lock 141
Expanding Tonal Range with Active D-Lighting 143
Using Flash in P, S, A, and M modes 145
Setting the flash mode 146
Adjusting flash output 151
Locking flash exposure on your subject 154
Exploring a few additional flash options 155
Using an external flash head 156
Bracketing Exposures 158

Chapter 6: Manipulating Focus and Color 163

Reviewing Focus Basics 164
Adjusting Autofocus Performance 166
Understanding the AF-area mode setting 166
Changing the Autofocus mode setting 171
Choosing the right autofocus combo 172
Using autofocus lock 173
Autofocusing in Live View mode 173
Manipulating Depth of Field 176
Controlling Color 183
Correcting colors with white balance 183
Changing the white balance setting 185
Fine-tuning white balance settings 188
Creating white balance presets 190
Bracketing white balance 196
Choosing a Color Space: sRGB vs. Adobe RGB 198
Taking a Quick Look at Picture Controls 200

Chapter 7: Putting It All Together 205

Recapping Basic Picture Settings 206
Setting Up for Specific Scenes 206
Shooting still portraits 206
Capturing action 211
Capturing scenic vistas 214
Capturing dynamic close-ups 217
Coping with Special Situations 219

Part III: Working with Picture Files 223

Chapter 8: Downloading, Organizing, and Archiving Your Picture Files 225

Sending Pictures to the Computer 226
Connecting the camera and computer 227
Starting the transfer process 228
Downloading and Organizing Photos with the Nikon Software 231
Downloading with Nikon Transfer 231
Browsing images in Nikon ViewNX 235
Viewing picture metadata 238
Organizing pictures 240
Processing Raw (NEF) Files 242
Processing Raw images in the camera 244
Processing Raw files in ViewNX 247

Chapter 9: Printing and Sharing Your Pictures 251

Printing Possibilities: Retail or Do-It-Yourself? 252
Preventing Potential Printing Problems 253
Match resolution to print size 253
Allow for different print proportions 256
Get print and monitor colors in synch 258
Preparing Pictures for E-Mail 260
Creating small copies using the camera 262
Downsizing images in Nikon ViewNX 265
Creating a Digital Slide Show 267
Setting up a simple slide show 268
Creating Pictmotion slide shows 269
Viewing Your Photos on a Television 271

Part IV: The Part of Tens 273

Chapter 10: Ten (Or So) Fun and Practical Retouch Menu Features 275

Applying the Retouch Menu Filters 276
Removing Red-Eye 278
Straightening Tilting Horizon Lines 279
Shadow Recovery with D-Lighting 281
Boosting Shadows, Contrast, and Saturation Together 282
Two Ways to Tweak Color 284
Applying digital lens filters 284
Manipulating color balance 285
Creating Monochrome Photos 287
Removing (or Creating) Lens Distortion 289
Adding a Starburst Effect 291
Cropping Your Photo 293

Chapter 11: Ten Special-Purpose Features to Explore on a Rainy Day 297

Annotate Your Images 297
Creating Your Own Menu 300
Creating Custom Image Folders 302
Customizing External Controls 305
Adjusting the On/Off switch 305
Changing the function of the OK button 305
Assigning a duty to the Function button 306
Changing the function of the AE-L/AF-L button 307
Customizing the command dials 309
Two Roads to a Multi-Image Exposure 310

Index 313

Introduction

Nikon. The name has been associated with top-flight photography equipment for generations. And the introduction of the D90 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 D90 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 D90 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.

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 I: Fast Track to Super Snaps

Part I contains four chapters that help you get up and running with your D90.

- 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, "Taking Great Pictures, Automatically," shows you how to get the best results when using the camera's fully automatic exposure modes, including the Digital Vari-Program scene modes such as Sports mode, Portrait mode, and Landscape mode.
- Chapter 3, "Controlling Picture Quality and Size," introduces you to two camera settings that are critical whether you shoot in automatic or manual mode: the Image Size and Image Quality settings, which control resolution (pixel count), file format, file size, and picture quality.
- Chapter 4, "Monitor Matters: Picture Playback and Live View Shooting" offers just what its title implies. Look here to find out how to review your photos and how to take pictures using your monitor to compose the scene — that is, how to use the D90's Live View mode to shoot both still photos and record short digital movies. This chapter also discusses how to delete unwanted images and protect your favorites from accidental erasure.

Part II: Taking Creative Control

Chapters in this part help you unleash the full creative power of your D90 by moving into semiautomatic or manual photography modes.

- Chapter 5, "Getting Creative with Exposure and Lighting," covers the all-important topic of exposure, starting with an explanation of three critical exposure controls: aperture, shutter speed, and ISO. This chapter also discusses your camera's advanced exposure modes (P, S, A, and M); explains exposure options such as Active D-Lighting, automatic exposure bracketing, metering modes, and exposure compensation; and offers tips for using the flash.
- 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 (the zone of sharp focus in a picture), 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, close-ups, and more.

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's hard drive or other storage device. Look here, too, for details about using the D90's built-in tool for processing files that you shoot in the Nikon Raw format (NEF). Just as important, this chapter explains how to organize and safeguard your photo files.
- 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 (Or So) Fun and Practical Retouch Menu Features," shows you how to fix less-than-perfect images using features found on your camera's Retouch menu, such as automated red-eye removal. You also find out how to apply color effects and perform a few other photo-enhancement tricks.
- Chapter 11, "Ten Special-Purpose 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 D90" 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.
- 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.

- When you see this icon, look alive. It indicates a potential danger zone that can result in much wailing and teeth-gnashing if ignored.

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

- **Other margin art:** Replicas of some of your camera's buttons also appear in the margins of some paragraphs. I include these to provide a quick reminder of the appearance of the button 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.
- **Camera firmware:** *Firmware* is the internal software that controls many of your camera's operations. This book was written using version 1.0.0 of the firmware, which was the most current version at the time of publication.

  Occasionally, Nikon releases firmware updates, and it's a good idea to check out the Nikon Web site (www.nikon.com) periodically to find out whether any updates are available. (Chapter 1 tells you how to determine which firmware version your camera is running.) Firmware updates typically don't carry major feature changes — they're mostly used to solve technical glitches in existing features — but if you do download an update, be sure to read the accompanying description of what it accomplishes so that you can adapt my instructions as necessary.

About the Software Shown 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, archiving, 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 easily adapt the steps to whatever software you use. (I recommend that you read your software manual for details, of course.)

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 D90 is the perfect partner for your photographic journey, and I thank you for allowing me, through this book, to serve as your tour guide.

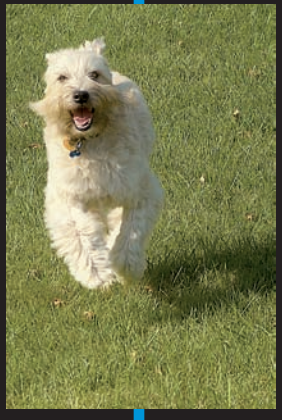
Part I

Fast Track to Super Snaps

In this part . . .

Making sense of all the controls on your D90 isn't something you can do in an afternoon — heck, in a week, or maybe even a month. But that doesn't mean that you can't take great pictures today. By using your camera's point-and-shoot automatic modes, you can capture terrific images with very little effort. All you do is compose the scene, and the camera takes care of almost everything else.

This part shows you how to take best advantage of your camera's automatic features and also addresses some basic setup steps, such as adjusting the viewfinder to your eyesight and getting familiar with the camera menus, buttons, and dials. In addition, chapters in this part explain how to obtain the very best picture quality, whether you shoot in an automatic or manual mode, and how to use your camera's picture-playback and Live View features.



1

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
- Getting acquainted with your camera
- Selecting from menus
- Displaying onscreen help
- 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 D90 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 D90 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.

Getting Comfortable with Your Lens

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

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

Attaching a lens

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 1-1.

   Note that the figure (and others in this chapter) shows you the D90 with its so-called "kit lens" — the 18–105mm Vibration Reduction (VR) zoom lens that Nikon sells as a unit with the body. 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 as shown in Figure 1-1.**

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

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

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 D90 kit lens doesn't.) To find out more about apertures and f-stops, see Chapter 5.

Always attach (or switch) lenses in a clean environment to reduce the risk of getting dust, dirt, and other contaminants inside the camera or lens. Changing lenses on a sandy beach, for example, isn't a good idea. For added safety, point the camera body slightly down when performing this maneuver; 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. **Locate the lens-release button, labeled in Figure 1-2.**
2. **Grip the rear collar of the lens.**

   In other words, hold on to the stationary part of the lens that's closest to the camera body and not the movable focusing ring or zoom ring, if your lens has one.
3. **Press the lens-release button while turning the lens clockwise 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 should detach from the mount.
4. **Place the rear protective cap onto the back of the lens.**

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

Figure 1-2: Press the lens-release button to disengage the lens from the mount.

Using a VR (vibration reduction) lens

If you purchased the D90 camera kit — that is, the body-and-lens combination put together by Nikon — your lens offers a feature called *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 does enable most people to capture sharper handheld shots in many situations than they otherwise could.

However, 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. That's why your kit lens — and all Nikon VR lenses — have an On/Off switch, which is located on the side of the lens, as shown in Figure 1-2. Whether you should turn off the VR feature, though, depends on the specific lens, so

check the manual. For the 18–105 kit lens, Nikon does recommend setting the switch to the Off position for tripod shooting, assuming that the tripod is "locked down" so the camera is immovable.

If you use a non-Nikon lens, the vibration reduction feature 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, so be sure to check the lens manual for information.

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

Setting the focus mode (auto or manual)

Your camera can accept a variety of lenses, but only two types of lenses permit you to take advantage of autofocusing: AF lenses and AF-S lenses. (The 18–105mm kit lens falls into the AF-S category.)

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 autofocusing or the autofocus system has trouble locking on your subject, you can focus manually by simply twisting a focusing ring on the lens barrel. The placement and appearance of the focusing ring depends on the lens; Figure 1-3 shows you the one on the kit lens.

Take these steps to try out manual focusing:

1. **Set the camera to manual focus mode.**

   The procedure depends on the type of lens, as follows:

   - *AF-S lenses:* Set the switch on the lens itself to M, as shown in Figure 1-3. Note that the figure shows the switch as it appears on the D90's kit lens; if you use a different lens, check the lens instruction manual if you have trouble finding the switch. (It may carry the label AF/MF instead of A/M.)
   - *AF lenses:* For this type of lens, two switches are involved. First, set the lens switch to M, as just described. Then look for the AF-M switch on the camera body — it's located just below the lens-release button, as labeled in Figure 1-3. Flip the switch to M for manual focusing.
   - *All other lenses:* Set the switch on the camera body to M.

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; see the next section for details.

Some lenses, including the D90 kit lens, enable you to use autofocusing to set the initial focusing point and then fine-tune focus manually. Check your lens manual for information on how to use this option, if available. With the kit lens, you set the lens switch to the A position and then press the shutter button halfway to autofocus. Then you simply twist the foscuing ring to adjust focus further, if needed.

Zooming in and out

If you bought a zoom lens, it has a movable zoom barrel. The location of the soom barrel on the D90 kit lens is show in Figure 1-3. To zoom in or out, just move that zoom barrel forward and backward.

The numbers on the zoom ring, by the way, represent *focal lengths*. I explain focal lengths in Chapter 6. In the meantime, just note that when the lens is mounted on the camera, the number that's aligned with the lens mounting index (the white dot) represents the current focal length. In Figure 1-3, for example, the focal length is 35mm.

Figure 1-3: On the 18–105 kit lens, the manual-focusing ring is set near the back of the lens, as shown here.

Adjusting the Viewfinder Focus

Tucked behind the right side of the rubber eyepiece that surrounds the viewfinder is a tiny dial called a *diopter adjustment control.* With this control, labeled in Figure 1-4, you can adjust the focus of your viewfinder to accommodate your eyesight.

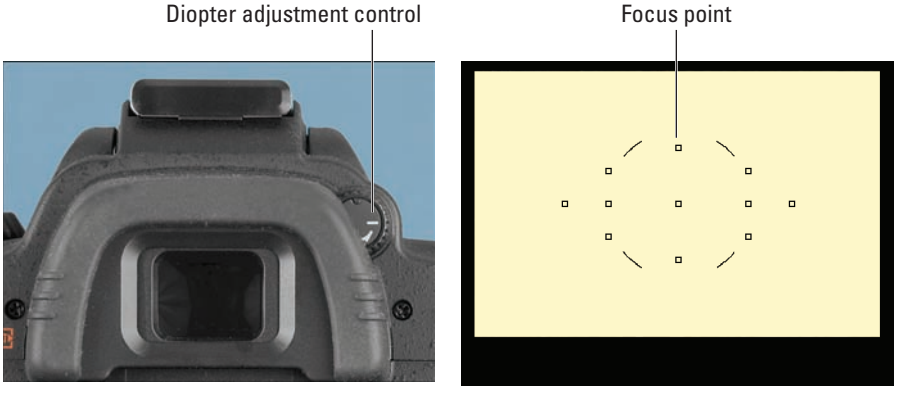


Figure 1-4: Use the diopter adjustment control to set the viewfinder focus for your eyesight.

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. **Remove the lens cap from the front of the lens.**
2. **Look through the viewfinder and concentrate on the little black markings shown on the right side of Figure 1-4.**

   The little rectangles represent the camera's autofocusing points, which you can read more about in Chapters 2 and 6. The four curved lines represent the center-weighted metering area, which relates to an exposure option you can explore in Chapter 5.
3. **Rotate the diopter adjustment dial until the viewfinder markings appear to be in focus.**

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.

Working with Memory Cards

Instead of recording images on film, digital cameras store pictures on *memory cards*. Your D90 uses a specific type of memory card called an *SD card* (for *Secure Digital*), shown in Figures 1-5 and 1-7. You can also use the new, high-capacity Secure Digital cards, which are labeled SDHC, as well as Eye-Fi SD cards, which enable 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.)

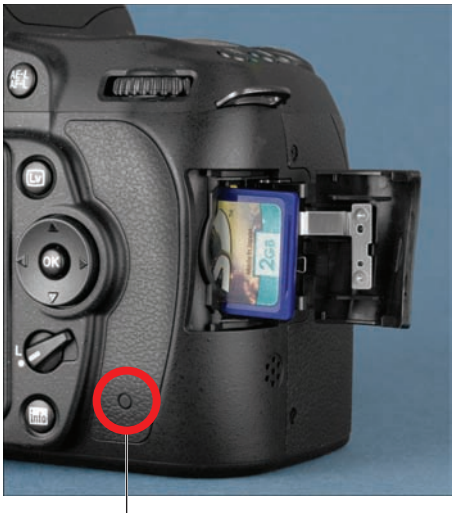


Figure 1-5: Insert the card with the label facing the camera back.

Do you need high-speed memory cards?

Memory cards are categorized not just by their storage capacity, but also by their data-transfer speed. SD cards (the type used by your D90) fall into one of three *speed classes,* Class 2, Class 4, and Class 6, 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. Of course, with the speed increase comes a price increase.

Photographers who shoot action benefit most from high-speed cards — the faster data-transfer rate helps the camera record shots at its maximum speed. Users who shoot at the highest resolution or prefer the NEF (Raw) file format 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 3 for details.) As for picture downloading, how long it takes for 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 8 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 considering, assuming budget is no issue. Otherwise, even a Class 2 card should be more than adequate for most photographers.

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

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

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

You can format a card in two ways:

- *Simultaneously press and hold the Delete and Metering Mode buttons.* See the little red Format labels next to the buttons? They're reminders that you use these buttons to quickly format a memory card. Hold the buttons down for about two seconds, until you see the letters *For* blink in the Control panel on top of the camera, as shown in Figure 1-6. The other data visible is the Shots Remaining value, which indicates how many pictures you can fit on the memory card at the current Image Quality and Image Size settings — 290, in the figure.

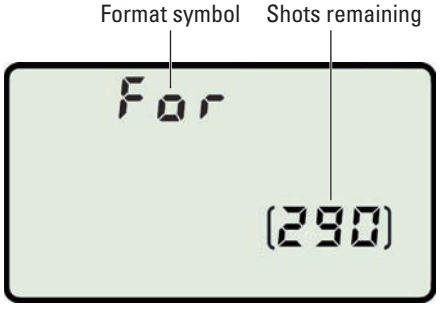


Figure 1-6: To format a memory card, press the Delete and Metering Mode buttons until you see this message in the Control panel; then press both buttons again.

  While the display is blinking, press and release both buttons again. When formatting is complete, the *For* message disappears, and the Control panel display returns to normal. (See the upcoming section "Monitoring Shooting Settings" for more about the Control panel.)

- *Choose the Format command from the Setup menu.* The upcoming section "Ordering from Camera Menus" explains how to work with menus. When you select the command, you're asked to confirm your decision to format the card. Highlight Yes and press the OK button to go forward.

If you insert a memory card and see the letters *For* in the Shots Remaining area of the Control panel, you must format the card before you can do anything else.

- **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 the camera off. Open the memory card door, as shown in Figure 1-5. Depress the memory card slightly until you hear a little click and then let go. The card should pop halfway out of the slot, enabling you to grab it by the tail and remove it.

When no card is installed in the camera, the symbol [-E-] appears in the Control panel and viewfinder.

- **Handling cards:** Don't touch the gold contacts on the back of the card. (See the left card in Figure 1-7.) When cards aren't in use, store them in the protective cases they came in or in a memory card wallet. Keep cards away from extreme heat and cold as well.
- **Locking cards:** The tiny switch on the left side of the card, labeled *lock switch* in Figure 1-7, enables you to lock your card, which prevents any data from being erased or recorded to the card. Press the switch toward the bottom of the card to lock the card contents; press it toward the top of the card to unlock the data.

Figure 1-7: Avoid touching the gold contacts on the card.

You can protect individual images from accidental erasure by using the camera's Protect feature, which is covered in Chapter 4.

Exploring External Camera Controls

Scattered across your camera's exterior are a number of buttons, dials, and switches that you use to change picture-taking settings, review and edit your photos, and perform various other operations. In later chapters, I discuss all your camera's functions in detail and provide the exact steps to follow to access them. This section provides just a basic road map to the external controls plus a quick introduction to each.