

LEARNING MADE EASY



In Full Color

# Nikon® D3400

for  
**dummies**<sup>®</sup>  
A Wiley Brand



Find help for using  
all your camera's features

Follow simple steps to  
start taking better photos

Get pro tips for shooting  
action shots and portraits

**Julie Adair King**

*Author of Digital Photography For Dummies*



# Nikon® D3400

**for  
dummies®**  
A Wiley Brand





# Nikon® D3400

**by Julie Adair King**

**for  
dummies®**  
A Wiley Brand

## Nikon® D3400 For Dummies®

Published by: **John Wiley & Sons, Inc.**, 111 River Street, Hoboken, NJ 07030-5774, [www.wiley.com](http://www.wiley.com)

Copyright © 2017 by John Wiley & Sons, Inc., Hoboken, New Jersey

Published simultaneously in Canada

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as permitted under Sections 107 or 108 of the 1976 United States Copyright Act, without the prior written permission of the Publisher. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, (201) 748-6011, fax (201) 748-6008, or online at <http://www.wiley.com/go/permissions>.

**Trademarks:** Wiley, For Dummies, the Dummies Man logo, Dummies.com, Making Everything Easier, and related trade dress are trademarks or registered trademarks of John Wiley & Sons, Inc. and may not be used without written permission. Nikon and D3400 are trademarks of Nikon Corporation. All other trademarks are the property of their respective owners. John Wiley & Sons, Inc. is not associated with any product or vendor mentioned in this book.

LIMIT OF LIABILITY/DISCLAIMER OF WARRANTY: THE PUBLISHER AND THE AUTHOR MAKE NO REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE ACCURACY OR COMPLETENESS OF THE CONTENTS OF THIS WORK AND SPECIFICALLY DISCLAIM ALL WARRANTIES, INCLUDING WITHOUT LIMITATION WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE. NO WARRANTY MAY BE CREATED OR EXTENDED BY SALES OR PROMOTIONAL MATERIALS. THE ADVICE AND STRATEGIES CONTAINED HEREIN MAY NOT BE SUITABLE FOR EVERY SITUATION. THIS WORK IS SOLD WITH THE UNDERSTANDING THAT THE PUBLISHER IS NOT ENGAGED IN RENDERING LEGAL, ACCOUNTING, OR OTHER PROFESSIONAL SERVICES. IF PROFESSIONAL ASSISTANCE IS REQUIRED, THE SERVICES OF A COMPETENT PROFESSIONAL PERSON SHOULD BE SOUGHT. NEITHER THE PUBLISHER NOR THE AUTHOR SHALL BE LIABLE FOR DAMAGES ARISING HEREFROM. THE FACT THAT AN ORGANIZATION OR WEBSITE IS REFERRED TO IN THIS WORK AS A CITATION AND/OR A POTENTIAL SOURCE OF FURTHER INFORMATION DOES NOT MEAN THAT THE AUTHOR OR THE PUBLISHER ENDORSES THE INFORMATION THE ORGANIZATION OR WEBSITE MAY PROVIDE OR RECOMMENDATIONS IT MAY MAKE. FURTHER, READERS SHOULD BE AWARE THAT INTERNET WEBSITES LISTED IN THIS WORK MAY HAVE CHANGED OR DISAPPEARED BETWEEN WHEN THIS WORK WAS WRITTEN AND WHEN IT IS READ.

For general information on our other products and services, 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. For technical support, please visit <https://hub.wiley.com/community/support/dummies>.

Wiley publishes in a variety of print and electronic formats and by print-on-demand. Some material included with standard print versions of this book may not be included in e-books or in print-on-demand. If this book refers to media such as a CD or DVD that is not included in the version you purchased, you may download this material at <http://booksupport.wiley.com>. For more information about Wiley products, visit [www.wiley.com](http://www.wiley.com).

Library of Congress Control Number: 2016959685

ISBN 978-1-119-33624-2 (pbk); ISBN 978-1-119-33623-5 (ebk); ISBN 978-1-119-33632-7 (ebk)

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1

# Contents at a Glance

<b>Introduction</b>	1
<b>Part 1: Fast Track to Super Snaps</b>	5
CHAPTER 1: Getting Up and Running	7
CHAPTER 2: Reviewing Five Essential Picture-Taking Options	43
CHAPTER 3: Taking Great Pictures, Automatically	75
<b>Part 2: Beyond the Basics</b>	89
CHAPTER 4: Taking Charge of Exposure	91
CHAPTER 5: Controlling Focus and Depth of Field	125
CHAPTER 6: Mastering Color Controls	153
CHAPTER 7: Putting It All Together	171
CHAPTER 8: Shooting, Viewing, and Trimming Movies	187
<b>Part 3: After the Shot</b>	211
CHAPTER 9: Playback Mode: Viewing Your Photos	213
CHAPTER 10: Working with Picture and Movie Files	239
<b>Part 4: The Part of Tens</b>	269
CHAPTER 11: Ten Fun (And Practical) Ways to Manipulate Your Photos	271
CHAPTER 12: Ten Special-Purpose Features to Explore on a Rainy Day	295
<b>Appendix: Intro to Nikon SnapBridge</b>	307
<b>Glossary of Digital Photography Terms</b>	315
<b>Index</b>	323





# Table of Contents

<b>INTRODUCTION</b>	1
About This Book	1
How This Book Is Organized	2
Icons and Other Stuff to Note	3
Where to Go from Here	4
<b>PART 1: FAST TRACK TO SUPER SNAPS</b>	5
<b>CHAPTER 1: Getting Up and Running</b>	7
Preparing the Camera for Initial Use	7
Exploring Basic Camera Features	11
Checking out external controls	11
Ordering from camera menus	19
Switching to Live View mode	23
Viewing critical picture settings	25
Adjusting settings via the control strip	28
Displaying Help Screens	29
Familiarizing Yourself with the Lens	30
Working with Memory Cards	35
Taking a Few Final Setup Steps	37
Restoring Default Settings	40
<b>CHAPTER 2: Reviewing Five Essential Picture-Taking Options</b>	43
Choosing an Exposure Mode	44
Fully automatic exposure modes	44
Semiautomatic modes (P, S, and A)	45
Manual exposure mode (M)	46
Specialty modes (Effects and Guide modes)	46
Setting the Release Mode	47
Single Frame and Quiet Shutter Release modes	48
Continuous (burst mode) shooting	49
Self-timer shooting	50
Wireless remote control modes	51
Checking Image Size and Image Quality	52
Considering the Image Size setting (resolution)	52
Understanding Image Quality options (JPEG or Raw)	56
Setting Image Size and Image Quality	60
Adding Flash	62
Enabling and disabling flash	63
Choosing a Flash mode	64
Adjusting the flash output (P, S, A, and M modes only)	70

<b>CHAPTER 3:</b>	<b>Taking Great Pictures, Automatically</b>	75
	Shooting in Auto and Auto Flash Off Modes	75
	Viewfinder photography in Auto and Auto Flash Off modes	76
	Live View photography in Auto and Auto Flash off modes	79
	Taking Advantage of Scene Modes	82
	Portrait mode	83
	Landscape mode	84
	Child mode	84
	Sports mode	85
	Close Up mode	87
	Night Portrait mode	88
	<b>PART 2: BEYOND THE BASICS</b>	89
<b>CHAPTER 4:</b>	<b>Taking Charge of Exposure</b>	91
	Introducing the Exposure Trio: Aperture, Shutter Speed, and ISO	92
	Aperture affects depth of field	94
	Shutter speed affects motion blur	96
	ISO affects image noise	96
	Doing the exposure balancing act	99
	Stepping Up to Advanced Exposure Modes (P, S, A, and M)	100
	Checking the Exposure Meter	102
	Choosing an Exposure Metering Mode	105
	Setting Aperture, Shutter Speed, and ISO	108
	Adjusting aperture and shutter speed	108
	Controlling ISO	111
	Solving Exposure Problems	115
	Applying Exposure Compensation	115
	Expanding tonal range with Active D-Lighting	119
	Eliminating vignetting	122
	Using autoexposure lock	124
<b>CHAPTER 5:</b>	<b>Controlling Focus and Depth of Field</b>	125
	Choosing Automatic or Manual Focusing	126
	Exploring Standard Focusing Options (Viewfinder Photography)	127
	Mastering the autofocus system	128
	Focusing manually	137
	Focusing During Live View and Movie Shooting	140
	Understanding Live View autofocus	141
	Manual focusing during Live View and movie shooting	149
	Manipulating Depth of Field	149

<b>CHAPTER 6:</b>	<b>Mastering Color Controls</b>	153
	Understanding White Balance	153
	Changing the White Balance setting	155
	Fine-tuning White Balance settings	158
	Creating white balance presets	159
	Choosing a Color Space	163
	Taking a Quick Look at Picture Controls	164
<b>CHAPTER 7:</b>	<b>Putting It All Together</b>	171
	Recapping Basic Picture Settings	171
	Shooting Still Portraits	172
	Capturing Action	178
	Capturing Scenic Vistas	181
	Capturing Dynamic Close-Ups	184
<b>CHAPTER 8:</b>	<b>Shooting, Viewing, and Trimming Movies</b>	187
	Shooting Movies Using Default Settings	188
	Adjusting Video Settings	193
	Controlling Audio	197
	Choosing the Microphone setting (volume control)	197
	Reducing wind noise	200
	Exploring Other Recording Options	201
	Manipulating Movie Exposure	203
	Screening Your Movies	205
	Trimming Movies	207
	Saving a Movie Frame as a Still Image	210
	<b>PART 3: AFTER THE SHOT</b>	211
<b>CHAPTER 9:</b>	<b>Playback Mode: Viewing Your Photos</b>	213
	Picture Playback 101	214
	Choosing Which Images to View	215
	Adjusting Playback Timing	216
	Enabling Automatic Picture Rotation	217
	Shifting from Single-Image to Thumbnails Display	219
	Displaying Photos in Calendar View	220
	Magnifying Photos During Playback	221
	Viewing Picture Data	223
	File Information mode	224
	Highlights (“blinkies”) display mode	227
	RGB Histogram mode	228
	Shooting Data mode	231
	Overview mode	232
	Creating a Digital Slide Show	234
	Viewing Your Photos on a Television	236

<b>CHAPTER 10:</b>	<b>Working with Picture and Movie Files</b>	239
	Rating Photos and Movies	240
	Deleting Files	242
	Deleting files one at a time	242
	Deleting all files	243
	Deleting a batch of selected files	243
	Protecting Photos and Movies	246
	Taking a Look at Nikon's Photo Software	247
	Downloading Pictures to the Computer	250
	Connecting via USB	251
	Starting the file-transfer process	252
	Downloading using Nikon Transfer 2	253
	Processing Raw (NEF) Files	257
	Processing Raw images in the camera	258
	Processing Raw files in Capture NX-D	261
	Preparing Pictures for Online Sharing	264
	Prepping online photos using ViewNX-i	265
	Resizing pictures from the Retouch menu	265
	<b>PART 4: THE PART OF TENS</b>	269
<b>CHAPTER 11:</b>	<b>Ten Fun (And Practical) Ways to Manipulate Your Photos</b>	271
	Applying the Retouch Menu Filters	272
	Removing Red-Eye	275
	Straightening Tilting Horizon Lines	275
	Removing (Or Creating) Lens Distortion	277
	Correcting Perspective	278
	Adjusting Exposure and Color	279
	Cropping Your Photo	282
	Applying Effects to Existing Photos	284
	Shooting in Effects Mode	288
	Combining Two Photos with Image Overlay	293
<b>CHAPTER 12:</b>	<b>Ten Special-Purpose Features to Explore on a Rainy Day</b>	295
	Adding Hidden Image Comments	295
	Adding a Copyright Notice	297
	Creating Custom Image Folders	298
	Turning Off the AF-Assist Illuminator	300
	Adjusting Automatic Shutdown Timing	300
	Changing the Look of the Information Display	301
	Keeping the Information Display Hidden	303

Changing the Function Button's Function .....	303
Customizing the AE-L/AF-L Button .....	304
Using the Shutter Button to Lock Exposure and Focus (or Not). . . .	305
<b>APPENDIX: INTRO TO NIKON SNAPBRIDGE</b> .....	307
What Can I Do with SnapBridge? .....	308
Getting Familiar with the SnapBridge App. ....	309
Understanding SnapBridge-Related Camera Options. ....	312
<b>GLOSSARY OF DIGITAL PHOTOGRAPHY TERMS</b> .....	315
<b>INDEX</b> .....	323



# Introduction

**N**ikon. The name has been associated with top-flight photography equipment for generations. And the introduction of the D3400 has only enriched Nikon's well-deserved reputation, offering all a terrific blend of features for capturing both still photos and high-definition digital movies. You even get tools for cropping, resizing, and enhancing pictures right in the camera. The D3400 even has built-in Bluetooth technology, which enables you to transfer photos wirelessly to certain smartphones, tablets, and other devices.

In fact, the D3400 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 about 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.

Therein lies the point of *Nikon D3400 For Dummies*. With the help of this book, you can take full advantage of everything the D3400 has to offer.

## About This Book

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.

Even if you have some photography experience — or quite a bit of experience, for that matter — this book has plenty to offer, however. I provide detailed information about all the camera's advanced exposure, focus, and color controls, explaining not just what each feature does but why and how to put it to best use.

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.

# How This Book Is Organized

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 made 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 1: Fast Track to Super Snaps:** Part 1 contains three chapters to help you get up and running. Chapter 1 guides you through initial camera setup and shows you how to view and adjust camera settings. Chapter 2 introduces you to basic picture options such as Exposure mode, Release mode, Image Size (resolution), and Image Quality (JPEG or Raw) and also provides information on flash photography with the D3400. Chapter 3 walks you through the steps of taking your first pictures using the Auto and Auto Flash Off exposure modes as well as the Scene modes (Portrait, Landscape, Sports, and so on).
- » **Part 2: Beyond the Basics:** Chapters in this part help you unleash the full creative power of your camera by detailing the advanced shooting modes (P, S, A, and M). Chapter 4 covers the critical topic of exposure; Chapter 5 explains how to manipulate focus; and Chapter 6 discusses color controls. Chapter 7 summarizes 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. Chapter 8 shifts gears, moving from still photography to HD movie recording.
- » **Part 3: After the Shot:** This part offers two chapters, both dedicated to tasks you do after you press the shutter button. Chapter 9 explains how to review your pictures on the camera monitor and connect your camera to a TV for large-screen playback. Chapter 10 topics include rating, deleting, and protecting photos, downloading images to your computer, processing Raw files, and preparing pictures for online sharing. Chapter 10 also introduces you to two free Nikon photo programs, Nikon ViewNX-i and Capture NX-D.
- » **Part 4: The Part of Tens:** In keeping with *For Dummies* tradition, this book concludes with two top-ten lists containing additional bits of information and advice. Chapter 11 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 12 wraps up the book by detailing some features that, although not found on most "Top Ten Reasons I Bought My D3400" lists, are nonetheless interesting, useful on occasion, or a bit of both.



- » **Appendix: Intro to Nikon SnapBridge:** Nikon SnapBridge is an app that you can install on certain Android- and Apple iOS smartphones, tablets, and other smart devices. It's this app that enables you to use the camera's Bluetooth wireless technology to connect your D3400 to your smart device. After making the connection, you can transfer photos to the device for viewing or easy uploading to your favorite social media site. Check out the appendix for an overview of the app, an explanation of camera menu options related to it, and details on how to access the online SnapBridge help site, which provides full information about using the app on various devices.
- » **Glossary:** If you're new to digital photography or to Nikon, the glossary is a handy reference to look up terms you might not be familiar with.
- » **Cheat sheet:** When you have a minute or two, visit [www.dummies.com](http://www.dummies.com) and enter the name of this book in the search box. You'll find a link to a cheat sheet, which provides a handy reference guide to important camera settings and terms.

## 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:



TIP

The 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.



WARNING

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.



TECHNICAL  
STUFF

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



REMEMBER

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 another pressing fact.

Additionally, replicas of some of your camera's buttons and onscreen graphics appear in the margins and in some tables. I include these images to provide quick reminders of the appearance of the button or option being discussed.

# Where to Go from Here

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 mind-boggling at first. So take it slowly, experimenting with just one or two new camera settings or techniques at first. Then, every 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 D3400 is the perfect partner for your photographic journey, and I'm grateful for the opportunity to act as your tour guide.

# 1

## **Fast Track to Super Snaps**

### IN THIS PART . . .

Familiarize yourself with the basics of using your camera, from attaching lenses to navigating menus.

Find out how to select the exposure mode, Release mode, Image Size (resolution), and Image Quality (JPEG or Raw file type).

Discover options available for flash photography.

Get step-by-step help with shooting your first pictures in Auto Mode, Flash Off Mode, and the Scene modes.

- » Preparing the camera for its first outing
- » Getting acquainted with camera features
- » Viewing and adjusting camera settings
- » Setting a few basic preferences
- » Restoring original camera settings

# Chapter **1**

## Getting Up and Running

**S**hooting for the first time with a camera as sophisticated as the Nikon D3400 can produce 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 D3400. The first section walks you through initial camera setup; following that, you can get an overview of camera controls, discover how to view and adjust camera settings, and get my take on some basic setup options.

## Preparing the Camera for Initial Use

After unpacking your camera, you have to assemble a few parts. In addition to the camera body and the supplied battery (be sure to charge it before the first use), you need a lens and a memory card. Later sections in this chapter provide details about working with lenses and memory cards, but here's what you need to know up front:

- » **Lens:** You can mount a wide range of lenses on your D3400, but some aren't compatible with all camera features. For example, to enjoy autofocus, you



need an AF-P or AF-S lens. (The 18-55mm lens featured in this book and sold in a kit with the D3400 body is an AF-P lens.) Your camera manual offers details about lens compatibility.

The *AF* in AF-S and AF-P stands for *autofocus*. The *S* in AF-S stands for a *silent wave* focusing motor; the *P* refers to an autofocus technology known as a “stepping motor.” Both are designed to deliver faster and quieter autofocus-ing. How you implement autofocus differs between the two types, however. Read more about this issue later in this chapter, in the section “Familiarizing Yourself with the Lens.”

- » **SD (Secure Digital) memory card:** Your camera accepts only this type of card. A card with the simple SD designation is an older, lower capacity card that holds a maximum of 4GB of data. Newer SD cards 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.

With camera, lens, battery, and card within reach, take these steps:

1. **Turn off the camera.**
2. **Install the battery into the compartment on the bottom of the camera.**
3. **Attach a lens.**

First, remove the caps that cover the front of the camera and the back of the lens. Then align the *mounting index* (white dot) on the lens with the one on the camera body, as shown in Figure 1-1. After placing the lens on the camera mount, rotate the lens toward the shutter-button side of the camera. You should feel a solid click as the lens locks into place.

4. **Insert a memory card.**

Open the card-slot cover on the right side of the camera and orient the card, as shown in Figure 1-2. (The label faces the back of the camera.) Push the card gently into the slot and close the cover. The memory-card access light, labeled in the figure, illuminates briefly to let you know that the camera recognizes the card.

5. **Turn on the camera.**
6. **If using a retractable lens, unlock and extend the lens.**

The lens barrels of AF-P kit lenses, as well as some AF-S lenses, extend and retract. When you're not shooting, you can retract the lens so that it takes up less space in your camera bag. But before you can take a picture or even access most camera menu items, you must unlock and extend the lens. A message appears on the camera monitor to remind you of this step.



**FIGURE 1-1:**  
Align the white dot on the lens with the one on the camera body.



To extend the lens, press the retractable-lens barrel button, highlighted in Figure 1-3, while rotating the lens barrel toward the shutter-button side of the camera. To retract the lens, press the button while rotating the lens in the other direction.

## 7. Set the camera language, time zone, date, and time.

When you power up the camera for the first time, the monitor displays a message asking you to select the menu language and set the time zone, date, and time. Navigate the screens and adjust the settings by using the Multi Selector and the OK button (refer to Figure 1-2):

- Press the edge of the Multi Selector up and down to move the highlight cursor vertically; press right/left to travel horizontally. Press OK or press the Multi Selector right to reveal options related to the highlighted setting.
- When a value box is highlighted, press the Multi Selector up/down to change the value. Press left/right to jump to the next value box.
- After making your selections on a screen, press OK.

(The later section “Ordering from camera menus” provides more help with using menus.)

The date/time information is included as *metadata* (hidden data) in the picture file. You can view metadata in some playback display modes (see Chapter 9) and in certain photo programs, including Nikon ViewNX-i and Nikon Capture NX-D. (Refer to Chapter 10.)

## 8. Adjust the viewfinder to your eyesight.

Tucked behind the right side of the rubber eyepiece that surrounds the viewfinder is a dial that enables you to adjust the viewfinder focus to accommodate your eyesight. I highlighted the dial in Figure 1-4.

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



**WARNING**



Memory-card access light

Multi Selector/OK button

**FIGURE 1-2:**

Insert the memory card with the label facing the back of the camera.

Retractable-lens barrel button



**FIGURE 1-3:**

Press this button while rotating the lens barrel to extend and retract the lens.



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

Rotate dial to adjust viewfinder



**FIGURE 1-4:**

Rotate this dial to set the viewfinder focus for your eyesight.

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

## Exploring Basic Camera Features

If you're new to dSLR photography, some aspects of using your camera, such as working with the lens, may be unfamiliar to you. But even if this isn't your first dSLR, it pays to take some time before your first shoot to get familiar with its controls. To that end, the upcoming pages provide an overview of the D3400's main features and also offer a primer on working with lenses and memory cards.

### Checking out external controls

Scattered across your camera's exterior are numerous controls that you use to change picture-taking settings, review your photos, and perform various other operations. In later chapters, I discuss all camera functions in detail and provide the exact steps to follow to access them. This section provides just a basic "what's this thing do?" guide to each control. (Don't worry about memorizing the button names; throughout the book, I show pictures of buttons in the page margins to help you know exactly which one to press.)

## Topside controls

Your virtual tour begins with the bird's-eye view shown in Figure 1-5. There are a number of features of note here:



» **On/Off switch and shutter button:** Okay, I'm pretty sure you've already figured out this combo button. But you may not be aware that you need to press the shutter button in two stages: Press and hold the button halfway and wait for the camera to initiate exposure metering and, if you're using autofocus, to set the focusing distance. Then press the button the rest of the way to take the picture.



» **Exposure Compensation button:** This button activates Exposure Compensation, a feature that enables you to tweak exposure when working in the P (programmed autoexposure), A (aperture-priority autoexposure), or S (shutter-priority autoexposure) modes. I cover this feature in Chapter 4. To set the amount of Exposure Compensation, press the button while rotating the Command dial (the black dial on the upper-right corner of the camera back). In M (manual exposure) mode, press this button while rotating the Command dial to adjust the aperture setting, another exposure control explained in Chapter 4.



TIP

» **Info button:** This button performs two functions depending on whether you're using the viewfinder to frame shots or taking advantage of Live View, the feature that enables you to see the live scene on the monitor.

- *Viewfinder photography:* Press the Info button to display the Information screen, which displays the most critical picture-taking settings. To turn off the screen, press the Info button again.

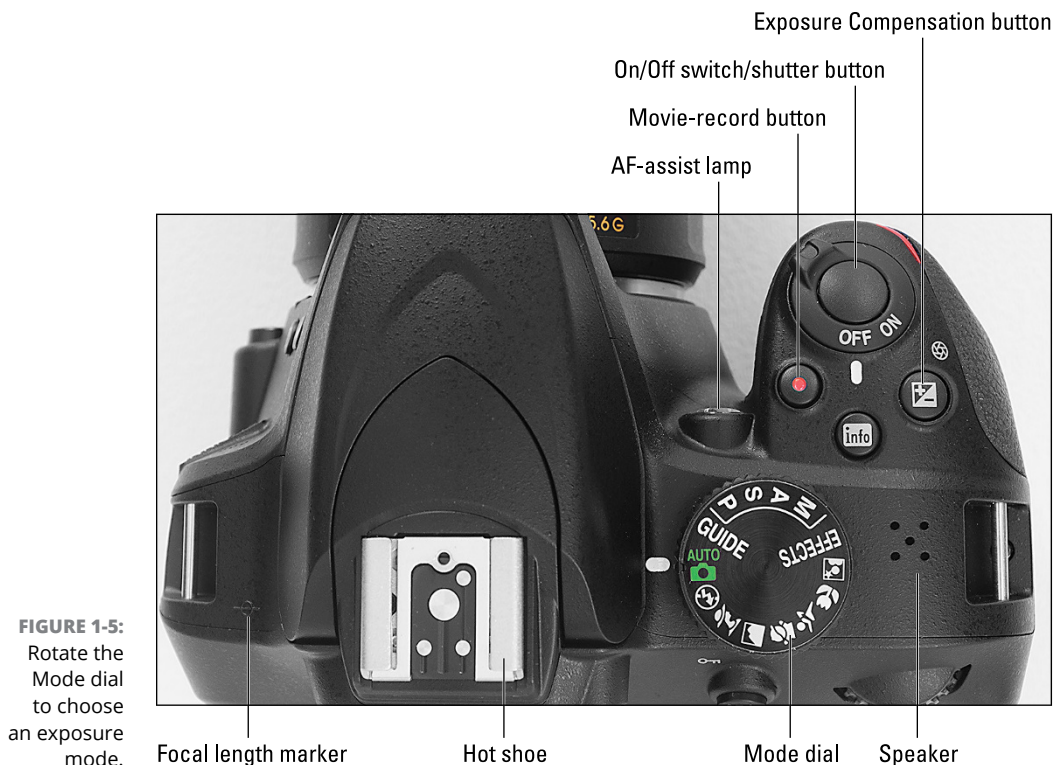
You also can display the screen by pressing the shutter button halfway and releasing it.

- *Live View photography:* After you press the LV (Live View) button on the back of the camera, the viewfinder goes dark, and the live scene appears on the monitor. During Live View photography, press the Info button to change the amount and type of data displayed along with the live scene. You can turn the monitor off only by exiting Live View mode (press the LV button again).



» **Movie-Record button:** After shifting to Live View mode, press this button to start recording a movie. Press again to stop recording. (You can't use the viewfinder when recording movies.)

» **Mode dial:** With this dial, you choose the *exposure mode*, which determines how much control you have over camera settings. For normal shooting, you can choose from fully automatic, semiautomatic, or manual exposure control; I introduce you to the auto modes in Chapter 3 and cover the semiautomatic and manual modes (P, S, A, and M) in Chapter 4.



**FIGURE 1-5:** Rotate the Mode dial to choose an exposure mode.

By turning the dial to Effects, you can apply special effects as the image or movie is captured, a feature you can explore in Chapter 11.

Select the Guide setting to access guided menus, covered later in this chapter.

- » **AF-assist lamp:** When you use autofocus, the camera may emit a beam of light from this lamp in dim lighting; the light helps the camera find its focus target. The lamp also lights when you use Red-Eye Reduction flash and the Self-Timer shutter-release mode, both covered in Chapter 2.
- » **Flash hot shoe:** A *hot shoe* is a connection for attaching an external flash head. See Chapter 2 for an introduction to flash photography.
- » **Speaker:** When you play a movie, the sound comes wafting out of these holes.
- » **Focal plane indicator:** If you need to document the exact distance that exists between your subject and the camera, the focal plane mark is the key. The mark indicates the plane at which light coming through the lens is focused onto the camera's image sensor. Basing your measurement on this mark produces a more accurate camera-to-subject distance than using the end of the lens or another external point on the camera body as your reference point.



**TIP**

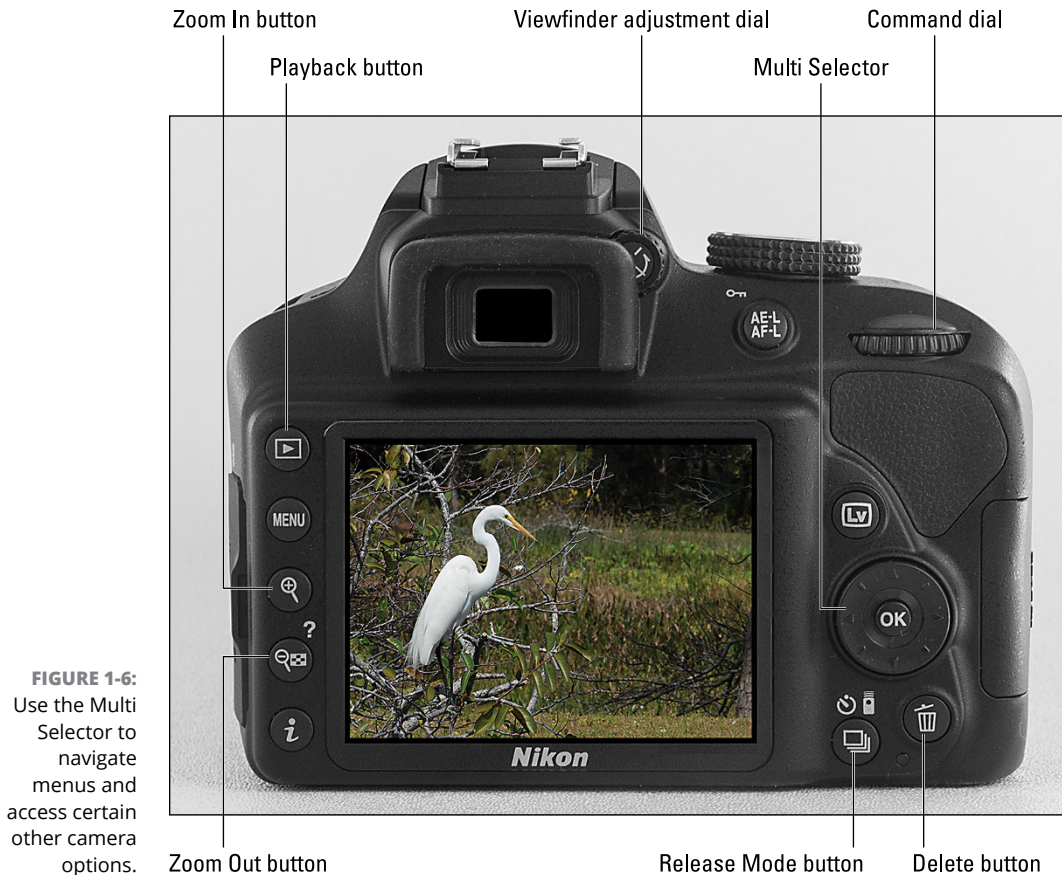
## Back-of-the-body controls

On the back of the camera, shown in Figure 1-6, you find these features:



- » **Viewfinder adjustment dial:** Rotate this dial to adjust the viewfinder focus to your eyesight; see the first section of this chapter for details.
- » **AE-L/AF-L button:** Pressing this button initiates autoexposure lock (AE-L) and autofocus lock (AF-L). Chapter 4 explains autoexposure lock; Chapter 5 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 above the button — so that it isn't erased if you use the picture-delete functions. See Chapter 10 for details. (The picture *is* erased if you format the memory card, however.)



**FIGURE 1-6:** Use the Multi Selector to navigate menus and access certain other camera options.



» **Command dial:** After you activate certain camera features, you rotate this dial to select a setting. For example, to choose a shutter speed when shooting in shutter-priority (S) mode, you rotate the Command dial.



» **Playback button:** Press this button to switch the camera into picture review mode. Chapter 9 details playback features.



» **Menu button:** Press this button to access menus of camera options. See “Ordering from camera menus,” later in this chapter, for details.

» **Zoom In button:** In playback mode, pressing this button magnifies the currently displayed image. Note the plus sign in the middle of the magnifying glass — plus means enlarge.

» **Zoom Out button:** As you can probably deduce from the three symbols that mark this button, it has not one, but three primary functions:

- *Reduce image magnification during playback:* If you magnify an image during playback, pressing the button reduces the magnification amount. The magnifying glass with the minus sign tips you off to this function.
- *Display thumbnails during playback:* After you press the Playback button to shift to playback mode, pressing the Zoom Out button enables you to switch from single-image view, which shows one photo or movie at a time, to thumbnails view, which displays multiple images on the screen. Press once to display 4 thumbnails; press again to display 9 thumbnails; and press a third time to see 72 itty-bitty thumbnails. A fourth press shifts the display to Calendar playback, which makes it easy for you to locate pictures taken on a particular day.  
  
To cycle back to thumbnails view, press the Zoom In button; keep pressing to reduce the number of thumbnails until you get to single-image view.
- *Display help screens:* The question mark symbol above the button is a reminder that you can press this button to display helpful information about certain menu options. See the section “Displaying Help Screens,” later in this chapter, for details.



» **i button:** During shooting, pressing this button activates a control strip on the Information and Live View displays, enabling quick access to certain picture settings. See the upcoming section “Adjusting settings via the control strip” for details.



» **LV (Live View) button:** As its name implies, this button turns Live View on and off. In Live View mode, the scene in front of the lens appears on the monitor, and you can't see anything through the viewfinder. You then can compose a still photo using the monitor or begin recording a movie. I provide additional guidelines about using Live View later in this chapter.

» **Multi Selector/OK button:** This dual-natured control plays a role in many camera functions. You press the outer edges of the Multi Selector left, right,





REMEMBER



up, or down to navigate camera menus and access certain other options. At the center of the control is the OK button, which you press to finalize a menu selection or another camera adjustment.

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.

» **Release Mode button:** Press this button to display a screen where you can select the shutter-release mode. By default, the option is set to Single Frame, which results in one picture each time you press the shutter button. You can explore other settings in Chapter 2.

» **Delete button:** Sporting a trash can icon, the universal symbol for delete, this button enables you to erase pictures from your memory card. Chapter 10 explains the steps.

## Front-left features

The front-left side of the camera, shown in Figure 1-7, sports these features:



» **Flash button:** In the advanced exposure modes (P, S, A, and M), pressing this button raises the built-in flash. In other modes, the camera controls whether flash is enabled.

By holding the Flash button down and rotating the Command dial, you can adjust the Flash mode (Fill Flash, 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. The little plus/minus symbol that appears below the Flash button — the same symbol that’s on the Exposure Compensation button — is a reminder of the button’s role in flash-power adjustment.



**FIGURE 1-7:** Press the Flash button to use the built-in flash in P, S, A, or M mode.