

Free Gray/Color Checker Card Inside!

J. Dennis Thomas

Nikon® D5200™ Digital Field Guide



Nikon®

D5200™

Digital Field Guide

Nikon®
D5200™
Digital Field Guide

J. Dennis Thomas



John Wiley & Sons, Inc.

Nikon® D5200™ Digital Field Guide

Published by

John Wiley & Sons, Inc.

10475 Crosspoint Boulevard

Indianapolis, IN 46256

www.wiley.com

Copyright © 2013 by John Wiley & Sons, Inc., Indianapolis, Indiana

Published simultaneously in Canada

ISBN: 978-1-118-53436-6

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1

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 either the prior written permission of the Publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, (978) 750-8400, fax (978) 646-8600. 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>.

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 WEB SITE 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 WEB SITE MAY PROVIDE OR RECOMMENDATIONS IT MAY MAKE. FURTHER, READERS SHOULD BE AWARE THAT INTERNET WEB SITES 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 or to obtain technical support, 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.

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.

Library of Congress Control Number: 2013933949

Trademarks: Wiley and the Wiley logo are trademarks or registered trademarks of John Wiley & Sons, Inc. and/or its affiliates. Nikon and D5200 are trademarks or registered trademarks of Nikon, Inc. 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.

Credits

Acquisitions Editor

Carol Kessel

Project Editor

Amanda Gambill

Technical Editor

George Maginnis

Senior Copy Editor

Kim Heusel

Editorial Director

Robyn Siesky

Business Manager

Amy Knies

Senior Marketing Manager

Sandy Smith

Vice President and Executive Group

Publisher

Richard Swadley

Vice President and Executive Publisher

Barry Pruett

Project Coordinator

Sheree Montgomery

Graphics and Production Specialists

Jennifer Goldsmith

Joyce Haughey

Quality Control Technician

Lauren Mandelbaum

Proofreading and Indexing

Christine Sabooni

BIM Indexing & Proofreading Services

About the Author

J. Dennis Thomas is a freelance photographer and author based out of Austin, Texas. He has nearly 25 years of experience working with Nikon cameras. His work has been published in many regional and national publications, including *Rolling Stone*, *SPIN*, *Elle*, *EBONY*, *W*, *Country Weekly*, *Us Weekly*, *Thrasher Magazine*, and many more.

He has written 20 highly successful Nikon Digital Field Guides, a comprehensive book about concert and live music photography, and a book about urban and rural decay photography. Dennis also writes articles for *Digital Photo* magazine and <http://masteringphoto.com/>, and maintains a blog about Nikon cameras and Nikon Digital Field Guides at <http://nikondfg.com>.

As always, to my girls, Henrietta and Maddie.

Acknowledgments

I'd like to thank everyone at Wiley who works so hard to get these books out, especially my favorite woman at Wiley, Courtney Allen, for always lending an ear and an objective opinion (even when not on the clock), and generally being an all-around great gal. I'd also like to thank Amanda Gambill, Kim Heusel, and Carol Kessel for all the hard work that they do behind the scenes, Kathleen Jeffers for getting out all the paperwork, Robyn Siesky for crackin' the whip on the production team, and Barry Pruett for giving the go-ahead and signing the checks!

I'd also like to thank the folks at Precision Camera and Video in Austin, Texas, Jack and Monica Puryear at Puryear Photography, Cricket Krengel, and everyone else who lent a helping hand along the way.

Contents

Introduction **xxi**

Quick Tour **1**

Getting Started 2
Mounting the Lens 2
Setting the Shooting Mode 3
Focusing 4
Viewing Your Images 4

CHAPTER 1
Exploring the Nikon D5200 **7**

Key Components of the D5200 8
 The top of the camera 8
 The back of the camera 11
 The front of the camera 14
 The left side of the camera 15
 The right side of the camera 18
The Viewfinder Display 18
The Information Display 22

CHAPTER 2
Nikon D5200 Essentials **29**

Exposure Modes 30
 Automatic modes 30
 Programmed auto mode 31
 Aperture-priority auto mode 32
 Shutter-priority auto mode 33
 Manual mode 35
Scene Modes 36
Special Effects modes 42
 Night Vision mode 43
 Color Sketch mode 43
 Miniature Effect mode 44
 Selective Color mode 45
 Silhouette mode 46
 High Key 46
 Low Key 46



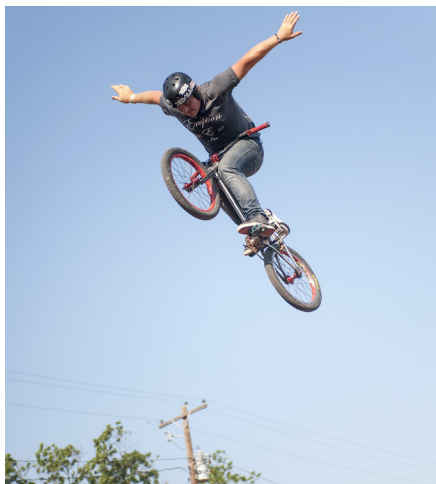
Metering Modes	47
Matrix metering mode	47
Center-weighted metering mode	49
Spot metering mode	49
Autofocus	50
Phase detection	50
Contrast detection	51
Focus Modes	51
Auto Servo AF mode	52
Continuous Servo AF mode	52
Single Servo AF mode	52
Manual focus mode	53
Autofocus Area Modes	53
Auto area AF mode	54
Single-point AF mode	54
Dynamic-area AF mode	54
Release Modes	56
ISO Sensitivity	57
Auto ISO	58
Noise reduction	59
Long exposure Noise Reduction	59
High ISO Noise Reduction	60
White Balance	61
The Kelvin scale	61
White balance settings	61
Picture Controls	63
File Formats, Size, and Compression	71
NEF (RAW)	71
JPEG	72
Image size	73
Image quality	74



CHAPTER 3

Setting up the Nikon D5200 **77**

The Playback Menu	78
Delete	78
Playback folder	79
Playback display options	79
Image review	80
Rotate tall	81
Slide show	81
DPOF print order	82





The Shooting Menu	83
Reset shooting menu	83
Storage folder	83
Image quality	84
Image size	85
White balance	85
Using white balance settings	86
Preset manual white balance	87
Set Picture Control	88
Manage Picture Control	88
Auto distortion control	90
Color space	90
Active D-Lighting	91
High Dynamic Range	91
Long Exposure NR	92
High ISO NR	92
ISO sensitivity settings	93
Release mode	93
Multiple exposure	93
Interval timer shooting	94
Movie settings	95
The Custom Setting Menu	96
Reset custom settings	96
Custom Setting menu a: Autofocus	96
Custom Setting menu b: Exposure	98
Custom Setting menu c: Timers/ AE lock	98
Custom Setting menu d: Shooting/ display	99
Custom Setting menu e: Bracketing/ flash	100
Custom Setting menu f: Controls	101
f1: Assign Fn button	101
f2: Assign AE-L/AF-L button	102
f3: Reverse dial rotation	102
f4: Slot empty release lock	103
f5: Reverse indicators	103
The Setup Menu	103
Format memory card	103
Monitor brightness	104
Info display format	104
Auto info display	105
Clean image sensor	105
Lock mirror up for cleaning	106
Image Dust Off ref photo	107

Video mode	107
HDMI	107
Flicker reduction	108
Time zone and date	108
Language	109
Image comment	109
Auto image rotation	109
Accessory terminal	109
Eye-Fi upload	110
Wireless mobile adapter	110
Firmware version	110
The Retouch Menu	110
D-Lighting	112
Red-eye correction	112
Trim	113
Monochrome	113
Filter effects	114
Color balance	115
Image overlay	116
NEF (RAW) processing	117
Resize	118
Quick retouch	118
Straighten	119
Distortion control	119
Fisheye	119
Color outline	119
Color sketch	119
Perspective control	120
Miniature effect	120
Selective color	120
Edit movie	121
My Menu	121



CHAPTER 4
Selecting and Using Lenses with
the Nikon D5200 **125**

Deciphering Nikon Lens Codes	126
Lens Compatibility	127
The DX Crop Factor	128
Third-party Lenses	131
Types of Lenses	133
Wide-angle lenses	133
Standard zoom lenses	138
Telephoto lenses	140



Close-up/Macro lenses	142
Fisheye lenses	144
Lens Accessories	145
Teleconverters	146
Extension tubes	147
Close-up filters	148
Ultraviolet filters	148
Neutral density filters	149

CHAPTER 5 **Controlling Exposure 151**

Defining Exposure	152
ISO	153
Shutter speed	154
Fast shutter speeds	155
Slow shutter speeds	156
Aperture or f-stop	157
Fine-Tuning Your Exposure	160
Exposure compensation	161
Using histograms	161

CHAPTER 6 **Working with Light 167**

Lighting Essentials	168
The quality of light	168
Soft lighting	168
Hard lighting	169
Lighting direction	170
Frontlighting	171
Sidelighting	171
Backlighting	172
Natural Light	173
Continuous Light	175
The D5200 Built-in Flash	176
Built-in flash exposure modes	177
i-TTL and i-TTL BL	177
Manual	177
Flash sync modes	178
Sync speed	179
Front-curtain sync	179
Slow sync	181
Red-Eye Reduction	181
Rear-curtain sync	181

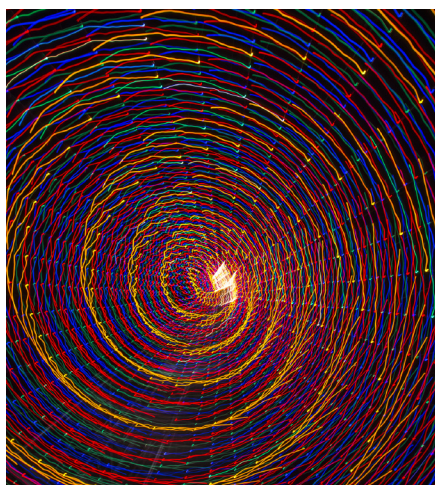
Flash Compensation	182
Creative Lighting System Basics	183
Light Modifiers	184

CHAPTER 7
Working with the Live View
and Video Modes **187**

Live View Mode	188
Focus modes	189
Single Servo AF	189
Full-time Servo AF	190
AF-area modes	190
Using Live View mode	192
Shooting and Editing Video	196
Frame size and frame rate	199
In-camera video editing	201

CHAPTER 8
Real-world Applications **203**

Abstract Photography	204
Equipment	204
Technique	205
Action and Sports Photography	206
Equipment	208
Technique	208
Concert Photography	210
Equipment	212
Technique	212
Macro Photography	215
Equipment	216
Technique	218
Nature and Landscape Photography	219
Equipment	220
Technique	221
Night and Low-light Photography	223
Equipment	224
Technique	227
Portrait Photography	229
Equipment	230
Technique	231
Still-life, Product, and Food Photography	234
Equipment	235
Technique	236





CHAPTER 9
**Viewing, Downloading, Managing,
and Editing Images** **241**

Viewing Your Images 242
Downloading Your Images 244
File Management and Workflow 245
 Folder structure 246
 Editing 246
 Filenames and metadata 247
Tonal Adjustments and Color Corrections 248

APPENDIX A
General Composition Tips **253**

Keep It Simple 253
The Rule of Thirds 254
Leading Lines and S-Curves 255
The Odd Rule 255
Helpful Hints 256

APPENDIX B
Accessories **259**

Speedlights 259
The GP-1 GPS Unit 261
The ME-1 Stereo Microphone 262
Wireless Accessories 262
 The WU-1a Wireless Mobile Adapter 263
 The ML-L3 Wireless
 Remote Control 263
 The WR-T10 Wireless Remote
 Controller/Transmitter 264

APPENDIX C
**How to Use the Gray Card and
Color Checker** **265**

The Gray Card 265
The Color Checker 266

Glossary **267**

Index **277**

Introduction

The D5200 wasn't due for an upgrade, so when Nikon announced it, people were a little surprised. The Nikon 5000 series of dSLR cameras are the only models that feature the Nikon Vari-angle articulated LCD Monitor, so from a marketing standpoint, it made sense to upgrade this camera, rather than another model that shares more features with other cameras. On the exterior, the D5200 looks almost exactly like its predecessor with a few minor changes, such as the addition of a Drive mode button and an integrated stereo microphone, which is a first on any Nikon dSLR.

Inside is where the D5200 receives most of its upgrades, some of which are inherited from both the pro-level D800 and the semi-pro D600. These include an increased resolution of 24MP (which puts it on par with Nikon's flagship high-resolution camera, the D3X), a new EXPEED 3 image processor, the Multi-CAM 4800DX 39-point autofocus system, and the 2016-pixel Color Matrix Metering II metering system.

This compact camera offers most of the key features of more professional models, but with a smaller footprint. It also offers a plethora of scene modes that allow you to capture creative images in any shooting situation, no matter your level of experience.

In-camera editing is also a feature of the D5200, so you don't necessarily need to be computer savvy to add effects to your images. It also allows you to edit RAW files.

The D5200 will appeal to videographers, as well, due to the full high definition 1080p video, and the ability to control exposure settings manually and record stereo sound. The fully articulated Vari-angle LCD Monitor is a real plus over any of the other Nikon HDsLRs because it allows you to shoot at awkward angles.

With the D5200, Nikon has truly created an amazing, full-featured, DX-format camera that is also very affordable and easy to handle.

About the Digital Field Guide

The Nikon Digital Field Guide book series is intended to act as an adjunct to the manual that comes with your camera. While the manual gives you a great overview of the camera, a photographer didn't write it. The *Nikon D5200 Digital Field Guide* gives you all the information you need about the camera from a working photographer's perspective.

The goal of this guide is to help photographers — from novices to advanced amateurs — grasp all of the features of their new camera. It includes tips learned from working with the camera in the field, as well as some basic information to help newer photographers get up to speed quickly.

This full-color guide walks you through setting up your camera, offers insight about which settings to use, and tells you why each setting is useful in particular situations. Full-color images demonstrate different photography concepts and show you some of the things the D5200 is able to accomplish.

The *Nikon D5200 Digital Field Guide* will help you familiarize yourself with your camera more quickly, so that you can not only navigate and handle it better, but also more easily achieve your photographic vision.

Quick Tour

Welcome to the Quick Tour. This section covers some of the basic functions, so you can start using your D5200 right away. If you've already used a Nikon dSLR, a lot of this may be familiar to you. In fact, if you upgraded from a D5100, the setup for the D5200 is very similar. If you are upgrading from a compact digital camera or another brand of dSLR, you probably should read the entire Quick Tour to familiarize yourself with the camera and menu layout.

You should have already unpacked the camera, charged the batteries, and inserted the memory card. If you haven't done these things, do them now.



The D5200 can grab awesome shots right out of the box.

Getting Started

If you're anything like me, you're ready to get out there right away and start taking pictures with your new camera. The great thing about the D5200 is that you can start taking great photos right out of the box. The D5200 has some automatic shooting modes that choose the proper settings for you. All you really have to do is point the camera at something and shoot!

Mounting the Lens

If you bought the D5200 as a kit, it came with the NIKKOR 18-55mm f/3.5-5.6G VR lens. If you aren't sure what all of these letters and numbers mean, don't worry; all of that and more is covered in Chapter 4. The lens needs to be mounted to the camera. First, locate the white lens mounting index dots: one is located on the camera body near the opening and the other is located on the base of the lens. Line these two dots up and gently rotate the lens counterclockwise until it locks firmly into place.

You want to get the lens mounted as quickly as possible to reduce the exposure of the inside of the camera to the elements as dust may accumulate inside the camera and eventually find its way to the sensor. You also want to make sure that the camera is turned off to minimize any static charges, which tend to attract dust particles. Another good rule of thumb is to keep the lens opening facing downward to discourage any dust that finds its way into the camera from settling inside the body.



Lens mounting index dots

QT.1 The lens mounting index dots.



Image courtesy of Nikon, Inc.

QT.2 Rotate the lens counterclockwise to lock it in place.

Once the lens is properly mounted, you can turn the camera on. The On/Off switch is located on top of the camera, surrounding the shutter-release button. Flick the switch to the right, and your D5200 is fired up and ready to go.

Setting the Shooting Mode

To get started quickly, set the shooting mode to Auto (AUTO). To change the shooting mode, just rotate the Mode dial, located on top of the camera. The shooting mode also appears in the top-left corner of the LCD screen when the shooting info is displayed. The Auto mode (AUTO) is a simple, point-and-shoot mode. Everything is adjusted for you, including the shutter speed, aperture, ISO, and image quality. Even the flash is activated if there isn't enough light. If you're not familiar with any of these terms, don't fret; I explain them all in this book.

If you want to take a look at your settings, simply press the Info edit button (i), which is just to the right of the viewfinder — a short stretch from where your thumb naturally rests when holding the camera. Press this button to display the shooting info on the LCD screen. The shooting info screen displays everything you need to know about your settings. Double-press the Info edit button (i) to change the camera settings on the LCD screen using the multi-selector. However, if the camera is in Auto mode (AUTO), your selections are limited because the camera is choosing most of the settings for you.



QT.3 The Shooting mode dial and Info button.

Focusing

Once you've set the Shooting mode, it's time to focus. Put your eye up to the viewfinder and look through it. Point the camera lens at your intended subject and press the shutter-release button halfway to engage the autofocus. When the camera has locked focus, a red bracket lights up quickly in the viewfinder — this is the focus point. You also hear a beep indicating that the focus has locked.

By default, in Auto mode (AUTO), the camera focuses on the closest object. Once the camera achieves focus, fully press the shutter-release button to take the photo, and voilà! Quite simple, isn't it?

CROSS REF Focus modes are covered more extensively in Chapter 2.

Viewing Your Images

After you shoot some images with your D5200, you can look at them on the big, bright, high-resolution 3-inch LCD screen. To view your images, press the Playback button (▶) on the rear of the camera just above the multi-selector. The most recent photo taken is the first image displayed. You can press the multi-selector left (◀) or right (▶) to scroll through the images. Press the multi-selector right (▶) to view the images in the sequence in which they were taken. Press the multi-selector left (◀) to display the images in reverse order. You can also press the multi-selector up (▲) or down (▼) to check the settings and other information.

The following options are also available when the camera is in Playback mode (▶):

- ▶ **Press the Thumbnail/Zoom out button (🖼️) to view thumbnails.** You can choose to view 4, 9, or 72 images at a time, or you can view the thumbnails in a calendar view. When in Thumbnail mode, use the multi-selector to navigate among the thumbnails and highlight one. You can then press the OK button (OK) to enlarge the selected image to a full-size preview.
- ▶ **Press the Zoom in button (🔍) to magnify the image.** This allows you to check for sharpness or look for details. You can also press this button to exit the thumbnail preview.

- ▶ **Press the AE-L/AF-L (AE-L) / Protect (Protect) button to save images from being deleted.** The AE-L/AF-L button doubles as the Protect button. This locks the image to prevent you from accidentally erasing it when editing your images in the camera.

CAUTION When you format a memory card, all images (including those that have been protected) are erased.

- ▶ **Use the multi-selector to view image data.** To see which settings were used when a photograph was taken, press the multi-selector up (▲) or down (▼). This also allows you to check the *histogram*, which is a visual representation of the tonality of an image.
- ▶ **Press the OK button (OK) while in Playback mode (▶) to enter the Retouch menu (Retouch) and edit images.** Here, you can do some rudimentary, in-camera editing, such as applying Active D-Lighting, fixing red-eye, and cropping.

CROSS REF For more detailed information on the Retouch menu (Retouch) and in-camera editing, see Chapter 3.

- ▶ **Press the Delete button (Delete) to erase images.** This permanently deletes an image from the memory card. When you first press the Delete button (Delete), the camera asks for confirmation. Press the Delete button (Delete) again to complete the process.



Dist. Sale

Fender MALIBU™