

Nikon D810 Experience

The Still Photography Guide to Operation
and Image Creation with the Nikon D810

an e-book by:
Douglas J. Klostermann



PREVIEW of
Nikon D810 Experience

*The Still Photography Guide to Operation and
Image Creation with the Nikon D810*

by
Douglas J. Klostermann

Full Stop. *good writing for better photography*

Nikon D810 Experience

All rights reserved. This e-book is licensed for your personal enjoyment only and may not be re-sold, file-shared, distributed, sub-licensed, or given away. This book can be printed for your personal use (PDF version) and read on your personal devices. Otherwise no part of this book may be reproduced or transmitted in any form or by any means, electronically or in print, without expressed permission from the author. Every effort has been made to make this e-book as accurate as possible, but no warranty of fitness is implied. The information is provided on an as-is basis. The author shall have no liability or responsibility with respect to any loss or damages arising from the information provided in this e-book including but not limited to the use of any of the materials or methods described, the products, retailers, Internet web sites, or links provided. Please read and follow all instructions and use, safety and handling precautions expressed in the manuals provided with your equipment and software, and which take precedence over any content in this work.

All contents including cover design, text, and photographs, with the exception of products, brands, logos, and contents of menus and screenshots, are copyright by the author. All products, brands, logos, and contents of menus and screenshots are property of the respective companies and websites. Terms which are trademarks or service marks in this e-book are used in an editorial and educational manner, and should not be regarded as affecting the validity of any trademark or service mark. *Nikon* and *D810* are trademarks of *Nikon Inc.* *Adobe*, *Photoshop*, and *Lightroom* are trademarks of *Adobe Systems Inc.* The author and the contents of this book are not affiliated with or endorsed by *Nikon*.

Special thanks to **LensProToGo**
www.lensprotogo.com



And special thanks to **Newtonville Camera** of Newton, Mass.
<http://www.nvcamera.com>



Douglas Klostermann is a participant in the Amazon Services LLC Associates Program, an affiliate advertising program designed to provide a means for sites to earn advertising fees by advertising and linking to amazon.com. (Links are provided to products and accessories mentioned in this guide.)

Copyright 2014 Douglas J. Klostermann / Full Stop Media, LLC - all rights reserved
Cover design and photograph by the author.

Nikon D810 Experience

The Still Photography Guide to Operation and Image Creation with the Nikon D810

by: Douglas J. Klostermann

PDF Version 1.0a - **PREVIEW**

August 2014

Author's website: www.dojoklo.com

Author's blog: <http://blog.dojoklo.com/>

Published by Full Stop Media. *good writing for better photography*

Arlington, MA 02474, USA

http://www.dojoklo.com/Full_Stop/

CONTENTS

| | |
|--|------------|
| 1. INTRODUCTION | 6 |
| 1.1 Take Control of Your Camera | 8 |
| 1.2 Using This Guide | 10 |
| 1.3 Getting Started | 14 |
| 1.4 New Features and “Hidden” Features of the D810 | 17 |
| 2. CAMERA CONTROLS | 24 |
| 3. MENUS and CUSTOM SETTINGS | 43 |
| 3.1 Setting Up the D810 | 43 |
| 3.2 Setup Guide Spreadsheet | 43 |
| 3.3 Playback Menu | 44 |
| 3.4 Shooting Menu | 52 |
| 3.5 Custom Settings | 78 |
| 3.6 Setup Menu | 134 |
| 3.7 Retouch Menu | 149 |
| 3.8 My Menu | 158 |
| 4. IMAGE PLAYBACK and IMAGE FILE FORMATS | 160 |
| 4.1 Image Playback | 160 |
| 4.2 Information Display | 164 |
| 4.3 JPEG, NEF (RAW), and TIFF | 166 |
| 4.4 File Sizes and Maximum Continuous Burst | 173 |
| 5. AUTOFOCUSING | 175 |
| 5.1 Using Autofocus | 175 |
| 5.2 Autofocus Modes | 181 |
| 5.3 Autofocus AF-Area Modes | 188 |
| 5.4 Locking Focus | 199 |
| 5.5 Back-Button Focusing | 201 |
| 5.6 Focus Points and Image Composition | 208 |
| 5.7 Trap Focus..... | 211 |
| 6. RELEASE MODES | 213 |
| 7. EXPOSURE Part 1 | 216 |
| 7.1 Aperture, Shutter Speed and ISO | 216 |
| 7.2 Aperture-Priority Auto Mode and Shutter-Priority Auto Mode | 223 |
| 7.3 Full Stops..... | 229 |
| 7.4 Manual Exposure Mode, Bulb, and Time | 231 |
| 7.5 Programmed Auto Exposure Mode | 235 |
| 8. METERING MODES | 237 |
| 8.1 Matrix Metering | 238 |
| 8.2 Center-Weighted Metering | 240 |
| 8.3 Spot Metering | 243 |
| 8.4 Highlight-Weighted Metering | 245 |
| 8.5 Manual Metering..... | 247 |
| 8.6 Metering Modes and Exposure | 248 |

| | |
|---|------------|
| 9. EXPOSURE Part 2 | 251 |
| 9.1 Exposure Lock | 251 |
| 9.2 Histograms..... | 256 |
| 9.3 Exposure Compensation | 261 |
| 9.4 Auto Bracketing | 266 |
| 9.5 HDR (High Dynamic Range) | 271 |
| 9.6 Active D-Lighting | 273 |
| 9.7 Multiple Exposure | 275 |
| 10. ADDITIONAL CAMERA FUNCTIONS | 278 |
| 10.1 White Balance | 278 |
| 10.2 Picture Controls | 286 |
| 10.3 Flash..... | 294 |
| 10.4 Interval Timer and Time-Lapse Photography Shooting | 303 |
| 10.5 Sensor Cleaning | 309 |
| 10.6 Putting It All Into Practice | 310 |
| 11. THE IMAGE TAKING PROCESS..... | 312 |
| 11.1 Still Subjects | 312 |
| 11.2 Moving Subjects | 314 |
| 12. LIVE VIEW | 317 |
| 12.1 Live View Features and Settings..... | 317 |
| 12.2 Live View and Movie Autofocusing | 322 |
| 12.3 Live View Exposure | 326 |
| 13. VIDEO - AN INTRODUCTION | 329 |
| 13.1 Movie Settings | 331 |
| 13.2 Audio Settings | 340 |
| 13.3 Movie Playback and Editing | 342 |
| 14. COMPOSITION..... | 345 |
| 15. LENSES..... | 355 |
| 15.1 Lens Compatibility of the D810 | 355 |
| 15.2 Using AF and AI Lenses With the D810..... | 359 |
| 15.3 Nikon (NIKKOR) Lens Notations | 361 |
| 16. PHOTOGRAPHY ACCESSORIES..... | 366 |
| 16.1 Nikon D810 Accessories | 367 |
| 16.2 Digital SLR Photography Accessories | 368 |
| 16.3 Digital Photography Books | 372 |
| 17. CONCLUSION | 374 |
| Future Updates to the Text..... | 375 |
| About the Author..... | 377 |

1. INTRODUCTION

The introduction of the Nikon D810 brings about several important updates to its popular and powerful predecessors, the D800 and D800E. Features have been added and improved to assist photographers in many of the demanding situations that the D810 will be used, including a more responsive autofocus system and faster continuous frame rate, the *Group-Area AF* Autofocus Area Mode where five autofocus points work together to focus on a subject that may elude a single point, and the *Highlight-Weighted* Metering Mode to help retain highlight details on brightly lit subjects such as in theater and concert scenes. The new *i* Button allows photographers to quickly access mode-specific settings, whether shooting through the Viewfinder or working in Live View or Movie mode. Filmmakers will be able to take advantage of the numerous video improvements including a *Flat* Picture Style designed to best retain shadows and highlights for post-production, and “zebra stripes” for displaying overexposed areas of the scene when viewed on the camera’s LCD Monitor.



Figure 1 - Detail of the Nikon D810 full-frame digital SLR.

When first released, the previous Nikon D800 and D800E models were the highest resolution full-frame dSLR models to date, both sharing an impressive 36.3 megapixel sensor. The D810 boasts an improved version of the 36.3 megapixel sensor, with a wider native ISO sensitivity range (64 to 12,800), and the removal of the anti-aliasing *Optical Low Pass Filter* (OLPF) in order to further increase image sharpness, especially when working in controlled situations and with high-quality lenses. While both the D800

and D800E included the low pass filter, the D800E differed in that it cancelled-out its effects.

As D800 and D800E users discovered, when photographing with such a high resolution sensor, small internal camera movements can negatively impact image sharpness. With the D810 a redesigned shutter and mirror mechanism and the new *Electronic Front-Curtain Shutter* option used along with *Mirror Lock-Up Release Mode* are designed to reduce slight vibrations during image capture. This should prove most beneficial to photographers carefully shooting on a tripod, such as in landscape, studio, and macro situations. The redesigned shutter and mirror mechanisms are also quieter than the D800/D800E, which will be appreciated by wedding and live-performance photographers.

The new shutter mechanism also enables a faster five frames per second (fps) continuous shooting speed when capturing images in the full-frame *FX* Image Area size, and can be increased up to seven frames per second when capturing images in the *DX* Image Area size while using the optional *Nikon MB-D12* battery grip. And the D810 includes a new *Quiet Continuous (Qc)* shutter Release Mode for taking a burst of images up to three frames per second and with decreased shutter noise.



Figure 2 - 1960 Chevrolet Corvette - Codman Estate Antique Auto Show, Lincoln, Mass. - D810, Shutter speed 1/1000, Aperture f/2.8, ISO 200.

For recording HD video, the D810 now supports the 1080/60p size and frame rate, simultaneous output to an optional external recorder, and includes built-in stereo

microphones with selectable frequency range. While the D800 and D800E offered *Power Aperture* for smoothly changing the aperture size while recording to an external device, this feature can now also be used while recording to the camera's memory cards.

The D810 boasts a ruggedly built, weather-sealed body with a magnesium alloy frame, dual memory card slots (SD and CF), a big and bright 100% coverage Viewfinder with a clearer OLED viewfinder display, remote Speedlight flash control, and numerous customization options. The camera's high-resolution, high-quality image sensor along with its highly versatile and customizable 51 point autofocus system, scene-recognition exposure metering system, powerful Expeed 4 processor, and extremely high ISO capabilities in low light will serve the needs of dedicated photographers of every level, from enthusiasts to professionals. The advanced features and customizable controls of the Nikon D810 will enable photographers to consistently capture sharp, clean, and well-exposed images in most any shooting situation.

But the D810 is merely a tool. It is up to you to make use of its features and capabilities to create the images you envision. While the camera's manual can tell you about all the settings and controls, how to change them, and their intended functions, this guide will build upon that and explain when and why you may wish to use them. Every button, dial, menu item, and Custom Setting of the D810 is there for a reason: to help you consistently capture the images you want. Some of them are more useful to different types of photographers and shooting situations and you don't necessarily need to learn and use them all immediately, but this guide will help to give you the knowledge to confidently use the ones that turn your Nikon D810 into an image capturing tool that works best for you.

1.1 Take Control of Your Camera

Since the camera is a tool to take the images you want to take, you obviously can't always allow the camera to make decisions for you. You have to take control of the camera to ensure that you capture exactly the images you intend - by autofocusing precisely where you intend, setting the aperture or shutter speed that you want, and obtaining the exposure you desire. While the D810 is an intelligent camera, it cannot read your mind and your intentions and does not know that you wish to focus on and properly expose the yellow flower in the foreground, while making the background appear out of focus, and the flower petals to be caught still and not be blurred from the motion of the wind, on this bright, sunny day (see *Figure 3*).

You have to tell the camera to do all of this, through the various controls and settings, such as the Autofocus Mode and AF-Area Mode (lock focus on the center of the flower), the exposure metering mode (properly expose the petals), the aperture setting (the out-of-focus background), the shutter speed (freezing the motion of the flower from the wind), the ISO (bright day) and the white balance (sunny day). Taking control of all of these functions and settings will enable you to consistently create the dramatic and compelling images you envision.



Figure 3 - Flower, Cambridge, MA - Autofocus modes, exposure metering mode, aperture, shutter speed, ISO, and white balance all considered, even in creating this simple image. Shutter speed 1/320, aperture f/4.5, ISO 100.

Learning to use and get the most out of an advanced digital SLR (dSLR) camera like the D810 takes time, practice, patience, mistakes, and experimentation. If you have upgraded from a previous dSLR such as the D7100, D90, or D300 (or one of their predecessors), you are in for a treat. Its full-frame sensor will allow “uncropped” performance of your FX lenses while delivering extremely high quality images. Its additional features and capabilities will more easily help you to successfully capture scenes and situations that you may have been limited in consistently attaining before. Its sophisticated and accurate autofocus system coupled with its fast continuous shooting speed, plus its exposure metering system and high ISO capabilities will help you get sharp images of subjects and moments that previously you may have missed, especially in lower light situations.

If you are relatively new to dSLR photography and are still in the process of learning all the controls of a dSLR and the exposure concepts of digital photography, you have perhaps jumped right into the proverbial deep end of the pool by choosing the highly advanced D810! But don't worry, this book will help guide you through its features, controls, and capabilities. Be sure to take it slowly and patiently as you learn the features and concepts that I will explain. With practice and experience you will soon be shooting with confidence and can begin to take advantage of the camera's more advanced functions. Even if you are an intermediate photographer, don't expect to just

pick up all the new information at once, in one or two readings of a single book. (In fact, you wouldn't want to, as the never ending journey of learning and mastering photography is a big part of what it's all about!) Try not to become frustrated if you don't quite understand something or aren't always getting the results you desire. Instead learn the controls, functions, settings, and concepts bit by bit, try them out in real life shooting situations, and return to this guide, the *Nikon D810 User's Manual*, and other photography books to address questions and problems you encounter. Continue to learn and to photograph often and it should all begin to come together, sometimes slowly and sometimes in rapid bursts of discovery and understanding.



*Figure 4 - 1957 Chevrolet Corvette - Codman Estate Antique Auto Show, Lincoln, Mass.
- D810, Shutter speed 1/2000, Aperture f/2.8, ISO 200.*

1.2 Using This Guide

There are many different ways to use a dSLR camera and its controls to capture images, and many diverse situations in which photographers work. I'm going to concentrate on the techniques that I believe are the most practical, useful, and effective for the majority of enthusiast photographers using the D810, while also explaining how settings can apply to specialized uses. The settings and techniques I discuss can apply to various types of photography including general photography, action, portrait, and travel photography. Once you have a firm grasp of the controls, settings, and basic techniques you will have the tools and knowledge to address different issues, specific situations, and challenging scenes. I encourage you to then experiment and continue to

learn, and to find the techniques that work best and are most comfortable or intuitive for you.

The D810 is a highly sophisticated tool that deserves to be used to its full potential, and that involves taking control of the camera and its functions, which means taking it off Programmed Auto mode, and off automatically selected autofocus points (when not needed). While this may be more challenging at first, these are the techniques that are necessary to take full advantage of the capabilities of any dSLR including the D810, and will lead you to having more control and consistency over your image making. Hopefully this will inevitably lead to better images!

This guide is intended to be used with the camera in your hands. That is the best way to directly follow and understand the controls, functions, and settings as they are being explained. It is also intended to be used in conjunction with and in addition to the camera's manual, not to completely replace it, so every bit of information in the *Nikon D810 User's Manual* will not be repeated here. Among the official manual's often brief descriptions and sometimes frustratingly incomplete and disjointed explanations, there is some very valuable information, as well as the basics for buttons, controls, and how to access and change all the settings. And I will refer to the manual for very specialized or rarely-used functions that are well-explained there. Note that the *D810 User's Manual* can also be obtained as a PDF file from the Nikon website, at the webpage below:

https://support.nikonusa.com/app/answers/detail/a_id/19145



Figure 5 - View of the Nikon D810 dSLR.

As you can see, there is a lot to make sense of regarding terminology and controls, so I recommend that you familiarize yourself with the controls and displays of the camera body, as shown on pages 1-11 of the *D810 User's Manual* and explained in the **Camera Controls** chapter below, as well as read through the manual at some point and attempt to understand or absorb as much as possible. Yes, much of it may be complicated and confusing at first, but this guide will explain and clarify the numerous buttons, controls, menus, and settings and explain when and why you will want to use them in your photography.

Various settings of the Nikon D810 can be controlled in multiple ways including using the buttons and Command Dials on the camera body while reading the settings on the top LCD Control Panel, in the Viewfinder, or on the rear Information Display. Or they can be changed through the menus accessed with the Menu Button and the Multi Selector thumb pad and read on the rear LCD Monitor. Explore the options (which will be explained throughout this guide) and find the ways that work most quickly and intuitively for you.

Any time I capitalize something in this text it is a proper term that can be looked up in the *Nikon D810 User's Manual*. I will capitalize the names of actual buttons, controls, camera parts, and menu items, such as Function (Fn) Button, Main Command Dial, Monitor, and Format Memory Card. Words that are capitalized and bold refer to chapters and sections within this guide, such as **Menus and Custom Settings**. Turn on the bookmarks or contents navigation panel in your PDF viewer or access the Table of Contents of your e-book reader if you wish to quickly navigate to these different sections.

Many of the functions and controls of a dSLR such as the D810 are closely inter-related, such as the shooting modes, exposure settings, and the metering modes. As a result of this I must sometimes indicate that a previous or upcoming section of the text has further explanation of a related function. However, there is no need to jump ahead or behind in the text - this is merely a "heads-up" that the feature will be fully explained in the appropriate section. It is best to read through the entire text, in the order it is organized. The **Menus and Custom Settings** chapter is particularly prone to referring to upcoming chapters, but this menu walkthrough it is needed at the front of the guide in order to help set up your camera before use. Most all of the features and functions introduced in that chapter will be addressed in detail in the applicable sections of the text.

After reading the text you may then wish to return to specific sections for further study. It may take multiple readings followed by experimentation and practice to fully understand both the individual functions and the relationships between functions.

Example Images

In the captions to the example photos throughout the text I include the camera settings that were used. With digital photography there is no "right" setting or "best" setting for any given situation. A dSLR gives you quick access to the basic and essential settings

3. MENUS and CUSTOM SETTINGS

3.1 Setting Up the D810

The Menus and Custom Settings of the Nikon D810 allow you to have greater, more precise control over how your camera functions. They are an important part of what makes the D810 a much more powerful and exacting tool than mid-level dSLR cameras, and they allow you to customize the camera to work for you, to work how *you* work. Using them you can also fine-tune settings and operations including white balance, metering, exposure, and autofocus. I highly recommend that you carefully go through these menus and change the settings to the options that allow you to use the camera in the manner that works best for you and your shooting needs.

Some of the Menu items are only used when shooting, reviewing, or processing images, but several of them should be set up in advance. Below are explanations and recommended typical settings for the Menus and Custom Settings of the Nikon D810. I realize that reading this section at the beginning of this book presents a conflicting situation in that these menu items need to be explained first so that you can initially set up your camera, but you may not yet have the knowledge to fully understand all these menu items until you read through the rest of this guide! So don't get overwhelmed if you don't yet understand the settings or terminology used to describe the Menu and Custom Settings and their options. You will likely wish to return to them later after you have begun to better understand your camera and its controls and start to determine how you want to work.

And I understand that it is not as compelling to read through these lists of menu items as it is to read the more-flowing instructional text later in the book. But you will begin to learn much about the D810 as you patiently work through this Menus and Custom Settings chapter. As I mentioned in the **Introduction**, this section will often refer to upcoming chapters and sections, but it is not necessary for you to jump ahead. This is merely a "heads-up" that the menu item or function that you are currently setting up will be explained in detail later in the guide, in the applicable section of the text (such as **Autofocusing** or **Metering Modes**, etc.).

Also, if you don't yet understand some of the settings or why you might wish to change them, leave those on the default or recommended settings for now. If you have worked with a Nikon D800/D800E, D610/D600, or D7100/D7000 body before using the D810, you will find that many of these Menus and Custom Settings options are similar, and you may wish to continue to use most of the same settings that you have determined work best for you. However there some new additions with the D810.

3.2 Setup Guide Spreadsheet

In conjunction with this book, I have also created a comprehensive *Nikon D810 Setup Guide* spreadsheet, with recommended settings for the applicable Menus, all of the Custom Settings, plus some shooting and exposure settings. It has complete and separate camera setup recommendations for different types of shooting, including:

General / Travel / Street
Landscape / Architecture
Action / Sports
Moving Wildlife / Birds
Studio / Portraits
Concert / Performance

The *Nikon D810 Experience Setup Guide* spreadsheet can be downloaded from my blog here:

<http://blog.dojoklo.com/2014/06/30/nikon-d800800e-nikon-d810-setup-guide-with-recommended-settings/>

Most all of the suggested settings on the spreadsheet are further explained in this section and throughout this guide, so it is best to use the spreadsheet hand-in-hand with the explanations in this book. And as you read through the Menus and Custom Settings, perhaps make notes of how you may wish to set them and adjust them for the different types of scenes and situations you photograph. Please keep in mind that the reason the Nikon D810 offers so many menu items and customization options is that photographers have different needs and work in different ways, and it is best to determine which settings *you* need or prefer rather than simply rely on the suggested settings from another photographer.

3.3 Playback Menu

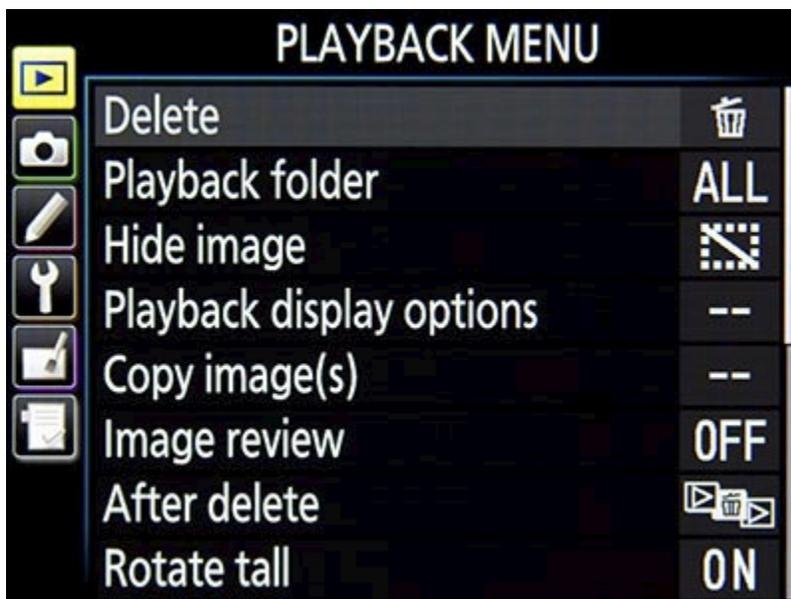


Figure 28 - Playback Menu

Delete

Use this to delete a single image or selected number of images (*Selected*), or all images in the current playback folder on the selected memory card (*All*) (see *Figure 29*). If you have two memory cards inserted, you will be prompted to choose which memory card to delete. If selecting images, use the Multi Selector to navigate to the desired image, and

press Center Button to select it. You can continue to select multiple images, then press the OK Button to delete. Set the Playback Folder item next to determine which images are included in the current playback folder just mentioned.

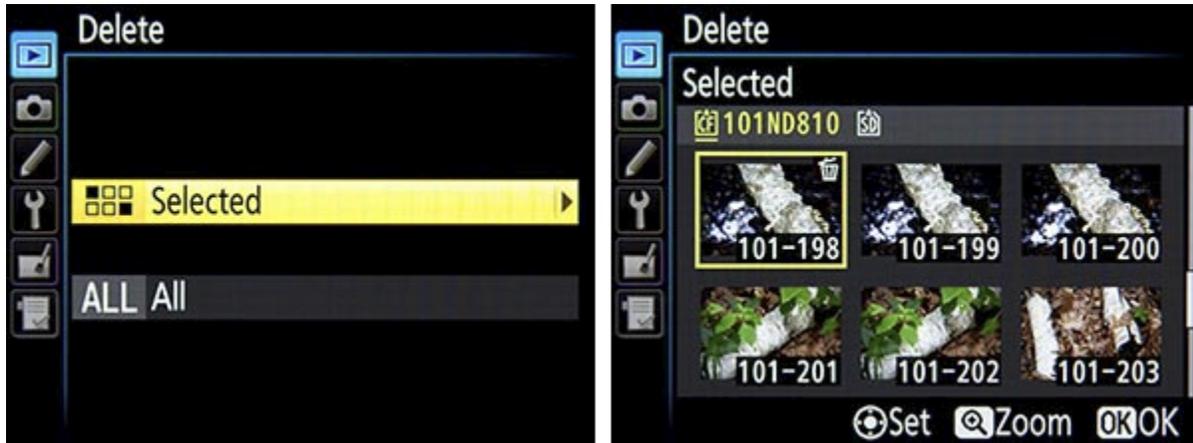


Figure 29 - Delete Menu Item (left), used to delete all images in the current folder, or images selected by the user (right). Note the trash can icon that indicates the image selected for deletion.

However, if you are deleting a single image or just a few, you can more easily do this using the Delete Button on the rear of the camera. If you are deleting all the images on a card, it is better to use *Format Memory Card* (explained in the Setup Menu below). Use large enough memory cards so that you don't need to worry about deleting images in camera while working, and instead it may be best to manage them on your computer after downloading all the images.

Please know that many of the “secondary” types of button uses for menus and on-screen settings don't need to be learned or memorized, as the camera will often display tiny icon reminders on the applicable menu or screen. For example in *Figure 29 - right*, the icons at the bottom of the screen indicate that pressing the Center Button will mark the image for deletion, pressing the Zoom-in Button will magnify the selected thumbnail for a closer look, and the OK Button will complete the operation.

Playback Folder

This sets which images will be visible during Playback (see *Figure 30 - left*). Leave at the default setting, *ND810* and all the images taken with this camera will be visible. If you are sharing memory cards between different cameras (which is not at all recommended as it may lead to confusion and file management headaches) then you can select *All*. If you just wish to view only the images in the current folder, select *Current*. You can select and create individual folders for organizing your photos in the *Storage Folder* item in the Shooting Menu. Most users will likely wish to leave this set for *ND810*.

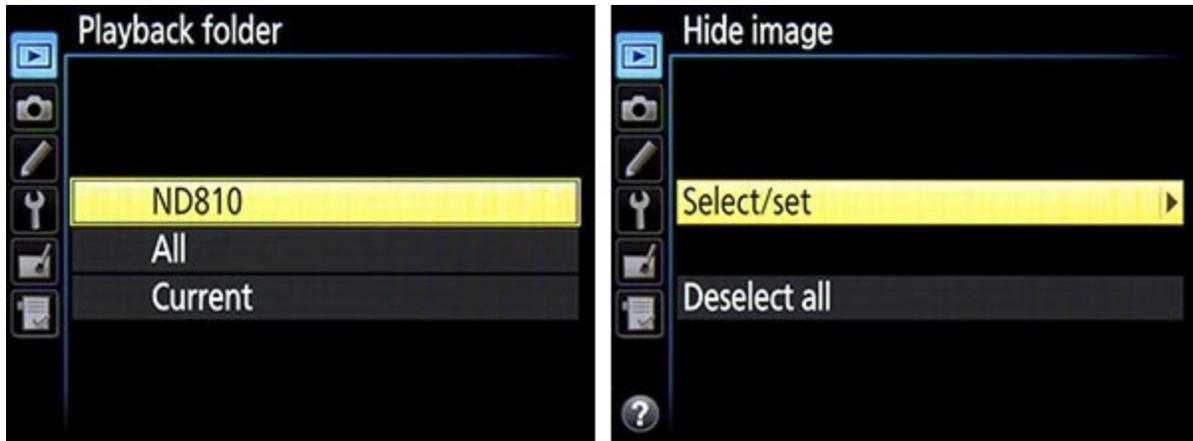


Figure 30 - Left: Playback Folder options, to determine which images are visible during image playback. Right: Hide Image options, to hide images from view during image playback.

Hide Image

This is used to hide images from view during playback, which could help prevent accidental erasing of that image (see *Figure 30 - right*). You can select the images to hide using *Select/set*, then use the Multi Selector and Center Button to select the desired images. Be aware that hidden images will be deleted by formatting the memory card. View all the previously hidden images by choosing *Deselect all*, which will also remove protection from images that you previously chose to Protect. It is typically best not to use this feature so that you don't lose track of any of your images and accidentally erase hidden images when formatting a memory card.

Playback Display Options

During image playback on the rear LCD Monitor you can scroll through various information displays in order to view your images either full screen or with various shooting data or histograms. This menu item is used to select which of these views will be available during playback (see *Figure 31*). I recommend that you select all of the *Additional photo info* options, at least initially. Then after some use you can determine which information views you prefer and deselect the ones you don't need. These will all be illustrated in the **Image Playback** section.

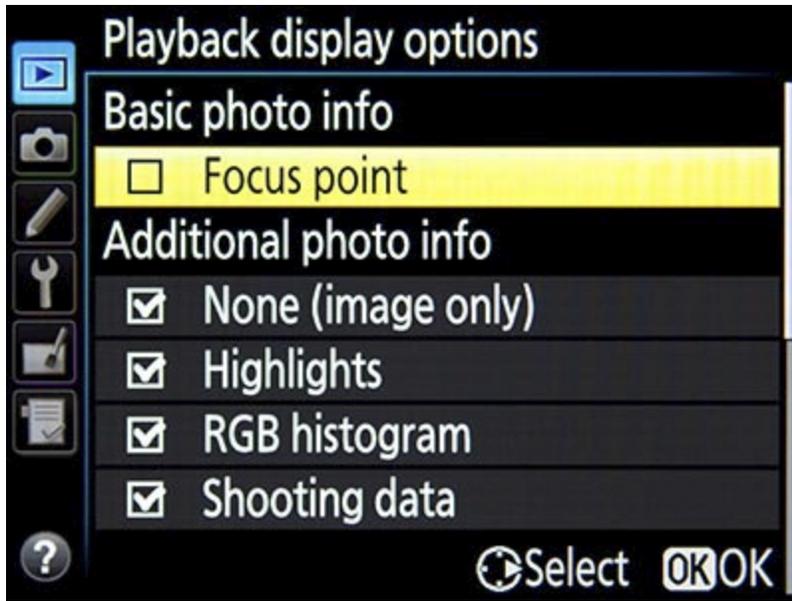


Figure 31 - Playback Display Options, allowing you to select which information and displays are available to view during image playback.

None will display a full screen image with no information, which helps you to inspect the image. *Highlights* will display blinking areas to alert you of where the image has been overexposed, which can help you determine the proper exposure for the subsequent shots. *RGB histogram* will display histogram graphs of the various individual color channels to also assist you in determining proper exposure and help prevent the over-saturation of areas of specific colors. *Shooting data* displays additional information including the lens and focal length used, flash information, and Picture Control settings. This screen is not necessarily very informative immediately after taking the shot since you already know most of these settings, but can be handy when later reviewing an image in-camera. *Overview* displays a thumbnail of the image along with the combined RGB histogram and shooting information (see *Figure 32*). This is perhaps the most important and useful information screen to use while shooting to help determine that you obtained the proper or desired exposure of an image. All the different elements of displayed information in these various information screens will be discussed and explained throughout the guide, particularly in the **Exposure** chapters and in the **Histogram** section.

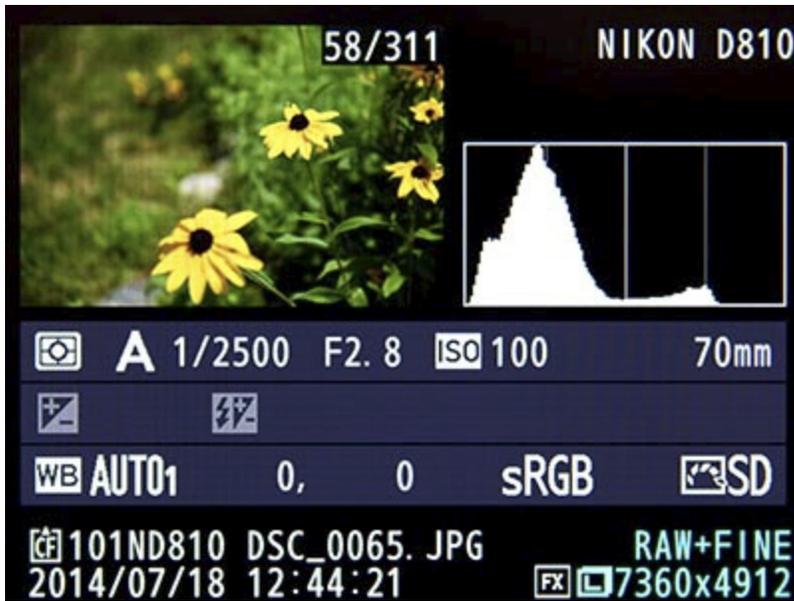


Figure 32 - The Overview information display screen during image playback, showing a thumbnail of the image, the combined RGB Histogram, and shooting and file information.

The first item on the menu, *Focus point*, will show you which Focus Point was used when capturing an image, and will thus verify if you properly focused where you intended (unless you recomposed after locking focus). It is that tiny red square or squares superimposed on your image when you view it on the rear LCD Monitor, but will not be on the actual image (see *Figure 33*). It is most helpful for when you let the camera select the autofocus point, such as in action situations, and/ or when using an AF-Area Mode other than Single Point AF - and then you can see if the camera focused where you wished. But if you manually select your own AF point, as you typically should in many situations, you will already know where the camera focused.



Figure 33 - File information view during image playback, with Focus point display enabled to show which Focus Point was used for autofocus with this shot, indicated by the tiny red square near the center of the flower.

Keep in mind that if you selected a Focus Point, locked focus, and then recomposed the image before taking the shot, the image on your rear LCD will display which AF point was used, but the displayed Focus Point will not actually be located in the same place on the image that the camera focused (before you recomposed), so it won't actually be helpful! This will be illustrated and explained in the **Autofocusing** chapter of this text.

Copy Image(s)

This is used to copy images from one memory card to another when two cards are inserted in the camera, and can be used to back up specific images or the entire card at once (see *Figure 34*). This could be useful to create back-up copies of your images when you don't have access to your computer, external hard drive, or CD/DVD burner, but it is best to back them up on one of these more permanent devices as soon as possible. This menu item will not be accessible if only one card is inserted.

To make use of this, insert a card in each memory card slot and make sure the destination card is large enough or has enough empty space to accept the images. Select the source card (*Select source*), then select the images. You will first be prompted to choose the folder with the images you wish to copy, and then *Select all images* or *Select protected images*. If you wish to instead copy specific images, choose *Deselect all* first, then proceed to select the individual images by highlighting them and pressing the Center Button. Click OK when finished, then select or create the destination folder, and choose *Copy image(s)?* to initiate the procedure.



Figure 34 - Copy Image(s) Menu Item - Work your way down the options (left) to select the source card and the specific images (right). Then select the destination folder and choose “Copy image(s)” to complete.

Image Review

Use this to set whether or not your images are immediately displayed on the rear LCD Monitor after capturing them (see Figure 35 - left). If you typically review each image after taking it, turn this *On*. However, if you don't review every image, turn it *Off* to save the battery, then hit the Playback Button when you wish to review an image on the LCD Monitor. You will adjust how long the images are displayed during review in Custom Setting c4 - Monitor off delay.

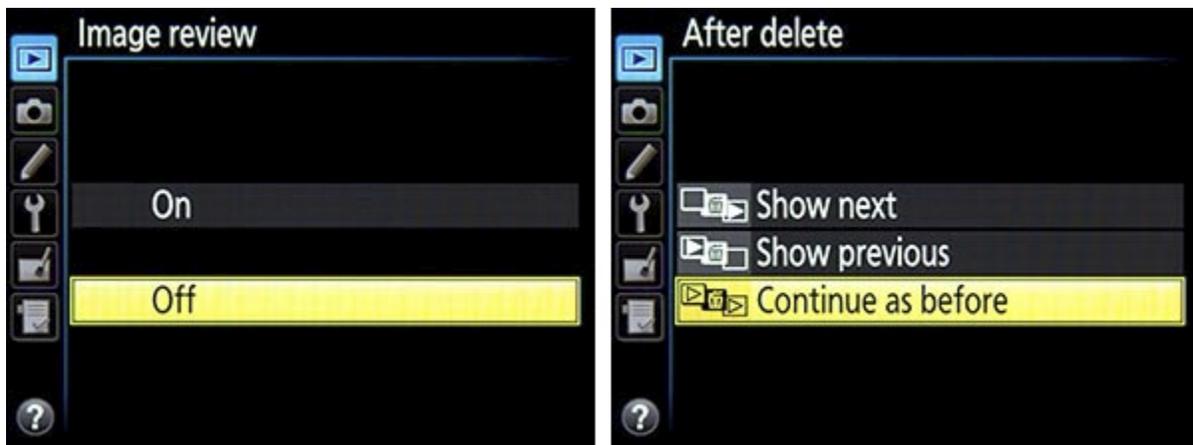


Figure 35 - Left: Image Review menu to enable image review immediately after capture. Right: After Delete menu item to choose which image is shown next after deleting an image during image playback.

Note that if you turn this on, the image will of course be immediately displayed on the LCD Monitor. If you are still shooting you may start pressing the Multi Selector to begin to attempt to adjust the autofocus point for the next shot as you are still looking through the Viewfinder. But you won't be able to do this because your Multi Selector presses will be changing the image review display on the rear Monitor, not adjusting your AF points! So be sure to turn this menu item *Off* if you typically continue to shoot without reviewing

your images, and simply press the Playback Button when you wish to look at the photos.

After Delete

When reviewing photos during image playback, this menu item determines which image is shown on the LCD Monitor after an image is deleted - the next image (*Show next*), the previous image (*Show previous*), or the most intuitive option which is to set it on *Continue as before*, which will show the next or the previous image depending on which order you were just reviewing them (see *Figure 35 - right*).

Rotate Tall

This will automatically rotate your images to the proper orientation on the camera's rear LCD Monitor during image playback (see *Figure 36*). Turn this *On* and use in conjunction with Auto Image Rotation (in the Setup Menu below) to view all images in the same orientation during playback. If you like seeing your vertically (portrait orientation) composed images larger but "sideways" on your rear LCD, set this to *Off*. Images will only be rotated during image playback and will not be rotated during image review immediately after taking a photo, as it is assumed you are then still holding the camera in the same orientation that you just took the photo.

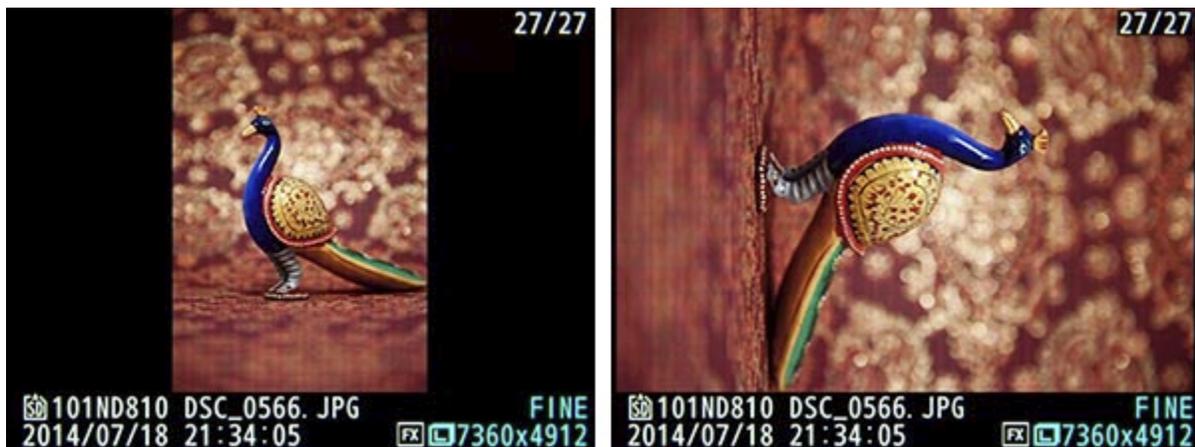


Figure 36 - Rotate Tall - Left: Use the Rotate Tall menu item for image playback to display your images all oriented in the same direction, by setting for "On." Right: Or display vertically captured images "sideways" but larger with setting "Off."

Slide Show

This will set up a slideshow of all the images and/ or movies in the current folder, which you can setup to watch through your TV using an HDMI cable. You can select the *Image Type* to show *Still images and movies*, *Still images only*, or *Movies only*. Using the *Frame interval* setting, you can select how long each image is displayed (see *Figure 37*). Press left or right on the Multi Selector to skip back or ahead, and press the OK Button to pause or continue the slideshow.



Figure 66 - Left: Movie Settings Menu used to choose movie options of frame size and rate, movie quality (maximum bit rate), audio settings, which memory card to use for saving movie files, and ISO settings. Right: The new Frequency Response option for the built-in or optional external mic.

3.5 Custom Settings

a - Autofocus

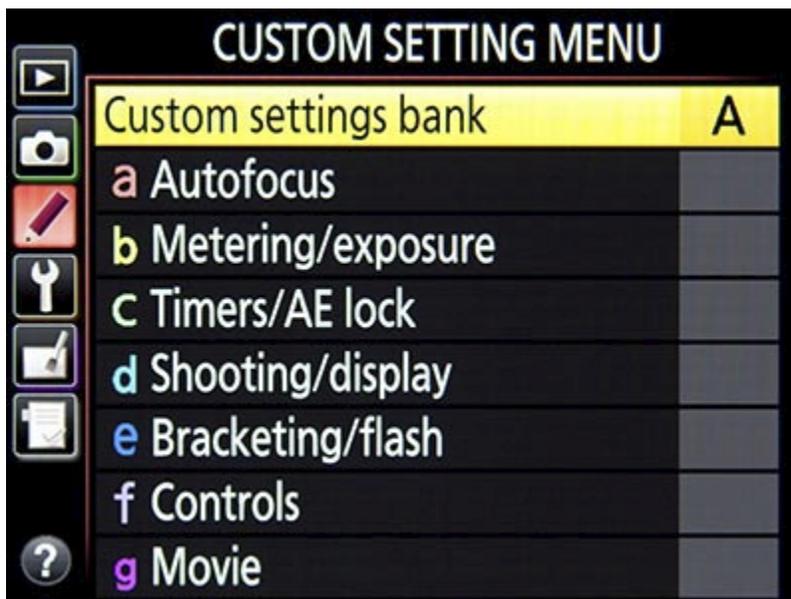


Figure 67 - Nikon D810 Custom Settings menu.

Note: The autofocus system of the D810 will be explained in detail in Chapter 5 on **Autofocusing**. Remember to review these Autofocus Custom Settings once you have become familiar with the autofocus system, including the *Autofocus Modes* and *Autofocus AF-Area Modes*.

An asterisk notation shown next to a setting in the Custom Settings menus will indicate that a setting has been changed from its default value. The default Custom Settings values can be found on pages 275-278 of the *Nikon D810 User's Manual*.

Custom Settings Bank

Similar to the Shooting Menu Bank described in the previous section, the Custom Settings Bank allows you to register and save specific combinations of Custom Settings. You can save up to four Custom Settings Banks, and custom name them (see *Figure 68*). This is perhaps a more powerful customization option than the Shooting Menu Bank because many of these Custom Settings (such as autofocus settings and camera control settings) may vary based on if you are shooting a portrait or a landscape scene vs. shooting an action or sports scene. As with the previous Shooting Menu Bank, after setting up the Bank you can then later select it and all of the previous settings will be in place, even if you have turned off the camera. But recall that if you change any of the settings while using that Bank, the latest settings used will be in place next time you access that Custom Settings Bank.

As you read through the Custom Settings, perhaps make notes of how you may wish to set them and vary them for the different types of scenes and situations you photograph. Remember that you can also consult my *Nikon D810 Setup Guide*, which lists suggested settings for various shooting situations such as landscape, sports, or portrait, and I will also point out some recommended settings for different uses as I go over the items in this section.

<http://blog.dojoklo.com/2014/06/30/nikon-d800800e-nikon-d810-setup-guide-with-recommended-settings/>

To create a Custom Settings Bank, select one of the available four banks, set the camera to your desired Custom Settings by going through the Custom Settings menus and choosing the desired options, and those settings will then be registered to that Custom Settings Bank. Highlight a Bank and press the Delete Button to *Reset* the Bank to the default settings.

To name a Bank, just as with naming a Shooting Menu Bank, highlight the desired bank (A, B, C, or D) and press right on the Multi Selector. Then use the Multi Selector and Center Button to input the name (see *Figure 68*). Again, you can press and hold the Zoom-out Button and press left or right to jump to the text field at the bottom of the screen. The current Custom Settings Bank can be viewed on the Information Display (see *Figure 69*), and you can select that icon to access the Custom Settings Bank menu and select a different Bank.



Figure 68 - Left: The Custom Settings Bank, allowing you to register and save a group of selected settings. Press right on the Multi Selector to name the Bank, as shown at right.



Figure 69 - Custom Settings Bank as seen on the Information Display. Select this icon to choose a different Bank.

a1: AF-C priority selection

This setting determines if attaining focus is top priority when you are working in Continuous-servo AF Mode (AF-C Autofocus Mode), or if you just want the shots to be taken even if exact focus is not attained for each shot (see *Figure 70 - left*). It is designed for when you are capturing a burst of images using a continuous Release Mode. Specifically, when you press the Shutter Button, this setting determines if the images are taken immediately (*Release*) even if the first image is not yet in focus, or if the camera waits for focus to be attained before taking the photo (*Focus*). For example, if you are tracking a moving subject such as a runner or an animal, you may wish to just capture a rapid series of shots at all costs in order to ensure getting specific moments, and exact focus of each shot may not be the priority. Or you may wish to make sure the camera has properly focused each shot before the shutter is released. This however may cause a slight (perhaps millisecond) delay for each shot and the exact moments may be missed. If capturing the images at all costs and maintaining the maximum

continuous frame rate are the priorities, set for *Release*. If exact focus is your priority, set on *Focus*.

The *Release+Focus* option act similar to the *Release* option, in that the shutter can be released even if the subject located at the active AF point is not in focus. However, when using *Continuous High (CH)* or *Continuous Low (CL)* Release Mode, the frame rate will slow down in low-light or low-contrast situations so that focusing is improved.



Figure 70 - Left: AF-C Priority Selection options, to determine if shutter release and maintaining the maximum continuous frame rate are the priorities, or if exact focus of each shot is the priority. Right: The similar AF-S Priority Selection options, for when working in AF-S Focus Mode.

a2: AF-S priority selection

This is similar to AF-C Priority above, except that this setting is for when you are working in Single-servo AF Mode (AF-S Autofocus Mode), typically used when your subject is relatively still or when you are not tracking a moving subject (see *Figure 70 - right*). Again, determine if getting the shot (*Release*) or exact focus (*Focus*) is your priority. Since AF-S is typically used with subjects that are not moving, it generally makes more sense to ensure focus is attained, thus you may wish to select *Focus* for this setting.

However, you will need to set it for *Release* if you are using a certain back-button focus technique to lock focus and recompose the framing of the shot before taking the photo - in order to avoid the “trap focus” setup when locking focus and recomposing. Specifically, if you set the camera to use only the AF-ON Button to focus, and you press and release the AF-ON Button to focus on the subject and then recompose, this a2 setting will need to be set to *Release* in order for the image to be taken. If it is set for *Focus*, you can press and hold the AF-ON Button to focus and then recompose, and then you will be able to release the shutter. But if you press and release the AF-ON Button to focus and then recompose, the image will not be taken. This will be explained in the **Trap Focus** and the **Back-Button Focusing** sections.

a3: Focus tracking with lock-on

This setting determines how the autofocus system reacts to sudden, dramatic changes in the distance of the subject when you are working in AF-C autofocus mode. The camera can be set to wait a brief period of time before refocusing at the new distance - 1 (*Short*), a long period of time - 5 (*Long*), or steps in-between, from 1 to 5 (see *Figure 71 - left*).

For example, you may be tracking a football player across the field when another player much closer to you comes between you and your intended subject. This setting will determine if and how quickly the camera then focuses on this nearer player, or if it continues to focus at the original distance as the closer player passes through your field of view. If you do not wish for the camera to suddenly change focus to the nearer player, set to a longer period such as 4 or 5. If you wish to switch focus to a sudden closer or farther object, such as perhaps a flock of moving birds where focusing on any bird and not a specific bird is the priority, then set for a shorter period, 1 or 2, or even set for *Off* and focus will immediately change. Keep this option in mind with the various AF-C Autofocus Mode and AF Area Mode configurations (discussed in the **Autofocusing** chapter), as it will likely change depending on your subject and situation. Sometimes you may not want the camera to quickly refocus on a closer or more distant subject, while other times you might.



Figure 71 - Left: Focus Tracking With Lock-On setting to determine how long the camera waits before refocusing on a subject at a different distance, when working in AF-C Autofocus Mode. Right: AF Activation options, to choose if the Shutter Button and/or the AF-ON Button initiates autofocus.

a4: AF activation

This is used to determine which button or buttons can be used to initiate autofocusing. By default the camera is set to *Shutter/AF-ON* and either the Shutter Button can be half-pressed or the rear AF-ON Button can be pressed to start autofocusing (see *Figure 71 - right*). If you wish to disable the autofocusing function from the Shutter Button, set for *AF-ON only* and then you will need to press the rear AF-ON Button to focus on your subject. This AF-ON option is used for a technique called back-button focusing, which

will be explained in the **Back-Button Focusing** section of Chapter 5. This technique can allow you to separate the exposure and the autofocusing functions to two different buttons, can be used to lock focus at a certain distance while you recompose slightly and take a series of photos when working in AF-S Autofocus Mode, or can be used to start and stop focus tracking when working in AF-C Autofocus Mode. It can also enable you to take advantage of a technique called trap focus, which will be explained in the **Trap Focus** section of Chapter 5.

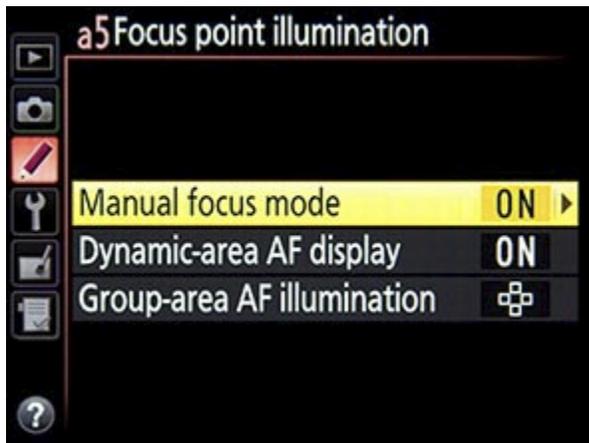


Figure 72 - Focus Point Illumination options, to choose how the AF points are displayed in the Viewfinder, for various situations.

a5: Focus point illumination

This is used to determine if and how the active autofocus point or points are displayed in the Viewfinder while shooting, when using various autofocus AF-Area Modes (see Figure 72).

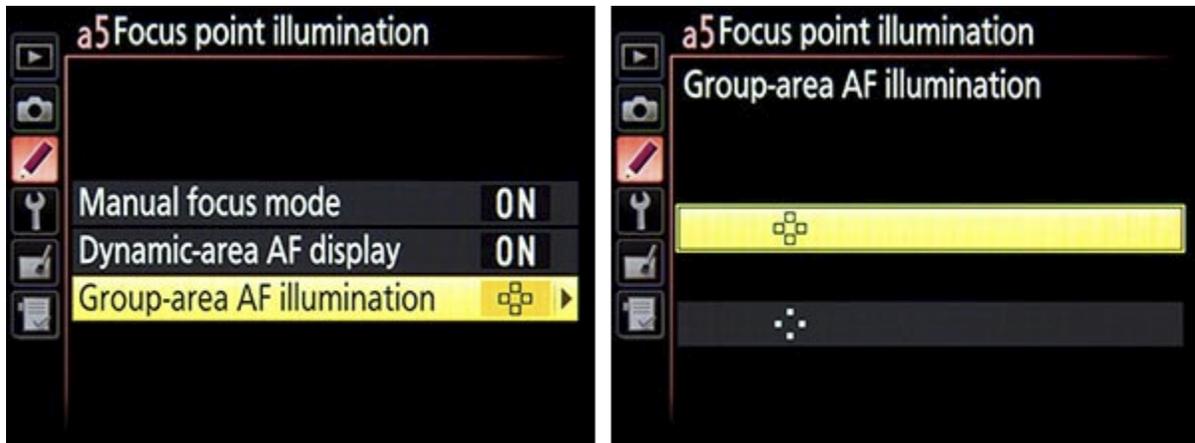
Manual focus mode - If enabled, this will display the active AF point in the Viewfinder even when the camera and lens are set for manual focus. While an AF point is not needed for autofocusing in that situation, it can be used with the Electronic Rangefinder feature of the D810 to help confirm when the subject is in focus. This is explained in the **Autofocusing** chapter.

Dynamic-Area AF Display - When making use of the *Dynamic-Area AF* Modes, which will be addressed in the **Autofocus AF-Area Modes** section, you can choose to view just the selected AF point, or view the selected point plus the potentially active surrounding points. For example, when using *9-Point Dynamic-Area AF* and *AF-C* Autofocus Mode, you will select an AF point to focus on the subject, and the surrounding 8 points can help retain focus on the subject if it briefly leaves the selected point. Using this Custom Setting item, you can choose to view just the selected point in the Viewfinder (*Off*), or view the selected point plus the locations of the surrounding 8 points (*On*) (see Figure 73).



Figure 73 - Custom Setting a5: Focus Point Illumination - Simulated view of the D810 Viewfinder - Use the “Dynamic-Area AF Display” item of Custom Setting a5 to display just the single active AF point, or display all of the points of the Dynamic-Area, as shown here with 9-Point Dynamic Area. Background image shown at 55% opacity to better see Viewfinder elements. Shutter speed 1/1600, Aperture f/4.0, ISO 200.

Group-Area AF Illumination - The new Group-Area AF Area Mode of the D810 allows you to use a group of five points to focus on a subject when it may be too challenging to locate the subject at a single point. When using this mode, the Viewfinder will display the four outer points of the group. This menu option can be used to instead display four smaller dots rather than the larger AF squares (see Figures 74 and 75).



5. AUTOFOCUSING

5.1 Using Autofocus

One of the essential steps in taking a successful and sharp photo is controlling where and how the camera autofocuses. The versatile and customizable autofocus system of the D810 is a major part of what makes it such a powerful camera, and in any shooting mode you can, and should, take control of the autofocus system. The autofocus system is comprised of the autofocus related controls (see *Figure 185*), the Autofocus Modes (such as *Single-servo AF* also called *AF-S*), the autofocus Focus Points and AF-Area Modes (such as *9-Point Dynamic-Area AF*), and the autofocus related menu and Custom Settings items described at the beginning of this text, which customize how the AF system works. You will select an Autofocus Mode generally based on whether the subject is still or moving, and select an AF-Area Mode based on where and how you want the camera to locate and focus on your intended subject - ranging from a single point, to a wider Dynamic-Area, to all the available 51 AF points. You can set the Autofocus Modes and AF-Area Modes in a variety of combinations based on what and how you are shooting.



Figure 185 - Autofocus controls and other shooting-related controls of the Nikon D810.

If you allow the camera to autofocus by automatically choosing its own Focus Point(s), such as when using Auto-Area AF autofocus area mode, it typically focuses on the closest object. This may or may not be what you want to focus on, so you should select

or at least narrow down where the camera focuses using the autofocus Focus Points, or Group-Area AF, or one of the Dynamic-Area groups of points. By doing so you are telling the camera exactly where to autofocus or where to look to find a moving subject to track. For example, you often want to focus on a subject's eyes, but if you allow the camera to choose the autofocus point by itself, it may select another part of the face, or somewhere else on the body, or even a raised hand that is nearer to the camera than the face to focus most sharply on. If you are capturing an image of a bird in a tree the camera has no idea you want the autofocus system to zero in on the bird so that it is in sharp focus, and not on the branches or leaves near it or perhaps even the leaves closer to you.

Be sure to read the **Menus and Custom Settings** section first to make sure your camera is properly set up to make use of all the autofocus points, to always illuminate your active Focus Point if desired, and various other recommended autofocus settings. Most of these settings are in the Custom Setting *a: Autofocus* menu.

Autofocus works in part by looking for contrast so try to focus (locate your Focus Point as you view it in the Viewfinder) on a texture or a detail with a pronounced line or some amount of contrast between light and dark. It may not be able to focus on a large area of consistent color - such as a white wall or clear blue sky, or even a uniformly colored and illuminated shirt - or on a subject or scene that is too dark. It can be disrupted by regular patterns and fine detail, or confused when looking through close objects to objects farther away, such as looking through a screen or fence. And it sometimes fails to work well in highly contrasting or dim light, though the *Built-in AF-Assist Illuminator* of Custom Setting *a10* can assist in this situation.

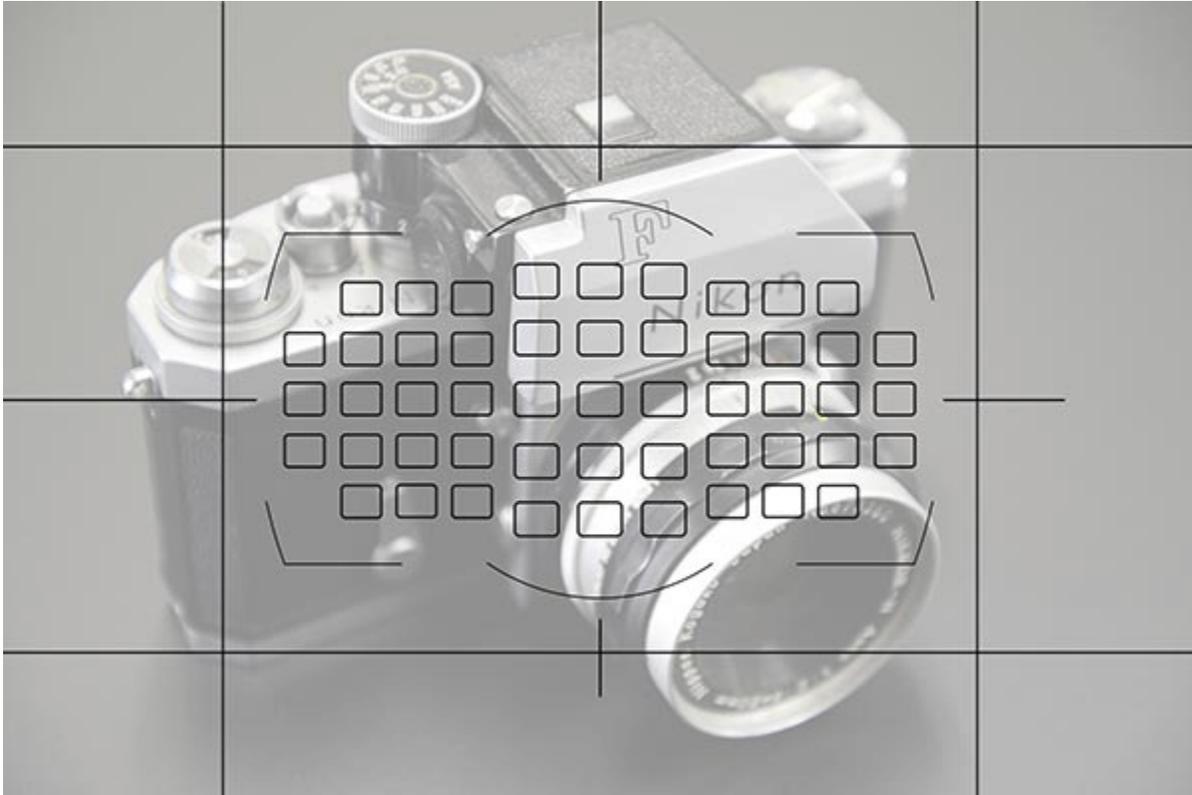


Figure 186 - Simulated view of the Nikon D810 Viewfinder, showing the location of all 51 AF points and the optional grid display. Note that you will not actually see all 51 AF points, only the active one(s).

The fifteen centrally located AF points are more sensitive cross-type points (see *Figure 187*). A cross-type AF point detects contrast in both the horizontal and vertical directions, as opposed to AF points which are only sensitive to contrast in one of these directions. However, when using a lens or a lens-teleconverter combination slower than f/5.6 (a lens whose maximum aperture is f/5.6 or narrower), both the number of available AF points and the number of cross-type AF points is reduced (see *Figure 188*). So for example, if you are using a 500mm f/4 lens and a 2x teleconverter, the teleconverter causes a 2-stop loss, effectively turning the lens into an f/8 lens. The number of available AF points is severely reduced to 11 points, with only one, centrally located cross-type point (see *Figure 188 - right*). The available Autofocus AF-Area Modes are thus limited as well, with *3D-Tracking* and *Auto-Area AF* no longer an option. If set for these modes the camera will actually use *Single-Point AF*. This will impact bird and sport photographers making use of long lenses plus teleconverters.

Autofocusing when working in Live View and Movie Live View works differently, with different Autofocus Modes and AF-Area Modes. This will be explained in the **Live View** chapter.



Figure 187 - Cross-Type Autofocus Points - The fifteen more sensitive cross-type AF points are shown here in red, located in the central area. (Simulated view of D810 Viewfinder, background image shown at 50% opacity. Note that all of the AF points will not actually be visible in the Viewfinder.)

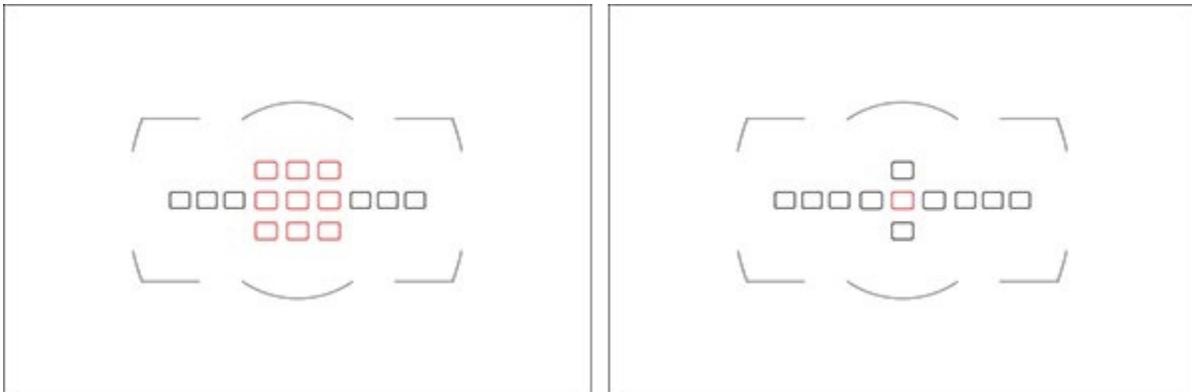


Figure 188 - Autofocus Points - Left: When using a lens or lens-teleconverter combination with a maximum aperture between $f/5.6$ and $f/8$, only these AF points will be available, with the 9 central AF points acting as cross-type points. Right: When using a lens or lens-teleconverter combination with a maximum aperture of $f/8$, only these AF points will be available, with the 1 central AF point acting as a cross-type point.

I will use the term “recompose” a few times throughout the text. By this I mean moving the camera after you have set the focus, such as with a half-press of the Shutter Button or use of the AF-ON Button, but before you fully press the Shutter Button and take the picture. This means that what you see in the Viewfinder changes from when you do

those first actions to when you take the picture; you have re-composed the view you see in the Viewfinder.

When discussing autofocus, I will assume that Custom Setting a4 - *AF Activation* is set for *Shutter/AF-ON*, so that both the Shutter Button and the AF-ON Button can be used to initiate and/or lock autofocus. The exception to this is when I discuss **Back-Button Focusing** and **Trap Focus**, where I will specify that Custom Setting a4 be set for *AF-ON only*, so that only the rear AF-ON Button is used for focusing and not the Shutter Button.

Before diving into the autofocus system, I'll briefly explain how autofocus point selection works. You will manually select your desired autofocus point (also called Focus Point or AF point) using the Multi Selector, as you look through the Viewfinder. If you set Custom Setting f2 - *Multi Selector Center Button* for *Select center focus point*, you can use the central button to quickly select the center AF point.

Make sure the Focus Selector Lock switch surrounding the Multi Selector thumb pad is *not* set to *L*. Set the Focus-Mode Selector switch, near the base of the lens, to *AF* (see *Figure 189*). Make sure the focus mode switch on your lens is also set for autofocus (*A* or *M/A*). If it ever seems that your camera or lens is not autofocus, be sure to check these two switches - one on the camera body and one on the lens. Press the AF-Mode Button inside the Focus-Mode Selector switch and set the Autofocus Mode to *AF-S* (Single-servo AF) using the rear Main Command Dial, and set the AF-Area Mode to Single-Point AF using the front Sub-Command Dial. Look at the top Control Panel to view the settings as you change them. You will see *AF-S* for the mode, and a large *S* for the area mode.



Figure 189 - Additional autofocus controls of the D810.

1. Set the Exposure Mode to P (Program), or to the mode of your choice if you are familiar with them.
2. Tap the Shutter Button with a half-press to wake up the camera and start the exposure metering.
3. Looking through the Viewfinder, use the Multi Selector thumb pad to select the Focus Point that is nearest to where you want to focus.
4. Place that point over your intended subject.
5. Press and hold the Shutter Button halfway down and see that point blink red. The Focus Indicator circle should light up in your Viewfinder (at the lower-left). You have locked the focus.
6. Keeping the Shutter Button pressed halfway, recompose if necessary, and take the shot by fully pressing the Shutter Button.

You can also press and hold the AF-ON Button to focus, and then keep it fully pressed as you recompose and then press the Shutter Button to capture the image.

If the In-Focus Indicator does not light up and the camera does not take the photo, the camera may not be finding something to focus on, may not be finding enough contrast to lock in on, or you may be too close to your subject for the lens to focus.

There are reasons to make use of all the Focus Points and not just the center one all the time, which will be discussed. It may sound difficult to manually select the Focus Point each time, but it is actually very quickly done and will become instinctive. You may even start to set your AF point as you approach a scene before even bringing your camera to your eye, using your thumb on the Multi Selector. For example, press right multiple times so that when you bring the camera to your eye, a far-right AF point is already selected. But if you wish, you can start by always using the center AF point and recomposing before taking the shot. And remember that Custom Setting a8 - *Number of Focus Points* allows you to limit the number of selectable points to *11 Points* to perhaps make this process more manageable at first.

5.2 Autofocus Modes

The D810 has two different Autofocus Modes to choose from, typically depending on if your subject is still, or if it is moving and you wish to track its movement and remain continuously focused on it. It also has several different autofocus AF-Area Modes (discussed in the next section) to specify how many of the Focus Points are active and how they follow or track a moving object. You can set these two functions in various combinations. First the Autofocus Modes. Select the Autofocus Mode by pressing the AF-Mode Button (the button located inside the Focus-Mode Selector switch that says *AF M* on the camera body near the base of the lens) and rotating the rear Main Command Dial while monitoring the settings on the top Control Panel or in the Viewfinder. If the Information Display is on (by pressing the Info Button), you can also view the settings on the rear Monitor (see *Figure 190*).

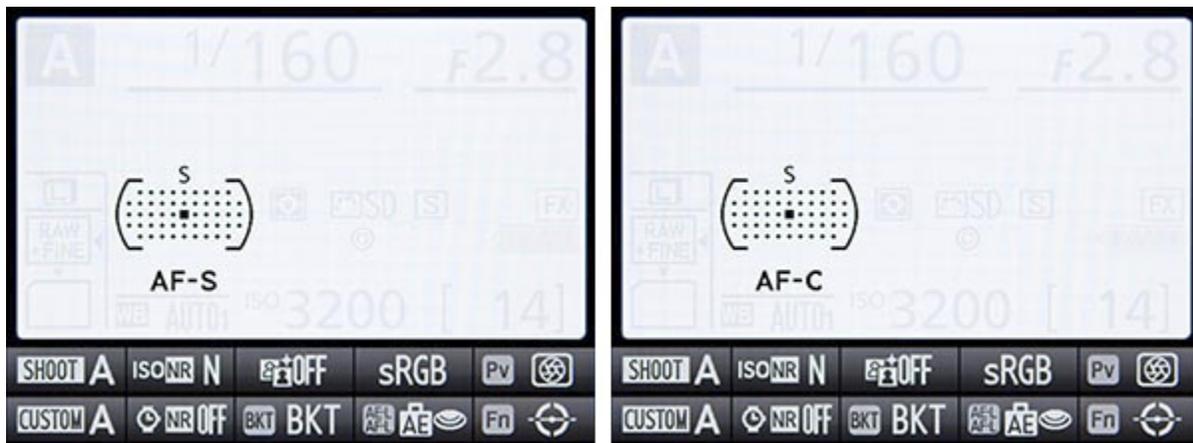


Figure 190 - Autofocus Modes, as viewed on the rear LCD Monitor while changing - Left: AF-S mode. Right: AF-C Mode.

Single-Servo AF (AF-S)

Use this mode when your subject is stationary, or is still and not going to move, or if your subject is not going to move very much, or if the distance between you and the subject is not going to change between the time you lock focus, recompose, and take the shot. Lock focus on the subject by half-pressing the Shutter Button (or pressing and

holding the AF-ON Button) and recompose if necessary. This mode can even be used for moving people or subjects if you quickly take the shot after establishing or locking focus. When using AF-S, you can select from three AF-Area Modes: Single-Point AF where you select the Focus Point, Group-Area AF to select a small group of points, or Auto-Area AF, where the camera selects the AF point(s) for you. I suggest you nearly always select your own desired Focus Point or Group, so that the camera autofocuses exactly where you want it to.

As noted above, focus on your subject by pressing the Shutter Button halfway. The active AF point will illuminate (blink), and the Focus Indicator light at the lower left in the Viewfinder will illuminate as well. Continue to press the Shutter Button all the way to take the shot. If you half-press the Shutter Button to lock focus on your subject, the camera will remain focused at that distance as long as you keep half-pressing the Shutter Button. Or you can press and hold the AF-ON Button to lock focus. You can recompose the shot as you wish and then fully press the Shutter Button to take the photo. Again, if the Focus Indicator light does not light up and the camera does not take the photo, the camera may not be finding enough contrast to focus on, you may be too close to your subject for the lens to focus, or the lighting may be too dim for the AF system to work well.

However, if you are photographing a subject that is approaching or receding from view at a relatively constant rate, or photographing fast or erratic or unpredictably moving subjects, or photographing sports, action, or wildlife you will usually want to use Continuous-Servo AF (AF-C) Autofocus Mode.

Continuous-Servo AF (AF-C)

This mode, used in conjunction with the various AF-Area Modes, can help you to capture sharp images of action and motion (see *Figure 191*). To take full advantage of this mode you will need to also understand the AF-Area Modes, as described in the **Autofocus AF-Area Modes** section just below. Continuous-Servo AF mode is used to track and maintain continuous focus on moving subjects, and is ideal for capturing sports and wildlife including birds. If the subject is moving towards you or away from you, the camera will keep evaluating the focus distance. And if the subject is moving from side to side or throughout the frame, the camera can track it as it passes from one AF point to other ones (depending on the selected AF-Area Mode). Custom Setting a3 - *Focus tracking with lock-on* will even allow you to tell the camera exactly how fast to react to changes in focus distance, such as new subjects that come into the frame or pass between you and your subject.



Figure 191 - Continuous-Servo (AF-C) Autofocus Mode can be used to track and retain focus on a moving subject, such as this dog running in the snow. Shutter speed 1/1600, Aperture f/5.6, ISO 400.

You first need to select which Focus Point the camera uses to start tracking the subject, place that point over the subject, and press the Shutter Button half-way. Or you can press and hold the AF-ON Button. Then as long as you keep the selected AF point on the subject and the Shutter Button pressed half-way or the AF-ON Button pressed, the camera will continuously evaluate the focus distance so that the subject will be in focus when the shot is taken. If the subject is going to be difficult to follow or keep located as a single AF point, you can use Group-Area AF so that five AF points work together to focus, sort of like a large AF point. Or you can make use of the Dynamic-Area AF Area Modes so that some or all of the surrounding points will help retain focus if the subject moves away from the selected Focus Point. If the subject will be moving across your field of view as you keep the camera relatively still, you can make use of the 3D-Tracking mode. The Focus Indicator light in the Viewfinder will illuminate when using AF-C mode when the subject is in focus, or the triangles surrounding the Focus Indicator dot will illuminate to show that focusing operation is in progress.

This subject tracking of AF-C will even work in conjunction with continuous shooting. If you keep the Shutter Button fully pressed and continue to take photos, even at 5 frames per second, the camera will keep focusing on the moving subject. As you can imagine, this is ideal for tracking a player running across a field, a dog running toward you, a toddler in action, or a bird moving across the frame. Note that when shooting with

What Readers are Saying About Doug's Previous Guides:

A well written, professional helpful guide - Brilliant, just what I was looking for! A manual that was exciting, clear to follow, had examples and was used by a professional who gave just the right amount of technical with explanations of why you use those settings, when to use those settings, all properly explained. The book is a revelation, well thought through and well written.
-R.D.C.

All I Need - I have been using Nikon dSLR cameras for many years. In all this time I have never come across a publication which complements the rather soulless and complex user manual so well. Your excellent work is all I need to exploit the potential of this amazing dSLR.
-Martin D.

Really Practical and Tremendously Helpful - Readers of this e-book can expect to benefit from a more rewarding photographic experience using this superb camera, and be better able to exploit its potential to match their personal objectives and photographic style. Highly recommended.
-M.M.

This is the most helpful manual I've ever used. No serious Nikon camera user should be without this. I find it very easy to find what I need and even easier to understand.
-S.B.

Really Focuses on the Why - I found the Nikon manual good for understanding how to set things up but not much on the why - this book really focuses on the "why."
-Benoit A.

It's clear, concise and gets to the heart of the camera's multiple and often confusing options. Very highly recommended - for experienced user and beginner alike.
-G.S.A.

A Must-Have Accessory - What a great addition to my bag. This is a well written, full body of work that explains, in plain English, how to get the most out my new camera. Doug provides the knowledge and experience to bring you to the next level. I look forward to learning more every time I open the book.
-Steven

A Pro Right There with You - If you want to get the camera up and running with the feeling of a pro right there with you then I would strongly recommend it. His explanation is first class and he explains how various custom settings are related to each other. All in all a great read. Camera in one hand and reader in the other and dig in.
-Tim S.

Purchase *Nikon D810 Experience* at:
http://www.dojoklo.com/Full_Stop/Nikon_D810_Experience.htm

About the Author



Douglas Klostermann is a travel, culture, and humanitarian photographer, as well as the author and publisher of *Full Stop* e-book camera guides including the best-selling *Nikon D610 Experience* and *Nikon D7100 Experience*. He has photographed for numerous organizations in the United States and in Latin America, been recognized by the *United Nations Development Programme* for his humanitarian photography, and been published in magazines and books including *Conde Nast Traveler*, *Sherman's Travel*, *South American Explorer*, and *Viva Travel Guides*. He also lectures and gives individual instruction on digital photography. Doug is a member of the National Press Photographers Association (NPPA).

Learn more about photography techniques and equipment on his blog *Picturing Change* at <http://blog.dojoklo.com/>, view his photography and e-books at www.dojoklo.com, and follow him on Twitter at [@dojoklo](https://twitter.com/dojoklo).

This book is dedicated to my wife Laura, for her unconditional love and never-ending support!