Free Gray/Color Checker Card Inside!

J. Dennis Thomas

Nikon®
Creative Lighting System
Digital Field Guide

SECOND EDITION

Nikon® Creative Lighting System Digital Field Guide, Second Edition

Table of Contents

Nikon® Creative Lighting System Digital Field Guide, Second Edition

J. Dennis Thomas

Wiley Publishing, Inc.

Nikon® Creative Lighting System Digital Field Guide, Second Edition

Published by:
Wiley Publishing, Inc.
10475 Crosspoint Boulevard
Indianapolis, IN 46256
www.wiley.com

Published simultaneously in Canada

ISBN: 978-0-470-45405-3

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1

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 of 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 also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

Library of Congress Control Number: 2009935229

owners. Wiley Publishing, Inc. is not associated with any product or vendor mentioned in this book.

About the Author

J. Dennis Thomas is a freelance photographer based out of Austin, Texas. He’s been using a camera for fun and profit for almost 25 years. Schooled in photography first in high school then at Austin College, he has won numerous awards for both his film and digital photography. Denny has a passion for teaching others about photography and has taught black and white film photography to area middle school students as well as lighting and digital photography seminars in Austin. His photographic subjects are diverse, from shooting weddings and studio portraits to photographing concerts and extreme sports; he enjoys all types of photography. He has written seven highly successful Digital Field Guides for Wiley Publishing and has more in the works. His work has been published by Rolling Stone as well numerous magazines, newspapers, and Web sites.

Credits

Senior Acquisitions Editor

Stephanie McComb

Development Editor

Jama Carter

Technical Editor

Ben Holland

Senior Copy Editor

Kim Heusel

Editorial Director

Robyn Siesky

Editorial Manager

Cricket Krengel

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

Patrick Redmond

Graphics and Production Specialists

Andrea HornbergerJennifer MayberryMark Pinto

Quality Control Technicians

Laura Albert

Melanie Hoffman

Proofreading and Indexing

Linda SeifertTy Koontz

To Henrietta and Maddie, the sweetest girls in the world.

Acknowledgments

Thanks to Cricket, Stephanie, Courtney, and Laura at Wiley. Thanks to the folks at Precision Camera in Austin, TX, and Jack Puryear at Puryear Photography.

Introduction

When Nikon introduced the Creative Lighting System in 2004, it was mostly overlooked. The focus was on the rapidly changing advancement of digital SLR cameras. This disregard was a shame because the Nikon Creative Lighting System was the most amazing development to happen to photographic lighting in decades. The ability to infinitely control the output of multiple lights and to be able to do it wirelessly, with full Through-the-lens (TTL) metering was almost unheard of.

The popularity of Nikon's Creative Lighting System has grown exponentially in recent years with more and more people becoming interested in photographic lighting. The fact that these flashes can take care of most of the work for you at an affordable cost is a major factor in the popularity of this system. With the SB-800, the SB-600, the SU-800, and more recently the SB-900 and SB-400, no other company comes close to offering such a multitude of tools for specific lighting needs.

The main feature of CLS is the ability to get the flashes off of the camera and to be able to control them wirelessly. Nikon refers to this as Advanced Wireless Lighting (AWL). Quite simply, when you're stuck with the flash mounted on the camera or even to a flash bracket, your ability to control the lighting is severely impeded — leaving you stuck with full frontal lighting.

With the CLS, you can direct the light. Thus, you can create the same lighting patterns that professionals achieve with expensive studio strobes, at a much lower

cost. This is the key to professional-looking images: controlling the lighting to get the effect that you want.

The Evolution of the Nikon CLS

Nikon started toying with wireless Speedlight control in 1994 with the introduction of the SB-26 Speedlight. This flash incorporated a built-in optical sensor that enabled you to trigger the flash with the firing of another flash. While this was handy, you still had to meter the scene and set the output level manually on the SB-26 itself.

With the release of the SB-28 in 1997, Nikon dropped the built-in optical sensor. You could still do wireless flash, but you needed to buy the SU-4 wireless sensor. Wireless flash still had to be set manually because the pre-flashes used by the TTL metering system caused the SU-4 to fire the Speedlight prematurely.

In 1999 Nikon released the SB-28DX; this flash was made to work with Nikon's emerging line of digital SLRs. The only change from the SB-28 was the metering system. The Nikon film-based TTL metering was replaced by DTTL. This metering system compensated for the lower reflectivity of a digital sensor as opposed to film's highly reflective surface.

In 2002 Nikon replaced the SB-28DX with the SB-80DX. The changes were minimal, more power, wider zoom, and a modeling light. They also returned the wireless optical sensor. As before, although you could use this Speedlight wirelessly, you still had to set everything up on the flash itself.

When 2004 rolled in, Nikon revolutionized the world of photographic lighting with the SB-800, the first flash to

be used with the new Creative Lighting System. The first camera to be compatible with the CLS was the D2H. Using the D2H with multiple SB-800s enabled you to control the Speedlights individually by setting them to different groups, all which were metered via pre-flashes and could be adjusted separately.

With the introduction of the D70 and later the D70s and D200, users could even control any number of off camera Speedlights using the camera's built-in flash. Of course using the built-in flash had some drawbacks. Using the D70s, you can only control one group of Speedlights, and with the D200, you can only control two groups. Even so, this is remarkable. Never before could you use a Speedlight off camera while retaining the function of the iTTL metering. Today all of Nikon's current dSLR cameras are CLS compatible. Although not all of the cameras allow you to control using a built-in flash, any one of the cameras can be used with one of the Speedlights that act as a commander to control any number of off camera Speedlights.

Eventually, Nikon augmented the CLS line with the SB-600, the little brother to the SB-800. While lacking some of the features of the SB-800, such as the ability to control Speedlights, it's still an amazing little flash. Nikon also released a couple of kits for doing macro photography lighting, the R1 and R1C1. The R1 macro lighting kit has two small wireless Speedlights, the SBR-200, which you can mount directly to the lens via an adaptor. The SBR-200 can also be purchased separately enabling you to use as many lights as you want. The R1C1 kit is essentially the same as the R1 kit, with the addition of the SU-800 commander unit. The SU-800 is a wireless transmitter that enables you to control groups of flashes just like the SB-800 without a visible flash.

Recently Nikon has rounded out the system by adding the bare-bones SB-400 and the newest flagship model, the SB-900.

What’s in This Book for You?

While the manuals that come with the Speedlights are informative and contain all the technical data about your Nikon Speedlight, they don’t exactly go into detail about the nuances of lighting — the small things and pitfalls you may encounter or the types of settings you might want to use on your camera and lenses.

That’s where this book comes in. This book offers you tips and advice acquired in real world situations by a photographer who has been using the Nikon Creative Lighting system almost daily since it was first introduced.

Initially, flash photography is often thought of with dread as mysterious and confusing. However, with this book I hope to dispel that myth and help to get you on the road to using the flash and CLS as another creative tool in your photographic arsenal.

Quick Tour

Many cameras come equipped with a built-in flash. Like any photographer who takes many photos with flash, you soon learn the limitations of these built-in flashes. Adding one or more Speedlights to your photographic arsenal enhances your photographic capabilities beyond what a built-in flash can provide.

Speedlights are not only useful in lowlight situations, but can be used in many other situations as well. Uses range from fill flash (which you learn more about later in the book) in direct sunlight to completely lighting a subject in the studio.

Right out of the box, a Speedlight can be used to capture dramatic portraits.

The SB-900 or SB-800 are ready to go for quick snapshots, but also configurable for some complex wireless multi-flash photo shoots. So get ready; you are about to explore the world of the Nikon Speedlights and the Nikon Creative Lighting System.

Getting Started

If you want to get up and running quickly with your Nikon Speedlight, all you really need to do is insert the batteries, attach the Speedlight to your camera, and then turn both the Speedlight and the camera on. You'll be amazed at the quality of flash photos you can take with the Speedlight as soon as you take it out of the box, whether it's the entry level SB-400 or the top-of-the-line SB-900.

The Nikon Creative Lighting System Digital Field Guide assumes that you are familiar with your camera's settings and modes. If you're unsure about certain camera settings, consult your owner's manual or the appropriate Digital Field Guide for your camera.

Attaching the Speedlight is quite easy:

1. **Turn off the camera and Speedlight.** Turning off the equipment reduces any risk of short circuits when attaching different electronic devices.

QT.1 Slide the Speedlight foot into the hot shoe and lock the mounting foot.

2. Unlock the mounting foot lock lever. Move the mounting foot lock lever of the Speedlight to the left — its unlocked position.

3. Attach the Speedlight to your camera. Slide the Speedlight foot into the camera's hot shoe. Turn the mounting foot lock lever to the right to lock the Speedlight in place.

4. Turn on your camera.

5. Turn on your Speedlight. The On/Off switch is located on the back panel.

After your Speedlight is attached with the flash head in the horizontal position and the camera and Speedlight are turned on, you can reposition your flash head if you want. Repositioning the flash head allows you to do bounce flash, which is a technique in which the light from the flash is bounced off of a nearby surface to diffuse the light.

For more information on bounce flash, see Chapter 3.

QT.2. Repositioning the flash head for bounce flash

Nikon Speedlights accept alkaline, lithium, or rechargeable NiMH AA batteries.

Taking Your First Photos with a Speedlight

Once the Speedlight is attached to the camera and both are turned on, the Speedlight defaults to through-the-lens (TTL) metering, which means that the camera is reading the light levels through the lens and sets the flash level output from the data that it receives. Nikon refers to the proprietary metering systems as i-TTL.

TTL is covered in more detail in Chapter 2.

There are two types of TTL metering available with all current CLS-compatible Speedlights.

- **TTL BL.** TTL BL means that the camera is taking a reading of the entire scene and attempting to balance the light from the flash with the ambient lighting. This is generally the best setting to use and yields the most natural looking results in most situations. When your

camera’s meter is set to matrix metering, TTL BL is the default TTL setting.

- **TTL.** When the camera’s metering mode is set to Center-weighted or Spot metering, the camera switches to a straight TTL metering system. The camera meters for the subject only and doesn’t take into account the ambient lighting. This can often cause your background to be underexposed or overexposed depending on the lighting situation.

Probably the easiest way to get started is to set your camera to Matrix metering mode and use the Speedlight’s default TTL BL mode. This mode produces great results and you don’t have to do anything but press the Shutter Release button.

Speedlights aren’t just for shooting in dim light. Using the Speedlight outside in bright light can fill in harsh shadows giving your images a more natural look.

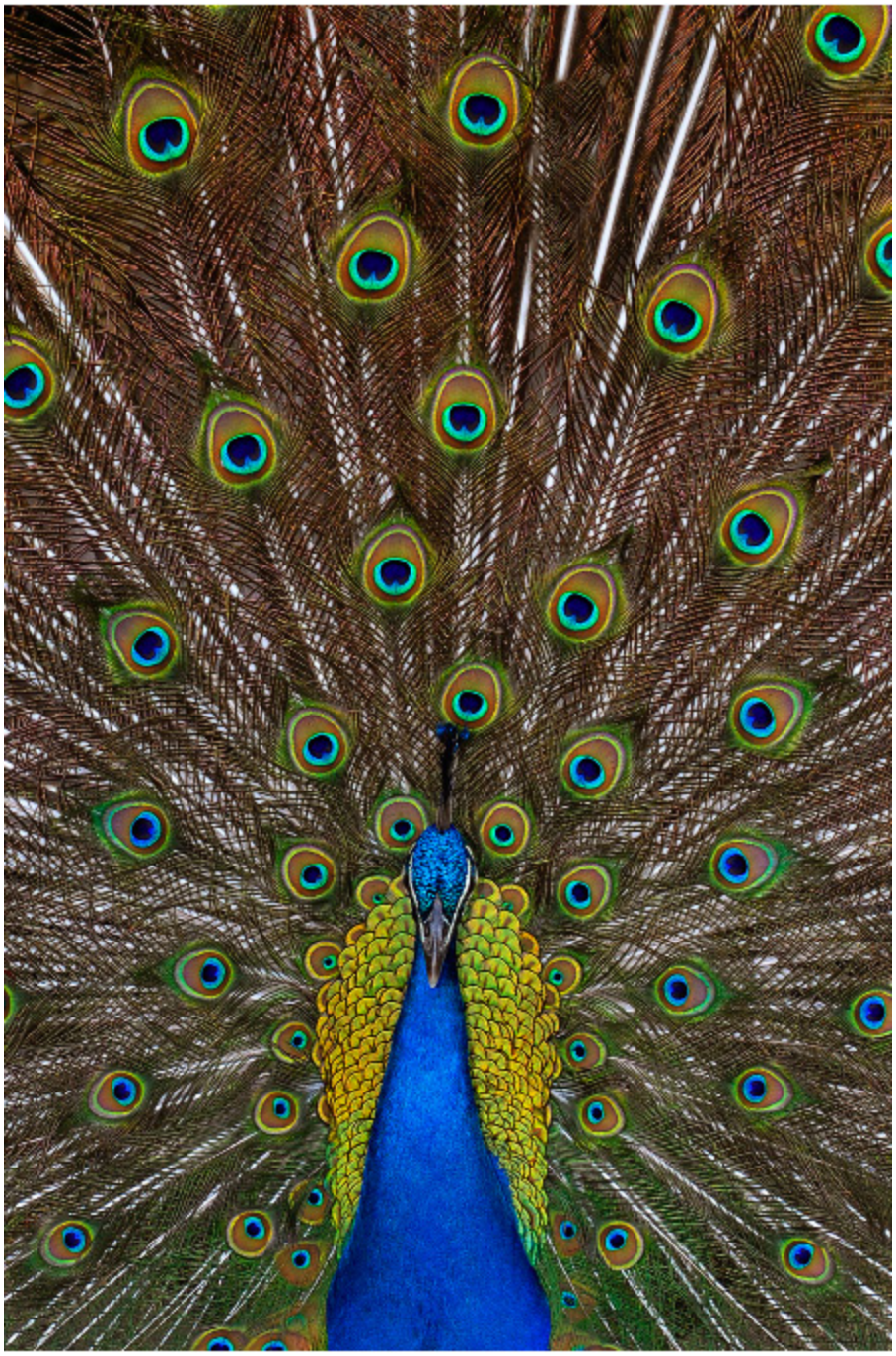
QT.3 An outdoor portrait using an SB-900 Speedlight to add some fill flash

QT.4 A quick snapshot of Henrietta using the diffusion dome on the SB-800

Taking photos with the Speedlight using Nikon’s TTL-BL or TTL is just as easy as taking photos without a flash. Just focus and shoot. The camera makes all the adjustments for exposure and adjusts the flash head zoom for you. The flash head zoom is a feature of the Speedlight that adjusts the flash to match the focal length of the lens you’re using. Don’t be concerned if you don’t completely understand how TTL BL works or why the flash zoom is important — you will in good time. By the time you finish this book, you should nearly be an expert. In the meantime, this Quick Tour is just to get you started with flash photography and comfortable with your flash equipment.

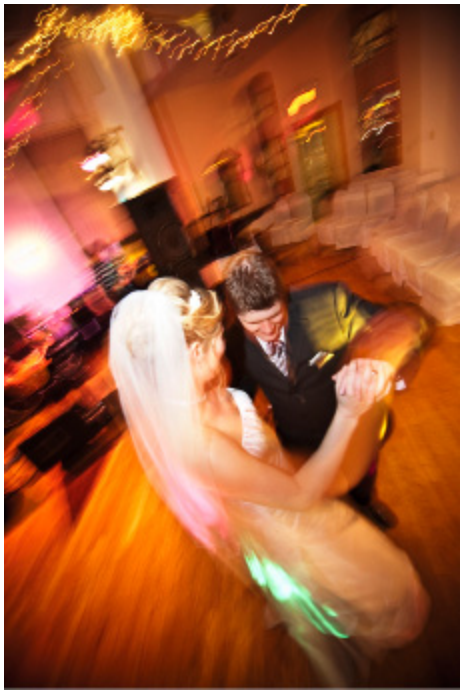
 **If your Speedlight comes with a diffusion dome, use it. This simple device softens the light for more pleasing effect. For best results, position the flash head at a 60-degree angle.**

Everything is attached and you have the basic settings, so get out there and shoot. Take some pictures of your friends or significant other. Pose your dog or cat. Set up a still life. Experiment with different apertures and shutter speeds. Above all, have fun!



Chapter 1: Exploring the Nikon Creative Lighting System

Like most sophisticated camera equipment, Nikon Speedlights are complicated devices with many different parts and features. To get the most out of your Speedlight or Speedlights, it helps to be familiar with all of the moving parts. In this chapter, I dissect each of the Speedlights and explain what each button, switch, dial, and lever does, as well as discuss some of the accessories and the different cameras that can be used. By the end of this chapter you should be familiar with all of the different accessories and terminology.



Knowing when and how to use such features as slow sync allows you to add creative aspects to your

images.

The Nikon Creative Lighting System, or CLS, mainly consists of a couple of different components: a CLS-compatible camera and a Speedlight. This is just the start, however, because CLS is a completely modular system that can comprise a camera and many different Speedlights functioning as commanders and/or remotes.

Main Features and Functions

Nikon Speedlights offer many different features and functions, each of which is designed to make Nikon Speedlights a flexible and powerful tool for any photographer — from a complete newcomer to photography to a seasoned professional.

Once you understand what each of these features do and how to use them, you can unlock your creative abilities by utilizing them to get the utmost control out of your Speedlights.

The main features and functions of the Nikon Creative Lighting System are as follows:

- **i-TTL/i-TTL BL.** This is Nikon's most advanced flash metering system. It uses pre-flashes fired from the Speedlight to determine the proper flash exposure. The pre-flashes are read by a 1005-pixel RGB metering sensor. The information is then combined with the information from matrix metering, which is a reading of how much available light is falling on the subject. The Speedlight uses this information to decide how much flash exposure is needed (i-TTL) or to balance the flash output and ambient light for a more natural-looking image (i-TTL BL). All CLS-compatible cameras